



Apex Tower, Manchester

Phase 1 Desk Study Assessment Report

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DRAWINGS

Drawing Number	Rev	Title
8158-L(00)69	G	Site A Ground Floor Plan
8158-L(00)72	E	Site B Ground Floor Plan.
C4889/01	-	Site Location Plan
C4889/02	-	Site Features Plan

APPENDICES

APPENDIX A	Methodology and Guidance
APPENDIX B	Historical Maps
APPENDIX C	Geo-Environmental Data Report
APPENDIX D	BGS Boreholes
APPENDIX E	Mining Search Report
APPENDIX F	UXO Screening Map

1.0 INTRODUCTION

1.1 Context

1.1.1 This report describes a desk-based Phase I Geo-Environmental Assessment Report carried out by renaissance, in conjunction with Brownfield Solutions Limited on a site off Albion Street, Manchester.

1.1.2 This report has been completed in general accordance with the following guidance:

- Environment Agency guidance - Land Contamination: Risk Management (LCRM).
- BS 10175:2011+A2:2017 Investigation of Potentially Contaminated Sites.
- BS5930: 2015+A1:2020 Code of Practice for Ground Investigations.
- BS EN 1997-1:2004+A1:2013 Eurocode 7. Geotechnical design. General rules plus UK National Annex.
- BS EN 1997-2:2007 Eurocode 7 Geotechnical design. Ground investigation and testing plus UK National Annex.

1.2 Proposed Development

1.2.1 The proposed development is for combined residential and commercial units, split over two sub-sites separated by the Britons Protection public house, which is to be retained. The development of Site A in the west will involve the construction of a 27 storey residential apartment building with ground floor amenities, substation, visitor parking and cycle stores, as shown on the Site A Ground Floor Plan, drawing ref. 8158-L(00)69 . The development of Site B in the east will involve the construction of a 7 storey office building, as shown on the Site B Ground Floor Plan, drawing ref. 8158-L(00)72.

1.3 Objectives and Scope

1.3.1 The objectives of this assessment were to determine the environmental setting and ground conditions of the site, highlighting potential areas of concern that may govern the redevelopment.

1.3.2 The scope of works comprises a Phase I Assessment and site walk-over, with a review of the site, surroundings, historical uses and environmental setting in order to develop a preliminary Conceptual Site Model (CSM).

1.3.3 This report is intended to meet the requirements of a Preliminary Investigation as defined in BS10175:2011+A2:2017 and has been produced in general accordance with the recommendations for a Tier 1 Preliminary Risk Assessment as described in LCRM guidance.

1.4 Limitations

1.4.1 This Phase 1 Geo-Environmental Assessment Report has been prepared in accordance with the relevant legislative framework, guidance and risk assessment methodology as outlined in Appendix A.

1.4.2 The findings and opinions conveyed via this assessment are based on information obtained from a number of sources as detailed within this report, renaissance have assumed this information is correct and reliable. Nevertheless, renaissance cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

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- 1.4.3 There may be other conditions prevailing on the site which are outside the scope of work and have not been highlighted by this assessment and therefore have not been taken into account by this report. Responsibility cannot be accepted for such site conditions not revealed by the assessment.
- 1.4.4 This report has been prepared for the sole use and reliance of the Client, Arrowsmith Investment Ltd. No other third parties may rely upon or reproduce the contents of this report without the written permission of renaissance. If any unauthorised third party comes into possession of this report, they rely on it at their own risk and renaissance do not owe them any Duty of Care.
- 1.4.5 Any recommendations made in this report should be confirmed with the Regulatory Authorities prior to implementation to ensure compliance.
- 1.4.6 This assessment has been based on the proposed planning layouts provided. Any subsequent change to the planning layout may have an impact on the validity of recommendations made within this report. Furthermore, new information, changed practices or new legislation may necessitate revised interpretation of the report after the date of its submission.
- 1.4.7 The site plans enclosed in this report should not be scaled off. Any site boundary line depicted on plans does not imply legal ownership of land.
- 1.4.8 Notwithstanding site observations concerning the presence or otherwise of archaeological issues, asbestos-containing materials (ACM) or invasive weeds (e.g. Japanese knotweed), this report does not constitute a formal survey of these potential issues.

2.0 THE SITE

2.1 Location

- 2.1.1 The site is located on the corner of Albion Street and Great Bridgewater Street, Manchester M1 5LE. It is situated on the southern fringe of Manchester's Central Business District, centred on National Grid Reference 383671 397602 as shown on the Site Location Plan, Drawing No. C4889/01.

2.2 Site Description

- 2.2.1 Due to time constraints, it has not been possible to complete a site reconnaissance survey and this report will be updated once this has been completed. A review of satellite and street view imagery has been completed and the main site features and potential issues identified are detailed below and are shown on the Site Features Plan, Drawing No. C4889/02.

Feature	Description
Site Area	Approximately 0.04 hectares.
Site Access	Access is gained off Albion Street via Trumpet Street to the south and west of the site.
Current Land Use and Site Features	The site is split into two distinct halves, Site A is the western sub-site, whereas Site B is the eastern sub-site. The two sub-sites are separated by the Britons Protection public house and beer garden. No buildings are present on either site, which are both currently used for contract car parking and Site A also features several advertising billboards. Site A appears to be surfaced in macadam, whereas Site B appears to be surfaced in gravel.
Potential Sources of Gross Contamination	None are evident.
Vegetation	No vegetation appears to be present on site. A single semi mature tree is present within the Britons Protection Beer Garden located between Site A and Site B.
Topography	The site appears to be generally flat.
Site Boundaries	Site A is open to pedestrian access with bollards present along the northern, western and southern boundaries. The eastern side of Site A is bounded by a brick wall and the Britons Protection pub. Site B is bounded to the north by a circa 2m high wooden palisade fence. The eastern and western boundaries are enclosed by a combination of existing buildings, brick walls and wooden palisade fencing. The southern boundary is open for pedestrian access with retractable bollards present to allow vehicular access.
Surrounding Area	The site is set on the fringes of the Manchester Central Business District with the surrounding area predominantly comprising offices, shops and restaurants with occasional apartment blocks. An overhead Metrolink viaduct is located 25m north-west.

3.0 GEO-ENVIRONMENTAL SETTING

3.1 Historical Setting

3.1.1 A review of the available historical Ordnance Survey Maps and satellite imagery has been conducted, with the pertinent issues that may have affected the site, or its environs, summarised below. The Historical Maps are presented in Appendix B. A review of the historical industrial data within the geo-environmental data report has also been undertaken below, the report is presented in Appendix C.

3.1.2 Notable features within 100m of the site boundary have been presented. Any features that have potentially been infilled will be considered up to 250m from the site boundary.

Feature	Distance	Years Present	Description
Coal Yard	On site (A)	1851	A coal yard is present across Site A from the earliest mapping (1851) but is no longer present on mapping from 1981, when unnamed buildings occupy the site.
Timber Yard	On site (B)	1851	A timber yard is present to the east of Site B and associated timber yard buildings appear to occupy Site B on mapping from 1851, but are no longer be present on mapping from 1891.
Unknown buildings	On site	1891 - 1992	Both sites have been occupied by buildings since prior to 1891, with buildings present on Site A until 1990 and on site B until 1992. By 1995, both sites are featureless and have not changed to the present day.
The Briton's Protection inn	0m	1851 - present	The Briton's Protection public house is present from the earliest mapping centrally between the two sites. Mapping from 1851 shows a pump to be present on the site.
Cotton, Silk Mills and associated plant	From 5m S	1851 - 1932	A number of cotton mills are indicated to be present in the surrounding area on mapping from 1851. The closest and largest is located 5m north and also features a gasometer , chimney and boiler and engine house , although this mill is not shown on subsequent mapping from 1891. Further textile mills are located 5m south, 10m west, 15m south-west, 50m east, 50m south on 1851 mapping and subsequent years. The mill 5m south also features a boiler house and engine house , and many of the mills also contain chimneys on mapping from 1891. The majority of the textile mills are last shown on mapping from 1893, whereas the cotton mill 5m south of the site appears to be present on mapping from 1932, but is no longer shown on mapping from 1948.
Engineering Works	From 10m W	1948 - 1987	Engineering works are shown circa 10m west and 40m south-west on mapping from 1948 to 1985, at which time the closer works is no longer shown. The works 40m south-west is last labelled as works on mapping from 1987.
Stone Yards	From 15m NW	1851	Stone yards and associated buildings are shown occupying the land north-west of the site, as well as a further stone yard located circa 50m south-west. By mapping from 1891 the stone yards are no longer present.
Railway Features	From 15m NW	1891 - 1969	By 1891 mapping the Manchester Central Railway Station and associated railways are shown, with railway sidings orientated NE-SW. Two hydraulic capstans and a hydraulic crane are also shown to the south-east of the railways. The railway lines have maintained broadly the same orientation

				and by 1969 the Central Station was labelled as disused. On mapping from 1985 land containing the former railway lines is now used as a car park and 1986 mapping shows the former Central Station as an exhibition and event centre.
Electricity Substation	15m E	2003 - present		A substation is shown on 2003 mapping (not present on 1995 mapping) and is assumed to still be present.
Omnibus Station	From 20m NE	1932 - 1973		An omnibus station is shown to the north-east in 1932 and expanded to the east of the site in 1948. By 1985 the former omnibus station is used as a car park.
Gaythorn Finishing Works	50m S	1891 - 1893		The Gaythorn Finishing Works are first shown on mapping from 1891 in a location formerly occupied by a cotton mill. A tank and chimney are present. The works are last shown on mapping from 1893 and by 1908 the buildings occupying that site have changed layout and are unannotated, suggesting the finishing works was no longer present.
Tanks	75m W	1948 - 1964		Tanks are annotated to the west of the site on mapping between 1948 and 1964, no longer shown from 1973.
Saw Mill	80m NE	1908 - 1932		A saw mill is indicated to be present 80m north-east on mapping between 1908 and 1932.
Chemical Works	80m NE	1948 - 1973		A chemical works is indicated to be present from 80m north-east on mapping between 1948 and 1973. By the next mapping from 1985 the former chemical works is now occupied by car parking.
Dye Works	80m SE	1851 - 1893		The Gaythorn Dye works is first shown on mapping from 1851 and last shown on 1893 mapping. By 1908 the buildings occupying the site have changed layout and are unannotated, suggesting the dye works was no longer present.
Saw Mill and Timber Yard	90m SW	1851 - 1893		A saw mill and timber yard are shown 90m south-west on mapping from 1851 and appear to still be present on 1893 mapping although are unannotated. By 1908 mapping the saw mill and timber yard site have changed layout and are unannotated, suggesting they are no longer present.
Garage	90m E	1973		A garage is shown 90m east on mapping from 1973 but is no longer present by 1985.
Potentially infilled reservoir	95m SE	1851 - 1893		A reservoir circa 30m long is located 95m south-east on mapping from 1851 until 1893. On 1908 mapping the reservoir is no longer present, with buildings and Whitworth Street West shown in its place. Therefore, the reservoir is assumed to have been infilled with unknown materials between 1893 and 1908.
Infilled canal / Refuse Heap	100m NE	1851 - 1951		A canal spur off the Rochdale Canal is shown on mapping from 1851 and the north-western limit appears to have been curtailed between 1932 and 1948, with areas labelled 'refuse heap' shown along the canal fringes. The refuse heaps and canal are no longer evident on 1951 mapping, although more recent mapping from 1995 onwards shows a basin and waterway in the approximate location of the former canal. Nevertheless, a large section of the canal is assumed to have been infilled at some point between 1951 and 1995.

3.1.3 In summary, the map evidence indicates that in 1851 Site A was used as a coal yard, whereas Site B was part of a timber yard. Both sites were subsequently occupied by unnamed buildings until the 1990s, at which time the buildings were demolished and the site appears to have remained vacant since. The Britons Protection pub currently located between Site A and Site B has been present since prior to 1851.

3.1.4 The surrounding area has had an industrial past since prior to 1851, with works and mills including textile mills, engineering works, stone works, finishing works, dye works, sawmills and timber yards. A garage was also present to the north-east of the site. Significant nearby transport infrastructure includes the Manchester Central Railway Station and railway sidings, located north-west of the site, and an omnibus station to the north-east and east. A former reservoir, potentially infilled canal and former refuse heap are also located within the nearby surrounds.

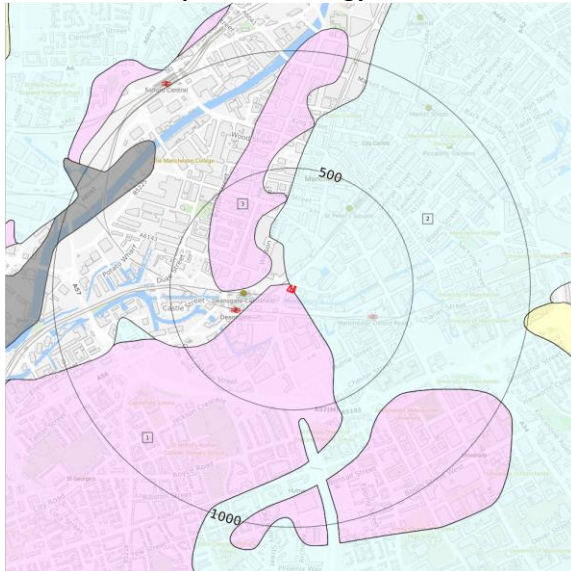
3.2 Published Geology

3.2.1 The following publications of the British Geological Survey (BGS) were examined in respect of the geology underlying the site:

- British Geological Survey (BGS) 1:50,000 Scale Geological Map Sheet 85 Manchester. Solid and Drift Edition.
- BGS Geology of Britain Map Viewer.
- BGS Geo Index Onshore.
- Coal Authority Interactive Map.
- Geo-Environmental Data Report.

3.2.2 Extracts of the 1:10,000 geological mapping from the Geo-Environmental Data Report are presented below for reference:

BGS 1:10 000 Superficial Geology



BGS 1:10 000 Solid Geology



Made Ground

3.2.3 BGS mapping does not display any made ground deposits on site, however based on the historical mapping and the development that has taken place, made ground deposits are highly likely to be present.

- 3.2.4 A large area of made ground is indicated to be present approximately 50m to the west, south and further afield to the east of the site according to BGS mapping.

Superficial Deposits

- 3.2.5 The western area (Site A) is indicated to be predominantly underlain by glaciofluvial sheet deposits, typically comprising sand and gravel. Glacial till, typically clay with minor silt, sand and gravel, is indicated to encroach into the northern end of Site A.
- 3.2.6 In contrast, the eastern area (Site B) is indicated to be predominantly underlain by glacial till (clays), with glaciofluvial deposits (sand and gravel) indicated to encroach into the southern area.

Solid Geology

- 3.2.7 The deeper solid geology is indicated to be part of the Chester Pebble Beds Formation which typically comprises sandstone.
- 3.2.8 No faults are shown on or within an influencing distance of the site.

3.3 BGS Boreholes

- 3.3.1 There are two relevant BGS borehole records within 50m which show broadly similar ground conditions. The closest is located immediately north of the site within the road intersection between Lower Mosley Street and Great Bridgewater Street. At this location the ground conditions comprised bituminous surfacing over reinforced concrete and hardcore to 0.70m bgl, underlain by natural strata comprising very stiff brown silty and sandy clay with grey fissures, stone inclusions and bands of silty laminated clay. Bedrock comprising very dense red fine/medium grained sandstone was encountered from 5.10m bgl.
- 3.3.2 The second borehole is located circa 40m north-east where concrete over ashy made ground was encountered to 1.00m bgl, underlain by natural strata comprising very stiff red brown sandy silty clay with grey stained fissures. Highly weathered brown medium to coarse grained sandstone was encountered at 5.50m bgl.
- 3.3.3 Rotary coring within both boreholes indicates solid core recovery typically exceeded 80% and rock quality designation often exceeded 50% below 7.50m bgl.
- 3.3.4 A summary of the ground conditions is presented in the table below.

Reference	Distance from Site (m) and Direction	Depth Made Ground (m)	Depth Superficial Deposits(m)	Depth Solid Geology (m)
SJ89NW3790	5m N	GL - 0.70: Bituminous surfacing, concrete, hardcore	0.70 – 5.10: Very stiff silty sandy clay	5.10 – 14.50: Sandstone
SJ89NW555	40m NE	GL – 1.00: Concrete, ash fill	1.00 – 5.50: Very stiff silty sandy clay	5.50 – 30.20: Sandstone

The BGS Borehole Logs are presented in Appendix D.

3.4 Natural Geological Hazards

- 3.4.1 The BGS GeoSure Data presented within the Geo-Environmental Data Report is summarised in the table below:

Hazard	BGS Hazard Rating	Comments
Shrink Swell Clays	Negligible Very Low	Site A: Ground conditions predominantly non-plastic. Site B: Ground conditions predominantly low plasticity.
Running Sands	Very Low	Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.
Compressible Ground	Negligible	Compressible strata are not thought to occur.
Collapsible Deposits	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.
Landslides	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.
Soluble Rocks	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.

3.5 Natural Soil Chemistry

- 3.5.1 Information contained within the environmental database report gives indicative natural concentration values (estimated) for the natural soils at the site.
- 3.5.2 The values presented in the table below indicate the expected natural background concentration levels, and thereby provide a baseline guideline estimate that can be used to assess the significance of any chemical test data acquired from any future intrusive investigations at the site.

Element	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
Concentration (mg/kg)	15-25	No data	100-200	60-120	1.8	60-90	30-45

3.6 Mining and Mineral Extraction

Coal Mining

- 3.6.1 The online Coal Authority Interactive Map layers have been reviewed and the details are summarised in the table below:

Relevant Interactive Map Data	Issue at Subject Site?
Coal Authority Reporting Area	Yes
Development High Risk Area	No
Past Shallow Coal Mine Workings	No
Portable Shallow Coal Mine Workings	No
Mine Entries within 20m	No

- 3.6.2 As the site lies within the Coal Authority Reporting Area, a mining search has been undertaken as the site could be affected by past or current coal mining.
- 3.6.3 The mining searches are presented in Appendix E, the main findings of which are presented below.

Highlighted Evidence	Issue	Details
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Past Underground Mining	No	
Present Underground Mining	No	
Future Underground Mining	No	
Mine Entries	No	There are no known coal mine entries within, or within 20 metres of, the boundary of the property. There may however be mine entries in the local area which the Coal Authority has no knowledge of.
Past, present and future opencast coal mining	No	
Coal mining subsidence	No	
Mine gas	No	
Withdrawal of support	No	
Information from the Cheshire Brine Subsidence Compensation Board	No	

3.7 Hydrogeology

3.7.1 Based on the inferred geology, a summary of the Environment Agency aquifer designations is presented in the table below:

Stratum	Coverage	Aquifer Designation	Groundwater Vulnerability
Glaciofluvial Deposits and Glacial Till	Full Site	Secondary (A) Aquifer. These are 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.	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.
Chester Pebble Beds Formation	Full Site	Principal Aquifer. This is 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.	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.

3.7.2 The site is indicated to lie 22m east of a Source Protection Zone, Zone III, Total Catchment (the area needed to support the discharge from the protected groundwater source) for a groundwater abstraction well.

3.7.3 The nearest groundwater abstraction licence is historical, located 559m north-east for general cooling purposes, licenced to British Telecom. The nearest active groundwater abstraction licence is located 697m south-east for general use / heat pumping, licenced to Manchester Metropolitan University.

3.7.4 There are no active potable water abstractions within 2000m but several historical licences, the closest located 1578m north licenced to Strangeways Brewery, inactive since 2000.

3.7.5 The nearest Water Framework Directive (WFD) Groundwater Body is located on site and is the Manchester and East Cheshire Permo-Triassic Sandstone Aquifers, with an overall poor chemical rating (2015).

3.8 Hydrology

- 3.8.1 The nearest surface water feature is the Rochdale Canal which lies 36m south of the site, whereas the nearest natural watercourse is the River Medlock located 169m south and the flow direction is indicated to be from east to west.
- 3.8.2 There are no active surface water abstractions within 2000m of the site. The nearest historical surface water abstraction licence was located 1797m south for process water and general cooling at Hydes Brewery.
- 3.8.3 The closest licenced discharge consent is an historical discharge of sewage final/treated effluent to the River Tib culvert located 48m south-east, revoked in 1993. The closest active licenced discharge consent is for sewer storm overflow into the River Medlock, located 175m south-east.
- 3.8.4 Information obtained from the Environment Agency (EA) Risk of Flooding from Rivers and the Sea (RoFRaS) database indicates that the risk of flooding across the site is negligible as the site is not indicated to be within either an EA designated Zone 2 or Zone 3 flood plain.
- 3.8.5 The British Geological Survey indicate there is a potential for groundwater flooding at the subject site, with a moderate risk rating. Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.
- 3.8.6 No further consideration of flood risk is undertaken in this report. Specialist flood risk advice should be sought with regards to drainage and flooding.

3.9 Geo-Environmental Searches

- 3.9.1 A summary of the relevant environmental aspects, both on site and within 500m of the site contained in the Geo-Environmental Data Report, are presented in the table below:

Entry	On-site	0-249m	250-500m	Details
Environmental Permits, Incidents and Registers	0	2	4	The closest entries (59m north) are operated by Manchester heat Network Tradeco Limited, for new medium combustion plant. There are several licenced pollutant releases over 300m away from the site, all historical.
Pollution Incidents	0	0	1	An incident occurred 417m east in July 2001 involving diesel, with a Category 4 (No Impact) on water, land or air.
Landfill Sites	0	0	0	
Waste Sites	0	1	15	The majority of records are historical, including a recycling centre located 152m north of the site at the Manchester Central Convention Centre, as well as a historical scrap yard 299m south-west and a waste paper works 406m south-east. There is a licenced waste site located 375m south-east which appears to be active, named 'Terra Vac (UK) Ltd' with limited further details of relevance. There is a recorded waste site 299m to the east. No further details are provided.
Waste Exemptions	0	43	14	The closest record is 45m west related to use of waste in construction at Axis Tower.

Control of Major Accident Hazard (COMAH) Sites	0	0	0	
Consents issued under planning (Hazardous Substances) Act 1990	0	0	0	
Radioactive Substances	0	0	0	
Fuel Station Entries	0	0	1	There is an obsolete petrol station entry located 497m south-west.
Other Current industrial land uses	0	29	NA	The closest record is an electricity substation 15m east. 20m south is an electrical equipment repair and servicing business. There is a motorcycle repair and servicing business located 92m south.
National Grid Services	0	0	0	

3.10 Radon

- 3.10.1 Information from the environmental database report indicates the property is not in a radon affected area and therefore no radon protective measures are necessary in accordance with BRE Report 211 'Radon – Guidance on protective measures for new dwellings' 2015 Edition.

3.11 UXO Risk

- 3.11.1 In accordance with CIRIA Report C681, renaissance have reviewed non-specialist UXO data for the site using the online Zetica Bomb Risk Mapping data.
- 3.11.2 The map indicates the site to be in an area where the bomb risk is moderate. A copy of the map is presented in Appendix F.
- 3.11.3 Since the site is considered to be at moderate bomb risk a Pre-Desk Study Assessment (PDSA) has been requested which will further categorise the UXO risks at the site. At the time of writing this has not been returned to renaissance, however once available this report will be updated with the findings.
- 3.11.4 At this stage it would be prudent to make allowance for following the recommended process set out in CIRIA Report C681 which includes undertaking a preliminary risk assessment or a full detailed risk assessment. Intrusive works on site may also require supervision by a UXO specialist.

4.0 DESK STUDY SUMMARY AND RISK ASSESSMENT

4.1 Introduction

- 4.1.1 The risk posed by any contaminants in soil or groundwater will depend on the nature and level of the source, the probability of exposure occurring, the potential pollution pathway and the likely effects on the receptors.
- 4.1.2 A contaminant is defined as a substance that has the potential to cause harm, a risk is considered to exist if such a substance is present at sufficient concentrations to cause harm and if a pathway is present through which a receptor could be exposed to the contaminant.
- 4.1.3 The following sections discuss the identified potential on-site and off-site sources, and any pollution that could impact receptors via the pathways associated with the proposed development. Pollution linkages are assessed which may represent a risk to human health and/or controlled water receptors from the information gained from the Phase I Assessment searches. The assessment has been carried out on a qualitative basis and aims to produce a complete and comprehensive Preliminary Conceptual Site Model.
- 4.1.4 Three potential impacts exist for any given site and all three need to be considered in the qualitative risk assessment, these are:
- On- site impacts
 - The site impacting its surroundings.
 - Off-site sources impacting the subject site.

4.2 Potential Contaminative Sources

On-Site

- 4.2.1 From the information obtained, the following sources have been identified which may affect the redevelopment of the site for residential and commercial end use:
- Made ground associated with the previous developments including coal yard and timber yard.

Off-Site

- 4.2.2 The following off-site sources have been identified which may affect the redevelopment of the site:
- Textile Mills with associated tanks, chimneys, boiler and engine houses (from 5m south)
 - Engineering Works (from 10m west)
 - Stone Yards (15m north-west)
 - Railway Lands (15m north-west)
 - Electricity Substation (15m east)
 - Omnibus Station (20m north-east)
 - Mapped made ground (from 50m west and south)
 - Gaythorn Finishing Works including tank and chimney (50m south)
 - Tanks (75m west)
 - Saw Mill (80m north-east)
 - Chemical Works (80m north-east)
 - Dye Works (80m south-east)
 - Saw Mill and Timber Yard (90m south-west)
 - Garage (90m east)

- Potentially infilled reservoir (from 95m south-east)
- Infilled canal / refuse heap (100m north-east)

4.2.3 Given the industrial history of the area surrounding the site, the majority of industrial uses such as mills, works, factories etc have been considered as a combined potential source of contamination for the purpose of the assessments. This approach is considered appropriate in this instance given the broadly similar range of potential contaminants likely to have been used within industries, which are now no longer active and therefore the residual combined potential source of contamination is considered to be the made ground in the surrounding area.

4.2.4 The electricity substation located 15m east of the site appears to have been constructed since 1995 and therefore is likely to post-date the ban on PCBs within new equipment introduced in 1981. Therefore, the electricity substation is unlikely to be a significant source of contamination which could affect the redevelopment of the site.

Associated Contaminants

4.2.4 The contaminants commonly associated with the potential sources of contamination identified are tabulated below:

Contaminative Sources	Department of the Environment Industry Profile or Other Source	Commonly Associated Contaminants
On Site		
Made ground (inc. coal yard, timber yard)	Timber Products Manufacturing Timber Treatment	Heavy metals, PCBs, polycyclic aromatic hydrocarbons (PAHs), asbestos, ground gases (carbon dioxide and methane).
Off Site		
Works / Mills (textiles, engineering, stone, finishing works, sawmills, chemical works, dye works)	Textile and Dye Manufacturing Engineering Works - Railway Metal Manufacturing, refining and finishing works Chemical Works explosives, propellants and pyrotechnics	Heavy Metals, polycyclic aromatic hydrocarbons (PAHs), asbestos, PCBs, Petroleum Hydrocarbons, BTEX, MTBE, VOCs, SVOCs.
Railway	Railway Land Engineering works-Railway	Petroleum Hydrocarbons, PAHs, heavy metals, asbestos.
Omnibus Station, garage, tanks	Road vehicle fuelling, service and repair	Petroleum Hydrocarbons, VOCs, SVOCs
Mapped made ground, infilled reservoir/canal, refuse heap	-	Ground Gases (Carbon Dioxide and Methane)

4.3 Pathways

4.3.1 A pathway is defined as a medium by which a contaminant comes into contact with, or otherwise impacts a receptor.

4.3.2 At this stage the potential contaminants identified above are considered to present potential risks to site end users and controlled waters through the following pathways:

Potential Pathways	
Pathways in respect to Human Health	• Ingestion of contaminated soils. • Dermal contact with contamination. • Inhalation of dusts.

	Inhalation of gases or vapours in both indoor and outdoor air.
Pathways in respect to Controlled Waters – Surface water	- Surface run-off /over land flow. - Drainage discharge. - Base flow from groundwater.
Pathways in respect to Controlled Waters – Groundwater	- Leaching of mobile contamination into groundwater via the unsaturated zone. - Migration of perched groundwater in any permeable soils or along existing or proposed service runs. - Migration into the saturated zone and flow through the Secondary A Aquifer and the Principal Aquifer underlying the site.
Pathways in respect to Property/structures/water pipes	- Direct contact with substances deleterious to building materials and potable water supply pipelines. - Migration of ground gases (methane) into confined spaces (explosion and damage to property).

4.4 Receptors

4.4.1 The identified receptors are listed below:

- Residential and commercial end users (human health).
- Structures/Property/portable water supply pipes.
- Nearest watercourse. Rochdale Canal (Controlled waters).
- Superficial Aquifer. Glaciofluvial sheet deposits (Controlled waters).
- Bedrock Aquifer. Chester Pebble Beds Formation (Controlled waters).
- Construction workers.

4.5 Preliminary Conceptual Site Model

4.5.1 The information obtained in the previous sections has been used to compile a Preliminary CSM. The identified potential contaminants and receptors have been assessed in the table below as to whether a plausible source-pathway-receptor pollutant linkage for the proposed end use of the site exists. The risk classification has been estimated in accordance with information in the renaissance Guidance and Methodology in Appendix A.

4.5.2 The Preliminary CSM's are presented in the tables overleaf. Any assessed risk above moderate will possibly require further action:

Human Health						
Potential Source	Potential Pathway	Potential Receptor	Likelihood	Severity	Level of Risk	Justification
On site Made ground Metals, PAH's, asbestos, PCBs	Root uptake, ingestion, direct contact, inhalation of dusts	End-users	Unlikely	Medium	Low	Despite the former timber yard and coal works occupying the site, it is considered unlikely that any contaminants potentially present in the soils could impact the end users of the site. This is due to the current proposed layouts which indicate the entire site will be covered by buildings and hardstanding, therefore it is considered unlikely that future site users would come into contact with underlying contaminated soils and the overall risk is considered to be low.
On site Made ground Metals and organic contamination	Migration into/chemical attack of water supply pipelines	Water Pipelines / End users	Likely	Medium	Moderate	Contaminants within the soil/groundwater could potentially attack the clean potable water supply pipe and are likely to be present at typical pipeline depths. Therefore, contaminants should be assessed to determine the correct pipe material and level of precautions required.
On site Made ground Ground Gas (carbon dioxide and methane)	Migration into confined spaces, inhalation and asphyxiation/explosion	End-users / property / structures	Unlikely	Severe	Moderate / Low	The site has had previous uses including coal and timber yards, as well as unknown buildings, therefore made ground is probably present, but is likely to comprise demolition materials and other aggregates with a low organic content and low proportions of putrescible materials. In addition, the proposed development will likely involve the inclusion of a reinforced concrete ground beam / floor slab which will include an inherent level of protection to prevent ingress of ground gases into buildings. The risk is considered to be moderate / low at this stage, with ground investigation required to confirm the risk.
Off site Works / Mills Metal, PAHs, Asbestos, Petroleum Hydrocarbons, VOCs, SVOCs, PCBs	Ingestion, direct contact, inhalation of dusts	End users	Unlikely	Medium	Low	The surrounding area has historically been used for industrial purposes, with a variety of contaminants potentially present in soils. However, as stated above, it is considered unlikely that any contaminants potentially present in soils could impact the end users of the site. This is due to the proposed layouts which indicate the entire site will be covered by buildings and hardstanding, therefore it is considered unlikely that future site users would come into contact with underlying migrated contamination and the overall risk is considered to be low.

Off site Railways Petroleum Hydrocarbons, PAHs, metals, asbestos	Ingestion, direct contact, inhalation of dusts	End-users	Unlikely	Medium	Low	It is considered unlikely that any contaminants potentially present in soils associated with the former railway to the north of the site could impact end users. This is due to the current proposed layouts which indicate the entire site will be covered by buildings and hard standing. In addition, most if not all of the former railways are likely to have been raised above ground on viaducts, significantly reducing the potential for any associated land contamination at site levels. The overall risk is considered to be low.
Off site Omnibus Station, Garage, Tanks Petroleum Hydrocarbons, VOCs, SVOCs	Ingestion, direct contact, inhalation of dusts	End-users	Unlikely	Medium	Low	It is considered unlikely that any contaminants potentially present in soils associated with the former omnibus station, garage and tanks in the vicinity of the site could impact end users. This is due to the current proposed layouts which indicate the entire site will be covered by buildings and hard standing. The overall risk is considered to be low.
Off site Made ground, infilled reservoir and refuse filled canal Ground Gas (carbon dioxide and methane)	Migration into confined spaces, inhalation and asphyxiation/ explosion	End-users / property / structures	Low Likelihood	Severe	Moderate	The closest and largest potential source of ground gases is a large area of mapped made ground the south and east of the site as identified from BGS records. The southern part of the site and surrounding area to the south is indicated to be underlain by granular superficial deposits, therefore a potential pathway is considered to exist. However, based on the location of the made ground, this is likely to have been associated with construction of viaducts/transport infrastructure, and is therefore likely to comprise aggregates with a low organic content and low proportions of putrescible materials. The infilled reservoir may contain unknown materials, but is further from the site and infilled more than 100 years ago, therefore is considered to have a low likelihood of impacting the site. The infilled canal is located towards the north, where the ground conditions are indicated to comprise predominantly low-permeability superficial deposits, reducing the likelihood of migration to site. It should be noted that the proposed development will likely involve the inclusion of a reinforced concrete ground beam / floor slab which will include an inherent level of protection to prevent ingress of ground gases into buildings. The risk is considered to be moderate at this stage, with ground investigation and monitoring required to confirm the risk.

Controlled Waters						
Potential Source	Potential Pathway	Potential Receptor	Likelihood	Severity	Level of Risk	Justification
Made Ground PAH's, Metals, PCBs	Overland flow / migration through saturated zone	Rochdale Canal 36m away (Surface waters)	Unlikely	Medium	Low	It is considered unlikely that any contaminants potentially present in the made ground soils could impact the canal, which is likely to be clay lined providing protection from any potentially contaminated groundwater. Given the industrial setting of the surrounding area, which would appear to supersede the relatively minor industrial history of the site itself, it is unlikely that the site is contributing to any poor groundwater quality over and above contributions from the surrounding land which has seen heavier industrial use. In addition, the site is proposed to be covered in hardstanding and buildings with new drainage installed which will maintain an already minimal volume of surface water infiltration, therefore leaching of any contaminants present in soils is likely to remain low. Overland flow is also considered unlikely as new drainage at the site will divert surface water appropriately.
	Leaching through unsaturated zone / Migration through saturated zone	Secondary A Aquifer (Ground-water)	Low Likelihood	Medium	Moderate / Low	The depth and nature of any made ground is unknown at this stage, although it should be noted that the industrial setting of the surrounding area, would appear to supersede the relatively minor industrial history of the site itself, it is unlikely that the site is contributing to any poor groundwater quality over and above contributions from the surrounding land which has seen heavier industrial use. The historical mapping does not indicate the likely presence of any sources of gross contamination. In addition, the site is surfaced in hardstanding, in the majority, and will remain so, with and improved drainage system, therefore the site is unlikely to be worsened and by the development taking place this may lead to an overall 'betterment' of groundwater quality. Further assessment of the ground conditions is required to confirm the risk to the groundwater aquifers beneath the site.
	Migration through saturated zone	Principal Aquifer (Ground-water)	Low Likelihood	Medium	Moderate / Low	The depth and nature of any made ground is unknown at this stage, although it should be noted that the industrial setting of the surrounding area, would appear to supersede the relatively minor industrial history of the site itself, it is unlikely that the site is contributing to any poor groundwater quality over and above contributions from the surrounding land which has seen heavier industrial use. The historical mapping does not indicate the likely presence of any sources of gross contamination. In addition, the site is surfaced in hardstanding and will remain so, with and improved drainage system, therefore the site is unlikely to be worsened

						and by the development taking place this may lead to an overall 'betterment' of groundwater quality. If present, any made ground is indicated to be underlain by potentially permeable superficial deposits across the majority of the site, which are expected to be underlain by the Principal Aquifer, so a potential pathway is feasible. Therefore, further assessment of the ground conditions is required to confirm the risk to the groundwater aquifers beneath the site.
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Human Health Risk - Summary

- 4.5.3 Based on the preliminary CSM and the current use of the site, the overall risk from land contamination at the site is considered to be **low to moderate** for a redeveloped site. This would need to be confirmed by appropriate intrusive investigation, testing and assessment.
- 4.5.4 A potential on-site gas source has been identified associated with the made ground associated with previous developments. Off site ground gas sources have also been identified, associated with mapped made ground and potentially infilled features. The preliminary CSM considers the sources to be a **low/moderate** to **moderate** risk to site end users and property.
- 4.5.5 In accordance with CIRIA C665 and as set out in Appendix A of this report, the gas generation potential is considered to be very low. The sensitivity of the development is low to moderate on account of the proposed high rise apartments and commercial use.
- 4.5.6 In line with current guidance it is recommended that ground gas monitoring should comprise 6 visits over a minimum 2 month period.

Controlled Waters Risk - Summary

- 4.5.7 Based on the preliminary CSM, renaissance believes the overall risk to controlled waters at the site is **low to moderate** for the following reasons:

- Despite the likely presence of made ground, no gross contamination is anticipated on site.
- The site itself does not appear to have been used for industrial purposes for over 100 years, with the immediate surrounds appearing to have been used more heavily for industry.
- The site is currently, in the majority, and will remain covered entirely in hardstanding and/or buildings, which will limit surface water infiltration and therefore help limit leaching of any contaminants, if present.
- The site is located 22m away from a Source Protection Zone.
- There are no active
- potable water abstractions within 2000m.

The above assessed level of risk will need to be confirmed by intrusive investigation and quantitative risk assessment.

5.0 PRELIMINARY GEOTECHNICAL ASSESSMENT

5.1 Hazard Identification

5.1.1 Potential geotechnical hazards based on the expected ground conditions are listed below:

- Made ground of unknown depth and nature; if placed in a non-engineered manner may cause excessive settlement of foundations, highways and infrastructure.
- Attack of buried concrete by aggressive ground conditions; the site may contain unknown made ground and potentially sulphate bearing soils.
- Shrink / swell of clay; settlement / heave of foundations when located within the influence of trees and vegetation.
- Running sands and shallow groundwater, leading to difficulty with excavation due to trench collapse.
- UXO; the site lies within an area at moderate risk from unexploded ordnance.
- The Briton's Protection Public House which is a Grade II listed building, located directly between the two areas of site, is likely to have a basement structure and therefore consideration is required to ensure that the proposed development and enabling works do not disturb this building.

5.2 Foundations Design

5.2.1 The proposed development will comprise a 27 storey residential apartment building and a 7 storey commercial office building. In light of the anticipated imposed loads, it is likely that a deep foundation solution, such as piles, will be required.

5.3 Sustainable Drainage Systems (SUDs)

5.3.1 Given the nature of the site, which is limited in terms of area and will be entirely covered by buildings, drainage to SuDS is unlikely to be feasible due to lack of space for construction of suitable attenuation tanks.

6.0 OTHER DEVELOPMENT CONSTRAINTS

6.1 Constraints Identification

- 6.1.1 If asbestos is present in soils, these will need to be dealt with in accordance with the Control of Asbestos Regulations (CAR) 2012.
- 6.1.2 No invasive species have been noted during the review of satellite and street view imagery, however it would be prudent to undertake a specialist survey prior to any works on site.
- 6.1.3 The preliminary risk assessment undertaken within this Phase I Assessment may identify potential risks to site demolition and construction workers. However, full consideration of occupational health and safety issues is beyond the scope of this report.
- 6.1.4 The general area of Manchester in which the site is located is known to be of Archaeological interest. Therefore, it is recommended that the Local Authority is contacted at the earliest opportunity with respect to any Archaeological Evaluations which may need to take place.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Geo-Environmental

- 7.1.1 The site has previously been used as a coal yard and timber yard until the late 1800s, with unknown buildings occupying the site since until the late 1900s, since which time it has remained vacant and used for car parking.
- 7.1.2 The surrounding area has had an industrial past since prior to 1851, with works and mills including textile mills, engineering works, stone works, finishing works, dye works, sawmills and timber yards. A garage was also present to the north-east of the site. Significant transport infrastructure includes the Manchester Central Railway Station and railway sidings, located north-west of the site, and an omnibus station towards the north-east and east.
- 7.1.3 Given the nature of the proposed development, which will not incorporate any gardens or soft landscaping areas, the overall risk to human health is considered to be low.
- 7.1.4 Potentially infilled features including a reservoir, canal and former refuse heap have been identified in the surrounding area within the desk study, as well as made ground likely to be present on site associated with the previous developments. There is considered to be a low to moderate risk from ground gas based on the above and intrusive investigation with subsequent ground gas monitoring will be required.
- 7.1.5 The risk to controlled waters is considered to be low to low/moderate from the anticipated made ground on site associated with the previous industrial usage of the site.

7.2 Geotechnical

- 7.2.1 The proposed development will comprise the construction of a 27 storey residential apartment building and a 7 storey commercial office building. Based on the likely imposed loads, piled foundations are anticipated to be required for the development. Intrusive investigations will be required to investigate the ground conditions and obtain parameters for foundation design, concrete classification, floor slab and highways design.

7.3 Further Work

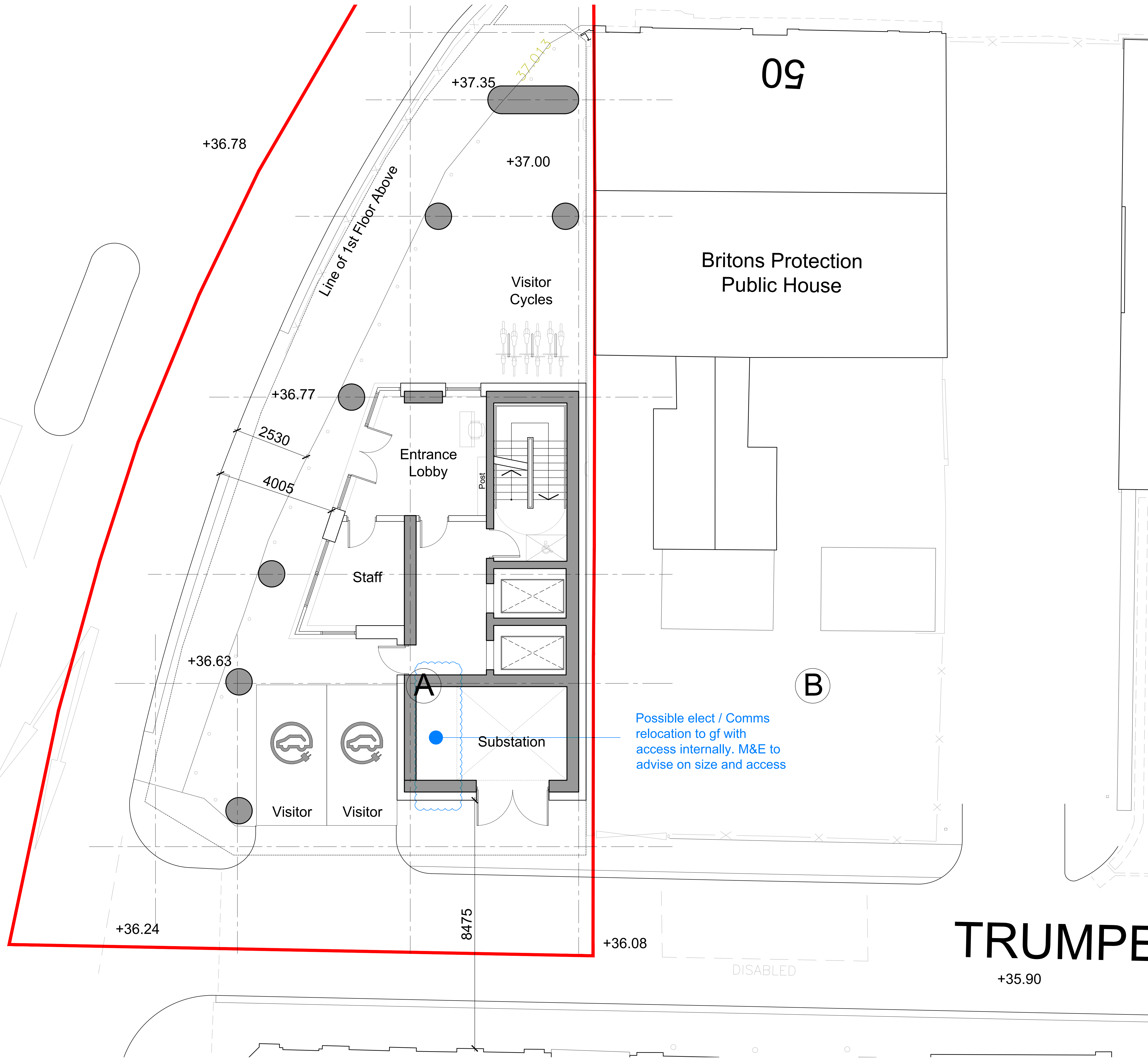
- 7.3.1 To confirm the risks to the identified receptors and confirm the ground conditions in respect to the identified geotechnical and geo-environmental risks, an appropriate intrusive investigation will need to be undertaken.
- 7.3.2 Therefore, to allow future development of the site the following further works are recommended, although this list is not exhaustive and should be read in conjunction with any planning conditions that are applicable to the site.
- Topographical survey / service trace.
 - Further assessment of the UXO risk at the site.
 - Intrusive site investigations comprising:
 - Cable percussive drilling with rotary cored follow-on.
 - Installation of standpipes in boreholes to allow gas concentrations and groundwater levels to be monitored.
 - Geotechnical testing of soils and rocks.
 - Contamination analyses of soil and groundwater, if required.

-
- Assessment and recommendations based on the above, including requirements for further work, if necessary.

8.0 REFERENCES

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DRAWINGS

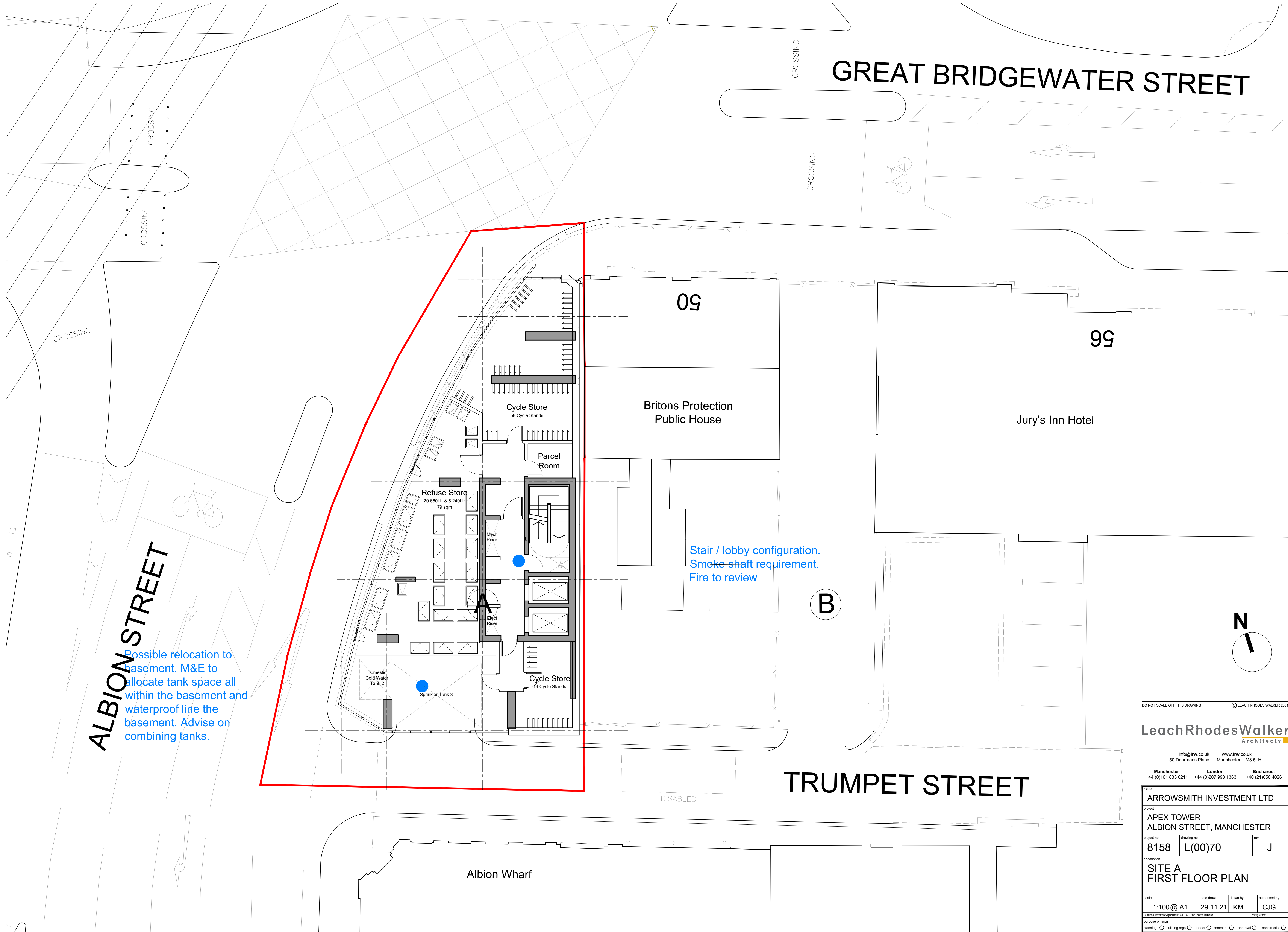


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CROSSING

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GREAT BRIDGEWATER STREET

09

99

Britons Protection
Public House

Jury's Inn Hotel

Cycle Store
58 Cycle Stands

Parcel
Room

Refuse Store
20 660Ltr & 8 240Ltr
79 sqm

A

Mech
Riser

Elect
Riser

Domestic
Cold Water
Tank 2

Sprinkler Tank 3

Cycle Store
14 Cycle Stands

Stair / lobby configuration.
Smoke-shaft requirement.
Fire to review

B

N

ALBION STREET

Possible relocation to
basement. M&E to
allocate tank space all
within the basement and
waterproof line the
basement. Advise on
combining tanks.

DISABLED

TRUMPET STREET

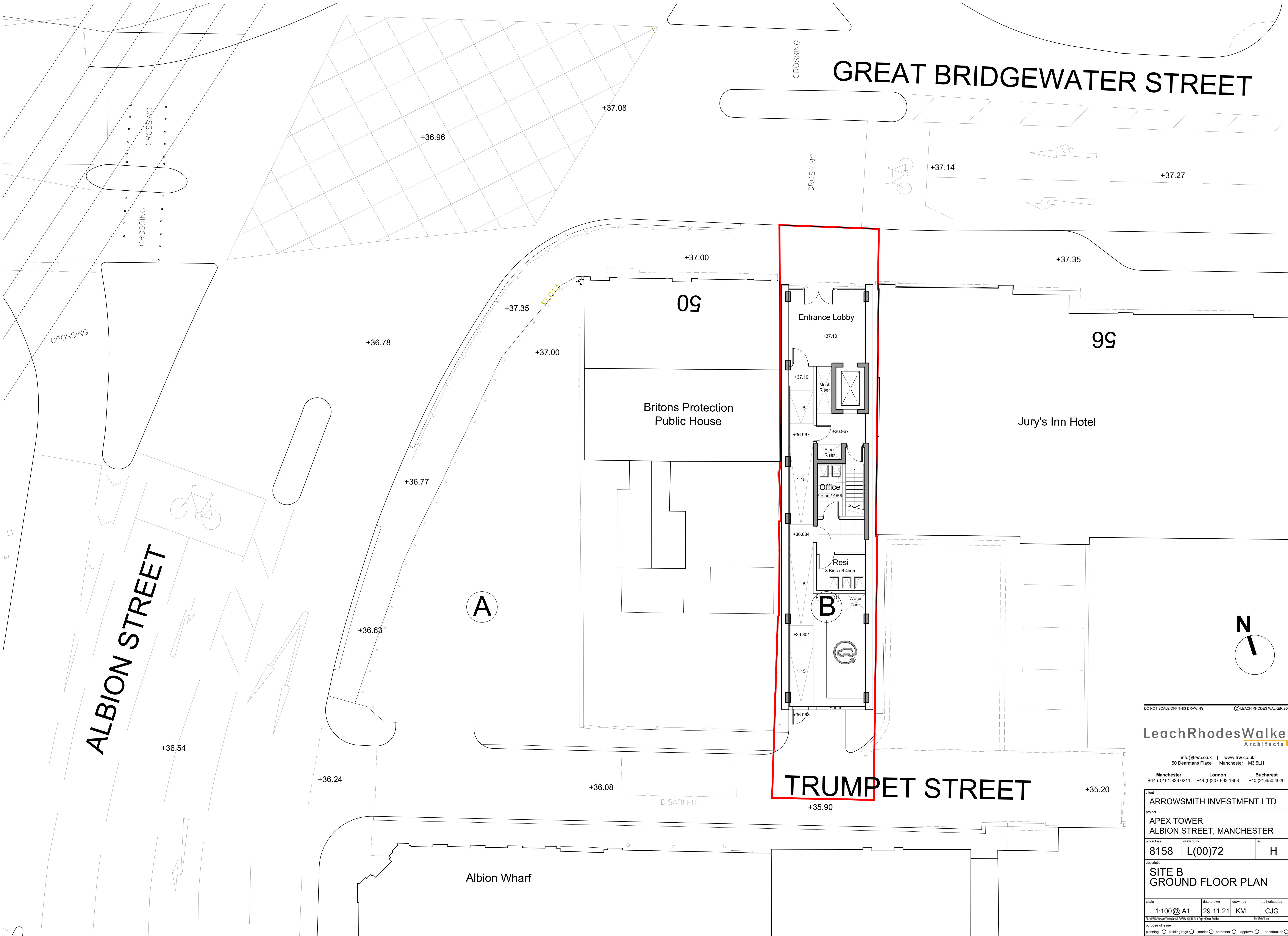
Albion Wharf

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GREAT BRIDGEWATER STREET

ALBION STREET

TRUMPET STREET

99

Jury's Inn Hotel

Britons Protection
Public House

09

Albion Wharf

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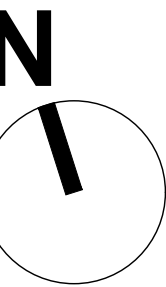
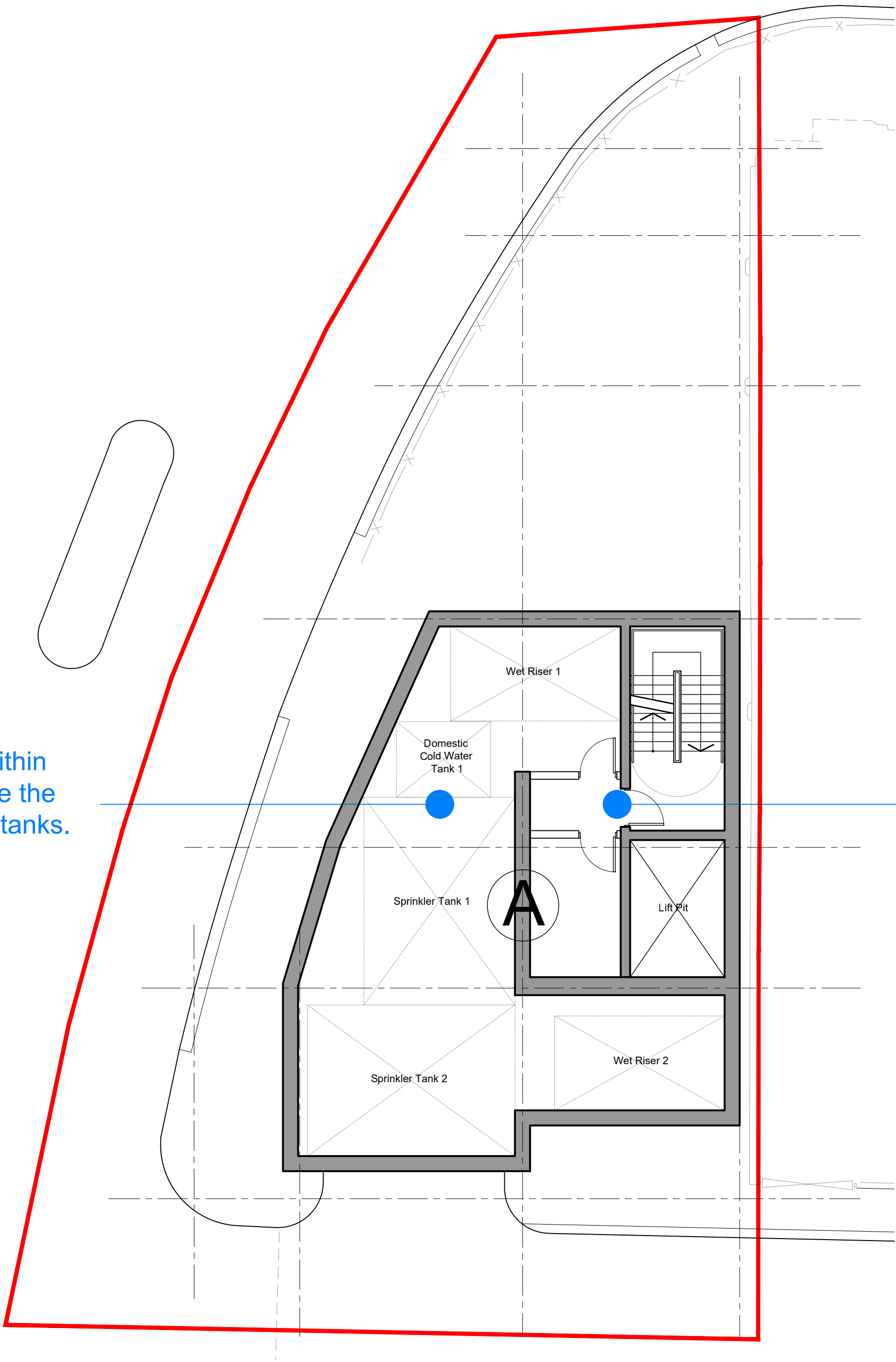
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M&E to allocate tank space all within the basement and waterproof line the basement. Advise on combining tanks.

Means of escape via stairs or hatch tbc. Fire to review

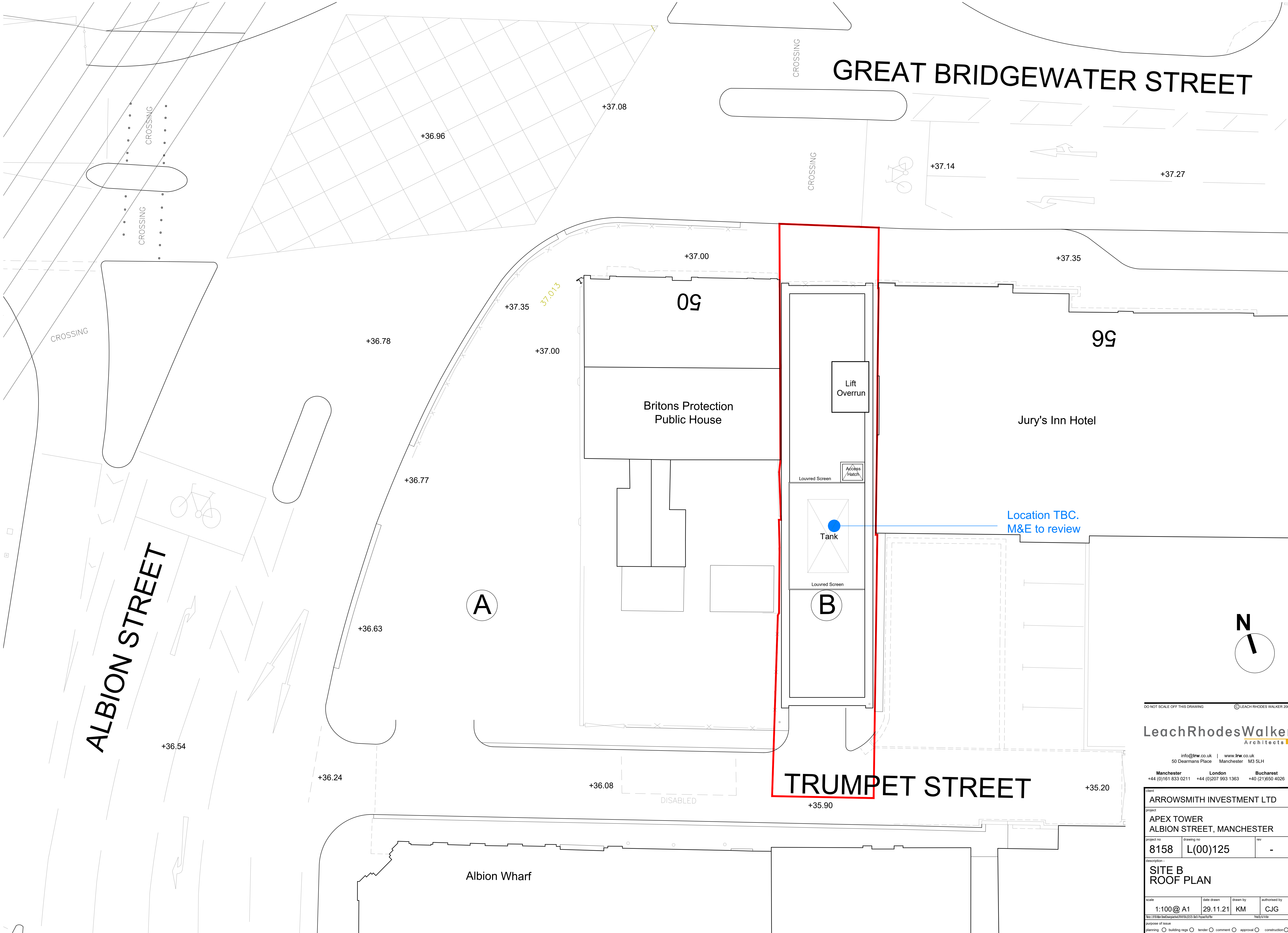


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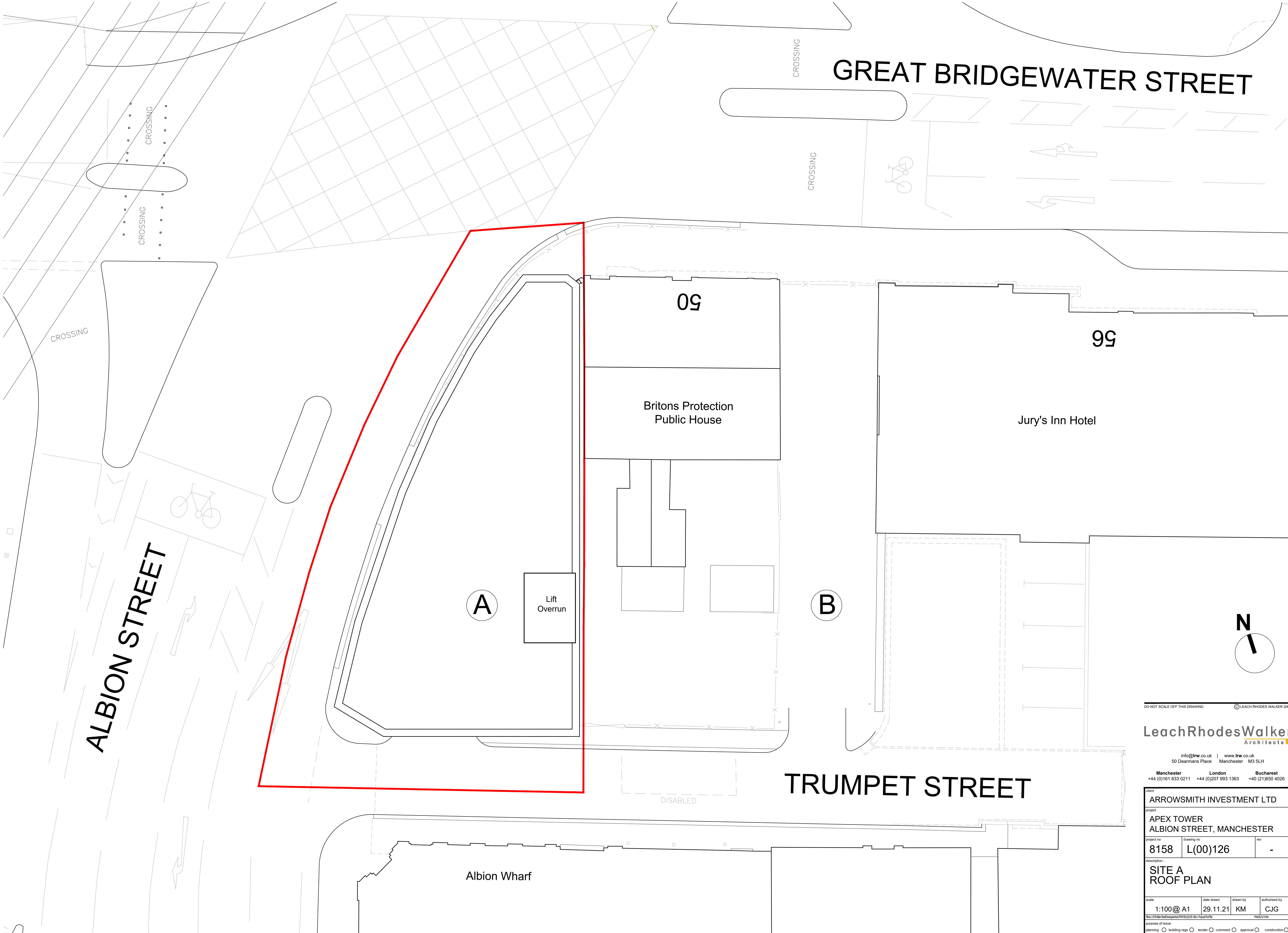


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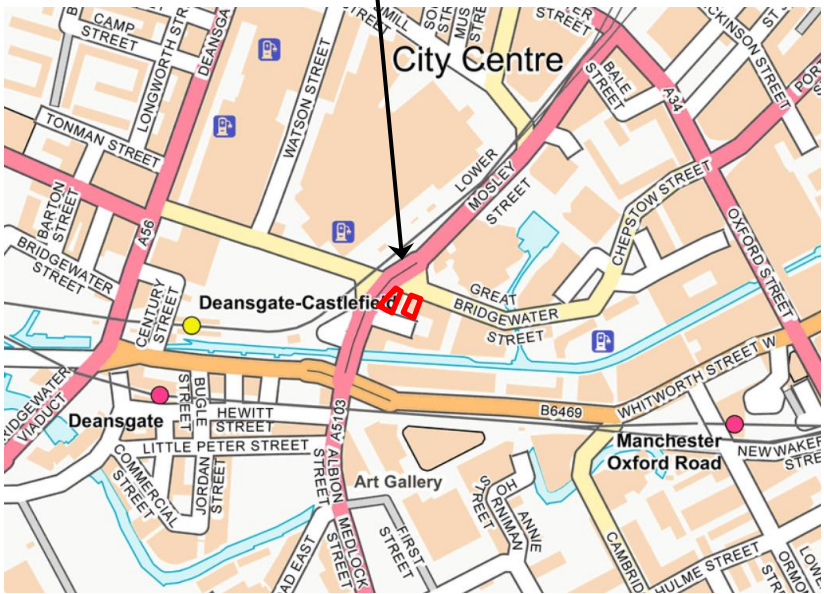
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https://www.leachrhodeswalker.co.uk/leach-rhodes-walker-architects		https://www.leachrhodeswalker.co.uk/leach-rhodes-walker-architects	
purpose of issue			
planning ☐ building regs ☐ tender ☐ comment ☐ approval ☐ construction ☐			



SITE LOCATION

NEAREST POSTCODE: M1 5LE



REV	DATE	DESCRIPTION	BY	CKD
renaissance				
CLIENT				
ARROWSMITH INVESTMENT LTD				
PROJECT TITLE				
APEX TOWER, ALBION STREET, MANCHESTER				
DRAWING TITLE				
SITE LOCATION PLAN				
DRAWING No.		REVISION	SCALE	DATE
C4889/01		-	NTS	29/09/21
DRAWN BY			CHECKED BY	
SD			TM	



ADVERTISING BILLBOARDS

BRITONS PROTECTION PUB

SEMI MATURE TREE

BOLLARDS AROUND PERIMETER

SITE A –
MACADAM
SURFACING

SITE B –
GRAVEL
SURFACING

PH

Trumpet Street

VEHICULAR SITE ACCESS

KEY

— APPROXIMATE SITE BOUNDARY

REV	DATE	DESCRIPTION	BY	CKD



CLIENT
ARROWSMITH INVESTMENT LTD

PROJECT TITLE
APEX TOWER, ALBION STREET,
MANCHESTER

DRAWING TITLE
SITE FEATURES PLAN

DRAWING No.	REVISION	SCALE	DATE
C4889/02	-	NTS	01/10/21

DRAWN BY	CHECKED BY
TM	LC

APPENDIX A

Methodology and Guidance

BSL Phase I Geo-Environmental Assessment Reports - Methodology and Guidance

This Appendix provides information on the approaches, methods and guidance used by Brownfield Solutions Ltd in the preparation of this report.

The term 'geo-environmental' is used to describe aspects relating to ground-related environmental issues (such as potential soils and groundwater contamination). The term 'geotechnical' is used to describe aspects relating to the physical nature of the site (such as foundation requirements). It should be noted that this is an integrated investigation and these two main aspects are related, unless otherwise specified within the report.

Phase I reports are written in general accordance with the description of a Preliminary Investigation as defined in BS10175:2011+A2:2017 and are also produced in general accordance with the recommendations for a Tier 1 Preliminary Risk Assessment as described in LCRM guidance

The first stage of the investigation and assessment of a site is the Preliminary Investigation/Tier 1 Preliminary Risk Assessment, often referred to as a Phase 1 Desk Study, comprising a desk study and walk-over survey and collation of desk-based searches, which culminates in the Preliminary Risk Assessment and the development of a preliminary/initial Conceptual Site Model (CSM). From this are identified any potential geotechnical and geo-environmental hazards and the qualitative degree of risk associated with them.

From the geo-environmental perspective, the hazard Identification process uses professional judgement to evaluate all the hazards in terms of possible contaminant linkages (of source-pathway-receptor). Possible contaminant linkages are potentially unacceptable risks in terms of the current contaminated land regime legal framework and require either remediation or further assessment. These are normally addressed via intrusive ground investigation and generic risk assessment as part of Phase II investigations and reports.

Contaminated Land - Legislative Background

Environmental liabilities and risks have been evaluated in terms of a source -pathway - target relationship in accordance with the approach set out in:

- The 1995 Environment Act.
- The DETR circular 02/2000 Environmental Protection Act 1990: Part IIA Contaminated Land.
- The Contaminated Land (England) Regulations 2000.
- Environment Agency (EA) - Land Contamination Risk Management (LCRM) 2019.

Contaminated land is defined within the legislative framework as land which is in such condition by reason of substances in, on or under the land that:

- 1) Significant harm is being caused or there is a significant possibility of such harm being caused.
- 2) Significant pollution of controlled waters is being or is likely to be caused.

The potential for harm is based on the presence of three factors:

Source - substances that are potential contaminants or pollutants that may cause harm.

Pathway - a potential route by which contaminants can move from the source to the receptor.

Receptor - a receptor that may be harmed, for example the water environment, humans and water.

Where a source, pathway and target are all present a pollutant linkage exists and there is potential for harm to be caused. The presence of a source does not automatically imply that a contamination problem exists, since contamination must be defined in terms of pollutant linkages and unacceptable risk of harm. The nature and importance of both pathways and receptors are site specific and will vary according to the intended end use of the site, its characteristics and its surroundings.

The key principle which supports the SPR approach is 'suitable for use' criteria. This requires remedial action only where contamination is considered to pose unacceptable actual or potential risks to health or the environment and, taking into account the proposed use of the site.

Relevant Guidance Documents

This report has been prepared in accordance with the list of guidance below, however the list is not exhaustive:

- DETR: Circular 02/2000: Environmental Protection Act 1990: Part IIA: Contaminated land. 2012.
- Environment Agency technical advice to third parties on Pollution of Controlled Waters for Part IIA of the EPA1990, May 2002.
- BS 10175:2011+A2:2017.
- Environment Agency (EA) - Land Contamination Risk Management (LCRM). 2019.

Relevant Legislative Documents

The following is a non-exhaustive list of legislative framework documents that has been considered in the production of this report:

- The Environmental Protection Act 1990: Part 2A Contaminated Land Statutory Guidance (2012).
 - The Environment Protection Act (1990).
 - The Water Resources Act (1991).
 - The Environment Act (1995).
 - The Contaminated Land (England) Act (2000).
 - The Pollution Prevention and Control (England and Wales) Regulations (2000).
 - The Landfill Regulations (England and Wales) Regulations (2002).
 - The Landfill (England and Wales) (Amendment) Regulations (2004).
 - Contaminated Land (England) Regulations (2012).
-

- Health and Safety at Work Act.
- National Planning Policy Framework (NPPF) 2021.

Contaminated Land Risk Assessment Approach

Contaminated Land Risk Assessment is a technique that identifies and considers the associated risk, determines whether the risks are significant and whether action needs to be taken. The four main stages of risk assessment are:

Hazard Identification ➡ Hazard Assessment ➡ Risk Estimation ➡ Risk Evaluation.

LCRM outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. The starting point of the risk assessment is to identify the context of the problem and the objectives of the process. Under LCRM, three tiers of risk assessment exist – Stage/Tier Preliminary Risk Assessment, Stage 2 Generic Quantitative and Stage 3 Detailed Quantitative.

Further information can be found at the below site:

<https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>

Formulating and developing a conceptual model for the site is an important requirement of risk assessment, this supports the identification and assessment of pollutant linkages. Development of the conceptual model forms the main part of preliminary risk assessment, and the model is subsequently refined or revised as more information and understanding is obtained through the risk assessment process.

Risk is a combination of the likelihood of an event occurring and the magnitude of its consequences. Therefore, both the likelihood and the consequences of an event must be taken into account when assessing risk.

The risk assessment process needs to take into account the degree of confidence required in decisions. Identification of uncertainties is an essential step in risk assessment.

The likelihood of an event is classified on a four-point system using the following terms and definitions from CIRIA C552:

High likelihood: There is a pollution linkage and an event 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 pollution linkage and all the elements are present and in the right place, which means it is probable that an event will occur. Circumstances are such that the event is not inevitable, but possible in the short term and likely over the long term.

Low likelihood: There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain even over a longer period such event would take place, and is less likely in the short term.

Unlikely: There is a pollution linkage but circumstances are such that it is improbable the event would occur even in the long term.

The severity is also classified using a system based on CIRIA C552. The terms and definitions are:

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 pollution of sensitive water resources. Catastrophic damage to buildings or property. A short-term risk to a particular ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);

Examples – High concentrations of contaminant on surface of recreation area, major spillage of contaminants from site into controlled waters, explosion causing building to collapse;

Medium: Chronic damage to human health ('significant harm' as defined in DETR 2000). Pollution of sensitive water resources. A significant change in a particular ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);

Examples - Concentrations of contaminants exceed the generic assessment criteria, leaching of contaminants from a site to a Principal or Secondary Aquifer, death of species within a designated nature reserve;

Mild: Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures, services or the environment;

Examples – Pollution of non-classified groundwater or damage to buildings rendering it unsafe to occupy.

Minor: harm, not necessarily significant harm, which may result in financial loss or expenditure to resolve. Non-permanent health effects to human health (easily prevented by use of personal protective clothing etc). Easily repairable effects of damage to buildings, structures and services.

Examples – Presence of contaminants at such concentrations PPE is required during site work, loss of plants in landscaping scheme or discolouration of concrete.

Once the likelihood and severity have been determined, a risk category can be assigned using the table below.

		Consequences			
		Severe	Medium	Mild	Minor
Probability	Highly likely	Very high	High	Moderate	Moderate/low
	Likely	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very Low	Very low
	No Linkage	Negligible			

Definitions of the risk categories obtained from the above table are as follows together with an assessment of the further work that might be required:

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 is currently happening. This risk, if realised, could result in substantial liability. Urgent investigation 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. Urgent investigation 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, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it would be more likely to be relatively mild. Investigation is normally required to clarify the risk and determine the 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.

Some linkages may be identified which constitutes a theoretical connection between a source and a receptor, but professional judgement shows them not to be possible for some reason. These are labelled ‘no linkage’ in the summary table, which give rise to a **negligible** risk category and no further action is required.

Ground Gas Risk Assessment Guidance

BS8485:2015+A1:2019, BS 8576:2013, CIRIA C665 and CL:AIRE RB17 are the current guidance which gives up-to-date advice on all aspects of ground gas. They outline good practice in investigation, the collection of relevant data and monitoring programmes in a risk-based approach to ground gas contamination.

Within BS8485:2015+A1:2019, BS 8576:2013 and CIRIA C665, two semi-quantitative methods are set out for the assessment of risk:

- 1 For low rise housing with a ventilated under floor void at minimum 150 mm (Boyle and Witherington).
- 2 For all other development types (Wilson and Card).

Both methods use the concept of Gas Screening Values (GSVs) to identify levels of risk. The mitigation and management of potentially unacceptable risk is described with reference to both passive and active systems of gas. Source removal is also discussed as an option. A separate approach is discussed under the RB17 header further below.

The aim of the guidance is for a consistent approach to decision making, particularly relating to the scope of protective design measures on a site-specific basis.

Legislative Framework

BS8485:2015+A1:2019, BS 8576:2013 and CIRIA C665 provides technical guidance, however they also recognise the context into which the guidance has to be employed. Government policy is based upon a “suitable for use approach”, which is relevant to both the current and proposed future use of land. When considering the current use of land, Part IIA of the Environment Protection Act 1990 provides the regulatory regime. The presence of hazardous ground gases could provide the “source” in a “pollutant linkage” which could lead the regulator to determine that considerable harm or there is a significant possibility of such harm being caused. Under such circumstances, the regulator would determine the land to be “contaminated land” under the provisions of the Act, setting out the process of remediation as described in the DETR Circular 02/2000 *Statutory guidance on contaminated land*.

Generation Potential of Sources

BS 8576:2013 Figure 6 provides a basis for assessing the generation potential from sources identified as part of the Phase I Assessment. These are summarised below:

Generation Potential	Typical Sources
Very Low	- Natural carbonate soil and strata, e.g. chalk and limestone. - Natural soil strata with a low degradable organic content, e.g. alluvium, peat. - In-filled pond less than 15 m diameter, in-filled before 1930s to 1940s. - Made ground with low degradable organic content (e.g. up to 5% organic material such as pieces of wood, pieces of paper, rags, etc. with a high proportion of ash and no food or other easily degradable waste). - Mine workings shallow or shaft (where there is clear evidence that they are flooded). - Inert landfill sites.
Low	- Natural soil strata with a high degradable organic content (DOC). - Made ground with total organic carbon (TOC) up to 6% (e.g. dock silt, no food or other easily degradable waste). - Foundry sand (includes phenolic binders, rags and wood that decay, albeit at low rates). - Landfill 1945 to mid 1960s (see also Moderate below).

Generation Potential	Typical Sources
Moderate	- Sewage sludge. - Mine workings – unflooded, more than 50 years since last worked (gas is liberated from coal when mine workings are excavated; this continues for up to about 50 years). - Landfill 1945 to mid 1960s (this could also be “low” or, if disturbed, “high”).
High	- Landfill mid 1960s to early 1990s. - Mine workings – unflooded – less than 50 years since last worked.
Very High	- Municipal landfill sites. - Landfill early 1990s onward.

Frequency and Duration of Monitoring

The monitoring period for a specific site covers the “worst case” scenario. A “worst case” scenario will typically occur during falling atmospheric pressure and, in particular, weather conditions such as rainfall, frost and dry weather.

The benefits of the additional information and whether it is likely to change the scope of gas protection should be considered, as are the consequences of failing to characterise adequately pollutant linkages. Investigations concerned with soil gas are required to provide monitoring data sufficient to allow prediction of worst case conditions enabling the confident assessment of risk and subsequent design of appropriate gas protection schemes. Monitoring programmes should not be an academic exercise in data collection. CL:AIRE publication TB17 “Ground Gas Monitoring and ‘Worst-Case’ Conditions” provides further guidance.

Below are matrices that will aid in determining an appropriate number of gas monitoring visits and the length of monitoring period.

Typical/idealised periods of monitoring

		Generation of Potential Source				
		Very Low	Low	Moderate	High	Very High
Sensitivity of Development	Low (Commercial)	1 month	2 months	3 months	6 months	12 months
	Moderate (Apartments)	2 months	3 months	6 months	12 months	24 months
	High (Low rise Residential)	3 months	6 months	6 months	12 months	24 months

Typical/idealised frequency of monitoring/Number of Visits Required

		Gas Generation of Potential Source				
		Very Low	Low	Moderate	High	Very High
Sensitivity of Development	Low (Commercial)	4	6	6	12	12
	Moderate (Apartments)	6	6	9	12	24
	High (Low rise Residential)	6	9	12	24	24

Note

- NHBC guidance also recommends this period of monitoring (Boyle and Witherington, 2007).
- Generation potential of sources based on descriptions within BS 8576:2013.
- At least two sets of readings should be at low and falling atmospheric pressure (but not restricted to periods below <1000 mb) known as worst case conditions. Historical data can be used as part of the data set (Table 5.5b).

It is recommended that newly installed monitoring wells are left for 24 hours to allow the soil gas to reach equilibrium. It should be recognised, however, that some soil gas regimes could take considerably longer (up to seven days). Interpretation of any initial readings should take this equilibrium process into account.

RB17 Approach

CL:AIRE RB17 (Card et al 2012) is a pragmatic approach to ground gas risk assessment and was developed because gas concentration, pressure and flow rate measured in a well headspace may not be representative of the conditions in the surrounding formation.

In these low-risk situations, the approach is to use the conceptual site model and the estimation of the likely gas generation from a source to identify where or if gas monitoring is required to better define the risks.

Under this approach, for sites with natural soils only with no credible methane source, then no action is required (no monitoring or gas protection measures) as this represents Characteristic Situation 1 (CS1).

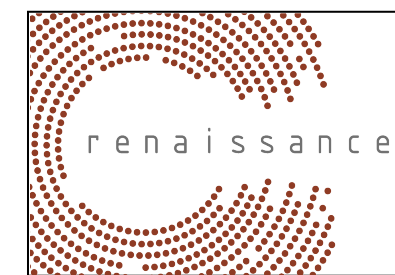
Unexploded Ordnance (UXO) Guidance

Clients have a legal duty under the CDM 2015 Regulations to provide designers and contractors with project-specific health and safety information needed to identify hazards and risks. This includes the possibility of unexploded ordnance (UXO) being encountered on the site. Further details are given in CIRIA report C681.

BSL carry out non-specialist UXO screening exercises by considering any evidence of UK defence activities on or near the site evident from gathered desk study information and the unexploded aerial delivered bomb (UXB) online risk maps produced by Zetica. Other data sources are available, but as a first stage screening exercise the freely available online Zetica maps have been used. The level of risk stated is that determined by Zetica, a company experienced and considered competent in the assessment of UXO.

APPENDIX B

Historical Maps



Site Details:

CAR PARK, TRUMPET STREET,
MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: 1056 Scale Town Plan

Map date: 1851

Scale: 1:1,056

Printed at: 1:1,056



Surveyed 1849
Revised N/A
Edition 1851
Copyright N/A
Levelled N/A

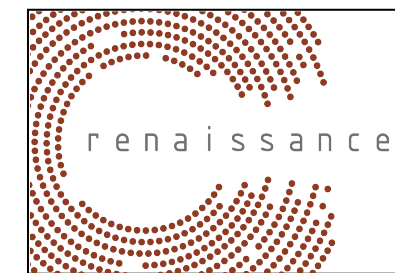


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Map legend available at:
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Site Details:

CAR PARK, TRUMPET STREET,
MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: County Series Town Plan

Map date: 1891

Scale: 1:500

Printed at: 1:1,000



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

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

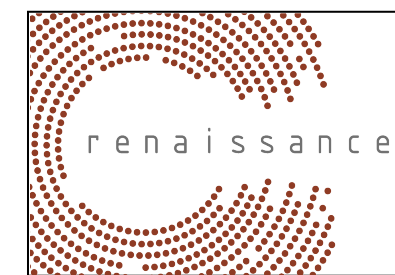
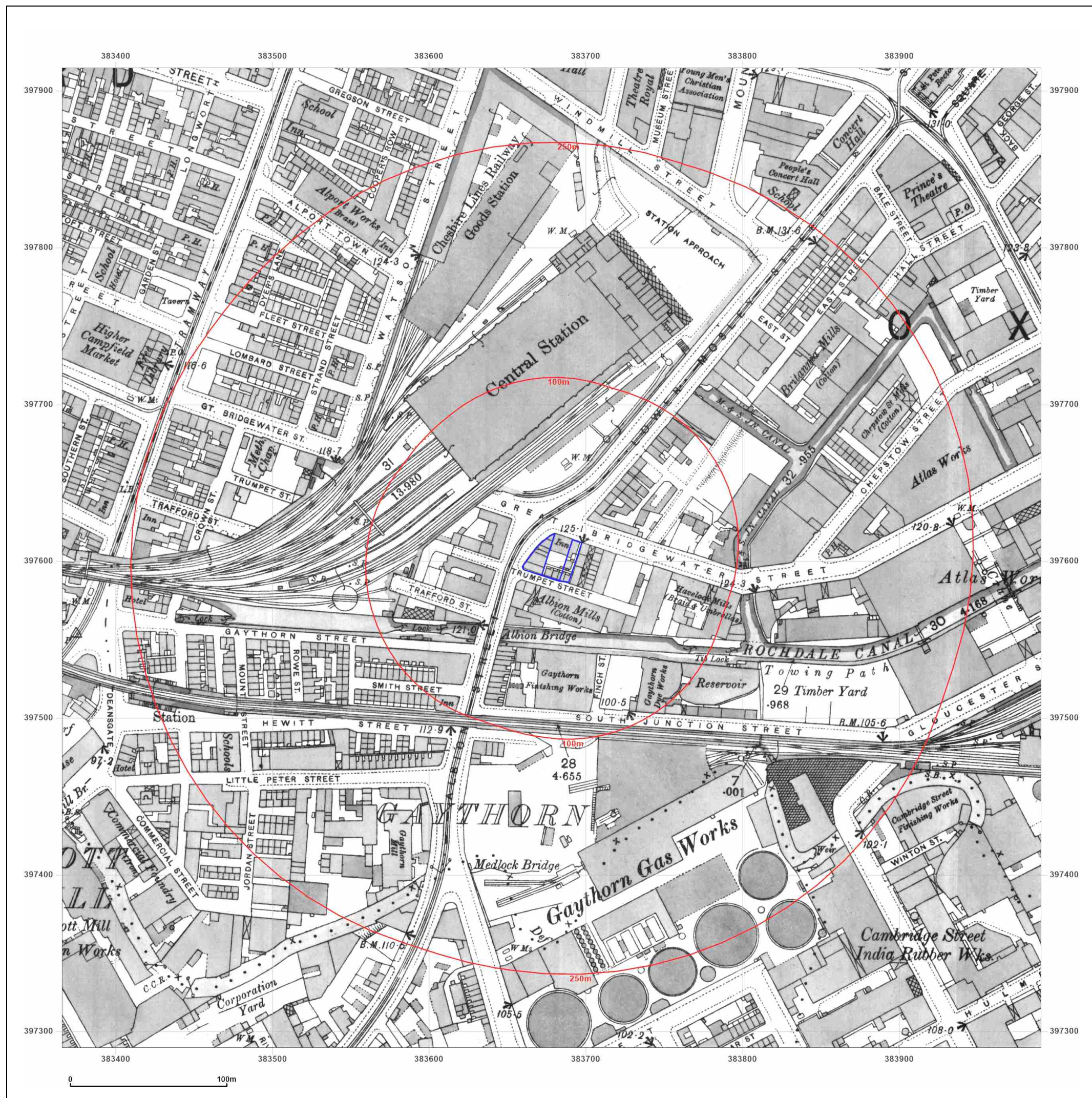


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Site Details:

CAR PARK, TRUMPET STREET,
MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: County Series

Map date: 1893

Scale: 1:2,500

Printed at: 1:2,500



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

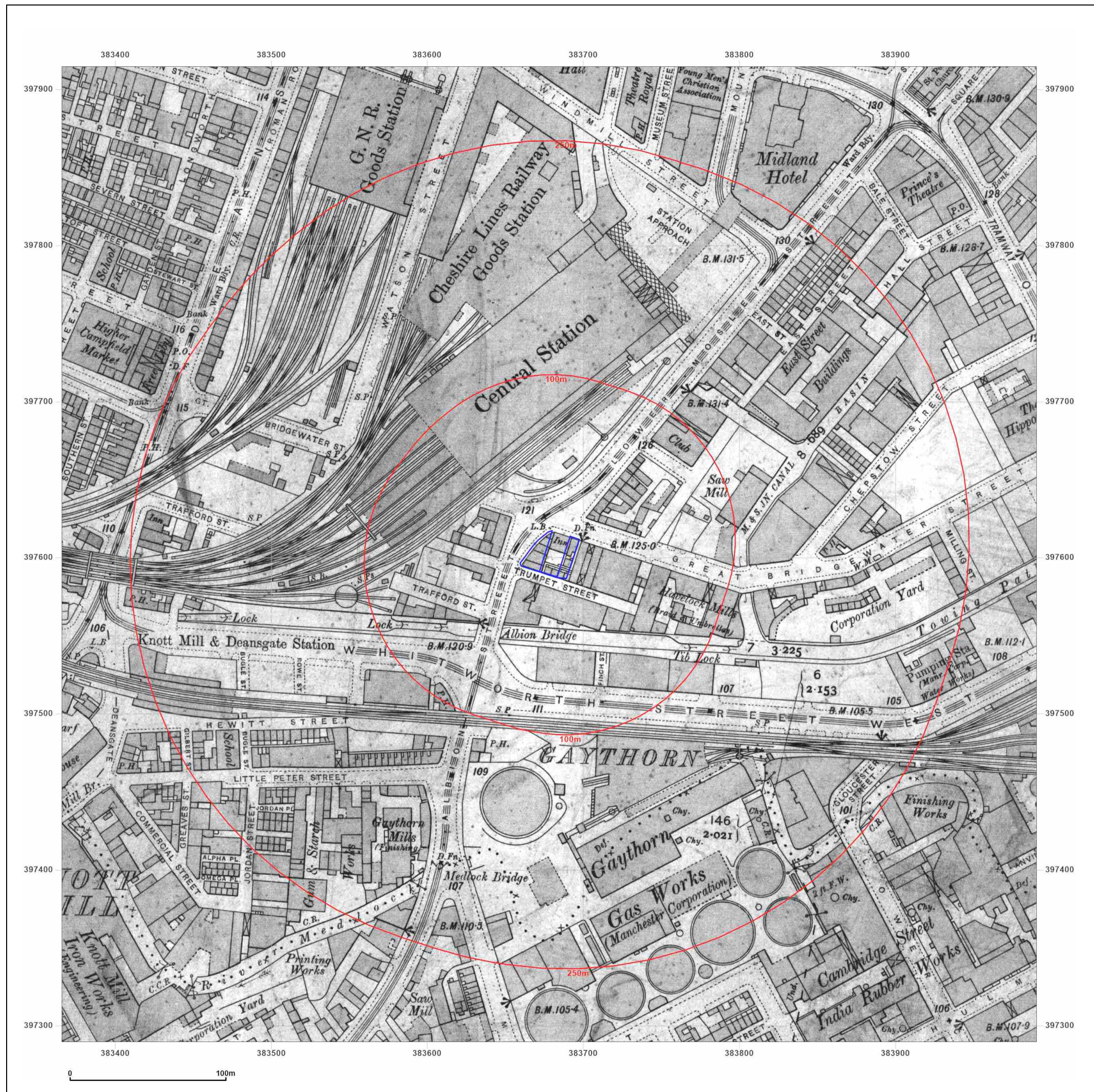


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Site Details:

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MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: County Series

Map date: 1908

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1891
Revised 1905
Edition 1908
Copyright N/A
Levelled N/A

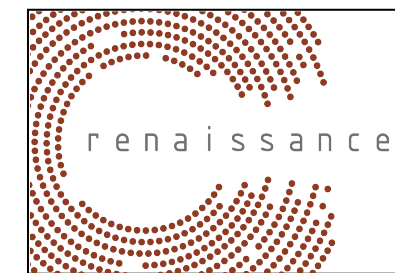


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Site Details:

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MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: County Series

Map date: 1922

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1922
Revised 1916
Edition 1922
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Levelled 1915

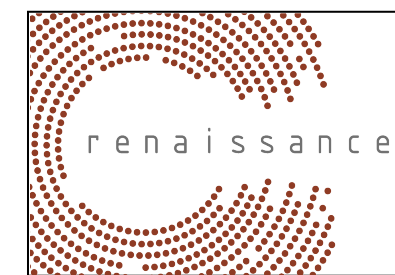
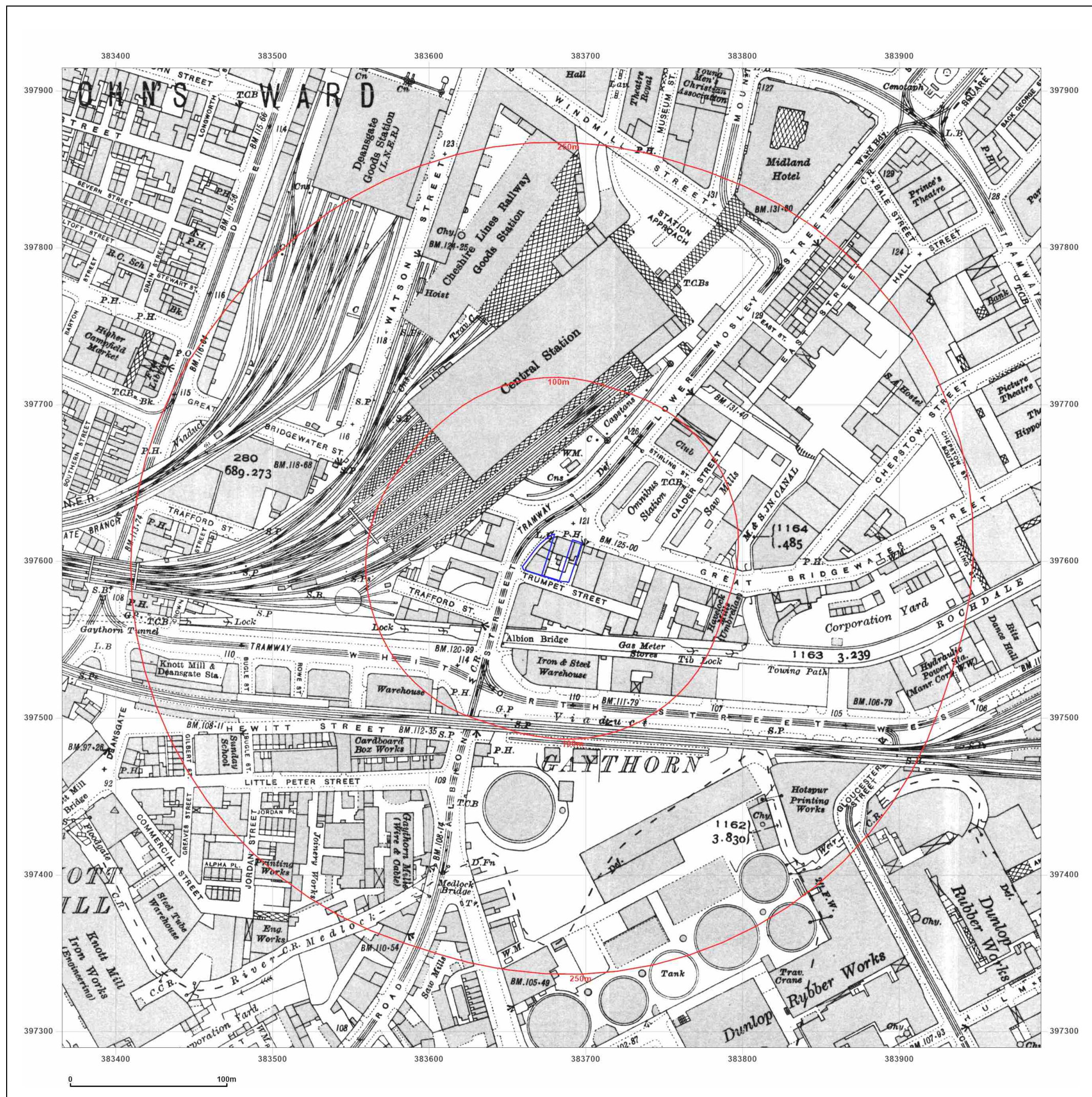


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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: County Series

Map date: 1932

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1873
Revised 1932
Edition N/A
Copyright N/A
Levelled 1927

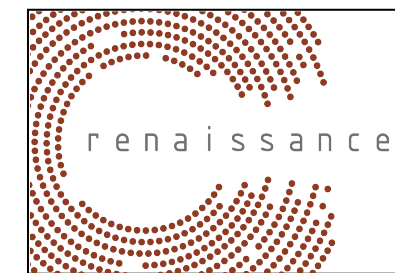
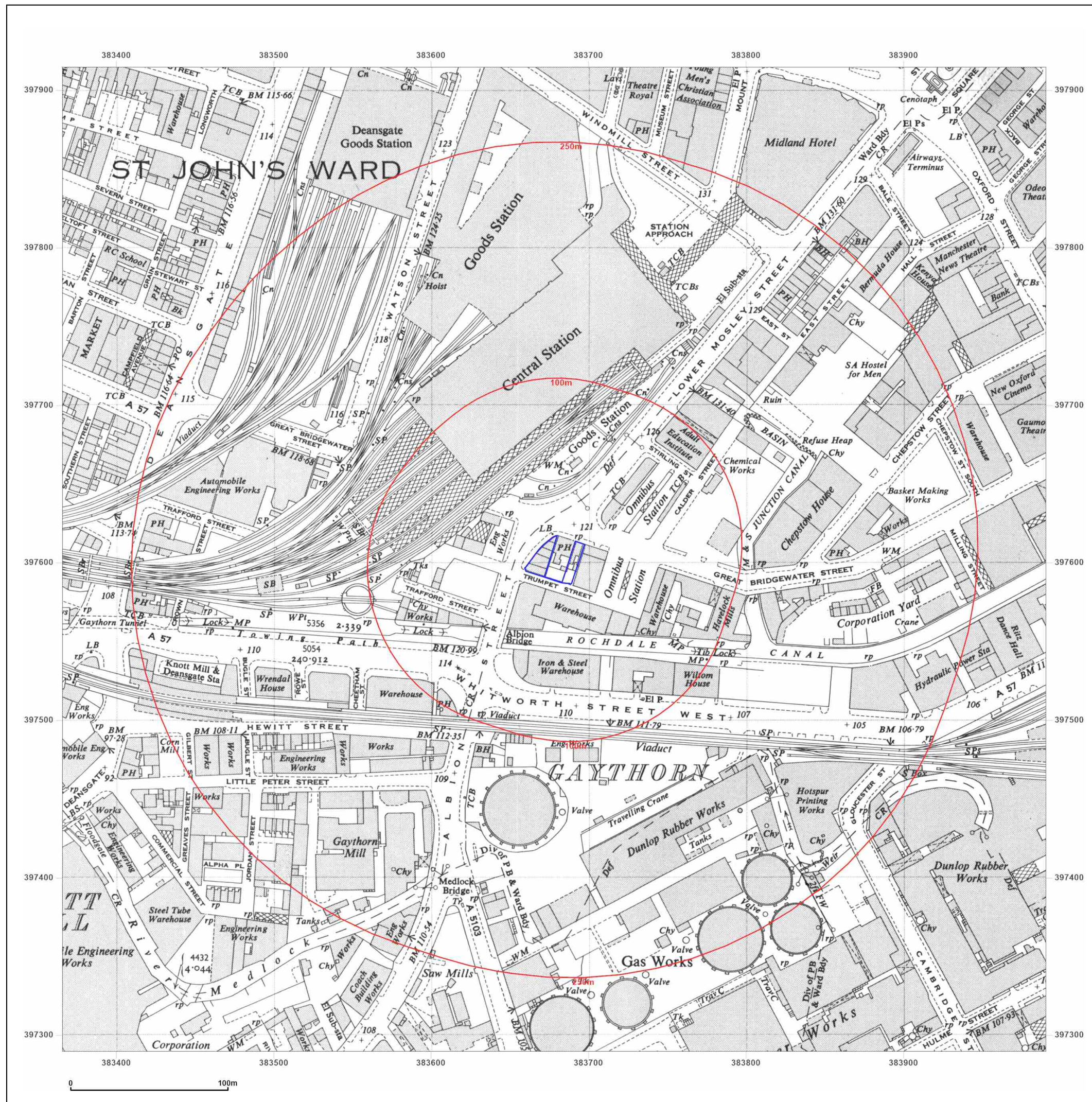


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Site Details:

CAR PARK, TRUMPET STREET,
MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1948

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1948
Revised 1948
Edition N/A
Copyright 1949
Levelled 1927

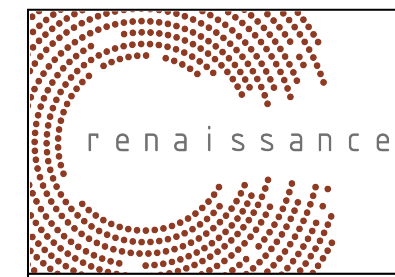


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Site Details:

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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1948-1953

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1948
Revised 1948
Edition N/A
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Levelled 1927

Surveyed 1948
Revised 1948
Edition N/A
Copyright 1948
Levelled 1927

Surveyed 1948
Revised 1953
Edition N/A
Copyright 1953
Levelled 1927

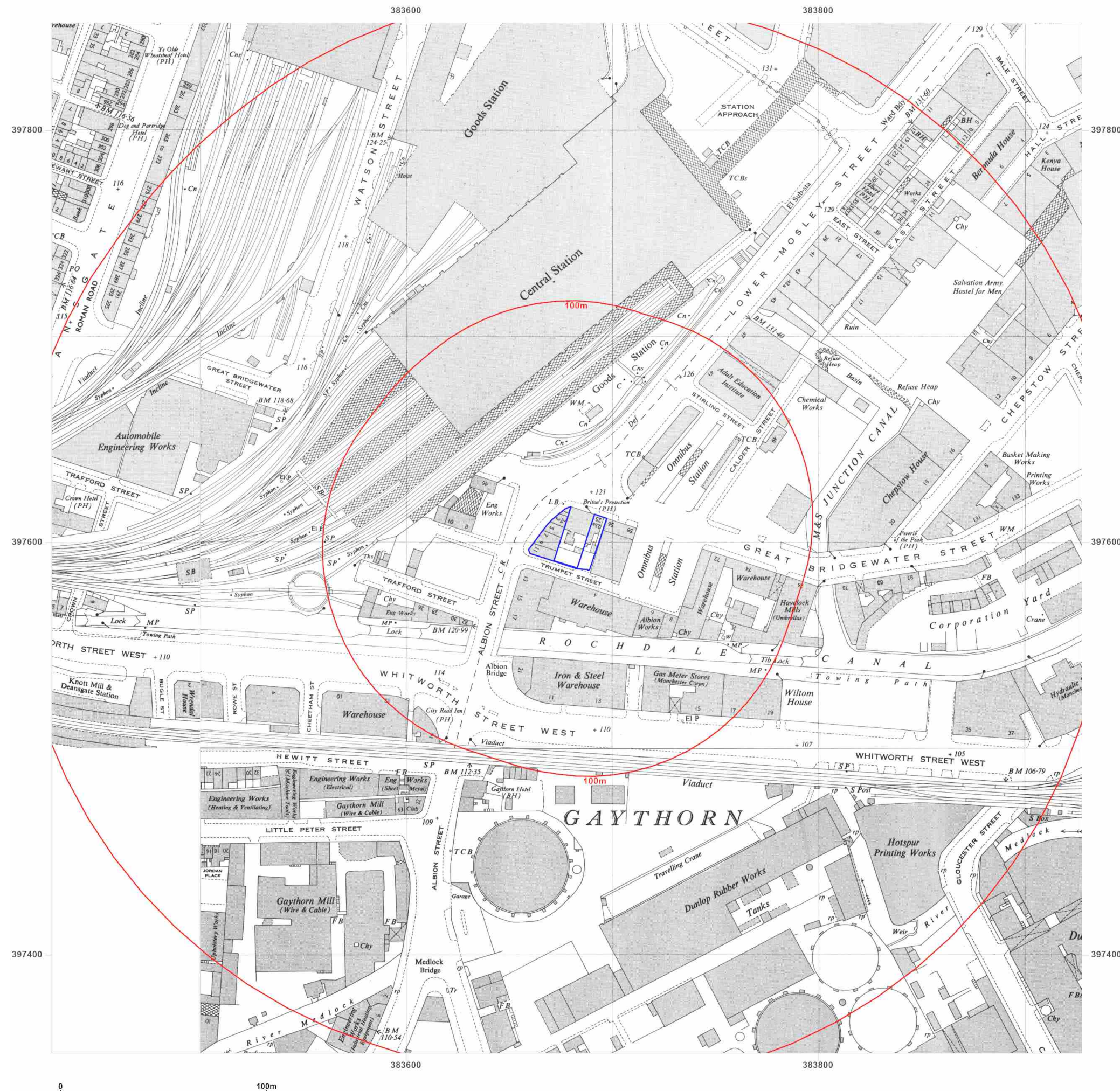


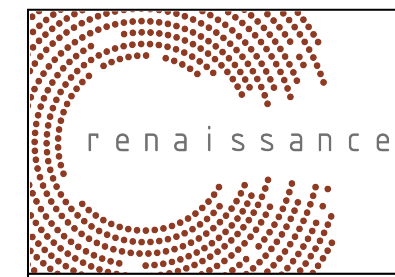
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Site Details:

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MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1951-1955

Scale: 1:1,250

Printed at: 1:2,000



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Surveyed 1951
Revised 1951
Edition N/A
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Levelled 1927

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Revised 1953
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Copyright 1954
Levelled 1927

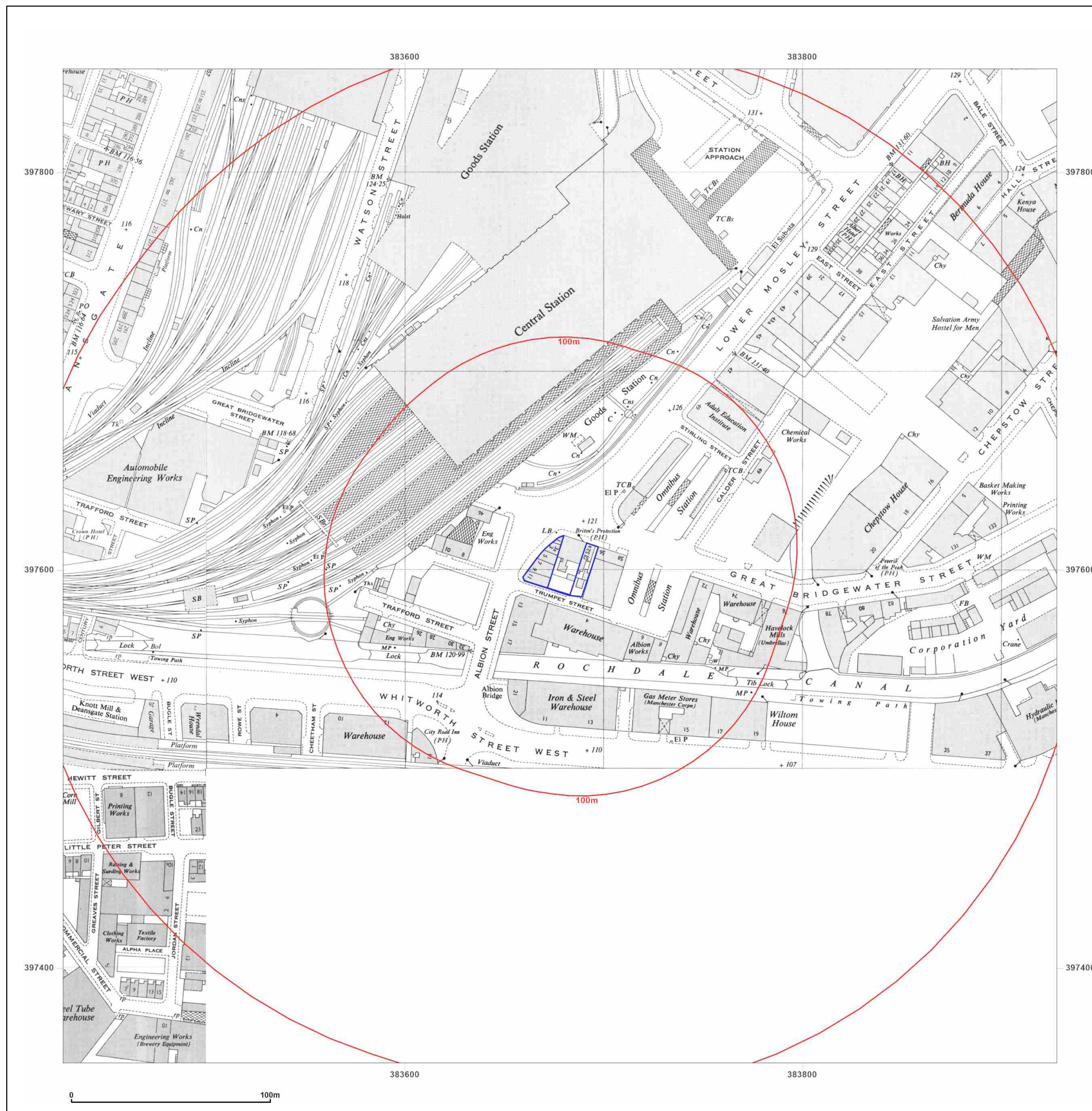


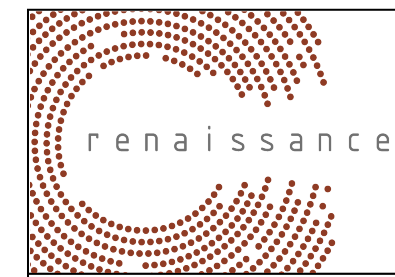
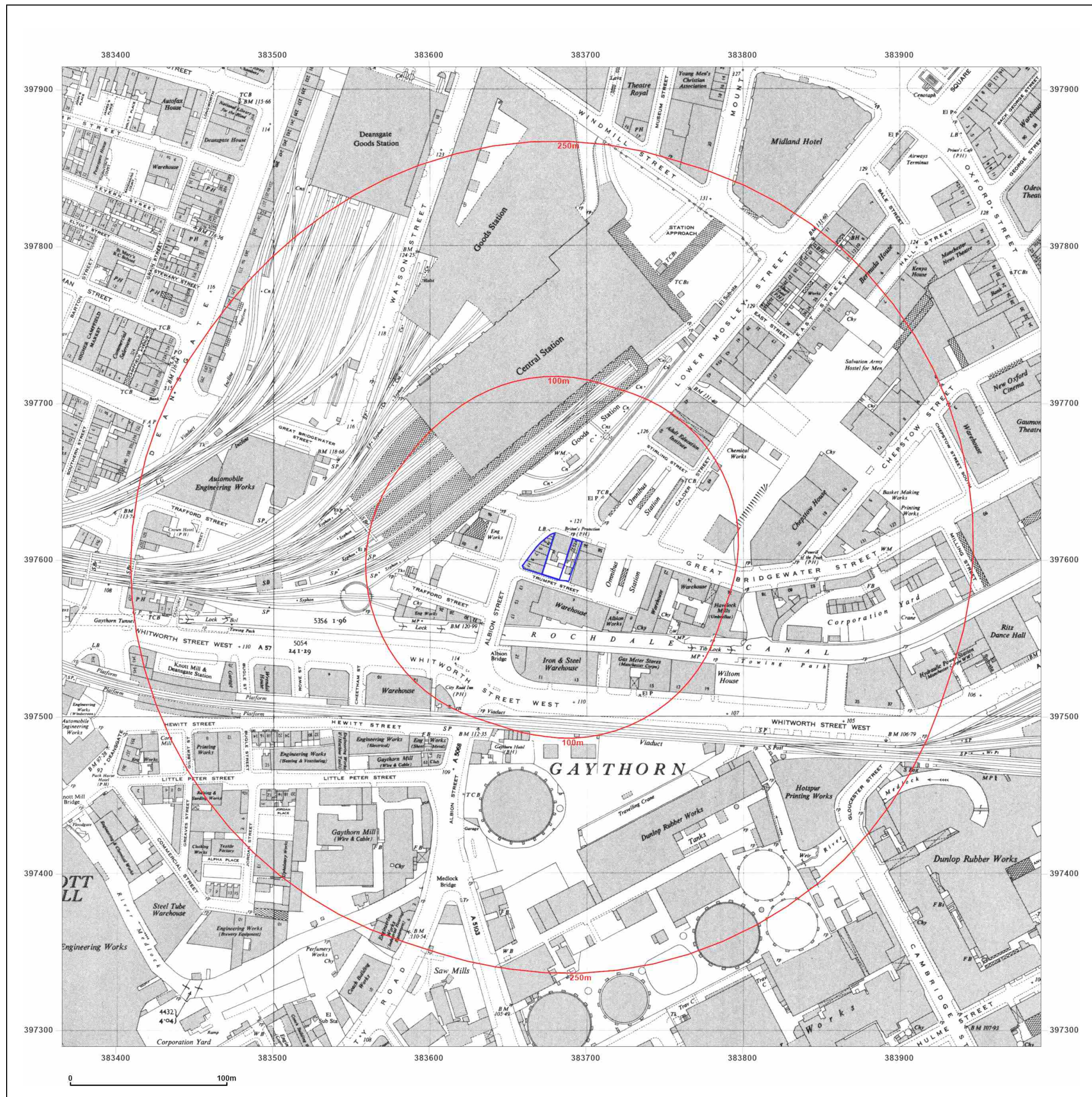
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Site Details:

CAR PARK, TRUMPET STREET,
MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1956

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1953
Revised 1953
Edition N/A
Copyright 1957
Levelled 1927

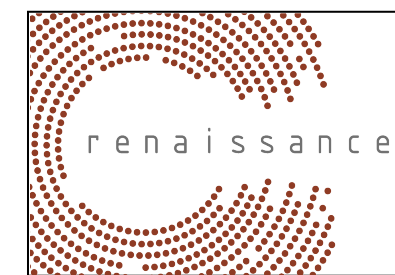
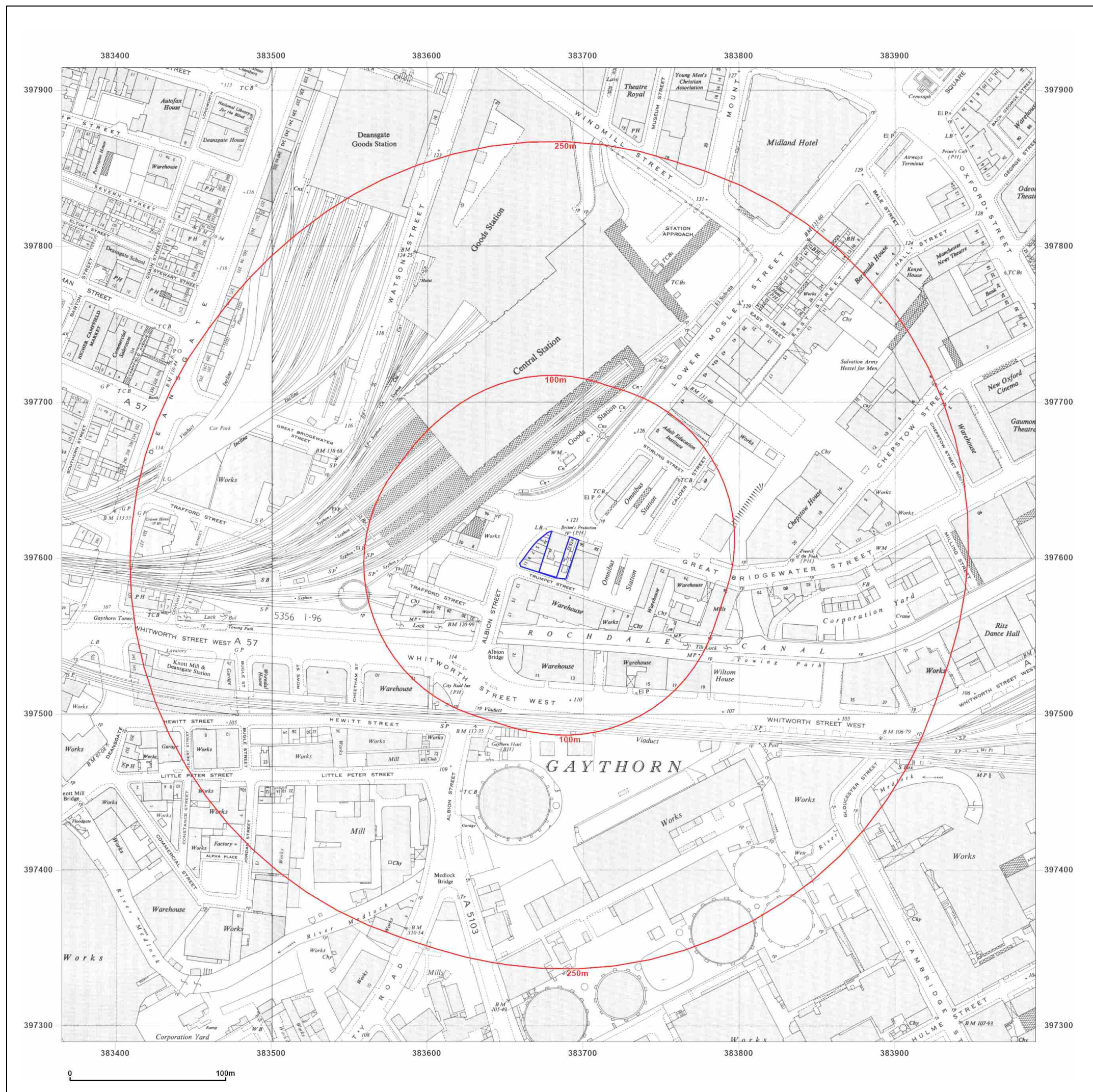


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Site Details:

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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1963

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1963
Revised 1963
Edition N/A
Copyright 1965
Levelled 1958

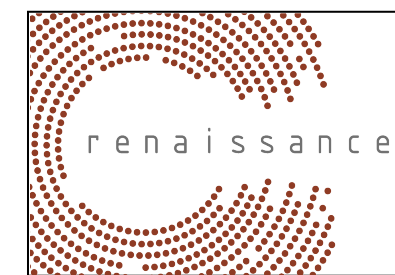
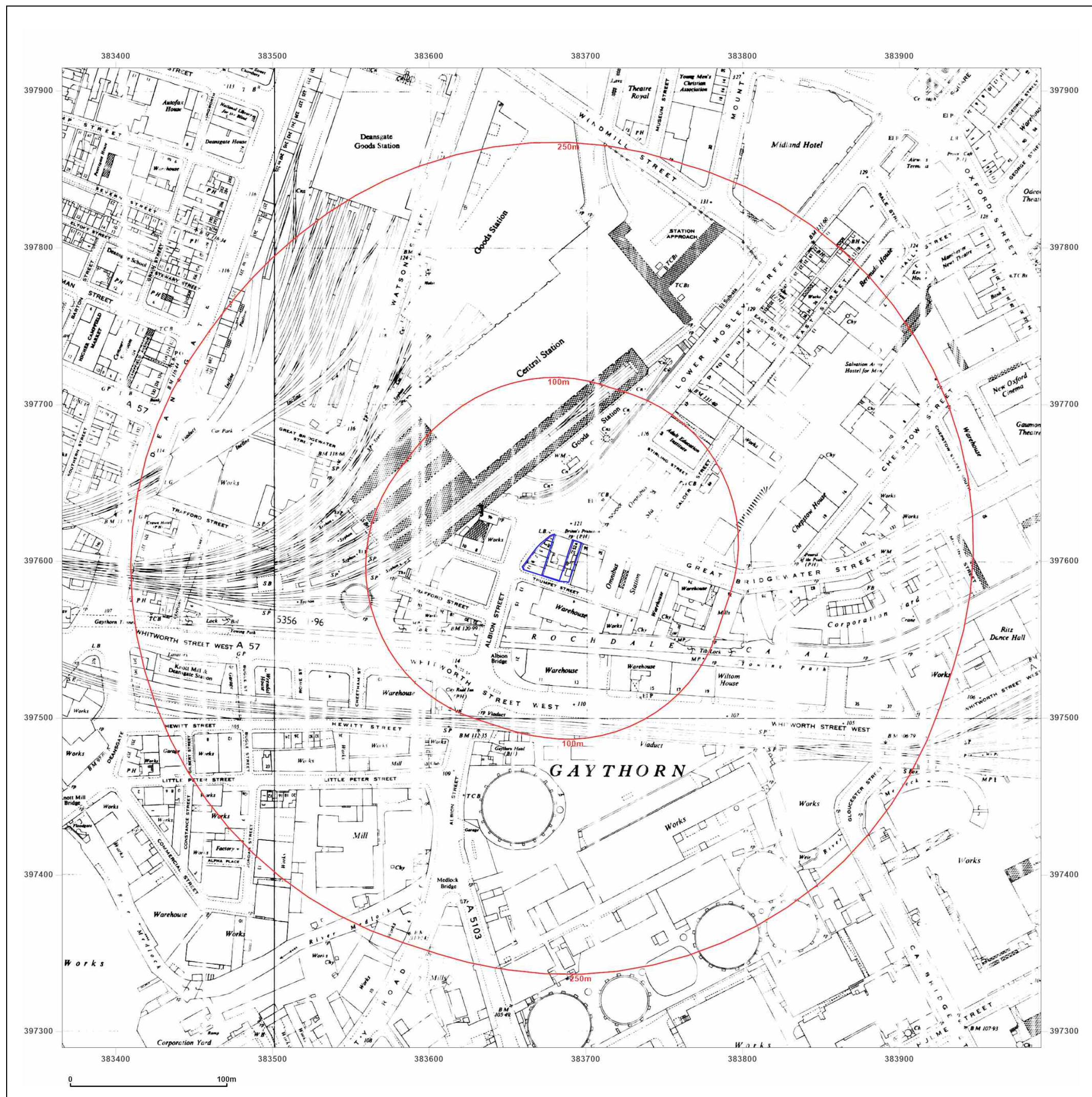


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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1964

Scale: 1:2,500

Printed at: 1:2,500



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

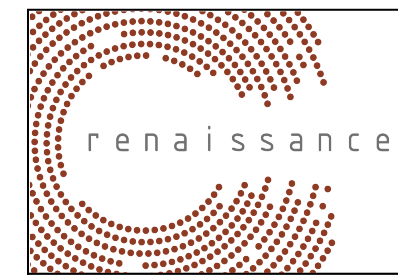


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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1969-1973

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1948
Revised 1972
Edition N/A
Copyright 1973
Levelled 1963

Surveyed 1948
Revised 1968
Edition N/A
Copyright 1969
Levelled 1963

Surveyed 1948
Revised 1968
Edition N/A
Copyright 1969
Levelled 1963

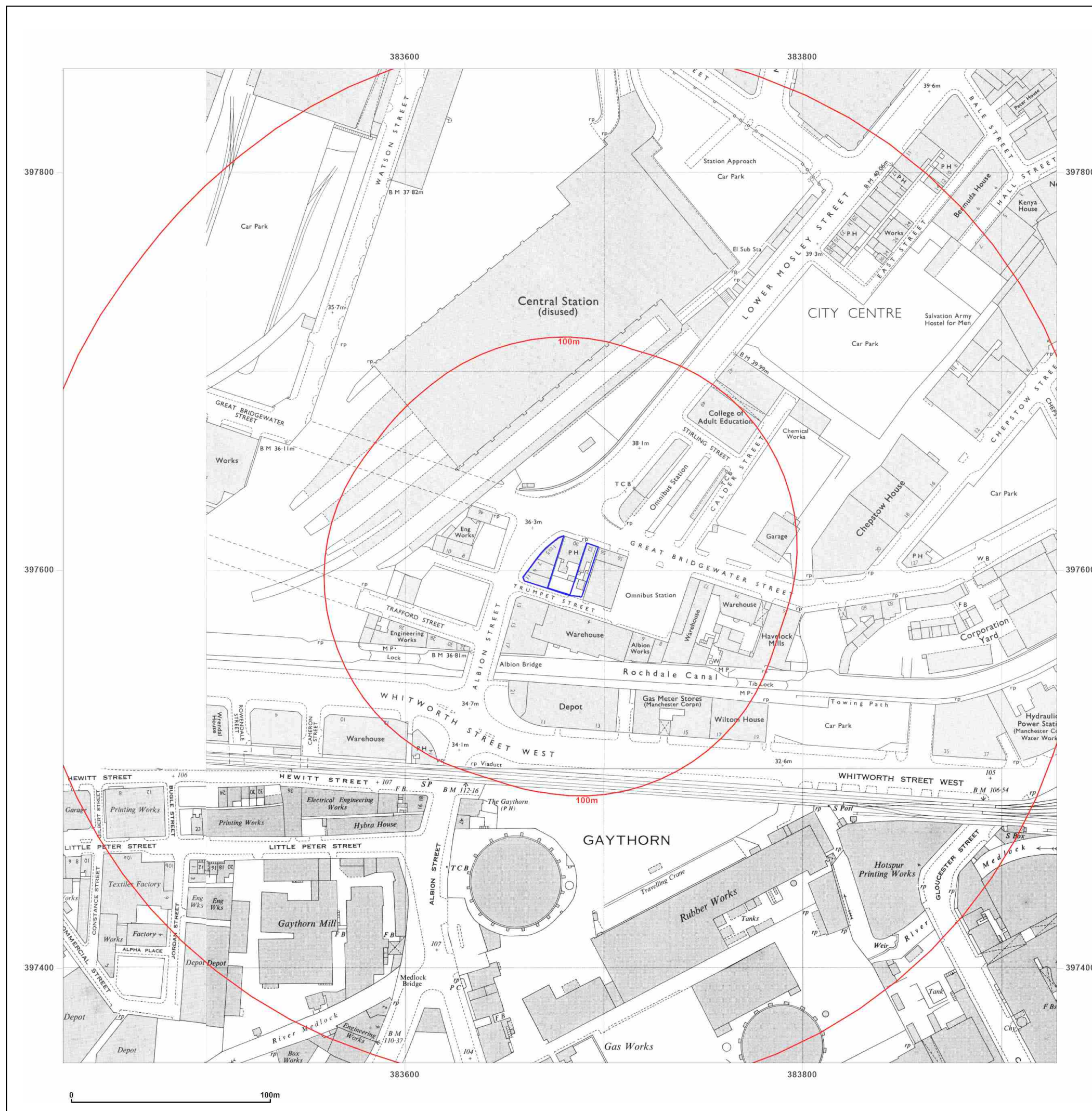


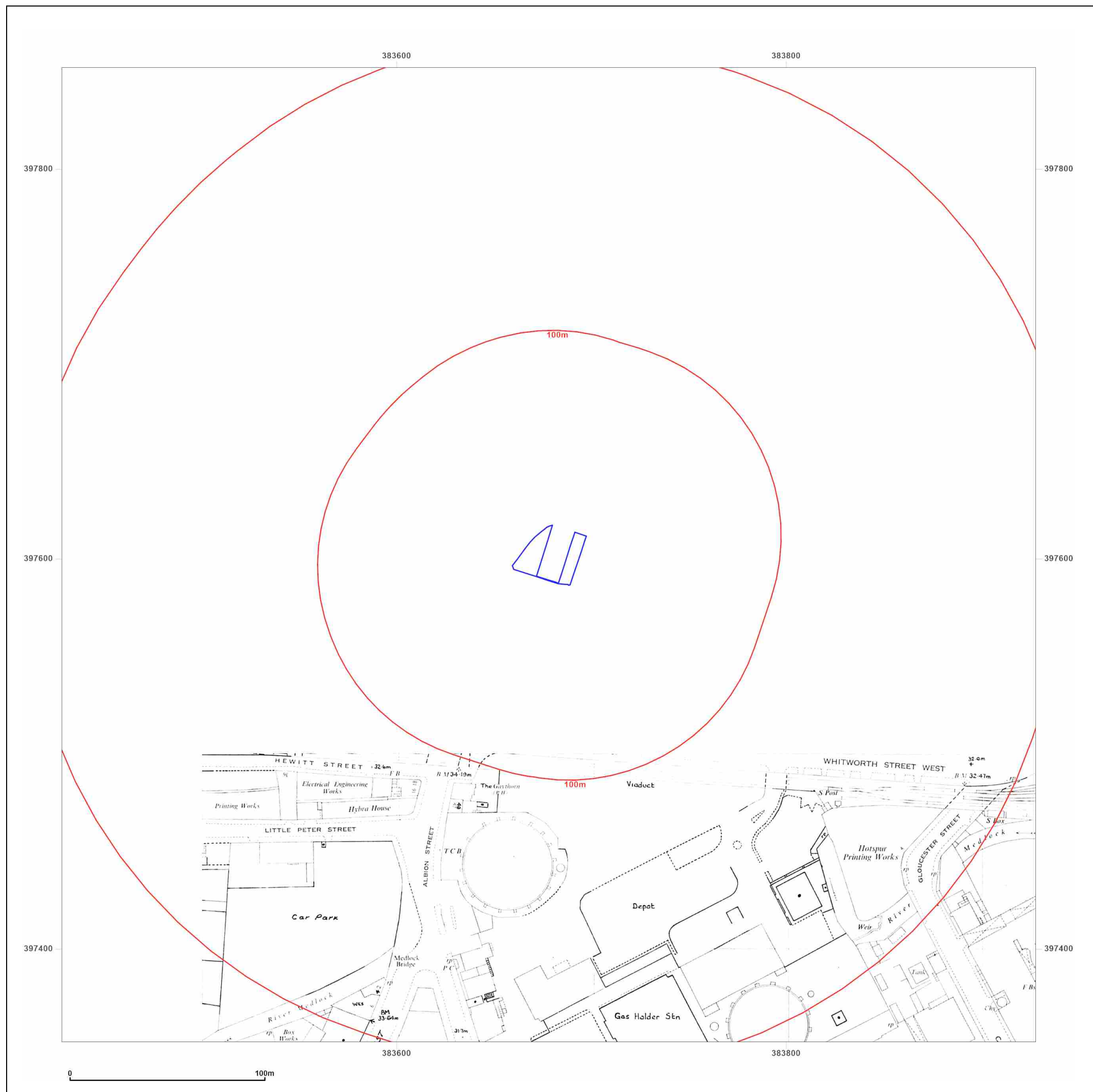
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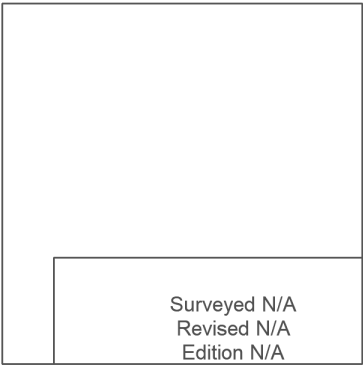
Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1980

Scale: 1:1,250

Printed at: 1:2,000

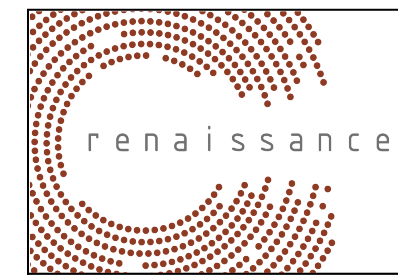


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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1980-1985

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1948
Revised 1979
Edition N/A
Copyright 1981
Levelled 1963

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1985
Levelled 1963

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1980
Levelled 1963

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1980
Levelled 1963

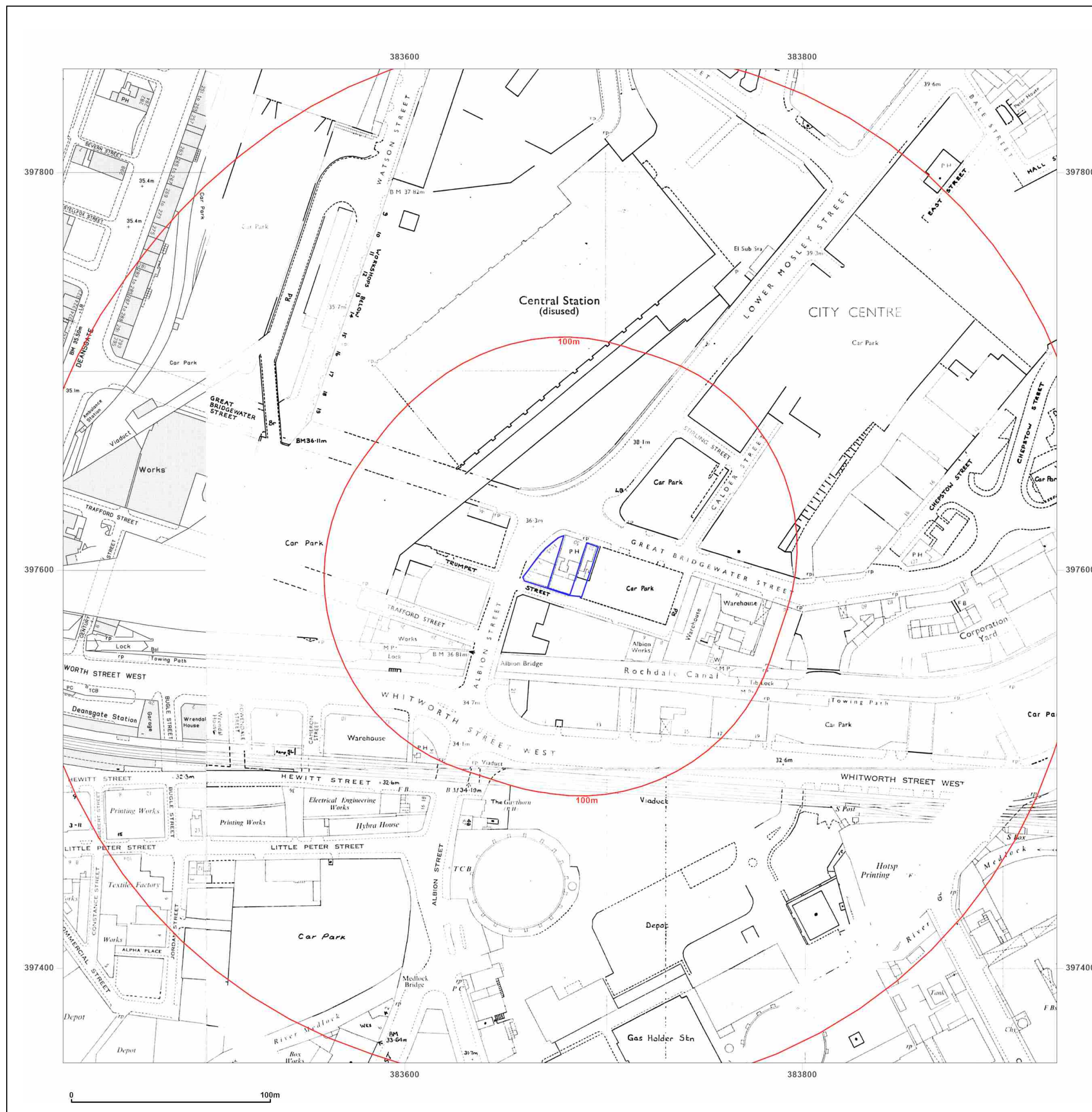


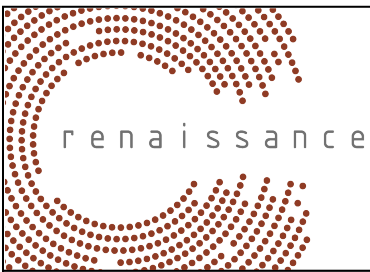
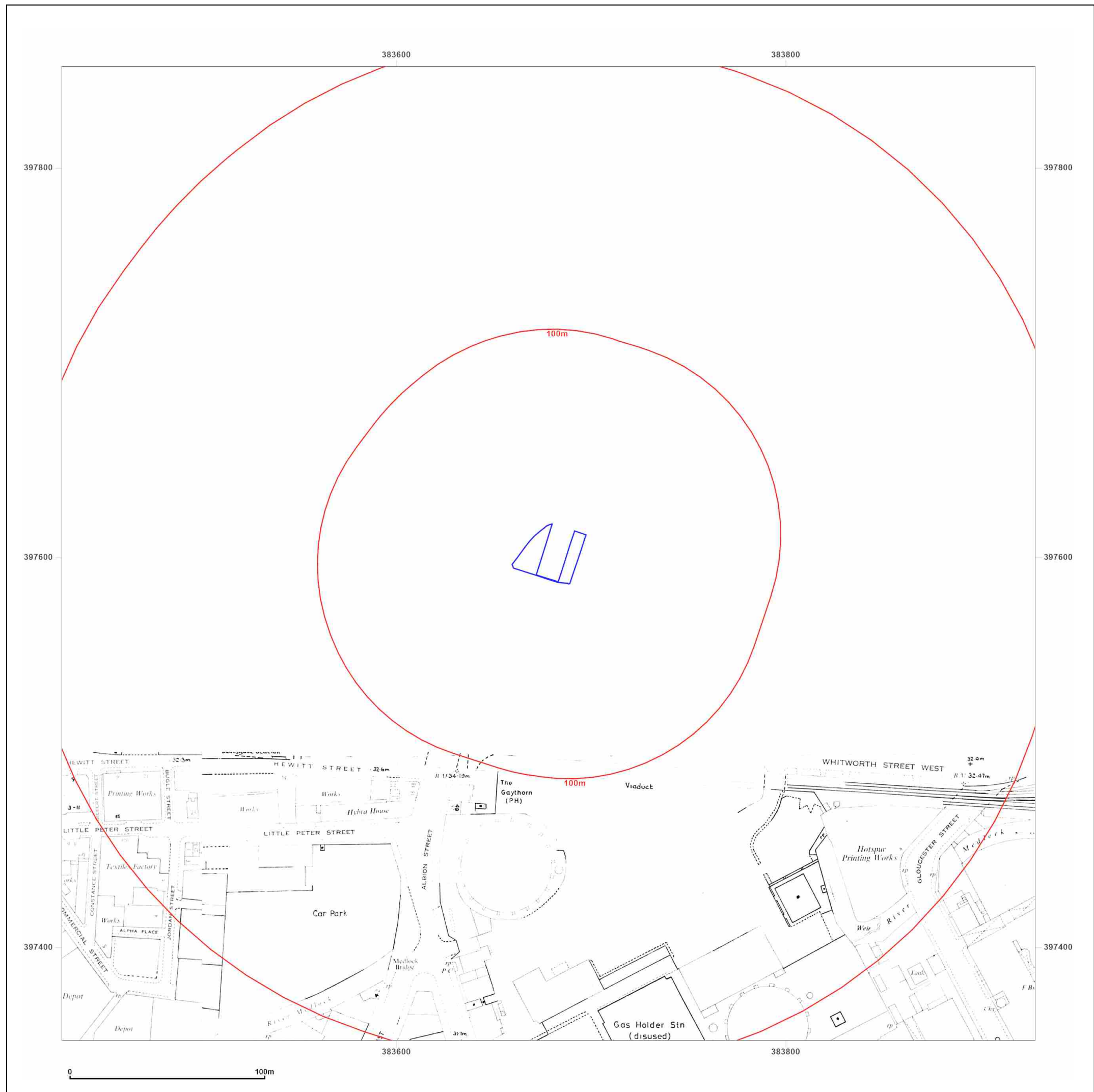
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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1980-1985

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A Revised N/A Edition N/A Copyright 1980 Levelled 1963	Surveyed N/A Revised N/A Edition N/A Copyright 1985 Levelled 1963

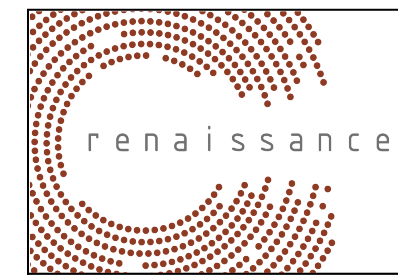


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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1986-1990

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1963
Revised 1986
Edition N/A
Copyright 1986
Levelled 1963

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1986
Levelled 1963

Surveyed 1968
Revised 1968
Edition N/A
Copyright 1990
Levelled N/A

Surveyed 1963
Revised 1987
Edition N/A
Copyright 1987
Levelled 1963

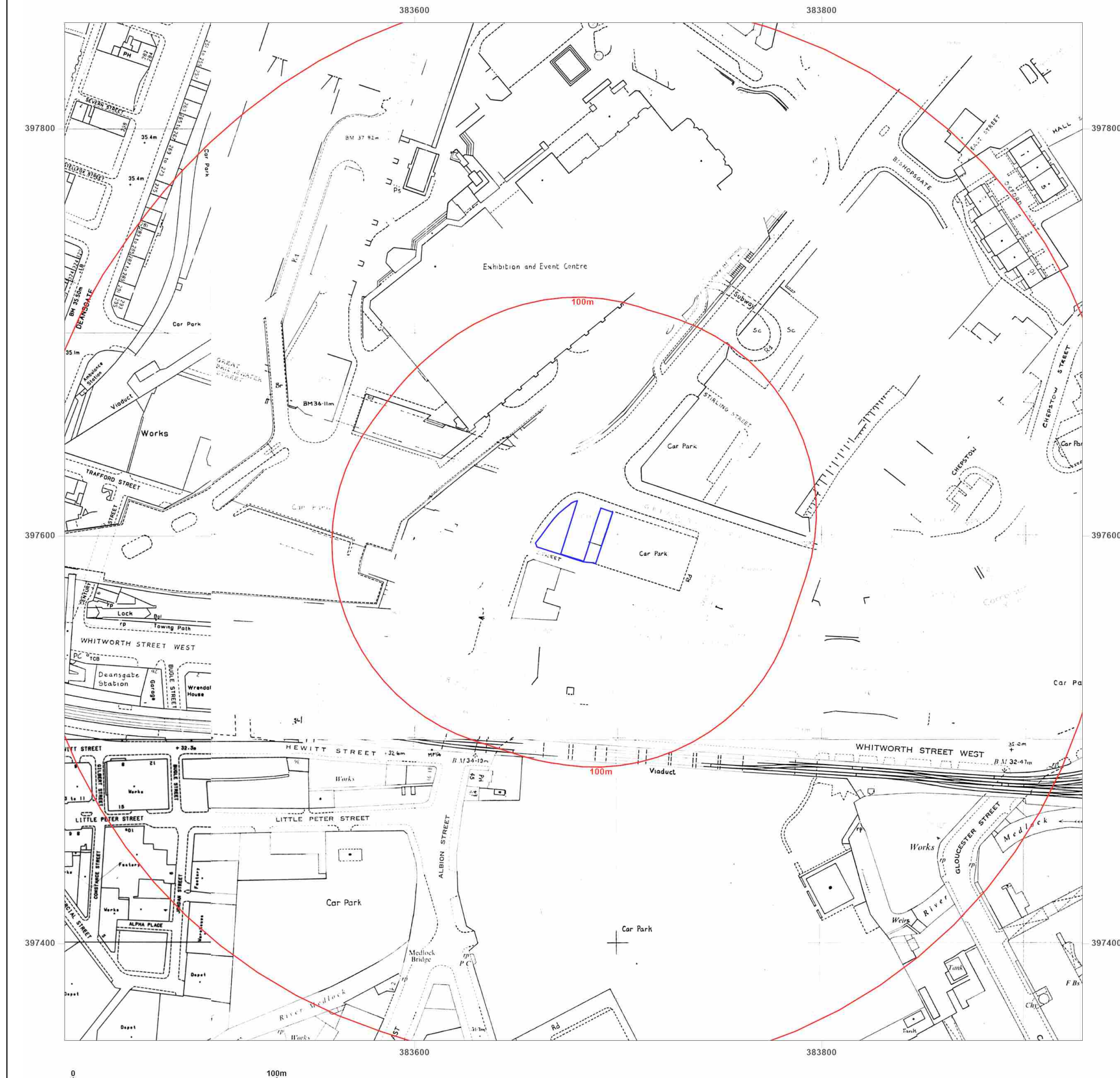


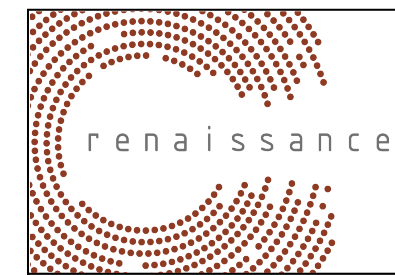
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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1987-1992

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1948
Revised 1979
Edition N/A
Copyright 1990
Levelled N/A

Surveyed 1948
Revised 1987
Edition N/A
Copyright 1990
Levelled 1963

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

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1987
Levelled 1963

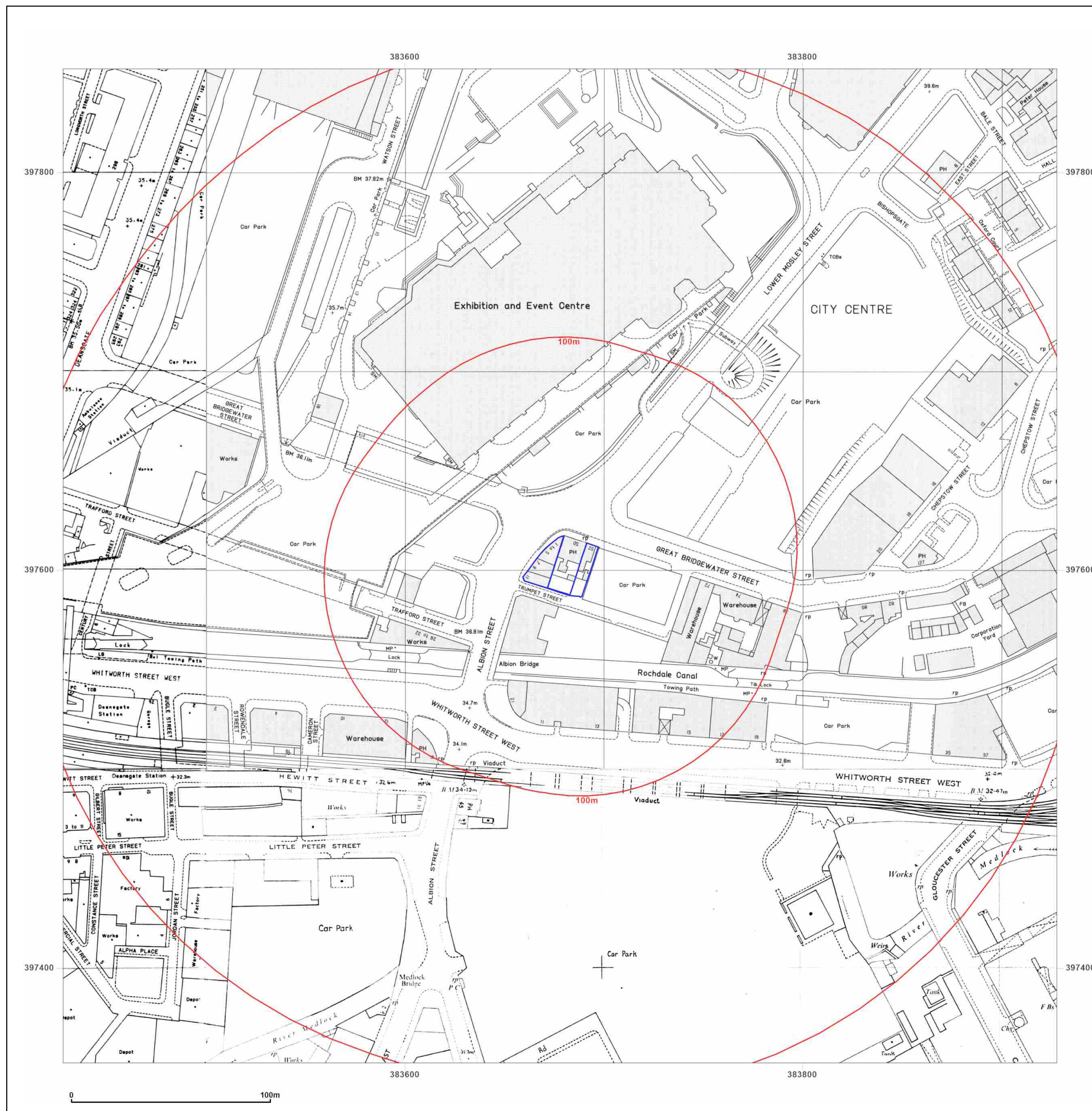


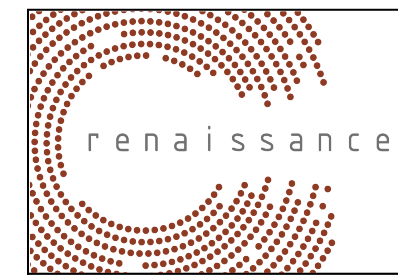
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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1990-1995

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1992
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Edition N/A
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Levelled N/A

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

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

Surveyed 1963
Revised 1990
Edition N/A
Copyright 1990
Levelled 1963

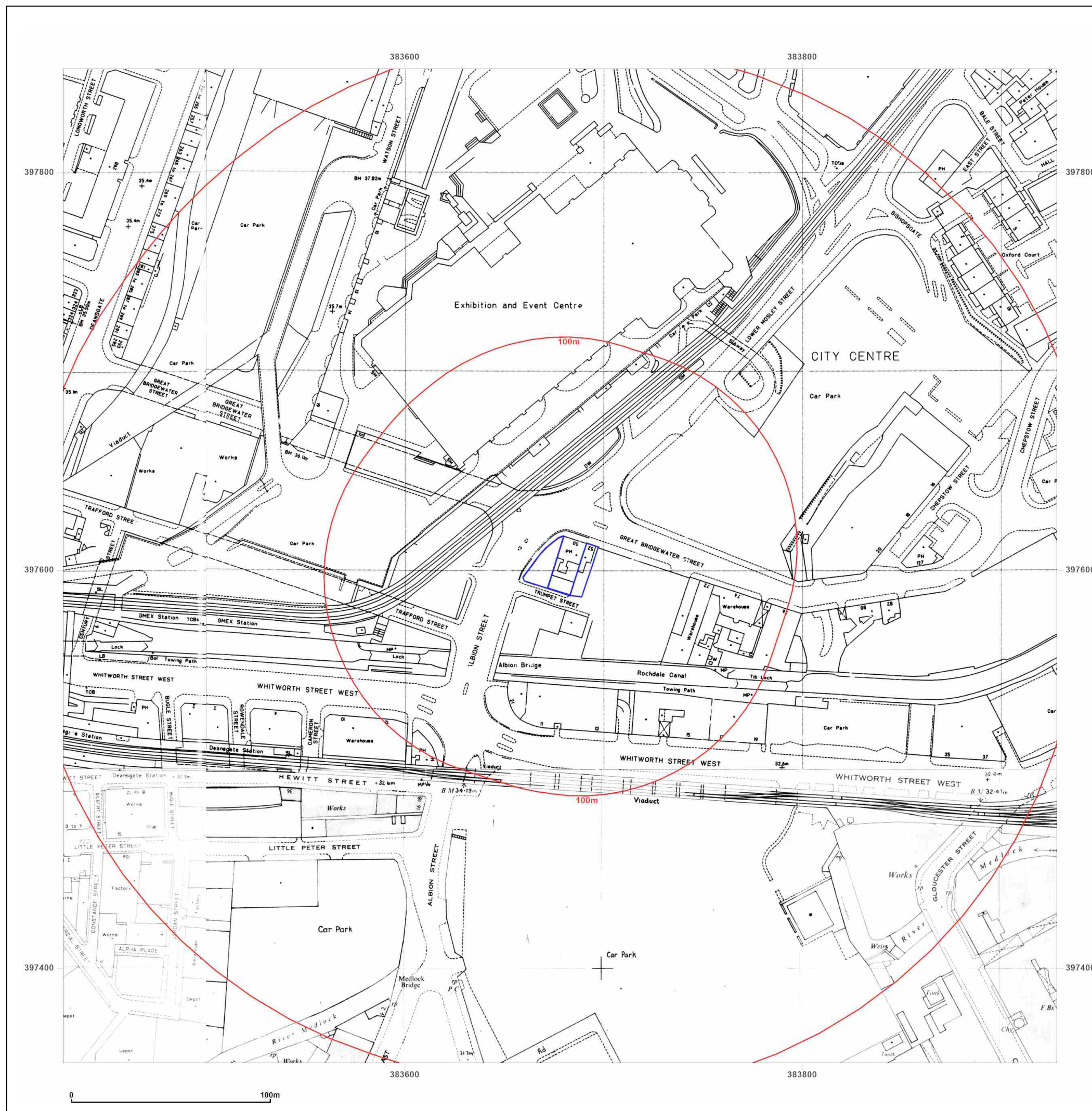


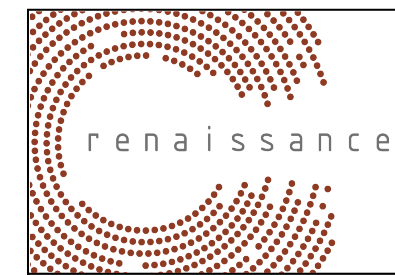
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Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1992-1995

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
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Levelled N/A

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

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

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

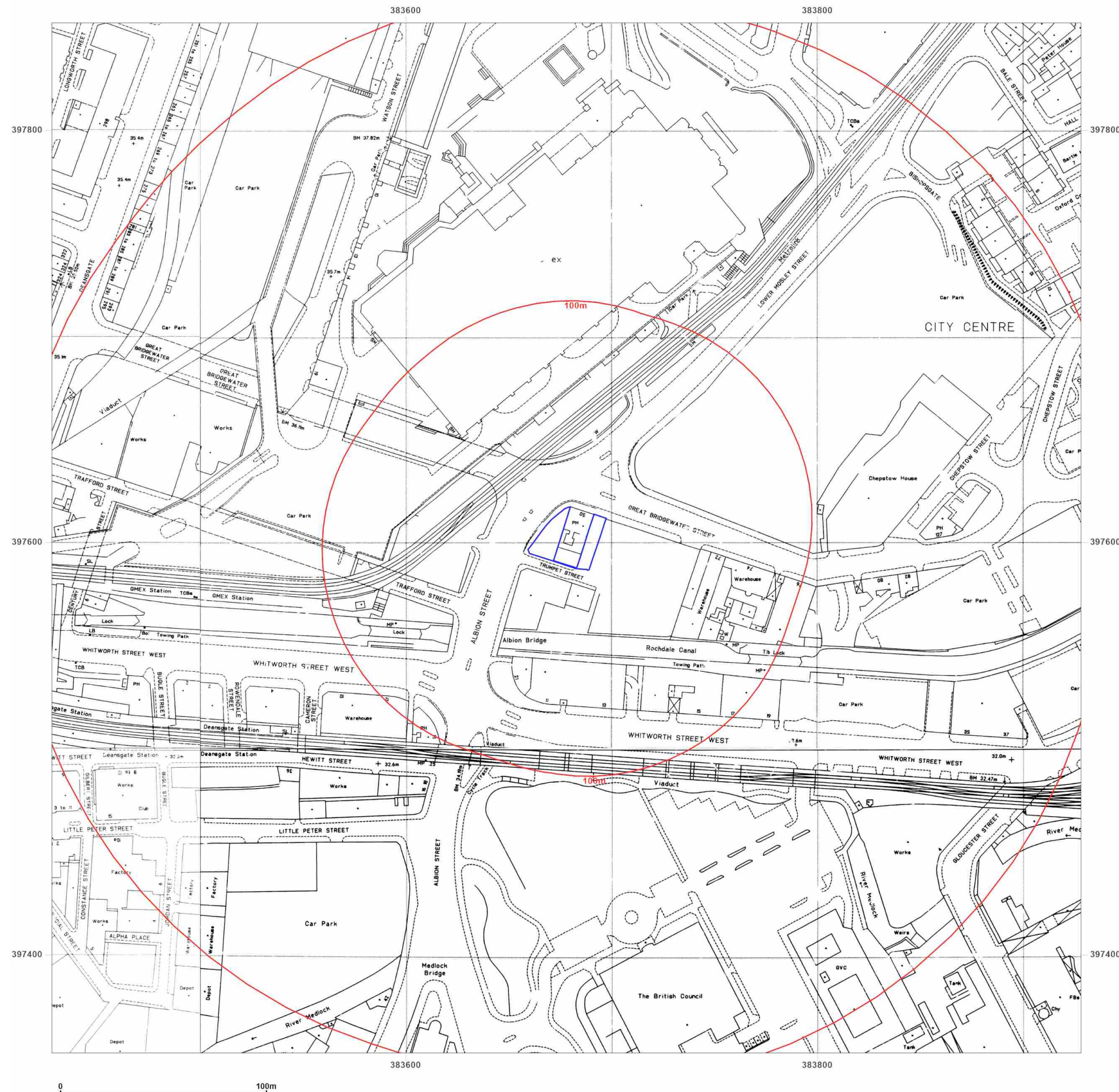


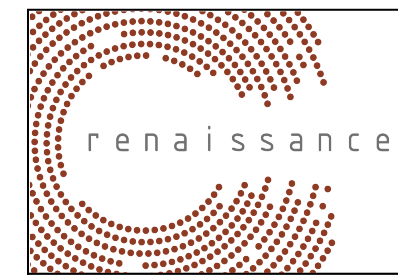
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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1994-1995

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
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Levelled N/A

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

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

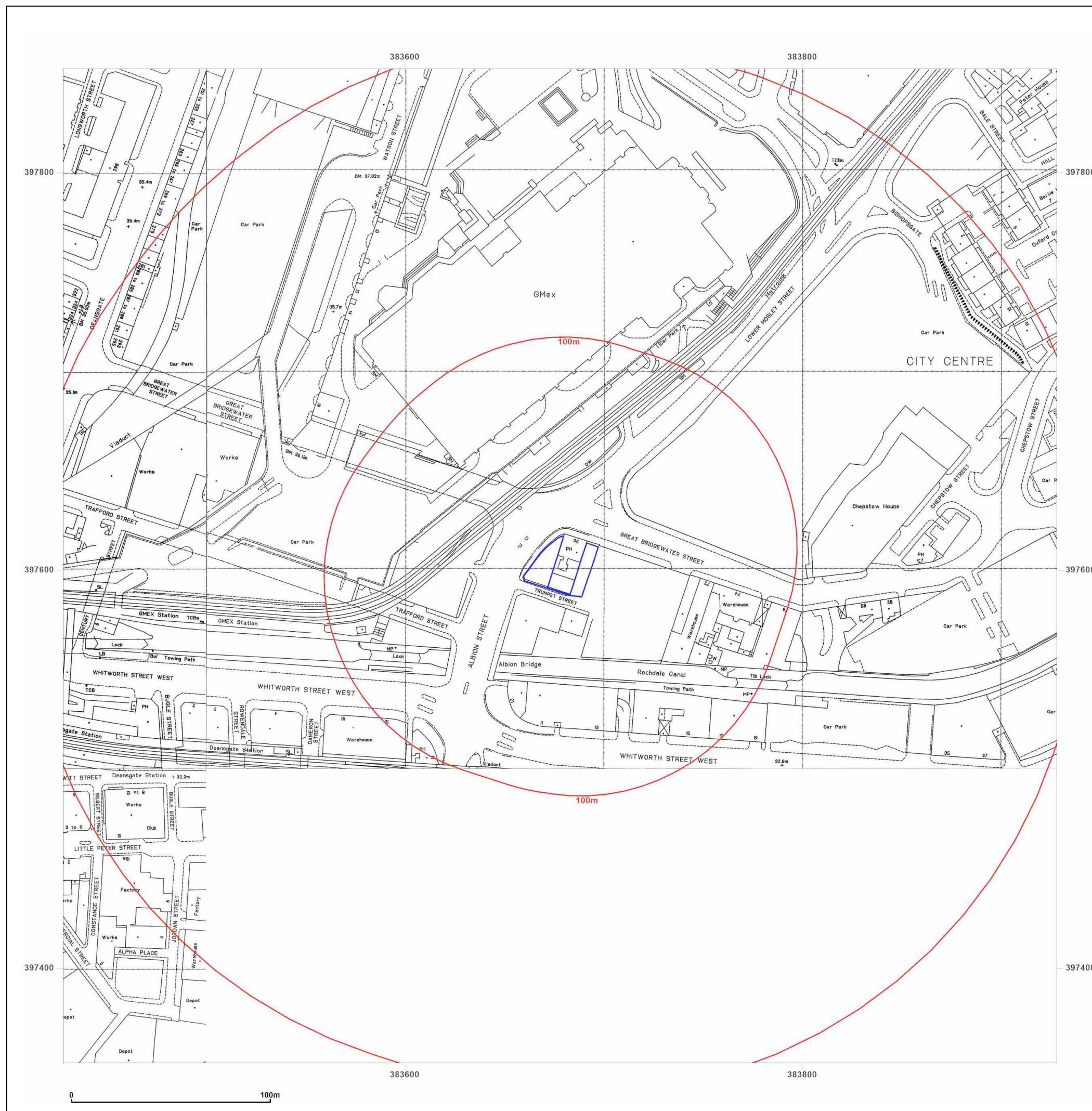


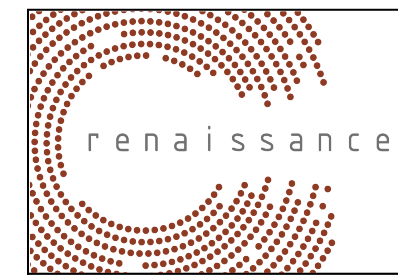
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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1995

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
Copyright 1995
Levelled N/A

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

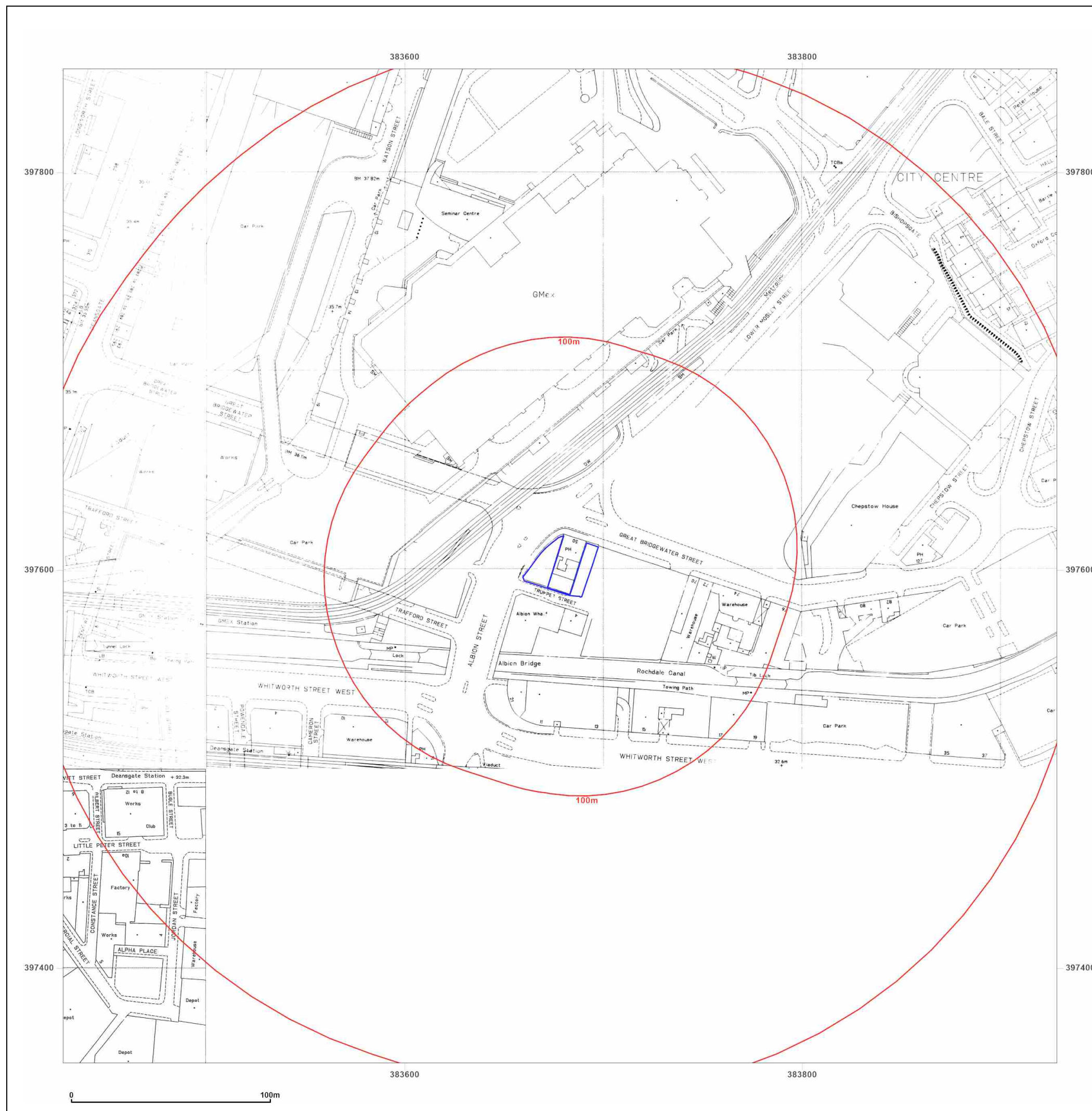


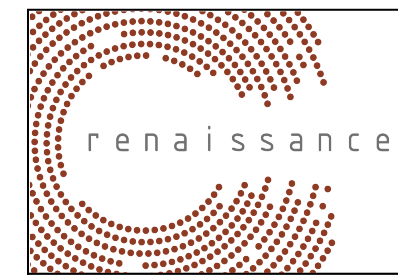
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MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1995

Scale: 1:1,250

Printed at: 1:2,000



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

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

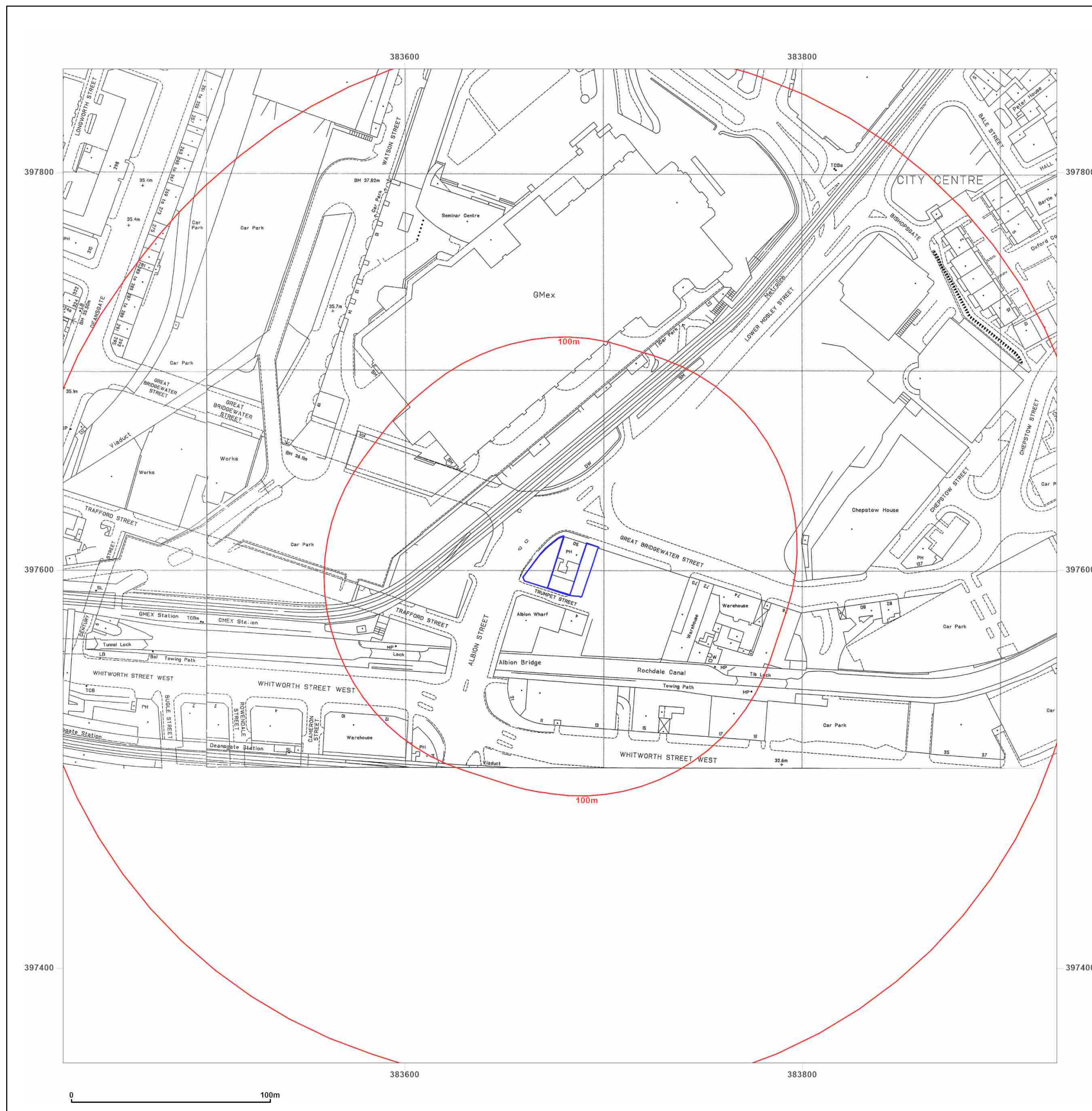


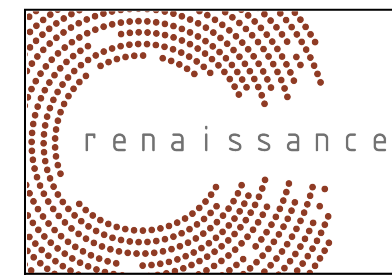
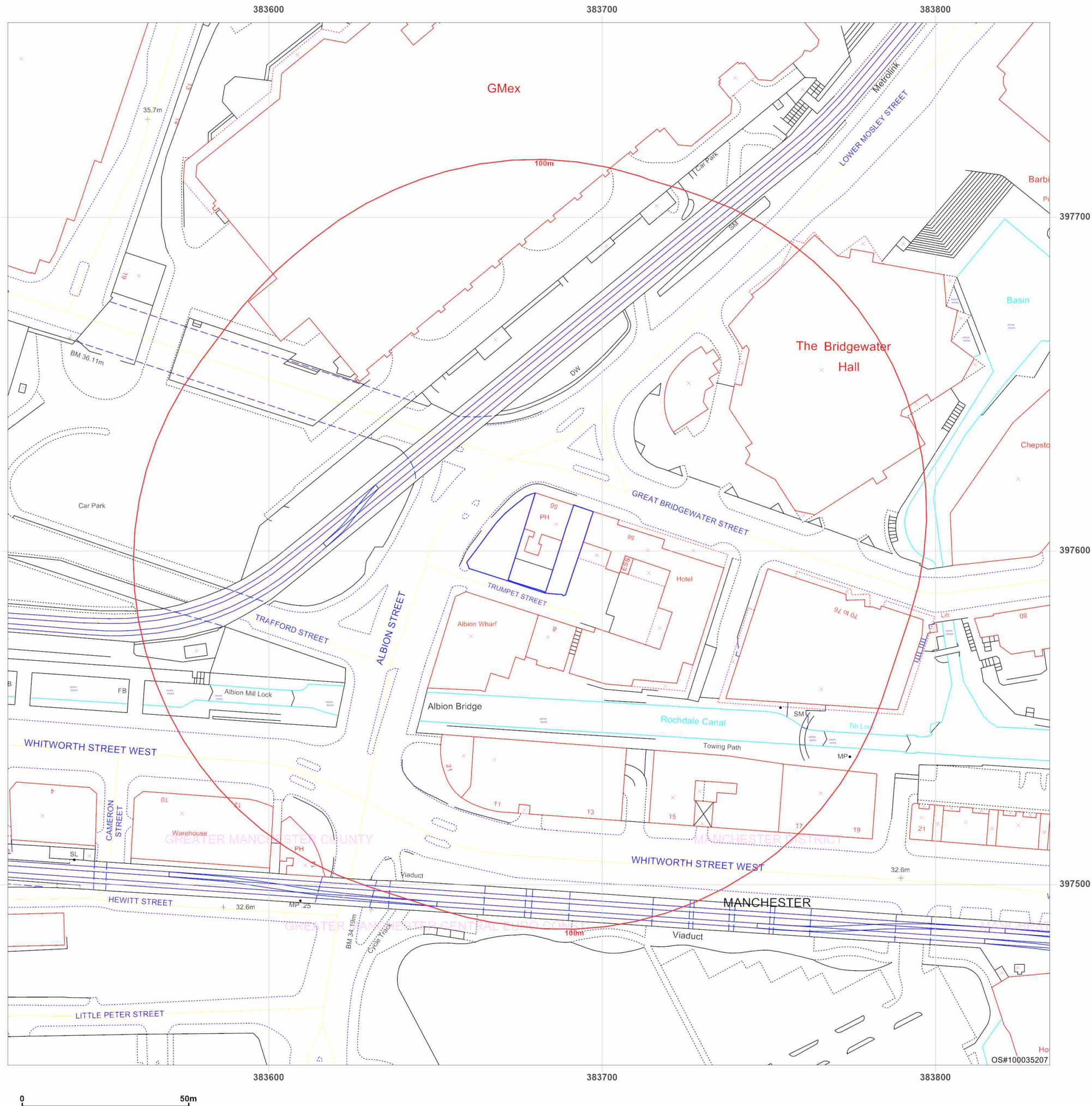
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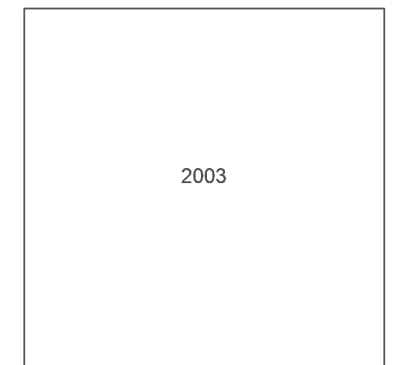
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Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



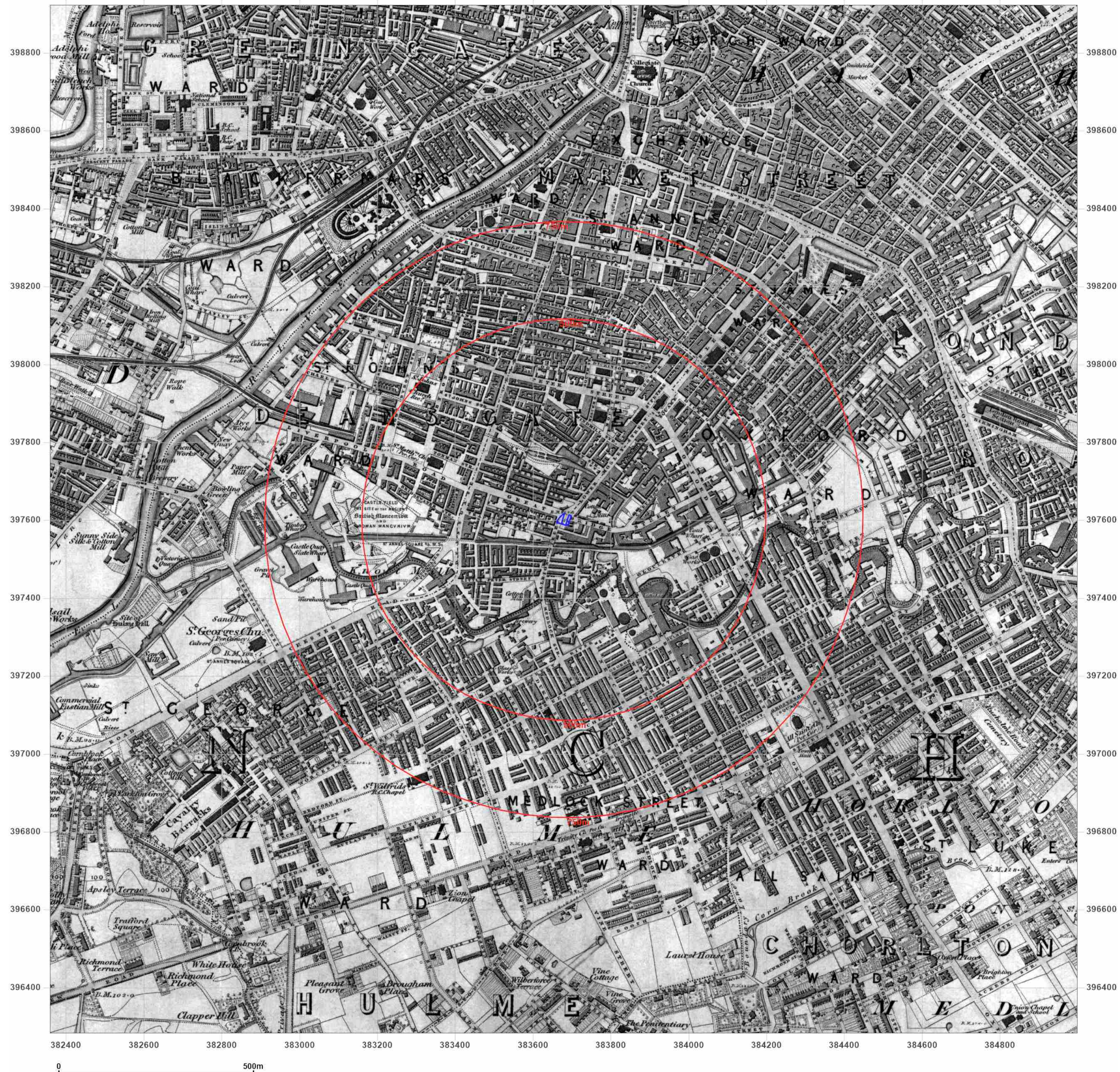
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382400 382600 382800 383000 383200 383400 383600 383800 384000 384200 384400 384600 384800



0 500m



Site Details:

CAR PARK, TRUMPET STREET,
MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: County Series

Map date: 1848

Scale: 1:10,560

Printed at: 1:10,560



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

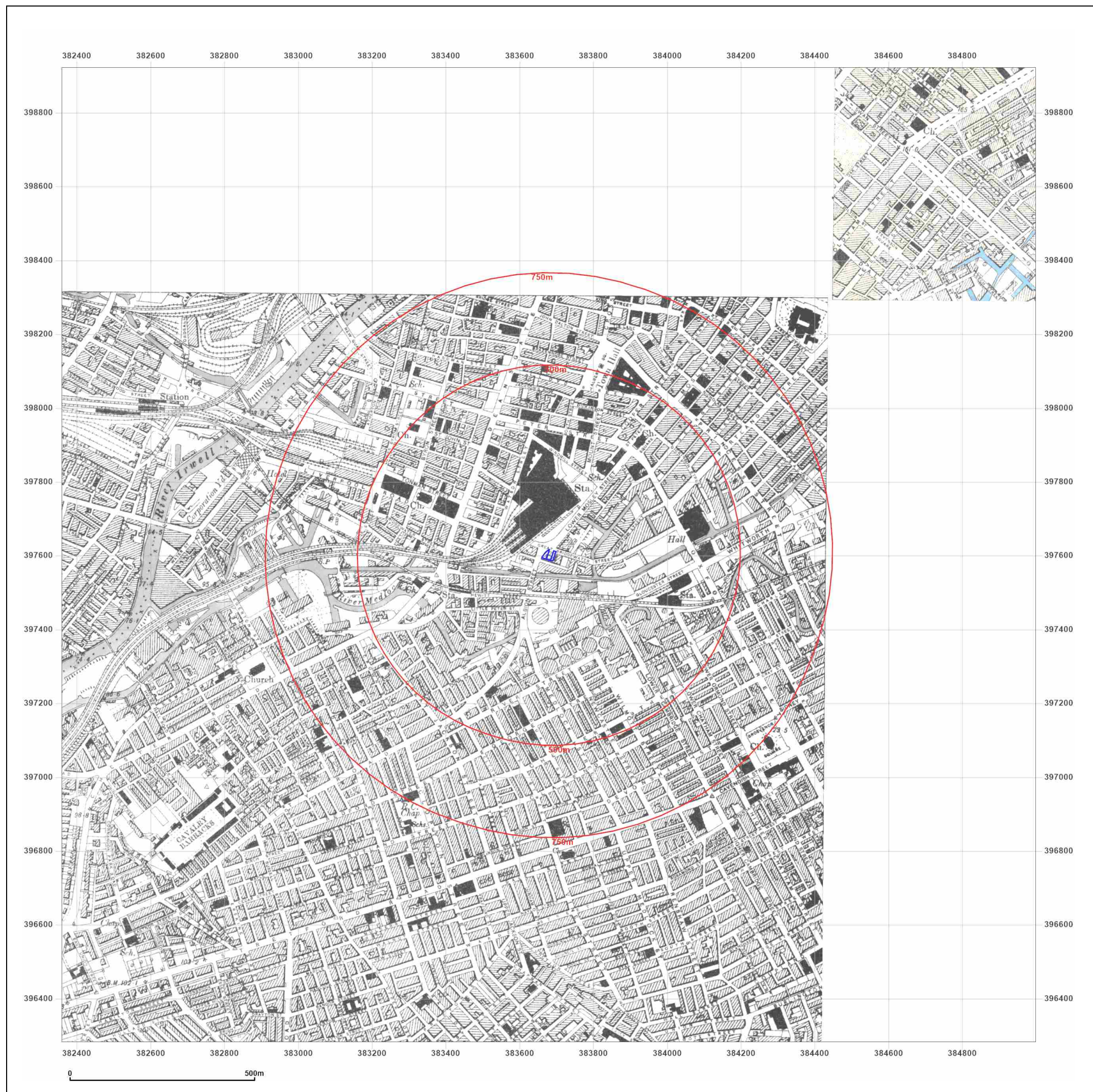


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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: County Series

Map date: 1891-1896

Scale: 1:10,560

Printed at: 1:10,560



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

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



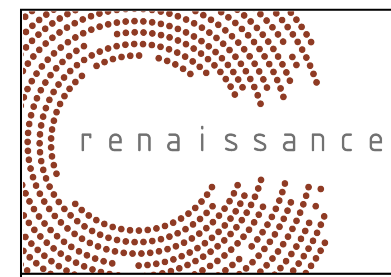
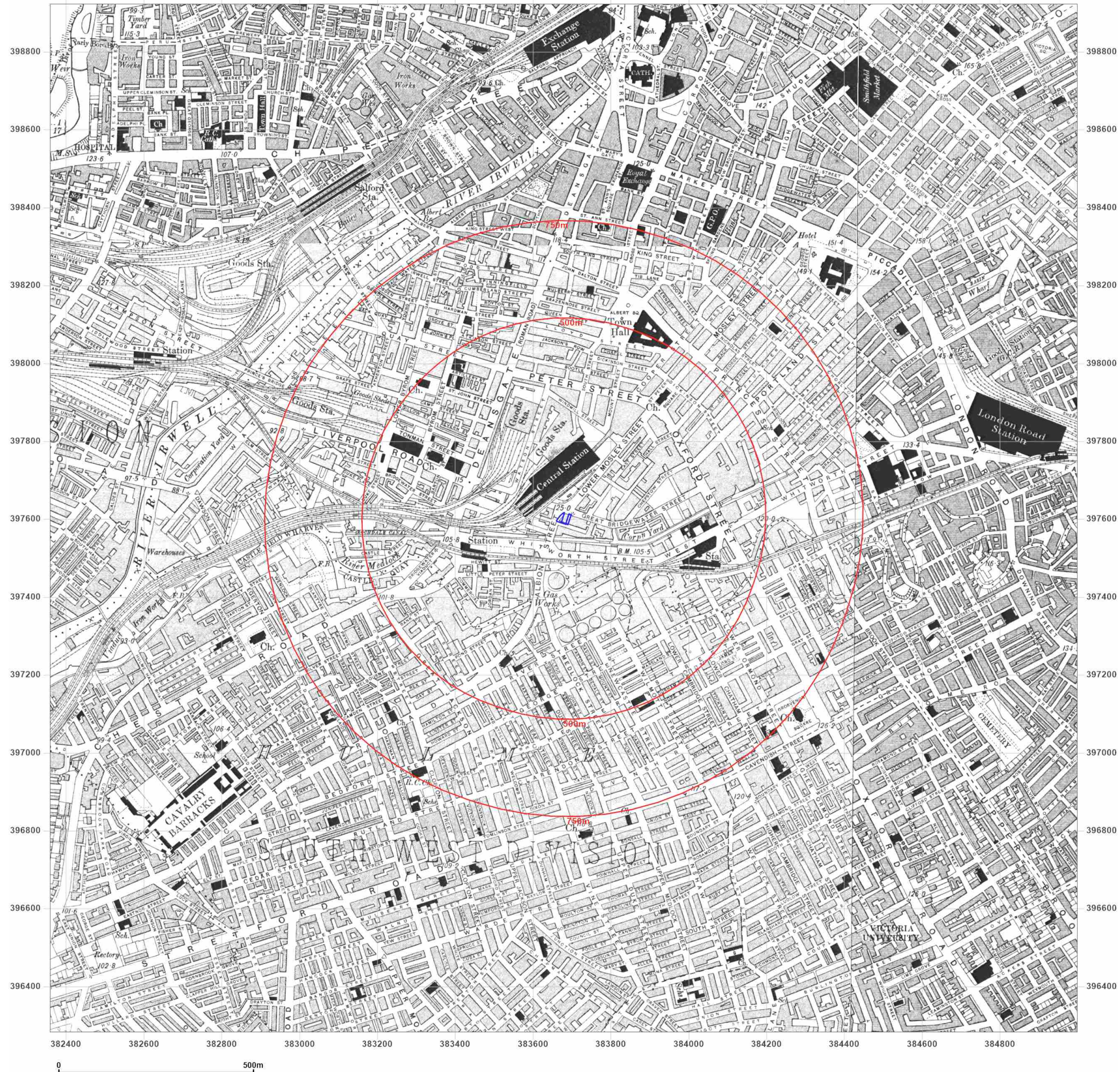
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382400 382600 382800 383000 383200 383400 383600 383800 384000 384200 384400 384600 384800



Site Details:

CAR PARK, TRUMPET STREET,
MANCHESTER, M1 5LE

Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

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Site Details:

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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: County Series

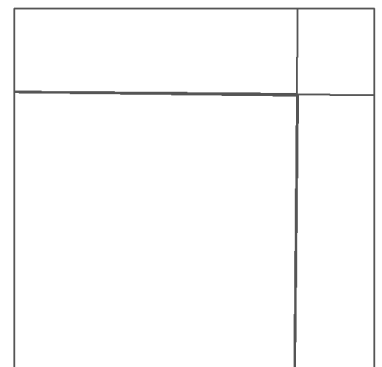
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Report Ref: BRO-8223856
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Map Name: County Series

Map date: 1931-1934

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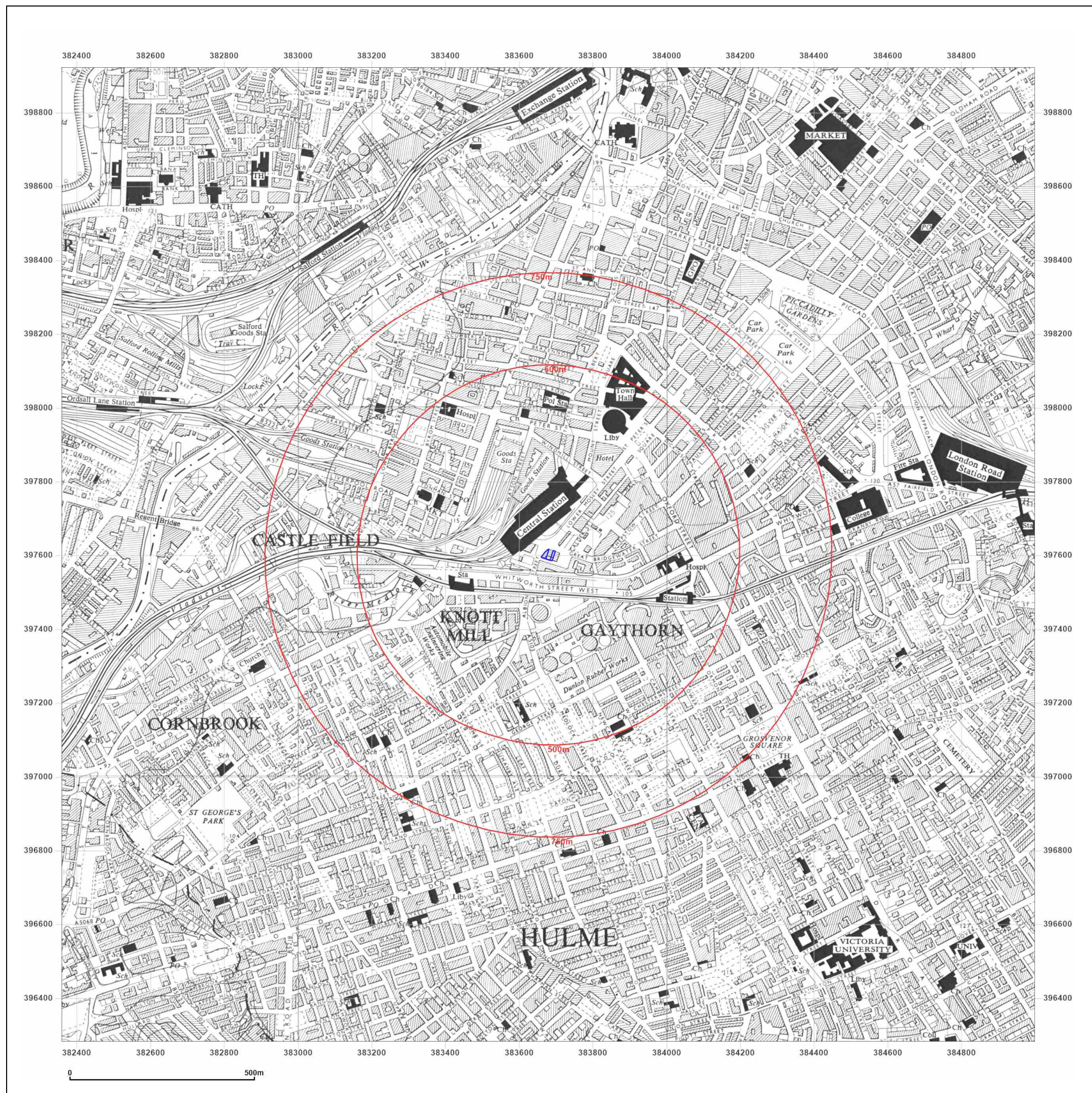


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Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: Provisional

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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1980

Scale: 1:10,000

Printed at: 1:10,000



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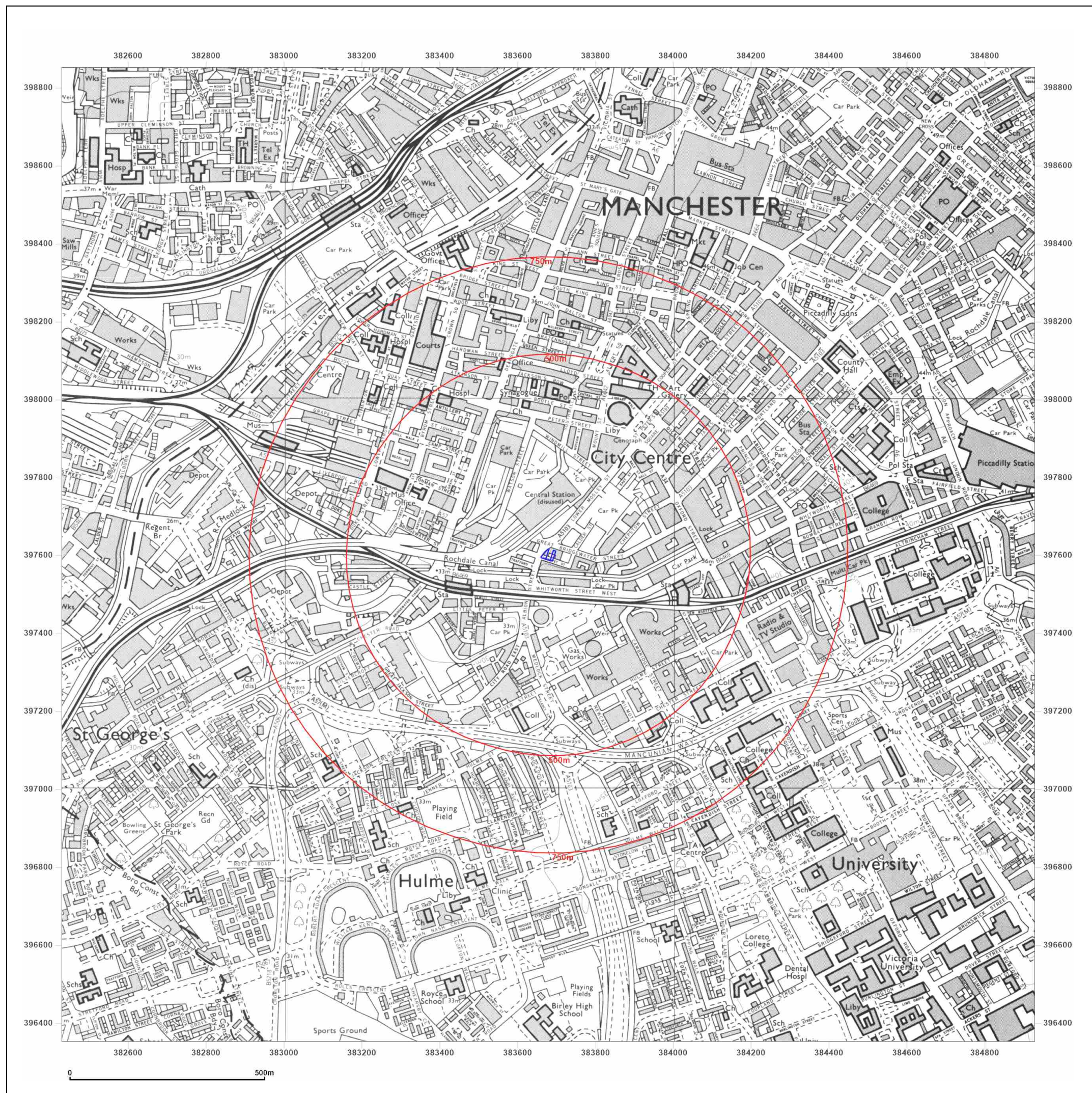


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Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 1985

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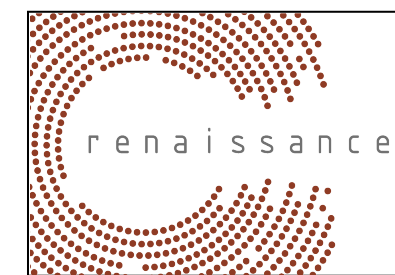


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Client Ref: C4889-2475-SD
Report Ref: BRO-8223856
Grid Ref: 383678, 397602

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Report Ref:	BRO-8223856
Grid Ref:	383678, 397602
Map Name:	National Grid
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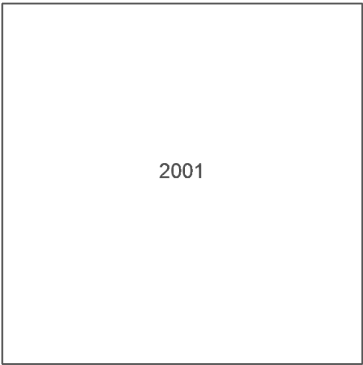
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Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 2001

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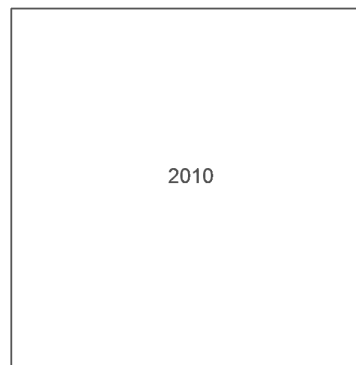
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Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

Map date: 2010

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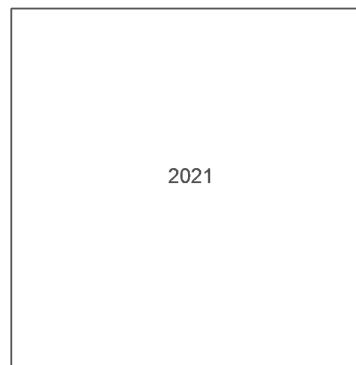
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Report Ref: BRO-8223856
Grid Ref: 383678, 397602

Map Name: National Grid

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APPENDIX C
Geo-Environmental Data Report

CAR PARK, TRUMPET STREET, MANCHESTER, M1 5LE

Order Details

Date: 29/09/2021
Your ref: C4889-2475-SD
Our Ref: BRO-8223857
Client: Brownfield Solutions Ltd

Site Details

Location: 383671 397602
Area: 0.04 ha
Authority: [Manchester City Council](#)



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Summary of findings

p. 2 **Aerial image**

p. 8

OS MasterMap site plan

p.12 groundsure.com/insightuserguide

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
<u>13</u>	<u>1.1</u>	<u>Historical industrial land uses</u>	1	8	68	77	-
<u>19</u>	<u>1.2</u>	<u>Historical tanks</u>	0	1	61	49	-
<u>23</u>	<u>1.3</u>	<u>Historical energy features</u>	0	0	23	20	-
25	1.4	Historical petrol stations	0	0	0	0	-
<u>26</u>	<u>1.5</u>	<u>Historical garages</u>	0	1	4	22	-
27	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
<u>28</u>	<u>2.1</u>	<u>Historical industrial land uses</u>	1	18	120	114	-
<u>38</u>	<u>2.2</u>	<u>Historical tanks</u>	0	1	118	102	-
<u>46</u>	<u>2.3</u>	<u>Historical energy features</u>	0	0	41	55	-
49	2.4	Historical petrol stations	0	0	0	0	-
<u>50</u>	<u>2.5</u>	<u>Historical garages</u>	0	1	13	53	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
53	3.1	Active or recent landfill	0	0	0	0	-
53	3.2	Historical landfill (BGS records)	0	0	0	0	-
54	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
54	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
<u>54</u>	<u>3.5</u>	<u>Historical waste sites</u>	0	0	1	14	-
<u>56</u>	<u>3.6</u>	<u>Licensed waste sites</u>	0	0	0	1	-
<u>57</u>	<u>3.7</u>	<u>Waste exemptions</u>	0	1	42	14	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
<u>62</u>	<u>4.1</u>	<u>Recent industrial land uses</u>	0	2	27	-	-
<u>64</u>	<u>4.2</u>	<u>Current or recent petrol stations</u>	0	0	0	1	-
65	4.3	Electricity cables	0	0	0	0	-
65	4.4	Gas pipelines	0	0	0	0	-
65	4.5	Sites determined as Contaminated Land	0	0	0	0	-



65	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
66	4.7	Regulated explosive sites	0	0	0	0	-
66	4.8	Hazardous substance storage/usage	0	0	0	0	-
66	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
66	4.10	<u>Licensed industrial activities (Part A(1))</u>	0	0	2	0	-
67	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	0	4	-
68	4.12	Radioactive Substance Authorisations	0	0	0	0	-
68	4.13	<u>Licensed Discharges to controlled waters</u>	0	1	9	22	-
73	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
73	4.15	Pollutant release to public sewer	0	0	0	0	-
73	4.16	List 1 Dangerous Substances	0	0	0	0	-
73	4.17	List 2 Dangerous Substances	0	0	0	0	-
73	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	0	1	-
74	4.19	Pollution inventory substances	0	0	0	0	-
74	4.20	Pollution inventory waste transfers	0	0	0	0	-
74	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
75	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
77	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
79	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
80	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
80	5.5	Groundwater vulnerability- local information	None (within 0m)				
81	5.6	<u>Groundwater abstractions</u>	0	0	0	0	47
93	5.7	<u>Surface water abstractions</u>	0	0	0	0	2
94	5.8	<u>Potable abstractions</u>	0	0	0	0	9
97	5.9	<u>Source Protection Zones</u>	0	1	0	0	-
97	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
98	6.1	<u>Water Network (OS MasterMap)</u>	0	1	10	-	-



99	6.2	<u>Surface water features</u>	0	1	5	-	-
100	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
100	6.4	<u>WFD Surface water bodies</u>	0	1	1	-	-
101	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
102	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
102	7.2	Historical Flood Events	0	0	0	-	-
102	7.3	Flood Defences	0	0	0	-	-
102	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
103	7.5	Flood Storage Areas	0	0	0	-	-
104	7.6	Flood Zone 2	None (within 50m)				
104	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
105	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
107	9.1	<u>Groundwater flooding</u>	Moderate-High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
108	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
108	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
108	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
108	10.4	Special Protection Areas (SPA)	0	0	0	0	0
109	10.5	National Nature Reserves (NNR)	0	0	0	0	0
109	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
109	10.7	Designated Ancient Woodland	0	0	0	0	0
109	10.8	Biosphere Reserves	0	0	0	0	0
110	10.9	Forest Parks	0	0	0	0	0
110	10.10	Marine Conservation Zones	0	0	0	0	0
110	10.11	Green Belt	0	0	0	0	0
110	10.12	Proposed Ramsar sites	0	0	0	0	0



110	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
111	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
111	10.15	Nitrate Sensitive Areas	0	0	0	0	0
<u>111</u>	<u>10.16</u>	<u>Nitrate Vulnerable Zones</u>	0	0	0	0	3
<u>112</u>	<u>10.17</u>	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
113	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
114	11.1	World Heritage Sites	0	0	0	-	-
115	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
115	11.3	National Parks	0	0	0	-	-
<u>115</u>	<u>11.4</u>	<u>Listed Buildings</u>	0	2	10	-	-
<u>116</u>	<u>11.5</u>	<u>Conservation Areas</u>	0	0	3	-	-
117	11.6	Scheduled Ancient Monuments	0	0	0	-	-
117	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
<u>118</u>	<u>12.1</u>	<u>Agricultural Land Classification</u>	Urban (within 250m)				
119	12.2	Open Access Land	0	0	0	-	-
119	12.3	Tree Felling Licences	0	0	0	-	-
119	12.4	Environmental Stewardship Schemes	0	0	0	-	-
119	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
120	13.1	Priority Habitat Inventory	0	0	0	-	-
120	13.2	Habitat Networks	0	0	0	-	-
<u>121</u>	<u>13.3</u>	<u>Open Mosaic Habitat</u>	0	0	1	-	-
121	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
<u>122</u>	<u>14.1</u>	<u>10k Availability</u>	Identified (within 500m)				
<u>123</u>	<u>14.2</u>	<u>Artificial and made ground (10k)</u>	0	1	0	2	-
<u>124</u>	<u>14.3</u>	<u>Superficial geology (10k)</u>	2	0	1	0	-

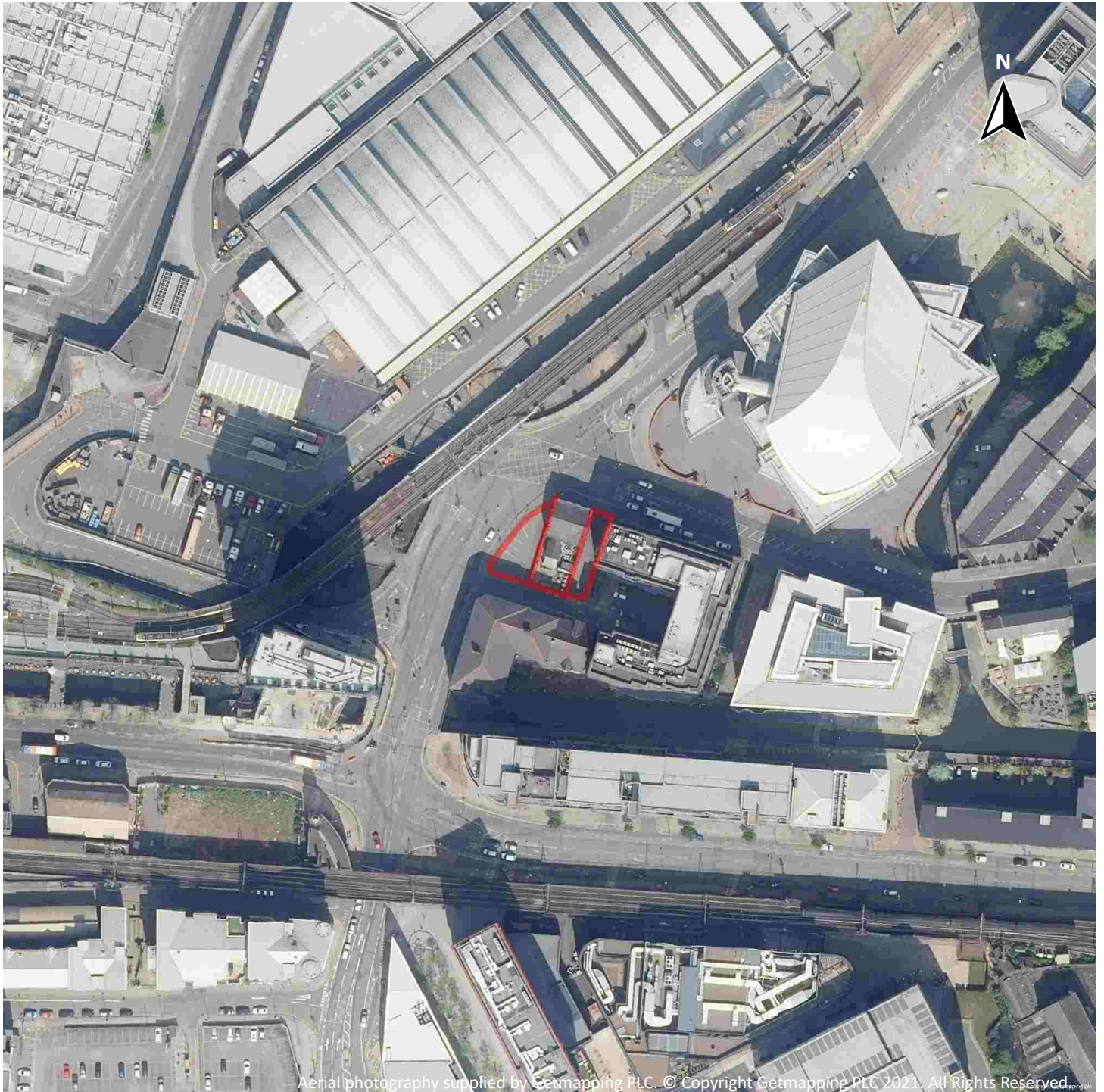


125	14.4	Landslip (10k)	0	0	0	0	-
126	14.5	<u>Bedrock geology (10k)</u>	1	0	1	0	-
127	14.6	<u>Bedrock faults and other linear features (10k)</u>	0	0	3	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
128	15.1	<u>50k Availability</u>	Identified (within 500m)				
129	15.2	<u>Artificial and made ground (50k)</u>	0	1	0	0	-
130	15.3	<u>Artificial ground permeability (50k)</u>	0	1	-	-	-
131	15.4	<u>Superficial geology (50k)</u>	2	0	1	0	-
132	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
132	15.6	Landslip (50k)	0	0	0	0	-
132	15.7	Landslip permeability (50k)	None (within 50m)				
133	15.8	<u>Bedrock geology (50k)</u>	1	0	1	0	-
134	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
134	15.10	<u>Bedrock faults and other linear features (50k)</u>	0	0	3	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
135	16.1	<u>BGS Boreholes</u>	0	5	138	-	-
Page	Section	Natural ground subsidence					
142	17.1	<u>Shrink swell clays</u>	Very low (within 50m)				
143	17.2	<u>Running sands</u>	Low (within 50m)				
145	17.3	<u>Compressible deposits</u>	Very low (within 50m)				
147	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
148	17.5	<u>Landslides</u>	Very low (within 50m)				
149	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
151	18.1	Natural cavities	0	0	0	0	-
152	18.2	BritPits	0	0	0	0	-
152	18.3	<u>Surface ground workings</u>	0	8	5	-	-
153	18.4	Underground workings	0	0	0	0	0
153	18.5	Historical Mineral Planning Areas	0	0	0	0	-



153	18.6	Non-coal mining	0	0	0	0	0
153	18.7	Mining cavities	0	0	0	0	0
<u>153</u>	<u>18.8</u>	<u>JPB mining areas</u>	Identified (within 0m)				
<u>154</u>	<u>18.9</u>	<u>Coal mining</u>	Identified (within 0m)				
154	18.10	Brine areas	None (within 0m)				
154	18.11	Gypsum areas	None (within 0m)				
155	18.12	Tin mining	None (within 0m)				
155	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
<u>156</u>	<u>19.1</u>	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
<u>157</u>	<u>20.1</u>	<u>BGS Estimated Background Soil Chemistry</u>	1	1	-	-	-
<u>157</u>	<u>20.2</u>	<u>BGS Estimated Urban Soil Chemistry</u>	2	2	-	-	-
158	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
159	21.1	Underground railways (London)	0	0	0	-	-
159	21.2	Underground railways (Non-London)	0	0	0	-	-
160	21.3	Railway tunnels	0	0	0	-	-
<u>160</u>	<u>21.4</u>	<u>Historical railway and tunnel features</u>	0	22	75	-	-
164	21.5	Royal Mail tunnels	0	0	0	-	-
<u>164</u>	<u>21.6</u>	<u>Historical railways</u>	0	0	3	-	-
<u>164</u>	<u>21.7</u>	<u>Railways</u>	0	4	32	-	-
166	21.8	Crossrail 1	0	0	0	0	-
166	21.9	Crossrail 2	0	0	0	0	-
166	21.10	HS2	0	0	0	0	-

Recent aerial photograph

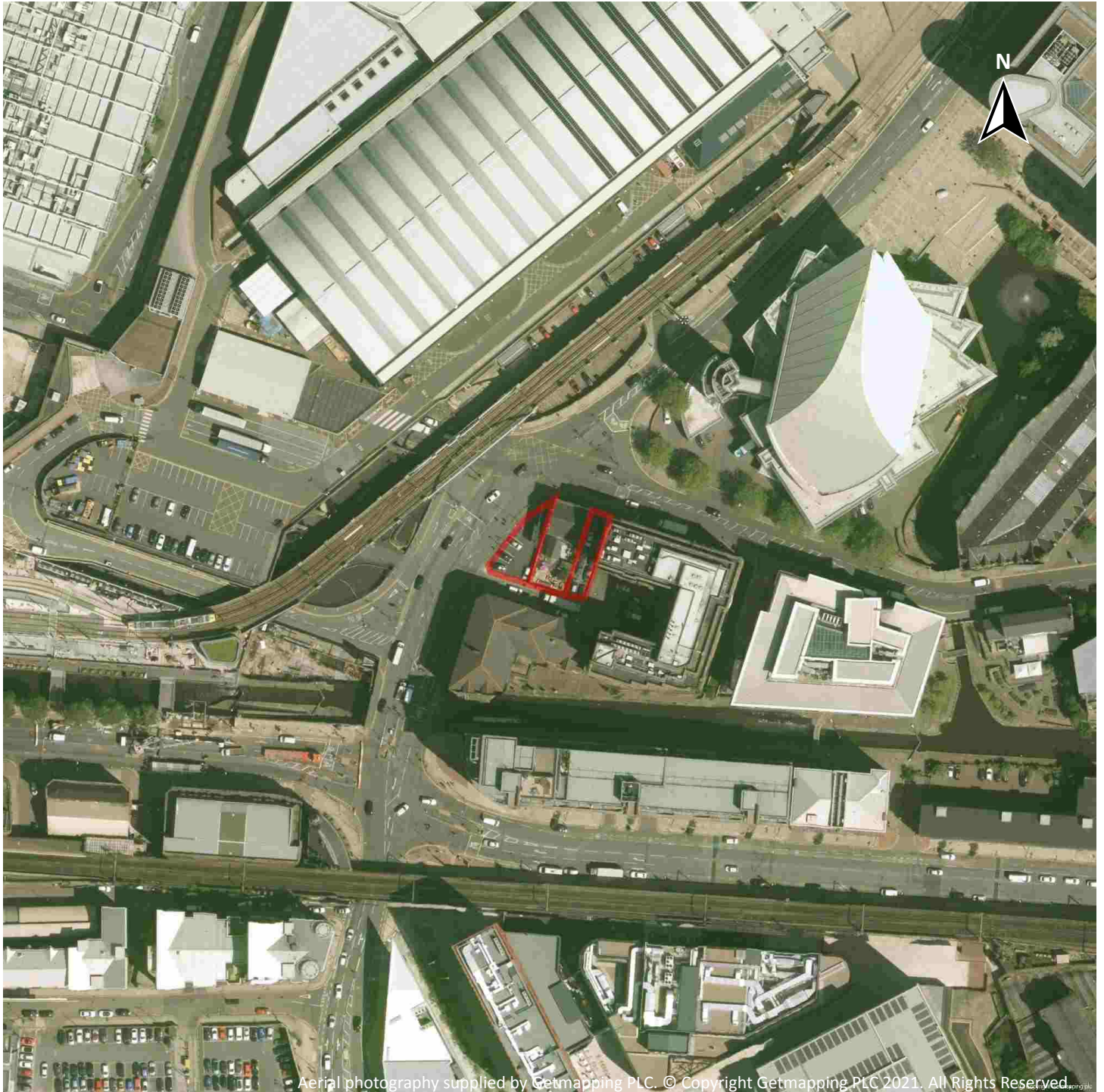


Capture Date: 22/04/2019

Site Area: 0.04ha



Recent site history - 2015 aerial photograph

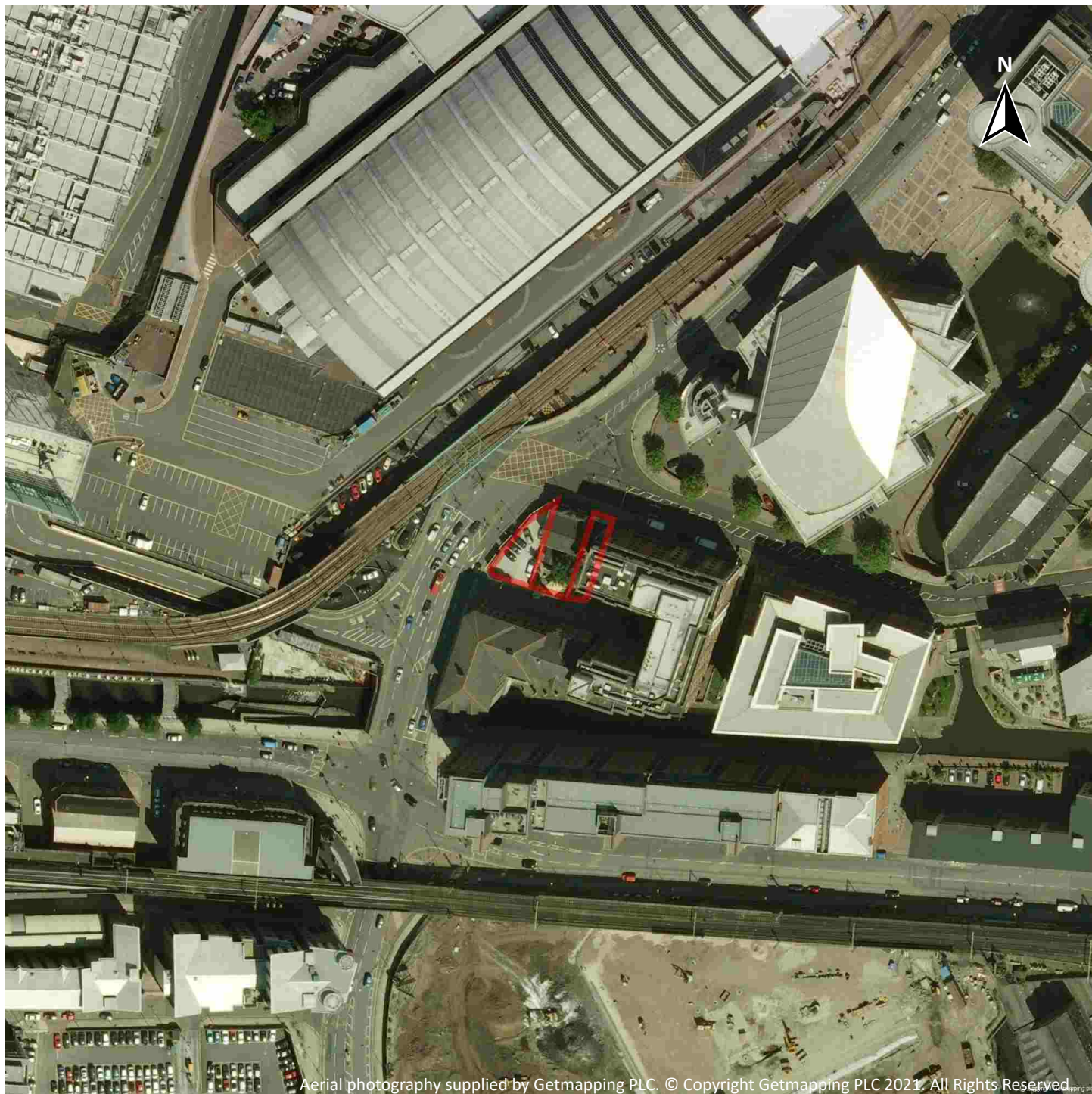


Capture Date: 11/06/2015

Site Area: 0.04ha



Recent site history - 2009 aerial photograph

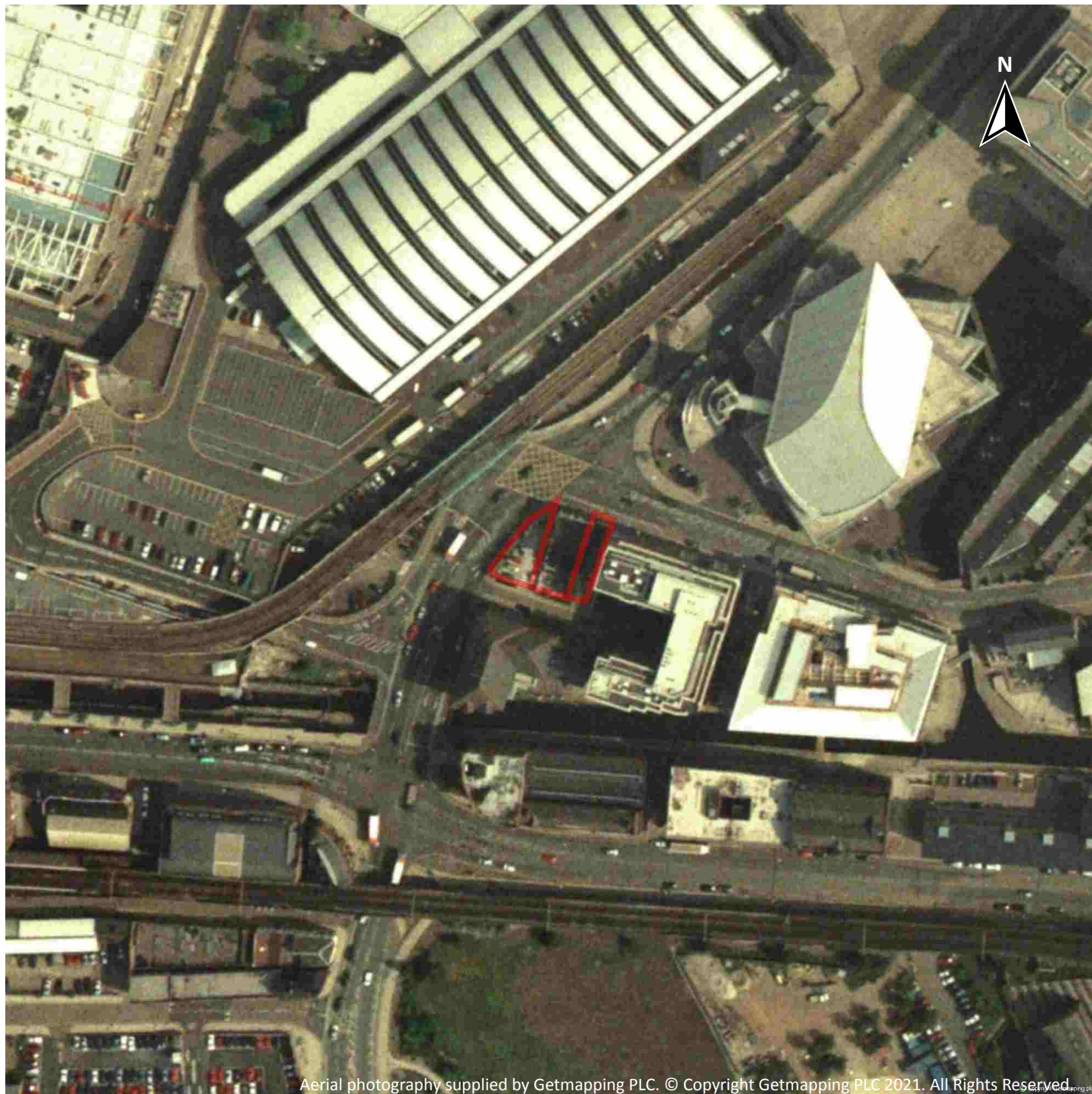


Capture Date: 02/06/2009

Site Area: 0.04ha



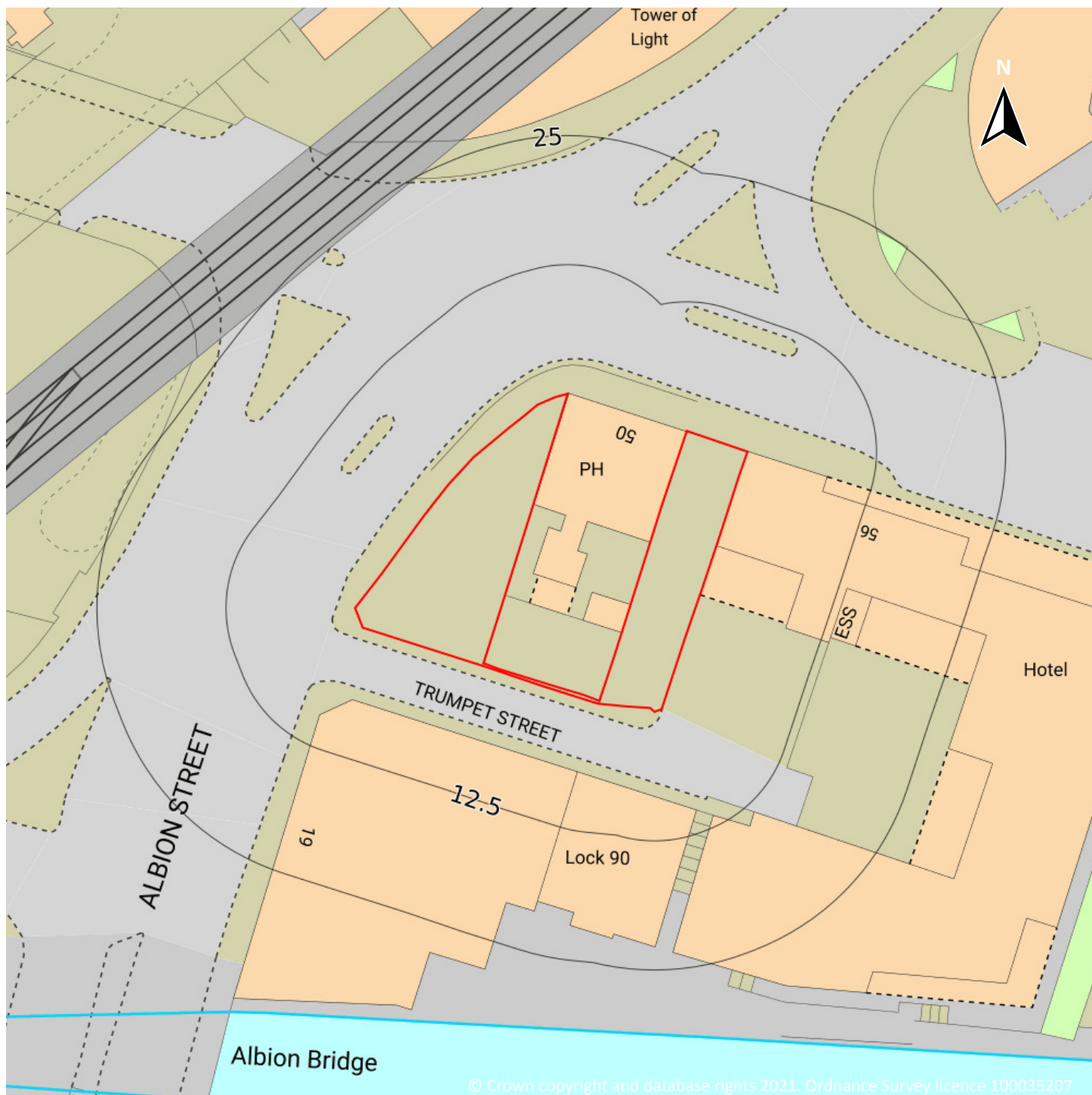
Recent site history - 2000 aerial photograph



Capture Date: 27/06/2000

Site Area: 0.04ha

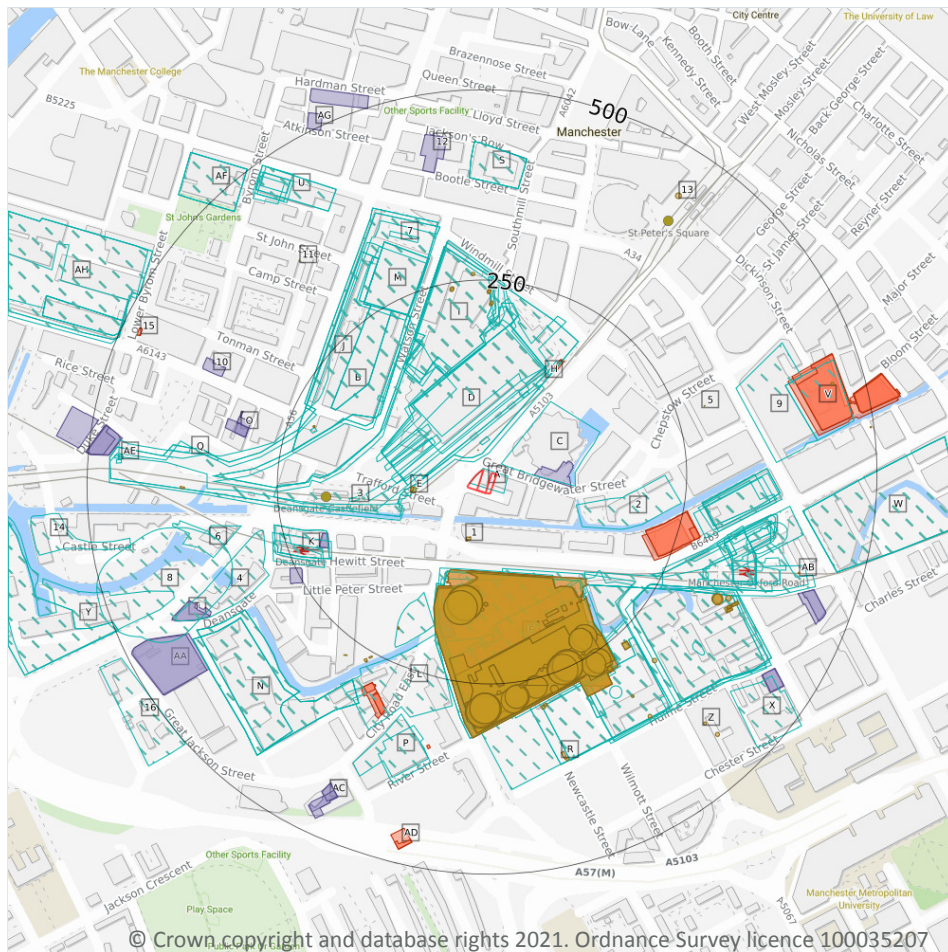
OS MasterMap site plan



Site Area: 0.04ha



1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

154

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
A	On site	Bus Station	1978	842916



ID	Location	Land use	Dates present	Group ID
B	15m NW	Railway Sidings	1923	923309
C	16m NE	Cotton Mills	1851	811452
B	21m NW	Railway Sidings	1905 - 1916	871753
B	21m NW	Railway Sidings	1932 - 1938	982150
A	33m N	Railway Building	1905 - 1938	985774
D	39m NW	Railway Station	1905 - 1938	896284
D	42m NW	Railway Station	1956	888631
D	43m NW	Railway Sidings	1896	975593
D	52m NW	Railway Station	1896	915817
D	57m NW	Disused Station	1978	925495
D	68m NW	Disused Station	1985	891253
B	79m W	Railway Sidings	1956	917334
F	100m S	Unspecified Commercial/Industrial	1956	976686
F	101m S	Unspecified Commercial/Industrial	1851 - 1896	849974
F	106m S	Unspecified Commercial/Industrial	1932 - 1938	872530
F	106m S	Gas Works	1905 - 1923	927583
F	106m S	Unspecified Works	1971	976313
2	112m E	Corporation Yard	1905 - 1938	920120
G	122m S	Unspecified Tank	1956	940796
H	127m NE	Railway Building	1932 - 1938	946173
G	129m S	Unspecified Tank	1971	856760
G	129m S	Unspecified Tank	1978 - 1985	858491
G	129m S	Unspecified Tank	1896	890603
I	133m N	Goods Station	1932 - 1938	883356
I	133m N	Goods Station	1905 - 1916	938206
I	133m N	Goods Station	1923	943574
G	134m S	Gasometer	1905 - 1923	885805
G	134m S	Unspecified Tank	1932 - 1938	946195

ID	Location	Land use	Dates present	Group ID
I	140m N	Goods Station	1956	923306
3	143m W	Railway Building	1905 - 1938	978111
J	149m NW	Railway Sidings	1971	946450
J	149m NW	Railway Sidings	1985	958621
J	149m NW	Railway Sidings	1978	989903
G	150m SW	Cotton Mill	1851	797881
B	156m NW	Railway Building	1923	820271
F	156m SE	Unspecified Works	1978	921026
F	161m SE	Railway Sidings	1905 - 1938	864885
F	172m SE	Rubber Works	1923 - 1938	926915
F	172m SE	Unspecified Commercial/Industrial	1905	944072
F	173m SE	Unspecified Tank	1851	825227
F	174m SE	Rubber Works	1916	915281
F	180m S	Unspecified Tank	1851	825228
G	185m S	Railway Sidings	1896	794671
F	191m SE	Gas Works	1985	894760
F	191m SE	Gas Works	1978	953907
K	193m W	Railway Station	1985 - 1994	880682
K	194m W	Railway Station	1978	855265
K	194m W	Railway Station	1956 - 1971	962338
L	195m S	Brewery	1851	822706
F	206m SE	Unspecified Tanks	1956	991069
K	208m SW	Railway Station	1905 - 1938	975016
B	211m W	Railway Building	1923	820272
F	211m SE	Unspecified Tanks	1896	952761
K	212m SW	Railway Station	1896	899988
F	214m SE	Unspecified Tank	1932 - 1938	893786
F	214m SE	Gasometer	1905 - 1923	961140



ID	Location	Land use	Dates present	Group ID
M	221m NW	Goods Station	1905 - 1938	846931
F	226m SE	Gasometer	1978	909770
F	226m SE	Gasometer	1985	937412
F	226m SE	Unspecified Tank	1971	953873
M	226m NW	Disused Goods Station	1978	814351
M	226m NW	Goods Station	1956	945355
M	226m NW	Goods Station	1971	945855
M	230m NW	Railway Buildings	1923	833657
F	231m S	Gasometer	1905 - 1923	856404
F	231m S	Unspecified Tank	1932 - 1938	943763
F	234m SE	Unspecified Commercial/Industrial	1896	857423
F	236m SE	Unspecified Works	1985 - 1994	862878
F	236m SE	Unspecified Works	1978	976366
F	237m SE	Railway Sidings	1896	989778
F	245m SE	Rubber Works	1956	849382
F	247m S	Unspecified Tank	1932 - 1938	864386
F	247m S	Gasometer	1905 - 1923	911162
F	247m SE	Railway Sidings	1985 - 1994	928139
F	248m SE	Gasometer	1905 - 1923	889070
F	248m SE	Unspecified Tank	1932 - 1938	961454
F	252m SE	Unspecified Tank	1851	987864
F	253m S	Unspecified Tanks	1956	927953
F	260m S	Gasometer	1905 - 1923	967050
F	260m S	Unspecified Tank	1932 - 1938	989404
F	260m S	Gasometer	1978	910445
F	260m S	Unspecified Tank	1971	973500
F	264m E	Hospital	1923	848326
F	265m SE	Unspecified Works	1978	865006



ID	Location	Land use	Dates present	Group ID
F	265m SE	Unspecified Works	1985 - 1994	927569
F	269m E	Hospital	1932 - 1938	949847
F	272m S	Unspecified Tank	1932 - 1938	939747
F	272m S	Gasometer	1905 - 1923	964160
F	273m E	Coal Wharf	1851	794097
F	274m E	Hospital	1956 - 1971	915521
F	274m E	Hospital	1978	957282
4	275m W	Unspecified Commercial/Industrial	1851	796718
F	278m E	Hospital	1916	938342
F	278m E	Railway Station	1905 - 1938	962635
N	295m SW	Unspecified Commercial/Industrial	1923	846058
N	295m SW	Unspecified Mill	1932 - 1938	877197
N	295m SW	Unspecified Commercial/Industrial	1905	896875
N	295m SW	Unspecified Mill	1916	904261
F	296m E	Railway Station	1896	887032
F	297m E	Railway Station	1956	923967
F	301m SE	Unspecified Tank	1851	825246
6	302m W	Unspecified Commercial/Industrial	1851	796720
F	304m E	Gas Works	1851	802208
P	310m S	Unspecified Works	1971	830421
F	311m E	Railway Station	1988 - 1994	912150
7	311m N	Railway Buildings	1923	833653
F	314m E	Railway Building	1956	820261
F	314m E	Railway Station	1971	960776
F	314m E	Railway Station	1985	962611
F	314m E	Railway Station	1978	981767
P	319m S	Glass Works	1851	797987
F	324m SE	Unspecified Tank	1896	825247



ID	Location	Land use	Dates present	Group ID
8	325m W	Quay	1905 - 1938	872988
Q	329m W	Railway Buildings	1905 - 1938	962263
F	332m SE	Unspecified Tanks	1851	815405
N	333m SW	Automobile Works	1956	813191
N	333m SW	Unspecified Works	1978	940175
N	333m SW	Unspecified Works	1971	948531
9	335m E	Unspecified Commercial/Industrial	1923	796724
F	340m E	Tanks	1851	832185
S	373m N	Police Station	1978	880849
S	373m N	Police Station	1956 - 1971	884199
S	373m N	Police Station	1985 - 1994	940998
U	396m NW	Hospital	1978	946410
U	396m NW	Hospital	1956 - 1971	988332
V	397m E	Electricity Station	1916 - 1923	992043
W	406m E	Unspecified Mills	1916	861845
W	406m E	Unspecified Commercial/Industrial	1923	874542
W	406m E	Unspecified Commercial/Industrial	1905	968335
W	406m E	Unspecified Mills	1932 - 1938	989884
X	409m SE	Unspecified Mills	1916 - 1923	874195
Y	411m W	Quay	1851	846276
U	435m NW	Hospital	1916	943105
U	439m NW	Hospital	1932 - 1938	946842
U	441m NW	Hospital	1923	963711
U	445m NW	Hospital	1985 - 1988	928879
14	449m W	Slate Wharf	1851	837258
AE	454m W	Railway Building	1916	972538
AE	456m W	Railway Building	1923	820260
AE	459m W	Railway Building	1932 - 1938	982027



ID	Location	Land use	Dates present	Group ID
AF	470m NW	Unspecified Works	1932 - 1938	898924
AF	470m NW	Unspecified Commercial/Industrial	1905	935109
AF	470m NW	Unspecified Commercial/Industrial	1923	991353
Y	496m W	Unspecified Depot	1978	853404
Y	496m W	Unspecified Depot	1985 - 1994	921090
AH	498m NW	Railway Sidings	1916 - 1938	893253
AH	498m NW	Railway Sidings	1894	920471
AH	499m NW	Railway Building	1978	848652
AH	499m NW	Railway Building	1971	911620
AH	499m NW	Railway Building	1985	938373
AH	499m NW	Railway Sidings	1988 - 1994	962023
16	499m SW	Unspecified Depot	1971	818414
AH	500m NW	Railway Sidings	1923	921834

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

111

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

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

ID	Location	Land use	Dates present	Group ID
A	27m N	Unspecified Tank	1891	115955
1	61m S	Tanks	1891	106783
E	67m W	Tanks	1948	141151
E	71m W	Tanks	1948 - 1979	130142
F	103m S	Gas Works	1891	138194



ID	Location	Land use	Dates present	Group ID
F	103m S	Gas Works	1893 - 1908	148771
F	105m S	Gas Works	1922	148353
G	124m S	Unspecified Tank	1953 - 1969	138911
G	124m S	Unspecified Tank	1980 - 1985	129756
G	124m S	Unspecified Tank	1948 - 1979	134540
G	132m S	Gasometer	1908 - 1922	137166
G	132m S	Unspecified Tank	1932	149223
G	143m S	Unspecified Tank	1979	126042
G	143m S	Unspecified Tank	1953 - 1985	135604
G	151m S	Unspecified Tank	1908 - 1932	134188
F	175m SE	Tanks	1948 - 1979	124597
F	175m SE	Tanks	1979	106781
F	178m SE	Unspecified Tank	1948 - 1979	131914
F	179m S	Unspecified Tank	1891	115953
F	182m SE	Tanks	1953 - 1969	129358
F	182m SE	Unspecified Tank	1891	115951
F	184m SE	Unspecified Tank	1969	140316
F	184m SE	Gas Works	1948	138071
F	185m SE	Unspecified Tank	1891	133313
F	187m SE	Unspecified Tank	1979	115952
F	187m SE	Tanks	1948	147005
F	197m S	Disused Gas Holder Station	1985	108346
F	197m S	Gas Holder Station	1980	144973
G	205m SW	Unspecified Tank	1891	115954
F	209m SE	Unspecified Tank	1953	127502
F	210m SE	Gasometer	1948	135973
F	210m SE	Unspecified Tank	1963 - 1979	148209
F	211m SE	Tanks	1932	107129



ID	Location	Land use	Dates present	Group ID
F	211m SE	Gasometers	1908 - 1922	124662
F	211m SE	Gasometer	1891 - 1893	128004
B	215m W	Unspecified Tank	1979	148049
B	216m W	Unspecified Tank	1979	134110
I	216m N	Unspecified Tank	1986	147812
I	218m N	Unspecified Tank	1988 - 1999	136452
F	224m S	Tanks	1893	133419
F	225m S	Tanks	1891	127920
F	227m SE	Unspecified Tank	1963 - 1979	138510
F	227m SE	Gasometer	1948	142120
F	227m SE	Unspecified Tank	1953	134836
F	227m SE	Gasometer	1893 - 1969	136753
F	229m SE	Gas Holder	1980 - 1985	125516
F	230m SE	Gasometer	1891	124584
I	232m N	Unspecified Tank	1986 - 1999	148721
I	233m N	Unspecified Tank	1988	133750
F	236m S	Unspecified Tank	1953 - 1985	140482
I	238m N	Unspecified Tank	1986 - 1999	144065
F	239m S	Unspecified Tank	1891 - 1893	143653
I	240m N	Unspecified Tank	1988	124833
F	241m SE	Gasometer	1969	108524
F	241m SE	Unspecified Tank	1953 - 1985	147415
F	243m SE	Unspecified Tank	1893	123594
F	246m SE	Unspecified Tank	1963 - 1979	129031
F	246m SE	Gasometer	1948	144835
F	246m SE	Unspecified Tank	1953	128601
F	247m SE	Gasometer	1891 - 1893	138622
F	247m S	Gasometer	1893	138389



ID	Location	Land use	Dates present	Group ID
F	248m S	Gasometer	1891	126443
F	251m S	Unspecified Tank	1953 - 1979	147656
F	252m S	Unspecified Tank	1948 - 1979	129606
F	254m S	Unspecified Tank	1963 - 1979	128106
F	254m S	Gasometer	1893 - 1948	135717
F	254m S	Unspecified Tank	1953	136419
F	254m S	Unspecified Tank	1893	147070
L	255m SW	Tanks	1948	106777
I	256m N	Unspecified Tank	1988 - 1999	137115
F	259m S	Unspecified Tank	1953 - 1979	137402
L	261m SW	Tanks	1948	107130
F	262m SE	Unspecified Tank	1969 - 1998	138462
F	262m S	Gasometer	1948	135027
F	262m S	Unspecified Tank	1963 - 1979	141523
F	263m S	Gasometer	1893 - 1969	129302
F	263m S	Unspecified Tank	1953	145833
F	263m SE	Unspecified Tank	1980 - 1990	133041
F	265m S	Unspecified Tank	1893	125584
F	265m S	Gasometer	1891	108523
F	271m SE	Unspecified Tank	1987 - 1990	144099
L	271m SW	Unspecified Tank	1891	115779
F	275m SE	Unspecified Tank	1891 - 1893	137941
F	285m S	Unspecified Tank	1998	124573
F	286m S	Unspecified Tank	1948 - 1990	148192
S	287m E	Unspecified Tank	1891	115956
F	305m SE	Unspecified Tank	1893 - 1922	122317
F	322m SE	Unspecified Tank	1893	115950
F	323m SE	Gasometer	1891 - 1908	131372



ID	Location	Land use	Dates present	Group ID
F	324m SE	Unspecified Tank	1908	115778
F	339m SE	Unspecified Tank	1922	115957
F	343m SE	Tanks	1953	106778
F	345m SE	Unspecified Tank	1948 - 1953	145471
F	345m SE	Tanks	1950	106780
F	345m SE	Unspecified Tank	1955	135178
F	347m SE	Unspecified Tank	1948 - 1953	135406
F	347m SE	Unspecified Tank	1955	123253
F	349m SE	Unspecified Tank	1948 - 1953	141893
F	350m SE	Unspecified Tank	1955	135180
R	352m S	Unspecified Tank	1948 - 1979	133333
F	358m SE	Unspecified Tank	1893 - 1922	143428
R	361m S	Unspecified Tank	1980 - 1985	135450
11	365m NW	Unspecified Tank	1891	115646
Q	372m W	Unspecified Tank	1932	115649
Z	412m SE	Unspecified Tank	1922	115781
AB	417m E	Unspecified Tank	1953	136354
AB	418m E	Unspecified Tank	1955	136262
Z	433m SE	Unspecified Tank	1948 - 1985	122344
13	434m NE	Unspecified Tank	1994 - 1999	133983
V	455m E	Unspecified Tank	1891	115965
V	495m E	Unspecified Tank	1891	115964

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

43

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or



succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

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

ID	Location	Land use	Dates present	Group ID
F	103m S	Gas Works	1891	72601
F	103m S	Gas Works	1893 - 1908	79545
F	105m S	Gas Works	1922	81689
G	132m S	Gasometer	1908 - 1922	65948
H	157m NE	Electricity Substation	1948 - 1985	80627
F	184m SE	Gas Works	1948	66529
F	197m S	Disused Gas Holder Station	1985	59539
F	197m S	Gas Holder Station	1980	77508
F	207m E	Hydraulic Power Station	1932	78003
F	209m E	Hydraulic Power Station	1948 - 1979	64692
F	209m E	Hydraulic Power Station	1948 - 1973	64396
F	210m SE	Gasometer	1948	78274
F	211m SE	Gasometers	1908 - 1922	65853
F	211m SE	Gasometer	1891 - 1893	80269
F	227m SE	Gasometer	1948	71445
F	227m SE	Gasometer	1893 - 1969	68062
F	229m SE	Gas Holder	1980 - 1985	70318
F	230m SE	Gasometer	1891	67026
F	241m SE	Gasometer	1969	59717
F	246m SE	Gasometer	1948	64845
F	247m SE	Gasometer	1891 - 1893	71826
F	247m S	Gasometer	1893	75823
F	248m S	Gasometer	1891	71699
F	254m S	Gasometer	1893 - 1948	65525
F	262m S	Electricity Substation	1998	62182
F	262m S	Gasometer	1948	69283



ID	Location	Land use	Dates present	Group ID
F	263m S	Gasometer	1893 - 1969	65691
F	263m E	Electricity Substation	1948 - 1999	65682
F	265m S	Gasometer	1891	59716
L	285m SW	Electricity Substation	1998	73868
L	286m SW	Electricity Transformers	1969 - 1985	83603
L	294m SW	Electricity Substation	1948 - 1979	78830
L	295m SW	Electricity Substation	1969 - 1990	82938
F	323m SE	Gasometer	1891 - 1908	84082
P	339m S	Electricity Substation	1998	62183
V	402m E	Electricity Station	1908 - 1922	81883
V	409m E	Electricity Station	1950 - 1955	66381
V	412m E	Electricity Station	1948	73425
AD	453m S	Electricity Substation	1948 - 1979	83591
AD	466m S	Electricity Substation	1953	65840
15	473m NW	Electricity Substation	1948 - 1995	75611
V	481m E	Electricity Station	1950	68267
V	482m E	Electricity Station	1955	77896

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.



1.5 Historical garages

Records within 500m

27

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

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

ID	Location	Land use	Dates present	Group ID
C	50m E	Garage	1973	20296
G	161m S	Garage	1953 - 1979	24802
K	194m W	Garage	1963 - 1981	26858
K	194m W	Garage	1986 - 1990	26912
K	243m SW	Garage	1960 - 1969	25290
O	297m W	Garage	1994 - 1995	24725
O	298m W	Garage	1981 - 1990	24287
O	298m W	Garage	1995	20992
10	353m NW	Garage	1981	20294
T	375m SW	Garage	1980	25490
T	379m SW	Garage	1969	22918
12	396m N	Garage	1948	20292
AA	414m SW	Garage	1980 - 1990	25615
AA	418m SW	Garage	1995 - 1997	27082
AB	426m E	Garage	1948 - 1998	27861
AC	428m SW	Garage	1960 - 1963	24336
AC	429m SW	Garage	1979	22408
X	430m SE	Garage	1962 - 1987	25909
X	430m SE	Garage	1968	21471
AB	431m E	Garage	1955 - 1990	26377
AC	435m SW	Garage	1959	21005



ID	Location	Land use	Dates present	Group ID
AE	458m W	Garage	1981 - 1986	26958
AE	460m W	Garage	1963	21869
AE	467m W	Garage	1963	21949
AE	493m W	Garage	1981	20293
AG	495m NW	Garage	1962 - 1973	24856
AG	499m N	Garage	1963 - 1970	27244

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

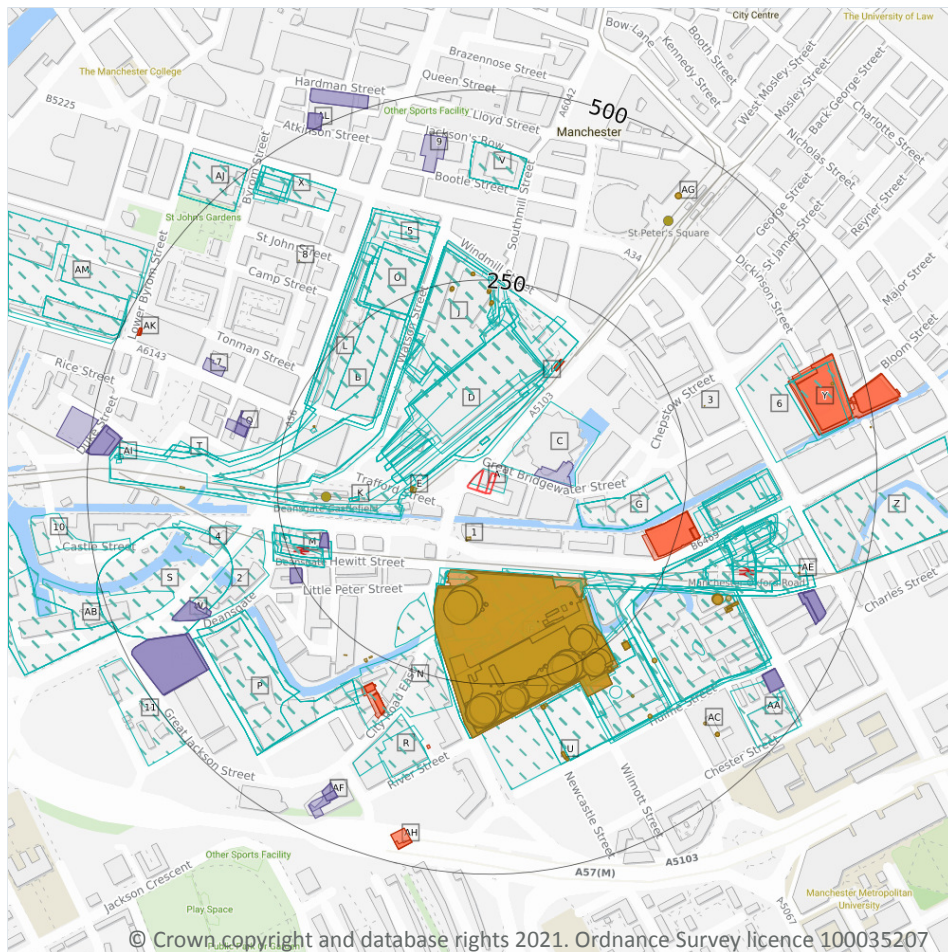
0

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

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



2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

253

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

Features are displayed on the Past land use - un-grouped map on **page 28**

ID	Location	Land Use	Date	Group ID
A	On site	Bus Station	1978	842916
B	15m NW	Railway Sidings	1923	923309
C	16m NE	Cotton Mills	1851	811452



ID	Location	Land Use	Date	Group ID
B	21m NW	Railway Sidings	1938	982150
B	21m NW	Railway Sidings	1932	982150
B	21m NW	Railway Sidings	1916	871753
B	21m NW	Railway Sidings	1905	871753
A	33m N	Railway Building	1938	985774
A	33m N	Railway Building	1932	985774
A	33m N	Railway Building	1916	985774
A	33m N	Railway Building	1905	985774
A	33m N	Railway Building	1923	985774
D	39m NW	Railway Station	1938	896284
D	39m NW	Railway Station	1932	896284
D	39m NW	Railway Station	1916	896284
D	39m NW	Railway Station	1905	896284
D	39m NW	Railway Station	1923	896284
D	42m NW	Railway Station	1956	888631
D	43m NW	Railway Sidings	1896	975593
D	52m NW	Railway Station	1896	915817
D	57m NW	Disused Station	1978	925495
D	68m NW	Disused Station	1985	891253
B	79m W	Railway Sidings	1956	917334
F	100m S	Unspecified Commercial/Industrial	1956	976686
F	101m S	Unspecified Commercial/Industrial	1896	849974
F	106m S	Unspecified Commercial/Industrial	1938	872530
F	106m S	Unspecified Commercial/Industrial	1932	872530
F	106m S	Gas Works	1916	927583
F	106m S	Gas Works	1905	927583
F	106m S	Gas Works	1923	927583
F	106m S	Unspecified Works	1971	976313



ID	Location	Land Use	Date	Group ID
G	112m E	Corporation Yard	1938	920120
G	112m E	Corporation Yard	1932	920120
G	112m E	Corporation Yard	1916	920120
G	112m E	Corporation Yard	1905	920120
G	112m E	Corporation Yard	1923	920120
H	122m S	Unspecified Tank	1956	940796
I	127m NE	Railway Building	1938	946173
I	127m NE	Railway Building	1932	946173
H	129m S	Unspecified Tank	1971	856760
H	129m S	Unspecified Tank	1978	858491
H	129m S	Unspecified Tank	1985	858491
H	129m S	Unspecified Tank	1896	890603
J	133m N	Goods Station	1938	883356
J	133m N	Goods Station	1932	883356
J	133m N	Goods Station	1916	938206
J	133m N	Goods Station	1905	938206
J	133m N	Goods Station	1923	943574
H	134m S	Gasometer	1916	885805
H	134m S	Gasometer	1905	885805
H	134m S	Unspecified Tank	1938	946195
H	134m S	Unspecified Tank	1932	946195
H	134m S	Gasometer	1923	885805
J	140m N	Goods Station	1956	923306
K	143m W	Railway Building	1938	978111
K	143m W	Railway Building	1932	978111
K	143m W	Railway Building	1916	978111
K	143m W	Railway Building	1905	978111
K	143m W	Railway Building	1923	978111

ID	Location	Land Use	Date	Group ID
L	149m NW	Railway Sidings	1971	946450
L	149m NW	Railway Sidings	1978	989903
L	149m NW	Railway Sidings	1985	958621
H	150m SW	Cotton Mill	1851	797881
B	156m NW	Railway Building	1923	820271
F	156m SE	Unspecified Works	1978	921026
F	157m SE	Unspecified Commercial/Industrial	1851	849974
F	161m SE	Railway Sidings	1938	864885
F	161m SE	Railway Sidings	1932	864885
F	161m SE	Railway Sidings	1916	864885
F	161m SE	Railway Sidings	1905	864885
F	161m SE	Railway Sidings	1923	864885
F	172m SE	Rubber Works	1938	926915
F	172m SE	Rubber Works	1932	926915
F	172m SE	Unspecified Commercial/Industrial	1905	944072
F	172m SE	Rubber Works	1923	926915
F	173m SE	Unspecified Tank	1851	825227
F	174m SE	Rubber Works	1916	915281
F	180m S	Unspecified Tank	1851	825228
H	185m S	Railway Sidings	1896	794671
F	191m SE	Gas Works	1978	953907
F	191m SE	Gas Works	1985	894760
M	193m W	Railway Station	1988	880682
M	193m W	Railway Station	1985	880682
M	193m W	Railway Station	1994	880682
M	194m W	Railway Station	1971	962338
M	194m W	Railway Station	1956	962338
M	194m W	Railway Station	1978	855265



ID	Location	Land Use	Date	Group ID
N	195m S	Brewery	1851	822706
F	206m SE	Unspecified Tanks	1956	991069
M	208m SW	Railway Station	1938	975016
M	208m SW	Railway Station	1932	975016
M	208m SW	Railway Station	1916	975016
M	208m SW	Railway Station	1905	975016
M	208m SW	Railway Station	1923	975016
B	211m W	Railway Building	1923	820272
F	211m SE	Unspecified Tanks	1896	952761
M	212m SW	Railway Station	1896	899988
F	214m SE	Gasometer	1916	961140
F	214m SE	Gasometer	1905	961140
F	214m SE	Unspecified Tank	1938	893786
F	214m SE	Unspecified Tank	1932	893786
F	214m SE	Gasometer	1923	961140
O	221m NW	Goods Station	1938	846931
O	221m NW	Goods Station	1932	846931
O	221m NW	Goods Station	1916	846931
O	221m NW	Goods Station	1905	846931
O	221m NW	Goods Station	1923	846931
F	226m SE	Unspecified Tank	1971	953873
F	226m SE	Gasometer	1978	909770
F	226m SE	Gasometer	1985	937412
O	226m NW	Goods Station	1971	945855
O	226m NW	Goods Station	1956	945355
O	226m NW	Disused Goods Station	1978	814351
O	230m NW	Railway Buildings	1923	833657
F	231m S	Gasometer	1916	856404



ID	Location	Land Use	Date	Group ID
F	231m S	Gasometer	1905	856404
F	231m S	Unspecified Tank	1938	943763
F	231m S	Unspecified Tank	1932	943763
F	231m S	Gasometer	1923	856404
F	234m SE	Unspecified Commercial/Industrial	1896	857423
F	236m SE	Unspecified Works	1988	862878
F	236m SE	Unspecified Works	1978	976366
F	236m SE	Unspecified Works	1985	862878
F	236m SE	Unspecified Works	1994	862878
F	237m SE	Railway Sidings	1896	989778
F	245m SE	Rubber Works	1956	849382
F	247m S	Gasometer	1916	911162
F	247m S	Gasometer	1905	911162
F	247m S	Unspecified Tank	1938	864386
F	247m S	Unspecified Tank	1932	864386
F	247m S	Gasometer	1923	911162
F	247m SE	Railway Sidings	1988	928139
F	247m SE	Railway Sidings	1985	928139
F	247m SE	Railway Sidings	1994	928139
F	248m SE	Gasometer	1916	889070
F	248m SE	Gasometer	1905	889070
F	248m SE	Unspecified Tank	1938	961454
F	248m SE	Unspecified Tank	1932	961454
F	248m SE	Gasometer	1923	889070
F	252m SE	Unspecified Tank	1851	987864
F	253m S	Unspecified Tanks	1956	927953
F	260m S	Gasometer	1916	967050
F	260m S	Gasometer	1905	967050

ID	Location	Land Use	Date	Group ID
F	260m S	Unspecified Tank	1938	989404
F	260m S	Unspecified Tank	1932	989404
F	260m S	Gasometer	1923	967050
F	260m S	Unspecified Tank	1971	973500
F	260m S	Gasometer	1978	910445
F	264m E	Hospital	1923	848326
F	265m SE	Unspecified Works	1988	927569
F	265m SE	Unspecified Works	1978	865006
F	265m SE	Unspecified Works	1985	927569
F	265m SE	Unspecified Works	1994	927569
F	269m E	Hospital	1938	949847
F	269m E	Hospital	1932	949847
F	272m S	Gasometer	1916	964160
F	272m S	Gasometer	1905	964160
F	272m S	Unspecified Tank	1938	939747
F	272m S	Unspecified Tank	1932	939747
F	272m S	Gasometer	1923	964160
F	273m E	Coal Wharf	1851	794097
F	274m E	Hospital	1971	915521
F	274m E	Hospital	1956	915521
F	274m E	Hospital	1978	957282
2	275m W	Unspecified Commercial/Industrial	1851	796718
F	278m E	Hospital	1916	938342
F	278m E	Railway Station	1938	962635
F	278m E	Railway Station	1932	962635
F	278m E	Railway Station	1916	962635
F	278m E	Railway Station	1905	962635
F	278m E	Railway Station	1923	962635



ID	Location	Land Use	Date	Group ID
P	295m SW	Unspecified Mill	1938	877197
P	295m SW	Unspecified Mill	1932	877197
P	295m SW	Unspecified Mill	1916	904261
P	295m SW	Unspecified Commercial/Industrial	1905	896875
P	295m SW	Unspecified Commercial/Industrial	1923	846058
F	296m E	Railway Station	1896	887032
F	297m E	Railway Station	1956	923967
F	301m SE	Unspecified Tank	1851	825246
4	302m W	Unspecified Commercial/Industrial	1851	796720
F	304m E	Gas Works	1851	802208
R	310m S	Unspecified Works	1971	830421
F	311m E	Railway Station	1988	912150
F	311m E	Railway Station	1994	912150
5	311m N	Railway Buildings	1923	833653
F	314m E	Railway Building	1956	820261
F	314m E	Railway Station	1971	960776
F	314m E	Railway Station	1978	981767
F	314m E	Railway Station	1985	962611
R	319m S	Glass Works	1851	797987
F	324m SE	Unspecified Tank	1896	825247
S	325m W	Quay	1938	872988
S	325m W	Quay	1932	872988
S	325m W	Quay	1916	872988
S	325m W	Quay	1905	872988
S	325m W	Quay	1923	872988
T	329m W	Railway Buildings	1938	962263
T	329m W	Railway Buildings	1932	962263
T	329m W	Railway Buildings	1916	962263



ID	Location	Land Use	Date	Group ID
T	329m W	Railway Buildings	1905	962263
T	329m W	Railway Buildings	1923	962263
F	332m SE	Unspecified Tanks	1851	815405
P	333m SW	Unspecified Works	1971	948531
P	333m SW	Automobile Works	1956	813191
P	333m SW	Unspecified Works	1978	940175
6	335m E	Unspecified Commercial/Industrial	1923	796724
F	340m E	Tanks	1851	832185
V	373m N	Police Station	1971	884199
V	373m N	Police Station	1956	884199
V	373m N	Police Station	1988	940998
V	373m N	Police Station	1978	880849
V	373m N	Police Station	1985	940998
V	373m N	Police Station	1994	940998
X	396m NW	Hospital	1971	988332
X	396m NW	Hospital	1956	988332
X	396m NW	Hospital	1978	946410
Y	397m E	Electricity Station	1923	992043
Z	406m E	Unspecified Mills	1938	989884
Z	406m E	Unspecified Mills	1932	989884
Z	406m E	Unspecified Mills	1916	861845
Z	406m E	Unspecified Commercial/Industrial	1905	968335
Z	406m E	Unspecified Commercial/Industrial	1923	874542
Y	409m E	Electricity Station	1916	992043
AA	409m SE	Unspecified Mills	1923	874195
AB	411m W	Quay	1851	846276
X	435m NW	Hospital	1916	943105
X	439m NW	Hospital	1938	946842



ID	Location	Land Use	Date	Group ID
X	439m NW	Hospital	1932	946842
X	441m NW	Hospital	1923	963711
X	445m NW	Hospital	1988	928879
X	445m NW	Hospital	1985	928879
AA	446m SE	Unspecified Mills	1916	874195
10	449m W	Slate Wharf	1851	837258
AI	454m W	Railway Building	1916	972538
AI	456m W	Railway Building	1923	820260
AI	459m W	Railway Building	1938	982027
AI	459m W	Railway Building	1932	982027
AJ	470m NW	Unspecified Works	1938	898924
AJ	470m NW	Unspecified Works	1932	898924
AJ	470m NW	Unspecified Commercial/Industrial	1905	935109
AJ	470m NW	Unspecified Commercial/Industrial	1923	991353
AB	496m W	Unspecified Depot	1988	921090
AB	496m W	Unspecified Depot	1978	853404
AB	496m W	Unspecified Depot	1985	921090
AB	496m W	Unspecified Depot	1994	921090
AM	498m NW	Railway Sidings	1916	893253
AM	499m NW	Railway Building	1971	911620
AM	499m NW	Railway Sidings	1988	962023
AM	499m NW	Railway Building	1978	848652
AM	499m NW	Railway Building	1985	938373
AM	499m NW	Railway Sidings	1994	962023
11	499m SW	Unspecified Depot	1971	818414
AM	500m NW	Railway Sidings	1923	921834

This data is sourced from Ordnance Survey / Groundsure.



2.2 Historical tanks

Records within 500m

221

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

Features are displayed on the Past land use - un-grouped map on **page 28**

ID	Location	Land Use	Date	Group ID
A	27m N	Unspecified Tank	1891	115955
1	61m S	Tanks	1891	106783
E	67m W	Tanks	1948	141151
E	71m W	Tanks	1979	130142
E	71m W	Tanks	1963	130142
E	71m W	Tanks	1951	130142
E	71m W	Tanks	1948	130142
F	103m S	Gas Works	1891	138194
F	103m S	Gas Works	1908	148771
F	104m S	Gas Works	1893	148771
F	105m S	Gas Works	1922	148353
H	124m S	Unspecified Tank	1969	138911
H	124m S	Unspecified Tank	1953	138911
H	124m S	Unspecified Tank	1980	129756
H	124m S	Unspecified Tank	1980	129756
H	124m S	Unspecified Tank	1985	129756
H	124m S	Unspecified Tank	1979	134540
H	124m S	Unspecified Tank	1963	134540
H	124m S	Unspecified Tank	1948	134540
H	132m S	Gasometer	1908	137166
H	132m S	Gasometer	1922	137166
H	132m S	Unspecified Tank	1932	149223
H	143m S	Unspecified Tank	1979	126042



ID	Location	Land Use	Date	Group ID
H	143m S	Unspecified Tank	1969	135604
H	143m S	Unspecified Tank	1953	135604
H	144m S	Unspecified Tank	1980	135604
H	144m S	Unspecified Tank	1980	135604
H	144m S	Unspecified Tank	1985	135604
H	151m S	Unspecified Tank	1908	134188
H	151m S	Unspecified Tank	1922	134188
H	151m S	Unspecified Tank	1932	134188
F	175m SE	Tanks	1979	124597
F	175m SE	Tanks	1948	124597
F	175m SE	Tanks	1969	124597
F	175m SE	Tanks	1953	124597
F	175m SE	Tanks	1979	106781
F	178m SE	Unspecified Tank	1969	131914
F	178m SE	Unspecified Tank	1953	131914
F	178m SE	Unspecified Tank	1979	131914
F	178m SE	Unspecified Tank	1963	131914
F	178m SE	Unspecified Tank	1948	131914
F	179m S	Unspecified Tank	1891	115953
F	182m SE	Tanks	1969	129358
F	182m SE	Tanks	1953	129358
F	182m SE	Unspecified Tank	1891	115951
F	184m SE	Unspecified Tank	1969	140316
F	184m SE	Gas Works	1948	138071
F	185m SE	Unspecified Tank	1891	133313
F	187m SE	Unspecified Tank	1979	115952
F	187m SE	Tanks	1948	147005
F	197m S	Gas Holder Station	1980	144973



ID	Location	Land Use	Date	Group ID
F	197m S	Gas Holder Station	1980	144973
F	197m S	Disused Gas Holder Station	1985	108346
H	205m SW	Unspecified Tank	1891	115954
F	209m SE	Unspecified Tank	1953	127502
F	210m SE	Unspecified Tank	1979	148209
F	210m SE	Unspecified Tank	1963	148209
F	210m SE	Gasometer	1948	135973
F	211m SE	Gasometer	1893	128004
F	211m SE	Gasometers	1908	124662
F	211m SE	Gasometers	1922	124662
F	211m SE	Tanks	1932	107129
F	212m SE	Gasometer	1891	128004
B	215m W	Unspecified Tank	1979	148049
B	216m W	Unspecified Tank	1979	134110
J	216m N	Unspecified Tank	1986	147812
J	218m N	Unspecified Tank	1988	136452
J	218m N	Unspecified Tank	1996	136452
J	218m N	Unspecified Tank	1995	136452
J	218m N	Unspecified Tank	1994	136452
J	218m N	Unspecified Tank	1999	136452
F	224m S	Tanks	1893	133419
F	225m S	Tanks	1891	127920
F	227m SE	Unspecified Tank	1979	138510
F	227m SE	Unspecified Tank	1963	138510
F	227m SE	Gasometer	1948	142120
F	227m SE	Gasometer	1969	136753
F	227m SE	Unspecified Tank	1953	134836
F	229m SE	Gas Holder	1980	125516



ID	Location	Land Use	Date	Group ID
F	229m SE	Gas Holder	1980	125516
F	229m SE	Gas Holder	1985	125516
F	230m SE	Gasometer	1891	124584
F	231m S	Gasometer	1893	136753
J	232m N	Unspecified Tank	1986	148721
J	233m N	Unspecified Tank	1988	133750
J	234m N	Unspecified Tank	1996	148721
J	234m N	Unspecified Tank	1995	148721
J	234m N	Unspecified Tank	1994	148721
J	234m N	Unspecified Tank	1999	148721
F	236m S	Unspecified Tank	1969	140482
F	236m S	Unspecified Tank	1953	140482
F	236m S	Unspecified Tank	1979	140482
F	236m S	Unspecified Tank	1963	140482
F	237m S	Unspecified Tank	1980	140482
F	237m S	Unspecified Tank	1980	140482
F	237m S	Unspecified Tank	1985	140482
J	238m N	Unspecified Tank	1986	144065
F	239m S	Unspecified Tank	1893	143653
J	240m N	Unspecified Tank	1988	124833
F	240m S	Unspecified Tank	1891	143653
J	240m N	Unspecified Tank	1996	144065
J	240m N	Unspecified Tank	1995	144065
J	240m N	Unspecified Tank	1994	144065
J	240m N	Unspecified Tank	1999	144065
F	241m SE	Gasometer	1969	108524
F	241m SE	Unspecified Tank	1953	147415
F	242m SE	Unspecified Tank	1979	147415

ID	Location	Land Use	Date	Group ID
F	242m SE	Unspecified Tank	1963	147415
F	242m SE	Unspecified Tank	1980	147415
F	242m SE	Unspecified Tank	1985	147415
F	243m SE	Unspecified Tank	1893	123594
F	246m SE	Unspecified Tank	1979	129031
F	246m SE	Unspecified Tank	1963	129031
F	246m SE	Gasometer	1948	144835
F	246m SE	Unspecified Tank	1953	128601
F	247m SE	Gasometer	1893	138622
F	247m S	Gasometer	1893	138389
F	248m S	Gasometer	1891	126443
F	248m SE	Gasometer	1891	138622
F	251m S	Unspecified Tank	1953	147656
F	251m S	Unspecified Tank	1979	147656
F	251m S	Unspecified Tank	1963	147656
F	252m S	Unspecified Tank	1979	129606
F	252m S	Unspecified Tank	1948	129606
F	254m S	Unspecified Tank	1979	128106
F	254m S	Unspecified Tank	1963	128106
F	254m S	Gasometer	1948	135717
F	254m S	Unspecified Tank	1953	136419
F	254m S	Unspecified Tank	1893	147070
N	255m SW	Tanks	1948	106777
J	256m N	Unspecified Tank	1988	137115
J	256m N	Unspecified Tank	1996	137115
J	256m N	Unspecified Tank	1995	137115
J	256m N	Unspecified Tank	1994	137115
J	256m N	Unspecified Tank	1999	137115



ID	Location	Land Use	Date	Group ID
F	257m S	Gasometer	1893	135717
F	259m S	Unspecified Tank	1969	137402
F	259m S	Unspecified Tank	1953	137402
F	260m S	Unspecified Tank	1979	137402
F	260m S	Unspecified Tank	1963	137402
N	261m SW	Tanks	1948	107130
F	262m SE	Unspecified Tank	1998	138462
F	262m S	Unspecified Tank	1979	141523
F	262m S	Unspecified Tank	1963	141523
F	262m S	Gasometer	1948	135027
F	262m SE	Unspecified Tank	1969	138462
F	263m S	Gasometer	1969	129302
F	263m S	Unspecified Tank	1953	145833
F	263m SE	Unspecified Tank	1980	133041
F	263m SE	Unspecified Tank	1980	133041
F	263m SE	Unspecified Tank	1985	133041
F	263m SE	Unspecified Tank	1987	133041
F	263m SE	Unspecified Tank	1987	133041
F	263m SE	Unspecified Tank	1990	133041
F	265m S	Unspecified Tank	1893	125584
F	265m S	Gasometer	1891	108523
F	267m S	Gasometer	1893	129302
F	271m SE	Unspecified Tank	1987	144099
F	271m SE	Unspecified Tank	1987	144099
F	271m SE	Unspecified Tank	1990	144099
N	271m SW	Unspecified Tank	1891	115779
F	275m SE	Unspecified Tank	1893	137941
F	276m SE	Unspecified Tank	1891	137941



ID	Location	Land Use	Date	Group ID
F	285m S	Unspecified Tank	1998	124573
F	286m S	Unspecified Tank	1969	148192
F	286m S	Unspecified Tank	1953	148192
F	286m S	Unspecified Tank	1979	148192
F	286m S	Unspecified Tank	1948	148192
F	286m S	Unspecified Tank	1980	148192
F	286m S	Unspecified Tank	1985	148192
F	286m S	Unspecified Tank	1987	148192
F	286m S	Unspecified Tank	1987	148192
F	286m S	Unspecified Tank	1990	148192
3	287m E	Unspecified Tank	1891	115956
F	305m SE	Unspecified Tank	1893	122317
F	305m SE	Unspecified Tank	1922	122317
F	322m SE	Unspecified Tank	1893	115950
F	323m SE	Gasometer	1891	131372
F	324m SE	Gasometer	1908	131372
F	324m SE	Unspecified Tank	1908	115778
F	339m SE	Unspecified Tank	1922	115957
F	343m SE	Tanks	1953	106778
F	345m SE	Unspecified Tank	1948	145471
F	345m SE	Unspecified Tank	1953	145471
F	345m SE	Tanks	1950	106780
F	345m SE	Unspecified Tank	1955	135178
F	345m SE	Unspecified Tank	1955	135178
F	347m SE	Unspecified Tank	1948	135406
F	347m SE	Unspecified Tank	1953	135406
F	347m SE	Unspecified Tank	1955	123253
F	349m SE	Unspecified Tank	1948	141893

ID	Location	Land Use	Date	Group ID
F	349m SE	Unspecified Tank	1953	141893
F	350m SE	Unspecified Tank	1955	135180
U	352m S	Unspecified Tank	1969	133333
U	352m S	Unspecified Tank	1953	133333
U	353m S	Unspecified Tank	1979	133333
U	353m S	Unspecified Tank	1948	133333
F	358m SE	Unspecified Tank	1893	143428
F	358m SE	Unspecified Tank	1922	143428
U	361m S	Unspecified Tank	1980	135450
U	361m S	Unspecified Tank	1980	135450
U	361m S	Unspecified Tank	1985	135450
8	365m NW	Unspecified Tank	1891	115646
T	372m W	Unspecified Tank	1932	115649
AC	412m SE	Unspecified Tank	1922	115781
AE	417m E	Unspecified Tank	1953	136354
AE	418m E	Unspecified Tank	1955	136262
AC	433m SE	Unspecified Tank	1969	122344
AC	433m SE	Unspecified Tank	1953	122344
AC	433m SE	Unspecified Tank	1980	122344
AC	433m SE	Unspecified Tank	1980	122344
AC	433m SE	Unspecified Tank	1985	122344
AC	433m SE	Unspecified Tank	1979	122344
AC	433m SE	Unspecified Tank	1963	122344
AC	433m SE	Unspecified Tank	1948	122344
AG	434m NE	Unspecified Tank	1996	133983
AG	434m NE	Unspecified Tank	1995	133983
AG	434m NE	Unspecified Tank	1994	133983
AG	434m NE	Unspecified Tank	1999	133983



ID	Location	Land Use	Date	Group ID
Y	455m E	Unspecified Tank	1891	115965
Y	495m E	Unspecified Tank	1891	115964

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	96
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Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 28**

ID	Location	Land Use	Date	Group ID
F	103m S	Gas Works	1891	72601
F	103m S	Gas Works	1908	79545
F	104m S	Gas Works	1893	79545
F	105m S	Gas Works	1922	81689
H	132m S	Gasometer	1908	65948
H	132m S	Gasometer	1922	65948
I	157m NE	Electricity Substation	1951	80627
I	157m NE	Electricity Substation	1973	80627
I	157m NE	Electricity Substation	1948	80627
I	158m NE	Electricity Substation	1979	80627
I	158m NE	Electricity Substation	1963	80627
I	158m NE	Electricity Substation	1948	80627
I	159m NE	Electricity Substation	1985	80627
F	184m SE	Gas Works	1948	66529
F	197m S	Gas Holder Station	1980	77508
F	197m S	Gas Holder Station	1980	77508
F	197m S	Disused Gas Holder Station	1985	59539
F	207m E	Hydraulic Power Station	1932	78003

ID	Location	Land Use	Date	Group ID
F	209m E	Hydraulic Power Station	1979	64692
F	209m E	Hydraulic Power Station	1948	64692
F	209m E	Hydraulic Power Station	1951	64396
F	209m E	Hydraulic Power Station	1973	64396
F	209m E	Hydraulic Power Station	1948	64396
F	210m SE	Gasometer	1948	78274
F	211m SE	Gasometer	1893	80269
F	211m SE	Gasometers	1908	65853
F	211m SE	Gasometers	1922	65853
F	212m SE	Gasometer	1891	80269
F	227m SE	Gasometer	1948	71445
F	227m SE	Gasometer	1969	68062
F	229m SE	Gas Holder	1980	70318
F	229m SE	Gas Holder	1980	70318
F	229m SE	Gas Holder	1985	70318
F	230m SE	Gasometer	1891	67026
F	231m S	Gasometer	1893	68062
F	241m SE	Gasometer	1969	59717
F	246m SE	Gasometer	1948	64845
F	247m SE	Gasometer	1893	71826
F	247m S	Gasometer	1893	75823
F	248m S	Gasometer	1891	71699
F	248m SE	Gasometer	1891	71826
F	254m S	Gasometer	1948	65525
F	257m S	Gasometer	1893	65525
F	262m S	Electricity Substation	1998	62182
F	262m S	Gasometer	1948	69283
F	263m S	Gasometer	1969	65691



ID	Location	Land Use	Date	Group ID
F	263m E	Electricity Substation	1985	65682
F	264m E	Electricity Substation	1951	65682
F	264m E	Electricity Substation	1988	65682
F	264m E	Electricity Substation	1973	65682
F	264m E	Electricity Substation	1948	65682
F	264m E	Electricity Substation	1996	65682
F	264m E	Electricity Substation	1995	65682
F	264m E	Electricity Substation	1994	65682
F	264m E	Electricity Substation	1999	65682
F	264m E	Electricity Substation	1979	65682
F	265m S	Gasometer	1891	59716
F	267m S	Gasometer	1893	65691
N	285m SW	Electricity Substation	1998	73868
N	286m SW	Electricity Transformers	1969	83603
N	286m SW	Electricity Transformers	1980	83603
N	286m SW	Electricity Transformers	1980	83603
N	286m SW	Electricity Transformers	1985	83603
N	294m SW	Electricity Substation	1979	78830
N	294m SW	Electricity Substation	1948	78830
N	294m SW	Electricity Substation	1953	78830
N	295m SW	Electricity Substation	1980	82938
N	295m SW	Electricity Substation	1980	82938
N	295m SW	Electricity Substation	1985	82938
N	295m SW	Electricity Substation	1987	82938
N	295m SW	Electricity Substation	1987	82938
N	295m SW	Electricity Substation	1990	82938
N	296m SW	Electricity Substation	1969	82938
F	323m SE	Gasometer	1891	84082

ID	Location	Land Use	Date	Group ID
F	324m SE	Gasometer	1908	84082
R	339m S	Electricity Substation	1998	62183
Y	402m E	Electricity Station	1922	81883
Y	403m E	Electricity Station	1908	81883
Y	409m E	Electricity Station	1955	66381
Y	412m E	Electricity Station	1950	66381
Y	412m E	Electricity Station	1948	73425
AH	453m S	Electricity Substation	1979	83591
AH	453m S	Electricity Substation	1948	83591
AH	466m S	Electricity Substation	1953	65840
AK	473m NW	Electricity Substation	1979	75611
AK	473m NW	Electricity Substation	1948	75611
AK	474m NW	Electricity Substation	1995	75611
AK	474m NW	Electricity Substation	1994	75611
AK	474m NW	Electricity Substation	1995	75611
AK	474m NW	Electricity Substation	1981	75611
AK	474m NW	Electricity Substation	1979	75611
AK	474m NW	Electricity Substation	1948	75611
AK	475m NW	Electricity Substation	1986	75611
AK	475m NW	Electricity Substation	1990	75611
Y	481m E	Electricity Station	1950	68267
Y	482m E	Electricity Station	1955	77896

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

67

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

Features are displayed on the Past land use - un-grouped map on **page 28**

ID	Location	Land Use	Date	Group ID
C	50m E	Garage	1973	20296
H	161m S	Garage	1979	24802
H	161m S	Garage	1963	24802
H	162m S	Garage	1953	24802
M	194m W	Garage	1963	26858
M	194m W	Garage	1981	26858
M	194m W	Garage	1979	26858
M	194m W	Garage	1979	26858
M	194m W	Garage	1963	26858
M	194m W	Garage	1986	26912
M	194m W	Garage	1990	26912
M	243m SW	Garage	1963	25290
M	244m SW	Garage	1960	25290
M	244m SW	Garage	1969	25290
Q	297m W	Garage	1995	24725
Q	297m W	Garage	1994	24725
Q	298m W	Garage	1981	24287
Q	298m W	Garage	1995	20992
Q	299m W	Garage	1986	24287
Q	299m W	Garage	1990	24287
7	353m NW	Garage	1981	20294



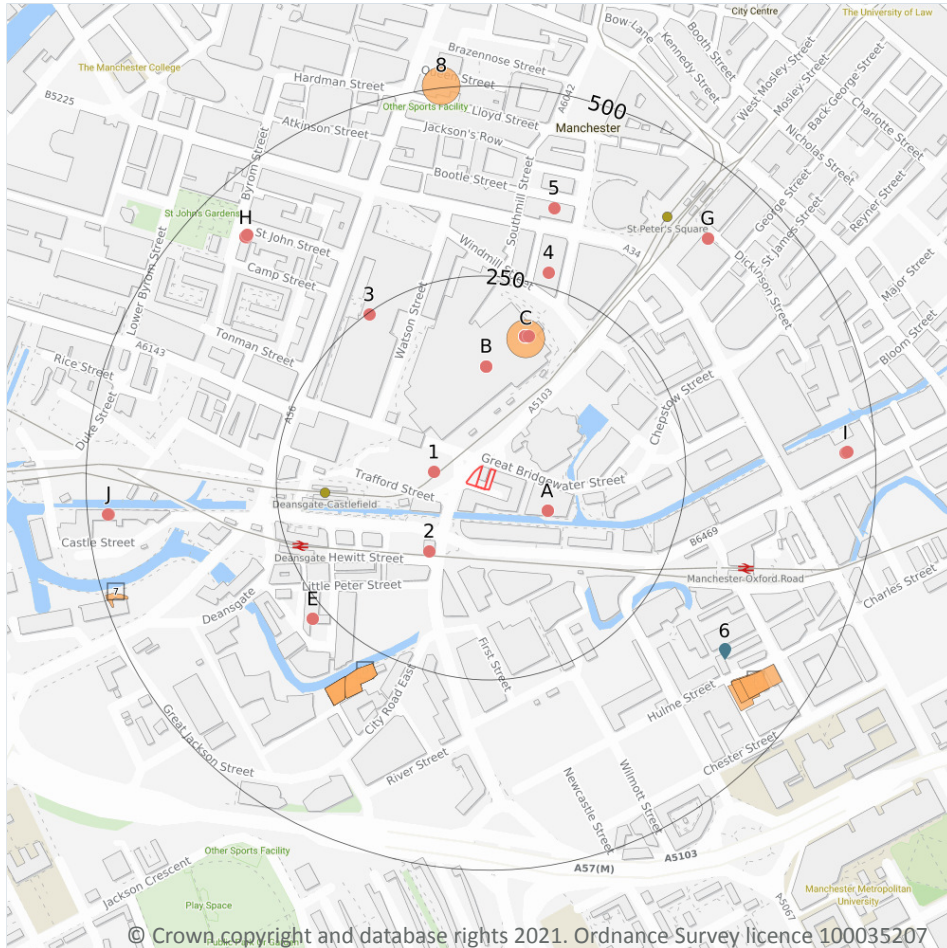
ID	Location	Land Use	Date	Group ID
W	375m SW	Garage	1980	25490
W	375m SW	Garage	1980	25490
W	379m SW	Garage	1969	22918
9	396m N	Garage	1948	20292
AD	414m SW	Garage	1980	25615
AD	414m SW	Garage	1980	25615
AD	414m SW	Garage	1990	25615
AD	418m SW	Garage	1995	27082
AD	418m SW	Garage	1997	27082
AD	418m SW	Garage	1995	27082
AD	418m SW	Garage	1997	27082
AE	426m E	Garage	1995	27861
AE	426m E	Garage	1998	27861
AE	426m E	Garage	1987	27861
AE	426m E	Garage	1969	27861
AE	426m E	Garage	1948	27861
AE	426m E	Garage	1953	27861
AE	426m E	Garage	1962	27861
AF	428m SW	Garage	1963	24336
AF	429m SW	Garage	1979	22408
AA	430m SE	Garage	1987	25909
AA	430m SE	Garage	1969	25909
AA	430m SE	Garage	1962	25909
AA	430m SE	Garage	1965	25909
AA	430m SE	Garage	1965	25909
AA	430m SE	Garage	1968	21471
AA	431m SE	Garage	1985	25909
AE	431m E	Garage	1965	26377



ID	Location	Land Use	Date	Group ID
AE	431m E	Garage	1965	26377
AE	431m E	Garage	1968	26377
AE	431m E	Garage	1955	26377
AE	432m E	Garage	1990	26377
AE	432m E	Garage	1985	26377
AF	435m SW	Garage	1960	24336
AF	435m SW	Garage	1959	21005
AI	458m W	Garage	1981	26958
AI	459m W	Garage	1986	26958
AI	460m W	Garage	1963	21869
AI	467m W	Garage	1963	21949
AI	493m W	Garage	1981	20293
AL	495m NW	Garage	1962	24856
AL	495m NW	Garage	1973	24856
AL	495m NW	Garage	1970	24856
AL	495m NW	Garage	1963	24856
AL	499m N	Garage	1970	27244
AL	499m N	Garage	1963	27244

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical waste sites
- Licensed waste sites
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m

0

Landfill sites identified from Local Authority records and high detail historical mapping.

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

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

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

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

3.5 Historical waste sites

Records within 500m

15

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 53**

ID	Location	Address	Further Details	Date
C	152m N	Site Address: Manchester Central Convention, Windmill Street, Manchester, Greater Manchester, M2 3GX	Type of Site: Recycling Centre Planning application reference: 103313/FO/2013/C1 Description: Scheme comprises relocation of waste storage facility to allow creation of a business recycling centre and construction of screening. Data source: Historic Planning Application Data Type: Point	12/11/2013
D	267m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1987
D	267m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1987

ID	Location	Address	Further Details	Date
D	267m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1990
D	299m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1968
D	299m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1995
D	299m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1997
D	299m SW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1995
F	406m SE	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1932
F	406m SE	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1953
F	406m SE	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1932
F	406m SE	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1953



ID	Location	Address	Further Details	Date
F	412m SE	Site Address: N/A	Type of Site: Waste Paper Works Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948
7	469m W	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1948
8	477m N	Site Address: St. Johns House, 2-10 Queen Street, MANCHESTER, Greater Manchester, M2 5JB	Type of Site: Recycling Storage Facility Planning application reference: 088327/FO/2008/C1 Description: Scheme comprises construction of recycling storage facility and bicycle storage facility including mesh fencing to Lloyd street elevation. Construction - fencing site works. An application (ref: 088327/FO/2008/C1) for detailed planning permission was withdrawn from Manchester C.C. Planning decision obtained Data source: Historic Planning Application Data Type: Point	-

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

3.6 Licensed waste sites

Records within 500m	1
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Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on **page 53**

ID	Location	Details		
6	375m SE	Site Name: Terra Vac (uk) Ltd Site Address: Little Ireland Phase B, Great Marlborough Street, Manchester, M1 5NN Correspondence Address: Unit 7a, Whitwood Enterprise Park, Castleford, WF10 5PX	Type of Site: Mobile Plant Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TER003 EPR reference: - Operator: Terra Vac (uk) Ltd Waste Management licence No: 50191 Annual Tonnage: 0	Issue Date: 17/06/2002 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

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



3.7 Waste exemptions

Records within 500m

57

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 53**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	45m W	Axis Tower, Albion Street, Manchester, M1 5NZ	WEX220537	Using waste exemption	Not on a farm	Use of waste in construction
A	81m E	EVERSHEDS HOUSE 70 GREAT BRIDGEWATER STREET MANCHESTER M1 5ES	EPR/QE5657A K/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of kitchen waste in a wormery
A	81m E	EVERSHEDS HOUSE 70 GREAT BRIDGEWATER STREET MANCHESTER M1 5ES	EPR/QE5657A K/A001	Using waste exemption	Non-Agricultural Waste Only	Spreading waste on non-agricultural land to confer benefit
A	81m E	EVERSHEDS HOUSE 70 GREAT BRIDGEWATER STREET MANCHESTER M1 5ES	EPR/QE5657A K/A001	Using waste exemption	Non-Agricultural Waste Only	Use of mulch
2	103m SW	Axis Tower, Albion Street, Manchester, M1 5NZ	WEX074989	Using waste exemption	Not on a farm	Use of waste in construction
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX217816	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Treating waste exemption	Not on a farm	Treatment of kitchen waste in a wormery
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Treating waste exemption	Not on a farm	Treatment of waste food
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Treating waste exemption	Not on a farm	Manual treatment of waste
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Treating waste exemption	Not on a farm	Sorting mixed waste



ID	Location	Site	Reference	Category	Sub-Category	Description
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Treating waste exemption	Not on a farm	Recovery of scrap metal
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Treating waste exemption	Not on a farm	Screening and blending of waste
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Using waste exemption	Not on a farm	Use of waste in the construction of entertainment or educational installations etc
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX220776	Using waste exemption	Not on a farm	Use of waste in construction
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Sorting mixed waste
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Manual treatment of waste
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Treatment of waste food
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Treatment of kitchen waste in a wormery
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Screening and blending of waste
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Treating waste exemption	Not on a farm	Recovery of scrap metal
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Using waste exemption	Not on a farm	Use of waste in construction
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX075609	Using waste exemption	Not on a farm	Use of waste in the construction of entertainment or educational installations etc
B	131m N	WINDMILL STREET, MANCHESTER, M2 3GX	WEX063339	Storing waste exemption	Not on a farm	Storage of waste in a secure place



ID	Location	Site	Reference	Category	Sub-Category	Description
C	178m N	-	WEX210229	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting mixed waste
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Treating waste exemption	Non-Agricultural Waste Only	Manual treatment of waste
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste food
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of kitchen waste in a wormery
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Treating waste exemption	Non-Agricultural Waste Only	Screening and blending of waste



ID	Location	Site	Reference	Category	Sub-Category	Description
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of scrap metal
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
C	179m N	MANCHESTER CENTRAL CONVENTION CO PETERSFIELD MANCHESTER GREATER MANCHESTER M2 3GX	EPR/ZF0434NE /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in the construction of entertainment or educational installations etc
C	181m N	MANCHESTER CENTRAL CONVENTION COMPLEX PETERSFIELD MANCHESTER M2 3GX	EPR/KE5983N V/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
3	247m NW	THE MEWS, GREAT NORTHERN WAREHOUSE 235 DEANS GATE MANCHESTER M3 4EN	EPR/BF0603EU /A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in the construction of entertainment or educational installations etc
4	268m N	Windmill Green, 24 Mount Street, Manchester, M2 3NN	WEX105155	Using waste exemption	Not on a farm	Use of waste in construction
E	271m SW	1, ALPHA PLACE, MANCHESTER, M15 4PP	WEX017965	Storing waste exemption	Not on a farm	Storage of waste in secure containers
E	271m SW	1, ALPHA PLACE, MANCHESTER, M15 4PP	WEX017965	Storing waste exemption	Not on a farm	Storage of waste in a secure place
5	352m N	Brazennose House M2 5PB	EPR/ZE5544KA /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
G	413m NE	New Build Construction Works by Russells, 3 St Peter Square, Manchester, M2 3DF	WEX118443	Treating waste exemption	Not on a farm	Screening and blending of waste
G	413m NE	New Build Construction Works by Russells, 3 St Peter Square, Manchester, M2 3DF	WEX118443	Using waste exemption	Not on a farm	Use of waste in construction

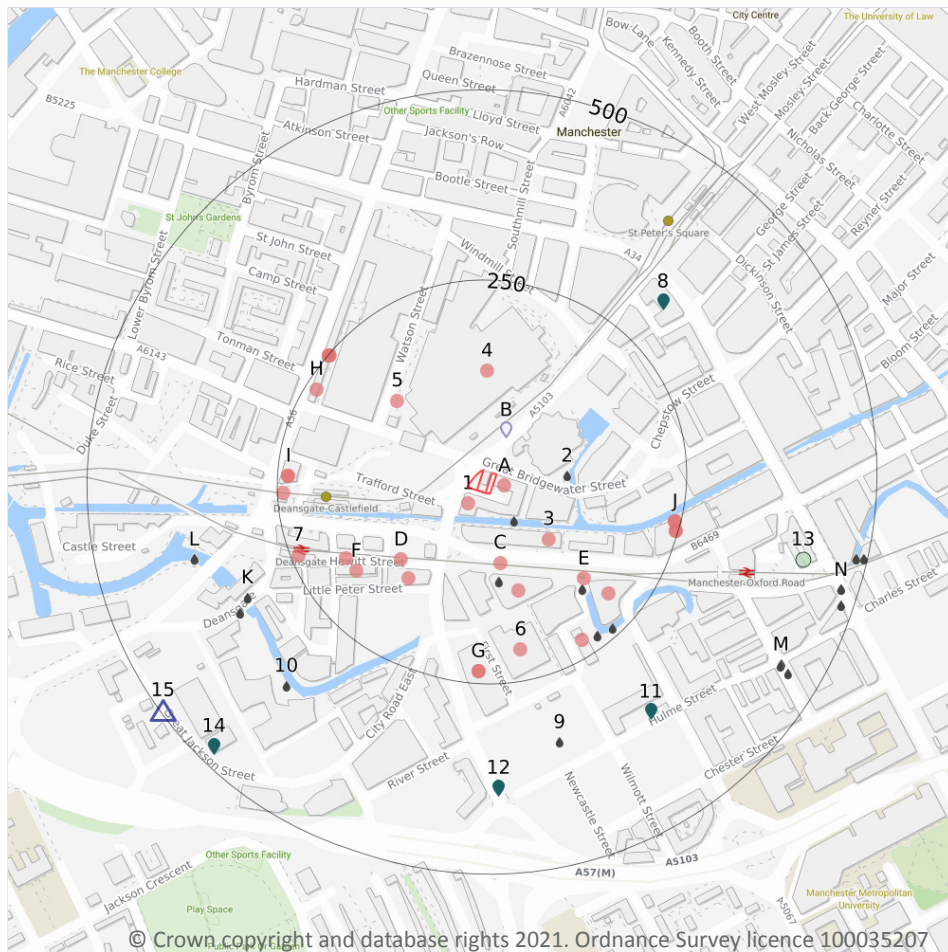


ID	Location	Site	Reference	Category	Sub-Category	Description
H	430m NW	25 St. John Street MANCHESTER M3 4DT	EPR/DE5245SP /A001	Treating waste exemption	Non- Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
H	431m NW	25, ST. JOHN STREET, MANCHESTER, M3 4DT	WEX243303	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
H	431m NW	98, HARLEY STREET, LONDON, W1G 7HZ	WEX099367	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
H	431m NW	25 St John Street M34DT	EPR/FE5081Q V/A001	Treating waste exemption	Non- Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
I	460m E	Bridgewater House 60 Whitworth Street MANCHESTER M1 6LT	EPR/NF0707M F/A001	Disposing of waste exemption	Non- Agricultural Waste Only	Deposit of waste from a railway sanitary convenience
I	462m E	LINEAR NETWORK: MAINLINE RAILWAY BETWEEN MANCHESTER AIRPORT AIRPORT AND BARROW-IN-FURNESS	EPR/BE5446FE /A001	Disposing of waste exemption	Non- Agricultural Waste Only	Deposit of waste from a railway sanitary convenience
J	472m W	Bestway Panacea Holdings Limited, BULK REGISTRATION for Bestway Panacea Holdings Limited for 108 sites, M34LZ	NRW- WME005755	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
J	473m W	Bestway National Chemists LTD, BULK REGISTRATION for Bestway National Chemists Ltd (107 sites), M34LZ	NRW- WME036650	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



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Part A(1) industrial activities
- Licensed pollutant release (Part A(2)/B)
- Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

29

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 62**

ID	Location	Company	Address	Activity	Category
A	15m E	Electricity Sub Station	Greater Manchester, M1	Electrical Features	Infrastructure and Facilities
1	20m S	My PC Fix	ALBION WHARF 19, ALBION STREET, Manchester, Greater Manchester, M1 5LN	Electrical Equipment Repair and Servicing	Repair and Servicing
C	92m S	Kickstart Motorcycles	77 Arches, Whitworth Street West, Manchester, Greater Manchester, M1 5WQ	Vehicle Repair, Testing and Servicing	Repair and Servicing



ID	Location	Company	Address	Activity	Category
3	98m SE	Curtins	17-19, Whitworth Street West, Manchester, Greater Manchester, M1 5WG	Structural Engineers	Engineering Services
D	129m SW	Mancoco	84, Hewitt Street, Manchester, Greater Manchester, M15 4GB	Food and Beverage Industry Machinery	Industrial Products
4	131m N	NHS Nightingale Hospital North West	Windmill Street, Manchester, Greater Manchester, M2 3GX	Hospitals	Health Practitioners and Establishments
C	133m S	Corner House Publications	2, Tony Wilson Place, Manchester, Greater Manchester, M15 4FN	Distribution and Haulage	Transport, Storage and Delivery
5	143m NW	Duffy Motors Manchester Ltd	Arch 16-17, Watson Street, Manchester, Greater Manchester, M3 4LP	Vehicle Repair, Testing and Servicing	Repair and Servicing
D	143m SW	Miller Energy	Madison House 37, Little Peter Street, Manchester, Greater Manchester, M15 4QJ	Structural Engineers	Engineering Services
E	166m SE	Electricity Sub Station	Greater Manchester, M15	Electrical Features	Infrastructure and Facilities
F	184m SW	Integra Consulting	14-32, Hewitt Street, Manchester, Greater Manchester, M15 4GB	Structural Engineers	Engineering Services
F	185m SW	G T Autos	88, Hewitt Street, Manchester, Greater Manchester, M15 4GB	Vehicle Repair, Testing and Servicing	Repair and Servicing
E	204m SE	Moody Bear	Hotspur House 2, Gloucester Street, Manchester, Greater Manchester, M1 5QR	Clothing, Components and Accessories	Consumer Products
6	209m S	Autotrader	1, Tony Wilson Place, Manchester, Greater Manchester, M15 4FN	Secondhand Vehicles	Motoring
E	227m SE	Gas Valve Compound	Greater Manchester, M15	Gas Features	Infrastructure and Facilities
G	234m S	Gazprom Marketing & Energy	8, First Street, Manchester, Greater Manchester, M15 4RP	Fuel Distributors and Suppliers	Household, Office, Leisure and Garden
G	234m S	W S P	8, First Street, Manchester, Greater Manchester, M15 4RP	Civil Engineers	Engineering Services
H	236m NW	Feather & Black Ltd	289-291, Deansgate, Manchester, Greater Manchester, M3 4EW	Beds and Bedding	Consumer Products
I	236m W	printing.com	Nettl, 323-325, Deansgate, Deansgate, Manchester, Greater Manchester, M3 4LQ	Published Goods	Industrial Products



ID	Location	Company	Address	Activity	Category
I	236m W	Nettl	323-325, Deansgate, Manchester, Greater Manchester, M3 4LQ	Published Goods	Industrial Products
7	240m W	Deansgate Rail Station	Greater Manchester, M15	Railway Stations, Junctions and Halts	Public Transport, Stations and Infrastructure
I	243m W	Deansgate-Castlefield (Manchester Metrolink)	Greater Manchester, M3	Tram, Metro and Light Railway Stations and Stops	Public Transport, Stations and Infrastructure
J	243m E	I Smart Communications Ltd	Unit 1c The Lock Building Shopping Centre, 41 Whitworth Street West, Manchester, Greater Manchester, M1 5BD	Electrical Equipment Repair and Servicing	Repair and Servicing
J	243m E	Smiler Service	Unit 3c The Lock Building, 41 Whitworth Street West, Manchester, Greater Manchester, M1 5BD	Distribution and Haulage	Transport, Storage and Delivery
J	247m E	Ardent Engineering Ltd	Apartment 903 The Lock Building 41, Whitworth Street West, Manchester, Greater Manchester, M1 5BE	Civil Engineers	Engineering Services
J	247m E	Bandbox Laundry Premier Outlet	Unit C 41 Whitworth Street, Manchester, Greater Manchester, M1 5BE	Cleaning Equipment and Supplies	Industrial Products
H	249m NW	Natural Flooring Solutions	Great Northern Warehouse 275, Deansgate, Manchester, Greater Manchester, M3 4EL	Construction Completion Services	Construction Services
H	249m NW	Isovitallity Nutriceuticals Ltd	Great Northern Warehouse 275, Deansgate, Manchester, Greater Manchester, M3 4EL	Catering and Non Specific Food Products	Foodstuffs
H	249m NW	Cars for Stars	Great Northern Warehouse 275, Deansgate, Manchester, Greater Manchester, M3 4EL	Vehicle Hire and Rental	Hire Services

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 62**



ID	Location	Company	Address	LPG	Status
15	497m SW	OBSOLETE	14, Great Jackson Street, Castlefield, Manchester, Greater Manchester, M15 4NG	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0
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High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0
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High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0
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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
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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

2

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

Features are displayed on the Current industrial land use map on **page 62**

ID	Location	Details	
B	59m N	Operator: MANCHESTER HEAT NETWORK TRADECO LIMITED Installation Name: MANCHESTER CIVIC QUARTER ENERGY CENTRE EPR/JP3700BU Process: TRANCHE A SG PERMITTING DATE 1ST OCTOBER 2019 Permit Number: JP3700BU Original Permit Number: JP3700BU	EPR Reference: - Issue Date: 20/08/2020 Effective Date: 20/08/2020 Last date noted as effective: 01/07/2021 Status: EFFECTIVE

ID	Location	Details	
B	59m N	Operator: MANCHESTER HEAT NETWORK TRADECO LIMITED Installation Name: MANCHESTER CIVIC QUARTER ENERGY CENTRE EPR/JP3700BU Process: NEW MEDIUM COMBUSTION PLANT Permit Number: JP3700BU Original Permit Number: JP3700BU	EPR Reference: - Issue Date: 20/08/2020 Effective Date: 20/08/2020 Last date noted as effective: 01/07/2021 Status: EFFECTIVE

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

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

Records within 500m	4
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Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 62**

ID	Location	Address	Details	
8	315m NE	The Laundry Shop, Unit 5, Peter House, Oxford Street, Manchester	Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
11	356m SE	Dunlop Ltd, Cambridge St, M60 1PD	Process: Rubber Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
12	386m S	Jessop & Baird Ltd, Hulme St, M15 6AL	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
14	476m SW	Tom Garner Motors, A Branch of Robins & Day Ltd, Chester Rd, Manchester, M15 4GA	Process: Respraying of Road Vehicles Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

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

32

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

Features are displayed on the Current industrial land use map on **page 62**

ID	Location	Address	Details	
A	48m SE	TRUMPET STREET, SSO, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 01MAN0168 Permit Version: 1 Receiving Water: RIVER TIB CULVERT-MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 15/09/1993 Revocation Date: 15/09/1993
2	92m E	GREAT BRIDGEWATER ST, OPPOSITE CHEPSTOW STREET, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 01MAN0163 Permit Version: 1 Receiving Water: RIVER TIB CULVERT	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 15/09/1993 Revocation Date: 15/09/1993
C	117m S	ALBION STREET/HEWITT ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982706 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 30/09/1994 Revocation Date: 13/11/2019
C	117m S	ALBION STREET/HEWITT ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0251 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 01/01/1995



ID	Location	Address	Details	
E	175m SE	GREAT BRIDGEWATER ST, OPPOSITE CHEPSTOW STREET, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982707 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 30/09/1994 Revocation Date: -
E	175m SE	GREAT BRIDGEWATER ST, OPPOSITE CHEPSTOW STREET, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0252 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 01/01/1995
E	234m SE	CAMBRIDGE STREET CSO 282D9, 1 CAMBRIDGE STREET, MANCHESTER, GREATER MANCHESTER, M1 5BW	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982721 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 11/04/2018 Effective Date: 11/04/2018 Revocation Date: -
E	234m SE	LOWER CAMBRIDGE ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0285 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 15/11/1999
E	234m SE	WILMOTT ST AT RIVER ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0184 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 18/10/1999
E	239m SE	CAMBRIDGE STREET CSO 282D9, 1 CAMBRIDGE STREET, MANCHESTER, GREATER MANCHESTER, M1 5BW	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982721 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: - Effective Date: 15/11/1999 Revocation Date: 10/04/2018
K	324m SW	DEANS GATE, L. PETER ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0157 Permit Version: 1 Receiving Water: TUNNEL TO MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010



ID	Location	Address	Details	
K	324m SW	DEANS GATE, L. PETER ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0157 Permit Version: 2 Receiving Water: TUNNEL TO MEDLOCK	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 18/07/2014
9	339m S	NEWCASTLE ST/CHESTER ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0361 Permit Version: 1 Receiving Water: -	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: -
K	342m SW	CHESTER RD AT OWEN ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982719 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: - Effective Date: 01/12/1999 Revocation Date: -
K	342m SW	CHESTER RD AT OWEN ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0276 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 01/12/1999
10	353m SW	OWEN STREET, MANCHESTER, M15 4PZ	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: EPRFB3091RH Permit Version: 1 Receiving Water: THE RIVER MEDLOCK	Status: SURRENDERED UNDER EPR 2010 Issue date: 04/10/2016 Effective Date: 04/10/2016 Revocation Date: 02/07/2018
L	372m W	POTATO WHARF, OFF LIVERPOOL RD, MANCHESTER	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - NOT WATER COMPANY Permit Number: 0175/5 Permit Version: 1 Receiving Water: CROWTON BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 20/01/1975 Revocation Date: 31/03/1991
L	372m W	POTATO WHARF, OFF LIVERPOOL RD, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0175/5 Permit Version: 1 Receiving Water: CROWTON BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 20/01/1975 Revocation Date: 31/03/1991



ID	Location	Address	Details	
L	372m W	POTATO WHARF, OFF LIVERPOOL RD, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0175/5 Permit Version: 2 Receiving Water: CROWTON BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/04/1991 Revocation Date: 31/12/1994
L	372m W	POTATO WHARF, OFF LIVERPOOL RD, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0175/5 Permit Version: 3 Receiving Water: CROWTON BROOK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/01/1995 Revocation Date: 30/06/1995
L	372m W	POTATO WHARF, OFF LIVERPOOL RD, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 0175/5 Permit Version: 4 Receiving Water: CROWTON BROOK	Status: SURRENDERED UNDER EPR 2010 Issue date: - Effective Date: 01/07/1995 Revocation Date: 08/03/2016
M	443m SE	CHESTER STREET CSO, JUNCTION OF CHESTER STREET/, LOWER OSMOND STREET, MANCHESTER, M1 5QF	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016983278 Permit Version: 2 Receiving Water: THE RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 09/07/2018 Effective Date: 09/07/2018 Revocation Date: -
M	443m SE	LOWER ORMOMD ST/HULME ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0282 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 09/08/2019
M	457m SE	CHESTER STREET CSO, JUNCTION OF CHESTER STREET/, LOWER OSMOND STREET, MANCHESTER, M1 5QF	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016983278 Permit Version: 1 Receiving Water: THE RIVER MEDLOCK	Status: NEW CONSENT (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 19/02/1999 Effective Date: 01/12/1999 Revocation Date: 08/07/2018
N	477m E	OXFORD ROAD/GROSVENOR STREET CSO, OXFORD ROAD, MANCHESTER, GREATER MANCHESTER, M1 7DZ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0189 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 02/09/2010



ID	Location	Address	Details	
N	477m E	OXFORD ROAD/GROSVENOR STREET CSO, OXFORD ROAD, MANCHESTER, GREATER MANCHESTER, M1 7DZ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0189 Permit Version: 2 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 04/02/2016
N	477m E	OXFORD ROAD/GROSVENOR STREET CSO, OXFORD ROAD, MANCHESTER, GREATER MANCHESTER, M1 7DZ	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0189 Permit Version: 3 Receiving Water: RIVER MEDLOCK	Status: VARIED UNDER EPR 2010 Issue date: 05/02/2016 Effective Date: 05/02/2016 Revocation Date: -
N	477m E	OXFORD/NEW WAKEFIELD ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0165 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: REVOKED - UNSPECIFIED Issue date: - Effective Date: 01/01/1995 Revocation Date: 31/03/1998
N	483m E	OXFORD RD, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0342 Permit Version: 1 Receiving Water: -	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 19/12/1999
N	485m E	MALLARD ST OFF CHARLES ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 016982736 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 30/09/1994 Revocation Date: -
N	485m E	MEDLOCK ST(OFF CHARLES ST), MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0343 Permit Version: 1 Receiving Water: -	Status: CONSENT REVOKED OR REVISED - NEW CONSENT ISSUED (37(1)) Issue date: - Effective Date: 01/01/1995 Revocation Date: 01/01/1995
N	495m E	YORK ST/CHARLES ST, MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0281 Permit Version: 1 Receiving Water: RIVER MEDLOCK	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 09/08/2019

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**1**

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

Features are displayed on the Current industrial land use map on **page 62**

ID	Location	Details	
13	417m E	Incident Date: 12/07/2001 Incident Identification: 15886 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m	0
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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.

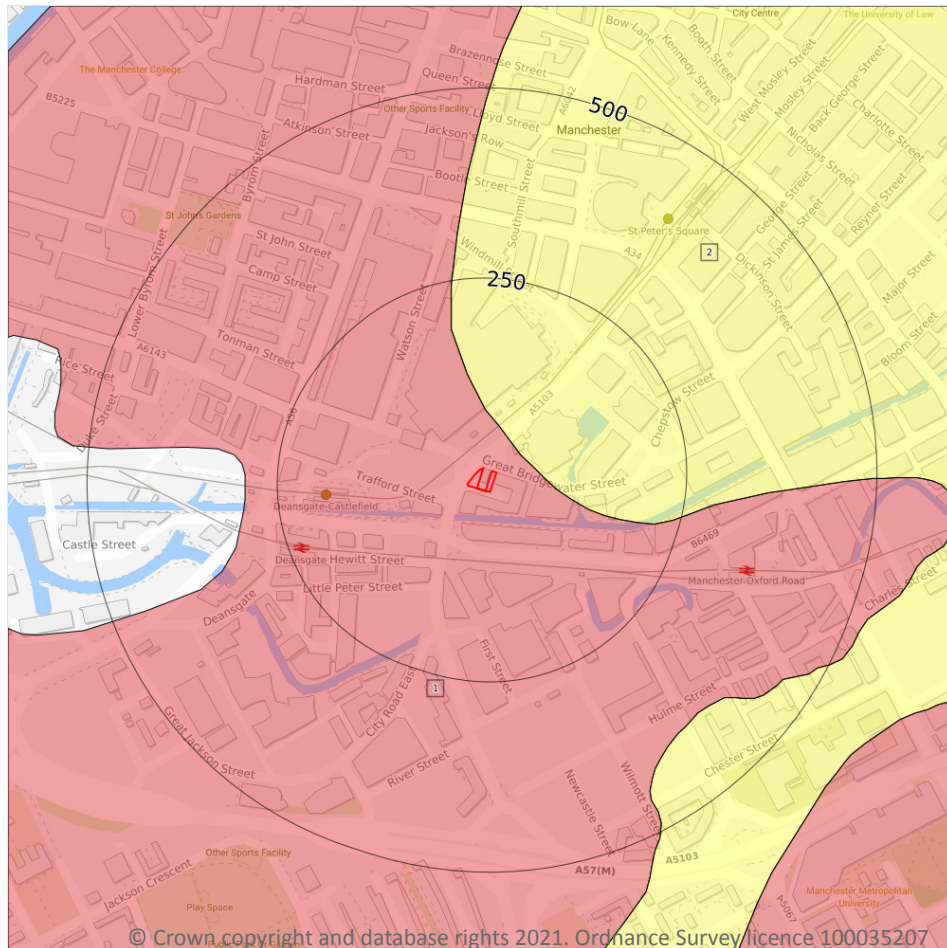
4.21 Pollution inventory radioactive waste

Records within 500m	0
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The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

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

5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

2

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 75**

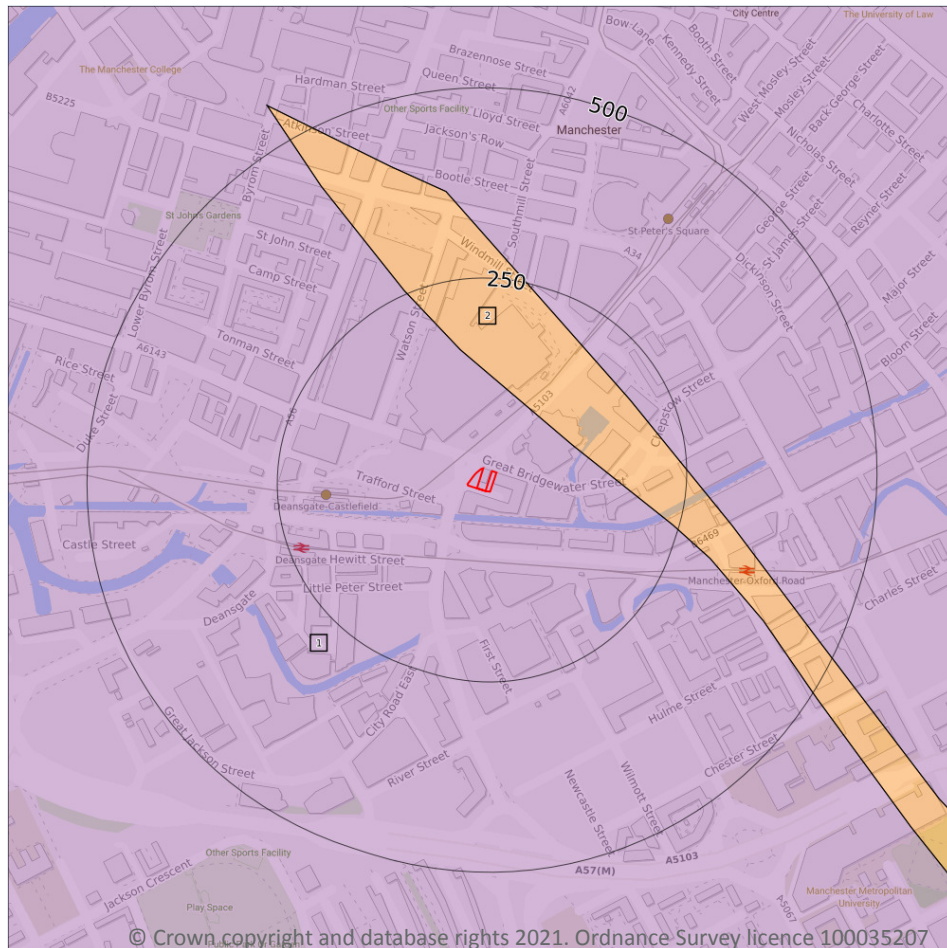
ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	39m NE	Secondary 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



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



Bedrock aquifer



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

5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

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

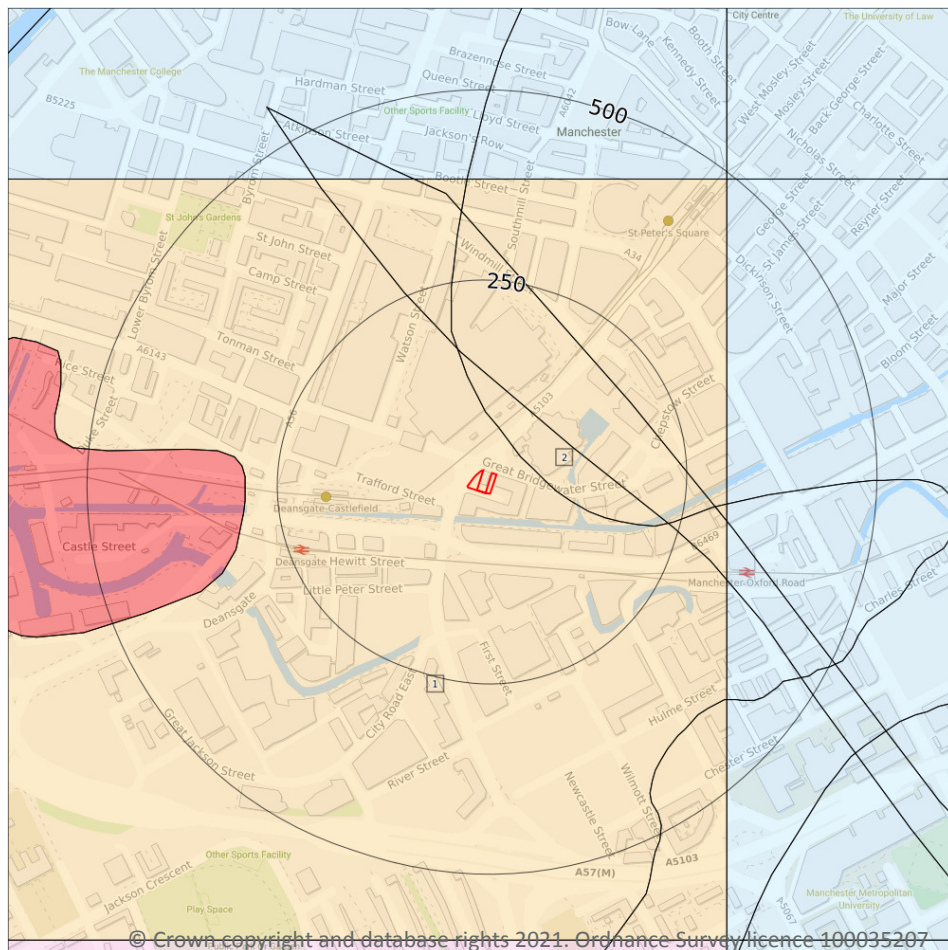
ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	92m NE	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers



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



Groundwater vulnerability



— Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m

2

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

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

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

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - 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: High Aquifer type: Principal Flow mechanism: Well connected fractures
2	39m NE	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: High Aquifer type: Principal Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

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

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

5.5 Groundwater vulnerability- local information

Records on site

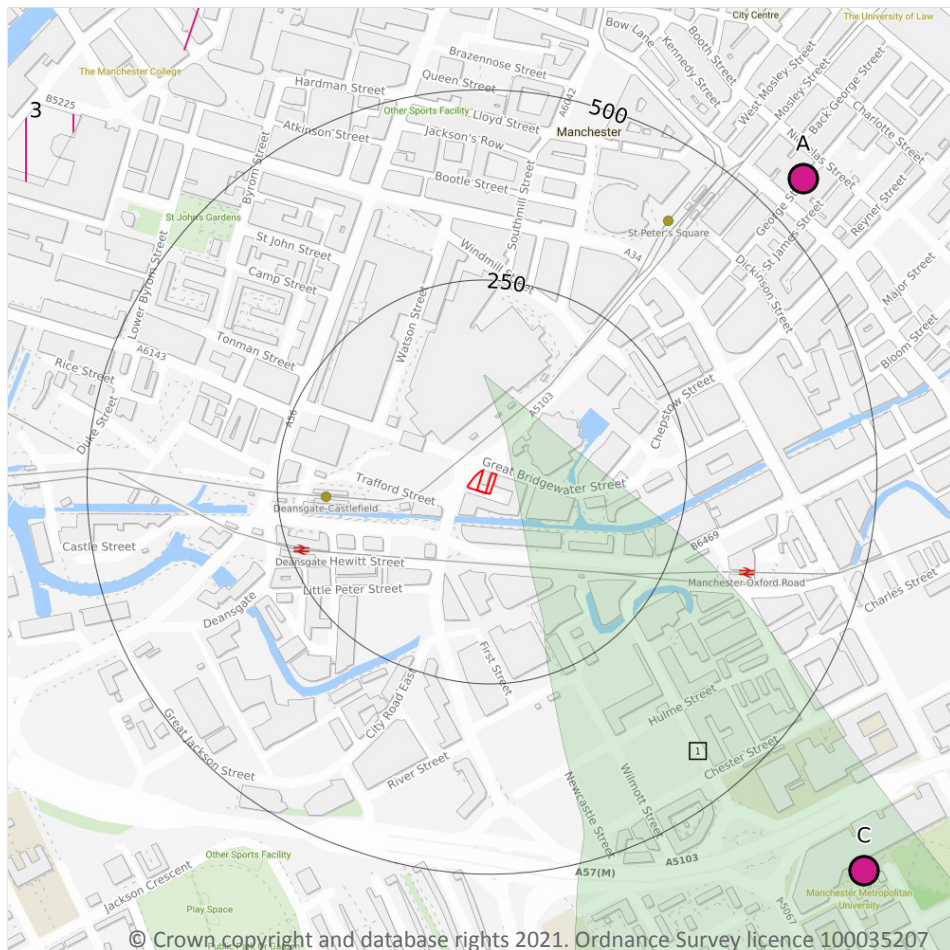
0

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

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



Abstractions and Source Protection Zones



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

5.6 Groundwater abstractions

Records within 2000m

47

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

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

ID	Location	Details	
A	559m NE	Status: Historical Licence No: 2569007069 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT GEORGE ST, MANCHESTER" Data Type: Point Name: BRITISH TELECOM Easting: 384100 Northing: 398000	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 100 Version Start Date: 27/01/1971 Version End Date: -
A	559m NE	Status: Historical Licence No: 2569007069 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT GEORGE ST, MANCHESTER Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 384100 Northing: 398000	Annual Volume (m ³): 1100 Max Daily Volume (m ³): 860 Original Application No: - Original Start Date: 01/04/1984 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2007 Version End Date: -
2	676m NW	Status: Historical Licence No: 2569007089 Details: Non-Evaporative Cooling Direct Source: Ground Water - North West Region Point: 2 BOREHOLES AT GARTSIDE STREET MANCHESTER Data Type: Line Name: HER MAJESTY'S COURT SERVICE Easting: 383335 Northing: 398310	Annual Volume (m ³): 200000 Max Daily Volume (m ³): 1179 Original Application No: - Original Start Date: 26/01/2005 Expiry Date: 31/03/2011 Issue No: 2 Version Start Date: 10/07/2008 Version End Date: -
3	682m NW	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: -



ID	Location	Details	
-	691m E	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: -
-	691m E	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: -
C	697m SE	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: - Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -
C	697m SE	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: - Original Start Date: 04/04/2014 Expiry Date: 31/03/2027 Issue No: 2 Version Start Date: 04/04/2014 Version End Date: -

ID	Location	Details	
-	841m S	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: - Original Start Date: 20/09/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/01/2015 Version End Date: -
-	841m S	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: - Original Start Date: 20/09/2013 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 01/01/2015 Version End Date: -
-	1082m N	Status: Historical Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DIAL HOUSE, CHAPEL ST, SALFORD" Data Type: Point Name: BRITISH TELECOM Easting: 383700 Northing: 398700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 100 Version Start Date: 27/01/1971 Version End Date: -
-	1082m N	Status: Historical Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIAL HOUSE, CHAPEL ST, SALFORD Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 383700 Northing: 398700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 101 Version Start Date: 01/04/1984 Version End Date: -

ID	Location	Details	
-	1082m N	Status: Active Licence No: 2569007070 Details: General Cooling (Existing Licences Only) (High Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIAL HOUSE CHAPEL STREET SALFORD Data Type: Point Name: BRITISH TELECOMMUNICATIONS PLC Easting: 383700 Northing: 398700	Annual Volume (m ³): 45 Max Daily Volume (m ³): 30 Original Application No: - Original Start Date: 27/01/1971 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2007 Version End Date: -
-	1544m E	Status: Historical Licence No: 2569006001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, BROADIE ST, ARDWICK, MANCHESTER" Data Type: Point Name: MOSELEY RUBBER CO LTD Easting: 385240 Northing: 397540	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -
-	1544m E	Status: Historical Licence No: 2569006001 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, BROADIE ST, ARDWICK, MANCHESTER Data Type: Point Name: MOSELEY RUBBER CO LTD Easting: 385240 Northing: 397540	Annual Volume (m ³): 331858 Max Daily Volume (m ³): 909.2 Original Application No: - Original Start Date: 08/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 08/02/1966 Version End Date: -
-	1578m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -

ID	Location	Details	
-	1578m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1578m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1578m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1578m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -

ID	Location	Details	
-	1578m N	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1609m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1609m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1609m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -



ID	Location	Details	
-	1609m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1609m N	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1609m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1641m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -

ID	Location	Details	
-	1641m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1641m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1641m N	Status: Historical Licence No: 2569004023 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1641m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -

ID	Location	Details	
-	1641m N	Status: Historical Licence No: 2569004023 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1642m NW	Status: Historical Licence No: 2569007085 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT HOPE STREET, SALFORD, MANCHESTER" Data Type: Point Name: READY MIXED CONCRETE (NORTH WEST) LIMITED Easting: 382190 Northing: 398330	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/11/2000 Expiry Date: - Issue No: 1 Version Start Date: 01/11/2000 Version End Date: -
-	1642m NW	Status: Active Licence No: 2569007085 Details: Process Water Direct Source: Ground Water - North West Region Point: BOREHOLE AT HOPE STREET, SALFORD, MANCHESTER Data Type: Point Name: CEMEX UK MATERIALS LTD Easting: 382190 Northing: 398330	Annual Volume (m ³): 23,000 Max Daily Volume (m ³): 115 Original Application No: - Original Start Date: 01/11/2000 Expiry Date: - Issue No: 4 Version Start Date: 21/12/2018 Version End Date: -
-	1686m S	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: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/05/2014 Version End Date: -

ID	Location	Details	
-	1686m S	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: - Original Start Date: 15/02/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/05/2014 Version End Date: -
-	1699m S	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: -
-	1699m S	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: -
-	1699m S	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: -

ID	Location	Details	
-	1699m S	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: -
-	1699m S	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: -
-	1699m S	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: -
-	1797m S	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: -



ID	Location	Details	
-	1797m S	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: -
-	1797m S	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: -
-	1797m S	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: -

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

5.7 Surface water abstractions

Records within 2000m

2

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

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



ID	Location	Details	
-	1175m W	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: -
-	1175m W	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: -

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

5.8 Potable abstractions

Records within 2000m

9

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

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

ID	Location	Details	
-	1578m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -



ID	Location	Details	
-	1578m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 2) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1578m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 2 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383820 Northing: 399190	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1609m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1609m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 3) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -

ID	Location	Details	
-	1609m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 3 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383830 Northing: 399220	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1641m N	Status: Historical Licence No: 2569004023 Details: "Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services" Direct Source: Ground Water - North West Region Point: "BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER" Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 09/08/2000 Version End Date: -
-	1641m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE (NO 1) AT PREMISES, STRANGWAYS, MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -
-	1641m N	Status: Historical Licence No: 2569004023 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Ground Water - North West Region Point: BOREHOLE NUMBER 1 AT PREMISES STRANGWAYS MANCHESTER Data Type: Point Name: INTERBREW UK LTD Easting: 383850 Northing: 399250	Annual Volume (m ³): 500000 Max Daily Volume (m ³): 2500 Original Application No: - Original Start Date: 18/02/1966 Expiry Date: - Issue No: 102 Version Start Date: 01/01/2004 Version End Date: -

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



5.9 Source Protection Zones

Records within 500m**1**

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 81**

ID	Location	Type	Description
1	22m E	3	Total catchment

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

5.10 Source Protection Zones (confined aquifer)

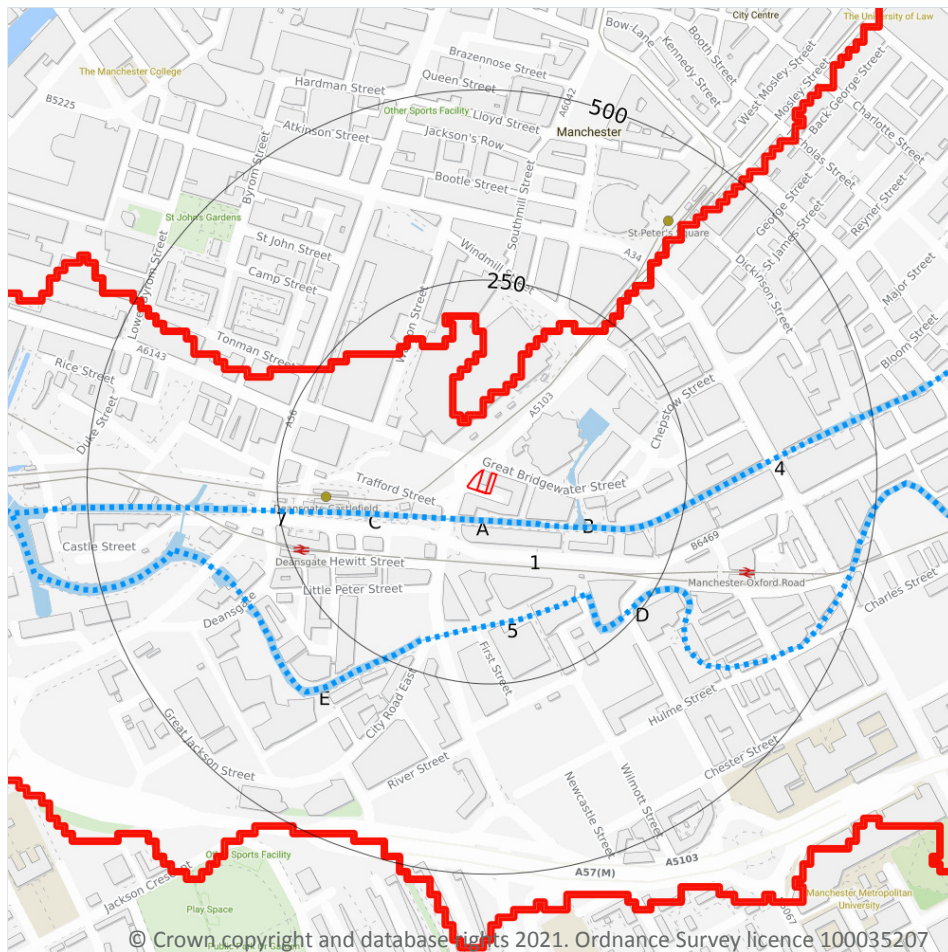
Records within 500m**0**

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



- 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

11

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 98**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	36m S	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal



ID	Location	Type of water feature	Ground level	Permanence	Name
B	117m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
4	126m E	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
C	135m W	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
C	139m W	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
5	169m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock
C	182m W	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Rochdale Canal
C	182m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	183m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock
E	212m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Medlock
7	222m W	Canal. A manmade watercourse for inland navigation.	Underground	Watercourse contains water year round (in normal circumstances)	Rochdale Canal

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

6

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

Features are displayed on the Hydrology map on **page 98**



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 98**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River WB catchment	Medlock (Lumb Brook to Irwell)	GB112069061152	Roch Irk Medlock	Irwell

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

6.4 WFD Surface water bodies

Records identified

2

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 98**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
A	36m S	Canal	Rochdale Canal, western section	GB71210517	Moderate	Good	Moderate	2016
6	169m S	River	Medlock (Lumb Brook to Irwell)	GB112069061152	Moderate	Good	Moderate	2016

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



6.5 WFD Groundwater bodies

Records on site

1

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

Features are displayed on the Hydrology map on **page 98**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Manchester and East Cheshire Permo-Triassic Sandstone Aquifers	<u>GB41201G101100</u>	Poor	Poor	Poor	2015

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



7 River and coastal flooding

7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m

0

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance).

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

7.2 Historical Flood Events

Records within 250m

0

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

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

7.3 Flood Defences

Records within 250m

0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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



7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0
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Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

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

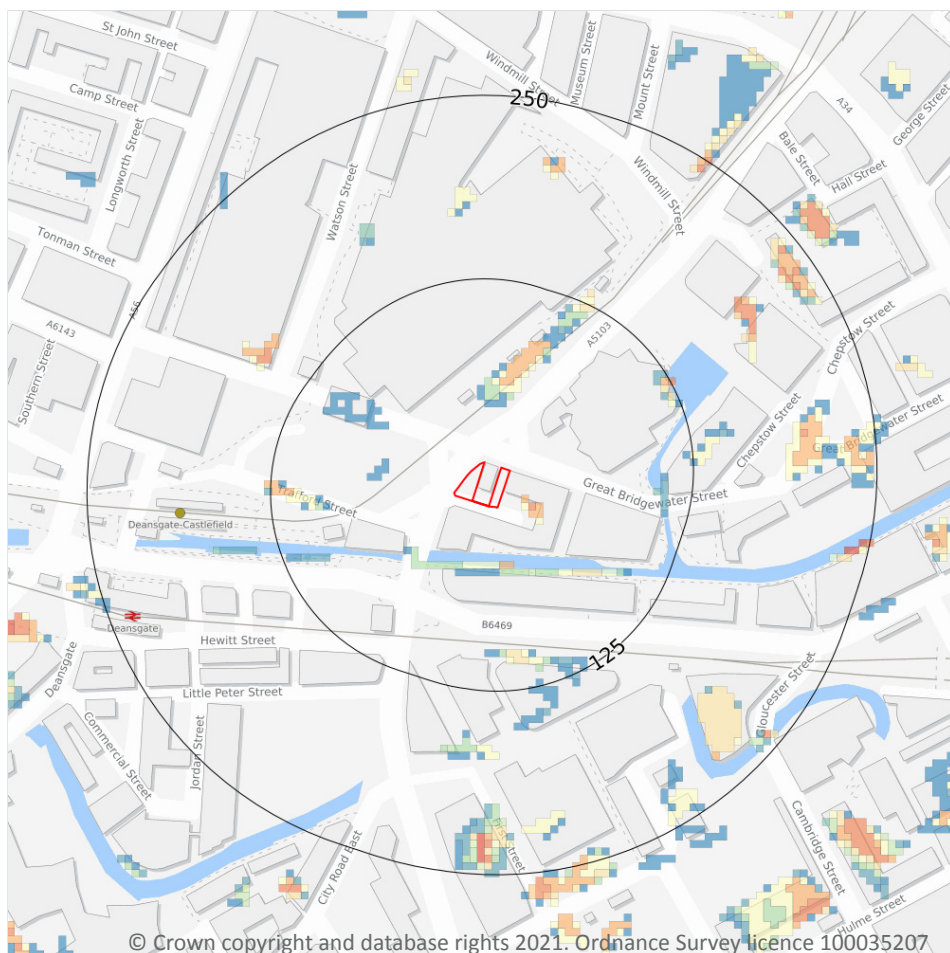
7.7 Flood Zone 3

Records within 50m	0
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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

Negligible

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

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

Features are displayed on the Surface water flooding map on **page 105**

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

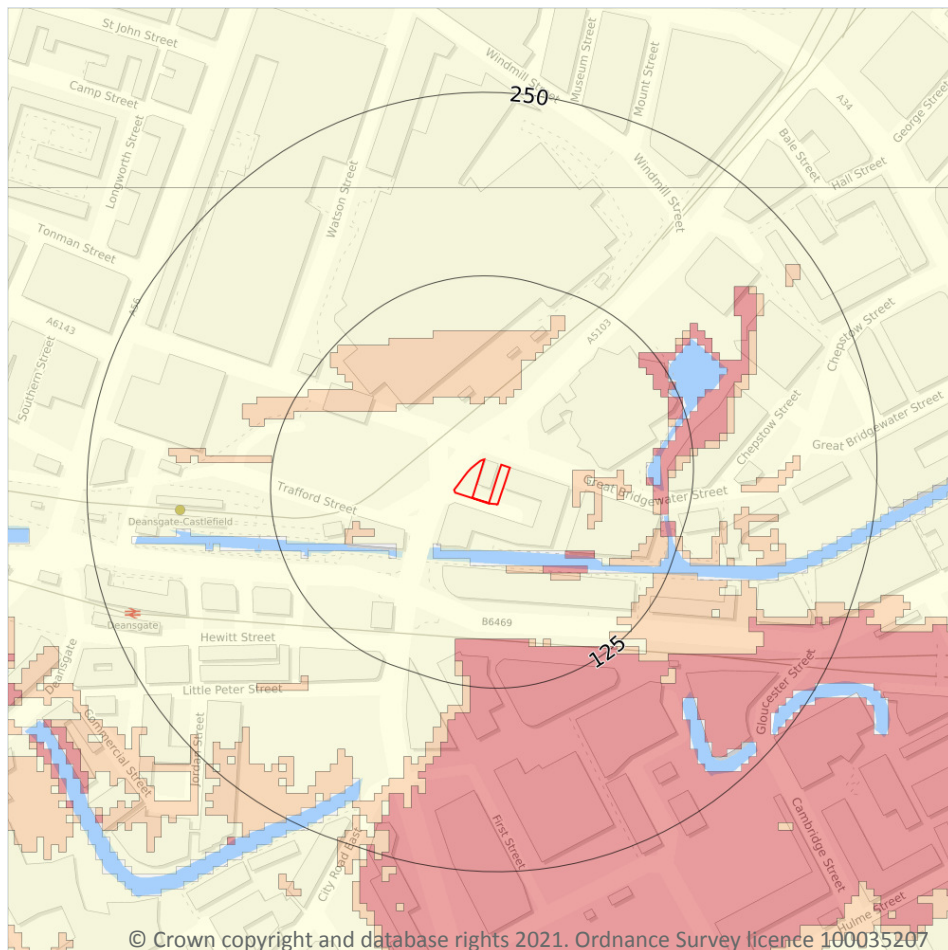
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

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

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9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

Moderate-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 107**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m

0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m

0

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

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



10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m**0**

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

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

10.7 Designated Ancient Woodland

Records within 2000m**0**

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

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

10.8 Biosphere Reserves

Records within 2000m**0**

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

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



10.9 Forest Parks

Records within 2000m	0
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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
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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
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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
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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
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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**3**

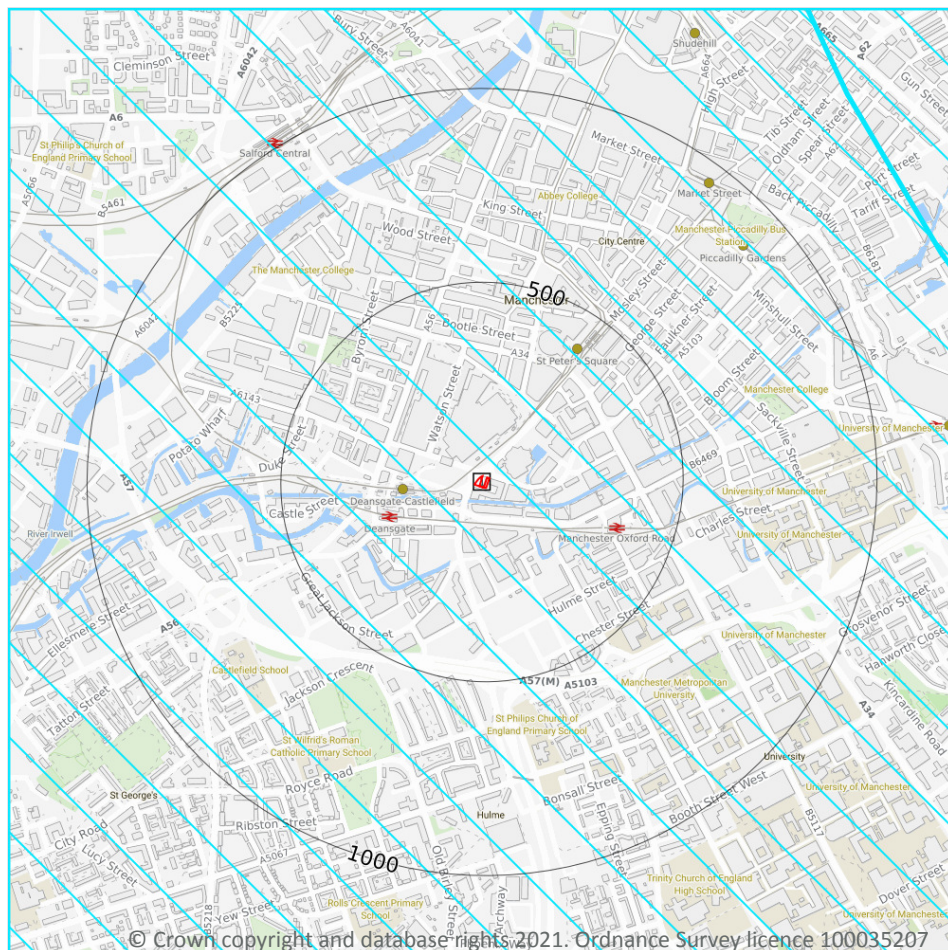
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
992m NE	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	S638	Existing
1049m N	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	S638	Existing
1233m NW	Irwell / Man. Ship Canal (Kearsley to Irlam Locks) NVZ	Surface Water	S643	Existing

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



SSSI Impact Zones and Units



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

10.17 SSSI Impact Risk Zones

Records on site

1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 112**

ID	Location	Type of developments requiring consultation
1	On site	Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons > 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

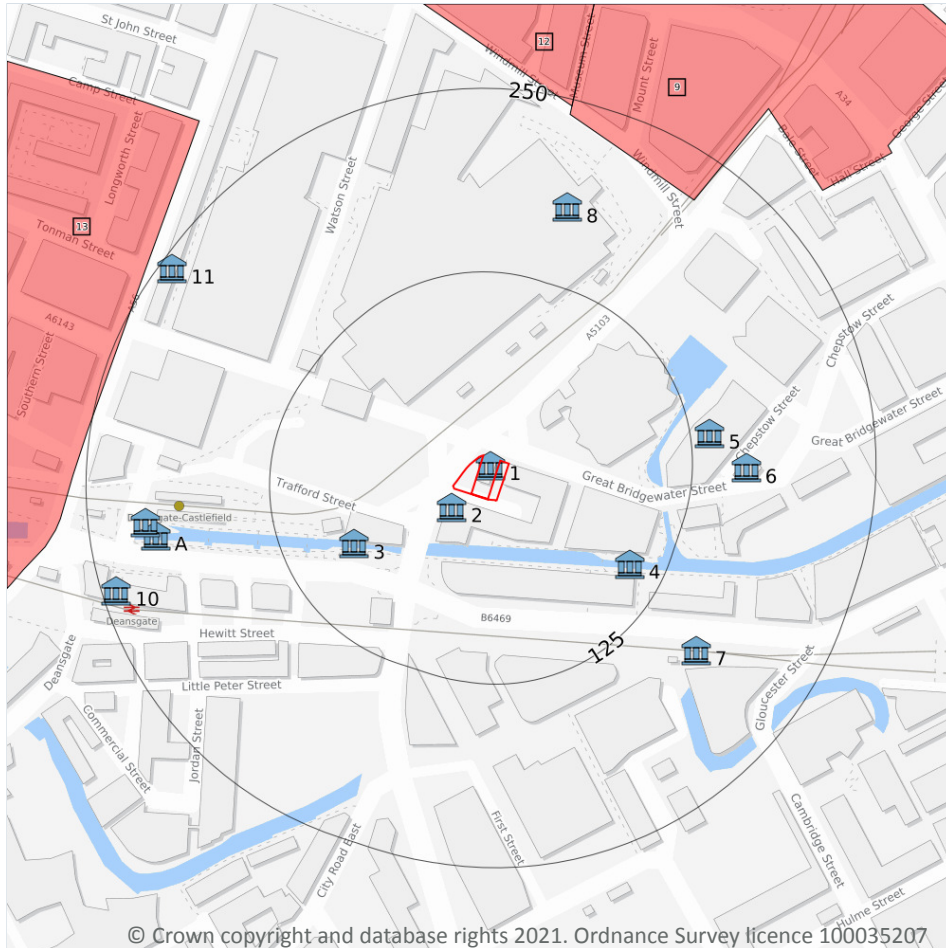
0

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

12

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 114**

ID	Location	Name	Grade	Reference Number	Listed date
1	6m W	The Britons Protection Ph The Britons Protection Public House, Deansgate, Manchester,THE BRITONS PROTECTION PH	II	1292050	16/03/1990
2	13m S	13-17, Albion Street, Deansgate, Manchester, M1	II	1279694	03/10/1974
3	78m SW	Rochdale Canal Lock Number 90, Approximately 30 Metres West Of Albion Bridge, Deansgate, Manchester, M1	II	1247482	06/06/1994



ID	Location	Name	Grade	Reference Number	Listed date
4	100m SE	Rochdale Canal Lock Number 89 (Tib Lock), On South Side Of Havelock Mills, Deansgate, Manchester, M1	II	1247596	06/06/1994
5	138m E	Chepstow House, Deansgate, Manchester, M1	II	1283067	28/06/1974
6	162m E	Peveril Of The Peak Public House, Deansgate, Manchester, M1	II	1293058	20/06/1988
7	170m SE	Manchester South Junction And Altrincham Railway Viaduct, Deansgate, Manchester, M1	II	1200837	06/06/1994
8	178m N	G Mex, Deansgate, Manchester, M2	II*	1270514	18/12/1963
A	205m W	Rochdale Canal Lock Number 91 At East End Of Gaythorn Tunnel, Deansgate, Manchester, M3	II	1247483	29/01/1986
A	211m W	Rochdale Canal Lock Keepers Cottage At Lock Number 91, Next To Gaythorn Tunnel, Deansgate, Manchester, M3	II	1247597	29/01/1986
10	240m W	Deansgate Station, Deansgate, Manchester, M3	II	1376146	20/08/1998
11	242m NW	235-291, Deansgate, Deansgate, Manchester, M3	II	1210103	28/02/1989

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

11.5 Conservation Areas

Records within 250m

3

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

Features are displayed on the Visual and cultural designations map on **page 114**

ID	Location	Name	District	Date of designation
9	219m NE	St Peter's Square	Manchester	01/12/1973
12	246m N	Deansgate and Peter Street	Manchester	26/06/1985
13	247m W	Castlefield	Manchester	13/10/1979

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

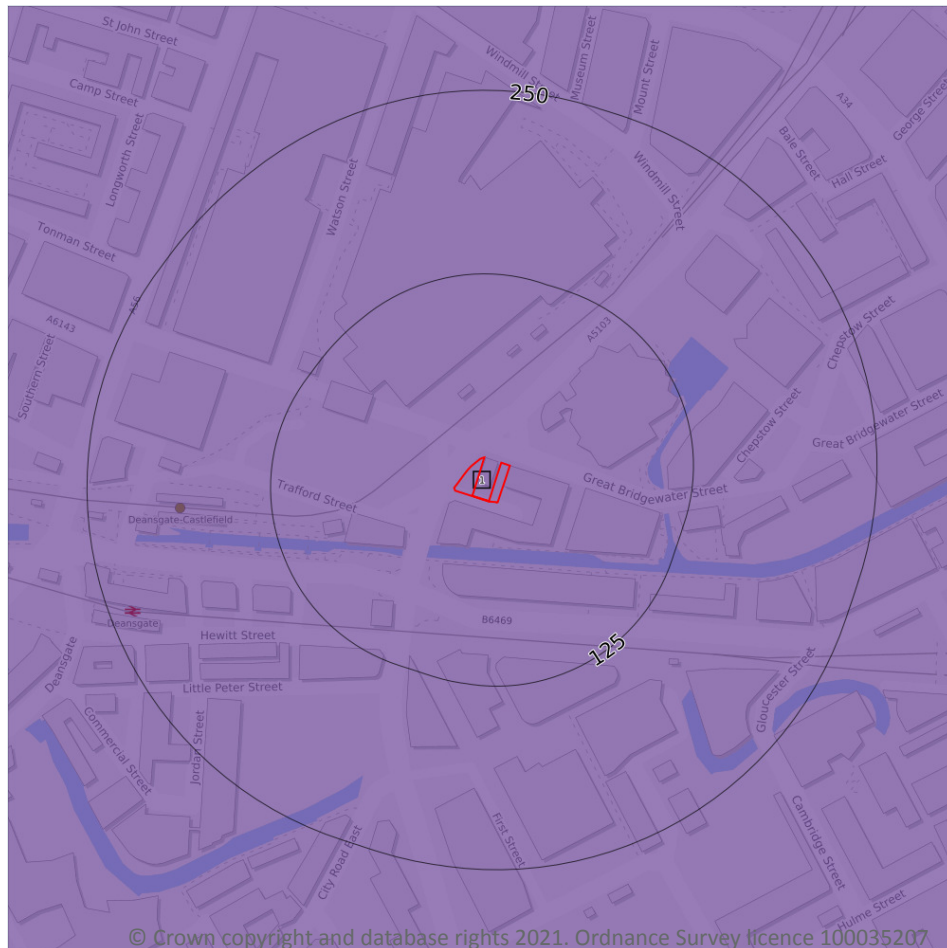
Records within 250m**0**

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 118**

ID	Location	Classification	Description
1	On site	Urban	-

This data is sourced from Natural England.



12.2 Open Access Land

Records within 250m**0**

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

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

12.3 Tree Felling Licences

Records within 250m**0**

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m**0**

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m**0**

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

This data is sourced from Natural England.

13 Habitat designations



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

13.1 Priority Habitat Inventory

Records within 250m

0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.



13.3 Open Mosaic Habitat

Records within 250m

1

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

Features are displayed on the Habitat designations map on **page 120**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	235m SE	NLUD Ref: 421501068	Low	National Land Use Database - Previously Developed Land	UK Perspectives Aerial Photography	-

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

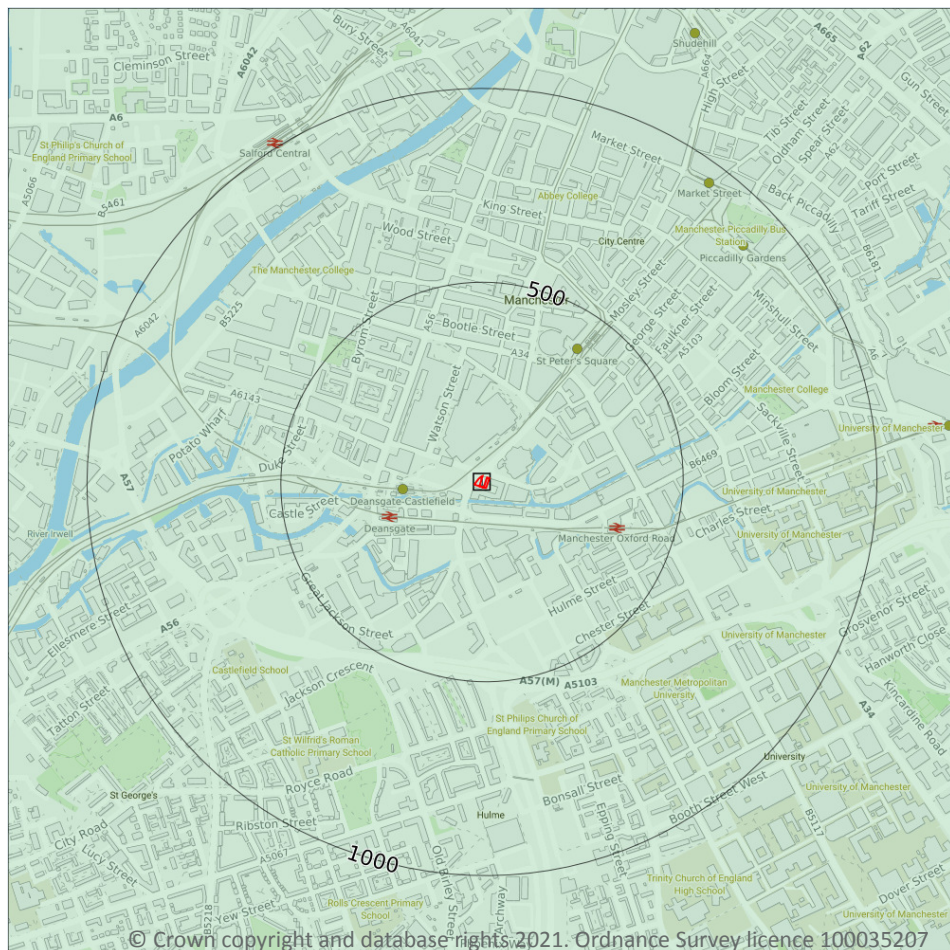
Records within 250m

0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

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.

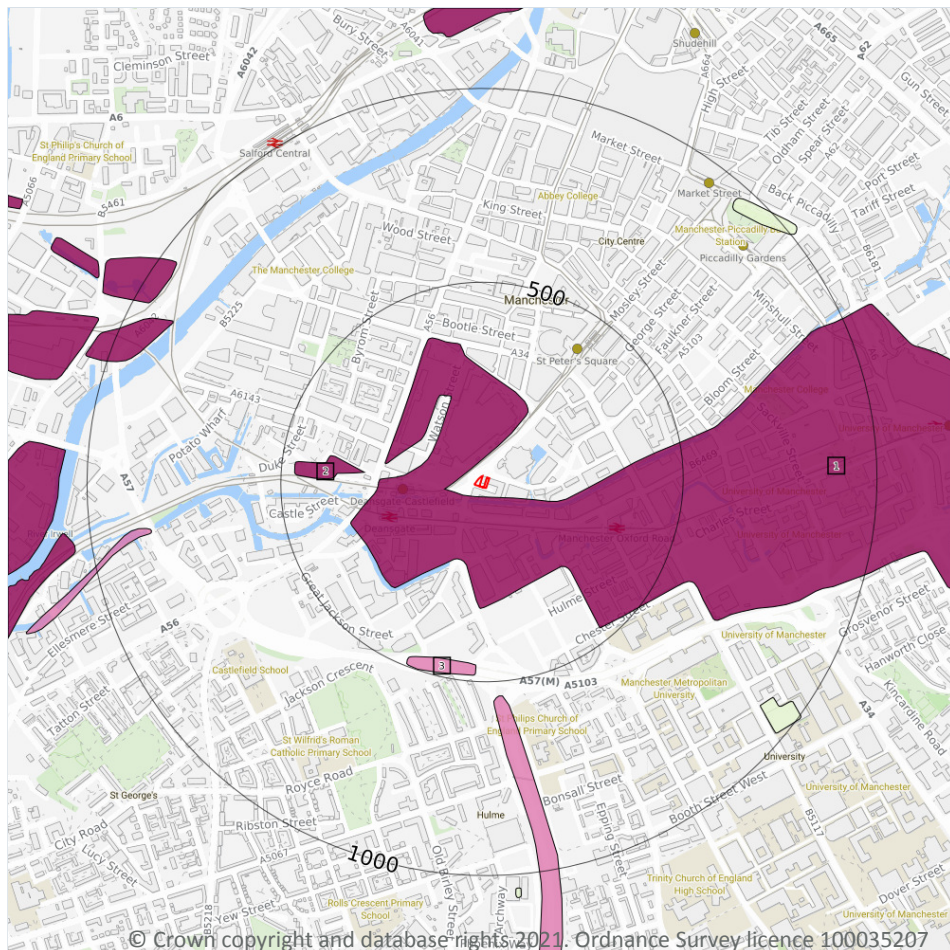
Features are displayed on the Geology 1:10,000 scale - Availability map on **page 122**

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

3

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.

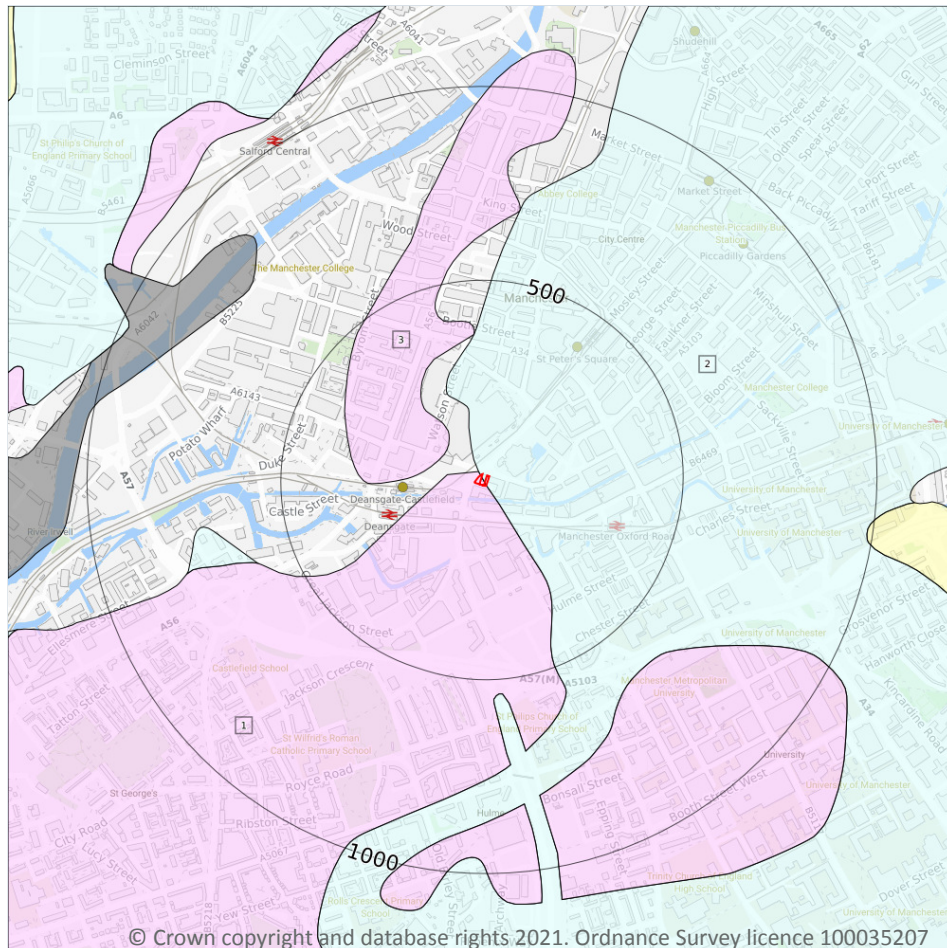
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 123**

ID	Location	LEX Code	Description	Rock description
1	23m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	286m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	452m S	WGR-VOID	Worked Ground (Undivided)	Void

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 124**

ID	Location	LEX Code	Description	Rock description
1	On site	GFSDDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel
2	On site	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
3	106m NW	GFSDDD-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

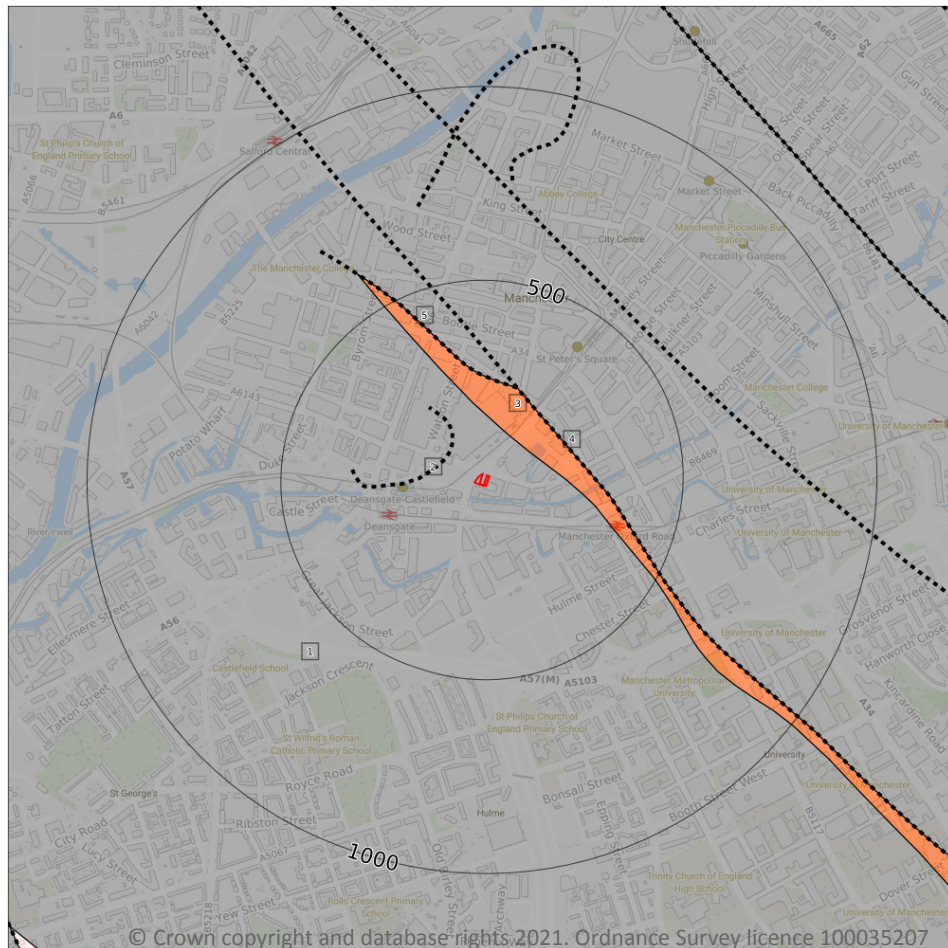
0

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 126**

ID	Location	LEX Code	Description	Rock age
1	On site	CPB-SDST	Chester Pebble Beds Formation - Sandstone	Early Triassic Epoch
3	114m NE	MM-MDST	Manchester Marls Formation - Mudstone	Late Permian Epoch [Obsolete name]

This data is sourced from the British Geological Survey.



14.6 Bedrock faults and other linear features (10k)

Records within 500m

3

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 126**

ID	Location	Category	Description
2	96m NW	LANDFORM	Buried channel or valley margin
4	203m NE	FAULT	Normal fault, inferred; crossmarks on downthrow side
5	239m N	FAULT	Normal fault, inferred; crossmarks on downthrow side

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline
Search buffers in metres (m)

☐ Geological map tile

15.1 50k Availability

Records within 500m

1

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

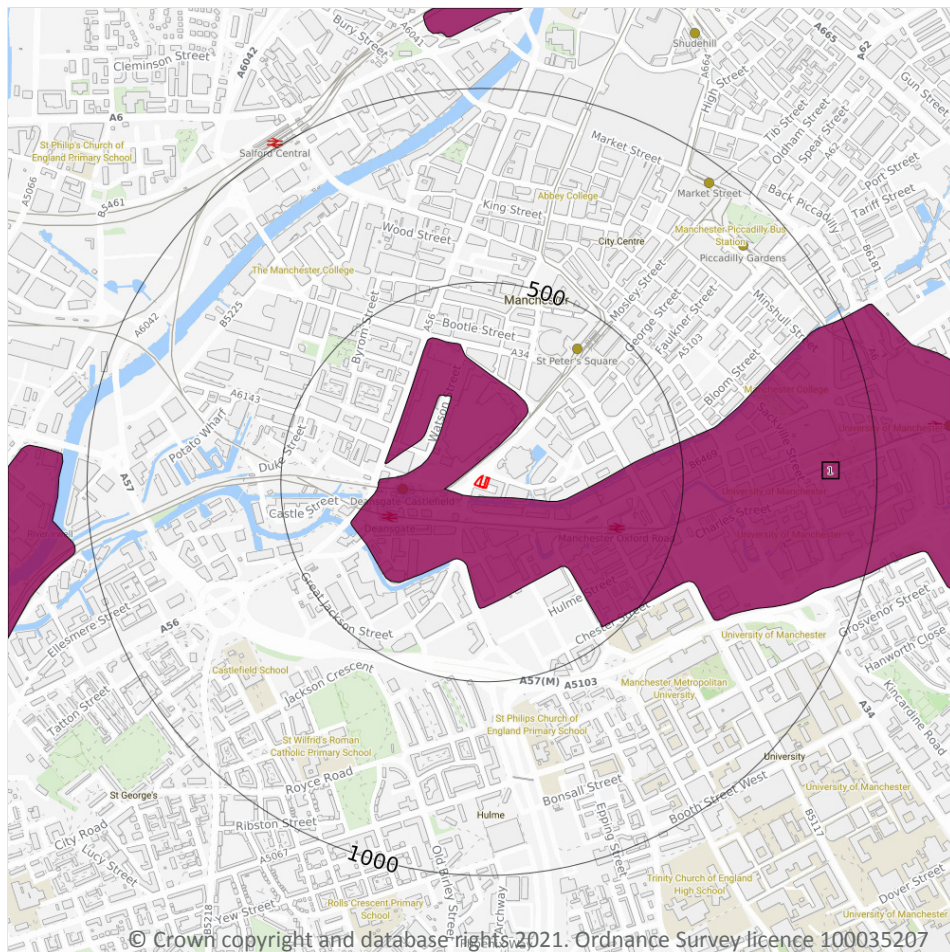
Features are displayed on the Geology 1:50,000 scale - Availability map on **page 128**

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

This data is sourced from the British Geological Survey.



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



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

15.2 Artificial and made ground (50k)

Records within 500m

1

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 129**

ID	Location	LEX Code	Description	Rock description
1	23m S	MGR-ARTDP	MADE GROUND (UNDIVIDED)	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

1

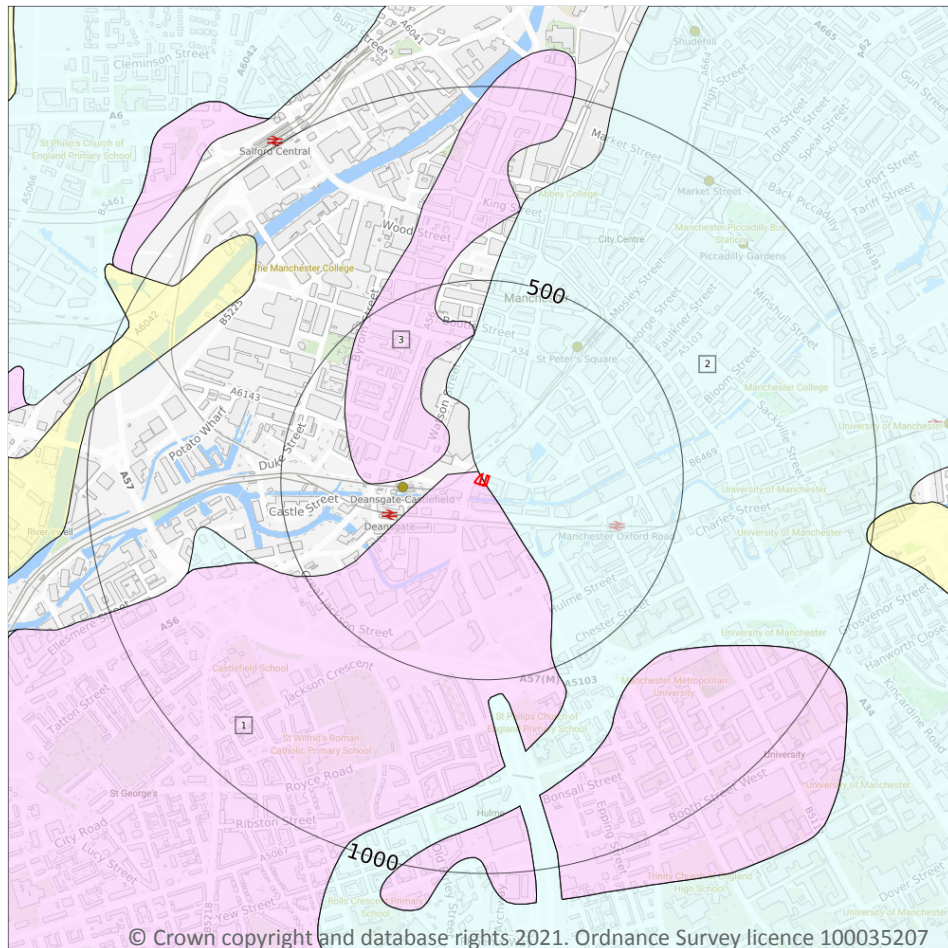
A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
23m E	Mixed	Very High	Low

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m

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 131**

ID	Location	LEX Code	Description	Rock description
1	On site	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL
2	On site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
3	105m NW	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

2

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

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

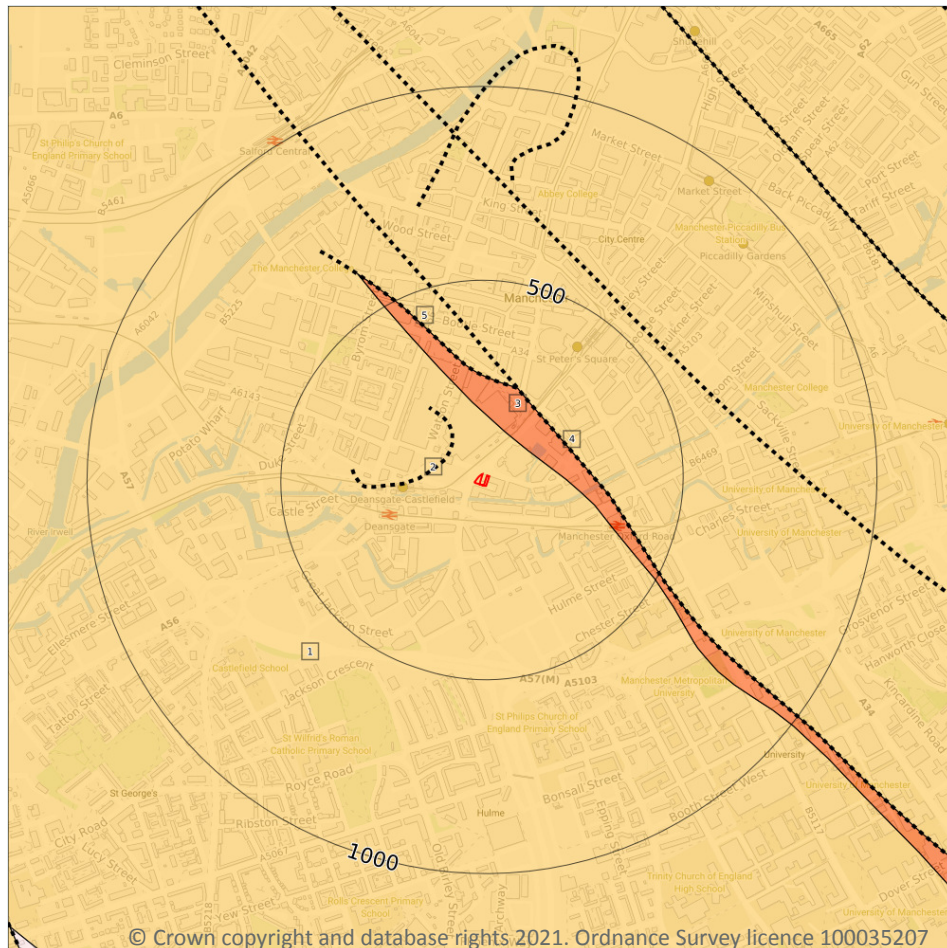
0

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 133**

ID	Location	LEX Code	Description	Rock age
1	On site	CHES-SDST	CHESTER FORMATION - SANDSTONE	OLENEKIAN
3	114m NE	MM-MDST	MANCHESTER MARLS FORMATION - MUDSTONE	-

This data is sourced from the British Geological Survey.



15.9 Bedrock permeability (50k)

Records within 50m

1

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

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

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m

3

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

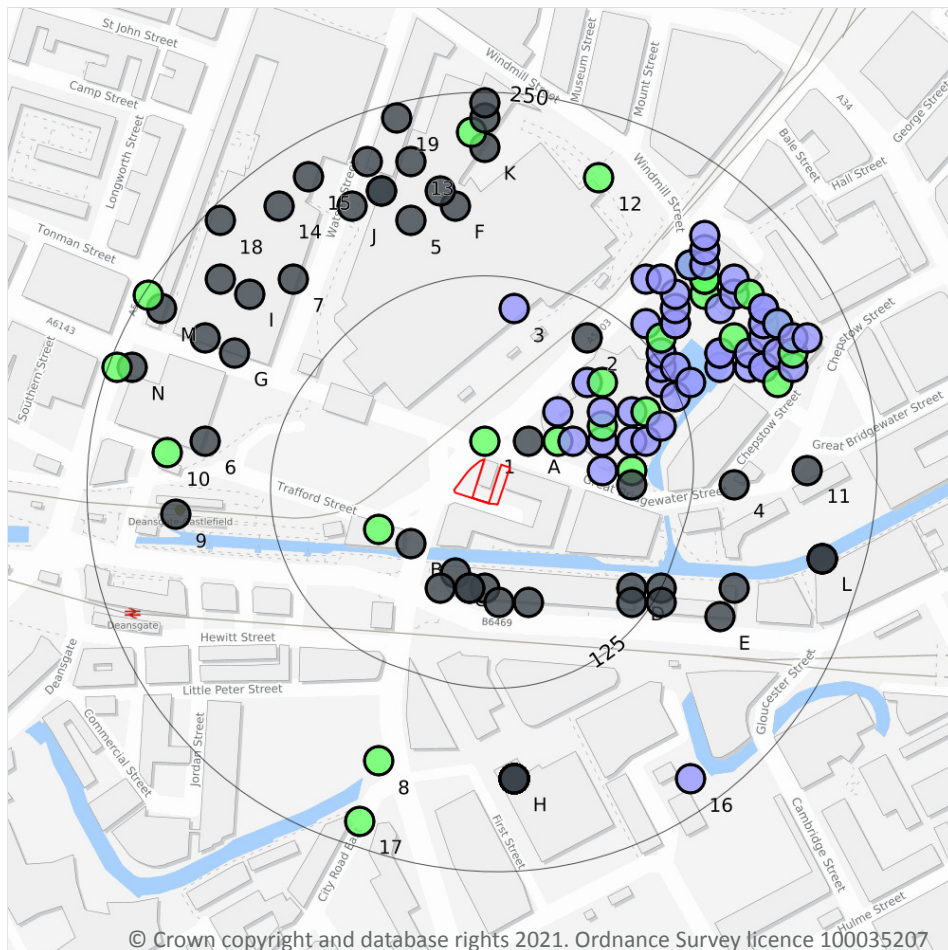
Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 133**

ID	Location	Category	Description
2	96m NW	LANDFORM	Approximate margin of buried (superficial deposit-filled) channel or valley
4	203m NE	FAULT	Fault, inferred
5	239m N	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

- Confidential
- 0 - 10m
- 10 - 30m
- 30m+
- Unknown

16.1 BGS Boreholes

Records within 250m

143

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 135**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	13m N	383680 397630	LOWER MOSLEY STREET PHASE 2 A	14.5	N	13469181
A	22m NE	383710 397630	GREAT BRIDGEWATER STREET 2	-	Y	N/A
A	38m NE	383730 397630	GT BRIDGEWATER ST 109	30.0	N	1042749



ID	Location	Grid reference	Name	Length	Confidential	Web link
B	46m SW	383630 397560	GREAT BRIDGEWATER STREET 1	-	Y	N/A
A	46m NE	383740 397630	GT BRIDGEWATER ST TP 103	2.0	N	1042758
A	50m NE	383730 397650	GT BRIDGEWATER ST TP 101	2.0	N	1042756
C	52m S	383660 397540	HACIENDA SITE WHITWORTH STREET MANCHESTER WS02	-	Y	N/A
C	57m S	383680 397530	HACIENDA SITE WHITWORTH STREET MANCHESTER WS05	-	Y	N/A
B	58m SW	383608 397570	MANCHESTER CORP. B.SEWER	14.02	N	1042261
C	59m S	383670 397530	HACIENDA SITE WHITWORTH STREET MANCHESTER WS03	-	Y	N/A
C	59m S	383670 397530	HACIENDA SITE WHITWORTH STREET MANCHESTER WS04	-	Y	N/A
A	63m E	383760 397610	GT BRIDGEWATER ST TP 106	3.0	N	1042761
C	65m S	383650 397530	HACIENDA SITE WHITWORTH STREET MANCHESTER WS01	-	Y	N/A
A	65m E	383760 397630	GT BRIDGEWATER ST TP 105	3.0	N	1042760
C	67m S	383690 397520	HACIENDA SITE WHITWORTH STREET MANCHESTER WS06	-	Y	N/A
A	69m NE	383760 397640	GT BRIDGEWATER ST 108	30.0	N	1042748
C	70m S	383710 397520	HACIENDA SITE WHITWORTH STREET MANCHESTER WS07	-	Y	N/A
A	74m NE	383760 397650	GT BRIDGEWATER ST TP 104	3.0	N	1042759
A	79m NE	383750 397670	GT BRIDGEWATER ST TP 102	2.0	N	1042757
A	83m E	383780 397610	GT BRIDGEWATER ST 111	21.0	N	1042751
A	84m E	383780 397600	GREAT BRIDGEWATER STREET 4/4A	-	Y	N/A
A	85m E	383780 397630	GT BRIDGEWATER ST TP 107	4.0	N	1042762
A	86m NE	383760 397670	GT BRIDGEWATER ST 106	30.0	N	1042746
A	91m NE	383780 397650	GT BRIDGEWATER ST TP 108	4.0	N	1042763
A	95m E	383790 397630	GT BRIDGEWATER ST TP 125	3.0	N	1042780
A	100m NE	383790 397650	GT BRIDGEWATER ST 107	30.0	N	1042747
2	103m NE	383750 397700	GREAT BRIDGEWATER STREET 3	-	Y	N/A
3	105m N	383700 397720	LOWER MOSLEY STREET PHASE 2 B	5.0	N	13469182



ID	Location	Grid reference	Name	Length	Confidential	Web link
A	107m E	383800 397640	GT BRIDGEWATER ST TP 109	3.0	N	1042764
D	107m SE	383780 397530	WHITWORTH STREET WEST MANCHESTER 2	-	Y	N/A
D	113m SE	383780 397520	WHITWORTH STREET WEST MANCHESTER 1	-	Y	N/A
A	118m NE	383800 397670	GT BRIDGEWATER ST TP 110	2.0	N	1042765
A	123m NE	383810 397660	GT BRIDGEWATER ST TP 111	3.0	N	1042766
A	123m NE	383800 397680	GT BRIDGEWATER ST 110	9.0	N	1042750
D	125m SE	383800 397530	WHITWORTH STREET WEST MANCHESTER 3	-	Y	N/A
A	129m NE	383800 397690	GT BRIDGEWATER ST TP 112	3.0	N	1042767
D	130m SE	383800 397520	WHITWORTH STREET WEST MANCHESTER 4	-	Y	N/A
A	132m NE	383810 397680	GT BRIDGEWATER ST TP 126	3.0	N	1042781
A	135m NE	383790 397710	GT BRIDGEWATER ST TP 116	2.0	N	1042771
A	135m NE	383800 397700	GT BRIDGEWATER ST 102	15.0	N	1042741
A	136m NE	383820 397670	GT BRIDGEWATER ST TP 113	3.0	N	1042768
A	150m NE	383810 397710	GREAT BRIDGEWATER STREET TP203	3.0	N	1043333
A	150m NE	383810 397710	GT BRIDGEWATER ST TP 115	2.0	N	1042770
4	153m E	383850 397600	GREAT BRIDGEWATER STREET 5	-	Y	N/A
A	156m NE	383810 397720	GREAT BRIDGEWATER STREET 203	6.75	N	1043327
A	158m NE	383790 397740	GREAT BRIDGEWATER STREET 201	6.5	N	1043325
A	158m NE	383840 397680	GT BRIDGEWATER ST TP 114	2.0	N	1042769
A	163m NE	383840 397690	GREAT BRIDGEWATER STREET TP206	3.7	N	1043336
A	163m NE	383840 397690	GREAT BRIDGEWATER STREET 204	7.1	N	1043328
A	163m NE	383810 397730	GT BRIDGEWATER ST TP 117	3.0	N	1042772
A	164m NE	383800 397740	GREAT BRIDGEWATER STREET TP202	0.8	N	1043332
E	169m SE	383840 397510	WHITWORTH STREET WEST MANCHESTER 5	-	Y	N/A
5	170m N	383630 397780	FESTIVAL MARKETPLACE TP 2/7	-	Y	N/A
E	171m E	383850 397530	WHITWORTH STREET WEST MANCHESTER 6	-	Y	N/A
6	173m W	383490 397630	FESTIVAL MARKETPLACE 3/2	-	Y	N/A
F	174m N	383660 397790	FESTIVAL MARKETPLACE 2/3	-	Y	N/A



ID	Location	Grid reference	Name	Length	Confidential	Web link
G	176m NW	383510 397690	FESTIVAL MARKETPLACE 1/8	-	Y	N/A
A	176m NE	383850 397700	GT BRIDGEWATER ST 103	25.0	N	1042742
A	176m NE	383860 397680	GREAT BRIDGEWATER STREET 205	7.15	N	1043329
7	177m NW	383550 397740	FESTIVAL MARKETPLACE 1/6	-	Y	N/A
A	178m NE	383830 397730	GT BRIDGEWATER ST 113	24.0	N	1042753
A	179m NE	383840 397720	GT BRIDGEWATER ST TP 118	0.0	N	1042773
A	181m NE	383860 397690	GT BRIDGEWATER ST TP 127	3.0	N	1042782
A	185m NE	383830 397740	GREAT BRIDGEWATER OFFICES	12.0	N	1045464
A	185m NE	383830 397740	GT BRIDGEWATER ST 114	28.0	N	1042754
A	185m NE	383820 397750	GT BRIDGEWATER ST 101	25.0	N	1042740
A	185m NE	383820 397750	GREAT BRIDGEWATER STREET TP201	2.9	N	1043331
F	185m N	383650 397800	FESTIVAL MARKETPLACE STG 2 BHC	-	Y	N/A
A	186m E	383870 397680	GREAT BRIDGEWATER STREET TP209	1.3	N	1043339
A	186m E	383870 397680	GT BRIDGEWATER ST TP 123	3.0	N	1042778
H	187m S	383700 397400	GAYTHORN GASWORKS M16	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M18	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M2	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M5	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS R2	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS R2	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M15	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M1	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M7	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M6	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M11	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M12A	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M13	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M14	-	Y	N/A



ID	Location	Grid reference	Name	Length	Confidential	Web link
H	187m S	383700 397400	GAYTHORN GASWORKS M3	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M7A	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M8	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M9	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M17	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS R1	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M4	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M10	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS R1	-	Y	N/A
H	187m S	383700 397400	GAYTHORN GASWORKS M12	-	Y	N/A
8	190m S	383608 397412	MANCHESTER CORP. B.SEWER	11.28	N	1042260
9	190m W	383470 397580	FESTIVAL MARKETPLACE 3/1	-	Y	N/A
A	192m NE	383830 397750	GT BRIDGEWATER ST TP 119	2.0	N	1042774
I	192m NW	383520 397730	FESTIVAL MARKETPLACE TP 1/6	-	Y	N/A
A	192m E	383880 397670	GT BRIDGEWATER ST 105	25.0	N	1042745
A	193m NE	383850 397730	GREAT BRIDGEWATER STREET TP205	1.3	N	1043335
A	194m NE	383870 397700	GT BRIDGEWATER ST TP 122	3.0	N	1042777
J	194m NW	383590 397790	FESTIVAL MARKETPLACE TP 2/8	-	Y	N/A
J	195m N	383610 397800	FESTIVAL MARKETPLACE 2/4	-	Y	N/A
J	195m N	383610 397800	FESTIVAL MARKETPLACE STG 2 BHD	-	Y	N/A
10	197m W	383464 397622	MANCHESTER CORP. B.SEWER	12.5	N	1042262
G	198m NW	383490 397700	FESTIVAL MARKETPLACE TP 1/8	-	Y	N/A
A	199m NE	383870 397710	GREAT BRIDGEWATER STREET TP208	3.2	N	1043338
A	199m NE	383880 397690	GREAT BRIDGEWATER STREET TP210	1.5	N	1043340
A	199m NE	383830 397760	GREAT BRIDGEWATER STREET TP204	3.0	N	1043334
A	199m NE	383850 397740	GT BRIDGEWATER ST TP 120	2.0	N	1042775
A	201m NE	383860 397730	GT BRIDGEWATER ST 112	25.0	N	1042752
11	203m E	383900 397610	GREAT BRIDGEWATER STREET 6	-	Y	N/A



ID	Location	Grid reference	Name	Length	Confidential	Web link
A	204m NE	383870 397720	GT BRIDGEWATER ST TP 121	3.0	N	1042776
A	204m NE	383870 397720	GREAT BRIDGEWATER STREET TP207	3.2	N	1043337
A	204m E	383890 397680	GREAT BRIDGEWATER OFFICES	8.5	N	1045465
12	206m N	383758 397809	CENTRAL STATION	17.07	N	1042389
A	207m NE	383830 397770	GREAT BRIDGEWATER STREET 202	7.1	N	1043326
A	207m NE	383880 397710	GT BRIDGEWATER ST 104	22.0	N	1042743
A	207m NE	383880 397710	GT BRIDGEWATER ST 104A	5.0	N	1042744
A	208m E	383890 397690	GT BRIDGEWATER ST 115	27.0	N	1042755
13	209m N	383630 397820	FESTIVAL MARKETPLACE TP 2/6	-	Y	N/A
A	212m NE	383890 397700	GREAT BRIDGEWATER STREET 206	7.0	N	1043330
K	213m N	383680 397830	FESTIVAL MARKETPLACE TP 2/4	-	Y	N/A
I	214m NW	383500 397740	FESTIVAL MARKETPLACE TP 1/7	-	Y	N/A
J	218m N	383600 397820	FESTIVAL MARKETPLACE TP 2/5	-	Y	N/A
A	221m NE	383900 397700	GT BRIDGEWATER ST TP 124	3.0	N	1042779
14	221m NW	383540 397790	FESTIVAL MARKETPLACE TP 1/5	-	Y	N/A
L	222m E	383910 397550	HYDRAULIC POWER SUPPLY STATION WHITWORTH STREET 3	-	Y	N/A
L	222m E	383910 397550	HYDRAULIC POWER SUPPLY STATION WHITWORTH STREET 4	-	Y	N/A
L	222m E	383910 397550	HYDRAULIC POWER SUPPLY STATION WHITWORTH STREET 1	-	Y	N/A
L	222m E	383910 397550	HYDRAULIC POWER SUPPLY STATION WHITWORTH STREET 2	-	Y	N/A
K	223m N	383671 397840	CENTRAL STATION	12.8	N	1042388
15	226m NW	383560 397810	FESTIVAL MARKETPLACE 1/4	-	Y	N/A
16	228m SE	383820 397400	LOWER MEDLOCK UCISO'S CONTRACT 1 MAN 0285 503/503A	8.0	N	1043423
K	233m N	383680 397850	FESTIVAL MARKETPLACE STG 2 BHB	-	Y	N/A
17	233m S	383595 397371	MANCHESTER CORP. B.SEWER	11.28	N	1042259
M	234m NW	383460 397720	FESTIVAL MARKETPLACE 1/7	-	Y	N/A
N	235m W	383440 397680	FESTIVAL MARKETPLACE TP 3/1	-	Y	N/A

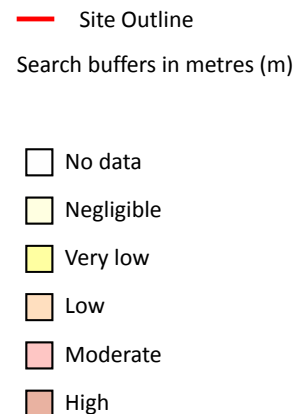
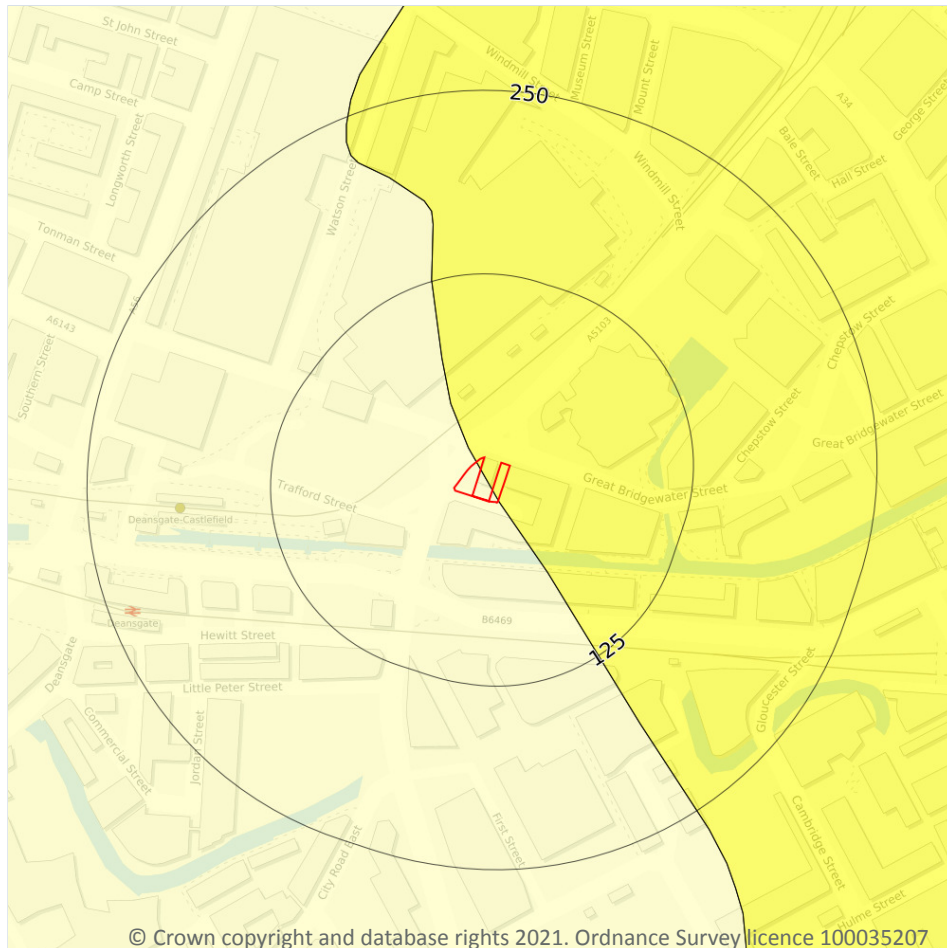


ID	Location	Grid reference	Name	Length	Confidential	Web link
18	240m NW	383500 397780	FESTIVAL MARKETPLACE 1/5	-	Y	N/A
19	240m N	383620 397850	FESTIVAL MARKETPLACE 2/2	-	Y	N/A
K	243m N	383680 397860	FESTIVAL MARKETPLACE 2/1	-	Y	N/A
N	244m W	383430 397680	CITY CENTRE - PHASE 2 29	12.5	N	1043527
M	247m NW	383451 397729	MANCHESTER CORP. DEANSGATE	10.67	N	1042210

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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17.1 Shrink swell clays

Records within 50m

2

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

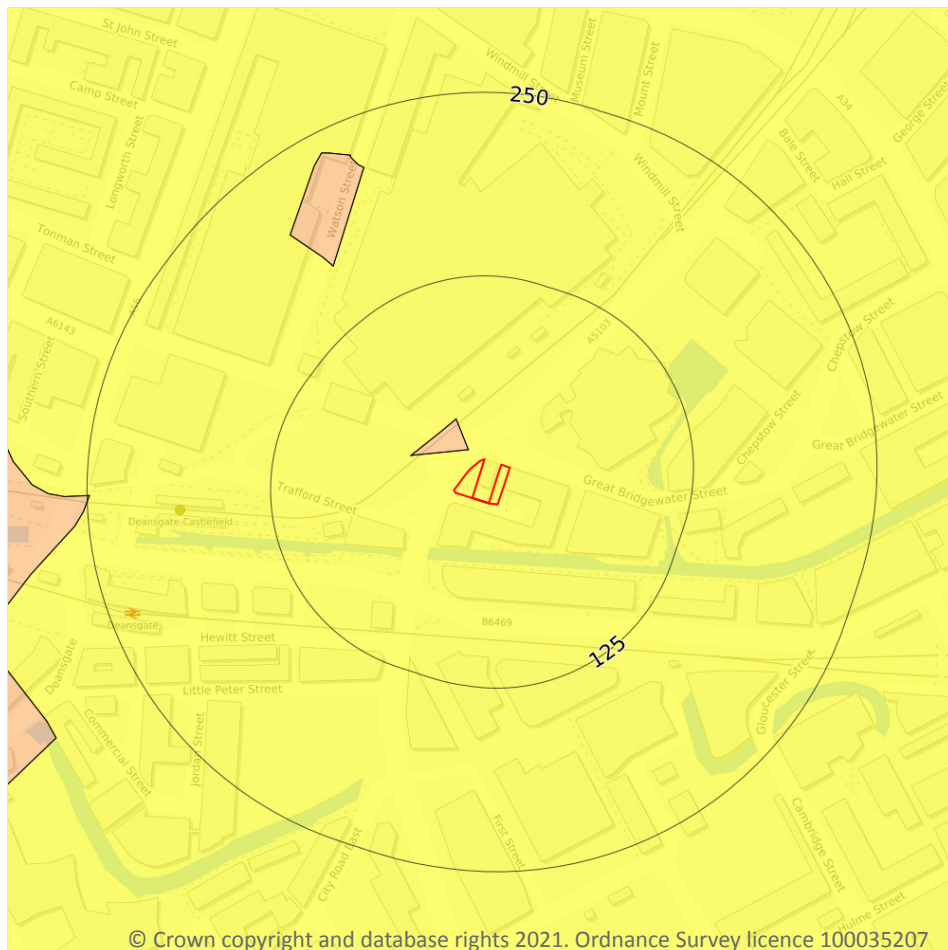
Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 142**

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Very low	Ground conditions predominantly low plasticity.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Running sands



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

17.2 Running sands

Records within 50m

2

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 143**

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.



Location	Hazard rating	Details
11m NW	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

This data is sourced from the British Geological Survey.



The map displays the Deansgate area in Manchester, highlighting the proposed tram route in yellow. The route starts at the intersection of Deansgate and Commercial Street, proceeds north along Deansgate, and then turns east onto Great Bridgewater Street. A red rectangle marks the proposed Deansgate tram station location on Great Bridgewater Street. Two circular overlays indicate the 125m and 250m radii from the station. Various streets are labeled, including St John Street, Camp Street, Longworth Street, Tonman Street, Southern Street, Deansgate, Commercial Street, Jordan Street, Little Peter Street, Hewitt Street, Deansgate Castlefield, Trafford Street, Watson Street, Museum Street, Mount Street, Windmill Street, Bank Street, Hall Street, George Street, Cheapside Street, Great Bridgewater Street, Chepstow Street, Gloucester Street, and Cambridge Street. The River Irk is also visible flowing through the area.

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

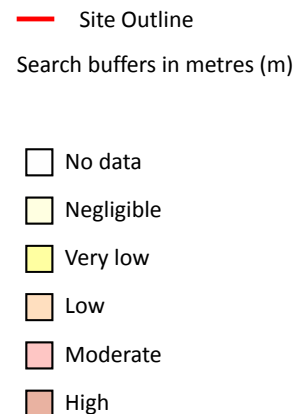
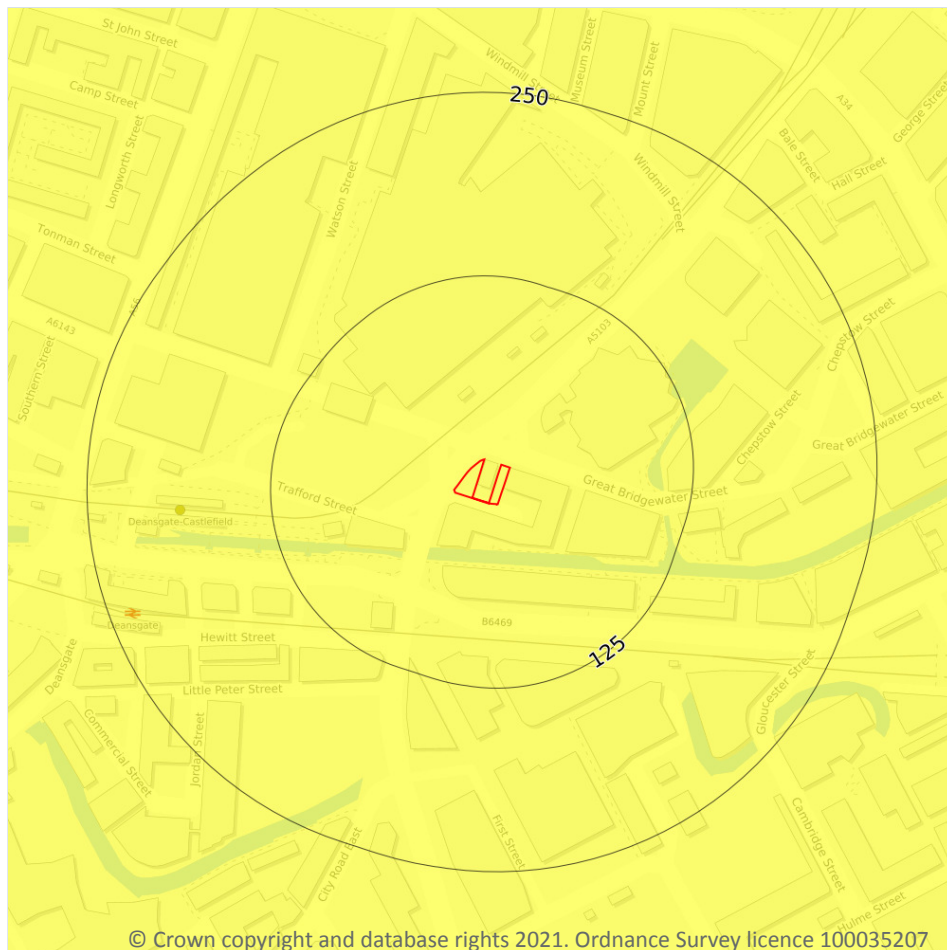
 Contact us with any questions at:
info@groundsurre.com
 08444 159 000

Date: 29 September 2021

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m

1

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

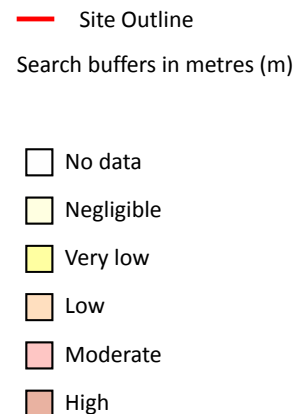
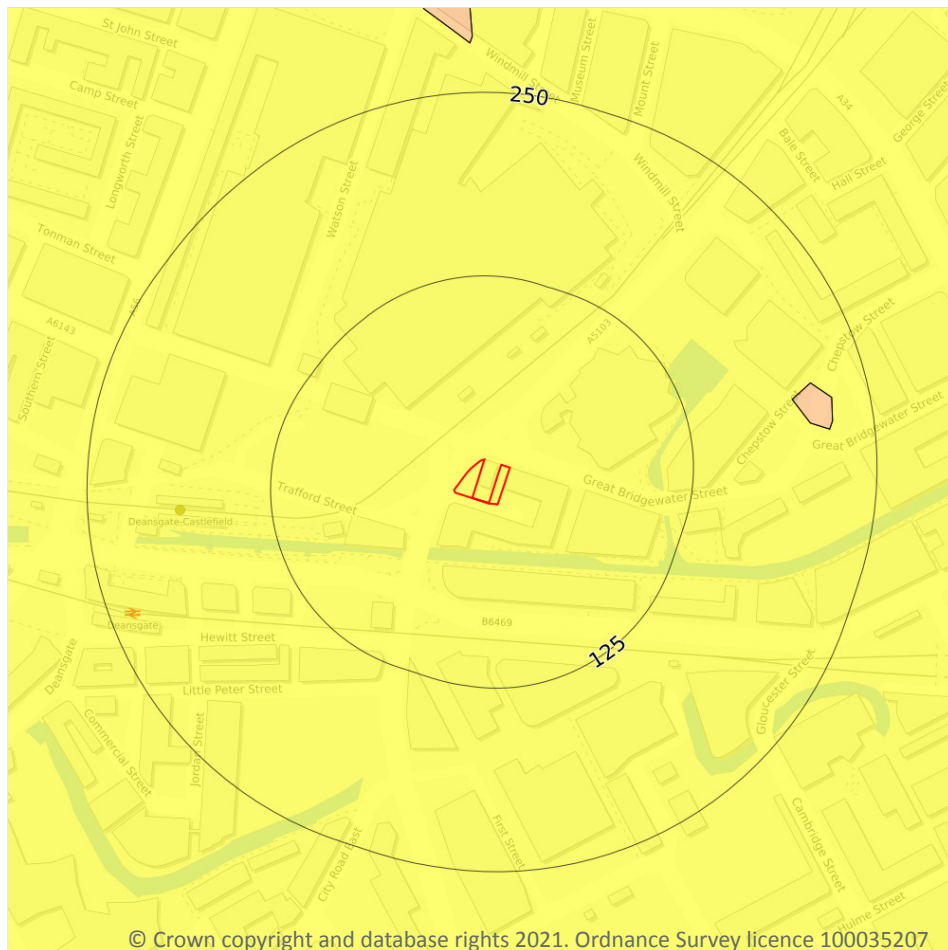
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 147**

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m

1

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

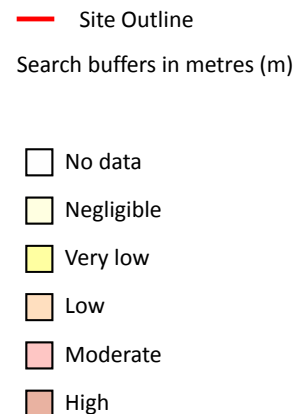
Features are displayed on the Natural ground subsidence - Landslides map on **page 148**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

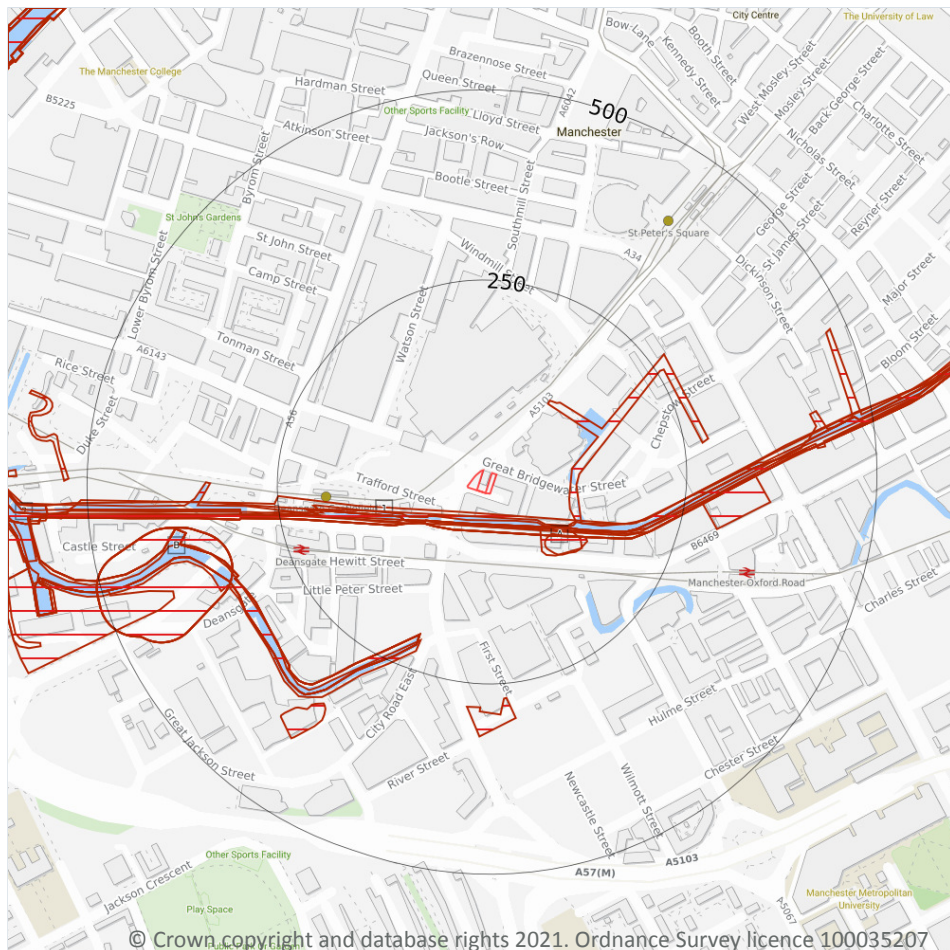
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 149**

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

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



- Site Outline
- Search buffers in metres (m)
- Natural cavities (Area)
- Natural cavities (Point)
- BritPits
- Surface ground workings
- Underground workings
- Historical Mineral Planning Areas
- Mining Cavities
- Non Coal Mining
- Sporadic underground mining of restricted extent possible
- Localised small scale underground mining possible
- Small scale mining possible
- Underground mining known or likely within or in close proximity
- Underground mining known within or in very close proximity

18.1 Natural cavities

Records within 500m

0

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

This data is sourced from 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

13

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 151**

ID	Location	Land Use	Year of mapping	Mapping scale
1	27m S	Canal	1988	1:10000
2	31m S	Canal	1956	1:10560
A	35m S	Canal	1896	1:10560
A	40m S	Canal	1938	1:10560
A	40m S	Canal	1932	1:10560
A	40m S	Canal	1916	1:10560
A	40m S	Canal	1905	1:10560
A	40m S	Canal	1923	1:10560
3	95m SE	Pond	1851	1:10560
B	203m S	Canal	1971	1:10000
B	203m S	Canal	1978	1:10000
B	203m S	Canal	1985	1:10000
B	203m S	Canal	1994	1:10000

This 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 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
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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
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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
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

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

This data is sourced from Mining Searches UK.

18.13 Clay mining

Records on site	0
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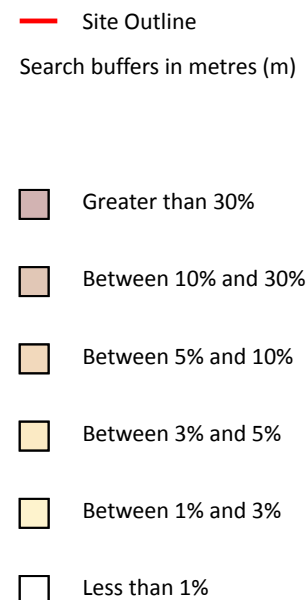
Generalised areas that may be affected by kaolin and ball clay extraction.

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

19 Radon



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19.1 Radon

Records on site

1

Estimated percentage of dwellings exceeding the Radon Action Level. This data is the highest resolution radon dataset available for the UK and is produced to a 75m level of accuracy to allow for geological data accuracy and a 'residential property' buffer. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain. The data was derived from both geological assessments and long term measurements of radon in more than 479,000 households.

Features are displayed on the Radon map on **page 156**

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

This data is sourced from the British Geological Survey and Public Health England.



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

2

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg
39m E	15 - 25 mg/kg	No data	100 - 200 mg/kg	60 - 120 mg/kg	1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

4

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

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	15	2.6	56	38	0.4	61	24	21	5
On site	16	2.8	61	42	0.5	66	26	22	5
3m NE	14	2.5	200	137	2.8	60	57	20	7
6m SE	16	2.8	122	84	0.9	66	43	22	7

This data is sourced from the British Geological Survey.



20.3 BGS Measured Urban Soil Chemistry

Records within 50m

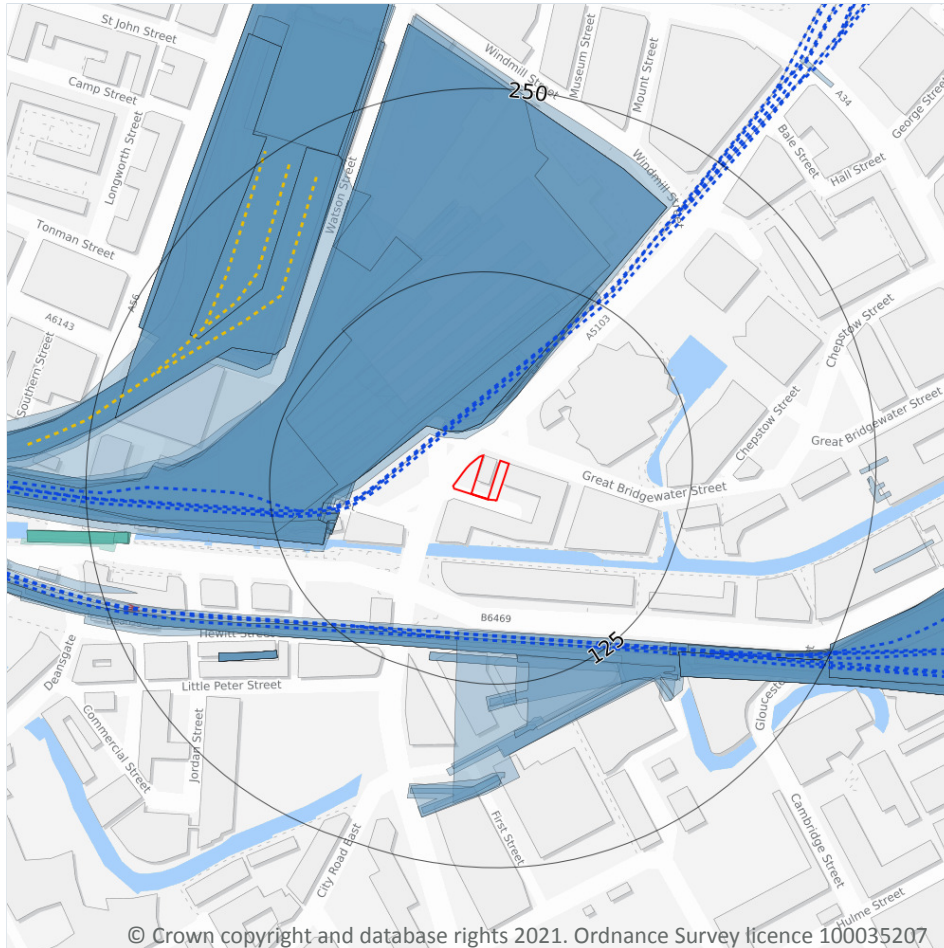
0

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 km².

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)
- C1 Crossrail 1 Stations
- Crossrail 1 Route
- Crossrail 1 Worksites
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

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

97

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

Features are displayed on the Railway infrastructure and projects map on **page 159**

Location	Land Use	Year of mapping	Mapping scale
15m NW	Railway Sidings	1923	10560
19m N	Railway Sidings	1908	2500
19m N	Railway Sidings	1922	2500
19m N	Railway Sidings	1932	2500
21m NW	Railway Sidings	1938	10560
21m NW	Railway Sidings	1932	10560
21m NW	Railway Sidings	1916	10560
21m NW	Railway Sidings	1905	10560
23m N	Railway Sidings	1891	500
24m N	Railway	1932	-
26m N	Railway Sidings	1951	1250
26m N	Railway Sidings	1948	1250
27m N	Railway Sidings	1948	2500
27m N	Railway Sidings	1979	2500
27m N	Railway Sidings	1963	2500
40m NW	Railway	1922	-
42m N	Railway Sidings	1891	500



Location	Land Use	Year of mapping	Mapping scale
43m NW	Railway Sidings	1896	10560
44m NW	Railway Sidings	1893	2500
45m NW	Railway Sidings	1963	2500
45m NW	Railway Sidings	1951	1250
45m NW	Railway Sidings	1948	1250
65m NW	Railway Sidings	1891	500
67m NW	Railway Sidings	1891	500
70m W	Railway Sidings	1891	500
79m W	Railway Sidings	1956	10560
84m NW	Railway Sidings	1891	500
89m S	Railways	1893	-
106m S	Railway Sidings	1891	500
110m NW	Railway Sidings	1891	500
111m W	Railway Sidings	1891	500
119m NW	Railway Sidings	1891	500
119m W	Railway Sidings	1891	500
130m S	Railway Sidings	1893	2500
132m W	Railways	1893	-
138m N	Railway	1893	-
149m NW	Railway Sidings	1971	10000
149m NW	Railway Sidings	1978	10000
149m NW	Railway Sidings	1985	10000
153m SE	Railway Sidings	1948	2500
153m SE	Railway Sidings	1979	2500
154m NW	Railway Sidings	1963	2500
155m NW	Railway	1933	-
155m NW	Railway Sidings	1951	1250
155m NW	Railway Sidings	1948	1250



Location	Land Use	Year of mapping	Mapping scale
160m W	Railway Sidings	1955	-
161m W	Railway Sidings	1948	1250
161m W	Railway Sidings	1979	1250
161m SE	Railway Sidings	1938	10560
161m SE	Railway Sidings	1932	10560
161m SE	Railway Sidings	1916	10560
161m SE	Railway Sidings	1905	10560
161m SE	Railway Sidings	1923	10560
162m W	Railway Sidings	1955	-
163m SE	Railway Sidings	1963	2500
164m SW	Railway Sidings	1980	1250
164m SW	Railway Sidings	1985	1250
164m SW	Railway Sidings	1987	1250
164m SW	Railway Sidings	1990	1250
172m SE	Railway Sidings	1969	1250
172m SE	Railway Sidings	1953	1250
174m SE	Railway Sidings	1980	1250
176m NW	Railway Sidings	1973	1250
185m NW	Railway Sidings	1948	1250
185m S	Railway Sidings	1896	10560
187m S	Railway Sidings	1893	2500
187m S	Railway Sidings	1891	500
202m NW	Railway Sidings	1979	1250
203m NW	Railway Sidings	1955	-
213m SE	Railway Sidings	1998	1250
220m SE	Railway Sidings	1985	1250
222m W	Tunnel	1995	1250
222m W	Tunnel	1994	1250



Location	Land Use	Year of mapping	Mapping scale
222m W	Tunnel	1955	-
223m W	Tunnel	1932	-
223m W	Tunnel	1948	2500
223m W	Tunnel	1979	2500
223m W	Tunnel	1963	2500
224m W	Tunnel	1948	1250
224m W	Tunnel	1963	1250
224m W	Tunnel	1979	1250
224m W	Tunnel	1981	1250
228m NW	Railway Sidings	1973	1250
232m W	Tunnel	1932	2500
233m W	Tunnel	1986	1250
233m W	Tunnel	1990	1250
237m SE	Railway Sidings	1896	10560
239m W	Railway Sidings	1963	1250
239m E	Tramway Sidings	1891	500
242m NW	Railway Sidings	1979	1250
244m NW	Railway Sidings	1955	-
244m E	Tramway Sidings	1891	500
245m E	Tramway Sidings	1891	500
245m E	Tramway Sidings	1891	500
247m SE	Railway Sidings	1988	10000
247m SE	Railway Sidings	1985	10000
247m SE	Railway Sidings	1994	10000

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

3

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

Features are displayed on the Railway infrastructure and projects map on **page 159**

Location	Description
173m NW	Dismantled
193m NW	Dismantled
201m NW	Dismantled

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m

36

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways. Features are displayed on the Railway infrastructure and projects map on **page 159**

Location	Name	Type
27m NW		light_rail
29m NW	Not given	Multi Track
30m NW		light_rail
47m W	Not given	Multi Track
53m W	Not given	Multi Track
56m W	Not given	Multi Track



Location	Name	Type
65m W	Not given	Multi Track
81m W	Not given	Multi Track
92m S		rail
92m S	Not given	Multi Track
95m S		rail
99m S		rail
99m W	Not given	Multi Track
106m W		light_rail
106m W		light_rail
110m W	Not given	Multi Track
111m W	Not given	Multi Track
117m SE		rail
120m W		light_rail
139m W		light_rail
173m SE		rail
174m SE		rail
177m W		light_rail
179m SE	Not given	Multi Track
179m SE	Not given	Multi Track
181m NE		light_rail
182m NE		light_rail
187m NE	Not given	Single Track
211m NE	Metrolink	light_rail
211m NE		light_rail
212m SE	Not given	Multi Track
216m SE		rail
226m SE		rail
226m SE		rail

Location	Name	Type
247m SE	Not given	Multi Track
249m SE		rail

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>.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>.



APPENDIX D BGS Boreholes

BOREHOLE RECORD SHEET						Ground Level	Site Reference	Borehole No. A (sheet 2 of 2)	
Boring Method Rotary Drilling (60mm diameter cores).						Site LOWER MOSLEY STREET - PHASE II			
Drilling and Casing Progress	Penetration of Core Barrel		R.Q.D. %	Core Recovery %		Depth R.Q.D. O.D.	Description of Strata	Dip on Sample	Symbolic Log
	From	To		T	S				
8.6.83	6.0	7.5	8	31	19		Very dense fine/medium SAND with occasional pebbles becoming -	5°	
	7.5	9.0	55	99	90		Red/brown fine/medium grained very thinly to thinly bedded	8° 8°	
	9.0	10.5	24	97	86		Moderate to slightly weathered SANDSTONE, Moderately strong	10°	
	10.5	12.0	82	96	91			10°	
8.6.83									
9.6.83	12.0	13.5	16	32	29		(Bunter Sandstone)↓ - sub-vertical discontinued from 6.0 - 7.50m	10°	
	13.5	14.5	77	100	98		- pebbly zones at 7.50 and 12.0m - mudstone bands at 8.3, 9.60 and 11.10m	10°	
REMARKS: Lost circulating water return at 6.30m. Water returned at 7.70m. Cores broke along bedding planes. T = Total Core Recovery S = Solid Core Recovery									Scale
									Logged By:

Norwest Holst Soil Engineering Ltd.

Borehole No.

109

Contract No. F9131
Location Gt. Bridgewater St. Manchester
Client Kier M & D Ltd.
Method of Boring Cable Percussion
Diameter of Borehole 150mm

BOREHOLE LOG

Sheet 1 of 3

Chainage
Ground Level 37.62 m.A.O.D.
Date 23/4/91

SJ 89 NW 555
8373, 9763

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.O.D.%	Daily Progress
MADE GROUND: Reinforced concrete.		0.30	37.32				
MADE GROUND: Ash fill		1.00	36.72				
Very stiff red brown with grey stained fissures sandy silty CLAY with occasional fine to medium subangular to subrounded gravel and coal fragments. (Glacial Till)					1.20-1.65 1.70 1.70-2.15 s 2.50-2.95 3.00 3.00-3.45 s 4.00-4.45 4.50 4.50-4.95 s	(29) "14" (35) "18" (65) "36"	
Brown medium to coarse grained highly weathered slightly clayey SANDSTONE.		5.50	32.22		5.50-5.55 s 6.00 6.50-6.55 s 7.00	50* for 50mm 50* for 50mm	
Cable Percussion complete at 7.50m Rotary follow on		7.50	30.22				23/4

Type of Sample

- Is S.P.T. ■ Undisturbed
Ic C.P.T. x Vane
0 Jar △ Water
● Bulk ■ Piezometer

Remarks (Observations of Ground Water etc.) () U100 blows
* Seating blows only

Groundwater not encountered

Inspection pit excavated to 1.20m depth 2½ hrs.

Water levels are subject to seasonal or tidal variations and should not be taken as constant

Norwest Holst Soil Engineering Ltd.

Borehole No.

109

Contract No. F9131
 Location Gt. Bridgewater Street, Manchester
 Client Kier M & D Ltd
 Method of Boring Rotary Coring
 Diameter of Borehole 146mm

BOREHOLE LOG

SJ 83 NW-555

Sheet 1 of 3
 Chainage
 Ground Level 37.62 m.A.O.D.
 Date 25/4/91

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R, Q.D. %	Daily Progress
Borehole complete to 7.50m by Cable Percussion.		7.50	30.12				
Weak red brown medium to coarse grained highly weathered slightly clayey SANDSTONE. (Buxton Sandstone) ...weakly cemented and friable to 9.24m.					7.50-7.53 TCR (%) SCR (%)	50 for 30mm	
					7 0	0	
...9.24m becomes weak to moderately weak.					9.00 100 9.20	0	0 85 for 100mm
					100 90	78	

Type of Sample

 Is S.P.T. ☒ Undisturbed

 Ic C.P.T. ☒ Vane

 O Jar ☒ Water

 Bulk ☒ Piezometer

Remarks (Observations of Ground Water etc.)

Standing water levels: 24-4-91 am: 9.45m, casing to 7.50m
 25-4-91 am: 4.20m, casing to 7.50m
 26-4-91 am: 4.00m, casing to 7.20m
 27-4-91 am: 5.20m
 28-4-91 am: 5.50m, casing to 7.50m

Norwest Holst Soil Engineering Ltd.

Borehole No.
109

Contract No. F8131
Location St. Bridgewater Street, Manchester
Client Kier M & D Ltd
Method of Boring Rotary Coring
Diameter of Borehole 145mm

BOREHOLE LOG

SJ 89 NW - SSS

Sheet ... 2 ... of ... 3 ...

Chainage

Ground Level 37.62 m.A.O.D.

Date 23/4/91 - 27/4/91

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.Q.D. %	Daily Progress
Weak to moderately weak red brown slightly weathered medium to coarse SANDSTONE. (Bunter Sandstone) ...with rare rounded quartz pebble up to 8mm diameter and with closely spaced slightly iron stained subhorizontal rough undulating bedding fractures. ...10.23m, 30mm long gypsum inclusion. ...10.80-10.85m, slightly brown stained rough irregular 50° to subhorizontal fracture. ...11.19m, moderately strong ...12.37-12.62m, moderately strong					10.70 100 83 12.20 100 83 13.70 14.30 23.32 14.50 23.12 15.20 93 77 16.70 91 65 18.20 100 82 19.70	50 for 70mm 73 50 for 70mm 73 54 for 145m 91 71 for 140mm 84 for 110mm 56 84 for 79mm 71 50 for 70mm	
14.20-14.30m, with medium sized inclined clasts of weak siltstone.		14.30	23.32				
Moderately weak to weak red brown thinly laminated slightly weathered slightly sandy SILTSTONE. (Bunter Sandstone)		14.50	23.12				
Moderately weak red brown slightly weathered coarse SANDSTONE. (Bunter Sandstone) ...with closely spaced subhorizontal rough bedding fractures. ...15.25-15.86m, with very closely spaced thin laminations and partings of weak clayey siltstone.							
...below 17.07m becomes moderately weak to moderately strong and medium to coarse grained.							
...below 18.70m becomes medium to closely fractured (becoming weak and uncemented along fractures).							
19.00-19.20m, incipient rough planar slightly stained subvertical fracture.							

Type of Sample

- Is S.P.T. ■ Undisturbed
Ic C.P.T. x Vane
O Jar △ Water
● Bulk ■ Piezometer

Remarks (Observations of Ground Water etc.)

Norwest Holst Soil Engineering Ltd.

Borehole No.

109

 Contract No. F9131
 Location St. Bridgeton, St. Asaph, Manchester
 Client Kier M. & P. Ltd.
 Method of Boring Rotary Coring
 Diameter of Borehole 146mm

BOREHOLE LOG

SJ 89NW-555

Sheet 3 of 3

Chainage

Ground Level 37.62 m.A.O.D.

Date 23/4/91 - 28/4/91

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.O.D. %	Daily Progress
Moderately weak red brown slightly weathered medium to coarse SANDSTONE. (Bunter Sandstone) ...fractures becoming closely spaced rough and subhorizontal.					95 93	73	
...20.25-20.35m; thinly interlaminated with silty mudstone bands.					21.20	102 for 100mm	
...20.70-21.30m; becomes weak and coarse grained with rare quartz pebble up to 25mm diameter and weakly cemented.					100 87	72	
22.67-22.70m; red brown mottled greenish grey band.		22.70	14.82				
Weak red brown with greenish grey bands coarse sandy SILTSTONE with very closely spaced random irregular fractures. (Bunter Sandstone)		22.95	14.67		22.70	88 for 185mm	
Moderately weak to moderately strong red brown with pale brown patches fine to medium silty SANDSTONE with closely spaced subhorizontal fractures. (Bunter Sandstone)		23.35	14.27		100 91	68	
Moderately weak red brown with occasional yellowish grey bands indistinctly thickly laminated silty MUDSTONE with very closely spaced subhorizontal fractures, generally incipient and occasional closely spaced random steeply dipping fractures. (Manchester Marl)					23.35		
...23.63-23.68m; pale brown band.					100 100	87	
...23.68-24.20m; extremely closely spaced incipient subhorizontal fractures.					24.20	123 for 250mm	
...below 25.20m; with thin bands of pale brown (weathered greenish grey) mudstone.					98 63	63	
...below 25.30m; becomes moderately weak to moderately strong with medium to closely spaced subhorizontal bedding fractures and very closely spaced randomly orientated incipient fractures.					25.00		27/4
...28.25-28.63m; thick greenish grey band.					100 83	57	
...29.15-29.39m; thick greenish grey band.					25.70	102 for 220mm	28/4
Borehole complete at 30.20m.		30.20	7.42		88 77	77	
					27.20	67 for 145mm	
					75 51	51	
					28.70	77 for 220mm	
					97 63	53	
					30.20	72 for 120mm	28/4

Type of Sample

Is S.P.T. ■ Undisturbed

Ic C.P.T. x Vane

O Jar △ Water

● Bulk ■ Piezometer

Remarks (Observations of Ground Water etc.)

APPENDIX E
Mining Search Report

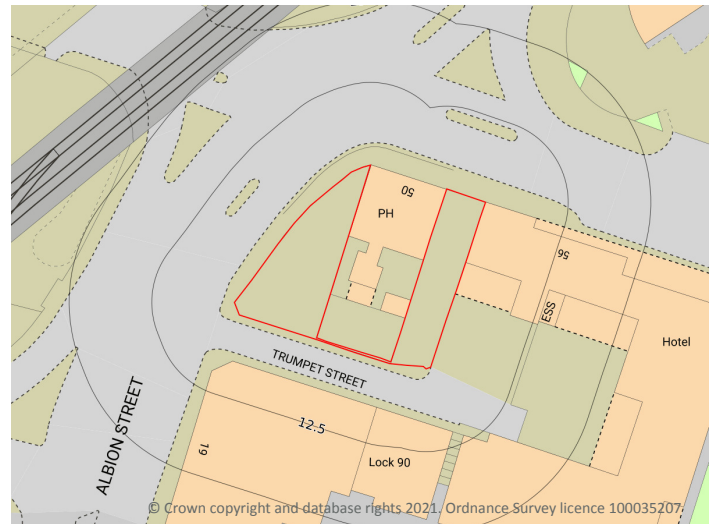
CAR PARK, TRUMPET STREET, MANCHESTER, M1 5LE

Professional opinion

Inc. integrated mine entry interpretive assessment



Site plan



Search results

✓	1. Past underground coal mining Not identified	✓	9. Coal mining subsidence claims Not identified
✓	2. Present underground coal mining Not identified	✓	10. Mine gas emissions Not identified
✓	3. Future underground coal mining Not identified	✓	11. Emergency Call Out incidents Not identified
✓	4. Shafts and adits (mine entries) Not identified	✓	12. Withdrawal of support Not identified
✓	5. Coal mining geology Not identified	✓	13. Working facilities orders Not identified
✓	6. Past opencast coal mining Not identified	✓	14. Payments to copyhold owners Not identified
✓	7. Present opencast coal mining Not identified	✓	Cheshire Brine Not identified
✓	8. Future opencast coal mining Not identified		

Coal mining (CON29M) assessment

We consider the property to be acceptably free from coal mining related risk. No further action is required with regards to past coal mining.

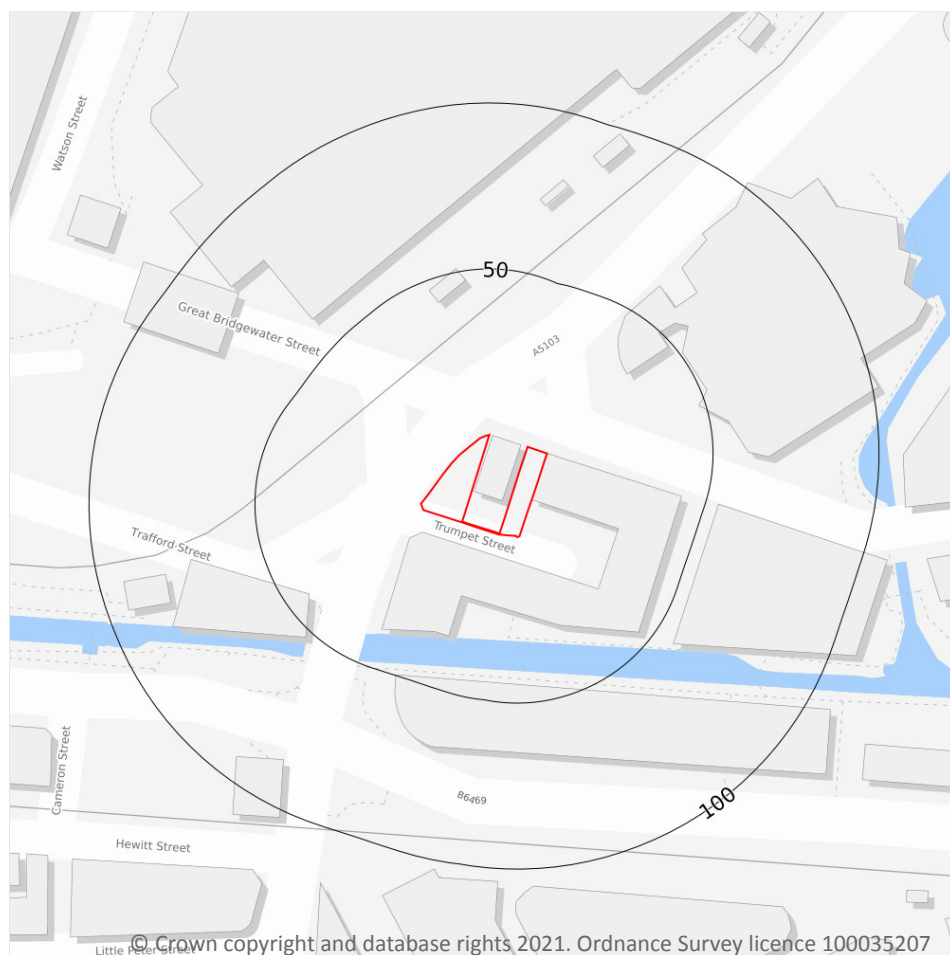


Coal mining

CON29M reports are a requirement for conveyancing and are recommended throughout the official Coal Mining Reporting Area. This is the area within which it is deemed prudent to clarify the risk presented by coal mining, using the questions laid out in the Law Society's CON29M form. The need for a CON29M does not always translate to an identification of risk, and reports will often be assessed as free from risk or 'Passed' even though they are within the official Coal Mining Reporting Area.



Coal mining (CON29M)



- Site Outline
- Search buffers in metres (m)
- Mine entries
 - Adits
 - Shafts
 - Calculated 'zone of influence'
- Subsidence claims
 - Awaiting decision
 - Rejected
 - Admitted
 - Deferred
 - Settled
 - Withdrawn
- Probable shallow coal mine workings
- Coal outcrops
- Past shallow coal mine workings

Coal mining (CON29M)

The map above shows relevant, mappable hazards identified that could constitute a risk to the property. It does not necessarily show all features or potential issues identified in this report. Further details of any features shown indicating the location of Mine Entries or Subsidence Claims can be found in the relevant sections of this report (4 and 9 respectively).

Responses to the Law Society CON29M Coal Mining search enquiries are produced using official Coal Authority data and the expert interpretation of Groundsure and Mining Searches UK. This report is prepared in accordance with The Law Society CON29M (2018) Guidance Notes. Additional interpretation and calculation of mine entry zones of influence has also been carried out by Groundsure and Mining Searches UK using Coal Authority and British Geological Survey data.

Please read this report carefully, and in particular any sections flagged with an amber 'i'.



The Law Society

These enquiries are The Law Society CON29M (2018) Coal Mining search enquiries and are used with permission of The Law Society. The Law Society CON29M Coal Mining search enquiries are protected by copyright owned by The Law Society of 113 Chancery Lane, London WC2A 1PL. The Law Society has no responsibility for information provided in response to CON29M (2018) Coal Mining search enquiries within this report or otherwise.

1. Past underground coal mining



Is the property within the zone of likely physical influence on the surface of past underground coal workings?

- The property does not lie within the potential zone of influence of any recorded underground coal workings.

2. Present underground coal mining



Is the property within the zone of likely physical influence on the surface of present underground coal workings?

- The property does not lie within the boundary of an underground site from which coal is being removed by underground methods.

3. Future underground coal mining



(a) Is the property within any geographical area for which the Coal Authority is determining whether to grant a licence to remove coal by underground methods?

- The property does not lie within the boundary of an underground site for which the Coal Authority is determining whether to grant a licence to remove coal by underground methods.

(b) Is the property within any geographical area for which a licence to remove coal by underground methods has been granted?

- The property does not lie within the boundary of an underground site for which a licence to remove coal by underground methods has been granted.

(c) Is the property within the zone of likely physical influence on the surface of planned future underground coal workings?

- The property does not lie within the zone of likely physical influence on the surface of planned future underground workings.

(d) Has any notice of proposals relating to underground coal mining operations been given under section 46 of



the Coal Mining Subsidence Act 1991?

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

4. Shafts and adits (mine entries)



Are there any shafts and adits or other entries to underground coal mine workings within the property or within 20 metres of the boundary of the property?

- No coal mine entries are recorded to lie within 20 metres of the property.

5. Coal mining geology



Is there any record of any fault or other line of weakness due to coal mining at the surface within the boundary of the property that has made the property unstable?

- No damage arising from geological faults or other lines of weakness activated by coal mining are recorded within the property.

6. Past opencast coal mining



Is the property situated within the geographical boundary of an opencast site from which coal has been removed in the past by opencast methods?

- The property does not lie within the boundary of an opencast site from which coal was removed by opencast methods.

7. Present opencast coal mining



Is the property within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods?

- The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8. Future opencast coal mining



(a) Is the property within 800 metres of the boundary of an opencast site for which the Coal Authority are determining whether to grant a licence to remove coal by opencast methods?



- The property does not lie within 800 metres of the boundary of an opencast site for which the Coal Authority are determining whether to grant a licence to remove coal by opencast methods.

(b) Is the property within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted?

- The property does not lie within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9. Coal mining subsidence claims



(a) Has any damage notice or claim for alleged coal mining subsidence damage to the property been given, made or pursued since 31st October 1994?

- We have no evidence of a damage notice or subsidence claim for the property or within 50m of the property since 31st October 1994.

(b) In respect of any such notice or claim has the responsible person given notice agreeing that there is a remedial obligation or otherwise accepted that a claim would lie against them?

- Not applicable.

(c) In respect of any such notice or acceptance has the remedial obligation or claim been discharged?

- Not applicable.

(d) Does any current "Stop Notice" delaying the start of remedial works or repairs affect the property?

- There are no current Stop Notices delaying the start of remedial works or repairs to the property.

(e) Has any request been made under Section 33 of the 1991 Act to execute preventive works before coal is worked, which would prevent the occurrence or reduce the extent of subsidence damage to any buildings, structures or works and, if yes, has any person withheld consent or failed to comply with any such request to execute preventive works?

- There is no record of a request that has been made to carry out preventive works before coal is worked under Section 33 of the Coal Mining Subsidence Act 1991.

NB. Records of damage notices or subsidence claims before 31st October 1994 are excluded from The Coal Authority data from which this search is compiled.

10. Mine gas emissions



Does the Coal Authority have record of any mine gas emission within the boundary of the property being reported that subsequently required action by the Authority to mitigate the effects of the mine gas emission?

- No mine gas emissions are recorded within the boundary of the property.

11. Emergency Surface Hazard Call Out incidents



Have the Coal Authority carried out any work on or within the boundaries of the property following a report of an alleged hazard related to coal mining under the Authority's Emergency Surface Hazard Call Out procedures?

- **No Emergency Surface Hazard Call Out procedures are recorded against the property.**

12. Withdrawal of support



(a) Does the land lie within a geographical area in respect of which a notice of entitlement to withdraw support has been published?

- **The property does not lie in an area where the right to withdraw support has been granted.**

(b) Does the land lie within a geographical area in respect of which a revocation notice has been given under section 41 of the Coal Industry Act 1994?

- **The property does not lie within a geographical area in which a revocation notice has been given under section 41 of the Coal Industry Act 1994.**

13. Working facilities orders



Is the property within a geographical area subject to an order in respect of the working of coal under the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof?

- **The property is not in an area where a court order has been issued.**

14. Payments to owners of former copyhold land



(a) Has any relevant notice, which may affect the property, been given?

- **The property does not lie within former copyholder land.**

(b) If yes, has any notice of retained interests in coal and coal mines been given?

- **No notices of retained interests in coal and coal mines been given.**

(c) If yes, has any acceptance notice or rejection notice been served?

- **No acceptance or rejection notices have been served.**

(d) If any such acceptance notice has been served, has any compensation been paid to a claimant?

- **No compensation has been paid to a claimant.**

CON29M notes and guidance

This report is prepared in accordance with [The Law Society Guidance Notes 2018](#); under which all replies to these enquiries are made. Groundsure's Terms and Conditions are applicable at the time the report was produced.

Property owners have the benefit of statutory protection (under the Coal Mining Subsidence Act 1991). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage from disused coal mine workings including disused coal mine entries. A leaflet setting out the rights and obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by telephoning 0345 762 6848. Further information can be found on their website:

www.groundstability.com.

The Coal Authority, regardless of responsibility and in conjunction with other public bodies, provide an emergency call out facility in coalfield areas to assess the public safety implications of mining features (including disused mine entries).

The Coal Authority emergency telephone number at all times is 01623 646333.

Responses to The Law Society CON29M (2018) Coal Mining Search enquiries and associated findings and recommendations relating to coal mining risk have been provided to Groundsure Ltd by Cornwall Mining Searches Limited T/A Mining Searches UK. Groundsure Ltd have additionally provided information relating to the Cheshire Brine Compensation Area, and have compiled all information into this report.

Queries should be made of Groundsure Ltd on 0844 415 9000, or via email: info@groundsure.com.

CON29M report limitations

This CON29M (2018) Coal Mining Report has been carried out with reference to all available official Coal Authority licensed data, an extensive collection of abandoned mine plans, maps and records. From this material, we have endeavoured to provide as accurate a report as possible. Any and all analysis and interpretation of licensed Coal Authority data in this report is made by Cornwall Mining Services Limited T/A Mining Searches UK.

The information provided in this report by Groundsure Ltd / Cornwall Mining Services Limited T/A Mining Searches UK has been compiled in response to The Law Society CON29M (2018) Coal Mining search enquiries. The scope of the assessment is limited to interpretation of past, present and future extraction of coal, and does not consider the impact from non-coal mining hazards and/or natural ground stability hazards. The Law Society's Guidance Notes 2018 recommends separate enquiries to the appropriate sources are made with regard to other minerals.

The Report is created by a remote investigation and reviews only information provided by the client (address and site location boundaries) and from the databases of publicly available and/or licensable information that enable a desk-based assessment of the Site. The Report does not include a Site Investigation, nor does Groundsure Ltd / Cornwall Mining Services Limited T/A Mining Searches UK make additional specific information requests of the regulatory authorities for any relevant information they may hold.

This report is concerned solely with the Site searched and should not be used in connection with nearby properties, as only known coal mining features that could potentially have a direct influence upon the Site searched are considered relevant; other features present in the general area may have been omitted for ease of reference.

This report is confidential to the client, the client's legal advisor and the client's Mortgage lender, as defined in the Groundsure terms & conditions, and as such may be used by them for conveyancing or related purposes. Groundsure has no liability toward any person or organisation not party to commissioning this report. This report or any part of it is not permitted to be reproduced, copied, altered or in any other way distributed by any other person or organisation.

Additional mine entry assessment is based on and limited to the data supplied by the Coal Authority at the time of production. In order to determine whether a property is within the likely zone of influence of a disused coal mine entry the following is considered: the actual or plotted position of the mine entry, its known or assumed diameter and the thickness of superficial deposits above rockhead. Where these figures are not known, assumptions based on established estimations have been made.

CON29M report licensing

This report contains Data provided by the Coal Authority. Any and all analysis and interpretation of Coal Authority Data in this report is made by Cornwall Mining Services Limited T/A Mining Searches UK and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure Ltd / Cornwall Mining Services Limited T/A Mining Searches UK prior to any re-use.

The Law Society CON29M Coal Mining search enquiries are protected by copyright owned by The Law Society of 113 Chancery Lane, London WC2A 1PL.

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This report may contain public sector information licensed under the Open Government Licence v3.0.

This report may contain plans and records held by the Coal Authority and made publicly available at the time of inspection which may include British Geological Survey and Ordnance Survey data.

Conveyancing Information Executive and our terms & conditions

IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by Groundsure Ltd, Sovereign House, Church Street, Brighton, BN1 1UJ. Tel: 08444 159 000. Email: info@groundsure.com. Groundsure adheres to the Conveyancing Information Executive Standards.

The Standards

- Conveyancing Information Executive Members shall act in a professional and honest manner at all times in line with the Conveyancing Information Executive Standards and carry out the delivery of the Search with integrity and due care and skill.
- Compliance with the Conveyancing Information Executive Standards will be a condition within the Conveyancing Information Executive Member's Terms and Conditions.
- Conveyancing Information Executive Members will promote the benefits of and deliver the Search to the agreed standards and in the best interests of the customer and associated parties.

Complaints Advice

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure.

If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award up to £5,000 to you if the Ombudsman finds that you have suffered actual financial loss and/or aggravation, distress or inconvenience as a result of your search provider failing to keep to the Standards.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs.

COMPLAINTS PROCEDURE: If you want to make a complaint, we will:

- acknowledge it within 5 working days of receipt
- normally deal with it fully and provide a final response, in writing, within 20 working days of receipt
- liaise, at your request, with anyone acting formally on your behalf

Complaints should be sent to:

Operations Director, Groundsure Ltd, Sovereign House, Church Street, Brighton, BN1 1UJ. Tel: 08444 159 000. Email: info@groundsure.com If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk We will co-operate fully with the Ombudsman during an investigation and comply with their final decision.

Groundsure's Terms and Conditions can be viewed online at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>

Important consumer protection information

All of the advice and reports that Groundsure produces are covered by a comprehensive Remediation Contribution policy to ensure customers are protected, see <https://www.groundsure.com/remediation> for full details.

Data providers

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



Coal Mining Report Insurance Policy



Coal Mining Report Insurance Policy

The Schedule

Policy Number: The Reference contained in the **Coal Mining Search Report**

Premium: £1.40 inclusive of Insurance Premium Tax at 12%

Property: The property which is the subject of the **Coal Mining Search Report**

Limit of Indemnity: £100,000 increasing by 10% compound per annum on each anniversary of and for the first 10 years following the **Commencement Date**

Commencement Date: The date of the **Coal Mining Search Report**

You/Your:

1. A purchaser of the **Property**
2. A lender providing a **Mortgage** in connection with a purchase of the **Property**
3. A lender providing a **Mortgage** by way of a re-mortgage of the **Property**

Definitions

Where a word is defined below or in the schedule it shall carry the same meaning wherever it appears in bold text in this policy

Insured Use: The continued use of the **Property** as a single house or flat or a single commercial premises

Market Value: The value as determined by a surveyor appointed by agreement between **You** and **Us** or (in default of agreement) the President for the time being of the Royal Institution of Chartered Surveyors

Mortgage: A mortgage or charge secured on the **Property** by an institutional mortgage lender

Coal Mining Search Report: The coal mining search report attached to this policy

Search: An official search comprising a search in form CON29M (2018) being mining searches relating to coal and brine in the area in which the **Property** is situated

We/Our/Us:

Zurich Insurance plc. A public limited company incorporated in Ireland. Registration No. 13460. Registered Office: Zurich House, Ballsbridge Park, Dublin 4, Ireland. UK Branch registered in England and Wales Registration No. BR7985. UK Branch Head Office: The Zurich Centre, 3000 Parkway, Whiteley, Fareham, Hampshire PO15 7JZ.

Zurich Insurance plc is authorised by the Central Bank of Ireland and authorised and subject to limited regulation by the Financial Conduct Authority. Details about the extent of our authorisation by the Financial Conduct Authority are available from us on request. Our FCA Firm Reference Number is 203093.

Communications may be monitored or recorded to improve our service and for security and regulatory purposes.

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Your Policy

This is a legal document and should be kept in a safe place.

This policy is an agreement between **You** and **Us** and cover is provided subject to the payment of the **Premium**.

You must read this policy and its conditions, exclusions, schedule and any endorsements as one contract. Please read all of them to make sure that they provide the cover **You** require. If they do not, please contact **Us** or **Your** insurance adviser who arranged the policy for **You**.

When **You** take out and make changes to the cover provided by this policy, **You** must take reasonable care to ensure that **You** accurately answer any questions which **We** ask of **You** and that any information **You** give **Us** is accurate. If **You** are taking out this policy for purposes which are mainly related to **Your** trade, business or profession, **You** must also let **Us** know about all facts which are material to **Our** decision to provide **You** with insurance. Failure to meet these obligations could result in this policy being invalidated, a claim not being paid, or an additional premium being charged.

Fair presentation of the risk

a) At inception of this policy and also whenever changes are made to it at **Your** request **You** must:

- i) where **You** have taken out this policy for purposes which are wholly or mainly related to **Your** trade, business or profession, disclose to **Us** all material facts in a clear and accessible manner and not misrepresent any material facts, and
- ii) where **You** have taken out this policy for purposes which are wholly or mainly unrelated to **Your** trade, business or profession, take reasonable care not to misrepresent any material facts.

b) If **You** do not comply with clause a) of this condition **We** may:

- i) avoid this policy which means that **We** will treat it as if it had never existed and refuse all claims where any non-disclosure or misrepresentation by **You** is proven by **Us** to be deliberate or reckless in which case **We** will not return the premium paid by **You**; and
- ii) recover from **You** any amount **We** have already paid for any claims including costs or expenses **We** have incurred.

c) If **You** do not comply with clause a) of this condition and the non-disclosure or misrepresentation is not deliberate or reckless this policy may be affected in one or more of the following ways depending on what **We** would have done if **We** had known about the facts which **You** failed to disclose or misrepresented:

- i) if **We** would not have provided **You** with any cover **We** will have the option to:
 1. avoid the policy which means that **We** will treat it as if it had never existed and repay the premium paid; and
 2. recover from **You** any amount **We** have already paid for any claims including costs or expenses **We** have incurred
- ii) if **We** would have applied different terms to the cover **We** will have the option to treat this policy as if those different terms apply. **We** may recover any payments made by **Us** on claims which have already been paid to the extent that such claims would not have been payable had such additional terms been applied
- iii) if **We** would have charged **You** a higher premium for providing the cover **We** will charge **You** the additional premium which **You** must pay in full.

d) If any insured person, other than **You**, is responsible for a misrepresentation or failure to make a fair presentation of the risk, **We** will invoke the remedies available to **Us** under this condition as against that particular person as if a separate insurance contract had been issued to them leaving the remainder of the policy unaffected.

NB: For the purposes of the duty of disclosure stated in paragraphs a) i) and ii) above the content of the **Coal Mining Search Report** will be deemed to satisfy **Your** disclosure obligations.

Cover

1. **You** are in the process of purchasing the **Property** relying on the **Coal Mining Search Report** and/or
2. **You** (being a lender) have agreed to provide a **Mortgage** in connection with **Your** borrower's purchase or re-mortgage of the **Property** relying on the **Coal Mining Search Report**.

We will pay the following losses sustained by **You** arising out of the **Property** being affected by any matter which would have been revealed by a **Search** had one been carried out on the date of the **Coal Mining Search Report** but which was not revealed by the **Coal Mining Search Report**:

1. any reduction in **Market Value** of the **Property** calculated at the date **You** become aware of the matter(s) and/or loss in connection with a **Mortgage** as a result of such reduction.
2. all other costs and expenses including out of court settlement costs incurred by **Us** or by **You** with **Our** prior written agreement.

Waiver of Breach of Policy Condition

We will not exercise **Our** right to avoid **Our** liability to **You** in respect of loss where **You** have inadvertently breached any term or condition of the policy provided that such breach does not prejudice **Our** rights and remedies under the policy or otherwise directly or indirectly result in or increase the amount of any loss.

Protection for Mortgagees and Successors in Title

We will not avoid **Our** liability to make a payment to **You** solely because another person breaches the terms and conditions of this policy, provided such breach was not committed on **Your** behalf or with **Your** agreement, and **We** will invoke the remedies available to **Us** under the Policy as against that other person as if a separate insurance contract had been issued to them leaving the remainder of the policy unaffected.

Joint Insured

Any party insured under this policy standing in the relation of parent company, subsidiary company, associated company, branch office or joint venture partner to each other will be deemed to be joint insured for the purposes of this policy and jointly liable and responsible for any breach of any terms and conditions of this policy. If there is any inconsistency between this clause and any other term of this policy, this clause shall prevail.

Exclusions

We will not pay for any:

1. amount in excess of the **Limit of Indemnity**.
2. loss which would be recoverable under a household buildings insurance policy.
3. loss arising from any matter that **You** were aware of at the **Commencement Date**.
4. loss if the **Property** is used for any purpose other than the **Insured Use**.

Claims Conditions and How to Claim

1. **You** must:

- i) give **Us** written notice as soon as possible of any potential or actual claim or any circumstances likely to result in a claim. Please provide the policy number, **Your** name, the full address of the **Property** and a brief description of the incident that has occurred. Notifications should be sent to: Speciality Lines Claims Team, Zurich Insurance, 8th Floor, 70 Mark Lane, London, EC3R 7NQ. Email: claims@uk.zurich.com, Enquiry line: telephone 0207 648 3523
- ii) pass all court documents and/or other communications to **Us** as soon as possible after receipt
- iii) not deal with, make any admission of liability or attempt to settle a claim without **Our** prior written agreement.
- iv) agree to and carry out at **Our** expense all things necessary to minimise any loss.
- v) provide all information and assistance that **We** may require to help defend and settle the claim.

2. **We** are entitled to:

- i) decide how to settle or defend a claim and may carry out proceedings in the name of any person insured under this policy, including proceedings for recovering any claim.
- ii) pay to **You** at any time, an amount equal to the **Limit of Indemnity** or any lower amount for which the claim can be settled, after deduction of any sum already paid. **We** may then give up control of and have no further liability in connection with the claim.

3. If **We** admit liability for a claim but there is a dispute as to the amount to be paid the dispute will be referred to an arbitrator. The arbitrator will be appointed jointly by **You** and **Us** in accordance with the law at the time. **You** may not take any legal action against **Us** over the dispute before the arbitrator has reached a decision.

4. If **You** or anyone acting on Your behalf:

- a) makes a fraudulent or exaggerated claim under this policy; or
- b) uses fraudulent means or devices including the submission of false or forged documents in support of a claim whether or not the claim is itself genuine; or
- c) makes a false statement in support of a claim whether or not the claim is itself genuine; or
- d) submits a claim under this policy for loss or damage which **You** or anyone acting on **Your** behalf or in connivance with **You** deliberately caused; or
- e) realises after submitting what **You** reasonably believed was a genuine claim under this policy and then fails to tell **Us** that **You** have not suffered any loss or damage; or
- f) suppresses information which **You** know would otherwise enable **Us** to refuse to pay a claim under this policy

We will be entitled to refuse to pay the whole of the claim and recover any sums that **We** have already paid in respect of the claim.

If any fraud is perpetrated by or on behalf of an insured person and not on behalf of **You** this condition should be read as if it applies only to that insured person's claim and references to this policy should be read as if they were references to the cover effected for that person alone and not to the policy as a whole.

5. If any claim is covered by any other insurance, **We** will not pay for more than **Our** share of that claim.

6. The most **We** will pay for any loss (or all losses in the aggregate), including costs and expenses agreed by **Us** is the **Limit of Indemnity**. Once **We** have paid a loss or losses equal to the amount of the **Limit of Indemnity**, **We** will have no further liability under this policy.

General Conditions

1. Neither **You** (nor anyone acting on **Your** behalf) must disclose the existence of this policy to any other party except **Your** legal and other professional advisers, prospective purchasers, lessees and tenants of the **Property**, their respective mortgagees, legal and other professional advisers.

2. In the UK the law allows both **You** and **Us** to choose the law applicable to the contract. This contract will be subject to the relevant law of England and Wales, Scotland, Northern Ireland, the Isle of Man or the Channel Islands depending upon the Property address stated in the Schedule. If there is any dispute as to which law applies it will be English law. The parties agree to submit to the exclusive jurisdiction of the English courts.

3. Notwithstanding any other terms of this policy **We** will be deemed not to provide cover nor will **We** make any payment or provide any service or benefit to **You** or any other party to the extent that such cover, payment, service, benefit and/or any business or activity of **Yours** would violate any applicable trade or economic sanctions law or regulation.

Cancellation Clause

If **You** have taken out this policy for purposes which are wholly or mainly unrelated to **Your** trade, business or profession, **You** may cancel this policy within 14 days of receiving the policy by writing to **Us** and in such event **We** may, at **Our** discretion, charge **You** for the time that **You** have been on cover. Any refund will be made to the party who paid the premium. If **You** do cancel, **You** may be in breach of the terms of **Your** mortgage or the terms of the contract for the sale of **Your** property. If **You** are in doubt, **You** may wish to seek legal advice prior to cancellation.

Fair Processing and Complaints Procedure Our Complaints Procedure

Our commitment to customer service

We are committed to providing a high level of customer service. If you feel we have not delivered this, we would welcome the opportunity to put things right for you.

Who to contact in the first instance

Many concerns can be resolved straight away. Therefore in the first instance, please get in touch with your usual contact at Zurich or your broker or insurance intermediary, as they will generally be able to provide you with a prompt response to your satisfaction.

Contact details will be provided on correspondence that we or our representatives have sent you.

Many complaints can be resolved within a few days of receipt

If we can resolve your complaint to your satisfaction within the first few days of receipt, we will do so. Otherwise, we will keep you

updated with progress and will provide you with our decision as quickly as possible.

Next steps if you are still unhappy

If you are not happy with the outcome of your complaint, you may be able to ask the Financial Ombudsman Service to review your case.

We will let you know if we believe the ombudsman service can consider your complaint when we provide you with our decision. The service they provide is free and impartial, but you would need to contact them within 6 months of the date of our decision.

More information about the ombudsman and the type of complaints they can review is available via their website www.financial-ombudsman.org.uk.

You can also contact them as follows:

Post: Financial Ombudsman Service, Exchange Tower, London, E14 9SR

Telephone: 08000 234567 (free on mobile phones and landlines)

Email: complaint.info@financial-ombudsman.org.uk

If the Financial Ombudsman Service is unable to consider your complaint, you may wish to obtain advice from the Citizens Advice Bureau or seek legal advice.

The Financial Services Compensation Scheme (FSCS)

We are covered by the Financial Services Compensation Scheme (FSCS) which means that you may be entitled to compensation if we are unable to meet our obligations to you. Further information is available on www.fscs.org.uk or by contacting the FSCS directly on 0800 678 1100.

How we use your information

Who controls your personal information

This notice tells you how Zurich Insurance plc ('Zurich'), as data controller, will deal with your personal information. Where Zurich introduces you to a company outside the group, that company will tell you how your personal information will be used.

You can ask for further information about our use of your personal information or complain about its use in the first instance, by contacting our Data Protection Officer at: Zurich Insurance Group, Tri-centre 1, Newbridge Square, Swindon, SN1 1HN or by emailing the Data Protection Officer at GBZ.General.Data.Protection@uk.zurich.com.

If you have any concerns regarding our processing of your personal information, or are not satisfied with our handling of any request by you in relation to your rights, you also have the right to make a complaint to the Information Commissioner's Office. Their address is: First Contact Team, Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, SK9 5AF.

What personal information we collect about you

We will collect and process the personal information that you give us by phone, e-mail, filling in forms, including on our website, and when you report a problem with our website. We also collect personal information from your appointed agent such as your trustee, broker, intermediary or financial adviser in order to provide you with the services you have requested and from other sources, such as credit reference agencies and other insurance companies, for verification purposes. We will also collect information you have volunteered to be in the public domain and other industry-wide sources. We will only collect personal information that we require to fulfil our contractual or legal requirements unless you consent to provide additional information. The type of personal information we will collect includes; basic personal information (i.e. name, address and date of birth), occupation and financial details, health and family information, claims and convictions information and where you have requested other individuals be included in the arrangement, personal information about those individuals.

If you give us personal information on other individuals, this will be used to provide you with a quotation and/or contract of insurance and/or provision of financial services. You agree you have their permission to do so. Except where you are managing the contract on another's behalf, please ensure that the individual knows how their personal information will be used by Zurich. More information about this can be found in the 'How we use your personal information' section.

How we use your personal information

We and our selected third parties will only collect and use your personal information (i) where the processing is necessary in connection with providing you with a quotation and/or contract of insurance and/or provision of financial services that you have requested; (ii) to meet our legal or regulatory obligations; or (iii) for our 'legitimate interests'. It is in our legitimate interests to collect

your personal information as it provides us with the information that we need to provide our services to you more effectively including providing you with information about our products and services. We will always ensure that we keep the amount of information collected and the extent of any processing to the absolute minimum to meet this legitimate interest. Examples of the purposes for which we will collect and use your personal information are:

1. to provide you with a quotation and/or contract of insurance;
2. to identify you when you contact us;
3. to deal with administration and assess claims;
4. to make and receive payments;
5. to obtain feedback on the service we provide to you;
6. to administer our site and for internal operations including troubleshooting, data analysis, testing, research, statistical and survey purposes;
7. for fraud prevention and detection purposes.

We will contact you to obtain consent prior to processing your personal information for any other purpose, including for the purposes of targeted marketing unless we already have consent to do so.

Who we share your personal information with

Where necessary, we will share the personal information you gave us for the purposes of providing you with the goods and services you requested with the types of organisations described below:

associated companies including reinsurers, suppliers and service providers;
introducers and professional advisers;
regulatory and legal bodies;
survey and research organisations;
credit reference agencies;
healthcare professionals, social and welfare organisations; and
other insurance companies

Or, in order to meet our legal or regulatory requirements, with the types of organisations described below:

regulatory and legal bodies;
central government or local councils;
law enforcement bodies, including investigators;
credit reference agencies; and
other insurance companies

How we use your personal information for websites and email communications

When you visit one of our websites we may collect information from you such as your email address or IP address. This helps us to track unique visits and monitor patterns of customer website traffic, such as who visits and why they visit.

We use cookies and/or pixel tags on some pages of our website. A cookie is a small text file sent to your computer. A pixel tag is an invisible tag placed on certain pages of our website but not on your computer. Pixel tags usually work together with cookies to assist us to provide you with a more tailored service. This allows us to monitor and improve our email communications and website. Useful information about cookies, including how to remove them, can be found on our websites.

How we transfer your personal information to other countries

Where we transfer your personal information to countries that are outside of the UK and the European Union (EU) we will ensure that it is protected and that the transfer is lawful. We will do this by ensuring that the personal information is given adequate safeguards by using 'standard contractual clauses' which have been adopted or approved by the UK and the EU, or other solutions that are in line with the requirements of European data protection laws.

A copy of our security measures for personal information transfers can be obtained from our Data Protection Officer at: Zurich Insurance Group, Tri-centre 1, Newbridge Square, Swindon, SN1 1HN, or by emailing the Data Protection Officer at GBZ.General.Data.Protection@uk.zurich.com.

How long we keep your personal information for

We will retain and process your personal information for as long as necessary to meet the purposes for which it was originally

collected. These periods of time are subject to legal, tax and regulatory requirements or to enable us to manage our business.

Your data protection rights

You have a number of rights under the data protection laws, namely:

- to access your data (by way of a subject access request);
 - to have your data rectified if it is inaccurate or incomplete;
 - in certain circumstances, to have your data deleted or removed;
 - in certain circumstances, to restrict the processing of your data;
 - a right of data portability, namely to obtain and reuse your data for your own purposes across different services;
 - to object to direct marketing;
 - not to be subject to automated decision making (including profiling), where it produces a legal effect or a similarly significant effect on you;
 - to claim compensation for damages caused by a breach of the data protection legislation.
- if we are processing your personal information with your consent, you have the right to withdraw your consent at any time.

We will, for the purposes of providing you with a contract of insurance, processing claims, reinsurance and targeted marketing, process your personal information by means of automated decision making and profiling where we have a legitimate interest or you have consented to this.

What happens if you fail to provide your personal information to us

If you do not provide us with your personal information, we will not be able to provide you with a contract or assess future claims for the service you have requested.

Fraud prevention and detection

In order to prevent and detect fraud we may at any time:

- check your personal data against counter fraud systems
- use your information to search against various publicly available and third party resources
- use industry fraud tools including undertaking credit searches and to review your claims history
- share information about you with other organisations including but not limited to the police, the Insurance Fraud Bureau (IFB), other insurers and other interested parties.

If you provide false or inaccurate information and fraud is identified, the matter will be investigated and appropriate action taken. This may result in your case being referred to the Insurance Fraud Enforcement Department (IFED) or other police forces and fraud prevention agencies. You may face fines or criminal prosecution. In addition, Zurich may register your name on the Insurance Fraud Register, an industry-wide fraud database.

Claims history

We may pass information relating to claims or potential claims to any relevant database. We and other insurers may search these databases when you apply for insurance, when claims or potential claims are notified to us or at time of renewal to validate your claims history or that of any other person or property likely to be involved in the policy or claim.

This helps to check information provided and prevent fraudulent claims.

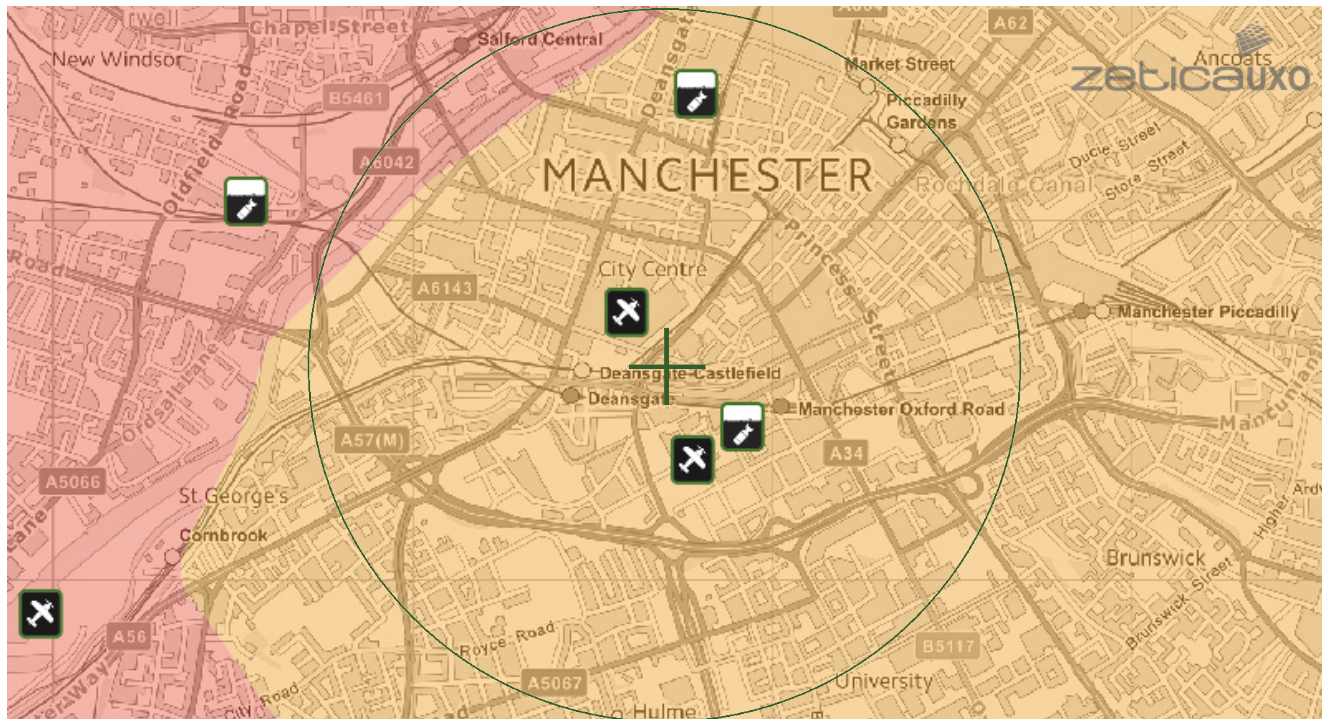
APPENDIX F
UXO Screening Map

UNEXPLODED BOMB RISK MAP



SITE LOCATION

Location: M1 5LE,
Map Centre: 383713,397598



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.

- military
- 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'.