

HME Civil Engineering Limited
Rear of 35
Market Street
Hebden Bridge
HX7 6EU

HME
CIVIL ENGINEERING
CONSULTANTS

0794 832 0906

Henry.emsley@hmecivilengineering.com

CONTAMINATED LAND PHASE 1 ASSESSMENT

Land Off

Holly Oak Gardens, Heywood, Rochdale, OL10 1HP

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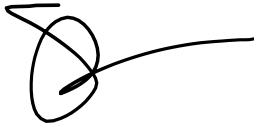
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Report Compiled by:

S Proudlock MSc DIC AGS



Report approved by:

Henry Emsley CEng MICE



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1. INTRODUCTION

1.1 Appointment

- 1.1.1 HME Civil Engineering Consultants (HME) has been commissioned by James Campbell Associates to prepare a Phase 1 Preliminary Risk Assessment (PRA) for a parcel of land off Holly Oak Gardens, Heywood, Rochdale, OL10 1HP (hereafter referred to as 'the site').
- 1.1.2 The PRA will assess the potential risks associated with contamination considering a change of use to residential (with homegrown produce). The assessment is in accordance with current guidance for land affected by contamination (LCRM and BS10175).
- 1.1.3 The site location and layout are presented on James Campbell Associates Drawing 25.3573. A copy of the drawing is presented in Appendix A.
- 1.1.4 This report is solely for the use of the named client and their professional advisers, no liability to other parties is accepted. Should the client not act upon specific, reasonable advice contained in the report, no responsibility is accepted for the consequences.
- 1.1.5 In order to produce this assessment a Groundsure Enviro Insight report has been procured along with Historical Maps also from Groundsure Insights. These are interrogated throughout the report and presented in Appendix B.

1.2 Proposed Development

- 1.2.1 This report has been prepared to support a planning application for the construction of a series of residential dwellings together with access, parking and private garden areas.
- 1.2.2 The proposed development layout for the site is presented on 'Proposed Site Plan' by James Campbell Associates Limited Drawing No: 25.3573, a copy of which is presented in Appendix A.

1.3 Objectives and Scope

1.3.1 The objective of this report is to provide a qualitative assessment of the potential risks from contamination and ground with consideration to the proposed end use residential (with homegrown produce).

1.3.2 To achieve the objective HME will undertake the following:

- Carry out a site inspection and collect photographs
- Review the relevant background information available for the site, including:
 - Recent Ordnance Survey Maps
 - Site Specific GroundSure Reports
 - Site Specific Historical Maps
 - Coal Authority Website
 - Drawings provided by James Campbell Associates Ltd
- Develop a preliminary conceptual site model in accordance with guidance to identify potentially significant pollutant linkages specific to the proposed development
- Establish areas of potential concern based on identified risks and/or potential risks
-

1.4 Limitations

1.4.1 The conclusions and recommendations presented in this report are the result of our professional interpretation of the information currently available. HME reserves the right to amend the conclusions and recommendations if further information becomes available.

1.4.2 However, it should be noted that much of the information has been derived from reports written by others and HME takes no responsibility for the accuracy of that information. Notwithstanding the above, the reports reviewed have all been written by professional environmental consultants with a duty of care to provide relevant and accurate information.

1.4.3 This report does not include an invasive plant species assessment.

2. SITE DESCRIPTION

2.1 Background

- 2.1.1 The site was an irregular shaped parcel of land accessed from Egerton Street and bisected by Holly Oak Gardens in Heywood, Rochdale. The site lies approximately 6.5km south-west of Rochdale. The surrounding area comprises a mix of commercial and residential land uses.
- 2.1.2 The National Grid Reference for the center of the site is approximately 385358, 410350. The site location is illustrated on James Campbell Associates Drawing No. 25.3573 a copy of which is included in Appendix A.

2.2 Site Layout and description

- 2.2.1 A site walkover was undertaken by an HME Engineer on 04/01/2026. Site photos reflecting the site condition at the time of inspection are included in Appendix A.
- 2.2.2 The site comprised two separate parcels of land separated by Holly Oak Gardens (a road). The west of the site was bounded on the southern side by a low stone wall with mature trees forming a line following the boundary. The rest of the western part of site was covered with rough vegetation and brambles with no structures identified.
- 2.2.3 To the east of Holly Oak Gardens mature trees and rough vegetation was present in the south with hardstanding and car parking in the north.
- 2.2.4 A large industrial building was present to the east of the site with a brick industrial unit with electrical transformers and electrical utilities infrastructure. To the north of the building an area of tarmac/hard standing was present.
- 2.2.5 Walker Street was present to the west of the site with a terrace of residential properties. A residential property fronting onto Walker Street was present to the north in the west of the site. Residential properties, accessed from Holly Oak Gardens, were present to the north in the east of the site.
- 2.2.6 There was no visual or olfactory evidence for the presence of contamination during the site walkover.

2.3 Surrounding Land Use

- 2.3.1 The site was situated within a largely residential area with some commercial uses.
A large allotment was present to the south of Egerton Street.

3. SITE HISTORY

3.1 Historical Maps

Historical mapping and environmental records indicate that the site has been used for industrial purposes since the mid-20th century. The precise operations involved foam production which may have included storage and handling of chemicals. The below assessment has been undertaken utilizing the information purchased from Groundsure. These maps are included in Appendix B.

Table 1: Historical Map summary

Map Scale Type	Map Date	Scale	Key Observations
Small Scale	1851	1:10,560	The site was undeveloped land with an un-named road crossing it oriented approximately east to west. A gravel pit was marked approximately 80m to the west of the site. A Sand Pit was marked approximately 200m south east of the site. A 'brickfield' was marked approximately 200m north of the site. A railway line oriented approximately east west was present approximately 220m south of the site.
Small Scale	1890	1:10,560	New residential type development and road infrastructure is marked to the north west of the site
Large Scale	1890 - 1891	1:2,500	Wrigley Brook is marked crossing the site from the north to the south east. The road crosses the site diagonally with field boundaries marked in the west of the site. Field boundaries with small structures are marked to the north of the site. A 'Steam Ropery' was marked approximately 220m north of the site. A Rope Walk was marked approximately 150m north east of the site and a gravel pit marked approximately 240m north east of the site.
Small Scale	1909	1:10,560	Previous structures have been cleared and a footpath is marked crossing the site. The existing road infrastructure is marked. Egerton Street and Walker Street are marked. A building is marked immediately east of the site as 'Electricity Generating Station (Heywood Corporation). A Corporation Yard is marked immediately north east of the site. Plum Mill is marked approximately 120m north west of the site with a reservoir marked approximately 160m north west of the site.
Large Scale	1910	1:2,500	Wrigley Broom is no longer marked at the site but shown to the south of Egerton Street. Residential type properties are marked to the south of Egerton Street.

Small Scale	1928	1:10,560	Tanks are denoted at the Corporation Yard to the east of the site.
Large Scale	1929	1:2,500	The footpath is marked as an access track. Tanks are denoted at the Corporation Yard to the east of the building. A Market is marked approximately 120m north east of the site.
Large Scale	1937	1:2,500	Tanks are no longer marked at the Corporation Yard. A Tramway is marked to the east of the Corporation Yard approximately 60m east of the site. An Iron Works is marked approximately 120m south east of the site.
Small Scale	1938	1:10,560	No significant changes noted.
Small Scale	1955-1956	1:10,560	No significant changes noted.
Large Scale	1956-1957	1:1,250 1:2,500	The building east of the site is now marked as an Electrical Sub Station.
Small Scale	1965-1968	1:10,560	No significant changes noted.
Large Scale	1962-1969	1:1,250 1:2,500	No significant changes noted.
Large Scale	1971-1974	1:1,250	No significant changes noted.
Small Scale	1974-1975	1:10,000	No significant changes noted.
Large Scale	1981-1983	1:10,000	No significant changes noted.
Large Scale	1987	1:10,000	No significant changes noted.
Small Scale	1985-1990	1:1,250	No significant changes noted.
Large Scale	1990-1992	1:1,250	The building to the east of the site is replaced with an Electrical Substation and a Works.
Large Scale	1992	1:10,000	No significant changes noted.
Large Scale	1994-1995	1:1,250	No significant changes noted.

Small Scale	2001	1:10,000	Holly Oak Gardens is marked crossing the site with residential properties to the north of the site.
Large Scale	2003	1:1,250	No significant changes noted.
Small Scale	2010	1:10,000	No significant changes noted.
Small Scale	2025	1:10,000	No significant changes noted.

3.2 Summary

Ordnance Survey map records mark a road and stream crossing the site from at least 1851 until sometime prior to 1909. The site remained undeveloped until the construction of Holly Oak Gardens. In the 1851 map a gravel pit, sand pit and brick works are recorded on surrounding land and subsequent records show the area redeveloped with residential use and industrial uses including an Electrical Substation, a Corporation Yard and Foundry recorded amongst noted uses. The Electrical Substation recorded immediately east of the site recorded changes in building footprint and electrical infrastructure and tanks.

4. ENVIRONMENTAL SETTING

4.1 Geology

4.1.1 The geological conditions at the site have been interpreted using data from the Groundsure Insight Report, which sources information from the British Geological Survey (BGS).

4.1.2 Made Ground

4.1.3 There is no specific record of made ground beneath the site according to the Insight report; however, given Wrigley Brook has been covered over and the road that crossed the site has been cleared the presence of made ground across parts of the site is considered likely.

4.1.4 Superficial Geology

4.1.5 According to the BGS and GroundSure report Superficial Deposits in the form of Glaciofluvial deposits are present over much of the site and Glacial Till recorded in the south west corner of the site. Further site-specific investigation would be required to confirm the nature and thickness of these deposits.

4.1.6 Bedrock Geology

4.1.7 The underlying bedrock geology comprises undifferentiated strata of Pennine Lower Coal Measures Formation, a sequence of interbedded mudstones, siltstones and sandstones.

4.1.8 Faults / Linear Features

4.1.9 No active geological faults or major linear features are recorded on site. There are no nearby mapped bedrock faults within 250m of the site according to the GroundSure Insight Report.

4.2 Contaminated Land Register

4.2.1 There are no known entries for the site under Part 2A of the Environmental Protection Act 1990.

4.3 Mining & Ground Stability

4.3.1 According to the Mining and Remediation Authority online map viewer, the site exists within the coal mining reporting area. The area surrounding the site falls within the following categorisation:

- Coal Mining Reporting Area
- High risk development area
- Probable shallow coal mine workings

4.3.2 It is recommended that a full coal mining risk assessment is undertaken and the relevant plans and records sourced from the Mining and Remediation Authority.

4.4 Ground Workings and Ground Stability

4.4.1 The Groundsure Insight Report identifies a number of historical surface ground workings within the local area. There were three features recorded within 500m of the site. The nearest was noted as the 'Pot Hall Gravel Pit' located 35m west of the site. The 'Pot Hall Sand Pit' was recorded 111m east of the site and the 'Long Field Brick Field' 203m north of the site. Map records show these sites were redeveloped for residential and commercial uses.

4.5 Hydrogeology

4.5.1 According to Environment Agency classifications included in the Insight Report:

- The superficial deposits beneath the site are designated as Secondary A aquifers. These are permeable layers capable of supporting local water supplies and may provide base flow to nearby rivers or streams.
- The underlying bedrock is also classified as a Secondary A aquifer, sharing similar hydrogeological characteristics.

4.5.2 The site is not located within any groundwater Source Protection Zone (SPZ), reducing regulatory sensitivity.

4.5.3 There are no recorded groundwater abstractions within 250m of the site.

4.6 Hydrology

- 4.6.1 There are no surface water features recorded within 250 m. The Wrigley Brook is recorded in historic maps crossing the site and it is assumed that this has been culverted.
- 4.6.2 There are no recorded licensed discharges to controlled waters within 250 m of the site.
- 4.6.3 The highest flood risk at the site is within a '1 in 30 year, 0.3m - 1.0m' flood event according to Environment Agency (EA) mapping. This indicates a high probability of flooding from rivers or the sea, under both current and future climate scenarios.

4.7 Contaminated Land & Landfill Activities

- 4.7.1 According to the Groundsure Insight Report, there are no current landfill sites or licensed waste management facilities recorded on-site or within 250m. There were two historical records for a 'Refuse Destructor' identified from map records 67m south east of the site in 1910 and 1930.
- 4.7.2 There were no pollution incidents recorded within 250m of the site.
- 4.7.3 The site is not located within proximity to any high-risk industrial sites, including:
- Hazardous substance storage/usage
 - COMAH (Control of Major Accident Hazards) facilities

4.8 Sensitive Land Uses

- 4.8.1 The site is not located within or near any designated statutory ecological receptors, such as Sites of Special Scientific Interest (SSSIs), Special Protection Areas (SPAs), or Special Areas of Conservation (SACs). As such, there are no sensitive ecological receptors that would elevate the environmental risk classification of the site.
- 4.8.2 The site is not situated within a designated Nitrate Vulnerable Zone (NVZ).

4.9 Radon

- 4.9.1 According to the UK Radon Maps published by the UK Health Security Agency (UKHSA) and the British Geological Survey (BGS), the site was located within an area where less than 1% of homes are estimated to exceed the radon Action Level.
- 4.9.2 In accordance with Building Regulations (Approved Document C) and guidance from UKHSA, no radon protection measures are required for any new residential development on this site.
- 4.9.3 While radon is a naturally occurring radioactive gas, it is a significant health risk when allowed to accumulate in indoor air over time. Therefore, design-phase mitigation should be addressed by the project architect and structural engineer in consultation with Building Control.

5. POTENTIAL POLLUTANT LINKAGES

5.1 General

- 5.1.1 This section identifies the potential sources of contamination, the relevant pathways, and the associated receptors that may be present or affected as part of the redevelopment of the site. This assessment has been undertaken with specific consideration for the proposed residential end use with potential for homegrown produce, which carries a heightened sensitivity to contamination.
- 5.1.2 A preliminary conceptual site model (CSM) has been developed and is presented in Appendix C, providing a qualitative overview of:
- Potential sources of contamination: Historical or current land uses both on-site and nearby that may have introduced pollutants.
 - Pathways for contamination migration: Mechanisms through which contaminants may travel from source to receptor, including human exposure routes and environmental transport processes.
 - Potential receptors: Future site users (residents), controlled waters (e.g., groundwater or surface water), the wider environment, and property/buildings.

5.2 Potential Sources of Contamination

- 5.2.1 The historical review indicates that the site had a road crossing it and a stream, the Wrigley Brook previously crossed the site but appears to have been culverted.
- 5.2.2 The Groundsure Insight Report also identifies multiple potentially contaminative land uses within 250m of the site. Commercial uses were noted on surrounding land, including a large Electrical Substation immediately east of the site. A Council depot was recorded to the north east of the site. A gravel pit and a sand pit were recorded in the vicinity. These land uses are commonly associated with a range of potential contaminants such as hydrocarbons, solvents, heavy metals, and asbestos-containing materials (ACMs).
- 5.2.4 The site was undeveloped at the time of inspection and covered with rough vegetation and mature trees, and the presence of made ground beneath this is considered likely.

5.3 Potential Contaminants of Concern

5.3.1 Based on the site's historical uses and surrounding context, the following classes of contaminants may be of concern:

- Metals and metalloids (e.g., lead, arsenic, copper)
- Petroleum hydrocarbons (e.g., diesel, lubricating oils)
- PAHs (from coal storage, wood processing, or fuel combustion)
- Volatile organic compounds (VOCs) (from industrial solvents or degreasers)
- Asbestos-containing materials (ACMs)
- Ground gases (e.g., methane or carbon dioxide from made ground or nearby landfills)

5.4 Potentially Significant Contaminants of Concern

5.4.1 Based on the site's industrial history and proximity to historical contaminative land uses, a range of potentially significant contaminants may be present in soils or shallow groundwater. These have been identified with reference to typical contaminants associated with the former road and Electrical Substation along with commercial and industrial uses noted on surrounding land.

5.5 Ground Gas Considerations

5.5.1 Should the site investigation reveal a significant thickness of made ground (>3 m) or the presence of highly organic fill materials, ground gas monitoring and risk assessment may be warranted, in line with CIRIA C665 guidance.

5.5.2 The site lies within a Coal Authority 'High Risk' Development Area, the proximity to coal outcrops and shallow coal workings justifies a precautionary Coal Mining Risk Assessment to confirm the absence of mining-related hazards.

5.5.3 Based on current information, the risk from coal-related ground gas is considered to be low, and no further assessment is required unless conditions identified during site investigation indicate otherwise. However, suitable monitoring and protection measures will need to be in place for any intrusive investigation.

5.6 Potential Pathways

5.6.1 The likelihood of risk to receptors is governed by the existence of viable contaminant-pathway-receptor (C-P-R) linkages. With respect to the proposed redevelopment of the site for residential use with homegrown produce, the following human health exposure pathways have been identified:

- Dermal contact with contaminated soils (e.g., during gardening or play)
- Ingestion of contaminated soils or homegrown vegetables (e.g., due to uptake of contaminants)
- Inhalation of contaminated dust or vapours from impacted soils or made ground, particularly during groundworks or dry weather
- Leaching of contaminants into soil pore water, potentially affecting plant health and uptake into homegrown produce.
- Indoor inhalation of ground gases (e.g. methane, carbon dioxide) or organic vapours (e.g. VOCs) that could migrate from made ground into residential buildings via permeable soils or service conduits.
- Vertical migration of contaminants via dissolution or suspension in percolating rainwater, potentially reaching shallow groundwater and aquifers.
- Lateral migration of leachate in perched water through more permeable lenses in the made ground or natural strata, with potential to affect both on-site and off-site receptors. Subsurface services, piling, and foundation structures may act as preferential pathways.
- Direct contact with buried services (e.g. water pipes, ducts) by aggressive contaminants (e.g. hydrocarbons, sulphate) may pose a corrosion or integrity risk.
- Building materials in contact with elevated levels of sulphate or extremes of pH may be at risk of degradation, particularly affecting concrete and masonry elements.

These pathways will form the basis of the conceptual site model (CSM) and require further consideration in any subsequent Phase 2 intrusive investigation.

5.7 Potential Receptors

5.7.1 The following site-specific receptors may be affected by contamination depending on the viability of source–pathway–receptor linkages:

5.7.2 Future Site Users

5.7.3 The proposed end-use of the site is residential with potential for homegrown produce. As such, future residents represent a highly sensitive receptor group, particularly children and those engaging in gardening activities.

5.7.4 Key risks include:

- Ingestion of contaminated soils or homegrown vegetables (particularly with uptake of metals or organic contaminants).
- Inhalation of dust, vapours, or fibres (including asbestos, if present).
- Dermal contact with contaminated soils during recreational or gardening activities.

5.7.5 These exposures are most relevant in garden areas, open spaces, and potentially under unsealed surface treatments.

5.7.6 The inhalation of ground gases or vapours indoors is also a concern, particularly if significant made ground or volatile contaminants are present beneath future buildings.

5.7.7 Construction Workers

5.7.8 Construction and groundwork personnel may encounter contaminated materials during shallow excavations, particularly in made ground. Asbestos-containing materials (ACMs), if present, may become airborne during disturbance, posing a respiratory hazard.

5.7.9 The short duration of exposure and use of standard PPE and robust site-specific RAMS (Risk Assessments and Method Statements) are generally expected to mitigate risk from most contaminants. However, heightened caution is warranted in the presence of asbestos or hydrocarbon-impacted soils.

5.8 Off-Site Receptors

- 5.8.1 Surrounding land uses include residential properties immediately to the north and to the south and west of the site. These off-site human receptors may be at risk from airborne pollutants—particularly asbestos fibres or contaminated dust—should these be released during demolition or site development activities.

5.9 Flora

- 5.9.1 Vegetation introduced as part of landscaping schemes or ecological mitigation may be impacted by soil contaminants. Certain heavy metals (e.g., lead, arsenic, zinc) are known to be phytotoxic at elevated concentrations, potentially inhibiting plant growth and affecting soil health.

5.10 Buildings & Services

- 5.10.1 Subsurface services (e.g., water supply, drainage, and utility infrastructure) may be at risk from direct contact with organic contaminants, such as hydrocarbons and solvents, which may degrade protective coatings or cause long-term corrosion. This is particularly relevant in the presence of volatile or aggressive substances in made ground.

5.11 Controlled Waters

- 5.11.1 There are no surface water features directly on-site, but the Wrigley Brook is assumed to be culverted and cross the site. These features represent potential surface water receptors, especially if contaminant migration occurs via runoff or lateral leachate movement.
- 5.11.2 Both the superficial deposits and underlying bedrock are classified as Secondary A Aquifers by the Environment Agency. These aquifers are permeable and capable of supporting local water supplies and may also contribute to base flow in nearby streams or brooks. As such, they are considered sensitive controlled water receptors.

5.12 Preliminary Conceptual Model

- 5.12.1 Based on the identified sources, pathways, and receptors, a Preliminary Conceptual Site Model (CSM) has been developed. It outlines the plausible pollutant linkages that may be active or potentially active under the proposed site redevelopment for residential use with homegrown produce.
- 5.12.2 The identified source-pathway-receptor linkages are summarised in the table below and in Appendix C. These form the basis of the site's preliminary risk assessment and guide recommendations for further investigation.

5.13 Potentially Significant Pollutant Linkages

- 5.13.1 A number of potentially significant pollutant linkages (SPRLs) have been identified based on the desk-based assessment. These relate primarily to risks affecting human health, controlled waters, and buildings/services.
- 5.13.2 **Link 1:** Human health (on-site and off-site) – Direct exposure to made ground or contaminated soils via ingestion, inhalation of dust, or dermal contact, potentially affecting both residents and domestic pets.
- 5.13.3 **Link 2:** Inhalation of windblown particulates – Potential for airborne migration of contaminated dust or asbestos fibres, affecting both on-site users and adjacent residential areas.
- 5.13.4 **Link 3:** Contamination of homegrown produce – Uptake of contaminants by vegetables grown in site soils, potentially leading to bioaccumulation.
- 5.13.5 **Link 4:** Ingestion of contaminated produce – Direct human exposure through dietary intake of crops grown in impacted soil, especially relevant for sensitive populations (e.g., children).
- 5.13.6 **Link 5:** Inhalation of ground gases – The presence of made ground and underlying coal measures introduces the potential for ground gas generation (e.g., methane, carbon dioxide). If ground gases migrate into indoor environments, they may pose a risk to human health via inhalation, particularly in enclosed spaces with poor ventilation.
- 5.13.7 **Link 6:** Inhalation of volatile organic compounds (VOCs) – In the presence of petroleum hydrocarbons or solvents, volatilisation into indoor air may occur. Vapour intrusion pathways could lead to chronic exposure risks for future residents if VOCs migrate into buildings.

5.13.8 **Link 7:** Property and ecological receptors – Direct contact between construction materials, underground utilities, flora, and fauna with elevated concentrations of contaminants (e.g., sulphates, hydrocarbons, metals) could result in:

- Material degradation or corrosion
- Phytotoxicity to landscaped flora
- Harm to soil invertebrates or microbiota

5.13.9 **Link 8:** Lateral leaching to surface water – Dissolution or suspension of contaminants within soil pore water may result in lateral migration within perched water bodies. Potential pathways include permeable layers in the made ground or natural strata, and man-made features such as underground services, pile foundations, or utility trenches. These could allow contaminants to reach on-site or off-site surface water receptors, including River Roch and nearby drainage features.

5.13.10 **Link 9:** Leaching to groundwater – Vertical migration of contaminants through the soil profile, particularly in areas lacking a cohesive clay layer (e.g., Glacial Till), could lead to impacts on the Secondary A aquifer within the bedrock. Structural features such as deep foundations or piles may provide preferential pathways for contaminant movement, increasing the risk to controlled waters.

Link	Source	Hazard	Transport Mechanism	Pathway	Medium of exposure	Receptor	Risk Summary
1	Contaminated soils	Direct contact /ingestion of soil or dust	Direct contact with contaminated soils	Dermal contact/ingestion of soil at surface	Soil	Human (on site/ off site) domestic pets	Medium – potential in garden areas
2	Contaminated soils	Particulate inhalation	Wind blown particulates	Inhalation of particulates	Air	Human (on site/ off site) domestic pets	Low
3	Contaminated soils	Impaired produce growth	Uptake of contaminants by homegrown produce resulting in loss	Uptake during growth	Vegetable produce	Property (domestic produce)	Medium – potential homegrown vegetables
4	Contaminated soils	Ingestion of contaminants	Uptake of contaminants by homegrown produce	Consumption of home grown produce	Vegetable produce	Humans	Medium – potential homegrown vegetables
5	Contaminated soils / coal measures	Inhalation of ground gas	Degradation of contaminants generating ground gas through unsaturated zone to soil leading to inhalation	Inhalation of gases	Air	Humans (on site/off site, domestic pets)	Medium – potential shallow workings
6	Contaminated soils	Vapour inhalation	Volatilisation of organic compounds through unsaturated zone of soil leading to inhalation	Inhalation of vapours	Air	Human (on site/ off site) domestic pets	Low – no significant sources identified
7	Contaminated soils	Damage of structures / services	Direct contact of contaminants with building structures/services	Direct contact	Soil/Water	Flora, services, concrete	Low – no significant sources identified
8	Contaminated soils	Degradation of perched water quality	Dissolution or suspension of contaminants into perched waters and migration to on-site and off-site receptors	Dissolution or suspension	Water	Perched waters, surface water	Low – no significant sources identified
9	Contaminated soils	Pollution of underlying groundwater	Dissolution or suspension of contaminants into groundwaters	Dissolution or suspension	Water	Groundwater	Medium – potential to Wrigley Brook

HME Civil Engineering Limited – Phase 1 PRA
Land off Holly Oak Gardens
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Revision 00



6. RECOMMENDATIONS

6.1 Introduction

- 6.1.1 Based on the findings of this Preliminary Risk Assessment, potential risks to human health, controlled waters, flora, fauna, and property (including buried services) have been identified. These risks are primarily associated with the presence of made ground, the historical industrial uses noted to the east of the site, and possible ground gas generation associated with shallow coal workings.

The identified potential pollutant linkages represent plausible risks that warrant further assessment. A Phase 2 intrusive site investigation is recommended to:

- Characterise ground conditions
- Confirm the presence or absence of contamination
- Assess the viability and severity of each pollutant linkage
- Support the development of appropriate remediation or mitigation strategies (if required)

The scope of investigation should be designed in accordance with LCRM, BS10175, and CIRIA C665 guidance, tailored to the proposed residential end-use with homegrown produce.

6.2 Intrusive works

- 6.2.1 The proposed investigation should include the drilling of boreholes across the site to confirm stratigraphy and assess the depth, nature, and variability of made ground. This will help identify any significant contamination or ground gas generation potential.
- 6.2.2 The boreholes should be positioned to cover areas of proposed garden spaces, open areas, and building footprints, with consideration for former structures and suspect contamination zones.
- 6.2.3 In-situ geotechnical strength testing should be undertaken during the drilling programme. Soil samples should be recovered for both chemical and geotechnical laboratory analysis.
- 6.3.4 All samples intended for chemical analysis must be:

- Collected in appropriate containers
- Immediately stored in pre-cooled cool boxes
- Dispatched to the laboratory within 24 hours to maintain integrity

6.3.5 The investigation should be supervised by a suitably qualified geoenvironmental engineer, responsible for logging ground conditions and managing sample handling protocols.

6.4 Ground Gas Considerations

6.4.1 Should the findings of the recommended Coal Mining Risk Assessment investigation identify:

- An absence of natural superficial clays
- Made ground exceeding 3 m in thickness
- Presence of organic-rich strata (e.g., peat)
- Potential Coal Workings

Then ground gas monitoring (in accordance with CIRIA C665) may be required to assess risks from methane, carbon dioxide, and volatile compounds.

6.5 Other Considerations

6.9.1 To inform surface water management strategies, it may be necessary to undertake soakaway testing in accordance with BRE Digest 365. These results will support the design of sustainable drainage systems (SuDS).

6.9.2 In addition, it is recommended that the developer:

- Consult with the local water utility provider
- Complete a UK Water Industry Research (UKWIR) risk assessment for water pipe material selection, based on the contamination profile of site soils

This ensures that the selected materials (e.g., barrier pipe vs. standard MDPE) are compatible with soil conditions, safeguarding long-term service integrity.

- 6.9.3 As noted above, due to the assessed risk presented by historical mine workings it is recommended that a coal mining risk assessment is undertaken to establish the residual risk presented by workings beneath or adjacent to the site. The proposed ground investigation may need to extend to suitable depths to negate the presence of voids below the site.

HME Civil Engineering Limited – Phase 1 PRA
Land off Holly Oak Gardens
PREAPP/00044/2522/11/2024
Revision 00



APPENDIX A – Drawings & Photographs



PROPOSED SITE PLAN

KEY

EXISTING DWELLING

PROPOSED EXTENDED ROAD

PROPOSED GRASSED AREAS
Gardens / Yards Landscape Area

PROPOSED NEW DWELLINGS

PROPOSED PARKING AREAS
Single Car Drives Leading to Garages

PROPOSED PATHS & PATIOS

ROOT PROTECTION AREA

EXISTING SITE IMAGE EGERTON STREET

EXISTING SITE IMAGE HOLLY OAK GARDENS

PROPOSED FRONT ELEVATION V1
5 x 4 bedroom

PROPOSED FRONT ELEVATION V1
3 x 4 bedroom & 2 x 3 bedroom

This drawing is provided as a document to gain either Planning Permission or Building Regulation approval purposes only. It is not a guarantee that Planning Permission will be granted.

This drawing and all contents are the copyright of James Campbell Associates Ltd. No copies to be made from the drawing & details within unless authorised by James Campbell Associates Ltd.

The contract for the works is between the client and his / her contractor. Contractor to visit site, study the details provided within the drawing and be familiar with both the work to be carried out in accordance with the details provided. Any stated dimension must be checked prior to any form of construction. All works and materials to comply with all relevant British Standards and carry a genuine BBA certificate. The materials specified within this drawing are a guide for the contractor as they are recognised materials with genuine BBA certificates etc. Any contractor who decides to use any different materials than that noted on the drawing must inform James Campbell Associates Ltd.

Any discrepancies discovered or items found that where not visible at the time of the initial survey should be reported to James Campbell Associates Ltd for consultation with our client.

CONSTRUCTION NOTES:-

DRAWING TITLE

SCHEME 1 - PROPOSED SITE PLAN

JCA

JAMES CAMPBELL ASSOCIATES LTD

CHARTERED ARCHITECTURAL SERVICES

WWW.JAMESCAMPBELLASSOCIATES.CO.UK

Chartered Institute of
Architectural Technologists

Campbell House
173 Rochdale Road
Firgrove
Rochdale
OL163BN

Tel: 01706354888
Mob: 07817243398
Email: martin@jamescampbellassociates.co.uk
Web: www.jamescampbellassociates.co.uk

PROJECT

PROPOSED RESIDENTIAL DEVELOPMENT

LOCATION

Land off Holly Oak Gardens
Heywood
Rochdale

DRAWN:- Aiden Phillips-Whalley

DATE:- March 2025

SCALE:- 1:200 1:100 @ A1

ISSUE:-

DRAWING NUMBER:-

25.3573.SC1.1



General view to the east across the site from Walker Street



General view to the east from Walker Street looking along the southern site boundary



General view to the north of the south west corner of the site and Walker Street



General view to the west across the western half of the site from Holly Oak Gardens



General view to the west across the western half of the site from Holly Oak Gardens



General view to the north west across the western half of the site from Holly Oak Gardens



General view to the east across the eastern half of the site from Holly Oak Gardens



General view to the south west across the eastern half of the site from the north east corner of the site



General view to the west across the eastern half of the site



General view to the east showing the Electrical Substation and associated infrastructure immediately adjacent to the site



View to the east of the Electrical Substation on adjacent land



View to the east of the Electrical Substation on adjacent land

HME Civil Engineering Limited – Phase 1 PRA
Land off Holly Oak Gardens
PREAPP/00044/2522/11/2024
Revision 00



APPENDIX B - GroundSure

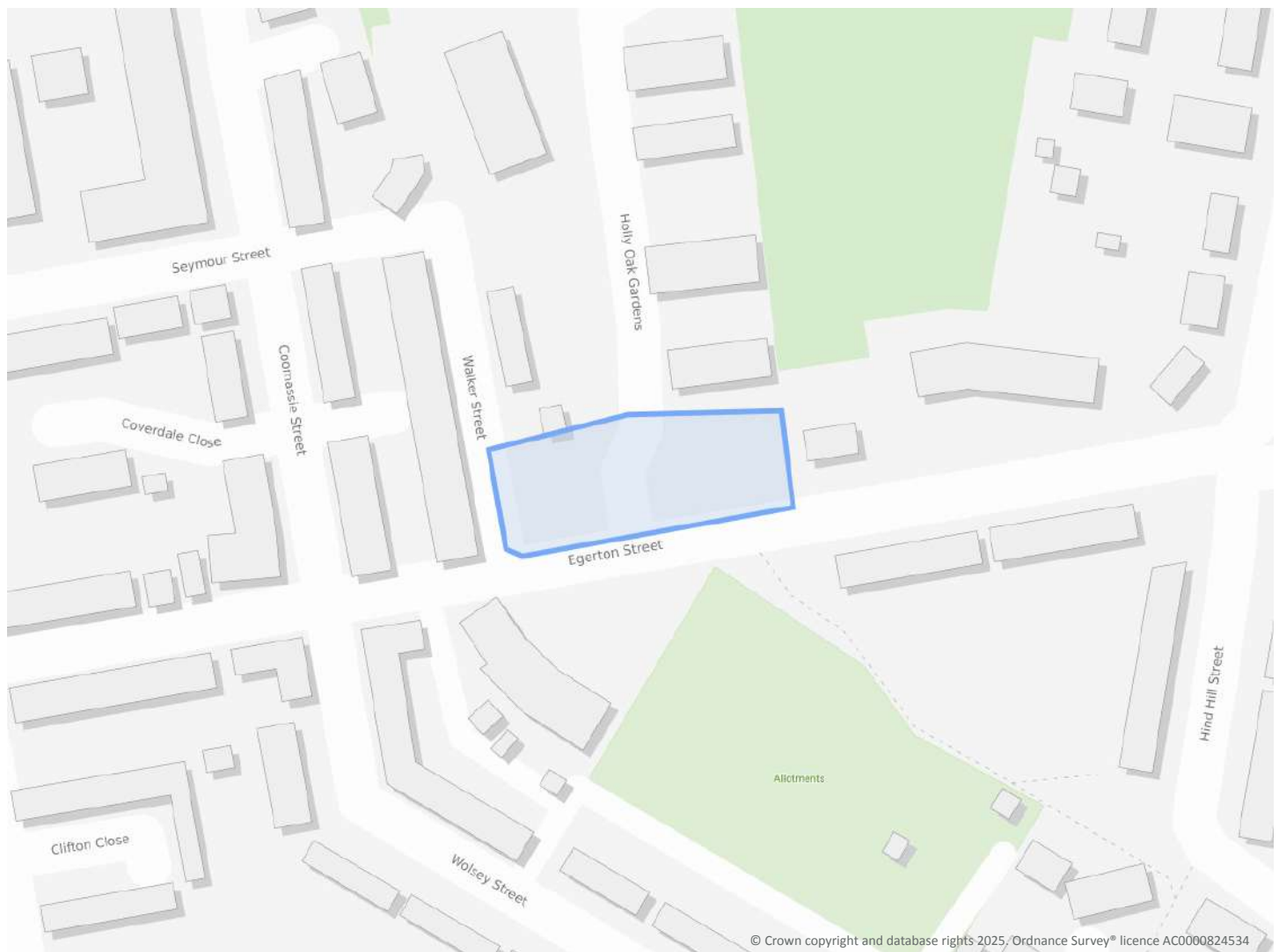
Land off Holly Oak Gardens

Order Details

Date: 15/12/2025
Your ref: Land off Holly Oak Gardens
Our Ref: GS-NFC-MSH-ML2-N4D

Site Details

Location: 385358 410352
Area: 0.24 ha
Authority: [Rochdale Metropolitan Borough Council](#) ↗



Summary of findings

[p. 2 >](#)

Aerial image

[p. 9 >](#)

OS MasterMap site plan

[p.14 >](#)

[Insight User Guide](#) ↗

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	4	4	22	84	-
20 >	1.2 >	Historical tanks >	0	3	13	29	-
22 >	1.3 >	Historical energy features >	1	6	2	17	-
23	1.4	Historical petrol stations	0	0	0	0	-
23 >	1.5 >	Historical garages >	0	0	1	5	-
24	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
25 >	2.1 >	Historical industrial land uses >	5	6	32	110	-
31 >	2.2 >	Historical tanks >	0	3	28	56	-
34 >	2.3 >	Historical energy features >	1	11	8	58	-
37	2.4	Historical petrol stations	0	0	0	0	-
38 >	2.5 >	Historical garages >	0	0	1	11	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
39	3.1	Active or recent landfill	0	0	0	0	-
39	3.2	Historical landfill (BGS records)	0	0	0	0	-
40	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
40	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
40 >	3.5 >	Historical waste sites >	0	0	2	0	-
41	3.6	Licensed waste sites	0	0	0	0	-
41 >	3.7 >	Waste exemptions >	0	0	0	3	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
42 >	4.1 >	Recent industrial land uses >	0	1	3	-	-
43 >	4.2 >	National Geographic Database (NGD) - Current or recent tanks >	0	0	4	-	-
43	4.3	Current or recent petrol stations	0	0	0	0	-
43	4.4	Electricity cables	0	0	0	0	-
44	4.5	Gas pipelines	0	0	0	0	-



44	4.6	Sites determined as Contaminated Land	0	0	0	0	-
44	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
44	4.8	Regulated explosive sites	0	0	0	0	-
44	4.9	Hazardous substance storage/usage	0	0	0	0	-
45	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
45	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
45	4.12	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
45	4.13	Radioactive Substance Authorisations	0	0	0	0	-
45	4.14	Licensed Discharges to controlled waters	0	0	0	0	-
46	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
46	4.16	Pollutant release to public sewer	0	0	0	0	-
46	4.17	List 1 Dangerous Substances	0	0	0	0	-
46	4.18	List 2 Dangerous Substances	0	0	0	0	-
46	4.19	Pollution Incidents (EA/NRW)	0	0	0	0	-
47	4.20	Pollution inventory substances	0	0	0	0	-
47	4.21	Pollution inventory waste transfers	0	0	0	0	-
47	4.22	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
48 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
50 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
52 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
53	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
53	5.5	Groundwater vulnerability- local information	None (within 0m)				
54 >	5.6 >	Groundwater abstractions >	0	0	0	0	10
57 >	5.7 >	Surface water abstractions >	0	0	0	0	6
59	5.8	Potable abstractions	0	0	0	0	0
59	5.9	Source Protection Zones	0	0	0	0	-
59	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m



60	6.1	Water Network (OS MasterMap)	0	0	0	-	-
60	6.2	Surface water features	0	0	0	-	-
61 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
61 >	6.4 >	WFD Surface water bodies >	0	0	0	-	-
62 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
63	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
63	7.2	Historical Flood Events	0	0	0	-	-
63	7.3	Flood Defences	0	0	0	-	-
64	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
64	7.5	Flood Storage Areas	0	0	0	-	-
65	7.6	Flood Zone 2	None (within 50m)				
65	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding >					
66 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
68 >	9.1 >	Groundwater flooding >	Moderate (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
69	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
70	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
70	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
70	10.4	Special Protection Areas (SPA)	0	0	0	0	0
70	10.5	National Nature Reserves (NNR)	0	0	0	0	0
71	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
71 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	6
71	10.8	Biosphere Reserves	0	0	0	0	0
72	10.9	Forest Parks	0	0	0	0	0
72	10.10	Marine Conservation Zones	0	0	0	0	0
72 >	10.11 >	Green Belt >	0	0	0	0	2



72	10.12	Proposed Ramsar sites	0	0	0	0	0
73	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
73	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
73	10.15	Nitrate Sensitive Areas	0	0	0	0	0
73 >	10.16 >	Nitrate Vulnerable Zones >	0	0	0	0	1
75 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
76	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
77	11.1	World Heritage Sites	0	0	0	-	-
77	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
77	11.3	National Parks	0	0	0	-	-
77	11.4	Listed Buildings	0	0	0	-	-
78	11.5	Conservation Areas	0	0	0	-	-
78	11.6	Scheduled Ancient Monuments	0	0	0	-	-
78	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
79 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
80	12.2	Open Access Land	0	0	0	-	-
80	12.3	Tree Felling Licences	0	0	0	-	-
80	12.4	Environmental Stewardship Schemes	0	0	0	-	-
80	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
81 >	13.1 >	Priority Habitat Inventory >	0	1	5	-	-
82	13.2	Habitat Networks	0	0	0	-	-
82	13.3	Open Mosaic Habitat	0	0	0	-	-
82	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
83 >	14.1 >	10k Availability >	Identified (within 500m)				
85 >	14.2 >	Artificial and made ground (10k) >	0	0	3	5	-

87 >	14.3 >	Superficial geology (10k) >	2	0	0	4	-
88	14.4	Landslip (10k)	0	0	0	0	-
89 >	14.5 >	Bedrock geology (10k) >	1	0	3	9	-
90 >	14.6 >	Bedrock faults and other linear features (10k) >	0	0	0	6	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
92 >	15.1 >	50k Availability >	Identified (within 500m)				
93	15.2	Artificial and made ground (50k)	0	0	0	0	-
93	15.3	Artificial ground permeability (50k)	0	0	-	-	-
94 >	15.4 >	Superficial geology (50k) >	2	0	0	0	-
95 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
95	15.6	Landslip (50k)	0	0	0	0	-
95	15.7	Landslip permeability (50k)	None (within 50m)				
96 >	15.8 >	Bedrock geology (50k) >	1	0	0	2	-
97 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
97 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	0	4	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
98 >	16.1 >	BGS Boreholes >	1	4	15	-	-
Page	Section	Natural ground subsidence >					
100 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
101 >	17.2 >	Running sands >	Very low (within 50m)				
102 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
103 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
104 >	17.5 >	Landslides >	Very low (within 50m)				
105 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
107 >	18.1 >	BritPits >	0	1	2	0	-
108 >	18.2 >	Surface ground workings >	0	1	18	-	-
109	18.3	Underground workings	0	0	0	0	0
110	18.4	Underground mining extents	0	0	0	0	-



110	18.5	Historical Mineral Planning Areas	0	0	0	0	-
110	18.6	Non-coal mining	0	0	0	0	0
110	18.7	JPB mining areas	None (within 0m)				
110	18.8	The Coal Authority non-coal mining	0	0	0	0	-
111	18.9	Researched mining	0	0	0	0	-
111	18.10	Mining record office plans	0	0	0	0	-
111	18.11	BGS mine plans	0	0	0	0	-
111 >	18.12 >	Coal mining >	Identified (within 0m)				
112	18.13	Brine areas	None (within 0m)				
112	18.14	Gypsum areas	None (within 0m)				
112	18.15	Tin mining	None (within 0m)				
112	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
113	19.1	Natural cavities	0	0	0	0	-
113	19.2	Mining cavities	0	0	0	0	0
113	19.3	Reported recent incidents	0	0	0	0	-
113	19.4	Historical incidents	0	0	0	0	-
Page	Section	Radon >					
115 >	20.1 >	Radon >	Less than 1% (within 0m)				
Page	Section	Soil chemistry >	On site	0-50m	50-250m	250-500m	500-2000m
117 >	21.1 >	BGS Estimated Background Soil Chemistry >	1	1	-	-	-
117	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
117	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects >	On site	0-50m	50-250m	250-500m	500-2000m
118	22.1	Underground railways (London)	0	0	0	-	-
118	22.2	Underground railways (Non-London)	0	0	0	-	-
119	22.3	Railway tunnels	0	0	0	-	-
119 >	22.4 >	Historical railway and tunnel features >	1	1	28	-	-
120	22.5	Royal Mail tunnels	0	0	0	-	-



120	22.6	Historical railways	0	0	0	-	-
121 >	22.7 >	Railways >	0	0	8	-	-
121	22.8	Crossrail 2	0	0	0	0	-
121	22.9	HS2	0	0	0	0	-

Recent aerial photograph



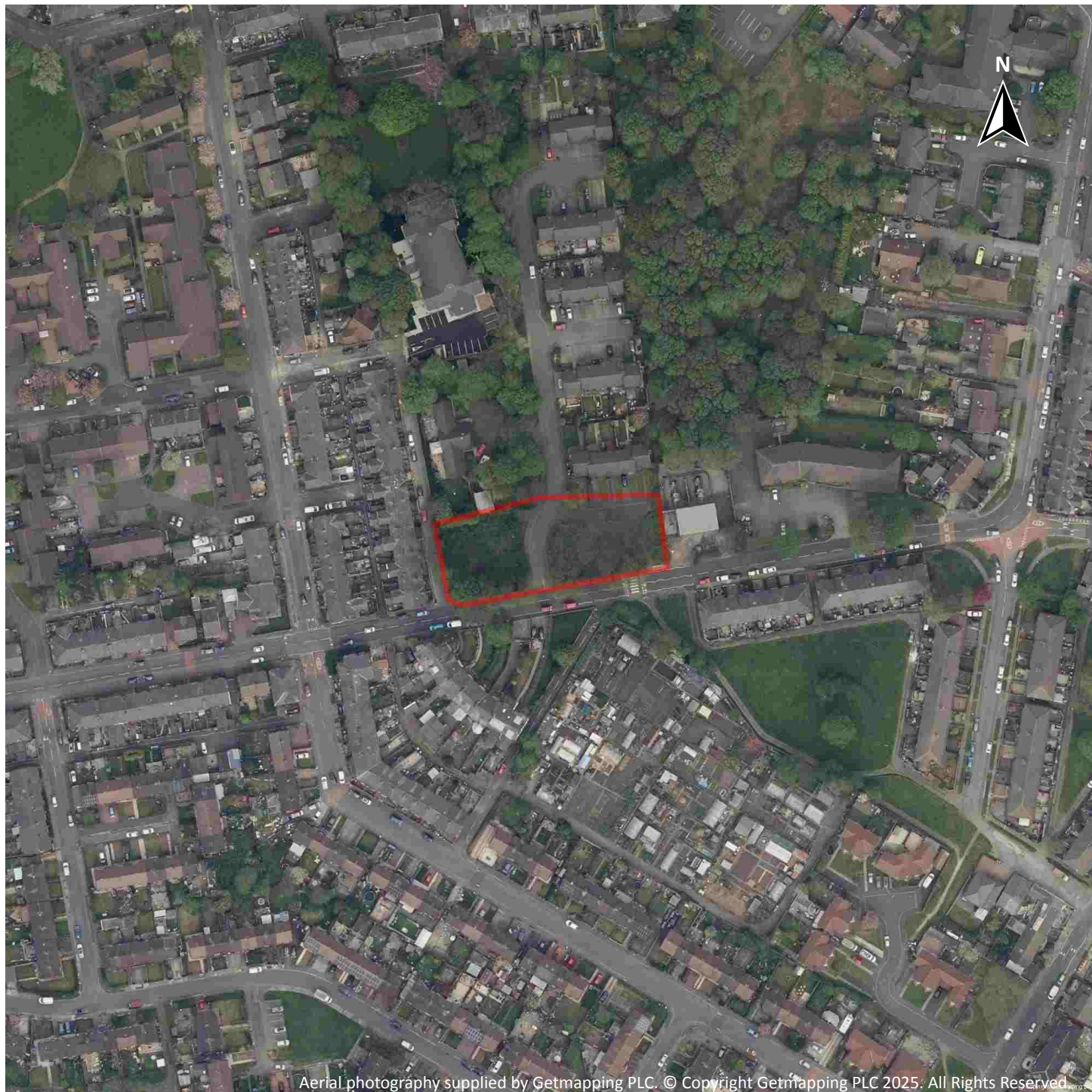
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2025. All Rights Reserved.

Capture Date: 07/04/2023

Site Area: 0.24ha



Recent site history - 2019 aerial photograph



Capture Date: 23/05/2019

Site Area: 0.24ha



Contact us with any questions at:

info@groundsure.com

01273 257 755

Date: 15 December 2025

Recent site history - 2011 aerial photograph



Capture Date: 02/05/2011

Site Area: 0.24ha



Contact us with any questions at:

info@groundsure.com ↗

01273 257 755

Date: 15 December 2025

Recent site history - 2000 aerial photograph



Capture Date: 19/06/2000

Site Area: 0.24ha



Contact us with any questions at:

info@groundsure.com

01273 257 755

Date: 15 December 2025

Recent site history - 1999 aerial photograph



Capture Date: 10/09/1999

Site Area: 0.24ha



Contact us with any questions at:

info@groundsure.com

01273 257 755

Date: 15 December 2025

OS MasterMap site plan



Site Area: 0.24ha



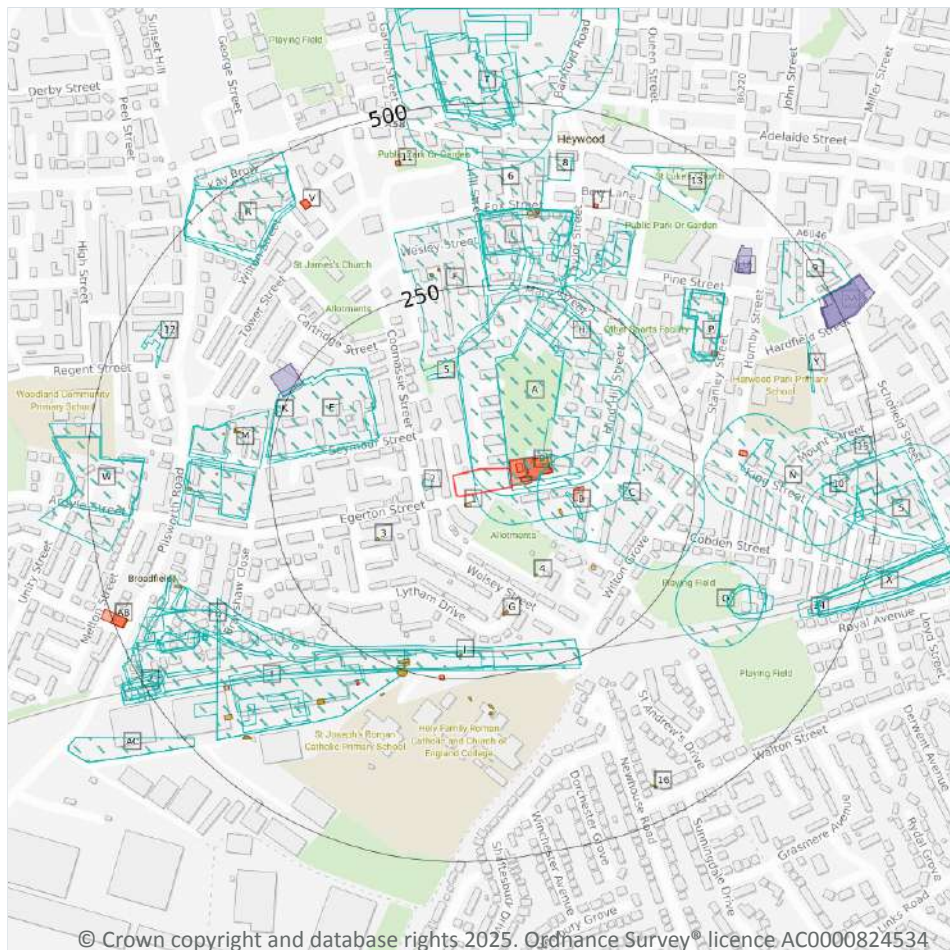
Contact us with any questions at:

info@groundsure.com

01273 257 755

Date: 15 December 2025

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

114

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

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

ID	Location	Land use	Dates present	Group ID
A	On site	Corporation Yard	1928	733917



ID	Location	Land use	Dates present	Group ID
A	On site	Corporation Yard	1909	746821
A	On site	Corporation Yard	1968	770918
A	On site	Corporation Yard	1938 - 1956	791984
B	21m E	Electricity Substation	1987 - 1992	768895
2	30m W	Gravel Pit	1851	699583
C	35m E	Electricity Generating Station	1909	692239
B	45m E	Unspecified Tanks	1928 - 1938	743460
D	74m E	Unspecified Ground Workings	1928	660939
D	101m SE	Unspecified Pit	1928	675697
E	113m NW	Unspecified Mill	1938 - 1956	786771
E	114m NW	Unspecified Mill	1968 - 1975	708995
E	118m W	Unspecified Mill	1909 - 1928	800632
5	133m N	Unspecified Ground Workings	1909 - 1928	770412
C	147m E	Sand Pit	1851	674101
F	149m N	Brick Field	1851	654502
H	174m N	Mortuary	1909 - 1928	740895
H	193m N	Mortuary	1956	671058
I	206m S	Railway Sidings	1967 - 1968	732262
I	206m S	Railway Sidings	1956	715298
I	211m S	Railway Sidings	1928 - 1938	715583
I	214m S	Railway Sidings	1909	791738
I	216m S	Railway Sidings	1890	802572
I	225m S	Cuttings	1851	653051
I	229m S	Unspecified Tanks	1987 - 1992	758660
H	229m NE	Refuse Heap	1890	656148
L	243m N	Unspecified Mill	1909	707407
L	244m N	Unspecified Mill	1928 - 1938	743864
I	244m S	Unspecified Tanks	1987 - 1992	708173



ID	Location	Land use	Dates present	Group ID
K	249m W	Chimney	1968 - 1975	802997
L	252m N	Unspecified Commercial/Industrial	1956	729325
L	256m N	Unspecified Warehouse	1987 - 1992	776431
M	262m W	Cotton Mills	1890	673105
N	262m E	Brewery	1890 - 1909	723639
I	266m SW	Unspecified Warehouse	1987 - 1992	801596
O	267m SE	Railway Terminus	1928 - 1938	737230
L	267m N	Refuse Heap	1909	656149
F	268m N	Chimney	1975 - 1992	720149
M	270m W	Unspecified Mill	1938	728861
L	271m N	Unspecified Pit	1928	675587
M	272m W	Unspecified Mill	1909 - 1928	799678
L	290m N	Rope Walk	1851	691256
P	292m NE	Unspecified Mill	1909	731516
L	293m N	Unspecified Commercial/Industrial	1975	799580
P	295m NE	Unspecified Mill	1928 - 1938	782351
L	296m NE	Police Station	1968 - 1975	755936
I	298m SW	Railway Building	1928	702746
P	298m NE	Unspecified Mill	1956	754885
P	298m NE	Unspecified Commercial/Industrial	1975	670466
P	298m NE	Unspecified Mill	1968	804191
L	306m NE	Unspecified Heap	1928	688396
M	309m W	Unspecified Mill	1928 - 1938	796493
L	311m NE	Police Station	1987 - 1992	718099
N	314m E	Disused Brewery	1928	658687
M	317m W	Unspecified Mill	1967	730679
O	331m SE	Unspecified Heap	1968	802954
I	332m SW	Unspecified Ground Workings	1890	661076



ID	Location	Land use	Dates present	Group ID
O	332m SE	Unspecified Heap	1956	779487
Q	333m SW	Unspecified Pit	1909	675698
O	337m SE	Unspecified Heap	1928 - 1938	741512
I	340m SW	Goods Shed	1968	665999
I	351m SW	Railway Building	1956	702775
6	352m N	Cotton Mill	1851	654679
I	360m SW	Railway Building	1956	702744
Q	361m SW	Railway Sidings	1956	736333
O	379m SE	Railway Terminus	1956	664055
Q	387m SW	Railway Building	1956	799969
Q	390m W	Unspecified Ground Workings	1956	661074
Q	390m SW	Railway Building	1938	772690
Q	391m W	Unspecified Heap	1938	688469
Q	392m SW	Railway Building	1928	724268
R	394m NW	Unspecified Mills	1890	775768
I	398m SW	Railway Building	1956	702745
Q	398m SW	Railway Building	1956 - 1967	712086
8	398m N	Unspecified Commercial/Industrial	1851	670468
R	399m NW	Unspecified Mills	1909 - 1928	795874
Q	400m SW	Railway Building	1928 - 1938	748017
S	401m E	Unspecified Mill	1909	716410
Q	405m W	Unspecified Ground Workings	1890	661077
R	409m NW	Cotton Mill	1851	654680
T	409m N	Cotton Mills	1890	673102
Q	409m SW	Goods Shed	1890	665998
9	422m NE	Cotton Mill	1851	654678
W	422m W	Unspecified Mill	1938	716029
X	423m E	Cuttings	1851	745993



ID	Location	Land use	Dates present	Group ID
W	424m W	Unspecified Mill	1909 - 1928	759373
W	425m W	Unspecified Mill	1890	713863
10	425m E	Unspecified Pit	1938	675586
S	425m E	Unspecified Mills	1956	669997
Y	427m E	Rope Walk	1851	691257
12	430m W	Cotton Mill	1851	654661
13	431m NE	Grave Yard	1851	663395
14	438m SE	Railway Building	1956	702776
15	444m E	Disused Brewery	1938	658686
X	444m E	Cuttings	1956	721203
X	444m E	Cuttings	1968	748477
X	445m E	Cuttings	1909 - 1928	752982
X	448m E	Cuttings	1938	769361
X	448m E	Cuttings	1890	779188
S	454m E	Unspecified Mill	1928	732002
T	464m N	Unspecified Mill	1909	715552
T	467m N	Unspecified Mill	1928 - 1938	735176
S	468m E	Unspecified Mill	1938	760501
Z	471m SW	Railway Station	1967	748148
T	472m N	Unspecified Mill	1956	777361
Z	472m SW	Railway Station	1938 - 1956	717349
T	476m N	Unspecified Works	1968 - 1975	726964
Z	480m SW	Railway Station	1909 - 1928	790501
Z	481m SW	Railway Station	1890	790310
AC	489m SW	Unspecified Works	1965	773253
AC	489m SW	Unspecified Works	1974	793634
T	489m N	Unspecified Mill	1987 - 1992	713206
X	491m E	Cuttings	1987 - 1992	796250



ID	Location	Land use	Dates present	Group ID
T	495m N	Cotton Mill	1851	775354

This data is sourced from Ordnance Survey® / Groundsure.

1.2 Historical tanks

Records within 500m	45
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Tank features digitised from historical Ordnance Survey® mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

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

ID	Location	Land use	Dates present	Group ID
1	10m S	Tanks	1910	81853
B	31m E	Tanks	1929	81859
B	42m E	Tanks	1929	81856
D	71m SE	Unspecified Tank	1930	87679
3	122m SW	Unspecified Tank	1930	87678
4	123m S	Unspecified Tank	1910	87677
D	153m SE	Unspecified Tank	1891	87676
G	165m S	Tanks	1910	98757
G	165m S	Tanks	1930	104975
C	181m E	Unspecified Tank	1891	87675
J	215m S	Unspecified Tank	1930	87802
I	233m S	Unspecified Tank	1985 - 1996	91891
I	237m S	Unspecified Tank	1985 - 1996	107292
F	242m N	Unspecified Tank	1929 - 1937	105684
I	247m S	Unspecified Tank	1985 - 1991	100023
I	247m S	Unspecified Tank	1994 - 1996	98270
F	271m N	Gasometer	1910	83892



ID	Location	Land use	Dates present	Group ID
F	271m N	Unspecified Tank	1929 - 1937	107323
J	275m S	Unspecified Tank	1910	87798
F	276m N	Unspecified Tank	1956 - 1957	100236
J	287m S	Unspecified Tank	1991 - 1996	94673
I	287m S	Unspecified Tank	1930	87801
M	297m W	Tanks	1994 - 1996	97867
M	297m W	Tanks	1991	92891
J	298m S	Unspecified Tank	1985 - 1988	106338
J	298m S	Unspecified Tank	1971	105320
M	304m W	Tanks	1991	91918
M	317m W	Unspecified Tank	1890	87683
M	322m W	Unspecified Tank	1890	87682
I	333m SW	Unspecified Tank	1957 - 1969	98188
I	333m SW	Unspecified Tank	1956	92767
I	333m SW	Unspecified Tank	1971	97448
L	346m N	Unspecified Tank	1996 - 1999	91843
M	357m W	Tanks	1967 - 1969	103547
Q	396m W	Unspecified Tank	1929 - 1937	102949
Q	400m W	Tanks	1968 - 1969	106764
Y	424m E	Unspecified Tank	1978	103345
Y	425m E	Unspecified Tank	1969	100996
Y	425m E	Unspecified Tank	1969	103882
Y	425m E	Unspecified Tank	1965	104942
Y	425m E	Unspecified Tank	1974	107124
I	429m SW	Unspecified Tank	1956 - 1971	104849
I	435m SW	Unspecified Tank	1985 - 1988	104946
I	435m SW	Unspecified Tank	1991 - 1996	102844
16	450m SE	Unspecified Tank	1930	87796

This data is sourced from Ordnance Survey® / Groundsure.



1.3 Historical energy features

Records within 500m
26

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

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

ID	Location	Land use	Dates present	Group ID
B	On site	Electricity Substation	1996	50073
B	1m E	Electricity Substation	1991	59528
B	9m E	Electricity Substation	1994	62352
B	13m E	Electricity Substation	1971	53763
B	13m E	Electricity Substation	1956	55802
B	20m E	Electricity Substation	1985 - 1988	50968
B	22m E	Electricity Substation	1957 - 1969	60787
D	85m E	Electricity Generating Station	1910	49573
J	246m S	Electricity Substation	1971 - 1996	51422
F	271m N	Gasometer	1910	49762
I	286m SW	Electricity Substation	1991 - 1996	60325
N	314m E	Electricity Substation	1974 - 1990	62919
P	315m NE	Electricity Substation	1981	62591
P	316m NE	Electricity Substation	1956 - 1969	52300
L	345m N	Electricity Substation	1996 - 1999	51944
L	350m N	Electricity Substation	1990 - 1995	58382
7	376m N	Electricity Substation	1956 - 1999	50120
I	406m SW	Electricity Substation	1991 - 1996	52720
U	411m NE	Electricity Substation	1981 - 1999	56709
V	416m NW	Electricity Substation	1996 - 1999	53568
V	416m NW	Electricity Substation	1973 - 1990	51839



ID	Location	Land use	Dates present	Group ID
V	417m NW	Electricity Substation	1995	56991
11	430m N	Electricity Substation	1990 - 1999	58760
AB	480m W	Electricity Substation	1956 - 1957	60956
AB	481m W	Electricity Substation	1969 - 1996	51012
AB	482m W	Electricity Substation	1967	57810

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

6

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

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

ID	Location	Land use	Dates present	Group ID
K	241m NW	Repair Works	1930	16331
U	409m NE	Garage	1969	18180
U	411m NE	Garage	1956 - 1968	17258
AA	474m NE	Garage	1981 - 1989	18630
AA	475m NE	Garage	1969	17349
AA	477m NE	Garage	1999	20640



This data is sourced from Ordnance Survey® / Groundsure.

1.6 Historical military land

Records within 500m

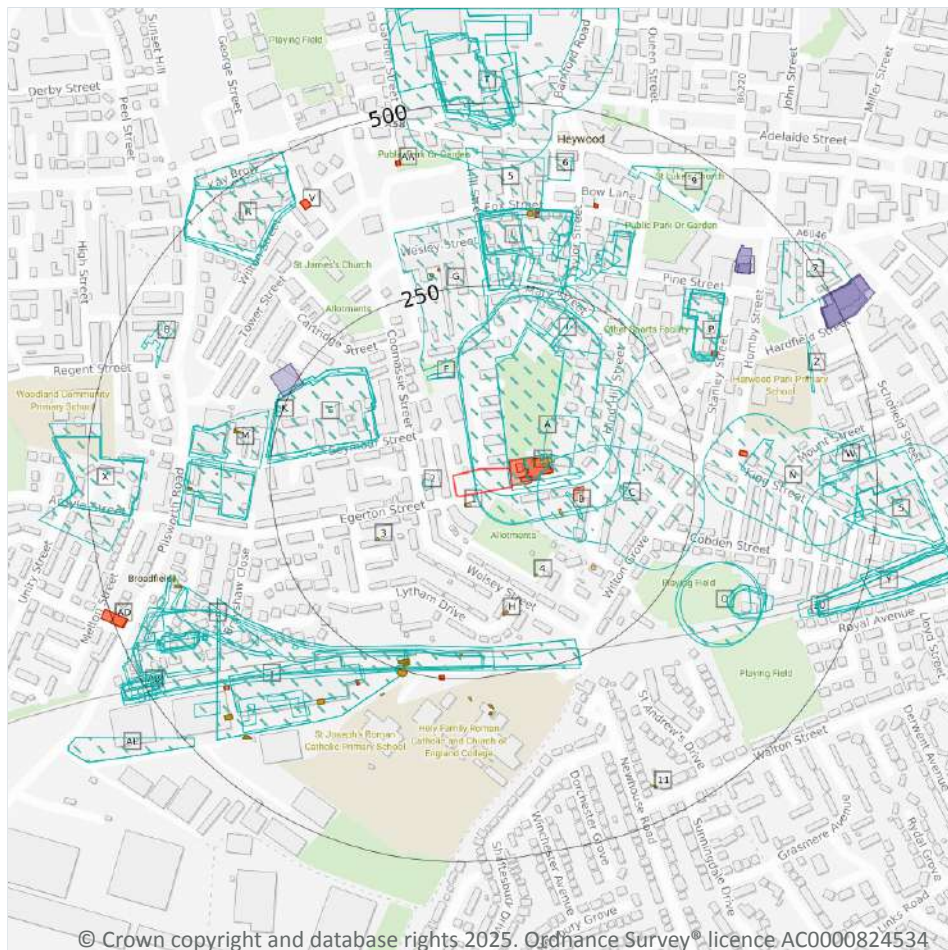
0

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

153

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 25 >](#)

ID	Location	Land Use	Date	Group ID
A	On site	Corporation Yard	1956	791984
A	On site	Corporation Yard	1909	746821
A	On site	Corporation Yard	1938	791984



ID	Location	Land Use	Date	Group ID
A	On site	Corporation Yard	1928	733917
A	On site	Corporation Yard	1968	770918
B	21m E	Electricity Substation	1992	768895
B	21m E	Electricity Substation	1987	768895
2	30m W	Gravel Pit	1851	699583
C	35m E	Electricity Generating Station	1909	692239
B	45m E	Unspecified Tanks	1928	743460
B	46m E	Unspecified Tanks	1938	743460
D	74m E	Unspecified Ground Workings	1928	660939
D	101m SE	Unspecified Pit	1928	675697
E	113m NW	Unspecified Mill	1938	786771
E	114m NW	Unspecified Mill	1975	708995
E	114m NW	Unspecified Mill	1956	786771
E	114m NW	Unspecified Mill	1968	708995
E	118m W	Unspecified Mill	1928	800632
E	118m W	Unspecified Mill	1909	800632
F	133m N	Unspecified Ground Workings	1928	770412
F	133m N	Unspecified Ground Workings	1909	770412
C	147m E	Sand Pit	1851	674101
G	149m N	Brick Field	1851	654502
I	174m N	Mortuary	1909	740895
I	176m N	Mortuary	1928	740895
I	193m N	Mortuary	1956	671058
J	206m S	Railway Sidings	1956	715298
J	206m S	Railway Sidings	1968	732262
J	211m S	Railway Sidings	1938	715583
J	214m S	Railway Sidings	1909	791738
J	216m S	Railway Sidings	1890	802572



ID	Location	Land Use	Date	Group ID
J	218m S	Railway Sidings	1928	715583
J	225m S	Cuttings	1851	653051
J	229m S	Unspecified Tanks	1992	758660
J	229m S	Unspecified Tanks	1987	758660
I	229m NE	Refuse Heap	1890	656148
L	243m N	Unspecified Mill	1909	707407
L	244m N	Unspecified Mill	1928	743864
J	244m S	Unspecified Tanks	1992	708173
J	244m S	Unspecified Tanks	1987	708173
L	246m N	Unspecified Mill	1938	743864
K	249m W	Chimney	1975	802997
K	249m W	Chimney	1968	802997
L	252m N	Unspecified Commercial/Industrial	1956	729325
L	256m N	Unspecified Warehouse	1992	776431
L	256m N	Unspecified Warehouse	1987	776431
M	262m W	Cotton Mills	1890	673105
N	262m E	Brewery	1909	723639
J	266m SW	Unspecified Warehouse	1992	801596
J	266m SW	Unspecified Warehouse	1987	801596
O	267m SE	Railway Terminus	1928	737230
L	267m N	Refuse Heap	1909	656149
G	268m N	Chimney	1992	720149
G	268m N	Chimney	1987	720149
G	268m N	Chimney	1975	720149
M	270m W	Unspecified Mill	1938	728861
L	271m N	Unspecified Pit	1928	675587
O	272m SE	Railway Terminus	1938	737230
M	272m W	Unspecified Mill	1928	799678



ID	Location	Land Use	Date	Group ID
M	272m W	Unspecified Mill	1909	799678
L	290m N	Rope Walk	1851	691256
P	292m NE	Unspecified Mill	1909	731516
L	293m N	Unspecified Commercial/Industrial	1975	799580
P	295m NE	Unspecified Mill	1928	782351
L	296m NE	Police Station	1968	755936
P	296m NE	Unspecified Mill	1938	782351
J	298m SW	Railway Building	1928	702746
P	298m NE	Unspecified Mill	1956	754885
P	298m NE	Unspecified Commercial/Industrial	1975	670466
P	298m NE	Unspecified Mill	1968	804191
L	306m NE	Unspecified Heap	1928	688396
M	309m W	Unspecified Mill	1938	796493
M	310m W	Unspecified Mill	1928	796493
L	311m NE	Police Station	1992	718099
L	311m NE	Police Station	1987	718099
N	314m E	Disused Brewery	1928	658687
M	317m W	Unspecified Mill	1967	730679
O	331m SE	Unspecified Heap	1968	802954
J	332m SW	Unspecified Ground Workings	1890	661076
O	332m SE	Unspecified Heap	1956	779487
Q	333m SW	Unspecified Pit	1909	675698
O	337m SE	Unspecified Heap	1928	741512
O	339m SE	Unspecified Heap	1938	741512
J	340m SW	Goods Shed	1968	665999
L	347m NE	Police Station	1975	755936
J	351m SW	Railway Building	1956	702775
5	352m N	Cotton Mill	1851	654679



ID	Location	Land Use	Date	Group ID
J	360m SW	Railway Building	1956	702744
Q	361m SW	Railway Sidings	1956	736333
Q	361m SW	Railway Sidings	1967	732262
O	379m SE	Railway Terminus	1956	664055
Q	387m SW	Railway Building	1956	799969
Q	390m W	Unspecified Ground Workings	1956	661074
Q	390m SW	Railway Building	1938	772690
Q	391m W	Unspecified Heap	1938	688469
Q	392m SW	Railway Building	1928	724268
R	394m NW	Unspecified Mills	1890	775768
J	398m SW	Railway Building	1956	702745
Q	398m SW	Railway Building	1956	712086
6	398m N	Unspecified Commercial/Industrial	1851	670468
R	399m NW	Unspecified Mills	1928	795874
R	399m NW	Unspecified Mills	1909	795874
Q	400m SW	Railway Building	1938	748017
Q	401m SW	Railway Building	1967	712086
S	401m E	Unspecified Mill	1909	716410
Q	403m SW	Railway Building	1928	748017
Q	405m W	Unspecified Ground Workings	1890	661077
R	409m NW	Cotton Mill	1851	654680
T	409m N	Cotton Mills	1890	673102
Q	409m SW	Goods Shed	1890	665998
W	420m E	Brewery	1890	723639
7	422m NE	Cotton Mill	1851	654678
X	422m W	Unspecified Mill	1938	716029
Y	423m E	Cuttings	1851	745993
X	424m W	Unspecified Mill	1928	759373



ID	Location	Land Use	Date	Group ID
X	424m W	Unspecified Mill	1909	759373
X	425m W	Unspecified Mill	1890	713863
W	425m E	Unspecified Pit	1938	675586
S	425m E	Unspecified Mills	1956	669997
Z	427m E	Rope Walk	1851	691257
J	429m SW	Railway Sidings	1967	732262
8	430m W	Cotton Mill	1851	654661
9	431m NE	Grave Yard	1851	663395
10	438m SE	Railway Building	1956	702776
W	444m E	Disused Brewery	1938	658686
Y	444m E	Cuttings	1956	721203
Y	444m E	Cuttings	1968	748477
Y	445m E	Cuttings	1928	752982
Y	445m E	Cuttings	1909	752982
Y	448m E	Cuttings	1938	769361
Y	448m E	Cuttings	1890	779188
S	454m E	Unspecified Mill	1928	732002
S	454m E	Unspecified Mill	1928	732002
T	464m N	Unspecified Mill	1909	715552
T	467m N	Unspecified Mill	1938	735176
S	468m E	Unspecified Mill	1938	760501
T	468m N	Unspecified Mill	1928	735176
AB	471m SW	Railway Station	1967	748148
T	472m N	Unspecified Mill	1956	777361
AB	472m SW	Railway Station	1956	717349
AB	475m SW	Railway Station	1938	717349
T	476m N	Unspecified Works	1975	726964
T	476m N	Unspecified Works	1968	726964



ID	Location	Land Use	Date	Group ID
AB	480m SW	Railway Station	1928	790501
AB	480m SW	Railway Station	1909	790501
AB	481m SW	Railway Station	1890	790310
AE	489m SW	Unspecified Works	1974	793634
AE	489m SW	Unspecified Works	1965	773253
T	489m N	Unspecified Mill	1992	713206
T	489m N	Unspecified Mill	1987	713206
Y	491m E	Cuttings	1992	796250
Y	491m E	Cuttings	1987	796250
T	495m N	Cotton Mill	1851	775354

This data is sourced from Ordnance Survey® / Groundsure.

2.2 Historical tanks

Records within 500m	87
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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 25 >](#)

ID	Location	Land Use	Date	Group ID
1	10m S	Tanks	1910	81853
B	31m E	Tanks	1929	81859
B	42m E	Tanks	1929	81856
D	71m SE	Unspecified Tank	1930	87679
3	122m SW	Unspecified Tank	1930	87678
4	123m S	Unspecified Tank	1910	87677
D	153m SE	Unspecified Tank	1891	87676
H	165m S	Tanks	1910	98757
H	165m S	Tanks	1930	104975
C	181m E	Unspecified Tank	1891	87675



ID	Location	Land Use	Date	Group ID
J	215m S	Unspecified Tank	1930	87802
J	233m S	Unspecified Tank	1991	91891
J	233m S	Unspecified Tank	1985	91891
J	233m S	Unspecified Tank	1988	91891
J	233m S	Unspecified Tank	1988	91891
J	234m S	Unspecified Tank	1994	91891
J	234m S	Unspecified Tank	1996	91891
J	237m S	Unspecified Tank	1985	107292
J	237m S	Unspecified Tank	1988	107292
J	237m S	Unspecified Tank	1988	107292
J	237m S	Unspecified Tank	1991	107292
J	238m S	Unspecified Tank	1994	107292
J	238m S	Unspecified Tank	1996	107292
G	242m N	Unspecified Tank	1929	105684
G	242m N	Unspecified Tank	1937	105684
J	247m S	Unspecified Tank	1991	100023
J	247m S	Unspecified Tank	1985	100023
J	247m S	Unspecified Tank	1988	100023
J	247m S	Unspecified Tank	1988	100023
J	247m S	Unspecified Tank	1994	98270
J	247m S	Unspecified Tank	1996	98270
G	271m N	Gasometer	1910	83892
G	271m N	Unspecified Tank	1929	107323
G	271m N	Unspecified Tank	1937	107323
J	275m S	Unspecified Tank	1910	87798
G	276m N	Unspecified Tank	1956	100236
G	277m N	Unspecified Tank	1957	100236
G	277m N	Unspecified Tank	1957	100236



ID	Location	Land Use	Date	Group ID
J	287m S	Unspecified Tank	1994	94673
J	287m S	Unspecified Tank	1996	94673
J	287m S	Unspecified Tank	1930	87801
J	287m S	Unspecified Tank	1991	94673
M	297m W	Tanks	1994	97867
M	297m W	Tanks	1996	97867
M	297m W	Tanks	1991	92891
J	298m S	Unspecified Tank	1985	106338
J	298m S	Unspecified Tank	1988	106338
J	298m S	Unspecified Tank	1988	106338
J	298m S	Unspecified Tank	1971	105320
M	304m W	Tanks	1991	91918
M	317m W	Unspecified Tank	1890	87683
M	322m W	Unspecified Tank	1890	87682
J	333m SW	Unspecified Tank	1957	98188
J	333m SW	Unspecified Tank	1969	98188
J	333m SW	Unspecified Tank	1957	98188
J	333m SW	Unspecified Tank	1969	98188
J	333m SW	Unspecified Tank	1956	92767
J	333m SW	Unspecified Tank	1971	97448
L	346m N	Unspecified Tank	1996	91843
L	346m N	Unspecified Tank	1998	91843
L	346m N	Unspecified Tank	1999	91843
M	357m W	Tanks	1969	103547
M	357m W	Tanks	1969	103547
M	357m W	Tanks	1968	103547
M	358m W	Tanks	1967	103547
Q	396m W	Unspecified Tank	1929	102949



ID	Location	Land Use	Date	Group ID
Q	396m W	Unspecified Tank	1937	102949
Q	400m W	Tanks	1969	106764
Q	400m W	Tanks	1969	106764
Q	400m W	Tanks	1968	106764
Z	424m E	Unspecified Tank	1978	103345
Z	425m E	Unspecified Tank	1969	103882
Z	425m E	Unspecified Tank	1969	100996
Z	425m E	Unspecified Tank	1965	104942
Z	425m E	Unspecified Tank	1974	107124
J	429m SW	Unspecified Tank	1956	104849
J	429m SW	Unspecified Tank	1971	104849
J	430m SW	Unspecified Tank	1957	104849
J	430m SW	Unspecified Tank	1969	104849
J	430m SW	Unspecified Tank	1969	104849
J	435m SW	Unspecified Tank	1985	104946
J	435m SW	Unspecified Tank	1988	104946
J	435m SW	Unspecified Tank	1988	104946
J	435m SW	Unspecified Tank	1994	102844
J	435m SW	Unspecified Tank	1996	102844
J	435m SW	Unspecified Tank	1991	102844
11	450m SE	Unspecified Tank	1930	87796

This data is sourced from Ordnance Survey® / Groundsure.

2.3 Historical energy features

Records within 500m

78

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 25 >](#)



ID	Location	Land Use	Date	Group ID
B	On site	Electricity Substation	1996	50073
B	1m E	Electricity Substation	1991	59528
B	9m E	Electricity Substation	1994	62352
B	13m E	Electricity Substation	1956	55802
B	13m E	Electricity Substation	1971	53763
B	20m E	Electricity Substation	1985	50968
B	20m E	Electricity Substation	1988	50968
B	20m E	Electricity Substation	1988	50968
B	22m E	Electricity Substation	1957	60787
B	22m E	Electricity Substation	1969	60787
B	22m E	Electricity Substation	1957	60787
B	22m E	Electricity Substation	1969	60787
D	85m E	Electricity Generating Station	1910	49573
J	246m S	Electricity Substation	1985	51422
J	246m S	Electricity Substation	1988	51422
J	246m S	Electricity Substation	1988	51422
J	246m S	Electricity Substation	1991	51422
J	246m S	Electricity Substation	1971	51422
J	246m S	Electricity Substation	1994	51422
J	246m S	Electricity Substation	1996	51422
G	271m N	Gasometer	1910	49762
J	286m SW	Electricity Substation	1991	60325
J	286m SW	Electricity Substation	1994	60325
J	286m SW	Electricity Substation	1996	60325
N	314m E	Electricity Substation	1978	62919
N	315m E	Electricity Substation	1990	62919
N	315m E	Electricity Substation	1974	62919
P	315m NE	Electricity Substation	1981	62591



ID	Location	Land Use	Date	Group ID
P	316m NE	Electricity Substation	1957	52300
P	316m NE	Electricity Substation	1969	52300
P	316m NE	Electricity Substation	1957	52300
P	316m NE	Electricity Substation	1969	52300
P	316m NE	Electricity Substation	1956	52300
P	316m NE	Electricity Substation	1968	52300
L	345m N	Electricity Substation	1996	51944
L	345m N	Electricity Substation	1998	51944
L	345m N	Electricity Substation	1999	51944
L	350m N	Electricity Substation	1995	58382
L	351m N	Electricity Substation	1990	58382
L	376m N	Electricity Substation	1981	50120
L	376m N	Electricity Substation	1956	50120
L	376m N	Electricity Substation	1989	50120
L	376m N	Electricity Substation	1968	50120
L	376m N	Electricity Substation	1999	50120
L	376m N	Electricity Substation	1957	50120
L	376m N	Electricity Substation	1969	50120
L	376m N	Electricity Substation	1957	50120
L	376m N	Electricity Substation	1969	50120
J	406m SW	Electricity Substation	1994	52720
J	406m SW	Electricity Substation	1996	52720
J	406m SW	Electricity Substation	1991	52720
U	411m NE	Electricity Substation	1981	56709
U	413m NE	Electricity Substation	1989	56709
U	413m NE	Electricity Substation	1999	56709
V	416m NW	Electricity Substation	1996	53568
V	416m NW	Electricity Substation	1998	53568



ID	Location	Land Use	Date	Group ID
V	416m NW	Electricity Substation	1999	53568
V	416m NW	Electricity Substation	1984	51839
V	416m NW	Electricity Substation	1985	51839
V	416m NW	Electricity Substation	1986	51839
V	416m NW	Electricity Substation	1990	51839
V	417m NW	Electricity Substation	1973	51839
V	417m NW	Electricity Substation	1995	56991
AA	430m N	Electricity Substation	1995	58760
AA	430m N	Electricity Substation	1990	58760
AA	430m N	Electricity Substation	1996	58760
AA	430m N	Electricity Substation	1998	58760
AA	430m N	Electricity Substation	1999	58760
AD	480m W	Electricity Substation	1957	60956
AD	480m W	Electricity Substation	1957	60956
AD	481m W	Electricity Substation	1956	60956
AD	481m W	Electricity Substation	1969	51012
AD	481m W	Electricity Substation	1969	51012
AD	481m W	Electricity Substation	1996	51012
AD	481m W	Electricity Substation	1994	51012
AD	482m W	Electricity Substation	1967	57810
AD	482m W	Electricity Substation	1990	51012
AD	482m W	Electricity Substation	1990	51012

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

12

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'.

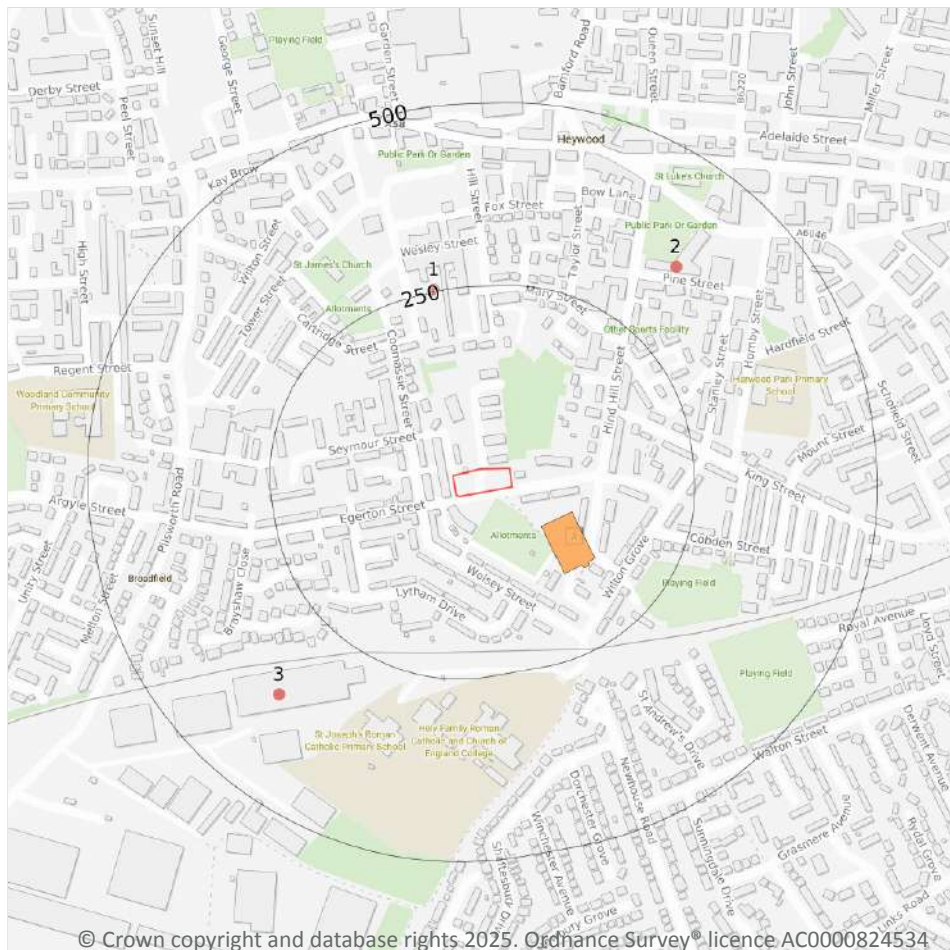
Features are displayed on the Past land use - un-grouped map on [page 25 >](#)

ID	Location	Land Use	Date	Group ID
K	241m NW	Repair Works	1930	16331
U	409m NE	Garage	1969	18180
U	409m NE	Garage	1969	18180
U	411m NE	Garage	1956	17258
U	411m NE	Garage	1968	17258
U	411m NE	Garage	1957	17258
U	411m NE	Garage	1957	17258
AC	474m NE	Garage	1981	18630
AC	475m NE	Garage	1969	17349
AC	475m NE	Garage	1969	17349
AC	476m NE	Garage	1989	18630
AC	477m NE	Garage	1999	20640

This data is sourced from Ordnance Survey® / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical 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	2
---------------------	---

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 39 >](#)

ID	Location	Address	Further Details	Date
A	67m SE	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1910
A	67m SE	Site Address: N/A	Type of Site: Refuse Destructor Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1930

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

3.6 Licensed waste sites

Records within 500m**0**

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

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

3.7 Waste exemptions

Records within 500m**3**

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.

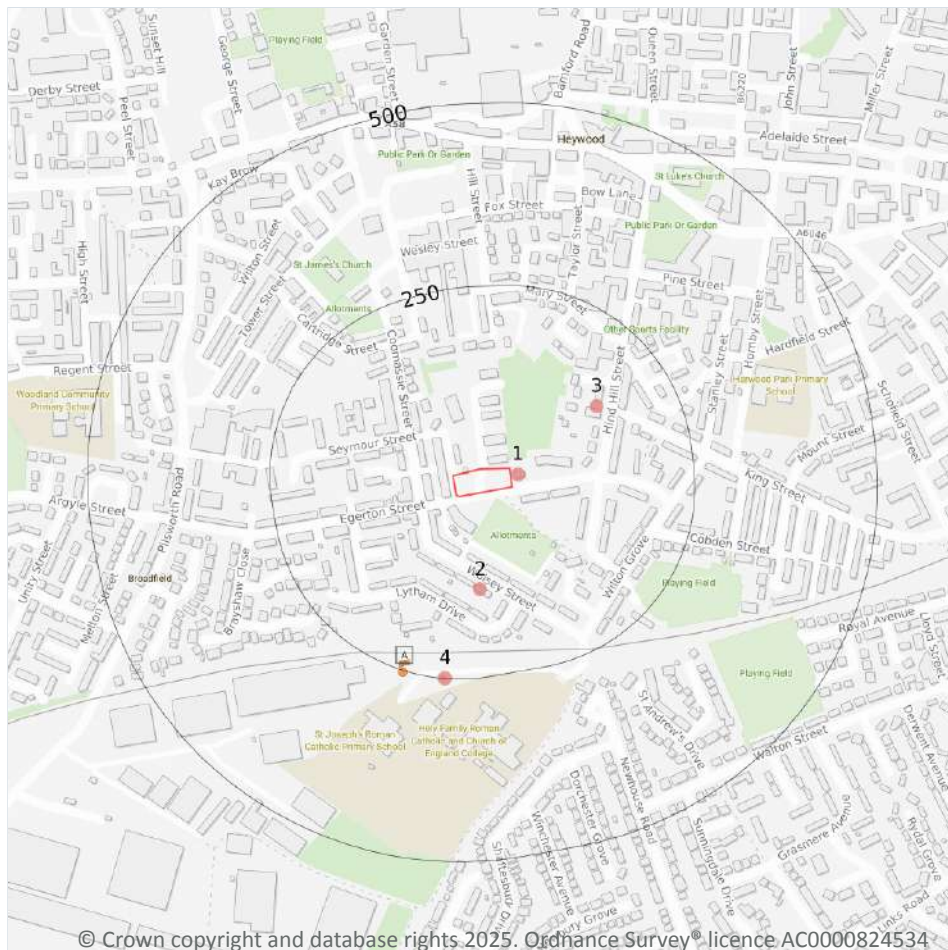
Features are displayed on the Waste and landfill map on [page 39](#) >

ID	Location	Site	Reference	Category	Sub-Category	Description
1	253m N	-	WEX420017	Using waste exemption	Not on a farm	Use of waste in construction
2	357m NE	Church Street, Heywood, OL10 1lr	WEX402423	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
3	366m SW	Unit 7 Broadfield Distribution Park Pilsworth Road Heywood Rochdale OL10 2ta	EPR/PE5043V G/A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in a secure place

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- NGD current or recent tanks

4.1 Recent industrial land uses

Records within 250m

4

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on [page 42 >](#)

ID	Location	Company	Address	Activity	Category
1	10m E	Electricity Sub Station	Greater Manchester, OL10	Electrical Features	Infrastructure and Facilities
2	130m S	Ash Demolition Ltd	28, Wolsey Street, Heywood, Greater Manchester, OL10 3AU	Demolition Services	Construction Services



ID	Location	Company	Address	Activity	Category
3	146m NE	Heywood Ambulance Station	Greater Manchester, OL10	Ambulance and Medical Transportation Services	Health Support Services
4	249m S	Electricity Sub Station	Greater Manchester, OL10	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey®.

4.2 National Geographic Database (NGD) - Current or recent tanks

Records within 250m

4

Current or recent tanks identified from the Ordnance Survey® NGD.

Features are displayed on the Current industrial land use map on [page 42](#) >

ID	Location	Tank description	Activity	Date first identified
A	233m S	Open Storage Tank	Commercial Activity: Distribution Or Storage	01/04/1993
A	237m S	Open Storage Tank	Commercial Activity: Distribution Or Storage	01/04/1993
A	241m S	Open Storage Tank	Commercial Activity: Distribution Or Storage	01/04/1993
A	247m S	Open Storage Tank	Commercial Activity: Distribution Or Storage	01/04/1993

This data is sourced from Ordnance Survey®.

4.3 Current or recent petrol stations

Records within 500m

0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.



4.5 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 Sites determined as Contaminated Land

Records within 500m

0

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

This data is sourced from Local Authority records.

4.7 Control of Major Accident Hazards (COMAH)

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.8 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.

4.9 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.



4.10 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.

4.11 Licensed industrial activities (Part A(1))

Records within 500m**0**

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

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

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

Records within 500m**0**

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.

This data is sourced from Local Authority records.

4.13 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.

4.14 Licensed Discharges to controlled waters

Records within 500m**0**

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

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

4.15 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.

4.16 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.

4.17 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.

4.18 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.

4.19 Pollution Incidents (EA/NRW)

Records within 500m**0**

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

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



4.20 Pollution inventory substances

Records within 500m

0

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

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

4.21 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.

4.22 Pollution inventory radioactive waste

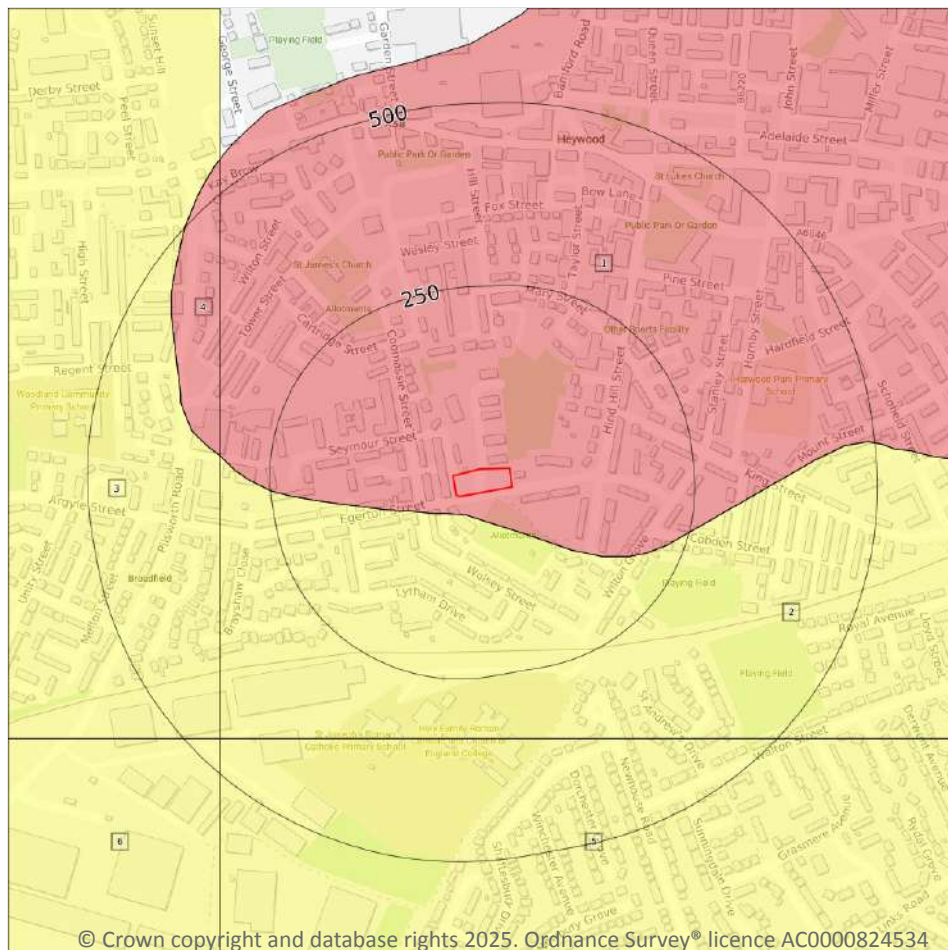
Records within 500m

0

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

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

5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

6

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on [page 48 >](#)

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	25m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

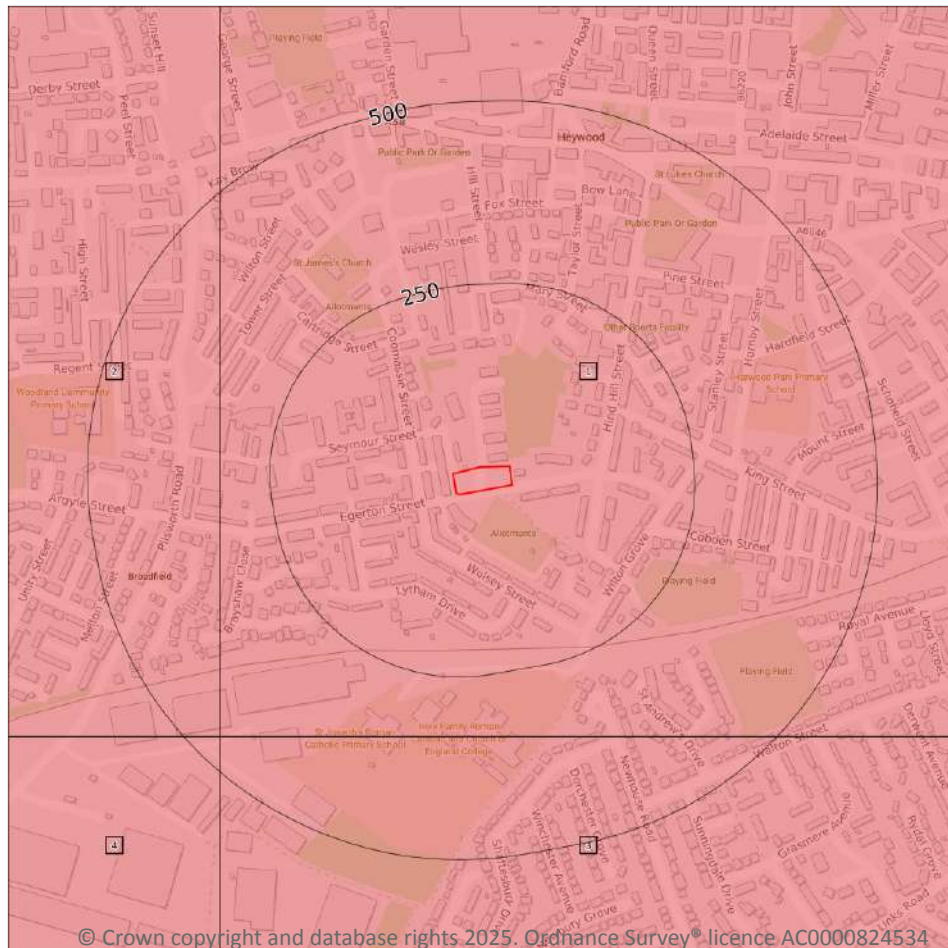


ID	Location	Designation	Description
3	318m W	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	320m W	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
5	331m S	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
6	464m SW	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

4

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on [page 50](#) >

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	318m W	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

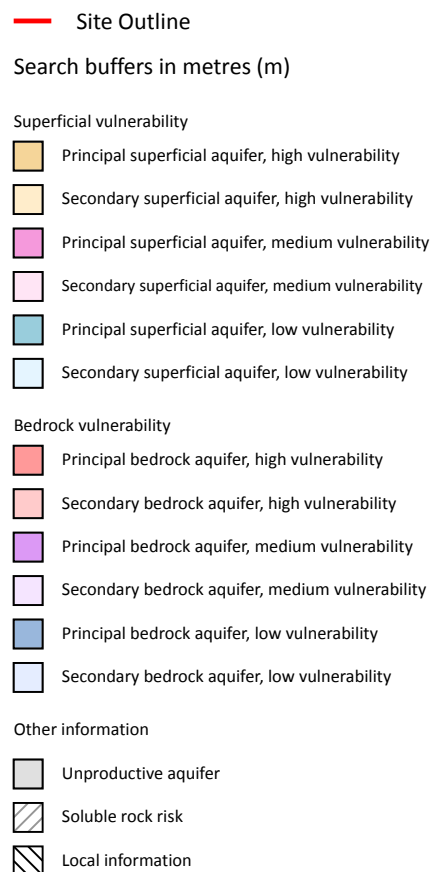
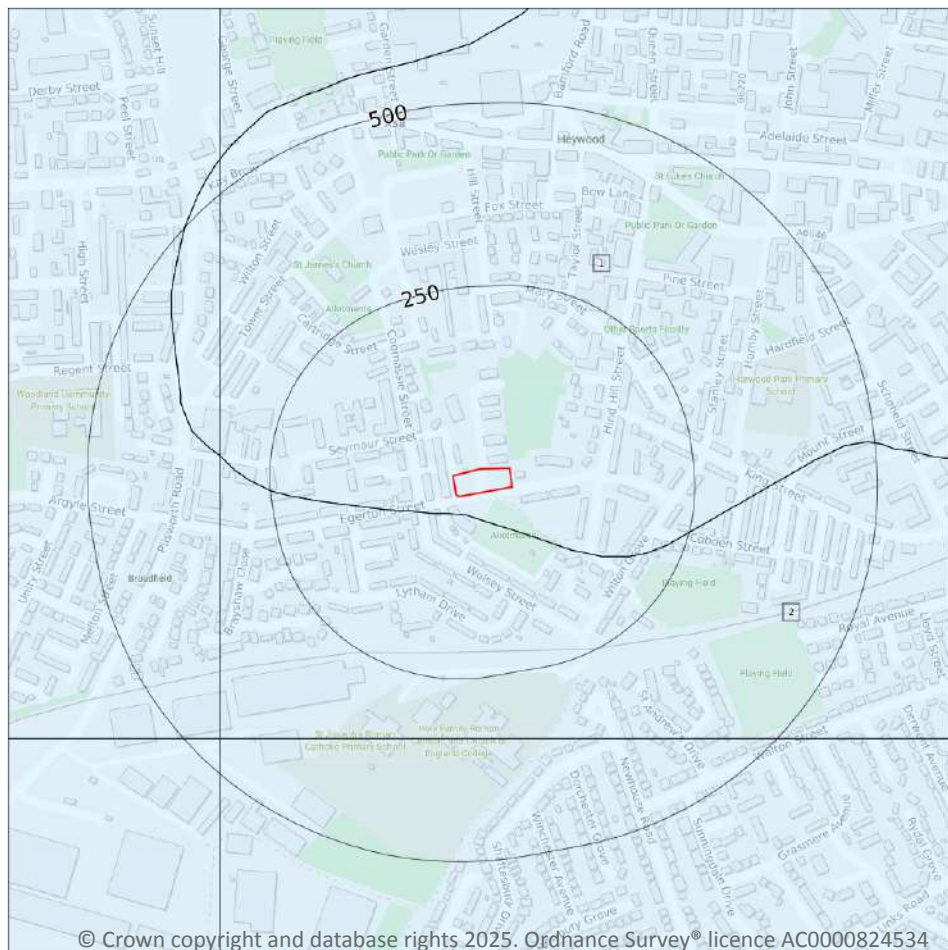


ID	Location	Designation	Description
3	331m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	464m SW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

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 52 >](#)

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures
2	25m S	Summary Classification: Secondary superficial aquifer - Low Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: >550mm/year	Vulnerability: Low Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: High	Vulnerability: Low Aquifer type: Secondary Flow mechanism: Well connected fractures

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

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

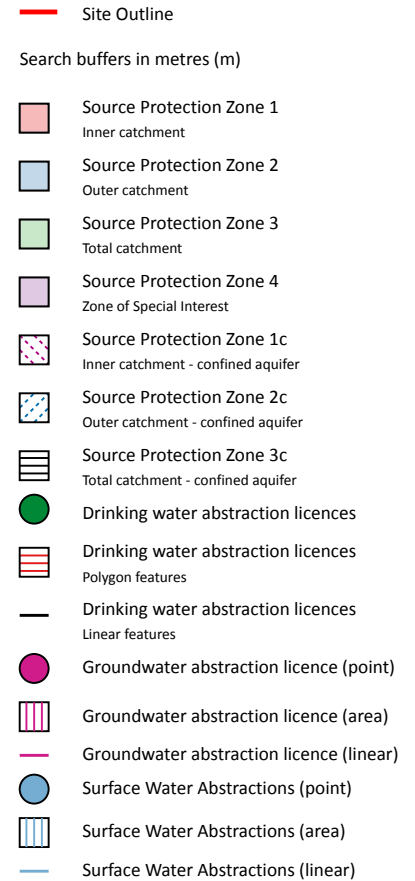
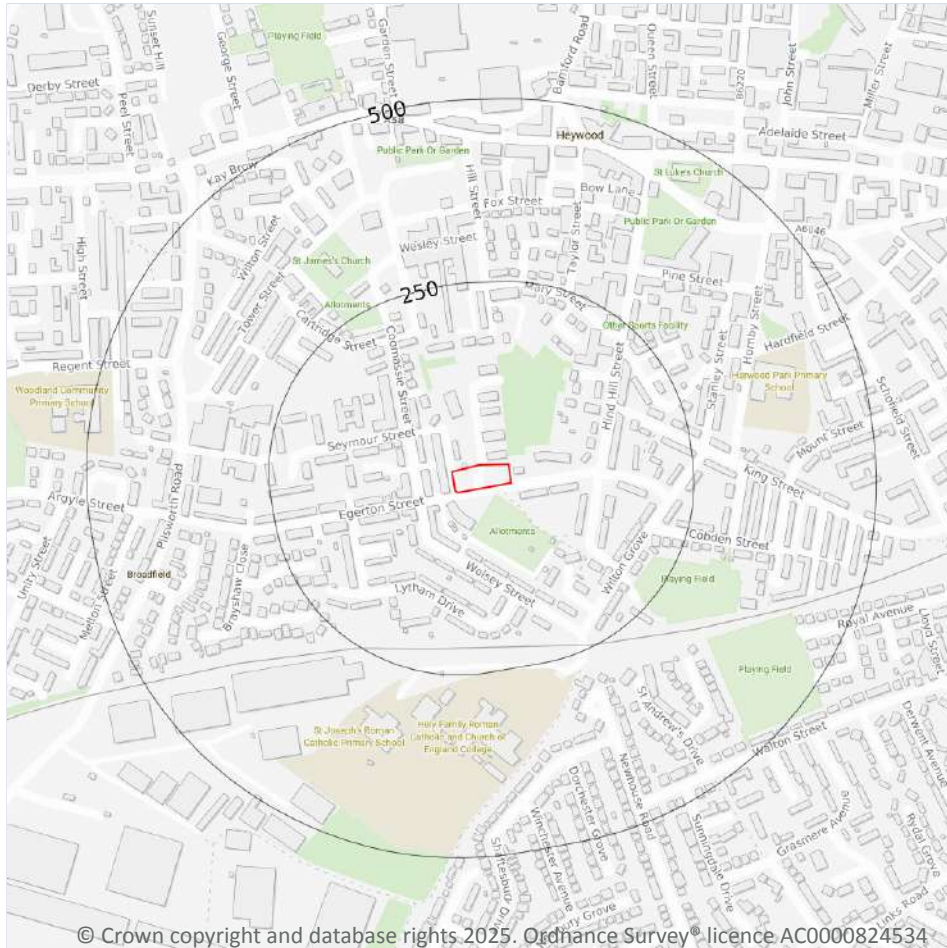
0

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



5.6 Groundwater abstractions

Records within 2000m

10

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 54 >](#)

ID	Location	Details	
-	836m E	Status: Historical Licence No: 2569002082 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLES (2) AT PREMISES, ROEACRE TANNERY, HEYWOOD, L97 Data Type: Point Name: G. S. COLD STORAGE AND WAREHOUSING LTD. Easting: 386200 Northing: 410600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2000 Version End Date: -
-	869m E	Status: Historical Licence No: 2569002082 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLES (2) AT PREMISES, ROEACRE TANNERY, HEYWOOD Data Type: Point Name: G. S. COLD STORAGE AND WAREHOUSING LTD. Easting: 386200 Northing: 410700	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 18/01/1966 Expiry Date: - Issue No: 102 Version Start Date: 22/12/2000 Version End Date: -
-	1127m E	Status: Active Licence No: 2569002029 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, GREEN LANE, HEYWOOD Data Type: Point Name: OAK BREWING COMPANY LTD Easting: 386500 Northing: 410100	Annual Volume (m ³): 79645.92 Max Daily Volume (m ³): 218.21 Original Application No: 0203 Original Start Date: 16/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 15/11/1990 Version End Date: -
-	1127m E	Status: Historical Licence No: 2569002029 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, GREEN LANE, HEYWOOD" Data Type: Point Name: OAK BREWING COMPANY LTD Easting: 386500 Northing: 410100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 15/11/1990 Version End Date: -



ID	Location	Details	
-	1127m E	Status: Historical Licence No: 2569002029 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, GREEN LANE, HEYWOOD Data Type: Point Name: OAK BREWING COMPANY LTD Easting: 386500 Northing: 410100	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 16/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 15/11/1990 Version End Date: -
-	1309m E	Status: Historical Licence No: 2569002257 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Ground Water - North West Region Point: BOREHOLE AT GREEN LANE, HEYWOOD Data Type: Point Name: TARMAC TOPMIX LTD Easting: 386700 Northing: 410200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/06/1993 Expiry Date: - Issue No: 100 Version Start Date: 28/06/1993 Version End Date: -
-	1653m NE	Status: Historical Licence No: 2569002037 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, CRIMBLE MILLS, HEYWOOD" Data Type: Point Name: ROE ACRE DYEING & FELTING CO LTD Easting: 386500 Northing: 411600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/05/1993 Version End Date: -
-	1653m NE	Status: Historical Licence No: 2569002037 Details: Process water Direct Source: Ground Water - North West Region Point: "BOREHOLE AT PREMISES, CRIMBLE MILLS, HEYWOOD" Data Type: Point Name: ROE ACRE DYEING & FELTING CO LTD Easting: 386500 Northing: 411600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 21/05/1993 Version End Date: -



ID	Location	Details	
-	1653m NE	Status: Historical Licence No: 2569002037 Details: Process water Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, CRIMBLE MILLS,HEYWOOD Data Type: Point Name: K.SHAW & COMPANY LTD. Easting: 386500 Northing: 411600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/10/2002 Version End Date: -
-	1653m NE	Status: Historical Licence No: 2569002037 Details: Boiler Feed Direct Source: Ground Water - North West Region Point: BOREHOLE AT PREMISES, CRIMBLE MILLS,HEYWOOD Data Type: Point Name: K.SHAW & COMPANY LTD. Easting: 386500 Northing: 411600	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 20/01/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/10/2002 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m

6

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

Features are displayed on the Abstractions and Source Protection Zones map on [page 54 >](#)

ID	Location	Details	
-	1653m NE	Status: Historical Licence No: 2569002270 Details: Boiler Feed Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT HEYWOOD Data Type: Line Name: ROE ACRE DYEING & FELTING CO LTD Easting: 386620 Northing: 411500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 17/06/1999 Version End Date: -



ID	Location	Details	
-	1653m NE	Status: Historical Licence No: 2569002270 Details: Process water Direct Source: Surface, Non-Tidal - North West Region Point: RIVER ROCH AT HEYWOOD Data Type: Line Name: ROE ACRE DYEING & FELTING CO LTD Easting: 386620 Northing: 411500	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 17/06/1999 Version End Date: -
-	1860m N	Status: Historical Licence No: 2569002255 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Surface, Non-Tidal - North West Region Point: NADEN BROOK AT SIMPSON CLOUGH, HEYWOOD 112 Data Type: Point Name: J R CROMPTON LTD Easting: 385360 Northing: 412230	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 12/02/1993 Expiry Date: - Issue No: 101 Version Start Date: 10/10/2000 Version End Date: -
-	1860m N	Status: Historical Licence No: 2569002255 Details: General use relating to Secondary Category (Medium Loss) Direct Source: "Surface, Non-Tidal - North West Region" Point: "NADEN BROOK AT SIMPSON CLOUGH, HEYWOOD \$112" Data Type: Point Name: J R CROMPTON LTD Easting: 385360 Northing: 412230	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 12/02/1993 Expiry Date: - Issue No: 101 Version Start Date: 10/10/2000 Version End Date: -
-	1860m N	Status: Historical Licence No: 2569002255 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Surface, Non-Tidal - North West Region Point: NADEN BROOK AT SIMPSON CLOUGH, HEYWOOD \$112 Data Type: Point Name: J R CROMPTON LTD Easting: 385360 Northing: 412230	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 12/02/1993 Expiry Date: - Issue No: 101 Version Start Date: 10/10/2000 Version End Date: -

ID	Location	Details	
-	1860m N	Status: Historical Licence No: 2569002255 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: Surface, Non-Tidal - North West Region Point: NADEN BROOK AT SIMPSON CLOUGH, HEYWOOD Data Type: Point Name: UNION PAPERTECH LIMITED Easting: 385360 Northing: 412230	Annual Volume (m ³): 2136620 Max Daily Volume (m ³): 6219 Original Application No: 949 Original Start Date: 12/02/1993 Expiry Date: - Issue No: 102 Version Start Date: 13/08/2007 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	0
-----------------------------	----------

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

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

5.9 Source Protection Zones

Records within 500m	0
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Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

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

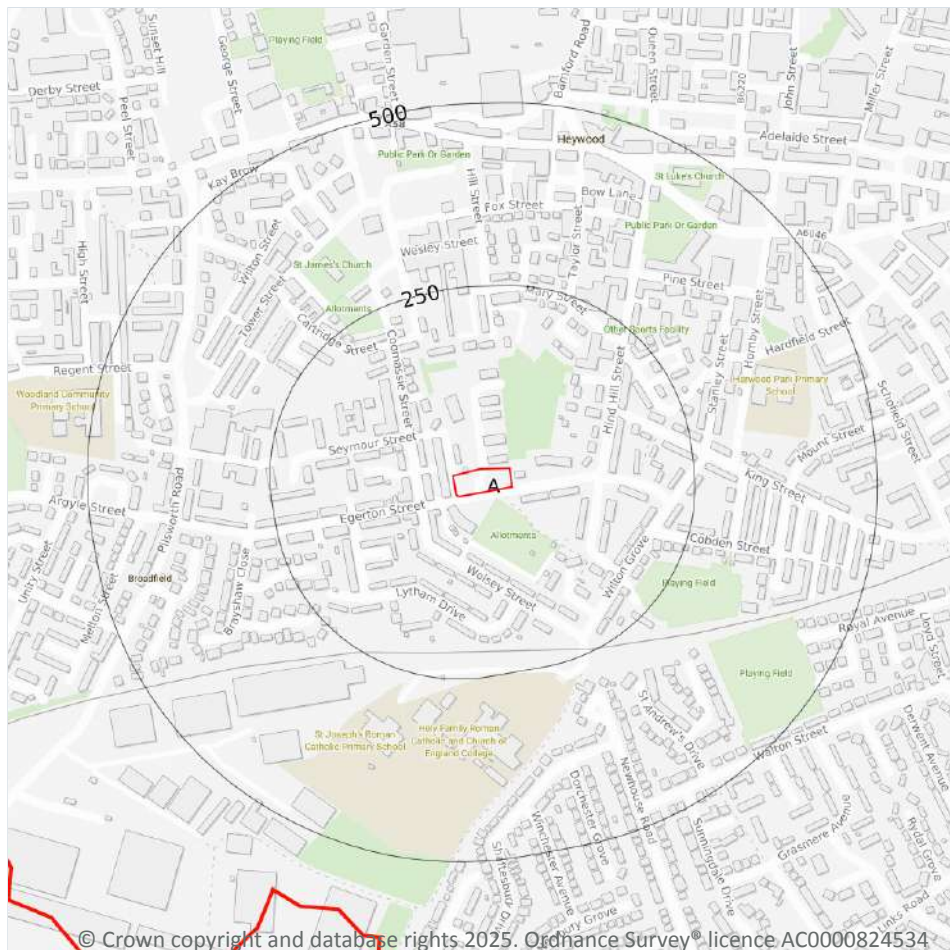
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0
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Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

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

6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

0

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

This data is sourced from the Ordnance Survey®.

6.2 Surface water features

Records within 250m

0

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



This data is sourced from the Ordnance Survey®.

6.3 WFD Surface water body catchments

Records on site

1

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

Features are displayed on the Hydrology map on [page 60](#) >

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	On site	River	Roch (Spodden to Irwell)	GB112069064600	Roch Irk Medlock	Irwell

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

6.4 WFD Surface water bodies

Records identified

1

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

Features are displayed on the Hydrology map on [page 60](#) >

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	911m NE	River	Roch (Spodden to Irwell)	GB112069064600 ↗	Moderate	Fail	Moderate	2019

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



6.5 WFD Groundwater bodies

Records on site

1

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

Features are displayed on the Hydrology map on [page 60](#) >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	On site	Northern Manchester Carboniferous Aquifers	GB41202G101800 ↗	Poor	Poor	Good	2019

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



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m**0**

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

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

7.2 Historical Flood Events

Records within 250m**0**

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

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

7.3 Flood Defences

Records within 250m**0**

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

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



7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

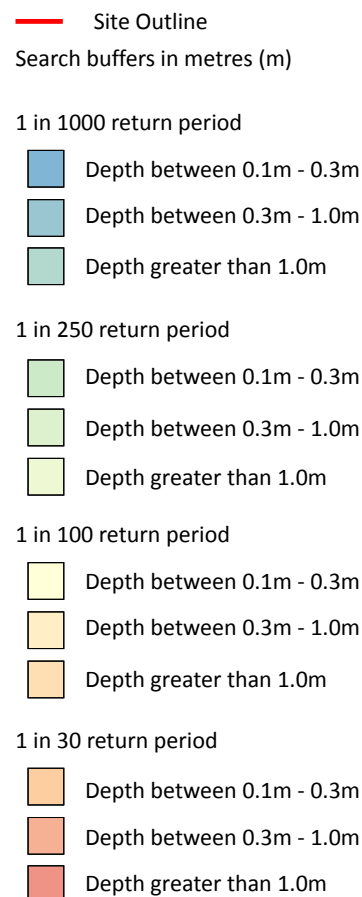
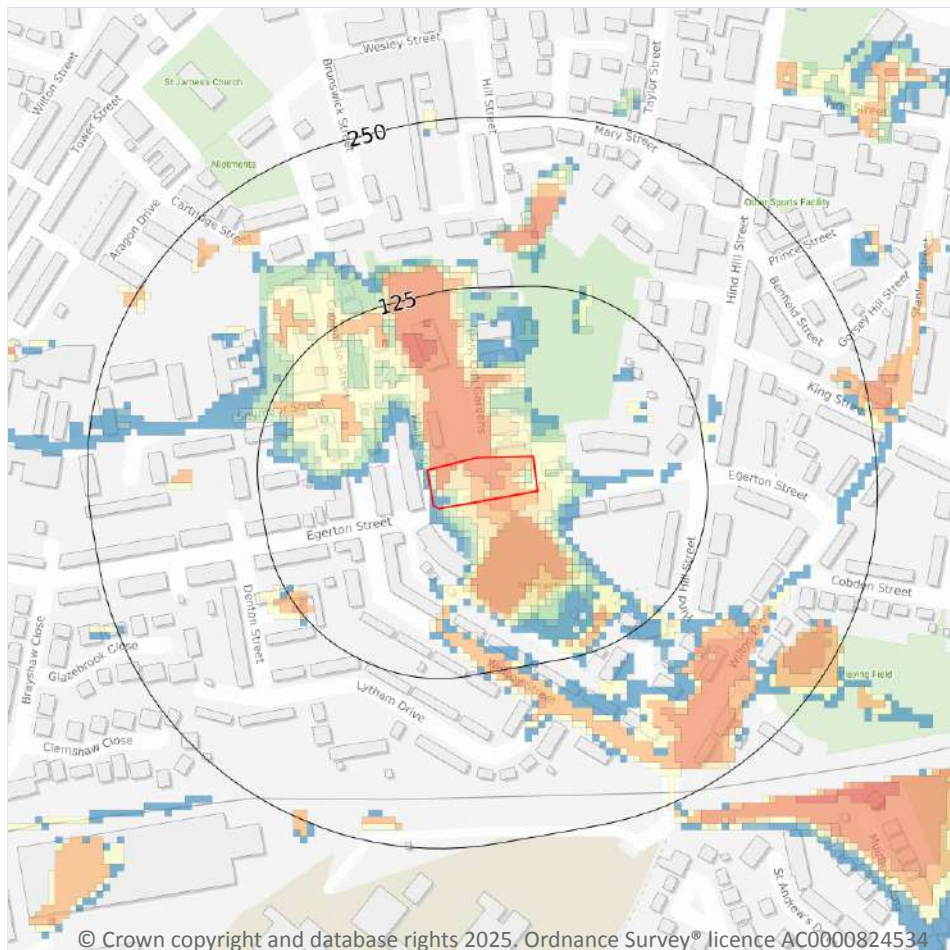
0

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

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



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 30 year, 0.3m - 1.0m

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 66](#) >

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

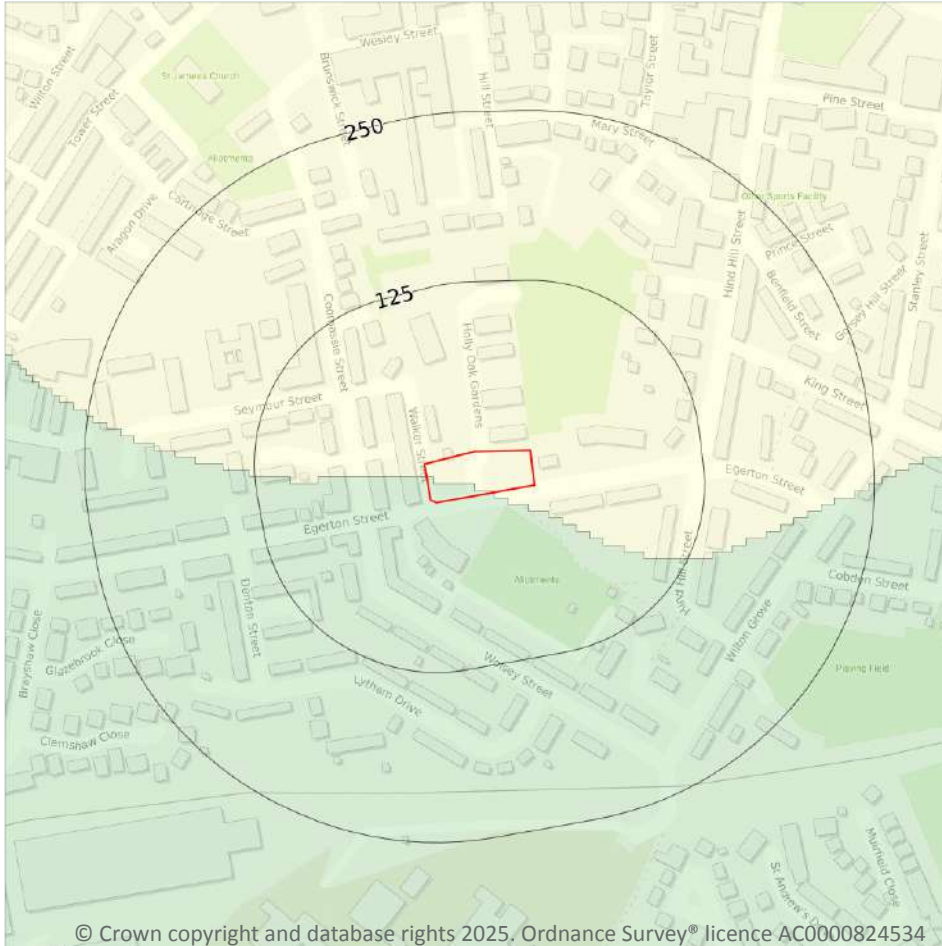
The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Greater than 1.0m
1 in 100 year	Greater than 1.0m
1 in 30 year	Between 0.3m and 1.0m

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

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

9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

Moderate

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on [page 68](#) >

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- Designated Ancient Woodland
- Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m

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

6

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.

Features are displayed on the Environmental designations map on [page 69](#) >

ID	Location	Name	Woodland Type
2	1326m NW	Unknown	Ancient & Semi-Natural Woodland
-	1467m N	Simpson Clough Wood	Ancient & Semi-Natural Woodland
4	1494m NW	Unknown	Ancient & Semi-Natural Woodland
-	1761m N	Jowkin Wood	Ancient & Semi-Natural Woodland
-	1910m N	Jowkin Wood	Ancient & Semi-Natural Woodland
-	1912m NE	Unknown	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m

0

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

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



10.9 Forest Parks

Records within 2000m**0**

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m**0**

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

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

10.11 Green Belt

Records within 2000m**2**

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

Features are displayed on the Environmental designations map on [page 69](#) >

ID	Location	Name	Local Authority name
1	829m NW	Merseyside and Greater Manchester Green Belt	Rochdale
-	1816m NW	Merseyside and Greater Manchester Green Belt	Bury

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

10.12 Proposed Ramsar sites

Records within 2000m**0**

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

This data is sourced from Natural England.



10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

0

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

0

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

0

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

1

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.

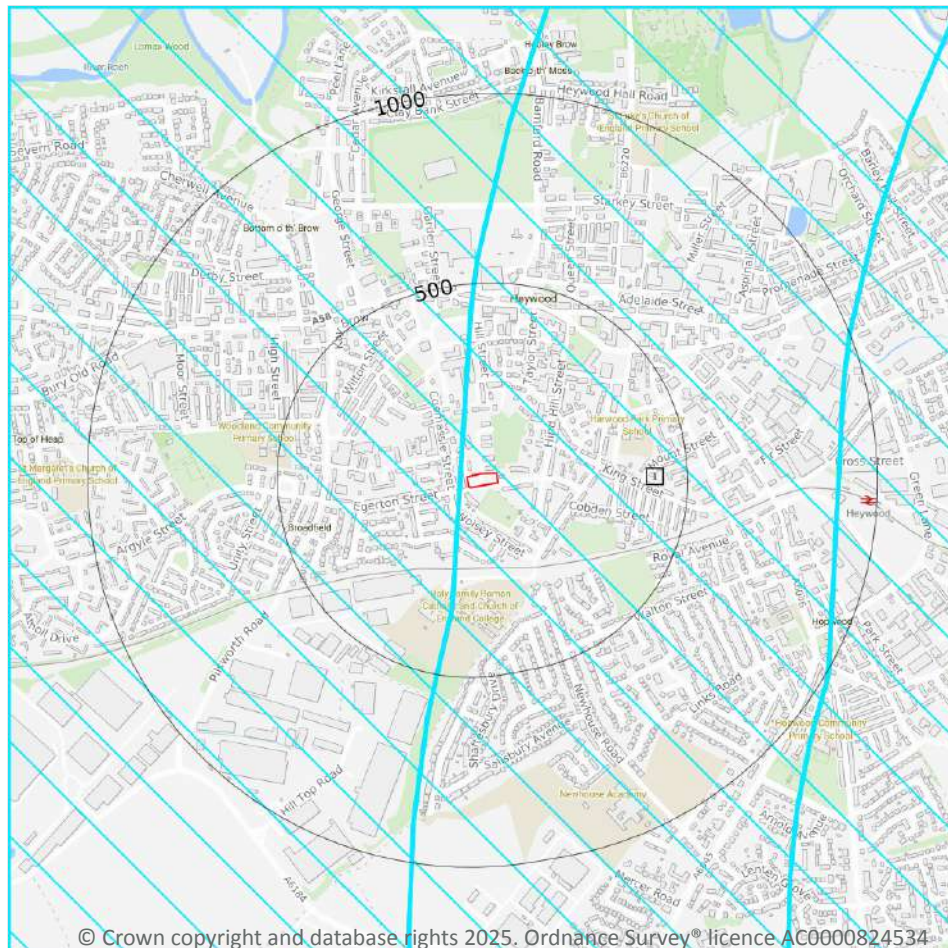
Location	Name	Type	NVZ ID	Status
1863m E	River Irk (Moston Brook to River Irwell) NVZ	Surface Water	638	Existing



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 75 >](#)

ID	Location	Type of developments requiring consultation
1	On site	https://irz.geodata.org.uk/IRZ/step2.html?irzcode=0301000430000&notes=&location=388682,398273%20(IRZ%20polygon%20centre)

This data is sourced from Natural England.



10.18 SSSI Units

Records within 2000m

0

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

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



11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

0

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



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

11.5 Conservation Areas

Records within 250m

0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

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

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

11.7 Registered Parks and Gardens

Records within 250m

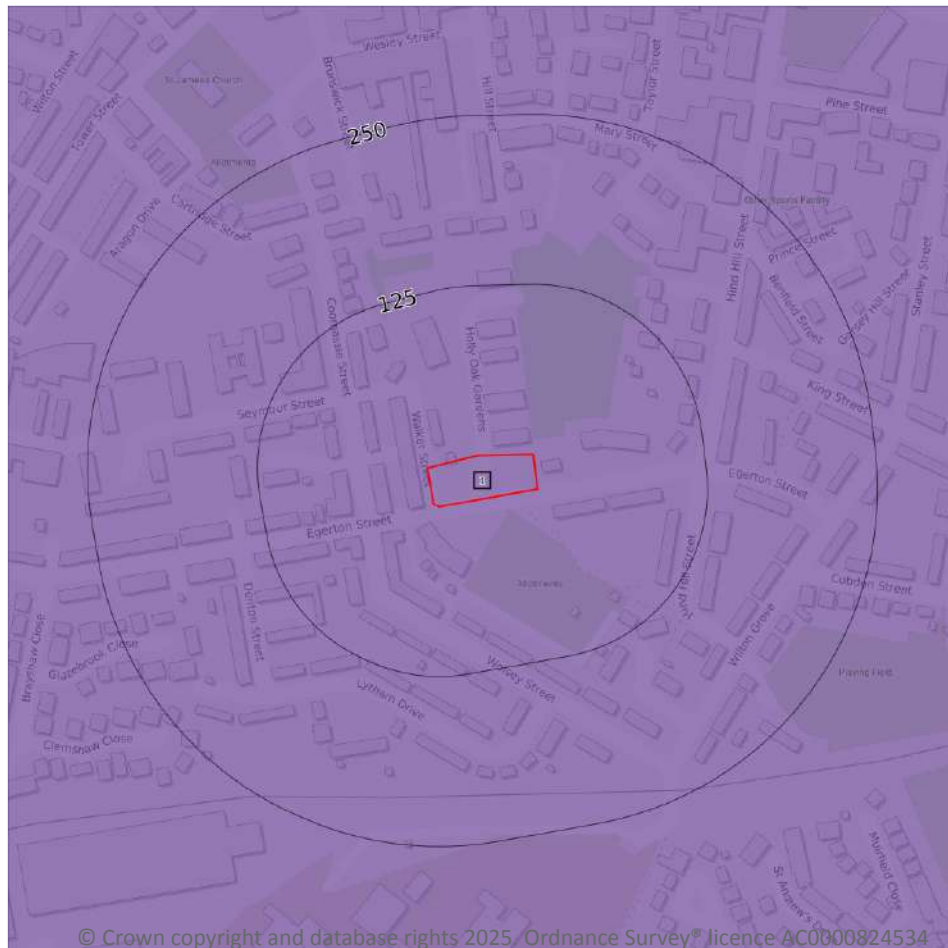
0

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

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



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

1

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

Features are displayed on the Agricultural designations map on [page 79](#) >

ID	Location	Classification	Description
1	On site	Urban	Non-agricultural/no quality assigned

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

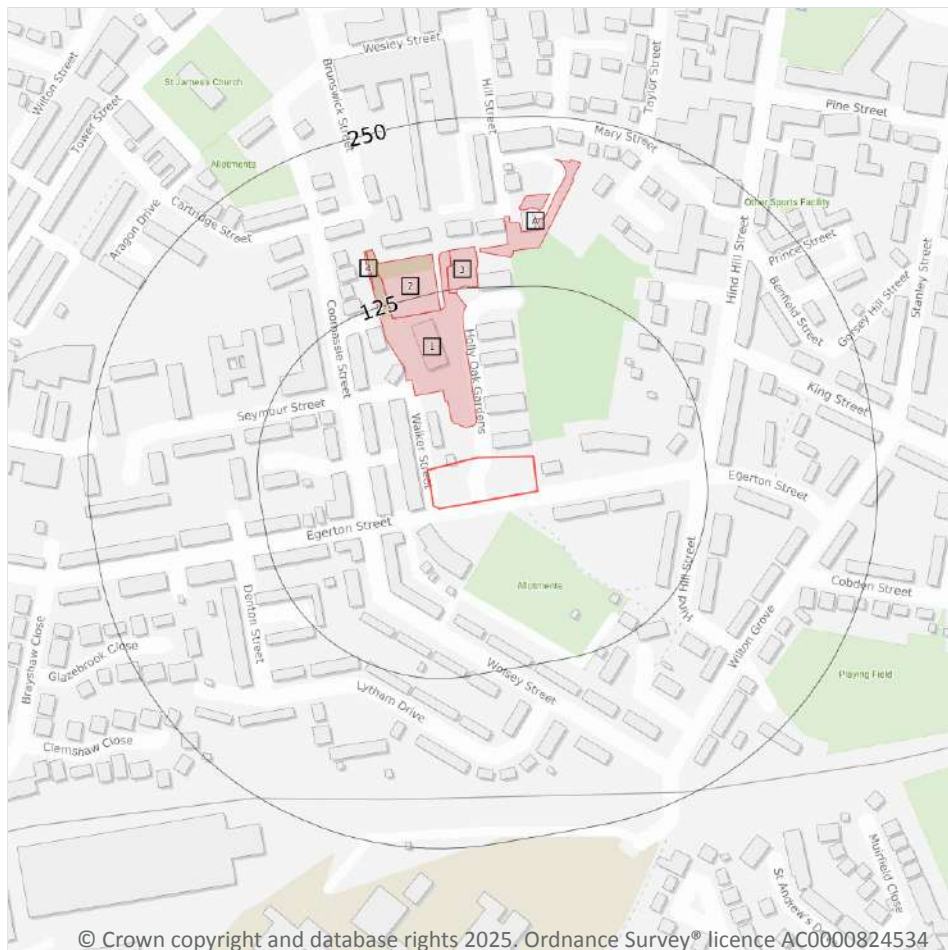
Records within 250m

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

6

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

Features are displayed on the Habitat designations map on [page 81](#) >

ID	Location	Main Habitat	Other habitats
1	24m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	112m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
3	122m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	138m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)



ID	Location	Main Habitat	Other habitats
A	147m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
A	181m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

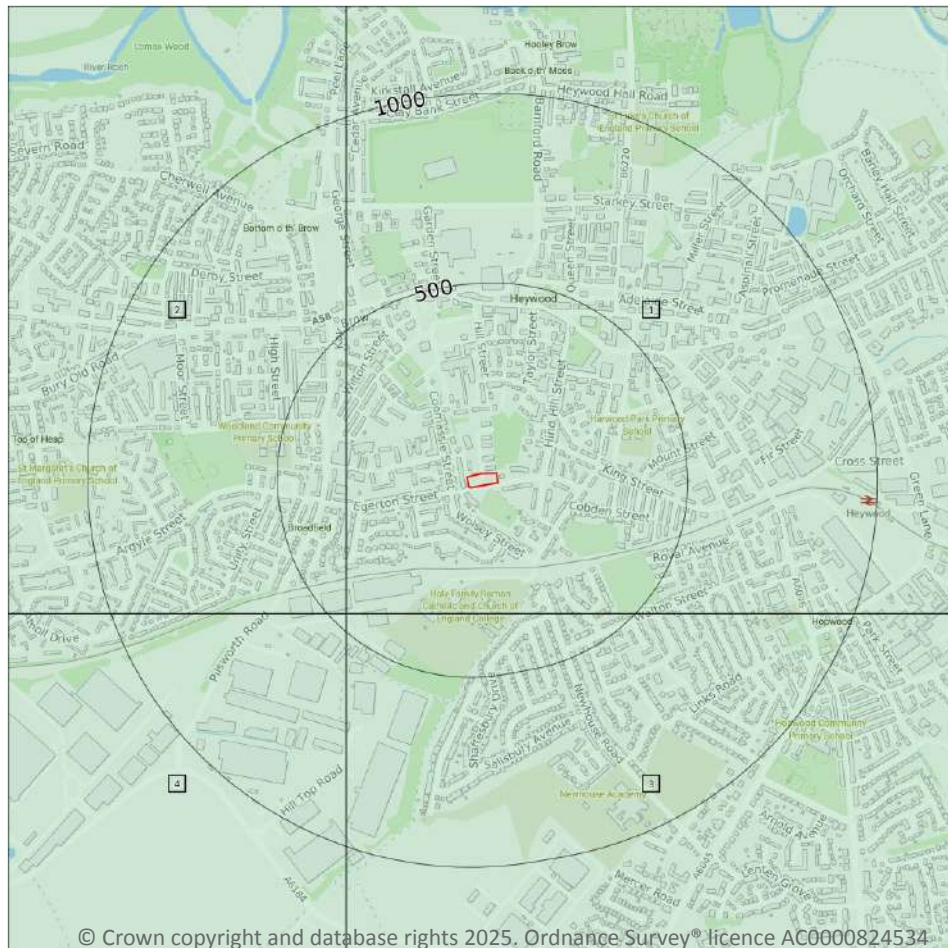
0

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

4

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 83](#) >

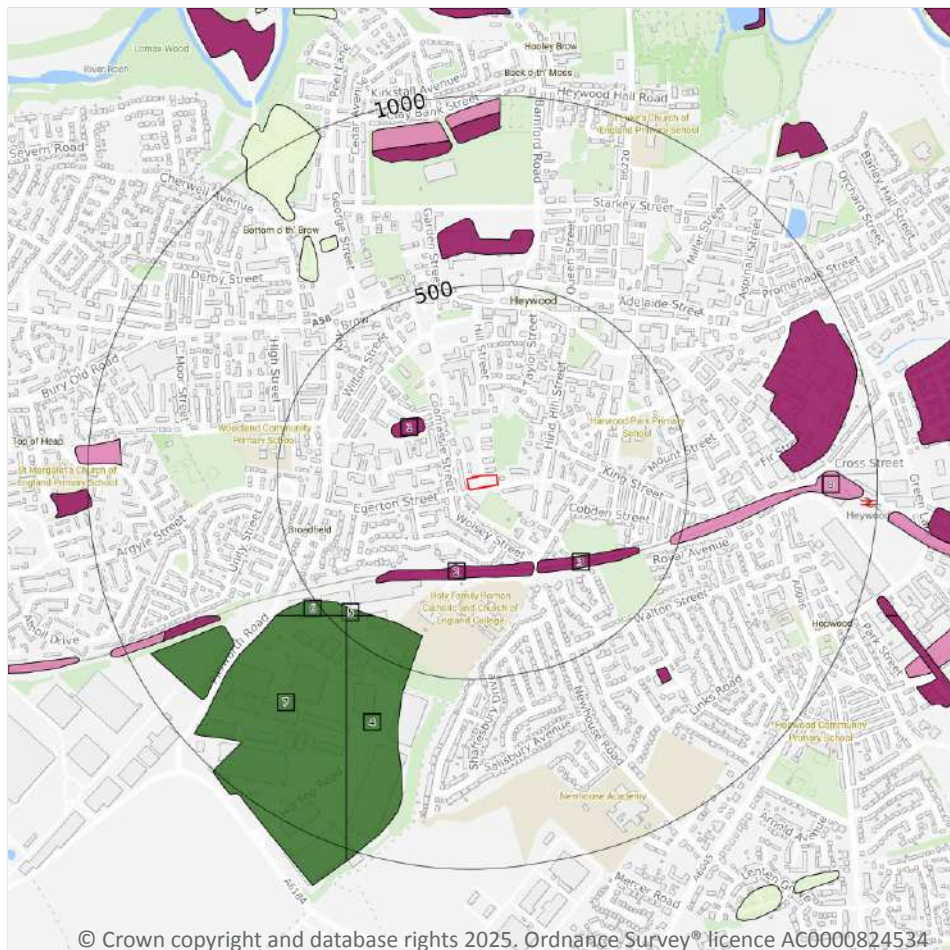
ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SD81SE
2	318m W	Full	Full	Full	Full	SD81SW
3	331m S	Full	Full	Full	Full	SD80NE
4	464m SW	Full	Full	Full	Full	SD80NW



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

8

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 85](#) >

ID	Location	LEX Code	Description	Rock description
1	171m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
2	201m S	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
3	229m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial deposit
4	400m SW	LSGR-ARTGR	Landscaped Ground (Undivided)	Artificially modified ground

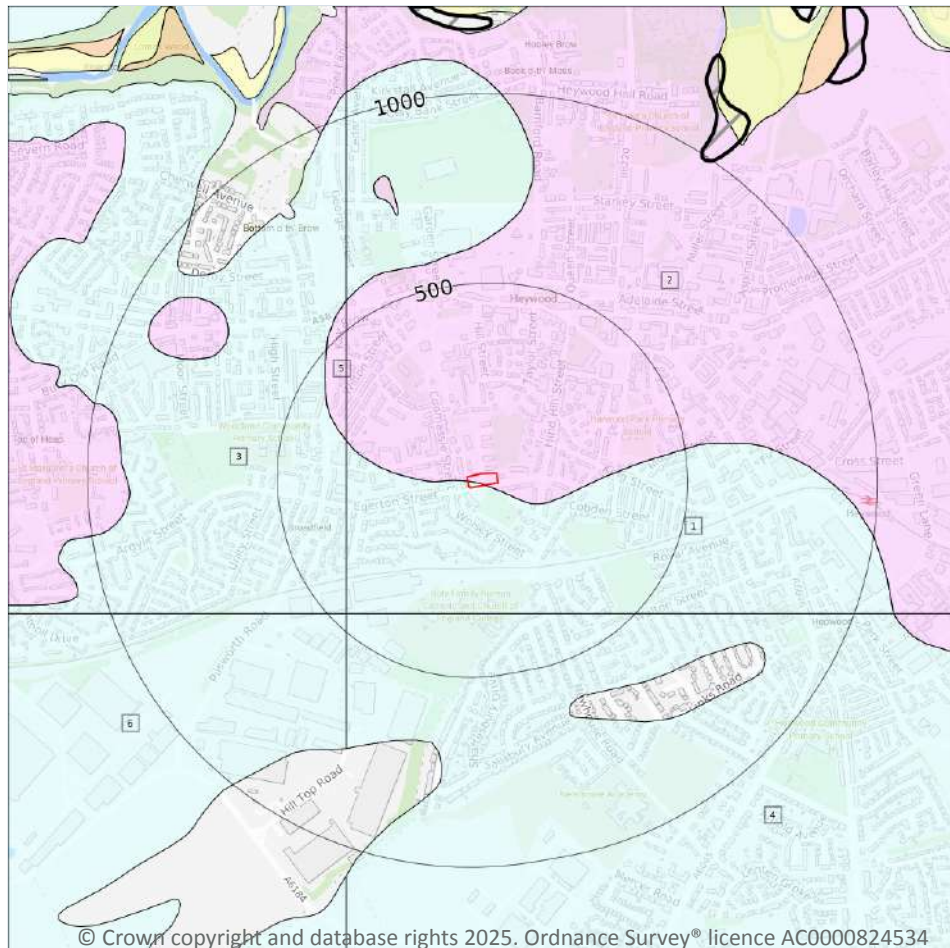


ID	Location	LEX Code	Description	Rock description
5	418m SW	LSGR-ARTGR	Landscaped Ground (Undivided)	Artificially modified ground
6	448m SW	LSGR-ARTGR	Landscaped Ground (Undivided)	Artificially modified ground
7	464m SW	LSGR-ARTGR	Landscaped Ground (Undivided)	Artificially modified ground
8	476m E	WGR-VOID	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

6

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 87](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	TILLD-DMTN	Till, Devensian-Diamicton	Diamicton
2	On site	GFDUD-XSV	Glaciofluvial Deposits, Devensian-Sand And Gravel	Sand and gravel
3	318m W	TILLD-DMTN	Till, Devensian-Diamicton	Diamicton



ID	Location	LEX Code	Description	Rock description
4	331m S	TILLD-DMTN	Till, Devensian-Diamicton	Diamicton
5	333m W	GFDUD-XSV	Glaciofluvial Deposits, Devensian-Sand And Gravel	Sand and gravel
6	464m SW	TILLD-DMTN	Till, Devensian-Diamicton	Diamicton

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



- Site Outline
- Search buffers in metres (m)
- Bedrock faults and other linear features (10k)
- Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m

13

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 89](#) >

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
2	101m NE	PLCM-SDST	Pennine Lower Coal Measures Formation-Sandstone	Westphalian
3	157m NE	PLCM-SDST	Pennine Lower Coal Measures Formation-Sandstone	Westphalian



ID	Location	LEX Code	Description	Rock age
4	226m NE	PLCM-SDST	Pennine Lower Coal Measures Formation-Sandstone	Westphalian
5	270m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
7	281m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
10	318m W	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
11	320m W	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
13	331m S	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
14	344m W	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
16	362m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian
18	453m SE	PLCM-SDST	Pennine Lower Coal Measures Formation-Sandstone	Westphalian
19	464m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, Siltstone And Sandstone	Westphalian

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

6

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 89](#) >

ID	Location	Category	Description
6	270m SW	FAULT	Fault, inferred, displacement unknown
8	281m SW	FAULT	Fault, inferred, displacement unknown
9	313m NE	ROCK	Coal seam, inferred
12	320m W	FAULT	Fault, inferred, displacement unknown
15	344m W	FAULT	Fault, inferred, displacement unknown

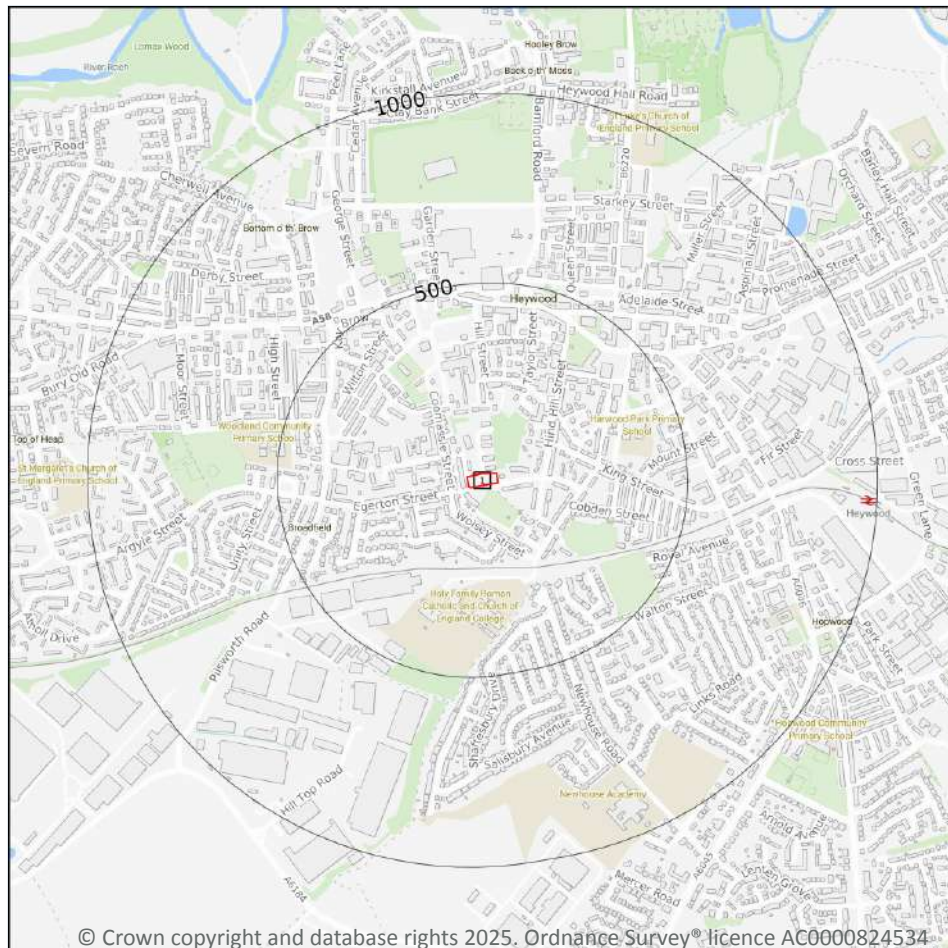


ID	Location	Category	Description
17	362m SW	FAULT	Fault, inferred, displacement unknown

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 92](#) >

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

This data is sourced from the British Geological Survey.



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

15.2 Artificial and made ground (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

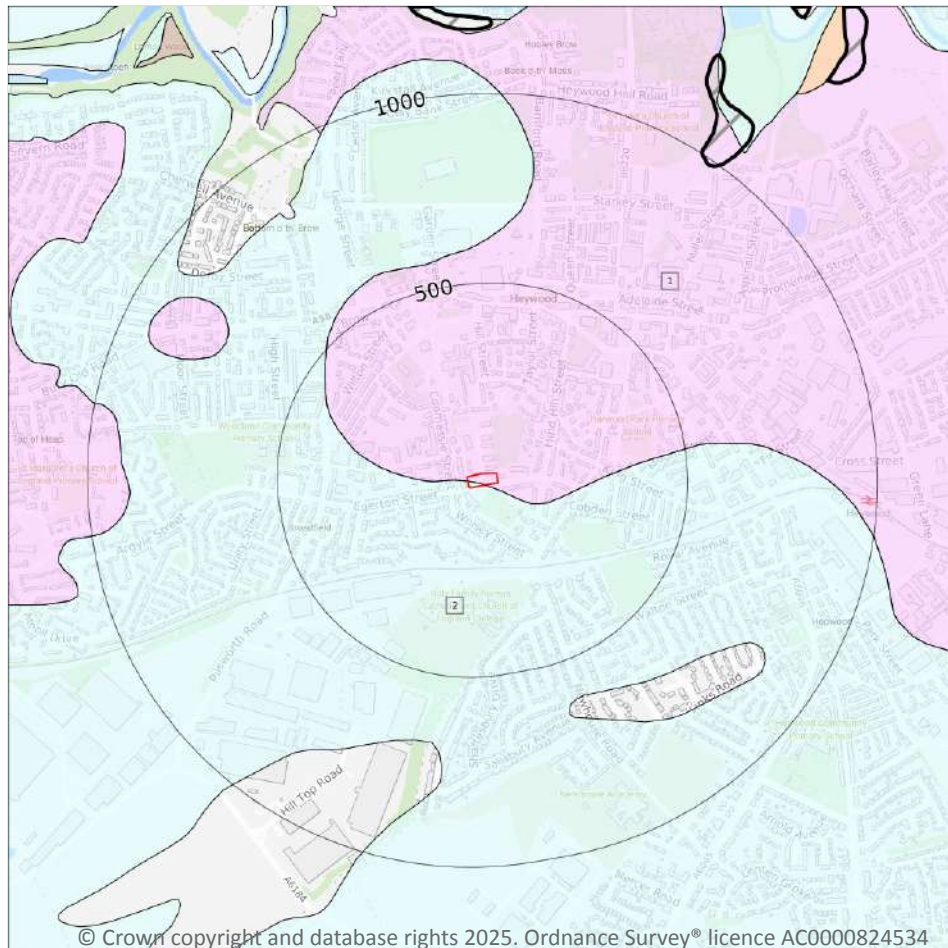
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial



— Site Outline
Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m

2

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 94](#) >

ID	Location	LEX Code	Description	Rock description
1	On site	GFDUD-XSV	Glaciofluvial deposits, Devensian	Sand and gravel
2	On site	TILLD-DMTN	Till, Devensian	Diamicton

This data is sourced from the British Geological Survey.



15.5 Superficial permeability (50k)

Records within 50m**2**

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

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

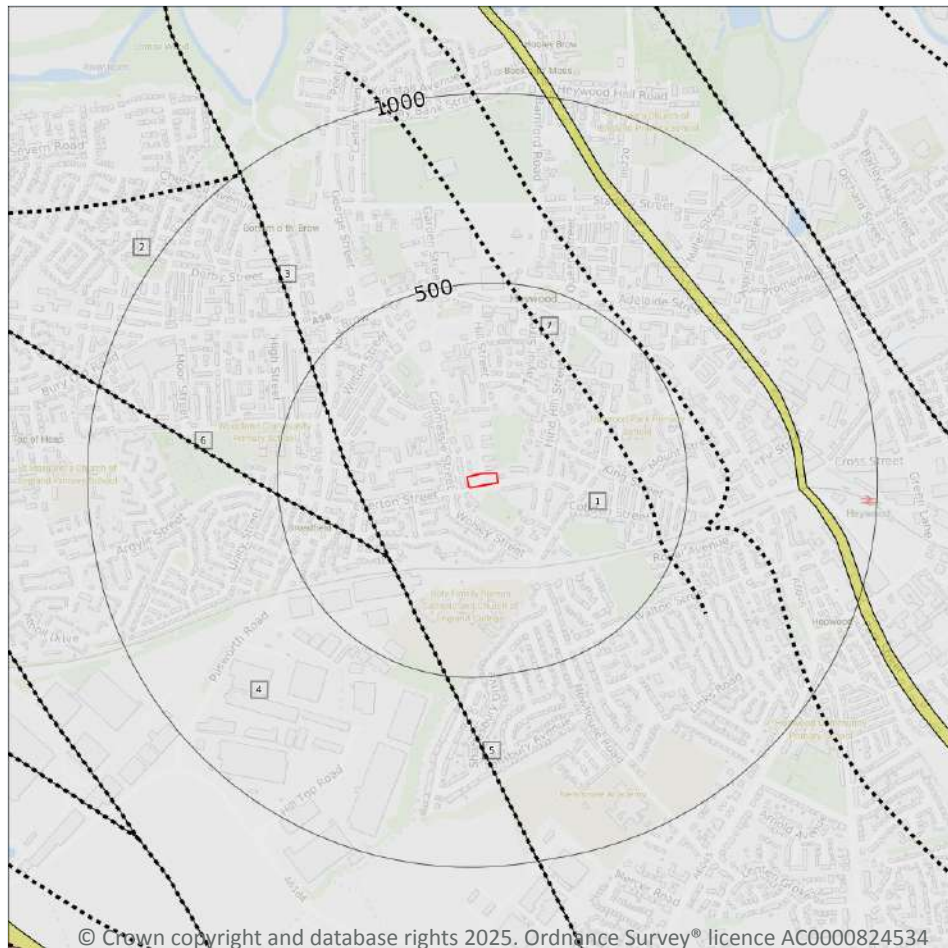
Records within 50m**0**

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

3

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 96 >](#)

ID	Location	LEX Code	Description	Rock age
1	On site	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, siltstone and sandstone	Westphalian
2	270m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, siltstone and sandstone	Westphalian



ID	Location	LEX Code	Description	Rock age
4	281m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation-Mudstone, siltstone and sandstone	Westphalian

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	Fracture	Moderate	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	4
----------------------------	----------

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.

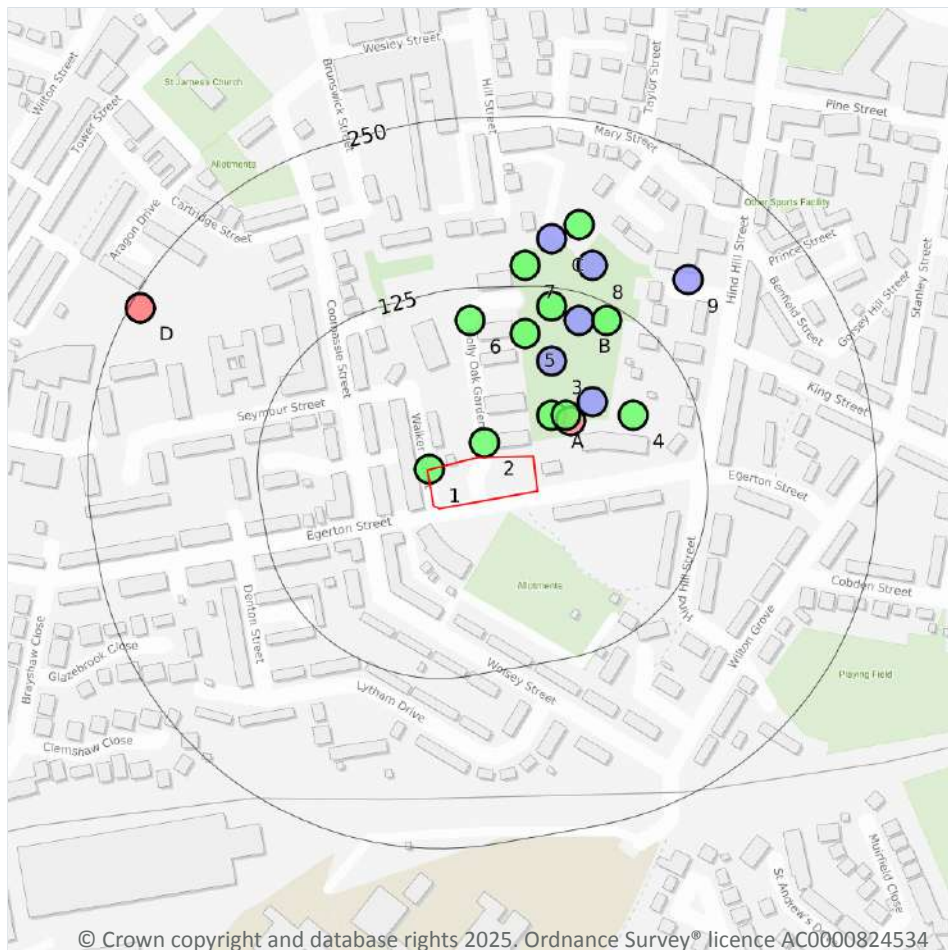
Features are displayed on the Geology 1:50,000 scale - Bedrock map on [page 96](#) >

ID	Location	Category	Description
3	270m SW	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres
5	281m SW	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres
6	281m SW	FAULT	Fault, inferred, crossmark on downthrow side, throw in metres
7	314m NE	ROCK	Coal seam, 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

20

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 98](#) >

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	385320 410360	HEYWOOD, LANCASHIRE 5	15.0	N	17948267 ↗
2	11m N	385360 410380	HEYWOOD, LANCASHIRE 4	15.0	N	17948266 ↗

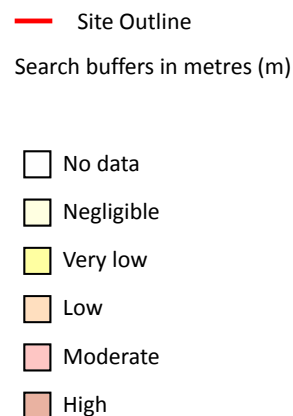
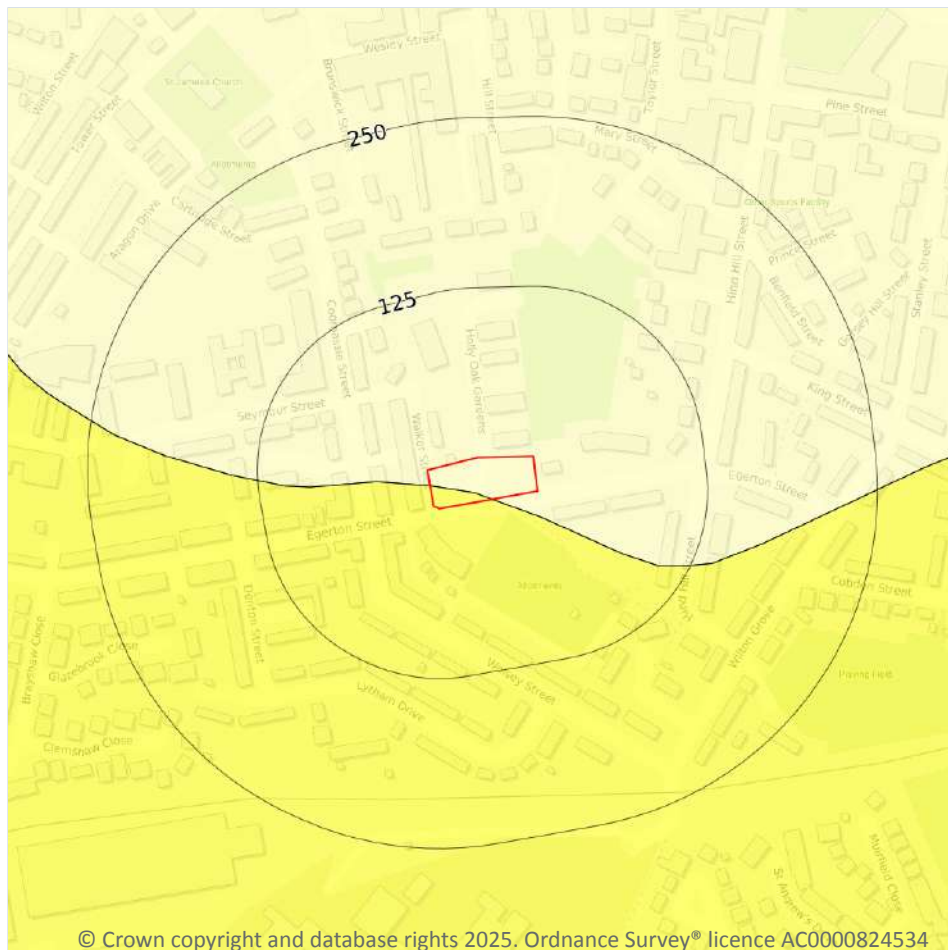


ID	Location	Grid reference	Name	Length	Confidential	Web link
A	33m NE	385410 410400	MARY STREET/HIND HILL STREET HEYWOOD 8	15.0	N	30112 ↗
A	38m NE	385424 410396	HEYWOOD ELECTRICITY STATION	56.08	N	29726 ↗
A	38m NE	385420 410400	HEYWOOD, LANCASHIRE 1	15.0	N	17948263 ↗
A	59m NE	385440 410410	MARY STREET/HIND HILL STREET HEYWOOD TP2	2.3	N	30118 ↗
3	71m N	385410 410440	MARY STREET/HIND HILL STREET HEYWOOD TP3	2.5	N	30119 ↗
4	80m E	385470 410400	MARY STREET/HIND HILL STREET HEYWOOD 7	14.3	N	30111 ↗
5	90m N	385390 410460	MARY STREET/HIND HILL STREET HEYWOOD 9	15.22	N	30113 ↗
6	101m N	385350 410470	HEYWOOD, LANCASHIRE 3	15.0	N	17948265 ↗
B	106m N	385430 410470	MARY STREET/HIND HILL STREET HEYWOOD TP4	2.4	N	30120 ↗
B	111m N	385410 410480	HEYWOOD, LANCASHIRE 2	15.0	N	17948264 ↗
B	114m NE	385450 410470	MARY STREET/HIND HILL STREET HEYWOOD 11	16.3	N	30115 ↗
7	140m N	385390 410510	MARY STREET/HIND HILL STREET HEYWOOD 10	16.04	N	30114 ↗
8	147m N	385440 410510	MARY STREET/HIND HILL STREET HEYWOOD TP5	0.6	N	30121 ↗
C	161m N	385410 410530	MARY STREET/HIND HILL STREET HEYWOOD TP6	2.9	N	30122 ↗
9	173m NE	385510 410500	MARY STREET/HIND HILL STREET HEYWOOD TP1	3.15	N	30117 ↗
C	173m N	385430 410540	MARY STREET/HIND HILL STREET HEYWOOD 12	15.0	N	30116 ↗
D	243m NW	385107 410479	PLUM MILL	100.89	N	29724 ↗
D	243m NW	385107 410479	PLUM MILL	91.44	N	29725 ↗

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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).

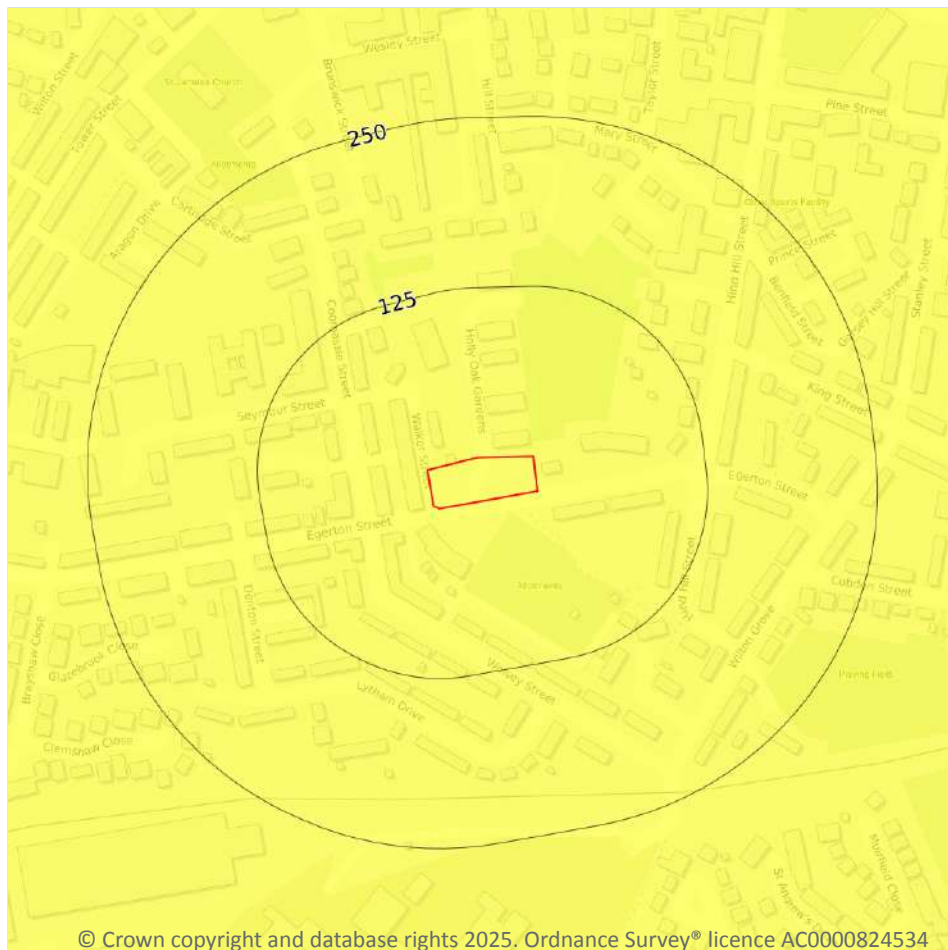
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 100](#) >

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

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17.2 Running sands

Records within 50m

1

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

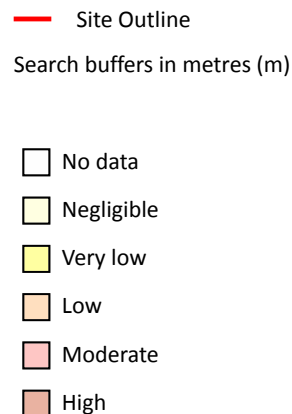
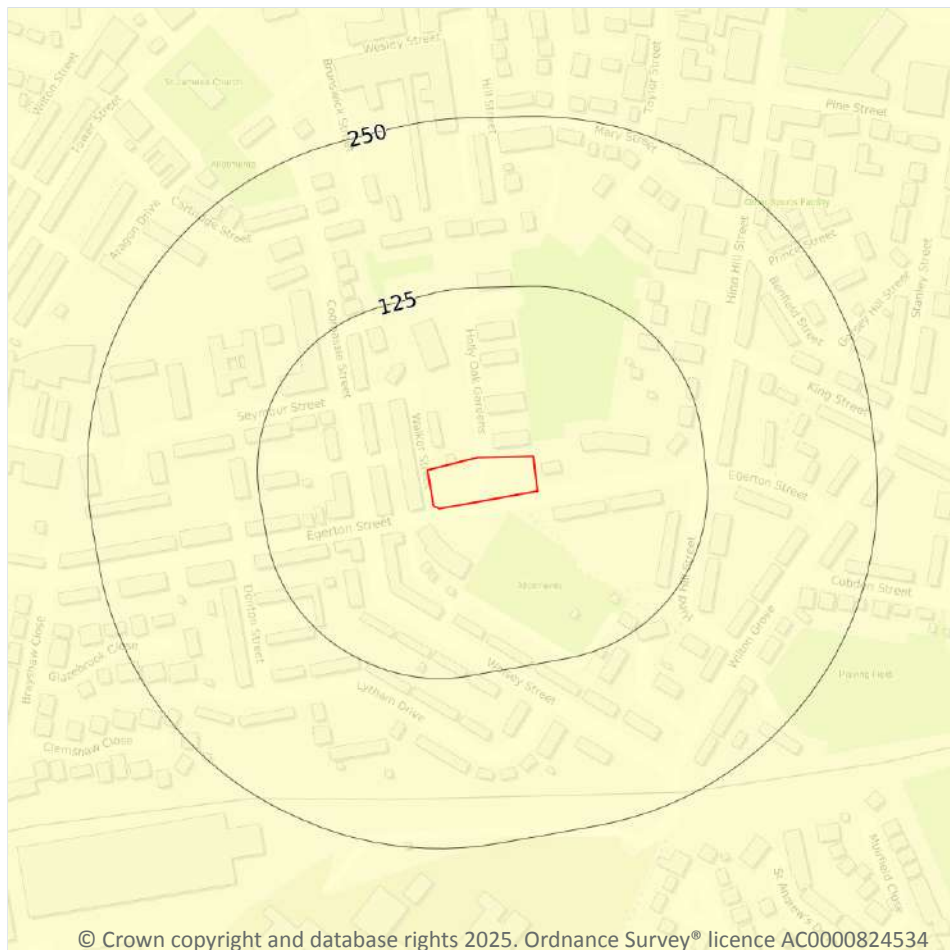
Features are displayed on the Natural ground subsidence - Running sands map on [page 101](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



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17.3 Compressible deposits

Records within 50m

1

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

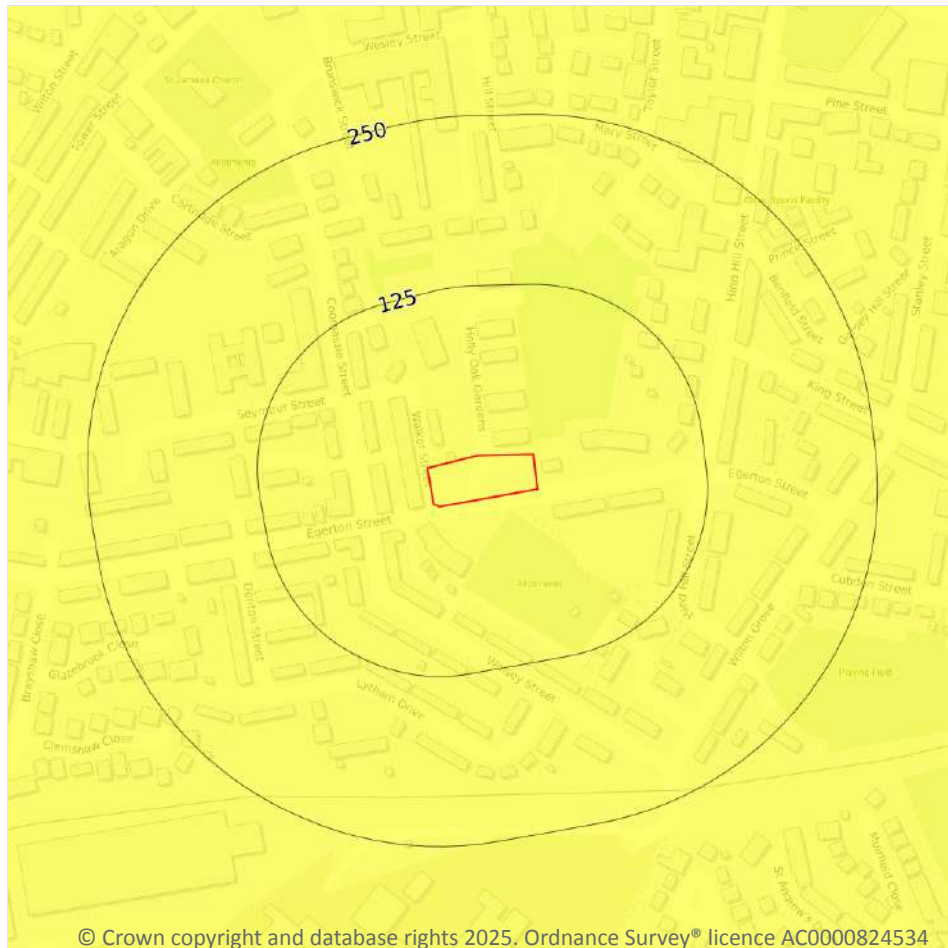
Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 102 >](#)

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



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

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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.

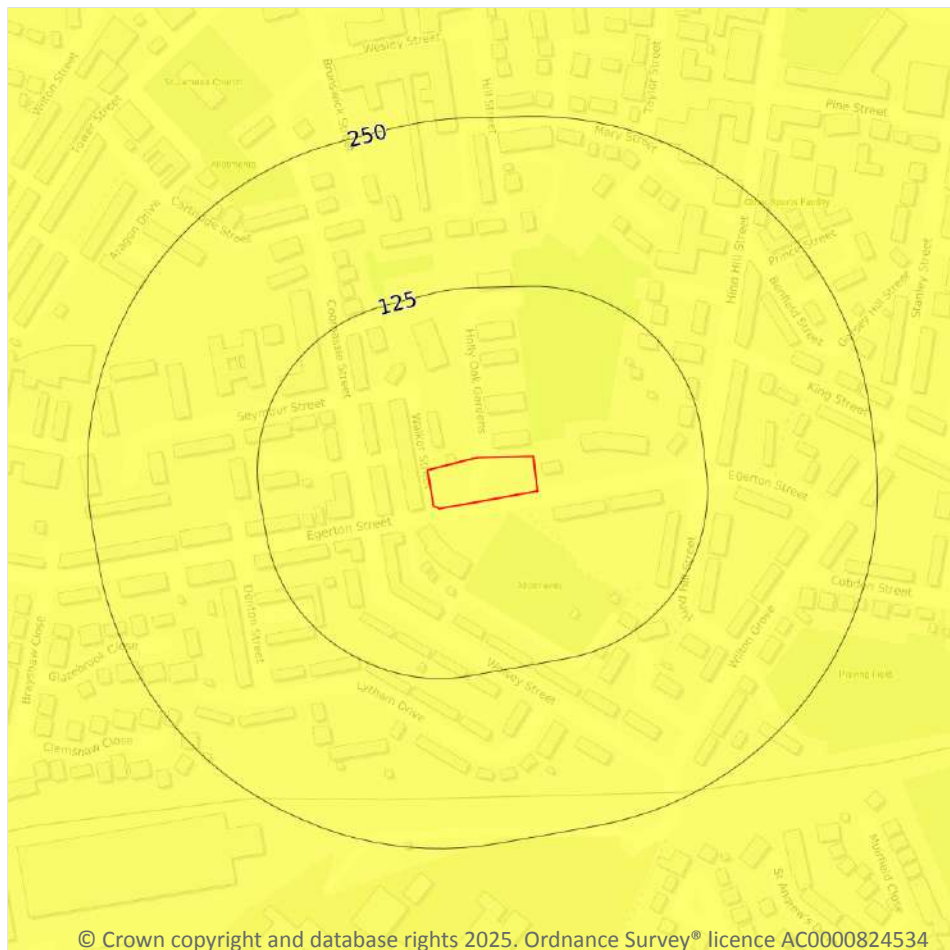
Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 103](#) >

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



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

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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.

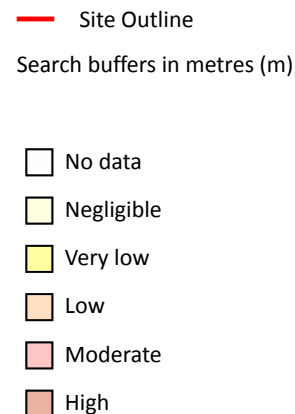
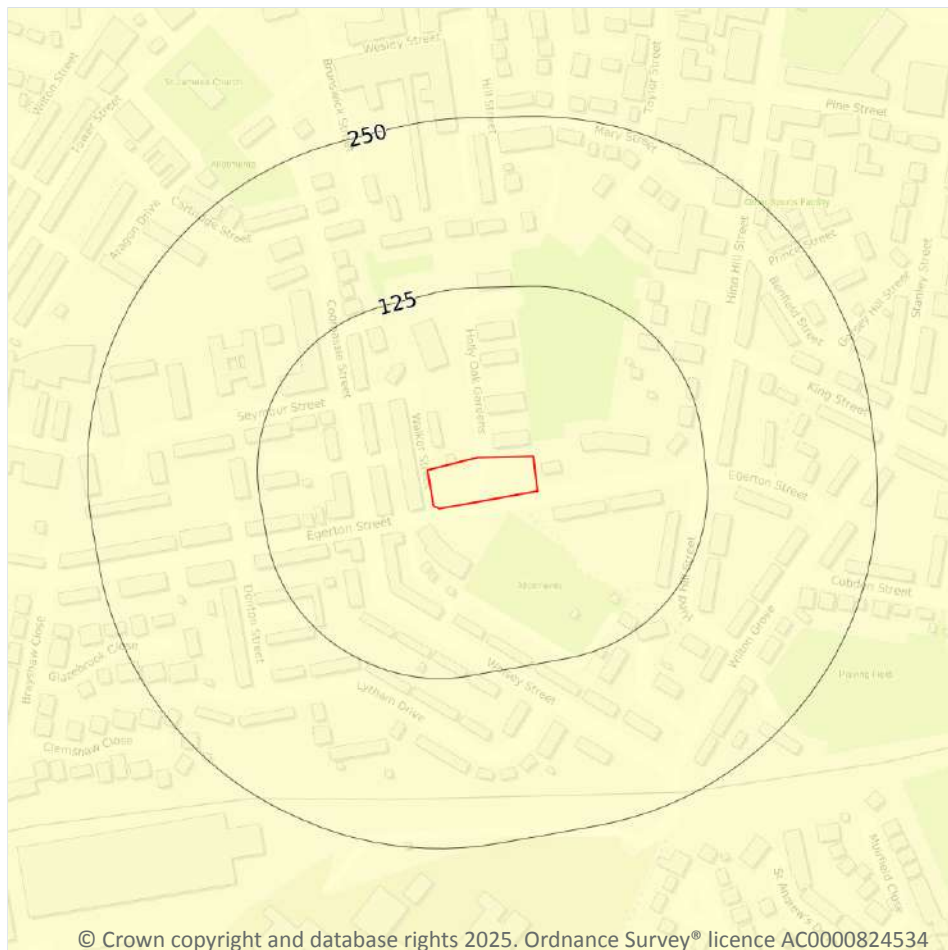
Features are displayed on the Natural ground subsidence - Landslides map on [page 104](#) >

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 105 >](#)

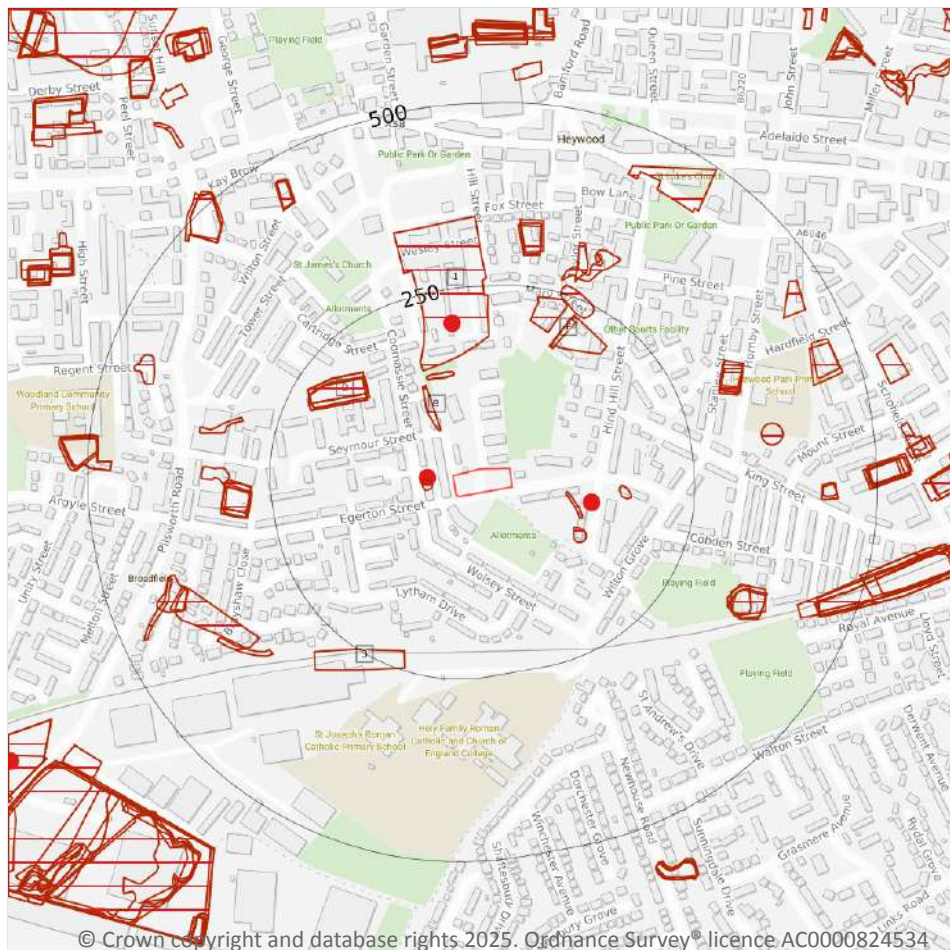
Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.



This data is sourced from the British Geological Survey.



18 Mining and ground workings



- Site Outline
- Search buffers in metres (m)
- BritPits
- ▤ Surface ground workings
- ▤ Underground workings
- ▤ Underground mining extents
- ▤ Historical mineral planning areas
- ▤ TCA non-coal mining
- Non Coal Mining
- ▤ Sporadic underground mining of restricted extent possible
- ▤ Localised small scale underground mining possible
- ▤ Small scale mining possible
- ▤ Underground mining known or likely within or in close proximity
- ▤ Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m

3

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

Features are displayed on the Mining and ground workings map on [page 107 >](#)

ID	Location	Details	Description
A	35m W	Name: Pot Hall Gravel Pit Address: HEYWOOD, Lancashire Commodity: Sand & Gravel Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
C	111m E	Name: Pot Hall Sand Pit Address: HEYWOOD, Lancashire Commodity: Sand Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
2	203m N	Name: Long Field Brick Field Address: HEYWOOD, Lancashire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Delf, Delph, Gravel Pit, Sand Pit, Sand and Gravel Pit, Clay Pit, Pit, Opencast Coal Site or Surface Mine. It may be mapped as Worked Ground or Worked and Made Ground on BGS mapping. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m

19

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

Features are displayed on the Mining and ground workings map on [page 107](#) >

ID	Location	Land Use	Year of mapping	Mapping scale
A	30m W	Gravel Pit	1851	1:10560
B	65m N	Pond	1890	1:10560



ID	Location	Land Use	Year of mapping	Mapping scale
C	74m E	Unspecified Ground Workings	1928	1:10560
C	101m SE	Unspecified Pit	1928	1:10560
B	133m N	Unspecified Ground Workings	1928	1:10560
B	133m N	Unspecified Ground Workings	1909	1:10560
C	147m E	Sand Pit	1851	1:10560
1	149m N	Brick Field	1851	1:10560
D	157m NW	Reservoir	1928	1:10560
D	157m NW	Reservoir	1909	1:10560
D	157m NW	Reservoir	1938	1:10560
D	162m NW	Reservoir	1975	1:10000
D	162m NW	Reservoir	1956	1:10560
D	162m NW	Reservoir	1968	1:10560
E	174m N	Mortuary	1909	1:10560
E	176m N	Mortuary	1928	1:10560
E	193m N	Mortuary	1956	1:10560
3	225m S	Cuttings	1851	1:10560
E	229m NE	Refuse Heap	1890	1:10560

This data is sourced from Ordnance Survey®/Groundsure.

18.3 Underground workings

Records within 1000m

0

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

This data is sourced from Ordnance Survey®/Groundsure.



18.4 Underground mining extents

Records within 500m

0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

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

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

0

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



Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

0

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

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m

0

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

0

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

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

1

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

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

This data is sourced from the Coal Authority.



18.13 Brine areas

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

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

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

18.14 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

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

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

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

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

0

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

0

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

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

0

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

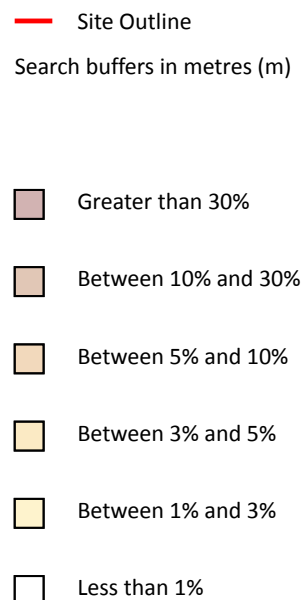
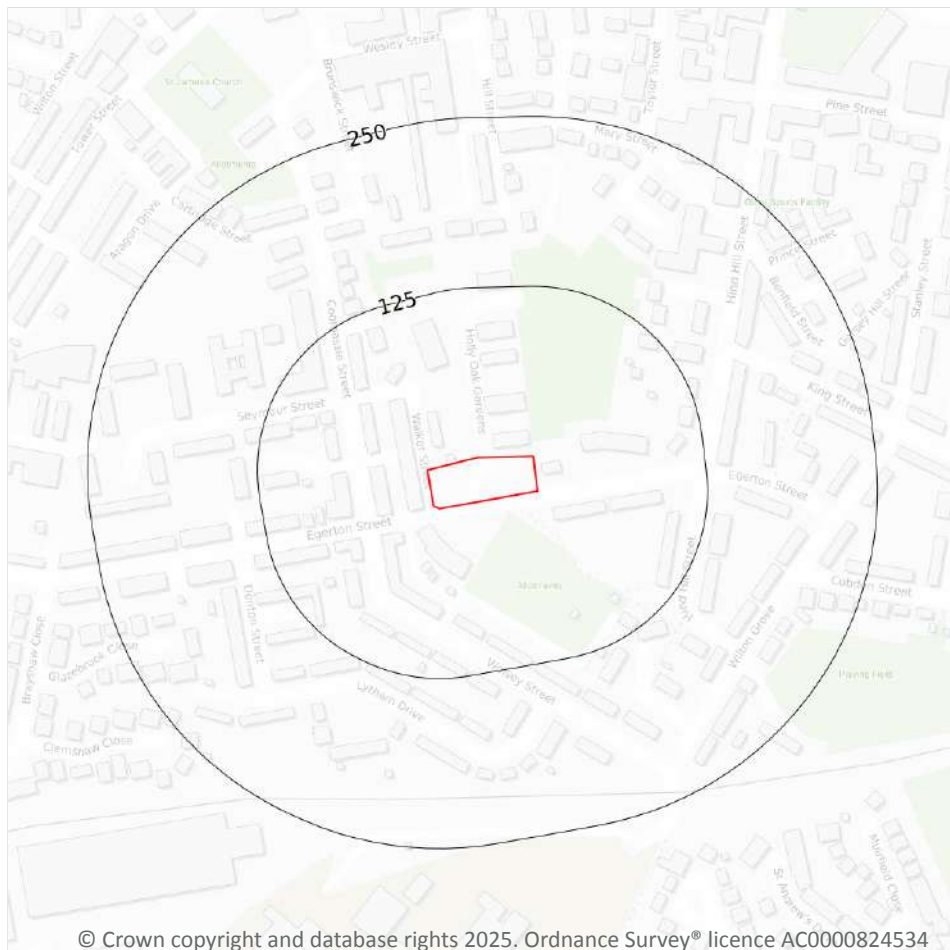
Not all 'holes' noted on Ordnance Survey® mapping will necessarily be present within this dataset.



This data is sourced from Groundsure.



20 Radon



20.1 Radon

Records on site

1

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

Features are displayed on the Radon map on [page 115](#) >

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



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



21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

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 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
25m S	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

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).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m

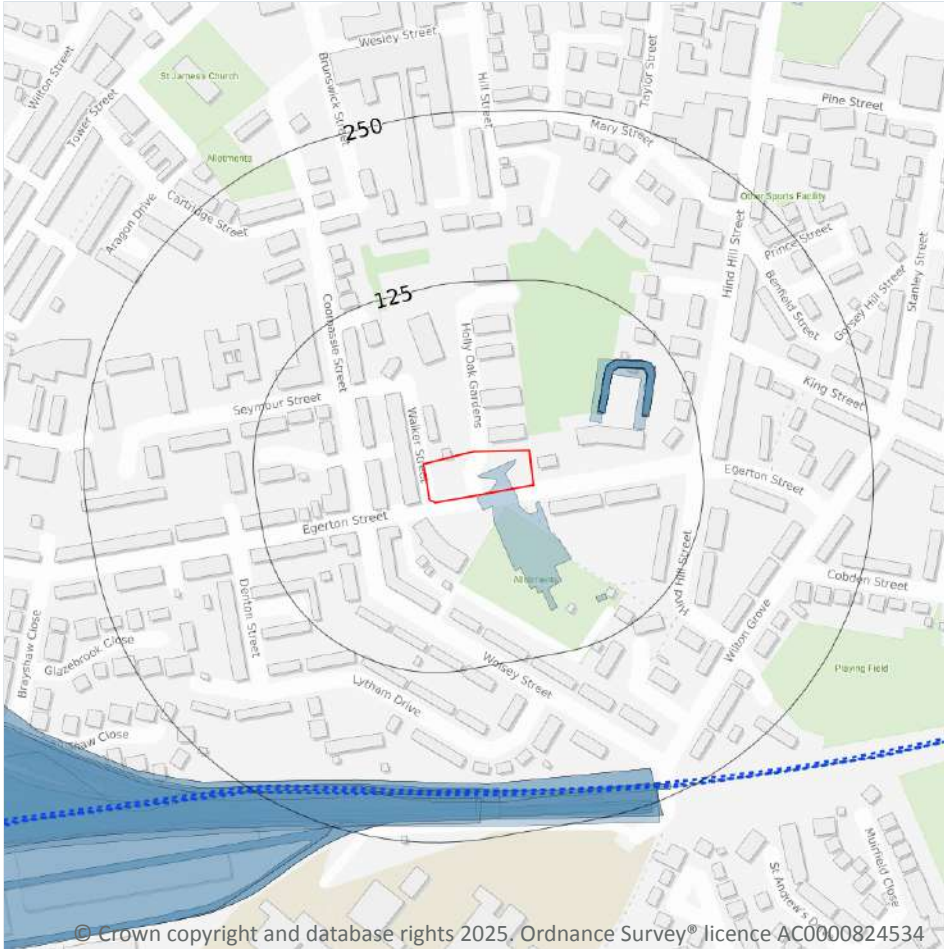
0

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

This data is sourced from the British Geological Survey.



22 Railway infrastructure and projects



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

22.1 Underground railways (London)

Records within 250m

0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

0

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



This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey® mapping.

This data is sourced from the Ordnance Survey®.

22.4 Historical railway and tunnel features

Records within 250m

30

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 118 >](#)

Location	Land Use	Year of mapping	Mapping scale
On site	Tramway Sidings	1891	2500
49m NE	Tramway Sidings	1937	2500
57m NE	Tramway Sidings	1985	1250
57m NE	Tramway Sidings	1988	1250
58m NE	Tramway Sidings	1957	2500
58m NE	Tramway Sidings	1969	2500
59m NE	Tramway Sidings	1971	1250
59m NE	Tramway Sidings	1956	1250
95m SE	Railway Sidings	1930	2500
206m S	Railway Sidings	1956	10560
206m S	Railway Sidings	1968	10560
210m S	Railway Sidings	1956	1250
210m S	Railway Sidings	1969	2500
210m S	Railway Sidings	1957	2500
211m S	Railway Sidings	1938	10560
213m S	Railway Sidings	1985	1250
213m S	Railway Sidings	1988	1250



Location	Land Use	Year of mapping	Mapping scale
214m S	Railway Sidings	1909	10560
215m S	Railway Sidings	1937	2500
215m S	Railway Sidings	1929	2500
215m S	Railway Sidings	1910	2500
215m S	Railway Sidings	1890	2500
216m S	Railway Sidings	1890	10560
218m S	Railway Sidings	1928	10560
225m S	Railway Sidings	1890	2500
225m S	Railway Sidings	1910	2500
225m S	Railway Sidings	1929	2500
225m S	Railway Sidings	1937	2500
229m S	Railway Sidings	1956	1250
231m S	Railway Sidings	1971	1250

This data is sourced from Ordnance Survey®/Groundsure.

22.5 Royal Mail tunnels

Records within 250m

0

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

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m

0

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

This data is sourced from OpenStreetMap.



22.7 Railways

Records within 250m

8

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 118 >](#)

Location	Name	Type
212m S	Not given	Preserved
213m S	Not given	Single Track
215m S	East Lancashire Railway	rail
218m S	Not given	Single Track
238m SE	Not given	Preserved
240m SE	East Lancashire Railway	rail
243m SE	Not given	Preserved
245m SE	East Lancashire Railway	rail

This data is sourced from Ordnance Survey® and OpenStreetMap.

22.8 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

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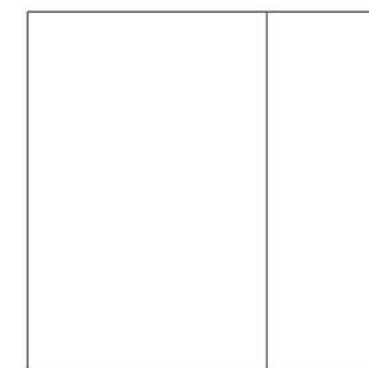
Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: 1056 Scale Town Plan

Map date: 1851

Scale: 1:1,056

Printed at: 1:1,056



Surveyed 1848
Revised N/A
Edition 1851
Copyright N/A
Levelled N/A

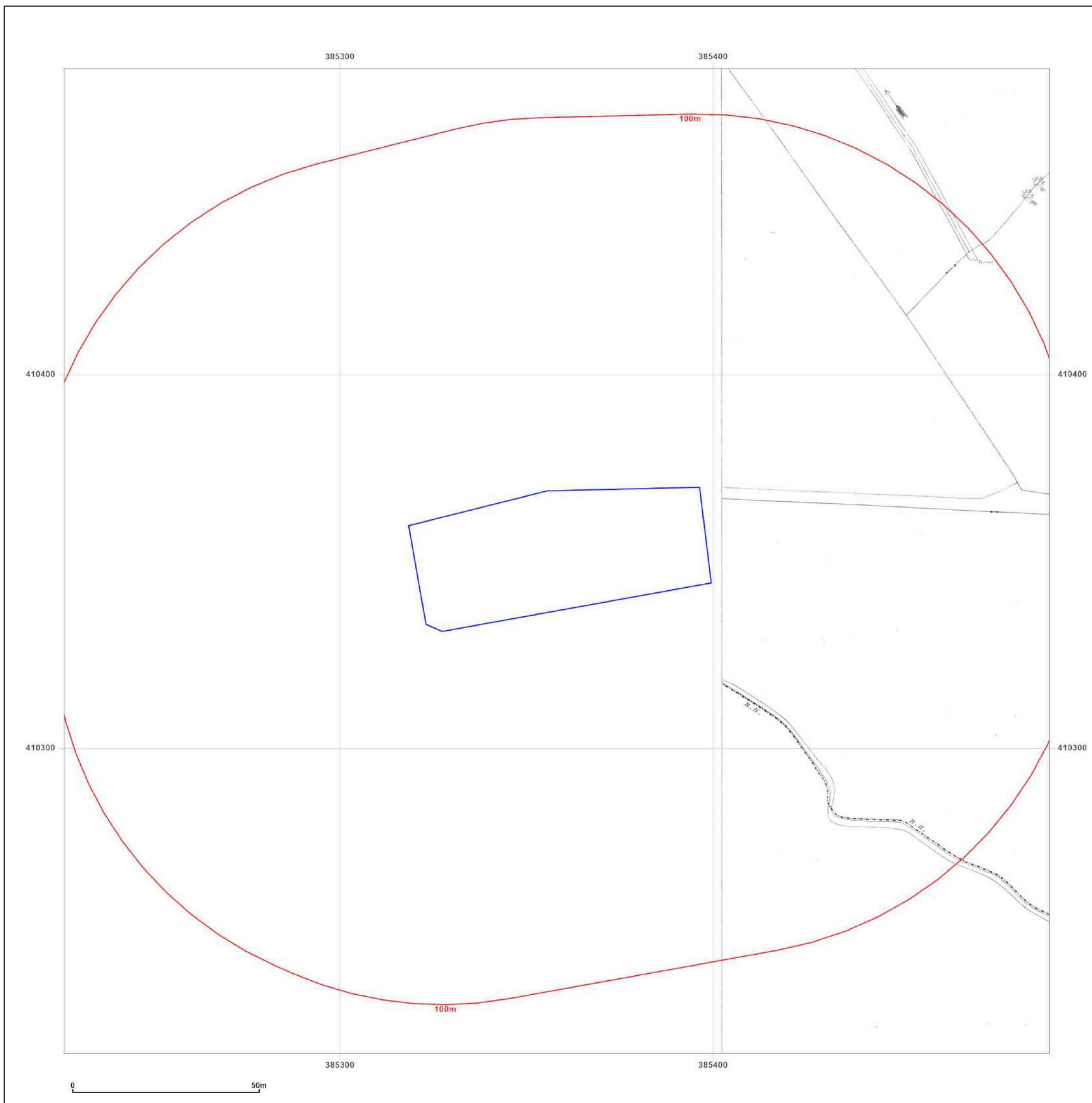


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Site Details:

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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: County Series

Map date: 1890

Scale: 1:2,500

Printed at: 1:2,500



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

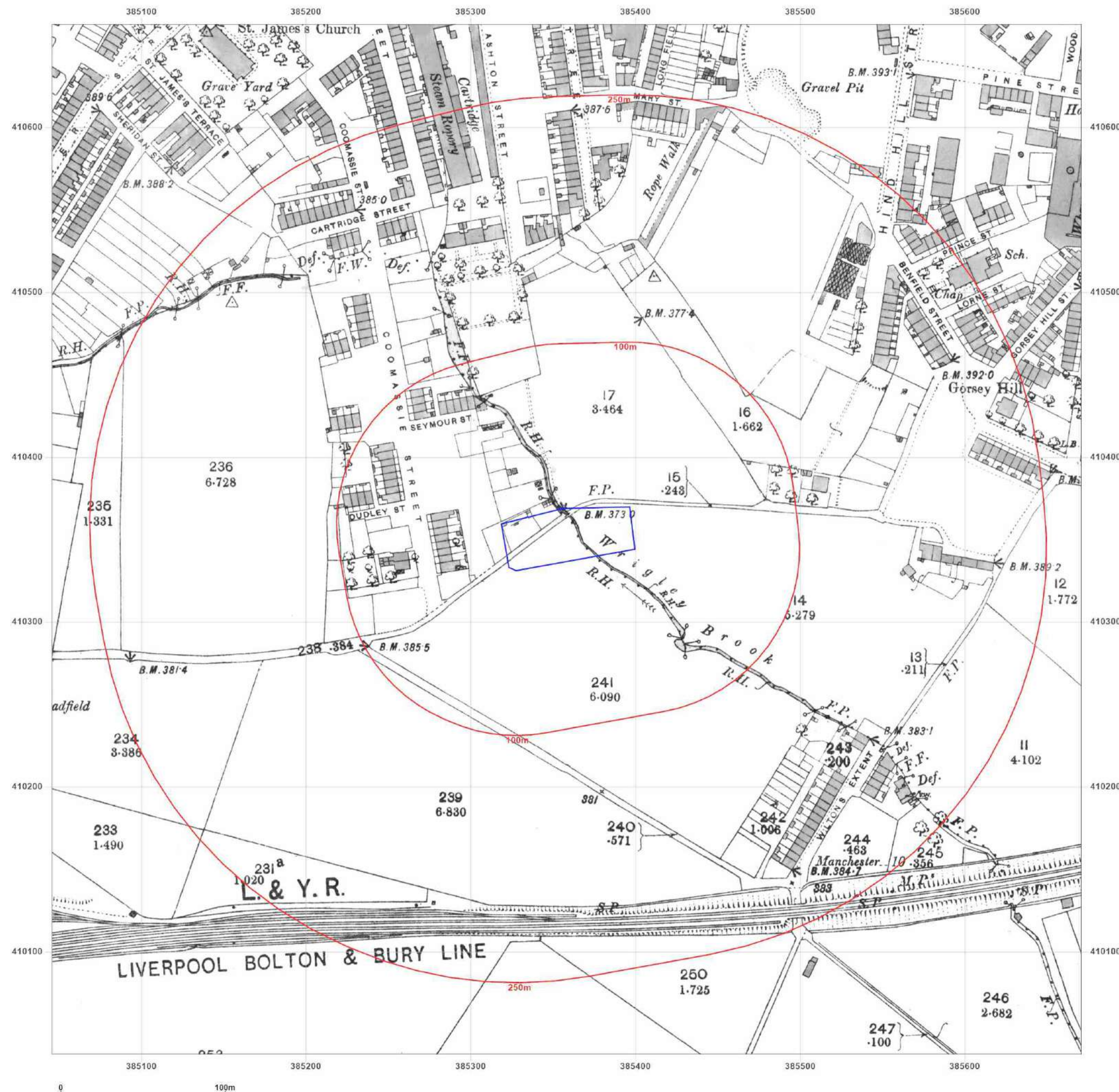


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Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: County Series

Map date: 1910

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1910
 Revised 1910
 Edition N/A
 Copyright N/A
 Levelled N/A

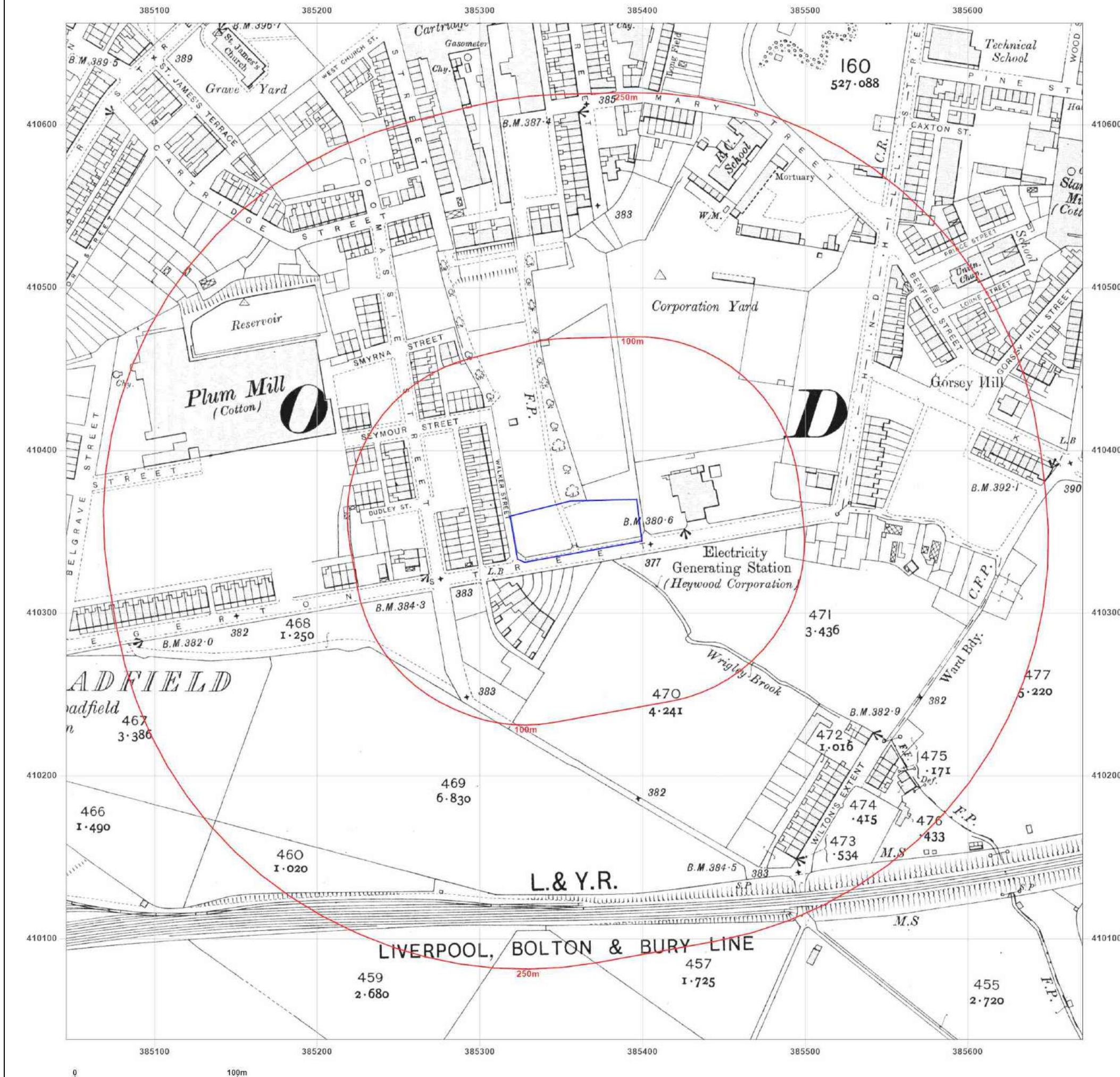


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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: County Series

Map date: 1929

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1929
Revised 1929
Edition N/A
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Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: County Series

Map date: 1937

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1937
 Revised 1937
 Edition N/A
 Copyright N/A
 Levelled N/A

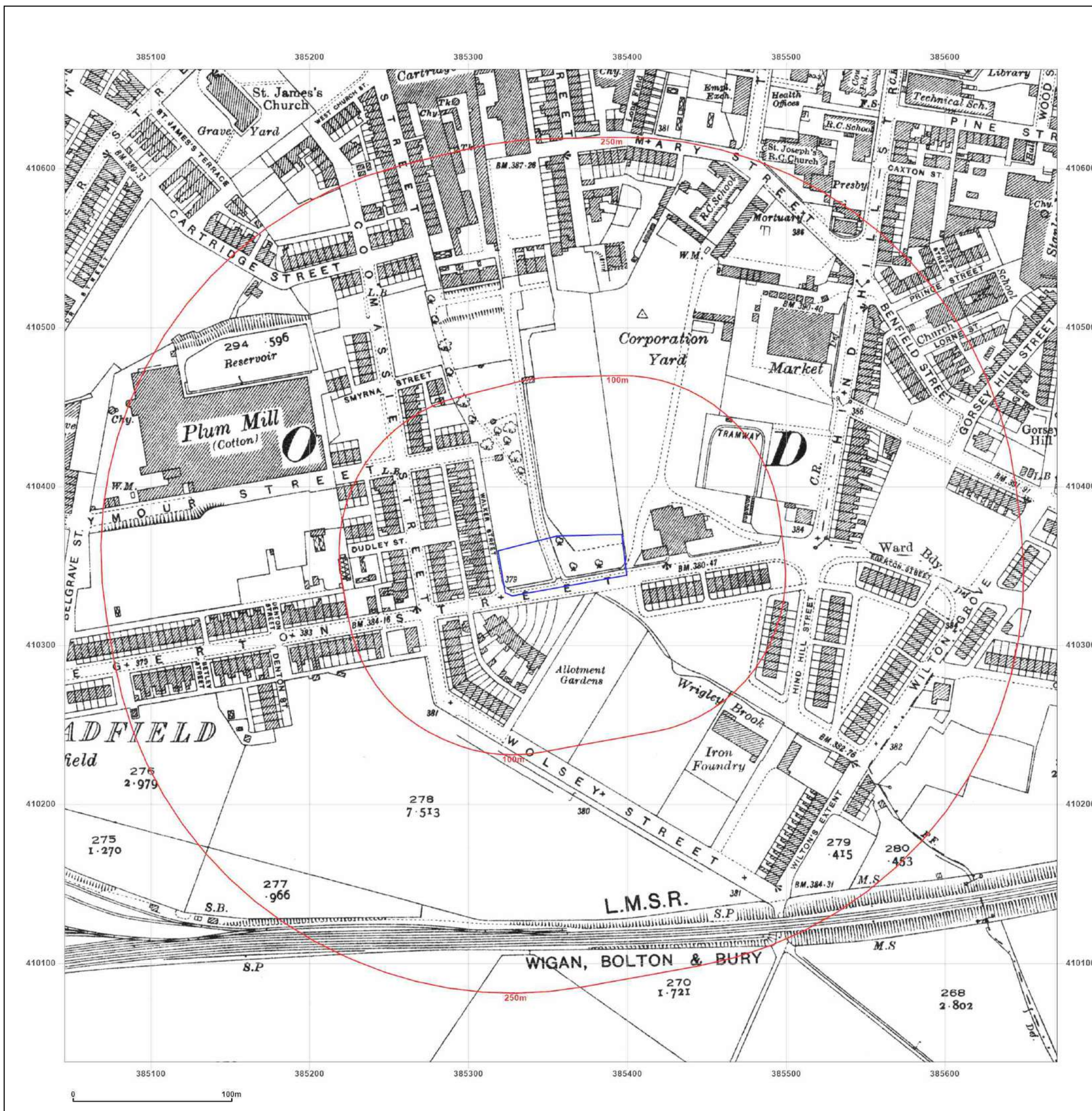


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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1956

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled 1928

Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled 1928

Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled 1928

Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled 1928

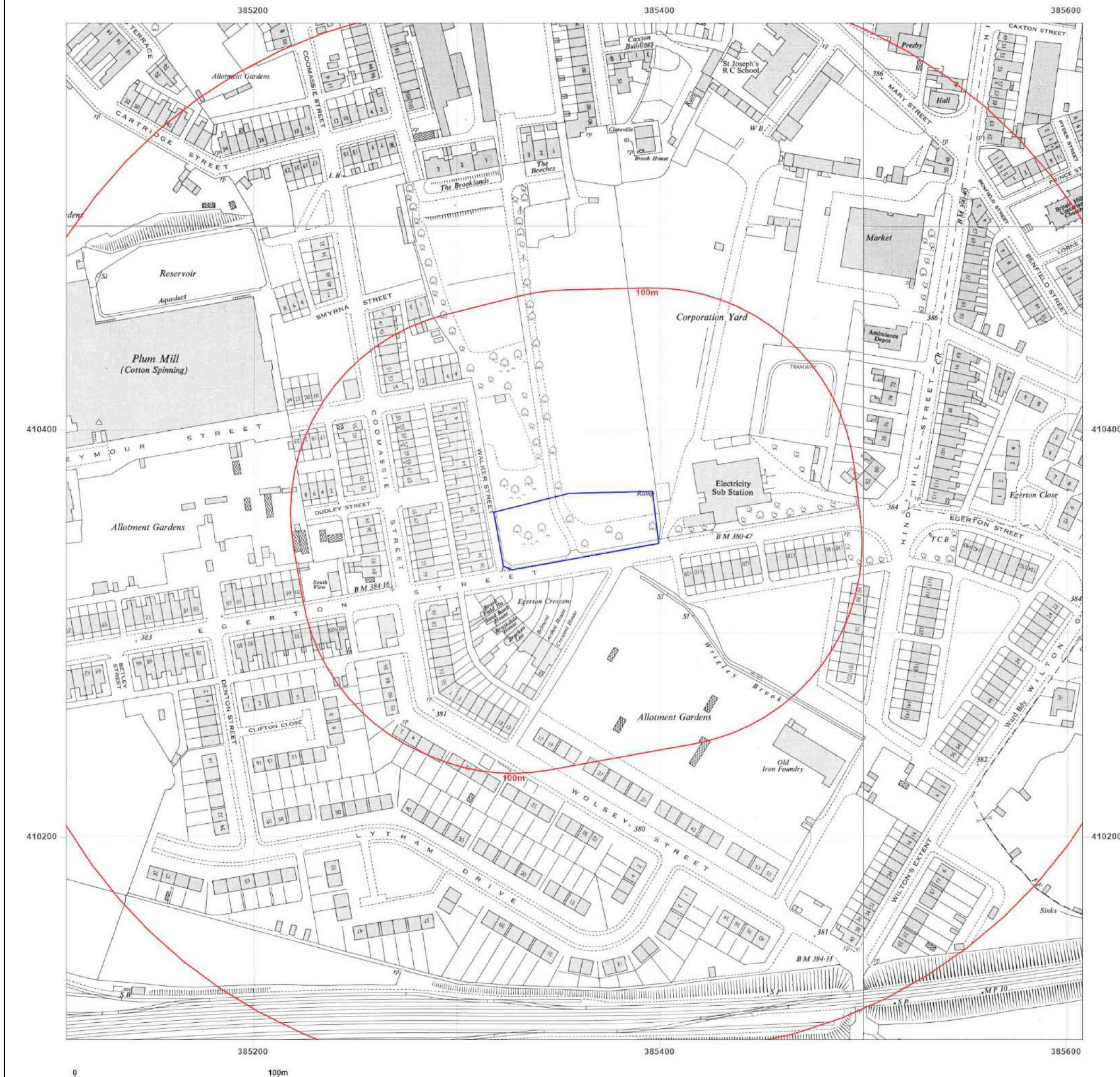


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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1957

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1956
Revised 1956
Edition 1957
Copyright N/A
Levelled 1928

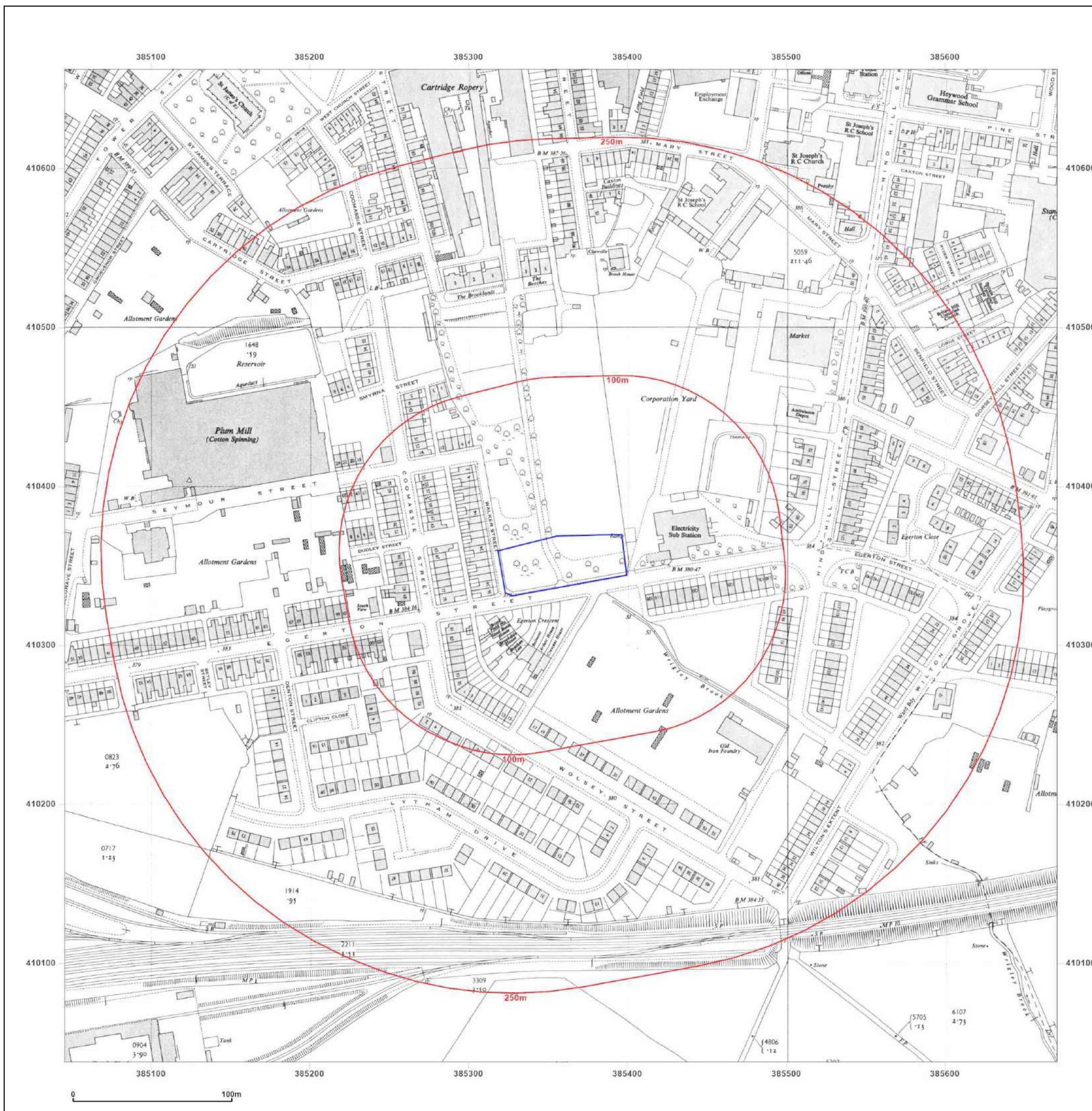


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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1962-1968

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1963
 Revised 1963
 Edition N/A
 Copyright 1964
 Levelled 1956

Surveyed 1956
 Revised 1967
 Edition N/A
 Copyright 1968
 Levelled 1962

Surveyed N/A
 Revised N/A
 Edition N/A
 Copyright N/A
 Levelled 1962

Surveyed 1956
 Revised 1964
 Edition N/A
 Copyright 1965
 Levelled 1962



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Site Details:

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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1969

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1967
Revised 1967
Edition N/A
Copyright 1969
Levelled 1962

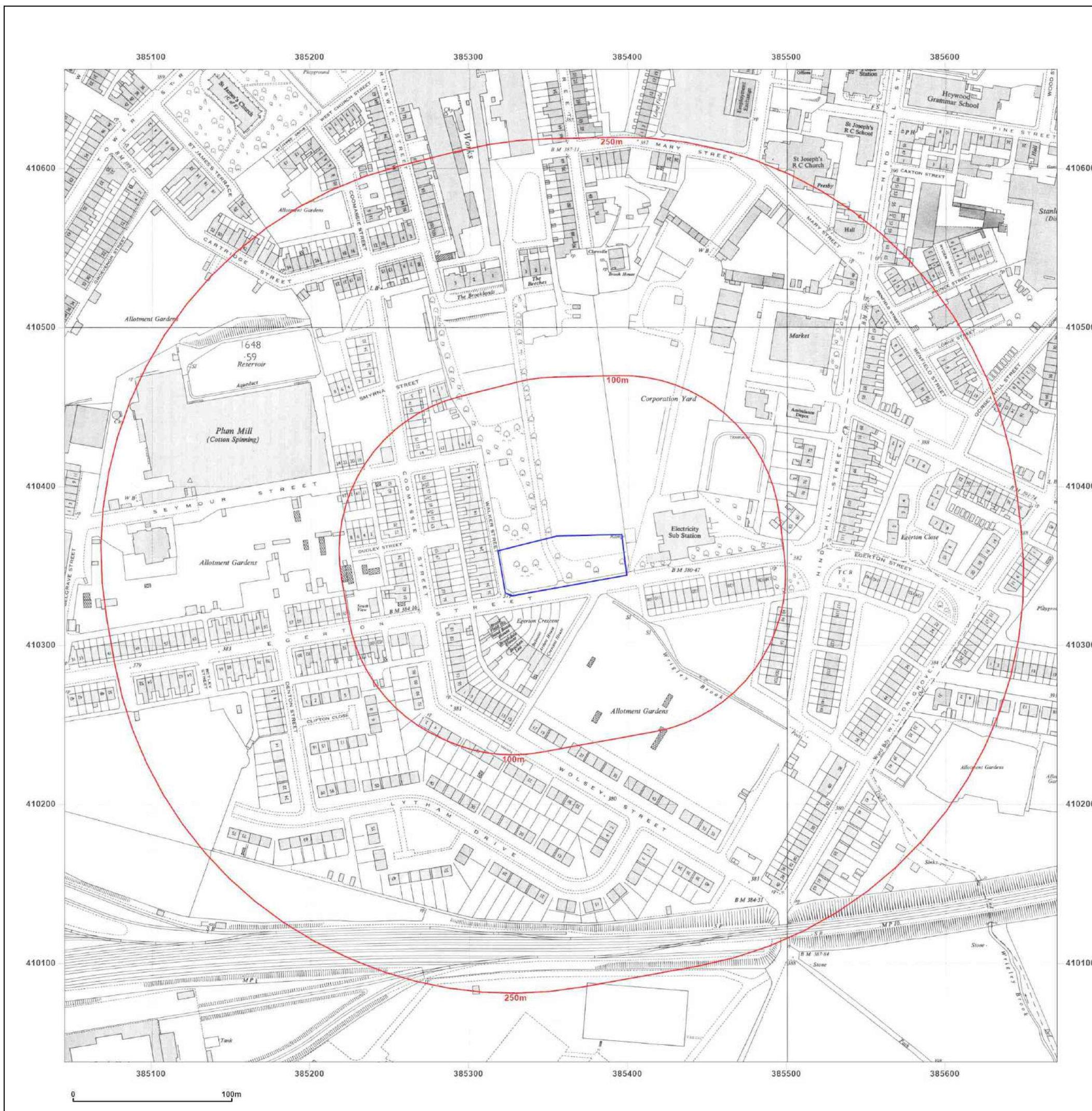


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Site Details:

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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1971-1974

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1956
Revised 1972
Edition N/A
Copyright 1973
Levelled 1956

Surveyed 1956
Revised 1970
Edition N/A
Copyright 1971
Levelled 1962

Surveyed 1956
Revised 1973
Edition N/A
Copyright 1974
Levelled 1962

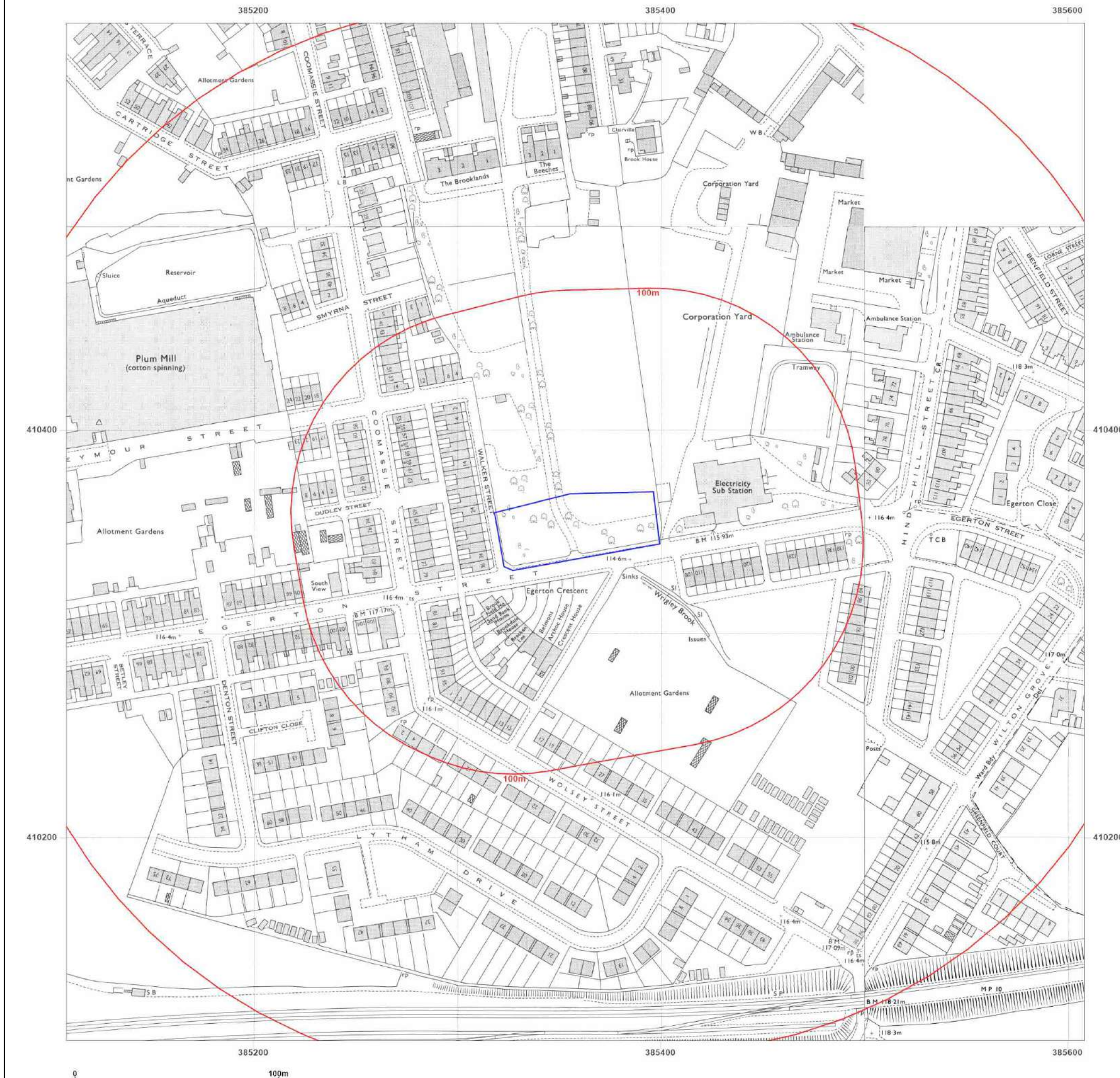


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Site Details:

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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1986-1988

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1962
 Revised 1986
 Edition N/A
 Copyright 1986
 Levelled 1962

Surveyed 1962
 Revised 1988
 Edition N/A
 Copyright 1988
 Levelled 1962

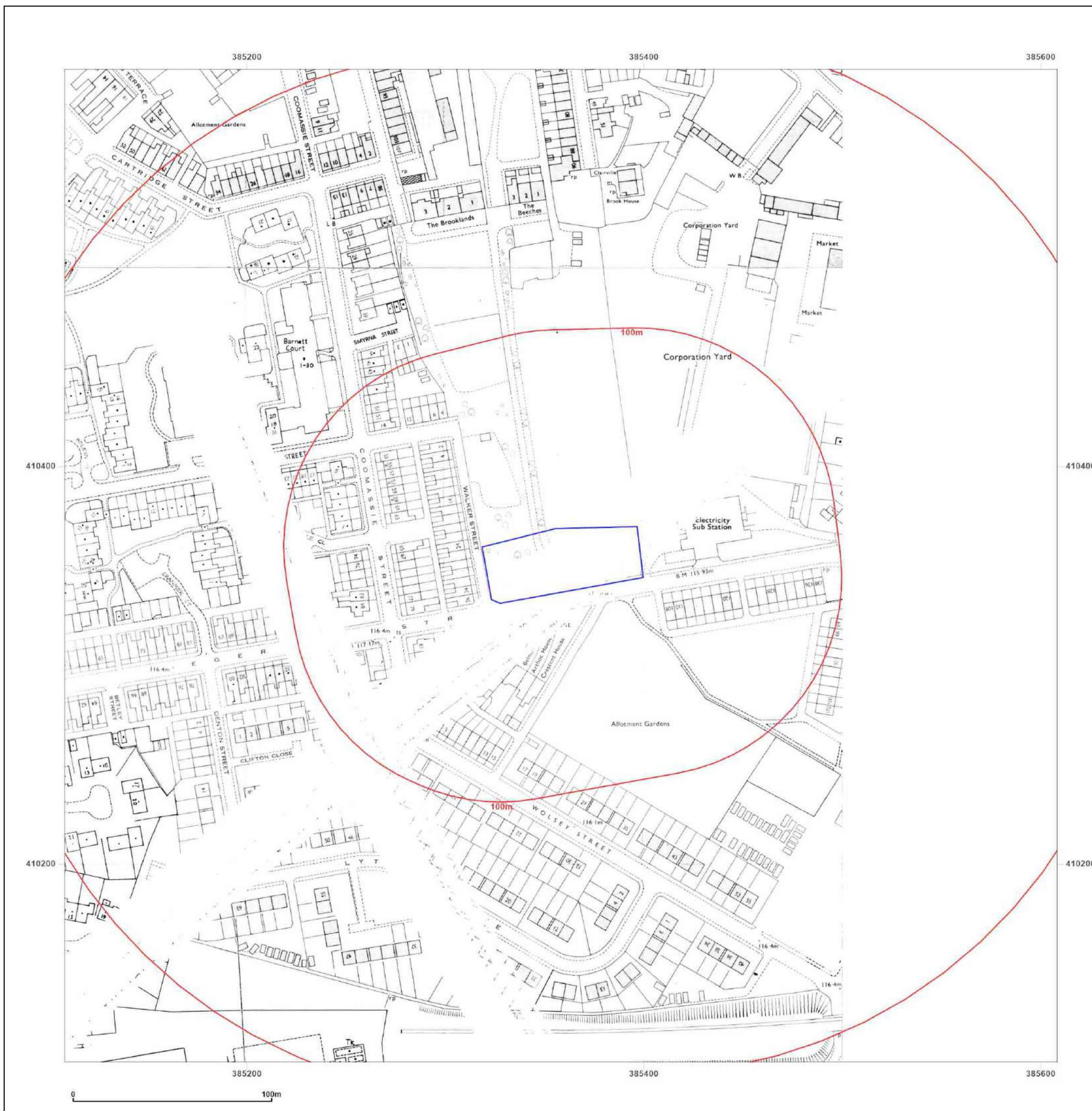


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Site Details:

Land off Holly Oak Gardens

Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1984-1989

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1962
Revised 1984
Edition N/A
Copyright 1984
Levelled 1962

Surveyed 1956
Revised 1989
Edition N/A
Copyright 1989
Levelled N/A

Surveyed 1962
Revised 1985
Edition N/A
Copyright 1985
Levelled 1962

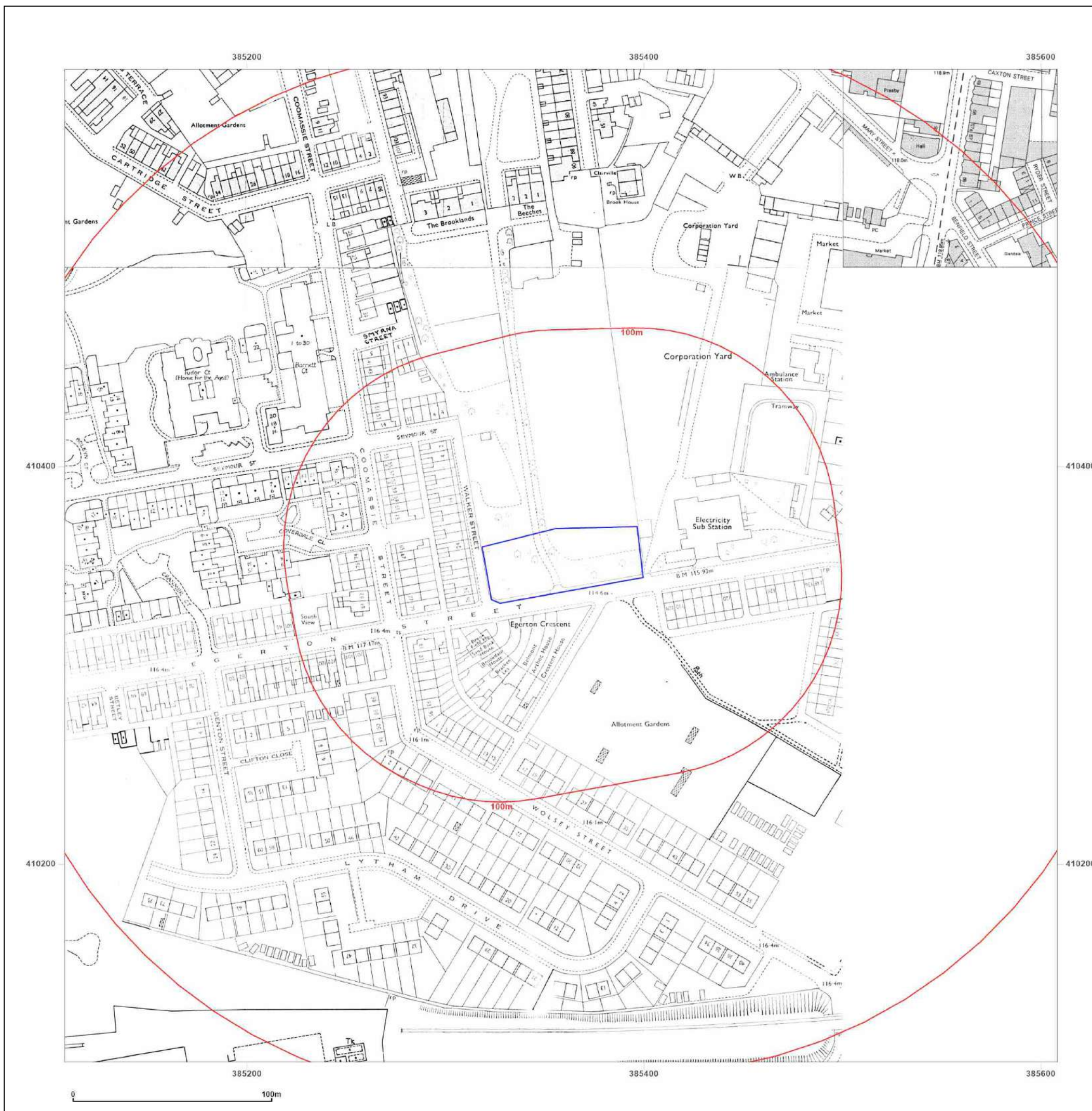


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Site Details:

Land off Holly Oak Gardens

Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1985-1990

Scale: 1:1,250

Printed at: 1:2,000



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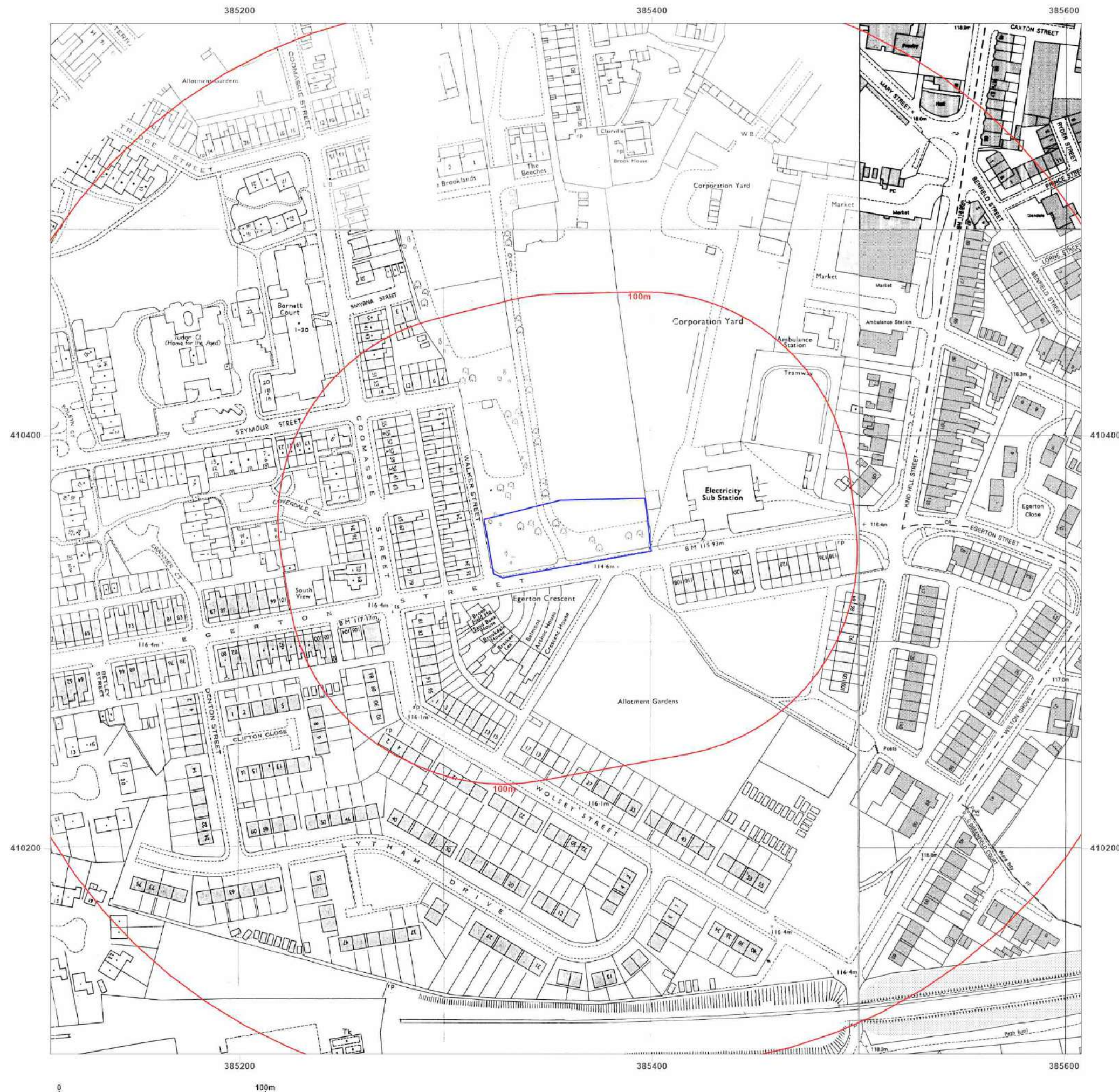


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Site Details:

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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1990-1992

Scale: 1:1,250

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Site Details:

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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1992

Scale: 1:1,250

Printed at: 1:2,000



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Site Details:

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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1994-1995

Scale: 1:1,250

Printed at: 1:2,000



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Site Details:

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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1994-1995

Scale: 1:1,250

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Site Details:

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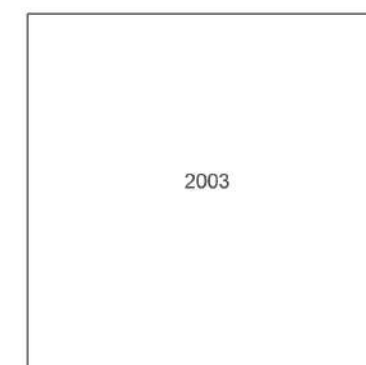
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Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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Site Details:

Land off Holly Oak Gardens

Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: County Series

Map date: 1851

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1847
Revised N/A
Edition 1851
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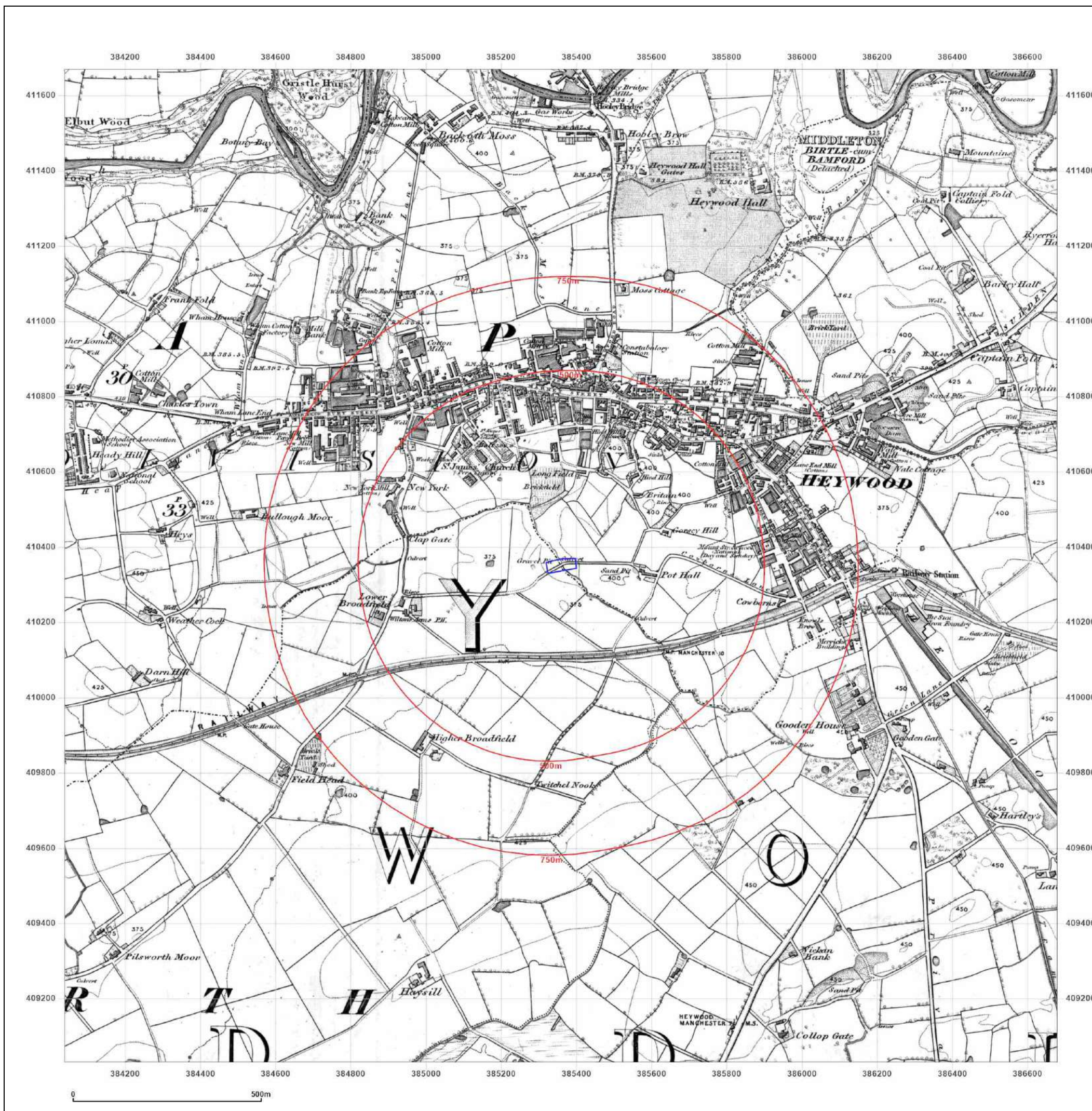


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Site Details:

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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: County Series

Map date: 1890-1891

Scale: 1:10,560

Printed at: 1:10,560



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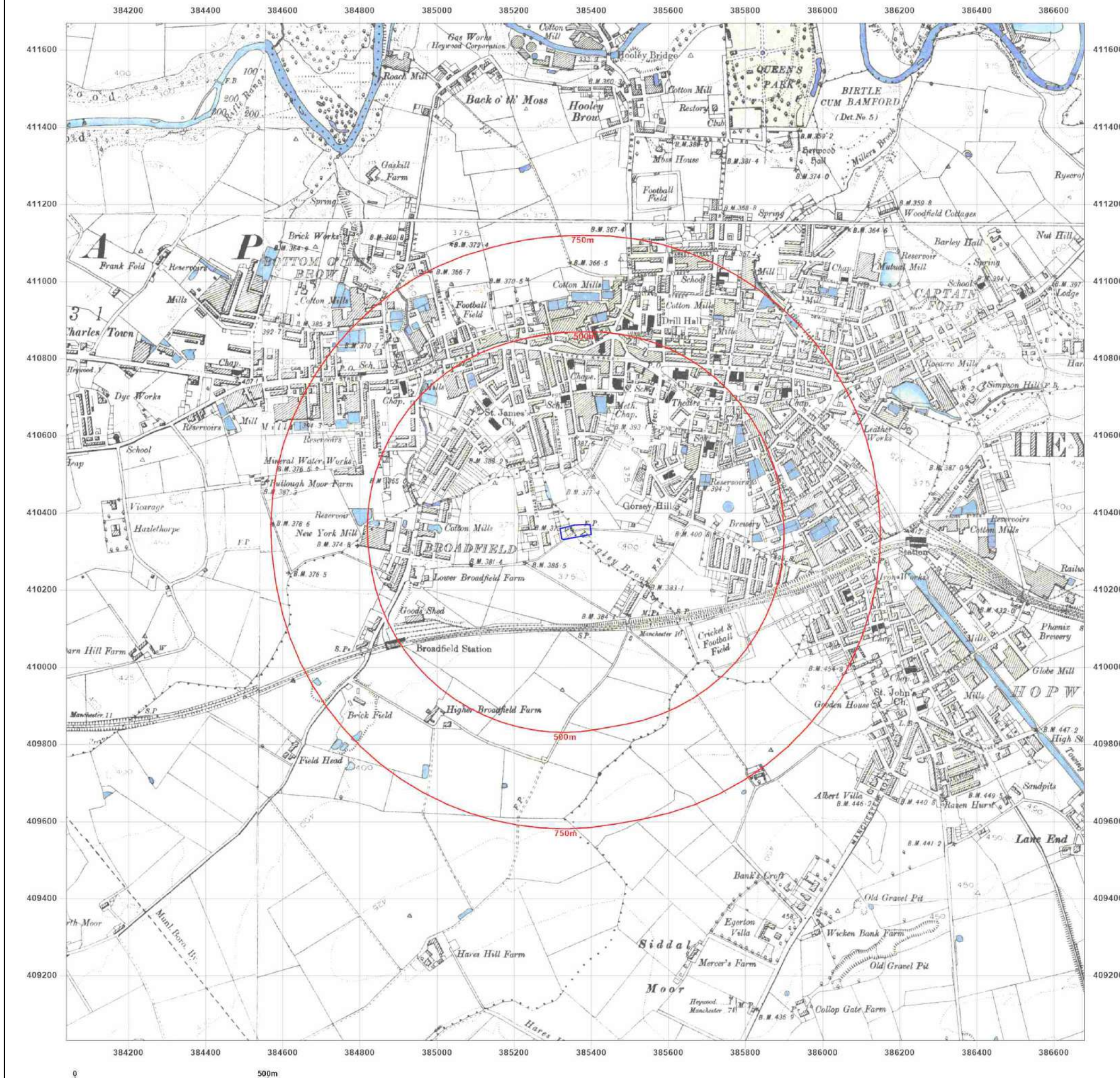


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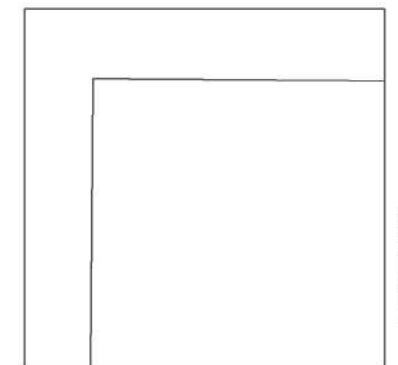
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Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: County Series

Map date: 1909

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1909
Edition N/A
Copyright N/A
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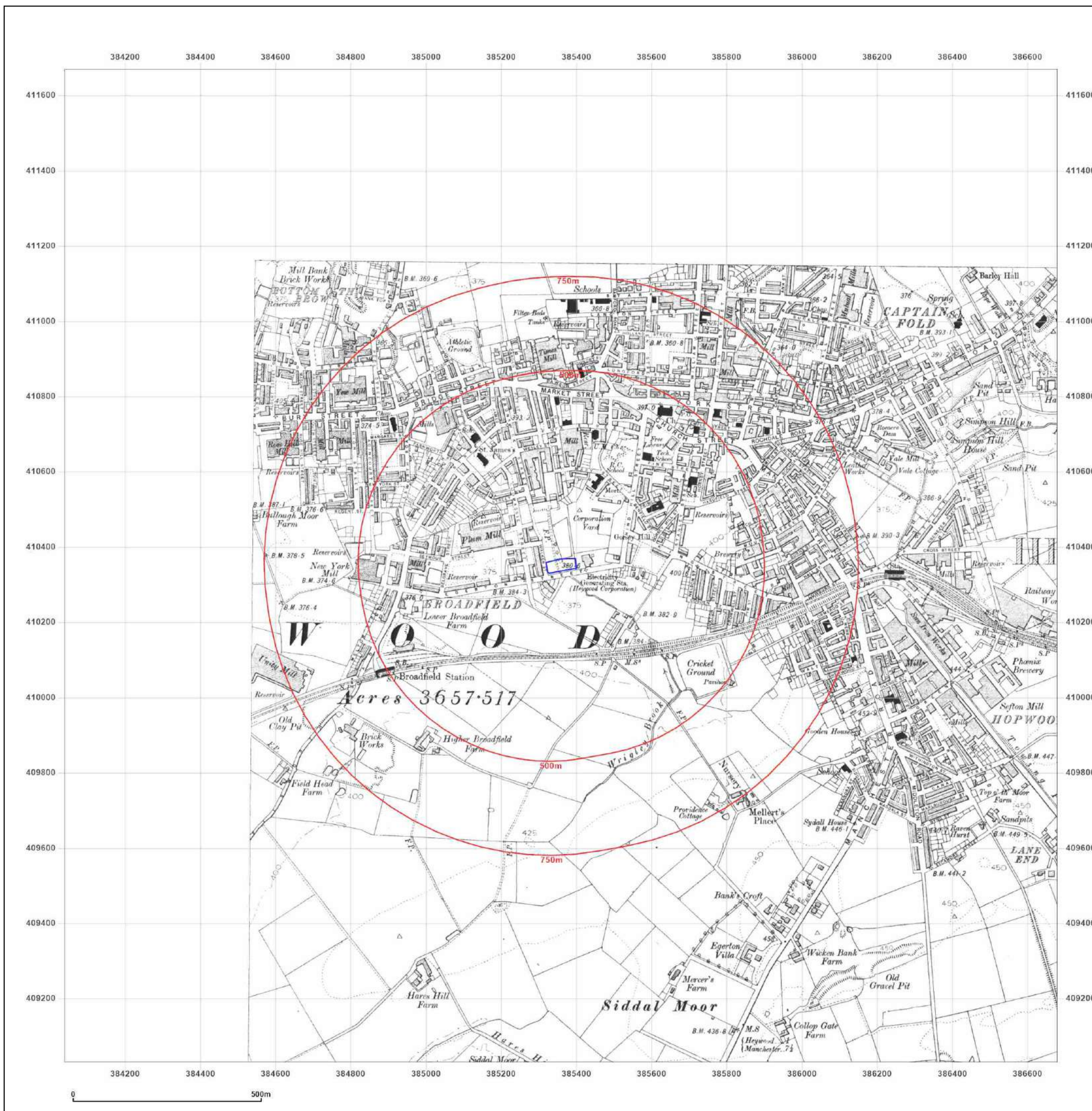


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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: County Series

Map date: 1928

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
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Edition N/A
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Surveyed 1848
Revised 1928
Edition N/A
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Revised 1928
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Revised 1928
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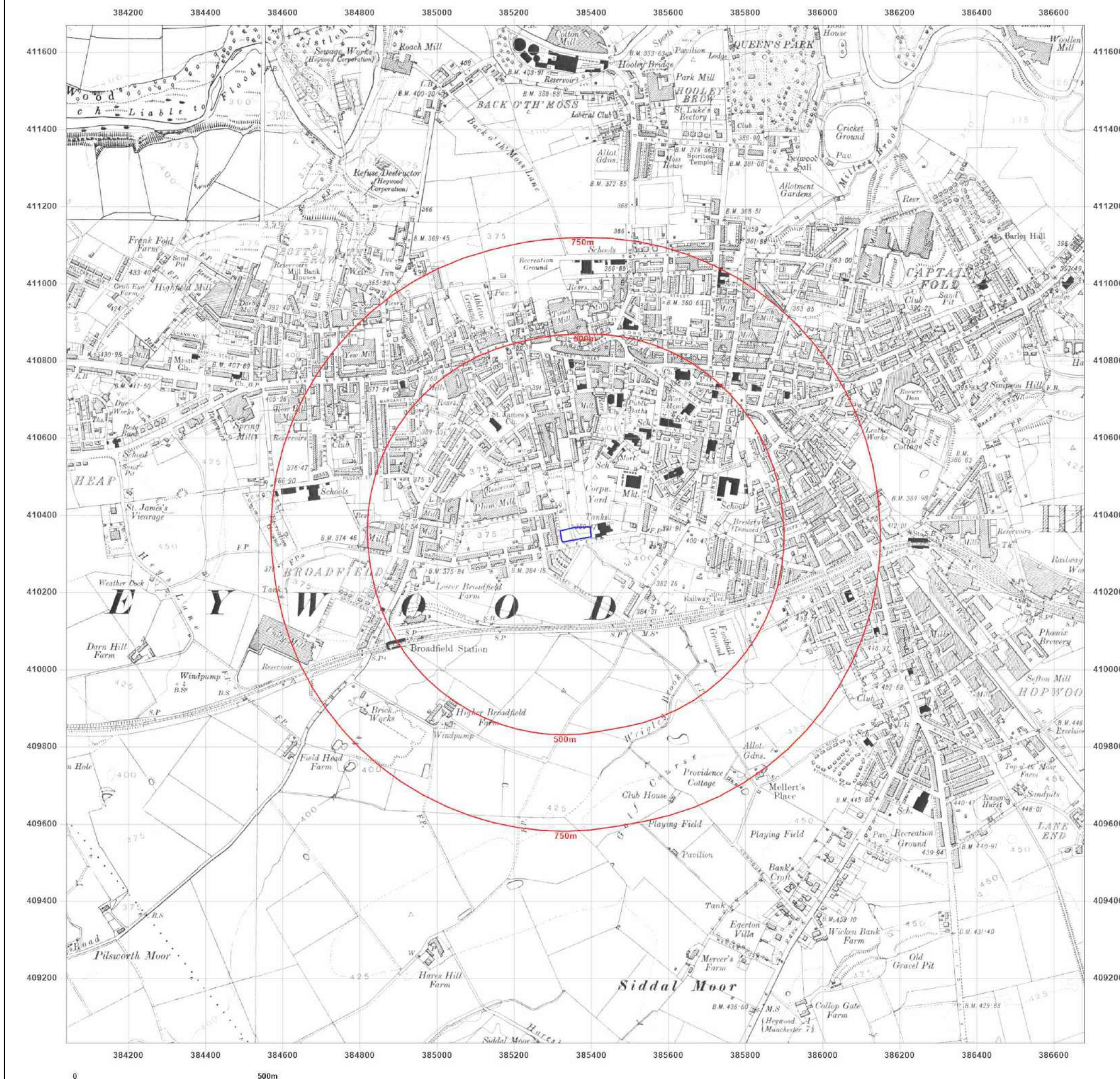


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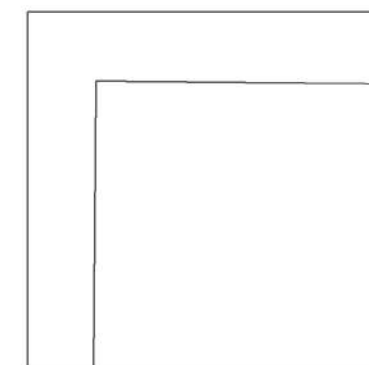
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Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1848
Revised 1938
Edition N/A
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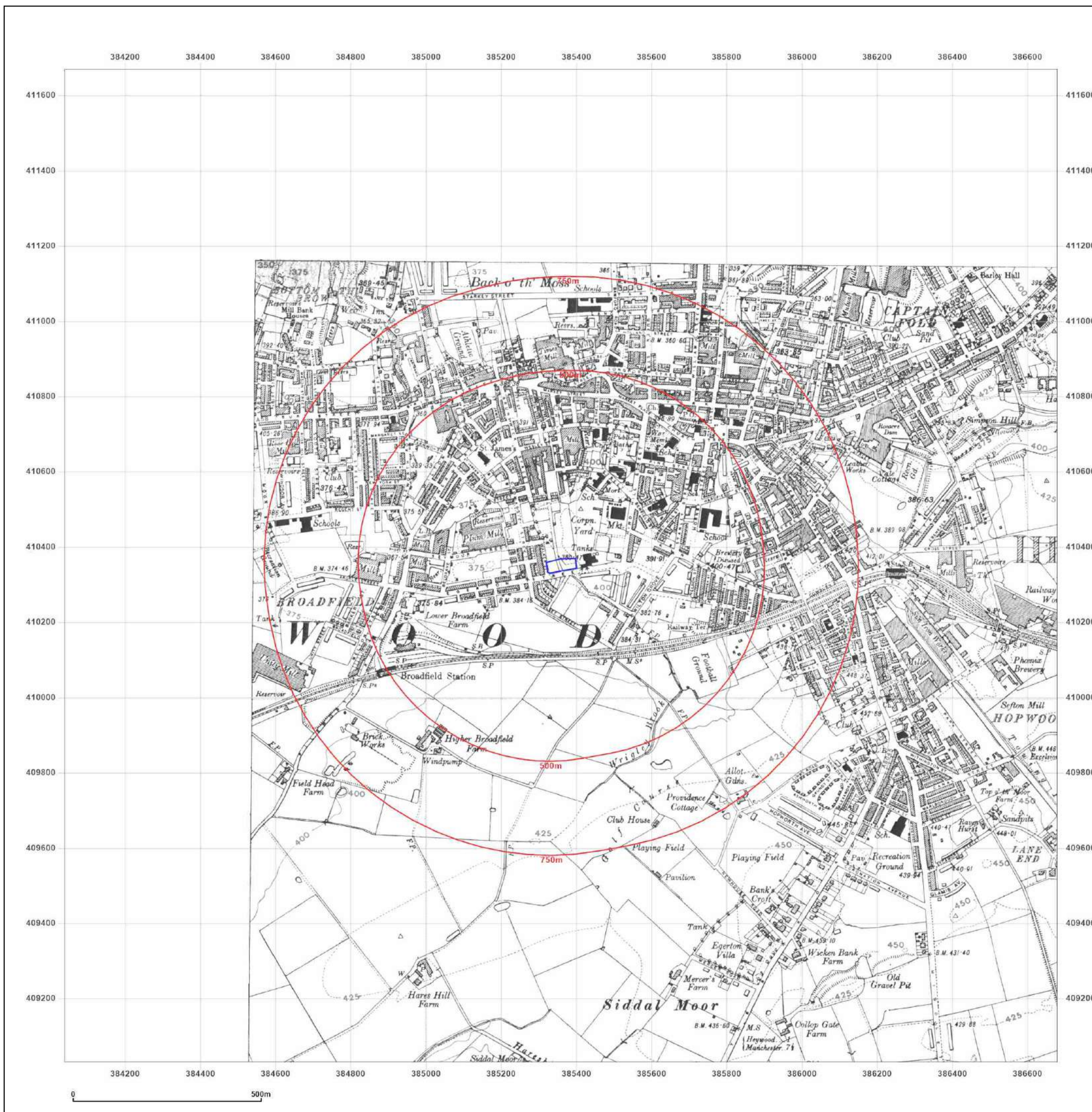


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Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: Provisional

Map date: 1955-1956

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1949
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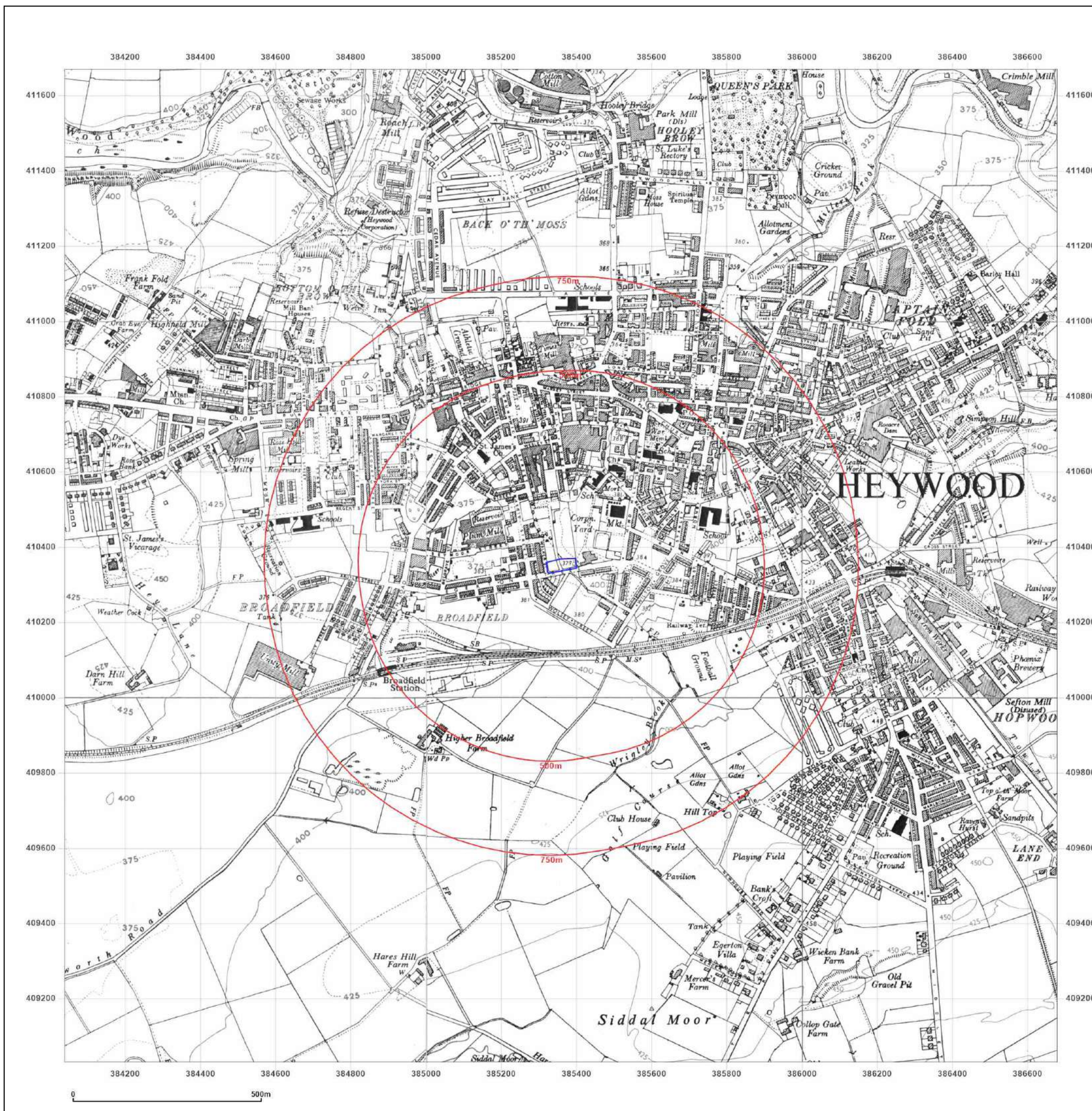


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Client Ref: Land off Holly Oak Gardens
Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: Provisional

Map date: 1965-1968

Scale: 1:10,560

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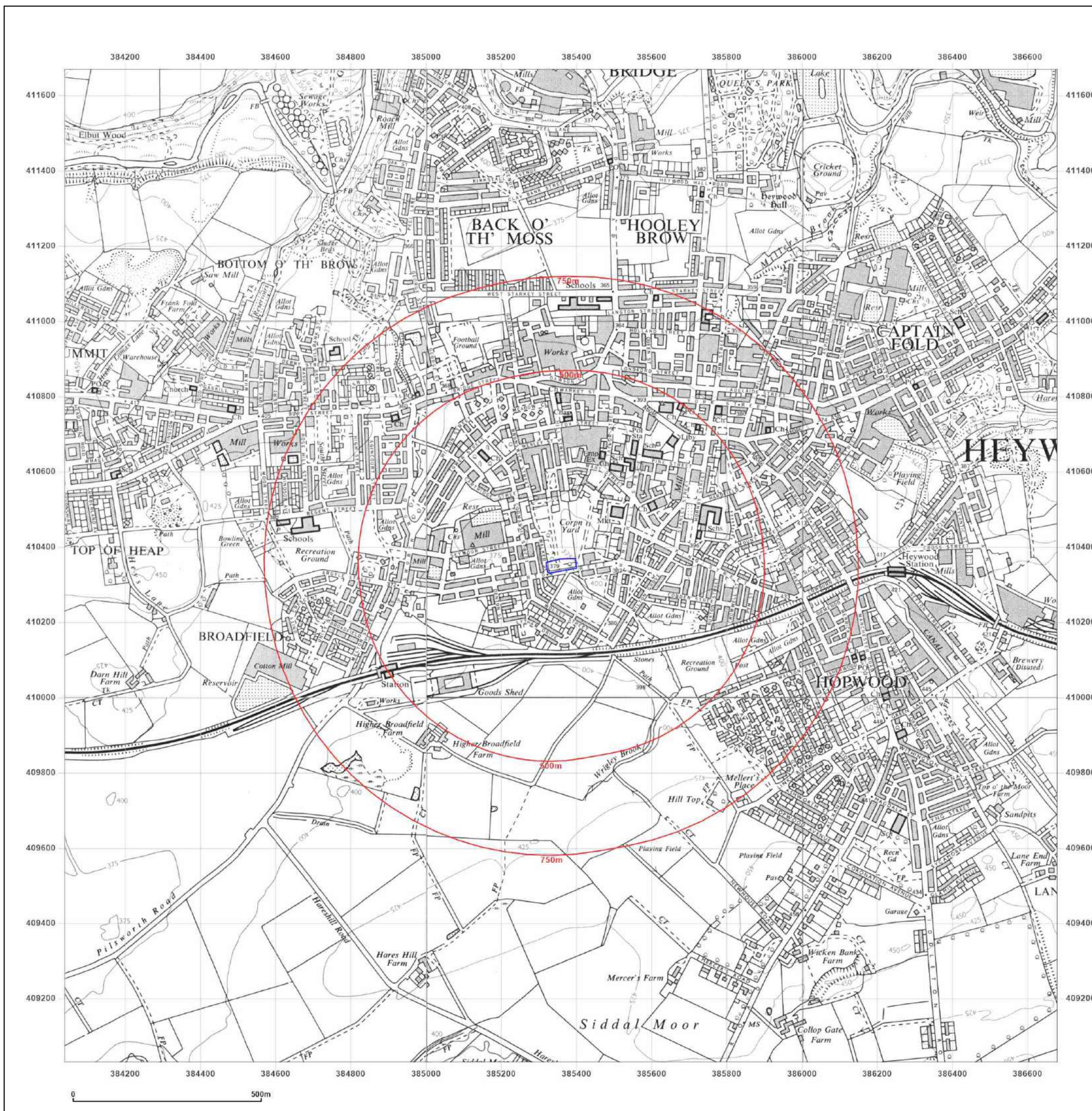


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Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 1974-1975

Scale: 1:10,000

Printed at: 1:10,000



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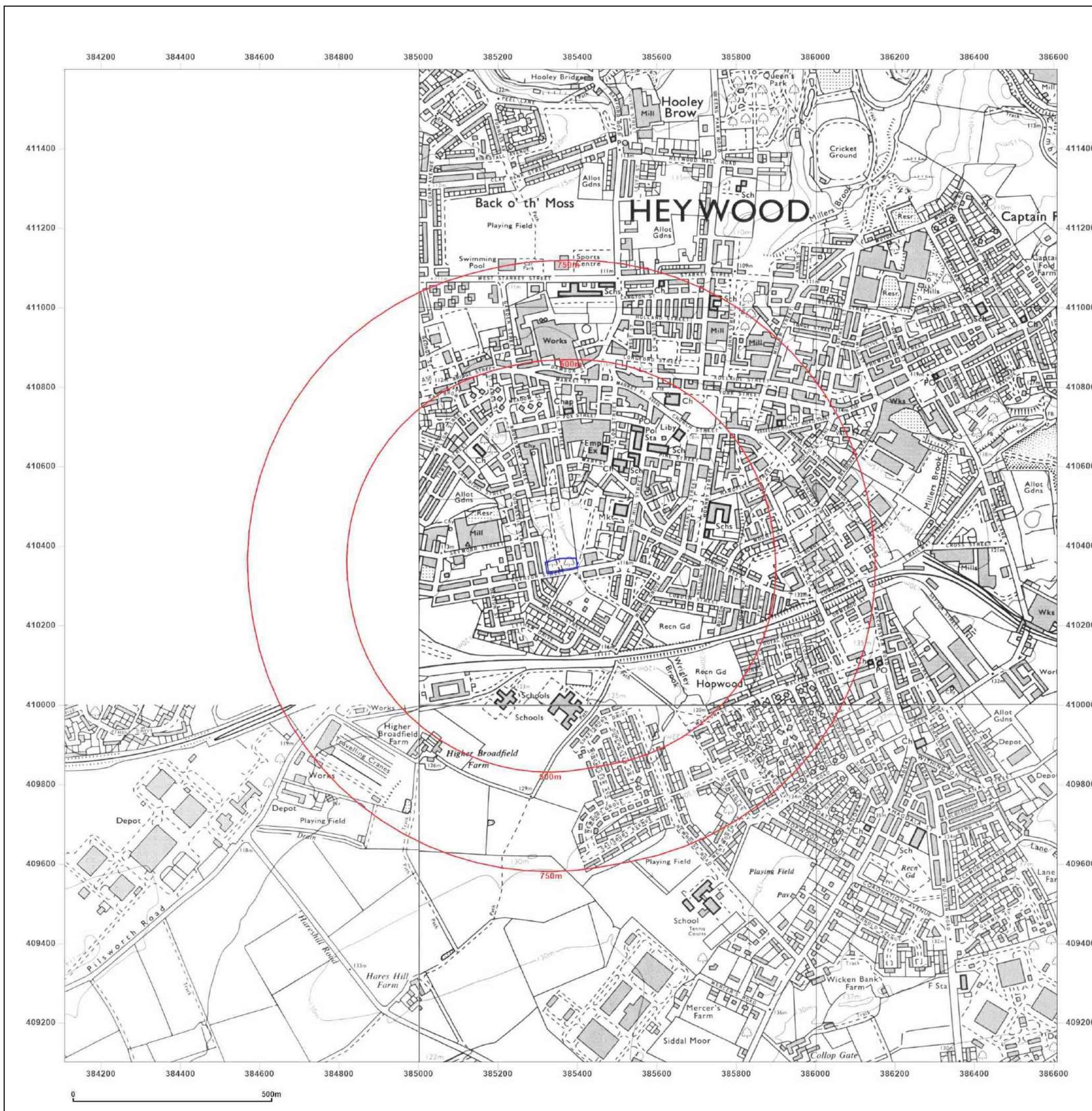


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Site Details:

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Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

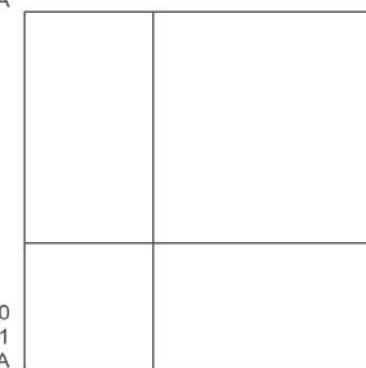
Map date: 1981-1983

Scale: 1:10,000

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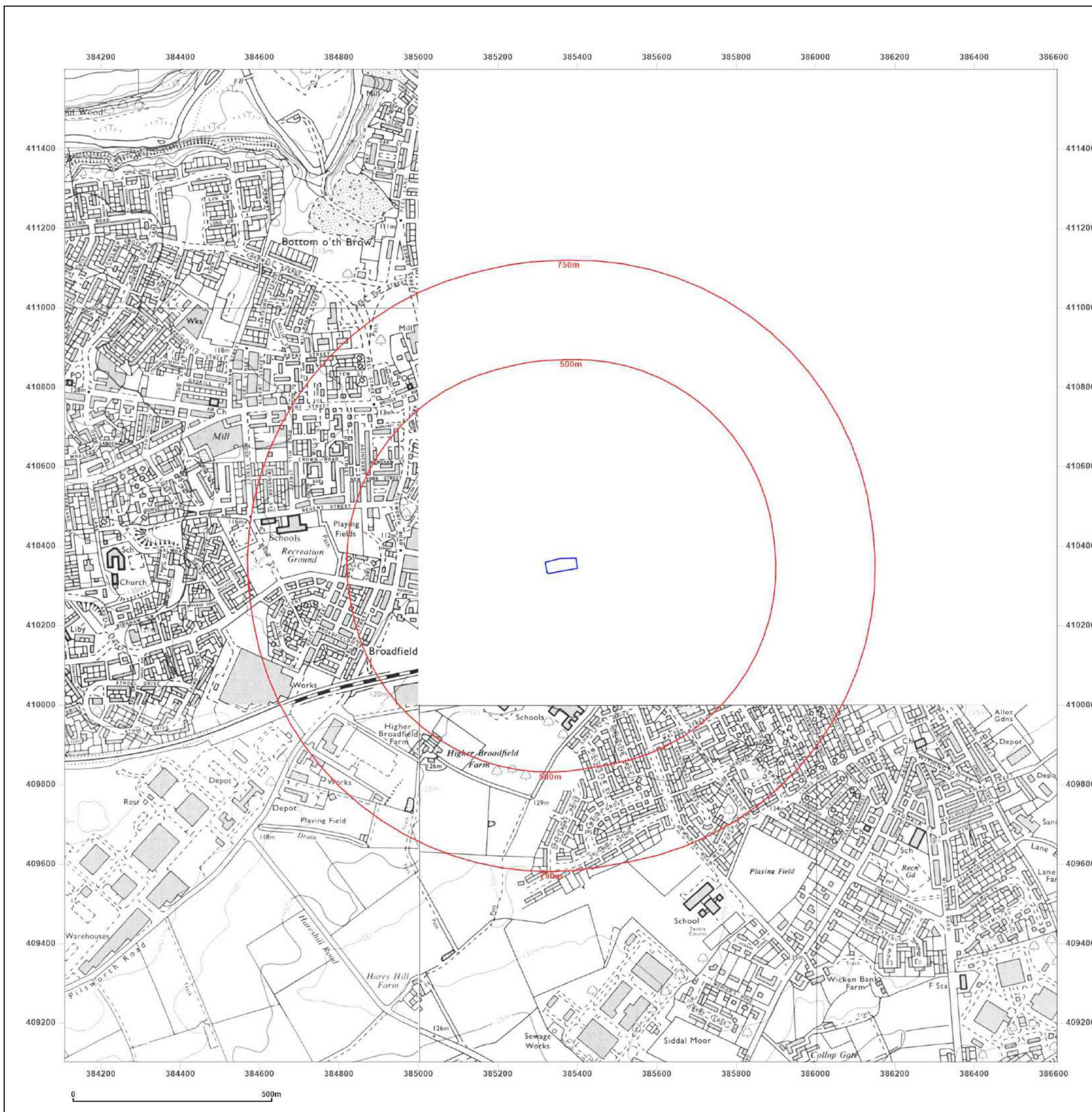


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Report Ref: GS-684-GVF-ZZK-E8Z
Grid Ref: 385358, 410350

Map Name: National Grid

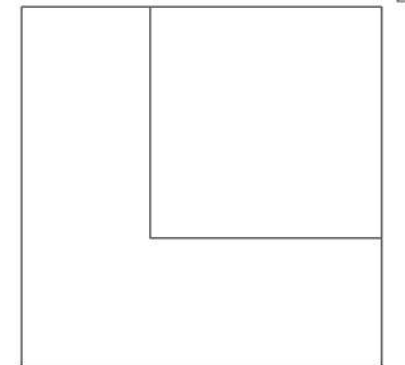
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Site Details:

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Land off Holly Oak Gardens

Report Ref:

GS-684-GVF-ZZK-E8Z

Grid Ref:

385358, 410350

Map Name:

National Grid

Map date:

1992

Scale:

1:10,000

Printed at:

1:10,000



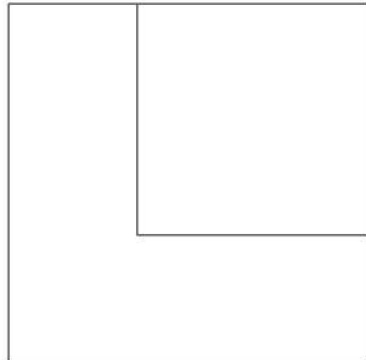
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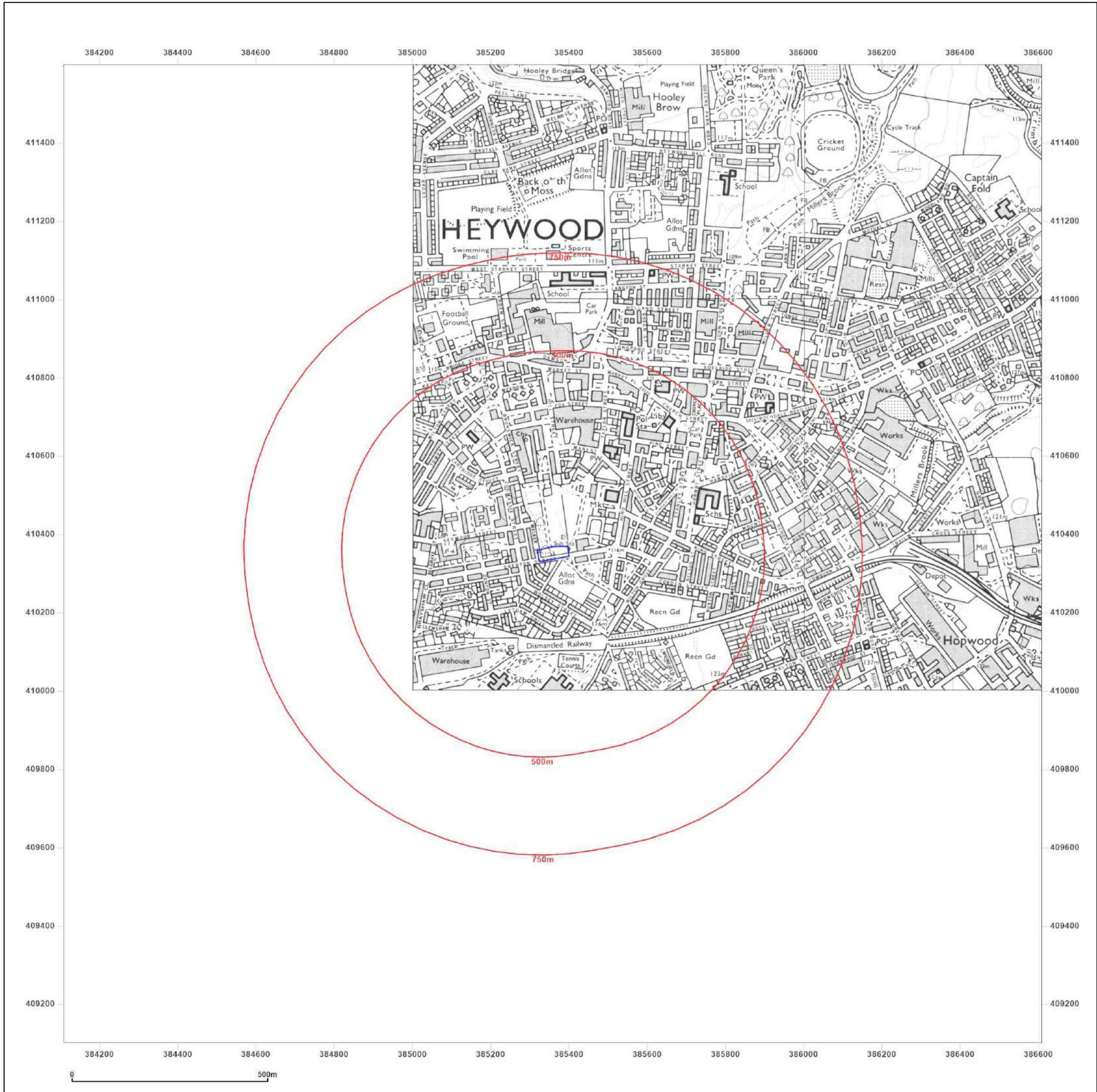
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Grid Ref: 385358, 410350

Map Name: National Grid

Map date: 2025

Scale: 1:10,000

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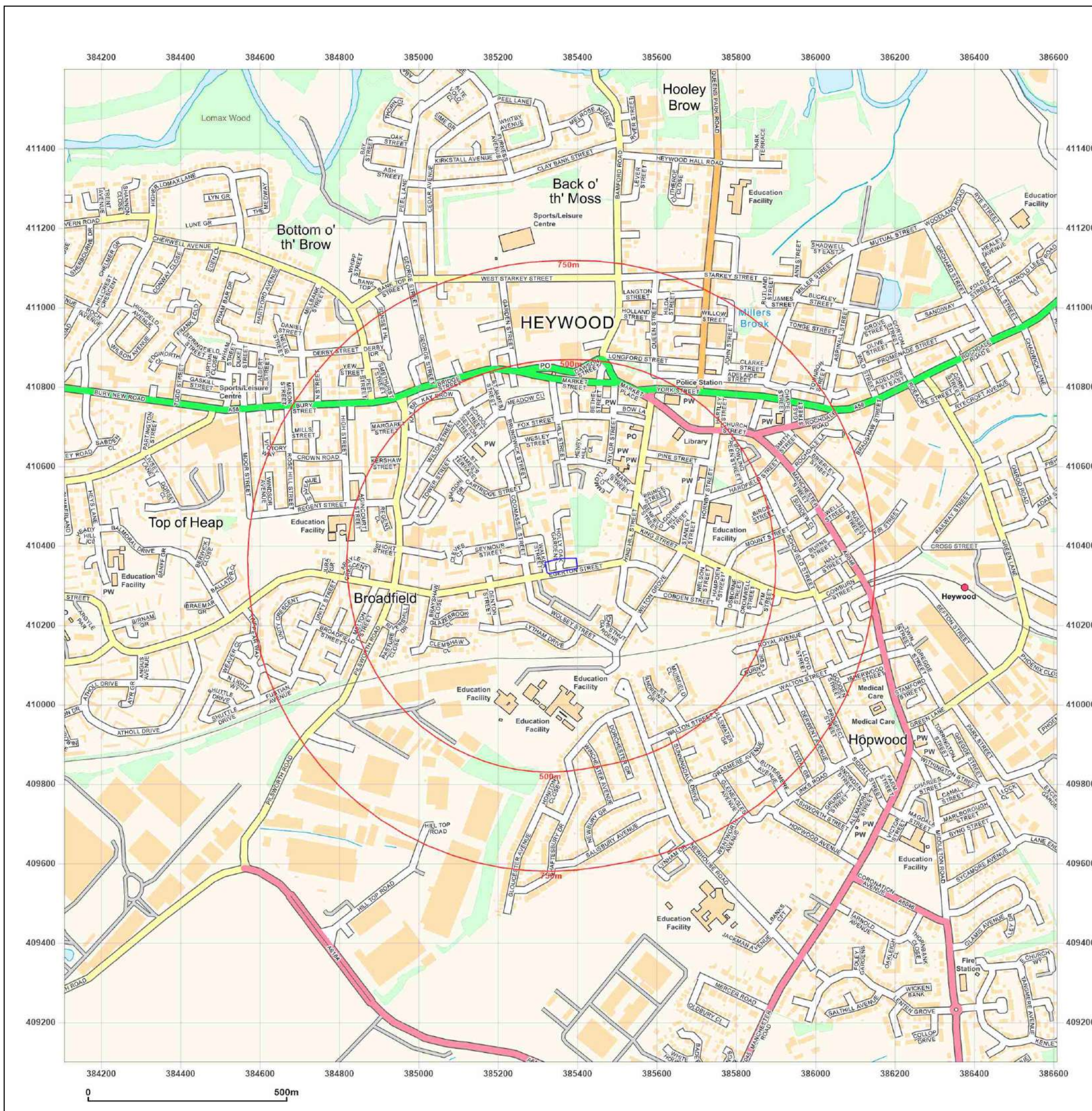


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APPENDIX C – Preliminary Conceptual Model

Potential receptor	Comments	Include in PCM
Property		
On site		
Crops	None intended on site	
Domestic produce	May be grown in residential gardens	X
Livestock	None anticipated on site	
Domestic animals	May be owned by residents	X
Game	None on site	
Off site		
Crops	No adjacent farmland	
Domestic produce	Possibly in houses adjacent to the site	X
Livestock	None	
Domestic animals	May belong to adjacent residents	X
Game	None	
Property: Buildings		
On site		
	Residential properties, services, flora, fauna	X
Off site		
	Residential properties, services, flora, fauna	X
Humans		
On site		
Residents	Future residents	X
Construction workers	During ground investigations	X
Employees	Landscape gardeners	X
Surface water users	No current surface water abstractions located on site	
Off Site		
Residents	Residents adjacent to site	X
Recreational users	Recreational walkers	X
Groundwater users	No groundwater extraction sites	
Controlled waters		
On site		
Surface waters	No surface water features on site	
Groundwater	The underlying superficial geology and bedrock Aquifer are classified as a Secondary A Aquifer. These both represent significant potential receptor.	X
Off site		
Controlled waters	There are 19 surface water features recorded within 250m of the site. The most significant ones are River Roch which forms the site boundary and the Rochdale Canal within 50m of the site. These are both potential receptors.	X
Ecological systems		
On/off site		

SSI, nature reserves, SACs etc	None within 250m of the site	
--------------------------------	------------------------------	--

Table A: Potential Receptors to be Considered in the Preliminary Conceptual Model

Link	Source	Hazard	Transport Mechanism	Pathway	Medium of exposure	Receptor	Risk Summary
1	Contaminated soils	Direct contact /ingestion of soil or dust	Direct contact with contaminated soils	Dermal contact/ingestion of soil at surface	Soil	Human (on site/ off site) domestic pets	Medium – potential in garden areas
2	Contaminated soils	Particulate inhalation	Wind blown particulates	Inhalation of particulates	Air	Human (on site/ off site) domestic pets	Low
3	Contaminated soils	Impaired produce growth	Uptake of contaminants by homegrown produce resulting in loss	Uptake during growth	Vegetable produce	Property (domestic produce)	Medium – potential homegrown vegetables
4	Contaminated soils	Ingestion of contaminants	Uptake of contaminants by homegrown produce	Consumption of home grown produce	Vegetable produce	Humans	Medium – potential homegrown vegetables
5	Contaminated soils / coal measures	Inhalation of ground gas	Degradation of contaminants generating ground gas through unsaturated zone to soil leading to inhalation	Inhalation of gases	Air	Humans (on site/off site, domestic pets)	Medium – potential shallow workings
6	Contaminated soils	Vapour inhalation	Volatalisation of organic compounds	Inhalation of vapours	Air	Human (on site/ off site) domestic pets	Low – no significant sources identified

			through unsaturated zone of soil leading to inhalation				
7	Contaminated soils	Damage of structures / services	Direct contact of contaminants with building structures/services	Direct contact	Soil/Water	Flora, services, concrete	Low – no significant sources identified
8	Contaminated soils	Degradation of perched water quality	Dissolution or suspension of contaminants into perched waters and migration to on-site and off-site receptors	Dissolution or suspension	Water	Perched waters, surface water	Low – no significant sources identified
9	Contaminated soils	Pollution of underlying groundwater	Dissolution or suspension of contaminants into groundwaters	Dissolution or suspension	Water	Groundwater	Medium – potential to Wrigley Brook

Table B: Preliminary Conceptual Model

**Relative screening and prioritisation for further investigation or assessment*

High	Higher probability of occurrence and identification of primary sources of contamination with respect to most sensitive receptors.
Medium	Pollutant linkage generally dependent on the presence of other primary pollutant linkages and/or where pollutant linkage generally associated with less sensitive receptors.
Low	Lower probability of occurrence such as based on requirement for significant migration pathway or where pollutant linkage requires the presence of source contaminants at concentration likely to be much higher than other identified pollutant linkages.