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Plans		
<i>Plan Reference</i>	<i>Revision</i>	<i>Title</i>
GRO-23019-P01	-	Project Location Plan
GRO-23019-P02	-	Preliminary Development and Constraints Plan
GRO-23019-P03	-	Illustrative Preliminary CSM

1.0 INTRODUCTION

1.1 Project Objectives

Groundtech Consulting Limited have been instructed by CCS Consulting to undertake a Preliminary Risk Assessment for a site at Withington Community Hospital: Community Diagnostics Centre in West Didsbury.

The objectives of the Preliminary Risk Assessment were to establish the sites environmental and geotechnical background in order to generate a Conceptual Site Model to identify any potential constraints and linkages which may affect the redevelopment of the site.

The report has been undertaken to fulfil the requirements of a preliminary risk assessment in accordance with LCRM "Land Contamination Risk Management".

1.2 Proposed Development

The proposed development is commercial end use comprising a two-storey building comprising a Community Diagnostics Centre (use class E(e)), with associated external landscaping, patient and delivery drop off area and 6 no. accessible parking spaces.



1.3 Limitations

This Preliminary Risk Assessment is based on information obtained from a number of sources, and the information is assumed to be correct.

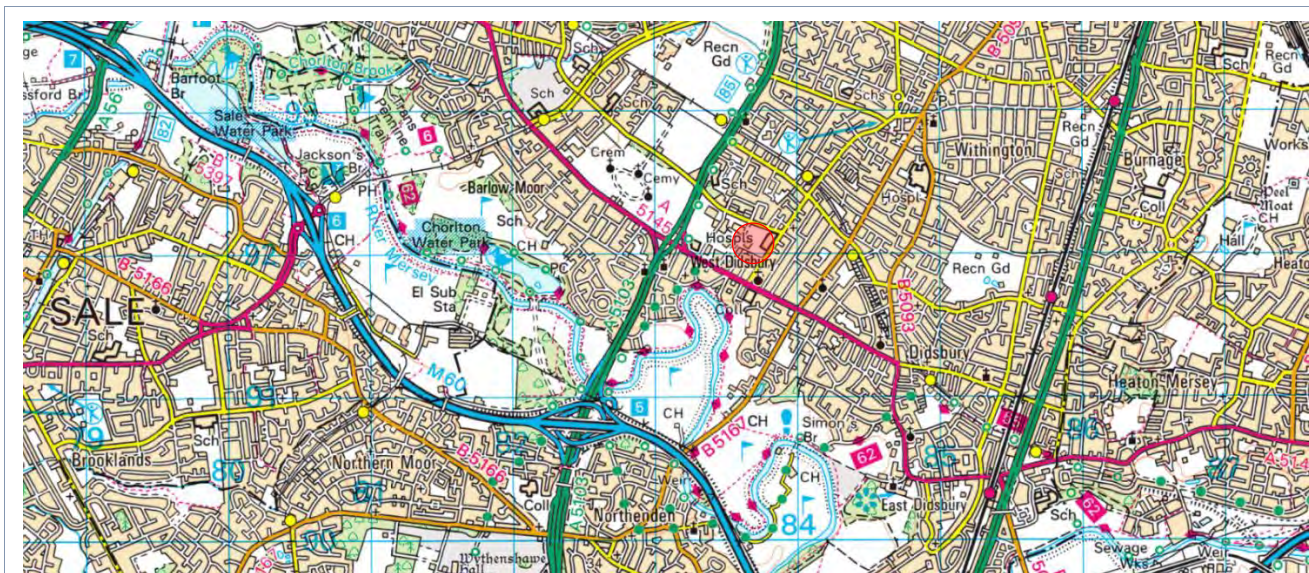
Other conditions may exist on the site that have not been taken into account in this assessment as they are outside the scope of works. Groundtech Consulting are not responsible for these circumstances that are not outlined in the report.

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2.0 SITE SETTING

2.1 Location

The site is located c.5.85km from Manchester City Centre, as shown on the Project Location Plan *GRO-23019-P01* and site is approximately centred on National Grid Reference 383735, 392007.



Project Location

Access to the proposed development area is gained off Nell Lane, through Withington Community Hospital car park, to the north of the site.

2.2 Site Description

The site is irregular in shape and covers an area of 0.56 hectares. The topography gently slopes upwards towards the centre of the site and has likely been created as a result of previous buildings on site being demolished.

Onsite Features

The site is currently disused and heavily overgrown with weeds, moss and young trees. Semi-mature trees line the east, south, and west borders. There is the potential for invasive plant species to be present amongst the undergrowth however, given the time of year this is difficult to identify at this stage.

A manhole cover was identified in the northern part of the site.

No other significant features are present onsite.

Boundaries and Surrounding Land Uses

The southern boundary is marked by metal security fencing whilst the remaining boundaries are formed by vegetation.

The site is surrounded by following features/land uses:

- North - Withington Community Hospital and hardsurfaced car parks.
- East - Residential properties.

- South - Residential properties.
- West - Care home.

Photographs are presented in *Appendix 2*, and any relevant features are recorded on the Preliminary Development Constraints Plan *GRO-23019-P02*.

3.0 ENVIRONMENTAL SETTING

3.1 Site History

Available historical maps have been obtained, a list of dates and scale are listed in the table below:

Scale	Date
1:1,250	1971, 1982, 1985, 1987, 1992, 1994, 2003.
1:2,500	1881, 1894, 1907, 1910, 1922, 1933, 1955, 1958.
1:10,000/10,560	1849, 1892, 1897, 1905, 1908, 1911, 1923, 1934, 1938, 1955, 1965, 1981, 1988, 2001, 2010, 2023.

The plans were examined and potential issues have been identified and summarised in the table below:

Date	Site	Surrounding Area
1881	Undeveloped land. Trees bordering to the east and south of the site.	Predominantly surrounded by open land. Roads c.10m east and south. Residential buildings 90m east.
1894	No change.	Residential housing between c.20m to 100m east and south.
1907	No change.	Chorlton Union Workhouses c.100m west.
1955	Government buildings dominate the site together with a small gantry in the central area.	Significant development of government buildings extending northwards from the four rectangular buildings onsite.
1971	No significant change.	Further development of the residential buildings to the south. Water tower c.70m north. Electricity substation c.140m north.
1982	South western building depicted as the Unemployment Benefits Office.	Care home c.50m west. Workhouses to the west demolished and replaced with a school.
1987	Electricity substation in the western area.	Electricity substation c.130m west.
2003	Buildings and substation are no longer shown, presumably being demolished .	Government buildings and substation to the north are no longer shown, presumably being demolished .
2023	Site remained undeveloped.	Health Institution and car park to the north.

The historical plans are presented in Appendix 3.

3.2 Geology

The following British Geological Survey (BGS) records and other available information were inspected to accurately determine the geology underlying the site:

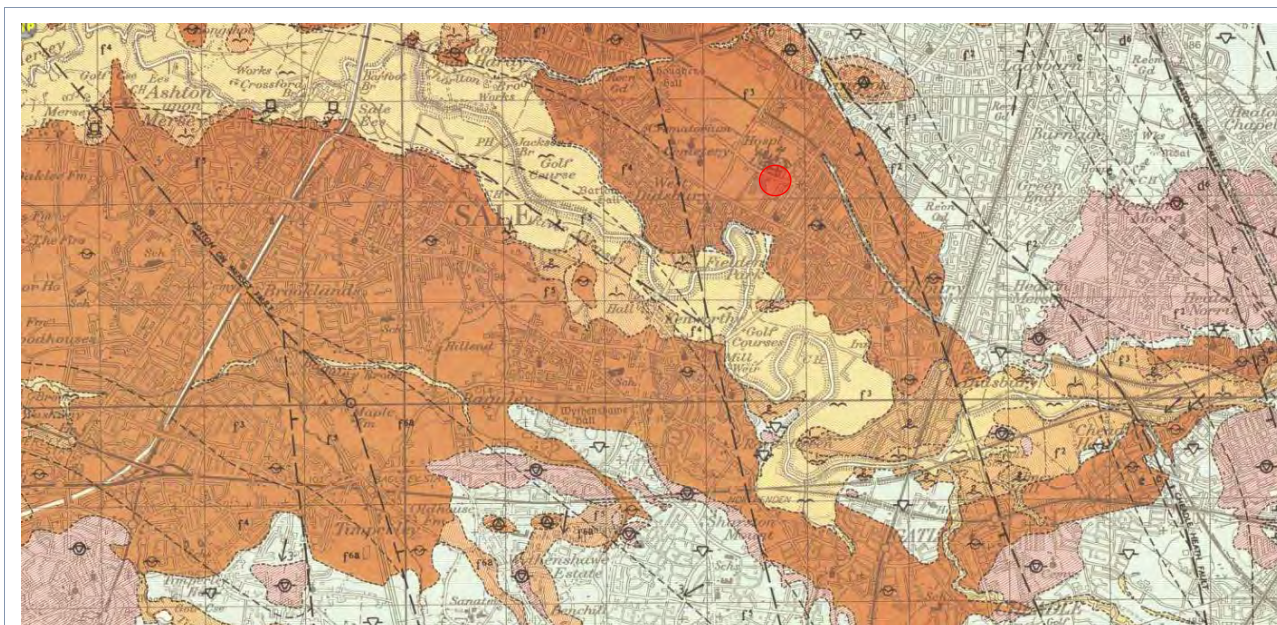
- 1:50,000 Scale Geological Sheet 98, Stockport – Solid and Drift Edition.
- BGS Records.

Made Ground

Made Ground is not indicated to be present beneath the site on the available geological plans. However, a significant thickness may be present associated with the demolition of the Government Buildings that were present onsite.

Superficial Deposits

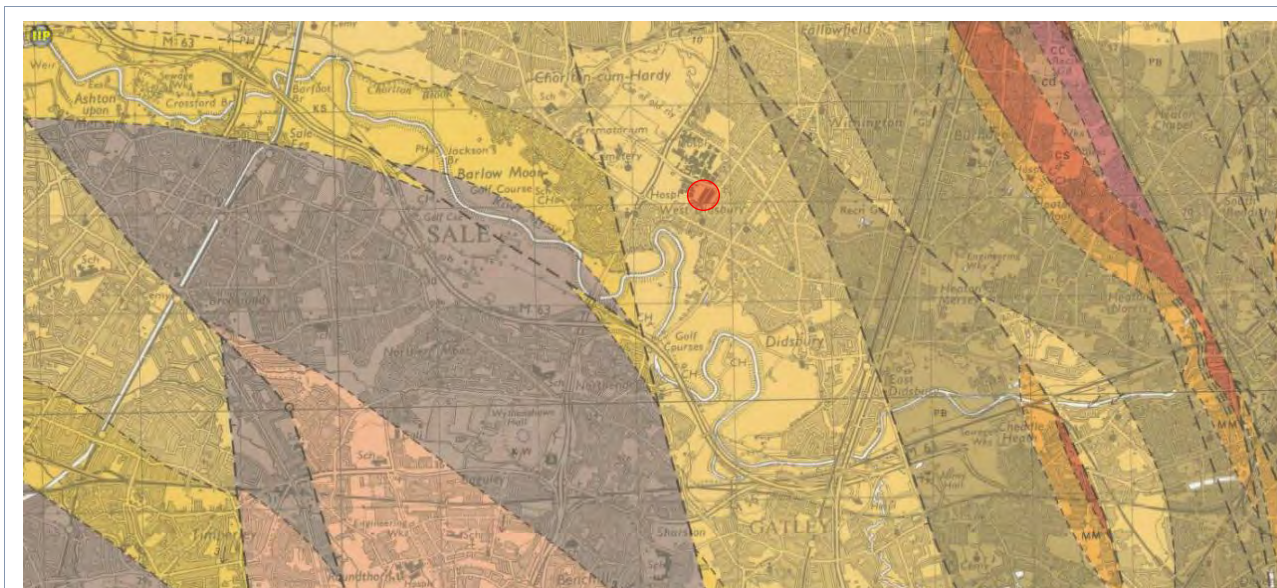
The site is indicated to be underlain by Glaciofluvial Sand and Gravel deposits.



Geological Map – Superficial Deposits

Solid Geology

The solid geology is the Wilmslow Sandstone Formation.



Geological Map – Solid Geology

Geological Faults

No geological faults are shown on or within an influencing distance of the site.

BGS Records

BGS records show there is one borehole circa 45m to the north east of the site and it indicates Made Ground to a depth of 2.2m bgl underlain by very loose Sand to 2.7m bgl and medium dense Sand to 3.9m bgl. These granular

soils are underlain by stiff Clay to 6.55m bgl where the borehole was terminated. Groundwater was encountered at 3.2m bgl.

The BGS records are presented in *Appendix 4*.

3.3 Hydrogeology

The superficial Glaciofluvial Sand and Gravel deposits in this area are classified by the Environment Agency as a Secondary A Aquifer. These are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.

The Wilmslow Sandstone Formation is classified as a Principal Aquifer. This is geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally, principal aquifers were previously major aquifers.

The soils beneath the site are classified as having a high leaching potential. These are soils which have little ability to attenuate diffuse source pollutants and therefore have the potential to allow pollutants to move rapidly.

The site does not lie within 500m of a Source Protection Zone.

There are two active groundwater abstraction licences within 2000m, the nearest being 1438m west at Chorlton-Cum-Hardy Golf Club.

No potable water abstractions are present within 2000m of the site.

3.4 Hydrology

There are no surface water features within 250m of the site.

There are no active surface water abstraction licences within 2000m of the site.

Environment Agency information indicates that the site is outside a flood risk zone and is not at risk of flooding. The Risk of Flooding from Rivers and Sea (RoFRaS) is negligible.

3.5 Environmental Consultations

A request has been submitted to the Contamination Land Officer at Manchester City Council for information pertaining to the site, this information will be forwarded upon receipt.

An environmental search has been conducted through Groundsure, which accesses British Geological Survey and Environment Agency databases. The complete Groundsure Report can be found in *Appendix 5* and a summary of the more relevant points are presented in the table below.

Record	<250m	250 – 500m	Description
<i>Authorised Processes</i>	0	0	-
<i>Radioactive Substance Authorisations</i>	0	3	<i>Licensed keeping, use, and disposal of radioactive waste between 1991 and 2015, 263m to the north west.</i>
<i>Pollution Incidents</i>	0	0	-
<i>Landfill and Waste Treatment</i>	0	1	<i>A historic waste site was located 397m north west at Paupers Wood relating to composting.</i>

Record	<250m	250 – 500m	Description
Discharge Consents	0	10	All licensed discharges are c.450m to the south west with the effluent type being sewage discharge from storm overflows.
Petrol Filling Stations	1	1	Active petrol station 240m south west and an obsolete station 443m north west.
Current Industrial Uses	10	N/A	Hospital 65m north east. Electricity substation 117m north.

3.6 Radon

In accordance with the latest Radon maps launched by UKHSA in December 2022, the site falls in an area where an less than 1% of homes exceed the Radon Action Level. Therefore, the subject site is situated in an area not requiring Radon protection measures in new dwellings.

The radon data in the Groundsure report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland, the Groundsure report confirms that no radon precautions are required. 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).

3.7 Coal Authority Consultation

The site is outside the area of a designated coalfield, the Law Society and Coal Authority state a mining search is not required.

3.8 UXO Risk

The site lies in an area potentially at risk from UXO therefore, a Preliminary UXO Risk Assessment has been commissioned and can be found in *Appendix 6*. A summary of the main findings is below.

During WWII, the site was located within the County Borough of Manchester. According to official Home Office bombing statistics, this borough sustained an overall low density of bombing with an average of 27.1 items of ordnance recorded per 1,000 acres.

Although Manchester bomb mapping records several firebombs falling across properties on Moorfield Road approximately 55m south west of the site, there is no positive evidence to suggest that these fell on the site itself, though given the open nature of the site this cannot be fully discounted.

Given the oversight from properties on neighbouring roads, it is anticipated that the site would have had a good level of coverage. Although dependent on the vigilance of individual residents, this would increase the likelihood that evidence of UXO would have been spotted, reported and dealt with.

Given the low density of bombing across the borough, with no positive evidence found to suggest any bombing occurred directly on site, the risk of encountering UXO is not considered significant enough to warrant further research.

However, given the open nature of the site and the firebombs that fell over Moorfield Road, UXO awareness briefings are recommended as a sensible precaution.

4.0 LAND QUALITY CONCEPTUAL SITE MODEL AND RISK ASSESSMENT

4.1 Introduction

The potential level of risk posed by contaminants in soil and/or groundwater will be influenced by the type and concentration of the contamination at source, the likelihood of exposure occurring, the potential pollution linkages and the likely chronic or acute effects on the receptors.

A contaminant is defined as a substance that has the potential to cause harm, a risk is considered to exist if such a substance is present at sufficient concentrations to cause harm and if a pathway is present a receptor could be exposed to the contaminant.

Section 4.0 compiles the information from the previous sections to assemble a Conceptual Site Model to inform the risk assessment process. The potential sources identified on the site and off the site that are within influencing distance are assessed to determine if pollution linkages exist and an unacceptable risk is posed to human health and controlled waters. The assessment has been carried out on a qualitative basis and aims to produce a complete and comprehensive Preliminary Conceptual Site Model, the potential pollution linkages are displayed on GRO-23019-P03 - Illustrative Preliminary CSM.

Three potential types of impacts exist for a site and all three need to be considered in the qualitative preliminary risk assessment:

- *Impacts from sources on the subject site.*
- *Impacts to the surrounding area from the subject site.*
- *Impacts to the subject site from the surrounding area.*

4.2 Potential Contamination Sources

Onsite Sources and Associated Contaminants (CoC)

From the information obtained during the preliminary risk assessment, a number of potentially contaminative onsite sources of contamination have been identified which may affect the redevelopment of the site for commercial end use.

The site was predominantly covered with government buildings until the early 2000s. The site is therefore likely to be underlain by Made Ground which could be a potential source of heavy metals, speciated Polycyclic Aromatic Hydrocarbons (PAHs), asbestos and permanent ground gases.

The former electricity substation in the western area of the site is a possible source of localised PolyChlorinated Biphenyls (PCBs).

Offsite Sources and Associated Contaminants (CoC)

A number of possible offsite sources of contamination have been identified through the PRA and include the following:

- *Demolished buildings immediately north.*
- *Electricity substation 117m north.*
- *Active petrol station 240m south west.*

The nearby demolished buildings are a potential source of Made Ground which may contain general contaminants including heavy metals, speciated Polycyclic Aromatic Hydrocarbons (PAHs), and asbestos. In addition, there is the potential for any ground gases to migrate onto the subject site.

The former electricity substation is a potential source of localised PCBs.

The active petrol station could be a potential source of fuel derived hydrocarbons if spillages and leakages have occurred.

4.3 Pollution Linkages

The definition of a pollution linkage is a medium which allows a contaminant to impact a receptor. Potential pollution linkages have been recognised for the commercial development from the identified contamination sources that exist.

At this stage, the contaminants identified above are considered to potentially pose an unacceptable risk to human health and controlled waters through the following pollution linkages:

- *Direct soil and dust ingestion.*
- *Dermal contact with soil both indoors and outdoors.*
- *Indoor air inhalation from soil and vapour.*
- *Outdoor inhalation of soil and vapour.*
- *Migration and accumulation of ground gas into internal spaces.*
- *Impaction of groundwater from soil contamination (diffuse and point).*
- *Impaction of groundwater from groundwater plume.*
- *Migration of soil and groundwater contamination impacting surface waters.*

4.4 Receptors

Receptors generally fall into the categories of human health or controlled waters within the river basin system. The recognised receptors are listed below:

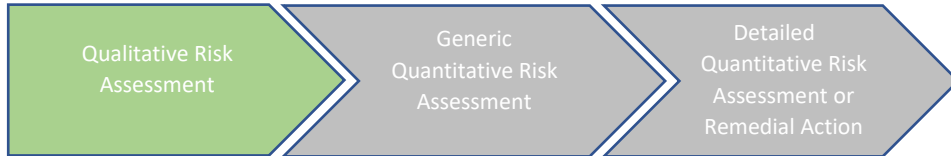
- *Site users.*
- *Adjacent site users.*
- *Superficial Secondary A Aquifer and the Bedrock Principal Aquifer.*
- *Clean potable water supply pipe.*

There are no surface water features within 250m.

4.5 Preliminary Conceptual Site Model (CSM)

The factual information obtained from the searches and summarised in Section 2.0 and 3.0 has been used to compile a Preliminary CSM. Using Source-Pathway-Receptor assessment criteria that is applicable in the UK, a risk assessment has been completed to determine if a plausible pollution linkage exists between the identified contaminants and receptors. The risk classification has been estimated in accordance with the CIRIA C552 assessment criteria outlined in *Appendix 7*.

Human Health Pollution Linkage Assessment



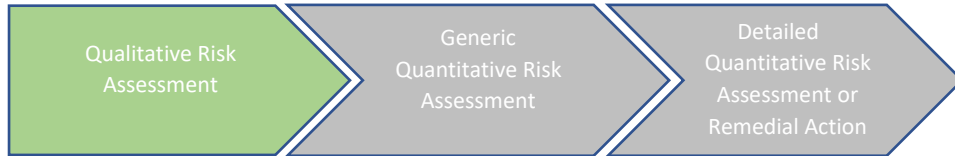
- The table below represents the first stage in the land quality risk assessment process - **the Qualitative Risk Assessment**.
- In order for a development site to be deemed 'suitable for use' the level of risk needs to be reduced to an acceptable level - low to negligible risk. The purpose of each stage of risk assessment is to establish if there is a requirement for additional stages of assessment in order to have sufficient confidence to support a risk characterisation or remedial action.

Conceptual Site Model					Qualitative Risk Assessment	
PL	Potential Source	Pollution Linkage	Likelihood	Consequence/ Severity	Risk Rating	Rationale and Action
PL1	Contaminated Soils	Ingestion of soil and dust. Dermal contact with soil.	Unlikely to Low Likelihood	Medium	Moderate to Low	Pollution Linkage 1 refers to proposed site users coming into contact with contaminated soils on the site. The site is currently disused land which is heavily overgrown. However, former government buildings were present onsite together with an electricity substation which have subsequently been demolished. Made Ground is therefore anticipated beneath the site associated with the former buildings which may be a source of heavy metals, PAHs and asbestos. Made Ground may also be onsite associated with neighbouring buildings being demolished. PCBs may have been used in the former electricity substation located in the west of the site, however these are immobile and will be localised. PCB contamination from offsite substations is unlikely to have affected the subject site given the distances involved.

Conceptual Site Model					Qualitative Risk Assessment	
PL	Potential Source	Pollution Linkage	Likelihood	Consequence/ Severity	Risk Rating	Rationale and Action
						A petrol station is 240m south west. Any potential mobile contamination is unlikely to have affected the site given the distance it is away. The proposed development is commercial comprising of the construction of a new hospital building with an associated hardsurfaced car park as well as some soft landscaping. The majority of the site will be covered with hardsurfacing which will effectively remove the pathway for site end users to have direct contact with the potentially contaminated ground. However, a possible pollution linkage is considered to exist in the areas of soft landscaping.
PL2	Contaminated Soils	Inhalation of vapour.	Unlikely	Medium to Severe	Low	This pollution linkage refers to volatile vapours migrating into confined spaces within the proposed development. No significant sources of volatile vapours have been identified onsite through the PRA therefore, a plausible pollution linkage is not considered to exist.
PL3	Contaminated Soils	Inhalation of soil dust by adjacent site users.	Unlikely	Medium	Low	Pollution Linkage 3 relates to contamination on the subject site affecting adjacent site users. Significant sources of mobile contamination have not been identified onsite through the PRA therefore, a viable pollution linkage is not considered to exist.

Conceptual Site Model					Qualitative Risk Assessment	
PL	Potential Source	Pollution Linkage	Likelihood	Consequence/ Severity	Risk Rating	Rationale and Action
PL4	Contaminated Soils	Attacking potable water supply pipe.	Low Likelihood	Medium	Moderate to Low	Pollution Linkage 4 refers to possible contaminants permeating potable water pipes and consumption by the future site end users of the tainted water supply. Made Ground is likely to be present at installation depth however, organic contamination is not anticipated. It is likely that new potable water supply pipes will be included as part of the development therefore, a potential pollution linkage is considered to exist and a local water company risk assessment is required prior to construction to advise on the level of protection required for the potable water supply.
PL5	Ground Gas	Migration and accumulation of ground gas in internal spaces.	Low Likelihood	Medium to Severe	Moderate	Deep Made Ground may be present beneath the site associated with the demolition of the former buildings onsite. However, the Made Ground is likely to be inert. No significant offsite sources of permanent ground gases have been identified however, further buildings were demolished to the immediate north and the resulting Made Ground could be a potential source. As possible sources have been determined, gas monitoring should be carried out as part of a detailed Ground Investigation in order to confirm the risk. The site is not within an area requiring Radon precautions within foundations.

Controlled Waters Pollution Linkage Assessment



- The table below represents the first stage in the land quality risk assessment process – **Qualitative Risk Assessment**.
- In order for a development site to be deemed 'suitable for use' the level of risk needs to be reduced to an acceptable level - low to negligible risk. The purpose of each stage of risk assessment is to establish if there is a requirement for additional stages of assessment in order to have sufficient confidence to support a risk characterisation or remedial action.

Conceptual Site Model					Qualitative Risk Assessment	
PL	Potential source	Pollution linkage	Likelihood	Severity	Level of risk	Rationale
PL6	Contaminated Soils	Impaction of groundwater from soil contamination (diffuse and point). Impaction of groundwater from groundwater plume.	Unlikely	Medium	Low	Based on site history, Made Ground is likely to be present beneath the site associated with the demolition of the former government buildings. However, no sources of mobile contamination have been determined through the PRA. Geological maps indicate that the site is underlain by Glaciofluvial Sand and Gravel deposits (Secondary A Aquifer) and the solid bedrock geology comprises the Wilmslow Sandstone Formation (Principal Aquifer). This site is not within a groundwater SPZ and the groundwater is not considered to be a sensitive resource. There are no potable water abstraction licenses within 2000m. As a potential source of mobile contamination has not been identified, no realistic pollution linkage is considered to exist.

Conceptual Site Model					Qualitative Risk Assessment	
PL	Potential source	Pollution linkage	Likelihood	Severity	Level of risk	Rationale
PL7	Contaminated Soils	Migration of soil and groundwater contamination impacting surface waters.	Unlikely	Medium	Low	Pollution Linkage 7 refers to the impaction of nearby surface watercourses from contaminated soils and groundwater. There are no surface water features within 250m and no sources of mobile contamination have been identified onsite. Therefore, no pollution linkage is considered to exist.

5.0 GROUND ENGINEERING RECOMENDATIONS AND POTENTIAL LIMITATIONS

5.1 Preliminary Foundation Assessment

Formerly, the site was occupied by government buildings which were demolished by the early 2000s. The site is now unoccupied and covered in dense vegetation including semi-mature trees. The proposed development comprises the construction of a new hospital building with a hardsurfaced car park and infrastructure, as well as some soft landscaping.

As part of the enabling of works, the vegetation and topsoil will need to be stripped. There is the potential for obstructions to be present beneath the site associated with the former buildings which will need to be grubbed prior to construction commencing.

The site is underlain by superficial Glaciofluvial Sand and Gravel deposits and the solid geology is the Wilmslow Sandstone Formation.

The foundation solution will be dictated by proposed loadings associated with the hospital building and also the thickness of Made Ground that is present beneath the site.

If the proposed structure is lightly loaded and Made Ground is not significantly thick, traditional strip / trench fill foundations may be a viable option founding in the natural superficial Sand and Gravel deposits. However, if a shallow foundation design is not considered to be a viable option, then a deeper foundation solution will be required such as piles.

It is likely that foundations will be constructed in granular soils therefore, it is unlikely that heave precautions will be required.

The above preliminary foundation recommendations are based on desk-based information only and should be confirmed by a Ground Investigation in accordance with current guidance.

5.2 Additional Limitations

The site is heavily overgrown and may contain invasive species which could include Japanese Knotweed. It is recommended that a detailed survey is carried out by a specialist and if identified, the invasive plants should be treated or eradicated in a controlled manner prior to construction taking place.

Consideration will need to be given to the possible presence of underground utilities beneath the site as a manhole cover was identified.

Given the low density of bombing across the borough, with no positive evidence found to suggest any bombing occurred directly on site, the risk of encountering UXO is not considered significant enough to warrant further research. However, given the open nature of the site and the firebombs that fell over Moorfield Road, UXO awareness briefings are recommended prior to any ground works occurring as a sensible precaution.

The site is not indicated to be affected by a legacy of shallow underground coal mining.

SuDS drainage may be a viable option for the proposed development as the site is indicated to be underlain by natural Sand and Gravel deposits. Soil infiltration rates should be confirmed through testing in general accordance with BRE Digest 365.

6.0 CONCLUSIONS AND GROUND INVESTIGATION SCOPE RATIONALE

6.1 Land Quality

Historically, the site housed several government buildings which were demolished by the early 2000s to leave an unoccupied piece of land which is now overgrown with vegetation. The proposed development is commercial comprising the construction of a new hospital building with hardsurfaced car parking, associated infrastructure and areas of soft landscaping.

The risk to human health is considered to be *Moderate to Low* as it is likely that there will be potentially contaminated Made Ground soils beneath the areas of proposed soft landscaping. In areas of hardsurfacing, the risk will be *Low* as the pathway will be broken to potentially contaminated Made Ground.

The risk to controlled waters is *Low* as no sources of mobile contamination have been identified onsite and the groundwater is not considered to be a sensitive resource.

The ground gas risk is considered to be *Moderate* as deep Made Ground may be present beneath the site associated with the demolished buildings.

The site is not in an area requiring any Radon precautions in foundations.

6.2 Ground Engineering

The site is underlain by superficial Glaciofluvial Sand and Gravel deposits and the solid geology is the Wilmslow Sandstone Formation.

This foundation solution will be dictated by proposed loadings associated with the hospital building and also the thickness of Made Ground that is present beneath the site.

If the proposed structure is lightly loaded and Made Ground is not significantly thick, traditional strip / trench fill foundations may be a viable option founding in the natural superficial Sand and Gravel deposits. If shallow foundations are not considered to be a viable option, then a deeper foundation solution will be required such as piles.

6.3 Additional Considerations

The site is heavily overgrown and may contain invasive species which could include Japanese Knotweed. It is recommended that a detailed survey is carried out by a specialist and if identified, the invasive plants should be treated or eradicated in a controlled manner prior to construction commencing.

Given the low density of bombing across the borough, with no positive evidence found to suggest any bombing occurred directly on site, the risk of encountering UXO is not considered significant enough to warrant further research. However, given the open nature of the site and the firebombs that fell over Moorfield Road, UXO awareness briefings are recommended as a sensible precaution.

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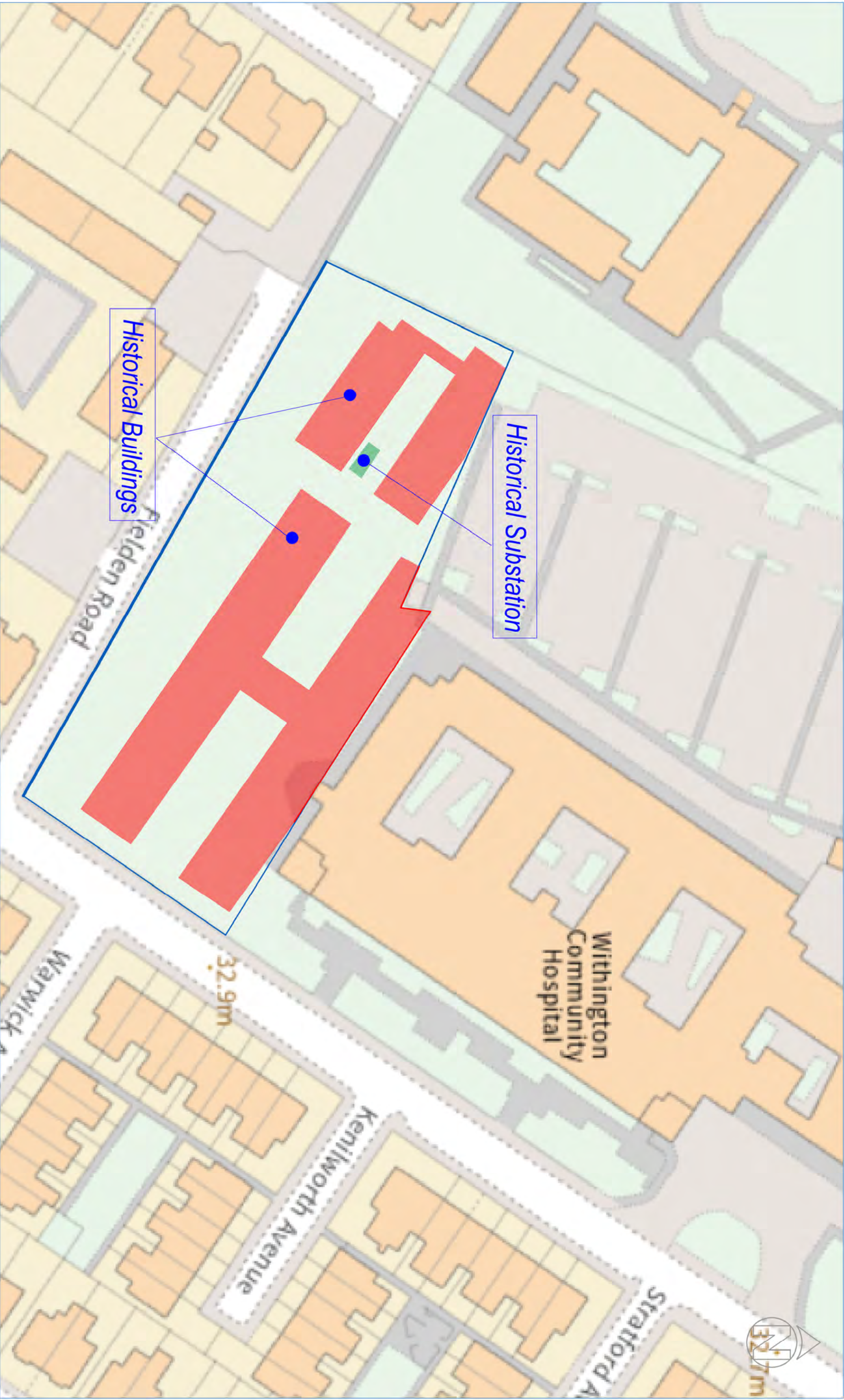
6.4 Recommended Ground Investigation Scope of Investigation

Based on the information in this report we consider a main investigation is required in accordance with BS 10175:2017 and BS 22475. The following scope of works is recommended based on the Preliminary CSM compiled, additional works may be required as the result of planning conditions for the proposed development:

Method of Investigation	G / E
<i>3 No. cable percussive boreholes to c.10m if deep foundations required.</i>	<i>G</i>
<i>6 No. windowless sample boreholes to 4m to 5m bgl.</i>	<i>E</i>
<i>10 No. trial pits to 3m to 4m bgl.</i>	<i>G/E</i>
<i>Shallow gas monitoring installations.</i>	<i>E</i>
<i>Chemical testing comprising metals, PAHs, asbestos, and PCBs.</i>	<i>E</i>
<i>Geotechnical testing comprising aggressivity, classification, strength, and stiffness.</i>	<i>G</i>
<i>Gas and groundwater level monitoring.</i>	<i>E</i>

Note **Environmental (E) / Geotechnical (G)**

APPENDIX 1 - Plans



GROUNDTECH CONSULTING 				CLIENT		DATE		Status		Notes
CCS CONSULTING		PROJECT TITLE		FEBRUARY 2022		Preliminary				
WITHINGTON CDC		SCALE		NTS		Draft				
PLAN TITLE		PLAN NUMBER				Issued				
PRELIMINARY DEVELOPMENT CONSTRAINTS PLAN		GRO-23019-P02		Rev.		For Comment				
				Details		Approved				

SOURCES

- A. Contaminated soils / Made Ground.
- B. Ground gas.

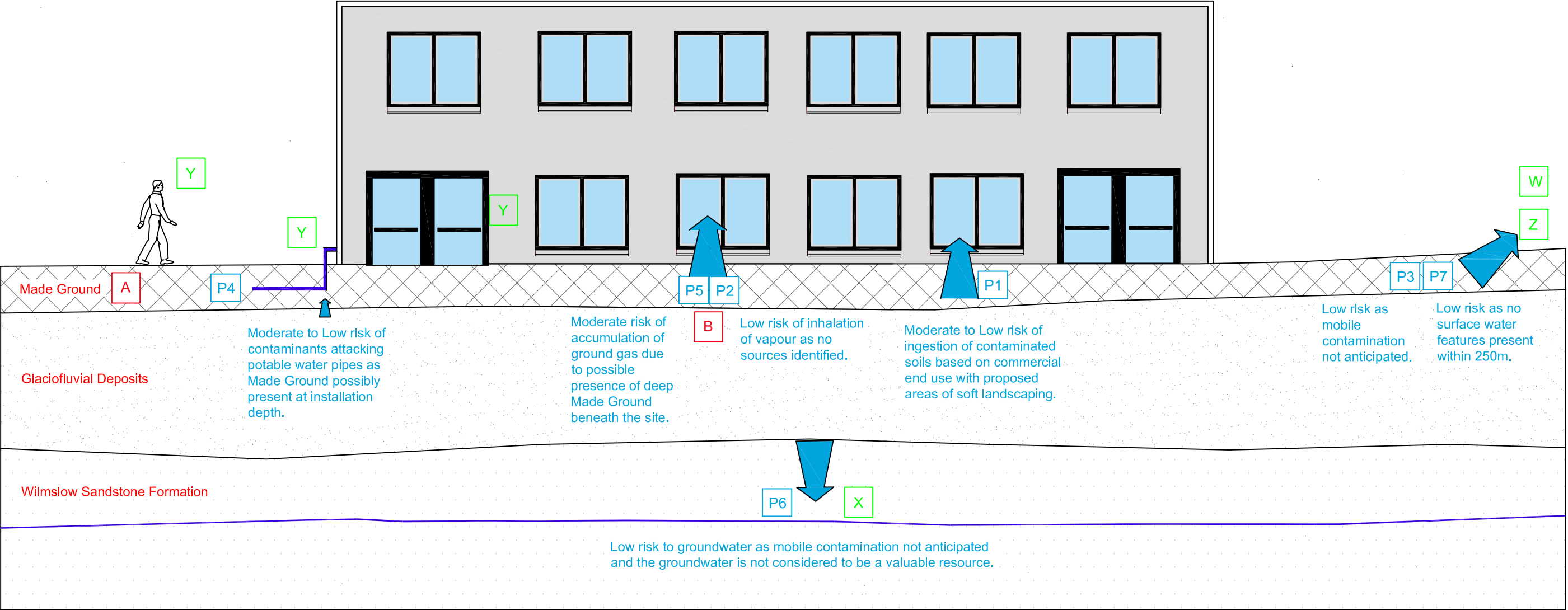
POLLUTION LINKAGES

- P1. Ingestion of soil and dust.
- P2. Inhalation of vapour.
- P3. Inhalation of soil dust by adjacent site users.
- P4. Attacking of potable water supply pipe.
- P5. Migration and accumulation of ground gas in internal places.
- P6. Impaction of groundwater from soil contamination.
- P7. Migration of soil and groundwater contamination impacting surface waters.

RECEPTORS

- W. Nearby surface waters.
- X. Groundwater within the Secondary A and Principal Aquifers.
- Y. Site end users.
- Z. Adjacent site users.

Proposed Withington CDC Development



APPENDIX 2 - Photographs



Photograph 1 – Overgrown site area



Photograph 2 - Central northern site area



Photograph 3 – Existing hospital structure to the immediate north.



Photograph 4 – Manhole covered identified onsite



Photograph 5 – Overgrown site area

APPENDIX 3 - Historical Maps

Site Details:

Withington CDC, M20 2LR

Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

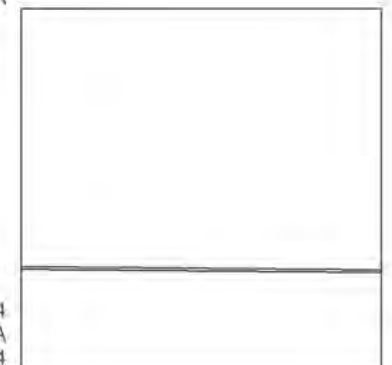
Map date: 1894

Scale: 1:2,500

Printed at: 1:2,500



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Revised N/A
Edition 1894
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Surveyed 1894
Revised N/A
Edition 1894
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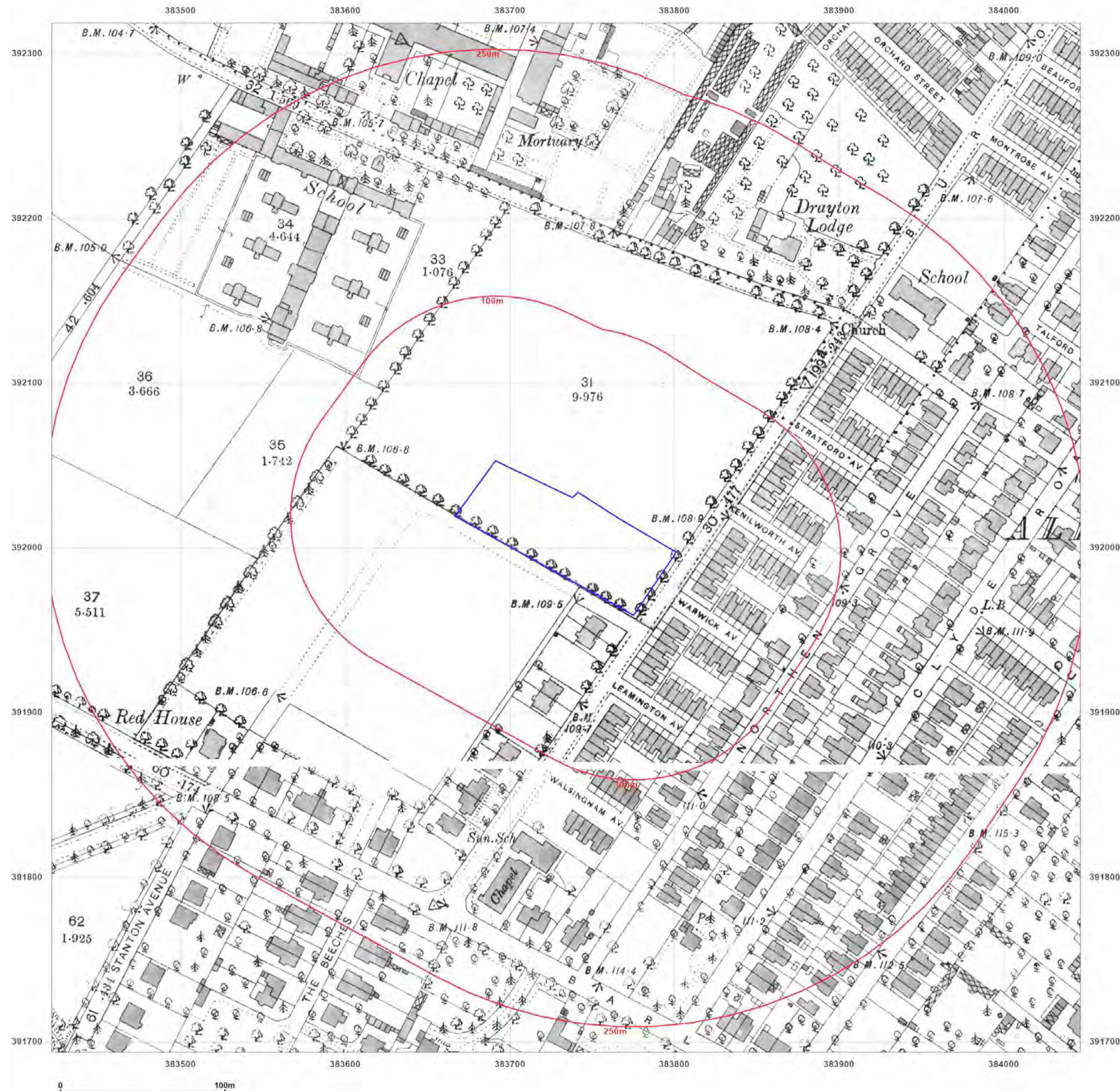


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Site Details:

Withington CDC, M20 2LR

Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

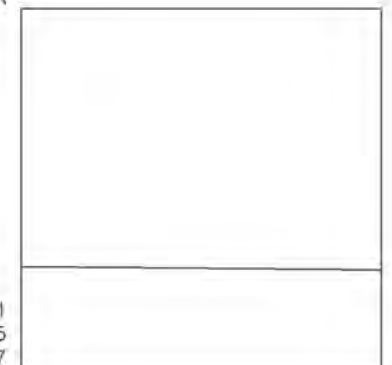
Map date: 1907

Scale: 1:2,500

Printed at: 1:2,500



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Surveyed 1891
Revised 1905
Edition 1907
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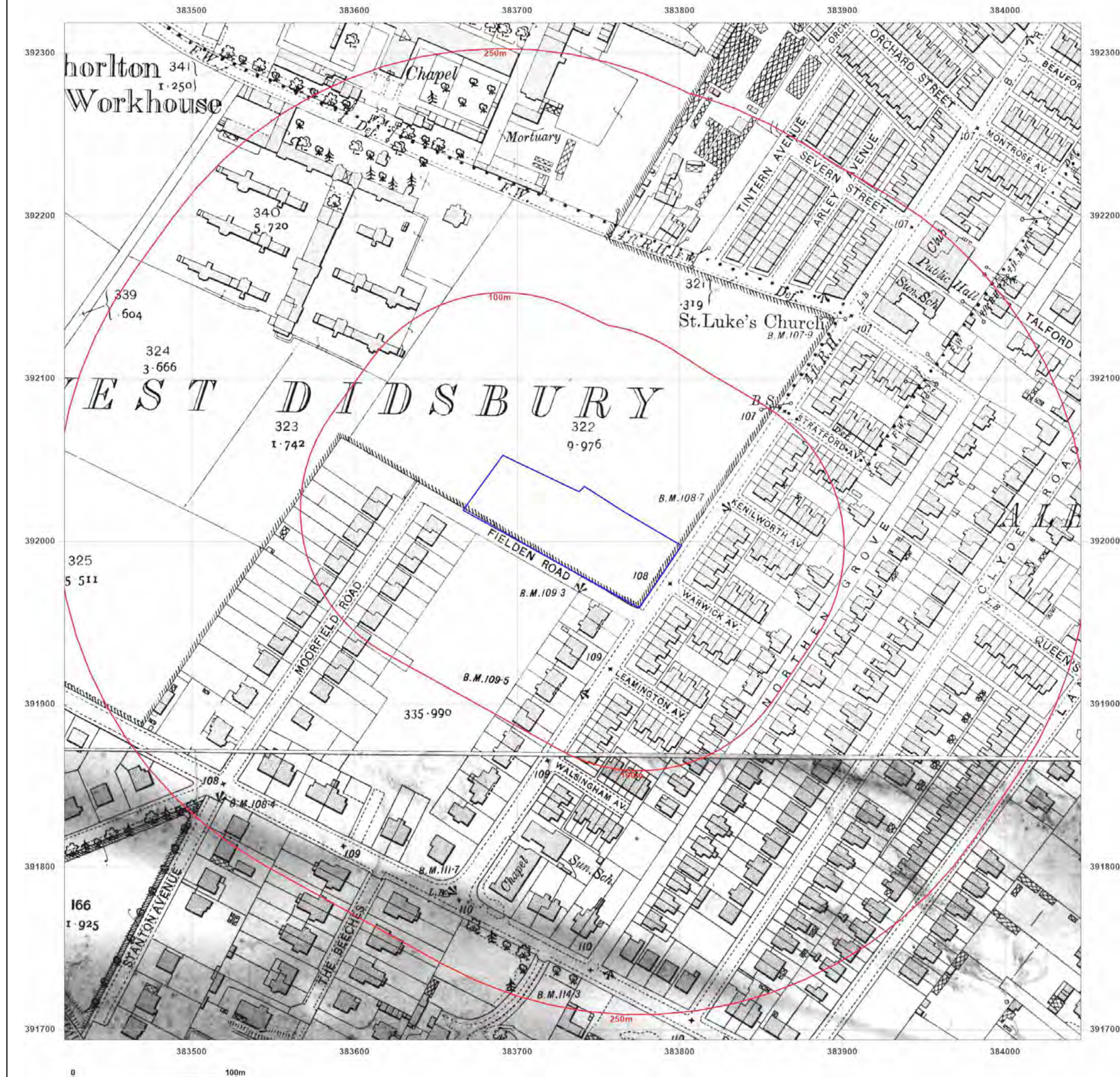


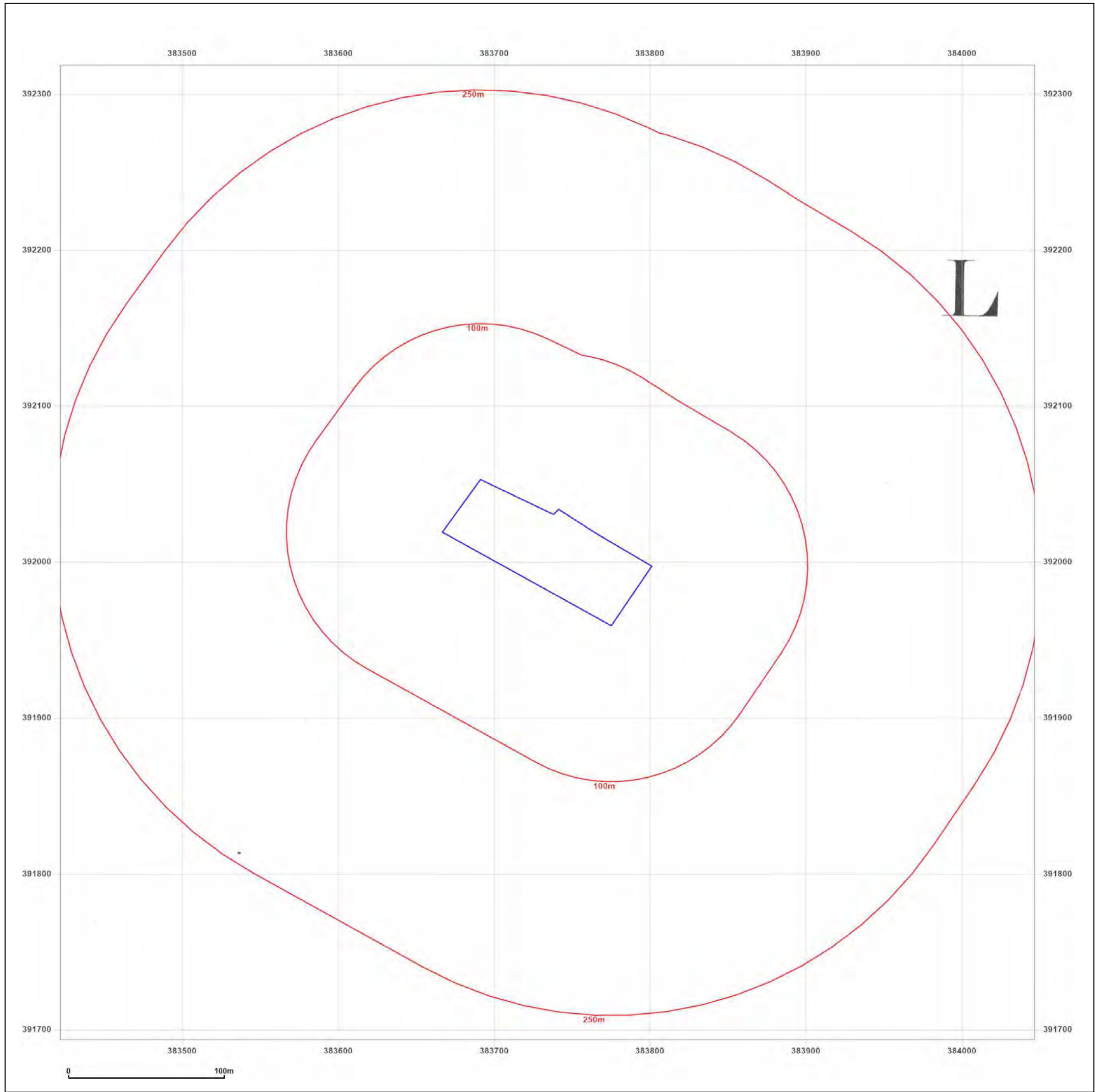
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Site Details:

Withington CDC, M20 2LR

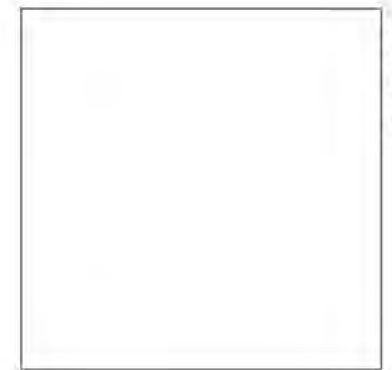
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Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

Map date: 1910

Scale: 1:2,500

Printed at: 1:2,500



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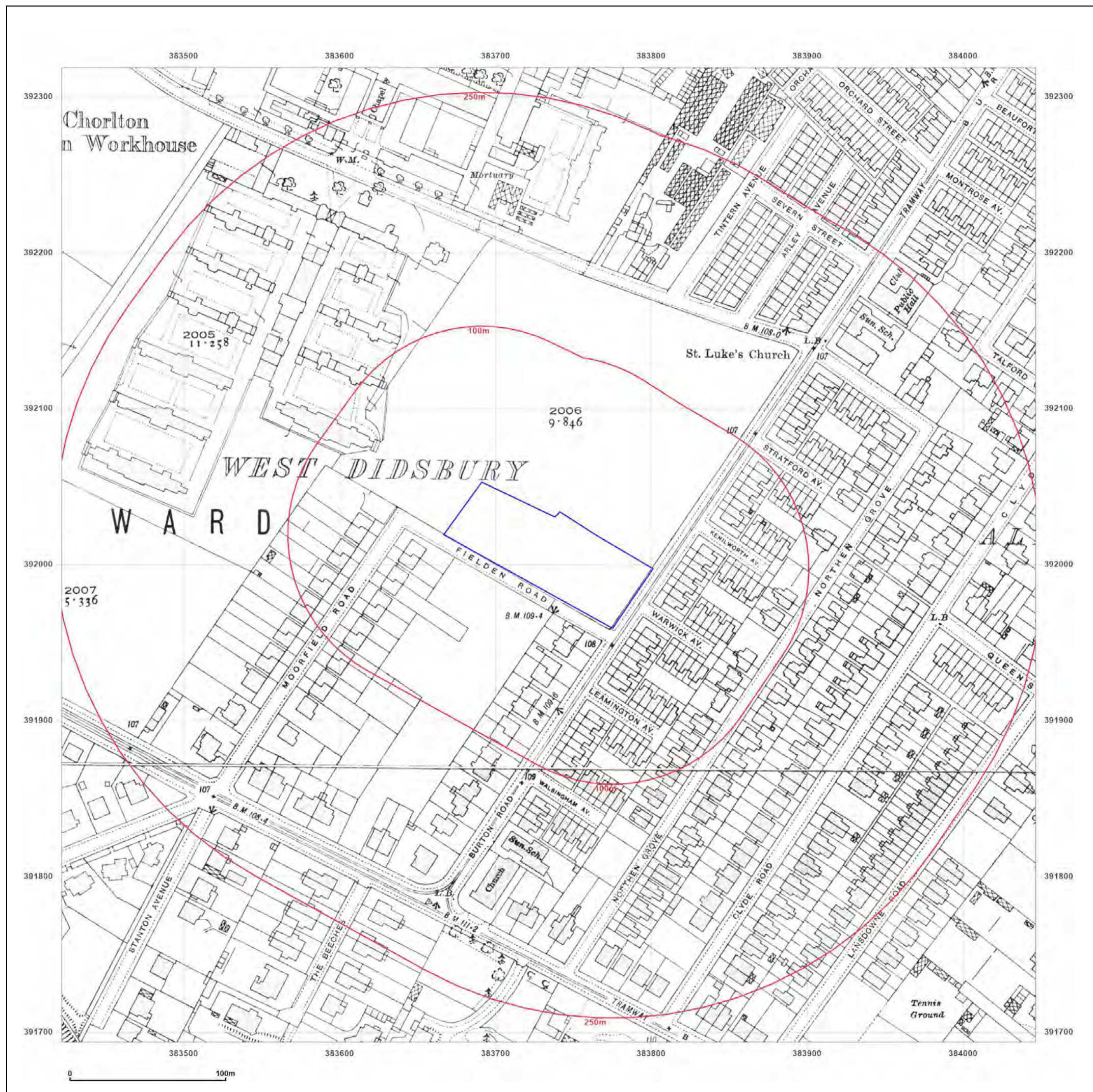


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Site Details:

Withington CDC, M20 2LR

Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

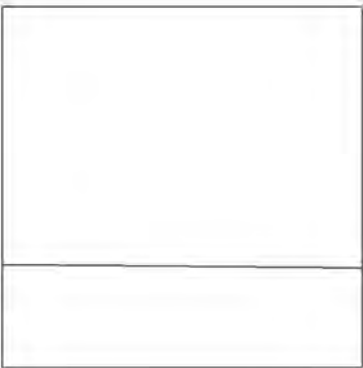
Map date: 1922

Scale: 1:2,500

Printed at: 1:2,500



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Edition 1922
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Surveyed 1922
Revised 1916
Edition 1922
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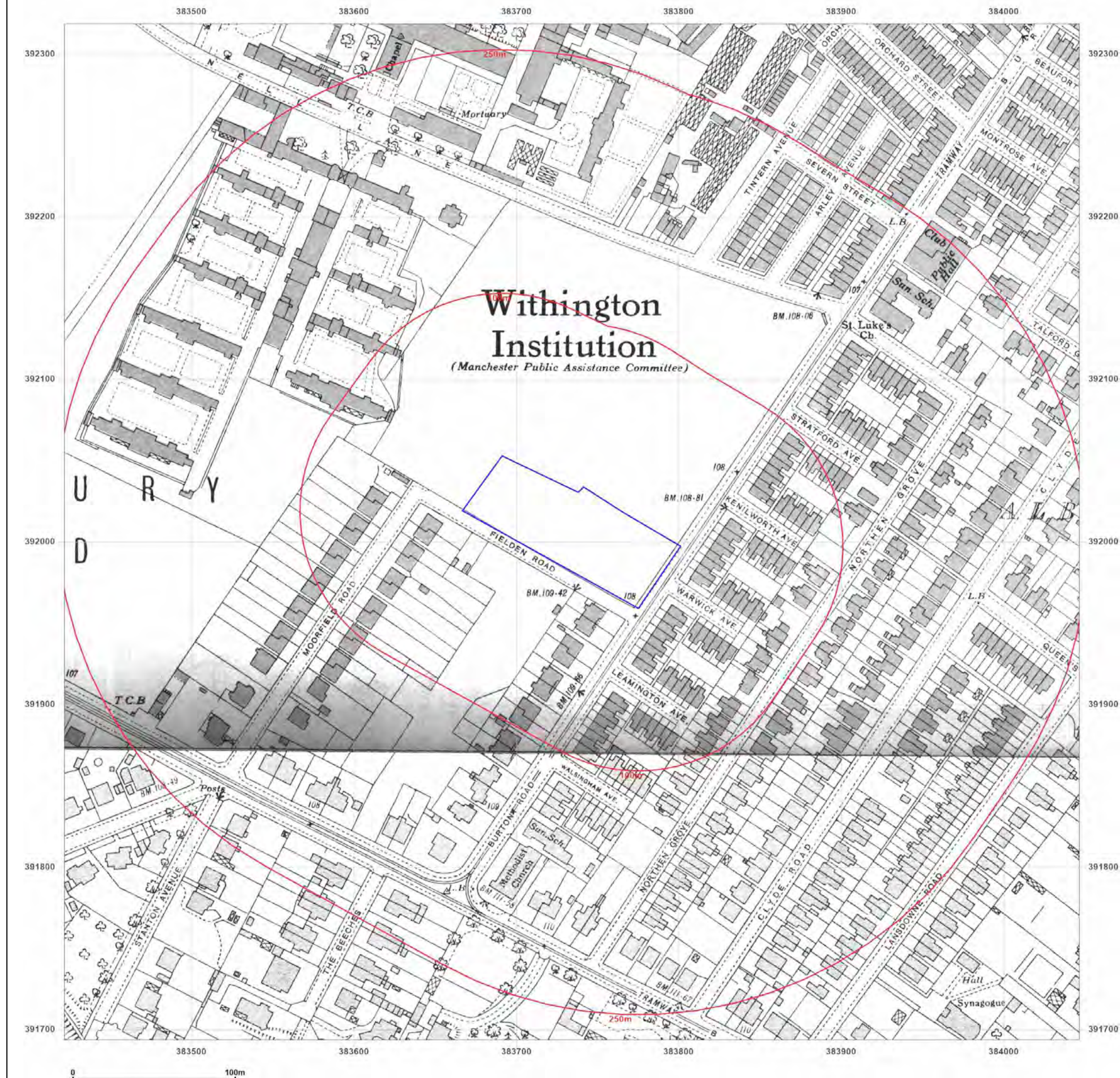


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Site Details:

Withington CDC, M20 2LR

Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

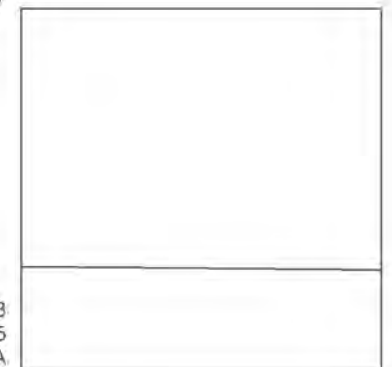
Map date: 1933-1935

Scale: 1:2,500

Printed at: 1:2,500



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Site Details:

Withington CDC, M20 2LR

Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 1955

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1955
Revised 1955
Edition N/A
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Surveyed 1955
Revised 1955
Edition N/A
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Surveyed 1955
Revised 1955
Edition N/A
Copyright 1955
Levelled 1949

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Revised 1955
Edition N/A
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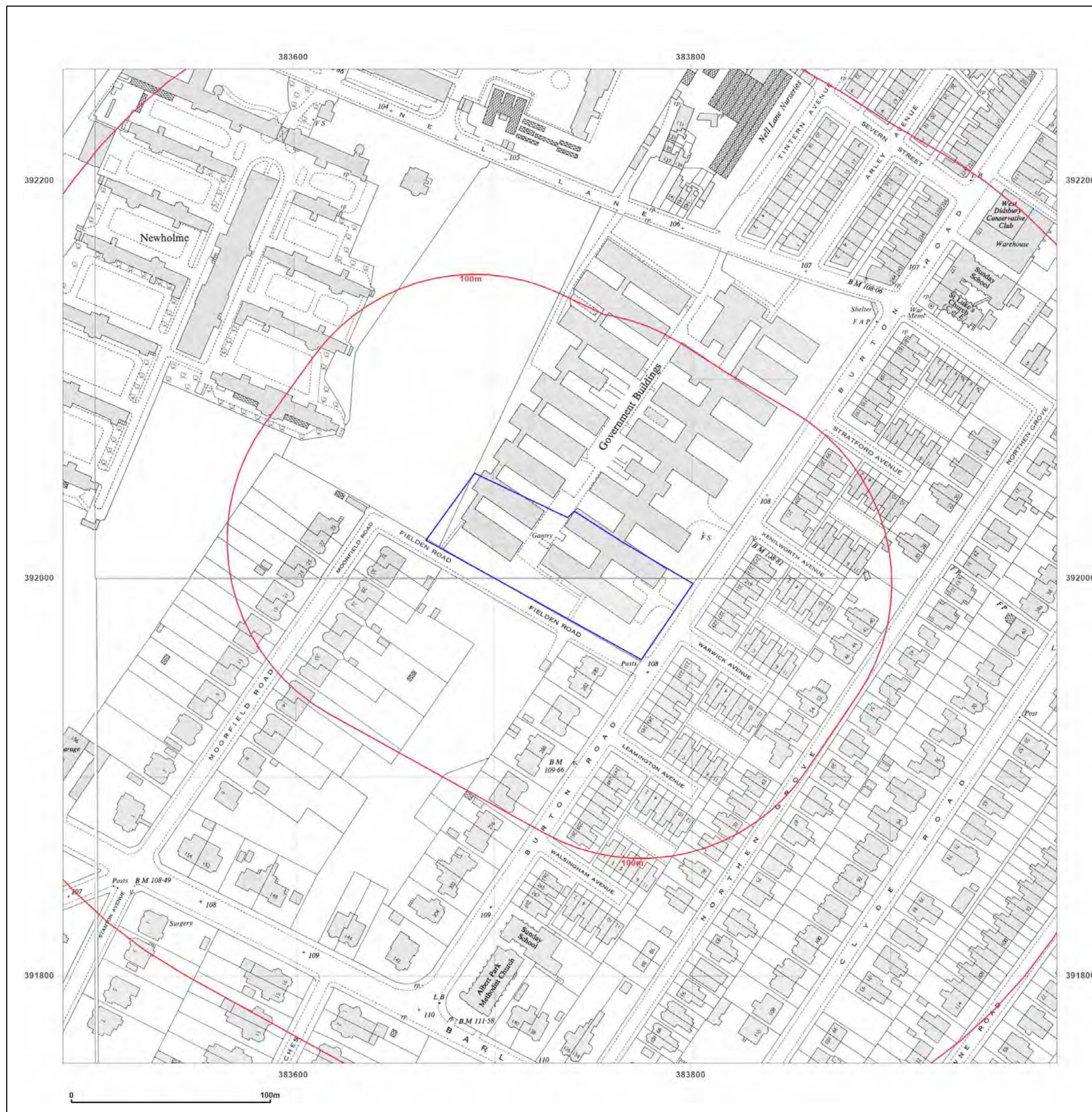


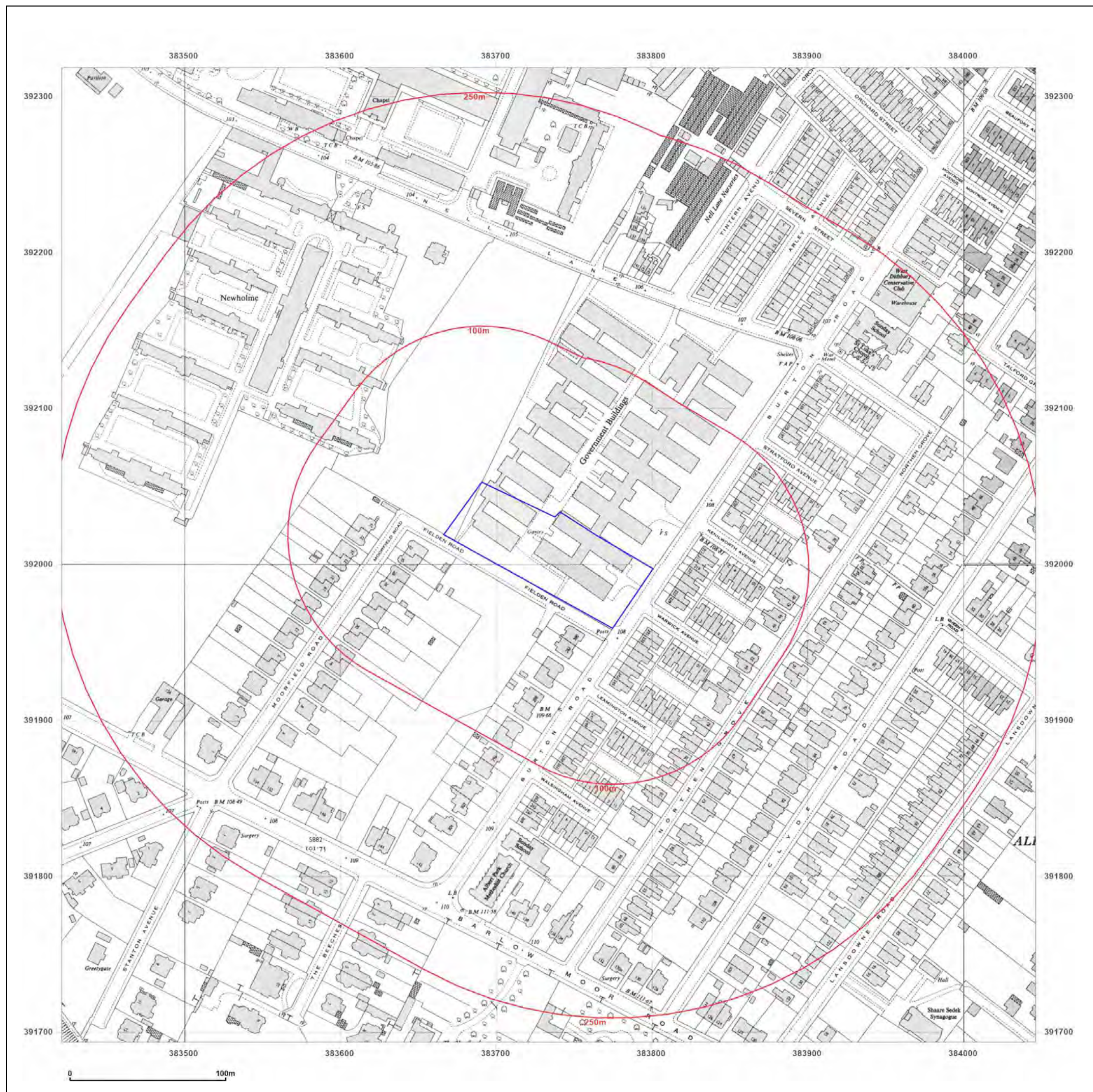
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Site Details:
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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid
Map date: 1956-1958
Scale: 1:2,500
Printed at: 1:2,500

Surveyed 1955
Revised 1955
Edition N/A
Copyright 1956
Levelled 1948

Surveyed 1957
Revised 1957
Edition N/A
Copyright 1958
Levelled 1948

Surveyed 1955
Revised 1955
Edition N/A
Copyright 1956
Levelled 1949

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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 1971

Scale: 1:1,250

Printed at: 1:2,000



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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 1982

Scale: 1:1,250

Printed at: 1:2,000



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Revised N/A
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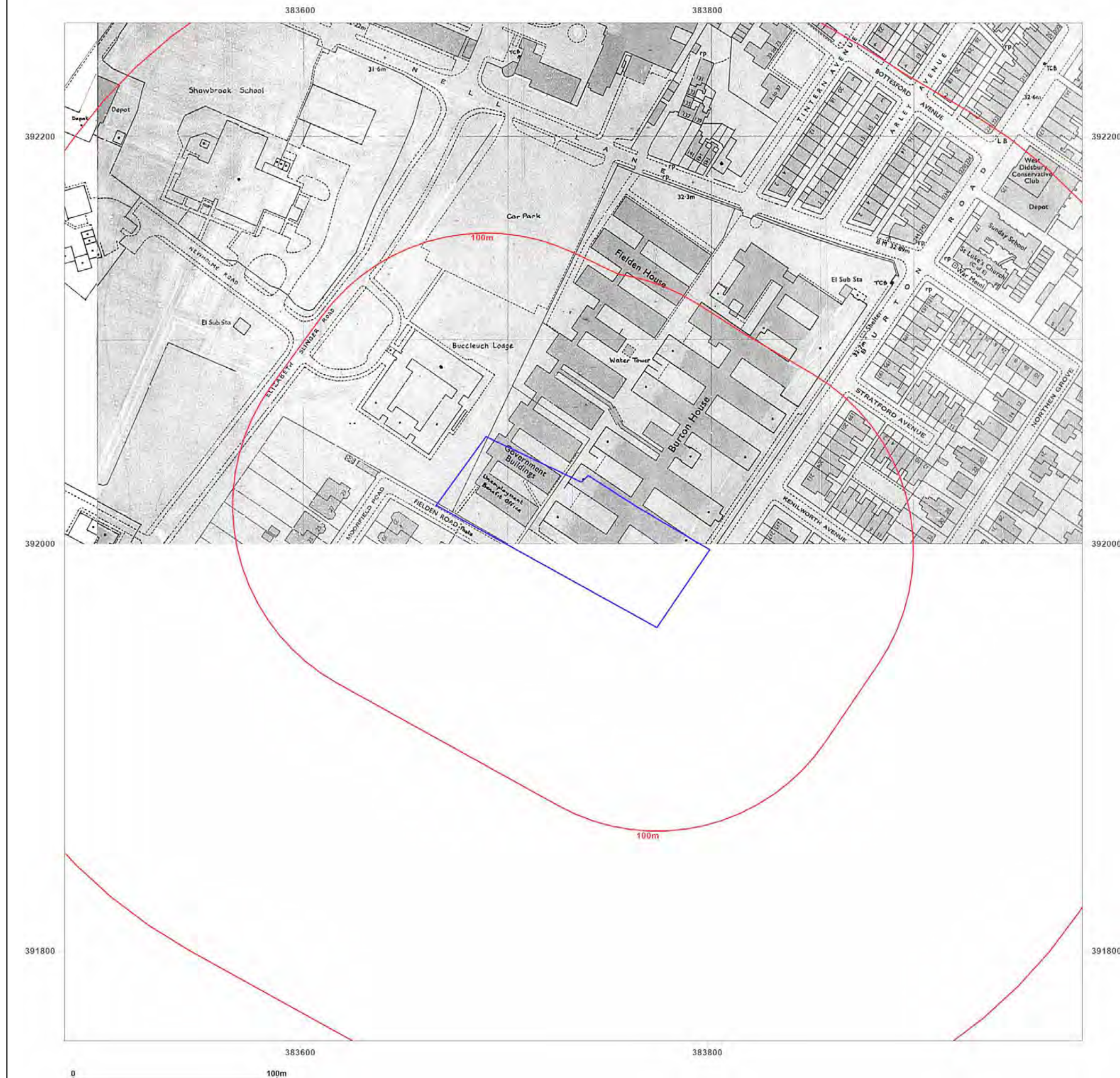


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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 1980-1985

Scale: 1:1,250

Printed at: 1:2,000



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Revised N/A
Edition N/A
Copyright 1980
Levelled 1959

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1982
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Surveyed 1955
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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 1987-1992

Scale: 1:1,250

Printed at: 1:2,000



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Revised N/A
Edition N/A
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Revised 1986
Edition N/A
Copyright 1987
Levelled 1957

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Revised 1992
Edition N/A
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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 1990-1992

Scale: 1:1,250

Printed at: 1:2,000



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Edition N/A
Copyright 1990
Levelled N/A

Surveyed 1992
Revised 1992
Edition N/A
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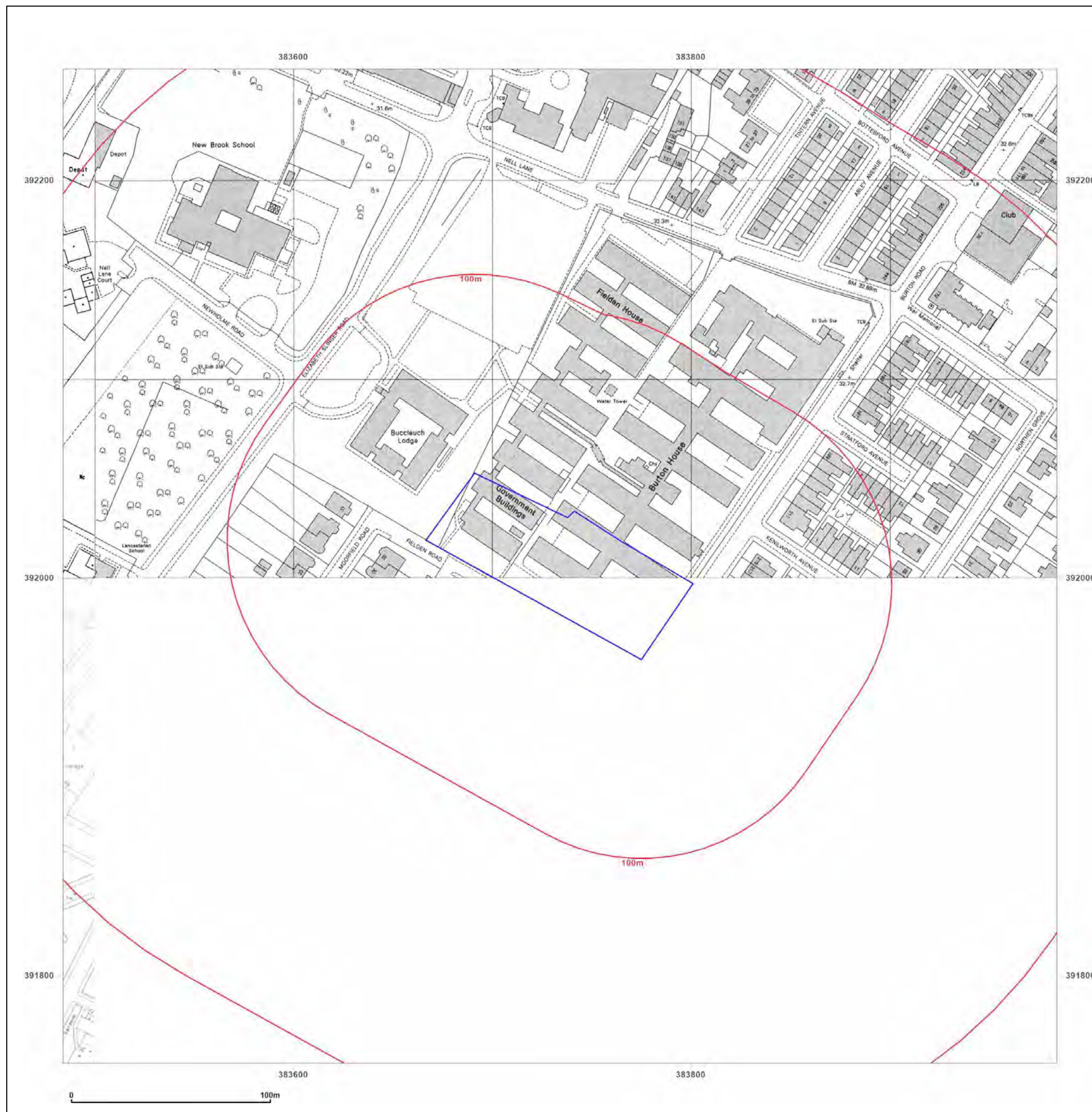


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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 1992-1994

Scale: 1:1,250

Printed at: 1:2,000



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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 1994

Scale: 1:1,250

Printed at: 1:2,000



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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 1994

Scale: 1:1,250

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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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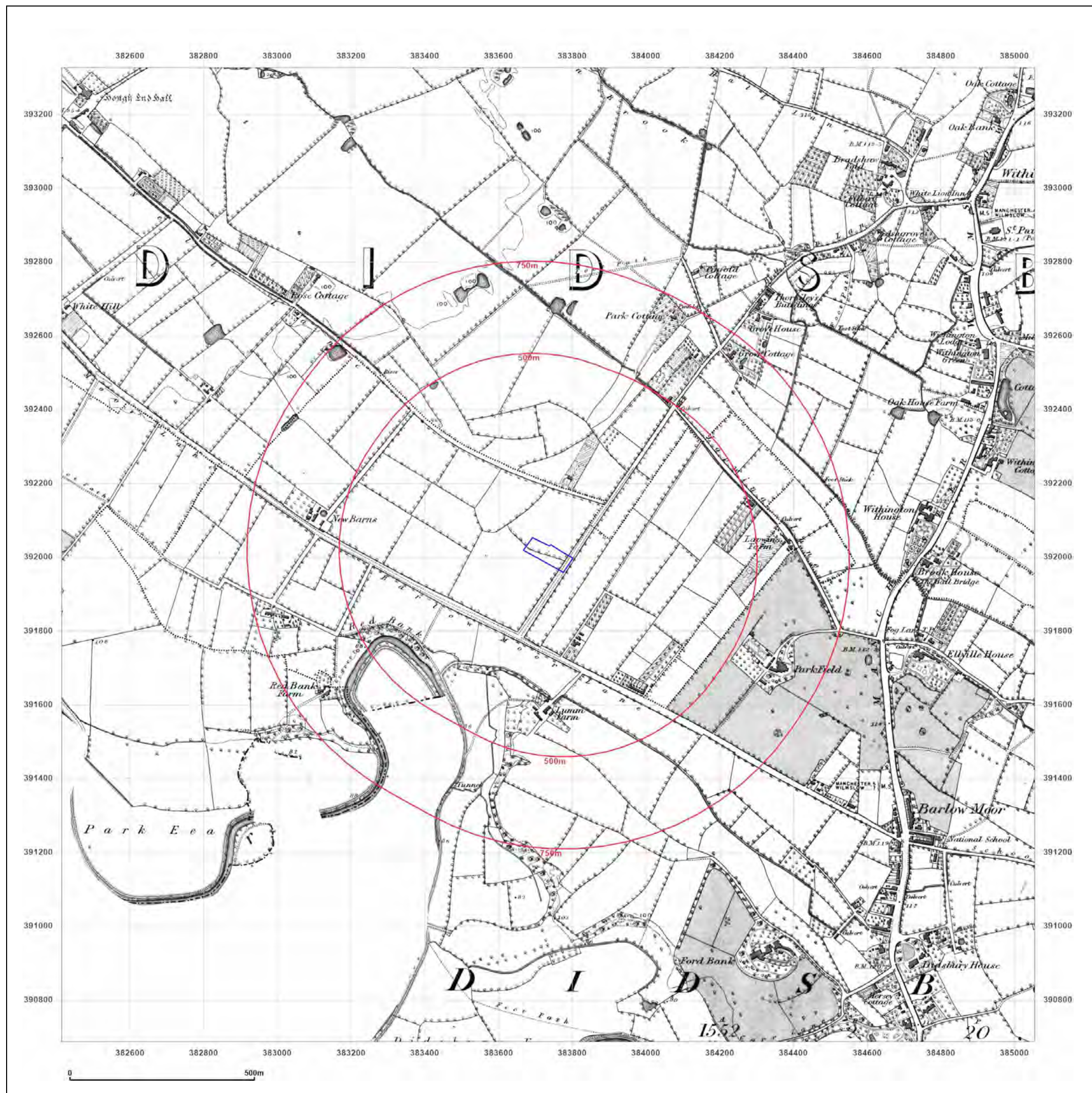
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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

Map date: 1849

Scale: 1:10,560

Printed at: 1:10,560



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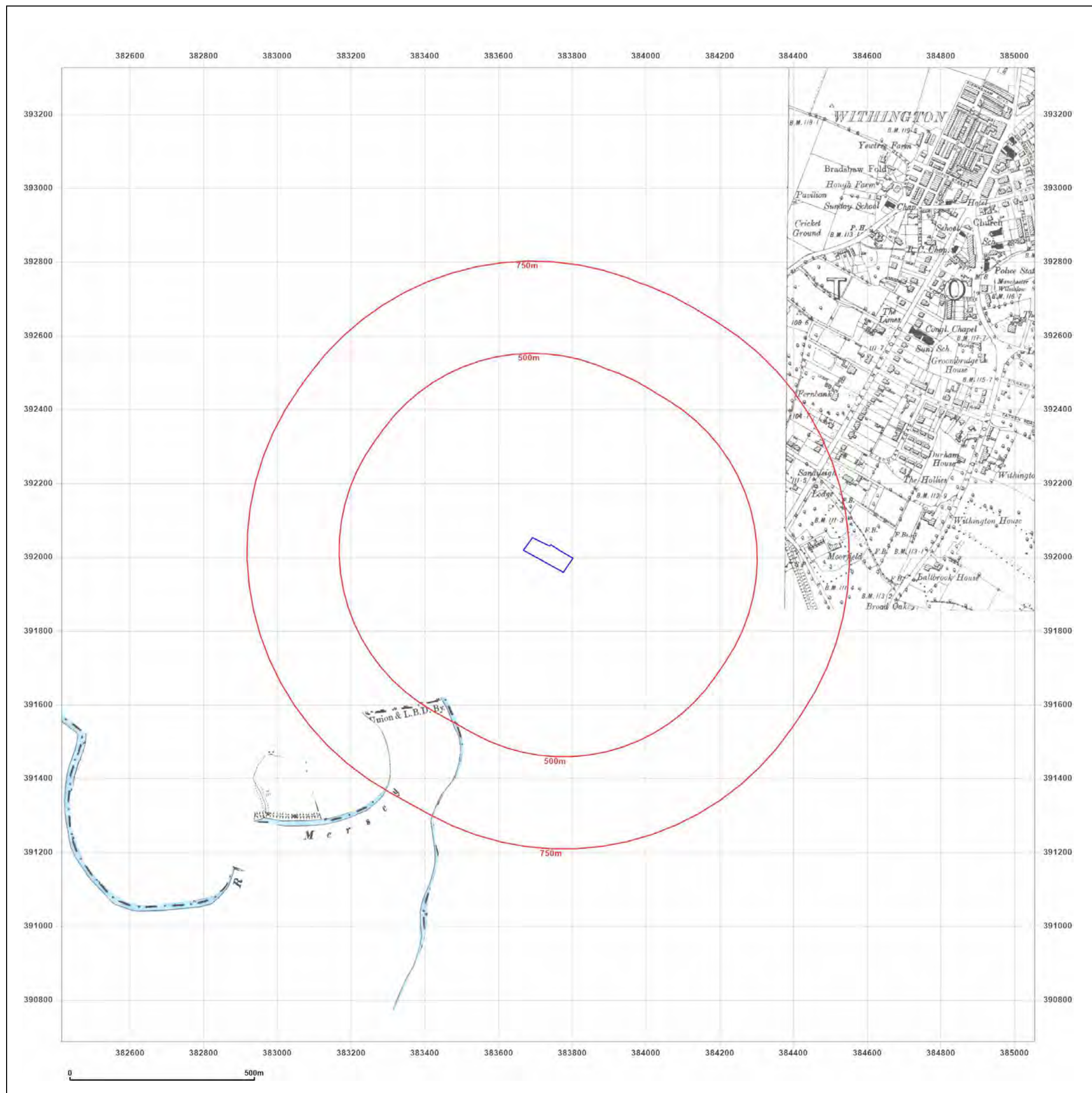


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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

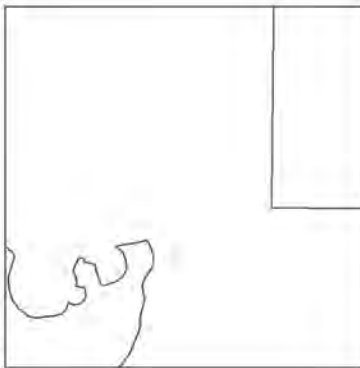
Map date: 1892

Scale: 1:10,560

Printed at: 1:10,560



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Revised 1892
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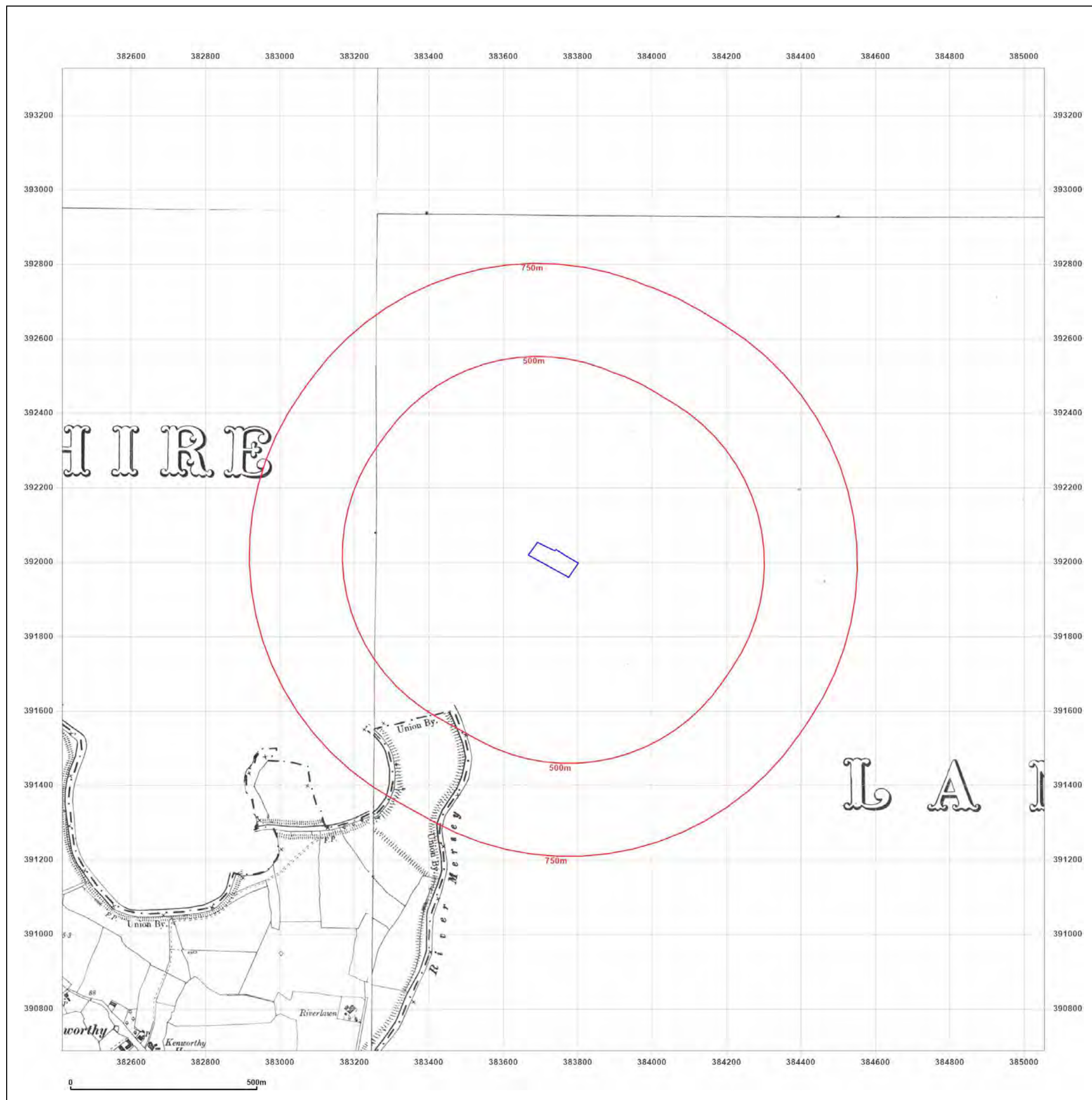


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Site Details:

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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

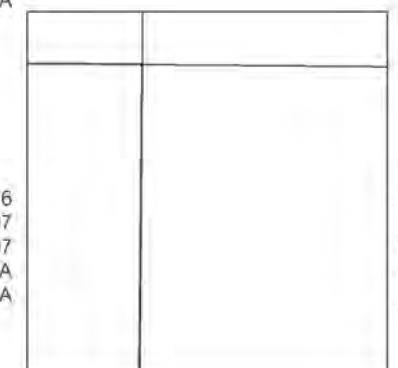
Map date: 1897

Scale: 1:10,560

Printed at: 1:10,560



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



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Revised 1897
Edition 1897
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Levelled N/A

Surveyed 1872
Revised 1897
Edition 1897
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Site Details:

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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

Map date: 1905

Scale: 1:10,560

Printed at: 1:10,560



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

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



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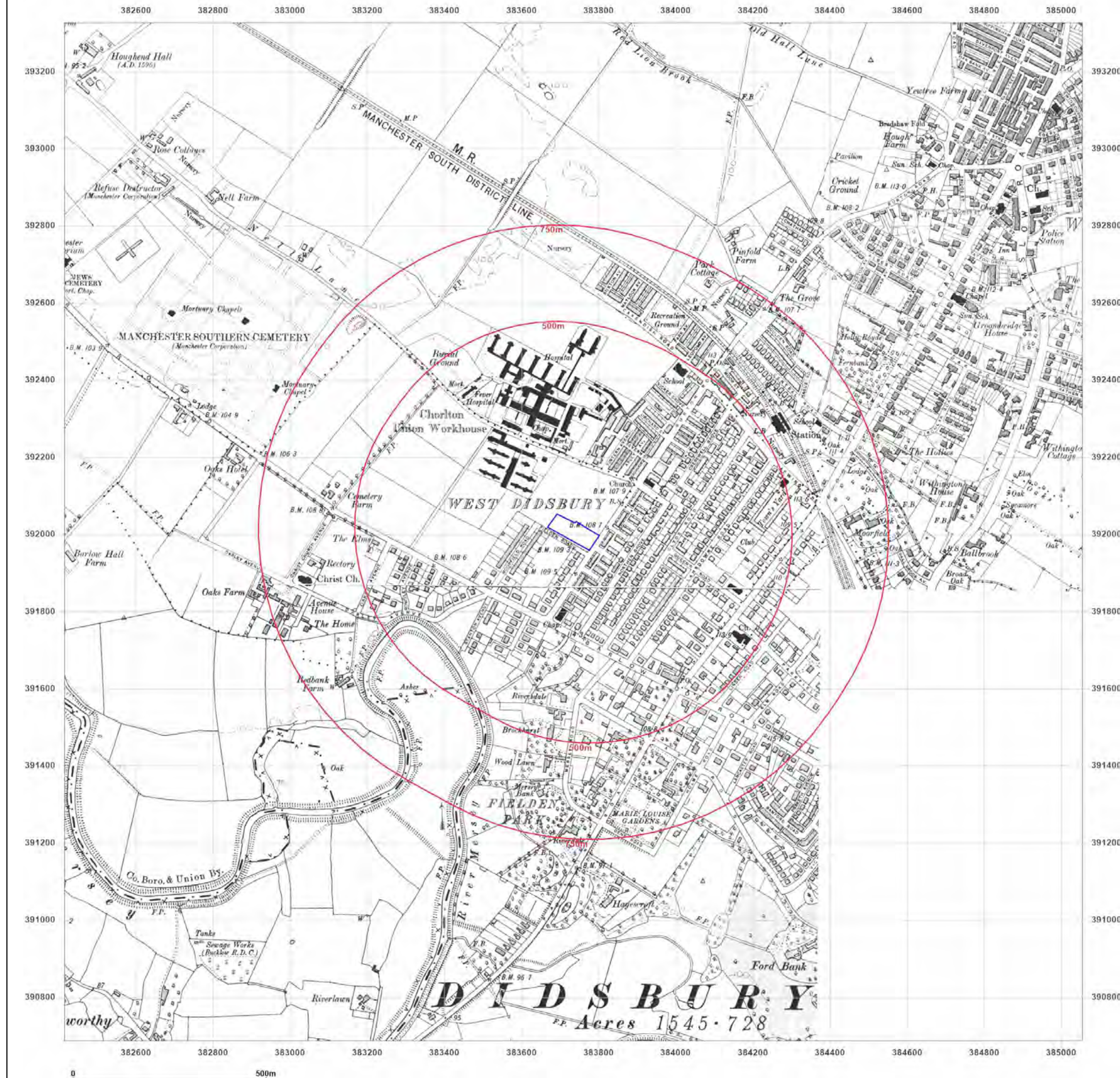


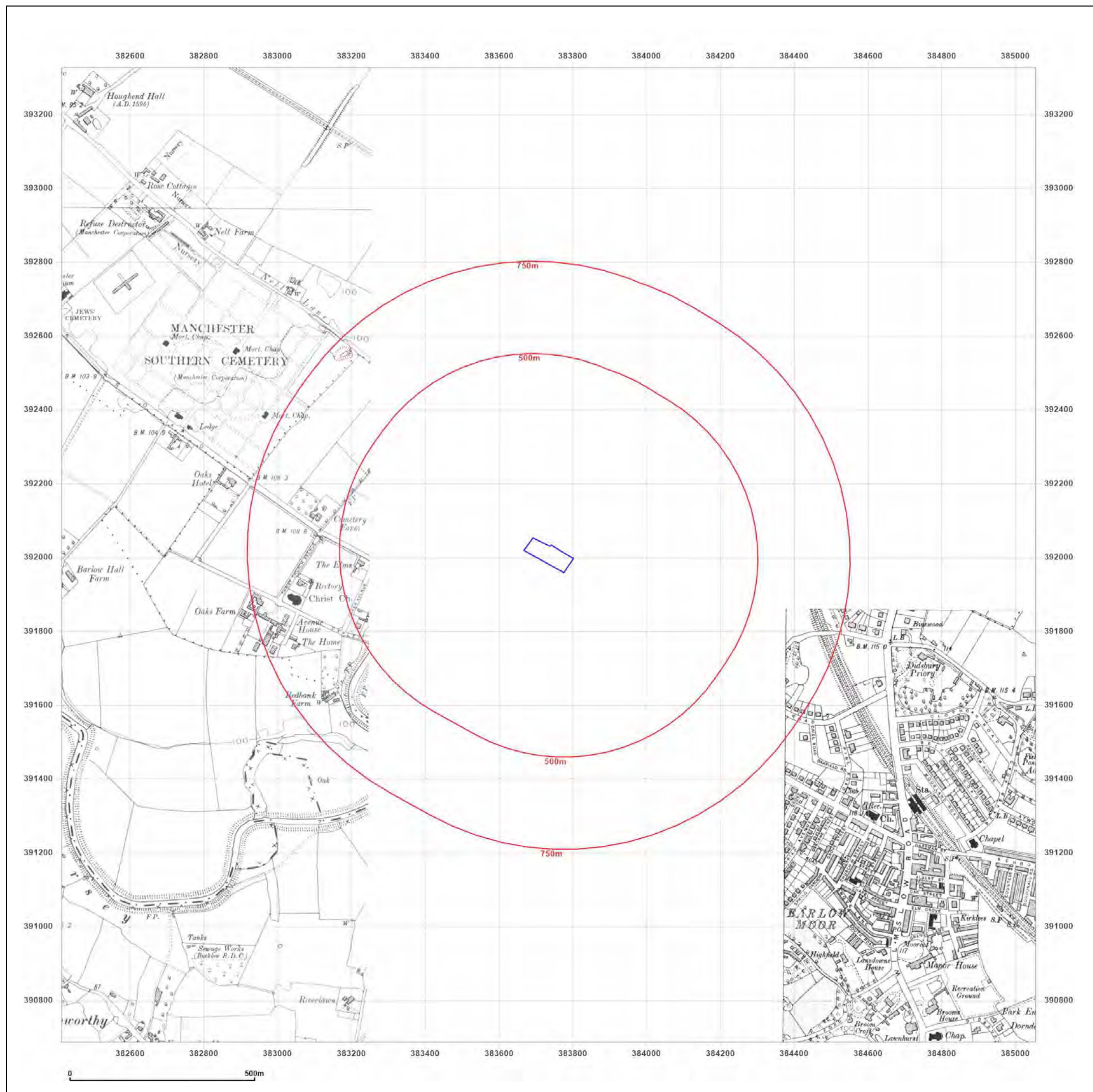
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Site Details:

Withington CDC, M20 2LR

Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

Map date: 1908-1911

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1873
Revised 1911
Edition 1911
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Surveyed 1873
Revised 1908
Edition 1908
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1904
Edition 1911
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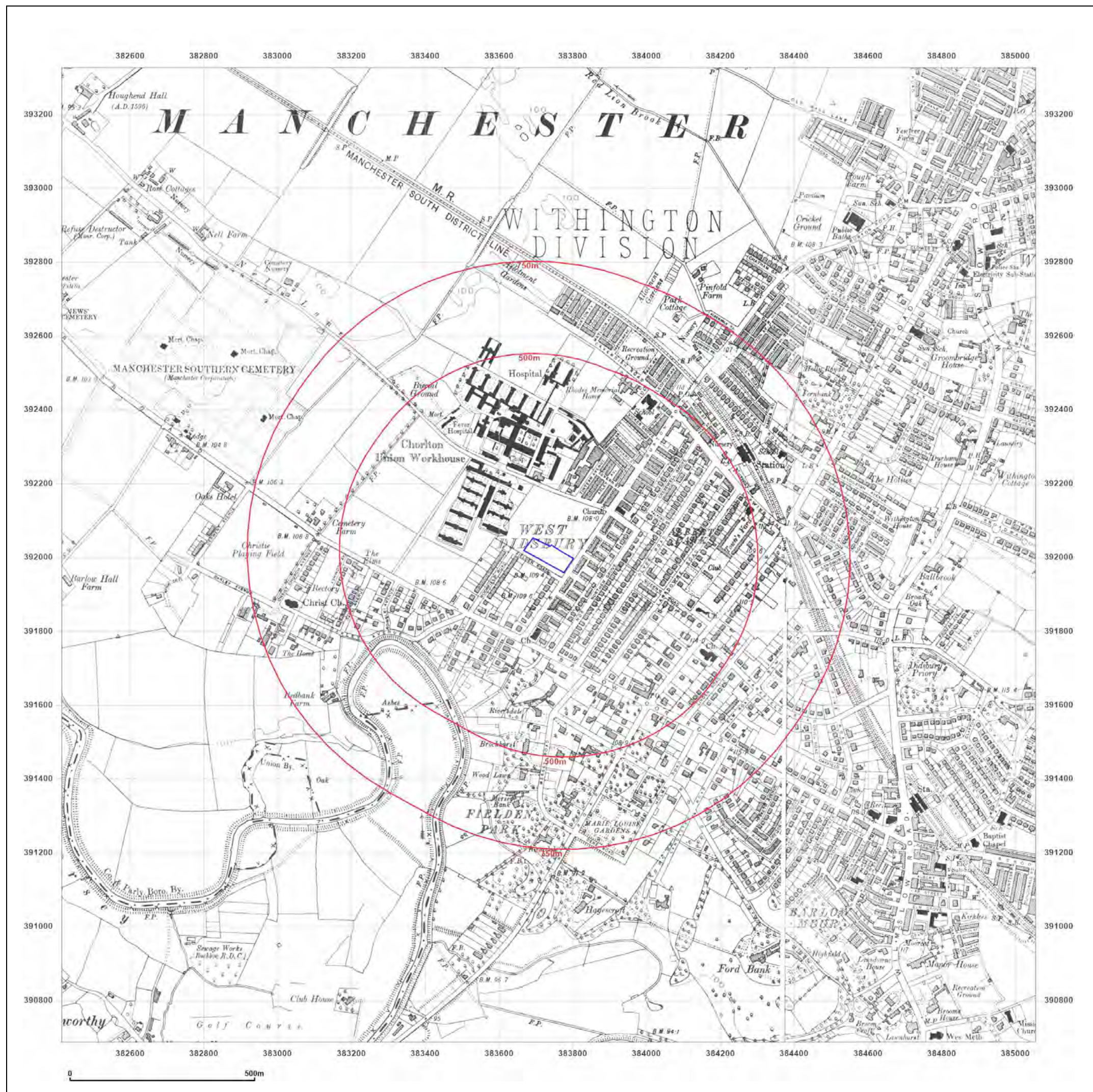


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Site Details:

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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

Map date: 1923

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1916
Edition 1923
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Levelled 1915

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

Surveyed 1844
Revised 1916
Edition 1923
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Revised 1916
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Site Details:

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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

Map date: 1934-1938

Scale: 1:10,560

Printed at: 1:10,560



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Revised 1934
Edition 1934
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Levelled 1927

Surveyed 1844
Revised 1934
Edition 1934
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Revised 1938
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Revised 1934
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Site Details:

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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

Map date: 1938

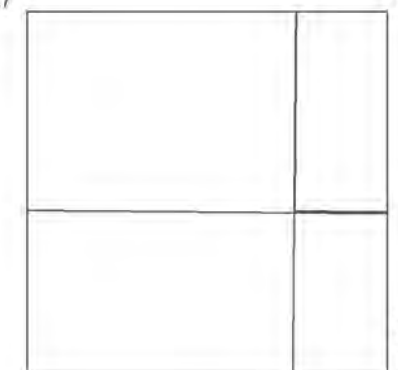
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Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
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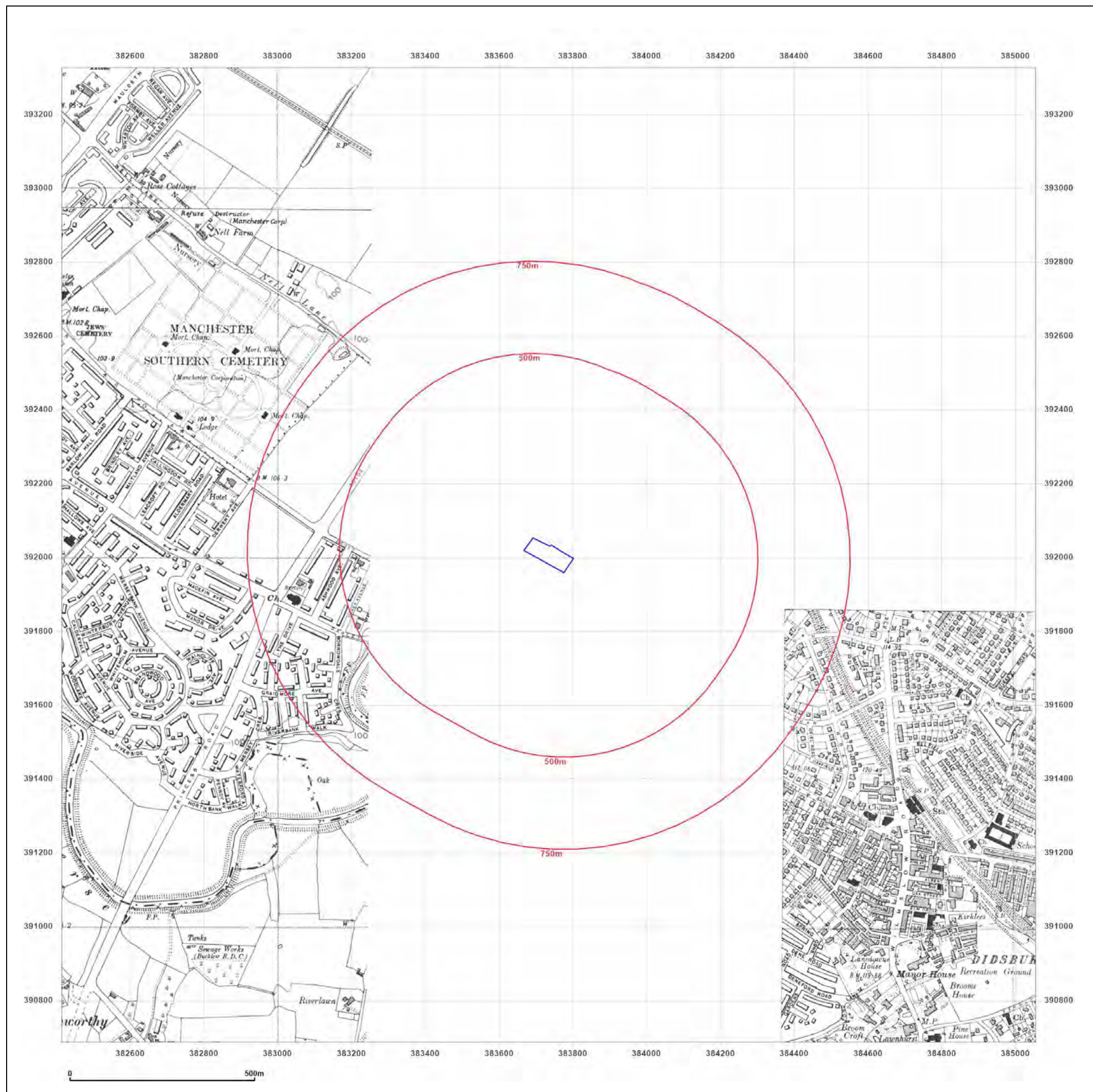
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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

Map date: 1938

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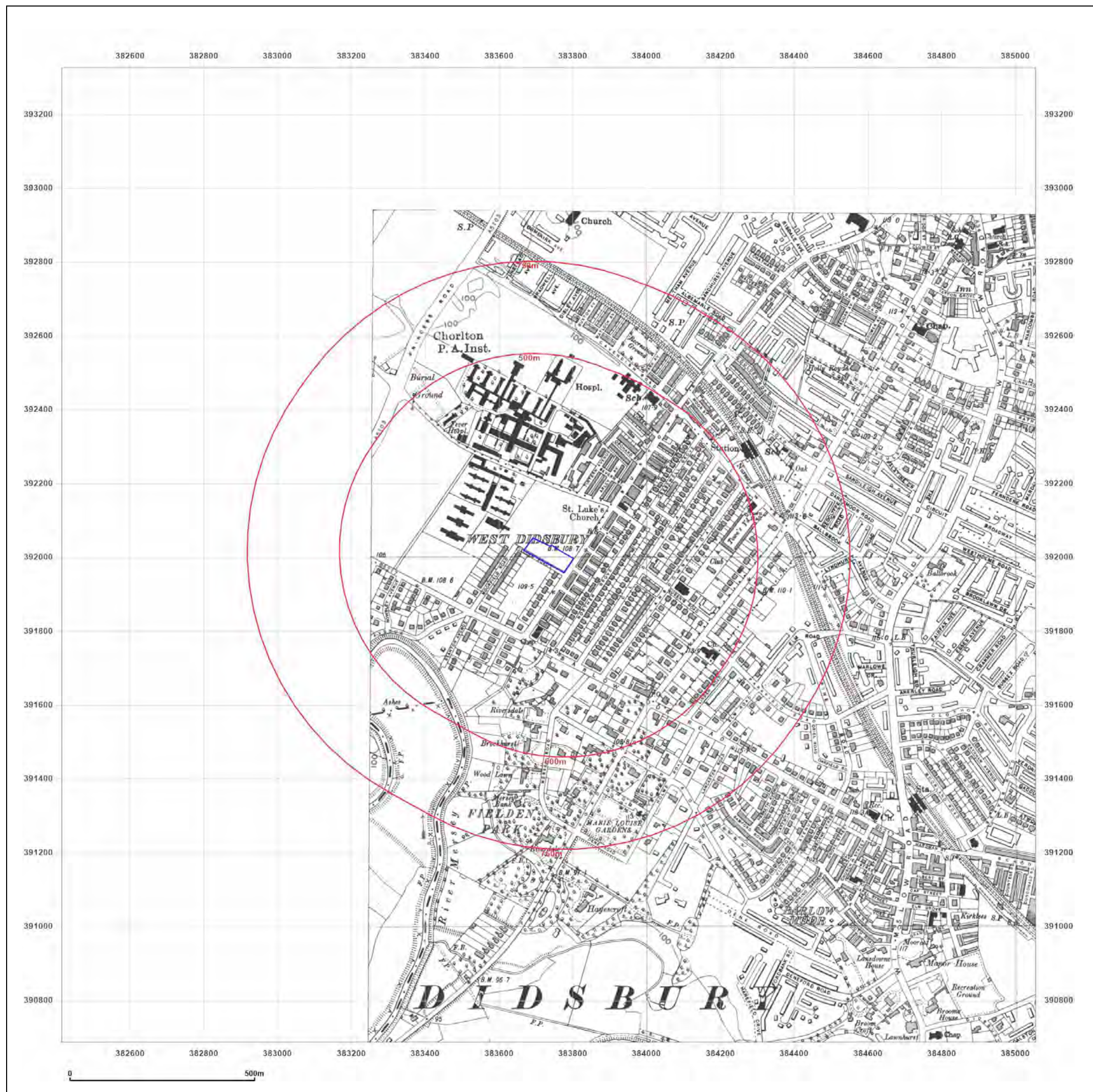


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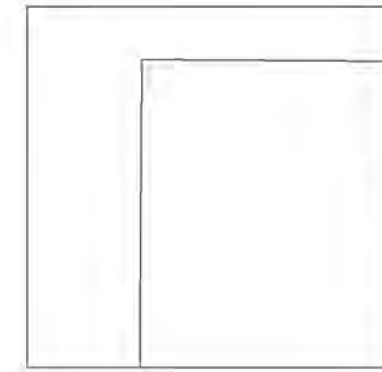
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Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: County Series

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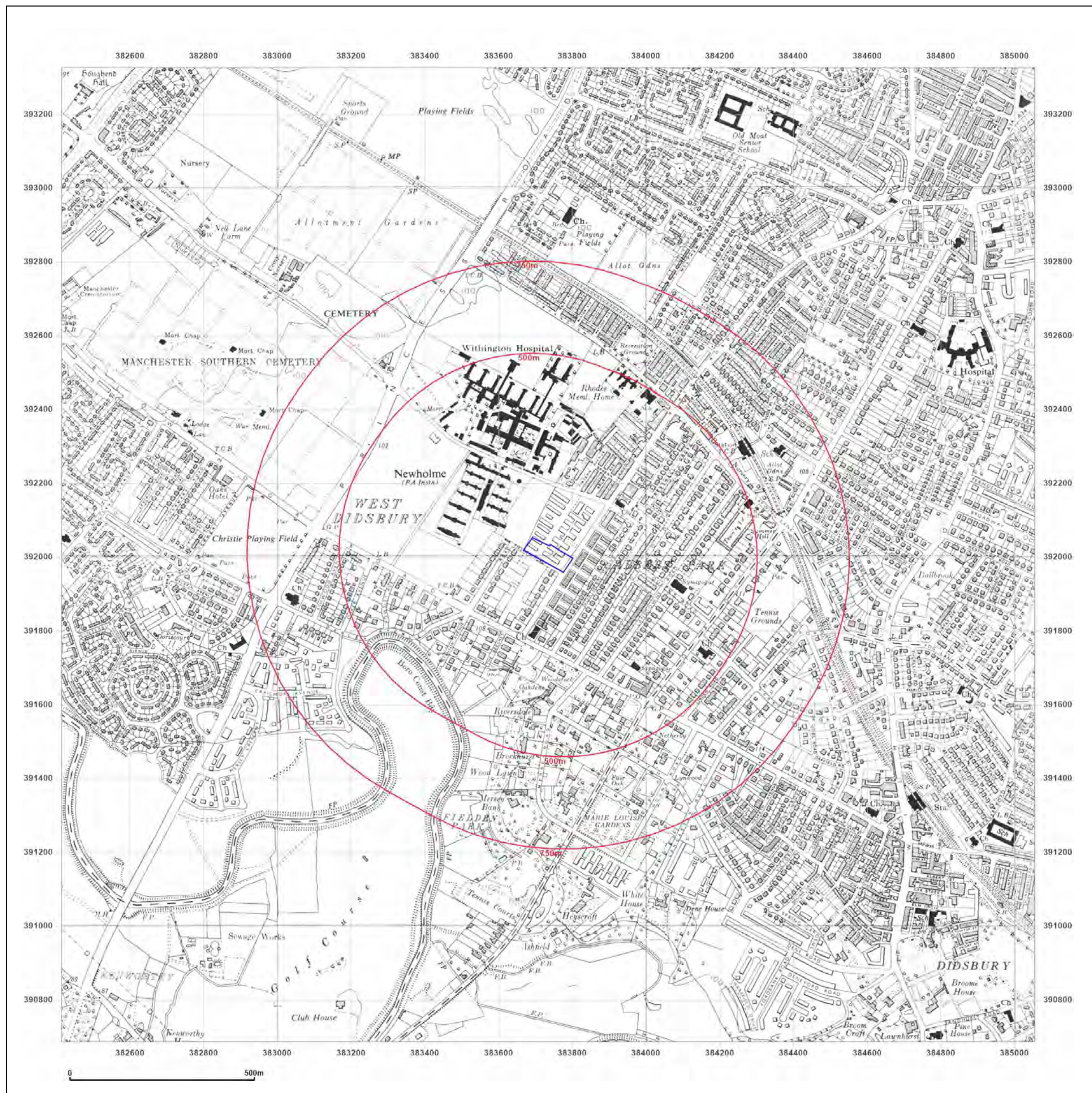


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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: Provisional

Map date: 1955

Scale: 1:10,560

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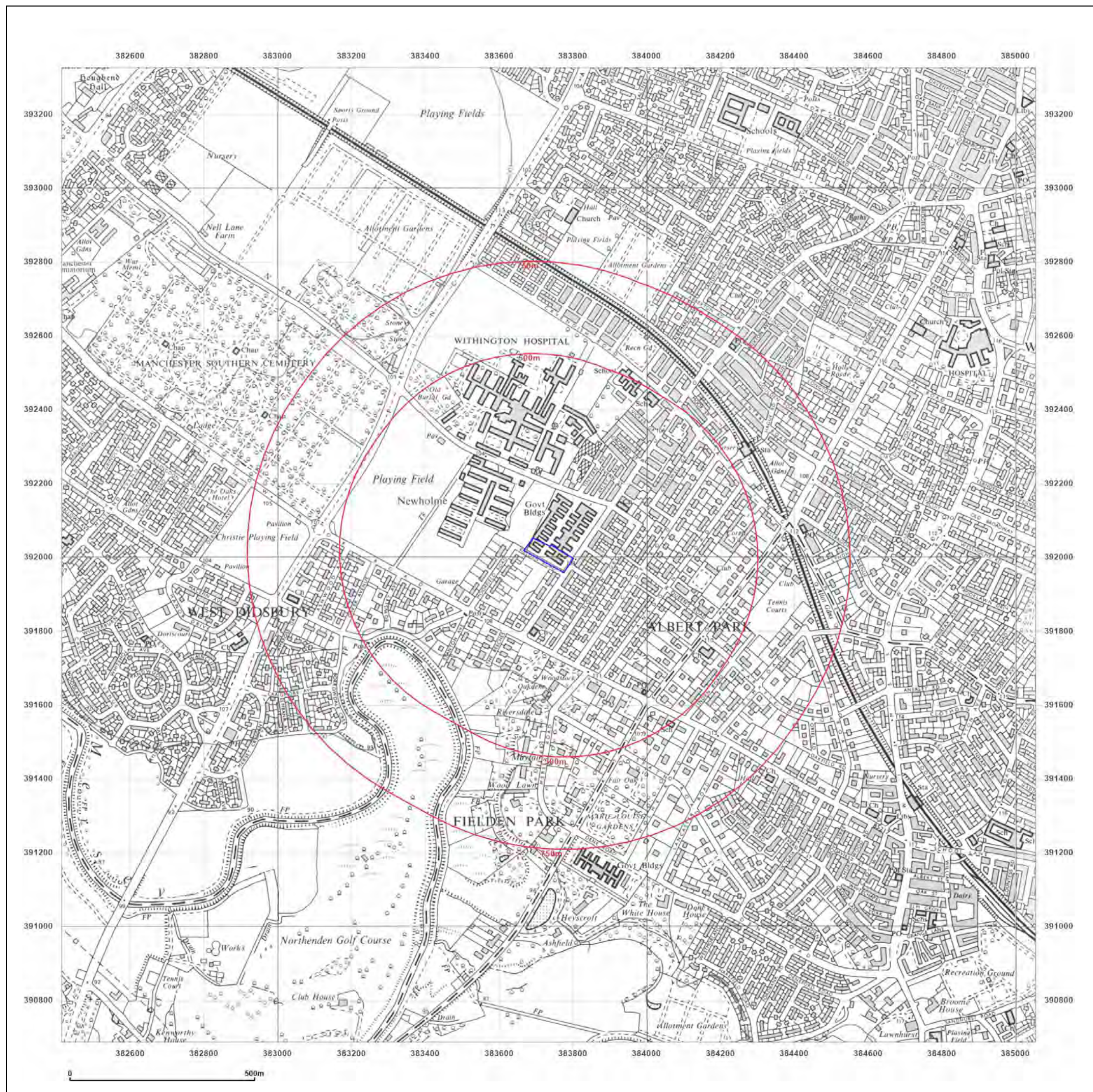


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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: Provisional
Map date: 1965-1966
Scale: 1:10,560
Printed at: 1:10,560

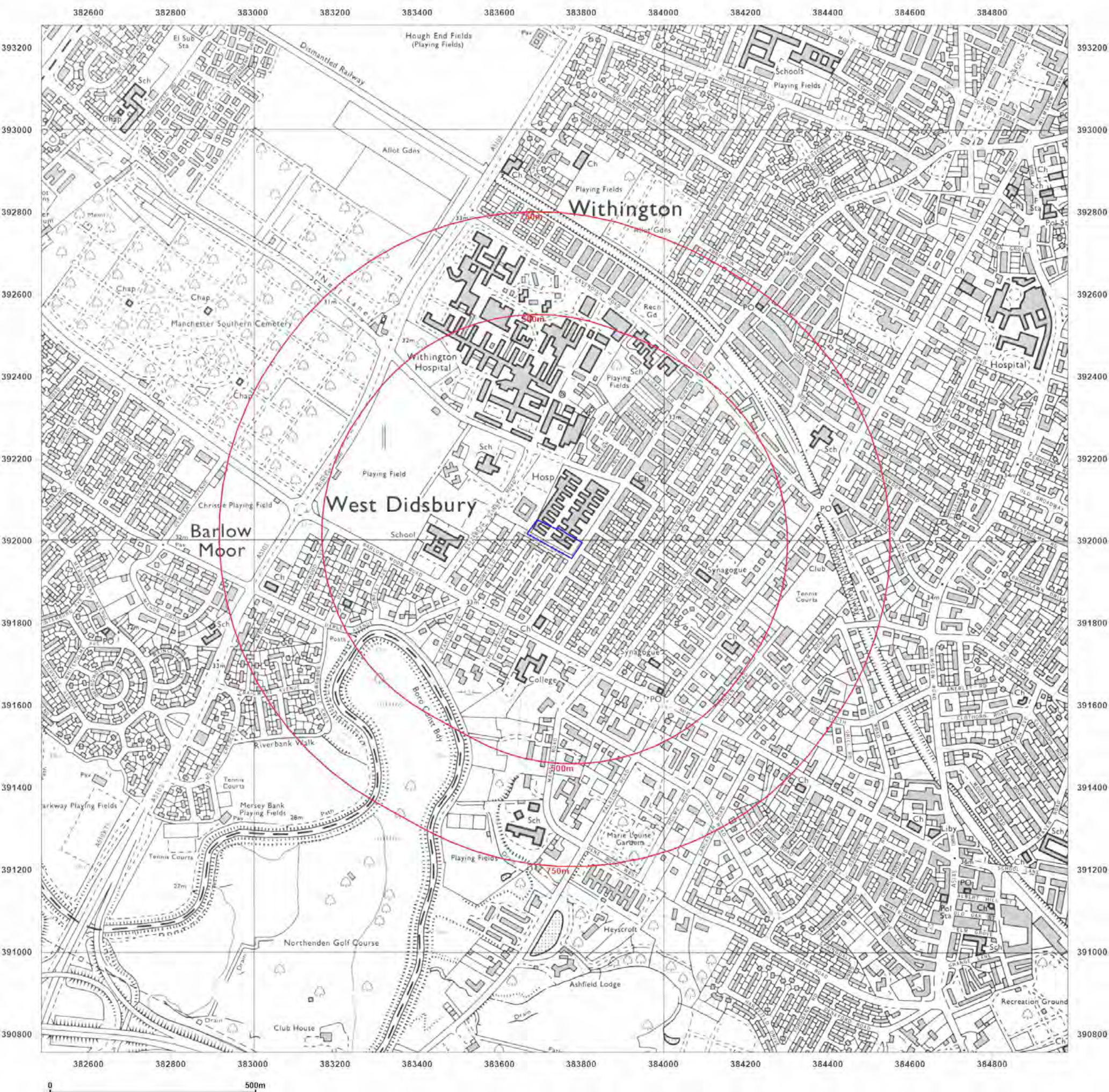


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Client Ref:	EMS_839318_1037256
Report Ref:	EMS-839318_1077778
Grid Ref:	383734, 392006
Map Name:	National Grid
Map date:	1981
Scale:	1:10,000
Printed at:	1:10,000



Surveyed 1977
Revised 1981
Edition N/A
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Levelled 1976



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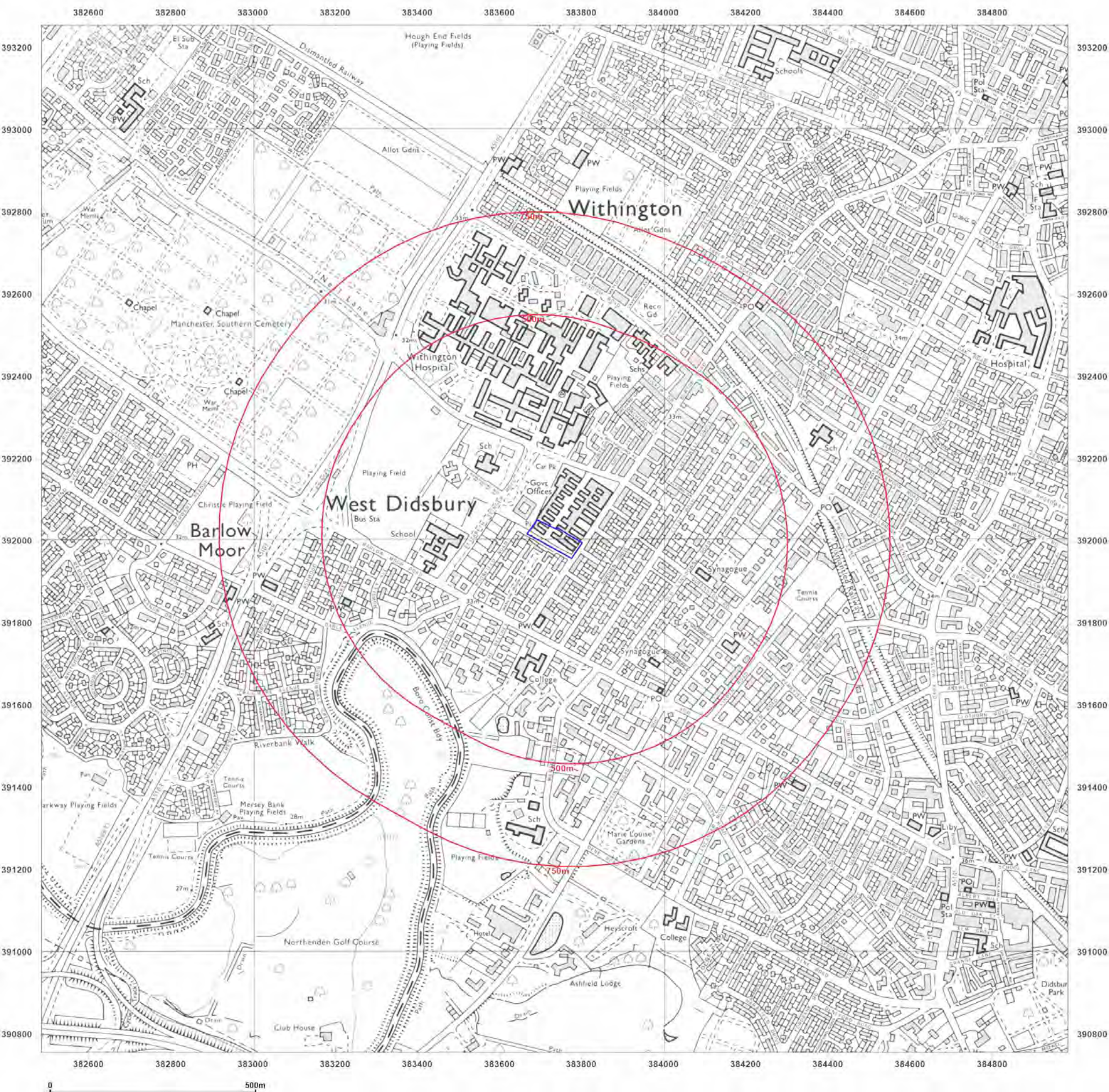


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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 1988

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1985
Revised 1988
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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



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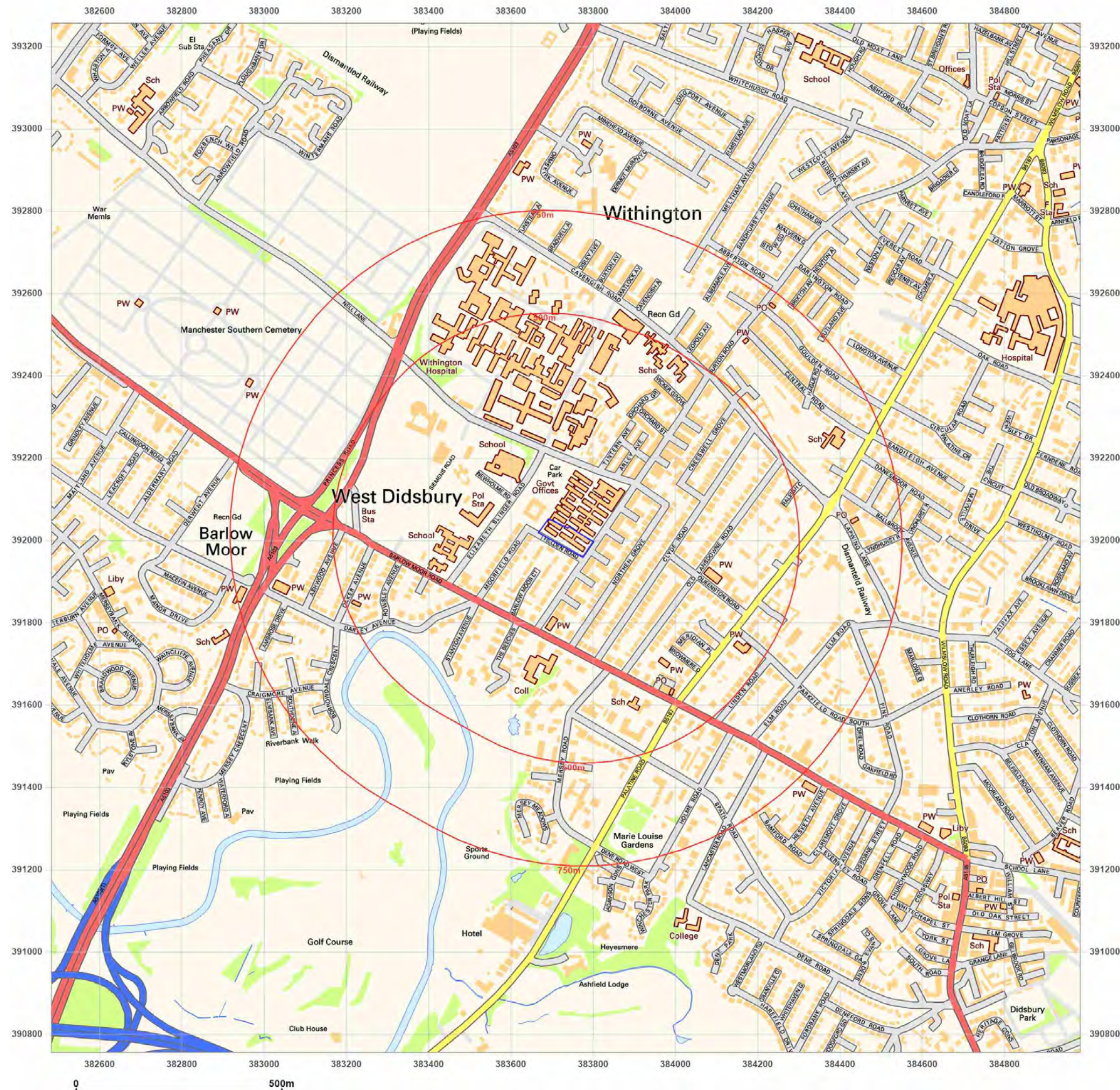


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Client Ref: EMS_839318_1037256
Report Ref: EMS-839318_1077778
Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



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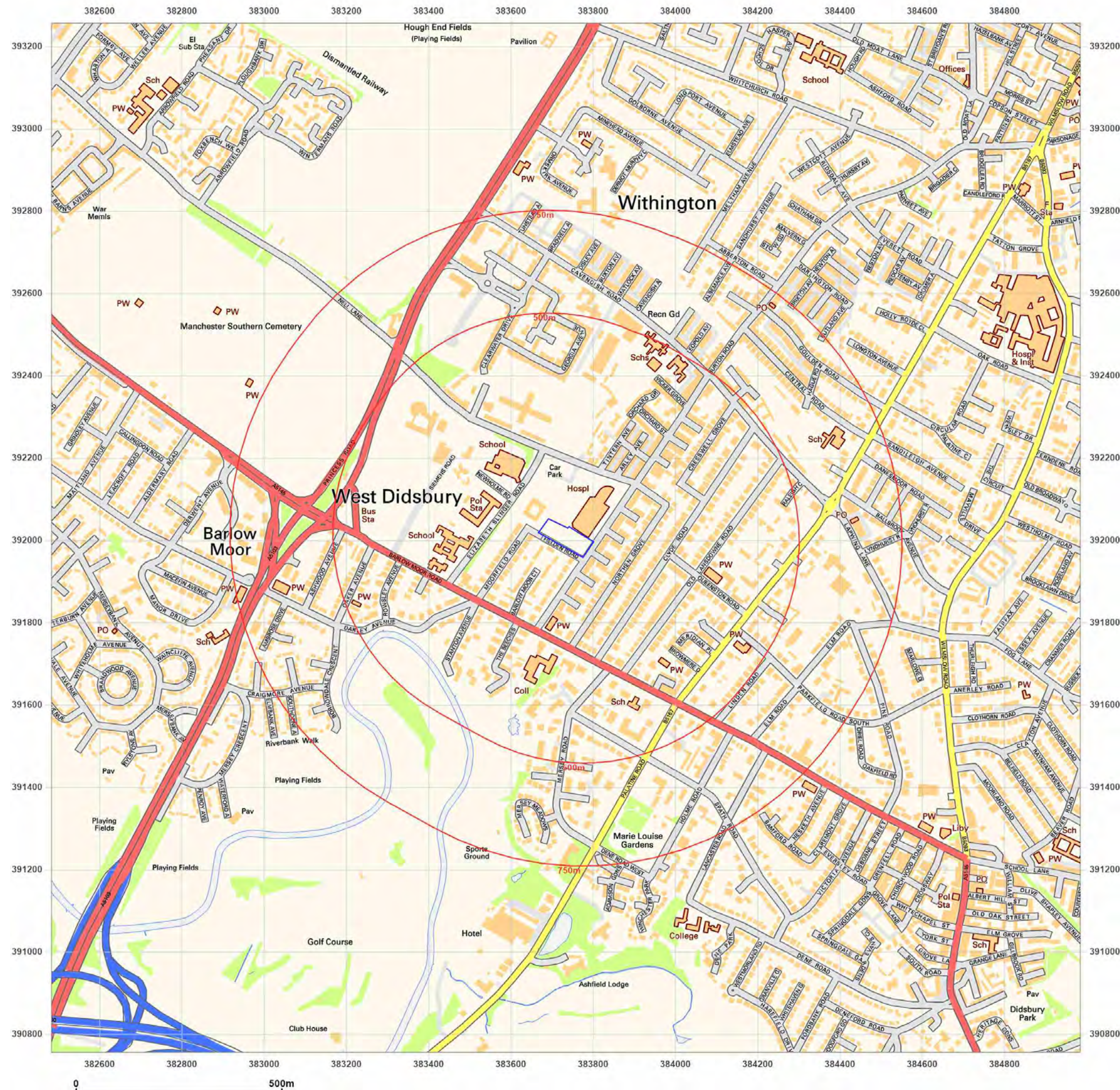


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Site Details:

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Client Ref: EMS_839318_1037256

Report Ref: EMS-839318_1077778

Grid Ref: 383734, 392006

Map Name: National Grid

Map date: 2023

Scale: 1:10,000

Printed at: 1:10,000



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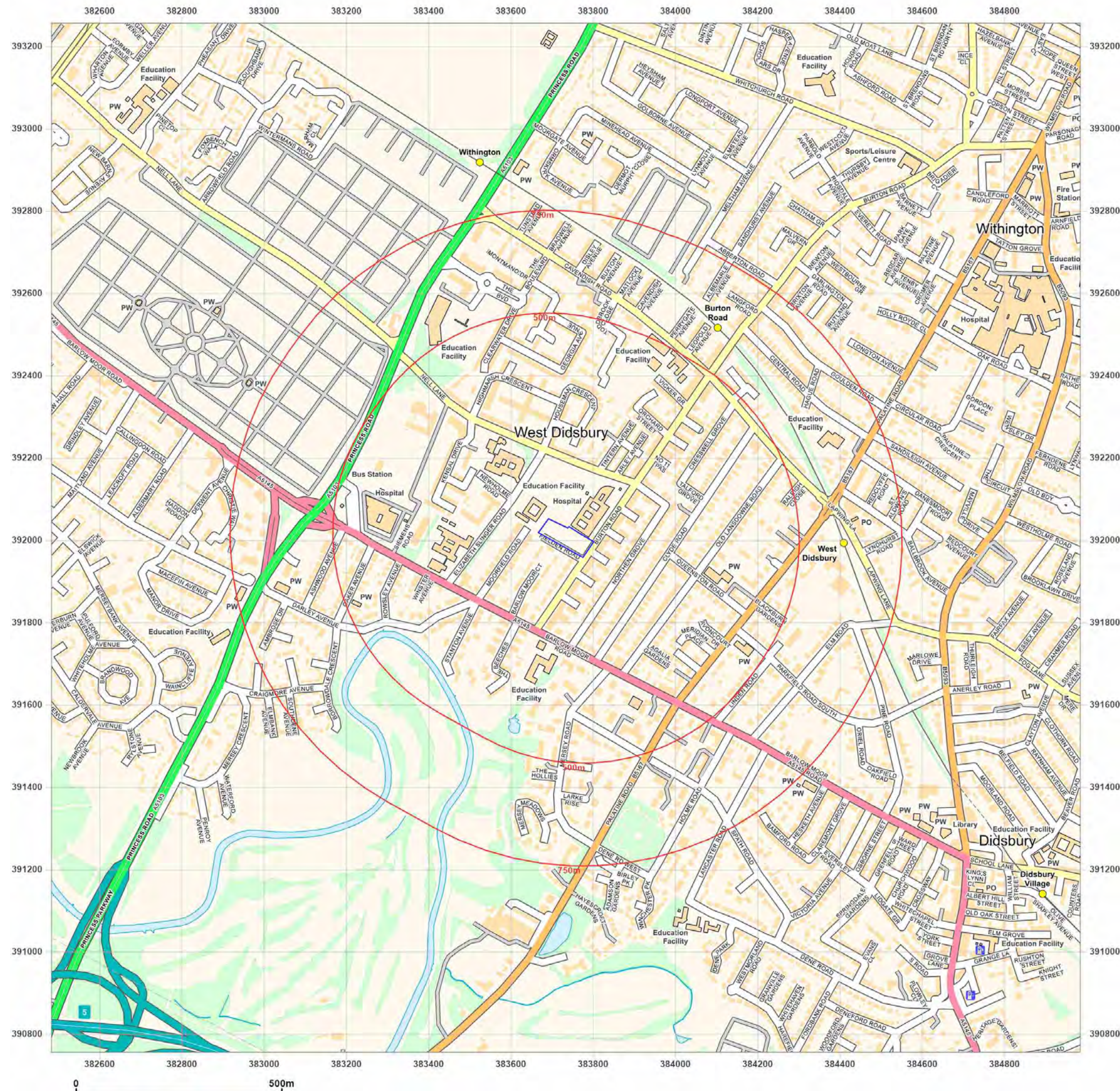


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Map legend available at:
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APPENDIX 4 – BGS Records

55895-2654
8383 9203

REMARKS

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IN CONFIDENCE

M/c 5931

**COMMERCIAL
IN CONFIDENCE**

APPENDIX 5 - Groundsure Report

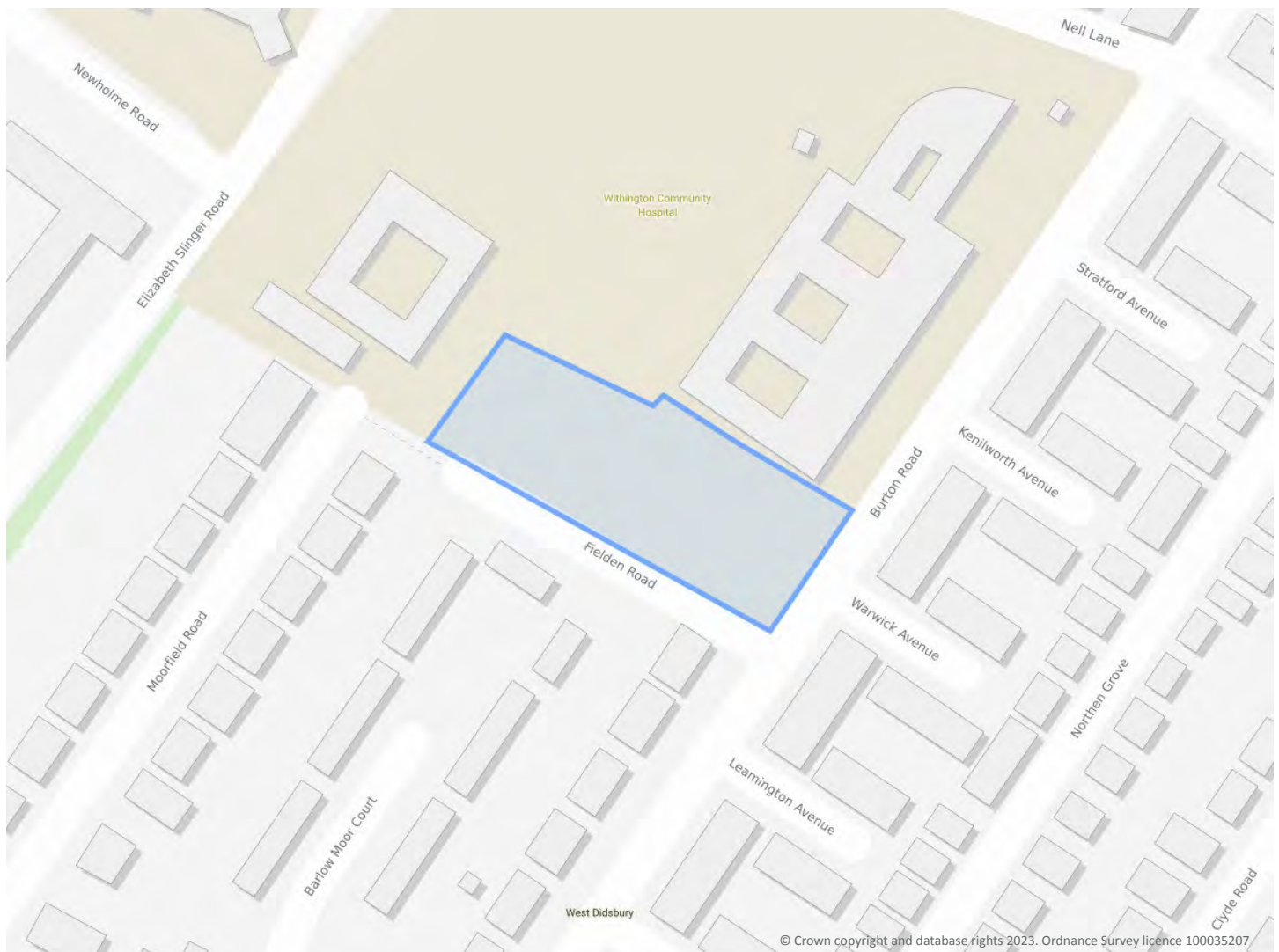
Withington CDC, M20 2LR

Order Details

Date: 24/01/2023
Your ref: EMS_839318_1037256
Our Ref: EMS-839318_1077779

Site Details

Location: 383735 392007
Area: 0.56 ha
Authority: [Manchester City Council](#)



Summary of findings

p. 2

Aerial image

p. 8

OS MasterMap site plan

p.12

groundsure.com/insightuserguide

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
13	1.1	Historical industrial land uses	1	0	15	43	-
16	1.2	Historical tanks	0	0	0	5	-
16	1.3	Historical energy features	0	0	4	12	-
17	1.4	Historical petrol stations	0	0	0	0	-
18	1.5	Historical garages	0	0	4	0	-
18	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
19	2.1	Historical industrial land uses	1	0	19	52	-
22	2.2	Historical tanks	0	0	0	11	-
23	2.3	Historical energy features	0	0	14	30	-
25	2.4	Historical petrol stations	0	0	0	0	-
25	2.5	Historical garages	0	0	6	0	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
26	3.1	Active or recent landfill	0	0	0	0	-
26	3.2	Historical landfill (BGS records)	0	0	0	0	-
27	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
27	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
27	3.5	Historical waste sites	0	0	0	1	-
27	3.6	Licensed waste sites	0	0	0	0	-
28	3.7	Waste exemptions	0	0	3	14	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
30	4.1	Recent industrial land uses	0	0	10	-	-
31	4.2	Current or recent petrol stations	0	0	1	1	-
32	4.3	Electricity cables	0	0	0	0	-
32	4.4	Gas pipelines	0	0	0	0	-
32	4.5	Sites determined as Contaminated Land	0	0	0	0	-



32	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
32	4.7	Regulated explosive sites	0	0	0	0	-
33	4.8	Hazardous substance storage/usage	0	0	0	0	-
33	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
33	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
33	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
33	4.12	<u>Radioactive Substance Authorisations</u>	0	0	0	3	-
34	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	0	10	-
36	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
36	4.15	Pollutant release to public sewer	0	0	0	0	-
36	4.16	List 1 Dangerous Substances	0	0	0	0	-
36	4.17	List 2 Dangerous Substances	0	0	0	0	-
37	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
37	4.19	Pollution inventory substances	0	0	0	0	-
37	4.20	Pollution inventory waste transfers	0	0	0	0	-
37	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
38	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
40	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
41	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
42	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
42	5.5	Groundwater vulnerability- local information	None (within 0m)				
43	5.6	<u>Groundwater abstractions</u>	0	0	0	0	4
45	5.7	<u>Surface water abstractions</u>	0	0	0	0	2
45	5.8	Potable abstractions	0	0	0	0	0
46	5.9	Source Protection Zones	0	0	0	0	-
46	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
47	6.1	Water Network (OS MasterMap)	0	0	0	-	-

47	6.2	Surface water features	0	0	0	-	-
48	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
48	6.4	<u>WFD Surface water bodies</u>	0	0	0	-	-
49	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
50	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
50	7.2	Historical Flood Events	0	0	0	-	-
50	7.3	Flood Defences	0	0	0	-	-
51	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
51	7.5	Flood Storage Areas	0	0	0	-	-
52	7.6	Flood Zone 2	None (within 50m)				
52	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
53	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
55	9.1	<u>Groundwater flooding</u>	Moderate-High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
56	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
57	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
57	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
57	10.4	Special Protection Areas (SPA)	0	0	0	0	0
57	10.5	National Nature Reserves (NNR)	0	0	0	0	0
58	10.6	<u>Local Nature Reserves (LNR)</u>	0	0	0	0	2
58	10.7	<u>Designated Ancient Woodland</u>	0	0	0	0	2
58	10.8	Biosphere Reserves	0	0	0	0	0
59	10.9	Forest Parks	0	0	0	0	0
59	10.10	Marine Conservation Zones	0	0	0	0	0
59	10.11	<u>Green Belt</u>	0	0	0	1	1
59	10.12	Proposed Ramsar sites	0	0	0	0	0



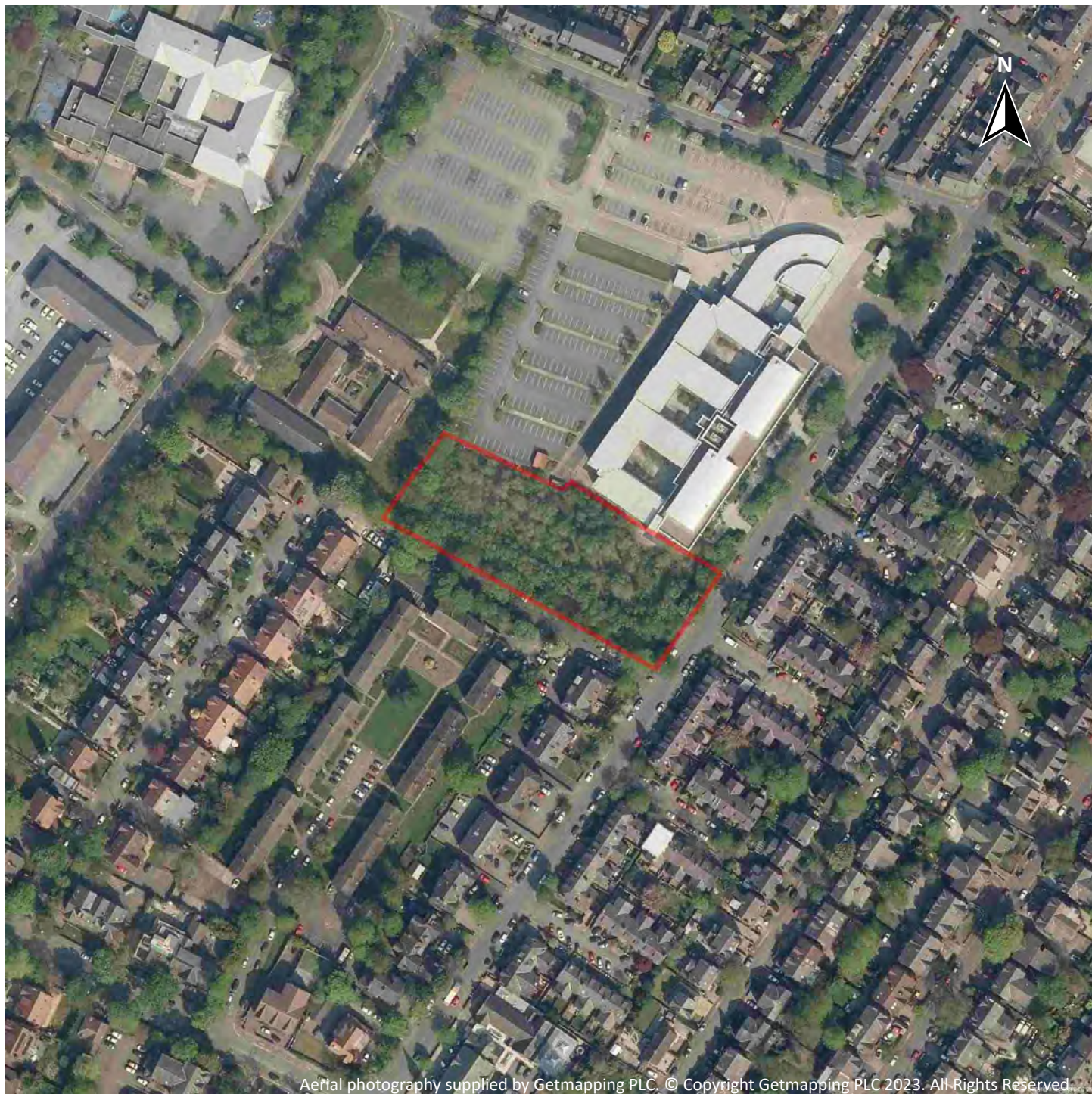
60	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
60	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
60	10.15	Nitrate Sensitive Areas	0	0	0	0	0
60	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
61	10.17	SSSI Impact Risk Zones	0	-	-	-	-
61	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
62	11.1	World Heritage Sites	0	0	0	-	-
63	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
63	11.3	National Parks	0	0	0	-	-
63	11.4	Listed Buildings	0	0	0	-	-
63	<u>11.5</u>	<u>Conservation Areas</u>	0	1	0	-	-
64	11.6	Scheduled Ancient Monuments	0	0	0	-	-
64	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
65	<u>12.1</u>	<u>Agricultural Land Classification</u>	Urban (within 250m)				
66	12.2	Open Access Land	0	0	0	-	-
66	12.3	Tree Felling Licences	0	0	0	-	-
66	12.4	Environmental Stewardship Schemes	0	0	0	-	-
66	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
67	13.1	Priority Habitat Inventory	0	0	0	-	-
67	13.2	Habitat Networks	0	0	0	-	-
67	13.3	Open Mosaic Habitat	0	0	0	-	-
67	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
68	<u>14.1</u>	<u>10k Availability</u>	Identified (within 500m)				
69	<u>14.2</u>	<u>Artificial and made ground (10k)</u>	0	0	0	2	-
70	<u>14.3</u>	<u>Superficial geology (10k)</u>	1	0	0	2	-



71	14.4	Landslip (10k)	0	0	0	0	-
72	14.5	<u>Bedrock geology (10k)</u>	1	0	0	0	-
73	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
74	15.1	<u>50k Availability</u>	Identified (within 500m)				
75	15.2	Artificial and made ground (50k)	0	0	0	0	-
75	15.3	Artificial ground permeability (50k)	0	0	-	-	-
76	15.4	<u>Superficial geology (50k)</u>	1	0	0	3	-
77	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
77	15.6	Landslip (50k)	0	0	0	0	-
77	15.7	Landslip permeability (50k)	None (within 50m)				
78	15.8	<u>Bedrock geology (50k)</u>	1	0	0	0	-
79	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
79	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
80	16.1	<u>BGS Boreholes</u>	0	1	0	-	-
Page	Section	Natural ground subsidence					
81	17.1	<u>Shrink swell clays</u>	Negligible (within 50m)				
82	17.2	<u>Running sands</u>	Very low (within 50m)				
83	17.3	<u>Compressible deposits</u>	Negligible (within 50m)				
84	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
85	17.5	<u>Landslides</u>	Very low (within 50m)				
86	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
87	18.1	Natural cavities	0	0	0	0	-
88	18.2	BritPits	0	0	0	0	-
88	18.3	<u>Surface ground workings</u>	0	0	5	-	-
88	18.4	Underground workings	0	0	0	0	0
88	18.5	Historical Mineral Planning Areas	0	0	0	0	-

89	18.6	Non-coal mining	0	0	0	0	0
89	18.7	Mining cavities	0	0	0	0	0
89	18.8	<u>JPB mining areas</u>	Identified (within 0m)				
89	18.9	Coal mining	None (within 0m)				
90	18.10	Brine areas	None (within 0m)				
90	18.11	Gypsum areas	None (within 0m)				
90	18.12	Tin mining	None (within 0m)				
90	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
91	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
93	20.1	<u>BGS Estimated Background Soil Chemistry</u>	3	0	-	-	-
93	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
93	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
94	21.1	Underground railways (London)	0	0	0	-	-
94	21.2	Underground railways (Non-London)	0	0	0	-	-
94	21.3	Railway tunnels	0	0	0	-	-
94	21.4	Historical railway and tunnel features	0	0	0	-	-
94	21.5	Royal Mail tunnels	0	0	0	-	-
95	21.6	Historical railways	0	0	0	-	-
95	21.7	Railways	0	0	0	-	-
95	21.8	Crossrail 1	0	0	0	0	-
95	21.9	Crossrail 2	0	0	0	0	-
95	21.10	HS2	0	0	0	0	-

Recent aerial photograph



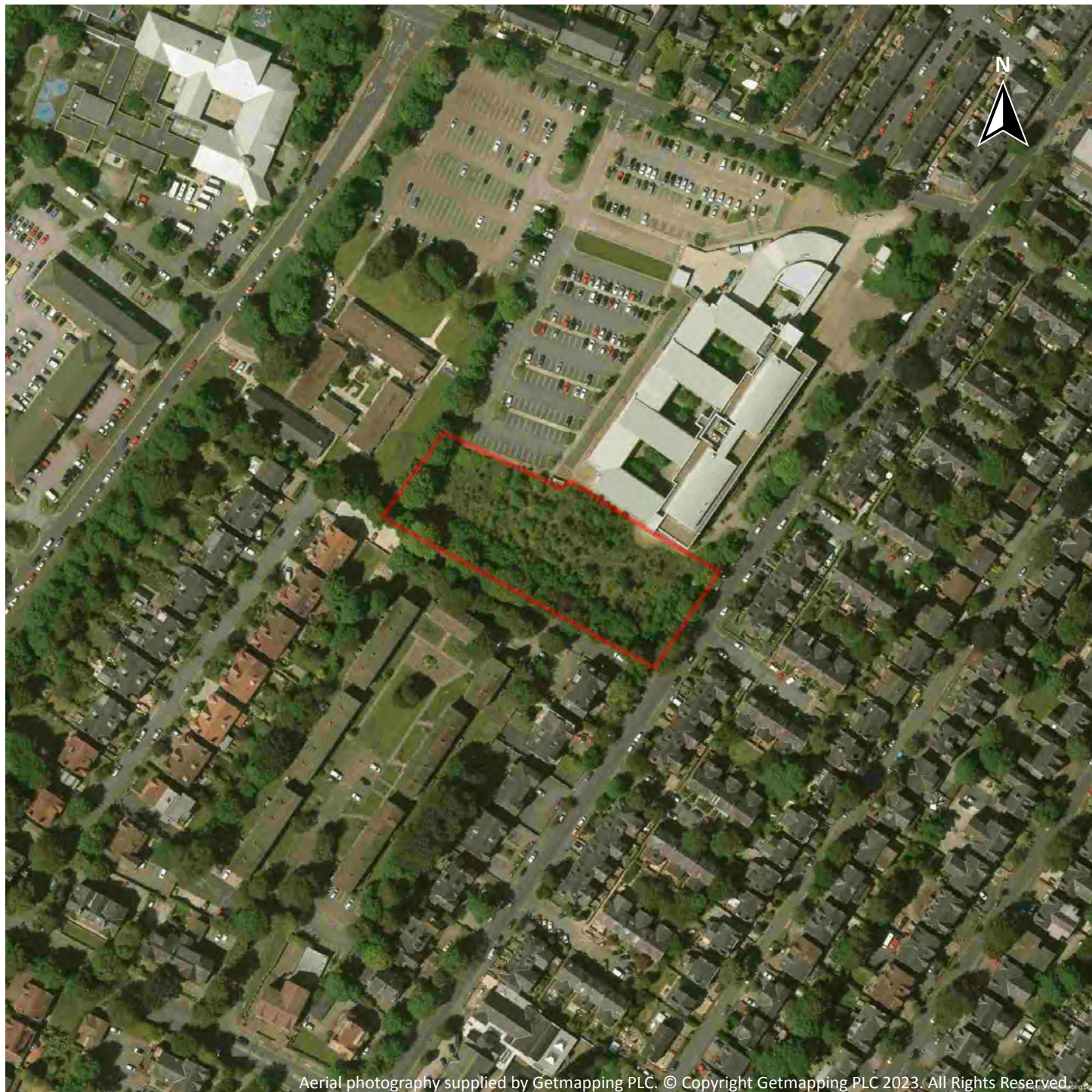
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Capture Date: 22/04/2019

Site Area: 0.56ha



Recent site history - 2015 aerial photograph



Capture Date: 11/06/2015

Site Area: 0.56ha



Recent site history - 2009 aerial photograph



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Capture Date: 02/06/2009

Site Area: 0.56ha



Contact us with any questions at:

info@groundsure.com

08444 159 000

Date: 24 January 2023

Recent site history - 2000 aerial photograph



Capture Date: 27/06/2000

Site Area: 0.56ha



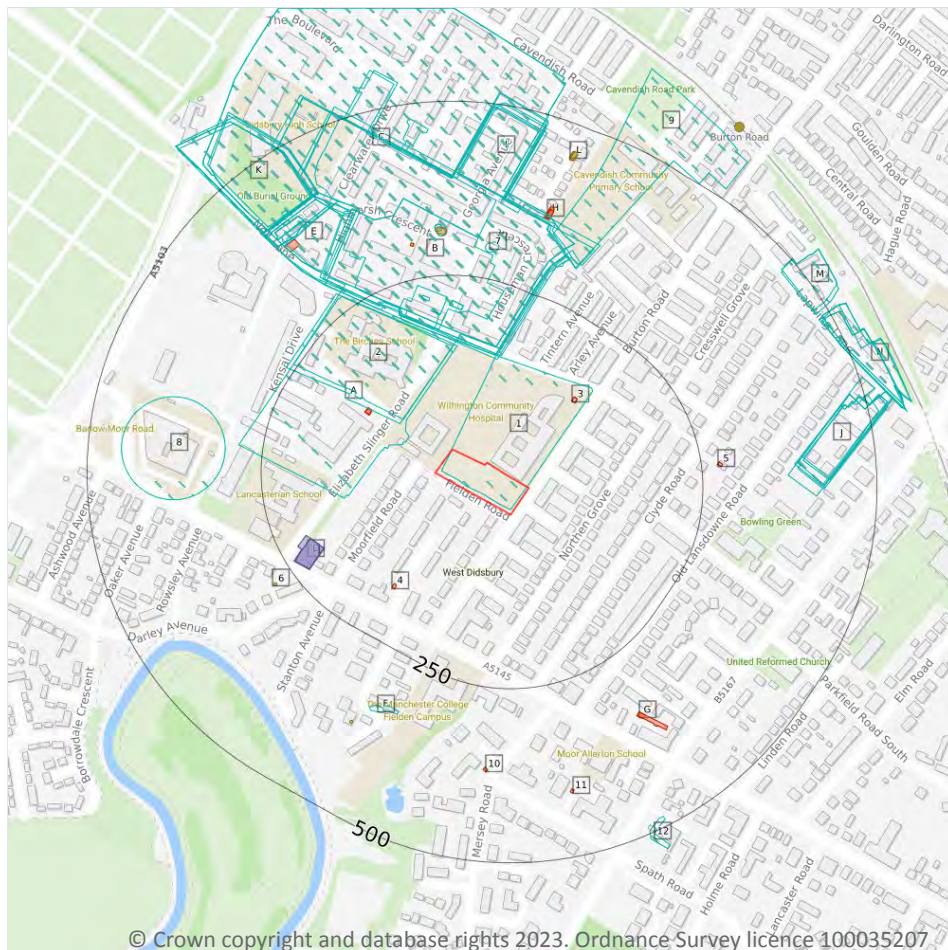
OS MasterMap site plan



Site Area: 0.56ha



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

59

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

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

ID	Location	Land use	Dates present	Group ID
1	On site	Hospital	1978	883747



ID	Location	Land use	Dates present	Group ID
A	60m NW	Unspecified Workhouse	1916 - 1923	960122
B	82m NW	Unspecified Workhouse	1911	864207
2	83m NW	Unspecified Workhouse	1905	879700
B	144m N	Hospital	1916	870725
B	148m N	Hospital	1938	862079
B	149m N	Hospital	1934	913780
B	151m N	Hospital	1905	983057
B	151m N	Hospital	1923	871015
C	160m N	Hospital	1955 - 1978	847604
C	160m N	Hospital	1988	990947
B	174m N	Hospital	1892	900179
B	174m N	Mortuary	1934 - 1938	977392
B	201m N	Mortuary	1892	854705
B	201m N	Mortuary	1905	862432
B	215m N	Mortuary	1955	915832
7	288m N	Unspecified Tank	1916 - 1934	949715
E	299m NW	Fever Hospital	1916	949422
8	303m W	Bus Station	1988	842915
C	306m N	Unspecified Workhouse	1892	937311
9	307m NE	Nursery	1892	831881
B	307m N	Unspecified Tank	1934	886957
B	307m N	Unspecified Tank	1916	935237
B	314m N	Unspecified Tank	1923	858015
B	314m N	Unspecified Tank	1905	902012
E	315m NW	Fever Hospital	1938	868563
F	325m S	Unspecified Ground Workings	1955	800600
I	368m N	Hospital	1938	885272
I	369m N	Hospital	1911	948580



ID	Location	Land use	Dates present	Group ID
J	373m E	Corporation Yard	1966	833877
E	379m NW	Fever Hospital	1905 - 1911	901922
E	380m NW	Fever Hospital	1923	855999
E	380m NW	Hospital	1892	861301
E	381m NW	Mortuary	1923	867148
J	383m E	Unspecified Yard	1938	854641
J	387m E	Unspecified Yard	1916 - 1934	956999
J	388m E	Unspecified Yard	1905	931795
E	391m NW	Mortuary	1905	855215
E	391m NW	Mortuary	1892	982543
J	396m E	Unspecified Yard	1911	986419
J	397m E	Unspecified Yard	1938	858223
E	401m NW	Mortuary	1916	876764
E	401m NW	Mortuary	1934	953596
E	405m NW	Mortuary	1938	925949
K	405m NW	Burial Ground	1916	933127
K	409m NW	Burial Ground	1938	988574
K	409m NW	Burial Ground	1905 - 1911	969378
K	411m NW	Cemetery	1892	843674
K	411m NW	Burial Ground	1923	879079
K	413m NW	Old Burial Ground	1966	823469
E	414m NW	Mortuary	1955	831597
M	477m NE	Nursery	1916 - 1923	932226
M	480m NE	Nursery	1905	891335
N	482m NE	Nursery	1938	957418
N	485m NE	Nursery	1934	898017
N	485m NE	Nursery	1916	956325
12	485m SE	Unspecified Ground Workings	1955	800601



ID	Location	Land use	Dates present	Group ID
N	488m NE	Nursery	1905 - 1911	903951
N	488m NE	Nursery	1923	990785

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

5

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

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

ID	Location	Land use	Dates present	Group ID
6	278m SW	Unspecified Tank	1935	114999
B	308m N	Unspecified Tank	1881 - 1933	144525
F	369m SW	Unspecified Tank	1922 - 1935	137148
L	449m N	Tanks	1987 - 1994	132576
L	449m N	Tanks	1990	137917

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

16

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

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

ID	Location	Land use	Dates present	Group ID
A	125m NW	Electricity Substation	1982 - 1990	84133



ID	Location	Land use	Dates present	Group ID
A	126m NW	Electricity Substation	1994	74479
3	139m NE	Electricity Substation	1971 - 1994	68499
4	168m SW	Electricity Substation	1971 - 1997	78782
5	273m E	Electricity Substation	1973 - 1996	64399
B	297m N	Electricity Substation	1982 - 1994	85103
G	338m SE	Electricity Substation	1971 - 1997	65868
G	338m SE	Electricity Substation	1955	77527
G	338m SE	Electricity Substation	1955	74594
H	358m N	Electricity Substation	1987	85353
H	358m N	Electricity Substation	1971	82273
H	359m N	Electricity Substation	1990 - 1994	81441
H	359m N	Electricity Substation	1982	67522
10	364m S	Electricity Substation	1985 - 1997	67263
E	366m NW	Electricity Substation	1955 - 1991	64909
11	403m S	Electricity Substation	1971 - 1985	72674

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

4

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

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

ID	Location	Land use	Dates present	Group ID
D	193m SW	Garage	1955	21208
D	193m SW	Garage	1985 - 1997	25876
D	196m W	Garage	1983 - 1992	24924
D	196m W	Garage	1955	24000

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

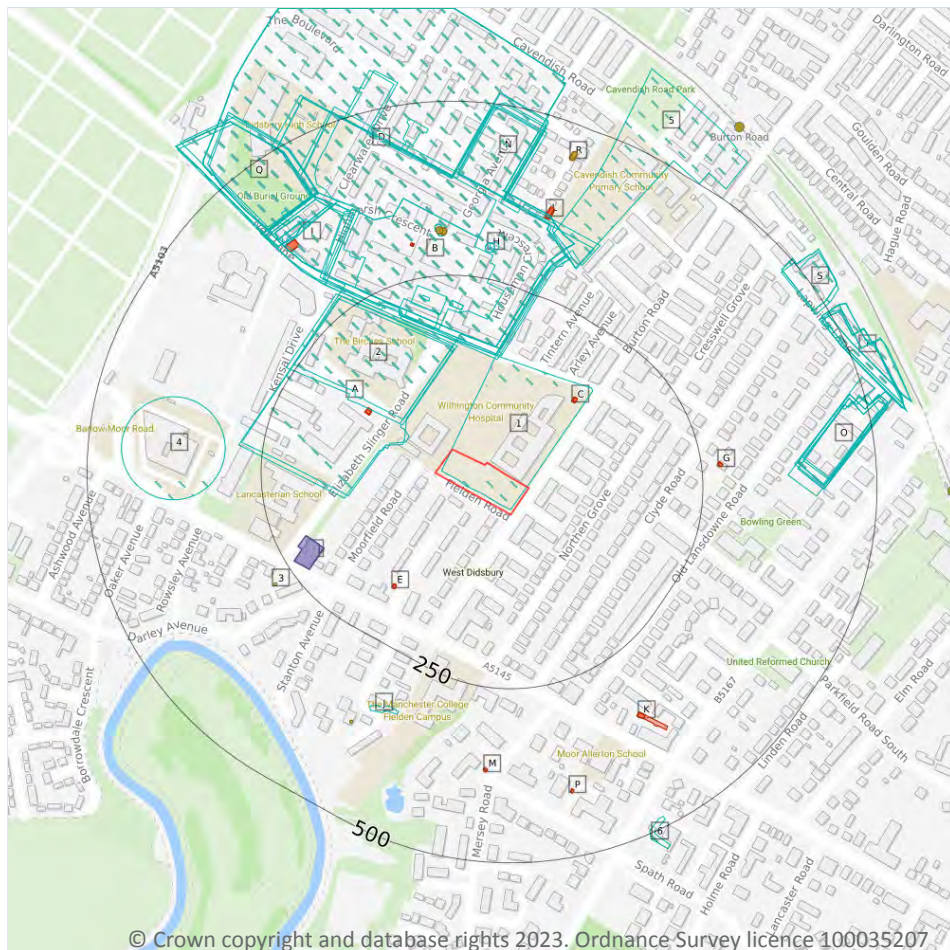
0

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

72

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 19**

ID	Location	Land Use	Date	Group ID
1	On site	Hospital	1978	883747
A	60m NW	Unspecified Workhouse	1923	960122
A	62m NW	Unspecified Workhouse	1916	960122



ID	Location	Land Use	Date	Group ID
B	82m NW	Unspecified Workhouse	1911	864207
2	83m NW	Unspecified Workhouse	1905	879700
B	144m N	Hospital	1916	870725
B	148m N	Hospital	1938	862079
B	149m N	Hospital	1934	913780
B	151m N	Hospital	1905	983057
B	151m N	Hospital	1923	871015
D	160m N	Hospital	1955	847604
D	160m N	Hospital	1978	847604
D	160m N	Hospital	1966	847604
D	160m N	Hospital	1988	990947
B	174m N	Hospital	1892	900179
B	174m N	Mortuary	1934	977392
B	195m N	Mortuary	1938	977392
B	201m N	Mortuary	1905	862432
B	201m N	Mortuary	1892	854705
B	215m N	Mortuary	1955	915832
H	288m N	Unspecified Tank	1934	949715
H	288m N	Unspecified Tank	1916	949715
H	291m N	Unspecified Tank	1923	949715
I	299m NW	Fever Hospital	1916	949422
4	303m W	Bus Station	1988	842915
D	306m N	Unspecified Workhouse	1892	937311
5	307m NE	Nursery	1892	831881
B	307m N	Unspecified Tank	1934	886957
B	307m N	Unspecified Tank	1916	935237
B	314m N	Unspecified Tank	1905	902012
B	314m N	Unspecified Tank	1923	858015



ID	Location	Land Use	Date	Group ID
I	315m NW	Fever Hospital	1938	868563
J	325m S	Unspecified Ground Workings	1955	800600
N	368m N	Hospital	1938	885272
N	369m N	Hospital	1911	948580
O	373m E	Corporation Yard	1966	833877
I	379m NW	Fever Hospital	1911	901922
I	380m NW	Fever Hospital	1905	901922
I	380m NW	Hospital	1892	861301
I	380m NW	Fever Hospital	1923	855999
I	381m NW	Mortuary	1923	867148
O	383m E	Unspecified Yard	1938	854641
O	387m E	Unspecified Yard	1934	956999
O	387m E	Unspecified Yard	1916	956999
O	388m E	Unspecified Yard	1905	931795
O	388m E	Unspecified Yard	1923	956999
I	391m NW	Mortuary	1905	855215
I	391m NW	Mortuary	1892	982543
O	396m E	Unspecified Yard	1911	986419
O	397m E	Unspecified Yard	1938	858223
I	401m NW	Mortuary	1934	953596
I	401m NW	Mortuary	1916	876764
I	405m NW	Mortuary	1938	925949
Q	405m NW	Burial Ground	1916	933127
Q	409m NW	Burial Ground	1938	988574
Q	409m NW	Burial Ground	1911	969378
Q	411m NW	Burial Ground	1923	879079
Q	411m NW	Burial Ground	1905	969378
Q	411m NW	Cemetery	1892	843674



ID	Location	Land Use	Date	Group ID
Q	413m NW	Old Burial Ground	1966	823469
I	414m NW	Mortuary	1955	831597
S	477m NE	Nursery	1916	932226
S	480m NE	Nursery	1905	891335
S	480m NE	Nursery	1923	932226
T	482m NE	Nursery	1938	957418
T	485m NE	Nursery	1934	898017
T	485m NE	Nursery	1916	956325
6	485m SE	Unspecified Ground Workings	1955	800601
T	488m NE	Nursery	1905	903951
T	488m NE	Nursery	1923	990785
T	496m NE	Nursery	1938	957418
T	497m NE	Nursery	1911	903951

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

11

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 19**

ID	Location	Land Use	Date	Group ID
3	278m SW	Unspecified Tank	1935	114999
B	308m N	Unspecified Tank	1894	144525
B	308m N	Unspecified Tank	1907	144525
B	308m N	Unspecified Tank	1922	144525
B	310m N	Unspecified Tank	1881	144525
B	310m N	Unspecified Tank	1933	144525
J	369m SW	Unspecified Tank	1922	137148



ID	Location	Land Use	Date	Group ID
J	369m SW	Unspecified Tank	1935	137148
R	449m N	Tanks	1987	132576
R	449m N	Tanks	1990	137917
R	449m N	Tanks	1994	132576

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

44

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 19**

ID	Location	Land Use	Date	Group ID
A	125m NW	Electricity Substation	1982	84133
A	125m NW	Electricity Substation	1982	84133
A	125m NW	Electricity Substation	1987	84133
A	126m NW	Electricity Substation	1990	84133
A	126m NW	Electricity Substation	1994	74479
C	139m NE	Electricity Substation	1990	68499
C	139m NE	Electricity Substation	1971	68499
C	139m NE	Electricity Substation	1994	68499
C	140m NE	Electricity Substation	1982	68499
C	140m NE	Electricity Substation	1982	68499
C	140m NE	Electricity Substation	1987	68499
E	168m SW	Electricity Substation	1985	78782
E	169m SW	Electricity Substation	1997	78782
E	169m SW	Electricity Substation	1971	78782
G	273m E	Electricity Substation	1993	64399
G	273m E	Electricity Substation	1996	64399



ID	Location	Land Use	Date	Group ID
G	273m E	Electricity Substation	1973	64399
G	273m E	Electricity Substation	1986	64399
G	273m E	Electricity Substation	1986	64399
B	297m N	Electricity Substation	1982	85103
B	297m N	Electricity Substation	1982	85103
B	297m N	Electricity Substation	1987	85103
B	297m N	Electricity Substation	1990	85103
B	298m N	Electricity Substation	1994	85103
K	338m SE	Electricity Substation	1985	65868
K	338m SE	Electricity Substation	1955	77527
K	338m SE	Electricity Substation	1955	74594
K	339m SE	Electricity Substation	1997	65868
K	339m SE	Electricity Substation	1971	65868
L	358m N	Electricity Substation	1987	85353
L	358m N	Electricity Substation	1971	82273
L	359m N	Electricity Substation	1990	81441
L	359m N	Electricity Substation	1982	67522
L	359m N	Electricity Substation	1982	67522
L	360m N	Electricity Substation	1994	81441
M	364m S	Electricity Substation	1997	67263
I	366m NW	Electricity Substation	1955	64909
I	366m NW	Electricity Substation	1980	64909
I	366m NW	Electricity Substation	1982	64909
I	366m NW	Electricity Substation	1991	64909
M	366m S	Electricity Substation	1985	67263
I	367m NW	Electricity Substation	1955	64909
P	403m S	Electricity Substation	1985	72674
P	404m S	Electricity Substation	1971	72674

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**6**

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 19**

ID	Location	Land Use	Date	Group ID
F	193m SW	Garage	1955	21208
F	193m SW	Garage	1985	25876
F	193m SW	Garage	1997	25876
F	196m W	Garage	1992	24924
F	196m W	Garage	1955	24000
F	196m W	Garage	1983	24924

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

1

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 26**

ID	Location	Address	Further Details	Date
C	397m NW	Site Address: Paupers Wood Junction Of, Nell Lane, Manchester, Greater Manchester, M20 2	Type of Site: Composting Toilet Planning application reference: 101801/FO/2013/S1 Description: Scheme comprises construction of single-storey timber structure on stilts to form waterless composting toilet with associated access ramp. Data source: Historic Planning Application Data Type: Point	-

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

3.6 Licensed waste sites

Records within 500m

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	17
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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 26**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	92m NE	Brian Hore Unit Nell Lane Manchester M20 2LR	EPR/HE5242FT /A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
A	92m NE	The Stables Old Withington Hospital Withington M20 2LR	EPR/KE5942FS /A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
1	219m W	Buccleuch Lodge, Withington Community Hospital, Elizabeth Slinger Rd, Manchester, M20 2XA	WEX271278	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	361m NW	SIR WILLIAM SIEMENS HOUSE, PRINCESS ROAD, MANCHESTER, M20 2UR	WEX029219	Treating waste exemption	Not on a farm	Aerobic composting and associated prior treatment
B	361m NW	SIR WILLIAM SIEMENS HOUSE, PRINCESS ROAD, MANCHESTER, M20 2UR	WEX029219	Using waste exemption	Not on a farm	Spreading waste on non-agricultural land to confer benefit
B	363m NW	Sir William Siemens House Princess Road MANCHESTER M20 2UR	EPR/QF0835JC /A001	Storing waste exemption	Both agricultural and non-agricultural waste	Storage of waste in a secure place
B	363m NW	Sir William Siemens House Princess Road MANCHESTER M20 2UR	EPR/QF0835JC /A001	Treating waste exemption	Both agricultural and non-agricultural waste	Aerobic composting and associated prior treatment
B	363m NW	Sir William Siemens House Princess Road MANCHESTER M20 2UR	EPR/QF0835JC /A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on non-agricultural land to confer benefit
C	396m NW	Bemus Construction Services Limited, Nell Lane, West Didsbury, Manchester, M202DU	WEX195925	Using waste exemption	Not on a farm	Use of waste in construction
C	396m NW	Bemus Construction Services Limited, Nell Lane, West Didsbury, Manchester, M202DU	WEX196014	Using waste exemption	Not on a farm	Use of waste in construction

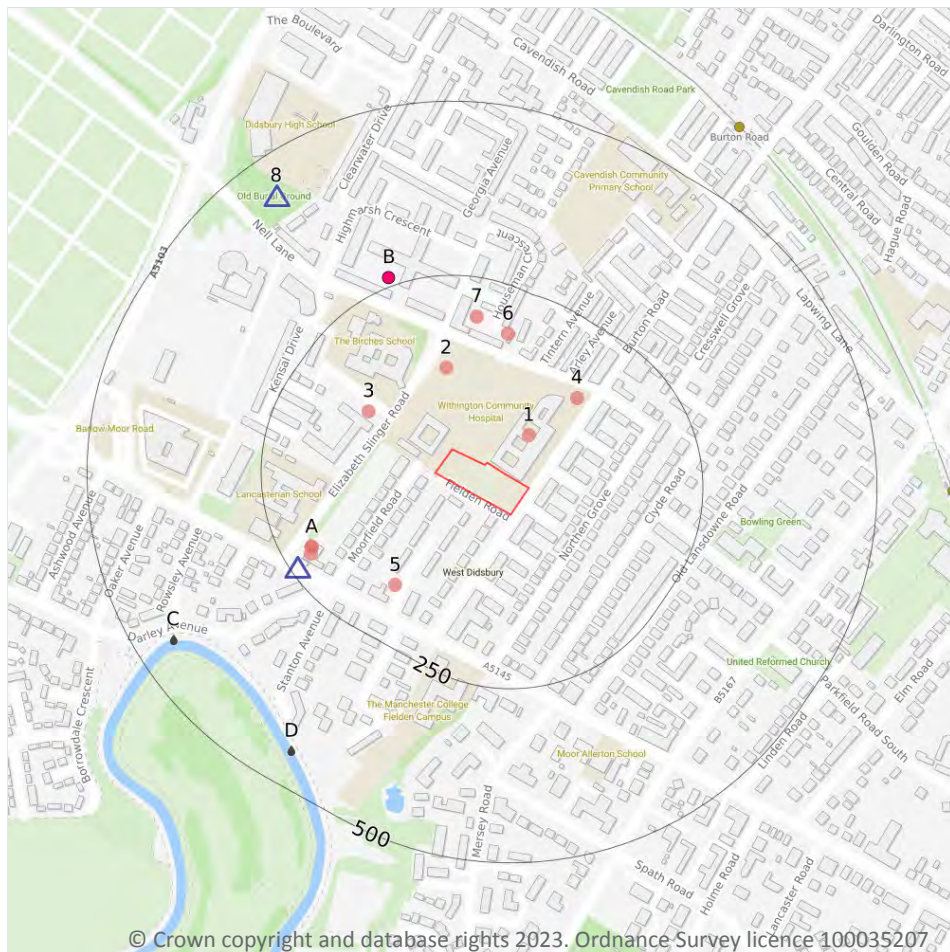


ID	Location	Site	Reference	Category	Sub-Category	Description
C	396m NW	c/o PJ Livesey, Nell Lane, West Didsbury, Manchester, M202DU	WEX232172	Using waste exemption	Not on a farm	Use of waste in construction
2	404m E	134, PALATINE ROAD, MANCHESTER, M20 3ZA	WEX219930	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
D	407m W	8 Rowsley Avenue MANCHESTER M20 2XD	EPR/PF0804GL /A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting mixed waste
D	407m W	8 Rowsley Avenue MANCHESTER M20 2XD	EPR/PF0804GL /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of scrap metal
E	416m N	-	WEX078165	Treating waste exemption	Not on a farm	Screening and blending of waste
E	416m N	-	WEX078165	Using waste exemption	Not on a farm	Use of waste in construction
3	477m NE	Cavendish Community Primary School Cavendish Road Manchester M20 1JG	EPR/CH0115JH /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
- △ Current or recent petrol stations
- Radioactive Substance Authorisations
- Licensed Discharges to controlled waters

4.1 Recent industrial land uses

Records within 250m

10

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Company	Address	Activity	Category
1	65m NE	Withington Community Hospital	Nell Lane, Manchester, Greater Manchester, M20 2LR	Hospitals	Health Practitioners and Establishments
2	117m N	Electricity Sub Station	Greater Manchester, M20	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
3	130m NW	Electricity Sub Station	Greater Manchester, M20	Electrical Features	Infrastructure and Facilities
4	147m NE	Electricity Sub Station	Greater Manchester, M20	Electrical Features	Infrastructure and Facilities
5	169m SW	Electricity Sub Station	Greater Manchester, M20	Electrical Features	Infrastructure and Facilities
6	184m N	Electricity Sub Station	Greater Manchester, M20	Electrical Features	Infrastructure and Facilities
7	194m N	Electricity Sub Station	Greater Manchester, M20	Electrical Features	Infrastructure and Facilities
A	207m W	Cars of Didsbury Ltd	156, Barlow Moor Road, Manchester, Greater Manchester, M20 2XQ	Secondhand Vehicles	Motoring
A	207m W	Parkway Autos	156, Barlow Moor Road, Manchester, Greater Manchester, M20 2XQ	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	213m SW	Barlow Moor Filling Station	156, Barlow Moor Road, Manchester, Greater Manchester, M20 2XQ	Petrol and Fuel Stations	Road and Rail

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	2
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Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Company	Address	LPG	Status
A	240m SW	UNBRANDED	156, Barlow Moor Road, West Didsbury, Manchester, Greater Manchester, M20 2GE	No	Open
8	443m NW	OBSOLETE	Princess Road, Withington, Manchester, Greater Manchester, M20 2LT	Not Applicable	Obsolete

This data is sourced from Experian.



4.3 Electricity cables

Records within 500m**0**

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m**0**

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m**0**

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m**0**

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

This data is sourced from the Health and Safety Executive.



4.8 Hazardous substance storage/usage

Records within 500m

0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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

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

Records within 500m

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.

4.12 Radioactive Substance Authorisations

Records within 500m

3

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

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Address	Details	
B	263m NW	University Hospital Of South Manchester Nhs Foundation Trust, Withington Hospital, nell Lane, west Didsbury, Manchester, M20 8LR	Operator: University Hospital Of South Manchester Nhs Foundation Trust Type: Keeping And Use Of Radioactive Materials (was Rsa60 Section 1). Permission number: AB2262 Date of approval: 29/09/1994	Effective from: 29/09/1994 Last date of update: 01/01/2015 Status: Revoked/cancelled
B	263m NW	University Hospital Of South Manchester Nhs Foundation Trust, Withington Hospital, Nell Lane, West Didsbury, Manchester, M20 8LR	Operator: University Hospital Of South Manchester Nhs Foundation Trust Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AB9763 Date of approval: 31/03/1991	Effective from: 31/03/1991 Last date of update: 01/01/2015 Status: Superseded By Variation
B	263m NW	University Hospital Of South Manchester Nhs Foundation Trust, Withington Hospital, Nell Lane, West Didsbury, Manchester, M20 8LR	Operator: University Hospital Of South Manchester Nhs Foundation Trust Type: Disposal Of Radioactive Waste (was Rsa60 Section 6). Permission number: AB9763 Date of approval: 30/09/1994	Effective from: 30/10/1994 Last date of update: 01/01/2015 Status: Revoked/cancelled

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

4.13 Licensed Discharges to controlled waters

Records within 500m

10

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

Features are displayed on the Current industrial land use map on **page 30**

ID	Location	Address	Details	
C	446m SW	BARLOW MOOR ROAD, ROWSLEY AVENUE CSO 281C9, DIDSbury, GREATER MANCHESTER, M20 2XF	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0244 Permit Version: 1 Receiving Water: RIVER MERSEY	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 01/01/1995 Effective Date: 01/01/1995 Revocation Date: 30/03/2007
C	446m SW	BARLOW MOOR ROAD, ROWSLEY AVENUE CSO 281C9, DIDSbury, GREATER MANCHESTER, M20 2XF	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0244 Permit Version: 2 Receiving Water: RIVER MERSEY	Status: CONSENT CURRENTLY UNDER APPEAL Issue date: 16/02/2005 Effective Date: 31/03/2007 Revocation Date: 24/03/2010



ID	Location	Address	Details	
D	449m SW	BARLOW MOOR RD/PALATINE RD CSO, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0236 Permit Version: 1 Receiving Water: RIVER MERSEY	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 30/03/2007
D	449m SW	BURTON ROAD WITHINGTON CSO 28056, BURTON ROAD/LAPWING LANE, MANCHESTER, M20 1LH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0237 Permit Version: 1 Receiving Water: RIVER MERSEY	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: - Effective Date: 01/01/1995 Revocation Date: 30/03/2007
D	449m SW	BURTON ROAD WITHINGTON CSO 28056, BURTON ROAD/LAPWING LANE, MANCHESTER, M20 1LH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0237 Permit Version: 5 Receiving Water: RIVER MERSEY	Status: VARIED UNDER EPR 2010 Issue date: 20/08/2018 Effective Date: 20/08/2018 Revocation Date: -
D	449m SW	BARLOW MOOR RD/PALATINE RD CSO, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0236 Permit Version: 2 Receiving Water: RIVER MERSEY	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 16/02/2005 Effective Date: 31/03/2007 Revocation Date: 14/10/2008
D	449m SW	BARLOW MOOR RD/PALATINE RD CSO, MANCHESTER, GREATER MANCHESTER	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0236 Permit Version: 3 Receiving Water: RIVER MERSEY	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 15/10/2008 Effective Date: 15/10/2008 Revocation Date: -
D	449m SW	BURTON ROAD WITHINGTON CSO 28056, BURTON ROAD/LAPWING LANE, MANCHESTER, M20 1LH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0237 Permit Version: 2 Receiving Water: RIVER MERSEY	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 16/02/2005 Effective Date: 31/03/2007 Revocation Date: 24/03/2010
D	449m SW	BURTON ROAD WITHINGTON CSO 28056, BURTON ROAD/LAPWING LANE, MANCHESTER, M20 1LH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0237 Permit Version: 3 Receiving Water: RIVER MERSEY	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 25/03/2010 Effective Date: 25/03/2010 Revocation Date: 31/03/2012



ID	Location	Address	Details	
D	449m SW	BURTON ROAD WITHINGTON CSO 28056, BURTON ROAD/LAPWING LANE, MANCHESTER, M20 1LH	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: 01MAN0237 Permit Version: 4 Receiving Water: RIVER MERSEY	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 25/03/2010 Effective Date: 01/04/2012 Revocation Date: 19/08/2018

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

4.14 Pollutant release to surface waters (Red List)

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

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

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

4.15 Pollutant release to public sewer

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

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

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

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

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

4.17 List 2 Dangerous Substances

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

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m**0**

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

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

4.19 Pollution inventory substances

Records within 500m**0**

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

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

4.20 Pollution inventory waste transfers

Records within 500m**0**

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

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

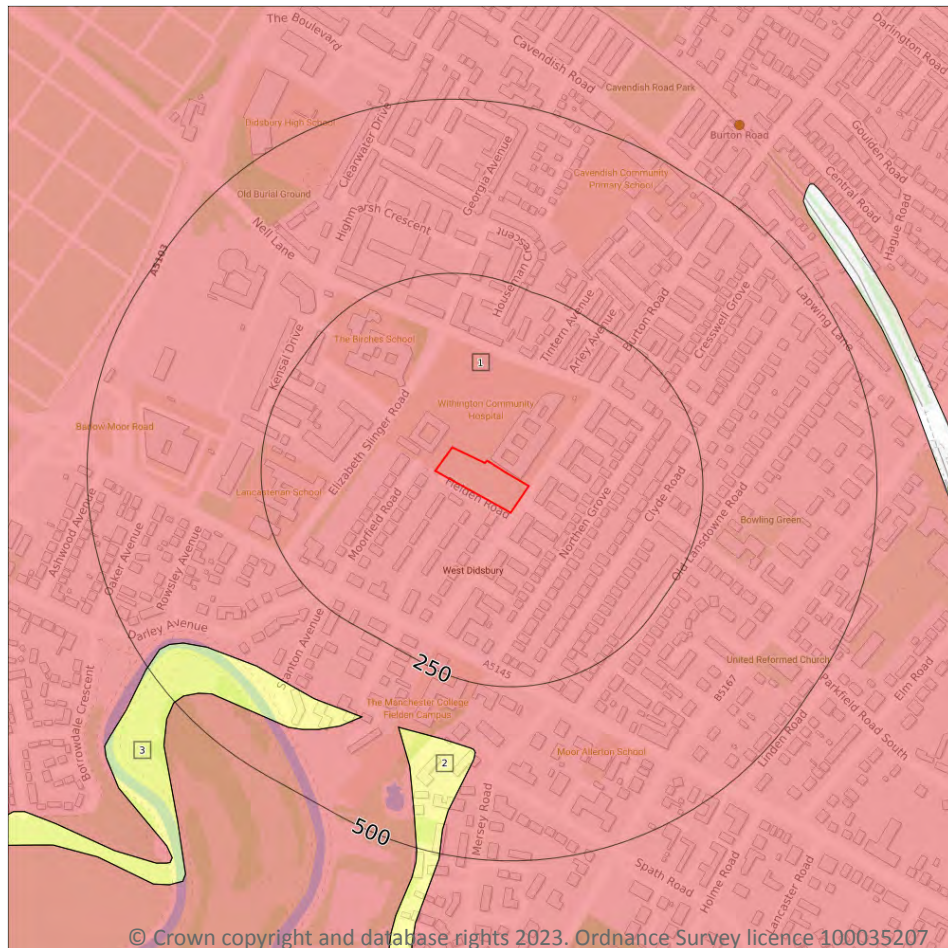
4.21 Pollution inventory radioactive waste

Records within 500m**0**

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

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

5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

3

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 38**

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	339m 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

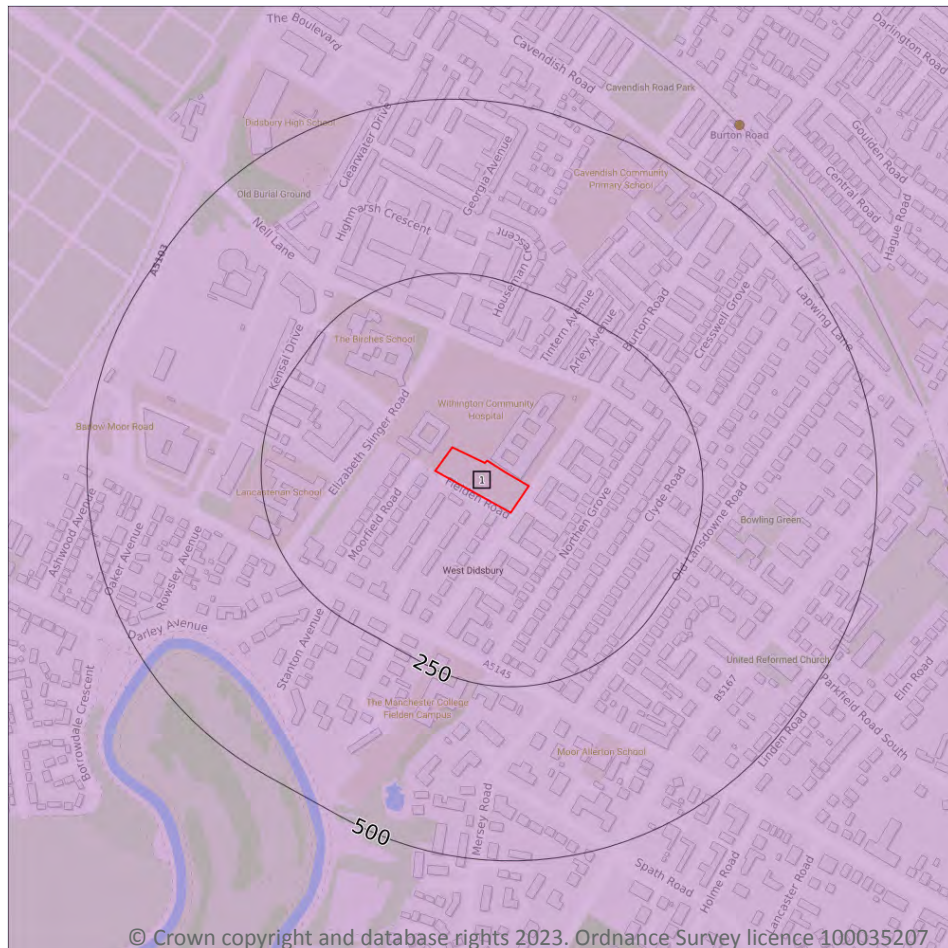


ID	Location	Designation	Description
3	360m SW	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics 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

1

Aquifer status of groundwater held within bedrock geology.

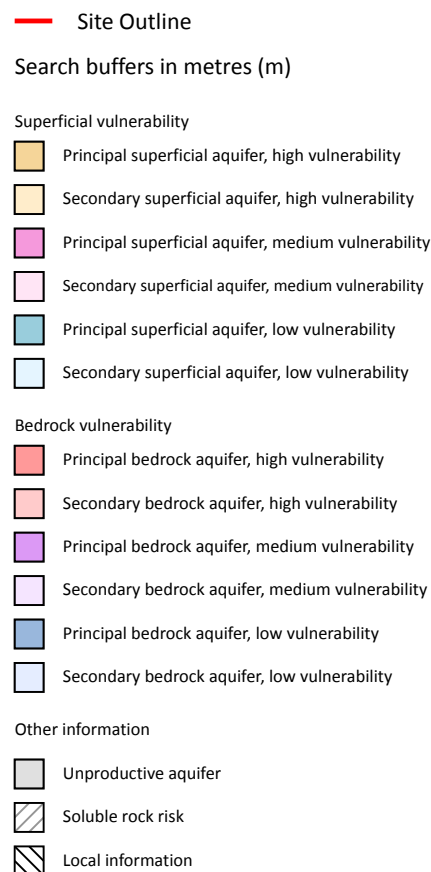
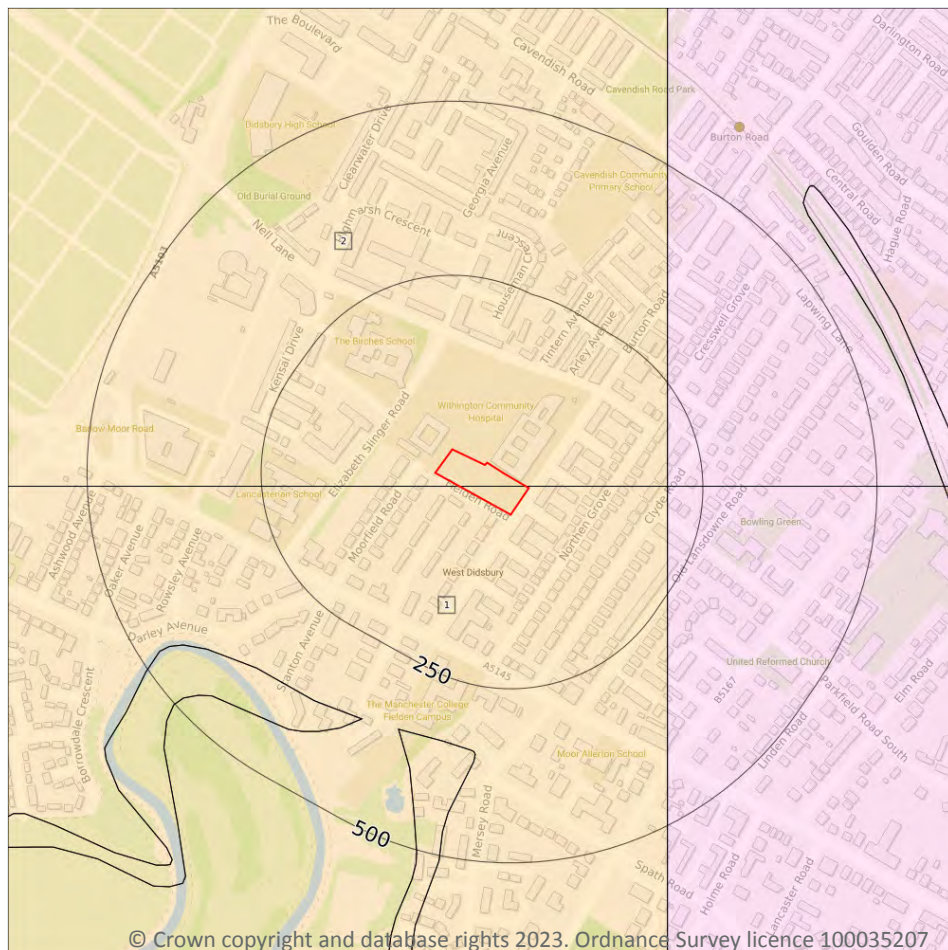
Features are displayed on the Bedrock aquifer map on **page 40**

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

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

2

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

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

Features are displayed on the Groundwater vulnerability map on **page 41**

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

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
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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.

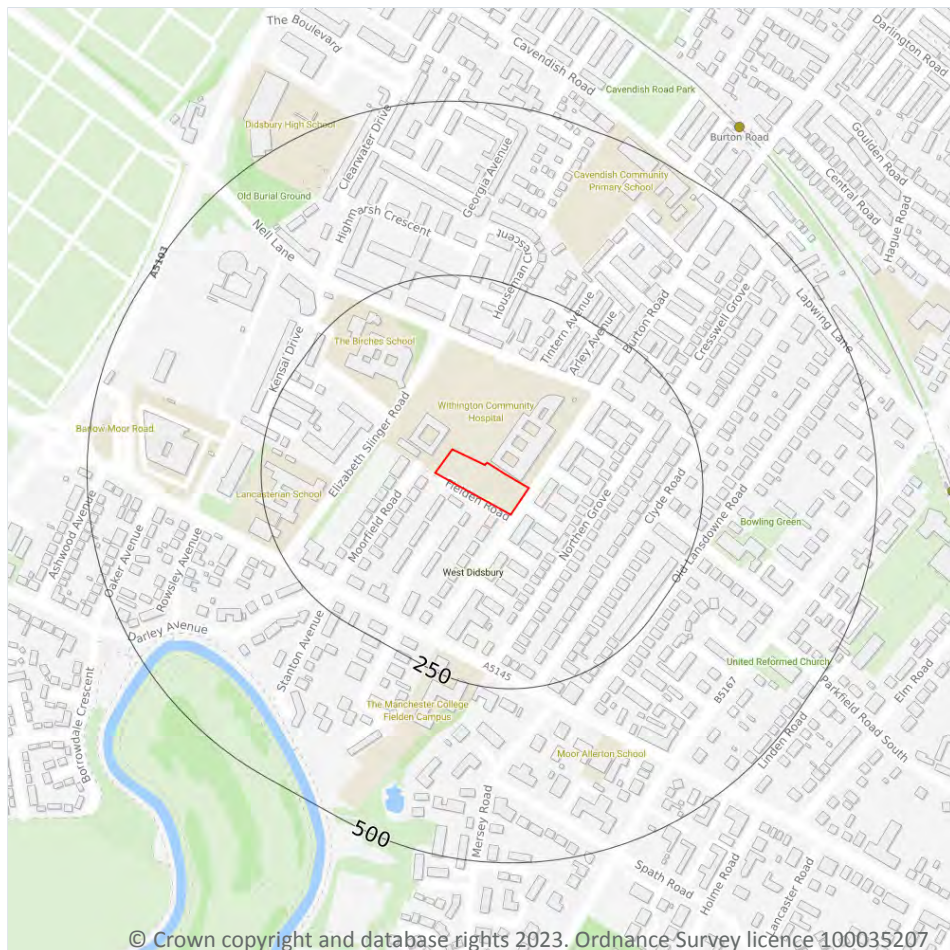
5.5 Groundwater vulnerability- local information

Records on site	0
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This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk.

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

Abstractions and Source Protection Zones



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

5.6 Groundwater abstractions

Records within 2000m

4

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 43**



ID	Location	Details	
-	1438m W	Status: Active Licence No: 2569015015 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT CHORLTON-CUM-HARDY GOLF CLUB Data Type: Point Name: CHORLTON CUM HARDY GOLF CO LTD Easting: 382230 Northing: 392100	Annual Volume (m ³): 8,500 Max Daily Volume (m ³): 70 Original Application No: 7427 Original Start Date: 04/09/1998 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2019 Version End Date: -
-	1499m S	Status: Historical Licence No: 2569015006 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DIDSbury GOLF CLUB, NORTHENDEN, WYTHENSHAW," Data Type: Point Name: DIDSbury GOLF CLUB LTD Easting: 383950 Northing: 390470	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 24/12/1992 Version End Date: -
-	1499m S	Status: Historical Licence No: 2569015006 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIDSbury GOLF CLUB, NORTHENDEN, WYTHENSHAW Data Type: Point Name: DIDSbury GOLF CLUB LTD Easting: 383950 Northing: 390470	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 22/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 24/12/1992 Version End Date: -
-	1499m S	Status: Active Licence No: 2569015006 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIDSbury GOLF CLUB NORTHENDEN WYTHENSHAW Data Type: Point Name: DIDSbury GOLF CLUB LTD Easting: 383950 Northing: 390470	Annual Volume (m ³): 9,092 Max Daily Volume (m ³): 68.19 Original Application No: 1053 Original Start Date: 22/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -

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



5.7 Surface water abstractions

Records within 2000m

2

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 43**

ID	Location	Details	
-	1425m SW	Status: Historical Licence No: 2569015016 Details: Dust suppression Direct Source: Surface, Non-Tidal - North West Region Point: RIVER MERSEY AT TRAFFORD, MANCHESTER Data Type: Point Name: AMEC / ALFRED MCALPINE JV Easting: 382650 Northing: 391020	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/2003 Expiry Date: 31/12/2006 Issue No: 1 Version Start Date: 28/11/2003 Version End Date: -
-	1425m SW	Status: Historical Licence No: 2569015016 Details: General Washing/Process Washing Direct Source: Surface, Non-Tidal - North West Region Point: RIVER MERSEY AT TRAFFORD, MANCHESTER Data Type: Point Name: AMEC / ALFRED MCALPINE JV Easting: 382650 Northing: 391020	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 28/11/2003 Expiry Date: 31/12/2006 Issue No: 1 Version Start Date: 28/11/2003 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)

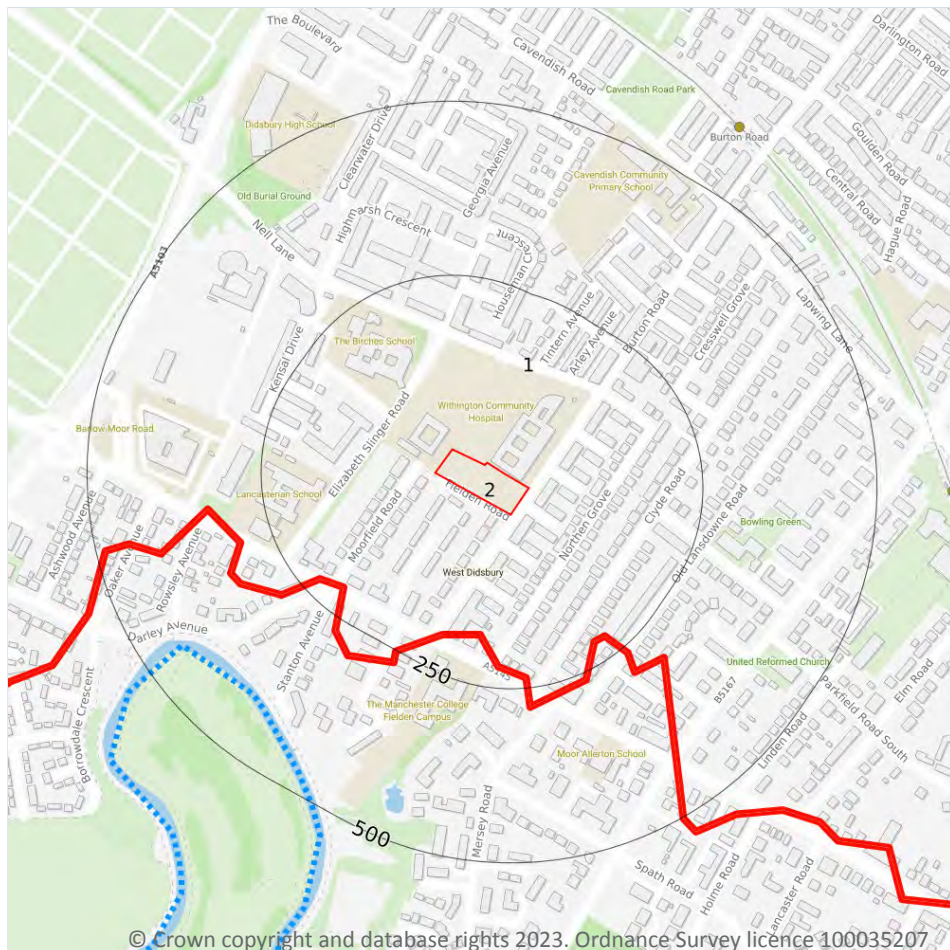
Records within 500m	0
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Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only 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
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The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 47**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Chorlton Brook (Princess Parkway to Mersey)	GB112069061040	Bollin Dean Mersey Upper	Mersey Upper

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

6.4 WFD Surface water bodies

Records identified	1
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Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 47**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	1526m N	River	Chorlton Brook (Princess Parkway to Mersey)	GB112069061040	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 47**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	On site	Manchester and East Cheshire Permo-Triassic Sandstone Aquifers	<u>GB41201G101100</u>	Poor	Poor	Poor	2019

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



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m**0**

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

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

7.2 Historical Flood Events

Records within 250m**0**

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

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

7.3 Flood Defences

Records within 250m**0**

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

0

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

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

7.7 Flood Zone 3

Records within 50m

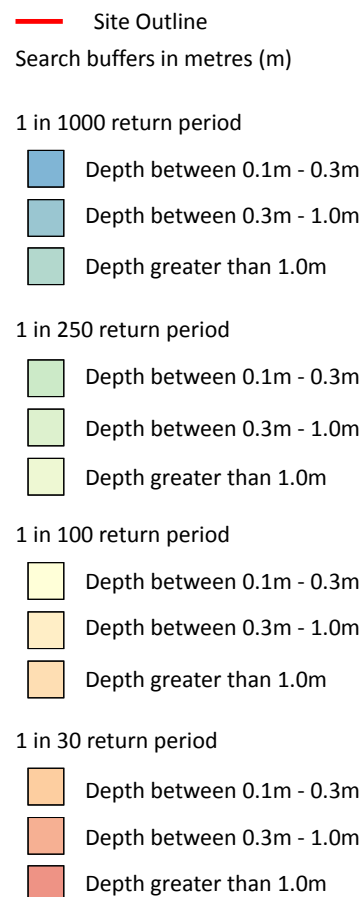
0

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

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



8 Surface water flooding



8.1 Surface water flooding

Highest risk on site

1 in 1000 year, 0.1m - 0.3m

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 53**

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

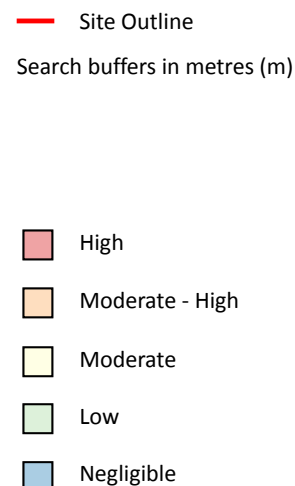
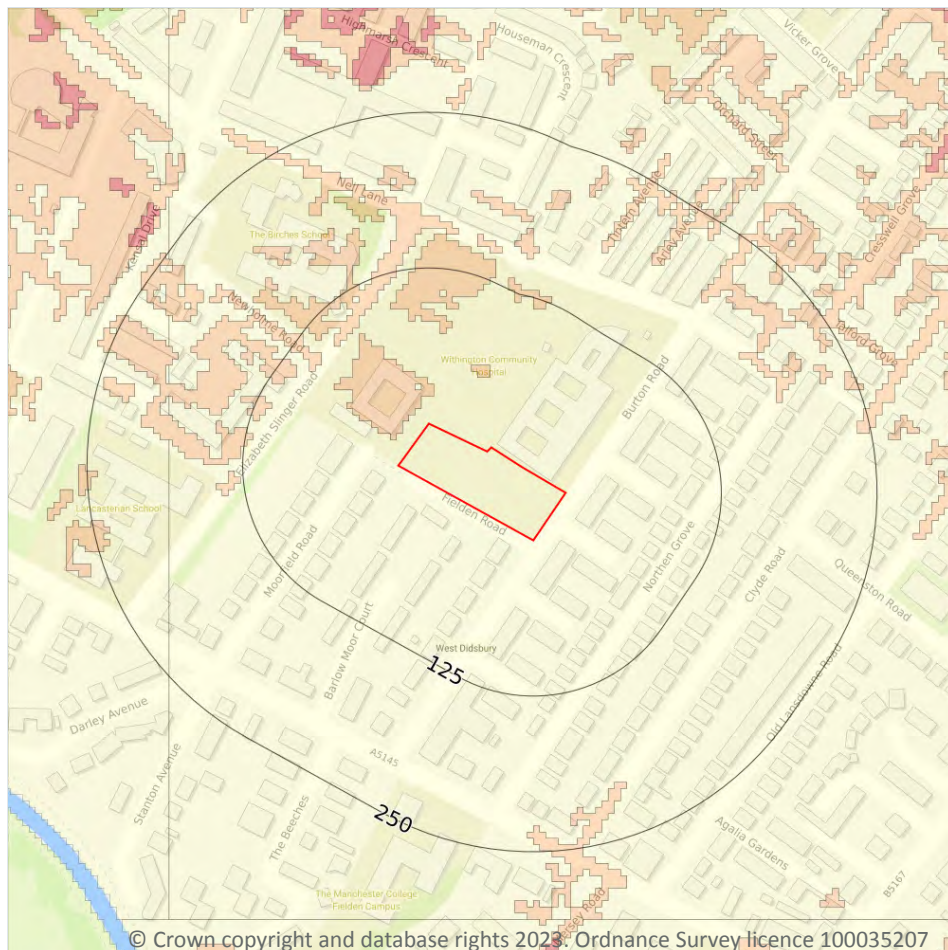
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

Moderate-High

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

Features are displayed on the Groundwater flooding map on **page 55**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m

2

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

Features are displayed on the Environmental designations map on **page 56**

ID	Location	Name	Data source
2	1214m W	Chorlton Water Park	Natural England
-	1746m S	Stenner Woods and Milgate Fields, Didsbury	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m

2

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 56**

ID	Location	Name	Woodland Type
-	1508m N	Hough End Clough	Ancient & Semi-Natural Woodland
-	1540m N	Hough End Clough	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 56**

ID	Location	Name	Local Authority name
1	390m SW	Merseyside and Greater Manchester	Manchester
-	1769m W	Merseyside and Greater Manchester	Trafford

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

10.12 Proposed Ramsar sites

Records within 2000m**0**

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

This data is sourced from Natural England.



10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m**0**

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

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m**0**

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

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m**0**

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

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m**0**

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

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



SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site	0
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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.

This data is sourced from Natural England.

10.18 SSSI Units

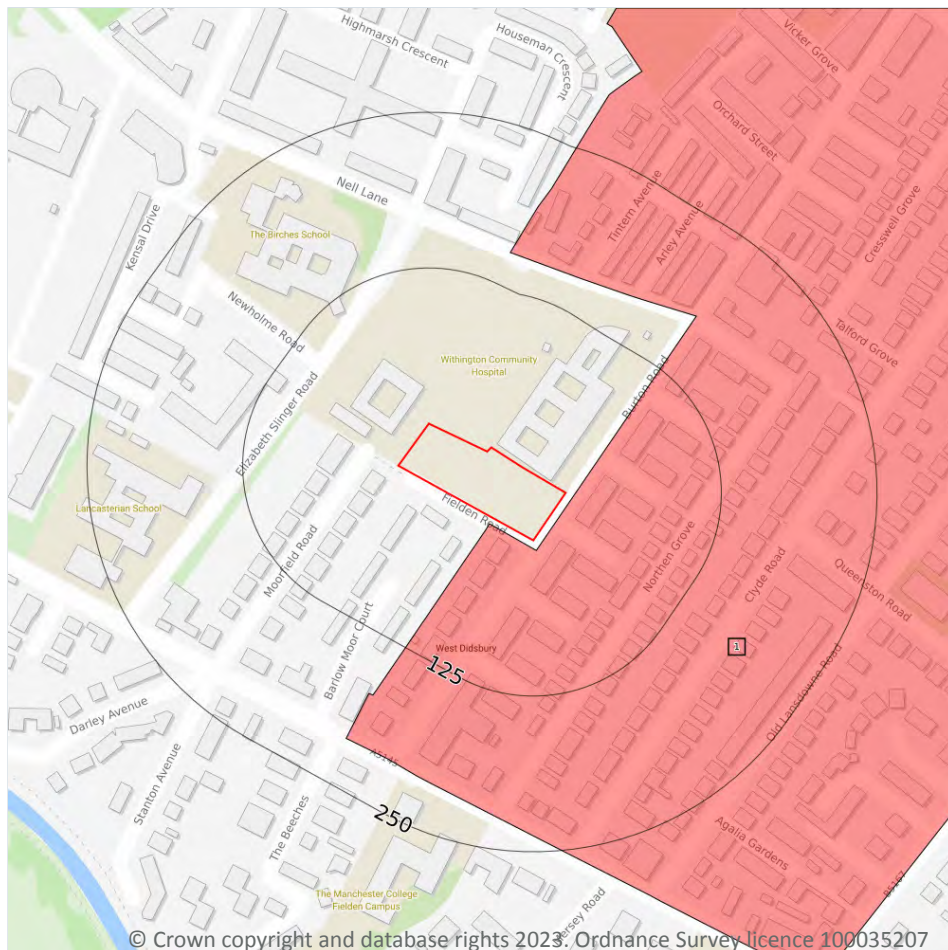
Records within 2000m	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management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

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



11 Visual and cultural designations



- Site Outline
- Search buffers in metres (m)
- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m**0**

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

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

11.3 National Parks

Records within 250m**0**

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

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

11.4 Listed Buildings

Records within 250m**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**1**

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



Features are displayed on the Visual and cultural designations map on **page 62**

ID	Location	Name	District	Date of designation
1	5m S	Albert Park, West Didsbury	Manchester	01/03/1988

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

11.6 Scheduled Ancient Monuments

Records within 250m	0
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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.

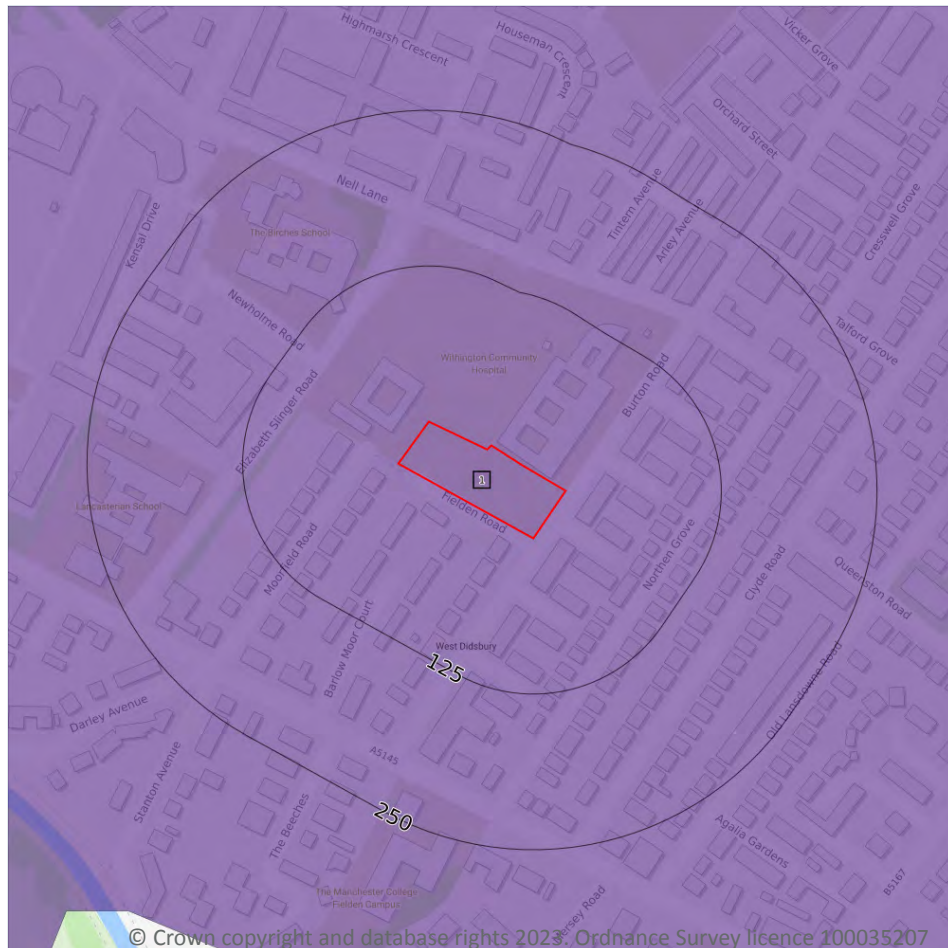
11.7 Registered Parks and Gardens

Records within 250m	0
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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 65**

ID	Location	Classification	Description
1	On site	Urban	-

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m**0**

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

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

12.3 Tree Felling Licences

Records within 250m**0**

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m**0**

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m**0**

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

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m**0**

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m**0**

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m**0**

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

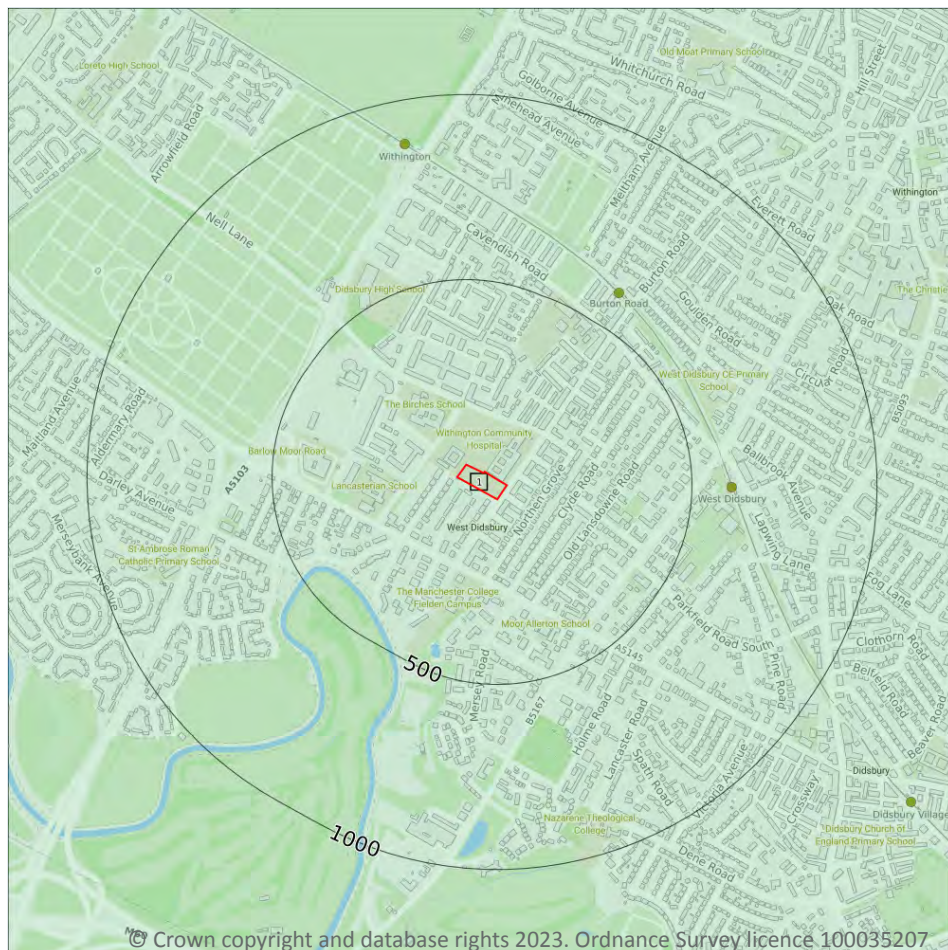
Records within 250m**0**

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



- Site Outline
- Search buffers in metres (m)
- Full coverage
 - Partial coverage
 - No coverage

14.1 10k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 68**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	SJ89SW

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

2

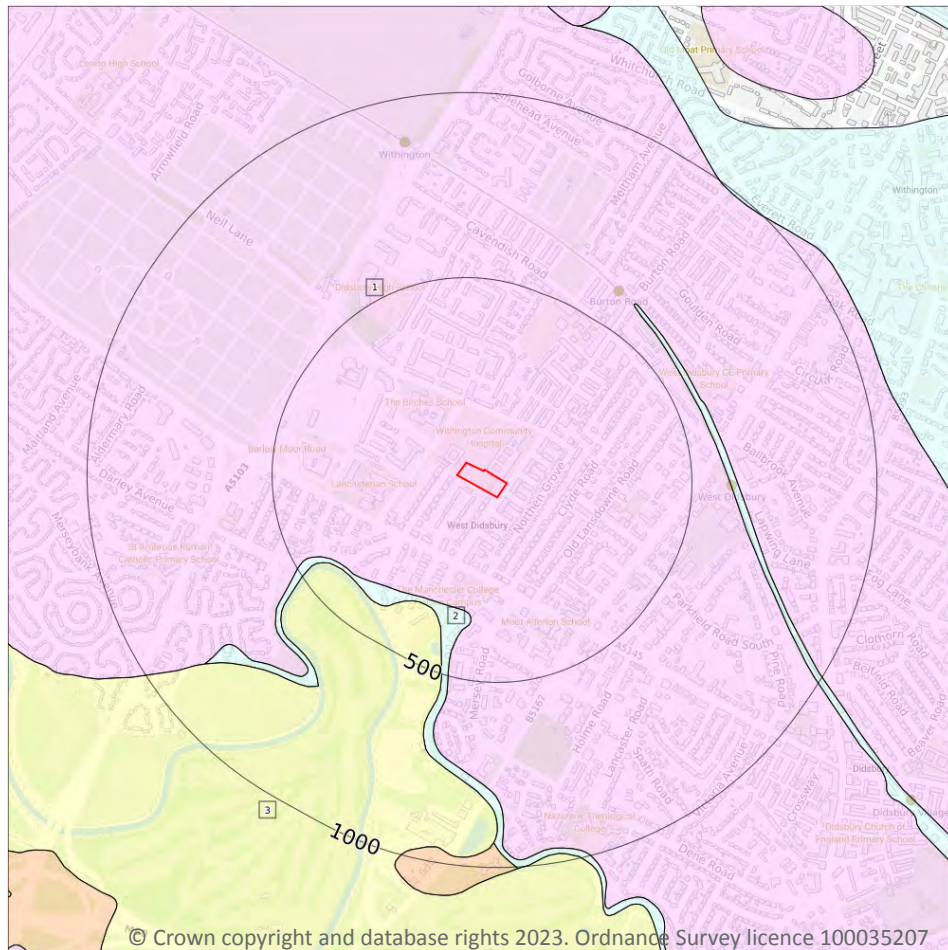
Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 69**

ID	Location	LEX Code	Description	Rock description
1	407m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	413m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m

3

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

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

ID	Location	LEX Code	Description	Rock description
1	On site	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel
2	318m S	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
3	347m S	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

This data is sourced from the British Geological Survey.



14.4 Landslip (10k)

Records within 500m

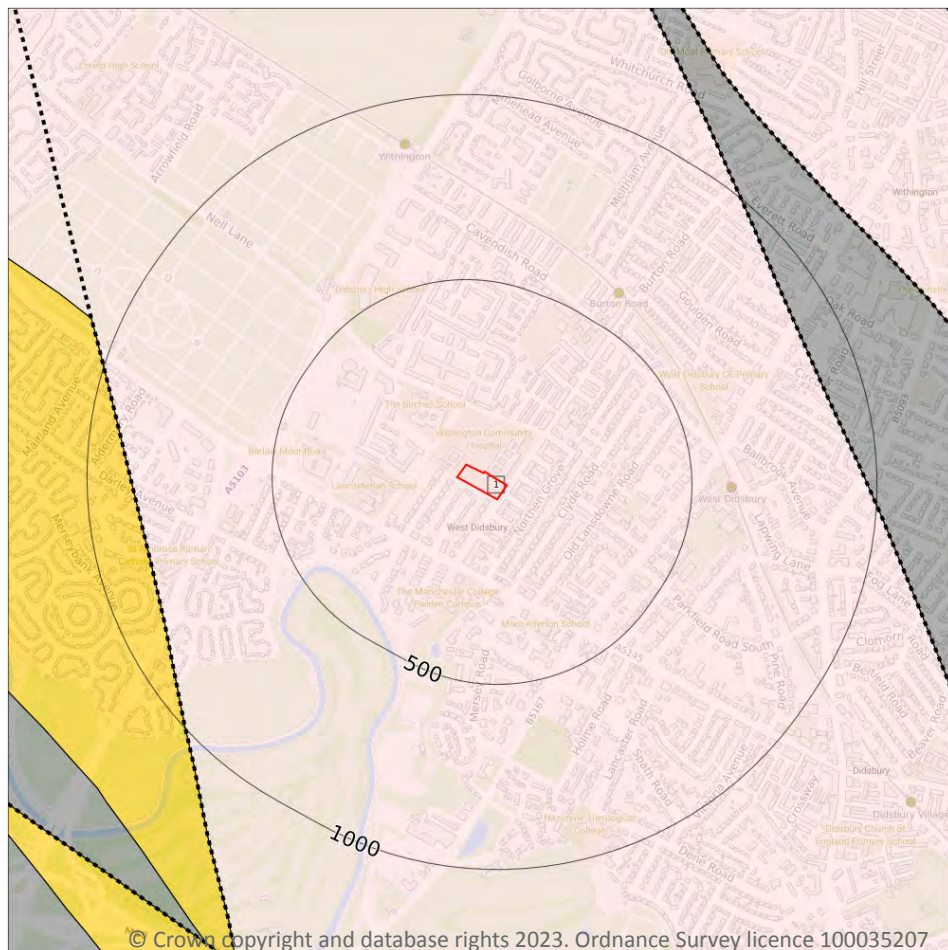
0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m

1

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 72**

ID	Location	LEX Code	Description	Rock age
1	On site	WLSF-SDST	Wilmslow Sandstone Formation - Sandstone	Early Triassic Epoch

This data is sourced from the British Geological Survey.



14.6 Bedrock faults and other linear features (10k)

Records within 500m

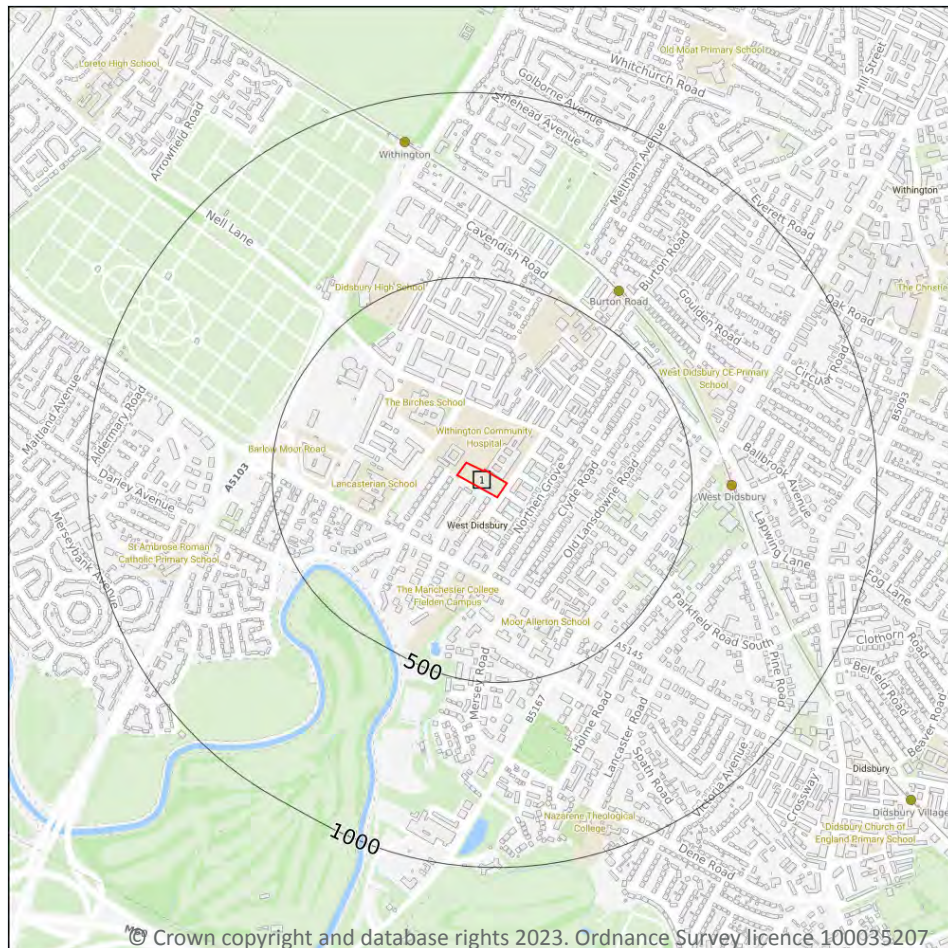
0

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

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 74**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	No coverage	Full	Full	Full	EW098_stockport_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

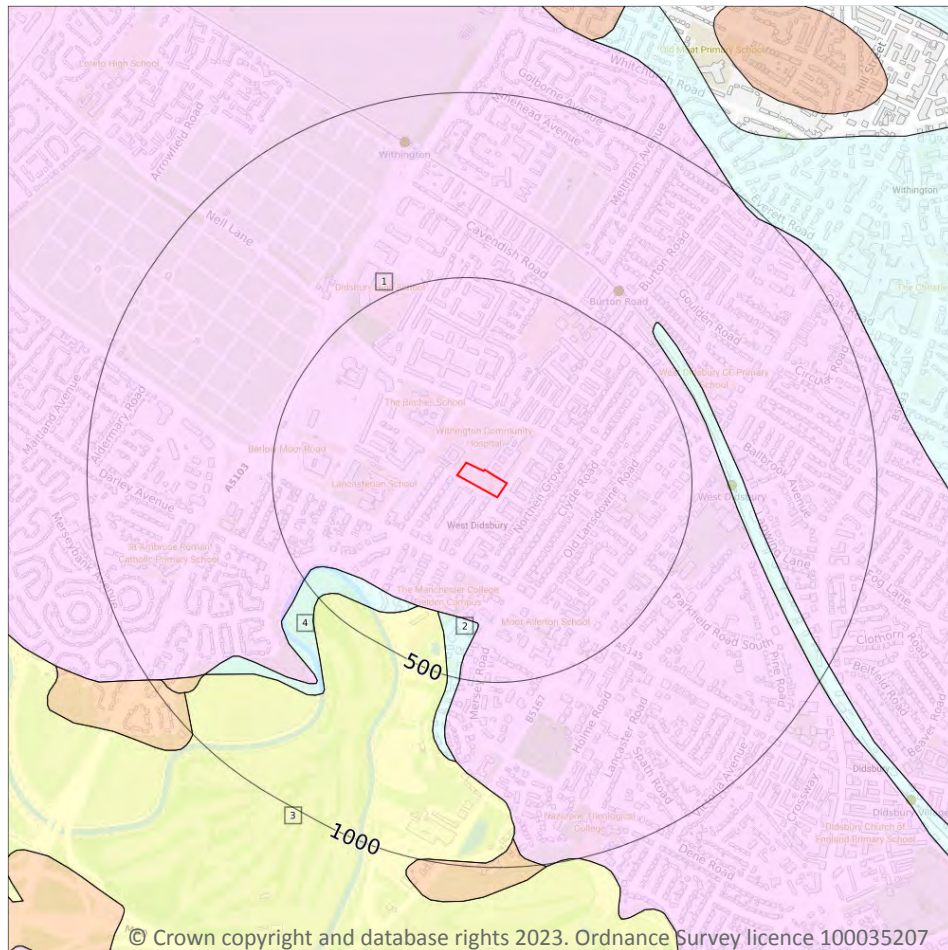
0

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

4

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 76**

ID	Location	LEX Code	Description	Rock description
1	On site	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSAN	SAND AND GRAVEL
2	339m S	TILLD-DMTN	TILL, DEVENSAN	DIAMICTON
3	348m S	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	360m SW	TILLD-DMTN	TILL, DEVENSAN	DIAMICTON



This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	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

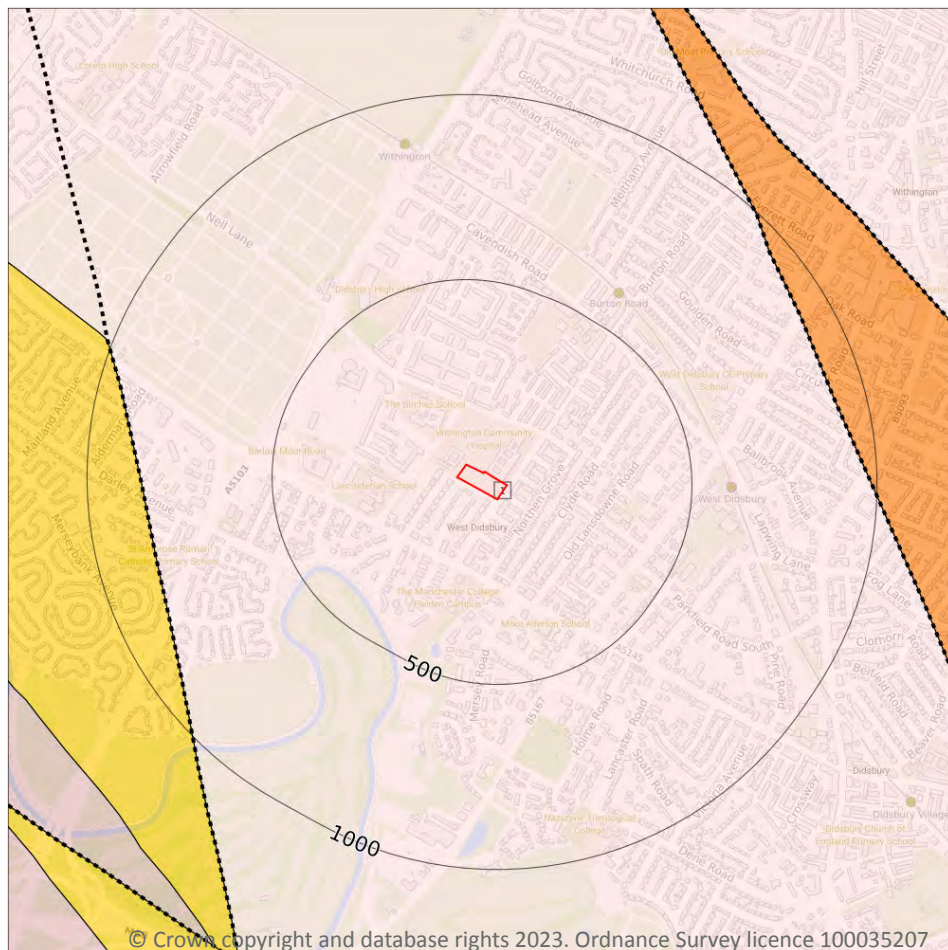
0

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

1

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 78**

ID	Location	LEX Code	Description	Rock age
1	On site	WLSF-SDST	WILMSLOW SANDSTONE FORMATION - SANDSTONE	-

This data is sourced from the British Geological Survey.



15.9 Bedrock permeability (50k)

Records within 50m**1**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Intergranular	High	High

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

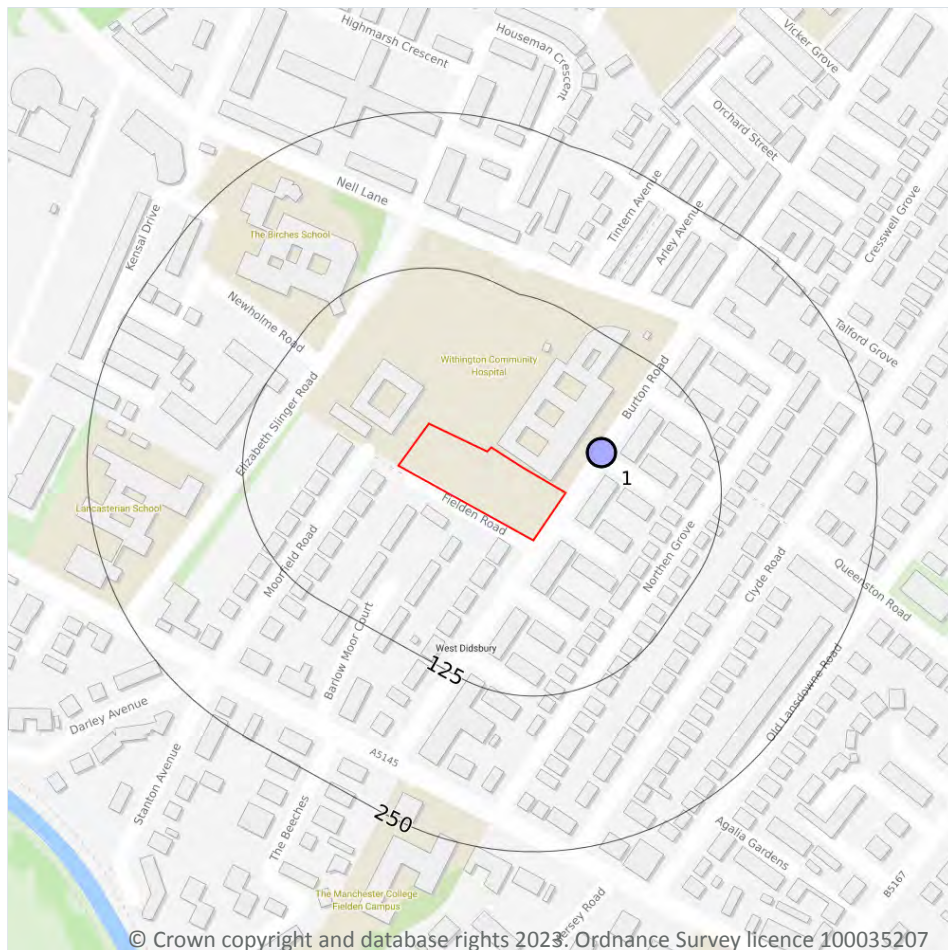
Records within 500m**0**

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

This data is sourced from the British Geological Survey.



16 Boreholes



- Site Outline**
- Search buffers in metres (m)**
- Confidential
 - 0 - 10m
 - 10 - 30m
 - 30m+
 - Unknown

16.1 BGS Boreholes

Records within 250m

1

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.

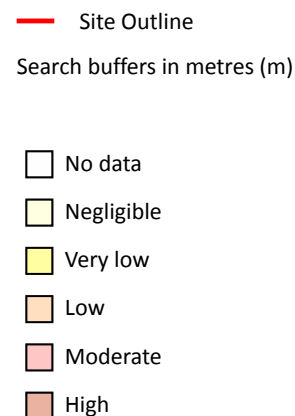
Features are displayed on the Boreholes map on **page 80**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	44m E	383830 392030	BURTON ROAD 2	6.55	N	865533

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m

1

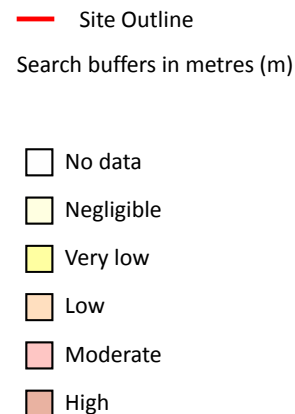
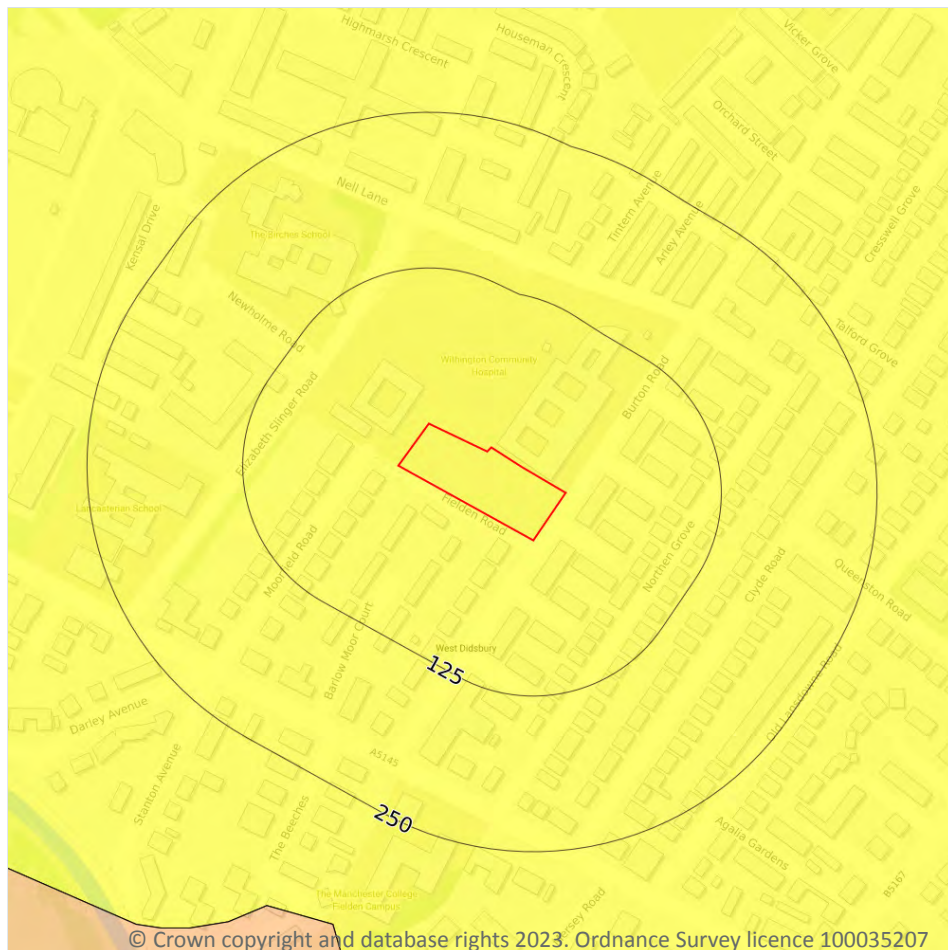
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 81**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m

1

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

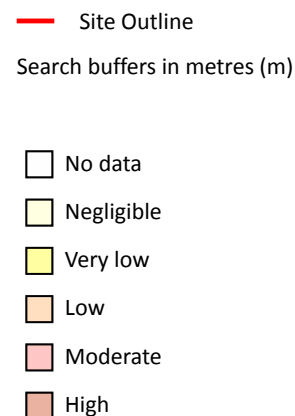
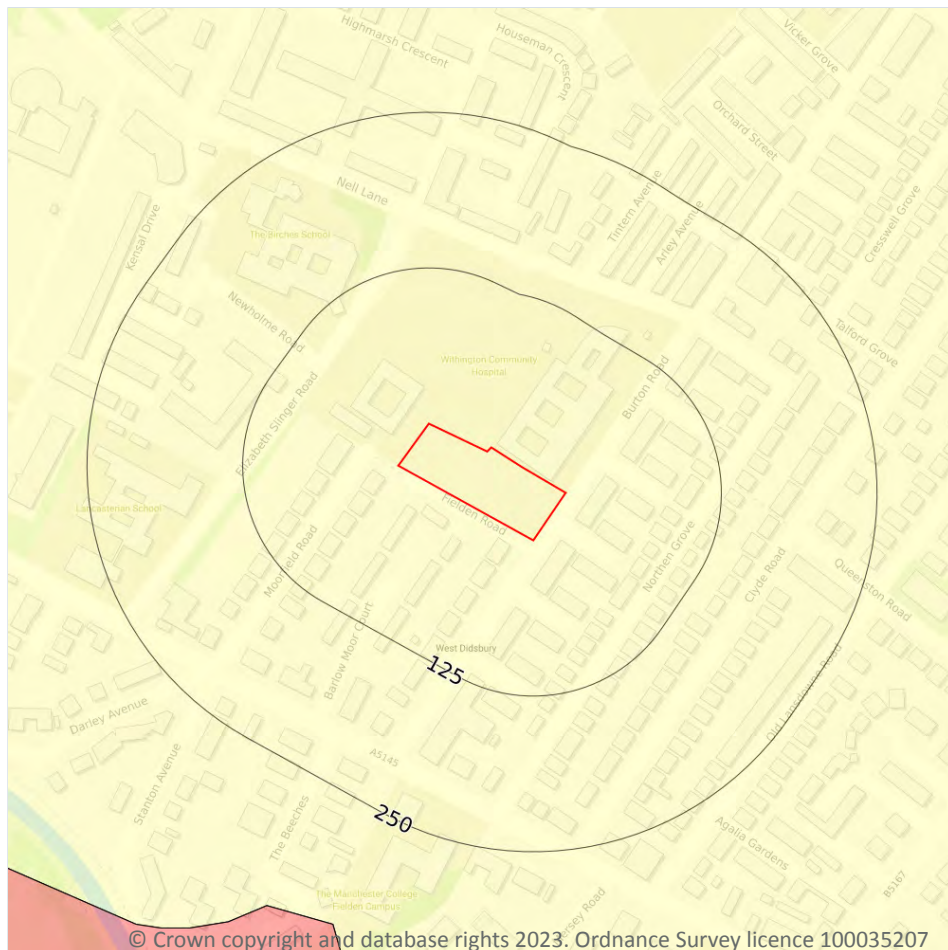
Features are displayed on the Natural ground subsidence - Running sands map on **page 82**

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



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.

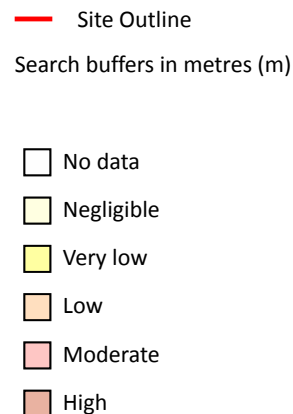
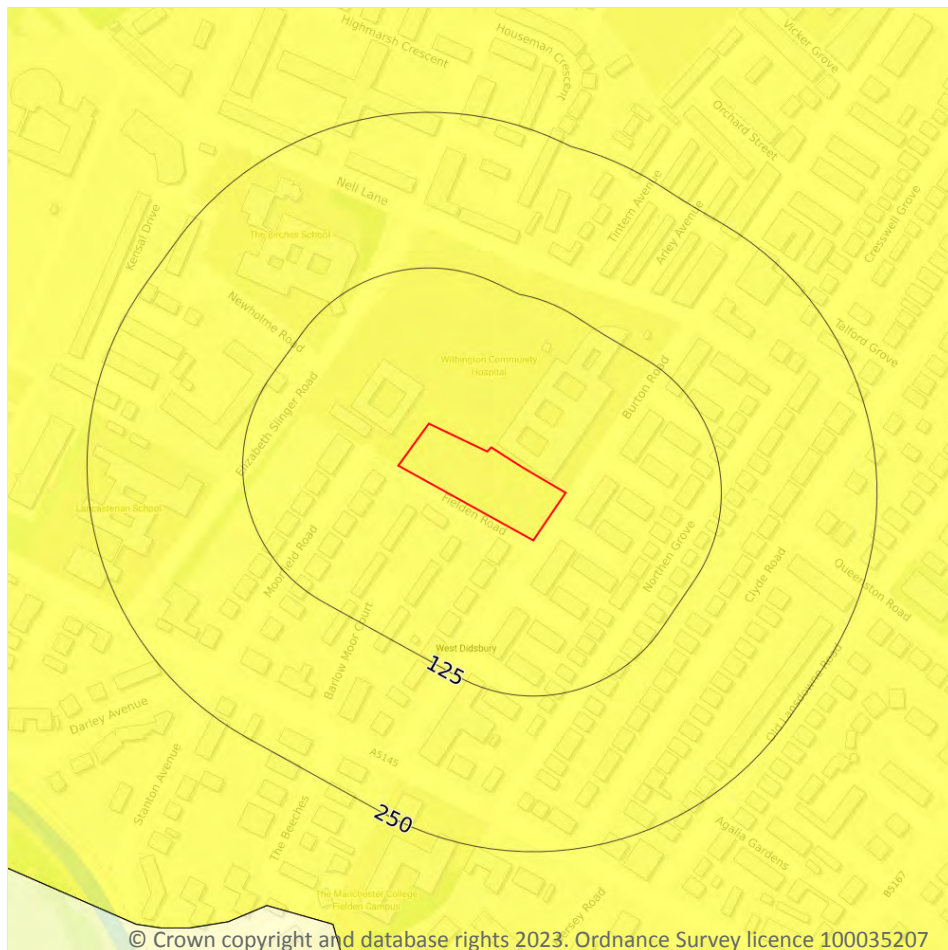
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 83**

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



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.

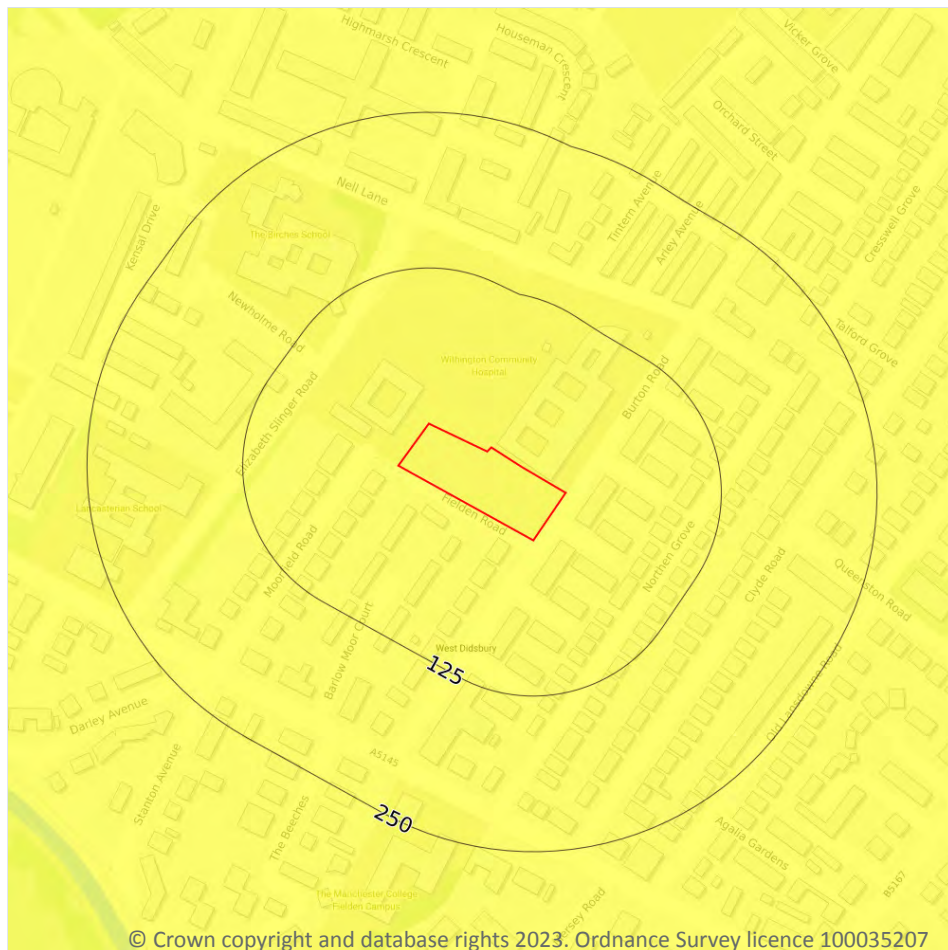
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 84**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



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

17.5 Landslides

Records within 50m

1

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

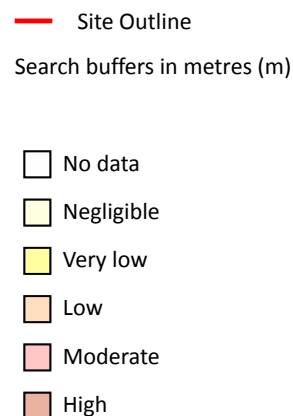
Features are displayed on the Natural ground subsidence - Landslides map on **page 85**

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.

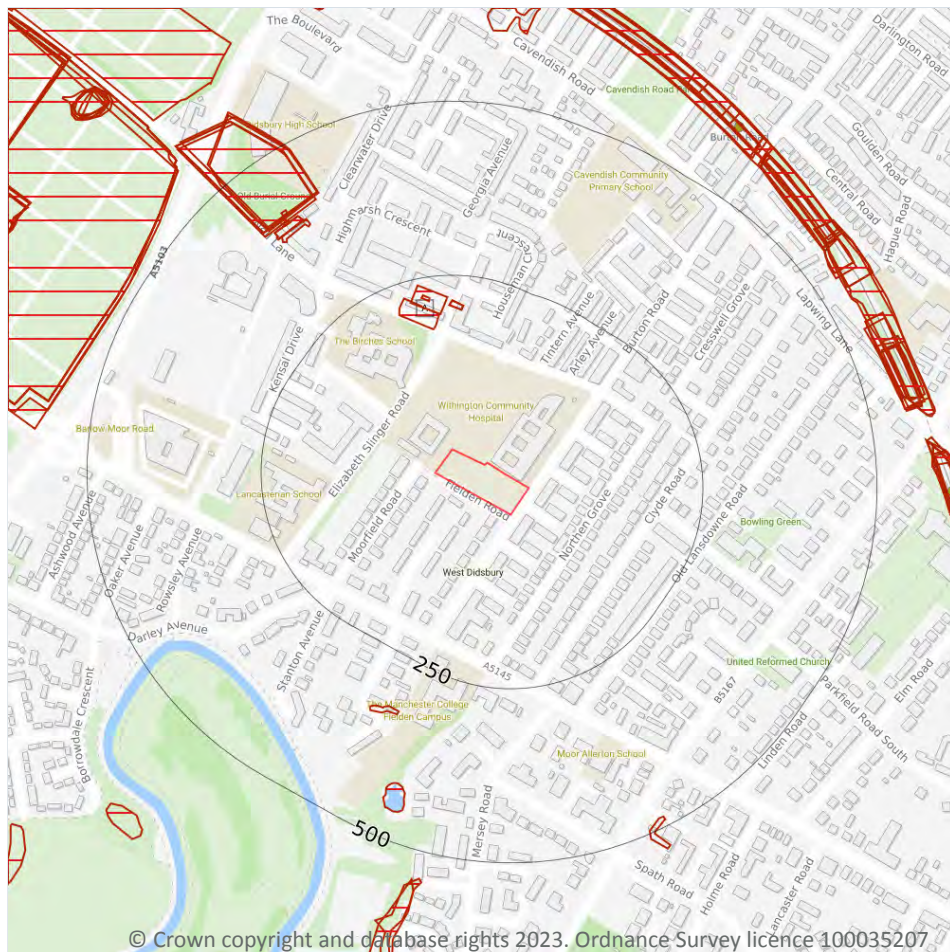
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 86**

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

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



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

18.1 Natural cavities

Records within 500m

0

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

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m**0**

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

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m**5**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 87**

ID	Location	Land Use	Year of mapping	Mapping scale
A	174m N	Mortuary	1934	1:10560
A	195m N	Mortuary	1938	1:10560
A	201m N	Mortuary	1905	1:10560
A	201m N	Mortuary	1892	1:10560
A	215m N	Mortuary	1955	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m**0**

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

This is data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m**0**

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



This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

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

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m

0

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

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site

1

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

Location	Details
On site	Whilst outside of an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) may have information such as mining plans and maps held within their archive that have occurred within 1km of this property. Please note, the plans held by JPB may also relate to non-mining records. Further details and a quote for services (if appropriate) can be obtained by emailing this report to enquiries.gs@jpb.co.uk .

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site

0

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

This data is sourced from the Coal Authority.



18.10 Brine areas

Records on site	0
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The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

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

18.11 Gypsum areas

Records on site	0
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

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

This data is sourced from Groundsure.

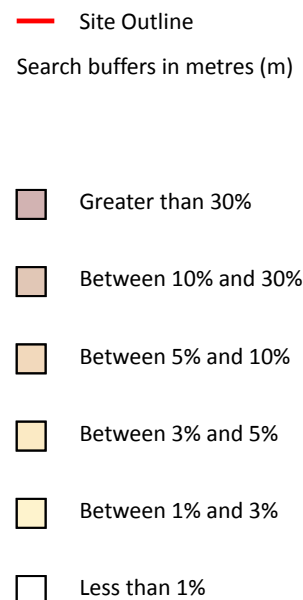
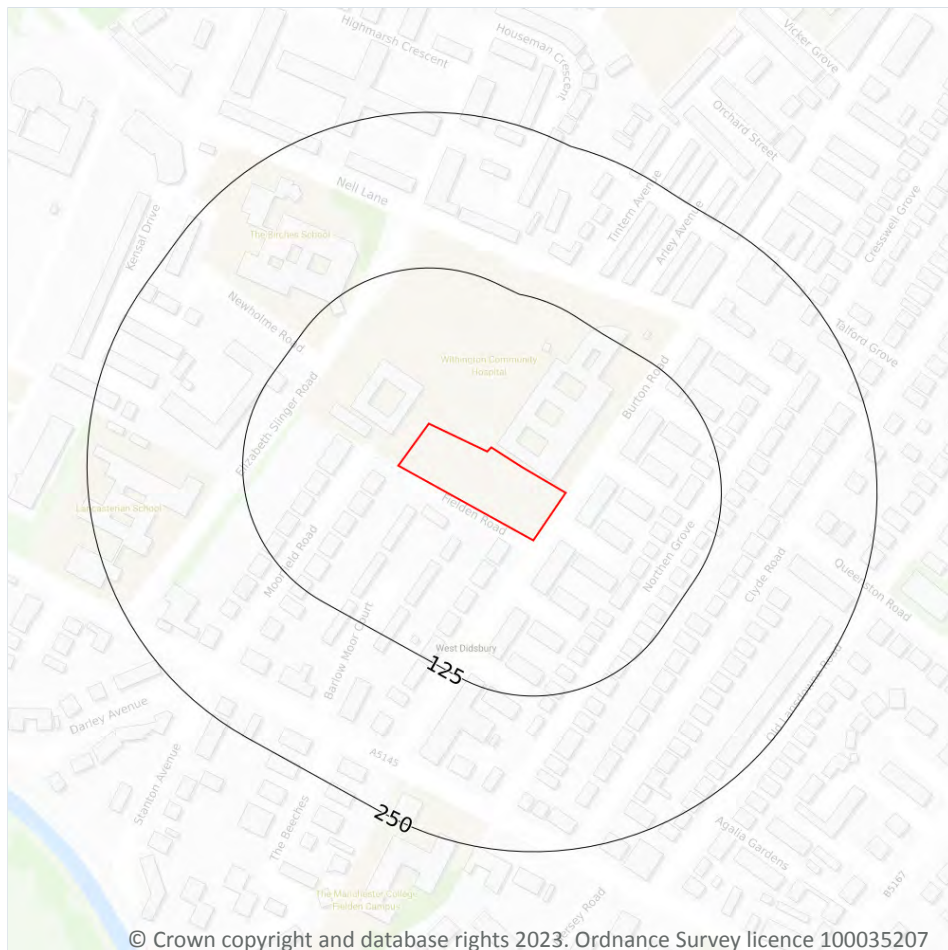
18.13 Clay mining

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

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

19 Radon



19.1 Radon

Records on site

1

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

Features are displayed on the Radon map on **page 91**

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



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



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

3

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

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

This data is sourced from the British Geological Survey.

20.2 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.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects

21.1 Underground railways (London)

Records within 250m	0
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Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

Records within 250m	0
---------------------	---

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m	0
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Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m	0
---------------------	---

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

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m	0
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The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.



This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m

0

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m

0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

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



APPENDIX 6 – Preliminary UXO Risk Assessment



Preliminary UXO Risk Assessment

Client	Groundtech Consulting
Project	Withington CDC
Site Address	Nell Lane, Manchester, M20 2LR
Report Reference	PA17284-00
Date	27/01/23
Authored by	JL
Quality Assurance	AT / HW

Assessment Objective

This preliminary risk assessment is a qualitative screening exercise to assess the likely potential of encountering unexploded ordnance (UXO) at the Withington CDC site. The assessment involves the consideration of the basic factors that affect the potential for UXO to be present at a site as outlined in Stage One of the UXO risk management process.

Background

This assessment uses the sources of information available in-house to 1st Line Defence Ltd to enable the placement of a development site in context with events that may have led to the presence of German air-delivered or Allied military UXO. The report will identify any immediate necessity for risk mitigation or additional research in the form of a Detailed UXO Risk Assessment. It makes use of 1st Line Defence's extensive historical archives, library and unique geo-databases, as well as internet resources, and is researched and compiled by UXO specialists and graduate researchers.

The assessment directly follows CIRIA C681 guidelines "Unexploded Ordnance, a Guide for the Construction Industry". The document will therefore assess the following factors:

- Basic Site Data
- Previous Military Use
- Indicators of potential aerial delivered UXO threat
- Consideration of any Mitigating Factors
- Extent of Proposed Intrusive Works
- Any requirement for Further Work

It should be noted that the vast majority of construction sites in the UK will have a low or negligible risk of encountering UXO and should be able to be screened out at this preliminary stage. The report is meant as a common sense 'first step' in the UXO risk management process. The content of the report and conclusions drawn are based on basic, preliminary research using the information available to 1st Line Defence at the time this report was produced. It should be noted that the only way to entirely negate risk from UXO to a project would be to support the works proposed with appropriate UXO risk mitigation measures. It is rarely possible to state that there is absolutely 'no' risk from UXO to a project.





Summary and Conclusions

During WWII the site was located within the County Borough of Manchester. According to official Home Office bombing statistics, this borough sustained an overall low density of bombing with an average of 27.1 items of ordnance recorded per 1,000 acres.

Although Manchester bomb mapping records several fire bombs falling across properties on Moorfield Road, approximately 55m south-west of the site, there is no positive evidence to suggest that these fell on the site itself, though given the open nature of the site this cannot be fully discounted.

Given the oversight from properties on neighbouring roads, it is anticipated that the site would have had a good level of coverage. Although dependent on the vigilance of individual residents, this would increase the likelihood that evidence of UXO would have been spotted, reported and dealt with.

Given the low density of bombing across the borough, with no positive evidence found to suggest any bombing occurred directly on site, the risk of encountering UXO is not considered significant enough to warrant further research. However, given the open nature of the site and the fire bombs that fell over Moorfield Road, UXO awareness briefings are recommended as a sensible precaution.

Recommendations

Given the findings of this preliminary report, the risk from UXO is not considered to be significantly elevated above the 'background risk' of finding UXO in this part of the UK. Whilst it would be possible to conduct a Detailed UXO Risk Assessment for this site, it is not anticipated that any further findings would significantly alter the risk of encountering unexploded ordnance within the site. It is therefore recommended that **no further research** is undertaken. However, UXO safety awareness briefings are recommended as a sensible precaution.

If the client has any anecdotal or empirical evidence of UXO risk on site, please contact 1st Line Defence.

It should be noted that although the risk from unexploded ordnance on this site has been assessed as low/minimal, this does not mean there is 'no' risk of encountering UXO. This preliminary report has been undertaken with due diligence, and all reasonable care has been taken to access and analyse relevant historical information. By necessity, when dealing with historical evidence, and when making assessments of UXO risk, various assumptions have to be made which we have discussed and justified within this report. Our reports take a common-sense and practical approach to the assessment of UXO risk, and we strive to be reasonable and pragmatic in our conclusions. As referenced, it would be possible to undertake further research into this site, but based on the evidence to hand, this is not deemed strictly necessary, and no reasonably justifiable requirement for proactive on-site mitigation has been identified.

It should however be stressed that if any suspect items are encountered during the proposed works, 1st Line Defence should be contacted for advice/assistance, and to re-assess the risk as necessary. Furthermore, we would recommend that ground personnel are always made aware of the potential for encountering UXO, what to look out for and what to do in the unlikely event that a suspect item is encountered, and that a UXO Risk Management Plan is put together for the proposed works. We would be happy to provide a template and guidance for this – contact us on 01992 245020. Should the scope of works change or additional works be proposed, 1st Line Defence should be contacted to re-evaluate the risk.





Risk Assessment Considerations	
Site location and description/current use	The site is located in the West Didsbury area of the city of Manchester. Recent aerial imagery shows the site to be occupied entirely by woodland. To the north of the site are structures and a car park associated with Withington Community Hospital. Burton Road lies adjacent to the east, while Fielden Road adjoins the southern boundary of the site. Open ground and Buccleuch Lodge can be found to the west of the site. The site is approximately centred on the OS grid reference: SJ 83736 92009. 
Are there any indicators of current/historical military activity on/close to the site?	The original Withington Hospital – approximately 230m north-west of the site – is known to have treated and housed German Prisoners of War (POWs) throughout WWI. It was known as Nell Lane Military Hospital.¹ Nazi Germany's final Head of State, Karl Dönitz, briefly worked at the hospital in 1918.² In-house records do not indicate that the site footprint had any former military use. No features such as WWII defensive positions, encampments or firing ranges are recorded to have been located at the site. No information of ordnance being stored, produced, or disposed of within the proposed site boundary could be found. The closest recorded Heavy Anti-Aircraft (HAA) battery was situated approximately 1.5km north-west of the site at Hough End playing fields. The range of a fired projectile can be up to 15km. The risk from Anti-Aircraft projectiles is homogenous to the risk from German aerial delivered ordnance (see below).
What was the pre- and post-WWII history of the site?	Pre-war OS mapping (1933) shows the site to be occupied by undeveloped, open ground. Further such ground can be found to the north. Adjoining the east of the site is <i>Burton Road</i>. <i>Fielden Road</i> lies immediately to the south, while additional open ground can be located to the west of the site. Post-war OS mapping (1947) shows the site footprint and immediate environs to remain as they did in the previous mapping edition. Later OS mapping (1955) indicates that four large structures have been built on site, their purpose unknown. These structures continue to the north of the site which was previously occupied by open ground. <i>Burton Road</i> remains to the east, while <i>Fielden Road</i> is still located to the south.

¹ <https://archiveshub.jisc.ac.uk/search/archives/b489e047-e6b1-3992-aaa3-5e40e2147729?component=27abdf41-0ff5-3c16-93d5-cdb6e253d27c>

² <http://www.twentythree.plus.com/MAP/eagles.html>





Was the area subject to bombing during WWII?	During WWII the site was located in the County Borough of Manchester. According to official Home Office bombing statistics, this borough sustained an overall low density of bombing with 738 items of ordnance recorded to have fallen within the 27,255 acre borough, or an average of 27.1 items per 1,000 acres. This consisted of 712 high explosive (HE) bombs, 18 parachute mines, seven oil bombs, and one V-1 pilotless aircraft bomb. Manchester bomb mapping shows several fire bombs fell across properties on Moorfield Road, approximately 55m south-west of the site. The nearest recorded high explosive (HE) bomb strike was situated approximately 165m north of the site on Tintern Avenue.
Is there any evidence of bomb damage on/close to the site?	Due to its undeveloped composition, it is unknown whether the site was damaged at this preliminary stage. The acquisition of high-resolution aerial imagery would be needed in order to determine the wartime condition of the site and its surrounds.
To what degree would the site have been subject to access?	It is unknown at this preliminary stage how often the site would have been accessed during WWII. It is anticipated that the site area would have had good coverage from properties on and adjoining Burton Road and Fielden Road. This reduces the likelihood of UXO going missing and unreported. Although this would have been dependent on the vigilance of individual residents. Given the overall low bomb density across the borough, it is considered possible that any incidents may have been investigated given the relative novelty of the occasion in West Didsbury.
To what degree has the site been developed post-WWII?	Structures erected on site in the post-war era are believed to have become government buildings associated with Withington Hospital to the north. These were torn down in the early 2000s. The relocated Withington Community Hospital opened immediately north of the site in 2007. ³
What is the nature and extent of the intrusive works proposed?	The nature and extent of works proposed was not available at the time of writing.

³ <https://archiveshub.jisc.ac.uk/search/archives/b489e047-e6b1-3992-aaa3-5e40e2147729?component=27abdf41-0ff5-3c16-93d5-cdb6e253d27c>

APPENDIX 7 - CIRIA Risk Assessment Methodology

Contaminated Land Risk Assessment

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

Hazard Identification ➡ Hazard Assessment ➡ Risk Estimation ➡ Risk Evaluation

LCRM outlines the framework to be followed for risk assessment in the UK. The framework is designed to be consistent with UK legislation and policies including planning. The starting point of the risk assessment is to identify the context of the problem and the objectives of the process.

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

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

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

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

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

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

- **Severe:** Short term (acute) risk to human health likely to result in 'significant harm' as defined by the Environment Protection Act 1990, Part IIA. Short-term risk of pollution of sensitive water resources. Catastrophic damage to buildings or property. A short-term risk to a particular ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);
Examples – High concentrations of contaminant on surface of recreation area, major spillage of contaminants from site into controlled waters, explosion causing building to collapse;

- **Medium:** Chronic damage to human health ('significant harm' as defined in DETR 2000). Pollution of sensitive water resources. A significant change in a particular ecosystem or organism forming part of that ecosystem (note definition of ecosystem in 'Draft Circular on Contaminated Land', DETR 2000);
Examples - Concentrations of contaminants exceed the generic assessment criteria, leaching of contaminants from a site to a Principal or Secondary Aquifer, death of species within a designated nature reserve;
- **Mild:** Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services ('significant harm' as defined in 'Draft Circular on Contaminated Land', DETR 2000). Damage to sensitive buildings, structures, services or the environment;
Examples – Pollution of non-classified groundwater or damage to buildings rendering it unsafe to occupy.
- **Minor:** harm, not necessarily significant harm, which may result in financial loss or expenditure to resolve. Non-permanent health effects to human health (easily prevented by use of personal protective clothing etc). Easily repairable effects of damage to buildings, structures and services.
Examples – Presence of contaminants at such concentrations PPE is required during site work, loss of plants in landscaping scheme or discolouration of concrete.

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

		Consequences			
		Severe	Medium	Mild	Minor
Probability	Highly likely	Very high	High	Moderate	Moderate/low
	Likely	High	Moderate	Moderate/low	Low
	Low likelihood	Moderate	Moderate/low	Low	Very low
	Unlikely	Moderate/low	Low	Very Low	Very low

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

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

APPENDIX 8 - Relevant Contaminated Land Legislation

Legislative Background

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

- The 1995 Environment Act;
- The Contaminated Land (England) Regulations 2000;
- The DETR circular 02/2000 Environmental Protection Act 1990: Part IIA Contaminated Land.

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

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

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

- **Source** - substances that are potential contaminants or pollutants that may cause harm;
- **Pathway** - a potential route by which contaminants can move from the source to the receptor;
- **Receptor** - a receptor that may be harmed, for example the water environment, humans and water.

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

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

Relevant Guidance Documents

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

- LCRM – Model Procedures;
- Contamination and Environmental Matters - Their implications for Property Professionals (2nd Edition RICS Nov 2003);
- Brownfields – Managing the development of previously developed land – A client's guide, CIRIA 2002;
- DEFRA and Environment Agency publications CLR7 – 10, supported by the TOX guides and SGV guides, dated March 2002;
- DETR Circular 02/2000, Contaminated Land: Implementation of Part IIA of the Environmental Protection Act 1990;
- Environment Agency technical advice to third parties on Pollution of Controlled Waters for Part IIA of the EPA1990, May 2002;

Relevant Legislative Documents

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

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

APPENDIX 9 - Limitations

Limitations

This report (Report) forms part of the Services and if applicable Additional Services undertaken by Groundtech Consulting Ltd pursuant to a written contract (Agreement) which contains detailed provisions including express limitations of the liability of Groundtech Consulting Ltd.

This Report was prepared using reasonable skill and care as stated in the Agreement for the purpose including intended end use stated by the Client (Purpose) and the liability of Groundtech Consulting Ltd in respect of the form and content of this Report is no greater than its liability under the Agreement. All records, measurements notes, or any other data (Data) obtained by or for the benefit of the Consultant were obtained at a specific point in time and it may not be assumed by the Client or any person relying on this Report that the Data will remain unaffected by the passage of time, the seasons, weather conditions, changes in the water table or the carrying out and completion of works at the Site.

Unless otherwise agreed this Report has been prepared exclusively for the use and reliance of the Client and may not be relied upon, by any other party except as provided for in the Agreement. A third party who relies on this Report, does so at their own and sole risk and Groundtech Consulting Ltd has no liability to such parties.

Groundtech Consulting Ltd that this Report is to be used for the Purpose. The Purpose was instrumental in determining the scope and of the Services provided. If the Purpose should change, the Client may not be able to rely on the Report without the separate agreement of Groundtech Consulting Ltd.

Since the Report was written, later changes in legislation, statutory requirements and industry best practices have not been considered and this should be allowed for. Ground conditions can also change (see below) and should be investigated if there is any significant delay in acting on the findings of this Report. The period of time may result in changes in site conditions, regulatory or other legal provisions, technology or economic conditions which could render the Report inaccurate or unreliable. The information and conclusions in this Report should not be relied upon in the future without written confirmation from Groundtech Consulting Ltd that it is safe to do so.

The observations and conclusions outlined in this Report are based exclusively on the services that were provided as set out in the agreement between the client and Groundtech Consulting Ltd.

Groundtech Consulting Ltd is not liable for the existence of any condition, the discovery of which would require additional investigation outside the agreed scope of works or core competency. The Report is based upon Groundtech Consulting Ltd's observations of existing physical conditions at the Site gained from site reconnaissance together with interpretation of information including documentation, obtained from third parties and from the Client on the history and usage of the Site. The findings and recommendations contained in this Report are based in part upon information provided by third parties, and Groundtech Consulting Ltd have relied upon such information assuming it to be correct.

Groundtech Consulting Ltd accepts no responsibility for errors or inaccuracies in third party information presented in this Report. Groundtech Consulting Ltd was not authorised to independently verify the accuracy or completeness of information, documentation or materials received from the client or third parties, including laboratories and information services, during the performance of the Services or Additional Services. Groundtech Consulting Ltd is not liable for any inaccurate information, misrepresentation of data or conclusions, which may inform the scope of investigation undertaken by Groundtech Consulting Ltd and forms the contract with the client.

Where field investigations have been carried out these have been restricted to a level of detail required to achieve the stated objectives of the work. Ground conditions may also vary due to the ground's heterogeneous properties

and because investigation exploratory locations only allow examination of the ground at discrete locations. The potential exists for ground conditions to be encountered which are different to those considered in this Report, particularly between exploratory holes. The extent of the limited area depends on the soil and groundwater conditions, together with other constraints such as the position of any existing structures and underground utilities. If so stipulated in the Agreement, geo-environmental testing was carried out for a limited number of parameters based on an understanding of the available operational and historical information, and it should not be inferred that other chemical species are not present.

Any groundwater conditions entered on the exploratory hole records are those observed at the time of investigation. The groundwater level often has not had time to reach equilibrium and a monitoring period is required. Furthermore, groundwater levels are subject to seasonal variation or changes in local drainage conditions and groundwater levels may occur at other times of the year which are higher than were recorded during this investigation.

Any site drawings provided in this Report are preliminary and used to present the general relative locations of features on, and surrounding, the Site.

