Report No: C398
Date: February 2021

# PRELIMINARY INVESTIGATION
# of land at
# 28 PADDOCK ROAD, STAINCROSS, BARNSLEY

Prepared for

**Andrew Bailey Architects**

Prepared by
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| **REPORT NUMBER:** | C398 | **REPORT STATUS:** | Final |
| **REPORT TYPE:** | Preliminary Investigation | | |
| **REPORT DATE:** | February 2021 | | |
| **SITE:** | Land off 28 Paddock Road, Staincross, Barnsley | | |
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# PRELIMINARY INVESTIGATION
# of land at
# 28 PADDOCK ROAD, STAINCROSS, BARNSLEY, YORKSHIRE

## 1.0 INTRODUCTION.

G&M Consulting Ltd (G&M) was commissioned by Andrew Bailey Architects, to undertake a preliminary investigation (desk study) of a plot of land at 28 Paddock Road, Staincross, Barnsley, Yorkshire. It is understood that outline planning approval (2017/1387) has been granted by Barnsley Metropolitan Borough Council for the demolition of existing dwelling and outbuildings and erection of up to 6 dwellings. This report has been prepared in support of the discharge of Condition 6(1,2,3) of the approval.

The aims of this investigation are as follows;

- To determine the land use history of the site from an inspection of available historical Ordnance Survey (OS) plans;
- To determine the environmental setting of the site, including the details of the geology, hydrogeology and hydrology;
- To determine the likelihood of shallow mine workings beneath the site;
- To determine whether the site had previously been used for any purpose that may have given rise to significant ground contamination;
- Develop a Preliminary Conceptual Site Model; and,
- To provide recommendations for any further works, if required.

As part of the desk study, information was sourced from GroundSure Limited (GroundSure), British Geological Survey (BGS), The Coal Authority (CA), The Environment Agency (EA) and Building Research Establishment (BRE). A site inspection (walk-over survey) was also carried out by a G&M Geologist on the 4th of November 2020.

This report is based on the data obtained from the preliminary investigation, it is limited to that data, and responsibility cannot be accepted for conditions not revealed by the investigation. Any diagram or opinion of the possible configuration of the ground conditions is conjectural and given for guidance only.

During the course of the site walk-over G&M did not note the possible presence of Japanese Knotweed on the subject site. However, it should be borne in mind G&M are not qualified ecologists and as such cannot guarantee the absence of knotweed or other invasive vegetation. If necessary, the possible presence of such vegetation should be confirmed by a qualified ecologist.

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## 2.0 SITE DESCRIPTION.

### 2.1 Site Location.

The site is located on the southern side of Paddock Road in the Staincross area of Barnsley. Located approximately 3.75km north of the centre of Barnsley, the approximate centre of the site has the National Grid Reference, SE 33465 10239. A site location plan is shown on Drawing No. C398/1, presented in Appendix A of this report.

### 2.2 Site Features.

The site is an irregular plot of land covering an area of approximately 2.3 hectares. It fronts to the north on to Paddock Lane where it is only a narrow plot of land approximately 20 m wide and running south for approximately 90m before widening out into a larger L shape plot of land. One limb of the L is approximately 190 m by 70 m with the long axis aligned east west. The second limb is at the eastern end of the first and extends to the south, it is approximately 175 m by 55 m with the long axis aligned north south. The narrow strip off Paddock Lane is occupied by a number of buildings and demolished buildings associated with Woodview Farm. The remaining area of the site is was formally open fields / scrub land, however at time of writing of this report, the site has been bulldozed with stockpiles of site won topsoil now in place in areas along the southern and eastern boundaries of the site.

The overall fall in ground level across the site from Paddock Lane to the most southerly point is approximately 20 m and that from Paddock Lane to the southern edge of the east west trending section of the site 12 m.

The site is bordered to the north by the gardens of residential properties that front on to Paddock Lane or associated side roads, to the west and south by a mixture of communal open spaces and residential properties and to the east by fields and allotments.

A set of site condition photographs have been retained by G&M for inspection, if required.

## 3.0 SITE HISTORY.

A GroundSure report was commissioned, as part of this investigation, in order to review the environmental and regulatory information for the site and the immediate surrounding area. A copy of the report is presented in Appendix B of this report. A summary of the findings of the report and the general setting of the site is described in the following sections.

The GroundSure report contains historical Ordnance Survey maps which have been reviewed. Below is a summary of the salient points relating to the history of the site, dated from 1850. It is not the intention of this report to describe, in detail, all the changes that have occurred on or adjacent to the site, only those pertinent to the proposed development. This approach is intended to reduce uncertainty in the desk study review process to an acceptable level in line with BS10175:2011+A2:2017.

| Date (Scale) | Site Usage | Surrounding Area Usage |
|---|---|---|
| 1850 - 1854 (1;10,560) County Series | • The northern section of the site is occupied by a small cluster of buildings (footprints undefined). The central and southern sections of the site are unoccupied and comprise undeveloped (possibly agricultural) land divided into fields. | • Site is depicted within a small village of 'Staincross', to the east of 'Mapplewell'.<br>• A road (later Paddock Road) is depicted bounding the northern site perimeter. A network of roads and tracks is depicted within the wider periphery.<br>• Numerous small residential dwellings depicted to the east and west of site spread along 'Paddock Road', including 'Staincross Lodge' and surrounding gardens within 50m of the western site boundary.<br>• A 'pump' is labelled 80m east of site and also 150m west of site.<br>• A 'well' is depicted 75m north of site, on 'Tipsey Lane'.<br>• 'Lane End Quarry (sandstone)' is shown 500m north west of site. An unnamed 'Sandstone Quarry' is present 500m east of site.<br>• 'Coal pits' are present to the south of site in the vicinity of 'Blacker'. An 'old coal pit' is noted some 450m west of site.<br>• A 'Spring' is depicted 250m south east of site. |
| 1890-1891 (1:10,560) & 1893 (1:2,500) County Series | • The building(s) on the north of the site are now defined as a symmetrical 'U-shape' footprint.<br>• The remainder of the site remains unchanged. | • '*Springs'* are depicted 220m north of site and 250m east of site.<br>• Residential developments noted to the west of site along 'Green Side' and 'Common Lane'.<br>• A railway line has been constructed 350m to the south of site, terminating at 'North Gawber Colliery'.<br>• 'Barnsley Coal Railway Extension' is now present 700m east of site.<br>• A 'Mill' is labelled in the village of 'Blacker', 300m south of site. |
| 1904 (1:10,560) & 1906 (1:2,500) County Series | • No identifiable change to the site. | • Some residential developments noted around 'Blacker' to the south and 'Green Side / Mapplewell' to the west.<br>• Expansion of 'North Gawber Colliery' noted, including 'Coke Ovens', 'Reservoirs' and 'Engine House'. |
| 1913 (1:2,500) County Series | • No identifiable changes to the site. | • New residential dwellings constructed 200m south west of site. No other significant changes to the immediate surroundings. |
| 1929-1930 (1:10,560) County Series & 1930/1938 (1:10,560) County Series | • No identifiable changes to the site. | • Land to the immediate south of site is labelled 'Miner's Welfare Ground'.<br>• Continued expansion to 'Staincross' and 'Blacker' noted, to the west and south of site.<br>• 'North Gawber Colliery' has expanded further with new railway sidings and buildings. Colliery 'shaft' labelled 400m south west of site.<br>• New residential houses noted 100m north of site on 'Shaw Lane'. |

| | | |
|---|---|---|
| 1948 (1:10,560) County Series | • A small square structure is depicted to the south of the existing buildings close to the northern tip of the site. The central and southern areas of the site remain undeveloped. | • New housing constructed lining the roads to the north of site around 'Tipsey Hill' and 'Shaw Lane'.<br>• New streets of residential housing present 750m south east of site beyond the railway line, later named 'New Lodge Estate'.<br>• 'Coke Ovens' previously associated with 'North Gawber Colliery' are no longer depicted. |
| 1951-1956 (1:10,560) Provisional & 1960-1961 (1:2,500) National Grid | • The site is now labelled 'Woodview Farm'.<br>• No identifiable changes to the building layout site. | • The road to the immediate north of site is now labelled 'Paddock Road'.<br>• 'Lane End Quarry' is now labelled 'Disused'.<br>• Earthworks evident surrounding 'North Gawber Colliery', inferred mine tailings. Change of building layout at colliery site. |
| 1965-1966 (1:10,560) Provisional & 1966/1967 (1:2,500) National Grid – Partial coverage | • Change in layout to the structures on the north of the site is noted. A detached house is present on the northern tip of the site, labelled '28'.<br>• 2no additional rectangular footprint structures have been constructed to the south of existing buildings. Possible agricultural outbuildings. | • Structures on land to the immediate east of site are now labelled 'Bleak House Poultry Farm'.<br>• Continued residential developments noted in the wider area, including along 'Staincross Lane' to the west and in 'Athersply North' to the east of site. |
| 1973-1978 (1:10,000) National Grid 1982 (1:10,000) National Grid – (partial coverage site not depicted) | • No identifiable changes to site. | • Areas of apparent earthworks surrounding 'North Gawber Colliery' are now labelled 'Tip (disused)'. 'Slurry ponds' are present to the south of the colliery.<br>• Further residential development noted within the wider area around site.<br>• The railway line 700m to the east of site is now labelled 'Dismantled'. |
| 1990-1993 (1:10,000) National Grid | • No identifiable changes to site. | • Most buildings at 'North Gawber Colliery' have been demolished. Those remaining are now labelled 'Depot'. The rail line to the mine is no longer depicted.<br>• No other significant developments noted. |
| 2001 (1:10,00) National Grid 2003 (1:1,250) LandLine | • Change in layout of the structures on the north of the site. | • No significant developments evident. |
| 2010 (1:10,000) National Grid | • No identifiable changes to site. | • The school within 200m of the south west of site has been redeveloped. |
| 2021 (1:10,000) National Grid | • No identifiable changes to site. | • Land around 'North Gawber Colliery' has been developed with streets of residential housing. |

## 4.0 ENVIRONMENTAL SETTING.

### 4.1 Published Geology

| | |
|---|---|
| **Maps/publications referenced** | 1:50,000, Sheet 87 (Barnsley) Solid & Drift Edition, 2008<br>BGS online Geoindex interactive map. |
| **Drift Geology** | None recorded at the site. |
| **Solid Geology** | Pennine Middle Coal Measures Formation – Interbedded grey mudstone, siltstone, pale grey sandstone, commonly including coal seams, ironstone bands, seatearth beds and marine bands.<br>Northern section of site indicated to be underlain by Woolley Edge Rock (0 to 40m in thickness) - Sandstone<br>*'Meltonwood Coal', 'Meltonfield (Woodmoor; Wathwood) Coal' & 'Two-Foot (Royston; Half Yard) Coal'* seams inferred below site. |

| | |
|---|---|
| | An area of 'infilled ground' is shown within 250m of the eastern site boundary. |
| **Dip** | Not shown locally. |
| **Faults** | Closest marked fault to site <100m north of site – Unnamed normal fault, striking north west – south east, downthrown block north east of fault plain, throw unknown.<br>Complex faulting regime noted within wider vicinity of site, associated with underlying Coal Measures, major faults trending NE/SW. |

### 4.2 GroundSure GeoInsight

The GroundSure report contains a GeoInsight report, this presents the published geology, as detailed above together with a risk assessment on potential geological hazards. All risks identified as less than moderate are not discussed further. A 'Moderate' risk of compressible deposits is highlighted 24m east of site, though the risk for the site is categorised as 'Negligible'.

### 4.3 Hydrology

According to the GroundSure report, the risk posed to the site and the surrounding area (within 50m) from Groundwater Flooding is 'Negligible'.

According to the GroundSure report, the site is located in an area where the risk of flooding from rivers and coastal flooding, and surface water flooding is 'Very Low' and 'Negligible', respectively.

The GroundSure report identifies the closest surface water body to site 23m east of site. Records indicate it to be an inland river at ground surface, not influenced by normal tidal action. Similar features are identified beyond 100m to the east and south of the site.

The site is shown to be greater than 2000m from any defined *"Nitrate Sensitive Area"*, though the Groundsure report indicates that the site and surrounding water courses (River Dearne & Owler Beck) are classified as *"Nitrate Vulnerable Zones"*.

### 4.4 Hydrogeology

Information provided by the EA indicates that the underlying bedrock (Pennine Middle Coal Measures Formation) is classified as a 'Secondary A' aquifer, which is defined as having;

*'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 GroundSure report identifies the site to be located within an area where Groundwater Vulnerability is 'High'. Defined as;

*'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'*.

The site is shown to be outside of any defined Source Protection Zones.

### 4.5 Mining and Quarrying

According to the Coal Authority interactive map (http:/mapaps2.bgs.co.uk/coalauthority/home.html) the site is positioned within a 'development high risk area'. Furthermore, the site is also shown to be within an area with 'probable shallow coal mine workings'. The site is within a 'surface coal resource area', as well as being shown to be underlain by 'coal outcrops'.

The site is underlain by the Pennine Middle Coal Measures Formation.

G&M were commissioned to undertake a Coal Mining Risk Assessment for the site in October 2020. The report (Ref: C398) from this exercise outlines in greater detail the risks posed to the site from coal mining activity, as well as recommendations for further work to investigate and remediate potential shallow coal workings. It should be read in conjunction with this Preliminary Investigation report.

### 4.6 Radon

The GroundSure report contains information on Radon Affected Areas as defined by the Health Protection Agency (HPA). It indicates that on the northern half of site between 3% and 5% of properties would be affected, whereas on the southern half of the site, it estimates between 1% and 3% of properties would be affected. The consequent requirement is:

- "Basic radon protection measures are required".

### 4.7 Additional Environmental Information

The GroundSure report, presented in Appendix B, also contains information on other potential pollution sources on and off site, a summary of these are presented below together with recommendations for further consideration.

| Source | Location | Discussion | Does source warrant further consideration |
|---|---|---|---|
| Historic Tanks | On site | None identified | No |
| | Within 500m | 5 No 'Tank', Gasometer' and 'Unspecified Tank' records identified, the closest lies 314m south west of site, dating to 1893-1906. | |
| Historic Energy Facilities | On site | None identified | No |
| | Within 500m | 12 No records identified relating to 'Electricity Substations', a 'Gasometer' and a 'Gas Govenor'. The closest of which notifies presence of a former substation 168m north west of site in 1966. | |
| Petrol and Fuel sites | On site | None identified | No |
| | Within 500m | None identified | |
| Garage/Motor Vehicle Repair/Scrap Yard | On site | None identified | No |
| | Within 500m | 7 No identified, the closest of which is 177m north of site, dating to 1960-1977. | |
| Historical Military Land | On site | None identified | No |
| | Within 500m | None identified | |
| Infilled Land | On site | 1 No record highlights 'Worked Ground (Undivided) – Void' | Yes |
| | Within 500m | 3 No identifying 'Infilled Ground – Artificial Deposit' within 100m of site, the closest of which is 19m east of site.<br>5 No records identifying 'Made Ground (Undivided) – Artificial Deposit), the closest to site is 258m south of site.<br>2 No records relating to 'Worked Ground | Yes |

| Source | Location | Discussion | Does source warrant further consideration |
|---|---|---|---|
| | | (Undivided) – Void', 400m west and 423m north west of site. | |
| Environmental permits/incidents/registers | On site | None identified | No |
| | Within 500m | 3 No 'Licenced Waste Sites' present within 500m, the closest of which is 252m west. | |
| Licenced/Permitted/ Authorised industrial sites | On site | None identified | No |
| | Within 250m | 7 No entries within 250m of site, the closest relates to 'poultry farming equipment and supplied' 36m east of site. | No |
| Part A1/IPC Authorisations | On site | None identified | No |
| | Within 500m | | |
| Red List discharge consents | On site | None identified | No |
| | Within 500m | | |
| Dangerous substances | On site | None identified | No |
| | Within 500m | None identified | |
| A2/Part B Activities/ Enforcements | On site | None identified | No |
| | Within 500m | 1 No installation identified. Current permit allowing unloading of petrol into storage at service stations 198m north of site.<br>No Enforcements Notified. | |
| Radioactive substances | On site | None identified | No |
| | Within 500m | | |
| Licenced Discharge Consents | On site | None identified | No |
| | Within 500m | None identified | No |
| Water Industry Referrals | On site | None identified | No |
| | Within 500m | 4 No Water Network records within 250m of site, the closest relates to an inland river feature (watercourse) 23m east of site. | No |
| Hazardous Substances | On site | None identified | No |
| | Within 500m | | |
| Pollution Incidents | On site | None identified | No |
| | Within 500m | 1 No incident 420m south west of site in 2001 relating to a fire incident resulting in 'significant air impact'. 'minor land impact' and 'no impact' to water. | |
| Historic Landfill/Waste Sites | On site | None identified | No |
| | Within 500m | 3 No Licenced Waste Sites entries, the closest of which relates to 'ELV Facility' 252m west of site.<br>1 No Historic Landfill site listed, 494m east of site. | |
| Waste treatment, transfer or disposal sites | On site | None identified | No |
| | Within 500m | 26 No records, 1 No within 250m relating to a site 216m west of site using waste in construction on a | No |

| Source | Location | Discussion | Does source warrant further consideration |
|---|---|---|---|
| | | farm site. | |
| Underground cables/pipelines | On site | None identified | No |
| | Within 500m | None identified | |
| Current Industrial Sites Data | On site | None identified | No |
| | Within 250m | 1 no identified within 100m of site - 36m east of site pertaining to *'Poultry farm'*.<br>9 No records for sites between 100m and 250m from site. | No |

## 5.0 PRELIMINARY CONCEPTUAL SITE MODEL.

### 5.1 Introduction

The findings of the desk study have been used to identify and assess potential sources of contamination and to develop a preliminary conceptual model of the site in order to investigate potential pollution linkages and identify complete pollutant linkages that may require further investigation or analysis and/or remediation. This approach is in line with the principals of Land Contamination Risk Management (LCRM) - Environment Agency October 2020.

The scope of the model is intended primarily to identify potential impacts to human health and environmental receptors from potential on-site and off-site contamination sources.

Source-Pathway-Receptor elements within the model are defined as follows:

| | |
|---|---|
| **Contaminant Source** | A hazardous substance or agent, present at levels that have the potential to cause harm or damage a receptor. |
| **Receptor** | An entity (human, aquatic environment, flora and fauna etc) that is vulnerable to the adverse effects of the contaminant. |
| **Pathway** | The means by or through which a contaminant comes into contact with or otherwise effects a receptor. |

Where all three elements are present, the relationship is termed a complete ‘pollution linkage’. It should be recognised that for a health or environmental harm to occur and for potential unacceptable risk to exist, all three elements of the relationship or linkage must be present.

The purpose of the site specific conceptual model is to support:

1. Hazard assessment – analysis of the potential for unacceptable risk: pathways and receptors that could be present.

2. Risk estimation – a prediction of the magnitude and probability of the possible consequences of any exposure: what degree of harm may result and the likelihood of harm.

3. Risk evaluation – decision as to whether a risk is unacceptable.

It should be noted that if a potential contaminant source is identified but there is no receptor present that can be adversely affected, no harm or damage can arise. Similarly, even where both a contaminant and a receptor are present, no harm or damage will occur if there is no pathway by or through which a linkage between the two can be established and therefore a risk may be acceptable.

In assessing risk, the categorisation shown below has been developed. The table is intended to be an aid to assessing the degree of risk. It should be noted that in terms of Part 2A of the Environmental Protection Act 1990 (as amended) there is no differing degree of risk. It is either ‘significant’ or not.

| Term | Description |
|---|---|
| Very High Risk | There is a high probability that severe harm could arise to a designated receptor from an identified hazard at the site without appropriate remedial action |
| High Risk | Harm is likely to arise to a designated receptor from an identified hazard at the site without appropriate remedial action |
| Moderate Risk | It is possible that without appropriate remedial action harm could arise to a |

| Term | Description |
|---|---|
| | designated receptor. It is relatively unlikely that any such harm would be severe, and if any harm were to occur it is more likely that such harm would be relatively mild. |
| Low Risk | It is possible that harm could arise to a designated receptor from an identified hazard. It is likely that, at worst, if any harm was realised any effects would be mild. |
| Negligible Risk | The presence of an identified hazard does not give rise to the potential to cause harm to a designated receptor. |

### 5.2 Assessment of Potential Sources of Contamination

Potential sources of contamination have been assessed which include both current and historical on-site sources together with those originating from off-site locations which may migrate onto the site.

Historical maps relating to the site indicate that the northern portion of the land has been occupied since 1850s by a collection of buildings. The building layout and number expanded throughout the sequence of maps. The buildings are inferred to be predominantly agricultural structures, with a residential house being constructed on the northernmost tip of the site facing on to Paddock Road sometime during the mid 20$^{th}$ century. The site was labelled 'Woodview Farm' on a number of map issues. The land in the centre and south of the site has remained undeveloped agricultural land throughout its history. Maps and records do not indicate that any significantly contaminative activities have taken place on the site.

Examination of historical maps has revealed the presence of coal mining activity within close proximity to the site. 'North Gawber Colliery' was situated to the south of the site and maps depict significant earthworks on land surrounding the colliery, inferred to be accumulations of mine tailings. Mining activities may have given rise to some localised contamination, including the potential for ground gases to emanate from underlying strata.

### 5.3 Potential Receptors

The following potential receptors have been identified for the site:

| Receptor | Details |
|---|---|
| Human Receptors | Future site occupiers |
| | Construction workers |
| Controlled Waters | Pennine Middle Coal Measures Formation (Secondary-A Aquifer) |
| Built Development | Building foundations/substructures and utility connections. |

### 5.4 Potential Pathways

Taking into account the intended use of the site, the following potential pathways by which the above receptors and sources may be linked as follows;

| Receptor | Pathway |
|---|---|
| Human (Future site users, construction workers) | Ingestion of soil/soil dust<br>Dermal contact with soil/soil dust<br>Indoor inhalation of ground gas/vapours |

| | |
|---|---|
| Controlled Waters | Percolation and mobilisation of contaminants within any shallow soils into the groundwater. |
| Built Development | Direct contact with aggressive ground conditions via migration and/or percolation out of the ground |

## 5.5 Qualitative Risk Assessment

The findings of the desk study, and source receptor pathway analyses, have been accounted for and assessed in the conceptual model presented below. The purpose of the model is to determine the potential linkage(s) existing on the site, and the likelihood of the linkage being present and determining a consequent level of risk.

**Preliminary Conceptual Site Model**

| Source | Risk | Potential Contaminants | Likely Exposure Pathway/s | Receptor/s | Probability Assessment | Complete Potential Pollutant Linkage |
|---|---|---|---|---|---|---|
| Made Ground (On-site) | Low | Inorganic and organic contaminants | Skin contact<br>Ingestion | End users (residential) and construction workers | **Unlikely** –<br>No recorded significant industrial activity on site or in close proximity. | **Low** – No further assessment / investigation required. |
| | Low | Inorganic and organic contaminants | Leaching/migration of contaminants through soil | Controlled waters | **Unlikely** –<br>No sources of inorganic or organic contaminants identified. | **Low** – No further assessment / investigation required. |
| | Low | Vapours and fumes from hydrocarbons | Inhalation | End users (residential) | **Unlikely** –<br>No pollution incidents recorded within 400m of site.<br>No historical tanks within 250m of site. | **Low** – No further assessment / investigation required. |
| | Low | Hydrocarbons | Water supply pipes | End users (residential) | **Unlikely** –<br>No pollution incidents recorded within 400m of site.<br>No historical tanks within 250m of site. | **Low** – No further assessment / investigation required. |
| | Low | Asbestos | Inhalation | End users (residential) and construction workers | **Possible** –<br>Former/current agricultural structures may have used ACMs in construction.<br>Made Ground (if present) may contain ACMs. | **Moderate** – Further assessment and monitoring required. |
| Made Ground (On site) | Low | Ground Gas | Inhalation / explosions risk in confined spaces. | End users (residential | **Likely –**<br>Underlying Pennine Middle Coal Measures have the potential to generate ground gases.<br><br>The site is within an area where between 3% and 5% of dwellings exceed the Radon Action Level. Basic protection measures required. | **High** – Further assessment and monitoring required. |
| Made Ground (off site) | Low | Mobile inorganic/ organic contaminants associated with former off-site uses | Skin contact<br>Ingestion<br><br>Inhalation | End users (residential) and buildings/ structures | **Unlikely** –<br>No recorded significant industrial activity on site or in close proximity. | **Low** – No further assessment / investigation required. |

The preliminary conceptual site model has identified a number of potentially complete pollutant linkages that are considered to require further risk assessment and investigation.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS.

It is understood that this report has been commissioned to support a planning application for outline planning permission for residential development on the site.

Based on a review of the historical records, the site has not been subject to any significantly contaminative activity, though the area has in the past seen significant coal mining activity. Construction of current structures and demolition of former structures on the north of the site associated with 'Woodview Farm' may have given rise to shallow accumulations of Made Ground. The central and southern portions of the site appear to have remained undeveloped throughout its history.

The site is underlain by Pennine Middle Coal Measures. According to the Coal Authority interactive map (http:/mapaps2.bgs.co.uk/coalauthority/home.html) the site is positioned within a 'development high risk area'. Furthermore, the site is also shown to be within an area with 'probable shallow coal mine workings'. The site is within a 'surface coal resource area', as well as being shown to be underlain by 'coal outcrops'.

G&M were commissioned to undertake a Coal Mining Risk Assessment for the site in October 2020. The report (Ref: C398) from this exercise outlines in greater detail the risks posed to the site from coal mining activity, as well as recommendations for further work to investigate and remediate potential shallow coal workings. It should be read in conjunction with this Preliminary Investigation report.

A risk to the proposed development identified in the Preliminary Conceptual Site Model is the potential for ground gases emanating from the underlying Pennine Coal Measures. A programme of gas monitoring is considered necessary to quantify this risk.

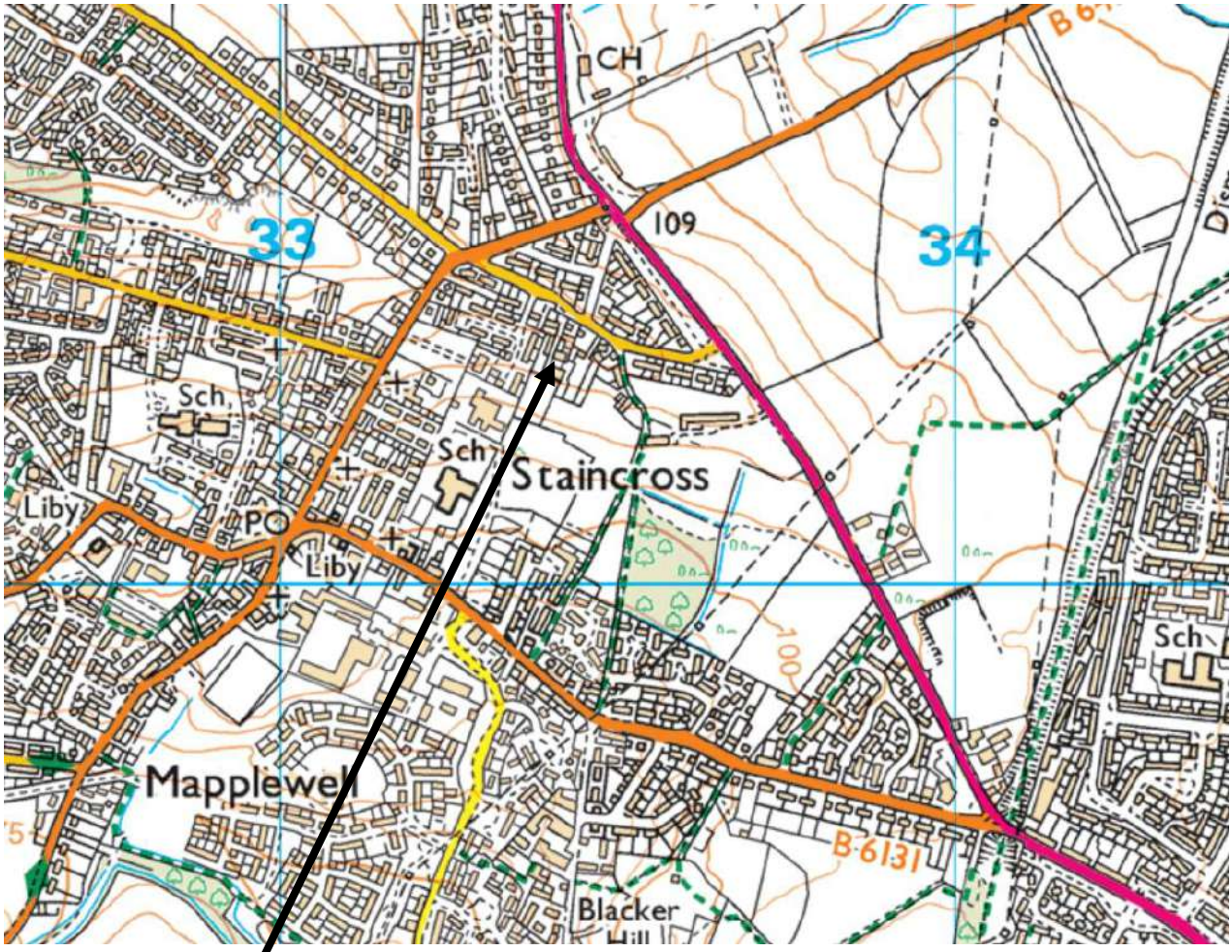
Based on the findings of this desk study report it is recommended that an intrusive geoenvironmental investigation is carried out to assess the risk identified receptors. The likely scope of the investigation should include the following:

- A series of shallow window-sample (dynamic sample) boreholes should be drilled the site to adequately characterise the made ground and shallow natural soils across the site and to allow installation of combined groundwater/ground gas monitoring wells.
- Chemical testing of recovered soil samples at a UKAS/MCERTS accredited laboratory.
- A programme of ground gas monitoring should be undertaken (within borehole installations) to assess any risk to the development posed by gases emanating from underlying coal measures or made ground. Groundwater monitoring should also be undertaken in conjunction, to assess the groundwater regime in the underlying soils and rocks.
- Preparation of a factual and interpretative Phase II Report, detailing the findings of the investigation, including a qualitative risk assessment and recommendations for the preparation of a Remediation Method Statement (if required)

The conclusions and recommendations presented above are considered practical based on the findings of this report. However, they cannot be guaranteed to gain regulatory approval, and therefore this report should be submitted to the regulators for their comment/approval as part of the planning process before any development work takes place.

# APPENDIX A

DRAWINGS




**The Site**

# Site Location Plan

**Drawing No C398/1**

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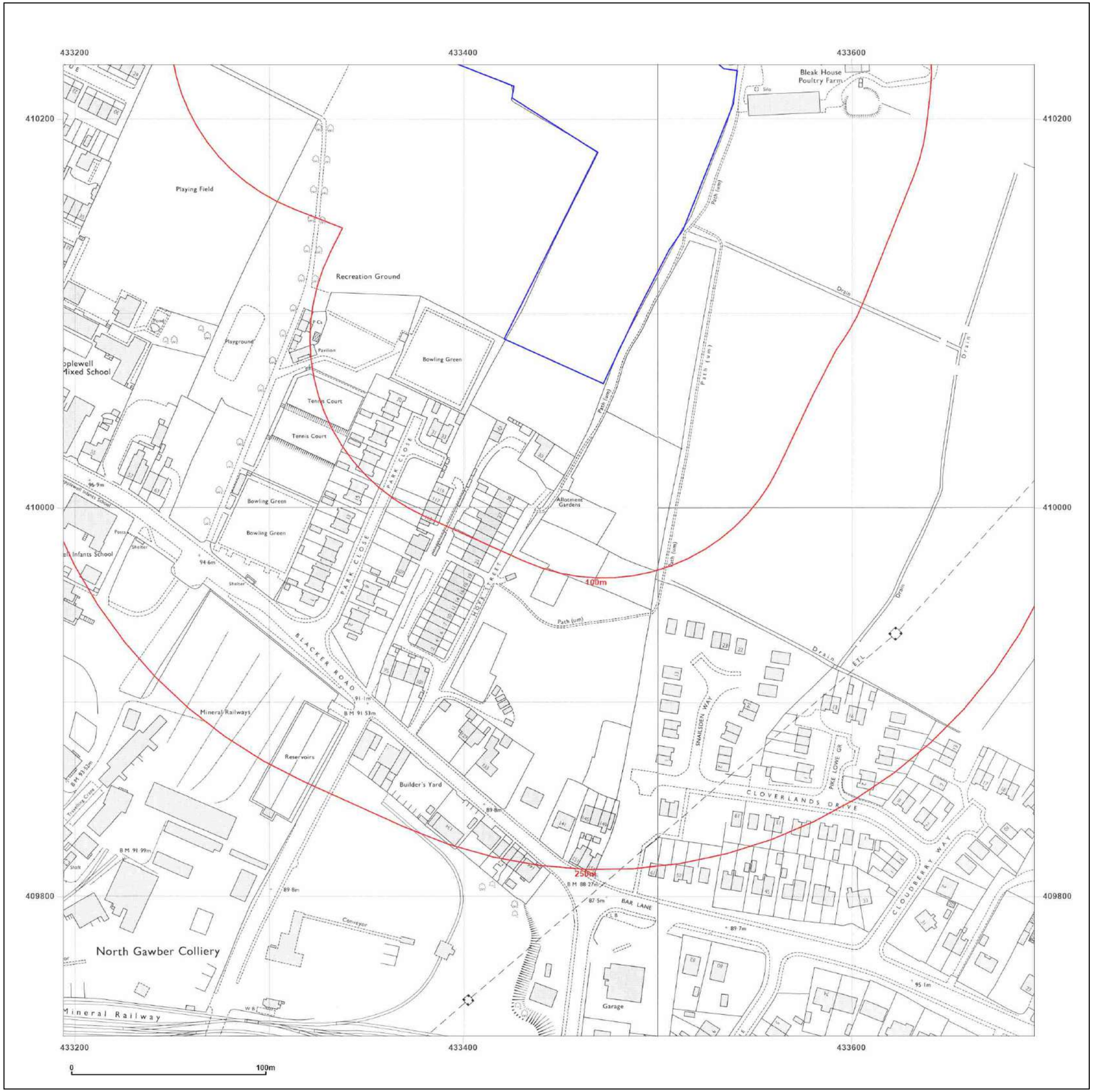
# APPENDIX B

GROUNDSURE REPORT

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STAINCROSS, BARNSLEY, S75
6LG

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**Grid Ref:** 433444, 409978

**Map Name:** National Grid

**Map date:** **1977**

**Scale:** 1:1,250

**Printed at:** 1:2,000

N
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Surveyed 1977
Revised 1977
Edition N/A
Copyright 1977
Levelled 1963

Surveyed 1977
Revised 1977
Edition N/A
Copyright 1977
Levelled 1963

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6LG

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**Map date:** **1986-1991**

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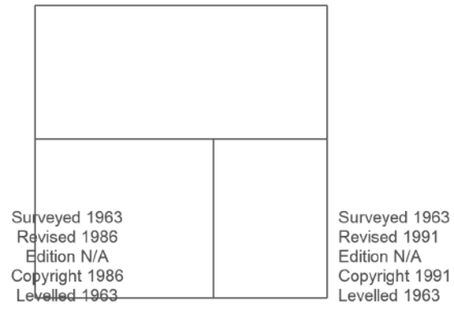


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6LG

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**Grid Ref:** 433444, 409978

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**Map date:** **1991-1993**

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**Printed at:** 1:2,000

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Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed 1993
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1963
Revised 1991
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**Report Ref:** GS-7445423_1250_1_1
**Grid Ref:** 433444, 409978

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**Report Ref:** GS-7445423_1250_1_1
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Revised N/A
Edition N/A
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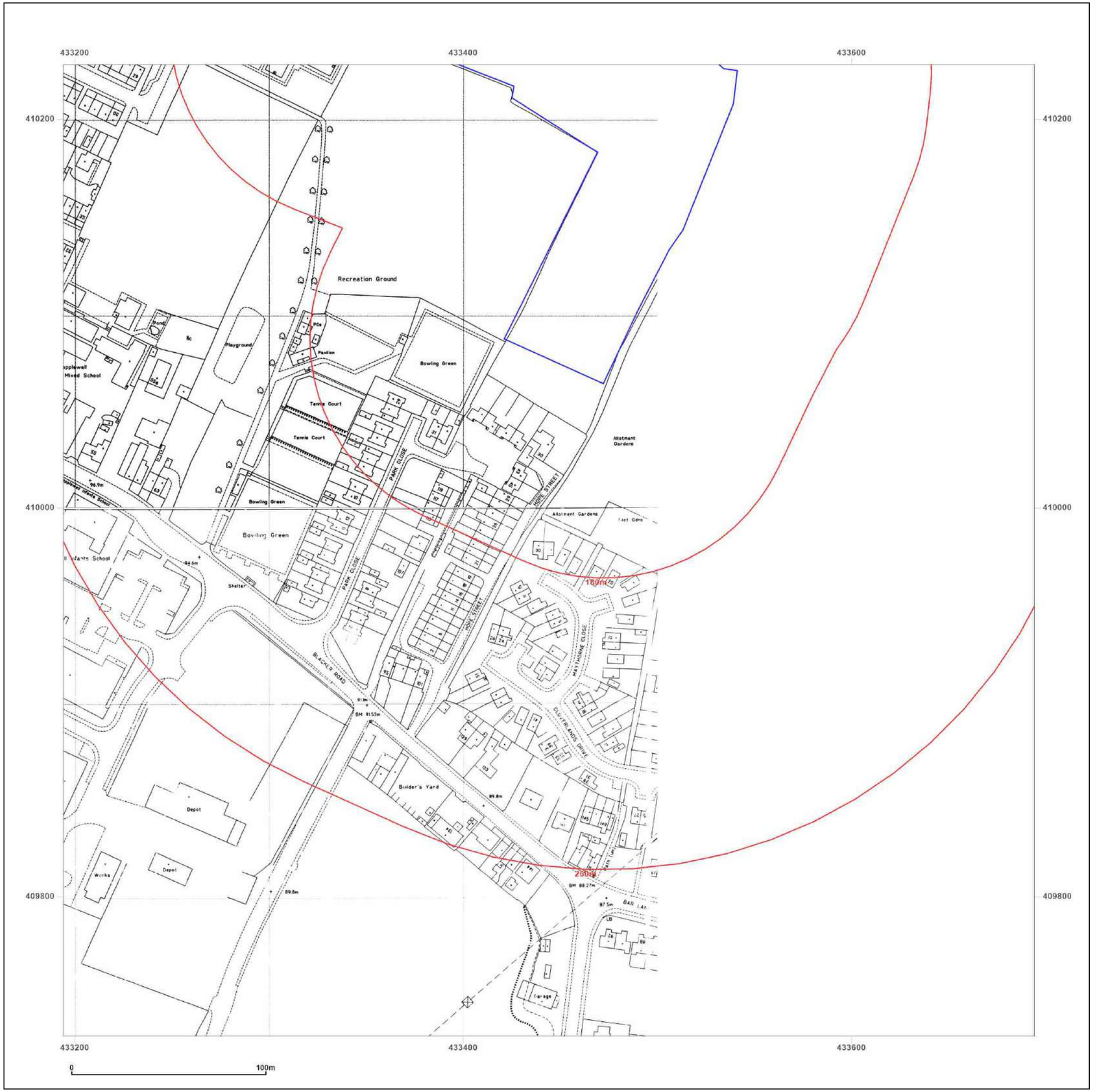


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Edition N/A
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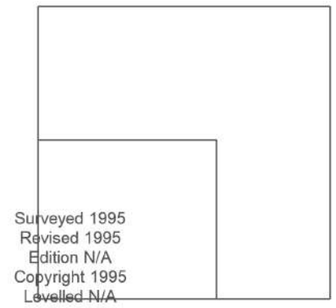


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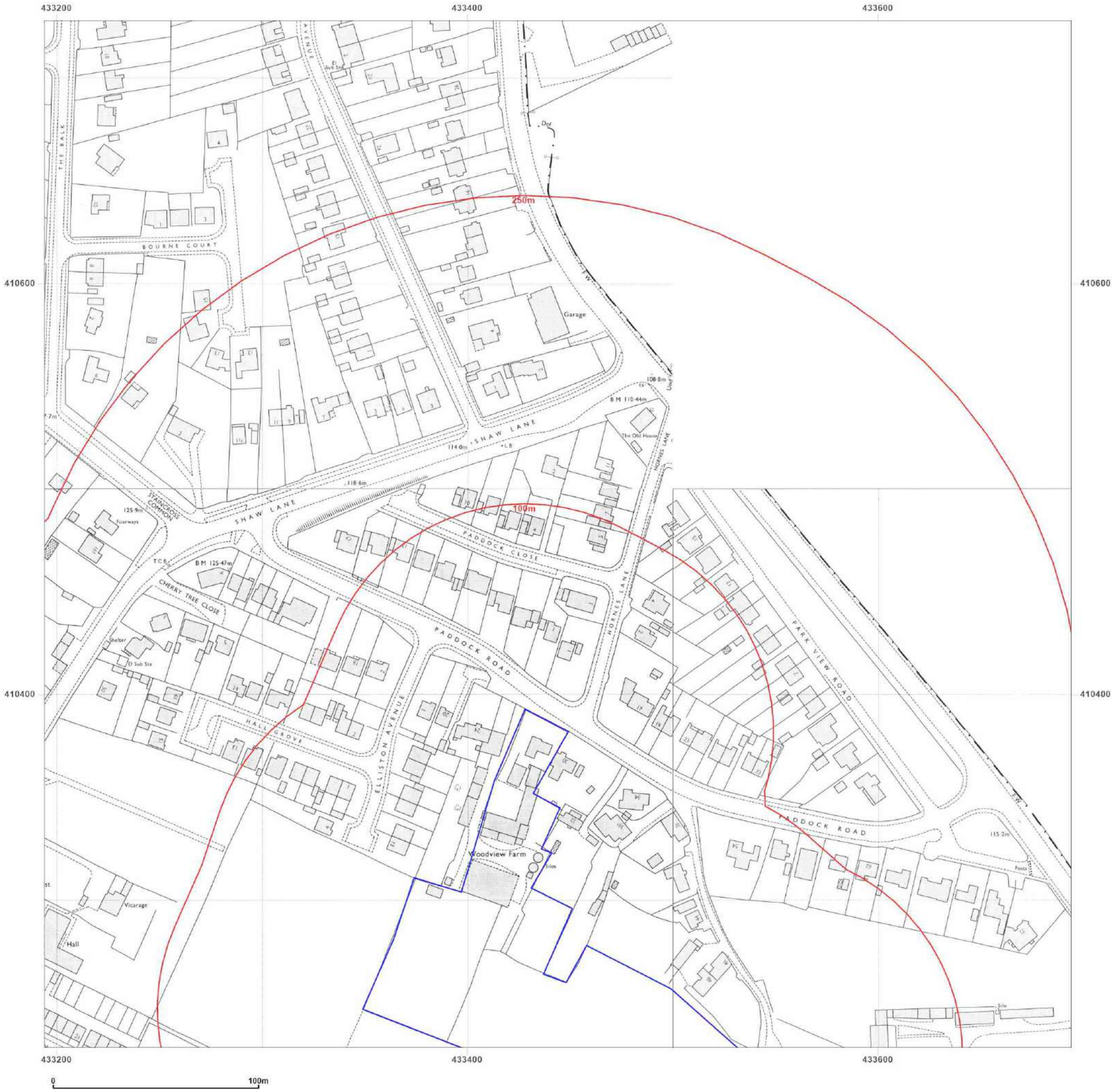


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Surveyed 1977
Revised 1977
Edition N/A
Copyright 1977
Levelled 1963

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Revised 1977
Edition N/A
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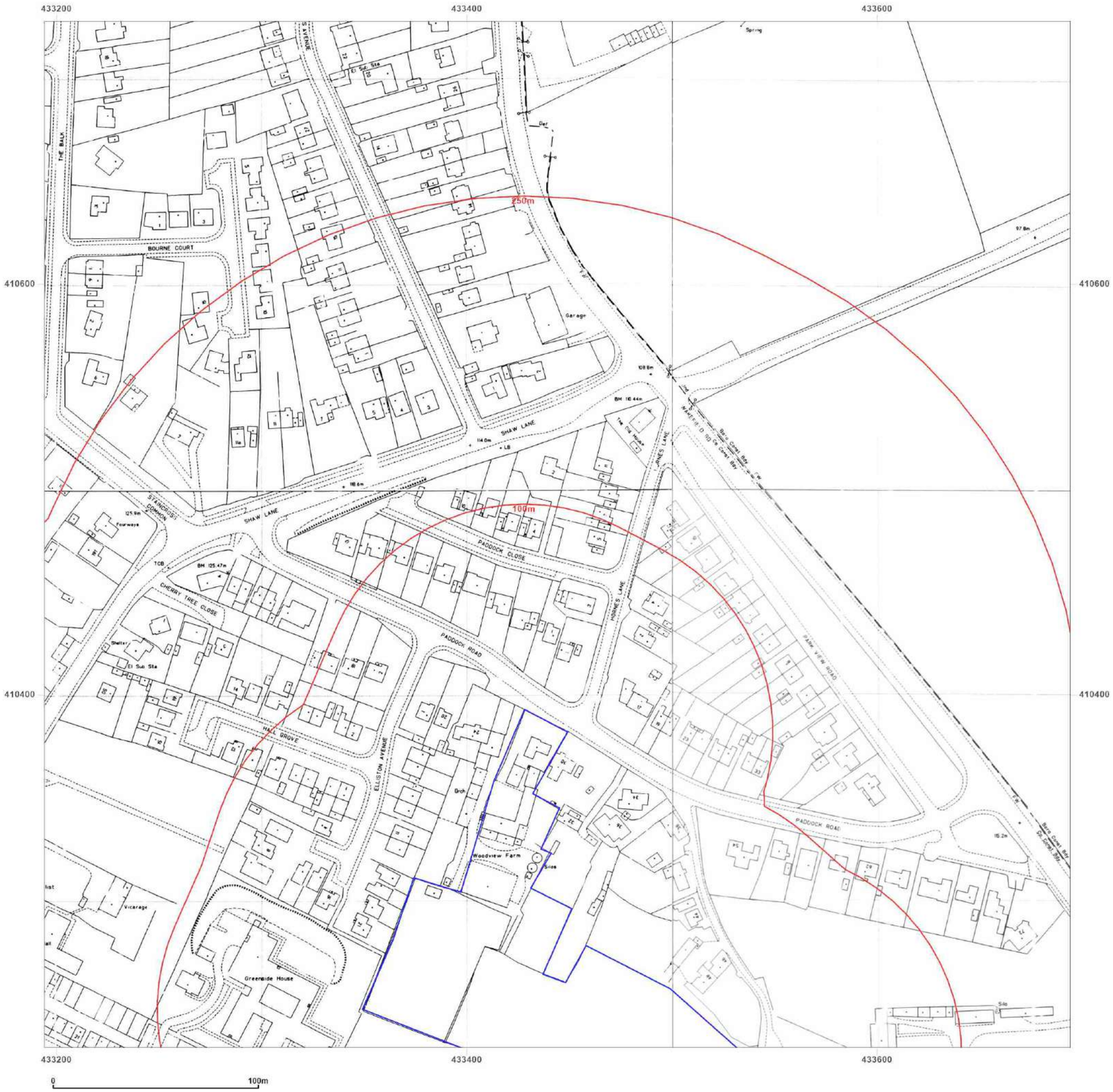


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Surveyed N/A
Revised N/A
Edition N/A
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Levelled N/A

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Revised N/A
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Levelled N/A

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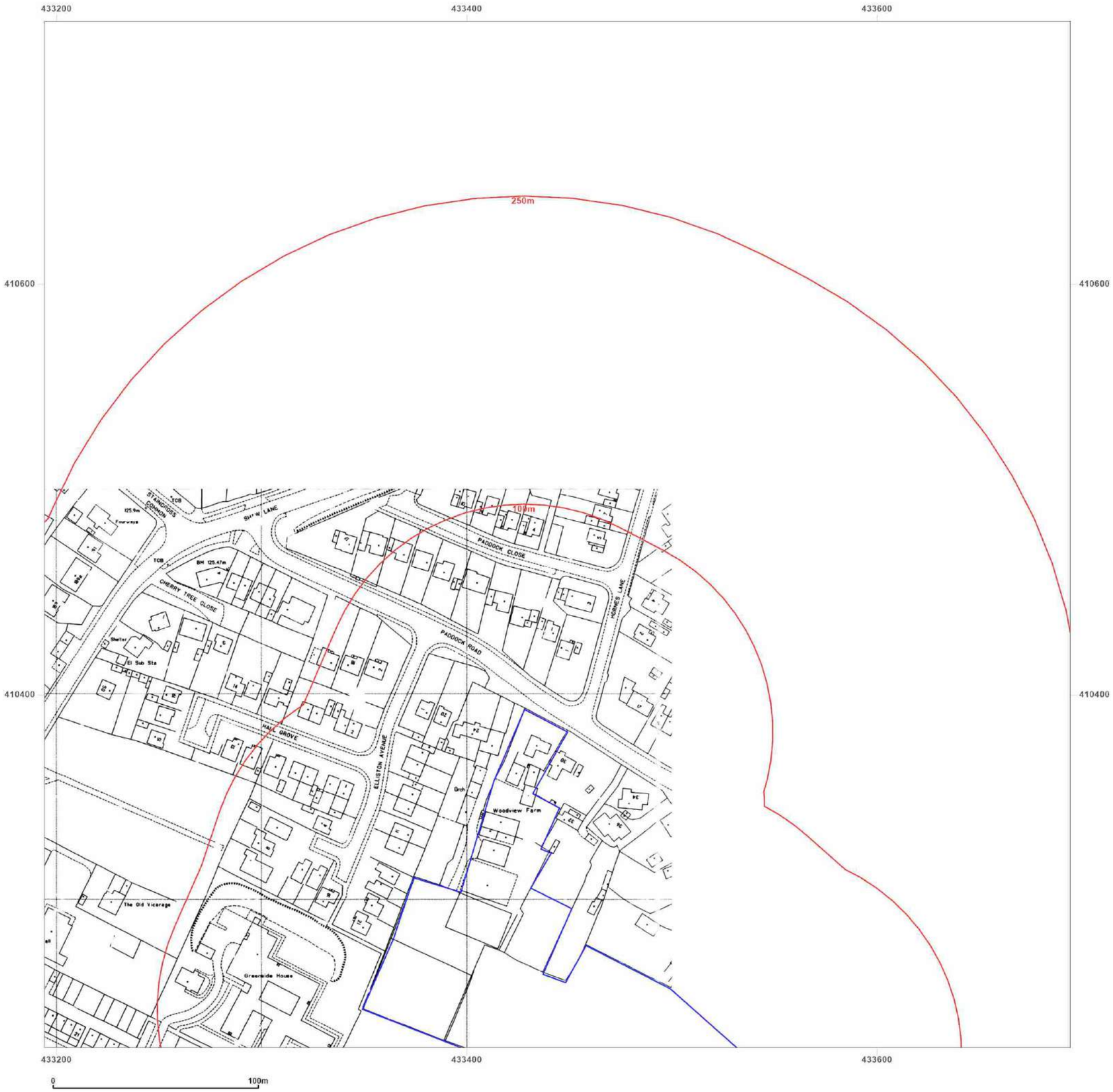


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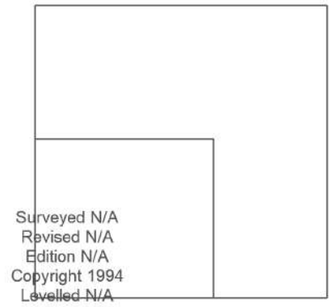


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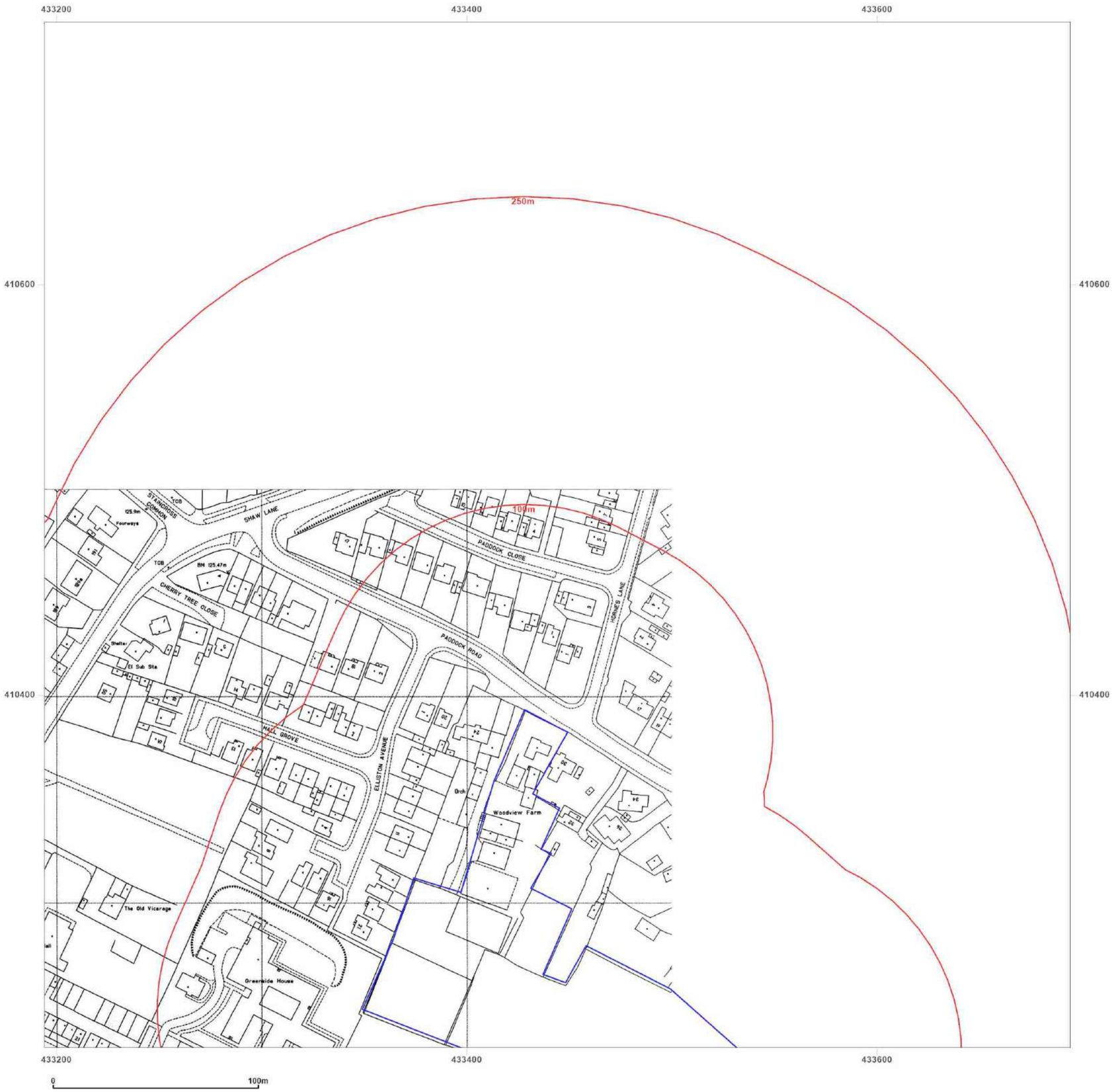


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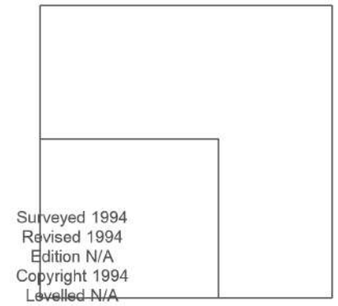


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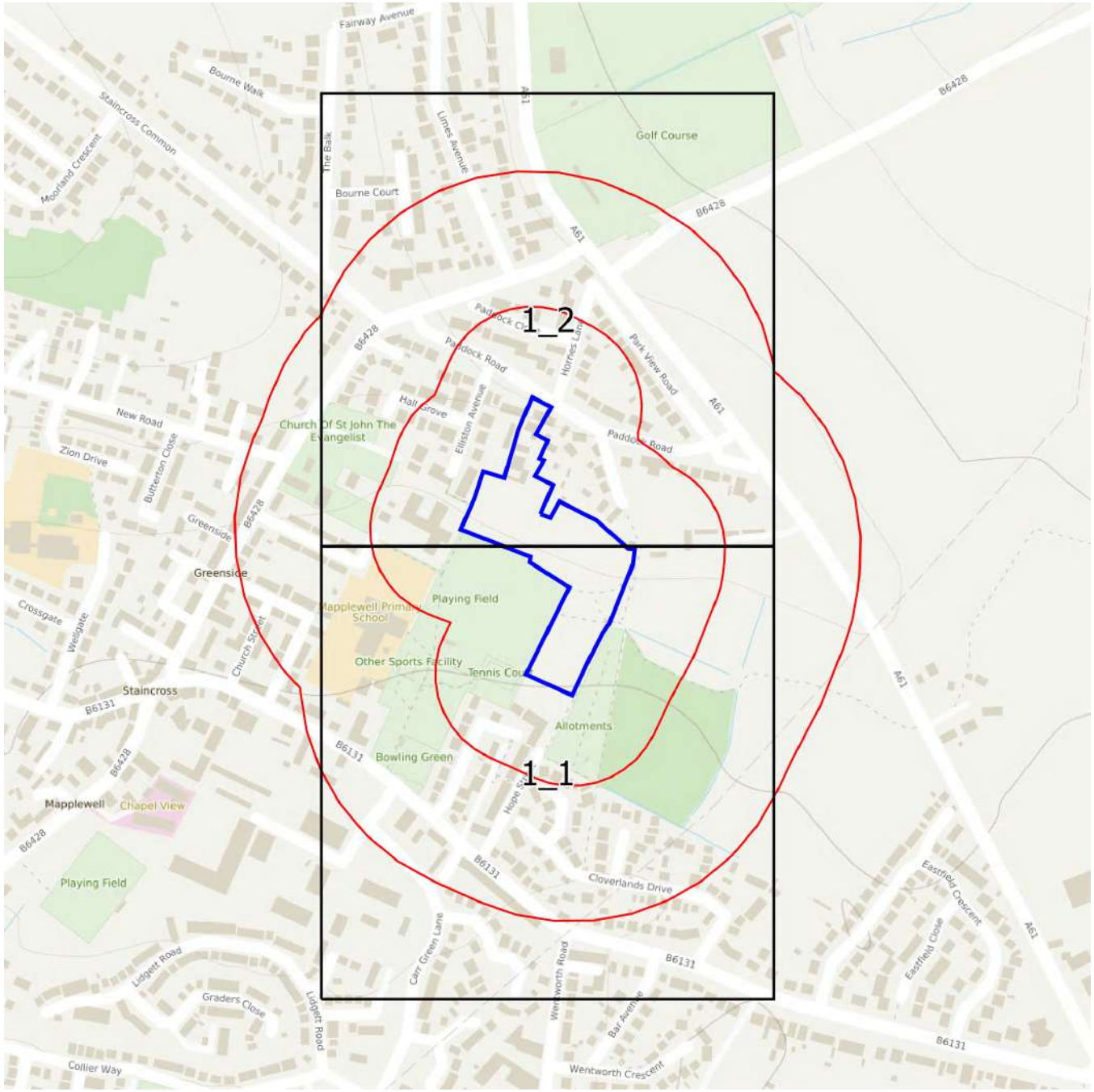


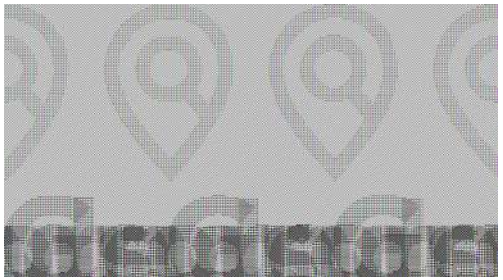

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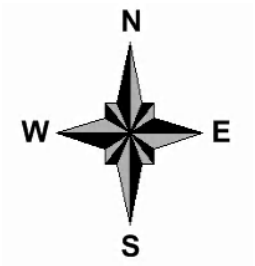

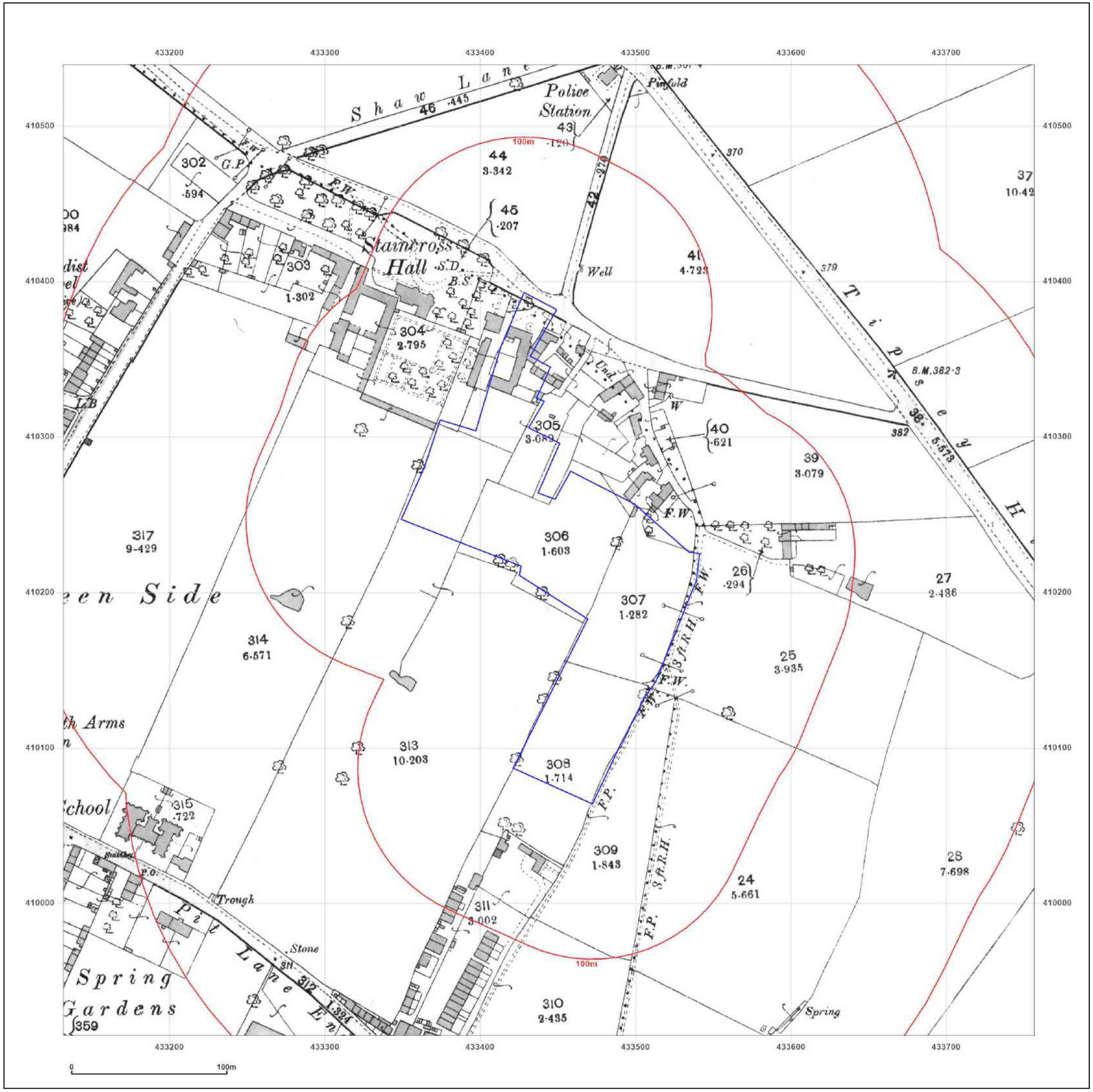


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STAINCROSS, BARNSLEY, S75
6LG

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**Report Ref:** GS-7445423_2500
**Grid Ref:** 433444, 410227

**Map Name:** County Series

**Map date:** **1893**

**Scale:** 1:2,500

**Printed at:** 1:2,500

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Revised 1893
Edition N/A
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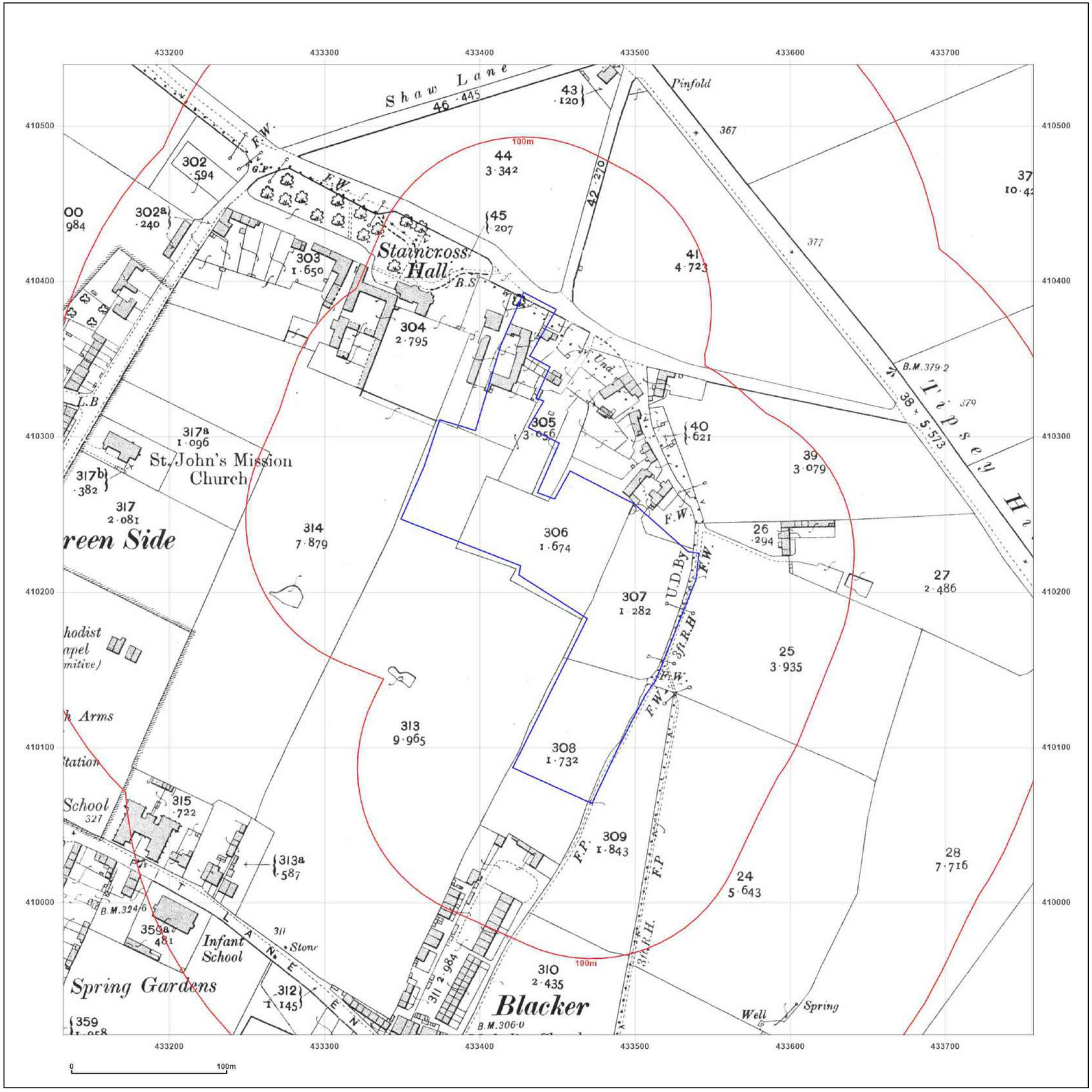


Groundsure INSIGHTS

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**Grid Ref:** 433444, 410227

**Map Name:** County Series

**Map date:** **1906**

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**Printed at:** 1:2,500

N
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Surveyed 1906
Revised 1906
Edition N/A
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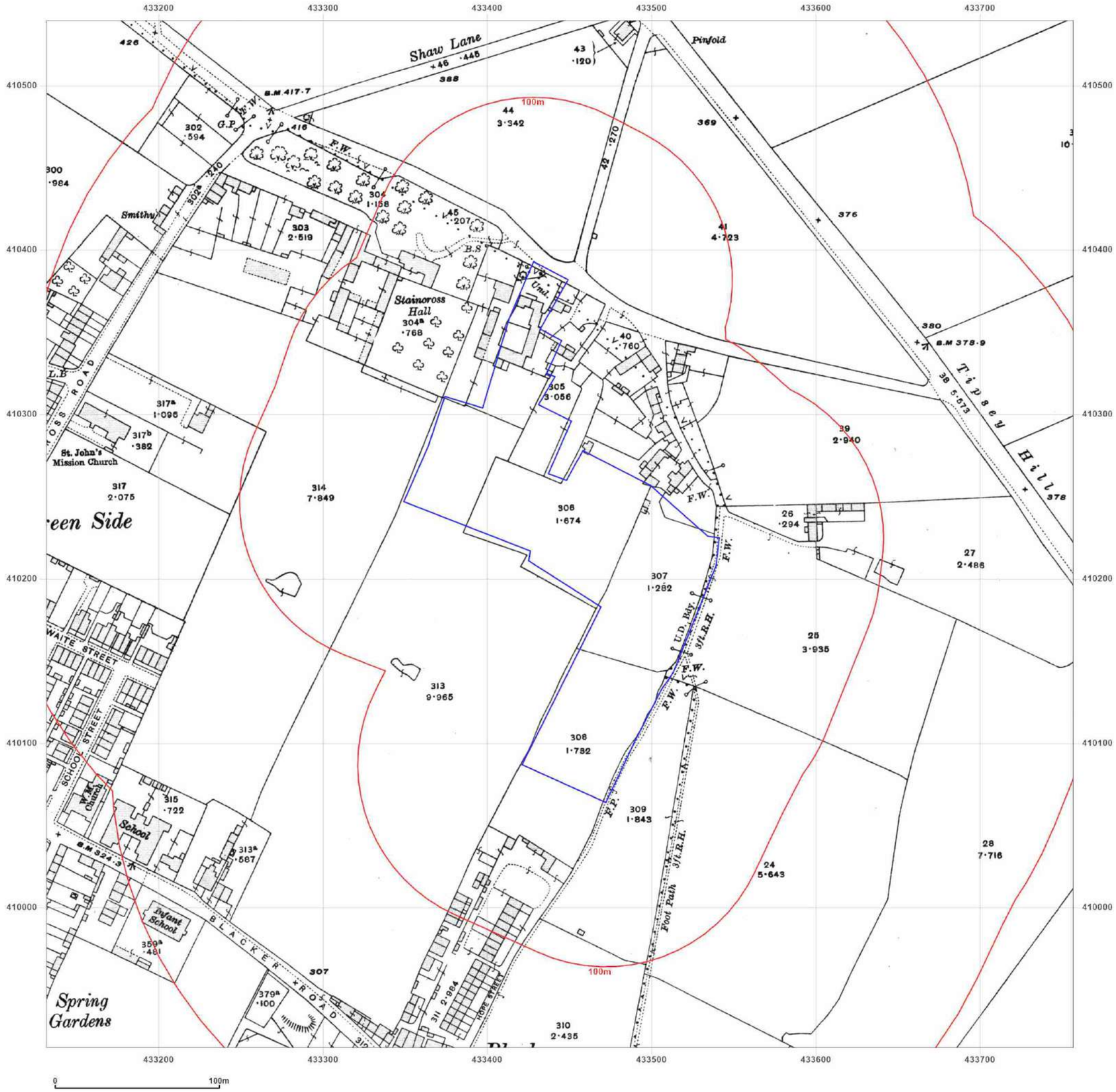


Groundsure INSIGHTS

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6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423_2500
**Grid Ref:** 433444, 410227

**Map Name:** County Series

**Map date:** **1913**

**Scale:** 1:2,500

**Printed at:** 1:2,500

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Surveyed 1913
Revised 1913
Edition N/A
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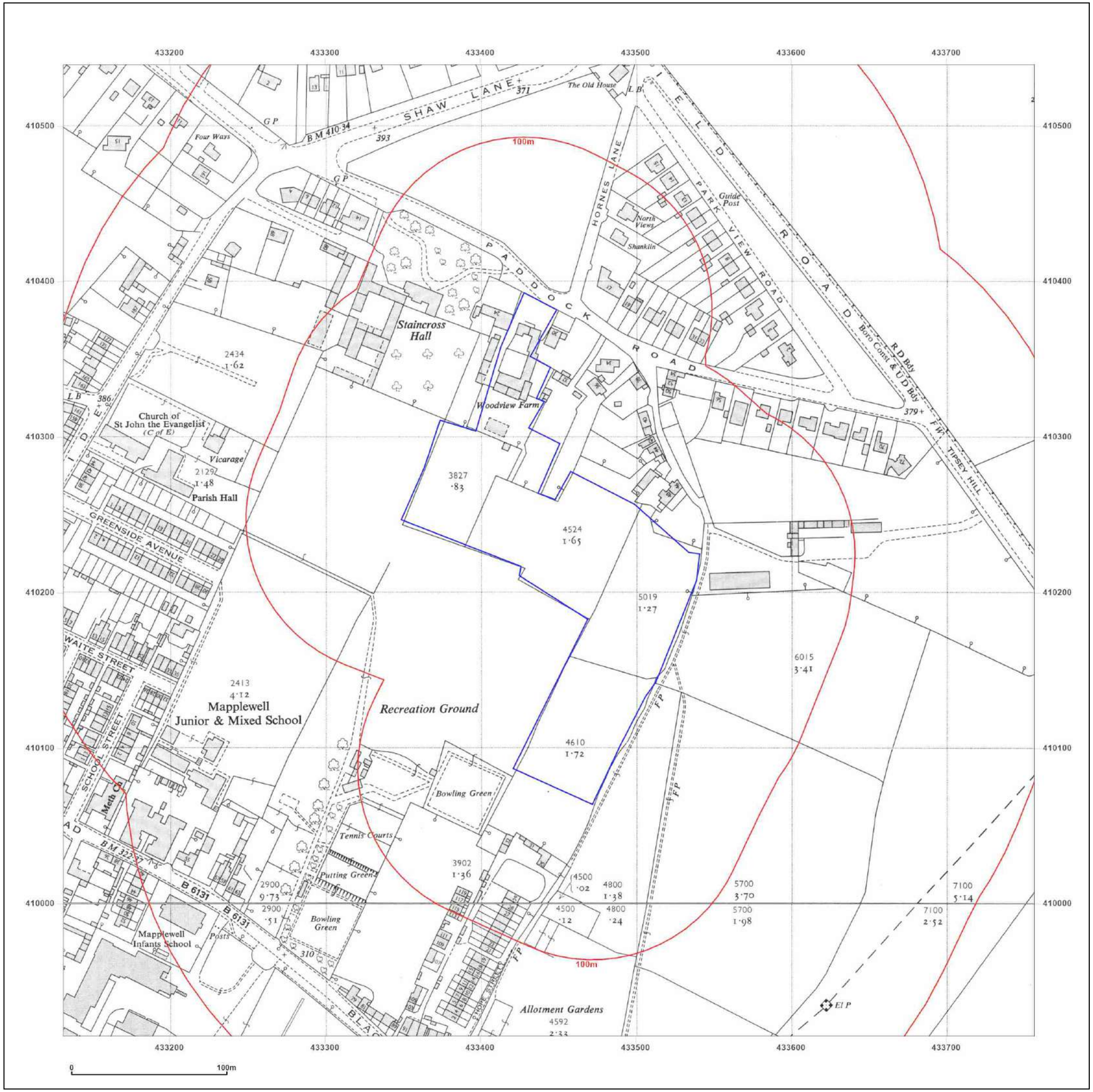


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**Map Name:** National Grid

**Map date:** **1960-1961**

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**Printed at:** 1:2,500

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Revised 1960
Edition N/A
Copyright 1962
Levelled 1960

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Revised 1961
Edition N/A
Copyright N/A
Levelled 1960

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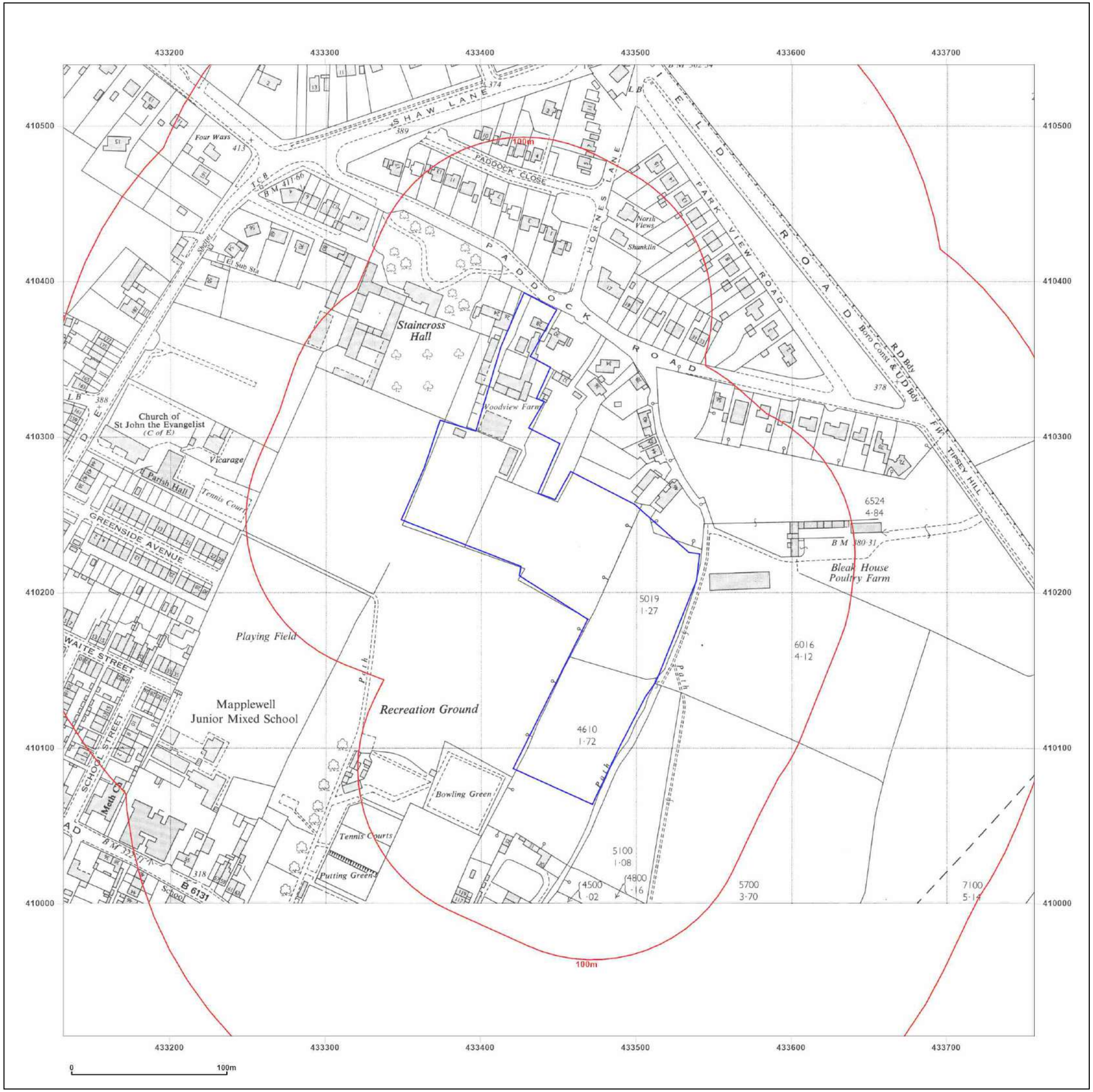


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Edition N/A
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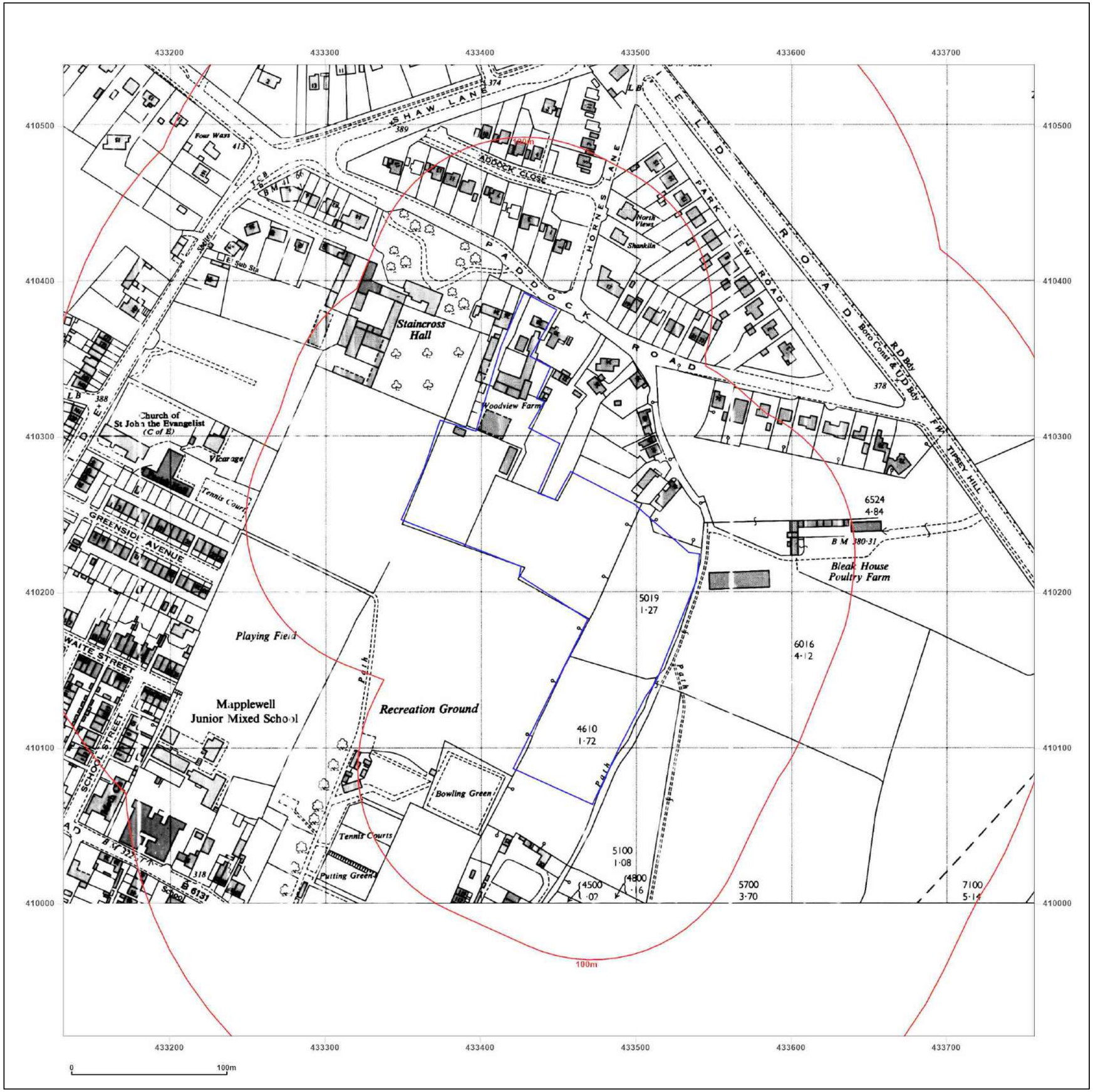


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6LG

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**Grid Ref:** 433444, 410227

**Map Name:** National Grid

**Map date:** **1967**

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**Printed at:** 1:2,500

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

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423_Landline_1_1
**Grid Ref:** 433445, 410078

**Map Name:** LandLine

**Map date:** **2003**

**Scale:** 1:1,250

**Printed at:** 1:1,250

N
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2003

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Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423_Landline_1_2
**Grid Ref:** 433445, 410378

**Map Name:** LandLine

**Map date:** **2003**

**Scale:** 1:1,250

**Printed at:** 1:1,250

N
W E
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2003

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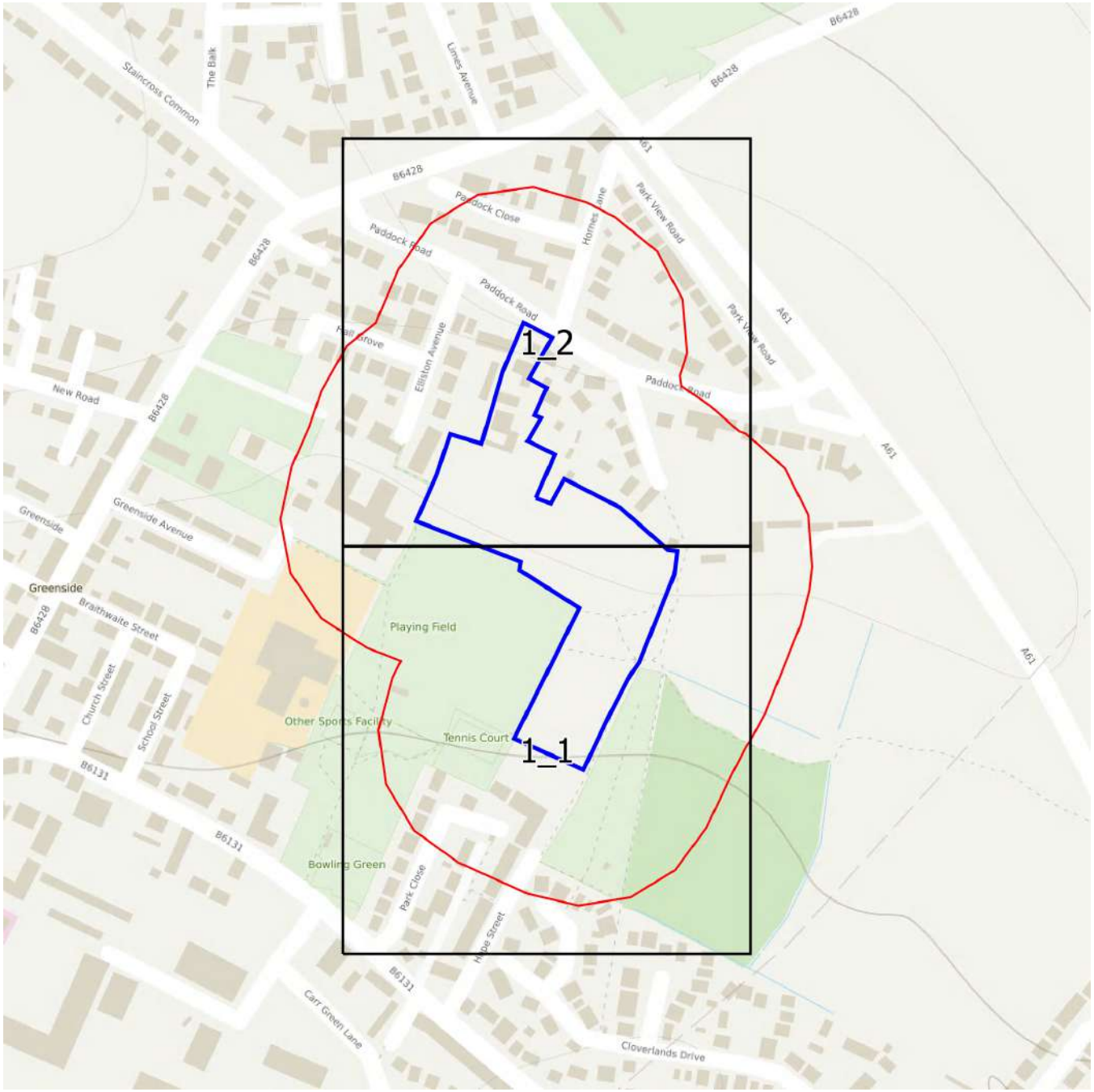
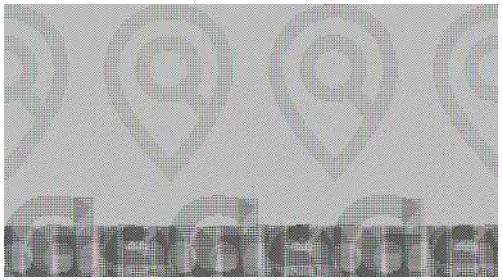
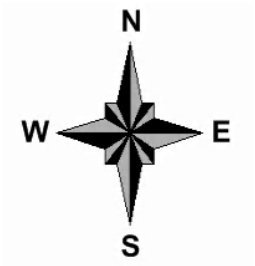
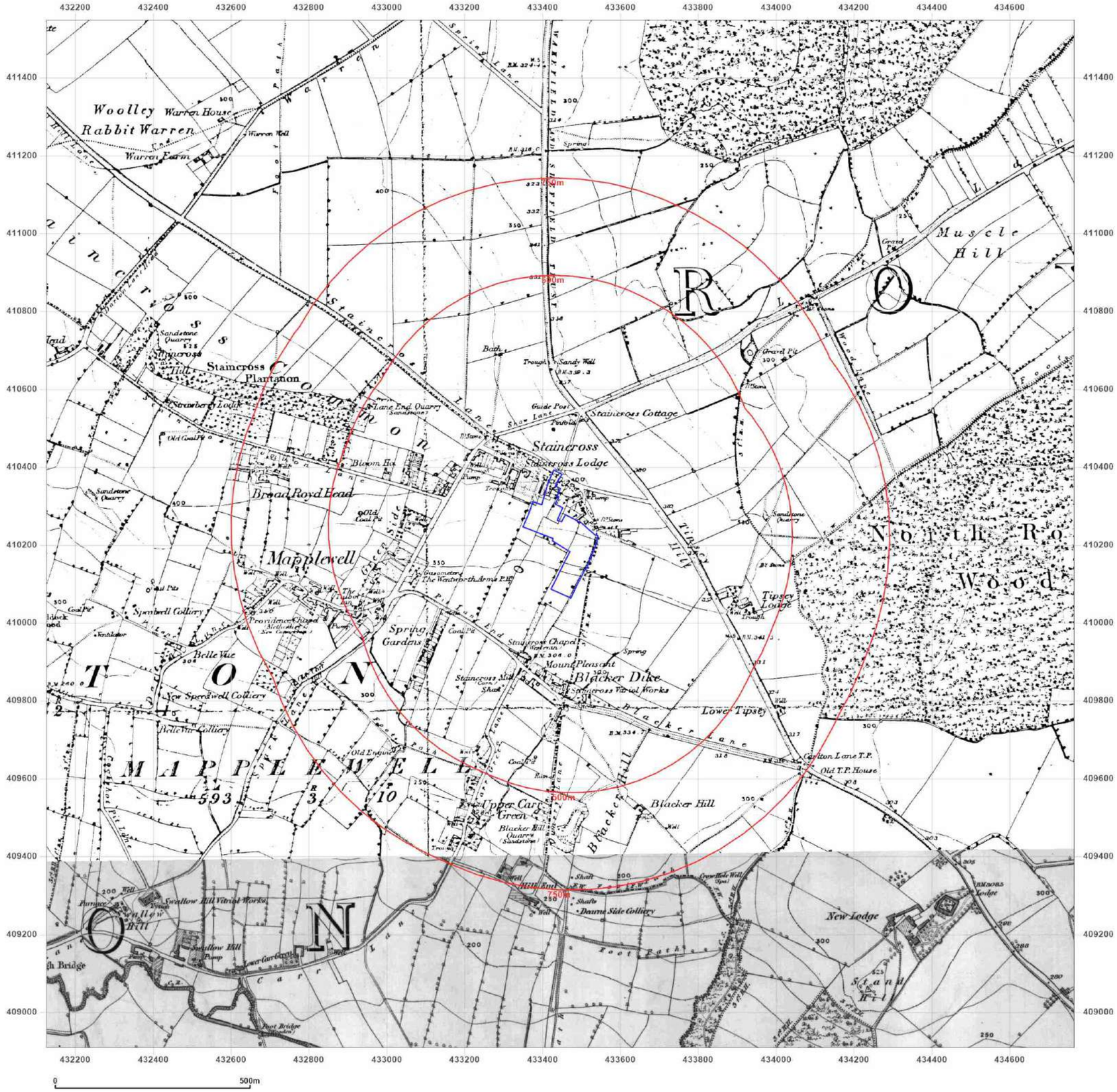


## Landline Scale Grid Index






Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** County Series

**Map date:** **1850-1854**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

Surveyed 1851
Revised N/A
Edition 1854
Copyright N/A
Levelled N/A

Surveyed 1851
Revised N/A
Edition 1850
Copyright N/A
Levelled N/A

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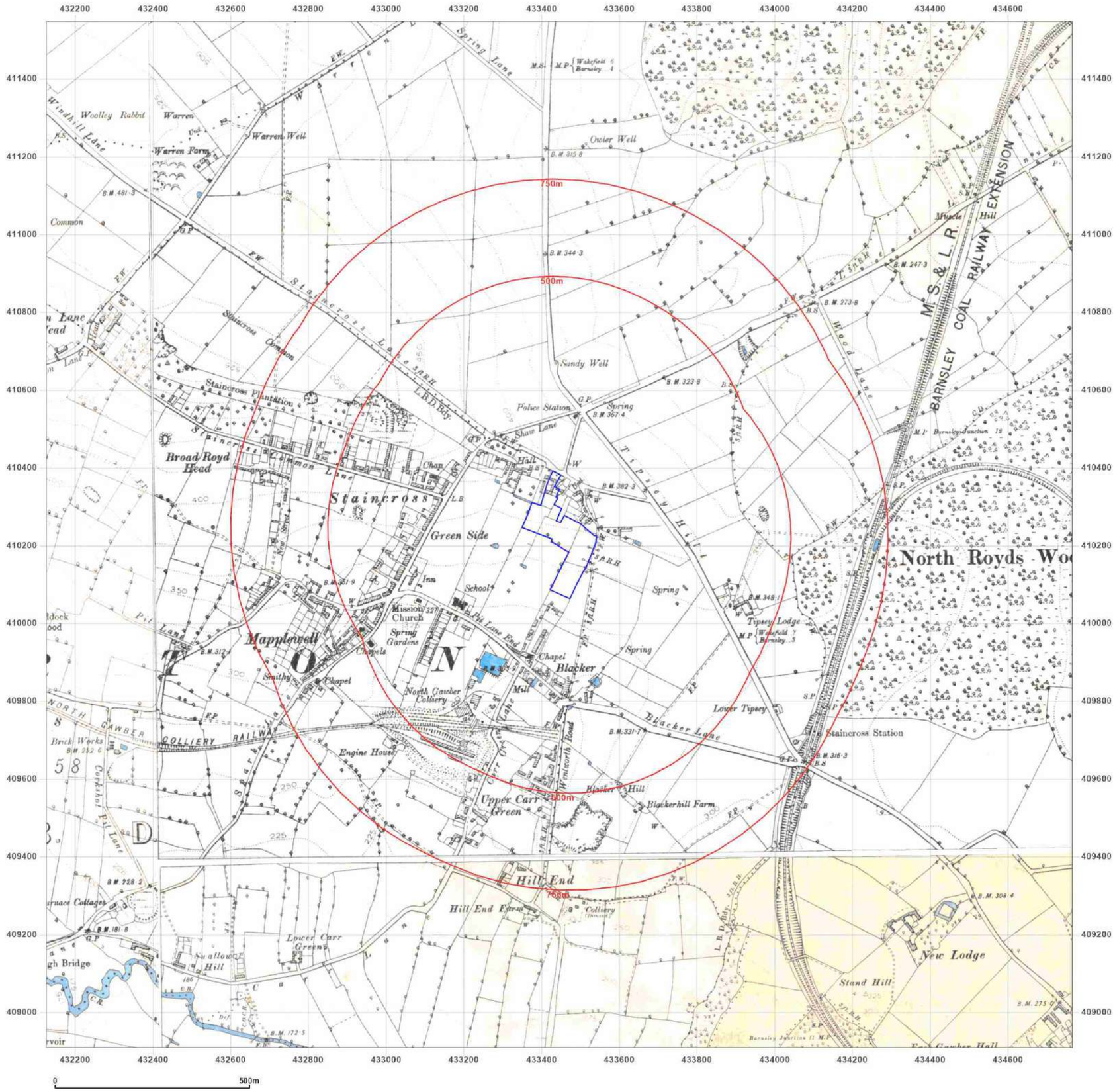


**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** County Series

**Map date:** **1890-1891**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

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

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

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

Surveyed 1890
Revised 1890
Edition 1890
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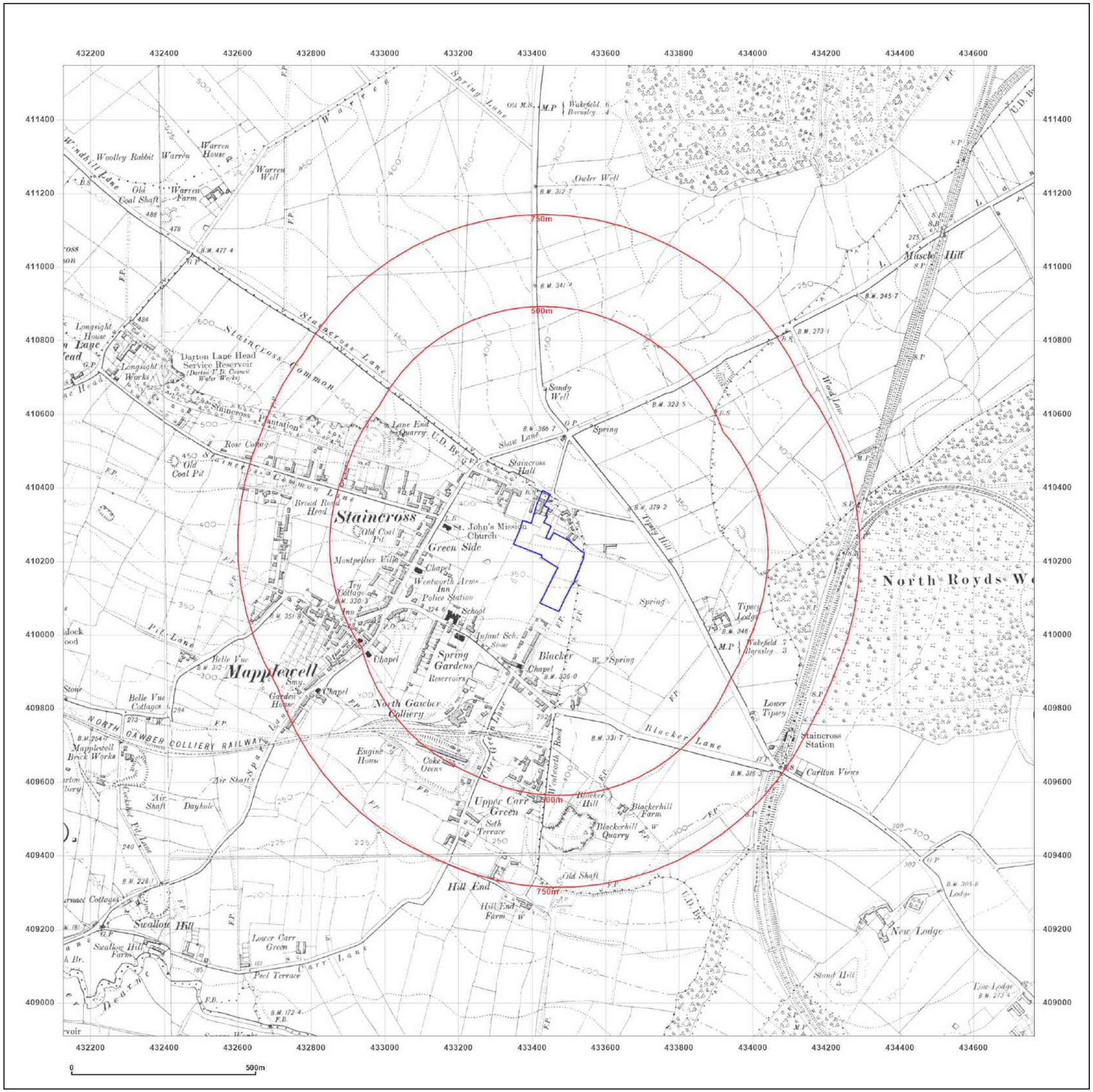


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** County Series

**Map date:** **1904**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

Surveyed 1891
Revised 1904
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1904
Edition 1904
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1904
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1891
Revised 1904
Edition 1904
Copyright N/A
Levelled N/A

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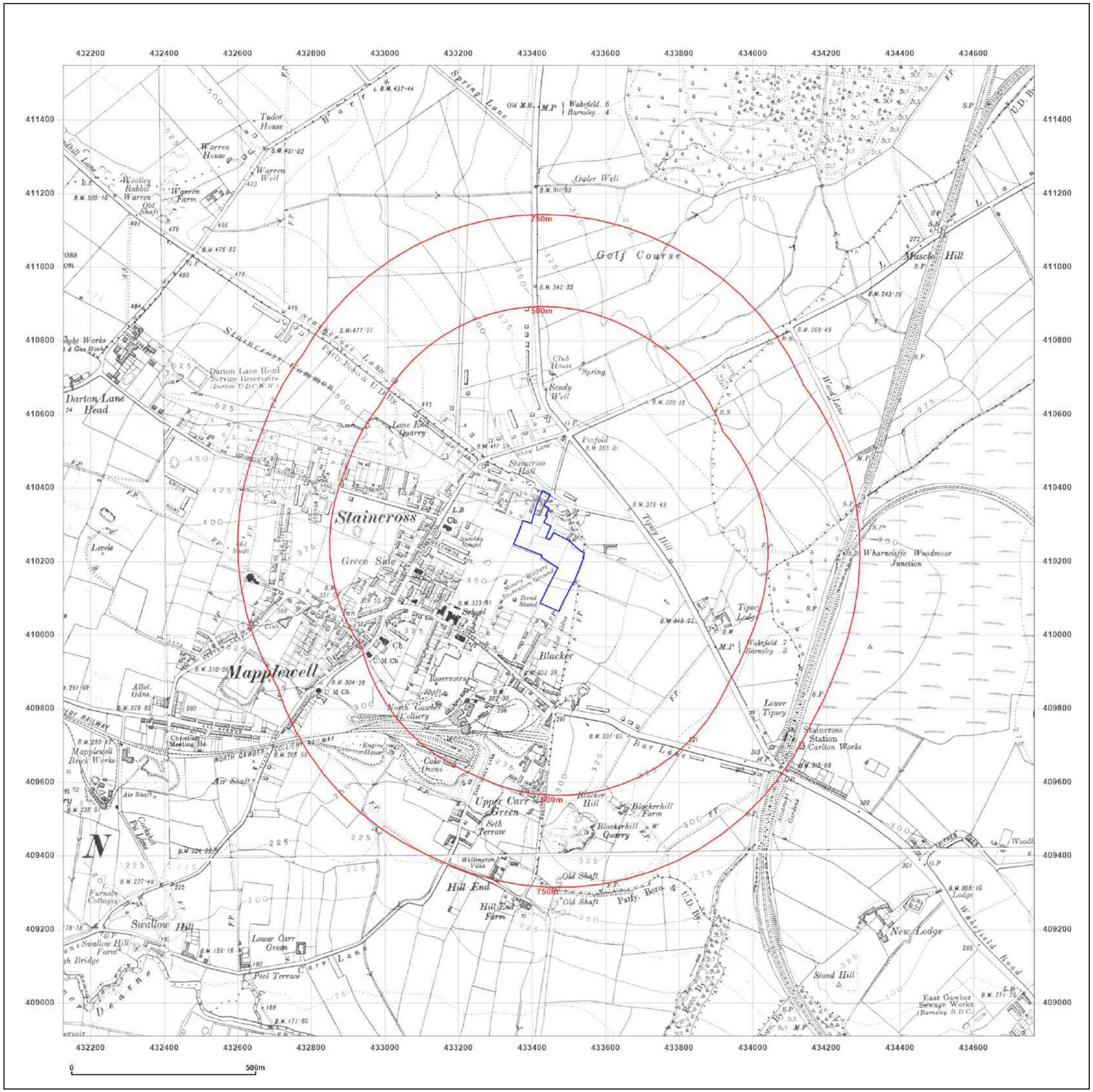


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** County Series

**Map date:** **1929-1930**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

Surveyed 1851
Revised 1930
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1851
Revised 1930
Edition 1930
Copyright N/A
Levelled 1929

Surveyed 1851
Revised 1929
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1851
Revised 1929
Edition 1929
Copyright N/A
Levelled 1915

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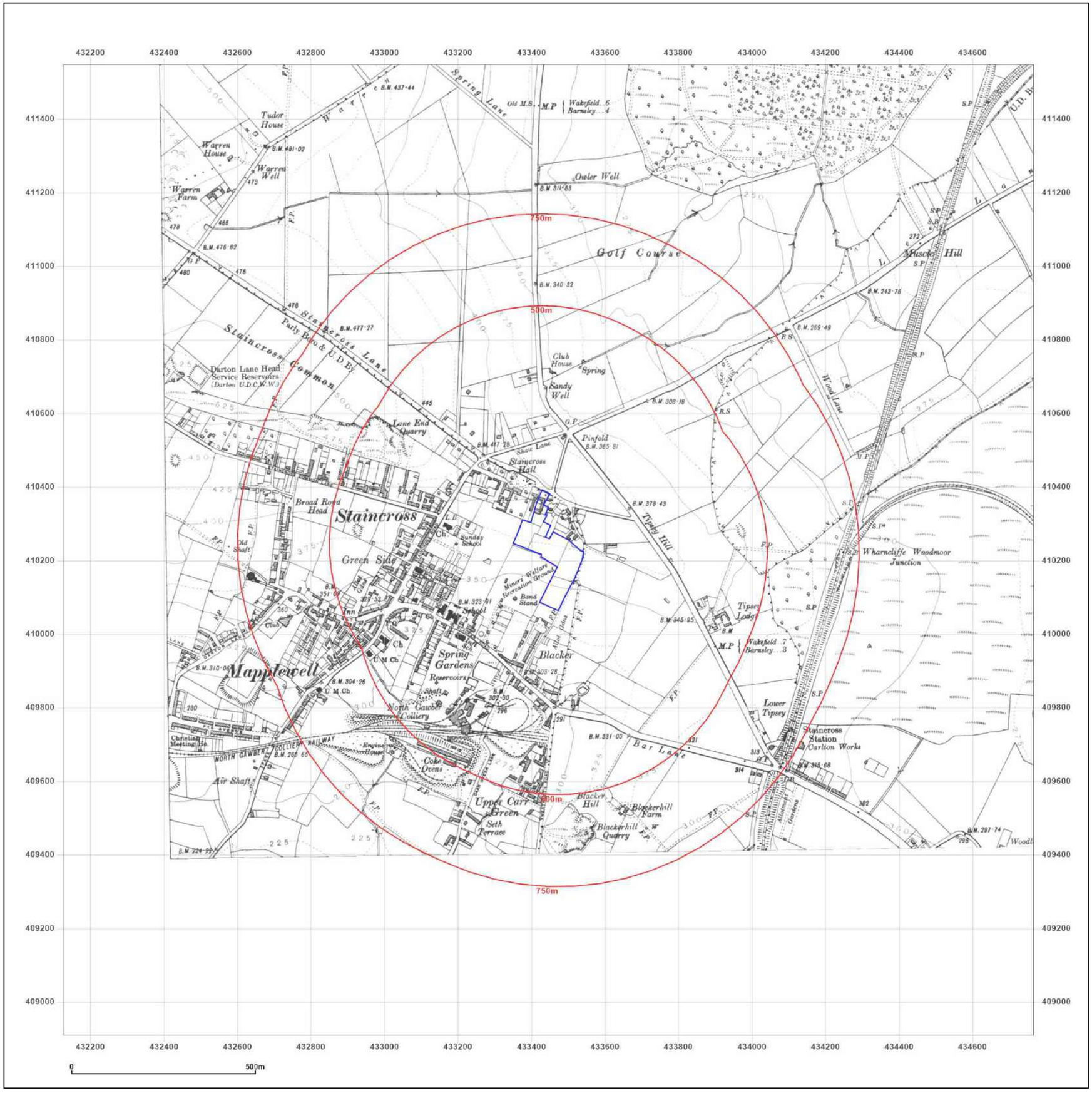


# Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** County Series

**Map date:** **1930**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
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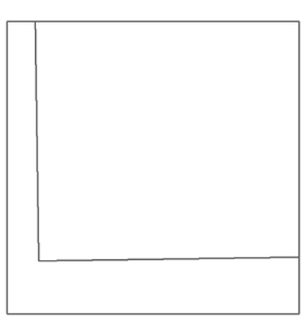

Surveyed 1851
Revised 1930
Edition 1930
Copyright N/A
Levelled 1929

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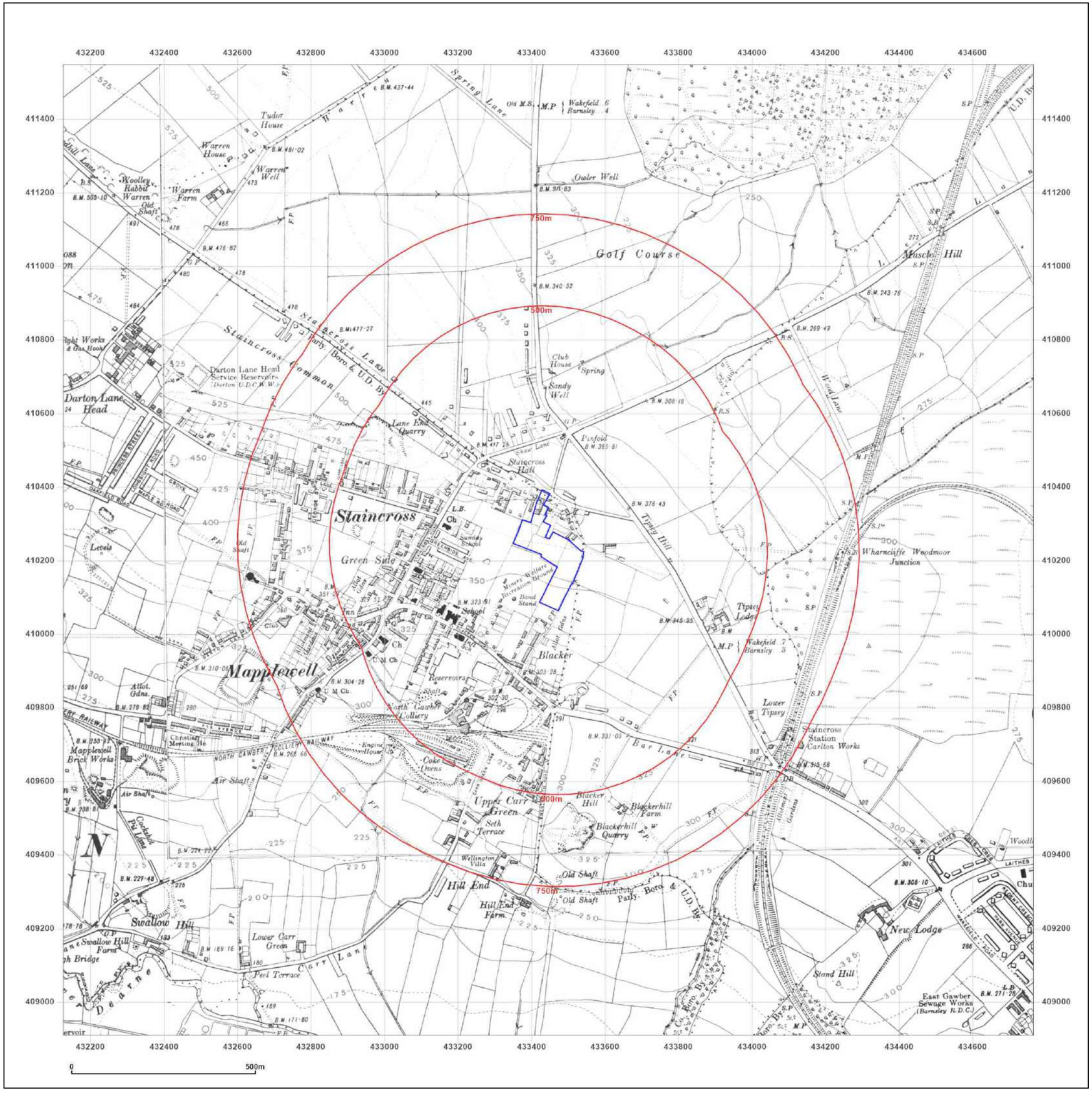


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** County Series

**Map date:** **1938**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

Surveyed 1851
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

Surveyed 1851
Revised 1938
Edition 1938
Copyright N/A
Levelled 1929

Surveyed 1851
Revised 1929
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1851
Revised 1938
Edition 1938
Copyright N/A
Levelled 1929

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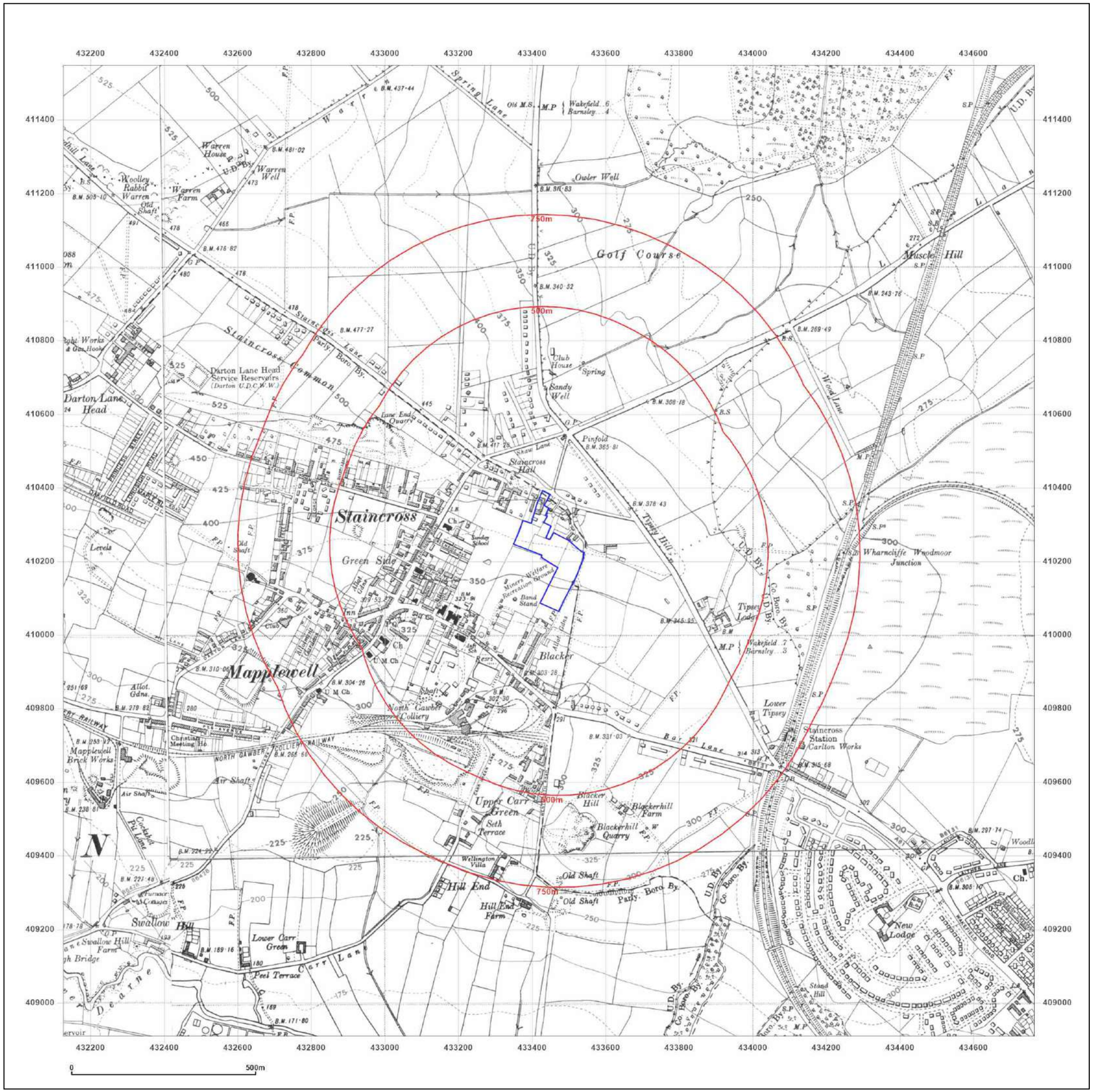


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** County Series

**Map date:** **1948**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

Surveyed 1851
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1851
Revised 1948
Edition 1948
Copyright N/A
Levelled 1929

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

Surveyed 1851
Revised 1948
Edition 1948
Copyright N/A
Levelled 1929

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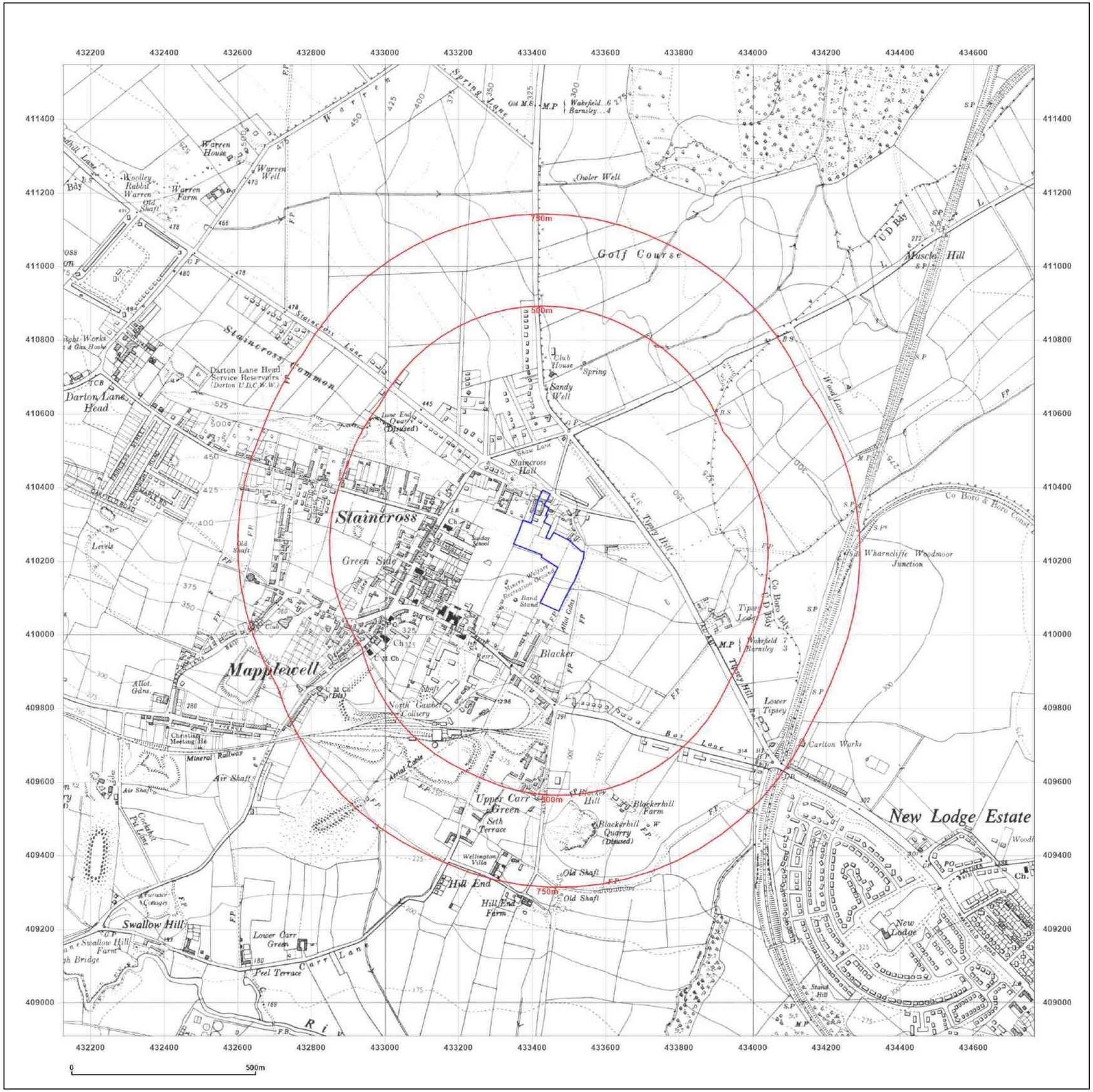


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** Provisional

**Map date:** **1951-1956**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
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Surveyed 1951
Revised 1951
Edition N/A
Copyright N/A
Levelled N/A

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

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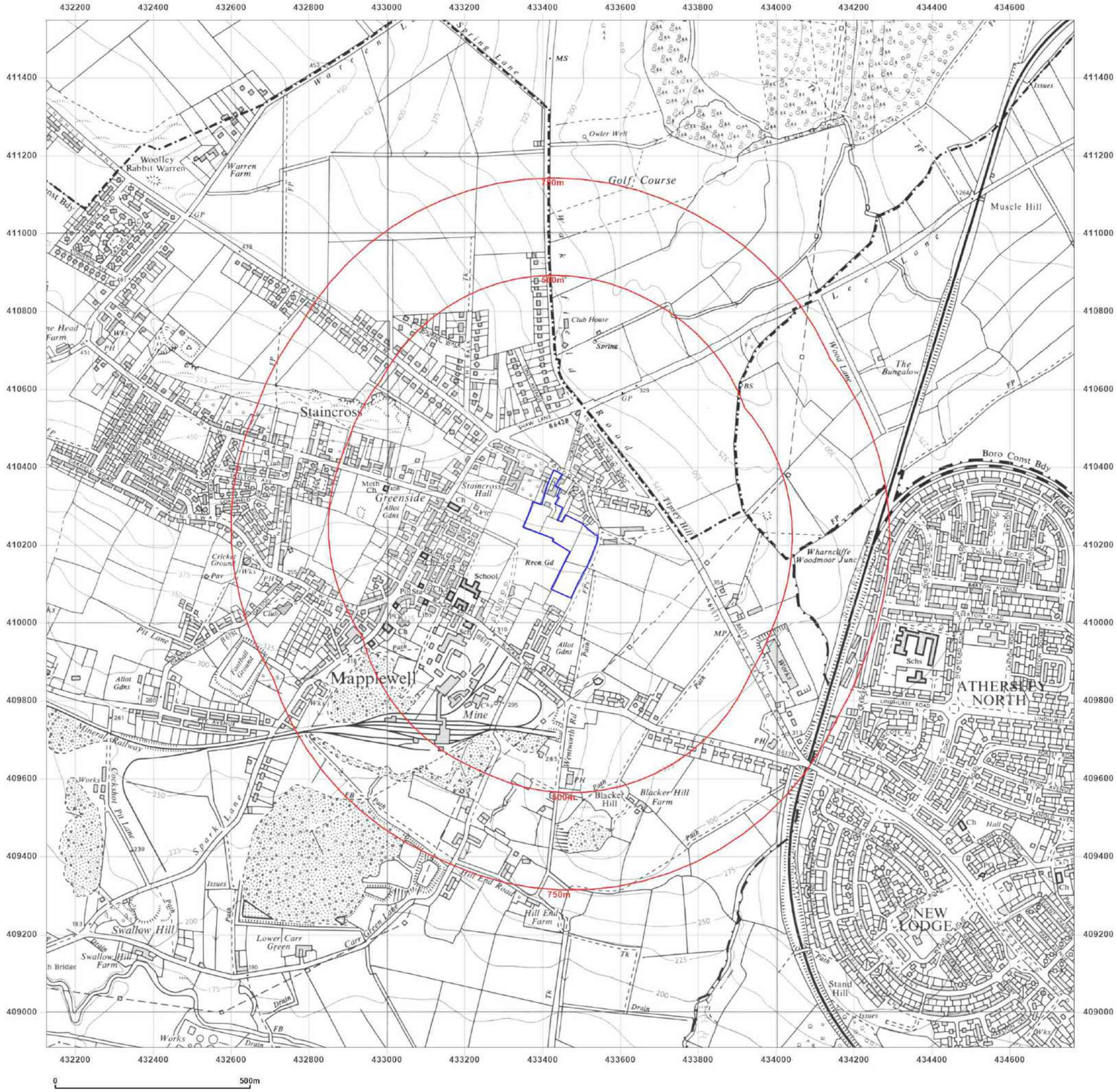


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** Provisional

**Map date:** **1965-1966**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

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

Surveyed 1966
Revised 1966
Edition N/A
Copyright N/A
Levelled N/A

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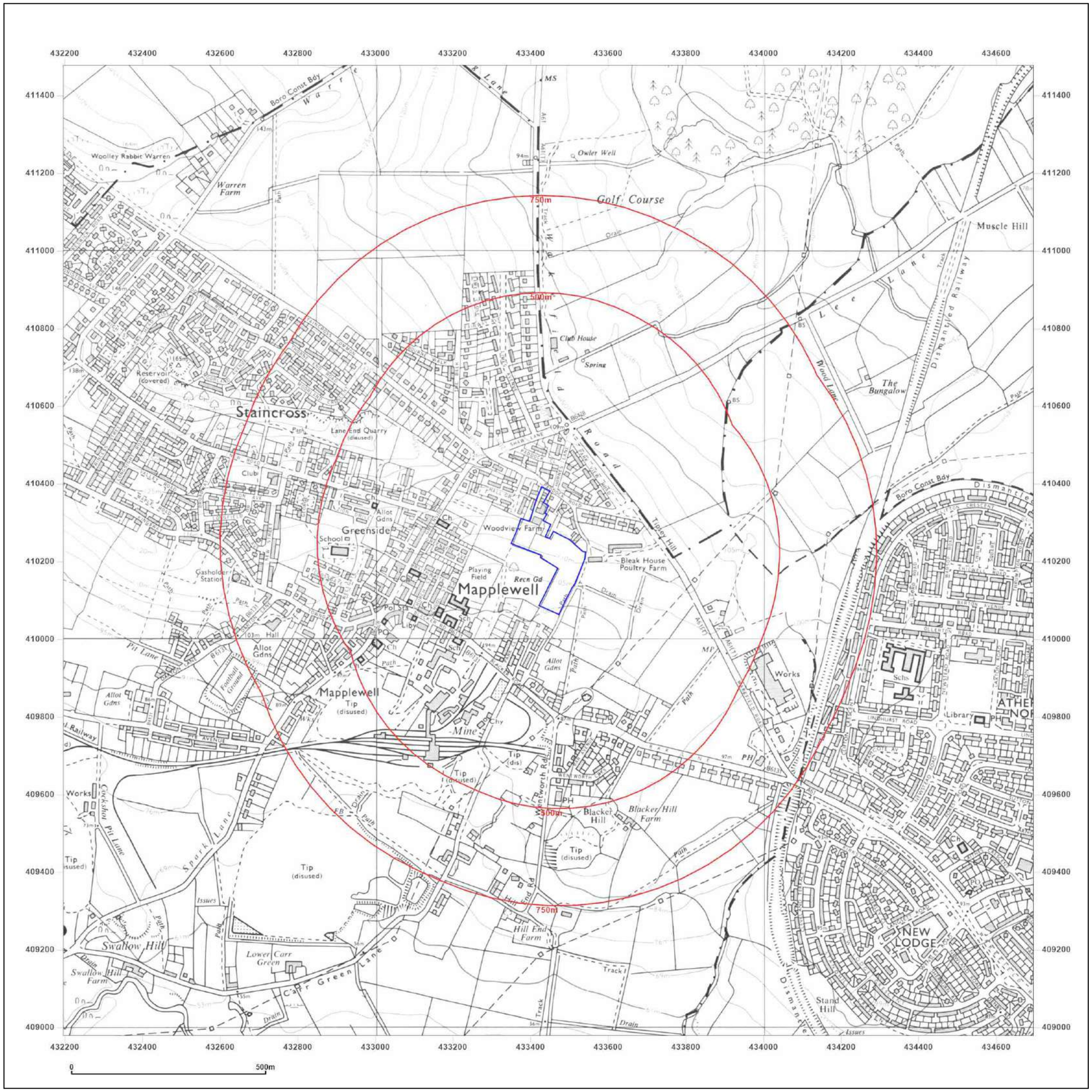


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** National Grid

**Map date:** **1973-1978**

**Scale:** 1:10,000

**Printed at:** 1:10,000

N
W E
S

Surveyed 1977
Revised 1978
Edition N/A
Copyright N/A
Levelled N/A

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

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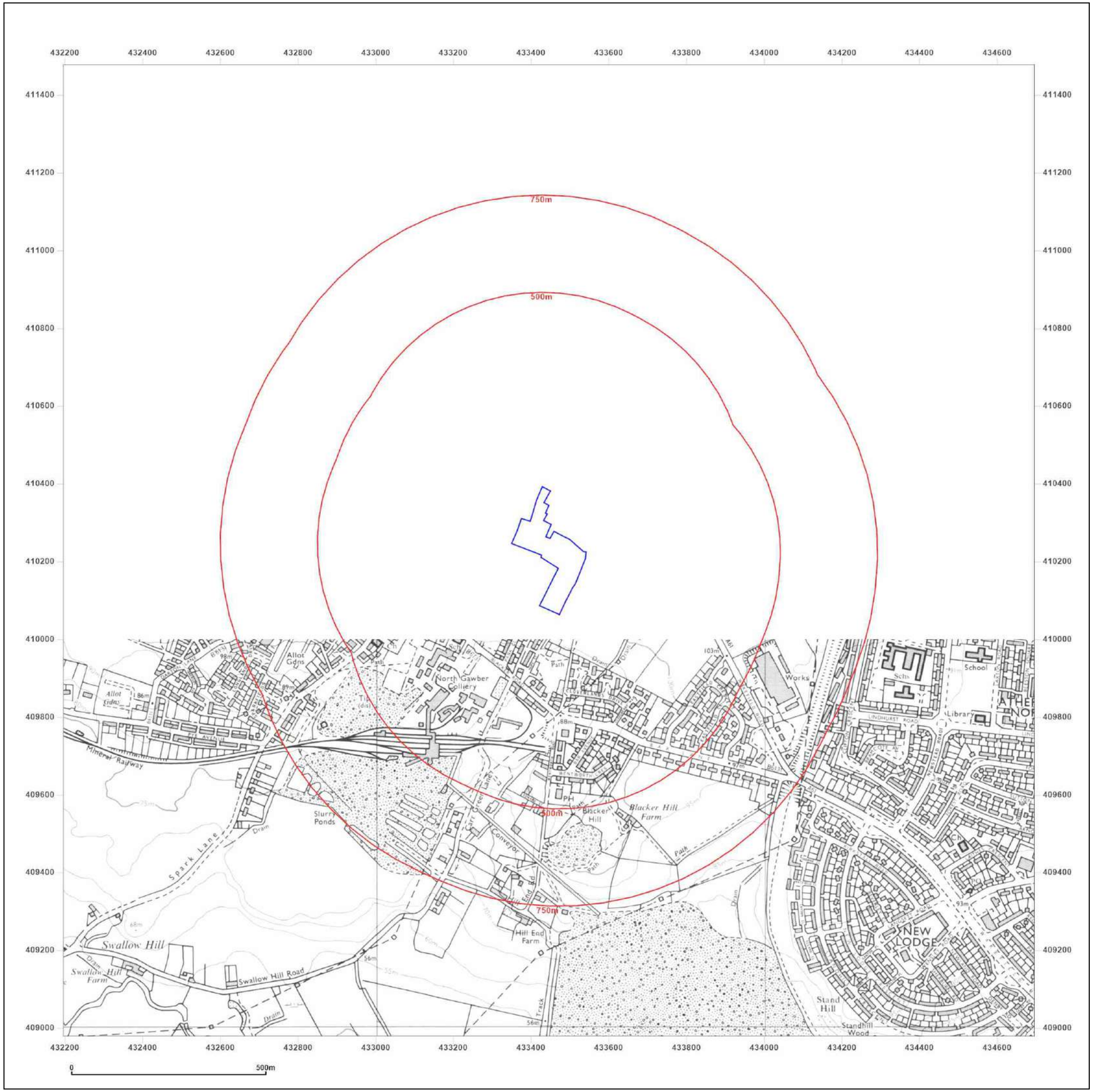


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** National Grid

**Map date:** **1982**

**Scale:** 1:10,000

**Printed at:** 1:10,000

N
W E
S

Surveyed 1982
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A

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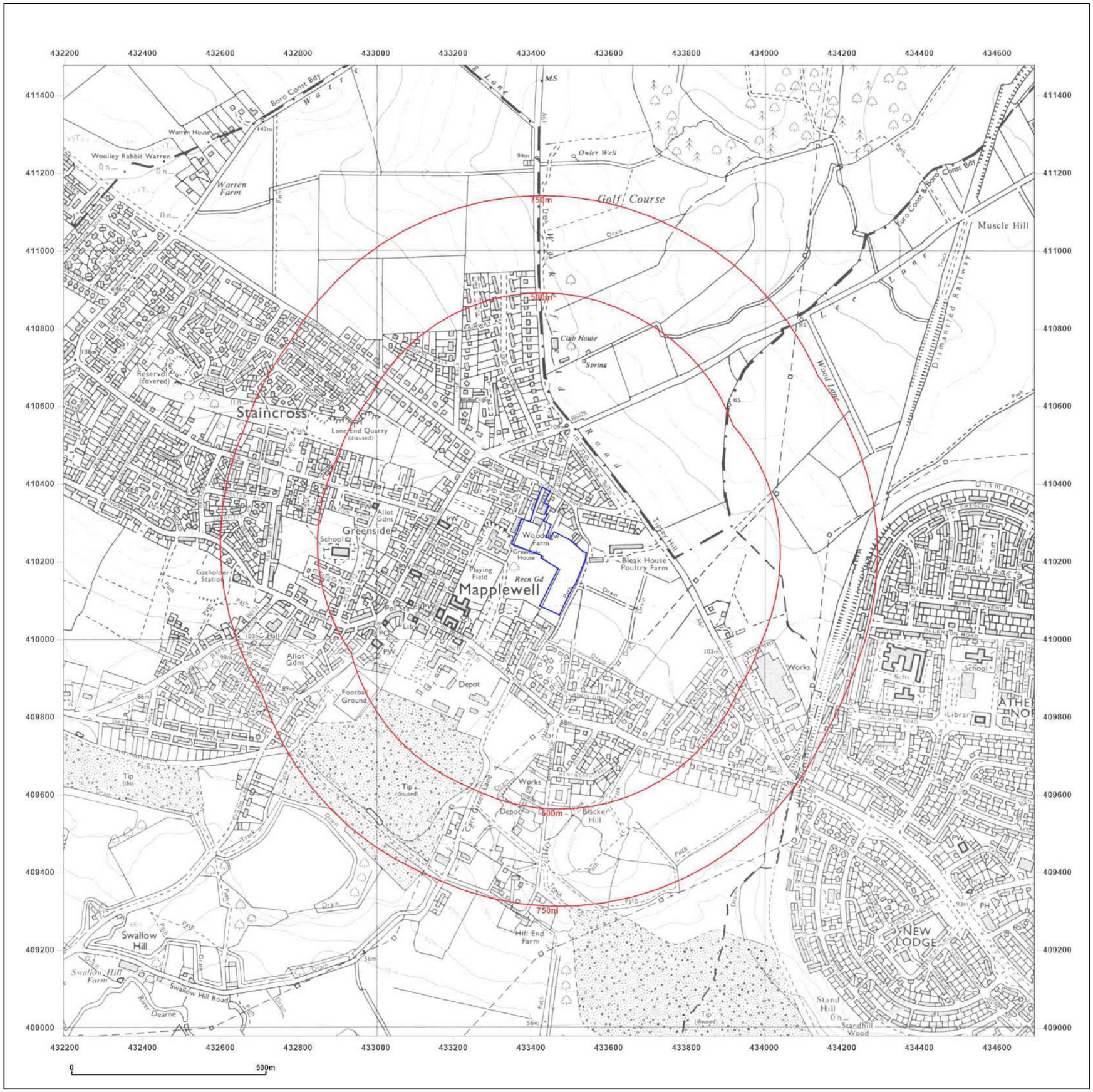


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** National Grid

**Map date:** **1990-1993**

**Scale:** 1:10,000

**Printed at:** 1:10,000

N
W E
S

Surveyed 1983
Revised 1990
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1992
Revised 1993
Edition N/A
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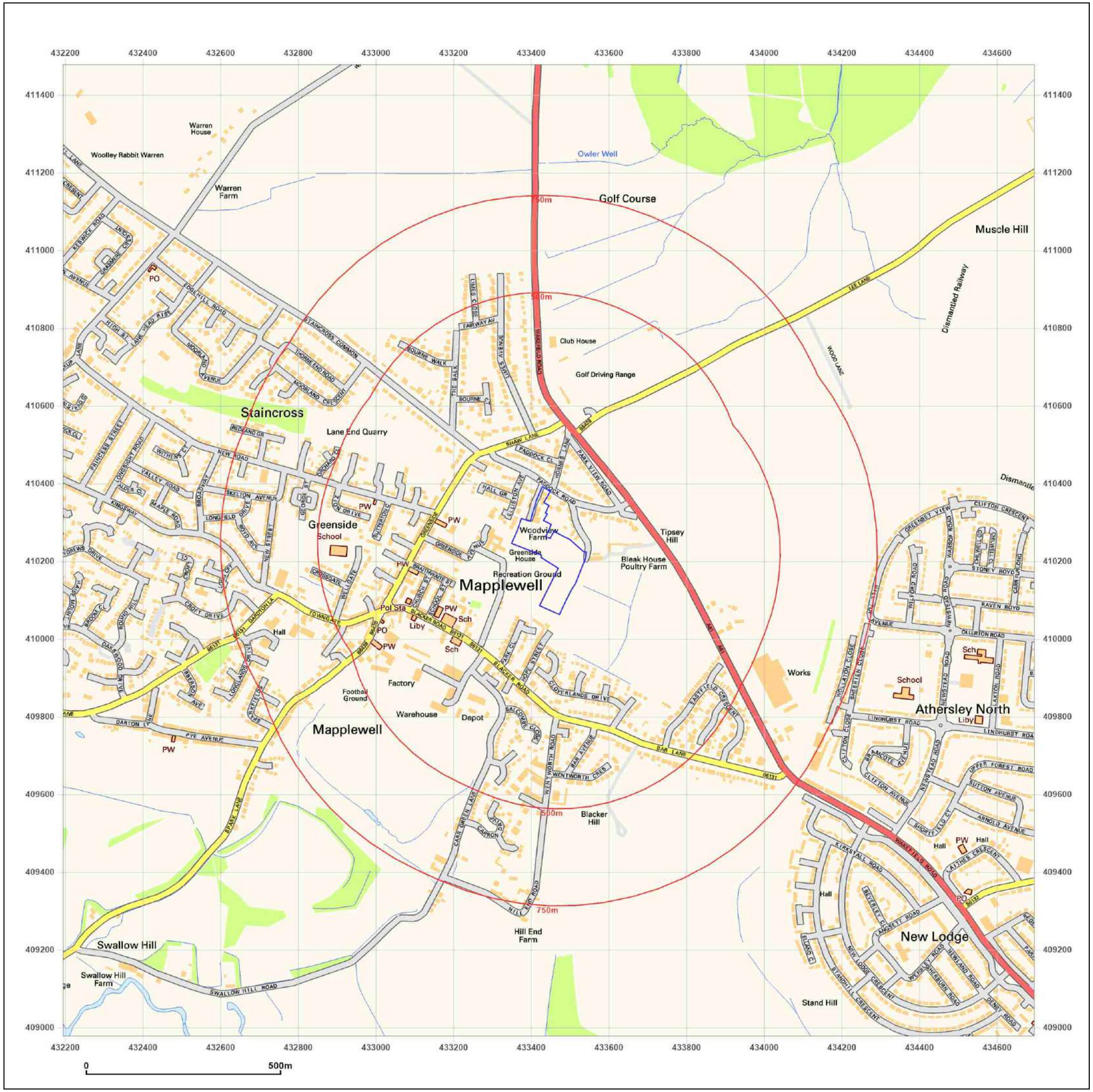


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** National Grid

**Map date:** **2001**

**Scale:** 1:10,000

**Printed at:** 1:10,000

N
W E
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2001

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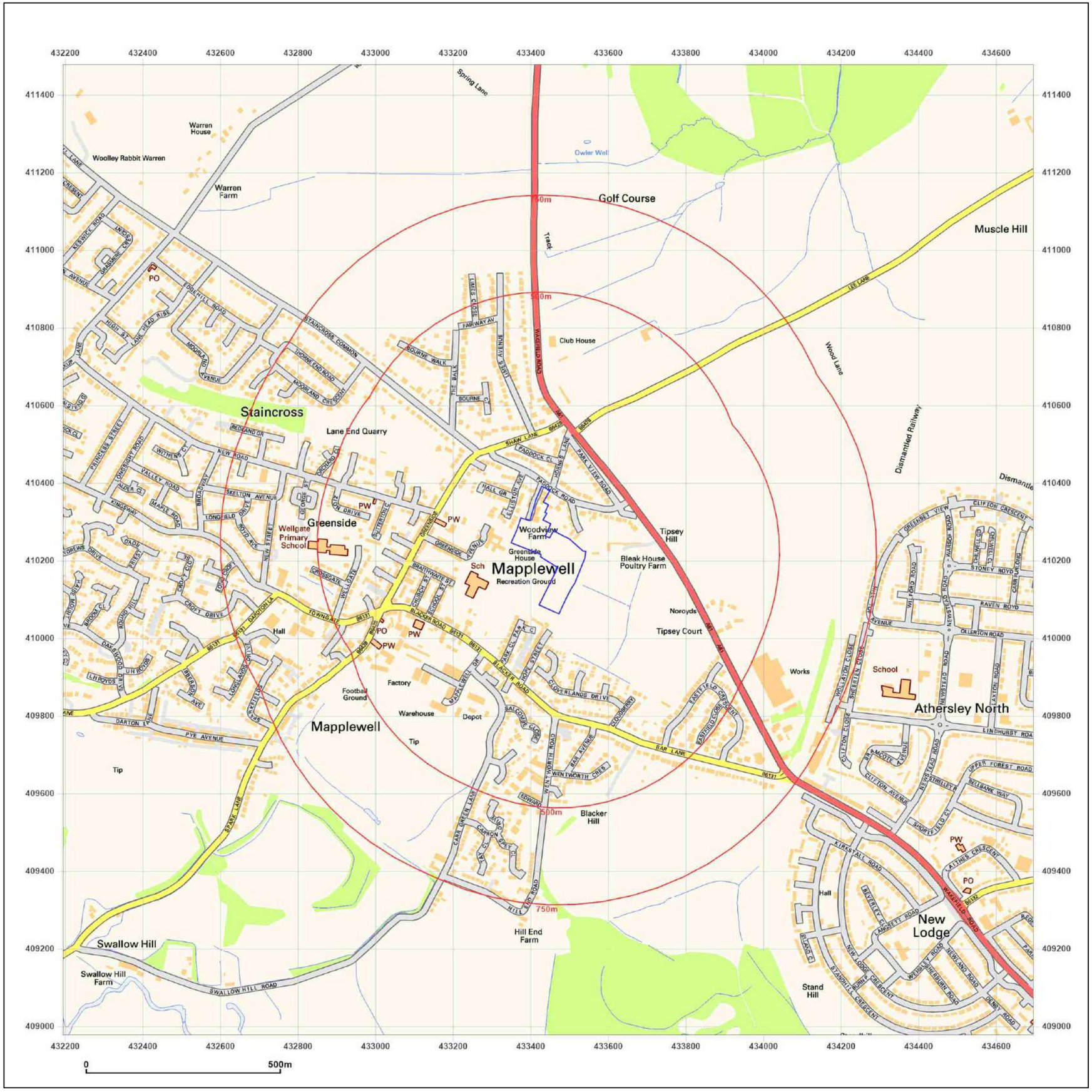


# Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** National Grid

**Map date:** **2010**

**Scale:** 1:10,000

**Printed at:** 1:10,000

N
W E
S

2010

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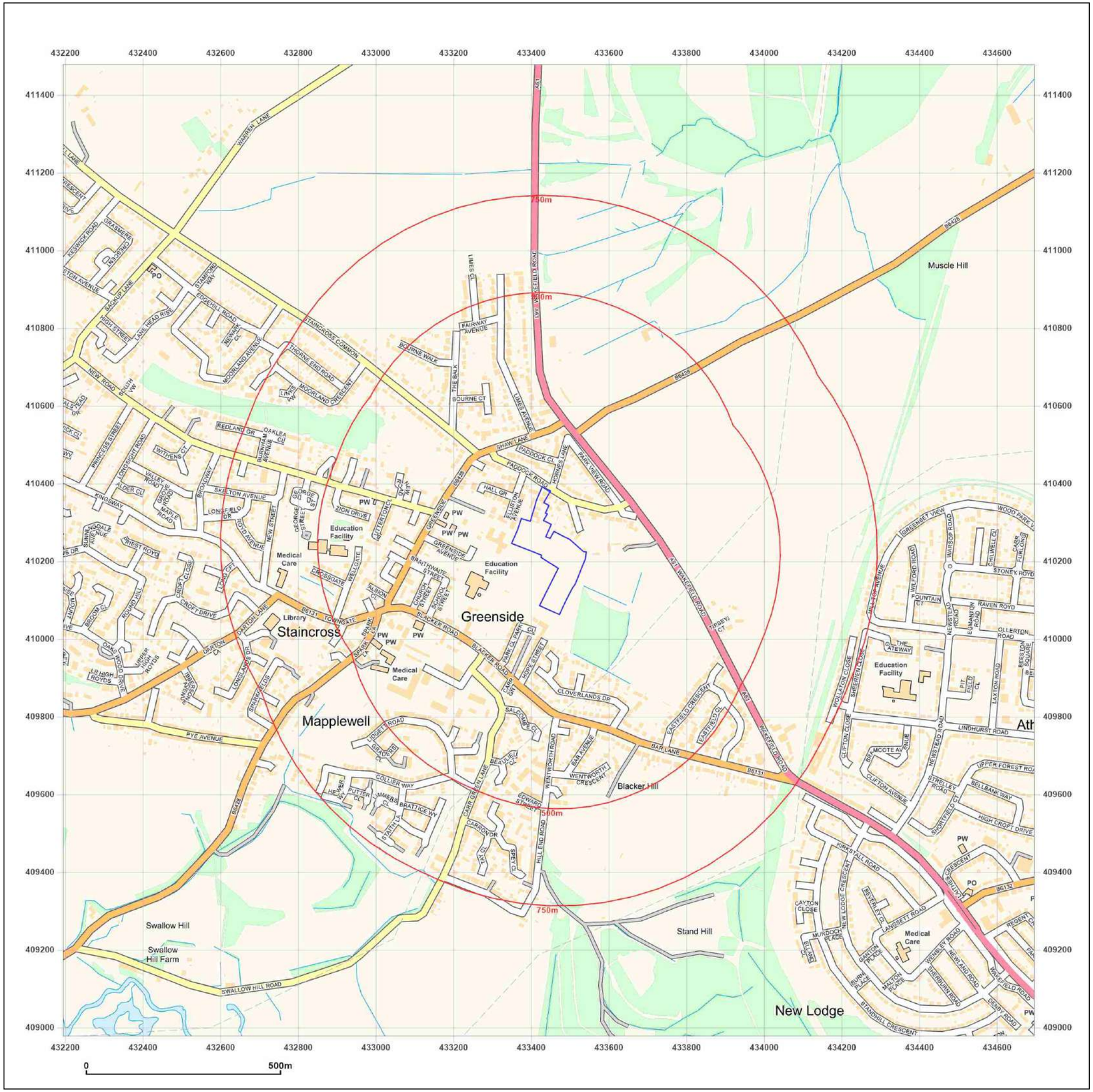


Groundsure INSIGHTS

**Site Details:**

28, PADDOCK ROAD,
STAINCROSS, BARNSLEY, S75
6LG

**Client Ref:** C398_-_Paddock_Road_Staincross
**Report Ref:** GS-7445423
**Grid Ref:** 433445, 410228

**Map Name:** National Grid

**Map date:** **2021**

**Scale:** 1:10,000

**Printed at:** 1:10,000

N
W E
S

2021

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Groundsure
LOCATION INTELLIGENCE

# Enviro+Geo Insight

## 28, PADDOCK ROAD, STAINCROSS, BARNSLEY, S75 6LG

## Order Details

**Date:** 19/01/2021

**Your ref:** C398_-_Paddock_Road_Staincross

**Our Ref:** GS-7445424

**Client:** G&M Consulting Ltd

## Site Details

**Location:** 433449 410242

**Area:** 2.25 ha

**Authority:** Barnsley Metropolitan Borough Council

**Summary of findings** p. 2

**OS MasterMap site plan** p.12

**Aerial image** p. 8

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info@groundsure.com
08444 159 000

# Summary of findings

| Page | Section | Past land use | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
|---|---|---|---|---|---|---|---|
| 13 | 1.1 | Historical industrial land uses | 0 | 0 | 19 | 79 | - |
| 17 | 1.2 | Historical tanks | 0 | 0 | 0 | 5 | - |
| 18 | 1.3 | Historical energy features | 0 | 0 | 3 | 12 | - |
| 19 | 1.4 | Historical petrol stations | 0 | 0 | 0 | 0 | - |
| 19 | 1.5 | Historical garages | 0 | 0 | 2 | 19 | - |
| 20 | 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** |
| 21 | 2.1 | Historical industrial land uses | 0 | 0 | 31 | 135 | - |
| 28 | 2.2 | Historical tanks | 0 | 0 | 0 | 12 | - |
| 28 | 2.3 | Historical energy features | 0 | 0 | 4 | 33 | - |
| 30 | 2.4 | Historical petrol stations | 0 | 0 | 0 | 0 | - |
| 30 | 2.5 | Historical garages | 0 | 0 | 4 | 37 | - |
| **Page** | **Section** | **Waste and landfill** | **On site** | **0-50m** | **50-250m** | **250-500m** | **500-2000m** |
| 33 | 3.1 | Active or recent landfill | 0 | 0 | 0 | 0 | - |
| 33 | 3.2 | Historical landfill (BGS records) | 0 | 0 | 0 | 0 | - |
| 34 | 3.3 | Historical landfill (LA/mapping records) | 0 | 0 | 0 | 0 | - |
| 34 | 3.4 | Historical landfill (EA/NRW records) | 0 | 0 | 0 | 1 | - |
| 34 | 3.5 | Historical waste sites | 0 | 0 | 0 | 13 | - |
| 36 | 3.6 | Licensed waste sites | 0 | 0 | 0 | 3 | - |
| 37 | 3.7 | Waste exemptions | 0 | 0 | 1 | 8 | - |
| **Page** | **Section** | **Current industrial land use** | **On site** | **0-50m** | **50-250m** | **250-500m** | **500-2000m** |
| 39 | 4.1 | Recent industrial land uses | 0 | 1 | 10 | - | - |
| 40 | 4.2 | Current or recent petrol stations | 0 | 0 | 1 | 0 | - |
| 40 | 4.3 | Electricity cables | 0 | 0 | 0 | 0 | - |
| 41 | 4.4 | Gas pipelines | 0 | 0 | 0 | 0 | - |
| 41 | 4.5 | Sites determined as Contaminated Land | 0 | 0 | 0 | 0 | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 41 | 4.6 | Control of Major Accident Hazards (COMAH) | 0 | 0 | 0 | 0 | - |
| 41 | 4.7 | Regulated explosive sites | 0 | 0 | 0 | 0 | - |
| 41 | 4.8 | Hazardous substance storage/usage | 0 | 0 | 0 | 0 | - |
| 42 | 4.9 | Historical licensed industrial activities (IPC) | 0 | 0 | 0 | 0 | - |
| 42 | 4.10 | Licensed industrial activities (Part A(1)) | 0 | 0 | 0 | 0 | - |
| **42** | **4.11** | **Licensed pollutant release (Part A(2)/B)** | 0 | 0 | 1 | 0 | - |
| 42 | 4.12 | Radioactive Substance Authorisations | 0 | 0 | 0 | 0 | - |
| 43 | 4.13 | Licensed Discharges to controlled waters | 0 | 0 | 0 | 0 | - |
| 43 | 4.14 | Pollutant release to surface waters (Red List) | 0 | 0 | 0 | 0 | - |
| 43 | 4.15 | Pollutant release to public sewer | 0 | 0 | 0 | 0 | - |
| 43 | 4.16 | List 1 Dangerous Substances | 0 | 0 | 0 | 0 | - |
| 43 | 4.17 | List 2 Dangerous Substances | 0 | 0 | 0 | 0 | - |
| **44** | **4.18** | **Pollution Incidents (EA/NRW)** | 0 | 0 | 0 | 5 | - |
| 44 | 4.19 | Pollution inventory substances | 0 | 0 | 0 | 0 | - |
| 45 | 4.20 | Pollution inventory waste transfers | 0 | 0 | 0 | 0 | - |
| 45 | 4.21 | Pollution inventory radioactive waste | 0 | 0 | 0 | 0 | - |
| Page | Section | Hydrogeology | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| **46** | **5.1** | **Superficial aquifer** | Identified (within 500m) | | | | |
| **47** | **5.2** | **Bedrock aquifer** | Identified (within 500m) | | | | |
| **49** | **5.3** | **Groundwater vulnerability** | Identified (within 50m) | | | | |
| 50 | 5.4 | Groundwater vulnerability- soluble rock risk | None (within 0m) | | | | |
| 50 | 5.5 | Groundwater vulnerability- local information | None (within 0m) | | | | |
| 51 | 5.6 | Groundwater abstractions | 0 | 0 | 0 | 0 | 0 |
| 51 | 5.7 | Surface water abstractions | 0 | 0 | 0 | 0 | 0 |
| 51 | 5.8 | Potable abstractions | 0 | 0 | 0 | 0 | 0 |
| 51 | 5.9 | Source Protection Zones | 0 | 0 | 0 | 0 | - |
| 52 | 5.10 | Source Protection Zones (confined aquifer) | 0 | 0 | 0 | 0 | - |
| Page | Section | Hydrology | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| **53** | **6.1** | **Water Network (OS MasterMap)** | 0 | 1 | 12 | - | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **55** | **6.2** | **Surface water features** | 0 | 1 | 5 | - | - |
| **55** | **6.3** | **WFD Surface water body catchments** | 2 | - | - | - | - |
| **55** | **6.4** | **WFD Surface water bodies** | 0 | 0 | 0 | - | - |
| **56** | **6.5** | **WFD Groundwater bodies** | 1 | - | - | - | - |
| Page | Section | River and coastal flooding | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 57 | 7.1 | Risk of Flooding from Rivers and Sea (RoFRaS) | None (within 50m) | | | | |
| 57 | 7.2 | Historical Flood Events | 0 | 0 | 0 | - | - |
| 57 | 7.3 | Flood Defences | 0 | 0 | 0 | - | - |
| 57 | 7.4 | Areas Benefiting from Flood Defences | 0 | 0 | 0 | - | - |
| 58 | 7.5 | Flood Storage Areas | 0 | 0 | 0 | - | - |
| 59 | 7.6 | Flood Zone 2 | None (within 50m) | | | | |
| 59 | 7.7 | Flood Zone 3 | None (within 50m) | | | | |
| Page | Section | Surface water flooding | | | | | |
| 60 | 8.1 | Surface water flooding | Negligible (within 50m) | | | | |
| Page | Section | Groundwater flooding | | | | | |
| **61** | **9.1** | **Groundwater flooding** | Negligible (within 50m) | | | | |
| Page | Section | Environmental designations | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 62 | 10.1 | Sites of Special Scientific Interest (SSSI) | 0 | 0 | 0 | 0 | 0 |
| 63 | 10.2 | Conserved wetland sites (Ramsar sites) | 0 | 0 | 0 | 0 | 0 |
| 63 | 10.3 | Special Areas of Conservation (SAC) | 0 | 0 | 0 | 0 | 0 |
| 63 | 10.4 | Special Protection Areas (SPA) | 0 | 0 | 0 | 0 | 0 |
| 63 | 10.5 | National Nature Reserves (NNR) | 0 | 0 | 0 | 0 | 0 |
| **64** | **10.6** | **Local Nature Reserves (LNR)** | 0 | 0 | 0 | 0 | 1 |
| **64** | **10.7** | **Designated Ancient Woodland** | 0 | 0 | 0 | 0 | 4 |
| 64 | 10.8 | Biosphere Reserves | 0 | 0 | 0 | 0 | 0 |
| 65 | 10.9 | Forest Parks | 0 | 0 | 0 | 0 | 0 |
| 65 | 10.10 | Marine Conservation Zones | 0 | 0 | 0 | 0 | 0 |
| **65** | **10.11** | **Green Belt** | 0 | 0 | 1 | 0 | 3 |
| 65 | 10.12 | Proposed Ramsar sites | 0 | 0 | 0 | 0 | 0 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 66 | 10.13 | Possible Special Areas of Conservation (pSAC) | 0 | 0 | 0 | 0 | 0 |
| 66 | 10.14 | Potential Special Protection Areas (pSPA) | 0 | 0 | 0 | 0 | 0 |
| 66 | 10.15 | Nitrate Sensitive Areas | 0 | 0 | 0 | 0 | 0 |
| **66** | **10.16** | **Nitrate Vulnerable Zones** | 1 | 1 | 0 | 0 | 2 |
| **68** | **10.17** | **SSSI Impact Risk Zones** | 1 | - | - | - | - |
| 69 | 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 |
| 70 | 11.1 | World Heritage Sites | 0 | 0 | 0 | - | - |
| 70 | 11.2 | Area of Outstanding Natural Beauty | 0 | 0 | 0 | - | - |
| 70 | 11.3 | National Parks | 0 | 0 | 0 | - | - |
| 70 | 11.4 | Listed Buildings | 0 | 0 | 0 | - | - |
| 71 | 11.5 | Conservation Areas | 0 | 0 | 0 | - | - |
| 71 | 11.6 | Scheduled Ancient Monuments | 0 | 0 | 0 | - | - |
| 71 | 11.7 | Registered Parks and Gardens | 0 | 0 | 0 | - | - |
| Page | Section | Agricultural designations | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| **72** | **12.1** | **Agricultural Land Classification** | Grade 3 (within 250m) | | | | |
| 73 | 12.2 | Open Access Land | 0 | 0 | 0 | - | - |
| 73 | 12.3 | Tree Felling Licences | 0 | 0 | 0 | - | - |
| 73 | 12.4 | Environmental Stewardship Schemes | 0 | 0 | 0 | - | - |
| 73 | 12.5 | Countryside Stewardship Schemes | 0 | 0 | 0 | - | - |
| Page | Section | Habitat designations | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 74 | 13.1 | Priority Habitat Inventory | 0 | 0 | 0 | - | - |
| 74 | 13.2 | Habitat Networks | 0 | 0 | 0 | - | - |
| 74 | 13.3 | Open Mosaic Habitat | 0 | 0 | 0 | - | - |
| 74 | 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 |
| **75** | **14.1** | **10k Availability** | Identified (within 500m) | | | | |
| **76** | **14.2** | **Artificial and made ground (10k)** | 1 | 1 | 2 | 6 | - |
| **78** | **14.3** | **Superficial geology (10k)** | 0 | 0 | 0 | 1 | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 79 | 14.4 | Landslip (10k) | 0 | 0 | 0 | 0 | - |
| 80 | 14.5 | Bedrock geology (10k) | 2 | 0 | 7 | 8 | - |
| 81 | 14.6 | Bedrock faults and other linear features (10k) | 3 | 2 | 8 | 8 | - |
| Page | Section | Geology 1:50,000 scale | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 83 | 15.1 | 50k Availability | Identified (within 500m) | | | | |
| 84 | 15.2 | Artificial and made ground (50k) | 0 | 1 | 1 | 3 | - |
| 85 | 15.3 | Artificial ground permeability (50k) | 0 | 1 | - | - | - |
| 86 | 15.4 | Superficial geology (50k) | 0 | 0 | 0 | 1 | - |
| 87 | 15.5 | Superficial permeability (50k) | None (within 50m) | | | | |
| 87 | 15.6 | Landslip (50k) | 0 | 0 | 0 | 0 | - |
| 87 | 15.7 | Landslip permeability (50k) | None (within 50m) | | | | |
| 88 | 15.8 | Bedrock geology (50k) | 2 | 0 | 4 | 6 | - |
| 89 | 15.9 | Bedrock permeability (50k) | Identified (within 50m) | | | | |
| 89 | 15.10 | Bedrock faults and other linear features (50k) | 2 | 2 | 4 | 8 | - |
| Page | Section | Boreholes | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 91 | 16.1 | BGS Boreholes | 0 | 0 | 9 | - | - |
| Page | Section | Natural ground subsidence | | | | | |
| 93 | 17.1 | Shrink swell clays | Very low (within 50m) | | | | |
| 94 | 17.2 | Running sands | Very low (within 50m) | | | | |
| 96 | 17.3 | Compressible deposits | Moderate (within 50m) | | | | |
| 98 | 17.4 | Collapsible deposits | Very low (within 50m) | | | | |
| 99 | 17.5 | Landslides | Low (within 50m) | | | | |
| 101 | 17.6 | Ground dissolution of soluble rocks | Negligible (within 50m) | | | | |
| Page | Section | Mining, ground workings and natural cavities | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| 103 | 18.1 | Natural cavities | 0 | 0 | 0 | 0 | - |
| 104 | 18.2 | BritPits | 0 | 0 | 4 | 11 | - |
| 107 | 18.3 | Surface ground workings | 1 | 0 | 21 | - | - |
| 108 | 18.4 | Underground workings | 0 | 0 | 6 | 4 | 11 |
| 109 | 18.5 | Historical Mineral Planning Areas | 0 | 0 | 0 | 0 | - |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **109** | **18.6** | **Non-coal mining** | 2 | 0 | 1 | 2 | 1 |
| 110 | 18.7 | Mining cavities | 0 | 0 | 0 | 0 | 0 |
| 110 | 18.8 | JPB mining areas | None (within 0m) | | | | |
| **110** | **18.9** | **Coal mining** | Identified (within 0m) | | | | |
| 111 | 18.10 | Brine areas | None (within 0m) | | | | |
| 111 | 18.11 | Gypsum areas | None (within 0m) | | | | |
| 111 | 18.12 | Tin mining | None (within 0m) | | | | |
| 111 | 18.13 | Clay mining | None (within 0m) | | | | |
| Page | Section | Radon | | | | | |
| **112** | **19.1** | **Radon** | Between 3% and 5% (within 0m) | | | | |
| Page | Section | Soil chemistry | On site | 0-50m | 50-250m | 250-500m | 500-2000m |
| **114** | **20.1** | **BGS Estimated Background Soil Chemistry** | 3 | 1 | - | - | - |
| 114 | 20.2 | BGS Estimated Urban Soil Chemistry | 0 | 0 | - | - | - |
| 115 | 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 |
| 116 | 21.1 | Underground railways (London) | 0 | 0 | 0 | - | - |
| 116 | 21.2 | Underground railways (Non-London) | 0 | 0 | 0 | - | - |
| 117 | 21.3 | Railway tunnels | 0 | 0 | 0 | - | - |
| **117** | **21.4** | **Historical railway and tunnel features** | 0 | 0 | 16 | - | - |
| 118 | 21.5 | Royal Mail tunnels | 0 | 0 | 0 | - | - |
| 118 | 21.6 | Historical railways | 0 | 0 | 0 | - | - |
| 118 | 21.7 | Railways | 0 | 0 | 0 | - | - |
| 118 | 21.8 | Crossrail 1 | 0 | 0 | 0 | 0 | - |
| 118 | 21.9 | Crossrail 2 | 0 | 0 | 0 | 0 | - |
| 119 | 21.10 | HS2 | 0 | 0 | 0 | 0 | - |

## Recent aerial photograph

Capture Date: 01/07/2018

Site Area: 2.25ha

## Recent site history - 2012 aerial photograph

Capture Date: 26/03/2012

Site Area: 2.25ha

## Recent site history - 2009 aerial photograph

Capture Date: 11/09/2009

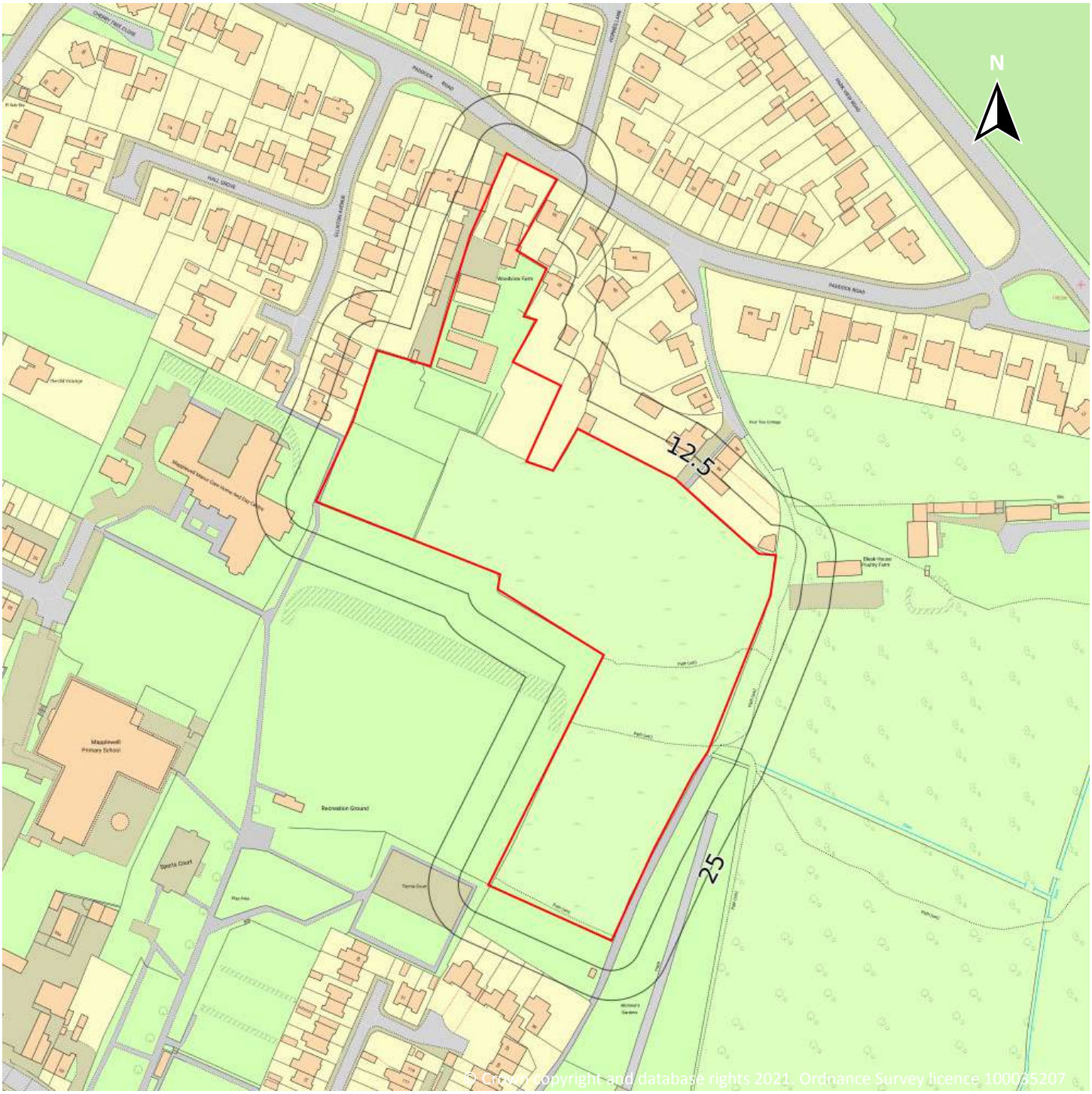
Site Area: 2.25ha

## Recent site history - 1999 aerial photograph

Capture Date: 10/07/1999

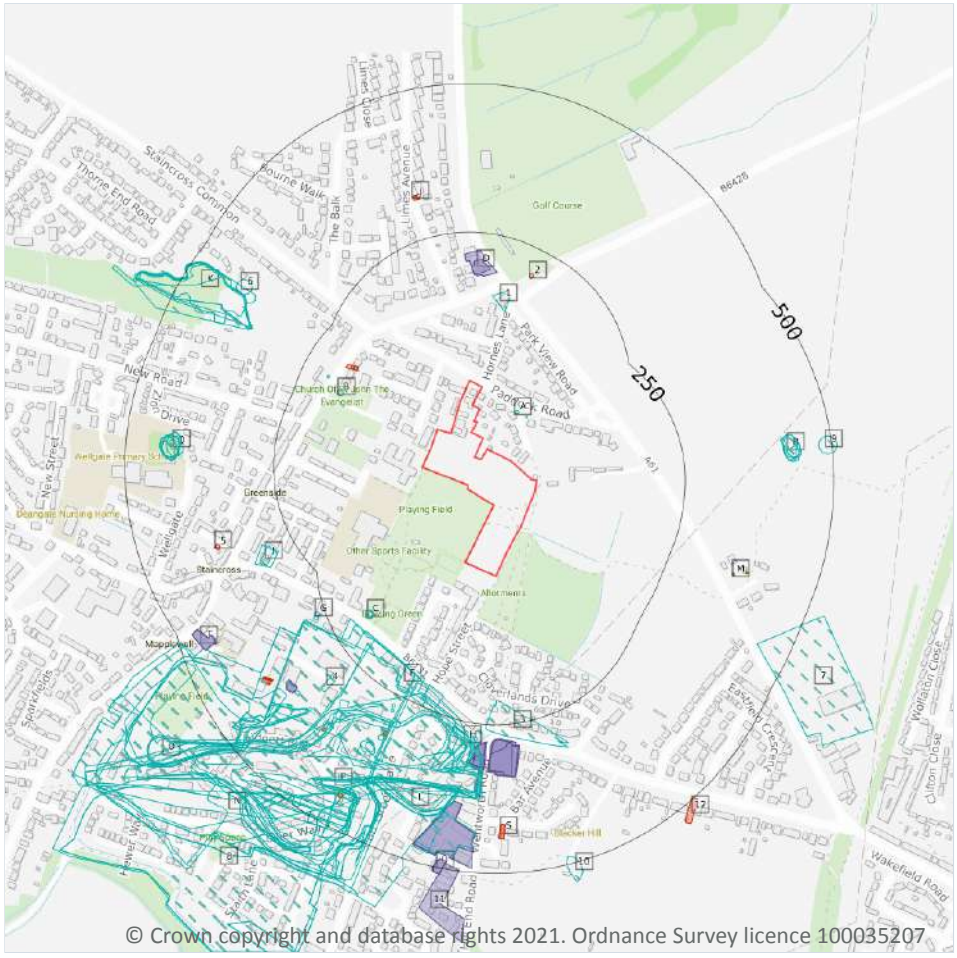
Site Area: 2.25ha

## OS MasterMap site plan




Site Area: 2.25ha

# 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 | 98 |
|---|---|

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

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

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| A | 61m E | Unspecified Pump | 1854 | 1456706 |

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| A | 77m NE | Unspecified Pump | 1854 | 1456708 |
| 1 | 130m NE | Police Station | 1891 | 1440631 |
| B | 169m W | Unspecified Pump | 1854 | 1456707 |
| C | 176m SW | Unspecified Tank | 1930 | 1490681 |
| C | 177m SW | Unspecified Tank | 1938 | 1487601 |
| E | 196m SW | Colliery | 1930 - 1948 | 1489134 |
| F | 196m SW | Corn Mill | 1854 | 1433106 |
| E | 198m SW | Unspecified Mine | 1966 - 1973 | 1497308 |
| E | 198m SW | Railway Sidings | 1966 - 1973 | 1495912 |
| E | 198m SW | Colliery | 1982 | 1518132 |
| B | 202m NW | Unspecified Pump | 1854 | 1456705 |
| 3 | 209m S | Unspecified Works | 1854 | 1538813 |
| E | 210m SW | Colliery | 1951 | 1543449 |
| F | 212m SW | Unspecified Mill | 1891 | 1421676 |
| E | 214m SW | Colliery | 1904 | 1551203 |
| F | 217m SW | Corn Mill | 1854 | 1433107 |
| E | 231m SW | Railway Sidings | 1982 | 1491917 |
| E | 232m SW | Railway Sidings | 1951 | 1498806 |
| E | 251m SW | Railway Sidings | 1938 | 1517871 |
| E | 256m SW | Railway Sidings | 1948 | 1469610 |
| E | 258m SW | Railway Sidings | 1904 - 1930 | 1495517 |
| G | 260m W | Coal Pit | 1854 | 1420019 |
| H | 261m S | Refuse Heap | 1930 | 1539452 |
| H | 261m S | Refuse Heap | 1948 | 1478561 |
| H | 263m S | Refuse Heap | 1938 | 1469789 |
| G | 264m W | Coal Pit | 1854 | 1420018 |
| F | 266m SW | Unspecified Shaft | 1854 | 1425326 |
| H | 271m S | Unspecified Pit | 1982 | 1455283 |

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| F | 276m SW | Unspecified Shaft | 1854 | 1425327 |
| I | 280m SW | Police Station | 1965 - 1990 | 1480005 |
| I | 286m SW | Police Station | 1904 | 1502013 |
| 4 | 288m SW | Unspecified Depot | 1993 | 1428499 |
| E | 296m SW | Colliery | 1891 | 1540904 |
| E | 298m SW | Railway Sidings | 1891 | 1500880 |
| H | 306m S | Refuse Heap | 1904 | 1472113 |
| F | 312m SW | Unspecified Tank | 1904 | 1433414 |
| F | 322m SW | Chimney | 1966 - 1973 | 1468164 |
| F | 341m SW | Refuse Heap | 1891 | 1437976 |
| F | 341m SW | Refuse Heaps | 1904 | 1419474 |
| E | 353m SW | Unspecified Shaft | 1948 | 1425325 |
| K | 354m NW | Unspecified Disused Quarry | 1951 | 1532541 |
| K | 354m NW | Unspecified Quarry | 1965 | 1546211 |
| E | 356m SW | Unspecified Shaft | 1930 | 1508890 |
| K | 357m NW | Unspecified Quarry | 1948 | 1516134 |
| L | 357m S | Refuse Heap | 1951 | 1470229 |
| K | 358m NW | Unspecified Quarry | 1938 | 1502735 |
| K | 358m NW | Unspecified Quarry | 1930 | 1547343 |
| L | 360m S | Unspecified Disused Tip | 1973 | 1420206 |
| L | 360m S | Refuse Heap | 1966 | 1480398 |
| N | 361m SW | Unspecified Disused Tip | 1982 - 1993 | 1529825 |
| O | 362m SW | Refuse Heap | 1948 | 1531734 |
| O | 363m SW | Refuse Heap | 1930 | 1499988 |
| E | 363m SW | Refuse Heap | 1938 | 1556699 |
| L | 364m S | Refuse Heap | 1948 | 1492740 |
| L | 366m S | Refuse Heap | 1930 | 1499206 |
| L | 366m S | Refuse Heap | 1938 | 1475448 |

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| K | 376m NW | Unspecified Quarry | 1891 - 1904 | 1466835 |
| P | 378m SW | Refuse Heap | 1951 | 1522346 |
| E | 379m SW | Unspecified Shaft | 1938 | 1486084 |
| 6 | 391m NW | Sandstone Quarry | 1854 | 1468641 |
| E | 393m SW | Refuse Heap | 1891 | 1481962 |
| P | 396m SW | Unspecified Disused Tip | 1973 | 1520562 |
| P | 396m SW | Refuse Heap | 1966 | 1524280 |
| E | 397m SW | Unspecified Shaft | 1951 | 1425324 |
| E | 398m SW | Refuse Heap | 1904 | 1530836 |
| Q | 403m W | Unspecified Heap | 1965 | 1471016 |
| L | 405m S | Coal Pit | 1854 | 1420036 |
| E | 406m SW | Refuse Heap | 1948 - 1951 | 1509191 |
| Q | 407m W | Unspecified Heap | 1891 | 1476652 |
| Q | 407m W | Unspecified Heap | 1948 | 1491367 |
| Q | 407m W | Old Coal Pit | 1904 | 1532780 |
| L | 408m S | Unspecified Works | 1993 | 1438944 |
| Q | 409m W | Unspecified Heap | 1930 | 1545209 |
| E | 410m SW | Unspecified Disused Tip | 1973 | 1460978 |
| E | 410m SW | Refuse Heap | 1966 | 1475305 |
| Q | 410m W | Unspecified Heap | 1951 | 1465492 |
| Q | 410m W | Unspecified Heap | 1938 | 1546618 |
| E | 411m SW | Refuse Heap | 1904 | 1471152 |
| E | 411m SW | Refuse Heap | 1930 | 1549197 |
| Q | 414m W | Old Coal Pit | 1854 | 1474222 |
| R | 415m E | Unspecified Pit | 1938 | 1533320 |
| L | 416m S | Coal Pit | 1854 | 1420037 |
| R | 417m E | Unspecified Pit | 1891 - 1930 | 1479072 |
| N | 417m SW | Refuse Heaps | 1938 | 1468939 |

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| R | 418m E | Unspecified Pit | 1951 | 1464127 |
| R | 421m E | Unspecified Pit | 1948 | 1535474 |
| R | 423m E | Unspecified Pit | 1965 | 1525090 |
| K | 442m NW | Unspecified Disused Quarry | 1978 - 1990 | 1555651 |
| 7 | 443m SE | Unspecified Works | 1966 - 1993 | 1535574 |
| 8 | 444m SW | Refuse Heap | 1982 | 1483038 |
| E | 469m SW | Coke Ovens | 1904 | 1526528 |
| E | 470m SW | Coke Ovens | 1930 - 1938 | 1542020 |
| 9 | 479m E | Sandstone Quarry | 1854 | 1488993 |
| P | 482m SW | Refuse Heap | 1938 | 1508591 |
| 10 | 487m S | Unspecified Pit | 1891 - 1904 | 1487159 |
| E | 494m SW | Coke Ovens | 1904 | 1509806 |
| O | 497m SW | Refuse Heap | 1904 | 1550312 |

*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 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 |
|---|---|---|---|---|
| F | 314m SW | Gasometer | 1893 - 1906 | 243511 |
| M | 360m E | Unspecified Tank | 1977 - 1993 | 235039 |
| E | 364m SW | Tanks | 1913 | 235790 |
| M | 380m E | Unspecified Tank | 1977 - 1993 | 235975 |
| E | 441m SW | Unspecified Tank | 1988 - 1989 | 239889 |

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.3 Historical energy features

| Records within 500m | 15 |
|---|---|

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

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

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| B | 168m NW | Electricity Substation | 1966 | 136004 |
| B | 174m NW | Electricity Substation | 1977 - 1994 | 136939 |
| 2 | 200m NE | Gas Governor | 1996 | 131865 |
| F | 314m SW | Gasometer | 1893 - 1906 | 141286 |
| J | 317m N | Electricity Substation | 1966 - 1996 | 144072 |
| J | 320m N | Electricity Substation | 1977 | 138685 |
| 5 | 365m W | Electricity Substation | 1977 - 1994 | 141154 |
| E | 379m SW | Electricity Substation | 1997 | 132818 |
| E | 381m SW | Electricity Substation | 1988 - 1989 | 139494 |
| E | 382m SW | Electricity Substation | 1977 | 133985 |
| E | 383m SW | Electricity Substation | 1986 | 140829 |
| E | 386m SW | Electricity Substation | 1973 | 134099 |
| S | 417m S | Electricity Substation | 1973 - 1977 | 138792 |
| S | 418m S | Electricity Substation | 1986 - 1997 | 136412 |
| 12 | 498m SE | Electricity Substation | 1973 - 1991 | 141170 |

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.4 Historical petrol stations

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

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

*This data is sourced from Ordnance Survey / Groundsure.*

## 1.5 Historical garages

| Records within 500m | 21 |
|---|---|

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

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

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| D | 177m N | Garage | 1960 - 1977 | 46070 |
| D | 179m N | Garage | 1996 | 42457 |
| H | 274m S | Garage | 1973 | 44021 |
| H | 274m S | Garage | 1977 | 44165 |
| H | 274m S | Garage | 1988 - 1989 | 45473 |
| H | 276m S | Garage | 1988 | 43676 |
| H | 279m S | Garage | 1986 | 42353 |
| H | 279m S | Garage | 1995 - 1997 | 46483 |
| H | 280m S | Garage | 1993 | 43807 |
| H | 281m S | Garage | 1988 | 42176 |
| H | 281m S | Garage | 1988 - 1989 | 45948 |
| H | 301m S | Garage | 1973 - 1991 | 45887 |
| E | 351m SW | Garage | 1993 - 1996 | 44969 |
| E | 353m SW | Garage | 1991 | 44049 |

| ID | Location | Land use | Dates present | Group ID |
|---|---|---|---|---|
| L | 384m S | Vehicle Scrap Yard | 1988 - 1989 | 45154 |
| L | 385m S | Vehicle Scrap Yard | 1973 | 42484 |
| T | 440m W | Garage | 1977 | 44164 |
| T | 441m W | Garage | 1981 - 1991 | 44443 |
| U | 485m S | Garage | 1991 | 41924 |
| U | 485m S | Garage | 1993 - 1997 | 45235 |
| 11 | 490m S | Vehicle Scrap Yard | 1988 - 1989 | 46275 |

*This data is sourced from Ordnance Survey / Groundsure.*

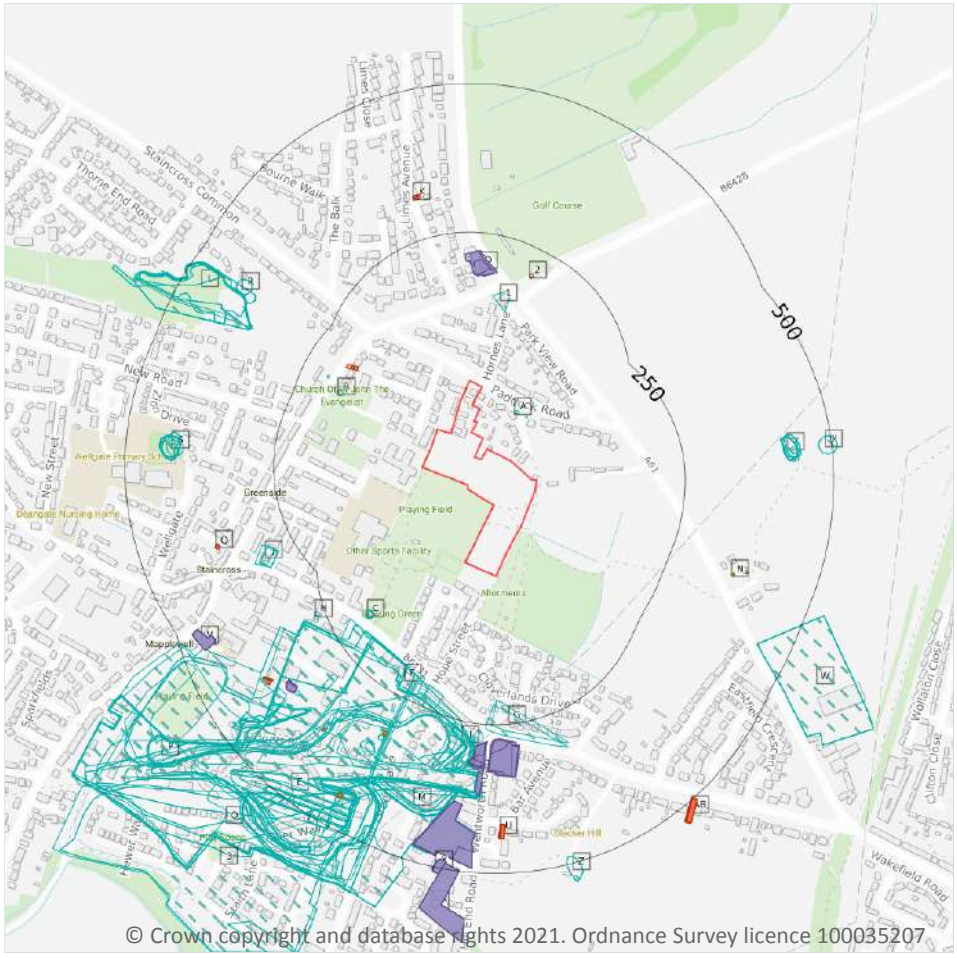
## 1.6 Historical military land

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

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

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

# 2 Past land use - un-grouped

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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 | 166 |
|---|---|

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 21**

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| A | 61m E | Unspecified Pump | 1854 | 1456706 |
| A | 77m NE | Unspecified Pump | 1854 | 1456708 |
| 1 | 130m NE | Police Station | 1891 | 1440631 |

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| B | 169m W | Unspecified Pump | 1854 | 1456707 |
| C | 176m SW | Unspecified Tank | 1930 | 1490681 |
| C | 176m SW | Unspecified Tank | 1930 | 1490681 |
| C | 176m SW | Unspecified Tank | 1930 | 1490681 |
| C | 176m SW | Unspecified Tank | 1930 | 1490681 |
| C | 177m SW | Unspecified Tank | 1938 | 1487601 |
| E | 196m SW | Colliery | 1938 | 1489134 |
| E | 196m SW | Colliery | 1938 | 1489134 |
| E | 196m SW | Colliery | 1930 | 1489134 |
| E | 196m SW | Colliery | 1930 | 1489134 |
| E | 196m SW | Colliery | 1930 | 1489134 |
| E | 196m SW | Colliery | 1930 | 1489134 |
| F | 196m SW | Corn Mill | 1854 | 1433106 |
| E | 198m SW | Unspecified Mine | 1966 | 1497308 |
| E | 198m SW | Railway Sidings | 1973 | 1495912 |
| E | 198m SW | Unspecified Mine | 1973 | 1497308 |
| E | 198m SW | Railway Sidings | 1966 | 1495912 |
| E | 198m SW | Colliery | 1982 | 1518132 |
| B | 202m NW | Unspecified Pump | 1854 | 1456705 |
| G | 209m S | Unspecified Works | 1854 | 1538813 |
| E | 210m SW | Colliery | 1951 | 1543449 |
| F | 212m SW | Unspecified Mill | 1891 | 1421676 |
| E | 214m SW | Colliery | 1904 | 1551203 |
| E | 214m SW | Colliery | 1948 | 1489134 |
| G | 216m S | Unspecified Works | 1854 | 1538813 |
| F | 217m SW | Corn Mill | 1854 | 1433107 |
| E | 231m SW | Railway Sidings | 1982 | 1491917 |
| E | 232m SW | Railway Sidings | 1951 | 1498806 |

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| E | 251m SW | Railway Sidings | 1938 | 1517871 |
| E | 256m SW | Railway Sidings | 1948 | 1469610 |
| E | 258m SW | Railway Sidings | 1930 | 1495517 |
| E | 258m SW | Railway Sidings | 1930 | 1495517 |
| E | 258m SW | Railway Sidings | 1930 | 1495517 |
| E | 258m SW | Railway Sidings | 1930 | 1495517 |
| H | 260m W | Coal Pit | 1854 | 1420019 |
| I | 261m S | Refuse Heap | 1930 | 1539452 |
| I | 261m S | Refuse Heap | 1930 | 1539452 |
| I | 261m S | Refuse Heap | 1930 | 1539452 |
| I | 261m S | Refuse Heap | 1930 | 1539452 |
| I | 261m S | Refuse Heap | 1948 | 1478561 |
| I | 263m S | Refuse Heap | 1938 | 1469789 |
| I | 263m S | Refuse Heap | 1938 | 1469789 |
| H | 264m W | Coal Pit | 1854 | 1420018 |
| F | 266m SW | Unspecified Shaft | 1854 | 1425326 |
| I | 271m S | Unspecified Pit | 1982 | 1455283 |
| F | 276m SW | Unspecified Shaft | 1854 | 1425327 |
| J | 280m SW | Police Station | 1990 | 1480005 |
| J | 280m SW | Police Station | 1965 | 1480005 |
| J | 280m SW | Police Station | 1978 | 1480005 |
| J | 286m SW | Police Station | 1904 | 1502013 |
| E | 288m SW | Unspecified Depot | 1993 | 1428499 |
| E | 296m SW | Colliery | 1891 | 1540904 |
| E | 298m SW | Railway Sidings | 1891 | 1500880 |
| E | 299m SW | Railway Sidings | 1904 | 1495517 |
| I | 306m S | Refuse Heap | 1904 | 1472113 |
| F | 312m SW | Unspecified Tank | 1904 | 1433414 |

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| F | 322m SW | Chimney | 1973 | 1468164 |
| F | 322m SW | Chimney | 1966 | 1468164 |
| F | 341m SW | Refuse Heap | 1891 | 1437976 |
| F | 341m SW | Refuse Heaps | 1904 | 1419474 |
| E | 353m SW | Unspecified Shaft | 1948 | 1425325 |
| L | 354m NW | Unspecified Quarry | 1965 | 1546211 |
| L | 354m NW | Unspecified Disused Quarry | 1951 | 1532541 |
| E | 356m SW | Unspecified Shaft | 1930 | 1508890 |
| E | 356m SW | Unspecified Shaft | 1930 | 1508890 |
| E | 356m SW | Unspecified Shaft | 1930 | 1508890 |
| E | 356m SW | Unspecified Shaft | 1930 | 1508890 |
| L | 357m NW | Unspecified Quarry | 1948 | 1516134 |
| M | 357m S | Refuse Heap | 1951 | 1470229 |
| L | 358m NW | Unspecified Quarry | 1938 | 1502735 |
| L | 358m NW | Unspecified Quarry | 1930 | 1547343 |
| L | 358m NW | Unspecified Quarry | 1930 | 1547343 |
| L | 358m NW | Unspecified Quarry | 1930 | 1547343 |
| L | 358m NW | Unspecified Quarry | 1930 | 1547343 |
| M | 360m S | Unspecified Disused Tip | 1973 | 1420206 |
| M | 360m S | Refuse Heap | 1966 | 1480398 |
| O | 361m SW | Unspecified Disused Tip | 1993 | 1529825 |
| P | 362m SW | Refuse Heap | 1948 | 1531734 |
| P | 363m SW | Refuse Heap | 1930 | 1499988 |
| P | 363m SW | Refuse Heap | 1930 | 1499988 |
| P | 363m SW | Refuse Heap | 1930 | 1499988 |
| P | 363m SW | Refuse Heap | 1930 | 1499988 |
| E | 363m SW | Refuse Heap | 1938 | 1556699 |
| E | 363m SW | Refuse Heap | 1938 | 1556699 |

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| M | 364m S | Refuse Heap | 1948 | 1492740 |
| M | 366m S | Refuse Heap | 1930 | 1499206 |
| M | 366m S | Refuse Heap | 1930 | 1499206 |
| M | 366m S | Refuse Heap | 1930 | 1499206 |
| M | 366m S | Refuse Heap | 1930 | 1499206 |
| M | 366m S | Refuse Heap | 1938 | 1475448 |
| M | 366m S | Refuse Heap | 1938 | 1475448 |
| P | 375m SW | Unspecified Disused Tip | 1982 | 1529825 |
| L | 376m NW | Unspecified Quarry | 1904 | 1466835 |
| L | 376m NW | Unspecified Quarry | 1891 | 1466835 |
| P | 378m SW | Refuse Heap | 1951 | 1522346 |
| E | 379m SW | Unspecified Shaft | 1938 | 1486084 |
| E | 379m SW | Unspecified Shaft | 1938 | 1486084 |
| R | 391m NW | Sandstone Quarry | 1854 | 1468641 |
| R | 391m NW | Sandstone Quarry | 1854 | 1468641 |
| E | 393m SW | Refuse Heap | 1891 | 1481962 |
| P | 396m SW | Unspecified Disused Tip | 1973 | 1520562 |
| P | 396m SW | Refuse Heap | 1966 | 1524280 |
| E | 397m SW | Unspecified Shaft | 1951 | 1425324 |
| E | 398m SW | Refuse Heap | 1904 | 1530836 |
| S | 403m W | Unspecified Heap | 1965 | 1471016 |
| M | 405m S | Coal Pit | 1854 | 1420036 |
| E | 406m SW | Refuse Heap | 1951 | 1509191 |
| S | 407m W | Unspecified Heap | 1948 | 1491367 |
| S | 407m W | Old Coal Pit | 1904 | 1532780 |
| S | 407m W | Unspecified Heap | 1891 | 1476652 |
| M | 408m S | Unspecified Works | 1993 | 1438944 |
| E | 409m SW | Refuse Heap | 1948 | 1509191 |

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| S | 409m W | Unspecified Heap | 1930 | 1545209 |
| S | 409m W | Unspecified Heap | 1930 | 1545209 |
| S | 409m W | Unspecified Heap | 1930 | 1545209 |
| S | 409m W | Unspecified Heap | 1930 | 1545209 |
| E | 410m SW | Unspecified Disused Tip | 1973 | 1460978 |
| E | 410m SW | Refuse Heap | 1966 | 1475305 |
| S | 410m W | Unspecified Heap | 1951 | 1465492 |
| S | 410m W | Unspecified Heap | 1938 | 1546618 |
| S | 410m W | Unspecified Heap | 1938 | 1546618 |
| E | 411m SW | Refuse Heap | 1904 | 1471152 |
| E | 411m SW | Refuse Heap | 1930 | 1549197 |
| E | 411m SW | Refuse Heap | 1930 | 1549197 |
| E | 411m SW | Refuse Heap | 1930 | 1549197 |
| E | 411m SW | Refuse Heap | 1930 | 1549197 |
| S | 414m W | Old Coal Pit | 1854 | 1474222 |
| T | 415m E | Unspecified Pit | 1938 | 1533320 |
| T | 415m E | Unspecified Pit | 1938 | 1533320 |
| M | 416m S | Coal Pit | 1854 | 1420037 |
| T | 417m E | Unspecified Pit | 1930 | 1479072 |
| T | 417m E | Unspecified Pit | 1930 | 1479072 |
| T | 417m E | Unspecified Pit | 1930 | 1479072 |
| T | 417m E | Unspecified Pit | 1930 | 1479072 |
| O | 417m SW | Refuse Heaps | 1938 | 1468939 |
| O | 417m SW | Refuse Heaps | 1938 | 1468939 |
| S | 417m W | Old Coal Pit | 1854 | 1474222 |
| T | 418m E | Unspecified Pit | 1951 | 1464127 |
| T | 421m E | Unspecified Pit | 1948 | 1535474 |
| T | 421m E | Unspecified Pit | 1904 | 1479072 |

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| T | 421m E | Unspecified Pit | 1891 | 1479072 |
| T | 423m E | Unspecified Pit | 1965 | 1525090 |
| L | 442m NW | Unspecified Disused Quarry | 1990 | 1555651 |
| L | 442m NW | Unspecified Disused Quarry | 1978 | 1555651 |
| W | 443m SE | Unspecified Works | 1993 | 1535574 |
| W | 443m SE | Unspecified Works | 1973 | 1535574 |
| W | 443m SE | Unspecified Works | 1966 | 1535574 |
| W | 443m SE | Unspecified Works | 1982 | 1535574 |
| 3 | 444m SW | Refuse Heap | 1982 | 1483038 |
| E | 469m SW | Coke Ovens | 1904 | 1526528 |
| E | 470m SW | Coke Ovens | 1930 | 1542020 |
| E | 470m SW | Coke Ovens | 1930 | 1542020 |
| E | 470m SW | Coke Ovens | 1930 | 1542020 |
| E | 470m SW | Coke Ovens | 1930 | 1542020 |
| E | 471m SW | Coke Ovens | 1938 | 1542020 |
| X | 479m E | Sandstone Quarry | 1854 | 1488993 |
| X | 479m E | Sandstone Quarry | 1854 | 1488993 |
| P | 482m SW | Refuse Heap | 1938 | 1508591 |
| P | 482m SW | Refuse Heap | 1938 | 1508591 |
| Z | 487m S | Unspecified Pit | 1904 | 1487159 |
| Z | 487m S | Unspecified Pit | 1891 | 1487159 |
| E | 494m SW | Coke Ovens | 1904 | 1509806 |
| P | 497m SW | Refuse Heap | 1904 | 1550312 |

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.2 Historical tanks

| Records within 500m | 12 |
|---|---|

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 21**

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| F | 314m SW | Gasometer | 1893 | 243511 |
| F | 314m SW | Gasometer | 1906 | 243511 |
| N | 360m E | Unspecified Tank | 1977 | 235039 |
| N | 360m E | Unspecified Tank | 1993 | 235039 |
| E | 364m SW | Tanks | 1913 | 235790 |
| E | 364m SW | Tanks | 1913 | 235790 |
| N | 380m E | Unspecified Tank | 1993 | 235975 |
| N | 381m E | Unspecified Tank | 1977 | 235975 |
| E | 441m SW | Unspecified Tank | 1988 | 239889 |
| E | 441m SW | Unspecified Tank | 1988 | 239889 |
| E | 441m SW | Unspecified Tank | 1989 | 239889 |
| E | 441m SW | Unspecified Tank | 1989 | 239889 |

*This data is sourced from Ordnance Survey / Groundsure.*

## 2.3 Historical energy features

| Records within 500m | 37 |
|---|---|

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 21**

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| B | 168m NW | Electricity Substation | 1966 | 136004 |
| B | 174m NW | Electricity Substation | 1977 | 136939 |

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| B | 174m NW | Electricity Substation | 1994 | 136939 |
| 2 | 200m NE | Gas Governor | 1996 | 131865 |
| F | 314m SW | Gasometer | 1893 | 141286 |
| F | 314m SW | Gasometer | 1906 | 141286 |
| K | 317m N | Electricity Substation | 1996 | 144072 |
| K | 320m N | Electricity Substation | 1966 | 144072 |
| K | 320m N | Electricity Substation | 1977 | 138685 |
| Q | 365m W | Electricity Substation | 1977 | 141154 |
| Q | 365m W | Electricity Substation | 1994 | 141154 |
| E | 379m SW | Electricity Substation | 1997 | 132818 |
| E | 381m SW | Electricity Substation | 1988 | 139494 |
| E | 381m SW | Electricity Substation | 1988 | 139494 |
| E | 381m SW | Electricity Substation | 1989 | 139494 |
| E | 381m SW | Electricity Substation | 1989 | 139494 |
| E | 382m SW | Electricity Substation | 1977 | 133985 |
| E | 383m SW | Electricity Substation | 1986 | 140829 |
| E | 386m SW | Electricity Substation | 1973 | 134099 |
| U | 417m S | Electricity Substation | 1977 | 138792 |
| U | 418m S | Electricity Substation | 1988 | 136412 |
| U | 418m S | Electricity Substation | 1988 | 136412 |
| U | 418m S | Electricity Substation | 1989 | 136412 |
| U | 418m S | Electricity Substation | 1989 | 136412 |
| U | 418m S | Electricity Substation | 1973 | 138792 |
| U | 418m S | Electricity Substation | 1986 | 136412 |
| U | 418m S | Electricity Substation | 1991 | 136412 |
| U | 418m S | Electricity Substation | 1995 | 136412 |
| U | 418m S | Electricity Substation | 1996 | 136412 |
| U | 418m S | Electricity Substation | 1993 | 136412 |

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| U | 418m S | Electricity Substation | 1997 | 136412 |
| AB | 498m SE | Electricity Substation | 1988 | 141170 |
| AB | 498m SE | Electricity Substation | 1988 | 141170 |
| AB | 498m SE | Electricity Substation | 1989 | 141170 |
| AB | 498m SE | Electricity Substation | 1989 | 141170 |
| AB | 498m SE | Electricity Substation | 1991 | 141170 |
| AB | 498m SE | Electricity Substation | 1973 | 141170 |

*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 | 41 |
|---|---|

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 21**

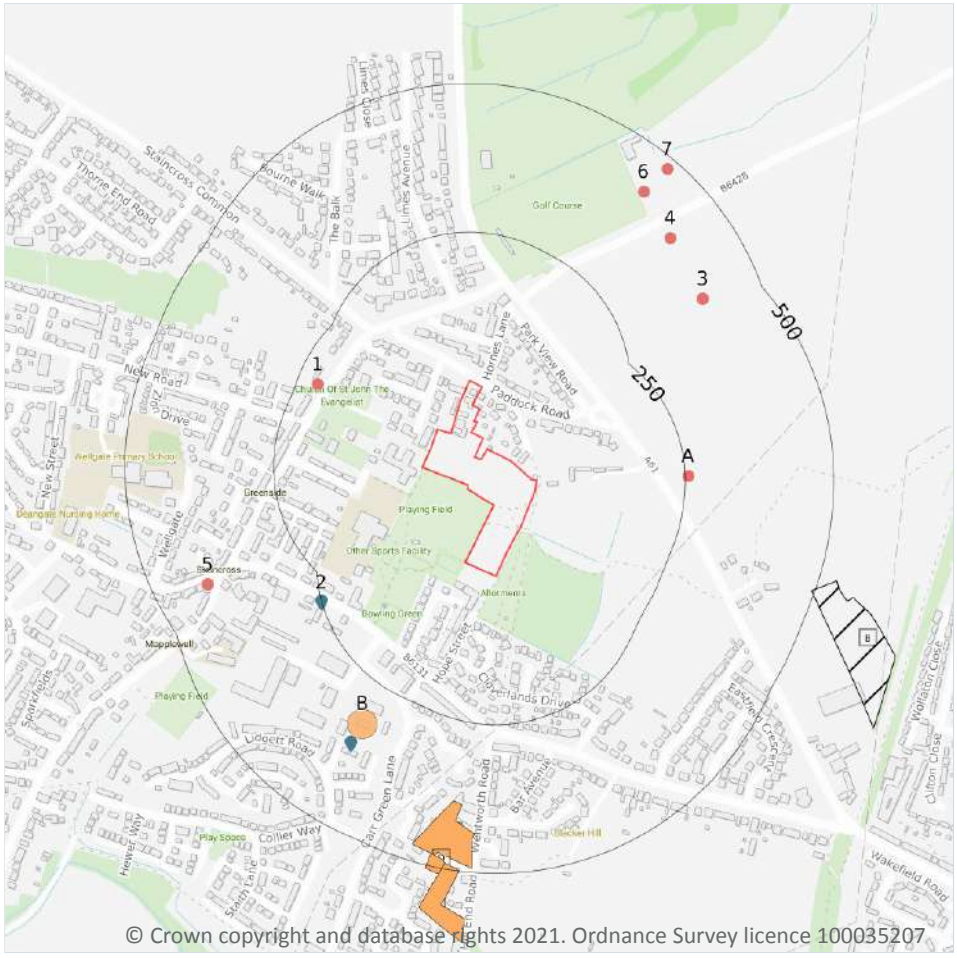
| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| D | 177m N | Garage | 1960 | 46070 |
| D | 177m N | Garage | 1966 | 46070 |
| D | 178m N | Garage | 1977 | 46070 |
| D | 179m N | Garage | 1996 | 42457 |
| I | 274m S | Garage | 1973 | 44021 |
| I | 274m S | Garage | 1977 | 44165 |

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| I | 274m S | Garage | 1988 | 45473 |
| I | 274m S | Garage | 1989 | 45473 |
| I | 276m S | Garage | 1988 | 43676 |
| I | 279m S | Garage | 1986 | 42353 |
| I | 279m S | Garage | 1995 | 46483 |
| I | 279m S | Garage | 1996 | 46483 |
| I | 279m S | Garage | 1997 | 46483 |
| I | 280m S | Garage | 1993 | 43807 |
| I | 281m S | Garage | 1988 | 45948 |
| I | 281m S | Garage | 1988 | 42176 |
| I | 281m S | Garage | 1989 | 45948 |
| I | 301m S | Garage | 1973 | 45887 |
| I | 309m S | Garage | 1991 | 45887 |
| E | 351m SW | Garage | 1995 | 44969 |
| E | 351m SW | Garage | 1996 | 44969 |
| E | 351m SW | Garage | 1993 | 44969 |
| E | 353m SW | Garage | 1991 | 44049 |
| M | 384m S | Vehicle Scrap Yard | 1988 | 45154 |
| M | 384m S | Vehicle Scrap Yard | 1988 | 45154 |
| M | 384m S | Vehicle Scrap Yard | 1989 | 45154 |
| M | 384m S | Vehicle Scrap Yard | 1989 | 45154 |
| M | 385m S | Vehicle Scrap Yard | 1973 | 42484 |
| V | 440m W | Garage | 1977 | 44164 |
| V | 441m W | Garage | 1981 | 44443 |
| V | 441m W | Garage | 1991 | 44443 |
| V | 441m W | Garage | 1991 | 44443 |
| Y | 485m S | Garage | 1991 | 41924 |
| Y | 485m S | Garage | 1995 | 45235 |

| ID | Location | Land Use | Date | Group ID |
|---|---|---|---|---|
| Y | 485m S | Garage | 1996 | 45235 |
| Y | 485m S | Garage | 1993 | 45235 |
| Y | 485m S | Garage | 1997 | 45235 |
| AA | 490m S | Vehicle Scrap Yard | 1988 | 46275 |
| AA | 490m S | Vehicle Scrap Yard | 1988 | 46275 |
| AA | 490m S | Vehicle Scrap Yard | 1989 | 46275 |
| AA | 490m S | Vehicle Scrap Yard | 1989 | 46275 |

*This data is sourced from Ordnance Survey / Groundsure.*

# 3 Waste and landfill

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Site Outline

Search buffers in metres (m)

Historical landfill (EA/NRW)

Historical waste sites

Licensed waste sites

Waste exemptions

## 3.1 Active or recent landfill

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

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

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

## 3.2 Historical landfill (BGS records)

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

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

*This data is sourced from the British Geological Survey.*

## 3.3 Historical landfill (LA/mapping records)

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

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

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

## 3.4 Historical landfill (EA/NRW records)

| Records within 500m | 1 |
|---|---|

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

Features are displayed on the Waste and landfill map on **page 33**

| ID | Location | Details | | |
|---|---|---|---|---|
| 8 | 494m E | Site Address: On waste land to the rear of Subseal Works, Subseal Works, Wakefield Road, Staincross<br>Licence Holder Address: - | Waste Licence: Yes<br>Site Reference: WD20 B364, 4400/B364, 20B364(82)<br>Waste Type: Inert, Industrial, Commercial, Household<br>Environmental Permitting Regulations (Waste) Reference: -<br>Licence Issue: 14/04/1983<br>Licence Surrender: - | Operator: William Freeman and Company Limited<br>Licence Holder: W Freeman and Company<br>First Recorded 31/12/1962<br>Last Recorded: 31/12/1994 |

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

## 3.5 Historical waste sites

| Records within 500m | 13 |
|---|---|

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 33**

| ID | Location | Address | Further Details | Date |
|---|---|---|---|---|
| B | 297m SW | Site Address: Unit B, Mapplewell Business, Park, Mapplewell, BARNSLEY, South Yorkshire, S75 6BP | Type of Site: Waste Tranfer Station C/U<br>Planning application reference: 95/0450/DJ<br>Description: Project comprises change of use to waste transfer station of 3575 sq m and the erection of an electricity sub station. An application (ref: 95/0450/DJ) for Detailed Planning permission was submitted to Barnsley B.C. on 7th April 1995.<br>Data source: Historic Planning Application<br>Data Type: Point | - |
| C | 384m S | Site Address: N/A | Type of Site: Vehicle Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1988 |
| C | 384m S | Site Address: N/A | Type of Site: Vehicle Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1988 |
| C | 384m S | Site Address: N/A | Type of Site: Vehicle Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1989 |
| C | 384m S | Site Address: N/A | Type of Site: Vehicle Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1989 |
| D | 478m S | Site Address: N/A | Type of Site: Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1988 |
| D | 478m S | Site Address: N/A | Type of Site: Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1988 |
| D | 478m S | Site Address: N/A | Type of Site: Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1989 |

| ID | Location | Address | Further Details | Date |
|---|---|---|---|---|
| D | 478m S | Site Address: N/A | Type of Site: Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1989 |
| E | 490m S | Site Address: N/A | Type of Site: Vehicle Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1988 |
| E | 490m S | Site Address: N/A | Type of Site: Vehicle Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1988 |
| E | 490m S | Site Address: N/A | Type of Site: Vehicle Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1989 |
| E | 490m S | Site Address: N/A | Type of Site: Vehicle Scrap Yard<br>Planning application reference: N/A<br>Description: N/A<br>Data source: Historic Mapping<br>Data Type: Polygon | 1989 |

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

## 3.6 Licensed waste sites

| Records within 500m | 3 |
|---|---|

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

Features are displayed on the Waste and landfill map on **page 33**

| ID | Location | Details | | |
|---|---|---|---|---|
| 2 | 252m W | Site Name: Q & Q Recovery<br>Site Address: Mapplewell Industrial Park, Mapplewell Drive, Mapplewell, Barnsley, South Yorkshire, S75 6BS<br>Correspondence Address: - | Type of Site: ELV Facility<br>Size: 25000 tonnes<br>Environmental Permitting Regulations (Waste) Licence Number: PQU001<br>EPR reference: EA/EPR/LP3490VX/A001<br>Operator: Qualter-Smith Paul Anthony<br>Waste Management licence No: 65486<br>Annual Tonnage: 203 | Issue Date: 10/09/2007<br>Effective Date: -<br>Modified:: -<br>Surrendered Date: -<br>Expiry Date: -<br>Cancelled Date: -<br>Status: Issued |
| B | 361m SW | Site Name: Q N Q Motor Services Uk Ltd<br>Site Address: Mapplewell Industrial Park, Mapplewell Drive, Mapplewell, Barnsley, South Yorkshire, S75 6BS<br>Correspondence Address: - | Type of Site: Vehicle Depollution Facility 5000 tps<br>Size: 25000 tonnes<br>Environmental Permitting Regulations (Waste) Licence Number: PQU001<br>EPR reference: EA/EPR/LP3490VX/V003<br>Operator: Qualter-Smith Paul Anthony<br>Waste Management licence No: 65486<br>Annual Tonnage: 4999 | Issue Date: 10/09/2007<br>Effective Date: -<br>Modified:: 27/11/2015<br>Surrendered Date: -<br>Expiry Date: -<br>Cancelled Date: -<br>Status: Modified |
| B | 361m SW | Site Name: Q N Q Motor Services Uk Ltd<br>Site Address: Mapplewell Industrial Park, Mapplewell Drive, Mapplewell, Barnsley, South Yorkshire, S75 6BS<br>Correspondence Address: - | Type of Site: Vehicle Depollution Facility 5000 tps<br>Size: 25000 tonnes<br>Environmental Permitting Regulations (Waste) Licence Number: PQU001<br>EPR reference: EA/EPR/LP3490VX/S004<br>Operator: Qualter-Smith Paul Anthony<br>Waste Management licence No: 65486<br>Annual Tonnage: 0 | Issue Date: 10/09/2007<br>Effective Date: -<br>Modified:: 27/11/2015<br>Surrendered Date: May 28 2020 12:00AM<br>Expiry Date: -<br>Cancelled Date: -<br>Status: Surrendered |

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

## 3.7 Waste exemptions

| Records within 500m | 9 |
|---|---|

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 33**

| ID | Location | Site | Reference | Category | Sub-Category | Description |
|---|---|---|---|---|---|---|
| 1 | 216m W | 187, GREENSIDE, STAINCROSS, BARNSLEY, S75 6AZ | WEX055905 | Using waste exemption | On a farm | Use of waste in construction |
| A | 254m E | Mount Farm New Road WAKEFIELD West Yorkshire WF4 2JJ | EPR/PH0676RB/A001 | Storing waste exemption | Non-Agricultural Waste Only | Storage of sludge |
| A | 254m E | Mount Farm New Road WAKEFIELD West Yorkshire WF4 2JJ | EPR/VF0339FF/A001 | Storing waste exemption | Non-Agricultural Waste Only | Storage of sludge |
| A | 254m E | Mount Farm New Road WAKEFIELD West Yorkshire WF4 2JJ | EPR/EF0230VN/A001 | Storing waste exemption | Non-Agricultural Waste Only | Storage of sludge |
| 3 | 399m E | - | WEX146164 | Storing waste exemption | On a Farm | Storage of sludge |
| 4 | 403m NE | White Gates Rigg Lane PONTEFRACT West Yorkshire WF8 3EF | EPR/HF0208LD/A001 | Storing waste exemption | Non-Agricultural Waste Only | Storage of sludge |
| 5 | 412m SW | 2, SPARK LANE, MAPPLEWELL, BARNSLEY, S75 6AA | WEX112767 | Treating waste exemption | Not on a farm | Sorting and de-naturing of controlled drugs for disposal |
| 6 | 425m NE | - | WEX146163 | Storing waste exemption | On a Farm | Storage of sludge |
| 7 | 480m NE | White Gates Rigg Lane PONTEFRACT West Yorkshire WF8 3EF | EPR/NH0770UV/A001 | Storing waste exemption | Non-Agricultural Waste Only | Storage of sludge |

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

# 4 Current industrial land use

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Site Outline

Search buffers in metres (m)

Recent industrial land uses

Current or recent petrol stations

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

Pollution Incidents (EA/NRW)

## 4.1 Recent industrial land uses

| Records within 250m | 11 |
|---|---|

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 39**

| ID | Location | Company | Address | Activity | Category |
|---|---|---|---|---|---|
| 1 | 36m E | Bleak House Poultry Farm | South Yorkshire, S75 | Poultry Farming, Equipment and Supplies | Farming |
| 2 | 119m E | Silo | South Yorkshire, S75 | Hoppers and Silos | Farming |
| 3 | 138m SW | Down 2 Earth | 11, Hope Street, Staincross, Barnsley, South Yorkshire, S75 6DA | Pest and Vermin Control | Contract Services |

| ID | Location | Company | Address | Activity | Category |
|---|---|---|---|---|---|
| 4 | 176m NW | Electricity Sub Station | South Yorkshire, S75 | Electrical Features | Infrastructure and Facilities |
| B | 180m W | Roy's Autos | 55a, Blacker Road, Staincross, Barnsley, South Yorkshire, S75 6GS | Vehicle Repair, Testing and Servicing | Repair and Servicing |
| A | 196m N | Turnpike Garage | Wakefield Road, Staincross, Barnsley, South Yorkshire, S75 6JX | Petrol and Fuel Stations | Road and Rail |
| A | 196m N | Turnpike Garage | Wakefield Road, Staincross, Barnsley, South Yorkshire, S75 6JX | Vehicle Cleaning Services | Personal, Consumer and Other Services |
| 5 | 198m SE | Pylon | South Yorkshire, S75 | Electrical Features | Infrastructure and Facilities |
| B | 198m W | Norman's Motor Shop | 59a, Blacker Road, Staincross, Barnsley, South Yorkshire, S75 6GS | Vehicle Parts and Accessories | Motoring |
| 6 | 206m NE | Gas Governor Station | South Yorkshire, S75 | Gas Features | Infrastructure and Facilities |
| 7 | 216m SW | M K Tints | Carr Green, Mapplewell, Barnsley, South Yorkshire, S75 6FY | Industrial Coatings and Finishings | Industrial Products |

*This data is sourced from Ordnance Survey.*

## 4.2 Current or recent petrol stations

| **Records within 500m** | **1** |
|---|---|

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 39**

| ID | Location | Company | Address | LPG | Status |
|---|---|---|---|---|---|
| A | 179m N | JET | Wakefield Road, Mapplewell, Barnsley, South Yorkshire, S75 6JX | No | Open |

*This data is sourced from Experian.*

## 4.3 Electricity cables

| **Records within 500m** | **0** |
|---|---|

High voltage underground electricity transmission cables.

*This data is sourced from National Grid.*

## 4.4 Gas pipelines

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

High pressure underground gas transmission pipelines.

*This data is sourced from National Grid.*

## 4.5 Sites determined as Contaminated Land

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

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

*This data is sourced from Local Authority records.*

## 4.6 Control of Major Accident Hazards (COMAH)

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

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

*This data is sourced from the Health and Safety Executive.*

## 4.7 Regulated explosive sites

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

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

*This data is sourced from the Health and Safety Executive.*

## 4.8 Hazardous substance storage/usage

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

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

*This data is sourced from Local Authority records.*

## 4.9 Historical licensed industrial activities (IPC)

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

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

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

## 4.10 Licensed industrial activities (Part A(1))

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

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

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

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

| Records within 500m | 1 |
|---|---|

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

Features are displayed on the Current industrial land use map on **page 39**

| ID | Location | Address | Details | |
|---|---|---|---|---|
| A | 198m N | Turn Pike Garage, Wakefield Road, Mapplewell, Barnsley, S75 6JX | Process: Unloading of Petrol into Storage at Service Stations<br>Status: Current Permit<br>Permit Type: Part B | Enforcement: No Enforcement Notified<br>Date of enforcement: No Enforcement Notified<br>Comment: No Enforcement Notified |

*This data is sourced from Local Authority records.*

## 4.12 Radioactive Substance Authorisations

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

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

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

## 4.13 Licensed Discharges to controlled waters

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

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

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

## 4.14 Pollutant release to surface waters (Red List)

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

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

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

## 4.15 Pollutant release to public sewer

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

Discharges of Special Category Effluents to the public sewer.

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

## 4.16 List 1 Dangerous Substances

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

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

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

## 4.17 List 2 Dangerous Substances

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

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

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

## 4.18 Pollution Incidents (EA/NRW)

| Records within 500m | 5 |
|---|---|

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

Features are displayed on the Current industrial land use map on **page 39**

| ID | Location | Details | |
|---|---|---|---|
| C | 420m SW | Incident Date: 14/06/2001<br>Incident Identification: 9372<br>Pollutant: Atmospheric Pollutants and Effects:Contaminated Water<br>Pollutant Description: Smoke:Firefighting Run-Off | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 3 (Minor)<br>Air Impact: Category 2 (Significant) |
| C | 420m SW | Incident Date: 14/06/2001<br>Incident Identification: 9372<br>Pollutant: Contaminated Water<br>Pollutant Description: Smoke Firefighting Run-Off | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 3 (Minor)<br>Air Impact: Category 2 (Significant) |
| C | 420m SW | Incident Date: 14/06/2001<br>Incident Identification: 9372<br>Pollutant: Atmospheric Pollutants and Effects<br>Pollutant Description: Smoke | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 3 (Minor)<br>Air Impact: Category 2 (Significant) |
| C | 420m SW | Incident Date: 14/06/2001<br>Incident Identification: 9372<br>Pollutant: Contaminated Water<br>Pollutant Description: Firefighting Run-Off | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 3 (Minor)<br>Air Impact: Category 2 (Significant) |
| C | 420m SW | Incident Date: 14/06/2001<br>Incident Identification: 9372<br>Pollutant: Atmospheric Pollutants and Effects : Contaminated Water<br>Pollutant Description: Smoke :Firefighting Run-Off | Water Impact: Category 4 (No Impact)<br>Land Impact: Category 3 (Minor)<br>Air Impact: Category 2 (Significant) |

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

## 4.19 Pollution inventory substances

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

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

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

## 4.20 Pollution inventory waste transfers

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

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

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

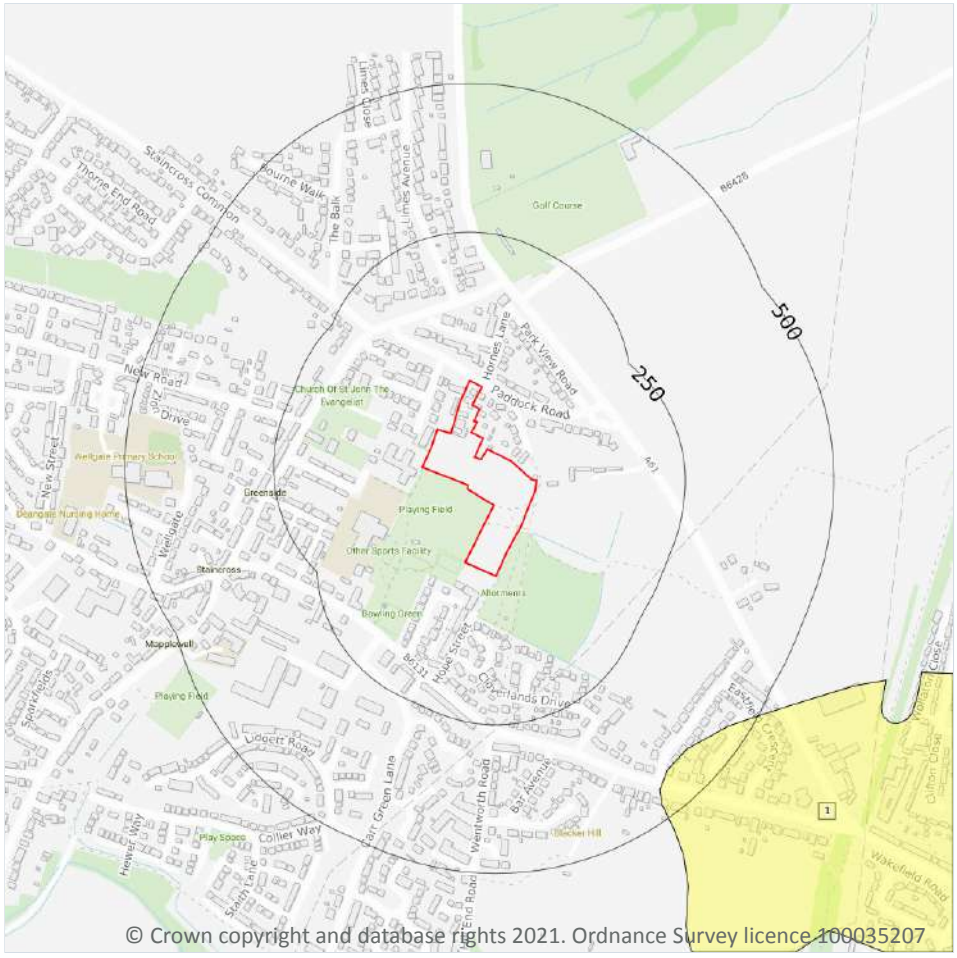
## 4.21 Pollution inventory radioactive waste

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

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

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

# 5 Hydrogeology - Superficial aquifer

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Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

## 5.1 Superficial aquifer

| Records within 500m | 1 |
|---|---|

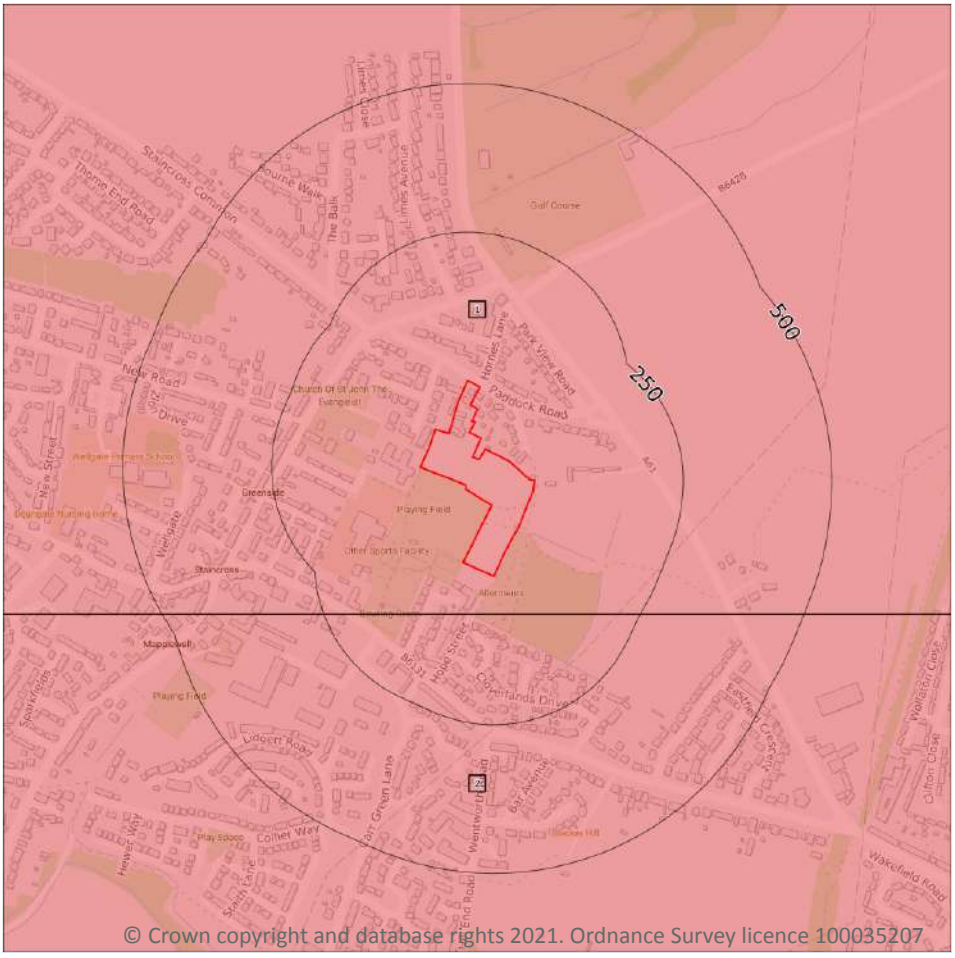
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 46**

| ID | Location | Designation | Description |
|---|---|---|---|
| 1 | 433m SE | Secondary Undifferentiated | Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type |

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

# Bedrock aquifer

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Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive

## 5.2 Bedrock aquifer

| Records within 500m | 2 |
|---|---|

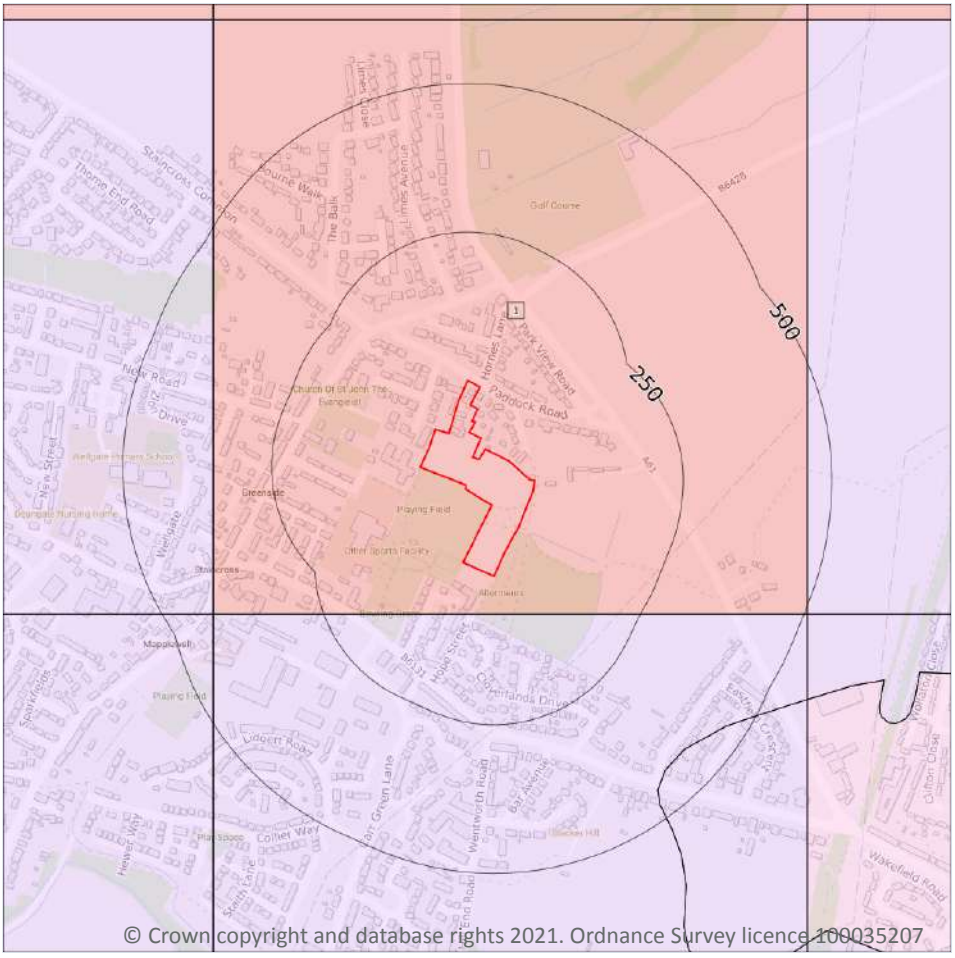
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 47**

| 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 | 64m S | Secondary A | Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers |

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

# Groundwater vulnerability




Site Outline

Search buffers in metres (m)

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

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

Other information
- Unproductive aquifer
- Soluble rock risk
- Local information

## 5.3 Groundwater vulnerability

| Records within 50m | 1 |
|---|---|

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 49**

| ID | Location | Summary | Soil / surface | Superficial geology | Bedrock geology |
|---|---|---|---|---|---|
| **1** | **On site** | **Summary Classification: Secondary bedrock aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer** | **Leaching class: Intermediate Infiltration value: >70% Dilution value: 300-550mm/year** | **Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data** | **Vulnerability: High Aquifer type: Secondary Flow mechanism: Well connected fractures** |

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

## 5.4 Groundwater vulnerability- soluble rock risk

| **Records on site** | **0** |
|---|---|

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

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

## 5.5 Groundwater vulnerability- local information

| **Records on site** | **0** |
|---|---|

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

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

# Abstractions and Source Protection Zones

## 5.6 Groundwater abstractions

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

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.

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

## 5.7 Surface water abstractions

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

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.

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

## 5.8 Potable abstractions

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

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

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

## 5.9 Source Protection Zones

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

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

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

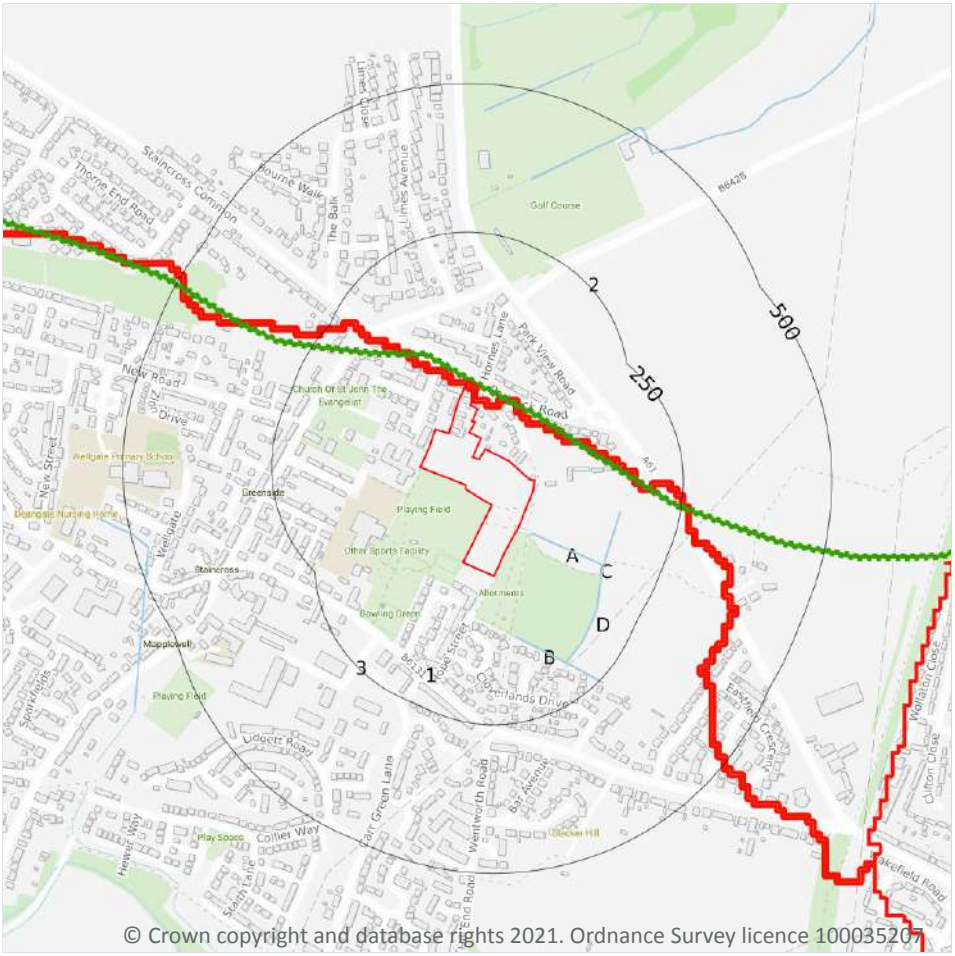
## 5.10 Source Protection Zones (confined aquifer)

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

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

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

# 6 Hydrology

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## 6.1 Water Network (OS MasterMap)

| Records within 250m | 13 |
|---|---|

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

Features are displayed on the Hydrology map on **page 53**

| ID | Location | Type of water feature | Ground level | Permanence | Name |
|---|---|---|---|---|---|
| A | 23m E | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |

| ID | Location | Type of water feature | Ground level | Permanence | Name |
|---|---|---|---|---|---|
| B | 108m S | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| C | 144m SE | Inland river not influenced by normal tidal action. | Underground | Watercourse contains water year round (in normal circumstances) | - |
| C | 148m SE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| C | 150m E | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| C | 155m E | Inland river not influenced by normal tidal action. | Underground | Watercourse contains water year round (in normal circumstances) | - |
| C | 155m E | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| C | 155m SE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| C | 158m SE | Inland river not influenced by normal tidal action. | Underground | Watercourse contains water year round (in normal circumstances) | - |
| D | 159m SE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| B | 187m SE | Inland river not influenced by normal tidal action. | Underground | Watercourse contains water year round (in normal circumstances) | - |
| B | 187m SE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |
| B | 189m SE | Inland river not influenced by normal tidal action. | On ground surface | Watercourse contains water year round (in normal circumstances) | - |

*This data is sourced from the Ordnance Survey.*

## 6.2 Surface water features

| Records within 250m | 6 |
|---|---|

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

Features are displayed on the Hydrology map on **page 53**

*This data is sourced from the Ordnance Survey.*

## 6.3 WFD Surface water body catchments

| Records on site | 2 |
|---|---|

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 53**

| ID | Location | Type | Water body catchment | Water body ID | Operational catchment | Management catchment |
|---|---|---|---|---|---|---|
| **2** | **On site** | **River WB catchment** | **Owler Beck from Source to River Calder** | **GB104027062530** | **Lower Calder** | **Aire and Calder** |
| **3** | **On site** | **River WB catchment** | **Dearne from Cawthorne Dyke to Lundwood STW** | **GB104027063171** | **Dearne** | **Don and Rother** |

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

## 6.4 WFD Surface water bodies

| Records identified | 2 |
|---|---|

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

Features are displayed on the Hydrology map on **page 53**

| ID | Location | Type | Name | Water body ID | Overall rating | Chemical rating | Ecological rating | Year |
|---|---|---|---|---|---|---|---|---|
| - | 1002m NE | River | Owler Beck from Source to River Calder | GB104027062530 | Moderate | Good | Moderate | 2016 |
| - | 1191m S | River | Dearne from Cawthorne Dyke to Lundwood STW | GB104027063171 | Moderate | Good | Moderate | 2016 |

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

## 6.5 WFD Groundwater bodies

| Records on site | 1 |
|---|---|

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

Features are displayed on the Hydrology map on **page 53**

| ID | Location | Name | Water body ID | Overall rating | Chemical rating | Quantitative | Year |
|---|---|---|---|---|---|---|---|
| **1** | **On site** | **Don & Rother Millstone grit & Coal Measures** | **GB40402G992300** | **Poor** | **Poor** | **Good** | **2015** |

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

# 7 River and coastal flooding

## 7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

| Records within 50m | 0 |
|---|---|

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

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

## 7.2 Historical Flood Events

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

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

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

## 7.3 Flood Defences

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

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

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

## 7.4 Areas Benefiting from Flood Defences

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

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

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

## 7.5 Flood Storage Areas

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

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

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

# River and coastal flooding - Flood Zones

## 7.6 Flood Zone 2

| Records within 50m | 0 |
|---|---|

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** | **Negligible** |
| **Highest risk within 50m** | **Negligible** |

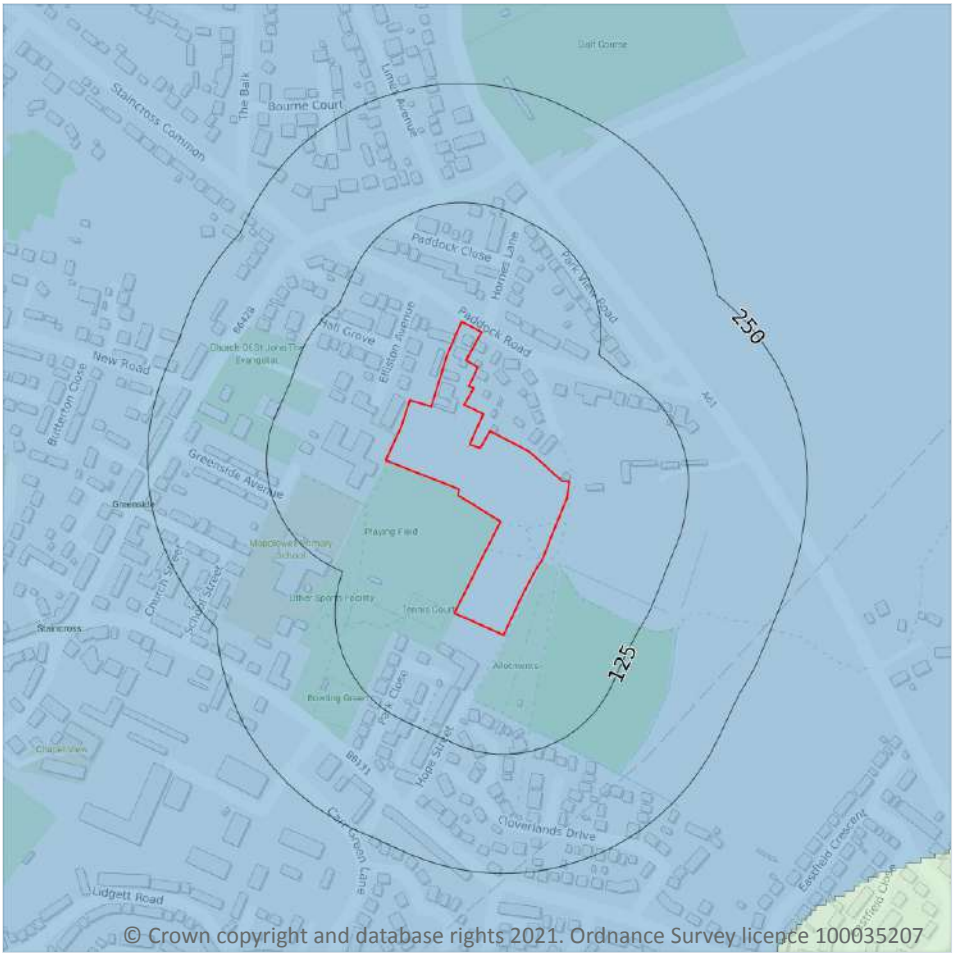
Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year 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.

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

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

*This data is sourced from Ambiental Risk Analytics.*

# 9 Groundwater flooding




Site Outline

Search buffers in metres (m)

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

## 9.1 Groundwater flooding

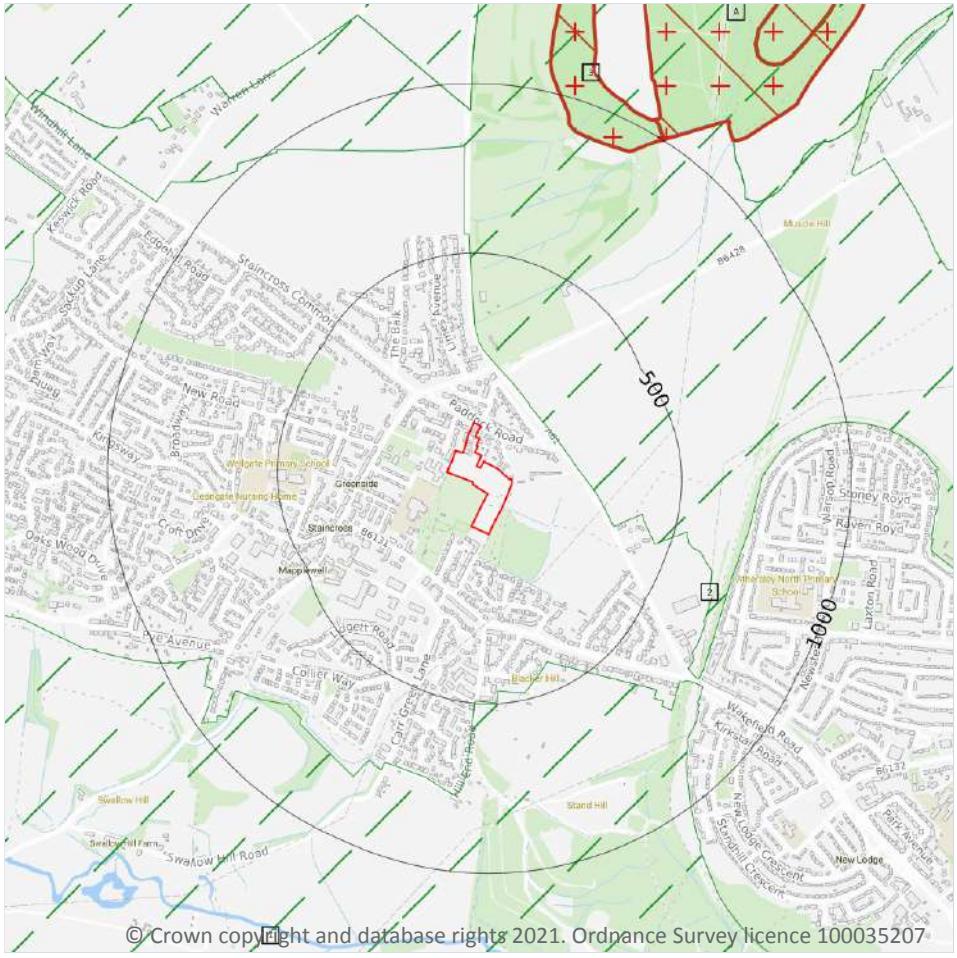
| | |
|---|---|
| **Highest risk on site** | **Negligible** |
| **Highest risk within 50m** | **Negligible** |

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 61**

*This data is sourced from Ambiental Risk Analytics.*

# 10 Environmental designations




Site Outline

Search buffers in metres (m)

Local Nature Reserves (LNR)

Designated Ancient Woodland

Green Belt

## 10.1 Sites of Special Scientific Interest (SSSI)

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

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

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

## 10.2 Conserved wetland sites (Ramsar sites)

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

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

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

## 10.3 Special Areas of Conservation (SAC)

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

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

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

## 10.4 Special Protection Areas (SPA)

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

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

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

## 10.5 National Nature Reserves (NNR)

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

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

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

## 10.6 Local Nature Reserves (LNR)

| Records within 2000m | 1 |
|---|---|

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

Features are displayed on the Environmental designations map on **page 62**

| ID | Location | Name | Data source |
|---|---|---|---|
| A | 907m N | Notton Wood | Natural England |

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

## 10.7 Designated Ancient Woodland

| Records within 2000m | 4 |
|---|---|

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 62**

| ID | Location | Name | Woodland Type |
|---|---|---|---|
| 3 | 906m N | Notton Park | Ancient Replanted Woodland |
| A | 1002m NE | Notton Park | Ancient & Semi-Natural Woodland |
| 6 | 1360m NE | Notton Park | Ancient Replanted Woodland |
| - | 1684m NW | Unknown | Ancient & Semi-Natural Woodland |

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

## 10.8 Biosphere Reserves

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

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

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

## 10.9 Forest Parks

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

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

*This data is sourced from the Forestry Commission.*

## 10.10 Marine Conservation Zones

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

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

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

## 10.11 Green Belt

| Records within 2000m | 4 |
|---|---|

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

Features are displayed on the Environmental designations map on **page 62**

| ID | Location | Name | Local Authority name |
|---|---|---|---|
| 1 | 153m NE | South and West Yorkshire | Barnsley |
| 2 | 659m E | South and West Yorkshire | Barnsley |
| 4 | 907m N | South and West Yorkshire | Wakefield |
| 5 | 1357m W | South and West Yorkshire | Barnsley |

*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 | 4 |
|---|---|

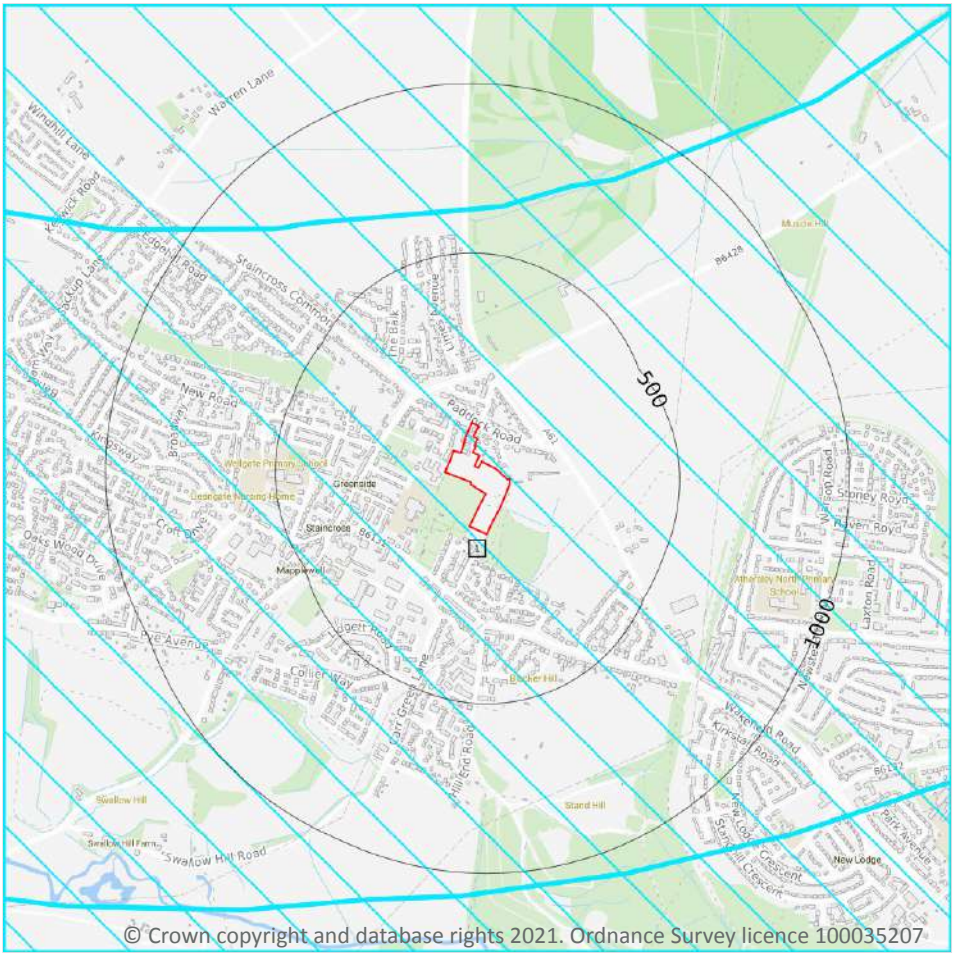
Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

| Location | Name | Type | NVZ ID | Status |
|---|---|---|---|---|
| **On site** | **River Dearne NVZ** | **Surface Water** | **S278** | **Existing** |

| Location | Name | Type | NVZ ID | Status |
|---|---|---|---|---|
| 7m N | Owler Beck from Source to River Calder NVZ | Surface Water | S268 | Existing |
| 551m NE | Owler Beck from Source to River Calder NVZ | Surface Water | S268 | Existing |
| 586m E | River Dearne NVZ | Surface Water | S278 | Existing |

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

# SSSI Impact Zones and Units



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Site Outline

Search buffers in metres (m)

SSSI Impact Risk Zones

SSSI Units

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

## 10.17 SSSI Impact Risk Zones

| Records on site | 1 |
|---|---|

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

Features are displayed on the SSSI Impact Zones and Units map on **page 68**

| ID | Location | Type of developments requiring consultation |
|---|---|---|
| **1** | **On site** | **Infrastructure - Airports, helipads and other aviation proposals.**<br>**Air pollution - Livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t.**<br>**Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion** |

*This data is sourced from Natural England.*

## 10.18 SSSI Units

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

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

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

# 11 Visual and cultural designations

## 11.1 World Heritage Sites

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

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

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

## 11.2 Area of Outstanding Natural Beauty

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

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

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

## 11.3 National Parks

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

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

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

## 11.4 Listed Buildings

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

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

*This data is sourced from English Heritage, Cadw and Historic Environment Scotland.*

## 11.5 Conservation Areas

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

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

*This data is sourced from English Heritage, Cadw and Historic Environment Scotland.*

## 11.6 Scheduled Ancient Monuments

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

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

*This data is sourced from English Heritage, Cadw and Historic Environment Scotland.*

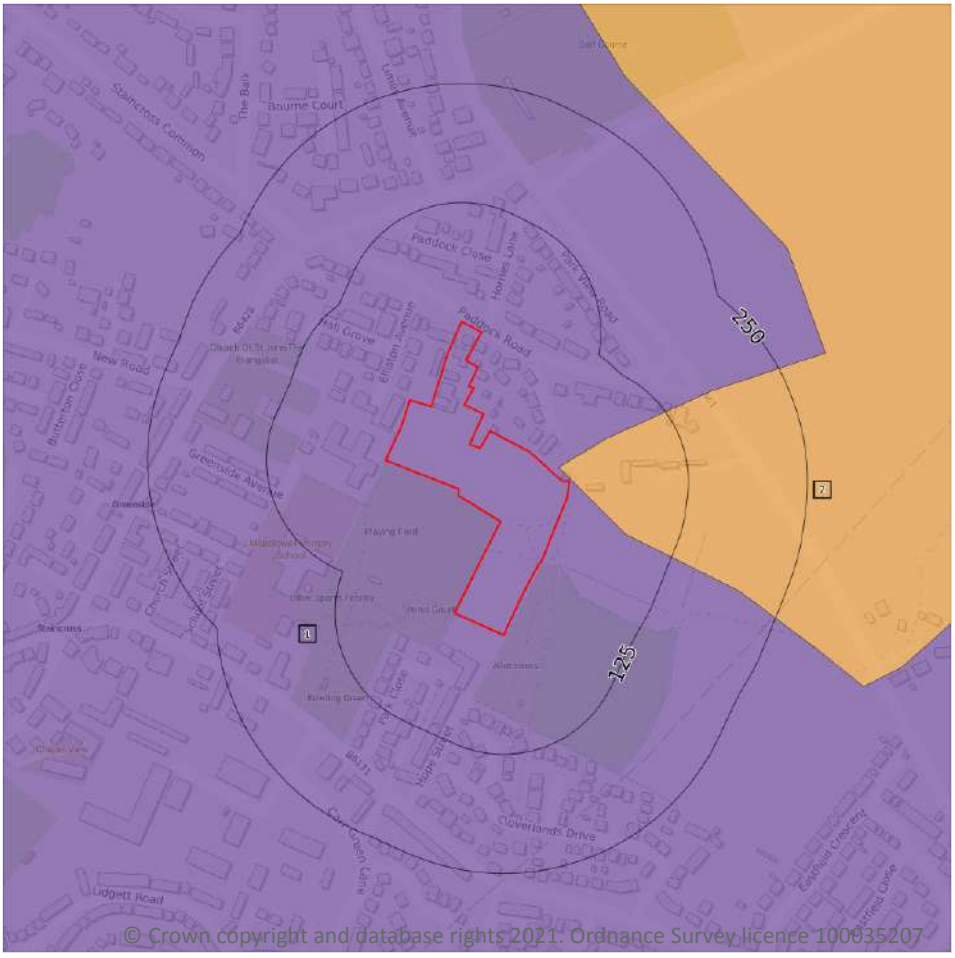
## 11.7 Registered Parks and Gardens

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

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

*This data is sourced from English Heritage, 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 | 2 |
|---|---|

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 72**

| ID | Location | Classification | Description |
|---|---|---|---|
| **1** | **On site** | **Urban** | **-** |
| 2 | 3m NE | Grade 3 | Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2. |

*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.

*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

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Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

## 14.1 10k Availability

| Records within 500m | 2 |
|---|---|

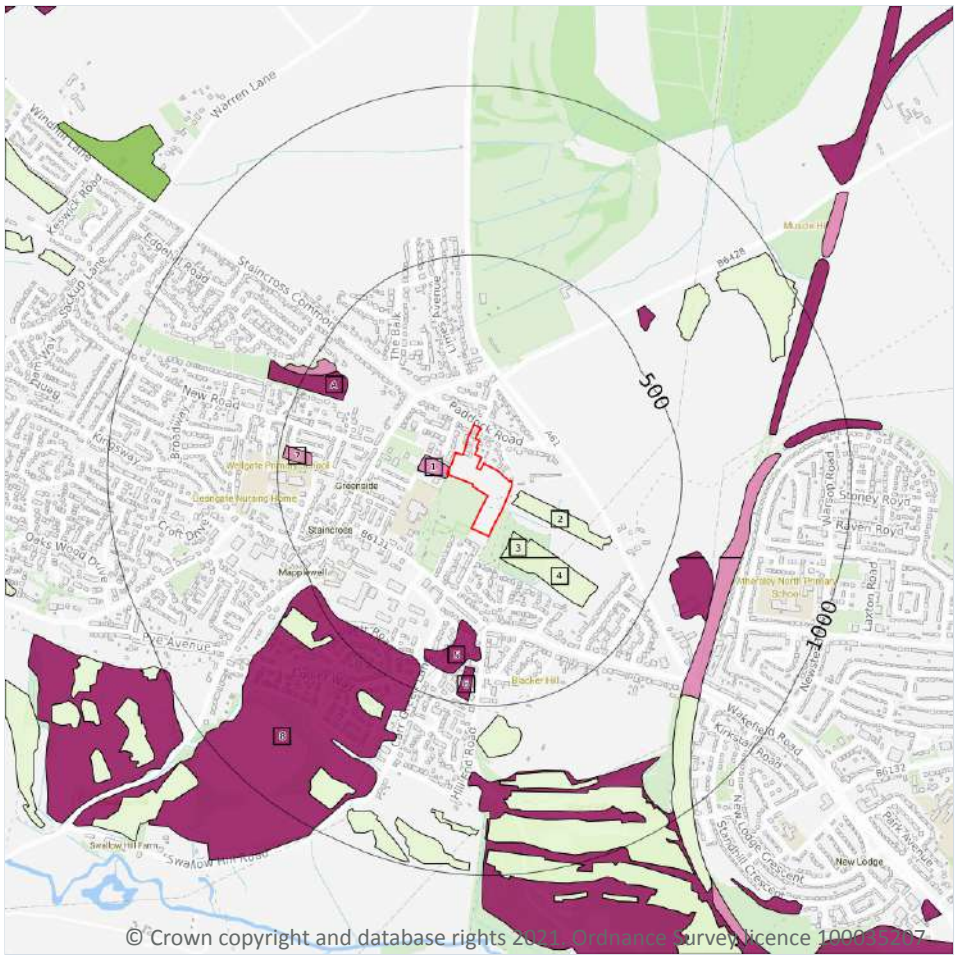
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 75**

| ID | Location | Artificial | Superficial | Bedrock | Mass movement | Sheet No. |
|---|---|---|---|---|---|---|
| **1** | **On site** | **Full** | **Full** | **Full** | **No coverage** | **SE31SW** |
| 2 | 64m S | Full | Full | Full | Full | SE30NW |

*This data is sourced from the British Geological Survey.*

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

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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 | 10 |
|---|---|

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.

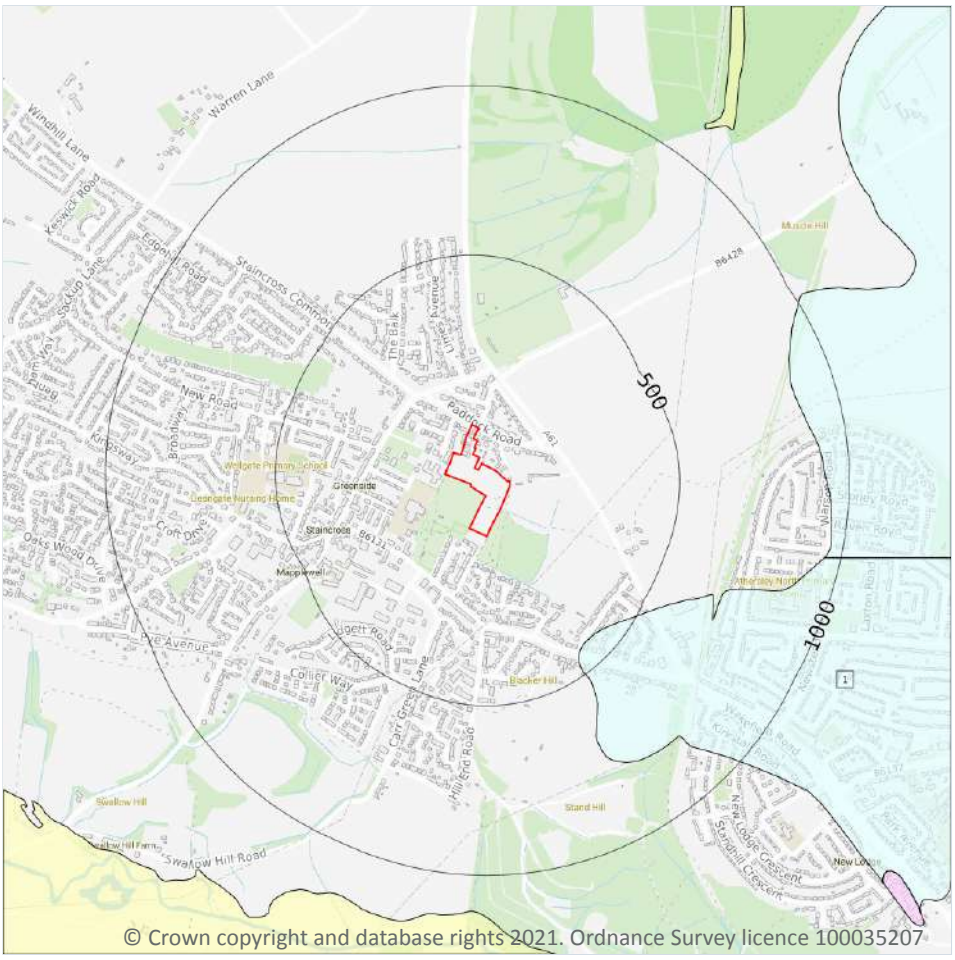
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 76**

| ID | Location | LEX Code | Description | Rock description |
|---|---|---|---|---|
| **1** | **On site** | **WGR-VOID** | **Worked Ground (Undivided)** | **Void** |
| 2 | 19m E | WMGR-ARTDP | Infilled Ground | Artificial Deposit |
| 3 | 61m SE | WMGR-ARTDP | Infilled Ground | Artificial Deposit |
| 4 | 72m SE | WMGR-ARTDP | Infilled Ground | Artificial Deposit |

| ID | Location | LEX Code | Description | Rock description |
|---|---|---|---|---|
| 5 | 258m S | MGR-ARTDP | Made Ground (Undivided) | Artificial Deposit |
| A | 366m NW | MGR-ARTDP | Made Ground (Undivided) | Artificial Deposit |
| 6 | 389m S | MGR-ARTDP | Made Ground (Undivided) | Artificial Deposit |
| 7 | 400m W | WGR-VOID | Worked Ground (Undivided) | Void |
| 8 | 414m SW | MGR-ARTDP | Made Ground (Undivided) | Artificial Deposit |
| A | 423m NW | WGR-VOID | Worked Ground (Undivided) | Void |

*This data is sourced from the British Geological Survey.*

# Geology 1:10,000 scale - Superficial




Site Outline

Search buffers in metres (m)

Landslip (10k)

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

## 14.3 Superficial geology (10k)

| Records within 500m | 1 |
|---|---|

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

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 78**

| ID | Location | LEX Code | Description | Rock description |
|---|---|---|---|---|
| 1 | 426m SE | TILMP-DMTN | Till, Mid Pleistocene - Diamicton | Diamicton |

*This data is sourced from the British Geological Survey.*

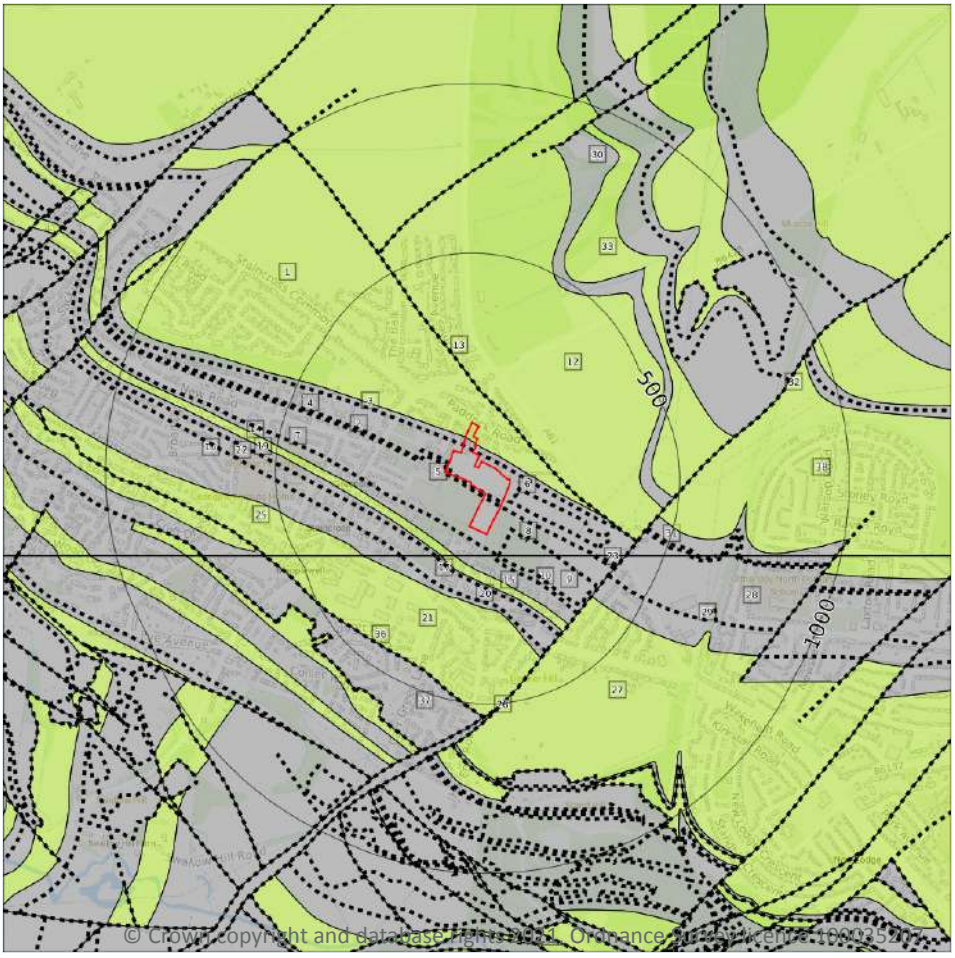
## 14.4 Landslip (10k)

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

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

*This data is sourced from the British Geological Survey.*

# Geology 1:10,000 scale - Bedrock




Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

## 14.5 Bedrock geology (10k)

| Records within 500m | 17 |
|---|---|

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 80**

| ID | Location | LEX Code | Description | Rock age |
|---|---|---|---|---|
| **1** | **On site** | **WE-SDST** | **Woolley Edge Rock - Sandstone** | **Duckmantian Sub-age** |
| **5** | **On site** | **PMCM-MDSS** | **Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone** | **Bolsovian Sub-age - Duckmantian Sub-age** |
| 9 | 64m S | PMCM-MDSS | Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone | Bolsovian Sub-age - Duckmantian Sub-age |

| ID | Location | LEX Code | Description | Rock age |
|---|---|---|---|---|
| 12 | 76m NE | WE-SDST | Woolley Edge Rock - Sandstone | Duckmantian Sub-age |
| 14 | 94m SW | PMCM-SDST | Pennine Middle Coal Measures Formation - Sandstone | Bolsovian Sub-age - Duckmantian Sub-age |
| 15 | 97m SW | PMCM-SDST | Pennine Middle Coal Measures Formation - Sandstone | Bolsovian Sub-age - Duckmantian Sub-age |
| 16 | 119m SW | PMCM-MDSS | Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone | Bolsovian Sub-age - Duckmantian Sub-age |
| 17 | 119m SW | PMCM-MDSS | Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone | Bolsovian Sub-age - Duckmantian Sub-age |
| 21 | 208m S | KNR-SDST | Kent's Rock - Sandstone | Duckmantian Sub-age |
| 25 | 325m W | KNR-SDST | Kent's Rock - Sandstone | Duckmantian Sub-age |
| 27 | 355m SE | WE-SDST | Woolley Edge Rock - Sandstone | Duckmantian Sub-age |
| 28 | 359m SE | PMCM-MDSS | Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone | Bolsovian Sub-age - Duckmantian Sub-age |
| 30 | 382m E | PMCM-MDSS | Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone | Bolsovian Sub-age - Duckmantian Sub-age |
| 31 | 397m E | PMCM-MDSS | Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone | Bolsovian Sub-age - Duckmantian Sub-age |
| 33 | 417m E | PMCM-SDST | Pennine Middle Coal Measures Formation - Sandstone | Bolsovian Sub-age - Duckmantian Sub-age |
| 37 | 434m SW | PMCM-MDSS | Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone | Bolsovian Sub-age - Duckmantian Sub-age |
| 38 | 448m E | OR-SDST | Oaks Rock - Sandstone | Duckmantian Sub-age |

*This data is sourced from the British Geological Survey.*

## 14.6 Bedrock faults and other linear features (10k)

| **Records within 500m** | **21** |
|---|---|

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

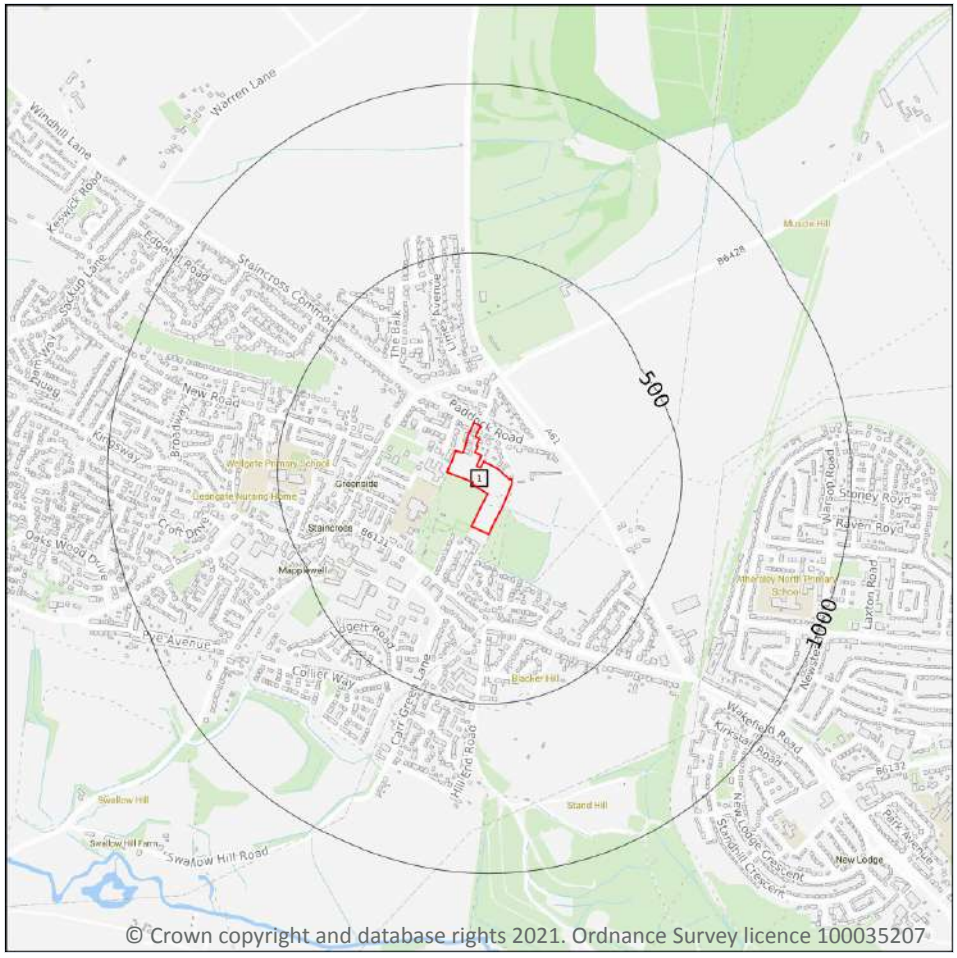
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 80**

| ID | Location | Category | Description |
|---|---|---|---|
| **2** | **On site** | **ROCK** | **Coal seam, inferred** |

| ID | Location | Category | Description |
|---|---|---|---|
| **3** | **On site** | **ROCK** | **Coal seam, inferred** |
| **4** | **On site** | **FOSSIL_HORIZON** | **Fossil horizon, marine band** |
| 6 | 19m E | ROCK | Coal seam, observed |
| 7 | 31m SW | ROCK | Coal seam, inferred |
| 8 | 61m SE | ROCK | Coal seam, observed |
| 10 | 66m S | ROCK | Coal seam, observed |
| 11 | 72m SE | ROCK | Coal seam, observed |
| 13 | 76m NE | FAULT | Normal fault, inferred |
| 18 | 131m SW | ROCK | Coal seam, inferred |
| 19 | 131m SW | ROCK | Coal seam, inferred |
| 20 | 193m S | ROCK | Coal seam, inferred |
| 22 | 220m SW | ROCK | Coal seam, inferred |
| 23 | 308m SE | ROCK | Coal seam, inferred |
| 24 | 323m SE | FOSSIL_HORIZON | Fossil horizon, marine band |
| 26 | 355m SE | FAULT | Normal fault, inferred |
| 29 | 376m SE | ROCK | Coal seam, inferred |
| 32 | 397m E | FAULT | Normal fault, inferred |
| 34 | 422m E | ROCK | Coal seam, inferred |
| 35 | 426m E | FOSSIL_HORIZON | Fossil horizon, marine band |
| 36 | 434m SW | ROCK | Coal seam, inferred |

*This data is sourced from the British Geological Survey.*

# 15 Geology 1:50,000 scale - Availability




Site Outline

Search buffers in metres (m)

Geological map tile

## 15.1 50k Availability

| Records within 500m | 1 |
|---|---|

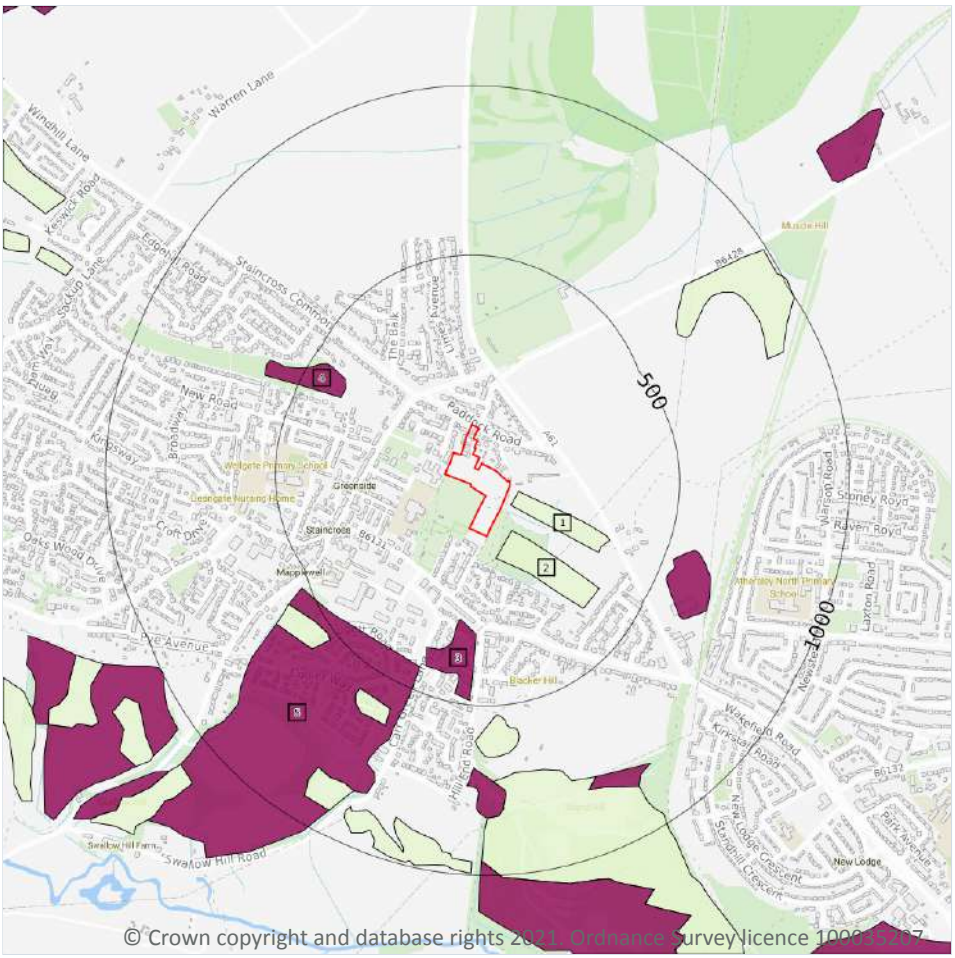
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 83**

| ID | Location | Artificial | Superficial | Bedrock | Mass movement | Sheet No. |
|---|---|---|---|---|---|---|
| **1** | **On site** | **No coverage** | **Full** | **Full** | **Full** | **EW087_barnsley_v4** |

*This data is sourced from the British Geological Survey.*

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

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Site Outline

Search buffers in metres (m)

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

## 15.2 Artificial and made ground (50k)

| Records within 500m | 5 |
|---|---|

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 84**

| ID | Location | LEX Code | Description | Rock description |
|---|---|---|---|---|
| 1 | 24m E | WMGR-ARTDP | INFILLED GROUND | ARTIFICIAL DEPOSIT |
| 2 | 56m SE | WMGR-ARTDP | INFILLED GROUND | ARTIFICIAL DEPOSIT |
| 3 | 257m S | MGR-ARTDP | MADE GROUND (UNDIVIDED) | ARTIFICIAL DEPOSIT |
| 4 | 369m NW | MGR-ARTDP | MADE GROUND (UNDIVIDED) | ARTIFICIAL DEPOSIT |

| ID | Location | LEX Code | Description | Rock description |
|---|---|---|---|---|
| 5 | 424m SW | MGR-ARTDP | MADE GROUND (UNDIVIDED) | ARTIFICIAL DEPOSIT |

*This data is sourced from the British Geological Survey.*

## 15.3 Artificial ground permeability (50k)

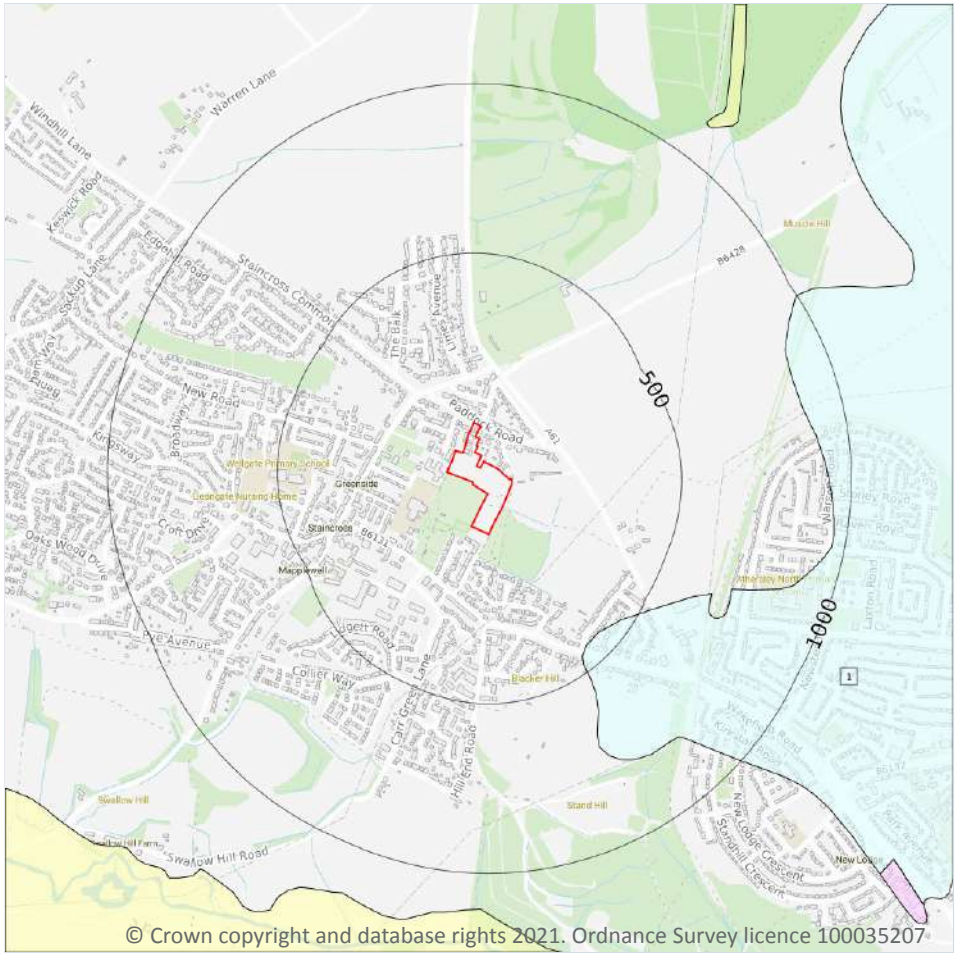
| **Records within 50m** | **1** |
|---|---|

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

| Location | Flow type | Maximum permeability | Minimum permeability |
|---|---|---|---|
| 24m SE | Mixed | Very High | Low |

*This data is sourced from the British Geological Survey.*

# Geology 1:50,000 scale - Superficial




Site Outline

Search buffers in metres (m)

Landslip (50k)

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

## 15.4 Superficial geology (50k)

| Records within 500m | 1 |
|---|---|

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 86**

| ID | Location | LEX Code | Description | Rock description |
|---|---|---|---|---|
| 1 | 433m SE | TILMP-DMTN | TILL, MID PLEISTOCENE | DIAMICTON |

*This data is sourced from the British Geological Survey.*

## 15.5 Superficial 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 superficial deposits (the zone between the land surface and the water table).

*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.*

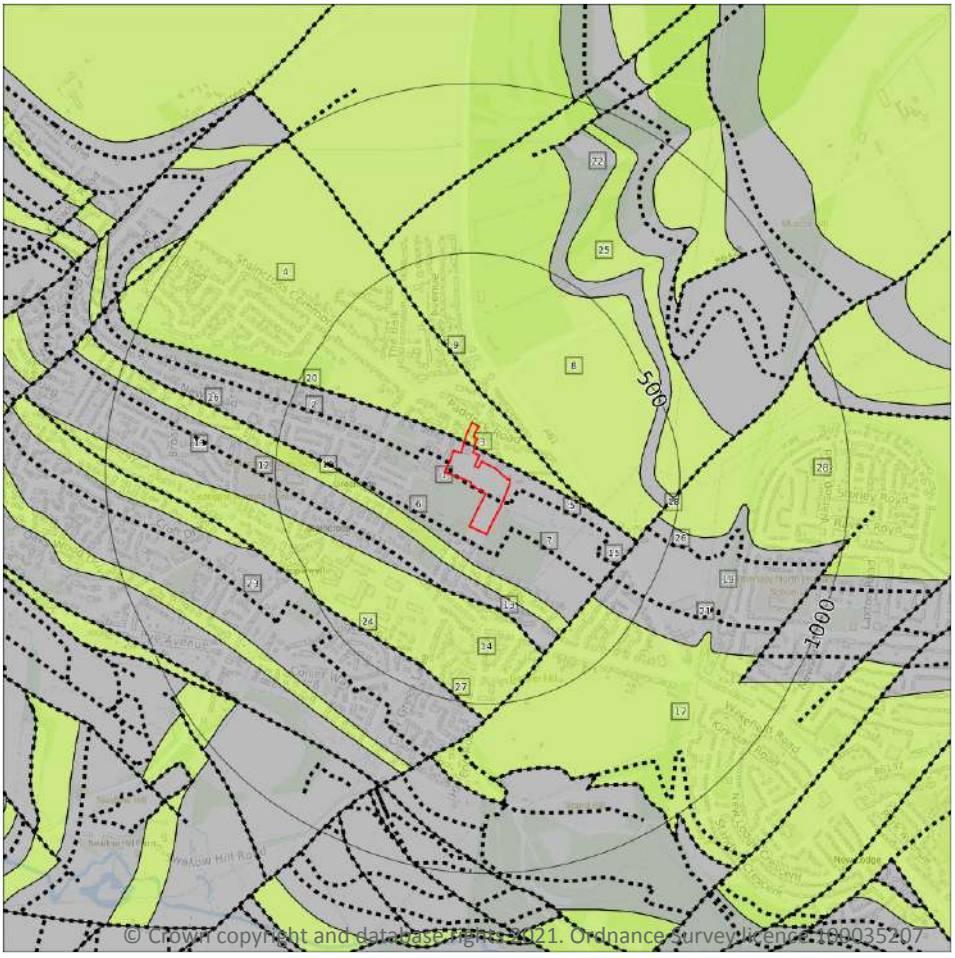
## 15.7 Landslip permeability (50k)

| 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 | 12 |
|---|---|

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 88**

| ID | Location | LEX Code | Description | Rock age |
|---|---|---|---|---|
| **1** | **On site** | **PMCM-MDSS** | **PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE** | **WESTPHALIAN** |
| **4** | **On site** | **WE-SDST** | **WOOLLEY EDGE ROCK - SANDSTONE** | **WESTPHALIAN** |
| 8 | 76m NE | WE-SDST | WOOLLEY EDGE ROCK - SANDSTONE | WESTPHALIAN |

| ID | Location | LEX Code | Description | Rock age |
|---|---|---|---|---|
| 10 | 82m SW | PMCM-SDST | PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE | WESTPHALIAN |
| 11 | 129m SW | PMCM-MDSS | PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE | WESTPHALIAN |
| 14 | 199m S | KNR-SDST | KENT'S ROCK - SANDSTONE | WESTPHALIAN |
| 17 | 355m SE | WE-SDST | WOOLLEY EDGE ROCK - SANDSTONE | WESTPHALIAN |
| 19 | 359m SE | PMCM-MDSS | PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE | WESTPHALIAN |
| 22 | 382m E | PMCM-MDSS | PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE | WESTPHALIAN |
| 23 | 424m SW | PMCM-MDSS | PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE | WESTPHALIAN |
| 25 | 425m E | PMCM-SDST | PENNINE MIDDLE COAL MEASURES FORMATION - SANDSTONE | WESTPHALIAN |
| 28 | 447m E | OR-SDST | OAKS ROCK - SANDSTONE | WESTPHALIAN |

*This data is sourced from the British Geological Survey.*

## 15.9 Bedrock permeability (50k)

| **Records within 50m** | **2** |
|---|---|

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

| Location | Flow type | Maximum permeability | Minimum permeability |
|---|---|---|---|
| **On site** | **Fracture** | **High** | **Moderate** |
| **On site** | **Fracture** | **Moderate** | **Low** |

*This data is sourced from the British Geological Survey.*

## 15.10 Bedrock faults and other linear features (50k)

| **Records within 500m** | **16** |
|---|---|

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

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 88**

| ID | Location | Category | Description |
|---|---|---|---|
| **2** | **On site** | **ROCK** | **Coal seam, inferred** |
| **3** | **On site** | **ROCK** | **Coal seam, inferred** |
| 5 | 24m E | ROCK | Coal seam, inferred |
| 6 | 39m SW | ROCK | Coal seam, inferred |
| 7 | 56m SE | ROCK | Coal seam, inferred |
| 9 | 76m NE | FAULT | Fault, inferred |
| 12 | 196m SW | ROCK | Coal seam, inferred |
| 13 | 199m S | ROCK | Coal seam, inferred |
| 15 | 316m SE | ROCK | Coal seam, inferred |
| 16 | 341m W | ROCK | Coal seam, inferred |
| 18 | 355m SE | FAULT | Fault, inferred |
| 20 | 369m NW | ROCK | Coal seam, inferred |
| 21 | 376m SE | ROCK | Coal seam, inferred |
| 24 | 424m SW | ROCK | Coal seam, inferred |
| 26 | 426m E | ROCK | Coal seam, inferred |
| 27 | 432m SW | ROCK | Coal seam, inferred |

*This data is sourced from the British Geological Survey.*

# 16 Boreholes

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Site Outline

Search buffers in metres (m)

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

## 16.1 BGS Boreholes

| Records within 250m | 9 |
|---|---|

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.

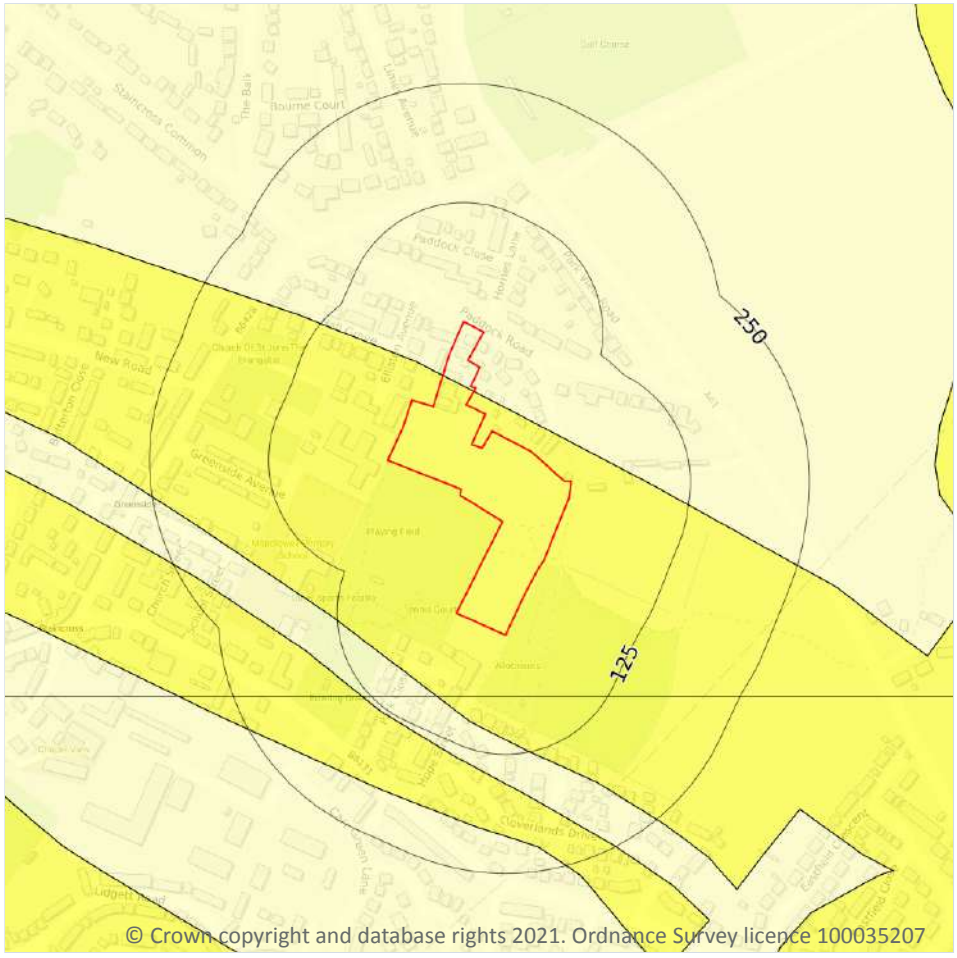
Features are displayed on the Boreholes map on **page 91**

| ID | Location | Grid reference | Name | Length | Confidential | Web link |
|---|---|---|---|---|---|---|
| 1 | 150m NE | 433492 410529 | WOOLLEY COLLIERY NO.64 UGBH | 92.89 | N | 85842 |
| A | 214m W | 433210 410050 | MAPPLEWELL JUNIOR SCHOOL BLACKER ROAD BH9 | - | Y | N/A |

| ID | Location | Grid reference | Name | Length | Confidential | Web link |
|---|---|---|---|---|---|---|
| A | 214m W | 433210 410050 | MAPPLEWELL JUNIOR SCHOOL BLACKER ROAD TP1 | - | Y | N/A |
| A | 216m W | 433210 410040 | MAPPLEWELL JUNIOR SCHOOL BLACKER ROAD BH6 | - | Y | N/A |
| A | 218m W | 433210 410030 | MAPPLEWELL JUNIOR SCHOOL BLACKER ROAD BH7 | - | Y | N/A |
| A | 222m W | 433200 410060 | MAPPLEWELL JUNIOR SCHOOL BLACKER ROAD BH4 | - | Y | N/A |
| A | 224m W | 433200 410050 | MAPPLEWELL JUNIOR SCHOOL BLACKER ROAD BH5 | - | Y | N/A |
| A | 232m W | 433190 410060 | MAPPLEWELL JUNIOR SCHOOL BLACKER ROAD BH3 | - | Y | N/A |
| A | 241m W | 433180 410070 | MAPPLEWELL JUNIOR SCHOOL BLACKER ROAD BH2 | - | Y | N/A |

*This data is sourced from the British Geological Survey.*

# 17 Natural ground subsidence - Shrink swell clays

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Site Outline

Search buffers in metres (m)

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

## 17.1 Shrink swell clays

| Records within 50m | 2 |
|---|---|

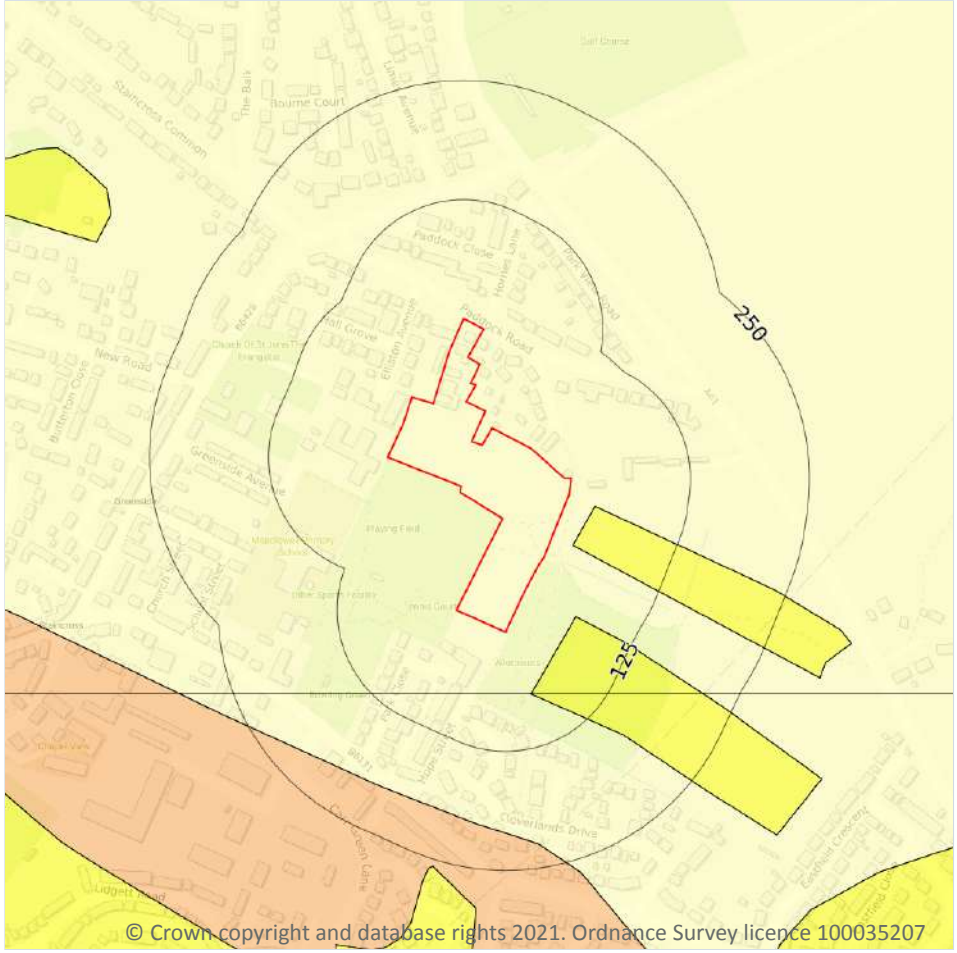
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 93**

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

*This data is sourced from the British Geological Survey.*

# Natural ground subsidence - Running sands




Site Outline

Search buffers in metres (m)

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

## 17.2 Running sands

| Records within 50m | 2 |
|---|---|

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

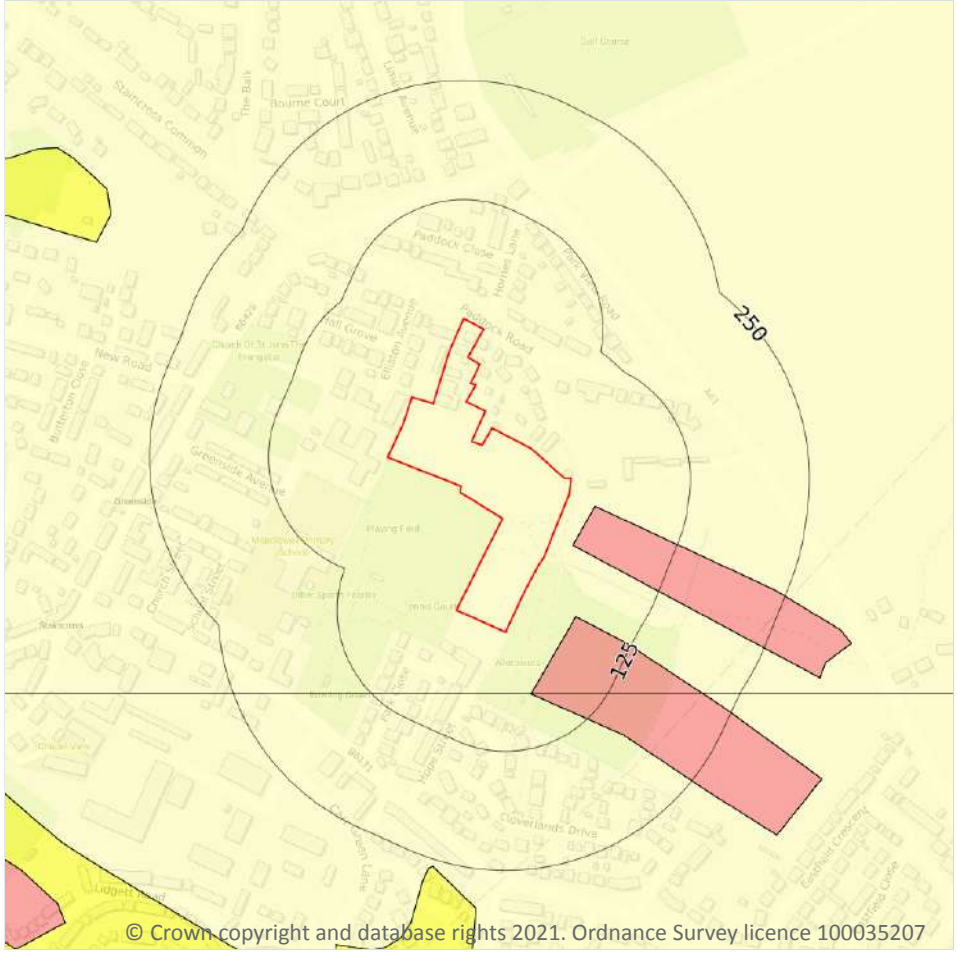
Features are displayed on the Natural ground subsidence - Running sands map on **page 94**

| Location | Hazard rating | Details |
|---|---|---|
| **On site** | **Negligible** | **Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.** |

| Location | Hazard rating | Details |
|---|---|---|
| 24m E | Very low | Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly. |

*This data is sourced from the British Geological Survey.*

# Natural ground subsidence - Compressible deposits




Site Outline

Search buffers in metres (m)

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

## 17.3 Compressible deposits

| Records within 50m | 2 |
|---|---|

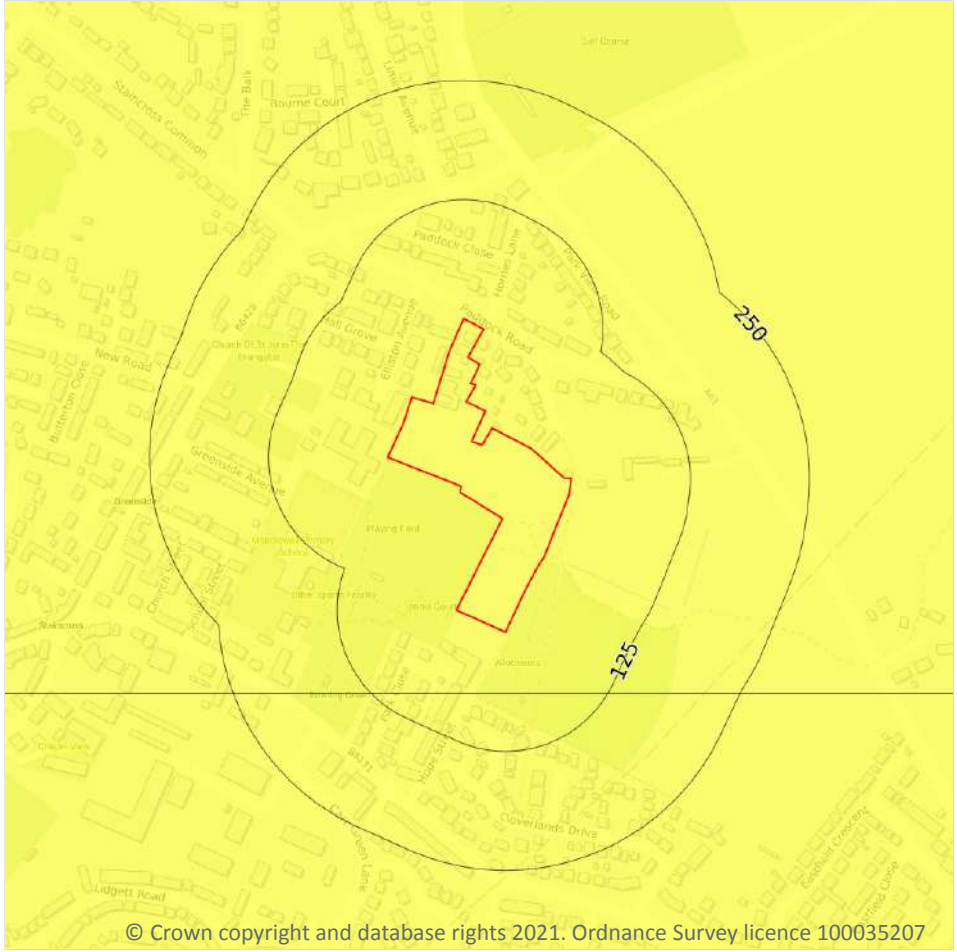
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 96**

| Location | Hazard rating | Details |
|---|---|---|
| **On site** | **Negligible** | **Compressible strata are not thought to occur.** |
| 24m E | Moderate | Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site. |

*This data is sourced from the British Geological Survey.*

# Natural ground subsidence - Collapsible deposits




Site Outline

Search buffers in metres (m)

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

## 17.4 Collapsible deposits

| Records within 50m | 1 |
|---|---|

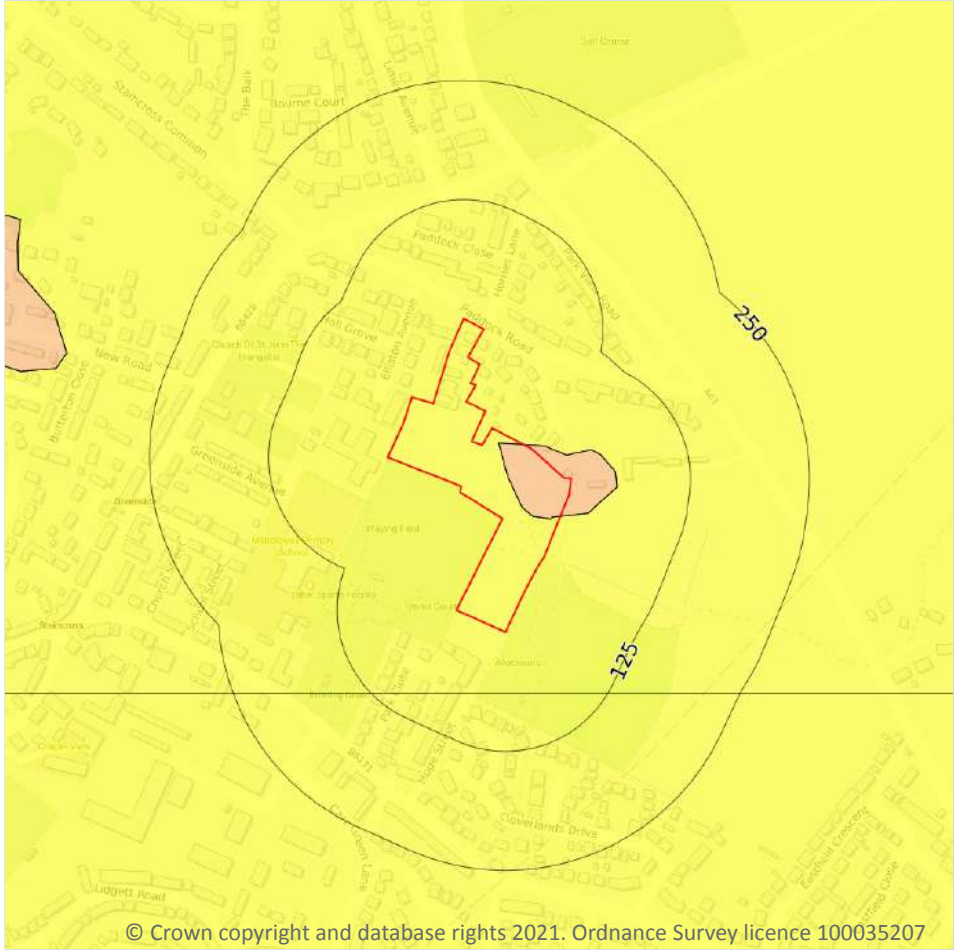
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 98**

| 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

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Site Outline

Search buffers in metres (m)

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

## 17.5 Landslides

| Records within 50m | 2 |
|---|---|

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.

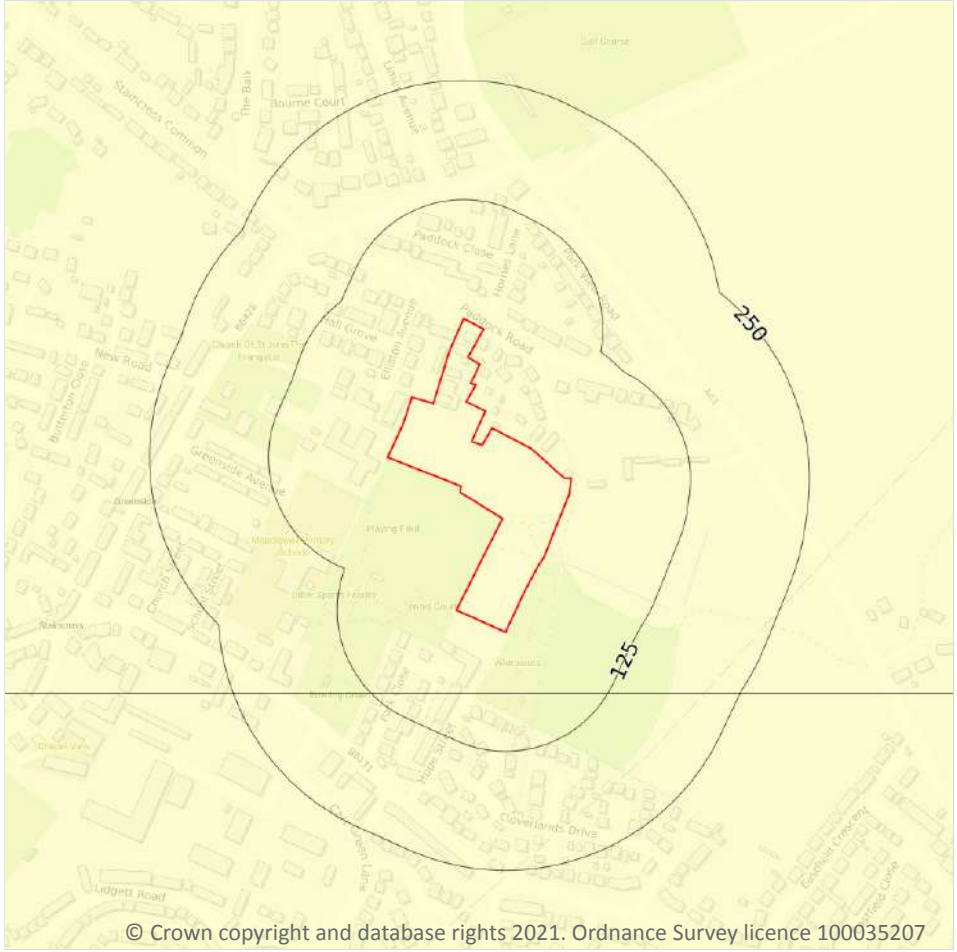
Features are displayed on the Natural ground subsidence - Landslides map on **page 99**

| 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.** |

| Location | Hazard rating | Details |
|---|---|---|
| **On site** | **Low** | **Slope instability problems may be present or anticipated. Site investigation should consider specifically the slope stability of the site.** |

*This data is sourced from the British Geological Survey.*

# Natural ground subsidence - Ground dissolution of soluble rocks

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Site Outline

Search buffers in metres (m)

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

## 17.6 Ground dissolution of soluble rocks

| Records within 50m | 1 |
|---|---|

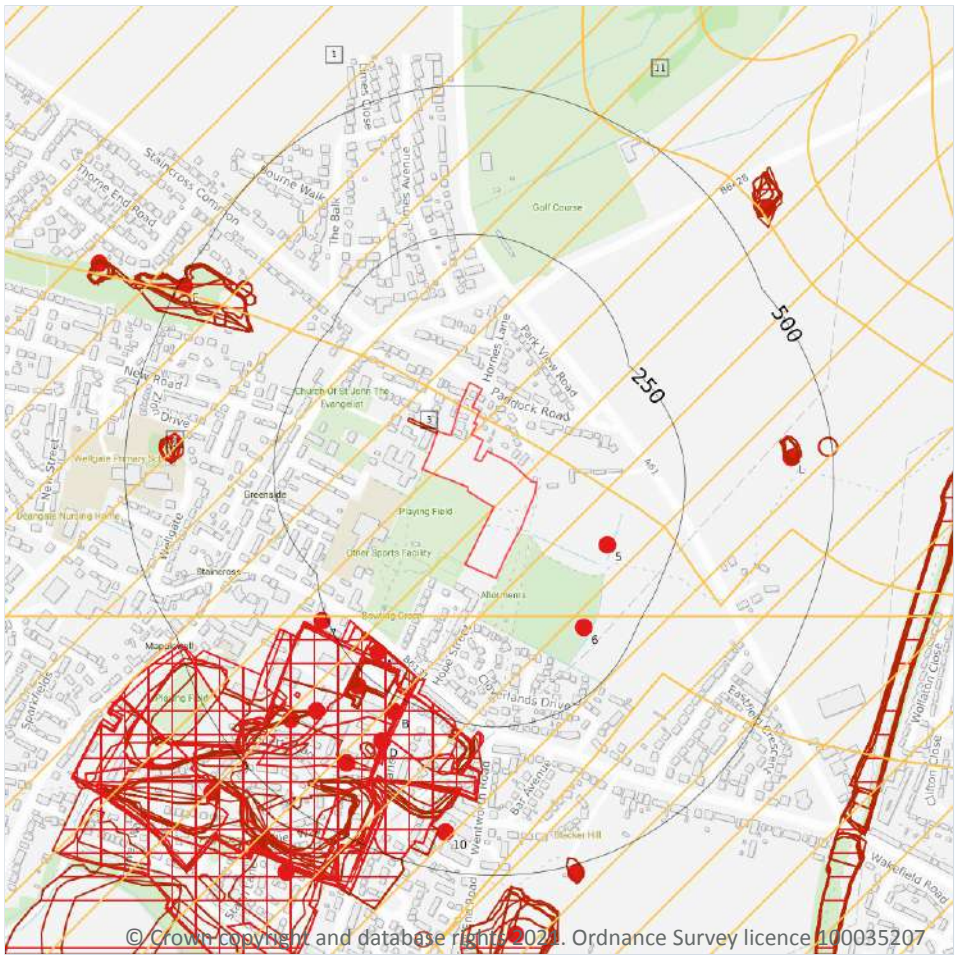
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 101**

| 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 Peter Brett Associates (PBA).*

## 18.2 BritPits

| Records within 500m | 15 |
|---|---|

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 103**

| ID | Location | Details | Description |
|---|---|---|---|
| 5 | 145m E | Name: Tipsey Hill OCCS<br>Address: Staincross, BARNSLEY, South Yorkshire<br>Commodity: Coal, Surface Mined<br>Status: Ceased | Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| 6 | 169m SE | Name: Tipsey Hill OCCS<br>Address: Staincross, BARNSLEY, South Yorkshire<br>Commodity: Coal, Surface Mined<br>Status: Ceased | Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| A | 208m SW | Name: Blacker Mine<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| A | 209m SW | Name: Blacker Mine<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |

| ID | Location | Details | Description |
|---|---|---|---|
| 7 | 258m W | Name: Silly Row Pit<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| A | 272m SW | Name: North Gawber Colliery, No. 1 Mine<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| B | 275m SW | Name: North Gawber Colliery<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| D | 328m SW | Name: North Gawber Colliery<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| A | 350m SW | Name: North Gawber Colliery, Lidgett Shaft<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |

| ID | Location | Details | Description |
|---|---|---|---|
| A | 351m SW | Name: North Gawber Colliery, Barnsley Shaft<br>Address: Mapplewell, Darton, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| D | 388m SW | Name: North Gawber Colliery<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| A | 392m SW | Name: North Gawber Colliery, No. 2 Mine<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| L | 430m E | Name: Tipsey Lodge<br>Address: Darton, BARNSLEY, South Yorkshire<br>Commodity: Sandstone<br>Status: Ceased | Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |
| 10 | 436m S | Name: Wentworth Road Shaft<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Coal, Deep<br>Status: Ceased | Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |

| ID | Location | Details | Description |
|---|---|---|---|
| E | 490m NW | Name: Lane End<br>Address: Mapplewell, BARNSLEY, South Yorkshire<br>Commodity: Sandstone<br>Status: Ceased | Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site<br>Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority |

*This data is sourced from the British Geological Survey.*

## 18.3 Surface ground workings

| Records within 250m | 22 |
|---|---|

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 103**

| ID | Location | Land Use | Year of mapping | Mapping scale |
|---|---|---|---|---|
| **3** | **On site** | **Pond** | **1891** | **1:10560** |
| A | 196m SW | Colliery | 1938 | 1:10560 |
| A | 196m SW | Colliery | 1938 | 1:10560 |
| A | 196m SW | Colliery | 1930 | 1:10560 |
| A | 196m SW | Colliery | 1930 | 1:10560 |
| A | 196m SW | Colliery | 1930 | 1:10560 |
| A | 196m SW | Colliery | 1930 | 1:10560 |
| A | 198m SW | Colliery | 1982 | 1:10000 |
| A | 210m SW | Colliery | 1951 | 1:10560 |
| A | 210m SW | Reservoirs | 1951 | 1:10560 |
| A | 214m SW | Colliery | 1904 | 1:10560 |
| A | 214m SW | Colliery | 1948 | 1:10560 |
| A | 214m SW | Reservoirs | 1948 | 1:10560 |
| A | 214m SW | Reservoirs | 1904 | 1:10560 |
| A | 214m SW | Ponds | 1891 | 1:10560 |
| B | 216m SW | Pond | 1973 | 1:10000 |

| ID | Location | Land Use | Year of mapping | Mapping scale |
|---|---|---|---|---|
| B | 216m SW | Pond | 1966 | 1:10560 |
| A | 216m SW | Reservoirs | 1930 | 1:10560 |
| A | 216m SW | Reservoirs | 1930 | 1:10560 |
| A | 216m SW | Reservoirs | 1930 | 1:10560 |
| A | 216m SW | Reservoirs | 1930 | 1:10560 |
| A | 217m SW | Reservoirs | 1938 | 1:10560 |

*This is data is sourced from Ordnance Survey/Groundsure.*

## 18.4 Underground workings

| Records within 1000m | 21 |
|---|---|

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 103**

| ID | Location | Land Use | Year of mapping | Mapping scale |
|---|---|---|---|---|
| A | 198m SW | Unspecified Mine | 1966 | 1:10560 |
| A | 198m SW | Unspecified Mine | 1973 | 1:10000 |
| A | 198m SW | Colliery | 1982 | 1:10000 |
| A | 210m SW | Colliery | 1951 | 1:10560 |
| A | 214m SW | Colliery | 1904 | 1:10560 |
| A | 214m SW | Colliery | 1948 | 1:10560 |
| A | 296m SW | Colliery | 1891 | 1:10560 |
| A | 353m SW | Unspecified Shaft | 1948 | 1:10560 |
| A | 397m SW | Unspecified Shaft | 1951 | 1:10560 |
| J | 407m W | Old Coal Pit | 1904 | 1:10560 |
| - | 714m S | Unspecified Old Shaft | 1951 | 1:10560 |
| - | 722m S | Unspecified Old Shaft | 1948 | 1:10560 |
| - | 722m S | Unspecified Old Shaft | 1904 | 1:10560 |
| - | 768m S | Unspecified Old Shaft | 1951 | 1:10560 |

| ID | Location | Land Use | Year of mapping | Mapping scale |
|---|---|---|---|---|
| - | 768m S | Disused Colliery | 1890 | 1:10560 |
| - | 772m W | Unspecified Old Shaft | 1948 | 1:10560 |
| - | 775m S | Unspecified Old Shaft | 1948 | 1:10560 |
| - | 909m SW | Air Shaft | 1951 | 1:10560 |
| - | 913m SW | Air Shaft | 1948 | 1:10560 |
| - | 913m SW | Air Shaft | 1904 | 1:10560 |
| - | 929m W | Old Coal Pit | 1904 | 1:10560 |

*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 | 6 |
|---|---|

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 103**

| ID | Location | Name | Commodity | Class | Likelihood |
|---|---|---|---|---|---|
| **1** | **On site** | **Sheffield Area** | **Vein Mineral/Iron ore** | **B** | **Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered** |
| **2** | **On site** | **Not available** | **Iron Ore (Bedded)** | **B** | **Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered** |

| ID | Location | Name | Commodity | Class | Likelihood |
|---|---|---|---|---|---|
| 4 | 64m S | Not available | Iron Ore (Bedded) | B | Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered |
| 8 | 318m SE | Sheffield Area | Vein Mineral/Iron ore | B | Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered |
| 11 | 491m NE | Not available | Iron Ore (Bedded) | B | Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered |
| 16 | 824m NE | Not available | Iron Ore (Bedded) | B | Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered |

*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 Peter Brett Associates (PBA).*

## 18.8 JPB mining areas

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

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

*This data is sourced from Johnson Poole and Bloomer.*

## 18.9 Coal mining

| Records on site | 1 |
|---|---|

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

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

*This data is sourced from the Coal Authority.*

## 18.10 Brine areas

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

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

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

## 18.11 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

*This data is sourced from British Gypsum.*

## 18.12 Tin mining

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

Generalised areas that may be affected by historical tin mining.

*This data is sourced from Mining Searches UK.*

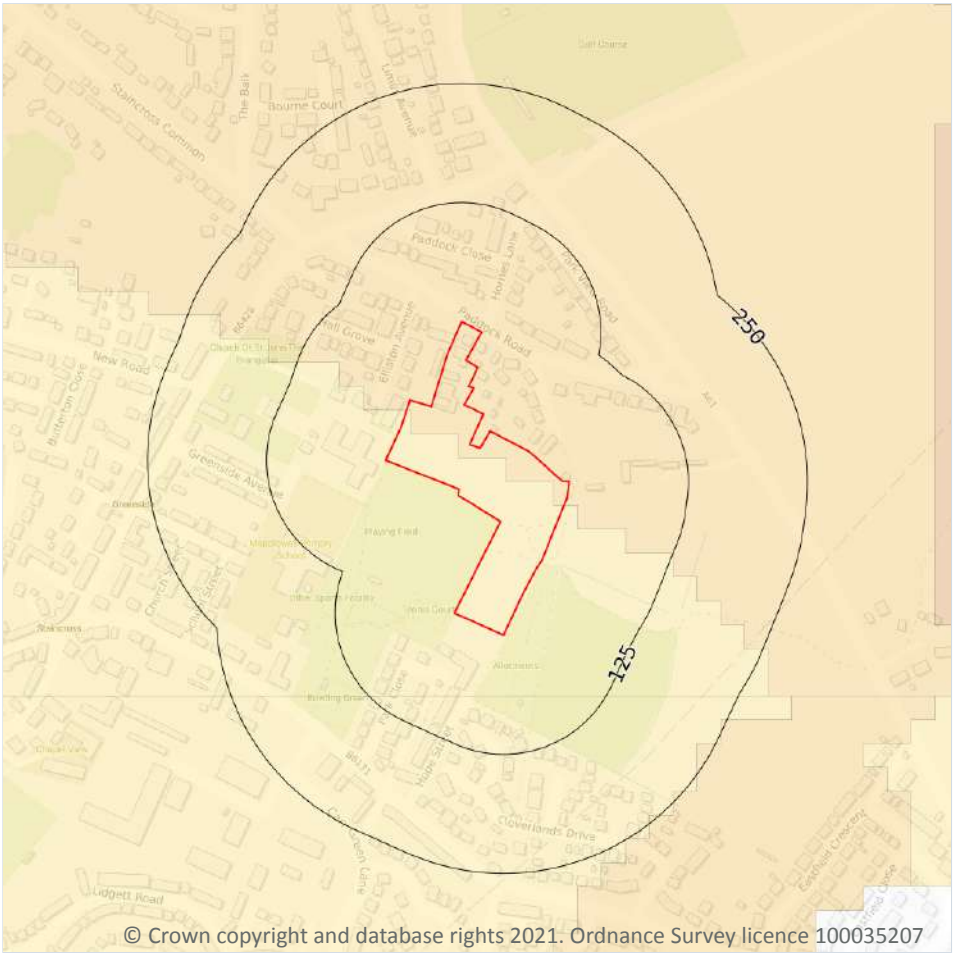
## 18.13 Clay mining

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

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

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

# 19 Radon




Site Outline

Search buffers in metres (m)

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

## 19.1 Radon

| Records on site | 2 |
|---|---|

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

Features are displayed on the Radon map on **page 112**

| Location | Estimated properties affected | Radon Protection Measures required |
|---|---|---|
| **On site** | **Between 3% and 5%** | **Basic** |
| **On site** | **Between 1% and 3%** | **None** |

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

# 20 Soil chemistry

## 20.1 BGS Estimated Background Soil Chemistry

| Records within 50m | 4 |
|---|---|

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

| Location | Arsenic | Bioaccessible Arsenic | Lead | Bioaccessible Lead | Cadmium | Chromium | Nickel |
|---|---|---|---|---|---|---|---|
| **On site** | **15 - 25 mg/kg** | **No data** | **100 mg/kg** | **60 mg/kg** | **1.8 mg/kg** | **60 - 90 mg/kg** | **15 - 30 mg/kg** |
| **On site** | **15 - 25 mg/kg** | **No data** | **100 mg/kg** | **60 mg/kg** | **1.8 mg/kg** | **90 - 120 mg/kg** | **15 - 30 mg/kg** |
| **On site** | **15 - 25 mg/kg** | **No data** | **100 mg/kg** | **60 mg/kg** | **1.8 mg/kg** | **90 - 120 mg/kg** | **15 - 30 mg/kg** |
| 46m NE | 15 - 25 mg/kg | No data | 100 mg/kg | 60 mg/kg | 1.8 mg/kg | 60 - 90 mg/kg | 15 - 30 mg/kg |

*This data is sourced from the British Geological Survey.*

## 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 $km^2$).

*This data is sourced from the British Geological Survey.*

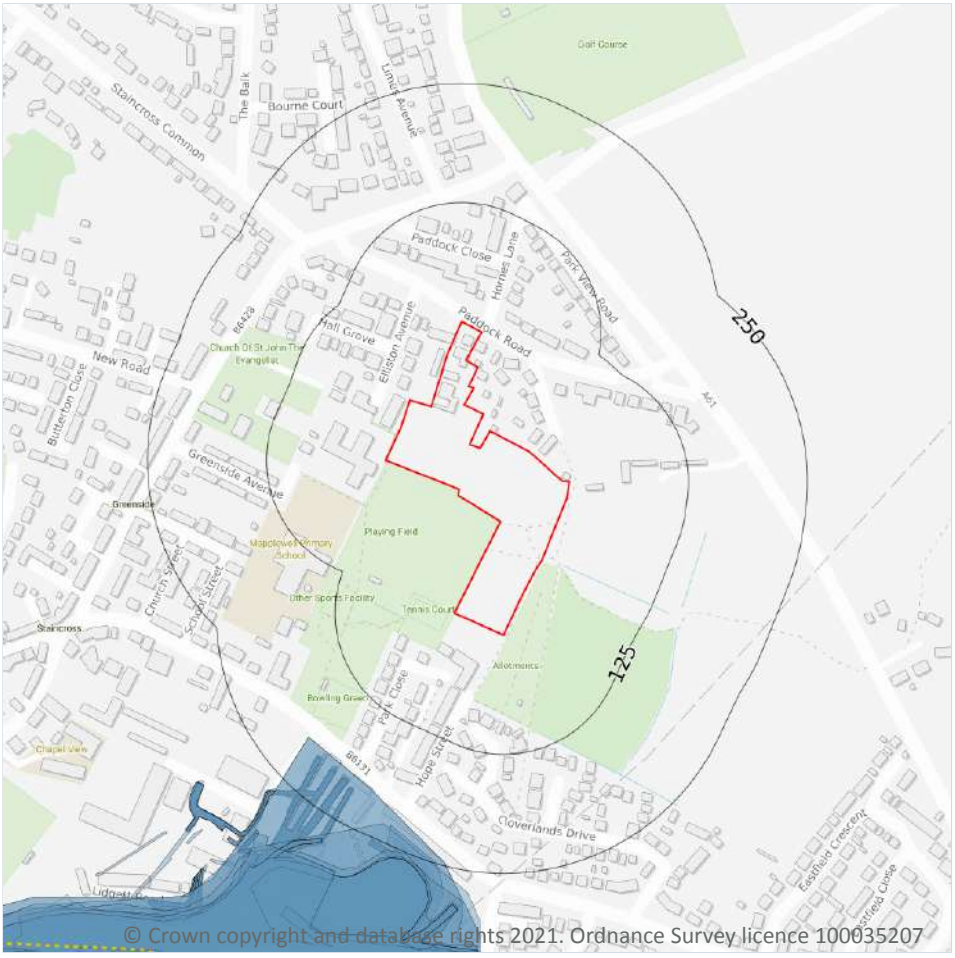
## 20.3 BGS Measured Urban Soil Chemistry

| Records within 50m | 0 |
|---|---|

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

*This data is sourced from the British Geological Survey.*

# 21 Railway infrastructure and projects




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

## 21.1 Underground railways (London)

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

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

*This data is sourced from publicly available information by Groundsure.*

## 21.2 Underground railways (Non-London)

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

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

*This data is sourced from publicly available information by Groundsure.*

## 21.3 Railway tunnels

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

Railway tunnels taken from contemporary Ordnance Survey mapping.

*This data is sourced from the Ordnance Survey.*

## 21.4 Historical railway and tunnel features

| Records within 250m | 16 |
|---|---|

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

Features are displayed on the Railway infrastructure and projects map on **page 116**

| Location | Land Use | Year of mapping | Mapping scale |
|---|---|---|---|
| 198m SW | Railway Sidings | 1973 | 10000 |
| 198m SW | Railway Sidings | 1966 | 10560 |
| 200m SW | Mineral Railway Sidings | 1961 | 2500 |
| 203m SW | Mineral Railway Sidings | 1977 | 1250 |
| 204m SW | Mineral Railway Sidings | 1986 | 1250 |
| 205m SW | Railway Sidings | 1973 | 2500 |
| 206m SW | Mineral Railway Sidings | 1977 | 1250 |
| 206m SW | Mineral Railway Sidings | 1977 | 1250 |
| 206m SW | Mineral Railway Sidings | 1973 | 2500 |
| 208m SW | Mineral Railway Sidings | 1988 | 2500 |
| 208m SW | Mineral Railway Sidings | 1989 | 2500 |
| 212m SW | Mineral Railway Sidings | 1977 | 1250 |
| 212m SW | Mineral Railway Sidings | 1986 | 1250 |
| 231m SW | Railway Sidings | 1982 | 10000 |
| 232m SW | Railway Sidings | 1951 | 10560 |
| 241m SW | Mineral Railway Sidings | 1977 | 1250 |

*This data is sourced from Ordnance Survey/Groundsure.*

## 21.5 Royal Mail tunnels

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

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

*This data is sourced from Groundsure/the Postal Museum.*

## 21.6 Historical railways

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

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

*This data is sourced from OpenStreetMap.*

## 21.7 Railways

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

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

*This data is sourced from Ordnance Survey and OpenStreetMap.*

## 21.8 Crossrail 1

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

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

*This data is sourced from publicly available information by Groundsure.*

## 21.9 Crossrail 2

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

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

*This data is sourced from publicly available information by Groundsure.*

## 21.10 HS2

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

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

*This data is sourced from HS2 ltd.*

## Data providers

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

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