Report No: C762
Date: November 2025

PRELIMINARY INVESTIGATION
of land at
FLOCKTON GREEN CLUB, 153 BARNSLEY ROAD, FLOCKTON
WEST YORKSHIRE

Prepared for
Cape Site Services Ltd

Prepared by
G&M Consulting Ltd, The Chestnuts, Brackenhill Road, Haxey, Doncaster DN9 2LR

REPORT NUMBER:	C762	**REPORT STATUS:**	Final
REPORT TYPE:	Preliminary Investigation		
REPORT DATE:	November 2025		
SITE:	Land at Flockton Green Club, 153 Barnsley Rd, Flockton, West Yorkshire		
PREPARED FOR:	Cape Site Services Ltd		
PREPARED BY:	A Swinbourne BSc. (Hons), MIEnvSc, ACIEH, FGS		Senior Engineering Geologist
REVIEWED BY:	G Swinbourne BSc. (Hons), MSc., DIC, FGS		Principal Engineering Geologist

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PRELIMINARY INVESTIGATION
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1.0 INTRODUCTION.

G&M Consulting Ltd (G&M) was commissioned by Cape Site Services Ltd, to undertake a preliminary investigation (desk study) of a plot of land at Flockton Green Club, 153 Barnsley Road, Flockton, West Yorkshire. It is understood that approval has been granted by Kirklees Borough Council (2024/62/90153/E) for an extension to the existing club building. This report has been commissioned to support the discharge of Condition No 9 of the above referenced approval.

The proposed development is shown on Drawing No A(90)-01 Rev A, dated 11.28.2023, prepared by Cadvis3d. A copy of this drawing is presented in Appendix A of this report.

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 5th November 2025.

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.

This report is intended for the sole use of Cape Site Services Ltd or their client. No other third party may rely upon or reproduce the contents of this report without the written authorisation of the report author. If any unauthorised third party comes into possession of this report, they rely on it at their own risk and the author does not owe them any Duty of Care or Skill.

2.0 SITE DESCRIPTION.

2.1 Site Location.

The site is located to the north of Barnsley Road (A637) in the village of Flockton, approximately 10 km east of Huddersfield town centre, at National Grid Reference SE 241150. A site location plan is shown on Drawing No. C762/1, presented in Appendix A of this report.

2.2 Site Features.

The site is a flat lying roughly rectangular shaped piece of land, with the long axis running north to south. The plot is approximately 0.1 Ha in size. The front of the site, at the access point with Barnsley Road lies at approximately 157 m above Ordnance Datum (OD). The rear of the site, at the location of the proposed extension lies at approximately 160 m OD.

The site comprises a building to the centre of the site, which is currently used as a social club. The building itself, appears to have been built historically for residential purposes, (although the historical maps indicate a post office). Access from the front and sides of the building comprise tarmac hardstanding. A large area of primarily gravel hardstand carparking extends from the rear of the building to the rear of the site, with a strip of grass along the western boundary of the site, extending along the rear (northern) boundary. A private garage, which appears to have been recently constructed, is located adjacent to the area of gravel hardstand.

A set of site condition photographs have been retained by G&M for inspection if required. However, a selection of photographs taken during the walkover survey are presented in Appendix C of this report.

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 1855. 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
1855 (1:10,560) County Series	• Site appears to be undeveloped	• Barnsley Road shown running adjacent to southern boundary
1892 (1:10,560) & 1893 (1:2,500) County Series	• No significant change	• No significant change

1904/1905 (1:10,560) & 1907 (1:2,500) County Series	• No significant change	• No significant change
1913 (1:2,500) County Series	• No significant change	• Residential development shown to the south of Barnsley Road
1931(1:10,560) County Series	• Small unlabelled building shown on site	• Football ground adjacent to northern boundary • Residential development extending up to eastern boundary
1948 (1:10,560) County Series	• No significant change	• No significant change
1955/1957 (1:10,560) Provisional	• No significant change	• No significant change
1961/1962 (1:2,500) & 1966/1967 (1:10,560) Provisional	• Building shown to the centre of the site. Labelled PO, probable post office	• 'club' shown approximately 20m to the east • Allotment gardens shown adjacent to western boundary
1975/1978 (1:2,500) National Grid	• Building in northern part of site no longer shown	• 'club' to the east now labelled Flockton Green Working Men's club
1983 (1:10,000) National Grid	• No significant change	• No significant change
1990/1991 & 1992/1993 (1:2,500) National Grid	• No significant change	• No significant change
2001 (1:10,000) National Grid & 2003 (1:1,250) LandLine	• No significant change.	• No significant change
2010 & 2025 (1:10,000) National Grid	• Building still labelled PO on map dated 2010, but not on map dated 2025	• Residential development adjacent to northern boundary shown on map dated 2025

4.0 ENVIRONMENTAL SETTING.

4.1 Published Geology

Maps/publications referenced	1:50,000 Sheet 77 (Huddersfield) Solid & Drift Edition 2008 BGS online Geoindex interactive map. Groundsure Report Ref: GS-WQH-3E8-22V-VLH
Drift Geology	None shown
Solid Geology	Pennine Lower Coal Measures Formation (PLCM)– Sandstone, Siltstone and Mudstone - Carboniferous age
Dip	None shown locally
Faults	None shown locally

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. All identified natural hazard risks at the site are deemed to be low, very low or negligible.

4.3 Hydrology

The site is not shown to be located on a Flood Zone 2 and Flood Zone 3 area.

The highest risk posed to the site from Surface Water Flooding according to the GroundSure Report is highlighted to be *'Negligible (within 50m)'.* According to the GroundSure Report, the risk posed to the site by groundwater flooding is '*Negligible (within 50m)'.*

There are no recorded 'Historical Flood Events' recorded within 250m of site.

According to the GroundSure report, there are four surface water features on site. The closest is shown 125m to the west and referenced as *'inland river not influenced by normal tidal action'*

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

The site is identified to lie within the catchment of 'Bentley Brook *from source to River Dearne'* in the operational catchment of the '*Dearne'*.

The site is not shown to be within a *"Nitrate Sensitive Area"* but is within a *"Nitrate Vulnerable Zone".*

4.4 Hydrogeology

Information provided by the EA indicates that the underlying bedrock geology (PLCM) are classified as 'Secondary A', which is defined as having;

'Permeable layers capable of supporting water supplies at a local scale rather than strategic scale, and in some cases forming an important base flow to rivers. These are generally aquifers formally classified as minor aquifers'

The site is not shown to be within a Source Protection Zone.

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

The GroundSure Report identifies that the site is positioned within an area where Groundwater Vulnerability for the bedrock geology is '*Medium*'.

4.5 Mining and Quarrying

According to the CA interactive map (http:/mapaps2.bgs.co.uk/coalauthority/home.html) the site does lie within a 'development high risk area'. The site has been subject to an intrusive mining investigation, reported under separate cover, which has indicated shallow mine workings beneath the site.

The GroundSure Report indicates there four records relating to 'Surface Ground Workings' within 250m of the site, the closest of which is shown 145m to the south and referenced as 'sewage works' on the OS map dated 1955

4.6 Radon

The GroundSure report contains information on Radon Affected Areas as defined by the Health Protection Agency (HPA) and indicates that:

- "The site is in a Radon Affected Area, where less than 1% of properties are above the Action Level".

- "No radon protective measures are necessary".

4.7 Additional Environmental Information

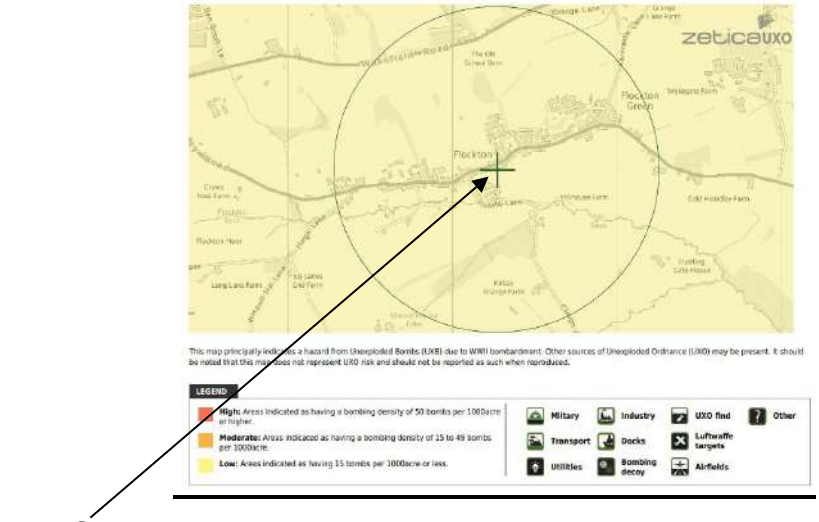
The GroundSure report, presented in Appendix B, also contains information on other potential pollution sources on and off site, a summary of these are presented below together with recommendations for further consideration.

Source	Location	Discussion	Does source warrant further consideration
Historic Tanks	On site	None identified	No
	Within 250m	1No shown, 205m to the south referenced as 'tank' on the OS map dated 1913	
Historic Energy Facilities	On site	None identified	No
	Within 250m		
Petrol and Fuel sites	On site	None identified	No
	Within 250m		
Garage/Motor Vehicle Repair	On site	None identified	No
	Within 250m		
Environmental permits/incidents/registers	On site	None identified	No
	Within 250m		
Licenced/Permitted/ Authorised industrial sites	On site	None identified	No
	Within 250m		
Part A1/IPC Authorisations	On site	None identified	No
	Within 250m		
Red List discharge consents	On site	None identified	No
	Within 250m		
Dangerous substances	On site	None identified	No
	Within 250m		
A2/Part B Activities/ Enforcements	On site	None identified	No
	Within 250m		
Radioactive substances	On site	None identified	No
	Within 250m		
Licenced Discharge Consents	On site	None identified	No
	Within 250m	2No shown, the closest is 210m to the south-east. Discharge type is shown as sewage discharges – final/treated effluent	

Source	Location	Discussion	Does source warrant further consideration
		– water company. The licence is shown as revoked in 1991.	
Water Industry Referrals	On site	None identified	No
	Within 250m		
Hazardous Substances	On site	None identified	No
	Within 250m		
Pollution Incidents	On site	None identified	No
	Within 250m		
Historic Landfill/Waste Sites	On site	None identified	No
	Within 250m		
Waste treatment, transfer or disposal sites	On site	None identified	No
	Within 250m		
Underground cables/pipelines	On site	None identified	No
	Within 500m		
Recent Industrial Sites Data	On site	None identified	Yes
	Within 250m	3No shown, the closest is 7m to the north and is shown as ‘electricity sub station’.	

4.8 Unexploded Ordnance

Area shown to be within a low risk zone. The risk map taken from available information provided by Zetica Ltd, is shown below.



The Site

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 July 2023.

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

Term	Description
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 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.

The site comprises a building to the centre of the site, which is currently used as a social club. The building itself, appears to have been built historically for residential purposes, (although the historical maps indicate a post office). Access from the front and sides of the building comprise tarmac hardstanding. A large area of primarily gravel hardstand carparking extends from the rear of the building to the rear of the site, with a strip of grass along the western boundary of the site, extending along the rear (northern) boundary. A private garage, which appears to have been recently constructed, is located adjacent to the area of gravel hardstand.

Historical maps indicate that the site has been developed since at least 1931. By 1961 the existing building is shown on site and labelled as a post office.

No significant off-site sources of potential contamination have been identified, with the exception of an electricity substation shown approximately 7m to the north of the site.

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	PLCM (Secondary A)
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 Dermal contact with soil/soil dust Indoor/outdoor inhalation of gases
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**
Made Ground (On-site)	Low	Inorganic and organic contaminants, including Asbestos	Skin contact Ingestion	End users (residential) and construction workers	**Low likelihood – H**istorically site appears to have been developed since at least 1931 (unlabelled building). Current building present on site since at least 1961 (Post Office). Limited made ground likely with previous uses of site. Private garage located to the rear of the site. This is a recent modern construction with no evidence of lubricant/fuel spillages. Fuels and lubricants associated with use of the rear of the site as a car park
			Leaching/migration of contaminants through soil	Controlled waters	
	Low	Vapours and fumes from hydrocarbons	Inhalation	End users (residential)	
		Mobile organic contaminant hydrocarbons	Leaching/migration of contaminants through soil	Built Development (Water supply pipes)	
	Moderate	Ground Gas	Inhalation	End users/Built Development	**Likely** – Site shown to be underlain by shallow coal workings, which can both generate and create a preferential pathway for gas migration. (Refer to G&M report, submitted under separate cover) Radon gas protection measures **not** shown to be required.
Made Ground (off site).	Negligible/Low	Mobile inorganic/ organic contaminant associated with former/current off-site uses	Skin contact Ingestion/Inhalation	End users (residential) and built development (Water supply pipes)	**Unlikely** – No significant sources of contamination identified as part of this desk study, with the exception of an electricity sub-station located 7m to the north. This feature appears to be modern, associated with the housing estate, with no records of any pollution incidents

** Definitions and Classifications of Risk Assessment Terminology presented in Appendix D of this report

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

6.0 CONCLUSIONS AND RECOMMENDATIONS.

G&M Consulting Ltd (G&M) was commissioned by Cape Site Services Ltd, to undertake a preliminary investigation (desk study) of a plot of land at Flockton Green Club, 153 Barnsley Road, Flockton, West Yorkshire. It is understood that approval has been granted by Kirklees Borough Council (2024/62/90153/E) for an extension to the existing club building. This report has been commissioned to support the discharge of Condition No 9 of the above referenced approval.

The proposed development is shown on Drawing No A(90)-01 Rev A, dated 11.28.2023, prepared by Cadvis3d. A copy of this drawing is presented in Appendix A of this report.

The site is not shown to be located within a Flood Zone 2 and a Flood Zone 3 area.

The highest risk posed to the site from *'Surface Water Flooding'* according to the GroundSure Report is highlighted to be *'Negligible (within 50m)'.* According to the GroundSure Report, the risk posed to the site by *'Groundwater Flooding'* is '*Negligible (within 50m)'.*

There are no 'Historical Flood Events' recorded within 250m of site.

The site is not shown to be within a designated Source Protection Zone.

Records indicate the site is not shown to be underlain by superficial deposits, but is underlain by solid geology of the Lower Pennine Coal Measures Formation.

The site has been subject to an intrusive mining investigation, which has identified shallow coal workings at the site. The report of findings has been submitted under separate cover.

The site comprises a building to the centre of the site, which is currently used as a social club. The building itself, appears to have been built historically for residential purposes, (although the historical maps indicate a post office). Access from the front and sides of the building comprise tarmac hardstanding. A large area of primarily gravel hardstand carparking extends from the rear of the building to the rear of the site, with a strip of grass along the western boundary of the site, extending along the rear (northern) boundary. A private garage, which appears to have been recently constructed, is located adjacent to the area of gravel hardstand.

Historical maps indicate that the site has been developed since at least 1931. By 1961 the existing building is shown on site and labelled as a post office.

No significant off-site sources of potential contamination have been identified, with the exception of an electricity sub-station located 7m to the north. This feature appears to be modern, associated with the housing estate, with no records of any pollution incidents

Radon protection measures are **not** shown to be required for any new build properties at the site.

The preliminary conceptual site model does indicate plausible potential complete pollutant linkages, associated with the former/current uses of the site, that require further assessment and/or investigation.

The proposed development layout, which comprises an extension to the existing social club, does not indicate the presence of any further areas of soft landscaping, therefore it is considered that any hardstanding, including the new build, would break residual contamination pathways, between any made ground and end users of the site.

Uncertainty about the potential for ground gas, associated with the identified shallow coal workings, to affect the site should be managed by further refining the conceptual model with respect to ground gas risks and developing a strategy that either;

A suitably designed programme of ground gas monitoring at and around the location of the proposed property that will determine if ground gases that may affect the development are present. The monitoring should be followed by an appropriate risk assessment and recommendations for building protection.
OR
Gas protection measures should be provided for the new property. The gas protection measures should be in accordance with 'Characteristic Situation 2' as defined in CIRIA C665:(2007) 'Assessing risks posed by hazardous ground gases to buildings' and should be suitably verified.

Radon protection measures are not shown to be required for any new build properties at the site.

The conclusions and recommendations presented above are considered practical based on the findings of this report. However, they cannot however 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 and before any development work takes place.

APPENDIX A

DRAWINGS

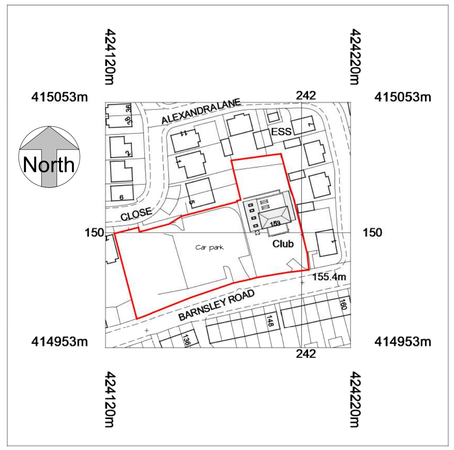
0 0.5 1 2.5 5
Scale 1: 50 @ A1 (1: 100 @ A3)

0 1 2 5 10
Scale 1: 100 @ A1 (1: 200 @ A3)

0 2 4 10 20
Scale 1: 200 @ A1 (1: 400 @ A3)

0 5 10 25 50
Scale 1: 500 @ A1 (1: 1000 @ A3)

0 12.5 25 62.5 125
Scale 1: 1250 @ A1 (1: 2500 @ A3)



Site Location Plan
1 : 1250

Site Plan
1 : 200

North

GENERAL

DO NOT SCALE FROM THIS DRAWING.
ALL DIMENSIONS ARE TO BE RE-CHECKED ON SITE AND CONFIRMED TO AUTHOR.
ALL FEASIBILITY STUDIES ARE SUBJECT TO FULL SITE SURVEY + LOCAL AUTHORITY APPROVALS.
ANY DISCREPANCIES OR VARIATIONS SHALL BE NOTIFIED TO CADVIS3D BEFORE WORK ON THE RELEVANT SECTION COMMENCES.
THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT CONSULTANTS AND / OR SPECIALISTS DRAWINGS / DOCUMENTS.
THE MATERIALS AND WORKMANSHIP OF ALL RELEVANT TRADES AND BUILDING OPERATIONS SHALL COMPLY WITH THE RECOMMENDATIONS OF CURRENT BRITISH STANDARDS AND CODES OF PRACTICE.
AS FAR AS REASONABLY PRACTICABLE, THIS DESIGN HAS BEEN PREPARED IN SUCH A WAY AS TO REDUCE THE RISKS TO THE HEALTH AND SAFETY OF PERSON(S) WHO MAY BE AFFECTED.
RISK ASSESSMENTS, PRE-CONSTRUCTION INFORMATION & HEALTH & SAFETY FILES CAN BE PROVIDED IF CADVIS3D IS INSTRUCTED IN WRITING BY CLIENT TO TAKE ON ROLE OF PRINCIPLE DESIGNER. FOR FULL GUIDELINES ON CLIENTS DUTIES / DESIGNER/CONTRACTORS CDM ROLES, PLEASE VISIT RELEVANT CDM/HSE GOVERNMENT WEBSITE FOR MORE INFORMATION

NOTES

IMPORTANT NOTES

ALL MEASUREMENTS MUST BE CHECKED ON-SITE PRIOR TO COMMENCEMENT OF ANY WORKS.

ANY UNDERGROUND DRAINAGE ROUTES ARE INDICATIVE ONLY. TBC BY BUILDER ON-SITE & APPROVED BY YW AND BC PRIOR TO COMMENCEMENT OF ANY WORKS.

CADVIS3D HOLDS NO RESPONSIBILITY FOR UNDERGROUND DRAINAGE ON-SITE. YORKSHIRE WATER MAPPING REQUEST RECOMMENDED TO CHECK FOR EXISTING UNDERGROUND DRAINAGE RUNS (IF AVAILABLE)

ALL STRUCTURAL ALTERATIONS TBC BY APPOINTED STRUCTURAL ENGINEER. ANY ALTERATIONS TO PROPOSED DESIGN DUE TO STRUCTURAL CONSTRAINTS IDENTIFIED BY ENGINEER TO BE AGREED/APPROVED BY CLIENT PRIOR TO COMMENCEMENT OF ANY WORKS

CDM DUTIES TO BE CARRIED OUT BY PRINCIPLE CONTRACTOR. PRE CONSTRUCTION INFORMATION & HEALTH AND SAFETY FILE TO BE PROVIDED BY PRINCIPLE DESIGNER PRIOR TO COMMENCEMENT OF ANY WORKS.

CLIENT TO BE MADE AWARE OF DUTIES UNDER CDM AND ENSURE HEALTH AND SAFETY MEASURES ARE IN PLACE. ALL CONTRACTORS AND DESIGNERS TO BE COMPETENT TO CARRY OUT THEIR DUTIES UNDER CDM. SEE RELEVANT GOVERNMENT WEBSITE FOR MORE INFORMATION

WORK MUST NOT COMMENCE UNTIL ALL RELEVANT BUILDING REGULATIONS APPROVALS ARE IN PLACE & CDM / HSE DOCUMENTATION IS COMPLETE AND ISSUED TO ALL RELEVANT PARTIES

DRAWING TO BE USED FOR PLANNING PURPOSES ONLY
NOT FOR CONSTRUCTION

No.	Date	Dr	Description
A	05/06/24	PSI	Revisions following planners comments & Acoustic engineers report

scale: As indicated	drawn: PSI	apprv: FWMC
date: 11/28/23	path: G:\Architectural Jobs\2074 - Flockton WMC, Flockton\Arch\Proposed\2074 - proposedPLANNINGrevA.rvt	
status: PLANNING		
job no: 2074	dwg no: A(90)-01	rev: A

Cadvis3d
....making dreams happen
ARCHITECTURAL DESIGN SERVICES
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The Towers, 237 Wakefield Rd, Lepton, Huddersfield, West Yorkshire, HD8 0DH
Tel: 01484 937123
Email: info@cadvis3d.co.uk
w w w . c a d v i s 3 d . c o . u k
multi-award winning design

project
Refurbishment & Extensions at,
Flockton Green WMC,
157 Barnsley Road, Flockton,
Wakefield WF4 4AA

client
Flockton WMC

title
Proposed Site Plan

APPENDIX B

GROUNDSURE DOCUMENTS

Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

154, BARNSLEY ROAD, FLOCKTON, WAKEFIELD, KIRKLEES, WF4 4AA

Order Details

Date: 05/11/2025

Your ref: C762

Our Ref: GS-P45-PI9-76F-QQG

Site Details

Location: 424187 415007

Area: 0.1 ha

Authority: Kirklees Council ↗

Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
14 >	1.1 >	Historical industrial land uses >	0	0	7	11	-
15 >	1.2 >	Historical tanks >	0	0	1	0	-
16	1.3	Historical energy features	0	0	0	0	-
16	1.4	Historical petrol stations	0	0	0	0	-
16	1.5	Historical garages	0	0	0	0	-
16	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
17 >	2.1 >	Historical industrial land uses >	0	0	11	15	-
19 >	2.2 >	Historical tanks >	0	0	1	0	-
19	2.3	Historical energy features	0	0	0	0	-
19	2.4	Historical petrol stations	0	0	0	0	-
19	2.5	Historical garages	0	0	0	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
20	3.1	Active or recent landfill	0	0	0	0	-
20	3.2	Historical landfill (BGS records)	0	0	0	0	-
21	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
21	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
21	3.5	Historical waste sites	0	0	0	0	-
21	3.6	Licensed waste sites	0	0	0	0	-
21 >	3.7 >	Waste exemptions >	0	1	0	2	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
23 >	4.1 >	Recent industrial land uses >	0	1	2	-	-
24	4.2	National Geographic Database (NGD) - Current or recent tanks	0	0	0	-	-
24	4.3	Current or recent petrol stations	0	0	0	0	-
24	4.4	Electricity cables	0	0	0	0	-
24	4.5	Gas pipelines	0	0	0	0	-

24	4.6	Sites determined as Contaminated Land	0	0	0	0	-
25	4.7	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
25	4.8	Regulated explosive sites	0	0	0	0	-
25	4.9	Hazardous substance storage/usage	0	0	0	0	-
25	4.10	Historical licensed industrial activities (IPC)	0	0	0	0	-
25	4.11	Licensed industrial activities (Part A(1))	0	0	0	0	-
26	4.12	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
26	4.13	Radioactive Substance Authorisations	0	0	0	0	-
26 >	**4.14 >**	**Licensed Discharges to controlled waters >**	0	0	2	4	-
27	4.15	Pollutant release to surface waters (Red List)	0	0	0	0	-
27	4.16	Pollutant release to public sewer	0	0	0	0	-
27	4.17	List 1 Dangerous Substances	0	0	0	0	-
28	4.18	List 2 Dangerous Substances	0	0	0	0	-
28 >	**4.19 >**	**Pollution Incidents (EA/NRW) >**	0	0	0	1	-
28	4.20	Pollution inventory substances	0	0	0	0	-
28	4.21	Pollution inventory waste transfers	0	0	0	0	-
29	4.22	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
30 >	**5.1 >**	**Superficial aquifer >**	Identified (within 500m)				
31 >	**5.2 >**	**Bedrock aquifer >**	Identified (within 500m)				
33 >	**5.3 >**	**Groundwater vulnerability >**	Identified (within 50m)				
34	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
34	5.5	Groundwater vulnerability- local information	None (within 0m)				
35 >	**5.6 >**	**Groundwater abstractions >**	0	0	0	0	1
36 >	**5.7 >**	**Surface water abstractions >**	0	0	0	0	1
36	5.8	Potable abstractions	0	0	0	0	0
37	5.9	Source Protection Zones	0	0	0	0	-
37	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m

38 >	6.1 >	Water Network (OS MasterMap) >	0	0	8	-	-
39 >	6.2 >	Surface water features >	0	0	4	-	-
39 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
40 >	6.4 >	WFD Surface water bodies >	0	0	1	-	-
40 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-

Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
41	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
41	7.2	Historical Flood Events	0	0	0	-	-
41	7.3	Flood Defences	0	0	0	-	-
42	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
42	7.5	Flood Storage Areas	0	0	0	-	-
43	7.6	Flood Zone 2	None (within 50m)				
43	7.7	Flood Zone 3	None (within 50m)				

Page	Section	Surface water flooding	
44	8.1	Surface water flooding	Negligible (within 50m)

Page	Section	Groundwater flooding >	
45 >	9.1 >	Groundwater flooding >	Negligible (within 50m)

Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
46	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
47	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
47	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
47	10.4	Special Protection Areas (SPA)	0	0	0	0	0
47	10.5	National Nature Reserves (NNR)	0	0	0	0	0
48	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
48 >	10.7 >	Designated Ancient Woodland >	0	0	0	1	5
48	10.8	Biosphere Reserves	0	0	0	0	0
49	10.9	Forest Parks	0	0	0	0	0
49	10.10	Marine Conservation Zones	0	0	0	0	0
49 >	10.11 >	Green Belt >	0	0	1	0	1

49	10.12	Proposed Ramsar sites	0	0	0	0	0
50	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
50	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
50	10.15	Nitrate Sensitive Areas	0	0	0	0	0
50 >	**10.16 >**	**Nitrate Vulnerable Zones >**	1	0	1	0	1
52	10.17	SSSI Impact Risk Zones	0	-	-	-	-
52	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
53	11.1	World Heritage Sites	0	0	0	-	-
54	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
54	11.3	National Parks	0	0	0	-	-
54 >	**11.4 >**	**Listed Buildings >**	0	0	1	-	-
55	11.5	Conservation Areas	0	0	0	-	-
55	11.6	Scheduled Ancient Monuments	0	0	0	-	-
55	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	**Agricultural designations >**	On site	0-50m	50-250m	250-500m	500-2000m
56 >	**12.1 >**	**Agricultural Land Classification >**	Grade 4 (within 250m)				
57	12.2	Open Access Land	0	0	0	-	-
57	12.3	Tree Felling Licences	0	0	0	-	-
57	12.4	Environmental Stewardship Schemes	0	0	0	-	-
58	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
59	13.1	Priority Habitat Inventory	0	0	0	-	-
59	13.2	Habitat Networks	0	0	0	-	-
59	13.3	Open Mosaic Habitat	0	0	0	-	-
59	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
60 >	**14.1 >**	**10k Availability >**	Identified (within 500m)				
61 >	**14.2 >**	**Artificial and made ground (10k) >**	0	0	2	8	-

63 >	14.3 >	Superficial geology (10k) >	0	0	1	0	-
64	14.4	Landslip (10k)	0	0	0	0	-
65 >	14.5 >	Bedrock geology (10k) >	2	1	8	18	-
67 >	14.6 >	Bedrock faults and other linear features (10k) >	0	1	9	19	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
69 >	15.1 >	50k Availability >	Identified (within 500m)				
70 >	15.2 >	Artificial and made ground (50k) >	0	0	2	4	-
71	15.3	Artificial ground permeability (50k)	0	0	-	-	-
72 >	15.4 >	Superficial geology (50k) >	0	0	1	0	-
73	15.5	Superficial permeability (50k)	None (within 50m)				
73	15.6	Landslip (50k)	0	0	0	0	-
73	15.7	Landslip permeability (50k)	None (within 50m)				
74 >	15.8 >	Bedrock geology (50k) >	1	1	7	15	-
76 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
76 >	15.10 >	Bedrock faults and other linear features (50k) >	0	0	10	13	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
78 >	16.1 >	BGS Boreholes >	0	1	0	-	-
Page	Section	Natural ground subsidence >					
79 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
80 >	17.2 >	Running sands >	Negligible (within 50m)				
81 >	17.3 >	Compressible deposits >	Negligible (within 50m)				
82 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
83 >	17.5 >	Landslides >	Low (within 50m)				
85 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
87 >	18.1 >	BritPits >	0	0	0	3	-
89 >	18.2 >	Surface ground workings >	0	0	4	-	-
89 >	18.3 >	Underground workings >	0	0	0	1	7
90	18.4	Underground mining extents	0	0	0	0	-

90	18.5	Historical Mineral Planning Areas	0	0	0	0	-
90	18.6	Non-coal mining	0	0	0	0	0
90	18.7	JPB mining areas	None (within 0m)				
90	18.8	The Coal Authority non-coal mining	0	0	0	0	-
91 >	**18.9 >**	**Researched mining >**	0	0	0	1	-
91	18.10	Mining record office plans	0	0	0	0	-
91	18.11	BGS mine plans	0	0	0	0	-
91 >	**18.12 >**	**Coal mining >**	Identified (within 0m)				
92	18.13	Brine areas	None (within 0m)				
92	18.14	Gypsum areas	None (within 0m)				
92	18.15	Tin mining	None (within 0m)				
92	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
93	19.1	Natural cavities	0	0	0	0	-
93	19.2	Mining cavities	0	0	0	0	0
93	19.3	Reported recent incidents	0	0	0	0	-
93	19.4	Historical incidents	0	0	0	0	-
Page	Section	**Radon >**					
95 >	**20.1 >**	**Radon >**	Less than 1% (within 0m)				
Page	Section	**Soil chemistry >**	On site	0-50m	50-250m	250-500m	500-2000m
97 >	**21.1 >**	**BGS Estimated Background Soil Chemistry >**	2	1	-	-	-
97	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
97	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
98	22.1	Underground railways (London)	0	0	0	-	-
98	22.2	Underground railways (Non-London)	0	0	0	-	-
98	22.3	Railway tunnels	0	0	0	-	-
98	22.4	Historical railway and tunnel features	0	0	0	-	-
98	22.5	Royal Mail tunnels	0	0	0	-	-

99	22.6	Historical railways	0	0	0	-	-
99	22.7	Railways	0	0	0	-	-
99	22.8	Crossrail 2	0	0	0	0	-
99	22.9	HS2	0	0	0	0	-

Recent aerial photograph

Capture Date: 30/05/2021

Site Area: 0.1ha

Recent site history - 2018 aerial photograph

Capture Date: 01/07/2018

Site Area: 0.1ha

Recent site history - 2012 aerial photograph

Capture Date: 26/03/2012

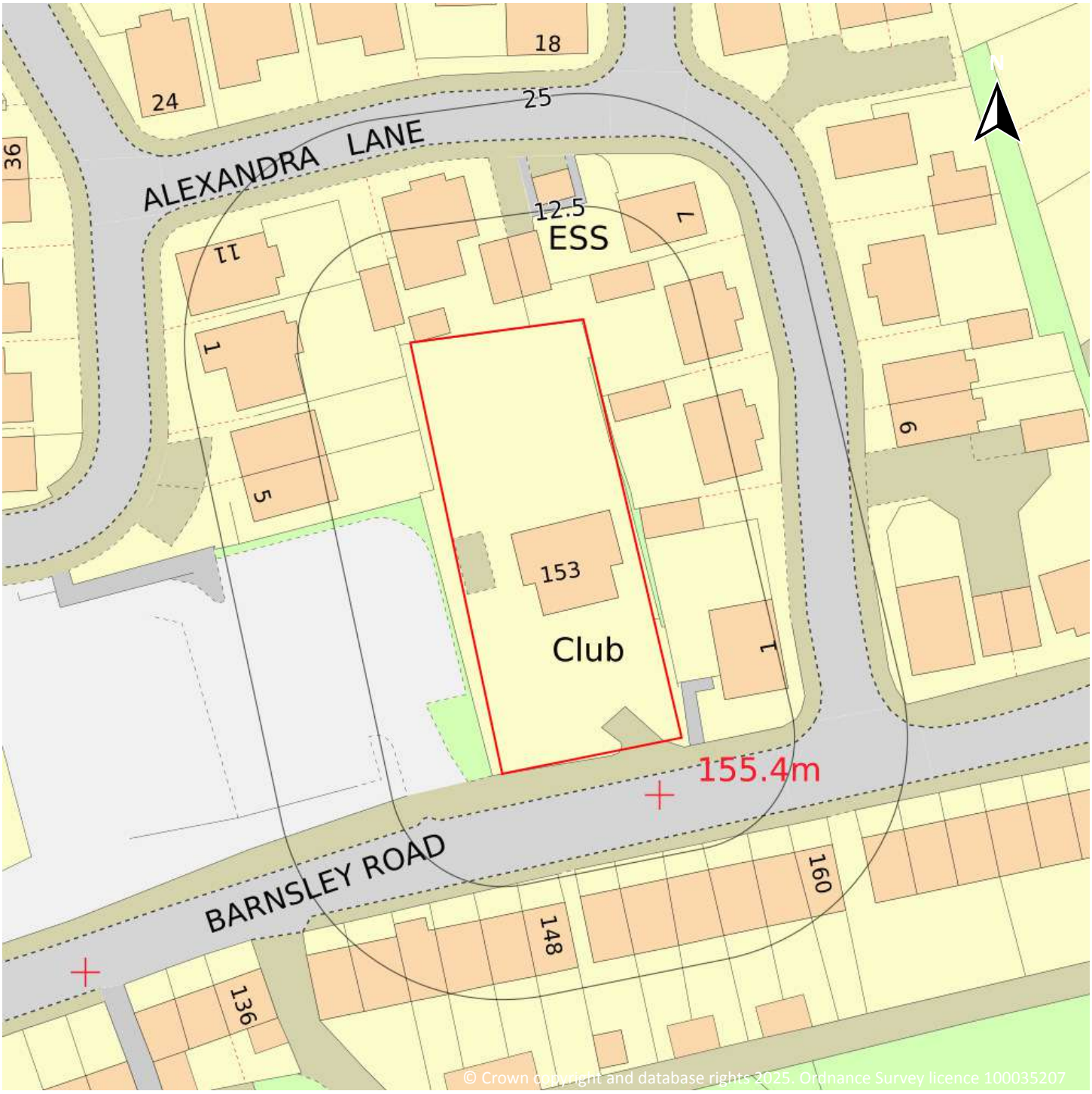
Site Area: 0.1ha

Recent site history - 1999 aerial photograph

Capture Date: 10/07/1999

Site Area: 0.1ha

OS MasterMap site plan



Site Area: 0.1ha

1 Past land use

Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

1.1 Historical industrial land uses

Records within 500m	18

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 14 >**

ID	Location	Land use	Dates present	Group ID
A	120m S	Unspecified Works	1967 - 1979	1530586

ID	Location	Land use	Dates present	Group ID
A	145m S	Sewage Works	1948 - 1955	1485466
A	148m S	Telephone Exchange	1979 - 1993	1515083
A	180m SE	Unspecified Tank	1979	1472492
A	185m S	Refuse Heap	1948 - 1955	1511070
A	203m S	Unspecified Tanks	1948	1443528
A	211m SE	Sawmill	1993	1480601
B	331m W	Unspecified Heap	1967 - 1979	1529470
B	340m W	Refuse Heap	1948 - 1955	1483669
1	364m E	Police Station	1948	1481042
2	418m SE	Unspecified Mill	1948	1448393
3	457m NE	Refuse Heap	1891	1434355
C	459m N	Refuse Heap	1891	1498803
C	459m N	Refuse Heap	1948	1568156
C	467m N	Unspecified Heap	1966 - 1982	1491512
C	469m N	Refuse Heap	1951	1581882
4	471m NE	Unspecified Depot	1982 - 1993	1514977
5	488m SW	Unspecified Mine	1967	1442790

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**1**

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 14 >**

ID	Location	Land use	Dates present	Group ID
A	205m S	Tanks	1913	235810

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	0

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'.

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

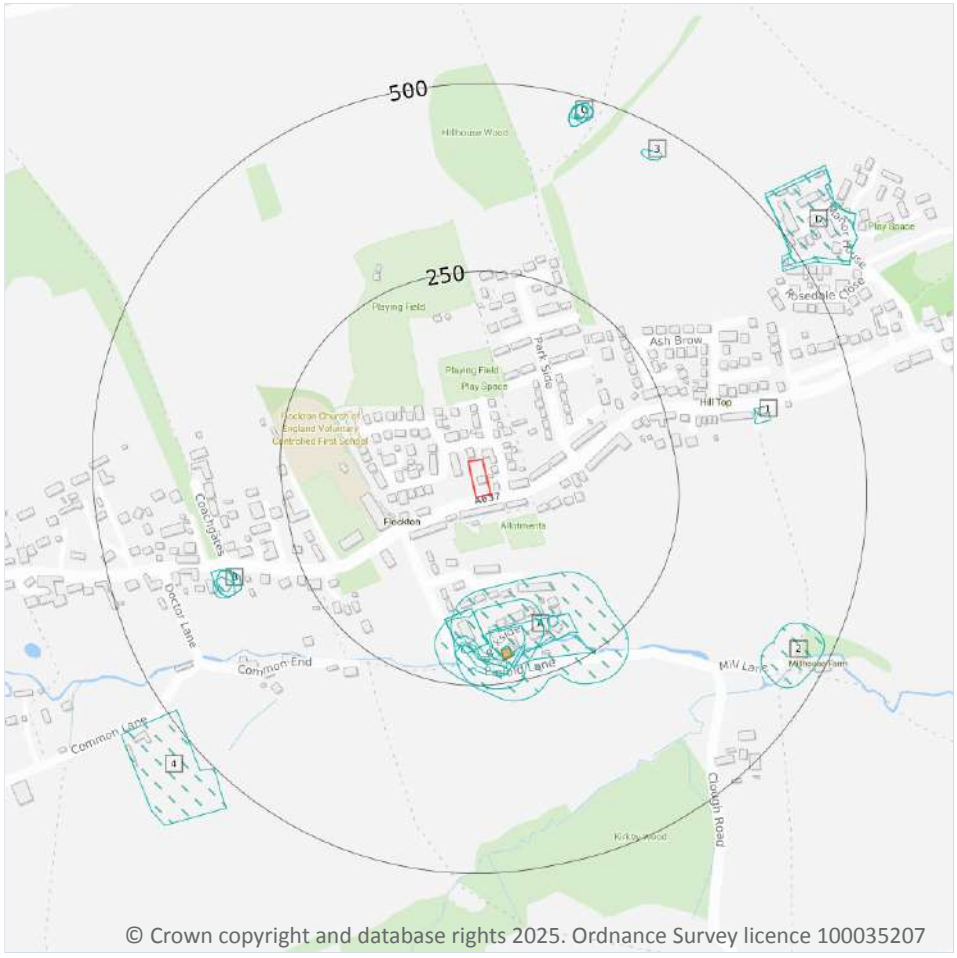
1.6 Historical military land

Records within 500m	0

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

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

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

2.1 Historical industrial land uses

Records within 500m	26

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

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

ID	Location	Land Use	Date	Group ID
A	120m S	Unspecified Works	1979	1530586
A	145m S	Sewage Works	1955	1485466
A	148m S	Telephone Exchange	1993	1515083

ID	Location	Land Use	Date	Group ID
A	148m S	Telephone Exchange	1979	1515083
A	176m S	Unspecified Works	1967	1530586
A	179m S	Sewage Works	1948	1485466
A	180m SE	Unspecified Tank	1979	1472492
A	185m S	Refuse Heap	1955	1511070
A	198m S	Refuse Heap	1948	1511070
A	203m S	Unspecified Tanks	1948	1443528
A	211m SE	Sawmill	1993	1480601
B	331m W	Unspecified Heap	1979	1529470
B	331m W	Unspecified Heap	1967	1529470
B	340m W	Refuse Heap	1955	1483669
B	341m W	Refuse Heap	1948	1483669
1	364m E	Police Station	1948	1481042
2	418m SE	Unspecified Mill	1948	1448393
3	457m NE	Refuse Heap	1891	1434355
C	459m N	Refuse Heap	1948	1568156
C	459m N	Refuse Heap	1891	1498803
C	467m N	Unspecified Heap	1982	1491512
C	467m N	Unspecified Heap	1966	1491512
C	469m N	Refuse Heap	1951	1581882
D	471m NE	Unspecified Depot	1982	1514977
D	474m NE	Unspecified Depot	1993	1514977
4	488m SW	Unspecified Mine	1967	1442790

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	1

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

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

ID	Location	Land Use	Date	Group ID
A	205m S	Tanks	1913	235810

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	0

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'.

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

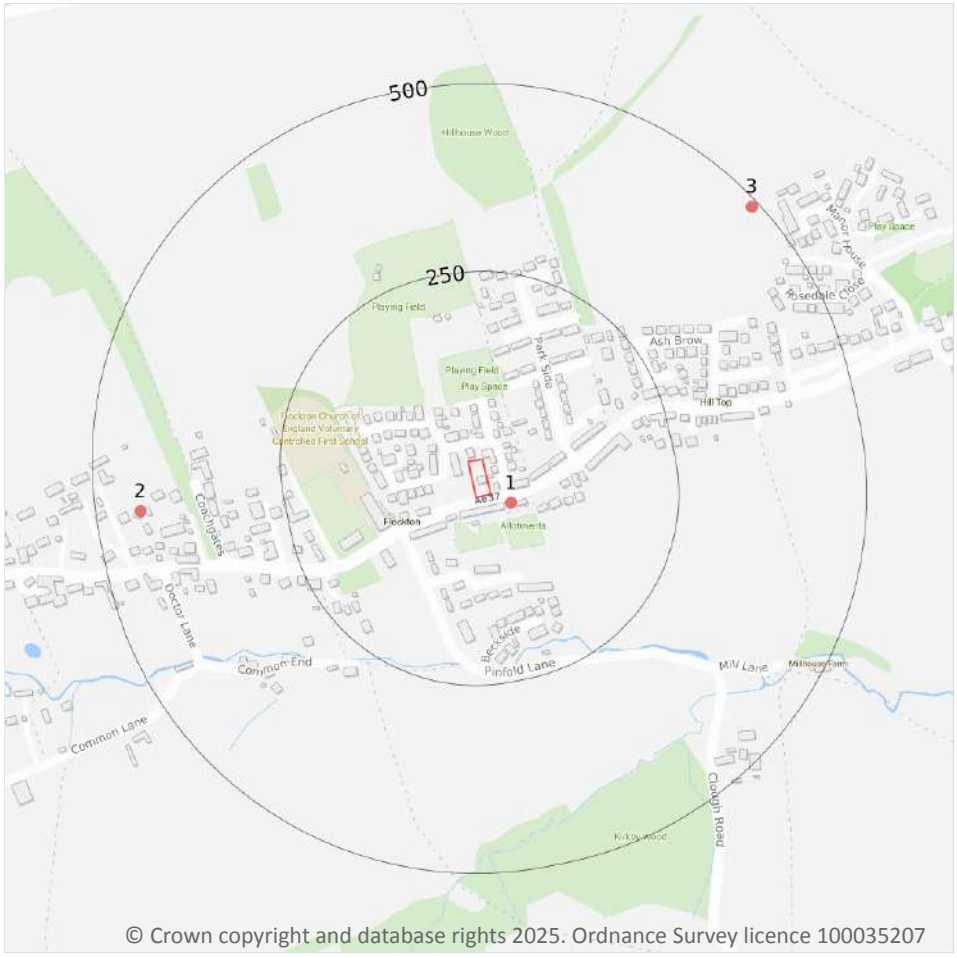
2.5 Historical garages

Records within 500m	0

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

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



Site Outline

Search buffers in metres (m)

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

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

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

3.2 Historical landfill (BGS records)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

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

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

3.5 Historical waste sites

Records within 500m	0

Waste site records derived from Local Authority planning records and high detail historical mapping.

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

3.6 Licensed waste sites

Records within 500m	0

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

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

3.7 Waste exemptions

Records within 500m	3

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

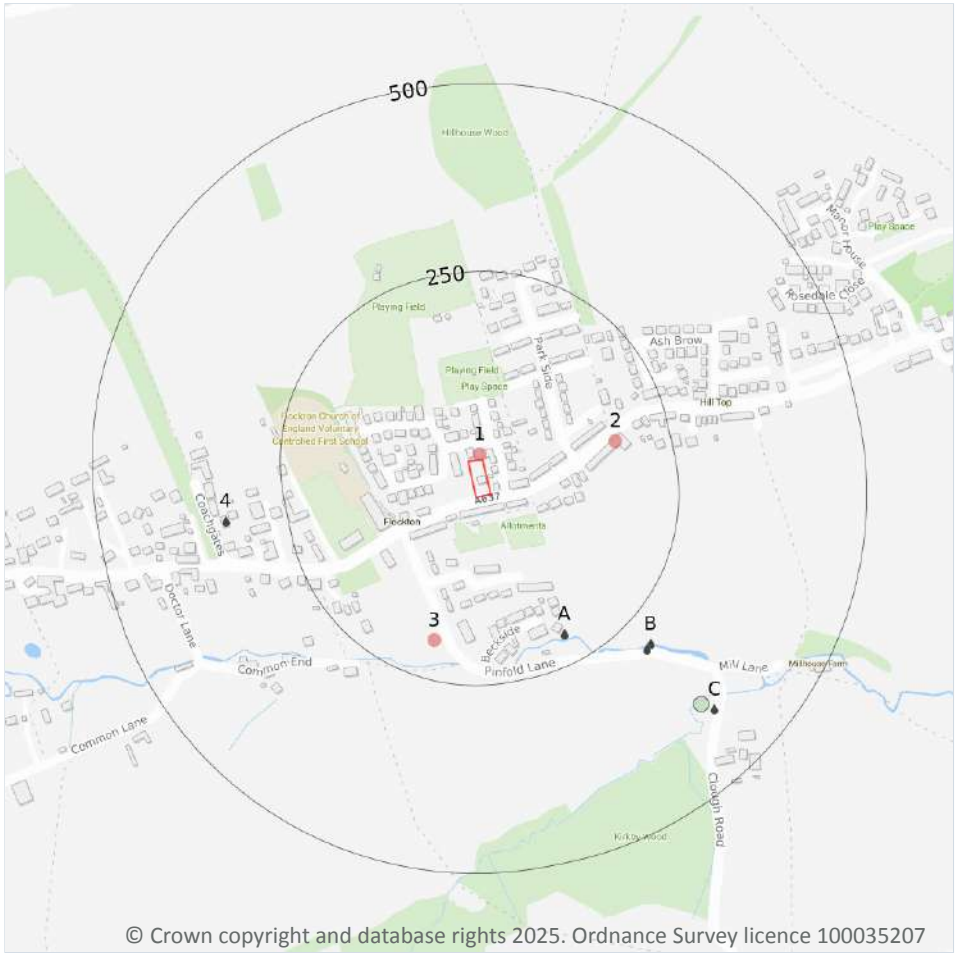
Features are displayed on the Waste and landfill map on **page 20 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	29m SE	Barratt Homes - Chapel Lea, Barnsley Road, Flockont, Wf4 4aa	WEX160544	Using waste exemption	Not on a farm	Use of waste in construction

ID	Location	Site	Reference	Category	Sub-Category	Description
2	442m W	-	WEX329865	Using waste exemption	Not on a farm	Use of waste in construction
3	490m NE	Langley Holme Farm, Barnsley Road, Flockton, Wakefield, Wf4 4at	WEX006870	Storing waste exemption	On a farm	Storage of sludge

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

4 Current industrial land use



Site Outline

Search buffers in metres (m)

Recent industrial land uses

Licensed Discharges to controlled waters

Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m	3

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 23 >**

ID	Location	Company	Address	Activity	Category
1	7m N	Electricity Sub Station	West Yorkshire, WF4	Electrical Features	Infrastructure and Facilities
2	178m E	Wadsworth Quads	204, Barnsley Road, Flockton, Wakefield, West Yorkshire, WF4 4AB	New Vehicles	Motoring
3	198m S	Telephone Exchange	West Yorkshire, WF4	Telecommunications Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

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

Records within 250m	0

Current or recent tanks identified from the Ordnance Survey NGD.

This data is sourced from Ordnance Survey.

4.3 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.4 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.5 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.6 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.7 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.9 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.10 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.11 Licensed industrial activities (Part A(1))

Records within 500m	0

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

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

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

Records within 500m	0

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

This data is sourced from Local Authority records.

4.13 Radioactive Substance Authorisations

Records within 500m	0

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

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

4.14 Licensed Discharges to controlled waters

Records within 500m	6

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

Features are displayed on the Current industrial land use map on **page 23 >**

ID	Location	Address	Details	
A	210m SE	FLOCKTON STW STORM TANKS	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: 2899 Permit Version: 1 Receiving Water: -	Status: TRANSFERRED FROM R(PP)A 1951-1961 Issue date: 01/06/1981 Effective Date: 01/06/1981 Revocation Date: 31/12/1981
A	210m SE	FLOCKTON STW STORM TANKS	Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: 2899 Permit Version: 2 Receiving Water: -	Status: REVOKED - UNSPECIFIED Issue date: 01/01/1982 Effective Date: 01/01/1982 Revocation Date: 19/07/1991
B	291m SE	FLOCKTON TANK CSO, PINFOLD LANE (OFF), FLOCKTON, WAKEFIELD, WEST YORKSHIRE, WF4 4AG	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: C4236 Permit Version: 3 Receiving Water: FLOCKTON BECK	Status: VARIED UNDER EPR 2010 Issue date: 15/11/2017 Effective Date: 15/11/2017 Revocation Date: -

ID	Location	Address	Details	
B	292m SE	FLOCKTON TANK CSO, PINFOLD LANE (OFF), FLOCKTON, WAKEFIELD, WEST YORKSHIRE, WF4 4AG	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: C4236 Permit Version: 2 Receiving Water: FLOCKTON BECK	Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 26/02/2004 Effective Date: 31/03/2004 Revocation Date: 14/11/2017
4	332m W	3 & 5 BARNSLEY ROAD, FLOCKTON, NR WAKEFIELD, WEST YORKSHIRE, WF4 4DN	Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: 873 Permit Version: 1 Receiving Water: TRIB OF FLOCKTON BECK	Status: TRANSFERRED FROM R(PP)A 1951-1961 Issue date: 01/08/1958 Effective Date: 01/08/1958 Revocation Date: -
C	413m SE	FLOCKTON TANK CSO, PINFOLD LANE (OFF), FLOCKTON, WAKEFIELD, WEST YORKSHIRE, WF4 4AG	Effluent Type: SEWAGE DISCHARGES - SEWER STORM OVERFLOW - WATER COMPANY Permit Number: C4236 Permit Version: 1 Receiving Water: BENTLEY BROOK	Status: TRANSFERRED FROM COPA 1974 Issue date: 01/05/1986 Effective Date: 01/05/1986 Revocation Date: 30/03/2004

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

4.15 Pollutant release to surface waters (Red List)

Records within 500m	**0**

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

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

4.16 Pollutant release to public sewer

Records within 500m	**0**

Discharges of Special Category Effluents to the public sewer.

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

4.17 List 1 Dangerous Substances

Records within 500m	**0**

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

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

4.18 List 2 Dangerous Substances

Records within 500m	0

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

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

4.19 Pollution Incidents (EA/NRW)

Records within 500m	1

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

Features are displayed on the Current industrial land use map on **page 23 >**

ID	Location	Details	
C	395m SE	Incident Date: 13/02/2002 Incident Identification: 58068 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

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

4.20 Pollution inventory substances

Records within 500m	0

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

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

4.21 Pollution inventory waste transfers

Records within 500m	0

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

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

4.22 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer

Site Outline

Search buffers in metres (m)

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

5.1 Superficial aquifer

Records within 500m	1

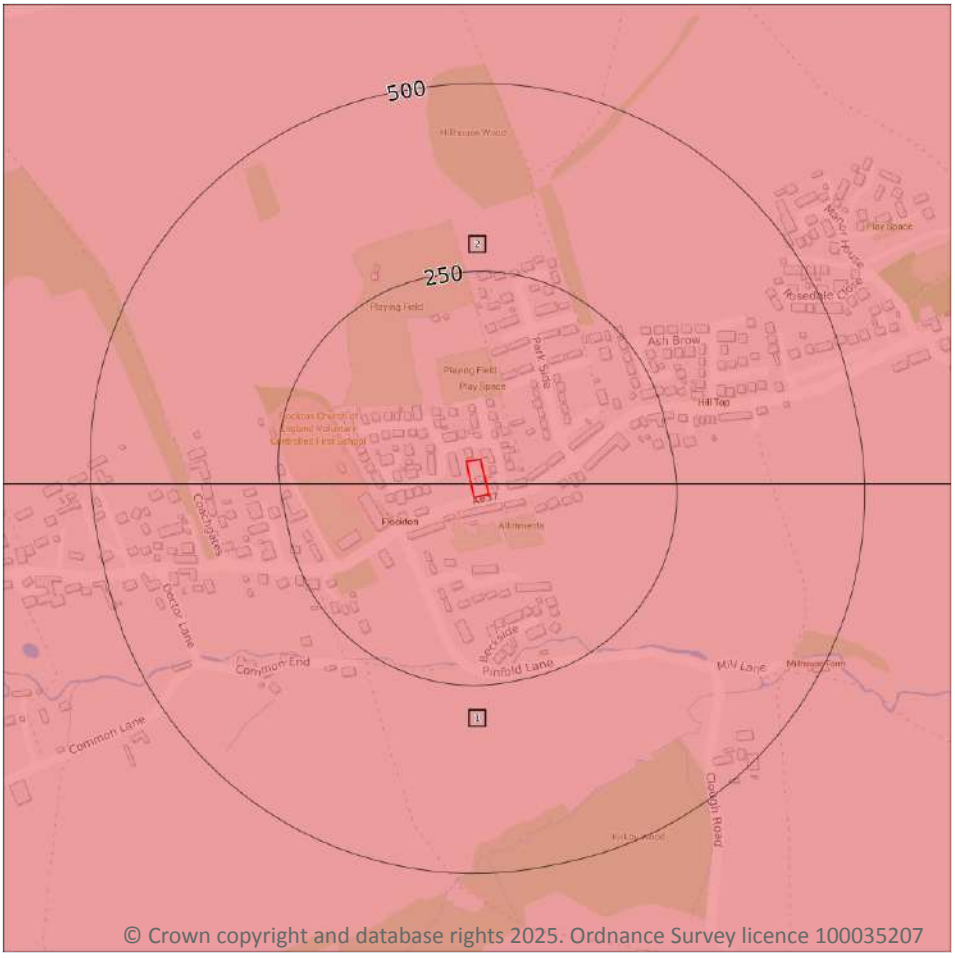
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 30 >**

ID	Location	Designation	Description
1	165m 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.

Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m	2

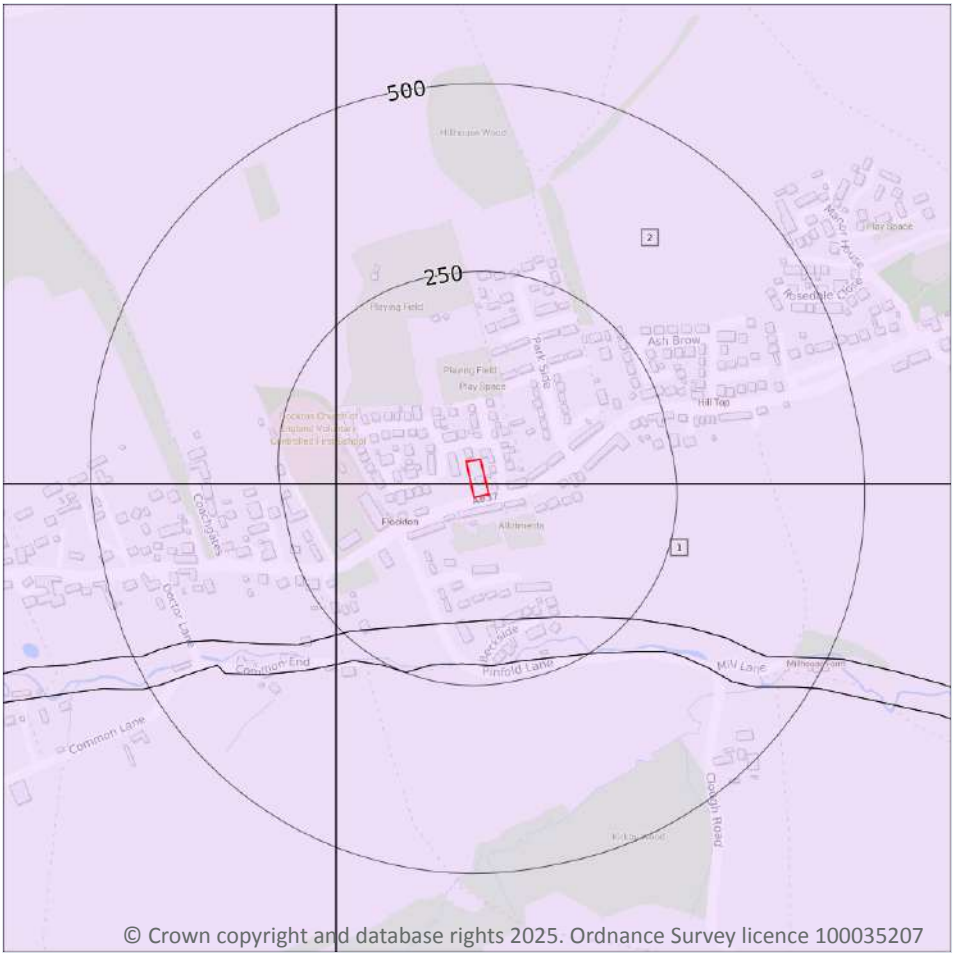
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 31 >**

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

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

Superficial vulnerability

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

Bedrock vulnerability

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

Other information

- Unproductive aquifer
- Soluble rock risk
- Local information

5.3 Groundwater vulnerability

Records within 50m	2

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

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

Features are displayed on the Groundwater vulnerability map on **page 33 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Medium 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

Site Outline

Search buffers in metres (m)

- Source Protection Zone 1 — Inner catchment
- Source Protection Zone 2 — Outer catchment
- Source Protection Zone 3 — Total catchment
- Source Protection Zone 4 — Zone of Special Interest
- Source Protection Zone 1c — Inner catchment - confined aquifer
- Source Protection Zone 2c — Outer catchment - confined aquifer
- Source Protection Zone 3c — Total catchment - confined aquifer
- Drinking water abstraction licences
- Drinking water abstraction licences — Polygon features
- Drinking water abstraction licences — Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m	1

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 35 >**

ID	Location	Details	
-	1351m NE	Status: Active Licence No: NE/027/0013/028 Details: Dewatering Direct Source: GROUNDWATERS Point: HOPE SHAFT, CAPHOUSE COLLIERY, OVERTON, WAKEFIELD. Data Type: Point Name: National Coal Mining Museum for England Trust Ltd Easting: 424863 Northing: 416205	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: NPS/NA/001723 Original Start Date: 31/03/2021 Expiry Date: 31/03/2027 Issue No: 1 Version Start Date: 31/03/2021 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	1

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 35 >**

ID	Location	Details	
-	1453m SW	Status: Historical Licence No: 2/27/08/024 Details: General Farming & Domestic Direct Source: SURFACE WATER Point: MOUSE HOUSE DYKE Data Type: Point Name: H LODGE & SONS Easting: 423500 Northing: 413700	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 14/12/1965 Expiry Date: - Issue No: 100 Version Start Date: 14/12/1965 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m	0

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

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

5.9 Source Protection Zones

Records within 500m	0

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.

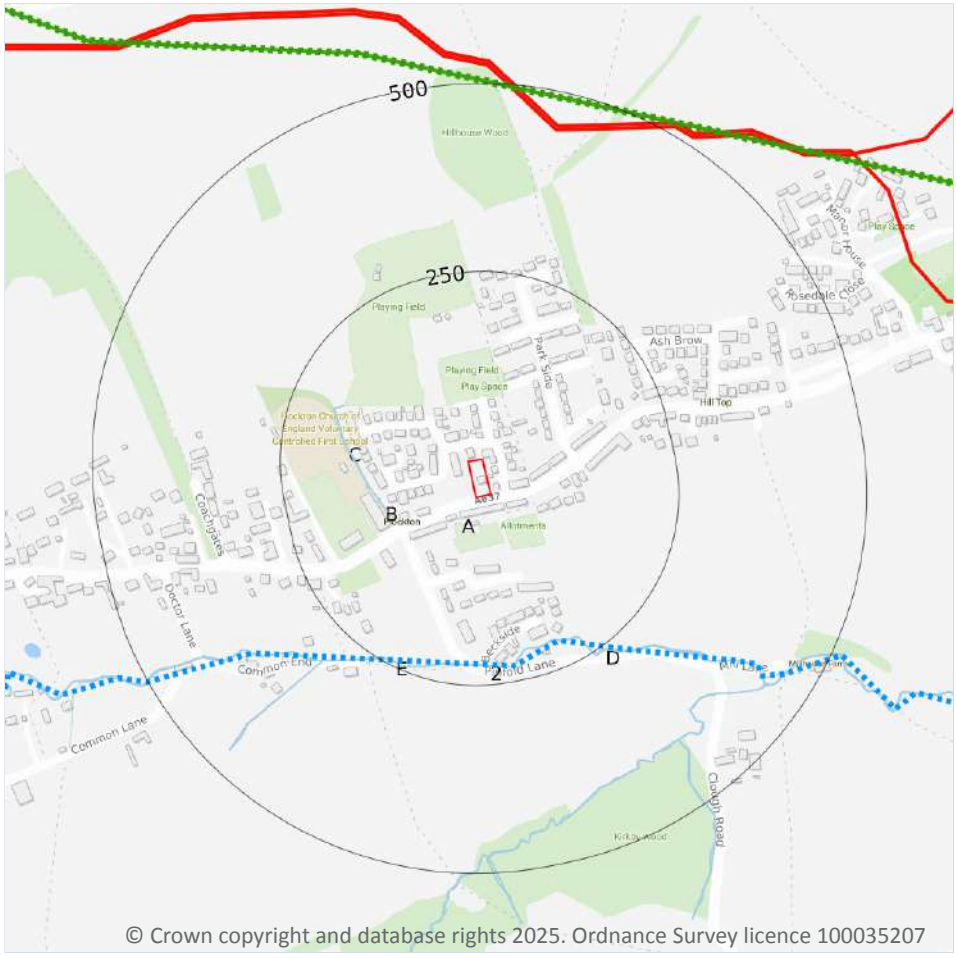
5.10 Source Protection Zones (confined aquifer)

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



Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m	8

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 38 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
B	118m W	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	125m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	127m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
B	128m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
C	135m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
D	210m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Flockton Beck
2	223m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Flockton Beck
E	223m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Flockton Beck

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	4

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 38 >**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

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

Features are displayed on the Hydrology map on **page 38 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Bentley Brook from Source to River Dearne**	**GB104027063310**	**Dearne**	**Don and Rother**

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

6.4 WFD Surface water bodies

Records identified	**1**

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

Features are displayed on the Hydrology map on **page 38 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
1	214m SE	River	Bentley Brook from Source to River Dearne	GB104027063310 ↗	Moderate	Fail	Moderate	2019

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

6.5 WFD Groundwater bodies

Records on site	**1**

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

Features are displayed on the Hydrology map on **page 38 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
A	**On site**	**Don & Rother Millstone grit & Coal Measures**	**GB40402G992300 ↗**	**Poor**	**Poor**	**Good**	**2019**

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

7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m	0

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

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

7.2 Historical Flood Events

Records within 250m	0

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

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

7.3 Flood Defences

Records within 250m	0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

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

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

7.5 Flood Storage Areas

Records within 250m	0

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

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0

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

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

7.7 Flood Zone 3

Records within 50m	0

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

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

8 Surface water flooding

8.1 Surface water flooding

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

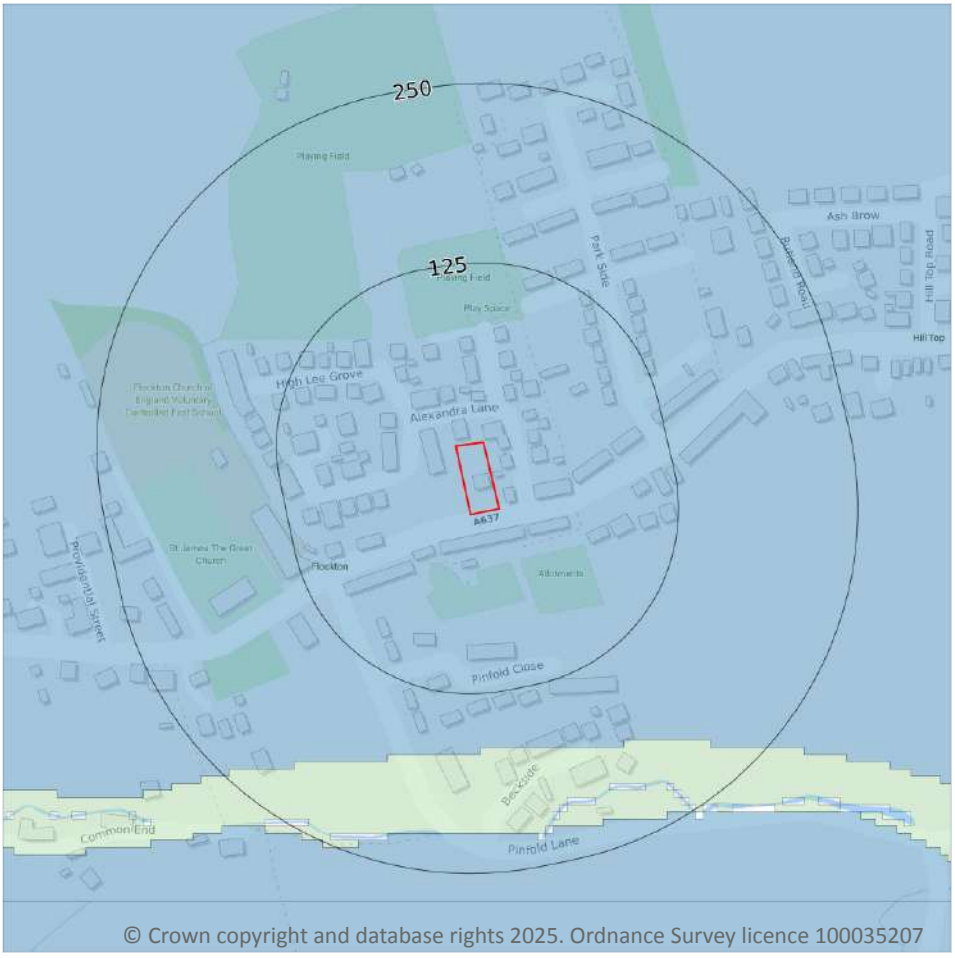
Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year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

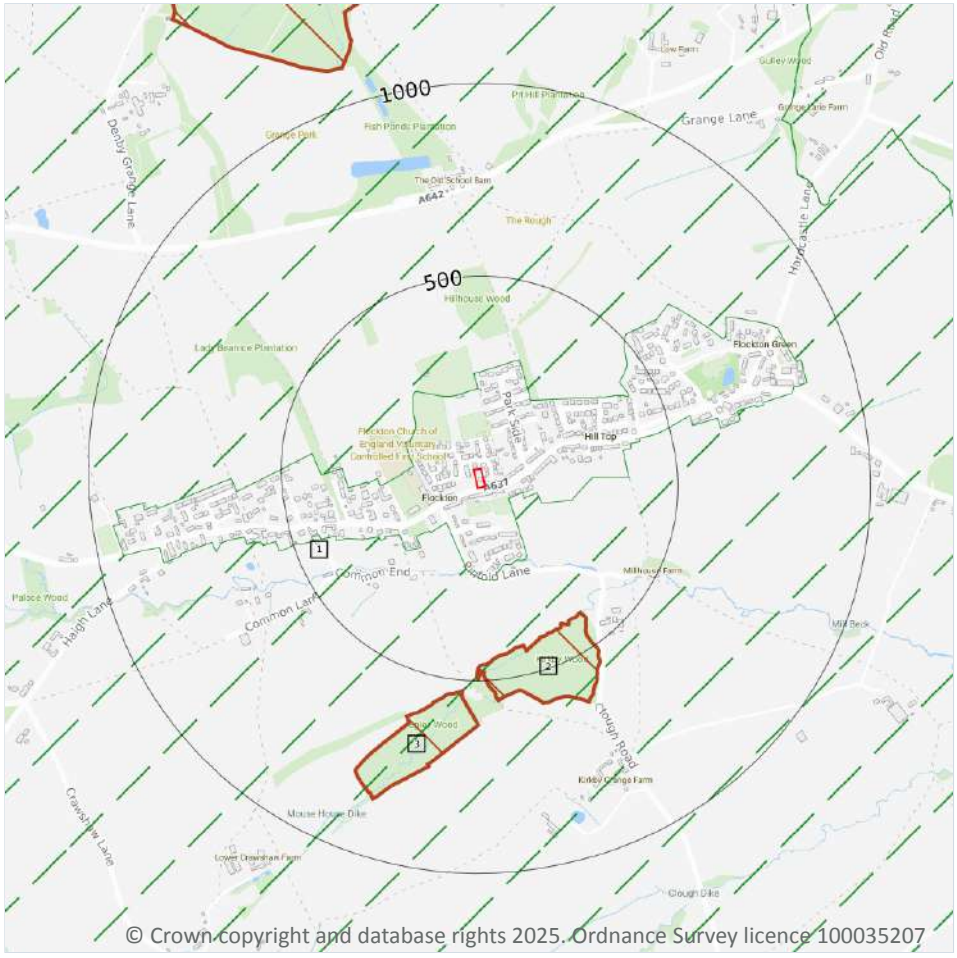
Highest risk on site	**Negligible**
Highest risk within 50m	**Negligible**

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 45 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



Site Outline

Search buffers in metres (m)

Designated Ancient Woodland

Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m	0

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m	0

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

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

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

10.7 Designated Ancient Woodland

Records within 2000m	6

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

Features are displayed on the Environmental designations map on **page 46 >**

ID	Location	Name	Woodland Type
2	406m SE	Unknown	Ancient & Semi-Natural Woodland
3	528m S	Epley Wood	Ancient Replanted Woodland
4	1096m N	Grange, Hepper And Denby Woods	Ancient Replanted Woodland
-	1378m N	Harry Royd Clough Wood	Ancient Replanted Woodland
-	1568m NE	Unknown	Ancient Replanted Woodland
-	1635m SE	Bank Wood	Ancient Replanted Woodland

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	2

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

Features are displayed on the Environmental designations map on **page 46 >**

ID	Location	Name	Local Authority name
1	68m SE	South and West Yorkshire Green Belt	Kirklees
5	1119m NE	South and West Yorkshire Green Belt	Wakefield

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	3

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

Location	Name	Type	NVZ ID	Status
On site	**River Dearne NVZ**	**Surface Water**	**278**	**Existing**

Location	Name	Type	NVZ ID	Status
81m W	River Dearne NVZ	Surface Water	278	Existing
1872m NW	River Dearne NVZ	Surface Water	278	Existing

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

SSSI Impact Zones and Units

10.17 SSSI Impact Risk Zones

Records on site	0

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

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	0

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

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

11 Visual and cultural designations

Site Outline

Search buffers in metres (m)

- Listed buildings
- Conservation areas
- Conservation areas - no data
- National Parks
- Areas of Outstanding Natural Beauty
- Registered parks and gardens
- Scheduled Monuments
- World Heritage Sites

11.1 World Heritage Sites

Records within 250m	0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

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

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

11.3 National Parks

Records within 250m	0

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

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

11.4 Listed Buildings

Records within 250m	1

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

Features are displayed on the Visual and cultural designations map on **page 53 >**

ID	Location	Name	Grade	Reference Number	Listed date
1	175m W	Church Of St James The Great	II	1313327	16/05/1984

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

11.5 Conservation Areas

Records within 250m	0

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

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

11.6 Scheduled Ancient Monuments

Records within 250m	0

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

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

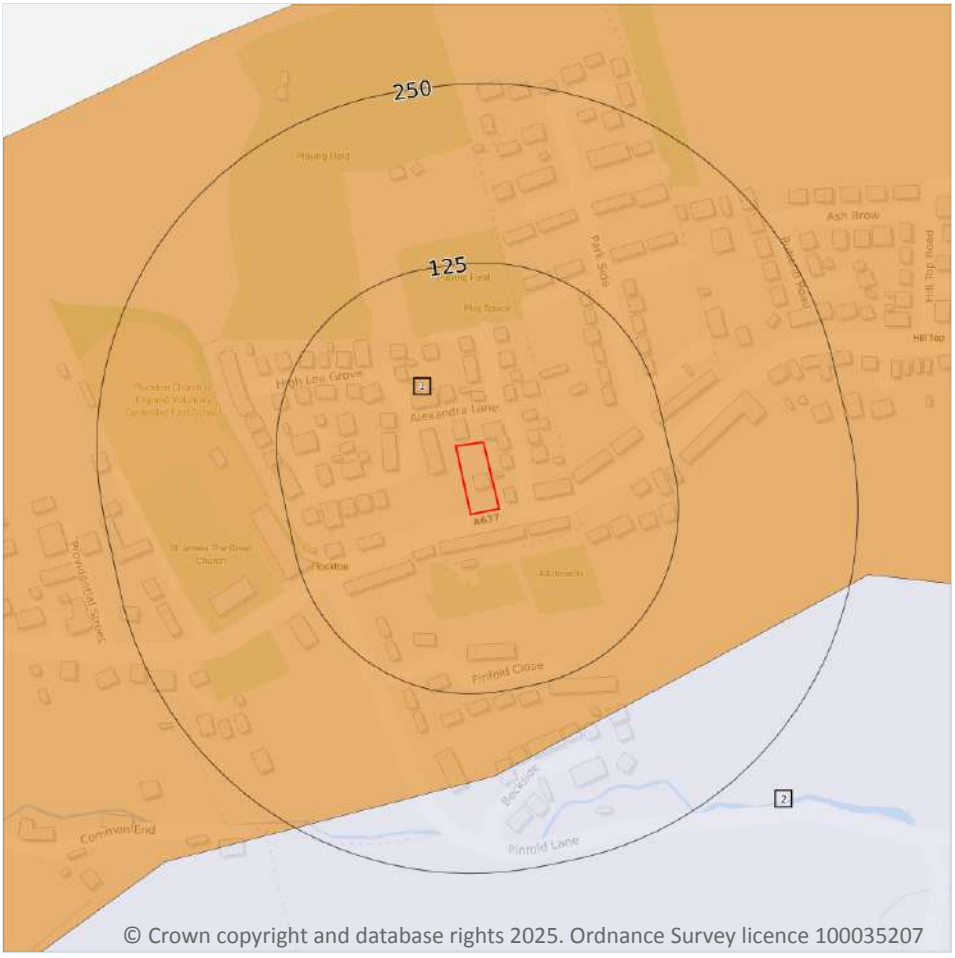
11.7 Registered Parks and Gardens

Records within 250m	0

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

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

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	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 56 >**

ID	Location	Classification	Description
1	On site	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.

ID	Location	Classification	Description
2	163m SE	Grade 4	Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

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

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability

Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m	2

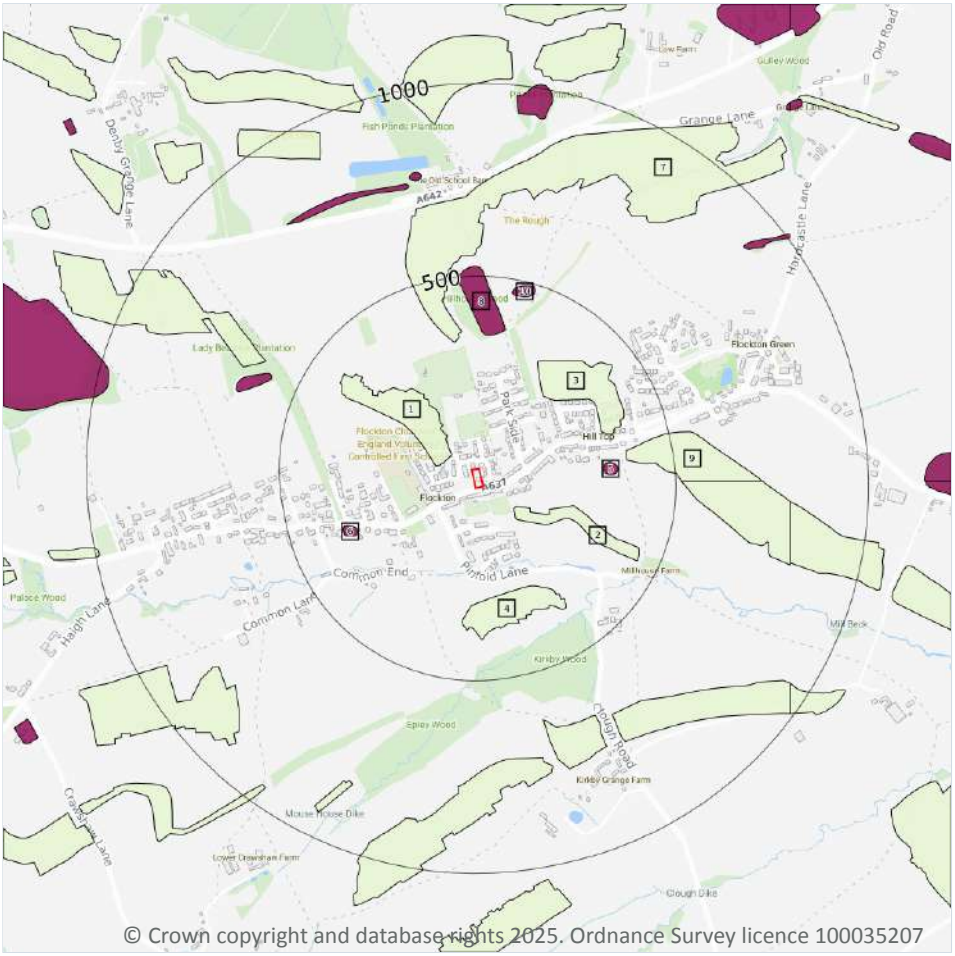
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 60 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SE21NW
2	On site	Full	Full	Full	Full	SE21SW

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

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

14.2 Artificial and made ground (10k)

Records within 500m	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 61 >**

ID	Location	LEX Code	Description	Rock description
1	66m NW	WMGR-ARTDP	Infilled Ground	Artificial Deposit
2	98m SE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
3	252m NE	WMGR-ARTDP	Infilled Ground	Artificial Deposit
4	281m S	WMGR-ARTDP	Infilled Ground	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
5	315m E	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
6	326m W	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	333m N	WMGR-ARTDP	Infilled Ground	Artificial Deposit
8	346m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
9	379m E	WMGR-ARTDP	Infilled Ground	Artificial Deposit
10	459m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial

Site Outline

Search buffers in metres (m)

Landslip (10k)

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

14.3 Superficial geology (10k)

Records within 500m	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 63 >**

ID	Location	LEX Code	Description	Rock description
1	178m S	ALV-XCSV	Alluvium - Clay, Sand And Gravel	Clay, Sand And Gravel

This data is sourced from the British Geological Survey.

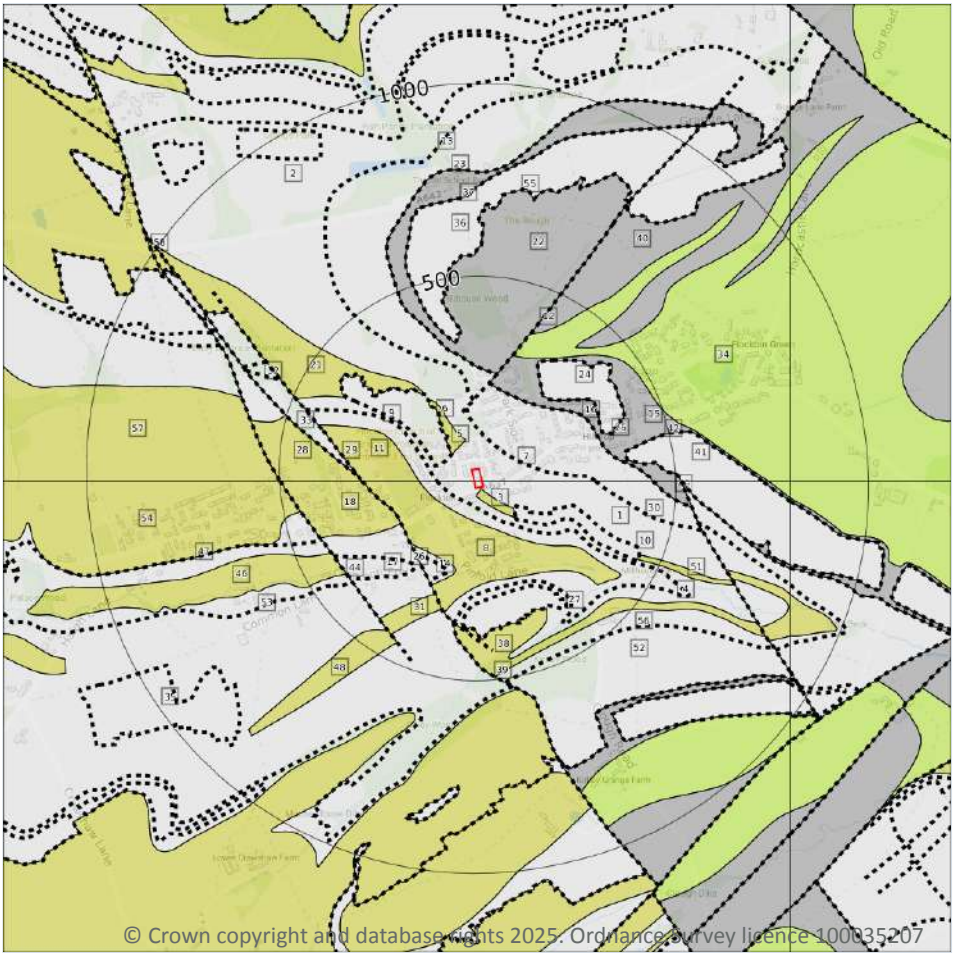
14.4 Landslip (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m **29**

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 65 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PLCM-MDSS**	**Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone**	**Langsettian Sub-age**
2	**On site**	**PLCM-MDSS**	**Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone**	**Langsettian Sub-age**
3	5m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age

ID	Location	LEX Code	Description	Rock age
5	65m NW	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
8	79m SW	ER-SDST	Emley Rock - Sandstone	Langsettian Sub-age
11	141m W	ER-SDST	Emley Rock - Sandstone	Langsettian Sub-age
14	204m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
15	207m NE	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
17	215m SW	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
18	215m SW	BRSR-SDST	Birstall Rock - Sandstone	Langsettian Sub-age
21	232m NW	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
22	251m N	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
24	252m NE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
28	286m W	BRSR-SDST	Birstall Rock - Sandstone	Langsettian Sub-age
31	293m S	BRSR-SDST	Birstall Rock - Sandstone	Langsettian Sub-age
32	293m W	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
34	306m N	TR-SDST	Thornhill Rock - Sandstone	Duckmantian Sub-age
35	326m S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
36	333m N	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
38	345m S	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
40	373m N	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age
41	379m E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
46	403m SW	BRSR-SDST	Birstall Rock - Sandstone	Langsettian Sub-age
48	434m SW	BRSR-SDST	Birstall Rock - Sandstone	Langsettian Sub-age
49	441m E	PMCM-MDSS	Pennine Middle Coal Measures Formation - Mudstone, Siltstone And Sandstone	Bolsovian Sub-age - Duckmantian Sub-age

ID	Location	LEX Code	Description	Rock age
51	442m SE	PLCM-SDST	Pennine Lower Coal Measures Formation - Sandstone	Langsettian Sub-age
52	447m SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian Sub-age
54	457m W	BRSR-SDST	Birstall Rock - Sandstone	Langsettian Sub-age
57	499m W	BRSR-SDST	Birstall Rock - Sandstone	Langsettian Sub-age

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	**29**

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.

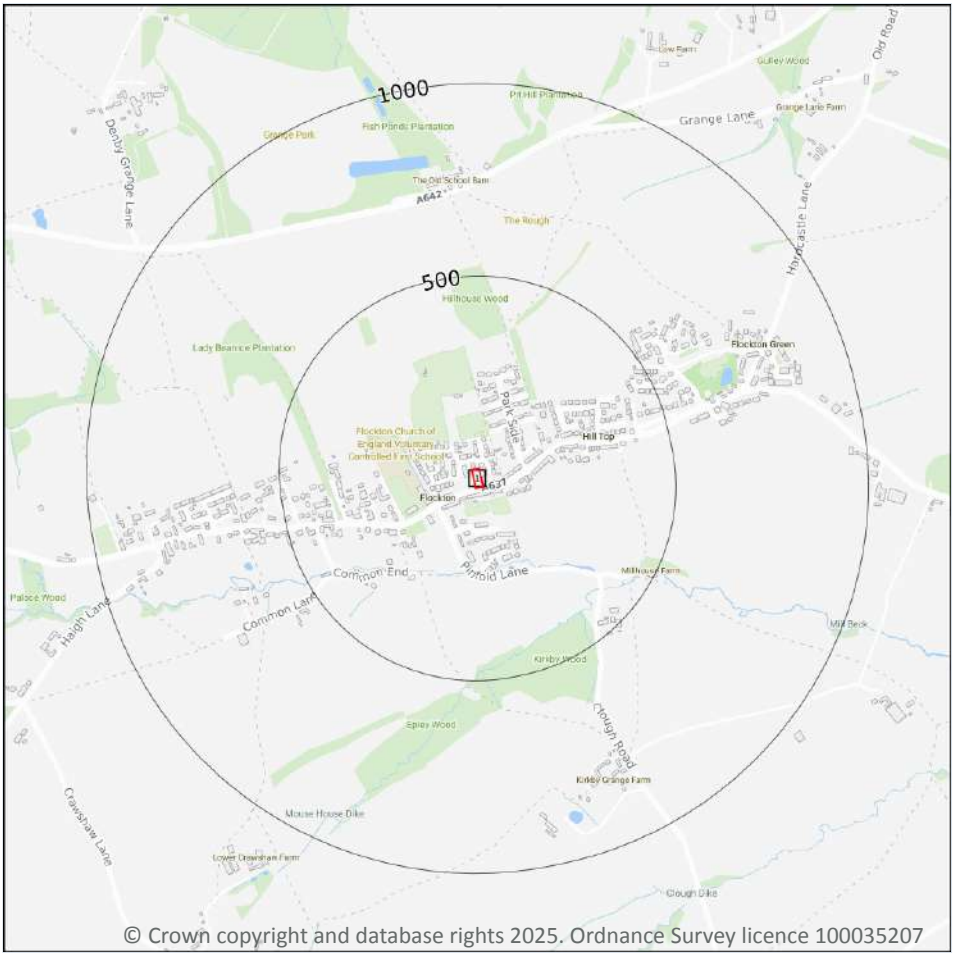
Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 65 >**

ID	Location	Category	Description
4	43m SW	ROCK	Coal seam, observed
6	66m NW	ROCK	Coal seam, observed
7	73m NE	ROCK	Ironstone bed, inferred
9	95m W	ROCK	Coal seam, inferred
10	98m SE	ROCK	Coal seam, observed
12	145m N	FAULT	Normal fault, inferred; crossmarks on downthrow side
13	179m N	ROCK	Ironstone bed, inferred
16	207m NE	ROCK	Coal seam, inferred
19	215m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
20	219m SW	ROCK	Coal seam, inferred
23	251m N	ROCK	Coal seam, inferred
25	252m NE	ROCK	Coal seam, observed
26	254m SW	ROCK	Coal seam, inferred
27	281m S	ROCK	Coal seam, observed
29	286m W	FAULT	Normal fault, inferred; downthrow not specified

ID	Location	Category	Description
30	291m E	ROCK	Ironstone bed, inferred
33	293m W	FAULT	Normal fault, inferred; crossmarks on downthrow side
37	333m N	ROCK	Coal seam, observed
39	352m S	FAULT	Normal fault, observed; crossmark on downthrow side
42	379m E	ROCK	Coal seam, observed
43	399m W	FAULT	Normal fault, observed; crossmark on downthrow side
44	402m SW	FAULT	Normal fault, inferred; crossmarks on downthrow side
45	403m SW	ROCK	Coal seam, inferred
47	421m W	ROCK	Coal seam, inferred
50	441m E	ROCK	Coal seam, inferred
53	449m SW	ROCK	Coal seam, observed
55	467m N	ROCK	Coal seam, observed
56	478m SE	ROCK	Ironstone bed, inferred
58	499m W	FAULT	Normal fault, inferred; crossmarks on downthrow side

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

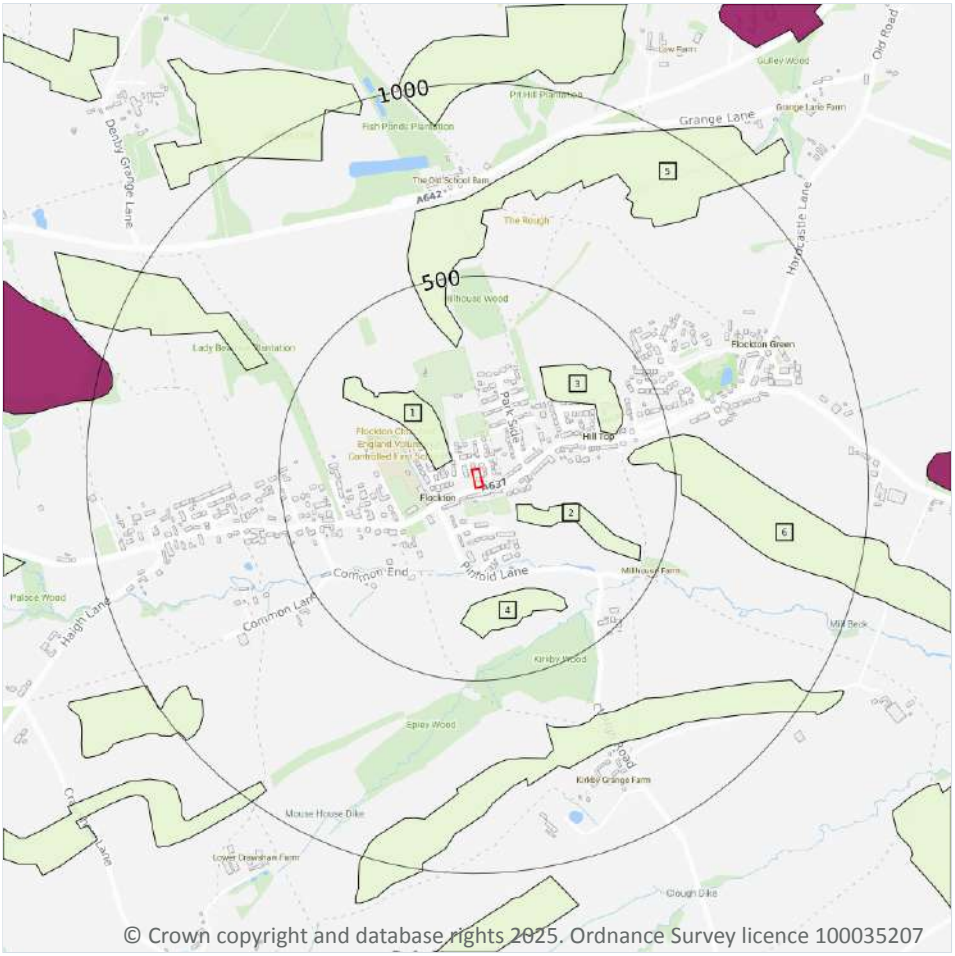
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 69 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW077_huddersfield_v4**

This data is sourced from the British Geological Survey.

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



Site Outline

Search buffers in metres (m)

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

15.2 Artificial and made ground (50k)

Records within 500m	6

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 70 >**

ID	Location	LEX Code	Description	Rock description
1	57m NW	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
2	97m SE	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
3	256m NE	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
4	283m S	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

ID	Location	LEX Code	Description	Rock description
5	320m N	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT
6	382m E	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial

Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m	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 72 >**

ID	Location	LEX Code	Description	Rock description
1	165m S	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

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.

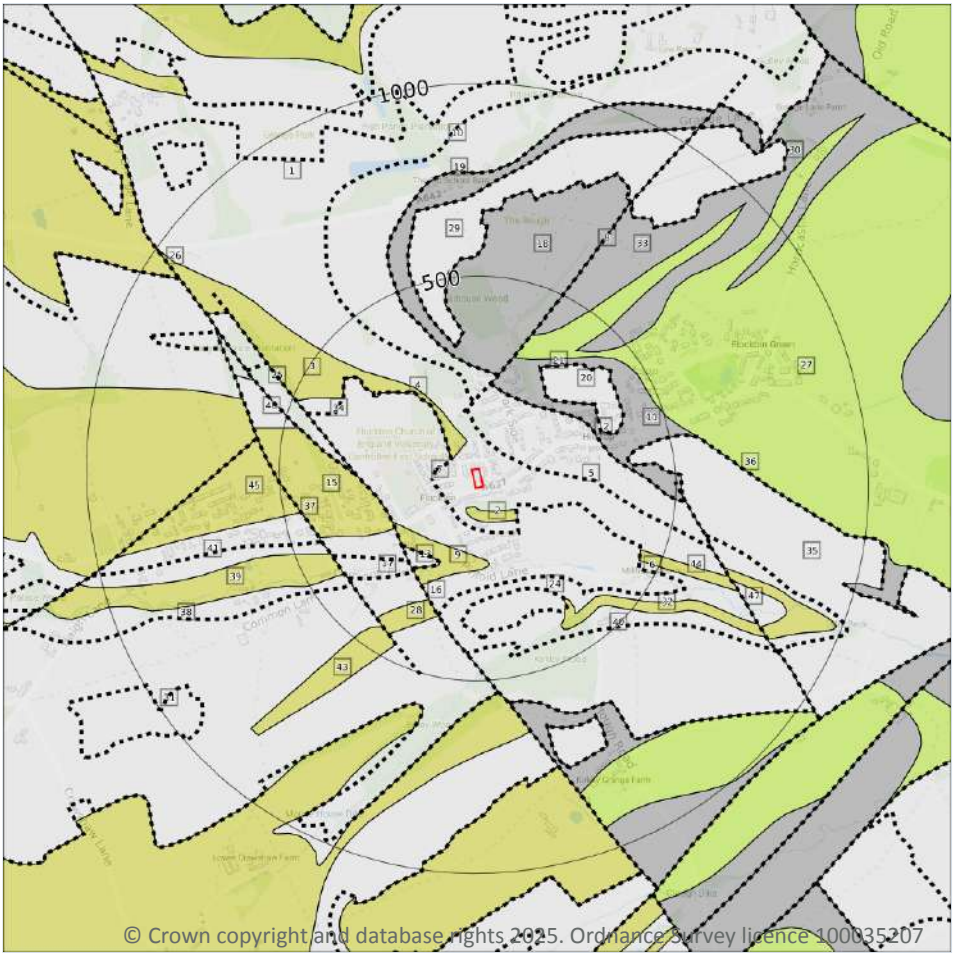
15.7 Landslip permeability (50k)

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	24

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 74 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**PLCM-MDSS**	**PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE**	**WESTPHALIAN**
2	48m S	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
3	56m NW	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
9	166m S	ER-SDST	EMLEY ROCK - SANDSTONE	WESTPHALIAN
11	206m NE	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
13	212m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
15	234m SW	BRSR-SDST	BIRSTALL ROCK - SANDSTONE	WESTPHALIAN
17	234m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
18	248m N	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
20	256m NE	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
25	299m W	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
27	303m N	TR-SDST	THORNHILL ROCK - SANDSTONE	WESTPHALIAN
28	313m SW	BRSR-SDST	BIRSTALL ROCK - SANDSTONE	WESTPHALIAN
29	320m N	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
31	345m S	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
32	356m SE	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
33	371m N	PMCM-MDSS	PENNINE MIDDLE COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
35	382m E	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
39	407m SW	BRSR-SDST	BIRSTALL ROCK - SANDSTONE	WESTPHALIAN
41	413m SW	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN
43	432m SW	BRSR-SDST	BIRSTALL ROCK - SANDSTONE	WESTPHALIAN
44	439m E	PLCM-SDST	PENNINE LOWER COAL MEASURES FORMATION - SANDSTONE	WESTPHALIAN
45	456m W	BRSR-SDST	BIRSTALL ROCK - SANDSTONE	WESTPHALIAN

ID	Location	LEX Code	Description	Rock age
46	461m W	PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION - MUDSTONE, SILTSTONE AND SANDSTONE	WESTPHALIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	**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**	**Moderate**	**Low**
48m S	Fracture	High	Moderate

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	**23**

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 74 >**

ID	Location	Category	Description
4	57m NW	ROCK	Coal seam, inferred
5	68m NE	ROCK	Ironstone bed, inferred
6	82m SW	ROCK	Coal seam, inferred
7	93m W	ROCK	Coal seam, inferred
8	142m N	FAULT	Fault, inferred
10	175m N	ROCK	Ironstone bed, inferred
12	206m NE	ROCK	Coal seam, inferred
14	212m SW	ROCK	Coal seam, inferred
16	234m SW	FAULT	Fault, inferred

ID	Location	Category	Description
19	248m N	ROCK	Coal seam, inferred
21	256m NE	ROCK	Coal seam, inferred
22	257m SW	ROCK	Coal seam, inferred
23	270m SW	ROCK	Coal seam, inferred
24	283m S	ROCK	Coal seam, inferred
26	299m W	FAULT	Fault, inferred
30	320m N	ROCK	Coal seam, inferred
34	381m NW	ROCK	Coal seam, inferred
36	382m E	ROCK	Coal seam, inferred
37	405m SW	FAULT	Fault, inferred
38	407m SW	ROCK	Coal seam, inferred
40	413m S	ROCK	Ironstone bed, inferred
42	423m W	ROCK	Coal seam, inferred
47	498m E	FAULT	Fault, inferred

This data is sourced from the British Geological Survey.

16 Boreholes

Site Outline

Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m	1

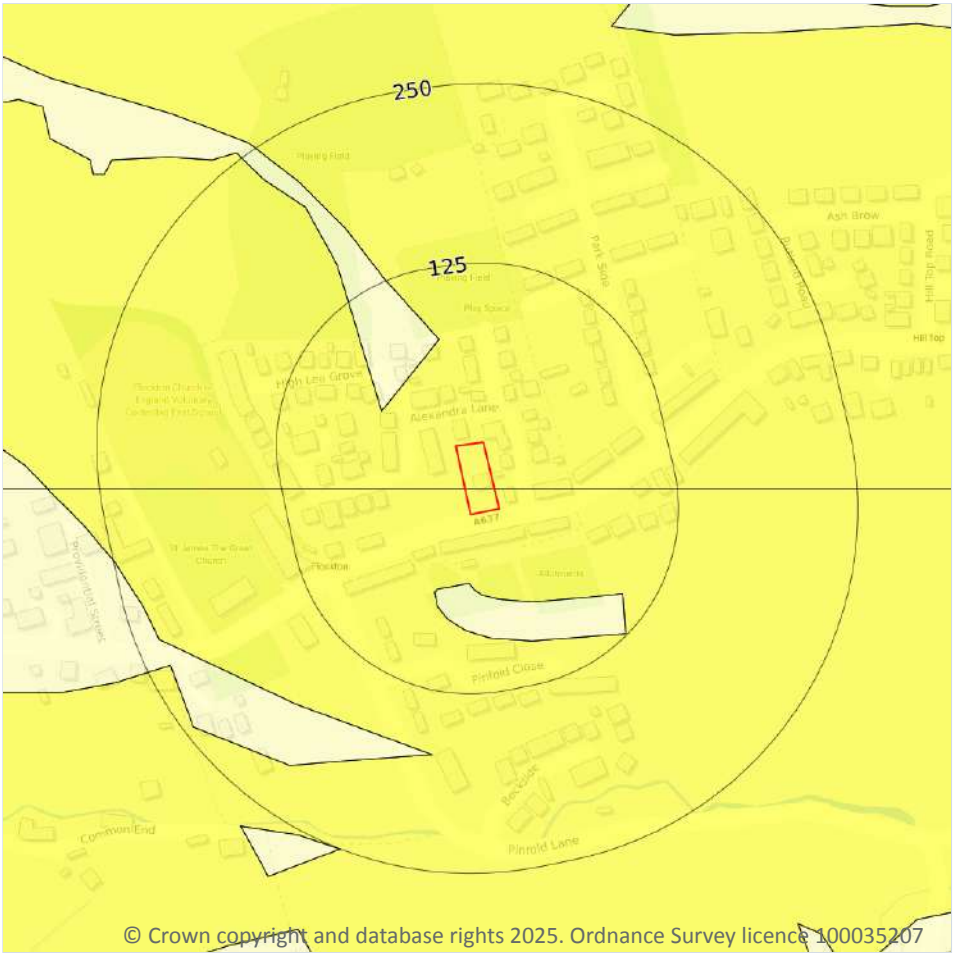
The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on **page 78 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	4m E	424205 414992	NATIONAL COAL MINING MUSEUM OVERTON 3	151.3	N	15937049 ↗

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



Site Outline

Search buffers in metres (m)

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

17.1 Shrink swell clays

Records within 50m	2

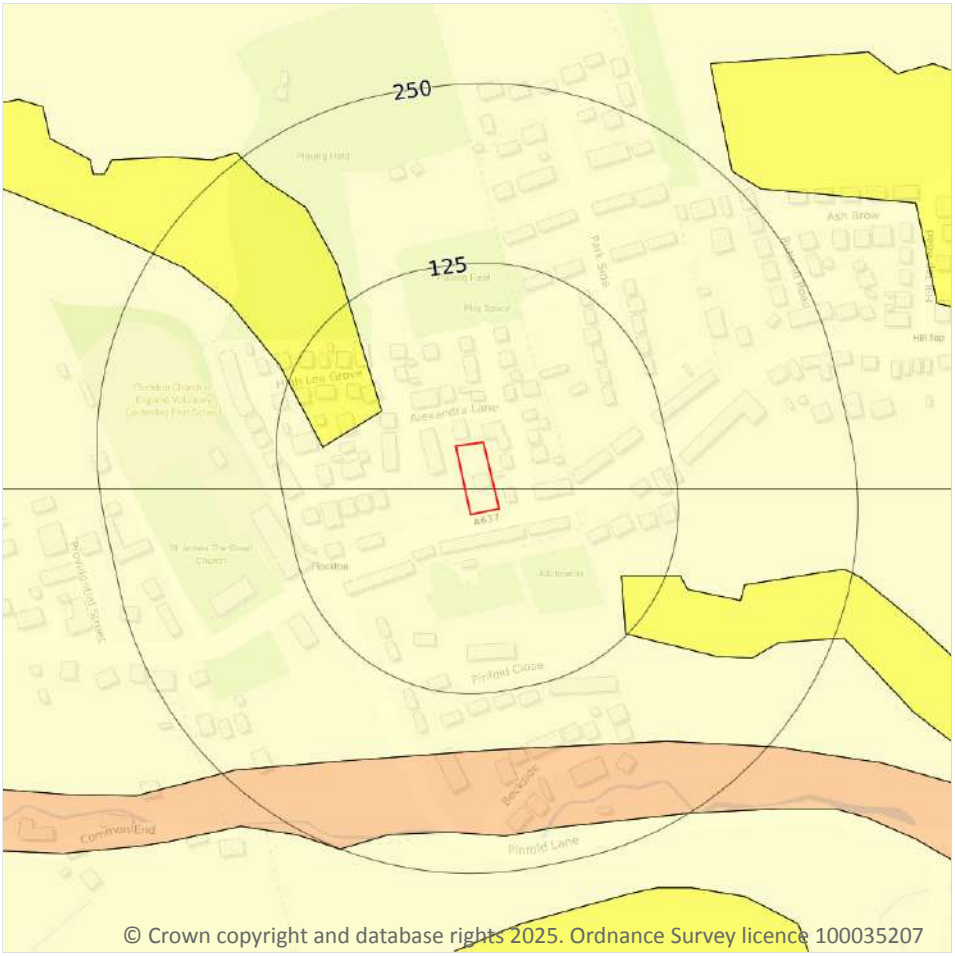
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 79 >**

Location	Hazard rating	Details
On site	**Very low**	**Ground conditions predominantly low plasticity.**
48m S	Negligible	Ground conditions predominantly non-plastic.

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	1

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

Features are displayed on the Natural ground subsidence - Running sands map on **page 80 >**

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.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits

Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	1

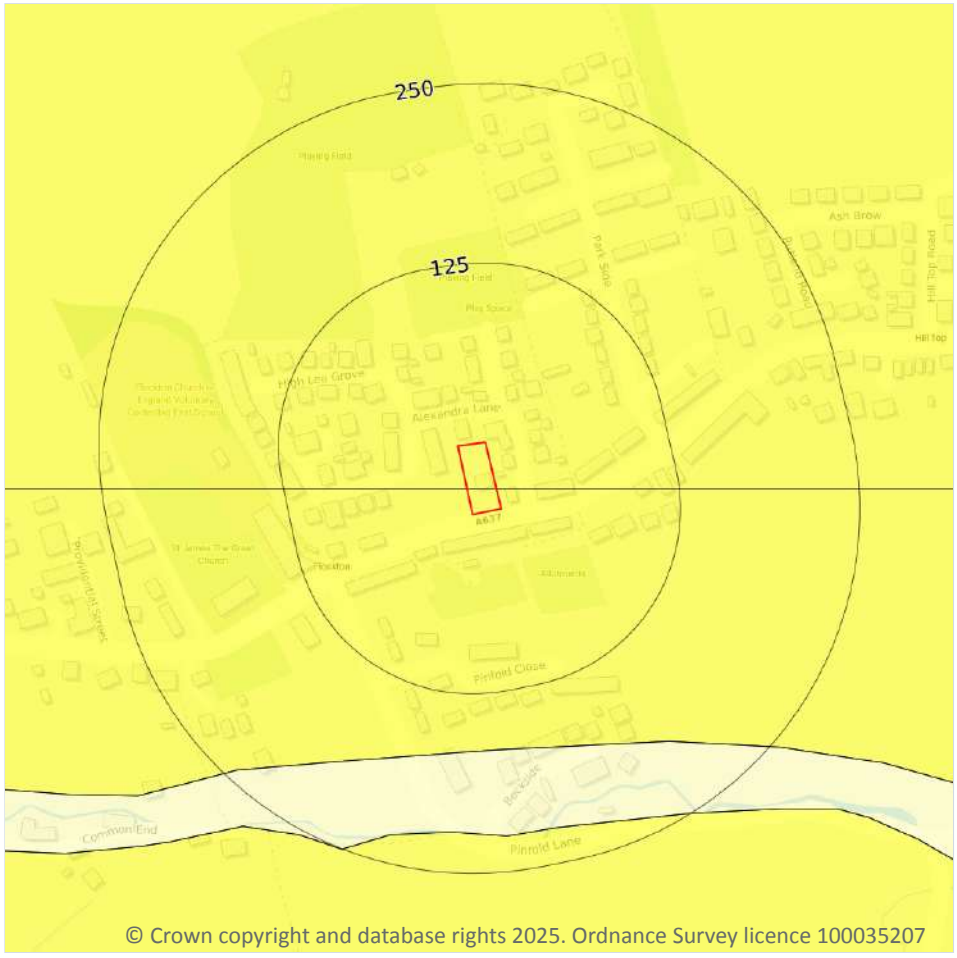
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 81 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	1

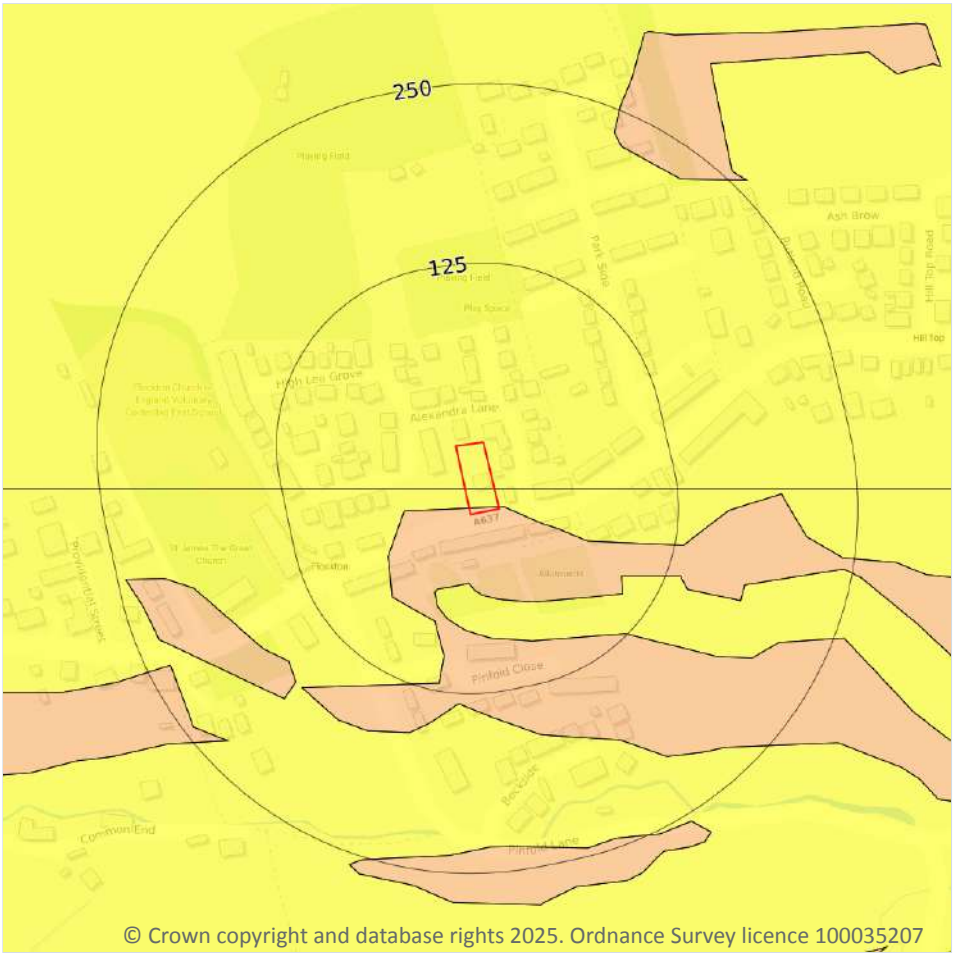
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 82 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

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

17.5 Landslides

Records within 50m	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.

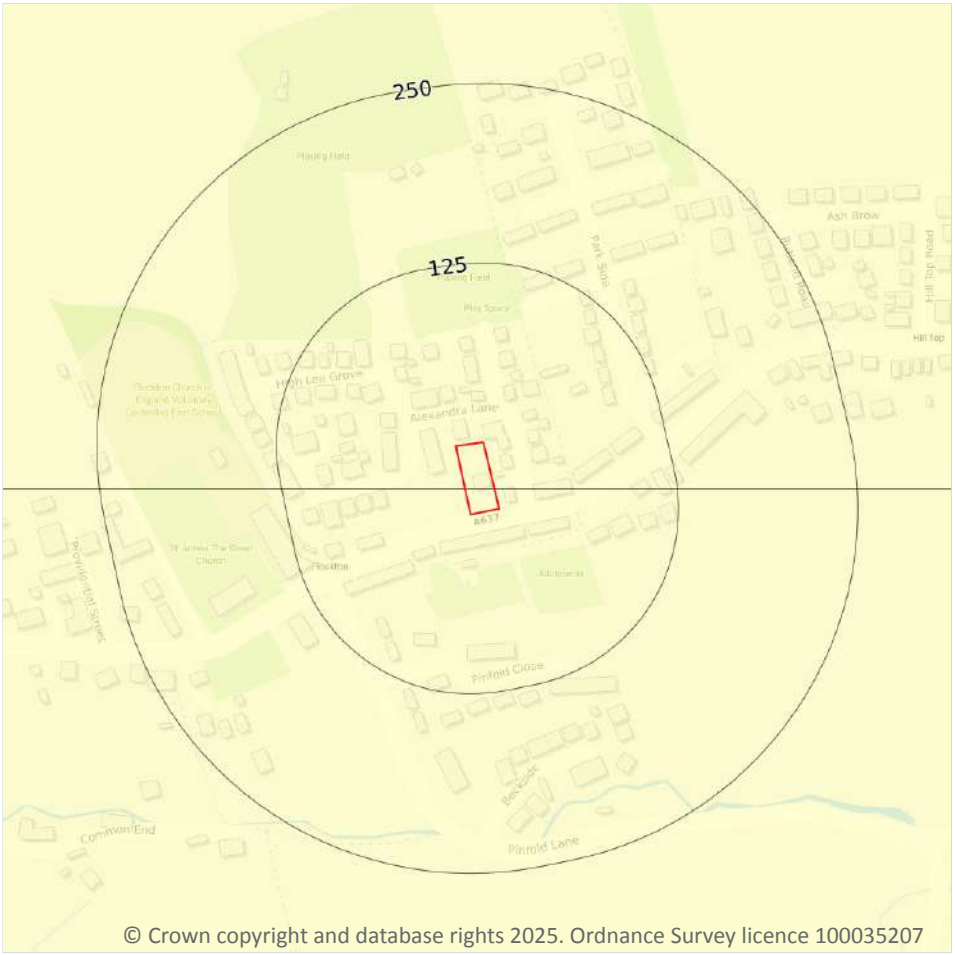
Features are displayed on the Natural ground subsidence - Landslides map on **page 83 >**

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



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

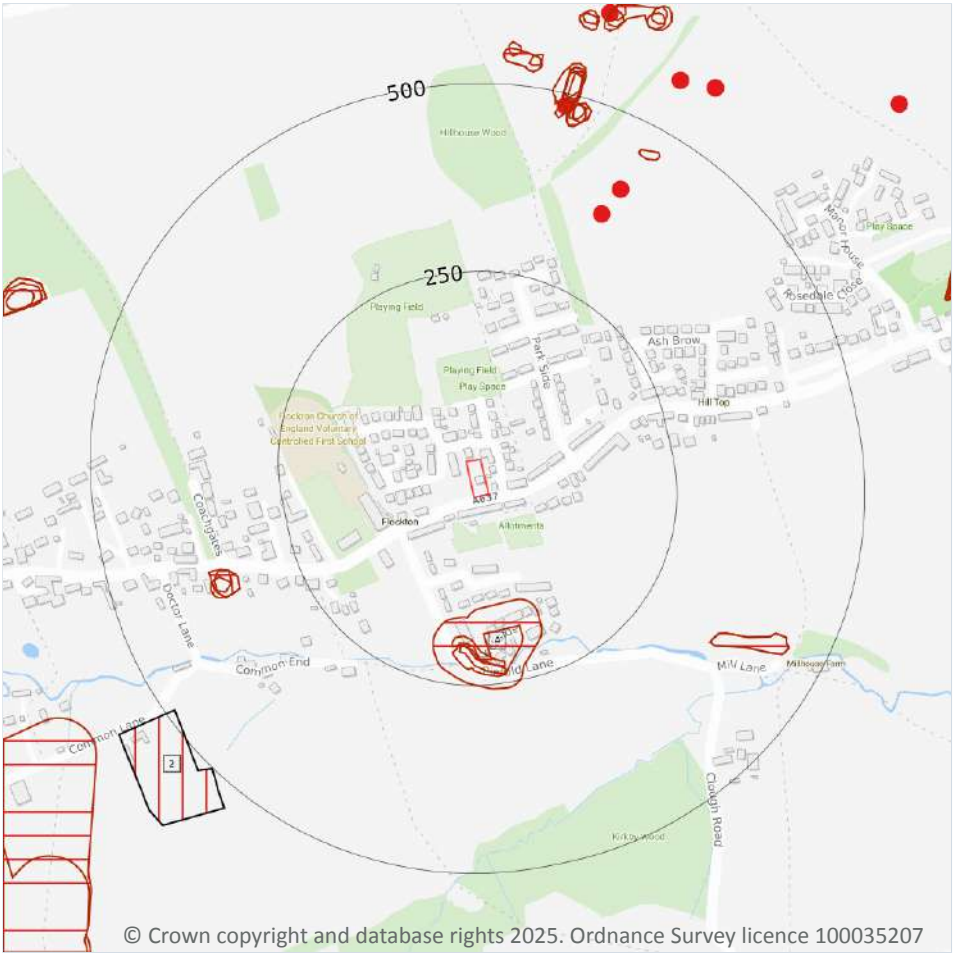
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 85 >**

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

This data is sourced from the British Geological Survey.

18 Mining and ground workings



Site Outline

Search buffers in metres (m)

BritPits

Surface ground workings

Underground workings

Underground mining extents

Historical mineral planning areas

TCA non-coal mining

Non Coal Mining

Sporadic underground mining of restricted extent possible

Localised small scale underground mining possible

Small scale mining possible

Underground mining known or likely within or in close proximity

Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m	3

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

Features are displayed on the Mining and ground workings map on **page 87 >**

ID	Location	Details	Description
D	363m NE	Name: Flockton Pits Address: Flockton, HUDDERSFIELD, West Yorkshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit, drift or incline. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun' Ee' - Scots). May also be locally termed `Quarry' or `Underground Quarry' when referring to sites extracting building stone (e.g. in Dorset and Wiltshire). The location given is that of the mine entrance and may be approximate for older sites shown on contemporaneous mapping by the Geological Survey used as the source document. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
D	405m NE	Name: Flockton Pits Address: Flockton, HUDDERSFIELD, West Yorkshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit, drift or incline. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun' Ee' - Scots). May also be locally termed `Quarry' or `Underground Quarry' when referring to sites extracting building stone (e.g. in Dorset and Wiltshire). The location given is that of the mine entrance and may be approximate for older sites shown on contemporaneous mapping by the Geological Survey used as the source document. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.
E	484m N	Name: Rough Pit Address: Flockton, HUDDERSFIELD, West Yorkshire Commodity: Coal, Deep Status: Ceased	Type: Working is wholly underground, access by shaft, adit, drift or incline. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun' Ee' - Scots). May also be locally termed `Quarry' or `Underground Quarry' when referring to sites extracting building stone (e.g. in Dorset and Wiltshire). The location given is that of the mine entrance and may be approximate for older sites shown on contemporaneous mapping by the Geological Survey used as the source document. Status description: Site which has ceased to extract minerals. May be considered as 'Closed' by operator. May be considered to have 'Active', 'Dormant' or 'Expired' planning permissions by the Mineral Planning Authority.

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	4

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

Features are displayed on the Mining and ground workings map on **page 87 >**

ID	Location	Land Use	Year of mapping	Mapping scale
A	145m S	Sewage Works	1955	1:10560
A	179m S	Sewage Works	1948	1:10560
A	185m S	Refuse Heap	1955	1:10560
A	198m S	Refuse Heap	1948	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	8

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 and ground workings map on **page 87 >**

ID	Location	Land Use	Year of mapping	Mapping scale
2	488m SW	Unspecified Mine	1967	1:10560
-	869m SE	Old Ironstone Pits	1955	1:10560
-	880m W	Unspecified Shaft	1951	1:10560
-	881m W	Unspecified Shaft	1948	1:10560
-	930m W	Unspecified Mine	1966	1:10560
-	956m NE	Unspecified Old Shaft	1905	1:10560
-	993m W	Disused Delf	1955	1:10560
-	994m W	Disused Delf	1948	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m	0

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

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	0

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

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site	0

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

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m	0

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

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

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m	1

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

Location	Mineral type
251m NE	Stone

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m	0

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

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m	0

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

This data is sourced from Groundsure.

18.12 Coal mining

Records on site	1

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

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

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	**0**

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

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

18.14 Gypsum areas

Records on site	**0**

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	**0**

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	**0**

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

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

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m	0

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

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m	0

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

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m	0

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

This data is sourced from Groundsure.

19.4 Historical incidents

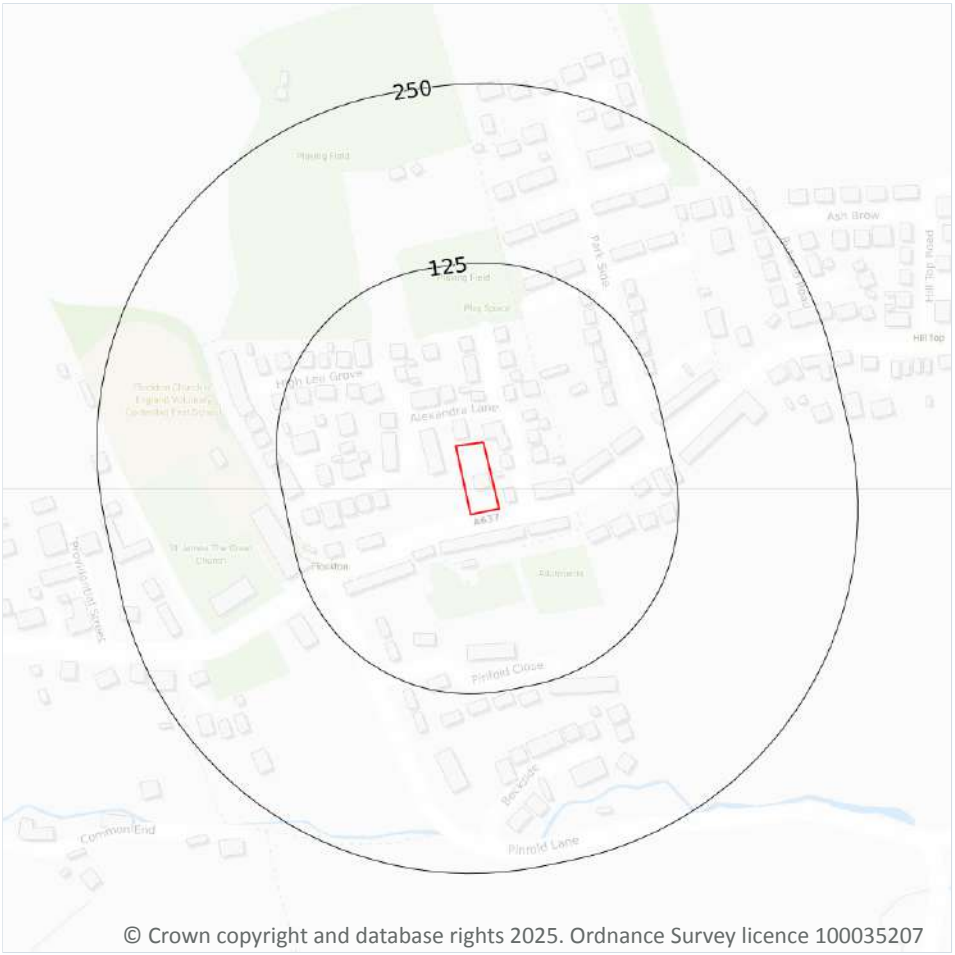
Records within 500m	0

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

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

This data is sourced from Groundsure.

20 Radon



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%

20.1 Radon

Records on site	1

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

Features are displayed on the Radon map on **page 95 >**

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

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

21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m	3

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
48m S	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.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

21.3 BGS Measured Urban Soil Chemistry

Records within 50m	0

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

This data is sourced from the British Geological Survey.

22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m	0

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

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m	0

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

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m	0

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

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m	0

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

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 2

Records within 500m	0

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

This data is sourced from publicly available information by Groundsure.

22.9 HS2

Records within 500m	0

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

This data is sourced from HS2 ltd.

Data providers

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

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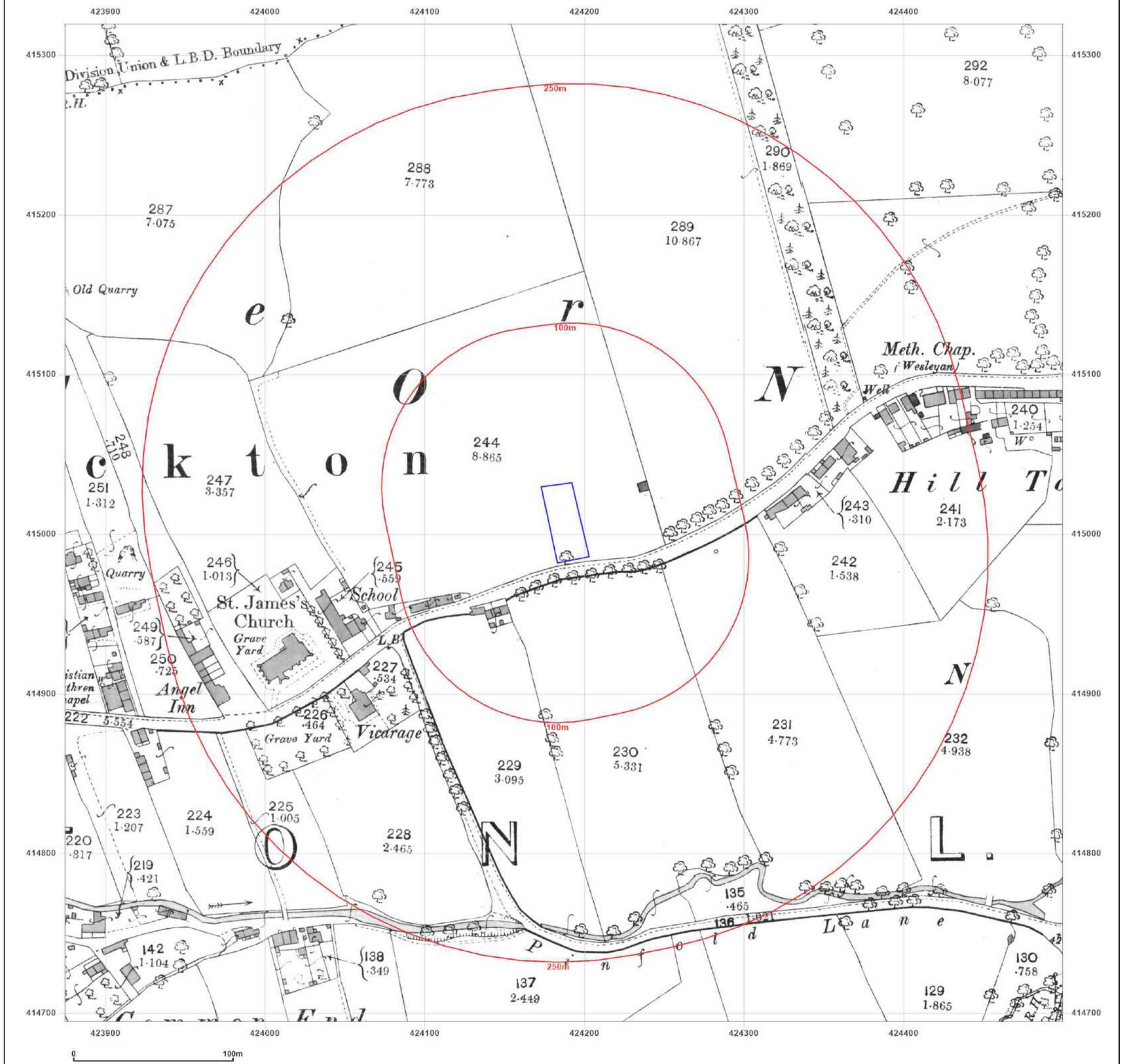

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Site Details:

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KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: County Series

Map date: **1893**

Scale: 1:2,500

Printed at: 1:2,500

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

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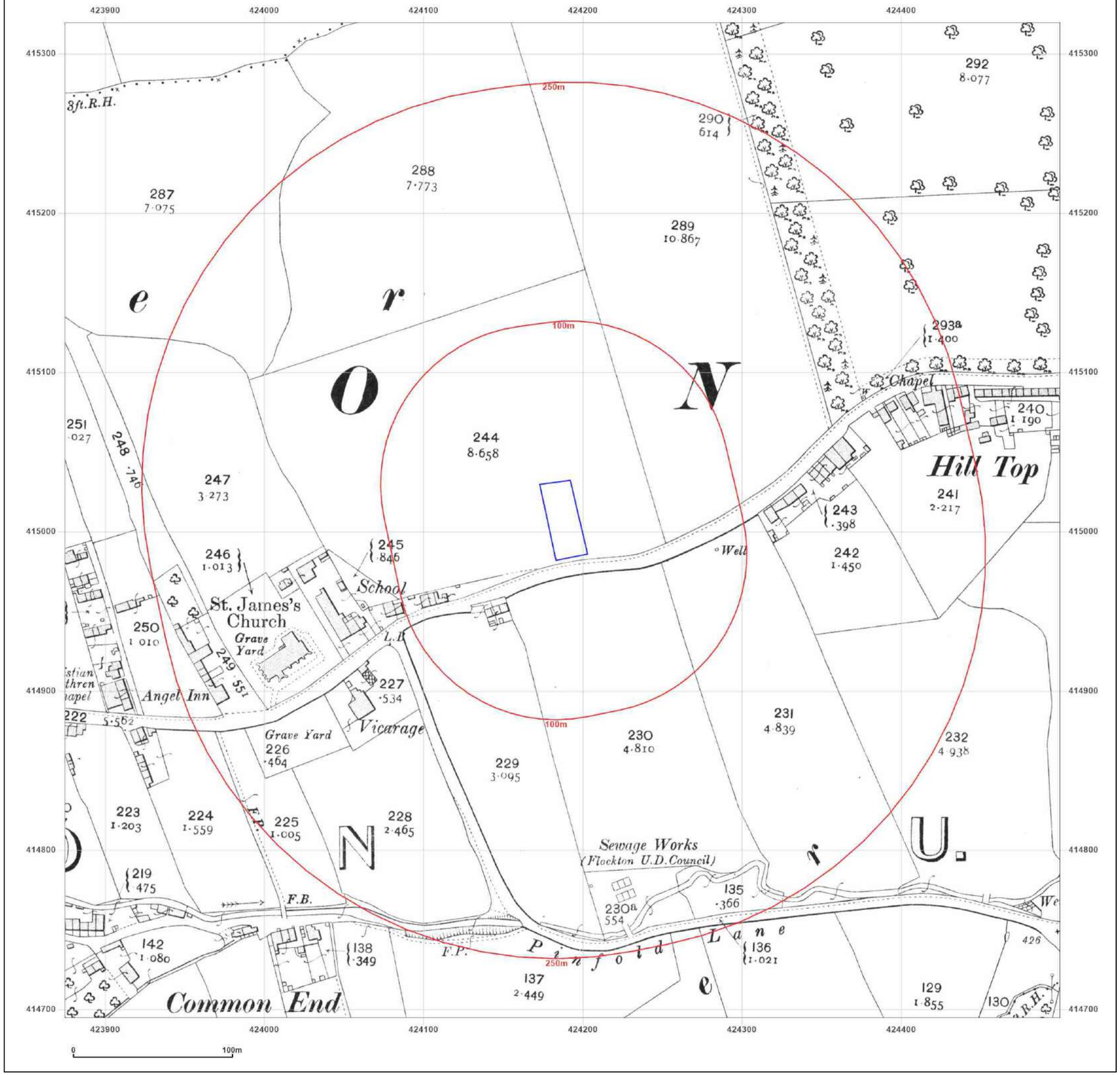

Groundsure INSIGHTS

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: County Series

Map date: **1906**

Scale: 1:2,500

Printed at: 1:2,500

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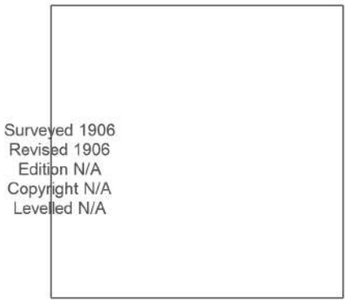

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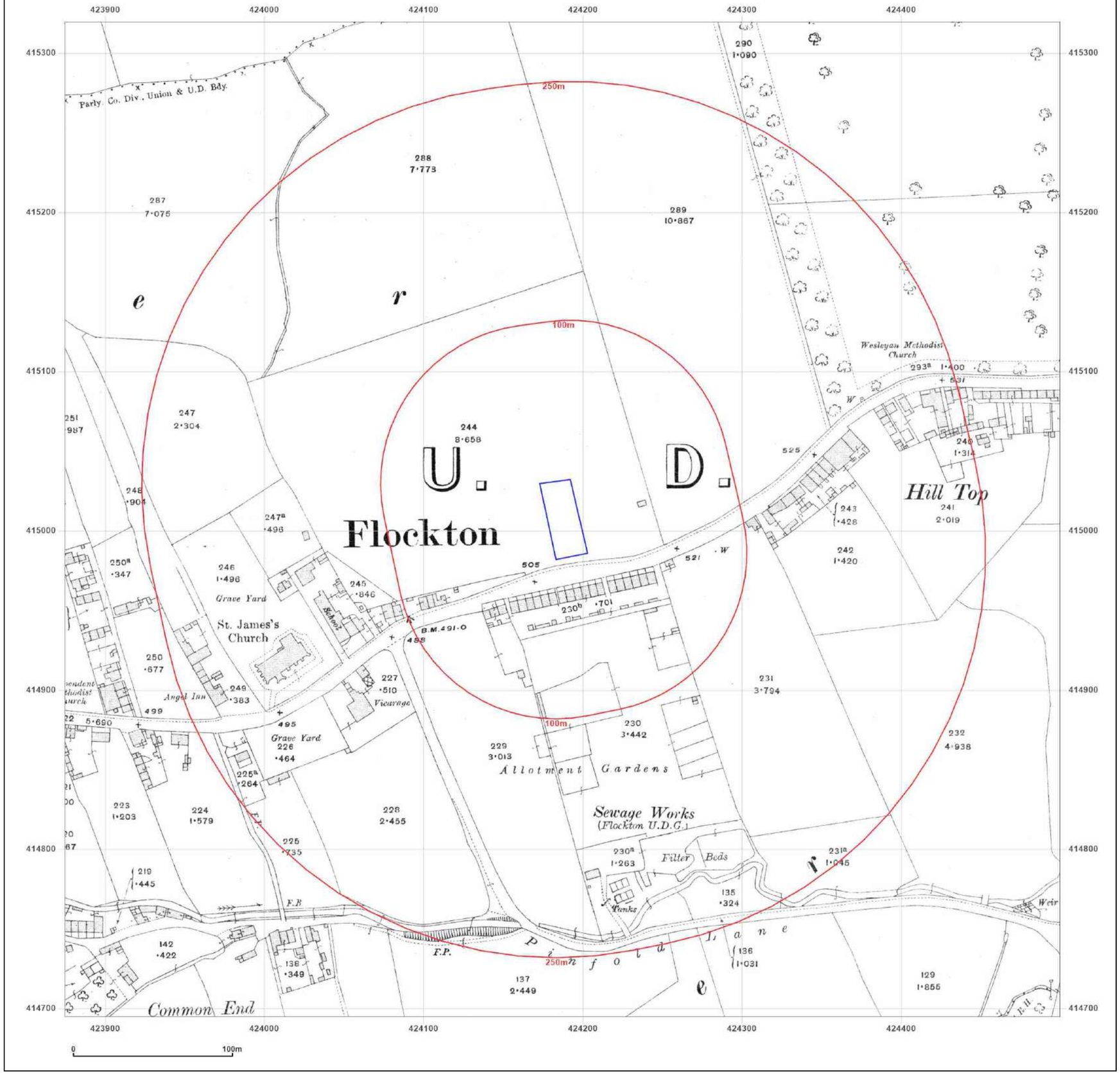

Groundsure INSIGHTS

Site Details:

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FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

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
Copyright N/A
Levelled N/A

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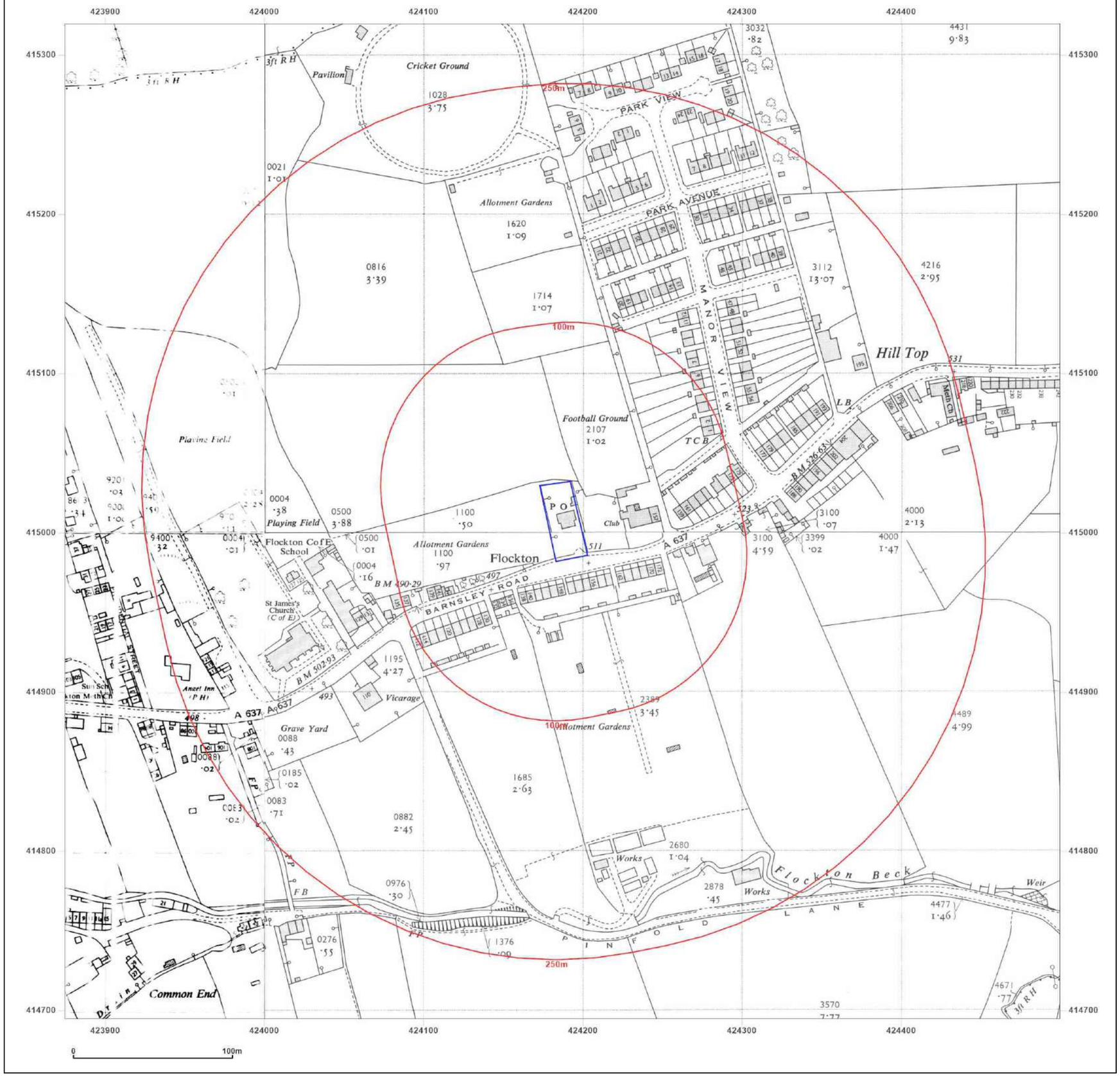

Groundsure INSIGHTS

Site Details:

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FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: National Grid
Map date: **1961-1962**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A	Surveyed 1960 Revised 1960 Edition N/A Copyright 1961 Levelled 1958
Surveyed N/A Revised N/A Edition N/A Copyright N/A Levelled N/A	Surveyed 1960 Revised 1960 Edition N/A Copyright 1961 Levelled 1958

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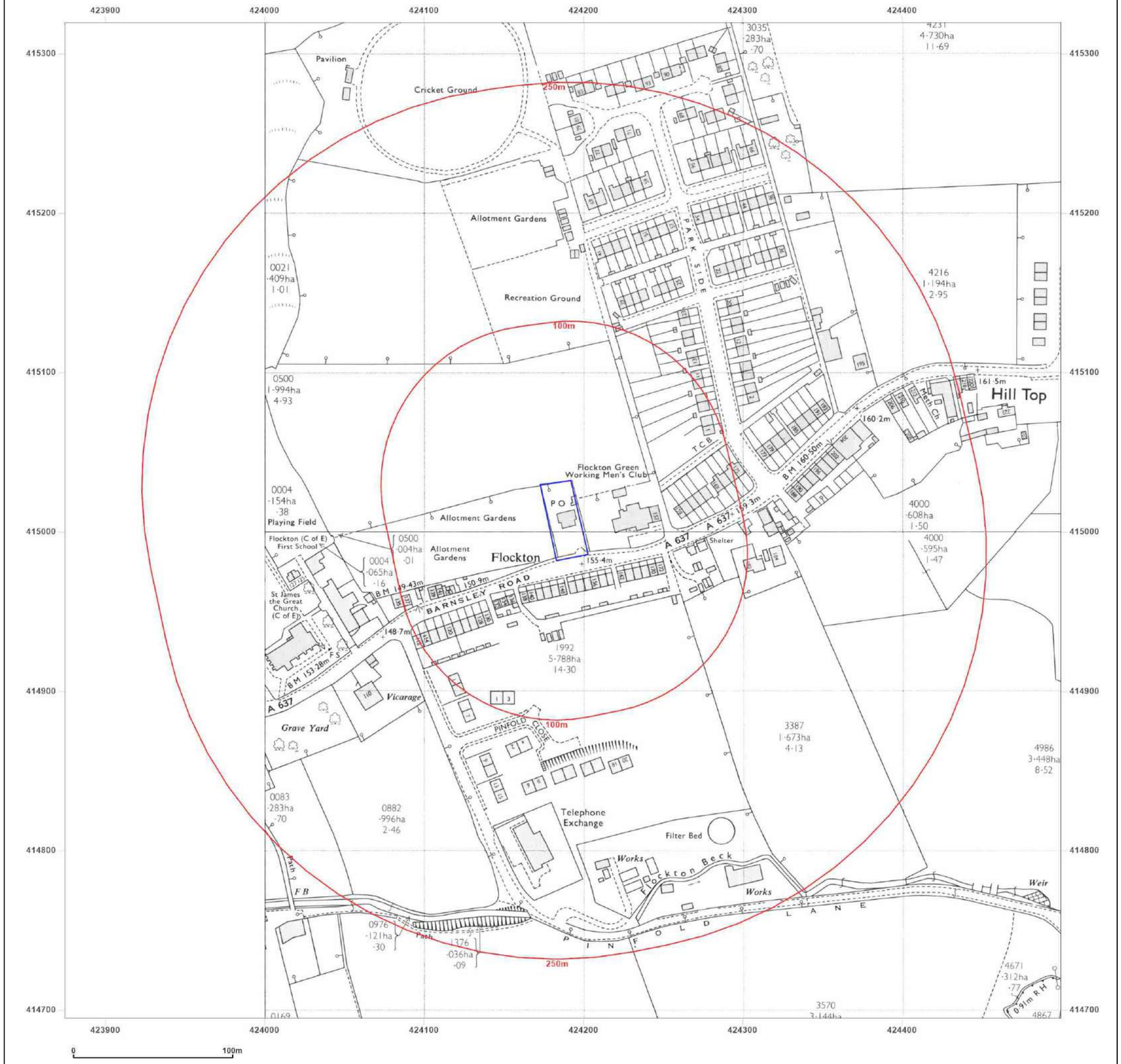

Groundsure INSIGHTS

Site Details:

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FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: National Grid

Map date: **1975-1978**

Scale: 1:2,500

Printed at: 1:2,500

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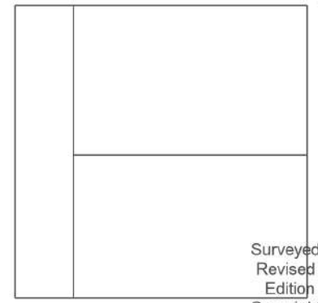

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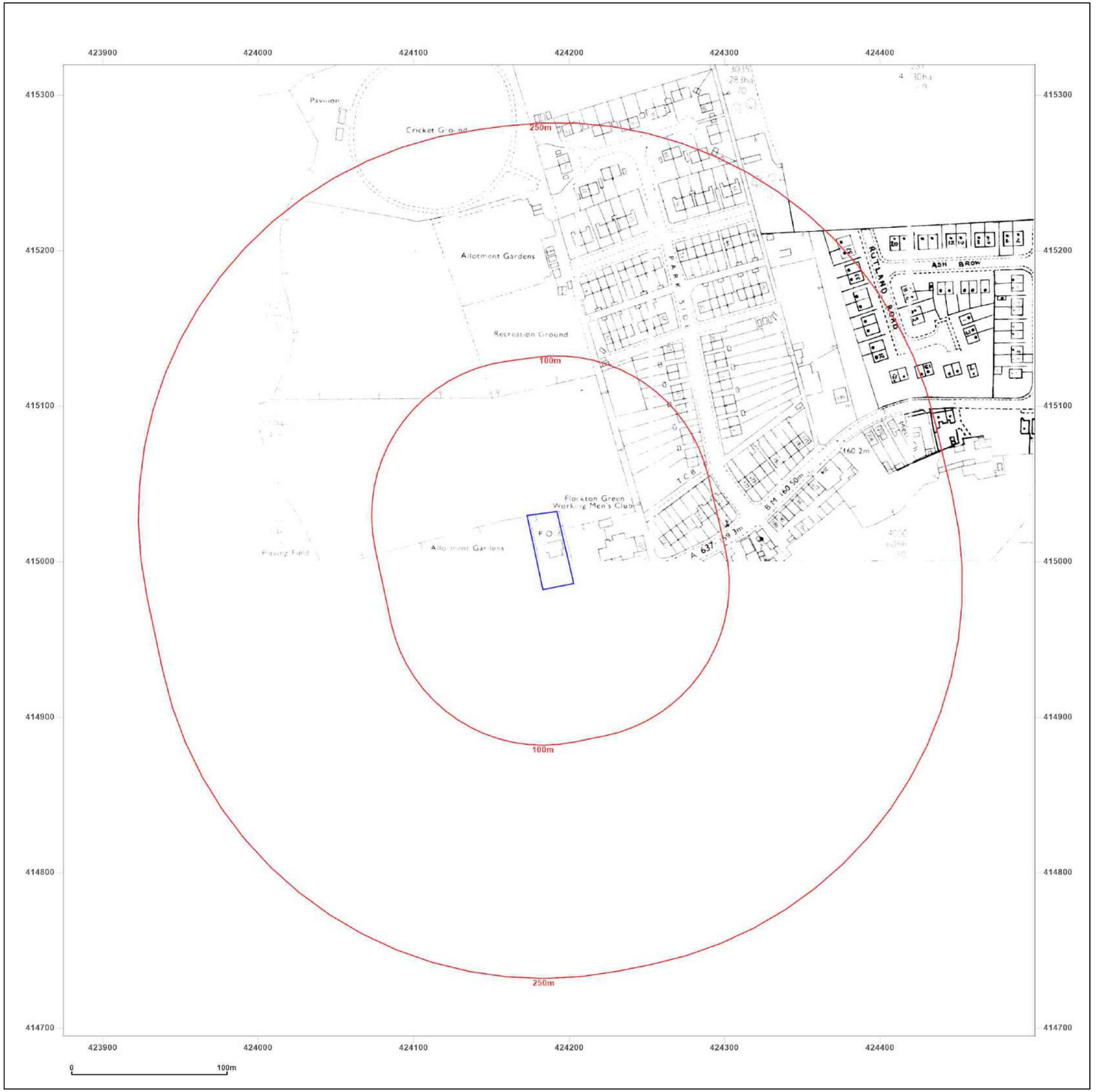

Groundsure INSIGHTS

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: National Grid
Map date: **1979**
Scale: 1:2,500
Printed at: 1:2,500

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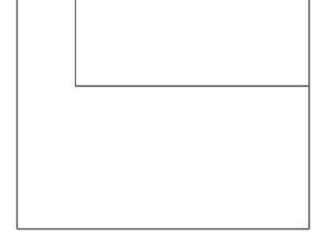
Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A



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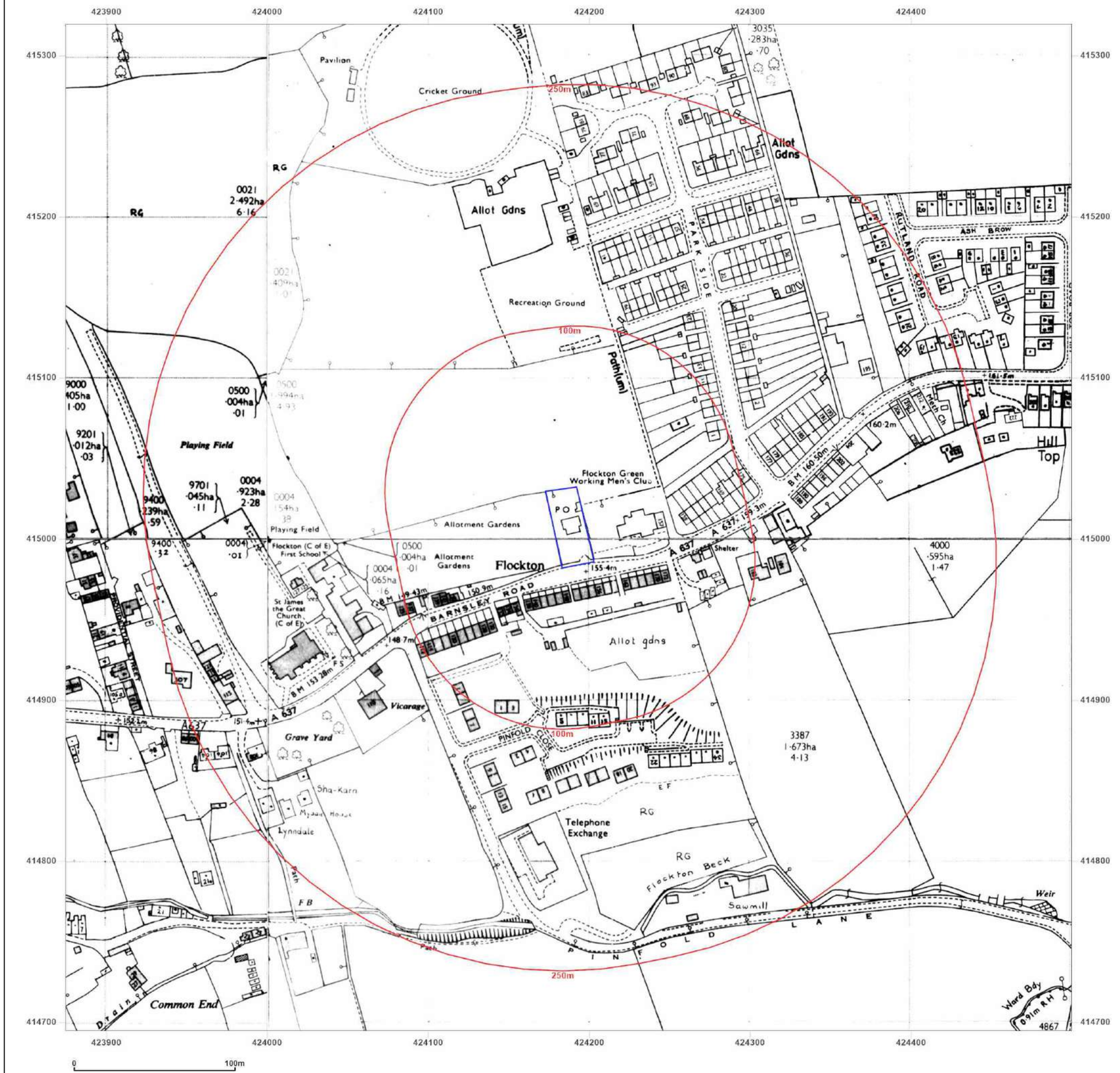

Site Details:

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FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: National Grid

Map date: **1990-1991**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1963 Revised 1990 Edition N/A Copyright 1990 Levelled 1963	Surveyed 1963 Revised 1991 Edition N/A Copyright 1991 Levelled 1963
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Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: National Grid

Map date: **1992-1993**

Scale: 1:2,500

Printed at: 1:2,500

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

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Revised N/A
Edition N/A
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Surveyed N/A
Revised N/A
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Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

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

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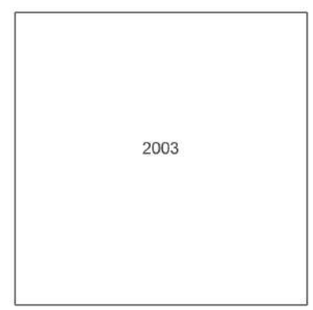

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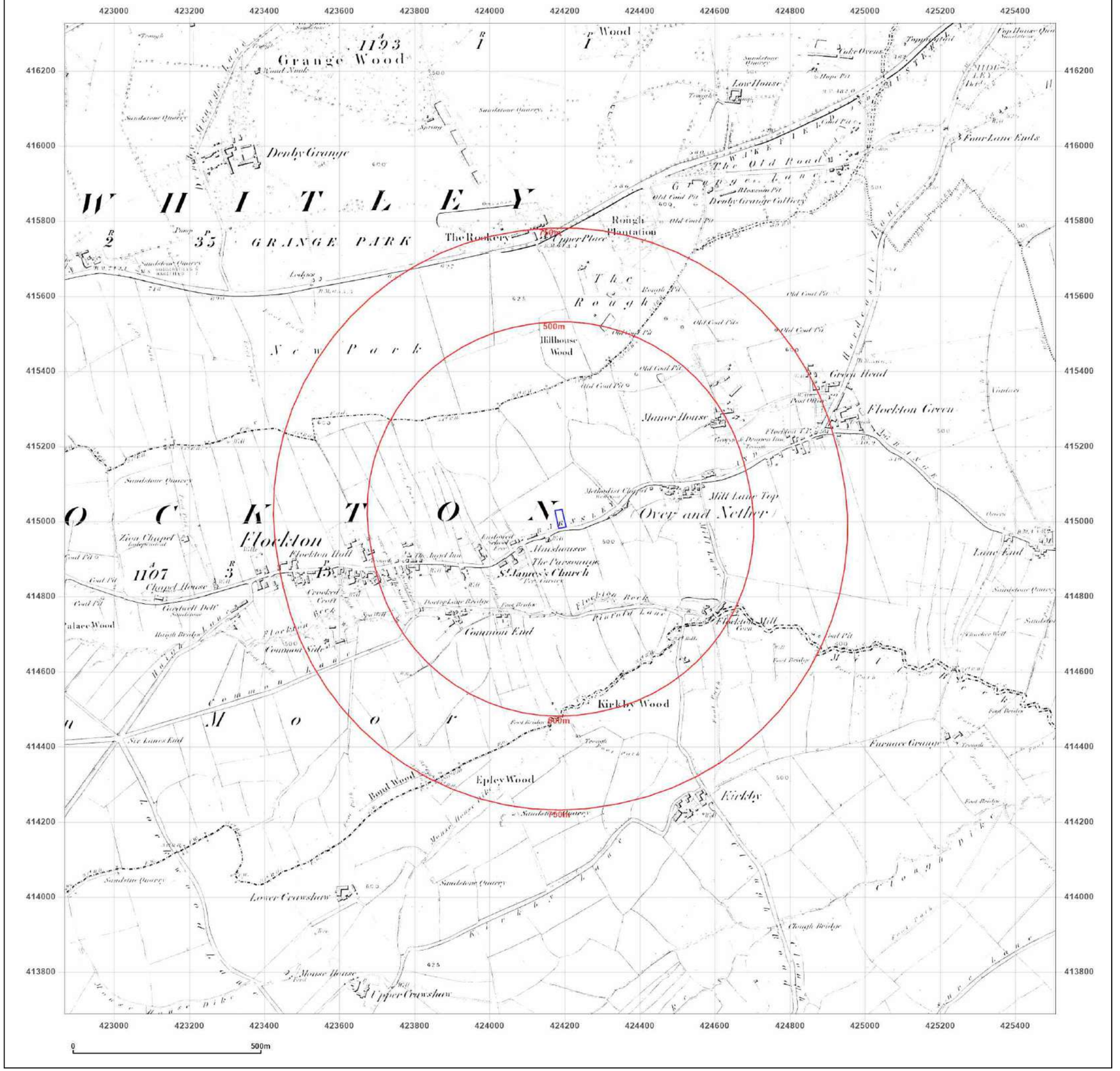

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: County Series

Map date: **1854-1855**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1851
Revised N/A
Edition 1855
Copyright N/A
Levelled N/A

Surveyed 1850
Revised N/A
Edition 1854
Copyright N/A
Levelled N/A

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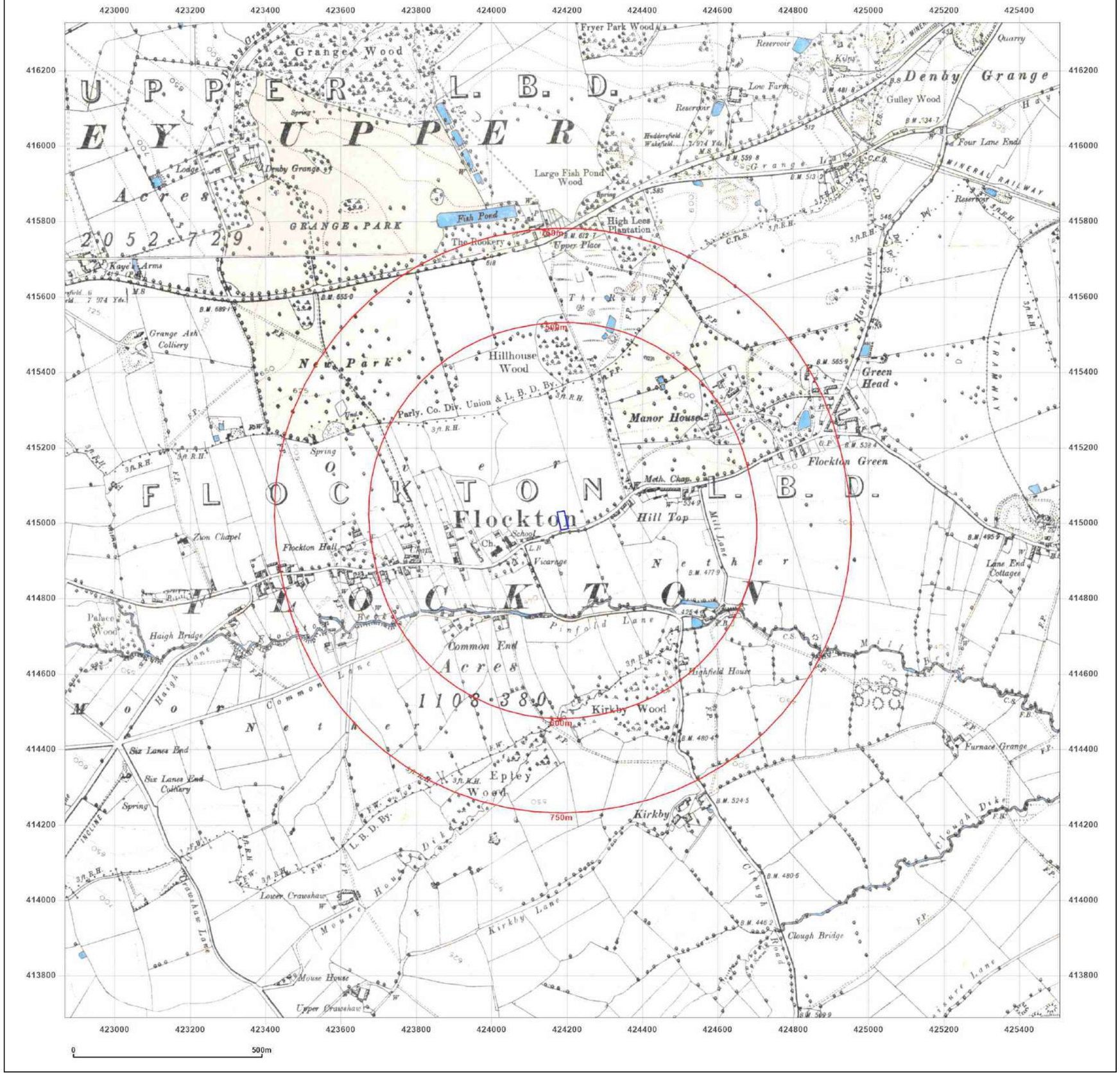

Groundsure INSIGHTS

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: County Series

Map date: **1891-1892**

Scale: 1:10,560

Printed at: 1:10,560

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

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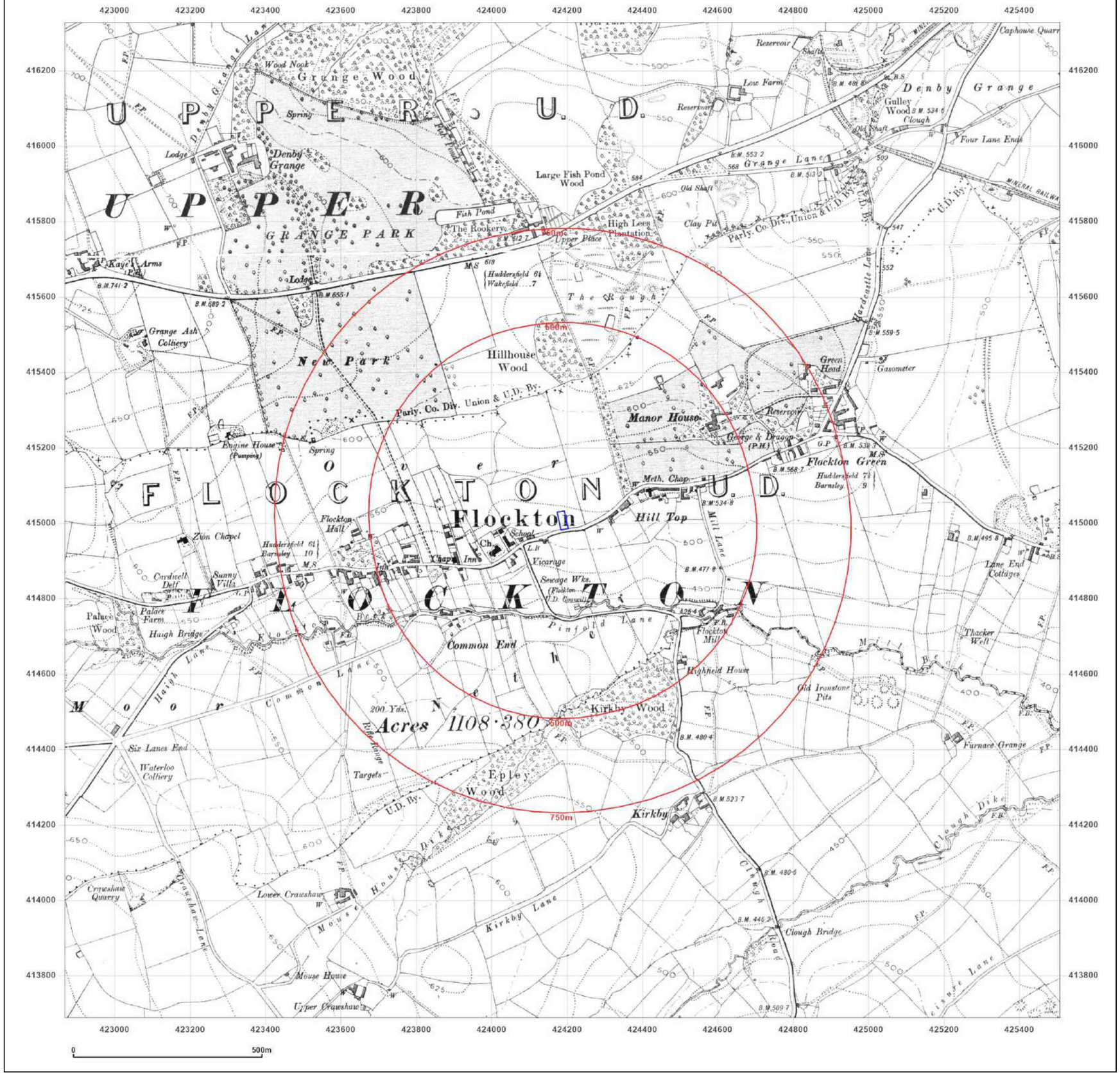

Groundsure INSIGHTS

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: County Series

Map date: **1904-1905**

Scale: 1:10,560

Printed at: 1:10,560

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

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

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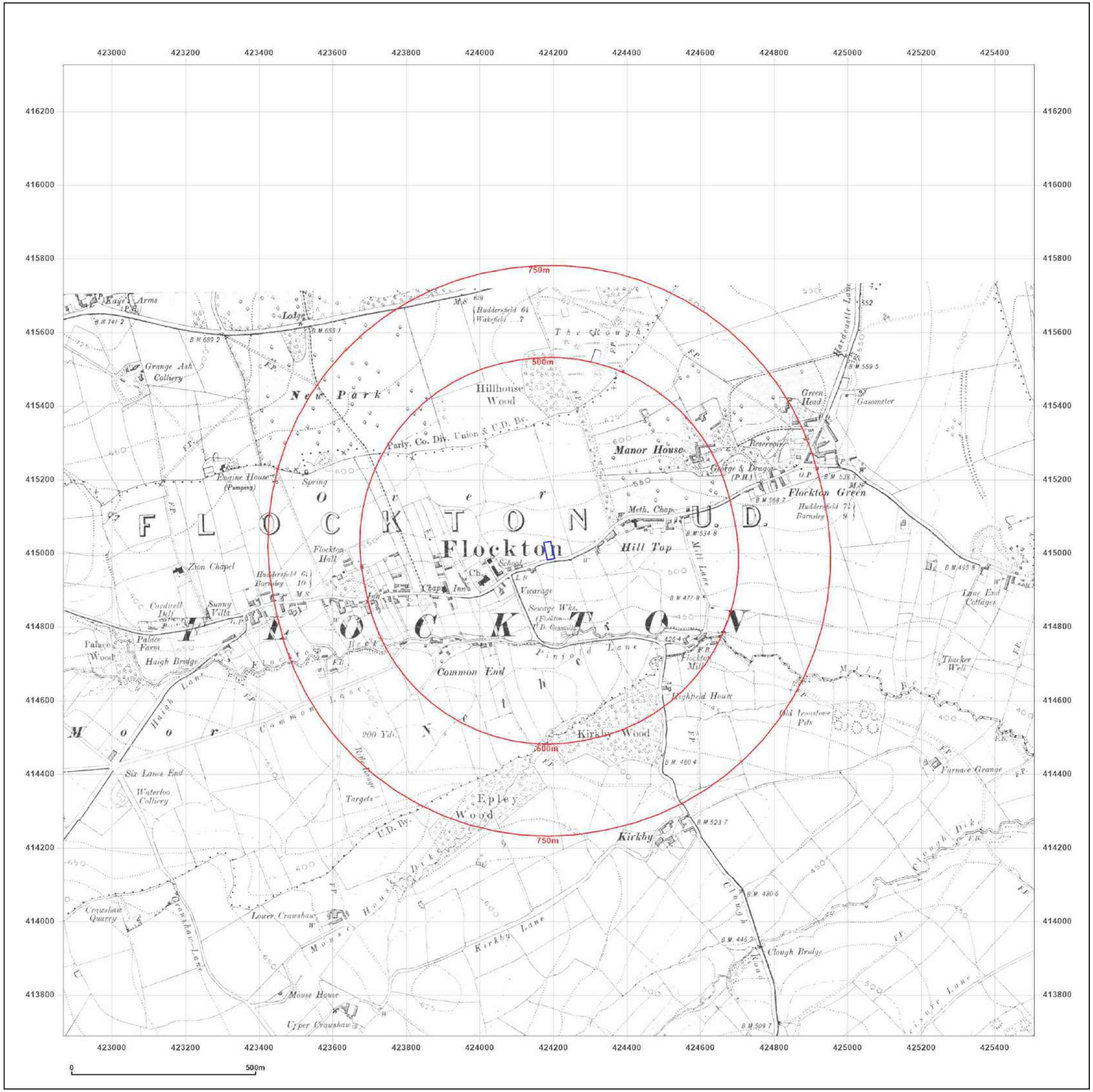

Groundsure INSIGHTS

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: County Series

Map date: **1907**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed N/A
Revised 1907
Edition N/A
Copyright N/A
Levelled N/A

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Site Details:

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Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: County Series

Map date: **1930-1931**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1851
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1851
Revised 1930
Edition N/A
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Site Details:

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KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: County Series

Map date: **1948**

Scale: 1:10,560

Printed at: 1:10,560

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

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

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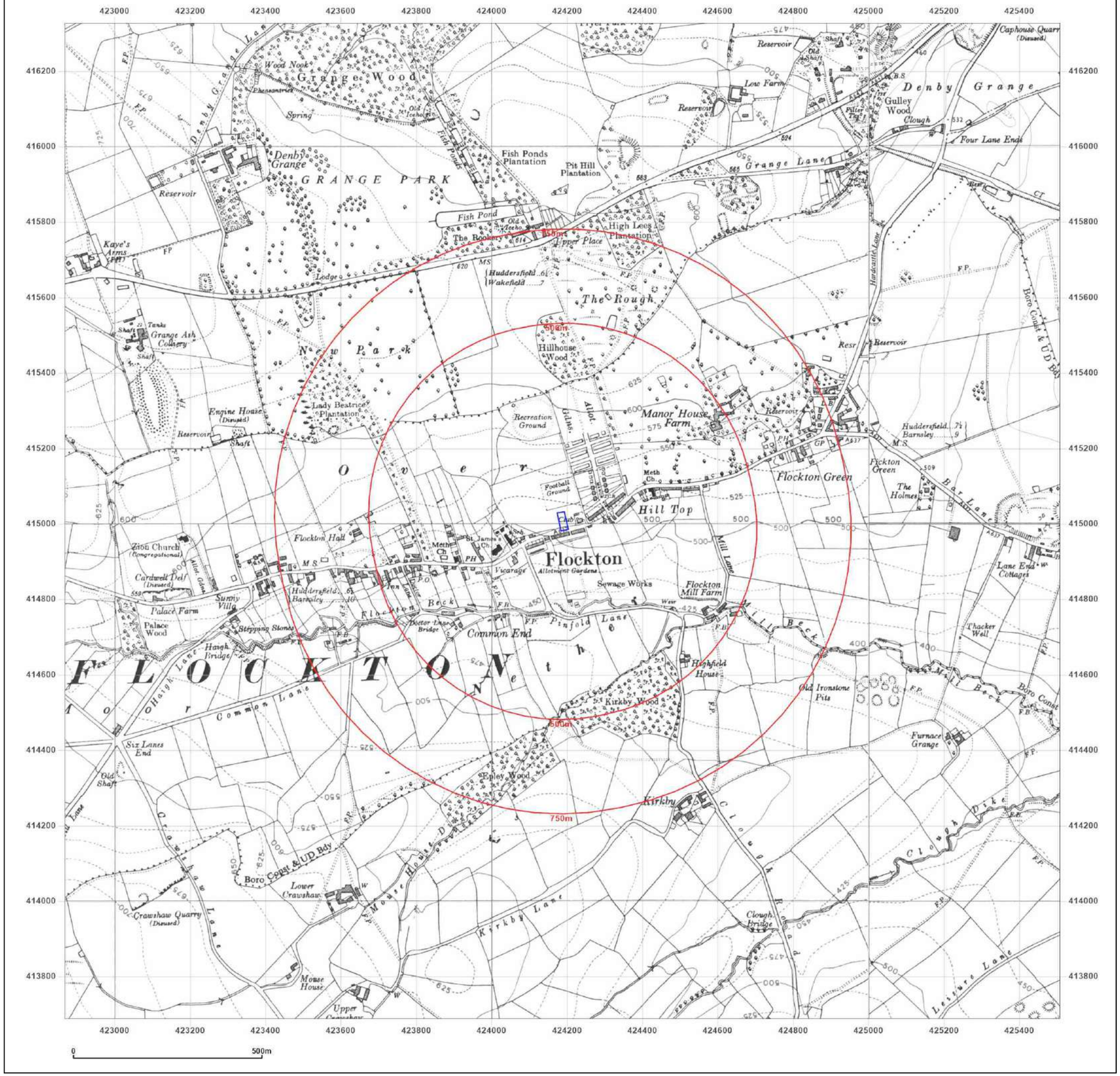

Groundsure INSIGHTS

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: Provisional
Map date: **1951-1955**
Scale: 1:10,560
Printed at: 1:10,560

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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 N/A Levelled N/A
Surveyed N/A Revised 1955 Edition N/A Copyright 1955 Levelled N/A	Surveyed 1951 Revised 1951 Edition N/A Copyright N/A Levelled N/A

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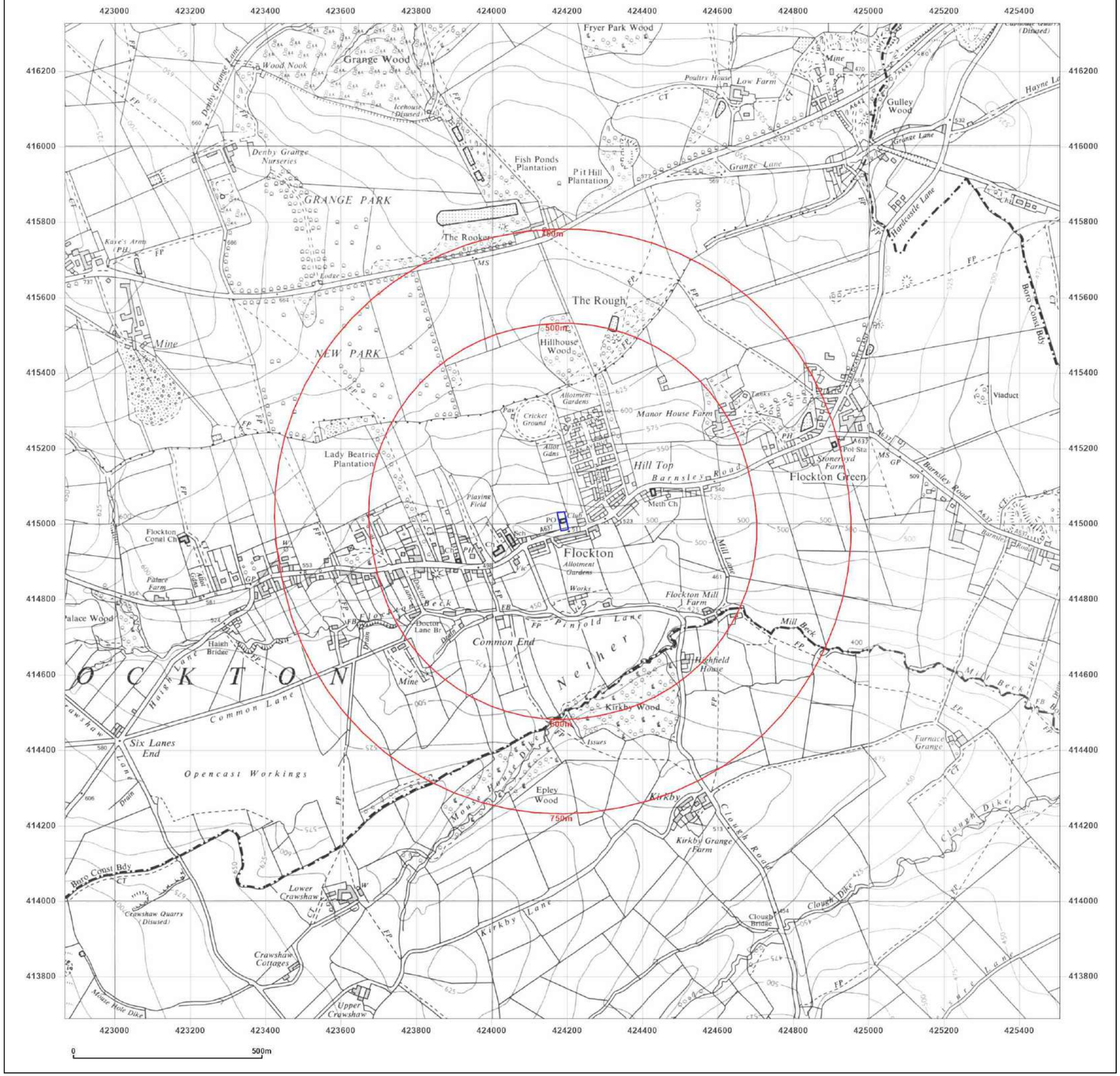

Groundsure INSIGHTS

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: Provisional

Map date: **1966-1967**

Scale: 1:10,560

Printed at: 1:10,560

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

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

Surveyed 1967
Revised 1967
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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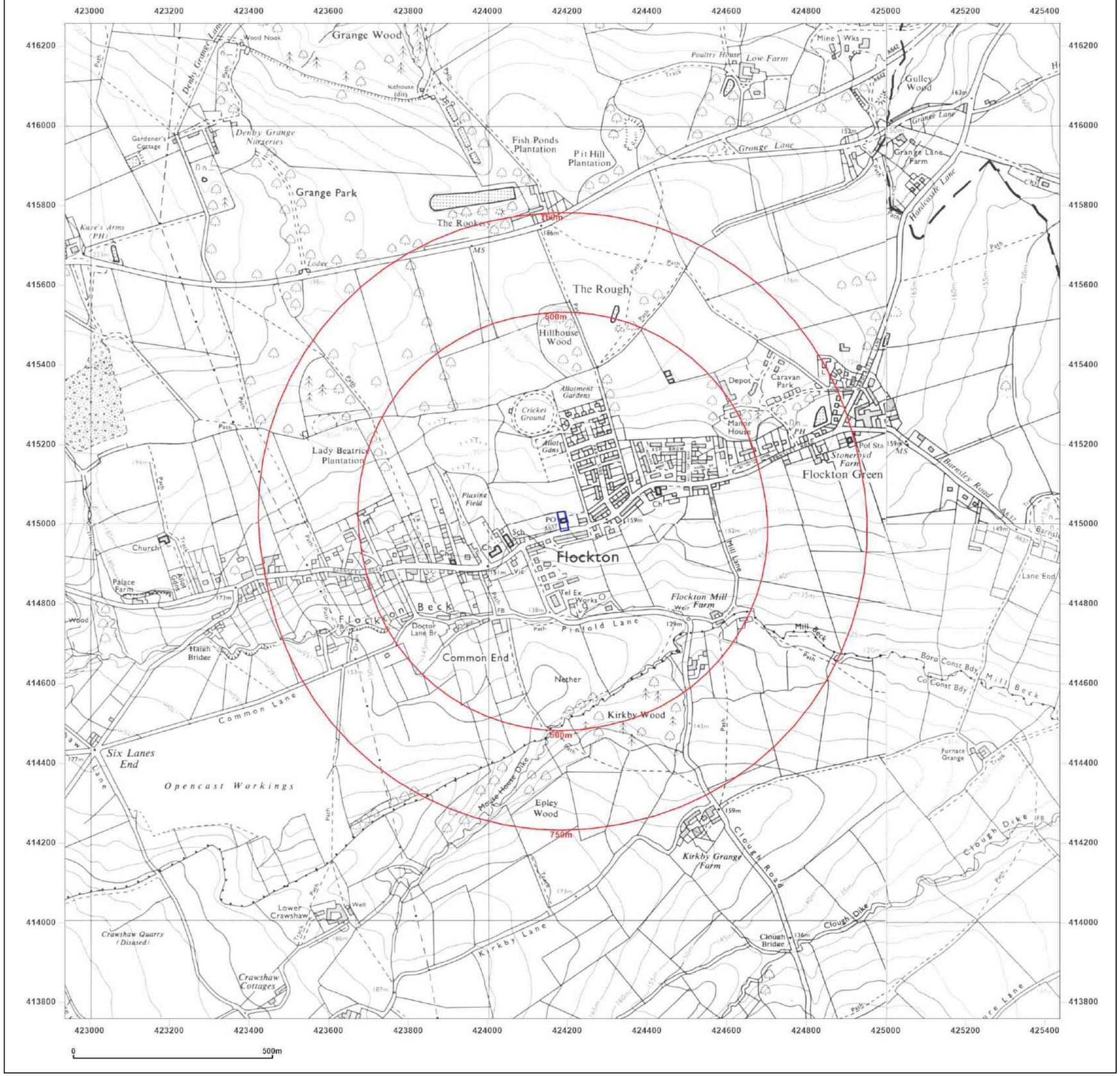

Groundsure INSIGHTS

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: National Grid

Map date: **1979-1983**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1977
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1982
Revised 1983
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1977
Revised 1979
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1980
Revised 1981
Edition N/A
Copyright N/A
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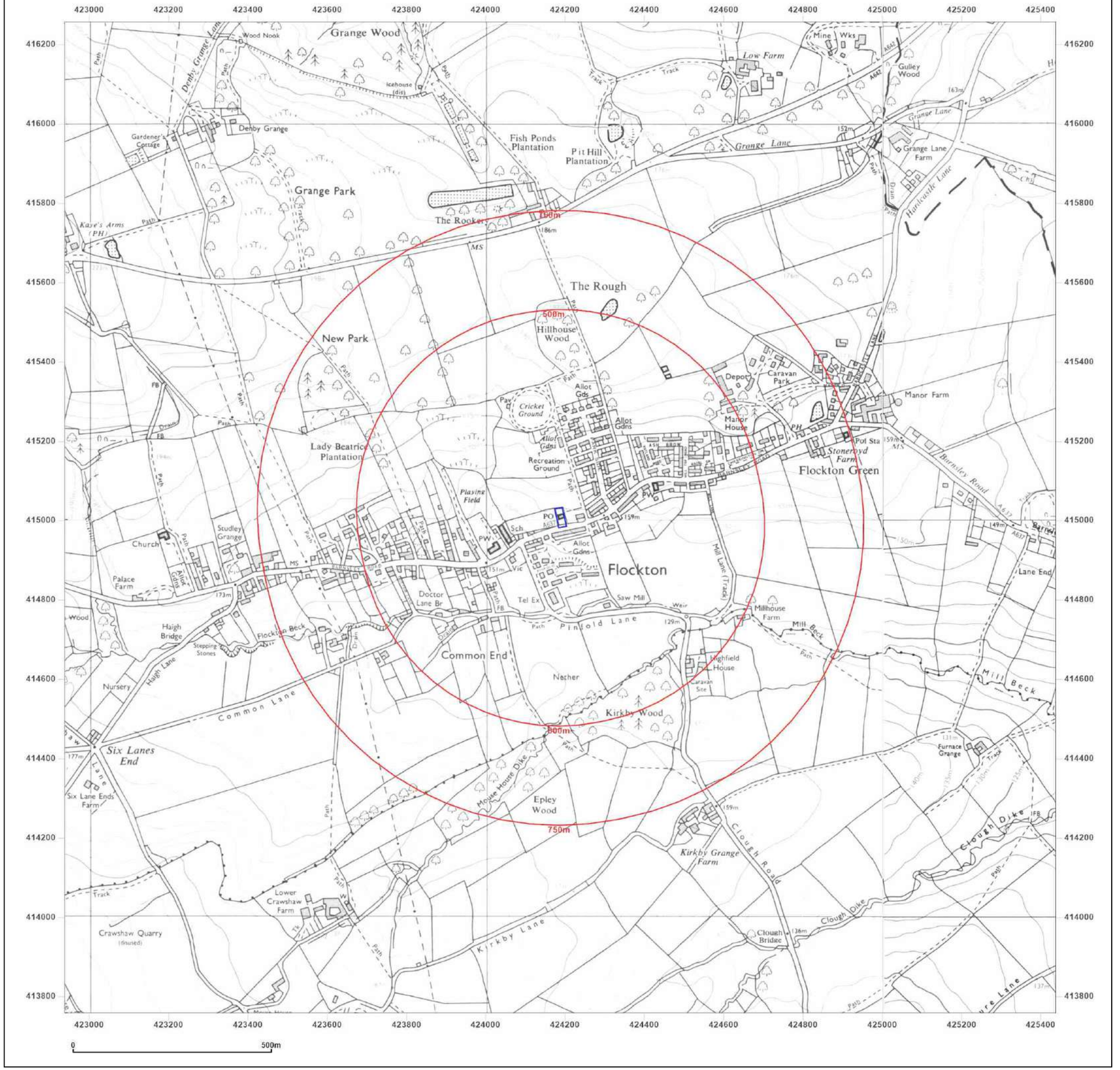

Groundsure INSIGHTS

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: National Grid

Map date: **1988-1993**

Scale: 1:10,000

Printed at: 1:10,000

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Surveyed 1991
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1990
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1990
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1980
Revised 1988
Edition N/A
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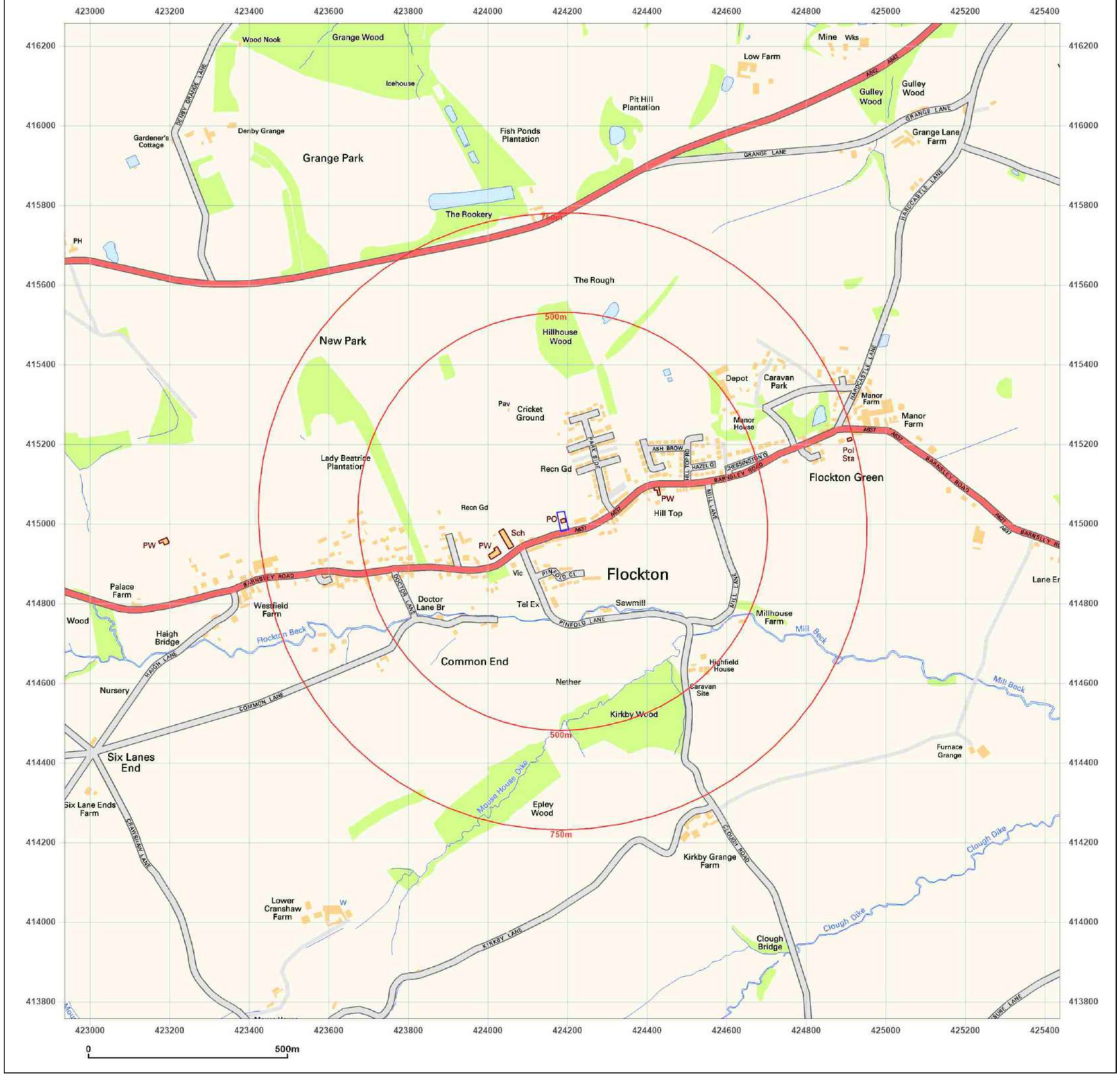

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

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2001

Production date: 05 November 2025

Map legend available at:
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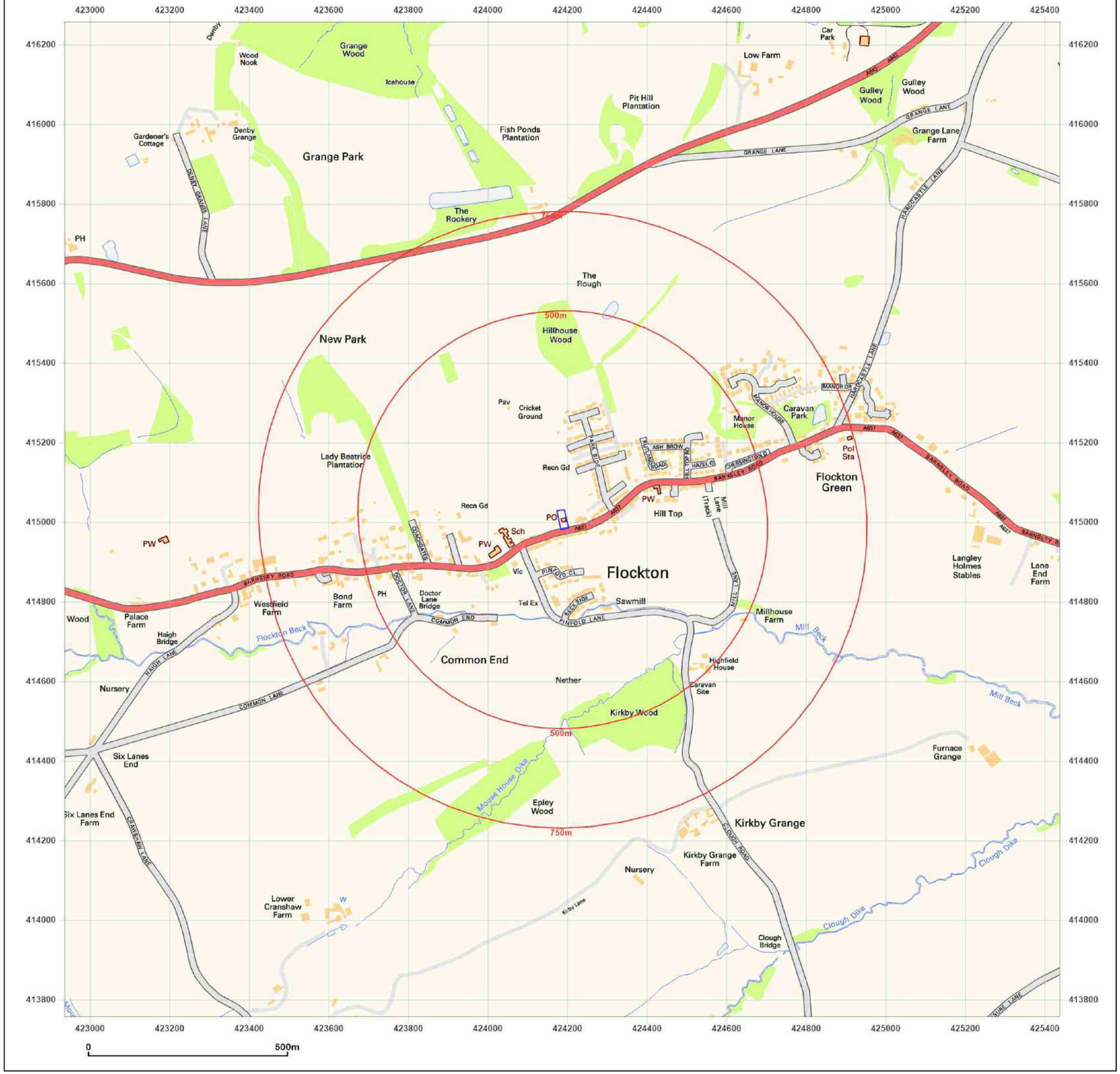

Groundsure INSIGHTS

Site Details:

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FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
Printed at: 1:10,000

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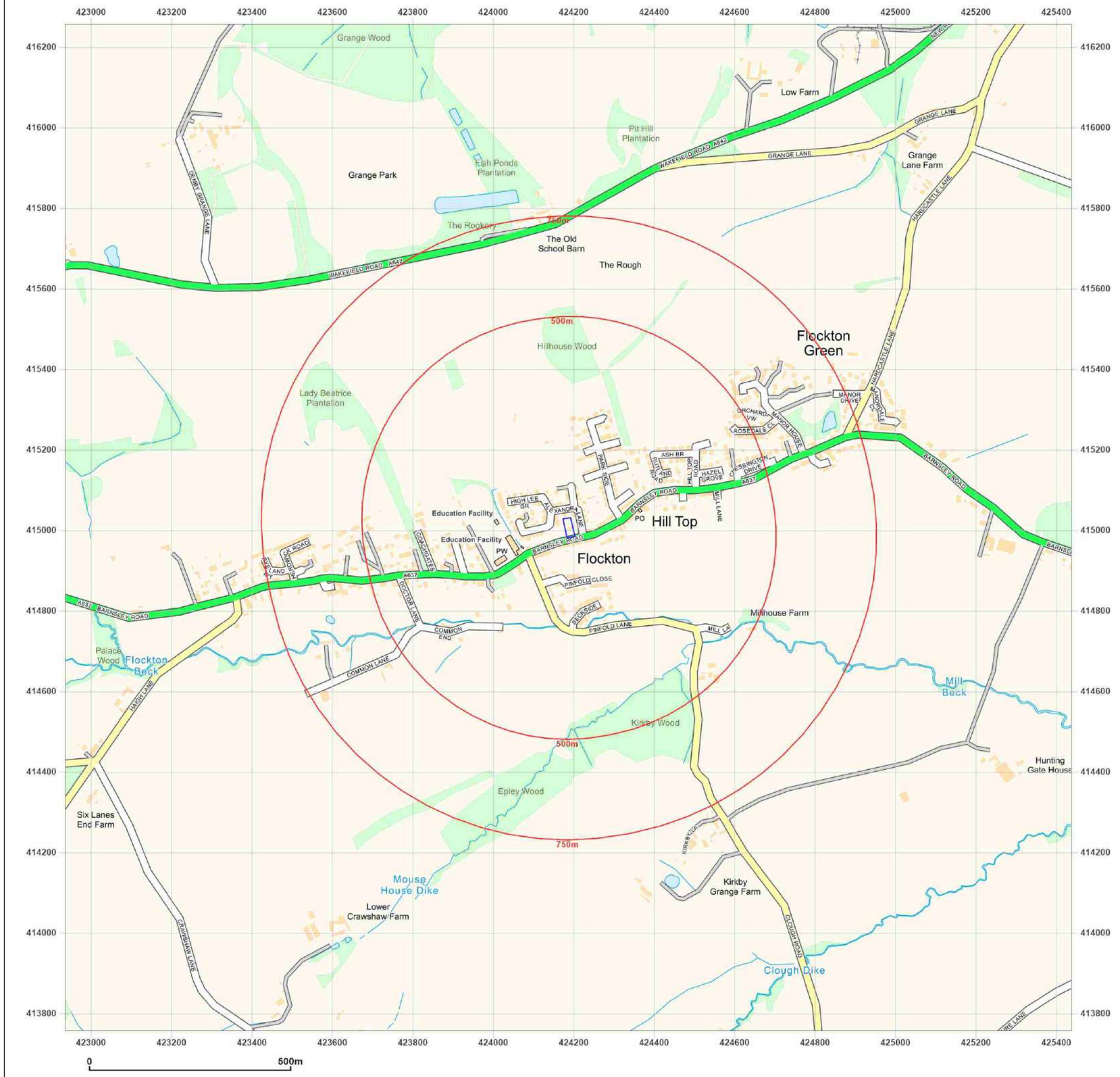
Production date: 05 November 2025

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Groundsure INSIGHTS

Site Details:

154, BARNSLEY ROAD,
FLOCKTON, WAKEFIELD,
KIRKLEES, WF4 4AA

Client Ref: C762
Report Ref: GS-EKL-IAV-UTX-WTW
Grid Ref: 424187, 415007

Map Name: National Grid
Map date: **2025**
Scale: 1:10,000
Printed at: 1:10,000

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Production date: 05 November 2025

Map legend available at:
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APPENDIX C

PHOTOGRAPHS

Project Number: C762	**Project Name:** Flockton Green, P1
Client:	**Document Name:** Site Walkover Photographs: Photo 1 – Front of site, looking north. Photo 2 – Rear of the building, looking south.

Project Number: C762	**Project Name:** Flockton Green, P1
Client:	**Document Name:** Site Walkover Photographs: Photo 3 – Rear of site (area of proposed extension), looking north west Photo 4 – side access along eastern boundary, looking north.

G&M CONSULTING

APPENDIX D

DEFINITIONS AND
CLASSIFICATIONS OF RISK
ASSESSMENT
TERMINOLOGY

Definitions and Classifications of Risk Assessment Terminology.

Probability

Probability can be defined as the chance of a particular event occurring in a given period of time.

Descriptions of each of the four qualitative terms to be use in this report to describe the perceived probability of any identified pollutant linkage becoming realised are shown below in Table W.

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

Table W. Description of Probability Classifications

Severity

Severity (consequence) can be defined as the adverse effects (or harm) arising from a defined hazard, which impairs the quality of human health or the environment in the short or longer term.

Descriptions of each of the four qualitative terms to be use in this report to describe the perceived potential severity of any identified pollutant linkage becoming realised are shown below in Table X.

Term	Description
Severe	Highly elevated concentrations **likely** to result in "significant harm" to human health as defined by the EPA 1990, Part 2A, if exposure occurs. Equivalent to **EA Category 1** pollution incident including persistent and/or extensive effects on water quality; leading to closure of a potable abstraction point; major impact on amenity value or major damage to agriculture or commerce. Major damage to aquatic or other ecosystems, which is likely to result in a substantial adverse change in its functioning or harm to a species of special interest that endangers the long-term maintenance of the population. Catastrophic damage to crops, buildings or property.
Medium	Elevated concentrations which could result in "significant harm" to human health as defined by the EPA 1990, Part 2A if exposure occurs. Equivalent to **EA Category 2** pollution incident including significant effect on water quality; notification required to abstractors; reduction in amenity value or significant damage to agriculture or commerce. Significant damage to aquatic or other ecosystems, which may result in a substantial adverse change in its functioning or harm to a species of special interest that may endanger the long-term maintenance of the population. Significant damage to crops, buildings or property.
Mild	Exposure to human health **unlikely** to lead to "significant harm". Equivalent to **EA Category 3** pollution incident including minimal or short-lived effect on water quality; marginal effect on amenity value, agriculture or commerce. Minor or short-lived damage to aquatic or other ecosystems, which is unlikely to result in a substantial adverse change in its functioning or harm to a species of special interest that would endanger the long-term maintenance of the population. Minor damage to crops, buildings or property.
Minor	No measurable effect on humans. Equivalent to insubstantial pollution incident with no observed effect on water quality or ecosystems. Repairable effects of damage to buildings, structures and services.

Table X. Description of Severity Classifications

Once the severity and probability of a pollutant linkage has been determined the risk can be assessed using the risk matrix shown overleaf on Table Y.

Risk Matrix

By cross referencing the derived severity and probability in Table Y, below the perceived potential risk can be determined.

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

Table Y. Risk Assessment Matrix

The risk categories detailed above are defined below in the following Table Z.

Term	Description
Very High Risk	There is a high probability that significant harm could arise to a designated receptor from an identified hazard at the site without appropriate remedial action.
High Risk	Significant 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 designated receptor but it is relatively unlikely that any such harm would be severe and if any harm were to occur, it is likely that such harm would be relatively mild.
Low Risk	It is possible that significant harm could arise to a designated receptor from an identified hazard but it is likely that at worst this harm if realised would normally be mild.
Very Low Risk	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

Table Z. Definition of Risk