

# BOREHOLE LOG

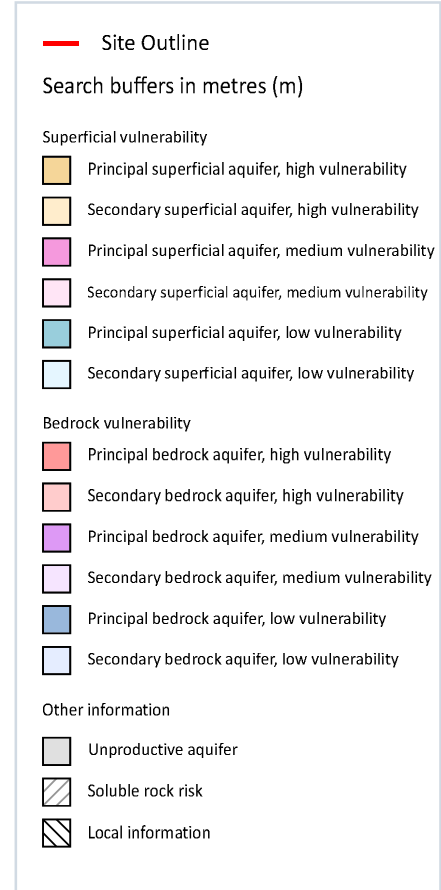
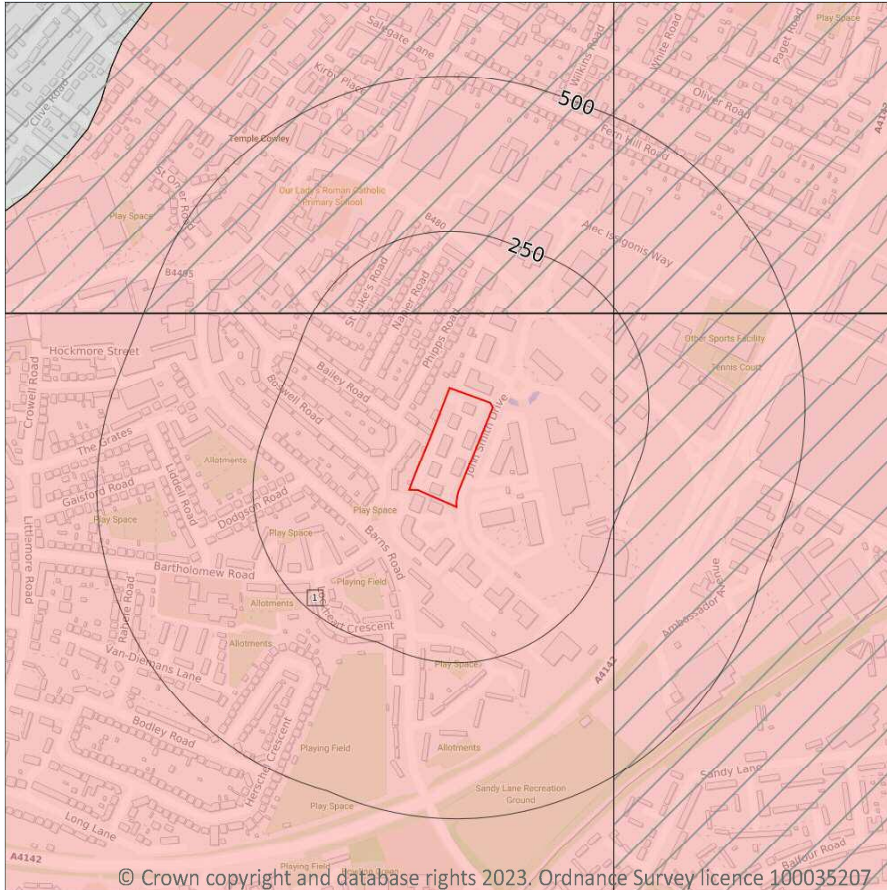
Contract: <b>Nash Court Oxford Business Park</b>		Client: <b>Advanced Research Clusters</b>		Borehole: <b>WS10</b>
Contract Ref: <b>252995</b>	Start: <b>18.10.23</b> End: <b>18.10.23</b>	Ground Level: <b>72.50</b>	National Grid Co-ordinate: <b>E:454722.0 N:203823.1</b>	Sheet: <b>1 of 1</b>

Depth (m)	Samples & Testing			Window Run Information	Backfill	Water	Description of Strata	Depth (m) (Thickness)	Legend
	No	Type	Results						
0.20 0.20	1	ES PID	0.0ppm				Asphalt (MADE GROUND)	0.12	
0.65 0.65	2	ES PID	0.0ppm				Grey slightly clayey very sandy angular to sub-rounded fine to coarse GRAVEL of limestone and concrete. (MADE GROUND)	0.35 0.43	
1.00 1.00	3	ES PID	0.0ppm				Concrete (MADE GROUND)		
1.20-1.65 1.20-2.00	1 4	SPT B	N=9	Window run 85mm dia (100% rec)			Orangish brown and brown mottled reddish brown clayey fine to medium SAND. (WEATHERED BECKLEY SAND MEMBER) ... Becoming orangish brown mottled grey and light brown from 1.00m bgl.		
2.00-2.45 2.00-3.00	2 5	SPT B	N=19	Window run 75mm dia (95% rec)				(2.60)	
3.00-3.05	3	SPT	N:50 for 50mm				Borehole terminated at 3.05m bgl.	3.05	

GINT\_LIBRARY\_V10\_01.GLB libVersion: v8\_07 | Log BOREHOLE LOG - A4P | 252995-NASH COURT.GPJ - v10\_01.  
RSK Environment Ltd, Abbey Park, Humber Road, Coventry, CV3 4AG, Tel: 02476 505600, Fax: 02476 504417, Web: www.rsk.co.uk, | 04/12/23 - 12:20 | [RM8]

Boring Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Location scanned with GPR prior to breaking ground. No services encountered. 2. Window sample hole advanced to 3.05m bgl. 3. Groundwater not encountered. 4. Hole backfilled with arisings upon completion.			
All dimensions in metres			Scale:		<b>1:50</b>				
Method Used:	<b>Window sampling</b>	Plant Used:	<b>Premier Compact 120</b>	Drilled By:	<b>DSUK</b>	Logged By:	<b>RMoore</b>	Checked By:	<b>AGS</b>

## Groundwater vulnerability



### 5.3 Groundwater vulnerability

Records within 50m

1

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

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

Features are displayed on the Groundwater vulnerability map on [page 46](#) >

## 9 Groundwater flooding



### 9.1 Groundwater flooding

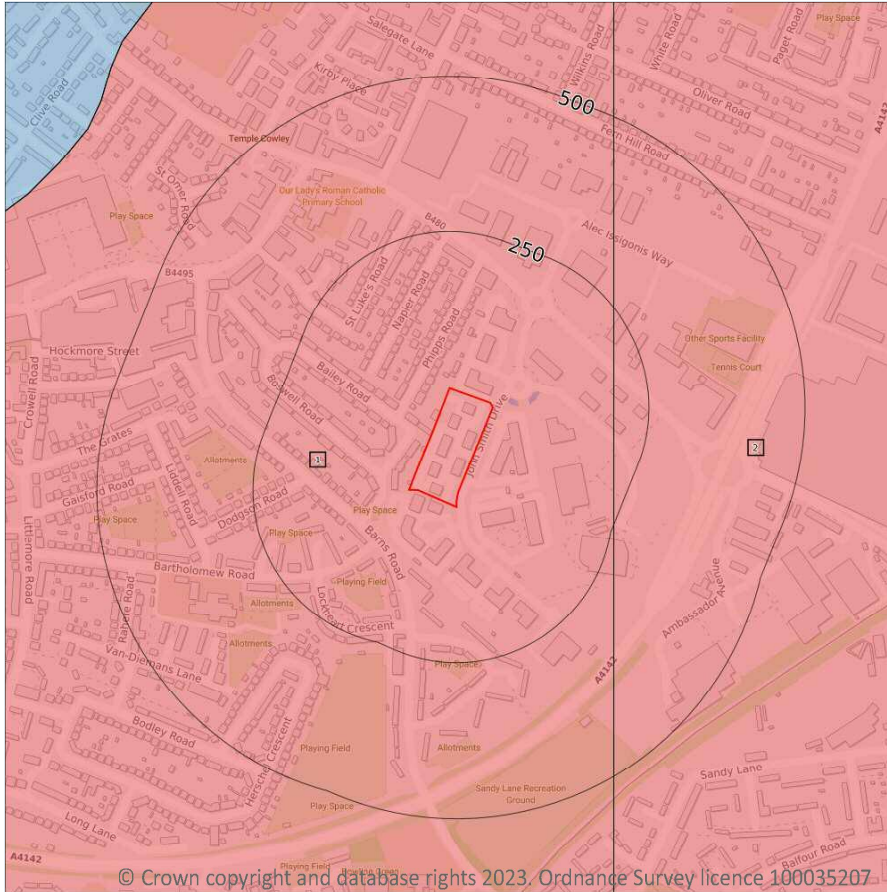
<b>Highest risk on site</b>	<b>Negligible</b>
<b>Highest risk within 50m</b>	<b>Negligible</b>

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 58 >](#)

*This data is sourced from Ambiental Risk Analytics.*

## Bedrock aquifer



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

### 5.2 Bedrock aquifer

Records within 500m

2

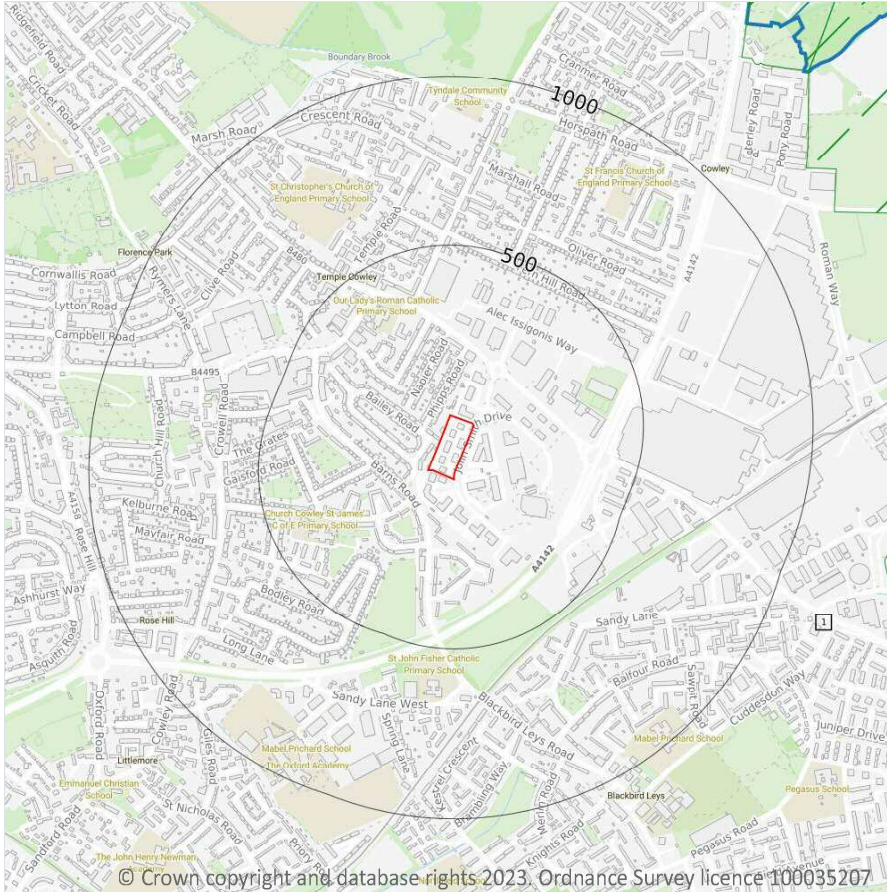
Aquifer status of groundwater held within bedrock geology.





Features are displayed on the Bedrock aquifer map on [page 44 >](#)

ID	Location	Designation	Description
1	On site	Secondary A	<b>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</b>
2	194m E	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



## 10 Environmental designations



- Site Outline
- Search buffers in metres (m)
-  Sites of Special Scientific Interest (SSSI)
-  Local Nature Reserves (LNR)
-  Designated Ancient Woodland
-  Green Belt

### 10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

4

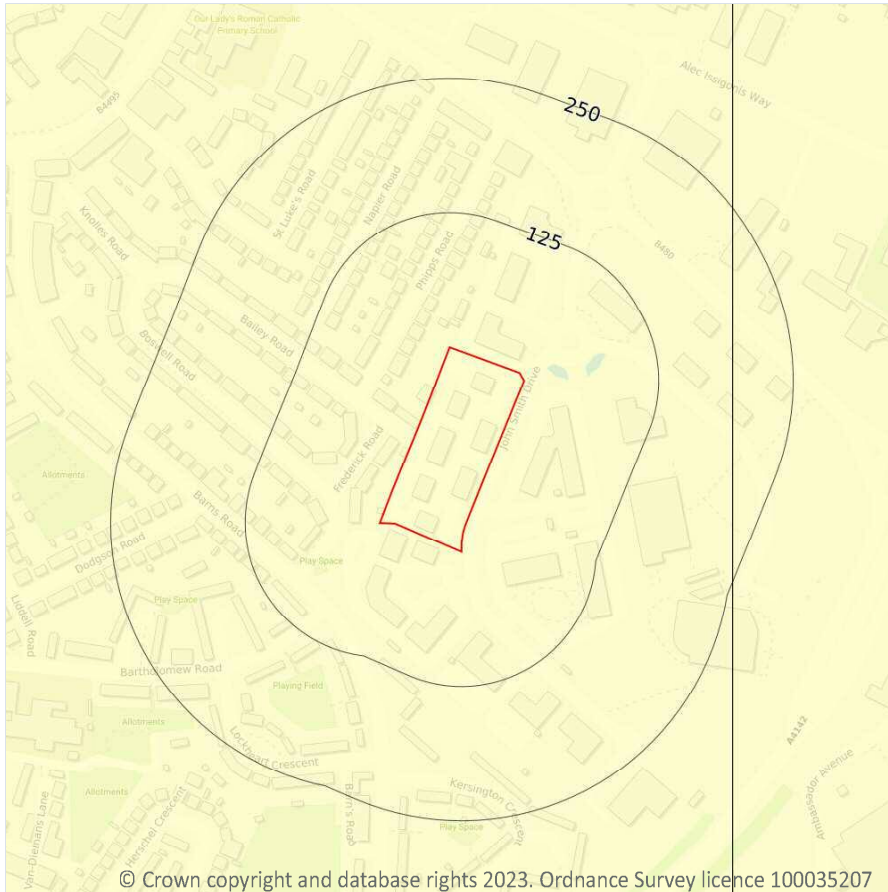
Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the 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.

Features are displayed on the Environmental designations map on [page 59](#) >

ID	Location	Name	Data source
-	1257m N	Lye Valley	Natural England



## 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

1

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

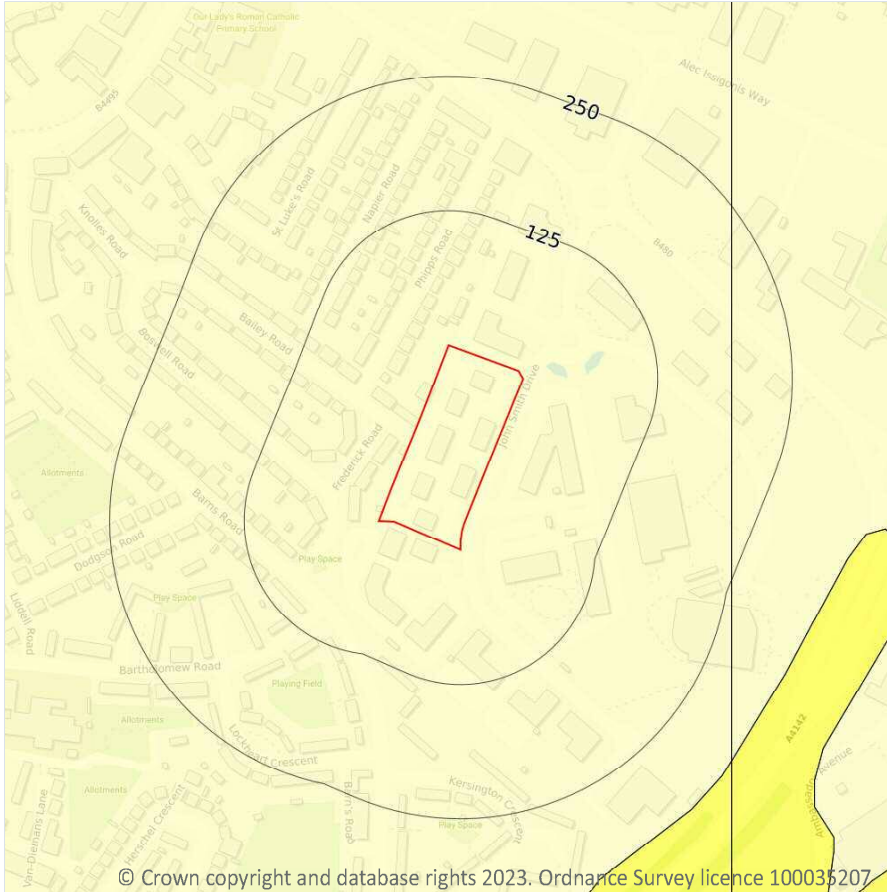
Features are displayed on the Natural ground subsidence - Shrink swell clays map on [page 87](#) >

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

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



## Natural ground subsidence - Running sands



— Site Outline  
Search buffers in metres (m)

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

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### 17.2 Running sands

Records within 50m

1

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

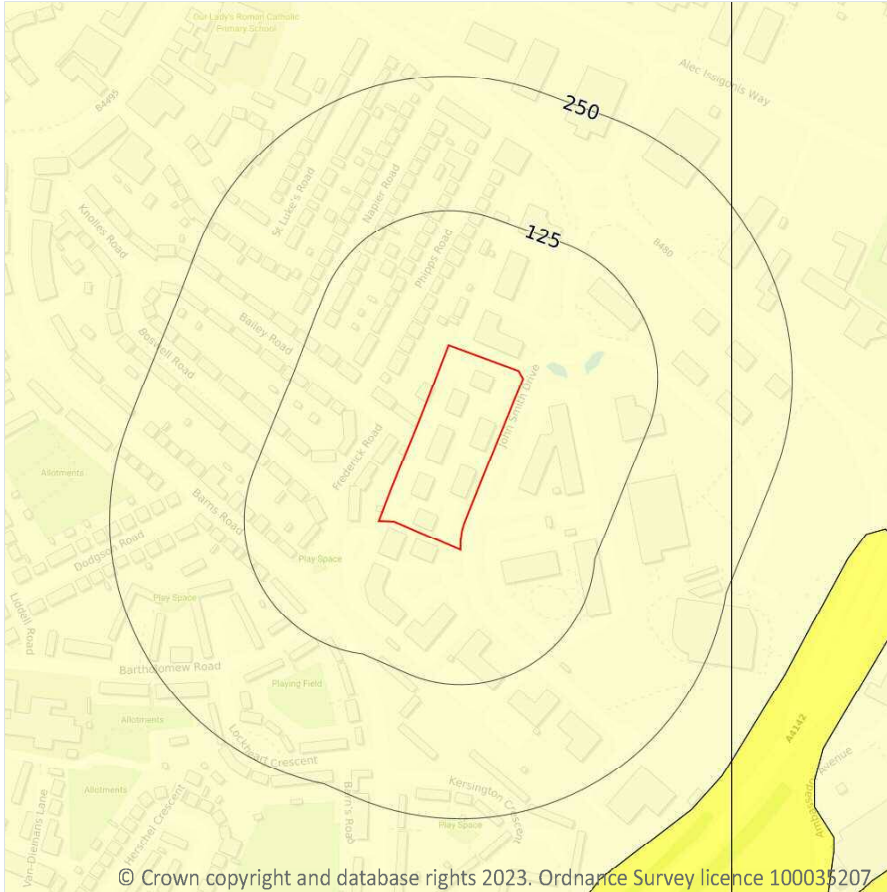
Features are displayed on the Natural ground subsidence - Running sands map on [page 88](#) >

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

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### 17.3 Compressible deposits

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Compressible deposits map on [page 89](#) >

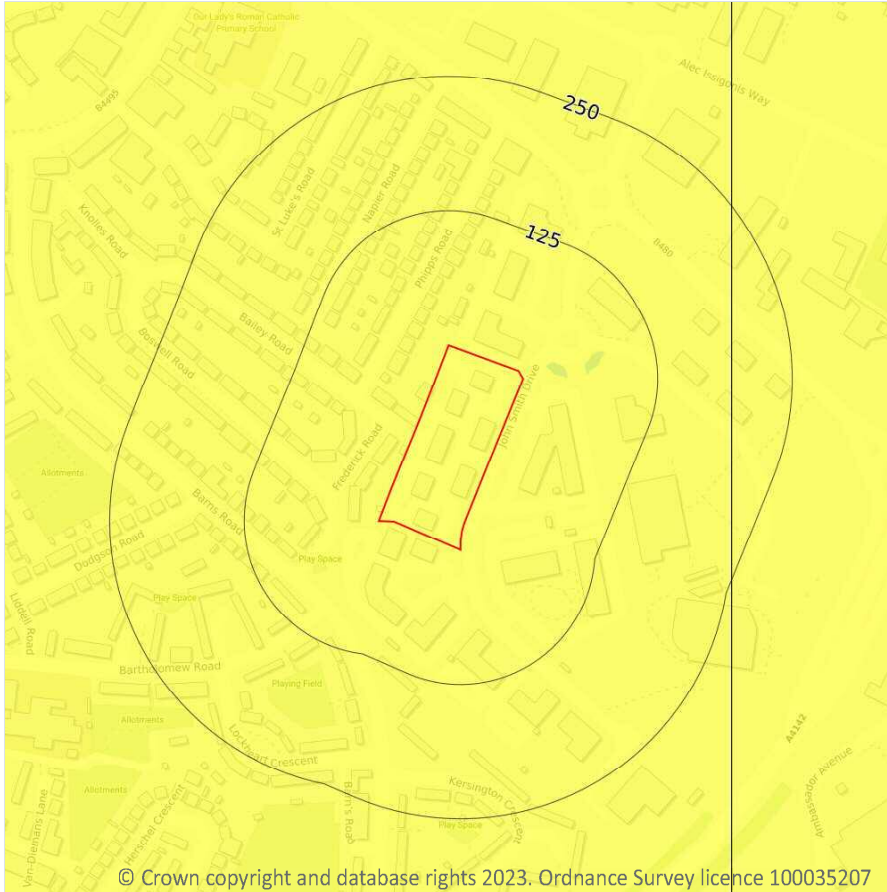
Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.





## Natural ground subsidence - Collapsible deposits



### 17.4 Collapsible deposits

Records within 50m

1

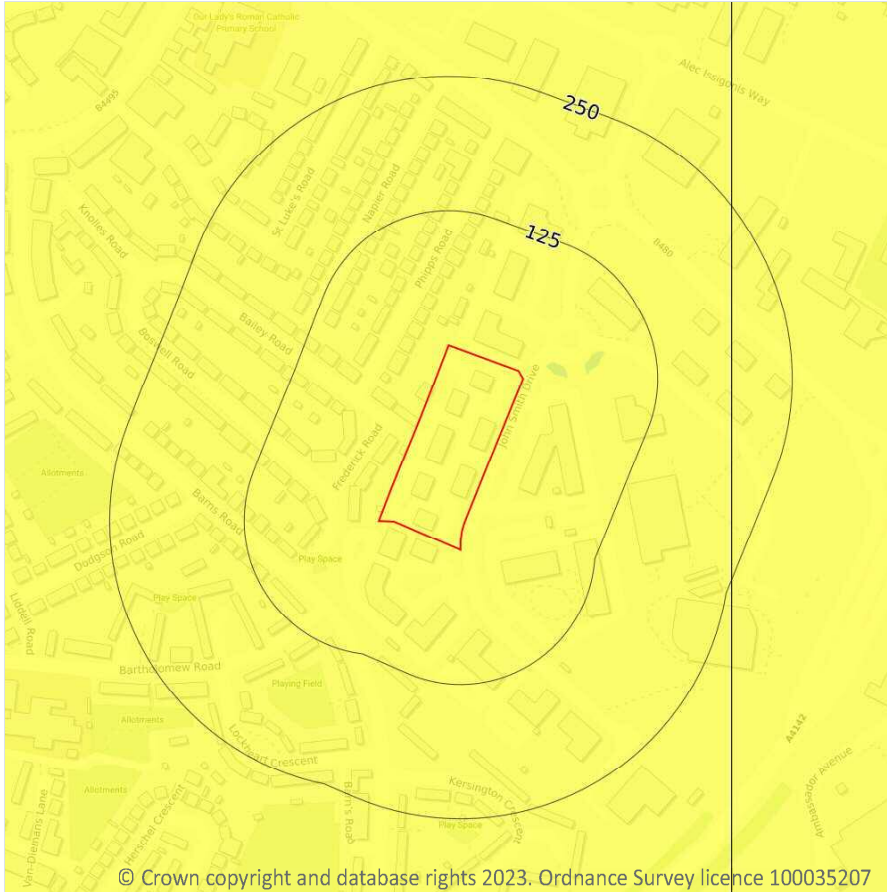
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on [page 90 >](#)

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

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

## Natural ground subsidence - Landslides



— Site Outline  
Search buffers in metres (m)

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

### 17.5 Landslides

Records within 50m

1

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

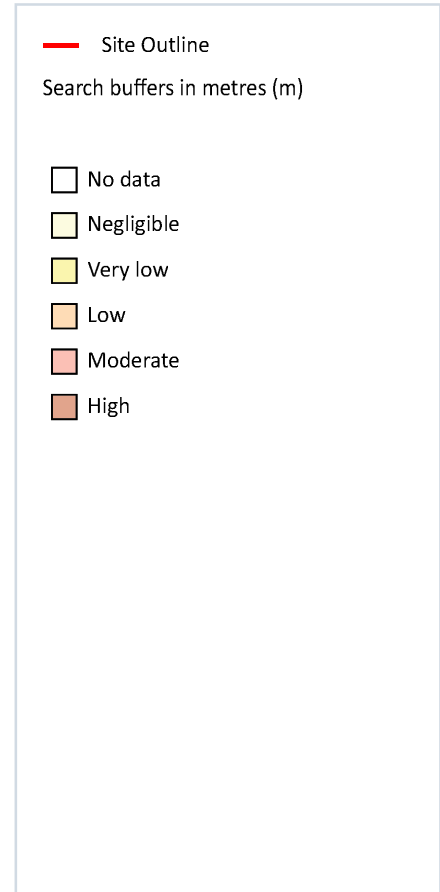
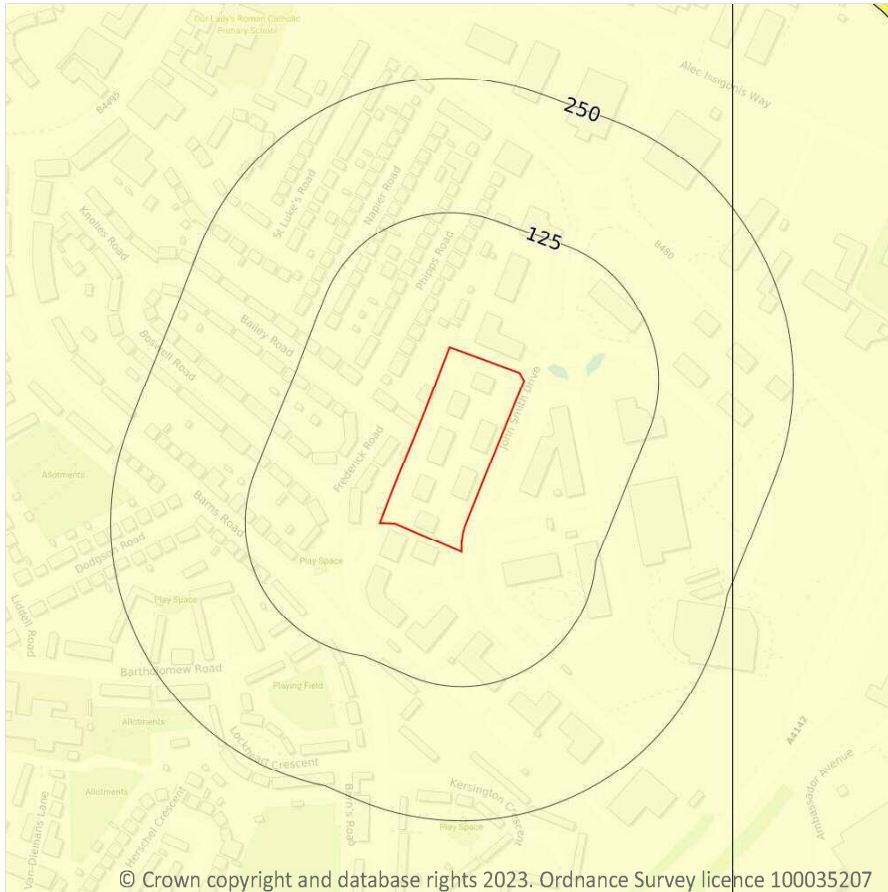
Features are displayed on the Natural ground subsidence - Landslides map on [page 91](#) >

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

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



## Natural ground subsidence - Ground dissolution of soluble rocks



### 17.6 Ground dissolution of soluble rocks

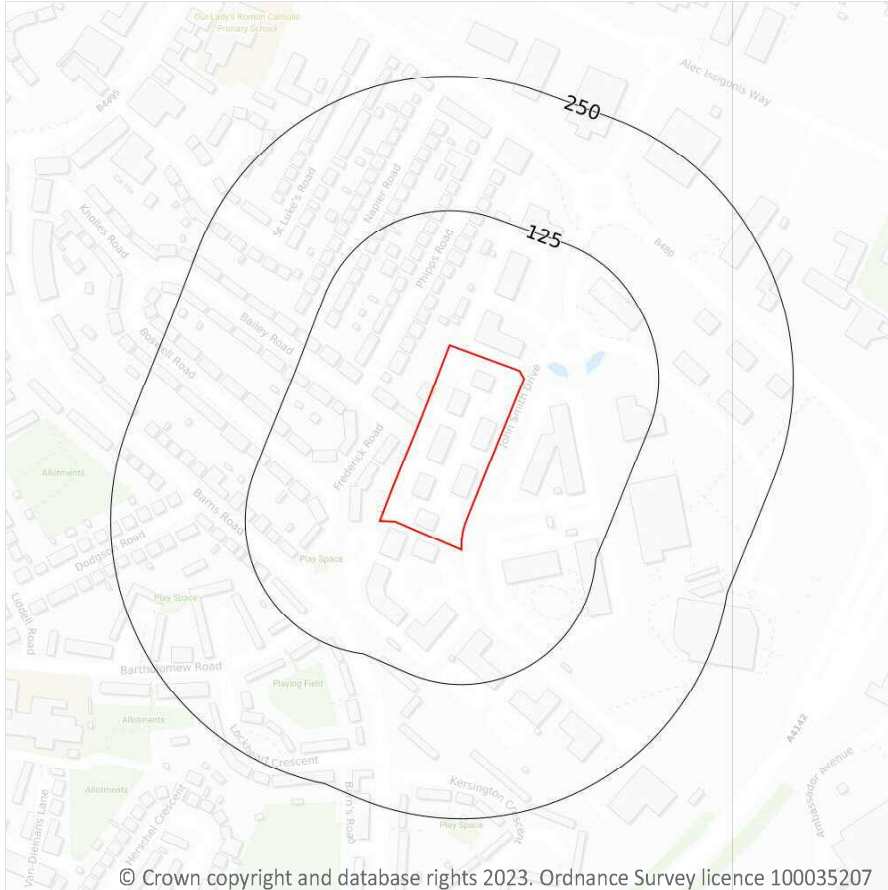
**Records within 50m** **1**

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on [page 92](#)

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.

## 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

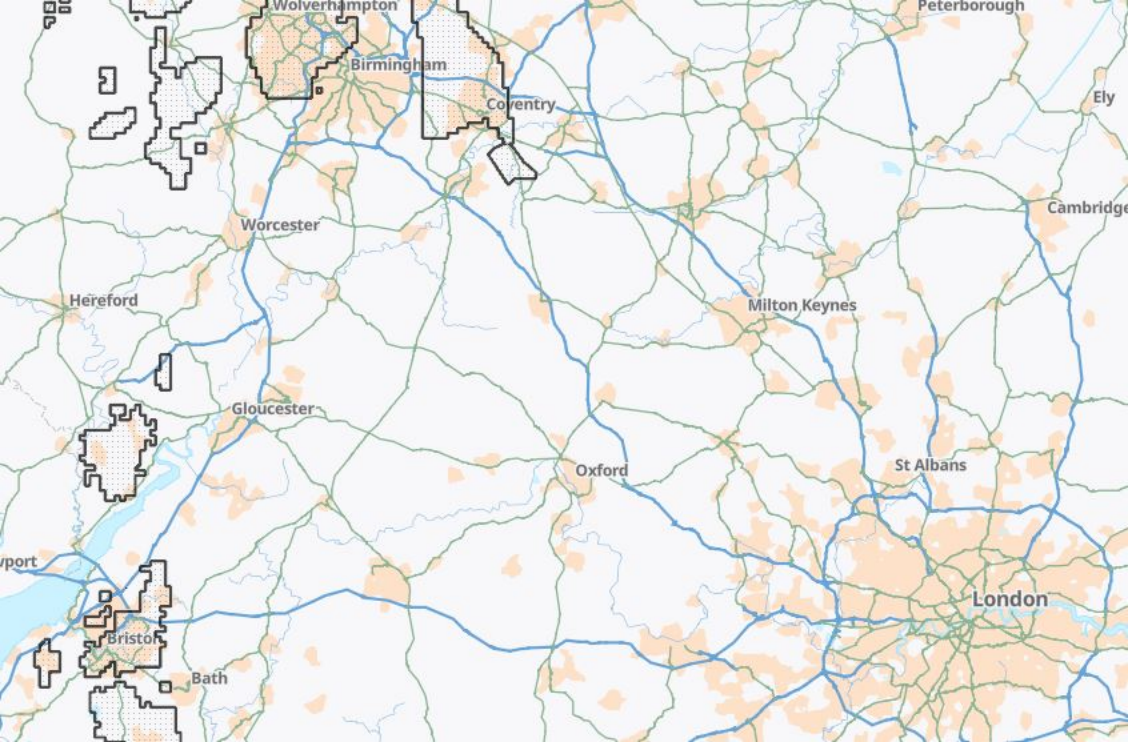
1

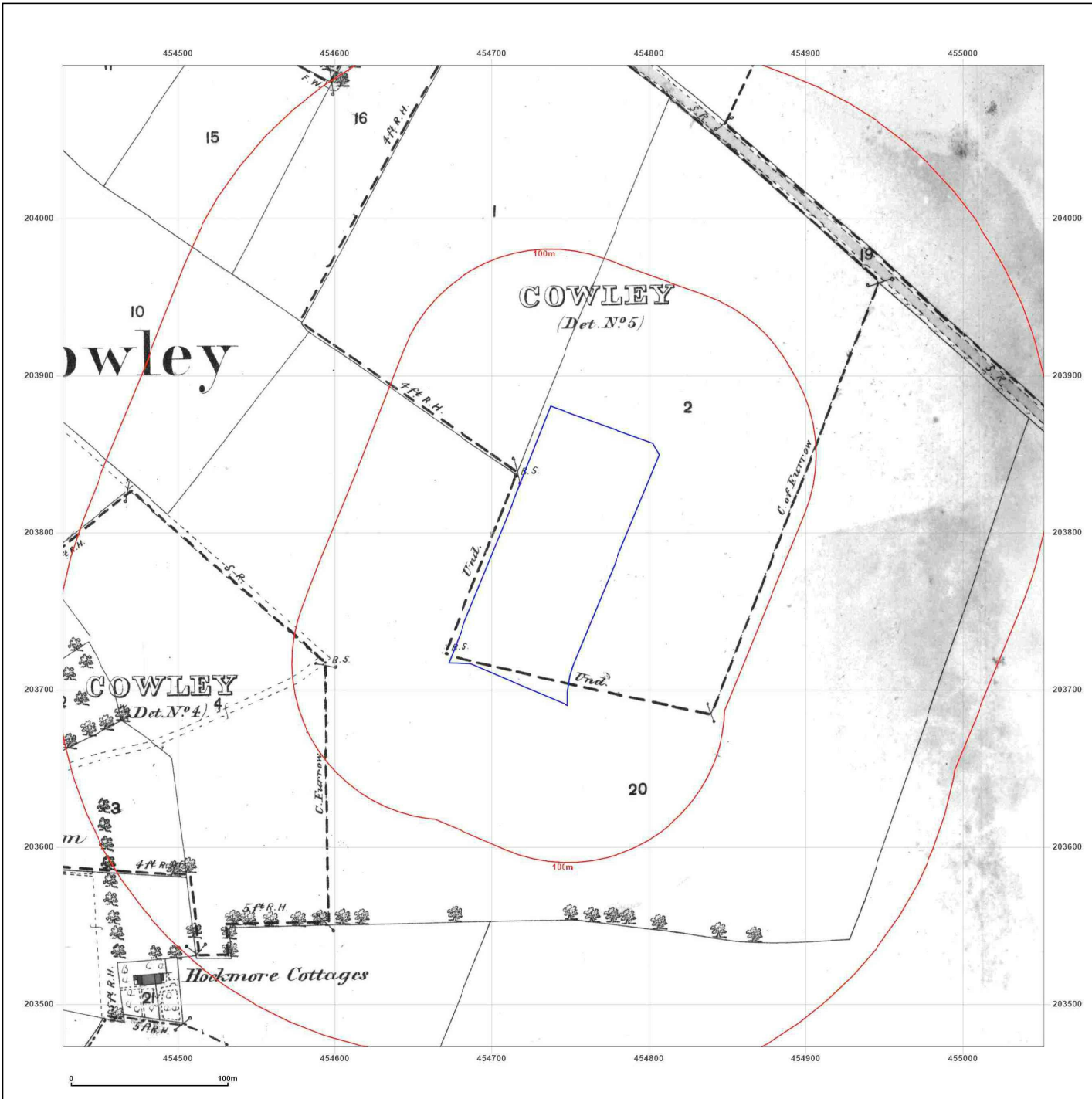
The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). 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 100 >](#)

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







**Site Details:**  
 4240 NASH COURT, JOHN SMITH DRIVE, OXFORD, OX4 2RU

**Client Ref:** PO2142268  
**Report Ref:** GS-K7Z-9BX-OEB-NRK  
**Grid Ref:** 454739, 203785

**Map Name:** County Series  
**Map date:** 1878  
**Scale:** 1:2,500  
**Printed at:** 1:2,500



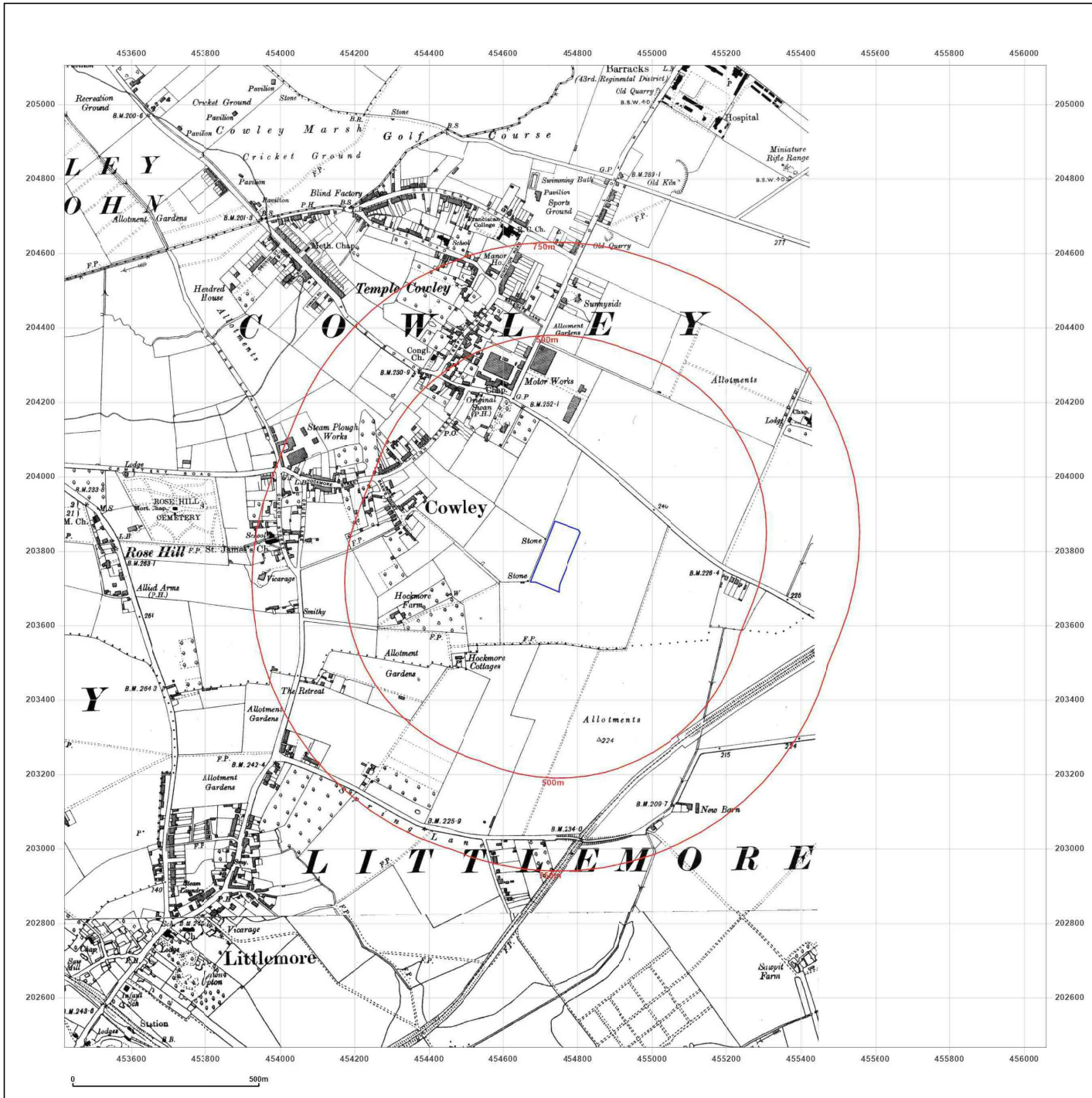
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**Report Ref:** GS-K7Z-9BX-OEB-NRK  
**Grid Ref:** 454739, 203785

**Map Name:** County Series

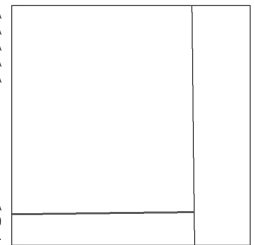
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**Scale:** 1:10,560

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



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



Surveyed N/A  
 Revised 1910  
 Edition 1914  
 Copyright N/A  
 Levelled N/A

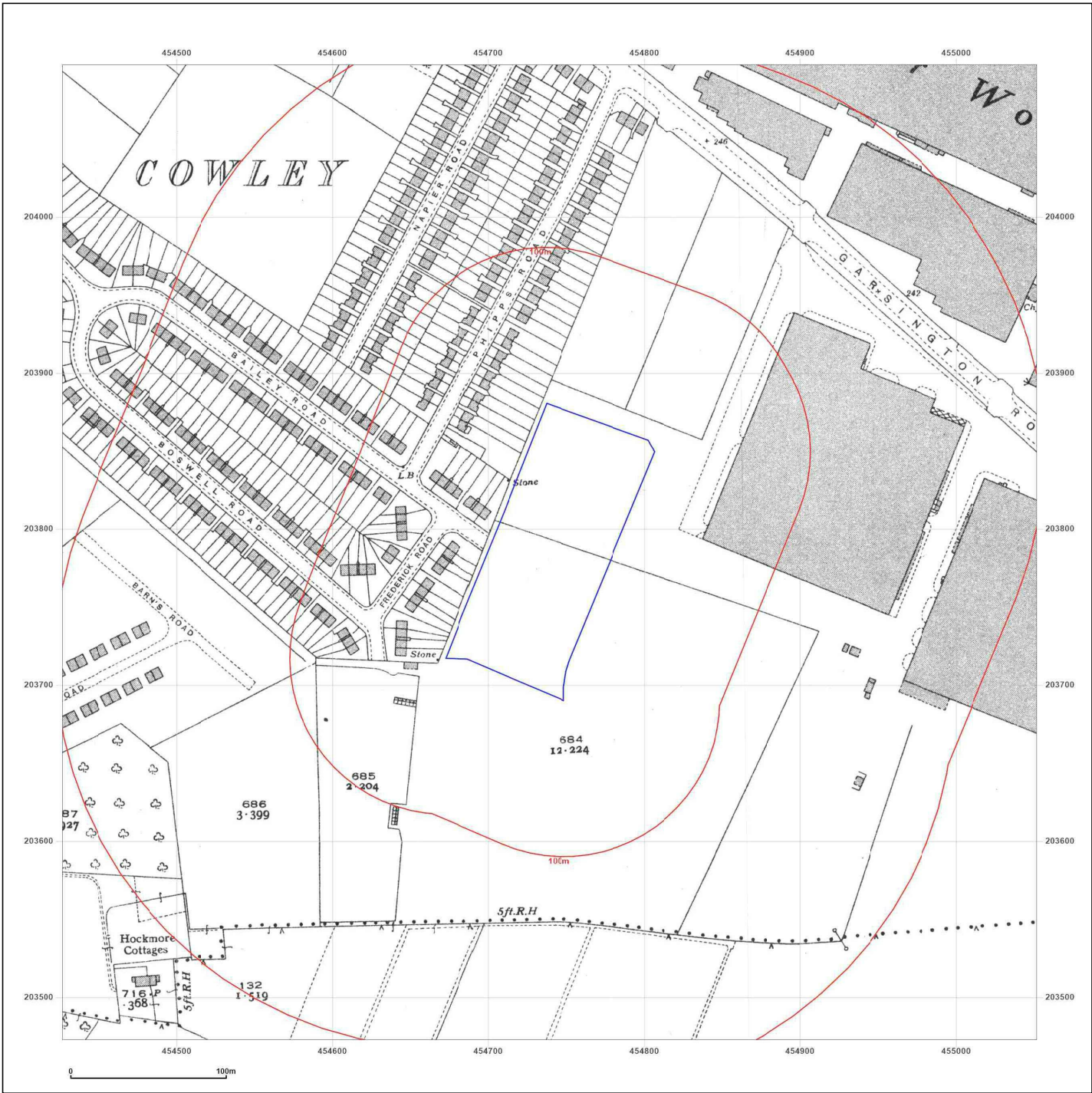


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**Grid Ref:** 454739, 203785

**Map Name:** County Series  
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**Scale:** 1:2,500  
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 Revised 1937  
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**Report Ref:** GS-K7Z-9BX-OEB-NRK  
**Grid Ref:** 454739, 203785

**Map Name:** National Grid

**Map date:** 1954

**Scale:** 1:1,250

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



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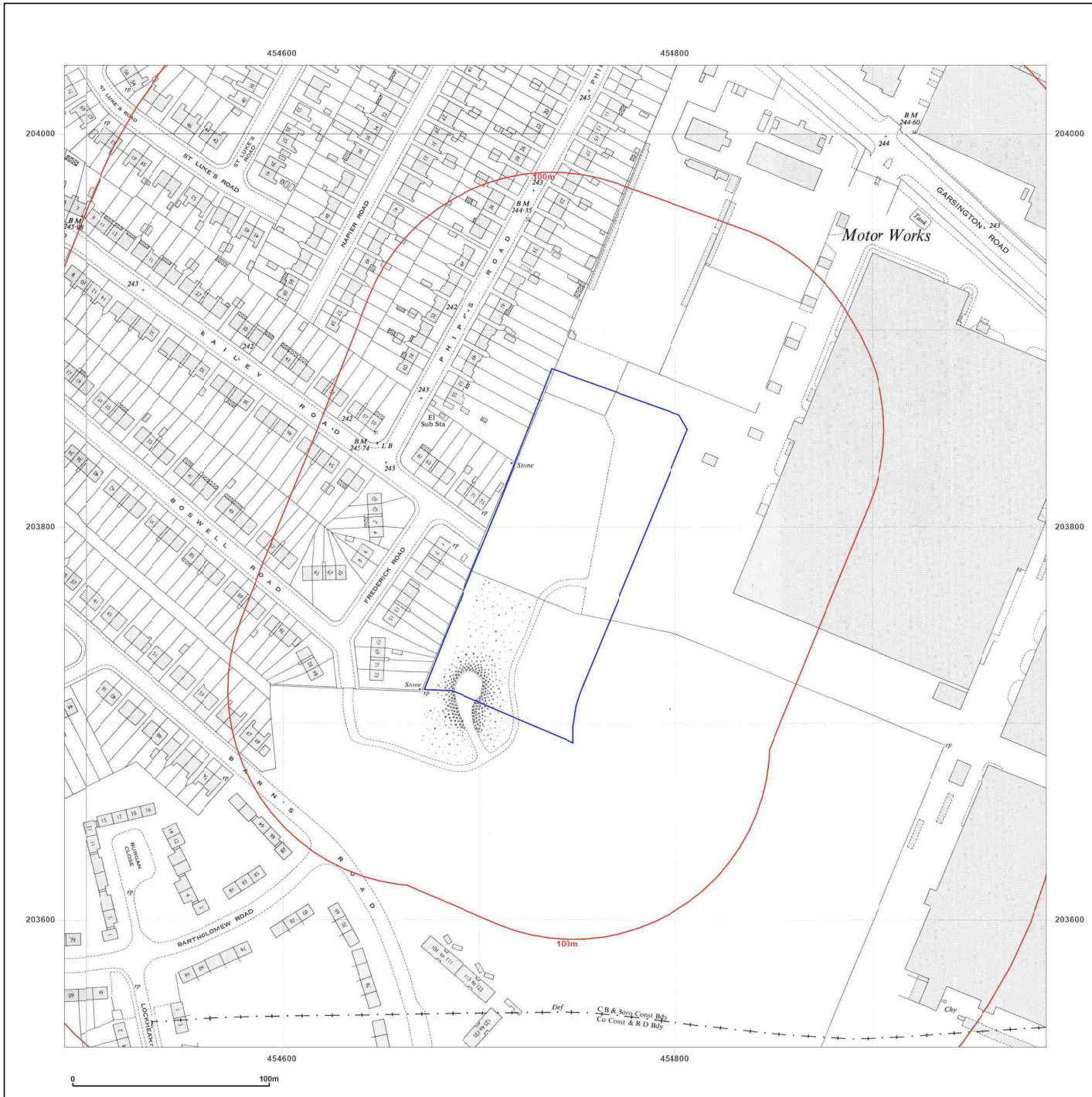


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**Client Ref:** PO2142268  
**Report Ref:** GS-K7Z-9BX-OEB-NRK  
**Grid Ref:** 454739, 203785

**Map Name:** National Grid

**Map date:** 1957

**Scale:** 1:1,250

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



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 Revised 1957  
 Edition N/A  
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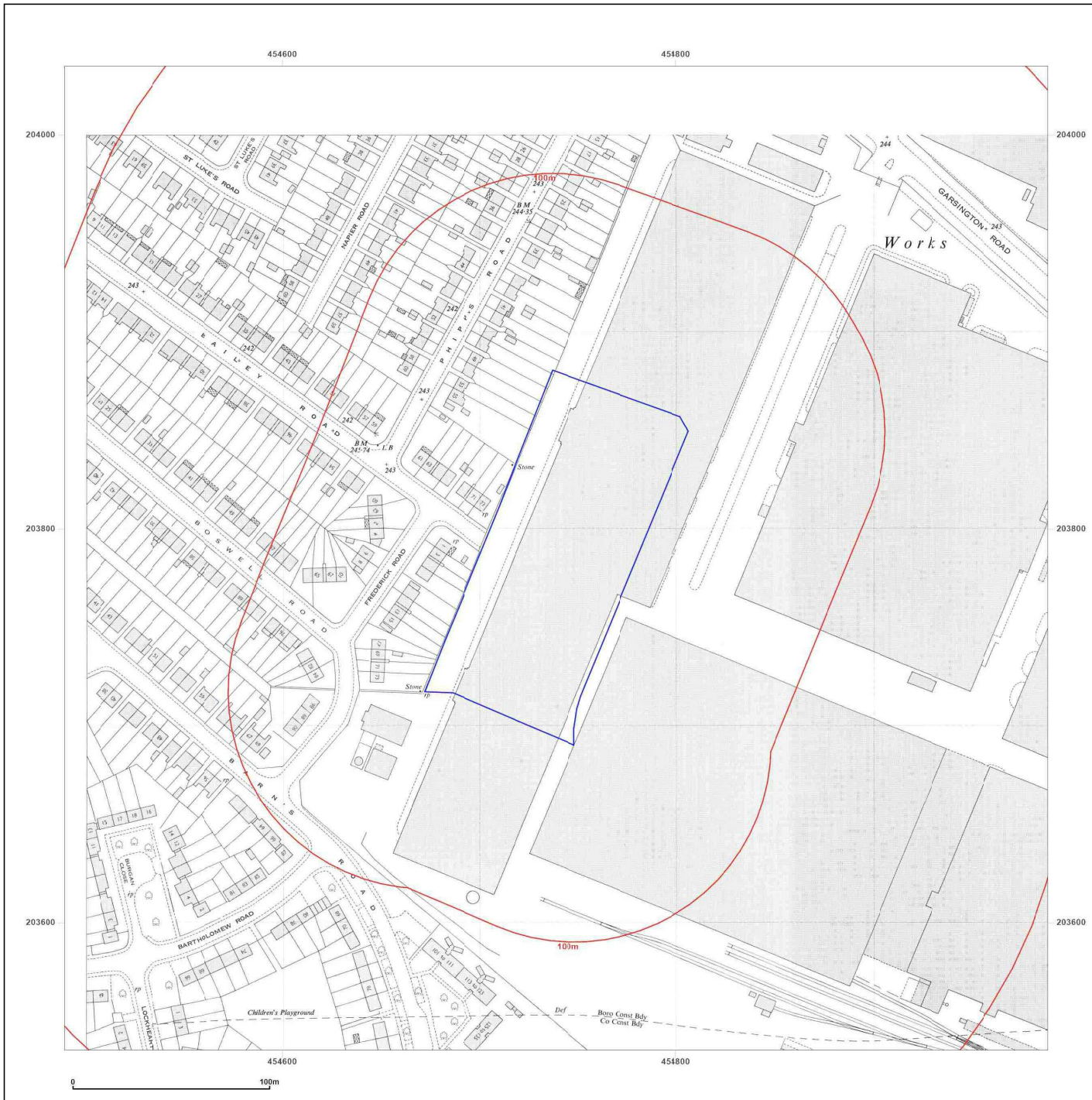


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**Client Ref:** PO2142268  
**Report Ref:** GS-K7Z-9BX-OEB-NRK  
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**Scale:** 1:1,250

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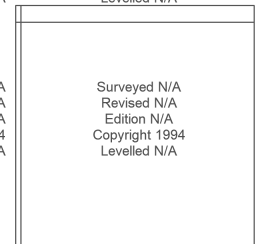


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 Revised N/A  
 Edition N/A  
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 Edition N/A  
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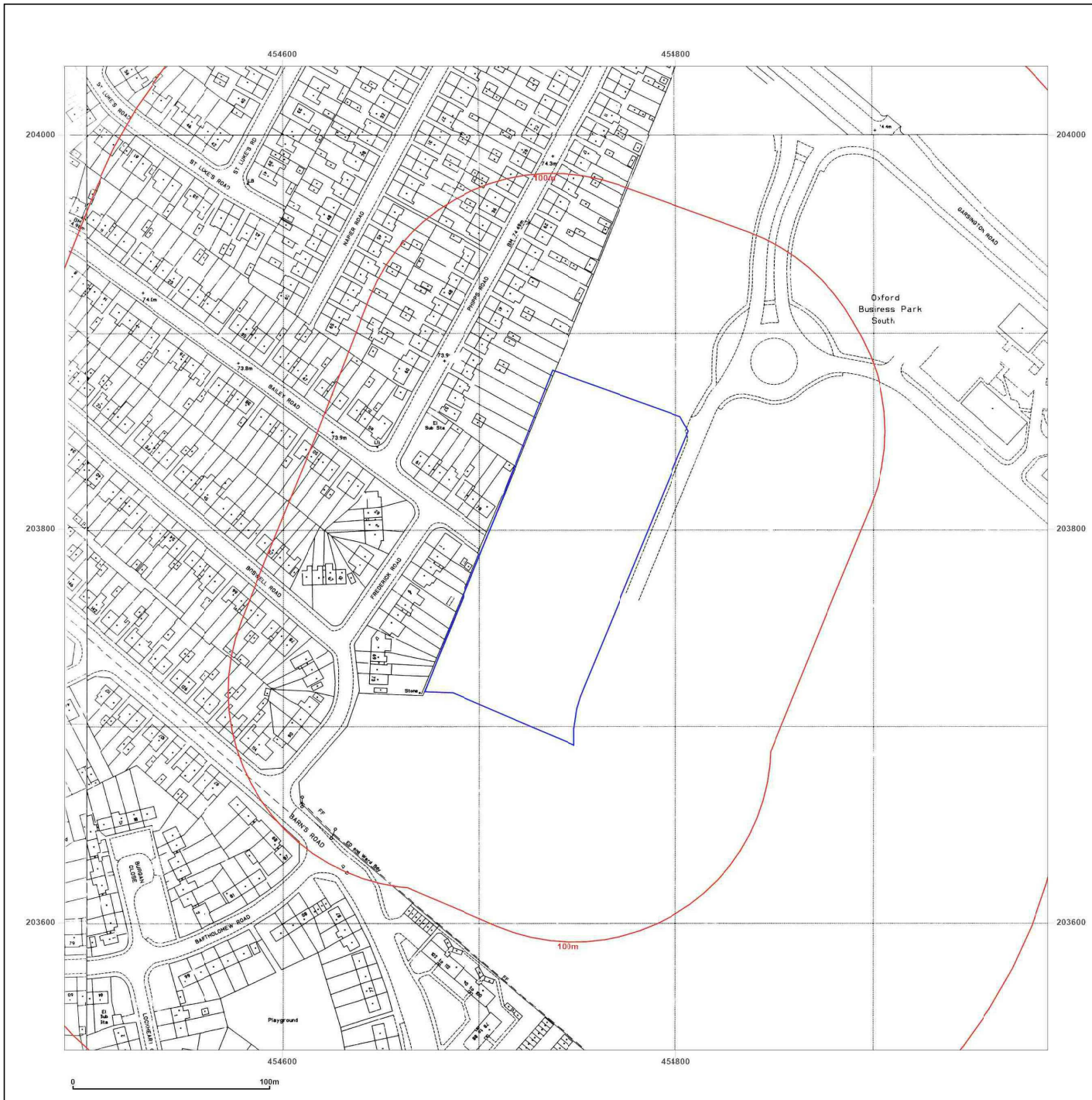


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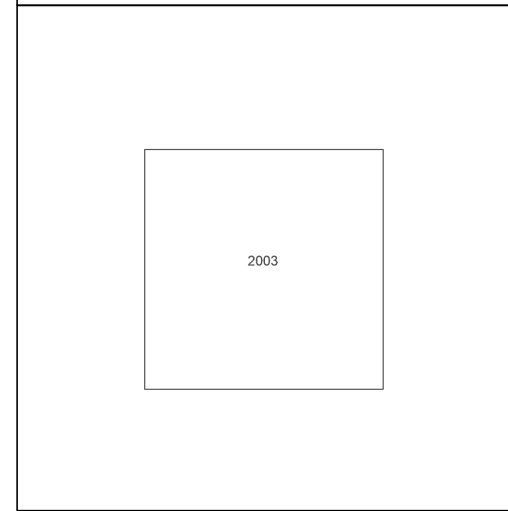
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**Map Name:** LandLine

**Map date:** 2003

**Scale:** 1:1,250

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