geotechnical and environmental consultants

ground&water

Phase I Desk Study

Abbey Gardens, Abbey Street, Reading RG1 3BA

Mc Grath Group

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EXECUTIVE SUMMARY	
PROPOSED DEVELOPMENT	At the time of reporting, July 2025, the proposed development was understood to comprise a permitted development application for the proposed conversion of the lower and upper areas of the 5th and 6th floors from commercial (Class E) to residential use (Use Class C3).
GEOLOGY AND HYDROGEOLOGY	The British Geological Survey Geology Map for the area revealed that the southern part of the site was underlain by alluvium, which was underlain by superficial deposits of the Taplow Gravel Member. No alluvium was shown in the northern half of the site. The bedrock comprised the Seaford and Newhaven Chalk Formation. No areas of Made Ground or Reworked Ground were noted within a 250m radius. A study of the aquifer maps on the DEFRA website revealed the site was underlain by a Secondary (A) Aquifer comprising the superficial Taplow Gravel Member underlain by a Principal Aquifer, comprising bedrock deposits of the Seaford and Newhaven Chalk Formation. Examination of the Environment Agency records showed that the site did not fall within a Groundwater Source Protection Zone (SPZ) as classified in the Policy and Practice for the Protection of Groundwater. The nearest surface water feature was River Kennet, located directly east of the site, and part of it is channelled / culverted below the site. From analysis of hydrogeological and topographical maps the groundwater table was anticipated to be encountered at shallow to moderate depth within the superficial aquifer (TGM). A deeper, specific groundwater table might be present, deep within the chalk.
POTENTIAL SOURCES OF CONTAMINATION	Full details can be seen in sections 6.3 and 6.4 of this report. Onsite - The Desk study has revealed the following potential sources of contamination onsite: • Potential for Made Ground (associated with historical construction/demolition onsite) • ACM • Former Mill Offsite - The Desk study has revealed the following potential sources of contamination within the site's environs: • Potential ground-gas generating features • Garage • Multiple former industrial uses in surrounding area.
RECOMMENDATIONS / PHASE II OBJECTIVES	It is possible that asbestos and asbestos containing materials will be incorporated within the building. An asbestos survey must be undertaken prior to any development works in the building. An asbestos management strategy should be implemented to ensure that any asbestos uncovered during the investigation does not pose a risk to members of the public that use the site. The CSM has identified a low to moderate risk from ground gases and vapours at the site as a result of limited possible deep/putrescible Made Ground on-site and nearby and as a result of industrial uses that may have produced volatile contaminants. Given the lower ground floor level is partially an undercroft car park it is considered likely that anything in this and above this area should be ventilated to IStructE guidance, especially with ramps. This will mitigate any risk of ground-gas and volatiles risk to the proposed building as it will provide 4 points of protection against ground-gas. This would allow for protection measures up to

	and including CS3. However, outside of this boundary the areas may be at risk from ground-gases and vapours. It is considered that the best approach to further investigation given the existing building footprint (i.e all slabs) will stay the same that in-situ continuous ground-gas and vapour monitoring should be undertaken in these locations. This would then provide an idea of if retrospective gas/vapour protection measures will be required.

1. INTRODUCTION

1.1. General

Ground and Water Limited were instructed by Mc Grath Group on the 25th November 2024 to conduct a Phase I Desk Study on the site at Abbey Gardens, Abbey Street, Reading RG1 3BA. The scope of the investigation was detailed within the e-mail fee proposal, by Francis Williams, dated the 18th June 2024.

1.2. Aims of the Investigation

This Phase 1 Desk Study was undertaken to advise the client on risk factors pertaining to the site with special reference to former and present day potential contaminative uses and their impact on sensitive receptors, these being human health, controlled waters, buildings, building materials and services.

This Phase I Desk Study comprises a Tier 1 Preliminary Risk Assessment, under Land Contamination Risk Management (LCRM), with the intention of discharging planning conditions.

1.3. Conditions and Limitations

This report has been prepared based on the terms, conditions and limitations outlined within Appendix A.

This version of the report relates to the permitted development application for the fifth and sixth floor.

1.4. Technical Glossary

Generic technical terms and their description can be viewed within the glossary provided within Appendix B.

2. SITE SETTING

2.1. Site Location

The site comprised a ~0.16ha irregular-shaped plot of land, orientated in a north to south direction, along the eastern side of Abbey Street. The site was located in central Reading.

The Easting Northing for the centre of the site was approximately 471958, 173456. A site location plan is given within Figure 1.

2.2. Site Description

A Site Walkover was undertaken on the 18th December 2024. A description of the site, as noted during the Site Walkover, is tabulated below. Photographs can be seen in Appendix C.

Site Description Sheet	
Use of site	At the time of the site walkover, the site was occupied by a high rise building, which comprised the Abbey Gardens. The use was offices. A stream/channel was passing below the building. It was open below the building and culverted below the road next to the building.
Site topography	The site was sloping gently towards the south and east. Access paths/roads from the east dipped locally towards the west.
Area topography	The area was gently sloping towards the south and east.
Structures onsite	The site was occupied by a building comprising offices.
Structures off-site	Various buildings of residential and commercial use around the site. Heritage ruins towards the north-east.
Use of surrounding ground	Residential and commercial.
Boundary features	The site was bounded mainly by road from the west and north. Pathways and a river were present towards the east. The main building to be developed was attached to another office building to the south of the same complex.
Site covering	The site was covered by the building and hardstanding areas below the main building at lower levels. A stream was crossing the site.
Contamination sources on-site	None noted.
Contamination sources off-site	None particularly noted.
Vegetation onsite	The actual site to be developed did not seem to contain soft landscaping areas.
Vegetation off-site	Trees were present towards the east / north-east.
Services	Services are expected on site.

2.3. Proposed Development

At the time of reporting, July 2025, the proposed development was understood to comprise a permitted development application for the proposed conversion of the lower and upper areas of the 5th and 6th floors from commercial (Class E) to residential use (Use Class C3). The proposed development plan can be seen within the figures section.

2.4. Geology

The British Geological Survey Geology Map for the area revealed that the southern part of the site was underlain by alluvium, which was underlain by superficial deposits of the Taplow Gravel Member. No alluvium was shown in the northern half of the site. The bedrock comprised the Seaford and

Newhaven Chalk Formation. No areas of Made Ground or Reworked Ground were noted within a 250m radius.

Superficial deposits (Drift) are the youngest geological deposits formed during the most recent period of geological time. They rest on older deposits or rocks referred to as bedrock (Solid), which are the main mass forming the Earth. Bedrock is present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Alluvium
Alluvium is the most recent river or estuarine deposit and generally comprises silty clays usually with an appreciable organic content. Lenses of sand and gravel are also commonly found, as are pockets of peat.

Taplow Gravel Member
The Taplow Gravel Member is largely encountered along the Thames valley and is found at an elevation generally above the current river. The Taplow Gravel Member is generally sand and gravel, locally with lenses of silt, clay and peat, and has an average thickness of 5.00m, up to a maximum of 9.00m.

Undifferentiated Seaford Chalk and Newhaven Chalk Formations
The Undifferentiated Seaford Chalk and Newhaven Chalk Formations is a soft white friable microporous limestone composed of coccolith biomicrites with a varying proportion of larger shell fragments. Flint characterises the Undifferentiated Seaford Chalk and Newhaven Chalk Formations, occurring as nodular courses, tabular beds and linings to fractures. At various levels clay sized material occurs as marl seams and partings. Close to the surface the upper few metres are invariably discoloured brown, due to leaching from the overlying strata. The interface with any overlying stratum is invariably extremely irregular as a result of localised weathering and dissolution. Weathering by frost action may extend to a depth of several metres. Occasional erosional features, such as pipes, swallow holes and solution cavities, usually in-filled with drift deposits; can be found in the chalk deposits. These features sometimes manifest themselves at the surface as shallow circular depressions. Solution features may be reactivated by the concentrated ingress of water from leaking drains or soakaways. Reactivation may lead to surface collapse.

A number of confidential BGS borehole records were present on site. The closest available record was ~140m west of the site. This borehole (SU77SW72) recorded Made Ground to 3.00m bgl, underlain by very dense clayey fine to coarse angular to subrounded sandy GRAVEL to 5.00m bgl. Chalk bedrock was recorded below to the base of the borehole, at 10.00m bgl. This was recovered as structureless however it was noted as potentially structured in-situ, (IV – V).

2.5. Hydrogeology and Hydrology

A study of the aquifer maps on the DEFRA website revealed the site was underlain by a **Secondary (A) Aquifer** comprising the superficial Taplow Gravel Member underlain by **a Principal Aquifer,** comprising bedrock deposits of the Seaford and Newhaven Chalk Formation.

Examination of the Environment Agency records showed that the site **did not** fall within a Groundwater Source Protection Zone (SPZ) as classified in the Policy and Practice for the Protection of Groundwater.

The nearest surface water feature was River Kennet, located directly east of the site, and part of it is channelled / culverted below the site.

From analysis of hydrogeological and topographical maps the groundwater table was anticipated to be encountered at shallow to moderate depth within the superficial aquifer (TGM). A deeper, specific groundwater table might be present, deep within the chalk.

The flood risk maps have shown the site to be within a flood risk zone 3, mainly connected with the part of River Kennel flowing below the building / site.

2.6. Radon

A review of the freely available UK Health Security Agency radon database, UK Radon, indicated that the site was located within a 1km grid square, where the maximum radon potential of 1 – 3% was recorded for above ground structures. Basic radon protection measures are required in areas where more than 3% of houses are at or above the Action Level.

The site was in an area where a risk assessment was not required.

2.7. Internet Search (Site Setting)

2.7.1. Available Unexploded Ordnance (UXO) Map Review

A review of the data available on www.zeticauxo.com/ revealed the site was located within a low -risk area associated with unexploded ordnance (UXO), as indicated by having <15bombs dropped per 1000 acres.

2.7.2. Historical Landfill Tool Review

A review of the data available on www.groundsure.io/ did not reveal an area of Historical Landfilling within a 250m radius.

3. HISTORICAL REVIEW

3.1. Historical Map Review

The object of this search was to report on the history of the site and its environs from available County Series and Ordnance Survey Maps dating from the mid to late 19th Century to the present day and downloaded from Groundsure. In the following sections dealing with individual maps, only features considered to have a potential contaminative impact on the site and usually within a notional 250 metre radius of the site boundaries are discussed. Any distances quoted for features remote from the site have been scaled from the maps and are only approximate. The north point and approximate extent of the site are indicated on each figure. The historical maps referred to are given within Appendix D. The implications of the map search are discussed later within this report.

Environmental Significance of Data from Historical Maps		
Maps Dated Between	**Site**	**Environs**
1879 – 1931	The north of the site comprised rear gardens associated with the Abbey Wall properties. This included a separate building in the north-east. The south of the site was occupied by part of the Abbey Saw Mills building with Holly Brook running through the centre of the site through the mill and flowing west to east to the River Kennet.	A goods shed, warehouse and railway sidings were recorded ~200 – >250m north associated with the Great Western Railway trending east to west. A timber yard, wharfs and other industrial uses were recorded from ~50m east extending eastwards, east of the River Kennet. A H.M. Prison was identified from ~65m north-east. A large biscuit factory was also identified ~180m east. Abbey Wharf was recorded directly adjacent to the south of the site. Various other wharves were also recorded from ~100m south and west (north of the River Kennet) and further wharves, works and saw mills (incl. Abbey Corn Mill) south of the River Kennet. The area to the west was predominantly occupied by commercial and residential development. The County Police Station was recorded ~60 – 100m north-west. By 1900, a tramway was identified ~70m south trending east to west.
1931 – 1956	The Abbey Wall properties were replaced with two semi-detached houses, the north of the site was occupied by the gardens of these new properties.	The prison was recorded as disused.
1956 – 1962	A building had been constructed in the north of the site.	The disused prison was redeveloped to a Borstal Institution. An electricity substation was identified ~250m north-east. Another electricity substation was recorded ~170m east. A printing works was recorded ~160m east, a paint works ~240m south-east and a garage ~170m south-west (east and south of the River Kennet). Another garage was recorded ~70m west. A graveyard was identified ~230m north-west.
1962 – 1986	The Abbey Saw Mills was no longer recorded. By 1968, the building in the north was also no longer recorded.	The Abbey Wharf was no longer located adjacent to the south. By 1968, the biscuit factory was no longer identified. The majority of industrial uses appear to have been converted to commercial or residential uses.
1986 – 2024	The site was entirely occupied by a building with the Holly Brook assumed to be culverted beneath the building.	No further significant changes were recorded.

3.2. Historical Aerial Photography Review

The object of this search was to report on the history of the site and its immediate environs from available Aerial Photography dating from the early-21st Century to the present day and downloaded from Google Earth and Groundsure. Any distances quoted for features remote from the site have been scaled from the photography and are only approximate.

At the time of the earliest aerial photography, 2003, the was occupied by the existing building that occupies the entire site boundary. No further changes were noted.

4. ENVIRONMENTAL AND GEOLOGICAL INSIGHT

4.1. Groundsure Datasheets

Groundsure Environmental and Geological Datasheets were obtained for the site. Unless the data indicates a significant risk, only information within a 250m buffer zone has been included. The GroundSure Datasheets are also presented in Appendix E and a summary is given below and overleaf(s).

Environmental Insight	
Source	Nearest Distance from Site/Dated/Type
Past Land Use	
Historical industrial land uses	On site: Sawmill, 1898 – 1938 Off site: Unspecified Wharf, 22m – 119m s 1989 – 1994 Sawmills, 28m se 1913 - 1938 Unspecified factory, 145m n, 1962 Unspecified tank 147m nw, 1973 Unspecified heap, 148m n, 1933 Railway sidings & buildings, 164m n – 242m n, 1897 - 1979 Goods sheds 172-208m n / ne 1913 – 1938 Biscuit factory 179 – 180m n 1933 – 1938 Unspecified factory 182m e, 1973 – 1979 Police Station, 221m nw, 1973
Historical Tank Database	3x Unspecified tank records, 54m w – 112m w, 1968 - 1997 4x unspecified tank or trough 209m n – 212m n & 243m w 1879 Pump and tank, 218m w 1879 Unspecified tank 245m e 1956 – 1957 Gas works were also noted 290m e, however they were considered to be far.
Historical Energy Features Database	Multiple records of electricity substations 87m e – 246m ne Gas works were also noted 290m e, however they were considered to be far.
Historical Garages Database	Garage, 10m sw, 11m sw, 1956 - 1968 Garages 115m sw, 181 – 183m sw, 239m s 1956 - 1968
Waste and Landfill	
Waste exemptions	133m ne: Sorting and de-naturing of controlled drugs 216m ne: Crushing waste fluorescent tubes 236m n: Use of waste in construction
Current Industrial Land Use	
Recent Industrial Land Uses	On site: Abbey Gardens, medical equipment supplies Food and beverage industry machinery, 51m n Oyster Wharf, Moorings and unloading facilities, 100m s Electricity substations, 107m w – 207m w Civil Engineers 141m w TAH Trading Ltd, Special purpose machinery 141m w Wharfs 127 & 143m e, 209m se water Electrical motors and generators, 229m n Tank 242m se
Licensed Discharges to controlled waters	On site: Effluent type: miscellaneous, surface water, status revoked, 1997. Receiving water: Holy Brook 9m w: miscellaneous, surface water, revoked 1991. 25m w: Trade discharges: site drainage, revoked 2017. 37m e: Miscellaneous, River Kennet, revoked 1991.

	68m e: Miscellaneous, River Kennet, revoked 1991. 196m sw – 248m e: Various records for miscellaneous and trade discharges, with the receiving water being River Kennet. All revoked.
Pollution Incidents (EA/NRW)	Pollution incidents 16m e, cat 3 & 4, 2003, minor or low impact 40mw: waste materials, cat 3 & 4, 2002 minor or no impact 136m w: Diesel, 2005, cat 3 & 4, minor or no impact 161m sw, crude sewage, 2003, cat 3 & 4, minor or no impact
Hydrogeology	
Superficial Aquifer	1 record on-site: 1x Secondary A Aquifer.
Bedrock Aquifer	1 record onsite: 1x Principal Aquifer.
Groundwater Vulnerability	1 record onsite: 1x Secondary superficial aquifer – high vulnerability, leaching class: intermediate. 1x Principal bedrock aquifer – high vulnerability, leaching class: high.
Groundwater Vulnerability – Soluble Rock Risk	20% of grid square covered by maximum risk Very significant soluble rocks are likely to be present with a high possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, especially in adverse conditions such as concentrated surface or subsurface water flow.
Hydrology	
Water Network (OS MAsterMap)	Culverted Holy Brook beneath the north of the site (west to east). River Kennet from 19m south-east.
WFD Surface Water Body Catchments	2 records on-site: 1x River Catchment (Holy Brook) on-site, 1x River Catchment (Lower Kennet – Sheffield Bottom to Reading) on-site.
WFD Surface Water Bodies	1 record on-site and 1 within a 250m radius: 1x Holy Brook on-site, 1 x Lower Kennet 23m south-east.
WFD Groundwater Bodies	1 record on-site: 1x Berkshire Downs Chalk on-site.
Visual and Cultural Designations	
Listed Buildings	33 records within a 250m radius.
Conservation Area	Market Place and London Street 140m south-west.
Scheduled Ancient Monuments	5 records within a 250m radius.
Registered Parks and Gardens	The Forbury Garden 85m north (Grade II).
Agricultural Designations	
Agricultural Land Classification	Urban on-site.

Geological Insight	
Source	Nearest Distance from Site/ Type
Superficial Geology (1:10,000 Scale)	2x on-site records: 1x Taplow Gravel Formation in north (Sand and Gravel), 1 x Alluvium in south (Silt).
Bedrock Geology (1:10,000 Scale)	1x on-site record: 1x Lews Nodular, Seaford Formation and Newhaven Chalk Formation (Chalk).
Superficial Geology and Permeability (1:50,000 scale)	2 on-site records: 1x Taplow Gravel Formation in north. Flow Type: Intergranular, Maximum Permeability: Very High, Minimum Permeability: High, 1 x Alluvium in south. Flow Type: Intergranular, Maximum Permeability: High, Minimum Permeability: Very Low.
Bedrock Geology and Permeability (1:50,000 scale)	1 record onsite: 1x Seaford and Newhaven Chalk Formation. Flow Type – Fracture, Maximum Permeability – Very High, Minimum Permeability – Very High.
Boreholes	
BGS recorded boreholes	2 on-site and 36 records within a 250m radius.

Natural Hazard Findings	
Shrink-Swell Clay	Negligible (north) to Very Low (south) hazard onsite.
Running Sands	Very Low (north) to Low (south) hazard onsite.
Compressible Deposits	Negligible (north) to Moderate (south) hazard onsite.
Collapsible Deposits	Negligible (south) to Very Low (north) hazard onsite.
Landslides	Very Low hazard onsite.
Ground Dissolution of Soluble Rocks	Very Low (south) to Low (north) hazard onsite.
Mining, Ground Working and Natural Cavities	
Records of Surface Ground Workings	15x records within a 250m radius: 9 x wharf 22 – 122m south (1933 – 1994), 5 x canal 63 – 94m south/south-east (1933 – 1994), 1 x heap 148m north (1933).
Records of Non-coal Mining	2x records within a 250m radius: 1 x Class A Chalk 72m north-west - Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered. 1 x Class B Chalk 89m west - Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
Records of JPB Mining Areas	On Site record: JPB may have information such as mining plans and maps that have occurred within 1km from the property.
Radon	
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, 1 - 3% of properties are above the Action Level.
Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.
Estimated Background Soil Chemistry	
Records of BGS estimated background soil chemistry	2x on-site and 5x off-site records within a 250m radius: On-site (x2), 8m north, 17m south-east, 28m east and 39m north-east: Arsenic: 15 - 25mg/kg Lead 100mg/kg (60mg/kg bioaccessible) Cadmium: 1.8mg/kg Chromium: 60 – 90mg/kg Nickel: 15 – 30mg/kg
Railway Infrastructure and Projects	
Records of Historical Railway and Tunnel Features	35x records within a 250m radius: 2 x railway sidings 126 – 127m south (1879), 33 x railway sidings 164 – 238m north/north-east/east (1879 – 1962).

5. ONLINE REVIEW AND HISTORICAL INVESTIGATIONS

5.1. Online Council Planning Database

A review of the Reading Borough Council Planning Database revealed that a number of planning applications had been filed for the Abbey Gardens, predominantly for minor alterations to the building.

5.2. Internet Search

An internet search did not identify any other information pertinent to this report.

6. PRELIMINARY RISK ASSESSMENT

6.1. Contaminant Source-Pathway-Receptor Model

In the UK, the assessment of risk from contamination follows the source-pathway-receptor (SPR) approach. For a risk to be present there must be a source of contamination, a receptor or receptors, and a pathway for contaminants to migrate or be absorbed. If one of these three elements are absent, it is considered that there is no risk of harm. If, however, there is a linkage between any given source and any given receptor, then a risk-based approach is used to assess the significance or impact of the pollutant linkage.

This Phase 1 Desk Study has been used to identify potential on-site and off-site sources of contamination, which are summarised in this section of the report. Additional potential sources of contamination identified within the Desk Study have been discounted based on the absence of a realistic SPR linkage (i.e. the distance from the site or the nature or age of any potential contamination sources).

In line with the requirements of BS 21365:2020, *Soil Quality – Conceptual site models for potentially contaminated sites*, the Conceptual Site Model (CSM) can be described in text, tabulated or presented as a figure. A tabulated CSM is provided in Section 6.6 of this report, where each component is discussed in the following sections.

6.2. Potential On-site Sources of Contaminants

This Desk Study revealed that at the time of the earliest historical mapping (1879) the north of the site comprised rear gardens associated with the Abbey Wall properties. This included a separate building in the north-east. The south of the site was occupied by part of the Abbey Saw Mills building with Holly Brook running through the centre of the site through the mill and flowing west to east to the River Kennet. By 1931, the Abbey Wall properties were replaced with two semi-detached houses, the north of the site was occupied by the gardens of these new properties. By 1956, a building had been constructed in the north of the site. By 1962, the Abbey Saw Mills was no longer recorded. By 1968, the building in the north was also no longer recorded. By 1986, the site was entirely occupied by a building with the Holly Brook assumed to be culverted beneath the building.

The Phase 1 Desk Study revealed the following on-site sources of contamination:

- The site has undergone construction and demolition and as a result various thicknesses of Made Ground resulting from these activities are likely to be encountered.

  Contaminants of concern associated with Made Ground deposits include; metals, Petroleum Hydrocarbons (TPHs), Polycyclic aromatic hydrocarbons (PAHs), asbestos, sulphates, and ground gases (if >2.00m MG encountered).

- The south of the site was formerly occupied by part of Abbey Saw Mill.

  Determinants associated with general industrial works include metals and semi-metals; asbestos; oil/fuel hydrocarbons, PAHs, solvents and inorganic chemicals (R&D Publication CLR 8, 2002).

As there will be no areas of soft landscaping or breaking ground proposed where the development is only internal alterations to change the use of some of the building a number of pathways/receptors

have been removed from the CSM. This leaves the primary pathway as inhalation of ground-gases or vapours and controlled water concerns from any contaminants that may be in Made Ground beneath the site. It should be noted that where the development will not be breaking ground the site will not be making the controlled water situation worse than it already is. Given the time elapsed since the former use as a mill (>60 years) and location within a former industrial area, it is considered unlikely that the current site would be causing a significant impact to controlled waters. So, at this stage this receptor will be discounted.

6.3. Potential Off-site Sources of Contaminants

The Phase 1 Desk Study revealed the following potential off-site sources of contamination:

Everything situated east and south of the River Kennet is not considered to pose a risk to the site as the River prevents the contamination from migrating to the site and will not be discussed further.

- Garage from 10m south-west/west.

  Potential sources of contamination associated with a garage include: lubricant oils; brake fluids (constitute mainly of polymerised glycols and ethers. Waste fluid is generated during repair work on brake systems); solvents (chlorinated hydrocarbons, carbon tetrachloride, paraffin and proprietary degreasing compounds); paints (lead-based paints, zinc-rich epoxy primers, polyurethanes as decorative finishes); gasoline, diesel, paraffin (Department of the Environment Industry Profile, Road vehicle fuelling, service and repair: garages and filling stations 1996).

  As there will be no areas of soft landscaping or breaking ground proposed where the development is only internal alterations to change the use of some of the building a number of pathways/receptors have been removed from the CSM. This leaves the primary pathway as inhalation of ground-gases or vapours which is considered to be a moderate risk.

- General industrial works: incl. biscuit factory to NE, Wharves to the south and west, various other mills, works, warehouses and smithy.

  Metals and semi-metals; asbestos; oil/fuel hydrocarbons, PAHs, solvents and inorganic chemicals (R&D Publication CLR 8, 2002).

  As there will be no areas of soft landscaping or breaking ground proposed where the development is only internal alterations to change the use of some of the building a number of pathways/receptors have been removed from the CSM. This leaves the primary pathway as inhalation of ground-gases or vapours which is considered to be a low to moderate risk.

- Tram/railway sidings and line ~126 – 127m south and 164 - >250m north/north-east/east.

  Contaminants associated with railway land include metals such as cadmium, chromium, nickel and lead, Polycyclic Aromatic Hydrocarbons (PAHs) and Total Petroleum Hydrocarbons (TPH).

  Given the distance and/or location downstream it is considered unlikely that these contaminants would pose a significant risk to the site.

- Multiple records of electricity substations from 87m east.

  High-voltage electricity sub-stations may be a potential source for PCBs. PCB oils and other cable/transformer oils, together with a series of waxes are commonly used in mainly high voltage applications. PCBs are generally toxic; however, newer forms of non-toxic oils and waxes have replaced the use of PCBs. All cable oils are extremely viscous and adhere strongly to soil particles and do not tend to migrate far from the point of leakage or spillage, therefore it was concluded that the potential risk of encountering PCBs on the site was negligible.

6.4. Potential Receptors

At the time of reporting, July 2025, the proposed development was understood to comprise a permitted development application for the proposed conversion of the lower and upper areas of the 5th and 6th floors from commercial (Class E) to residential use (Use Class C3). The proposed development plan can be seen within the figures section.

Based on the proposed development, the potential receptors are presented below and comprise:

Human Health

- End users of the site (Residents/Site Workers/Future site visitors);
- Site workers during internal re-development;
- Site operatives during maintenance works; and
- Neighbours and members of the public.

Building Materials and Services

- Buildings;
- Buried concrete;
- Confined spaces; and
- Underground services (Water Pipes).

Controlled Waters

- Secondary A Aquifer (Taplow Gravel Member) and Principal Aquifer (Chalk),
- Holly Brook culverted beneath the site and River Kennet to the east/south.

As there will be no areas of soft landscaping or breaking ground proposed where the development is only internal alterations to change the use of some of the building a number of receptors have been removed from the CSM.

6.5. Contaminant Absorption Pathways

The potential pathways for contaminant absorption between the identified sources and the identified receptors are as follows:

Human Health:

- Inhalation of volatile vapour (indoors and outdoors);
- Inhalation of ground gases.; and
- Explosion.

Building Materials and Services

- Direct contact;
- Explosion.

Controlled Waters

- Vertical and lateral migration in permeable strata horizons;
- Via anthropogenic pathways (infilled ground and service runs);
- Surface water Runoff.

As there will be no areas of soft landscaping or breaking ground proposed where the development is only internal alterations to change the use of some of the building a number of pathways have been removed from the CSM.

6.6. Tabulated Conceptual Site Model

The tabulated Conceptual Site Model developed as part of this Desk Study is outlined overleaf. For ease of reference and understanding, the risks have been classified within this risk assessment against four possible levels / categories, summarised in the table below. **All negligible uses have been omitted from the CSM for ease as they do not need to be considered further.**

Risk Categories used in the Tabulated CSM	
Negligible	Regarding this potential SPR linkage, the site is considered suitable for the proposed end-use and there is no plausible risk. Therefore, there is no need to further assess this potential source of contamination.
Low Risk	Regarding this potential SPR linkage, the site is considered suitable for the proposed end-use and there is not considered to be an unacceptable risk to receptors. However, it is considered that further investigation to confirm this is recommended.
Moderate Risk	Regarding this potential SPR linkage, the site may not be suitable for the proposed end-use in its current condition and there may be an unacceptable risk to receptors. Further investigation is required to confirm this.
High Risk	Regarding this potential SPR linkage, the site is probably or certainly not suitable for proposed end-use and there is likely to be an unacceptable risk to receptors. Contaminants probably or certainly present and urgent action required in the short term.

Tabulated Conceptual Site Model – Pollutant Linkage Summary (On-Site Sources)			
Potential Sources	Potential Absorption Pathways	Potential Receptors	Risk Classification
Made Ground from construction/ demolition activities: • Naphthalene, • TPHs.	• Inhalation of volatile vapour (indoors and outdoors)	**Human Health** • End Users (Residents/Site workers/Future site visitors) • Site workers during internal re-development • Site operatives during maintenance works • Neighbours and public	**Low**
Asbestos containing material from demolition of previous structures (above ground): Asbestos.	• Direct ingestion of soil and soil derived dust • Dermal contact of soil and soil derived dust • Inhalation of dust (indoors and outdoors) with elevated concentration of determinand	**Human Health** • End Users (Residents/Site Workers/Future site visitors) • Construction workers during development • Site operatives during maintenance works	**Moderate – Asbestos Survey Required pre-development works.**
South of the site formerly occupied by part of Abbey Saw Mill: • Naphthalene, • TPHs, • VOCs, and • SVOCs.	• Inhalation of volatile vapour (indoors and outdoors)	**Human Health** • End Users (Residents/Site workers/Future site visitors) • Site workers during internal re-development • Site operatives during maintenance works • Neighbours and public	**Moderate**
Ground gases generated by Made Ground (if Made Ground >2m across whole site): • Methane, • Carbon Dioxide, • Hydrogen Sulphide, and • Carbon Monoxide.	• Migration through anthropogenic & natural pathways • Inhalation of Asphyxiating gases • Explosion (methane only)	**Human Health** • End Users (Residents/Site workers/Future site visitors) • Site workers during internal re-development • Site operatives during maintenance works • Neighbours and public	**Moderate**
	• Migration through anthropogenic & natural pathways • Explosion (methane only)	**Building Materials and Services** • Buildings • Confined spaces • Underground services	**Low**

Tabulated Conceptual Site Model – Pollutant Linkage Summary (Off-Site Sources)			
Potential Sources	Potential Absorption Pathways	Potential Receptors	Risk Classification
Garage from 10m south-west/west: • Naphthalene, • TPHs, • VOCs, • SVOCs.	• Inhalation of volatile vapour (indoors and outdoors)	**Human Health** • End Users (Residents/Site workers/Future site visitors) • Construction workers during development • Site operatives during maintenance works	**Moderate**
General industrial works: incl. biscuit factory to NE, Wharves to the south and west, various other mills, works, warehouses and smithy: • Naphthalene, • TPHs, • VOCs, • SVOCs.	• Inhalation of volatile vapour (indoors and outdoors)	**Human Health** • End Users (Residents/Site workers/Future site visitors) • Construction workers during development • Site operatives during maintenance works	**Moderate**
Ground gases generated by Made Ground for various industrial uses in the surrounding area: • Methane, • Carbon Dioxide, • Hydrogen Sulphide, and • Carbon Monoxide.	• Migration through anthropogenic & natural pathways • Inhalation of Asphyxiating gases • Explosion (methane only)	**Human Health** • End Users (Residents/Site workers/Future site visitors) • Construction workers during development (especially in confined spaces) • Site operatives during maintenance works in confined spaces	**Moderate**
	• Migration through anthropogenic & natural pathways • Explosion (methane only)	**Building Materials and Services** • Buildings • Confined spaces • Underground services	**Low**

7. RECOMMENDATIONS AND PHASE II OBJECTIVES

This section of the report will present recommendations for the further investigation of each plausible pollutant linkage identified by the Conceptual Site Model.

It is recommended that an intrusive ground investigation is undertaken at the site to evaluate the risk that contaminants of concern within the soils and groundwater may affect end-users. This should determine the underlying ground and groundwater conditions and include an assessment of the level of contamination to enable the quantification of the ground-related risks associated with the proposed redevelopment.

Consideration should be given to the testing of soil samples recovered from exploratory holes for chemical laboratory testing. The testing should be for a broad range of contaminants in accordance with DEFRA / CLEA methodologies and include the contaminants of concern identified within the Conceptual Site Model.

7.1. Asbestos

It is possible that asbestos and asbestos containing materials will be incorporated within the building. An asbestos survey must be undertaken prior to any development works in the building. An asbestos management strategy should be implemented to ensure that any asbestos uncovered during the investigation does not pose a risk to members of the public that use the site.

7.2. Ground-gas and Vapours

The CSM has identified a low to moderate risk from ground gases and vapours at the site as a result of limited possible deep/putrescible Made Ground on-site and nearby and as a result of industrial uses that may have produced volatile contaminants. Given the lower ground floor level is partially an undercroft car park it is considered likely that anything in this and above this area should be ventilated to IStructE guidance, especially with ramps. This will mitigate any risk of ground-gas and volatiles risk to the proposed building as it will provide 4 points of protection against ground-gas. This would allow for protection measures up to and including CS3. However, outside of this boundary the areas may be at risk from ground-gases and vapours. It is considered that the best approach to further investigation given the existing building footprint (i.e all slabs) will stay the same that in-situ continuous ground-gas and vapour monitoring should be undertaken in these locations. This would then provide an idea of if retrospective gas/vapour protection measures will be required.

7.3. Geotechnical Review

As the building will not be changing structurally the only geotechnical risk assessment we will include is relating to chalk dissolution. Should any plans in future to construct new foundations etc further geotechnical risk assessment will be required. During the site investigation no visible cracks/concerns were raised with regard to the stability of the current building.

7.3.1. Chalk Dissolution Risk Assessment

The presence of dissolution features on-site can prove problematic, as they often provide inconsistency within the underlying geology. Often formed during glacial and periglacial conditions, the depth and width of these features can vary substantially, often providing inconsistency in geological strength data.

If a dissolution feature is suspected, a geotechnical engineer and structural engineer should be contacted for suitable engineering designs, based on further works identifying and classifying the area the feature occupies.

The Groundsure Geoinsight datasheets, presented Appendix D of this report, revealed the following information which may be pertinent to this risk assessment.

- Groundwater vulnerability – soluble rock risk:
    - 20% of grid square: Very significant soluble rocks are likely to be present with a high possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, especially in adverse conditions such as concentrated surface or subsurface water flow.
- Ground Dissolution of Soluble Rocks – The site was classified as a Very Low to Low risk of ground dissolution of soluble rocks.
    - Low Risk in north was described as *"Soluble rocks are present within the ground. Some dissolution features may be present. Potential for difficult ground conditions are at a level where they may be considered, localised subsidence need not to be considered except in exceptional circumstances".*
    - Very Low risk in south was described as *"Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.".*
- Closest Historical Mining area was Class A identified 72m north-west. A Class A area was described as *"Sporadic underground mining of restricted extent may have occurred. Potential for difficult ground conditions are unlikely and localised and are at a level, where they need not be considered"*. However, this is generally a precautionary statement attributed to all areas associated with chalk within the ground profile. Therefore, this does not identify any underground chalk features at the site location.
- 3No. Natural cavity, solution pipes were identified 397 – 464m west relating to Taplow Gravel over Chalk.
- 11No. chalk mining cavities 398m south-east, 532m south, 580m south-west, 691m south, 724m south, 765 - 812m south, 895m south-west, 928m south, 939m south-west and 956m south.
- 15No. records of surface ground workings were noted within 250m radius. The records related to wharves 22 – 49m south, 71m south-east, 87m south and 119 – 122m south, canal 63 – 94m south/south-east and a heap 148m north.
- No records of Britpits, Underground workings, Mining Cavities or JPB Mining Areas were noted within a 500m radius of the site.
- The Edmonds Procedure (Edmonds, C.N., 2001. Predicting natural cavities in chalk. Geological Society, London, Engineering Geology Special Publications, 18(1), pp.29-38.); highlighted a moderately low subsidence hazard classification.

The historical mapping review undertaken in section 3.1 of this report confirmed the findings of the groundsure datasheets discussed above.

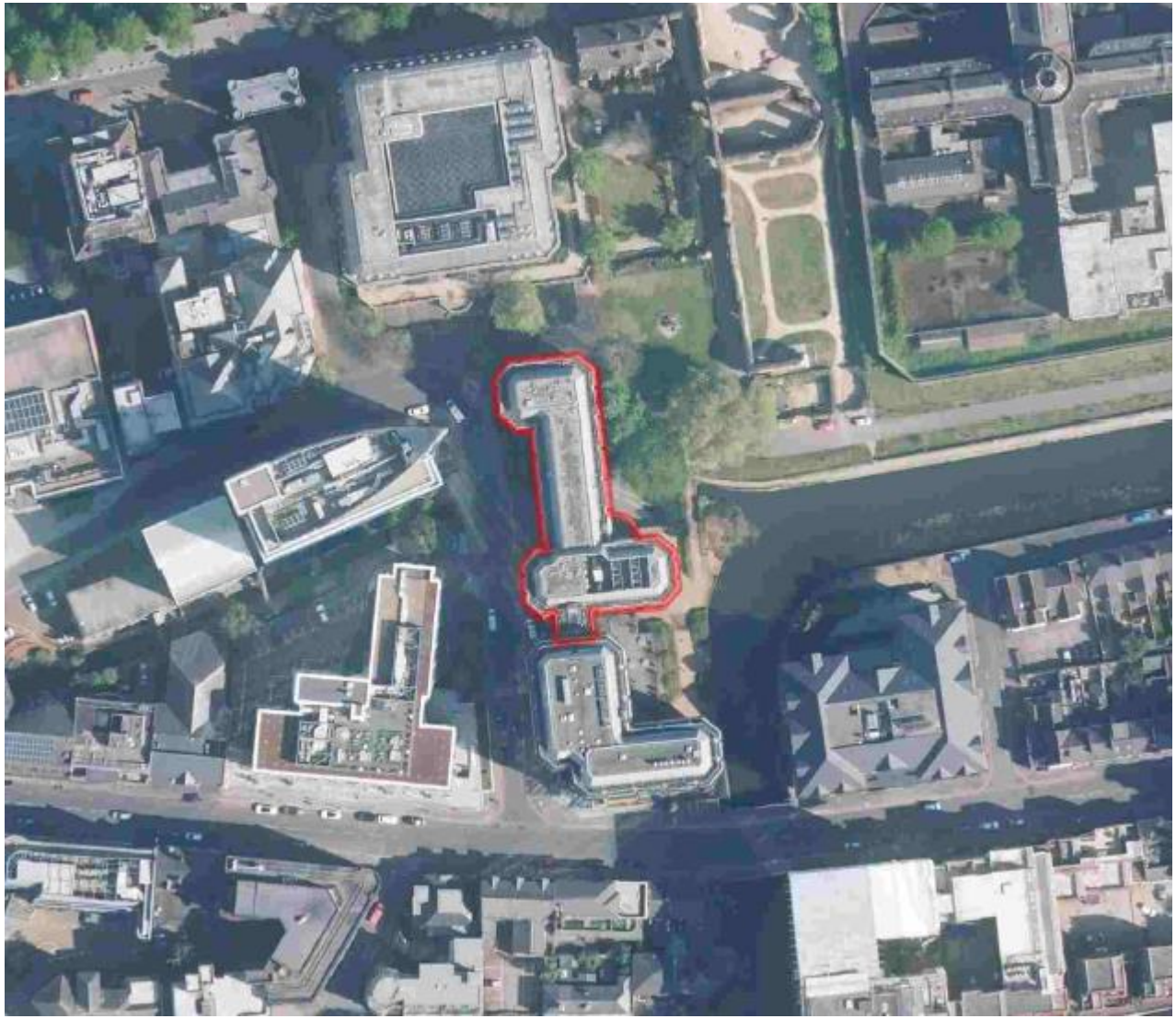
The site was within a location where lidar data did not reveal any significant depressions.

This risk assessment indicates that there is a low to moderate risk from the dissolution of soluble rocks at the site. However, given the location of the site is within a very developed area of Reading (historically and present) it is considered unlikely that any chalk dissolution features would be present beneath the site.

FIGURES

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB
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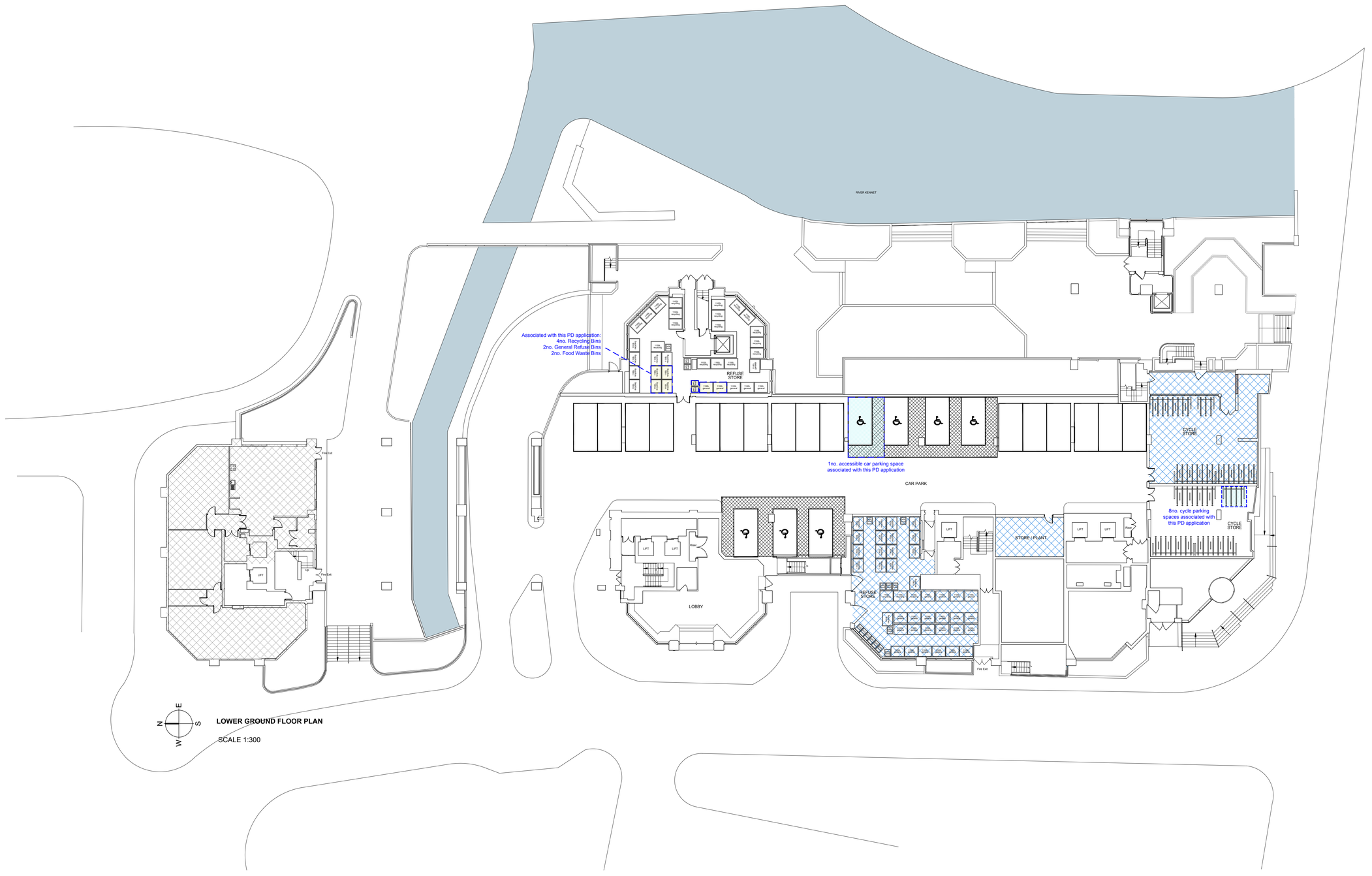
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Site boundary

Abbey Gardens, Abbey Street, Reading RG1 3BA	
Mr and Mrs Ridges	**July 2025**
Figure 1 – Site Location Plan	**GWPR6366**

ground&water



LOWER GROUND FLOOR PLAN

SCALE 1:300

NOTES

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ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO CONSTRUCTION AND ANY DISCREPANCIES TO BE HIGHLIGHTED BY CONTRACTOR.

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N E S W

0 1 2 3 5 10 m 20 m

- 1B2P
- 2B3P
- 2B4P
- 3B5P
- CIRCULATION
- CYCLE STORE
- SERVICING / BACK OF HOUSE
- OUTSIDE SCOPE OF THIS APPLICATION
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Revision:	Description:	Date:
P.01	Issued for Information	24.07.25

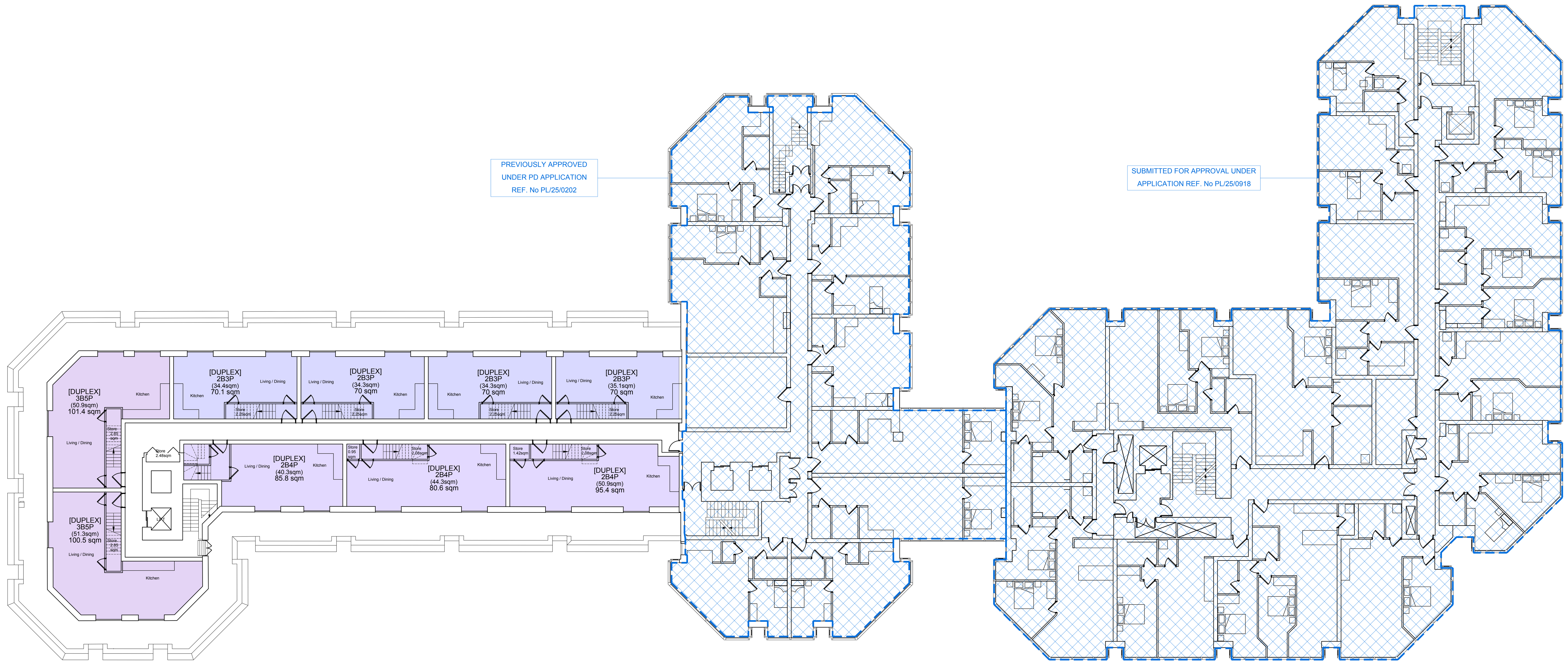
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Project:	24-013 Abbey Gardens		
Drawing:	Proposed Lower Ground Floor Plan		
Date:	24.10.2024	drawn by: YY	check: CC
Scale:	1:200@A1	drwg no.: 309	rev. no.: P.01

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N E S W

PROPOSED 5TH FLOOR PLAN (LOWER)

SCALE 1:200

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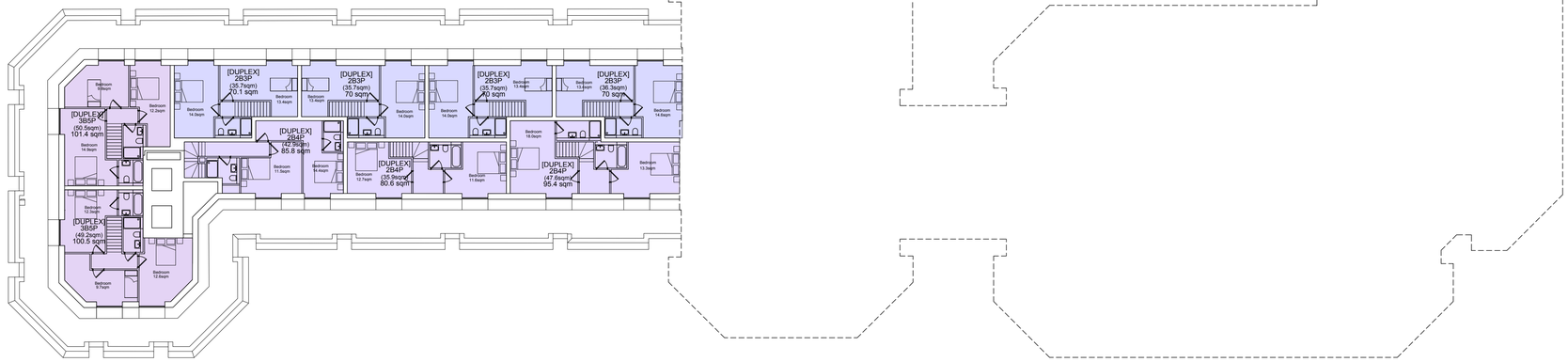
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Project: 24-013 Abbey Gardens
Drawing: Proposed 5th Floor Plan (lower)
Date: 24.10.2024 | drawn by: YY | check: CC
Scale: 1:200@A1 | drwg no.: 315(a) | rev. no.: P.01

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PROPOSED 5TH FLOOR PLAN (UPPER)

SCALE 1:200

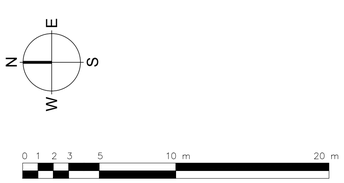
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- CIRCULATION
- CYCLE STORE
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Revision:	Description:	Date:
P.01	Issued for Information	24.07.25

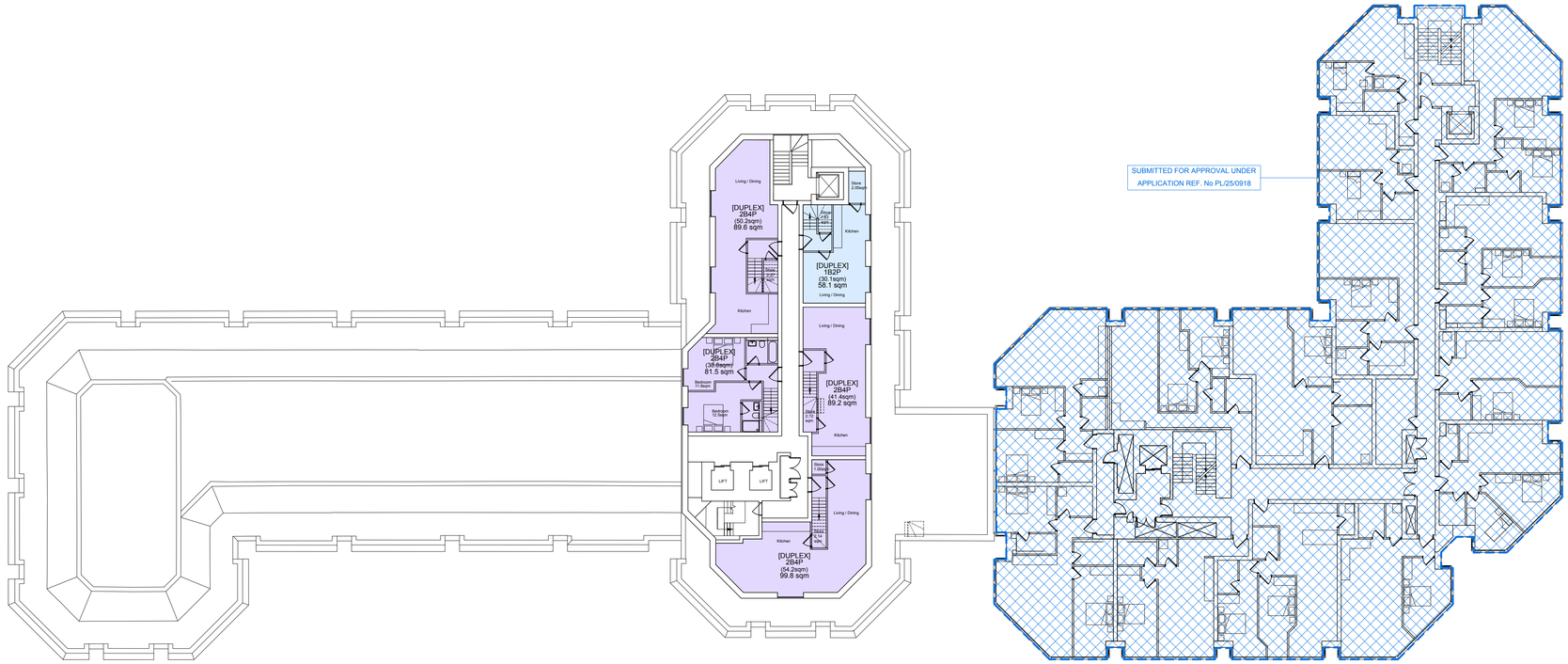
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Project:	24-013 Abbey Gardens		
Drawing:	Proposed 5th Floor Plan (upper)		
Date:	24.10.2024	drawn by: YY	check: CC
Scale:	1:200@A1	drwg no.: 315(b)	rev. no.: P.01

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N E S W

PROPOSED 6TH FLOOR PLAN (LOWER)

SCALE 1:200

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N E S W

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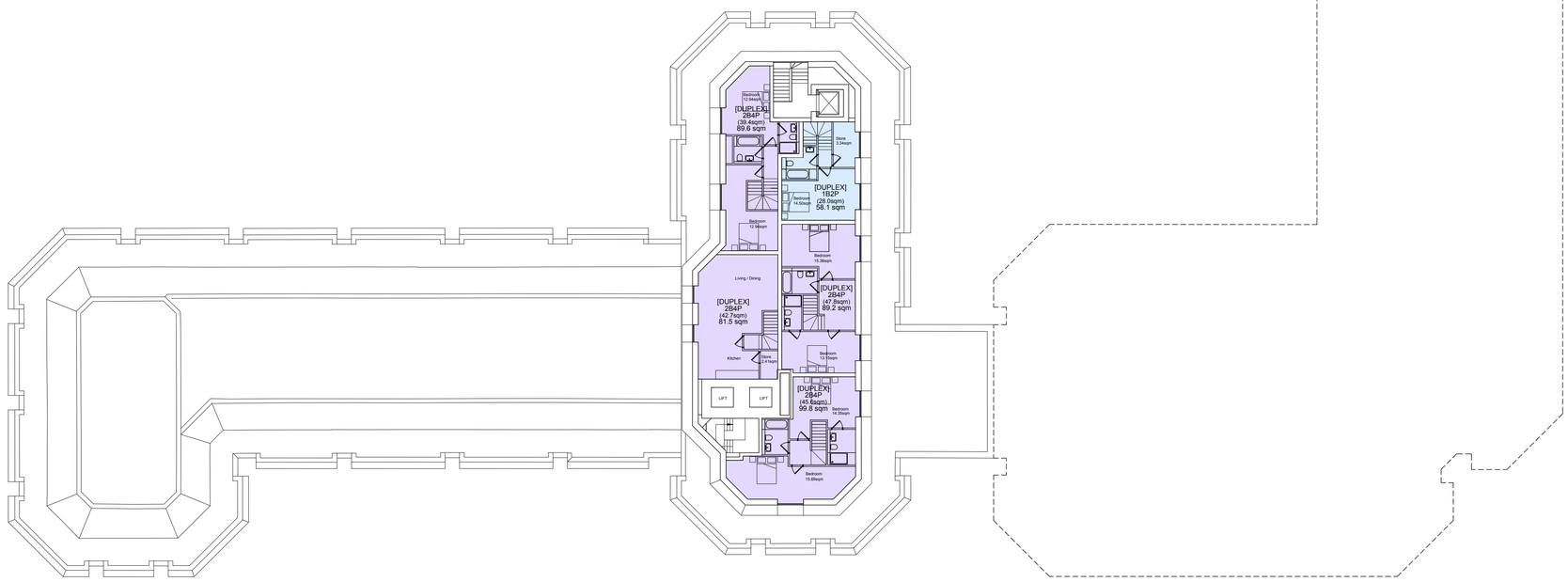
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N E S W

PROPOSED 6TH FLOOR PLAN (UPPER)

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Scale:	1:200@A1	drwg no.: 316(b)	rev. no.: P.01

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APPENDIX A: Conditions and Limitations

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The ground is a product of continuing natural and artificial processes. As a result, the ground will exhibit a variety of characteristics that vary from place to place across a site, and also with time. Whilst a ground investigation will mitigate to a greater or lesser degree against the resulting risk from variation, the risks cannot be eliminated.

The report has been prepared on the basis of information, data and materials which were available at the time of writing. Accordingly, any conclusions, opinions or judgements made in the report should not be regarded as definitive or relied upon to the exclusion of other information, opinions and judgements.

The investigation, interpretations, and recommendations given in this report were prepared for the sole benefit of the client in accordance with their brief; as such these do not necessarily address all aspects of ground behaviour at the site. No liability is accepted for any reliance placed on it by others unless specifically agreed in writing.

Any decisions made by you, or by any organisation, agency or person who has read, received or been provided with information contained in the report ("you" or "the Recipient") are decisions of the Recipient and we will not make, or be deemed to make, any decisions on behalf of any Recipient. We will not be liable for the consequences of any such decisions.

Current regulations and good practice were used in the preparation of this report. An appropriately qualified person must review the recommendations given in this report at the time of preparation of the scheme design to ensure that any recommendations given remain valid in light of changes in regulation and practice, or additional information obtained regarding the site.

Any Recipient must take into account any other factors apart from the Report of which they and their experts and advisers are or should be aware. The information, data, conclusions, opinions and judgements set out in the report may relate to certain contexts and may not be suitable in other contexts. It is your responsibility to ensure that you do not use the information we provide in the wrong context.

This report is based on readily available geological records, the recorded physical investigation, the strata observed in the works, together with the results of completed site and laboratory tests. Whilst skill and care has been taken to interpret these conditions likely between or below investigation points, the possibility of other characteristics not revealed cannot be discounted, for which no liability can be accepted. The impact of our assessment on other aspects of the development required evaluation by other involved parties.

The opinions expressed cannot be absolute due to the limitations of time and resources within the context of the agreed brief and the possibility of unrecorded previous in ground activities. The ground

conditions have been sampled or monitored in recorded locations and tests for some of the more common chemicals generally expected. Other concentrations of types of chemicals may exist.

The conclusions and recommendations relate to Abbey Gardens, Abbey Street, Reading RG1 3BA.

Trial hole is a generic term used to describe a method of direct investigation. The term trial pit, borehole or window sampler borehole implies the specific technique used to produce a trial hole.

The depth to roots and/or of desiccation may vary from that found during the investigation. The client is responsible for establishing the depth to roots and/or of desiccation on a plot-by-plot basis prior to the construction of foundations. Where trees are mentioned in the text this means existing trees, recently removed trees (approximately 15 years to full recovery on cohesive soils) and those planned as part of the site landscaping.

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Only our client may rely on this report and should this report or any information contained in it be provided to any third party we accept no responsibility to the third party for the contents of this report save to the extent expressly outlined by us in writing in a reliance letter addressed from us to the third party.

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APPENDIX B: Technical Glossary

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TECHNICAL GLOSSARY

The list of possible definitions within the report may be seen below. Please note that some definitions may not be relevant to this report.

HYDROGEOLOGY:

A **Principal Aquifer** is a layer of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.

Secondary (A) Aquifers consist of deposits with 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.

Secondary (B) Aquifers consist of deposits with predominantly lower permeability layers with may stoke and yield limited amounts of groundwater due to localised features such as fissures, think permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.

Secondary Aquifers (Undifferentiated) are assigned in cases where it has not been possible to attribute either category A or B to a rock type. In most cases, this means that the layer in question has previously been designated as both a minor aquifer and non-aquifer in different locations due to the variable characteristics of the rock type.

Unproductive Strata are rock layers with low permeability that have negligible significance for water supply or river base flow. These were formerly classified as non-aquifers.

FLOOD ZONES:

Environment Agency Flood Zone 2, defined as; land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding; or land having between a 1 in 200 and 1 in 1,000 annual probability of sea flooding.

Environment Agency Flood Zone 3 shows the extent of a river flood with a 1 in 100 (1%0 or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year.

Environment Agency Flood Zone 3 area that benefits from flood defences, defined as; land and property in this flood zone would have a high probability of flooding without the local flood defences. These protect the area against a river flood with a 1% chance of happening each year, or a flood from the sea with a 0.5% chance of happening each year.

GROUNDWATER SOURCE PROTECTION ZONES (SPZS):

Inner Zone (SPZ1): This zone is 50 day travel time of pollutant to source with a 50 metres default minimum radius.

Outer Zone (SPZ2): This zone is 400 day travel time of pollutant to source. This has a 250 or 500 metres minimum radius around the source depending on the amount of water taken.

Total Catchment (SPZ3): This is the area around a supply source within which all the groundwater ends up at the abstraction point. This is the point from where the water is taken. This could extend some distance from the source point.

Zone of Special Interest (SPZ4): This zone is where local conditions require additional protection.

IN-SITU STRENGTH GEOTECHNICAL TESTING:

Windowless Sample and/or Cable Percussion and/or Rotary Boreholes provide samples of the ground for assessment but they do not give any engineering data. The standard penetration test (SPT) is an in-situ dynamic penetration test designed to provide information on the geotechnical engineering properties of soil. The test uses a thick-walled sample tube, with an outside diameter of 50mm and an inside diameter of 35mm, and a length of around 650mm. This is driven into the ground at the bottom of a borehole by blows from a slide hammer with a weight of 63.5kg falling through a distance of 760mm. The sample tube is driven 150mm into the ground and then the number of blows needed for the tube to penetrate each 75mm up to a depth of 450mm is recorded. The sum of the number of blows is termed the "standard penetration resistance" or the "N-value".

Dynamic Probing involves the driving of a metal cone into the ground via a series of steel rods. These rods are driven from the surface by a hammer system that lifts and drops a 63.5kg (SHDP) hammer onto the top of the rods through a set height, thus ensuring a consistent energy input. The number of hammer blows that are required to drive the cone down by each 100mm increment are recorded. These blow counts then provide a comparative assessment from which correlations have been published, based on dynamic energy, which permits engineering parameters to be generated. (The Dynamic Probe 'Super Heavy' (SHDP) Tests were conducted in accordance with BS 1377; 1990; Part 9, Clause 3.2).

APPENDIX C: Site Photographs

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB
0333 600 1221 enquiries@groundandwater.co.uk **groundandwater.co.uk**

Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001

Photograph 1.



View of the western face of the building.

Photograph 2.



View of the eastern side of the site, towards the south.

Photograph 3.



View of the eastern side of building, with the stream/channel passing below.

Photograph 4.



View of the central-eastern side of the site. Access road dips and matches lower level.

Abbey Gardens, Abbey Street, Reading RG1 3BA	
Mr and Mrs Ridges	**December 2024**
Site Walkover Photographs	**GWPR6366**

APPENDIX D:
Historical Maps

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB
0333 600 1221 enquiries@groundandwater.co.uk **groundandwater.co.uk**

Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001



Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1879**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1879
Revised 1879
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 04 December 2024

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Groundsure INSIGHTS

Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series Town Plan

Map date: **1879**

Scale: 1:500

Printed at: 1:1,000

N
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Surveyed 1879
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1879
Revised N/A
Edition N/A
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Site Details:

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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1900**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1900
Revised 1900
Edition N/A
Copyright N/A
Levelled N/A

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Site Details:

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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1912**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1912
Revised 1912
Edition N/A
Copyright N/A
Levelled N/A

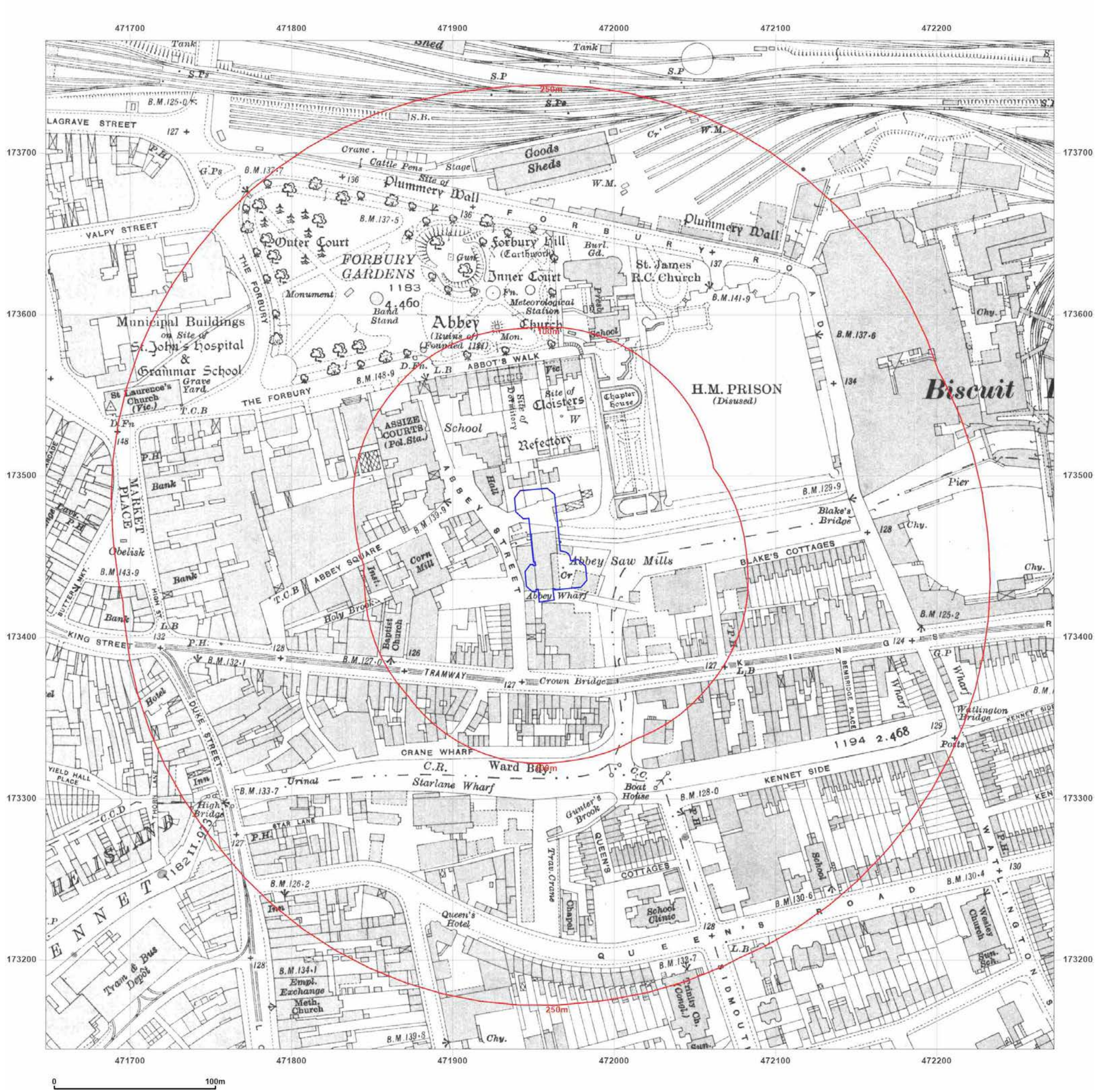
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Site Details:

Abbey Gardens, Abbey Street, Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1931**

Scale: 1:2,500

Printed at: 1:2,500

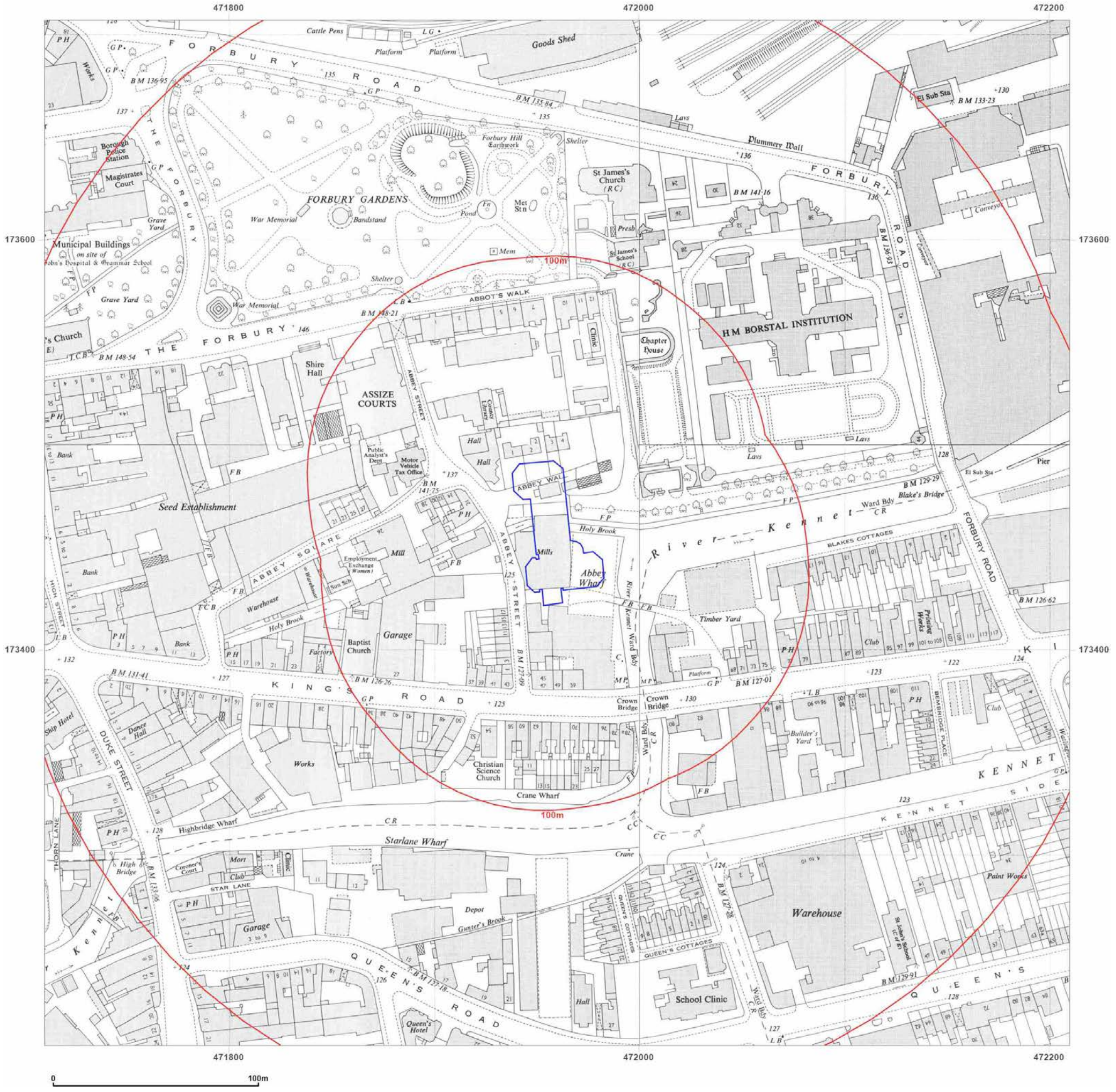
Surveyed 1931
Revised 1931
Edition N/A
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Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1956**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled 1951

Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled 1951

Surveyed 1956
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Edition N/A
Copyright N/A
Levelled 1951

Surveyed 1956
Revised 1956
Edition N/A
Copyright N/A
Levelled 1951

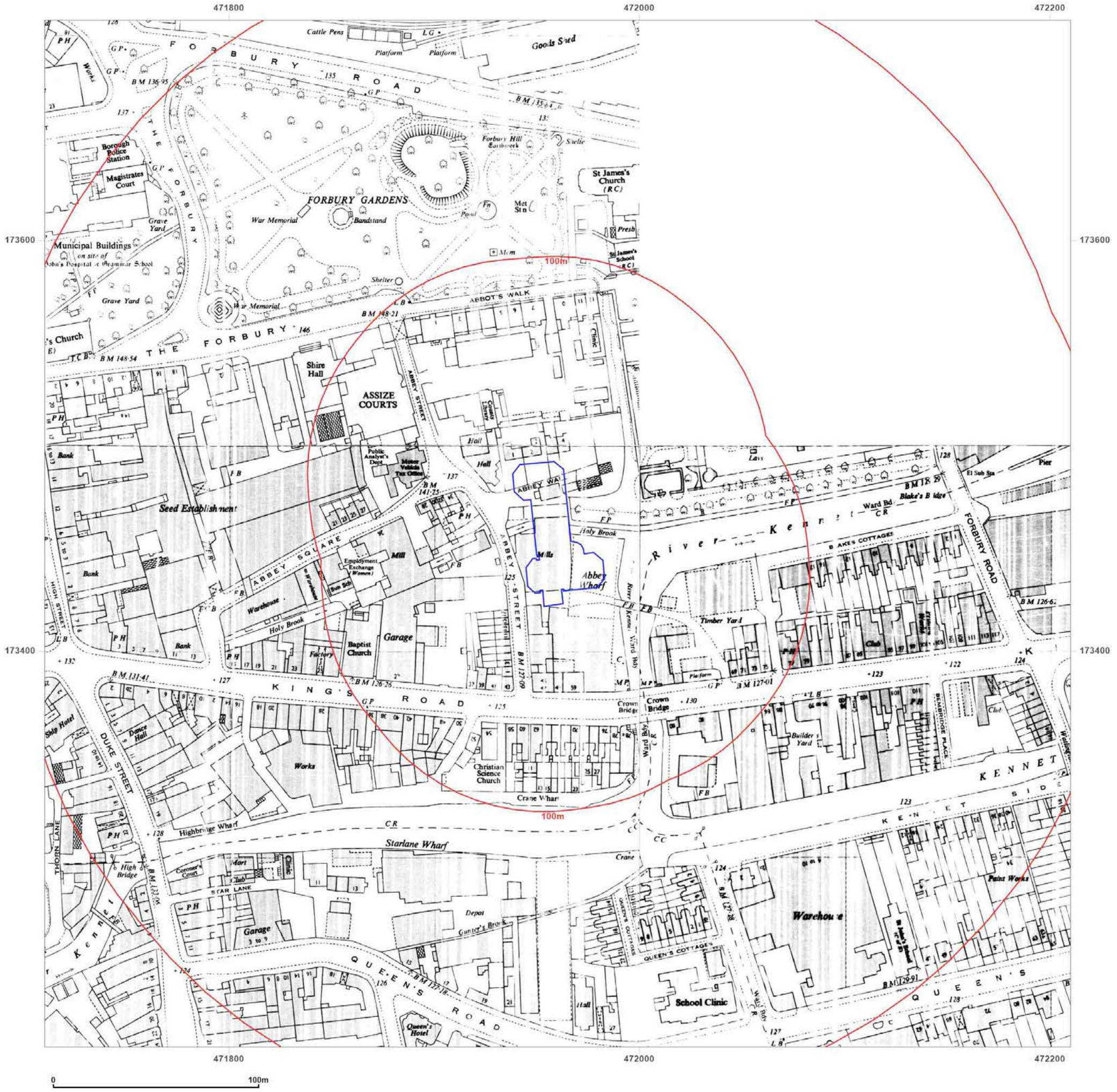
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Site Details:

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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1957**

Scale: 1:1,250

Printed at: 1:2,000

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

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

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

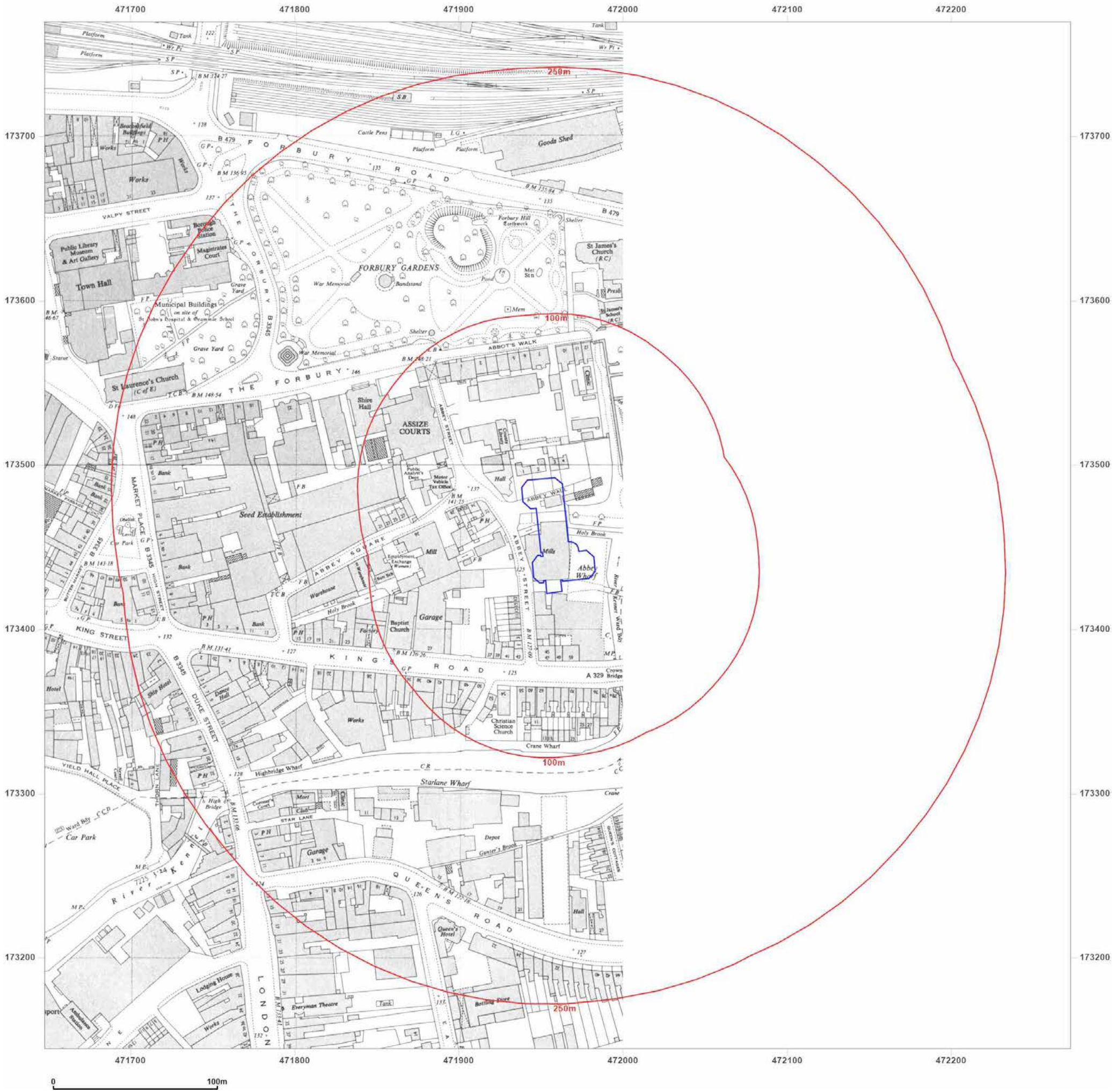
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Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

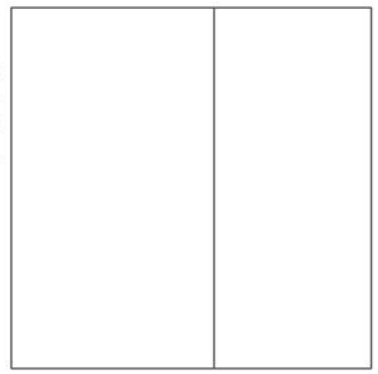
Map date: **1958**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1957
Revised 1957
Edition 1958
Copyright N/A
Levelled 1951



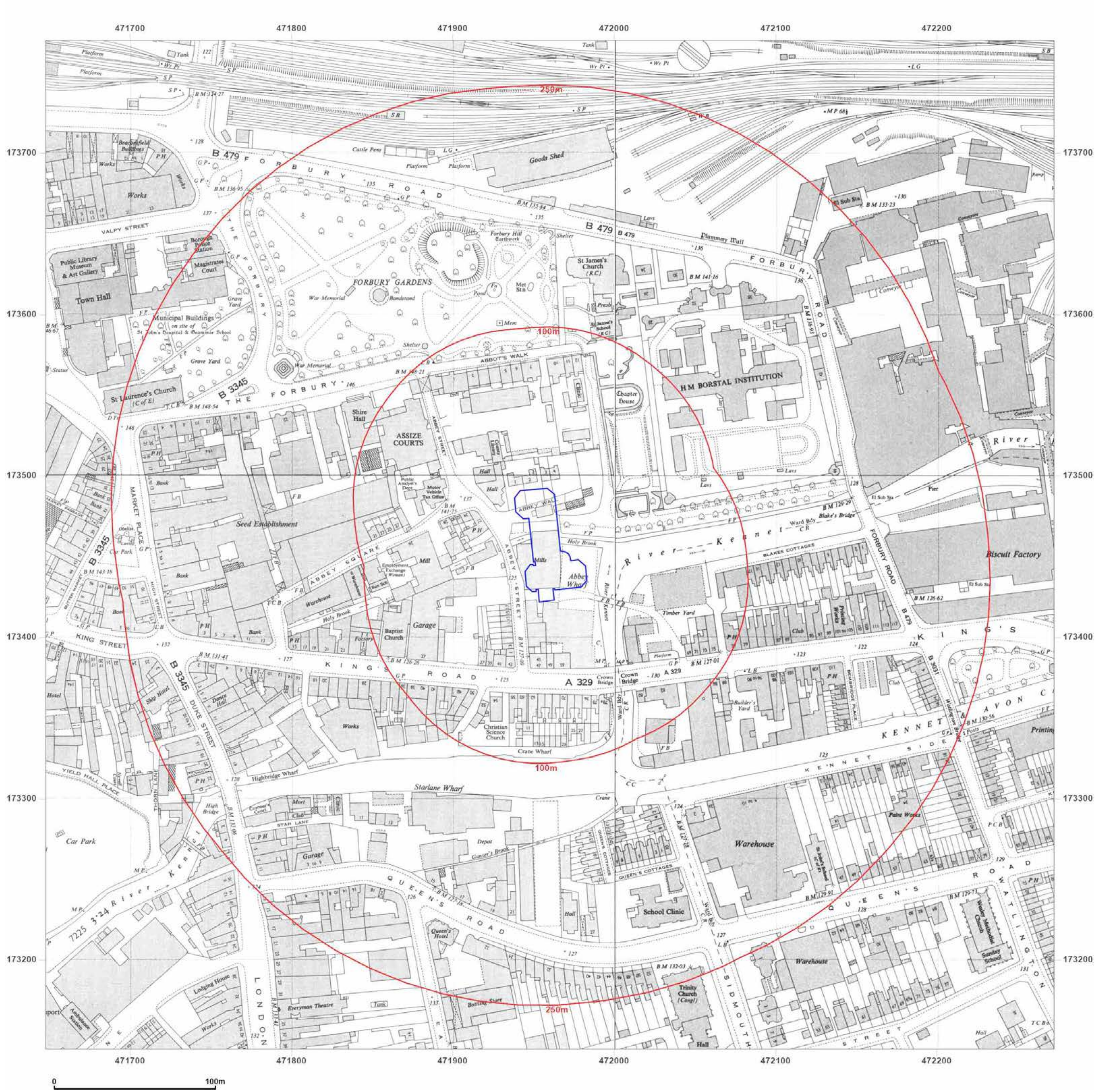
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Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1957-1961**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed 1958
Revised 1958
Edition 1961
Copyright 1961
Levelled 1951

Surveyed 1956
Revised 1956
Edition 1957
Copyright N/A
Levelled 1951

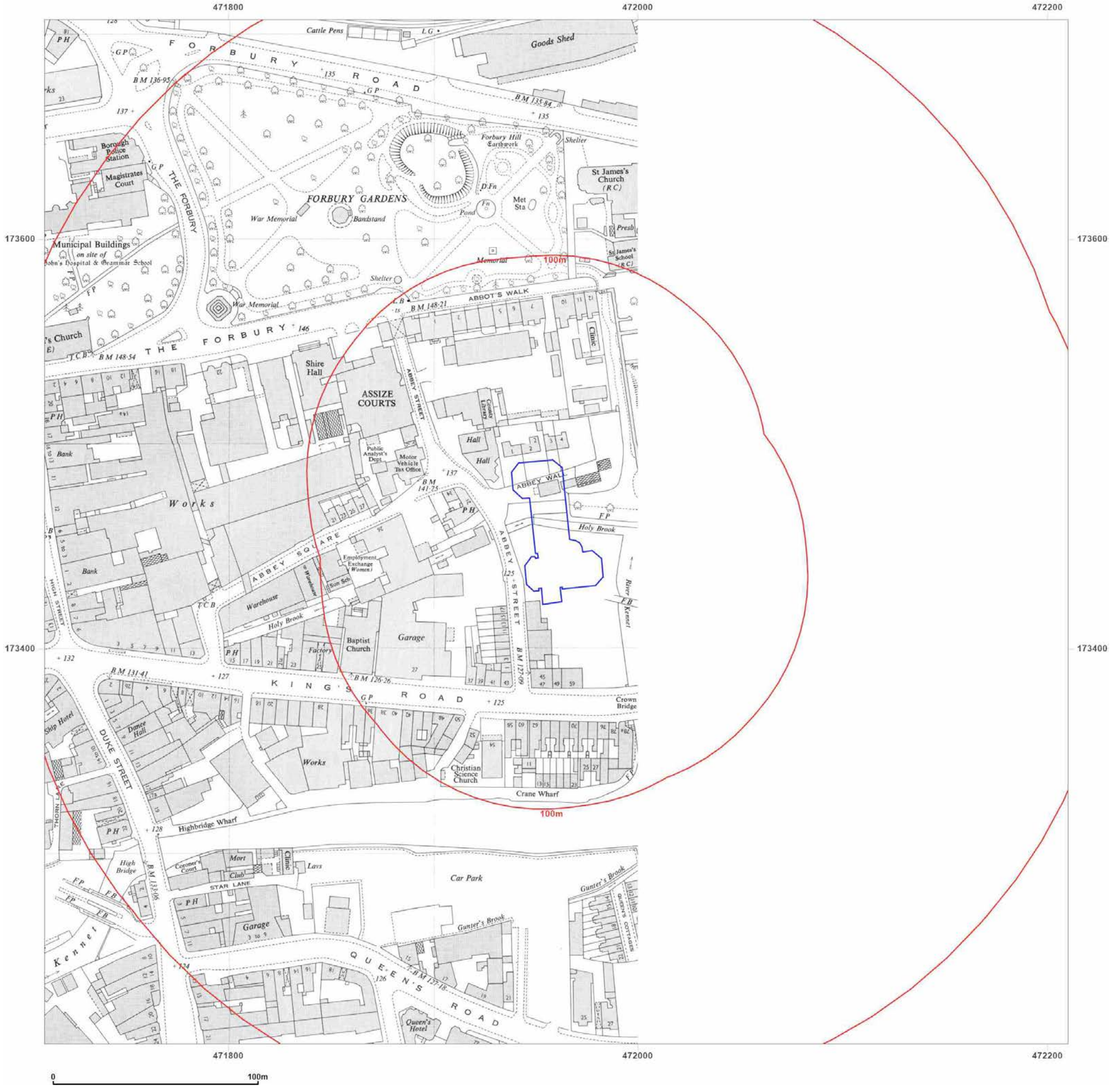
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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

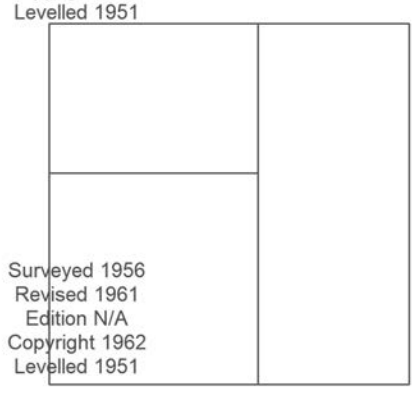
Map date: **1962**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1956
Revised 1961
Edition N/A
Copyright 1962
Levelled 1951



Surveyed 1956
Revised 1961
Edition N/A
Copyright 1962
Levelled 1951

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Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

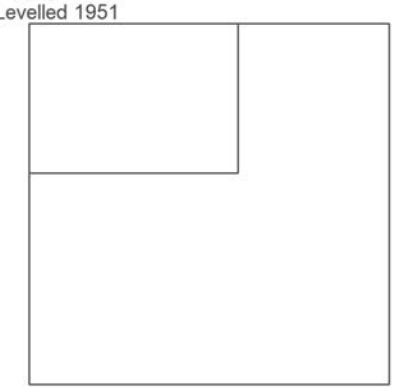
Map date: **1971**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1956
Revised 1970
Edition N/A
Copyright 1971
Levelled 1951



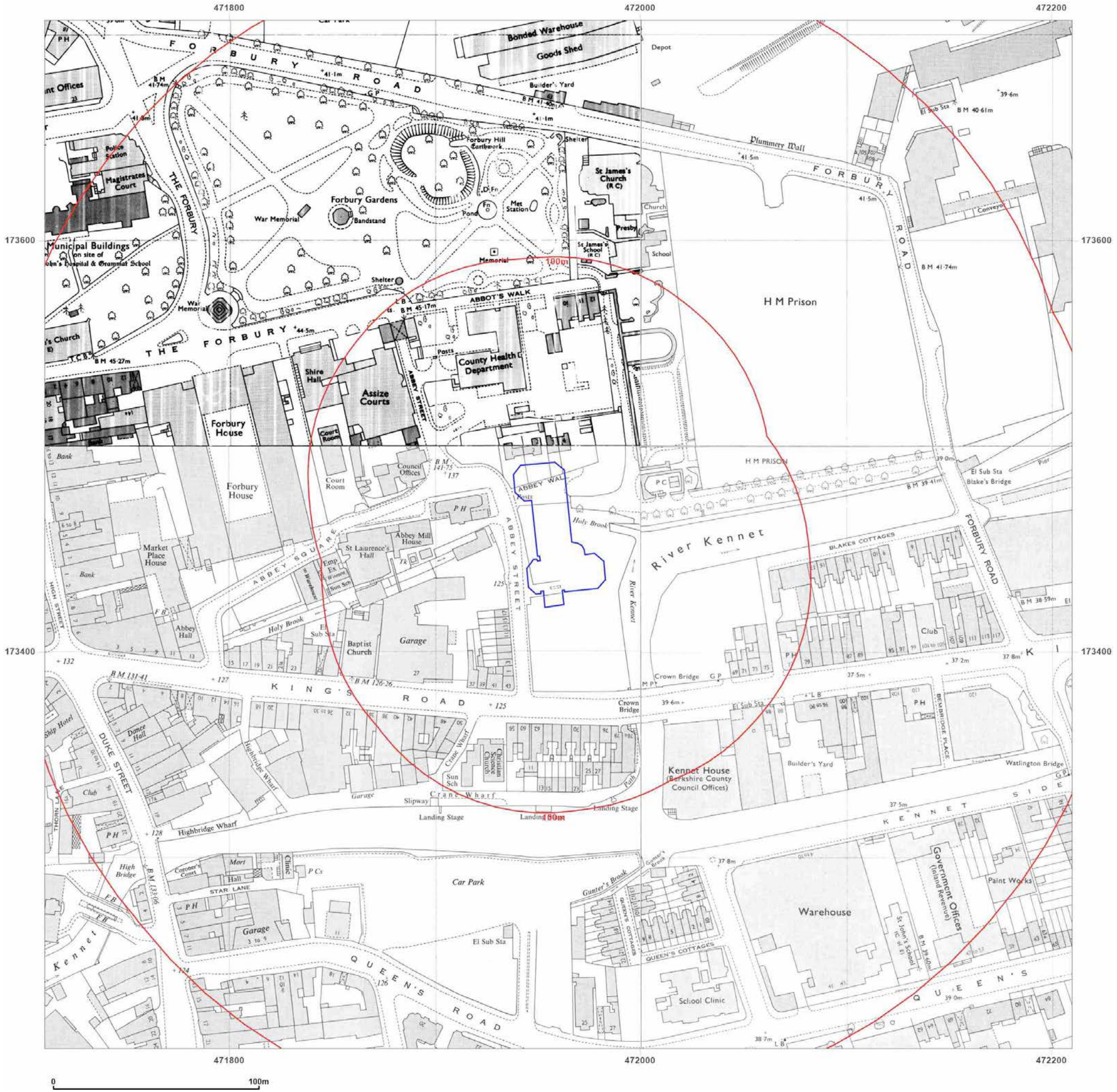
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Site Details:

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Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1968-1973**

Scale: 1:1,250

Printed at: 1:2,000

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

Surveyed 1956
Revised 1972
Edition N/A
Copyright 1973
Levelled 1951

Surveyed 1956
Revised 1967
Edition N/A
Copyright 1968
Levelled 1951

Surveyed 1956
Revised 1970
Edition N/A
Copyright 1971
Levelled 1951

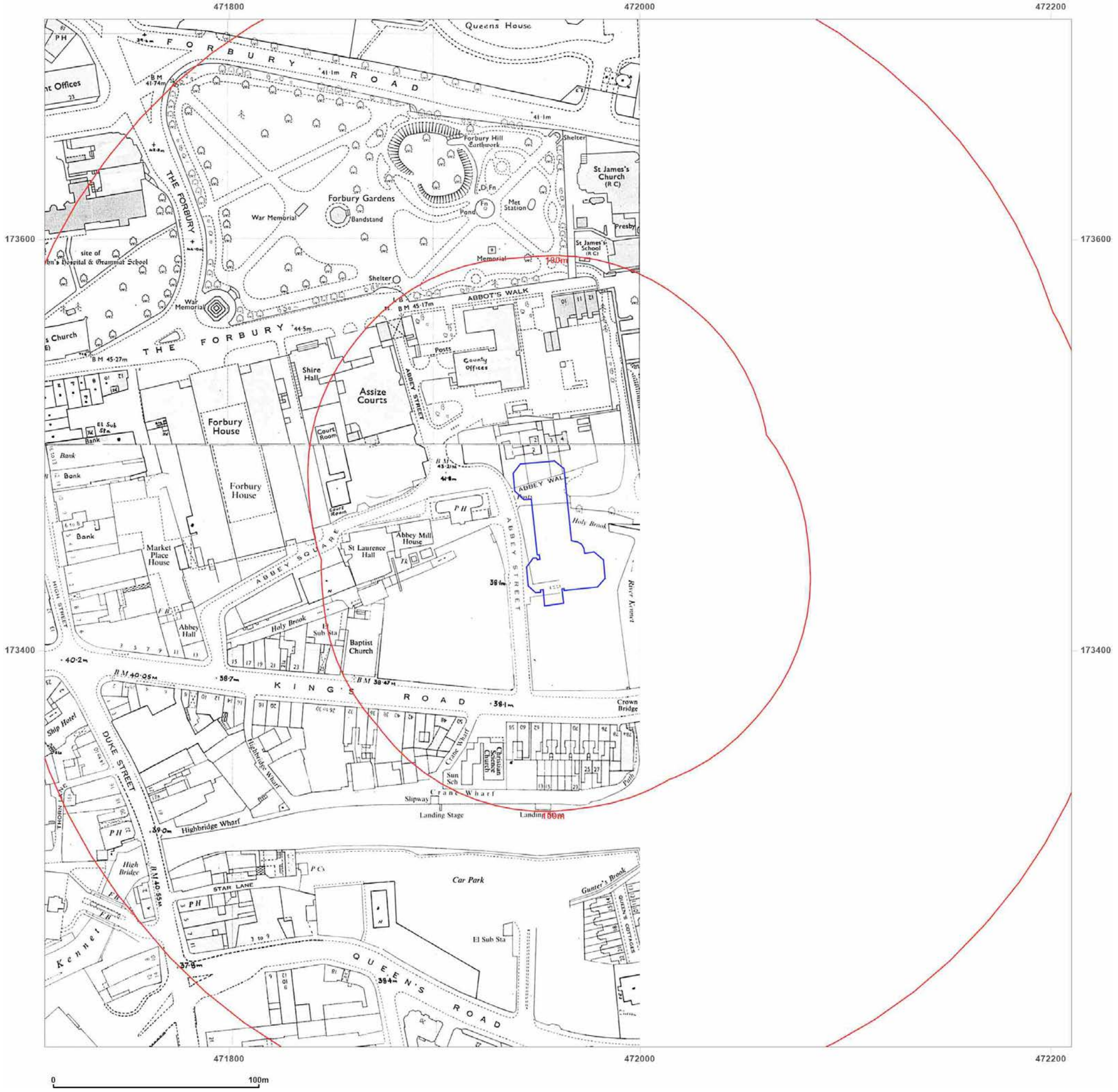
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Site Details:

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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1979**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1979
Levelled 1973

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1979
Levelled 1973

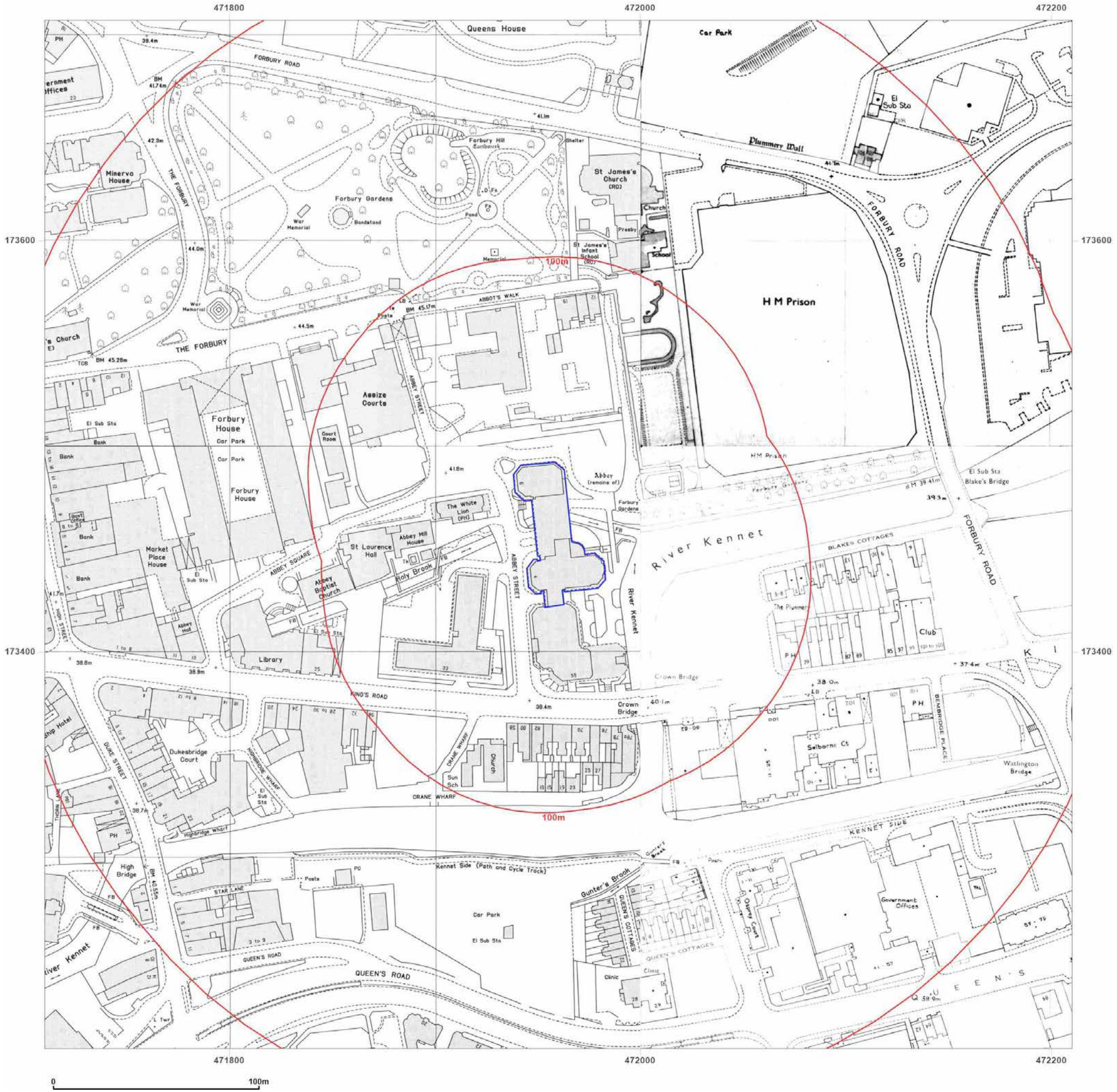
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Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1986-1989**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1956 Revised 1984 Edition N/A Copyright 1986 Levelled 1973	Surveyed 1973 Revised 1988 Edition N/A Copyright 1988 Levelled 1973
Surveyed 1958 Revised 1987 Edition N/A Copyright 1988 Levelled 1973	Surveyed 1972 Revised 1989 Edition N/A Copyright 1989 Levelled 1972

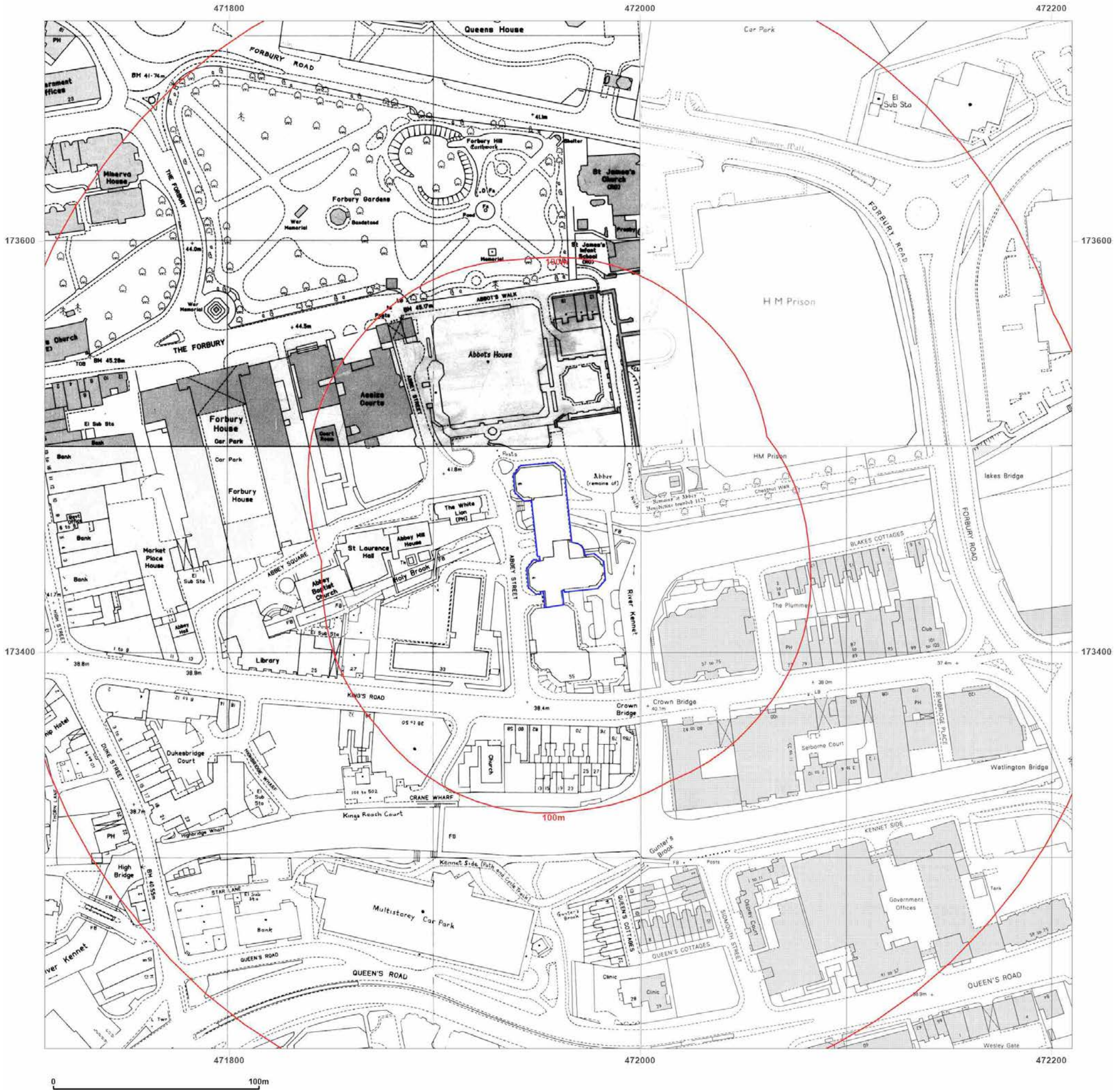
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Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1988-1991**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1973 Revised 1984 Edition N/A Copyright 1988 Levelled 1973	Surveyed 1973 Revised 1990 Edition N/A Copyright 1990 Levelled 1973
Surveyed 1973 Revised 1988 Edition N/A Copyright 1988 Levelled 1973	Surveyed 1990 Revised 1990 Edition N/A Copyright 1991 Levelled N/A

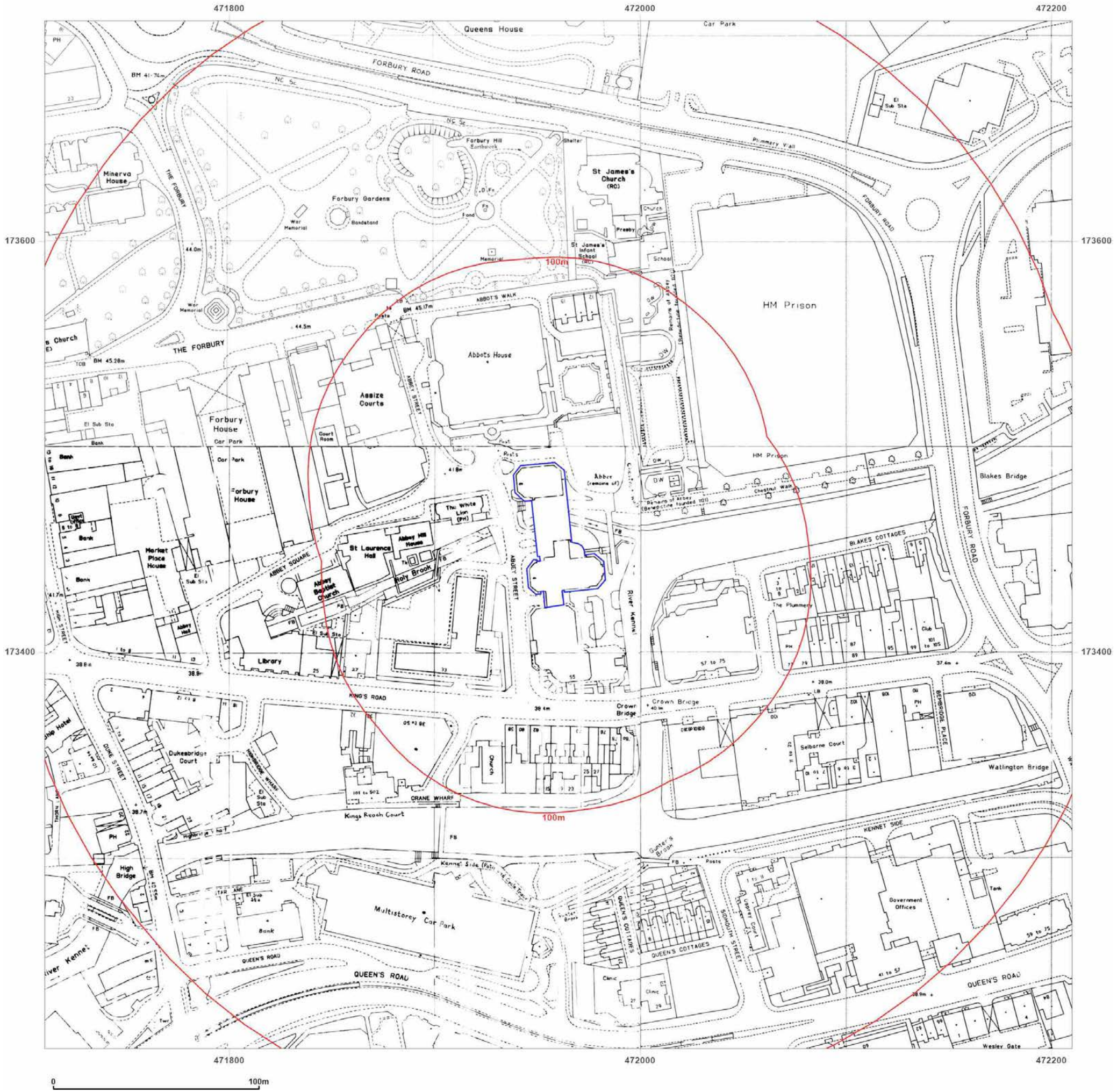
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Groundsure INSIGHTS

Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1988-1993**

Scale: 1:1,250

Printed at: 1:2,000

N
W E
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Surveyed 1958 Revised 1984 Edition N/A Copyright 1988 Levelled 1973	Surveyed 1993 Revised N/A Edition N/A Copyright 1993 Levelled N/A
Surveyed N/A Revised 1991 Edition N/A Copyright 1991 Levelled 1973	Surveyed 1993 Revised N/A Edition N/A Copyright 1993 Levelled N/A

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Groundsure INSIGHTS

Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1991-1993**

Scale: 1:1,250

Printed at: 1:2,000

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

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

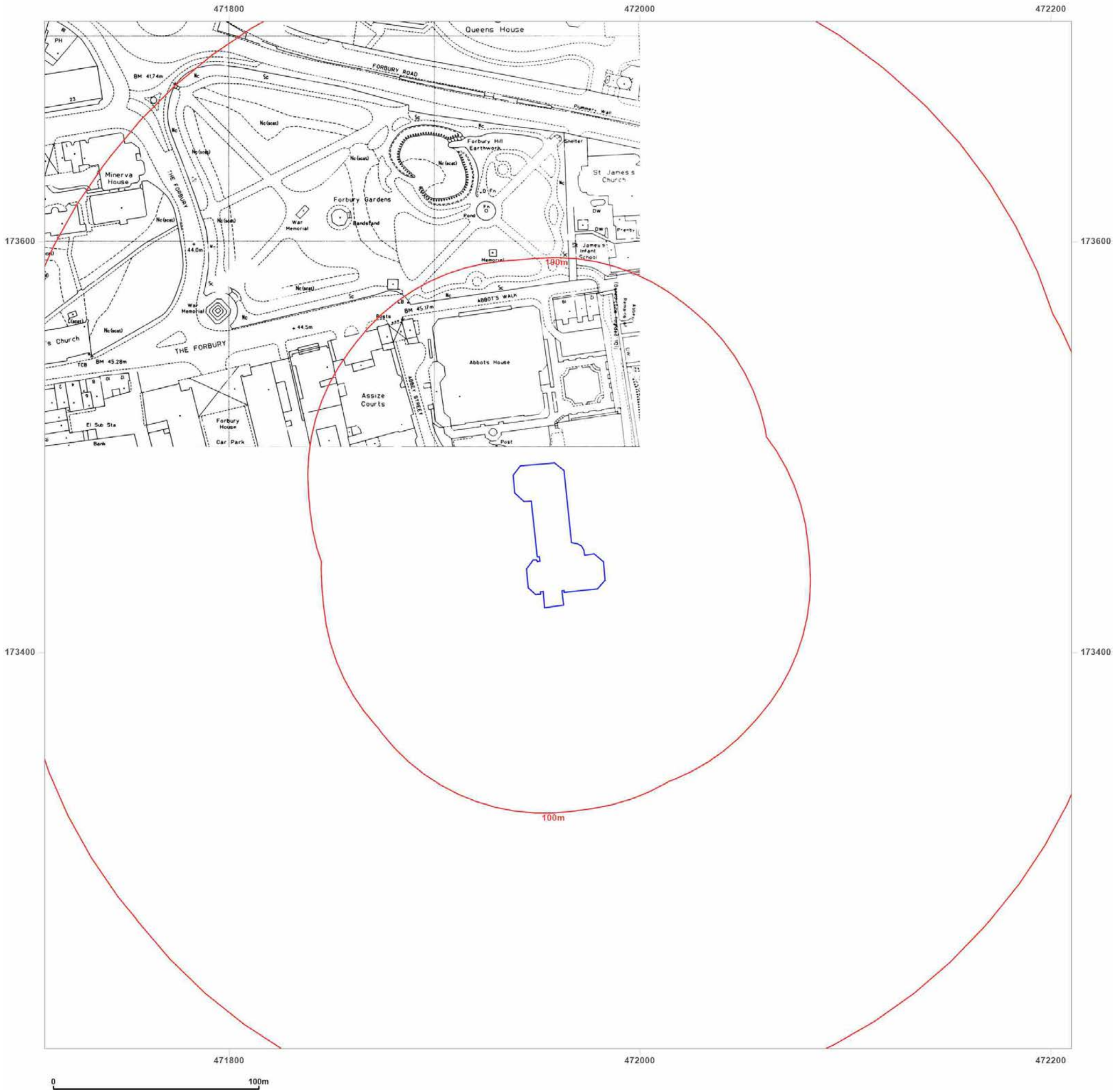
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Site Details:

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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

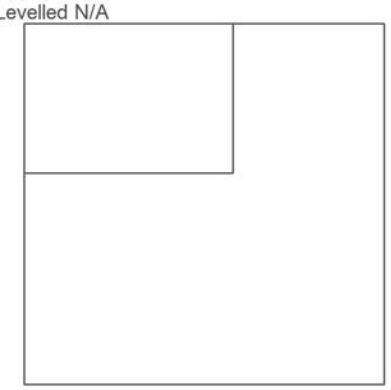
Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

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Revised N/A
Edition N/A
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Groundsure INSIGHTS

Site Details:

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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

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

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2003

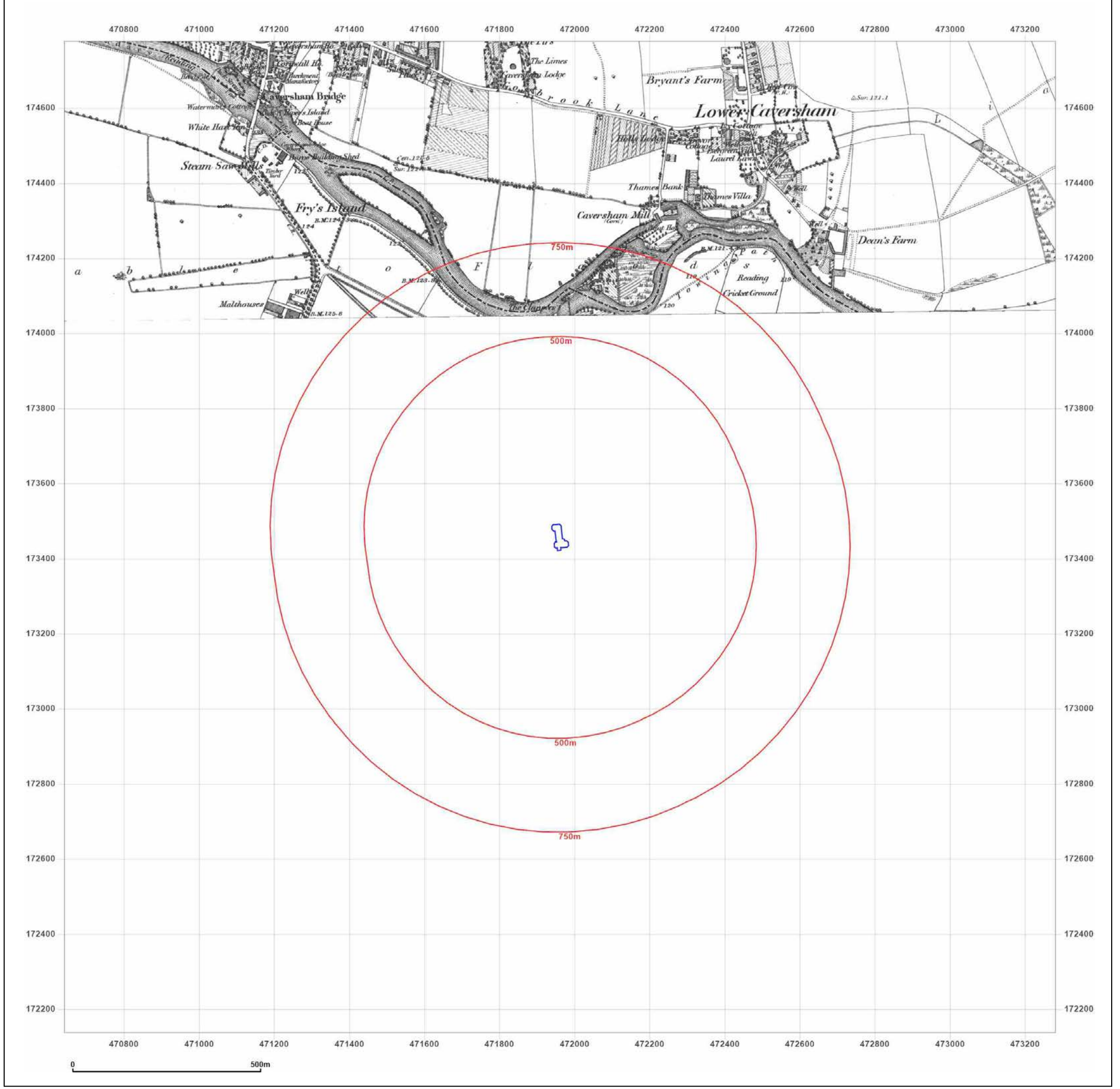
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Production date: 04 December 2024

Map legend available at:
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Groundsure INSIGHTS

Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

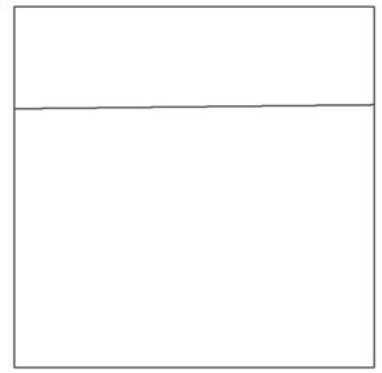
Map date: **1878**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1878
Revised 1878
Edition N/A
Copyright N/A
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Groundsure INSIGHTS

Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1897-1898**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1877
Revised 1897
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
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Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1898-1900**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed N/A
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Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1900**

Scale: 1:10,560

Printed at: 1:10,560

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Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1910-1913**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1877
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Surveyed 1877
Revised 1910
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Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1914**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1877
Revised 1910
Edition 1914
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Revised 1914
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Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1933-1938**

Scale: 1:10,560

Printed at: 1:10,560

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Revised 1938
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Surveyed 1877
Revised 1933
Edition N/A
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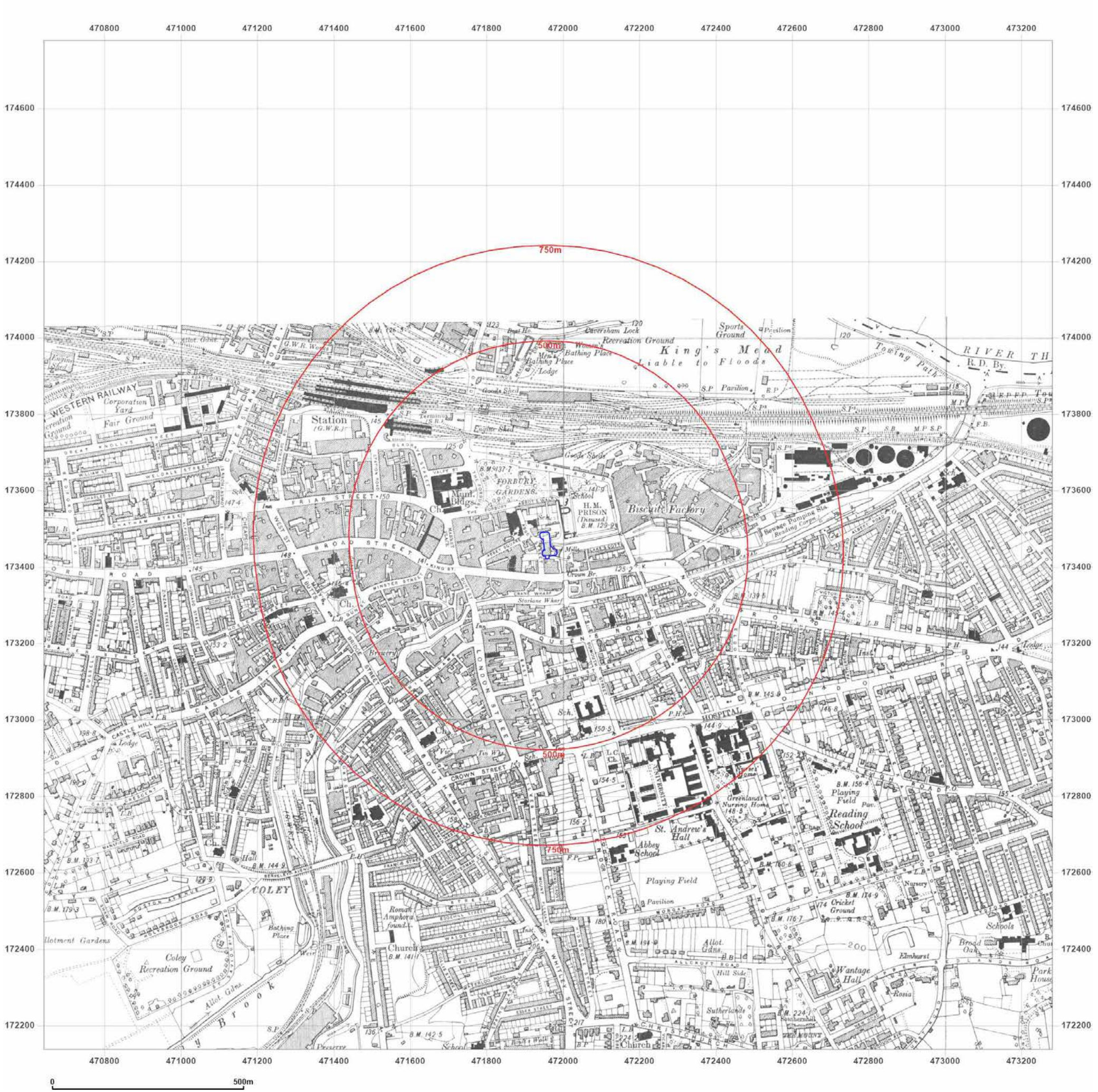
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Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1877
Revised 1938
Edition N/A
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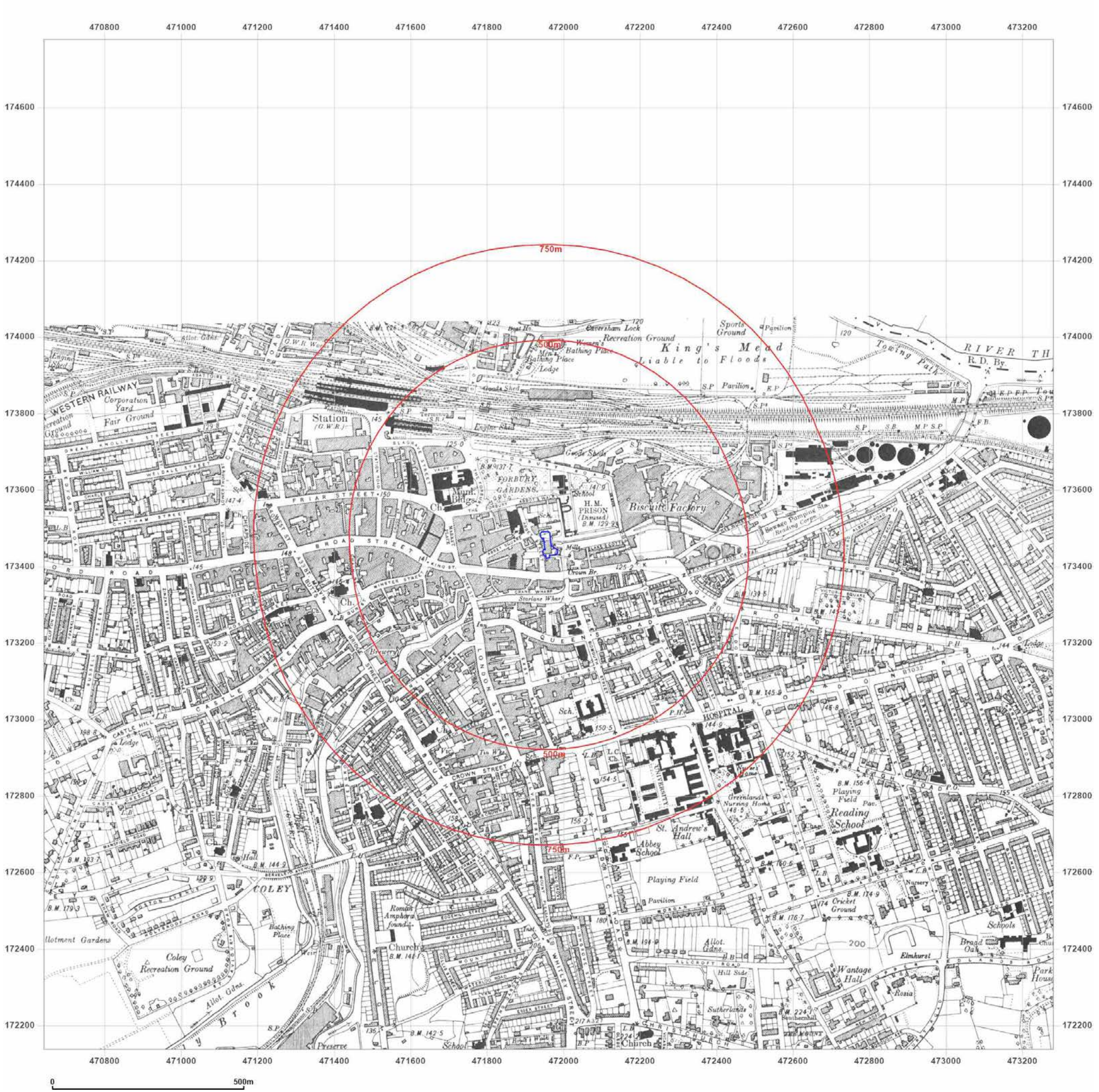
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Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

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Surveyed 1877
Revised 1938
Edition 1938
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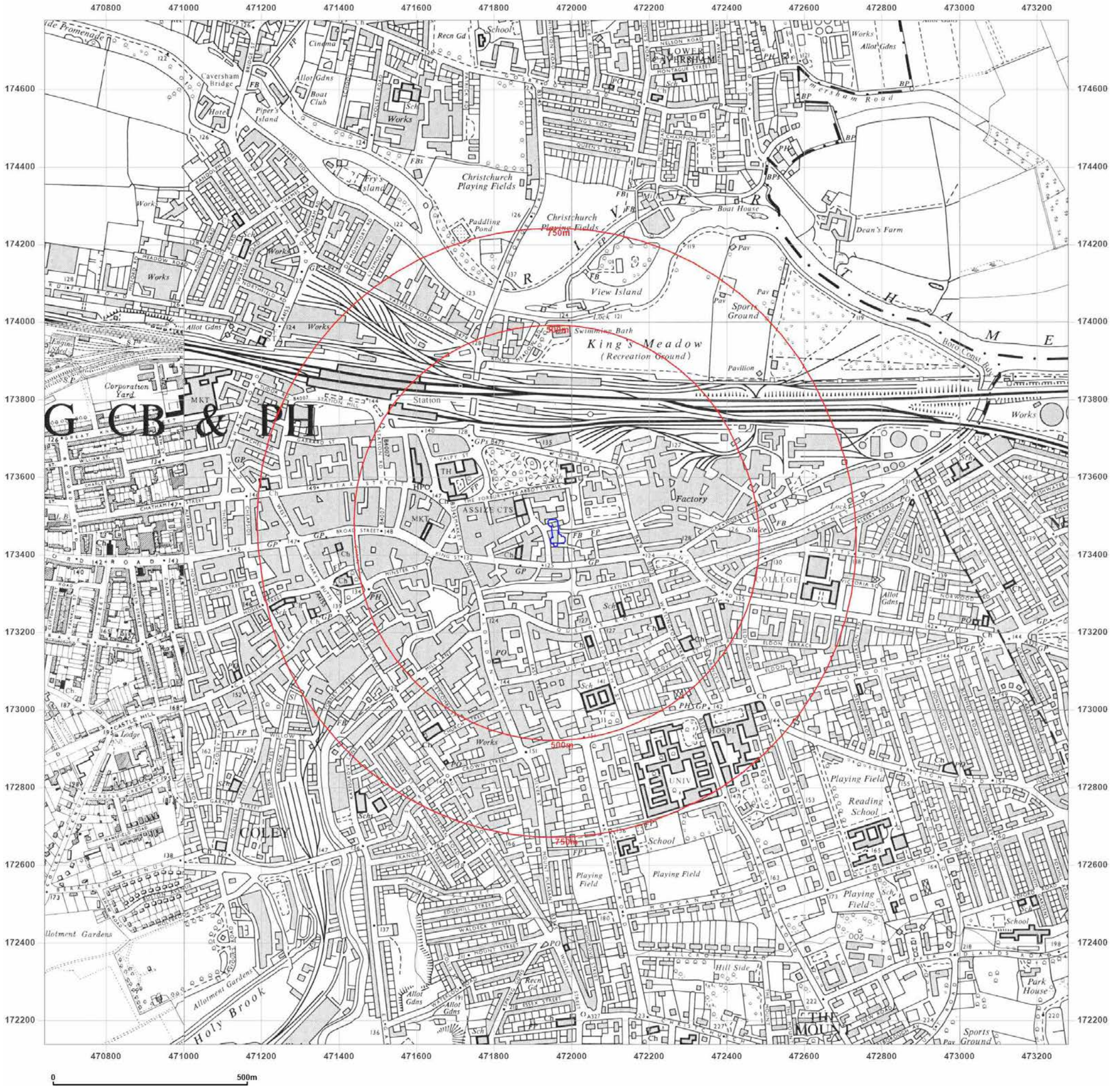
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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: Provisional

Map date: **1962**

Scale: 1:10,560

Printed at: 1:10,560

N
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Revised 1961
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Groundsure INSIGHTS

Site Details:

Abbey Gardens, Abbey Street,
Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1973**

Scale: 1:10,000

Printed at: 1:10,000

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Revised 1973
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Groundsure INSIGHTS

Site Details:

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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1979**

Scale: 1:10,000

Printed at: 1:10,000

N
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Groundsure INSIGHTS

Site Details:

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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1989**

Scale: 1:10,000

Printed at: 1:10,000

N
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Revised 1989
Edition N/A
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Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **1994**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1987
Revised 1994
Edition N/A
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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

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Site Details:

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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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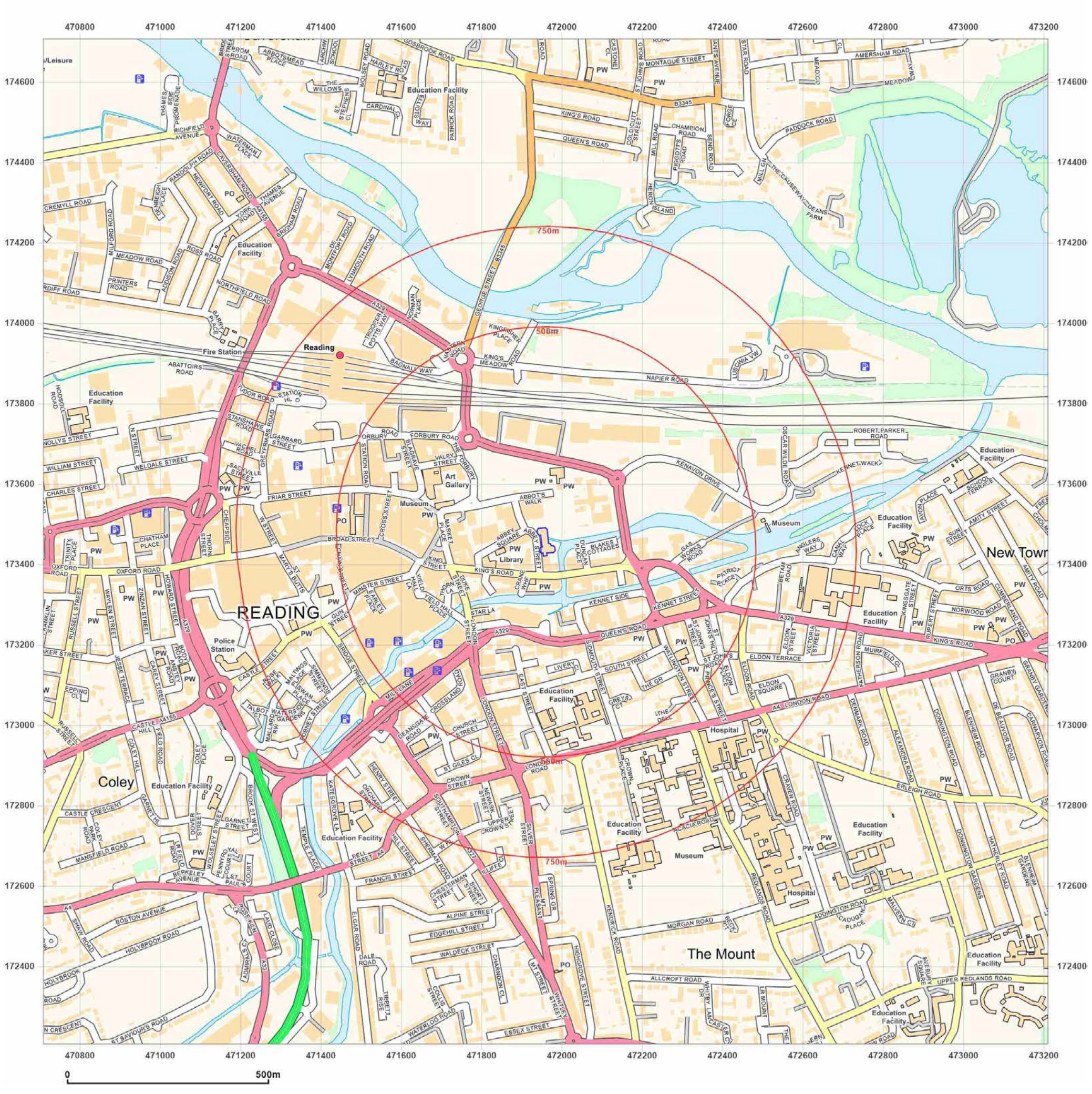
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Groundsure INSIGHTS

Site Details:

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Reading, RG1 3BA

Client Ref: GWPR6366
Report Ref: GS-Z12-RKD-A76-ETZ
Grid Ref: 471960, 173457

Map Name: National Grid

Map date: **2024**

Scale: 1:10,000

Printed at: 1:10,000

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APPENDIX E: GroundSure EnviroInsight and GeoInsight Datasheets

2 The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire GU34 3NB
0333 600 1221 enquiries@groundandwater.co.uk **groundandwater.co.uk**

Registered Office: Kineton House, 31 Horse Fair, Banbury, Oxfordshire OX16 0AE Registered in England No. 07032001

Groundsure LOCATION INTELLIGENCE

Enviro+Geo Insight

Abbey Gardens, Abbey Street, Reading, RG1 3BA

Order Details

Date: 04/12/2024

Your ref: GWPR6366

Our Ref: GS-Y2J-QVW-SD4-93C

Site Details

Location: 471958 173456

Area: 0.16 ha

Authority: Reading Borough Council ↗



Summary of findings p. 2 >

Aerial image p. 9 >

OS MasterMap site plan p.14 >

Insight User Guide ↗

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

Certified B Corporation

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	5	5	34	109	-
21 >	1.2 >	Historical tanks >	0	0	13	77	-
25 >	1.3 >	Historical energy features >	0	0	23	48	-
27 >	1.4 >	Historical petrol stations >	0	0	0	1	-
28 >	1.5 >	Historical garages >	0	3	6	5	-
29	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
30 >	2.1 >	Historical industrial land uses >	5	5	43	126	-
37 >	2.2 >	Historical tanks >	0	0	18	129	-
43 >	2.3 >	Historical energy features >	0	0	36	93	-
47 >	2.4 >	Historical petrol stations >	0	0	0	1	-
48 >	2.5 >	Historical garages >	0	5	7	8	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
50	3.1	Active or recent landfill	0	0	0	0	-
50	3.2	Historical landfill (BGS records)	0	0	0	0	-
51	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
51	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
51	3.5	Historical waste sites	0	0	0	0	-
51 >	3.6 >	Licensed waste sites >	0	0	0	1	-
52 >	3.7 >	Waste exemptions >	0	0	3	27	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
55 >	4.1 >	Recent industrial land uses >	1	0	16	-	-
57	4.2	Current or recent petrol stations	0	0	0	0	-
57	4.3	Electricity cables	0	0	0	0	-
57	4.4	Gas pipelines	0	0	0	0	-
57	4.5	Sites determined as Contaminated Land	0	0	0	0	-

57	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
58	4.7	Regulated explosive sites	0	0	0	0	-
58	4.8	Hazardous substance storage/usage	0	0	0	0	-
58	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
58	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
58	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
59	4.12	Radioactive Substance Authorisations	0	0	0	0	-
59 >	**4.13 >**	**Licensed Discharges to controlled waters >**	2	3	9	4	-
61	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
61	4.15	Pollutant release to public sewer	0	0	0	0	-
62	4.16	List 1 Dangerous Substances	0	0	0	0	-
62	4.17	List 2 Dangerous Substances	0	0	0	0	-
62 >	**4.18 >**	**Pollution Incidents (EA/NRW) >**	0	2	2	9	-
64	4.19	Pollution inventory substances	0	0	0	0	-
64	4.20	Pollution inventory waste transfers	0	0	0	0	-
64	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	**Hydrogeology >**	On site	0-50m	50-250m	250-500m	500-2000m
65 >	**5.1 >**	**Superficial aquifer >**	Identified (within 500m)				
66 >	**5.2 >**	**Bedrock aquifer >**	Identified (within 500m)				
68 >	**5.3 >**	**Groundwater vulnerability >**	Identified (within 50m)				
69 >	**5.4 >**	**Groundwater vulnerability- soluble rock risk >**	Identified (within 0m)				
69	5.5	Groundwater vulnerability- local information	None (within 0m)				
70 >	**5.6 >**	**Groundwater abstractions >**	0	0	0	0	13
74 >	**5.7 >**	**Surface water abstractions >**	0	0	0	2	4
75 >	**5.8 >**	**Potable abstractions >**	0	0	0	0	5
77	5.9	Source Protection Zones	0	0	0	0	-
77	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	**Hydrology >**	On site	0-50m	50-250m	250-500m	500-2000m
78 >	**6.1 >**	**Water Network (OS MasterMap) >**	3	4	8	-	-

80 >	6.2 >	Surface water features >	1	0	4	-	-
80 >	6.3 >	WFD Surface water body catchments >	2	-	-	-	-
80 >	6.4 >	WFD Surface water bodies >	1	1	0	-	-
81 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
82 >	7.1 >	Risk of flooding from rivers and the sea >	High (within 50m)				
83 >	7.2 >	Historical Flood Events >	1	3	9	-	-
84	7.3	Flood Defences	0	0	0	-	-
84	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
84	7.5	Flood Storage Areas	0	0	0	-	-
85 >	7.6 >	Flood Zone 2 >	Identified (within 50m)				
86 >	7.7 >	Flood Zone 3 >	Identified (within 50m)				
Page	Section	Surface water flooding >					
87 >	8.1 >	Surface water flooding >	1 in 30 year, Greater than 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
89 >	9.1 >	Groundwater flooding >	Moderate-High (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
90	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
91	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
91	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
91	10.4	Special Protection Areas (SPA)	0	0	0	0	0
91	10.5	National Nature Reserves (NNR)	0	0	0	0	0
92	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
92 >	10.7 >	Designated Ancient Woodland >	0	0	0	0	1
92	10.8	Biosphere Reserves	0	0	0	0	0
92	10.9	Forest Parks	0	0	0	0	0
93	10.10	Marine Conservation Zones	0	0	0	0	0
93	10.11	Green Belt	0	0	0	0	0
93	10.12	Proposed Ramsar sites	0	0	0	0	0

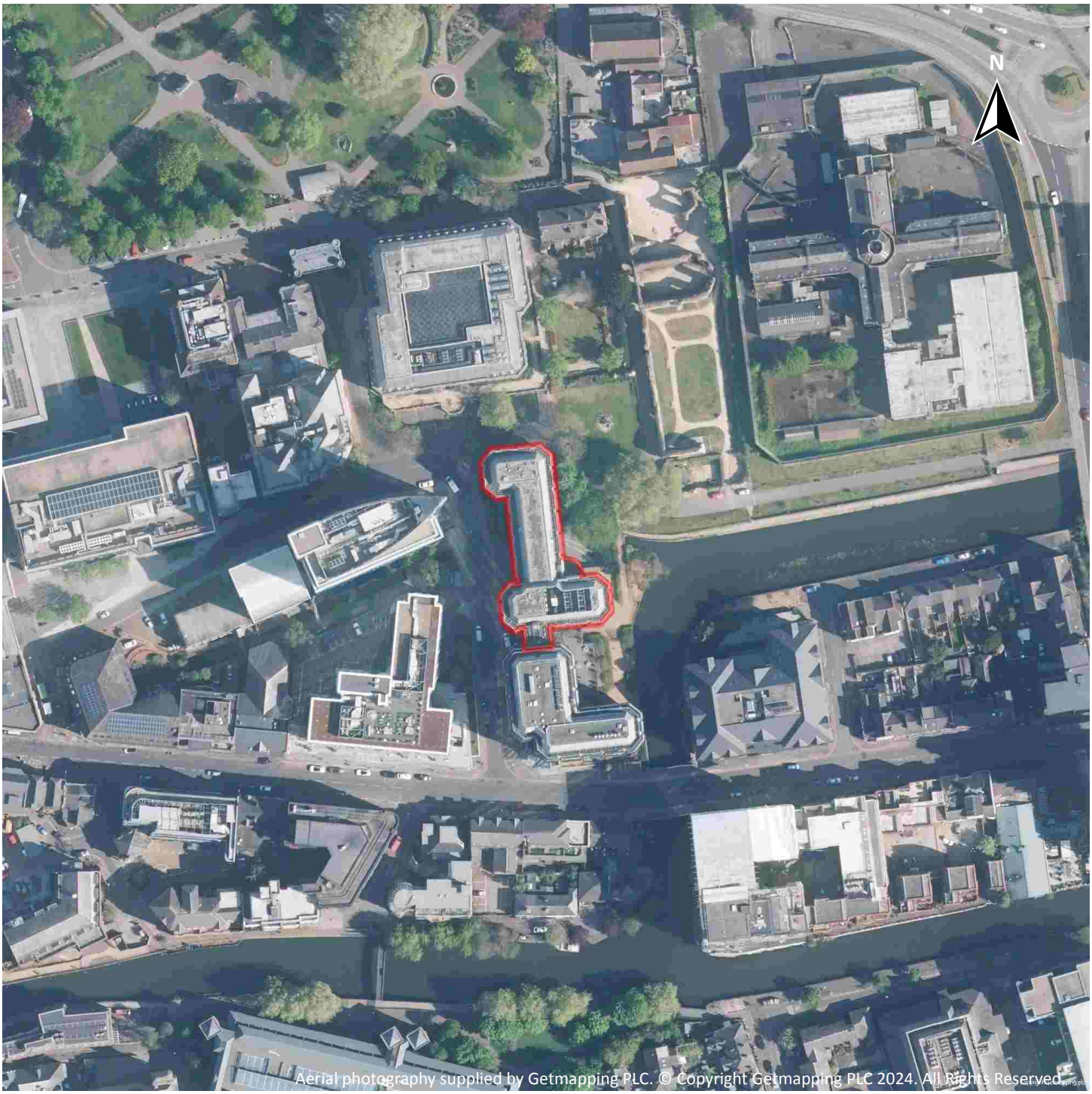
93	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
93	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
94	10.15	Nitrate Sensitive Areas	0	0	0	0	0
94 >	10.16 >	Nitrate Vulnerable Zones >	0	0	0	1	1
95	10.17	SSSI Impact Risk Zones	0	-	-	-	-
95	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
96	11.1	World Heritage Sites	0	0	0	-	-
97	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
97	11.3	National Parks	0	0	0	-	-
97 >	11.4 >	Listed Buildings >	0	0	33	-	-
99 >	11.5 >	Conservation Areas >	0	0	1	-	-
99 >	11.6 >	Scheduled Ancient Monuments >	0	2	3	-	-
100 >	11.7 >	Registered Parks and Gardens >	0	0	1	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
101 >	12.1 >	Agricultural Land Classification >	Urban (within 250m)				
102	12.2	Open Access Land	0	0	0	-	-
102	12.3	Tree Felling Licences	0	0	0	-	-
102	12.4	Environmental Stewardship Schemes	0	0	0	-	-
102	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
103	13.1	Priority Habitat Inventory	0	0	0	-	-
103	13.2	Habitat Networks	0	0	0	-	-
103	13.3	Open Mosaic Habitat	0	0	0	-	-
103	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
104 >	14.1 >	10k Availability >	Identified (within 500m)				
105 >	14.2 >	Artificial and made ground (10k) >	0	0	0	5	-
107 >	14.3 >	Superficial geology (10k) >	2	0	1	2	-

108	14.4	Landslip (10k)	0	0	0	0	-
109 >	14.5 >	Bedrock geology (10k) >	1	0	0	1	-
110	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
111 >	15.1 >	50k Availability >	Identified (within 500m)				
112	15.2	Artificial and made ground (50k)	0	0	0	0	-
112	15.3	Artificial ground permeability (50k)	0	0	-	-	-
113 >	15.4 >	Superficial geology (50k) >	2	0	1	2	-
114 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
114	15.6	Landslip (50k)	0	0	0	0	-
114	15.7	Landslip permeability (50k)	None (within 50m)				
115 >	15.8 >	Bedrock geology (50k) >	1	0	0	1	-
116 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
116	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes >	On site	0-50m	50-250m	250-500m	500-2000m
117 >	16.1 >	BGS Boreholes >	2	9	27	-	-
Page	Section	Natural ground subsidence >					
120 >	17.1 >	Shrink swell clays >	Very low (within 50m)				
121 >	17.2 >	Running sands >	Low (within 50m)				
123 >	17.3 >	Compressible deposits >	Moderate (within 50m)				
125 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
126 >	17.5 >	Landslides >	Very low (within 50m)				
127 >	17.6 >	Ground dissolution of soluble rocks >	Low (within 50m)				
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
129	18.1	BritPits	0	0	0	0	-
130 >	18.2 >	Surface ground workings >	0	2	13	-	-
130	18.3	Underground workings	0	0	0	0	0
131	18.4	Underground mining extents	0	0	0	0	-
131	18.5	Historical Mineral Planning Areas	0	0	0	0	-

131 >	18.6 >	Non-coal mining >	0	0	2	4	4
132 >	18.7 >	JPB mining areas >	Identified (within 0m)				
133	18.8	The Coal Authority non-coal mining	0	0	0	0	-
133 >	18.9 >	Researched mining >	0	0	0	1	-
133	18.10	Mining record office plans	0	0	0	0	-
134	18.11	BGS mine plans	0	0	0	0	-
134	18.12	Coal mining	None (within 0m)				
134	18.13	Brine areas	None (within 0m)				
134	18.14	Gypsum areas	None (within 0m)				
134	18.15	Tin mining	None (within 0m)				
135	18.16	Clay mining	None (within 0m)				
Page	Section	**Ground cavities and sinkholes** >	On site	0-50m	50-250m	250-500m	500-2000m
136 >	19.1 >	Natural cavities >	0	0	0	3	-
137 >	19.2 >	Mining cavities >	0	0	0	1	10
138	19.3	Reported recent incidents	0	0	0	0	-
138	19.4	Historical incidents	0	0	0	0	-
138	19.5	National karst database	0	0	0	0	-
Page	Section	**Radon** >					
140 >	20.1 >	Radon >	Between 1% and 3% (within 0m)				
Page	Section	**Soil chemistry** >	On site	0-50m	50-250m	250-500m	500-2000m
142 >	21.1 >	BGS Estimated Background Soil Chemistry >	2	7	-	-	-
143	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
143	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
144	22.1	Underground railways (London)	0	0	0	-	-
144	22.2	Underground railways (Non-London)	0	0	0	-	-
145	22.3	Railway tunnels	0	0	0	-	-
145 >	22.4 >	Historical railway and tunnel features >	0	0	35	-	-
146	22.5	Royal Mail tunnels	0	0	0	-	-

147	22.6	Historical railways	0	0	0	-	-
147	22.7	Railways	0	0	0	-	-
147	22.8	Crossrail 2	0	0	0	0	-
147	22.9	HS2	0	0	0	0	-

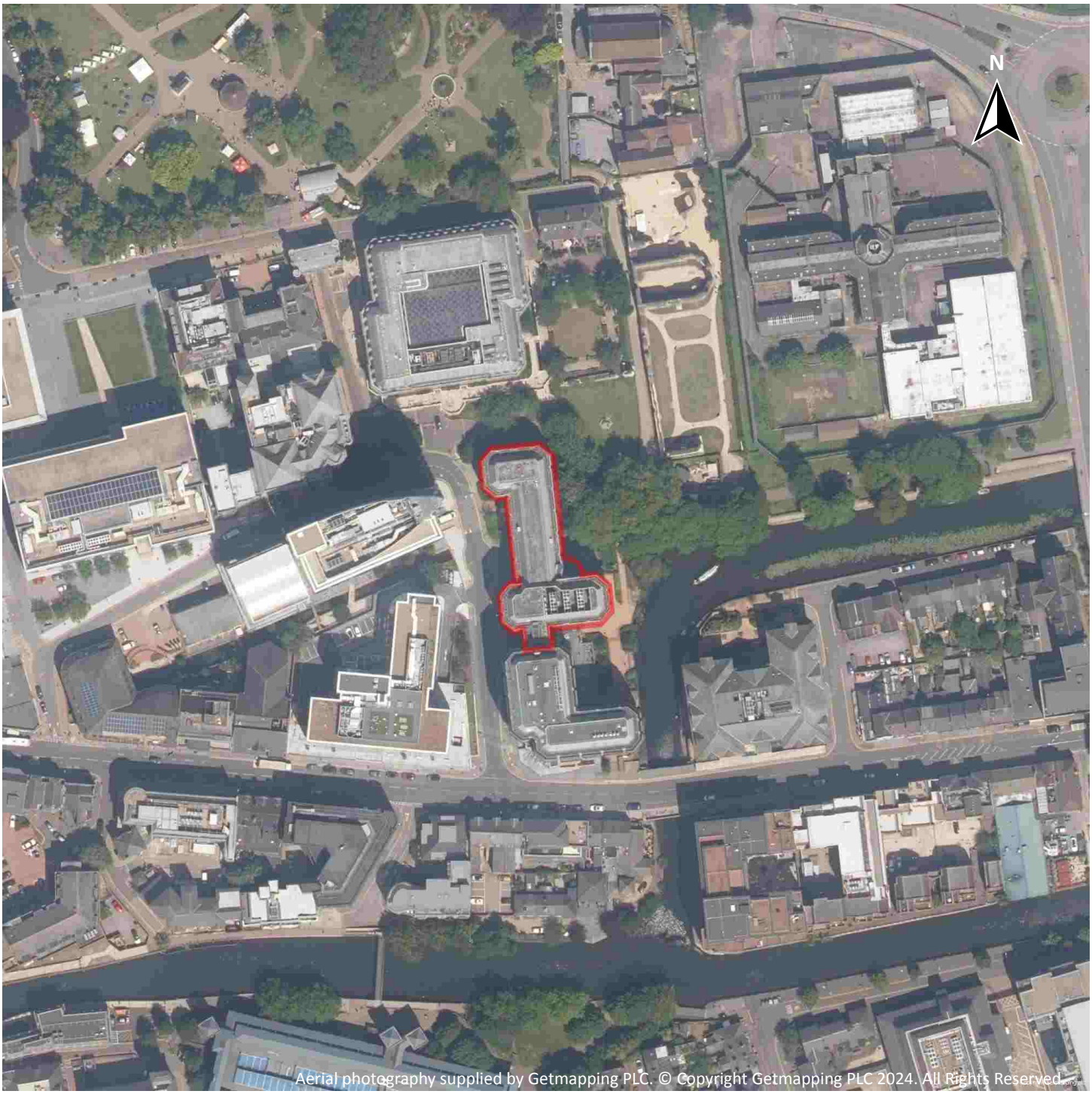
Recent aerial photograph



Capture Date: 30/04/2022

Site Area: 0.16ha

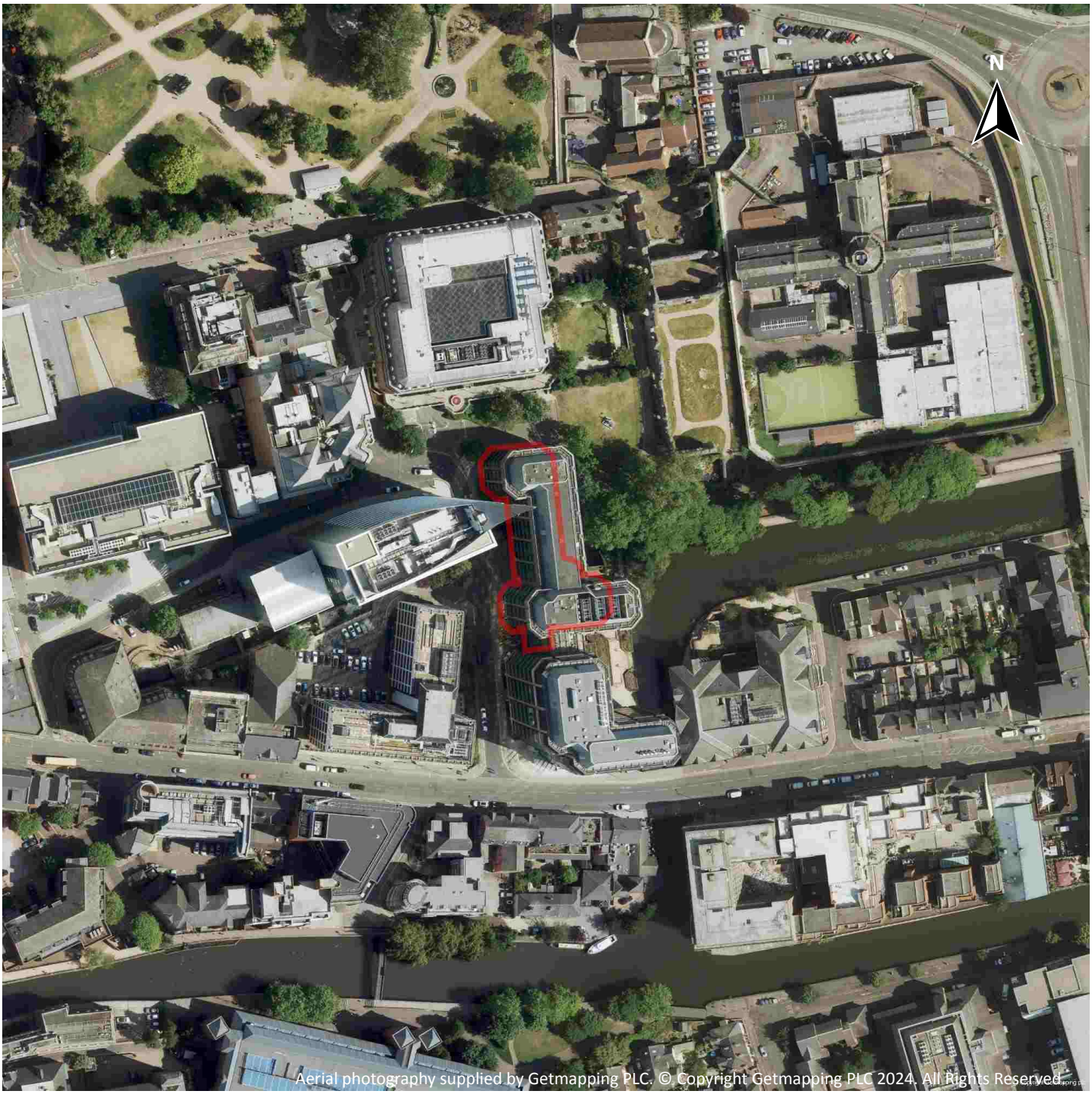
Recent site history - 2019 aerial photograph



Capture Date: 29/06/2019

Site Area: 0.16ha

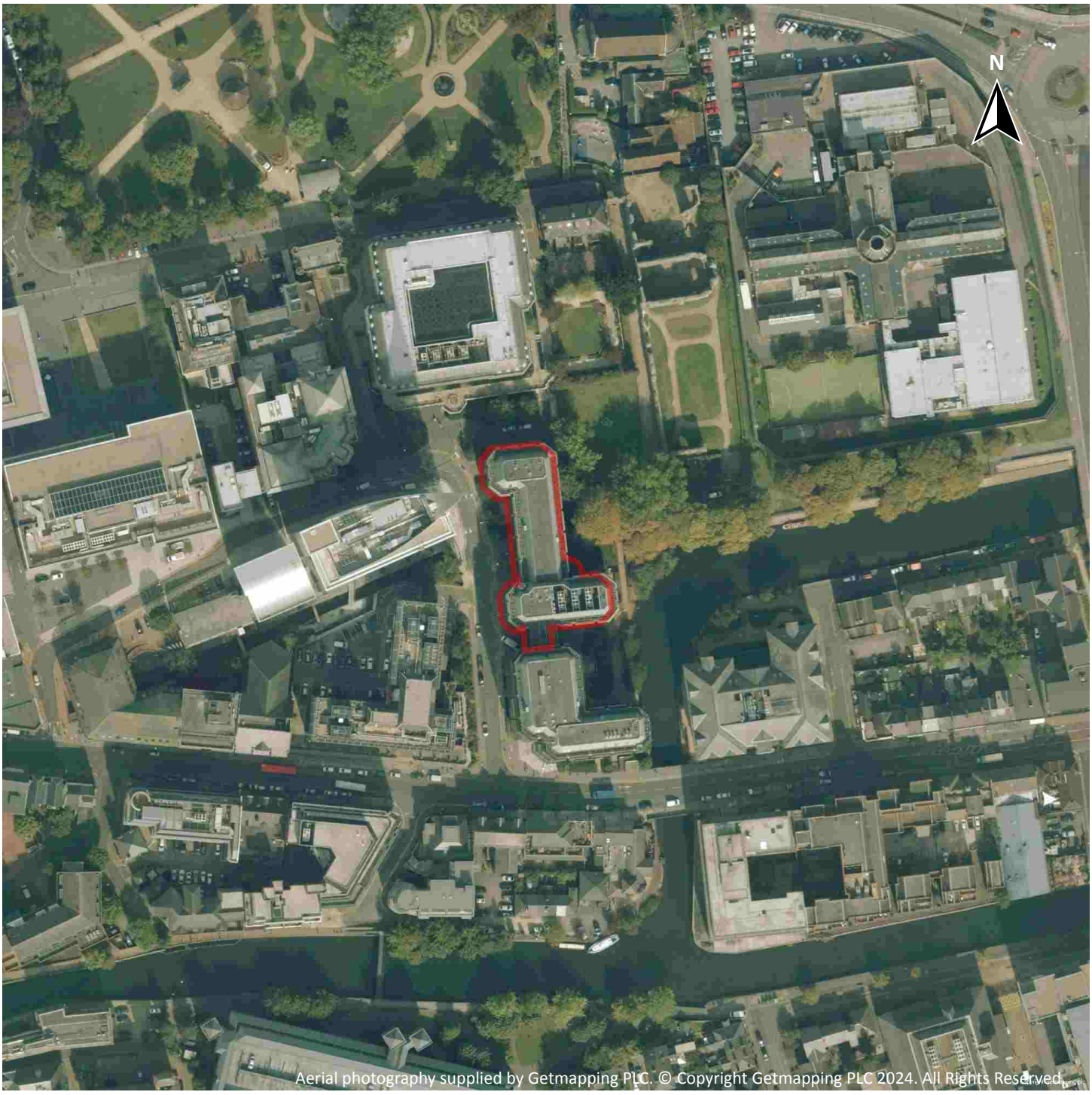
Recent site history - 2013 aerial photograph



Capture Date: 08/07/2013

Site Area: 0.16ha

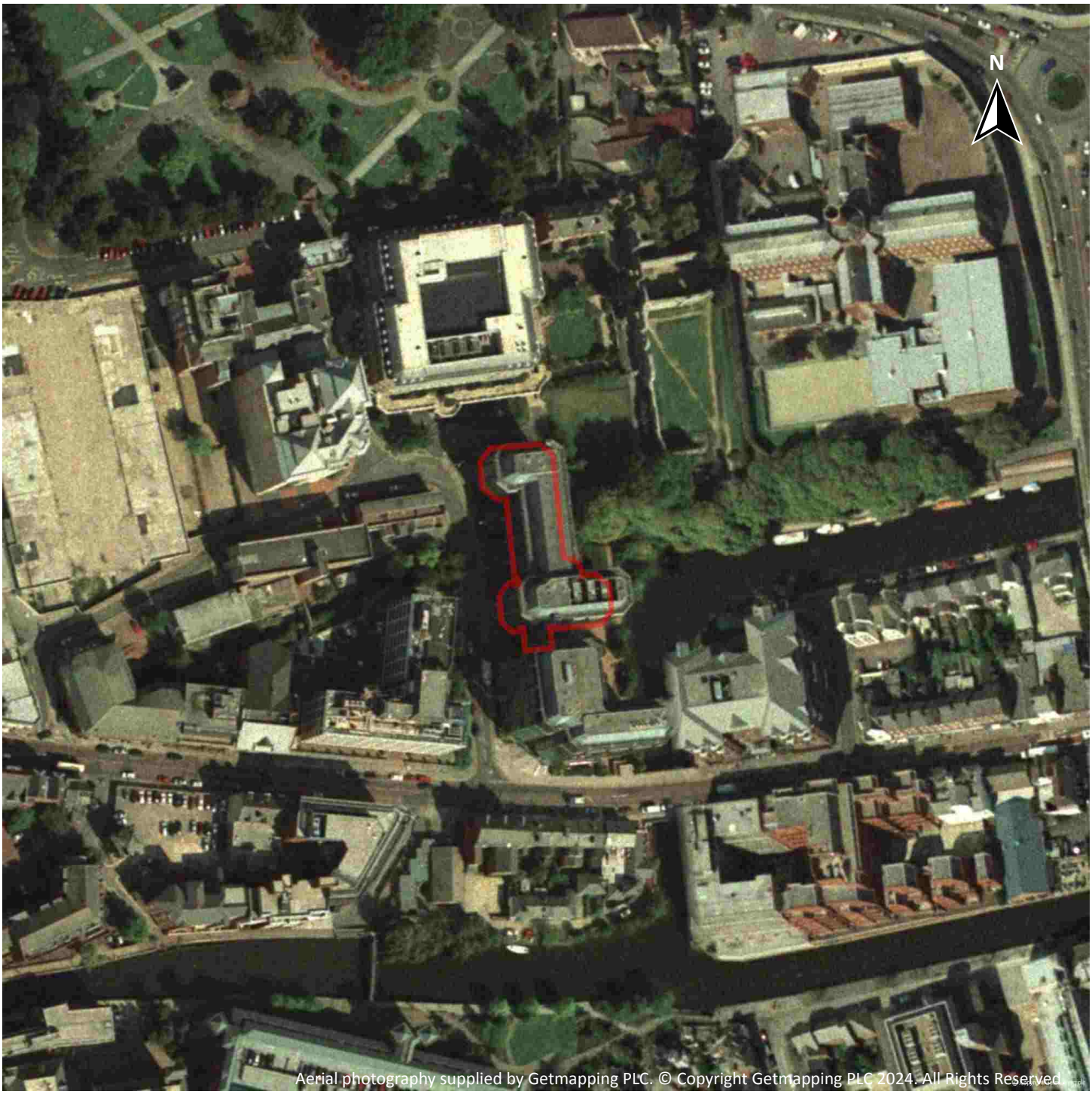
Recent site history - 2010 aerial photograph



Capture Date: 22/09/2010

Site Area: 0.16ha

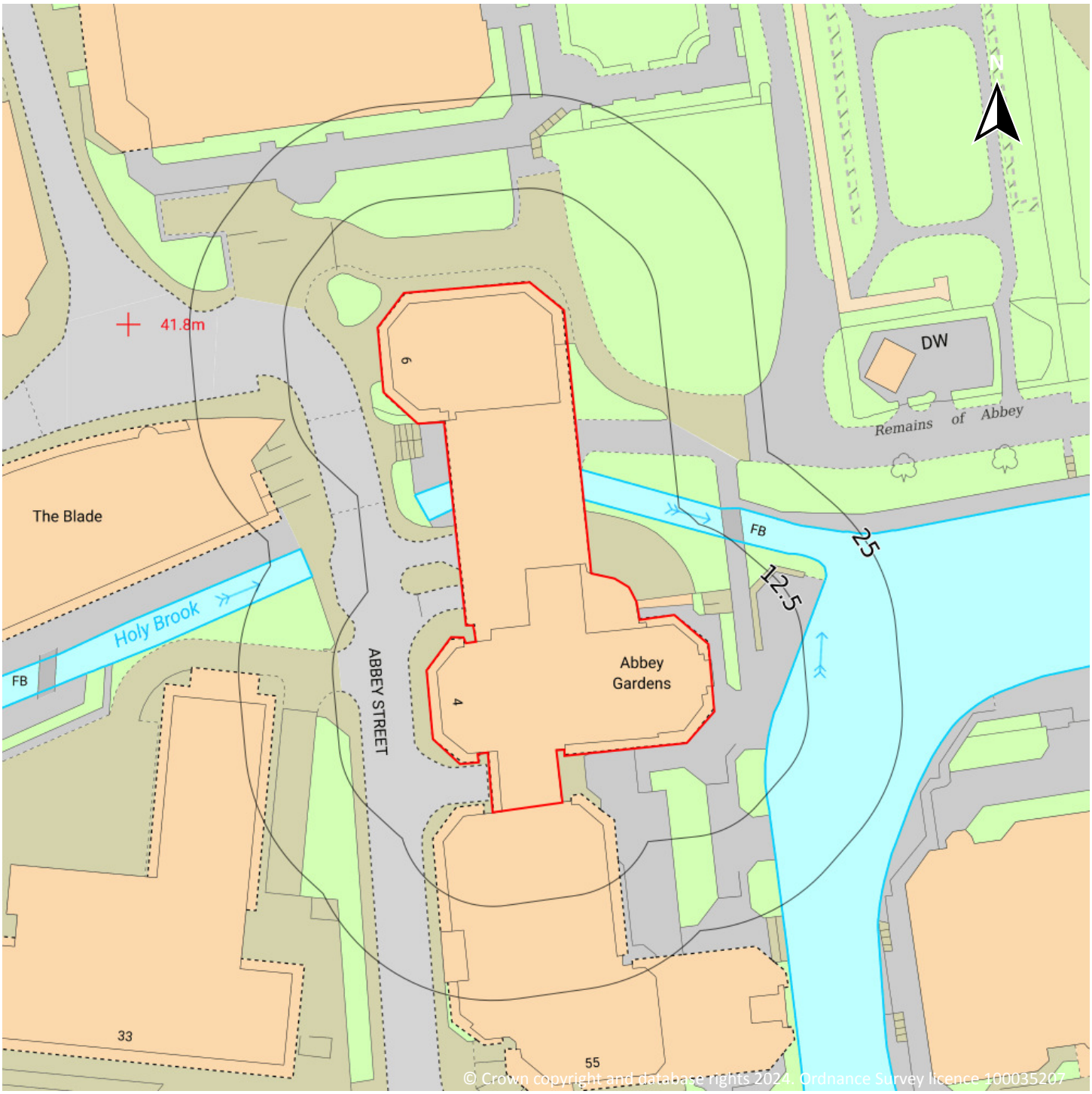
Recent site history - 1999 aerial photograph



Capture Date: 04/09/1999

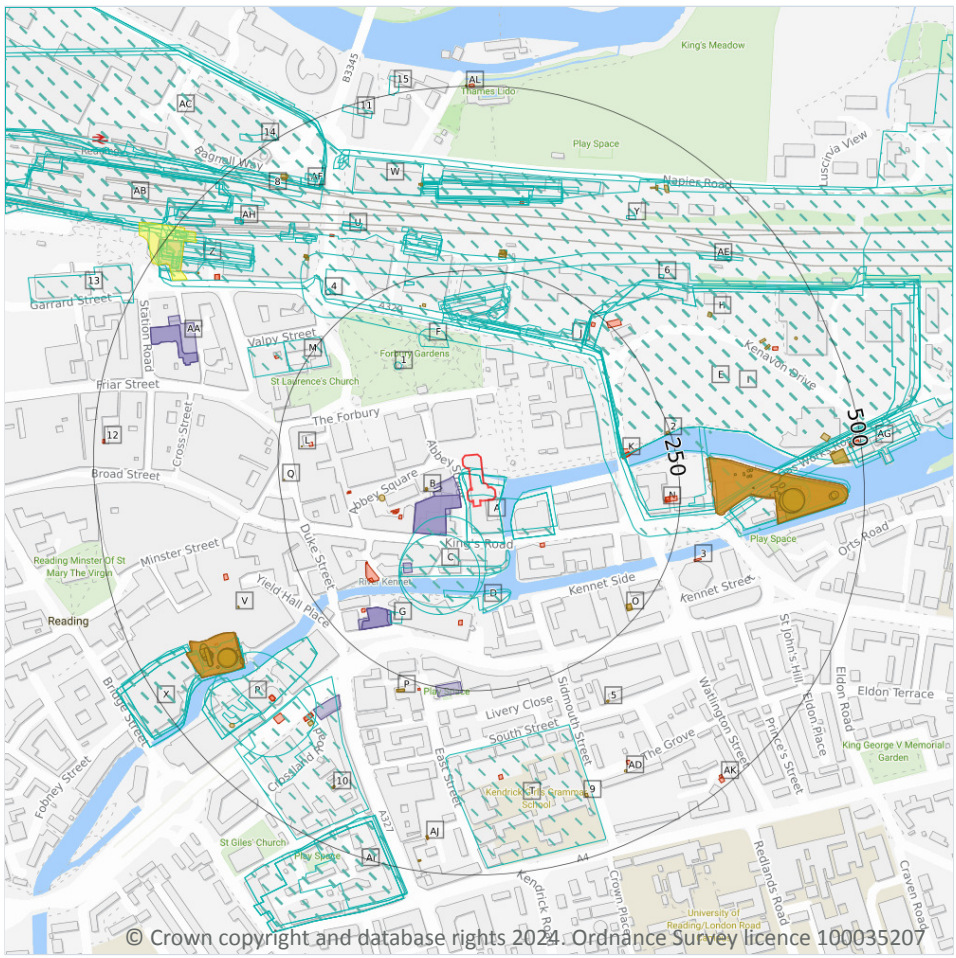
Site Area: 0.16ha

OS MasterMap site plan



Site Area: 0.16ha

1 Past land use



Site Outline

Search buffers in metres (m)

- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical petrol stations
- Historical garages

1.1 Historical industrial land uses

Records within 500m	153

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Sawmill**	**1938**	**1908985**

ID	Location	Land use	Dates present	Group ID
A	**On site**	**Sawmills**	**1913**	**1927470**
A	**On site**	**Sawmills**	**1898**	**1930971**
A	**On site**	**Sawmills**	**1938**	**1995696**
A	**On site**	**Sawmills**	**1933**	**1996504**
C	22m S	Unspecified Wharf	1989 - 1994	1977073
A	28m SE	Sawmills	1938	1915101
A	28m SE	Sawmills	1898	1915610
A	28m SE	Sawmills	1913	1964161
C	49m S	Unspecified Wharf	1938	1966925
C	71m SE	Unspecified Wharf	1938	1975400
D	116m S	Unspecified Disused Wharf	1933	1907038
D	119m S	Unspecified Wharf	1938	1950802
E	145m N	Unspecified Factory	1962	1937447
1	147m NW	Unspecified Tank	1973	1892973
F	148m N	Unspecified Heap	1933	1895361
H	164m N	Railway Sidings	1897 - 1913	1977747
F	168m N	Railway Buildings	1898	1889705
F	170m N	Railway Building	1962	1916084
H	170m N	Railway Sidings	1932 - 1979	1985279
F	172m N	Goods Sheds	1938	1937572
F	173m N	Goods Sheds	1913	1946100
I	174m E	Biscuit Factory	1898	1996619
G	174m SW	Smithy	1913	1907195
J	175m N	Goods Sheds	1938	1972241
I	177m E	Biscuit Factory	1913	1917366
I	177m E	Biscuit Factory	1938	1937300
F	177m N	Goods Sheds	1938	1989457
I	179m E	Biscuit Factory	1938	1991178

ID	Location	Land use	Dates present	Group ID
E	180m N	Biscuit Factory	1933	1935884
F	180m N	Railway Building	1898	1992267
F	181m N	Goods Sheds	1913	1914889
I	182m E	Unspecified Factory	1979	1962955
I	182m E	Unspecified Factory	1973	1981993
F	184m N	Railway Building	1962	1962319
F	184m N	Goods Sheds	1933 - 1938	1928220
F	186m N	Goods Sheds	1913	1997388
F	195m N	Railway Building	1898	1917459
F	201m N	Goods Sheds	1913	1937545
J	208m NE	Goods Sheds	1938	1900923
J	208m NE	Goods Shed	1913	1911488
M	221m NW	Police Station	1973	1908888
F	242m N	Railway Building	1938	1931590
F	242m N	Railway Building	1913	1946641
M	262m NW	Telegraph House	1973	1901459
H	266m N	Railway Building	1898	1909864
F	267m N	Railway Building	1898	1925039
H	269m N	Railway Sidings	1989 - 1994	1950624
F	274m N	Engine Shed	1938	1958065
F	274m N	Engine Shed	1913	1985982
H	274m N	Railway Building	1913	1940277
H	274m N	Railway Building	1938	1976446
F	275m N	Railway Building	1962	1987912
F	283m N	Engine Shed	1933	1936764
4	285m NW	Railway Building	1913	1909861
R	287m SW	Unspecified Depot	1989 - 1994	1992596
R	287m SW	Unspecified Depot	1979	1993995

ID	Location	Land use	Dates present	Group ID
R	300m SW	Unspecified Factory	1979	1955012
S	311m E	Gas Works	1898	1921775
F	313m N	Railway Building	1898	1909865
S	318m E	Sawmills	1913	1887146
T	318m S	Biscuit Factory	1913	1896305
S	318m E	Unspecified Commercial/Industrial	1933 - 1938	1921019
R	329m SW	Unspecified Mill	1898	1884417
U	334m NW	Railway Building	1898	1974678
U	340m NW	Railway Building	1938	1920702
U	340m NW	Railway Building	1913	1961880
H	340m N	Goods Shed	1938	1999491
H	341m N	Railway Building	1898	1966388
U	341m NW	Railway Building	1913	1909862
6	344m NE	Railway Building	1913	1909863
H	344m N	Goods Shed	1938	1943194
H	346m N	Railway Building	1962 - 1973	1948685
H	347m N	Goods Shed	1913	1961188
H	348m N	Goods Shed	1979	1987211
H	350m N	Goods Shed	1933	1928979
R	352m SW	Unspecified Factory	1973	1914634
U	354m NW	Railway Building	1938	1948006
U	356m NW	Railway Building	1913	1978014
U	356m NW	Railway Buildings	1938	1889727
W	358m N	Unspecified Depot	1989 - 1994	1916691
X	364m SW	Unspecified Commercial/Industrial	1898	1882849
X	364m SW	Brewery	1938	1946887
X	364m SW	Brewery	1913	1952260
X	366m SW	Brewery	1933	1998435

ID	Location	Land use	Dates present	Group ID
H	367m N	Railway Buildings	1989 - 1994	1943396
U	375m NW	Railway Building	1938	1909859
R	377m SW	Unspecified Tank	1913	1983914
R	377m SW	Unspecified Tank	1898	1995430
Y	378m NE	Railway Building	1938	1909860
Z	381m NW	Terminus	1898	1982665
S	383m E	Gas Works	1913	1925687
S	387m E	Unspecified Tank	1933 - 1938	1919315
S	387m E	Gasometer	1898	1923897
S	387m E	Gasometer	1913	1986300
Z	387m NW	Terminus	1938	1985560
AB	387m NW	Railway Station	1962	1981193
Z	387m NW	Terminus	1913	1930271
Z	387m NW	Terminus	1938	1940353
AC	388m NW	Railway Works	1898	1929251
S	390m E	Unspecified Tank	1938	1995979
Z	391m NW	Terminus	1933	1943710
AE	400m NE	Railway Buildings	1938	1951656
R	401m SW	Unspecified Commercial/Industrial	1933	1882930
R	401m SW	Railway Sidings	1933	1887642
R	404m SW	Unspecified Tank	1898	1892544
R	406m SW	Unspecified Tanks	1973	1918980
R	406m SW	Unspecified Tanks	1979	1966829
AC	411m NW	Unspecified Works	1962 - 1973	1934640
AC	411m NW	Unspecified Works	1979	1980970
AC	412m NW	Railway Works	1938	1958159
AC	413m NW	Railway Works	1913	1988924
AC	413m NW	Unspecified Works	1933 - 1938	1952114

ID	Location	Land use	Dates present	Group ID
8	416m NW	Railway Sidings	1933	1928151
AF	417m NW	Railway Building	1989 - 1994	1930349
AE	419m NE	Railway Buildings	1913	1955033
X	421m SW	Brewery	1973	1943421
X	421m SW	Brewery	1979	1983919
AF	421m NW	Railway Building	1933	1913435
AF	422m NW	Railway Building	1938	1926029
X	423m SW	Brewery	1938	1996846
AF	426m NW	Railway Building	1962 - 1973	1935993
AG	429m E	Corporation Sewage Pumping Station	1933	1908790
AF	430m NW	Railway Building	1933	1927917
AB	434m NW	Railway Station	1933	1965662
AH	435m NW	Railway Building	1938	1996584
Y	435m NE	Unspecified Tanks	1913	1890296
AH	436m NW	Railway Building	1913	1926761
AH	436m NW	Railway Building	1938	1994137
AI	439m S	Tin Works	1933	1925110
AB	440m NW	Railway Station	1898 - 1994	1987946
AI	441m S	Tin Works	1938	1978378
AI	442m S	Tin Works	1913	1984124
AI	449m S	Unspecified Works	1962	1890850
AI	449m S	Unspecified Commercial/Industrial	1973	1915834
AI	449m S	Unspecified Commercial/Industrial	1989	1916650
AI	449m S	Unspecified Commercial/Industrial	1979	1932011
AB	456m NW	Railway Station	1989	1953060
Z	463m NW	Railway Building	1962	1910063
AB	463m NW	Railway Station	1913	1923169
AB	463m NW	Railway Station	1938	1995285

ID	Location	Land use	Dates present	Group ID
AB	463m NW	Railway Station	1938	1990806
Z	463m NW	Garage	1973	1897335
AB	465m NW	Railway Station	1973 - 1979	1917814
11	475m N	Boat Houses	1898	1886708
Z	480m NW	Railway Building	1938	1927643
Z	480m NW	Railway Building	1913	1940807
AG	480m E	Sewage Pumping Station	1898	1979444
AG	485m E	Sewage Pumping Station	1913	1914432
AG	485m E	Sewage Pumping Station	1938	1999682
13	493m NW	Garage	1973	1897336
14	498m NW	Railway Building	1933	1910059
15	498m N	Boat House	1913	1894704

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	**90**

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 15 >**

ID	Location	Land use	Dates present	Group ID
B	54m W	Unspecified Tank	1968 - 1988	334326
B	54m W	Unspecified Tank	1997	333970
B	112m W	Unspecified Tank	1988 - 1997	337885
F	209m N	Tank or Trough	1879	319659
F	212m N	Tank or Trough	1879	339683
F	212m N	Tank or Trough	1879	331393

ID	Location	Land use	Dates present	Group ID
L	218m W	Pump and Tank	1879	329811
L	218m W	Pump and Tank	1879	330930
O	230m SE	Tanks	1989	317545
O	230m SE	Unspecified Tank	1991	322998
Q	243m W	Tank or Trough	1879	337343
Q	243m W	Tank or Trough	1879	332528
2	245m E	Unspecified Tank	1956 - 1957	339388
P	265m S	Unspecified Tank	1958 - 1961	329744
P	265m S	Unspecified Tank	1956	333377
H	270m N	Unspecified Tank	1879 - 1900	327517
H	273m N	Unspecified Tank	1912 - 1931	330228
H	274m N	Unspecified Tank	1956 - 1962	334994
S	290m E	Gas Works	1879	331411
S	294m E	Gas Works	1879	333823
5	313m SE	Unspecified Tank	1879	335174
S	325m E	Unspecified Tank	1879	323000
S	337m E	Tanks	1879	317546
U	340m NW	Unspecified Tank	1931	342917
S	342m E	Unspecified Tank	1879	323004
S	343m E	Unspecified Tank	1879	323003
V	343m SW	Tanks	1879	332299
V	343m SW	Tanks	1879	334101
U	343m NW	Unspecified Tank	1962	331439
U	343m NW	Unspecified Tank	1956	335978
U	343m NW	Unspecified Tank	1958 - 1961	331925
S	345m E	Unspecified Tank	1879	339401
S	347m E	Unspecified Tank	1879	336085
S	349m E	Tank or Trough	1879	337649

ID	Location	Land use	Dates present	Group ID
S	349m E	Tank or Trough	1879	333714
7	362m NE	Tanks	1973	317543
R	363m SW	Gas Works	1879	333720
R	364m SW	Unspecified Tank	1968 - 1979	343523
R	365m SW	Gas Works	1879 - 1912	332383
W	370m N	Unspecified Tank	1986	324031
R	371m SW	Tanks	1956 - 1979	335063
S	371m E	Unspecified Tank	1879	323001
W	372m N	Unspecified Tank	1971	324032
S	373m E	Gas Works	1900 - 1912	338625
R	373m SW	Tanks	1979	343313
R	375m SW	Tanks	1962 - 1968	340772
R	376m SW	Gasometer	1879	334743
R	378m SW	Gasometer	1879	341187
R	378m SW	Gasometer	1879	338003
R	378m SW	Gasometer	1900 - 1912	328617
S	383m E	Unspecified Tank	1879	323002
S	385m E	Gasometer	1879	334296
S	385m E	Gasometer	1879	338742
S	385m E	Gasometer	1900 - 1931	333412
S	389m E	Gasometer	1879	329098
R	404m SW	Gasometer	1879	335953
R	405m SW	Gasometer	1879	328018
R	405m SW	Tanks	1968 - 1979	337818
R	406m SW	Tanks	1958 - 1961	331920
R	406m SW	Unspecified Tank	1956 - 1961	342246
R	407m SW	Gasometer	1900	338050
R	407m SW	Tanks	1962	330159

ID	Location	Land use	Dates present	Group ID
R	407m SW	Tanks	1956	336940
AD	408m SE	Unspecified Tank	1991	322999
I	409m NE	Unspecified Tank	1956 - 1957	337757
I	412m NE	Unspecified Tank	1956	322997
9	416m S	Unspecified Tank	1989 - 1991	342306
10	423m SW	Tanks	1962 - 1968	337361
Y	430m NE	Tanks	1912	317800
Y	433m NE	Tanks	1912	317799
Z	437m NW	Unspecified Tank	1988	323165
Y	438m NE	Tanks	1912	317798
R	439m SW	Unspecified Tank	1879 - 1900	329350
AF	446m NW	Unspecified Tank	1912 - 1931	330531
AF	446m NW	Unspecified Tank	1956 - 1962	332956
AG	447m E	Tanks	1988 - 1997	329912
AJ	451m S	Unspecified Tank	1982	327010
AJ	451m S	Unspecified Tank	1969 - 1971	334309
S	452m E	Gasometer	1879	319982
S	454m E	Tar Tank	1879	333563
I	455m NE	Unspecified Tank	1956 - 1957	336482
AG	457m E	Unspecified Tank	1956	330185
AG	457m E	Unspecified Tank	1957	329230
AG	459m E	Unspecified Tank	1971 - 1991	329978
AJ	484m S	Unspecified Tank	1979	328382
AJ	484m S	Unspecified Tank	1982	343686
AJ	485m S	Unspecified Tank	1969	331611
AJ	485m S	Unspecified Tank	1982	344026
AJ	485m S	Unspecified Tank	1971	342487
AL	499m N	Unspecified Tank	1912 - 1931	340620

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	**71**

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
A	87m SE	Electricity Substation	1971	209560
B	92m SW	Electricity Substation	1968 - 1979	216874
B	94m W	Electricity Substation	1997	218979
B	97m W	Electricity Substation	1988	212685
B	99m W	Electricity Substation	1988	231608
D	155m S	Electricity Substation	1968 - 1988	228771
B	156m W	Electricity Substation	1988 - 1997	216765
B	158m W	Electricity Substation	1988	212009
G	161m SW	Electricity Substation	1988 - 1997	215244
G	168m SW	Electricity Substation	1988	216317
K	178m E	Electricity Substation	1989	219947
K	178m E	Electricity Substation	1971	221654
K	178m E	Electricity Substation	1957	231993
K	178m E	Electricity Substation	1956	234198
G	202m SW	Electricity Substation	1988 - 1997	213804
L	203m W	Electricity Substation	1979 - 1993	212698
N	229m E	Electricity Substation	1989	217750
N	230m E	Electricity Substations	1991	211036
N	230m E	Electricity Substation	1956	227398
N	230m E	Electricity Substation	1957	212737
N	231m E	Electricity Substation	1971	232326

ID	Location	Land use	Dates present	Group ID
J	232m NE	Electricity Substation	1988 - 1990	217556
J	246m NE	Electricity Substation	1956 - 1973	233982
P	257m S	Electricity Substation	1997	209557
3	282m E	Electricity Substation	1971	210200
M	284m NW	Electricity Substation	1971 - 1993	216301
S	290m E	Gas Works	1879	225380
S	294m E	Gas Works	1879	224097
V	342m W	Electricity Substation	1968 - 1997	220504
H	345m N	Electricity Substation	1988 - 1997	226956
U	346m NW	Electricity Substation	1971	209559
R	356m SW	Electricity Substation	1988	215421
R	356m SW	Electricity Substation	1988 - 1997	229869
R	363m SW	Gas Works	1879	211625
R	365m SW	Gas Works	1879 - 1912	225991
T	365m S	Electricity Substation	1988 - 1997	217077
S	373m E	Gas Works	1900 - 1912	223186
R	374m SW	Electricity Substation	1988	219663
R	374m SW	Electricity Substation	1997	229621
R	376m SW	Gasometer	1879 - 1912	213774
R	377m SW	Electricity Substation	1979	209562
R	378m SW	Gasometer	1879	213150
R	378m SW	Gasometer	1879	217630
R	383m SW	Electricity Substation	1968 - 1979	214771
S	385m E	Gasometer	1879	228476
S	385m E	Gasometer	1879	226429
S	385m E	Gasometer	1900 - 1931	221024
S	389m E	Gasometer	1879	233776
R	391m SW	Electricity Substation	1968 - 1979	221107

ID	Location	Land use	Dates present	Group ID
AD	398m SE	Electricity Substation	1989 - 1991	213975
R	404m SW	Gasometer	1879	224324
R	405m SW	Gasometer	1879	211477
R	407m SW	Gasometer	1900	233129
Z	409m NW	Electricity Substation	1971 - 1979	221886
Z	409m NW	Electricity Substation	1986	220620
AF	412m NW	Electricity Substation	1993	209565
AF	416m NW	Electricity Substation	1979 - 1986	225200
I	421m NE	Electricity Substation	1988 - 1997	215480
AJ	451m S	Electricity Substation	1979	207329
S	452m E	Gasometer	1879	211321
AG	484m E	Electricity Substation	1973	225477
AG	484m E	Electricity Substation	1990	224858
AG	484m E	Electricity Substation	1988	231992
AK	484m SE	Electricity Substation	1991	216628
12	485m W	Electricity Substation	1969 - 1996	233524
AG	485m E	Electricity Substation	1956	216338
AG	486m E	Electricity Substation	1957	220189
AK	487m SE	Electricity Substation	1971	233422
AG	488m E	Electricity Substation	1997	222180
AG	488m E	Electricity Substation	1997	234310
AL	499m N	Electricity Substation	1971 - 1993	217897

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	**1**

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'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
Z	445m NW	Filling Station	1979	3428

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	**14**

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

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
B	10m SW	Garage	1958 - 1961	71812
B	10m SW	Garage	1962 - 1968	71970
B	11m SW	Garage	1956	68070
C	115m SW	Garage	1968	67564
G	181m SW	Garage	1958 - 1961	70022
G	181m SW	Garage	1956	69716
G	183m SW	Garage	1962	70707
G	183m SW	Garage	1968	68244
P	239m S	Garage	1988	67563
R	314m SW	Police Garage	1968 - 1979	69960
AA	382m NW	Garage	1958 - 1961	68505
AA	382m NW	Garage	1962 - 1971	68626
AA	382m NW	Garage	1956	70240
Z	460m NW	Garage	1971	67430

This data is sourced from Ordnance Survey / Groundsure.

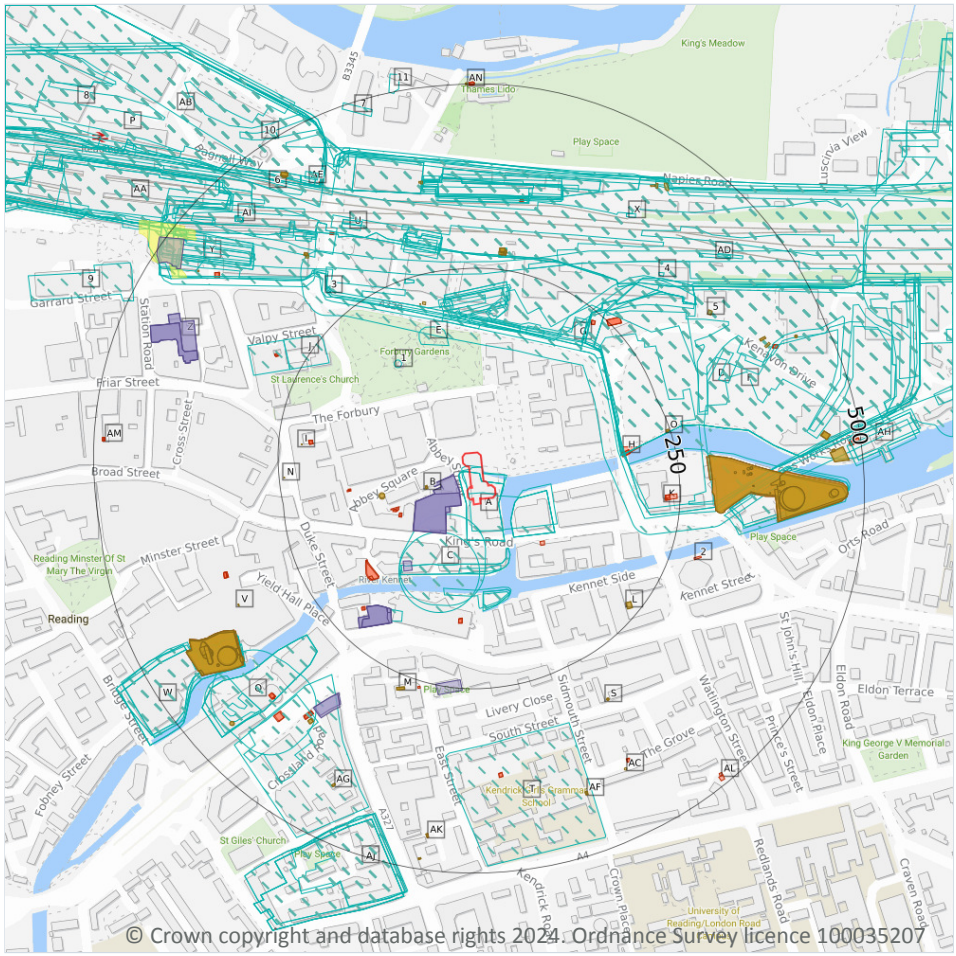
1.6 Historical military land

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



2.1 Historical industrial land uses

Records within 500m	179

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 30 >**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Sawmills**	**1938**	**1995696**
A	**On site**	**Sawmills**	**1913**	**1927470**
A	**On site**	**Sawmills**	**1898**	**1930971**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Sawmills**	**1933**	**1996504**
A	**On site**	**Sawmill**	**1938**	**1908985**
C	22m S	Unspecified Wharf	1994	1977073
A	28m SE	Sawmills	1938	1915101
A	28m SE	Sawmills	1913	1964161
A	28m SE	Sawmills	1898	1915610
C	49m S	Unspecified Wharf	1938	1966925
C	71m SE	Unspecified Wharf	1938	1975400
C	71m SE	Unspecified Wharf	1938	1975400
C	87m S	Unspecified Wharf	1989	1977073
C	116m S	Unspecified Disused Wharf	1933	1907038
C	119m S	Unspecified Wharf	1938	1950802
C	119m S	Unspecified Wharf	1938	1950802
C	122m S	Unspecified Wharf	1938	1950802
D	145m N	Unspecified Factory	1962	1937447
1	147m NW	Unspecified Tank	1973	1892973
E	148m N	Unspecified Heap	1933	1895361
E	164m N	Railway Sidings	1898	1977747
E	168m N	Railway Buildings	1898	1889705
E	170m N	Railway Sidings	1962	1985279
E	170m N	Railway Building	1962	1916084
E	172m N	Railway Sidings	1938	1985279
E	172m N	Goods Sheds	1938	1937572
E	173m N	Railway Sidings	1913	1977747
E	173m N	Goods Sheds	1913	1946100
F	174m E	Biscuit Factory	1898	1996619
C	174m SW	Smithy	1913	1907195
G	175m N	Goods Sheds	1938	1972241

ID	Location	Land Use	Date	Group ID
F	177m E	Biscuit Factory	1913	1917366
F	177m E	Biscuit Factory	1938	1937300
E	177m N	Goods Sheds	1938	1989457
E	177m N	Railway Sidings	1938	1985279
F	179m E	Biscuit Factory	1938	1991178
D	180m N	Biscuit Factory	1933	1935884
E	180m N	Railway Building	1898	1992267
E	181m N	Goods Sheds	1913	1914889
F	182m E	Unspecified Factory	1979	1962955
F	182m E	Unspecified Factory	1973	1981993
E	184m N	Railway Building	1962	1962319
E	184m N	Goods Sheds	1938	1928220
E	186m N	Goods Sheds	1913	1997388
E	191m N	Goods Sheds	1933	1928220
E	195m N	Railway Building	1898	1917459
E	198m NE	Railway Sidings	1933	1985279
E	201m N	Goods Sheds	1913	1937545
G	208m NE	Goods Shed	1913	1911488
G	208m NE	Goods Sheds	1938	1900923
J	221m NW	Police Station	1973	1908888
E	242m N	Railway Building	1938	1931590
E	242m N	Railway Building	1913	1946641
J	262m NW	Telegraph House	1973	1901459
E	266m N	Railway Building	1898	1909864
E	267m N	Railway Building	1898	1925039
P	267m N	Railway Sidings	1979	1985279
P	267m N	Railway Sidings	1973	1985279
E	269m N	Railway Sidings	1994	1950624

ID	Location	Land Use	Date	Group ID
E	269m N	Railway Sidings	1989	1950624
E	274m N	Engine Shed	1913	1985982
E	274m N	Engine Shed	1938	1958065
E	274m N	Railway Building	1938	1976446
E	274m N	Railway Building	1913	1940277
E	275m N	Railway Building	1962	1987912
E	277m N	Engine Shed	1938	1958065
E	283m N	Engine Shed	1933	1936764
3	285m NW	Railway Building	1913	1909861
Q	287m SW	Unspecified Depot	1994	1992596
Q	287m SW	Unspecified Depot	1989	1992596
Q	287m SW	Unspecified Depot	1979	1993995
Q	300m SW	Unspecified Factory	1979	1955012
R	311m E	Gas Works	1898	1921775
E	313m N	Railway Building	1898	1909865
R	318m E	Sawmills	1913	1887146
T	318m S	Biscuit Factory	1913	1896305
R	318m E	Unspecified Commercial/Industrial	1933	1921019
R	319m E	Unspecified Commercial/Industrial	1938	1921019
Q	329m SW	Unspecified Mill	1898	1884417
U	334m NW	Railway Building	1898	1974678
U	340m NW	Railway Building	1913	1961880
U	340m NW	Railway Building	1938	1920702
E	340m N	Goods Shed	1938	1999491
E	341m N	Railway Building	1898	1966388
U	341m NW	Railway Building	1913	1909862
4	344m NE	Railway Building	1913	1909863
E	344m N	Goods Shed	1938	1943194

ID	Location	Land Use	Date	Group ID
E	346m N	Railway Building	1962	1948685
E	346m N	Railway Building	1973	1948685
E	347m N	Goods Shed	1913	1961188
E	348m N	Goods Shed	1979	1987211
E	350m N	Goods Shed	1933	1928979
Q	352m SW	Unspecified Factory	1973	1914634
U	354m NW	Railway Building	1938	1948006
U	356m NW	Railway Building	1913	1978014
U	356m NW	Railway Buildings	1938	1889727
P	358m N	Unspecified Depot	1994	1916691
P	358m N	Unspecified Depot	1989	1916691
W	364m SW	Brewery	1938	1946887
W	364m SW	Brewery	1913	1952260
W	364m SW	Unspecified Commercial/Industrial	1898	1882849
W	366m SW	Brewery	1933	1998435
E	367m N	Railway Buildings	1994	1943396
E	367m N	Railway Buildings	1989	1943396
U	375m NW	Railway Building	1938	1909859
Q	377m SW	Unspecified Tank	1913	1983914
Q	377m SW	Unspecified Tank	1898	1995430
X	378m NE	Railway Building	1938	1909860
Y	381m NW	Terminus	1898	1982665
R	383m E	Gas Works	1913	1925687
R	387m E	Gasometer	1913	1986300
R	387m E	Gasometer	1898	1923897
R	387m E	Unspecified Tank	1938	1919315
Y	387m NW	Terminus	1938	1985560
AA	387m NW	Railway Station	1962	1981193

ID	Location	Land Use	Date	Group ID
Y	387m NW	Terminus	1913	1930271
Y	387m NW	Terminus	1938	1940353
AB	388m NW	Railway Works	1898	1929251
R	390m E	Unspecified Tank	1938	1995979
R	391m E	Unspecified Tank	1933	1919315
Y	391m NW	Terminus	1933	1943710
AD	400m NE	Railway Buildings	1938	1951656
Q	401m SW	Railway Sidings	1933	1887642
Q	401m SW	Unspecified Commercial/Industrial	1933	1882930
Q	404m SW	Unspecified Tank	1898	1892544
Q	406m SW	Unspecified Tanks	1979	1966829
Q	406m SW	Unspecified Tanks	1973	1918980
AB	411m NW	Unspecified Works	1979	1980970
AB	411m NW	Unspecified Works	1962	1934640
AB	411m NW	Unspecified Works	1973	1934640
AB	412m NW	Railway Works	1938	1958159
AB	413m NW	Railway Works	1913	1988924
AB	413m NW	Unspecified Works	1938	1952114
6	416m NW	Railway Sidings	1933	1928151
AE	417m NW	Railway Building	1994	1930349
AE	417m NW	Railway Building	1989	1930349
AD	419m NE	Railway Buildings	1913	1955033
W	421m SW	Brewery	1979	1983919
W	421m SW	Brewery	1973	1943421
AE	421m NW	Railway Building	1933	1913435
AE	422m NW	Railway Building	1938	1926029
W	423m SW	Brewery	1938	1996846
AE	426m NW	Railway Building	1962	1935993

ID	Location	Land Use	Date	Group ID
AE	426m NW	Railway Building	1973	1935993
AH	429m E	Corporation Sewage Pumping Station	1933	1908790
AE	430m NW	Railway Building	1933	1927917
AA	434m NW	Railway Station	1933	1965662
AI	435m NW	Railway Building	1938	1996584
X	435m NE	Unspecified Tanks	1913	1890296
AI	436m NW	Railway Building	1938	1994137
AI	436m NW	Railway Building	1913	1926761
AJ	439m S	Tin Works	1933	1925110
AA	440m NW	Railway Station	1994	1987946
AJ	441m S	Tin Works	1938	1978378
AJ	442m S	Tin Works	1938	1978378
AJ	442m S	Tin Works	1913	1984124
AJ	449m S	Unspecified Commercial/Industrial	1989	1916650
AJ	449m S	Unspecified Commercial/Industrial	1979	1932011
AJ	449m S	Unspecified Works	1962	1890850
AJ	449m S	Unspecified Commercial/Industrial	1973	1915834
AA	454m NW	Railway Station	1898	1987946
AA	456m NW	Railway Station	1989	1953060
Y	463m NW	Railway Building	1962	1910063
AA	463m NW	Railway Station	1938	1995285
AA	463m NW	Railway Station	1913	1923169
AA	463m NW	Railway Station	1938	1990806
Y	463m NW	Garage	1973	1897335
AA	465m NW	Railway Station	1979	1917814
AA	465m NW	Railway Station	1973	1917814
7	475m N	Boat Houses	1898	1886708
Y	480m NW	Railway Building	1938	1927643

ID	Location	Land Use	Date	Group ID
Y	480m NW	Railway Building	1913	1940807
AH	480m E	Sewage Pumping Station	1898	1979444
AH	485m E	Sewage Pumping Station	1938	1999682
AH	485m E	Sewage Pumping Station	1913	1914432
8	490m NW	Unspecified Works	1933	1952114
9	493m NW	Garage	1973	1897336
10	498m NW	Railway Building	1933	1910059
11	498m N	Boat House	1913	1894704

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**147**

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 30 >**

ID	Location	Land Use	Date	Group ID
B	54m W	Unspecified Tank	1979	334326
B	54m W	Unspecified Tank	1988	334326
B	54m W	Unspecified Tank	1997	333970
B	54m W	Unspecified Tank	1988	334326
B	54m W	Unspecified Tank	1968	334326
B	112m W	Unspecified Tank	1988	337885
B	112m W	Unspecified Tank	1997	337885
E	209m N	Tank or Trough	1879	319659
E	212m N	Tank or Trough	1879	339683
E	212m N	Tank or Trough	1879	331393
I	218m W	Pump and Tank	1879	329811
I	218m W	Pump and Tank	1879	330930

ID	Location	Land Use	Date	Group ID
L	230m SE	Tanks	1989	317545
L	230m SE	Unspecified Tank	1991	322998
N	243m W	Tank or Trough	1879	337343
N	243m W	Tank or Trough	1879	332528
O	245m E	Unspecified Tank	1956	339388
O	245m E	Unspecified Tank	1957	339388
M	265m S	Unspecified Tank	1958	329744
M	265m S	Unspecified Tank	1961	329744
M	265m S	Unspecified Tank	1956	333377
E	270m N	Unspecified Tank	1879	327517
E	270m N	Unspecified Tank	1879	327517
E	270m N	Unspecified Tank	1900	327517
E	273m N	Unspecified Tank	1912	330228
E	273m N	Unspecified Tank	1931	330228
E	273m N	Unspecified Tank	1879	327517
E	274m N	Unspecified Tank	1962	334994
E	274m N	Unspecified Tank	1956	334994
E	274m N	Unspecified Tank	1958	334994
E	274m N	Unspecified Tank	1961	334994
R	290m E	Gas Works	1879	331411
R	294m E	Gas Works	1879	333823
R	294m E	Gas Works	1879	333823
S	313m SE	Unspecified Tank	1879	335174
S	313m SE	Unspecified Tank	1879	335174
R	325m E	Unspecified Tank	1879	323000
R	337m E	Tanks	1879	317546
U	340m NW	Unspecified Tank	1931	342917
R	342m E	Unspecified Tank	1879	323004

ID	Location	Land Use	Date	Group ID
R	343m E	Unspecified Tank	1879	323003
V	343m SW	Tanks	1879	332299
V	343m SW	Tanks	1879	334101
U	343m NW	Unspecified Tank	1962	331439
U	343m NW	Unspecified Tank	1956	335978
U	343m NW	Unspecified Tank	1958	331925
U	343m NW	Unspecified Tank	1961	331925
R	345m E	Unspecified Tank	1879	339401
R	345m E	Unspecified Tank	1879	339401
R	347m E	Unspecified Tank	1879	336085
R	347m E	Unspecified Tank	1879	336085
R	349m E	Tank or Trough	1879	337649
R	349m E	Tank or Trough	1879	333714
5	362m NE	Tanks	1973	317543
Q	363m SW	Gas Works	1879	333720
Q	364m SW	Unspecified Tank	1979	343523
Q	365m SW	Gas Works	1879	332383
Q	365m SW	Gas Works	1879	332383
Q	365m SW	Unspecified Tank	1968	343523
Q	366m SW	Gas Works	1900	332383
Q	366m SW	Gas Works	1912	332383
P	370m N	Unspecified Tank	1986	324031
Q	371m SW	Tanks	1979	335063
R	371m E	Unspecified Tank	1879	323001
P	372m N	Unspecified Tank	1971	324032
Q	372m SW	Tanks	1958	335063
Q	372m SW	Tanks	1961	335063
Q	372m SW	Tanks	1962	335063

ID	Location	Land Use	Date	Group ID
Q	372m SW	Tanks	1956	335063
Q	372m SW	Tanks	1968	335063
R	373m E	Gas Works	1900	338625
Q	373m SW	Tanks	1979	343313
Q	375m SW	Tanks	1962	340772
Q	375m SW	Tanks	1968	340772
Q	376m SW	Gasometer	1879	334743
Q	378m SW	Gasometer	1879	341187
Q	378m SW	Gasometer	1879	338003
Q	378m SW	Gasometer	1900	328617
Q	378m SW	Gasometer	1912	328617
R	382m E	Gas Works	1912	338625
R	383m E	Unspecified Tank	1879	323002
R	385m E	Gasometer	1879	334296
R	385m E	Gasometer	1879	338742
R	385m E	Gasometer	1900	333412
R	385m E	Gasometer	1912	333412
R	385m E	Gasometer	1931	333412
R	387m E	Gasometer	1879	338742
R	387m E	Gasometer	1879	338742
R	389m E	Gasometer	1879	329098
R	389m E	Gasometer	1879	329098
Q	404m SW	Gasometer	1879	335953
Q	405m SW	Gasometer	1879	328018
Q	405m SW	Gasometer	1879	328018
Q	405m SW	Tanks	1979	337818
Q	406m SW	Tanks	1958	331920
Q	406m SW	Tanks	1961	331920

ID	Location	Land Use	Date	Group ID
Q	406m SW	Unspecified Tank	1956	342246
Q	406m SW	Unspecified Tank	1958	342246
Q	406m SW	Unspecified Tank	1961	342246
Q	406m SW	Tanks	1968	337818
Q	407m SW	Gasometer	1900	338050
Q	407m SW	Tanks	1962	330159
Q	407m SW	Tanks	1956	336940
AC	408m SE	Unspecified Tank	1991	322999
F	409m NE	Unspecified Tank	1956	337757
F	409m NE	Unspecified Tank	1957	337757
F	412m NE	Unspecified Tank	1956	322997
AF	416m S	Unspecified Tank	1989	342306
AF	416m S	Unspecified Tank	1991	342306
AG	423m SW	Tanks	1962	337361
AG	423m SW	Tanks	1968	337361
X	430m NE	Tanks	1912	317800
X	433m NE	Tanks	1912	317799
Y	437m NW	Unspecified Tank	1988	323165
X	438m NE	Tanks	1912	317798
Q	439m SW	Unspecified Tank	1879	329350
Q	440m SW	Unspecified Tank	1900	329350
AE	446m NW	Unspecified Tank	1931	330531
AE	446m NW	Unspecified Tank	1912	330531
AE	446m NW	Unspecified Tank	1962	332956
AE	446m NW	Unspecified Tank	1956	332956
AE	446m NW	Unspecified Tank	1958	332956
AE	446m NW	Unspecified Tank	1961	332956
AH	447m E	Tanks	1988	329912

ID	Location	Land Use	Date	Group ID
AH	447m E	Tanks	1990	329912
AH	448m E	Tanks	1997	329912
AH	448m E	Tanks	1997	329912
AK	451m S	Unspecified Tank	1982	327010
AK	451m S	Unspecified Tank	1969	334309
AK	451m S	Unspecified Tank	1971	334309
R	452m E	Gasometer	1879	319982
R	454m E	Tar Tank	1879	333563
R	454m E	Tar Tank	1879	333563
F	455m NE	Unspecified Tank	1956	336482
F	455m NE	Unspecified Tank	1957	336482
AH	457m E	Unspecified Tank	1956	330185
AH	457m E	Unspecified Tank	1957	329230
AH	459m E	Unspecified Tank	1989	329978
AH	459m E	Unspecified Tank	1991	329978
AH	459m E	Unspecified Tank	1971	329978
AK	484m S	Unspecified Tank	1979	328382
AK	484m S	Unspecified Tank	1982	343686
AK	485m S	Unspecified Tank	1982	344026
AK	485m S	Unspecified Tank	1969	331611
AK	485m S	Unspecified Tank	1971	342487
AN	499m N	Unspecified Tank	1912	340620
AN	499m N	Unspecified Tank	1931	340620

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**129**

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

Features are displayed on the Past land use - un-grouped map on **page 30 >**

ID	Location	Land Use	Date	Group ID
A	87m SE	Electricity Substation	1971	209560
B	92m SW	Electricity Substation	1979	216874
B	93m SW	Electricity Substation	1968	216874
B	94m W	Electricity Substation	1997	218979
B	97m W	Electricity Substation	1988	212685
B	99m W	Electricity Substation	1988	231608
C	155m S	Electricity Substation	1979	228771
C	155m S	Electricity Substation	1988	228771
C	155m S	Electricity Substation	1968	228771
B	156m W	Electricity Substation	1997	216765
B	156m W	Electricity Substation	1988	216765
B	158m W	Electricity Substation	1988	212009
C	161m SW	Electricity Substation	1997	215244
C	162m SW	Electricity Substation	1988	215244
C	168m SW	Electricity Substation	1988	216317
H	178m E	Electricity Substation	1989	219947
H	178m E	Electricity Substation	1971	221654
H	178m E	Electricity Substation	1957	231993
H	178m E	Electricity Substation	1956	234198
C	202m SW	Electricity Substation	1997	213804
I	203m W	Electricity Substation	1986	212698
I	203m W	Electricity Substation	1993	212698
C	204m SW	Electricity Substation	1988	213804

ID	Location	Land Use	Date	Group ID
I	204m W	Electricity Substation	1979	212698
I	204m W	Electricity Substation	1988	212698
I	204m W	Electricity Substation	1988	212698
K	229m E	Electricity Substation	1989	217750
K	230m E	Electricity Substations	1991	211036
K	230m E	Electricity Substation	1956	227398
K	230m E	Electricity Substation	1957	212737
K	231m E	Electricity Substation	1971	232326
G	232m NE	Electricity Substation	1988	217556
G	232m NE	Electricity Substation	1990	217556
G	246m NE	Electricity Substation	1957	233982
G	246m NE	Electricity Substation	1956	233982
G	246m NE	Electricity Substation	1973	233982
M	257m S	Electricity Substation	1997	209557
2	282m E	Electricity Substation	1971	210200
J	284m NW	Electricity Substation	1986	216301
J	284m NW	Electricity Substation	1971	216301
J	284m NW	Electricity Substation	1993	216301
J	286m NW	Electricity Substation	1979	216301
J	286m NW	Electricity Substation	1988	216301
J	286m NW	Electricity Substation	1988	216301
R	290m E	Gas Works	1879	225380
R	294m E	Gas Works	1879	224097
R	294m E	Gas Works	1879	224097
V	342m W	Electricity Substation	1979	220504
V	342m W	Electricity Substation	1988	220504
V	343m W	Electricity Substation	1997	220504
V	343m W	Electricity Substation	1988	220504

ID	Location	Land Use	Date	Group ID
V	343m W	Electricity Substation	1968	220504
E	345m N	Electricity Substation	1988	226956
E	345m N	Electricity Substation	1990	226956
E	345m N	Electricity Substation	1997	226956
U	346m NW	Electricity Substation	1971	209559
Q	356m SW	Electricity Substation	1988	215421
Q	356m SW	Electricity Substation	1988	229869
Q	357m SW	Electricity Substation	1997	229869
Q	363m SW	Gas Works	1879	211625
Q	365m SW	Gas Works	1879	225991
Q	365m SW	Gas Works	1879	225991
T	365m S	Electricity Substation	1997	217077
T	366m S	Electricity Substation	1988	217077
Q	366m SW	Gas Works	1900	225991
Q	366m SW	Gas Works	1912	225991
R	373m E	Gas Works	1900	223186
Q	374m SW	Electricity Substation	1988	219663
Q	374m SW	Electricity Substation	1997	229621
Q	374m SW	Electricity Substation	1988	219663
Q	376m SW	Gasometer	1879	213774
Q	377m SW	Electricity Substation	1979	209562
Q	378m SW	Gasometer	1879	213150
Q	378m SW	Gasometer	1879	217630
Q	378m SW	Gasometer	1900	213774
Q	378m SW	Gasometer	1912	213774
R	382m E	Gas Works	1912	223186
Q	383m SW	Electricity Substation	1979	214771
R	385m E	Gasometer	1879	228476

ID	Location	Land Use	Date	Group ID
R	385m E	Gasometer	1879	226429
R	385m E	Gasometer	1900	221024
R	385m E	Gasometer	1912	221024
R	385m E	Gasometer	1931	221024
Q	385m SW	Electricity Substation	1968	214771
R	387m E	Gasometer	1879	226429
R	387m E	Gasometer	1879	226429
R	389m E	Gasometer	1879	233776
R	389m E	Gasometer	1879	233776
Q	391m SW	Electricity Substation	1979	221107
Q	393m SW	Electricity Substation	1968	221107
AC	398m SE	Electricity Substation	1989	213975
AC	399m SE	Electricity Substation	1991	213975
Q	404m SW	Gasometer	1879	224324
Q	405m SW	Gasometer	1879	211477
Q	405m SW	Gasometer	1879	211477
Q	407m SW	Gasometer	1900	233129
Y	409m NW	Electricity Substation	1971	221886
Y	409m NW	Electricity Substation	1986	220620
Y	409m NW	Electricity Substation	1979	221886
AE	412m NW	Electricity Substation	1993	209565
AE	416m NW	Electricity Substation	1986	225200
AE	416m NW	Electricity Substation	1979	225200
F	421m NE	Electricity Substation	1988	215480
F	421m NE	Electricity Substation	1990	215480
F	422m NE	Electricity Substation	1997	215480
AK	451m S	Electricity Substation	1979	207329
R	452m E	Gasometer	1879	211321

ID	Location	Land Use	Date	Group ID
AH	484m E	Electricity Substation	1973	225477
AH	484m E	Electricity Substation	1988	231992
AH	484m E	Electricity Substation	1990	224858
AL	484m SE	Electricity Substation	1991	216628
AM	485m W	Electricity Substation	1986	233524
AH	485m E	Electricity Substation	1956	216338
AM	485m W	Electricity Substation	1994	233524
AM	485m W	Electricity Substation	1996	233524
AM	485m W	Electricity Substation	1969	233524
AH	486m E	Electricity Substation	1957	220189
AM	486m W	Electricity Substation	1979	233524
AM	486m W	Electricity Substation	1988	233524
AM	486m W	Electricity Substation	1993	233524
AL	487m SE	Electricity Substation	1971	233422
AH	488m E	Electricity Substation	1997	222180
AH	488m E	Electricity Substation	1997	234310
AN	499m N	Electricity Substation	1979	217897
AN	499m N	Electricity Substation	1988	217897
AN	499m N	Electricity Substation	1988	217897
AN	499m N	Electricity Substation	1986	217897
AN	499m N	Electricity Substation	1993	217897
AN	499m N	Electricity Substation	1971	217897

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	**1**

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'.

Features are displayed on the Past land use - un-grouped map on **page 30 >**

ID	Location	Land Use	Date	Group ID
Y	445m NW	Filling Station	1979	3428

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	**20**

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

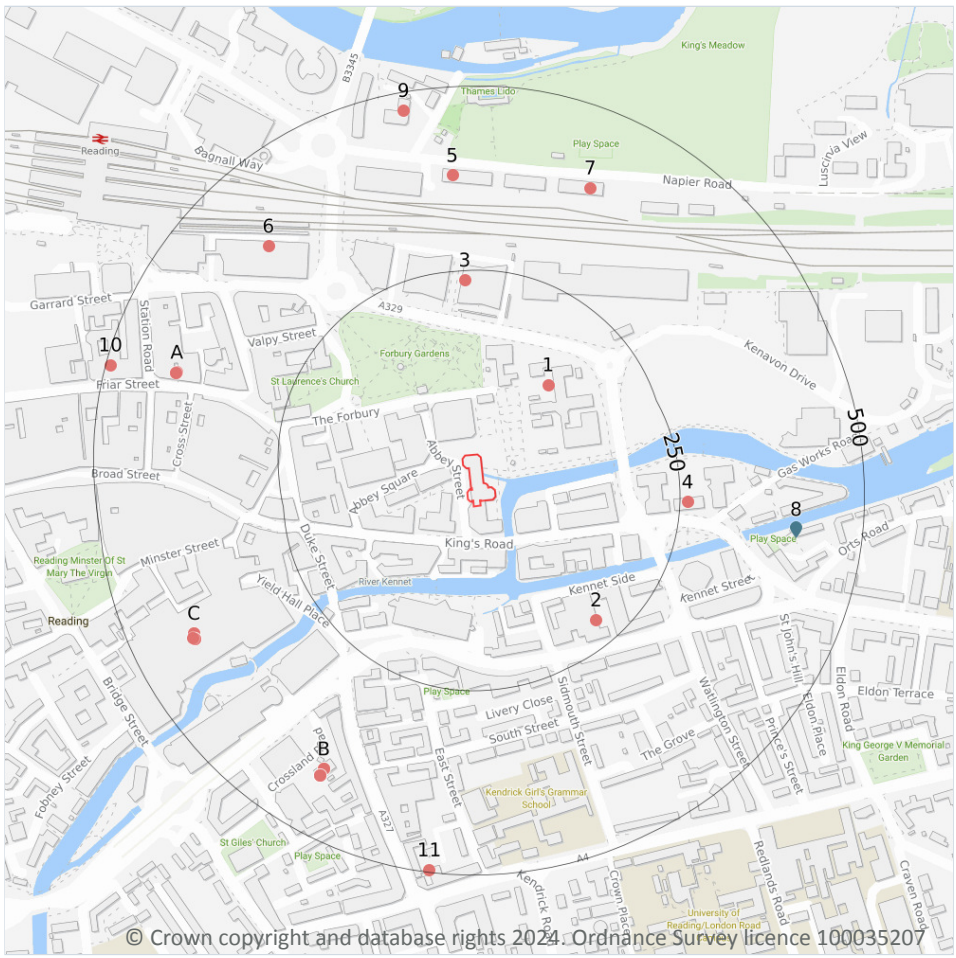
Features are displayed on the Past land use - un-grouped map on **page 30 >**

ID	Location	Land Use	Date	Group ID
B	10m SW	Garage	1958	71812
B	10m SW	Garage	1961	71812
B	10m SW	Garage	1962	71970
B	10m SW	Garage	1968	71970
B	11m SW	Garage	1956	68070
C	115m SW	Garage	1968	67564
C	181m SW	Garage	1958	70022
C	181m SW	Garage	1961	70022
C	181m SW	Garage	1956	69716
C	183m SW	Garage	1962	70707
C	183m SW	Garage	1968	68244
M	239m S	Garage	1988	67563
Q	314m SW	Police Garage	1979	69960
Q	316m SW	Police Garage	1968	69960
Z	382m NW	Garage	1958	68505
Z	382m NW	Garage	1961	68505
Z	382m NW	Garage	1962	68626
Z	382m NW	Garage	1956	70240

ID	Location	Land Use	Date	Group ID
Z	382m NW	Garage	1971	68626
Y	460m NW	Garage	1971	67430

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



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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	1

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

Features are displayed on the Waste and landfill map on **page 50 >**

ID	Location	Details		
8	410m E	Site Name: Alton House Waste Recycling Centre Site Address: Omega Park, Alton, Hampshire, GU34 2QE Correspondence Address: Hopkins Recycling Limited, Unit 10, Bridge Farm, Curbridge, Botley, Southampton, Hampshire, SO30 2HB	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: HOP003 EPR reference: - Operator: Hopkins Recycling Ltd Waste Management licence No: 83406 Annual Tonnage: 4910	Issue Date: 15/10/2002 Effective Date: - Modified: 17/12/2004 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

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

3.7 Waste exemptions

Records within 500m	30

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 50 >**

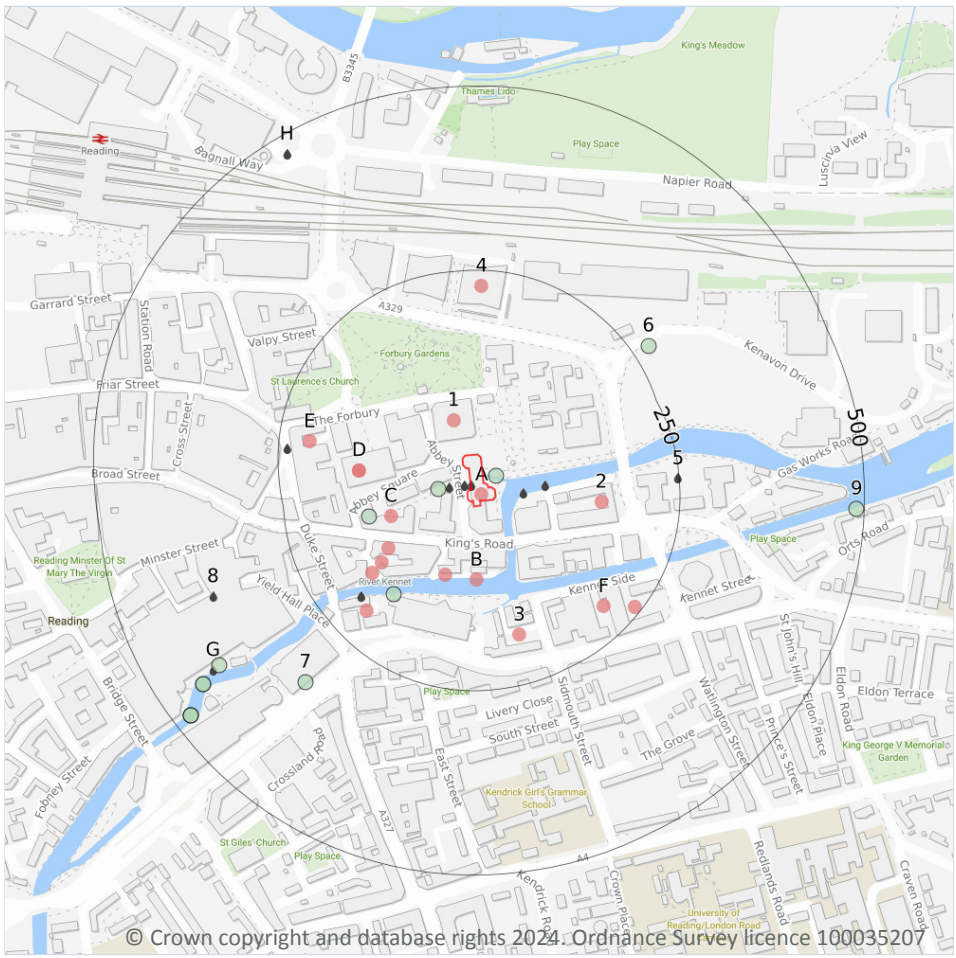
ID	Location	Site	Reference	Category	Sub-Category	Description
1	133m NE	Hmp And Yoi Prison Reading Forbury Road Reading Berkshire Rg1 3hy	EPR/WE5386NJ/A001	Treating waste exemption	Non-agricultural waste only	Sorting and de-naturing of controlled drugs for disposal
2	216m SE	300 Longwater Avenue Reading Rg2 6ge	EPR/LF0439RE/A001	Treating waste exemption	Non-agricultural waste only	Crushing waste fluorescent tubes
3	236m N	Galliford Try Forbury Place Reading Rg1 3jh	EPR/NF0530NY/A001	Using waste exemption	Non-agricultural waste only	Use of waste in construction
4	260m E	Prudential Pru-Kings 121 Kings Road Reading Rg1 3es	EPR/SF0708LW/A001	Treating waste exemption	Non-agricultural waste only	Crushing waste fluorescent tubes
5	379m N	Hawker House, 5-6 Napier Court, Napier Road, Reading, Rg1 8bw	WEX363317	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
6	389m NW	Apex Plaza Forbury Road Reading Berkshire Rg1 1ax	EPR/BF0606LA/A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in a secure place
7	392m N	Unit 6, Napier Court, Napier Road, Reading, Rg1 8bw	WEX288978	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	404m W	15 Friar Street Reading Berkshire Rg1 1db	EPR/PE5889AA/A001	Treating waste exemption	Non-agricultural waste only	Sorting and de-naturing of controlled drugs for disposal
A	405m W	15, Friar Street, Reading, Rg1 1db	WEX223289	Disposing of waste exemption	Not on a farm	Disposal by incineration
A	405m W	15, Friar Street, Reading, Rg1 1db	WEX078089	Disposing of waste exemption	Not on a farm	Disposal by incineration

ID	Location	Site	Reference	Category	Sub-Category	Description
B	411m SW	Jlp Reading Mill Lane, Warehouse Mill Lane, White Arrow Mill Lane, Reading, Rg1 2ht	WEX255636	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	411m SW	Jlp Reading Mill Lane, Warehouse Mill Lane, White Arrow Mill Lane, Reading, Rg1 2ht	WEX255636	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	411m SW	Jlp Reading Mill Lane, Warehouse Mill Lane, White Arrow Mill Lane, Reading, Rg1 2ht	WEX255636	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	411m SW	Jlp Reading Mill Lane, Warehouse Mill Lane, White Arrow Mill Lane, Reading, Rg1 2ht	WEX255636	Treating waste exemption	Not on a farm	Sorting mixed waste
B	411m SW	Jlp Reading Mill Lane, Warehouse Mill Lane, White Arrow Mill Lane, Reading, Rg1 2ht	WEX255636	Treating waste exemption	Not on a farm	Manual treatment of waste
C	414m SW	-	WEX362616	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
C	414m SW	-	WEX362616	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	417m SW	-	WEX230105	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
C	417m SW	-	WEX230105	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	417m SW	Oracle Shopping Centre The Oracle Centre Reading Rg1 2ag	EPR/SE5949EQ/A001	Storing waste exemption	Non-agricultural waste only	Storage of waste in a secure place
C	417m SW	Oracle Shopping Centre The Oracle Centre Reading Rg1 2ag	EPR/SE5949EQ/A001	Treating waste exemption	Non-agricultural waste only	Screening and blending of waste
C	417m SW	Oracle Shopping Centre The Oracle Centre Reading Rg1 2ag	EPR/EF0606XT/A001	Treating waste exemption	Non-agricultural waste only	Crushing waste fluorescent tubes

ID	Location	Site	Reference	Category	Sub-Category	Description
B	421m SW	John Lewis Carpet Warehouse, Mill Lane, White Arrow Mill Lane, Reading, Rg1 2ht	WEX113602	Storing waste exemption	Not on a farm	Storage of waste in secure containers
B	421m SW	John Lewis Carpet Warehouse, Mill Lane, White Arrow Mill Lane, Reading, Rg1 2ht	WEX113602	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	421m SW	John Lewis Carpet Warehouse, Mill Lane, White Arrow Mill Lane, Reading, Rg1 2ht	WEX113602	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
B	421m SW	John Lewis Carpet Warehouse, Mill Lane, White Arrow Mill Lane, Reading, Rg1 2ht	WEX113602	Treating waste exemption	Not on a farm	Sorting mixed waste
B	421m SW	John Lewis Carpet Warehouse, Mill Lane, White Arrow Mill Lane, Reading, Rg1 2ht	WEX113602	Treating waste exemption	Not on a farm	Manual treatment of waste
9	475m N	Kings Meadow House Kings Meadow Road Reading Rg1 8dq	EPR/JF0436AN/A001	Treating waste exemption	Non-agricultural waste only	Crushing waste fluorescent tubes
10	494m W	25b Friar Street Reading Rg1 1dp	EPR/WF0702XY/A001	Treating waste exemption	Non-agricultural waste only	Crushing waste fluorescent tubes
11	498m S	Huntley House, 121, London Street, Reading, Rg1 4qa	WEX330290	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal

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

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	17

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 55 >**

ID	Location	Company	Address	Activity	Category
A	**On site**	**Orion**	**Abbey Gardens 4-6, Abbey Street, Reading, Berkshire, RG1 3BA**	**Medical Equipment, Supplies and Pharmaceuticals**	**Industrial Products**
1	51m N	The Water Cooler Company	Abbots House, Abbey Street, Reading, Berkshire, RG1 3BD	Food and Beverage Industry Machinery	Industrial Products

ID	Location	Company	Address	Activity	Category
B	100m S	Landing Stage	Berkshire, RG1	Moorings and Unloading Facilities	Water
B	101m S	Oyster Wharf	Berkshire, RG1	Moorings and Unloading Facilities	Water
C	107m W	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
C	127m SW	Kings Wharf	Berkshire, RG1	Moorings and Unloading Facilities	Water
D	141m W	J D Partnership	Davidson House Forbury Square, The Forbury, Reading, Berkshire, RG1 3EU	Civil Engineers	Engineering Services
D	141m W	T A H Trading Ltd	Davidson House, Forbury Square, The Forbury, Reading, Berkshire, RG1 3EU	Special Purpose Machinery and Equipment	Industrial Products
2	143m E	Wharf	Berkshire, RG1	Moorings and Unloading Facilities	Water
C	145m SW	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
C	163m SW	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
3	183m S	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
C	202m SW	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
E	208m W	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
F	209m SE	Queen's Wharf	Berkshire, RG1	Moorings and Unloading Facilities	Water
4	229m N	Scottish & Southern Energy	1 Forbury Place, Forbury Road, Reading, Berkshire, RG1 3JH	Electrical Motors and Generators	Industrial Products
F	242m SE	Tank	Berkshire, RG1	Tanks (Generic)	Industrial Features

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m	0

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

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

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

Records within 500m	0

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

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m	18

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 55 >**

ID	Location	Address	Details	
A	**On site**	**THEABBEYGARDENSDEVELOPMENT,PHAS,THEABBEYGARDENSDEVELOPMENT,P,HASEII,READINGBERKS**	**Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.0564 Permit Version: 1 Receiving Water: HOLY BROOK**	**Status: REVOKED - UNSPECIFIED Issue date: 20/01/1986 Effective Date: 20/01/1986 Revocation Date: 11/07/1997**
A	**On site**	**THEABBEYGARDENSDEVELOPMENT,PHAS,THEABBEYGARDENSDEVELOPMENT,P,HASEII,READINGBERKS**	**Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.0563 Permit Version: 1 Receiving Water: HOLY BROOK**	**Status: REVOKED - UNSPECIFIED Issue date: 20/01/1986 Effective Date: 20/01/1986 Revocation Date: 05/09/1997**
A	9m W	ABBEYGARDENS,PHASE1,READING,BE,ABBEYGARDENS,PHASE1,READING,BERKS	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.0662 Permit Version: 1 Receiving Water: THE HOLY BROOK	Status: REVOKED - UNSPECIFIED Issue date: 11/02/1986 Effective Date: 11/02/1986 Revocation Date: 19/03/1991
A	25m W	DEWATERINGWORKSSERVKINGSHOUSE,KINGSHOUSE,33KINGSROAD,READING,BERKSHIRE,RG13BU	Effluent Type: TRADE DISCHARGES - SITE DRAINAGE Permit Number: EPRDB3097AL Permit Version: 1 Receiving Water: HOLY BROOK	Status: SURRENDERED UNDER EPR 2010 Issue date: 07/10/2015 Effective Date: 07/10/2015 Revocation Date: 21/02/2017
A	37m E	ABBEYGARDENDEVELOPMENT,PHASEIII,ABBEYGARDENDEVELOPMENT,PHASE,III,READING,BERKS	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.2738 Permit Version: 1 Receiving Water: RIVER KENNET	Status: REVOKED - UNSPECIFIED Issue date: 15/08/1988 Effective Date: 15/08/1988 Revocation Date: 25/02/1991

ID	Location	Address	Details	
A	68m E	BLAKESCOTTAGES,READING,BLAKESCOTTAGES,READING	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.0514 Permit Version: 1 Receiving Water: RIVER KENNET	Status: REVOKED - UNSPECIFIED Issue date: 19/11/1985 Effective Date: 19/11/1985 Revocation Date: 25/04/1991
C	196m SW	PREMISES,KINGSRD,READING,BERKS,PREMISES,KINGSRD,READING,BER,KS	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: CTCP.0295 Permit Version: 1 Receiving Water: R KENNET	Status: REVOKED - UNSPECIFIED Issue date: 12/02/1964 Effective Date: 12/02/1964 Revocation Date: 04/02/1986
C	196m SW	PREMISES,KINGSRD,READING,BERKS,PREMISES,KINGSRD,READING,BER,KS	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: CTCP.0296 Permit Version: 1 Receiving Water: R KENNET	Status: REVOKED - UNSPECIFIED Issue date: 12/02/1964 Effective Date: 12/02/1964 Revocation Date: 04/02/1986
C	196m SW	PREMISES,KINGSRD,READING,BERKS,PREMISES,KINGSRD,READING,BER,KS	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: CTCP.0297 Permit Version: 1 Receiving Water: R KENNET	Status: REVOKED - UNSPECIFIED Issue date: 12/02/1964 Effective Date: 12/02/1964 Revocation Date: 04/02/1986
C	196m SW	PREMISES,KINGSRD,READING,BERKS,PREMISES,KINGSRD,READING,BER,KS	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: CTCP.0298 Permit Version: 1 Receiving Water: R KENNET	Status: REVOKED - UNSPECIFIED Issue date: 12/02/1964 Effective Date: 12/02/1964 Revocation Date: 04/02/1986
C	196m SW	PREMISES,KINGSRD,READING,BERKS,PREMISES,KINGSRD,READING,BER,KS	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: CTCP.0299 Permit Version: 1 Receiving Water: R KENNET	Status: REVOKED - UNSPECIFIED Issue date: 12/02/1964 Effective Date: 12/02/1964 Revocation Date: 04/02/1986
C	196m SW	FACTORYATREADING,BERKS,FACTORYATREADING,BERKS	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: CTCR.0508 Permit Version: 1 Receiving Water: KENNET	Status: REVOKED - UNSPECIFIED Issue date: 22/03/1962 Effective Date: 22/03/1962 Revocation Date: 03/04/1987
E	239m W	FACTORYPREMISES,KINGSROAD,READI,FACTORYPREMISES,KINGSROAD,RE,ADING,BERKS	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: CTCP.0294 Permit Version: 1 Receiving Water: R KENNET	Status: REVOKED - UNSPECIFIED Issue date: 12/02/1964 Effective Date: 12/02/1964 Revocation Date: 04/02/1986
5	248m E	NABISCOBRANDSLTDKINGSROADREAD,NABISCOBRANDSLTDKINGSROADR,EADING	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.0435 Permit Version: 1 Receiving Water: RIVER KENNET	Status: REVOKED - UNSPECIFIED Issue date: 18/10/1985 Effective Date: 18/10/1985 Revocation Date: 08/05/1991

ID	Location	Address	Details	
8	370m SW	1723KINGSTREET,READING,BERKSHI,1723KINGSTREET,READING,BERK,SHIRE	Effluent Type: MISCELLANEOUS DISCHARGES - UNSPECIFIED Permit Number: CTWC.3315 Permit Version: 1 Receiving Water: HOLY BROOK	Status: REVOKED - UNSPECIFIED Issue date: 12/06/1989 Effective Date: 12/06/1989 Revocation Date: 27/06/1991
G	416m SW	THEBREWERY,READING,BERKS,THEBREWERY,READING,BERKS	Effluent Type: TRADE DISCHARGES - COOLING WATER Permit Number: CTCR.0211 Permit Version: 1 Receiving Water: KENNET	Status: REVOKED - UNSPECIFIED Issue date: 19/12/1955 Effective Date: 19/12/1955 Revocation Date: 12/06/1990
H	475m NW	METROPOLITANWATERBOARD(NOWTHAM,METROPOLITANWATERBOARD(NOWT,HAMESWATERCENTRAL	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - WATER COMPANY (WTW) Permit Number: CTCP.0445 Permit Version: 1 Receiving Water: THAMES	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 16/11/1964 Effective Date: 16/11/1964 Revocation Date: 15/12/1998
H	475m NW	METROPOLITANWATERBOARD(NOWTHAM,METROPOLITANWATERBOARD(NOWT,HAMESWATERCENTRAL	Effluent Type: TRADE DISCHARGES - PROCESS EFFLUENT - WATER COMPANY (WTW) Permit Number: CTCP.0446 Permit Version: 1 Receiving Water: THAMES	Status: REVOKED (WRA 91, S88 & SCHED 10 AS AMENDED BY ENV ACT 1995) Issue date: 16/11/1964 Effective Date: 16/11/1964 Revocation Date: 15/12/1998

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

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

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

4.15 Pollutant release to public sewer

Records within 500m	0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m	0

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

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

4.17 List 2 Dangerous Substances

Records within 500m	0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m	13

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 55 >**

ID	Location	Details	
A	16m E	Incident Date: 21/05/2003 Incident Identification: 159849 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
A	40m W	Incident Date: 15/07/2002 Incident Identification: 91618 Pollutant: Specific Waste Materials Pollutant Description: Other Specific Waste Material	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
C	136m W	Incident Date: 28/06/2005 Incident Identification: 324802 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
C	161m SW	Incident Date: 18/06/2003 Incident Identification: 166999 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

ID	Location	Details	
6	273m NE	Incident Date: 01/11/2002 Incident Identification: 118072 Pollutant: Oils and Fuel Pollutant Description: Gas and Fuel Oils	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
7	330m SW	Incident Date: 11/10/2003 Incident Identification: 195650 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	405m SW	Incident Date: 19/08/2001 Incident Identification: 25215 Pollutant: Organic Chemicals/Products Pollutant Description: Hydrocarbons	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	437m SW	Incident Date: 04/10/2001 Incident Identification: 34522 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	437m SW	Incident Date: 04/10/2001 Incident Identification: 34522 Pollutant: Oils and Fuel Pollutant Description: Diesel	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	476m SW	Incident Date: 17/08/2001 Incident Identification: 24937 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	476m SW	Incident Date: 17/08/2001 Incident Identification: 24937 Pollutant: Organic Chemicals/Products:Pollutant Not Identified Pollutant Description: Solvents:Not Identified	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
G	476m SW	Incident Date: 17/08/2001 Incident Identification: 24937 Pollutant: Organic Chemicals/Products Pollutant Description: Solvents	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
9	489m E	Incident Date: 27/06/2003 Incident Identification: 169420 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m	0

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

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

4.20 Pollution inventory waste transfers

Records within 500m	0

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

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

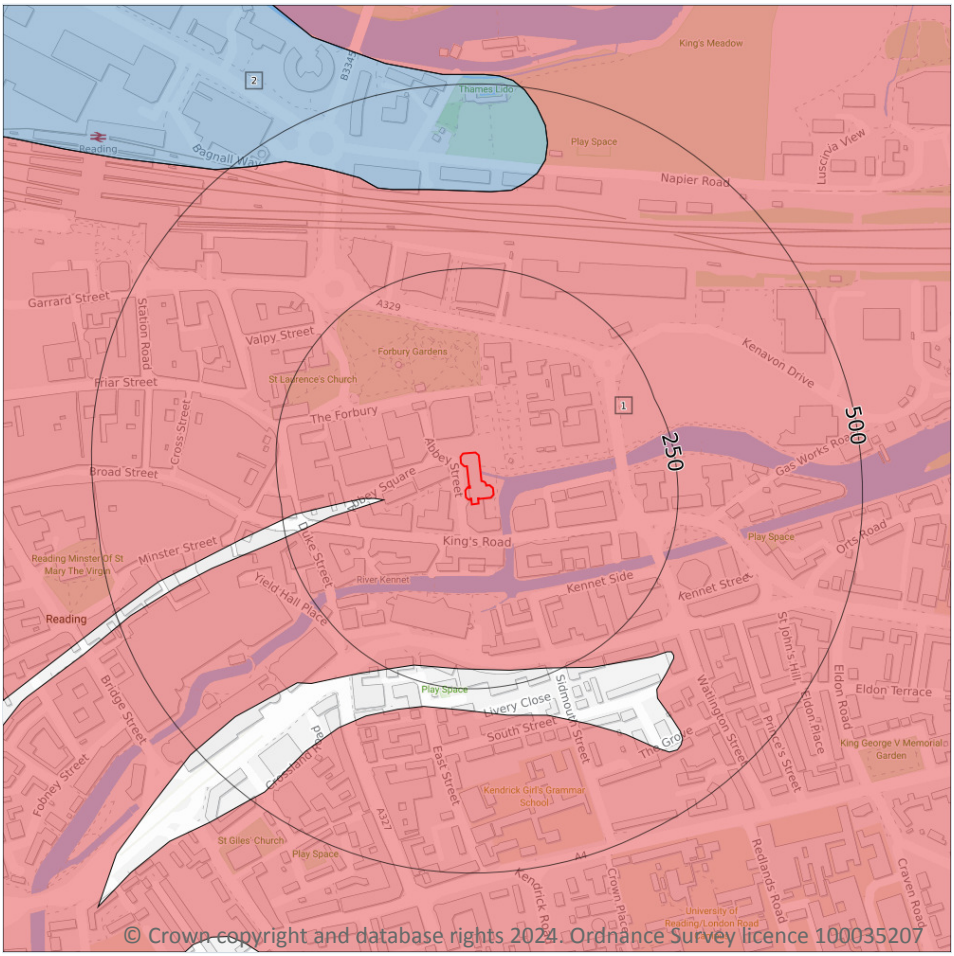
4.21 Pollution inventory radioactive waste

Records within 500m	0

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

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

5 Hydrogeology - Superficial aquifer



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5.1 Superficial aquifer

Records within 500m	2

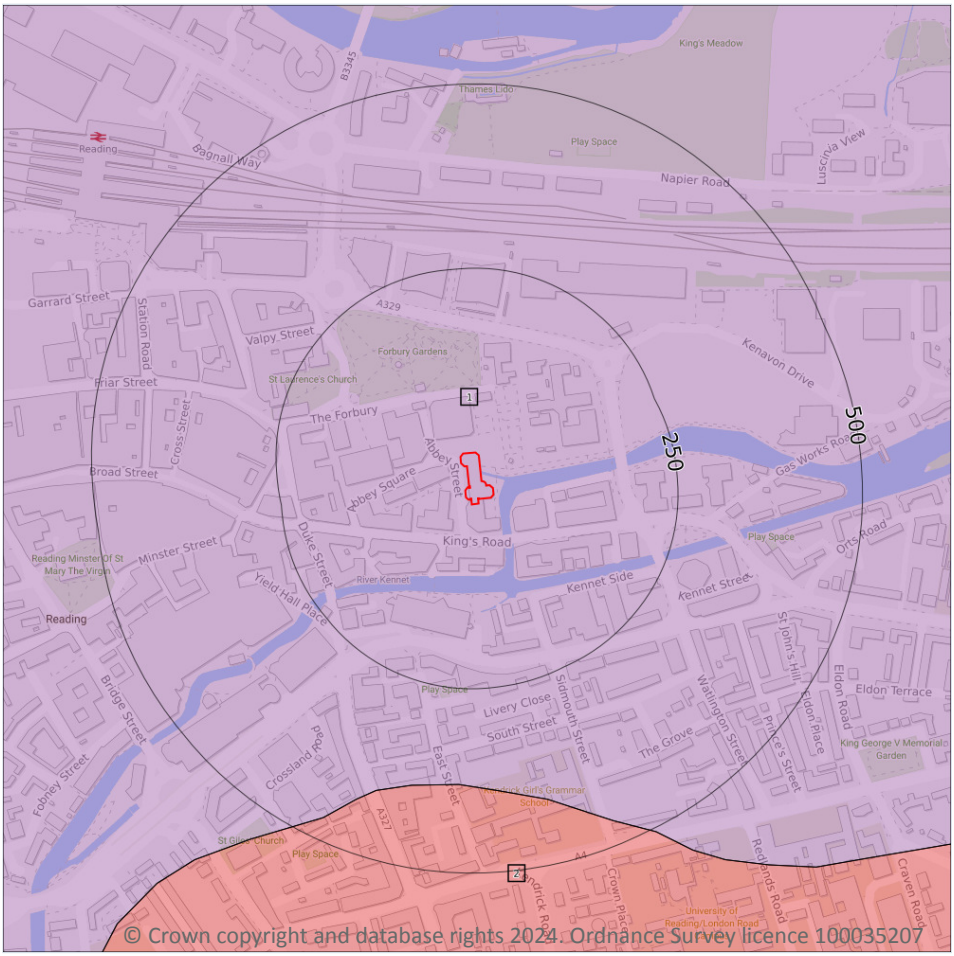
Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 65 >**

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	354m N	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

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

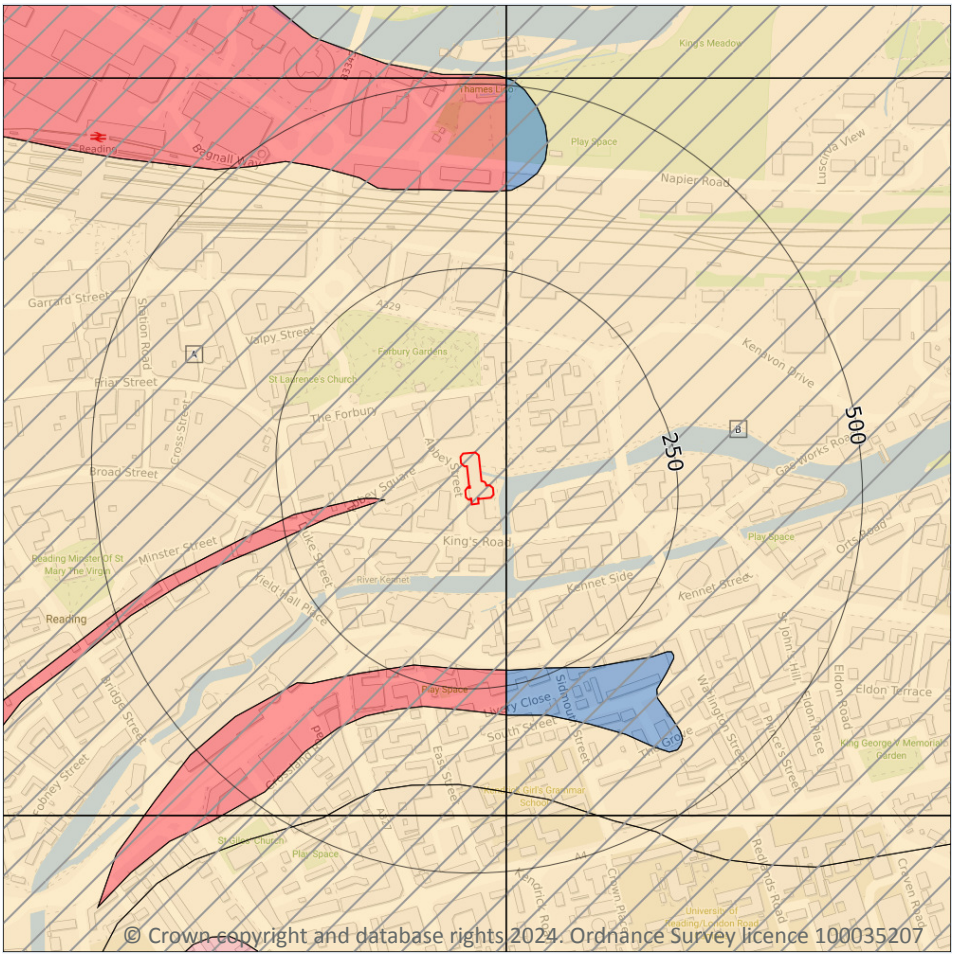
Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 66 >**

ID	Location	Designation	Description
1	**On site**	**Principal**	**Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers**
2	380m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

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

Groundwater vulnerability



Site Outline

Search buffers in metres (m)

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

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

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

5.3 Groundwater vulnerability

Records within 50m	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 68 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
A	**On site**	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: <90% Recharge potential: Medium**	**Vulnerability: High Aquifer type: Principal Flow mechanism: Well connected fractures**
B	17m SE	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Productive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: 3-10m Patchiness value: >90% Recharge potential: Medium	Vulnerability: Low Aquifer type: Principal 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	**1**

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

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
A	**Very significant soluble rocks are likely to be present with a high possibility of localised subsidence or dissolution-related degradation of bedrock occurring naturally, especially in adverse conditions such as concentrated surface or subsurface water flow.**	**20.0%**

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



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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	13

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 70 >**

ID	Location	Details	
-	735m E	Status: Historical Licence No: 28/39/22/0600 Details: Pollution Remediation Direct Source: THAMES GROUNDWATER Point: FORMER GASWORKS, KENAVON DRIVE, READING (5 BOREHOLES) Data Type: Point Name: M J GLEESON GROUP PLC Easting: 472700 Northing: 173600	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 31/07/2000 Expiry Date: 31/08/2001 Issue No: 1 Version Start Date: 31/07/2000 Version End Date: -
-	738m W	Status: Active Licence No: 28/39/23/0042 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: CHEAPSIDE, READING, BERKSHIRE Data Type: Point Name: PRIMARK STORES LIMITED Easting: 471200 Northing: 173500	Annual Volume (m^3): 14933 Max Daily Volume (m^3): 40.91 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -
-	759m SE	Status: Active Licence No: 28/39/22/0521 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: ROYAL BERKSHIRE HOSPITAL Data Type: Point Name: ROYAL BERKSHIRE HOSPITAL Easting: 472400 Northing: 172800	Annual Volume (m^3): 127750 Max Daily Volume (m^3): 350 Original Application No: WRA/5950 Original Start Date: 17/01/1992 Expiry Date: - Issue No: 100 Version Start Date: 17/01/1992 Version End Date: -
-	910m N	Status: Active Licence No: 28/39/23/0020 Details: Laundry Use Direct Source: THAMES GROUNDWATER Point: 72 GEORGE STREET, CAVERSHAM, - BOREHOLE 'A' Data Type: Point Name: Elis UK Ltd Easting: 471900 Northing: 174400	Annual Volume (m^3): 68190 Max Daily Volume (m^3): 300.04 Original Application No: NPS/WR/035059 Original Start Date: 09/05/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/02/2021 Version End Date: -

ID	Location	Details	
-	1206m NW	Status: Active Licence No: 28/39/23/0167 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: MEADOW ROAD, READING, BERKSHIRE Data Type: Point Name: MANROSE MANUFACTURING LTD Easting: 470900 Northing: 174100	Annual Volume (m^3): 90920 Max Daily Volume (m^3): 727.4 Original Application No: - Original Start Date: 23/01/1990 Expiry Date: - Issue No: 101 Version Start Date: 30/06/2006 Version End Date: -
-	1206m NW	Status: Active Licence No: 28/39/23/0167 Details: Non-Evaporative Cooling Direct Source: THAMES GROUNDWATER Point: MEADOW ROAD, READING, BERKSHIRE Data Type: Point Name: MANROSE MANUFACTURING LTD Easting: 470900 Northing: 174100	Annual Volume (m^3): 90920 Max Daily Volume (m^3): 727.4 Original Application No: - Original Start Date: 23/01/1990 Expiry Date: - Issue No: 101 Version Start Date: 30/06/2006 Version End Date: -
-	1206m NW	Status: Historical Licence No: 28/39/23/0041 Details: Non-Evaporative Cooling Direct Source: THAMES GROUNDWATER Point: CARDIFF ROAD, READING, BERKSHIRE Data Type: Point Name: COX & WYMAN LTD Easting: 470900 Northing: 174100	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/07/1966 Version End Date: -
-	1206m NW	Status: Historical Licence No: 28/39/23/0041 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: CARDIFF ROAD, READING, BERKSHIRE Data Type: Point Name: COX & WYMAN LTD Easting: 470900 Northing: 174100	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/07/1966 Version End Date: -
-	1433m W	Status: Active Licence No: 28/39/23/0128 Details: Process Water Direct Source: THAMES GROUNDWATER Point: CARDIFF ROAD, READING POINT B Data Type: Point Name: HILLIER GROUP OF COMPANIES Easting: 470600 Northing: 174000	Annual Volume (m^3): 6682 Max Daily Volume (m^3): 27.28 Original Application No: WR.A/4547 Original Start Date: 22/01/1975 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -

ID	Location	Details	
-	1554m NW	Status: Historical Licence No: TH/039/0023/037 Details: Dewatering Direct Source: THAMES GROUNDWATER Point: RIVERMEAD LEISURE COMPLEX, READING Data Type: Poly4 Name: Pelikaan (Construction) Limited Easting: 470727 Northing: 174509	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: NPS/WR/035651 Original Start Date: 22/05/2023 Expiry Date: 22/05/2024 Issue No: 1 Version Start Date: 22/05/2023 Version End Date: -
-	1585m E	Status: Historical Licence No: 28/39/23/0016 Details: General Use Relating To Secondary Category (Medium Loss) Direct Source: THAMES GROUNDWATER Point: READING UNIVERSITY RESEARCH SITE, READING, - WELL 'A' Data Type: Point Name: UNIVERSITY OF READING Easting: 473500 Northing: 173900	Annual Volume (m^3): 1136 Max Daily Volume (m^3): 22.73 Original Application No: - Original Start Date: 14/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1654m E	Status: Historical Licence No: 28/39/23/0191 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT WATERSIDE CENTRE, THAMES VALLEY PARK ROAD Data Type: Point Name: WOKINGHAM WATERSIDE CENTRE LTD Easting: 473560 Northing: 173940	Annual Volume (m^3): 2600 Max Daily Volume (m^3): 25 Original Application No: - Original Start Date: 21/12/2000 Expiry Date: - Issue No: 3 Version Start Date: 01/04/2008 Version End Date: -
-	1656m W	Status: Active Licence No: 28/39/23/0128 Details: Process Water Direct Source: THAMES GROUNDWATER Point: CARDIFF ROAD, READING POINT A Data Type: Point Name: HILLIER GROUP OF COMPANIES Easting: 470400 Northing: 174100	Annual Volume (m^3): 6682 Max Daily Volume (m^3): 27.28 Original Application No: WR.A/4547 Original Start Date: 22/01/1975 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	6

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 70 >**

ID	Location	Details	
A	453m SW	Status: Historical Licence No: 28/39/22/0594 Details: Lake & Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: THE ORACLE CENTRE, READING Data Type: Point Name: ORACLE SHOPPING CENTRE LTD Easting: 471590 Northing: 173150	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 16/02/2000 Expiry Date: - Issue No: 1 Version Start Date: 16/02/2000 Version End Date: -
A	453m SW	Status: Historical Licence No: 28/39/22/0594 Details: Lake & Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: ST.GILES STREAM AT THE ORACLE CENTRE, READING Data Type: Point Name: ORACLE SHOPPING CENTRE LTD Easting: 471590 Northing: 173150	Annual Volume (m^3): 737856 Max Daily Volume (m^3): 2016 Original Application No: NPS/WR/033582 Original Start Date: 16/02/2000 Expiry Date: - Issue No: 2 Version Start Date: 09/03/2020 Version End Date: -
-	702m N	Status: Historical Licence No: TH/039/0023/022 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER THAMES AT CAVERSHAM WEIR Data Type: Point Name: Reading Hydro CBS Limited Easting: 472072 Northing: 174185	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: NPS/WR/036037 Original Start Date: 19/02/2016 Expiry Date: 31/03/2028 Issue No: 4 Version Start Date: 16/09/2021 Version End Date: -
-	1082m NW	Status: Historical Licence No: 28/39/23/0196 Details: Transfer between sources Direct Source: THAMES SURFACE WATER - NON TIDAL Point: THAMES AT CHRISTCHURCH MEADOW Data Type: Point Name: READING BOROUGH COUNCIL Easting: 471440 Northing: 174450	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 12/05/2003 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 12/05/2003 Version End Date: -

ID	Location	Details	
-	1082m NW	Status: Historical Licence No: 28/39/23/0196 Details: Lake & Pond Throughflow Direct Source: THAMES SURFACE WATER - NON TIDAL Point: THAMES AT CHRISTCHURCH MEADOW Data Type: Point Name: READING BOROUGH COUNCIL Easting: 471440 Northing: 174450	Annual Volume (m^3): 31536 Max Daily Volume (m^3): 86.4 Original Application No: - Original Start Date: 12/05/2003 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 01/04/2006 Version End Date: -
-	1082m NW	Status: Historical Licence No: 28/39/23/0199/TR Details: Transfer Between Sources (Post Water Act 2003) Direct Source: THAMES SURFACE WATER - NON TIDAL Point: RIVER THAMES - CHRISTCHURCH MEADOWS Data Type: Point Name: READING BOROUGH COUNCIL Easting: 471440 Northing: 174450	Annual Volume (m^3): 1752000 Max Daily Volume (m^3): 4800 Original Application No: - Original Start Date: 10/09/2008 Expiry Date: 31/03/2016 Issue No: 1 Version Start Date: 10/09/2008 Version End Date: -

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

5.8 Potable abstractions

Records within 2000m **5**

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.

Features are displayed on the Abstractions and Source Protection Zones map on **page 70 >**

ID	Location	Details	
-	738m W	Status: Active Licence No: 28/39/23/0042 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: CHEAPSIDE, READING, BERKSHIRE Data Type: Point Name: PRIMARK STORES LIMITED Easting: 471200 Northing: 173500	Annual Volume (m^3): 14933 Max Daily Volume (m^3): 40.91 Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 101 Version Start Date: 01/04/2008 Version End Date: -

ID	Location	Details	
-	759m SE	Status: Active Licence No: 28/39/22/0521 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: ROYAL BERKSHIRE HOSPITAL Data Type: Point Name: ROYAL BERKSHIRE HOSPITAL Easting: 472400 Northing: 172800	Annual Volume (m^3): 127750 Max Daily Volume (m^3): 350 Original Application No: WRA/5950 Original Start Date: 17/01/1992 Expiry Date: - Issue No: 100 Version Start Date: 17/01/1992 Version End Date: -
-	1206m NW	Status: Active Licence No: 28/39/23/0167 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: MEADOW ROAD, READING, BERKSHIRE Data Type: Point Name: MANROSE MANUFACTURING LTD Easting: 470900 Northing: 174100	Annual Volume (m^3): 90920 Max Daily Volume (m^3): 727.4 Original Application No: - Original Start Date: 23/01/1990 Expiry Date: - Issue No: 101 Version Start Date: 30/06/2006 Version End Date: -
-	1206m NW	Status: Historical Licence No: 28/39/23/0041 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: CARDIFF ROAD, READING, BERKSHIRE Data Type: Point Name: COX & WYMAN LTD Easting: 470900 Northing: 174100	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 11/07/1966 Expiry Date: - Issue No: 100 Version Start Date: 11/07/1966 Version End Date: -
-	1654m E	Status: Historical Licence No: 28/39/23/0191 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT WATERSIDE CENTRE, THAMES VALLEY PARK ROAD Data Type: Point Name: WOKINGHAM WATERSIDE CENTRE LTD Easting: 473560 Northing: 173940	Annual Volume (m^3): 2600 Max Daily Volume (m^3): 25 Original Application No: - Original Start Date: 21/12/2000 Expiry Date: - Issue No: 3 Version Start Date: 01/04/2008 Version End Date: -

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



6.1 Water Network (OS MasterMap)

Records within 250m	15

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 78 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**Holy Brook**

ID	Location	Type of water feature	Ground level	Permanence	Name
A	**On site**	**Inland river not influenced by normal tidal action.**	**On ground surface**	**Watercourse contains water year round (in normal circumstances)**	**Holy Brook**
A	**On site**	**Inland river not influenced by normal tidal action.**	**Underground**	**Watercourse contains water year round (in normal circumstances)**	**Holy Brook**
A	4m NW	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Holy Brook
6	19m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Kennet
7	20m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Holy Brook
9	28m E	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Kennet
C	109m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Kennet
B	114m S	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Kennet and Avon Canal
B	121m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Gunter's Brook
D	121m S	Canal. A manmade watercourse for inland navigation.	On ground surface	Watercourse contains water year round (in normal circumstances)	Kennet and Avon Canal
E	128m W	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	Holy Brook
E	149m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Holy Brook
E	151m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Holy Brook

ID	Location	Type of water feature	Ground level	Permanence	Name
11	237m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	Holy Brook

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	5

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 78 >**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	2

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

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

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	**On site**	**River**	**Holy Brook**	**GB106039023141**	**Kennet**	**Kennet and Trib**
3	**On site**	**River**	**Lower Kennet (Sheffield Bottom to Reading)**	**GB106039023140**	**Kennet**	**Kennet and Trib**

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

6.4 WFD Surface water bodies

Records identified	2

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is

detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

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

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
4	**On site**	**River**	**Holy Brook**	**GB106039023141**	**Moderate**	**Fail**	**Moderate**	**2019**
8	23m SE	River	Lower Kennet (Sheffield Bottom to Reading)	GB106039023140	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 78 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
5	**On site**	**Berkshire Downs Chalk**	**GB40601G600900**	**Poor**	**Poor**	**Poor**	**2019**

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

7 River and coastal flooding



Site Outline

Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m	10

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).

Features are displayed on the River and coastal flooding map on **page 82 >**

Distance	Flood risk category
On site	**High**
0 - 50m	High

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

7.2 Historical Flood Events

Records within 250m	**13**

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.

Features are displayed on the River and coastal flooding map on **page 82 >**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
1	**On site**	**Winter 2013/2014**	**2013-11-23 2014-02-28**	**Other**	**Other**	**No data**
A	17m E	Winter 2013/2014	2013-11-23 2014-02-28	Main river	Channel capacity exceeded (no raised defences)	Fluvial
A	35m E	Winter 2013/2014	2013-11-23 2014-02-28	Main river	Channel capacity exceeded (no raised defences)	Fluvial
2	40m W	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
F	65m SE	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
G	70m E	Winter 2013/2014	2013-11-23 2014-02-28	Main river	Channel capacity exceeded (no raised defences)	Fluvial
E	91m W	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
H	113m W	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
M	182m E	Winter 2013/2014	2013-11-23 2014-02-28	Main river	Channel capacity exceeded (no raised defences)	Fluvial
M	182m E	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
M	187m E	06decemberwinter 2000	2000-01-01 2000-12-12	Main river	Channel capacity exceeded (no raised defences)	Fluvial
P	227m SW	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data
Q	241m E	Winter 2013/2014	2013-11-23 2014-02-28	Other	Other	No data

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.

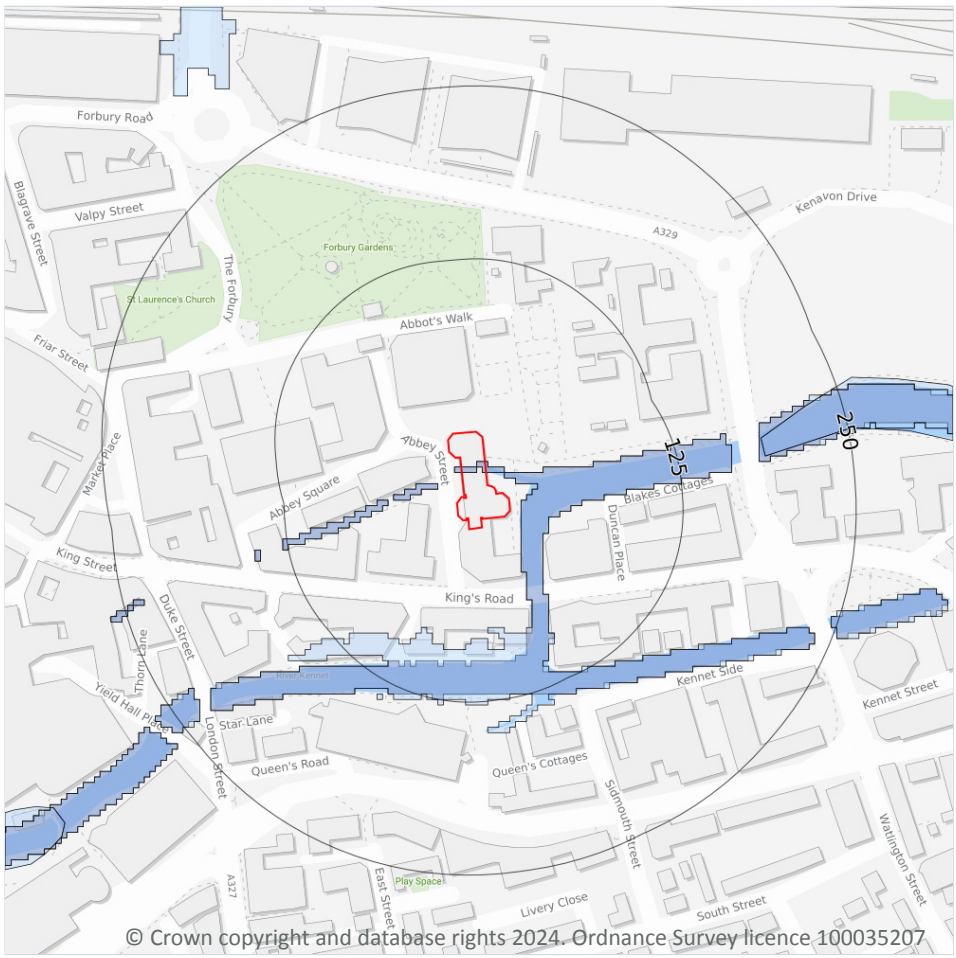
7.5 Flood Storage Areas

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



Site Outline

Search buffers in metres (m)

Flood zone 2

Flood zone 3

7.6 Flood Zone 2

Records within 50m	1

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.

Features are displayed on the River and coastal flooding map on **page 82 >**

Location	Type
On site	**Zone 2 - (Fluvial /Tidal Models)**

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

7.7 Flood Zone 3

Records within 50m	**1**

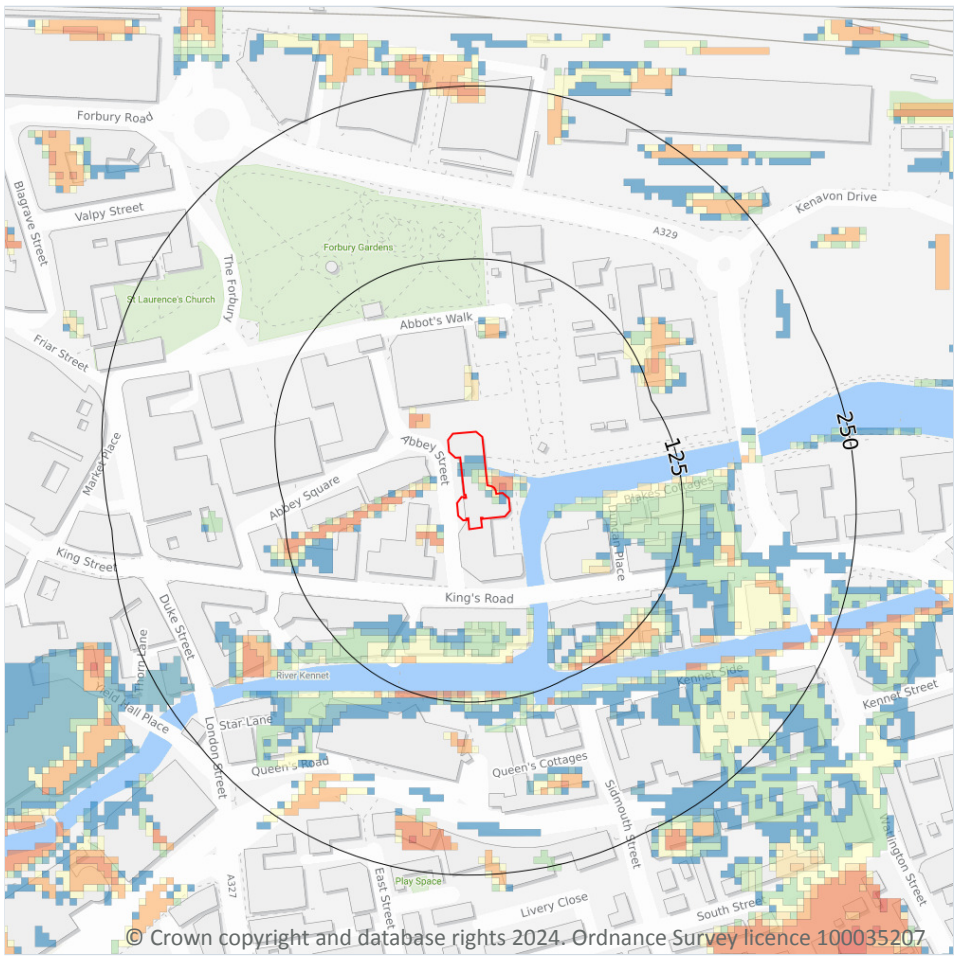
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 82 >**

Location	Type
On site	**Zone 3 - (Fluvial Models)**

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

8 Surface water flooding



Site Outline

Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.3m - 1.0m**
Highest risk within 50m	**1 in 30 year, Greater than 1.0m**

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 87 >**

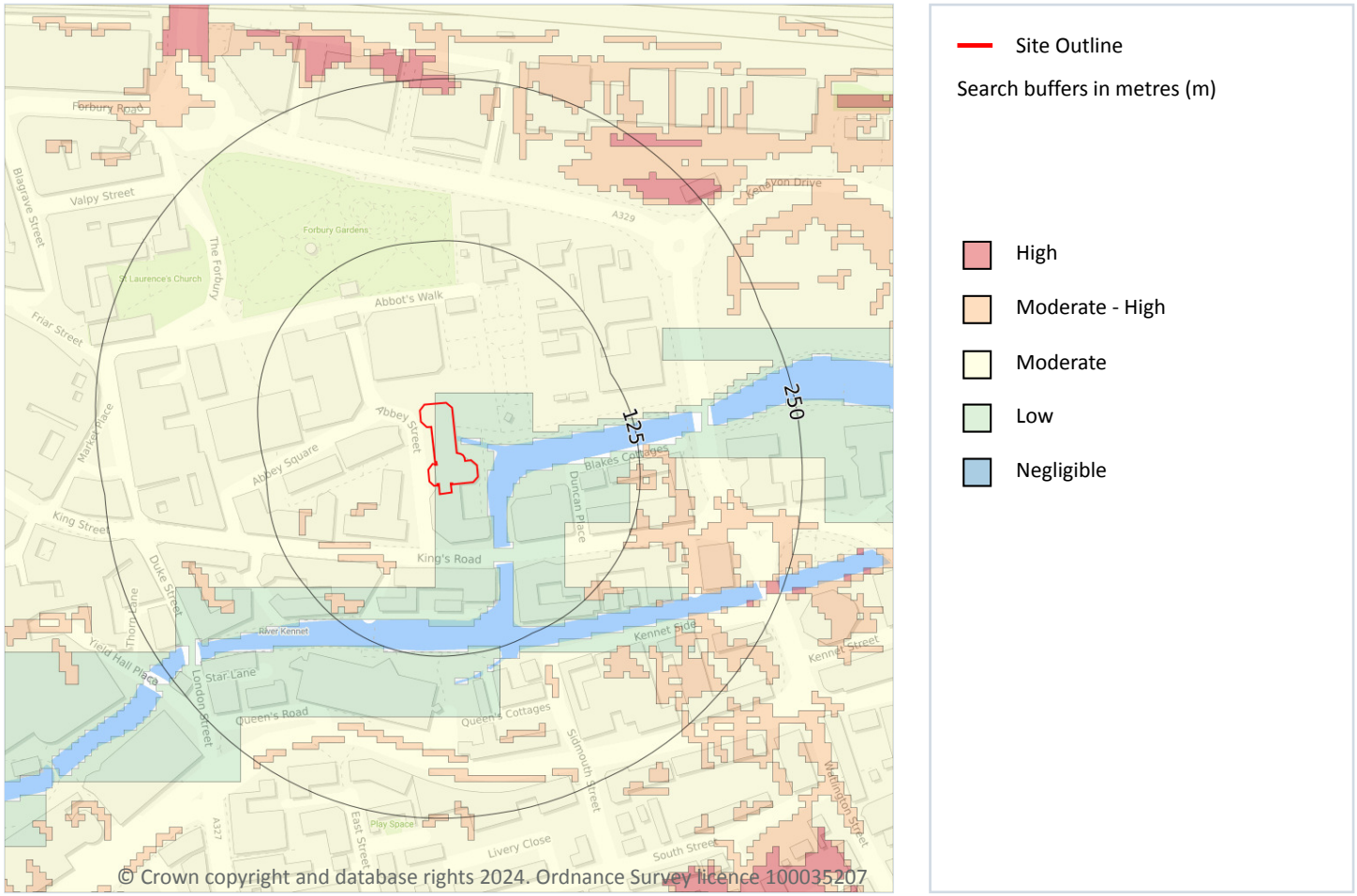
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

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

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

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site	**Moderate**
Highest risk within 50m	**Moderate-High**

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

Features are displayed on the Groundwater flooding map on **page 89 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



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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	1

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 90 >**

ID	Location	Name	Woodland Type
-	1977m NE	Unknown	Ancient & Semi-Natural Woodland

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

10.8 Biosphere Reserves

Records within 2000m	0

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

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

10.9 Forest Parks

Records within 2000m	0

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

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

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

10.11 Green Belt

Records within 2000m	0

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

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	2

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
253m NW	Thames Wallingford to Caversham NVZ	Surface Water	481	Existing
1227m NE	Sheeplands	Groundwater	88	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.

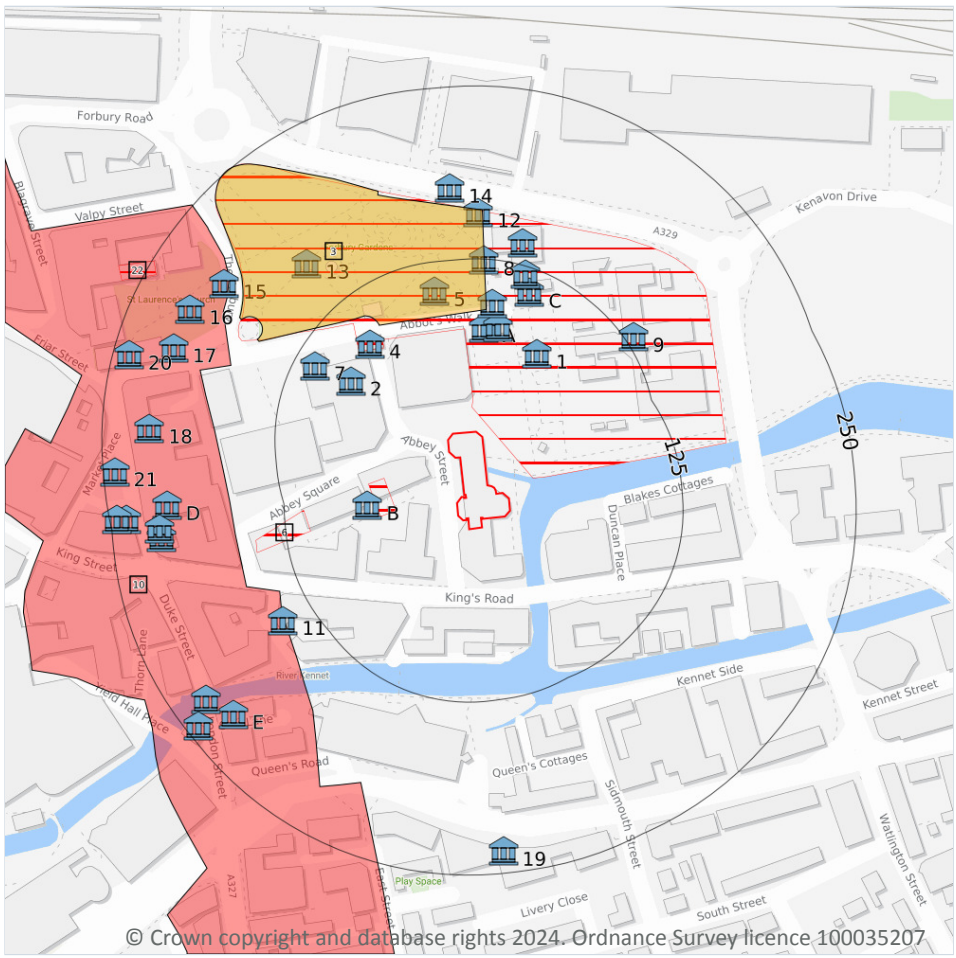
10.18 SSSI Units

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	33

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 96 >**

ID	Location	Name	Grade	Reference Number	Listed date
B	65m W	Abbey Mill Ruins	II	1113390	22/03/1957
1	71m NE	Reading Abbey Ruins	I	1113477	22/03/1957
A	75m N	10, Abbot's Walk	II	1303781	14/12/1978
A	78m N	11 And 12, Abbot's Walk	II	1113391	14/12/1978
2	82m NW	Assize Courts	II	1113476	14/12/1978
4	88m NW	Abbey Gate	I	1155691	22/03/1957

ID	Location	Name	Grade	Reference Number	Listed date
A	93m N	Archway Connecting Forbury Gardens To Abbey Ruins. Including Retaining Walls Flanking Path To Abbey Ruins	II*	1113478	14/12/1978
5	104m N	Anglian Cross	II	1113479	14/12/1978
C	108m N	St James Former School Buildings	II	1113481	14/12/1978
7	110m NW	Shire Hall	II	1113475	26/07/1973
C	119m N	St James's Presbytery	II	1321947	14/12/1978
8	124m N	Wall Between Forbury Road And Abbott's Walk To West Of St James's Church	II	1303165	14/12/1978
9	131m NE	Reading Gaol (Main Building) Former Her Majesty's Prison	II	1321948	14/12/1978
C	141m N	Church Of St James's	II	1113480	22/03/1957
11	147m SW	House At Rear Of Nos 18 And 20 Kings Road	II	1321920	14/12/1978
12	158m N	Shelter At North-East Corner Of Forbury Gardens	II	1303193	14/12/1978
13	162m NW	Maiwand Memorial	II	1155769	14/12/1978
14	177m N	The Plummery Wall	II	1113482	14/12/1978
15	197m NW	Wall And Gatepiers Of St Laurence's Graveyard	II	1155686	19/03/1975
D	208m W	1 And 2 Market Place	II	1156257	14/12/1978
16	209m NW	Tracery Fragments In The Churchyard Of The Church Of St Laurence	II	1113392	14/12/1978
17	209m NW	St Laurence's Church And Churchyard Twelve Tombs In St Laurence's Churchyard	II	1113533	14/12/1978
D	215m W	7 High Street	II	1155910	19/03/1975
D	215m W	The High	II	1113493	19/03/1975
18	216m W	National Westminster Bank	II	1113535	26/07/1973
E	217m SW	Coroner's Court	II	1113514	15/09/1977
E	226m SW	High Bridge	II	1321938	22/03/1957
19	234m S	Queen's Crescent	II	1113563	22/03/1957
D	238m W	10, High Street (See Details For Further Address Information)	II	1113494	14/12/1978
20	238m W	Church Of St Laurence	I	1113532	22/03/1957
E	241m SW	2 And 4, London Street	II	1321933	14/12/1978
21	242m W	The Simeon Monument	II*	1113534	22/03/1957

ID	Location	Name	Grade	Reference Number	Listed date
D	245m W	50 And 51, Market Place	II	1113540	26/07/1973

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

11.5 Conservation Areas

Records within 250m	**1**

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

Features are displayed on the Visual and cultural designations map on **page 96 >**

ID	Location	Name	District	Date of designation
10	140m SW	Market Place and London Street, Reading	Reading	1972

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

11.6 Scheduled Ancient Monuments

Records within 250m	**5**

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.

Features are displayed on the Visual and cultural designations map on **page 96 >**

ID	Location	Ancient monument name	Reference number
A	8m N	Reading Abbey: a Cluniac and Benedictine monastery and Civil War earthwork.	1007932
B	44m W	Reading Abbey: a Cluniac and Benedictine monastery and Civil War earthwork.	1007932
6	107m W	Reading Abbey: a Cluniac and Benedictine monastery and Civil War earthwork.	1007932
E	219m SW	High Bridge	1005388
22	242m NW	Reading Abbey: a Cluniac and Benedictine monastery and Civil War earthwork.	1007932

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

11.7 Registered Parks and Gardens

Records within 250m	**1**

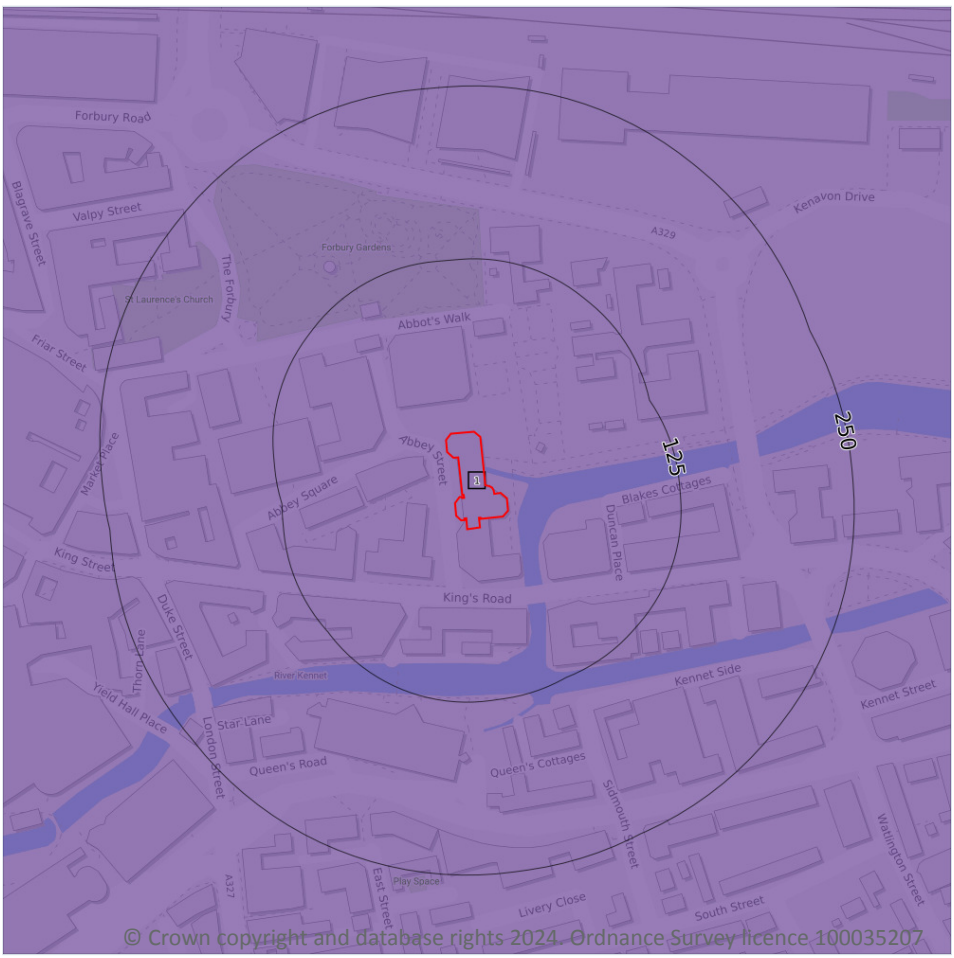
Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the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

Features are displayed on the Visual and cultural designations map on **page 96 >**

ID	Location	Name	Grade
3	85m N	The Forbury Garden	II

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

12 Agricultural designations



Site Outline

Search buffers in metres (m)

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

12.1 Agricultural Land Classification

Records within 250m	1

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

Features are displayed on the Agricultural designations map on **page 101 >**

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

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

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

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

12.3 Tree Felling Licences

Records within 250m	0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

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

This data is sourced from Natural England.

13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m	0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

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

This data is sourced from Natural England.

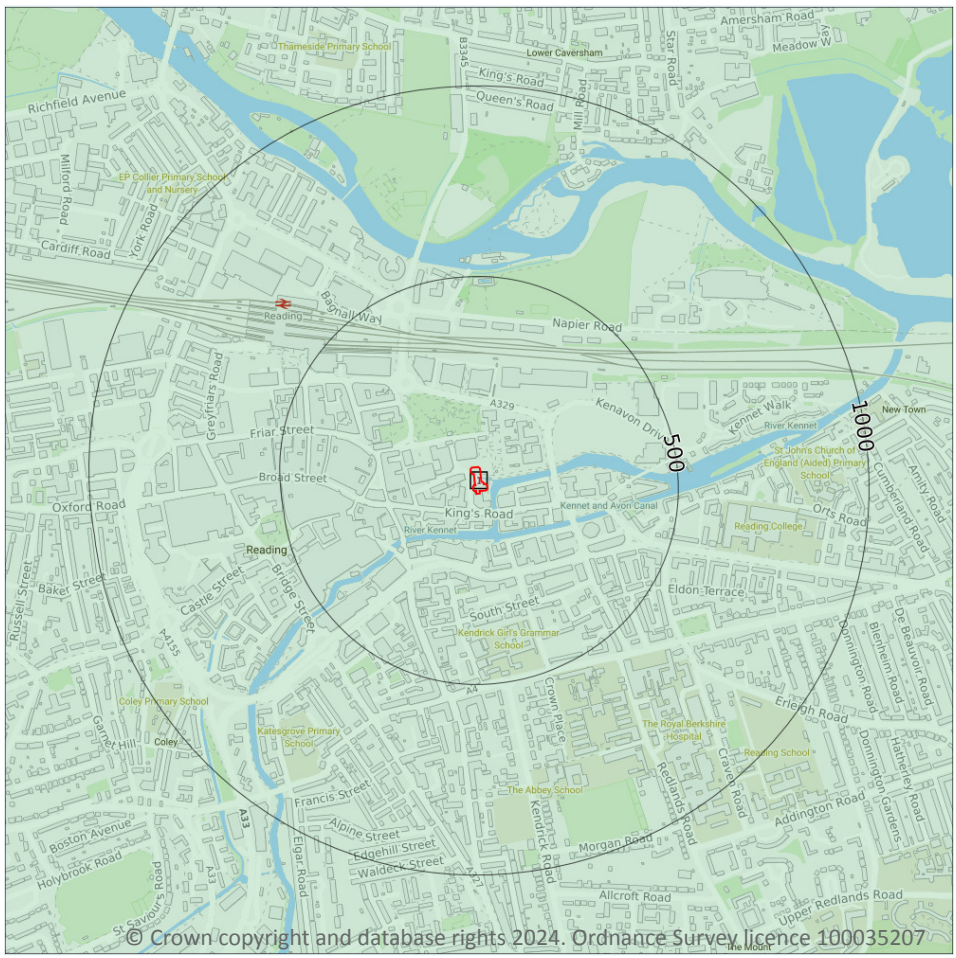
13.4 Limestone Pavement Orders

Records within 250m	0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m	1

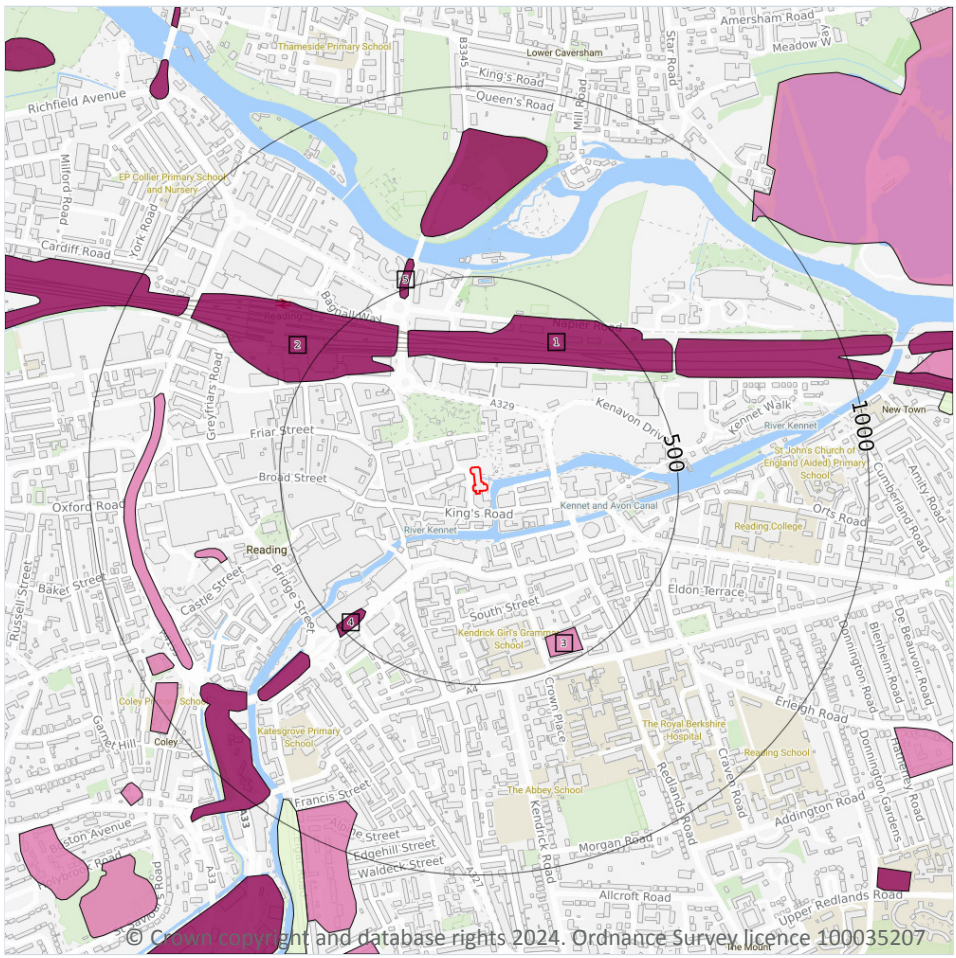
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 104 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SU77SW**

This data is sourced from the British Geological Survey.

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



14.2 Artificial and made ground (10k)

Records within 500m	5

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.

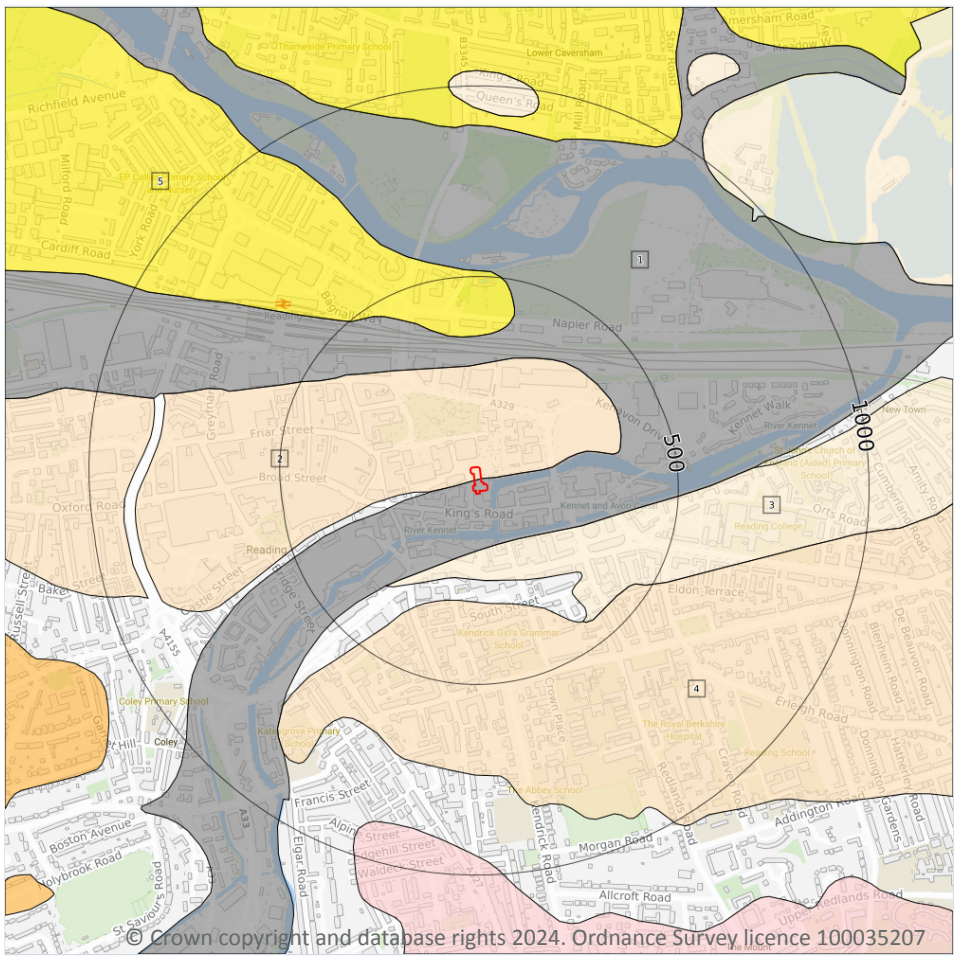
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 105 >**

ID	Location	LEX Code	Description	Rock description
1	275m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
2	326m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
3	415m SE	WGR-VOID	Worked Ground (Undivided)	Void
4	423m SW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

ID	Location	LEX Code	Description	Rock description
5	476m 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 **5**

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 107 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**ALV-Z**	**Alluvium - Silt (unlithified Deposits Coding Scheme)**	**Silt**
2	**On site**	**TPGR-XSV**	**Taplow Gravel Formation - Sand And Gravel**	**Sand And Gravel**
3	141m S	KPGR-XSV	Kempton Park Gravel Formation - Sand And Gravel	Sand And Gravel
4	282m S	TPGR-XSV	Taplow Gravel Formation - Sand And Gravel	Sand And Gravel

ID	Location	LEX Code	Description	Rock description
5	343m N	LASI-XCZ	Langley Silt Member - Clay And Silt	Clay And Silt

This data is sourced from the British Geological Survey.

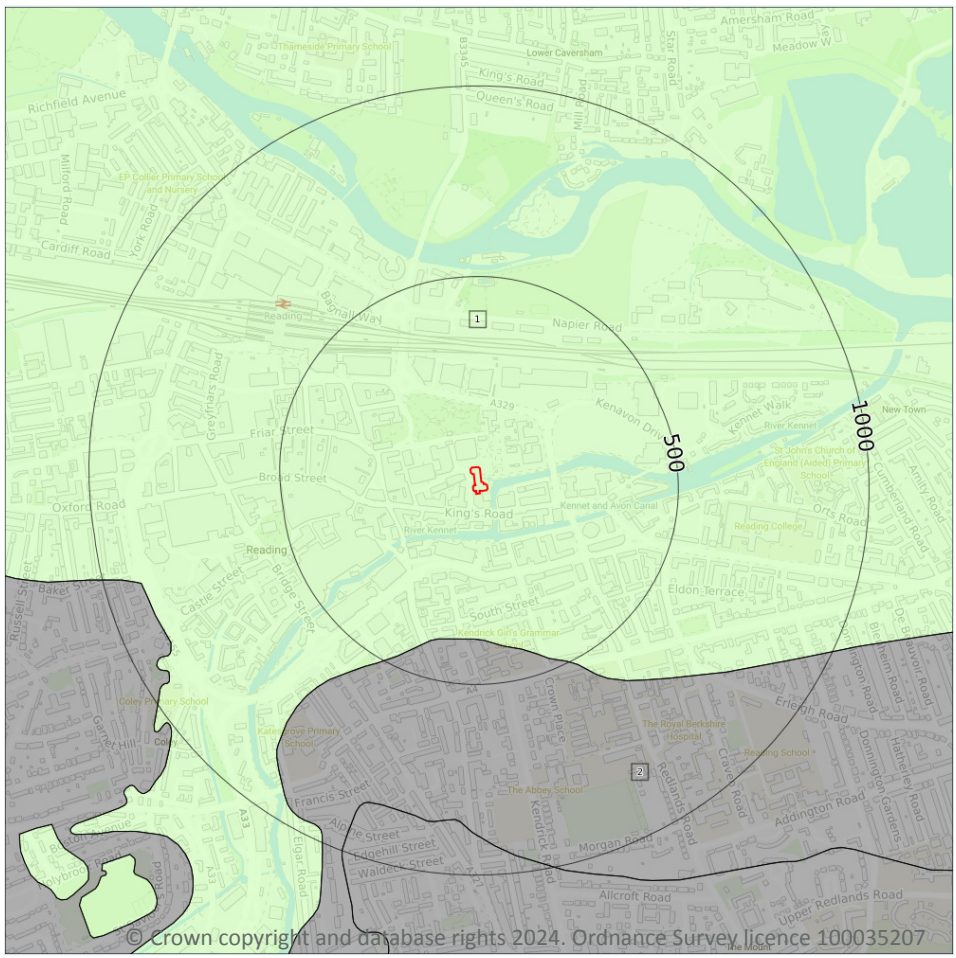
14.4 Landslip (10k)

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 **2**

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 109 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**LSNCK-CHLK**	**Lewes Nodular Chalk Formation, Seaford Chalk Formation And Newhaven Chalk Formation (undifferentiated) - Chalk**	**Campanian Age - Turonian Age**
2	381m S	LMBE-CLSISA	Lambeth Group - Clay, Silt And Sand	Paleocene Epoch

This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



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 111 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**EW268_reading_v4**

This data is sourced from the British Geological Survey.

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

15.2 Artificial and made ground (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

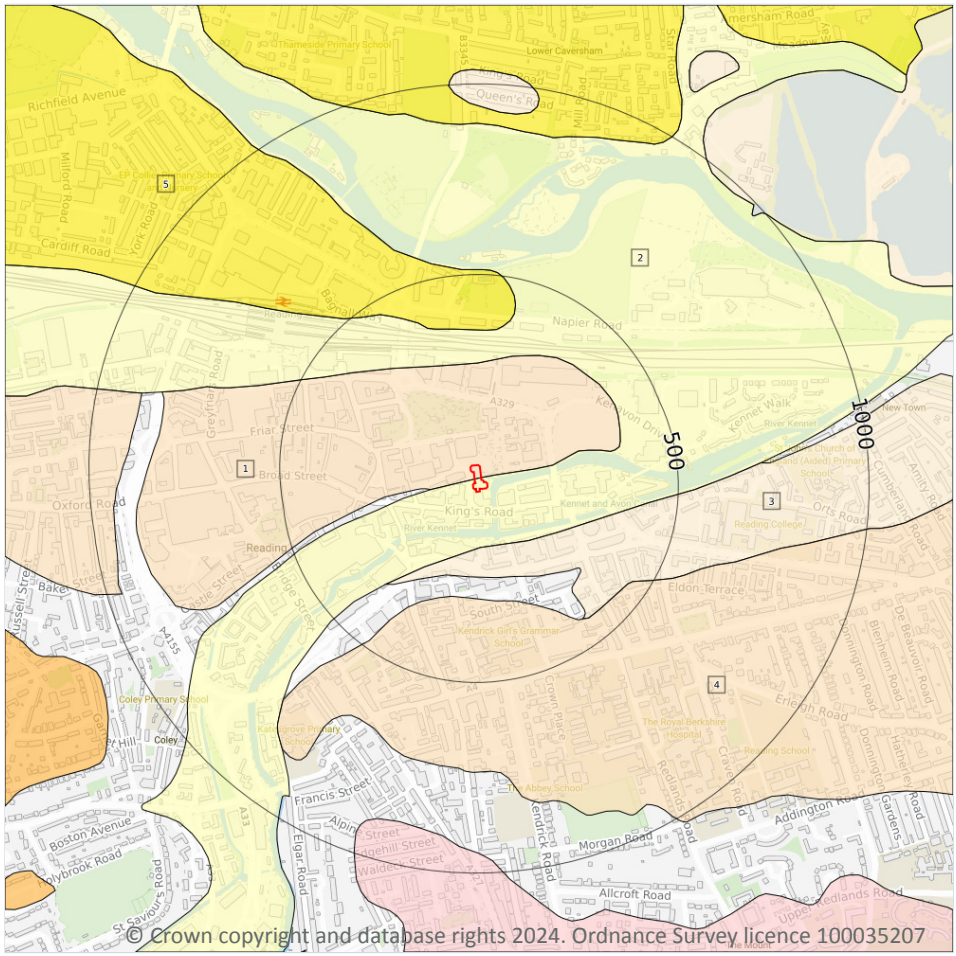
15.3 Artificial ground permeability (50k)

Records within 50m	0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

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

15.4 Superficial geology (50k)

Records within 500m **5**

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 113 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**TPGR-XSV**	**TAPLOW GRAVEL MEMBER**	**SAND AND GRAVEL**
2	**On site**	**ALV-XCZSV**	**ALLUVIUM**	**CLAY, SILT, SAND AND GRAVEL**
3	146m S	KPGR-XSV	KEMPTON PARK GRAVEL MEMBER	SAND AND GRAVEL
4	279m S	TPGR-XSV	TAPLOW GRAVEL MEMBER	SAND AND GRAVEL

ID	Location	LEX Code	Description	Rock description
5	354m N	LASI-XCZ	LANGLEY SILT MEMBER	CLAY AND SILT

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	**2**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**High**	**Very Low**
On site	**Intergranular**	**Very High**	**High**

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	**0**

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

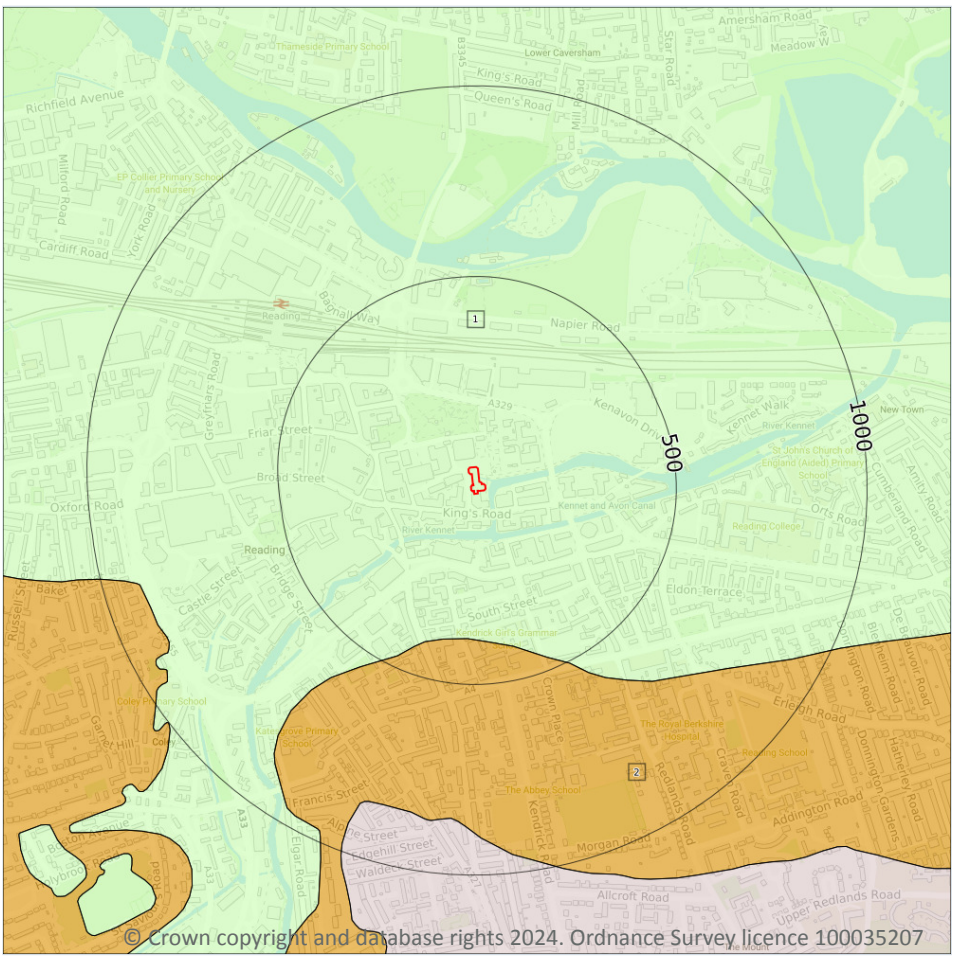
15.7 Landslip permeability (50k)

Records within 50m	**0**

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m **2**

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 115 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**SNCK-CHLK**	**SEAFORD CHALK FORMATION AND NEWHAVEN CHALK FORMATION (UNDIFFERENTIATED) - CHALK**	**CONIACIAN**
2	380m S	LMBE-XCZS	LAMBETH GROUP - CLAY, SILT AND SAND	THANETIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	1

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Very High**	**Very High**

This data is sourced from the British Geological Survey.

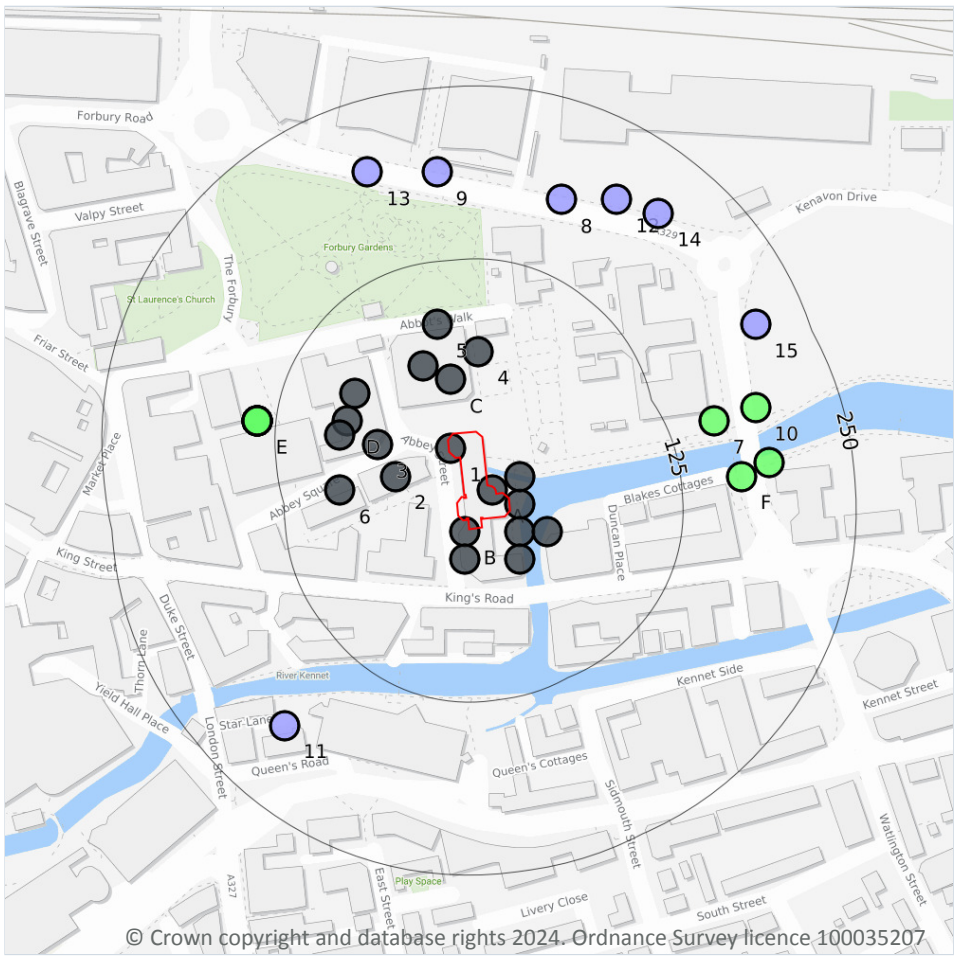
15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

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

This data is sourced from the British Geological Survey.

16 Boreholes



Site Outline

Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m	38

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 117 >**

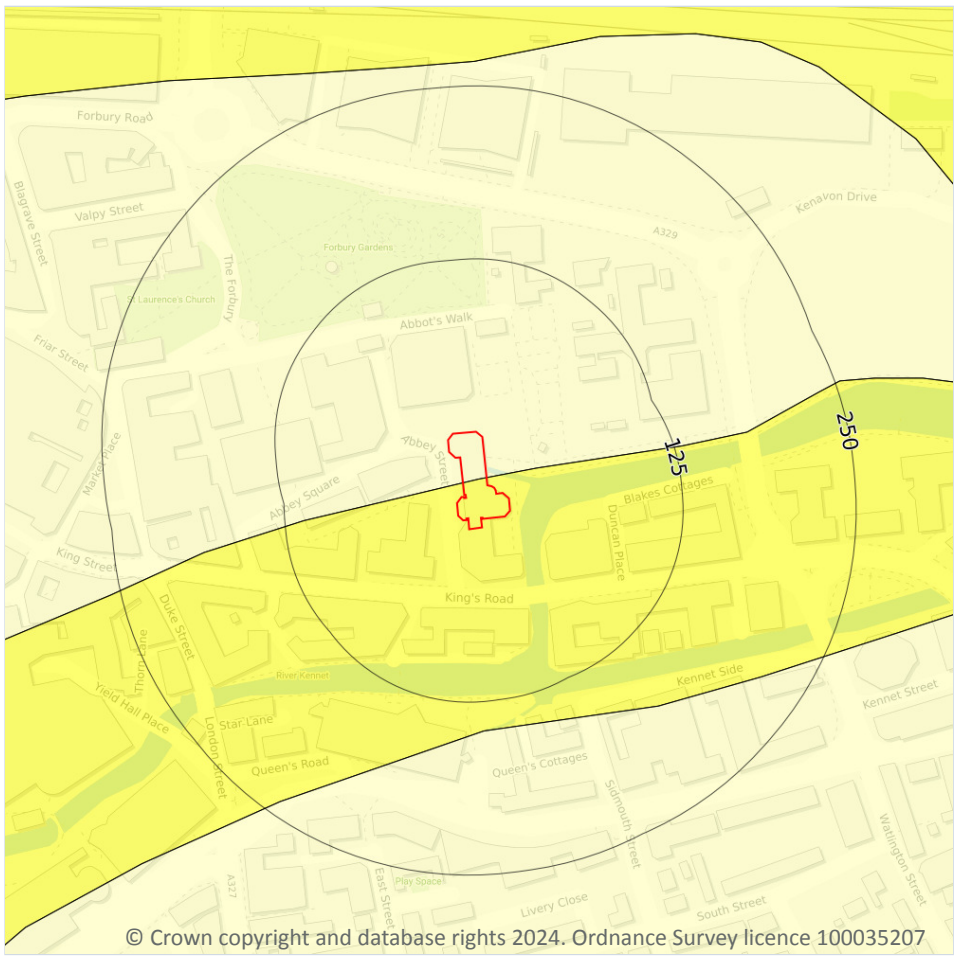
ID	Location	Grid reference	Name	Length	Confidential	Web link
1	**On site**	**471940 173480**	**SHIRE HALL READING 7**	**-**	**Y**	**N/A**
A	**On site**	**471970 173450**	**SHIRE HALL READING 16/A**	**-**	**Y**	**N/A**
B	4m S	471950 173420	SHIRE HALL READING 5	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	8m SE	471990 173440	SHIRE HALL READING 4/A/B	-	Y	N/A
A	16m SE	471990 173420	SHIRE HALL READING 15	-	Y	N/A
A	17m E	471990 173460	SHIRE HALL READING 6/A	-	Y	N/A
B	22m S	471950 173400	SHIRE HALL READING 3	-	Y	N/A
A	31m SE	472010 173420	SHIRE HALL READING 1A	-	Y	N/A
A	33m SE	471990 173400	SHIRE HALL READING 2	-	Y	N/A
C	39m N	471940 173530	SHIRE HALL READING 8	-	Y	N/A
2	43m W	471900 173460	SHIRE HALL READING 12	-	Y	N/A
3	51m W	471887 173483	OLD SHIRE HALL READING 3	-	Y	N/A
C	54m NW	471920 173540	SHIRE HALL READING 10	-	Y	N/A
4	58m N	471960 173550	SHIRE HALL READING 9	-	Y	N/A
D	74m NW	471865 173500	OLD SHIRE HALL READING 2	-	Y	N/A
D	75m NW	471871 173520	OLD SHIRE HALL READING 1	-	Y	N/A
D	78m W	471860 173490	SHIRE HALL READING 14	-	Y	N/A
5	80m N	471930 173570	SHIRE HALL READING 11	-	Y	N/A
6	84m W	471860 173450	SHIRE HALL READING 13	-	Y	N/A
E	139m W	471800 173500	CROWN COURTS READING 4	10.5	N	428223 ↗
E	139m W	471800 173500	CROWN COURTS READING 7	8.0	N	428226 ↗
E	139m W	471800 173500	CROWN COURTS READING 2	10.25	N	428221 ↗
E	139m W	471800 173500	CROWN COURTS READING TP 3	4.0	N	428227 ↗
E	139m W	471800 173500	CROWN COURTS READING 5	10.0	N	428224 ↗
E	139m W	471800 173500	CROWN COURTS READING 1	10.0	N	428220 ↗
E	139m W	471800 173500	CROWN COURTS READING 3	15.0	N	428222 ↗
E	139m W	471800 173500	CROWN COURTS READING 6	15.0	N	428225 ↗
7	158m E	472130 173500	READING I D ROAD 9	20.0	N	428285 ↗
F	169m E	472150 173460	READING I D ROAD 10	20.0	N	428286 ↗
8	179m N	472020 173660	READING I D ROAD 3	10.0	N	428279 ↗
9	189m N	471930 173680	READING I D ROAD 2	5.0	N	428278 ↗

ID	Location	Grid reference	Name	Length	Confidential	Web link
10	190m E	472160 173510	READING I D ROAD 7	20.0	N	428283 ↗
F	190m E	472170 173470	READING I D ROAD 8	20.0	N	428284 ↗
11	195m SW	471820 173280	QUEENS ROAD READING	6.09	N	428825 ↗
12	196m NE	472060 173660	READING I D ROAD 4	10.0	N	428280 ↗
13	199m N	471880 173680	READING I D ROAD 1	5.0	N	428277 ↗
14	206m NE	472090 173650	READING I D ROAD 5	10.0	N	428281 ↗
15	213m NE	472160 173570	READING I D ROAD 6	5.0	N	428282 ↗

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

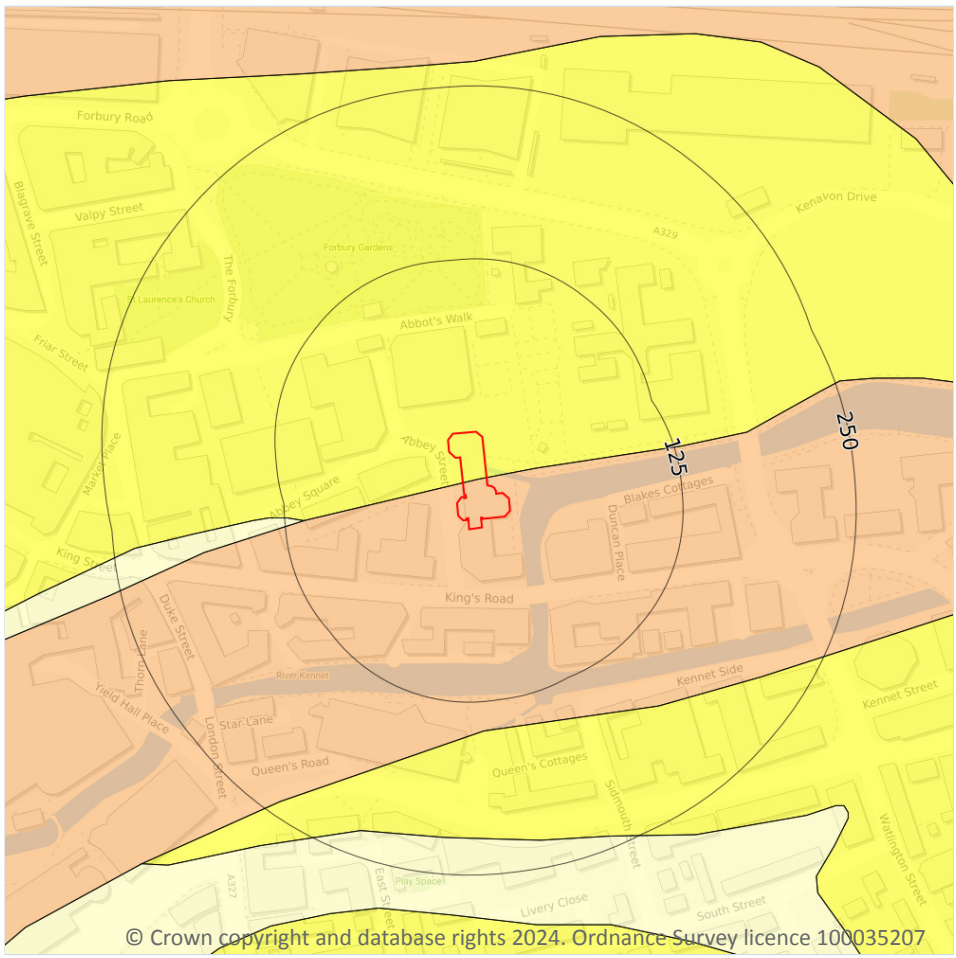
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 120 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

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

17.2 Running sands

Records within 50m	2

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

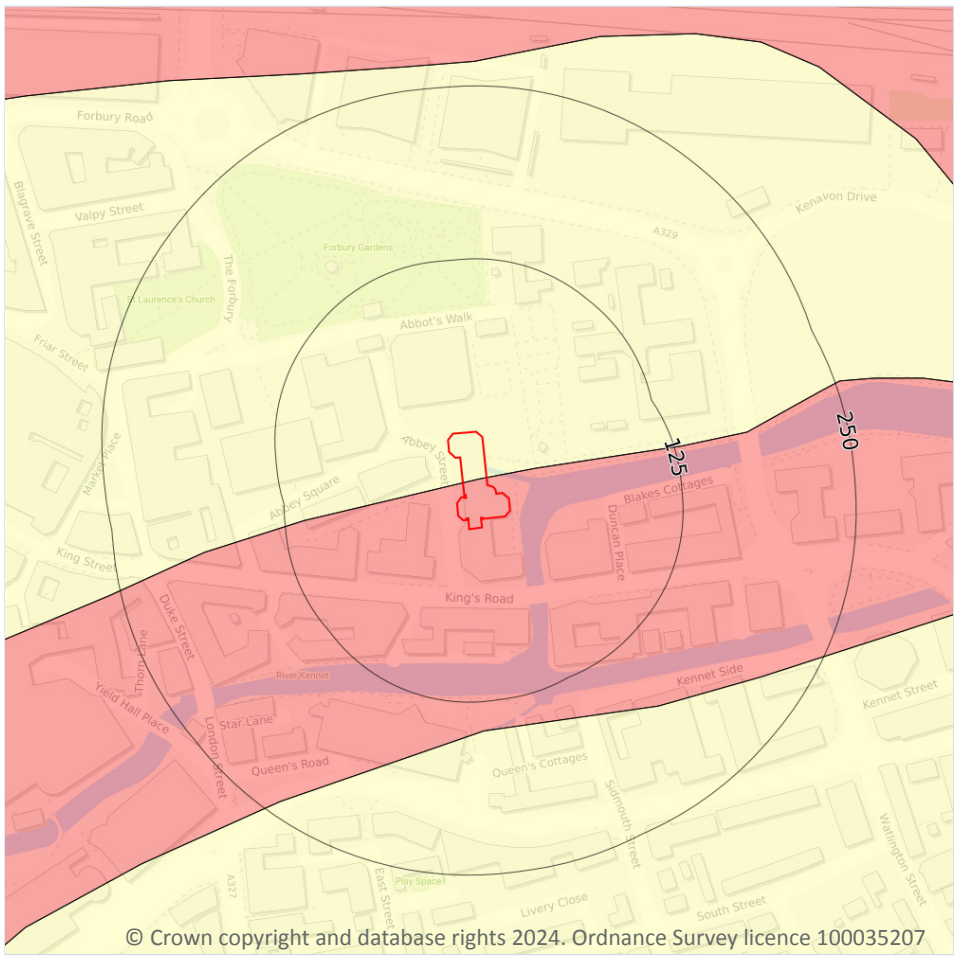
Features are displayed on the Natural ground subsidence - Running sands map on **page 121 >**

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

Location	Hazard rating	Details
On site	**Low**	**Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

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

17.3 Compressible deposits

Records within 50m	2

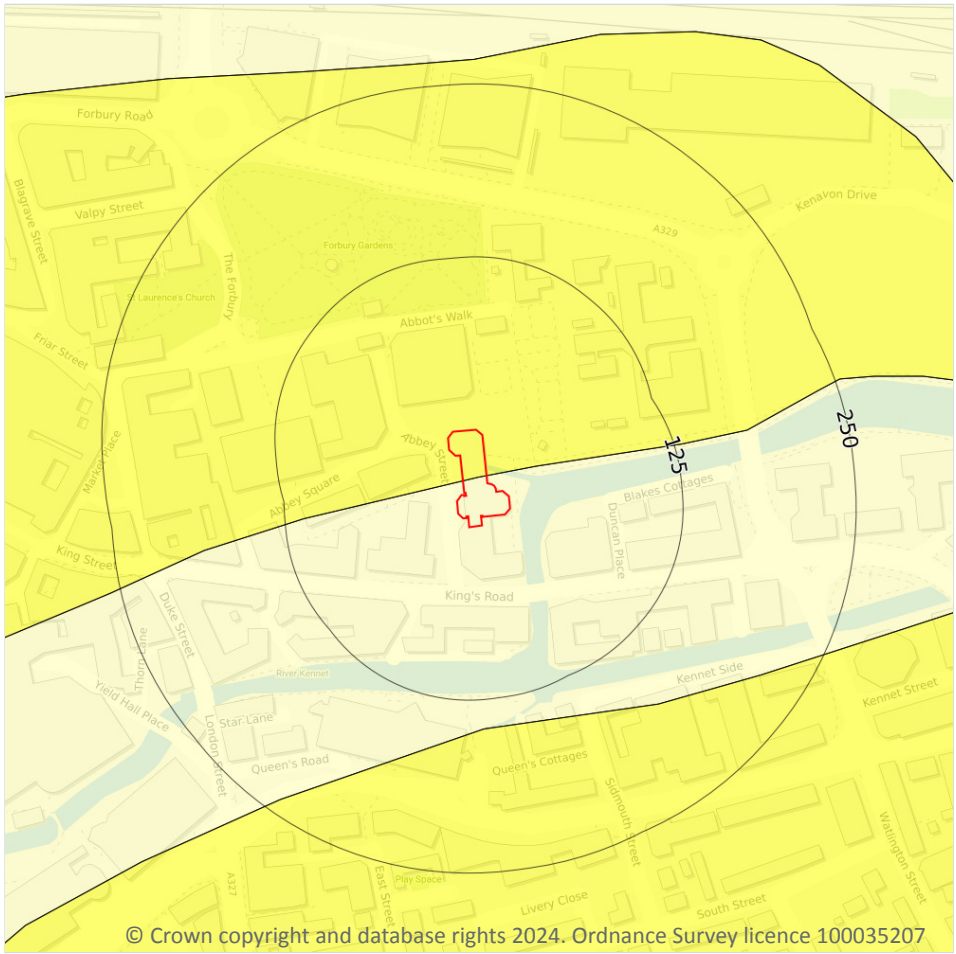
The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 123 >**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

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

17.4 Collapsible deposits

Records within 50m	2

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 125 >**

Location	Hazard rating	Details
On site	**Negligible**	**Deposits with potential to collapse when loaded and saturated are believed not to be present.**
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

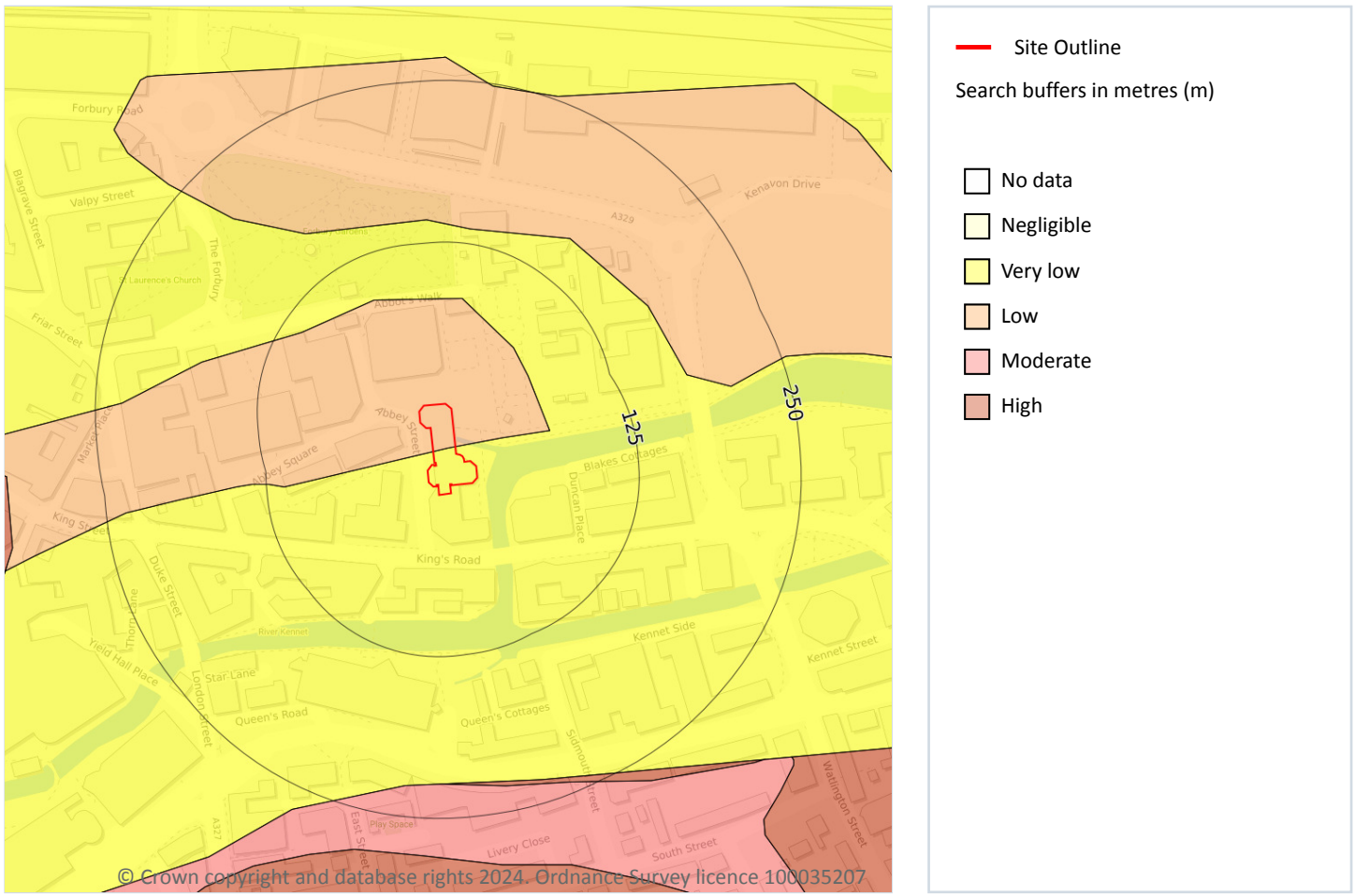
The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 126 >**

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	2

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 127 >**

Location	Hazard rating	Details
On site	**Very low**	**Soluble rocks are present within the ground. Few dissolution features are likely to be present. Potential for difficult ground conditions or localised subsidence are at a level where they need not be considered.**

Location	Hazard rating	Details
On site	**Low**	**Soluble rocks are present within the ground. Some dissolution features may be present. Potential for difficult ground conditions are at a level where they may be considered, localised subsidence need not be considered except in exceptional circumstances.**

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	0

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

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m	15

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 129 >**

ID	Location	Land Use	Year of mapping	Mapping scale
A	22m S	Unspecified Wharf	1994	1:10000
A	49m S	Unspecified Wharf	1938	1:10560
1	63m SE	Canal	1933	1:10560
2	69m SE	Canal	1938	1:10560
A	71m SE	Unspecified Wharf	1938	1:10560
A	71m SE	Unspecified Wharf	1938	1:10560
B	83m S	Canal	1994	1:10000
B	83m S	Canal	1989	1:10000
A	87m S	Unspecified Wharf	1989	1:10000
5	94m S	Canal	1938	1:10560
A	116m S	Unspecified Disused Wharf	1933	1:10560
A	119m S	Unspecified Wharf	1938	1:10560
A	119m S	Unspecified Wharf	1938	1:10560
A	122m S	Unspecified Wharf	1938	1:10560
6	148m N	Unspecified Heap	1933	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	0

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

This 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	10

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

Features are displayed on the Mining and ground workings map on **page 129 >**

ID	Location	Name	Commodity	Class	Likelihood
3	72m NW	Not available	Chalk	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
4	89m W	Not available	Chalk	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
7	372m S	Not available	Chalk	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

ID	Location	Name	Commodity	Class	Likelihood
8	380m S	Not available	Chalk	C	Underground mine workings may have occurred in the past, or current mines may be operating to modern engineering standards. Potential for difficult ground conditions should be considered.
9	411m SE	Not available	Chalk	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
10	453m S	Not available	Chalk	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	719m E	Not available	Chalk	A	Underground mine workings are uncommon, although the geology is similar to that worked elsewhere. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.
-	886m SW	Ruby Court	Chalk	D	Underground mining is considered likely to have occurred within or close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
-	936m SW	Ruby Court	Chalk	E	Underground mining is known or considered likely within or very close to the area. The location, extent and nature of mining should be considered in any site investigation. Potential for difficult ground conditions should be considered.
-	940m SW	Not available	Chalk	B	Underground mine workings may have occurred in the past or current mines may be working at significant depth to modern engineering standards. Potential for difficult ground conditions are unlikely and are at a level where they need not be considered.

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site	1

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

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

This data is sourced from Johnson Poole and Bloomer.

18.8 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
414m SE	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	0

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

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.

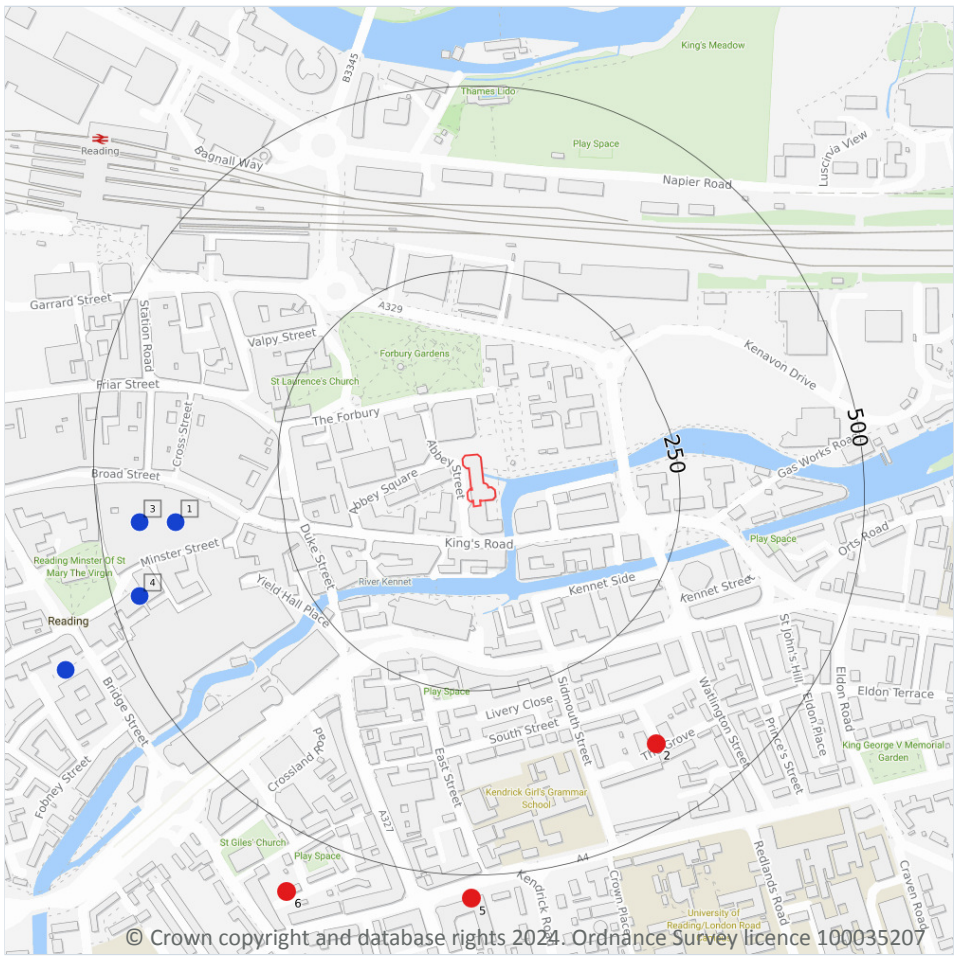
18.16 Clay mining

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



Site Outline

Search buffers in metres (m)

- Natural cavities (Area)
- Natural cavities (Point)
- Mining cavities
- Reported recent incidents
- Historical incidents
- BGS karst database (Point)
- BGS karst database (Line)
- BGS karst database (Area)

19.1 Natural cavities

Records within 500m **3**

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.

Features are displayed on the Ground cavities and sinkholes map on **page 136 >**

ID	Location	Details	Source
1	397m W	Type: Solution Pipe x 5 Superficial Geology: Taplow Gravel Bedrock Geology: Chalk Group	Simple Bibliography: Reading Borough Council Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely

ID	Location	Details	Source
3	446m W	Type: Solution Pipe x 3 Superficial Geology: Taplow Gravel Bedrock Geology: Chalk Group	Simple Bibliography: Reading Borough Council Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
4	464m W	Type: Solution Pipe x 1 Superficial Geology: Taplow Gravel Bedrock Geology: Chalk Group	Simple Bibliography: Reading Borough Council Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m **11**

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.

Features are displayed on the Ground cavities and sinkholes map on **page 136 >**

ID	Location	Mine Address	Mineral	Data source	Publisher
2	398m SE	Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
5	532m S	Jubilee Square, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
6	580m SW	Reading, Berkshire	Chalk	-	-
-	691m S	Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
-	724m S	The Old Orchard Kiln, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
-	765m S	Shearmans Brick Kiln, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
-	812m S	Shearmans Brick Kiln, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
-	895m SW	Katesgrove Kilns (1), Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
-	928m S	The Upper Kiln, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading

ID	Location	Mine Address	Mineral	Data source	Publisher
-	939m SW	Katesgrove Kilns (2), Reading, Berkshire	Chalk	READING CHALK MINES	TRANS.GEO.SOC., 4, 780
-	956m S	Ivy Lodge Brickfield/ Southampton Kiln, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading

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.

19.5 National karst database

Records within 500m	0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.

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	2

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 140 >**

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

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	9

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
On site	**15 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**60 - 90 mg/kg**	**15 - 30 mg/kg**
8m N	15 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
17m SE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
17m SE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
28m E	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
28m E	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
39m NE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg
39m NE	15 - 25 mg/kg	No data	100 mg/kg	60 mg/kg	1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg

This data is sourced from the British Geological Survey.

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.

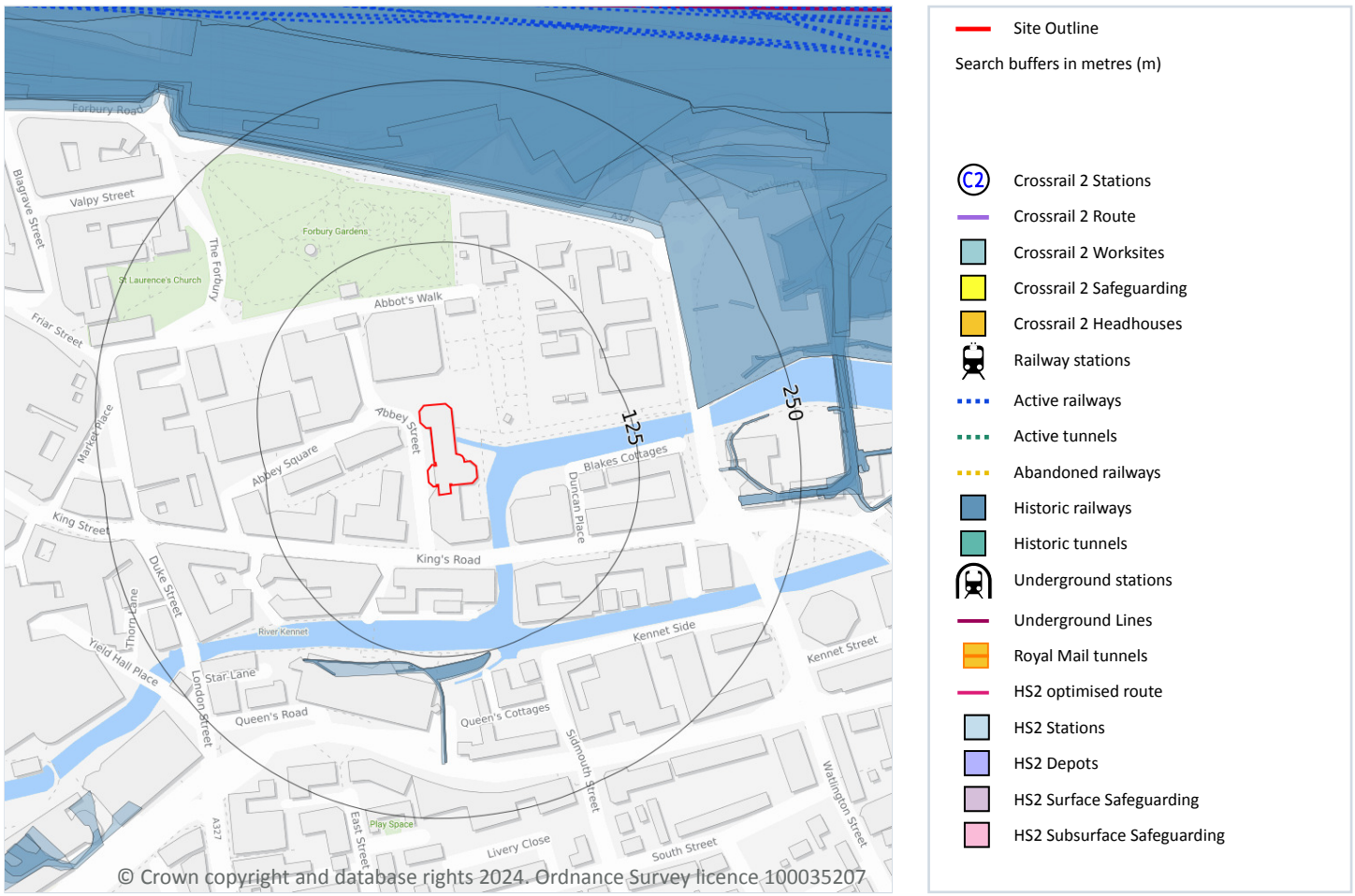
21.3 BGS Measured Urban Soil Chemistry

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	35

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

Features are displayed on the Railway infrastructure and projects map on **page 144 >**

Location	Land Use	Year of mapping	Mapping scale
126m S	Railway Sidings	1879	500
127m S	Railway Sidings	1879	2500
164m N	Railway Sidings	1898	10560
166m N	Railway	1898	-
170m N	Railway Sidings	1962	10560
172m N	Railway Sidings	1938	10560
173m N	Railway Sidings	1913	10560
176m N	Railway Sidings	1900	2500
177m N	Railway Sidings	1938	10560
177m N	Railway Sidings	1879	500
179m N	Railway Sidings	1879	2500
179m N	Railway Sidings	1912	2500
186m E	Railway Sidings	1879	2500
189m NE	Railway Sidings	1931	2500
190m N	Railway Sidings	1957	2500
190m N	Railway Sidings	1956	1250
194m E	Railway Sidings	1879	500

Location	Land Use	Year of mapping	Mapping scale
198m NE	Railway Sidings	1933	10560
202m NE	Railway Sidings	1879	2500
209m N	Railway Sidings	1958	2500
209m N	Railway Sidings	1961	2500
209m N	Railway Sidings	1962	1250
209m N	Railway Sidings	1956	1250
212m N	Railway Sidings	1962	1250
212m N	Railway Sidings	1956	1250
214m NE	Railway	1932	-
215m N	Railway Sidings	1958	2500
215m N	Railway Sidings	1961	2500
216m N	Railway	1879	-
229m NE	Railway Sidings	1879	2500
232m NE	Railway	1899	-
235m N	Railway Sidings	1879	500
235m N	Railway Sidings	1879	500
238m N	Railway Sidings	1879	500
239m N	Railway Sidings	1879	500

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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