

Fountain House, Broad Street Mall, Reading, RG1 7QF

Report details

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Reviewed by: Drew Hardy

Date: 14 July 2021

Location: 471152 173368

Report ref: GSP-2021-2001-1

Area 0.1 ha

Status: Final



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Executive Summary

Report objective

The purpose of the commission is to inform the change of use of the property from offices to residential and this report is to be submitted along with the associated planning application.

Site Setting

Current use: Offices

Proposed use: Residential apartments

Surroundings: The Broad Street Mall and other commercial properties, student accommodation and allotments

History: A saw mill and timber yard in the centre east that extended further east from pre 1879 until at least 1938. The Site and the area to the south and east were developed for commercial purposes by 1973.

Geology: Superficial deposits of the Taplow Gravel Formation underlain by bedrock layers of the Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (undifferentiated).

Controlled Waters: Principal aquifer with nearby potable abstraction. No relevant surface water courses were identified.

Human Health: Future site residents and nearby commercial users, residents in student accommodation and users of the allotments

Site Reconnaissance

The Site was visited on 12 July 2021 when it was used as offices and no significant environmental concerns were observed.

Regulatory Consultation

The time available to prepare this report prevented consultations being sought with the Local Authority Environmental Health about contaminated land matters at the Site

Conclusions

This preliminary risk assessment considered there to be a low risk with respect to the proposed development. No unacceptable risks have been identified and the Site can be considered suitable for the proposed development.

Recommendations

Submit this report to the Council to support planning application and retain copy to show fulfillment of the developers responsibilities with respect to land contamination matters for the proposed development.

This Executive Summary forms part of Groundsure report number GSP-2021-2001-1 is part of a wider document and should not be used in isolation.

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1 Introduction

1.1 Background

Groundsure Ltd was instructed by Mark Knibbs of DP9 Ltd on behalf of Inception Reading SARL to complete a Phase 1 Preliminary Risk Assessment. The report is prepared in accordance with the Groundsure Ltd proposal (ref. GSP-2021-2001P, dated 7 July 2021) and Standard Terms and Conditions of Business for the use of the following entities:

- **DP9 Ltd**
- **Inception Reading SARL % Moorgate Group Limited.**

The study site (known as 'the Site') is Fountain House, Broad Street Mall, Reading, RG1 7QF. A location plan and site layout can be found in Appendix A.

1.2 Purpose of this report

The purpose of the commission is to inform the change of use of the property from offices to residential and this report is to be submitted along with the associated planning application.

1.3 Scope of works

This Phase 1: Preliminary Risk Assessment comprises a review of readily available environmental, historical and planning records, any additional data supplied by the client and a site reconnaissance. Data, where copyright permits, is presented within the appendices of the report.

The risk assessment was based on a qualitative assessment of the Contaminant – Pathway – Receptor linkages that may exist at the Site because of past activities, in accordance with the Environment Agency's 'Land Contamination, Risk Management' (LCRM, 2019)¹ and BS10175:2011+A2:2017 Investigation of Potentially Contaminated Sites Code of Practice.

These assessments are associated with the following UK legislation

- Environmental Protection Act 1990;
- The Water Resources Act 1991.

1.4 Data sources

Data sources include:

- Groundsure data reports (refs. GS-8032014 and GS-8032015);
- Site inspection dated 12 July 2021 with Andy Lemon (building manager);
- Data found on the Local Authority planning website;
- Existing and proposed development drawings provided by the client.

1.5 Report limitations

All work has been undertaken in accordance with our standard [terms & conditions](#) for a Consultancy Service. It should be noted that liability for any claim in relation to asbestos is excluded.

The report is based on the data sources listed within the report and is not necessarily exhaustive. The report excludes consideration of potential hazards arising from any activities at the Site other than normal use and occupancy for the identified land uses. Where access is restricted this limits the data obtained, restricting the effectiveness of site characterise of these inaccessible areas. Hazards associated with any other activities are not assessed.

¹ <https://www.gov.uk/guidance/land-contamination-how-to-manage-the-risks>

It has been assumed that the conditions on Site at the time of the site reconnaissance are representative of general conditions and operations unless the Site is to be redeveloped and then it has been assumed operations cease. Furthermore, new information, improved practise and changes in legislation may change the conclusions presented here.

The report may only be relied upon by the Client and those with written approval from Groundsure. It may be submitted to regulatory bodies where appropriate. Groundsure will not accept any responsibility for use of the project outside the scope of the report.

1.5.1 Site reconnaissance

Note that the site reconnaissance was non-intrusive and below ground services were not inspected and samples were not taken.

During the site reconnaissance it was not possible to access some plant rooms in the basement and the tenanted office space.

2 Risk Assessment Methodology

2.1 Qualitative Risk Ranking Criteria

An assessment of environmental risk associated with geo-environmental ground conditions is made in respect of the Environmental Protection Act 1990, the Water Resources Act 1991, the Environmental Damage Regulations 2015 and associated legislation, to provide a balanced and considered opinion of the property regarding the intended end use. Where applicable, recommendations are made in respect of further actions considered to be appropriate.

The report discusses the potential commercial implications of the identified risks with reference to the following risk assessment definitions (based on CIRIA C552):

2.1.1 Consequence

This is based on an assessment of the most likely outcome. All assessments have a degree of uncertainty.

Minor: *Site considered suitable for present use and environmental setting. Contamination may be present but unlikely to have an unacceptable impact on key targets. No action needed while the Site remains in present use.*

- No permanent health effects
- Easily repairable damage to buildings

Mild Risk: *Site is considered suitable for present use and environmental setting. Contamination may be present but unlikely to have an unacceptable impact on key targets. Action unlikely to be needed in present use.*

- Pollution of non-sensitive water resources
- Minor changes to crops, buildings, structures and services

Medium Risk: *Site may not be suitable for present use or environmental setting. Contamination may be present, and likely to have unacceptable impact on key targets. Action may be needed in the medium term.*

- Chronic damage to human health
- Pollution of controlled waters
- Significant change in ecosystem
- Minor repairable damage to property

Severe Risk: *Site probably or certainly unsuitable for present use or environmental setting. Contamination probably or certainly present and likely to have an unacceptable impact on key targets. Urgent action needed.*

- Short term (acute) risk to human health likely to result in significant harm
- Short term (acute) risk to a sensitive water resource
- Significant short-term risk to an ecosystem or organism forming part of an ecosystem
- Catastrophic damage to property

2.1.2 Likelihood

High Likelihood: There is a pollution linkage and an event either appears very likely in the short term or almost inevitable in the long term, or there is evidence at the receptor of harm or pollution.

Likely: There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.

Low Likelihood: There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such an event would take place, and is less likely in the shorter term.

Unlikely: There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

Risk Table

Likelihood	Consequence (hazard-pathway-target)			
	Severe	Medium	Mild	Minor
High	High	High	Moderate-High	Moderate
Likely	High	Moderate-High	Moderate	Low-Moderate
Low	Moderate-High	Moderate	Low-Moderate	Low
Unlikely	Moderate	Low-Moderate	Low	Low

3 Site Setting & Description

Site Location	Within the Broad Street Mall in Reading town centre.	
Current use	Commercial offices (levels 3 to 10) with associated car parking, plant rooms and associated infrastructure.	
Proposed use	Residential apartments	
Access/ Security	The main pedestrian access was possible to the ground floor reception from Queens Walk to the west. A shared vehicular access with the remainder of the Broad Street Mall was also possible in the basement.	
Buildings	A 10 storey building of concrete and steel construction that was in good condition and attached to the remainder Broad Street Mall. The extent of the Site was limited on the basement to provide access and plant rooms, a reception on the ground floor and lift shaft on the first floor. Car parking, plant rooms and associated infrastructure with inspected during the site reconnaissance but the extent of the Site was also restricted to the lift on Level 2. Retail outlets were also present on the Ground floor but not part of the Site.	
Topography	The Site and the surrounding area were generally flat, though development had been undertaken over various levels.	
External areas	None as the building covered the entire footprint.	
Surface water features	No surface water features were identified on or near to the Site.	
Site drainage	Drainage grates were observed on the open sections of Level 2. Groundsure was advised that they were channeled down to a connection to the mains sewer in the basement.	
Services	Groundsure was advised the building was connected to mains electricity, gas, water and telecoms. An electricity substation was present on Level 2 and mobile phone transmitters were on the roof.	
Surroundings	North	Oxford Road with commercial properties beyond (Saxon House).
	East	Broad Street Mall (shopping centre).
	South	Broad Street Mall (shopping centre) with Dusselfork Way and allotments beyond.
	West	Queens Walk with student accommodation and commercial properties beyond.

Site location plans and a representation of the key site features are presented in Appendix A. Photographs taken during the recent site reconnaissance are shown in Appendix B.

4 Environmental Setting

4.1 Geology

4.1.1 Regional

The anticipated regional geological succession based on 1:10,000 and 1:50,000 scale British Geological Survey (BGS) mapping presented in the Groundsure Insight and summarised in the table below.

Geological Unit	Description*	Comment
Artificial deposits		
Worked Ground	Variable composition	Mapped 75m west and 86m south east.
Superficial		
Taplow Gravel Formation	Sand and gravel.	-
Bedrock		
Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (undifferentiated) -	Chalk	Campanian Age - Turonian Age
Notes: * Description is based on information within the BGS Lexicon of Named Rock Units and the Groundsure Insight		

4.1.2 Local

Insert details of any site specific exploratory holes

The following relevant BGS exploratory hole records have been identified close to the Site:

- Reading Commercial Centre 1
 - On-site
 - Excavated to 15.24m below ground level (bgl)
- Reading Commercial Centre 2
 - On-site
 - Excavated to 5.28m bgl
- Reading Civic Centre BH1
 - 6m west
 - Excavated to 18.28m bgl

This site specific geological information is summarised in the table the below.

Geological Unit	Typical Description	Top of strata (m bgl)	Thickness (m)
Made Ground	Brick rubble, loose gravel and brown clay	Ground level	0.76 to 1.8
Not specified (likely superficial)	Soft brown silty CLAY and GRAVEL	0.76 to 4.9	0.4 to 0.76
Not specified (likely Lewes Nodular Chalk Formation, Seaford Chalk Formation And Newhaven Chalk Formation (undifferentiated))	Angular chalk fragments, grading to very fissured white CHALK	2.4 to 4.14	Proven to 18.28

4.1.3 Natural Ground Subsidence

The following table summarises the maximum assessed hazard by the BGS of natural subsidence recorded within 50m of the Site.

Geotechnical Hazards	Maximum Hazard Rating
Shrink-Swell	Negligible
Running Sands	Very low
Compressible deposits	Negligible
Collapsible deposits	Very low
Landslides	Very low
Ground dissolution of soluble rocks	High

4.1.4 Mining, ground workings and natural cavities

Three solution pipes have been recorded by Reading Borough Council 39m west.

The Site lies within an area which may have been affected by localised small scale underground mining of chalk.

The closest recorded entry in the BritPits database was the Reading Chalk Mine, 370m south west.

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.

4.1.5 Radon

The Site does not fall within a Radon Affected Area, less than 1% of properties are estimated to be affected.

4.2 Controlled Waters

4.2.1 Hydrogeology

Groundsure environmental data may be viewed in Appendix C.

Superficial Aquifer	Secondary A: Permeable layers capable of supporting water supplies on a local rather than strategic scale and in some cases forming an important source of base flow to rivers.
Bedrock Aquifer	Principal: High permeability layers providing a high level of water storage that may support water supply/river base flow on a strategic scale.
Groundwater Vulnerability - Superficial	High - Areas able to easily transmit pollution to groundwater. Thickness - 3-10m
Groundwater Vulnerability - Bedrock	High - Areas able to easily transmit pollution to groundwater. Flow mechanism - Well connected fractures.
Groundwater vulnerability - Soluble Rock Risk	Maximum soluble risk category - 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. Percentage of the grid square covered by maximum risk - 20%
Groundwater Abstractions	16 groundwater abstraction licence entries have been identified within 2,000m of the Site. The closest entry is for the active potable abstraction 104m to the north east for the maximum daily removal of 40.91m ³ . *Note <20m ³ /day Local Authority registered private supply boreholes have not been considered in this assessment.
Source Protection Zones	Not identified to lie within a Source Protection Zone.
Environment Agency WFD Classification	Groundwater body – Berkshire Downs Chalk Overall rating – Poor Reasons for failure – Private sewage treatment, poor nutrient management and groundwater abstraction.
Groundwater level and flow	No groundwater level information was available at the time of writing.

4.2.2 Hydrology

Nearest Surface Water	No surface water features have been identified within 250m of the Site.
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Environment Agency WFD Classification	Water body catchment – Thames Wallingford to Caversham Location – 891 north east Overall Quality - Moderate
Surface Water Abstractions	No surface water abstraction licences have been identified within 250m of the Site.

4.2.3 Flood Risk

The table below summarises the highest risk for each flood type data provided in the Groundsure Insight report.

	On Site	Within 50m
Risk of Flooding from Rivers and Sea (RoFRaS)	None	None
Historical Flood Events	Not identified	Not identified
Flood Defences	Not identified	Not identified
Areas Benefiting from Flood Defences	Not identified	Not identified
Flood Storage Areas	Not identified	Not identified
Flood Zone 2	None	None
Flood Zone 3	None	None
Surface water flooding	1 in 1000 year, 0.1m - 0.3m	1 in 250 year, 0.3m - 1.0m
Groundwater flooding	Moderate	High

4.3 Environmental Designations

No environmental designations are recorded in the Groundsure Insight on or within 250m of the Site, except for a Nitrate Vulnerable Zone 60m north west.

4.4 Culturally and Visually Sensitive Sites

The visual and cultural designations recorded in the Groundsure Insight on or within 250m of the Site are summarised in the following table.

Designation	Number	Details
Listed Buildings	41	The closest recorded was the Grade II 3 And 5, Cheapside, Abbey, Reading, RG1 30m north.
Conservation Areas	2	The closest recorded was the Russell Street and Castle Hill, Reading, 118m west.

4.5 Ecological Habitat Designations

No other ecological habitat designations have been recorded in the Groundsure Insight on or within 250m of the Site.

5 Potentially Contaminative Land Use

5.1 Permits, Authorisations, Licences and Records

Groundsure environmental data may be viewed in Appendix C.

5.1.1 On site records

Data held by Groundsure indicates that the Site has not been designated as Contaminated Land under Part 2A of the Environmental Protection Act.

No other records of interest have been identified at the Site.

5.1.2 Off site records

The following records were identified within 250m.

Type	No.	Comments
Waste and landfill		
Waste exemptions	7	The nearest entry related to aerobic composting and associated prior treatment 92m east.
Current industrial land uses		
Recent industrial land uses	20	The nearest entries relate to commercial businesses and electricity substations (77m north east and 78m south).
Current or recent petrol stations	1	An obsolete petrol station 179m north west.
Pollution Incidents (EA/NRW)	1	This entry involved contaminated runoff from firefighting runoff in January 2002, but no impacts were caused.

6 Historical Setting

6.1 Historical Review

The following table provides an outline of the historical land use both on-Site and in the surrounding areas based (unless otherwise referenced) on mapping and aerial imagery from the Groundsure Insight (Appendix C) and MapInsight (Appendix D).

These are not comprehensive as occasionally transient uses existed between map survey dates.

Date	On Site Features	Off Site Features
1879-1880	The centre of the Site was accessed from Hope Street North in the south east and comprised part of a saw mill (Steam Saw Mills) with building in the centre east and two rows of possible storage units in the centre west. The remainder of the Site comprised various terraced (possibly residential/commercial) with associated garden areas.	The saw mill extended to the east and included a building with a timber yard beyond. The rows of possible storage units also extended to the west. A coal yard was 12m west.
1898-1914	No significant changes.	The coal yard 12m west was no longer mapped.
1931-1938	No significant changes.	Buildings were erected across the majority of the plot used as a saw mill to the east.
1957-1961	The saw mill had been cleared and was used as a car park.	The saw mill to the east had been cleared and was used as a car park. A garage was 58m east.
1962	The buildings in the centre were cleared.	The car park to the east was extended southwards.
1970	The remainder of the Site was cleared.	The areas extending to the west, south and east were cleared.
1973	The Site was developed as part of the Butts Centre.	The Butts Centre was developed to the east and south.
1978-1979	Fountain House was labelled in the mapping.	No significant changes.
1980	No significant changes.	A multistorey car park with the Butts Centre extended to the east and south.
1988-1993	The Site was labelled as part of the Broad Street Mall.	The plot that extended to the east and south was re-named as the Broad Street Mall.
1999 - 2019	No significant changes.	No significant changes.

6.2 Underground features and proposed infrastructure

No records of tunnels or proposed infrastructure projects have been recorded within the Groundsure Insight.

6.3 Historical military land

No additional records of military land have been recorded within the Groundsure Insight.

6.4 Unexploded Ordnance

The UK has a history of military activity, including extensive military training sites, bombing during the First World War and sustained strategic bombing during the Second World War. A legacy of this military activity is the incidence of UXO encountered throughout Britain to this day, particularly during construction and redevelopment works.

In post war mapping the building on-site that extended east had been cleared and ruins mapped 3m west were considered to potentially indicate that bomb damage could have occurred.

7 Site Reconnaissance

A walkover of the Site was carried out by a Groundsure representative on 12 July 2021 with Andy Lemon (building manager). The weather was dry and cloudy. The general description is provided in Section 3.

A site plan of key features (Figure 3) is included in Appendix A and a photographic record of the site walkover is provided in Appendix B.

7.1 Operational and Environmental Observations

Site Activities	Fountain House comprised a multi-storey office building. The building comprised part of the wider Broad Street Mall premises and some of the parts of the building comprised operations associated with this and are not part of the Site. The parts of the building were used as: • Basement - Rooms generally used to house telecommunications equipment and for storage; • Ground - Reception with the remaining off-site parts of the building used for retail; • Level 1 - Lift shaft and access only with the remaining off-site parts of the building used for retail; • Level 2 - Lift shaft and access only with the remaining off-site parts of the buildings included plants rooms associated with air conditioning, heating and ventilation systems, pumps and tanks associated with the building's water system, and the former emergency power generator with associated diesel storage tank. • Levels 3, 9 and 10 - Offices used by the University of West London; • Level 4 - Offices used by BNP Paribas; • Level 5 - Vacant office space; • Levels 6, 7 and 8 - Reading Business Centre with sub-let office space; • Roof - Not considered to be on the Site but was used to house further air conditioning systems and a water tank, and also telecommunications transmitting equipment.
Materials / Waste Stored	Materials stored across the Site appeared to be typical of the use and maintenance of the building as offices. The diesel tank on Level 2 (off-site) was approximately 2m x 2m 3m in size and was stored within a bunded room. No evidence of leaks or spills were observed but various cables were left on the floor. There was a very strong hydrocarbon odour in the room. In the water tank room on Level 2 (off-site) the water tank was approximately 2m x 2m x 1m in size with three pumps that were used to transfer the water up to the roof. Nine 25kg plastic containers of a water treatment chemical (Ultralox 40) were stored on the floor next to the associated water treatment system.

	The water tank on the roof (off-site) was approximately 2m x 2m x 3m.
Environmental Management	No formal environmental management system was in operation or required and a very good standard of housekeeping was observed throughout.
Emergency Procedures	Fire action routes and procedures were shown clearly on notice boards. Emergency power and fire suppression systems were situated off-site within the basement wider Broad Street Mall premises.
Environmental observations - surroundings	Whilst the neighbouring properties were not inspected, no significant environmental concerns were observed.
Additional Matters	An electricity substation was situated off-site on Level 2. No access was possible within the unit to inspect the equipment. Groundsure has not had sight of an Asbestos Register or Management plan for the property and, given the premises, the presence of asbestos-containing materials could not be discounted.

7.2 Regulated Activities

No activities requiring environmental permits were being undertaken at the Site.

8 Regulatory Consultations

8.1 Local Authority Environmental Protection Team

The time available to prepare this report prevented consultations being sought with the Local Authority Environmental Health about contaminated land matters at the Site.

8.2 Local Authority Planning Section

Groundsure did not consider it necessary to undertake consultations with the Local Authority Planning Department. However, Groundsure reviewed the planning information available on the Reading Council website². No mapping portal was available so the postcode was used.

Two applications were available for Fountain House that related to external alterations and installation of a new entrance foyer and a change of use of the third floor from Class B1 (office) to Class D1 (educational use). No conditions relating to land contamination were imposed on the applications.

The remaining other planning applications available generally related changes to the signs and facades and alterations to uses of the retail units on Queens Walk.

8.3 Petroleum Licensing Section

Groundsure did not consider it necessary to undertake consultations with the Petroleum Licensing Department.

8.4 Environment Agency

Groundsure did not consider it necessary to undertake consultations with the Environment Agency.

² "Reading Borough Council Online Planning." http://planning.reading.gov.uk/fastweb_PL/. Accessed 14 Jul. 2021.

9 Conceptual Site Model

The qualitative assessment provides a conceptual model based on a source-pathway-receptor pollutant linkage risk assessment as detailed in the Environment Agency's Land Contamination, Risk Management model (LCRM). If one of these elements is missing there can be no significant environmental risk according to the statutory definition of "Contaminated Land" under Part 2A of the Environmental Protection Act 1990. This is a test to demonstrate that no significant harm is occurring.

9.1 Receptors

The following identified receptors may be impacted by an environmental hazard if linking pathways are found to be present:

- Human health
 - Site Users - Proposed residential users of apartments
 - Surrounding Site Users - Commercial users, residents in student accommodation and users of the nearby allotments
- Controlled waters
 - Groundwater - Principal aquifer with nearby potable abstraction
- Other
 - Property - Existing subsurface buildings and infrastructure

9.2 Overview of potential current and historical sources of contamination and associated contaminants

The following identified potentially contaminative land uses may be a source of environmental hazard if linking pathways are found to be present.

Activity	Dates	Location	Potential contaminants of concern
Saw mill	Pre 1879 - at least 1931	Centre east of the Site and extending off to the east.	Fuel and oil hydrocarbons, resins including ammonium based compounds, catalysts, sizing agents, surface coatings including metal fines and heavy metals, organic solvents, preservative treatments including creosote, polychlorinated biphenyls (PCBs), asbestos and ground gases.
Electricity substation	Since 1973	Off-site on level 2 of the building.	Polychlorinated biphenyls (PCBs), total petroleum hydrocarbons (TPHs), asbestos and cleaning detergents (maintenance).
Backup power generators	1973 until unknown date		Fuel and oil hydrocarbons

9.3 Conceptual Model

Receptor	Pathways	Risk
SOURCE: Former activities on the Site and the surrounding area.		
Site Users	Dermal contact; Soil ingestion; Dust ingestion/ inhalation Inhalation (ground gas)	Low
	Migration via permeable geology and groundwater then Dermal contact; Soil ingestion; Dust ingestion/ inhalation Inhalation (ground gas)	Low
Surrounding Site Users	Migration via permeable geology and groundwater then Dermal contact (water/ soils); Soil ingestion.	Low
	Migration via surface water runoff then Dermal contact (water/ soils); Soil ingestion.	Low
Groundwater	Horizontal and vertical migration via permeable geology and/or preferential pathways	Low
Property	Direct contact (chemical attack) Explosive conditions	Low

9.4 Justification

Given that part of the Site and the area to the east were used as a saw mill, the potential for elevated concentrations of chemicals of concern in the underlying soils and groundwater can not be completely discounted. However, the presence of the building would prevent any site users from interacting with soils or groundwater.

As the electricity substation and power generator were situated on level 2 of the building it was considered not to be possible to impact the underlying soils.

With the conversion of the building, no new foundations will be required and therefore no new preferential pathways will be created. Significant excavations would have been required as part of the constitution of Fountain House and the remainder of the Broad Street Mall and therefore potential pollutant pathways with a low risk have been assessed.

10 Conclusions & Recommendations

10.1 Conclusions

This preliminary risk assessment considered there to be a low risk with respect to the proposed development. No unacceptable risks have been identified and the Site can be considered suitable for the proposed development.

10.2 Recommendations

Submit this report to the Council to support planning application and retain copy to show fulfillment of the developers responsibilities with respect to land contamination matters for the proposed development.

10.3 Additional matters

Very strong hydrocarbon odours were encountered in the room used to house the diesel tank associated with the disused backup power generator. A prudent developer should engage with the property managers to ensure that adequate ventilation is in place to prevent the migration of fumes into the Site or that the tank is removed.

Appendix A

Figures

Site Address: Fountain House, Broad Street
Mall, Reading, RG1 7QF

Project Reference: GSP-2021-2001

Grid Reference: 471153, 173371

Scale at A3: 1:10,000

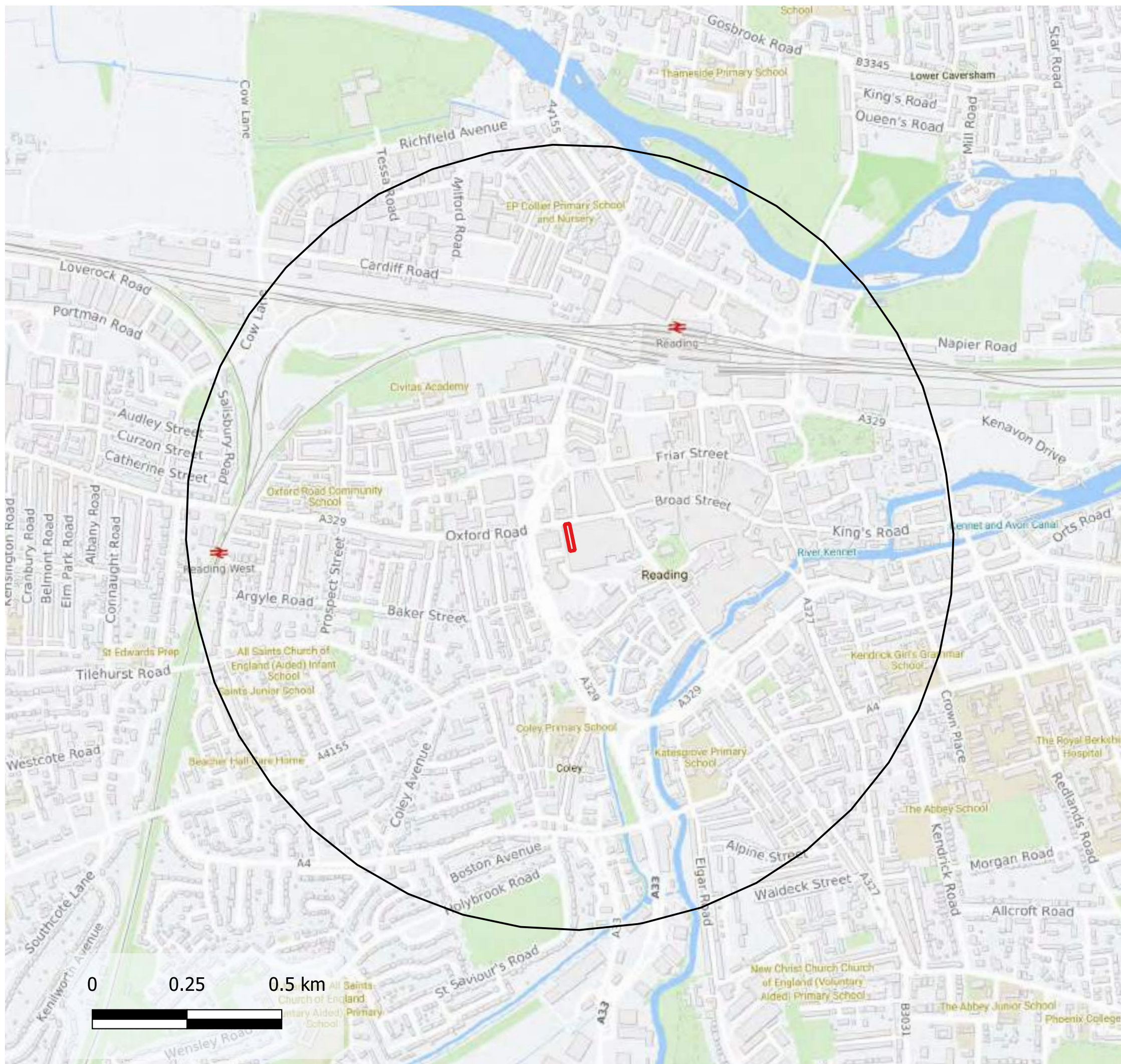
Figure 1: Large Scale Site Location

Date: 14/07/2021



Site Details

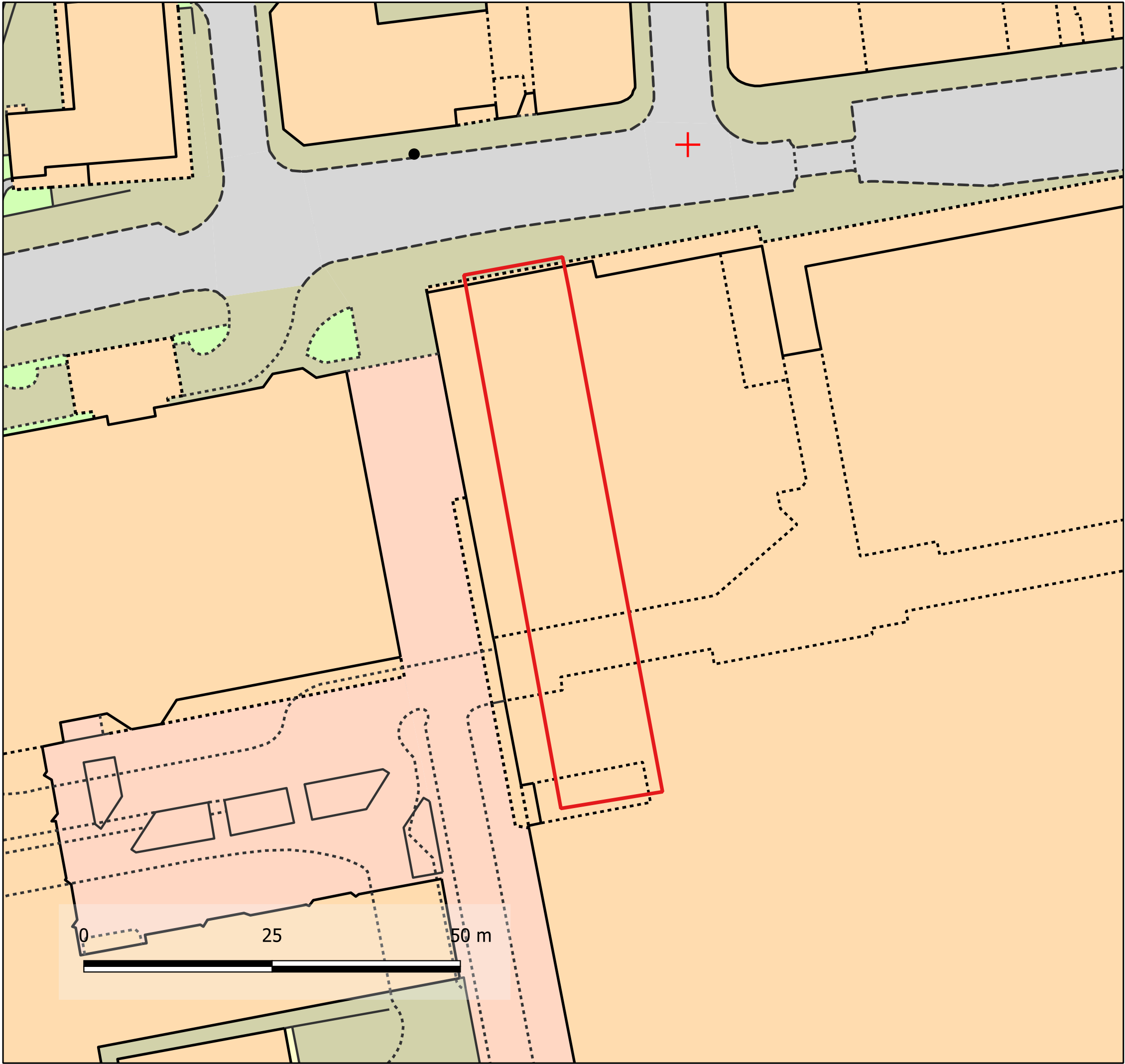
 1km buffer  Site Outline



Produced by Groundsure

T: 01273 257755
E: info@groundsure.com
W: www.groundsure.com

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Ordnance Survey 10035207



Site Address: Fountain House, Broad Street Mall, Reading, RG1 7QF

Project Reference: GSP-2021-2001

Grid Reference: 471153, 173371

Scale at A3: 1:500

Figure 2: Key Features Plan

Date: 14/07/2021



Mastermap Legend

- | | |
|---|---|
|  Multi Surface |  Manmade Surface |
|  Building |  Road or Track |
|  Water |  Natural Surface |

Site Details

 Site Outline

Annotations not to scale



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E: info@groundsure.com
W: www.groundsure.com

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Ordnance Survey 10035207

Appendix B

Photographic Record



Photo 1: View of Fountain House from Queens Walk.



Photo 2: Fountain House ground floor reception.



Photo 3: Entrance to Fountain House from the basement shared with the Broad Street Mall.



Photo 4: Off-site external area that provides access to the plant rooms on Level 2.



Photo 5: External area off-site on Level 2 that houses some of the building's air condition units.



Photo 6: Water tank off-site on Level 2.



Photo 7: Wires in a bundled room off-site in Level 2 used to house the diesel tank for the disused backup generator.



Photo 8: Plant room off-site on Level 2.



Photo 9: View across the office space on Level



Photo 10: View across the roof of the building.

Appendix C

Groundsure Insight

FOUNTAIN HOUSE, BROAD STREET MALL, READING, RG1 7QF**Order Details**

Date: 09/07/2021
Your ref: GSP-2021-2001
Our Ref: GS-8032015
Client: Groundsure

Site Details

Location: 471152 173368
Area: 0.1 ha
Authority: [Reading Borough Council](#)



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Summary of findings

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Aerial image

p. 8

OS MasterMap site plan

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Contact us with any questions at:

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08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
14	1.1	<u>Historical industrial land uses</u>	1	0	3	64	-
17	1.2	<u>Historical tanks</u>	0	0	14	41	-
19	1.3	<u>Historical energy features</u>	0	0	10	29	-
21	1.4	Historical petrol stations	0	0	0	0	-
21	1.5	<u>Historical garages</u>	0	0	15	20	-
23	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
24	2.1	<u>Historical industrial land uses</u>	1	0	4	78	-
28	2.2	<u>Historical tanks</u>	0	0	15	62	-
31	2.3	<u>Historical energy features</u>	0	0	22	70	-
34	2.4	Historical petrol stations	0	0	0	0	-
34	2.5	<u>Historical garages</u>	0	0	24	46	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
38	3.1	Active or recent landfill	0	0	0	0	-
38	3.2	Historical landfill (BGS records)	0	0	0	0	-
39	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
39	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
39	3.5	<u>Historical waste sites</u>	0	0	0	2	-
40	3.6	Licensed waste sites	0	0	0	0	-
40	3.7	<u>Waste exemptions</u>	0	0	7	17	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
43	4.1	<u>Recent industrial land uses</u>	0	1	19	-	-
45	4.2	<u>Current or recent petrol stations</u>	0	0	1	1	-
45	4.3	Electricity cables	0	0	0	0	-
45	4.4	Gas pipelines	0	0	0	0	-
45	4.5	Sites determined as Contaminated Land	0	0	0	0	-



45	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
46	4.7	Regulated explosive sites	0	0	0	0	-
46	4.8	Hazardous substance storage/usage	0	0	0	0	-
46	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
46	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
46	4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	-
47	4.12	Radioactive Substance Authorisations	0	0	0	0	-
47	4.13	<u>Licensed Discharges to controlled waters</u>	0	0	0	5	-
48	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
48	4.15	Pollutant release to public sewer	0	0	0	0	-
48	4.16	List 1 Dangerous Substances	0	0	0	0	-
48	4.17	List 2 Dangerous Substances	0	0	0	0	-
48	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	1	8	-
50	4.19	Pollution inventory substances	0	0	0	0	-
50	4.20	Pollution inventory waste transfers	0	0	0	0	-
50	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
51	5.1	<u>Superficial aquifer</u>	Identified (within 500m)				
53	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
55	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
56	5.4	<u>Groundwater vulnerability- soluble rock risk</u>	Identified (within 0m)				
56	5.5	Groundwater vulnerability- local information	None (within 0m)				
57	5.6	<u>Groundwater abstractions</u>	0	0	1	0	15
61	5.7	<u>Surface water abstractions</u>	0	0	0	2	4
63	5.8	<u>Potable abstractions</u>	0	0	1	0	4
64	5.9	Source Protection Zones	0	0	0	0	-
64	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
65	6.1	Water Network (OS MasterMap)	0	0	0	-	-



65	6.2	Surface water features	0	0	0	-	-
66	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
66	6.4	<u>WFD Surface water bodies</u>	0	0	0	-	-
67	6.5	<u>WFD Groundwater bodies</u>	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
68	7.1	Risk of Flooding from Rivers and Sea (RoFRaS)	None (within 50m)				
68	7.2	Historical Flood Events	0	0	0	-	-
68	7.3	Flood Defences	0	0	0	-	-
68	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
69	7.5	Flood Storage Areas	0	0	0	-	-
70	7.6	Flood Zone 2	None (within 50m)				
70	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
71	8.1	<u>Surface water flooding</u>	1 in 250 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
73	9.1	<u>Groundwater flooding</u>	High (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
74	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
74	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
74	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
74	10.4	Special Protection Areas (SPA)	0	0	0	0	0
75	10.5	National Nature Reserves (NNR)	0	0	0	0	0
75	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
75	10.7	Designated Ancient Woodland	0	0	0	0	0
75	10.8	Biosphere Reserves	0	0	0	0	0
76	10.9	Forest Parks	0	0	0	0	0
76	10.10	Marine Conservation Zones	0	0	0	0	0
76	10.11	Green Belt	0	0	0	0	0
76	10.12	Proposed Ramsar sites	0	0	0	0	0



76	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
77	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
77	10.15	Nitrate Sensitive Areas	0	0	0	0	0
77	10.16	<u>Nitrate Vulnerable Zones</u>	0	0	1	0	0
78	10.17	SSSI Impact Risk Zones	0	-	-	-	-
78	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
79	11.1	World Heritage Sites	0	0	0	-	-
80	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
80	11.3	National Parks	0	0	0	-	-
80	11.4	<u>Listed Buildings</u>	0	1	40	-	-
82	11.5	<u>Conservation Areas</u>	0	0	2	-	-
82	11.6	Scheduled Ancient Monuments	0	0	0	-	-
83	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
84	12.1	<u>Agricultural Land Classification</u>	Urban (within 250m)				
85	12.2	Open Access Land	0	0	0	-	-
85	12.3	Tree Felling Licences	0	0	0	-	-
85	12.4	Environmental Stewardship Schemes	0	0	0	-	-
85	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
86	13.1	Priority Habitat Inventory	0	0	0	-	-
86	13.2	Habitat Networks	0	0	0	-	-
86	13.3	Open Mosaic Habitat	0	0	0	-	-
86	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
87	14.1	<u>10k Availability</u>	Identified (within 500m)				
88	14.2	<u>Artificial and made ground (10k)</u>	0	0	2	7	-
90	14.3	<u>Superficial geology (10k)</u>	1	0	1	2	-

91	14.4	Landslip (10k)	0	0	0	0	-
92	14.5	<u>Bedrock geology (10k)</u>	1	0	1	0	-
93	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
94	15.1	<u>50k Availability</u>	Identified (within 500m)				
95	15.2	Artificial and made ground (50k)	0	0	0	0	-
95	15.3	Artificial ground permeability (50k)	0	0	-	-	-
96	15.4	<u>Superficial geology (50k)</u>	1	0	1	2	-
97	15.5	<u>Superficial permeability (50k)</u>	Identified (within 50m)				
97	15.6	Landslip (50k)	0	0	0	0	-
97	15.7	Landslip permeability (50k)	None (within 50m)				
98	15.8	<u>Bedrock geology (50k)</u>	1	0	1	0	-
99	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
99	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
100	16.1	<u>BGS Boreholes</u>	2	3	92	-	-
Page	Section	Natural ground subsidence					
105	17.1	<u>Shrink swell clays</u>	Negligible (within 50m)				
106	17.2	<u>Running sands</u>	Very low (within 50m)				
107	17.3	<u>Compressible deposits</u>	Negligible (within 50m)				
108	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
109	17.5	<u>Landslides</u>	Very low (within 50m)				
110	17.6	<u>Ground dissolution of soluble rocks</u>	High (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
112	18.1	<u>Natural cavities</u>	0	1	1	21	-
115	18.2	<u>BritPits</u>	0	0	0	12	-
118	18.3	Surface ground workings	0	0	0	-	-
118	18.4	Underground workings	0	0	0	0	0
118	18.5	Historical Mineral Planning Areas	0	0	0	0	-



<u>118</u>	<u>18.6</u>	<u>Non-coal mining</u>	1	0	0	24	21
<u>123</u>	<u>18.7</u>	<u>Mining cavities</u>	0	0	0	9	22
<u>125</u>	<u>18.8</u>	<u>JPB mining areas</u>	Identified (within 0m)				
125	18.9	Coal mining	None (within 0m)				
125	18.10	Brine areas	None (within 0m)				
126	18.11	Gypsum areas	None (within 0m)				
126	18.12	Tin mining	None (within 0m)				
126	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
<u>127</u>	<u>19.1</u>	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
<u>128</u>	<u>20.1</u>	<u>BGS Estimated Background Soil Chemistry</u>	1	0	-	-	-
128	20.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
128	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
129	21.1	Underground railways (London)	0	0	0	-	-
129	21.2	Underground railways (Non-London)	0	0	0	-	-
129	21.3	Railway tunnels	0	0	0	-	-
129	21.4	Historical railway and tunnel features	0	0	0	-	-
129	21.5	Royal Mail tunnels	0	0	0	-	-
130	21.6	Historical railways	0	0	0	-	-
130	21.7	Railways	0	0	0	-	-
130	21.8	Crossrail 1	0	0	0	0	-
130	21.9	Crossrail 2	0	0	0	0	-
130	21.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 29/06/2019

Site Area: 0.1ha



Recent site history - 2015 aerial photograph



Capture Date: 20/04/2015

Site Area: 0.1ha



Recent site history - 2013 aerial photograph



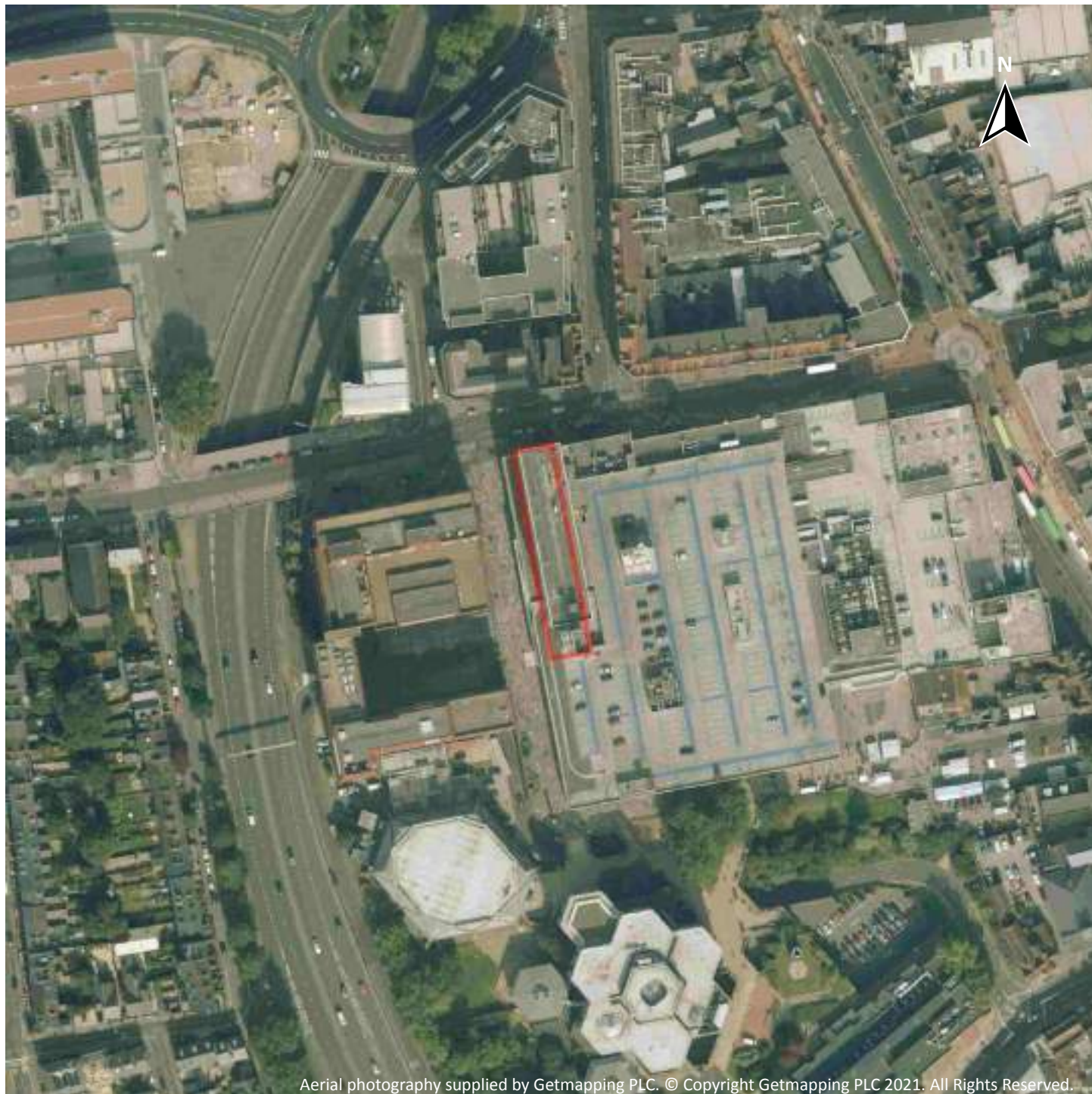
Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2021. All Rights Reserved.

Capture Date: 08/07/2013

Site Area: 0.1ha



Recent site history - 2010 aerial photograph



Capture Date: 22/09/2010

Site Area: 0.1ha



Recent site history - 1999 aerial photograph



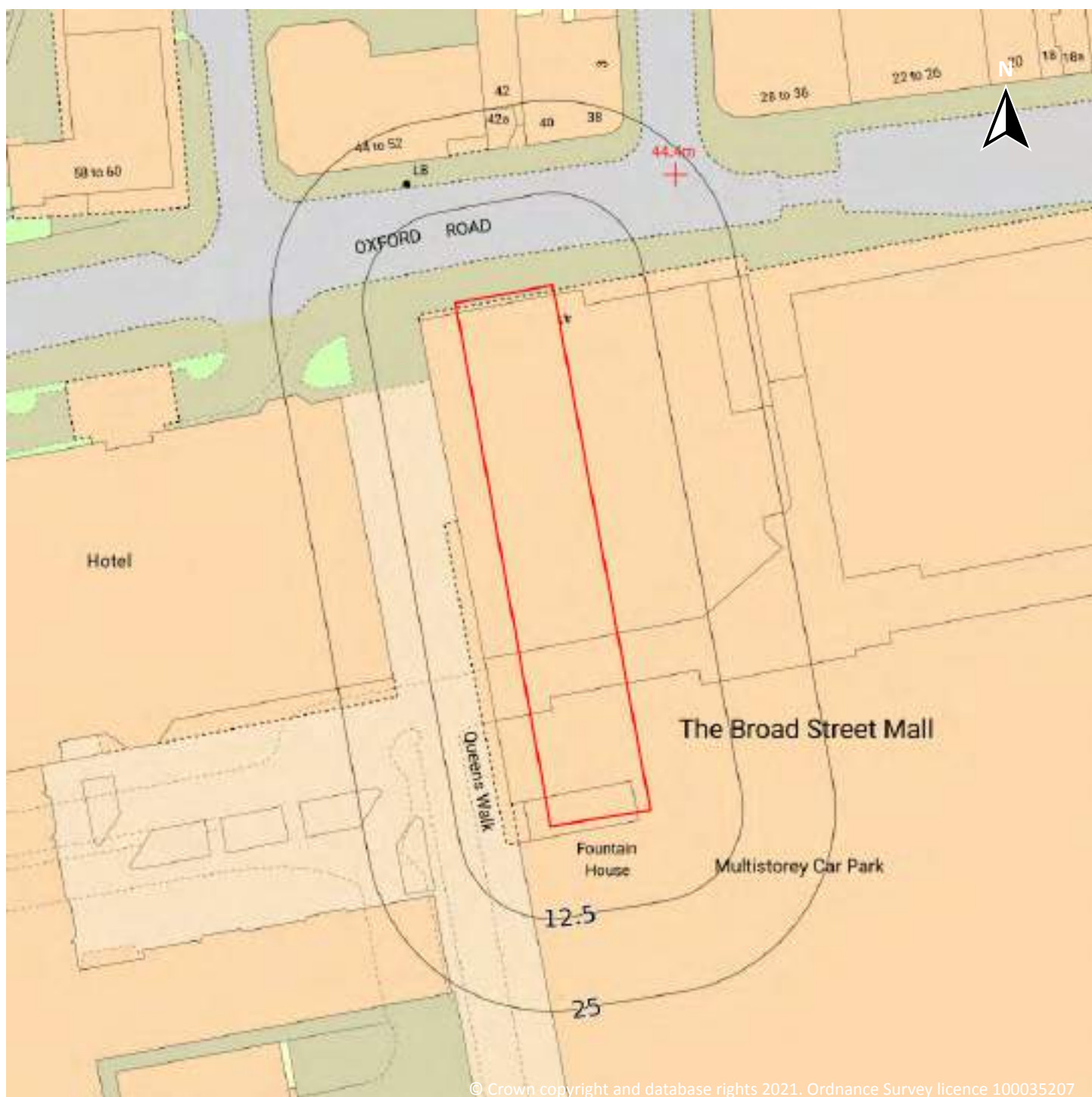
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Capture Date: 04/09/1999

Site Area: 0.1ha



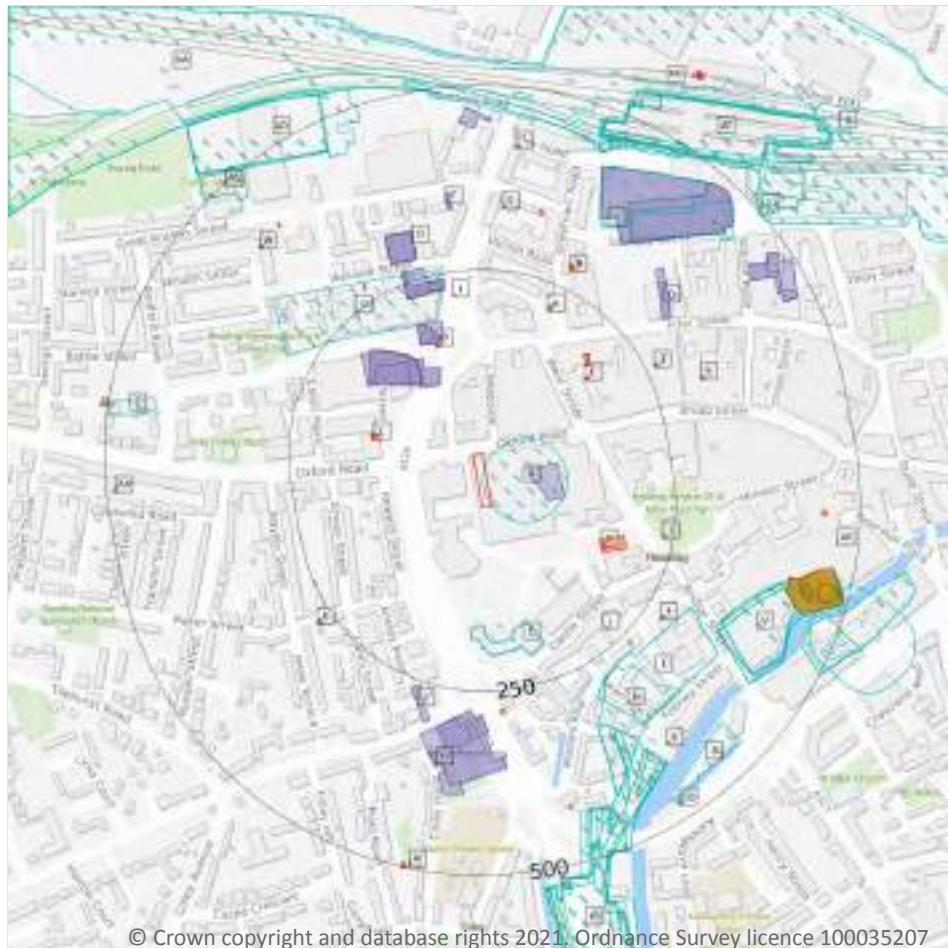
OS MasterMap site plan



Site Area: 0.1ha



1 Past land use



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

1.1 Historical industrial land uses

Records within 500m

68

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

Features are displayed on the Past land use map on **page 14**

ID	Location	Land use	Dates present	Group ID
A	On site	Smithy	1913	1875838



ID	Location	Land use	Dates present	Group ID
E	162m S	Police Station	1989 - 1994	1911315
E	162m S	Police Station	1977	1918131
G	187m N	Unspecified Depot	1977	1862097
L	272m SE	Brewery	1971	1886356
L	272m SE	Brewery	1977	1891852
N	276m SE	Unspecified Commercial/Industrial	1933	1874676
R	332m SE	Railway Sidings	1938	1908437
R	341m SE	Railway Sidings	1913	1962341
V	345m SE	Brewery	1971	1893062
V	345m SE	Brewery	1977	1899772
R	346m SE	Railway Sidings	1933	1904836
V	347m SE	Brewery	1933	1909883
R	349m SE	Railway Sidings	1938	1907664
U	349m NE	Smithy	1913	1875839
V	349m SE	Brewery	1938	1954219
U	350m NE	Bus Station	1994	1864796
V	352m SE	Unspecified Commercial/Industrial	1898	1874675
V	352m SE	Brewery	1938	1887421
V	352m SE	Brewery	1913	1939065
U	354m NE	Garage	1971	1883648
N	375m SE	Railway Building	1913	1866746
N	389m SE	Unspecified Commercial/Industrial	1933	1874678
R	400m SE	Railway Sidings	1962	1894468
N	402m SE	Railway Building	1938	1866743
8	428m SE	Hospitals	1898	1883028
X	429m E	Unspecified Tanks	1977	1888600
X	429m E	Unspecified Tanks	1971	1947112
R	432m S	Goods Depot	1933	1941720



ID	Location	Land use	Dates present	Group ID
R	434m S	Railway Building	1962	1866753
Z	435m W	Nursery	1913	1867818
R	437m S	Goods Depot	1938	1957749
X	438m E	Unspecified Tank	1898	1858411
AA	440m N	Railway Sidings	1989 - 1994	1913684
AB	440m N	Railway Building	1977	1901767
AB	440m N	Railway Building	1989 - 1994	1964573
9	441m N	Railway Sidings	1897 - 1913	1955038
AC	443m N	Railway Sidings	1932 - 1977	1908472
AD	445m NW	Corporation Yard	1989 - 1994	1939215
R	449m S	Railway Buildings	1913	1962923
R	454m S	Railway Buildings	1938	1963273
R	455m S	Railway Building	1962	1866747
AF	456m N	Railway Station	1971 - 1989	1962142
X	457m E	Unspecified Commercial/Industrial	1933	1874677
X	458m E	Unspecified Tank	1898	1914554
X	458m E	Unspecified Tank	1913	1961041
AF	458m N	Railway Station	1962	1936088
AD	459m NW	Corporation Yard	1962	1909928
AD	459m NW	Corporation Yard	1938	1932614
AD	459m NW	Corporation Yard	1913	1962441
AD	459m NW	Corporation Yard	1933 - 1938	1935241
AA	459m N	Railway Sidings	1933	1905455
X	460m SE	Unspecified Depot	1989 - 1994	1895129
X	460m SE	Unspecified Depot	1977	1945841
X	462m E	Unspecified Mill	1898	1872613
AF	462m N	Railway Station	1913	1937402
AF	462m N	Railway Station	1938	1962601



ID	Location	Land use	Dates present	Group ID
AF	463m N	Railway Station	1898 - 1994	1906538
AF	465m N	Railway Station	1938	1948567
AG	465m NW	Unspecified Works	1977	1860419
AG	465m NW	Unspecified Commercial/Industrial	1989 - 1994	1907408
AF	468m N	Railway Station	1933	1958834
AC	473m N	Railway Building	1898	1866754
AC	486m N	Railway Building	1913	1866755
X	488m SE	Railway Sidings	1933	1883121
11	498m NE	Railway Building	1962	1866740
AA	498m N	Railway Building	1913	1899836
AA	498m N	Railway Building	1938	1968519

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

55

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

Features are displayed on the Past land use map on **page 14**

ID	Location	Land use	Dates present	Group ID
E	191m S	Unspecified Tank	1879	319808
E	191m S	Unspecified Tank	1879	327778
H	214m NE	Unspecified Tank	1900	322205
I	217m N	Tank or Trough	1880	321521
I	217m N	Tank or Trough	1880	325799
H	218m NE	Unspecified Tank	1912	315638
H	221m NE	Unspecified Tank	1879	312605



ID	Location	Land use	Dates present	Group ID
J	226m SE	Unspecified Tank	1980	328216
J	226m SE	Unspecified Tank	1970	314248
1	236m E	Unspecified Tank	1931	305870
I	239m N	Unspecified Tank	1880	314047
I	239m N	Unspecified Tank	1880	317232
I	241m N	Unspecified Tank	1880	321877
I	241m N	Unspecified Tank	1880	318898
J	261m SE	Unspecified Tank	1970 - 1980	321457
4	275m SE	Unspecified Tank	1970 - 1980	314799
O	303m N	Pump and Tank	1880	313632
O	303m N	Pump and Tank	1880	317922
S	336m N	Tank or Trough	1879	316845
S	336m N	Tank or Trough	1879	324092
S	337m N	Tank or Trough	1879	316867
S	337m N	Tank or Trough	1879	325471
M	350m S	Unspecified Tank	1972	305872
U	384m NE	Unspecified Tank	1969	305869
6	400m SE	Unspecified Tank	1970 - 1988	325725
R	408m S	Unspecified Tank	1879	318016
X	414m E	Gas Works	1879 - 1912	313448
X	415m E	Gas Works	1879	319202
X	430m E	Tanks	1962	319738
X	431m E	Tanks	1968 - 1979	325975
V	431m SE	Tank or Trough	1879	326975
V	431m SE	Tank or Trough	1879	325240
V	433m SE	Tank or Trough	1879	312010
X	436m E	Tanks	1957 - 1958	316943
X	436m E	Gasometer	1879	321935



ID	Location	Land use	Dates present	Group ID
X	436m E	Gasometer	1900	321837
X	436m E	Tanks	1956	317508
X	437m E	Gasometer	1879	315866
U	443m NE	Tank or Trough	1879	327920
U	443m NE	Tank or Trough	1879	326647
U	446m NE	Tank or Trough	1879	312006
X	456m E	Gasometer	1900 - 1912	325036
X	457m E	Gasometer	1879	319443
X	457m E	Gasometer	1879	327004
X	458m E	Gasometer	1879	313486
X	459m E	Unspecified Tank	1956 - 1958	312932
AE	471m E	Tanks	1879	323161
AE	471m E	Tanks	1879	324380
X	478m E	Tanks	1956 - 1979	326154
AH	485m W	Unspecified Tank	1958	313803
AH	485m W	Unspecified Tank	1959	316696
X	486m E	Tanks	1962 - 1968	324934
X	487m E	Tanks	1979	325205
Z	498m W	Unspecified Tank	1971	324894
Z	499m W	Unspecified Tank	1986 - 1993	325689

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

39

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

Features are displayed on the Past land use map on **page 14**



ID	Location	Land use	Dates present	Group ID
C	128m W	Electricity Substation	1980 - 1988	200961
C	129m W	Electricity Substation	1970	197671
B	153m N	Electricity Substation	1979 - 1996	209850
D	154m E	Electricity Substation	1970	196813
D	154m E	Electricity Substation	1980 - 1988	209601
F	173m NE	Electricity Substation	1993	206172
F	174m NE	Electricity Substation	1994 - 1996	200407
F	184m NE	Electricity Substation	1979 - 1993	211699
F	185m NE	Electricity Substation	1969	192596
F	185m NE	Electricity Substation	1986 - 1996	207537
3	262m NE	Electricity Substation	1986 - 1996	204833
K	266m SW	Electricity Substation	1971	202101
K	268m SW	Electricity Substation	1986 - 1993	196544
G	268m NW	Electricity Substation	1971 - 1986	198242
M	275m S	Electricity Substation	1980 - 1988	205200
P	277m NE	Electricity Substation	1979 - 1993	204406
P	277m NE	Electricity Substation	1986	204349
P	277m NE	Electricity Substation	1994 - 1996	209780
P	286m NE	Electricity Substation	1969	189830
5	315m E	Electricity Substation	1969 - 1996	198092
S	333m N	Electricity Substation	1993 - 1996	203574
M	337m S	Electricity Substation	1988	189825
N	354m SE	Electricity Substation	1988	189770
W	401m NW	Electricity Substation	1971	189829
W	406m NW	Electricity Substation	1986 - 1993	205279
X	414m E	Gas Works	1879 - 1912	196480
X	415m E	Gas Works	1879	209480
7	418m N	Electricity Substation	1988 - 1996	197999



ID	Location	Land use	Dates present	Group ID
R	421m S	Electricity Substation	1995 - 1996	208343
X	436m E	Gasometer	1879	203796
X	436m E	Gasometer	1900	208605
X	448m E	Electricity Substation	1968 - 1979	197972
AE	449m E	Electricity Substation	1968 - 1997	203216
X	456m E	Gasometer	1879 - 1912	199598
X	457m E	Gasometer	1879	201799
10	476m SE	Electricity Substation	1969	189771
AI	493m S	Electricity Substation	1986 - 1991	199489
AI	494m S	Electricity Substation	1968 - 1996	200123
Z	500m W	Electricity Substation	1971	209325

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

35

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

Features are displayed on the Past land use map on **page 14**



ID	Location	Land use	Dates present	Group ID
A	57m E	Garage	1957 - 1962	63734
B	105m NW	Garage	1957 - 1962	63978
B	105m NW	Garage	1957 - 1958	63727
B	119m NW	Car Park and Garage	1994	63159
B	119m NW	Car Park and Garage	1986 - 1996	64617
B	120m NW	Multistorey Garage and Car Park	1979 - 1993	64353
B	127m NW	Car Park and Garage	1969	62265
B	159m N	Garage	1962	62062
B	160m N	Garage	1957	62737
B	162m N	Garage	1957 - 1958	63801
B	168m NW	Garage	1971	60828
I	226m N	Garage	1957	62373
I	226m N	Garage	1957	62486
I	227m N	Garage	1958	62286
I	228m N	Garage	1962	61293
2	256m S	Garage	1957 - 1962	64498
M	275m S	Garage	1957 - 1958	63540
M	276m S	Garage	1957 - 1968	65185
O	277m N	Garage	1988 - 1993	64107
O	277m N	Garage	1994 - 1996	65332
O	277m N	Garage	1986	62866
M	287m S	Garage	1957 - 1958	65147
M	288m S	Garage	1957 - 1970	64972
M	288m S	Garage	1980	63231
Q	306m NE	Garage	1957 - 1969	65271
Q	306m NE	Garage	1957 - 1958	64825
M	334m S	Garage	1969 - 1972	64281
T	336m N	Garage	1957 - 1958	64847



ID	Location	Land use	Dates present	Group ID
T	336m N	Garage	1957 - 1969	63644
U	342m NE	Garage	1957	61452
U	343m NE	Garage	1957 - 1958	64717
U	352m NE	Garage	1962 - 1969	65314
Y	434m NE	Garage	1956 - 1971	65429
Y	434m NE	Garage	1957 - 1958	64369
AC	442m N	Garage	1969	60830

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m

0

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

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



2 Past land use - un-grouped



- Site Outline
- Search buffers in metres (m)
- Historical industrial land uses
- Historical tanks
- Historical energy features
- Historical garages

2.1 Historical industrial land uses

Records within 500m

83

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 24**

ID	Location	Land Use	Date	Group ID
A	On site	Smithy	1913	1875838
E	162m S	Police Station	1994	1911315
E	162m S	Police Station	1989	1911315



ID	Location	Land Use	Date	Group ID
E	162m S	Police Station	1977	1918131
G	187m N	Unspecified Depot	1977	1862097
N	272m SE	Brewery	1977	1891852
N	272m SE	Brewery	1971	1886356
Q	276m SE	Unspecified Commercial/Industrial	1933	1874676
V	332m SE	Railway Sidings	1938	1908437
V	341m SE	Railway Sidings	1913	1962341
Z	345m SE	Brewery	1977	1899772
Z	345m SE	Brewery	1971	1893062
V	346m SE	Railway Sidings	1933	1904836
Z	347m SE	Brewery	1933	1909883
V	349m SE	Railway Sidings	1938	1907664
Y	349m NE	Smithy	1913	1875839
Z	349m SE	Brewery	1938	1954219
Y	350m NE	Bus Station	1994	1864796
Z	352m SE	Brewery	1938	1887421
Z	352m SE	Brewery	1913	1939065
Z	352m SE	Unspecified Commercial/Industrial	1898	1874675
Y	354m NE	Garage	1971	1883648
Q	375m SE	Railway Building	1913	1866746
Q	389m SE	Unspecified Commercial/Industrial	1933	1874678
V	400m SE	Railway Sidings	1962	1894468
Q	402m SE	Railway Building	1938	1866743
2	428m SE	Hospitals	1898	1883028
AC	429m E	Unspecified Tanks	1977	1888600
AC	429m E	Unspecified Tanks	1971	1947112
V	432m S	Goods Depot	1933	1941720
V	434m S	Railway Building	1962	1866753



ID	Location	Land Use	Date	Group ID
AF	435m W	Nursery	1913	1867818
V	437m S	Goods Depot	1938	1957749
AC	438m E	Unspecified Tank	1898	1858411
AG	440m N	Railway Building	1994	1964573
AG	440m N	Railway Building	1989	1964573
AG	440m N	Railway Building	1977	1901767
AH	440m N	Railway Sidings	1994	1913684
AH	440m N	Railway Sidings	1989	1913684
AI	441m N	Railway Sidings	1913	1955038
AI	443m N	Railway Sidings	1938	1908472
AJ	445m NW	Corporation Yard	1994	1939215
AJ	445m NW	Corporation Yard	1989	1939215
AI	447m N	Railway Sidings	1938	1908472
AI	448m N	Railway Sidings	1977	1908472
AI	448m N	Railway Sidings	1962	1908472
AI	448m N	Railway Sidings	1971	1908472
V	449m S	Railway Buildings	1913	1962923
V	454m S	Railway Buildings	1938	1963273
V	455m S	Railway Building	1962	1866747
AI	456m N	Railway Sidings	1898	1955038
AL	456m N	Railway Station	1989	1962142
AC	457m E	Unspecified Commercial/Industrial	1933	1874677
AC	458m E	Unspecified Tank	1913	1961041
AC	458m E	Unspecified Tank	1898	1914554
AL	458m N	Railway Station	1977	1962142
AL	458m N	Railway Station	1962	1936088
AL	458m N	Railway Station	1971	1962142
AJ	459m NW	Corporation Yard	1938	1932614



ID	Location	Land Use	Date	Group ID
AJ	459m NW	Corporation Yard	1913	1962441
AJ	459m NW	Corporation Yard	1962	1909928
AJ	459m NW	Corporation Yard	1938	1935241
AH	459m N	Railway Sidings	1933	1905455
AC	460m SE	Unspecified Depot	1994	1895129
AC	460m SE	Unspecified Depot	1989	1895129
AC	460m SE	Unspecified Depot	1977	1945841
AC	462m E	Unspecified Mill	1898	1872613
AL	462m N	Railway Station	1938	1962601
AL	462m N	Railway Station	1913	1937402
AL	463m N	Railway Station	1994	1906538
AJ	465m NW	Corporation Yard	1933	1935241
AL	465m N	Railway Station	1938	1948567
AM	465m NW	Unspecified Commercial/Industrial	1994	1907408
AM	465m NW	Unspecified Commercial/Industrial	1989	1907408
AM	465m NW	Unspecified Works	1977	1860419
AL	468m N	Railway Station	1933	1958834
AI	473m N	Railway Building	1898	1866754
AL	483m NE	Railway Station	1898	1906538
AI	486m N	Railway Building	1913	1866755
AC	488m SE	Railway Sidings	1933	1883121
4	498m NE	Railway Building	1962	1866740
AH	498m N	Railway Building	1938	1968519
AH	498m N	Railway Building	1913	1899836

This data is sourced from Ordnance Survey / Groundsure.



2.2 Historical tanks

Records within 500m

77

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 24**

ID	Location	Land Use	Date	Group ID
E	191m S	Unspecified Tank	1879	319808
E	191m S	Unspecified Tank	1879	327778
H	214m NE	Unspecified Tank	1900	322205
I	217m N	Tank or Trough	1880	321521
I	217m N	Tank or Trough	1880	325799
H	218m NE	Unspecified Tank	1912	315638
H	221m NE	Unspecified Tank	1879	312605
H	221m NE	Unspecified Tank	1879	312605
J	226m SE	Unspecified Tank	1980	328216
J	226m SE	Unspecified Tank	1970	314248
1	236m E	Unspecified Tank	1931	305870
I	239m N	Unspecified Tank	1880	314047
I	239m N	Unspecified Tank	1880	317232
I	241m N	Unspecified Tank	1880	321877
I	241m N	Unspecified Tank	1880	318898
J	261m SE	Unspecified Tank	1980	321457
J	261m SE	Unspecified Tank	1970	321457
O	275m SE	Unspecified Tank	1980	314799
O	275m SE	Unspecified Tank	1970	314799
R	303m N	Pump and Tank	1880	313632
R	303m N	Pump and Tank	1880	317922
W	336m N	Tank or Trough	1879	324092
W	336m N	Tank or Trough	1879	316845



ID	Location	Land Use	Date	Group ID
W	337m N	Tank or Trough	1879	316867
W	337m N	Tank or Trough	1879	325471
P	350m S	Unspecified Tank	1972	305872
Y	384m NE	Unspecified Tank	1969	305869
AA	400m SE	Unspecified Tank	1988	325725
AA	401m SE	Unspecified Tank	1980	325725
AA	401m SE	Unspecified Tank	1970	325725
V	408m S	Unspecified Tank	1879	318016
V	408m S	Unspecified Tank	1879	318016
AC	414m E	Gas Works	1900	313448
AC	414m E	Gas Works	1912	313448
AC	414m E	Gas Works	1879	313448
AC	414m E	Gas Works	1879	313448
AC	415m E	Gas Works	1879	319202
AC	430m E	Tanks	1962	319738
AC	431m E	Tanks	1968	325975
Z	431m SE	Tank or Trough	1879	326975
Z	431m SE	Tank or Trough	1879	325240
AC	431m E	Tanks	1979	325975
Z	433m SE	Tank or Trough	1879	312010
AC	436m E	Tanks	1957	316943
AC	436m E	Tanks	1958	316943
AC	436m E	Gasometer	1879	321935
AC	436m E	Gasometer	1879	321935
AC	436m E	Gasometer	1900	321837
AC	436m E	Tanks	1956	317508
AC	437m E	Gasometer	1879	315866
Y	443m NE	Tank or Trough	1879	327920

ID	Location	Land Use	Date	Group ID
Y	443m NE	Tank or Trough	1879	326647
Y	446m NE	Tank or Trough	1879	312006
AC	456m E	Gasometer	1900	325036
AC	456m E	Gasometer	1912	325036
AC	457m E	Gasometer	1879	319443
AC	457m E	Gasometer	1879	327004
AC	458m E	Gasometer	1879	313486
AC	459m E	Unspecified Tank	1956	312932
AC	459m E	Unspecified Tank	1957	312932
AC	459m E	Unspecified Tank	1958	312932
AK	471m E	Tanks	1879	324380
AK	471m E	Tanks	1879	323161
AC	478m E	Tanks	1957	326154
AC	478m E	Tanks	1958	326154
AC	479m E	Tanks	1962	326154
AC	479m E	Tanks	1956	326154
AC	479m E	Tanks	1968	326154
AC	480m E	Tanks	1979	326154
AN	485m W	Unspecified Tank	1958	313803
AN	485m W	Unspecified Tank	1959	316696
AC	486m E	Tanks	1962	324934
AC	486m E	Tanks	1968	324934
AC	487m E	Tanks	1979	325205
AF	498m W	Unspecified Tank	1971	324894
AF	499m W	Unspecified Tank	1986	325689
AF	499m W	Unspecified Tank	1993	325689

This data is sourced from Ordnance Survey / Groundsure.



2.3 Historical energy features

Records within 500m

92

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 24**

ID	Location	Land Use	Date	Group ID
C	128m W	Electricity Substation	1980	200961
C	128m W	Electricity Substation	1988	200961
C	129m W	Electricity Substation	1970	197671
B	153m N	Electricity Substation	1979	209850
B	153m N	Electricity Substation	1988	209850
B	153m N	Electricity Substation	1993	209850
B	154m N	Electricity Substation	1986	209850
D	154m E	Electricity Substation	1970	196813
B	154m N	Electricity Substation	1994	209850
B	154m N	Electricity Substation	1996	209850
D	154m E	Electricity Substation	1988	209601
D	155m E	Electricity Substation	1980	209601
F	173m NE	Electricity Substation	1993	206172
F	174m NE	Electricity Substation	1994	200407
F	174m NE	Electricity Substation	1996	200407
F	184m NE	Electricity Substation	1979	211699
F	184m NE	Electricity Substation	1988	211699
F	184m NE	Electricity Substation	1993	211699
F	185m NE	Electricity Substation	1986	207537
F	185m NE	Electricity Substation	1969	192596
F	186m NE	Electricity Substation	1994	207537
F	186m NE	Electricity Substation	1996	207537
L	262m NE	Electricity Substation	1988	204833



ID	Location	Land Use	Date	Group ID
L	262m NE	Electricity Substation	1993	204833
L	263m NE	Electricity Substation	1994	204833
L	263m NE	Electricity Substation	1996	204833
L	264m NE	Electricity Substation	1986	204833
M	266m SW	Electricity Substation	1971	202101
M	268m SW	Electricity Substation	1986	196544
M	268m SW	Electricity Substation	1993	196544
G	268m NW	Electricity Substation	1971	198242
G	268m NW	Electricity Substation	1986	198242
P	275m S	Electricity Substation	1980	205200
P	276m S	Electricity Substation	1988	205200
S	277m NE	Electricity Substation	1979	204406
S	277m NE	Electricity Substation	1988	204406
S	277m NE	Electricity Substation	1993	204406
S	277m NE	Electricity Substation	1986	204349
S	277m NE	Electricity Substation	1994	209780
S	277m NE	Electricity Substation	1996	209780
S	286m NE	Electricity Substation	1969	189830
U	315m E	Electricity Substation	1969	198092
U	315m E	Electricity Substation	1979	198092
U	315m E	Electricity Substation	1988	198092
U	315m E	Electricity Substation	1993	198092
U	315m E	Electricity Substation	1994	198092
U	315m E	Electricity Substation	1996	198092
U	315m E	Electricity Substation	1986	198092
W	333m N	Electricity Substation	1993	203574
W	336m N	Electricity Substation	1994	203574
W	336m N	Electricity Substation	1996	203574



ID	Location	Land Use	Date	Group ID
P	337m S	Electricity Substation	1988	189825
Q	354m SE	Electricity Substation	1988	189770
AB	401m NW	Electricity Substation	1971	189829
AB	406m NW	Electricity Substation	1986	205279
AB	406m NW	Electricity Substation	1993	205279
AC	414m E	Gas Works	1900	196480
AC	414m E	Gas Works	1912	196480
AC	414m E	Gas Works	1879	196480
AC	414m E	Gas Works	1879	196480
AC	415m E	Gas Works	1879	209480
AD	418m N	Electricity Substation	1988	197999
AD	418m N	Electricity Substation	1993	197999
AD	420m N	Electricity Substation	1994	197999
AD	420m N	Electricity Substation	1996	197999
V	421m S	Electricity Substation	1995	208343
V	421m S	Electricity Substation	1996	208343
AC	436m E	Gasometer	1879	203796
AC	436m E	Gasometer	1879	203796
AC	436m E	Gasometer	1900	208605
AC	437m E	Gasometer	1879	203796
AC	448m E	Electricity Substation	1968	197972
AK	449m E	Electricity Substation	1988	203216
AK	449m E	Electricity Substation	1968	203216
AC	449m E	Electricity Substation	1979	197972
AK	449m E	Electricity Substation	1997	203216
AK	450m E	Electricity Substation	1979	203216
AK	450m E	Electricity Substation	1988	203216
AC	456m E	Gasometer	1900	199598



ID	Location	Land Use	Date	Group ID
AC	456m E	Gasometer	1912	199598
AC	457m E	Gasometer	1879	199598
AC	457m E	Gasometer	1879	201799
AC	458m E	Gasometer	1879	199598
3	476m SE	Electricity Substation	1969	189771
AO	493m S	Electricity Substation	1986	199489
AO	493m S	Electricity Substation	1991	199489
AO	494m S	Electricity Substation	1995	200123
AO	494m S	Electricity Substation	1996	200123
AO	494m S	Electricity Substation	1968	200123
AO	495m S	Electricity Substation	1972	200123
AO	495m S	Electricity Substation	1969	200123
AF	500m W	Electricity Substation	1971	209325

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

70

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 24**



ID	Location	Land Use	Date	Group ID
A	57m E	Garage	1957	63734
A	57m E	Garage	1962	63734
A	57m E	Garage	1957	63734
A	57m E	Garage	1958	63734
B	105m NW	Garage	1962	63978
B	105m NW	Garage	1957	63978
B	105m NW	Garage	1957	63727
B	105m NW	Garage	1958	63727
B	119m NW	Car Park and Garage	1994	63159
B	119m NW	Car Park and Garage	1996	64617
B	120m NW	Multistorey Garage and Car Park	1988	64353
B	120m NW	Multistorey Garage and Car Park	1993	64353
B	120m NW	Multistorey Garage and Car Park	1979	64353
B	120m NW	Car Park and Garage	1986	64617
B	127m NW	Car Park and Garage	1969	62265
B	159m N	Garage	1962	62062
B	160m N	Garage	1957	62737
B	162m N	Garage	1957	63801
B	162m N	Garage	1958	63801
B	168m NW	Garage	1971	60828
I	226m N	Garage	1957	62373
I	226m N	Garage	1957	62486
I	227m N	Garage	1958	62286
I	228m N	Garage	1962	61293
K	256m S	Garage	1957	64498
K	256m S	Garage	1958	64498
K	260m S	Garage	1957	64498
K	260m S	Garage	1962	64498



ID	Location	Land Use	Date	Group ID
P	275m S	Garage	1957	63540
P	275m S	Garage	1958	63540
P	276m S	Garage	1962	65185
R	277m N	Garage	1988	64107
R	277m N	Garage	1993	64107
R	277m N	Garage	1994	65332
R	277m N	Garage	1996	65332
R	277m N	Garage	1986	62866
P	286m S	Garage	1957	65185
P	287m S	Garage	1957	65147
P	287m S	Garage	1958	65147
P	288m S	Garage	1957	64972
P	288m S	Garage	1970	64972
P	288m S	Garage	1962	64972
P	288m S	Garage	1980	63231
T	306m NE	Garage	1962	65271
T	306m NE	Garage	1957	65271
T	306m NE	Garage	1969	65271
T	306m NE	Garage	1957	64825
T	306m NE	Garage	1958	64825
P	333m S	Garage	1957	65185
P	333m S	Garage	1959	65185
P	334m S	Garage	1957	65185
P	334m S	Garage	1968	65185
P	334m S	Garage	1969	64281
P	334m S	Garage	1972	64281
X	336m N	Garage	1957	64847
X	336m N	Garage	1958	64847



ID	Location	Land Use	Date	Group ID
X	336m N	Garage	1962	63644
X	336m N	Garage	1957	63644
X	336m N	Garage	1969	63644
Y	342m NE	Garage	1957	61452
Y	343m NE	Garage	1957	64717
Y	343m NE	Garage	1958	64717
Y	352m NE	Garage	1962	65314
Y	352m NE	Garage	1969	65314
AE	434m NE	Garage	1962	65429
AE	434m NE	Garage	1956	65429
AE	434m NE	Garage	1971	65429
AE	434m NE	Garage	1957	64369
AE	434m NE	Garage	1958	64369
AI	442m N	Garage	1969	60830

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



- Site Outline
- Search buffers in metres (m)
- Historical waste sites
- Waste exemptions

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m

0

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m

0

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

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

3.5 Historical waste sites

Records within 500m

2

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

Features are displayed on the Waste and landfill map on **page 38**

ID	Location	Address	Further Details	Date
5	453m NW	Site Address: Great Knollys Street, Hodsoll Road, READING, Berkshire, RG1 7HP	Type of Site: Surface Car Park/Waste Station Planning application reference: 96/0097/R3/NJP Description: Relocation of a public car park and civic amenity recycling centre with associated landscaping. Relocation of a public car park and civic amenity recycling centre with associated landscaping. Detailed plans approved 29th May, 1996. An application (ref: 96/0097/R3/NJP) for Detailed Planning permission was submitted to Reading B.C. on 14th February 1996. Data source: Historic Planning Application Data Type: Point	01/09/1996
6	467m N	Site Address: N/A	Type of Site: Refuse Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1879

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



3.6 Licensed waste sites

Records within 500m

0

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

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

3.7 Waste exemptions

Records within 500m

24

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 38**

ID	Location	Site	Reference	Category	Sub-Category	Description
1	92m E	Centre Management Suite, Broad Street Mall, Broad Street, Reading, RG1 7QE	WEX157193	Treating waste exemption	Not on a Farm	Aerobic composting and associated prior treatment
2	167m SE	CIVIC CENTRE, CASTLE STREET, READING, RG1 7TQ	WEX236540	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
3	168m N	All Roads in Berkshire	EPR/ZH0512R R/A001	Treating waste exemption	Non-Agricultural Waste Only	Screening and blending of waste
A	201m W	104A, OXFORD ROAD, READING, RG1 7LL	WEX225577	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	201m W	104A, OXFORD ROAD, READING, RG1 7LL	WEX225577	Storing waste exemption	Not on a farm	Storage of waste in a secure place
A	201m W	104A, OXFORD ROAD, READING, RG1 7LL	WEX078879	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	222m W	A 104 Oxford Road Reading Berkshire RG1 7LL	EPR/QF0331NJ /A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
B	318m NW	Unit 2 Building C Weldale Street READING RG1 7BX	EPR/NH0918JR /A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place



ID	Location	Site	Reference	Category	Sub-Category	Description
B	318m NW	Unit 2 Building C Weldale Street READING RG1 7BX	EPR/NH0918JR /A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting mixed waste
B	318m NW	Unit 2 Building C Weldale Street READING RG1 7BX	EPR/NH0918JR /A001	Treating waste exemption	Non-Agricultural Waste Only	Manual treatment of waste
B	318m NW	Unit 2 Building C Weldale Street READING RG1 7BX	EPR/NH0918JR /A001	Treating waste exemption	Non-Agricultural Waste Only	Preparatory treatments (baling, sorting, shredding etc)
B	318m NW	Unit 2 Building C Weldale Street READING RG1 7BX	EPR/NH0918JR /A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
B	318m NW	Unit 2 Building C Weldale Street READING RG1 7BX	EPR/NH0918JR /A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of scrap metal
4	371m NE	25b Friar Street READING RG1 1DP	EPR/WF0702X Y/A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing waste fluorescent tubes
C	418m E	Oracle Shopping Centre The Oracle Centre READING RG1 2AG	EPR/EF0606XT /A001	Treating waste exemption	Non-Agricultural Waste Only	Crushing waste fluorescent tubes
C	420m E	-	WEX230105	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
C	420m E	-	WEX230105	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	420m E	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	420m E	Oracle Shopping Centre The Oracle Centre READING RG1 2AG	EPR/SE5949EQ /A001	Treating waste exemption	Non-Agricultural Waste Only	Screening and blending of waste



ID	Location	Site	Reference	Category	Sub-Category	Description
D	424m W	165, OXFORD ROAD, READING, RG1 7UZ	WEX123192	Storing waste exemption	Not on a farm	Storage of waste in a secure place
D	425m W	165 Oxford Road READING RG1 7UZ	EPR/XE5541FU/A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal
E	443m NE	15, FRIAR STREET, READING, RG1 1DB	WEX223289	Disposing of waste exemption	Not on a farm	Disposal by incineration
E	443m NE	15, FRIAR STREET, READING, RG1 1DB	WEX078089	Disposing of waste exemption	Not on a farm	Disposal by incineration
E	444m NE	15 Friar Street Reading Berkshire RG1 1DB	EPR/PE5889A/A001	Treating waste exemption	Non-Agricultural Waste Only	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



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- ◆ Licensed Discharges to controlled waters
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

20

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 43**

ID	Location	Company	Address	Activity	Category
A	39m N	Amplifon	7, Cheapside, Reading, Berkshire, RG1 7AQ	Disability and Mobility Equipment	Consumer Products
B	68m E	Hidden Hearing	19, Oxford Road, Reading, Berkshire, RG1 7QG	Disability and Mobility Equipment	Consumer Products
1	77m NE	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
2	78m S	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
A	86m N	Amplifon	Amplivox Plus Ultrazone, Cheapside, Reading, Berkshire, RG1 7AQ	Disability and Mobility Equipment	Consumer Products
3	129m E	Samsung Reading	14, Broad Street Mall, Reading, Berkshire, RG1 7QE	Electrical Equipment Repair and Servicing	Repair and Servicing
4	131m NE	Jewelsparkle	44, West Street, Reading, Berkshire, RG1 1TZ	Jewellery, Gems, Clocks and Watches	Consumer Products
C	133m W	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
C	143m W	Minuteman Press	82, Oxford Road, Reading, Berkshire, RG1 7LJ	Published Goods	Industrial Products
5	158m N	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
D	166m NW	24k Gold Plated Ltd	Flat 3 Hayward, Chatham Place, Reading, Berkshire, RG1 7AZ	Jewellery, Gems, Clocks and Watches	Consumer Products
E	174m E	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
F	178m NE	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
F	194m NE	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities
6	199m SW	Lowfare Transport	12, Body Road, Reading, Berkshire, RG1 7JP	Vehicle Hire and Rental	Hire Services
E	200m E	Kall Kwik Printing	32, St. Marys Butts, Reading, Berkshire, RG1 2LS	Published Goods	Industrial Products
7	224m NW	Enterprise Rent-A-Car	Qpark Car Park, Chatham Street, Reading, Berkshire, RG1 7DS	Vehicle Hire and Rental	Hire Services
G	227m SE	Tank	Berkshire, RG1	Tanks (Generic)	Industrial Features
8	242m SE	Waste King	7, Castle Street, Reading, Berkshire, RG1 7SB	Construction and Tool Hire	Hire Services
G	246m SE	Electricity Sub Station	Berkshire, RG1	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.



4.2 Current or recent petrol stations

Records within 500m

2

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 43**

ID	Location	Company	Address	LPG	Status
D	179m NW	OBSOLETE	Chatham Street, Reading, Reading, RG1 7JF	Not Applicable	Obsolete
12	493m W	OBSOLETE	211-221, Oxford Road, Reading, Reading, RG1 7PX	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

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

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.



4.7 Regulated explosive sites

Records within 500m**0**

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m**0**

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m**0**

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

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

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

Records within 500m**0**

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

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

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

5

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 43**

ID	Location	Address	Details	
H	365m SW	Reading, Vastern Road, Reading, Vastern Road	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1779 Permit Version: 1 Receiving Water: HOLY BROOK	Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 31/03/1997
H	366m SW	Reading, Bennet Road, Reading, Bennet Road	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1767 Permit Version: 1 Receiving Water: HOLLY BROOK	Status: TEMPORARY CONSENTS (WATER ACT 1989, SECTION 113) Issue date: 02/11/1989 Effective Date: 02/11/1989 Revocation Date: 02/09/2010
H	366m SW	Reading, Bennet Road, Reading, Bennet Road	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: TEMP.1767 Permit Version: 2 Receiving Water: Holly Brook	Status: SURRENDERED UNDER EPR 2010 Issue date: 03/09/2010 Effective Date: 03/09/2010 Revocation Date: 13/10/2015
11	435m E	17/23 KING STREET, READING, BERKSHI, 17/23 KING STREET 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
I	455m E	THE BREWERY, READING, BERKS, THE BREWERY 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

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**9**

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 43**

ID	Location	Details	
B	71m E	Incident Date: 05/01/2002 Incident Identification: 50702 Pollutant: Contaminated Water Pollutant Description: Firefighting Run-Off	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
9	288m SE	Incident Date: 11/10/2001 Incident Identification: 35859 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
10	300m S	Incident Date: 29/08/2003 Incident Identification: 185987 Pollutant: Oils and Fuel:Other Pollutant Pollutant Description: Petrol:Other	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
I	448m E	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)
I	448m E	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)
I	449m SE	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)
I	449m SE	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)
I	449m SE	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)
I	461m E	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)

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



4.19 Pollution inventory substances

Records within 500m**0**

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

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

4.20 Pollution inventory waste transfers

Records within 500m**0**

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

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

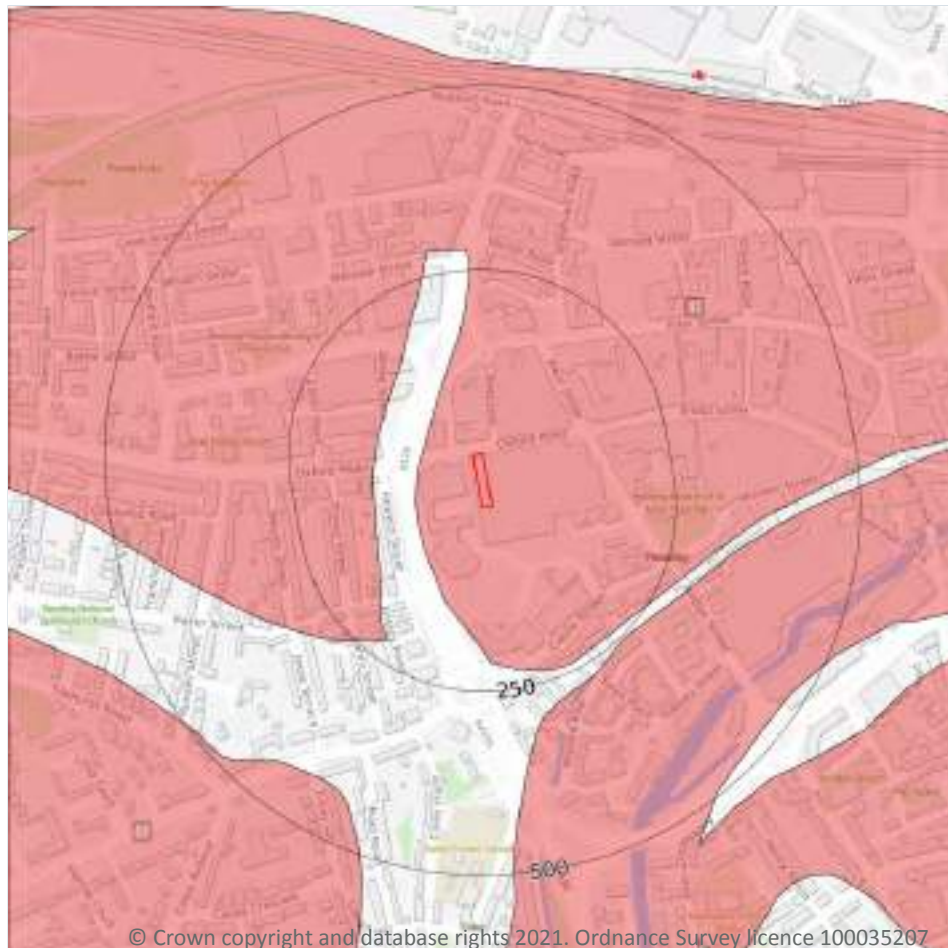
4.21 Pollution inventory radioactive waste

Records within 500m**0**

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

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

5 Hydrogeology - Superficial aquifer



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

5.1 Superficial aquifer

Records within 500m

2

Aquifer status of groundwater held within superficial geology.

Features are displayed on the Hydrogeology map on **page 51**

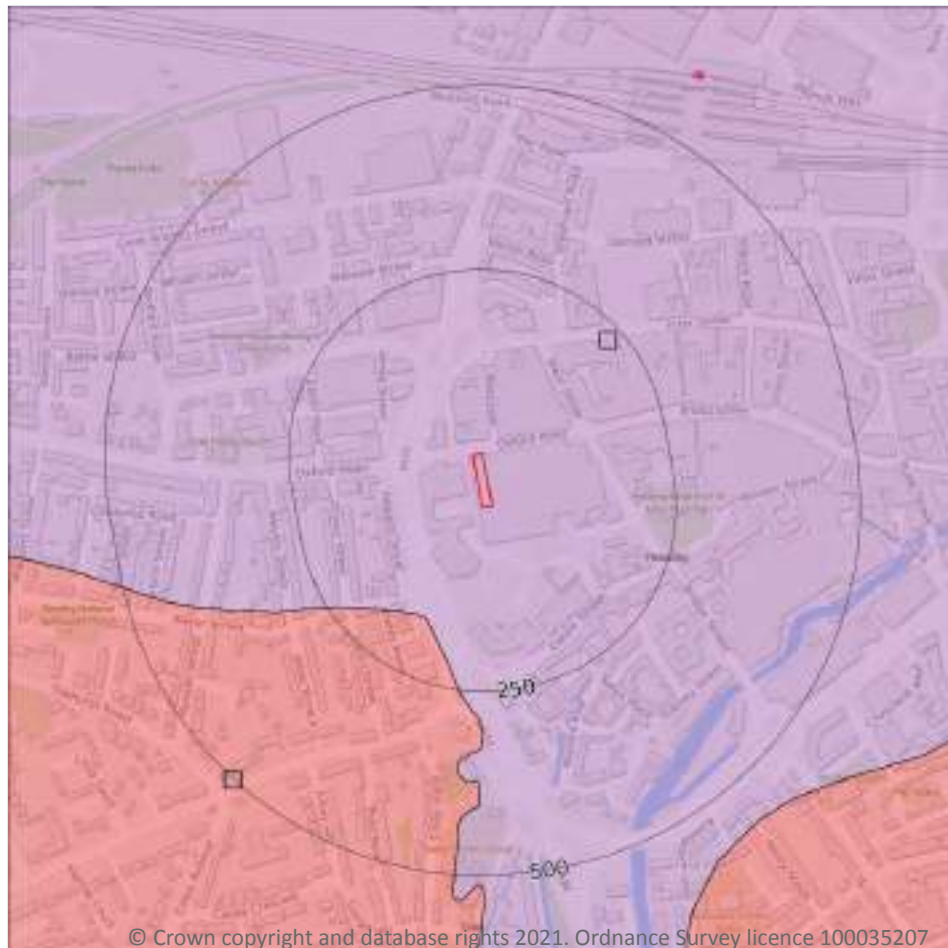
ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	428m SW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers



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



Bedrock aquifer



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

5.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on **page 53**

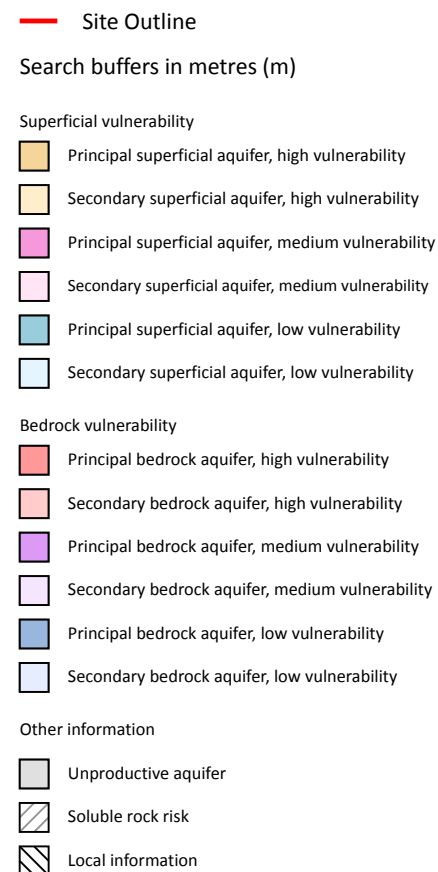
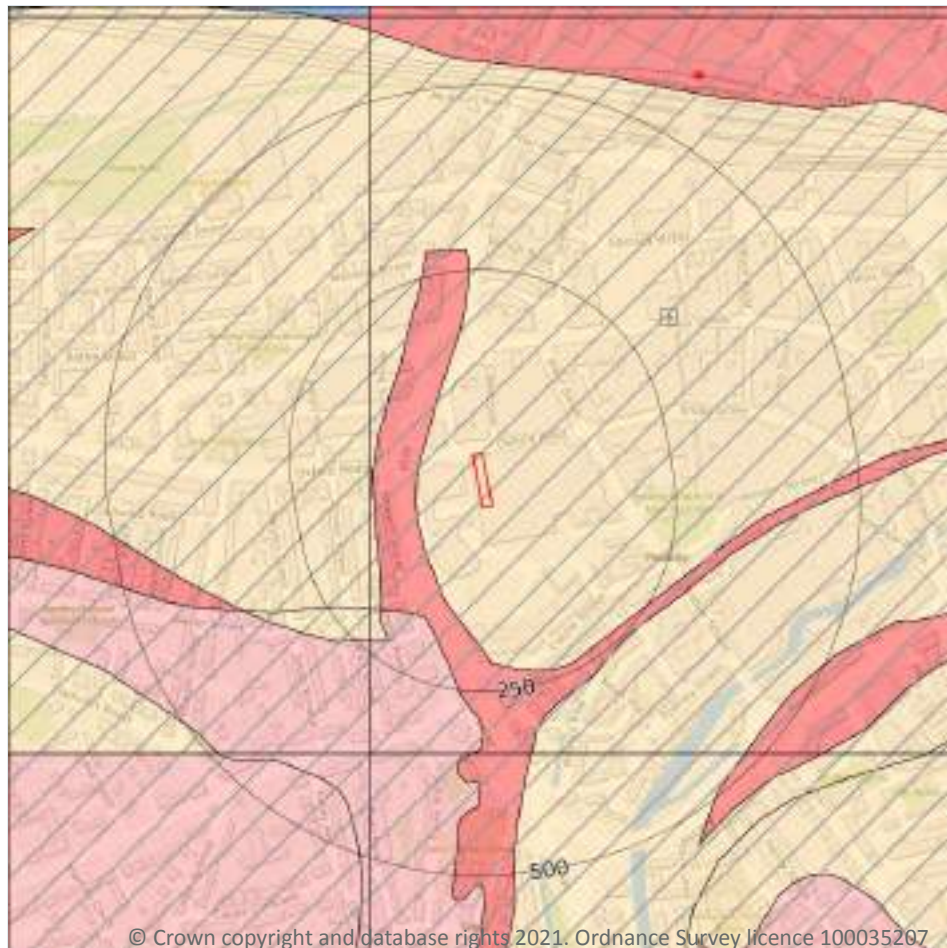
ID	Location	Designation	Description
1	On site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
2	169m SW	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



5.3 Groundwater vulnerability

Records within 50m

1

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

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

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

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

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.

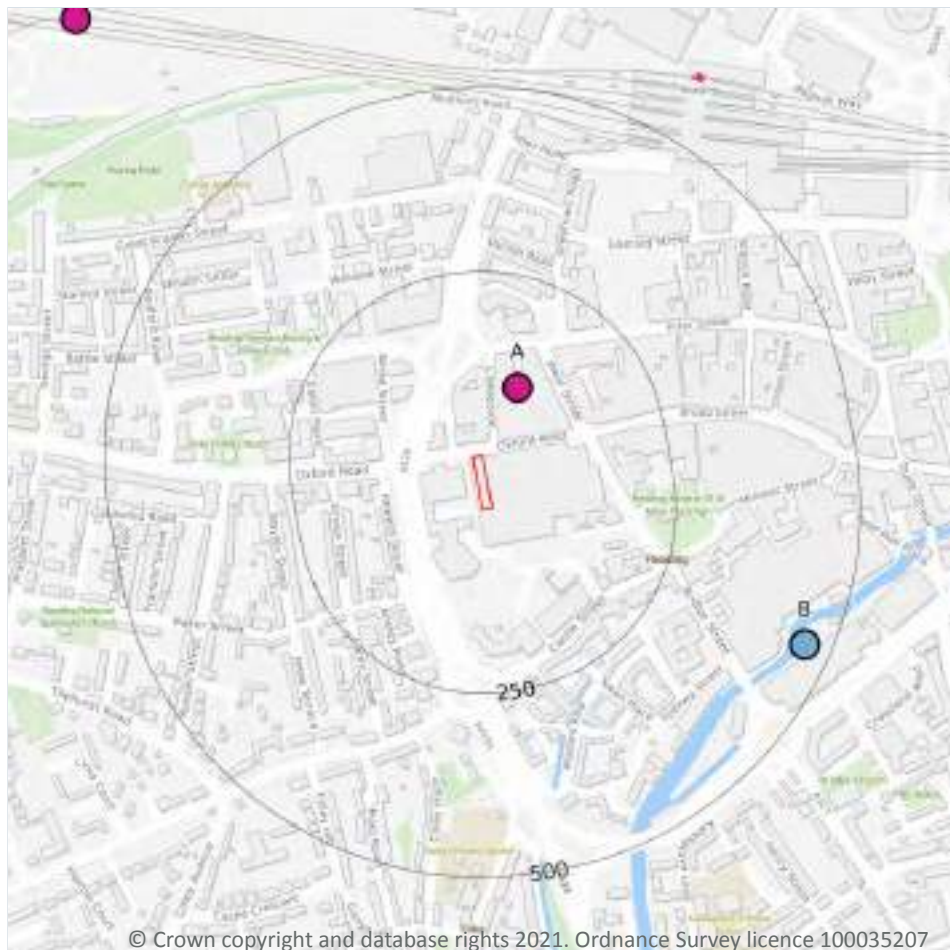
5.5 Groundwater vulnerability- local information

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

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

Abstractions and Source Protection Zones



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

5.6 Groundwater abstractions

Records within 2000m

16

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 57**

ID	Location	Details	
A	104m NE	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): 14,933 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: -
-	735m N	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: -
-	735m N	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: -
-	735m N	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): 90,920 Max Daily Volume (m ³): 727.40 Original Application No: - Original Start Date: 23/01/1990 Expiry Date: - Issue No: 101 Version Start Date: 30/06/2006 Version End Date: -
-	735m N	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): 90,920 Max Daily Volume (m ³): 727.40 Original Application No: - Original Start Date: 23/01/1990 Expiry Date: - Issue No: 101 Version Start Date: 30/06/2006 Version End Date: -



ID	Location	Details	
1	803m NW	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): 6,682 Max Daily Volume (m ³): 27.28 Original Application No: - Original Start Date: 22/01/1975 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1014m NW	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): 6,682 Max Daily Volume (m ³): 27.28 Original Application No: - Original Start Date: 22/01/1975 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date: -
-	1242m NE	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): 68,190 Max Daily Volume (m ³): 300.04 Original Application No: - Original Start Date: 09/05/1966 Expiry Date: - Issue No: 103 Version Start Date: 08/02/2021 Version End Date: -
-	1345m 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): 127,750 Max Daily Volume (m ³): 350 Original Application No: - Original Start Date: 17/01/1992 Expiry Date: - Issue No: 100 Version Start Date: 17/01/1992 Version End Date: -
-	1371m NW	Status: Active Licence No: 28/39/23/0070 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: LITTLE JOHN'S FARM, READING (E) Data Type: Point Name: DRAYTON Easting: 470100 Northing: 174300	Annual Volume (m ³): 9,819 Max Daily Volume (m ³): 26.82 Original Application No: - Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -



ID	Location	Details	
-	1428m W	Status: Historical Licence No: 28/39/23/0181 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BATTLE HOSPITAL, OXFORD ROAD, READING Data Type: Point Name: WEST BERKSHIRE HEALTH AUTHORITY Easting: 469800 Northing: 173900	Annual Volume (m ³): 136875 Max Daily Volume (m ³): 400 Original Application No: - Original Start Date: 17/01/1992 Expiry Date: - Issue No: 100 Version Start Date: 07/01/1999 Version End Date: -
-	1556m 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: -
-	1583m NW	Status: Active Licence No: 28/39/23/0070 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: LITTLE JOHN'S FARM, READING (D) Data Type: Point Name: DRAYTON Easting: 470100 Northing: 174600	Annual Volume (m ³): 9,819 Max Daily Volume (m ³): 26.82 Original Application No: - Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -
-	1750m NW	Status: Active Licence No: 28/39/23/0070 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: LITTLE JOHN'S FARM, READING (B) Data Type: Point Name: DRAYTON Easting: 469700 Northing: 174400	Annual Volume (m ³): 9,819 Max Daily Volume (m ³): 26.82 Original Application No: - Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -
-	1750m NW	Status: Active Licence No: 28/39/23/0070 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: LITTLE JOHN'S FARM, READING (C) Data Type: Point Name: DRAYTON Easting: 469700 Northing: 174400	Annual Volume (m ³): 9,819 Max Daily Volume (m ³): 26.82 Original Application No: - Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -

ID	Location	Details	
-	1822m NW	Status: Active Licence No: 28/39/23/0070 Details: General Farming & Domestic Direct Source: THAMES GROUNDWATER Point: LITTLE JOHN'S FARM, READING (A) Data Type: Point Name: DRAYTON Easting: 469500 Northing: 174200	Annual Volume (m ³): 9,819 Max Daily Volume (m ³): 26.82 Original Application No: - Original Start Date: 09/01/1967 Expiry Date: - Issue No: 100 Version Start Date: 09/01/1967 Version End Date: -

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

5.7 Surface water abstractions

Records within 2000m	6
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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 57**

ID	Location	Details	
B	463m SE	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: -
B	463m SE	Status: Active 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): 737,856 Max Daily Volume (m ³): 2,016 Original Application No: - Original Start Date: 16/02/2000 Expiry Date: - Issue No: 2 Version Start Date: 09/03/2020 Version End Date: -



ID	Location	Details	
-	1081m N	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: -
-	1081m N	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: -
-	1081m N	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): 1,752,000 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: -
-	1204m NE	Status: Active 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: The Reading Sustainability Centre CIC Easting: 472072 Northing: 174185	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 19/02/2016 Expiry Date: 31/03/2028 Issue No: 3 Version Start Date: 19/02/2020 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 57**

ID	Location	Details	
A	104m NE	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): 14,933 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: -
-	735m N	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: -
-	735m N	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): 90,920 Max Daily Volume (m ³): 727.40 Original Application No: - Original Start Date: 23/01/1990 Expiry Date: - Issue No: 101 Version Start Date: 30/06/2006 Version End Date: -



ID	Location	Details	
-	1345m 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): 127,750 Max Daily Volume (m ³): 350 Original Application No: - Original Start Date: 17/01/1992 Expiry Date: - Issue No: 100 Version Start Date: 17/01/1992 Version End Date: -
-	1428m W	Status: Historical Licence No: 28/39/23/0181 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BATTLE HOSPITAL, OXFORD ROAD, READING Data Type: Point Name: WEST BERKSHIRE HEALTH AUTHORITY Easting: 469800 Northing: 173900	Annual Volume (m ³): 136875 Max Daily Volume (m ³): 400 Original Application No: - Original Start Date: 17/01/1992 Expiry Date: - Issue No: 100 Version Start Date: 07/01/1999 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)

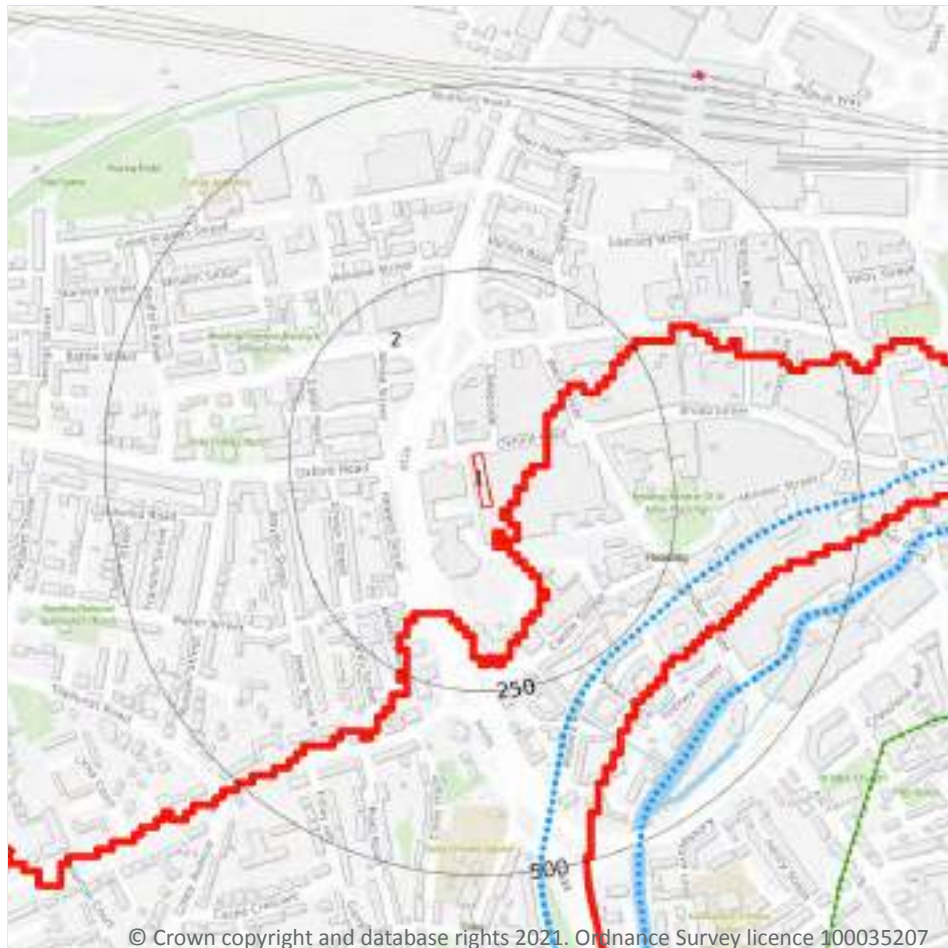
Records within 500m

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



- Site Outline
- Search buffers in metres (m)
- Water Network (OS MasterMap)
- Surface water features (wider than 5m)
- Surface water features (narrower than 5m)
- ⋯ WFD River, canal and surface water transfer water bodies
- WFD Lake water bodies
- WFD Transitional and coastal water bodies
- WFD Surface water body catchments boundaries
- WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m

0

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

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m

0

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

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1
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The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 65**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
2	On site	River WB catchment	Thames Wallingford to Caversham	GB106039030331	South Chilterns	Thames and South Chilterns

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

6.4 WFD Surface water bodies

Records identified	1
---------------------------	----------

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

Features are displayed on the Hydrology map on **page 65**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	891m NE	River	Thames Wallingford to Caversham	GB106039030331	Moderate	Good	Moderate	2016

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

6.5 WFD Groundwater bodies

Records on site

1

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

Features are displayed on the Hydrology map on **page 65**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
1	On site	Berkshire Downs Chalk	<u>GB40601G600900</u>	Poor	Poor	Poor	2015

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



7 River and coastal flooding

7.1 Risk of Flooding from Rivers and Sea (RoFRaS)

Records within 50m

0

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

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

7.2 Historical Flood Events

Records within 250m

0

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

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

7.3 Flood Defences

Records within 250m

0

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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



7.5 Flood Storage Areas

Records within 250m

0

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

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



River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m	0
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Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

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

7.7 Flood Zone 3

Records within 50m	0
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Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

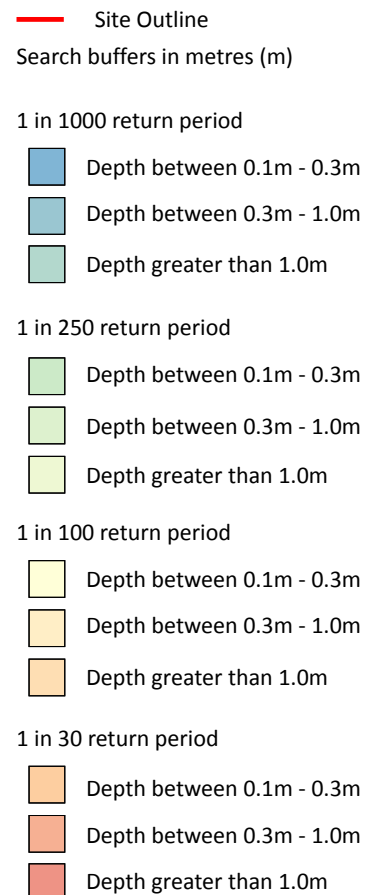
This data is sourced from the Environment Agency and Natural Resources Wales.



8 Surface water flooding



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8.1 Surface water flooding

Highest risk on site

1 in 1000 year, 0.1m - 0.3m

Highest risk within 50m

1 in 250 year, 0.3m - 1.0m

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

Features are displayed on the Surface water flooding map on **page 71**

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

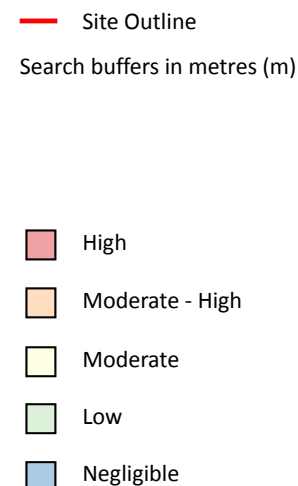
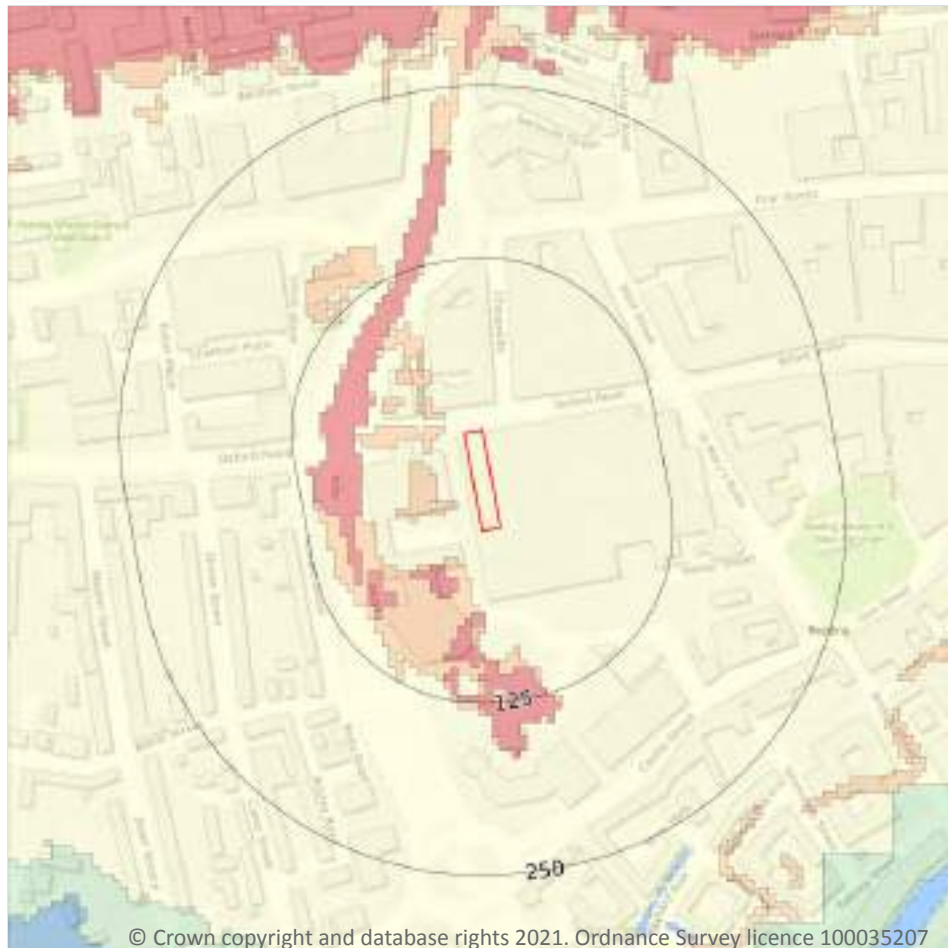
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site

Moderate

Highest risk within 50m

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 73**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m**0**

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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



10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m**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**0**

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.

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**1**

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
60m NW	Thames Wallingford to Caversham NVZ	Surface Water	S481	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
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Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

This data is sourced from Natural England.

10.18 SSSI Units

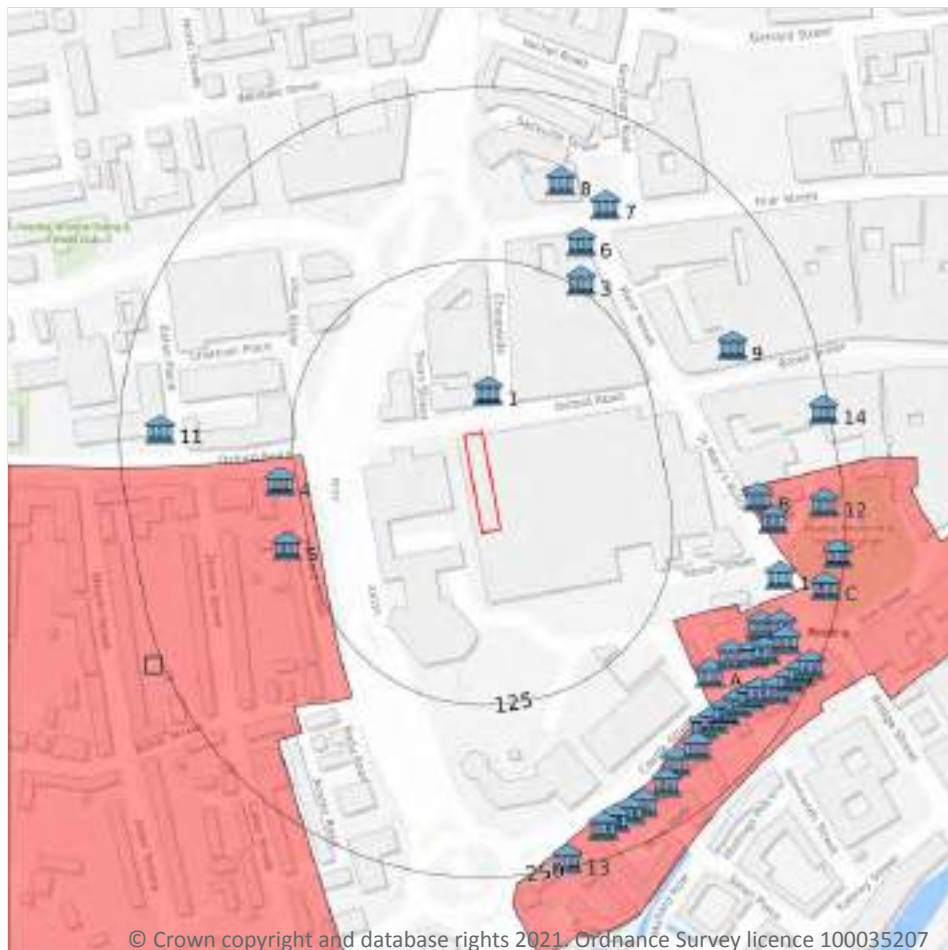
Records within 2000m	0
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Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management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

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



11 Visual and cultural designations



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

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m

0

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

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

11.3 National Parks

Records within 250m

0

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

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

11.4 Listed Buildings

Records within 250m

41

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 79**

ID	Location	Name	Grade	Reference Number	Listed date
1	30m N	3 And 5, Cheapside (See Details For Further Address Information), Abbey, Reading, RG1	II	1113436	14/12/1978
3	131m NE	W I Palmer Memorial Hall, Abbey, Reading, RG1	II	1113613	24/10/1974
4	137m W	Rox Borough House, Abbey, Reading, RG1	II	1113545	14/12/1978
5	141m W	Kent House, Abbey, Reading, RG1	II	1113495	14/12/1978
6	155m NE	The Mitre Inn, Abbey, Reading, RG1	II	1157216	14/12/1978

ID	Location	Name	Grade	Reference Number	Listed date
A	184m SE	Sun Inn, Abbey, Reading, RG1	II	1321964	22/03/1957
7	188m NE	Quadrant Walls And Railings To Former No 64 (Greyfriars Vicarage), Abbey, Reading, RG1	II	1113487	22/03/1957
B	189m E	The Allied Arms Inn, Abbey, Reading, RG1	II	1156940	14/12/1978
A	191m SE	Church Of Saint Mary, Abbey, Reading, RG1	II*	1113427	22/03/1957
8	191m N	Greyfriars Church, Abbey, Reading, RG1	I	1321952	22/03/1957
9	192m E	67 And 68, Broad Street, Abbey, Reading, RG1	II	1113405	14/12/1978
B	198m E	55 And 55A, St Mary's Butts, Abbey, Reading, RG1	II	1113572	22/03/1957
A	201m E	Former Cottage At Rear Of No 8, Abbey, Reading, RG1	II	1321963	14/12/1978
A	204m SE	10 And 12, Castle Street, Abbey, Reading, RG1	II	1154727	14/12/1978
A	205m SE	23 And 25, Castle Street, Abbey, Reading, RG1	II	1113415	14/12/1978
10	206m E	Queen Victoria Jubilee Fountain, Abbey, Reading, RG1	II	1113571	14/12/1978
A	207m SE	21, Castle Street, Abbey, Reading, RG1	II	1303700	14/12/1978
A	209m SE	19, Castle Street, Abbey, Reading, RG1	II*	1113414	22/03/1957
A	211m SE	8, Castle Street, Abbey, Reading, RG1	II	1113426	14/12/1978
A	211m SE	33-37, Castle Street, Abbey, Reading, RG1	II	1321956	14/12/1978
A	212m SE	27, Castle Street, Abbey, Reading, RG1	II	1154654	14/12/1978
A	213m SE	17, Castle Street, Abbey, Reading, RG1	II*	1113413	22/03/1957
A	215m E	35 And 37, St Mary's Butts, Abbey, Reading, RG1	II	1321885	14/12/1978
A	218m SE	15, Castle Street, Abbey, Reading, RG1	II*	1303734	22/03/1957
A	219m SE	39, Castle Street, Abbey, Reading, RG1	II	1154671	14/12/1978
11	221m W	Mannson House, Abbey, Reading, RG1	II	1113549	14/12/1978
A	221m SE	13, Castle Street, Abbey, Reading, RG1	II	1113412	14/12/1978
A	222m E	The Horn Inn, Abbey, Reading, RG1	II	1303691	14/12/1978
A	224m SE	43, Castle Street, Abbey, Reading, RG1	II	1113417	22/03/1957
A	224m SE	45, Castle Street, Abbey, Reading, RG1	II	1303711	22/03/1957
A	225m S	47 And 49, Castle Street, Abbey, Reading, RG1	II	1321957	14/12/1978
A	228m S	51, Castle Street, Abbey, Reading, RG1	II	1113418	14/12/1978
A	231m SE	11, Castle Street, Abbey, Reading, RG1	II	1113411	14/12/1978



ID	Location	Name	Grade	Reference Number	Listed date
12	236m E	Group Of 4 Churchyard Tombs North Of St Mary's Church, Abbey, Reading, RG1	II	1156950	14/12/1978
A	236m SE	9, Castle Street, Abbey, Reading, RG1	II	1154642	14/12/1978
C	239m E	Jubilee Cross, Abbey, Reading, RG1	II	1113574	14/12/1978
A	241m SE	7, Castle Street, Abbey, Reading, RG1	II	1113410	22/06/1977
13	244m S	Talbot House, Abbey, Reading, RG1	II	1113419	19/03/1975
C	245m E	Church Of St Mary, Abbey, Reading, RG1	I	1113573	22/03/1957
A	246m SE	3 And 5, Castle Street, Abbey, Reading, RG1	II	1154637	22/06/1977
14	247m E	Congregational Church And Numbers 89 And 89A, Abbey, Reading, RG1	II	1321954	14/12/1978

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

11.5 Conservation Areas

Records within 250m

2

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 79**

ID	Location	Name	District	Date of designation
2	118m W	Russell Street and Castle Hill, Reading	Reading	1972
A	142m SE	St Mary's Butts and Castle Street, Reading	Reading	1972

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial



sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

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

11.7 Registered Parks and Gardens

Records within 250m

0

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

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



12 Agricultural designations



- Site Outline
- Search buffers in metres (m)
- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m

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 84**

ID	Location	Classification	Description
1	On site	Urban	-

This data is sourced from Natural England.



12.2 Open Access Land

Records within 250m**0**

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

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

12.3 Tree Felling Licences

Records within 250m**0**

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m**0**

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m**0**

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

This data is sourced from Natural England.



13 Habitat designations

13.1 Priority Habitat Inventory

Records within 250m

0

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

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

0

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

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

0

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

This data is sourced from Natural England.



14 Geology 1:10,000 scale - Availability



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

14.1 10k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 87**

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



- Site Outline
- Search buffers in metres (m)
- Reclaimed ground
 - Made ground
 - Worked ground
 - Infilled ground
 - Disturbed ground
 - Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

9

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 88**

ID	Location	LEX Code	Description	Rock description
1	75m W	WGR-VOID	Worked Ground (Undivided)	Void
2	86m SE	WGR-VOID	Worked Ground (Undivided)	Void
3	331m S	WGR-VOID	Worked Ground (Undivided)	Void
4	408m S	WGR-VOID	Worked Ground (Undivided)	Void

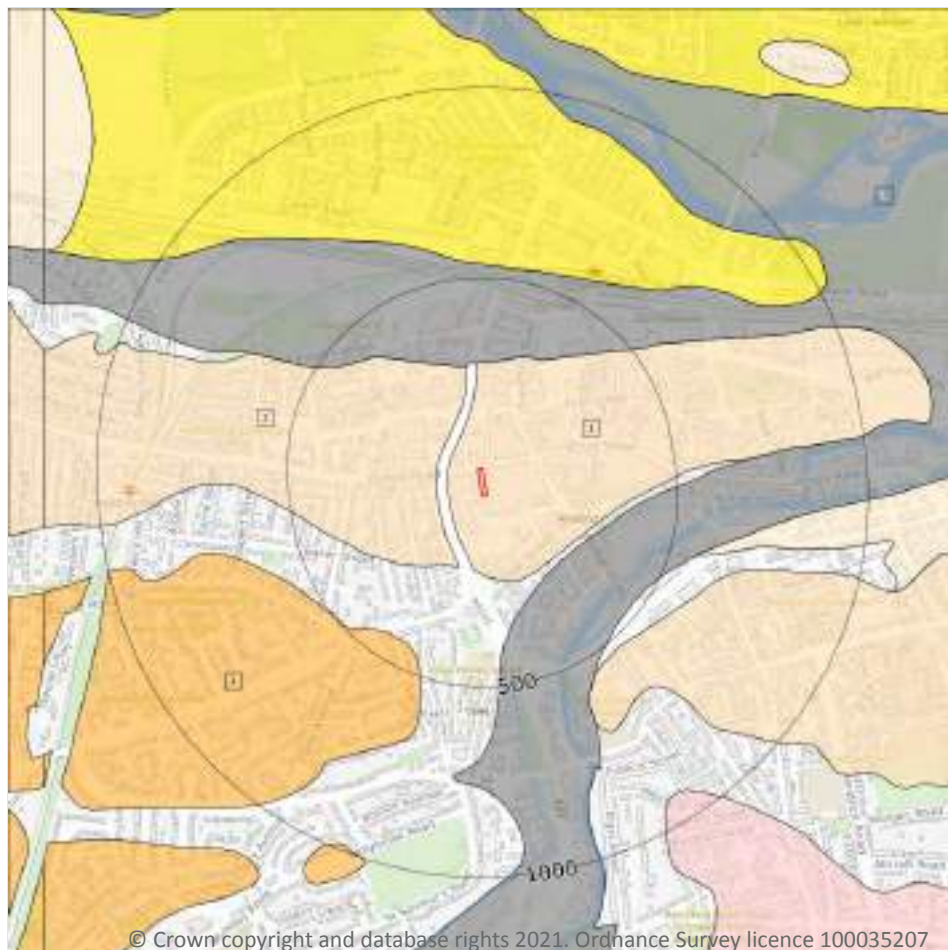


ID	Location	LEX Code	Description	Rock description
5	412m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
6	419m S	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	463m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
8	482m N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
9	495m SE	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

4

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 90**

ID	Location	LEX Code	Description	Rock description
1	On site	TPGR-XSV	Taplow Gravel Formation - Sand And Gravel	Sand And Gravel
2	104m NW	TPGR-XSV	Taplow Gravel Formation - Sand And Gravel	Sand And Gravel
3	257m SE	ALV-Z	Alluvium - Silt (unlithified Deposits Coding Scheme)	Silt
4	432m SW	LHGR-XSV	Lynch Hill Gravel Member - Sand And Gravel	Sand And Gravel



This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

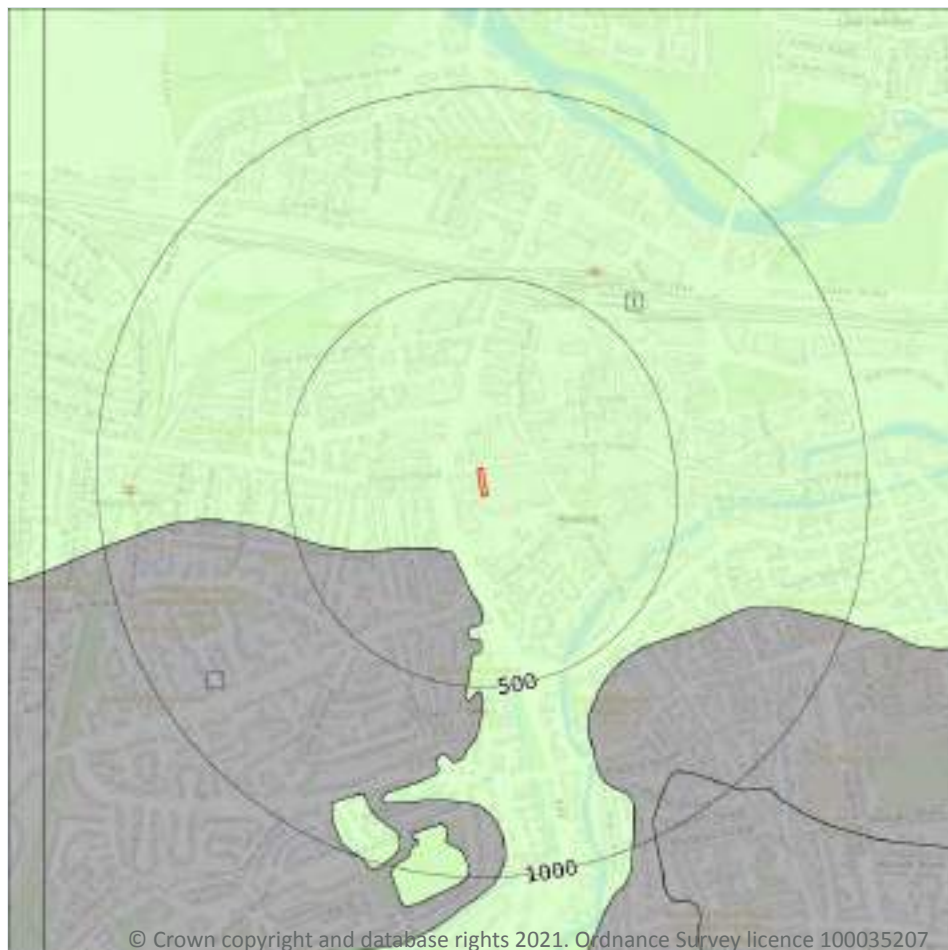
0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (10k)

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

14.5 Bedrock geology (10k)

Records within 500m

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 92**

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	166m SW	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



— Site Outline
Search buffers in metres (m)

☐ Geological map tile

15.1 50k Availability

Records within 500m

1

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

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 94**

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

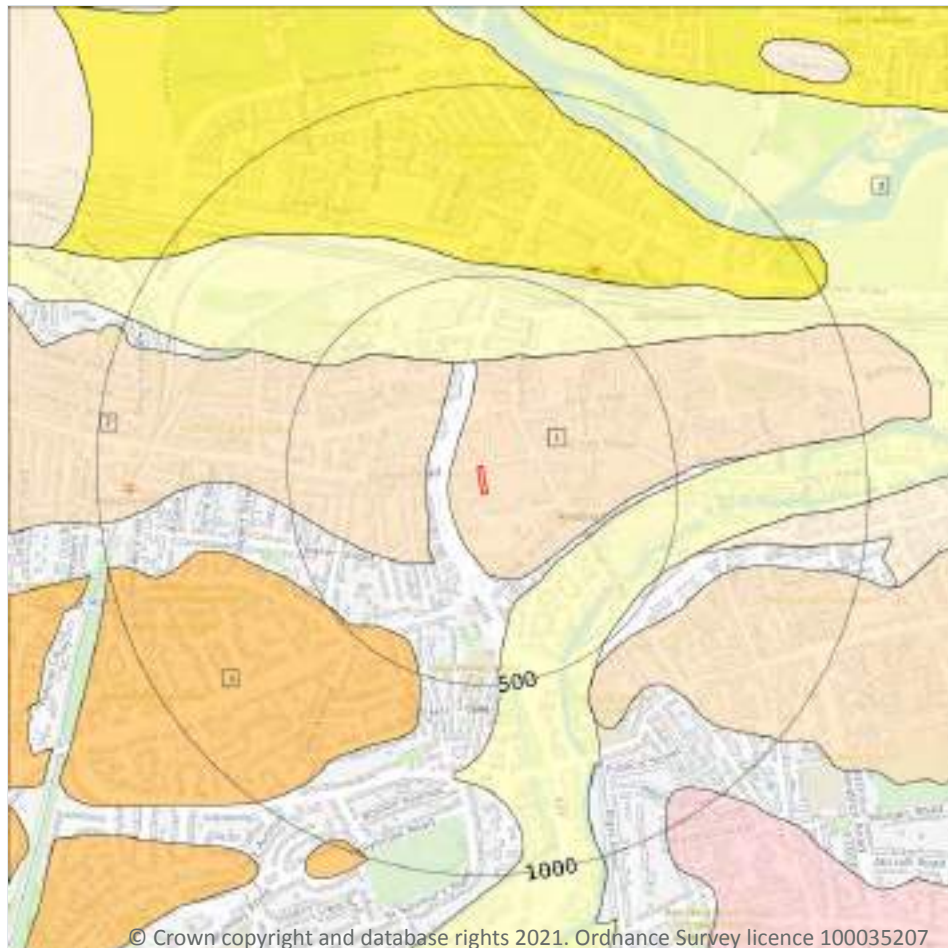
0

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

4

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

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 96**

ID	Location	LEX Code	Description	Rock description
1	On site	TPGR-XSV	TAPLOW GRAVEL MEMBER	SAND AND GRAVEL
2	130m W	TPGR-XSV	TAPLOW GRAVEL MEMBER	SAND AND GRAVEL
3	254m SE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	428m SW	LHGR-XSV	LYNCH HILL GRAVEL MEMBER	SAND AND GRAVEL

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

1

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

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

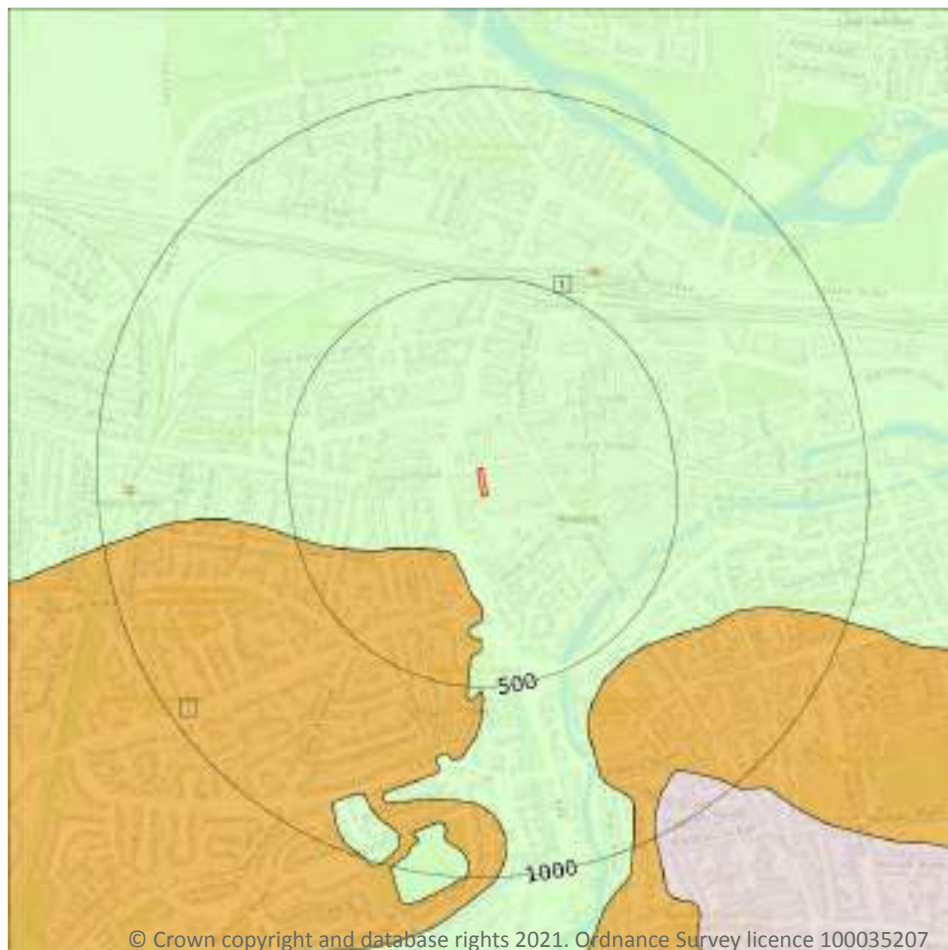
0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

.... Bedrock faults and other linear features (50k)

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

15.8 Bedrock geology (50k)

Records within 500m

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 98**

ID	Location	LEX Code	Description	Rock age
1	On site	SNCK-CHLK	SEAFORD CHALK FORMATION AND NEWHAVEN CHALK FORMATION (UNDIFFERENTIATED) - CHALK	CONIACIAN
2	169m SW	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

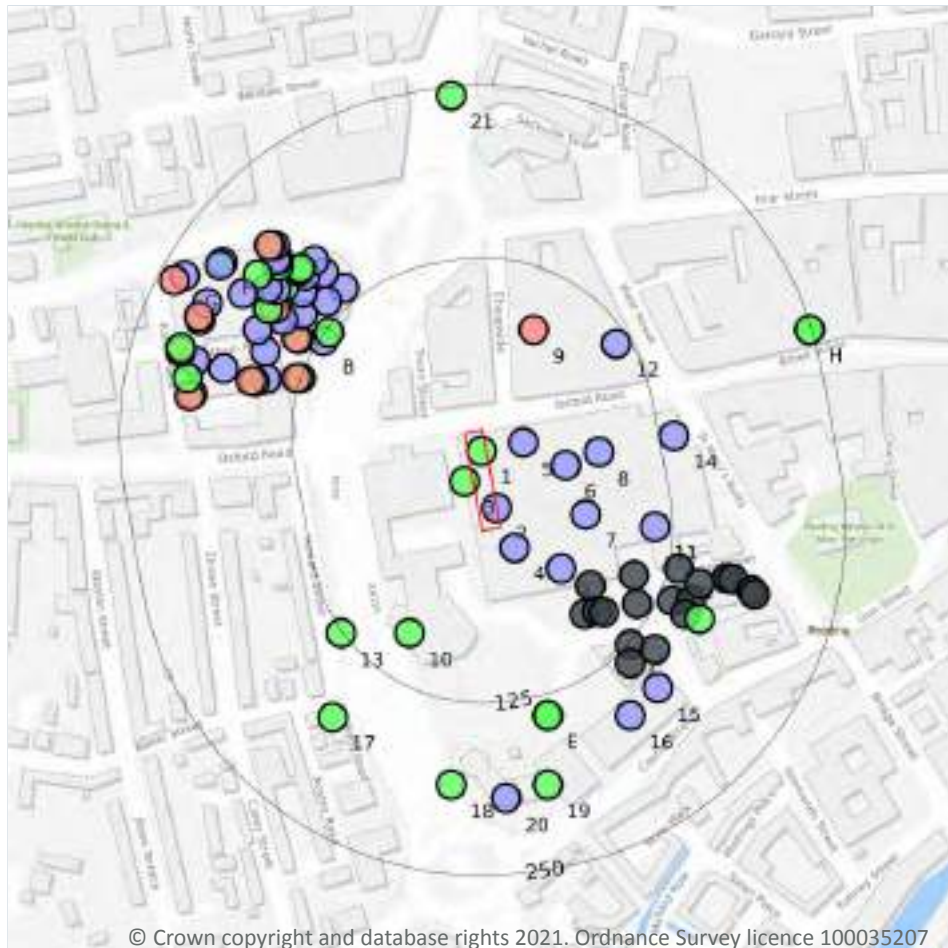
0

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

97

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 100**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	On site	471152 173392	READING COMMERCIAL CENTRE 1	15.24	N	15639724
2	On site	471163 173351	READING COMMERCIAL CENTRE 2	5.28	N	15639728
3	6m W	471140 173370	READING CIVIC CENTRE BH1	18.28	N	428842



ID	Location	Grid reference	Name	Length	Confidential	Web link
4	18m SE	471176 173322	READING COMMERCIAL CENTRE 5/5A	5.36	N	15639760
5	27m E	471182 173398	READING COMMERCIAL CENTRE 3	9.14	N	15639740
A	53m SE	471210 173307	READING COMMERCIAL CENTRE 6	9.14	N	15639766
6	55m E	471213 173382	READING COMMERCIAL CENTRE 4	9.14	N	15639757
7	63m E	471228 173346	READING COMMERCIAL CENTRE 7	7.92	N	15639772
A	78m SE	471231 173294	READING CIVIC CENTRE WS111	-	Y	N/A
8	80m E	471237 173391	READING COMMERCIAL CENTRE 8	9.3	N	15639888
9	82m NE	471190 173480	CHEAPSIDE READING	45.72	N	428199
A	87m SE	471227 173274	READING CIVIC CENTRE TP110	-	Y	N/A
10	91m SW	471100 173260	READING CIVIC CENTRE BH2	18.28	N	428843
A	92m SE	471236 173276	READING CIVIC CENTRE 101	-	Y	N/A
A	97m SE	471241 173275	READING CIVIC CENTRE TP102	-	Y	N/A
A	103m E	471263 173302	READING CIVIC CENTRE WS112	-	Y	N/A
11	112m E	471278 173337	READING COMMERCIAL CENTRE 10	9.14	N	15639895
A	114m SE	471265 173281	READING CIVIC CENTRE TP101	-	Y	N/A
12	116m NE	471250 173470	WEST STREET READING	8.84	N	428820
B	123m NW	471037 173472	CHATHAM PLACE READING TP07	2.1	N	18382989
B	123m NW	471041 173478	CHATHAM PLACE READING 14	11.5	N	18382006
B	125m W	471021 173445	CHATHAM PLACE READING 8	10.5	N	18381994
C	126m SE	471260 173252	READING CIVIC CENTRE TP106	-	Y	N/A
13	126m SW	471050 173260	READING CIVIC CENTRE BH5	18.28	N	428846
B	128m W	471018 173445	CHATHAM PLACE READING 8R	30.45	N	18382966
D	132m E	471295 173307	READING CIVIC CENTRE WS113	-	Y	N/A
D	135m SE	471290 173283	READING CIVIC CENTRE TP103	-	Y	N/A
14	136m E	471292 173403	READING COMMERCIAL CENTRE 9	6.71	N	15639890
C	136m SE	471260 173238	READING CIVIC CENTRE 108	-	Y	N/A
B	137m NW	471052 173510	CHATHAM PLACE READING TP05	1.5	N	18382984
B	138m NW	471019 173473	CHATHAM PLACE READING 6	10.5	N	18381992



ID	Location	Grid reference	Name	Length	Confidential	Web link
B	138m NW	471040 173501	CHATHAM PLACE READING TP12	1.0	N	18383004
B	140m NW	471018 173474	CHATHAM PLACE READING 6R	40.0	N	18382963
E	141m S	471200 173200	READING CIVIC OFFICES 1	30.0	N	428256
E	141m S	471200 173200	READING CIVIC OFFICES 4	20.0	N	428259
E	141m S	471200 173200	READING CIVIC OFFICES 2	20.0	N	428257
E	141m S	471200 173200	READING CIVIC OFFICES 3	20.0	N	428258
C	143m SE	471278 173248	READING CIVIC CENTRE TP107	-	Y	N/A
B	146m NW	471022 173491	CHATHAM PLACE READING TP15	1.3	N	18383043
D	148m E	471304 173284	READING CIVIC CENTRE 102	-	Y	N/A
D	148m SE	471300 173274	READING CIVIC CENTRE TP105	-	Y	N/A
B	149m W	470996 173444	CHATHAM PLACE READING TP08	2.7	N	18382990
D	150m E	471310 173296	READING CIVIC CENTRE TP104	-	Y	N/A
B	154m NW	471038 173521	CHATHAM PLACE READING TP11	1.2	N	18383002
B	155m NW	471008 173487	CHATHAM PLACE READING TP16	2.0	N	18383044
B	156m NW	471022 173507	CHATHAM PLACE READING TP14	1.4	N	18383042
B	156m W	470988 173442	CHATHAM PLACE READING 9	10.5	N	18381995
B	156m W	470995 173464	CHATHAM PLACE READING TP19	1.2	N	18383047
D	159m SE	471310 173270	READING CIVIC CENTRE BH4	18.28	N	428845
B	159m W	470985 173443	CHATHAM PLACE READING 9R	30.4	N	18382969
B	162m NW	471024 173519	CHATHAM PLACE READING TP04	1.9	N	18382983
15	163m SE	471280 173220	READING MAGISTRATES CRT M1	9.0	N	428260
B	164m NW	471002 173495	CHATHAM PLACE READING 4R	50.0	N	18382594
16	166m SE	471260 173200	READING MAGISTRATES CRT M2A	7.0	N	428261
B	166m NW	471031 173530	CHATHAM PLACE READING TP10	2.7	N	18382993
B	167m NW	470990 173480	CHATHAM PLACE READING TP21	1.0	N	18383049
D	168m E	471330 173300	READING CIVIC CENTRE 104	-	Y	N/A
D	168m E	471330 173300	READING CIVIC CENTRE 103	-	Y	N/A
B	168m NW	471009 173511	CHATHAM STREET - READING 2	29.95	N	15616939



ID	Location	Grid reference	Name	Length	Confidential	Web link
B	169m NW	470997 173495	CHATHAM PLACE READING 4	10.5	N	18381990
B	169m NW	471019 173523	CHATHAM PLACE READING 12A	11.0	N	18381999
B	169m NW	471021 173525	CHATHAM PLACE READING 12	10.5	N	18381998
B	172m NW	471003 173509	CHATHAM PLACE READING TP13	1.3	N	18383005
D	172m E	471334 173299	READING CIVIC CENTRE WS105	-	Y	N/A
17	173m SW	471044 173199	3 BAKER STREET READING 1	15.0	N	15631833
B	177m NW	470997 173510	CHATHAM PLACE READING TP06	2.0	N	18382987
B	181m W	470965 173452	CHATHAM PLACE READING TP09	1.7	N	18382991
B	181m NW	471005 173526	CHATHAM PLACE READING 13A	11.0	N	18382003
B	184m NW	471005 173531	CHATHAM PLACE READING 13	3.7	N	18382001
18	186m S	471130 173150	READING CIVIC CENTRE BH3	18.28	N	428844
B	186m NW	471003 173531	CHATHAM PLACE READING TP03	3.5	N	18382982
B	186m NW	471003 173531	CHATHAM PLACE READING TP02	1.21	N	18382981
D	188m E	471348 173291	READING CIVIC CENTRE 107	-	Y	N/A
B	189m NW	470990 173520	CHATHAM PLACE READING 11	10.5	N	18381997
19	189m S	471200 173150	READING MAGISTRATES CRT P2	20.0	N	428263
B	190m NW	470979 173506	CHATHAM PLACE READING TP20	1.2	N	18383048
D	190m E	471350 173288	READING CIVIC CENTRE 106	-	Y	N/A
B	194m NW	471002 173541	CHATHAM PLACE READING TP01	3.4	N	18382980
20	195m S	471170 173140	READING MAGISTRATES CRT P1	10.0	N	428262
B	196m NW	470999 173541	CHATHAM PLACE READING 1	11.5	N	18381987
B	196m NW	470998 173541	CHATHAM PLACE READING 1R	60.0	N	18382007
B	200m W	470942 173433	CHATHAM PLACE READING 10	10.45	N	18381996
B	201m W	470940 173432	CHATHAM PLACE READING 10R	30.5	N	18382978
B	202m W	470944 173457	CHATHAM PLACE READING TP18A	1.9	N	18383046
B	205m W	470939 173445	CHATHAM STREET - READING 3	29.95	N	15616943
B	208m NW	470948 173487	CHATHAM PLACE READING 5	10.5	N	18381991
B	209m NW	470953 173499	CHATHAM PLACE READING TP17	3.0	N	18383045

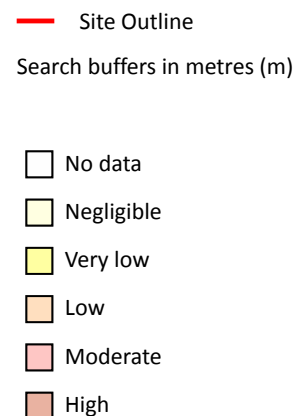
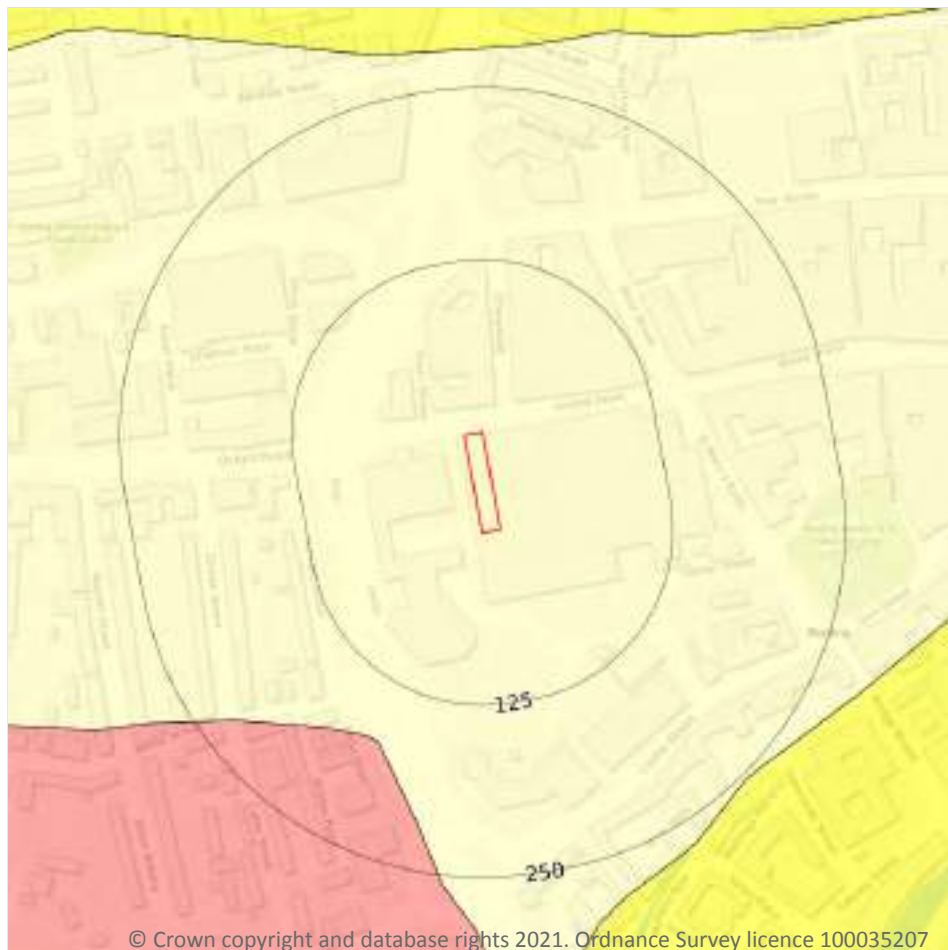


ID	Location	Grid reference	Name	Length	Confidential	Web link
B	211m NW	470947 173490	CHATHAM PLACE READING 5R	41.5	N	18382962
B	214m W	470934 173464	CHATHAM PLACE READING 7R	37.5	N	18382965
B	215m W	470934 173467	CHATHAM PLACE READING 7	10.45	N	18381993
F	215m NW	470964 173529	CHATHAM PLACE READING 2R	30.0	N	18382009
F	216m NW	470962 173527	CHATHAM PLACE READING 2	3.45	N	18381988
G	233m NW	470937 173519	CHATHAM PLACE READING 3	3.2	N	18381989
G	238m NW	470929 173516	CHATHAM PLACE READING 3R	47.5	N	18382123
21	244m N	471130 173650	READING CO-OP SACKVILLE STREET	12.19	N	428834
H	248m E	471390 173480	BROAD STREET READING 1	22.25	N	428343
H	248m E	471390 173480	BROAD STREET READING 2	18.29	N	428344

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



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17.1 Shrink swell clays

Records within 50m

1

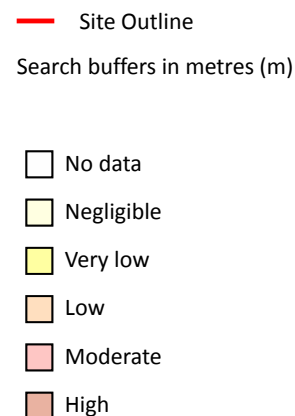
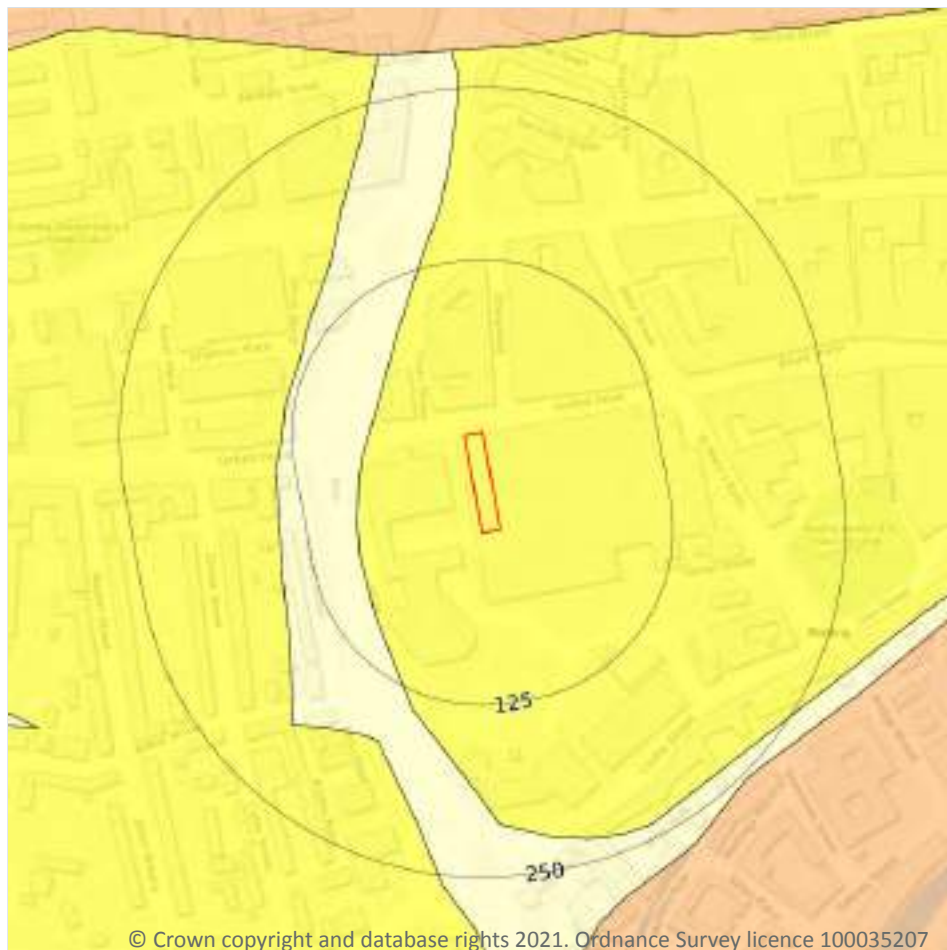
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 105**

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

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



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17.2 Running sands

Records within 50m

1

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

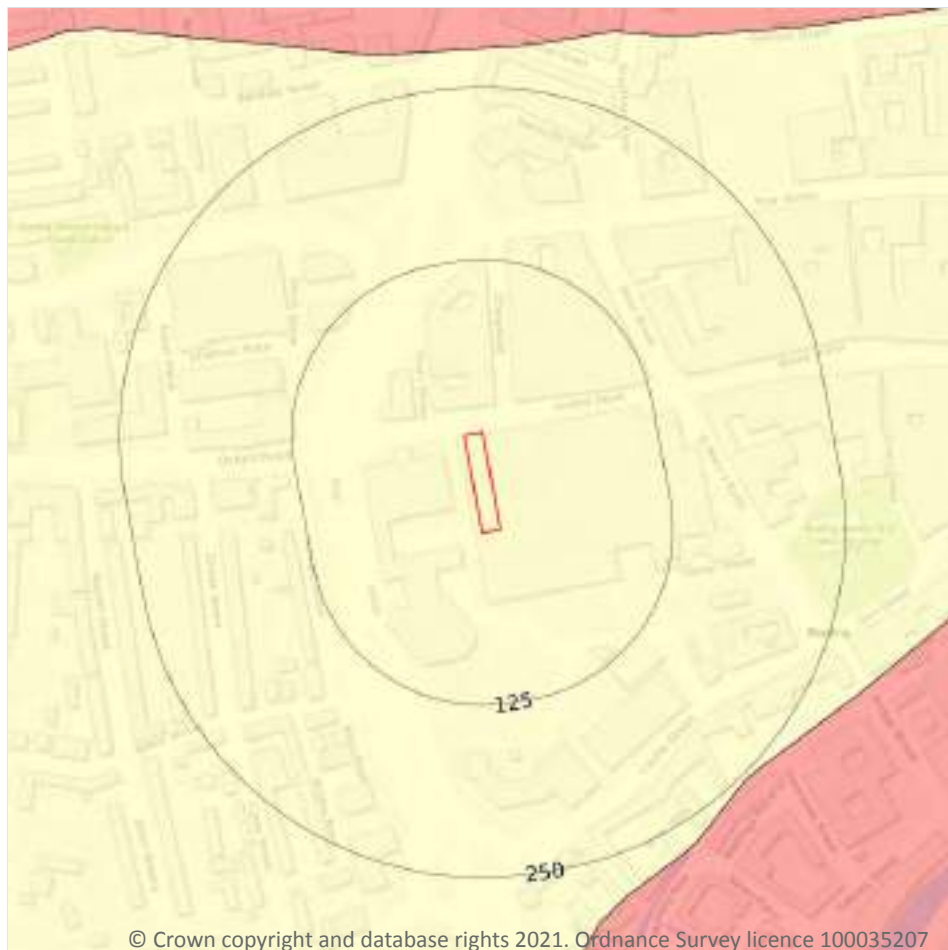
Features are displayed on the Natural ground subsidence - Running sands map on **page 106**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



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

17.3 Compressible deposits

Records within 50m

1

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

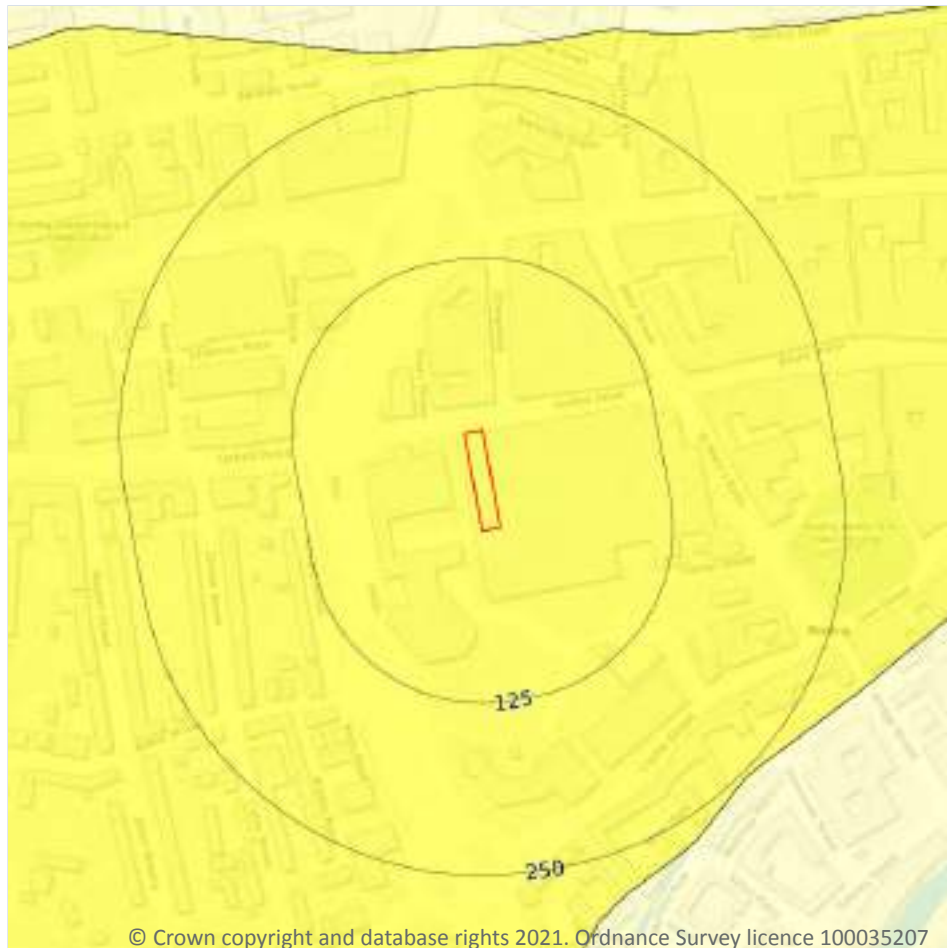
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 107**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



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

17.4 Collapsible deposits

Records within 50m

1

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

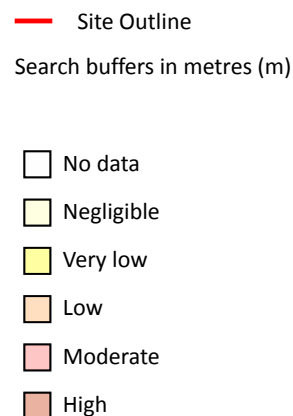
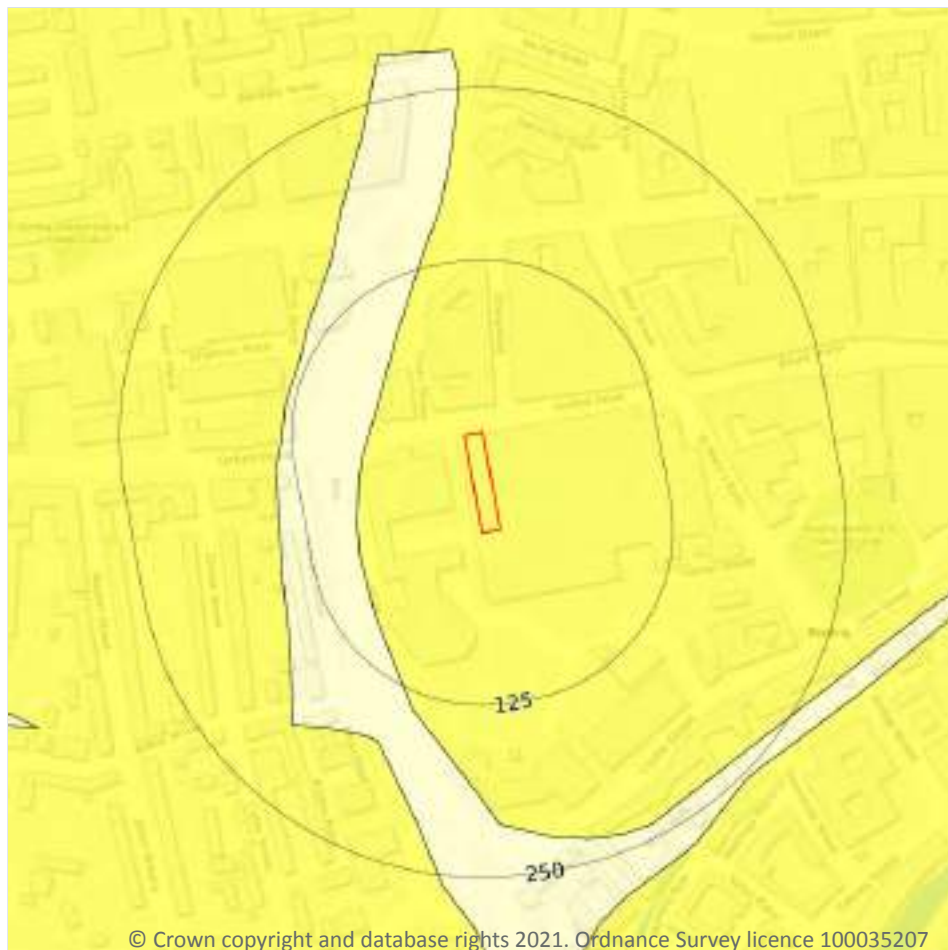
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 108**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



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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.

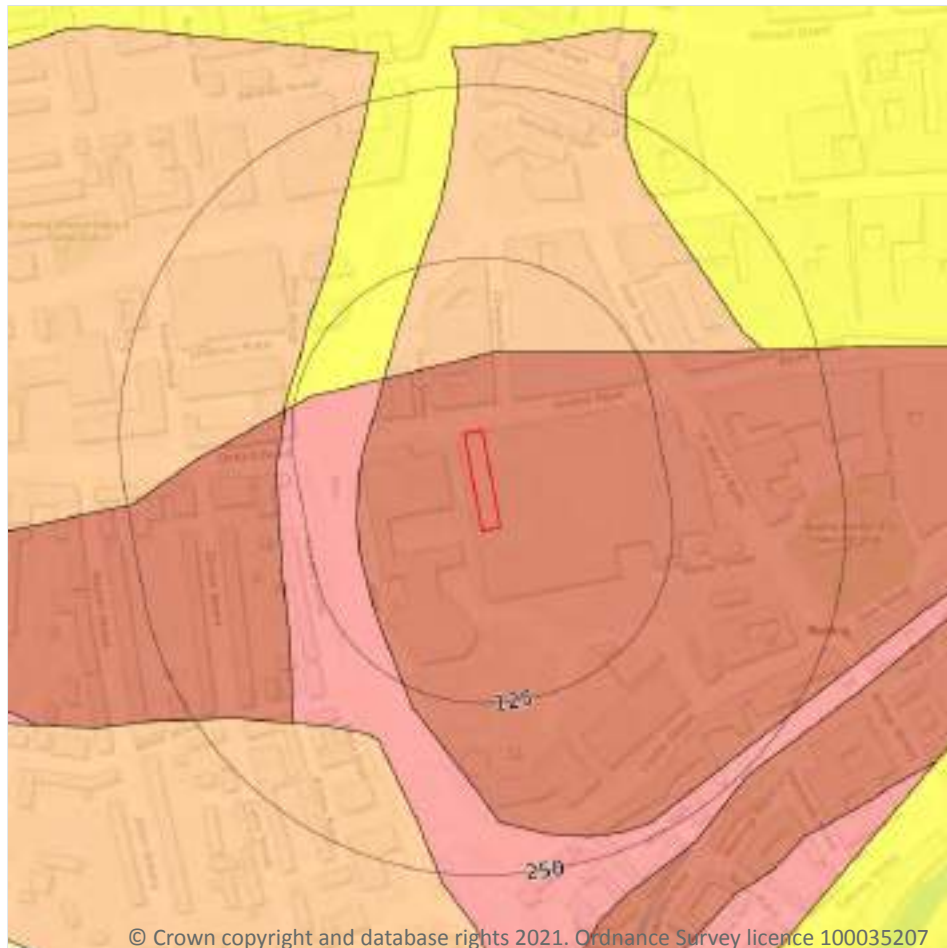
Features are displayed on the Natural ground subsidence - Landslides map on **page 109**

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



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

17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

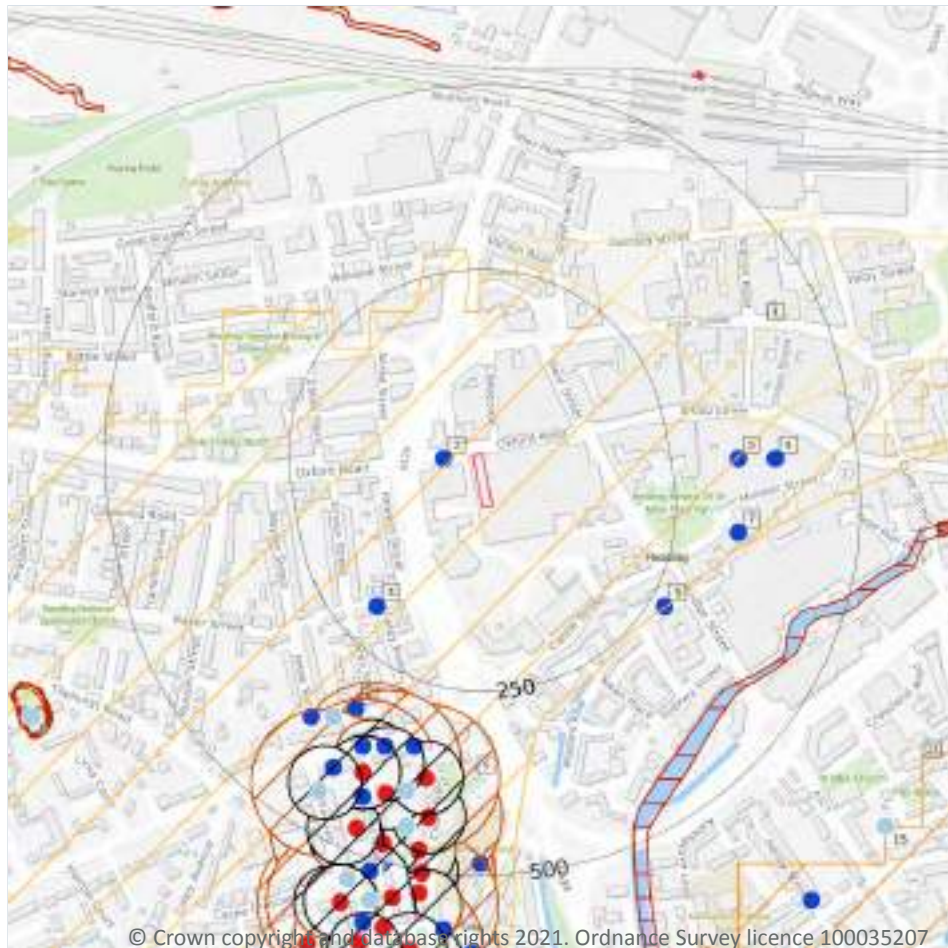
Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 110**

Location	Hazard rating	Details
On site	High	Soluble rocks are present within the ground. Numerous dissolution features may be present. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered.

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



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

18.1 Natural cavities

Records within 500m

23

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 Mining, ground workings and natural cavities map on **page 112**

ID	Location	Details	Source
2	39m 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

ID	Location	Details	Source
3	195m SW	Type: Solution Widened Joint or Fissure x 3 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates LLP Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
5	270m SE	Type: Solution Pipe x 2 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
A	323m SW	Type: Solution Pipe x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
7	336m E	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
A	336m SW	Type: Solution Pipe x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	337m S	Type: Solution Widened Joint or Fissure x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: PBA Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
8	340m E	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
A	343m S	Type: Solution Pipe x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	350m S	Type: Solution Pipe x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: PBA Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	354m SW	Type: Solution Widened Joint or Fissure x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates LLP Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely



ID	Location	Details	Source
A	354m SW	Type: Solution Widened Joint or Fissure x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates LLP Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	358m SW	Type: Solution Widened Joint or Fissure x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates LLP Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	358m SW	Type: Solution Widened Joint or Fissure x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates LLP Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	358m SW	Type: Solution Widened Joint or Fissure x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates LLP Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	362m SW	Type: Solution Widened Joint or Fissure x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates LLP Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	367m SW	Type: Solution Pipe x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
9	389m E	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
A	389m SW	Type: Solution Pipe x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	407m SW	Type: Solution Pipe x 2 Superficial Geology: Lynch Hill Gravel Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	426m S	Type: Solution Pipe x 1 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: Peter Brett Associates Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely



ID	Location	Details	Source
A	484m S	Type: Solution Widened Joint or Fissure x 1 Superficial Geology: - Bedrock Geology: Chalk Group	Simple Bibliography: PBA Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely
A	499m S	Type: Solution Pipe x 3 Superficial Geology: - Bedrock Geology: Chalk Group, Lambeth Group	Simple Bibliography: PBA Full Bibliography: - Confidentiality: Data source can be revealed, data can be used freely

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m

12

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 112**

ID	Location	Details	Description
A	370m SW	Name: Reading Chalk Mine Address: READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
A	371m S	Name: Reading Chalk Mine Address: READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority



ID	Location	Details	Description
A	375m S	Name: Reading Chalk Mine Address: READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
A	394m SW	Name: Reading Chalk Mine Address: READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
A	409m S	Name: Reading Chalk Mine Address: READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
A	426m S	Name: Reading Chalk Mine Address: READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
A	431m SW	Name: Reading Chalk Mine Address: Coley, READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

ID	Location	Details	Description
A	468m S	Name: Neuk & Bramley Chalk Mine Address: Coley, READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
A	473m S	Name: Reading Chalk Mine Address: READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
A	475m SW	Name: Reading Chalk Mine Address: READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
A	476m S	Name: Reading Chalk Mine Address: READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
A	487m S	Name: Reading Chalk Mine Address: READING, Berkshire Commodity: Chalk Status: Ceased	Type: Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots) Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.



18.3 Surface ground workings

Records within 250m**0**

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.

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m**0**

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

This data is sourced from Ordnance Survey/Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m**0**

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m**46**

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 112**

ID	Location	Name	Commodity	Class	Likelihood
1	On site	Not available	Chalk	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered

ID	Location	Name	Commodity	Class	Likelihood
4	264m N	Not available	Chalk	A	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
A	270m SW	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	271m S	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
6	275m S	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	294m SW	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	320m SW	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	321m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	325m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	331m SW	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	344m SW	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered



ID	Location	Name	Commodity	Class	Likelihood
A	381m SW	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	388m S	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	392m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	413m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	434m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	450m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	453m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	455m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	456m S	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	468m S	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered



ID	Location	Name	Commodity	Class	Likelihood
A	471m S	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	478m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	478m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	497m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	514m SW	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	519m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	525m SW	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	527m SW	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	530m S	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	534m SW	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered



ID	Location	Name	Commodity	Class	Likelihood
A	550m SW	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	551m SW	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	559m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	572m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
A	576m S	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	580m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
11	590m SE	Not available	Chalk	C	Small scale underground mining may have occurred; mine adits, shafts and tunnels may be present. Potential for localised difficult ground conditions are at a level where they should be considered
12	613m SW	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
A	623m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered
-	653m S	Not available	Chalk	E	Underground mining is known to have occurred within or very close to the area. Potential for difficult ground conditions should be investigated. Potential for localised subsidence is at a level where it should be considered



ID	Location	Name	Commodity	Class	Likelihood
-	672m SW	Not available	Chalk	D	Underground mining is known or considered likely to have occurred within or close to the area. Potential for difficult ground conditions are at a level where they should be considered
13	674m SE	Not available	Chalk	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
-	696m SE	Not available	Chalk	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
-	766m S	Not available	Chalk	B	Localised small scale underground mining may have occurred. Potential for difficult ground conditions are unlikely or localised and are at a level where they need not be considered
-	914m NW	Not available	Chalk	A	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

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m

31

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 Mining, ground workings and natural cavities map on **page 112**

ID	Location	Mine Address	Mineral	Data source	Publisher
A	349m SW	Reading (Coley), Berkshire	Chalk	-	-
A	352m SW	Reading (Coley), Berkshire	Chalk	-	-
A	355m SW	Reading (Coley), Berkshire	Chalk	-	-
A	357m SW	Reading (Coley), Berkshire	Chalk	-	-
A	398m S	Reading (Coley), Berkshire	Chalk	-	-
A	413m S	Reading (Coley), Berkshire	Chalk	-	-



ID	Location	Mine Address	Mineral	Data source	Publisher
A	444m SW	Reading (Coley), Berkshire	Chalk	-	-
A	446m S	Reading (Coley), Berkshire	Chalk	-	-
A	460m S	Reading (Coley), Berkshire	Chalk	-	-
A	536m S	Reading (Coley), Berkshire	Chalk	-	-
A	555m S	Castle Hill Kiln, Reading (Coley), Berkshire	Chalk	-	-
A	571m S	Reading (Coley), Berkshire	Chalk	-	-
A	619m S	Reading (Coley), Berkshire	Chalk	-	-
-	626m S	Reading (Coley), Berkshire	Chalk	-	-
-	636m S	Coley Potteries, Reading (Coley), Berkshire	Chalk	The Brick-making Industry in Reading: A Temporal & Spatial Analysis	Undergraduate Dissertation, University of Reading
D	675m SW	Reading, Berkshire	Chalk	-	-
15	690m SE	Reading, Berkshire	Chalk	-	-
-	733m SW	Reading (West), Berkshire	Chalk	-	-
-	763m SE	Katesgrove Kilns (1), Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
-	809m SE	Katesgrove Kilns (2), Reading, Berkshire	Chalk	READING CHALK MINES	TRANS.GEO.SOC., 4, 780
-	831m SE	Shearmans Brick Kiln, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
23	856m SE	Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
-	862m W	Reading (West), Berkshire	Chalk	-	-
-	863m W	Coopers Brick & Lime Manufactory, Reading (West), Berkshire	Chalk	-	-
-	870m SE	Shearmans Brick Kiln, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
-	902m SE	Jubilee Square, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
-	947m S	Wheeler Works, Reading (Coley), Berkshire	Chalk	The Brick-making Industry in Reading: A Temporal & Spatial Analysis	Undergraduate Dissertation, University of Reading



ID	Location	Mine Address	Mineral	Data source	Publisher
-	966m SE	Katesgrove Kilns (3), Reading, Berkshire	Chalk	THE ENGINEERING GEOMORPHOLOGY OF KARST DEVELOPMENT AND THE PREDICTION OF SUBS..	PHD THESIS,LONDON UNIVERSITY
-	971m SW	Avenue Works, Reading (Coley), Berkshire	Chalk	-	PhD Thesis, University of Reading
-	972m SE	The Old Orchard Kiln, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading
-	992m SE	Ivy Lodge Brickfield/ Southampton Kiln, Reading, Berkshire	Chalk	-	PhD Thesis, University of Reading

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site

1

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

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

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site

0

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

This data is sourced from the Coal Authority.

18.10 Brine areas

Records on site

0

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



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

18.11 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Mining Searches UK.

18.13 Clay mining

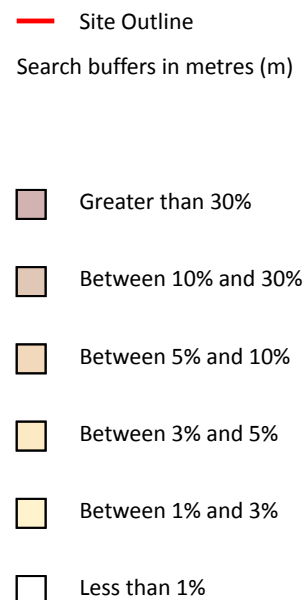
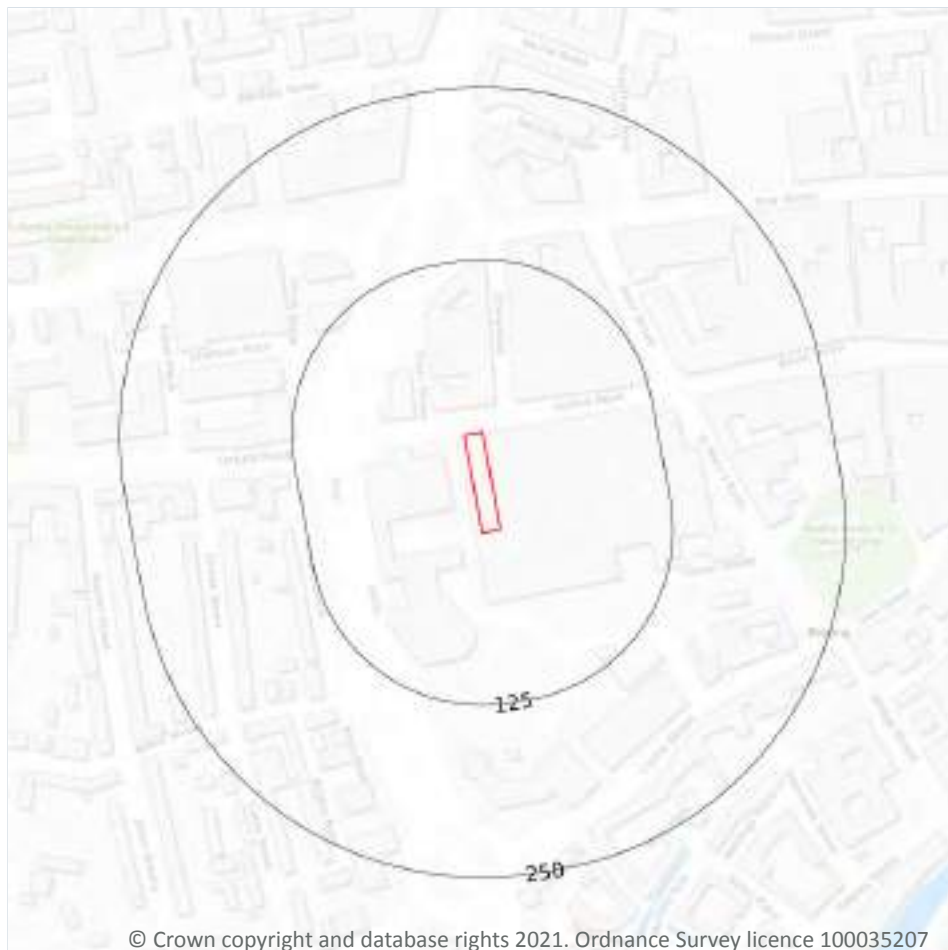
Records on site	0
-----------------	---

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

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



19 Radon



19.1 Radon

Records on site

1

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

Features are displayed on the Radon map on **page 127**

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

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



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

1

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

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

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m

0

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

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects

21.1 Underground railways (London)

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

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

This data is sourced from publicly available information by Groundsure.

21.2 Underground railways (Non-London)

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

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

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

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

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

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

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

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

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



This data is sourced from Groundsure/the Postal Museum.

21.6 Historical railways

Records within 250m

0

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m

0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m

0

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

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Appendix D

Groundsure Historical Map Pack

Site Details:

FOUNTAIN HOUSE, BROAD
STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

Map date: 1879

Scale: 1:2,500

Printed at: 1:2,500



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



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Production date: 09 July 2021

Map legend available at:
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Site Details:

FOUNTAIN HOUSE, BROAD
STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series Town Plan

Map date: 1879-1880

Scale: 1:500

Printed at: 1:1,000



Surveyed 1880
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

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

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

Surveyed 1878
Revised N/A
Edition N/A
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Site Details:

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STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

Map date: 1900

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1900
Revised 1900
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Site Details:

FOUNTAIN HOUSE, BROAD STREET MALL, READING, RG1 7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

Map date: 1912

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1912
Revised 1912
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Site Details:

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Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

Map date: 1931

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1931
Revised 1931
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Site Details:

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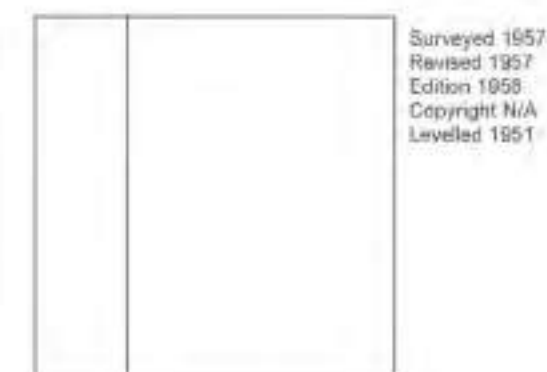
Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1957

Scale: 1:2,500

Printed at: 1:2,500



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Site Details:

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7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1957-1959

Scale: 1:1,250

Printed at: 1:2,000



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

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Site Details:

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Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1961

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1956
 Revised 1958
 Edition 1961
 Copyright 1961
 Levelled 1951

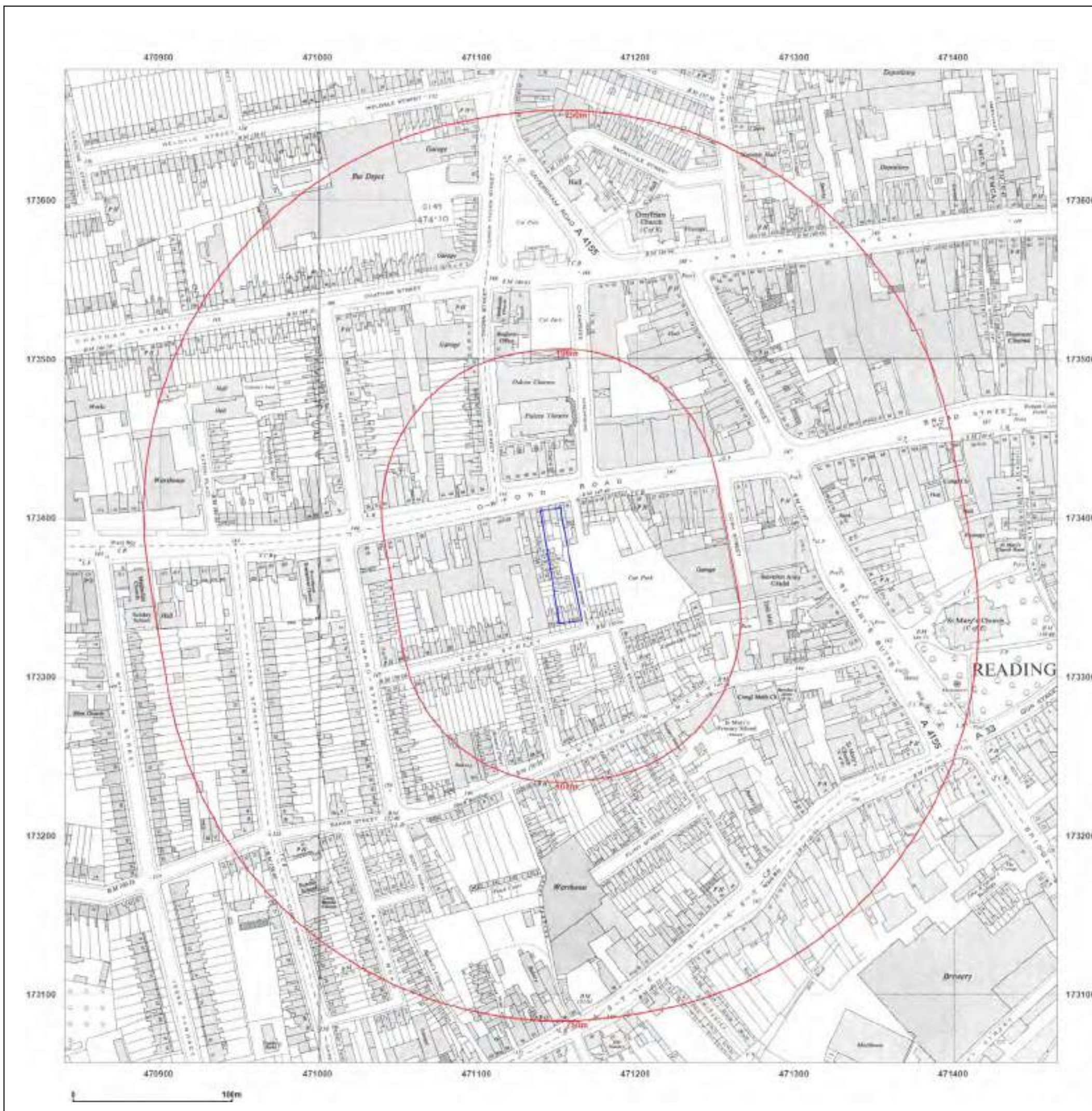


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7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1962

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1957
Revised 1962
Edition N/A
Copyright 1962
Levelled 1951

Surveyed 1957
Revised 1962
Edition N/A
Copyright 1962
Levelled 1951

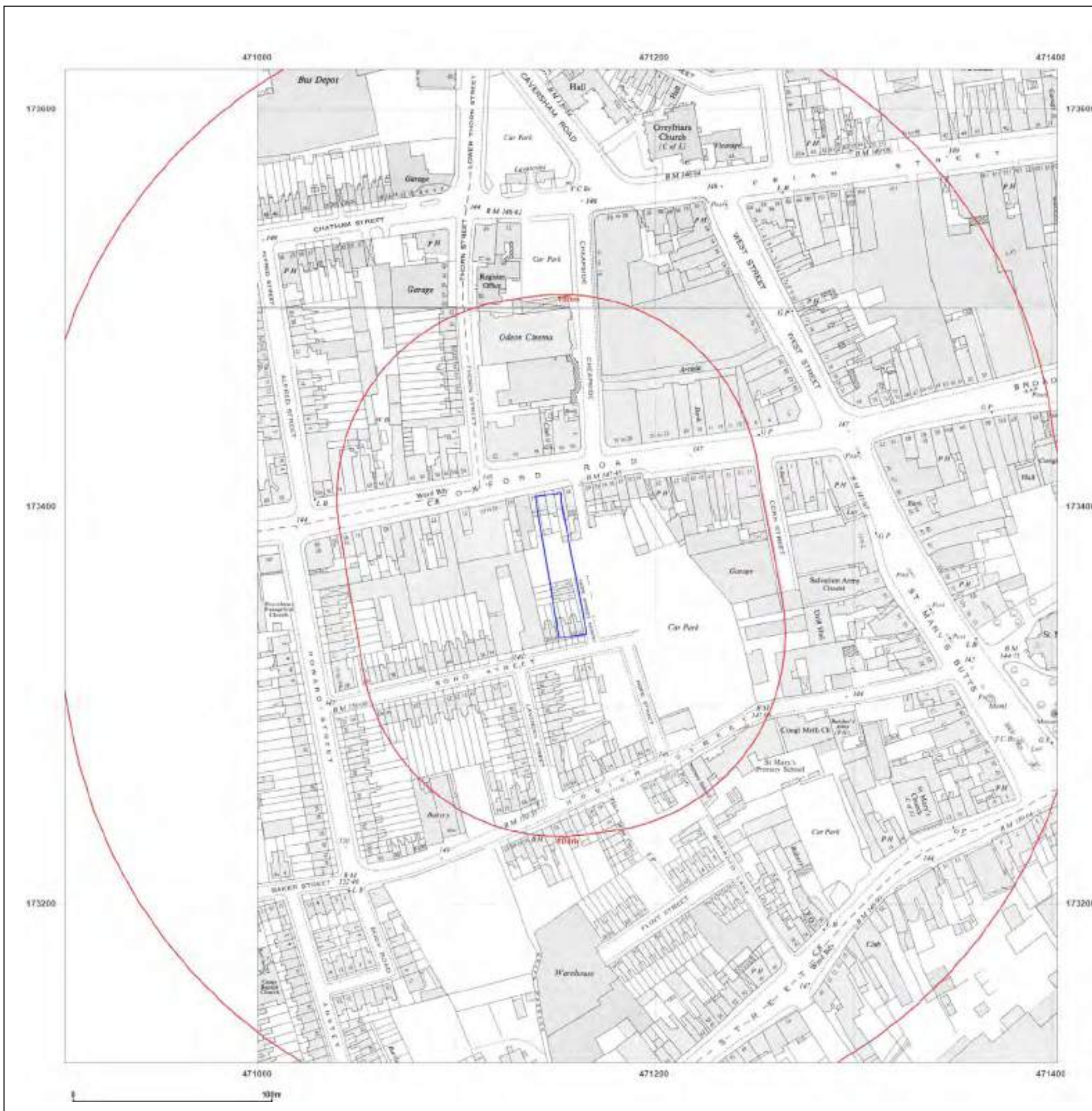


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Production date: 09 July 2021

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Site Details:

FOUNTAIN HOUSE, BROAD STREET MALL, READING, RG1 7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1969-1971

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1958
 Revised 1971
 Edition N/A
 Copyright 1971
 Levelled 1951

Surveyed 1957
 Revised 1958
 Edition N/A
 Copyright 1969
 Levelled 1951

Surveyed 1958
 Revised 1971
 Edition N/A
 Copyright 1971
 Levelled 1951

Surveyed 1957
 Revised 1969
 Edition N/A
 Copyright 1970
 Levelled 1951



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Site Details:

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STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1973-1977

Scale: 1:1,250

Printed at: 1:2,000



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



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Site Details:

FOUNTAIN HOUSE, BROAD STREET MALL, READING, RG1 7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

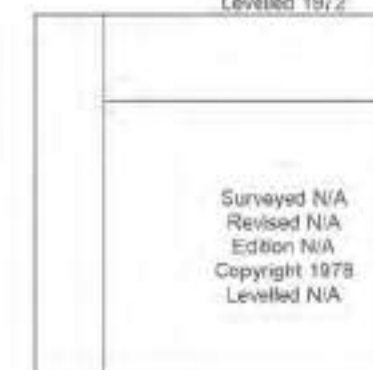
Map date: 1978-1979

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A
 Revised N/A
 Edition N/A
 Copyright 1979
 Levelled 1972



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



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Site Details:

FOUNTAIN HOUSE, BROAD
STREET MALL, READING, RG1
7QF

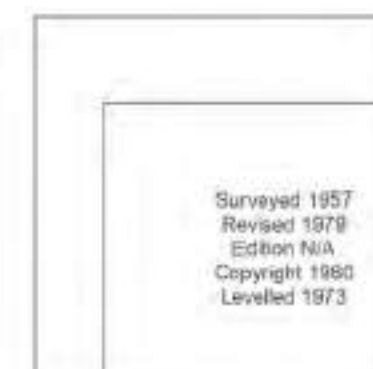
Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1980

Scale: 1:1,250

Printed at: 1:2,000

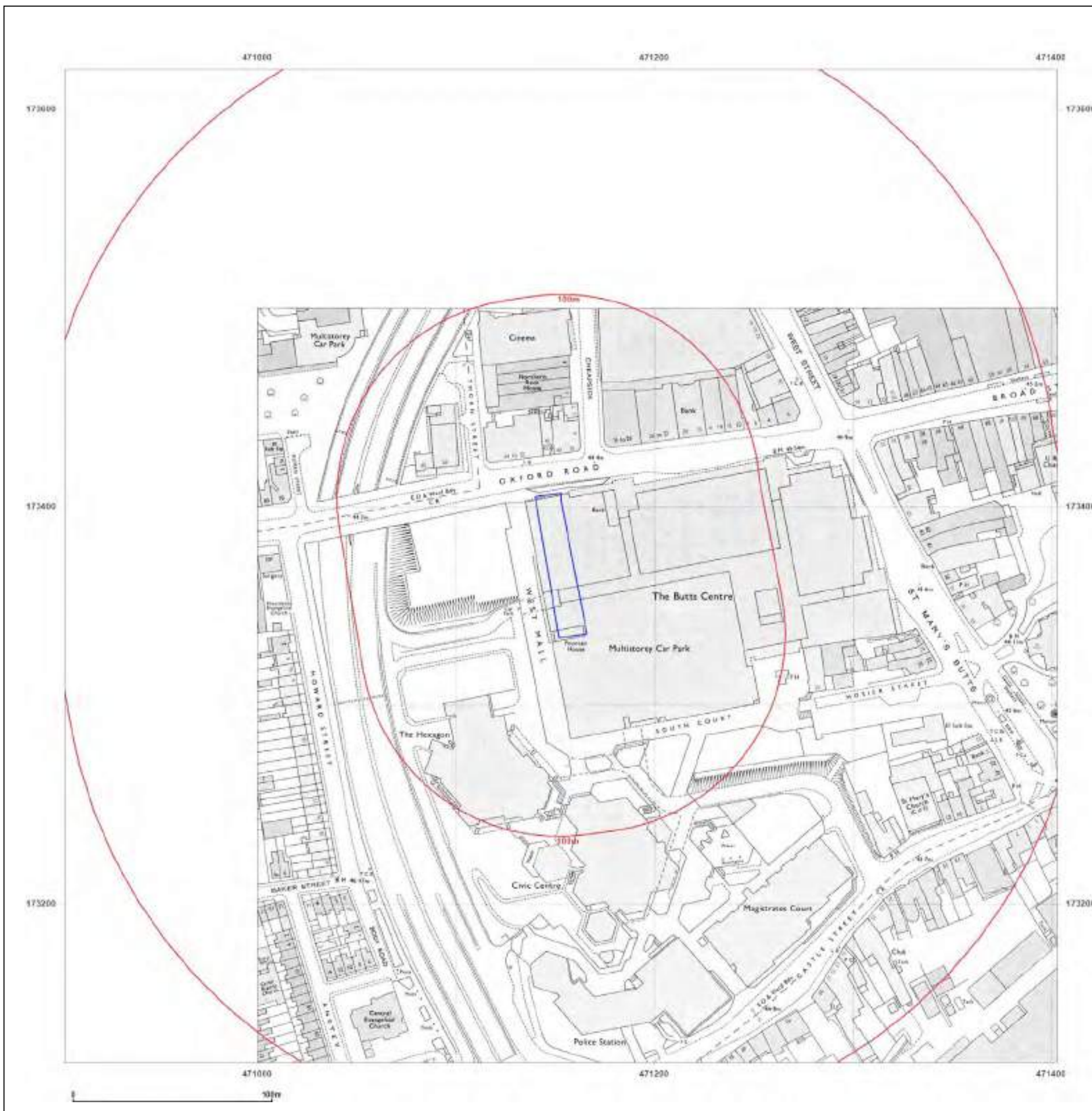


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Site Details:

FOUNTAIN HOUSE, BROAD STREET MALL, READING, RG1 7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1986-1988

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1973
Revised 1986
Edition N/A
Copyright 1986
Levelled 1973

Surveyed 1957
Revised 1984
Edition N/A
Copyright 1986
Levelled 1973

Surveyed 1972
Revised 1986
Edition N/A
Copyright 1986
Levelled 1972

Surveyed 1973
Revised 1986
Edition N/A
Copyright 1986
Levelled 1973

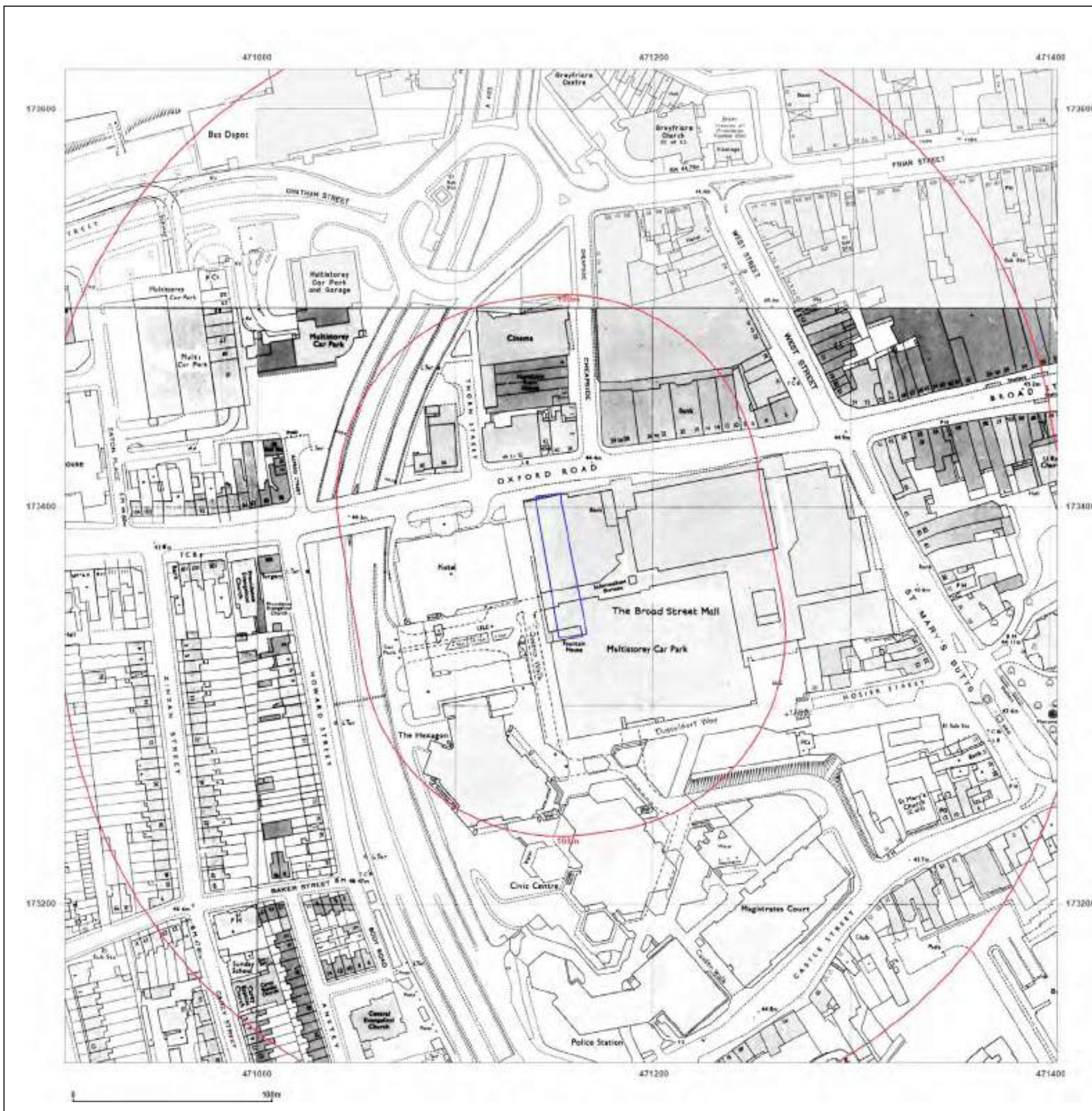


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Site Details:

FOUNTAIN HOUSE, BROAD STREET MALL, READING, RG1 7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1988-1993

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed 1973
Revised 1988
Edition N/A
Copyright 1988
Levelled 1973

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

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

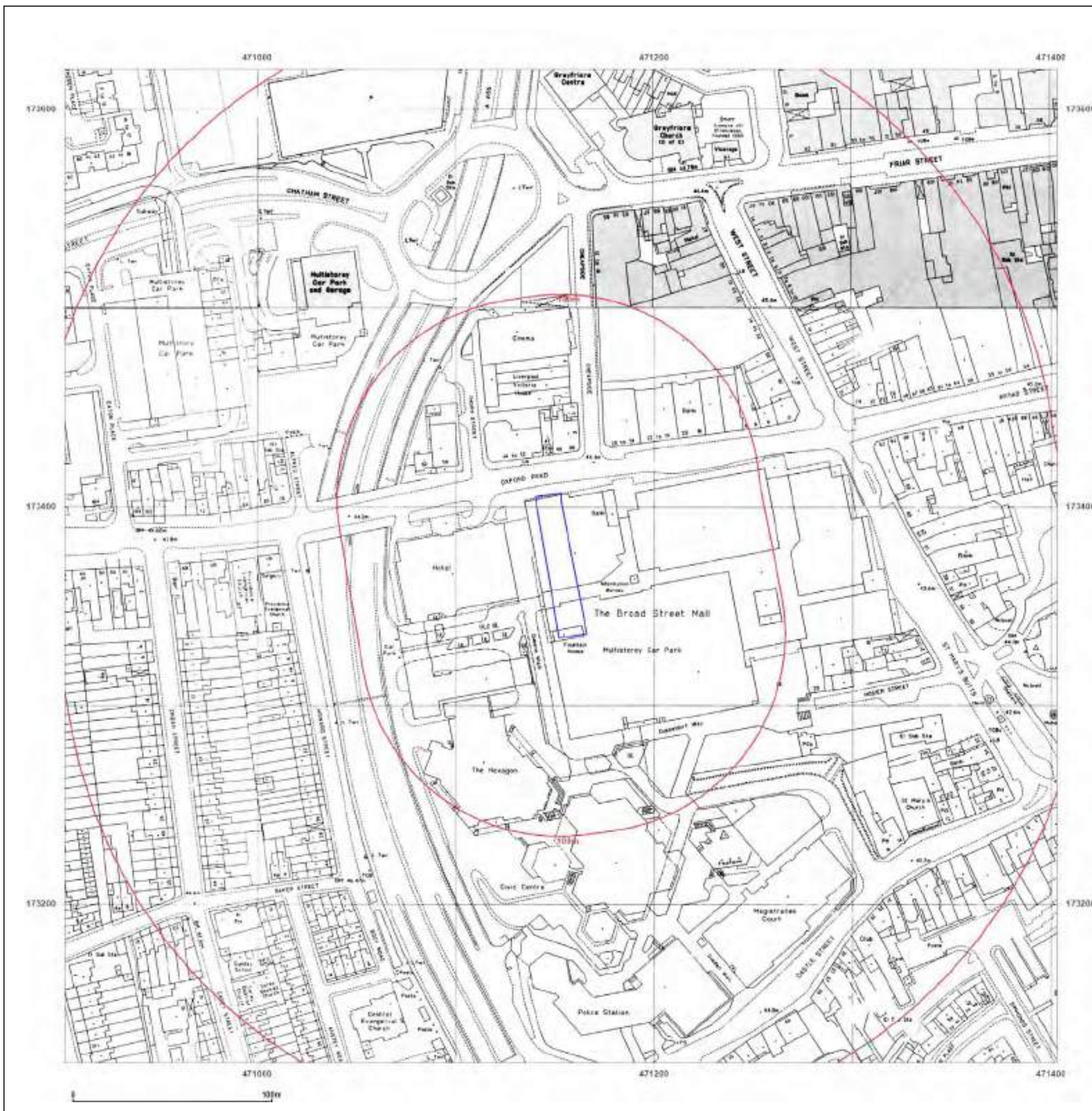


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Site Details:

FOUNTAIN HOUSE, BROAD STREET MALL, READING, RG1 7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

Map date: 1897-1900

Scale: 1:10,560

Printed at: 1:10,560



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

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

Surveyed 1877
Revised 1898
Edition 1900
Copyright N/A
Levelled N/A

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

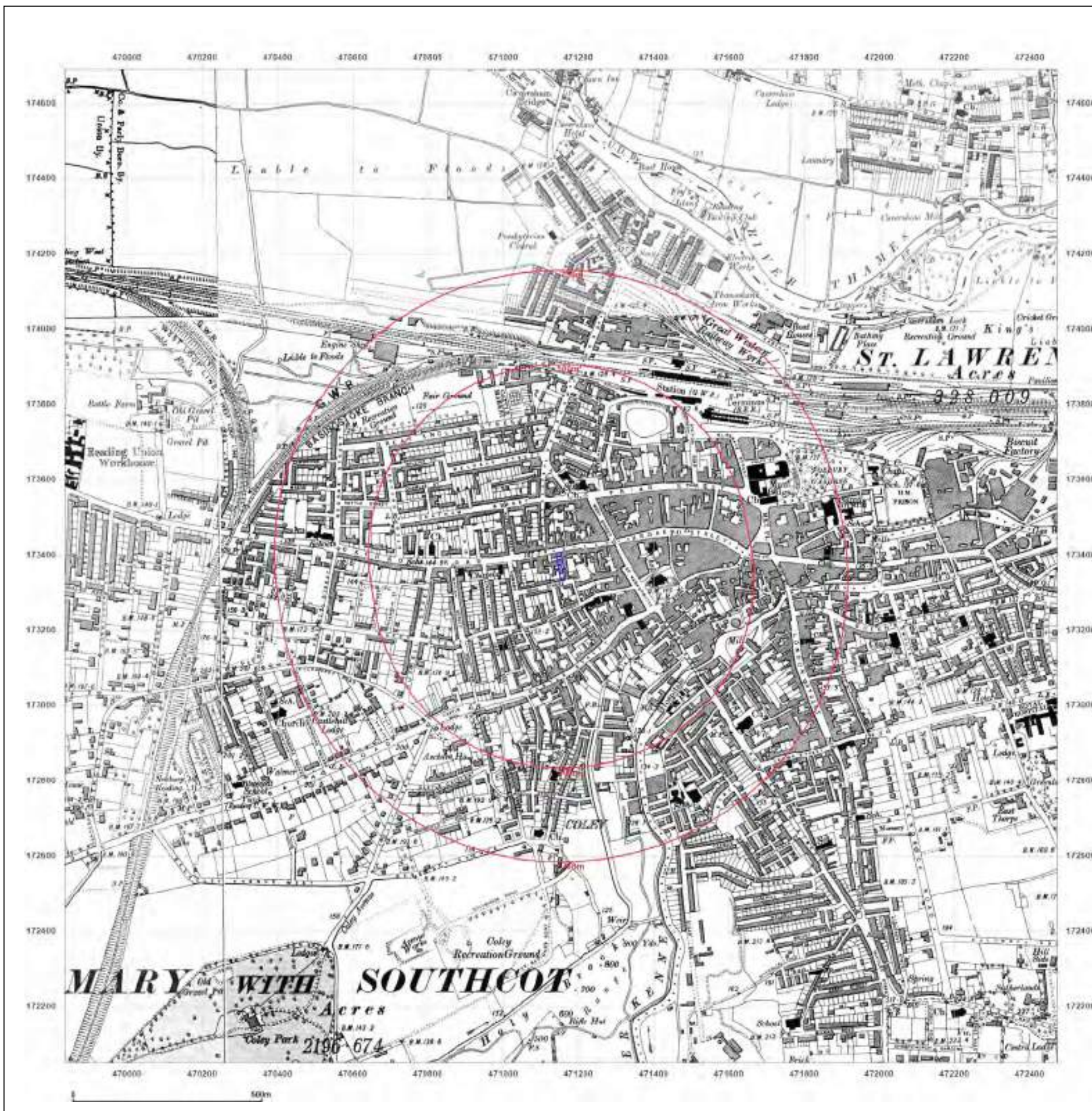


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Site Details:

FOUNTAIN HOUSE, BROAD STREET MALL, READING, RG1 7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

Map date: 1898-1900

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1877
Revised 1898
Edition 1900
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1898
Edition N/A
Copyright N/A
Levelled N/A

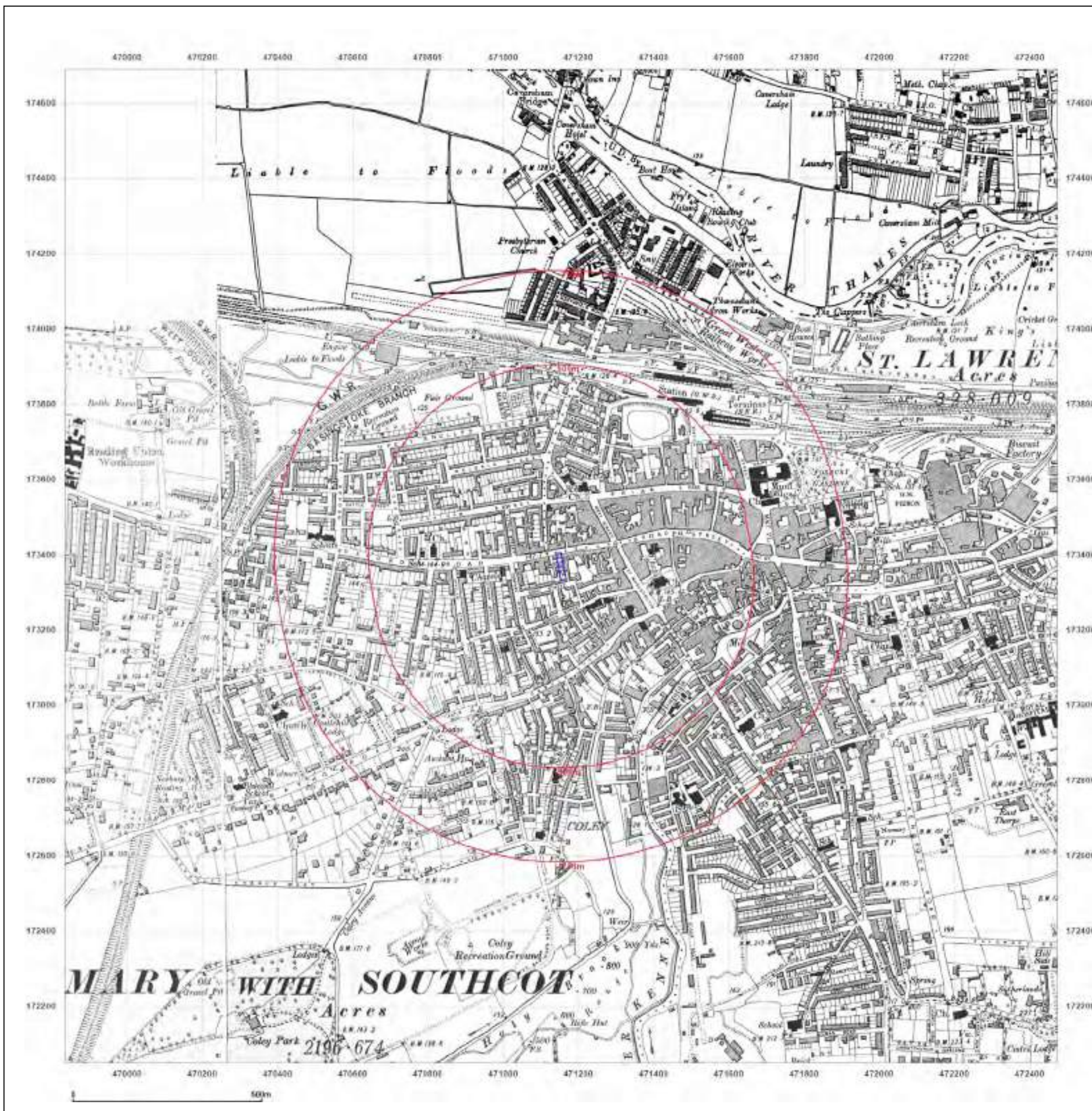


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Site Details:

FOUNTAIN HOUSE, BROAD
STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

Map date: 1910-1914

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1877
Revised 1910
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1910
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1910
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised 1914
Edition 1913
Copyright N/A
Levelled N/A

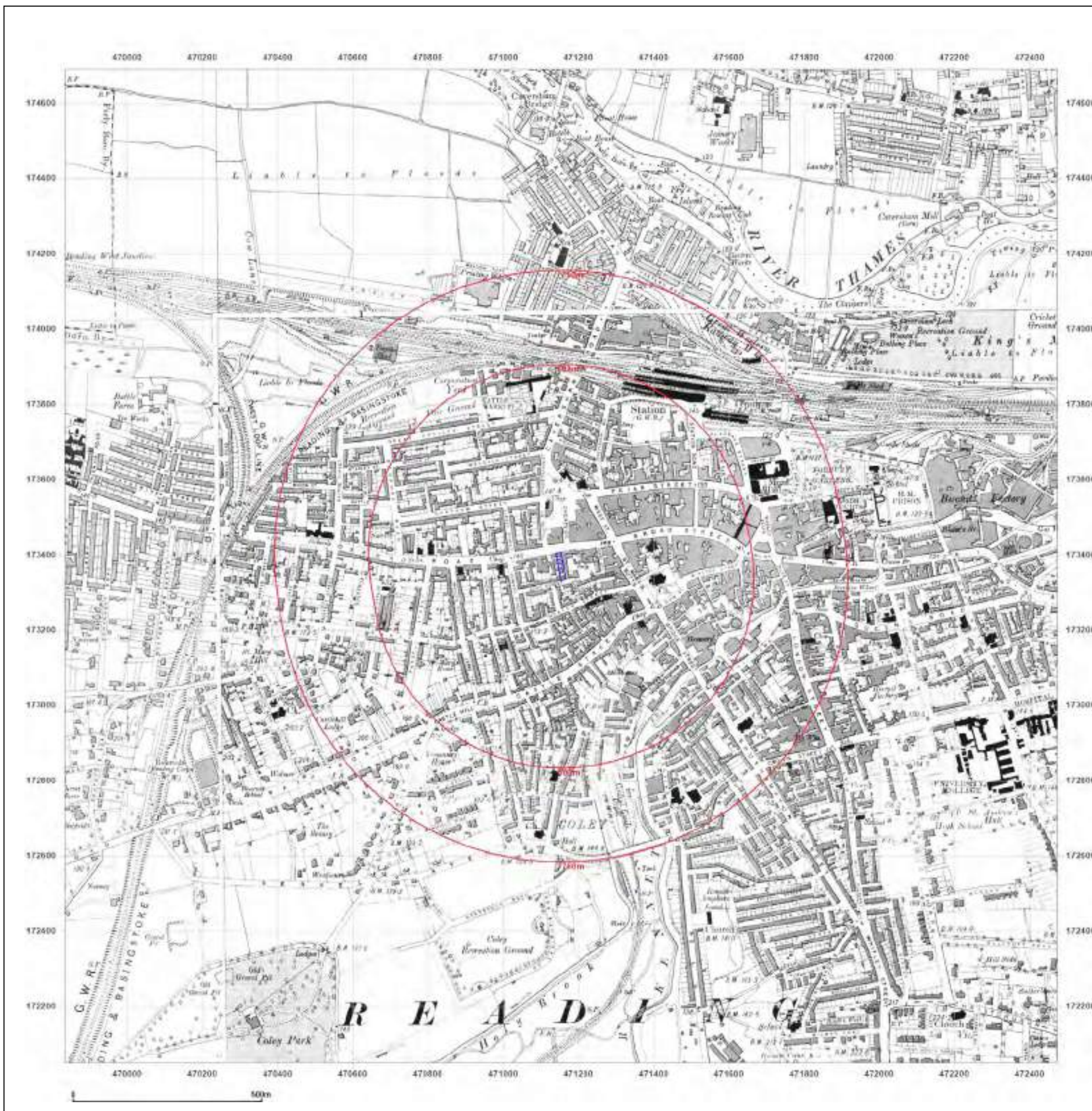


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STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

Map date: 1913-1914

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1877
Revised 1910
Edition 1914
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1910
Edition 1913
Copyright N/A
Levelled N/A

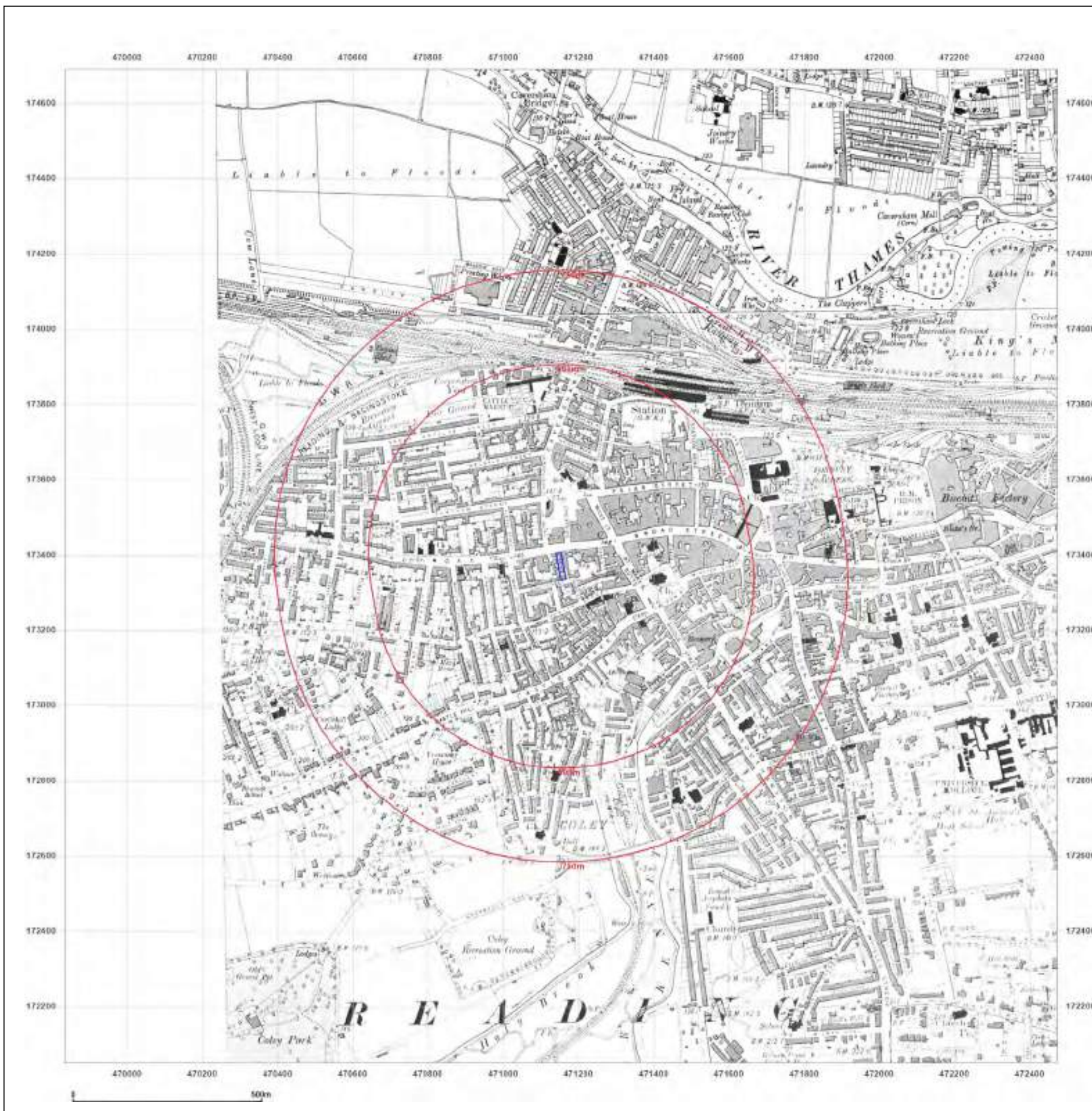


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Site Details:

FOUNTAIN HOUSE, BROAD STREET MALL, READING, RG1 7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

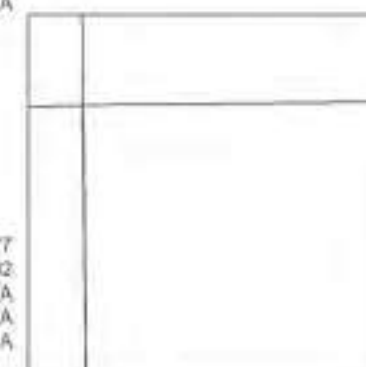
Map date: 1932-1933

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1877
 Revised 1932
 Edition N/A
 Copyright N/A
 Levelled N/A



Surveyed 1877
 Revised 1932
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1877
 Revised 1933
 Edition N/A
 Copyright N/A
 Levelled N/A

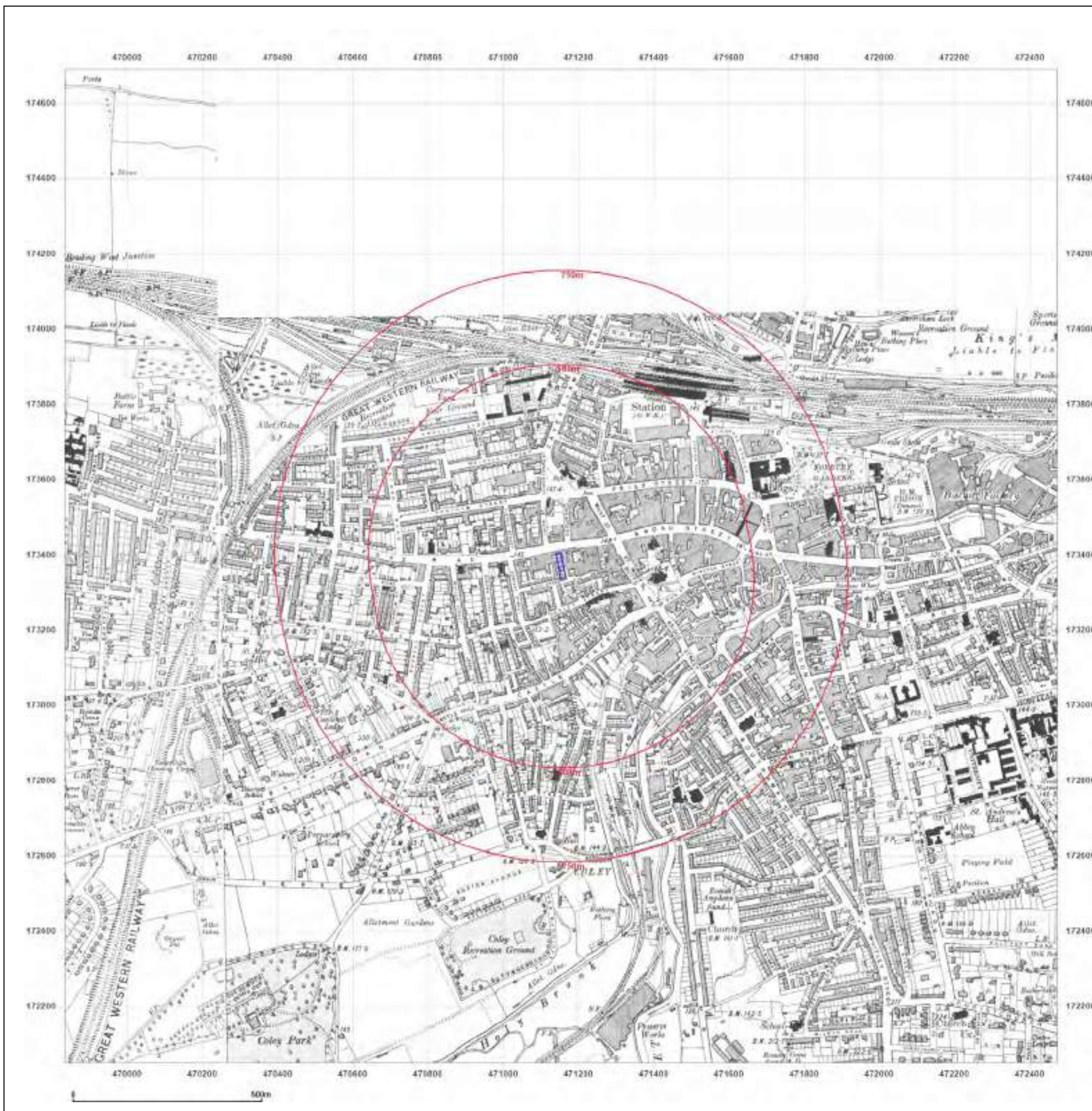


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Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1877
 Revised 1938
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1877
 Revised 1938
 Edition N/A
 Copyright N/A
 Levelled N/A

Surveyed 1877
 Revised 1938
 Edition 1938
 Copyright N/A
 Levelled N/A

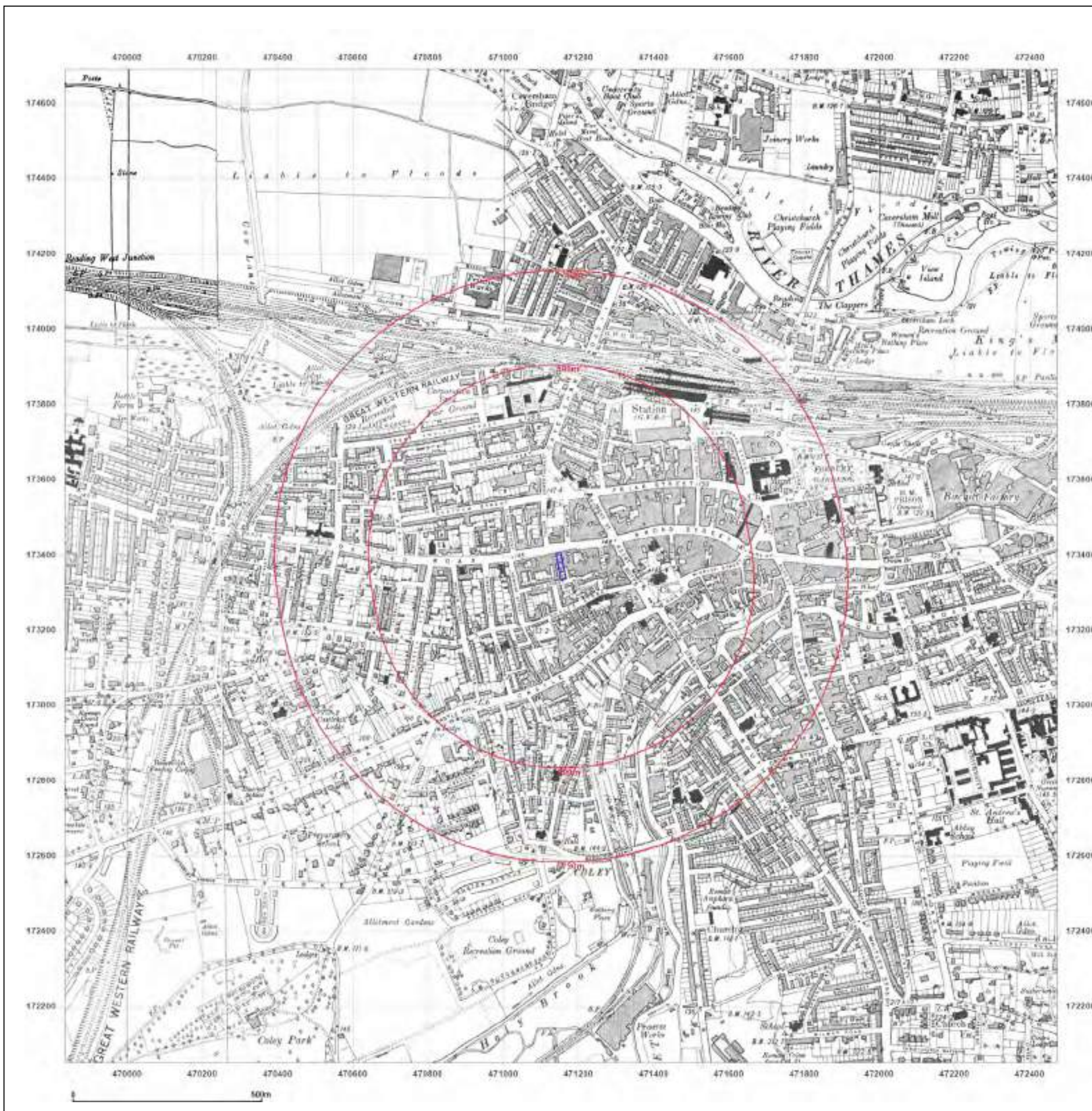


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Site Details:

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Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: County Series

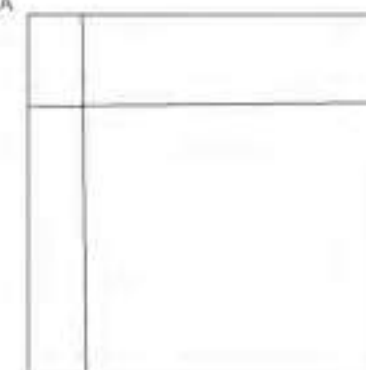
Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed N/A
 Revised N/A
 Edition 1835
 Copyright N/A
 Levelled N/A



Surveyed 1877
 Revised 1938
 Edition N/A
 Copyright N/A
 Levelled N/A

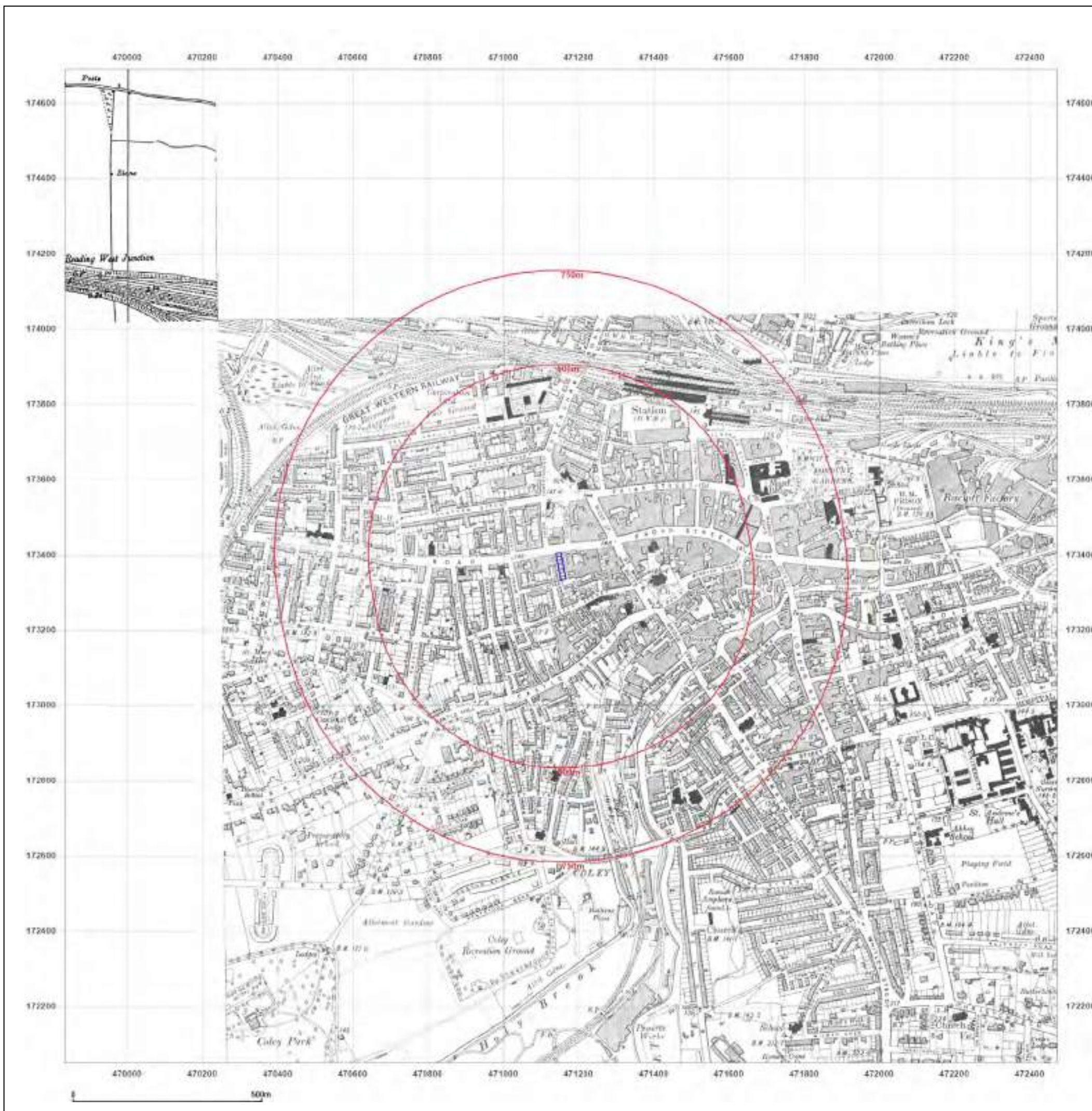


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Site Details:

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STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: Provisional

Map date: 1961-1962

Scale: 1:10,560

Printed at: 1:10,560



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

Surveyed 1958
Revised 1961
Edition N/A
Copyright 1962
Levelled N/A

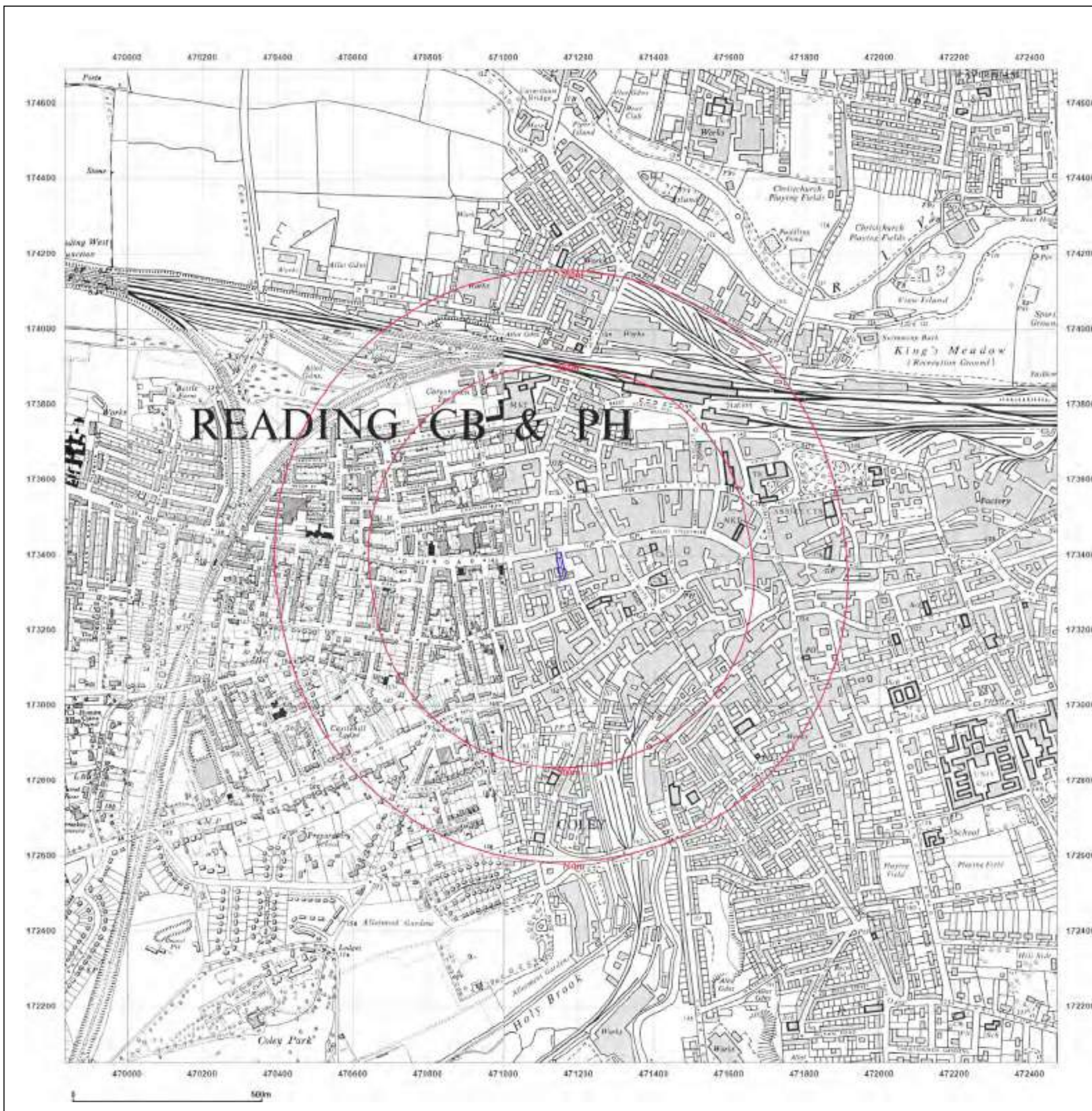


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Site Details:

FOUNTAIN HOUSE, BROAD STREET MALL, READING, RG1 7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1973-1976

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1973
Revised 1975
Edition N/A
Copyright 1976
Levelled 1969

Surveyed 1970
Revised 1973
Edition N/A
Copyright 1973
Levelled N/A

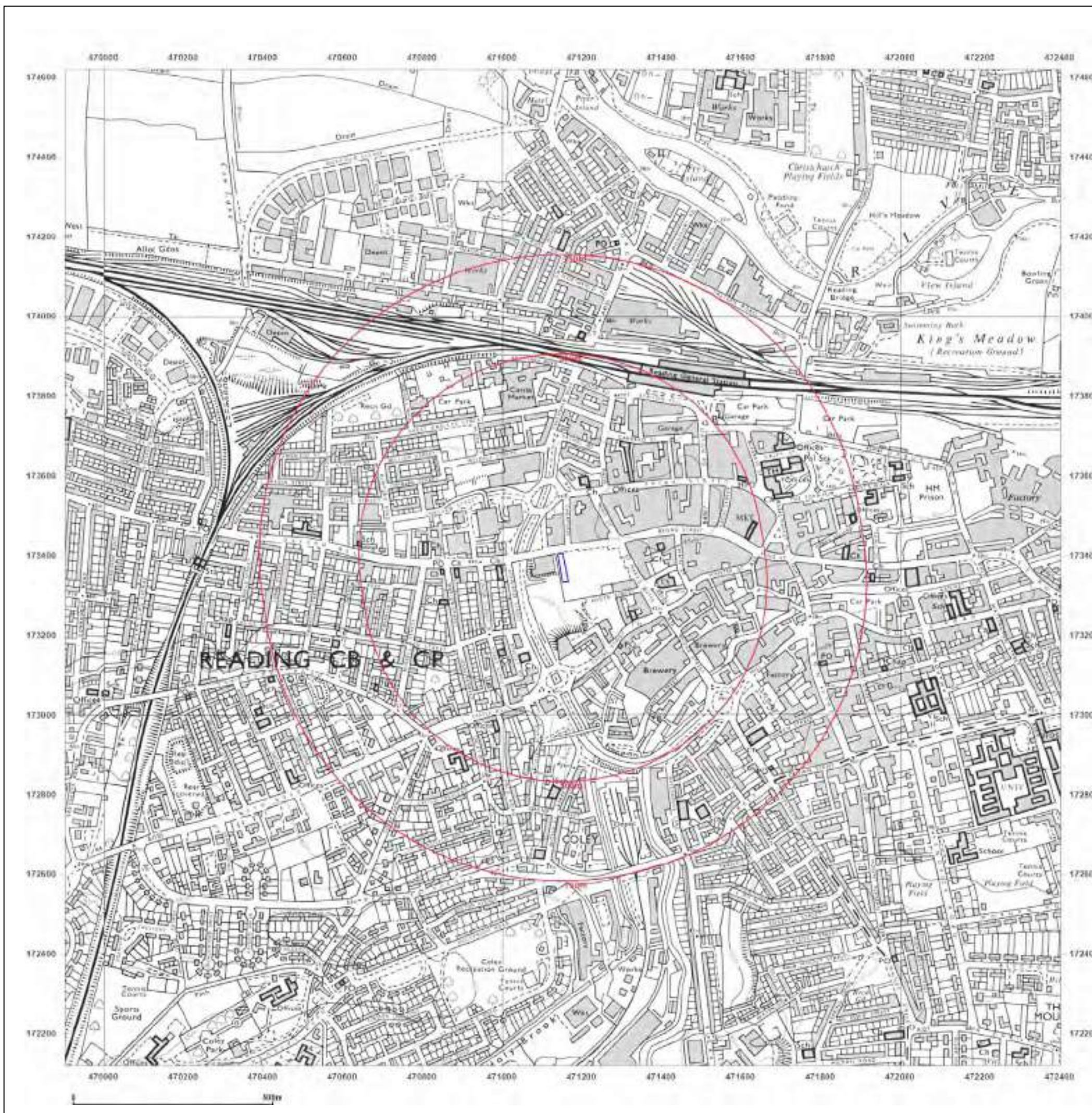


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Site Details:

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STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1979-1982

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1981
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1977
Revised 1979
Edition N/A
Copyright 1979
Levelled 1989

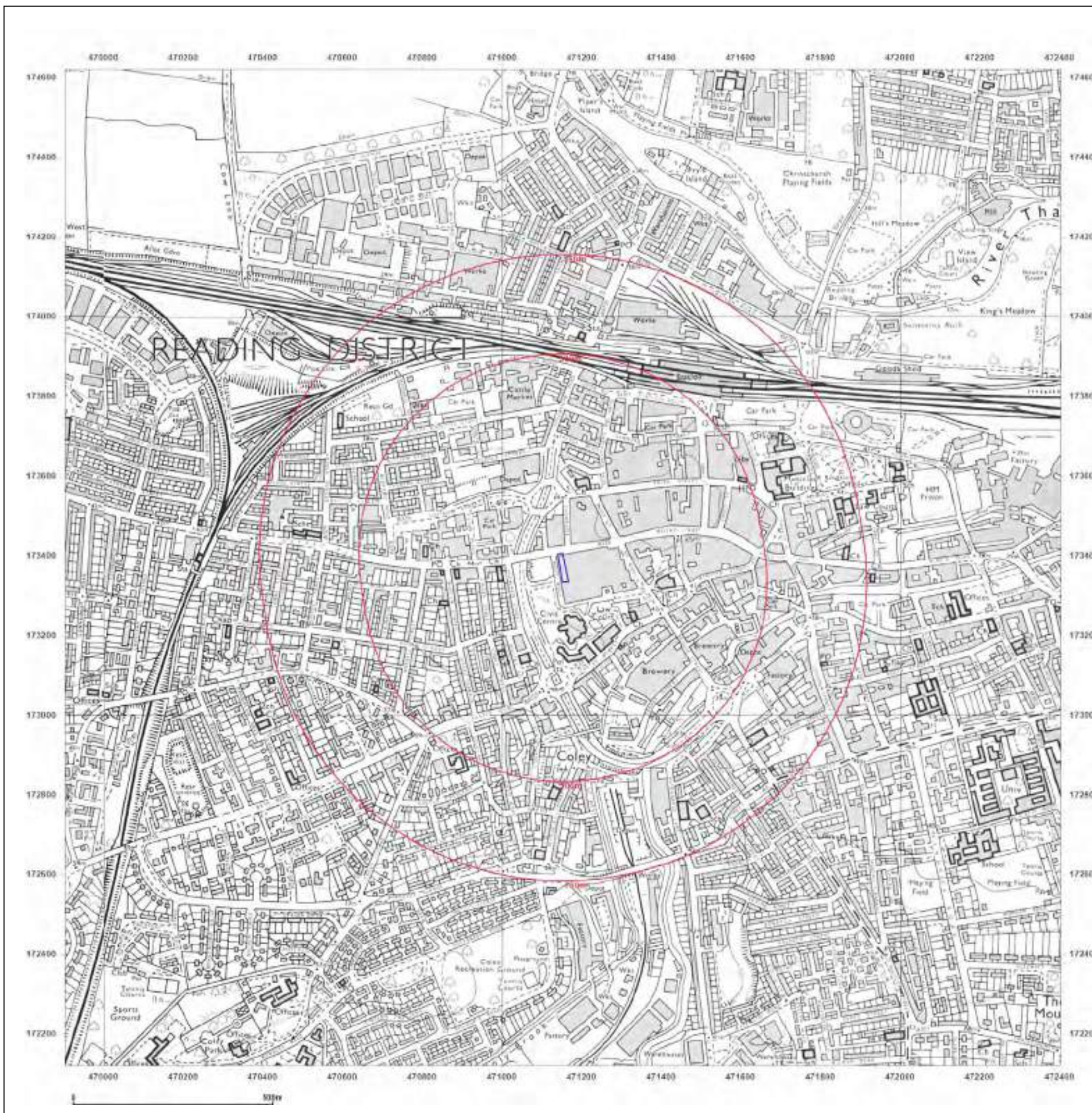


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Site Details:

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STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1989-1991

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1990
Revised 1991
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1987
Revised 1989
Edition N/A
Copyright N/A
Levelled N/A

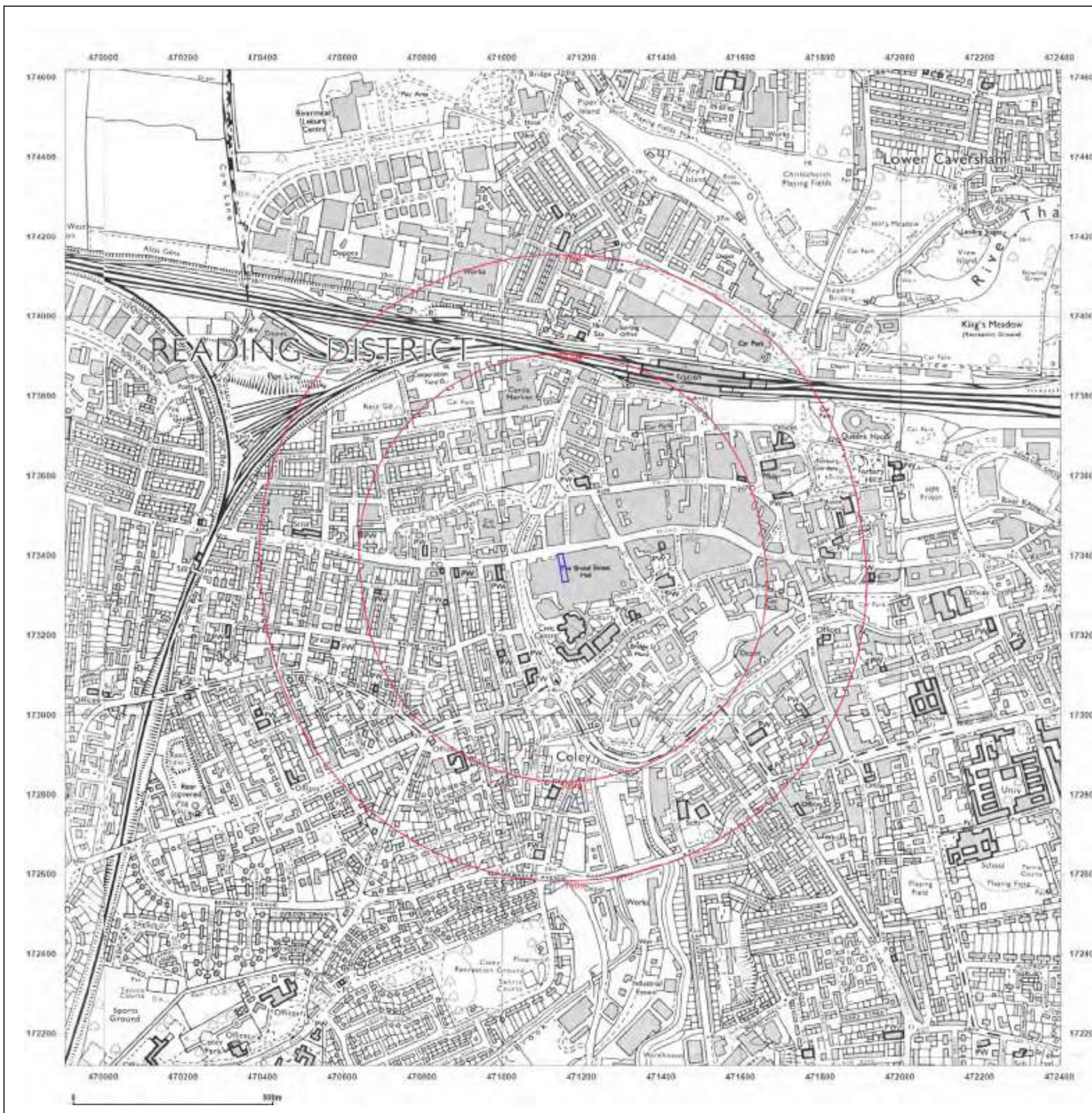


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Site Details:

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STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 1994

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1987
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

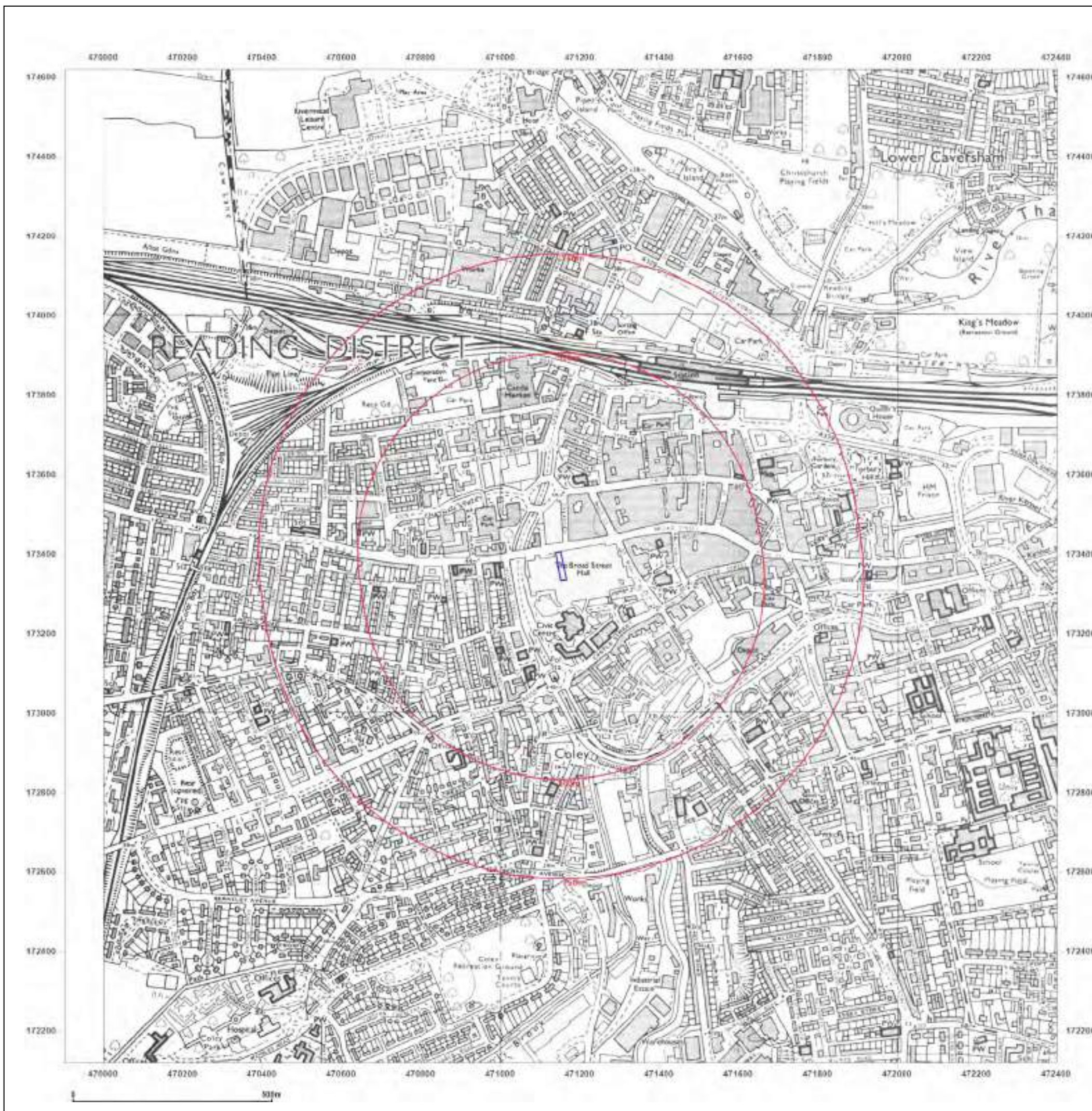


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Site Details:

FOUNTAIN HOUSE, BROAD
STREET MALL, READING, RG1
7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000

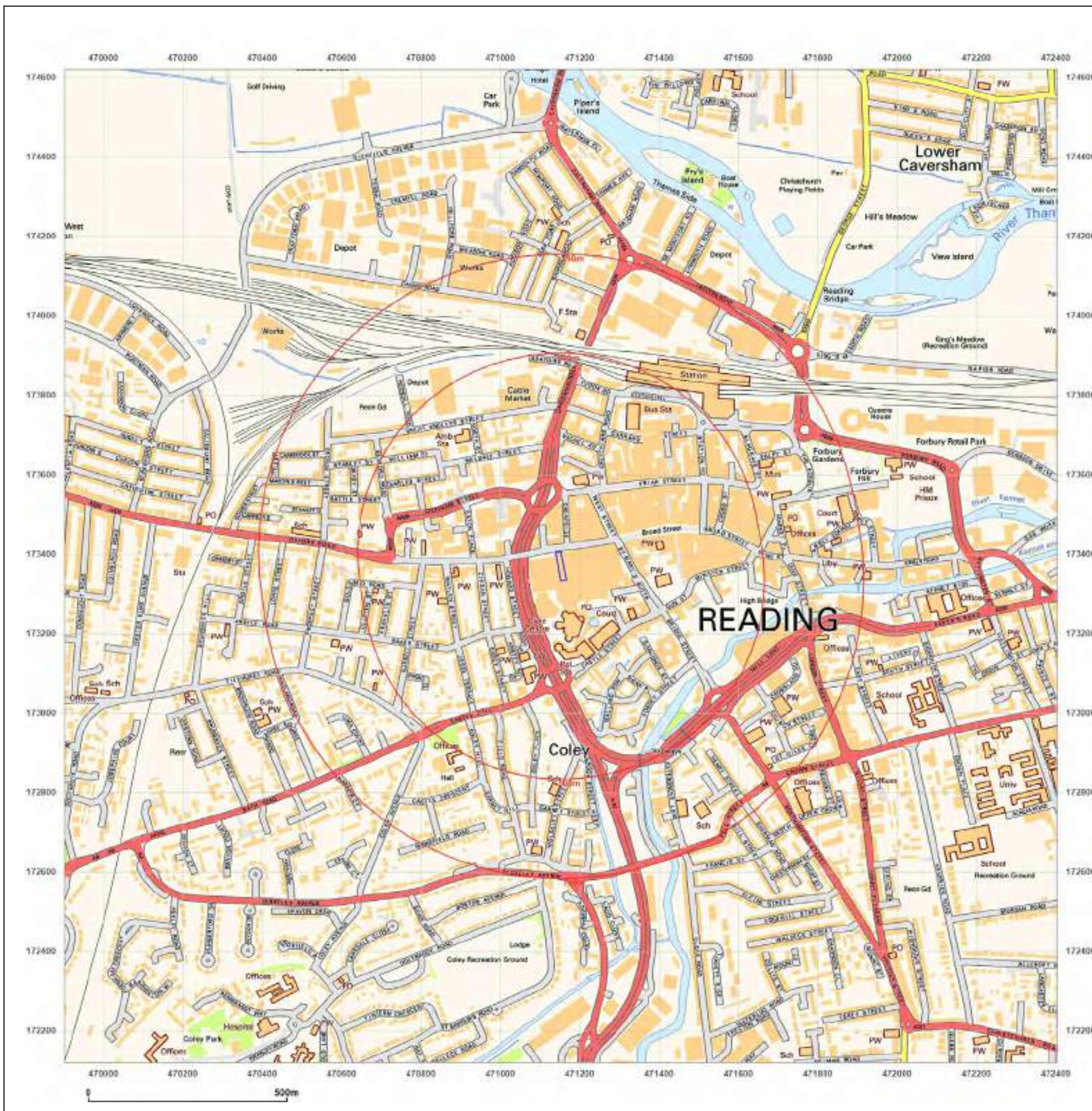


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Site Details:

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Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

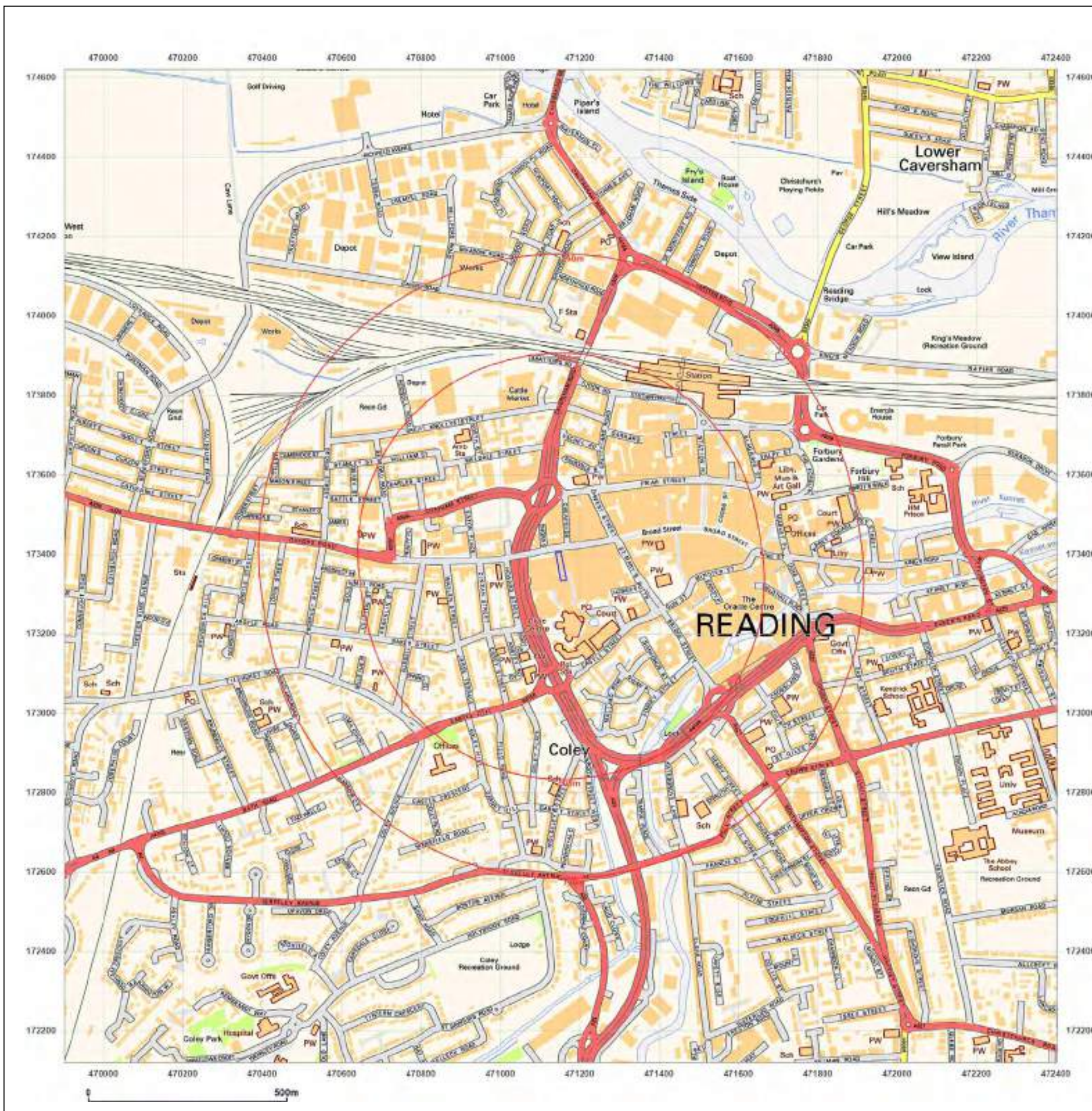


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Site Details:

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7QF

Client Ref: GSP-2021-2001
Report Ref: GS-8032014
Grid Ref: 471153, 173370

Map Name: National Grid

Map date: 2021

Scale: 1:10,000

Printed at: 1:10,000



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