

LONDON BOROUGH OF HOUNSLOW SMALL SITES SMALL BUILDERS PROGRAMME

GARAGE BLOCKS AT 1-18 SWANN COURT, 18 SOUTH STREET, ISLEWORTH, TW7 7AN


Geotechnical and Geo-Environmental Desk Study


MAY 2019


A large, solid orange geometric shape, resembling a stylized triangle or a section of a larger triangle, is positioned in the bottom right corner of the page. It is composed of two overlapping triangles, creating a subtle internal line. A thin horizontal line extends from the left edge of the page, passing behind the orange shape.

GARAGE BLOCKS AT 1-18 SWANN COURT, 18 SOUTH STREET, ISLEWORTH, TW7 7AN

Geotechnical and Geo-Environmental Desk Study

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Report No 10030793-ARC-12-XX-RP-YY-0001-01-Geo-Report

Date MAY 2019

VERSION CONTROL

Version	Date	Author	Changes
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1.2 Sources of Information

As part of this desk study report various sources of information have been used and are detailed below:

- The on-line British Geological Survey (BGS) Geology of Britain Map Viewer (Ref. 1);
- Historical borehole records available through BGS website (above) (Ref.1);
- Historical Ordnance Survey maps obtained from Groundsure (included in Appendix A);
- Environmental Information from Groundsure (Appendix B);
- Current publicly available aerial images and maps from Google maps (Ref. 2);
- Zetica Regional Unexploded Ordnance Map & Pre-Desk Study Assessment report (contained within the Arcadis UXO Assessment report for this site, 10030793-ARC-24-XX-RP-YY-00020-01-UXO Report;
- Department for Environment, Food and Rural Affairs "Magic" website (Ref.7); and
- Zetica Bomb map (Ref.8.).

1.3 Limitations and Expectations

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This report has been compiled from a number of sources, which Arcadis believes to be trustworthy. However, Arcadis is unable to guarantee the accuracy of information provided by others. The report is based on information available at the time. Consequently, there is a potential for further information to become available, which may change this report's conclusion and for which Arcadis cannot be responsible.

2 SITE SETTING AND HISTORY

2.1 Site Location

Table 2.1: Details relating to Site Location

Site Location / Address	Swann Court, Isleworth, TW7 7AN
National Grid Reference	516369,175778
Approximate Site Area	The site covers an area of approximately 0.10 hectares
Description of Site	<p>The site is used as a car parking area for the Swann Court apartment building adjacent to the south. Vehicular access is from South Street, to the south via a concrete driveway. Pedestrian access is via pathways to the west (included in site boundary) and east (public footpath leading to school gates - not part of site). Underground services were observed along the western border. The pavement is in generally poor condition with several cracked paving slabs and damaged or missing kerbstones while the concrete driveway is in generally good condition with only minor cracks and vegetation around joins. The site is largely covered by hardstanding with a small uncovered area with mature trees located behind the northern block of garages which also observed to contain a small amount of fly-tipped material.</p> <p>The main car parking area is approximately rectangular in shape and consists of 18 parking garages arranged in 3 blocks to the north, south and west of a central area of concrete hardstanding used for additional vehicle parking. The hardstanding was observed to be in generally moderate condition many cracks and minor ponded water although it appeared to have been repaired in areas and new drainage grates installed to reduce surface water accumulation. Gutter pipes from the garage block rooves also drained below the surface rather than onto the hardstanding. Garage buildings were observed to be in generally good condition however, given their age, asbestos may be present.</p> <p>Site photographs are included in Appendix C.</p>
Topography	The topography of the site is generally flat at approximately 5 m Above Ordnance Datum (AOD). The topography of the immediate area is also generally flat, with a slight slope down to the River Thames 275m to the east.
Surrounding Area	The Site lies within an urban area of mixed commercial and residential use and is bordered by school buildings and playing fields (associated with St Mary's Catholic Primary and The Blue School) to the north and east and, residential apartment buildings with gardens to the south and west. There is an electrical transformer and other associated infrastructure located in a fenced (but not visibly bunded) compound approximately 5m west of the site. The Site connects to a commercial street with shops and cafes to the south and a vehicle repair garage is located approximately 40m southwest of the site boundary.

2.2 Site History

A review of the available historical Ordnance Survey maps (Appendix A) has been undertaken to assess the historical development of the Site and surrounding areas.

It is not the intention of this report to provide a full history, but to identify those past uses on and within the vicinity of the Site that could have resulted in contamination of the soils and/or waters. Significant changes to the land use of the Site and surrounding areas are summarised in Table 2.2 below.

Table 2.2 History of Site and Surrounding Area

Date	Historical Development (Site and Surrounding Area)
1865 - 1896	<p>Circa 1865, there are several unspecified buildings (possibly residential) present in the north, north west, west and south of site with the northeast corner indicated be undeveloped woodland associated with the properties onsite. Later (circa 1896) there has been further residential development along the western site boundary with one building removed.</p> <p>Circa 1865, the surrounding area comprises planted trees to the north and east, south street to the south and residential dwellings to the west. In addition, a flour mill is noted 200m northeast.</p> <p>The closest surface water feature is the Duke of Northumberland's River approximately 200m to the North.</p> <p>Circa 1896, the eastern site boundary has been redeveloped as a swimming pool and public hall. Pumps are noted 100m east and a smithy is noted 40m southwest.</p>
1915 - 1959	<p>Circa 1915, No significant changes on site noted.</p> <p>Circa 1959, the Buildings on site and bordering the site to the south have been demolished and the land is vacant. Later some trees are present (circa 1960) as well as a building ruin in the north.</p> <p>The land surrounding the site (Circa 1935), records a laundry 100m southwest of site. Later (Circa 1933) a burial ground 300m south. Smithy no longer shown (1935). Circa 1959 a garage is shown 40m southwest as well as several unidentified works, warehouses and builders yards are indicated around the wharf and yards within approximately 100 to 250m east of the site.</p>
1960	<p>Onsite there is ruin remains in the north west corner</p> <p>Off site, a works building is located 160 m north west and allotment gardens 150 m north east</p>
1970 - 1975	<p>Circa 1970, the Site has been developed into its current configuration of 3 blocks of parking garages along the north, west and south.</p> <p>Off site an electrical transformer/substation is present 10-15m west.</p>
1987 - 1989	<p>No significant changes on site noted.</p> <p>Many of the works and warehouses in the area of land between 100-250m to the east of site are demolished and redeveloped as commercial and residential units.</p> <p>The laundry previously noted is no longer shown circa 1987.</p>

2.2.1 Summary of Site History

The site had a building of unknown use circa 1865 and was later cleared circa 1935 then redeveloped circa 1959 partially as residential housing to the north, west and southern areas of the site. These were later demolished circa 1960 and a ruin is noted at this time in the north west corner. The site was later redeveloped into its current configuration between circa 1966 and 1970 as car parking and garages.

The surrounding land use has seen some residential and industrial development surrounding the site comprising;

- Smithy - located 50m southwest between 1890s to the 1930s. Later redeveloped as a garage during the 1950`s until present day.
- Electrical substation – located 10 -15 m west of the site between 1970 until present day.
- Works / warehouse buildings – located 150m northwest between 1960 and circa 1987.
- Laundry – located 100m southwest of the site between 1935 and circa 1987.

Out of the above industrial developments identified the garage and electrical substation are considered as potential sources of contamination which may affect the site. The remaining features are either too far to have a significant impact or is in an area whereby any associated pollutants would be transported away from site.

2.3 Unexploded Ordnance

With reference to the Zetica unexploded bomb risk map (Ref 9) the site lies within a medium bomb risk area and further assessment is recommended.

An Unexploded Ordnance (UXO) assessment has been undertaken for the Site, the findings of which are detailed in 10030793-ARC-24-XX-RP-YY-0025-01-UXO Survey Report-Swann Court, Unexploded Ordnance Survey, April 2019.

The Preliminary Desk Study Assessment from Zetica recommends that a detailed desk study needs to be commissioned to assess, and potentially zone, the UXO hazard level on the Site. To ensure that the UXO risk is reduced to As Low As Reasonably Practicable (ALARP), it is considered prudent to raise the awareness of the risk from UXO to those involved in excavations through awareness briefings to site staff.

3 PHYSICAL AND ENVIRONMENTAL SETTING

3.1 Published Geology, Hydrogeology and Hydrology

With reference to the sources of information detailed in section 1.2, the following information has been obtained.

Table 3.1 Information Regarding Geology, Hydrogeology and Hydrology

Geology / Aquifer Status	<p>Superficial Deposits: Kempton Park Gravel Member - Sand and Gravel which is designated as a Principal Aquifer.</p> <p>Solid Geology: London Clay Formation - Clay and Silt which is designated as Unproductive Strata.</p>
BGS Boreholes (within 100m of the site)	<p>Nineteen recorded within 250m of the site boundary.</p> <p>The closest borehole to site which is in the same geology is located 168m north east of the site (TQ17NE167) and is summarised below.</p> <ul style="list-style-type: none"> • Made ground GL – 4.70 m bgl. • Medium dense coarse to fine sand and gravel – 4.70 m bgl – 7.70 m bgl. • Stiff fissured clay – 7.70 m bgl to 15.00 m bgl. • Groundwater recorded at 4.37m bgl.
Within a Source Protection Zone	Not recorded within 500m of the Site boundary.
Licensed Groundwater Abstraction Points	There are no recorded groundwater abstraction points within 1km of the Site boundary
Surface Water Feature	The Duke of Northumberland's River lies 200m to the north of Site and flows into the River Thames which lies 275m to the east.
Likely Groundwater Flow Direction	<p>Significant groundwater flow within the London Clay bedrock is not expected to be present. The superficial Kempton Park Gravel is a Principal aquifer and likely to contain groundwater at shallow depths within granular material (sands and gravels).</p> <p>Based on the local topography of the site and surrounding area, groundwater flow is anticipated to flow towards the River Thames to the east.</p>

3.2 Environmental Public Registers

Public register information from the Groundsure Report (Appendix B) for the Site and the surrounding area (within 250m radius) has been summarised in Table 3.2 below.

Table 3.2. Environmental Data

Data type	Description	Distance (m) and Direction
Radon	The site is in a lower probability radon area as less than 1% of properties are above the Action Level.	N/A
Discharge Consents	No current active discharge consents are registered within 250m of site.	N/A

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Data type	Description	Distance (m) and Direction
	Non active consent - Miscellaneous effluent release licence (historical) discharging into the River Thames. Revoked December 1993.	219m E
Mining Features	Coal Mining	N/A
	Metalliferous Mining	
	Stone quarrying	
Pollution Incident to controlled waters	Two pollution incidents – oil and fuel and other pollutant, both categorised as having a minor (Category 3) impact on water quality.	199m N 211m NE
Landfill sites (current and historical)	No current or historic landfill sites are recorded within 250m of the site.	N/A
Potentially Infilled Land	Burial Grounds	135m SE 174m SE 228m SE
	Pond	203m NE
Local Authority pollution prevention and controls	Dry cleaning permit (current) Part B	29m SE
Contemporary Trade Directory	Electricity substations (pre-1980s)	On site (1994 and 1997) 10m W 101m S 110m NE 230m SW 233m E (Substation) 1989
	Vehicle Service Centres	62m SW 156m W
	Industrial products	122m E 213m E (two industries)
	Historical tanks	202m E
	Construction services	233m E
Fuel Station Entries	No records of petrol or fuel sites have been identified within 250m of site	N/A
Flooding information	The highest risk of flooding onsite has been identified as Very Low	onsite

Data type	Description	Distance (m) and Direction
	Potential below Surface Flooding and Superficial Deposits Flooding has been identified within 50m of site boundary	
Designated environmentally sensitive sites	Royal Botanic Gardens, Kew Buffer Zone	224m E

3.2.1 Summary

Out of the above features identified in Table 3.2 above only the following are considered to be potential sources of contamination which would need further consideration.

- Dry Cleaners; and
- Electrical substation 10m west

All other features identified are considered either too far away from site or located in an area whereby any potential contaminants are likely to be transported away from the site and therefore have not been considered further.

4 PRELIMINARY CONCEPTUAL MODEL

Geo-environmental assessments are required in accordance with current regulatory guidance (CIRIA C552 - Ref. 4 and CLR11 – Ref. 5) to consider the significance of potential contamination in terms of plausible source-pathway-receptor pollutant linkages. As part of this process, it is necessary to develop a conceptual model of these potential pollutant linkages by identifying the potential contamination sources, sensitive receptors and any potential exposure pathways. A risk assessment is then undertaken to determine the likelihood that these potential pollutant linkages are complete.

4.1 Potential Contaminant Sources

Based on the information obtained from the historical and environmental research, the following potential sources of contamination have been identified on site and within the surrounding area (Table 4.1).

It should be noted that it is considered unlikely that all these substances would be present at significant concentrations within the site.

Table 4.1: Potential sources of contamination on site

Source	Potential Contaminants
On Site	
Made Ground is likely to be present on the site from previous development and demolition.	Asbestos, metals, Polycyclic Aromatic Hydrocarbons (PAH), hydrocarbons, ground gas
London Clay	Sulphates
Parking/Garages use	Hydrocarbons, lubricants and solvents from potential spills/leaks from vehicle maintenance activities and asbestos.
Off Site	
Electricity substation (10m west) circa 1970.	Metals, Polychlorinated Biphenyls (PCBs), Asbestos
Car Repair Garage (47 -50 m southwest)	Metals, Polycyclic Aromatic Hydrocarbons (PAH), Hydrocarbons, lubricants and solvents from potential spills/leaks during vehicle maintenance/ repair activities
Dry Cleaning service (29m southeast)	Solvents

4.2 Potential Receptors (Residential End Use)

At the time of writing the proposed end use of the site will comprise residential dwellings, however no design plans are available.

As a precautionary approach the potential receptors detailed below take into consideration the most conservative future land use as residential properties with private gardens and landscaped areas. It is considered possible that any potential contamination within the soils may be disturbed during the construction phase, or during gardening or landscaping undertaken by any future site users.

4.2.1 Human Health

- Future site users (residents, visitors, maintenance workers and contractors).

Contamination risks to construction workers are not appraised by chronic (long term) exposure human health risk assessments. There are no appropriate published criteria applicable to the assessment of potential risks to construction workers. The potential risks should be addressed by a site-specific construction workers risk assessment and implementation of appropriate health and safety measures, to adequately mitigate any

potential risks. All works should be conducted in accordance with the CDM regulations 2015 (Ref. 6) or any other relevant guidance. Construction workers are not considered further as human health receptors.

4.2.2 Controlled Waters

- Principal Aquifer within superficial deposits.

4.2.3 Buildings

- Underground/ structures/services (water pipes, concrete, foundations).
- Proposed buildings.

4.3 Potential Pathways

Potential pathways are the routes that link the receptor to the contamination. The potential pathways for this site are summarised in the table below.

Table 4.2: Potential Contaminative Pathways

Receptor	Description
Human health (future site users/residentials, visitors, maintenance workers and contractors)	<p>Accidental ingestion of contaminants within soil, water and dust.</p> <p>Inhalation of dust, vapours and ground gases</p> <p>Dermal contact with contaminants within soil, water and dust.</p> <p>Ingestion of contaminated vegetables and soil attached to vegetables.</p>
Controlled Waters (Principal Aquifer)	<p>Leaching of potential contaminants in soil or Made Ground into groundwater.</p> <p>Vertical migration of contaminants through the unsaturated zone into groundwater beneath the site.</p>
Buildings and structures including water supply pipes	<p>Direct contact of building services or foundations with contaminants in the soil and Made Ground leading to derogation of concrete or tainting of water supply.</p> <p>Migration of ground gases into buildings and accumulation of gasses in confined and poorly ventilated spaces leading to explosive gases or vapour.</p>

4.4 Preliminary Qualitative Risk Assessment

Potential sources of contamination pathways and receptors are considered present on site or will be introduced during redevelopment, and as such potential pollutant linkages exist. The main potential sources of contamination identified within this report are Made Ground from previous developments, potential contamination from the sites current use and contamination from offsite sources (substations, garages and cleaners). The degree of risk will need to be assessed prior to redevelopment. Ground investigation and assessment is recommended.

5 Waste Management and Potential Development Constraints

5.1 Waste Management

Consideration should be given to the disposal of waste soils/Made Ground which are likely to be generated by the development. Chemical testing of soils/Made Ground is likely to be required to inform a waste classification assessment and determine the potential disposal options. It should be noted that the waste contractor may require testing of the actual material to be disposed of prior to acceptance, and there is no obligation on a landfill operator to accept the waste.

Soils suspected of being contaminated should be segregated from soils which appear to be 'clean' and should not be used elsewhere on the site as fill or landscaping unless they can be proven to be fit for purpose.

Imported topsoil for gardens and landscaped areas should be clean, fit for purpose and validated as necessary.

5.2 Potential Development Constraints

Above and below ground services are likely to be present beneath the site as indicated by the presence of manhole covers on site and in the immediate surrounding area. It is likely that some of the concrete hardstanding and existing buildings will need to be demolished. Asbestos may be present given their age and an asbestos survey should be considered prior to any demolition works. Mature trees are located behind the northern block of garages which will require consideration.

6 Geotechnical Considerations

6.1 General Comments

Historical borehole data (located 168m north east of the site boundary) has identified likely ground conditions to comprise;

- Made ground GL – 4.70 m bgl.
- Medium dense coarse to fine sand and gravel – 4.70 m bgl – 7.70 m bgl.
- Stiff fissured clay – 7.70 m bgl to 15.00 m bgl.
- Groundwater recorded at 4.37m bgl.

Made Ground is also anticipated associated with the current and historic development.

Based upon the information provided and reviewed as part of this report the following potential geotechnical constraints should be considered.

- **Made Ground** - The nature and thickness of the Made Ground (if present) is unknown. The likely engineering performance of the Made Ground is not known.
- **Ground Gas** - Future development may need to be designed to mitigate against soils borne ground gas from made ground.
- **Variable Ground Conditions** – Langley Silts recovered 76m northwest of site. Variable ground conditions could comprise low bearing capacity soils and have implications for foundation design.
- **Underground Structures** - Removal of former foundations, services and concrete obstructions (if present) from historical on site development.
- **Shallow Groundwater** - Should shallow groundwater be present dewatering measures and excavation support would be required (depending on the findings of the ground investigation). This may also have implication upon the foundation design.
- **Contamination** – Potential contamination may require mitigation for future development, site users and controlled waters.
- **Sulphates** – Buried concrete may need to be designed to mitigate against natural adverse chemical conditions.
- **Underground Services** - Provision of contaminant resistant water supply pipes maybe required (depending on the findings of the ground investigation).
- **Excavations / Support** - The consequences of trench stability can vary, but usually pose a problem to the Contractor either by collapse into an already excavated trench or by the removal of support to plant, equipment or materials located adjacent to the excavation. The need to ensure stability and limit ground movements is of prime importance where excavations are adjacent to structures, roads, and public utilities or where man entry is envisaged. The suitability of the Contractor's proposals for ground support will be particularly important in such areas.

It is anticipated that excavations within the Made Ground and superficial deposits should be achievable using a suitable size of conventional excavation plant. Excavations within these materials are unlikely to remain stable even in the short term and close lateral support will be required at all times or the sides of the excavation battered back to a safe angle above groundwater seepages.

- **Instability of nearby structures** - Consideration will need to be given to the potential impacts of instability of excavations adjacent to existing buildings/structures. Ground movement and vibrations may affect existing structures and may require mitigation.

6.2 Foundations

Potential founding solutions will be dependent on the thickness of Made Ground and the geotechnical properties of the natural deposits. Made Ground is generally considered unsuitable for foundations due to its variable composition and its potential for high total and differential settlement.

At this stage it is envisaged that the Kempton Park Gravel Member comprising sands and gravels should be suitable for shallow foundations for light weight structures but will need to be confirmed via an appropriate ground investigation.

In areas of deeper Made Ground, or where deeper soft compressible material is present (the depth of which would need to be determined) deeper foundation options or ground improvement methods maybe required.

7 Conclusions and Recommendations

7.1 Design Considerations

The Site is currently used as a car parking and garages. An intrusive site investigation has not been undertaken at this stage. The Site was previously partially developed circa 1865 with the introduction of some buildings of unknown use presumably residential. By 1970 the site was developed as parking and garages.

Potential sources of contamination have been identified, as shown in Table 4.1 and potential pollutant linkages exist. Therefore, an appropriate ground investigation is recommended to determine the degree of risk to end users and controlled waters. This should include for chemical testing of soils, groundwater monitoring (if present) and gas monitoring in accordance with the recommendations in CIRIA C665 (Ref. 7) and CLR 11 (Ref. 5) and consideration of shrinkage and swelling, compressible ground stability and sulphate attack to below ground concrete.

7.2 Construction Considerations

During construction, a watching brief should be undertaken to identify the presence of any unforeseen contamination. If contamination is encountered, all works should cease until the advice of a suitably qualified professional can be sought.

Construction / demolition workers should use appropriate PPE and follow the site-specific contractors risk assessment which should include risks to human health from potential contamination. Due to the historic phases of development and demolition consideration should be given to the potential presence of asbestos within the Made Ground, and the potential for hydrocarbon contamination and vapour to be present from the adjacent former garage and petrol station to the north west.

Good site management practices should be adopted during the construction phase such as covering stockpiles to minimise surface runoff/dust creation.

A foundation works risk assessment may be required to assess the risk to the underlying Secondary Undifferentiated Aquifer if foundations or piling which penetrate the base of the Made Ground are proposed.

According to the Arcadis Unexploded Ordnance assessment has been undertaken for the Site, the report recommends that a detailed desk study needs to be commissioned to assess, and potentially zone, the UXO hazard level on the Site.

8 References

1. British Geological Survey (BGS) [online]. <https://mapapps.bgs.ac.uk/geologyofbritain/home.html> Accessed February 2019.
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3. CIRIA C552 (2001) Contaminated land risk assessment. A guide to good practice.
4. DEFRA and the Environment Agency, 2004. Model Procedures for the Management of Land Contamination, Guidelines for Environmental Risk Assessment and Management, Contaminated Land Report 11 (CLR11).
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6. CIRIA C665 (2007) Assessing risks posed by hazardous ground gases to buildings (revised).
7. Department for Environment, Food and Rural Affairs "Magic" website. Available at (<http://magic.defra.gov.uk/MagicMap.aspx>) Accessed March 2019
8. Unexploded Ordnance Survey (Arcadis Ref: 10030793-ARC-24-XX-RP-YY-0025-01)
9. Zetica unexploded bomb map accessed April 2019.

APPENDIX A

Historical Ordnance Survey Maps

Site Details:

SWANN COURT, LONDON,
TW7 7AN

Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1865

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1865
Revised 1865
Edition N/A
Copyright N/A
Levelled N/A

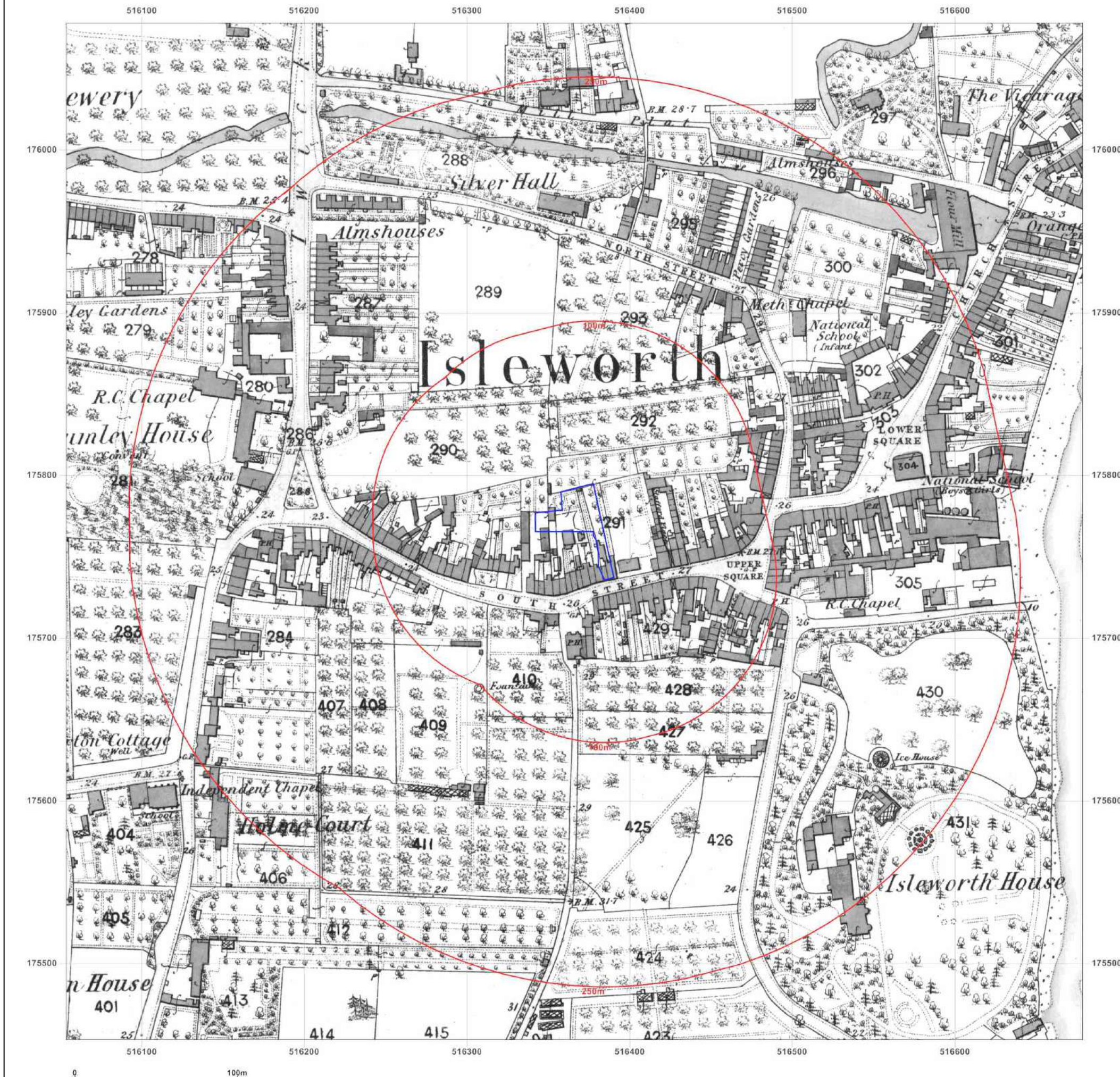


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Map legend available at:
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Site Details:

SWANN COURT, LONDON,
TW7 7AN

Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1896

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1896
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Site Details:

SWANN COURT, LONDON,
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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

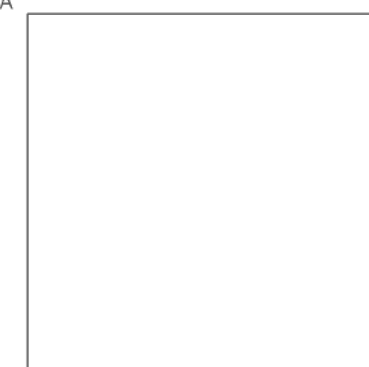
Map date: 1913

Scale: 1:2,500

Printed at: 1:2,500



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

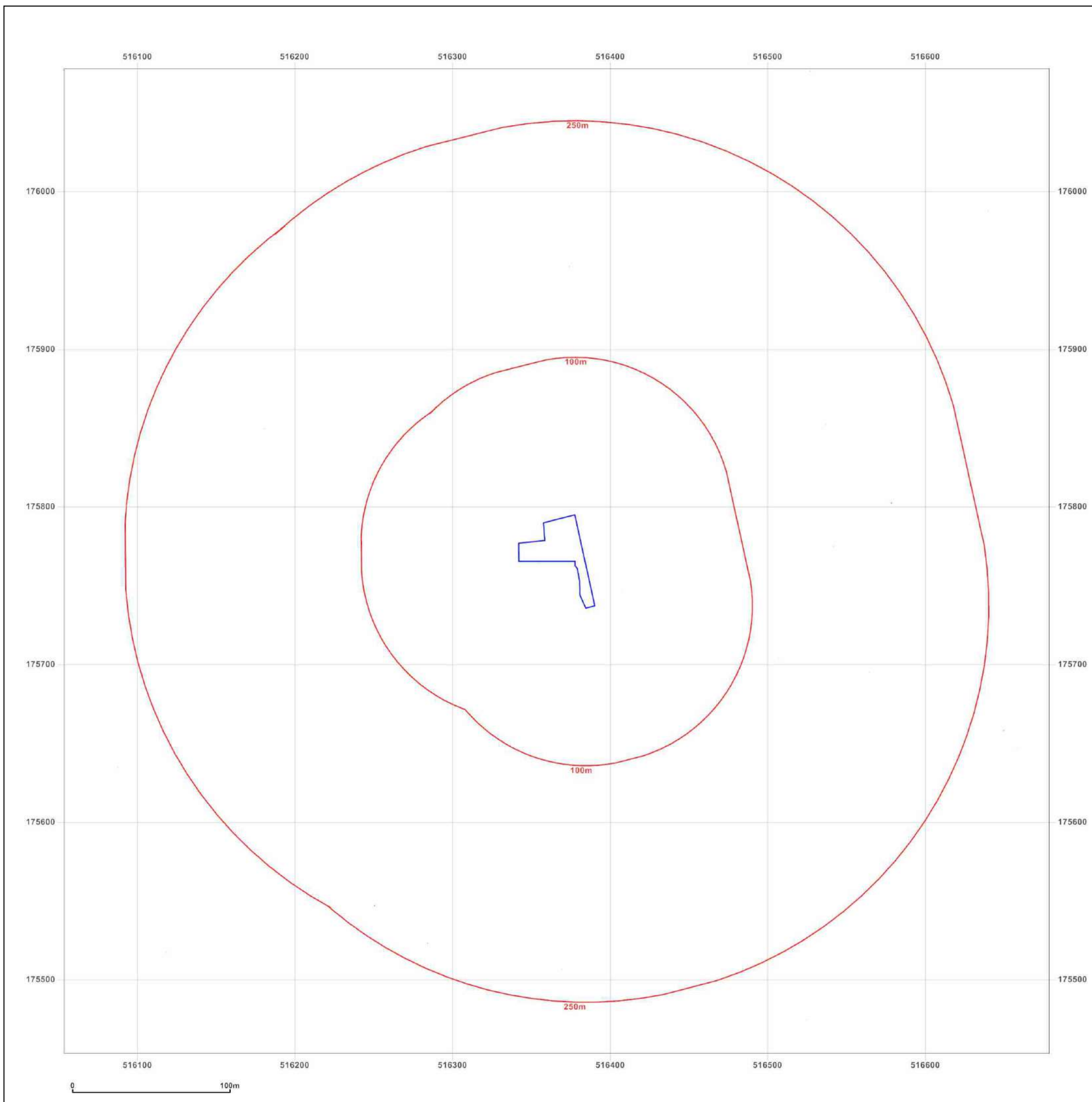


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Site Details:

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Client Ref: 14023929
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1915

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1915
Revised 1915
Edition N/A
Copyright N/A
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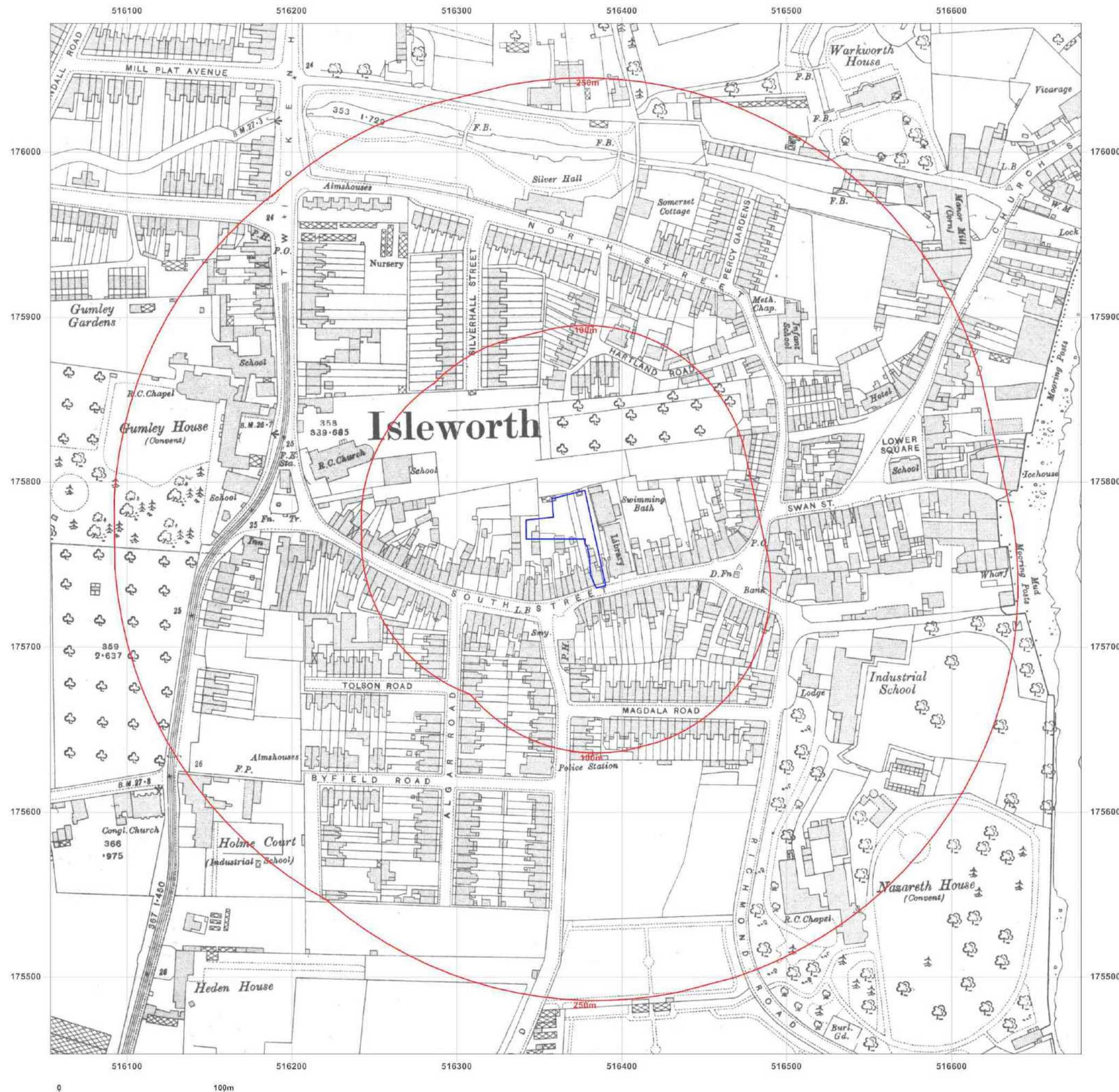


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1935

Scale: 1:2,500

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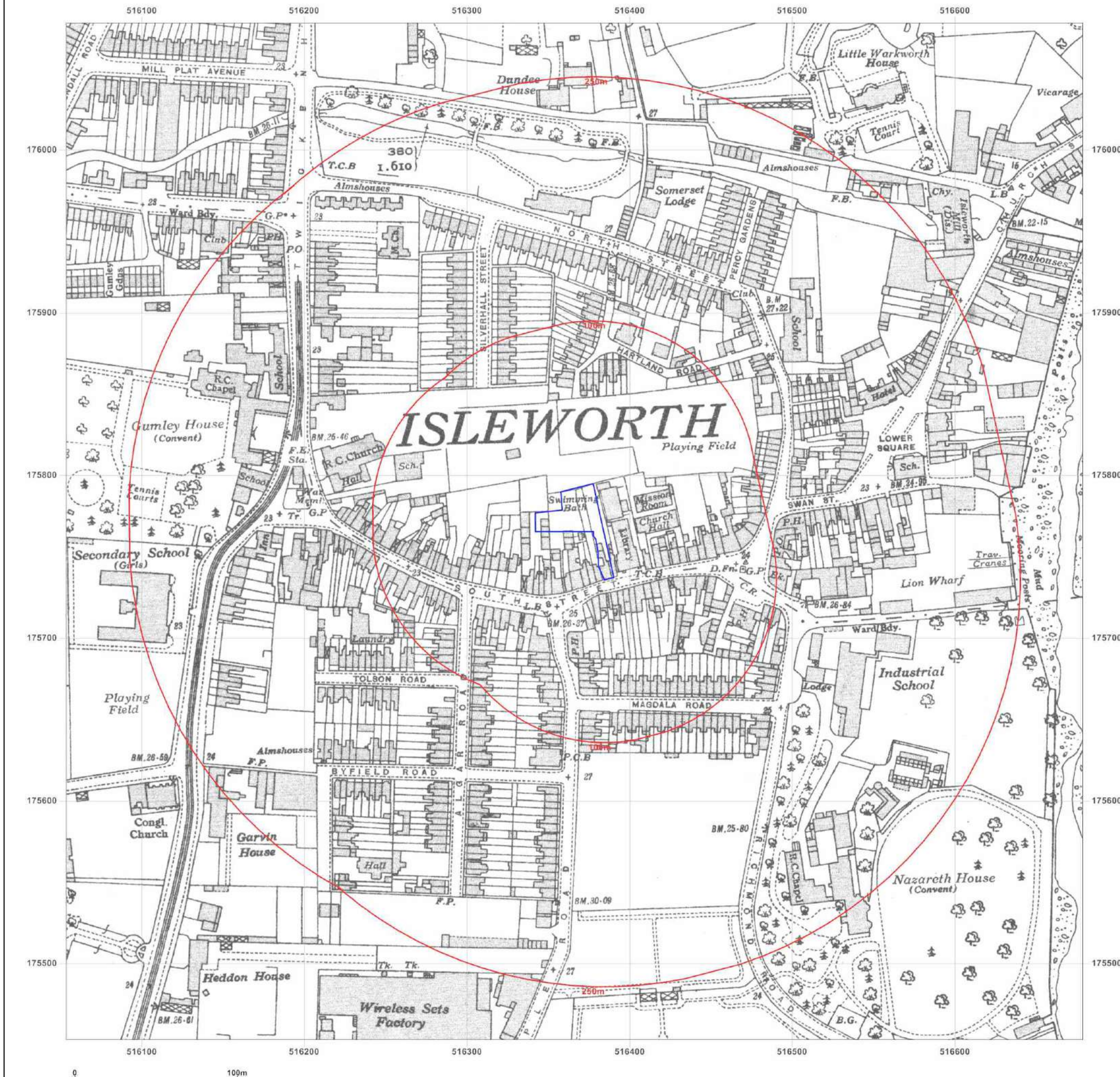


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Site Details:

SWANN COURT, LONDON,
TW7 7AN

Client Ref: 14023929
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1959

Scale: 1:2,500

Printed at: 1:2,500



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Edition 1960
Copyright 1960
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Site Details:

SWANN COURT, LONDON,
TW7 7AN

Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1959

Scale: 1:2,500

Printed at: 1:2,500



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Revised 1959
Edition 1960
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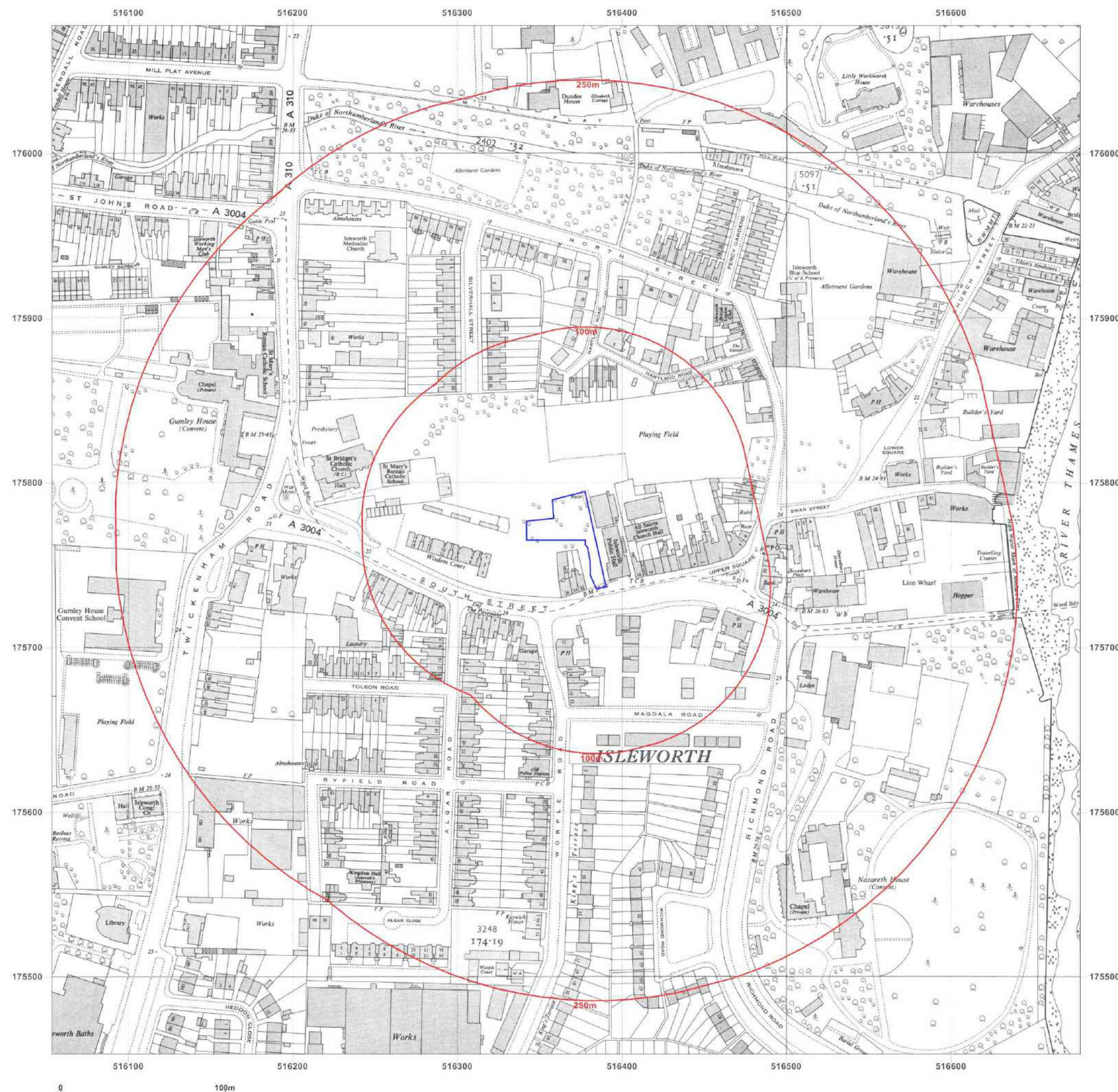


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Site Details:

SWANN COURT, LONDON,
TW7 7AN

Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1960

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1959
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Revised 1959
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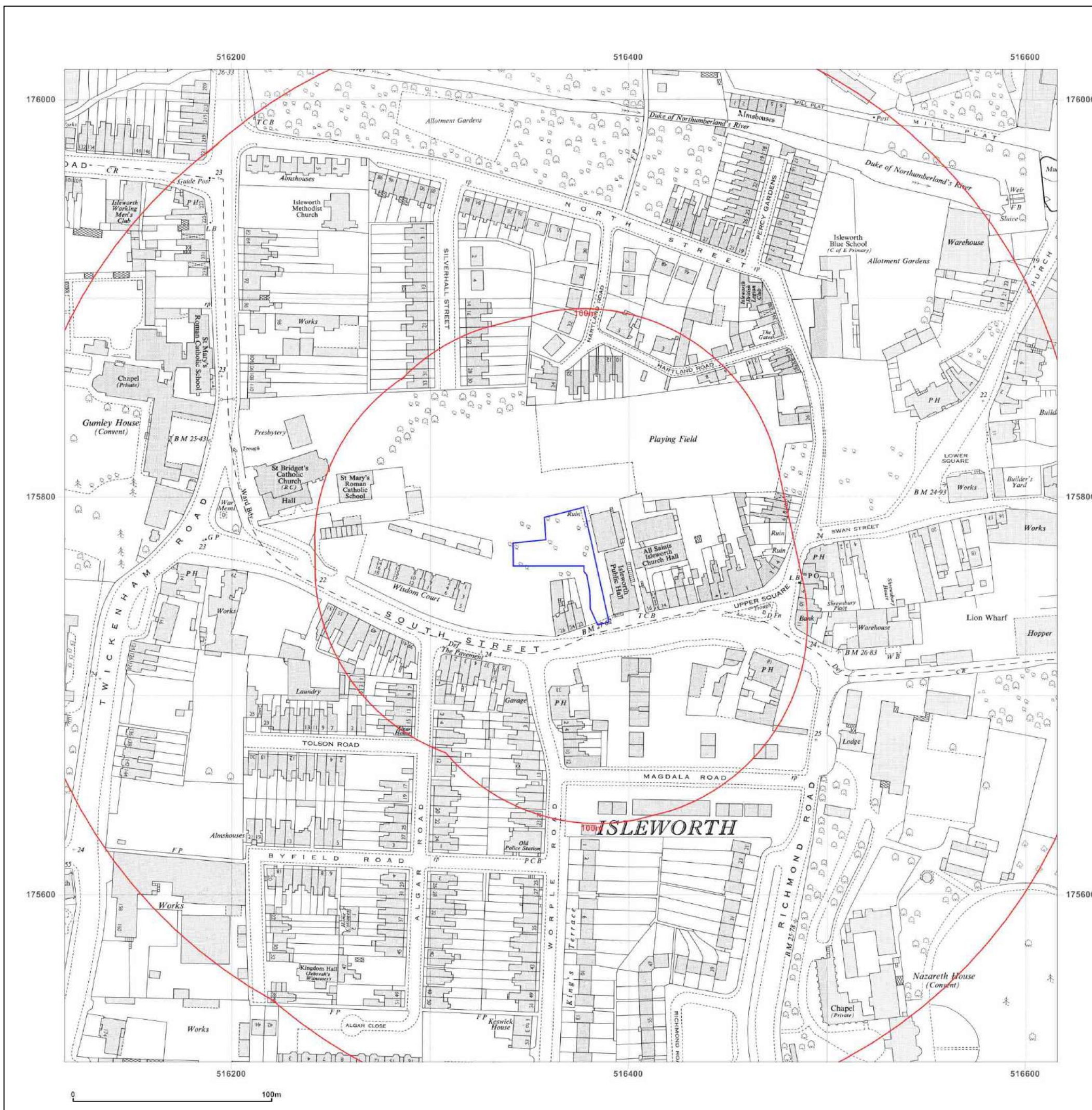


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Site Details:

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Client Ref: 14023929
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1960

Scale: 1:1,250

Printed at: 1:2,000



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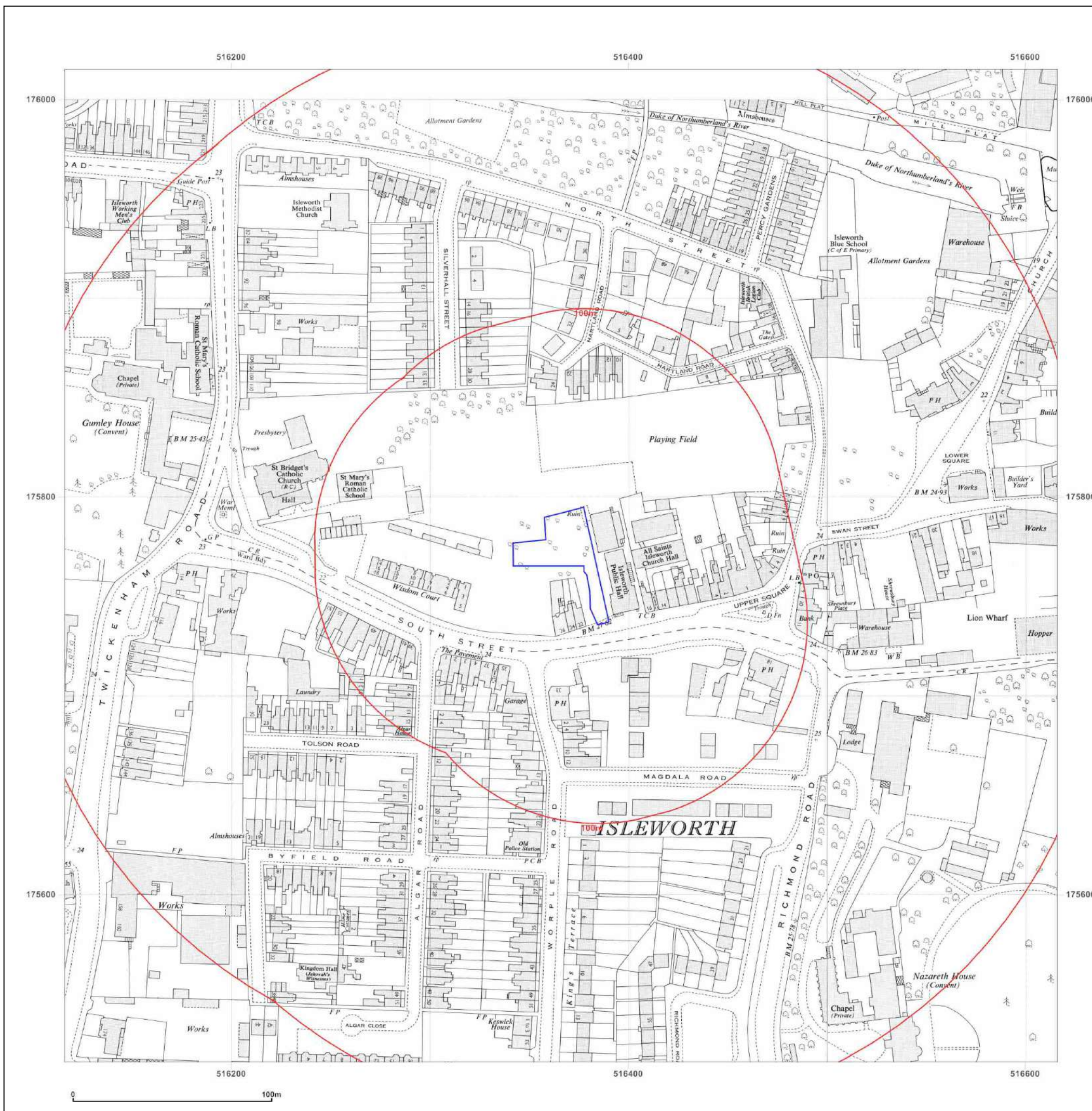


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Site Details:

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Client Ref: 14023929
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1970-1975

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1975
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1975
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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1977

Scale: 1:1,250

Printed at: 1:2,000



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

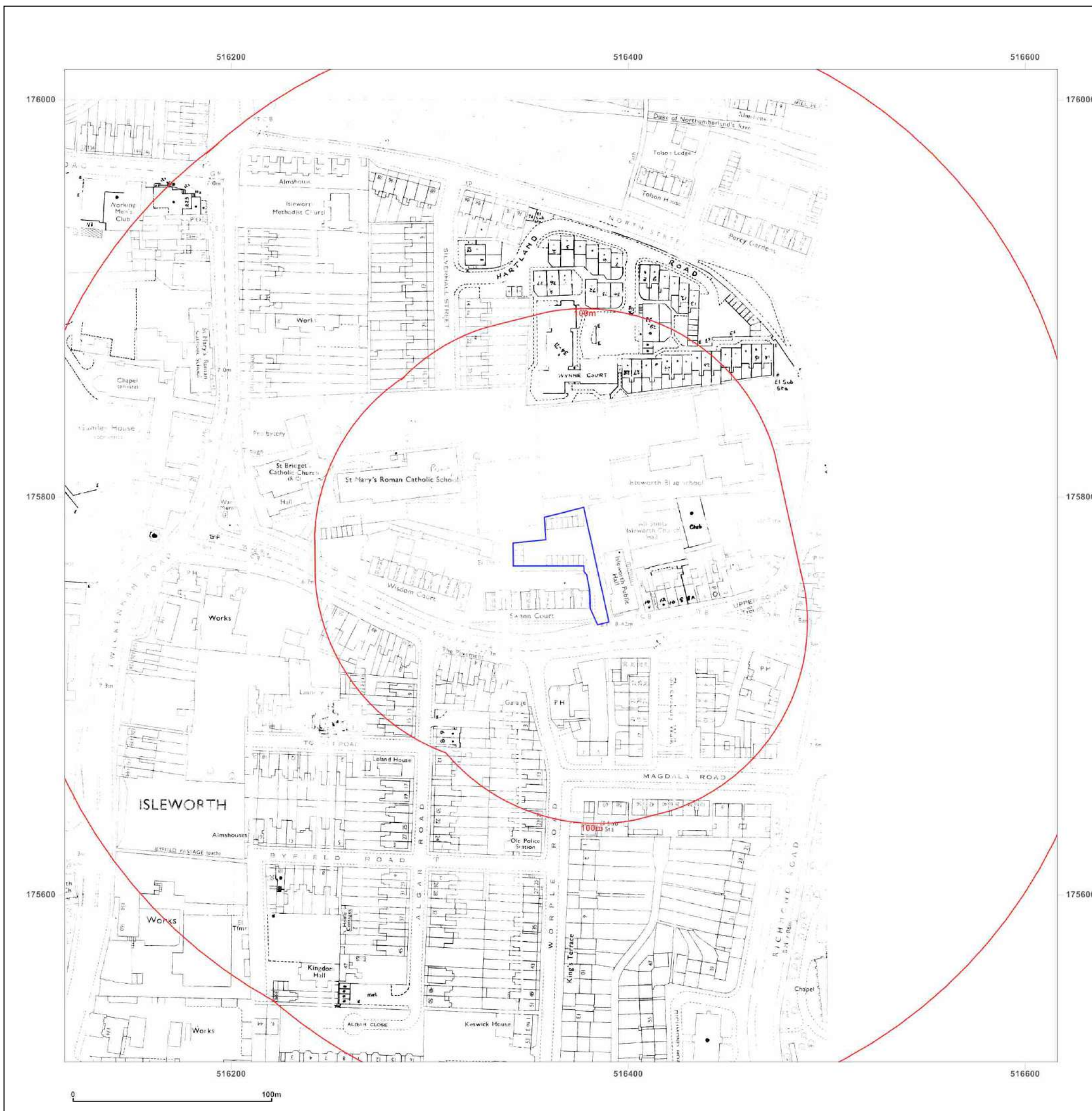


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1974-1978

Scale: 1:1,250

Printed at: 1:2,000



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

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

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1974
Levelled N/A

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

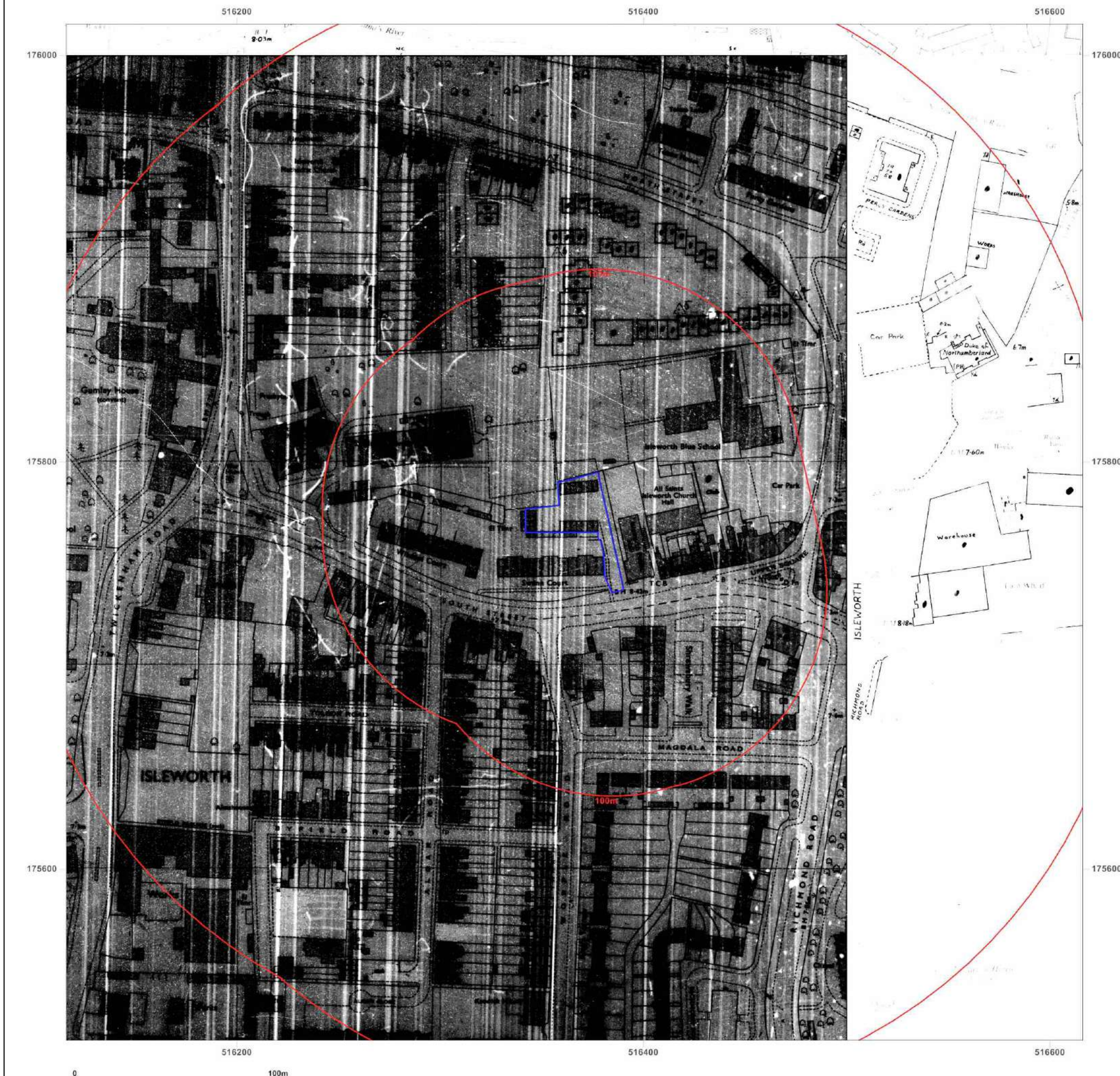


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1987-1991

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1987
Levelled 1957

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

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1987
Levelled 1957

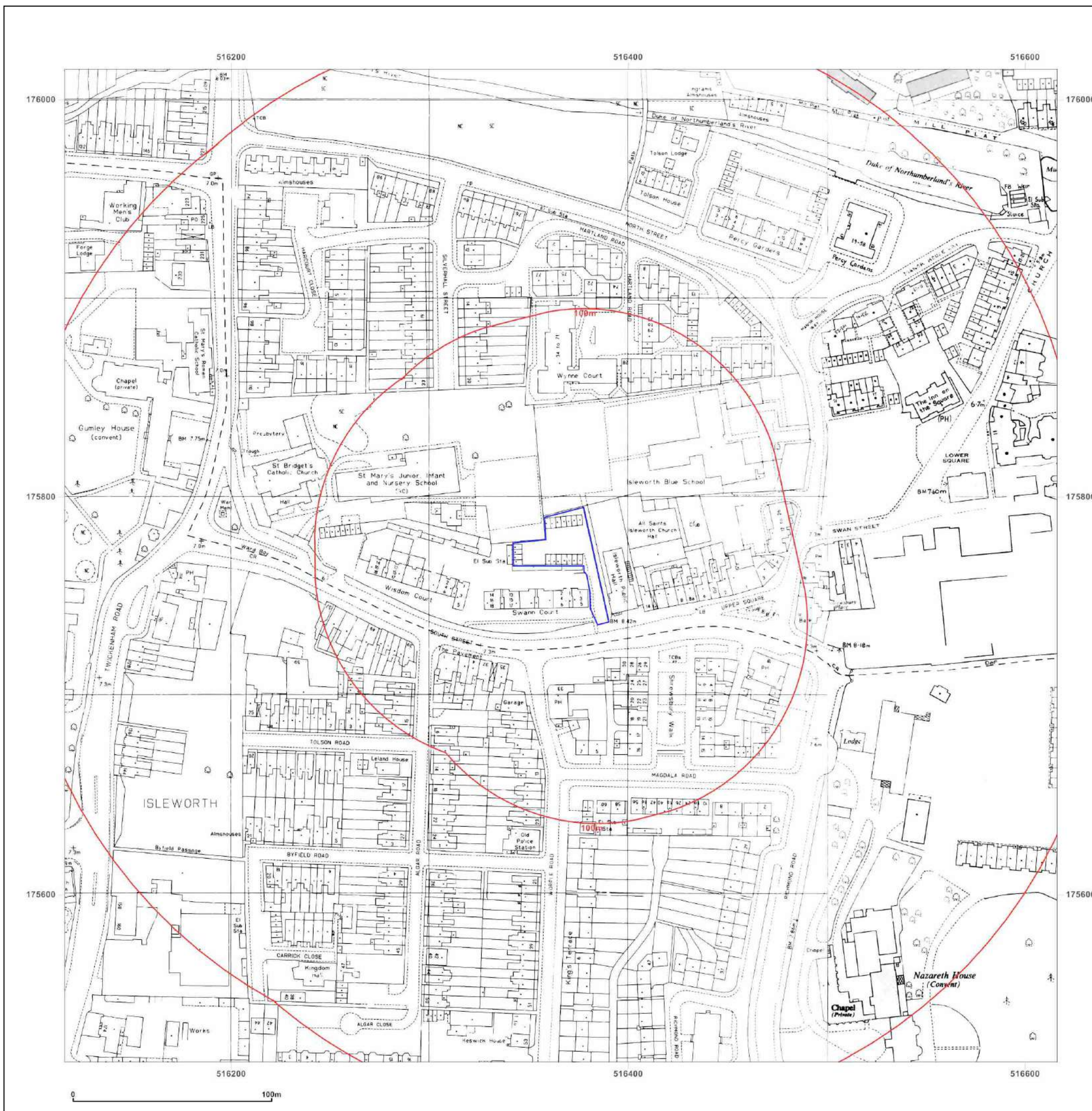


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1989-1994

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed N/A
Revised N/A
Edition N/A
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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
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Surveyed 1959
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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1991-1994

Scale: 1:1,250

Printed at: 1:2,000



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

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Site Details:

SWANN COURT, LONDON,
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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1865

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1865
Revised 1865
Edition N/A
Copyright N/A
Levelled N/A

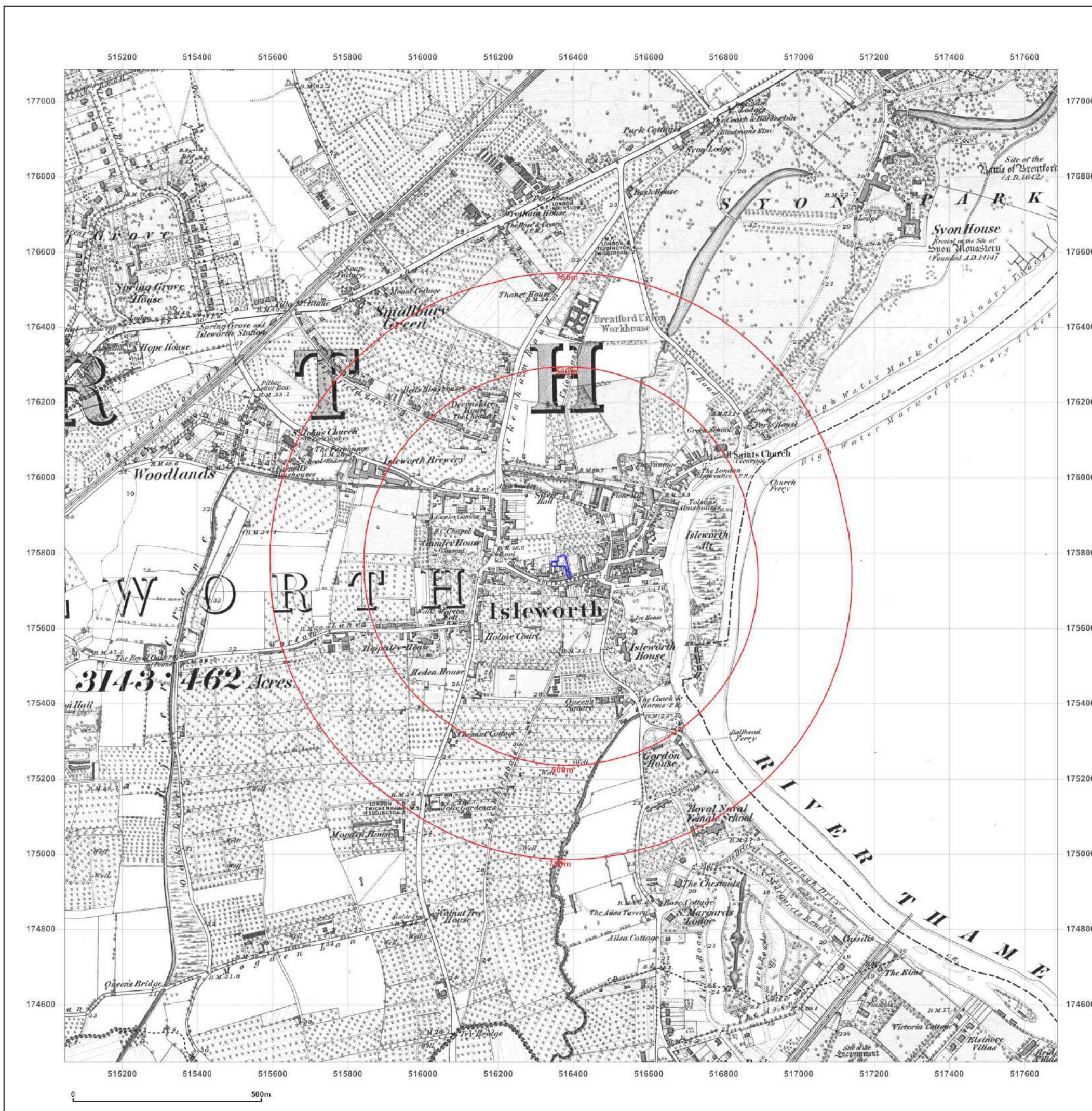


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

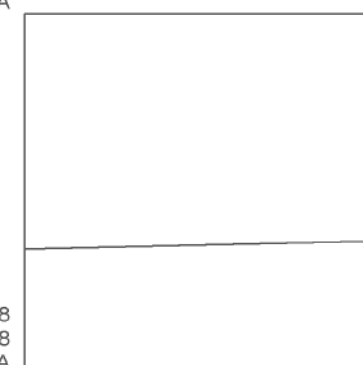
Map date: 1867-1868

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1867
Revised 1867
Edition N/A
Copyright N/A
Levelled N/A



Surveyed 1868
Revised 1868
Edition N/A
Copyright N/A
Levelled N/A

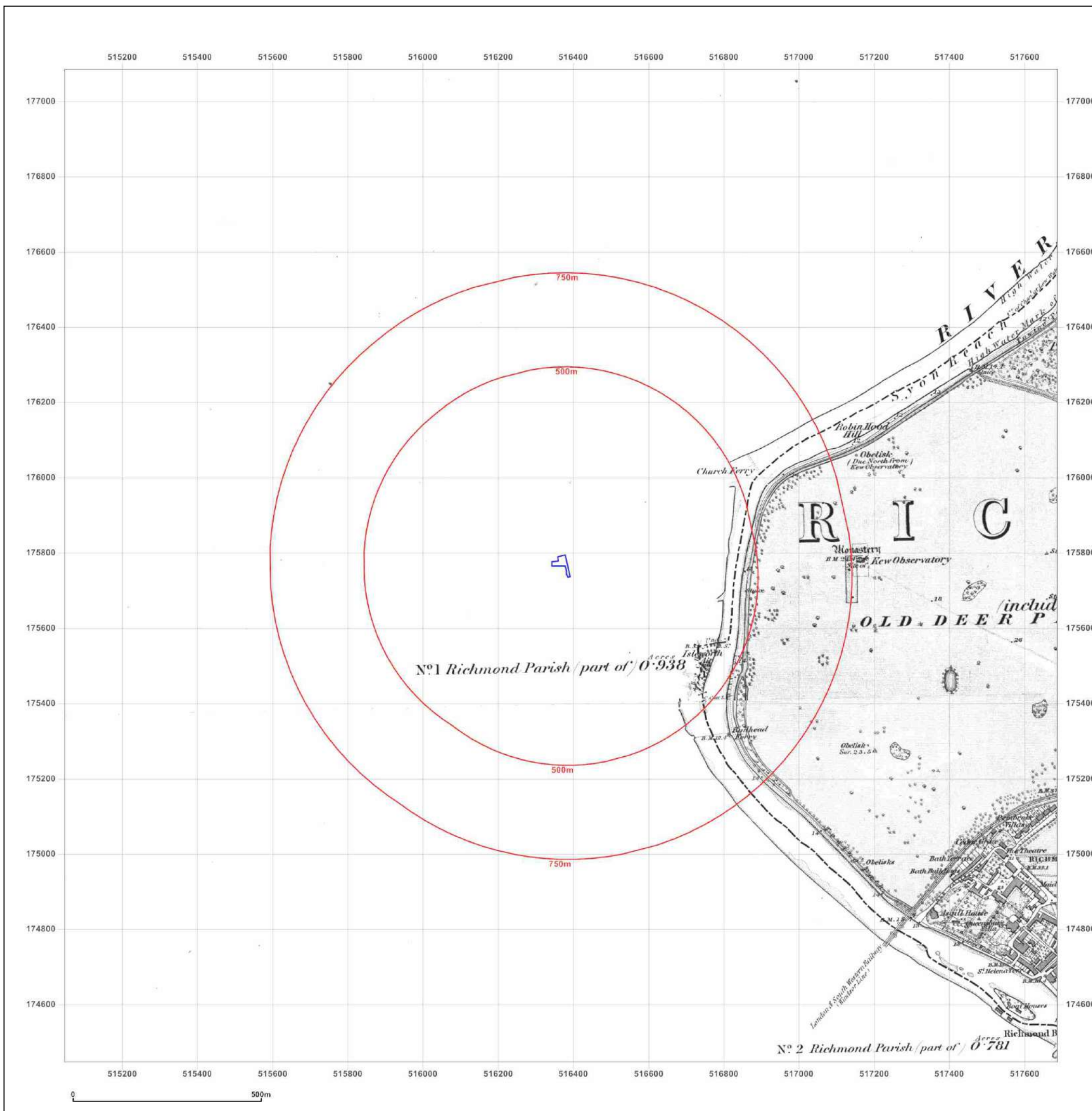


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Site Details:

SWANN COURT, LONDON,
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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1894

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1865
Revised 1894
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1868
Revised 1894
Edition N/A
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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1894

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1866
Revised 1894
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1894
Revised 1894
Edition N/A
Copyright N/A
Levelled N/A

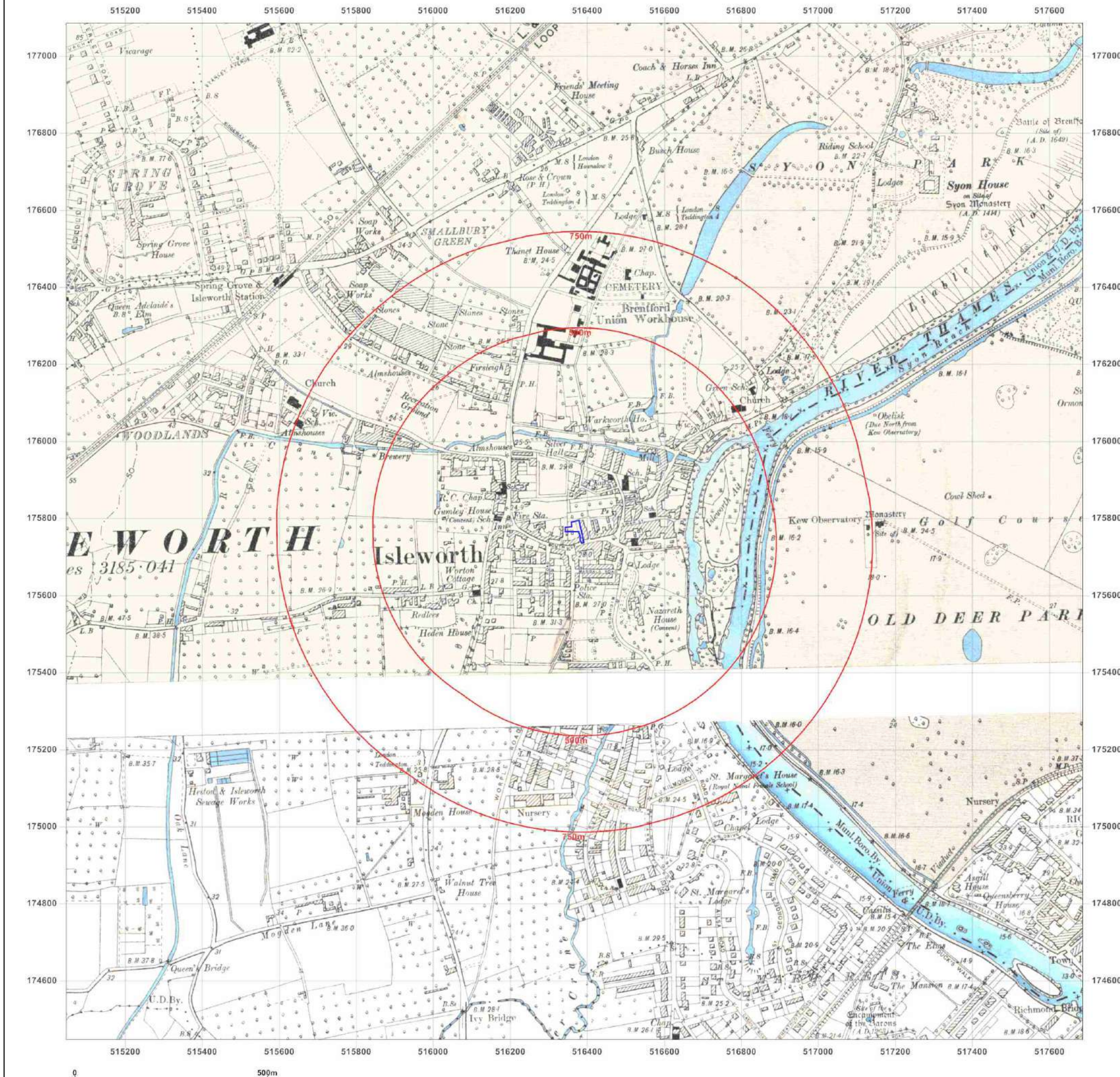


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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1896

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1865
Revised 1896
Edition 1896
Copyright N/A
Levelled N/A

Surveyed 1866
Revised 1894
Edition 1896
Copyright N/A
Levelled N/A

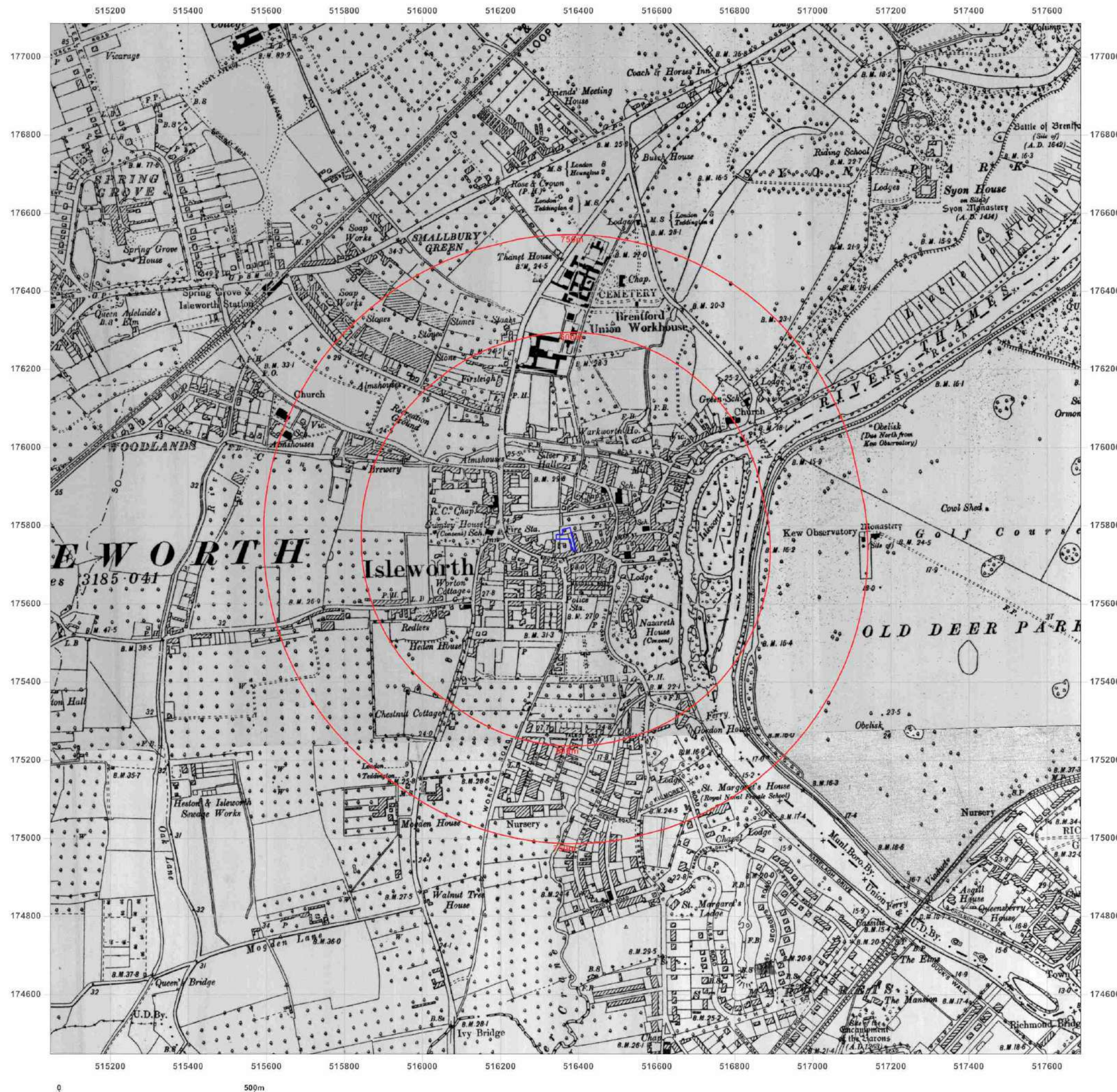


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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1894-1898

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1866
Revised 1894
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1868
Revised 1894
Edition N/A
Copyright N/A
Levelled N/A

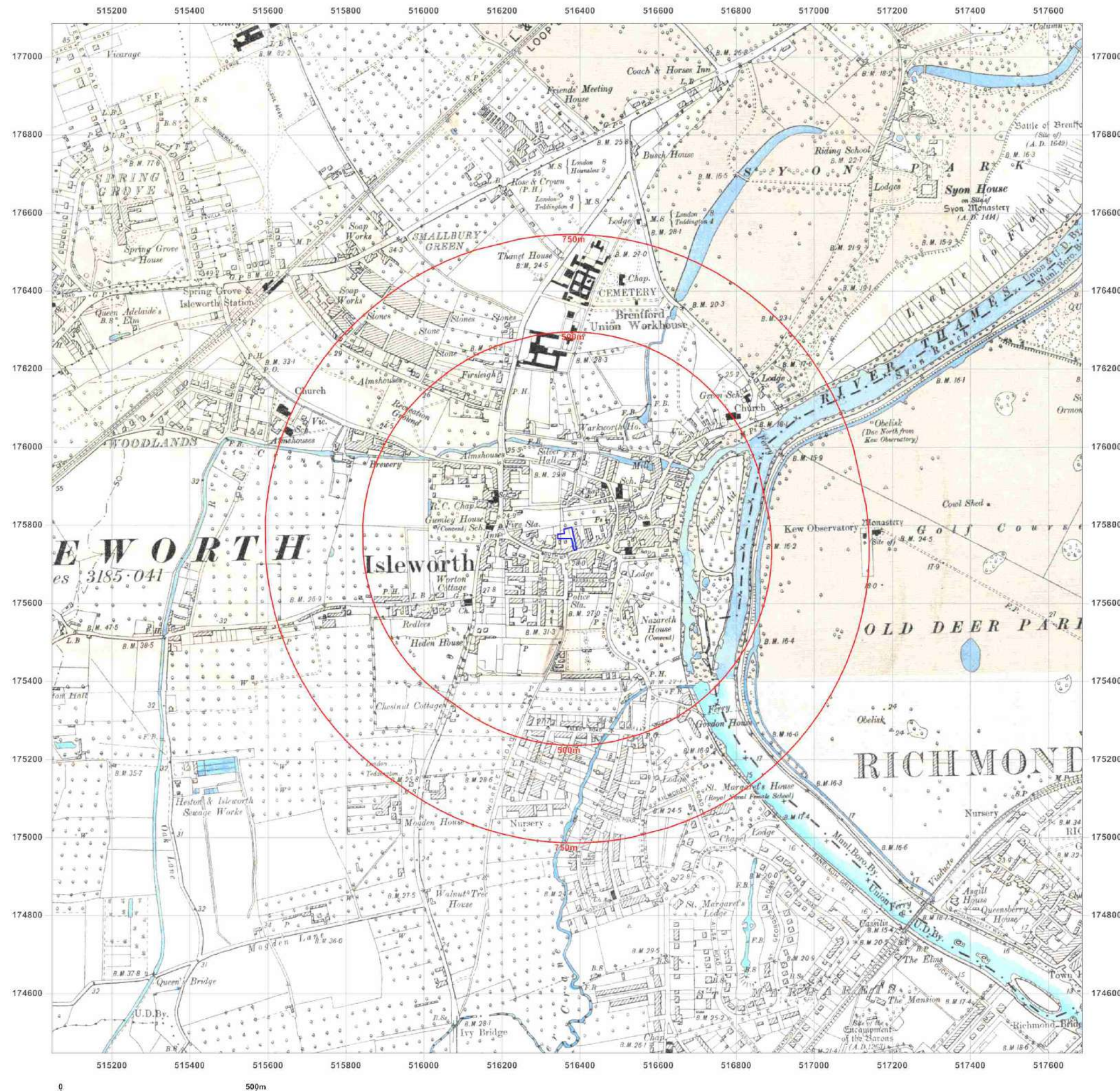


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1912

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1866
Revised 1912
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1866
Revised 1912
Edition N/A
Copyright N/A
Levelled N/A

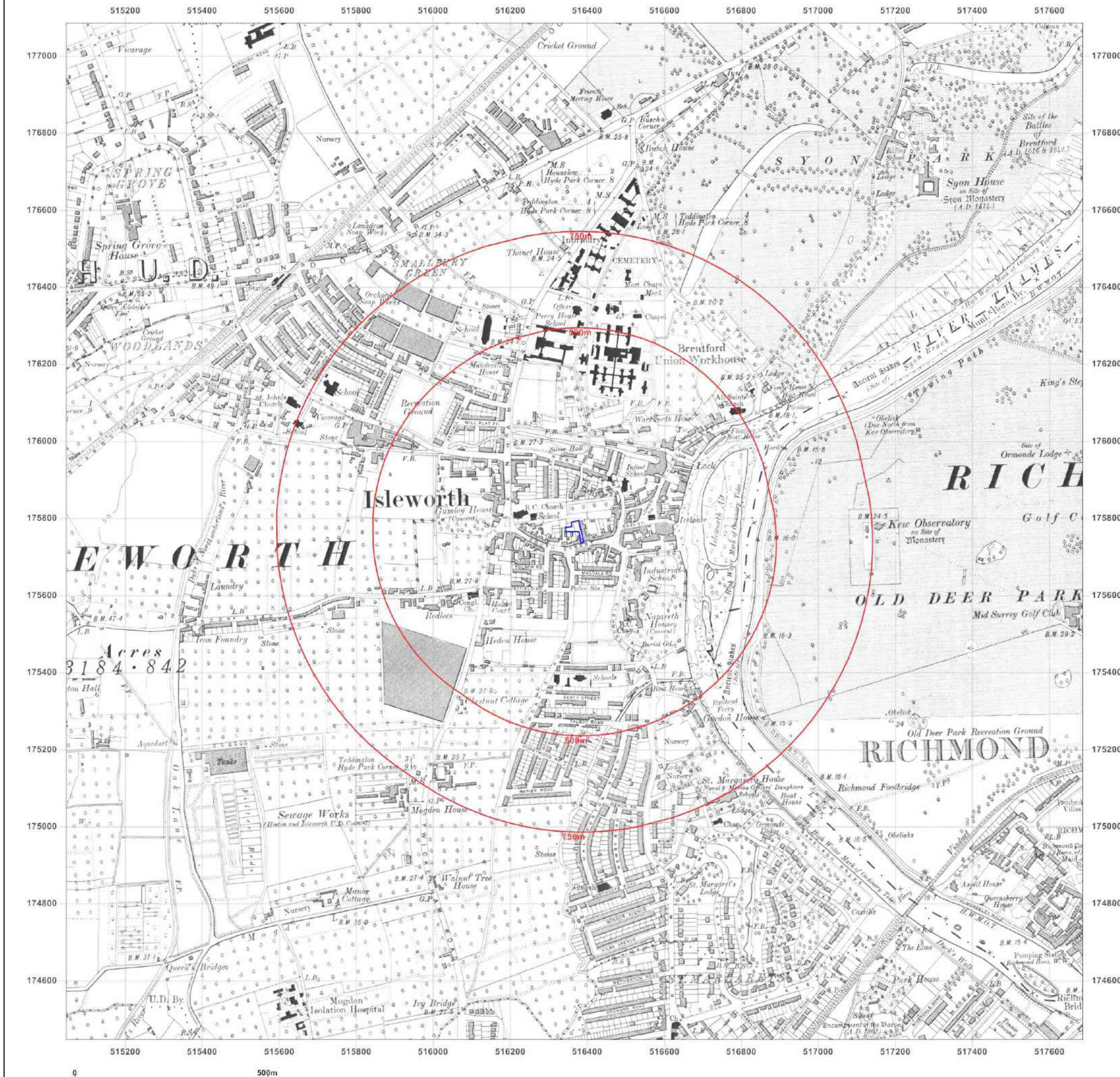


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1912

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1863
Revised 1912
Edition N/A
Copyright N/A
Levelled N/A

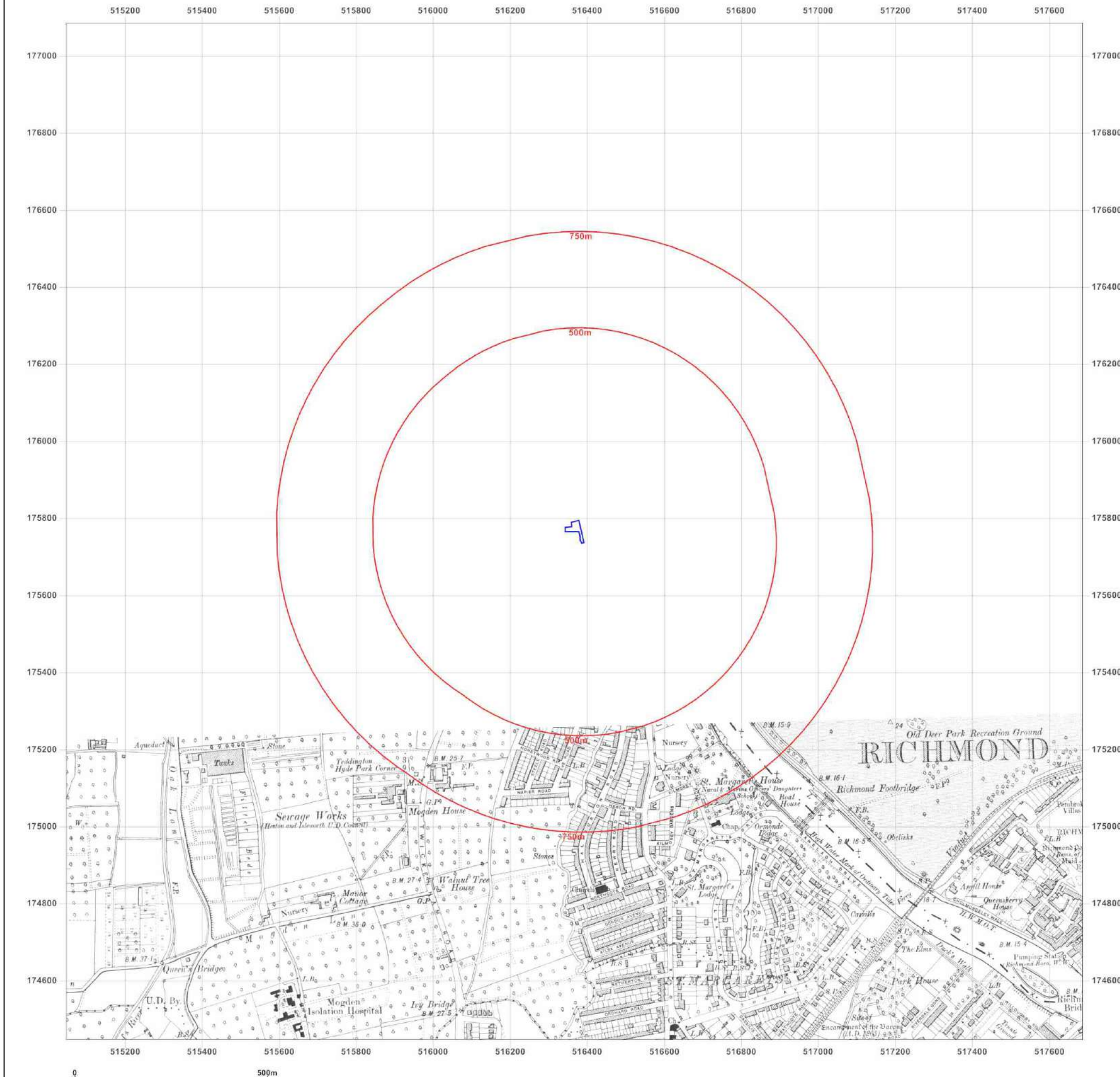


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1912

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1866
Revised 1912
Edition N/A
Copyright N/A
Levelled N/A

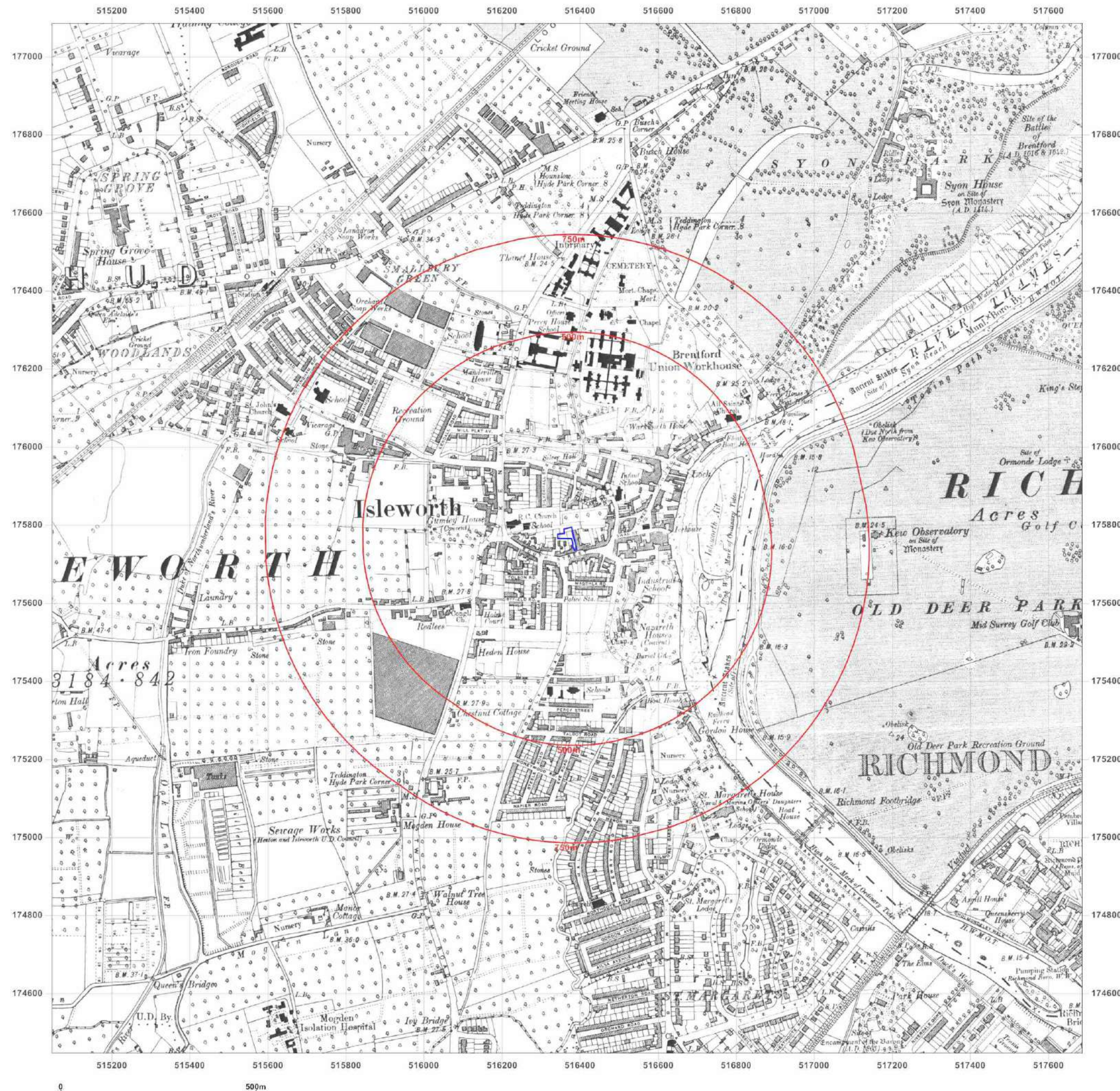


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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1920

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1866
Revised 1911
Edition 1920
Copyright N/A
Levelled 1911

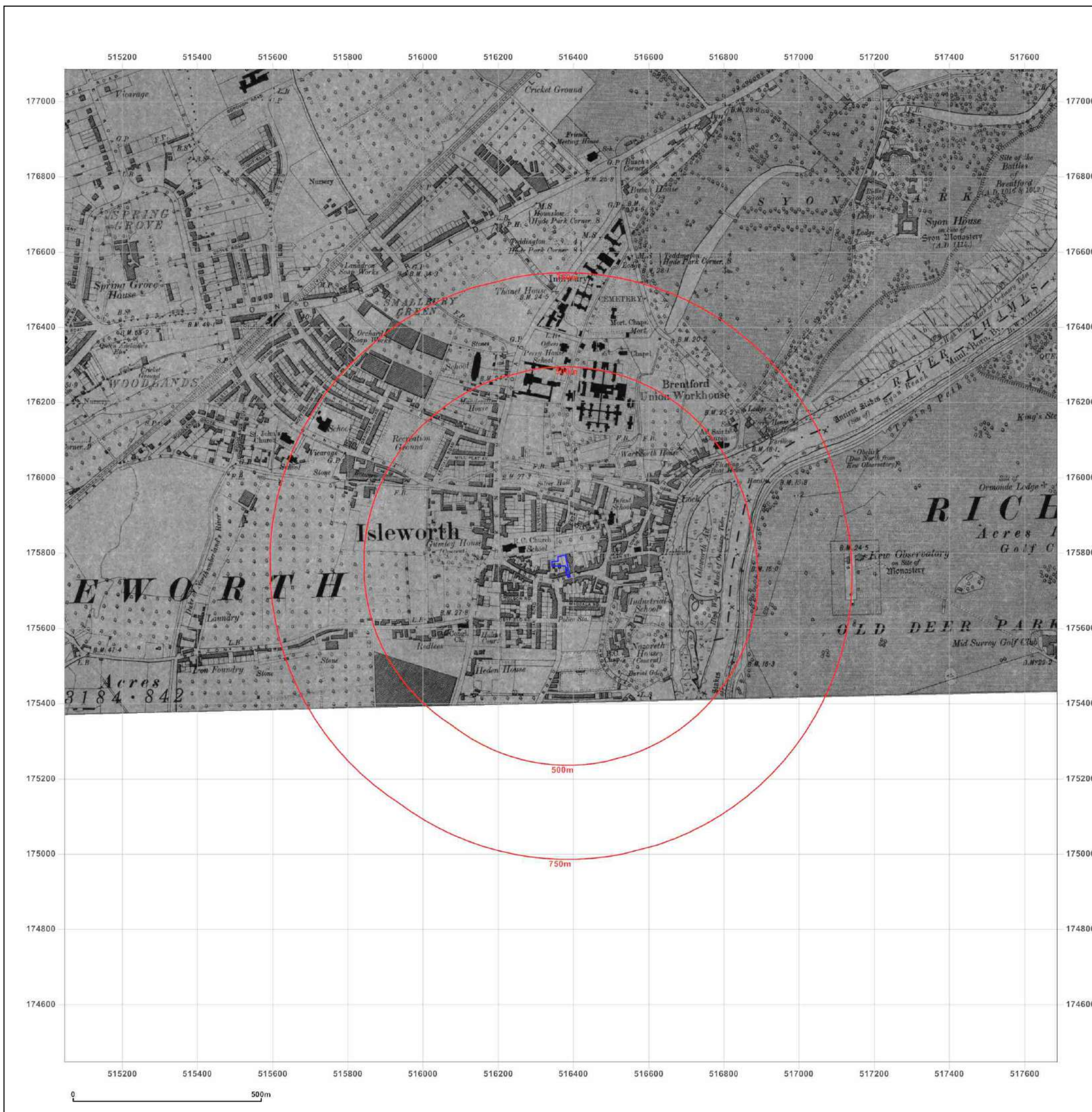


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1933

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1866
Revised 1933
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1866
Revised 1933
Edition N/A
Copyright N/A
Levelled N/A

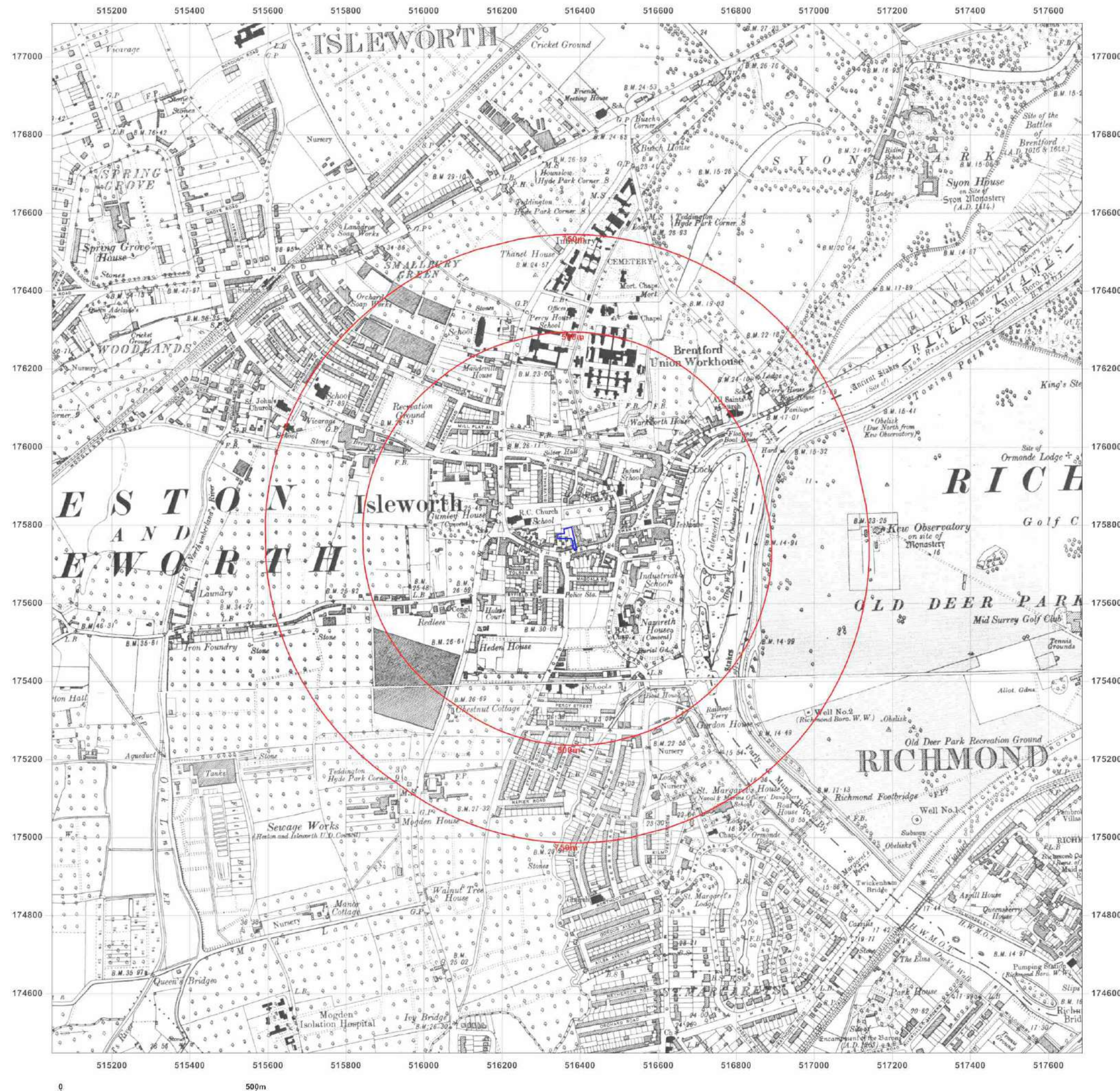


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1935

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1866
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1863
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A

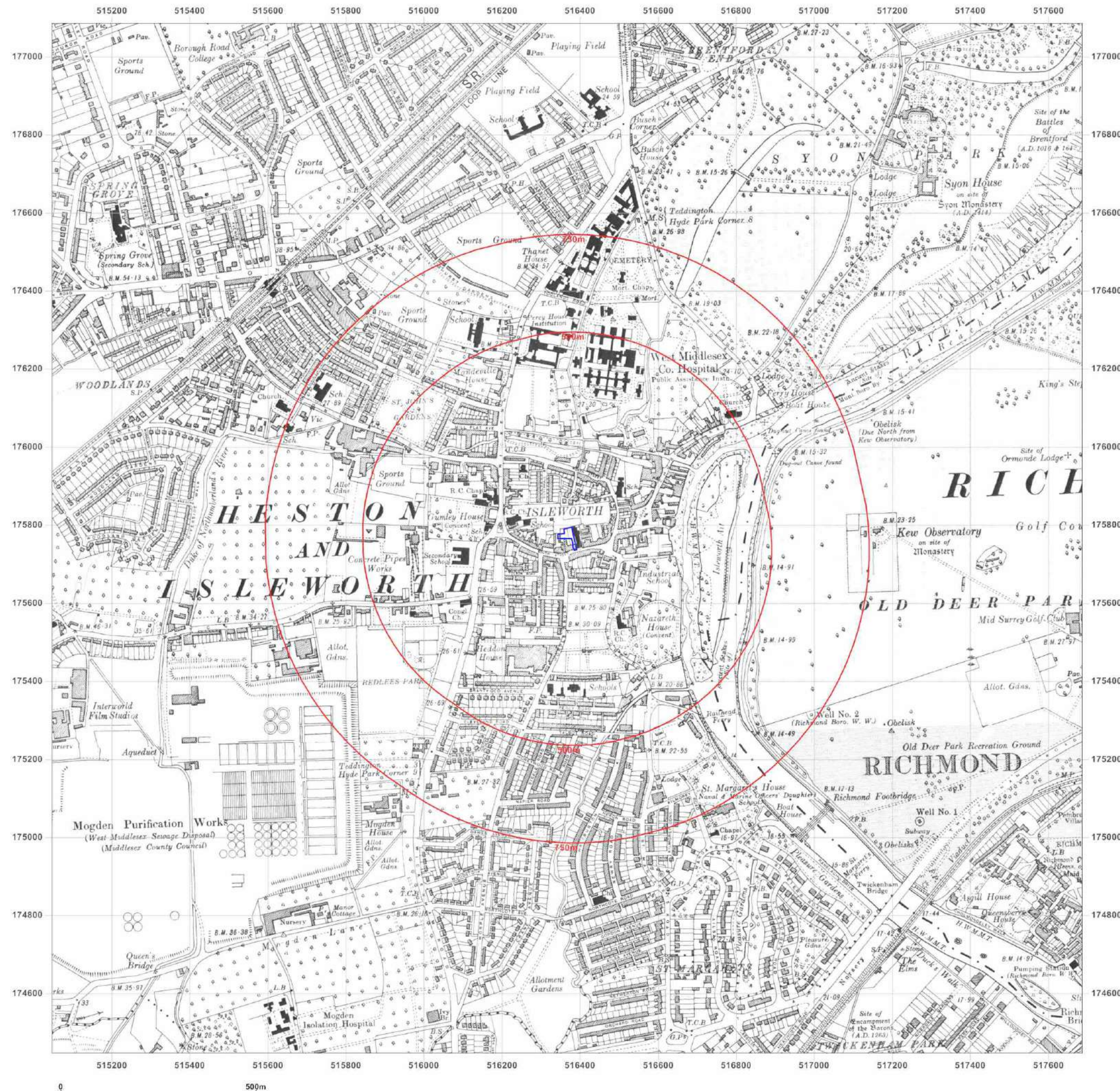


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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1866
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1866
Revised 1938
Edition N/A
Copyright N/A
Levelled 1933

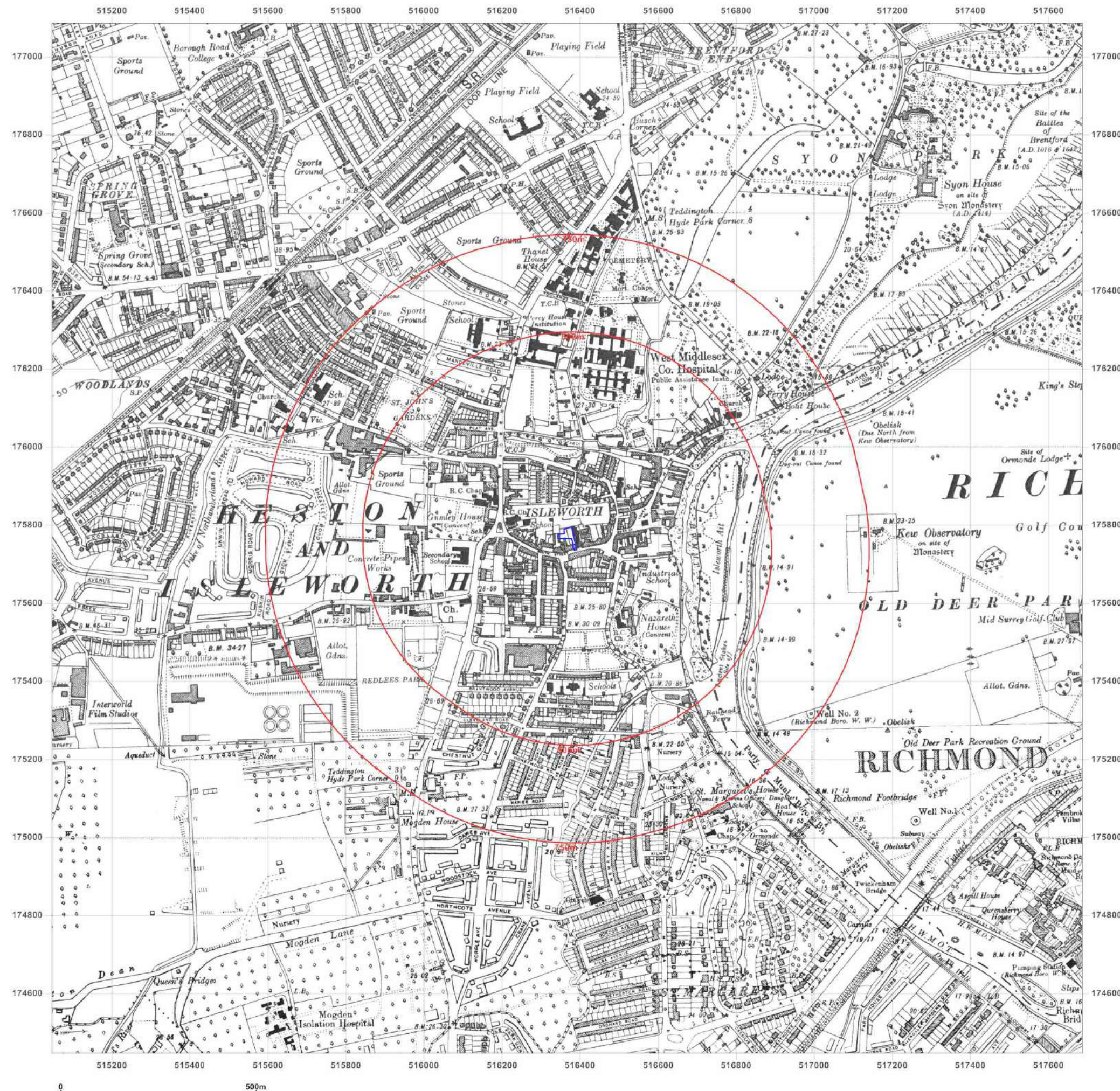


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1866
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

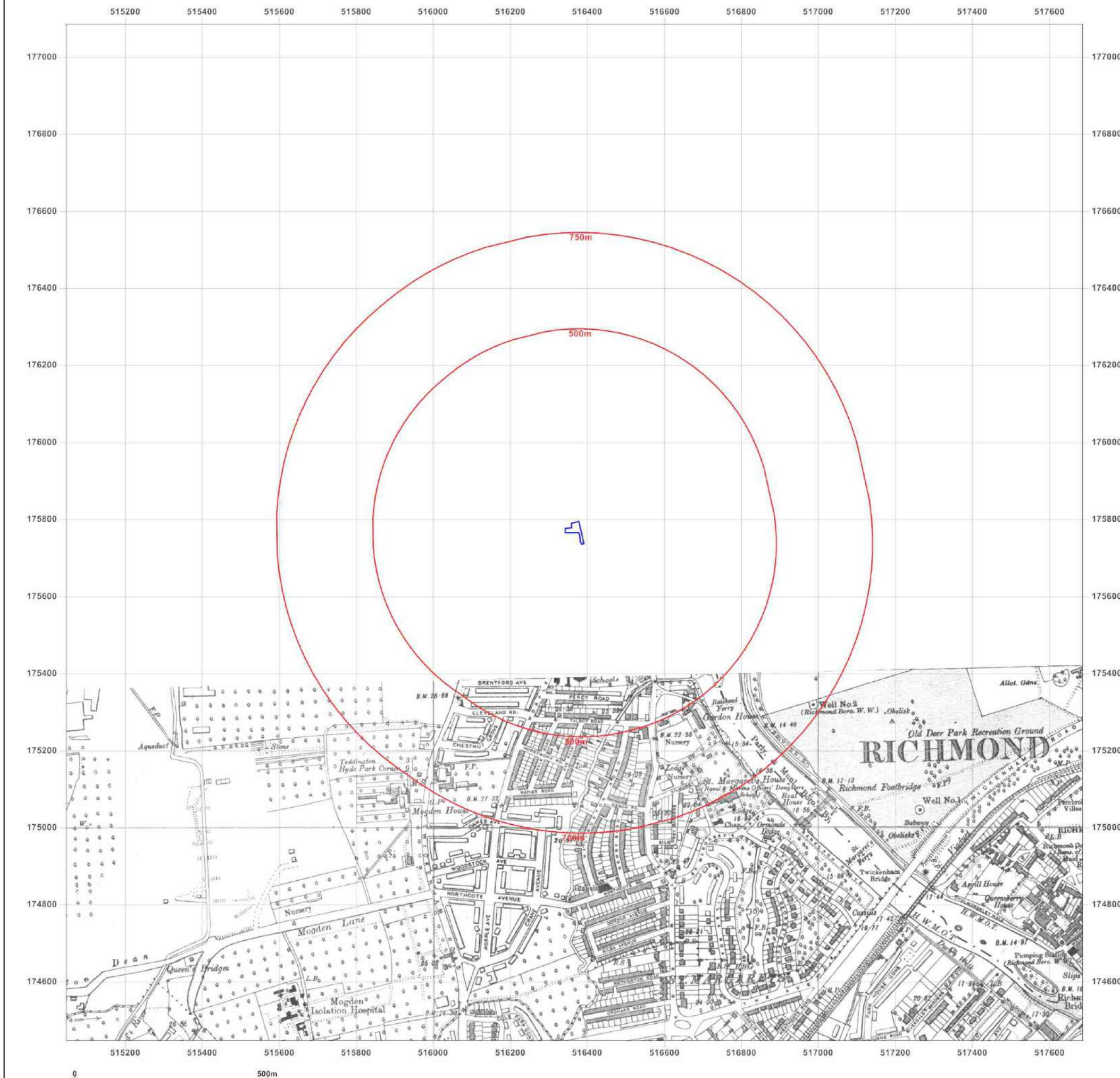


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1863
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

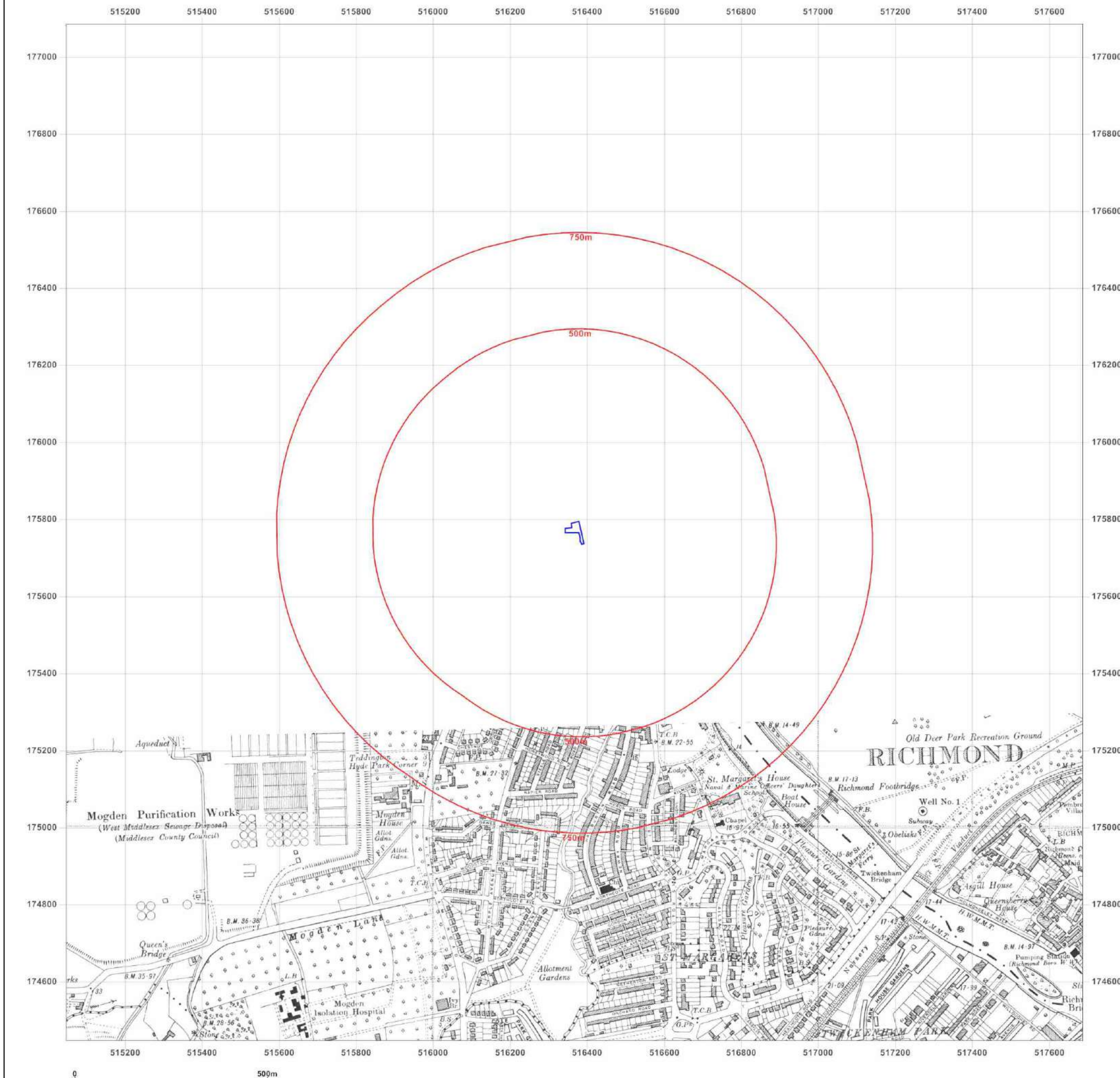


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Site Details:

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Client Ref: 14023929_
Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: Provisional

Map date: 1948

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1940
Revised 1948
Edition N/A
Copyright N/A
Levelled 1934

Surveyed 1940
Revised 1948
Edition N/A
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Map Name: Provisional

Map date: 1948

Scale: 1:10,560

Printed at: 1:10,560



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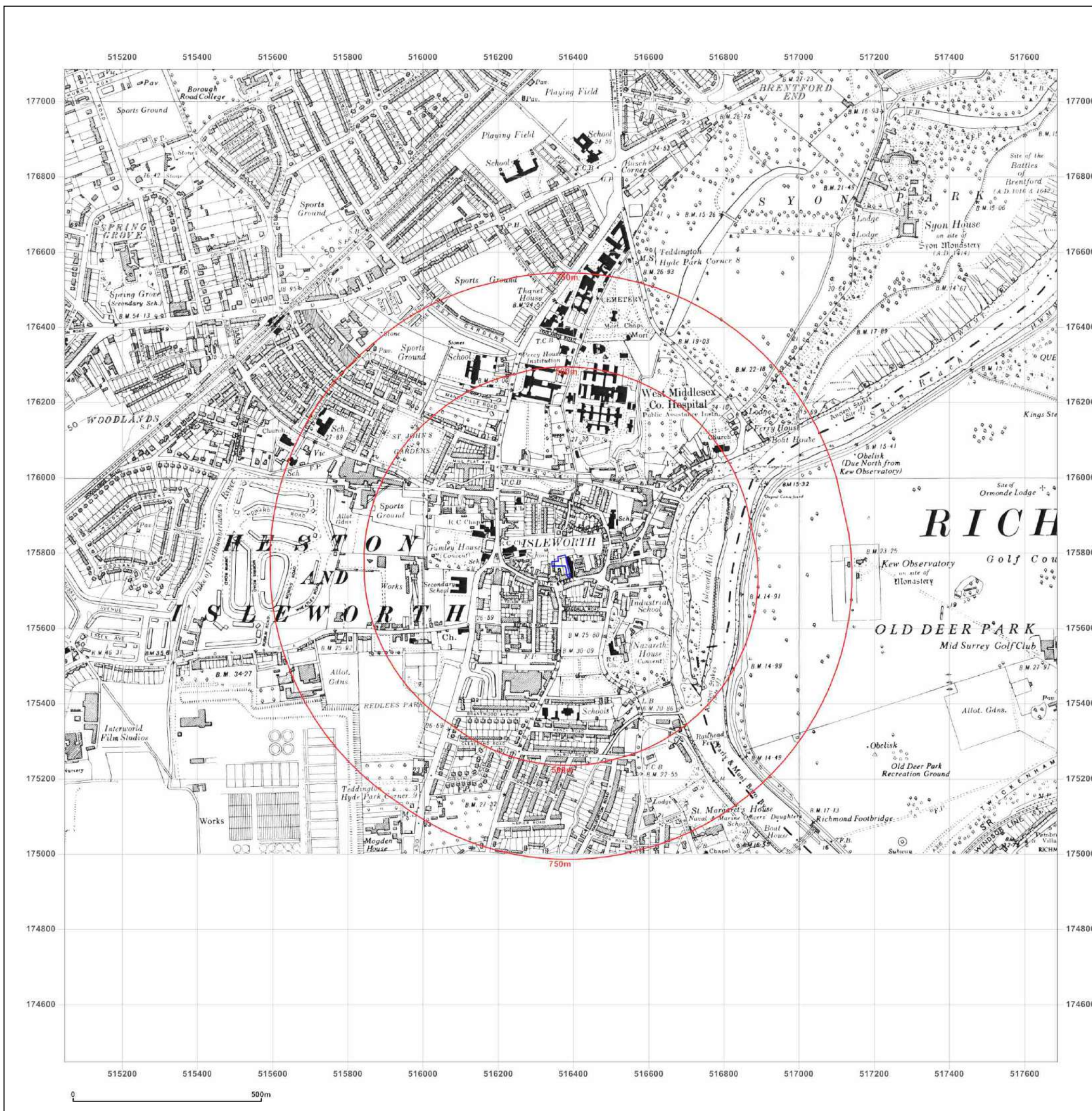


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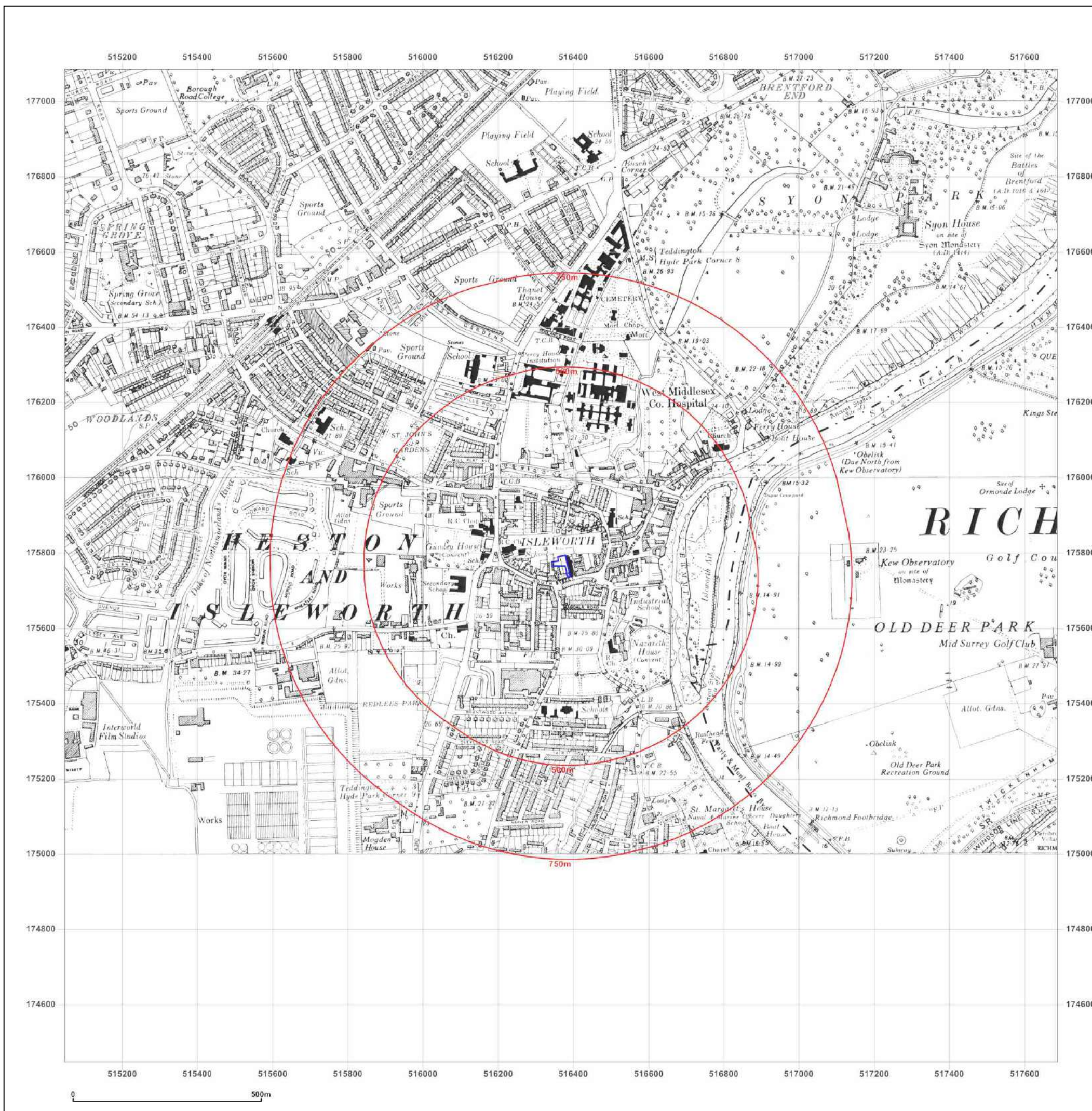


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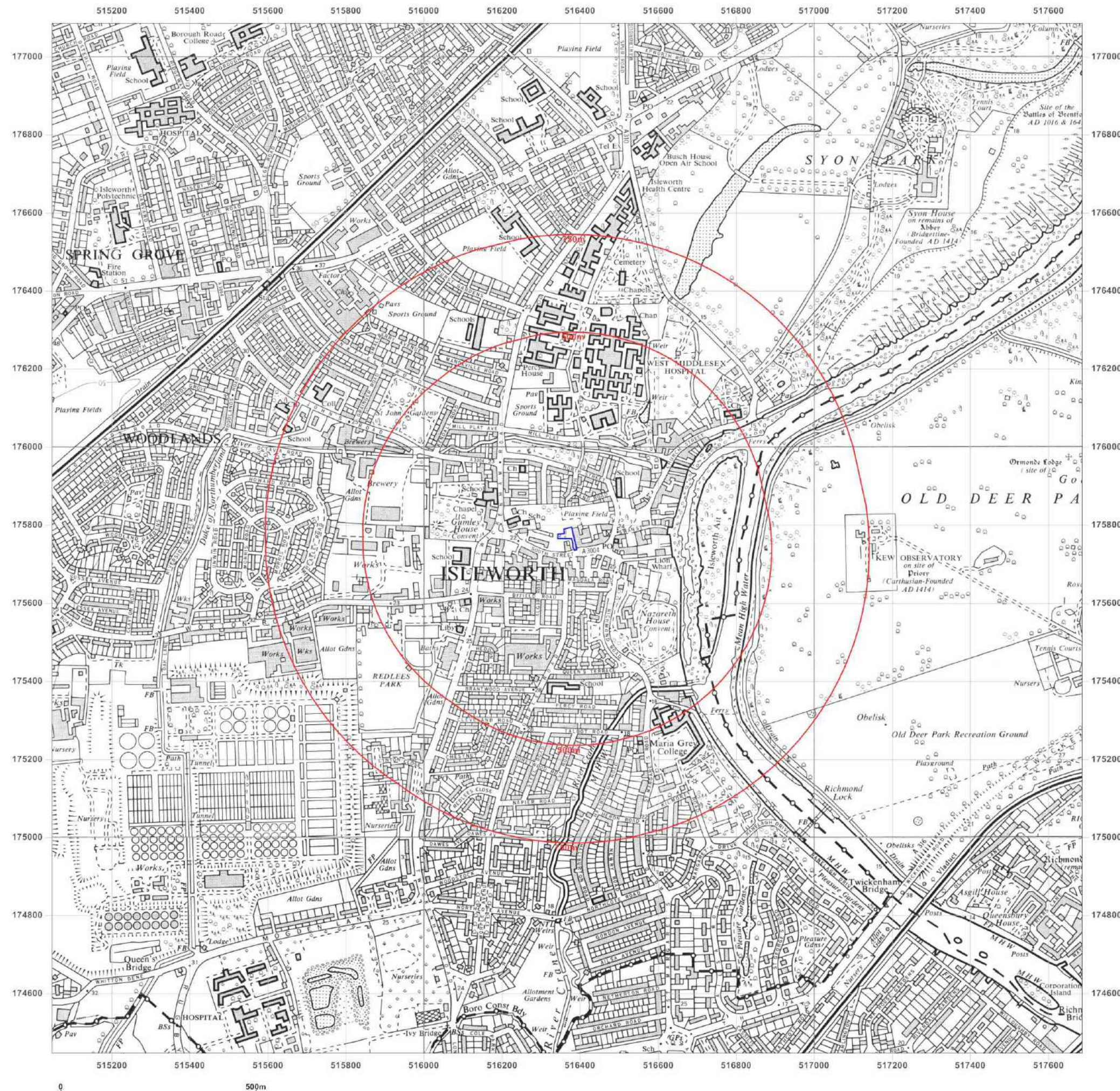


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Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1973-1974

Scale: 1:10,000

Printed at: 1:10,000



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Surveyed 1973
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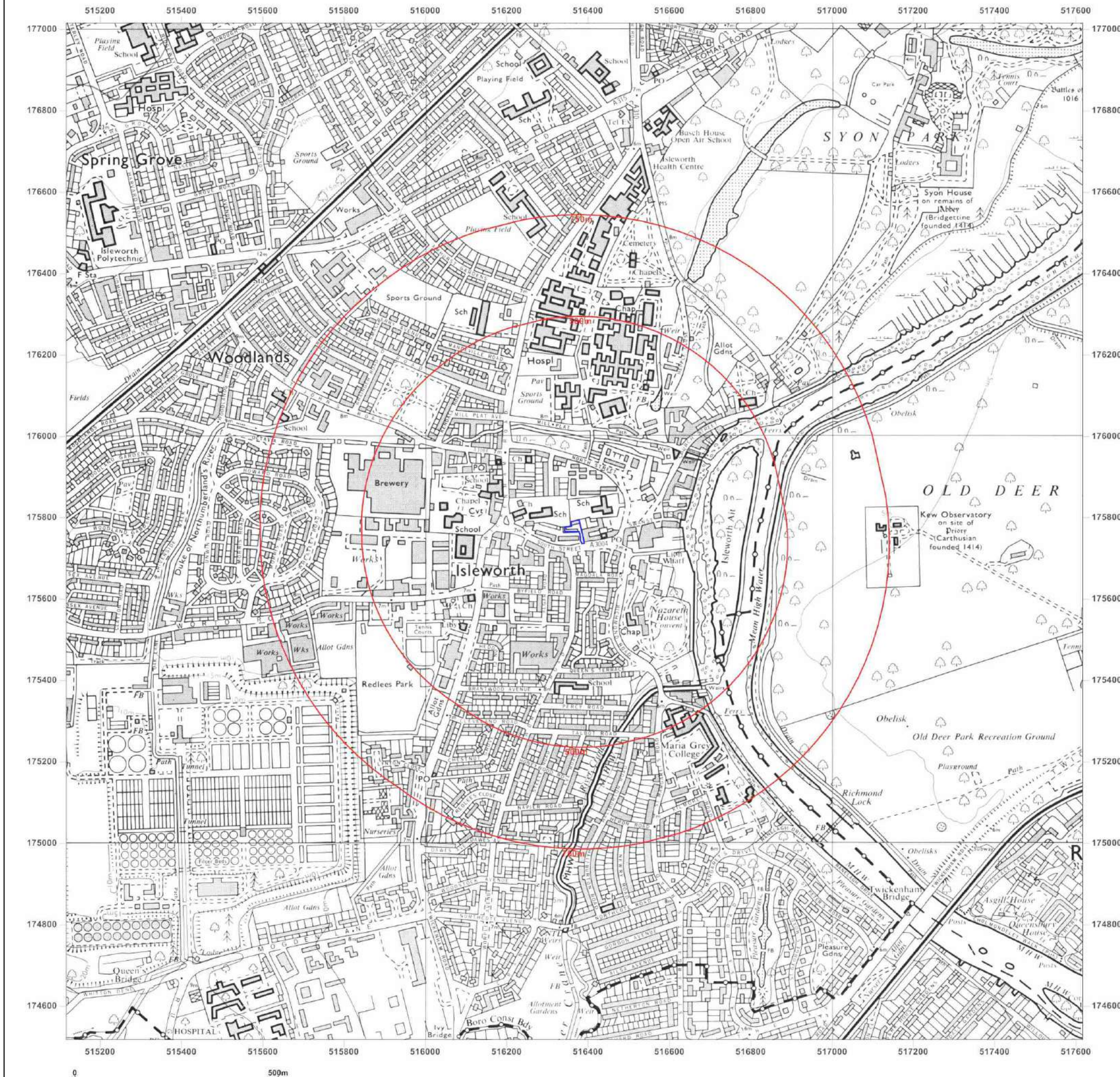


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Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 1987-1991

Scale: 1:10,000

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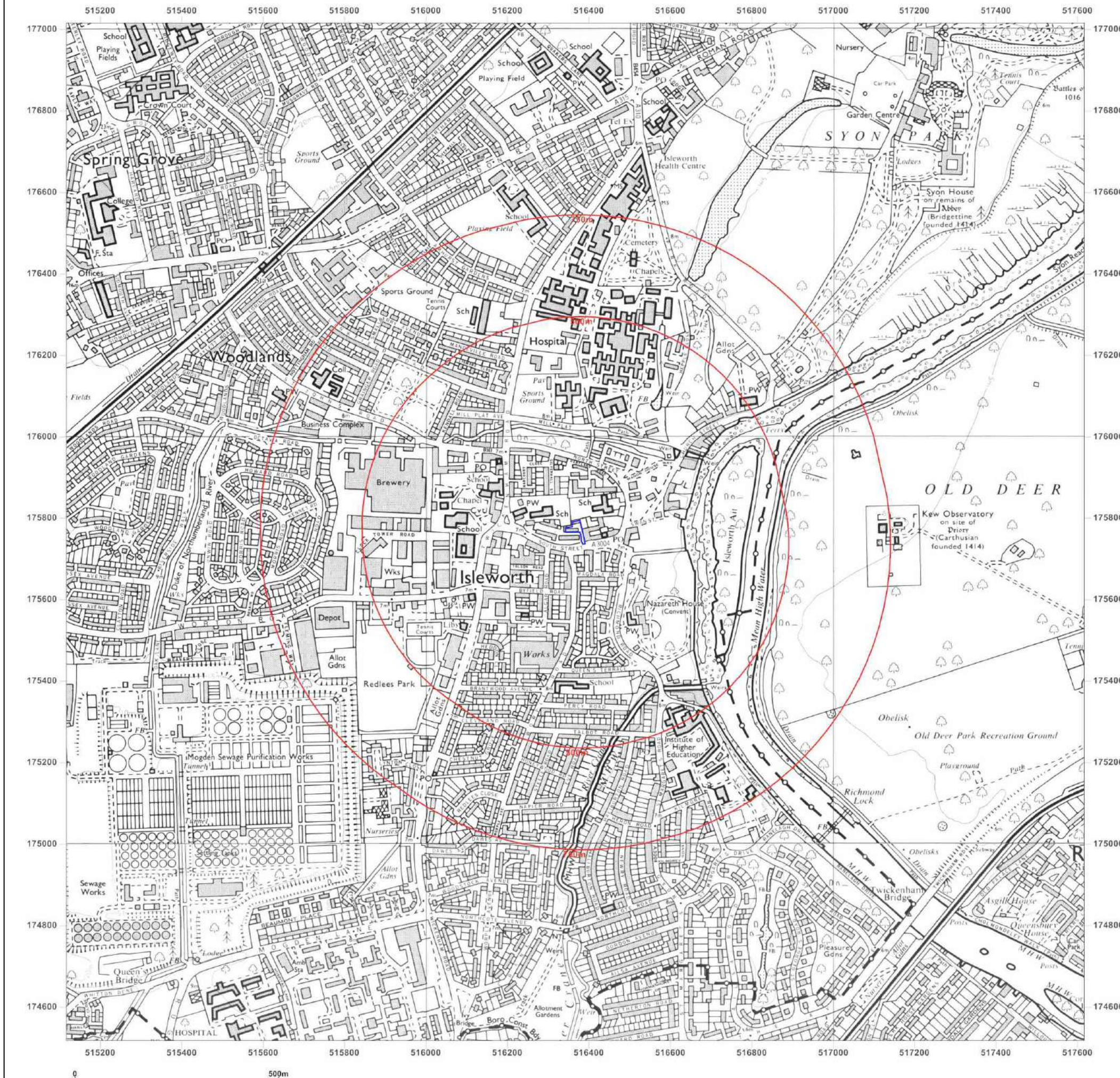


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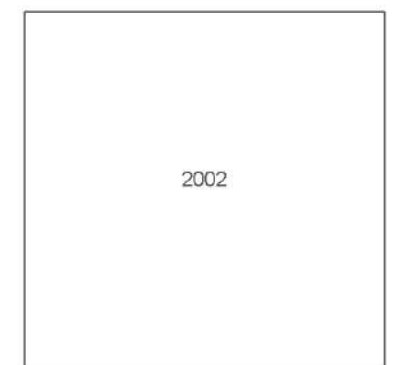
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Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000

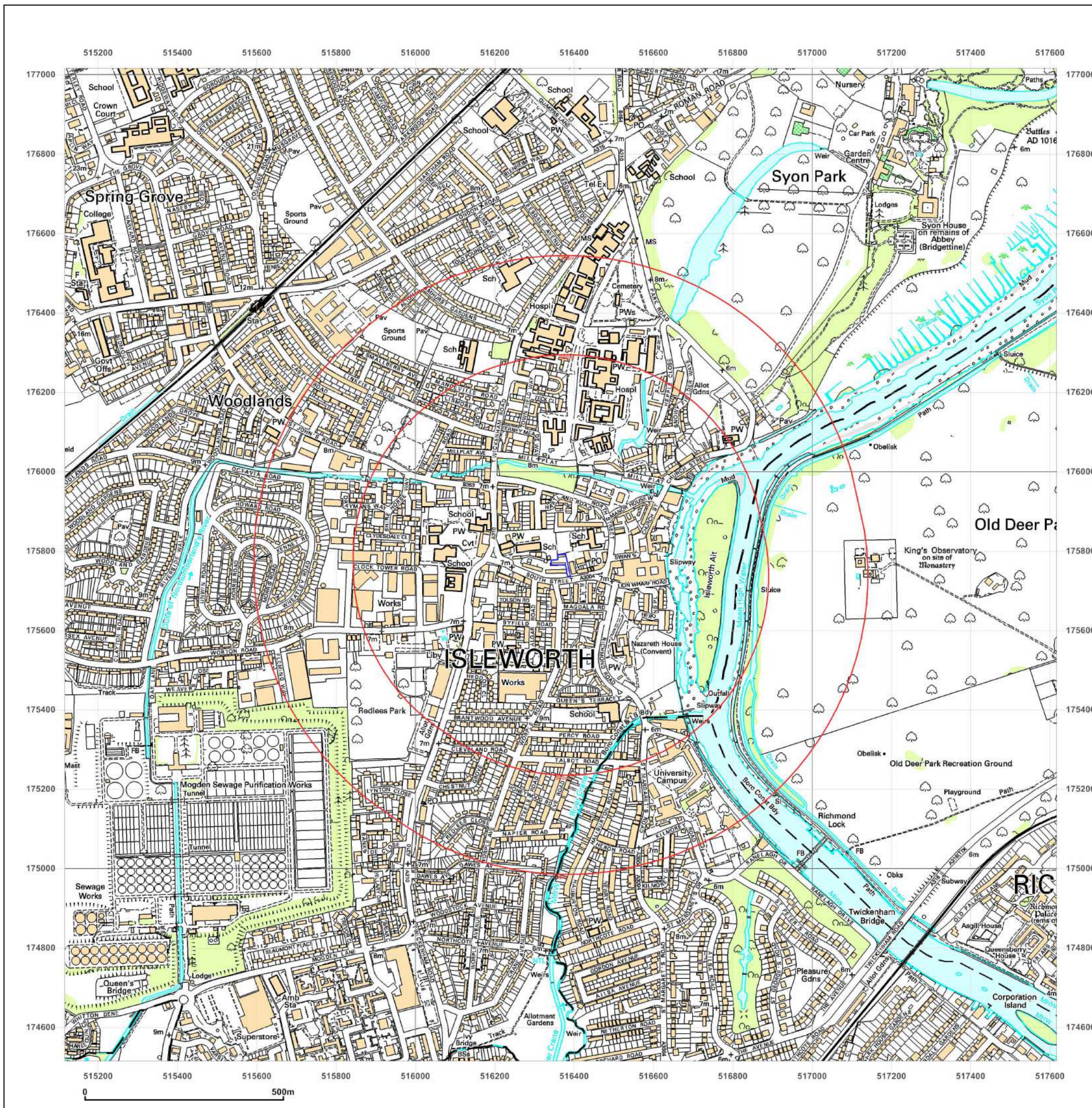


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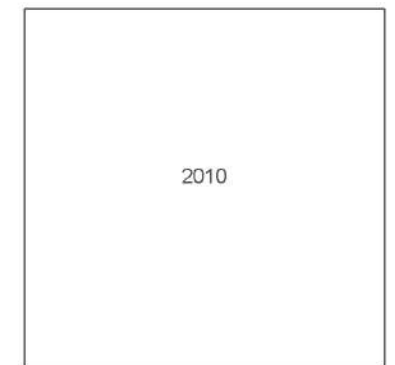
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Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

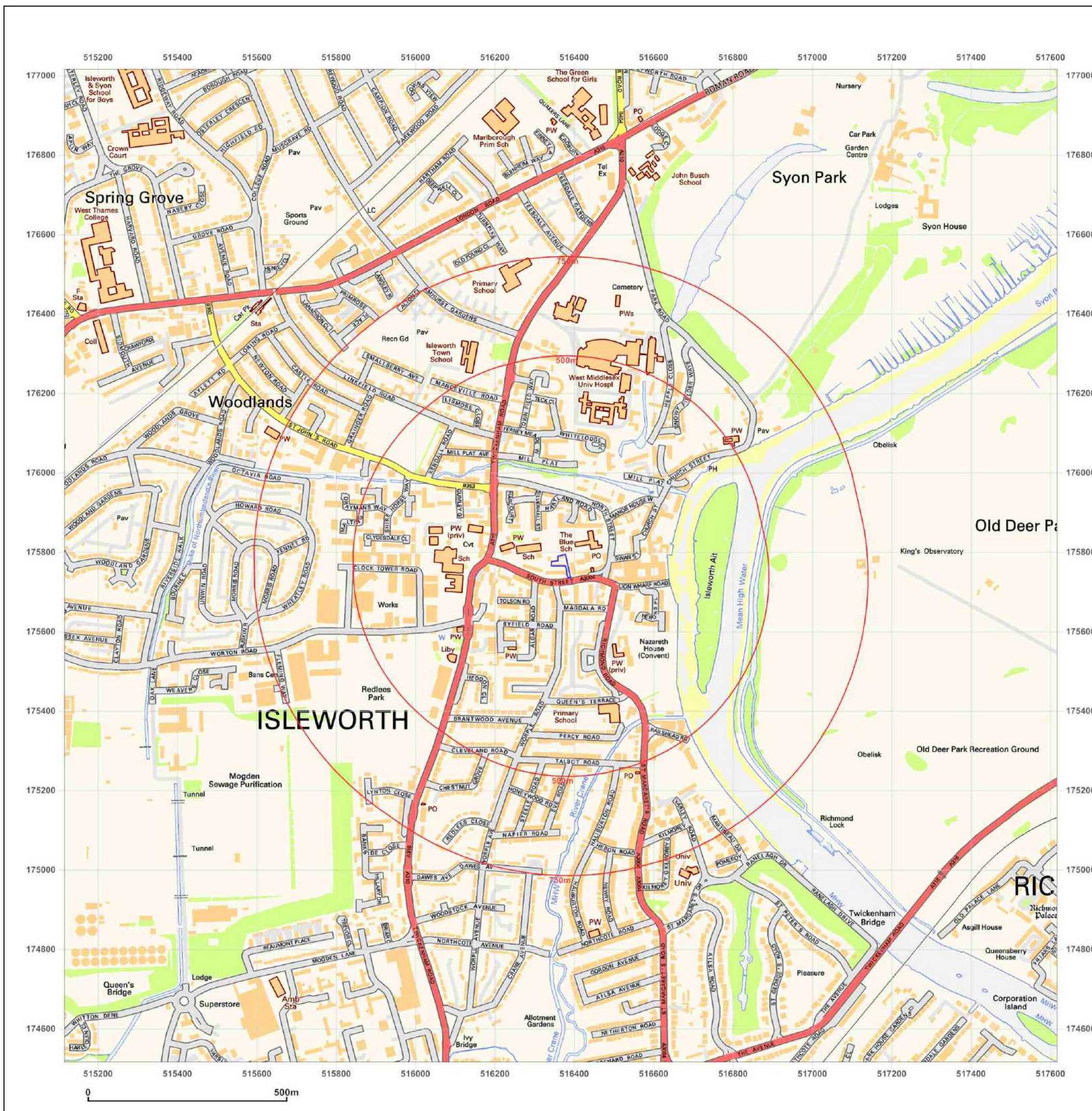


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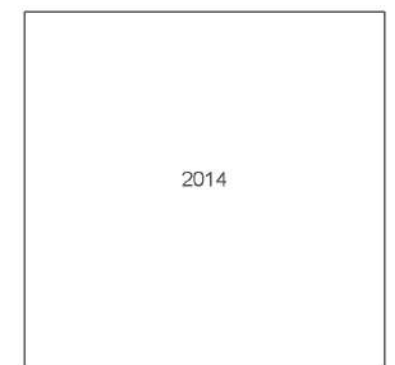
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Report Ref: GS-5910752
Grid Ref: 516366, 175765

Map Name: National Grid

Map date: 2014

Scale: 1:10,000

Printed at: 1:10,000

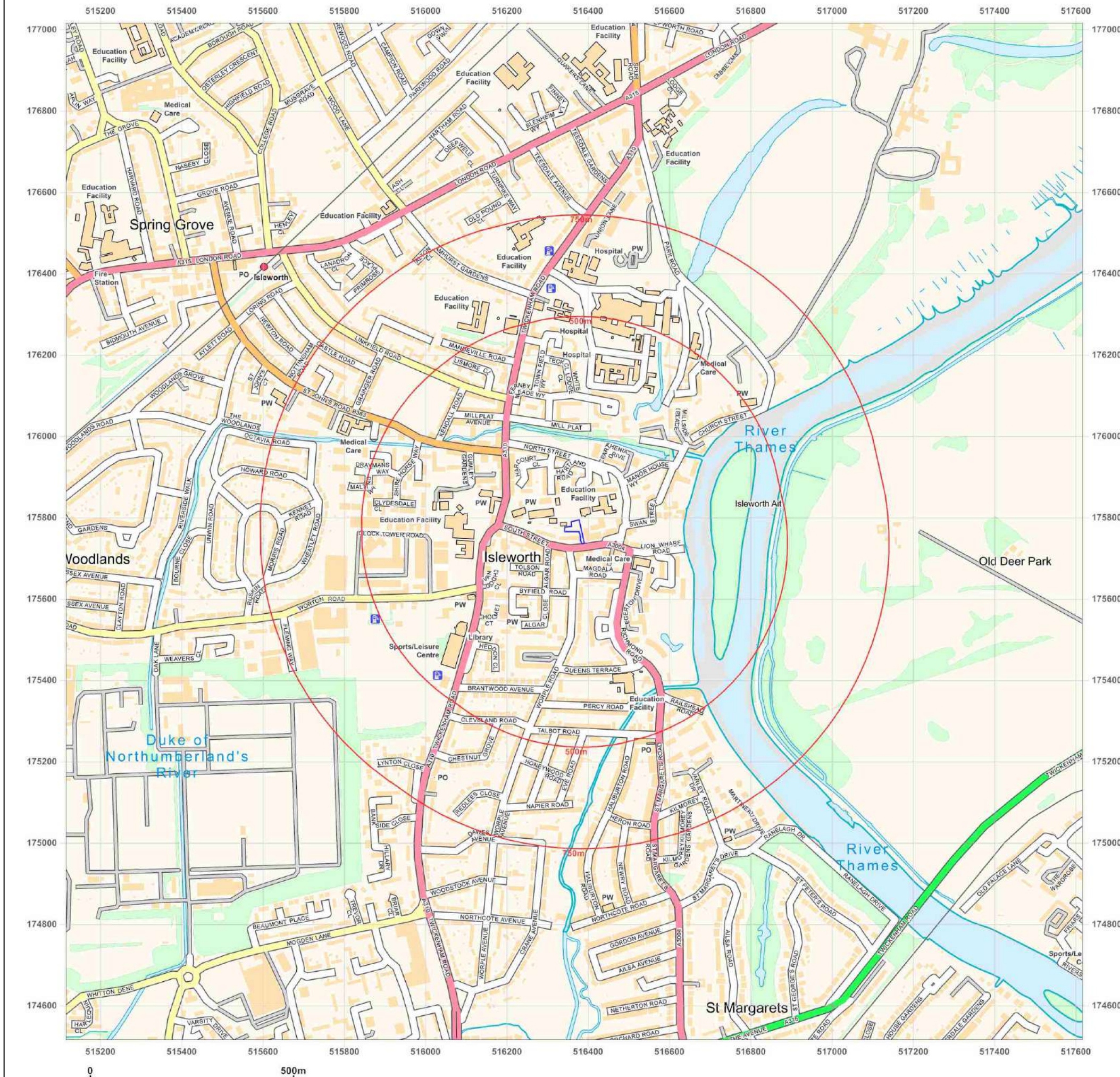


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APPENDIX B

Groundsure Data Sheets and Site Sensitivity Maps



Arcadis Consulting UK Ltd
PO Box, 307,
MANCHESTER, M60 3NT

Groundsure Reference: GS-5910750

Your Reference: 14023929_

Report Date 28 Mar 2019

Report Delivery Method: Email - pdf

Enviro Insight

Address: SWANN COURT, LONDON, TW7 7AN

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Yours faithfully,

Managing Director
Groundsure Limited

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Address: SWANN COURT, LONDON, TW7 7AN

Date: 28 Mar 2019

Reference: GS-5910750

Client: Arcadis Consulting UK Ltd

NW

N

NE

W

E



SW

S

SE

Aerial Photograph Capture date: 20-Apr-2015

Grid Reference: 516369,175778

Site Size: 0.1015ha

Report Reference: GS-5910750

Client Reference: 14023929_

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Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	0	0	42	53
1.2 Additional Information – Historical Tank Database	0	0	1	24
1.3 Additional Information – Historical Energy Features Database	2	1	10	31
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	7	0	14
1.6 Historical military sites	0	0	0	0
1.7 Potentially Infilled Land	0	0	6	15
Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	0
2.1.3 Records of Red List Discharge Consents	0	0	0	12
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	3
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	1	0	0
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	1	22
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	3	32
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	0	1	1	5
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	0	1
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	0	0	0	4

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	1	11	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	0	0
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Records of Artificial Ground and Made Ground present beneath the study site	None identified
5.2 Records of Superficial Ground and Drift Geology present beneath the study site	Identified
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m					
6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site	Identified					
6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site	Identified					
	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	14
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	6
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	0	0	2	Not searched	Not searched

Section 6: Hydrogeology and Hydrology

0-500m

	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site	No	No	No	No	No	No
6.10 Ordnance Survey MasterMap Water Network entries within 500m of the site	0	0	6	24	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Environment Agency Zone 2 floodplains within 250m of the study site	Identified					
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	Identified					
7.3 Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site	Very Low					
7.4 Flood Defences within 250m of the study site	Identified					
7.5 Areas benefiting from Flood Defences within 250m of the study site	Identified					
7.6 Areas used for Flood Storage within 250m of the study site	None identified					
7.7 Maximum BGS Groundwater Flooding susceptibility within 50m of the study site	Potential below Surface					
7.8 BGS confidence rating for the Groundwater Flooding susceptibility areas	Moderate					

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	1	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	1	0	0
8.8 Records of World Heritage Sites	0	0	1	0	0	1
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	0
8.14 Records of Green Belt land	0	0	0	0	0	0

Section 9: Natural Hazards	
9.1 Maximum risk of natural ground subsidence	Very Low
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site	Negligible
9.1.2 Maximum Landslides hazard rating identified on the study site	Very Low
9.1.3 Maximum Soluble Rocks hazard rating identified on the study site	Negligible
9.1.4 Maximum Compressible Ground hazard rating identified on the study site	Negligible
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site	Very Low
9.1.6 Maximum Running Sand hazard rating identified on the study site	Very Low
9.2 Radon	
9.2.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.

Section 10: Mining	
10.1 Coal mining areas within 75m of the study site	None identified
10.2 Non-Coal Mining areas within 50m of the study site boundary	None identified
10.3 Brine affected areas within 75m of the study site	None identified

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between Groundsure and the Client. The document contains the following sections:

1. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

3. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

4. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure gas pipelines and underground electricity transmission lines.

5. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

6. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licences, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

7. Flooding

Provides information on river and coastal flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

8. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

9. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, Groundsure provide a free Technical Helpline (08444 159000) for further information and guidance.

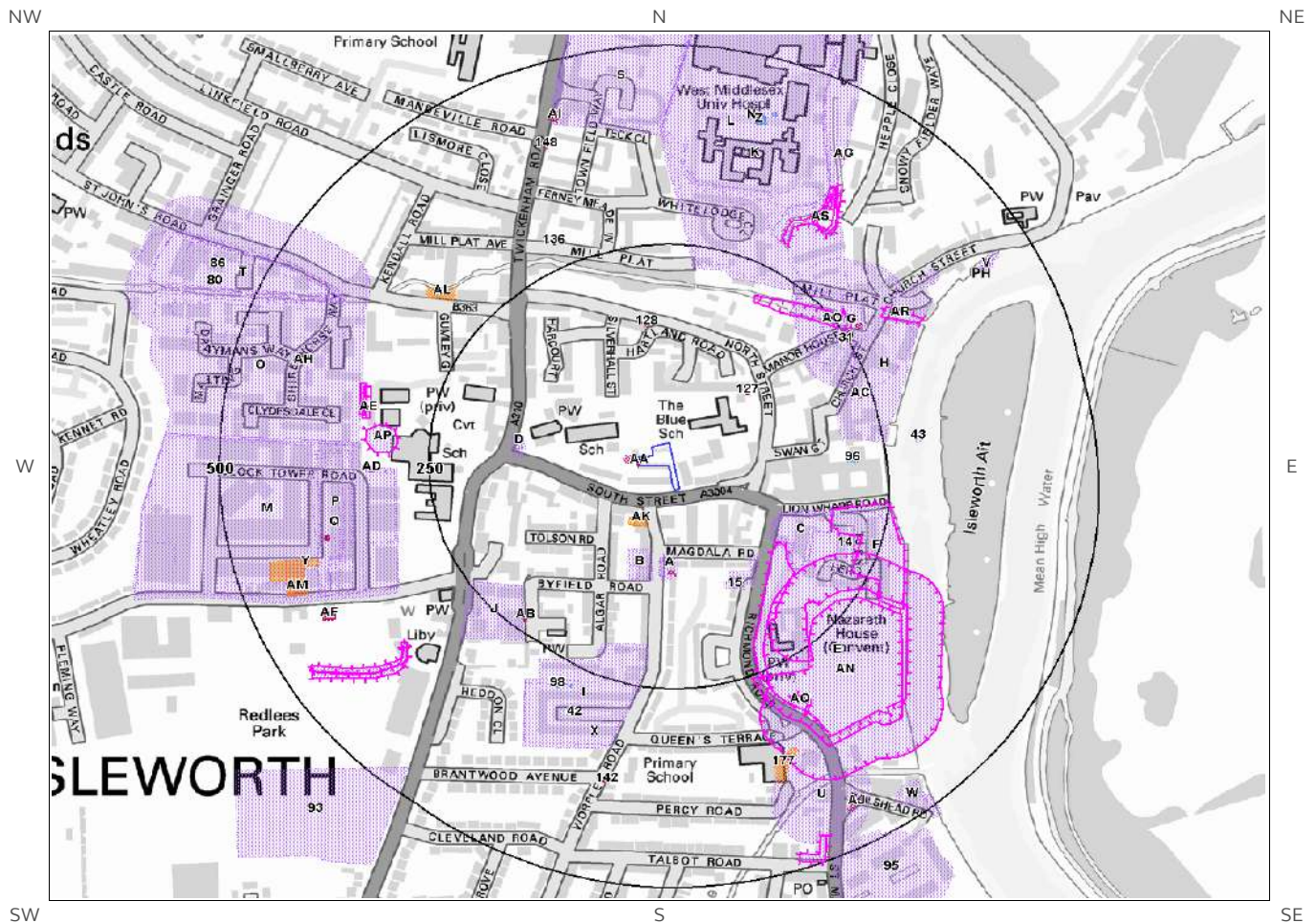
Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

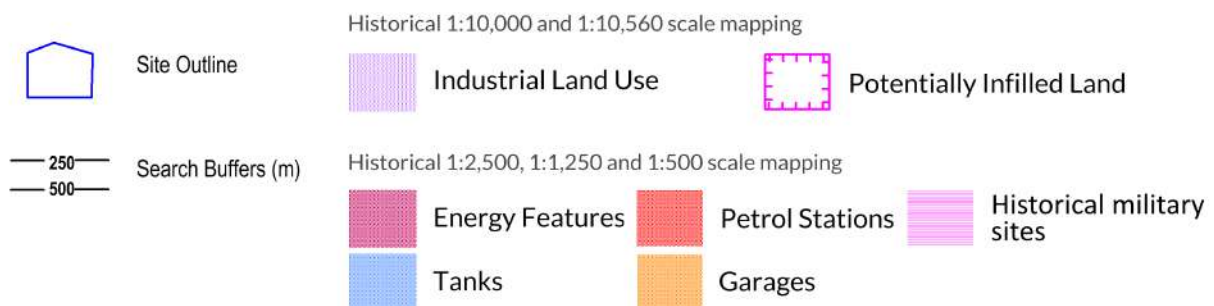
Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Historical Land Use



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1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 95

ID	Distance [m]	Direction	Use	Date
1B	79	S	Police Station	1894
2A	82	S	Police Station	1898
3A	83	S	Police Station	1894
4A	84	S	Police Station	1912
5A	89	S	Police Station	1896
6B	99	S	Police Station	1933
7	117	SE	Police Station	1913
8C	119	E	Industrial School	1935
9C	119	SE	Industrial School	1961
10C	120	E	Industrial School	1948
11C	120	E	Industrial School	1948
12C	122	E	Industrial School	1912
13C	122	E	Industrial School	1938
14	122	E	Industrial School	1933
15	129	SE	Police Station	1912
16E	135	SE	Burial Ground	1933
17D	136	W	Fire Station	1894
18D	136	W	Fire Station	1896
19D	139	W	Fire Station	1898
20D	145	W	Fire Station	1894
21E	174	SE	Burial Ground	1912
22F	185	E	Unspecified Wharf	1966
23F	185	E	Unspecified Wharf	1974
24G	190	NE	Flour Mill	1865
25I	196	S	Unspecified Works	1987
26G	201	NE	Unspecified Mill	1898
27H	201	E	Unspecified Commercial/Industrial	1987
28H	201	E	Unspecified Commercial/Industrial	1966
29H	201	E	Unspecified Commercial/Industrial	1974
30G	203	NE	Unspecified Mill	1894
31	203	NE	Unspecified Mill	1896
32I	204	S	Unspecified Works	1974

33I	204	S	Unspecified Works	1966
34J	204	SW	Unspecified Works	1974
35J	206	SW	Unspecified Works	1966
36AO	208	NE	Unspecified Mill	1894
37K	219	N	Hospital	1948
38K	219	N	Hospital	1948
39L	226	N	Hospital	1987
40L	226	N	Hospital	1974
41AN	228	SE	Burial Ground	1912
42	250	S	Unspecified Commercial/Industrial	1961
43	288	E	Ice House	1913
44AP	288	W	Unspecified Heap	1966
45N	288	N	Hospital	1935
46M	290	W	Concrete Pipes Works	1935
47M	290	W	Concrete Pipes Works	1938
48AQ	291	SE	Burial Ground	1913
49M	291	W	Unspecified Works	1974
50M	291	W	Unspecified Works	1987
51M	291	W	Unspecified Works	1966
52M	291	W	Unspecified Works	1961
53M	292	W	Works	1948
54M	292	W	Concrete Pipes Works	1948
55N	292	NE	Union Workhouse	1913
56N	293	NE	Unspecified Workhouse	1933
57N	303	N	Unspecified Workhouse	1912
58N	303	N	Hospital	1938
59N	312	N	Unspecified Workhouse	1912
60N	325	N	Hospital	1966
61N	325	N	Hospital	1961
62O	335	W	Brewery	1987
63O	335	W	Brewery	1974
64P	339	W	Railway Sidings	1938
65P	339	W	Railway Sidings	1935
66P	343	W	Railway Sidings	1961
67Q	346	W	Railway Sidings	1948
68Q	346	W	Railway Sidings	1948
69R	354	SW	Unspecified Ground Workings	1898
70R	358	SW	Unspecified Ground Workings	1896
71U	365	S	Boat House	1912
72T	377	NW	Brewery	1865
73S	387	N	Unspecified Workhouse	1896
74S	394	N	Unspecified Workhouse	1894
75T	399	NW	Brewery	1896
76O	401	W	Brewery	1966

77T	402	NW	Brewery	1894
78S	402	N	Unspecified Warehouse	1894
79T	407	NW	Brewery	1898
80	408	NW	Unspecified Commercial/Industrial	1961
81T	408	NW	Brewery	1933
82T	409	NW	Brewery	1913
83U	409	SE	Boat House	1912
84T	409	NW	Brewery	1912
85T	410	NW	Brewery	1894
86	424	NW	Brewery	1966
87V	429	NE	Boat House	1912
88V	431	NE	Boat House	1912
89V	438	NE	Boat House	1913
90V	440	NE	Boat House	1933
91W	458	SE	Boat House	1933
92AT	467	S	Unspecified Ground Workings	1898
93	467	SW	Unspecified Commercial/Industrial	1933
94W	482	SE	Boat House	1912
95	486	SE	Nursery	1938

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary:

25

ID	Distance (m)	Direction	Use	Date
96	202	E	Tanks	1865
97I	274	SW	Unspecified Tank	1935
98	281	SW	Unspecified Tank	1935
99X	320	S	Unspecified Tank	1960
100X	320	S	Unspecified Tank	1959
101X	320	S	Unspecified Tank	1959
102X	320	S	Unspecified Tank	1994
103Z	414	N	Tanks	1935
104Y	416	W	Unspecified Tank	1986
105Y	416	W	Unspecified Tank	1986
106Z	416	N	Unspecified Tank	1960
107Y	416	W	Unspecified Tank	1995
108Y	416	W	Unspecified Tank	1997
109Z	417	N	Tanks	1959

110Z	417	N	Tanks	1959
111Z	417	N	Tanks	1960
112Z	417	N	Tanks	1959
113Z	418	N	Unspecified Tank	1959
114Z	418	N	Unspecified Tank	1959
115Z	418	N	Unspecified Tank	1960
116Z	419	N	Unspecified Tank	1959
117Z	421	N	Tanks	1960
118Z	421	N	Tanks	1959
119Z	421	N	Tanks	1959
120Z	429	N	Unspecified Tank	1993

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary:

44

ID	Distance (m)	Direction	Use	Date
121AA	0	On Site	Electricity Substation	1994
122AA	0	On Site	Electricity Substation	1997
123AA	10	W	Electricity Transformer	1970
124A	101	S	Electricity Substation	1970
125A	105	S	Electricity Substation	1997
126A	105	S	Electricity Substation	1994
127	110	NE	Electricity Transformer	1970
128	147	N	Electricity Substation	1994
129AB	230	SW	Electricity Transformer	1970
130AB	231	SW	Electricity Substation	1997
131AB	231	SW	Electricity Substation	1994
132AC	233	E	Electricity Substation	1989
133AC	233	E	Electricity Substation	1991
134G	266	NE	Electricity Substation	1991
135G	266	NE	Electricity Substation	1989
136	279	NW	Electricity Substation	1997
137AD	315	W	Electricity Substation	1994
138AD	315	W	Electricity Substation	1997
139AD	316	W	Electricity Transformer	1970
140AE	326	W	Electricity Substation	1994
141AE	326	W	Electricity Substation	1997
142	373	S	Electricity Substation	1994
143Q	380	W	Electricity Substation	1986
144Q	380	W	Electricity Substation	1986

145Q	380	W	Electricity Substation	1977
146Q	380	W	Electricity Substation	1995
147Q	380	W	Electricity Substation	1997
148	395	N	Electricity Substation	1997
149AF	406	SW	Electricity Substation	1977
150AF	406	SW	Electricity Substation	1995
151AF	406	SW	Electricity Substation	1997
152AF	406	SW	Electricity Substation	1986
153AF	406	SW	Electricity Substation	1986
154AG	412	NE	Electricity Substation	1987
155AG	412	NE	Electricity Substation	1993
156AG	412	NE	Electricity Substation	1995
157AH	416	W	Electricity Substation	1997
158AH	416	W	Electricity Substation	1995
159AI	424	N	Electricity Substation	1996
160AI	424	N	Electricity Substation	1991
161AI	425	N	Electricity Substation	1991
162AI	426	N	Electricity Substation	1974
163AJ	445	SE	Electricity Substation	1995
164AJ	448	SE	Electricity Substation	

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary: 0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary: 21

ID	Distance (m)	Direction	Use	Date
165AK	47	SW	Garage	1960
166AK	47	SW	Garage	1960
167AK	47	SW	Garage	1970
168AK	50	SW	Garage	1959
169AK	50	SW	Garage	1959
170AK	50	SW	Garage	1994

171AK	50	SW	Garage	1997
172AL	295	NW	Garage	1970
173AL	311	NW	Garage	1960
174AL	311	NW	Garage	1960
175AL	314	NW	Garage	1959
176AL	314	NW	Garage	1959
177	351	S	Garage	1974
178Y	400	W	Garage	1977
179Y	417	W	Garage	1986
180Y	417	W	Garage	1986
181Y	417	W	Garage	1995
182Y	417	W	Garage	1997
183AM	423	W	Garage	1962
184AM	424	W	Garage	1962
185AM	424	W	Garage	1962

1.6 Historical military sites

Certain military installations were not noted on historic mapping for security reasons. Whilst not all military land is necessarily of concern, Groundsure has researched and digitised a number of Ordnance Factories and other military industrial features (e.g. Ordnance Depots, Munitions Testing Grounds) which may be of contaminative concern. This research was drawn from a number of different sources, and should not be regarded as a definitive or exhaustive database of potentially contaminative military installations. The boundaries of sites within this database have been estimated from the best evidence available to Groundsure at the time of compilation.

Records of historical military sites within 500m of the search boundary: 0

Database searched and no data found.

1.7 Potentially Infilled Land

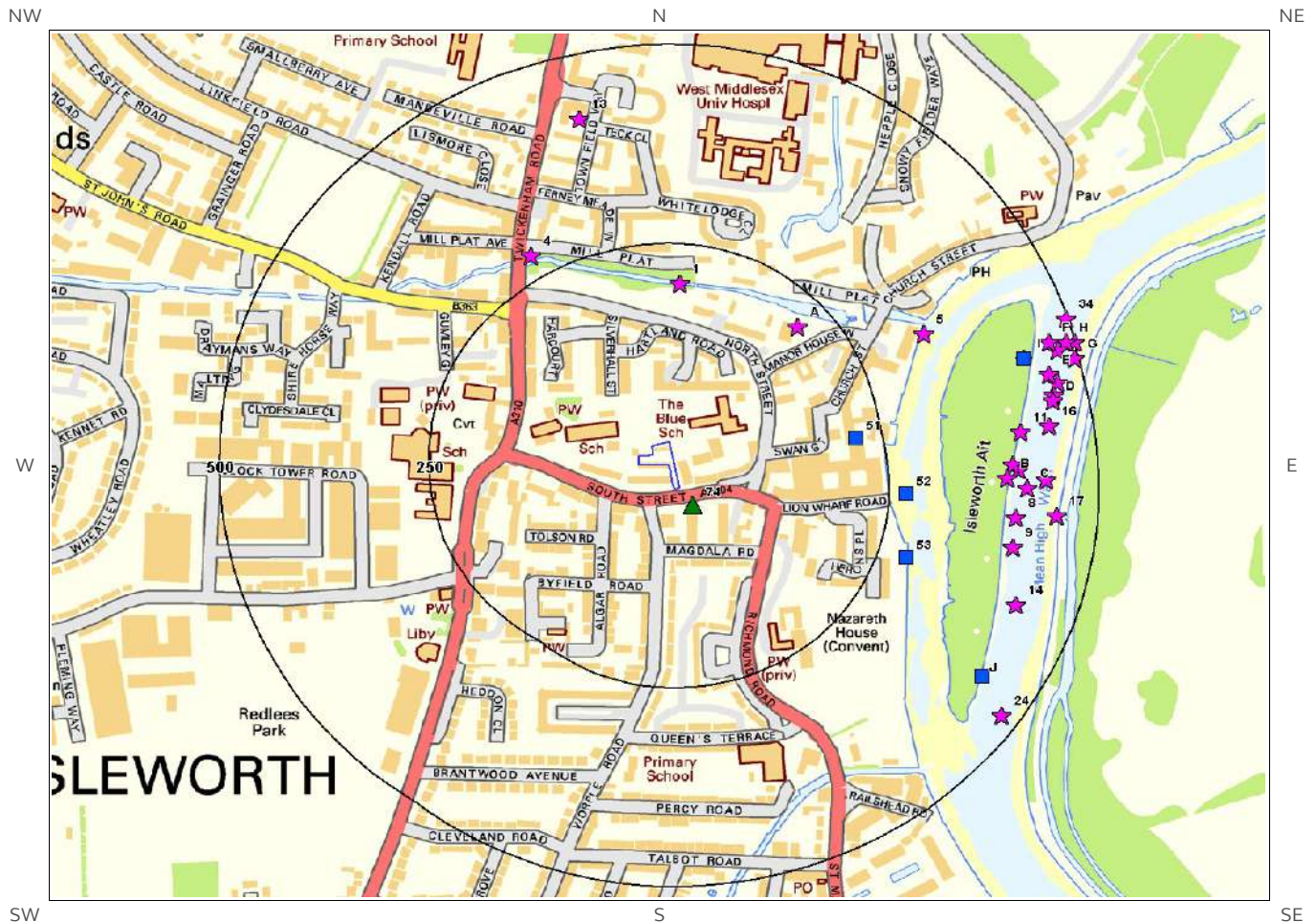
Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site: 21

The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:














ID	Distance(m)	Direction	Use	Date
186E	135	SE	Burial Ground	1933
187AN	174	SE	Burial Ground	1912
188F	185	E	Unspecified Wharf	1974
189F	185	E	Unspecified Wharf	1966
190AO	203	NE	Pond	1865
191AN	228	SE	Burial Ground	1912
192AS	286	NE	Pond	1894
193AP	288	W	Unspecified Heap	1966
194AQ	291	SE	Burial Ground	1913
195AR	298	NE	Pond	1933
196AR	298	NE	Pond	1894
197AS	323	NE	Pond	1894

198AS	323	NE	Pond	1933
199AE	324	W	Pond	1894
200AS	326	NE	Pond	1974
201AS	326	NE	Pond	1987
202AE	331	W	Pond	1894
203AE	331	W	Pond	1933
204R	354	SW	Unspecified Ground Workings	1898
205R	358	SW	Unspecified Ground Workings	1896
206AT	467	S	Unspecified Ground Workings	1898

2. Environmental Permits, Incidents and Registers Map



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- | | | | | | |
|---|---|---|--|---|---------------------------------------|
|  | Site Outline |  | Recorded Pollution Incident |  | RAS 3 & 4 Authorisations |
|  | Dangerous Substances (List 1) |  | Part A(1) Authorised Processes and Historic IPC Authorisations |  | Dangerous Substances (List 2) |
|  | Part A(2) and Part B Authorised Processes |  | Water Industry Referrals |  | Sites Determined as Contaminated Land |
|  | Licenced Discharge Consents |  | Hazardous Substance Consents and Enforcements |  | COMAH / NIHHS Sites |
|  | Red List Discharge Consents | | | | |

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

0

Database searched and no data found.

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

12

The following Red List Discharge Consent records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
39J	431	SE	516750 175500	<p>Address: THAMES WATER UTILITIES LIMITED., MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, ISLEWORTH, MIDDX</p> <p>Permit Number: CNTD.0085</p> <p>Permit Version: 8</p> <p>Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)</p> <p>Discharge Type: Sewage Disposal Works - water company</p> <p>Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY</p> <p>Catchment: -</p> <p>Approval Date: 01-Apr-2009</p>
40J	431	SE	516750 175500	<p>Address: THAMES WATER UTILITIES LIMITED, MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, ISLEWORTH, MIDDX,</p> <p>Permit Number: CNTD.0085</p> <p>Permit Version: 4</p> <p>Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)</p> <p>Discharge Type: Sewage Disposal Works - water company</p> <p>Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY</p> <p>Catchment: -</p> <p>Approval Date: 31-Mar-2005</p>
41J	431	SE	516750 175500	<p>Address: THAMES WATER UTILITIES LIMITED, MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, ISLEWORTH, MIDDX</p> <p>Discharge Type: Sewage Disposal Works - water company</p> <p>Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER</p>

ID	Distance (m)	Direction	NGR	Details	
				Permit Number: CNTD.0085 Permit Version: 5 Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)	COMPANY Catchment: - Approval Date: 31-Jan-2007
42J	431	SE	516750 175500	Address: THAMES WATER UTILITIES LIMITED., MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, ISLEWORTH, MIDDX Permit Number: CNTD.0085 Permit Version: 4 Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)	Discharge Type: Sewage Disposal Works - water company Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Catchment: - Approval Date: 31-Mar-2005
43J	431	SE	516750 175500	Address: THAMES WATER UTILITIES LIMITED., MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Permit Number: CNTD.0085 Permit Version: 6 Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)	Discharge Type: Sewage Disposal Works - water company Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Catchment: - Approval Date: 01-Apr-2010
44J	431	SE	516750 175500	Address: THAMES WATER UTILITIES LIMITED., MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Permit Number: CNTD.0085 Permit Version: 7 Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)	Discharge Type: WwTW/Sewage Treatment Works (water company) Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Catchment: - Approval Date: 31-Mar-2013
45J	431	SE	516750 175500	Address: THAMES WATER UTILITIES LIMITED., MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Permit Number: CNTD.0085 Permit Version: 7 Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)	Discharge Type: WwTW/Sewage Treatment Works (water company) Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Catchment: - Approval Date: 31-Mar-2013
46J	431	SE	516750 175500	Address: THAMES WATER UTILITIES LIMITED., MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Permit Number: CNTD.0085 Permit Version: 7 Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)	Discharge Type: WwTW/Sewage Treatment Works (water company) Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Catchment: - Approval Date: 31-Mar-2013
47J	431	SE	516750 175500	Address: THAMES WATER UTILITIES LIMITED., MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Permit Number: CNTD.0085 Permit Version: 7 Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)	Discharge Type: WwTW/Sewage Treatment Works (water company) Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Catchment: - Approval Date: 31-Mar-2013
48J	431	SE	516750 175500	Address: THAMES WATER UTILITIES LIMITED., MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Permit Number: CNTD.0085 Permit Version: 7 Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995)	Discharge Type: WwTW/Sewage Treatment Works (water company) Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Catchment: - Approval Date: 31-Mar-2013

ID	Distance (m)	Direction	NGR	Details
- AS AMENDED BY ENV ACT 1995)				
49J	431	SE	516750 175500	Address: THAMES WATER UTILITIES LIMITED., MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Permit Number: CNTD.0085 Permit Version: 7 Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Discharge Type: WwTW/Sewage Treatment Works (water company) Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Catchment: - Approval Date: 31-Mar-2013
50I	435	E	516800 175900	Address: THAMES WATER UTILITIES LIMITED., MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, ISLEWORTH, MIDDX Permit Number: CNTD.0085 Permit Version: 3 Status: VARIED BY APPLICATION - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Discharge Type: Sewage Disposal Works - water company Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Catchment: - Approval Date: 01-Aug-2001

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

3

The following List 1 Dangerous Substance Inventory Site records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
36I	435	E	516800 175900	Name: Watkins Cloud Ltd Hillingdon Middx Status: Not Active Receiving Water: - Authorised Substances: -
37I	435	E	516800 175900	Name: Watkins Cloud Ltd Hillingdon Middx Status: Not Active Receiving Water: Thames Estuary Authorised Substances: Mercury (other), Cadmium
38I	435	E	516800 175900	Name: Watkins Cloud Ltd Hillingdon Middx Status: Not Active Receiving Water: - Authorised Substances: -

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

1

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
74	29	SE	516405 175713	Address: Concord Cleaners, 29 Shrewsbury Walk, Isleworth, TW7 7DE Process: Dry Cleaning Status: Current Permit Permit Type: Part B Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

2.1.8 Records of Licensed Discharge Consents within 500m of the study site:

23

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
51	219	E	516600 175800	Address: TOLSON'S COURT, OLD ISLEWORTH, MIDDLE, TOLSON'S COURT, OLD ISLEWORTH, MI, DDLESEX Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.1449 Permit Version: 1 Receiving Water: TIDAL THAMES Status: REVOKED - UNSPECIFIED Issue date: 27/01/1987 Effective Date: 27-Jan-1987 Revocation Date: 15/12/1993
52	270	E	516660 175730	Address: LION WHARF, OLD ISLEWORTH, MIDDLESE, LION WHARF, OLD ISLEWORTH, MIDDLE, ESEX Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.1443 Permit Version: 1 Receiving Water: TIDAL RIVER THAMES Status: REVOKED - UNSPECIFIED Issue date: 17/02/1987 Effective Date: 17-Feb-1987 Revocation Date: 02/06/1993
53	284	E	516660 175650	Address: NAZARETH HOUSE, OLD ISLEWORTH, MIDDLE, NAZARETH HOUSE, OLD ISLEWORTH, MI, DDLESEX Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: CTWC.1457 Permit Version: 1 Receiving Water: RIVER THAMES Status: LAPSED UNDER SCHEDULE 23 ENVIRONMENT ACT 1995 Issue date: 17/02/1987 Effective Date: 17-Feb-1987 Revocation Date: 01/10/1996
54J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDLE, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2005 Effective Date: 01-Apr-2010 Revocation Date: 30/03/2013

ID	Distance (m)	Direction	NGR	Details	
Permit Number: CNTD.0085 Permit Version: 6					
55J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 4	Receiving Water: RIVER THAMES Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2005 Effective Date: 31-Mar-2005 Revocation Date: 30/01/2007
56J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 7	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2010 Effective Date: 31-Mar-2013 Revocation Date: -
57J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 6	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2005 Effective Date: 01-Apr-2010 Revocation Date: 30/03/2013
58J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 7	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2010 Effective Date: 31-Mar-2013 Revocation Date: -
59J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 5	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/01/2007 Effective Date: 31-Jan-2007 Revocation Date: 31/03/2009
60J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 7	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2010 Effective Date: 31-Mar-2013 Revocation Date: -
61J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 8	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 28/01/2009 Effective Date: 01-Apr-2009 Revocation Date: 31/03/2010
62J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 28/01/2009 Effective Date: 01-Apr-2009 Revocation Date: 31/03/2010

ID	Distance (m)	Direction	NGR	Details	
				Permit Number: CNTD.0085 Permit Version: 8	
63J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 4	Receiving Water: RIVER THAMES Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2005 Effective Date: 31-Mar-2005 Revocation Date: 30/01/2007
64J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 7	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2010 Effective Date: 31-Mar-2013 Revocation Date: -
65J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 7	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2010 Effective Date: 31-Mar-2013 Revocation Date: -
66J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 7	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2010 Effective Date: 31-Mar-2013 Revocation Date: -
67J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 7	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/03/2010 Effective Date: 31-Mar-2013 Revocation Date: -
68J	431	SE	516750 175500	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - STW STORM OVERFLOW/STORM TANK - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 5	Receiving Water: RIVER THAMES TIDAL Status: MODIFIED - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 31/01/2007 Effective Date: 31-Jan-2007 Revocation Date: 31/03/2009
69I	435	E	516800 175900	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 3	Receiving Water: RIVER THAMES Status: VARIED BY APPLICATION - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 01/08/2001 Effective Date: 01-Aug-2001 Revocation Date: 30/03/2005
70I	435	E	516800 175900	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY	Receiving Water: RIVER THAMES Status: BY DIRECT. OF SEC OF STATE, (WATER ACT 1989 SCHED 26 & 25(4)(5)) Issue date: 15/12/1989 Effective Date: 15-Dec-1989 Revocation Date: 31/03/1992

ID	Distance (m)	Direction	NGR	Details
Permit Number: CNTD.0085 Permit Version: 1				
711	435	E	516800 175900	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CSSA.0363 Permit Version: 1 Receiving Water: THAMES Status: REVOKED - UNSPECIFIED Issue date: 22/03/1978 Effective Date: 31-Jan-1985 Revocation Date: 15/12/1989
721	435	E	516800 175900	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - WATER COMPANY Permit Number: CNTD.0085 Permit Version: 2 Receiving Water: RIVER THAMES Status: VARIED BY APPLICATION - (WRA 91 SCHED 10 - AS AMENDED BY ENV ACT 1995) Issue date: 15/12/1989 Effective Date: 01-Apr-1992 Revocation Date: 31/07/2001
731	435	E	516800 175900	Address: MOGDEN STW, ISLEWORTH, MIDDX, MOGDEN STW, MOGDEN LANE, ISLEWORTH, MIDDLESEX, TW7 7LP Effluent Type: SEWAGE DISCHARGES - FINAL/TREATED EFFLUENT - NOT WATER COMPANY Permit Number: CSAD.1778 Permit Version: 1 Receiving Water: RIVER THAMES Status: REVOKED - UNSPECIFIED Issue date: 05/10/1989 Effective Date: 05-Oct-1989 Revocation Date: 15/12/1989

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

0

Database searched and no data found.

2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

35

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
1	199	N	516390.0 175994.0	Incident Date: 28-Jul-2003 Incident Identification: 177165.0 Pollutant: Oils and Fuel Pollutant Description: Other Oil or Fuel Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2A	211	NE	516530.0 175940.0	Incident Date: 10-Jul-2002 Incident Identification: 90518.0 Pollutant: Other Pollutant Pollutant Description: Other Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
3A	211	NE	516530.0 175940.0	Incident Date: 10-Jul-2002 Incident Identification: 90518.0 Pollutant: Other Pollutant Pollutant Description: Other Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4	280	NW	516212.0 176029.0	Incident Date: 07-May-2003 Incident Identification: 156615.0 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
5	331	NE	516680.0 175930.0	Incident Date: 23-Jun-2003 Incident Identification: 168109.0 Pollutant: Oils and Fuel Pollutant Description: Other Oil or Fuel Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
6B	390	E	516780.0 175750.0	Incident Date: 06-Jul-2002 Incident Identification: 89644.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
7B	398	E	516787.0 175767.0	Incident Date: 04-Jun-2005 Incident Identification: 317681.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
8	402	E	516790.0 175700.0	Incident Date: 04-Jul-2002 Incident Identification: 89168.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
9	403	E	516786.0 175663.0	Incident Date: 25-Jun-2005 Incident Identification: 324165.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
10B	404	E	516793.0 175760.0	Incident Date: 03-Jul-2002 Incident Identification: 88954.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
11	412	E	516796.0 175807.0	Incident Date: 07-Jul-2009 Incident Identification: 696005.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage Water Impact: Category 1 (Major) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
12C	414	E	516804.0 175737.0	Incident Date: 09-Sep-2005 Incident Identification: 345223.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
13	420	N	516270.0	Incident Date: 26-Oct-2002 Water Impact: Category 3 (Minor)

ID	Distance (m)	Direction	NGR	Details	
			176201.0	Incident Identification: 116842.0 Pollutant: Oils and Fuel Pollutant Description: Gas and Fuel Oils	Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
14	426	E	516790.0 175590.0	Incident Date: 12-Feb-2002 Incident Identification: 57903.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
15C	436	E	516826.0 175747.0	Incident Date: 03-Jul-2009 Incident Identification: 694307.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 1 (Major) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
16	446	E	516829.0 175815.0	Incident Date: 19-Oct-2005 Incident Identification: 354709.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
17	449	E	516838.0 175702.0	Incident Date: 27-Jul-2006 Incident Identification: 422012.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
18D	457	E	516834.0 175847.0	Incident Date: 06-Sep-2003 Incident Identification: 188058.0 Pollutant: Sewage Materials Pollutant Description: Final Effluent	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
19D	460	E	516835.0 175854.0	Incident Date: 29-Jun-2005 Incident Identification: 325060.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 1 (Major) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
20E	460	E	516830.0 175880.0	Incident Date: 23-Jan-2002 Incident Identification: 54150.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
21E	468	E	516840.0 175870.0	Incident Date: 05-Aug-2001 Incident Identification: 21988.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
22F	470	E	516830.0 175920.0	Incident Date: 02-Aug-2001 Incident Identification: 21544.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
23F	477	E	516840.0 175910.0	Incident Date: 26-Jan-2002 Incident Identification: 54631.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
24	478	SE	516773.0 175451.0	Incident Date: 06-Oct-2009 Incident Identification: 722441.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
25H	489	E	516850.0 175920.0	Incident Date: 24-Feb-2002 Incident Identification: 60243.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
26G	494	E	516860.0 175900.0	Incident Date: 15-Oct-2002 Incident Identification: 114848.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
27G	494	E	516860.0 175900.0	Incident Date: 13-Apr-2003 Incident Identification: 150701.0 Pollutant: Sewage Materials Pollutant Description: Final Effluent	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
28G	494	E	516860.0	Incident Date: 18-Jun-2002	Water Impact: Category 3 (Minor)

ID	Distance (m)	Direction	NGR	Details	
			175900.0	Incident Identification: 85515.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
29G	494	E	516860.0 175900.0	Incident Date: 04-Aug-2002 Incident Identification: 97367.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
30G	494	E	516860.0 175900.0	Incident Date: 29-Jul-2003 Incident Identification: 177383.0 Pollutant: Sewage Materials Pollutant Description: Final Effluent	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
31G	494	E	516860.0 175900.0	Incident Date: 21-Oct-2003 Incident Identification: 197529.0 Pollutant: Sewage Materials Pollutant Description: Final Effluent	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
32G	494	E	516860.0 175900.0	Incident Date: 14-Oct-2004 Incident Identification: 271886.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
33G	494	E	516860.0 175900.0	Incident Date: 27-May-2007 Incident Identification: 498108.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
34	497	E	516850.0 175950.0	Incident Date: 25-Jan-2002 Incident Identification: 54551.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
35H	499	E	516860.0 175920.0	Incident Date: 20-Feb-2002 Incident Identification: 59444.0 Pollutant: Sewage Materials Pollutant Description: Storm Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

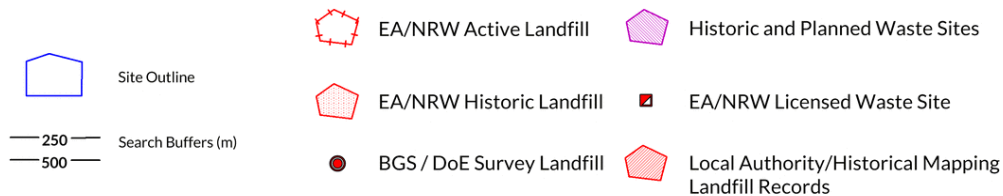
Database searched and no data found.

2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

Records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site

0

Database searched and no data found.



3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

7

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
1	313	SW		Site Address: Redlees Park, Isleworth, Hounslow, London Waste Licence: - Site Reference: 8HO036 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Greenhams sand and Gravel Licence Holder: - First Recorded: 31-Dec-1912 Last Recorded: 31-Dec-1946
Not shown	951	S		Site Address: Crane Avenue Allotments, St. Maragrets, Isleworth, Hounslow, London Waste Licence: - Site Reference: 8HO085 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 31-Dec-1949 Last Recorded: 31-Dec-1961
Not shown	1007	SW		Site Address: Ivybridge, Isleworth, Hounslow, London Waste Licence: - Site Reference: 8HO037, HOU038 Waste Type: Inert, Industrial Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Willments Limited Licence Holder: Willmont Brothers First Recorded: 31-Dec-1955 Last Recorded: 31-Dec-1966
Not shown	1081	NW		Site Address: London Road Sports Ground, London Road Waste Licence: - Site Reference: 8HO035, HOU036 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Greenhams sand and Gravel Licence Holder: - First Recorded: 31-Dec-1934 Last Recorded: 31-Dec-1951
Not shown	1090	W		Site Address: Mogden Sewage Works, Lampton Road, Mogden Licence Issue: Licence Surrendered:

ID	Distance (m)	Direction	NGR	Details
				Waste Licence: - Site Reference: 8HO059, HOUX12 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Holder Address: - Operator: - Licence Holder: Ham River Construction Limited First Recorded: 31-Dec-1930 Last Recorded: 31-Dec-1935
Not shown	1343	S		Site Address: Twickenham Trading Estate, St. Maragrets, Isleworth, Hounslow, London Waste Licence: - Site Reference: 8HO038 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Willments Limited Licence Holder: - First Recorded: 31-Dec-1946 Last Recorded: 31-Dec-1963
Not shown	1445	W		Site Address: Bridge Road, Woodlands, Hounslow, London Waste Licence: - Site Reference: 8HO068 Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: 31-Dec-1946 Last Recorded: 31-Dec-1946

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

0

Database searched and no data found.

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

1

The following landfill records are represented as points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
Not shown	1085	NW	515057 176049	Thornbury Park	London Borough of Hounslow	Polygon

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

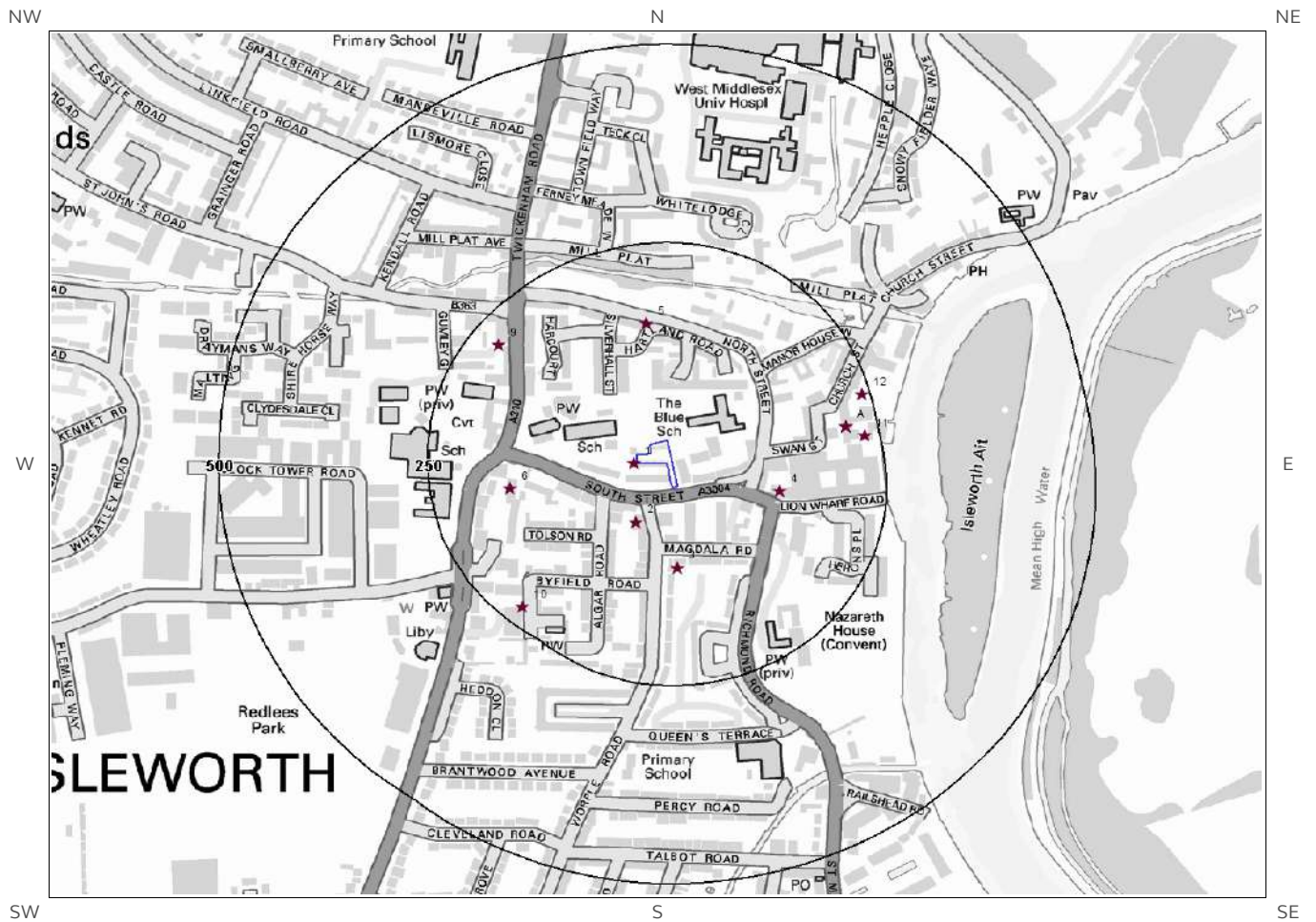
3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

4

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
Not shown	1172	SW	515401 175066	Site Address: Land / Premises At, Mogden Lane, Isleworth, Middlesex, TW7 7LP Type: Sewage sludge treatment Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TWU014 EPR reference: EA/EPR/CP3999LE/A001 Operator: Thames Water Utilities Ltd Waste Management licence No: 100679 Annual Tonnage: 74999.0 Issue Date: 15/01/2009 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Mogden Sewage Treatment Works Correspondence Address: -
Not shown	1440	SW	515281 174792	Site Address: Mogden Sewage Treatment Works, Mogden Lane, Isleworth, Middlesex, TW7 7LP Type: Landfill Gas Engine (<3 mW) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TWA608 EPR reference: EA/EPR/WP3533LT/V003 Operator: Thames Water Utilities Limited Waste Management licence No: 400056 Annual Tonnage: 0.0 Issue Date: 08/04/2013 Effective Date: - Modified: 17/03/2016 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Mogden Combined Heat And Power Plant Correspondence Address: -
Not shown	1459	SE	516986 174406	Site Address: Sharpe Refinery Service (Hydocarbons) Lt, Arlington Works, 21, Arlington Road, Twickenham, Middx, TW1 2BB Type: Special Waste Transfer Station Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SHA002 EPR reference: - Operator: Sharpe Refinery Service (Hydocarbons) Ltd Waste Management licence No: 83207 Annual Tonnage: 60667.0 Issue Date: 28/02/1995 Effective Date: - Modified: 04/02/1999 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Sharpes, Refinery, Twickenham, Tw1 Correspondence Address: Sharpe Refinery Service (Hydocarbons) Lt, Arlington Works, 21, Arlington Road, Twickenham, Middx, TW1 2BB
Not shown	1467	SE	516962 174386	Site Address: Sharpe Refinery Service (Hydocarbons) Lt, Arlington Works, Arlington Road, Twickenham, Middlesex, TW1 2BB Type: Special Waste Transfer Station Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SHA002 EPR reference: EA/EPR/BP3590EU/V003 Operator: Sharpe Refinery Service (Hydro Carbons) Ltd Waste Management licence No: 83207 Annual Tonnage: 60667.0 Issue Date: 28/02/1995 Effective Date: - Modified: 04/02/1999 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Arlington Works Correspondence Address: -

4. Current Land Use Map



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4. Current Land Uses

4.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

12

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	4	W	Electricity Sub Station	516338 175767	Greater London, TW7	Electrical Features	Infrastructure and Facilities
2	62	SW	Jubilee Service Centre	516340 175693	South Street, Isleworth, Greater London, TW7 7AL	Vehicle Repair, Testing and Servicing	Repair and Servicing
3	101	S	Electricity Sub Station	516390 175635	Greater London, TW7	Electrical Features	Infrastructure and Facilities
4	122	E	B J Wood & Son	516512 175732	Lion Wharf Road, Richmond Road, Isleworth, Greater London, TW7 7BW	Marine Equipment Including Boats and Ships	Industrial Products
5	150	N	Electricity Sub Station	516352 175943	Greater London, TW7	Electrical Features	Infrastructure and Facilities
6	156	W	Foundry Cars	516189 175735	79, South Street, Isleworth, Greater London, TW7 7AA	Vehicle Repair, Testing and Servicing	Repair and Servicing
7A	213	E	Colophon Digital Projects Ltd	516591 175813	Saracen House, Swan Street, Isleworth, Greater London, TW7 6RJ	Published Goods	Industrial Products
8A	213	E	Memory Experts International Ltd	516591 175813	Saracen House, Swan Street, Isleworth, Greater London, TW7 6RJ	Vehicle Components	Industrial Products
9	216	NW	Electricity Sub Station	516176 175916	Greater London, TW7	Electrical Features	Infrastructure and Facilities
10	226	SW	Electricity Sub Station	516204 175586	Greater London, TW7	Electrical Features	Infrastructure and Facilities
11	233	E	Ventive Ltd	516614 175802	Thames House, Swan Street, Isleworth, Greater London, TW7 6RS	Construction Completion Services	Construction Services
12	240	E	Electricity Sub Station	516610 175854	Greater London, TW7	Electrical Features	Infrastructure and Facilities

4.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

0

Database searched and no data found.

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site:

0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site:

0

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

5.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
KPGR-XSV	KEMPTON PARK GRAVEL MEMBER	SAND AND GRAVEL

5.3 Bedrock and Solid Geology

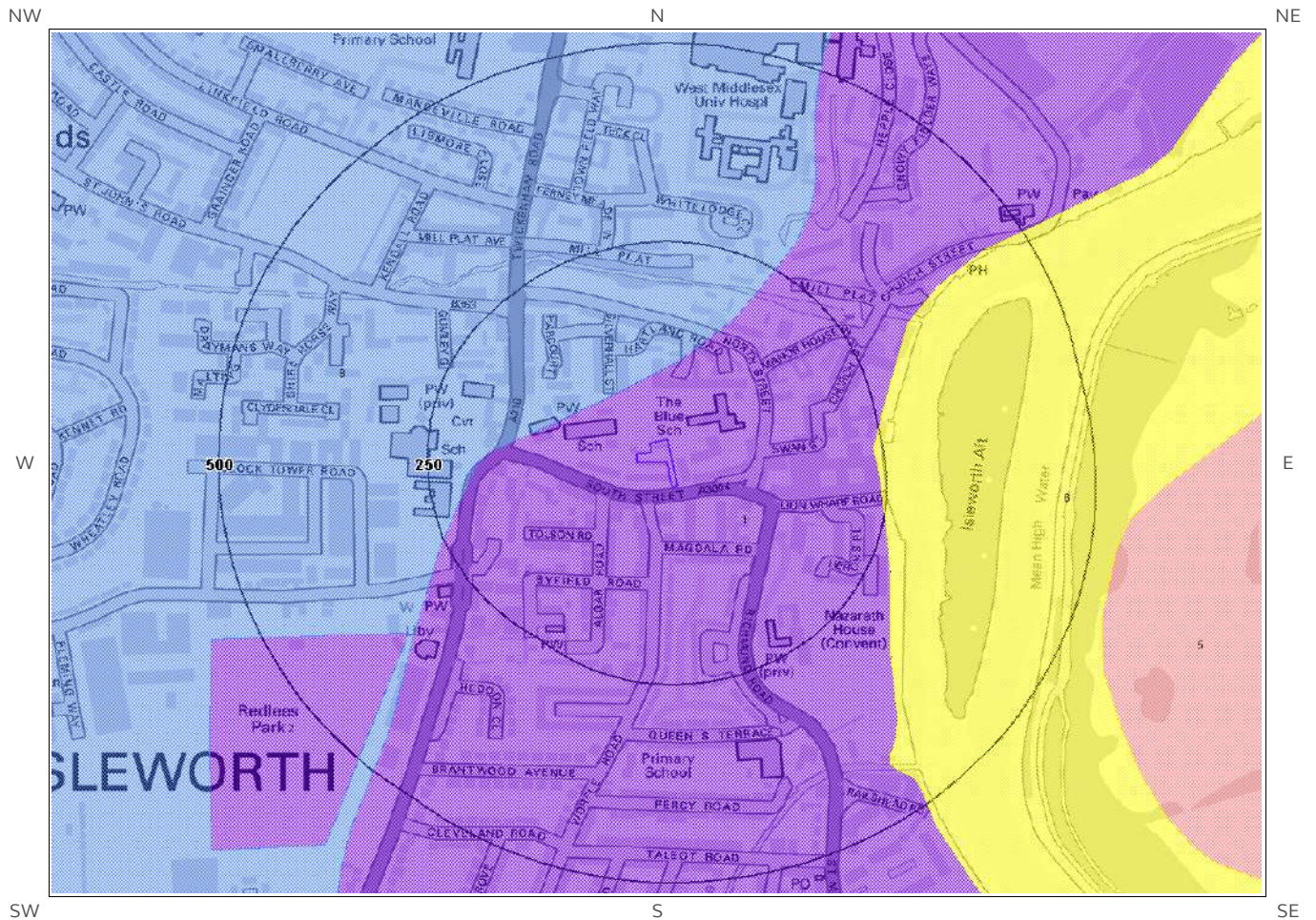
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
LC-XCZ	LONDON CLAY FORMATION	CLAY AND SILT

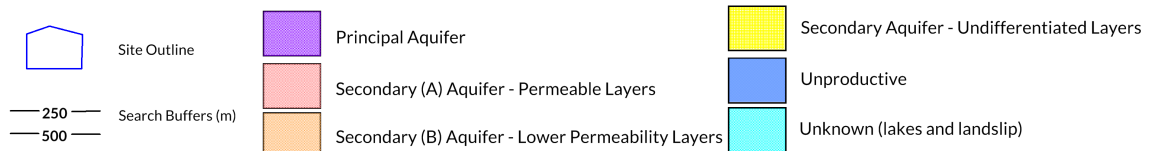
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

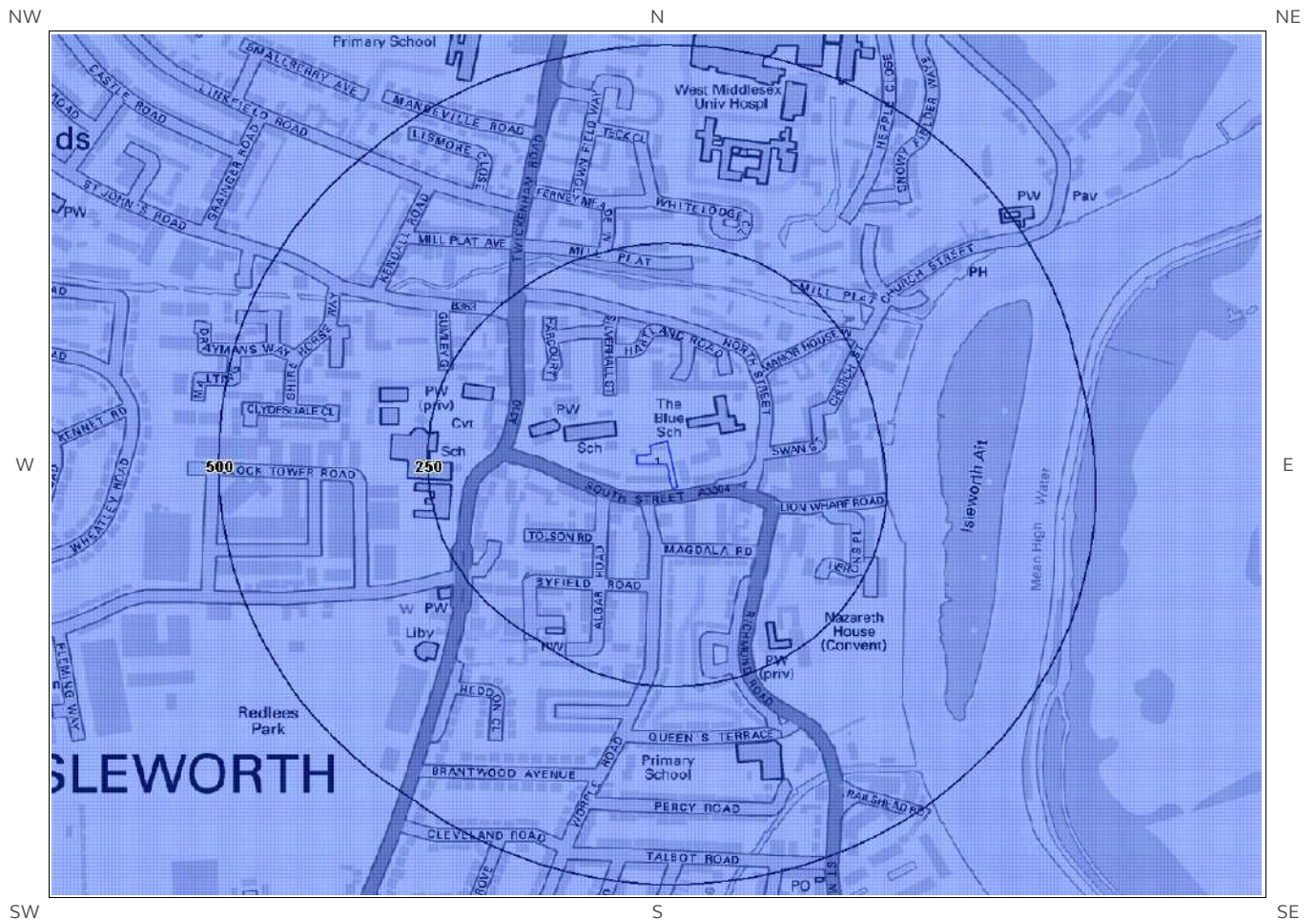
6a. Aquifer Within Superficial Geology



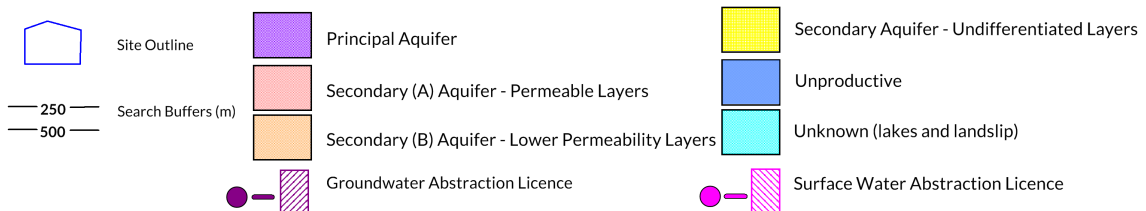
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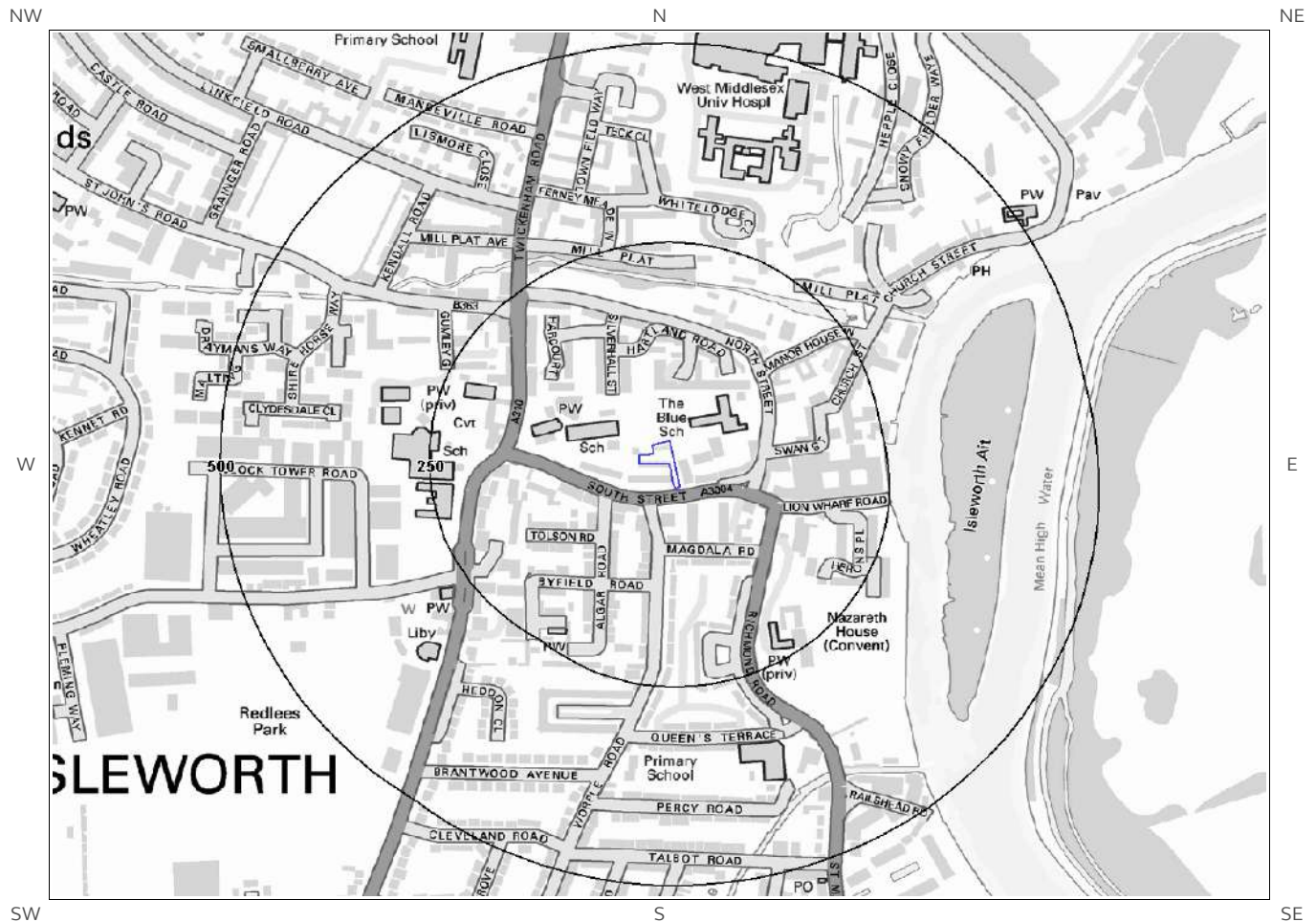
6b. Aquifer Within Bedrock Geology and Abstraction Licences



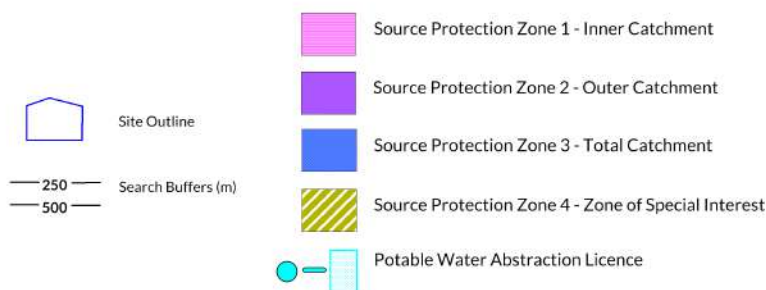
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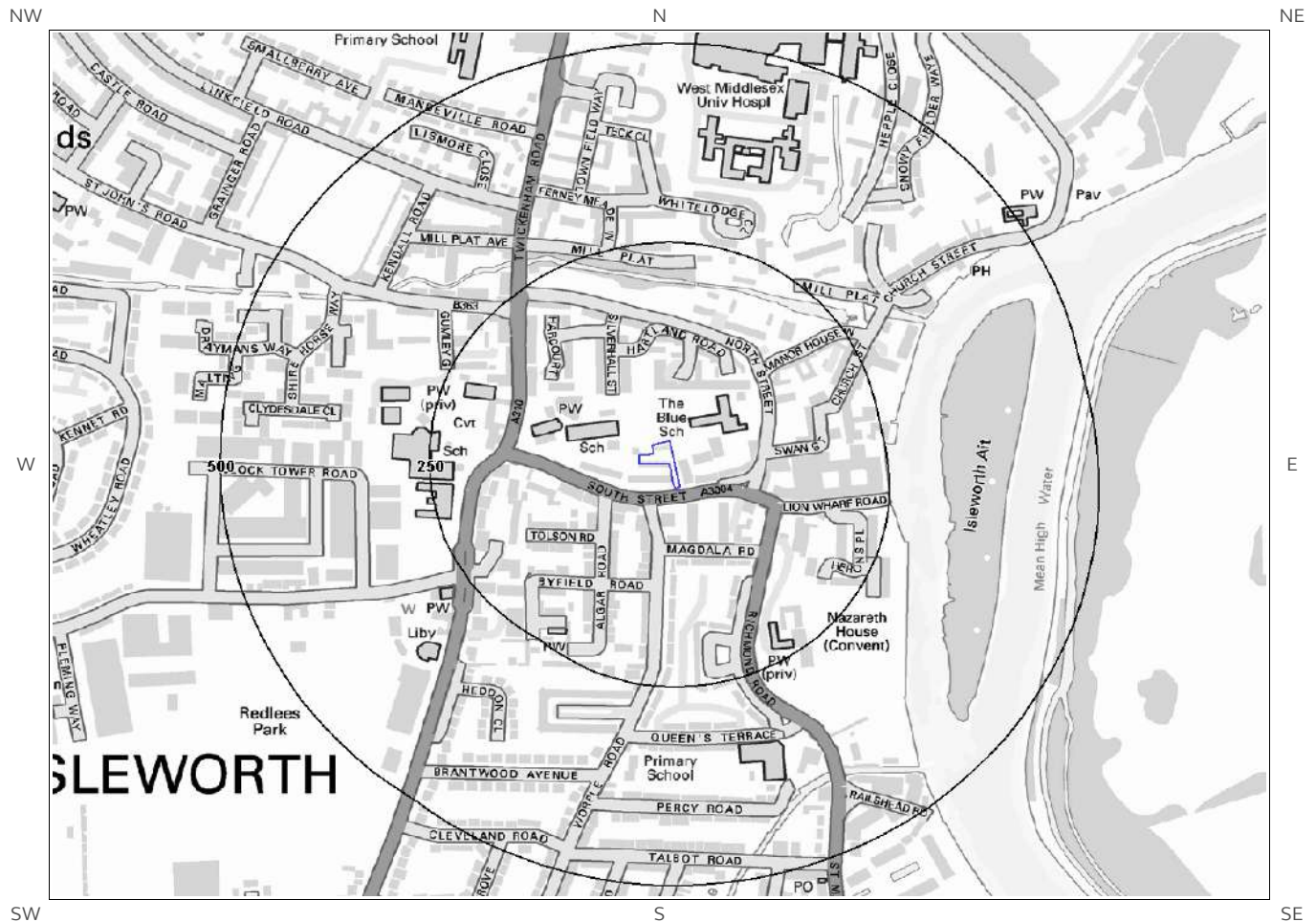
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licences



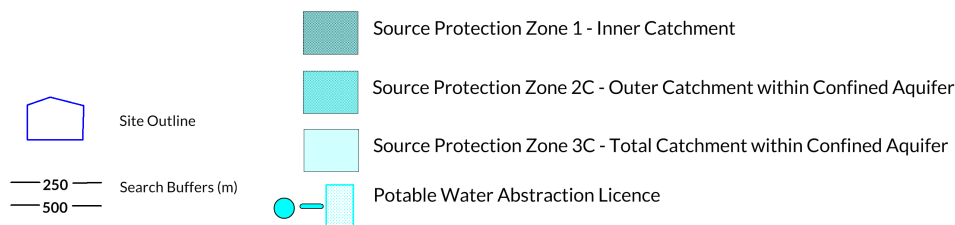
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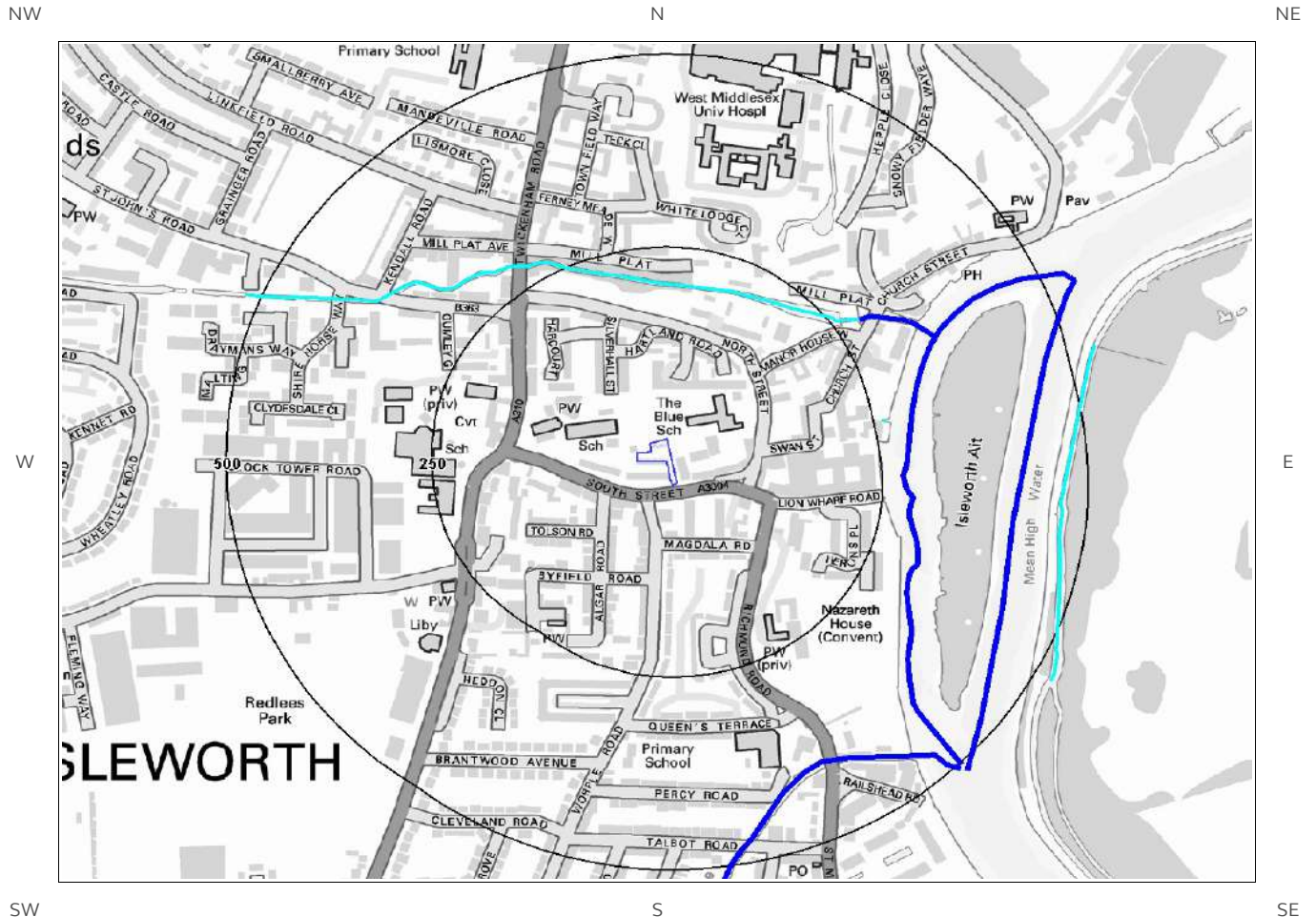
6d. Hydrogeology – Source Protection Zones within confined aquifer



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6e. Hydrology – Watercourse Network and River Quality



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6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Records of strata classification within the superficial geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
1	0	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
8	75	NW	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
6	239	E	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
2	347	SW	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

6.2 Aquifer within Bedrock Deposits

Records of strata classification within the bedrock geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the Groundsure Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

6.3 Groundwater Abstraction Licences

Groundwater Abstraction Licences within 2000m of the study site

Identified

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details
Not shown	1061	E	517460 175750	Status: Historical Licence No: 28/39/35/0006 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: GRAVEL AT ROYAL MID SURREY GOLF CLUB, RICHMOND Data Type: Line Name: ROYAL MID SURREY GOLF CLUB Annual Volume (m³): 43000 Max Daily Volume (m³): 480 Original Application No: - Original Start Date: 28/03/1996 Expiry Date: - Issue No: 100 Version Start Date: 28/03/1996 Version End Date:
Not shown	1061	E	517450 175700	Status: Active Licence No: 28/39/35/0006 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: BOREHOLE B GRAVEL AT ROYAL MID SURREY GOLF CLUB, RICHMOND Data Type: Point Name: ROYAL MID SURREY GOLF CLUB Annual Volume (m³): 43000 Max Daily Volume (m³): 480 Original Application No: - Original Start Date: 28/03/1996 Expiry Date: - Issue No: 100 Version Start Date: 28/03/1996 Version End Date:
Not shown	1070	E	517460 175750	Status: Active Licence No: 28/39/35/0006 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: BOREHOLE A GRAVEL AT ROYAL MID SURREY GOLF CLUB, RICHMOND Data Type: Point Name: ROYAL MID SURREY GOLF CLUB Annual Volume (m³): 43000 Max Daily Volume (m³): 480 Original Application No: - Original Start Date: 28/03/1996 Expiry Date: - Issue No: 100 Version Start Date: 28/03/1996 Version End Date:
Not shown	1158	NE	517100 176700	Status: Active Licence No: 28/39/37/0005 Details: Horticultural Watering Direct Source: THAMES GROUNDWATER Point: BOREHOLE 'B' AT SYON PARK, BRENTFORD Data Type: Point Name: Trustees Of Syon Park Estate Annual Volume (m³): 9092 Max Daily Volume (m³): 218.2 Original Application No: - Original Start Date: 29/07/1982 Expiry Date: - Issue No: 102 Version Start Date: 28/09/2010 Version End Date:
Not shown	1158	NE	517100 176700	Status: Active Licence No: 28/39/37/0005 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: BOREHOLE 'B' AT SYON PARK, BRENTFORD Data Type: Point Name: Trustees Of Syon Park Estate Annual Volume (m³): 9092 Max Daily Volume (m³): 218.2 Original Application No: - Original Start Date: 29/07/1982 Expiry Date: - Issue No: 102 Version Start Date: 28/09/2010 Version End Date:
Not shown	1209	S	516800 174600	Status: Historical Licence No: 28/39/34/0006 Details: Lake & Pond Throughflow Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT ST. MARGARET'S LAKE, TWICKENHAM Data Type: Point Name: ST MARGARETS RES GROUNDS Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 08/10/1982 Expiry Date: - Issue No: 100 Version Start Date: 08/10/1982 Version End Date:

ID	Distance (m)	Direction	NGR	Details	
Not shown	1356	NE	517000 177000	Status: Active Licence No: 28/39/37/0005 Details: Horticultural Watering Direct Source: THAMES GROUNDWATER Point: BOREHOLE 'A' AT SYON PARK, BRENTFORD Data Type: Point Name: Trustees Of Syon Park Estate	Annual Volume (m³): 9092 Max Daily Volume (m³): 218.2 Original Application No: - Original Start Date: 29/07/1982 Expiry Date: - Issue No: 102 Version Start Date: 28/09/2010 Version End Date:
Not shown	1356	NE	517000 177000	Status: Active Licence No: 28/39/37/0005 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: BOREHOLE 'A' AT SYON PARK, BRENTFORD Data Type: Point Name: Trustees Of Syon Park Estate	Annual Volume (m³): 9092 Max Daily Volume (m³): 218.2 Original Application No: - Original Start Date: 29/07/1982 Expiry Date: - Issue No: 102 Version Start Date: 28/09/2010 Version End Date:
Not shown	1413	E	517800 175650	Status: Active Licence No: 28/39/35/0009 Details: Spray Irrigation - Direct Direct Source: THAMES GROUNDWATER Point: GRAVEL AT RICHMOND ATHLETICS GROUND, KEW FOOT ROAD, RICHMOND Data Type: Point Name: RICHMOND ATHLETICS ASSOC LTD	Annual Volume (m³): 15911 Max Daily Volume (m³): 75 Original Application No: - Original Start Date: 25/03/1992 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date:
Not shown	1632	W	514740 176090	Status: Historical Licence No: 28/39/37/0008 Details: Pollution Remediation Direct Source: THAMES GROUNDWATER Point: POINT 'A' AT BROADWAY SERVICE STATION, HOUNSLOW, MIDDLESEX Data Type: Point Name: TOTALFINAELF UK LTD	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 28/03/2002 Expiry Date: 31/03/2005 Issue No: 1 Version Start Date: 28/03/2002 Version End Date:
Not shown	1745	SE	517448 174350	Status: Active Licence No: TH/039/0034/003 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: THAMES GROUNDWATER Point: RIVER GRAVELS AT TWICKENHAM - POINT A Data Type: Point Name: Kier Construction Limited	Annual Volume (m³): 18144 Max Daily Volume (m³): 432 Original Application No: - Original Start Date: 23/04/2018 Expiry Date: 31/12/2018 Issue No: 1 Version Start Date: 23/04/2018 Version End Date:
Not shown	1745	SE	517490 174383	Status: Active Licence No: TH/039/0034/003 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: THAMES GROUNDWATER Point: RIVER GRAVELS AT TWICKENHAM - POINT B Data Type: Point Name: Kier Construction Limited	Annual Volume (m³): 18144 Max Daily Volume (m³): 432 Original Application No: - Original Start Date: 23/04/2018 Expiry Date: 31/12/2018 Issue No: 1 Version Start Date: 23/04/2018 Version End Date:
Not shown	1792	SE	517521 174347	Status: Active Licence No: TH/039/0034/003 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: THAMES GROUNDWATER Point: RIVER GRAVELS AT TWICKENHAM - POINT C Data Type: Point Name: Kier Construction Limited	Annual Volume (m³): 18144 Max Daily Volume (m³): 432 Original Application No: - Original Start Date: 23/04/2018 Expiry Date: 31/12/2018 Issue No: 1 Version Start Date: 23/04/2018 Version End Date:

ID	Distance (m)	Direction	NGR	Details
Not shown	1797	SE	517480 174308	Status: Active Licence No: TH/039/0034/003 Details: Transfer Between Sources (Post Water Act 2003) Direct Source: THAMES GROUNDWATER Point: RIVER GRAVELS AT TWICKENHAM - POINT D Data Type: Point Name: Kier Construction Limited Annual Volume (m³): 18144 Max Daily Volume (m³): 432 Original Application No: - Original Start Date: 23/04/2018 Expiry Date: 31/12/2018 Issue No: 1 Version Start Date: 23/04/2018 Version End Date:

6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site

Identified

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details
Not shown	1299	SW	515410 174860	Status: Historical Licence No: 28/39/37/0007 Details: Non-Evaporative Cooling Direct Source: THAMES SURFACE WATER - NON TIDAL Point: MOGDEN SEWAGE TREATMENT WORKS, ISLEWORTH Data Type: Point Name: THAMES WATER UTILITIES LTD Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: - Expiry Date: 31/08/2009 Issue No: 1 Version Start Date: 17/08/1999 Version End Date:
Not shown	1299	SW	515410 174860	Status: Historical Licence No: 28/39/37/0007 Details: General Use Relating To Secondary Category (Low Loss) Direct Source: THAMES SURFACE WATER - NON TIDAL Point: D.OF NORTHUMBERLAND- MOGDEN SEWAGE TREATMENT WRKS, ISLEWORTH Data Type: Point Name: THAMES WATER UTILITIES LTD Annual Volume (m³): 1.752e+006 Max Daily Volume (m³): 7200 Application No: - Original Start Date: 17/08/1999 Expiry Date: 31/08/2009 Issue No: 1 Version Start Date: 01/01/2007 Version End Date:
Not shown	1299	SW	515410 174860	Status: Historical Licence No: 28/39/37/0007 Details: Non-Evaporative Cooling Direct Source: THAMES SURFACE WATER - NON TIDAL Point: D.OF NORTHUMBERLAND- MOGDEN SEWAGE TREATMENT WRKS, ISLEWORTH Data Type: Point Name: THAMES WATER UTILITIES LTD Annual Volume (m³): 1.752e+006 Max Daily Volume (m³): 7200 Application No: - Original Start Date: 17/08/1999 Expiry Date: 31/08/2009 Issue No: 1 Version Start Date: 17/08/1999 Version End Date:
Not shown	1304	SW	515406 174858	Status: Historical Licence No: TH/039/0037/001 Details: General Use Relating To Secondary Category (Low Loss) Direct Source: THAMES SURFACE WATER - NON TIDAL Point: DUKE OF NORTHUMBERLAND RIVER - MOGDEN SEWAGE TREATMENT WORKS Data Type: Point Name: THAMES WATER UTILITIES LTD Annual Volume (m³): 1.752e+006 Max Daily Volume (m³): 7200 Application No: - Original Start Date: 12/08/2009 Expiry Date: 31/03/2013 Issue No: 1 Version Start Date: 12/08/2009 Version End Date:
Not shown	1304	SW	515406 174858	Status: Historical Licence No: TH/039/0037/001 Details: Non-Evaporative Cooling Direct Source: THAMES SURFACE WATER -

ID	Distance (m)	Direction	NGR	Details
Not shown	1304	SW	515406 174858	NON TIDAL Point: DUKE OF NORTHUMBERLAND RIVER - MOGDEN SEWAGE TREATMENT WORKS Data Type: Point Name: THAMES WATER UTILITIES LTD Expiry Date: 31/03/2013 Issue No: 1 Version Start Date: 12/08/2009 Version End Date:
				Status: Active Licence No: TH/039/0037/004 Details: General Use Relating To Secondary Category (Low Loss) Direct Source: THAMES SURFACE WATER - NON TIDAL Point: DUKE OF NORTHUMBERLAND RIVER - MOGDEN SEWAGE TREATMENT WORKS Data Type: Point Name: THAMES WATER UTILITIES LTD Annual Volume (m³): 1.752e+006 Max Daily Volume (m³): 7200 Application No: - Original Start Date: 01/04/2013 Expiry Date: 31/03/2025 Issue No: 1 Version Start Date: 01/04/2013 Version End Date:

6.5 Potable Water Abstraction Licences

Potable Water Abstraction Licences within 2000m of the study site

None identified

Database searched and no data found.

6.6 Source Protection Zones

Source Protection Zones within 500m of the study site

None identified

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Source Protection Zones within the Confined Aquifer within 500m of the study site

None identified

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site Identified

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
308	E	Major Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
447	E	Major Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.

6.9 River Quality

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site None identified

6.9.1 Biological Quality:

Database searched and no data found.

6.9.2 Chemical Quality:

Database searched and no data found.

6.10 Ordnance Survey MasterMap Water Network

Ordnance Survey MasterMap Water Network entries within 500m of the study site

This watercourse information is provided by Ordnance Survey MasterMap Water Network. The data provides a detailed centre line following the curve of the waterway precisely, so all distances provided in the report should be understood as measurements to the centreline rather than a measurement to the nearest point of the watercourse. Underground watercourses are inferred from entry and exit points so caution is advised in using these to indicate precise locations of underground watercourses when planning site investigation and development.

The following Ordnance Survey MasterMap Water Network records are represented on the Hydrology Map (6e):

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
1	200 N	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.2
2	200 N	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 8.9
8	200 N	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 5.2
9	200 N	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 8.9
3	211 NE	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 8.8
10	211 NE	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 8.8
4	262 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
11	262 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
5	263 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
12	263 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
6	275 E	River Thames	Tidal river or stream.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
13	275 E	River Thames	Tidal river or stream.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions)

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
				Average Width in Watercourse Section (m): Not Provided
7	281 NE	Duke of Northumberland's River	Tidal river or stream.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
14	281 NE	Duke of Northumberland's River	Tidal river or stream.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
8	284 NW	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.6
15	284 NW	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.6
9	332 NE	Duke of Northumberland's River	Tidal river or stream.	Catchment Area: Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
16	332 NE	Duke of Northumberland's River	Tidal river or stream.	Catchment Area: Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
10	353 E	River Thames	Tidal river or stream.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
17	353 E	River Thames	Tidal river or stream.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
11	372 NW	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.8
18	372 NW	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.8
12	402 SE	River Crane	Tidal river or stream.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	402 SE	River Crane	Tidal river or stream.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
13	411 E	River Thames	Tidal river or stream.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
Not shown	411 E	River Thames	Tidal river or stream.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
14	420 NW	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.2
Not shown	420 NW	Duke of Northumberland's River	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 4.2
15	468 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.8
Not shown	468 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Thames Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 7.8

6.11 Surface Water Features

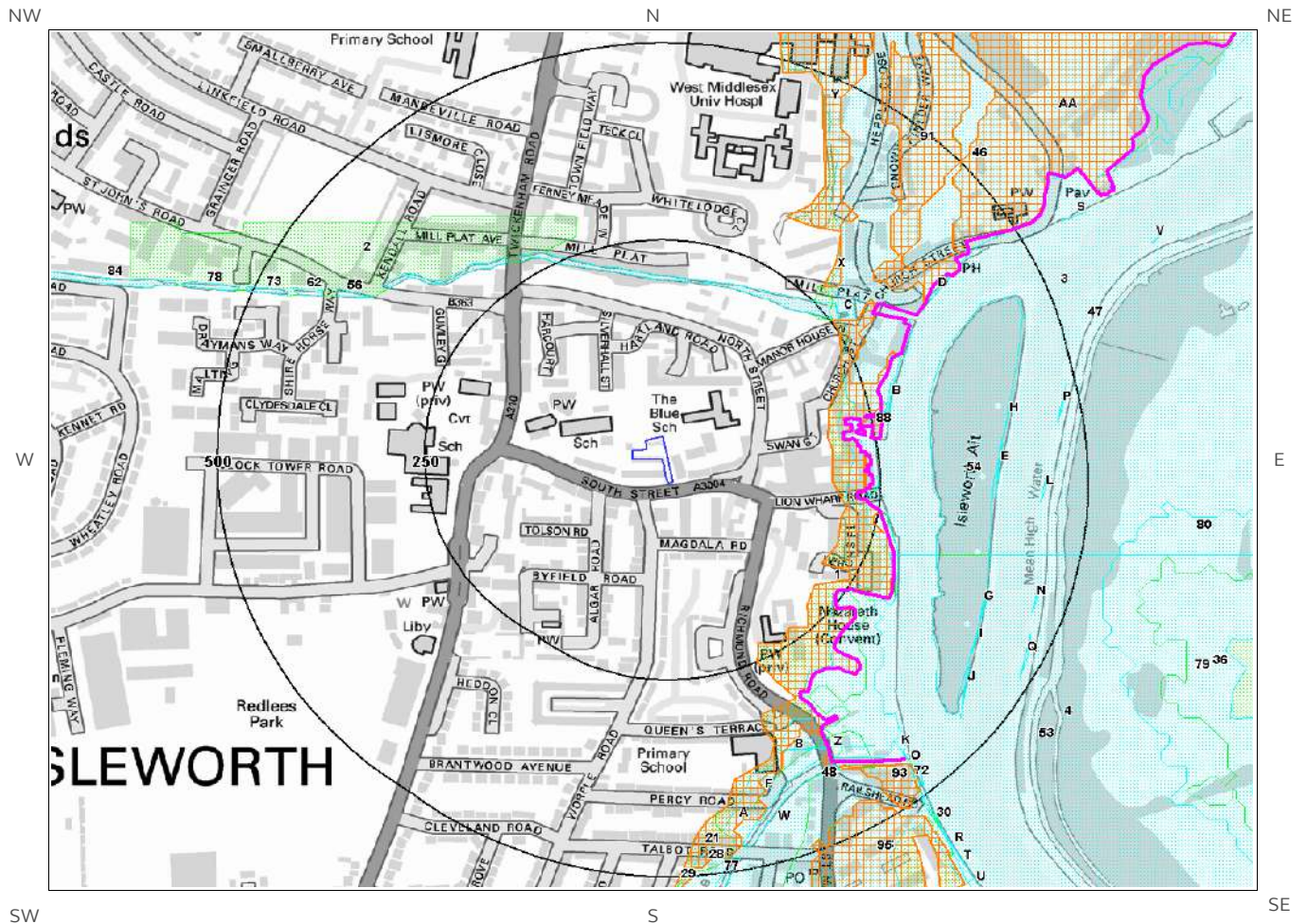
Surface water features within 250m of the study site

Identified

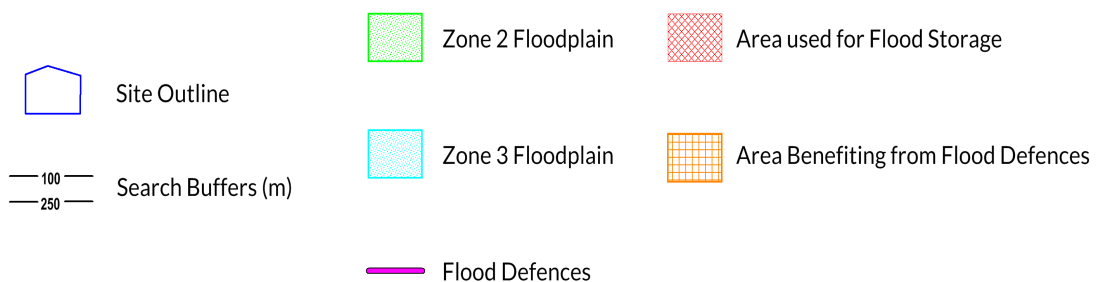
The following surface water records are not represented on mapping:

Distance (m)	Direction
246	E
198	N
198	N

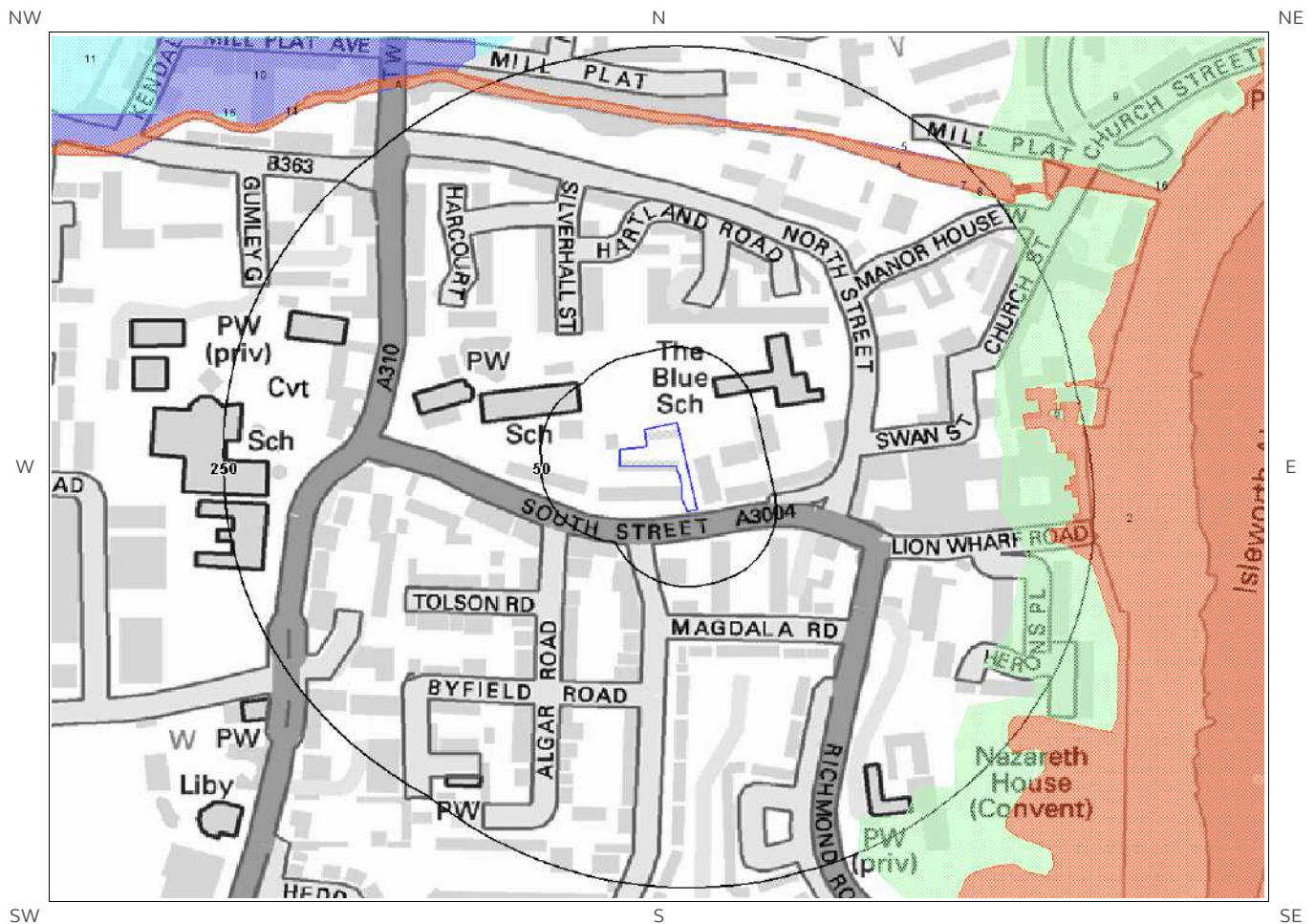
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



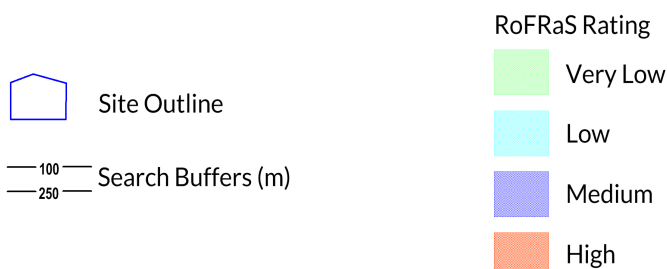
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7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



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7 Flooding

7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m

Identified

Environment Agency/Natural Resources Wales Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 7a – Flood Map for Planning:

ID	Distance (m)	Direction	Update	Type
1	192	E	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)
2	198	N	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)
3	213	E	21-Feb-2019	Zone 2 - (Fluvial /Tidal Models)

7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m

Identified

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

ID	Distance (m)	Direction	Update	Type
1	198	N	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
2	207	E	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
3	213	E	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)
	237	SE	21-Feb-2019	Zone 3 - (Fluvial /Tidal Models)

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

Highest risk of flooding onsite

Very Low

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

7.4 Flood Defences

Flood Defences within 250m of the study site

Identified

The following flood defence records are represented as lines on the Flood Map:

ID	Distance (m)	Direction	Update
96	213	E	21-Feb-2019

7.5 Areas benefiting from Flood Defences

Areas benefiting from Flood Defences within 250m of the study site

Identified

7.6 Areas benefiting from Flood Storage

Areas used for Flood Storage within 250m of the study site

None identified

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site

Identified

Clearwater Flooding or Superficial Deposits Flooding

Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

7.7.2 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions

Potential below Surface

Where potential for groundwater flooding of property situated below ground level is indicated, this means that given the geological conditions there may be a groundwater flooding hazard to basements and other below surface infrastructure. Unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area you need take no further action in relation to groundwater flooding hazard. If there are records of previous incidences of groundwater flooding, then is recommended that other information e.g. rainfall history, property type, and land drainage information in addition to previous records of flooding be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

7.8 Groundwater Flooding Confidence Areas

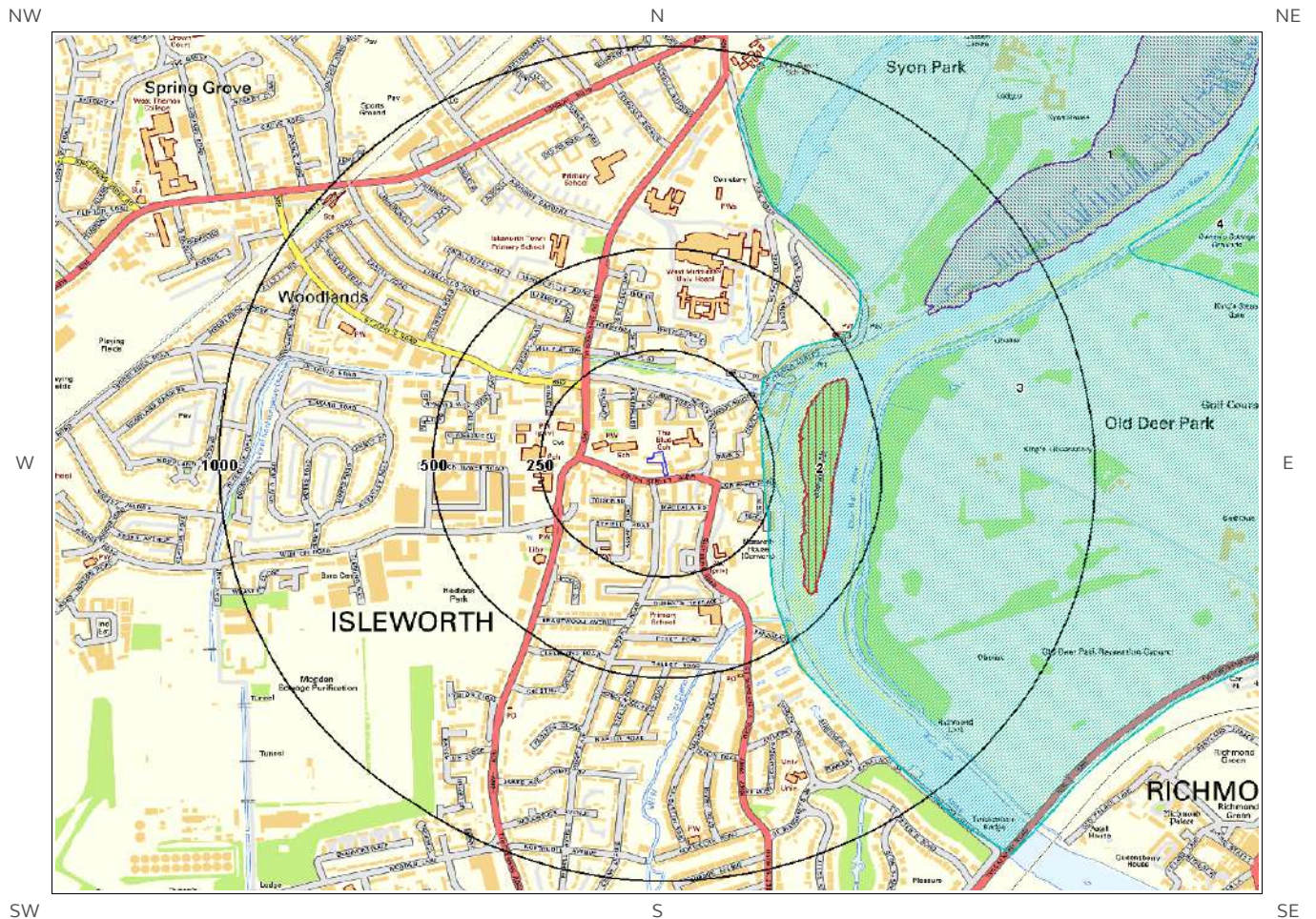
British Geological Survey confidence rating in this result

Moderate

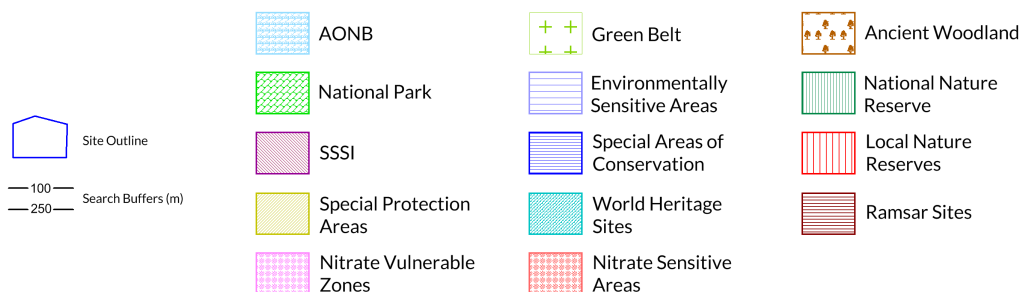
Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

8. Designated Environmentally Sensitive Sites Map



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8. Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites within 2000m of the study site

Identified

8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

1

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
1	708	NE	Syon Park	Natural England

8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:

0

Database searched and no data found.

8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:

0

Database searched and no data found.

8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:

0

Database searched and no data found.

8.5 Records of Ramsar sites within 2000m of the study site:

0

Database searched and no data found.

8.6 Records of Ancient Woodland within 2000m of the study site:

0

Database searched and no data found.

8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

1

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
2	312	E	Isleworth Ait	Natural England

8.8 Records of World Heritage Sites within 2000m of the study site:

2

The following World Heritage Site records provided by English Heritage and Cadw are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	World Heritage Site Name	Data Source
3	224	E	Royal Botanic Gardens, Kew Buffer Zone	Historic England
4	1201	NE	Royal Botanic Gardens, Kew	Historic England

8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

8.11 Records of National Parks (NP) within 2000m of the study site:

0

Database searched and no data found.

8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0

Database searched and no data found.

8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

0

Database searched and no data found.

8.14 Records of Green Belt land within 2000m of the study site:

0

Database searched and no data found.

9. Natural Hazards Findings

9.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **Groundsure Geo Insight**, available from our **website**. The following information has been found:

9.1.1 Shrink Swell

Maximum Shrink-Swell** hazard rating identified on the study site Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.

9.1.2 Landslides

Maximum Landslide* hazard rating identified on the study site Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

9.1.3 Soluble Rocks

Maximum Soluble Rocks* hazard rating identified on the study site Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

* This indicates an automatically generated 50m buffer and site.

9.1.4 Compressible Ground

Maximum Compressible Ground* hazard rating identified on the study site

Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

9.1.5 Collapsible Rocks

Maximum Collapsible Rocks* hazard rating identified on the study site

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

9.1.6 Running Sand

Maximum Running Sand** hazard rating identified on the study site

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard
Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

* This indicates an automatically generated 50m buffer and site.

9.2 Radon

9.2.1 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

9.2.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

10. Mining

10.1 Coal Mining

Coal mining areas within 75m of the study site

None identified

Database searched and no data found.

10.2 Non-Coal Mining

Non-Coal Mining areas within 50m of the study site boundary

None identified

Database searched and no data found.

10.3 Brine Affected Areas

Brine affected areas within 75m of the study site

None identified

Guidance: No Guidance Required.

Contact Details

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com

British Geological Survey Enquiries

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:

Web: www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries:
enquiries@bgs.ac.uk

Environment Agency

National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 03708 506 506

Web: www.environment-agency.gov.uk

Email: enquiries@environment-agency.gov.uk

Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe

Email: enquiries@phe.gov.uk
Main switchboard: 020 7654 8000

The Coal Authority

200 Lichfield Lane
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Tel: 0345 7626 848
DX 716176 Mansfield 5
www.coal.gov.uk

Ordnance Survey

Adanac Drive, Southampton
SO16 0AS
Tel: 08456 050505

Local Authority

Authority: London Borough of Hounslow
Phone: 020 8583 2000

Web: <http://www.hounslow.gov.uk/>

Address: Civic Centre, Lampton Road, Hounslow, London, TW3 4DN

Gemapping PLC

Virginia Villas, High Street, Hartley Witney,
Hampshire RG27 8NW
Tel: 01252 845444



Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, Natural England/Natural Resources Wales who retain the Copyright and Intellectual Property Rights for the data.

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<https://www.groundsure.com/terms-and-conditions-feb11-2019>

Arcadis Consulting UK Ltd
PO Box, 307,
MANCHESTER, M60 3NT

Groundsure Reference: GS-5910751

Your Reference: 14023929_

Report Date 28 Mar 2019

Report Delivery Method: Email - pdf

Geo Insight

Address: SWANN COURT, LONDON, TW7 7AN

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geo Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,



Managing Director
Groundsure Limited

Enc.
Groundsure Geo Insight

Address: SWANN COURT, LONDON, TW7 7AN

Date: 28 Mar 2019

Reference: GS-5910751

Client: Arcadis Consulting UK Ltd



Aerial Photograph Capture date: 20-Apr-2015

Grid Reference: 516369,175778

Site Size: 0.1015ha

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Overview of Findings

The Groundsure Geo Insight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 and 1:10,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Non-coal mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and Groundsure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Geology 1:10,000 Scale

1.1 Artificial Ground	1.1 Is there any Artificial Ground/ Made Ground present beneath the study site at 1:10,000 scale?	No
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	Yes
	1.2.2 Are there any records of landslide within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and linear features	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale?	No

Section 2: Geology 1:50,000 Scale

2.1 Artificial Ground	2.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No
	2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?	No
2.2 Superficial Geology and Landslips	2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
	2.2.2 Are there any records of permeability of superficial ground within 500m of the study site?	Yes
	2.2.3 Are there any records of landslide within 500m of the study site boundary?	No
	2.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No

Section 2: Geology 1:50,000 Scale

2.3 Bedrock, Solid Geology and linear features

2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.

2.3.2 Are there any records relating to permeability of bedrock ground within the study site boundary?

Yes

2.3.3 Are there any records of linear features within 500m of the study site boundary?

No

Section 3: Radon

3. Radon

3.1 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

3.2 Radon Protection

No radon protective measures are necessary.

Section 4: Ground Workings

	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Ground Working Features from Small Scale Mapping	0	0	6	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	3
4.3 Current Ground Workings	0	0	0	0	0

Section 5: Mining, Extraction & Natural Cavities

	On-site	0-50m	51-250	251-500	501-1000
5.1 Historical Mining	0	0	0	0	0
5.2 Coal Mining	0	0	0	0	0
5.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
5.4 Non-Coal Mining*	0	0	0	0	0
5.5 Non-Coal Mining Cavities	0	0	0	0	0
5.5 Natural Cavities	0	0	0	0	0

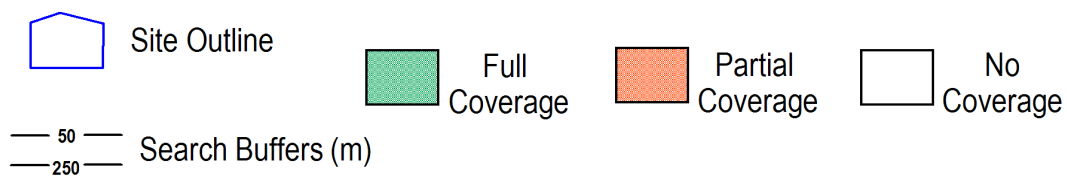
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Tin Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-site				
6.1 Shrink-Swell Clay	Negligible				
6.2 Landslides	Very Low				
6.3 Ground Dissolution of Soluble Rocks	Negligible				
6.4 Compressible Deposits	Negligible				
6.5 Collapsible Deposits	Very Low				
6.5 Running Sand	Very Low				
Section 7: Borehole Records	On-site	0-50m	51-250		
7 BGS Recorded Boreholes	0	0	25		
Section 8: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
8 Records of Background Soil Chemistry	1	0	0		
Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500	
9.1 Tunnels	0	0	0	Not Searched	
9.2 Historical Railway and Tunnel Features	0	0	0	Not Searched	
9.3 Historical Railways	0	0	0	Not Searched	
9.4 Active Railways	0	0	0	Not Searched	
9.5 Railway Projects	0	0	0	0	

1:10,000 Scale Availability



1_10,000 Availability Legend

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Availability of 1:10,000 Scale Geology Mapping

The following information represents the availability of the key components of the 1:10,000 scale geological data.

ID	Distance	Artificial Coverage	Superficial Coverage	Bedrock Coverage	Mass Movement Coverage
1	0.0	Some deposits are mapped	Full	Full	No coverage
2	736.0	Some deposits are mapped	Full	Full	Some deposits are mapped
3	1342.0	Some deposits are mapped	Full	Full	No coverage
4	1545.0	Some deposits are mapped	Full	Full	No coverage

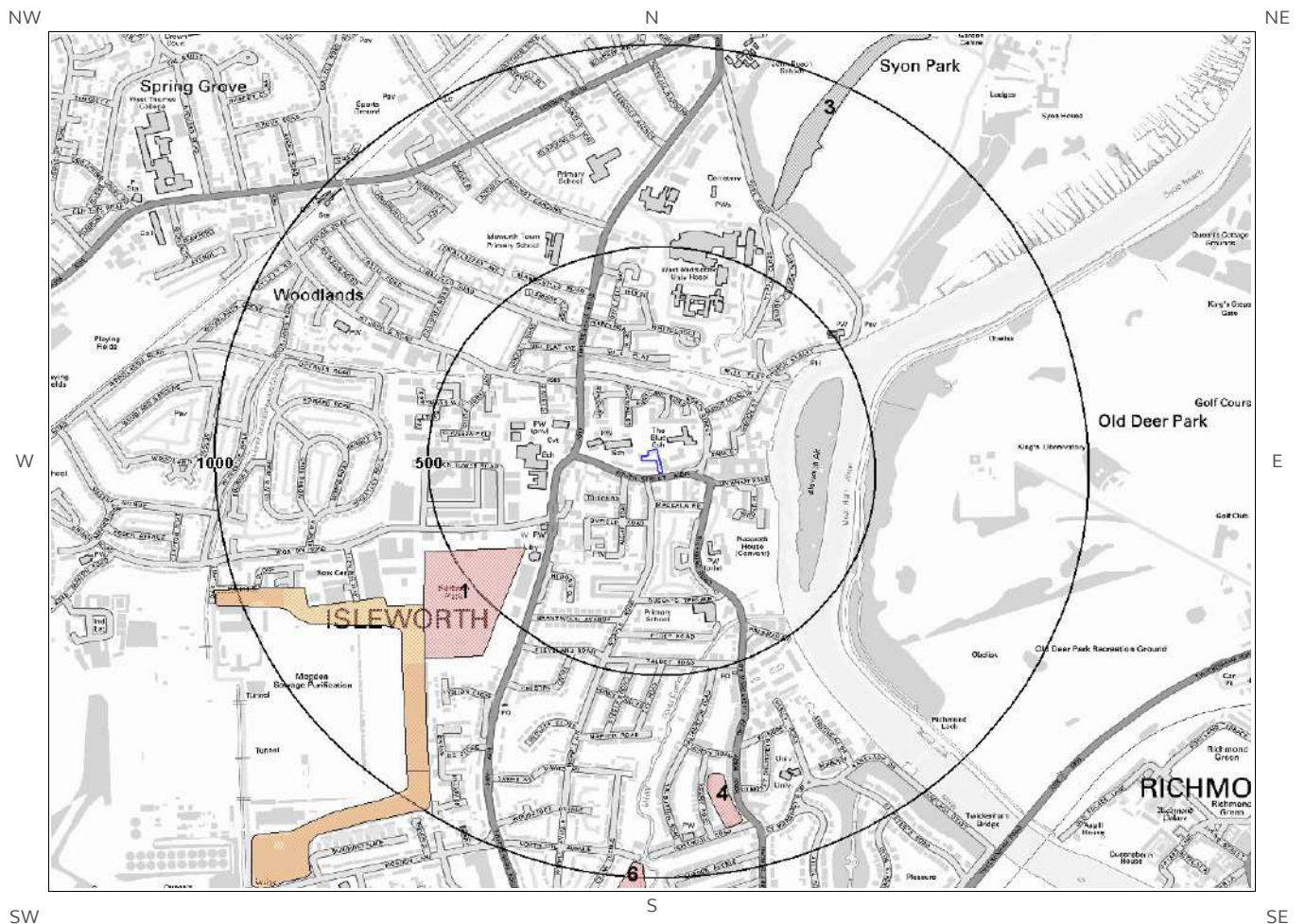
Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not all themes are mapped or available on every map sheet. Therefore a coverage layer showing the availability of the four themes is presented above.

The definitions of coverage are as follows:

Geology	Full Coverage	Partial Coverage	No Coverage
Bedrock	The whole tile has been mapped	Some but not all the tile has been mapped	No coverage
Superficial	The whole tile has been mapped	Some but not all of the tile has been mapped	No coverage
Artificial	Some deposits are mapped on this tile	-	No deposits are mapped
Mass Movement	Some deposits are mapped on this tile	-	No coverage

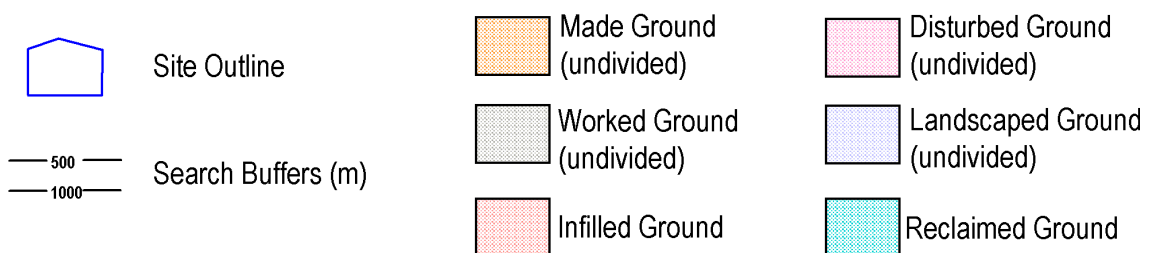
1 Geology (1:10,000 scale).

1.1 Artificial Ground map (1:10,000 scale)



Artificial Ground Legend

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1. Geology 1:10,000 scale

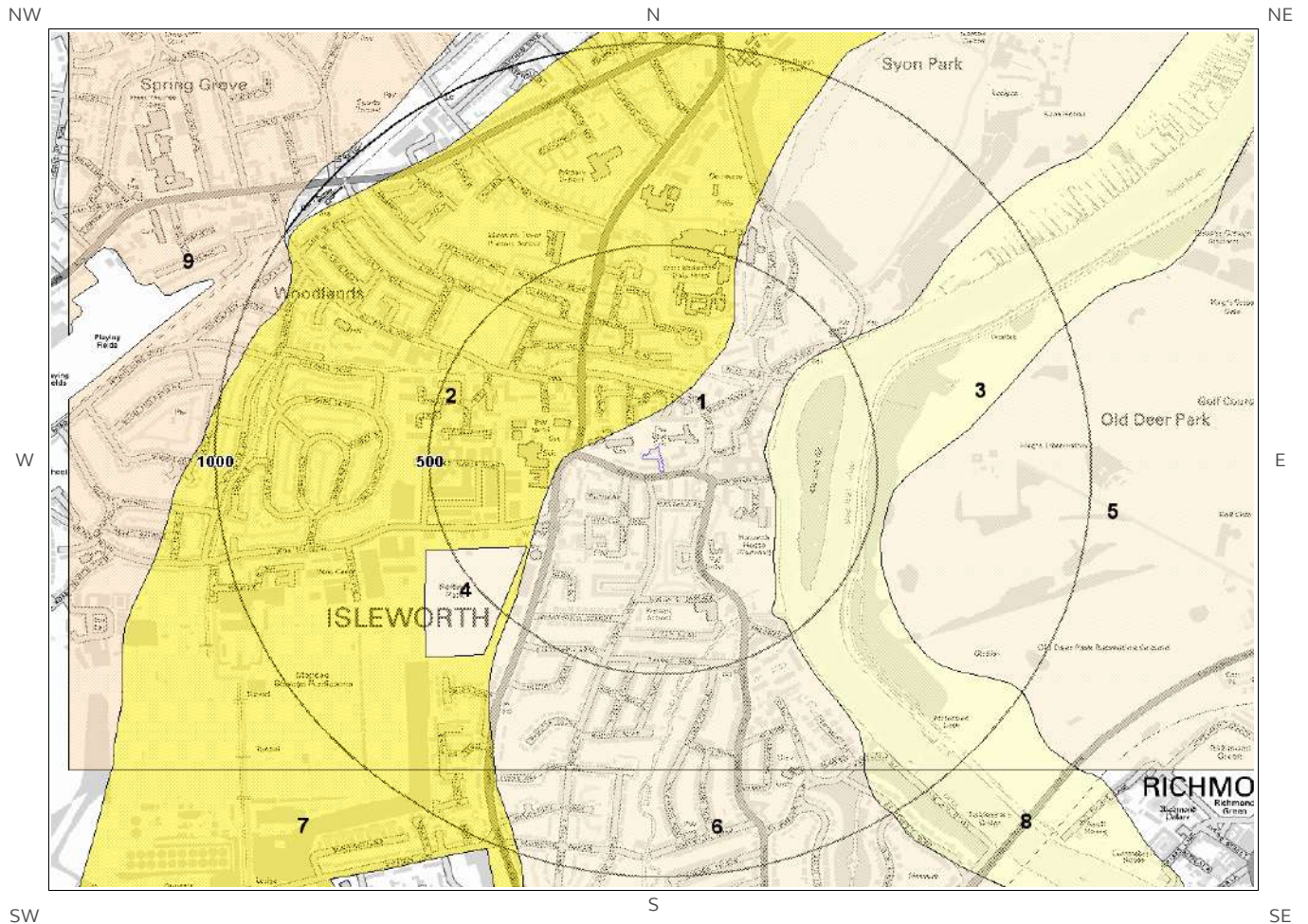
1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

Are there any records of Artificial/ Made Ground within 500m of the study site boundary at 1:10,000 scale? Yes

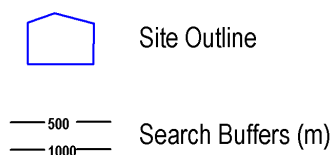
ID	Distance	Direction	LEX Code	Description	Rock Description
1	347.0	SW	WMGR- UNKNOWN	Infilled Ground	Unknown/unclassified Entry

1.2 Superficial Deposits and Landslips map (1:10,000 scale)



Artificial Ground Legend

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1.2 Superficial Deposits and Landslips

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping

1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary at 1:10,000 scale? Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	KPGR-XSV	Kempton Park Gravel Formation - Sand And Gravel	Sand And Gravel
2	76.0	NW	LASI-Z	Langley Silt Member - Silt (unlithified Deposits Coding Scheme)	Silt
3	239.0	E	ALV-Z	Alluvium - Silt (unlithified Deposits Coding Scheme)	Silt
4	347.0	SW	KPGR-XSV	Kempton Park Gravel Formation - Sand And Gravel	Sand And Gravel

1.2.2 Landslip

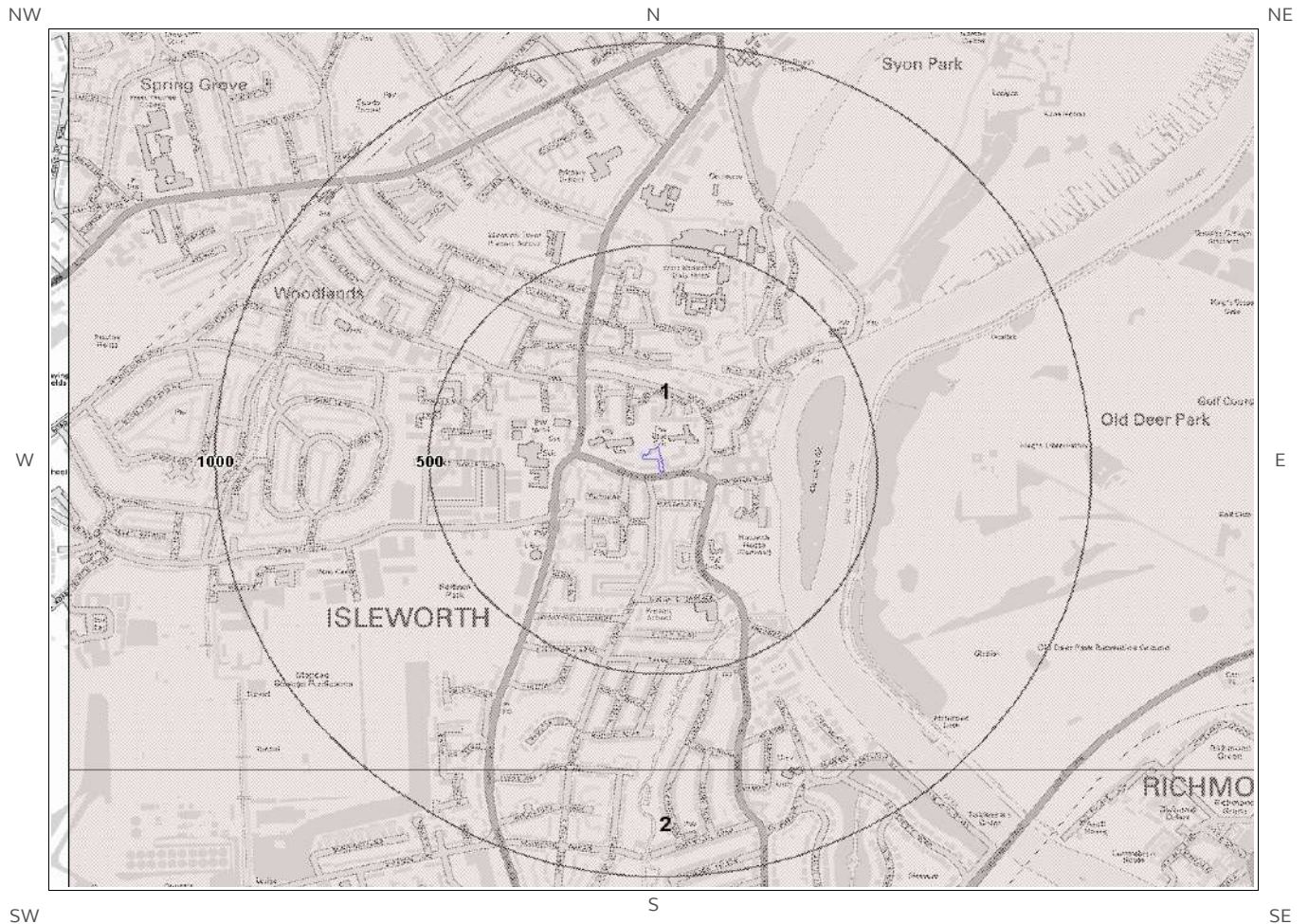
Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:10,000 scale

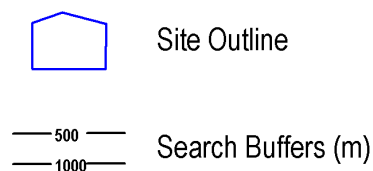
This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.3 Bedrock and linear features map (1:10,000 scale)



Bedrock and linear features Legend

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1.3 Bedrock and linear features

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

1.3.1 Bedrock/ Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary at 1:10,000 scale.

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	LC-CLAY	London Clay Formation - Clay	Eocene Epoch

1.3.2 Linear features

Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale? No

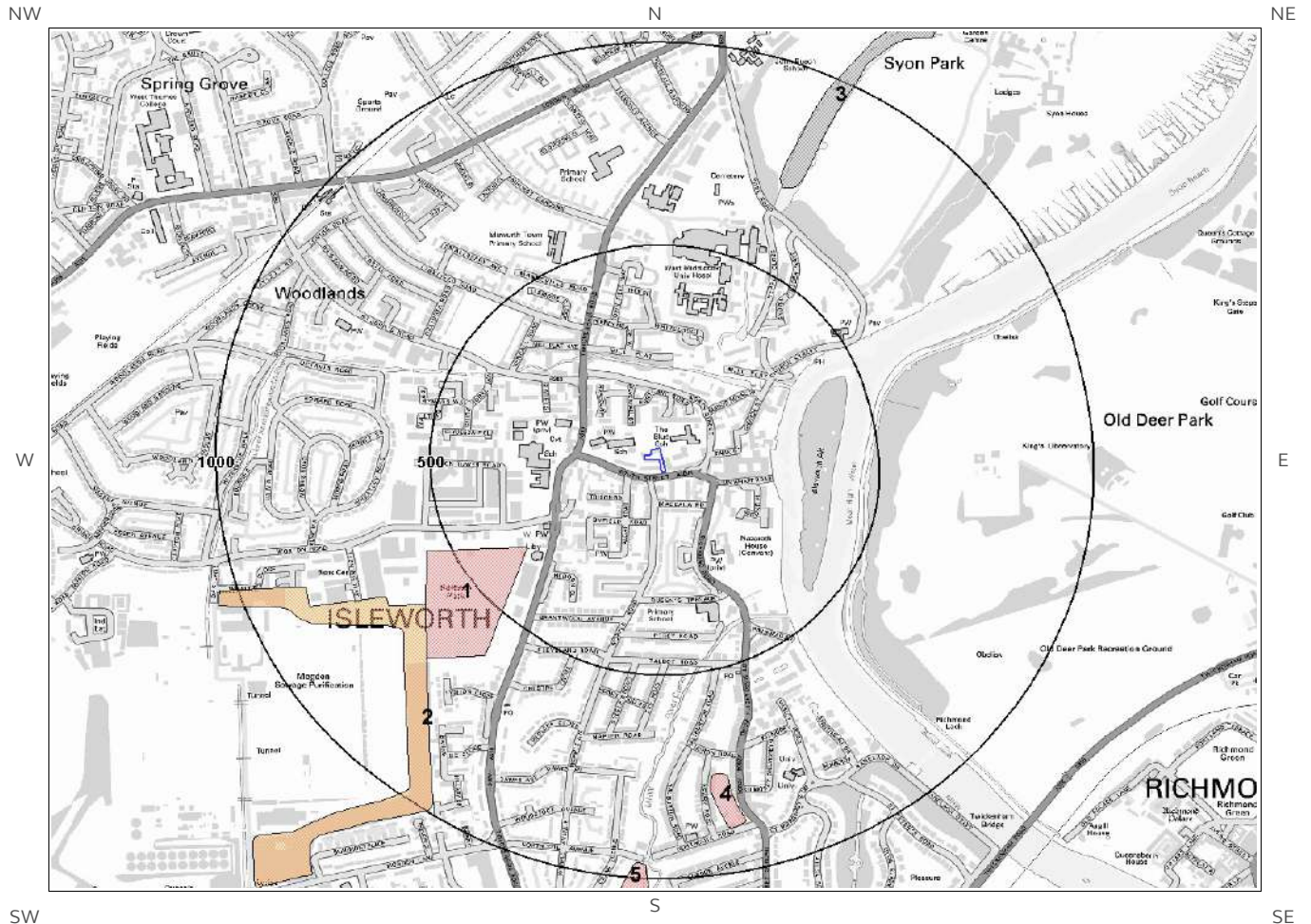
Database searched and no data found at this scale.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of great Britain at 1:10,000 scale.

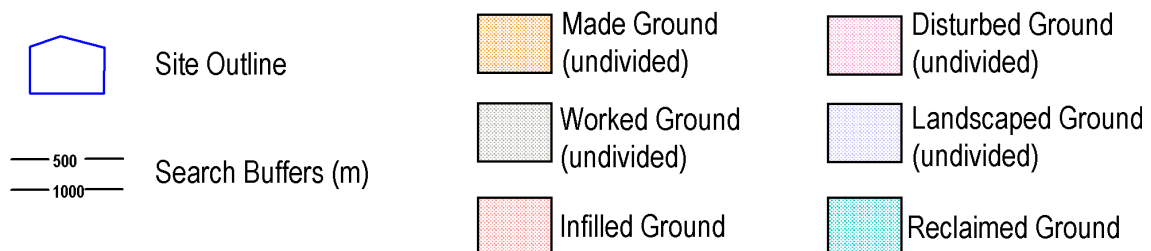
This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2 Geology 1:50,000 Scale

2.1 Artificial Ground map



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2. Geology 1:50,000 scale

2.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 270

2.1.1 Artificial/ Made Ground

Are there any records of Artificial/ Made Ground within 500m of the study site boundary? Yes

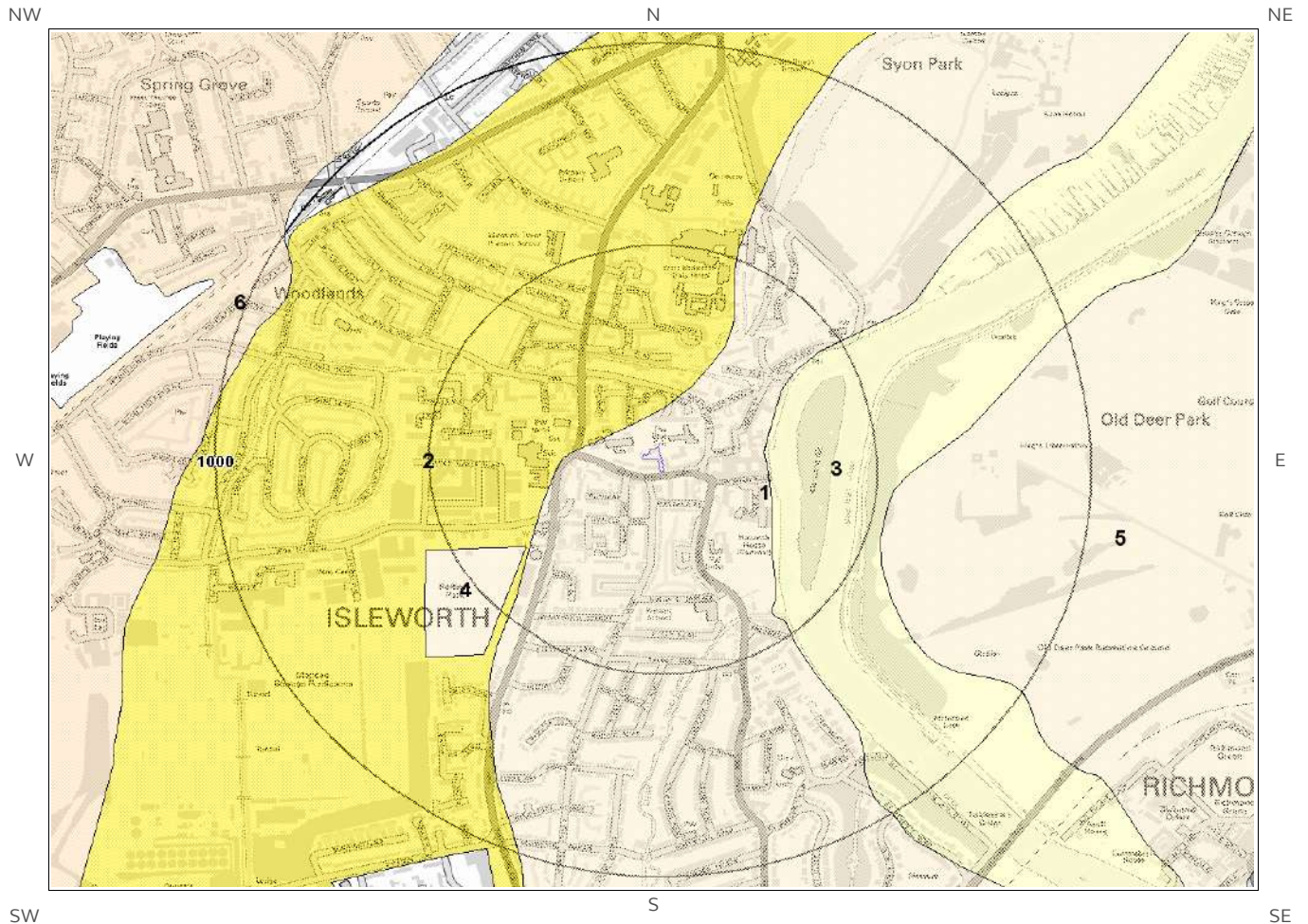
ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	347.0	SW	WMGR-ARTDP	INFILLED GROUND	ARTIFICIAL DEPOSIT

2.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site boundary? No

Database searched and no data found.

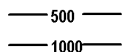
2.2 Superficial Deposits and Landslips map (1:50,000 scale)



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Site Outline



Search Buffers (m)

2.2 Superficial Deposits and Landslips

2.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	KPGR-XSV	KEMPTON PARK GRAVEL MEMBER	SAND AND GRAVEL
2	75.0	NW	LASI-XCZ	LANGLEY SILT MEMBER	CLAY AND SILT
3	239.0	E	ALV-XCZSP	ALLUVIUM	CLAY, SILT, SAND AND PEAT
4	347.0	SW	KPGR-XSV	KEMPTON PARK GRAVEL MEMBER	SAND AND GRAVEL

2.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	Very High	High

2.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

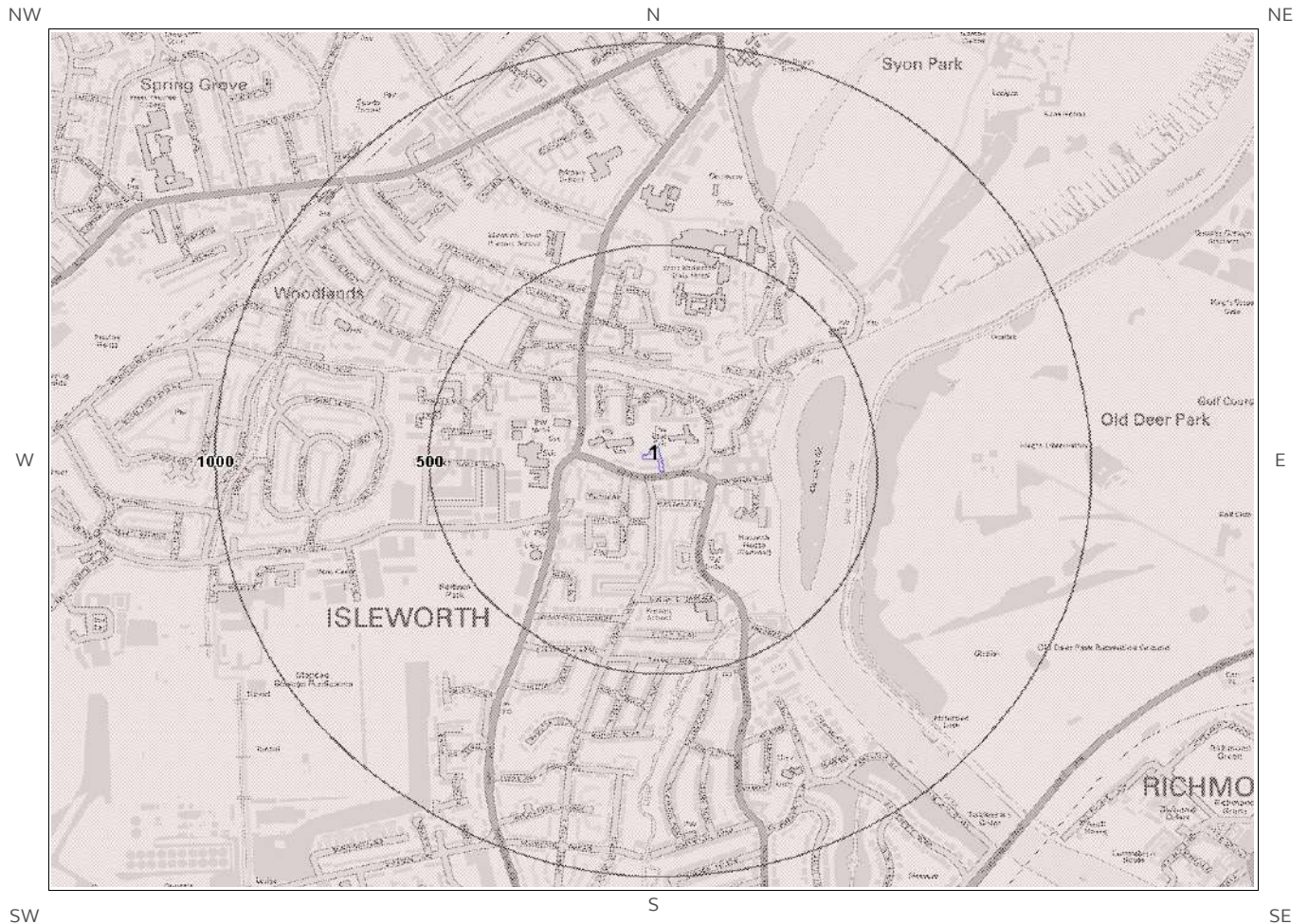
This Geology shows the main components as discrete layers, there are: Artificial/ Made Ground, Superficial/ Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site boundary? No

Database searched and no data found.

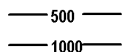
2.3 Bedrock and linear features map (1:50,000 scale)



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Site Outline



Search Buffers (m)

2.3 Bedrock, Solid Geology & linear features

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 270

2.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	LC-XCZ	LONDON CLAY FORMATION - CLAY AND SILT	YPRESIAN

2.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site boundary? Yes

Distance	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Mixed	Low	Very Low

2.3.3 Linear features

Are there any records of linear features within 500m of the study site boundary? No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nation wide coverage.

3 Radon Data

3.1 Radon Affected Areas

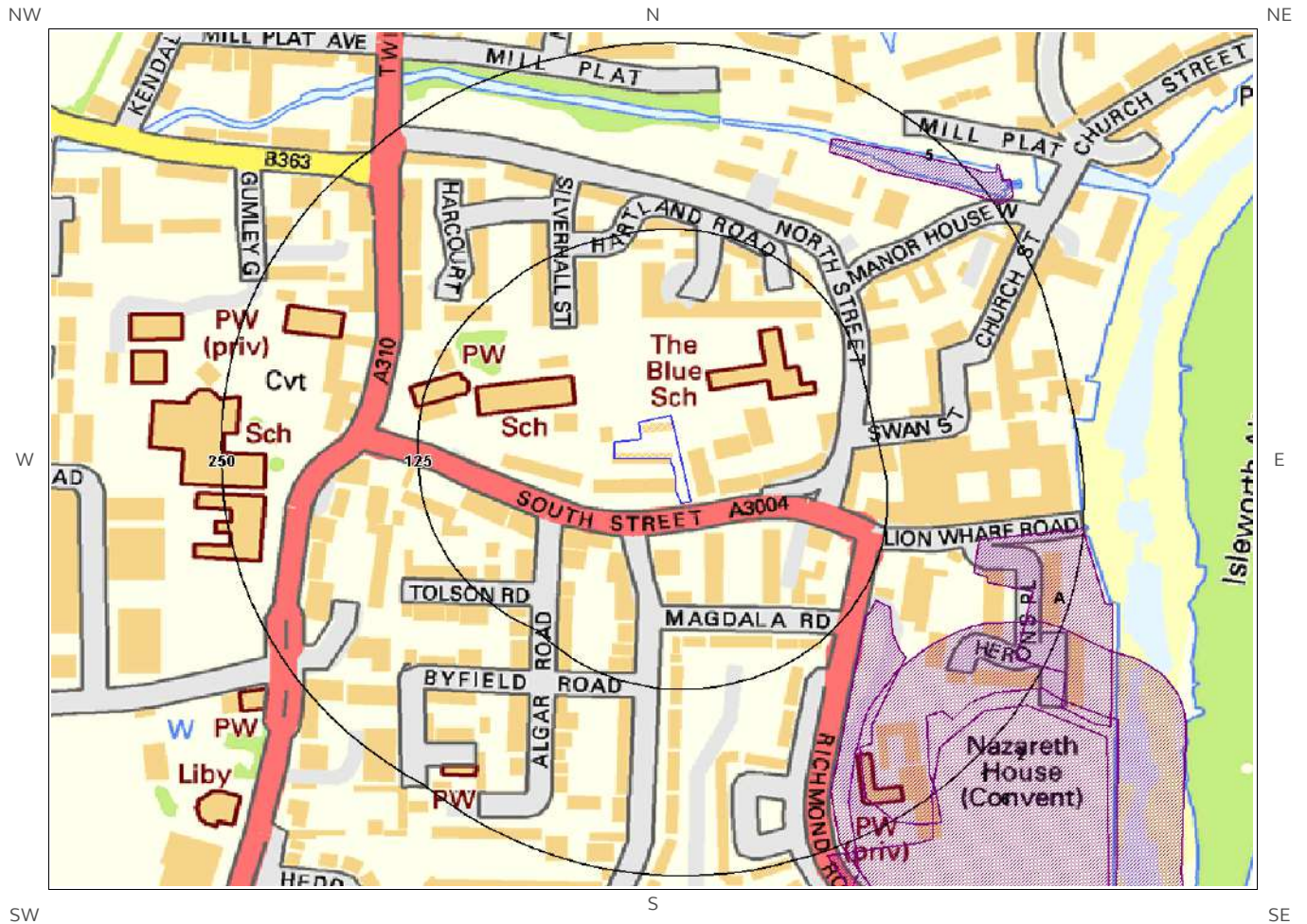
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

3.2 Radon Protection



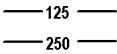


Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

4 Ground Workings map



Ground Workings Legend

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- | | | | |
|---|--------------------|---|----------------------------------|
|  | Site Outline |  | Historic Surface Ground Workings |
|  | Search Buffers (m) |  | Historic Underground Workings |
| | |  | Current Ground Workings |

4 Ground Workings

4.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on Groundsure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Use	Date
1	135.0	SE	516570 175549	Burial Ground	1933
2	174.0	SE	516596 175514	Burial Ground	1912
3A	185.0	E	516645 175595	Unspecified Wharf	1966
4A	185.0	E	516645 175595	Unspecified Wharf	1974
5	203.0	NE	516536 175959	Pond	1865
6	228.0	SE	516567 175507	Burial Ground	1912

4.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the Groundsure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? Yes

The following Historical Underground Working Features are provided by Groundsure:

ID	Distance (m)	Direction	NGR	Use	Date
Not shown	986.0	SW	515454 175039	Tunnel	1987
Not shown	986.0	SW	515454 175039	Tunnel	1974
Not shown	986.0	SW	515454 175039	Tunnel	1966

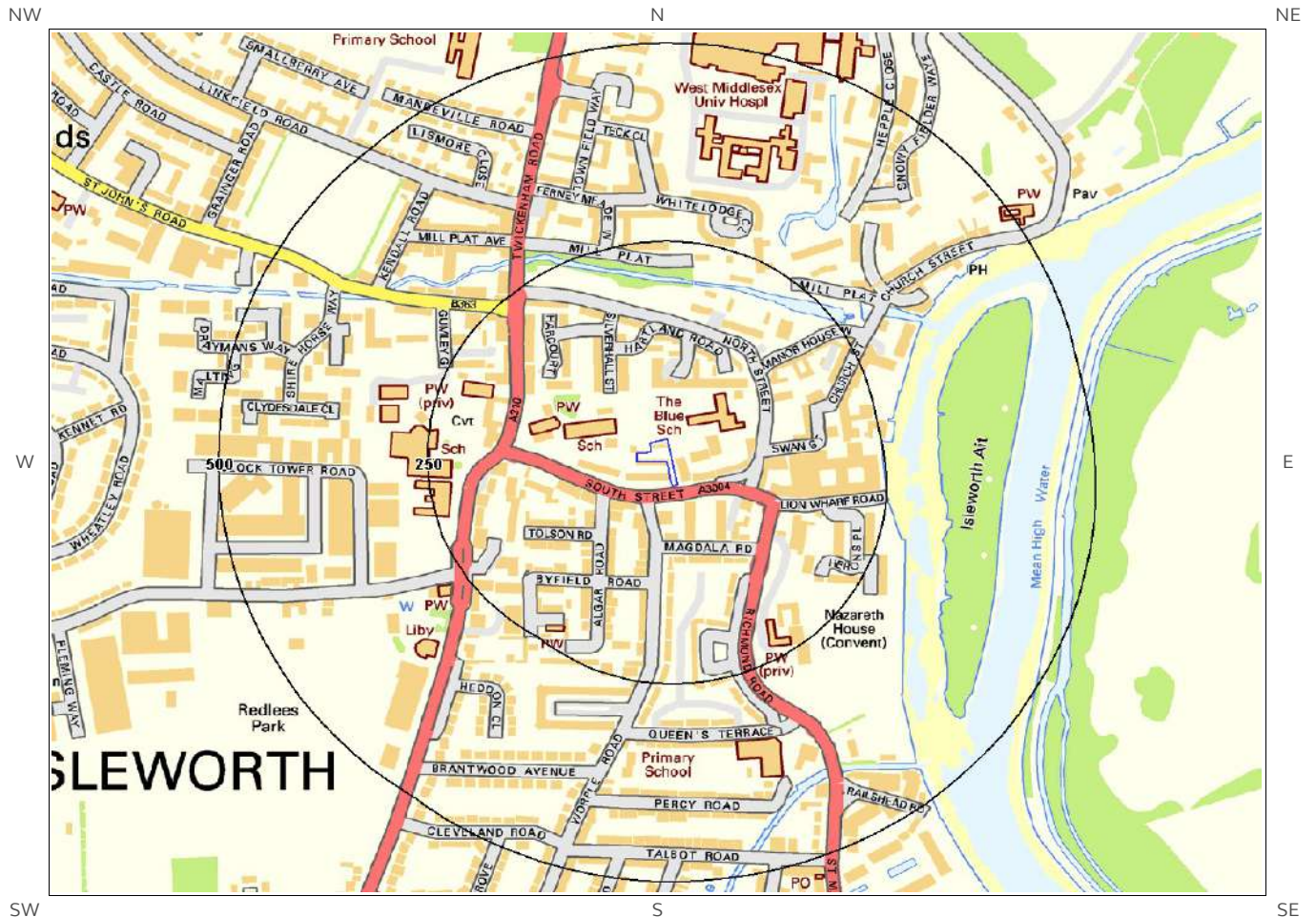
4.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary? No

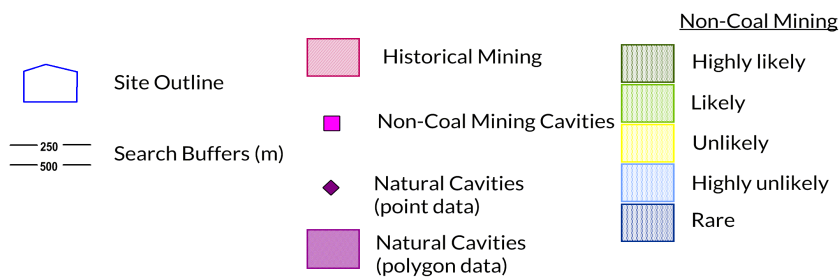
Database searched and no data found.

5 Mining, Extraction & Natural Cavities map



Mining, Extraction and Natural Cavities Legend

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5 Mining, Extraction & Natural Cavities

5.1 Historical Mining

This dataset is derived from Groundsure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary? No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

5.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled “Review of mining instability in Great Britain, 1990” PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? No

Database searched and no data found.

5.6 Natural Cavities

This dataset provides information based on the Peter Brett Associates natural cavities database. The dataset is made up of points and polygons. Where polygons are used these represent an area in which it is expected the cavities could be found. It does not indicate that cavities are present everywhere within the polygon, and caution should be used in the interpretation of this data.

Are there any Natural Cavities within 1000m of the study site boundary? No

Database searched and no data found.

5.7 Brine Extraction

This data provides information from the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

5.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary? No

Database searched and no data found.

5.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level..

Are there any Tin Mining areas within 1000m of the study site boundary? No

Database searched and no data found.

5.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

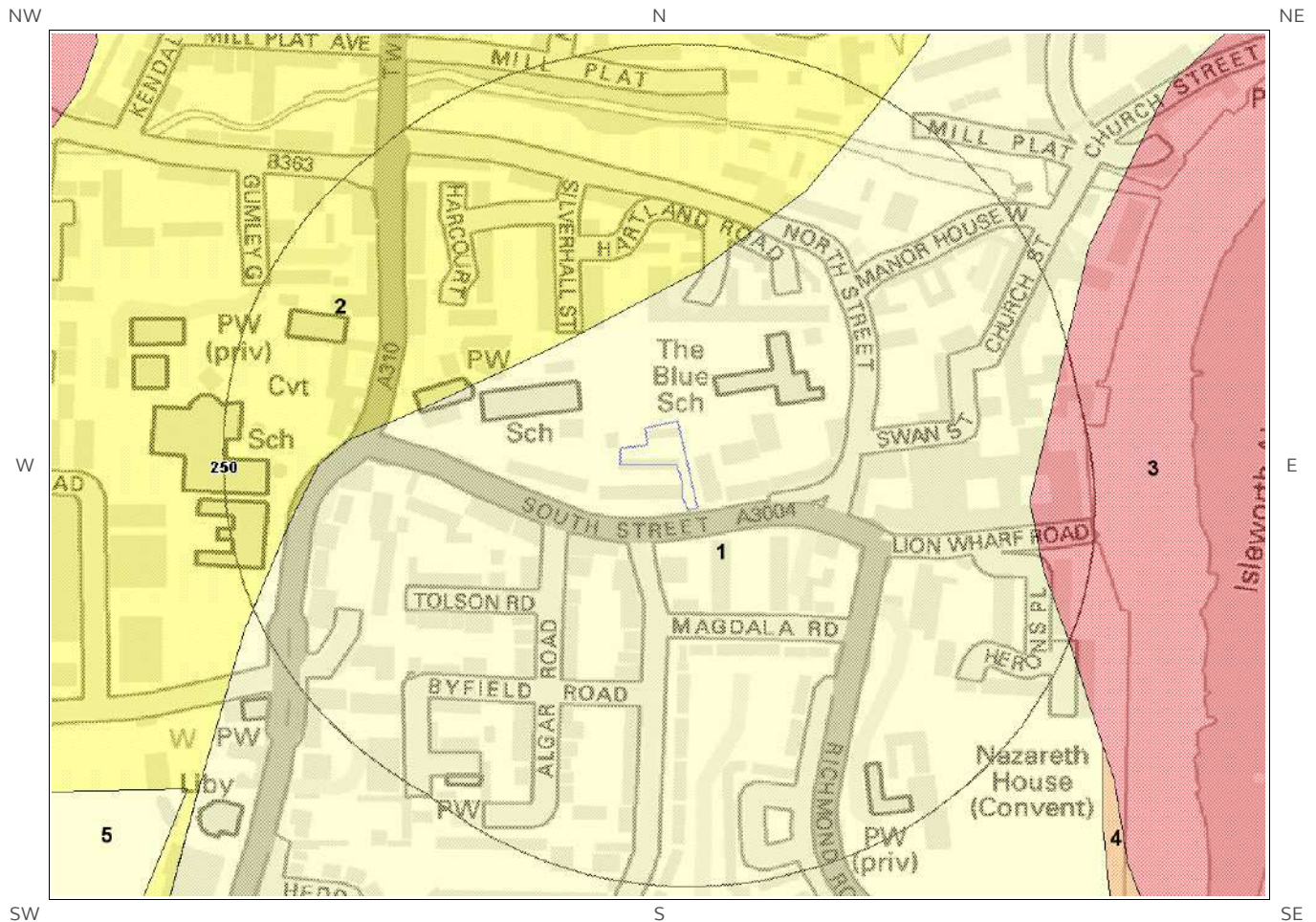
Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

6 Natural Ground Subsidence

6.1 Shrink-Swell Clay map

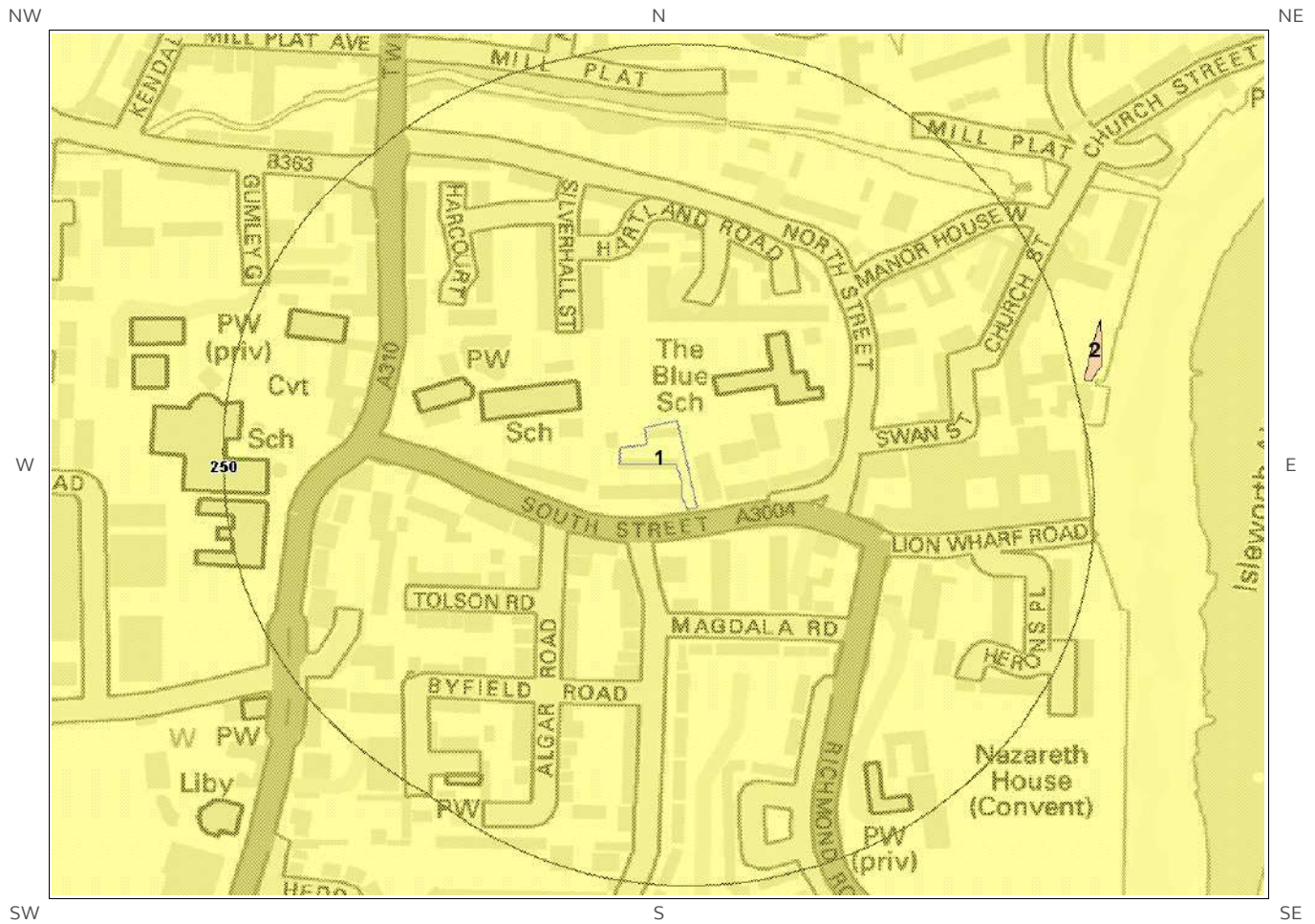


Shrink Swell Clay Legend

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6.2 Landslides map

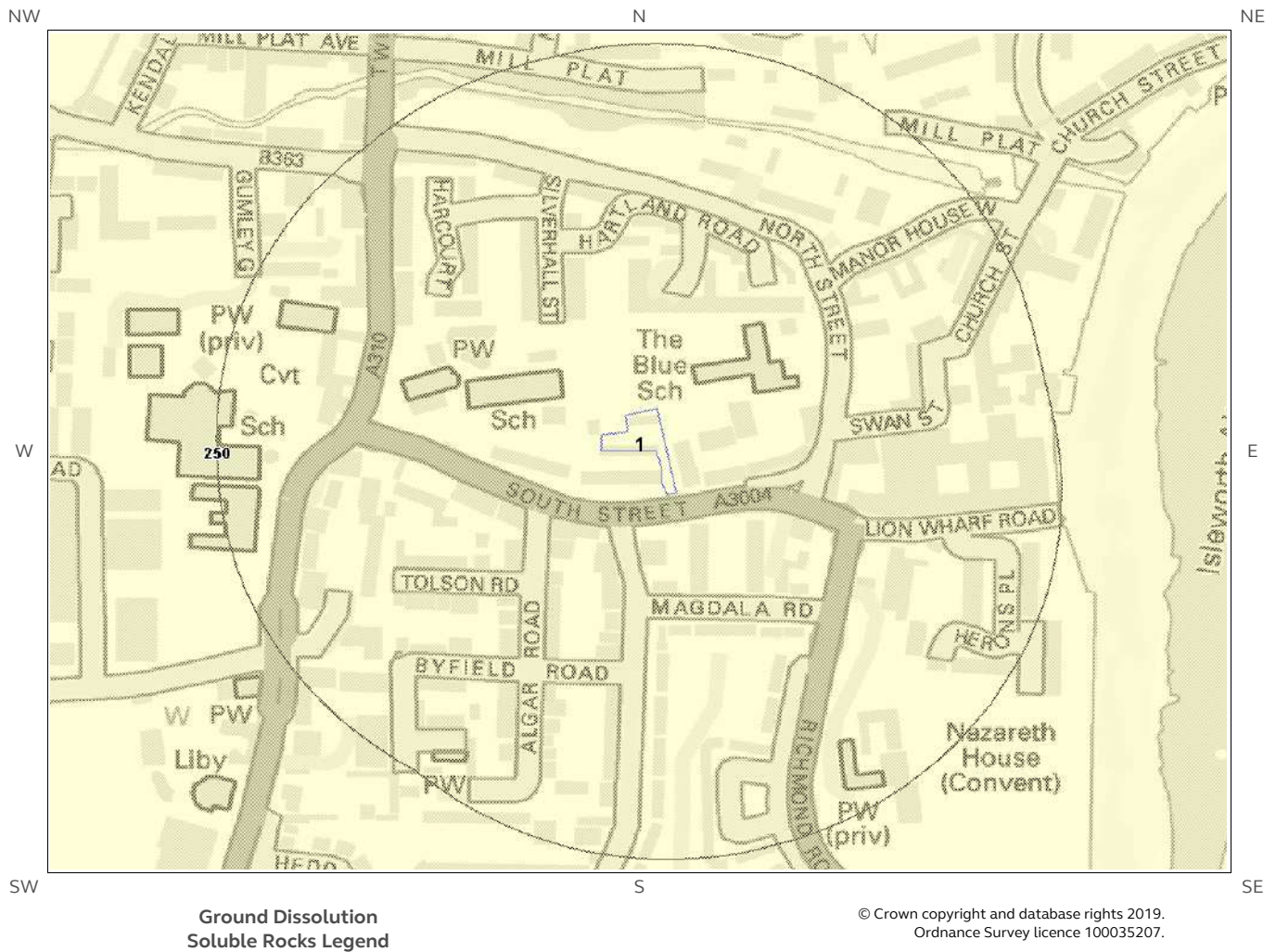


Landslides Legend

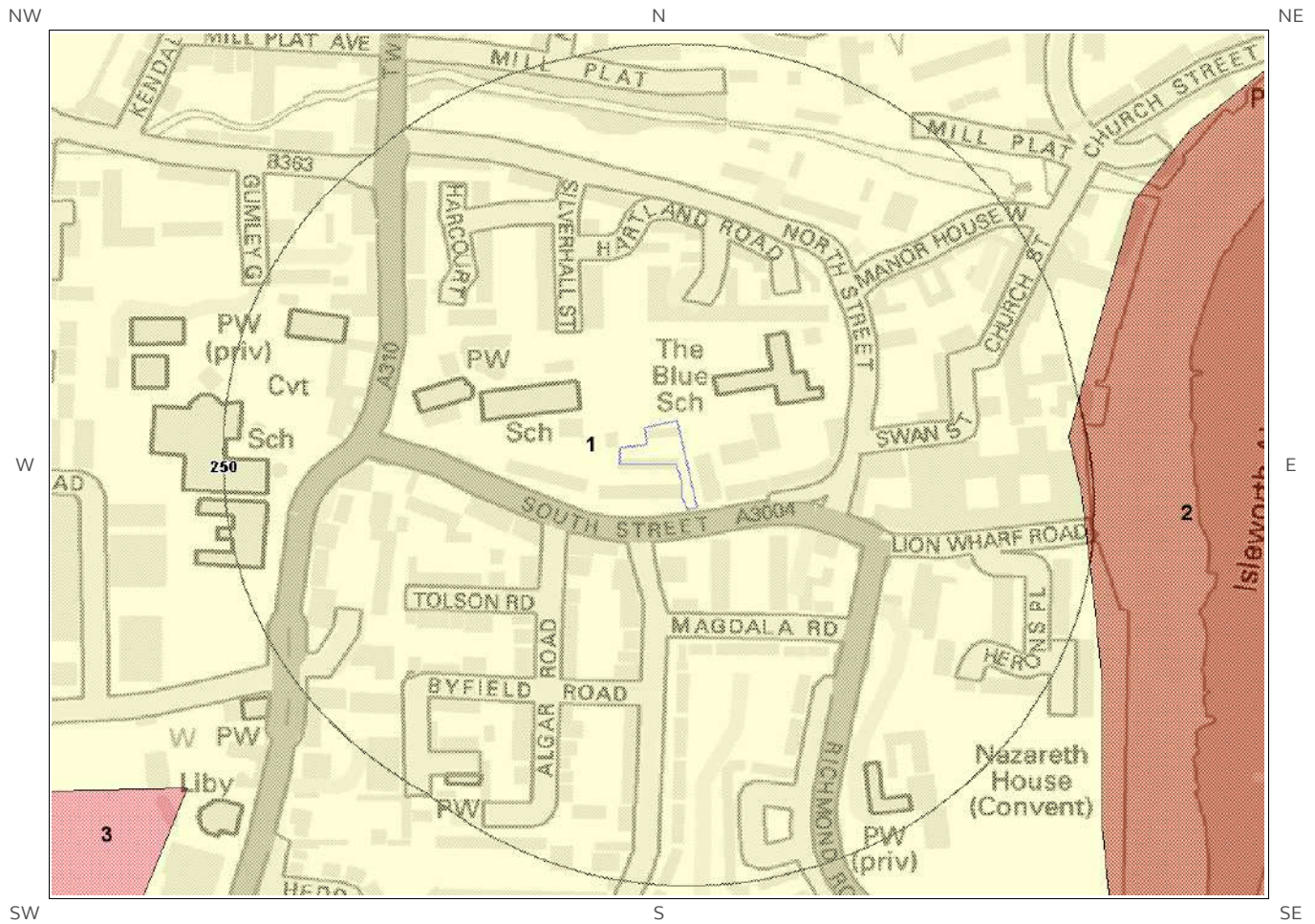
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6.3 Ground Dissolution of Soluble Rocks map



6.4 Compressible Deposits map

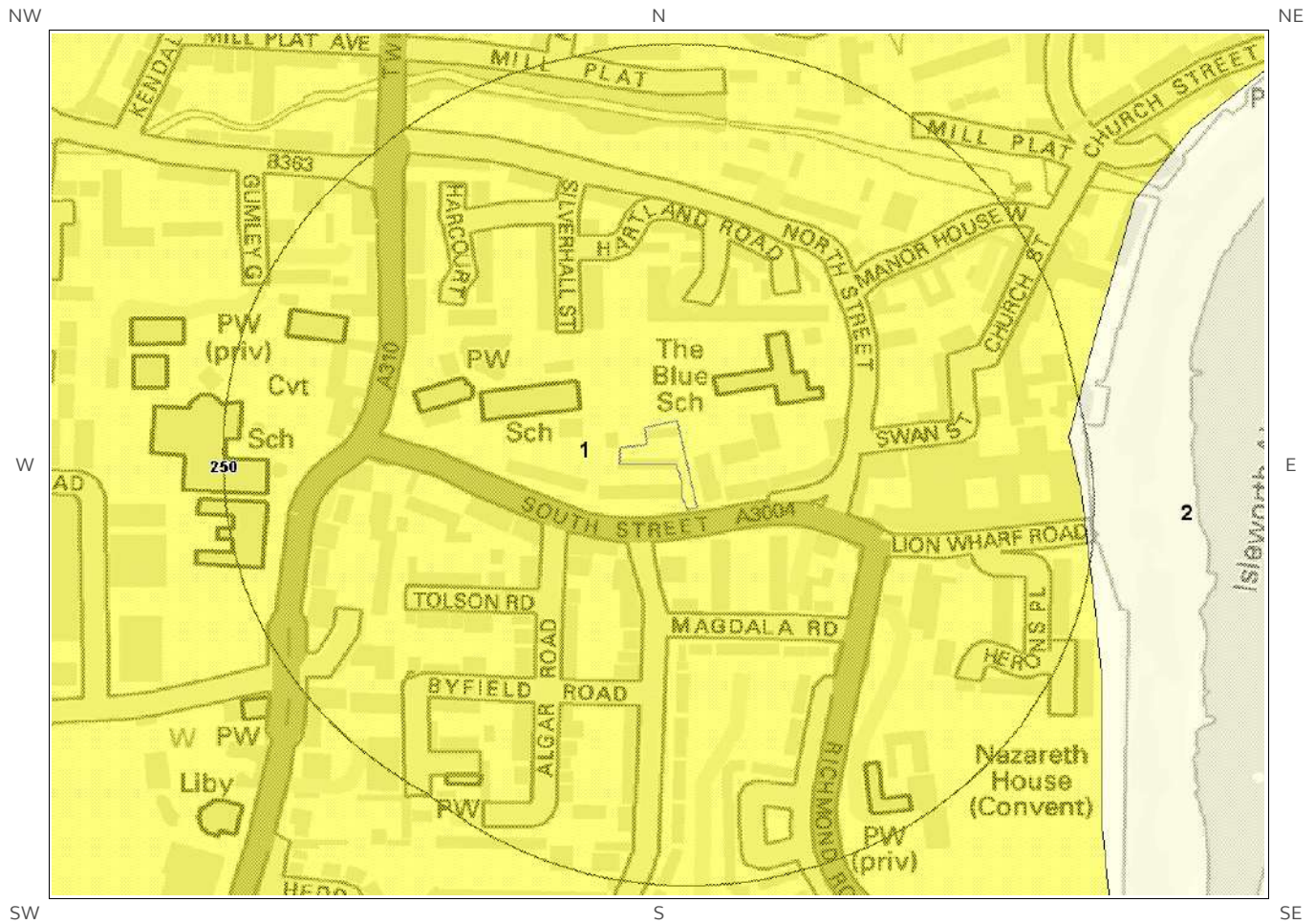


Compressible Deposits Legend

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6.5 Collapsible Deposits map

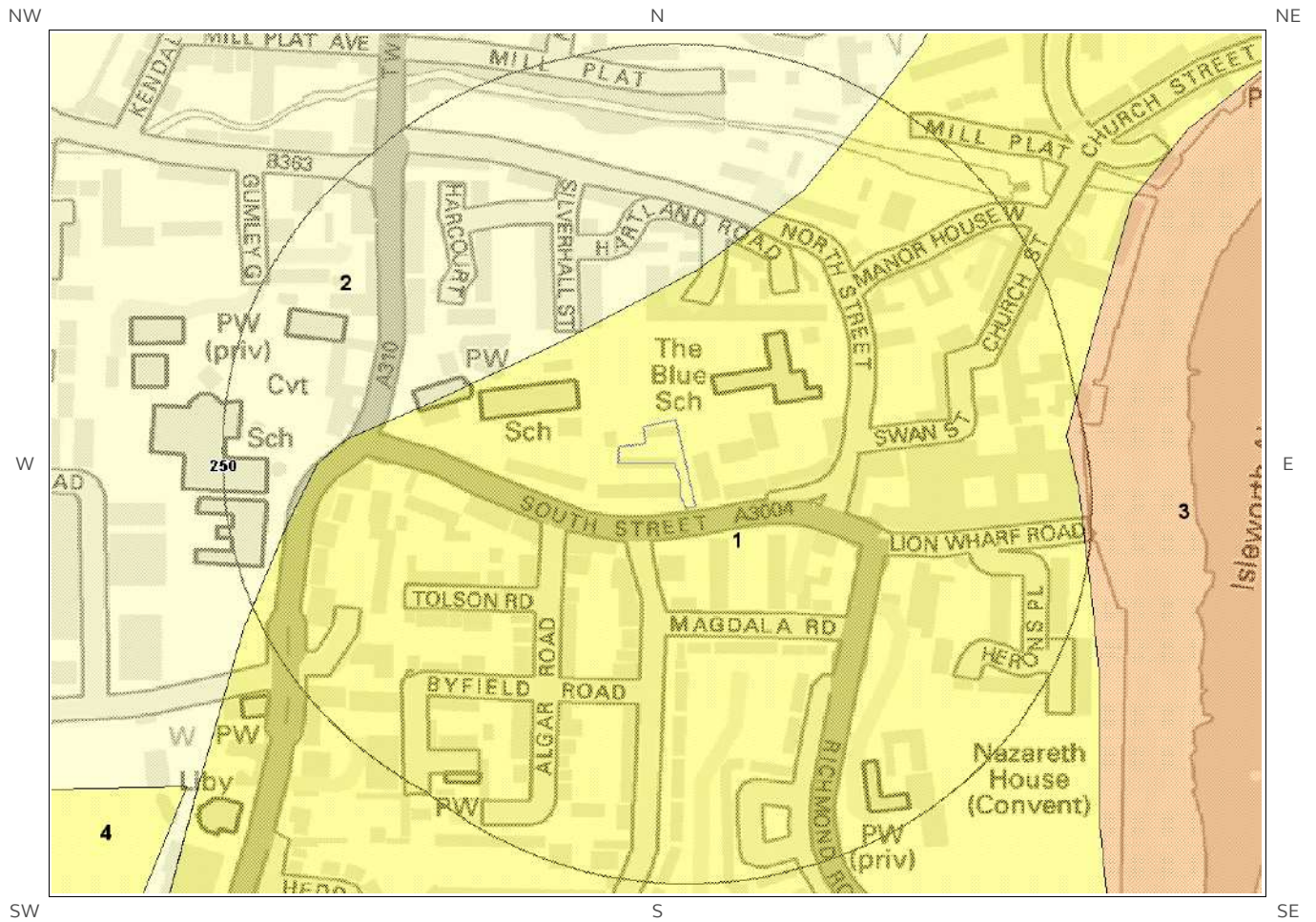


Collapsible Deposits Legend

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6.6 Running Sand map



Running Sand Legend

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6 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site** boundary? Very Low

6.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.

6.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

6.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

* This includes an automatically generated 50m buffer zone around the site

6.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

6.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

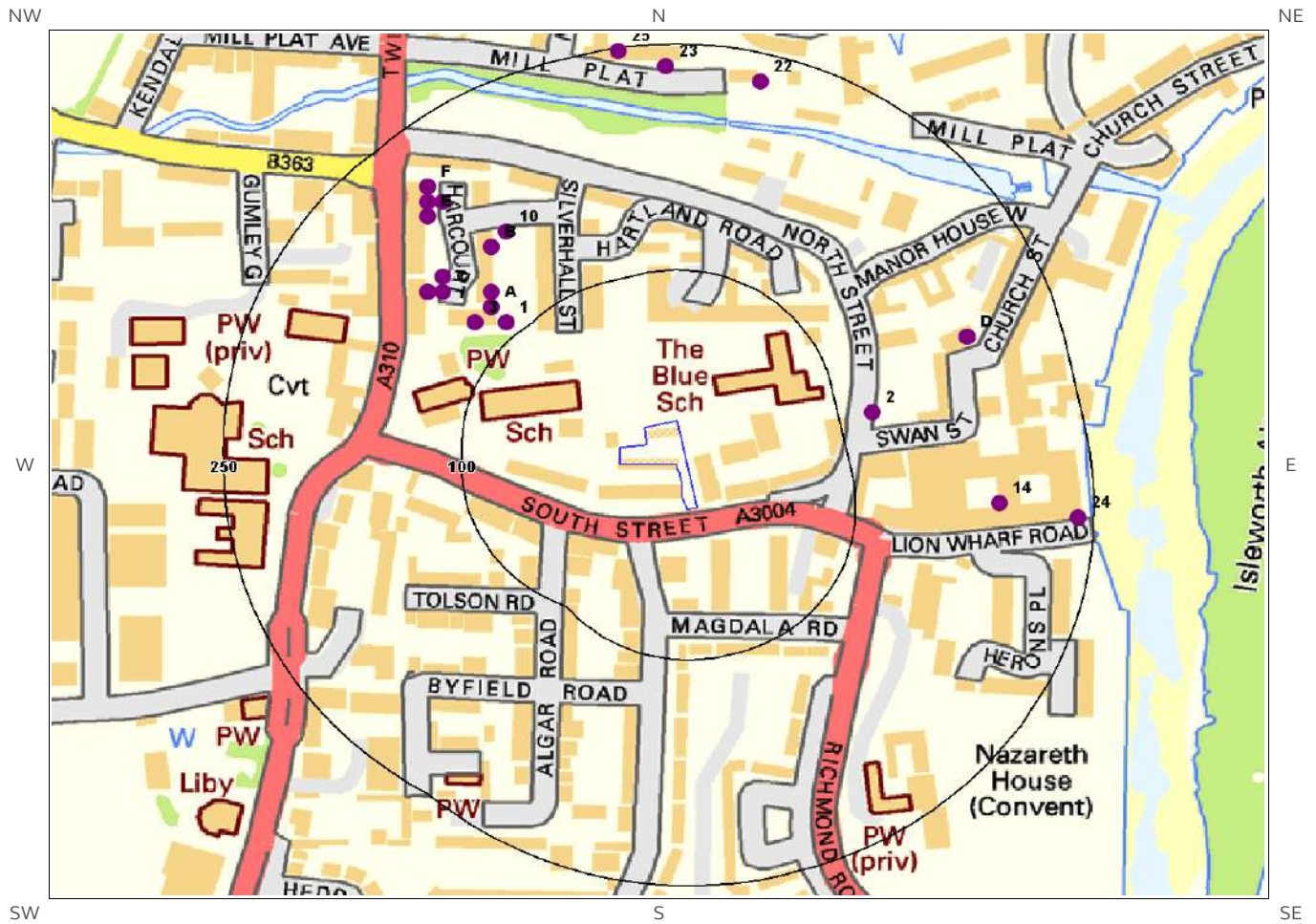
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

6.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

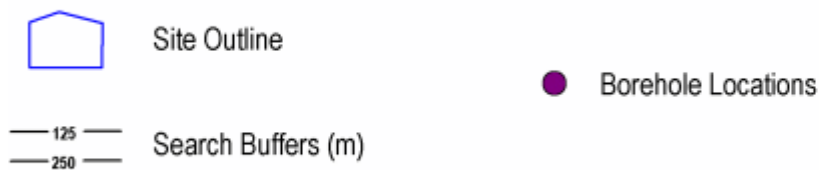
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

7 Borehole Records map



Borehole Records Legend

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7 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

25

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	110.0	NW	516270 175860	TQ17NE405	3.2	NORTH STREET HOUNSLOW TP 18
2	121.0	E	516500 175800	TQ17NE30	3.96	THE SQUARE ISLEWORTH
3	124.0	NW	516250 175860	TQ17NE399	2.65	NORTH STREET HOUNSLOW TP 12
4A	124.0	NW	516260 175870	TQ17NE394	10.0	NORTH STREET HOUNSLOW 6
5A	124.0	NW	516260 175870	TQ17NE393	3.0	NORTH STREET HOUNSLOW 5
6A	132.0	NW	516260 175880	TQ17NE400	2.6	NORTH STREET HOUNSLOW TP 13
7C	152.0	NW	516230 175880	TQ17NE398	3.3	NORTH STREET HOUNSLOW TP 11
8B	155.0	NW	516260 175910	TQ17NE392	10.2	NORTH STREET HOUNSLOW 4
9B	155.0	NW	516260 175910	TQ17NE391	3.45	NORTH STREET HOUNSLOW 3
10	157.0	NW	516270 175920	TQ17NE401	2.5	NORTH STREET HOUNSLOW TP 14
11C	159.0	NW	516230 175890	TQ17NE404	2.6	NORTH STREET HOUNSLOW TP 17
12C	159.0	NW	516220 175880	TQ17NE395	3.0	NORTH STREET HOUNSLOW 7
13C	159.0	NW	516220 175880	TQ17NE396	10.3	NORTH STREET HOUNSLOW 8
14	190.0	E	516580 175740	TQ17NE363	-1.0	OLD ISLEWORTH REDEVELOPMENT PHASE 1 1/4
15D	191.0	E	516560 175850	TQ17NE167	15.0	NORTHUMBERLAND HSE ISLEWORTH
16D	191.0	E	516560 175850	TQ17NE168	13.0	NORTHUMBERLAND HOUSE 2
17E	196.0	NW	516220 175930	TQ17NE397	1.2	NORTH STREET HOUNSLOW TP 10
18E	197.0	NW	516230 175940	TQ17NE402	2.9	NORTH STREET HOUNSLOW TP 15
19E	203.0	NW	516220 175940	TQ17NE390	15.3	NORTH STREET HOUNSLOW 2
20F	211.0	NW	516220 175950	TQ17NE403	2.6	NORTH STREET HOUNSLOW TP 16
21F	211.0	NW	516220 175950	TQ17NE389	6.4	NORTH STREET HOUNSLOW 1
22	231.0	N	516430 176020	TQ17NE313	2.5	WEST MIDDLESEX HOSPITAL TP5

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
23	235.0	N	516370 176030	TQ17NE326	2.7	WEST MIDDLESEX HOSPITAL TP18
24	240.0	E	516630 175730	TQ17NE364	-1.0	OLD ISLEWORTH REDEVELOPMENT PHASE I 1/5
25	248.0	N	516340 176040	TQ17NE318	2.7	WEST MIDDLESEX HOSPITAL TP10

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#1: scans.bgs.ac.uk/sobi_scans/boreholes/17116536
 #2: scans.bgs.ac.uk/sobi_scans/boreholes/580637
 #3: scans.bgs.ac.uk/sobi_scans/boreholes/17116529
 #4A: scans.bgs.ac.uk/sobi_scans/boreholes/17116518
 #5A: scans.bgs.ac.uk/sobi_scans/boreholes/17116517
 #6A: scans.bgs.ac.uk/sobi_scans/boreholes/17116530
 #7C: scans.bgs.ac.uk/sobi_scans/boreholes/17116528
 #8B: scans.bgs.ac.uk/sobi_scans/boreholes/17116515
 #9B: scans.bgs.ac.uk/sobi_scans/boreholes/17116513
 #10: scans.bgs.ac.uk/sobi_scans/boreholes/17116531
 #11C: scans.bgs.ac.uk/sobi_scans/boreholes/17116534
 #12C: scans.bgs.ac.uk/sobi_scans/boreholes/17116521
 #13C: scans.bgs.ac.uk/sobi_scans/boreholes/17116523
 #15D: scans.bgs.ac.uk/sobi_scans/boreholes/580812
 #16D: scans.bgs.ac.uk/sobi_scans/boreholes/580813
 #17E: scans.bgs.ac.uk/sobi_scans/boreholes/17116525
 #18E: scans.bgs.ac.uk/sobi_scans/boreholes/17116532
 #19E: scans.bgs.ac.uk/sobi_scans/boreholes/17116512
 #20F: scans.bgs.ac.uk/sobi_scans/boreholes/17116533
 #21F: scans.bgs.ac.uk/sobi_scans/boreholes/17116510
 #22: scans.bgs.ac.uk/sobi_scans/boreholes/580958
 #23: scans.bgs.ac.uk/sobi_scans/boreholes/580971
 #25: scans.bgs.ac.uk/sobi_scans/boreholes/580963

8 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

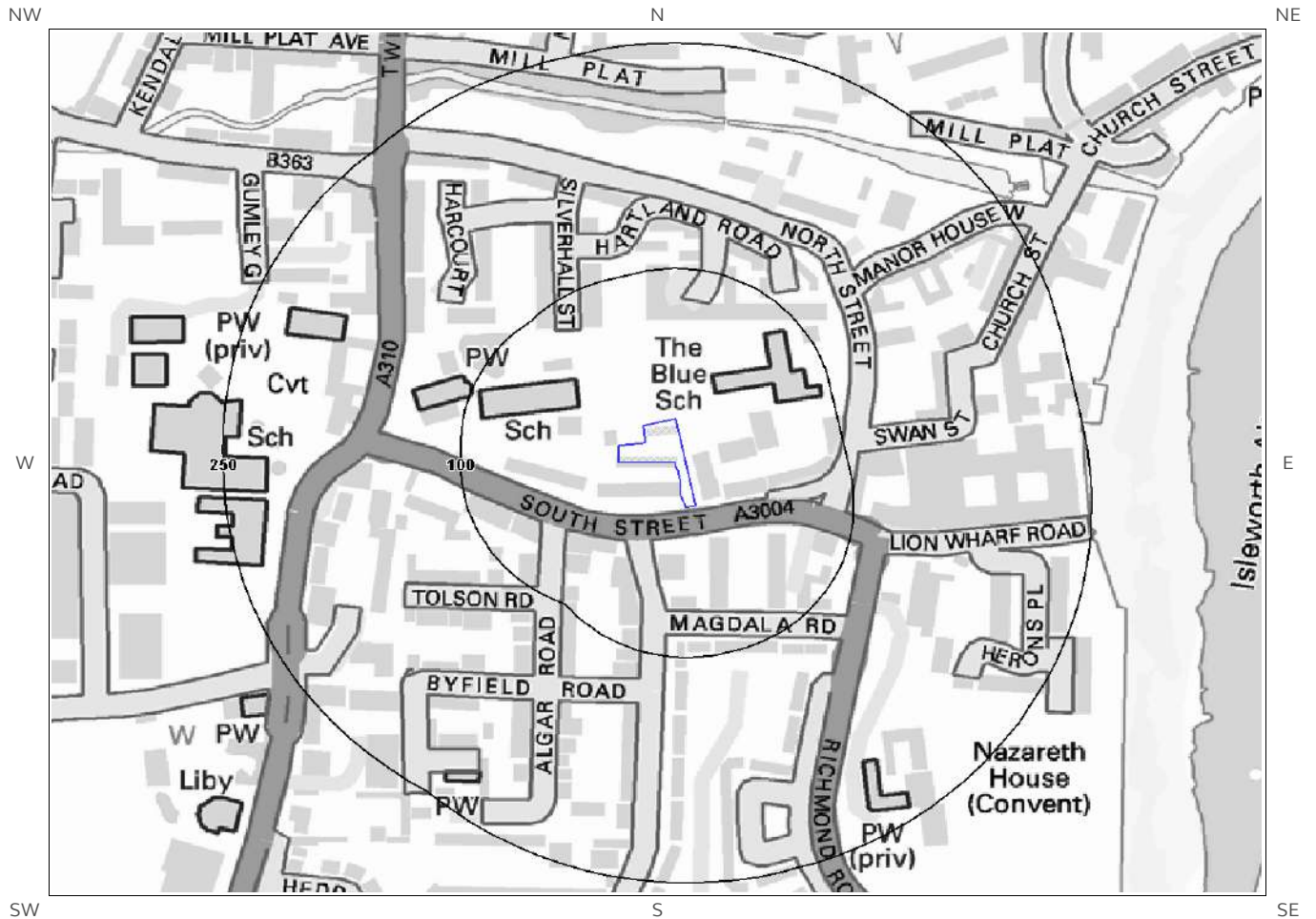
1

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geo Insight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	London	No data	No data	No data	No data	No data

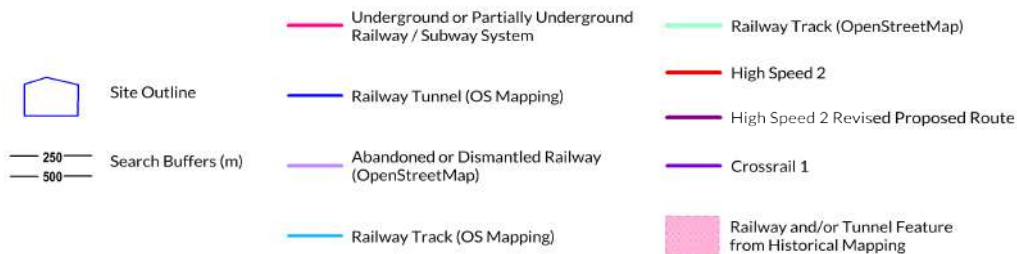
*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

9 Railways and Tunnels map



Railways and Tunnels Legend

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9 Railways and Tunnels

9.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary? No

Have any underground railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary? No

Have any other railway tunnels been identified within 250m of the site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

9.2 Historical Railway and Tunnel Features

This data is derived from Groundsure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary? No

Have any historical railway or tunnel features been identified within 250m of the study site boundary? No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels map.

9.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary? No

Have any historical railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels map.

9.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary? No

Have any active railway lines been identified within 250m of the study site boundary? No

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above
Any records that have been identified are represented on the Railways and Tunnels map.

9.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

Is the study site within 5km of the route of the High Speed 2 rail project? No

Is the study site within 500m of the route of the Crossrail 1 rail project? No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a Groundsure HS2 and Crossrail 1 Report.

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.

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<https://www.groundsure.com/terms-and-conditions-feb11-2019>

APPENDIX C

Site Photographs

CLIENT:	London Borough of Hounslow	DATE:	03/04/2019	 ARCADIS		Design & Consultancy for natural and built assets
REFERENCE:	10030793	SITE NAME:	Swann Court	10 th Floor Three Piccadilly Place Manchester M1 3BN	T: 0161 245 8700 F: 0161 245 8701	
<p>Plate 1 – View of the site entrance, from south street. Towards north.</p>						
<p>Plate 2 – View of the driveway area. Towards south.</p>						

CLIENT:	London Borough of Hounslow	DATE:	03/04/2019	 ARCADIS		Design & Consultancy for natural and built assets
REFERENCE:	10030793	SITE NAME:	Swann Court	10 th Floor Three Piccadilly Place Manchester M1 3BN	T: 0161 245 8700 F: 0161 245 8701	
<p>Plate 3 – View of the hardstanding and northern block of garages showing general conditions and drainage. Towards northwest.</p>						
<p>Plate 4 – View of the west block of garages and hardstanding condition. Towards southwest.</p>						

CLIENT:	London Borough of Hounslow	DATE:	03/04/2019	 ARCADIS		Design & Consultancy for natural and built assets
REFERENCE:	10030793	SITE NAME:	Swann Court	10 th Floor Three Piccadilly Place Manchester M1 3BN		T: 0161 245 8700 F: 0161 245 8701
Plate 5 – View of the northwest site border with St Mary’s Catholic Primary School. Towards northeast.						
Plate 6 – Undeveloped area of land along north border showing mature trees and minor fly tipped material. Towards west.						

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