## PHASE 1 LAND CONTAMINATION ASSESSMENT REPORT

Pope's Road Brixton London

Prepared for: Trium Environmental LLP (on behalf of AG Hondo Pope's Road BV).

30<sup>th</sup> March 2020

Project Number: RMA-C2023



environmental planning consultancy



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### General Notes

This report has been prepared by RMA Environmental Ltd (RMA) and provides available factual data for the site at the time of the study and as obtained from the sources described in the text. The data is related to the site on the basis of the site location which has been provided by the Client.

It should be appreciated that the desk study information is not necessarily exhaustive and that further information relevant to the site and its proposed use may be available. The accuracy of map extracts cannot be guaranteed and it should be recognised that different conditions on site may have existed between and subsequent to the various map editions.

Any borehole data from the British Geological Survey (BGS) sources is included on the following basis: 'The British Geological Survey accept no responsibility for omissions or misinterpretations of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation'.

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## 1 INTRODUCTION

#### Background

- 1.1 This Phase 1 Land Contamination Assessment (LCA) has been prepared by RMA Environmental Limited (RMA) for Trium Environmental Consulting LLP (on behalf of AG Hondo Popes Road BV), in support of a planning application for a mixed-use scheme comprising of flexible office accommodation, retail and leisure floorspace on an area of land located to the east of Pope's Road in Brixton, London.
- 1.2 The site comprises a single storey building currently in use as a retail store and the site is 0.26 hectares (ha). The Proposed Development will include demolition of the existing building and erection of a part G + 19, part G + 8 storey building comprising flexible A1/A3/B1/D1/D2 uses at basement, ground and first floor, with restaurant (A3) use on floor 8 and B1 accommodation on floors 2 to 19, with plant enclosures at roof level, and associated cycle parking, servicing and all necessary enabling works

The objective of this Phase 1 LCA is to gather baseline information on site conditions and to identify any potential risks of ground contamination resulting from historical or current land uses, on or in close proximity to the site.

#### Scope of Work

- 1.3 This Phase 1 LCA presents the information on and addresses the following:
  - The current use and condition of the site, including any visual evidence of potentially contaminative operations on site;
  - The land use history in the context of potentially contaminative activities;
  - The environmental setting in terms of geology, hydrogeology, hydrology and surrounding land uses;
  - A review of a third-party Groundsure Environmental Database report relating to the site and its surroundings (this is included within Appendix A of this report);
  - A review of the Environment Agency's (EA) website to identify any potential environmental issues relating to the site or surrounding areas;
  - The development of a preliminary conceptual site model and identification of potential risks to human health and environmental receptors; and
  - Conclusions and recommendations.

### **Technical Approach**

- 1.4 This assessment has been undertaken in accordance with the guidance provided in the following publications:
  - Adopted London Plan (March 2016);
  - Draft London Plan (December 2019);
  - The Adopted Lambeth Local Plan (September 2015);
  - The Draft Lambeth Local Plan (January 2020);
  - Environment Agency Contaminated Land Report 11 (CLR11) Model Procedures for Management of Land Contamination (EA, 2004);
  - Guiding Principles for Land Contamination (GPLC1, EA 2010);
  - National Planning Policy Framework (NPPF, 2019); and
  - National House Building Council Part 4 Foundations Chapter 4.1 Land Quality: Managing Ground Conditions (NHBC, 2011).

## 2 SITE LOCATION AND LAYOUT

#### Site Location

2.1 The application site comprises a funnel shaped parcel of land situated between two large railway viaducts. The site is bound by Pope's Road to the West, at its widest point, and Valentia Place to the East, at its narrowest point. The site comprises a single storey building currently in use as a retail store and is centred on National Grid Reference (NGR) TQ 31237 75468; refer to Figure 2.1.

#### Site Environmental Setting

#### <u>Geology</u>

- 2.2 According to the British Geological Survey (BGS) online geological map viewer and the 1:50,000 map series England and Wales Sheet 270 for South London, the site is underlain by the superficial geology of Taplow Gravel Member comprising sand and gravel. This in turn is underlain by the bedrock geology of the London Clay Formation comprising clay and silt, then the Lambeth Group, Thanet Formation and Chalk Group.
- 2.3 From a review of BGS mapping, there are no historical borehole records on site; however, there is one located adjacent to the western boundary of the site (TQ37NW477), this was dug to a depth of 6.7 m and had the following geological strata:
  - Made ground comprising of brick and rubble (1.7 m thickness);
  - Compact brown clayey sandy gravel (3.8 m thickness); and
  - Stiff blue grey fissures silty clay (1.2 m thickness).
- 2.4 The presence of a significant thickness of made ground beneath the site gives rise to the potential for landfill/ground gas to be present.
- 2.5 The site is not located in a Radon Affected Area (i.e. less than 1% of properties are above the action level) according to the Groundsure Geo Insight report (Appendix A, and therefore no radon protection measures are considered to be necessary for the proposed development.
- 2.6 Zetica produce unexploded bomb risk maps for sites within the UK and this has confirmed that the site is located within an area at high risk of Unexploded Ordnance (UXO) (refer to Appendix B).

#### Hydrogeology

2.7 Online EA data sources provide the following hydrogeological information:

#### Table 2.1: Aquifer Properties

Aspect	Designation	Description
Groundwater Source Protection Zone (SPZ)	No SPZ	There are no SPZs on or in close proximity to the site.
Superficial Aquifer Designation: Taplow Gravel Member	Secondary A Aquifer	These rocks are permeable layers capable of supporting water supplies at a local rather than strategic scale and, in some cases, form an important source of base flow to rivers.
Bedrock Aquifer Designation: London Clay Formation	Unproductive Strata	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river baseflow.
Bedrock Aquifer Designation: Lambeth Group	Secondary A Aquifer	These rocks are permeable layers capable of supporting water supplies at a local rather than strategic scale and, in some cases, form an important source of base flow to rivers.
Bedrock Aquifer Designation: Thanet Sand Formation	Secondary A Aquifer	These rocks are permeable layers capable of supporting water supplies at a local rather than strategic scale and, in some cases, form an important source of base flow to rivers.
Bedrock Aquifer Designation: Chalk Group	Principal Aquifer	These are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.

- 2.8 According to the Groundsure reports, there are no recorded groundwater abstraction licences on site. There are 11 recorded groundwater abstraction licences within a 2 km radius of the site; of these, only three are active, the remainder are historic. Of the three active groundwater abstractions, the closest is located 1.1 km to the south-west of the site and is used for "*Washing/Process Washing*", with a maximum daily abstraction volume of 1,227 m<sup>3</sup>.
- 2.9 There are no recorded potable water abstraction licences on site. There are three recorded to be located within a 2 km radius of the site, of which only one is recorded to be active, the remainder are historic. This active licence is located approximately 1.3 km to the southwest of the site and is used for "*Potable Water Supply Direct*" with a maximum daily abstraction volume of 13,400 m<sup>3</sup>.

#### <u>Hydrology</u>

2.10 The closest 'main river'<sup>1</sup> is the River Thames which is located approximately 2.7 km to the north-west of the site.

<sup>&</sup>lt;sup>1</sup> Main Rivers described by the EA as the following "usually larger rivers and streams"

2.11 There are no surface water abstraction licences within the site or within a 2 km radius of the site, according to the Groundsure reports (Appendix A),

## 3 SITE RECONNAISSANCE AND DESK STUDY

#### General

3.1 A desk study has been carried out using information obtained from Groundsure Enviro Insight and Geo Insight Reports for the area, as well as through a review of published information, a site walkover and information obtained from regulatory bodies. Full copies of the Groundsure Reports are included as Appendix A.

#### Site Reconnaissance

#### Site Description and Land Use

- 3.1 Currently, the majority of the site is occupied by an existing single storey building that comprises various retail and commercial uses at ground floor level, with elevated car parking provided on the roof of the building.
- 3.2 A site walkover was undertaken on 6<sup>th</sup> November 2019 and the following site observations were made:
  - No evidence of above ground or below ground fuel or oil storage tanks was observed during the site walkover and this was confirmed by the Store Manager at Sports Direct;
  - An internal electrical switchroom was present in the Sports Direct unit, contained behind an area of shelving (Photo 1; Appendix C);
  - All internal floors within the retail units were solid and in good condition;
  - A staff car park was located on the roof of the building with access from Valentia Place to the east; minor hydrocarbon staining in some of the car parking spaces was observed but the area was generally in good condition (Photo 2; Appendix C);
  - An air conditioning plant was present on the roof of the building, within the car park area; this was fenced off from car parking spaces and was observed to be in good condition (Photo 3; Appendix C);
  - The indicative planning application boundary also contained one of the arches to the north of the site fronting Brixton Station Road; this area was bricked up and no access was possible (Photo 4; Appendix C); and
  - It was noted that the building is bound to the north and south by elevated railway lines which are above the roof level, with a number of arches (beneath the railway lines) being used for storage and retail purposes.

#### Surrounding Land Uses

- 3.3 The site is bordered by the following land uses:
  - To the immediate north and south, the site is bound by elevated railway tracks and viaducts (which are currently boarded up) upon which the tracks were built, with only a single pedestrian street separating the site from the railway tracks and viaducts;
  - To the east, the site is bound by an area which is currently used as a servicing yard by the existing occupiers of the site, and Valentia Place further beyond;
  - To the west, the site is bound by Pope's Road, which separates the site from Brixton railway station; and
  - The surrounding area is heavily urbanised and surrounded by commercial and residential land uses.

#### **Site History**

- 3.4 Historical maps have been obtained as part of the Groundsure Enviro Insight report (refer to Appendix A).
- 3.5 The historical information of relevance is summarised in Table 3.1.

Year of Change (Scale)	On Site	Surrounding Area
1870-1877 (1:10,560) (1:1,056)	Undeveloped land adjacent to Brixton Railway Station.	<ul> <li>Railway tracks form the northern and southern boundaries, referred to as '<i>Brighton and South Coast railway</i>'.</li> <li>Brixton Railway Station is located to the west of the site.</li> <li>Unspecified tanks are noted 50 m to the south of the site boundary.</li> <li>Residential properties form much of the surrounding area within the 100 m and 500 m boundaries.</li> </ul>
1894-1899 (1:10,560) (1:1,056) (1:2,500)	The site is shown to be comprised of the 'Midland Railway coal depot'.	<ul> <li>An unspecified engine house is within 90 m to the south-west of the site.</li> <li>Coldharbour Lane tramway is located to the north-east.</li> <li>A second tramway is located along Gresham Road to the north of the site.</li> <li>A large hospital lies within 600 m of the site's western boundary 'south western hospital'.</li> </ul>
1916 - 1920 (1:10,560)	No significant change from previous edition.	A large laundry is located to the south of the site, within the 100 m boundary.

#### Table 3.1: Summary of Historic Mapping

Year of Change	On Site	Surrounding Area
(Scale) 1938 – 1948 (1:2,500) (1:10,560)	No significant change from previous edition.	No significant change from previous edition.
1938-1948 (1:10,560)	No significant change from previous edition.	No significant change from previous edition.
1950 – 1962 (1:2,500) (1:10,560)	No significant change from previous edition.	Engineering works are located within 30 m of the site boundary, to the south-east, over the railway tracks. A fire station is located 100 m to the east of the site. An electrical substation is located 120 m to the north-west. A telephone exchange is shown 150 m to the north-east.
1965 – 1980 (1:1,250) (1:10,000) (1:10,560)	By 1973, the site had been cleared and modified towards its current layout with a rooftop car park and single storey building.	Increased density of residential housing within the 750 m boundary. Unspecified works and depots are located to the south/south east directions. The large hospital is identified along the south- western boundary.
1984 – 1993 (1:1,250) (1:10,000)	No significant change from previous edition.	Buildings are located to the south-east of the site and include unspecified warehouses and a garage within the 100 m boundary.
1995 – 2003 (1:10,000) (1:1,250)	No significant change from previous edition.	N/A
2010-2019 (1:10,000) (1:1,250)	No significant change from previous edition.	No significant change from previous edition.

### Consultation

- 3.6 A contaminated land enquiry was issued to Lambeth Council on the 26<sup>th</sup> of November 2019 and their response is included within Appendix D of this report. This consultation confirms that the site is not classified as contaminated land under Part IIA of the Environmental Protection Act 1990 nor has it currently been identified for further review under the City's Contaminated Land Strategy (or other Part IIA undertaking).
- 3.7 Lambeth Council also confirm that there are no enforcement concerns regarding contaminative historical use and activity within the surrounding area under Part IIA of the Environmental Protection Act 1990 and no intention to complete further investigations regarding this have been confirmed.
- 3.8 Three sites within the surrounding area have been identified by the council as potentially contaminative and these are as follows:

- LCC Depot (NGR TQ312755), dated 1965, North of Brixton Station Road, west of Pope's Road and south of Canterbury Crescent (SW9 0HZ);
- Laundry, Engineering works (NGR TQ305761) dated 1952, North off Coldharbour Lane, east of Atlantic Road and west of Canterbury Crescent (SW9 9HQ); and
- Scaffolding depot, NGR (NGR TQ313756) dated 1998, 86/88 Gresham Road (SW9).

#### **Environmental Data Searches**

3.9 Environmental data has been obtained for the site from the Groundsure reports (Appendix A) and from data the EA and local authority websites. The information presented below is taken from these sources.

#### Table 3.2: Historical Industrial Sites

Entry	On Site	0-250 m
Potentially Contaminative Uses	20	55
Historical Tank Database	0	7
Historical Energy Features	0	35
Historical Petrol and Fuel Sites	0	0
Historical Garage and Motor Vehicle Repair	0	6
Potentially Infilled Land	0	0

- 3.10 There are 20 recorded potentially contaminative historical land uses on site and these all relate to railway infrastructure. There are a further 55 records of potentially contaminative land uses within a 250 m radius of the site. These land uses relate mostly to *'railway infrastructure'*, *'police stations'* and *'fire stations'*.
- 3.11 There are no records of historical tanks within the site.
- 3.12 However, there are seven tanks recorded to lie within a 250 m radius of the site, the closest of which is located 47 m to the south of the site and is described as '*tank or trough*' recorded in 1875.
- 3.13 There are no historical energy features recorded on site; however, thirty-five historical energy features are located within a 250 m radius of the site and are described as 'electricity substations', with the closest located 12 m to the south of the site.
- 3.14 There are no records of any historical petrol or any fuel sites within the site or located within a 250 m radius of the site.
- 3.15 There are no records of any historical garage and motor repair businesses within the site; however, there are six recorded within a 250 m radius of the site. All of these are described as 'garages' and the closest of which is recorded to be located 50 m to the south-east of the site.
- 3.16 There is no recorded potentially infilled land on site or within a 250 m radius of the site.

Entry	On Site	0-250 m
Historic IPC Authorisations	0	0
Licensed Discharge Consents	0	0
Red List Discharge Consents	0	0
Dangerous Substances List 1	0	0
Dangerous Substance List 2	0	0
Recorded Pollution Incidents List 1	0	0
Recorded Pollution Incidents List 2	0	0
Part A(1) and IPPC Authorised Activities	0	0
Part A(2) and Part B Activities and Enforcements	0	1
Category 3 or 4 Radioactive Substances Authorisations	0	0
Water Industry Referrals (potentially harmful discharges to the public sewer)	0	0
Planning Hazardous Substance Consents and Enforcements	0	0

#### Table 3.3: Environmental Permits, Incidents and Registers

- 3.17 According to the Groundsure reports, there are no records of any environmental permits, incidents or registers within the site boundary.
- 3.18 There are no licensed discharge consents recorded on site or within a 250 m radius of the site.
- 3.19 The one Part A(2) and Part B Activities and Enforcements located within a 250 m radius of the site is in relation to a Texaco Service station located 159 m to the east of the site; this was a Part B permit type and no enforcement was notified.
- 3.20 There are no records of Category 3 or 4 Radioactive Substances Authorisations within a 250 m radius of the site.

#### Table 3.4: Landfill and Other Waste Sites

Entry	On Site	0-250 m
Historic Landfill Sites	0	0
Waste treatment transfer or disposal sites	0	1
Licensed Waste Sites	0	1

- 3.21 As shown within Table 3.4, there are no records of any landfill or other waste sites within the site boundary.
- 3.22 One planning application reference was recorded for waste treatment transfer or disposal sites; this was located 29 m to the south-west of the site and refers to a recycling centre.
- 3.23 There is one recorded licensed waste site within 250 m of the site; this refers to a metal recycling centre that lies 63 m to the east which is no longer operational.

#### Table 3.5: Current Land Uses

Entry	On Site	0-250 m
Potentially Contaminative Industrial Sites	0	34
Petrol or Fuel Sites		1

Entry	On Site	0-250 m
National Grid high voltage underground electricity transmission cables	0	0
National Grid high pressure gas transmission pipelines	0	0

- 3.24 In accordance with Table 3.5, there are no potentially contaminative industrial sites currently on site. However, there are 34 recorded within a 250 m radius of the site, the closest of which is recorded to be 20 m to the north-west of the site and known to be *'Denmay Interioirs'*, a curtains and blinds company. The remaining contaminative industrial sites are associated with electronic equipment, published goods, clothing, unspecified works, business parks, industrial estates and fire stations.
- 3.25 There is one recorded petrol station or fuel site which refers to the Texaco site located 151 m to the east of the site. There are no national grid, high voltage underground electricity transmission cables or national grid high pressure gas transmission pipelines within the site or within a 250 m radius.

Entry	On Site	0-250 m
Groundwater Abstraction Licences	0	0
Surface Water Abstraction Licences	0	0
Potable Water Abstraction Licences	0	0
Source Protection Zones	0	0
Groundwater Vulnerability and Soil Leaching Potential entries	1	0
Surface Water Features	0	0
River Quality Entries	0	0

#### Table 3.6: Hydrogeology and Hydrology

- 3.26 There are no groundwater abstraction licences recorded on site or within a 250 m radius.
- 3.27 There are no potable abstraction licences recorded to be within a 250 m radius of the site.
- 3.28 The site is recorded to be located in an area of groundwater vulnerability and soil leaching potential.
- 3.29 This classification is recorded to be 'Minor Aquifer/High Leaching Potential' and is described in the Groundsure reports as '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.'

#### Table 3.7: Flooding

Entry	On Site and Surrounding Area
Environment Agency Flood Zone 2 within 250 m	None Identified
Environment Agency Flood Zone 3 within 250 m	None Identified
Risk of flooding from Rivers and Sea on site	Very Low
Flood Defences within 250 m	None Identified
Areas Benefiting from Flood Defences	None Identified
Flood Storage within 250 m	None Identified

Entry	On Site and Surrounding Area
BGS Groundwater Flooding susceptibility within 50 m	Potential Below Surface
BGS confidence rating for Groundwater Flooding susceptibility	Moderate

- 3.30 The site is not located within Flood Zone 2 or Flood Zone 3, nor is it located within 250 m of flood defences or within a flood storage area.
- 3.31 The risk of flooding from rivers or sea on site is identified to be very low, i.e. less than 1 in 1000 chance of flooding in any given year.
- 3.32 According to the Groundsure Reports and BGS, the site is located within an area of groundwater flooding susceptibility below the surface and has a moderate confidence rating.
- 3.33 BGS state that "Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding".

#### Table 3.8: Designated Environmentally Sensitive Sites

Entry	On Site	0-250 m
None Recorded		

3.34 There are no environmentally sensitive areas or Nitrate Vulnerable Zones within 200 m of the site.

#### Table 3.9: Natural Hazards

Entry	On Site
Maximum Shrink-Swell Hazard Rating	Moderate
Maximum Landslides Hazard Rating	Very Low
Maximum Soluble Rocks Hazard Rating	Negligible
Maximum Compressible Ground Hazard Rating	Negligible
Maximum Collapsible Hazard Rating	Very Low
Maximum Running Sand Hazard Rating	Very Low
Radon Affected Area and Percentage of homes above the Action Level	<1% of properties are above the Radon Action Level
Radon Protection Requirements for New Properties or Extensions to Existing Ones	No Radon Protective Measures are Necessary

- 3.35 According to Groundsure, the risk of shrink-swell within the site is Moderate. Shrink swell information provided by BGS for the site identifies that the ground conditions are predominantly of high plasticity and no special actions are required for existing structures, other than expert advice on trees or shrubs near buildings.
- 3.36 The risk of landslides on site is considered to be Very Low and BGS information for the site suggests that slope instability problems are unlikely to be present and, therefore, no special actions are required to avoid problems due to landslide.
- 3.37 The risk of ground dissolution of soluble rocks within the site is considered to be Negligible. BGS information for the site states that although soluble rocks are present on site, they are unlikely to cause problems except under exceptional conditions and therefore no special actions are required to avoid problems due to soluble rocks.
- 3.38 The Groundsure report identifies that the site is within an area at Negligible risk of compressible ground. There are no indicators for compressible deposits identified and no special actions are required.
- 3.39 The risk of collapsible ground on site is considered to be Very Low. BGS information for the site states that it is unlikely to have collapsible deposit problems. Therefore, no special actions are required.
- 3.40 According to BGS, the risk of running sand problems within the site is very low and BGS information states that there is a Very Low potential for running sand identified with increasing water tables on site and that no special actions are required.
- 3.41 The site is not in a Radon Affected Area (i.e. less than 1% of properties are above the action level) according to the Groundsure Report and therefore no radon protection measures are considered to be necessary.

Entry	On Site
Coal Mining	No
Non-Coal Mining	No
Brine Affected Areas	No
Johnson Poole and Bloomer Mining Area	Yes

#### Table 3.10: Mining

- 3.42 There are no mining areas within 50 m of the site.
- 3.43 Johnson Poole and Bloomer hold a dataset that provides information relating to mining activity. While it has been confirmed that there is a historical record of coal mining activity within a 1000 m radius (not pin-pointed), Groundsure records have stated that the site itself was a coal depot historically.

#### Table 3.11: Ground Workings

Entry	On Site	0-250 m
Historical Surface Ground Working Features	0	0
Historical Underground Working Features	0	0
Current Ground Workings	0	0

3.44 There are no records of any ground workings on site or within a 250 m radius of the site.

#### Table 3.12: Railways and Tunnels

Entry	On Site	0-250 m
Historical Railway Lines	0	0
Tunnels	0	1
Historical Railway and Tunnel Features	16	4
Underground railway lines	0	1
Active Railways	0	54

- 3.45 There are 16 records of historical railway and tunnels features on site; these are all in relation to railway sidings.
- 3.46 There are no historical railway lines located on site or within a 250 m radius of the site.
- 3.47 The is one railway tunnel located within a 250 m radius of the site; this is recorded to be located 26 m to the south-west of the site and there are no further details available.
- 3.48 There are no records of any underground railway lines that have been identified within the site; however, there is one recorded within a 250 m radius of the site. This is in reference to the 'London Underground, Victoria Line' located 54 m south of the site.
- 3.49 There are no active railway lines on site, but there are 54 active railways within 250 m of the site, the closest of which is recorded to be located 2 m to the north of the site and 4 m to the south of the site.
- 3.50 Additionally, it is noted within the Groundsure report that the site is not located within 5 km of the route of the High Speed 2 rail project or within 500 m from the route of the Crossrail 1 project.

#### **Mineral Safeguarding**

3.51 Due to the underlying geology, it is considered unlikely that it would be commercially viable or desirable to extract minerals or other materials from the site.

## 4 CONCEPTUAL SITE MODEL

#### General

4.1 The assessment of risk from contamination follows the source-pathway-receptor approach as described in CLR11 and is summarised as follows (refer to Figure 4.1).

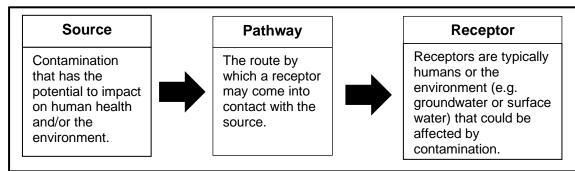


Figure 4.1: Source-Pathway-Receptor Approach

- 4.2 If there is no source-pathway-receptor (SPR) linkage in place, it is concluded that there is no risk of harm. If, however, there is a linkage between source and receptor, then a riskbased assessment called a Qualitative Risk Assessment (QRA) is used to determine the significance or potential impact of the SPR-linkage.
- 4.3 The QRA process involves the identification of sources based on historical mapping and data searches, together with identification of the exposure pathway and sensitive receptors. A Conceptual Site Model (CSM), which defines the key sources, pathways and receptors that have been identified as being relevant to this site is then developed.
- 4.4 In terms, of identifying 'significant' pollution linkages (i.e. those that could require remediation), a level of risk is assigned to each linkage. The overall risk of each pollution linkage is determined by classifying each linkage with a probability and consequence classification. Probability of a pollution linkage is classified as either having a High Likelihood, Likely, Low Likelihood or Unlikely occurrence. Similarly, the consequence of a pollution linkage is classified as either being Severe, Medium, Mild and Minor. A 'Risk Estimation' matrix table is then used to determine the overall risk of the pollution linkages. Where the level of risk is Moderate or greater, then the pollution linkage is considered 'significant' and further investigation is required.
- 4.5 Descriptions and definitions for each probability, consequence and risk classifications, including the risk matrix table is included within Appendix E of this report.
- 4.6 The Conceptual Site Model has been prepared with due regard to the advice contained in the Contaminated Land (England) Regulations 2006 and associated statutory guidance on contaminated land.

#### **Review of Potential Sources of Contamination**

4.7 Based on the information presented in the Sections 2-3 of this report, the potential sources of contamination that could impact on receptors have been identified and are summarised in Tables 4.1 and 4.2 below.

#### Table 4.1: Potential Sources of Contamination – On Site

Source	Location on Site	Activity	Potential Contaminants
Historical coal depot (Historical)	Full site area	Storage of coal for railway and other uses.	Hydrocarbons, Polycyclic Aromatic Hydrocarbons (PAHs), Asbestos, Metals
Railway Infrastructure <i>(Historical)</i>	Full site area	Rail Infrastructure	Hydrocarbons, PAHs, Asbestos
Current building (Retail unit and car park)	Full site area	Retail unit	Hydrocarbons, Asbestos.

#### Table 4.2: Potential Sources of Contamination – Off Site

Source	Location to the site	Activity	Potential Contaminants
Industrial/commercial buildings	Surrounding the site	Number of activities including warehouses,	Hydrocarbons, PAHs, Asbestos,
(historical and current)		a hospital and garages.	Metals
Electrical Substation (historical)	79 m to the north and north-west	Electrical Infrastructure	Polychlorinated biphenyls (PCBs), Hydrocarbons
Railway infrastructure including stations, tunnels and sidings.	Directly north and south of the site	Rail Infrastructure	Hydrocarbons, PAHs, Pesticides, Asbestos
(historical and current)			
Unspecified Tanks (historical)	Closest is 50m to the south.	Unknown	Unknown

#### **Review of Potential Exposure Pathways**

4.8 A review of the identified potential pathways that could exist at the site, whether or not a source of contamination has been identified in Tables 4.1 and 4.2, is summarised in Table 4.3.

Receptor	Pathway	Present	Notes
Human Health			
	Dermal contact, ingestion or inhalation of soil and soil dust	NO	The proposed scheme involves the construction of a multi storey building with one level basement and mezzanine level. The building will cover almost the full site area and there are no proposed areas of exposed soils as the site is 100% hardstanding.
Future site users (operation phase)	Migration in permeable strata and inhalation of gas and/or organic vapour	YES	The superficial geology (Taplow Gravel) is classified as a Secondary A Aquifer and therefore considered to be relatively permeable.
	Potential ground gas migration in permeable strata, accumulation and risk of explosion	YES	Borehole records suggest a significant thickness of made ground on site and therefore it is possible that ground gas is present on site.
Adjacent site users (demolition/ construction phase)	Ingestion or inhalation of windblown dust	YES	Residential dwellings and commercial uses are within close proximity (<100 m distance). Construction effects only.
Construction workers and service repair staff (demolition/ construction phase)	Dermal contact, ingestion, or inhalation of soil and soil dust	YES	Site workers could be exposed to soil or ground water contamination during works and/or asbestos and/or other substances during construction.
Development		1	
Future plant life (operational phase)	Plant uptake in the areas of public open space and gardens	NO	The proposed scheme does not include any areas of exposed soils such as landscaping at ground level.
Buried Services /Infrastructure (operational	Direct Contact	YES	The Proposed Development will include buried services (utilities) which could be susceptible to corrosion from contact with
phase)			pollutants within soil.
Environment			
Surface water (River Thames 2.7km north- west of the site) (demolition/	Surface runoff	YES	The River Thames could be exposed to contamination arising from general construction-related activities. Operational site drainage could also potentially contaminate the river.
construction phase and	Groundwater	YES	The superficial geology (Taplow Gravel) is considered to be permeable and is likely to contain perched groundwater

#### Table 4.3: Potential Exposure Pathways and Receptors

Receptor	Pathway	Present	Notes
operation phase)			that sits above the unproductive bedrock geology (London Clay Formation).
Superficial Aquifer: Taplow Gravels (Secondary A Aquifer)	Leaching from soil and vertical fluid movement	YES	The superficial geology (Taplow Gravel) is considered to be relatively permeable; piling and basement construction could open up groundwater pathways.
(demolition/ construction phase)			
Bedrock Aquifer: London Clay, (Unproductive Strata)	Leaching from soil and vertical fluid movement	NO	The bedrock geology (London Clay Formation) is classified as unproductive strata and considered to be of limited permeability.
(demolition/ construction phase)			

## Potentially Complete SPR-Linkages

4.9 Based on the sources, pathways and receptors identified in Table 4.3 below summarises all potentially complete pollutant linkages for the site and identifies the level of risk from each. Risk definitions are provided in Appendix E.

#### Table 4.4: Potential Complete SPR-Linkages

Source	Location	Contaminants	Pathway	Receptor	Probability	Consequence	Overall Risk	Justification and/or Mitigating Factors
Existing Building	Covers the majority of the full site area	Asbestos	Ingestion, dermal contact and/or fugitive inhalation	Demolition and Construction workers	Unlikely	Medium	Low to Moderate	Due to the age and nature of the historical use of the building, a full building inspection is required to identify and safely removal any asbestos (and/or other hazardous materials) prior to commencement of demolition/construction. Any waste will be removed by a specialist contractor.
		Hydrocarbons, PAHs, Metals (from car park)	Surface Water Runoff	Surface Water	Likely	Minor	Low	Surface water runoff from the existing site drainage is potentially untreated. The proposed development will include an appropriate surface water drainage strategy which will consider treatment for surface water runoff.
Potential historical contamination in soils and groundwater	On and Off site	Hydrocarbons, Metals. PAHs, Asbestos	Ingestion, dermal contact and fugitive inhalation	Demolition and Construction Worker and service repair workers	Likely	Medium	Moderate	Workers will be working directly in potentially contaminated soils and/or groundwater. Any risk from construction will be mitigated by good construction practice, such as Personal Protective Equipment (PPE).
				Future Site Users	No Linkage	Mild	No Risk	The proposed scheme involves the demolition and construction of a multi storey building. The building will cover the full site area and there are no proposed areas of exposed soils as the site is 100% hardstanding, therefore there is no risk of exposed potentially contaminated soils and/or groundwater to future site users.
				Adjacent site users	Likely	Mild	Very Low	Risk from demolition and construction will be mitigated by good demolition and construction practice (such as dust

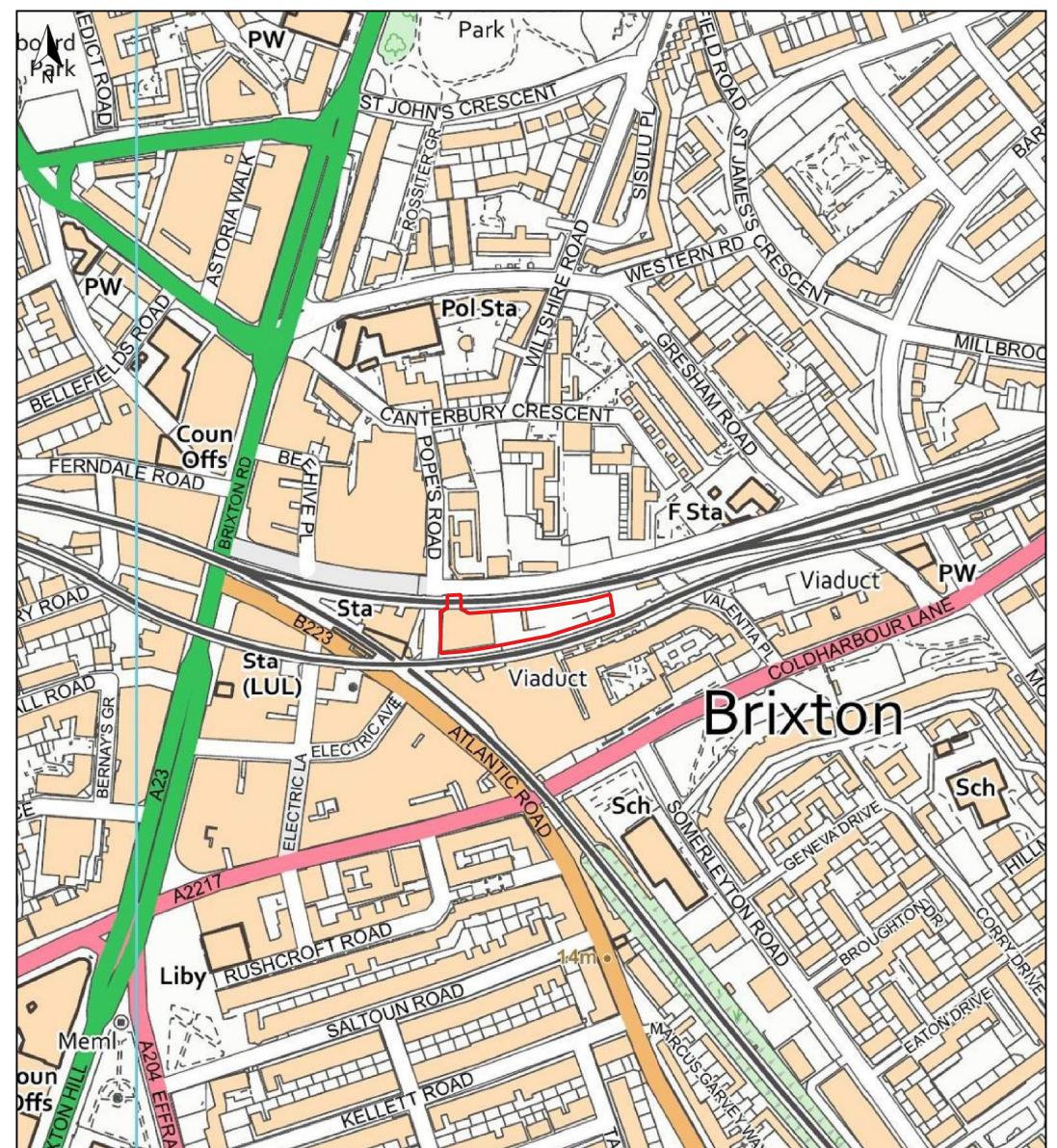
Source	Location	Contaminants	Pathway	Receptor	Probability	Consequence	Overall Risk	Justification and/or Mitigating Factors
								suppression measures) to ensure that adjacent site users are not affected.
			Plant Uptake	Landscape Planting	No Linkage	Mild	No Risk	There are no exposed soils at ground level within the proposal.
			Direct Contact	Buried Services	Low	Mild	Low	The proposed development will include buried services (utilities); therefore, any pipes and utilities in areas of potential contamination will be designed appropriately to reduce the risk of corrosion/damage.
Existing Ground Gas	On Site and Off site	Ground Gas	Ground Gas Migration	Demolition and construction worker and service repair workers	Low	Severe	Moderate	Due to the presence of made ground on site, there is the potential for ground gas to be present on site and in worst-case this could cause explosion risk. While there is no reported evidence of ground gas affecting the current building, it is recommended that a ground gas assessment is undertaken prior to demolition and construction on site and appropriate mitigation measures will be put in place.
				Future Site Users	No Linkage	Severe	No Linkage	Any made ground will be excavated during the demolition and construction of the basement. Any risk of ground gas from onsite materials will be removed.

## 5 SUMMARY & RECOMMENDATIONS

- 5.1 This Phase 1 Land Contamination Assessment has been prepared with due regard to the advice presented in the Contaminated Land (England) Regulations 2006 and associated statutory guidance on contaminated land.
- 5.2 Currently, the site comprises a funnel shaped parcel of land situated between two large railway viaducts. The site is bound by Pope's Road to the west, at its widest point, and Valentia Place to the east, at its narrowest point. The site comprises a single storey building currently in use as a retail store.
- 5.3 The Proposed Development will include the demolition of the existing building and erection of a part G + 19, part G + 8 storey building comprising flexible A1/A3/B1/D1/D2 uses at basement, ground and first floor, with restaurant (A3) use on floor 8 and B1 accommodation on floors 2 to 19, with plant enclosures at roof level, and associated cycle parking, servicing and all necessary enabling works.
- 5.4 From reviewing the Groundsure data, the site is reported to have 20 recorded potentially contaminative historical land uses on site that relate to railway infrastructure.
- 5.5 There are no current contaminative land uses depicted on the site. From reviewing baseline information and undertaking a site visit, the current land use is associated with retail and is of low risk. However, due to the age of the building there is the potential for asbestos to be located within the existing buildings on site (although not observed during the site walkover). The area surrounding the site has a number of potentially contaminative land uses, both historical and current.
- 5.6 Consultation with Lambeth Council affirmed that there were no records of contamination on the site, and no enforcements concerns relating to Part IIA of the Environmental Protection Act 1990.
- 5.7 Potentially significant pollution pathways within the site and surrounding area are associated with ingestion/inhalation of windblown dust from adjacent site users and dermal contact, ingestion or inhalation of potentially contaminated soil or dust for demolition and construction workers and service repair staff. It is also considered that there is a risk of potential contamination of surface water runoff from general demolition and construction-related activities and/or via operational site drainage.
- 5.8 Potential contamination within the soil may have a significant effect on buried services (utilities) which are susceptible to corrosion from direct contact with pollutants within soil. There is the potential for ground gas migration in permeable strata, accumulation and risk of explosion to demolition and construction workers and future site users. The superficial geology (Taplow Gravels) underlying the site is relatively permeable and therefore, there is the potential risk of contamination pathways via groundwater.
- 5.9 The overall risk from the existing buildings is considered to be **Moderate** for demolition and construction workers due to the potential presence of asbestos in buildings and **Low** for surface water due to potentially contaminated runoff entering the drainage system.

- 5.10 The overall risk of potential contamination within soils and groundwater on on-site and offsite sources is **Moderate** on construction workers as workers will be working directly in potentially contaminated soils and/or groundwater and **Very Low** for adjacent site users.
- 5.11 There is **No Risk** from potential contamination within soils and groundwater from future site users and planting because there are no proposed areas of exposed soils and/or groundwater at ground level and the proposed development is 100% hardstanding. Should any future planting occur, then this will be via above ground planters using clean soils.
- 5.12 There is a **Moderate** risk of existing ground gas migration accumulating and potential for explosion within the site on demolition and construction workers. This is because there is significant thickness of made ground on site, therefore, it is recommended that ground gas monitoring and a risk assessment is undertaken prior to demolition and construction on site. Following this, appropriate mitigation measures will be proposed (where necessary) to ensure there is no risk to construction workers.
- 5.13 A full building inspection will be required to identify and safely removal any asbestos (and/or other hazardous materials) prior to commencement of demolition and construction. Any waste will need to be removed by a specialist contractor.
- 5.14 It is recommended that a targeted site investigation is undertaken to quantify the contamination status of the underlying soils and ground water, with particular regard to the excavation of materials for the construction of the basement. This site investigation should also consider the risk of ground gas and the design of mitigation measures where required.
- 5.15 Good demolition and construction practices will be used to reduce the contamination risks to demolition/construction workers on site and adjacent site users, this will include ensuring demolition/construction workers wear appropriate personal protective equipment (PPE) and that any necessary licences would be obtained for the storage, treatment and disposal of waste.
- 5.16 An appropriate surface water drainage strategy will be designed to ensure there are no adverse effects of contamination on surface water, as a result of surface water runoff.





PW PRANROAD Ordnance Survey © Crowa Copyright-2015. All rights reserved. Licence number 1000224.	Contains public sector information licensed upder the Open Government Lisence v8.0.	
Кеу	Figure 2.1: Site Location Plan	
Application Site	Client: Trium Environmental LLP	
	Project: Popes Road Brixton ENVIRONMENTA	۱L
	Project No.: C2023 Drawn: Checked: Date: Scale: AM RM 04/03/2020 1:2,500@/	

Appendix A Groundsure Reports



RMA Environmental Limited	Groundsure Reference:	GS-6436469	
4 SWALLOW COURT R M A ENVIRONMENTAL LTD, -, TIVERTON/SAMPFORD PEVERELL, EX16 7EJ		C2023Sports_Direct_Brixton	
	Report Date	1 Nov 2019	
	Report Delivery Method:	Email - pdf	

## **Enviro Insight**

Address: RAILWAY ARCADE, ATLANTIC ROAD, LONDON, SW9 8JB

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Enviro 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,

Q.

Managing Director Groundsure Limited

Enc. Groundsure Enviroinsight

## Groundsure Enviro Insight 9

Address:	RAILWAY ARCADE, ATLANTIC ROAD, LONDON, SW9 8JB
Date:	1 Nov 2019
Reference:	GS-6436469
Client:	RMA Environmental Limited

NW



W

SW

Aerial Photograph Capture date: 23-Sep-2016 Grid Reference: 531270,175468 Site Size: 0.2510ha

Report Reference: GS-6436469 Client Reference: C2023\_-\_Sports\_Direct\_Brixton SE

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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	20	18	37	25
1.2 Additional Information – Historical Tank Database	0	1	6	39
1.3 Additional Information – Historical Energy Features Database	0	10	25	59
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	3	3	0
1.6 Historical military sites	0	0	0	0
1.7 Potentially Infilled Land	0	0	0	6
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	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
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	0	1	2
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	0	0
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	0	0
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	0	0	0
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	0
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	1	0	0	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	1	0	18	2
Section 4: Current Land Use	On-site	5	0-50m	51-25	0 2	51-500
4.1 Current Industrial Sites Data	0		6	28	No	ot searched
4.1 Current industrial Sites Data	0		0	1		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			None ic	lentified		
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<ul> <li>5.1 Records of Artificial Ground and Made Ground present beneath the study site</li> <li>5.2 Records of Superficial Ground and Drift Geology present beneath the study site</li> <li>5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.</li> <li>Section 6: Hydrogeology and Hydrology</li> <li>6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site</li> <li>6.2 Records of Strata Classification in the Bedrock Geology within</li> </ul>			Iden 0-5 Iden	tified 00m		
<ul> <li>5.1 Records of Artificial Ground and Made Ground present beneath the study site</li> <li>5.2 Records of Superficial Ground and Drift Geology present beneath the study site</li> <li>5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.</li> <li>Section 6: Hydrogeology and Hydrology</li> <li>6.1 Records of Strata Classification in the Superficial Geology</li> </ul>	On-site	0-50m	Iden 0-5 Iden	tified 00m tified	501-1000	1000-2000
<ul> <li>5.1 Records of Artificial Ground and Made Ground present beneath the study site</li> <li>5.2 Records of Superficial Ground and Drift Geology present beneath the study site</li> <li>5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.</li> <li>Section 6: Hydrogeology and Hydrology</li> <li>6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site</li> <li>6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site</li> <li>6.3 Groundwater Abstraction Licences (within 2000m of the study site</li> </ul>	On-site	0-50m	Iden 0-5 Iden Iden	tified 00m tified	501-1000	
<ul> <li>5.1 Records of Artificial Ground and Made Ground present beneath the study site</li> <li>5.2 Records of Superficial Ground and Drift Geology present beneath the study site</li> <li>5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.</li> <li>Section 6: Hydrogeology and Hydrology</li> <li>6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site</li> <li>6.2 Records of Strata Classification in the Bedrock Geology within</li> </ul>			Iden 0-5 Iden Iden 51-250	tified 00m tified 251-500		2000
<ul> <li>5.1 Records of Artificial Ground and Made Ground present beneath the study site</li> <li>5.2 Records of Superficial Ground and Drift Geology present beneath the study site</li> <li>5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.</li> <li>Section 6: Hydrogeology and Hydrology</li> <li>6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site</li> <li>6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site</li> <li>6.3 Groundwater Abstraction Licences (within 2000m of the study site)</li> <li>6.4 Surface Water Abstraction Licences (within 2000m of the study site)</li> <li>6.5 Potable Water Abstraction Licences (within 2000m of the study site)</li> </ul>	0	0	Iden 0-5 Iden Iden 51-250 0	tified 00m tified 251-500 0	0	2000 11
<ul> <li>5.1 Records of Artificial Ground and Made Ground present beneath the study site</li> <li>5.2 Records of Superficial Ground and Drift Geology present beneath the study site</li> <li>5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.</li> <li>Section 6: Hydrogeology and Hydrology</li> <li>6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site</li> <li>6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site</li> <li>6.3 Groundwater Abstraction Licences (within 2000m of the study site)</li> <li>6.4 Surface Water Abstraction Licences (within 2000m of the study site)</li> <li>6.5 Potable Water Abstraction Licences (within 2000m of the study site)</li> </ul>	0	0	Iden 0-5 Iden Iden 51-250 0 0	tified 00m tified 251-500 0 0	0	2000 11 0 3
<ul> <li>5.1 Records of Artificial Ground and Made Ground present beneath the study site</li> <li>5.2 Records of Superficial Ground and Drift Geology present beneath the study site</li> <li>5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.</li> <li>Section 6: Hydrogeology and Hydrology</li> <li>6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site</li> <li>6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site</li> <li>6.3 Groundwater Abstraction Licences (within 2000m of the study site)</li> <li>6.4 Surface Water Abstraction Licences (within 2000m of the study site)</li> </ul>	0 0 0	0 0 0	Iden 0-5 Iden Iden 51-250 0 0 0	tified 00m tified 251-500 0 0 0	0 0 0 Not searched	2000 11 0 3 Not searche



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	0	0	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	No	Not searched	Not searched	Not searched

#### Section 7: Flooding

7.1 Enviroment Agency Zone 2 floodplains within 250m of the study site	None identified
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	None 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	None identified
7.5 Areas benefiting from Flood Defences within 250m of the study site	None 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 at 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	0	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	0	0	0
8.8 Records of World Heritage Sites	0	0	0	0	0	0
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			Mod	erate		
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site	dy Moderate					
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

 $9.1.6\,$  Maximum Running Sand hazard rating identified on the study site

#### 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?

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?

#### Section 10: Mining

10.1 Coal mining areas within 75m of the study siteNone identified10.2 Non-Coal Mining areas within 50m of the study site boundaryNone identified

 $10.3\,$  Brine affected areas within 75m of the study site

None identified

Very Low

Very Low

The site is not in a Radon Affected Area, as less than 1% of properties

are above the Action Level.

No radon protective measures are necessary.



### 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

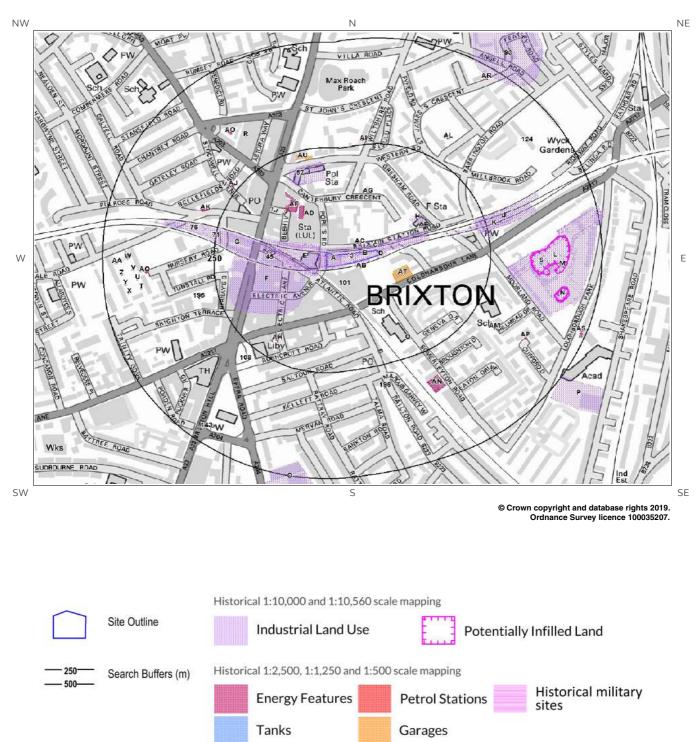
Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes 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





### **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: 100

ID	Distance [m]	Direction	Use	Date
1A	0	On Site	Railway Building	1987
2A	0	On Site	Railway Building	1993
3	0	On Site	Railway Buildings	1968
4B	0	On Site	Railway Buildings	1894
5B	0	On Site	Railway Sidings	1894
6A	0	On Site	Railway Buildings	1894
7B	0	On Site	Railway Building	1894
8B	0	On Site	Railway Building	1948
9B	0	On Site	Railway Sidings	1894
10B	0	On Site	Railway Buildings	1938
11B	0	On Site	Railway Buildings	1920
12C	0	On Site	Railway Sidings	1920
13C	0	On Site	Railway Sidings	1938
14C	0	On Site	Railway Building	1894
15D	0	On Site	Railway Building	1948
16D	0	On Site	Railway Sidings	1899
17A	0	On Site	Railway Buildings	1894
18A	0	On Site	Railway Buildings	1938
19A	0	On Site	Railway Buildings	1920
20A	0	On Site	Railway Buildings	1948
21E	3	W	Railway Station	1973
22E	3	W	Railway Station	1968
23E	3	W	Railway Station	1979
24E	6	W	Railway Station	1870
25E	10	W	Railway Station	1898
26E	12	W	Railway Station	1948
27E	13	W	Railway Station	1894
28E	14	W	Railway Station	1920
29E	14	W	Railway Station	1938
30E	14	W	Railway Station	1899
31E	14	W	Railway Station	1871
32E	18	W	Railway Station	1894
33E	20	W	Railway Station	1993
34E	20	W	Railway Station	1987



			LOC	CATION INTELLIGENCE
35E	23	W	Railway Station	1962
36E	23	W	Railway Station	1954
37F	47	W	Railway Station	1987
38F	47	W	Railway Station	1993
39G	58	W	Railway Land	1899
40G	64	W	Railway Buildings	1968
41G	64	W	Railway Buildings	1993
42G	64	W	Railway Buildings	1987
43G	64	W	Railway Buildings	1979
44G	64	W	Railway Buildings	1973
45	75	W	Railway Buildings	1899
46H	102	NE	Fire Station	1968
47H	102	NE	Fire Station	1987
48H	102	NE	Fire Station	1993
49H	102	NE	Fire Station	1979
50H	102	NE	Fire Station	1973
51J	162	E	Railway Station	1898
52G	168	W	Railway Buildings	1899
531	172	Ν	Police Station	1968
541	172	Ν	Police Station	1973
551	173	Ν	Police Station	1962
561	173	Ν	Police Station	1979
57	174	Ν	Police Station	1954
581	178	Ν	Police Station	1987
591	178	Ν	Police Station	1993
60J	227	E	Railway Station	1948
61K	231	E	Railway Station	1871
62K	238	E	Railway Station	1993
63K	238	E	Railway Station	1968
64K	238	E	Railway Station	1987
65K	238	E	Railway Station	1979
66K	238	E	Railway Station	1962
67K	238	E	Railway Station	1954
68K	238	E	Railway Station	1973
69K	239	E	Railway Station	1894
70K	239	E	Railway Station	1870
71	239	W	Railway Buildings	1899
72K	240	E	Railway Station	1938
73K	240	E	Railway Station	1920
74K	241	E	Railway Station	1899
75K	241	E	Railway Station	1894
76	271	W	Railway Buildings	1899
77M	286	E	Nursery	1894
78L	288	E	Nursery	1894
79L	289	E	Nursery	1899
80L	293	E	Nursery	1898



			L	OCATION INTELLIGENCE
81L	295	E	Nursery	1948
82L	296	E	Nursery	1870
83L	304	E	Nursery	1920
84L	304	E	Nursery	1938
85L	339	E	Unspecified Heap	1993
86L	339	E	Unspecified Heap	1987
87L	340	E	Unspecified Heap	1979
88M	357	E	Nursery	1871
89N	404	E	Unspecified Heap	1979
90N	408	E	Unspecified Heap	1993
91N	408	E	Unspecified Heap	1987
920	465	S	Unspecified Works	1992
93	480	NE	Nurseries	1894
940	483	S	Unspecified Works	1982
950	483	S	Unspecified Works	1973
96O	483	S	Unspecified Works	1968
97P	497	SE	Unspecified Depot	1987
98P	497	SE	Unspecified Depot	1993
99P	497	SE	Unspecified Depot	1973
100P	497	SE	Unspecified Depot	1979

#### 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:

46

ID	Distance (m)	Direction	Use	Date
101	47	S	Tank or Trough	1875
102AD	98	Ν	Tank or Trough	1875
103Q	206	S	Unspecified Tank	1974
104Q	207	S	Unspecified Tank	1991
105Q	207	S	Unspecified Tank	1987
106Q	207	S	Unspecified Tank	1987
107Q	207	S	Unspecified Tank	1995
108	281	SW	Unspecified Tank	1987
109R	330	NW	Unspecified Tank	1896
110R	330	NW	Unspecified Tank	1877
111S	359	E	Tanks	1991
112S	359	E	Tanks	1984
1135	359	E	Tanks	1987
114S	360	E	Tanks	1993
115S	360	E	Tanks	1992



			LO	CATION INTELLIGENCE
116S	361	E	Unspecified Tank	1974
117S	364	E	Unspecified Tank	1974
118T	414	W	Unspecified Tank	1958
119T	414	W	Unspecified Tank	1950
120T	414	W	Unspecified Tank	1961
121U	421	W	Unspecified Tank	1958
122U	421	W	Unspecified Tank	1950
123U	421	W	Unspecified Tank	1961
124	421	NE	Unspecified Tank	1896
125V	429	W	Unspecified Tank	1958
126V	430	W	Unspecified Tank	1950
127V	430	W	Unspecified Tank	1961
128W	440	W	Unspecified Tank	1958
129W	441	W	Unspecified Tank	1961
130W	441	W	Unspecified Tank	1950
131X	442	W	Unspecified Tank	1958
132X	443	W	Unspecified Tank	1950
133X	443	W	Unspecified Tank	1961
134W	448	W	Unspecified Tank	1961
135W	448	W	Unspecified Tank	1950
136Y	448	W	Unspecified Tank	1958
137Y	448	W	Unspecified Tank	1961
138Y	448	W	Unspecified Tank	1950
139W	448	W	Unspecified Tank	1958
140Z	455	W	Unspecified Tank	1958
141Z	456	W	Unspecified Tank	1961
142Z	456	W	Unspecified Tank	1950
143	463	SW	Tank or Trough	1875
144AA	466	W	Unspecified Tank	1961
145AA	466	W	Unspecified Tank	1950
146AA	467	W	Unspecified Tank	1958

#### 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:

94

ID	Distance (m)	Direction	Use	Date
147AB	12	S	Electricity Substation	1987
148AB	12	S	Electricity Substation	1987
149AB	12	S	Electricity Substation	1991
150AB	13	S	Electricity Substation	1995



			LOC	ATION INTELLIGENCE
151AB	13	S	Electricity Substation	1974
152AC	20	Ν	Electricity Substation	1993
153AC	22	Ν	Electricity Substation	1974
154AC	23	Ν	Electricity Substation	1986
155AC	23	Ν	Electricity Substation	1985
156AC	23	Ν	Electricity Substation	1991
157AD	97	NW	Electricity Substation	1993
158AD	98	NW	Electricity Substation	1986
159AD	98	NW	Electricity Substation	1985
160AD	98	NW	Electricity Substation	1991
161H	115	NE	Electricity Substation	1986
162H	115	NE	Electricity Substation	1991
163H	115	NE	Electricity Substation	1985
164AE	115	NE	Electricity Substation	1993
165AE	115	NE	Electricity Substation	1974
166AF	118	NW	Electricity Substation	1993
167AF	119	NW	Electricity Substation	1950
168AF	119	NW	Electricity Substation	1950
169AF	120	NW	Electricity Substation	1985
170AF	120	NW	Electricity Substation	1986
171AF	120	NW	Electricity Substation	1991
172AG	134	Ν	Electricity Substation	1993
173AG	135	N	Electricity Substation	1974
174AG	136	N	Electricity Substation	1985
175AG	136	N	Electricity Substation	1986
176AG	136	Ν	Electricity Substation	1991
177AH	199	SW	Electricity Substation	1995
178AH	209	SW	Electricity Substation	1974
179AH	210	SW	Electricity Substation	1991
180AH	210	SW	Electricity Substation	1987
181AH	210	SW	Electricity Substation	1987
182AI	259	Ν	Electricity Substation	1993
183AI	260	Ν	Electricity Substation	1974
184AI	260	Ν	Electricity Substation	1986
185AI	260	Ν	Electricity Substation	1991
186AI	260	Ν	Electricity Substation	1985
187AJ	262	NW	Electricity Substation	1950
188AJ	262	NW	Electricity Substation	1950
189AJ	269	NW	Electricity Substation	1950
190AJ	269	NW	Electricity Substation	1950
191AK	282	W	Electricity Substation	1975
192AK	286	W	Electricity Substation	1993
193AK	286	W	Electricity Substation	1992
194AK	287	W	Electricity Substation	1991
195	291	W	Electricity Substation	1950
196	298	S	Electricity Substation	1974
	200		2.000.000 00000000000000000000000000000	



CATION INTELLIGENCE	LOCA			
1974	Electricity Substation	NE	305	197AL
1991	Electricity Substation	NE	305	198AL
1985	Electricity Substation	NE	305	199AL
1986	Electricity Substation	NE	305	200AL
1993	Electricity Substation	NE	306	201AL
1987	Electricity Substation	SE	308	202AM
1984	Electricity Substation	SE	308	203AM
1991	Electricity Substation	SE	308	204AM
1974	Electricity Substation	SE	309	205AM
1993	Electricity Substation	SE	310	206AM
1992	Electricity Substation	SE	310	207AM
1974	Electricity Substation	SE	313	208AN
1995	Electricity Substation	SE	313	209AN
1991	Electricity Substation	SE	317	210AN
1987	Electricity Substation	SE	317	211AN
1987	Electricity Substation	SE	317	212AN
1950	Electricity Substation	NW	352	213AO
1993	Electricity Substation	NW	353	214AO
1992	Electricity Substation	NW	353	215AO
1975	Electricity Substation	NW	354	216AO
1974	Electricity Substation	NW	354	217AO
1991	Electricity Substation	NW	355	218AO
1993	Electricity Substation	NW	355	219AO
1950	Electricity Substation	NW	355	220AO
1991	Electricity Substation	NW	361	221AO
1986	Electricity Substation	NW	361	222AO
1985	Electricity Substation	NW	361	223AO
1950	Electricity Substation	SE	377	224AP
1950	Electricity Substation	SE	380	225AP
1950	Electricity Substation	W	398	226U
1950	Electricity Substation	W	398	227U
1993	Electricity Substation	W	399	228U
1991	Electricity Substation	W	404	229AQ
1985	Electricity Substation	W	404	230AQ
1991	Electricity Substation	NE	470	231AR
1987	Electricity Substation	NE	470	232AR
1974	Electricity Substation	NE	471	233AR
1993	Electricity Substation	NE	472	234AR
1991	Electricity Substation	E	483	235AS
1987	Electricity Substation	E	483	236AS
1984	Electricity Substation	E	483	237AS
1974	Electricity Substation	E	484	238AS
1992	Electricity Substation	E	487	239AS
1993	Electricity Substation	E	487	240AS



0

#### 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:

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: 6

ID	Distance (m)	Direction	Use	Date
241AT	50	SE	Garage	1987
242AT	50	SE	Garage	1987
243AT	50	SE	Garage	1991
244AT	51	SE	Garage	1974
245AU	225	Ν	Garages	1958
246AU	226	Ν	Garages	1958

#### 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: 6

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

ID	Distance(m)	Direction	Use	Date
247L	339	E	Unspecified Heap	1993
248L	339	E	Unspecified Heap	1987
249L	340	E	Unspecified Heap	1979

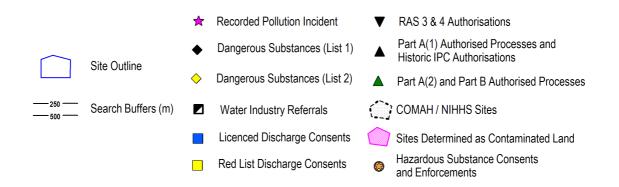
# Groundsure

2501		
250N 404 E	Unspecified Heap	1979
251N 408 E	Unspecified Heap	1993
252N 408 E	Unspecified Heap	1987



### 2. Environmental Permits, Incidents and Registers Map







### 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:

Database searched and no data found.

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

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:

0

0

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0



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

3

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		
1	159	E	Address: Texaco Service Station, 321 331 Coldharbour Lane, Brixton, SWS 8RX E 175423 Process: Unloading of Petrol into Storage at Service Stations Status: Historical Permit Permit Type: Part B		Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified	
2	330	SW	530942 175255	Address: Sav & Sons Dry Cleaners, 6 Acre Lane, Brixton, London, SW2 5SG Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified	
3	359	NW	530981 175755	Address: Muna Topps Dry Cleaners, 187 Stockwell Road, London, SW9 9SJ Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified	

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

Database searched and no data found.

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

Database searched and no data found.

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

0

0

0



0

0

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

Database searched and no data found. 2.2 Dangerous or Hazardous Sites Records of COMAH & NIHHS sites within 500m of the study site: 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: Database searched and no data found. 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



### 3. Landfill and Other Waste Sites Map



Site Outline EA/NRW Historic Landfill E EA/NRW Licensed Waste Site Search Buffers (m) BGS / DoE Survey Landfill Local Authority/Historical Mapping Landfill Records



# 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:

0

Database searched and no data found.

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

0

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:



#### 3.2 Other Waste Sites

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

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	
1	29	SW	531164 175420	Type of Site: Loading Bay/Recycling Facility (Conversion) Site Address: Land Bounded By, Atlantic Road, Electric Lane, The Rear Of Ele, London, Central London, SW9 8JA	Planning Application Reference: 14/03000/FUL Date: 06/10/2014	Further Details: Scheme comprises change of use of land to provide a secure gated market (use class A1) including 1 loading bay, on-site refuse and recycling facilities, male/female toilets and additional storage facilities. Data Source: Historic Planning Application Data Type: Point

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

21

1

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		
2	63	E	531392 175480	Site Address: J E Doorey Metal Co Ltd, Valentia Place, Coldharbour Lane, Brixton, London, SW9 Type: Metal Recycling Site (mixed MRS's) Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DOO001 EPR reference: EA/EPR/TP3590EQ/S002 Operator: J E Doorey Metal Co Ltd Waste Management licence No: 83291 Annual Tonnage: 30000.0	Issue Date: 02/11/1993 Effective Date: - Modified: - Surrendered Date: Dec 1 1998 12:00AM Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Valentia Pl, Brixton, SW9 Correspondence Address: -	
ЗA	528	NE	531810 175697	Site Address: Tenmead Ltd, 4-16 & 1-3, Belinda Road, Brixton, London, SW9 7DT Type: 75kte HCI Waste TS + treatment Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: POW077 EPR reference: EA/EPR/JB3637RK/T001 Operator: Powerday Plc Waste Management licence No: 83255 Annual Tonnage: 74999.0	Issue Date: 21/07/1992 Effective Date: 27/06/2012 Modified: 26/06/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Belinda Road (Brixton) Waste Transfer Facility Correspondence Address: -	
4A	528	NE	531810 175697	Site Address: - Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes	Issue Date: 21/07/1992 Effective Date: - Modified: 25/05/2000 Surrendered Date: -	



ID	Distance (m)	Direction	NGR	iR Details			
				Environmental Permitting Regulations (Waste) Licence Number: TEN001 EPR reference: - Operator: Tenmead Ltd Waste Management licence No: 83255 Annual Tonnage: 46000.0	Expiry Date: - Cancelled Date: - Status: Modified Site Name: Tenmead Ltd, Belinda Rd, Se19 Correspondence Address: Tenmead Ltd, 2, Royal Terrace, Southend on Sea, Essex, SS1 7DT		
5A	528	NE	531810 175697	Site Address: Tenmead Ltd, 4-16 & 1-3, Belinda Road, Brixton, London, SW9 7DT Type: 75kte HCI Waste TS + treatment Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TEN001 EPR reference: EA/EPR/UP3790EM/V005 Operator: Tenmead Ltd Waste Management licence No: 83255 Annual Tonnage: 74999.0	Issue Date: 21/07/1992 Effective Date: - Modified: 26/06/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Belinda Road (Brixton) Waste Transfer Facility Correspondence Address: -		
6A	528	NE	531810 175697	Site Address: Tenmead Ltd, 4-16, Belinda Road, Brixton, London, SW9 7DT Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: TEN001 EPR reference: EA/EPR/UP3790EM/V004 Operator: Powderday Plc Waste Management licence No: 83255 Annual Tonnage: 46000.0	Issue Date: 21/07/1992 Effective Date: - Modified: 25/05/2000 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Belinda Road Correspondence Address: -		
7A	528	NE	531810 175697	Site Address: Tenmead Ltd, 4-16 & 1-3, Belinda Road, Brixton, London, SW9 7DT Type: 75kte HCI Waste TS + treatment Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: POW077 EPR reference: EA/EPR/JB3637RK/T001 Operator: Powerday Plc Waste Management licence No: 83255 Annual Tonnage: 74999.0	Issue Date: 21/07/1992 Effective Date: 27/06/2012 Modified: 26/06/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Belinda Road (Brixton) Waste Transfer Facility Correspondence Address: -		
8	751	NE	531885 175988	Site Address: Plot 1, Gordon Grove, Camberwell, London, SE5 9DW Type: Vehicle Depollution Facility <5000 tps Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: BAR195 EPR reference: EA/EPR/CB3508KE/A001 Operator: Vauxhall Mania Limited Waste Management licence No: 402128 Annual Tonnage: 4999.0	Issue Date: 22/01/2015 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Vauxhall Mania Limited Correspondence Address: -		
Not shown	765	SE	531795 174869	Site Address: Shakespeare Road, London, SE24 0LA Type: 75kte HCI Waste TS + treatment Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NOR007 EPR reference: EA/EPR/GB3603KF/A001 Operator: Peter Norris (haulage) Limited Waste Management licence No: 405633 Annual Tonnage: 74999.0	Issue Date: 29/11/2018 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: North Shakespeare Road Correspondence Address: -		
Not shown	766	SE	531768 174848	Site Address: A & J Bull (Waste Handling & Recycling), Railway Sidings, Shakespeare Road, Herne Hill, London, SE24 Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes	Issue Date: 24/12/1986 Effective Date: - Modified: - Surrendered Date: - Expiry Date: 18/01/2002 Cancelled Date: -		



ID	Distance (m)	Direction	irection NGR	Details			
				Environmental Permitting Regulations (Waste) Licence Number: GRO001 EPR reference: EA/EPR/UP3490EJ/T002 Operator: Grosvenor Demolition Co Ltd Waste Management licence No: 83251 Annual Tonnage: 74999.0	Status: Expired Site Name: Grosvenor Demo Co Ltd, Herne Hill, SE24 Correspondence Address: -		
Not shown	771	SE	531700 174800	Site Address: Shakespeare Wharf, Shakespeare Road, Brixton, London, SE24 OLA Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AJB004 EPR reference: - Operator: S I T A Waste Handling Ltd Waste Management licence No: 83343 Annual Tonnage: 0.0	Issue Date: 10/12/2002 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Shakespeare Wharf Correspondence Address: Helen Nolan, Vine Court, Chalk Pit Lane, Dorking, Surrey, RG4 1AG		
Not shown	771	SE	531700 174800	Site Address: Shakespeare Wharf, Shakespeare Road, Herne Hill, London, SE24 0LA Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SSE005 EPR reference: EA/EPR/AB3507LC/T001 Operator: Sita South East Limited Waste Management licence No: 83343 Annual Tonnage: 87750.0	Issue Date: 10/12/2002 Effective Date: 29/01/2014 Modified: 05/08/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Brixton Transfer Station Correspondence Address: -		
Not shown	771	SE	531700 174800	Site Address: Shakespeare Wharf, Shakespeare Road, Brixton, London, SE24 OLA Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AJB004 EPR reference: - Operator: S I T A Waste Handling Limited Waste Management licence No: 83343 Annual Tonnage: 0.0	Issue Date: 10/12/2002 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Shakespeare Wharf Correspondence Address: Vine Court, Chalk Pit Lane, Dorking, Surrey, RG4 1AG		
Not shown	771	SE	531700 174800	Site Address: Shakespeare Wharf, Shakespeare Road, Herne Hill, London, SE24 0LA Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SSE005 EPR reference: EA/EPR/AB3507LC/V002 Operator: Shukco 347 Ltd Waste Management licence No: 83343 Annual Tonnage: 87750.0	Issue Date: 10/12/2002 Effective Date: 29/01/2014 Modified: 30/06/2016 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Brixton Transfer Station Correspondence Address: -		
Not shown	771	SE	531700 174800	Site Address: Shakespeare Wharf, Shakespeare Road, Brixton, London, SE24 OLA Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AJB004 EPR reference: EA/EPR/ZP3890EF/A001 Operator: S I T A ( G B ) Ltd Waste Management licence No: 83343 Annual Tonnage: 87750.0	Issue Date: 10/12/2002 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Shakespeare Road Transfer Station Correspondence Address: -		



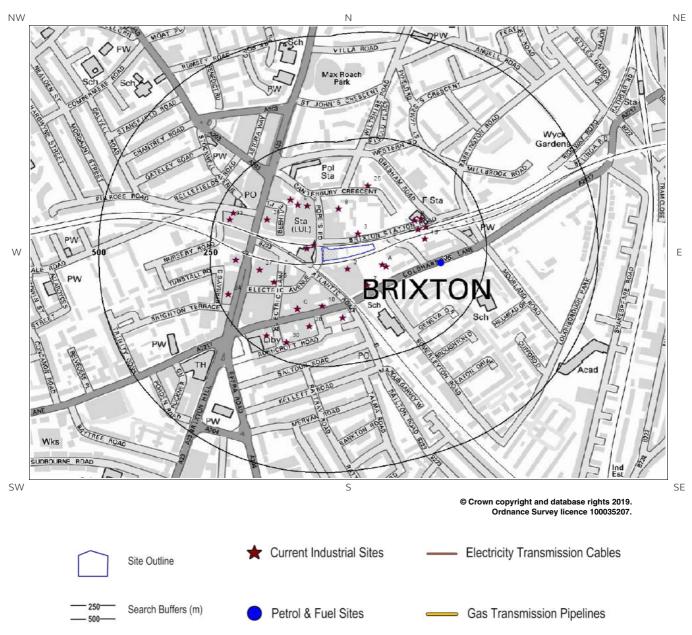
ID	Distance (m)	Direction	NGR	Det	etails		
Not shown	771	SE	531700 174800	Site Address: Shakespeare Wharf, Shakespeare Road, Herne Hill, London, SE24 OLA Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: SSE005 EPR reference: EA/EPR/AB3507LC/S003 Operator: Suez Recycling And Recovery Waste Management licence No: 83343 Annual Tonnage: 0.0	Issue Date: 10/12/2002 Effective Date: 29/01/2014 Modified: 30/06/2016 Surrendered Date: Apr 17 2018 12:00AM Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Brixton Transfer Station Correspondence Address: -		
Not shown	816	E	532105 175728	Site Address: London Borough of Lambeth, Public Health & Pest Control, 26, Wanless Road, London, SE24 0HW Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAM002 EPR reference: - Operator: London Borough of Lambeth Waste Management licence No: 83254 Annual Tonnage: 1005.0	Issue Date: 19/05/1993 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Wanless Rd Ts, Lambeth, Se24 Correspondence Address: Environmental Health Services, Public Health & Pest Control, 26, Wanless Road, London, SE24 0NH		
Not shown	816	E	532105 175728	Site Address: London Borough of Lambeth, Public Health & Pest Control, 26, Wanless Road, London, SE24 0HW Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAM002 EPR reference: EA/EPR/UP3190EV/A001 Operator: Lambeth London Borough Council Waste Management licence No: 83254 Annual Tonnage: 1005.0	Issue Date: 19/05/1993 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Wanless Rd Ts, Lambeth, Se24 Correspondence Address: -		
Not shown	847	NE	531910 176100	Site Address: Arch 439, Gordon Grove, Camberwell, London, SE5 9DW Type: 75kte Vehicle Depollution Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GOL013 EPR reference: EA/EPR/PP3195VN/A001 Operator: Golden Motor Care Ltd Waste Management licence No: 102085 Annual Tonnage: 74999.0	Issue Date: 23/11/2010 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Golden Motor Care Ltd Correspondence Address: -		
Not shown	847	NE	531910 176100	Site Address: Arch 439, Gordon Grove, Camberwell, London, SE5 9DW Type: Vehicle Depollution Facility <5000 tps Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GOL013 EPR reference: EA/EPR/PP3195VN/V002 Operator: Golden Motor Care Ltd Waste Management licence No: 102085 Annual Tonnage: 4999.0	Issue Date: 23/11/2010 Effective Date: - Modified: 04/08/2015 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Golden Motor Care Ltd Correspondence Address: -		
Not shown	1165	S	531630 174348	Site Address: Brixton Transfer Station, Shakespeare Wharf, Brixton, London, SE24 OLA Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AJB004 EPR reference: EA/EPR/ZP3890EF/V003	Issue Date: 10/12/2002 Effective Date: - Modified: 05/08/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Brixton Transfer Station Correspondence Address: -		



ID	Distance (m)	Direction	NGR	Details			
				Operator: S I T A Waste Handling Ltd Waste Management licence No: 83343 Annual Tonnage: 87750.0			
Not shown	1329	E	532560 175977	Site Address: Clinical Waste Ltd, Kings College Hospital, Denmark Hill, London, SE5 9NU Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CLI001 EPR reference: EA/EPR/UP3290EA/S003 Operator: Clinical Waste Ltd Waste Management licence No: 83252 Annual Tonnage: 5000.0	Issue Date: 15/12/1992 Effective Date: - Modified: 08/11/1995 Surrendered Date: Mar 30 2001 12:00AM Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Kings College Hosp, Denmark Hill, Se5 Correspondence Address: -		



### 4. Current Land Use Map





### 4. Current Land Uses

#### 4.1 Current Industrial Data

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

34

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

ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
1	20	NW	Denmay Interiors	531191 175486	34, Brixton Station Road, London, Greater London, SW9 8PE	Curtains and Blinds	Consumer Products
2	27	S	Hustlebucks	531266 175429	45 Granville Arcade, Coldharbour Lane, London, Greater London, SW9 8PR	Clothing, Components and Accessories	Consumer Products
3	31	Ν	Electricity Sub Station	531290 175513	Greater London, SW9	Electrical Features	Infrastructure and Facilities
4	34	W	Brixton Rail Station	531176 175477	Greater London, SW9	Railway Stations, Junctions and Halts	Public Transport, Stations and Infrastructure
5A	40	SE	Works	531345 175439	Greater London, SW9	Unspecified Works Or Factories	Industrial Features
6A	48	SE	Electricity Sub Station	531354 175435	Greater London, SW9	Electrical Features	Infrastructure and Facilities
7	76	S	Electricity Sub Station	531312 175390	Greater London, SW9	Electrical Features	Infrastructure and Facilities
8	94	Ν	Electricity Sub Station	531247 175571	Greater London, SW9	Electrical Features	Infrastructure and Facilities
9	105	Ν	Lambeth Print Room	531177 175578	International House 6, Canterbury Crescent, London, Greater London, SW9 7QE	Published Goods	Industrial Products
10	106	S	Clear Prints Digital	531210 175341	390-394, Coldharbour Lane, London, Greater London, SW9 8LF	Published Goods	Industrial Products
11D	106	E	J D Window Tinting	531425 175523	549-550 Arches, Brixton Station Road, London, Greater London, SW9 8PF	Industrial Coatings and Finishings	Industrial Products
12B	108	NE	Electricity Sub Station	531417 175544	Greater London, SW9	Electrical Features	Infrastructure and Facilities
13	115	E	Depot	531441 175500	Greater London, SW9	Container and Storage	Transport, Storage and Delivery
14E	115	NW	Electricity Sub Station	531156 175580	Greater London, SW9	Electrical Features	Infrastructure and Facilities
15	118	SW	H B Phone Centre	531103 175398	14, Electric Avenue, London, Greater London, SW9 8JX	Radar and Telecommunications Equipment	Industrial Products
16B	123	NE	Brixton Fire Station	531431 175548	Brixton Fire Station 84, Gresham Road, London, Greater London, SW9 7NP	Fire Brigade Stations	Central and Local Government



ID	Distance (m)	Directio n	Company	NGR	Address	Activity	Category
17C	125	SW	Harry Jacobs	531155 175335	410, Coldharbour Lane, London, Greater London, SW9 8LF	Published Goods	Industrial Products
18C	125	SW	Xerox Document Printing	531155 175335	410, Coldharbour Lane, London, Greater London, SW9 8LF	Clothing, Components and Accessories	Consumer Products
19C	125	SW	Xerox Design	531155 175335	410, Coldharbour Lane, London, Greater London, SW9 8LF	Published Goods	Industrial Products
20C	125	SW	Photographic Training Academy	531155 175335	410, Coldharbour Lane, London, Greater London, SW9 8LF	Clothing, Components and Accessories	Consumer Products
21D	125	E	Brixton Brewery Ltd	531443 175528	547 Arches, Brixton Station Road, London, Greater London, SW9 8PF	Alcoholic Drinks	Foodstuffs
22C	125	SW	Clearaprint	531155 175335	410, Coldharbour Lane, London, Greater London, SW9 8LF	Published Goods	Industrial Products
23E	135	NW	Electricity Sub Station	531139 175593	Greater London, SW9	Electrical Features	Infrastructure and Facilities
24	138	S	Electricity Sub Station	531256 175314	Greater London, SW9	Electrical Features	Infrastructure and Facilities
25	138	Ν	Electricity Sub Station	531313 175626	Greater London, SW9	Electrical Features	Infrastructure and Facilities
26	141	NW	R W A London LLP	531087 175546	409-411, Brixton Road, London, Greater London, SW9 7DG	Civil Engineers	Engineering Services
27	142	W	Brixton	531070 175427	Brixton Station, Brixton Road, London, Greater London, SW9 8HE	Underground Network Stations	Public Transport, Stations and Infrastructure
28	156	S	London Valeting Centre	531182 175294	413, Coldharbour Lane, London, Greater London, SW9 8LH	Vehicle Cleaning Services	Personal, Consumer and Other Services
29	193	W	Westbury Music Ltd	531017 175450	2, Tunstall Road, London, Greater London, SW9 8BN	Recording Studios and Record Companies	IT, Advertising, Marketing and Media Services
30	207	SW	ΕΧΥΖΕΤ	531130 175256	Flat 9 Hereford House, Rushcroft Road, London, Greater London, SW2 1LQ	Tobacco Products	Consumer Products
31	215	NW	London Publishing Partnership	531012 175562	Unit 212 The Bon Marche Centre 241-251, Ferndale Road, London, Greater London, SW9 8BJ	Published Goods	Industrial Products
32	216	SW	Electricity Sub Station	531086 175271	Greater London, SW2	Electrical Features	Infrastructure and Facilities
33	217	W	Bon Marche Centre	531004 175545	The Bon Marche Centre 241-251, Ferndale Road, London, Greater London, SW9 8BJ	Business Parks and Industrial Estates	Industrial Features
34	224	W	Specsavers Hearcare	531001 175369	492, Brixton Road, London, Greater London, SW9 8EQ	Disability and Mobility Equipment	Consumer Products



#### 4.2 Petrol and Fuel Sites

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

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Directio n	NGR	Company	Address	LPG	Status
35	151	E	531476 175443	TEXACO	321-331, Coldharbour Lane, Brixton, London, Inner London, SW9 8RX	Not Applicable	Obsolete

#### 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:

Database searched and no data found.

0

0

1

#### 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:



### 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
TPGR-XSV	TAPLOW GRAVEL MEMBER	SAND AND GRAVEL

#### 5.3 Bedrock and Solid Geology

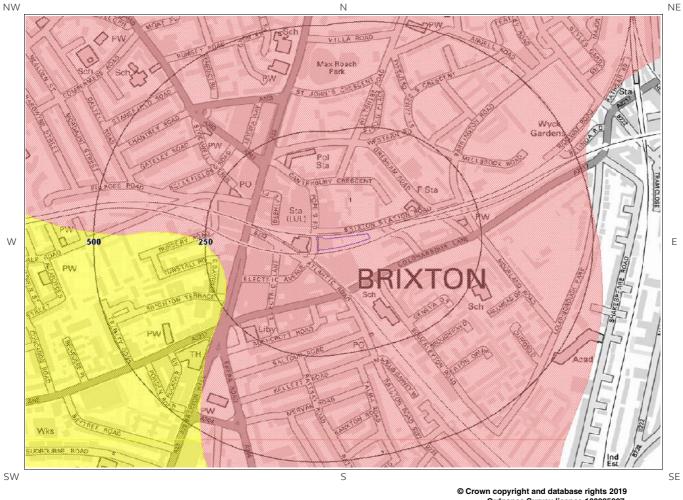
The database has been searched on site, including a 50m buffer.

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



Ordnance Survey licence 100035207.

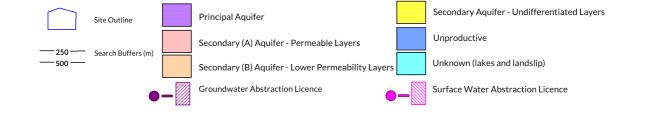
Secondary Aquifer - Undifferentiated Layers Principal Aquifer Site Outline Unproductive Secondary (A) Aquifer - Permeable Layers Search Buffers (m) Unknown (lakes and landslip) Secondary (B) Aquifer - Lower Permeability Layers 500



### 6b. Aquifer Within Bedrock Geology and Abstraction Licences

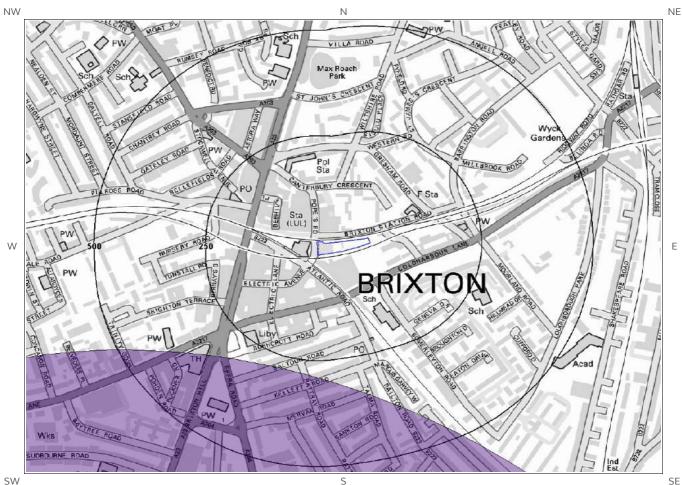


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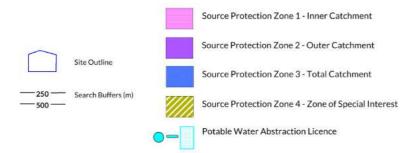


## 6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licences



SW

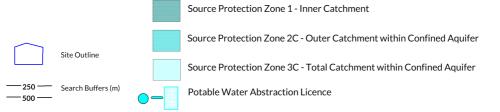
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### 6d. Hydrogeology – Source Protection Zones within confined aquifer







### 6e. Hydrology – Watercourse **Network and River Quality**



SW

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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	Distanc e (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
3	215	W	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	2 447 S Secondary A		Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

#### 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	Distanc e (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
2	447	S	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 show n	1105	SW	530200 175000	Status: Historical Licence No: 28/39/42/0006 Details: General Washing/Process Washing Direct Source: THAMES GROUNDWATER Point: ACRE LANE, BRIXTON, - BOREHOLE 'A' Data Type: Point Name: SUNLIGHT SERVICE GROUP LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 25/04/1996 Version End Date:		
Not show n	1123	SW	530180 175000	Status: Active Licence No: 28/39/42/0006 Details: General Washing/Process Washing Direct Source: THAMES GROUNDWATER Point: 125 ACRE LANE,BRIXTON,SW2 - BOREHOLE Data Type: Point Name: Berendsen UK Limited	Annual Volume (m <sup>3</sup> ): 95,000 Max Daily Volume (m <sup>3</sup> ): 1,227 Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 22/07/2013 Version End Date:		
Not show n	1193	NE	532330 176130	Status: Historical Licence No: TH/039/0042/010 Details: Heat Pump Direct Source: THAMES GROUNDWATER Point: CUTCOMBE ROAD, LAMBETH, LONDON Data Type: Point Name: King's College London	Annual Volume (m <sup>3</sup> ): 315,360 Max Daily Volume (m <sup>3</sup> ): 864 Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 25/05/2012 Version End Date:		
Not show n	1193	NE	532330 176130	Status: Active Licence No: TH/039/0042/010/R01 Details: Heat Pump Direct Source: THAMES GROUNDWATER Point: CUTCOMBE ROAD, LAMBETH, LONDON Data Type: Point Name: King's College London	Annual Volume (m <sup>3</sup> ): 315,360 Max Daily Volume (m <sup>3</sup> ): 864 Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 01/04/2019 Version End Date:		
Not show n	1267	NW	530080 176050	Status: Historical Licence No: 28/39/42/0017 Details: General Washing/Process Washing Direct Source: THAMES GROUNDWATER Point: 17-19 UNION ROAD,CLAPHAM ROAD, SW4 - BOREHOLE Data Type: Point Name: GLN LONDON LIMITED	Annual Volume (m <sup>3</sup> ): 168,206 Max Daily Volume (m <sup>3</sup> ): 682 Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 04/04/2007 Version End Date:		
Not show n	1267	NW	530080 176050	Status: Historical Licence No: 28/39/42/0017 Details: General Washing/Process Washing Direct Source: THAMES GROUNDWATER Point: 17-19 CLAPHAM ROAD, LONDON, - BOREHOLE 'A' Data Type: Point Name: PERSIMMON HOMES (SOUTH EAST) LTD	Annual Volume (m <sup>3</sup> ): 168,206 Max Daily Volume (m <sup>3</sup> ): 682 Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 25/03/2003 Version End Date:		



ID	Distance (m)	Direction	on NGR Details			
Not show n	1272	NW	530100 176100	Status: Historical Licence No: 28/39/42/0017 Details: General Washing/Process Washing Direct Source: THAMES GROUNDWATER Point: 17-19 CLAPHAM ROAD, LONDON, - BOREHOLE 'A' Data Type: Point Name: SAVOY HOTEL LAUNDRY LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 13/06/1966 Version End Date:	
Not show n	1272	NW	530100 176100	Status: Historical Licence No: 28/39/42/0017 Details: General Washing/Process Washing Direct Source: THAMES GROUNDWATER Point: 17-19 CLAPHAM ROAD, LONDON, - BOREHOLE 'B' Data Type: Point Name: SAVOY HOTEL LAUNDRY LTD	Annual Volume (m <sup>3</sup> ): - Max Daily Volume (m <sup>3</sup> ): - Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 13/06/1966 Version End Date:	
Not show n	1304	SW	530541 174328	Status: Historical Licence No: TH/039/0042/019 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT BRIXTON PUMPING STATION Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 3,650,000 Max Daily Volume (m <sup>3</sup> ): 13,400 Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 01/04/2013 Version End Date:	
Not show n	1304	SW	530541 174328	Status: Active Licence No: TH/039/0042/019/R01 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT BRIXTON PUMPING STATION Data Type: Point Name: Thames Water Utilities Ltd	Annual Volume (m <sup>3</sup> ): 3,650,000 Max Daily Volume (m <sup>3</sup> ): 13,400 Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 01/04/2019 Version End Date:	
Not show n	1319	SW	530510 174330	Status: Historical Licence No: 28/39/42/0063 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: BRIXTON PUMPING STATION, LONDON SW2 - BOREHOLE Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 3,650,000 Max Daily Volume (m <sup>3</sup> ): 13,400 Original Application No: - Original Start Date: Expiry Date: Issue No: Version Start Date: 10/04/2002 Version End Date:	

#### 6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site

None identified



#### 6.5 Potable Water Abstraction Licences

Potable Water Abstraction Licences within 2000m of the study site

Identified

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (6c):

ID	Distanc e (m)	Direction	NGR	Details		
Not shown	1304	SW	530541 174328	Status: Historical Licence No: TH/039/0042/019 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT BRIXTON PUMPING STATION Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 3,650,000 Max Daily Volume (m <sup>3</sup> ): 13,400 Original Application No: - Original Start Date: 01/04/2013 Expiry Date: 31/03/2019 Issue No: 1 Version Start Date: Version End Date:	
Not shown	1304	SW	530541 174328	Status: Active Licence No: TH/039/0042/019/R01 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: BOREHOLE AT BRIXTON PUMPING STATION Data Type: Point Name: Thames Water Utilities Ltd	Annual Volume (m <sup>3</sup> ): 3,650,000 Max Daily Volume (m <sup>3</sup> ): 13,400 Original Application No: - Original Start Date: 01/04/2019 Expiry Date: 31/03/2028 Issue No: 1 Version Start Date: Version End Date:	
Not shown	1319	SW	530510 174330	Status: Historical Licence No: 28/39/42/0063 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: BRIXTON PUMPING STATION, LONDON SW2 - BOREHOLE Data Type: Point Name: THAMES WATER UTILITIES LTD	Annual Volume (m <sup>3</sup> ): 3,650,000 Max Daily Volume (m <sup>3</sup> ): 13,400 Original Application No: - Original Start Date: 10/04/2002 Expiry Date: 31/03/2013 Issue No: 1 Version Start Date: Version End Date:	

#### **6.6 Source Protection Zones**

Source Protection Zones within 500m of the study site

Identified

The following Source Protection Zones records are represented on the SPZ and Potable Water Abstraction Map (6c):

ID	Distanc e (m)	Direction	Zone	Description
1	279	S	2	Outer catchment



#### 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	Minor 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.

#### 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:



#### 6.10 Ordnance Survey MasterMap Water Network

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

Database searched and no data found.

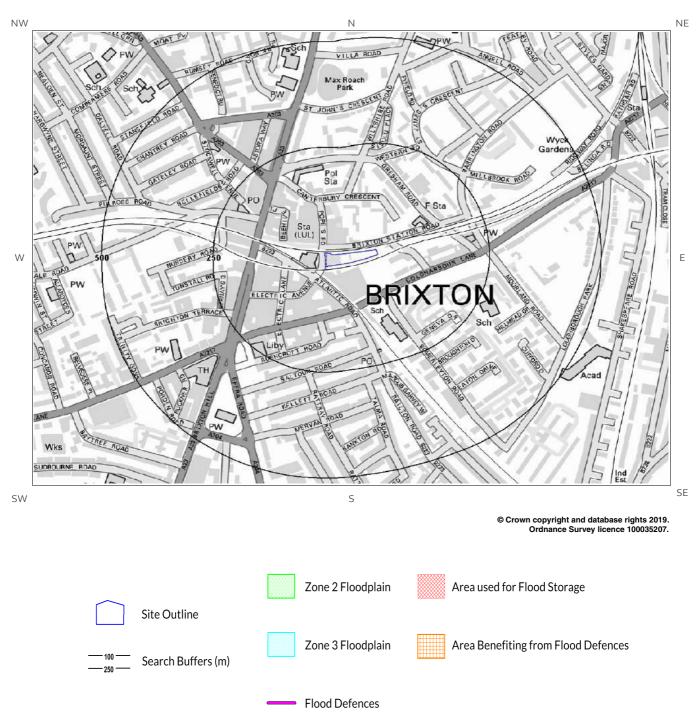
#### 6.11 Surface Water Features

Surface water features within 250m of the study site

None identified



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





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



Medium

High

Search Buffers (m)



### 7 Flooding

#### 7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m None 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:

Database searched and no data found.

#### 7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m None 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.

Database searched and no data found.

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

Highest risk of flooding onsite

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 Database searched and no data found. None identified

Very Low

#### 7.5 Areas benefiting from Flood Defences

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

None identified



None identified

#### 7.6 Areas benefiting from Flood Storage

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

#### 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 at Surface Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information 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

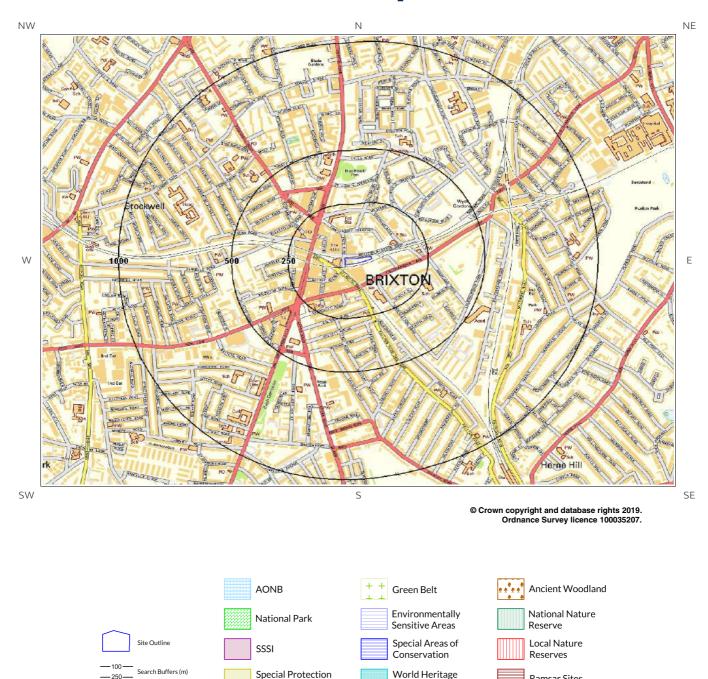
Moderate

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**



Sites

Areas

Nitrate Sensitive

Report Reference: GS-6436469 Client Reference: C2023\_-\_Sports\_Direct\_Brixton

Areas

Zones

Nitrate Vulnerable

**Ramsar Sites** 



### 8. Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites within 2000m of the study site

None identified

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

Database searched and no data found.

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

0

0

0

0

Database searched and no data found.

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

Database searched and no data found.

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

Database searched and no data found.

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

0



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

Database searched and no data found.
.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:
Database searched and no data found.
8.8 Records of World Heritage Sites within 2000m of the study site:
Database searched and no data found.
3.9 Records of Environmentally Sensitive Areas within 2000m of the study site:
Database searched and no data found.
8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the tudy site:
Database searched and no data found.
3.11 Records of National Parks (NP) within 2000m of the study site:
Database searched and no data found.
8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:

0



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

Database searched and no data found.

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

Database searched and no data found.

0

### 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

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

Hazard

Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a probable increase in insurance risk during droughts or where vegetation with high moisture demands is present.

#### 9.1.2 Landslides

Maximum Landslide\* hazard rating identified on the study site

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

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.

Hazard

#### 9.1.3 Soluble Rocks

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

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

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.

Hazard

This indicates an automatically generated 50m buffer and site.



Very Low

Moderate

Negligible

#### 9.1.4 Compressible Ground

Maximum Compressible Ground\* hazard rating identified on the study site

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

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.

Hazard

#### 9.1.5 Collapsible Rocks

Maximum Collapsible Rocks\* hazard rating identified on the study site

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

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

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.

Very Low

Negligible

Very Low



Hazard

#### 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

Database searched and no data found.

#### 10.2 Non-Coal Mining

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

Database searched and no data found.

#### **10.3 Brine Affected Areas**

Brine affected areas within 75m of the study site Guidance: No Guidance Required.

None identified

None identified

None identified



### **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: <u>www.environment-agency.gov.uk</u> 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 Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk

Ordnance Survey Adanac Drive, Southampton SO16 0AS Tel: 08456 050505 LOCATION INTELLIGENCE



British Geological Survey





The Coal Authority



Local Authority Authority: London Borough of Lambeth Phone: 020 7926 1000 Web: http://www.lambeth.gov.uk/ Address: Brixton Customer Centre, Civic Centre, 6 Brixton Hill,

> 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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### **Standard Terms and Conditions**

Groundsure's Terms and Conditions can be viewed online at this link:

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



RMA Environmental Limited 4 SWALLOW COURT R M A ENVIRONMENTAL	Groundsure Reference:	GS-6436470
LTD, -, TIVERTON/SAMPFORD PEVERELL, EX16 7EJ	Your Reference:	C2023Sports_Direct_Brixton
	Report Date	1 Nov 2019
	Report Delivery	Email - pdf

Method:

#### **Geo Insight**

Address: RAILWAY ARCADE, ATLANTIC ROAD, LONDON, SW9 8JB

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,

Q.

Managing Director Groundsure Limited

Enc. Groundsure Geo Insight



Address:	RAILWAY ARCADE, ATLANTIC ROAD, LONDON, SW9 8JB
Date:	1 Nov 2019
Reference:	GS-6436470
Client:	RMA Environmental Limited

NW

W

NE



S

SW

Aerial Photograph Capture date:23-Sep-2016Grid Reference:531270,175468Site Size:0.2510ha

SE



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### **Overview of Findings**

The Groundsure Geo Insight provides high quality geo-environmental information that allows geoenvironmental 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 landslip within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and linear	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
features	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: Geolo	gy 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. Its there any Artificial Ground Plade Ground present beneath	No
Geology and	2.1.2 Are there any records relating to permeability of artificial	
Geology and	<ul> <li>2.1.1 is there any Artificial Ground/ Plade Ground present beneath the study site?</li> <li>2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?</li> <li>2.2.1 Is there any Superficial Ground/Drift Geology present beneath</li> </ul>	No
2.2 Superficial Geology and Landslips	<ul> <li>2.1.1 is there any Artificial Ground/ Plade Ground present beneath the study site?</li> <li>2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?</li> <li>2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*</li> <li>2.2.2 Are there any records of permeability of superficial ground</li> </ul>	No Yes



Section 2: Geolo	gy 1:50,000 Scale					
2.3 Bedrock, Solid Geology and linear features	2.3.1 For records of Bedrock and Solid Geolo site* see the detailed findings section.	ogy beneath t	he study			
	2.3.2 Are there any records relating to permo ground within the study site boundary?	Yes				
	2.3.3 Are there any records of linear features study site boundary?					
Section 3: Rado	ı					
3. Radon	3.1Is the property in a Radon Affected Area a Protection Agency (HPA) and if so what perc above the Action Level?				is not in a Ra than 1% of p e the Action L	roperties are
	3.2Radon Protection			No radon	protective me necessary.	asures are
Section 4: Grour	nd Workings	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Scale Mapping	ce Ground Working Features from Small	0	0	0	Not Searched	Not Searched
4.2 Historical Under	ground Workings from Small Scale Mapping	0	0	0	0	0
4.3 Current Ground	Workings	0	0	0	0	0
Section 5: Minin	g, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.1 Historical Mining	9	0	0	0	0	0
5.2 Coal Mining		0	0	0	0	0
5.3 Johnson Poole a	nd Bloomer Mining Area	1	0	1	2	5
5.4 Non-Coal Mining	]*	0	0	0	0	1
5.5 Non-Coal Minin	g Cavities	0	0	0	0	0
5.5 Natural Cavities		0	0	0	0	0

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				LOCATION IN	ITELLIGENCE
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-100
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Cornwall and Devon Metalliferous Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-sit	ce			
6.1 Shrink-Swell Clay	Modera	te			
6.2 Landslides	Very Lo	W			
6.3 Ground Dissolution of Soluble Rocks	Negligik	ole			
6.4 Compressible Deposits	Negligik	ole			
6.5 Collapsible Deposits	Very Lo	W			
6.5 Running Sand	Very Lo	W			
Section 7: Borehole Records	On-si	te	0-50m	5	1-250
7 BGS Recorded Boreholes	0		3		38
Section 8: Estimated Background Soil Chemistry	On-si	te	0-50m	5	1-250
8 Records of Background Soil Chemistry	1		1		0
Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500	
9.1 Tunnels	0	1	1	Not Searched	
9.2 Historical Railway and Tunnel Features	16	3	1	Not Searched	
9.3 Historical Railways	0	0	0	Not Searched	
9.4 Active Railways	0	24	30	Not Searched	
9.5 Railway Projects	0	0	0	0	



### 1:10,000 Scale Availability





### 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	Full	Full	No coverage
		are mapped			
2	447.0	Some deposits are mapped	Full	Full	No coverage
3	1210.0	Some deposits are mapped	Full	Full	No coverage
4	1291.0	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)





### 1. Geology 1:10,000 scale

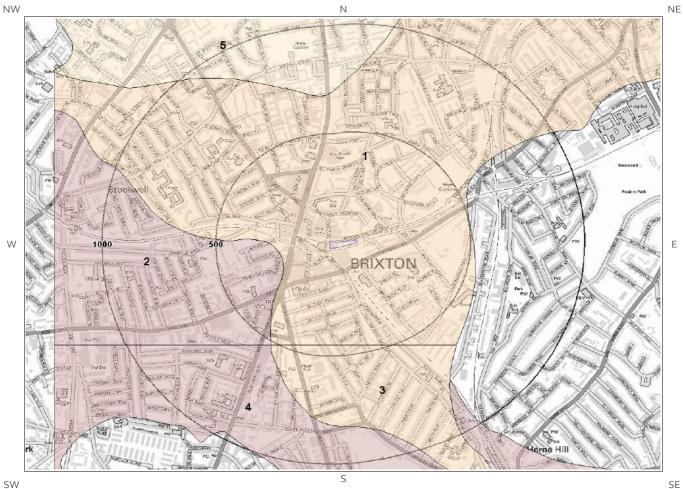
#### 1.1 Artificial Ground

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? No



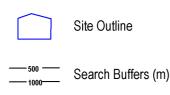
### **1.2 Superficial Deposits and** Landslips map (1:10,000 scale)



SW

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

I	ID	Distance (m)	Direction	LEX Code	Description	Rock Description
	1	0.0	On Site	TPGR-XSV	Taplow Gravel Formation - Sand And Gravel	Sand And Gravel
	2	215.0	W	HEAD-DMTN	Head - Diamicton	Diamicton
	3	447.0	S	TPGR-V	Taplow Gravel Formation - Gravel	Gravel

#### 1.2.2 Landslip

Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale?

No

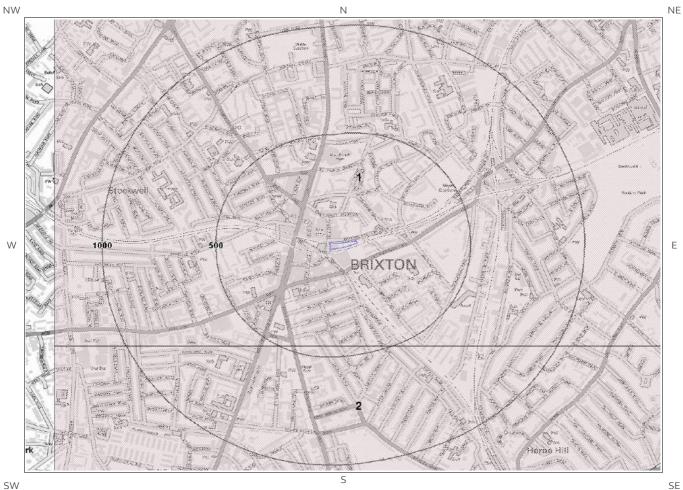
#### Database searched and no data found.

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)



SW

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
2	447.0	S	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

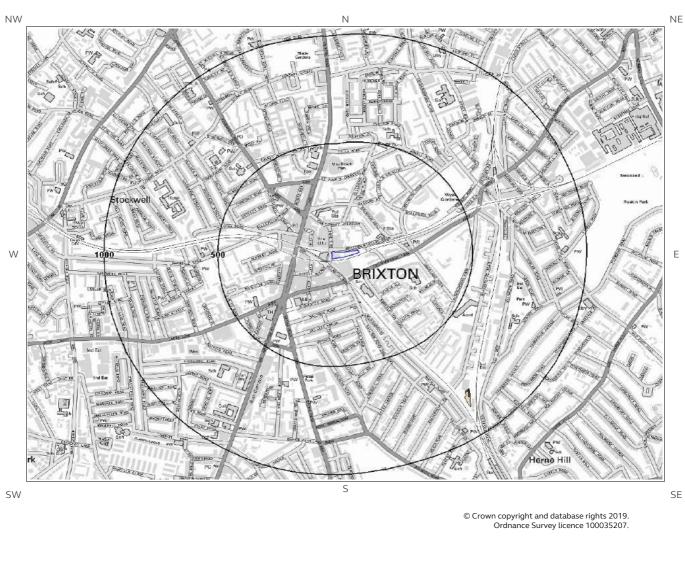
Database searched and no data found at this scale.

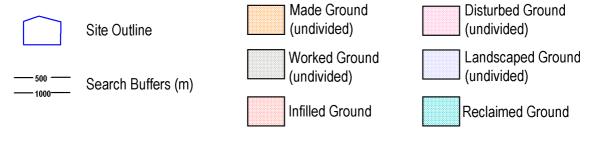
The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of great Britain at 1:10,000 scale.

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







### 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?

No

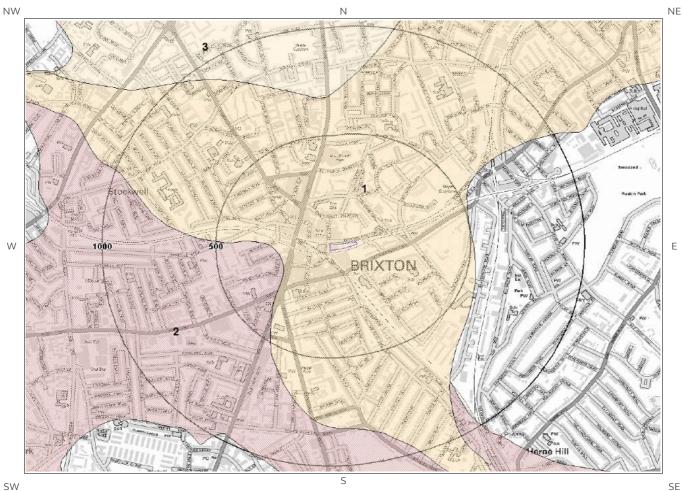
Database searched and no data found.

#### 2.1.2 Permeability of Artificial Ground

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

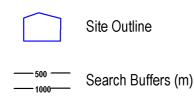


# 2.2 Superficial Deposits and Landslips map (1:50,000 scale)



SW

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# 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	TPGR-XSV TA	APLOW GRAVEL MEMBER	SAND AND GRAVEL
 2	215.0	W	HEAD-XCZSV	HEAD	CLAY, SILT, 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

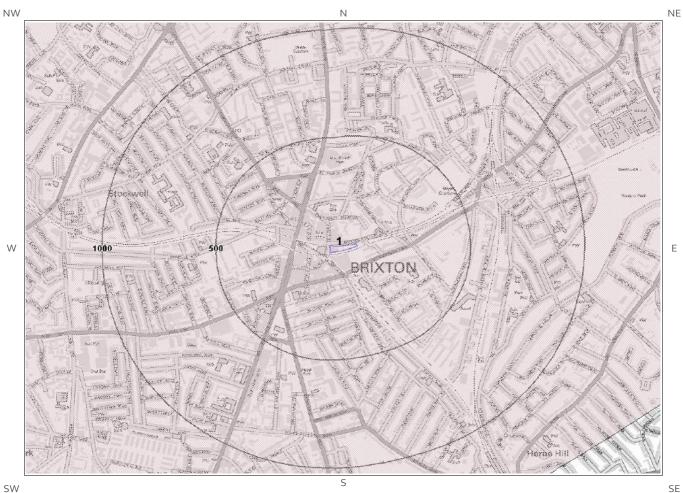
Are there any records relating to permeability of landslips within the study site boundary?

No

Database searched and no data found.

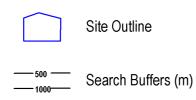


### 2.3 Bedrock and linear features map (1:50,000 scale)



SW

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# 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

Distanc e	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

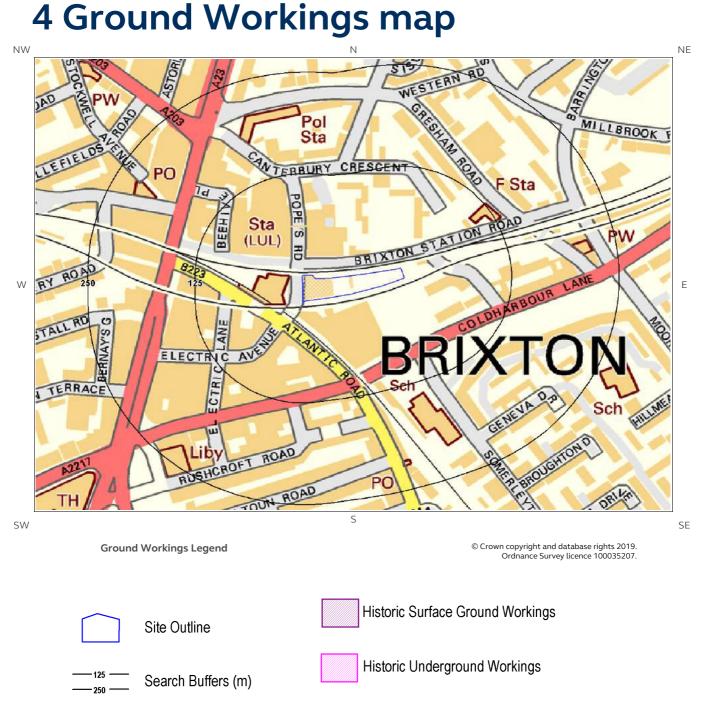
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

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.





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? No

Database searched and no data found.

#### 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? No

Database searched and no data found.

#### 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.

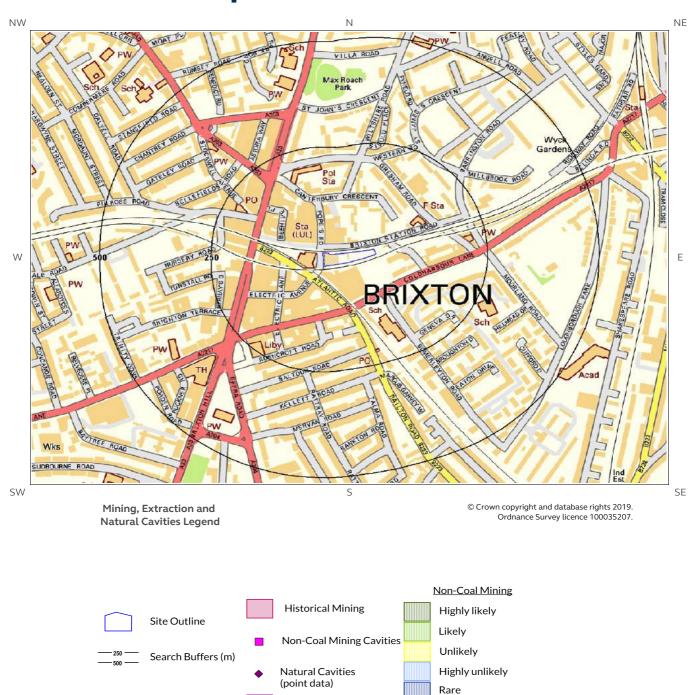
Are there any BGS Current Ground Workings within 1000m of the study site boundary?

No

Database searched and no data found.



### 5 Mining, Extraction & Natural Cavities map



Natural Cavities (polygon data)



# 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?

Yes

The following information provided by JPB is not represented on mapping: Whilst outside of an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) have information such as mining plans and maps held within their archive of mining activities that have occurred within 1km of this property. Further details and a quote for services can be obtained by emailing this report to enquiries.gs@jpb.co.uk.

### 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?

Yes

ID	Distance (m)	Direction	Name	Commodity	Assessment of likelihood
Not shown	918.0	SE	Not available	Chalk	Small scale underground mining may have occurred; mine adits, shafts and tunnels may be present. Potential for localised difficult ground conditions are at a level where they should be

The following non-coal mining information is provided by the BGS:



#### 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

No

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?

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?

Database searched and no data found.



### 5.9 Cornwall and Devon Metalliferous Mining

This dataset provides information on metalliferous mining areas in Cornwall/Devon and is derived from records held by Mining Searches UK.

Are there any Cornwall and Devon Metalliferous 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





### 6.2 Landslides map

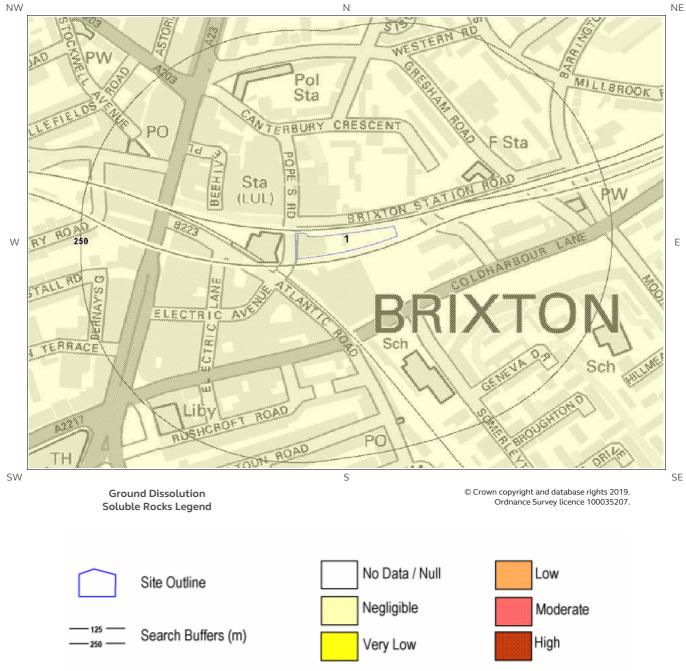






# 6.3 Ground Dissolution of Soluble **Rocks map**

NW





### 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







### 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? Moderate

#### 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	Moderate	Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advic about their effect and management. For new build, consideration should be given to advic published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potent shrink-swell problems. For existing property there is a probable increase in insurance risk during droughts or where vegetation with hig moisture demands is present.

### 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.

<sup>\*</sup> This includes an automatically generated 50m buffer zone around the site



### 6.3 Ground Dissolution of Soluble Rocks

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.

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

### 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	Distanc (m)	<sup>e</sup> 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.

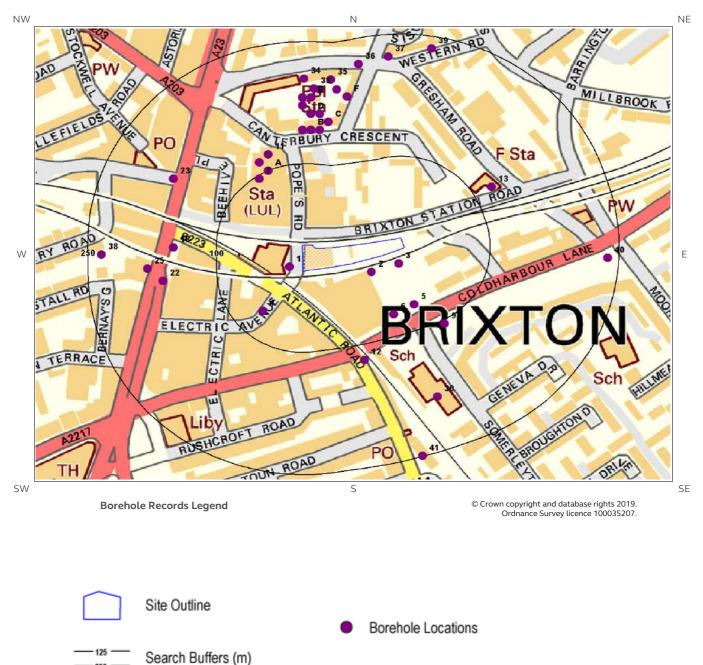
### 6.6 Running Sands

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



Report Reference: GS-6436470 Client Reference: C2023\_-\_Sports\_Direct\_Brixton

250



### 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:

41

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	16.0	W	531195 175452	TQ37NW477	6.71	VICTORIA-BRIXTON TUBE EXTN 41A
2	16.0	S	531290 175446	TQ37NW2100	10.4	BRIXTON RPT G/0295 BH2
3	16.0	S	531322 175456	TQ37NW2099	20.4	BRIXTON RPT G/0295 BH1
4	68.0	SW	531164 175398	TQ37NW478	27.43	VICTORIA-BRIXTON TUBE EXTN 41
5	69.0	S	531340 175406	TQ37NW2101	10.7	BRIXTON RPT G/0295 BH3
6	73.0	S	531316 175394	TQ37NW2102	10	BRIXTON RPT G/0295 BH4
7	96.0	NW	531160 175560	TQ37NW2310	28	STATION RD BRIXTON
8A	100.0	NW	531170 175570	TQ37NW2311	8	STATION RD BRIXTON
9	105.0	SE	531375 175382	TQ37NW3181	No details	London Power Tunnels Phase 2 BHWN08
10A	113.0	NW	531160 175580	TQ37NW2308	8	STATION RD BRIXTON
11	118.0	Ν	531170 175590	TQ37NW2309	28	STATION RD BRIXTON
12	119.0	S	531282 175338	TQ37NW479	27.43	VICTORIA-BRIXTON TUBE EXTN 42
13	122.0	NE	531430 175550	TQ37NW305	1	FIRE BRIGADE STATIO GRESHAM RD
14B	141.0	Ν	531220 175620	TQ37NW2735	20	WILTSHIRE ROAD BRIXTON 3A
15B	141.0	Ν	531220 175620	TQ37NW2742	2.6	WILTSHIRE ROAD BRIXTON TP6
16B	141.0	Ν	531210 175620	TQ37NW2734	4.55	WILTSHIRE ROAD BRIXTON 3
17B	142.0	Ν	531230 175620	TQ37NW2741	2.5	WILTSHIRE ROAD BRIXTON TP5
18	150.0	W	531060 175476	TQ37NW475	25.91	VICTORIA-BRIXTON TUBE EXTN 39
19C	152.0	Ν	531240 175630	TQ37NW2736	10	WILTSHIRE ROAD BRIXTON 4
20D	161.0	Ν	531220 175640	TQ37NW2743	3.3	WILTSHIRE ROAD BRIXTON TP7
21C	161.0	Ν	531230 175640	TQ37NW2740	3.1	WILTSHIRE ROAD BRIXTON TP4
22	163.0	W	531048 175435	TQ37NW476	25.91	VICTORIA-BRIXTON TUBE EXTN 40



ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
23	171.0	NW	531060 175560	TQ37NW738	6.09	GPO STOCKWELL ROAD J
24D	171.0	Ν	531210 175650	TQ37NW2739	3.2	WILTSHIRE ROAD BRIXTON TP3
25	181.0	W	531030 175450	TQ37NW739	6.09	GPO TUNSTALL ROAD 2
26E	181.0	Ν	531220 175660	TQ37NW2737	3.1	WILTSHIRE ROAD BRIXTON TP1
27E	181.0	Ν	531210 175660	TQ37NW2731	5.25	WILTSHIRE ROAD BRIXTON 1
28E	181.0	Ν	531210 175660	TQ37NW2732	5	WILTSHIRE ROAD BRIXTON 1A
29F	181.0	Ν	531262 175661	TQ37NW2193	No details	GRESHAM ROAD 2
30	185.0	S	531367 175293	TQ37NW480	27.43	VICTORIA-BRIXTON TUBE EXTN 43
31E	191.0	Ν	531230 175670	TQ37NW2738	4.2	WILTSHIRE ROAD BRIXTON TP2
32F	192.0	Ν	531250 175670	TQ37NW2733	20	WILTSHIRE ROAD BRIXTON 2
33	192.0	Ν	531223 175671	TQ37NW2194	No details	GRESHAM ROAD 3
34	204.0	Ν	531212 175683	TQ37NW2196	No details	GRESHAM ROAD 5
35	204.0	Ν	531243 175682	TQ37NW2192	No details	GRESHAM ROAD 1
36	219.0	Ν	531275 175701	TQ37NW2195	No details	GRESHAM ROAD 4
37	222.0	Ν	531310 175710	TQ37NW2286	No details	WILTSHIRE RD LAMBETH 8
38	234.0	W	530976 175467	TQ37NW474	35.05	VICTORIA-BRIXTON TUBE EXTN 38
39	235.0	Ν	531360 175720	TQ37NW2285	No details	WILTSHIRE RD LAMBETH 7
40	237.0	E	531565 175463	TQ37NW3182	No details	London Power Tunnels - Phase 2 BHWN09
41	250.0	S	531350 175220	TQ37NW2380	No details	MAYALL/RAILTON RD 1



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/597541 #2: scans.bgs.ac.uk/sobi\_scans/boreholes/599207 #3: scans.bgs.ac.uk/sobi\_scans/boreholes/599206 #4: scans.bgs.ac.uk/sobi scans/boreholes/597542 #5: scans.bgs.ac.uk/sobi scans/boreholes/599208 #6: scans.bgs.ac.uk/sobi\_scans/boreholes/599209 #7: scans.bgs.ac.uk/sobi\_scans/boreholes/599417 #8A: scans.bgs.ac.uk/sobi\_scans/boreholes/599418 #10A: scans.bgs.ac.uk/sobi\_scans/boreholes/599415 #11: scans.bgs.ac.uk/sobi\_scans/boreholes/599416 #12: scans.bgs.ac.uk/sobi\_scans/boreholes/597543 #13: scans.bgs.ac.uk/sobi\_scans/boreholes/597337 #14B: scans.bgs.ac.uk/sobi\_scans/boreholes/15954707 #15B: scans.bgs.ac.uk/sobi scans/boreholes/15954719 #16B: scans.bgs.ac.uk/sobi scans/boreholes/15954705 #17B: scans.bgs.ac.uk/sobi\_scans/boreholes/15954718 #18: scans.bgs.ac.uk/sobi\_scans/boreholes/597539 #19C: scans.bgs.ac.uk/sobi\_scans/boreholes/15954709 #20D: scans.bgs.ac.uk/sobi\_scans/boreholes/15954720 #21C: scans.bgs.ac.uk/sobi\_scans/boreholes/15954716 #22: scans.bgs.ac.uk/sobi\_scans/boreholes/597540 #23: scans.bgs.ac.uk/sobi\_scans/boreholes/597805 #24D: scans.bgs.ac.uk/sobi\_scans/boreholes/15954714 #25: scans.bgs.ac.uk/sobi scans/boreholes/597806 #26E: scans.bgs.ac.uk/sobi\_scans/boreholes/15954712 #27E: scans.bgs.ac.uk/sobi\_scans/boreholes/15954694 #28E: scans.bgs.ac.uk/sobi\_scans/boreholes/15954701 #30: scans.bgs.ac.uk/sobi\_scans/boreholes/597544 #31E: scans.bgs.ac.uk/sobi\_scans/boreholes/15954713 #32F: scans.bgs.ac.uk/sobi\_scans/boreholes/15954703 #38: scans.bgs.ac.uk/sobi\_scans/boreholes/597538



# 8 Estimated Background Soil Chemistry

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

2

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
12.0	Ν	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





# 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?	Yes

Distance (m)	Direction	Detail	
54	S	London Underground - Victoria Line	

The approximate depth value for the nearest London Underground line given in this dataset has been extrapolated from published depths of tube lines at station platforms, and assume a constant gradient between stations. Using this method, topographical variation has resulted in some parts of the line having associated depth values either shallower or deeper than the real-world situation. Depth values are for indication only and should not be relied upon for any calculation or technical purpose and are in no way a substitute for a professional survey.

Line	
London Underground Line: Victoria Line	
Depth: NaNmbgl	
Track Type: Tunnel	

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?	Yes

Distance (m)	Direction	Detail	
26	SW	Railway Tunnel	

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? Yes

Have any historical railway or tunnel features been identified within 250m of the study site boundary? Yes

ID	Distance (m)	Direction	NGR	Details	Date
1A	0	On Site	531314 175484	Railway Sidings	1938
2A	0	On Site	531314 175484	Railway Sidings	
3	0	On Site	531343 175495	Railway Sidings	1894
4A	0	On Site	531343 175494	Railway Sidings	1899
5	0	On Site	531314 175490	Railway Sidings	1894
6	0	On Site	531303 175482	Railway Sidings	1950
7A	0	On Site	531322 175493	Railway Sidings	1916
8A	0	On Site	531325 175493	Railway Sidings	1896
9B	0	On Site	531361 175497	Railway Sidings	1958
10B	0	On Site	531361 175497	Railway Sidings	
11	0	On Site	n/a	Railway	1897
12	0	On Site	n/a	Railway	1875
13	0	On Site	n/a	Railway	1876
14	0	On Site	n/a	Railway	1930
15	0	On Site	n/a	Railway	1910
16	0	On Site	n/a	Railway	187
17	11	SW	n/a	Railways	187
18C	39	Е	531394 175508	Railway Sidings	1958
19C	39	E	531394 175508	Railway Sidings	1950
20	155	Е	n/a	Railways	1930

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? Yes

Distance (m)	Direction	Name	Туре
2	Ν	Not given	rail
2	Ν	Not given	rail
4	S	South London Line	rail
4	Ν	Not given	Multi Track
4	Ν	Not given	Multi Track
4	S	South London Line	rail
5	S	South London Line	rail
5	S	South London Line	rail
6	Ν	Not given	rail
6	Ν	Not given	rail
7	S	Not given	Multi Track
7	S	Not given	Multi Track
9	SE	South London Line	rail
9	SE	South London Line	rail
10	S	South London Line	rail
10	S	South London Line	rail
20	SW	Chatham Main Line	rail
20	SW	Chatham Main Line	rail
23	SW	Chatham Main Line	rail
23	SW	Chatham Main Line	rail
24	SW	Not given	Multi Track
24	SW	Not given	Multi Track
35	W	Not given	Multi Track
35	W	Not given	Multi Track
69	NE	Not given	rail
69	NE	Not given	rail
69	NE	Not given	rail
69	NE	Not given	rail
74	E	Not given	rail
74	E	Not given	rail
74	E	Not given	rail



			LOCATION INTELLIGENCE
Distance (m)	Direction	Name	Туре
74	E	Not given	rail
92	W	South London Line	rail
92	W	South London Line	rail
93	W	South London Line	rail
93	W	South London Line	rail
116	S	Chatham Main Line	rail
116	S	Chatham Main Line	rail
117	S	Chatham Main Line	rail
117	S	Chatham Main Line	rail
146	W	Chatham Main Line	rail
146	W	Chatham Main Line	rail
148	W	Chatham Main Line	rail
148	W	Chatham Main Line	rail
172	W	Not given	Multi Track
172	W	Not given	Multi Track
241	E	Not given	Multi Track
241	E	Not given	Multi Track
241	E	Not given	Multi Track
241	E	Not given	Multi Track
247	E	Not given	Multi Track
247	E	Not given	Multi Track
247	E	Not given	Multi Track
247	E	Not given	Multi Track

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.



### **Contact Details**

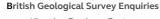
Groundsure Helpline Telephone: 08444 159 000 info@groundsure.com



LOCATION INTELLIGENCE



British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL



Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276. Email:**enquiries@bgs.ac.uk** Web:**www.bgs.ac.uk** 

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The Coal Authority 200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk



The Coal Authority

Public Health England

**P**ublic information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG

https://www.gov.uk/government/organisations/public-healthengland

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

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Ordnance Survey Adanac Drive, Southampton SO16 0AS

Tel: 08456 050505 Website: http://www.ordnancesurvey.co.uk/

Getmapping PLC

Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW Tel: 01252 845444 Website:**http://www1.getmapping.com/** 











Peter Brett Associates Caversham Bridge House Waterman Place Reading Berkshire RG18DN Tel: +44 (0)118 950 0761 E-mail:**reading@pba.co.uk** Website:**http://www.peterbrett.com/home** 



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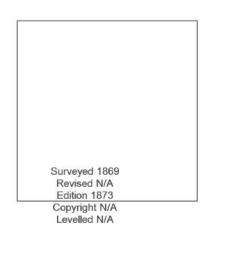
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RAILWAY ARCADE, ATLANTIC ROAD, LONDON, SW98JB

Client Ref: Report Ref: Grid Ref:	C2023Sports_Direct_Brixto GS-6436471 531269, 175468	วท
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Map date:	1873	
Scale:	1:1,056	₩ ¶ ⊧
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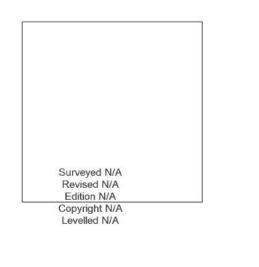
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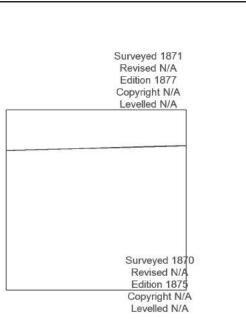
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Map date: 1875-1877

Scale: 1:2,500

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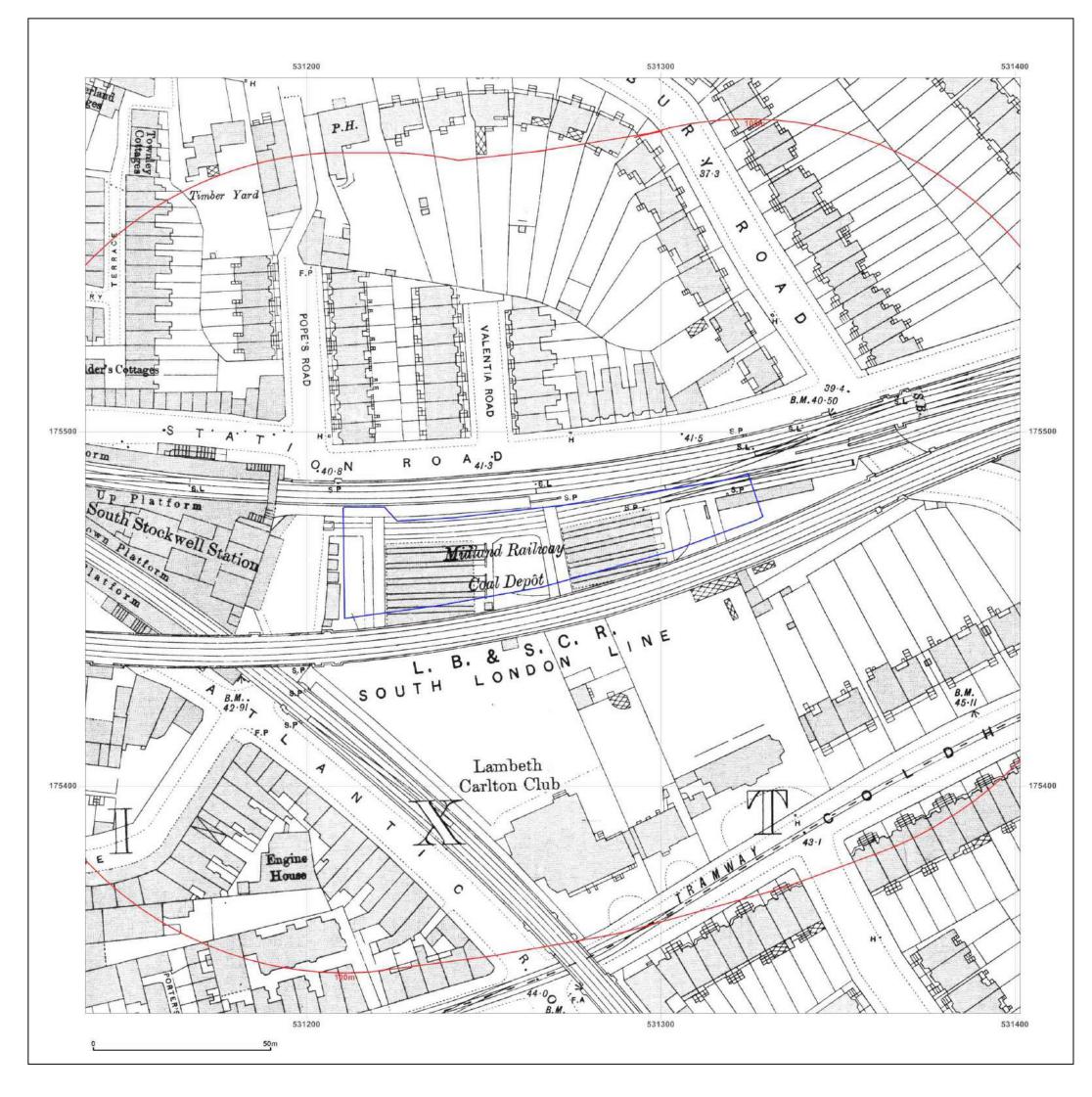
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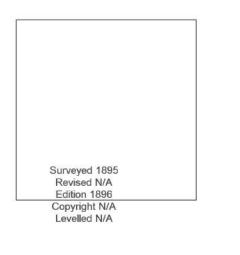
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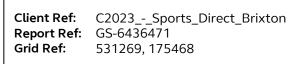
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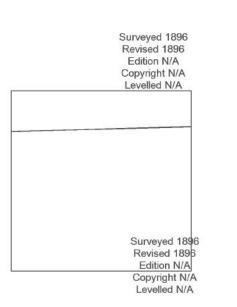


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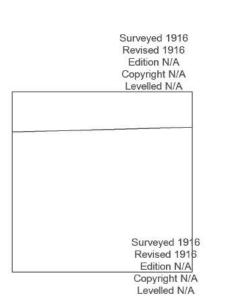




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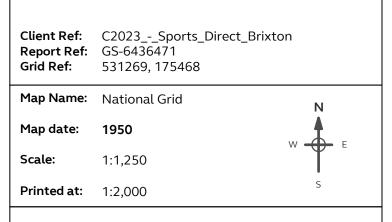
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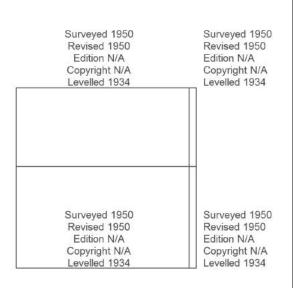
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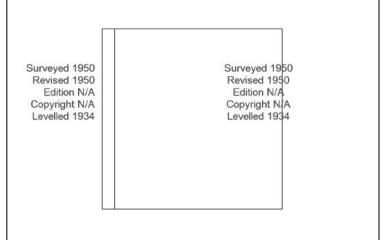
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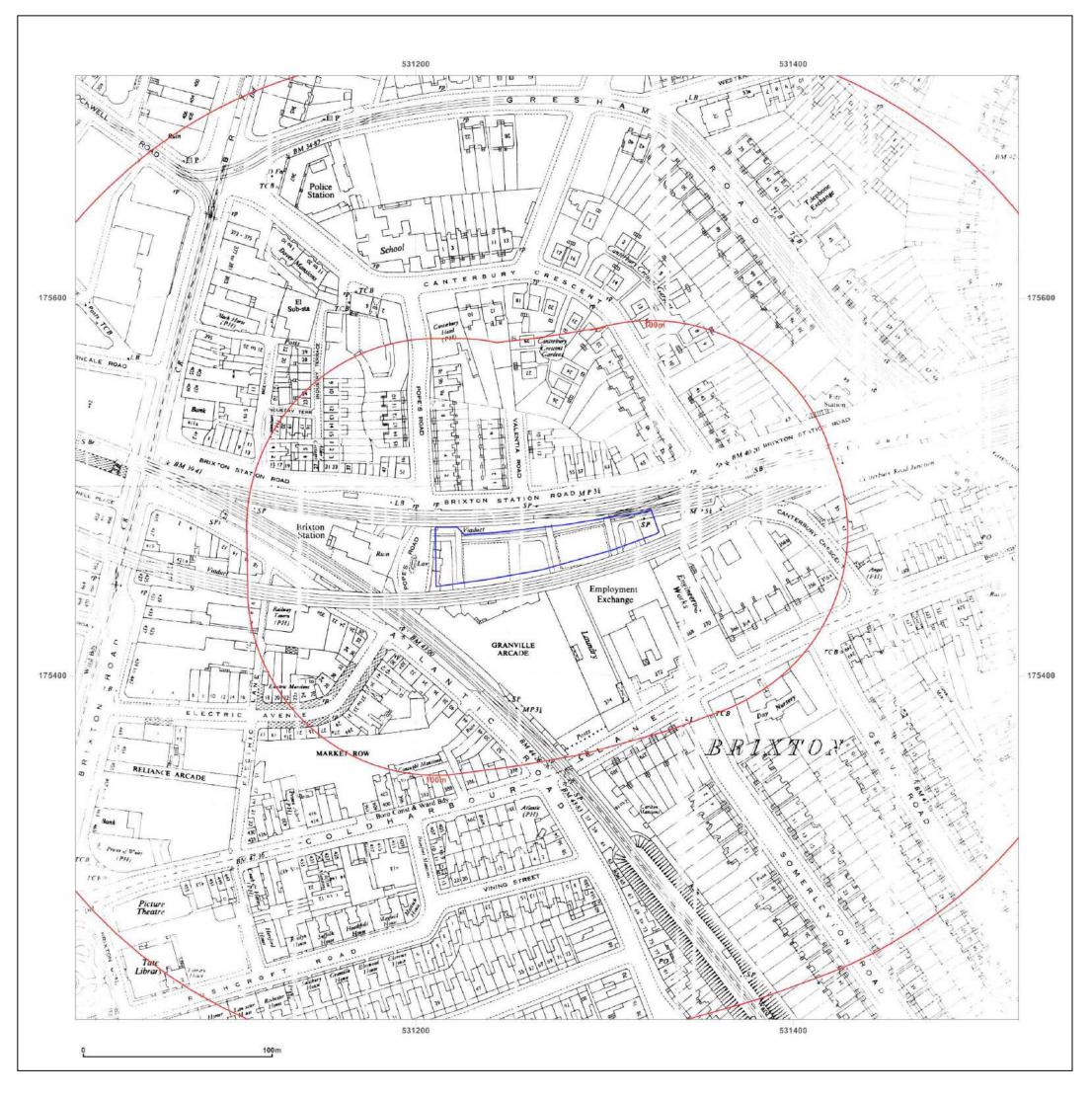




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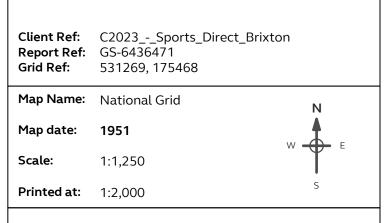
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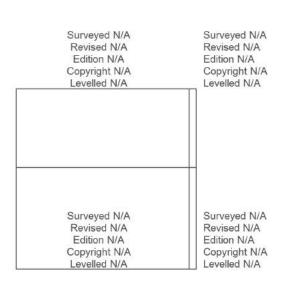
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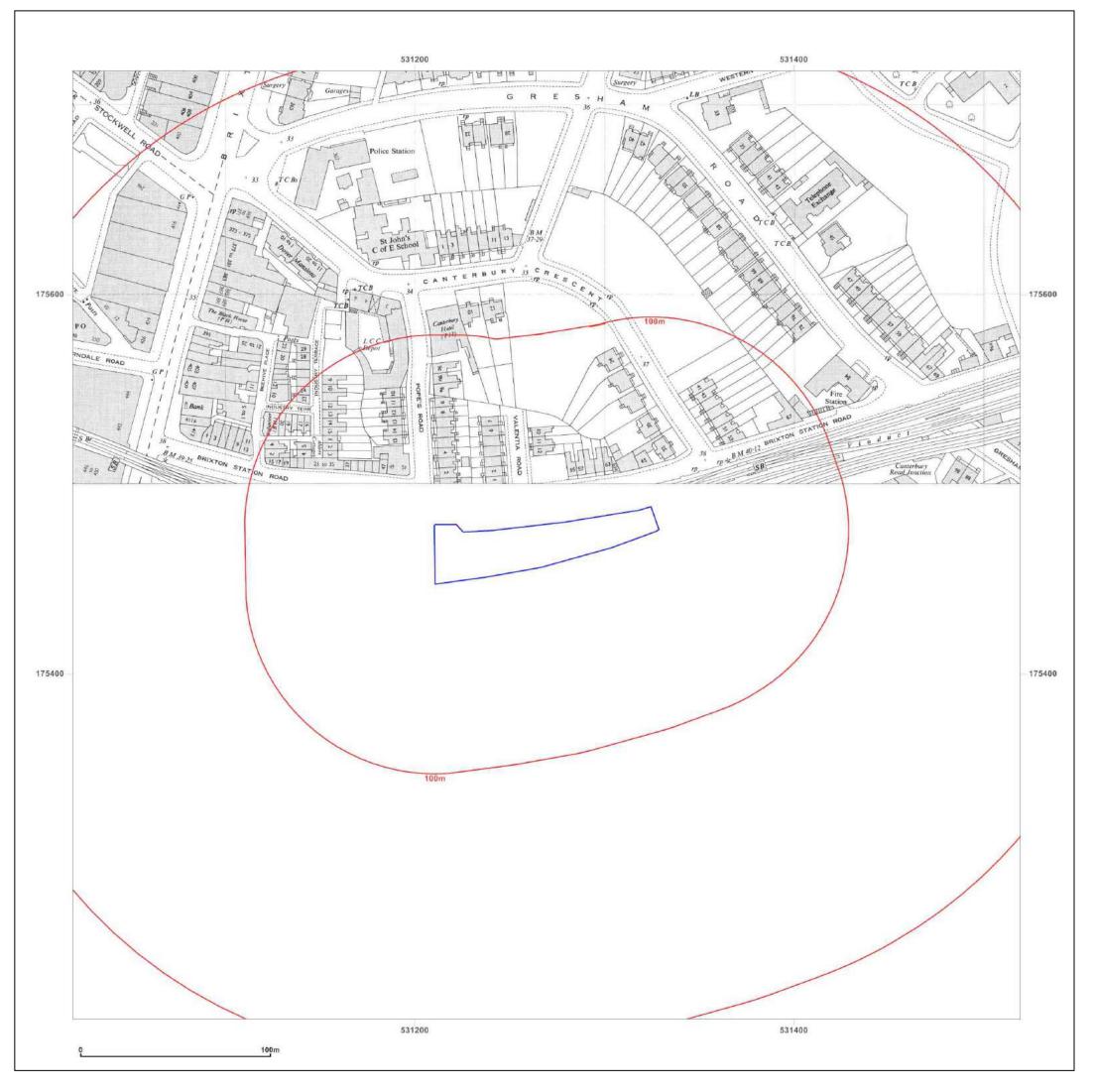




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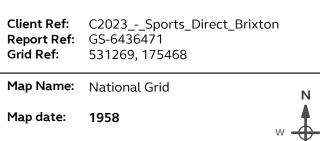
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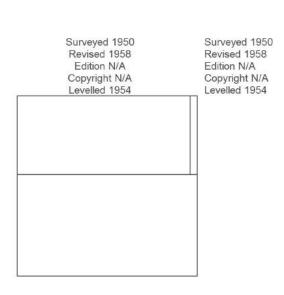


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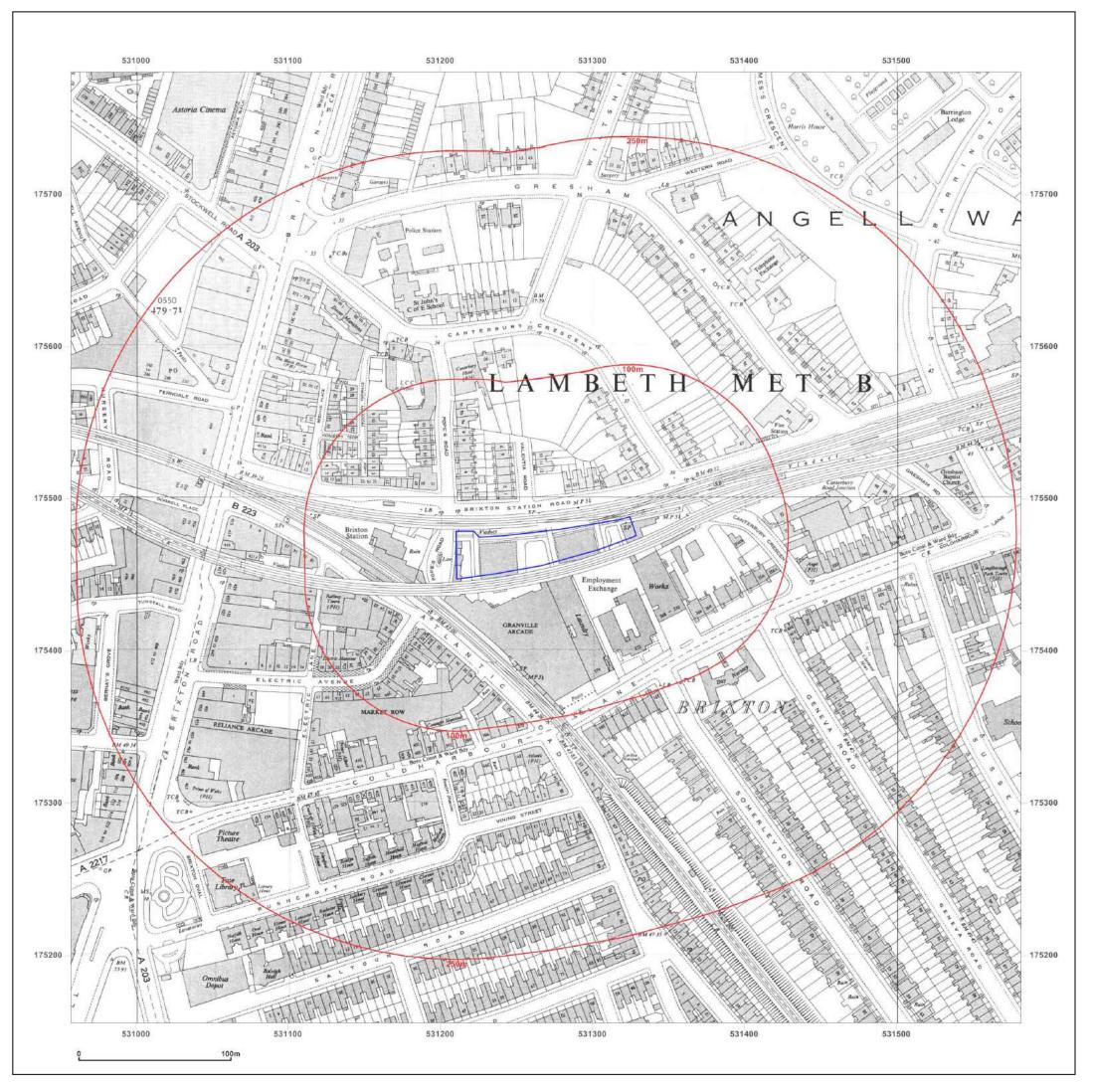




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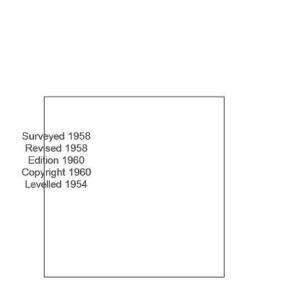


RAILWAY ARCADE, ATLANTIC ROAD, LONDON, SW98JB

- Map Name: National Grid
- Map date: 1958

Scale: 1:2,500

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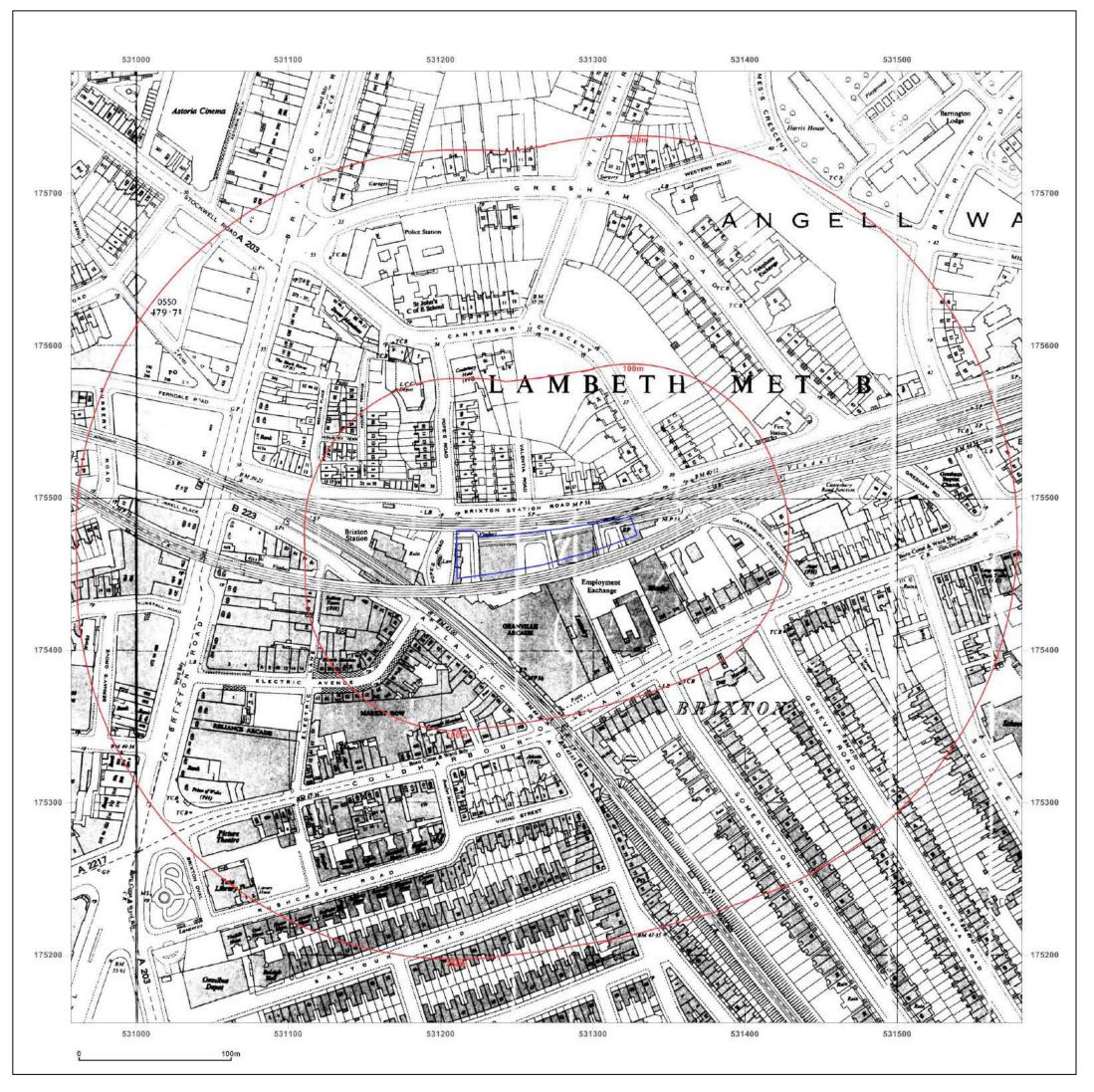
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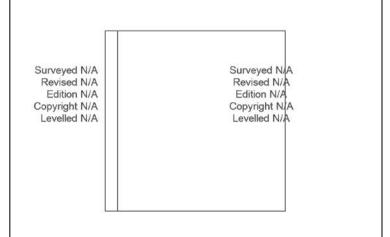




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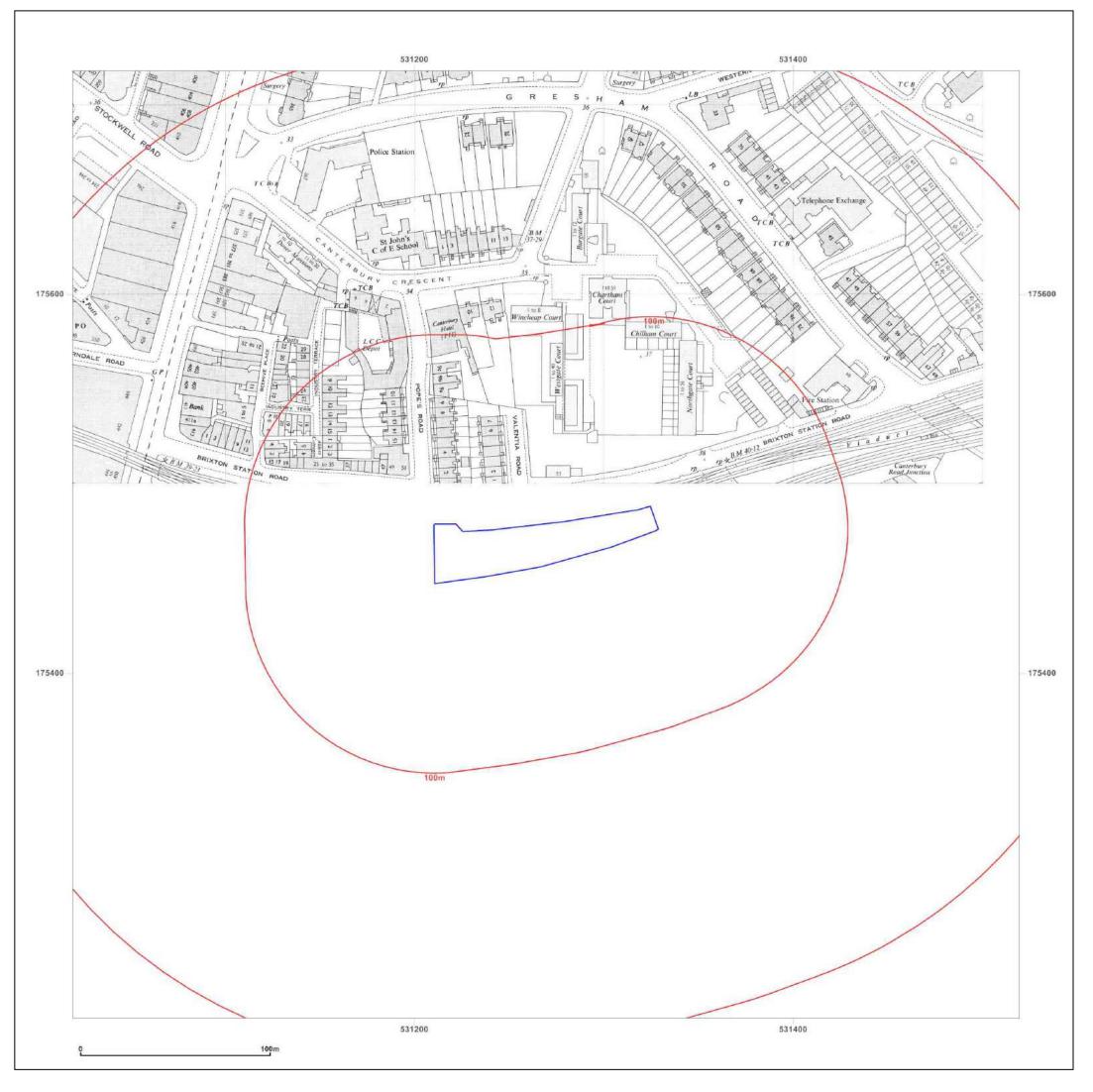




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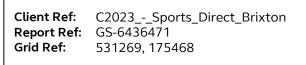
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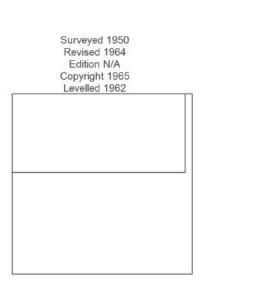


Map Name:	National Grid

Map date: 1965

Scale: 1:1,250

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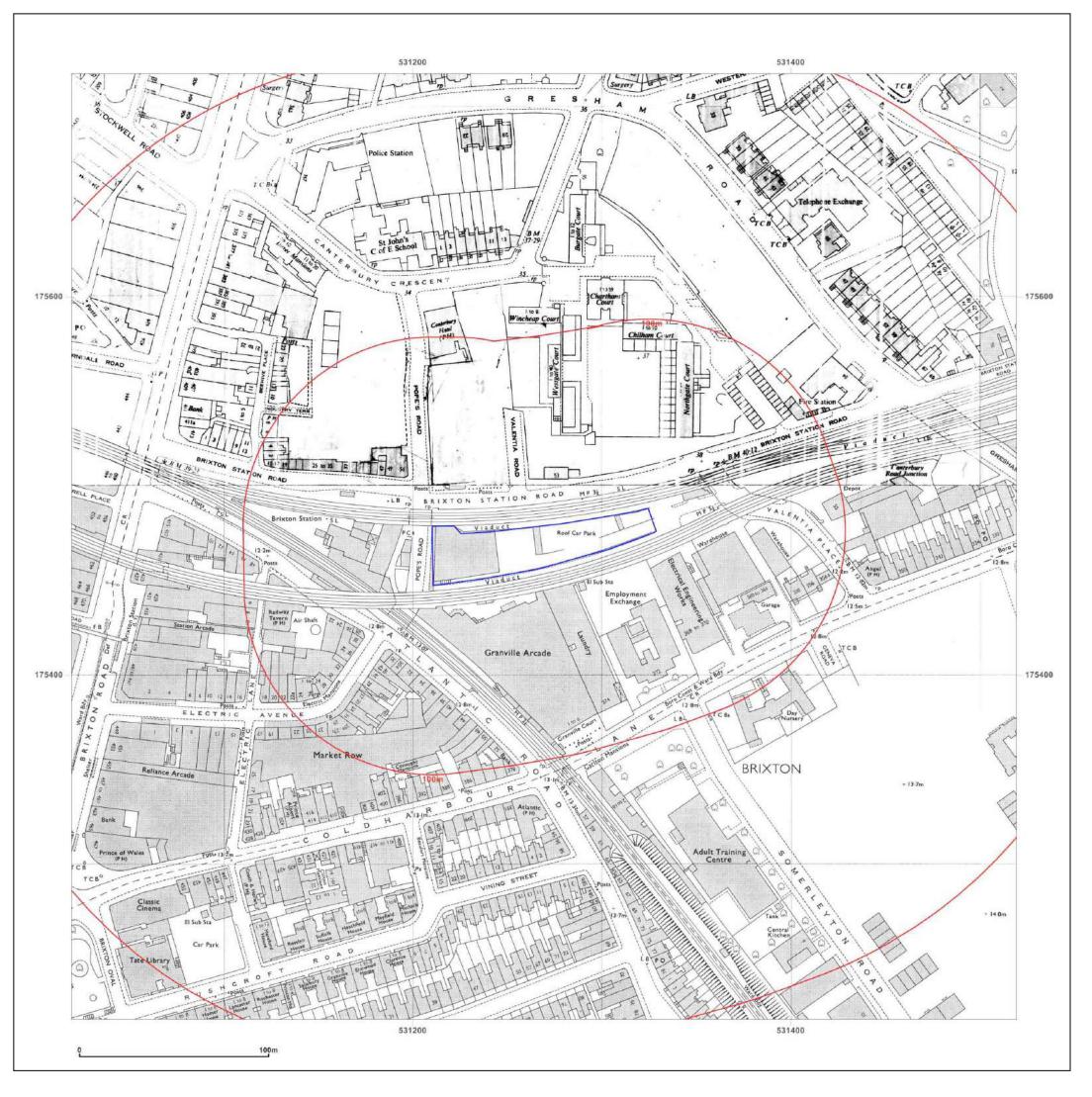
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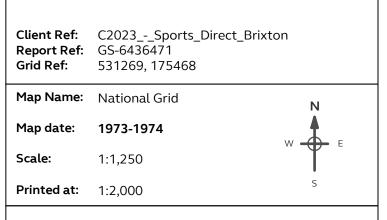
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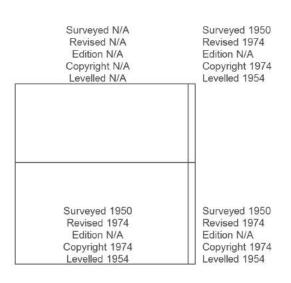
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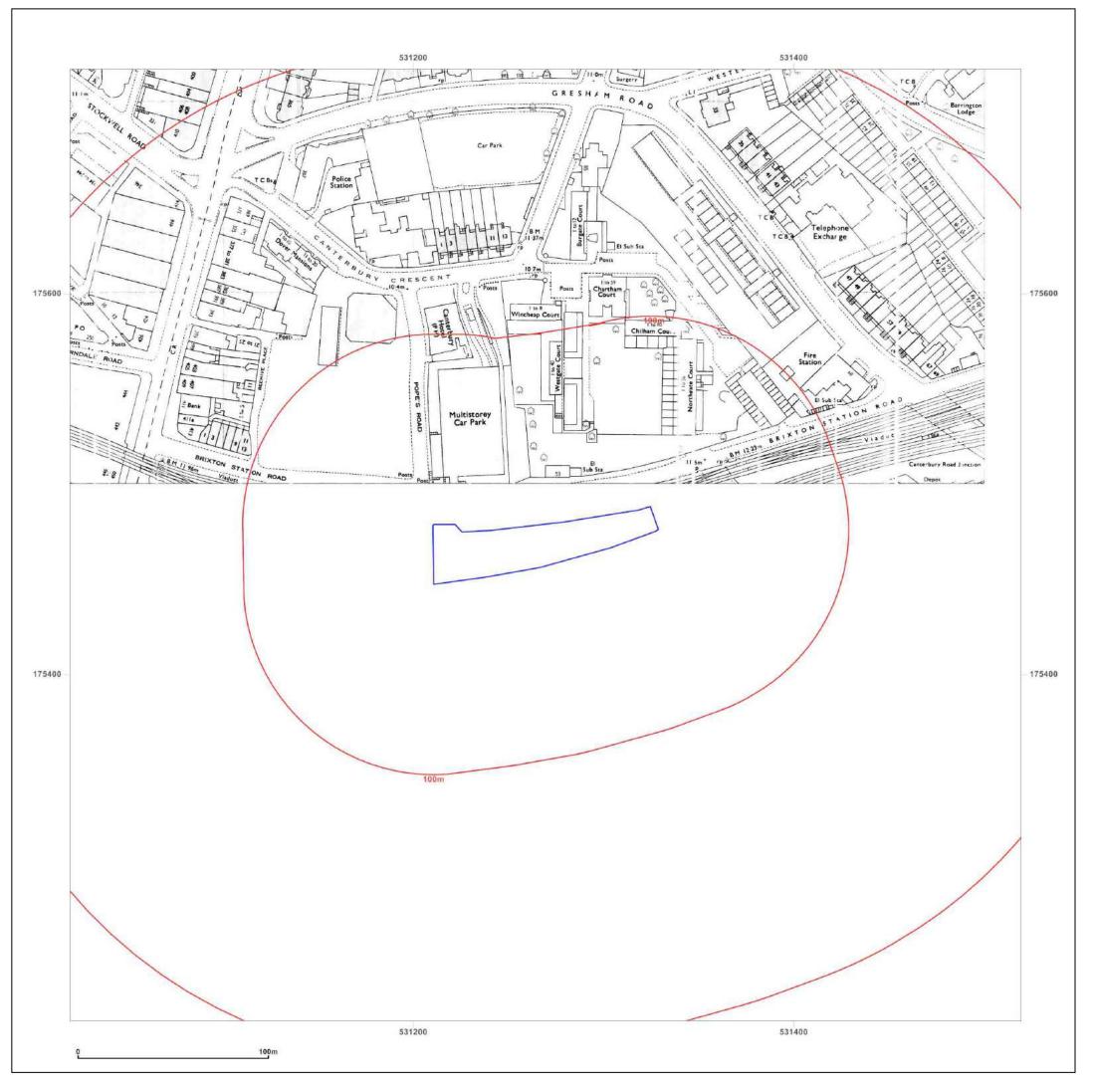




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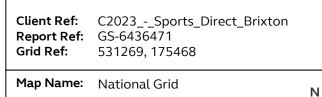
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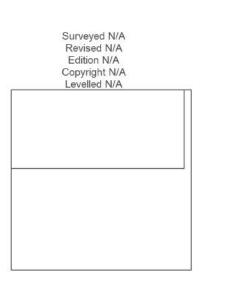
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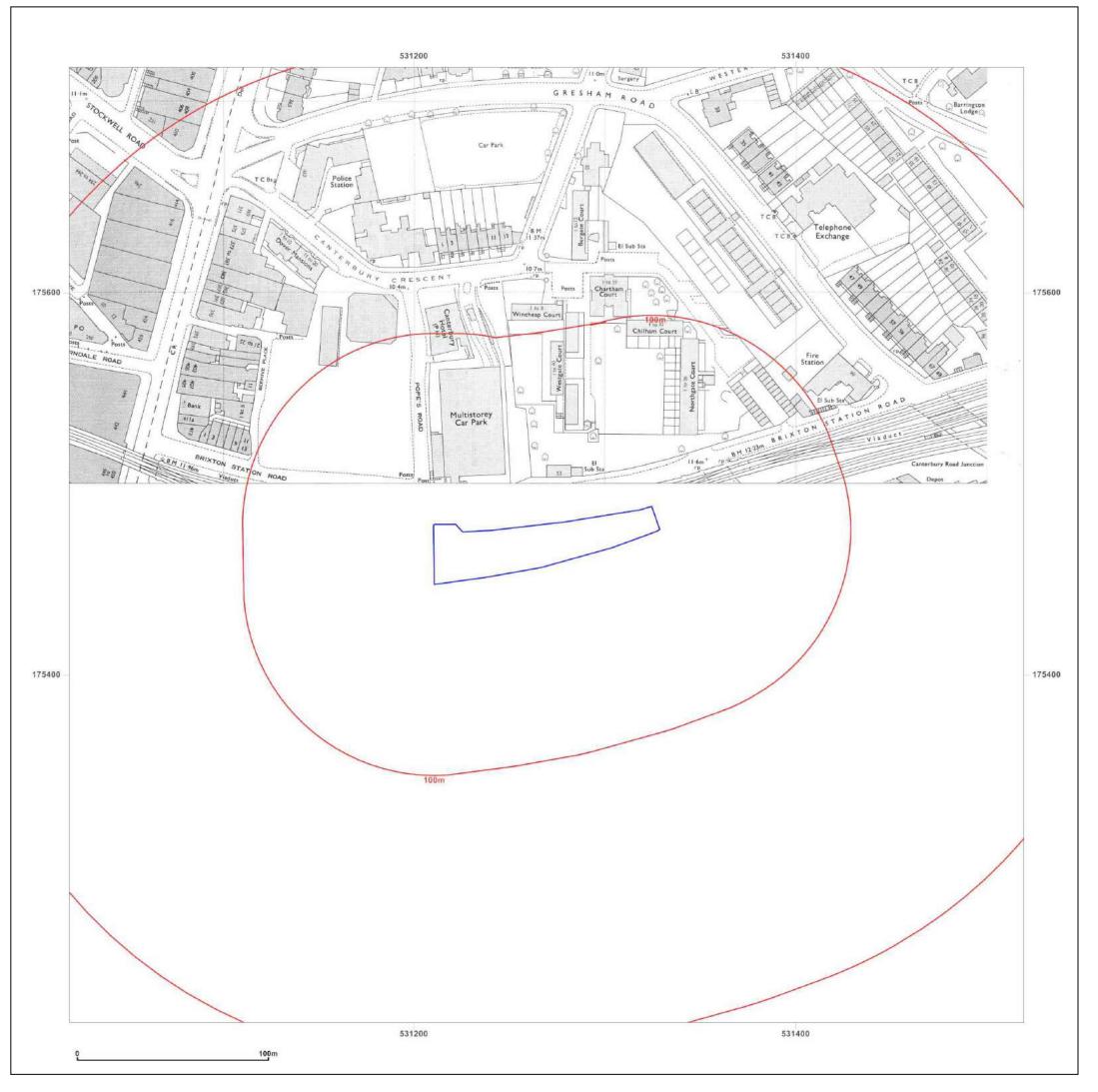
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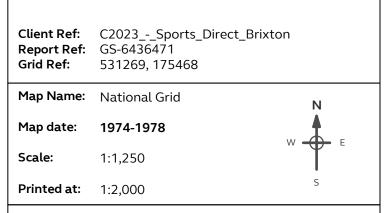
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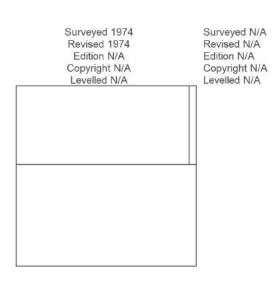
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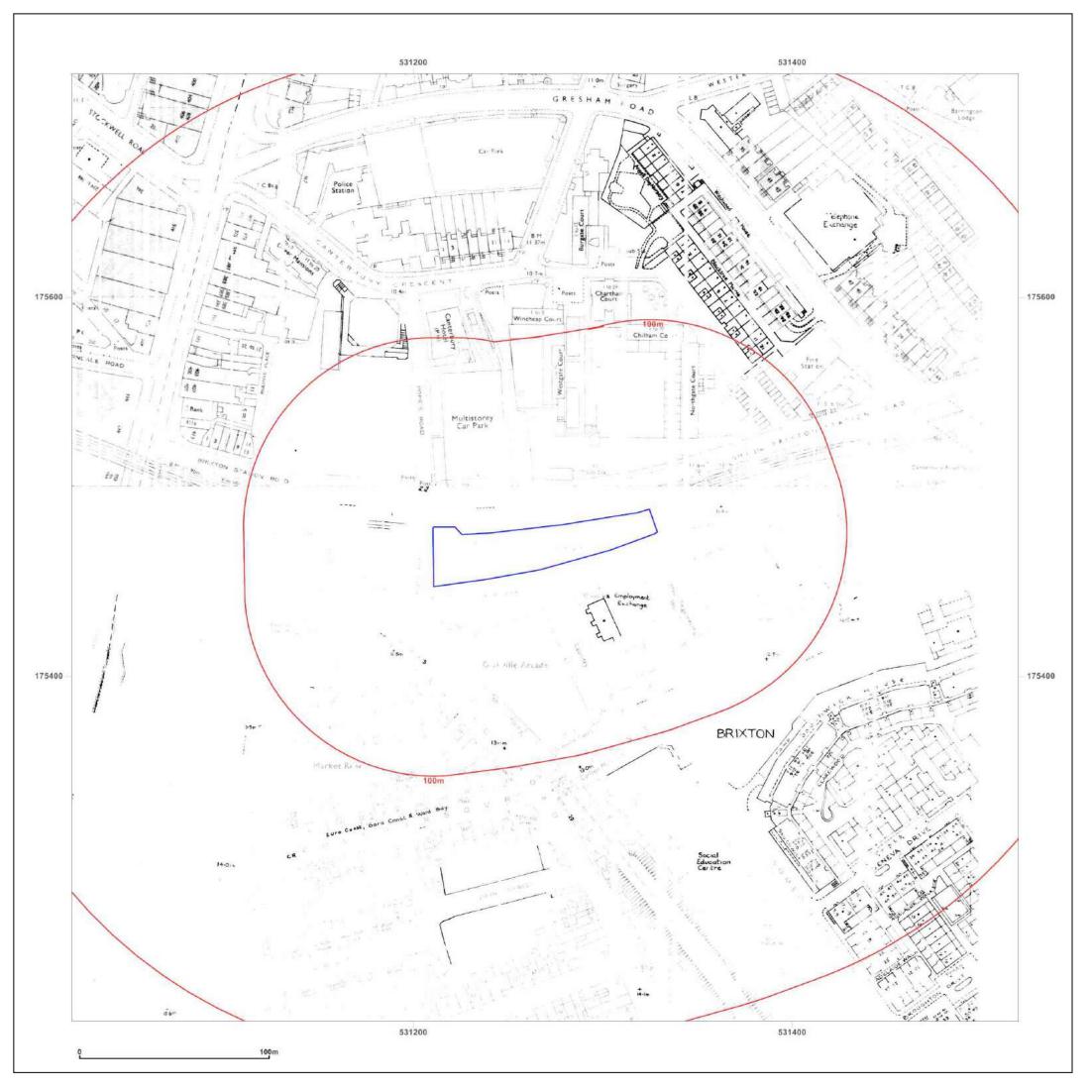




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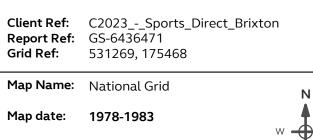
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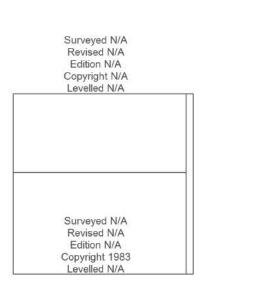


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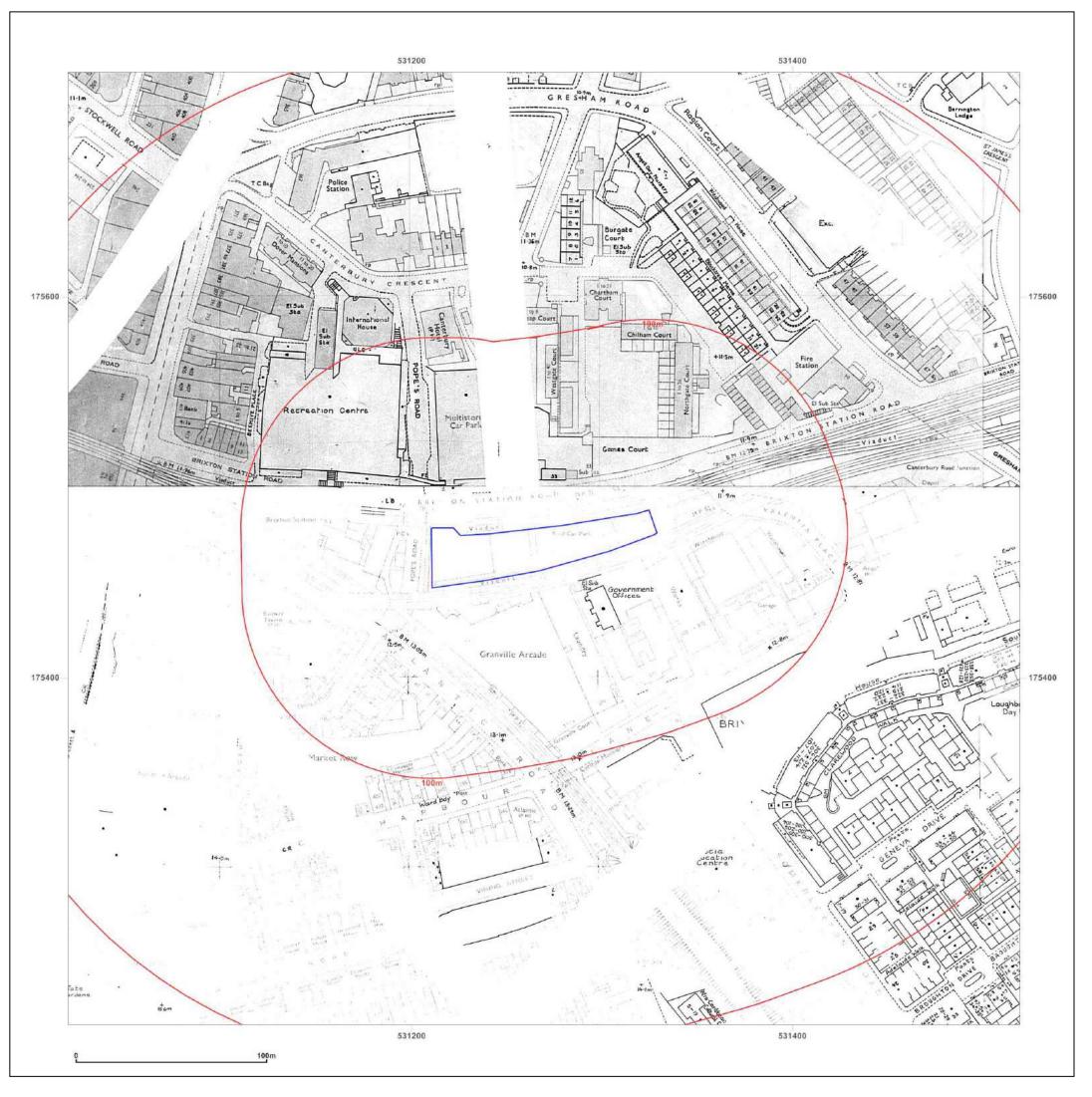




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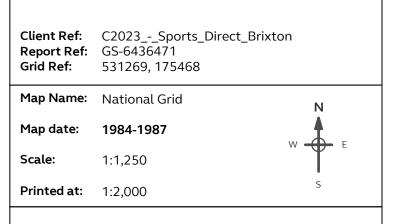
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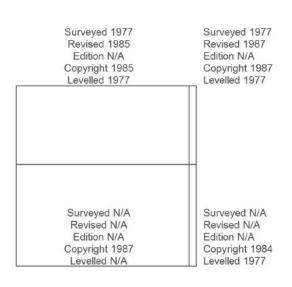
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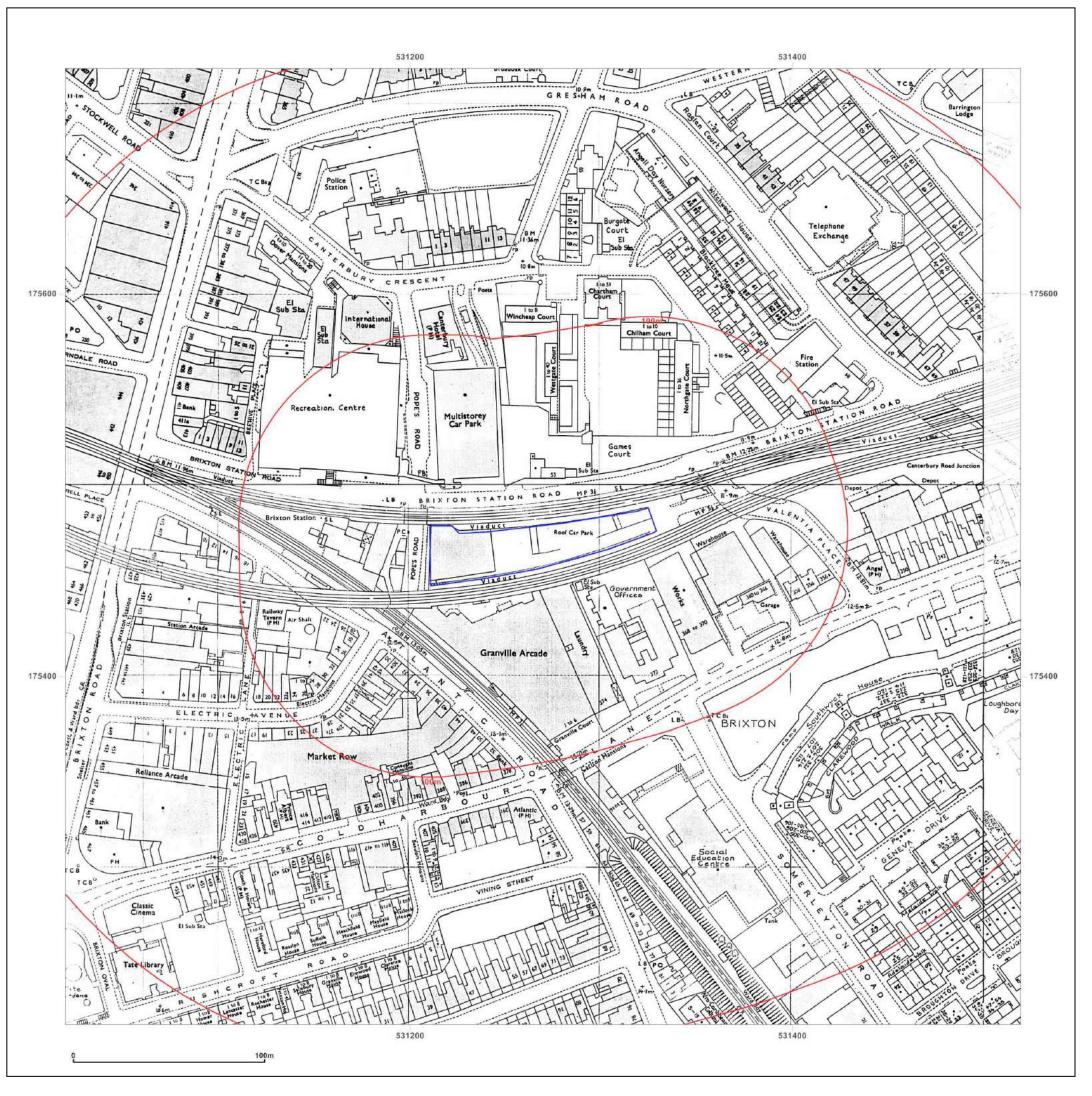




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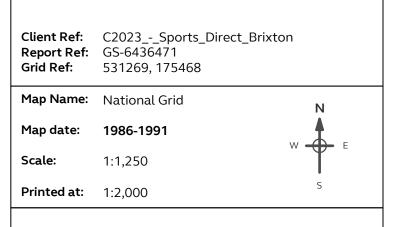
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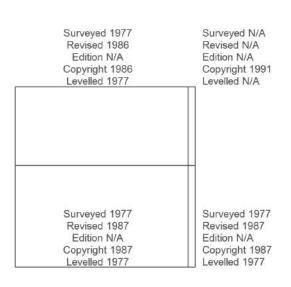
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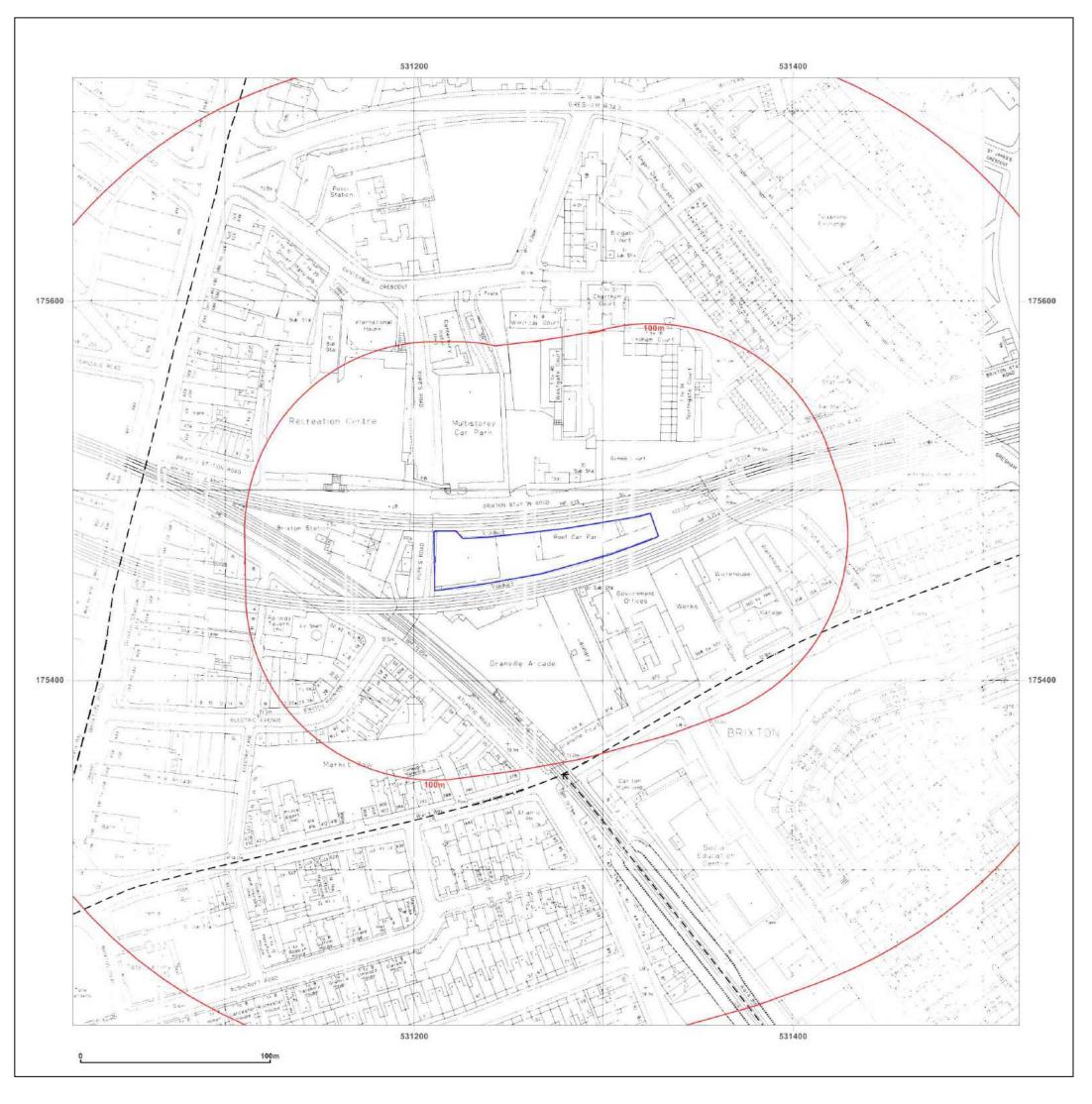




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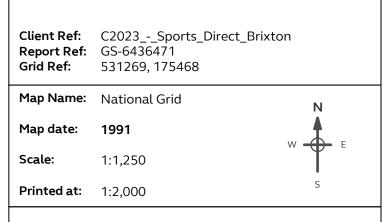
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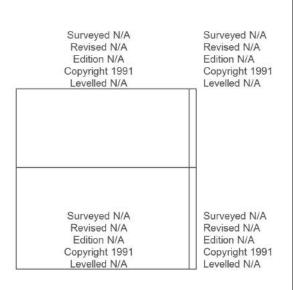
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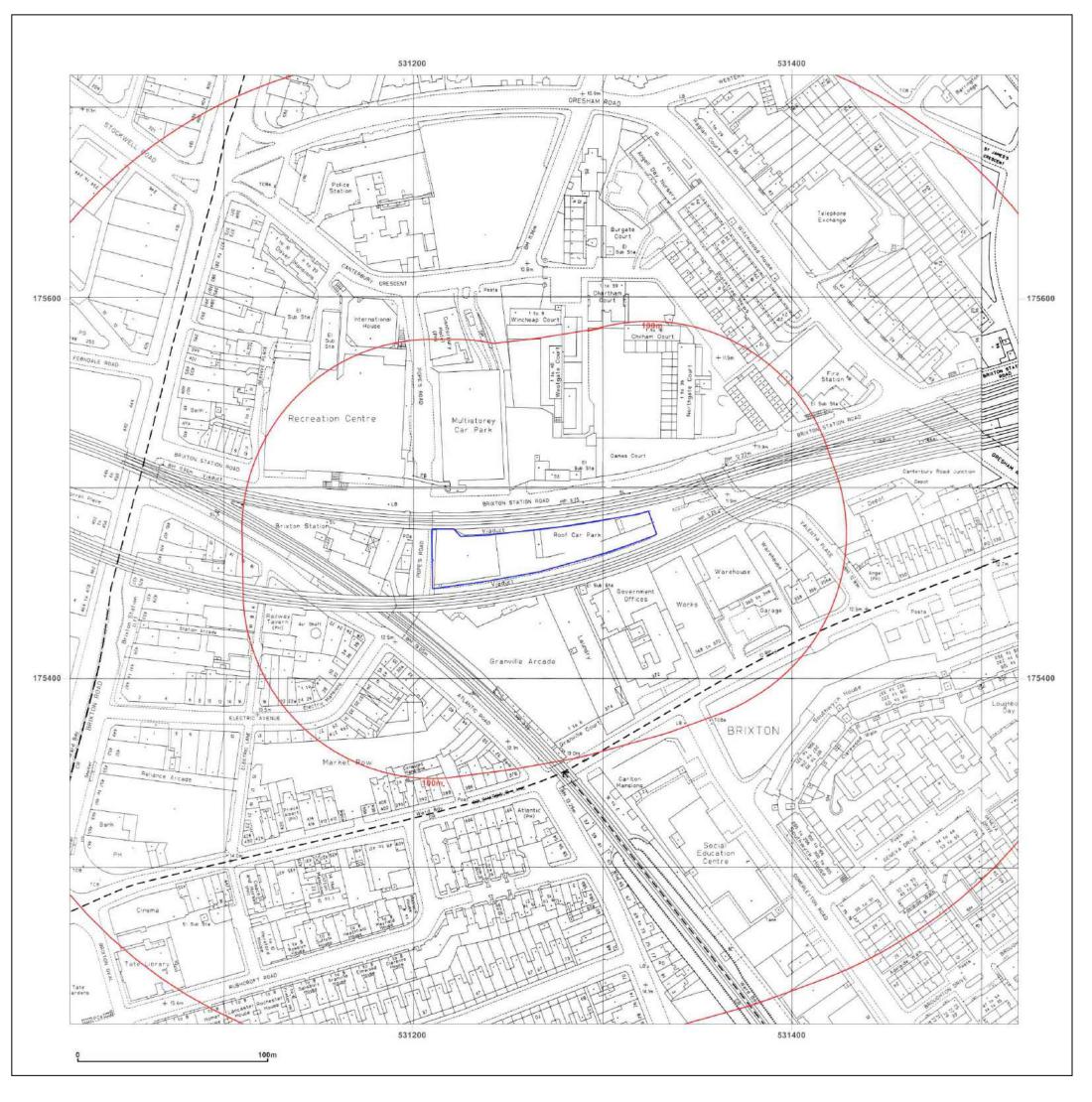




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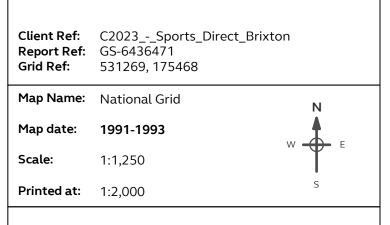
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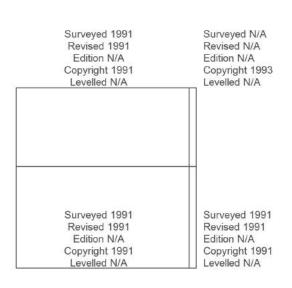
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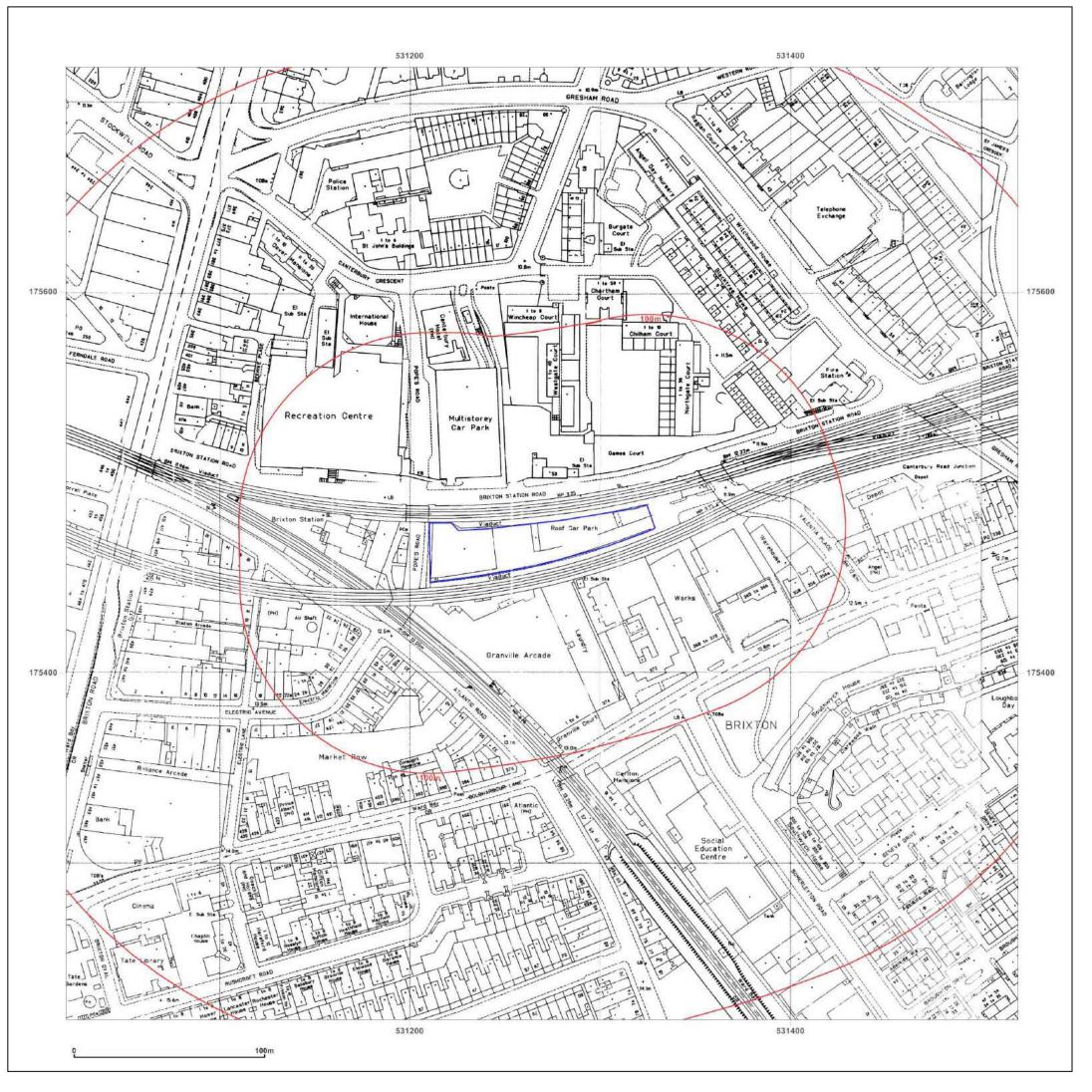




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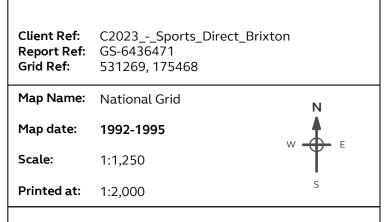
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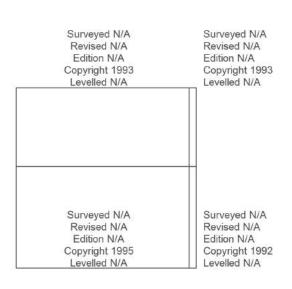
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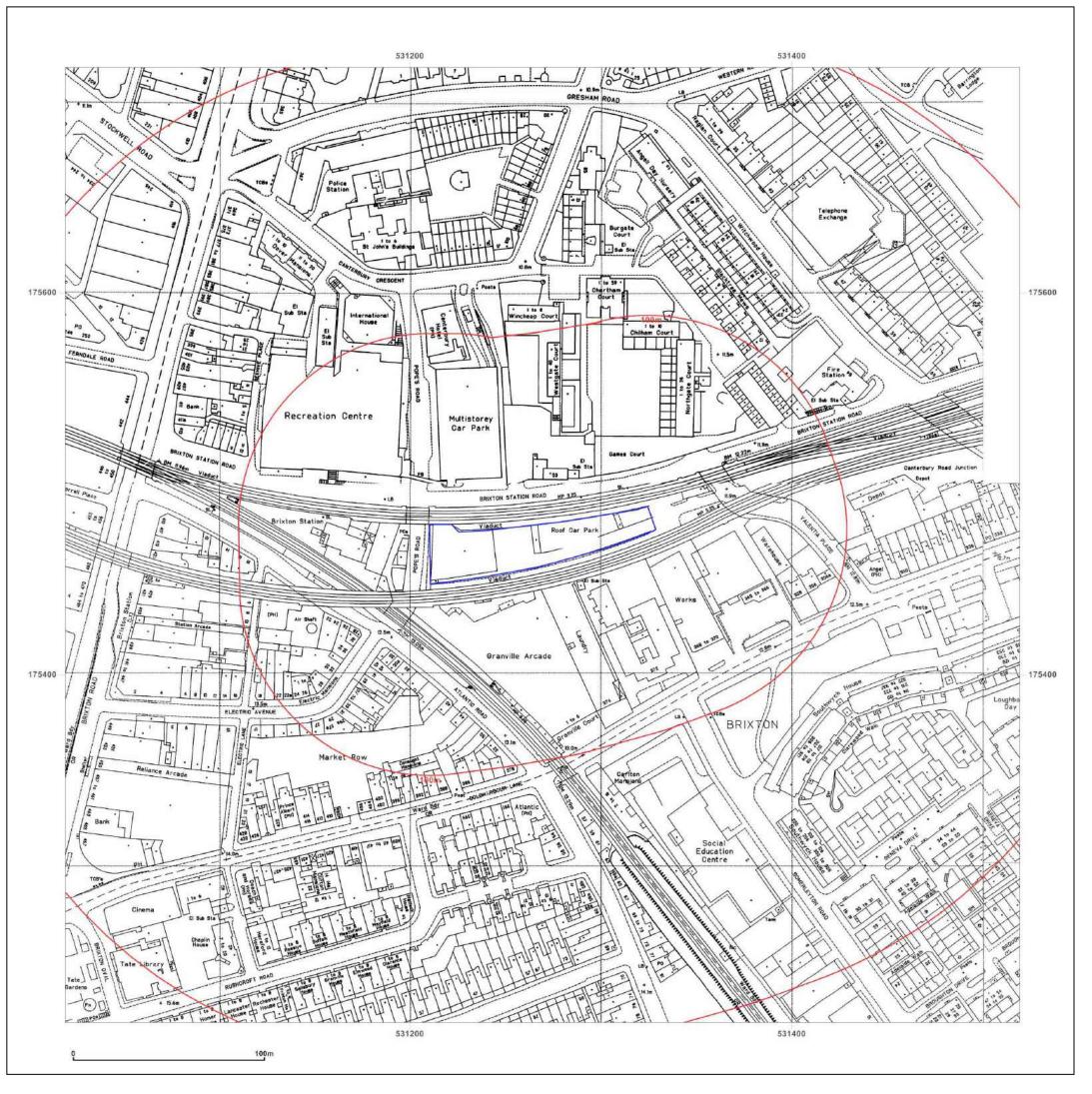




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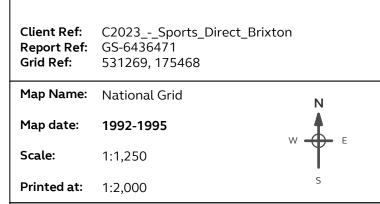
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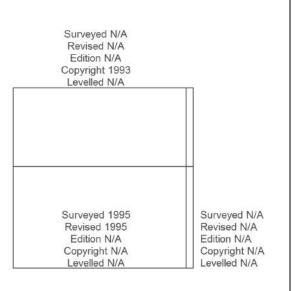
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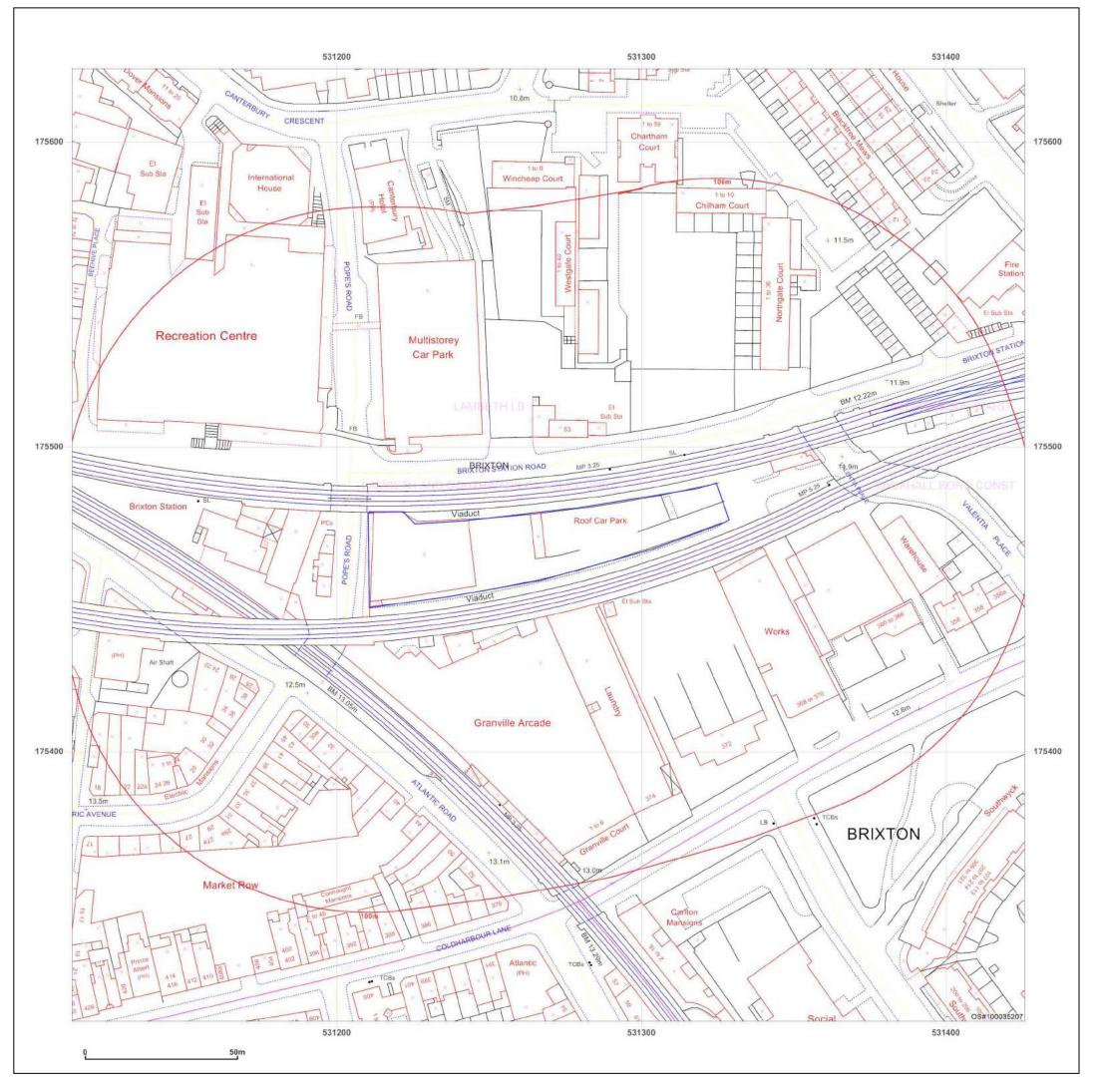




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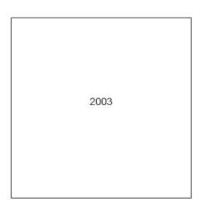
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**Scale:** 1:1,250

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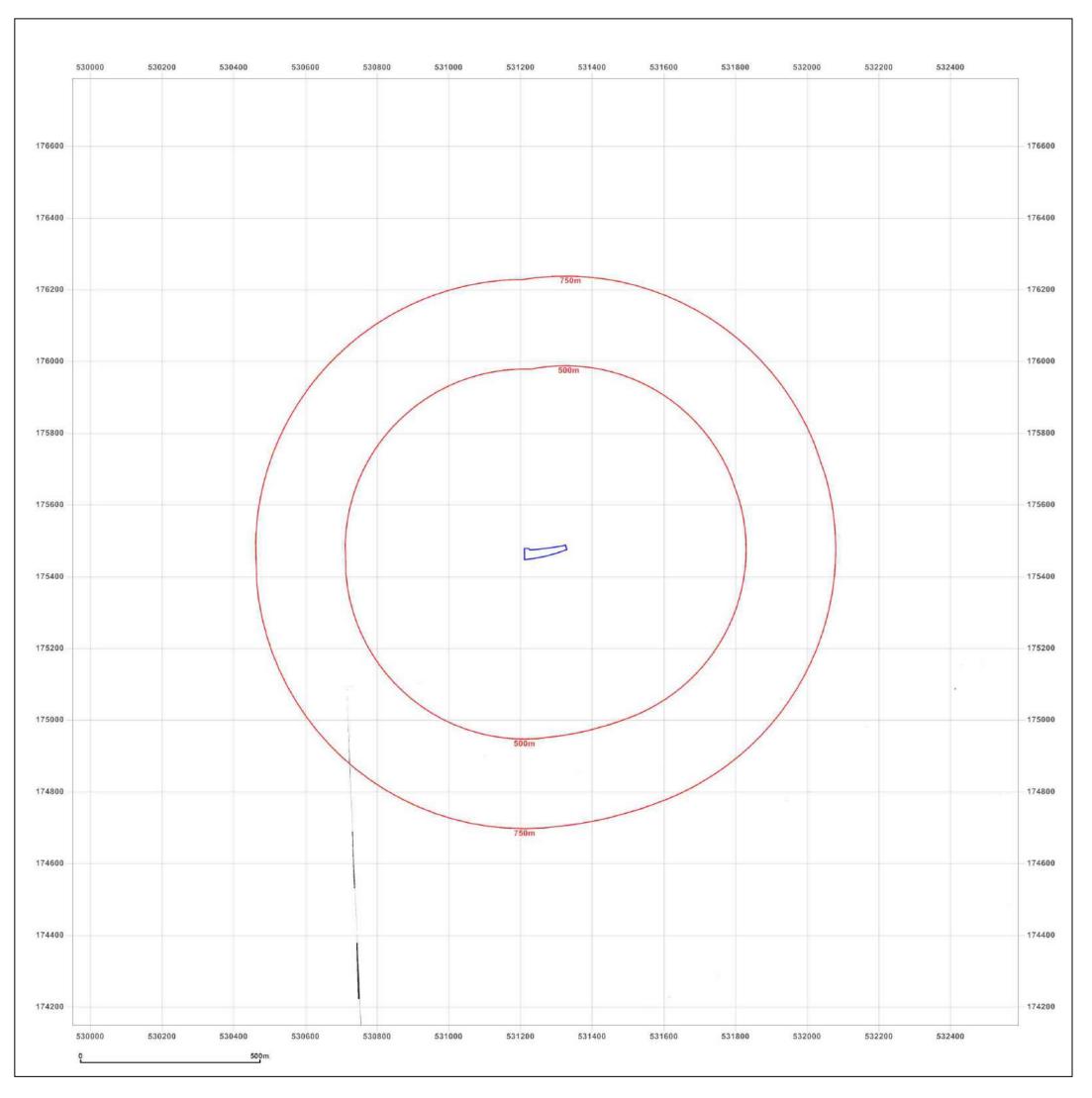


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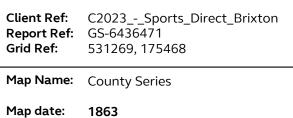


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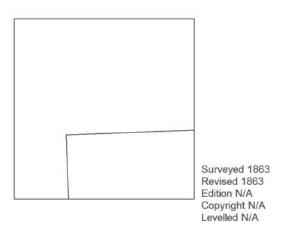
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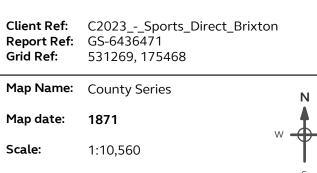
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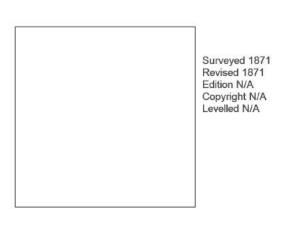




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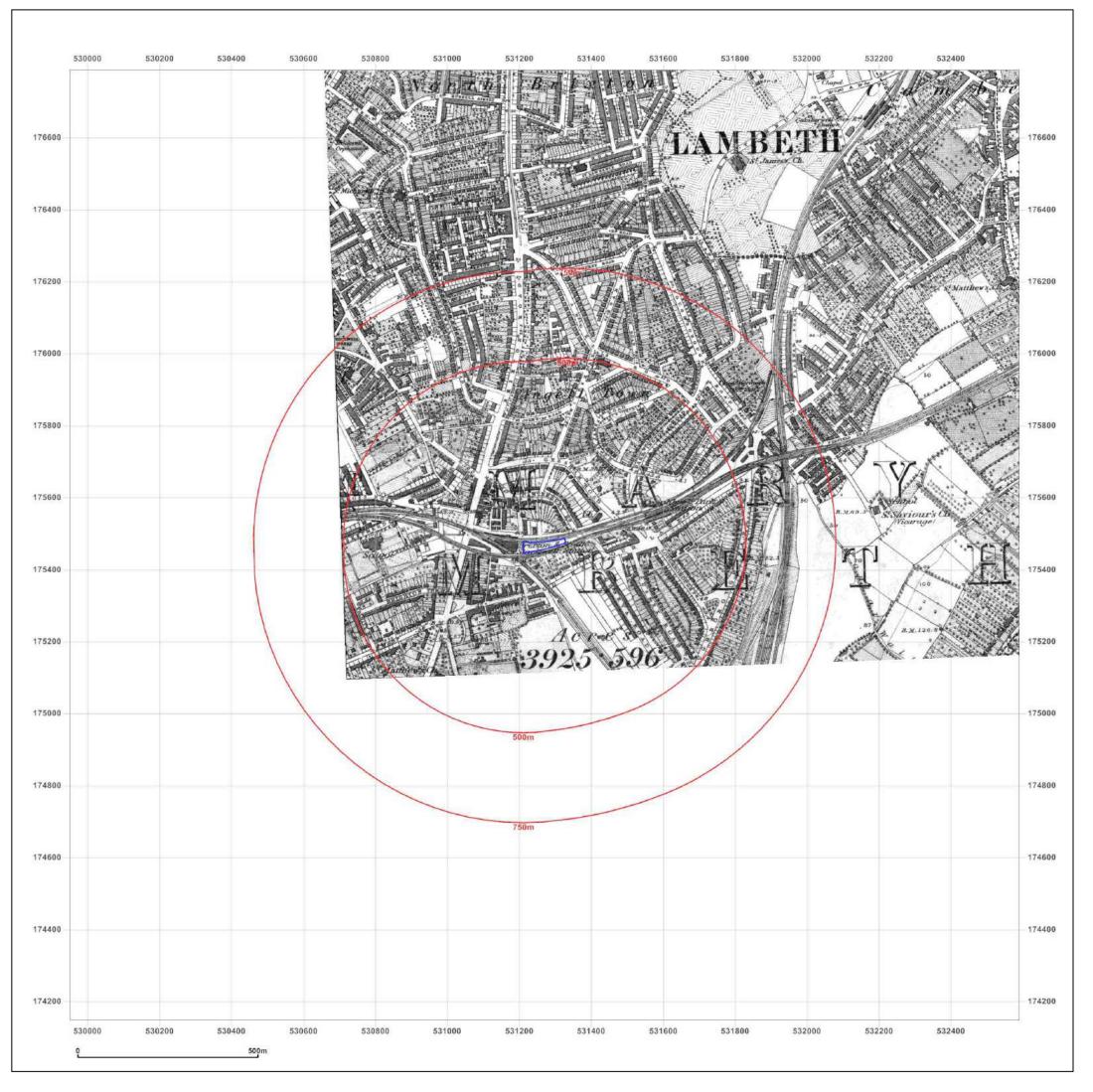




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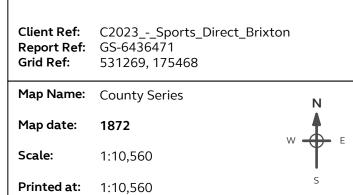
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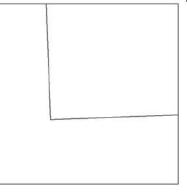




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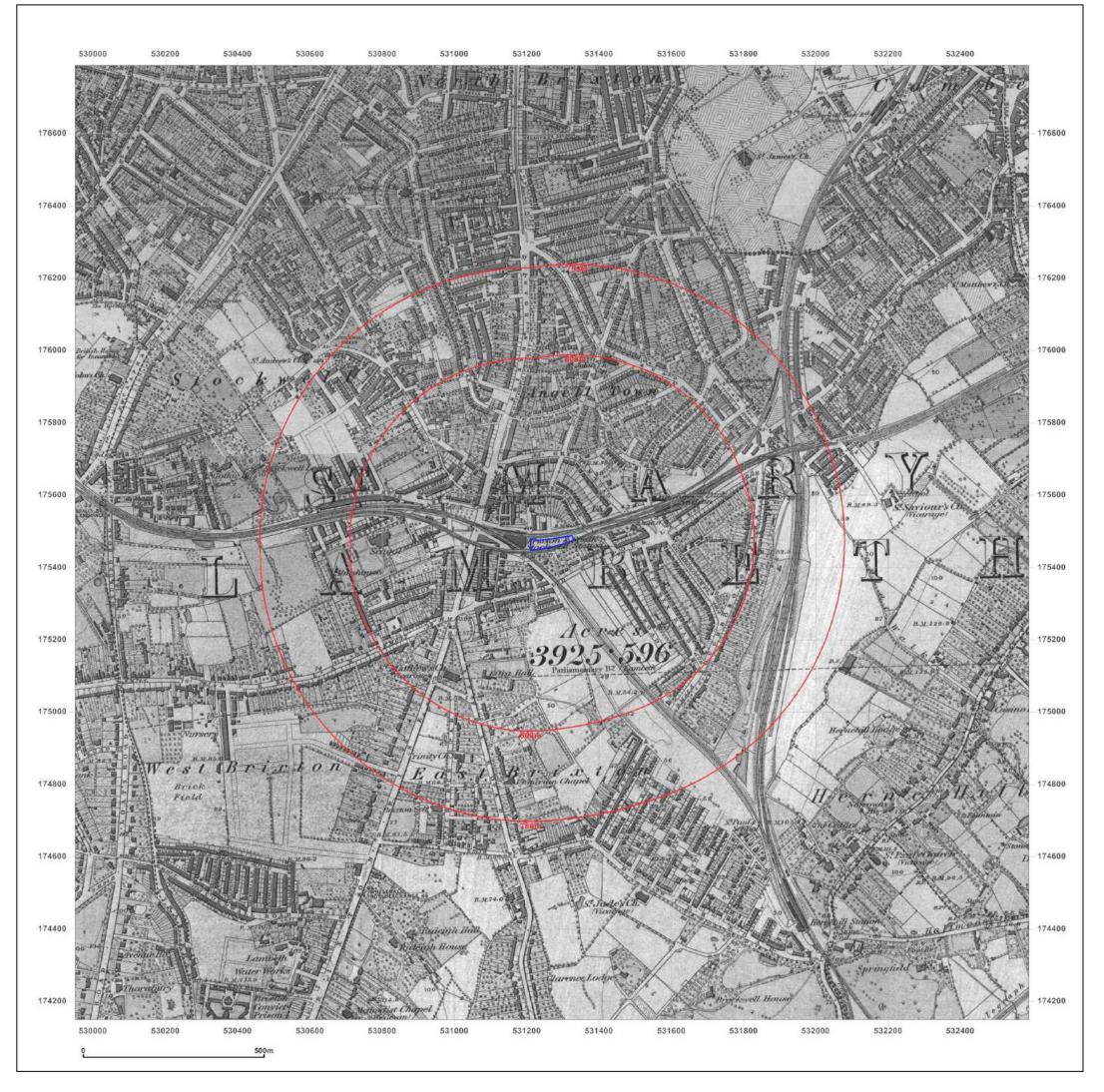




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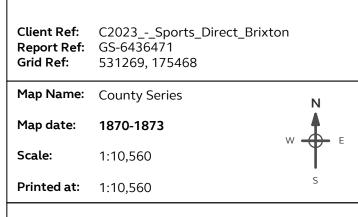
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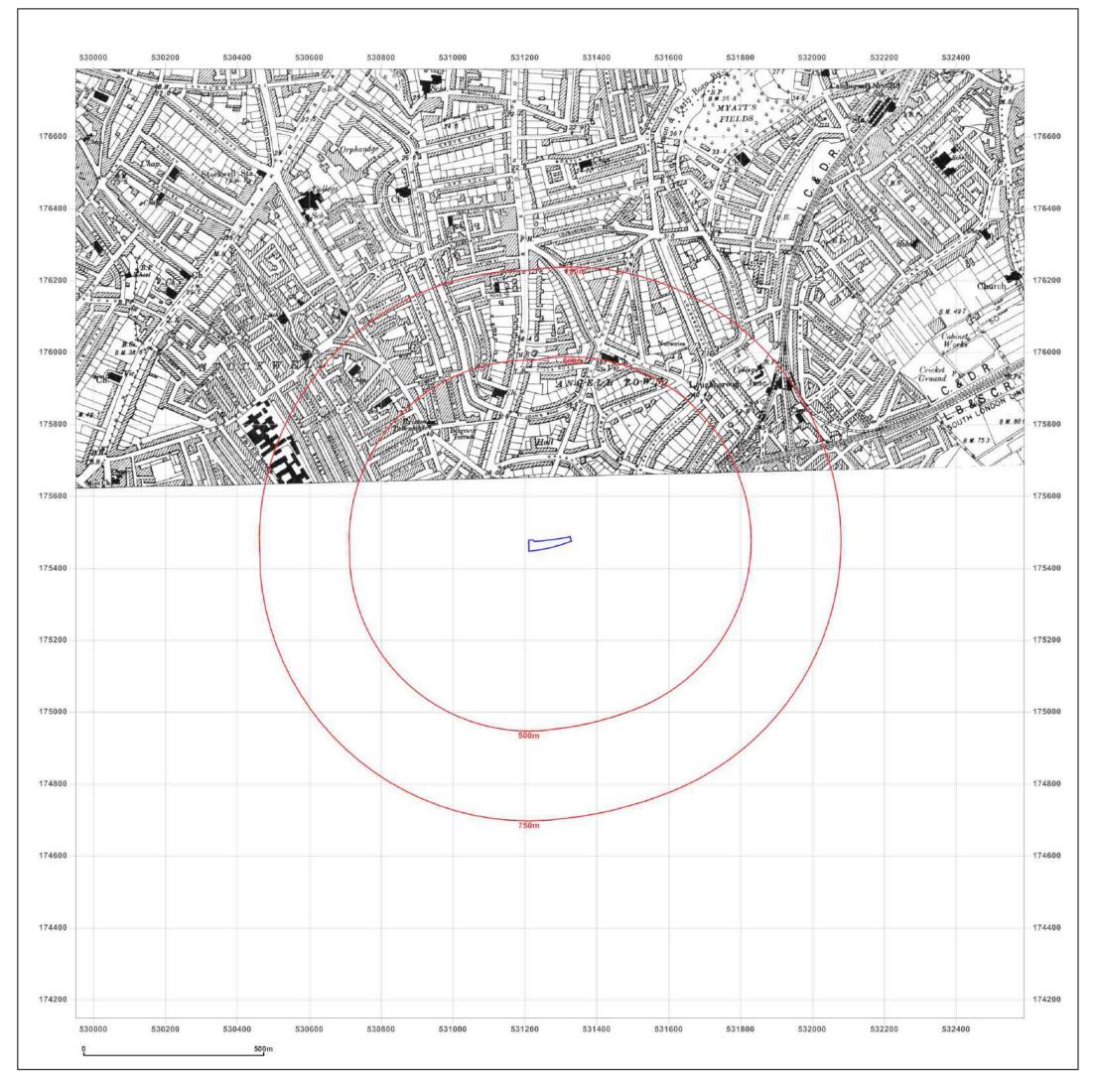
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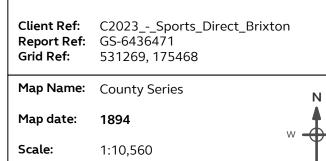
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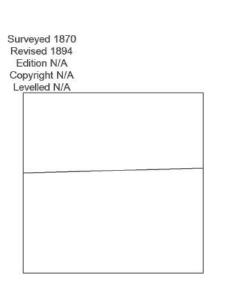




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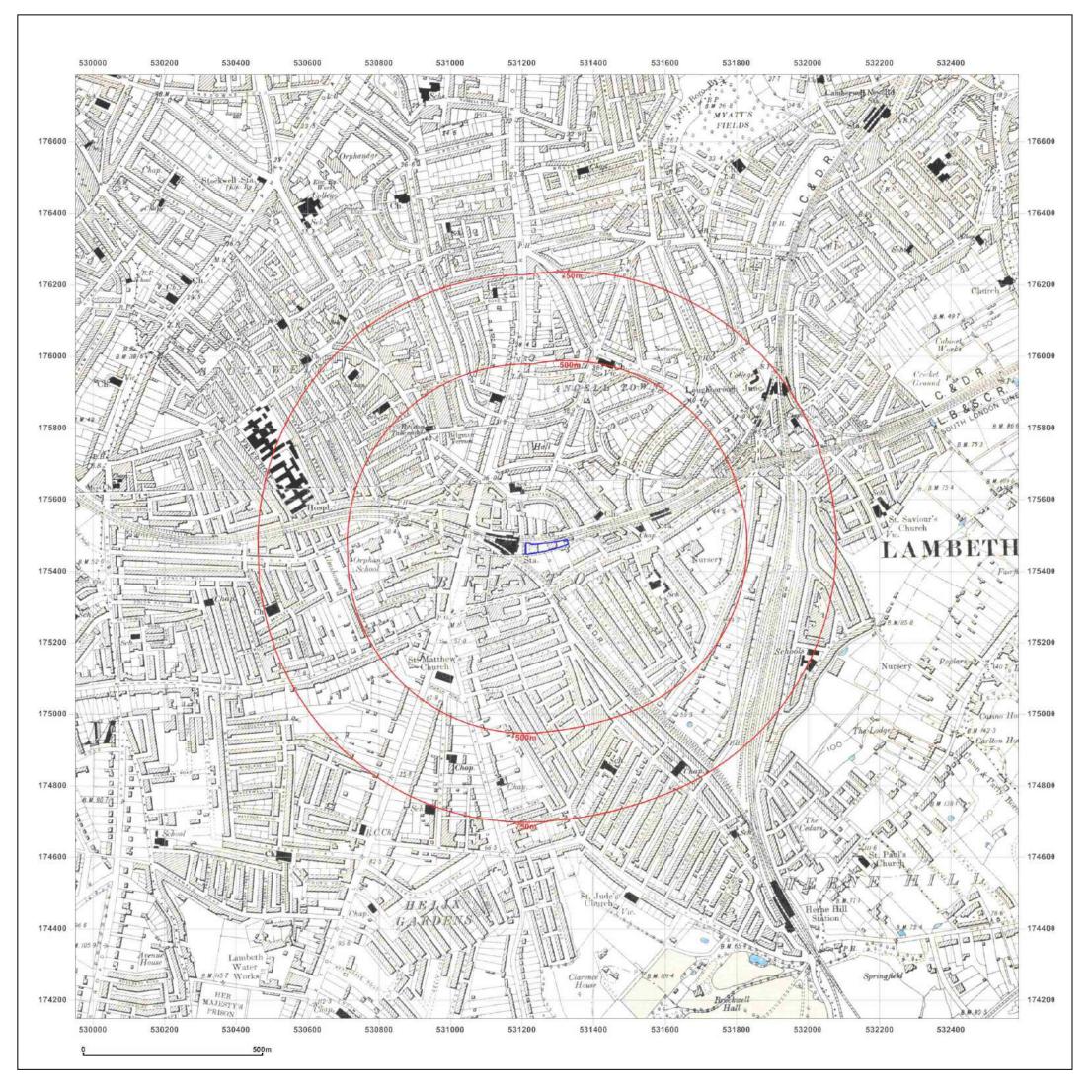




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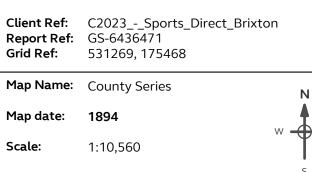
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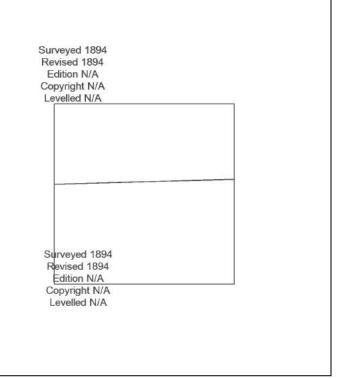




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