

Phase I Desk Study

167 Hermitage Road, Haringey, London N4 1LZ

On behalf of Topfling

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EXECUTIVE SUMMARY	
PROPOSED DEVELOPMENT	At the time of reporting, July 2023, the proposed development was understood to comprise redevelopment of the Omega Works A site on 167 Hermitage Road. The existing building on site is to be demolished with the exception of part of the façade on Hermitage Road. The proposed development is to consist of a mixed end use which will include commercial, warehouse and residential end use within three blocks varying from 4 to 9 stories. A part single storey basement is proposed to the south of the site, adjacent to Hermitage Road. The Omega B site is to comprise the redevelopment of the site for a mixed-use scheme comprising employment use (use Class E) and 36 residential units (use class C3). Together with associated landscaping, new courtyard, children's play space, cycle storage, new shared access route, 2x accessible car parking spaces and waste and refuse areas.
GEOLOGY AND HYDROGEOLOGY	The British Geological Survey Solid and Drift Geology Map for the Haringey area (North London Sheet No. 256) revealed that the site was underlain by bedrock deposits of the London Clay Formation, no superficial deposits were recorded. Areas of Made Ground or Reworked Ground were noted approximately 180m west and 180m east of the site. No other areas of made ground, superficial deposits or other bedrock deposits were noted within a 250m radius. A study of the aquifer maps on the DEFRA website revealed the site was underlain by Unproductive Strata comprising bedrock deposits of the London Clay Formation. Examination of the Environment Agency records showed that the site was located within a Inner Zone 1 Groundwater Source Protection Zone (SPZ) as classified in the Policy and Practice for the Protection of Groundwater. The nearest surface water feature was the New River located 200m south of the site. The New River was flowing in an westerly to easterly direction. Two reservoirs were recorded 600m south-east of the site. From analysis of hydrogeological and topographical maps the actual groundwater table was anticipated to be encountered at depth below the London Clay Formation. Some amounts of groundwater however may be present at shallower depths within Made ground, or silty/sandy pockets of the London Clay Formation. It was considered that groundwater was flowing in a south-easterly direction toward the New River in line with local topography.
POTENTIAL SOURCES OF CONTAMINATION	Full details can be seen in sections 6.3 and 6.4 of this report. Onsite - The Desk study has revealed the following potential sources of contamination onsite: • Potential for Made Ground (associated with historical construction/demolition onsite) • ACM • Industrial Land/Works Offsite - The Desk study has revealed the following potential sources of contamination within the site's environs: • Potential ground-gas generating features • Tanks • Garage Site • Brick Works

	• Electricity substations • Railway Land
RECOMMENDATIONS / PHASE II OBJECTIVES	A site investigation was recommended across the entire area of the site. An Asbestos Management Strategy should be put in place so that any potentially asbestos containing materials are identified and removed from site in a suitable manner to prevent cross-contamination. If analytical results show elevated concentrations of contaminants of concern in the soil samples then there might be a requirement to assess the potential risks of leachability of migrating contaminants. The risk although present as a result of the site history, the hydrogeology and the nearest receptors showed that this risk is low. This might mean leachate testing on soils samples is required or groundwater sampling and testing. The CSM has identified a moderate risk from ground-gases at the site as a result of potential deep Made Ground on-site and the land use of site (works/industrial land) as well as the land use of the site environs (works/industrial land, historical and present day tanks and a historical garage site). Analysis of soil samples should include Total Organic Carbon (TOC) testing in order to provide an indication of risk from on-site sources. In addition, ground gas monitoring should be undertaken within monitoring wells installed as part of the investigation. At this stage of investigation, in accordance with BS8576:2013, it is anticipated that a minimum of four spot monitoring visits will be required within the ground gas risk assessment. The CSM has identified sources and associated contaminants that may pose a risk through the vapour pathway. The investigation should comprise a multiple line of evidence approach, comprising the analysis of soil samples taken from appropriate horizons, groundwater samples should be taken, where appropriate, and analysed for appropriate for determinands. During the monitoring of the standpipes, a PID should be used in order to identify whether a total VOC concentration is present. Should the PID identify anything over 10ppm, analysis by canister should be considered.

1. INTRODUCTION

1.1. General

Ground and Water Limited were instructed by Topfling on the 29th March 2022 to conduct a Phase I Desk Study on the site at 167 Hermitage Road London N4 1LZ. The scope of the investigation was detailed within the fee proposal GW-0647, dated the 24th March 2022.

1.2. Aims of the Investigation

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

1.3. Conditions and Limitations

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

1.4. Technical Glossary

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

2. SITE SETTING

2.1. Site Location

The site comprised a ~3,800m² rectangular-shaped plot of land, orientated in a north-east to south-west direction, along the north-western side of Hermitage Road. The site was located in the southern portion of the borough of Haringey, North London.

The national grid reference for the centre of the site was approximately TQ 32344 88096. A site location plan is given within Figure 1.

2.2. Site Description

A Site Walkover was undertaken on the 3rd May 2022. A description of the site, as noted during the Site Walkover, is tabulated below. Photographs can be seen in Appendix B.

Site Description Sheet	
Use of site	At the time of the site walkover, 3 rd May 2022, the site was predominantly used as commercial/industrial buildings within three main Building blocks referenced Omega A, B and C with other small outer buildings along the western boundary of the site.
Site topography	The site was generally flat.
Area topography	The land to the north, south and east of the site was generally flat. An area of raised ground was noted beyond the western boundary of the site.
Structures onsite	A Main warehouse two storey brick built structure occupies the central area of the site with a number of smaller extensions along the northern part of the building. A number of buildings were also located along the western boundary of the site.
Structures off-site	To the north of the site were large industrial warehouse units within the Crusader Industrial Park. To the east, south and south-west of the site were residential properties along Hermitage Road. To the west of the site were residential properties that were slightly raised compared to the site.
Use of surrounding ground	Commercial/Industrial use and residential buildings.
Boundary features	Northern Boundary: A wall with Crusader Industrial Park beyond. Eastern Boundary: An access road to the industrial park with residential houses beyond. Southern Boundary: Hermitage Road with residential houses beyond. Western Boundary: A grass embankment leading up to residential houses.
Site covering	The entire site was covered with tarmac hardstanding with small areas of unkept vegetation that's has grown around the concrete hardstanding on the northern boundary and south-western corner of the site.
Contamination sources onsite	General fly tipped material in places. Storage of old vehicles noted on site.
Contamination sources off-site	None Noted.
Vegetation onsite	Sporadic grass and small bushes along the northern boundary of the site and close to the site entrance in the south-western corner.
Vegetation off-site	Mature trees were located beyond the western boundary growing on the embankment area. Some small trees- 1-2m were located along Hermitage Road to the south of the site. No other vegetation was recorded in close proximity to the site.
Services	Drainage was noted on the south-western corner of the site along the access road. Other services were assumed going into the industrial buildings from Hermitage Road.

2.3. Proposed Development

At the time of reporting, July 2023, the proposed development was understood to comprise redevelopment of the Omega Works A site on 167 Hermitage Road. The existing building on site is to be demolished with the exception of part of the façade on Hermitage Road. The proposed development is to consist of a mixed end use which will include commercial, warehouse and residential end use within three blocks varying from 4 to 9 stories. A part single storey basement is proposed to the south of the site, adjacent to Hermitage Road.

The Omega B site is to comprise the redevelopment of the site for a mixed-use scheme comprising employment use (use Class E) and 36 residential units (use class C3). Together with associated landscaping, new courtyard, children's play space, cycle storage, new shared access route, 2x accessible car parking spaces and waste and refuse areas.

The proposed development plans can be seen within Figures 2-11.

2.4. Geology

The British Geological Survey Solid and Drift Geology Map for the Haringey area (North London Sheet No. 256) revealed that the site was underlain by bedrock deposits of the London Clay Formation, no superficial deposits were recorded. Areas of Made Ground or Reworked Ground were noted approximately 180m west and 180m east of the site. No other areas of made ground, superficial deposits or other bedrock deposits were noted within a 250m radius.

London Clay Formation

The London Clay Formation comprises stiff grey fissured clay, weathering to brown near surface. Concretions of argillaceous limestone in nodular form (Claystones) occur throughout the formation. Crystals of Gypsum (Selenite) are often found within the weathered part of the London Clay Formation, and precautions against sulphate attack to concrete are sometimes required. The lowest part of the formation is a sandy bed with black rounded gravel and occasional layers of sandstone and is known as the Basement Bed.

A BGS borehole (TQ38/516A) located ~220m south-east of the site revealed Made Ground from Ground level down to 12.00m bgl. The London Clay Formation was recorded from 12.0-42.5m bgl. The Reading beds was recorded down to 50.5m bgl with the Woolwich beds recorded below to 59.75m bgl. The Thanet sand formation was recorded below to 66.00m bgl with the upper chalk recorded from 66.00-130m bgl (base of the borehole). No groundwater was noted.

2.5. Hydrogeology and Hydrology

A study of the aquifer maps on the DEFRA website revealed the site was underlain by **Unproductive Strata** comprising bedrock deposits of the London Clay Formation.

Examination of the Environment Agency records showed that the site was located within a Inner Zone 1 Groundwater Source Protection Zone (SPZ) as classified in the Policy and Practice for the Protection of Groundwater.

The nearest surface water feature was the New River located 200m south of the site. The New River was flowing in an westerly to easterly direction. Two reservoirs were recorded 600m south-east of the site.

From analysis of hydrogeological and topographical maps the actual groundwater table was anticipated to be encountered at depth below the London Clay Formation. Some amounts of groundwater however may be present at shallower depths within Made ground, or silty/sandy pockets of the London Clay Formation. It was considered that groundwater was flowing in a south-easterly direction toward the New River in line with local topography.

Examination of the Environment Agency records showed that the site was located within a Flood Zone 1, i.e. an area with a low probability of flooding.

2.6. Radon

BRE 211 (2015) Map 5 of the London, Sussex and west Kent area indicated that the site **was not** located within an area where mandatory protection measures against the ingress of radon were likely to be required.

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

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

It is proposed that the development includes radon resistant waterproofing within the basement which will sever any pathway between the soils and receptor, thus mitigation against any negligible radon ingress. As the pathway is broken, no further investigation (monitoring) is required. If further results show that a vapor resistant membrane is required, then that would be sufficient for radon protection as well.

Section 6.12 of BRE211 (2015) states the following regarding basements/lower ground floors:

“It is important to ensure that basements and other occupied spaces below ground level are suitably protected against radon. These areas are more at risk because walls are in contact with the ground as well as the floor. For a house with a basement under the entire house, the area in contact with the ground could be several times that of a similar house without a basement. This, coupled with reduced natural ventilation below ground level, increases the risk of elevated radon levels. All basements are at increased risk of elevated levels of radon, regardless of geographic location.

Where a new basement is to be created, or an existing cellar converted, waterproofing will be required. A well-constructed waterproofing should be designed to protect against radon also. Guidance and recommendations on basement waterproofing are contained in BS 8102:2009[14], which also advises that radon be taken into account in the design and implementation of waterproofing schemes. Below-ground waterproofing and radon management are specialist activities that can conflict. It is recommended that dual protection systems are designed and installed by specialists who are suitably qualified in both waterproofing and radon management.

Internally located cavity drain membrane systems are often used to provide belowground

waterproofing. Some cavity drain membrane systems are certificated as providing an effective barrier to radon gas. However, using these to line the internal surfaces of a basement could cause the gas to be simply displaced up the cavity into the ground floor accommodation. It is therefore important to ensure that the basement wall membrane fully closes the cavity at its head where it meets the radon barrier within the ground floor or external cavity wall above ground. The cavity behind the membrane could be used later as part of a subfloor depressurisation system.

If the ground around a basement is likely to be waterlogged, there is little benefit in installing a radon sump as subfloor depressurisation is unlikely to work continuously. As with all radon-protective measures installed during construction, the first aim should be to provide a passive solution. This should also be the aim with basement protection.”

2.7. Internet Search (Site Setting)

2.7.1. Available Unexploded Ordnance (UXO) Map Review

A review of the data available on www.zeticauxo.com/ revealed the site was located within the London high-risk area associated with unexploded ordnance (UXO). The London area is further separated into 25No. categories based on bombing densities, where green is indicated for areas having <10 bombs dropped per km² and red is indicated for areas having >150 bombs dropped per km². The site is situated within the orange area, ~one third through the spectrum. A Luftwaffe Bombing Target site was located approximately 900m south of the site.

A Preliminary UXO report from Groundsure can be viewed in Appendix E.

2.7.2. Historical Landfill Tool Review

A review of the data available on www.groundsure.io/ revealed no areas of historical landfills or authorised landfills within a 500m radius of the site.

3. HISTORICAL REVIEW

3.1. Historical Map Review

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

Environmental Significance of Data from Historical Maps		
Maps Dated Between	Site	Environs
1864– 1873	The site comprised part of “The Hermitage” which appeared to be a residential property that contained a number of residential buildings. Hermitage Road crossed the central area of the site. The rest of the site consisted of undeveloped land and vegetation.	The site environs generally comprised undeveloped agricultural land/fields. The Hermitage property was also located to the south of the site. A number of ponds were located 200m-240m west and north-west of the site. By 1872 a railway line had been constructed approximately 230m north on an embankment. The 1873 plans show the New River located approximately 200m south of the site. The River may have been present at an early date but the 1864 plans do not have any data beyond 100m to the south of the site. The New River flows from west to east eventually flowing southwards into two reservoirs located approximately 600m south of the site.
1894-1896	The Hermitage and the associated buildings on site had all been demolished. Hermitage Road had been moved to the south of the site abutting the southern site boundary. The site was undeveloped.	Residential properties had been constructed approximately 60m south-west of the site. No other significant changes to the sites environs.
1915 – 1920	The site remained undeveloped.	Wide scale residential development had occurred to the south, south-west and south-east of the site along Hermitage Road. The land directly to the north of the site appeared to be park area. The land directly to the east and west of the site remained undeveloped. A Lace Paper works and Confectionery works were located 100m south-east of the site.
1938	A Building of unknown use had been constructed along the southern portion of the site adjacent to Hermitage Road.	An Electrical wire works was located 60m south-east of the site. The Lace Paper works and Confectionery works had been expanded. More works were located 200m-250m east of the site. Remainder as previous map.
1952 – 1967	The vast majority of the site area was now covered by the Omega Works (Piano’s). The site was covered by a large building in the center and a small building on the western boundary.	A number of new commercial/industrial buildings had been constructed to the north of the site including a Piano and Joinery works directly to the north of the site and a furniture works approximately 150m north of the site. A garage site was recorded approximately 60m north-east of the site. Other industrial buildings including a shoe works, Thermometer works, printing inks works and hand bag factory had all been built on Vale Road approximately 50m south and south-east of the site. The previously undeveloped land to the west and

		north-west of the site had been raised and approximately 125m north-west of the site was the Haringey stadium which was used for Greyhound and motor cycle racing.
1982-1994	A single warehouse building had been demolished on the north-western corner of the site. The site remained unchanged. The site was now referenced as a works.	A depot had been constructed directly to the west of the site. This had been removed by 1992. The factories and works to the north of the site were now referenced as an industrial estate with individual square shaped units. After 1991 the Haringey Stadium had been demolished and a superstore and residential houses had been built in its place. The factories and specifically named works to the south and south-east of the site were renamed as works.
2001-2022	The site remained unchanged.	The industrial estate to the north of the site was named Crusader Industrial Estate. More residential houses had been built on the raised ground to the west of the site. No other significant changes to the site environs were recorded.

3.2. Historical Aerial Photography Review

The object of this search was to report on the history of the site and its immediate environs from available Aerial Photography dating from the mid-20th Century to the present day and downloaded from Google Earth and Groundsure. Any distances quoted for features remote from the site have been scaled from the photography and are only approximate.

At the time of the earliest aerial photography, 1945, the site appears to be occupied by a building of commercial/ industrial use across the majority of the site. Industrial/commercial units were recorded to the north of the site as well as 50-150m south and south-east of the site. The Haringey stadium was recorded approximately 125m north-west of the site. Residential houses were recorded directly to the south of the site along Hermitage Road. Due to the quality of the photograph, specific details of the site are not readily visible.

The 1999 aerial photography indicates that the buildings on the site had not changed from the 1945 aerial photographs. The site environs had changed to the north-west of the site with the demolition of the Haringey Stadium and the construction of a superstore and residential houses. The factories and works to the north of the site had been redeveloped into square shaped industrial units within the Crusader Industrial estate. No significant changes were recorded on site between 1999 and 2021. No significant changes to the site's environs had occurred apart from residential development to the south-west of the site.

4. ENVIRONMENTAL AND GEOLOGICAL INSIGHT

4.1. Groundsure Datasheets

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

Environmental Insight	
Source	Nearest Distance from Site/Dated/Type
Past Land Use	
Historical industrial land uses	1x on-site and 14 off-site records within a 250m radius: 1x record of an unspecified works on-site (1962-1989), 4x Unspecified Factory- 1m north (1975-1989), 234m east (1938), 234m east (1920), 240m east (1982-1989). 4x records of unspecified Works 1m north (1962-1967), 92m south-east (1982-1989), 140m north (1962-1989), 174m east (1967-1975), 2x Lace Paper Works- 94m south-east (1938), 105m south-east (1920), 1x Confectionery Works (1920), 1x Unspecified Commercial/Industrial 174m east- (1982-1989), 1x Chimney 189m north (1962-1975), 1x Brick Works 205m east (1894).
Historical Tank Database	13x records within a 250m radius: 9x records of unspecified tanks 12m north (1991-1994), 15m north (1986-1991), 37m east (1986-1994), 105m south-east (1952-1953), 125m north (1971), 150m west (1896) 179m south-east (x7) (1952, 1953, 1970, 1982, 1991, 1991, 1997). 4x record of tanks 119m north (1986-1991), 184m south-east (1952-1970), 185m south-east (1952-1963, 1991-1994), 191m south-east (1982—1991).
Historical Energy Features Database	10x off-side records within a 250m radius: 10x records of electricity substations, 71m west (1971), 89m west (1986-1994), 165m east (1991-1994), 173m east (1954-1991), 183m north (1991-1994), 185m north (1954-1971), 188m north (1986-1001), 190m north (1954), 235m south (1953-1994), 247m south (1977-1994).
Historical Garages Database	4x record within a 250m radius: 37m north-east (1991-1994), 38m north-east (1971-1991), 38m north-east (1954), 39m north-east (1954).
Waste and Landfill	
Waste exemptions	4x records within a 250m radius: 53m east (x2)- 169 Hermitage Road- Treating waste exemption. 126m north- Crusader Industrial Estate- Storing waste exemption. 204m east- Storage 4 London- Storing Waste exemption. 209m east Florentia Clothing Village- Storing waste exemption.
Current Industrial Land Use	
Recent Industrial Land Uses	35 records within a 250m radius: 2x Business Parks and Industrial Estates-12m north, 188m north 2x Tanks- 16m north-east, 45m north-east 1x Plate Makers, Print Finishers and Type setters- 31m north 1x Recoding studios and record companies- 34m north 3x Textiles Fabrics Silk and Machinery- 59m south-east, 98m north, 209m east 3x Electricity Sub-station- 62m west, 178m east, 188m north 4x Unspecified works or factories- 67m south-east, 69m south, 126m east, 200m east 1x Footwear- 72m south

	1x Leather Products- 74m north 2x Vehicle Repair, Testing and servicing- 97m north-east, 177m south-west 3x Clothing Components and Accessories- 126m north, 209m east, 209m east 2x Jewellery Gems Clocks and Watches- 138m south-east, 146m east 1x Electronic Equipment- 138m south-east 1x Construction Completion Services- 138m south-east 1x Medical Equipment Supplies and Pharmaceuticals 142m south-east 1x Chimney- 188m south-east 1x Container and storage- 209m east 1x Photographic and optical equipment- 209m east, 1x General Construction Supplies- 216m north, 1x Disability and Mobility Equipment- 227m north-west 1x Furniture-232m east.
Current or recent petrol stations	1x record within a 250m radius: 129m north- Obsolete.
Hydrogeology	
Bedrock Aquifer	1 record onsite: 1x Unproductive strata.
Groundwater Vulnerability	1x record onsite: 1x Unproductive strata –, leaching class: low. 1x off site record- 36m south 1x Unproductive strata –, leaching class: low.
Groundwater Abstractions	2x records within a 250m radius: 203m south-west, 207m south-west.
Potable Abstraction	2x records within a 250m radius: 203m south-west, 207m south-west.
Source Protection Zones	1x record on site: Type 1 Inner Catchment 1x record within a 250m radius: Type 2 Outer Catchment.
Hydrology	
Water Network (OS MAsterMap)	1x record within a 250m radius: 186m south- Inland river not influenced by normal tidal action.
Surface Water Features	1x record within a 250m radius.
WFD Surface Water Body Catchments	1 record within a 250m radius: 1x River- Lee (Tottenham Locks to Bow Locks/Three Mills Locks).
Environmental Designations	
Visual and Cultural Designations	
Agricultural Designations	
Agricultural Land Classification	x record within a 250m radius: 1x Urban on-site,
Habitat Designation	
Priority Habitat Inventory	1x record within a 250m radius: 1x Deciduous Woodland- 242m north.

Geological Insight	
Source	Nearest Distance from Site/ Type
Artificial and Made Ground (1:10,000 Scale)	2x records within a 250m radius: 182m west-Worked Ground 188m east-worked ground.
Bedrock Geology (1:10,000 Scale)	1 on-site records: 1x London Clay Formation- Clay.
Artificial ground and permeability (1:50,000 scale)	2x records within a 250m radius: 181m west-Worked Ground 184m east-worked ground.

Bedrock Geology and Permeability (1:50,000 scale)	1 record onsite: 1x London Clay Formation- Clay, Silt and Sand. Flow Type – Mixed, Maximum Permeability – Moderate, Minimum Permeability – Very Low.
Boreholes	
BGS recorded boreholes	3 records within a 250m radius: 176m south-east (15.0m depth), 208m south-west, 225m south (25.0m depth).
Natural Hazard Findings	
Shrink-Swell Clay	Moderate hazard onsite.
Running Sands	Very Low hazard onsite.
Compressible Deposits	Negligible hazard onsite.
Collapsible Deposits	Very Low hazard onsite.
Landslides	Very Low hazard onsite.
Ground Dissolution of Soluble Rocks	Negligible hazard onsite.
Mining, Ground Working and Natural Cavities	
Records of Surface Ground Workings	3x records within a 250m radius: 2x Ponds 186m west (1869, 1879), 1x Brick Works 205m east (1894).
Radon	
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary.
Estimated Background Soil Chemistry	
Records of BGS estimated background soil chemistry	3 records within a 250m radius: On-site (x1), 37m south-west, 37m south: Arsenic: No data, Bioaccessible Arsenic: No data Lead No data (Bioaccessible Lead bioaccessible) Cadmium: No data Chromium: No data Nickel: No data
Records of BGS Estimated Urban Soils Chemistry	8 records within a 250m radius: On-site (x4), 37m south-west, 38m south, 42m east, 45m north-east: Arsenic: 17-21mg/kg, Bioaccessible Arsenic: 3-3.7mg/kg Lead:494-813mg/kg (Bioaccessible Lead: 339-559mg/kg) Cadmium: 0.6-1.0mg/kg Chromium: 72-82mg/kg Copper: 84-155mg/kg Nickel: 28-36mg/kg Tin: 51-151mg/kg
Railway Infrastructure and Projects	
Records of Underground railways (London)	1x record within a 250m radius: 248m south-west- Piccadilly Line (Tunnel)
Records of Historical Railway and Tunnel Features	3x records within a 250m radius: 214m north (1915), 216m north (1870 and 1896).
Records of Railways	5x records within a 250m radius: 234m north (Gospel Oak to Barking Line)-rail 235m north (x3) Multi Track, 237m north (Gospel Oak to Barking Line)- rail.

5. ONLINE REVIEW AND HISTOIRCAL INVESTIGATIONS

5.1. Online Council Planning Database

A review of the Haringey Borough Council Planning Database revealed that seven planning applications had been filed for 167 Hermitage Road, London N4 1LZ. Those pertinent to the site development area are tabulated below.

Planning Applications for the site		
Application No./Date	Proposed	Decision
HGY/2015/0997 07/04/2015	Removal of existing external metal staircase located on south east elevation (Hermitage Road) and erection of a new external metal staircase to south west elevation.	Grant Permission
HGY/2015/1508 19/05/2015	Approval of details pursuant to condition 3 (details showing drawings referred to in condition 1 within 3 months of the date of decision revised layouts and arrangements from units C, E, 3E, 3G and 3S together with a timetable for implementation) attached to appeal reference APP/Y5420/C/13/2205889	Grant Permission
HY/2015/1507 19/05/2016	Part approval of details pursuant to condition 5 (further details of (b) additional windows and/or light-wells; (d) bicycle storage; (e) car parking; and (f) refuse/recycling storage) attached to Appeal reference APP/Y5420/C/13/2205889.	Grant Permission
HGY/2015/1771 18/06/2015	Use of Units 3C, 3D, 3K, 3L, 2 & B as live/work units, and minor changes to Unit 3J, which are required as a result to proposed alterations to remaining units	Refused
HGY/2015/3423 17/11/2015	Conversion of Units 3C and 3D to live/work units.	Grant Permission
HGY/2016/2329 10/08/2016	Removal of existing roof finishes of corrugated material and single glazing and replacing with concrete tiles and rooflights	Grant Permission
HGY/2016/3604 17/10/2016	Prior approval for change of use from storage (Class B8) to residential (Class C3)	Prior Approval Issued

5.2. Internet Search

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

6. PRELIMINARY RISK ASSESSMENT

6.1. Contaminant Source-Pathway-Receptor Model

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

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

In line with the requirements of BS 21365:2020, *Soil Quality – Conceptual site models for potentially contaminated sites*, the Conceptual Site Model (CSM) can be described in text, tabulated or presented as a figure. A tabulated CSM is provided in Section 6.6 of this report, where each component is discussed in the following sections. A diagrammatic CSM is provided within Figure 12.

6.2. Potential On-site Sources of Contaminants

This Desk Study revealed that at the time of the earliest historical mapping (1864) The site comprised part of “The Hermitage” which appeared to be a residential property that contained a number of residential buildings. The rest of the site consisted of undeveloped land and vegetation. The site remained undeveloped up until 1938 when a building of unknown use had been constructed on the southern portion of the site. By the time of the 1952 mapping, the vast majority of the site area was covered by the Omega Works (Piano’s). The site was covered by a large building in the center and a small building on the western boundary. The site was referenced as a works from 1982 up to the present day. A single warehouse building had been demolished on the north-western corner of the site between 1992-1994. No other significant changes were recorded on site from 1994 up to the present day.

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

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

Contaminants of concern associated with Made Ground deposits include; metals, Petroleum Hydrocarbons (TPHs), Polycyclic aromatic hydrocarbons (PAHs), asbestos, sulphates, volatile organic compounds (VOCs) and ground gases.

General Industrial Works/Factory

The Groundsure historical plans and Enviro Datasheets shows the site has been occupied by the Omega Works since 1938 up to the present day. Metals and semi-metals; asbestos; oil/fuel hydrocarbons, PAHs, solvents and inorganic chemicals (*R&D Publication CLR 8, 2002*).

6.3. Potential Off-site Sources of Contaminants

This Desk Study revealed that at the time of the earliest historical mapping (1864) the site environs comprised of undeveloped agricultural land/fields with ponds located 200m west and the New River located 200m south of the site. The 1894-1896 plans and 1915-1920 plans shows wide scale residential development. The 1915-1920 plans show a Lace Paper works and Confectionery works were located 100m south-east of the site. By 1938 the Lace Paper works and Confectionery works had been expanded and an Electrical wire works had been constructed 60m south-east of the site. The 1952 plans show a number of new commercial/industrial buildings had been constructed to the north of the site including a Piano and Joinery works directly to the north of the site and a furniture works approximately 150m north of the site. A garage site was recorded approximately 60m north-east of the site. Other industrial buildings including a shoe works, Thermometer works, printing inks works and hand bag factory had all been built on Vale Road approximately 50m south and south-east of the site. The previously undeveloped land to the west and north-west of the site had been raised and approximately 125m north-west of the site was the Haringey stadium which was used for Greyhound and motor cycle racing. By 1982 a depot had been constructed directly to the west of the site. This had been removed by 1992. The factories and works to the north of the site were now referenced as an industrial estate with individual square shaped units. After 1991 the Haringey Stadium had been demolished and a superstore and residential houses had been built in its place. The factories and specifically named works to the south and south-east of the site were renamed as works. The site environs remained relatively unchanged from 2001-2022, small scale residential housing development occurred to the west and south-west of the site.

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

General Industrial Works/Factory

The Groundsure historical plans and Enviro Datasheets recorded Unspecified factories, works, industrial works and other industrial land uses were recorded within a 250m radius of the site. Metals and semi-metals; asbestos; oil/fuel hydrocarbons, PAHs, solvents and inorganic chemicals (*R&D Publication CLR 8, 2002*).

ASTs & Potential UST

The Groundsure Enviro Datasheets recorded 13No. Historical tanks within a 250m radius, the nearest was located 12m north and 2 No. Tanks, the nearest is located 16m north-east of the site. ASTs and the UST, if present, may have contained oil/fuel hydrocarbons to operate light plant machinery around the site and used to operate the machinery within the main creamery buildings. Spillages/leakages may have occurred over time and affected the soils and groundwater underlying the site.

If hydrocarbons are present within the soils underlying the site and are slowly attenuating over time, the anaerobic biological breakdown of hydrocarbons can produce harmful ground-gases such as methane and carbon dioxide which could affect the site.

Electricity Sub-Station

10 No. electricity sub-stations were recorded within a 250m radius the nearest recorded entry was 71m west of the site. PCB oils and other cable/transformer oils, together with a series of

waxes are commonly used in mainly high voltage applications. PCBs are generally toxic; however, newer forms of non-toxic oils and waxes have replaced the use of PCBs. All cable oils are extremely viscous and adhere strongly to soil particles and do not tend to migrate far from the point of leakage or spillage. Therefore the potential risk of encountering PCBs on the site was negligible.

Garage Services/Motor Body Repair Works

The Groundsure Historical plans and enviro datasheets recorded a Garage site 60m north-east of the site. Potential sources of contamination associated with a garage include: lubricant oils; brake fluids (constitute mainly of polymerised glycols and ethers. Waste fluid is generated during repair work on brake systems); solvents (chlorinated hydrocarbons, carbon tetrachloride, paraffin and proprietary degreasing compounds); paints (lead-based paints, zinc-rich epoxy primers, polyurethanes as decorative finishes); gasoline, diesel, paraffin (*Department of the Environment Industry Profile, Road vehicle fueling, service and repair: garages and filling stations 1996*).

Potential sources of contamination associated with a garage services, motor body repair works and body/paint spray workshop include:

- Lubricant oils (engine and transmission lubricating oils, both used and new);
- Contaminants from used oils and paints include: lead, copper and a range of other heavy metals, unburnt fuel, Polycyclic Aromatic Hydrocarbons (PAHs);
- Anti-freeze – ethylene glycol and propylene glycol, along with methanol, is used as an anti-freeze in coolant systems;
- Brake fluids (constitute mainly of polymerised glycols and ethers);
- Waste fluid generated during repair work on brake systems;
- Solvents (chlorinated hydrocarbons, carbon tetrachloride, paraffin and proprietary degreasing compounds);
- Paints (lead-based paints, zinc-rich epoxy primers, polyurethanes as decorative finishes, Volatile Organic Compounds (VOCs));
- Gasoline;
- Diesel;
- Asbestos.

(Department of the Environment Industry Profile, Road vehicle fuelling, service and repair: garages and filling stations 1996).

Brick Works/Brick Kilns

A brick works was recorded 205m east of the site. Contaminants associated with brick works/brick firing processes include residues of PAHs and some metals, particularly arsenic in the furnace ash. Tile making often occurs alongside brick works and contaminants associated with glazes, such as lead may therefore be present. Ground gases from backfilled pits may also be a risk.

Railway Land

Railway land was recorded approximately 230m north of the site. Contaminants associated with railway land include metals such as cadmium, chromium, nickel and lead, Polycyclic Aromatic Hydrocarbons (PAHs) and Total Petroleum Hydrocarbons (TPH).

6.4. Potential Receptors

At the time of reporting, July 2023, the proposed development was understood to comprise redevelopment of the Omega Works A site on 167 Hermitage Road. The existing building on site is to be demolished with the exception of part of the façade on Hermitage Road. The proposed development is to consist of a mixed end use which will include commercial, warehouse and residential end use within three blocks varying from 4 to 9 stories. A part single storey basement is proposed to the south of the site, adjacent to Hermitage Road.

The Omega B site is to comprise the redevelopment of the site for a mixed-use scheme comprising employment use (use Class E) and 36 residential units (use class C3). Together with associated landscaping, new courtyard, children's play space, cycle storage, new shared access route, 2x accessible car parking spaces and waste and refuse areas.

The proposed development plan can be seen within Figures 2-11.

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

Human Health

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

Flora and Fauna

- Vegetation within soft landscaped areas;

Building Materials and Services

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

Controlled Waters

- Unproductive Strata (London Clay Formation); and
- New River (~200m south).

6.5. Contaminant Absorption Pathways

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

Human Health:

- Direct ingestion of soil and soil derived dust;

- Dermal contact of soil and soil derived dust;
- Inhalation of dust (indoors and outdoors) with elevated concentration of determinands;
- Ingestion of home-grown produce, and soil attached;
- Direct ingestion of groundwater;
- Inhalation of volatile vapour (indoors and outdoors);
- Inhalation of ground gases.; and
- Explosion.

Flora and Fauna

- Direct uptake of groundwater; and
- Direct uptake of contaminants in the soil.

Building Materials and Services

- Direct contact;
- Explosion.

Controlled Waters

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

6.6. Tabulated Conceptual Site Model

The tabulated Conceptual Site Model developed as part of this Desk Study is outlined overleaf. For ease of reference and understanding, the risks have been classified within this risk assessment against four possible levels / categories, summarised in the table below.

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

Tabulated Conceptual Site Model – Pollutant Linkage Summary			(On-Site Sources)
Potential Sources	Potential Absorption Pathways	Potential Receptors	Risk Classification
Made Ground from construction/ demolition activities and historical and present day land use of the site which is a works/ industrial land: - Asbestos, - PAHs, - TPHs, - VOCs, - Sulphates, and - Metals.	- Direct ingestion of soil and soil derived dust - Dermal contact of soil and soil derived dust - Inhalation of dust (indoors and outdoors) with elevated concentration of determinands - Direct ingestion of groundwater - Inhalation of volatile vapour (indoors and outdoors)	Human Health - End Users (Residents/Future site visitors) - Construction workers during development - Site operatives during maintenance works - Neighbours and public	Moderate
	- Direct uptake of groundwater - Direct uptake of determinands in the soil	Flora and Fauna Vegetation within soft landscaped areas	Low
	- Anthropogenic (man-made) pathways - Vertical and lateral migration in permeable strata - Surface water runoff	Controlled Waters - Unproductive Strata (London Clay Formation) - New River	Low
Asbestos within the building's fabric/roof Asbestos	- Direct ingestion of soil and soil derived dust - Dermal contact of soil and soil derived dust - Inhalation of dust (indoors and outdoors) with elevated concentration of determinands	Human Health - End Users (Residents/Future site visitors) - Construction workers during development - Site operatives during maintenance works - Neighbours and public	High
Aggressive ground conditions with Made Ground and natural ground, including groundwater: - Sulphates, - PAH/TPH.	Direct contact with aggressive ground conditions	Building Materials and Services - Buried Concrete - Underground services (water pipes)	Moderate
Ground gases generated by Made Ground associated with historical and present day works/industrial land use: - Methane, - Carbon Dioxide, - Hydrogen Sulphide, and - Carbon Monoxide.	- Migration through anthropogenic & natural pathways - Inhalation of Asphyxiating gases - Explosion (methane only)	Human Health - End Users (Residents/Future site visitors) - Construction workers during development (especially in confined spaces) - Site operatives during maintenance works in confined spaces	Moderate
	- Migration through anthropogenic & natural pathways - Explosion (methane only)	Building Materials and Services - Buildings - Confined spaces - Underground services	Moderate

Tabulated Conceptual Site Model – Pollutant Linkage Summary			(Off-Site Sources)
Potential Sources	Potential Absorption Pathways	Potential Receptors	Risk Classification
Made Ground from nearby works and industrial buildings, historical and present day tanks and a historical garage site: - Asbestos, - PAHs, - TPHs, - VOCs, - Sulphates, and - Metals.	- Direct ingestion of soil and soil derived dust - Dermal contact of soil and soil derived dust - Inhalation of dust (indoors and outdoors) with elevated concentration of determinands - Direct ingestion of groundwater - Inhalation of volatile vapour (indoors and outdoors)	Human Health - End Users (Residents/Future site visitors) - Construction workers during development - Site operatives during maintenance works - Neighbours and public	Moderate
	Direct uptake of groundwater	Flora and Fauna Vegetation within soft landscaped areas	Low
Aggressive ground conditions associated with impacted groundwater; - Sulphates, - PAH/TPH.	Direct contact with aggressive ground conditions	Building Materials and Services - Buried Concrete - Underground services (water pipes)	Moderate
Ground gases generated by Made Ground, Historical and present day tanks: - Methane, - Carbon Dioxide, - Hydrogen Sulphide, and - Carbon Monoxide.	- Migration through anthropogenic & natural pathways - Inhalation of Asphyxiating gases - Explosion (methane only)	Human Health - End Users (Residents/Future site visitors) - Construction workers during development (especially in confined spaces) - Site operatives during maintenance works in confined spaces	Moderate
	- Migration through anthropogenic & natural pathways - Explosion (methane only)	Building Materials and Services - Buildings - Confined spaces - Underground services	Moderate

7. RECOMMENDATIONS AND PHASE II OBJECTIVES

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

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

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

7.1. Soils

It is possible that asbestos and asbestos containing materials will be incorporated within any Made Ground. An asbestos management strategy should be implemented to ensure that any asbestos uncovered during the investigation does not pose a risk to members of the public that use the site.

On the basis of the Phase 1 Site Assessment the following contaminants of concern have been identified and should be included in the chemical analysis suite for the ground investigation:

- Asbestos.
- Semi-metals and heavy metals;
- Poly-cyclic aromatic hydrocarbons (PAHs);
- Speciated TPH including full aliphatic/aromatic split;
- Volatile/semi-volatile organic compounds – BTEX Used as marker compounds;
- Sulphates;
- Cyanide;

The list above does not imply that these determinands are present on-site or that they are likely to cause contamination issues at the site. The ground investigation will be used to prove the presence or absence of these contaminants. The sampling and testing strategy must be in line with current standards. Given the site has undergone various phases of building and demolition, random sampling should be adopted across the site. Targeted sampling of proposed soft landscaped areas may be deemed appropriate. Results should be assessed against suitable assessment criteria to be protective of human health as well as vegetation.

Sub-surface concrete may be damaged due to being in contact with aggressive ground conditions. Sampling should be undertaken where the proposed foundations will be in contact with Made Ground and/or natural ground and tested for aggressive ground conditions (sulphates/pH). Classification should then be undertaken of the ground conditions in accordance with Building Research Establishment Special Digest 1, 2005, 'Concrete in Aggressive Ground'.

7.2. Services

The CSM has identified a moderate risk for aggressive ground conditions that may affect water supply pipes as part of the development. Consideration should be given to the targeted sampling (0.75 – 1.50m bfgl) and scheduling for contaminants of concern: TPH, Naphthalene, Phenols, BTEX, VOCs and SVOCs.

7.3. Controlled Waters

If analytical results show elevated concentrations of contaminants of concern in the soil samples then there might be a requirement to assess the potential risks of leachability of migrating contaminants. The risk although present as a result of the site history, the hydrogeology and the nearest receptors showed that this risk is low. This might mean leachate testing on soils samples is required or groundwater sampling and testing.

7.4. Ground-gas

The CSM has identified a moderate risk from ground-gases at the site as a result of potential deep Made Ground on-site and the land use of site (works/industrial land) as well as the land use of the site environs (works/industrial land, historical and present day tanks and a historical garage site). Analysis of soil samples should include Total Organic Carbon (TOC) testing in order to provide an indication of risk from on-site sources. In addition, ground gas monitoring should be undertaken within monitoring wells installed as part of the investigation. At this stage of investigation, in accordance with BS8576:2013, it is anticipated that a minimum of four spot monitoring visits will be required within the ground gas risk assessment.

7.5. Vapours

The CSM has identified sources and associated contaminants that may pose a risk through the vapour pathway. The investigation should comprise a multiple line of evidence approach, comprising the analysis of soil samples taken from appropriate horizons, groundwater samples should be taken, where appropriate, and analysed for appropriate for determinands. During the monitoring of the standpipes, a PID should be used in order to identify whether a total VOC concentration is present. Should the PID identify anything over 10ppm, analysis by canister should be considered.

7.6. Geotechnical Review

7.6.1. General

The BGS have identified the following natural hazards on-site and within a 50m buffer.

Natural Hazards	
Shrink-Swell Clay	Moderate hazard on-site.
Running Sands	Very Low hazard on-site.
Compressible Deposits	Negligible hazard on-site.
Collapseable Deposits	Very Low hazard on-site.
Landslides	Very Low hazard on-site.
Ground Dissolution of Soluble Rocks	Negligible hazard on-site.

No pits/quarrying or mining features were identified on-site, however two surface ground working features were recorded within a 250m radius of the site. These records included 1 pond 186m west and a brick works 205m east of the site. It is therefore considered that the commodity removed from the ground associated with the brick works was clay.

When designing foundations, the potential presence of aggressive ground conditions should be taken into consideration. Further investigation may be required in accordance with the guidance established in BRE Special Digest 1 (SD1) (2005) 'Concrete in aggressive ground'. The BGS do not record any details regarding the potential for aggressive ground conditions within shallow units identified at the site.

It is recommended that as part of the site-specific ground investigation on-site, geotechnical testing is undertaken to determine the underlying ground conditions and to evaluate any geotechnical related risks associated with the proposed redevelopment of the site.

The Groundsure datasheets have indicated that the underlying London Clay Formation was recorded to have a very low to moderate permeability and therefore would be unlikely to be suitable for surface water disposal. These will be subject to on-site testing.

FIGURES



 APPROXIMATE SITE BOUNDARY

NOTE: NOT TO SCALE

Project:

167 Hermitage Road, Harringay, London N4 1LZ

Client:

Topfling

Date:

July 2023

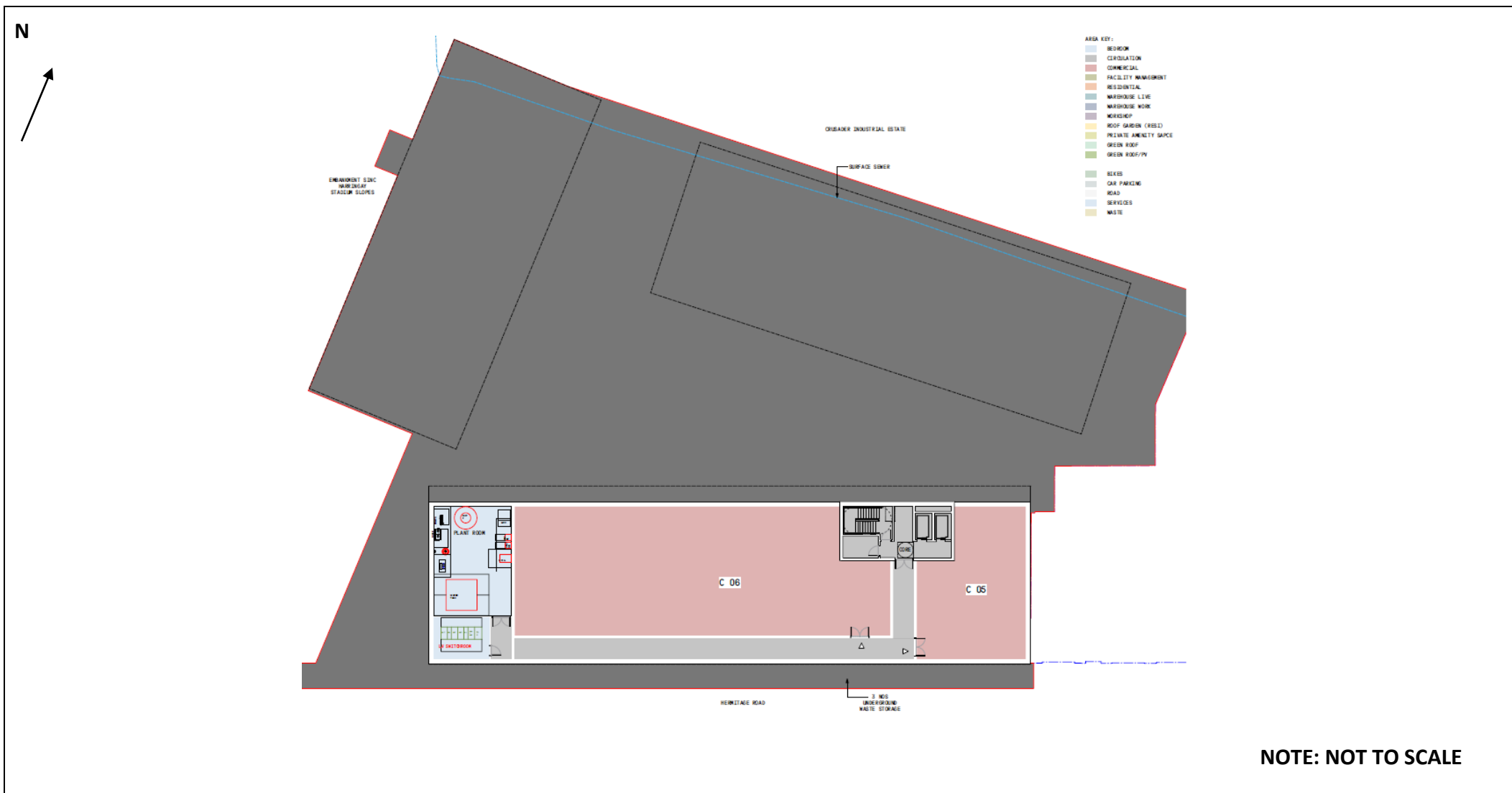
Ref:

GWPR4712

Site Location Plan

Figure 1

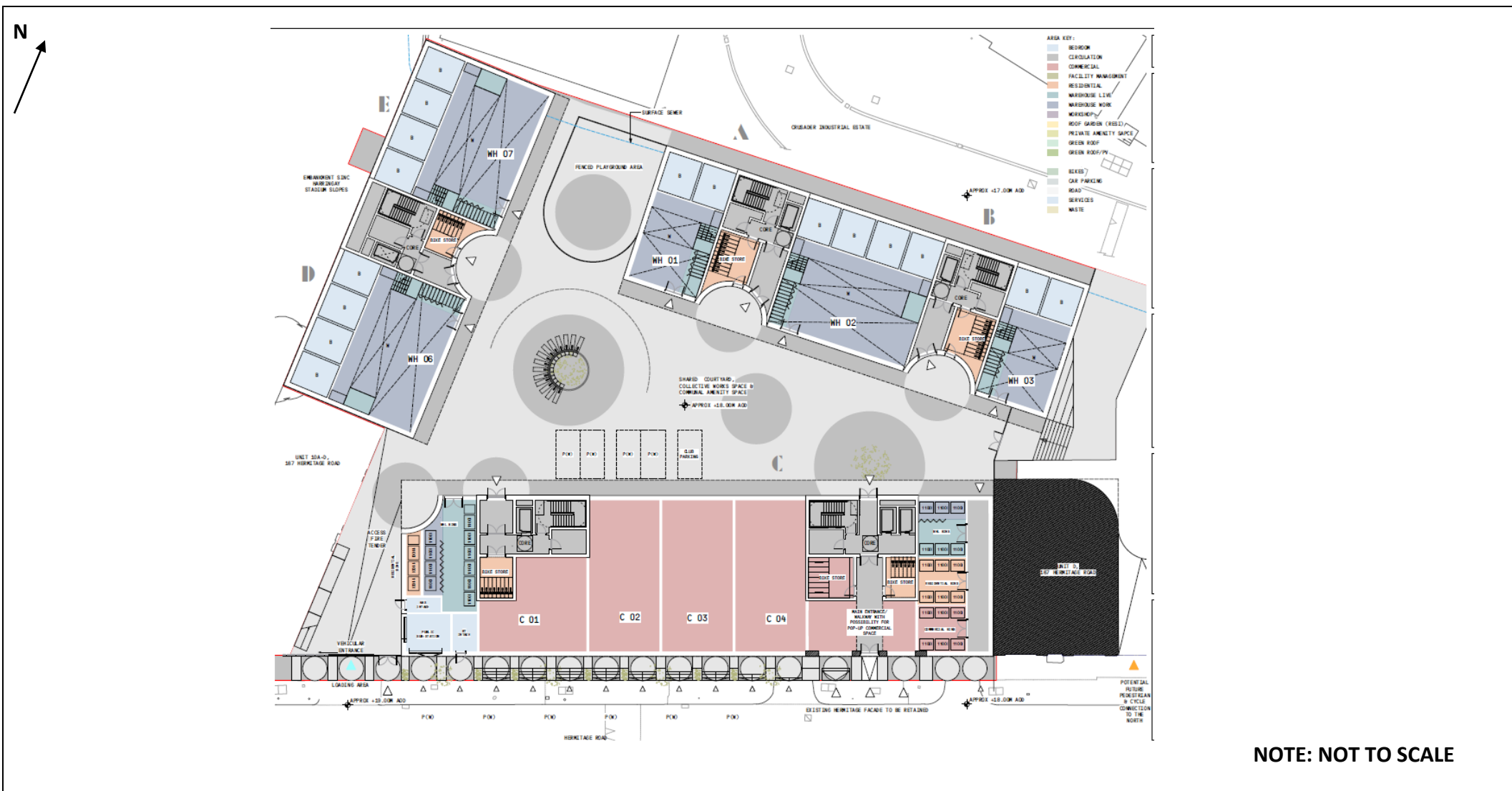




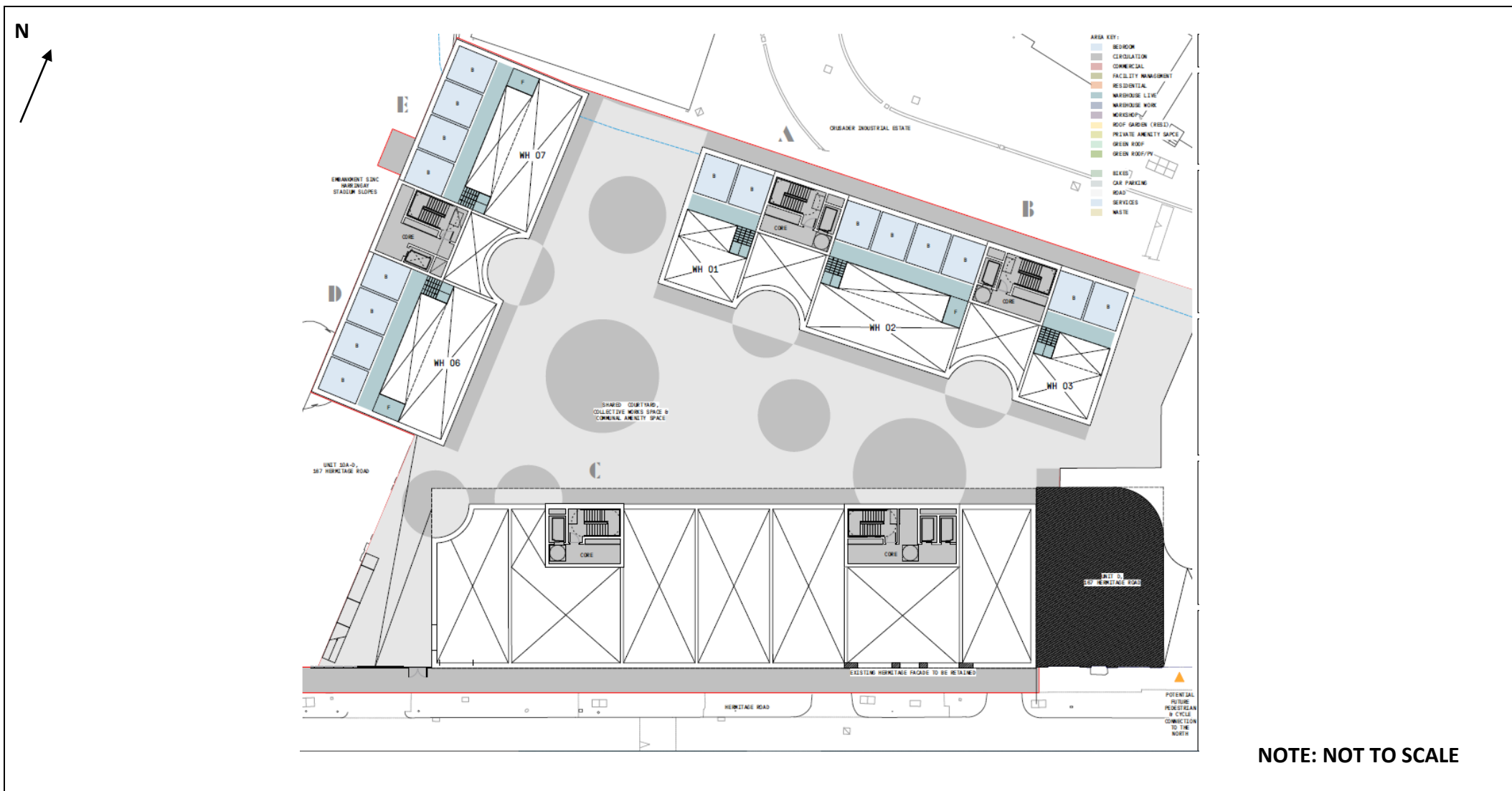
Project:		167 Hermitage Road, Harringay, London N4 1LZ	
Client:		Date:	July 2023
Topfling			
Proposed Development – Basement Plan		Ref:	GWPR4712

Figure 2





Project: 167 Hermitage Road, Haringay, London N4 1LZ		Figure 3 
Client: Topfling	Date: July 2023	
Proposed Development – Ground Floor Plan	Ref: GWPR4712	



Project:		167 Hermitage Road, Harringay, London N4 1LZ		Figure 4 
Client:		Topfling	Date:	
Proposed Development – Spilt Level Plan			Ref:	
			GWPR4712	



Project:		167 Hermitage Road, Harringay, London N4 1LZ		Figure 5  ground&water
Client:		Topfling	Date:	
Proposed Development – First Floor Plan			Ref:	
			July 2023	
			GWPR4712	



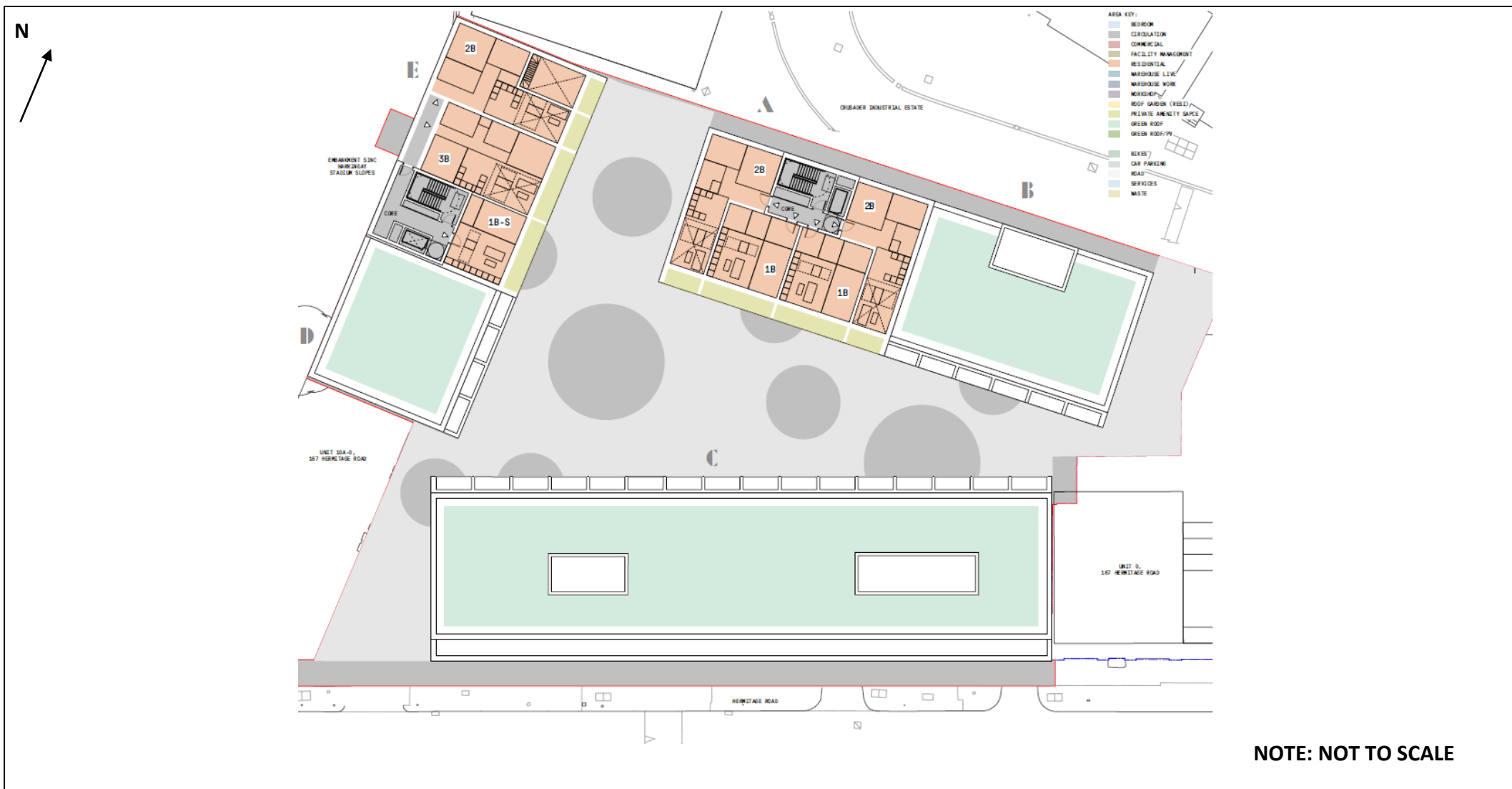
Project:		167 Hermitage Road, Harringay, London N4 1LZ		Figure 6 
Client:		Topfling	Date:	
Proposed Development – Second Floor Plan			Ref:	
			GWPR4712	



Project:		167 Hermitage Road, Harringay, London N4 1LZ	
Client:		Date:	July 2023
Topfling			
Proposed Development – Third Floor Plan		Ref:	GWPR4712

Figure 7

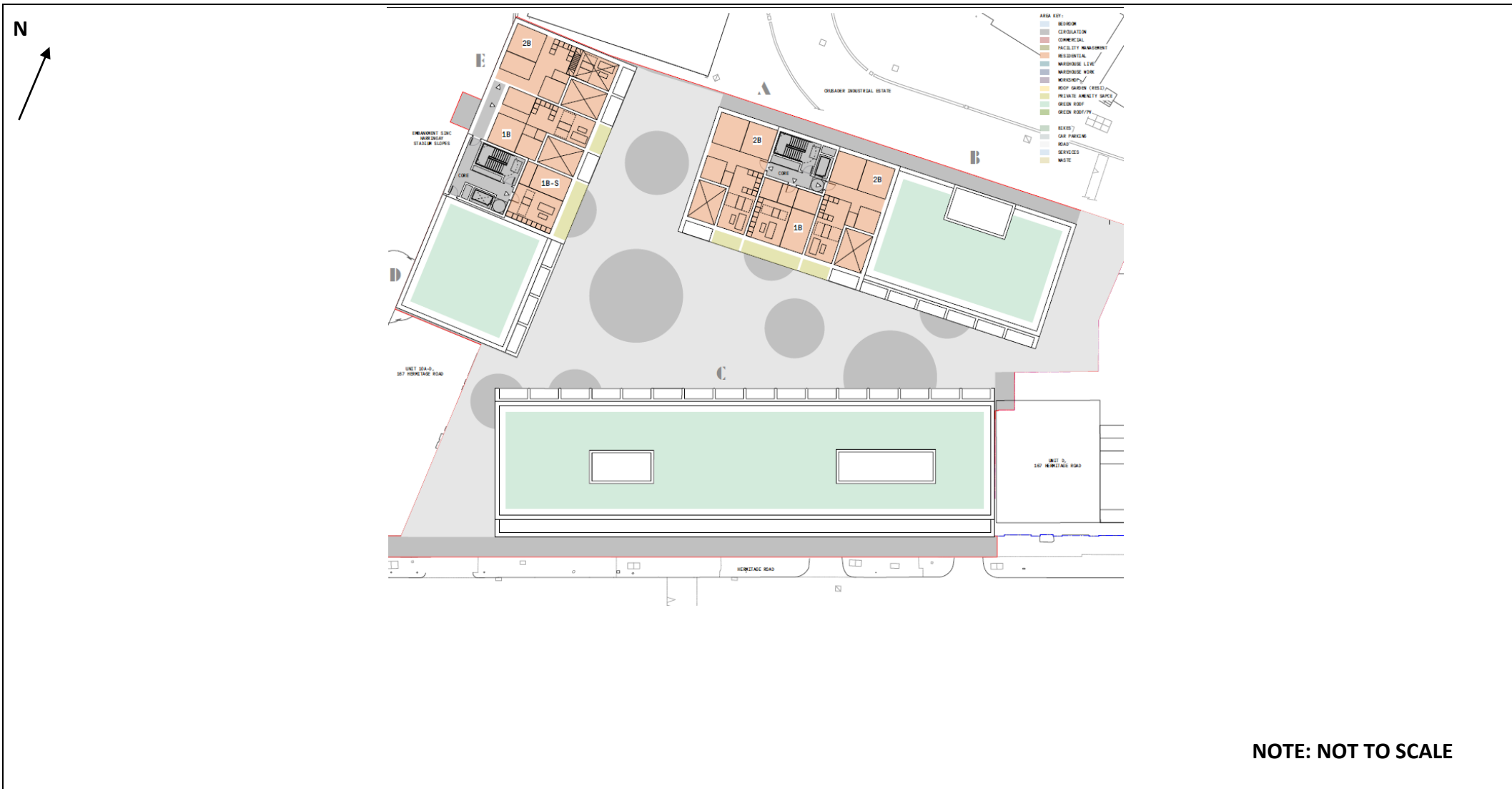




Project:		167 Hermitage Road, Harringay, London N4 1LZ	
Client:		Date:	July 2023
Topfling			
Proposed Development – Sixth Floor Plan		Ref:	GWPR4712

Figure 8





Project:		167 Hermitage Road, Harringay, London N4 1LZ	
Client:		Date:	July 2023
Topfling			
Proposed Development – Seventh Floor Plan		Ref:	GWPR4712

Figure 9





Project:

167 Hermitage Road, Harringay, London N4 1LZ

Client:

Topfling

Date:

July 2023

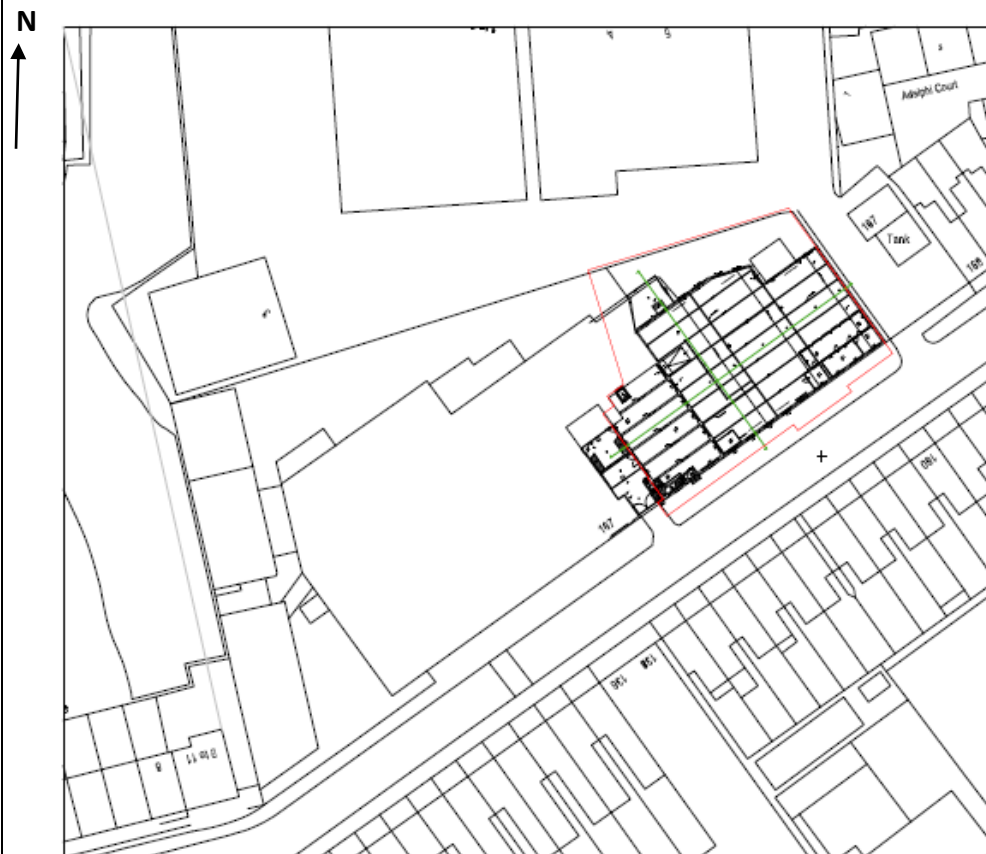
Proposed Development – Omega B Site Plan

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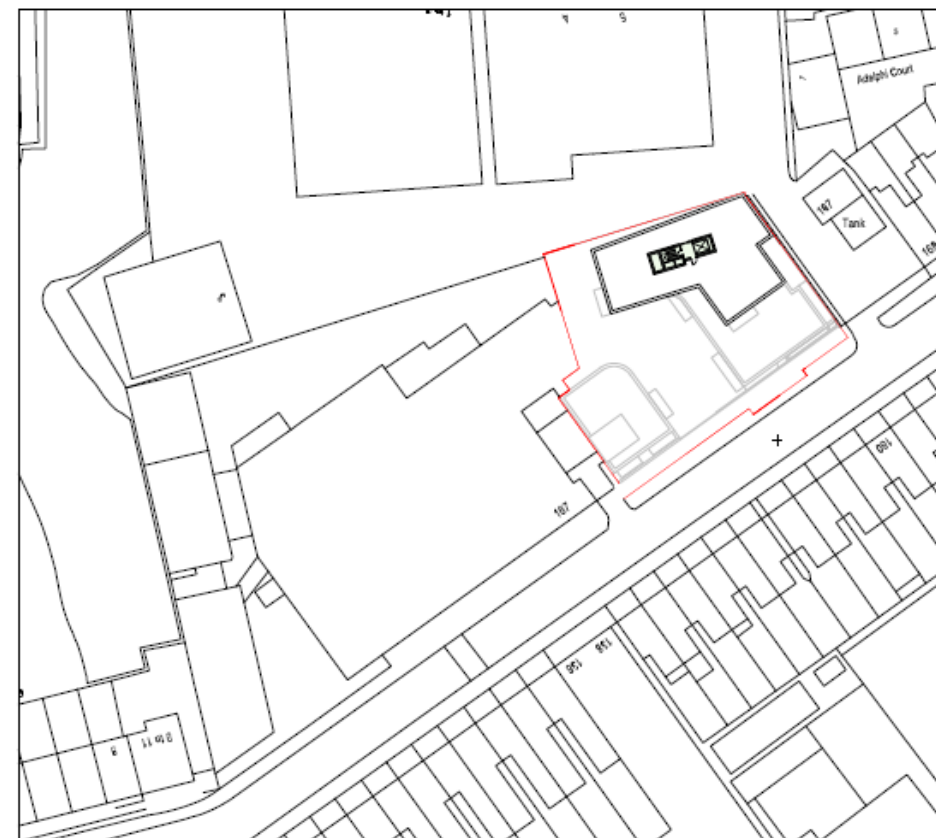
GWPR4712

Figure 10





01
EXISTING BLOCK PLAN



02
EXISTING BLOCK PROPOSED

NOTE: NOT TO SCALE

Project:
167 Hermitage Road, Haringay, London N4 1LZ

Client:
Topfling

Date:
July 2023

Proposed Development – Seventh Floor Plan

Ref:
GWPR4712

Figure 11



N

S

Historical Made Ground

Water Table at Depth Within London Clay Formation



Historical Made Ground

Water Table at Depth Within London Clay Formation

10

10

UXO

piles

MM



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

APPENDIX A: Conditions and Limitations

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

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

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

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

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

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

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

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

conditions have been sampled or monitored in recorded locations and tests for some of the more common chemicals generally expected. Other concentrations of types of chemicals may exist. It was not part of the scope of this report to comment on environment/contaminated land considerations.

The conclusions and recommendations relate to 167 Hermitage Road, Haringey, London N4 1LZ.

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

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

Ownership of copyright of all printed material including reports, laboratory test results, trial pit and borehole log sheets, including drillers log sheets, remain with Ground and Water Limited. Licence is for the sole use of the client and may not be assigned, transferred or given to a third party.

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

Recipients are not permitted to publish this report outside of their organisation without our express written consent.

APPENDIX B:

Site

Photographs

Photo 1 – Front of Omega works on Hermitage Road. View looking east.



Photo 2 –Site entrance. View looking north.



Photo 3 – Site car park/ access area south-western corner of site. View looking south.



Photo 4 –North-east corner of the site a van and wooden pallets. View looking west.



167 Hermitage Road, Haringey, London N4 1LZ

Topfling

July 2023

Appendix B – Site Photos

GWPR4712



Photo 5 – Northern portion of the site Omega works buildings to the left of photograph.
View looking north-west.



Photo 6 – Car Park area. View looking north-west.



Photo 7 – Entranceway to Omega Works. View looking north.



Photo 8 – Entranceway from south-western corner of the site to the north-western corner. View looking north-west.



167 Hermitage Road, Haringey, London N4 1LZ

Topfling

July 2023

Appendix B – Site Photos

GWPR4712



APPENDIX C:

Historical Maps

Site Details:

UNIT A, OMEGA WORKS,
HERMITAGE ROAD,
TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1864

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1864
Revised 1864
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1864
Revised 1864
Edition N/A
Copyright N/A
Levelled N/A

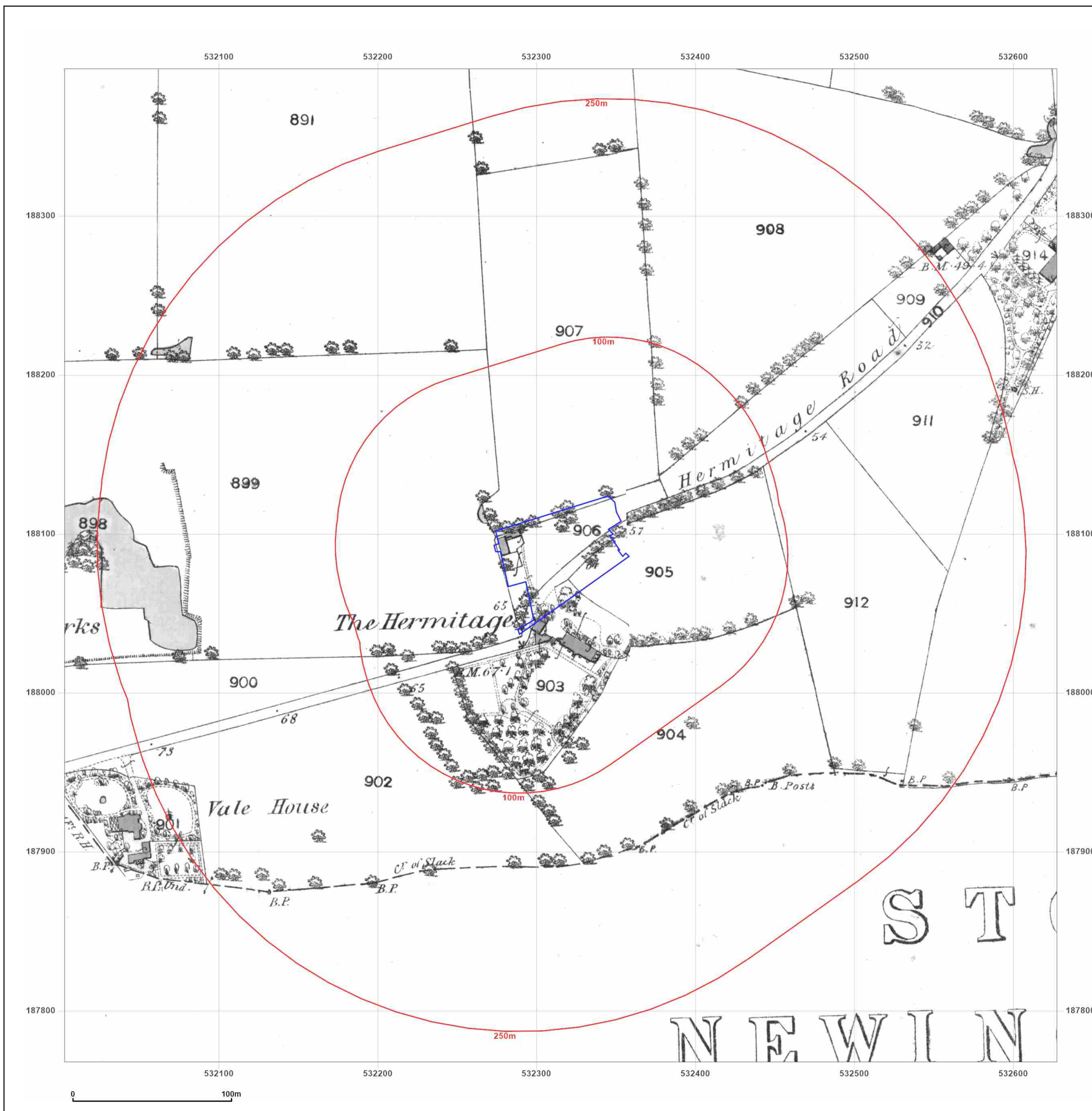


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Site Details:

UNIT A, OMEGA WORKS,
HERMITAGE ROAD,
TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

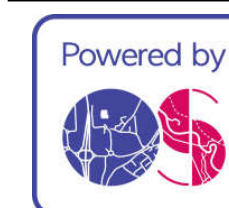
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Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1864
Revised 1864
Edition N/A
Copyright N/A
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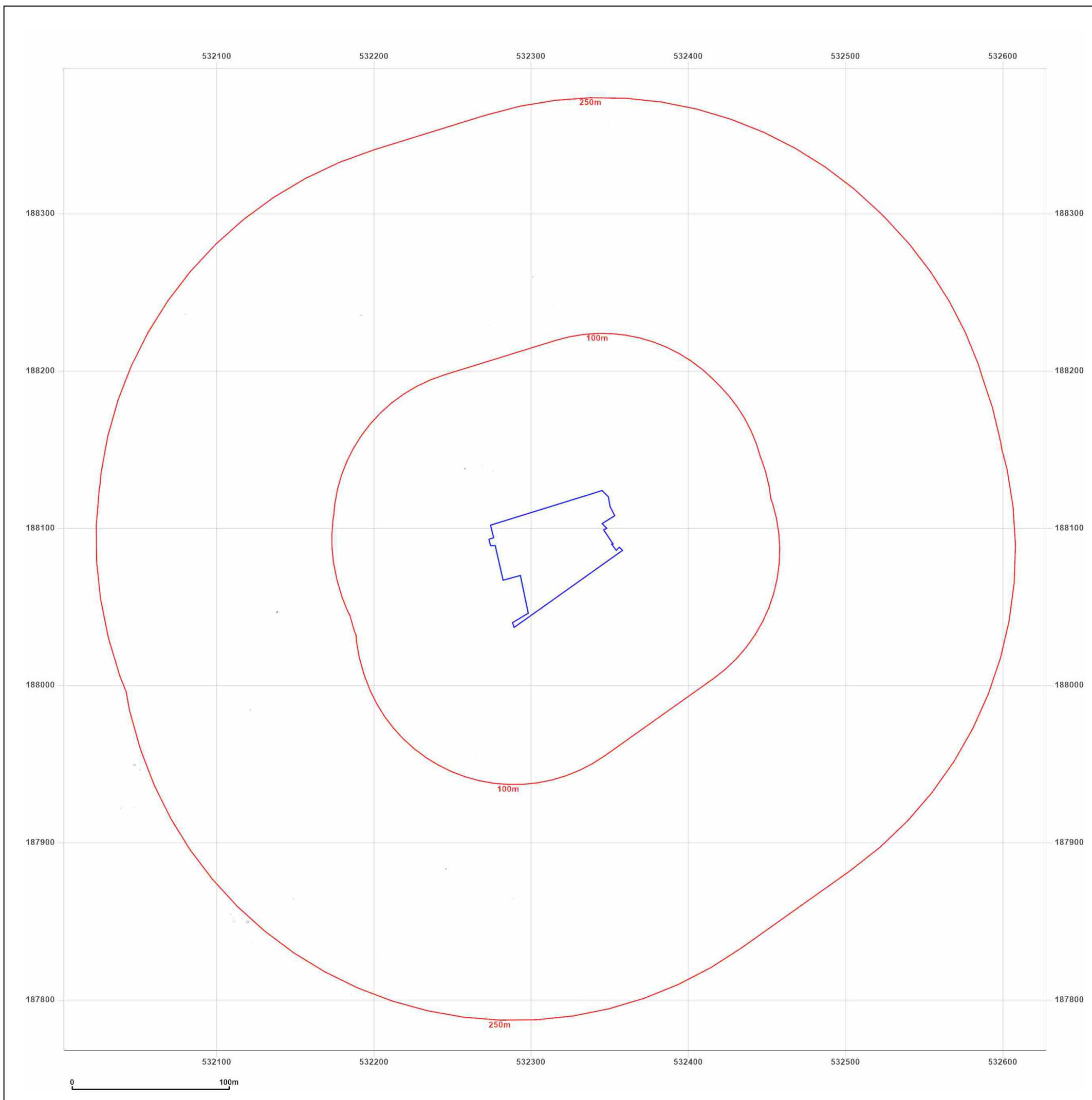


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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1872

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1872
Revised 1872
Edition N/A
Copyright N/A
Levelled N/A

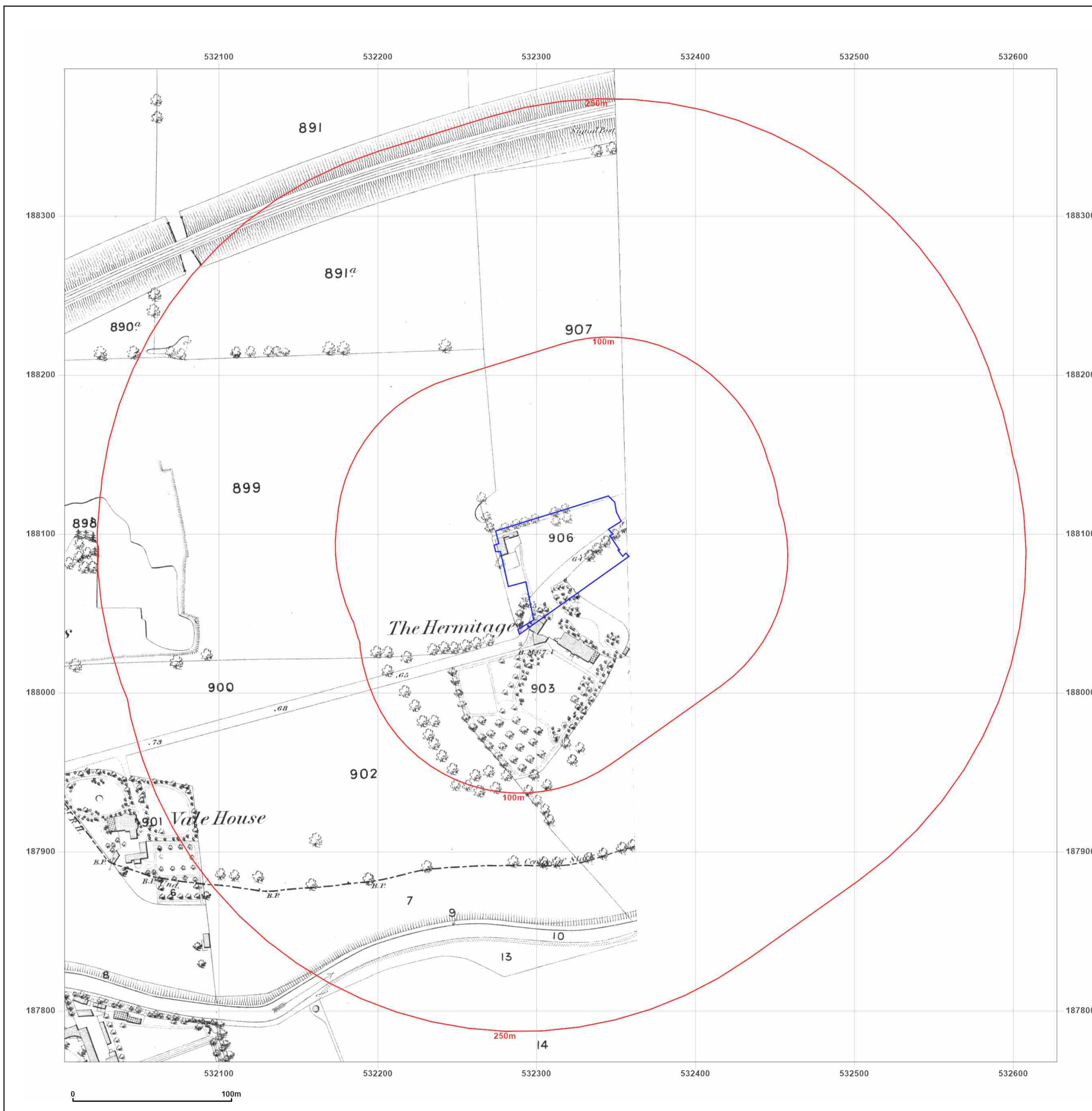


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TOTTENHAM, LONDON, N4
1LZ

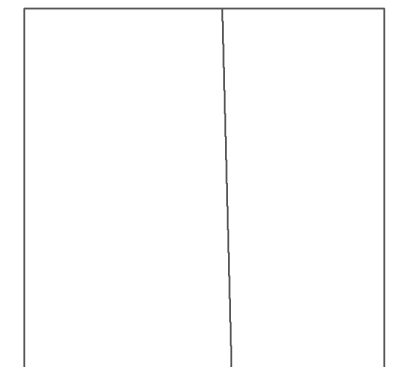
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Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1881

Scale: 1:2,500

Printed at: 1:2,500



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1881
Levelled N/A

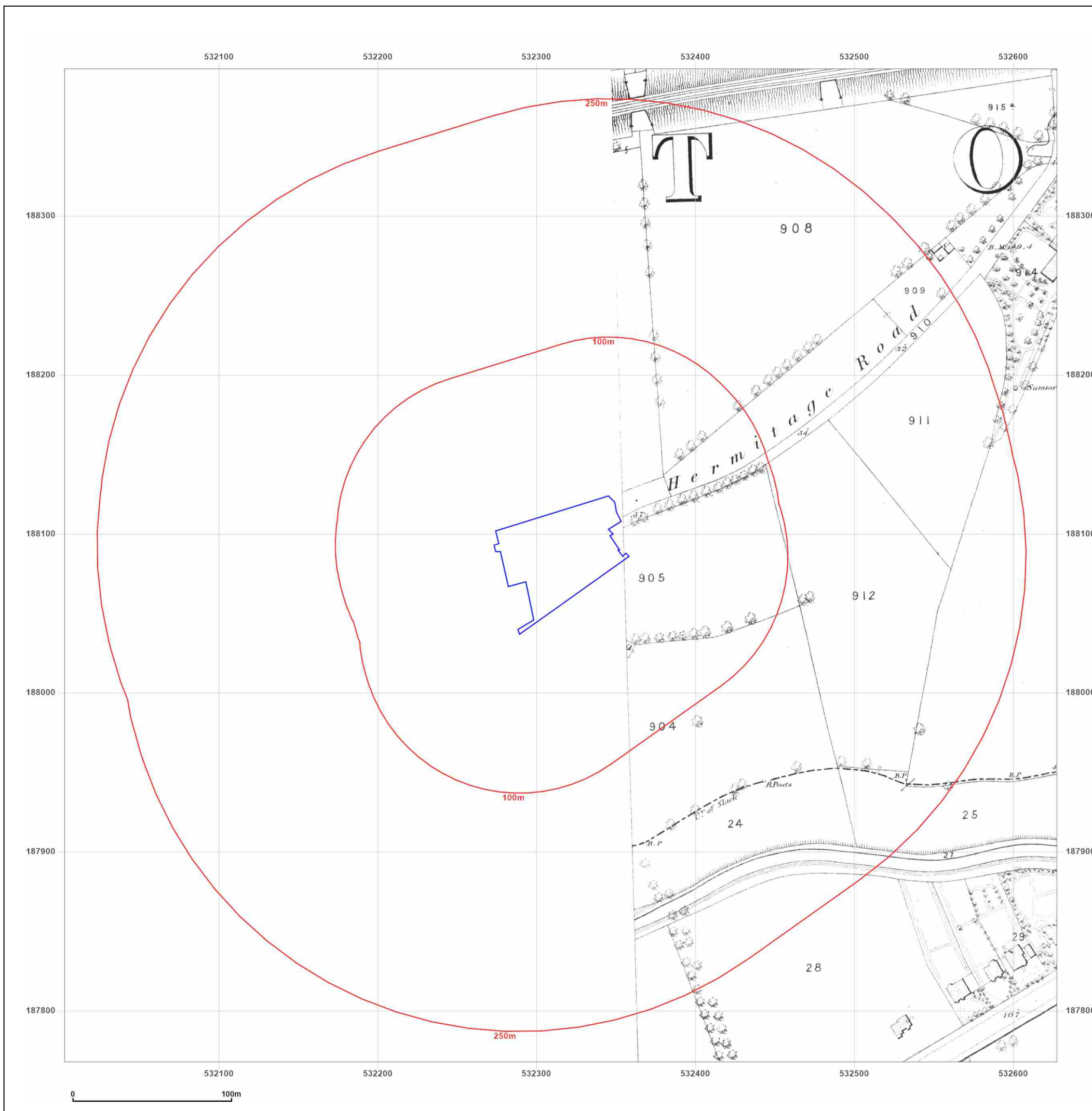


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: 1056 Scale Town Plan

Map date: 1896

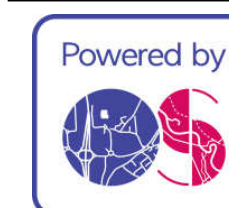
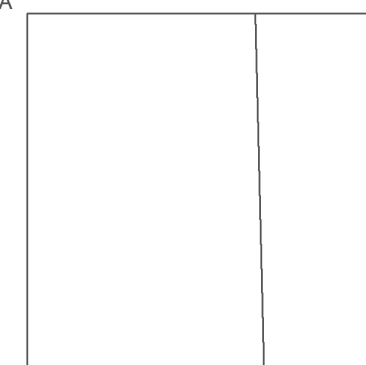
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Printed at: 1:1,056



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

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

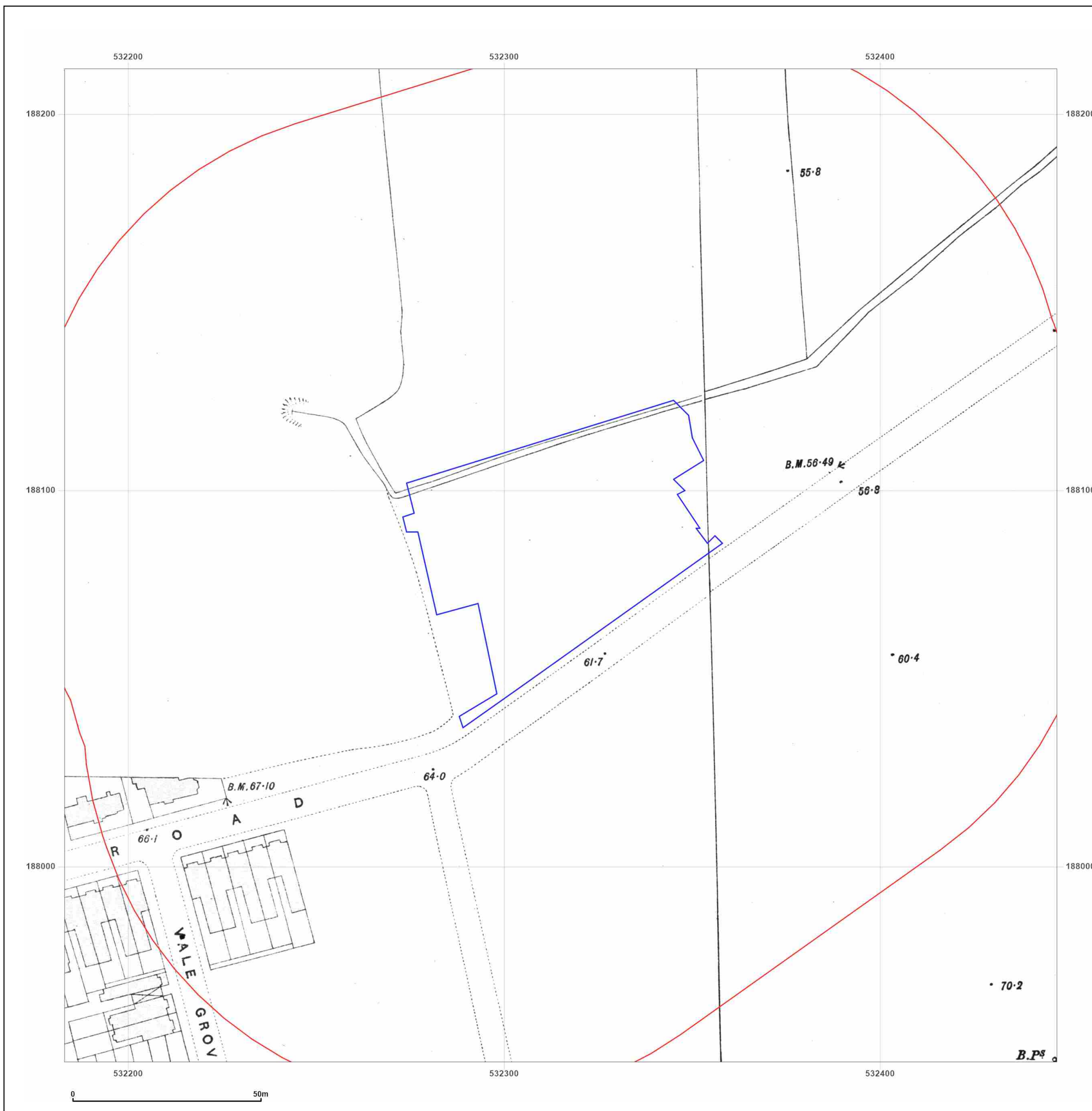


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1896

Scale: 1:2,500

Printed at: 1:2,500



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

Surveyed 1893
Revised 1894
Edition 1896
Copyright N/A
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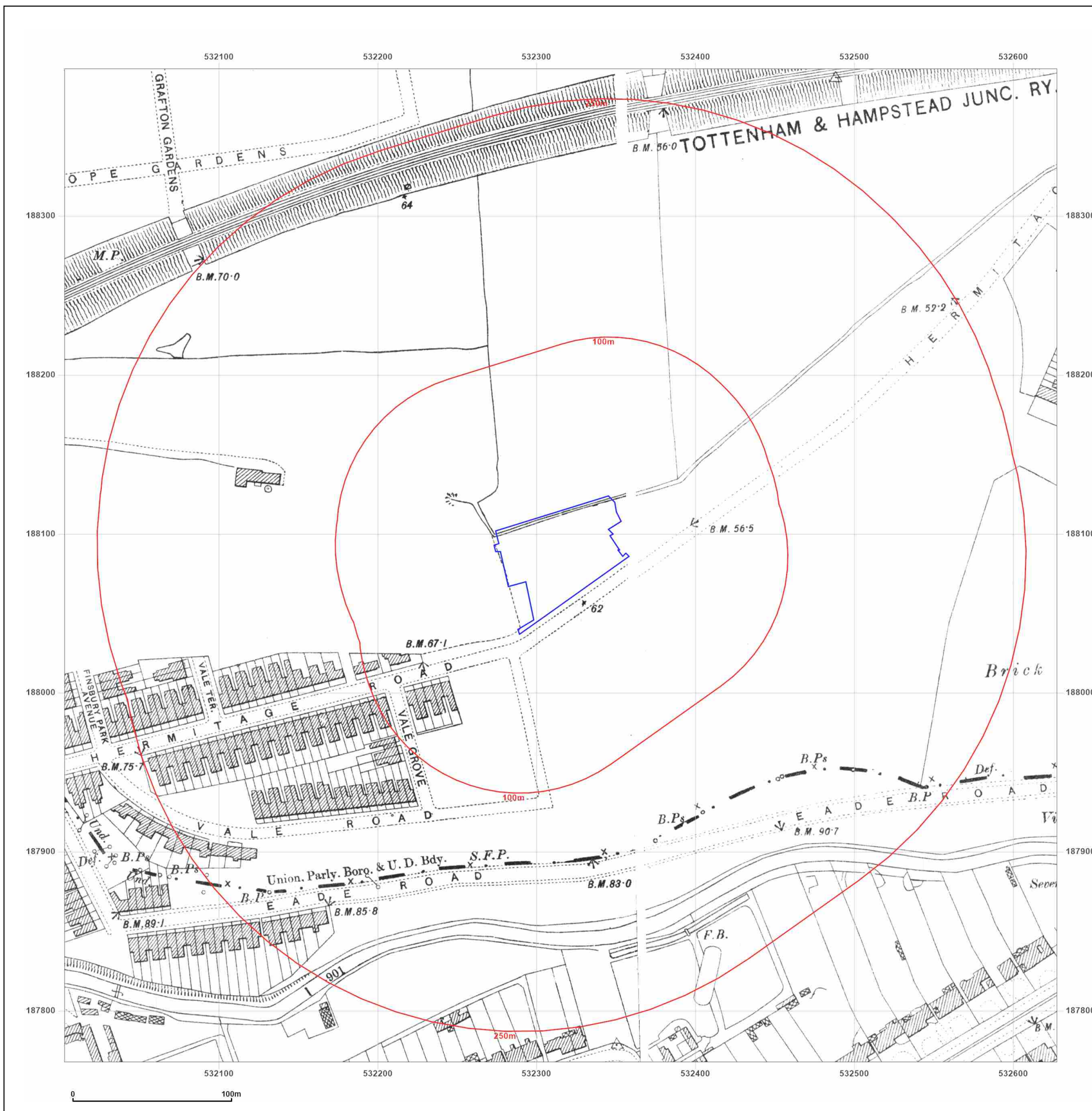


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1915

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1915
Revised 1915
Edition N/A
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Levelled N/A

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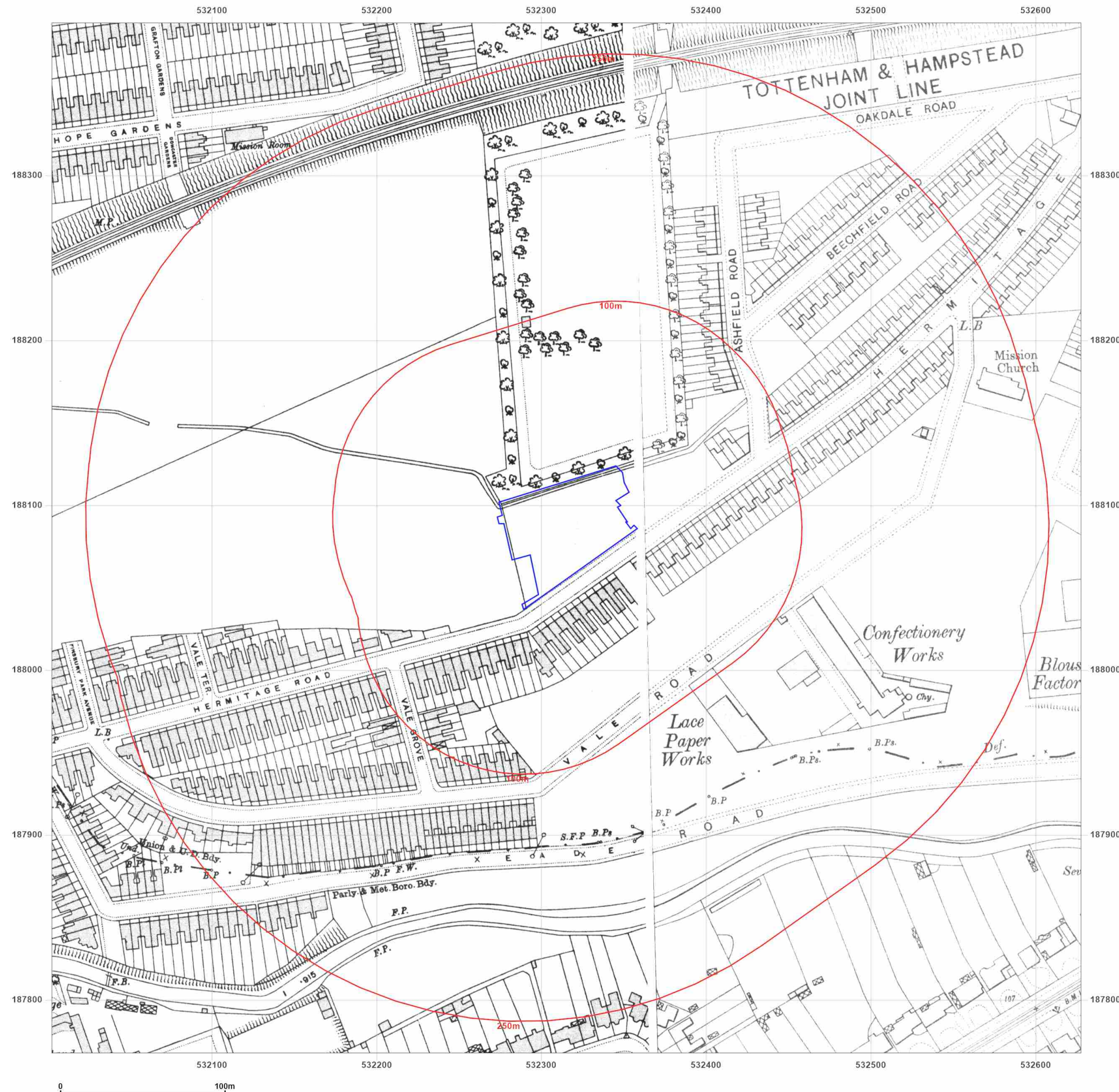


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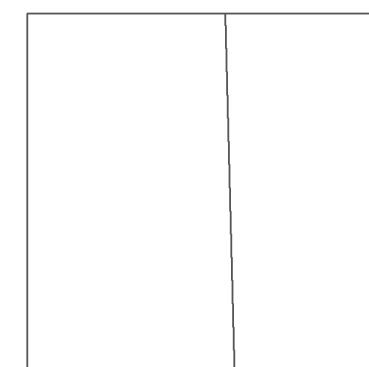
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Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1938

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1863
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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1952-1954

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled 1953

Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled 1953

Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1933

Surveyed 1952
Revised 1952
Edition N/A
Copyright N/A
Levelled 1933

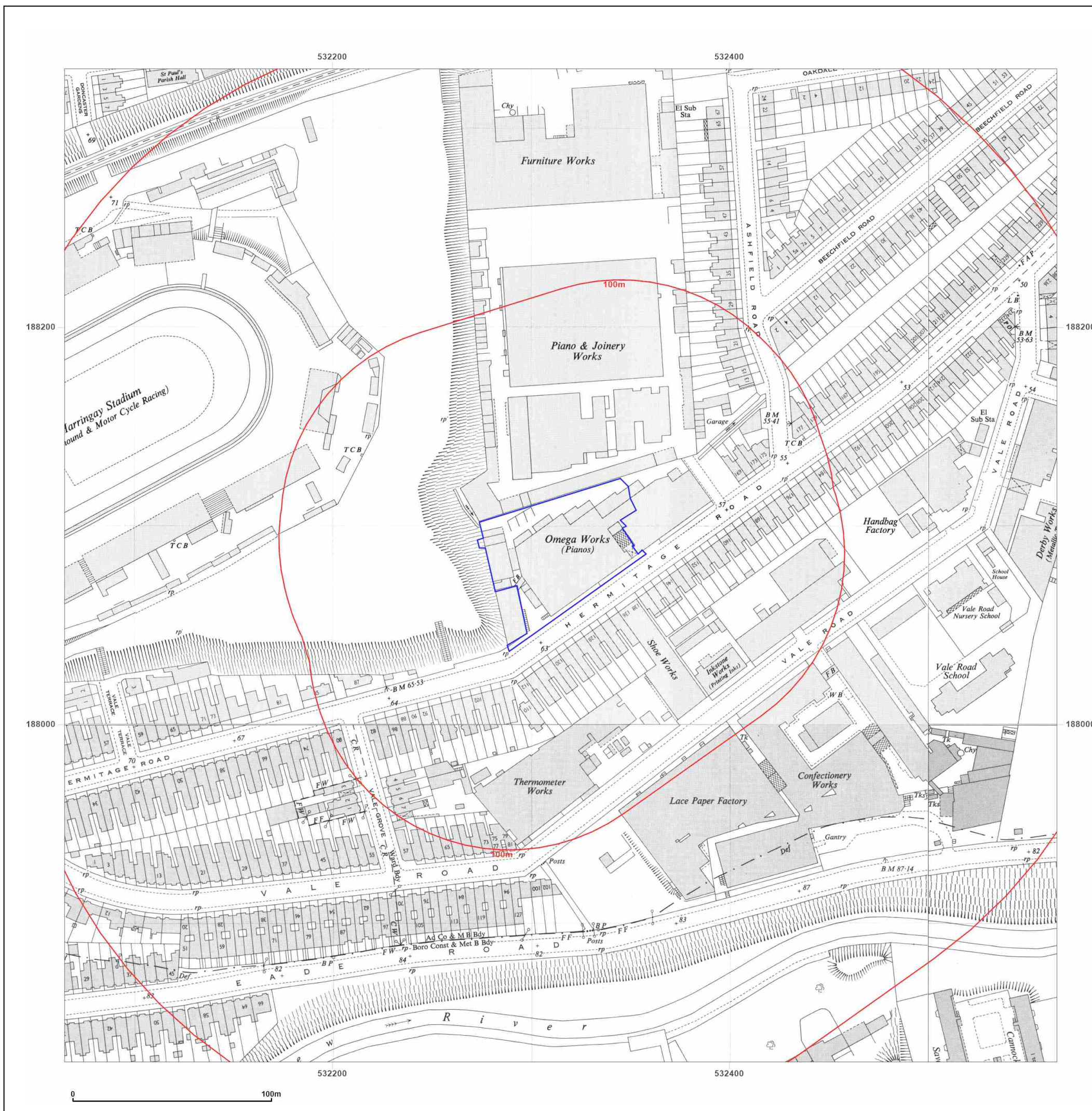


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1953-1955

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1954
Revised 1954
Edition N/A
Copyright N/A
Levelled 1953

Surveyed 1954
Revised N/A
Edition N/A
Copyright 1955
Levelled 1953

Surveyed 1953
Revised 1953
Edition N/A
Copyright N/A
Levelled 1933

Surveyed 1952
Revised 1953
Edition N/A
Copyright N/A
Levelled N/A

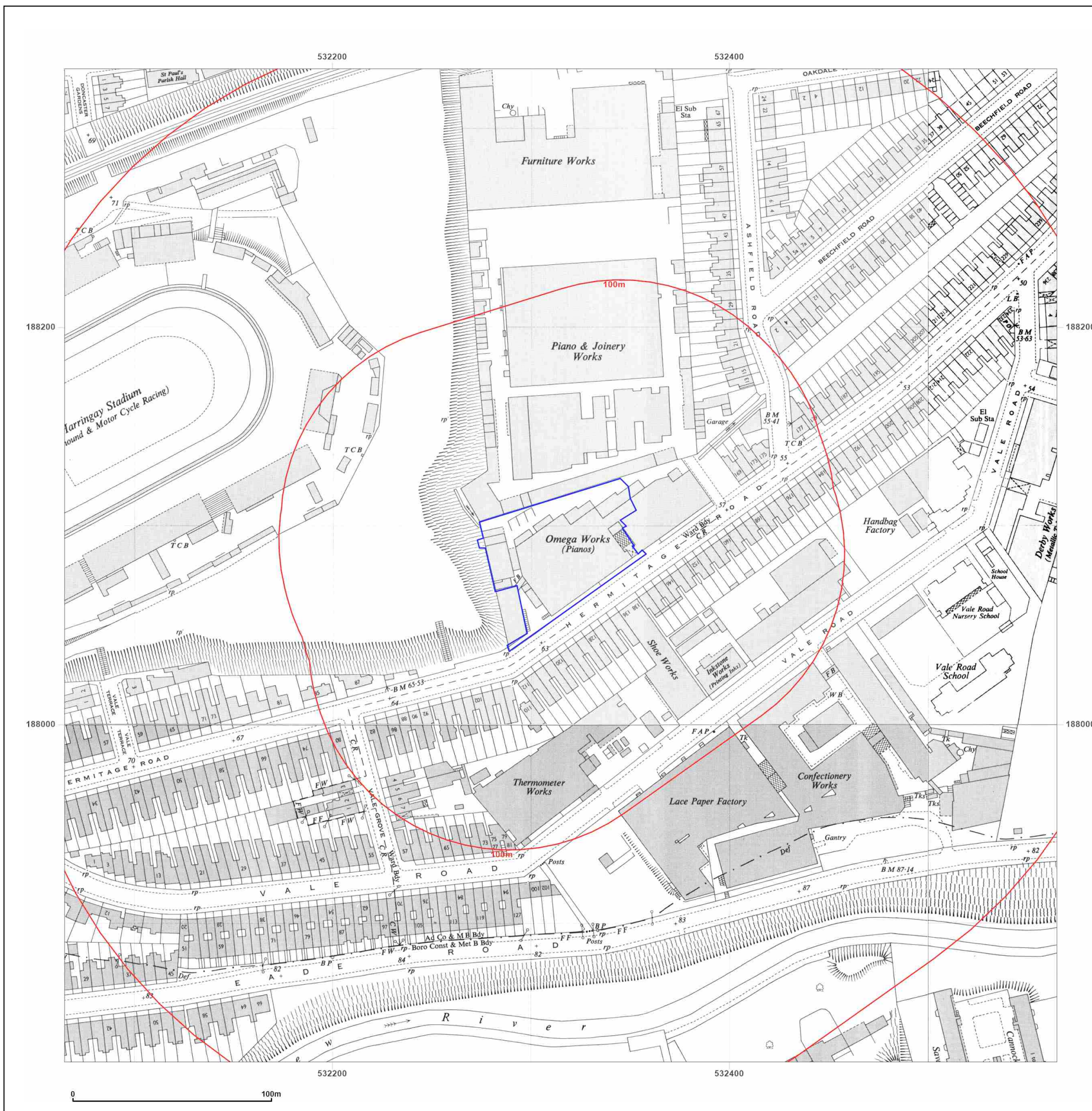


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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1954-1955

Scale: 1:1,250

Printed at: 1:2,000



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

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Revised N/A
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Copyright N/A
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Revised N/A
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Copyright N/A
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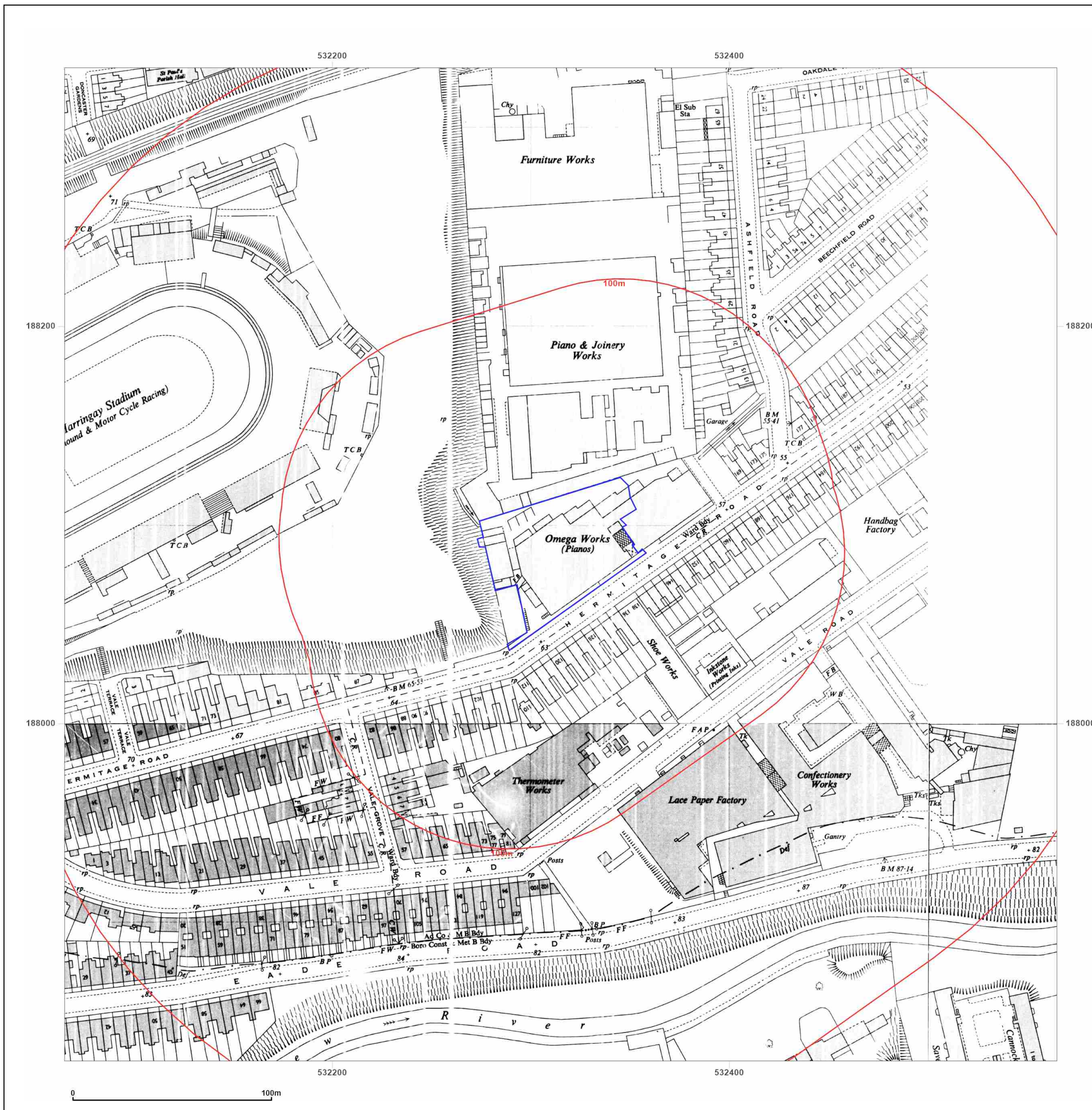


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1955

Scale: 1:1,250

Printed at: 1:2,000



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

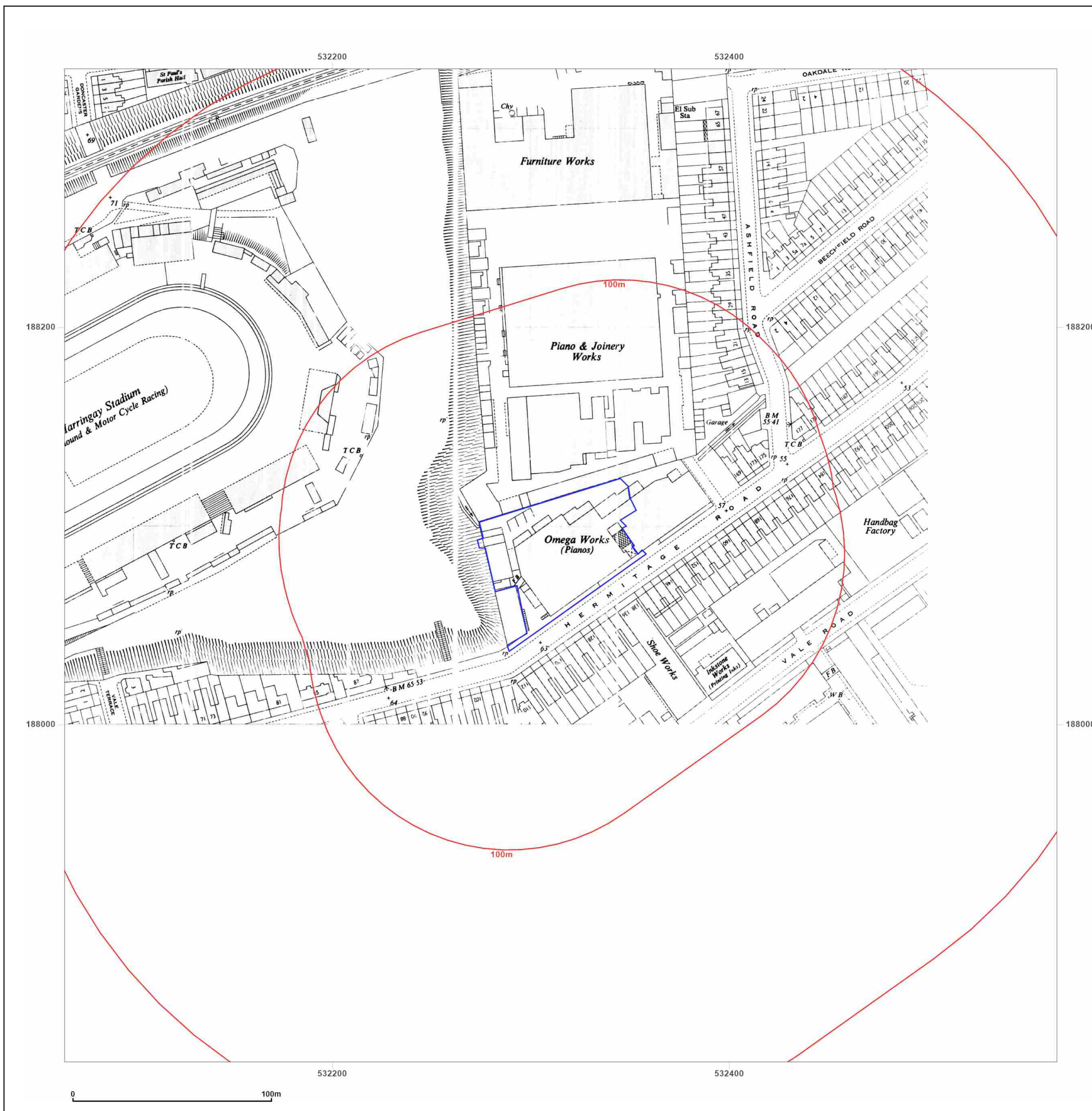


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1954-1955

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1954
Revised 1954
Edition 1955
Copyright N/A
Levelled 1953

Surveyed 1952
Revised 1952
Edition N/A
Copyright 1954
Levelled 1933



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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1961-1962

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1954
Revised 1960
Edition N/A
Copyright 1961
Levelled 1953

Surveyed 1952
Revised 1962
Edition N/A
Copyright 1962
Levelled 1953

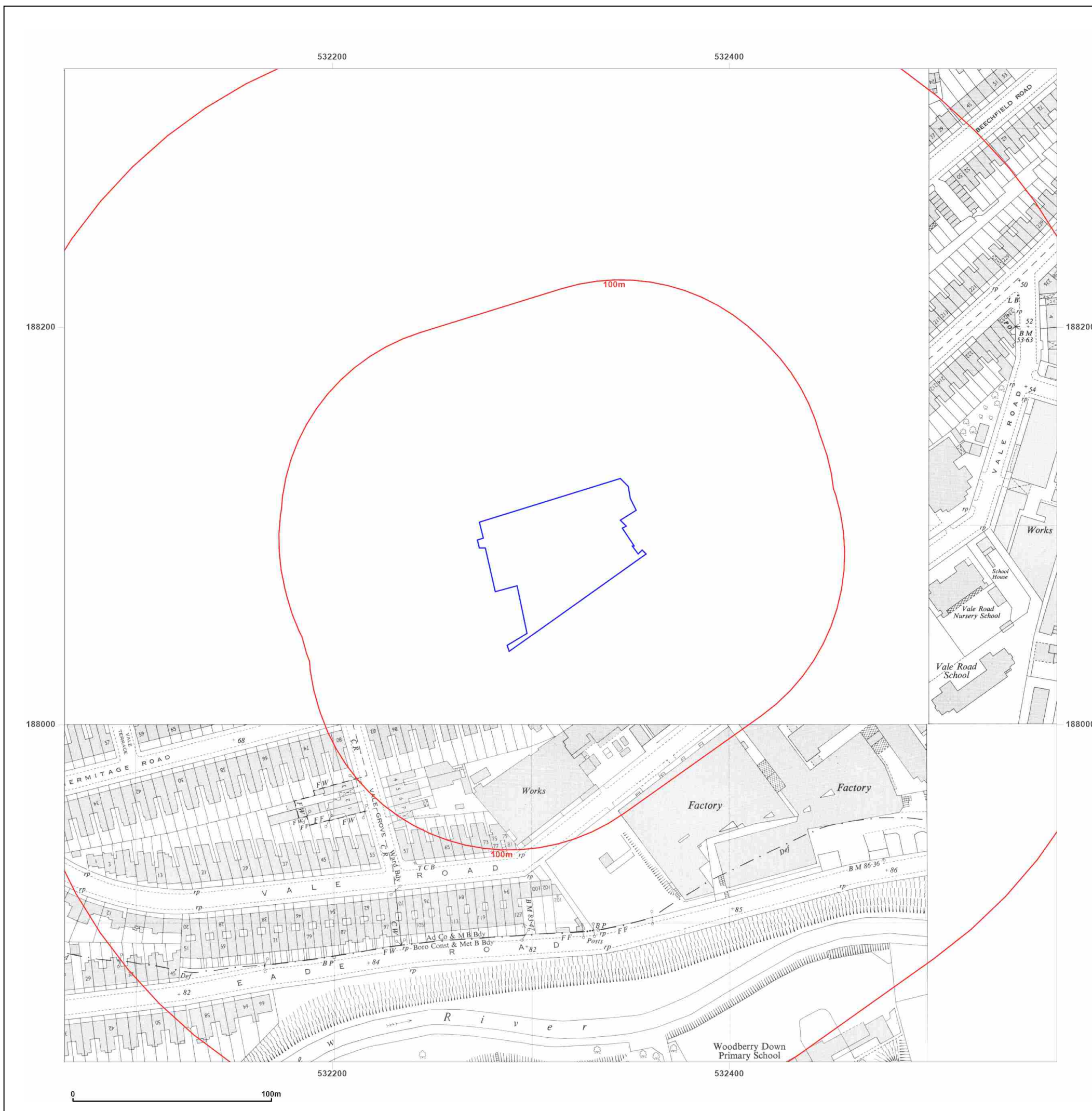


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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1966

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1963
Revised 1963
Edition 1966
Copyright 1966
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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1966

Scale: 1:2,500

Printed at: 1:2,500



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

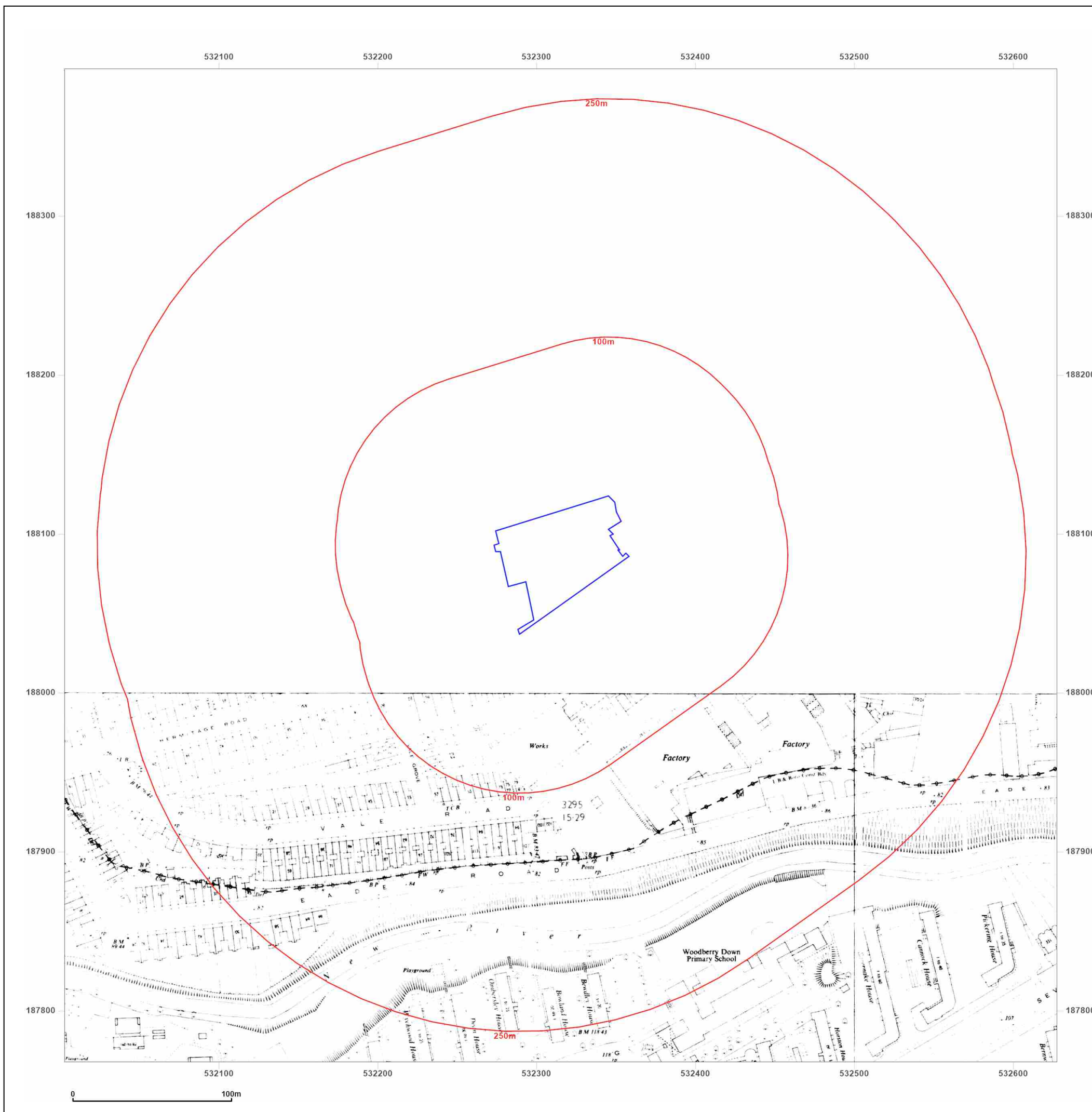


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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1970-1971

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1954
Revised 1971
Edition N/A
Copyright 1971
Levelled 1953

Surveyed 1954
Revised 1970
Edition N/A
Copyright 1970
Levelled 1953

Surveyed 1952
Revised 1970
Edition N/A
Copyright 1970
Levelled 1954

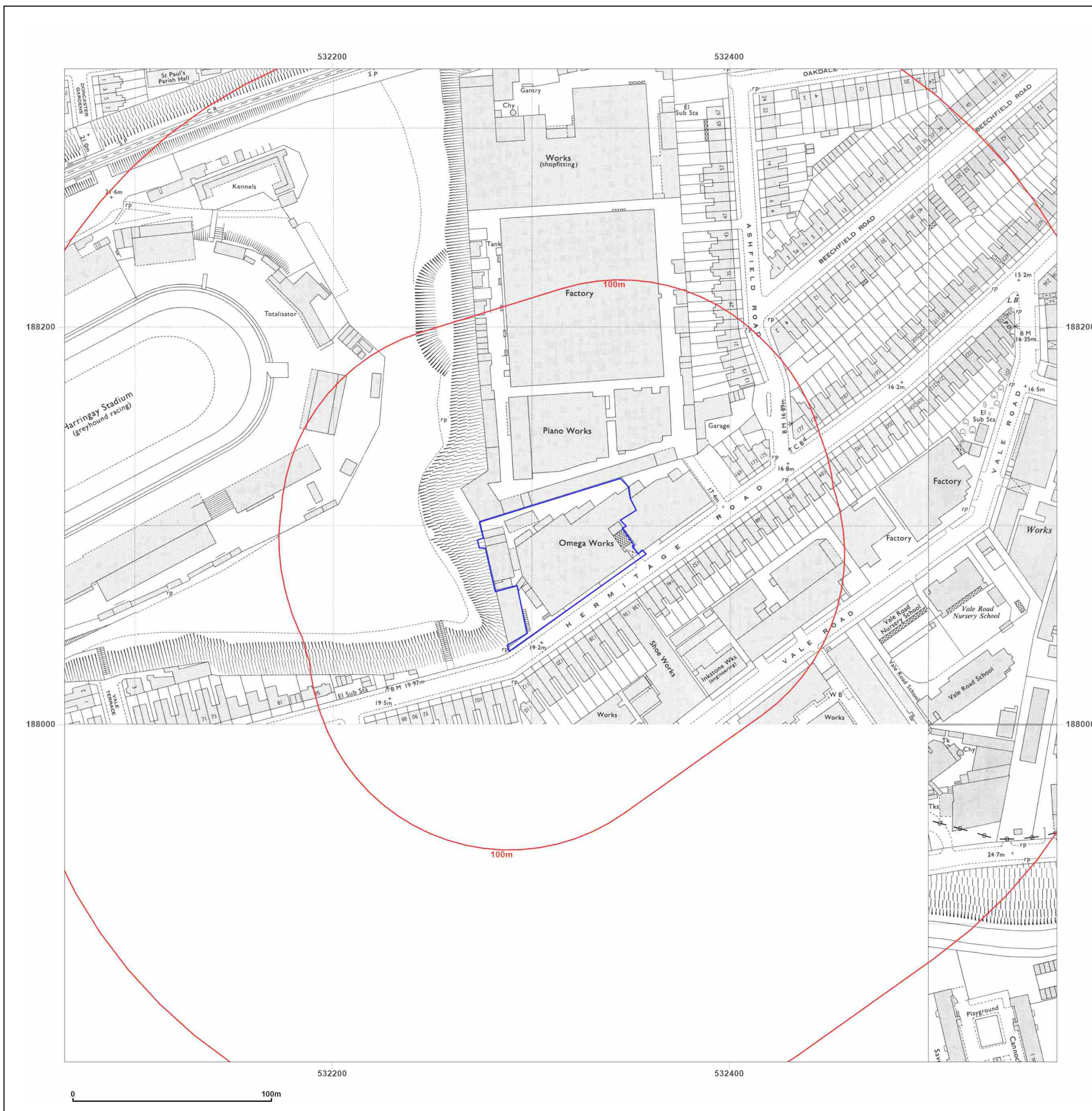


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1LZ

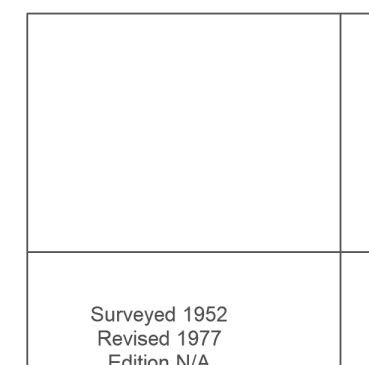
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Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1978-1982

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed 1952
Revised 1977
Edition N/A
Copyright 1978
Levelled 1975

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1982
Levelled 1975

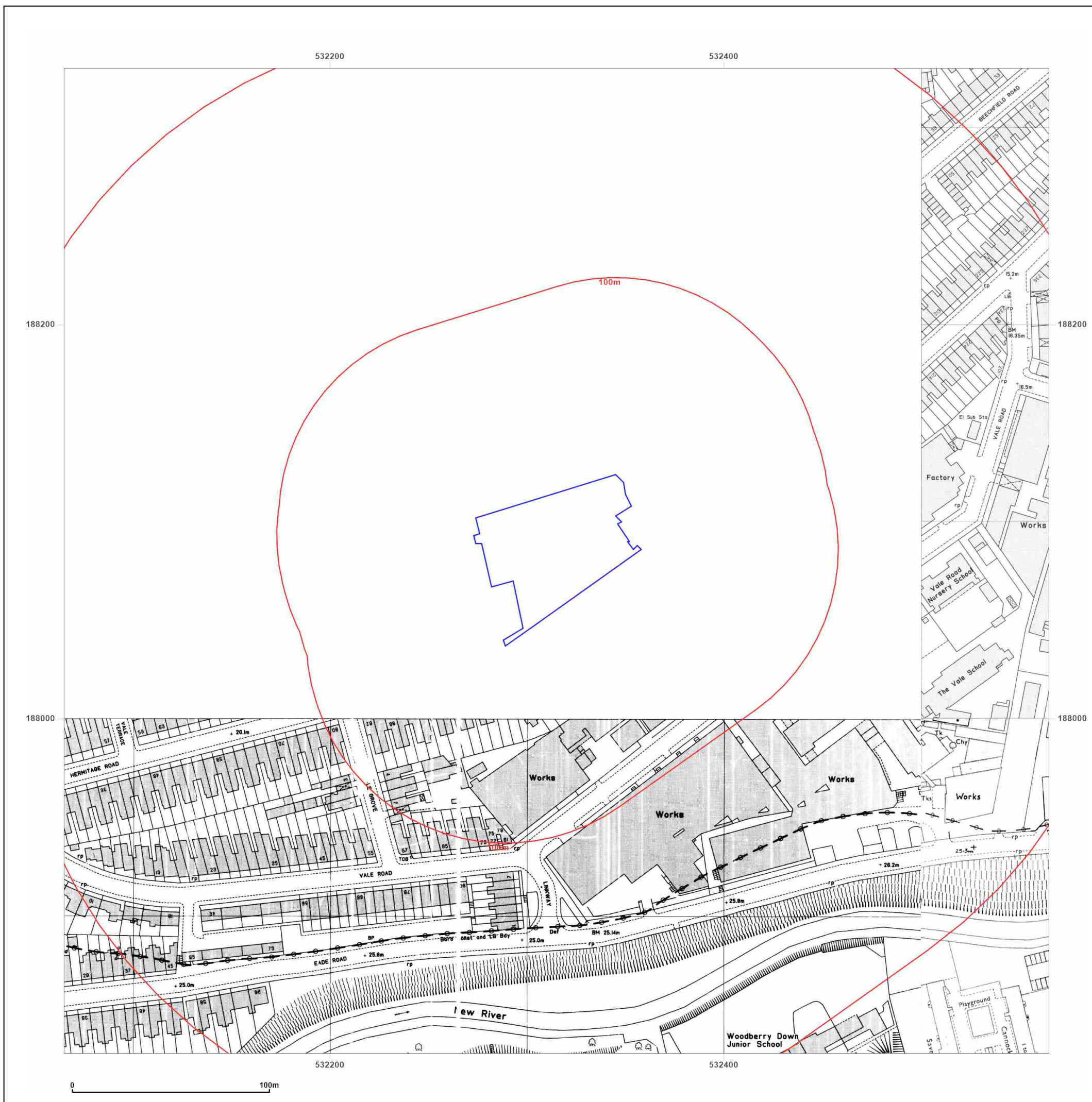


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1986-1991

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1986
Levelled 1975

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

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

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

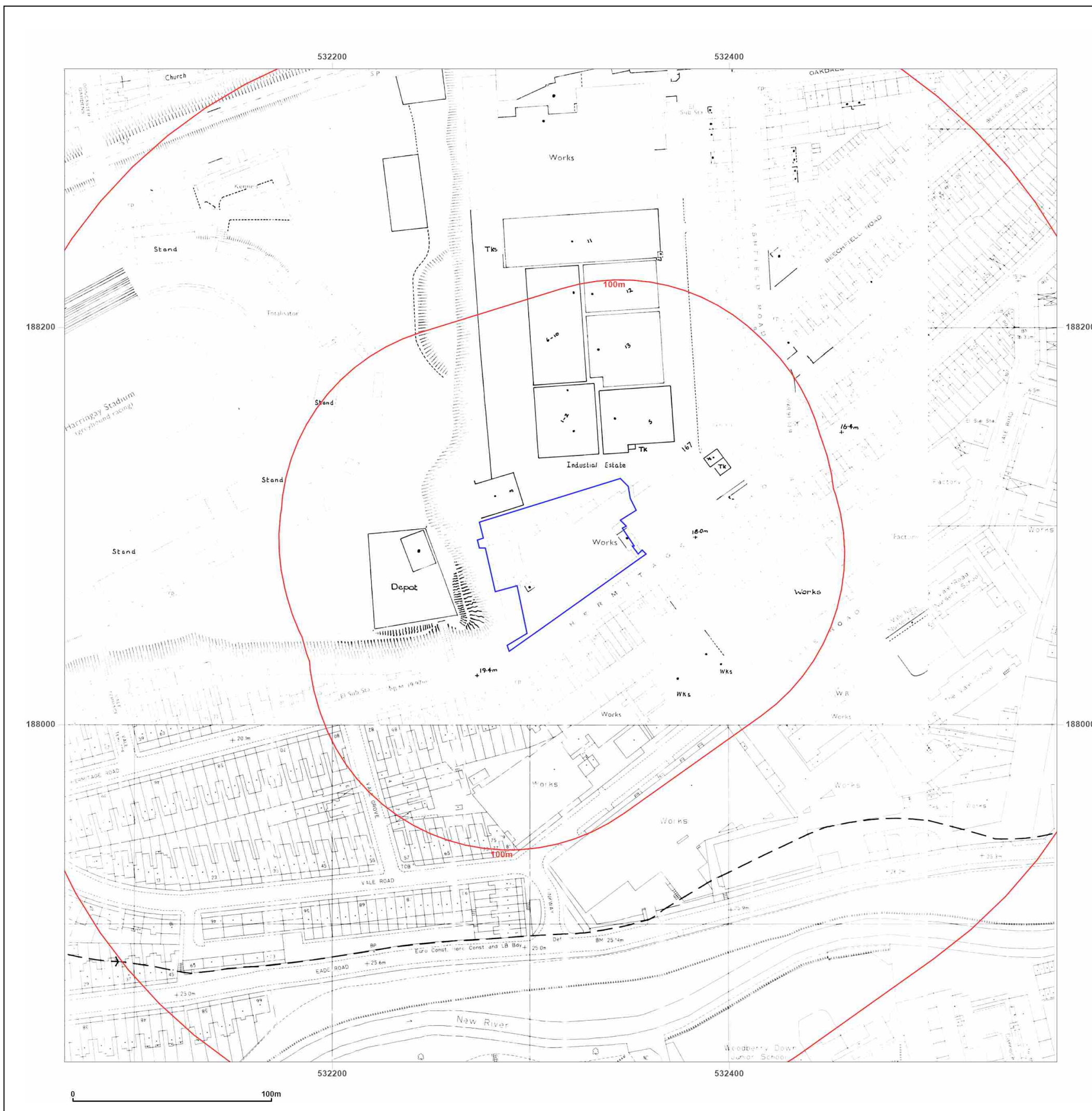


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HERMITAGE ROAD,
TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1991

Scale: 1:1,250

Printed at: 1:2,000



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

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

Surveyed 1991
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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1992

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1992
Revised 1992
Edition N/A
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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1991-1994

Scale: 1:1,250

Printed at: 1:2,000



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

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1994
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Surveyed N/A
Revised N/A
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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1992-1994

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A
Revised N/A
Edition N/A
Copyright 1992
Levelled N/A

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

UNIT A, OMEGA WORKS,
HERMITAGE ROAD,
TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1994

Scale: 1:1,250

Printed at: 1:2,000



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



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Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1994

Scale: 1:1,250

Printed at: 1:2,000



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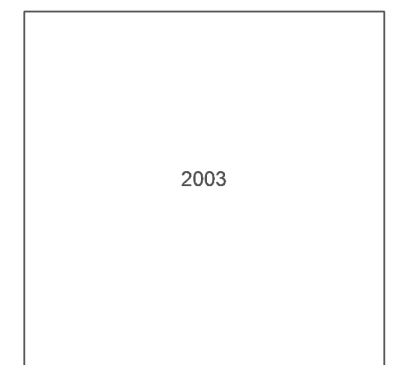
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Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1873

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1869
Revised 1869
Edition 1873
Copyright N/A
Levelled N/A

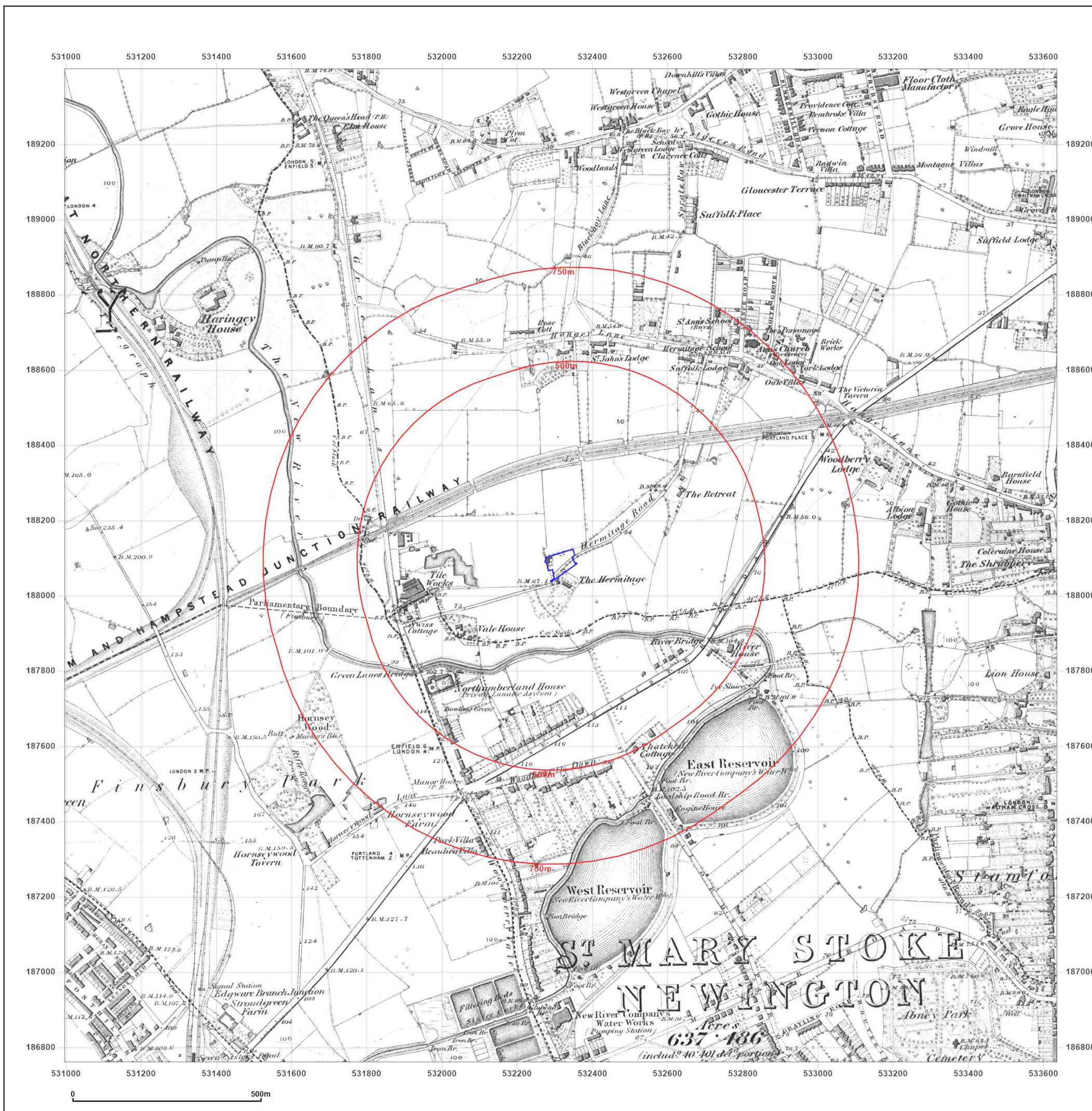


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1879

Scale: 1:10,560

Printed at: 1:10,560



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

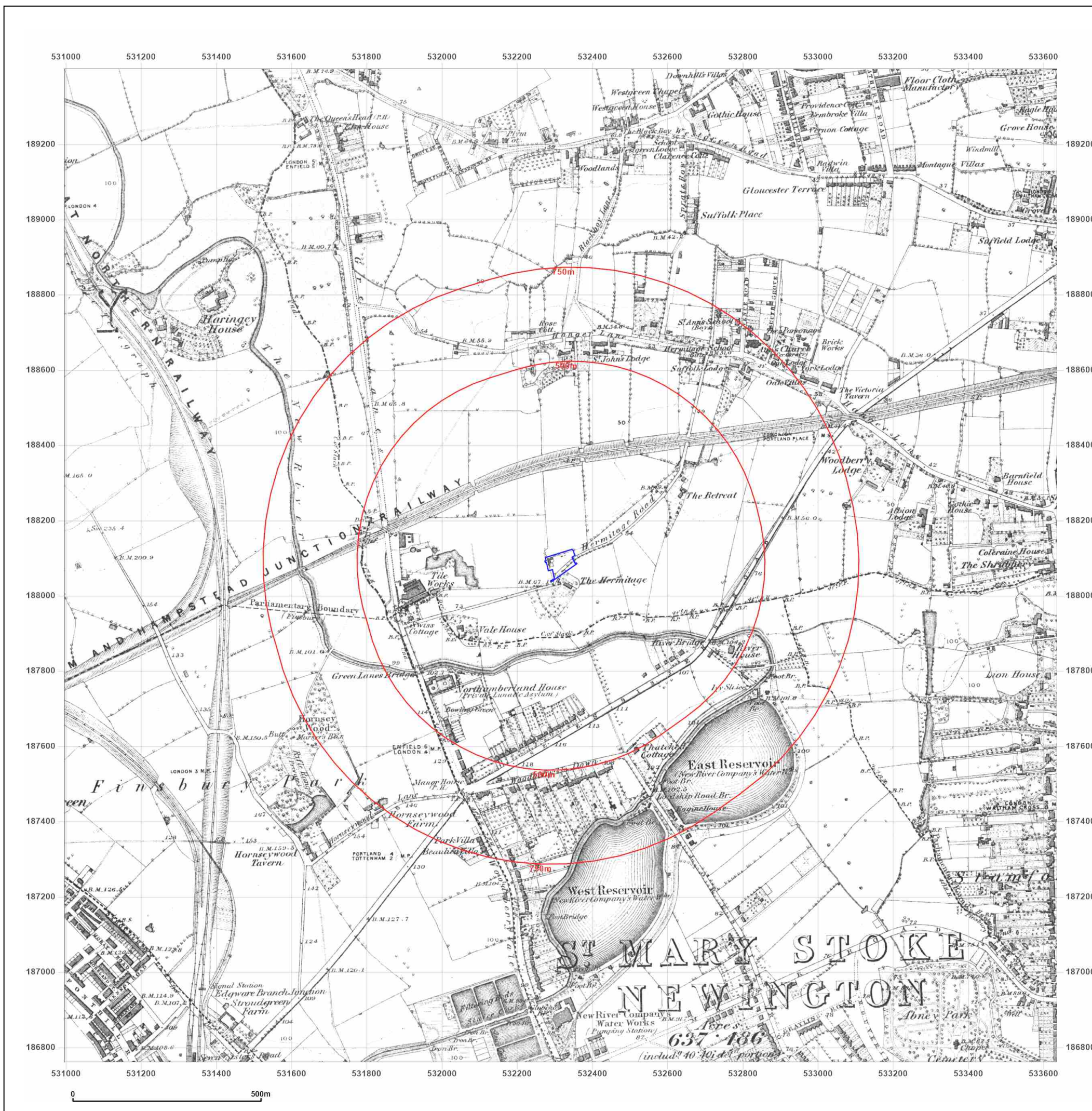


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

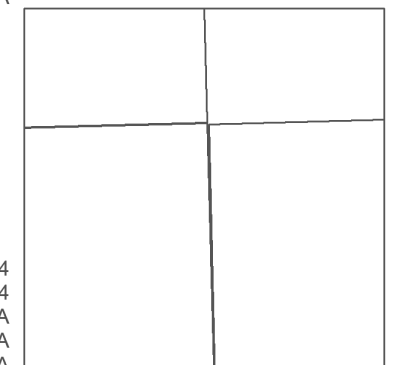
Map date: 1894

Scale: 1:10,560

Printed at: 1:10,560



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



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

Surveyed 1894
Revised 1894
Edition N/A
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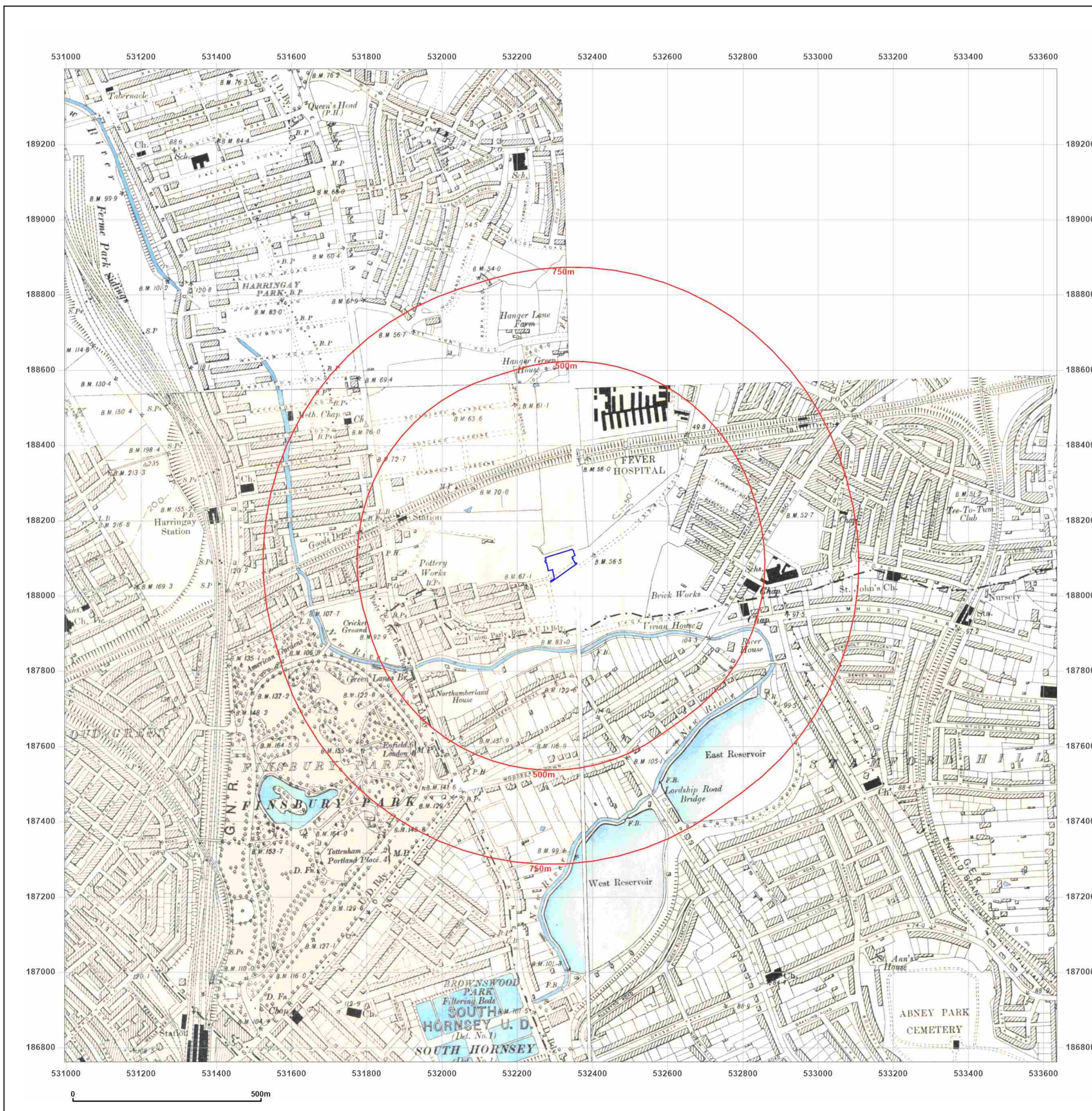


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

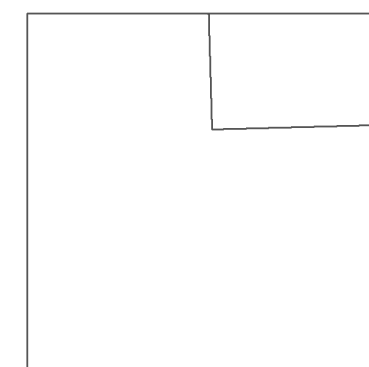
Map date: 1894

Scale: 1:10,560

Printed at: 1:10,560



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

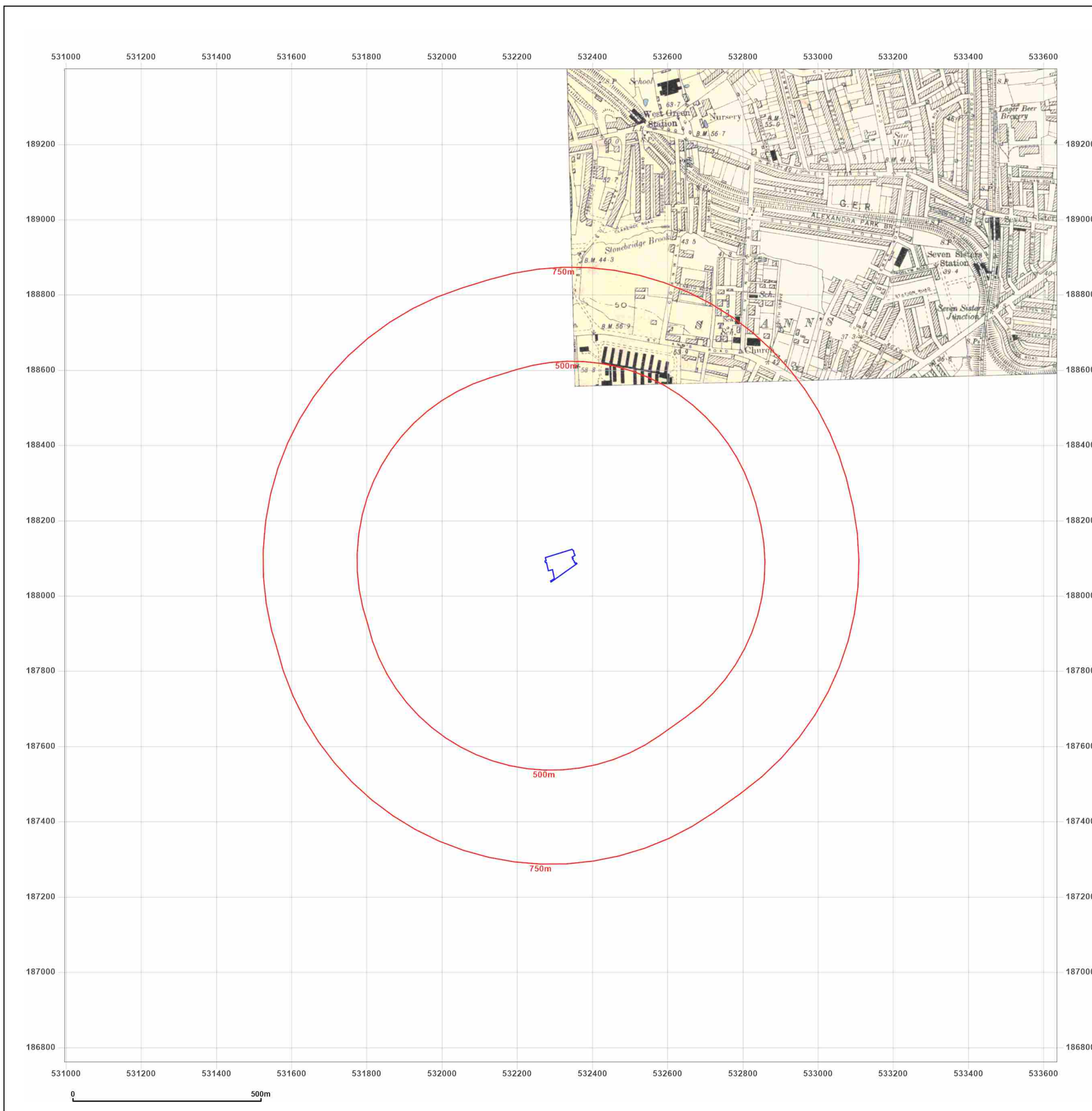


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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1896

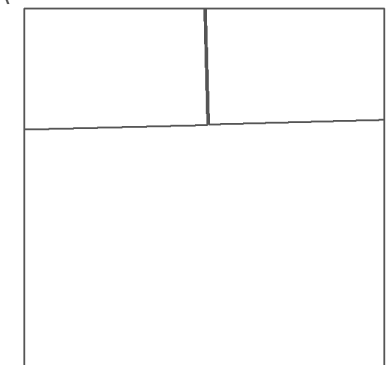
Scale: 1:10,560

Printed at: 1:10,560



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

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

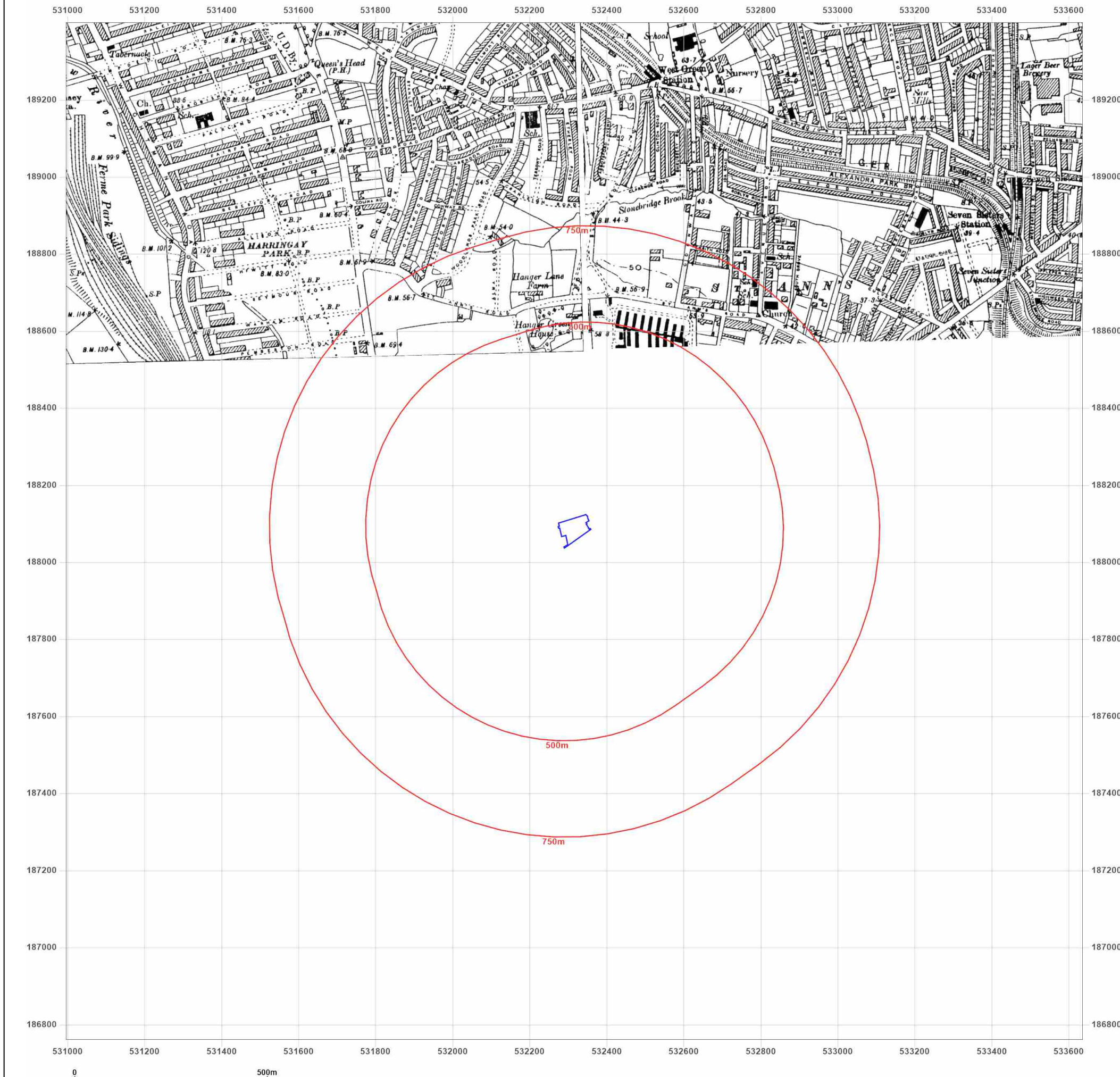


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Site Details:

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HERMITAGE ROAD,
TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1920

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1869
Revised 1919
Edition 1920
Copyright N/A
Levelled 1913



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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1869
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A



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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: Provisional

Map date: 1952

Scale: 1:10,560

Printed at: 1:10,560



Surveyed N/A
Revised 1951
Edition N/A
Copyright 1952
Levelled N/A



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Site Details:

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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: Provisional

Map date: 1962

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1962
Revised 1962
Edition N/A
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Levelled N/A



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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: Provisional

Map date: 1967

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1965
Revised 1967
Edition N/A
Copyright N/A
Levelled N/A

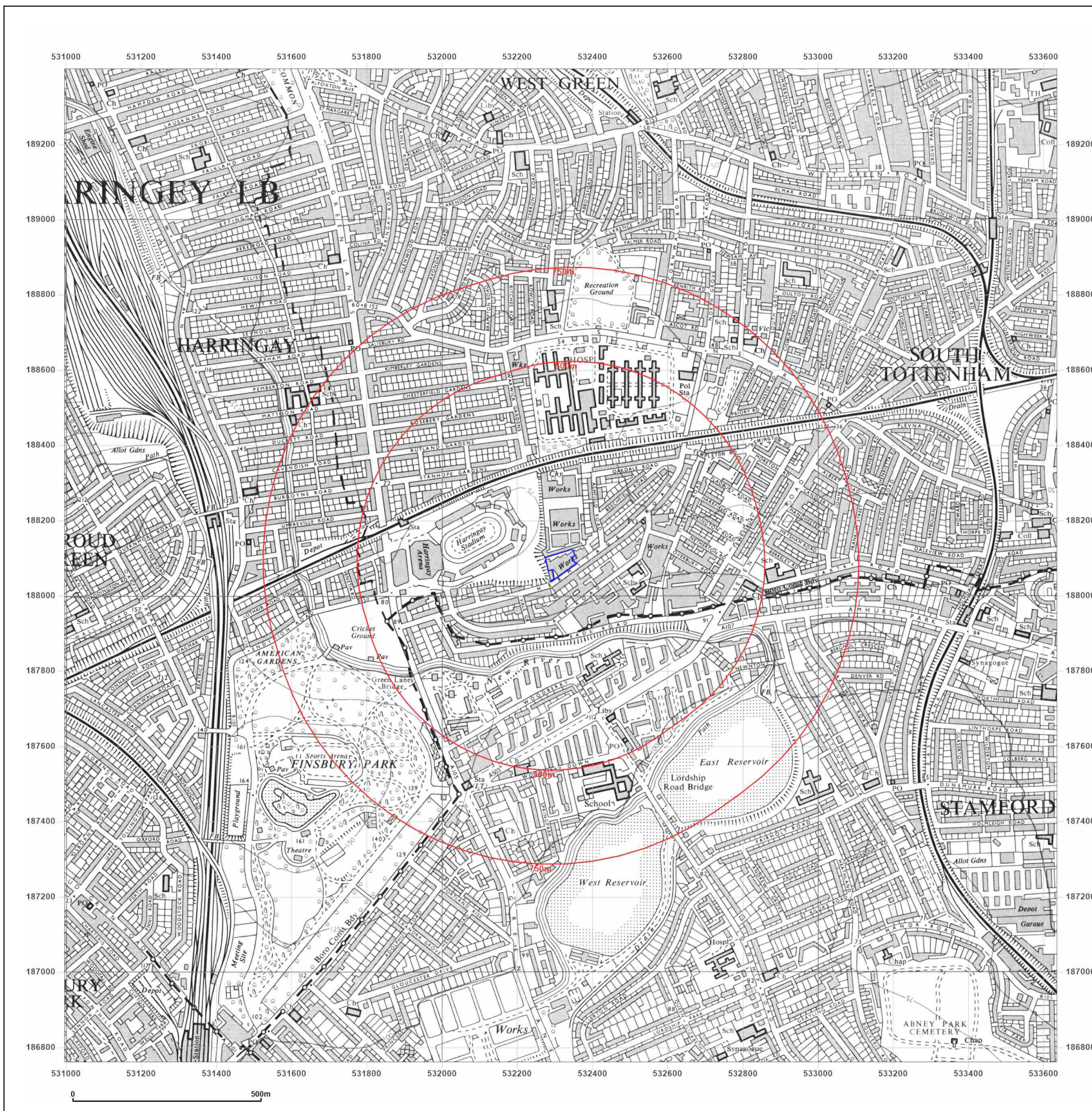


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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1975

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1974
Revised 1975
Edition N/A
Copyright N/A
Levelled N/A

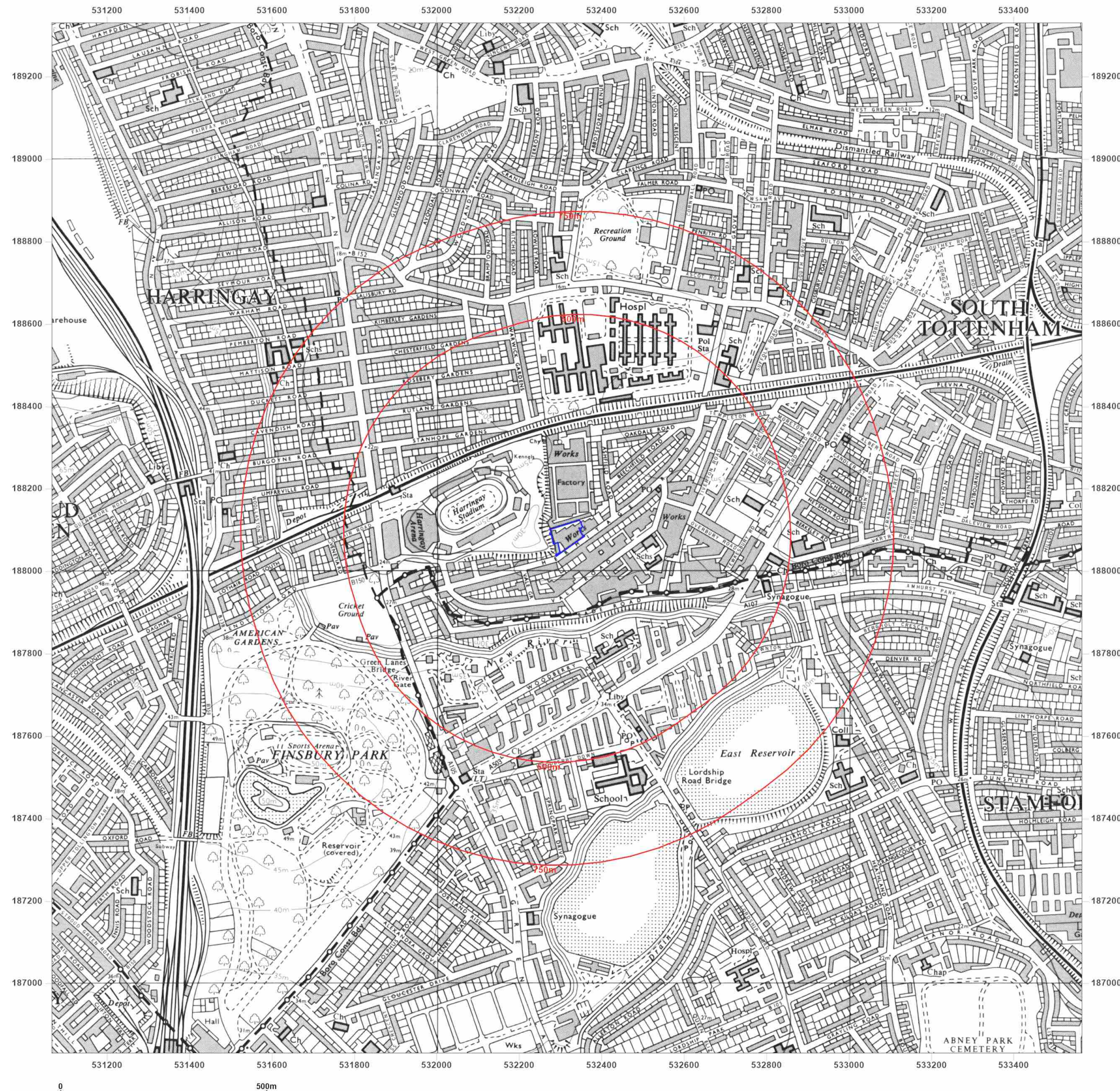


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Site Details:

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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1982

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1981
Revised 1982
Edition N/A
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Site Details:

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TOTTENHAM, LONDON, N4
1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 1989

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1981
Revised 1989
Edition N/A
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Site Details:

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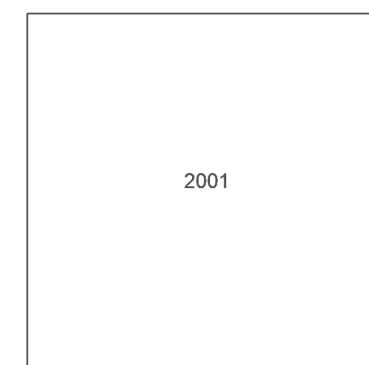
Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 2001

Scale: 1:10,000

Printed at: 1:10,000



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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000



2010



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1LZ

Client Ref: GWPR4712_167_Hermitage_Road
Report Ref: GS-8685354
Grid Ref: 532315, 188080

Map Name: National Grid

Map date: 2022

Scale: 1:10,000

Printed at: 1:10,000



2022

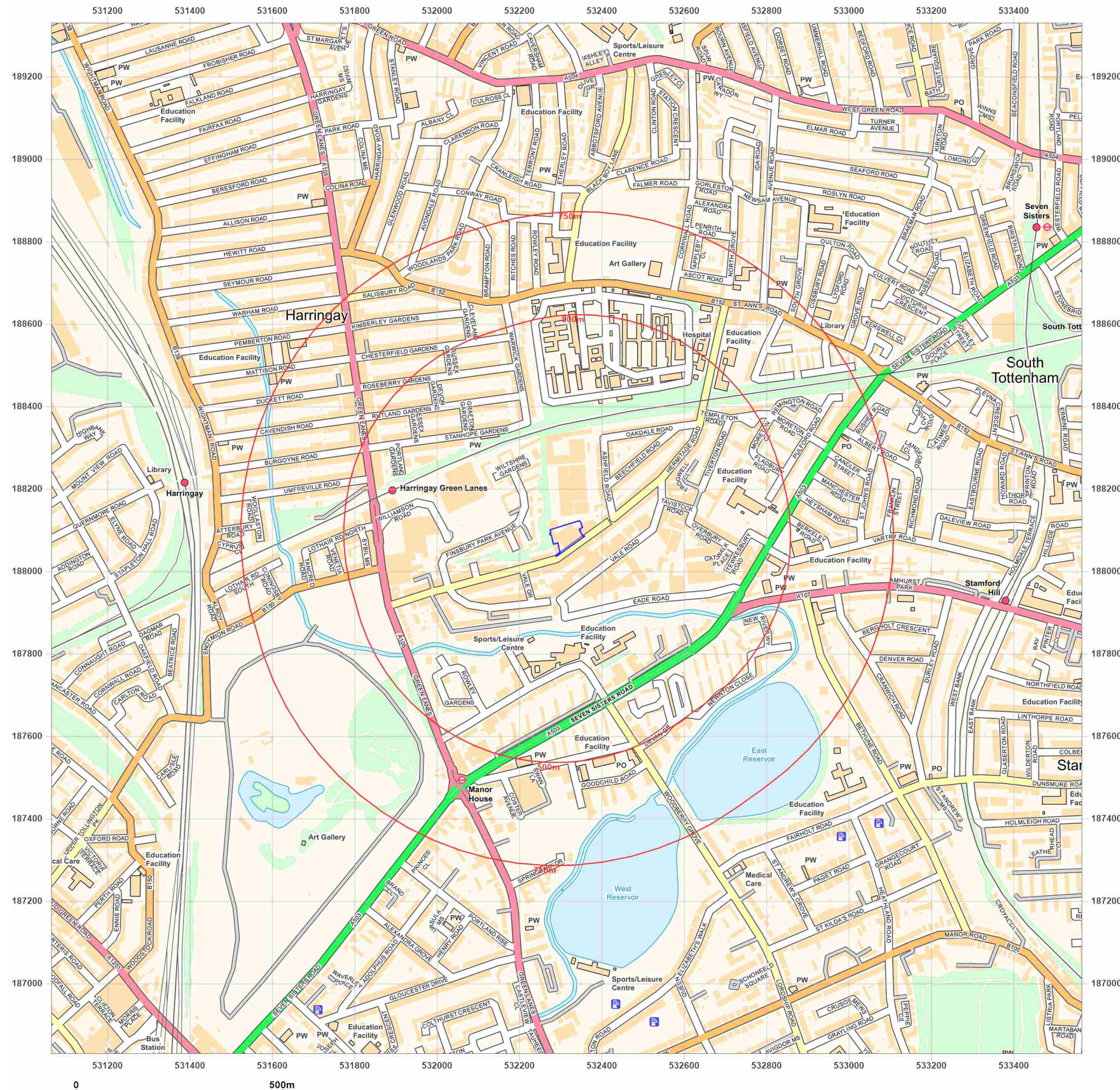


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APPENDIX D:

Groundsure

EnviroInsight and

GeoInsight

Datasheets

UNIT A, OMEGA WORKS, HERMITAGE ROAD, TOTTENHAM, LONDON, N4 1LZ

Order Details

Date: 20/04/2022
Your ref: GWPR4712_167_Hermitage_Road
Our Ref: GS-8685356
Client: Gillian O'Hara

Site Details

Location: 532317 188086
Area: 0.38 ha
Authority: [London Borough of Haringey](#)



Summary of findings

p. 2

Aerial image

p. 8

OS MasterMap site plan

p.13

groundsure.com/insightuserguide

Contact us with any questions at:

info@groundsure.com

08444 159 000

Summary of findings

Page	Section	Past land use	On site	0-50m	50-250m	250-500m	500-2000m
14	1.1	<u>Historical industrial land uses</u>	1	2	12	31	-
16	1.2	<u>Historical tanks</u>	0	3	18	14	-
18	1.3	<u>Historical energy features</u>	0	0	10	33	-
20	1.4	Historical petrol stations	0	0	0	0	-
20	1.5	<u>Historical garages</u>	0	4	0	2	-
21	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped	On site	0-50m	50-250m	250-500m	500-2000m
22	2.1	<u>Historical industrial land uses</u>	5	5	22	48	-
25	2.2	<u>Historical tanks</u>	0	12	29	29	-
28	2.3	<u>Historical energy features</u>	0	0	32	72	-
32	2.4	Historical petrol stations	0	0	0	0	-
32	2.5	<u>Historical garages</u>	0	10	0	2	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
34	3.1	Active or recent landfill	0	0	0	0	-
34	3.2	Historical landfill (BGS records)	0	0	0	0	-
35	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
35	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
35	3.5	Historical waste sites	0	0	0	0	-
35	3.6	Licensed waste sites	0	0	0	0	-
35	3.7	<u>Waste exemptions</u>	0	0	8	15	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
38	4.1	<u>Recent industrial land uses</u>	0	5	30	-	-
41	4.2	<u>Current or recent petrol stations</u>	0	0	1	2	-
41	4.3	<u>Electricity cables</u>	0	8	10	8	-
44	4.4	Gas pipelines	0	0	0	0	-
44	4.5	Sites determined as Contaminated Land	0	0	0	0	-



44	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
44	4.7	Regulated explosive sites	0	0	0	0	-
44	4.8	Hazardous substance storage/usage	0	0	0	0	-
45	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
45	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
45	4.11	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	0	3	-
46	4.12	<u>Radioactive Substance Authorisations</u>	0	0	0	1	-
46	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
46	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
46	4.15	Pollutant release to public sewer	0	0	0	0	-
47	4.16	List 1 Dangerous Substances	0	0	0	0	-
47	4.17	List 2 Dangerous Substances	0	0	0	0	-
47	4.18	<u>Pollution Incidents (EA/NRW)</u>	0	0	0	1	-
47	4.19	Pollution inventory substances	0	0	0	0	-
48	4.20	Pollution inventory waste transfers	0	0	0	0	-
48	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
49	5.1	Superficial aquifer	None (within 500m)				
50	5.2	<u>Bedrock aquifer</u>	Identified (within 500m)				
51	5.3	<u>Groundwater vulnerability</u>	Identified (within 50m)				
52	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
52	5.5	Groundwater vulnerability- local information	None (within 0m)				
53	5.6	<u>Groundwater abstractions</u>	0	0	2	2	15
58	5.7	Surface water abstractions	0	0	0	0	0
58	5.8	<u>Potable abstractions</u>	0	0	2	2	13
62	5.9	<u>Source Protection Zones</u>	1	0	1	0	-
62	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
63	6.1	<u>Water Network (OS MasterMap)</u>	0	0	1	-	-



64	6.2	<u>Surface water features</u>	0	0	1	-	-
64	6.3	<u>WFD Surface water body catchments</u>	1	-	-	-	-
64	6.4	<u>WFD Surface water bodies</u>	0	0	0	-	-
65	6.5	WFD Groundwater bodies	0	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
66	7.1	Risk of flooding from rivers and the sea	None (within 50m)				
66	7.2	Historical Flood Events	0	0	0	-	-
66	7.3	Flood Defences	0	0	0	-	-
67	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
67	7.5	Flood Storage Areas	0	0	0	-	-
68	7.6	Flood Zone 2	None (within 50m)				
68	7.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
69	8.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
71	9.1	<u>Groundwater flooding</u>	Low (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
72	10.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
73	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
73	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
73	10.4	Special Protection Areas (SPA)	0	0	0	0	0
73	10.5	National Nature Reserves (NNR)	0	0	0	0	0
74	10.6	<u>Local Nature Reserves (LNR)</u>	0	0	0	1	3
74	10.7	Designated Ancient Woodland	0	0	0	0	0
74	10.8	Biosphere Reserves	0	0	0	0	0
75	10.9	Forest Parks	0	0	0	0	0
75	10.10	Marine Conservation Zones	0	0	0	0	0
75	10.11	<u>Green Belt</u>	0	0	0	0	1
75	10.12	Proposed Ramsar sites	0	0	0	0	0



76	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
76	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
76	10.15	Nitrate Sensitive Areas	0	0	0	0	0
76	10.16	Nitrate Vulnerable Zones	0	0	0	0	0
77	<u>10.17</u>	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
78	10.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
79	11.1	World Heritage Sites	0	0	0	-	-
80	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
80	11.3	National Parks	0	0	0	-	-
80	11.4	Listed Buildings	0	0	0	-	-
80	<u>11.5</u>	<u>Conservation Areas</u>	0	0	1	-	-
81	11.6	Scheduled Ancient Monuments	0	0	0	-	-
81	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
82	<u>12.1</u>	<u>Agricultural Land Classification</u>	Urban (within 250m)				
83	12.2	Open Access Land	0	0	0	-	-
83	12.3	Tree Felling Licences	0	0	0	-	-
83	12.4	Environmental Stewardship Schemes	0	0	0	-	-
83	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
84	<u>13.1</u>	<u>Priority Habitat Inventory</u>	0	0	1	-	-
85	13.2	Habitat Networks	0	0	0	-	-
85	<u>13.3</u>	<u>Open Mosaic Habitat</u>	1	0	0	-	-
85	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
86	<u>14.1</u>	<u>10k Availability</u>	Identified (within 500m)				
87	<u>14.2</u>	<u>Artificial and made ground (10k)</u>	0	0	2	0	-
88	14.3	Superficial geology (10k)	0	0	0	0	-

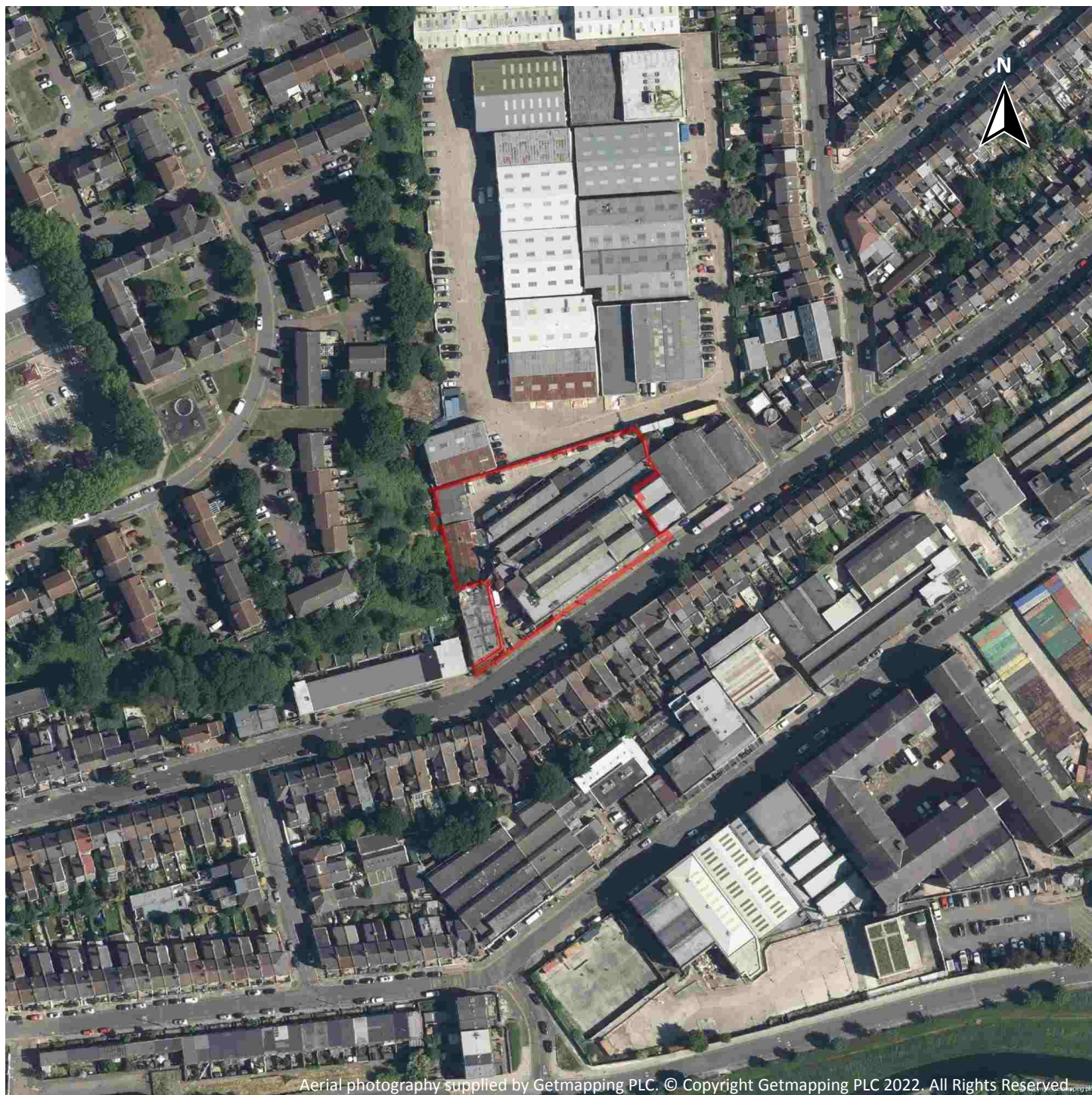
88	14.4	Landslip (10k)	0	0	0	0	-
89	14.5	<u>Bedrock geology (10k)</u>	1	0	0	0	-
90	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
91	15.1	<u>50k Availability</u>	Identified (within 500m)				
92	15.2	<u>Artificial and made ground (50k)</u>	0	0	2	0	-
93	15.3	Artificial ground permeability (50k)	0	0	-	-	-
94	15.4	Superficial geology (50k)	0	0	0	0	-
94	15.5	Superficial permeability (50k)	None (within 50m)				
94	15.6	Landslip (50k)	0	0	0	0	-
94	15.7	Landslip permeability (50k)	None (within 50m)				
95	15.8	<u>Bedrock geology (50k)</u>	1	0	0	0	-
96	15.9	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
96	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
97	16.1	<u>BGS Boreholes</u>	0	0	3	-	-
Page	Section	Natural ground subsidence					
99	17.1	<u>Shrink swell clays</u>	Moderate (within 50m)				
100	17.2	<u>Running sands</u>	Very low (within 50m)				
101	17.3	<u>Compressible deposits</u>	Negligible (within 50m)				
102	17.4	<u>Collapsible deposits</u>	Very low (within 50m)				
103	17.5	<u>Landslides</u>	Very low (within 50m)				
104	17.6	<u>Ground dissolution of soluble rocks</u>	Negligible (within 50m)				
Page	Section	Mining, ground workings and natural cavities	On site	0-50m	50-250m	250-500m	500-2000m
106	18.1	Natural cavities	0	0	0	0	-
107	18.2	BritPits	0	0	0	0	-
107	18.3	<u>Surface ground workings</u>	0	0	3	-	-
107	18.4	<u>Underground workings</u>	0	0	0	0	2
108	18.5	Historical Mineral Planning Areas	0	0	0	0	-



108	18.6	Non-coal mining	0	0	0	0	0
108	18.7	Mining cavities	0	0	0	0	0
108	18.8	JPB mining areas	None (within 0m)				
108	18.9	Coal mining	None (within 0m)				
109	18.10	Brine areas	None (within 0m)				
109	18.11	Gypsum areas	None (within 0m)				
109	18.12	Tin mining	None (within 0m)				
109	18.13	Clay mining	None (within 0m)				
Page	Section	Radon					
110	19.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
111	20.1	<u>BGS Estimated Background Soil Chemistry</u>	1	2	-	-	-
111	20.2	<u>BGS Estimated Urban Soil Chemistry</u>	4	4	-	-	-
112	20.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
113	21.1	<u>Underground railways (London)</u>	0	0	1	-	-
114	21.2	Underground railways (Non-London)	0	0	0	-	-
114	21.3	Railway tunnels	0	0	0	-	-
114	21.4	<u>Historical railway and tunnel features</u>	0	0	3	-	-
114	21.5	Royal Mail tunnels	0	0	0	-	-
115	21.6	Historical railways	0	0	0	-	-
115	21.7	<u>Railways</u>	0	0	5	-	-
115	21.8	Crossrail 1	0	0	0	0	-
115	21.9	Crossrail 2	0	0	0	0	-
116	21.10	HS2	0	0	0	0	-



Recent aerial photograph

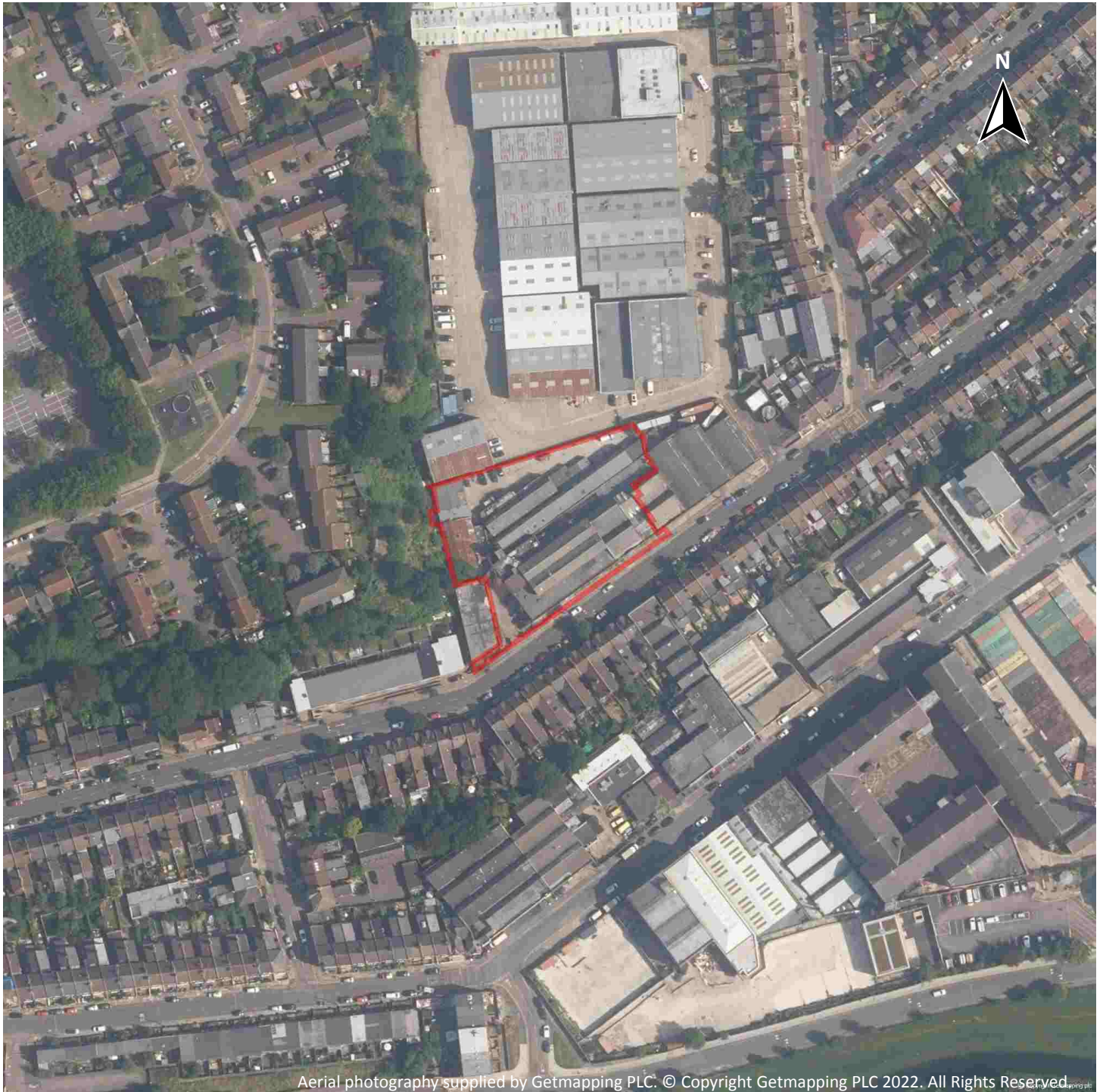


Capture Date: 14/06/2021

Site Area: 0.38ha



Recent site history - 2019 aerial photograph

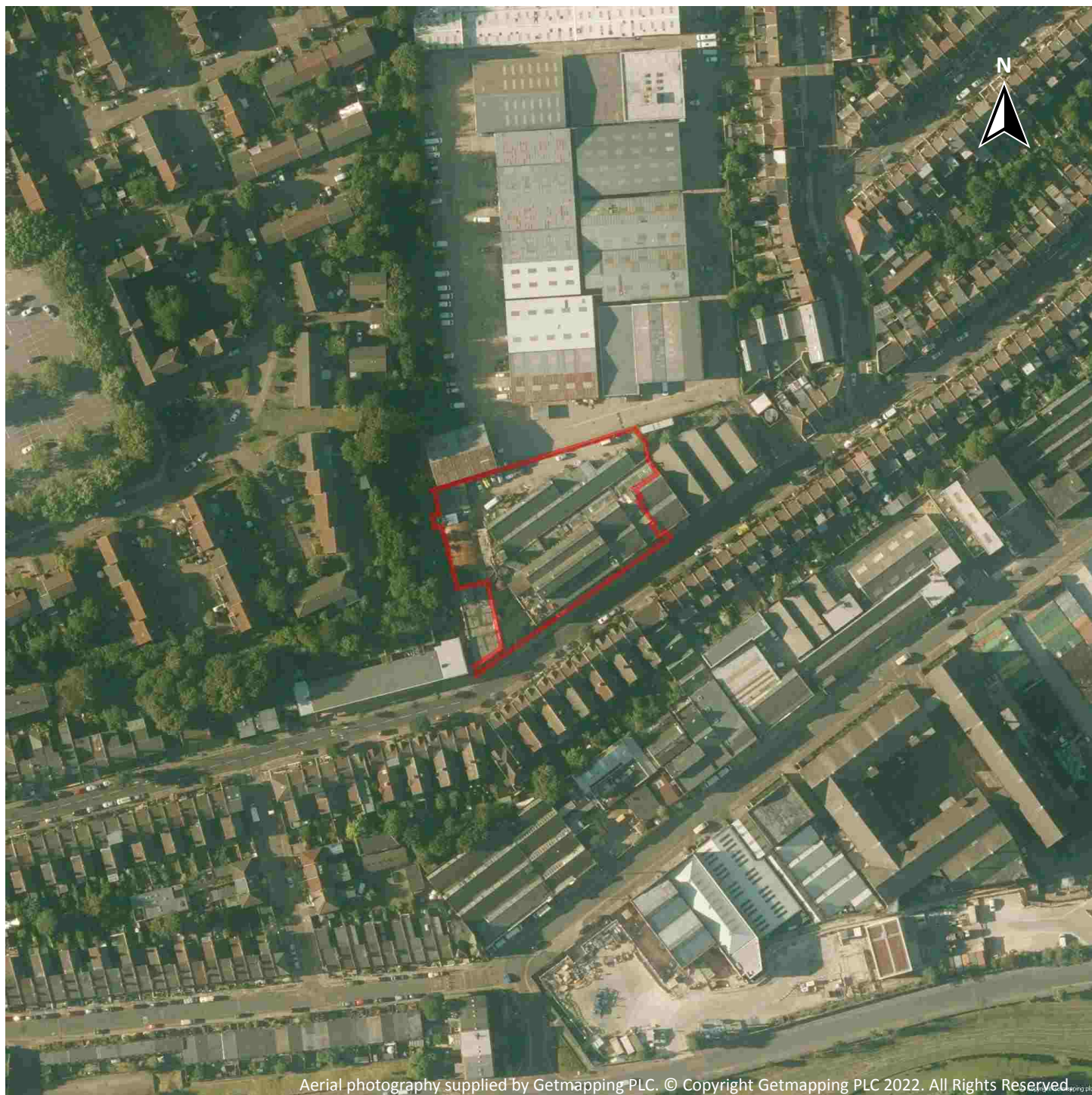


Capture Date: 29/06/2019

Site Area: 0.38ha



Recent site history - 2016 aerial photograph



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Capture Date: 12/08/2016

Site Area: 0.38ha



Recent site history - 2013 aerial photograph

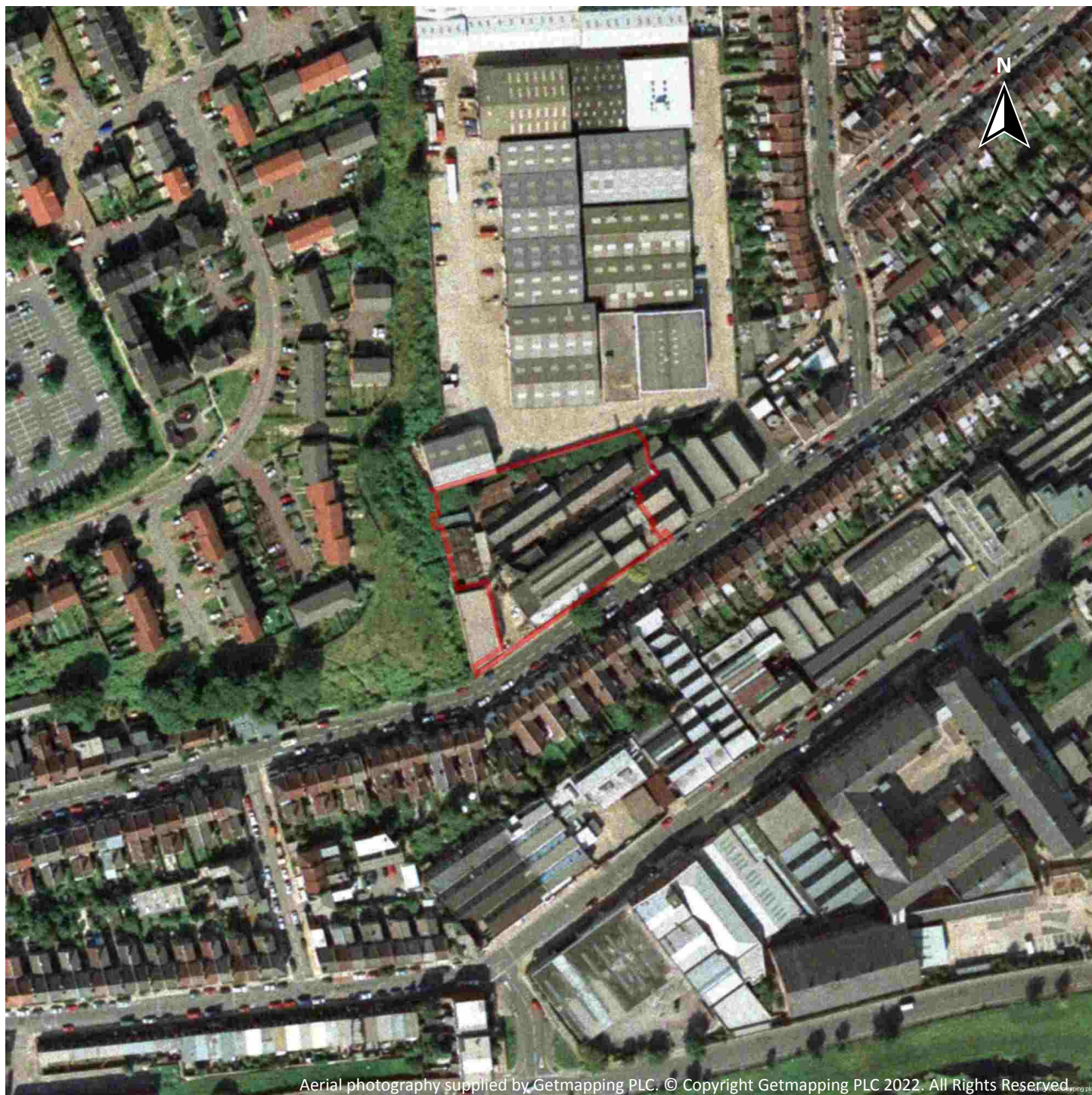


Capture Date: 28/04/2013

Site Area: 0.38ha



Recent site history - 1999 aerial photograph



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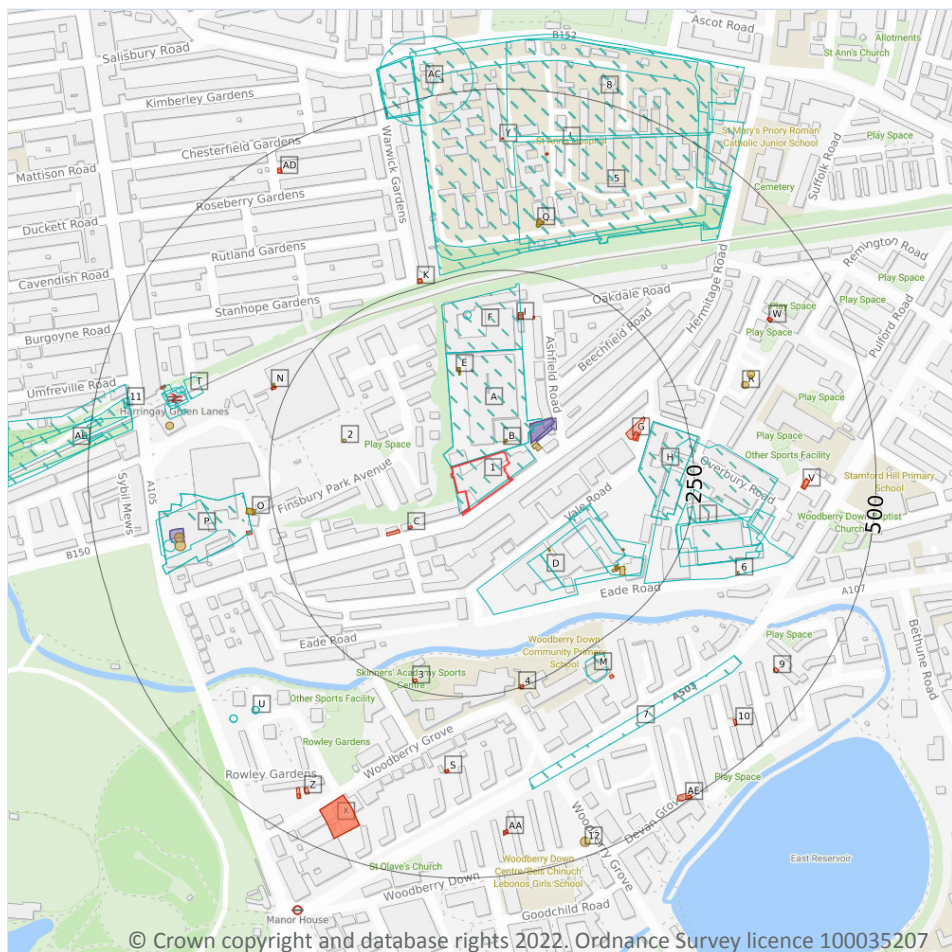
Capture Date: 04/09/1999

Site Area: 0.38ha





1 Past land use



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

1.1 Historical industrial land uses

Records within 500m

46

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

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

ID	Location	Land use	Dates present	Group ID
1	On site	Unspecified Works	1962 - 1989	2293390



ID	Location	Land use	Dates present	Group ID
A	1m N	Unspecified Factory	1975 - 1989	2189514
A	1m N	Unspecified Works	1962 - 1967	2257890
D	92m SE	Unspecified Works	1982 - 1989	2196113
D	94m SE	Lace Paper Works	1938	2141948
D	105m SE	Confectionery Works	1920	2146573
D	105m SE	Lace Paper Works	1920	2141947
F	140m N	Unspecified Works	1962 - 1989	2293706
H	174m E	Unspecified Works	1967 - 1975	2217357
H	174m E	Unspecified Commercial/Industrial	1982 - 1989	2248561
F	189m N	Chimney	1962 - 1975	2169748
J	205m E	Brick Works	1894	2147658
J	234m E	Unspecified Factory	1938	2270579
J	234m E	Unspecified Factory	1920	2276958
J	240m E	Unspecified Factory	1982 - 1989	2225698
L	258m N	Fever Hospital	1938	2207568
M	263m SE	Unspecified Heap	1967 - 1989	2281125
L	271m N	Fever Hospital	1920	2202679
L	279m N	Hospital	1962 - 1989	2216791
P	285m W	Tile Works	1869	2205659
P	285m W	Tile Works	1879	2264316
5	287m N	Fever Hospital	1894	2261093
P	331m W	Pottery Works	1894	2143196
T	357m W	Railway Station	1982 - 1989	2180046
7	359m SE	Cuttings	1879	2129661
T	373m W	Railway Station	1920	2197302
T	373m W	Railway Station	1962 - 1975	2232061
T	377m W	Railway Station	1938	2175584
T	381m W	Railway Station	1894	2254066



ID	Location	Land use	Dates present	Group ID
U	387m SW	Unspecified Tank	1869	2175741
U	387m SW	Unspecified Tank	1879	2179578
P	392m W	Unspecified Tank	1982 - 1989	2287582
U	417m SW	Unspecified Tank	1869	2217256
U	417m SW	Unspecified Tank	1879	2251992
8	434m N	Fever Hospital	1894	2293465
AB	442m W	Railway Sidings	1938	2277858
AB	445m W	Railway Sidings	1894 - 1920	2176113
11	451m W	Railway Building	1962	2149081
AB	451m W	Railway Sidings	1962 - 1975	2262544
AC	462m N	Ambulance Station	1982 - 1989	2293123
AC	480m N	Unspecified Commercial/Industrial	1975	2130925
AC	480m N	Unspecified Works	1962 - 1967	2268106
AB	482m W	Goods Depot	1920	2158389
AC	482m N	Unspecified Works	1982 - 1989	2234689
AB	484m W	Goods Depot	1938	2158390
AB	497m W	Goods Depot	1894	2158388

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

35

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

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

ID	Location	Land use	Dates present	Group ID
B	12m N	Unspecified Tank	1991 - 1994	397648



ID	Location	Land use	Dates present	Group ID
B	15m N	Unspecified Tank	1986 - 1991	394016
B	37m E	Unspecified Tank	1986 - 1994	401594
D	105m SE	Unspecified Tank	1952 - 1953	392435
E	119m N	Tanks	1986 - 1991	382821
E	125m N	Unspecified Tank	1971	364708
2	150m W	Unspecified Tank	1896	364716
D	179m SE	Unspecified Tank	1991	395903
D	179m SE	Unspecified Tank	1982	409060
D	179m SE	Unspecified Tank	1997	399160
D	179m SE	Unspecified Tank	1991	403959
D	179m SE	Unspecified Tank	1952	385508
D	179m SE	Unspecified Tank	1970	396528
D	179m SE	Unspecified Tank	1953	409569
D	180m SE	Unspecified Tank	1952	389670
D	180m SE	Unspecified Tank	1963	402148
D	184m SE	Tanks	1952 - 1970	381837
D	185m SE	Tanks	1952 - 1963	400417
D	185m SE	Tanks	1991 - 1994	383866
D	187m SE	Unspecified Tank	1997	364692
D	191m SE	Tanks	1982 - 1991	387272
N	269m NW	Unspecified Tank	1991 - 1994	388218
O	274m W	Cooling Tank	1954	396726
O	274m W	Cooling Tank	1953 - 1954	382089
O	277m W	Cooling Tank	1978 - 1983	381859
Q	313m N	Tanks	1991 - 1994	384260
Q	313m N	Tanks	1986 - 1994	382627
Q	320m N	Unspecified Tank	1986 - 1991	396069
Q	320m N	Tanks	1992 - 1994	401535



ID	Location	Land use	Dates present	Group ID
6	334m E	Unspecified Tank	1982	364693
R	337m E	Unspecified Tank	1994	364706
R	349m E	Unspecified Tank	1994	364707
P	378m W	Unspecified Tank	1864 - 1896	408058
T	387m W	Unspecified Tank	1896	364714
12	474m S	Unspecified Tank	1994	364691

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

43

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

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

ID	Location	Land use	Dates present	Group ID
C	71m W	Electricity Substation	1971	245136
C	89m W	Electricity Substation	1986 - 1994	282200
G	165m E	Electricity Substation	1991 - 1994	261453
G	173m E	Electricity Substation	1954 - 1991	280669
I	183m N	Electricity Substation	1991 - 1994	269933
I	185m N	Electricity Substation	1954 - 1971	272924
I	188m N	Electricity Substation	1986 - 1991	269964
I	190m N	Electricity Substation	1954	255091
3	235m S	Electricity Substation	1953 - 1994	275958
4	247m S	Electricity Substation	1977 - 1994	291396
K	256m N	Electricity Substation	1986 - 1994	284596
K	256m N	Electricity Substation	1991 - 1994	259343



ID	Location	Land use	Dates present	Group ID
N	265m NW	Electricity Substation	1991 - 1994	256939
N	265m NW	Electricity Substation	1992 - 1994	281541
O	286m W	Electricity Substation	1978 - 1991	288769
M	298m SE	Electricity Substation	1952 - 1953	258729
S	351m S	Electricity Substation	1952	269113
S	351m S	Electricity Substation	1952 - 1953	282038
V	397m E	Electricity Substation	1991 - 1994	259966
V	397m E	Electricity Substation	1978	267840
W	404m NE	Electricity Substation	1991 - 1994	281572
W	405m NE	Electricity Substation	1978	285472
T	409m W	Electricity Substation	1983 - 1991	261907
T	409m W	Electricity Substation	1978	282185
L	413m N	Electricity Substation	1990 - 1991	286884
L	414m N	Electricity Substation	1978	262189
X	419m SW	Electricity Substation	1952 - 1953	277186
X	419m SW	Electricity Substation	1952	280320
Y	430m N	Electricity Substation	1990	253104
Y	430m N	Electricity Substation	1991	255248
Y	431m N	Electricity Substation	1991	256331
Z	432m SW	Electricity Substation	1994	245137
AA	437m S	Electricity Substation	1991	266318
Z	438m SW	Electricity Substation	1991	262837
AA	440m S	Electricity Substation	1991 - 1994	283798
9	444m SE	Electricity Substation	1952 - 1997	275083
Z	445m SW	Electricity Substation	1977	287026
10	449m SE	Electricity Substation	1970 - 1997	274614
AD	469m NW	Electricity Substation	1990 - 1991	274454
AD	469m NW	Electricity Substation	1978	284964

ID	Location	Land use	Dates present	Group ID
AE	487m SE	Electricity Substation	1952 - 1997	271639
AC	490m N	Electricity Substation	1978	245135
AE	494m SE	Electricity Substation	1952 - 1991	271419

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0
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Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	6
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Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

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

ID	Location	Land use	Dates present	Group ID
B	37m NE	Garage	1991 - 1994	84017
B	38m NE	Garage	1971 - 1991	85133
B	38m NE	Garage	1954	75750
B	39m NE	Garage	1954	80999
P	376m W	Garage	1954	77578
P	377m W	Garage	1953	80030

This data is sourced from Ordnance Survey / Groundsure.



1.6 Historical military land

Records within 500m

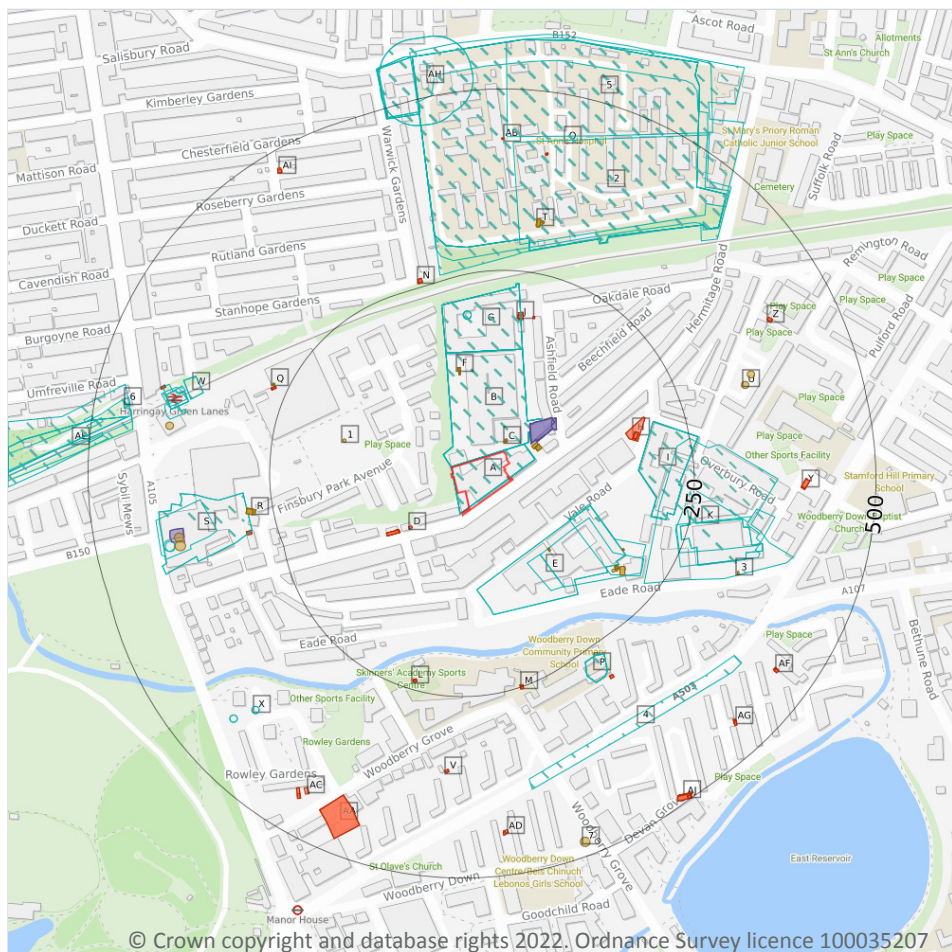
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Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

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



2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

80

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 22**

ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Works	1989	2293390
A	On site	Unspecified Works	1975	2293390
A	On site	Unspecified Works	1967	2293390



ID	Location	Land Use	Date	Group ID
A	On site	Unspecified Works	1982	2293390
A	On site	Unspecified Works	1962	2293390
B	1m N	Unspecified Factory	1989	2189514
B	1m N	Unspecified Factory	1975	2189514
B	1m N	Unspecified Works	1967	2257890
B	1m N	Unspecified Factory	1982	2189514
B	1m N	Unspecified Works	1962	2257890
E	92m SE	Unspecified Works	1989	2196113
E	92m SE	Unspecified Works	1982	2196113
E	94m SE	Lace Paper Works	1938	2141948
E	105m SE	Confectionery Works	1920	2146573
E	105m SE	Lace Paper Works	1920	2141947
G	140m N	Unspecified Works	1989	2293706
G	140m N	Unspecified Works	1975	2293706
G	140m N	Unspecified Works	1967	2293706
G	140m N	Unspecified Works	1982	2293706
G	140m N	Unspecified Works	1962	2293706
I	174m E	Unspecified Commercial/Industrial	1989	2248561
I	174m E	Unspecified Works	1975	2217357
I	174m E	Unspecified Works	1967	2217357
I	174m E	Unspecified Commercial/Industrial	1982	2248561
G	189m N	Chimney	1975	2169748
G	189m N	Chimney	1967	2169748
G	189m N	Chimney	1962	2169748
K	205m E	Brick Works	1894	2147658
K	234m E	Unspecified Factory	1938	2270579
K	234m E	Unspecified Factory	1920	2276958
K	240m E	Unspecified Factory	1989	2225698



ID	Location	Land Use	Date	Group ID
K	240m E	Unspecified Factory	1982	2225698
O	258m N	Fever Hospital	1938	2207568
P	263m SE	Unspecified Heap	1989	2281125
P	263m SE	Unspecified Heap	1975	2281125
P	263m SE	Unspecified Heap	1967	2281125
P	263m SE	Unspecified Heap	1982	2281125
O	271m N	Fever Hospital	1920	2202679
O	279m N	Hospital	1989	2216791
O	279m N	Hospital	1975	2216791
O	279m N	Hospital	1967	2216791
O	279m N	Hospital	1982	2216791
O	279m N	Hospital	1962	2216791
S	285m W	Tile Works	1869	2205659
S	285m W	Tile Works	1879	2264316
2	287m N	Fever Hospital	1894	2261093
S	331m W	Pottery Works	1894	2143196
W	357m W	Railway Station	1989	2180046
W	357m W	Railway Station	1982	2180046
4	359m SE	Cuttings	1879	2129661
W	373m W	Railway Station	1920	2197302
W	373m W	Railway Station	1975	2232061
W	373m W	Railway Station	1967	2232061
W	373m W	Railway Station	1962	2232061
W	377m W	Railway Station	1938	2175584
W	381m W	Railway Station	1894	2254066
X	387m SW	Unspecified Tank	1869	2175741
X	387m SW	Unspecified Tank	1879	2179578
S	392m W	Unspecified Tank	1982	2287582



ID	Location	Land Use	Date	Group ID
S	393m W	Unspecified Tank	1989	2287582
X	417m SW	Unspecified Tank	1869	2217256
X	417m SW	Unspecified Tank	1879	2251992
5	434m N	Fever Hospital	1894	2293465
AE	442m W	Railway Sidings	1938	2277858
AE	445m W	Railway Sidings	1894	2176113
6	451m W	Railway Building	1962	2149081
AE	451m W	Railway Sidings	1975	2262544
AE	451m W	Railway Sidings	1967	2262544
AE	451m W	Railway Sidings	1962	2262544
AH	462m N	Ambulance Station	1989	2293123
AH	462m N	Ambulance Station	1982	2293123
AE	475m W	Railway Sidings	1920	2176113
AH	480m N	Unspecified Commercial/Industrial	1975	2130925
AH	480m N	Unspecified Works	1967	2268106
AH	480m N	Unspecified Works	1962	2268106
AE	482m W	Goods Depot	1920	2158389
AH	482m N	Unspecified Works	1989	2234689
AH	482m N	Unspecified Works	1982	2234689
AE	484m W	Goods Depot	1938	2158390
AE	497m W	Goods Depot	1894	2158388

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

70

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

Features are displayed on the Past land use - un-grouped map on **page 22**



ID	Location	Land Use	Date	Group ID
C	12m N	Unspecified Tank	1994	397648
C	12m N	Unspecified Tank	1992	397648
C	12m N	Unspecified Tank	1991	397648
C	12m N	Unspecified Tank	1994	397648
C	15m N	Unspecified Tank	1986	394016
C	15m N	Unspecified Tank	1991	394016
C	37m E	Unspecified Tank	1994	401594
C	37m E	Unspecified Tank	1992	401594
C	41m E	Unspecified Tank	1991	401594
C	41m E	Unspecified Tank	1994	401594
C	42m E	Unspecified Tank	1986	401594
C	42m E	Unspecified Tank	1991	401594
E	105m SE	Unspecified Tank	1953	392435
E	105m SE	Unspecified Tank	1952	392435
E	106m SE	Unspecified Tank	1952	392435
F	119m N	Tanks	1986	382821
F	119m N	Tanks	1991	382821
F	119m N	Tanks	1991	382821
F	125m N	Unspecified Tank	1971	364708
1	150m W	Unspecified Tank	1896	364716
E	179m SE	Unspecified Tank	1982	409060
E	179m SE	Unspecified Tank	1991	395903
E	179m SE	Unspecified Tank	1997	399160
E	179m SE	Unspecified Tank	1991	403959
E	179m SE	Unspecified Tank	1953	409569
E	179m SE	Unspecified Tank	1970	396528
E	179m SE	Unspecified Tank	1952	385508
E	180m SE	Unspecified Tank	1952	389670

ID	Location	Land Use	Date	Group ID
E	180m SE	Unspecified Tank	1963	402148
E	184m SE	Tanks	1953	381837
E	184m SE	Tanks	1952	381837
E	185m SE	Tanks	1952	400417
E	185m SE	Tanks	1963	400417
E	185m SE	Tanks	1994	383866
E	185m SE	Tanks	1953	381837
E	185m SE	Tanks	1970	381837
E	185m SE	Tanks	1952	381837
E	185m SE	Tanks	1991	383866
E	187m SE	Unspecified Tank	1997	364692
E	191m SE	Tanks	1982	387272
E	191m SE	Tanks	1991	387272
Q	269m NW	Unspecified Tank	1994	388218
Q	269m NW	Unspecified Tank	1992	388218
Q	269m NW	Unspecified Tank	1991	388218
Q	269m NW	Unspecified Tank	1994	388218
Q	269m NW	Unspecified Tank	1991	388218
R	274m W	Cooling Tank	1954	396726
R	274m W	Cooling Tank	1954	396726
R	274m W	Cooling Tank	1954	382089
R	277m W	Cooling Tank	1983	381859
R	277m W	Cooling Tank	1978	381859
R	277m W	Cooling Tank	1953	382089
R	277m W	Cooling Tank	1954	382089
T	313m N	Tanks	1991	384260
T	313m N	Tanks	1994	384260
T	313m N	Tanks	1994	382627

ID	Location	Land Use	Date	Group ID
T	313m N	Tanks	1992	382627
T	314m N	Tanks	1986	382627
T	314m N	Tanks	1991	382627
T	320m N	Unspecified Tank	1986	396069
T	320m N	Unspecified Tank	1991	396069
T	320m N	Tanks	1994	401535
T	320m N	Tanks	1992	401535
3	334m E	Unspecified Tank	1982	364693
U	337m E	Unspecified Tank	1994	364706
U	349m E	Unspecified Tank	1994	364707
S	378m W	Unspecified Tank	1896	408058
S	378m W	Unspecified Tank	1864	408058
W	387m W	Unspecified Tank	1896	364714
7	474m S	Unspecified Tank	1994	364691

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

104

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

Features are displayed on the Past land use - un-grouped map on **page 22**

ID	Location	Land Use	Date	Group ID
D	71m W	Electricity Substation	1971	245136
D	89m W	Electricity Substation	1986	282200
D	89m W	Electricity Substation	1991	282200
D	91m W	Electricity Substation	1994	282200
D	91m W	Electricity Substation	1992	282200
D	91m W	Electricity Substation	1991	282200



ID	Location	Land Use	Date	Group ID
D	91m W	Electricity Substation	1994	282200
H	165m E	Electricity Substation	1991	261453
H	165m E	Electricity Substation	1994	261453
H	173m E	Electricity Substation	1978	280669
H	173m E	Electricity Substation	1970	280669
H	173m E	Electricity Substation	1954	280669
H	174m E	Electricity Substation	1991	280669
H	174m E	Electricity Substation	1954	280669
J	183m N	Electricity Substation	1994	269933
J	183m N	Electricity Substation	1992	269933
J	183m N	Electricity Substation	1991	269933
J	183m N	Electricity Substation	1994	269933
J	185m N	Electricity Substation	1954	272924
J	185m N	Electricity Substation	1954	272924
J	185m N	Electricity Substation	1971	272924
J	188m N	Electricity Substation	1986	269964
J	188m N	Electricity Substation	1991	269964
J	190m N	Electricity Substation	1954	255091
L	235m S	Electricity Substation	1994	275958
L	235m S	Electricity Substation	1991	275958
L	235m S	Electricity Substation	1953	275958
L	235m S	Electricity Substation	1991	275958
M	247m S	Electricity Substation	1977	291396
M	247m S	Electricity Substation	1994	291396
M	247m S	Electricity Substation	1991	291396
M	248m S	Electricity Substation	1991	291396
N	256m N	Electricity Substation	1994	284596
N	256m N	Electricity Substation	1992	284596



ID	Location	Land Use	Date	Group ID
N	256m N	Electricity Substation	1991	259343
N	256m N	Electricity Substation	1994	259343
N	256m N	Electricity Substation	1986	284596
N	256m N	Electricity Substation	1991	284596
Q	265m NW	Electricity Substation	1994	281541
Q	265m NW	Electricity Substation	1992	281541
Q	265m NW	Electricity Substation	1991	256939
Q	265m NW	Electricity Substation	1994	256939
Q	266m NW	Electricity Substation	1991	256939
R	286m W	Electricity Substation	1983	288769
R	286m W	Electricity Substation	1991	288769
R	286m W	Electricity Substation	1978	288769
P	298m SE	Electricity Substation	1953	258729
P	298m SE	Electricity Substation	1952	258729
P	298m SE	Electricity Substation	1952	258729
V	351m S	Electricity Substation	1952	269113
V	351m S	Electricity Substation	1953	282038
V	351m S	Electricity Substation	1952	282038
Y	397m E	Electricity Substation	1994	259966
Y	397m E	Electricity Substation	1991	259966
Y	397m E	Electricity Substation	1978	267840
Y	398m E	Electricity Substation	1991	259966
Z	404m NE	Electricity Substation	1994	281572
Z	404m NE	Electricity Substation	1991	281572
Z	405m NE	Electricity Substation	1978	285472
W	409m W	Electricity Substation	1983	261907
W	409m W	Electricity Substation	1991	261907
W	409m W	Electricity Substation	1978	282185

ID	Location	Land Use	Date	Group ID
O	413m N	Electricity Substation	1990	286884
O	413m N	Electricity Substation	1991	286884
O	414m N	Electricity Substation	1978	262189
AA	419m SW	Electricity Substation	1953	277186
AA	419m SW	Electricity Substation	1952	277186
AA	419m SW	Electricity Substation	1952	280320
AB	430m N	Electricity Substation	1990	253104
AB	430m N	Electricity Substation	1991	255248
AB	431m N	Electricity Substation	1991	256331
AC	432m SW	Electricity Substation	1994	245137
AD	437m S	Electricity Substation	1991	266318
AC	438m SW	Electricity Substation	1991	262837
AC	438m SW	Electricity Substation	1991	262837
AD	440m S	Electricity Substation	1994	283798
AD	440m S	Electricity Substation	1991	283798
AF	444m SE	Electricity Substation	1982	275083
AF	444m SE	Electricity Substation	1991	275083
AC	445m SW	Electricity Substation	1977	287026
AF	445m SE	Electricity Substation	1952	275083
AF	446m SE	Electricity Substation	1953	275083
AF	446m SE	Electricity Substation	1970	275083
AF	446m SE	Electricity Substation	1952	275083
AF	446m SE	Electricity Substation	1997	275083
AF	446m SE	Electricity Substation	1991	275083
AG	449m SE	Electricity Substation	1982	274614
AG	449m SE	Electricity Substation	1991	274614
AG	450m SE	Electricity Substation	1970	274614
AG	451m SE	Electricity Substation	1997	274614

ID	Location	Land Use	Date	Group ID
AG	451m SE	Electricity Substation	1991	274614
AI	469m NW	Electricity Substation	1990	274454
AI	469m NW	Electricity Substation	1991	274454
AI	469m NW	Electricity Substation	1991	274454
AI	469m NW	Electricity Substation	1978	284964
AJ	487m SE	Electricity Substation	1953	271639
AJ	487m SE	Electricity Substation	1970	271639
AJ	487m SE	Electricity Substation	1952	271639
AJ	488m SE	Electricity Substation	1997	271639
AJ	488m SE	Electricity Substation	1991	271639
AH	490m N	Electricity Substation	1978	245135
AJ	494m SE	Electricity Substation	1982	271419
AJ	494m SE	Electricity Substation	1991	271419
AJ	495m SE	Electricity Substation	1952	271419

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m

0

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

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

12

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

Features are displayed on the Past land use - un-grouped map on **page 22**

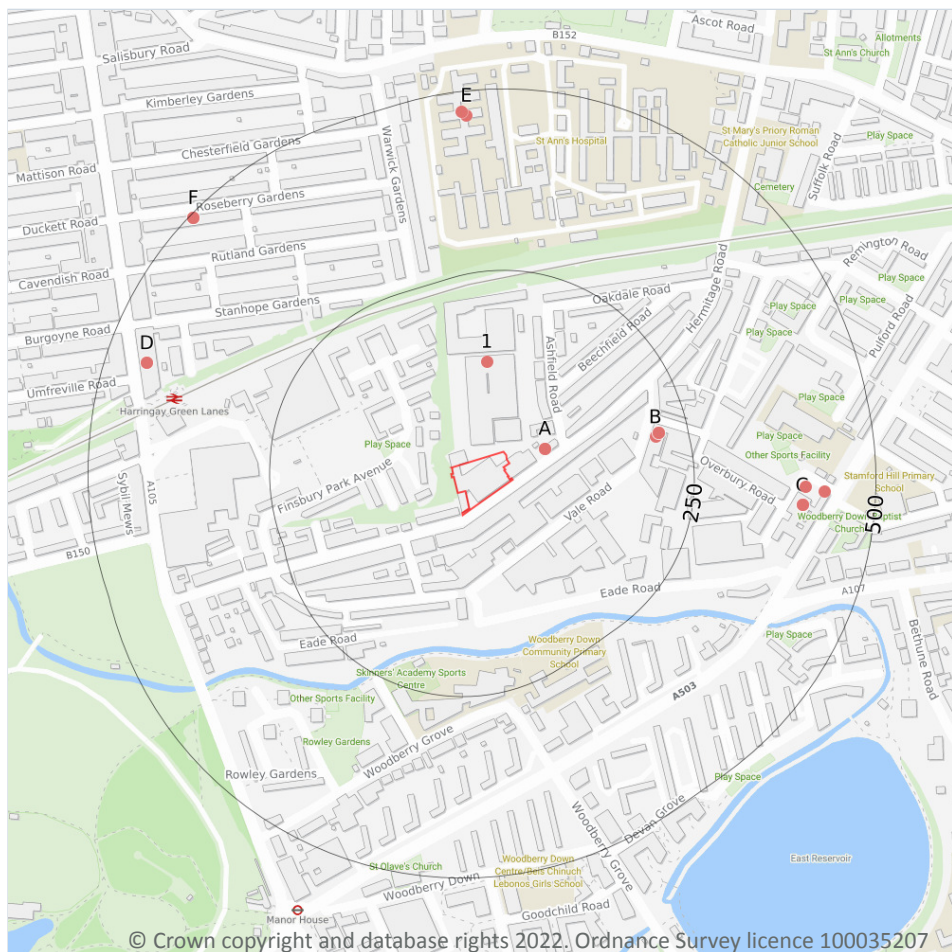


ID	Location	Land Use	Date	Group ID
C	37m NE	Garage	1991	84017
C	37m NE	Garage	1994	84017
C	37m NE	Garage	1994	84017
C	37m NE	Garage	1992	84017
C	38m NE	Garage	1986	85133
C	38m NE	Garage	1991	85133
C	38m NE	Garage	1954	75750
C	39m NE	Garage	1954	80999
C	39m NE	Garage	1954	80999
C	39m NE	Garage	1971	85133
S	376m W	Garage	1954	77578
S	377m W	Garage	1953	80030

This data is sourced from Ordnance Survey / Groundsure.



3 Waste and landfill



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

3.1 Active or recent landfill

Records within 500m

0

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

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

3.2 Historical landfill (BGS records)

Records within 500m

0

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

This data is sourced from the British Geological Survey.



3.3 Historical landfill (LA/mapping records)

Records within 500m**0**

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

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

3.4 Historical landfill (EA/NRW records)

Records within 500m**0**

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

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

3.5 Historical waste sites

Records within 500m**0**

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

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

3.6 Licensed waste sites

Records within 500m**0**

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

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

3.7 Waste exemptions

Records within 500m**23**

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 34**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	53m E	169, HERMITAGE ROAD, LONDON, N4 1LZ	WEX248442	Storing waste exemption	Not on a farm	Storage of waste in a secure place



ID	Location	Site	Reference	Category	Sub-Category	Description
A	53m E	169, HERMITAGE ROAD, LONDON, N4 1LZ	WEX248442	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
1	126m N	CRUSADER INDUSTRIAL ESTATE, UNIT 6, 167, HERMITAGE ROAD, HARRINGAY, LONDON, N4 1LZ	WEX248439	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	204m E	Storage 4 London, Container 77, Vale Road, N4 1TD	WEX104596	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	209m E	FLORENTIA CLOTHING VILLAGE, VALE ROAD, LONDON, N4 1TD	WEX231898	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	209m E	-	WEX269945	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	209m E	Florentia Clothing Village, Florentia Clothing Village, Vale Road, London, N4 1TD	WEX127494	Storing waste exemption	Not on a farm	Storage of waste in a secure place
B	209m E	Storage for London, Vale Road, London, N41TD	WEX087803	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	400m E	42-46, TEWKESBURY ROAD, LONDON, N15 6SE	WEX255821	Storing waste exemption	Not on a farm	Storage of waste in a secure place
C	400m E	42-46, TEWKESBURY ROAD, LONDON, N15 6SE	WEX260022	Treating waste exemption	Not on a farm	Recovery of scrap metal
C	400m E	42-46, TEWKESBURY ROAD, LONDON, N15 6SE	WEX118586	Treating waste exemption	Not on a farm	Recovery of scrap metal
C	403m E	46-54 Tewkesbury Road London N15 6SE	EPR/FF0409M B/A001	Treating waste exemption	Non- Agricultural Waste Only	Recovery of scrap metal
C	429m E	421 Seven Sisters Road LONDON N15 6RD	EPR/WF0631D P/A001	Storing waste exemption	Non- Agricultural Waste Only	Storage of waste in a secure place
D	444m W	-	WEX261598	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
D	444m W	73, GRAND PARADE, GREEN LANES, LONDON, N4 1DU	WEX121759	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
E	466m N	ST. ANN'S ROAD, LONDON, N15 3TH	WEX071275	Treating waste exemption	Not on a farm	Crushing waste fluorescent tubes

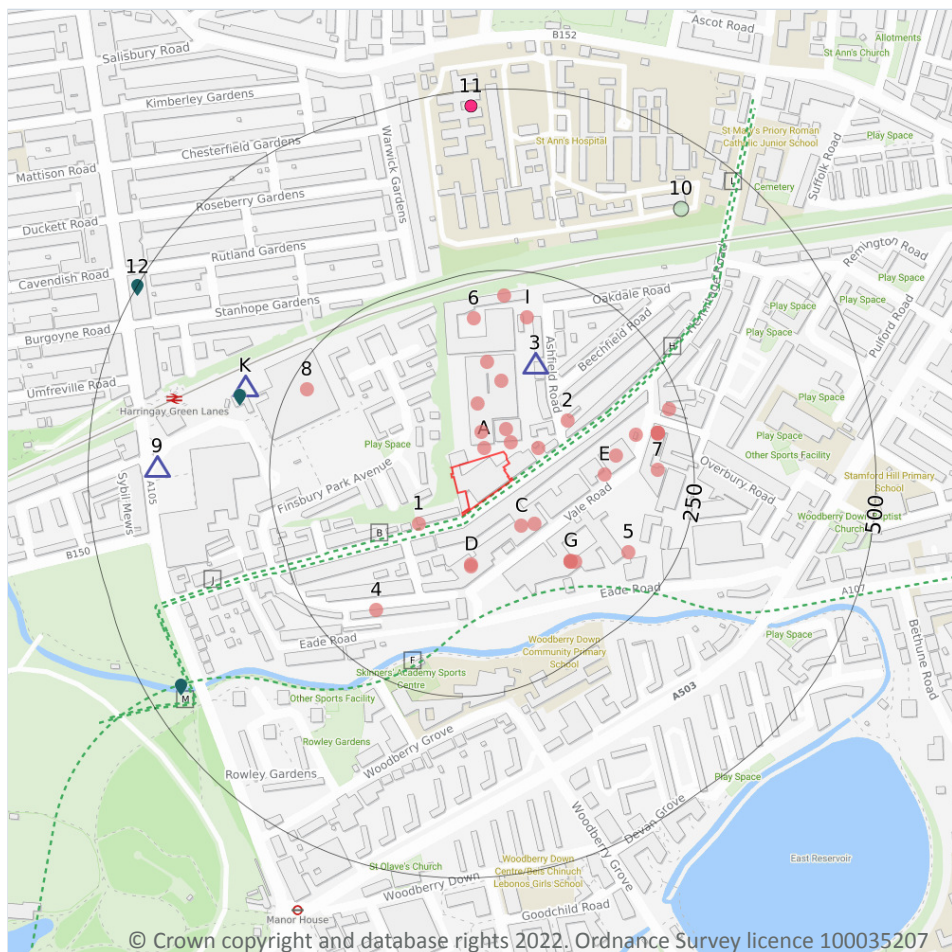


ID	Location	Site	Reference	Category	Sub-Category	Description
E	471m N	Haringey PCT N15 3TH	EPR/NF0133C K/A001	Treating waste exemption	Non- Agricultural Waste Only	Crushing waste fluorescent tubes
F	495m NW	123, ROSEBERY GARDENS, LONDON, N4 1JJ	WEX123283	Storing waste exemption	Not on a farm	Storage of waste in secure containers
F	495m NW	123, ROSEBERY GARDENS, LONDON, N4 1JJ	WEX123283	Storing waste exemption	Not on a farm	Storage of waste in a secure place
F	495m NW	123, ROSEBERY GARDENS, LONDON, N4 1JJ	WEX123283	Using waste exemption	Not on a farm	Use of waste in construction
F	495m NW	123 Roseberry Gardens N4 1JJ	EPR/TF0500ZC /A001	Storing waste exemption	Non- Agricultural Waste Only	Storage of waste in secure containers
F	495m NW	123 Roseberry Gardens N4 1JJ	EPR/TF0500ZC /A001	Storing waste exemption	Non- Agricultural Waste Only	Storage of waste in a secure place
F	495m NW	123 Roseberry Gardens N4 1JJ	EPR/TF0500ZC /A001	Using waste exemption	Non- Agricultural Waste Only	Use of waste in construction

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Electricity cables
- Licensed pollutant release (Part A(2)/B)
- Radioactive Substance Authorisations
- Pollution Incidents (EA/NRW)

4.1 Recent industrial land uses

Records within 250m

35

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 38**

ID	Location	Company	Address	Activity	Category
A	12m N	Crusader Industrial Estate	Greater London, N4	Business Parks and Industrial Estates	Industrial Features
A	16m NE	Tank	Greater London, N4	Tanks (Generic)	Industrial Features



ID	Location	Company	Address	Activity	Category
A	31m N	Abacus Presentation Services	Unit 5 Crusader Industrial Estate 167, Hermitage Road, Tottenham, London, Greater London, N4 1LZ	Plate Makers, Print Finishers and Type Setters	IT, Advertising, Marketing and Media Services
A	34m N	Snap Studios	Unit C 167, Hermitage Road, Tottenham, London, Greater London, N4 1LZ	Recording Studios and Record Companies	IT, Advertising, Marketing and Media Services
A	45m NE	Tank	Greater London, N4	Tanks (Generic)	Industrial Features
C	59m SE	Suite F A	Unit 6 Mavros House 95, Vale Road, Tottenham, London, Greater London, N4 1TG	Textiles, Fabrics, Silk and Machinery	Industrial Products
1	62m W	Electricity Sub Station	Greater London, N4	Electrical Features	Infrastructure and Facilities
C	67m SE	Works	Greater London, N4	Unspecified Works Or Factories	Industrial Features
D	69m S	Works	Greater London, N4	Unspecified Works Or Factories	Industrial Features
D	72m S	Salt & Pepper Shoes	Inlay Works, Vale Road, London, Greater London, N4 1TF	Footwear	Consumer Products
A	74m N	Tassia Ltd	167, Hermitage Road, Tottenham, London, Greater London, N4 1LZ	Leather Products	Consumer Products
2	97m NE	K S M Garage Services	1a, Ashfield Road, London, Greater London, N4 1PU	Vehicle Repair, Testing and Servicing	Repair and Servicing
A	98m N	The Albion Knitting Company Ltd	Unit 12 Crusader Industrial Estate 167, Hermitage Road, Tottenham, London, Greater London, N4 1LZ	Textiles, Fabrics, Silk and Machinery	Industrial Products
A	126m N	Trendy Textiles	Unit 11a Crusader Industrial Estate 167, Hermitage Road, London, Greater London, N4 1LZ	Clothing, Components and Accessories	Consumer Products
E	126m E	Factory	Greater London, N4	Unspecified Works Or Factories	Industrial Features
G	138m SE	Y G S Selections Ltd	105, Eade Road, London, Greater London, N4 1TJ	Jewellery, Gems, Clocks and Watches	Consumer Products
G	138m SE	Joe Audio	105, Eade Road, London, Greater London, N4 1TJ	Electronic Equipment	Industrial Products



ID	Location	Company	Address	Activity	Category
G	138m SE	Gross Air Conditionin g Ltd	Tottenham, London, Greater London, N4 1FL	Construction Completion Services	Construction Services
G	142m SE	Ophthalmic Instrument Co Ltd	Oriental Carpet Centre 105, Eade Road, Tottenham, London, Greater London, N4 1TJ	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products
E	146m E	Mogul Jewellery Ltd	Tottenham, London, Greater London, N4 1QE	Jewellery, Gems, Clocks and Watches	Consumer Products
4	177m SW	Daytona Garage	98, Vale Road, London, Greater London, N4 1PZ	Vehicle Repair, Testing and Servicing	Repair and Servicing
E	178m E	Electricity Sub Station	Greater London, N4	Electrical Features	Infrastructure and Facilities
I	188m N	Electricity Sub Station	Greater London, N4	Electrical Features	Infrastructure and Facilities
5	188m SE	Chimney	Greater London, N4	Chimneys	Industrial Features
6	188m N	Arena Business Centre	Greater London, N4	Business Parks and Industrial Estates	Industrial Features
7	200m E	Works	Greater London, N4	Unspecified Works Or Factories	Industrial Features
E	209m E	Storage 4 London	Florentia Clothing Village, Vale Road, London, Greater London, N4 1TD	Container and Storage	Transport, Storage and Delivery
E	209m E	The Sampling Unit	Unit 4, Tavistock Road, Tottenham, London, Greater London, N4 1UP	Clothing, Components and Accessories	Consumer Products
E	209m E	Optical Support	Tavistock Road, Tottenham, London, Greater London, N4 1UP	Photographic and Optical Equipment	Household, Office, Leisure and Garden
E	209m E	Marcos Trimmings	Unit 2, Tavistock Road, Tottenham, London, Greater London, N4 1UP	Textiles, Fabrics, Silk and Machinery	Industrial Products
E	209m E	Harisma	Unit 3 Florentia Clothing Village, Vale Road, London, Greater London, N4 1TD	Clothing, Components and Accessories	Consumer Products
E	209m E	Violetta Couture Ltd	Unit 3, Tavistock Road, Tottenham, London, Greater London, N4 1UP	Clothing, Components and Accessories	Consumer Products
I	216m N	London Art Makers	Unit A2 Arena Business Centre 71, Ashfield Road, Tottenham, London, Greater London, N4 1FF	General Construction Supplies	Industrial Products



ID	Location	Company	Address	Activity	Category
8	227m NW	Specsavers Hearcare	1, Sainsbury's, Williamson Road, Harringay, London, Greater London, N4 1UJ	Disability and Mobility Equipment	Consumer Products
E	232m E	Stenco Cupboards	112, Vale Road, London, Greater London, N4 1PL	Furniture	Consumer Products

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

3

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 38**

ID	Location	Company	Address	LPG	Status
3	129m N	OBSOLETE	13, Ashfield Road, Harringay, London, Inner London, N4 1NY	Not Applicable	Obsolete
K	306m W	SAINSBURYS	Williamson Road, Harringay, London, Inner London, N4 1UJ	No	Open
9	405m W	BP	390, Green Lanes, Harringay, London, Inner London, N4 1DW	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

26

High voltage underground electricity transmission cables.

Features are displayed on the Current industrial land use map on **page 38**

ID	Location	Cable Set	Cable Route	Details	
A	On site	CABLE SECT 24	ST JOHNS WOOD - TOTTENHAM 1	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No
A	On site	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified



ID	Location	Cable Set	Cable Route	Details	
B	1m SE	CABLE SECT 25	ST JOHNS WOOD - TOTTENHAM 1	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No
B	2m SE	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
A	5m SE	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
A	6m SE	CABLE SECT 24	ST JOHNS WOOD - TOTTENHAM 2	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No
B	11m S	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
B	12m S	CABLE SECT 25	ST JOHNS WOOD - TOTTENHAM 2	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No
F	137m S	HACKNEY - HIGHBURY 1 CABLE 1 SECT 01	HACKNEY - HIGHBURY 1	Cable Make: - Cable Type: - Operating Voltage (kV): 0	Year of installation: Not specified Cable in tunnel? Yes
F	137m S	HACKNEY - HIGHBURY 2 CABLE 1 SECT 01	HACKNEY - HIGHBURY 2	Cable Make: - Cable Type: - Operating Voltage (kV): 0	Year of installation: Not specified Cable in tunnel? Yes
H	148m E	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
H	149m E	CABLE SECT 23	ST JOHNS WOOD - TOTTENHAM 2	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No
H	154m NE	CABLE SECT 23	ST JOHNS WOOD - TOTTENHAM 1	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No
H	154m NE	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
J	242m W	CABLE SECT 26	ST JOHNS WOOD - TOTTENHAM 1	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No



ID	Location	Cable Set	Cable Route	Details	
J	242m W	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
J	246m W	CABLE SECT 26	ST JOHNS WOOD - TOTTENHAM 2	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No
J	246m W	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
L	378m NE	CABLE SECT 22	ST JOHNS WOOD - TOTTENHAM 1	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No
L	379m NE	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
L	383m NE	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
L	384m NE	CABLE SECT 22	ST JOHNS WOOD - TOTTENHAM 2	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No
M	436m SW	CABLE SECT 27	ST JOHNS WOOD - TOTTENHAM 2	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No
M	437m SW	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
M	440m SW	-	-	Cable Make: - Cable Type: PILOT Operating Voltage (kV): -	Year of installation: Not specified Cable in tunnel? Not specified
M	440m SW	CABLE SECT 27	ST JOHNS WOOD - TOTTENHAM 1	Cable Make: BICC 275KV OIL Cable Type: A/C Operating Voltage (kV): 275	Year of installation: 1965 Cable in tunnel? No

This data is sourced from National Grid.



4.4 Gas pipelines

Records within 500m	0
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High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0
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Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	0
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Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0
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Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	0
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Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.



4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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

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

Records within 500m

3

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

Features are displayed on the Current industrial land use map on **page 38**

ID	Location	Address	Details	
K	307m W	Sainsbury's Petrol Filling Station, 4 Williamson Road, Haringey, N4 1UJ	Process: Unloading of Petrol into Storage at Service Stations Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
M	455m SW	Arena Fill Station, Green Lanes, N4 1UJ	Process: Petrol Vapour Recovery Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
12	499m NW	Zephyr Dry Cleaners, 59 Grand Parade, Green Lanes, London, N4 1AF	Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m

1

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

Features are displayed on the Current industrial land use map on **page 38**

ID	Location	Address	Details	
11	477m N	St Anns Hospital Nhs Trust, St. Anns Road, London, N15 3TH	Operator: St Anns Hospital Nhs Trust Type: - Permission number: AE8798 Date of approval: 31/03/1991	Effective from: 31/03/1991 Last date of update: 01/01/2015 Status: Revoked/cancelled

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

4.13 Licensed Discharges to controlled waters

Records within 500m

0

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

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

4.14 Pollutant release to surface waters (Red List)

Records within 500m

0

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

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

4.15 Pollutant release to public sewer

Records within 500m

0

Discharges of Special Category Effluents to the public sewer.

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

4.16 List 1 Dangerous Substances

Records within 500m

0

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

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

4.17 List 2 Dangerous Substances

Records within 500m

0

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

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

4.18 Pollution Incidents (EA/NRW)

Records within 500m

1

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 38**

ID	Location	Details	
10	414m NE	Incident Date: 23/09/2003 Incident Identification: 191888 Pollutant: Oils and Fuel Pollutant Description: Gas and Fuel Oils	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

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

4.19 Pollution inventory substances

Records within 500m

0

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

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

4.20 Pollution inventory waste transfers

Records within 500m

0

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

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

4.21 Pollution inventory radioactive waste

Records within 500m

0

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

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



5 Hydrogeology - Superficial aquifer

5.1 Superficial aquifer

Records within 500m

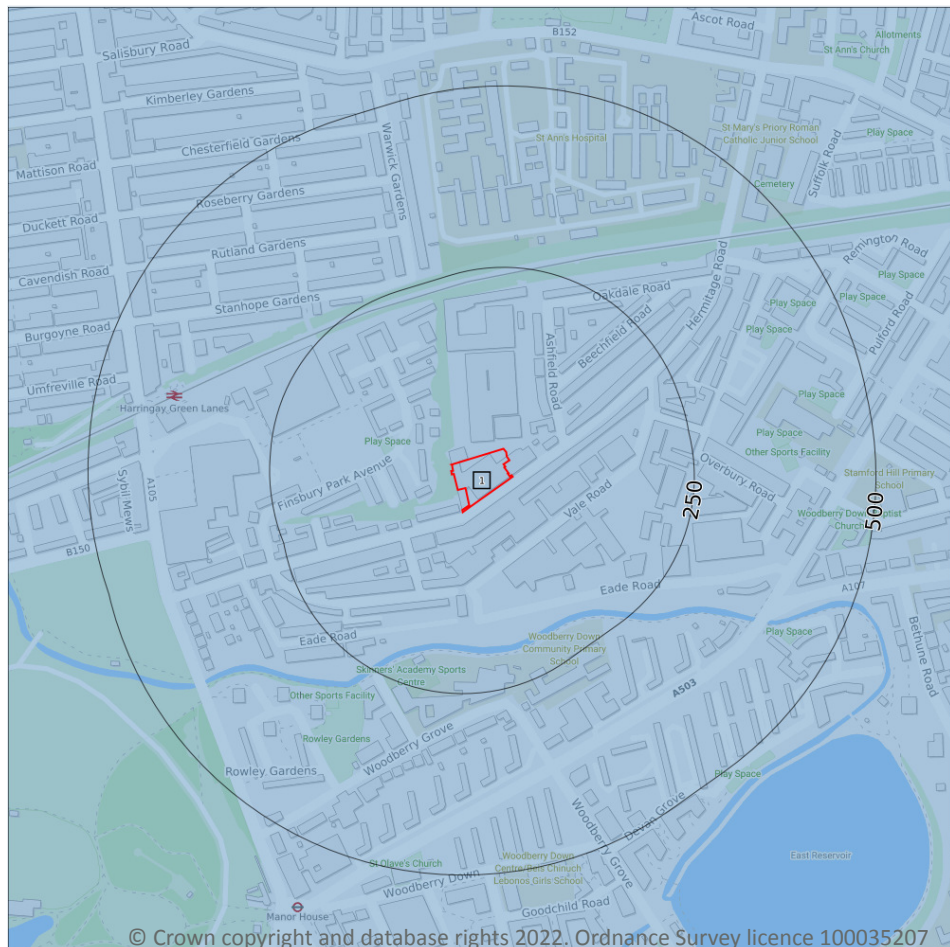
0

Aquifer status of groundwater held within superficial geology.

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



Bedrock aquifer



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

5.2 Bedrock aquifer

Records within 500m

1

Aquifer status of groundwater held within bedrock geology.

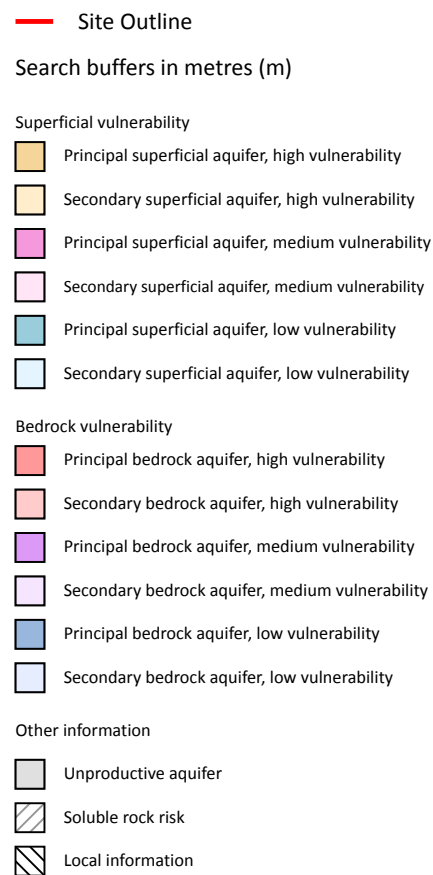
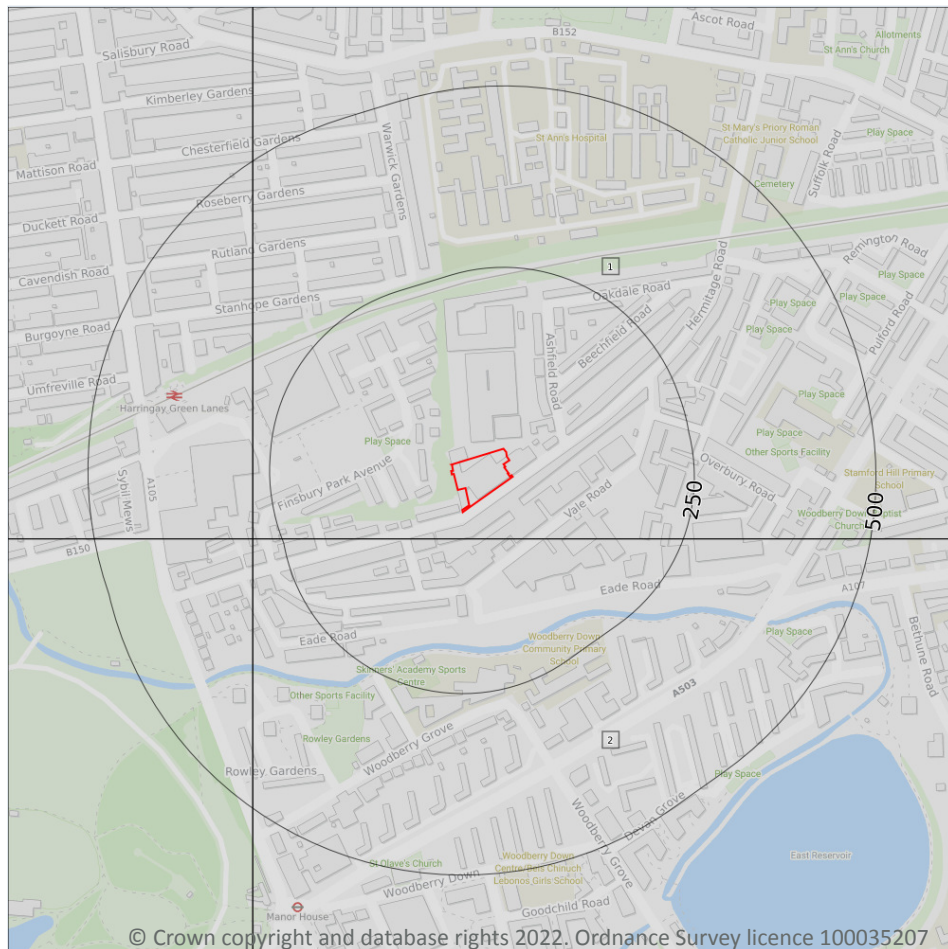
Features are displayed on the Bedrock aquifer map on **page 50**

ID	Location	Designation	Description
1	On site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

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



Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

2

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

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

Features are displayed on the Groundwater vulnerability map on **page 51**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed
2	36m S	Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: 40-70% Dilution value: 300-550mm/year	Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Mixed

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

5.4 Groundwater vulnerability- soluble rock risk

Records on site

0

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

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

5.5 Groundwater vulnerability- local information

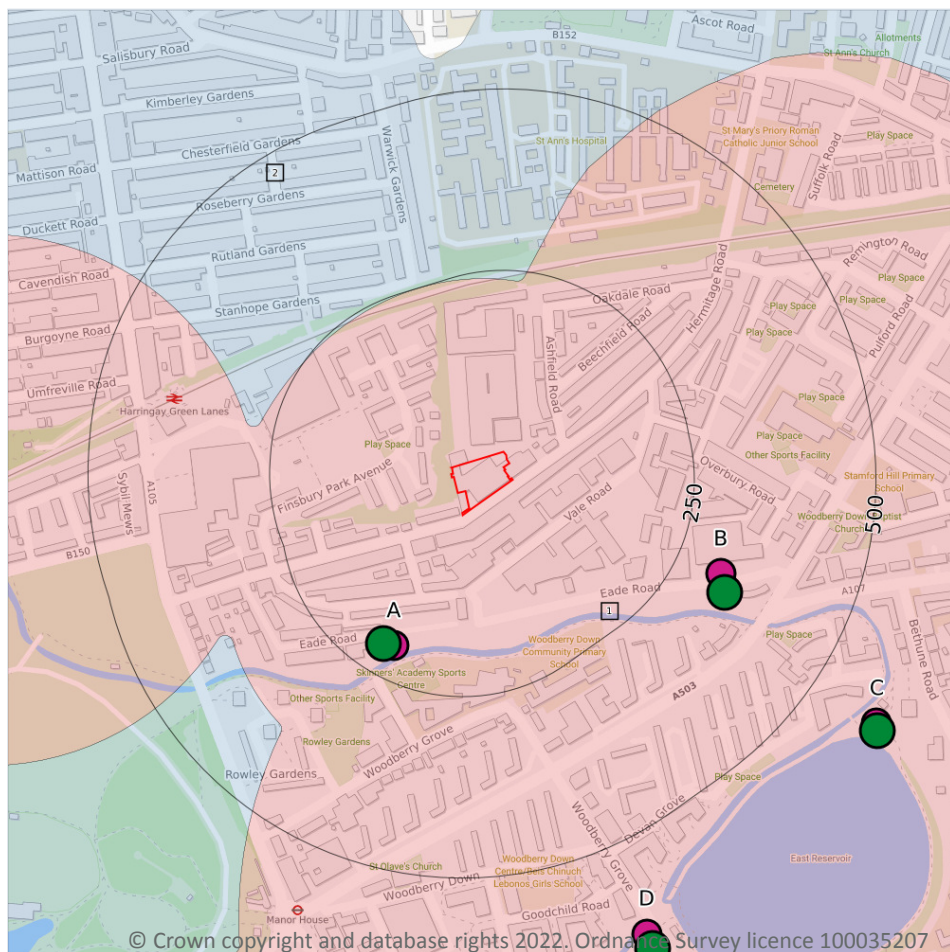
Records on site

0

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

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

Abstractions and Source Protection Zones



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

5.6 Groundwater abstractions

Records within 2000m

19

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 53**

ID	Location	Details	
A	203m SW	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: EADE ROAD WEST - NLARS POINT 39 Data Type: Point Name: Thames Water Utilities Ltd Easting: 532194 Northing: 187857	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -
A	207m SW	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: EADE ROAD EAST - NLARS POINT 39 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 532180 Northing: 187860	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
B	314m SE	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: EADE ROAD EAST - NLARS POINT 18 Data Type: Point Name: Thames Water Utilities Ltd Easting: 532644 Northing: 187956	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -
B	331m SE	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: EADE ROAD, STAMFORD HILL - NLARS POINT 18 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 532650 Northing: 187930	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
C	603m SE	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: BETHUNE ROAD - NLARS POINT 19 Data Type: Point Name: Thames Water Utilities Ltd Easting: 532859 Northing: 187750	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -



ID	Location	Details	
C	609m SE	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: BETHUNE ROAD - NLARS POINT 19 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 532860 Northing: 187740	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
D	629m SE	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: LORDSHIP ROAD - NLARS POINT 20 Data Type: Point Name: Thames Water Utilities Ltd Easting: 532542 Northing: 187460	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -
-	641m W	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: LOTHAIK ROAD SOUTH - NLARS POINT 17 Data Type: Point Name: Thames Water Utilities Ltd Easting: 531635 Northing: 188027	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -
-	647m W	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: LOTHAIK ROAD SOUTH - NLARS POINT 17 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 531630 Northing: 188020	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
D	651m SE	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: LORDSHIP ROAD - NLARS POINT 20 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 532550 Northing: 187440	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -

ID	Location	Details	
-	1010m S	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: GREEN LANES - NLARS POINT 21 Data Type: Point Name: Thames Water Utilities Ltd Easting: 532351 Northing: 187028	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -
-	1028m S	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: GREEN LANES - NLARS POINT 21 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 532340 Northing: 187010	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
-	1439m S	Status: Active Licence No: TH/038/0009/016 Details: Make-Up Or Top Up Water Direct Source: THAMES GROUNDWATER Point: HACKNEY COUNCIL POINT A Data Type: Point Name: Hackney Council Easting: 532430 Northing: 186604	Annual Volume (m ³): 11,220 Max Daily Volume (m ³): 102 Original Application No: NPS/WR/031582 Original Start Date: 18/03/2011 Expiry Date: 31/03/2025 Issue No: 2 Version Start Date: 28/06/2019 Version End Date: -
-	1677m S	Status: Active Licence No: TH/038/0009/016 Details: Make-Up Or Top Up Water Direct Source: THAMES GROUNDWATER Point: HACKNEY Data Type: Point Name: Hackney Council Easting: 532542 Northing: 186379	Annual Volume (m ³): 11,220 Max Daily Volume (m ³): 102 Original Application No: NPS/WR/031582 Original Start Date: 18/03/2011 Expiry Date: 31/03/2025 Issue No: 2 Version Start Date: 28/06/2019 Version End Date: -
-	1754m NE	Status: Historical Licence No: 29/38/09/0194 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BERNIE GRANT ARTS CENTRE-BOREHOLE Data Type: Point Name: BERNIE GRANT CENTRE PARTNERSHIP Easting: 533580 Northing: 189370	Annual Volume (m ³): 25000 Max Daily Volume (m ³): 156 Original Application No: - Original Start Date: 13/11/2006 Expiry Date: 31/03/2013 Issue No: 1 Version Start Date: 13/11/2006 Version End Date: -

ID	Location	Details	
-	1754m NE	Status: Historical Licence No: 29/38/09/0194 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BERNIE GRANT ARTS CENTRE-BOREHOLE Data Type: Point Name: BERNIE GRANT CENTRE PARTNERSHIP Easting: 533580 Northing: 189370	Annual Volume (m ³): 25000 Max Daily Volume (m ³): 156 Original Application No: - Original Start Date: 13/11/2006 Expiry Date: 31/03/2013 Issue No: 1 Version Start Date: 13/11/2006 Version End Date: -
-	1758m NE	Status: Active Licence No: TH/038/0009/052 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: THAMES WATER BOREHOLE AT BERNIE GRANT ARTS CENTRE, TOTTENHAM Data Type: Point Name: Thames Water Utilities Ltd Easting: 533585 Northing: 189371	Annual Volume (m ³): 1,903,200 Max Daily Volume (m ³): 5,200 Original Application No: NPS/WR/024901 Original Start Date: 27/03/2017 Expiry Date: 31/03/2025 Issue No: 1 Version Start Date: 27/03/2017 Version End Date: -
-	1972m NW	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY GATEHOUSE - NLARS POINT 16 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 530780 Northing: 189390	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
-	1973m NW	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY GATEHOUSE - NLARS POINT 16 Data Type: Point Name: Thames Water Utilities Ltd Easting: 530784 Northing: 189397	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -

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



5.7 Surface water abstractions

Records within 2000m

0

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

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

5.8 Potable abstractions

Records within 2000m

17

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

Features are displayed on the Abstractions and Source Protection Zones map on **page 53**

ID	Location	Details	
A	203m SW	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: EADE ROAD WEST - NLARS POINT 39 Data Type: Point Name: Thames Water Utilities Ltd Easting: 532194 Northing: 187857	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -
A	207m SW	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: EADE ROAD EAST - NLARS POINT 39 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 532180 Northing: 187860	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
B	314m SE	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: EADE ROAD EAST - NLARS POINT 18 Data Type: Point Name: Thames Water Utilities Ltd Easting: 532644 Northing: 187956	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -



ID	Location	Details	
B	331m SE	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: EADE ROAD, STAMFORD HILL - NLARS POINT 18 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 532650 Northing: 187930	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
C	603m SE	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: BETHUNE ROAD - NLARS POINT 19 Data Type: Point Name: Thames Water Utilities Ltd Easting: 532859 Northing: 187750	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -
C	609m SE	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: BETHUNE ROAD - NLARS POINT 19 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 532860 Northing: 187740	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
D	629m SE	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: LORDSHIP ROAD - NLARS POINT 20 Data Type: Point Name: Thames Water Utilities Ltd Easting: 532542 Northing: 187460	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -
-	641m W	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: LOTHAIR ROAD SOUTH - NLARS POINT 17 Data Type: Point Name: Thames Water Utilities Ltd Easting: 531635 Northing: 188027	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -



ID	Location	Details	
-	647m W	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: LOTHAIR ROAD SOUTH - NLARS POINT 17 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 531630 Northing: 188020	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
D	651m SE	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: LORDSHIP ROAD - NLARS POINT 20 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 532550 Northing: 187440	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
-	1010m S	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: GREEN LANES - NLARS POINT 21 Data Type: Point Name: Thames Water Utilities Ltd Easting: 532351 Northing: 187028	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -
-	1028m S	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: GREEN LANES - NLARS POINT 21 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 532340 Northing: 187010	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
-	1754m NE	Status: Historical Licence No: 29/38/09/0194 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BERNIE GRANT ARTS CENTRE-BOREHOLE Data Type: Point Name: BERNIE GRANT CENTRE PARTNERSHIP Easting: 533580 Northing: 189370	Annual Volume (m ³): 25000 Max Daily Volume (m ³): 156 Original Application No: - Original Start Date: 13/11/2006 Expiry Date: 31/03/2013 Issue No: 1 Version Start Date: 13/11/2006 Version End Date: -



ID	Location	Details	
-	1754m NE	Status: Historical Licence No: 29/38/09/0194 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: THAMES GROUNDWATER Point: BERNIE GRANT ARTS CENTRE-BOREHOLE Data Type: Point Name: BERNIE GRANT CENTRE PARTNERSHIP Easting: 533580 Northing: 189370	Annual Volume (m ³): 25000 Max Daily Volume (m ³): 156 Original Application No: - Original Start Date: 13/11/2006 Expiry Date: 31/03/2013 Issue No: 1 Version Start Date: 13/11/2006 Version End Date: -
-	1758m NE	Status: Active Licence No: TH/038/0009/052 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: THAMES WATER BOREHOLE AT BERNIE GRANT ARTS CENTRE, TOTTENHAM Data Type: Point Name: Thames Water Utilities Ltd Easting: 533585 Northing: 189371	Annual Volume (m ³): 1,903,200 Max Daily Volume (m ³): 5,200 Original Application No: NPS/WR/024901 Original Start Date: 27/03/2017 Expiry Date: 31/03/2025 Issue No: 1 Version Start Date: 27/03/2017 Version End Date: -
-	1972m NW	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY GATEHOUSE - NLARS POINT 16 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 530780 Northing: 189390	Annual Volume (m ³): - Max Daily Volume (m ³): 275000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 103 Version Start Date: 16/10/2007 Version End Date: -
-	1973m NW	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY GATEHOUSE - NLARS POINT 16 Data Type: Point Name: Thames Water Utilities Ltd Easting: 530784 Northing: 189397	Annual Volume (m ³): 65,700,000 Max Daily Volume (m ³): 275,000 Original Application No: - Original Start Date: 26/06/1995 Expiry Date: - Issue No: 104 Version Start Date: 23/07/2013 Version End Date: -

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



5.9 Source Protection Zones

Records within 500m**2**

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination. Features are displayed on the Abstractions and Source Protection Zones map on **page 53**

ID	Location	Type	Description
1	On site	1	Inner catchment
2	236m N	2	Outer catchment

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

5.10 Source Protection Zones (confined aquifer)

Records within 500m**0**

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

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



6 Hydrology



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

6.1 Water Network (OS MasterMap)

Records within 250m

1

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

Features are displayed on the Hydrology map on **page 63**

ID	Location	Type of water feature	Ground level	Permanence	Name
4	186m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	New River

This data is sourced from the Ordnance Survey.



6.2 Surface water features

Records within 250m

1

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

Features are displayed on the Hydrology map on **page 63**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

1

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

Features are displayed on the Hydrology map on **page 63**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Lee (Tottenham Locks to Bow Locks/Three Mills Locks)	GB106038077852	Lee Lower Rivers and Lakes	London

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

6.4 WFD Surface water bodies

Records identified

1

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

Features are displayed on the Hydrology map on **page 63**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	2050m E	River	Lee (Tottenham Locks to Bow Locks/Three Mills Locks)	GB106038077852	Bad	Fail	Bad	2019

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

6.5 WFD Groundwater bodies

Records on site

0

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

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



7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m**0**

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

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

7.2 Historical Flood Events

Records within 250m**0**

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

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

7.3 Flood Defences

Records within 250m**0**

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

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

7.4 Areas Benefiting from Flood Defences

Records within 250m

0

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

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

7.5 Flood Storage Areas

Records within 250m

0

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

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

River and coastal flooding - Flood Zones

7.6 Flood Zone 2

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

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

7.7 Flood Zone 3

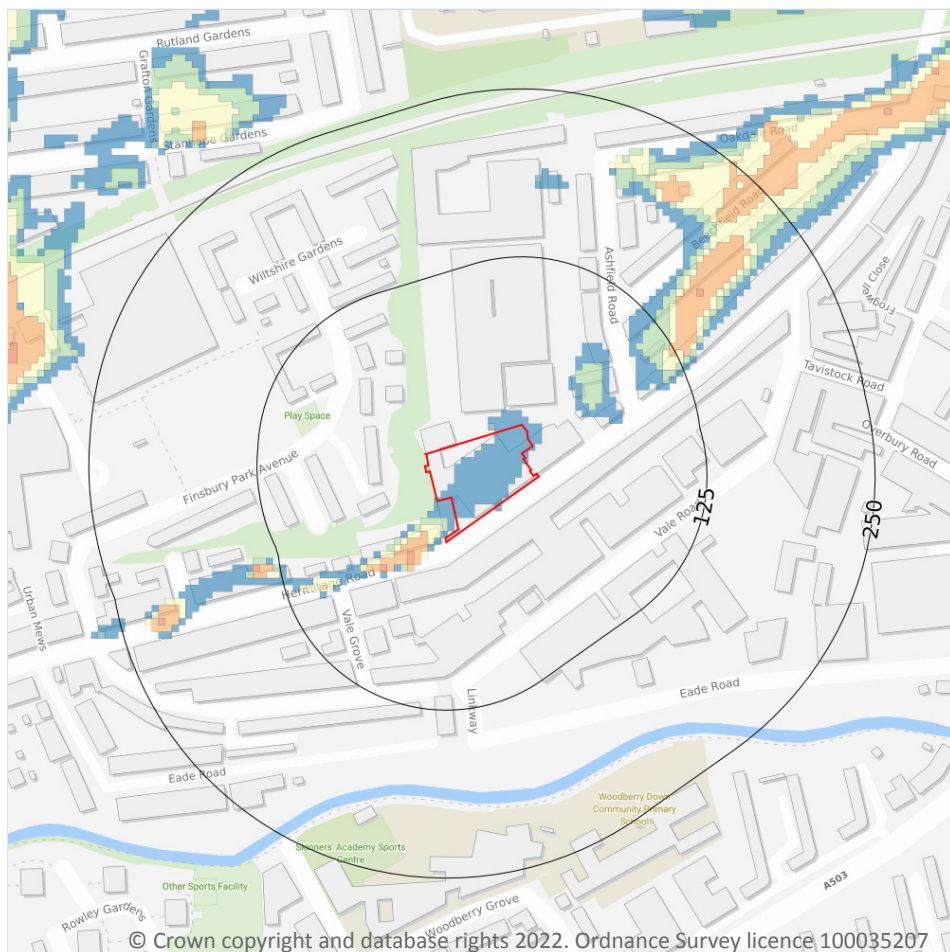
Records within 50m	0
--------------------	---

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

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



8 Surface water flooding



— Site Outline

Search buffers in metres (m)

1 in 1000 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period

- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site

1 in 1000 year, 0.1m - 0.3m

Highest risk within 50m

1 in 30 year, 0.3m - 1.0m

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

Features are displayed on the Surface water flooding map on **page 69**

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

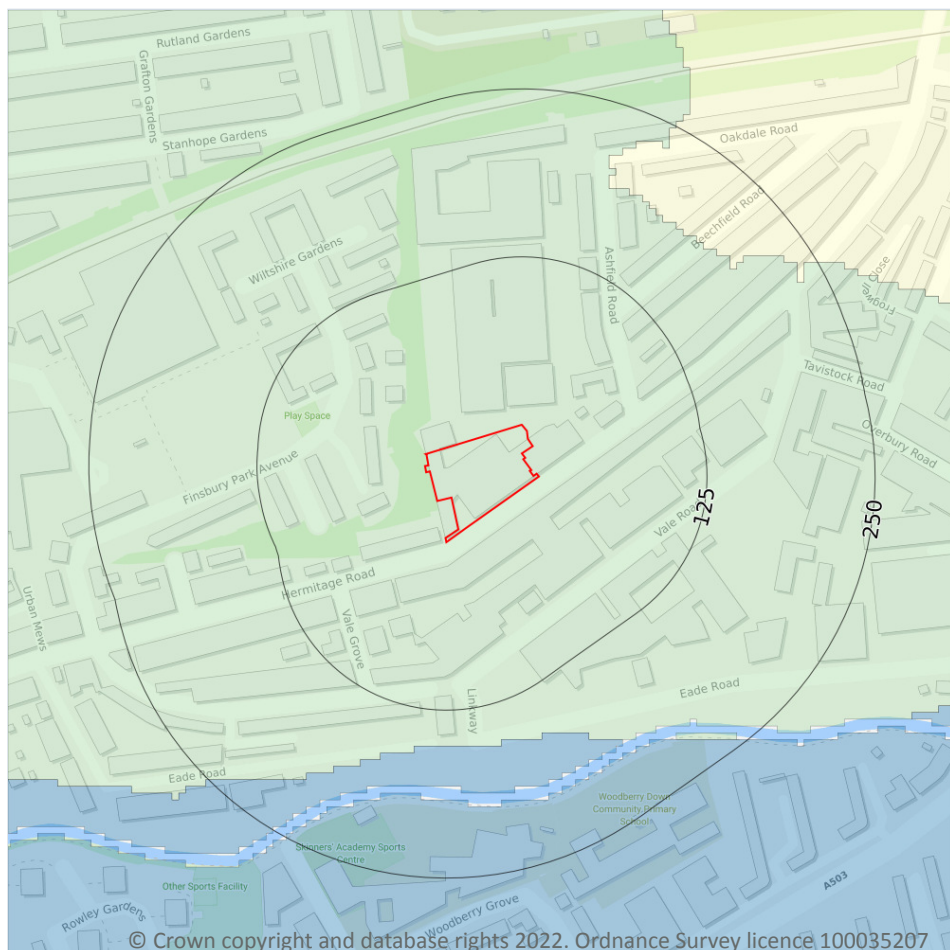
The table below shows the maximum flood depths for a range of return periods for the site.

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

This data is sourced from Ambiantal Risk Analytics.



9 Groundwater flooding



— Site Outline
Search buffers in metres (m)

- High
- Moderate - High
- Moderate
- Low
- Negligible

9.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

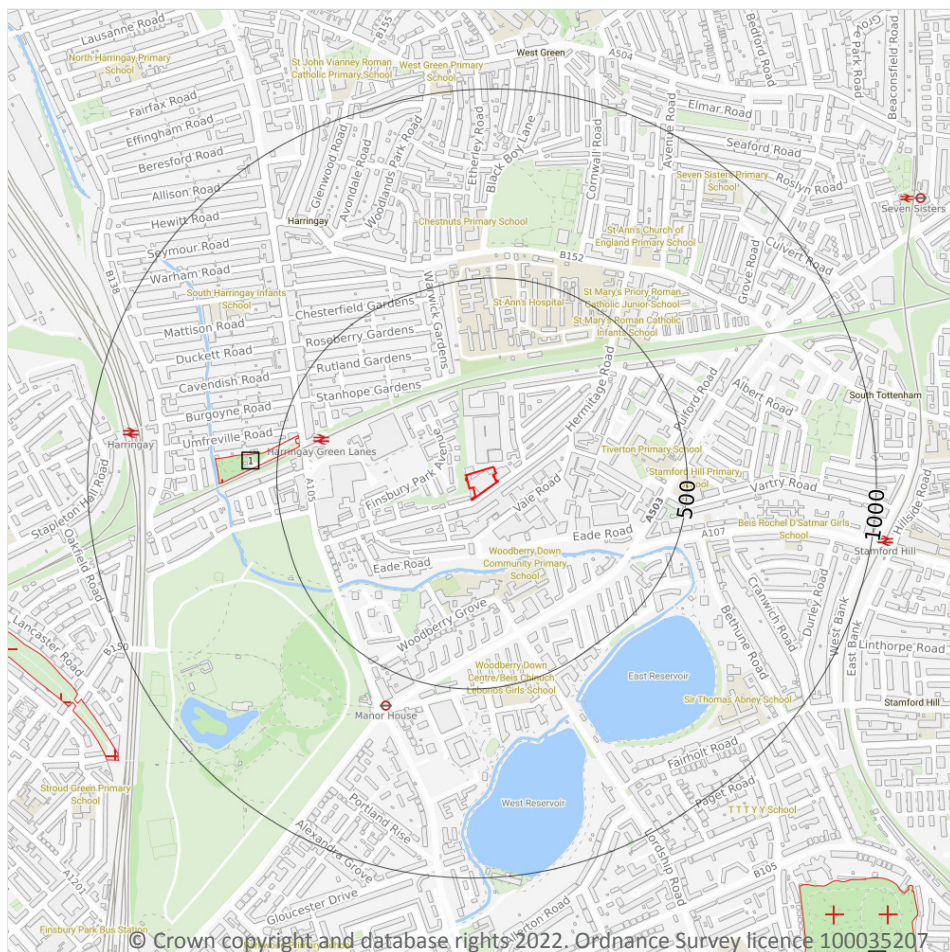
Low

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

Features are displayed on the Groundwater flooding map on **page 71**

This data is sourced from Ambiantal Risk Analytics.

10 Environmental designations



- Site Outline
- Search buffers in metres (m)
- + Local Nature Reserves (LNR)
- / Green Belt

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

0

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

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

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m**0**

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

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

10.3 Special Areas of Conservation (SAC)

Records within 2000m**0**

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

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

10.4 Special Protection Areas (SPA)

Records within 2000m**0**

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

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

10.5 National Nature Reserves (NNR)

Records within 2000m**0**

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

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

10.6 Local Nature Reserves (LNR)

Records within 2000m

4

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

Features are displayed on the Environmental designations map on **page 72**

ID	Location	Name	Data source
1	447m W	Railway Fields	Natural England
2	1149m SW	Parkland Walk	Natural England
3	1335m SE	Abney Park Cemetery	Natural England
-	1604m SW	Gillespie Park	Natural England

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

10.7 Designated Ancient Woodland

Records within 2000m

0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

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

10.8 Biosphere Reserves

Records within 2000m

0

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

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

10.9 Forest Parks

Records within 2000m**0**

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

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m**0**

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

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

10.11 Green Belt

Records within 2000m**1**

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

Features are displayed on the Environmental designations map on **page 72**

ID	Location	Name	Local Authority name
-	1736m E	London	Haringey

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m**0**

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m**0**

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

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

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m**0**

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m**0**

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

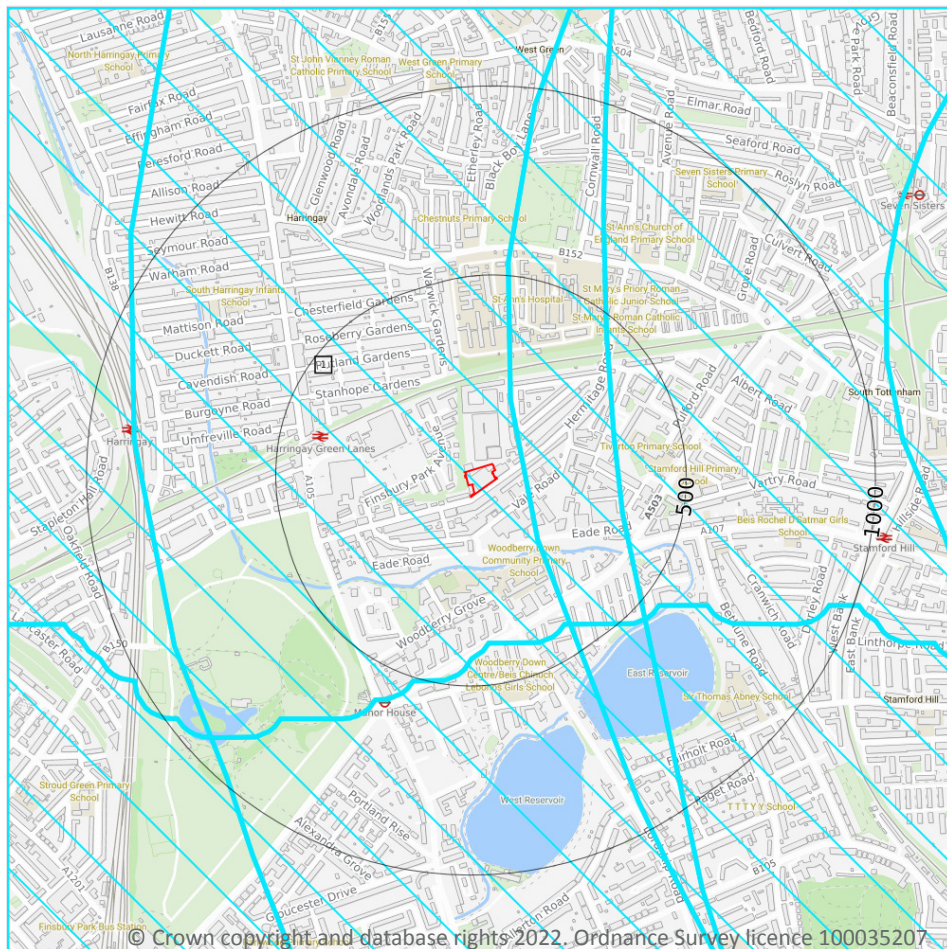
Records within 2000m**0**

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

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



SSSI Impact Zones and Units



- Site Outline
- Search buffers in metres (m)
- SSSI Impact Risk Zones
- SSSI Units
- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site

1

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

Features are displayed on the SSSI Impact Zones and Units map on **page 77**

ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, review of minerals permissions (romp), extensions, variations to conditions etc. oil & gas exploration/extraction. Air pollution - Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t). Combustion - General combustion processes >50mw energy input. incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion. Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.

This data is sourced from Natural England.

10.18 SSSI Units

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

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



11 Visual and cultural designations



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

11.1 World Heritage Sites

Records within 250m

0

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

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

11.2 Area of Outstanding Natural Beauty

Records within 250m**0**

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

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

11.3 National Parks

Records within 250m**0**

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

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

11.4 Listed Buildings

Records within 250m**0**

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

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

11.5 Conservation Areas

Records within 250m**1**

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



Features are displayed on the Visual and cultural designations map on **page 79**

ID	Location	Name	District	Date of designation
1	186m S	Stoke Newington Resvrs, Filter Beds and New River	Hackney	1986

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

11.6 Scheduled Ancient Monuments

Records within 250m

0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

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

11.7 Registered Parks and Gardens

Records within 250m

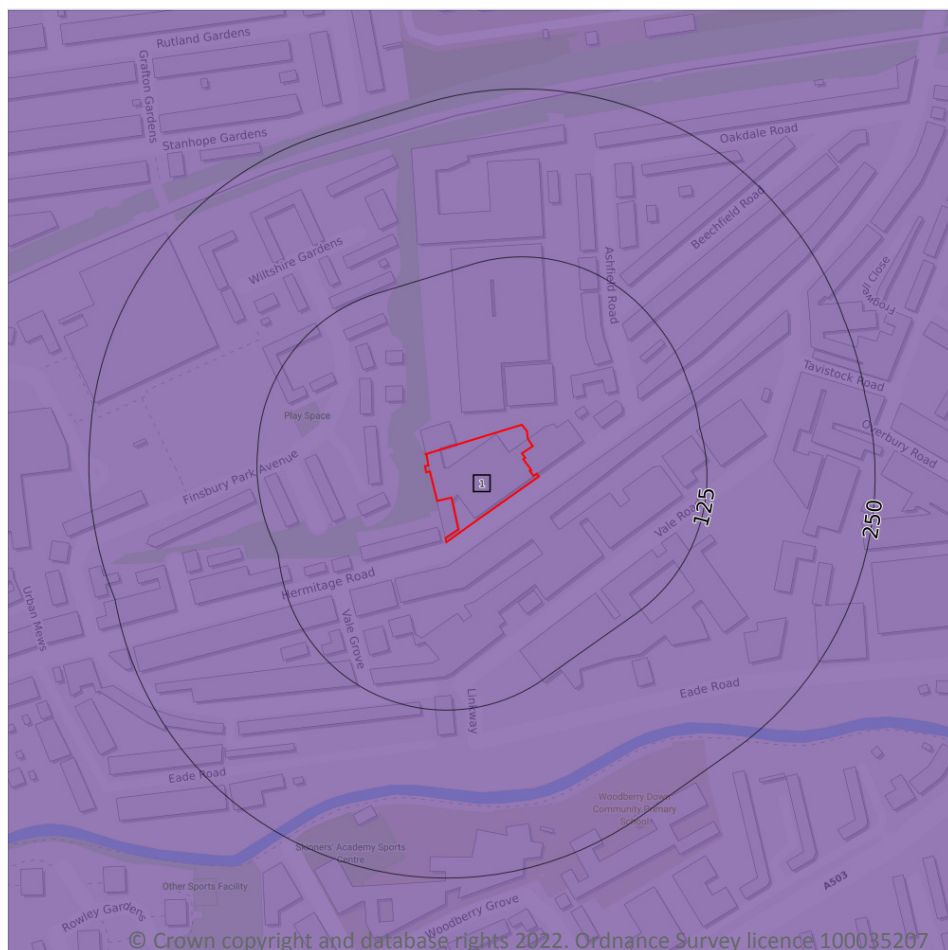
0

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

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



12 Agricultural designations



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

12.1 Agricultural Land Classification

Records within 250m

1

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

Features are displayed on the Agricultural designations map on **page 82**

ID	Location	Classification	Description
1	On site	Urban	-

This data is sourced from Natural England.



12.2 Open Access Land

Records within 250m

0

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

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

12.3 Tree Felling Licences

Records within 250m

0

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

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

0

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

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m

0

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

This data is sourced from Natural England.

13 Habitat designations



- Site Outline
- Search buffers in metres (m)
- Priority Habitat Inventory
- Open Mosaic Habitat
- Limestone Pavement Orders
- Habitat Networks
- Primary Habitat
- Restorable Habitat
- Associated Habitats
- Habitat Restoration-Creation
- Network Enhancement Zone 1
- Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m

1

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

Features are displayed on the Habitat designations map on **page 84**

ID	Location	Main Habitat	Other habitats
2	242m N	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m

0

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

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

1

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

Features are displayed on the Habitat designations map on **page 84**

ID	Location	Site reference	Identification confidence	Primary source	Secondary source	Tertiary source
1	On site	Harringey Stadium slopes	Low	BugLife All Of A Buzz Data	-	-

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

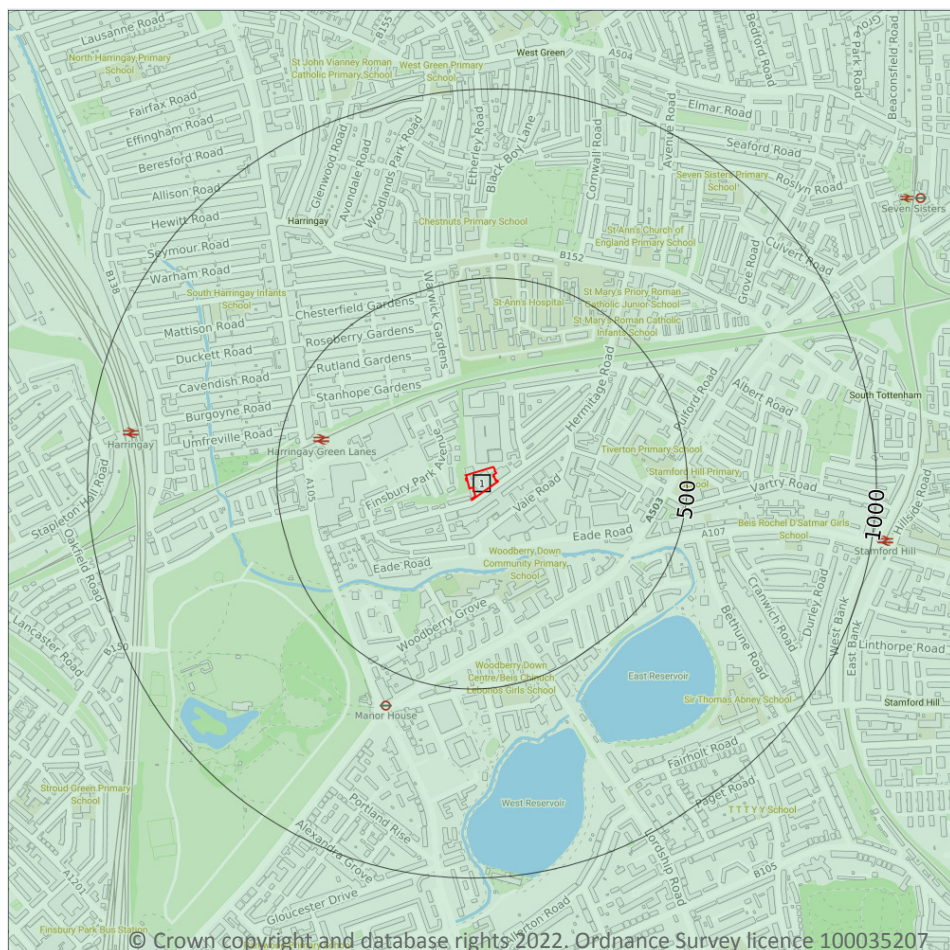
Records within 250m

0

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

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



— Site Outline
Search buffers in metres (m)

- Full coverage
- Partial coverage
- No coverage

14.1 10k Availability

Records within 500m

1

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

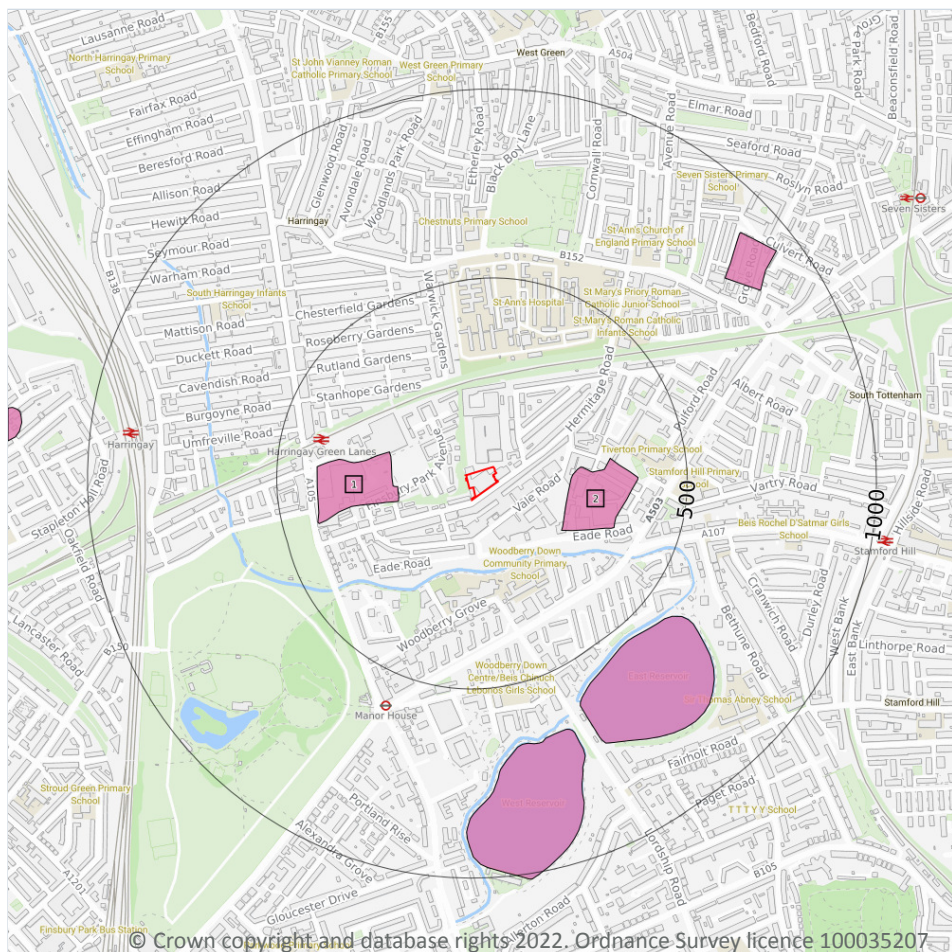
Features are displayed on the Geology 1:10,000 scale - Availability map on **page 86**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	TQ38NW

This data is sourced from the British Geological Survey.



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



— Site Outline
Search buffers in metres (m)

- Reclaimed ground
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m

2

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 87**

ID	Location	LEX Code	Description	Rock description
1	182m W	WGR-UNKNOWN	Worked Ground (Undivided)	Unknown/unclassified Entry
2	188m E	WGR-UNKNOWN	Worked Ground (Undivided)	Unknown/unclassified Entry

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial

14.3 Superficial geology (10k)

Records within 500m

0

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records within 500m

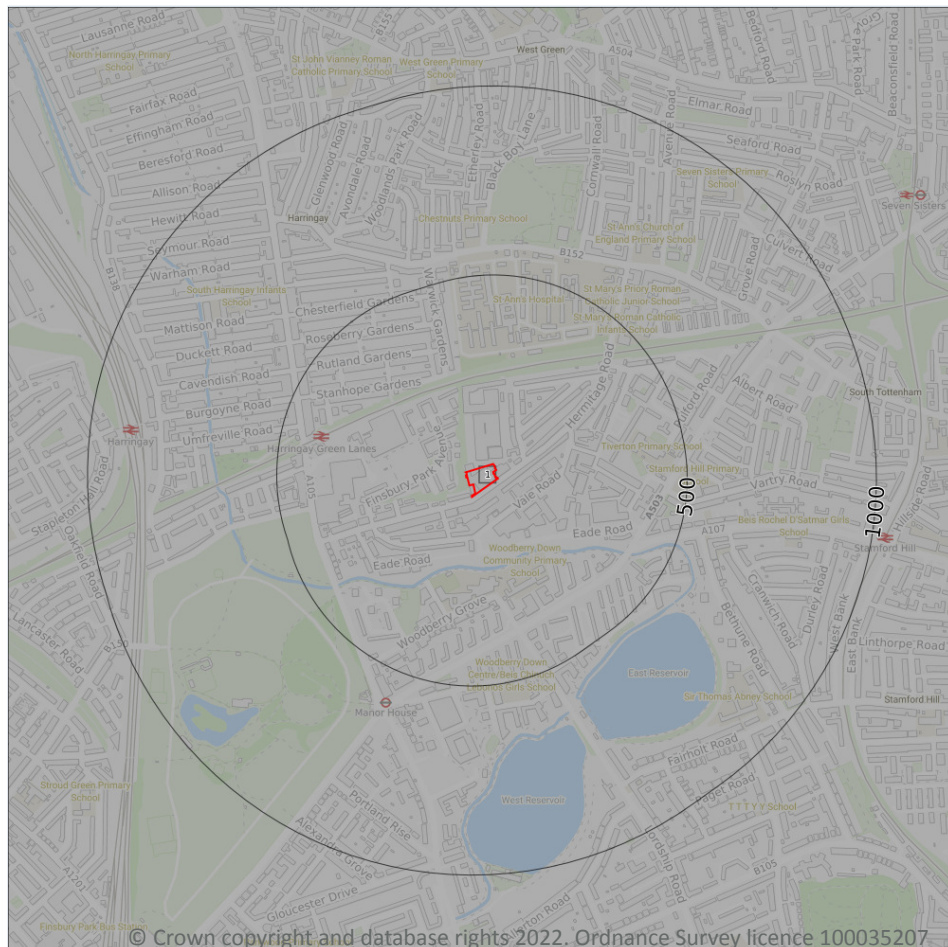
0

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

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Bedrock



— Site Outline

Search buffers in metres (m)

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

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

14.5 Bedrock geology (10k)

Records within 500m

1

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 89**

ID	Location	LEX Code	Description	Rock age
1	On site	LC-CLAY	London Clay Formation - Clay	Eocene Epoch

This data is sourced from the British Geological Survey.



14.6 Bedrock faults and other linear features (10k)

Records within 500m

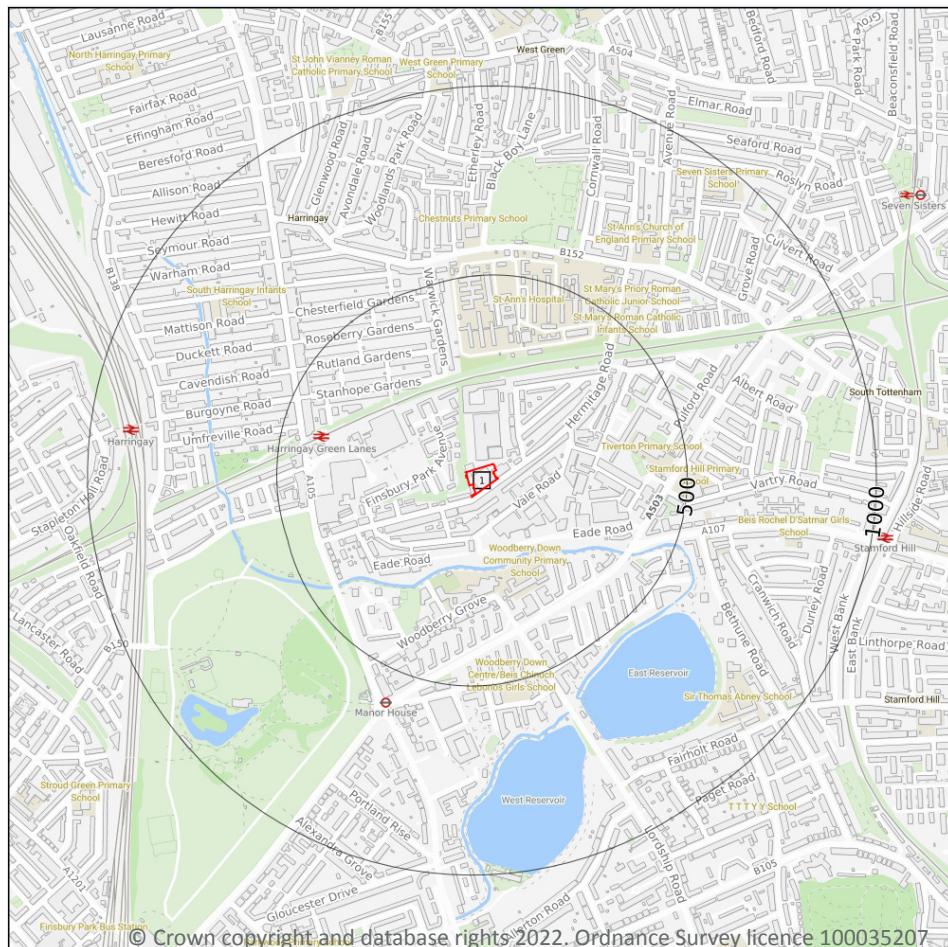
0

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

This data is sourced from the British Geological Survey.



15 Geology 1:50,000 scale - Availability



— Site Outline

Search buffers in metres (m)

□ Geological map tile

15.1 50k Availability

Records within 500m

1

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

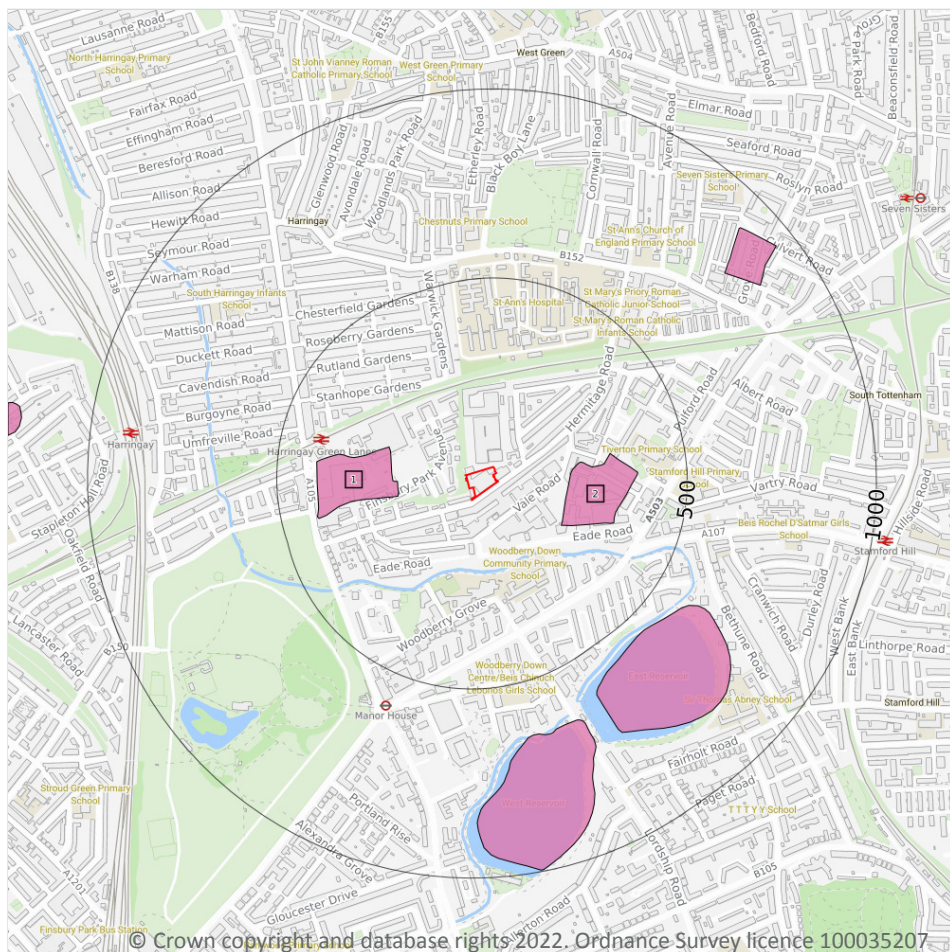
Features are displayed on the Geology 1:50,000 scale - Availability map on **page 91**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW256_north_london_v4

This data is sourced from the British Geological Survey.



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



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

15.2 Artificial and made ground (50k)

Records within 500m

2

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

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 92**

ID	Location	LEX Code	Description	Rock description
1	181m W	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID
2	184m E	WGR-VOID	WORKED GROUND (UNDIVIDED)	VOID

This data is sourced from the British Geological Survey.



15.3 Artificial ground permeability (50k)

Records within 50m

0

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

This data is sourced from the British Geological Survey.



Geology 1:50,000 scale - Superficial

15.4 Superficial geology (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

0

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

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

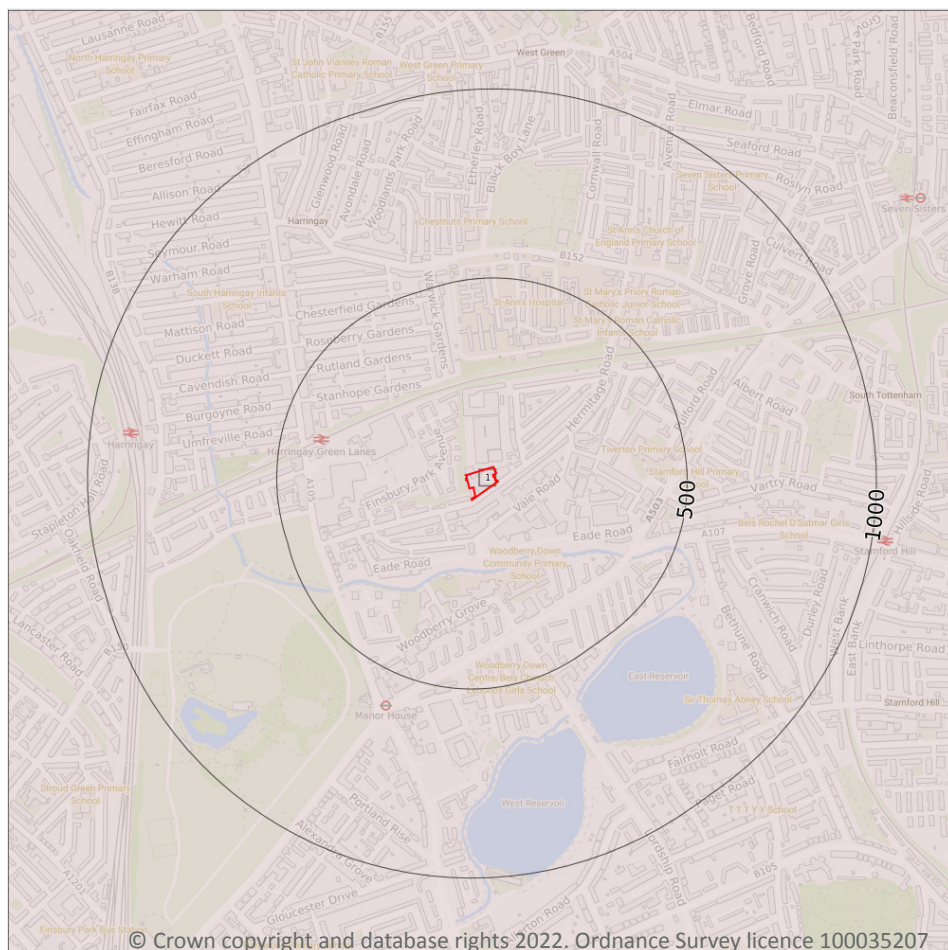
Records within 50m

0

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

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

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

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

15.8 Bedrock geology (50k)

Records within 500m

1

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 95**

ID	Location	LEX Code	Description	Rock age
1	On site	LC-XCZS	LONDON CLAY FORMATION - CLAY, SILT AND SAND	YPRESIAN

This data is sourced from the British Geological Survey.



15.9 Bedrock permeability (50k)

Records within 50m**1**

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

Location	Flow type	Maximum permeability	Minimum permeability
On site	Mixed	Moderate	Very Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m**0**

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

This data is sourced from the British Geological Survey.



16 Boreholes



— Site Outline
Search buffers in metres (m)

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

16.1 BGS Boreholes

Records within 250m

3

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

Features are displayed on the Boreholes map on **page 97**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	176m SE	532370 187880	DRILL CROSSINGS AT TOTTENHAM NEW RIVER/SUFFOLK ROAD LONDON (SOUTH SITE) 1	15.0	N	18376792
2	208m SW	532180 187860	EADE ROAD	-	Y	N/A

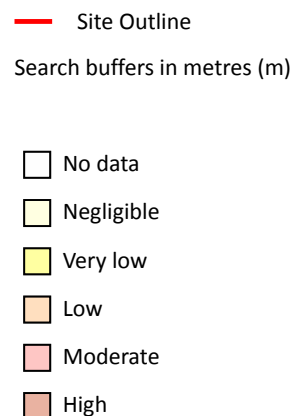
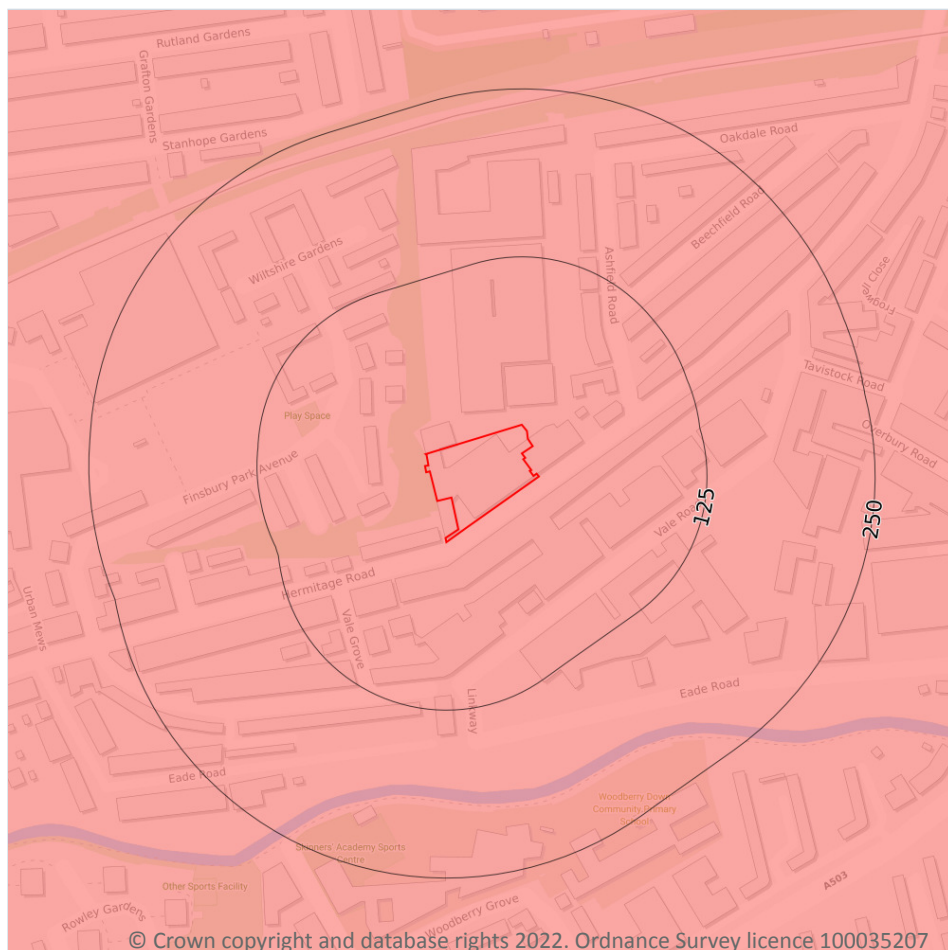


ID	Location	Grid reference	Name	Length	Confidential	Web link
3	225m S	532350 187820	DRILL CROSSINGS AT TOTTENHAM NEW RIVER/SUFFOLK ROAD LONDON (SOUTH SITE) 2	25.0	N	18376793

This data is sourced from the British Geological Survey.



17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m

1

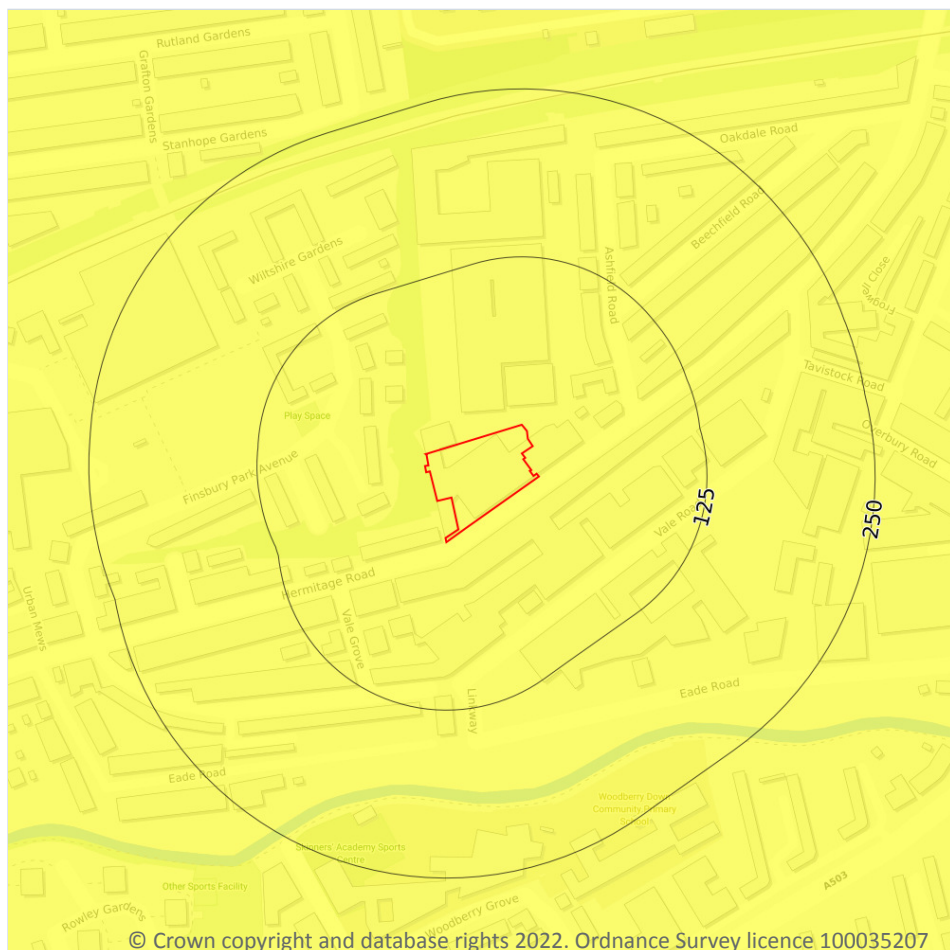
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and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

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 99**

Location	Hazard rating	Details
On site	Moderate	Ground conditions predominantly high plasticity.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



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

17.2 Running sands

Records within 50m

1

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

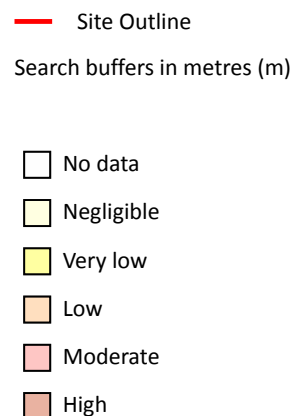
Features are displayed on the Natural ground subsidence - Running sands map on **page 100**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m

1

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

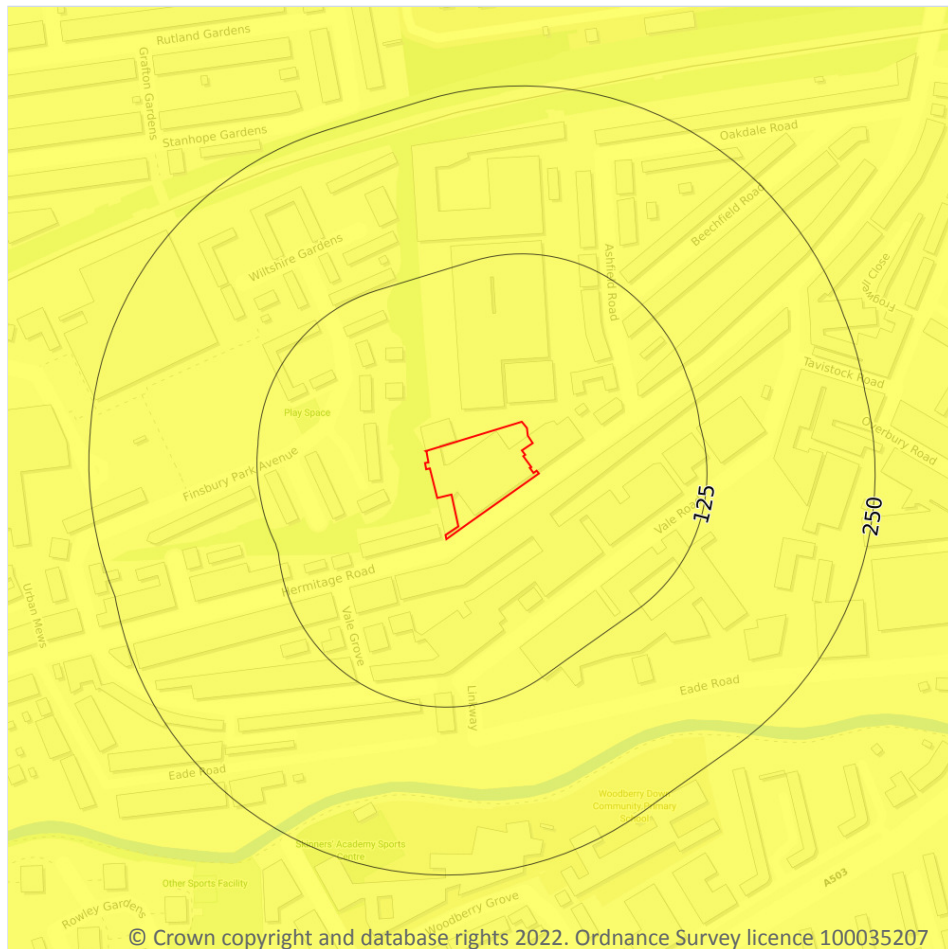
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 101**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Collapsible deposits



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

17.4 Collapsible deposits

Records within 50m

1

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

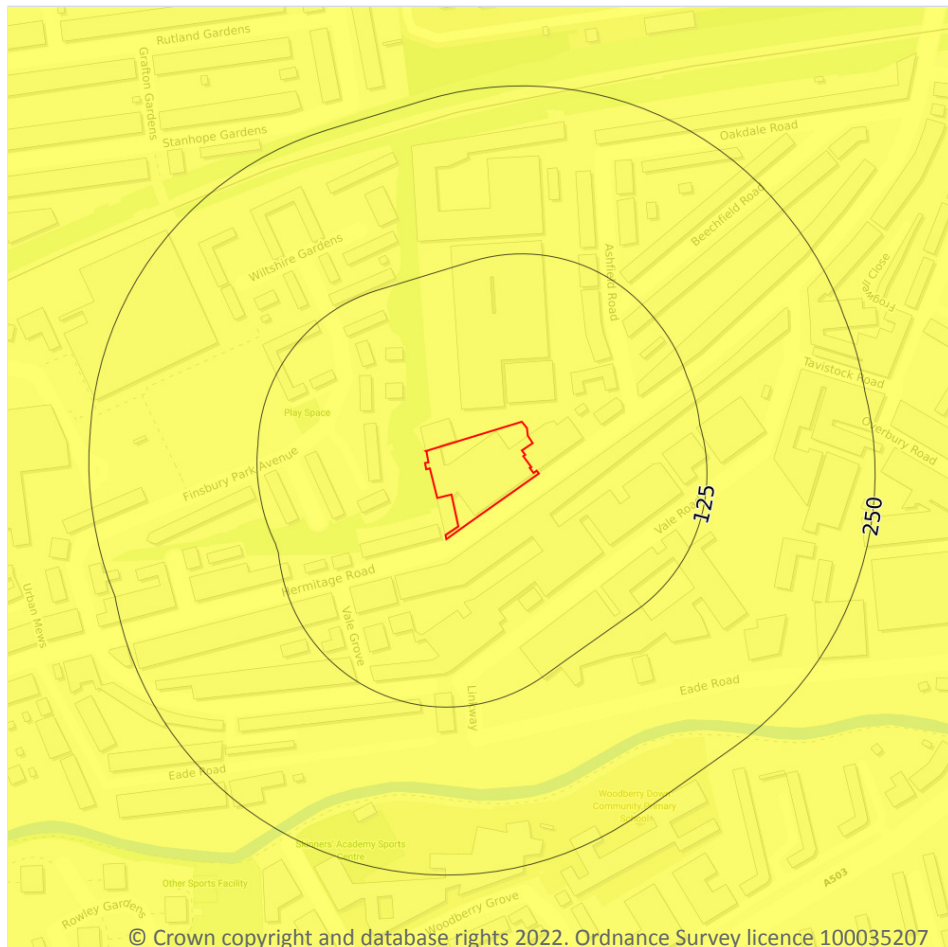
Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 102**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Landslides



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

17.5 Landslides

Records within 50m

1

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

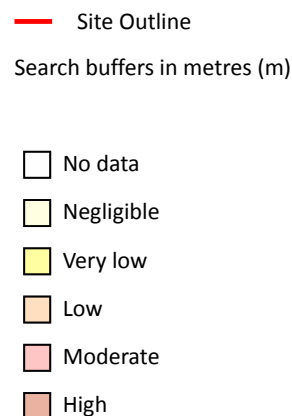
Features are displayed on the Natural ground subsidence - Landslides map on **page 103**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m

1

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

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 104**

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.

This data is sourced from the British Geological Survey.



18 Mining, ground workings and natural cavities



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

18.1 Natural cavities

Records within 500m

0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

18.2 BritPits

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.3 Surface ground workings

Records within 250m

3

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining, ground workings and natural cavities map on **page 106**

ID	Location	Land Use	Year of mapping	Mapping scale
A	186m W	Ponds	1879	1:10560
A	186m W	Ponds	1869	1:10560
1	205m E	Brick Works	1894	1:10560

This data is sourced from Ordnance Survey/Groundsure.

18.4 Underground workings

Records within 1000m

2

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

Features are displayed on the Mining, ground workings and natural cavities map on **page 106**

ID	Location	Land Use	Year of mapping	Mapping scale
-	761m SE	Unspecified Shaft	1989	1:10000
-	761m SE	Unspecified Shaft	1982	1:10000

This data is sourced from Ordnance Survey/Groundsure.



18.5 Historical Mineral Planning Areas

Records within 500m

0

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

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m

0

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

This data is sourced from the British Geological Survey.

18.7 Mining cavities

Records within 1000m

0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

18.8 JPB mining areas

Records on site

0

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

This data is sourced from Johnson Poole and Bloomer.

18.9 Coal mining

Records on site

0

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

This data is sourced from the Coal Authority.



18.10 Brine areas

Records on site	0
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The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

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

18.11 Gypsum areas

Records on site	0
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Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.12 Tin mining

Records on site	0
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Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

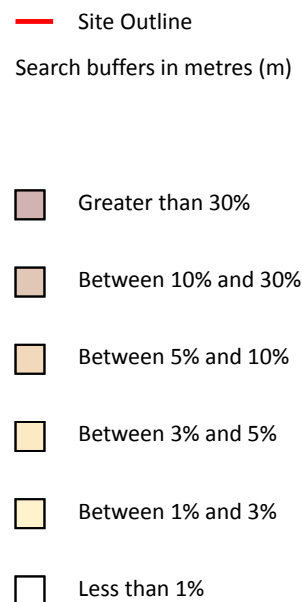
18.13 Clay mining

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

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

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

19 Radon



19.1 Radon

Records on site

1

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

Features are displayed on the Radon map on **page 110**

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

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



20 Soil chemistry

20.1 BGS Estimated Background Soil Chemistry

Records within 50m

3

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	No data	No data	No data	No data	No data	No data	No data
37m SW	No data	No data	No data	No data	No data	No data	No data
37m S	No data	No data	No data	No data	No data	No data	No data

This data is sourced from the British Geological Survey.

20.2 BGS Estimated Urban Soil Chemistry

Records within 50m

8

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

Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
On site	19	3.3	729	501	0.8	78	121	33	94
On site	20	3.5	673	462	0.8	76	122	32	108
On site	21	3.7	780	536	0.9	75	147	35	151
On site	21	3.7	715	491	1	72	155	34	200
37m SW	17	3	494	339	0.6	80	84	28	52
38m S	17	3	579	398	0.6	82	89	29	51



Location	Arsenic (mg/kg)	Bioaccessible Arsenic (mg/kg)	Lead (mg/kg)	Bioaccessible Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Nickel (mg/kg)	Tin (mg/kg)
42m E	20	3.5	810	556	0.8	81	122	34	77
45m NE	21	3.7	813	559	0.9	79	138	36	109

This data is sourced from the British Geological Survey.

20.3 BGS Measured Urban Soil Chemistry

Records within 50m

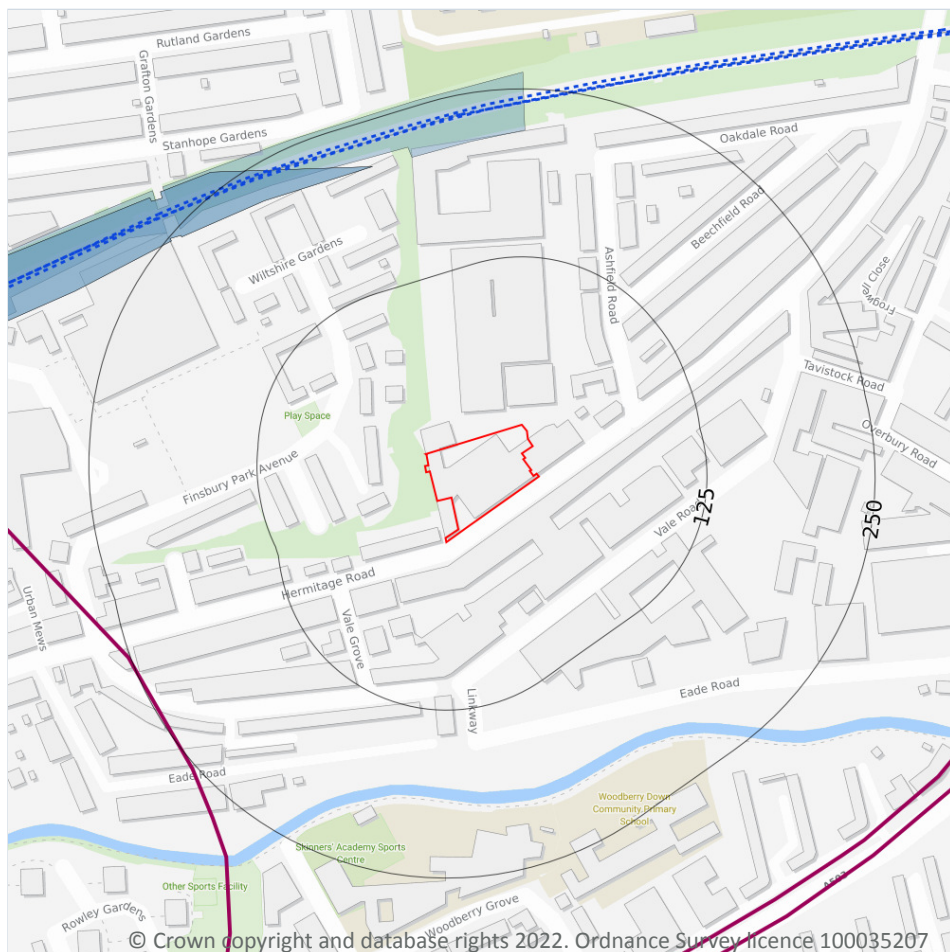
0

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

This data is sourced from the British Geological Survey.



21 Railway infrastructure and projects



- Site Outline
- Search buffers in metres (m)**
- C1 Crossrail 1 Stations
- Crossrail 1 Route
- Crossrail 1 Worksites
- C2 Crossrail 2 Stations
- Crossrail 2 Route
- Crossrail 2 Worksites
- Crossrail 2 Safeguarding
- Crossrail 2 Headhouses
- Railway stations
- Active railways
- Active tunnels
- Abandoned railways
- Historic railways
- Historic tunnels
- Underground stations
- Underground Lines
- Royal Mail tunnels
- HS2 optimised route
- HS2 Stations
- HS2 Depots
- HS2 Surface Safeguarding
- HS2 Subsurface Safeguarding

21.1 Underground railways (London)

Records within 250m

1

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

Features are displayed on the Railway infrastructure and projects map on **page 113**

Location	Line Name	Line Section	Track Type	Depth (m bgl)	Operational hours
248m SW	Piccadilly Line	Piccadilly Line	Tunnel	12.1	Mon-Thu: Early 0449 Late 0059, Fri-Sat: 24hr service, Sun: Late 0056

This data is sourced from publicly available information by Groundsure.



21.2 Underground railways (Non-London)

Records within 250m**0**

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

This data is sourced from publicly available information by Groundsure.

21.3 Railway tunnels

Records within 250m**0**

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

21.4 Historical railway and tunnel features

Records within 250m**3**

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

Features are displayed on the Railway infrastructure and projects map on **page 113**

Location	Land Use	Year of mapping	Mapping scale
214m N	Railway	1915	-
216m N	Railways	1896	-
216m N	Railways	1870	-

This data is sourced from Ordnance Survey/Groundsure.

21.5 Royal Mail tunnels

Records within 250m**0**

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

This data is sourced from Groundsure/the Postal Museum.



21.6 Historical railways

Records within 250m**0**

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

This data is sourced from OpenStreetMap.

21.7 Railways

Records within 250m**5**

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways. Features are displayed on the Railway infrastructure and projects map on **page 113**

Location	Name	Type
234m N	Gospel Oak to Barking Line	rail
235m N	Not given	Multi Track
235m N	Not given	Multi Track
235m N	Not given	Multi Track
237m N	Gospel Oak to Barking Line	rail

This data is sourced from Ordnance Survey and OpenStreetMap.

21.8 Crossrail 1

Records within 500m**0**

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

This data is sourced from publicly available information by Groundsure.

21.9 Crossrail 2

Records within 500m**0**

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

This data is sourced from publicly available information by Groundsure.

21.10 HS2

Records within 500m

0

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

This data is sourced from HS2 Ltd.



Data providers

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

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: <https://www.groundsure.com/terms-and-conditions-jan-2020/>.

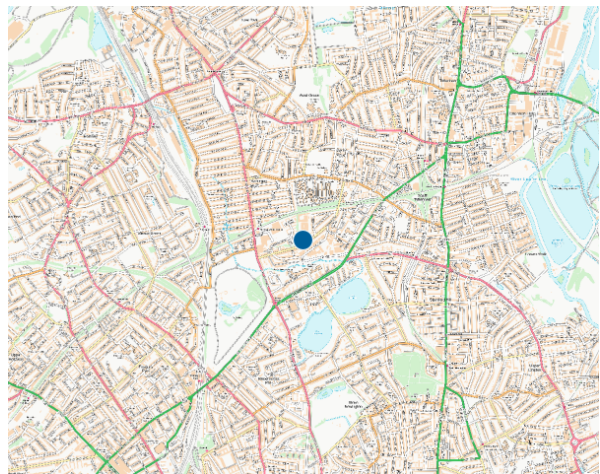
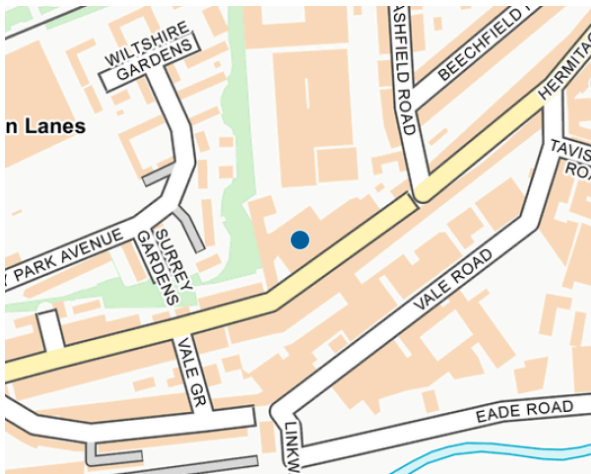


APPENDIX E:

Preliminary

UXO Report

Preliminary Unexploded Ordnance Risk Assessment



Project: UNIT A, OMEGA WORKS, HERMITAGE ROAD, TOTTENHAM,
LONDON, N4 1LZ
Groundsure Ref: GS-8685355

Report prepared by SafeLane Global and FIND Mapping Limited

Report reference: 504972

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Preliminary Unexploded Ordnance Threat Assessment

For:

UNIT A, OMEGA WORKS, HERMITAGE ROAD, TOTTENHAM, LONDON, N4 1LZ

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1 Has a potential unexploded ordnance (UXO) risk been identified at the site in question?

YES

Indicative British / Allied UXO Risk

LOW-MEDIUM

Indicative German UXO Risk

HIGH

2 Does the site in question require further research to clarify the unexploded ordnance (UXO) risk to future ground works?

YES

3 SafeLane Global's recommendation:

A Stage 2 Detailed Unexploded Ordnance Desktop Threat Assessment of the site is carried out.

To request a quotation please call SafeLane Global on 01634 471 340

If you order the recommended Stage 2 Detailed Desktop Threat Assessment, you will be refunded the fee for this BombRisk Preliminary Threat Assessment.

About SafeLane Global Limited

Operational for over 30 years for 10,000+ clients, SafeLane Global supports the UK construction industry with its BombRisk service. This assesses the risk of encountering items of unexploded ordnance (UXO) during intrusive works.

SafeLane Global's specialist advice provides essential information for risk assessments, improving safety and enhancing reputations, helping contractors avoid costly delays.

SafeLane Global holds the following accreditations:

- **Occupational Health & Safety Management Systems (OHAS 18001:2007)**
- **Environmental Management Systems (ISO 14001:2004)**
- **Quality Management Systems (ISO 9001:2008).**

The risk of encountering UXO on most sites in the UK is low. However, where a site is at increased risk it is necessary to take measures to mitigate that risk. The factors affecting UXO risk assessment are based upon the history and previous usage of a site and its surroundings.

In 2009, the Construction Industry Research and Information Association (CIRIA) established a set of guidelines to assist industry professionals; SafeLane Global was a significant contributor to the guide, under former company name Dynasafe BACTEC.

CIRIA recommends a four-stage risk management process:

- **Preliminary risk assessment**
- **Detailed risk assessment**
- **Risk mitigation**
- **Implementation**

The preliminary risk assessment enables a non-UXO specialist to place a site in context and to identify whether a more detailed assessment is necessary. The assessment is based upon data obtained from desktop reviews of the site's history and its proximity to potential indicators of UXO contamination.

There are two principal groups of onshore UXO in the UK:

- **British / Allied army, air force and navy activities - domestic military activity**
- **Enemy bombing during WWI and WWII - aerial bombing and naval bombardment**

These two groups comprise many potential UXO risk contributing sources within the UK, the most significant of which are listed below. Georeferenced databases containing this information are used

by BombRisk.com to identify areas of potentially elevated UXO risk.

- **Historic army, navy and air-force facilities**
- **Explosives / ammunition factories**
- **Munitions storage depots**
- **Historic military training areas and firing ranges**
- **British army explosive ordnance clearance tasks / recces**
- **WWII heavy anti-aircraft batteries**
- **WWII anti-invasion defensive fortifications**
- **Miscellaneous WWII pipe mined locations**
- **WWII prisoner of war camps**
- **WWII German bombing density statistics**
- **WWII bombing decoy sites**
- **Press articles regarding UXO finds**
- **Locations of SafeLane Global UXO finds**
- **Locations of SafeLane Global desktop threat assessments**
- **Locations of SafeLane Global on-site support services**

About FIND Mapping Limited

Established in 2006, FIND Mapping Limited is a pioneering web mapping and spatial data technology company offering online mapping and consultancy services. FIND technology powers the generation of this report.

www.findmaps.co.uk provides detailed mapping and a wealth of data sets to hundreds of the UK's top property, environmental and design/build companies.

FIND's consultancy services provide bespoke internet mapping solutions to a range of businesses enabling them to manage their spatial data more effectively.

While working closely with a wide range of reputable data providers including Ordnance Survey and the Environment Agency, FIND works independently of these organisations. A similar arm's-length relationship is maintained in terms of software and hardware providers. This enables the team at FIND to offer truly independent advice.

SafeLane Global Limited and FIND have compiled a geo-referenced database of potential sources of UXO risk within the UK. From this information a range of risk zones have been defined.

The weighting of these zones is based upon the influence of all relevant factors. A WWII-era RAF airfield, for example, has a far greater zone of influence than a single WWII-era anti-aircraft battery, as it would have covered a larger area, housed a much greater quantity / variety of munitions, seen more domestic troop training activities and would have been a more likely target for enemy bombers.

An online Preliminary Automated UXO Threat Assessment will determine an indicative level of UXO risk relating to a site. Note that these risk levels could be subject to change following the completion of any Detailed Desktop Threat Assessment for the same site.

The assessment will list all factors contributing to this weighting and will also give appropriate recommendations for further action, if considered necessary.

London during WWII

As a Capital city, London was an obvious target for the Luftwaffe. The city was home to the British government, the largest docks system in the UK and numerous historic and cultural monuments.

The night time carpet bombing Blitz on London began on 7th September 1940 with concentrated attacks coming to an end in May 1941 as the Luftwaffe was diverted east to prepare for "Operation Barbarossa"; the invasion of the Soviet Union. By the end of the war London had become the most heavily bombed city in Britain. Between 1940 and 1945 there were a total of 71 "major" air raids on the city, resulting in an estimated 190,000 bombs dropped; approximately 18,000 tons. This left some 29,000 people dead.

During 1942 and 1943 there were a number of minor intruder raids carried out by small formations of fighter bombers and then between January and May 1944 the Luftwaffe returned to London in mass, for Operation Steinbock, a series of large Blitz style raids.

From mid-1944 the V-weapon (for Vengeance) campaign, using unmanned cruise missiles and rockets carrying 1,000kg warheads, represented Hitler's final attempt to reverse Germany's imminent defeat. The V1 (Flying Bomb or Doodlebug) and the V2 (Long Range Rocket) were launched from bases in Germany and occupied Europe. Totals of 2,419 V1s and 517 V2s were recorded in the London Civil Defence region.

The map included at the end of this report shows the high explosive bombs recorded falling in the region of the site on the available bomb census mapping for the area. Please note that this information comes from a single source and should not be considered definitive in its accuracy or coverage.

SafeLane Global Limited's UXO Source Database

Within 10km of the site the following potential sources of explosive ordnance have been recorded:

Source	Number within 10km
Abandoned Bombs	16
Press Articles Regarding UXO Finds	11
WWII Defence Related Positions & Pillboxes	108
Historic Army Camps	5
Prisoner of War Camps	3
Heavy Anti-Aircraft Batteries	19
Army Explosive Ordnance Clearance Tasks/Recces	38
Sites Related to the Manufacture of Explosives and Explosive Ordnance	7
SafeLane Global Desk-top Threat Assessments	357
Military Airfield Facilities	None recorded
Bombing Decoy Sites	None recorded
Military Training Areas and Firing Ranges	None recorded
Pipe Mined WWII Airfields	None recorded
Miscellaneous WWII Pipe Mined Locations	None recorded
SafeLane Global Unexploded Ordnance Finds	None recorded
SafeLane Global On-Site Support Services	None recorded

Of these sources, the following are deemed the most significant:

Abandoned Bombs

Description	Approximate distance (km) from site
Unknown size, No. 9 Filter bed, Metropolitan Waterworks, Green Lane. Exact location unknown	1

An Abandoned Bomb (AB) is a suspected unexploded WWII bomb or anti-aircraft projectile recorded during 1940-1945, but not definitively located/removed at the time.

A typical post-air raid survey of buildings, facilities and installations included a search for evidence of bomb entry holes. Where entry holes were identified, a bomb disposal team would usually be called upon to locate, render safe and dispose of any unexploded bomb (UXB). However, when the position of a UXB was considered relatively benign, where access was problematic or resources short, the UXB

may not have been exposed and rendered safe. Such incidents were noted AB.

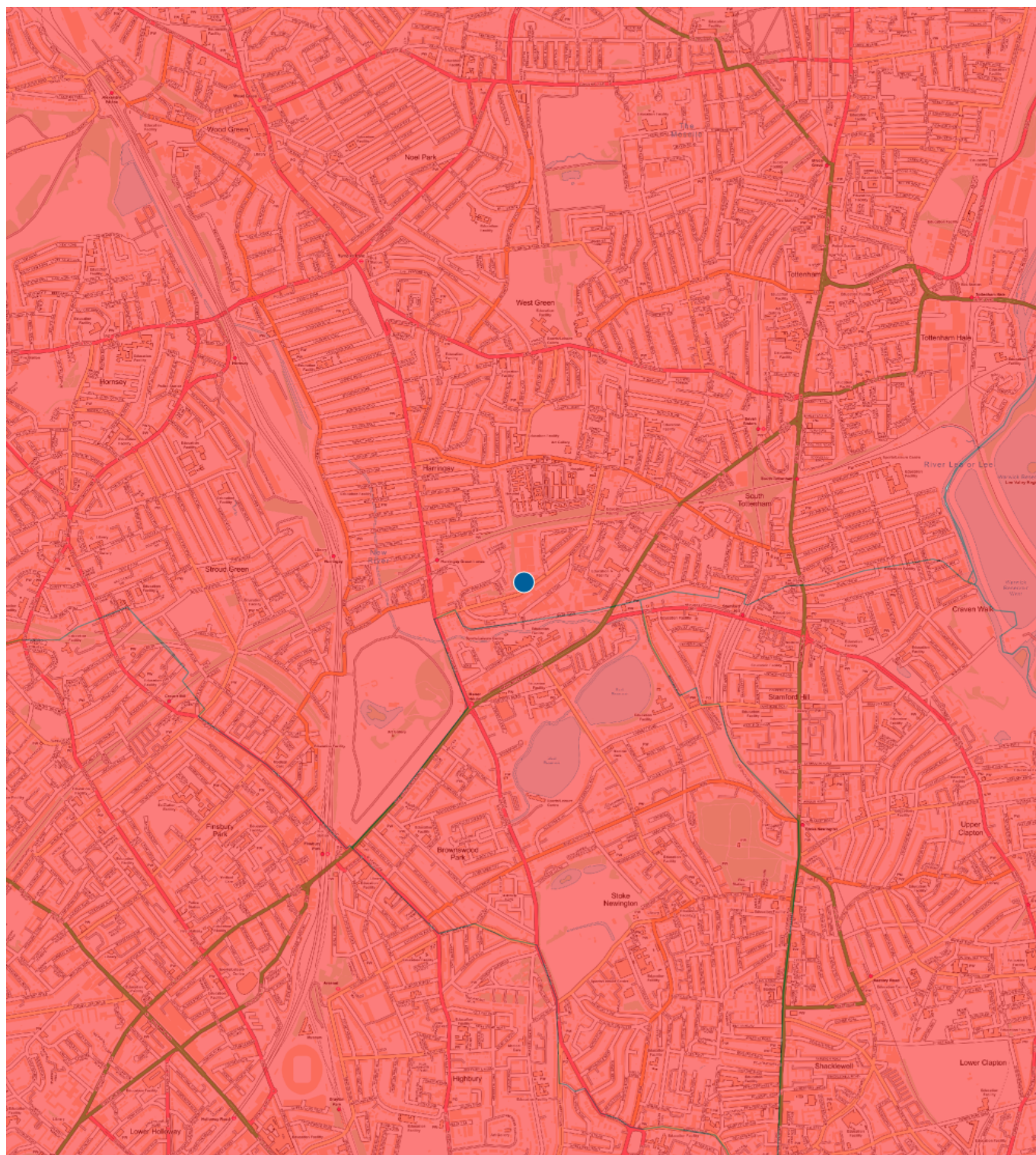
Given the inaccuracy of WWII records the location of ABs cannot be considered definitive. The geographic location of ABs must therefore be regarded as approximate.

SafeLane Global Desk-top Threat Assessments

Number of SafeLane Global Threat Assessments in the local area	Determined risk level at site
1 assessment	Medium - High

It should be noted that not all of the above Threat Assessments have contributed to the final risk score for this report.

SafeLane Global has researched and produced full explosive ordnance threat assessments for over 1,300 sites in the UK. Our database shows that the above assessments have been carried out on sites nearby. These sites were rated as either Low-Medium risk or Medium-High risk.

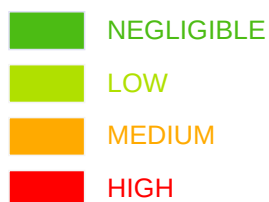


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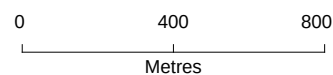
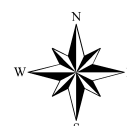
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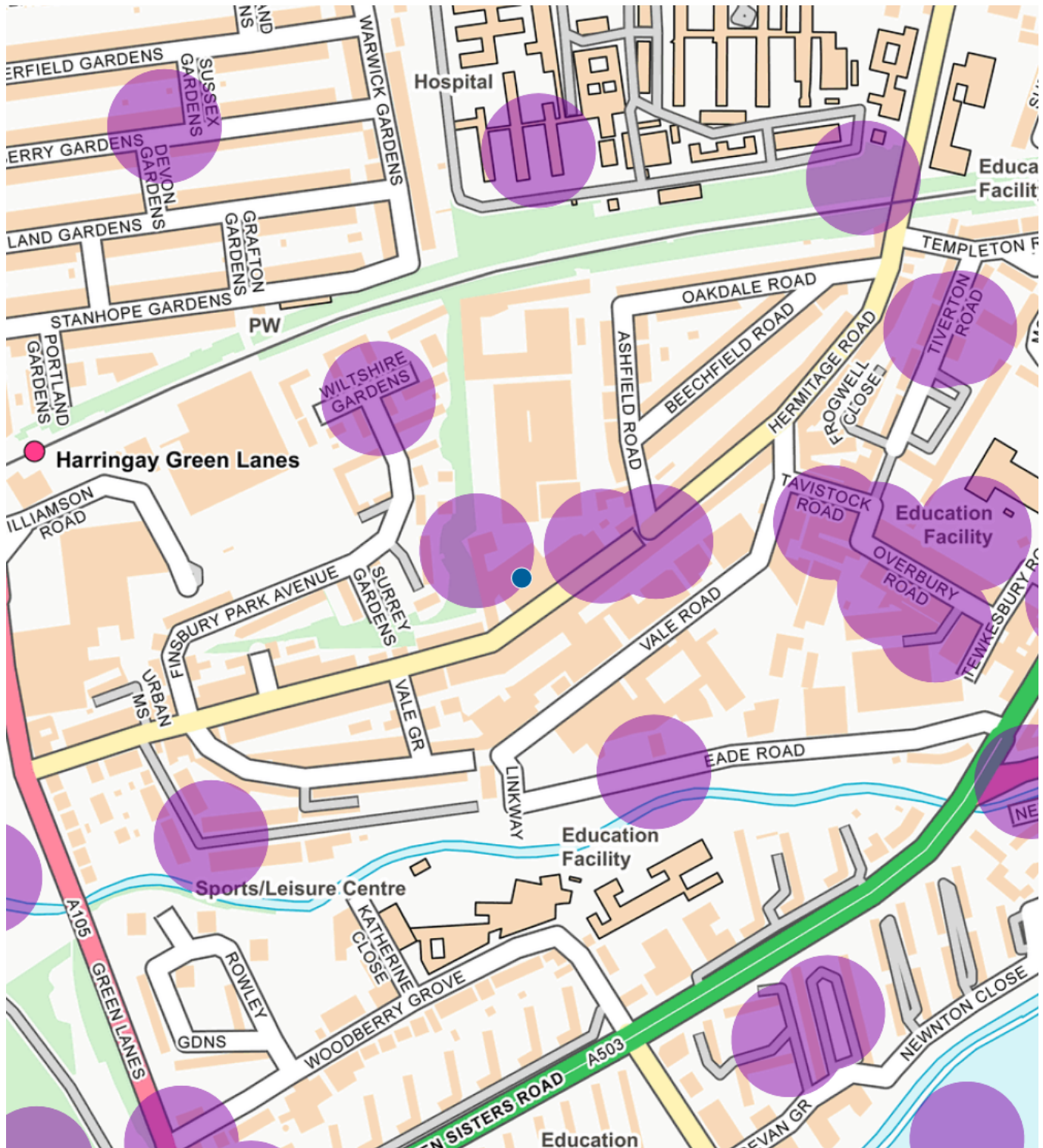
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0 100 200
Metres

Risk Levels and Recommendation

Indicative British / Allied UXO Risk

LOW-MEDIUM

There are potential sources of British / Allied UXO recorded in SafeLane Global's historical database in the general area surrounding the site. It is recommended that further research is undertaken to determine more about these potential sources and how they may have affected the site. If there is any empirical evidence of actual or potential contamination, SafeLane Global should be contacted for advice. Otherwise, the risk on site from UXO is considered to be Low-Medium.

Indicative German UXO Risk

HIGH

Historical records indicate that the borough within which the site was situated during WWII sustained an overall high density of bombing. Furthermore, a bomb strike(s) was recorded within 50m of the site on the London ARP Bomb Census Maps.

Given these factors, this preliminary assessment has identified a High risk from German unexploded bombs at this site.

Conclusion

This preliminary assessment has resulted in an overall High risk from UXO. SafeLane Global would recommend that a Detailed UXO Threat Assessment Desk Top Study is undertaken for this site. Detailed assessments are conducted offline by SafeLane Global's researchers and use information such as historical mapping, WWII-era aerial photography, written air-raid precaution records and where necessary local archive research to fully qualify the risk on site. Land use, changes to building layout during WWII and post war redevelopment will also have an impact on any remaining level of risk from UXO. It is often possible to zone sites into different risk categories. The lead time for a detailed assessment will vary between 3-10 working days dependent upon the complexity of the site and the additional site specific information required.

For a quotation, or more information, please contact SafeLane Global's research team on 01634 471 340, or at research@safelaneglobal.com

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APPENDIX F:

Technical Glossary

TECHNICAL GLOSSARY

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

HYDROGEOLOGY:

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

Secondary (A) Aquifers consist of deposits with permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as Minor Aquifers.

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

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

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

FLOOD ZONES:

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

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

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

GROUNDWATER SOURCE PROTECTION ZONES (SPZS):

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

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

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

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

IN-SITU STRENGTH GEOTECHNICAL TESTING:

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

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