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N17 6AX

PROJECT NO: 22785

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ASSESSMENT

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1. INTRODUCTION

Barden Chapman Consulting Engineers (BC) have been commissioned by Paul Simon Developments Limited, to undertake a Basement Impact Assessment (BIA) for the proposed development at No 43 Belmont Avenue, London N17 6AX. The BIA will be completed in accordance with guidance from the London Borough of Camden (LBC), in support of a planning application associated with the site.

The Draft Basement Development Guidance Note (dated 2012) from London Borough of Haringey ("the Council"), which sets out a framework for assessing the impacts of proposed basements in accordance with the Development Management Policy (DMP) 8 – 'Basements and Lightwells', has, it is understood, been withdrawn.

However, the Council still requires planning applications for basement projects to be accompanied by a BIA in order to assess any potential impact on the structural stability of the application building and neighbouring buildings or infrastructure, in view of the geological setting. The assessment also needs to determine, if any, the likely increase in risk of localised flooding. Therefore, in the absence of current guidance, the Camden BIA policy has largely been adopted as it is now widely known and is considered to provide a robust approach to the issues of potential concern.

1.1. Proposed Development

A new build residential block of 5No apartments is proposed at No 43 Belmont Avenue, London N17 6AX. An architectural scheme has been prepared for the proposed development, incorporating the following principal design items: -

- A 2-storey structure above ground level of circa 235sqm in plan area. The new structure will contain a flat roof.
- A proposed new stepped basement level with 2.6m floor to ceiling height, circa 158sqm of living area & associated lightwells.
- Proposed new hard-landscaping to the curtilage around the proposed building, with associated boundary walls & fences.

6.2. Brief

Barden Chapman Consulting Engineers (BC) have been commissioned by our client to prepare a Basement Impact Assessment (BIA) for submission to the London Borough of Haringey (LBH) to accompany a planning application for the proposed project.

6.3. Scope

The purpose of this report is to provide a Basement Impact Assessment for the proposed development. The report contains a commentary on the available desk study information for the site.

The format of the Report is primarily based on the recommendations of "Camden Planning Guidance Basements", (March 2018) and on the "Camden geological, hydrogeological and hydrological study: Guidance for Subterranean Development", prepared by Arup.

The report forms part of the submission to LBH as part of the planning process for the proposed development works.

6.4. Report Author

This report has been prepared by:

David Barden.
BE(Hons), Dip Struct Eng, Adv Dip PM, CEng, MICE, MStructE

Qualifications include a BE(Hons) in Civil Engineering, a chartered engineer (CEng), a member of the Institute of Structural Engineers, and over 15 years' specialist experience in projects of this nature.

6.5. Revision.

This is revision (P1) of this report, which has been issued for comment.

6.6. Limitations

The conclusions and recommendations made in this report are limited to those that can be made on the basis of the desk study information available. The results of the work should be viewed in the context of the range of data sources consulted. No liability can be accepted for information in other data sources. Any comments made on the basis of information obtained from the client or other third parties are given in good faith on the assumption that the information is accurate; no independent validation of such information has been made by BardenChapman Consulting Engineers.

2. THE SITE

2.1. Site Description

The site is located in the London Borough of Haringey, approximately 580m east of Turnpike Lane underground station and 1.01km northwest of Seven Sisters underground tube station. The site is located on a plot of land to the rear of No 43 Bellmont Avenue, which is accessed from Bellmont Avenue. The site may be additionally located by National Grid Reference 532089, 189595 and is shown on the map extract below.



Figure 1: Site Location Plan

As can be seen from the map extracts above, the site is rectangular in plan, with an approximate site dimension of 12m x 22m. The site comprises open land, with a number of existing trees located along the existing site boundary. The approximate site elevation is +21.000m AOD.

2.2. Site History

The site history has been researched by reference to maps obtained from the Envirocheck database. (Please see Appendix I for details).

The earliest map studied, dated 1864, shows the site to be undeveloped, comprising of open farmlands labelled as 'West Green'.

In the 1894 OS map, the area of Haringey Park is becoming well developed, and includes the Seven Sisters to Wood Great Northern Railway (GNR) line. The existing site at No 43 Belmont Avenue is located to the north-east, directly adjacent the GNR line. The GNR railway line is shown in use on the OS maps from 1894 up to 1970.

By 1914, the neighbouring properties and the surrounding area of Belmont Avenue have been redeveloped with the current housing. From 1973, the GNR line has been removed and the remaining area further redeveloped with the current housing stock.

The site & surrounding areas appear to have remained essentially unchanged since production of the 1973 OS map.

2.3. Other Information

A search of public registers and databases has been made via the Envirocheck database and relevant extracts from the search are appended. Full results of the search can be provided if required.

The Envirocheck report has indicated no landfill sites, waste management or waste transfer sites located within 1 km of the site.

No pollution incidents to controlled waters have been recorded within 2km of the site.

The site is not within an area shown by the Environment Agency to be at risk from flooding from rivers or the sea and does not lie within any known areas of sensitive land use. No sites of special scientific interest (SSSI) are listed within 2km of the site.

The risk to the site from surface water flooding is listed as negligible, with the risk of flooding from groundwater flooding listed as low.

No pollution incidents to controlled waters have been recorded within 2km of the site and there are no fuel stations listed within 500 m of the site.

2.4. Geology

The British Geological Survey (BGS) map of the area indicates that the site is underlain by the Claygate Member Bedrock Geology. The Claygate Member forms the youngest part of the London Clay Formation with the BGS describing the formation at this location as: - "London Clay Formation - Clay, Silt And Sand.

Sedimentary Bedrock formed approximately 48 to 56 million years ago in the Palaeogene Period. Local environment previously dominated by deep seas".

A BGS borehole examined at Belmont/Braeman Housing Site, (approx. 20m south west), indicates Made Ground to a depth of 1m, which is underlain by the London Clay to 18m.

A further deep borehole at Downhills Secondary School Haringey, (approx. 300m north west), indicates Made Ground to a depth of 0.75m below ground level, which is underlain by the London Clay to a depth of 9.5m.

Please refer to Appendix II for details of BGS borehole records which have been reviewed as part of this Scoping/Screening study.

2.5. Hydrology and Hydrogeology

The London Clay is classified as an Unproductive Stratum, which refers to rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.

Any groundwater flow within the London Clay will be at a very slow rate, due to its negligible permeability. The permeability will be predominantly secondary, through fissures in the clay. Published data indicates the horizontal permeability of the London Clay to generally range between 1×10^{-11} m/s and 1×10^{-9} m/s.

The nearest surface water feature to the site is located 600m to the north-east of the site, which consists of an artificial lake at Lordship Recreation Ground. The site is not within an area shown by the Environment Agency to be at risk of flooding from rivers or the sea and the site is indicated to be at low risk of surface water flooding. The site does not lie within any known areas of sensitive land use.

The site is largely covered by hardstanding and therefore infiltration of rainwater into the ground beneath the site is limited to the area of soft landscaping. The majority of surface runoff is likely to drain into combined sewers in the public highway road.

2.6. Preliminary Risk Assessment

Part IIA of the Environmental Protection Act 1990, which was inserted into that Act by Section 57 of the Environment Act 1995, provides the main regulatory regime for the identification and remediation of contaminated land. The determination of contaminated sites is based on a "suitable for use" approach which involves managing the risks posed by contaminated land by making risk-based decisions. This risk assessment is carried out on the basis of a source-pathway-receptor approach.

2.6.1. Source

The desk study findings indicate there is no recent industrial land use associated with the site.

Historic industrial land use from the Envirocheck database indicate the land adjacent the site was used for the former Great Northern Rail line, which is considered a low risk contamination usage. The site is therefore not considered to have a contaminative history.

There are no lands within 500m of the proposed site recorded as contaminated land on the Contaminated Land Register designated under Part 2a of the Environmental Protection Act 1990

2.6.2. Receptor

The proposed redevelopment of the site for residential purposes will result in the end users representing relatively high sensitivity receptors. The site is underlain by an Unproductive Stratum and there is no record of superficial or bedrock aquifers in the area. The underlying stratum therefore represents a relatively low sensitivity receptor. Buried services are likely to come into contact with any contaminants present within the soils through which they pass, and site workers are likely to come into contact with any contaminants present in the soils during construction works.

2.6.3. Pathway

The negligible permeability of the London Clay Formation will limit the potential for groundwater percolation, and thus a pathway is not considered likely to exist to the principal aquifer.

End users may come into contact with soils in areas of proposed soft landscaping. There will be a potential for contaminants to move onto or off the site, horizontally within the made ground, although these pathways are already in existence.

A pathway for ground workers to come into contact with any contamination will exist during construction work and services will come into contact with any contamination within the soils in which they are laid.

2.6.4. Preliminary Risk Appraisal

On the basis of the above, it is considered that there is a low risk of there being a significant contaminant linkage at this site which would result in a requirement for major remediation work. Furthermore, as there is no evidence of filled ground within the vicinity of the site and no landfill sites, there is not considered to be a significant potential for hazardous soil gas to be present on or migrating towards the site.

3. SCREENING (STAGE 1)

The London Borough of Camden guidance suggests that any development proposal that includes a subterranean basement should be screened to determine whether a full Basement Impact Assessment (BIA) is required.

A number of screening tools are included in the Arup document and for the purposes of this report reference has been made to Appendices E1, E2 and E3 which include a series of questions within screening flowcharts for surface flow and flooding, subterranean (groundwater) flow and land stability. The flowchart questions and responses to these questions are tabulated below. Some of the questions have been omitted as, since the site is located in Haringey, they are not relevant.

3.1. Subterranean (Groundwater) Flow Screening

Ref.	Screening Question	Reply	Statement
1a	Is the site located directly above an aquifer?	No	No, the site is underlain by unproductive stratum.
1b	Will the proposed basement extend beneath the water table surface?	No	The London Clay cannot support a water table and is classified as an unproductive stratum. So the basement is not expected to extend

			beneath the water table surface.
2	Is the site within 100m of a watercourse, well (used/disused) or potential spring line?	No	The site is not within 100 m of a current watercourse.
3	Is the site within the catchment of the pond chains on Hampstead Heath?	N/A	N/A
4	Will the proposed basement development result in a change in the proportion of hard surfaced / paved areas?	No.	The site is currently entirely covered by hard standing, such that the new development will not increase the proportion of hardstanding across the site.
5	As part of the site drainage, will more surface water (e.g. rainfall and run-off) than at present be discharged to the ground (e.g. via soakaways and/or SUDS)?	No	No, the proposed site drainage will be designed for a minimum 50% betterment of stormwater runoff from the site. It should be noted that the London Clay substrate is not suitable for soakaways or infiltration systems.
6	Is the lowest point of the proposed excavation (allowing for any drainage and foundation space under the basement floor) close to, or lower than, the mean water level in any local pond (not just the pond chains on Hampstead Heath) or spring line?	No	There are no known ponds or springlines in the vicinity of the site.

The above screening has not identified any potential issues that need to be assessed.

3.2. Surface Flow and Flooding Screening

Ref.	Screening Question	Reply	Statement
1	Is the site within the catchment of the pond chains on Hampstead Heath?	N/A.	The site is located in London Borough of Haringey. This item is therefore not applicable.
2	As part of the proposed site drainage, will surface water flows (e.g. volume of rainfall and peak run-off) be materially changed from the existing route?	Yes.	Yes. Since the existing site is fully covered in hardstanding, the proposed development will look to decrease surface water runoff from the site, which is an improvement on the existing situation.
3	Will the proposed basement development result in a change in the proportion of hard surfaced / paved external areas?	Yes	Yes. The proposed development will decrease the amount of hardstanding currently provided to the site and will increase the amount of soft landscaping to the site.
4	Will the proposed basement result in changes to the profile of the inflows (instantaneous and long-term) of surface water being received by adjacent properties or downstream watercourses?	No	No. Since the site is currently fully covered in hardstanding, the development of the site is not expected to materially change the inflows of surface water received by adjacent properties. The proportion of surface water received by adjacent properties is expected to remain unchanged as a result of the drainage systems installed as part of the development.
5	Will the proposed basement result in changes to the quality of surface	No	No. Since the site is currently fully covered in hardstanding, the redevelopment of the site is

	water being received by adjacent properties or downstream watercourses?		not expected to materially change the quality of surface water received by adjacent properties.
6	Is the site in an area identified to have surface water flood risk according to either the Local Flood Risk Management Strategy or the Strategic Flood Risk Assessment or is it at risk from flooding, for example because the proposed basement is below the static water level of a nearby surface water feature?	No	With reference to Envirocheck information, the site is not located within an area of surface water flood risk. (Site located in Flood Zone 1). The site is not located within 500m of any nearby surface water feature and there is not considered to be any flood risk from such features.

The above assessment has identified the following potential issues that need to be assessed.

Q2. The proposed site will result in material changes to the profile of the surface water flows.

Q3. The proposed development will materially change the proportion of impermeable surfaces on the site.

3.3. Slope Stability Screening

Ref.	Screening Question	Reply	Statement
1	Does the existing site include slopes, natural or manmade, greater than 7°?	No	The existing site has a slope of approximately 3°, and can generally be consider a flat site.
2	Will the proposed re-profiling of landscaping at site change slopes at the property boundary to more than 7°?	No	It is not proposed to re-profile the existing site landscaping.
3	Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7°?	No	The adjacent lands are flat.
4	Is the site within a wider hillside setting in which the general slope is greater than 7°?	No	No. According to the published topographical map of the area the ground changes from 22.0m OD to 21.5m OD within 22 m; essentially level.
5	Is the London Clay the shallowest strata at the site?	Yes	From BGS boreholes reviewed, London Clay is likely to be the shallowest stratum.
6	Will any trees be felled as part of the proposed development and/or are any works proposed within any tree protection zones where trees are to be retained?	No	No. The existing trees to the site boundary are to be retained. Accordingly, consideration to be given to design of foundations in London clay at the detailed design stage of the project.
7	Is there a history of seasonal shrink-swell subsidence in the local area, and/or evidence of such effects at the site?	Yes	Yes. The area is prone to these effects as a result of the presence of shrinkable London Clay and several mature trees.
8	Is the site within 100m of a watercourse or a potential spring line?	No	The site is not within 100 m of a current watercourse.

9	Is the site within an area of previously worked ground?	No	The site is not in an area of previously worked ground.
10	Is the site within an aquifer? If so, will the proposed basement extend beneath the water table such that dewatering may be required during construction?	No	No, the site is likely to be directly underlain by London Clay and is not within an aquifer.
11	Is the site within 50 m of the Hampstead Heath ponds?	N/A	N/A
12	Is the site within 5 m of a highway or pedestrian right of way?	No	The site is accessed by a private right of way. The site is not located within 5m of a highway or pedestrian right of way.
13	Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?	No	No. The neighbour's buildings at Belmont Avenue are approx. 4m away from the proposed basement excavation, with the proposed basement excavation is approximately 2.5m bgl. The proposed excavation falls outside the line of influence of the existing foundations, and it is considered the proposed basement will therefore not increase the differential depth of foundations given the distance to the neighbouring buildings.
14	Is the site over (or within the exclusion zone of) any tunnels, e.g. railway lines?	No	No.

The above assessment has identified the following potential issues that need to be assessed.

Q5 London Clay is the shallowest Stratum at the site.

Q7 There is a history of seasonable shrink-swell.

3.4. Non-Technical Summary

Barden Chapman have completed a screening study in accordance with the questions contained in LBC CPG4 (2015).

The screening study has identified a number of potential impacts that would normally require consideration at detailed design stage of the project. These potential impacts will now be carried forward to the Stage 2 (Scoping Study).

4. SCOPING (STAGE 2)

The purpose of scoping is to assess in more detail the factors to be investigated in the basement impact assessment (BIA). Potential impacts are assessed for each of the identified potential impact factors.

The potential impacts of the proposed development on surface flow, flooding and subterranean flow, will need to be dealt with in detailed BIA, such that the following section focuses on the potential impacts that may have an impact on slope stability.

4.1. Potential Impacts

Potential Impact	Action.
The proposed site will result in material changes to the profile of the surface water flows.	To reduce & attenuate stormwater runoff from the site, the proposed development will need to be designed in accordance with the principles of Sustainable Urban Drainage Systems (SuDS) Drainage Hierarchy. This will result in attenuating stormwater runoff from the site to greenfield rates in accordance with local authority requirements, resulting in a substantial betterment of the existing situation.
The proposed development will materially change the proportion of impermeable surfaces on the site.	The proposed development will result in reducing the amount of hardstanding to the existing site, increasing the amount of soft landscaping to the site and provide the opportunity to incorporate SuDS drainage measures to the site. This will result in a substantial betterment of surface water drainage from the site.
London Clay is the shallowest strata at the site. Seasonal shrink-swell can result in foundation movements.	At the detailed design stages of the project, the following measures should be incorporated: - 1. A clay substrate should be accounted in the detailed design of any basement structure. This includes design for uplift pressure associated with the unloading of any overburden pressure from excavation of a clay substrate. 2. The shrink/swell effects of any trees in proximity of the excavation should be accounted in the design of retaining walls, and compressible materials to the outside of such structure accordingly accounted in line with NHBC Guidance. 3. The plasticity index of such clay stratum should be confirmed during site investigations of the substrate to confirm whether the clay material is low/medium or high plasticity.
Founding depths relative to neighbours	The building should be designed and constructed appropriately to avoid any excavation that may result in structural damage to neighbouring buildings and structures. This includes any temporary works to be provided by the contractor.

The existing substrate will be further investigated in detail through a full Site Investigation (SI) for the proposed development. The results of the SI will be provided on completion of the required fieldwork by the appointment Site Investigation Contractor.

5. RECOMMENDATIONS FROM SCOPING/SCREENING STUDY

Barden Chapman have prepared a Stage 1 (Screening Study) for the proposed development at No 43 Belmont Avenue, London N17 6AX.

Following completion of the screening study, a number of potential impacts have been identified and taken forward to the Stage 2 (Scoping Study). These impacts will be fully considered at the detailed design stage of the project.

An outline scheme design & supporting information for the proposed development are provided in the proceeding contents of this report.

6. STAGE 3 – DESK STUDY SITE INVESTIGATION

A desk study site investigation of the existing substrate expected below the site has been carried out by Barden Chapman Consulting Engineers, with referenced borehole details contained in Appendix II of this report.

For the purpose of the desk study, the following boreholes have been used in our assessment of the existing substrate conditions at the site.

- BGS borehole at Belmont/Braeman Housing Site, approximately 20m south-west of the site.
- BGS borehole at Downhills Secondary School Haringey, approximately 320m south-east of the site.
- BGS borehole at A105 Diversion 17, approximately 360m south-west of the site.
- BGS borehole at A105 Diversion 16, approximately 350m west of the site.

The desk study results outline the expected ground conditions as a shallow thickness of Made Ground (between 0.0-0.75m) overlying the London Clay Formation to depth.

6.1. Made Ground

The made ground extended from depths of between 0.0m and 0.75m and generally consisted of clay and brick rubble. The made ground also contained occasional cobbles and ashes.

6.2. London Clay

The London clay generally comprised stiff grey/brown mottled fissured clay with occasional pockets of silty sand and selenite crystals. The clay substrate generally extended from 0.75m bgl to the full depth of the four boreholes examined.

SPT “N” values in the London clay stratum were not recorded in the boreholes examined, however the clays were described as firm to stiff clays indicating an allowable bearing pressure in the region of 100-150kN/sqm for design purposes.

Plasticity index tests were not recorded in the boreholes reviewed; however, the clay substrate was described as silty clay, which would indicate high-volume change potential.

6.3. Groundwater

Groundwater was not encountered in the boreholes examined as part of the desk study information.

7. PROPOSED CONSTRUCTION

7.1. General

Outline structural proposals for the proposed basement are included in Appendix V. Structural sizes are indicative and will be subject to detailed structural design.

The new basement will be constructed inside an embedded piled wall on all sides, lined with a water-excluding reinforced concrete wall. The new basement contiguous wall will be designed to cantilever to ground floor level in the permanent sense.

The proposed basement will achieve Grade 3 "Habitable" level of waterproofing protection to BS8102. This will consist of two types of barrier protection of: - Type A - using an external barrier protection of Voltex or similar; and Type C - drained cavity protection, which will extend over the entire basement floor and around the perimeter retaining walls.

The design of the above ground works is yet to be developed in detail but is likely to comprise of a reinforced concrete framed construction.

The design and construction of the building structure will be in accordance with current Building Regulations, Eurocodes and Codes of Practice, Health and Safety requirements and good building practice.

Please refer to Appendix VI for outline structural proposals for the proposed works. An outline method statement for the proposed works is included in Appendix VIII of this report.

7.2. Effects of Sulphates

Moderate concentrations of soluble sulphate and moderate acidic pH are expected at the proposed site. A detailed site investigation will accurately determine sulphate levels in accordance with DS & ACEC Class conditions of Table C2 of BRE Special Digest 1:SD Third Edition (2005). The guidelines within the digest will be followed for the design of all pile and basement reinforced concrete.

7.3. Environmental Considerations

The desk study findings indicate that the site has not had a potentially contaminative history having been undeveloped land adjacent to houses throughout its developed history.

During site investigation works, we would recommend that a soil sampling rationale with reference to EA guidance 'Secondary Model Procedure for the Development of Appropriate Soil Sampling Strategies for Land Contamination' (Technical Report P5-066/TR) be used to determine the extent of any contamination at the site. This would generally involve taking a number of samples from the top 0-1m to aid in the assessment of the pollutant linkages identified at the site. In addition, some deeper samples should be taken to aid in the interpretation of fate and transport of any contamination identified.

A correct sampling rationale will ensure that any potential contamination is accurately & appropriately dealt with, such as: -

- In areas of proposed soft landscaping, potential risks will be addressed by use of a cover layer, which is proposed as part of the construction works. This will comprise a minimum 600mm thickness of imported, clean topsoil.

- Where the site is to be covered by either hardstanding or the proposed building footprint, no formal remedial measures are considered necessary in terms of human health, as the surfacing / structure is expected to form an effective impediment to potential pollutant linkages.

8. IMPACT ASSESSMENT

The screening identified a number of potential impacts. The desk study information has been used to review the potential impacts, to assess the likelihood of them occurring and the scope for reasonable engineering mitigation.

The table below summarises the previously identified potential impacts and the additional information that is now available from the Enviro Insight and Geo Insight in consideration of each impact.

Potential Impact	Action.
The proposed site will result in material changes to the profile of the surface water flows. The proposed development will materially change the proportion of impermeable surfaces on the site.	A new surface water drainage system will be provided for the proposed development. The new drainage system will incorporate SuDS measures such as green roofs, attenuation tanks or tanks for storage & reuse of rainwater to reduce rain water run-off to greenfield rates. The proposed SuDS measures are expected to provide a substantial betterment to that of the existing site conditions.
London Clay is the shallowest strata at the site. Seasonal shrink-swell can result in foundation movements.	The development and proposed basement shall be designed in accordance with NHBC guidance for shrink-swell soils at detailed design stage incorporating all required heave protection.
Founding depths relative to neighbours	The building should be designed and constructed appropriately to avoid any excavation that may result in structural damage to neighbouring buildings and structures. This includes any temporary works to be provided by the contractor.

The results of the desk study information has been used below to review the remaining potential impacts, to assess the likelihood of them occurring and the scope for reasonable engineering mitigation.

8.1. Subterranean Groundwater Flow

Groundwater was not recorded in the BGS boreholes examined during desk study review and given the underlying stratum is an unproductive clay stratum subterranean groundwater flow is not expected at the site. Notwithstanding this, the basement will not extend to the property boundaries & groundwater would be able to flow around the basement within the confines of the property, should it be present in the underlying stratum.

It can be concluded, based on these findings, that the proposed basement construction will not have a detrimental effect on groundwater flows or on groundwater level upstream of the development.

8.2. Seasonal Shrink-Swell

The proposed basement will extend to a depth of 2.5m bgl, therefore new foundations will bypass any potential desiccated soils encountered. Consideration will need to be given in the foundation design to protecting against the effects of continued growth of existing trees along the site boundary.

8.3. Surface Water Flow

The development as a whole will have an impact on surface water flows across the site and SuDS measures will be incorporated into the detailed drainage design to reduce surface water runoff to greenfield runoff rates. Consideration will be given at detailed design stage to ensure that the adjusted flow is accommodated and directed safely to the Thameswater public sewer.

8.4. Cumulative Development

There is adequate distance between the proposed basement and any nearby basements, either approved or existing, to allow any groundwater flows to pass freely between them. The impact of the cumulative development of basements is such that the proposed basement development is not expected to adversely impact on groundwater flows or ground water levels.

8.5. Hazard/Risk Assessment on completion of Basement Impact Assessment

Appendix VII of this report aims to highlight any remaining hazards/risk which are to be taken forward as a result of limitations on the scope of the basement impact assessment, where issues have been identified that warrant further consideration at the later RIBA Stage 3-5 design. Please refer to Appendix VII for further details.

9. CONSTRUCTION METHOD STATEMENT

An outline method statement for the basement construction has been provided in Appendix VIII. This will be developed and finalized in conjunction with the appointed Contractor and the Specialist subcontractors, during the detailed design stages of the project.

The site boundary will be established, and safety fencing and hoarding shall be installed around the site perimeter.

Notices of the basement work will be served on the adjoining owners and schedules of condition will be carried out to the adjoining properties in accordance with the requirements of the Party Wall etc. Act 1996.

Please refer to Appendix VIII for full details.

APPENDIX I – HISTORIC MAPS

Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

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

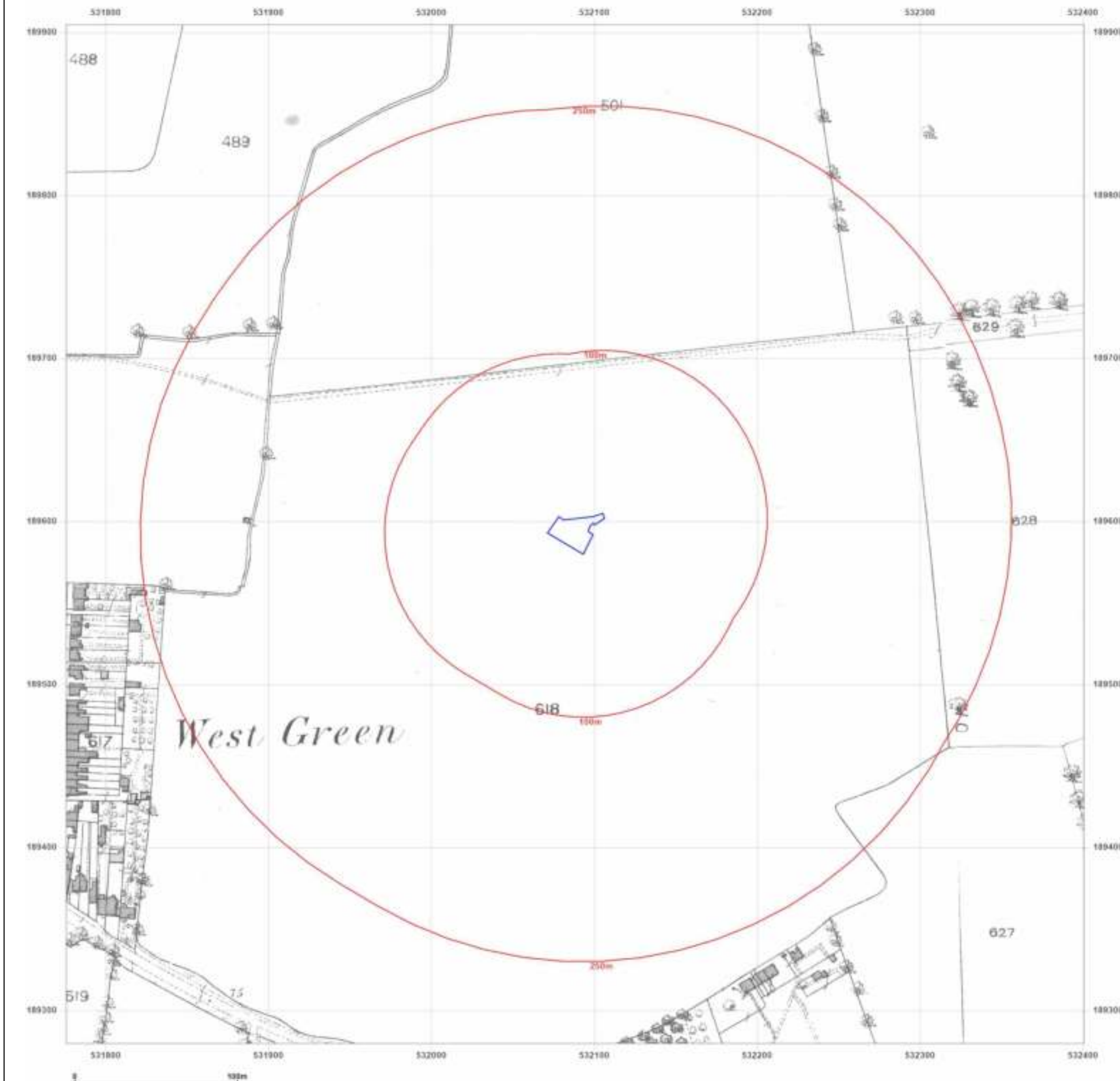


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

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

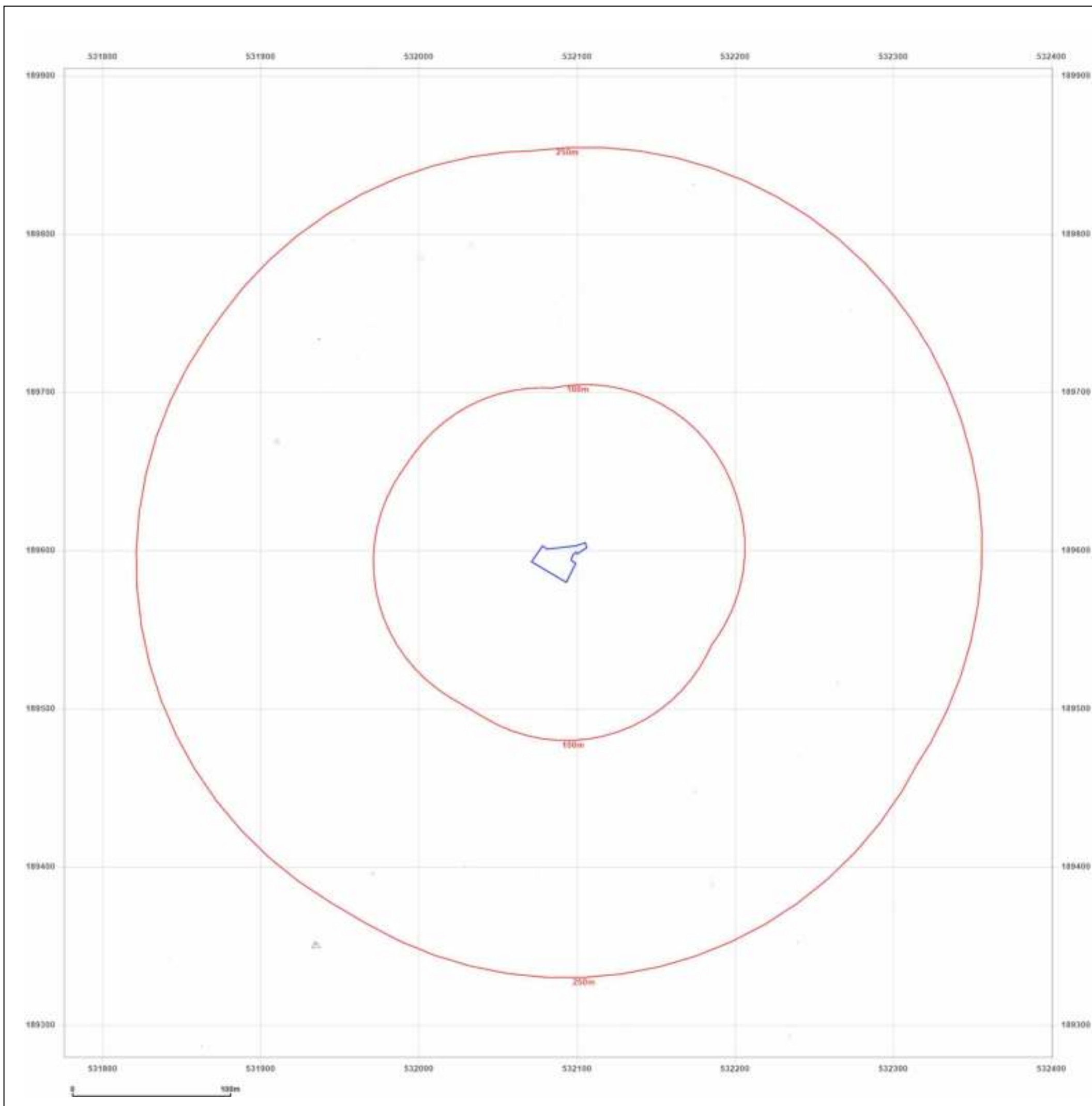


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: 1056 Scale Town Plan

Map date: 1896

Scale: 1:1,056

Printed at: 1:1,056



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

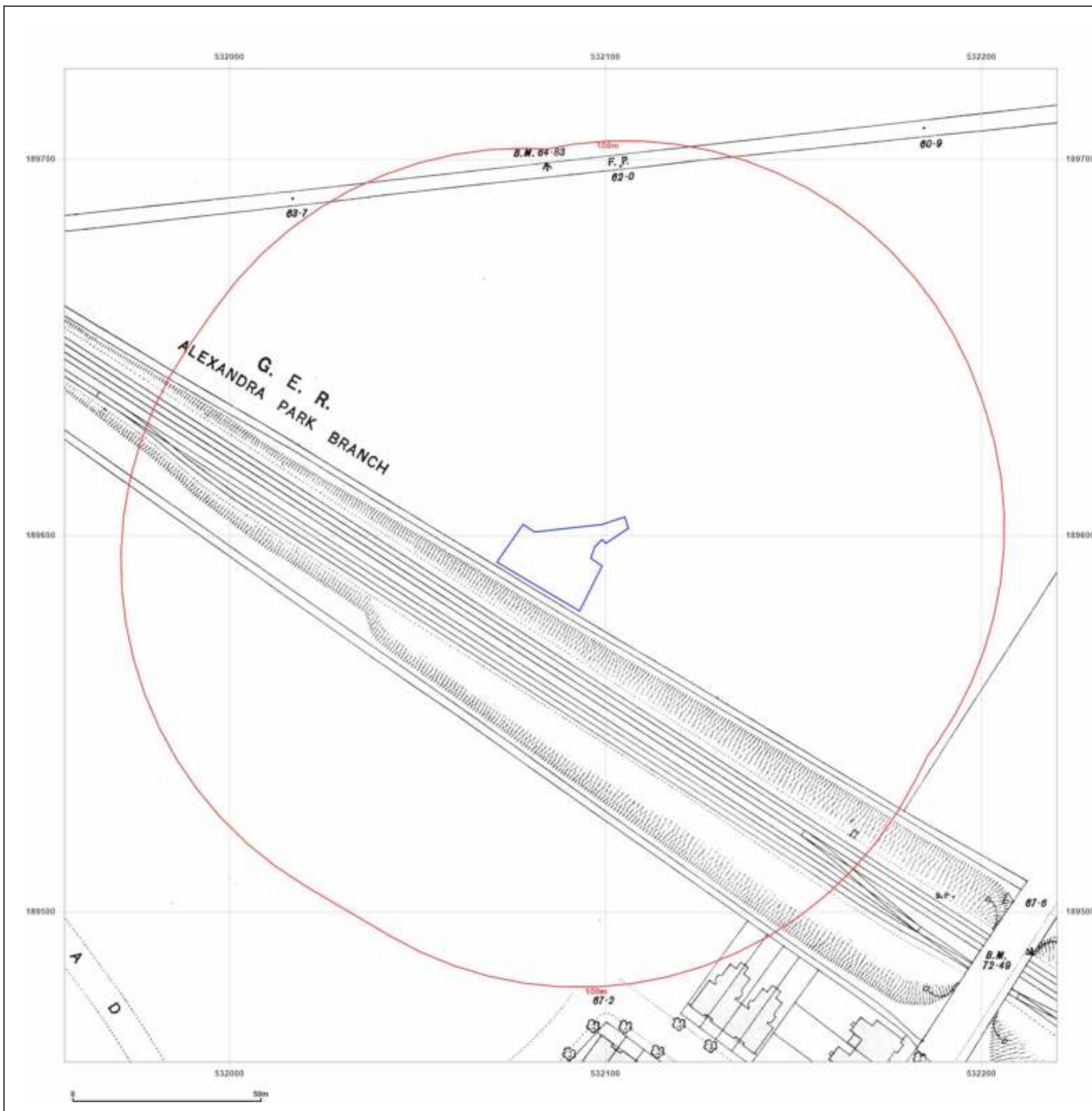


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: County Series

Map date: 1896

Scale: 1:2,500

Printed at: 1:2,500



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

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

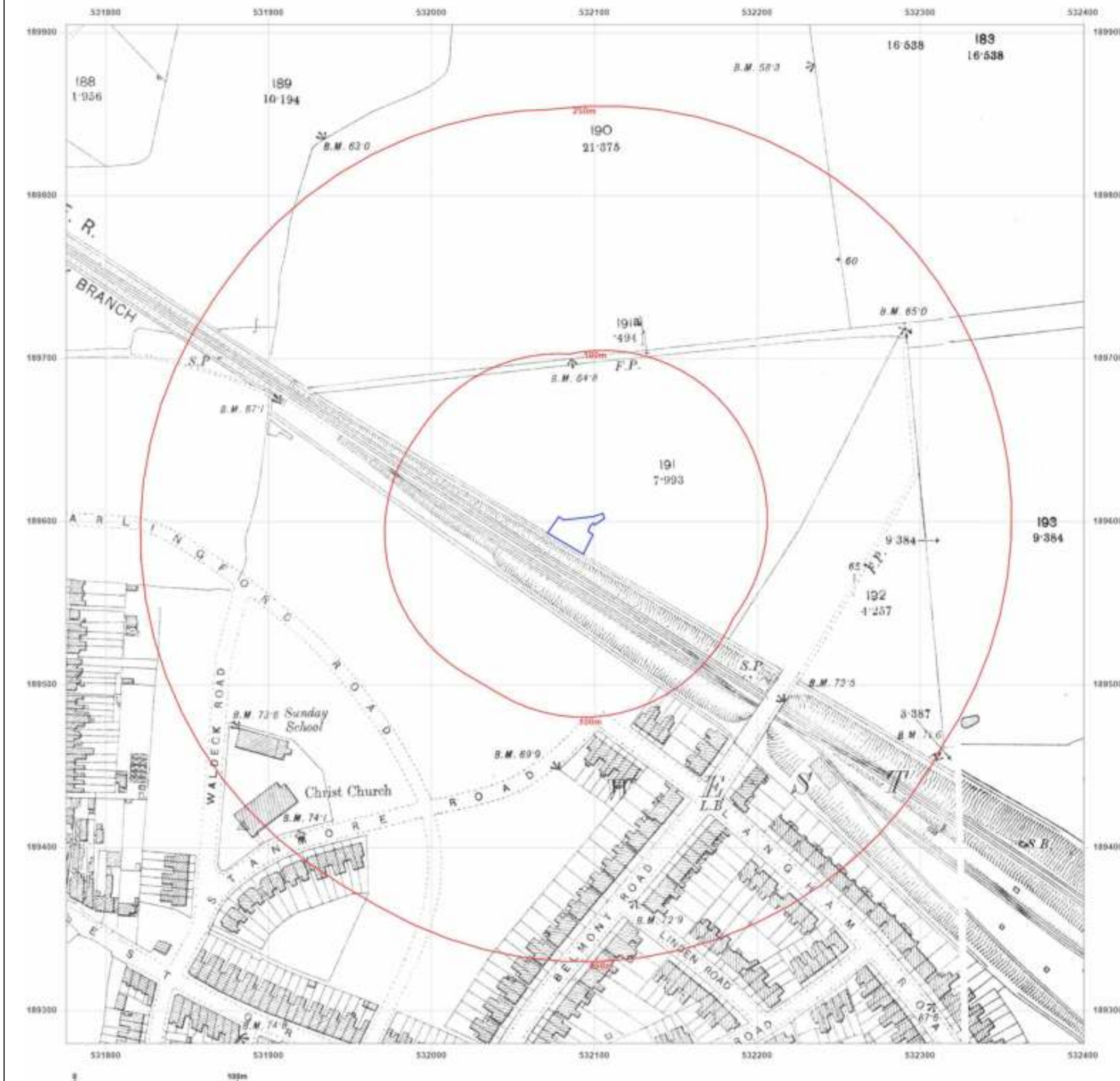


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: County Series

Map date: 1914-1915

Scale: 1:2,500

Printed at: 1:2,500



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

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

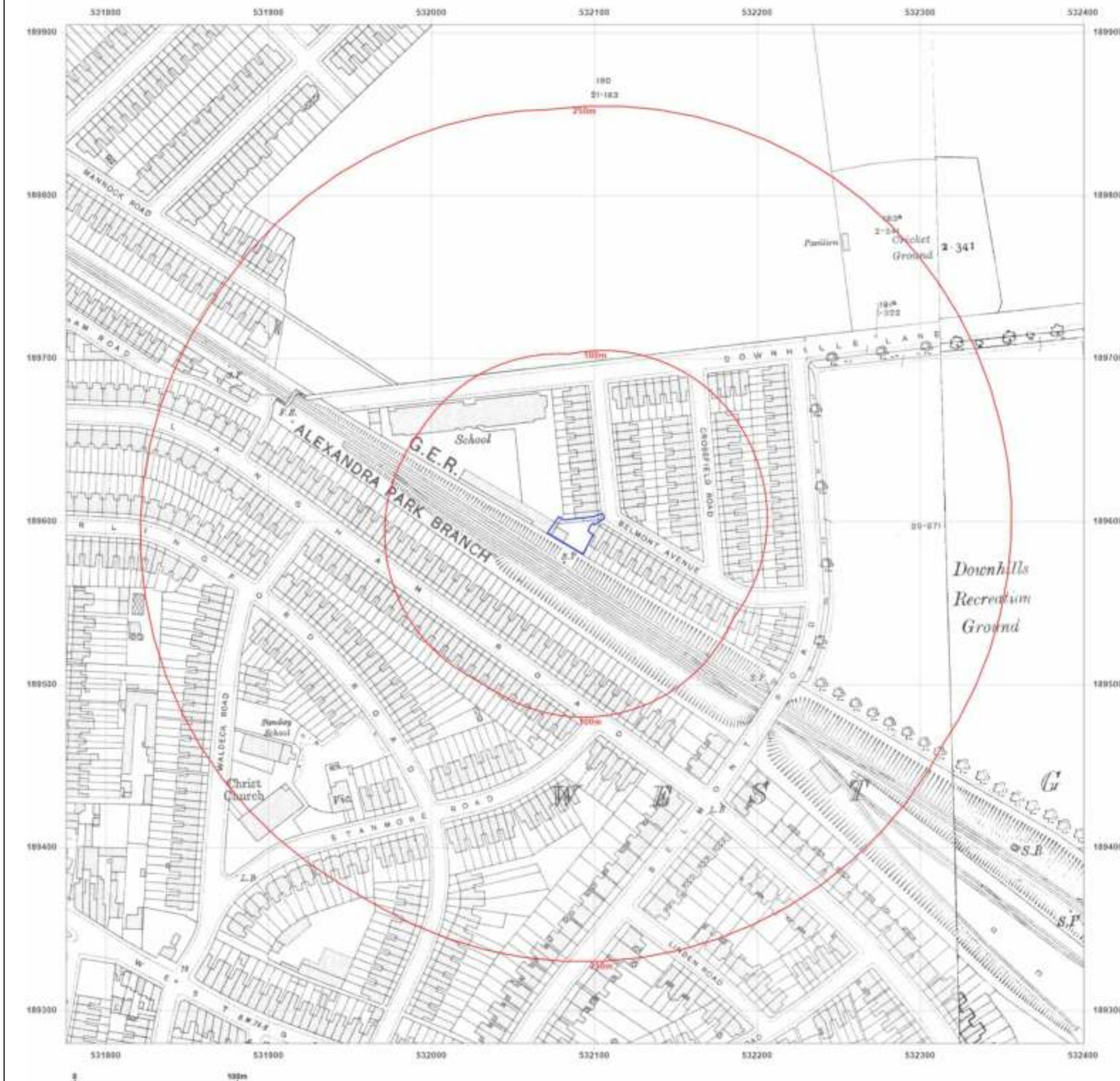


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: County Series

Map date: 1935-1936

Scale: 1:2,500

Printed at: 1:2,500



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

Surveyed 1936
 Revised 1936
 Edition N/A
 Copyright N/A
 Levelled N/A

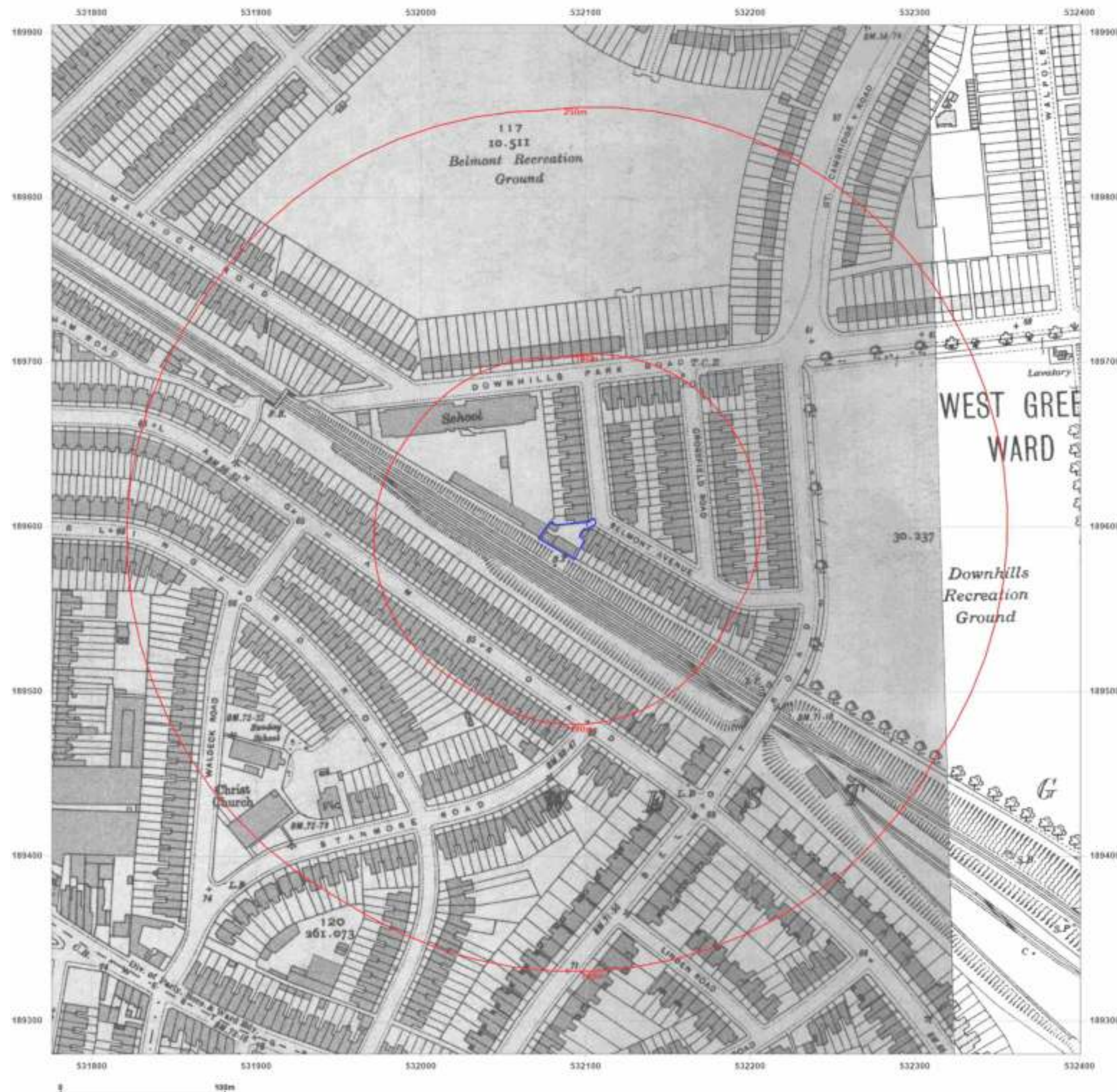


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: National Grid

Map date: 1953-1954

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1954 Revised 1954 Edition N/A Copyright N/A Levelled 1933	Surveyed 1954 Revised 1954 Edition N/A Copyright N/A Levelled 1933
Surveyed 1953 Revised 1953 Edition N/A Copyright N/A Levelled 1933	Surveyed 1954 Revised 1954 Edition N/A Copyright N/A Levelled 1933

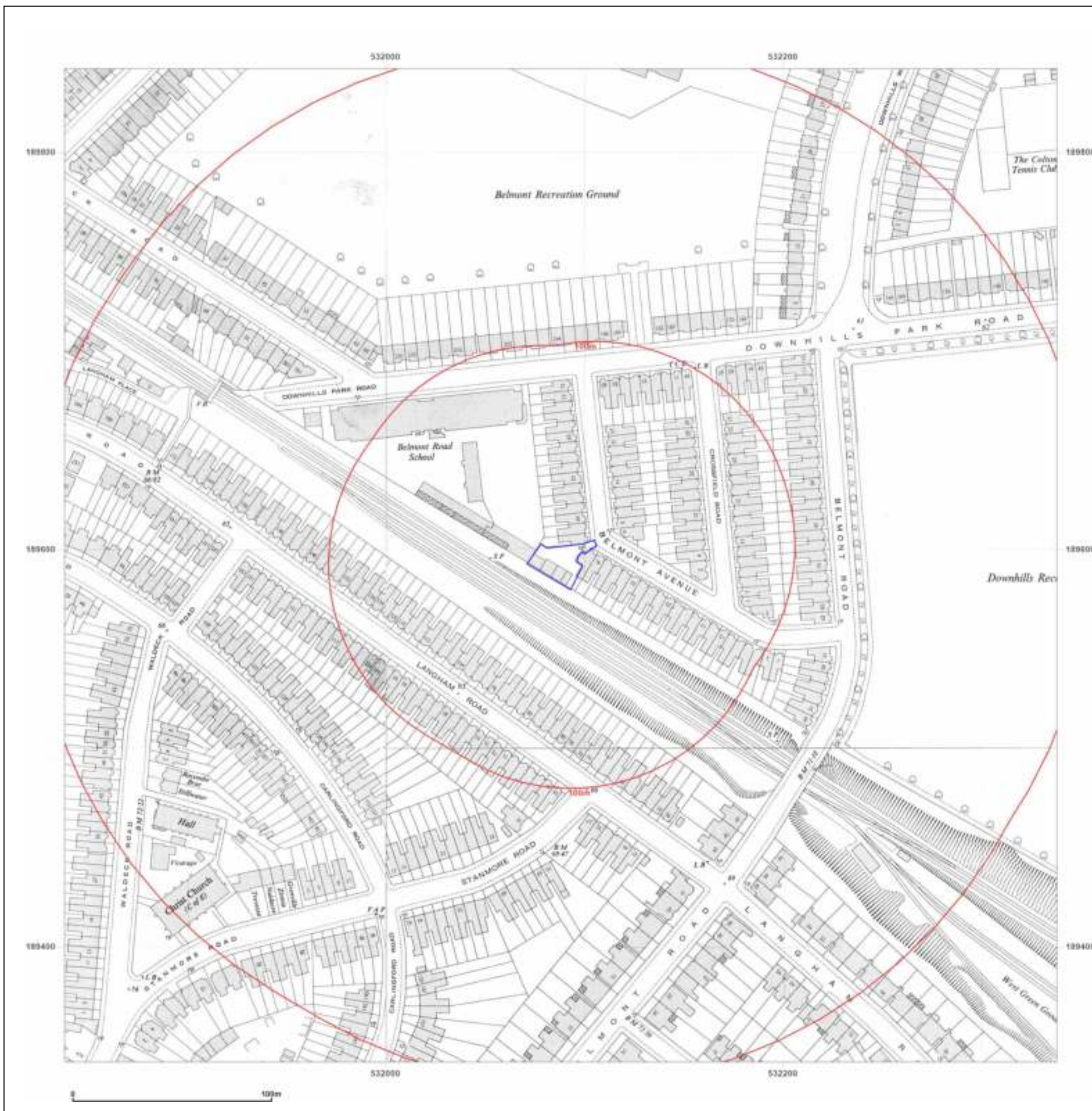


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

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

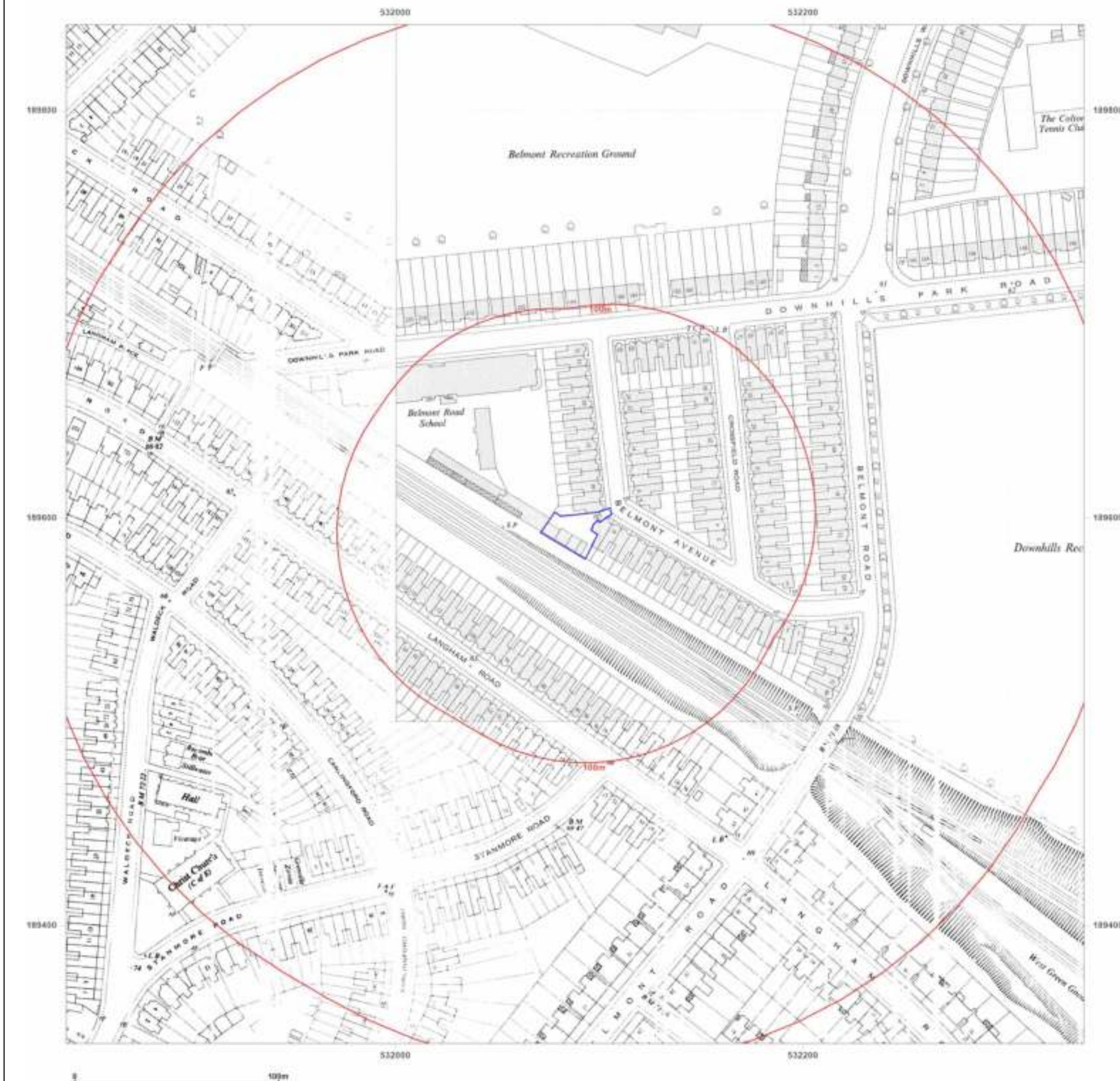


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Site Details:

532087 189596

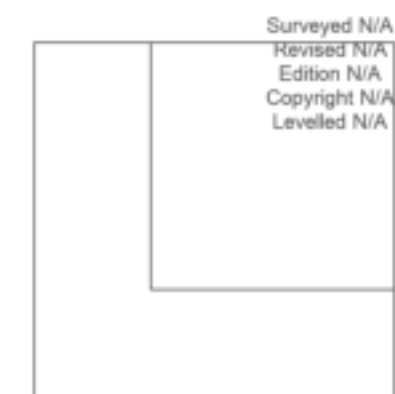
Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: National Grid

Map date: 1955

Scale: 1:1,250

Printed at: 1:2,000



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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: National Grid

Map date: 1955

Scale: 1:2,500

Printed at: 1:2,500



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 Revised 1954
 Edition 1955
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 Levelled 1933

Surveyed 1954
 Revised 1954
 Edition 1955
 Copyright N/A
 Levelled 1933

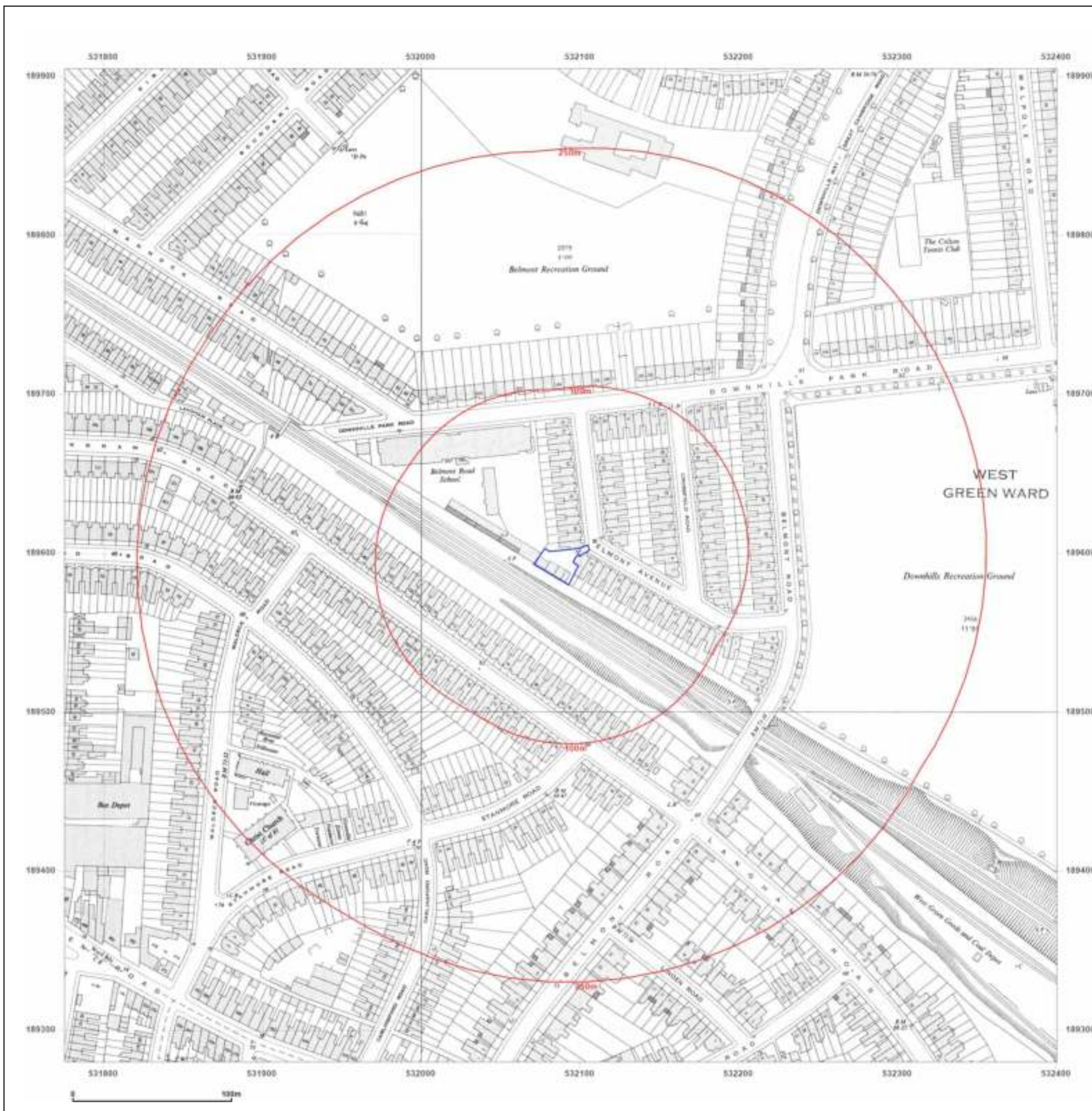


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: National Grid

Map date: 1970-1975

Scale: 1:1,250

Printed at: 1:2,000



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 Levelled 1956

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 Revised 1969
 Edition N/A
 Copyright 1970
 Levelled 1956

Surveyed 1954
 Revised 1975
 Edition N/A
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 Levelled 1956

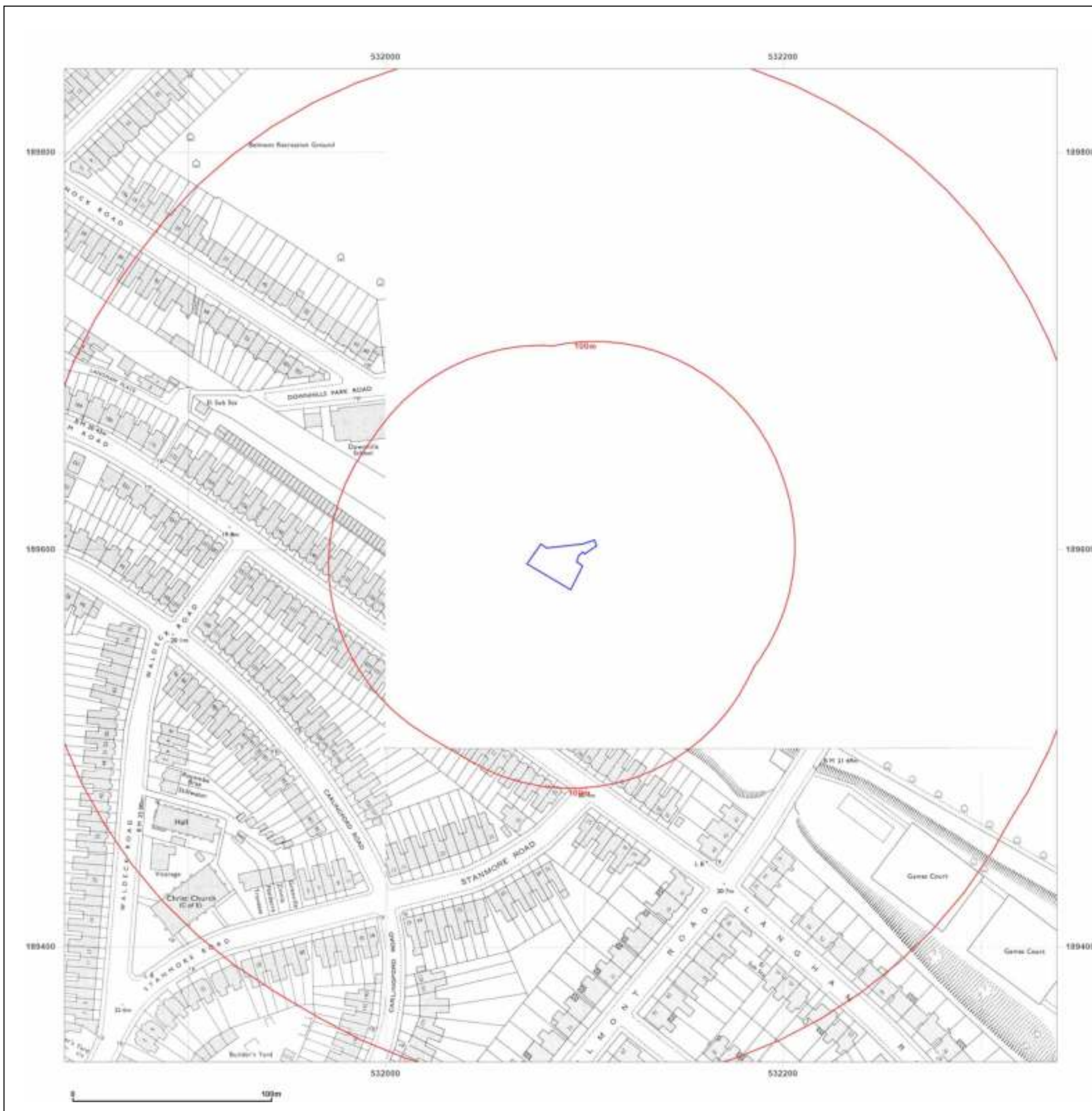


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: National Grid

Map date: 1973-1977

Scale: 1:1,250

Printed at: 1:2,000



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

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

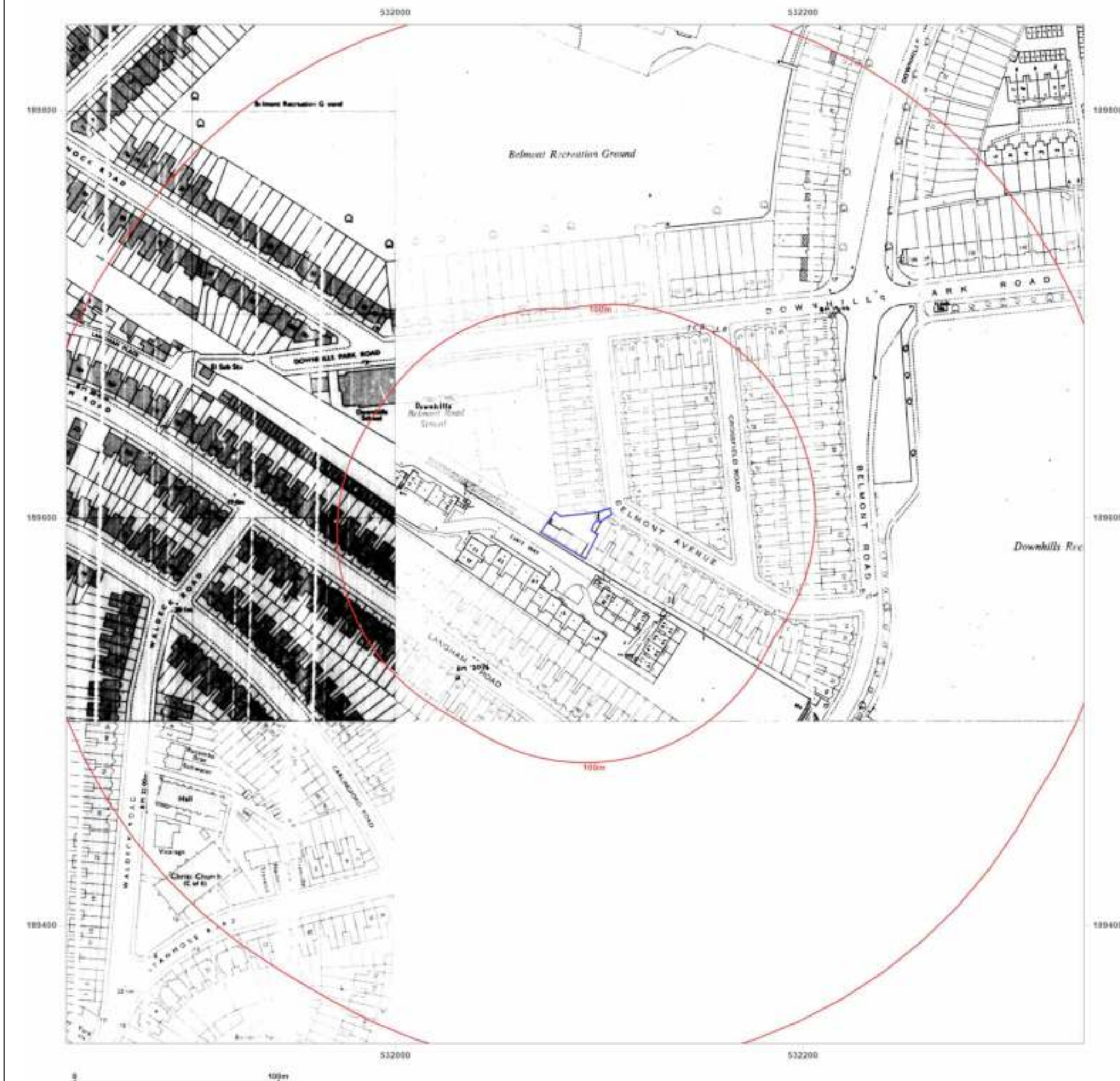


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: National Grid

Map date: 1978-1982

Scale: 1:1,250

Printed at: 1:2,000



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 Levelled N/A

Surveyed 1954
 Revised 1977
 Edition N/A
 Copyright 1979
 Levelled 1956

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

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

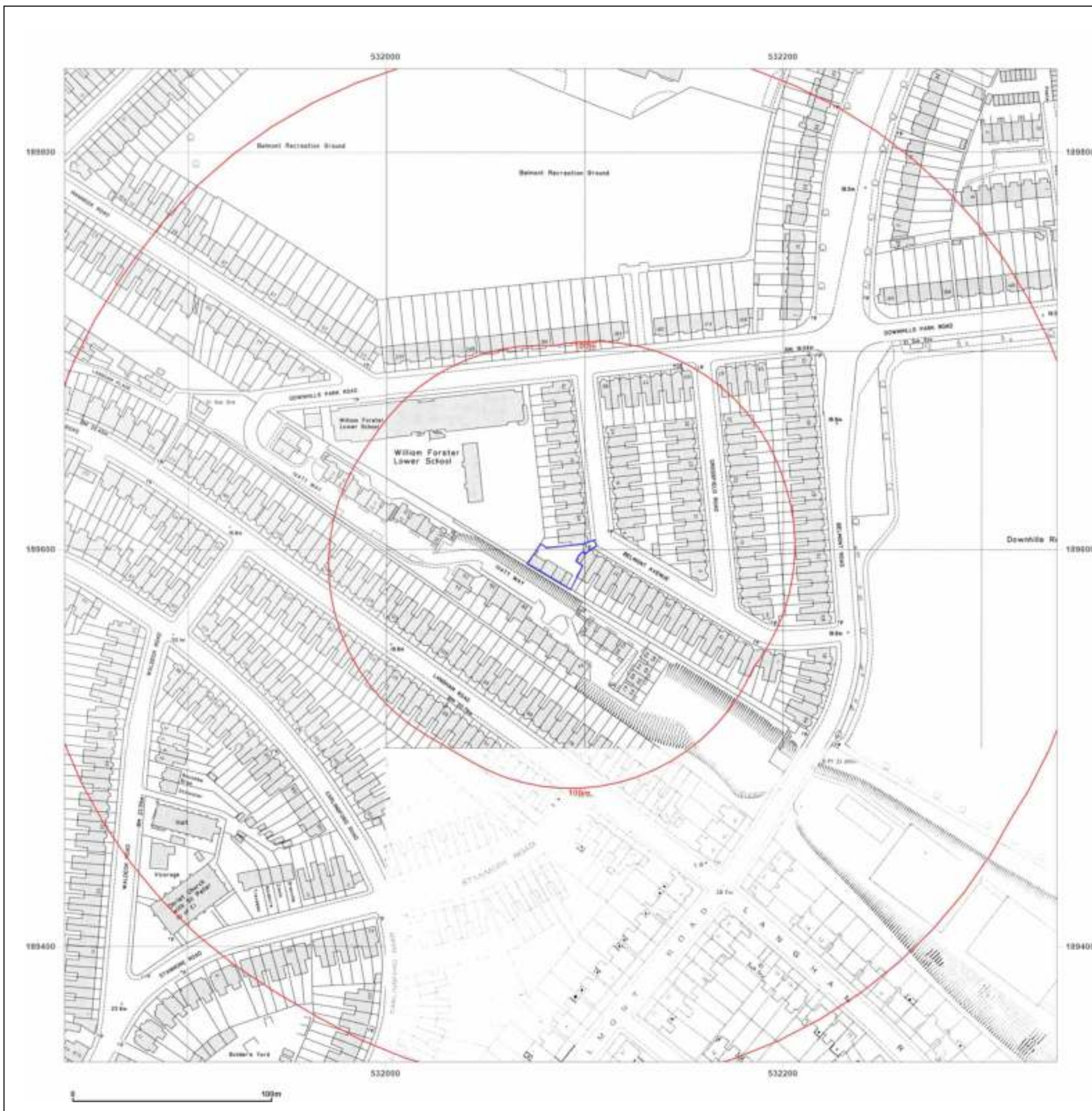


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: National Grid

Map date: 1991

Scale: 1:1,250

Printed at: 1:2,000



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

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

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 Revised 1991
 Edition N/A
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 Levelled N/A

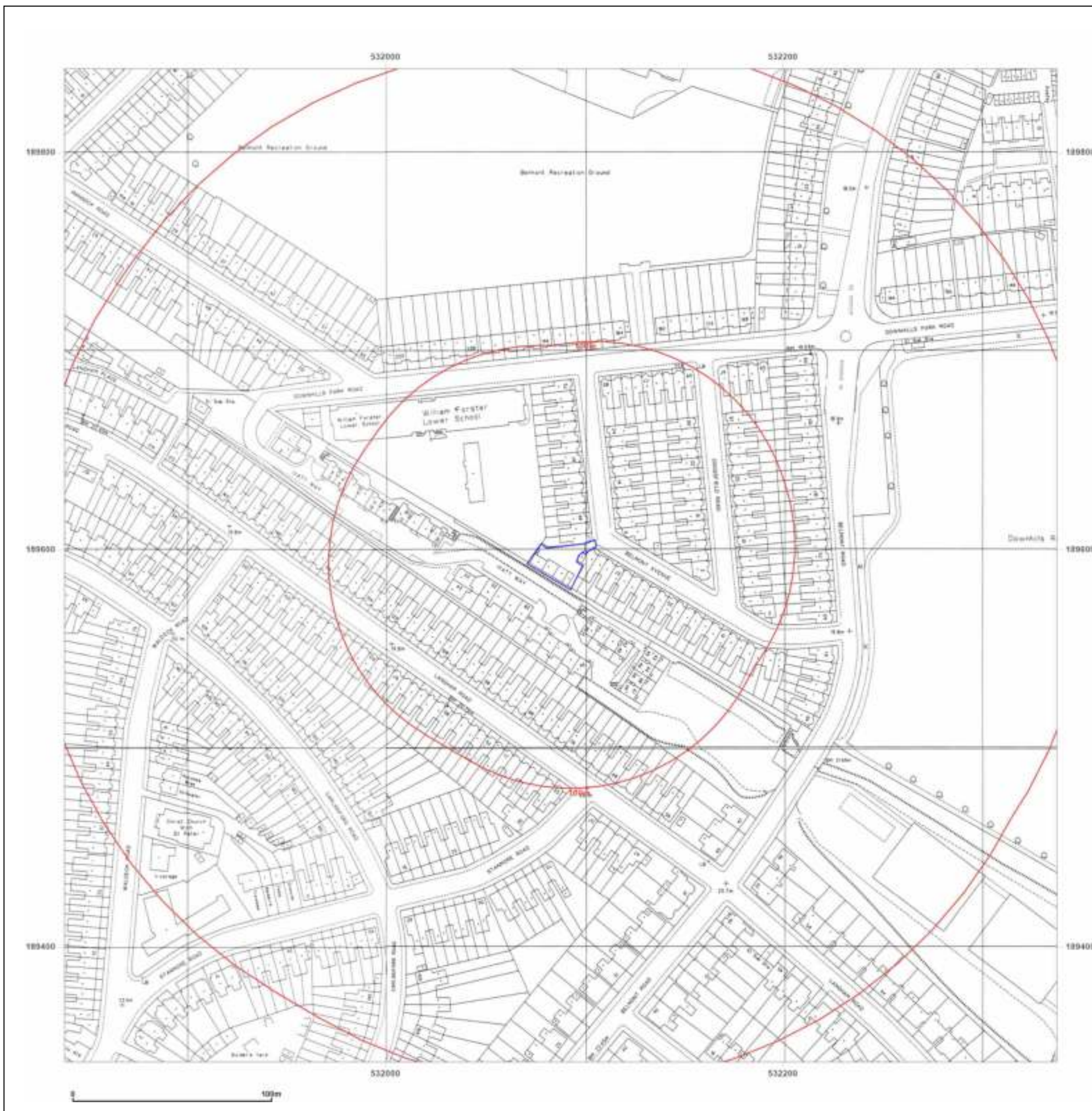


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Site Details:

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Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: National Grid

Map date: 1991

Scale: 1:1,250

Printed at: 1:2,000



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

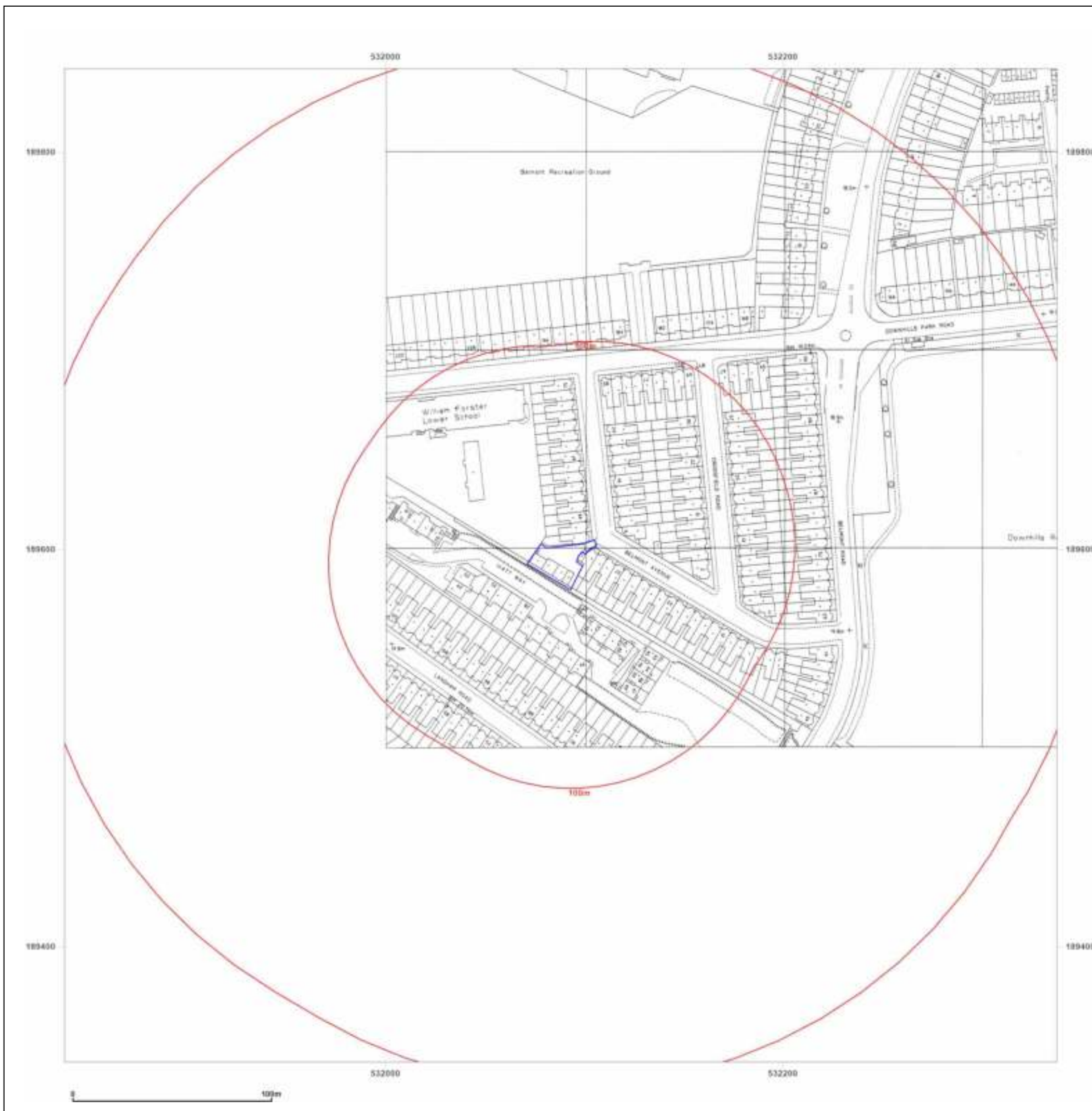


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Site Details:

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Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: National Grid

Map date: 1991

Scale: 1:1,250

Printed at: 1:2,000



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 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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 Edition N/A
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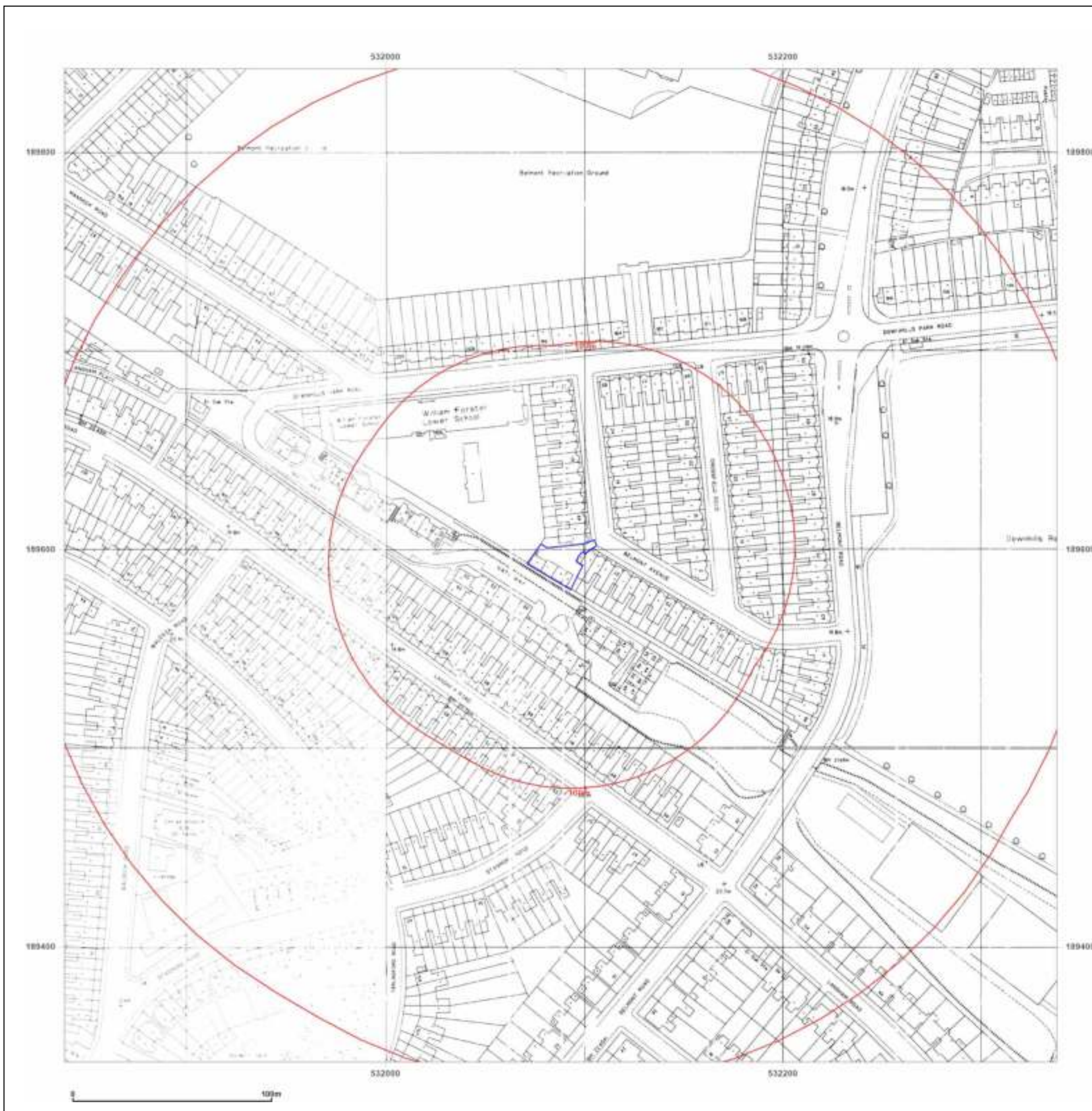


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Site Details:

532087 189596

Client Ref: 22785
Report Ref: GS-8871210
Grid Ref: 532088, 189592

Map Name: LandLine

Map date: 2003

Scale: 1:1,250

Printed at: 1:1,250



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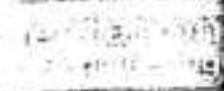
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APPENDIX II – BGS BOREHOLE INFORMATION

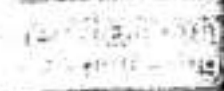
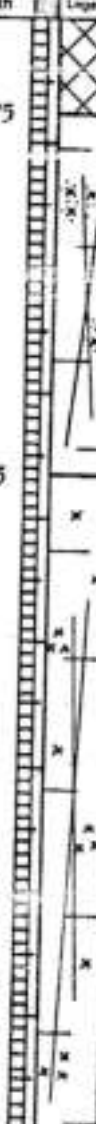
3210.8957

TQ38NW/259

 soil mechanics department		BOREHOLE No.																																																											
		3																																																											
Helmont/Braemar Housing Site		REPORT No. 625/72/11																																																											
Borough of Haringey		Ground Level m. O.D.																																																											
Disused railway cutting between Downhill Park Road and Braemar Road, Haringey N.15.		Boring Commenced 16.8.72 Boring Completed 16.8.72																																																											
Type of Boring Shell and Auger - 200 mm. diameter																																																													
Water Levels Recorded During Boring m																																																													
Hole Depth																																																													
Casing Depth																																																													
Water Level																																																													
<table border="1"> <thead> <tr> <th rowspan="2">Description</th> <th colspan="2">Scale 20mm = 1m.</th> <th colspan="2">Samples</th> <th rowspan="2">Depth m</th> <th rowspan="2">S.P.T. N</th> </tr> <tr> <th>Depth</th> <th>Legend</th> <th>Ref. No.</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td rowspan="5"> 0-0.75 m ground (clay and brick rubble). stiff grey/brown mottled fissured clay with occasional pockets of silty sand and selenite crystals, (brown London Clay). </td> <td rowspan="5">0.75</td> <td rowspan="5">  </td> <td>750</td> <td>J</td> <td>0.50</td> <td rowspan="5"></td> </tr> <tr> <td>751</td> <td>J</td> <td>0.75</td> </tr> <tr> <td>752</td> <td>U</td> <td>0.90-1.35</td> </tr> <tr> <td>753</td> <td>J</td> <td>1.65</td> </tr> <tr> <td>754</td> <td>U</td> <td>2.40-2.85</td> </tr> <tr> <td rowspan="8"> 3.65 m stiff, becoming very stiff grey silty clay with occasional pockets of silt, becoming very silty with depth. (brown London Clay). </td> <td rowspan="8">3.65</td> <td rowspan="8">  </td> <td>755</td> <td>J</td> <td>3.15</td> <td rowspan="8"></td> </tr> <tr> <td>756</td> <td>U</td> <td>3.90-4.35</td> </tr> <tr> <td>757</td> <td>J</td> <td>4.65</td> </tr> <tr> <td>758</td> <td>U</td> <td>5.40-5.85</td> </tr> <tr> <td>759</td> <td>J</td> <td>6.15</td> </tr> <tr> <td>760</td> <td>U</td> <td>6.90-7.35</td> </tr> <tr> <td>761</td> <td>J</td> <td>7.65</td> </tr> <tr> <td>762</td> <td>U</td> <td>8.40-8.85</td> </tr> </tbody> </table>				Description	Scale 20mm = 1m.		Samples		Depth m	S.P.T. N	Depth	Legend	Ref. No.	Type	0-0.75 m ground (clay and brick rubble). stiff grey/brown mottled fissured clay with occasional pockets of silty sand and selenite crystals, (brown London Clay).	0.75		750	J	0.50		751	J	0.75	752	U	0.90-1.35	753	J	1.65	754	U	2.40-2.85	3.65 m stiff, becoming very stiff grey silty clay with occasional pockets of silt, becoming very silty with depth. (brown London Clay).	3.65		755	J	3.15		756	U	3.90-4.35	757	J	4.65	758	U	5.40-5.85	759	J	6.15	760	U	6.90-7.35	761	J	7.65	762	U	8.40-8.85
Description	Scale 20mm = 1m.		Samples		Depth m	S.P.T. N																																																							
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			751	J	0.75																																																								
			752	U	0.90-1.35																																																								
			753	J	1.65																																																								
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3210.8957

TQ38NW/259

 soil mechanics department		BOREHOLE No.			
		3			
Helmont/Braemar Housing Site		REPORT No. 625/72/11			
Borough of Haringey		Ground Level m. O.D.			
Disused railway cutting between Downhill Park Road and Braemar Road, Haringey N.15.		Boring Commenced 16.8.72 Boring Completed 16.8.72			
Type of Boring Shell and Auger - 200 mm. diameter					
Water Levels Recorded During Boring m					
Hole Depth					
Casing Depth					
Water Level					
Description	Scale 20mm = 1m.		Samples	Depth m	S.P.T. N
	Depth	Legend	Ref. No. Type		
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British
Geological
Survey

Version 2.0.6.6

BGS ID: 846411 : BGS Reference: TQ38NW637

British National Grid (27700) : 532350,189360

[Report an issue with this borehole](#)

<<

< Prev

Page 1 of 2 ▾

Next >

>>

TQ38NW 637 53235 18936
RECORD OF BOREHOLE NO.2

Ground level : 57.3ft above O.D.

Dia. of boring : 6in

Type of boring : Shell and Auger

Lining tubes : 6in to 7ft

Daily Progress	Samples		Change of Strata			Description of Strata
	Depth	Type	Legend	Depth	O.D. level	
8.6.67				2'6"	58.8	FILL (gravel, cobbles and ashes)
	2'6" - 4'0"	U(4)				Firm becoming stiff fissured brown silty CLAY, with occasional partings of silty fine sand and gypsum crystals
	4'0"	D				
	6'0"	D				
	7'6" - 9'0"	U(4)				
	9'0"	D				
	11'0"	D		12'6"	44.8	Stiff fissured grey silty CLAY, with occasional partings of silty fine sand in top few feet
	12'6" - 14'0"	U(4)				
	14'0"	D				
	16'0"	D				
	17'6" - 19'0"	U(4)				
	19'0"	D				
	20'6"	D				
	22'0" - 23'6"	U(4)				
23'6"	D					
25'0"	D					
27'0" - 28'6"	U(4)					
28'6"	D	30'0"	27.3			
	30'0"	D				
Key to type of sample :			Remarks : (Observations on ground-water, etc.)			
U (4) — 4 in. dia. undisturbed sample.			Groundwater was not encountered during boring.			
U (1½) — 1½ in. dia. " "						
D — disturbed sample. " "						



British
Geological
Survey

Version 2.0.6.6

BGS ID: 846411 : BGS Reference: TQ38NW637

British National Grid (27700) : 532350,189360

[Report an issue with this borehole](#)

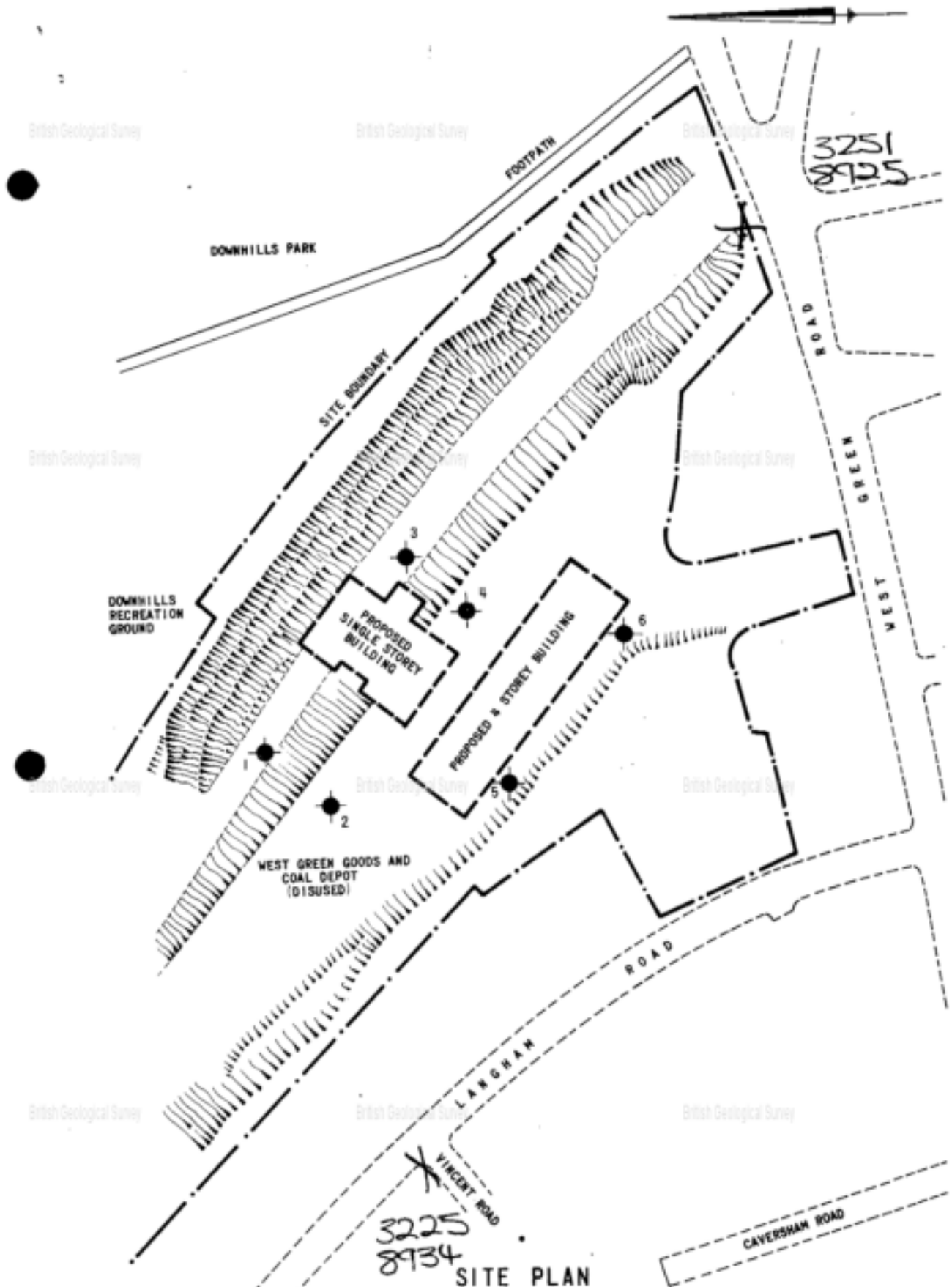
<<

< Prev

Page 2 of 2 ▾

Next >

>>



Location WEST GREEN T.S.V.C. (MILTON ROAD)		Project PROVISION OF FUEL INSTALLATION		Appendix A Sheet No. 1	
AUGER HOLE LOG				TQ 38 NW/309 370 8958	
Trial Hole No A		Date Inspected 2 MARCH 82		Ground level ~ 21.0m AOD	
Description of Strata		Legend	Depth	Remarks	
150mm thick lightly reinforced concrete			G.L.	300mm Ø auger hole	
100mm thick layer of HOGGIN			0.6	Surface of vehicle park. HOGGIN = Compact yellow brown silty sandy sub-rounded to rounded fine to coarse GRAVEL.	
Stiff, dark grey/black silty CLAY (topsoil) with abundant small rootlets.					
Firm to stiff brown/grey brown silty CLAY becoming more fissured with depth.				2.3 Slow seepage clay damp on fissures.	
(LONDON CLAY)				(water broke through base of auger hole after ½ hour and reached a rest level of 4.8m bgl after 1½ hr.)	
occasional fissures infilled with soft blue clay or iron stained silt.			4.8		
			5.1	0.05m thick claystone fragments End of pit	
Trial Hole No. B		Date Inspected 2 MARCH 82		Ground level ~ 21.0m AOD	
Description of Strata		Legend	Depth	Remarks	
AS Trial Hole No. A			G.L.	300mm Ø auger hole	
150mm thick concrete				Vehicle Park slab.	
100mm thick layer of hoggins TOPSOIL			0.6		
Firm to stiff brown silty CLAY.			1.2		
Rounded medium to coarse GRAVEL in a stiff yellow brown silty clay matrix.			1.4		
Firm to stiff brown becoming mottled blue grey and fissured with depth silty CLAY. Iron stained				2.4 Very slight seepage clay damp on fissures.	
Silty sand clastings were present on the fissures at depth.				(water broke through the base of the auger hole and had risen to 5.0m bgl after 2 hrs. Equilibrium had not been reached!)	
			5.0		
			5.3		

TQ38NW 505

Contract Name HARINCEY CENTRAL AREA DEVELOPMENT A 105 DIVERSION					Borehole No. B 16 Sheet 1 of 1	
Method of boring Shell and Auger Diameter 200 mm			Ground level 20.83m O.D. Start 16.8.79 Finish 17.8.79 <i>3163 8969</i>			

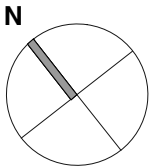
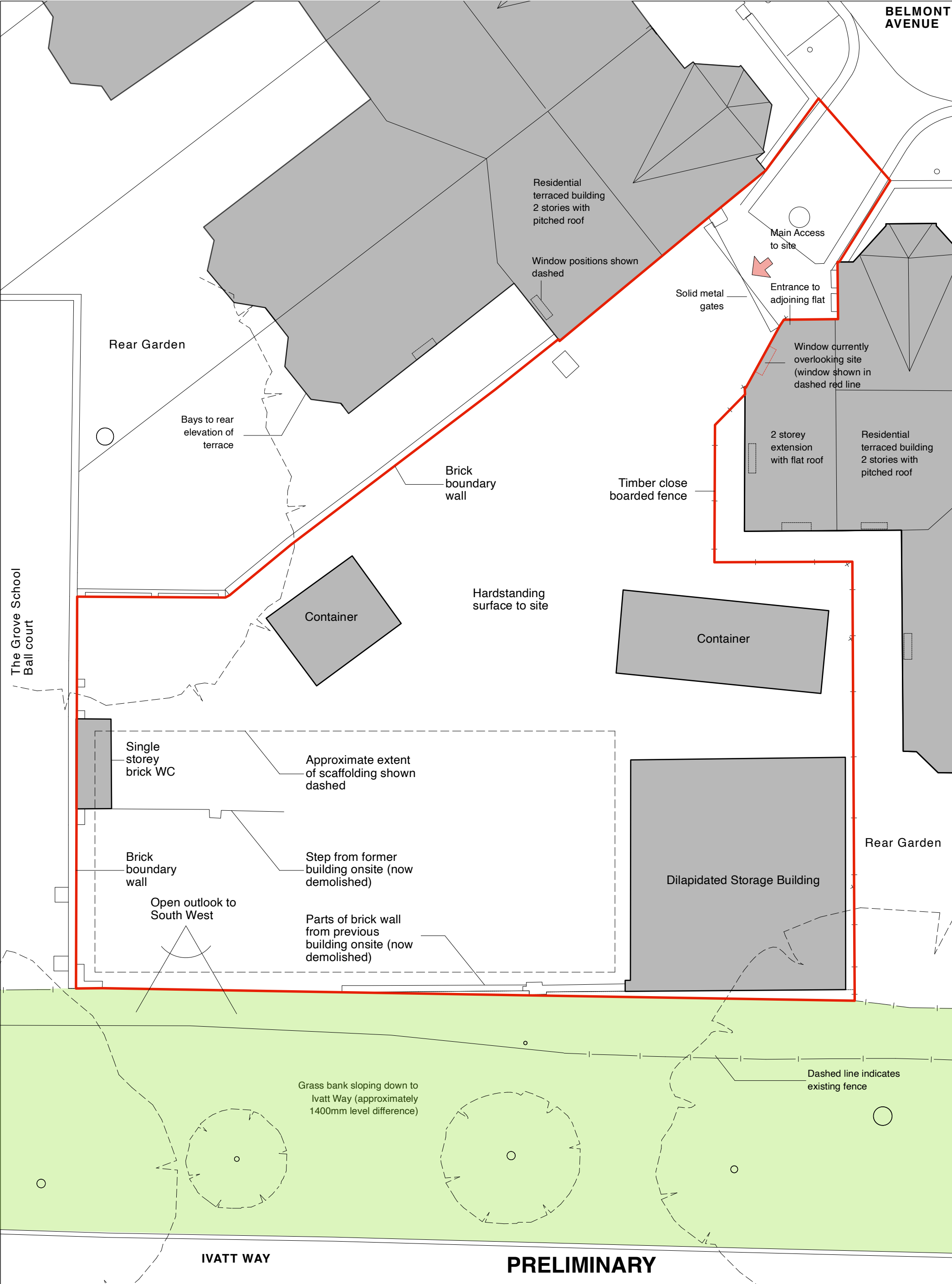
Daily progress	Water levels	In-situ tests	Samples	Depth (m)	Reduced level (m O.D.)	Thickness (m)	Description of Strata	Legend
16/8			B	0.75	20.08	0.75	Soft grey and brown silty clay and ash, bricks, pavement stones	Ground
			U			1.45	Firm mottled brown and grey silty clay with traces of gravel, some pockets of brown medium sand, root fibres and traces of organic material. Yellow-brown remoulded chalk observed between 1.75 and 2.15m depth	1
			J					2
			U					3
16/8			J	2.20	18.63			4
			U					5
			J					6
			U					7
17/8			J			3.80	Stiff fissured brown silty clay with light blue-grey discolourations and traces of light brown silt partings along fissures, and root fibres observed at between 2.25 and 4.40 m depth. (London Clay)	8
			U					9
			J					10
			U					
				6.00	14.83		Bottom of Borehole	

Notes

No water added for drilling and no groundwater observed.

Terresearch Limited	Report No. S.29/648	Appendix 1 Sheet 38
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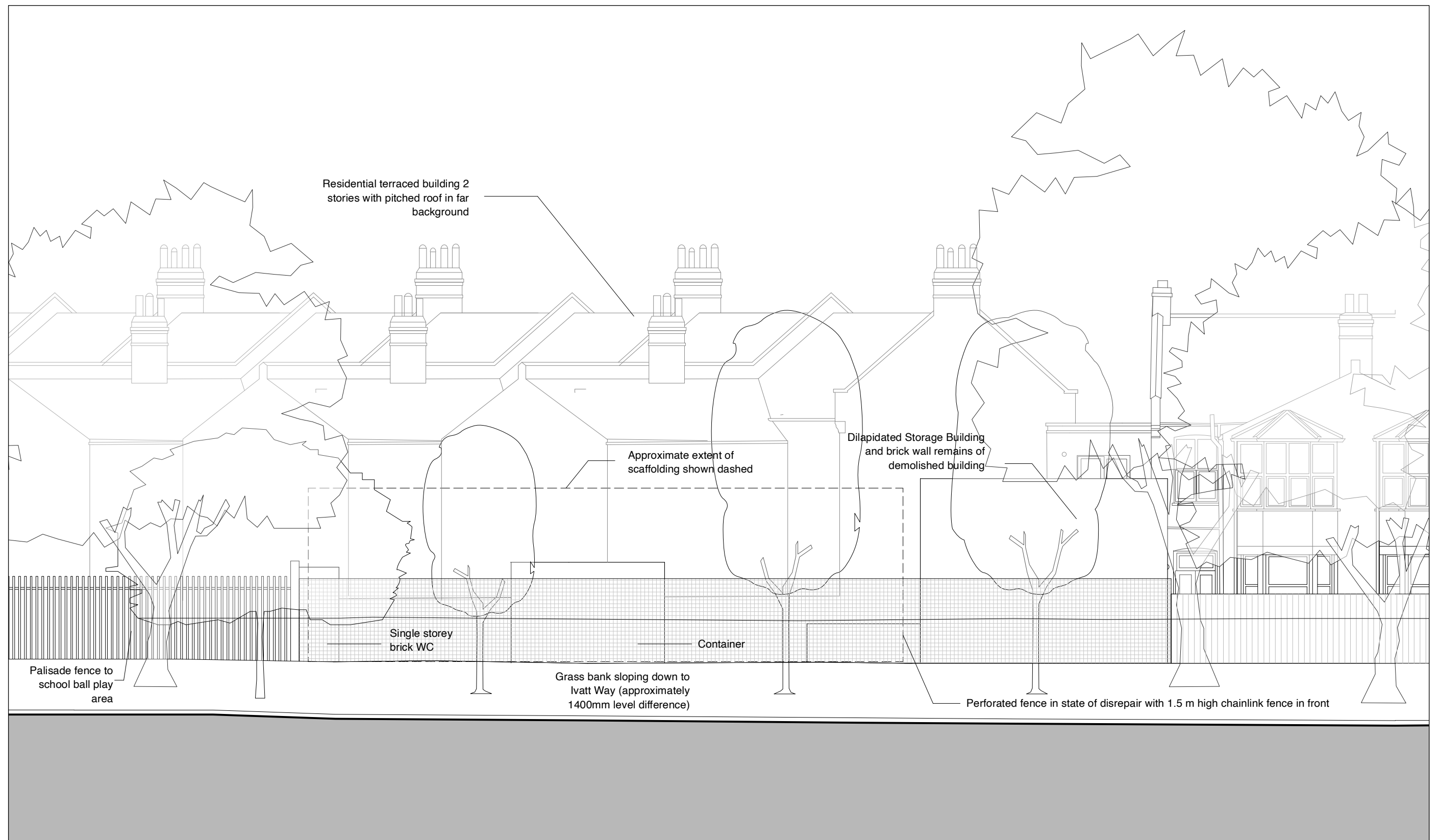
APPENDIX III – ARCHITECTURAL DRAWINGS



Julian Cowie Architects
70 Cowcross Street
London EC1M 6EJ
Telephone 020 7253 6333
Web www.jc-architects.co.uk
Email mail@jc-architects.co.uk

Proposed Apartments
43 Belmont Avenue N17 6AX
Existing Site Plan

Scale: 1:100@A3 May 2022



Grove School

Site: Belmont Works

43 Belmont Avenue

PRELIMINARY

Julian Cowie Architects
70 Cowcross Street
London EC1M 6EJ
Telephone 020 7253 6333
Web www.jc-architects.co.uk
Email mail@jc-architects.co.uk

Proposed Apartments
43 Belmont Avenue N17 6AX

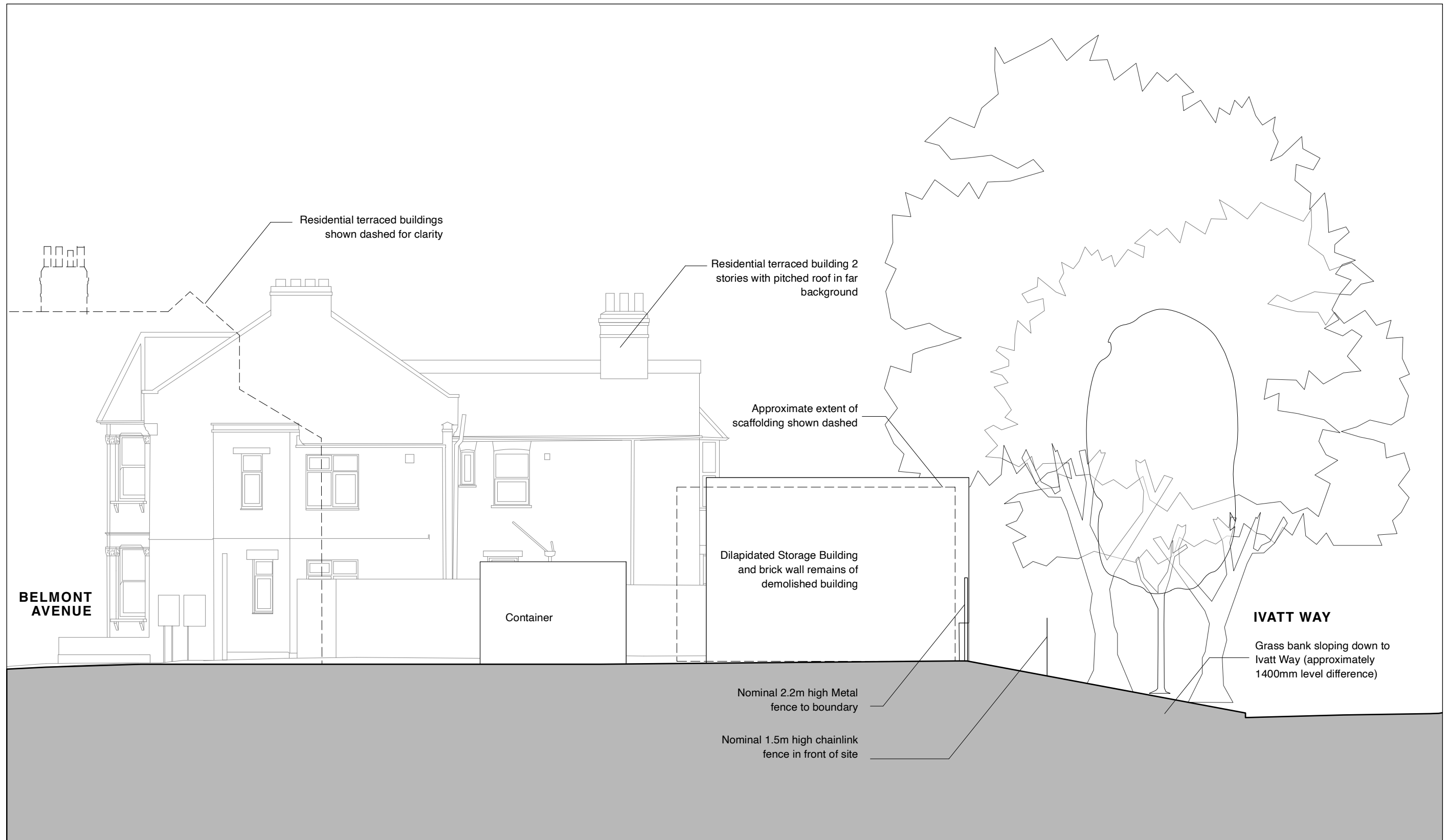
Existing Ivatt Way/South West Elevation

Scale: 1:100@A3

May 2022

PP_03

0m 5m



PRELIMINARY

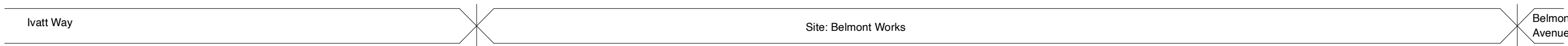
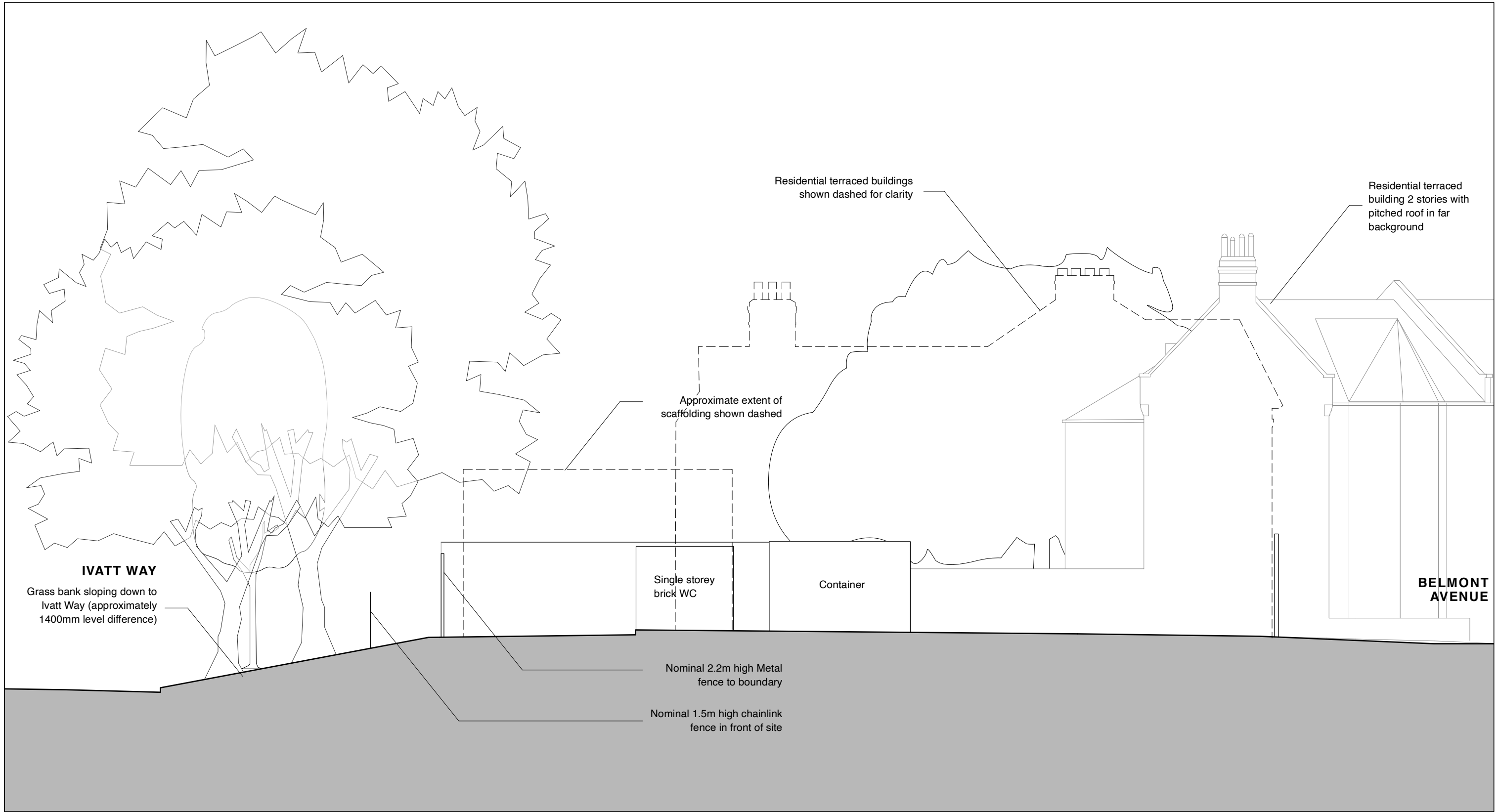
Julian Cowie Architects
 70 Cowcross Street
 London EC1M 6EJ
 Telephone 020 7253 6333
 Web www.jc-architects.co.uk
 Email mail@jc-architects.co.uk

Proposed Apartments
43 Belmont Avenue N17 6AX
Existing Flank/North West Elevation

Scale: 1:100@A3 May 2022

PP_04

0m 5m



PRELIMINARY

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London EC1M 6EJ
Telephone 020 7253 6333
Web www.jc-architects.co.uk
Email mail@jc-architects.co.uk

Proposed Apartments
43 Belmont Avenue N17 6AX

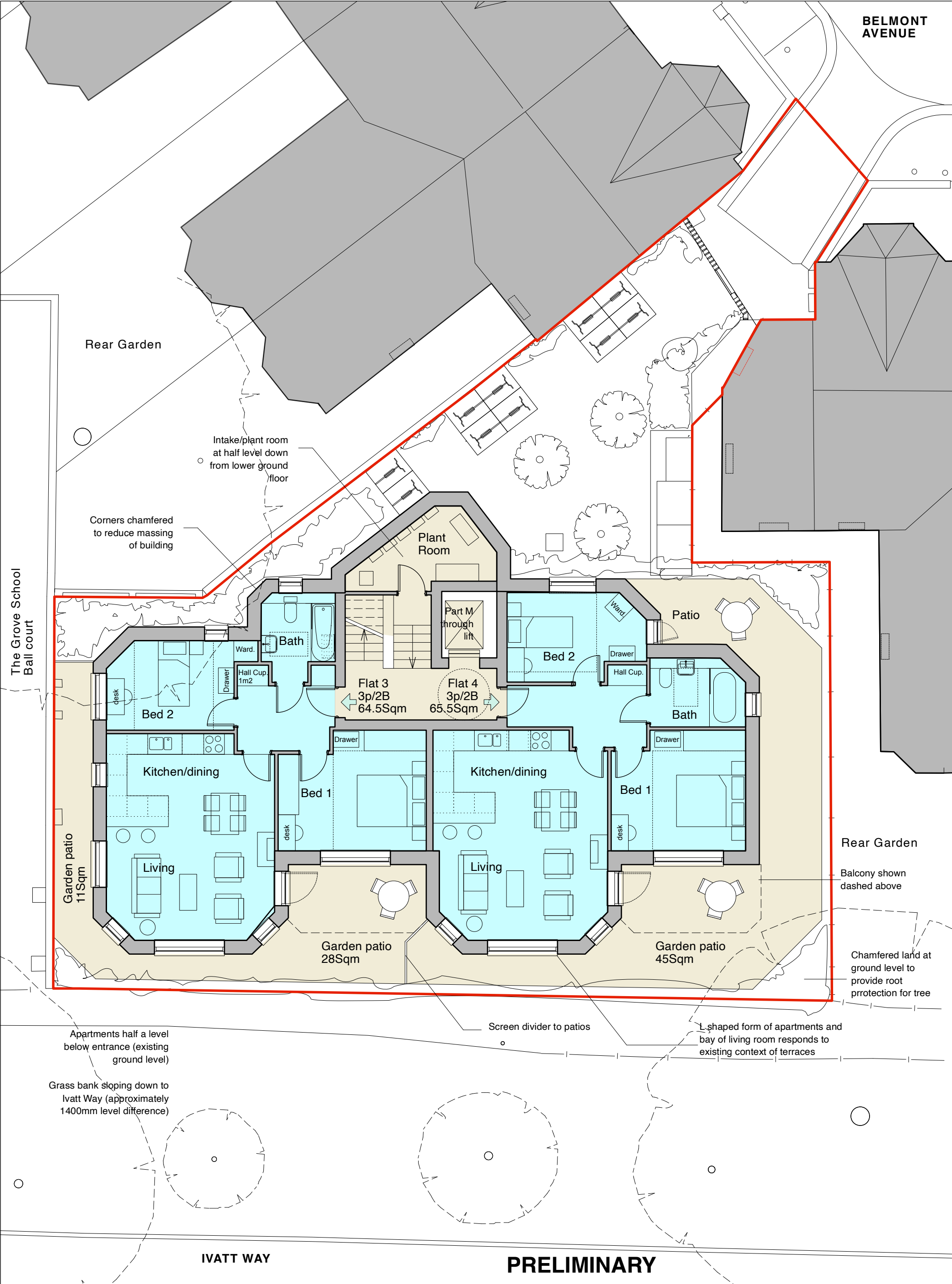
Existing Flank/South East Elevation

0m 5m

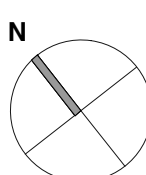
Scale: 1:100@A3

May 2022

PP_05



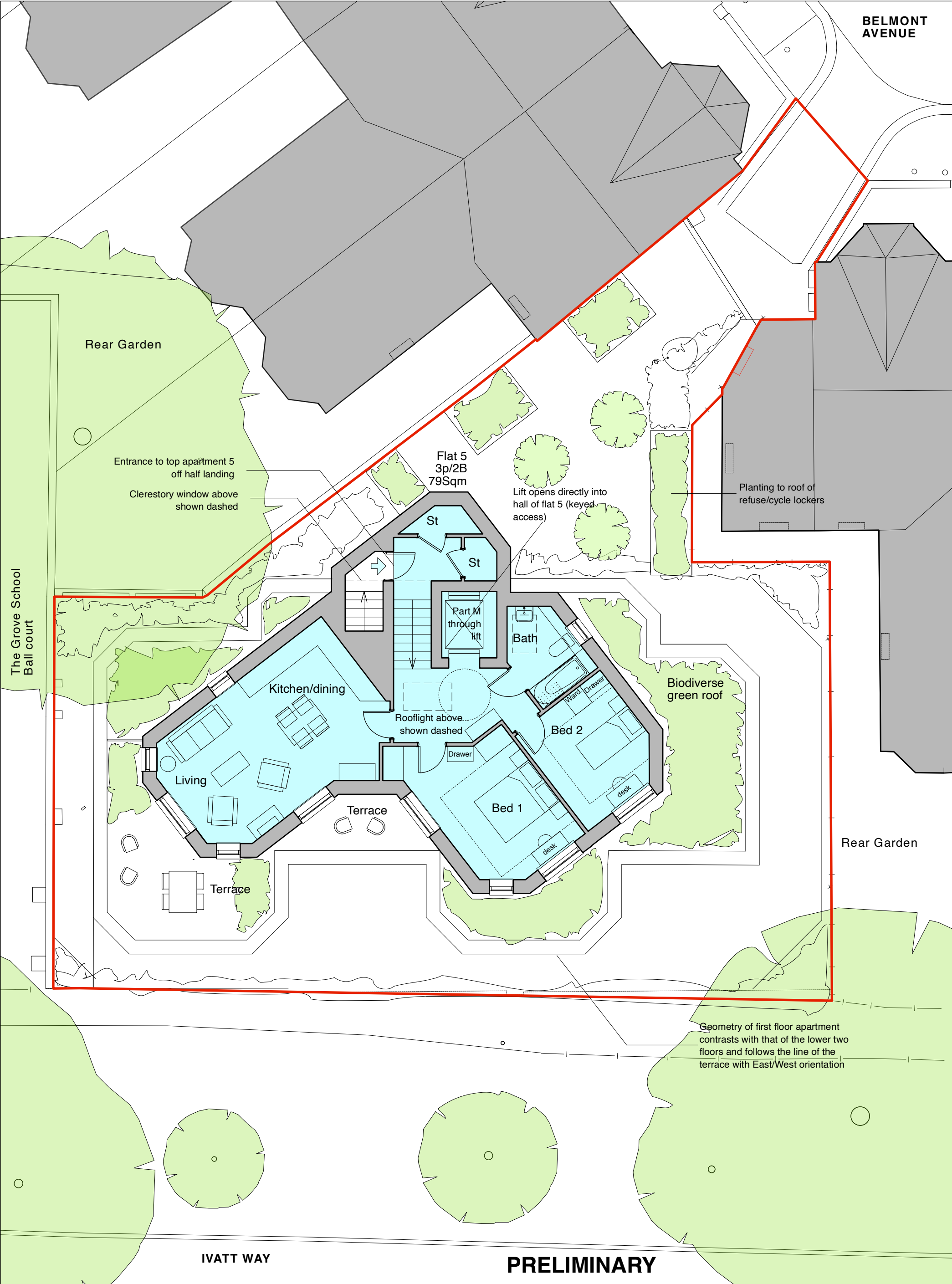
Notes:
Apartments designed to London Plan Guidance Housing Design Standards and to Part M4 (2): Category 2 Accessible and adaptable dwellings, including provision of Part M compliant lift



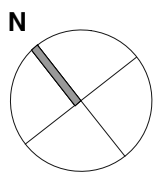
PRELIMINARY

Julian Cowie Architects
70 Cowcross Street
London EC1M 6EJ
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Email mail@jc-architects.co.uk

Proposed Apartments
43 Belmont Avenue N17 6AX
Proposed Lower Ground Floor Plan



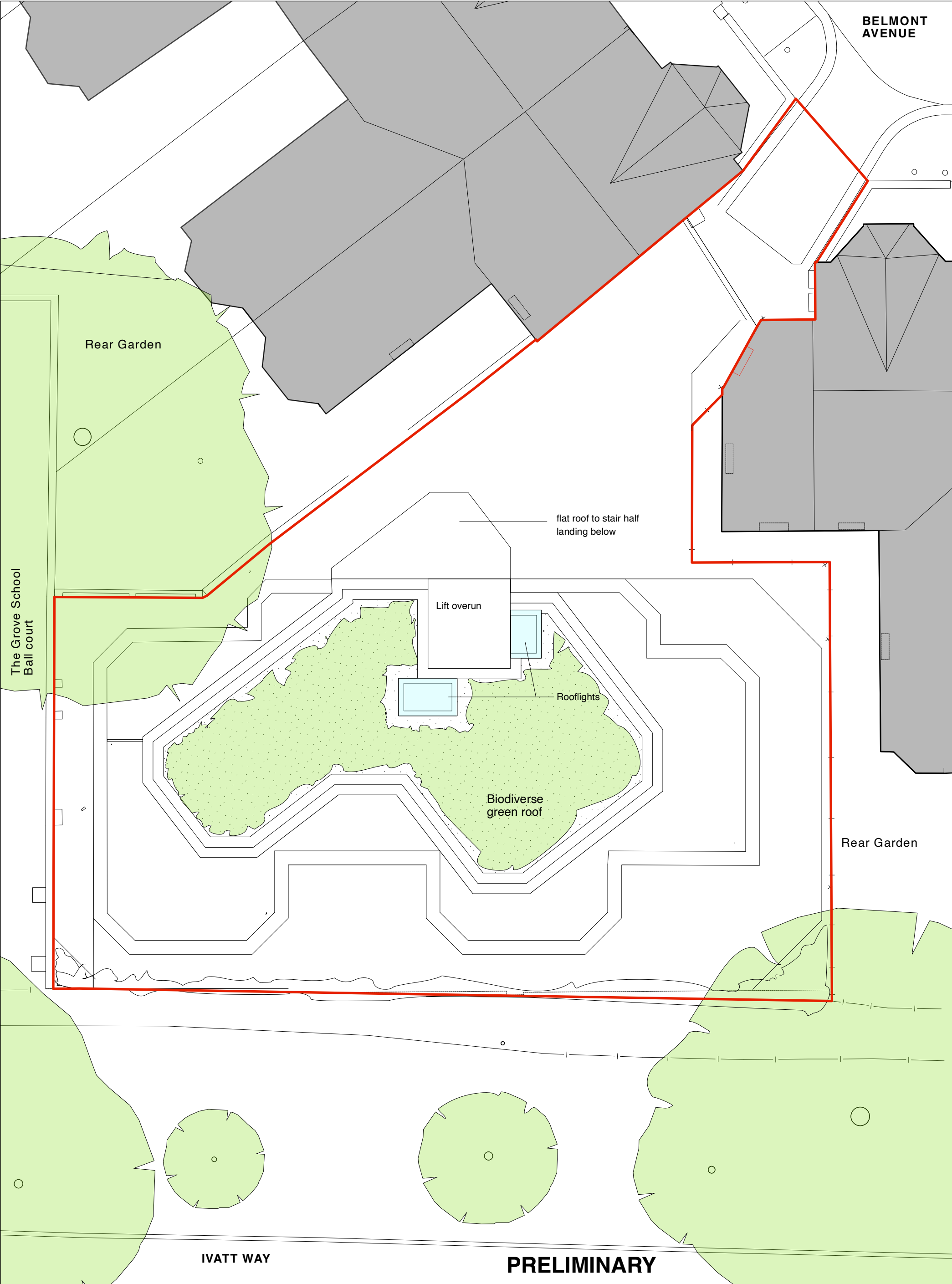
Notes:
Apartments designed to London Plan Guidance
Housing Design Standards and to Part M4 (2):
Category 2 Accessible and adaptable dwellings,
including provision of Part M compliant lift



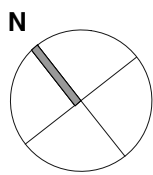
PRELIMINARY

Julian Cowie Architects
70 Cowcross Street
London EC1M 6EJ
Telephone 020 7253 6333
Web www.jc-architects.co.uk
Email mail@jc-architects.co.uk

Proposed Apartments
43 Belmont Avenue N17 6AX
Proposed First floor plan



Notes:
Apartments designed to London Plan Guidance
Housing Design Standards and to Part M4 (2):
Category 2 Accessible and adaptable dwellings,
including provision of Part M compliant lift



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London EC1M 6EJ
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Proposed Apartments
43 Belmont Avenue N17 6AX
Proposed Roof floor plan



Grove School

Site: Belmont Works

43 Belmont Avenue

PRELIMINARY

Julian Cowie Architects
70 Cowcross Street
London EC1M 6EJ
Telephone 020 7253 6333
Web www.jc-architects.co.uk
Email mail@jc-architects.co.uk

Proposed Apartments
43 Belmont Avenue N17 6AX

Proposed Ivatt Way/South West Elevation

Scale: 1:100@A3

May 2022

PP_14

0m 5m



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Proposed Apartments
43 Belmont Avenue N17 6AX
Proposed Flank/North West Elevation

Scale: 1:100@A3 May 2022

PP_15





Ivatt Way

Site: Belmont Works

Belmont Avenue

PRELIMINARY

Julian Cowie Architects
70 Cowcross Street
London EC1M 6EJ
Telephone 020 7253 6333
Web www.jc-architects.co.uk
Email mail@jc-architects.co.uk

Proposed Apartments
43 Belmont Avenue N17 6AX

Proposed Flank/South East Elevation

0m 5m

Scale: 1:100@A3

May 2022

PP_16



0m 5m

Julian Cowie Architects
70 Cowcross Street
London EC1M 6EJ
Telephone 020 7253 6333
Web www.jc-architects.co.uk
Email mail@jc-architects.co.uk

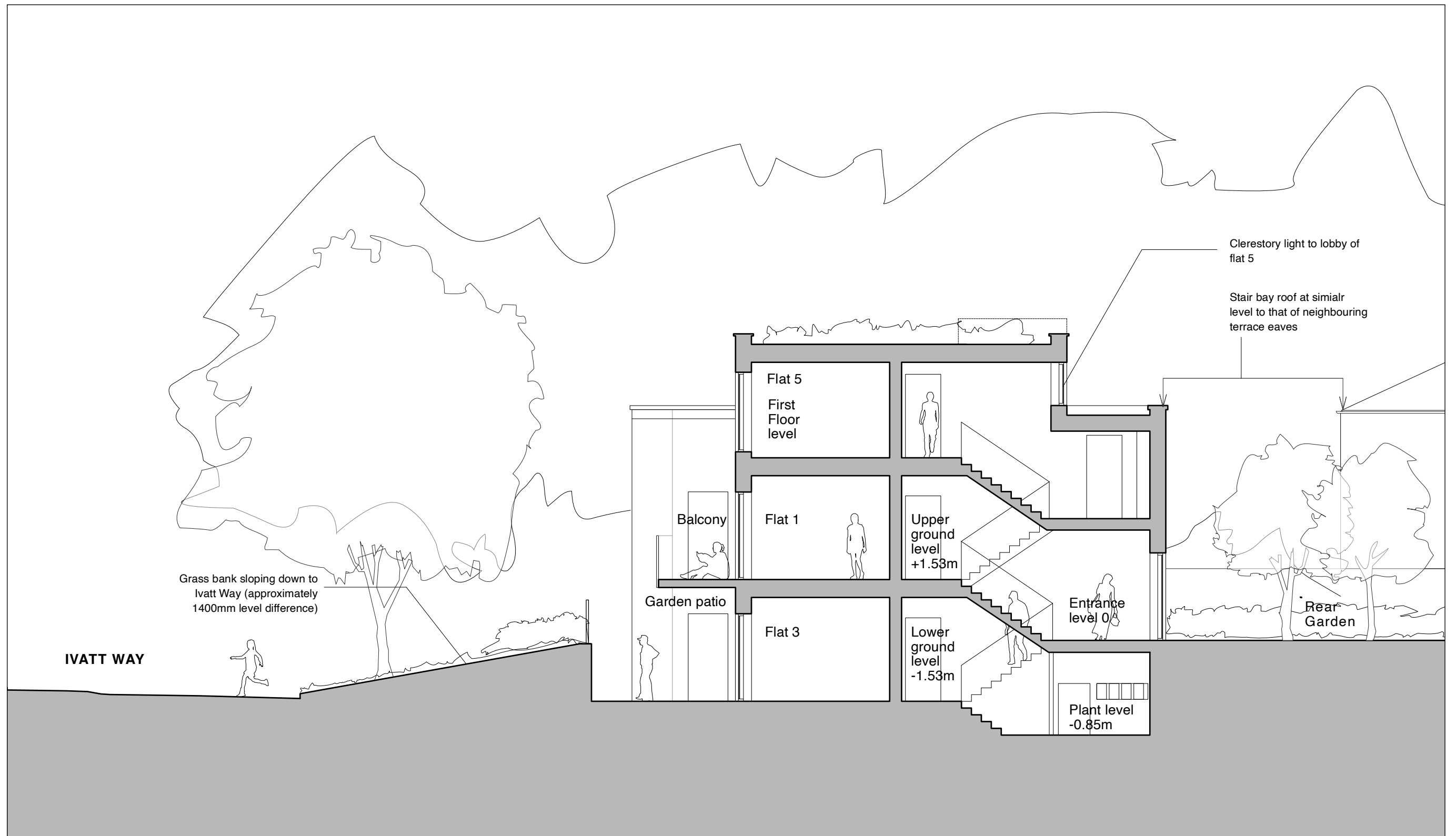
Proposed Apartments
43 Belmont Avenue N17 6AX

Proposed Courtyard/North East Elevation

Scale: 1:100@A3

May 2022

PP_17



Notes:

Apartments designed to London Plan Guidance Housing Design Standards and to Part M4 (2): Category 2 Accessible and adaptable dwellings, including provision of Part M compliant lift

PRELIMINARY



Julian Cowie Architects
70 Cowcross Street
London EC1M 6EJ
Telephone 020 7253 6333
Web www.jc-architects.co.uk
Email mail@jc-architects.co.uk

Proposed Apartments
43 Belmont Avenue N17 6AX

Proposed Section



Scale: 1:100@A3

May 2022

PP_18

APPENDIX IV – GEO-INSIGHT INFORMATION

532087 189596,

Order Details

Date: 01/07/2022

Your ref: 22785

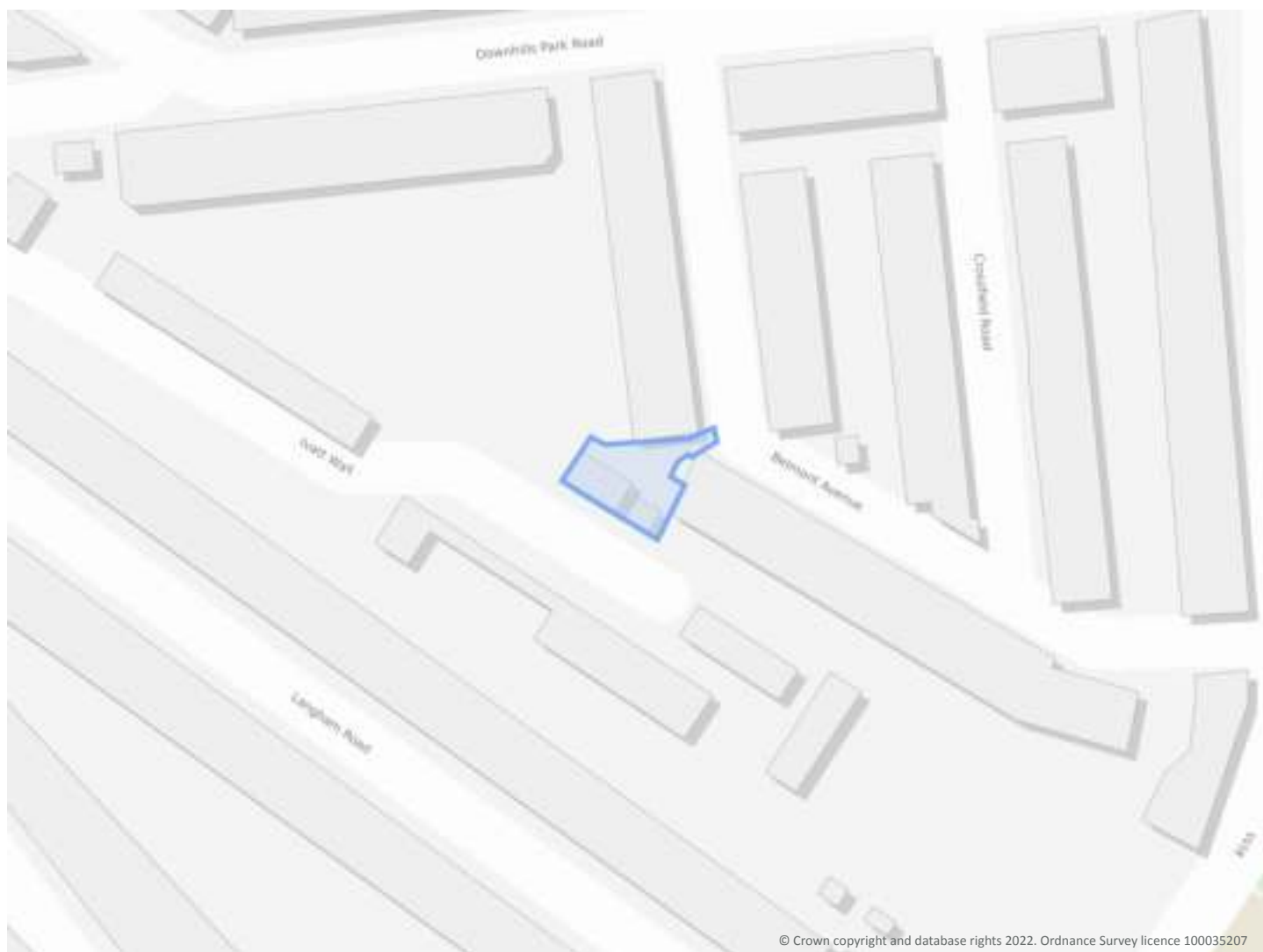
Our Ref: GS-8871148

Site Details

Location: 532088 189593

Area: 0.04 ha

Authority: [London Borough of Haringey](#)



Summary of findings

p. 2

Aerial image

p. 5

OS MasterMap site plan

p.10

groundsure.com/insightuserguide

Contact us with any questions at:

info@groundsure.com

08444 159 000

Summary of findings

Page	Section	Geology 1:10,000 scale	On site	0-50m	50-250m	250-500m	500-2000m
<u>11</u>	<u>1.1</u>	<u>10k Availability</u>	Identified (within 500m)				
12	1.2	Artificial and made ground (10k)	0	0	0	0	-
13	1.3	Superficial geology (10k)	0	0	0	0	-
13	1.4	Landslip (10k)	0	0	0	0	-
<u>14</u>	<u>1.5</u>	<u>Bedrock geology (10k)</u>	1	0	0	1	-
15	1.6	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
<u>16</u>	<u>2.1</u>	<u>50k Availability</u>	Identified (within 500m)				
17	2.2	Artificial and made ground (50k)	0	0	0	0	-
17	2.3	Artificial ground permeability (50k)	0	0	-	-	-
18	2.4	Superficial geology (50k)	0	0	0	0	-
18	2.5	Superficial permeability (50k)	None (within 50m)				
18	2.6	Landslip (50k)	0	0	0	0	-
18	2.7	Landslip permeability (50k)	None (within 50m)				
<u>19</u>	<u>2.8</u>	<u>Bedrock geology (50k)</u>	1	0	0	0	-
<u>20</u>	<u>2.9</u>	<u>Bedrock permeability (50k)</u>	Identified (within 50m)				
20	2.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
<u>21</u>	<u>3.1</u>	<u>BGS Boreholes</u>	0	1	3	-	-
Page	Section	Natural ground subsidence					
<u>23</u>	<u>4.1</u>	<u>Shrink swell clays</u>	Moderate (within 50m)				
<u>24</u>	<u>4.2</u>	<u>Running sands</u>	Very low (within 50m)				
<u>25</u>	<u>4.3</u>	<u>Compressible deposits</u>	Negligible (within 50m)				
<u>26</u>	<u>4.4</u>	<u>Collapsible deposits</u>	Very low (within 50m)				
<u>27</u>	<u>4.5</u>	<u>Landslides</u>	Very low (within 50m)				
<u>28</u>	<u>4.6</u>	<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
30	5.1	Natural cavities	0	0	0	0	-
31	5.2	BritPits	0	0	0	0	-
31	5.3	<u>Surface ground workings</u>	1	5	6	-	-
32	5.4	Underground workings	0	0	0	0	0
32	5.5	Historical Mineral Planning Areas	0	0	0	0	-
32	5.6	Non-coal mining	0	0	0	0	0
32	5.7	Mining cavities	0	0	0	0	0
32	5.8	JPB mining areas	None (within 0m)				
33	5.9	Coal mining	None (within 0m)				
33	5.10	Brine areas	None (within 0m)				
33	5.11	Gypsum areas	None (within 0m)				
33	5.12	Tin mining	None (within 0m)				
33	5.13	Clay mining	None (within 0m)				
Page	Section	Radon					
34	6.1	<u>Radon</u>	Less than 1% (within 0m)				
Page	Section	Soil chemistry	On site	0-50m	50-250m	250-500m	500-2000m
35	7.1	<u>BGS Estimated Background Soil Chemistry</u>	1	0	-	-	-
35	7.2	<u>BGS Estimated Urban Soil Chemistry</u>	4	0	-	-	-
36	7.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m
37	8.1	Underground railways (London)	0	0	0	-	-
37	8.2	Underground railways (Non-London)	0	0	0	-	-
38	8.3	Railway tunnels	0	0	0	-	-
38	8.4	<u>Historical railway and tunnel features</u>	1	7	6	-	-
39	8.5	Royal Mail tunnels	0	0	0	-	-
39	8.6	<u>Historical railways</u>	0	1	0	-	-
39	8.7	Railways	0	0	0	-	-
39	8.8	Crossrail 1	0	0	0	0	-



<u>40</u>	<u>8.9</u>	<u>Crossrail 2</u>	0	0	2	0	-
40	8.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 14/06/2021

Site Area: 0.04ha



Recent site history - 2019 aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2022. All Rights Reserved.

Capture Date: 29/06/2019

Site Area: 0.04ha



Recent site history - 2016 aerial photograph



Aerial photography supplied by Getmapping PLC. © Copyright Getmapping PLC 2022. All Rights Reserved.

Capture Date: 12/08/2016

Site Area: 0.04ha



Recent site history - 2013 aerial photograph



Capture Date: 28/04/2013

Site Area: 0.04ha



Recent site history - 1999 aerial photograph



Capture Date: 04/09/1999

Site Area: 0.04ha



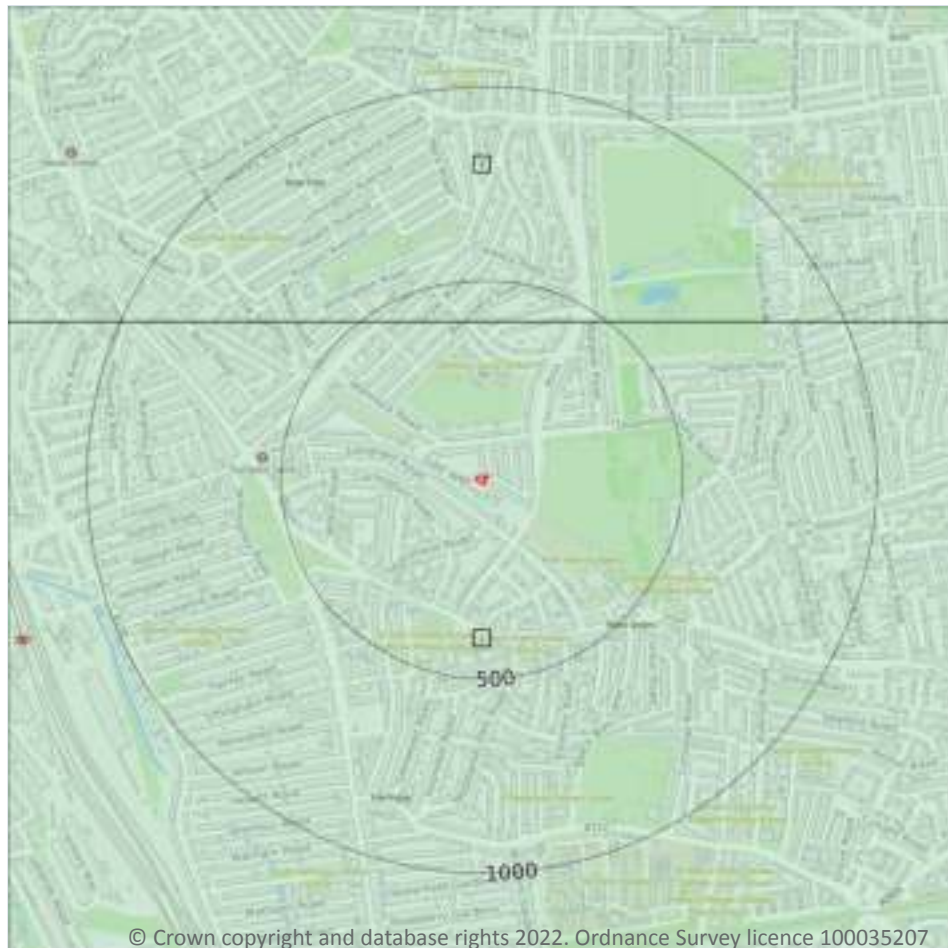
OS MasterMap site plan



Site Area: 0.04ha



1 Geology 1:10,000 scale - Availability



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

1.1 10k Availability

Records within 500m

2

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 11**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	No coverage	TQ38NW
2	395m N	Full	Full	Full	No coverage	TQ39SW

This data is sourced from the British Geological Survey.



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

1.2 Artificial and made ground (10k)

Records within 500m

0

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.

This data is sourced from the British Geological Survey.



Geology 1:10,000 scale - Superficial

1.3 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.

1.4 Landslip (10k)

Records within 500m

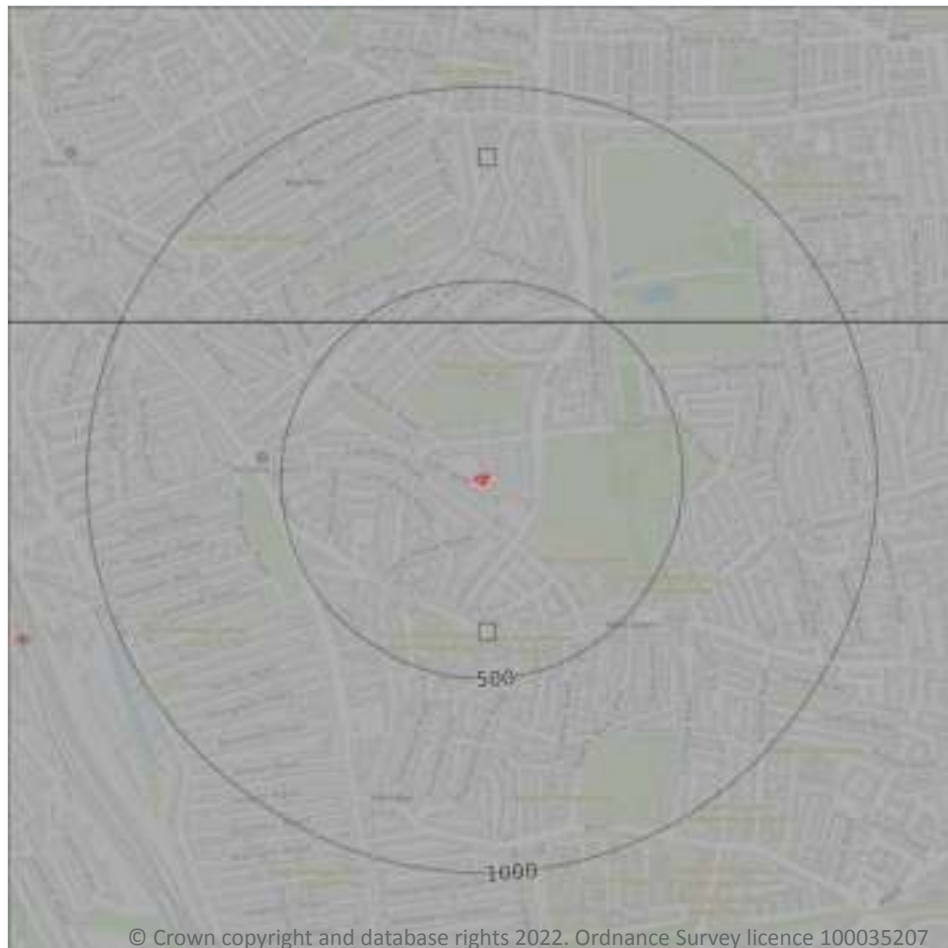
0

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.

1.5 Bedrock geology (10k)

Records within 500m

2

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

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 14**

ID	Location	LEX Code	Description	Rock age
1	On site	LC-CLAY	London Clay Formation - Clay	Eocene Epoch
2	395m N	LC-CLAY	London Clay Formation - Clay	Eocene Epoch

This data is sourced from the British Geological Survey.



1.6 Bedrock faults and other linear features (10k)

Records within 500m

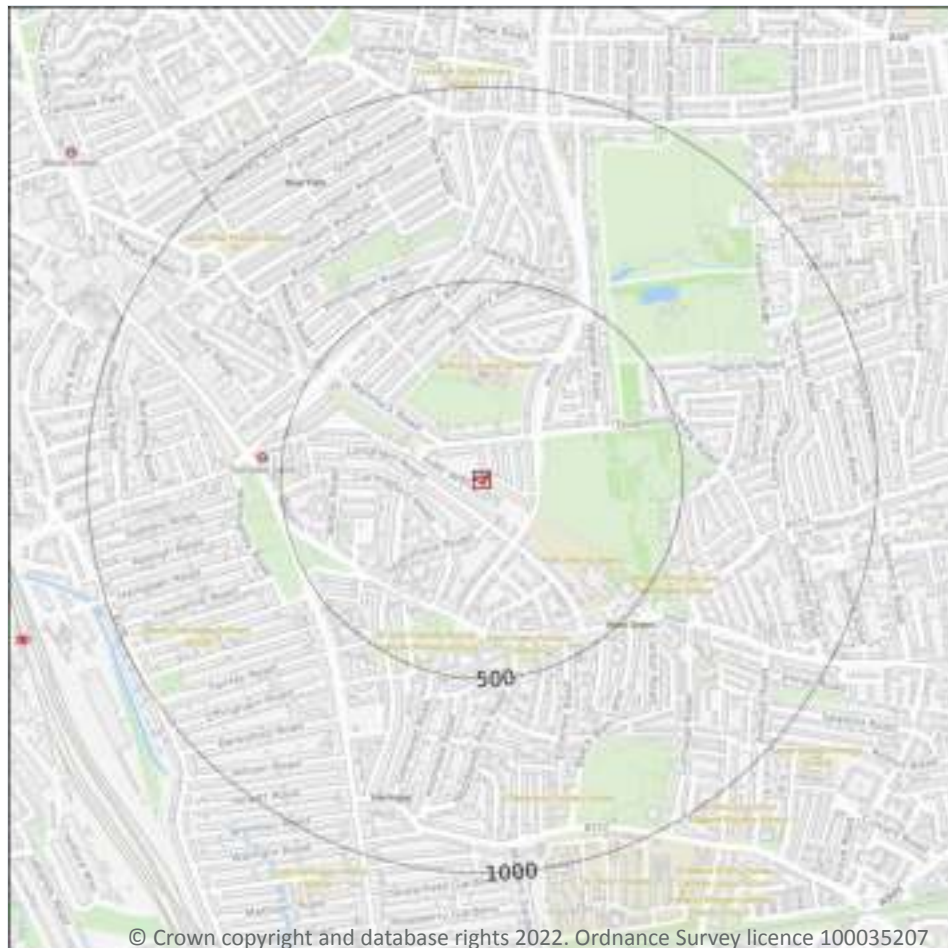
0

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.



2 Geology 1:50,000 scale - Availability



— Site Outline
Search buffers in metres (m)

☐ Geological map tile

2.1 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 16**

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

2.2 Artificial and made ground (50k)

Records within 500m

0

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

This data is sourced from the British Geological Survey.

2.3 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

2.4 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.

2.5 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.

2.6 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.

2.7 Landslip permeability (50k)

Records within 50m

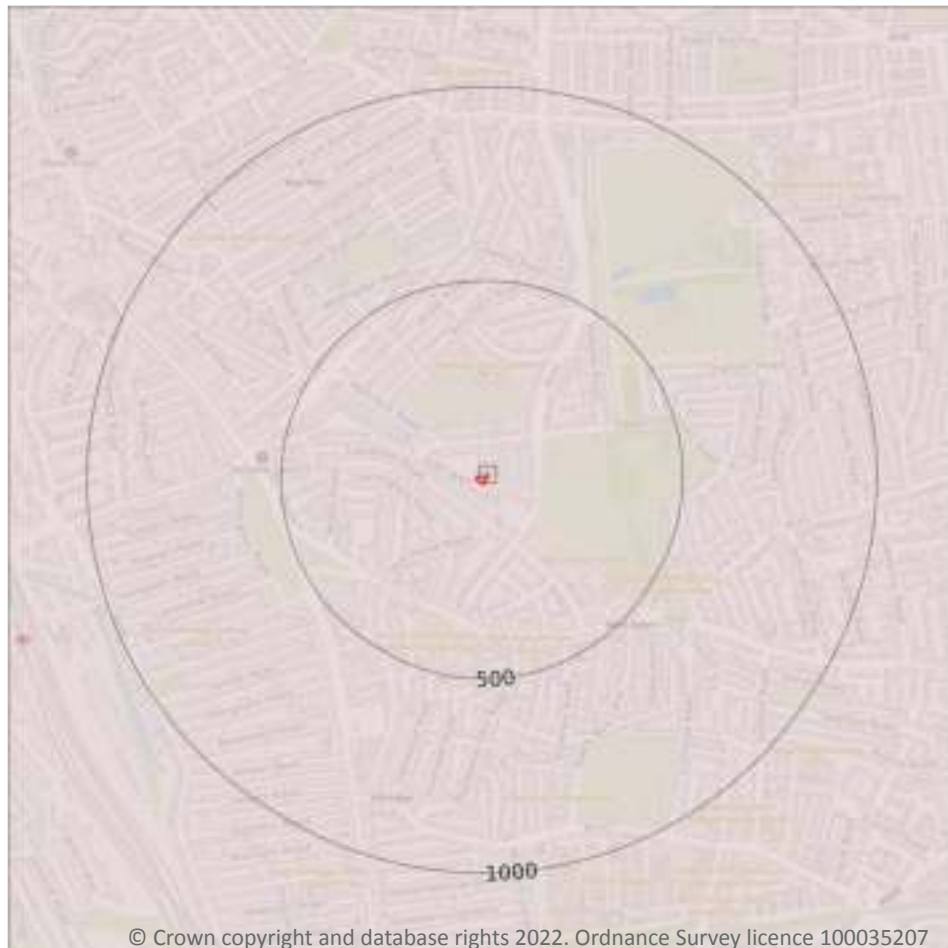
0

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.

2.8 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 19**

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.



2.9 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.

2.10 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.



3 Boreholes



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— Site Outline
Search buffers in metres (m)

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

3.1 BGS Boreholes

Records within 250m

4

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 21**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	13m SE	532100 189570	BELMONT/BRAEMAN HOUSING SITE BH3	18.0	N	846033
2	89m NW	531990 189630	BELMONT/BRAEMAN HOUSING SITE BH2	18.0	N	846032



ID	Location	Grid reference	Name	Length	Confidential	Web link
3	92m SE	532170 189530	BELMONT/BRAEMAN HOUSING SITE BH4	18.0	N	846034
4	188m NW	531910 189690	BELMONT/BRAEMAN HOUSING SITE BH1	18.0	N	846031

This data is sourced from the British Geological Survey.



4 Natural ground subsidence - Shrink swell clays



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

4.1 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 23**

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

4.2 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 24**

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

This data is sourced from the British Geological Survey.



Natural ground subsidence - Compressible deposits



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

4.3 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 25**

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

4.4 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 26**

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

4.5 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.

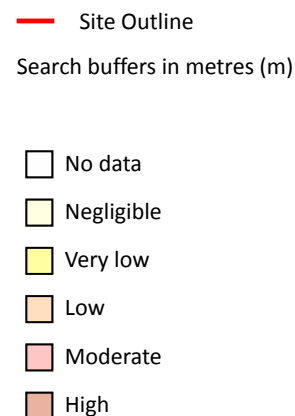
Features are displayed on the Natural ground subsidence - Landslides map on **page 27**

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



4.6 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 28**

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.



5 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

5.1 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.

5.2 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.

5.3 Surface ground workings

Records within 250m

12

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 30**

ID	Location	Land Use	Year of mapping	Mapping scale
A	On site	Cuttings	1938	1:10560
B	3m SW	Cuttings	1920	1:10560
A	5m SW	Cuttings	1894	1:10560
A	8m SW	Cuttings	1911	1:10560
A	47m S	Unspecified Pit	1982	1:10000
A	47m S	Unspecified Pit	1989	1:10000
A	59m SE	Cuttings	1962	1:10560
A	59m SE	Cuttings	1975	1:10000
A	59m SE	Cuttings	1967	1:10560
C	149m SE	Cuttings	1938	1:10560
B	154m SE	Cuttings	1894	1:10560
B	156m SE	Cuttings	1911	1:10560

This is data is sourced from Ordnance Survey/Groundsure.



5.4 Underground workings

Records within 1000m

0

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

This data is sourced from Ordnance Survey/Groundsure.

5.5 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.

5.6 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.

5.7 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.

5.8 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.



5.9 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.

5.10 Brine areas

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

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

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

5.11 Gypsum areas

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

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

5.12 Tin mining

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

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

5.13 Clay mining

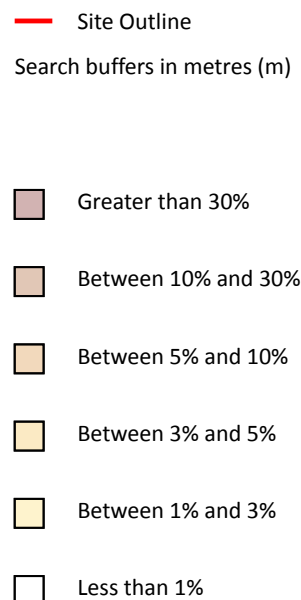
Records on site	0
-----------------	---

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

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



6 Radon



6.1 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 34**

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.



7 Soil chemistry

7.1 BGS Estimated Background Soil Chemistry

Records within 50m

1

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

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	No data	No data	No data	No data	No data	No data	No data

This data is sourced from the British Geological Survey.

7.2 BGS Estimated Urban Soil Chemistry

Records within 50m

4

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	16	2.8	238	164	0.5	83	63	30	23
On site	17	3	281	193	0.6	78	70	32	26
On site	17	3	265	182	0.6	80	66	30	26
On site	18	3.2	320	220	0.7	77	79	32	31

This data is sourced from the British Geological Survey.



7.3 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.



8 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

8.1 Underground railways (London)

Records within 250m

0

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

This data is sourced from publicly available information by Groundsure.

8.2 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.

8.3 Railway tunnels

Records within 250m

0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

8.4 Historical railway and tunnel features

Records within 250m

14

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 37**

Location	Land Use	Year of mapping	Mapping scale
On site	Railway Sidings	1938	10560
2m SW	Railway Sidings	1894	10560
18m SW	Railway Sidings	1967	10560
18m SW	Railway Sidings	1962	10560
19m SW	Railway Sidings	1935	2500
21m SW	Railway Sidings	1914	2500
22m SW	Railway Sidings	1920	10560
24m SW	Railway Sidings	1911	10560
72m W	Railway Sidings	1954	2500
73m W	Railway Sidings	1954	1250
120m NW	Railway Sidings	1896	2500
154m SE	Railway Sidings	1894	10560
155m SE	Railway Sidings	1954	2500
155m SE	Railway Sidings	1954	1250

This data is sourced from Ordnance Survey/Groundsure.



8.5 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.

8.6 Historical railways

Records within 250m

1

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

Features are displayed on the Railway infrastructure and projects map on **page 37**

Location	Description
15m SW	Razed

This data is sourced from OpenStreetMap.

8.7 Railways

Records within 250m

0

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

This data is sourced from Ordnance Survey and OpenStreetMap.

8.8 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.



8.9 Crossrail 2

Records within 500m

2

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

Features are displayed on the Railway infrastructure and projects map on **page 37**

Location	Route Type	Name	Under consultation
109m NE	Tunnelled route	Option via Wood Green	Yes
161m S	Tunnelled route	Option via Turnpike Lane and Alexandra Palace	Yes

This data is sourced from publicly available information by Groundsure.

8.10 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 V - ENVIRO INSIGHT INFORMATION

532087 189596,

Order Details

Date: 01/07/2022

Your ref: 22785

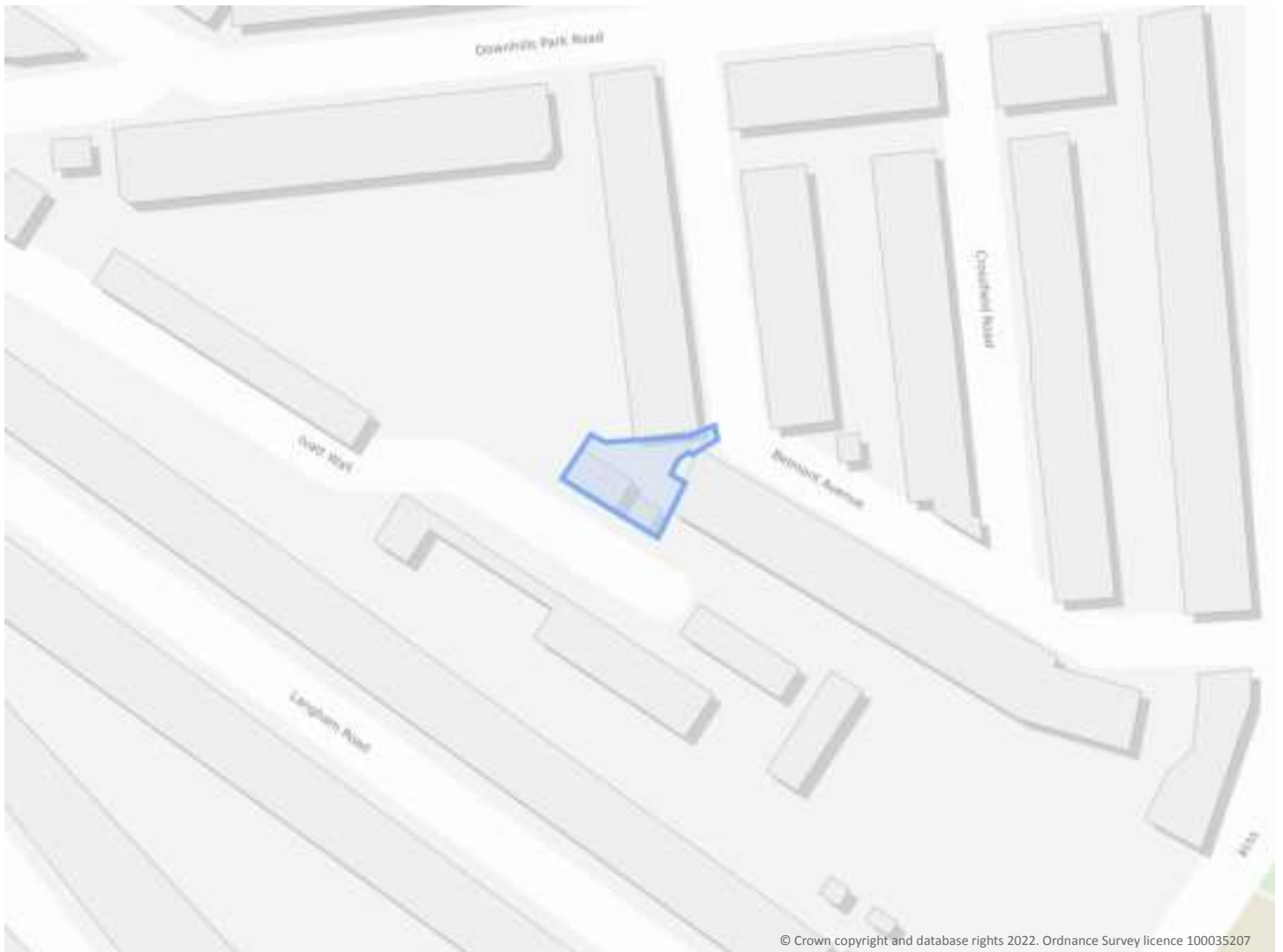
Our Ref: GS-8871147

Site Details

Location: 532088 189593

Area: 0.04 ha

Authority: [London Borough of Haringey](#)



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Summary of findings

p. 2

Aerial image

p. 6

OS MasterMap site plan

p.11

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
12	1.1	<u>Historical industrial land uses</u>	2	8	9	21	-
14	1.2	<u>Historical tanks</u>	0	1	1	2	-
15	1.3	<u>Historical energy features</u>	0	0	4	22	-
16	1.4	Historical petrol stations	0	0	0	0	-
16	1.5	<u>Historical garages</u>	0	0	0	5	-
17	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
18	2.1	<u>Historical industrial land uses</u>	2	10	10	25	-
20	2.2	<u>Historical tanks</u>	0	1	1	2	-
21	2.3	<u>Historical energy features</u>	0	0	10	40	-
23	2.4	Historical petrol stations	0	0	0	0	-
23	2.5	<u>Historical garages</u>	0	0	0	10	-
Page	Section	Waste and landfill	On site	0-50m	50-250m	250-500m	500-2000m
24	3.1	Active or recent landfill	0	0	0	0	-
24	3.2	Historical landfill (BGS records)	0	0	0	0	-
25	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
25	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
25	3.5	Historical waste sites	0	0	0	0	-
25	3.6	Licensed waste sites	0	0	0	0	-
25	3.7	<u>Waste exemptions</u>	0	0	0	12	-
Page	Section	Current industrial land use	On site	0-50m	50-250m	250-500m	500-2000m
27	4.1	<u>Recent industrial land uses</u>	0	0	5	-	-
28	4.2	<u>Current or recent petrol stations</u>	0	0	0	1	-
28	4.3	Electricity cables	0	0	0	0	-
28	4.4	Gas pipelines	0	0	0	0	-
28	4.5	Sites determined as Contaminated Land	0	0	0	0	-



29	4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
29	4.7	Regulated explosive sites	0	0	0	0	-
29	4.8	Hazardous substance storage/usage	0	0	0	0	-
29	4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
29	4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
30	<u>4.11</u>	<u>Licensed pollutant release (Part A(2)/B)</u>	0	0	0	3	-
30	4.12	Radioactive Substance Authorisations	0	0	0	0	-
30	4.13	Licensed Discharges to controlled waters	0	0	0	0	-
30	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
31	4.15	Pollutant release to public sewer	0	0	0	0	-
31	4.16	List 1 Dangerous Substances	0	0	0	0	-
31	4.17	List 2 Dangerous Substances	0	0	0	0	-
31	4.18	Pollution Incidents (EA/NRW)	0	0	0	0	-
31	4.19	Pollution inventory substances	0	0	0	0	-
32	4.20	Pollution inventory waste transfers	0	0	0	0	-
32	4.21	Pollution inventory radioactive waste	0	0	0	0	-
Page	Section	Geology (basic)					
33	5.1	Superficial geology (625k)	None (within 500m)				
33	<u>5.2</u>	<u>Bedrock geology (625k)</u>	Identified (within 500m)				
Page	Section	Hydrogeology	On site	0-50m	50-250m	250-500m	500-2000m
34	6.1	Superficial aquifer	None (within 500m)				
35	<u>6.2</u>	<u>Bedrock aquifer</u>	Identified (within 500m)				
36	<u>6.3</u>	<u>Groundwater vulnerability</u>	Identified (within 50m)				
37	6.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
37	6.5	Groundwater vulnerability- local information	None (within 0m)				
38	<u>6.6</u>	<u>Groundwater abstractions</u>	0	0	0	0	19
42	6.7	Surface water abstractions	0	0	0	0	0
43	<u>6.8</u>	<u>Potable abstractions</u>	0	0	0	0	19
47	6.9	Source Protection Zones	0	0	0	0	-



47	6.10	Source Protection Zones (confined aquifer)	0	0	0	0	-
Page	Section	Hydrology	On site	0-50m	50-250m	250-500m	500-2000m
48	7.1	Water Network (OS MasterMap)	0	0	0	-	-
48	7.2	Surface water features	0	0	0	-	-
49	7.3	<u>WFD Surface water body catchments</u>	2	-	-	-	-
49	7.4	<u>WFD Surface water bodies</u>	0	0	0	-	-
50	7.5	WFD Groundwater bodies	0	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
51	8.1	Risk of flooding from rivers and the sea	None (within 50m)				
51	8.2	Historical Flood Events	0	0	0	-	-
51	8.3	Flood Defences	0	0	0	-	-
52	8.4	Areas Benefiting from Flood Defences	0	0	0	-	-
52	8.5	Flood Storage Areas	0	0	0	-	-
53	8.6	Flood Zone 2	None (within 50m)				
53	8.7	Flood Zone 3	None (within 50m)				
Page	Section	Surface water flooding					
54	9.1	<u>Surface water flooding</u>	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding					
56	10.1	<u>Groundwater flooding</u>	Moderate (within 50m)				
Page	Section	Environmental designations	On site	0-50m	50-250m	250-500m	500-2000m
57	11.1	Sites of Special Scientific Interest (SSSI)	0	0	0	0	0
58	11.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
58	11.3	Special Areas of Conservation (SAC)	0	0	0	0	0
58	11.4	Special Protection Areas (SPA)	0	0	0	0	0
58	11.5	National Nature Reserves (NNR)	0	0	0	0	0
59	11.6	<u>Local Nature Reserves (LNR)</u>	0	0	0	0	2
59	11.7	Designated Ancient Woodland	0	0	0	0	0
59	11.8	Biosphere Reserves	0	0	0	0	0
59	11.9	Forest Parks	0	0	0	0	0



60	11.10	Marine Conservation Zones	0	0	0	0	0
60	11.11	Green Belt	0	0	0	0	0
60	11.12	Proposed Ramsar sites	0	0	0	0	0
60	11.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
60	11.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
61	11.15	Nitrate Sensitive Areas	0	0	0	0	0
61	11.16	<u>Nitrate Vulnerable Zones</u>	0	0	0	0	1
62	11.17	<u>SSSI Impact Risk Zones</u>	1	-	-	-	-
63	11.18	SSSI Units	0	0	0	0	0
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
64	12.1	World Heritage Sites	0	0	0	-	-
64	12.2	Area of Outstanding Natural Beauty	0	0	0	-	-
64	12.3	National Parks	0	0	0	-	-
64	12.4	Listed Buildings	0	0	0	-	-
65	12.5	Conservation Areas	0	0	0	-	-
65	12.6	Scheduled Ancient Monuments	0	0	0	-	-
65	12.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations	On site	0-50m	50-250m	250-500m	500-2000m
66	13.1	<u>Agricultural Land Classification</u>	Urban (within 250m)				
67	13.2	Open Access Land	0	0	0	-	-
67	13.3	Tree Felling Licences	0	0	0	-	-
67	13.4	Environmental Stewardship Schemes	0	0	0	-	-
67	13.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations	On site	0-50m	50-250m	250-500m	500-2000m
68	14.1	Priority Habitat Inventory	0	0	0	-	-
68	14.2	Habitat Networks	0	0	0	-	-
68	14.3	Open Mosaic Habitat	0	0	0	-	-
68	14.4	Limestone Pavement Orders	0	0	0	-	-



Recent aerial photograph



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Capture Date: 14/06/2021

Site Area: 0.04ha



Recent site history - 2019 aerial photograph



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Capture Date: 29/06/2019

Site Area: 0.04ha



Recent site history - 2016 aerial photograph



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Capture Date: 12/08/2016

Site Area: 0.04ha



Recent site history - 2013 aerial photograph



Capture Date: 28/04/2013

Site Area: 0.04ha



Contact us with any questions at:

info@groundsure.com

08444 159 000

Date: 1 July 2022

Recent site history - 1999 aerial photograph



Capture Date: 04/09/1999

Site Area: 0.04ha



OS MasterMap site plan



Site Area: 0.04ha



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

40

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 12**

ID	Location	Land use	Dates present	Group ID
A	On site	Cuttings	1938	2191331



ID	Location	Land use	Dates present	Group ID
A	On site	Railway Sidings	1938	2243838
A	2m SW	Railway Sidings	1894	2202935
A	3m SW	Cuttings	1920	2262456
A	5m SW	Cuttings	1894	2196335
A	8m SW	Cuttings	1911	2215605
A	18m SW	Railway Sidings	1962 - 1967	2291898
A	22m SW	Railway Sidings	1920	2178236
A	24m SW	Railway Sidings	1911	2257857
A	47m S	Unspecified Pit	1982 - 1989	2246578
A	59m SE	Cuttings	1962 - 1967	2206657
A	59m SE	Cuttings	1975	2261587
B	149m SE	Cuttings	1938	2173256
A	154m SE	Cuttings	1894	2204071
A	154m SE	Railway Sidings	1894	2211770
A	156m SE	Cuttings	1911	2196231
A	184m SE	Railway Building	1938	2183334
A	190m SE	Railway Building	1894	2235114
A	193m SE	Railway Building	1920	2231284
B	270m SE	Cuttings	1962 - 1967	2258161
B	273m SE	Cuttings	1896	2287847
B	275m SE	Railway Sidings	1894	2230991
B	275m SE	Cuttings	1894	2260118
B	300m SE	Railway Sidings	1896	2270662
B	325m SE	Railway Sidings	1896	2224239
9	385m W	Unspecified Depot	1975	2147145
B	401m SE	Unspecified Depot	1962 - 1967	2243954
B	403m SE	Railway Building	1894	2190940
B	408m SE	Railway Building	1938	2292741



ID	Location	Land use	Dates present	Group ID
B	419m SE	Railway Building	1920	2149080
B	435m SE	Unspecified Ground Workings	1975	2179488
F	441m N	Unspecified Works	1991	2159772
B	459m SE	Railway Building	1938	2149592
G	467m W	Bus Station	1962	2167074
B	468m SE	Railway Building	1920	2149591
B	469m SE	Unspecified Ground Workings	1982 - 1989	2271939
J	487m NW	Railway Sidings	1938	2189806
J	494m NW	Railway Sidings	1920	2205054
B	496m SE	Railway Station	1938	2232591
B	497m SE	Railway Station	1962 - 1967	2208630

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

4

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

Features are displayed on the Past land use map on **page 12**

ID	Location	Land use	Dates present	Group ID
1	49m N	Unspecified Tank	1881	365012
2	66m W	Unspecified Tank	1881	365013
H	480m SW	Unspecified Tank	1881	365017
H	484m SW	Unspecified Tank	1881	365015

This data is sourced from Ordnance Survey / Groundsure.



1.3 Historical energy features

Records within 500m

26

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

Features are displayed on the Past land use map on **page 12**

ID	Location	Land use	Dates present	Group ID
3	177m NW	Electricity Substation	1970 - 1991	259873
4	186m NE	Electricity Substation	1979 - 1991	268302
C	205m SE	Electricity Substation	1982 - 1991	270363
C	208m SE	Electricity Substation	1991	264974
5	270m N	Electricity Substation	1979 - 1991	278155
6	312m W	Electricity Substation	1996	245039
D	339m SW	Electricity Substation	1978 - 1991	259833
D	340m SW	Electricity Substation	1996	258564
7	351m NW	Electricity Substation	1970 - 1978	283408
E	375m SE	Electricity Substation	1954	254674
E	383m SE	Electricity Substation	1954	252522
E	383m SE	Electricity Substation	1975	253754
E	400m SE	Electricity Substation	1982 - 1991	289282
E	406m SE	Electricity Substation	1991	256332
E	410m SE	Electricity Substation	1975 - 1991	288763
G	472m W	Electricity Substation	1970 - 1991	258734
G	477m W	Electricity Substation	1970 - 1978	280104
I	484m NW	Electricity Substation	1954 - 1978	283500
F	493m N	Electricity Substation	1955 - 1995	290682
F	493m N	Electricity Substation	1983	270852
F	494m N	Electricity Substations	1955	250047



ID	Location	Land use	Dates present	Group ID
I	495m NW	Electricity Substation	1991	267260
K	496m SW	Electricity Substation	1970 - 1991	284688
F	497m N	Electricity Substation	1995	275771
K	497m SW	Electricity Substation	1996	269691
G	499m W	Electricity Substation	1991	274399

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m

0

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

5

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

Features are displayed on the Past land use map on **page 12**

ID	Location	Land use	Dates present	Group ID
8	360m S	Garage	1954	84291
D	373m SW	Garage	1970	73365
E	392m SE	Garage	1975 - 1991	84534
F	442m N	Garage	1972 - 1983	80360
F	443m N	Garage	1991 - 1995	85396

This data is sourced from Ordnance Survey / Groundsure.



1.6 Historical military land

Records within 500m

0

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

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



2 Past land use - un-grouped



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

2.1 Historical industrial land uses

Records within 500m

47

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 18**

ID	Location	Land Use	Date	Group ID
A	On site	Cuttings	1938	2191331
A	On site	Railway Sidings	1938	2243838
A	2m SW	Railway Sidings	1894	2202935



ID	Location	Land Use	Date	Group ID
A	3m SW	Cuttings	1920	2262456
A	5m SW	Cuttings	1894	2196335
A	8m SW	Cuttings	1911	2215605
A	18m SW	Railway Sidings	1967	2291898
A	18m SW	Railway Sidings	1962	2291898
A	22m SW	Railway Sidings	1920	2178236
A	24m SW	Railway Sidings	1911	2257857
A	47m S	Unspecified Pit	1989	2246578
A	47m S	Unspecified Pit	1982	2246578
A	59m SE	Cuttings	1975	2261587
A	59m SE	Cuttings	1967	2206657
A	59m SE	Cuttings	1962	2206657
B	149m SE	Cuttings	1938	2173256
A	154m SE	Cuttings	1894	2204071
A	154m SE	Railway Sidings	1894	2211770
A	156m SE	Cuttings	1911	2196231
A	184m SE	Railway Building	1938	2183334
A	190m SE	Railway Building	1894	2235114
A	193m SE	Railway Building	1920	2231284
B	270m SE	Cuttings	1967	2258161
B	270m SE	Cuttings	1962	2258161
B	273m SE	Cuttings	1896	2287847
B	275m SE	Cuttings	1894	2260118
B	275m SE	Railway Sidings	1894	2230991
B	300m SE	Railway Sidings	1896	2270662
B	325m SE	Railway Sidings	1896	2224239
4	385m W	Unspecified Depot	1975	2147145
B	401m SE	Unspecified Depot	1967	2243954

ID	Location	Land Use	Date	Group ID
B	401m SE	Unspecified Depot	1962	2243954
B	403m SE	Railway Building	1894	2190940
B	408m SE	Railway Building	1938	2292741
B	419m SE	Railway Building	1920	2149080
B	435m SE	Unspecified Ground Workings	1975	2179488
K	441m N	Unspecified Works	1991	2159772
B	459m SE	Railway Building	1938	2149592
L	467m W	Bus Station	1962	2167074
B	468m SE	Railway Building	1920	2149591
B	469m SE	Unspecified Ground Workings	1989	2271939
B	469m SE	Unspecified Ground Workings	1982	2271939
O	487m NW	Railway Sidings	1938	2189806
O	494m NW	Railway Sidings	1920	2205054
B	496m SE	Railway Station	1938	2232591
B	497m SE	Railway Station	1967	2208630
B	497m SE	Railway Station	1962	2208630

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m

4

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 18**

ID	Location	Land Use	Date	Group ID
1	49m N	Unspecified Tank	1881	365012
2	66m W	Unspecified Tank	1881	365013
M	480m SW	Unspecified Tank	1881	365017
M	484m SW	Unspecified Tank	1881	365015



This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

50

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 18**

ID	Location	Land Use	Date	Group ID
C	177m NW	Electricity Substation	1978	259873
C	177m NW	Electricity Substation	1970	259873
C	178m NW	Electricity Substation	1991	259873
D	186m NE	Electricity Substation	1979	268302
D	186m NE	Electricity Substation	1991	268302
D	187m NE	Electricity Substation	1991	268302
D	187m NE	Electricity Substation	1991	268302
E	205m SE	Electricity Substation	1982	270363
E	205m SE	Electricity Substation	1991	270363
E	208m SE	Electricity Substation	1991	264974
F	270m N	Electricity Substation	1991	278155
F	270m N	Electricity Substation	1979	278155
F	271m N	Electricity Substation	1991	278155
F	271m N	Electricity Substation	1991	278155
3	312m W	Electricity Substation	1996	245039
G	339m SW	Electricity Substation	1978	259833
G	339m SW	Electricity Substation	1991	259833
G	340m SW	Electricity Substation	1996	258564
H	351m NW	Electricity Substation	1978	283408
H	351m NW	Electricity Substation	1970	283408
J	375m SE	Electricity Substation	1954	254674



ID	Location	Land Use	Date	Group ID
J	383m SE	Electricity Substation	1975	253754
J	383m SE	Electricity Substation	1954	252522
J	400m SE	Electricity Substation	1982	289282
J	400m SE	Electricity Substation	1991	289282
J	406m SE	Electricity Substation	1991	256332
J	410m SE	Electricity Substation	1991	288763
J	411m SE	Electricity Substation	1975	288763
L	472m W	Electricity Substation	1991	258734
L	472m W	Electricity Substation	1978	258734
L	472m W	Electricity Substation	1970	258734
L	477m W	Electricity Substation	1978	280104
L	477m W	Electricity Substation	1970	280104
N	484m NW	Electricity Substation	1954	283500
N	484m NW	Electricity Substation	1978	283500
N	484m NW	Electricity Substation	1970	283500
N	491m NW	Electricity Substation	1954	283500
K	493m N	Electricity Substation	1972	290682
K	493m N	Electricity Substation	1955	290682
K	493m N	Electricity Substation	1983	270852
K	494m N	Electricity Substation	1991	290682
K	494m N	Electricity Substation	1995	290682
K	494m N	Electricity Substations	1955	250047
N	495m NW	Electricity Substation	1991	267260
P	496m SW	Electricity Substation	1991	284688
P	496m SW	Electricity Substation	1970	284688
K	497m N	Electricity Substation	1995	275771
P	497m SW	Electricity Substation	1978	284688
P	497m SW	Electricity Substation	1996	269691



ID	Location	Land Use	Date	Group ID
L	499m W	Electricity Substation	1991	274399

This data is sourced from Ordnance Survey / Groundsure.

2.4 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. 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	10
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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 18**

ID	Location	Land Use	Date	Group ID
I	360m S	Garage	1954	84291
I	361m S	Garage	1954	84291
G	373m SW	Garage	1970	73365
J	392m SE	Garage	1991	84534
J	393m SE	Garage	1975	84534
K	442m N	Garage	1983	80360
K	442m N	Garage	1972	80360
K	443m N	Garage	1991	85396
K	443m N	Garage	1995	85396
K	443m N	Garage	1995	85396

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**12**

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 24**

ID	Location	Site	Reference	Category	Sub-Category	Description
A	447m SE	331, WEST GREEN ROAD, LONDON, N15 3PB	WEX225330	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal



ID	Location	Site	Reference	Category	Sub-Category	Description
A	447m SE	331, WEST GREEN ROAD, LONDON, N15 3PB	WEX243784	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
A	447m SE	331, WEST GREEN ROAD, LONDON, N15 3PB	WEX077905	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
B	468m N	38 Crawley Road LONDON N22 6AG	EPR/HF0137Q P/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in secure containers
B	468m N	38 Crawley Road LONDON N22 6AG	EPR/HF0137Q P/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
B	468m N	38 Crawley Road LONDON N22 6AG	EPR/HF0137Q P/A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting mixed waste
B	468m N	38 Crawley Road LONDON N22 6AG	EPR/HF0137Q P/A001	Treating waste exemption	Non-Agricultural Waste Only	Recovery of scrap metal
B	468m N	38 Crawley Road LONDON N22 6AG	EPR/HF0137Q P/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste in construction
B	468m N	38 Crawley Road LONDON N22 6AG	EPR/HF0137Q P/A001	Using waste exemption	Non-Agricultural Waste Only	Use of waste for a specified purpose
1	486m E	-	WEX215875	Using waste exemption	Not on a farm	Use of waste in construction
C	489m NW	-	WEX262452	Treating waste exemption	Not on a farm	Sorting and de-naturing of controlled drugs for disposal
C	498m NW	67 Westbury Avenue LONDON N22 6SA	EPR/SF0205PU /A001	Treating waste exemption	Non-Agricultural Waste Only	Sorting and de-naturing of controlled drugs for disposal

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



4 Current industrial land use



- Site Outline
- Search buffers in metres (m)
- Recent industrial land uses
- △ Current or recent petrol stations
- Licensed pollutant release (Part A(2)/B)

4.1 Recent industrial land uses

Records within 250m

5

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 27**

ID	Location	Company	Address	Activity	Category
1	78m E	Business Rent	7, Crossfield Road, London, Greater London, N17 6AY	Vehicle Hire and Rental	Hire Services
2	128m SW	Mypinkcakes	29, Stanmore Road, London, Greater London, N15 3PR	Baking and Confectionery	Foodstuffs
3	181m NW	Electricity Sub Station	Greater London, N15	Electrical Features	Infrastructure and Facilities



ID	Location	Company	Address	Activity	Category
4	190m NE	Electricity Sub Station	Greater London, N17	Electrical Features	Infrastructure and Facilities
5	207m SE	Electricity Sub Station	Greater London, N15	Electrical Features	Infrastructure and Facilities

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m

1

Open, closed, under development and obsolete petrol stations.

Features are displayed on the Current industrial land use map on **page 27**

ID	Location	Company	Address	LPG	Status
A	436m SE	OBSOLETE	308-334, West Green Road, West Green, London, Inner London, N15 3QR	Not Applicable	Obsolete

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m

0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m

0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m

0

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

This data is sourced from Local Authority records.



4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m

0

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

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

0

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

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

0

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

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

4.10 Licensed industrial activities (Part A(1))

Records within 500m

0

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

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



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

Records within 500m

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 27**

ID	Location	Address	Details	
6	336m SW	Euro Dry Cleaners, 458 West Green Rd, N15 3PT	Process: Dry Cleaning Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
A	468m SE	Kani Dry Cleaners, 311 West Green Road, N15 3PA	Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
7	483m NW	Terry's Dry Cleaners, 59 Westbury Avenue, N22 6SA	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

0

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

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

4.13 Licensed Discharges to controlled waters

Records within 500m

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**0**

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

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 Geology (basic)

5.1 Superficial geology (625k)

Records within 500m**0**

Generalised geology data based on BGS's published poster maps of the UK (North and South). Superficial related themes digitised from 1977 first edition Quaternary map (North and South).

This data is sourced from the British Geological Survey.

5.2 Bedrock geology (625k)

Records within 500m**1**

Generalised geology data based on BGS's published poster maps of the UK (North and South). Bedrock related themes created through generalisation of 1:50,000 data.

Location	Lex code	Description	Rock type
On site	THAM-CLSSG	THAMES GROUP	CLAY, SILT, SAND AND GRAVEL

This data is sourced from the British Geological Survey.



6 Hydrogeology - Superficial aquifer

6.1 Superficial aquifer

Records within 500m

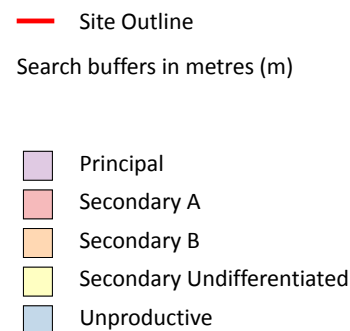
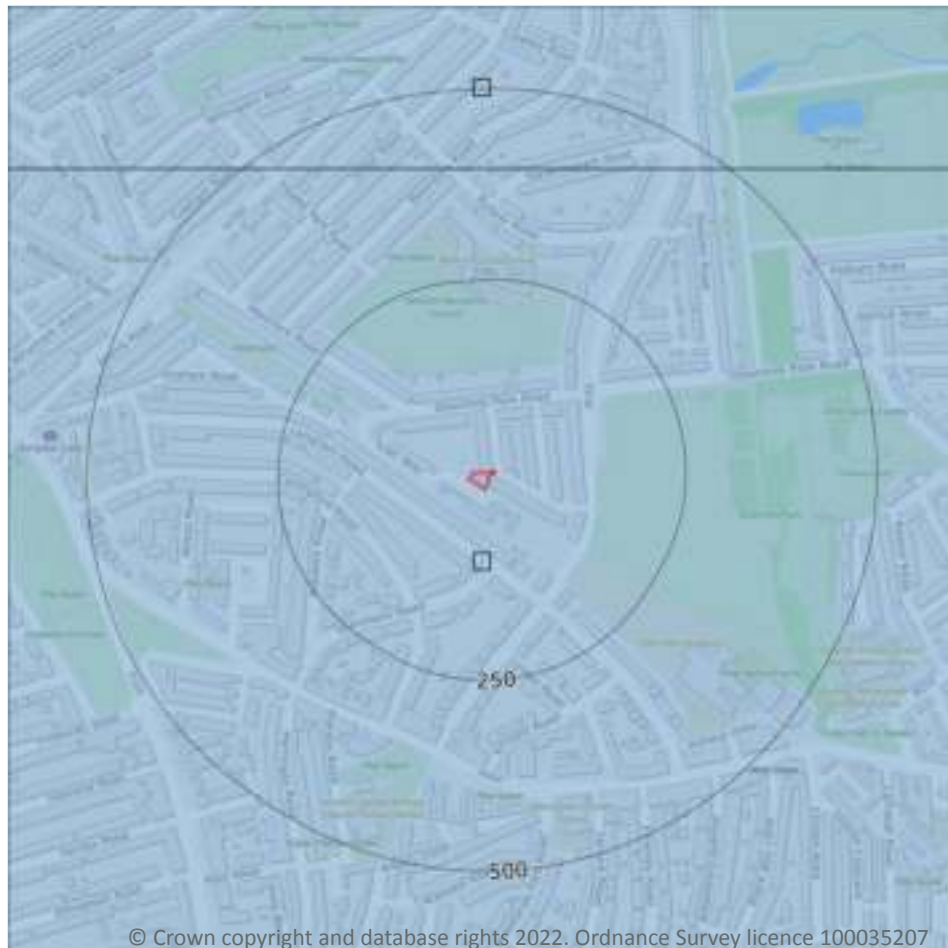
0

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



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6.2 Bedrock aquifer

Records within 500m

2

Aquifer status of groundwater held within bedrock geology.

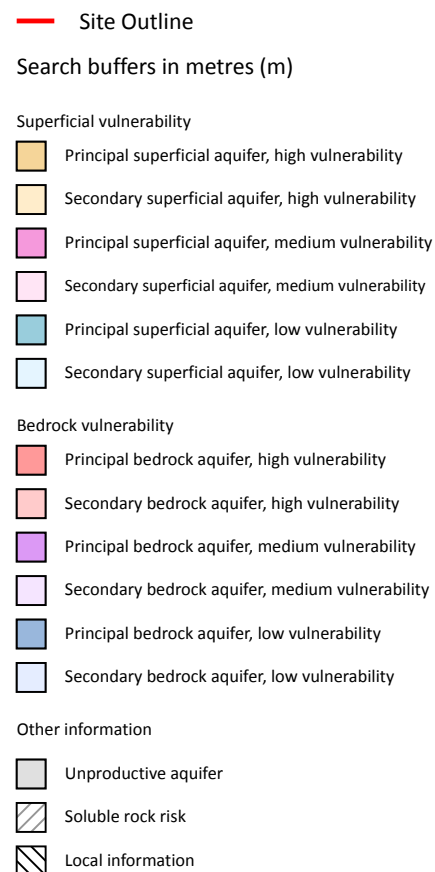
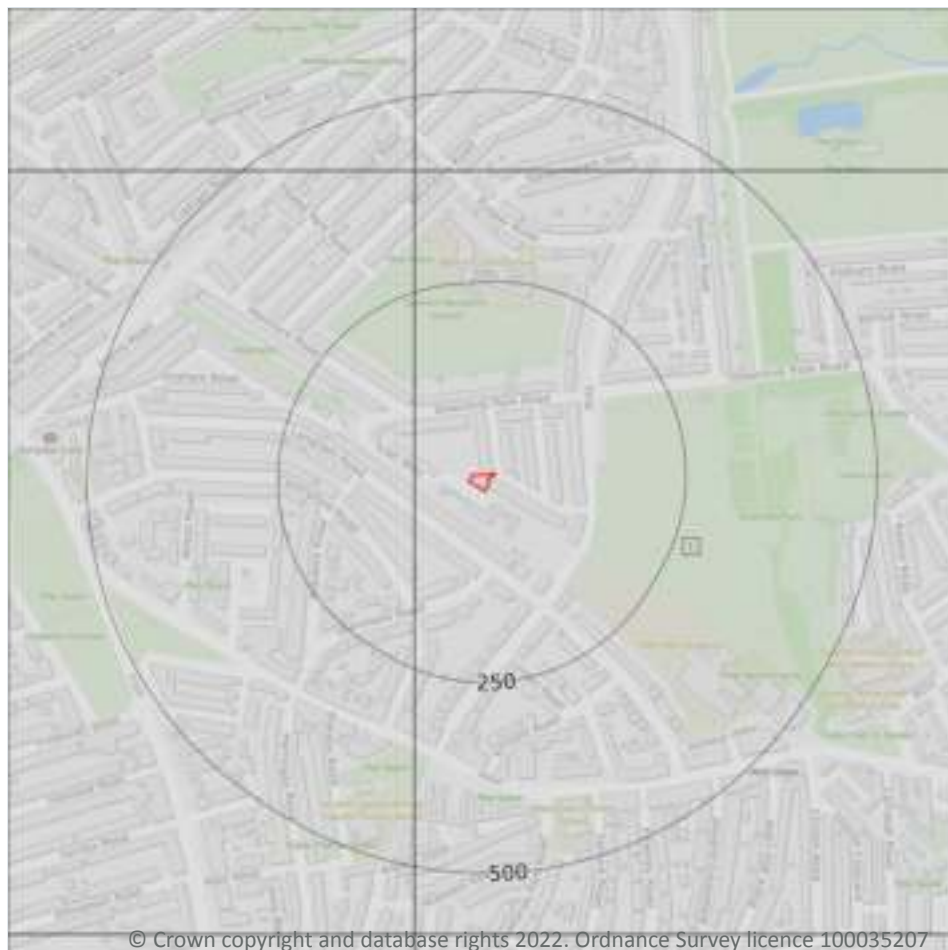
Features are displayed on the Bedrock aquifer map on **page 35**

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
2	395m N	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

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



Groundwater vulnerability



6.3 Groundwater vulnerability

Records within 50m

1

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid.

Groundwater vulnerability is described as High, Medium or Low as follows:

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

Features are displayed on the Groundwater vulnerability map on **page 36**



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

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

6.4 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.

6.5 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)

6.6 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 38**



ID	Location	Details	
-	1302m W	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: -
-	1307m W	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: -
-	1372m W	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY SLUICE, NLARS POINT 15 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 530700 Northing: 189550	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: -
-	1381m W	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY SLUICE, NLARS POINT 15 Data Type: Point Name: Thames Water Utilities Ltd Easting: 530690 Northing: 189555	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: -
-	1489m W	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY FILTER BEDS - NLARS POINT 14 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 530590 Northing: 189750	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	
-	1490m W	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY FILTER BEDS - NLARS POINT 14 Data Type: Point Name: Thames Water Utilities Ltd Easting: 530589 Northing: 189752	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: -
-	1492m E	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: -
-	1492m E	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: -
-	1497m E	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: -
-	1619m S	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	
-	1627m S	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: -
-	1715m S	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: -
-	1722m S	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: -
-	1726m S	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: -
-	1741m S	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: -



ID	Location	Details	
-	1786m NW	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: STATION ROAD - NLARS POINT 13 Data Type: Point Name: Thames Water Utilities Ltd Easting: 530484 Northing: 190412	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: -
-	1788m NW	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: STATION ROAD - NLARS POINT 13 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 530480 Northing: 190410	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: -
-	1984m 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: -
-	1993m 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: -

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

6.7 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.



6.8 Potable abstractions

Records within 2000m

19

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 38**

ID	Location	Details	
-	1302m W	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: -
-	1307m W	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: -
-	1372m W	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY SLUICE, NLARS POINT 15 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 530700 Northing: 189550	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: -
-	1381m W	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY SLUICE, NLARS POINT 15 Data Type: Point Name: Thames Water Utilities Ltd Easting: 530690 Northing: 189555	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	
-	1489m W	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY FILTER BEDS - NLARS POINT 14 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 530590 Northing: 189750	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: -
-	1490m W	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: HORNSEY FILTER BEDS - NLARS POINT 14 Data Type: Point Name: Thames Water Utilities Ltd Easting: 530589 Northing: 189752	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: -
-	1492m E	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: -
-	1492m E	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: -
-	1497m E	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: -



ID	Location	Details	
-	1619m S	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: -
-	1627m S	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: -
-	1715m S	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: -
-	1722m S	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: -
-	1726m S	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: -

ID	Location	Details	
-	1741m S	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: -
-	1786m NW	Status: Active Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: STATION ROAD - NLARS POINT 13 Data Type: Point Name: Thames Water Utilities Ltd Easting: 530484 Northing: 190412	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: -
-	1788m NW	Status: Historical Licence No: 29/38/09/0157 Details: Potable Water Supply - Direct Direct Source: THAMES GROUNDWATER Point: STATION ROAD - NLARS POINT 13 Data Type: Point Name: THAMES WATER UTILITIES LTD Easting: 530480 Northing: 190410	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: -
-	1984m 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: -
-	1993m 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: -

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



6.9 Source Protection Zones

Records within 500m

0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

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

6.10 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.



7 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

7.1 Water Network (OS MasterMap)

Records within 250m

0

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

This data is sourced from the Ordnance Survey.

7.2 Surface water features

Records within 250m

0

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

This data is sourced from the Ordnance Survey.

7.3 WFD Surface water body catchments

Records on site

2

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

Features are displayed on the Hydrology map on **page 48**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
1	On site	River	Moselle Brook	GB106038027920	Lee Lower Rivers and Lakes	London
2	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.

7.4 WFD Surface water bodies

Records identified

2

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

Features are displayed on the Hydrology map on **page 48**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
-	535m NE	River	Moselle Brook	GB106038027920	Moderate	Fail	Moderate	2019
-	2501m SE	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.



7.5 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.



8 River and coastal flooding

8.1 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.

8.2 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.

8.3 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.



8.4 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.

8.5 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

8.6 Flood Zone 2

Records within 50m

0

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.

8.7 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.



9 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

9.1 Surface water flooding

Highest risk on site

Negligible

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 54**

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	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.



10 Groundwater flooding



— Site Outline
Search buffers in metres (m)

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

10.1 Groundwater flooding

Highest risk on site

Low

Highest risk within 50m

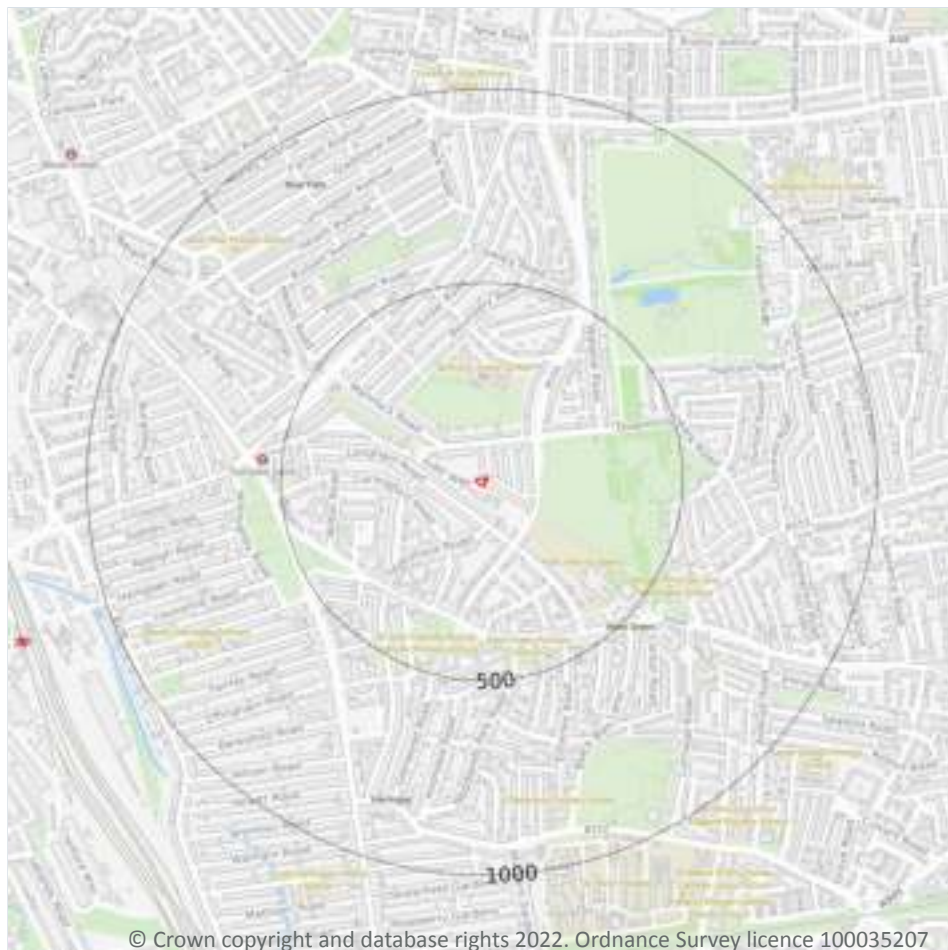
Moderate

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 56**

This data is sourced from Ambiantal Risk Analytics.

11 Environmental designations



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

11.1 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.

11.2 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.

11.3 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.

11.4 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.

11.5 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.

11.6 Local Nature Reserves (LNR)

Records within 2000m

2

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 57**

ID	Location	Name	Data source
-	1398m S	Railway Fields	Natural England
-	1689m W	Alexandra Palace & Park	Natural England

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

11.7 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.

11.8 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.

11.9 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.



11.10 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.

11.11 Green Belt

Records within 2000m

0

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

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

11.12 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.

11.13 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.

11.14 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.



11.15 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.

11.16 Nitrate Vulnerable Zones

Records within 2000m

1

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

Location	Name	Type	NVZ ID	Status
932m N	LEE NVZ	Surface Water	443	Existing

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

11.17 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 62**

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.

11.18 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.

12 Visual and cultural designations

12.1 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.

12.2 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.

12.3 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.

12.4 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.

12.5 Conservation Areas

Records within 250m

0

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.

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

12.6 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.

12.7 Registered Parks and Gardens

Records within 250m

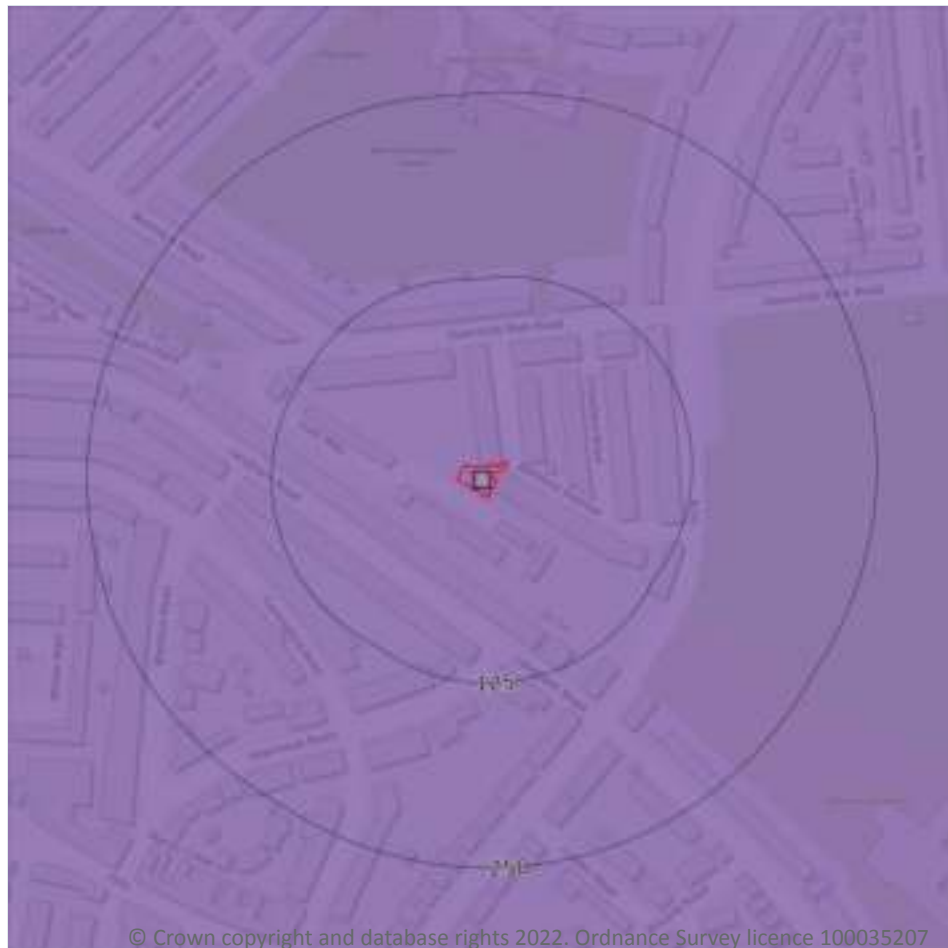
0

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.



13 Agricultural designations



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- 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

13.1 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 66**

ID	Location	Classification	Description
1	On site	Urban	-

This data is sourced from Natural England.



13.2 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.

13.3 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.

13.4 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.

13.5 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.



14 Habitat designations

14.1 Priority Habitat Inventory

Records within 250m**0**

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

This data is sourced from Natural England.

14.2 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.

14.3 Open Mosaic Habitat

Records within 250m**0**

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

This data is sourced from Natural England.

14.4 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.



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 VI - STRUCTURAL DRAWINGS

1.1 BASIC LINETYPES	
	GRIDLINE
	CENTRELINE
	VISIBLE EGDE OF STRUCTURE
	HIDDEN EGDE OF STRUCTURE
1.2 STRUCTURAL ELEMENTS ON PLAN	
	NEW LOADBEARING BLOCK WALL
	NEW LOADBEARING BRICK WALL
	NEW LOADBEARING PARTITION WALL
	NEW/EXISTING NON-LOAD BEARING PARTITION
	EXISTING MASONRY WALL
	EXISTING LOADBEARING WALL
	REINFORCED CONCRETE WALL
	REINFORCED CONCRETE WALL UNDER
	EXISTING CONCRETE WALL
	REINFORCED CONCRETE COLUMN
	REINFORCED CONCRETE COLUMN UNDER
	EXISTING REINFORCED CONCRETE COLUMN
	STEEL COLUMN
	STEEL COLUMN UNDER
	EXISTING STEEL COLUMN
	EXISTING STEEL COLUMN UNDER
	REINFORCED CONCRETE BEAM
	EXISTING REINFORCED CONCRETE BEAM
	STEEL BEAM
	EXISTING STEEL BEAM
	CONCRETE PADSTONES ON MASONRY AT STEEL BEARINGS
1.3 STRUCTURAL ELEMENTS IN SECTION	
	REINFORCED CONCRETE SLAB/ BEAM
	EXISTING REINFORCED CONCRETE SLAB/BEAM
	HOT ROLLED STEEL SECTION
	TUBULAR STEEL SECTION
	STRUCTURAL TIMBER

1.4 DIMENSIONS	
	DIMENSIONS IN MILLIMETRES
	DIMENSIONS IN METRES
	RADIAL DIMENSION
	ARROW/LEADER
	ANGULAR DIMENSION
1.5 GRID REFERENCES	
	HORIZONTAL GRID REFERENCE
	VERTICAL GRID REFERENCE
1.6 CALLUPS	
	TYPICAL PLAN TITLE
	SECTION CUT MARK
	SECTION TITLE
	FULL HEIGHT CROSS SECTION CUT MARK
	FULL HEIGHT CROSS SECTION TITLE
	DETAIL LOCATOR
	DETAIL TITLE
	ELEVATION VIEW LOCATOR
	ELEVATION TITLE
	STRUCTURAL LEVEL CALL UP ON PLAN IN METRES, REFERRED TO ORDNANCE DATUM
	STRUCTURAL LEVEL CALL UP ON SECTION IN METRES, REFERRED TO ORDNANCE DATUM
	DIRECTION OF SPAN
	MASONRY CONTROL JOINT
	CONSTRUCTION JOINT IN CONCRETE ELEMENT
	EXPANSION JOINT
	LONGITUDINAL JOINT IN CONCRETE ELEMENT
	CONTRACTION JOINT IN CONCRETE GROUND FLOOR SLAB
	INDUCED TIED JOINT IN CONCRETE GROUND FLOOR SLAB
	FALL (GRADIENT)

	REVISION REFERENCE FOR CLOUDED ELEMENT
1.7 REINFORCED CONCRETE LEGEND	
T20	HIGH YIELD STEEL BAR 20mm DIAMETER
R10	MILD YIELD STEEL BAR 10mm DIAMETER
B	BOTTOM LAYER REINFORCEMENT
T	TOP LAYER REINFORCEMENT
FF	FAR FACE
NF	NEAR FACE
EF	EACH FACE
RL	RANDOM LENGTH
VL	VARYING LENGTH
ABR	ALTERNATE BAR REVERSED
ABR	ALTERNATE BAR STAGGERED
1.8 ABBREVIATIONS GENERAL	
Crs.	CENTRE TO CENTRE
COL.	COLUMN
CONC.	CONCRETE
D.P.M.	DAMP PROOF MEMBRANE
Dp.	DEEP
Ø	DIAMETER
DRG. NO.	DRAWING NUMBER
N.T.S.	NOT TO SCALE
REINF.	REINFORCEMENT
TYP.	TYPICAL
U/S	UNDERSIDE
U.N.O.	UNLESS NOTED OTHERWISE
1.9 ABBREVIATIONS FOR STRUCTURAL LEGENDS	
P1.0	PILE MARK 1
PF1	BASE PAD MARK 1
SF1	STRIP FOOTING MARK 1
GB1	GROUND BEAM MARK 1
C1	CONCRETE COLUMN MARK 1
B1	CONCRETE BEAM MARK 1
UP1	CONCRETE UPSTAND MARK 1
PL1	CONCRETE PLINTH MARK 1
SC1	STEEL COLUMN MARK 1
SB1	STEEL BEAM MARK 1
1.10STRUCTURAL CONCRETE MEMBERS G.A. SCHEDULE	
G.A. CONCRETE STRIP FOTINGS SCHEDULE	
SF1	-
SF2	-
G.A. CONCRETE BASE PADS SCHEDULE	
SF1	-
SF2	-
G.A. CONCRETE GROUND BEAMS SCHEDULE	
GB1	-
GB2	-
G.A. CONCRETE COLUMNS SCHEDULE	
C1	-
C2	-
G.A. CONCRETE BEAMS SCHEDULE	
B1	-
B2	-
NOTE: CONCRETE REFERENCES ARE FOR STRUCTURAL ELEMENTS ON GENERAL ARRAGEMENT (G.A.) DRAWINGS ONLY. REFERENCES ON REINFORCED CONCRETE (R.C.) DRAWINGS ARE COMPLETELY SEPERATE	
1.11STRUCTURAL STEELWORK MEMBERS G.A. SCHEDULE	
G.A. STEEL COLUMNS SCHEDULE	
SC1	-
SC2	-
G.A. STEEL BEAMS SCHEDULE	
SB1	-
SB2	-

PILE SCHEDULE											
PILE INFO		VERTICAL LOADS (+ve DOWN)				LATERIAL LOADS		TENSION	SETTING-OUT		
REF.	Ø	DEAD	LIVE	WIND	NOTIONAL	WIND	NOTIONAL	TENSION	CUT-OFF	EASTING	NORTHING
P1	300 mm	0.00 kN	0.00 kN	0.00 kN	0.00 kN	0.00 kN	0.00 kN	0.00 kN	<varies>		

INFORMATION TBC FOLLOWING DETAILED DESIGN STAGE

PRELIMINARY

NOTES

- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS & ARCHITECTS DRAWINGS. FIGURED DIMENSIONS ONLY (NOT SCALING) TO BE USED. WHERE A CONFLICT OF INFORMATION EXISTS OR IF IN ANY DOUBT-ASK
- CONSULTANTS TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE WORK PROCEEDS.

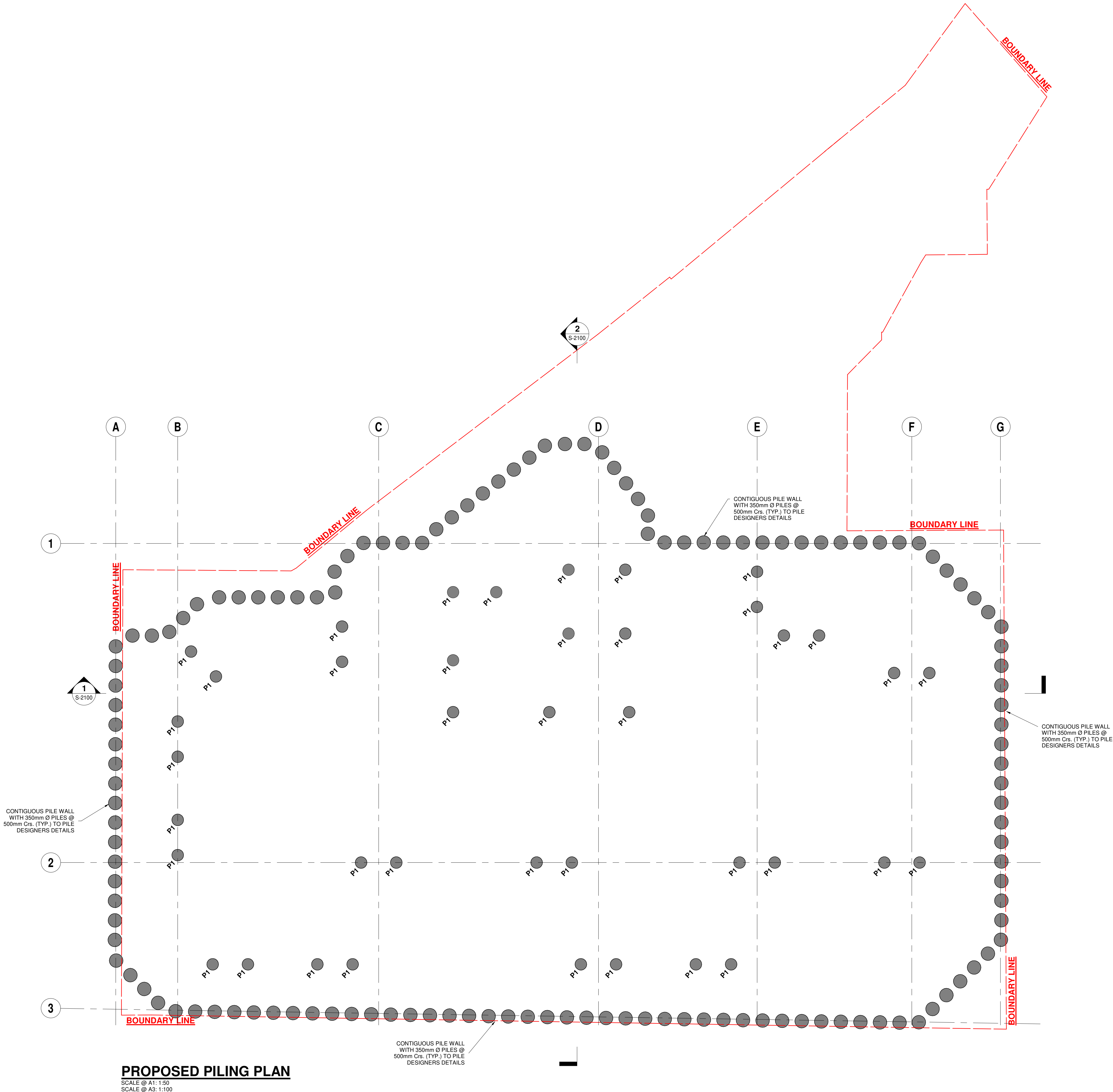


CLIENT PAUL SIMON DEVELOPMENTS LIMITED			
PROJECT TITLE 43 BELMONT AVENUE, LONDON, N17 6AX			
DRAWING TITLE STRUCTURAL LEGEND			
SCALE @ A1 N.T.S.	JOB NO. 22785	DRAWING NO. G-0000	ISSUE P1

PRELIMINARY

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS & ARCHITECTS DRAWINGS. FIGURED DIMENSIONS ONLY (NOT SCALING) TO BE USED. WHERE A CONFLICT OF INFORMATION EXISTS OR IF IN ANY DOUBT: ASK
2. CONSULTANTS TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE WORK PROCEEDS.



ISSUE	DATE	DESCRIPTION	K.O.	D.B.	D.B.	D.B.
P1	07.07.22	ISSUED FOR PLANNING	DRN.	ORIG.	P.E.	P.D.

ISSUE STATUS ☒ PRELIMINARY (P1, P2, P3 etc.) ☐ PLANNING (PL1, PL2, PL3 etc.)
☐ TENDER (T1, T2, T3 etc.) ☐ CONSTRUCTION (O, 1, 2 etc.)



CLIENT
PAUL SIMON DEVELOPMENTS LIMITED

PROJECT TITLE
43 BELMONT AVENUE, LONDON, N17 6AX

DRAWING TITLE
PROPOSED PILING PLAN

SCALE @ A1	JOB NO.	DRAWING NO.	ISSUE
1 : 50	22785	S-2(-)-98	P1

PRELIMINARY

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS & ARCHITECTS' DRAWINGS. FIGURED DIMENSIONS ONLY (NOT SCALING) TO BE USED. WHERE A CONFLICT OF INFORMATION EXISTS OR IF IN ANY DOUBT-ASK.
2. CONSULTANTS TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE WORK PROCEEDS.

G.A. PILE CAPS SCHEDULE

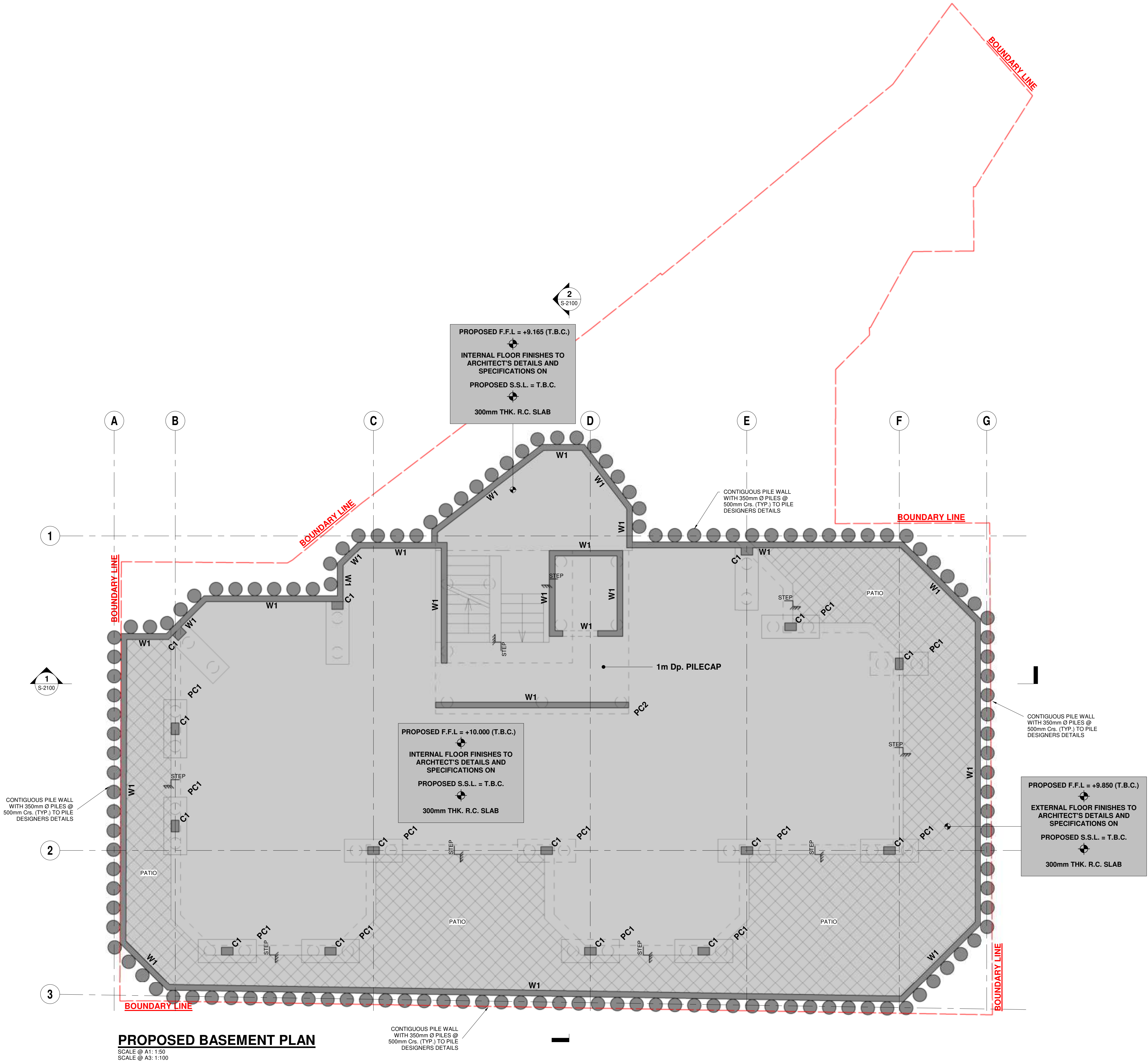
REF.	SIZE	COMMENTS
PC1	1500mm x 600mm x 700mm Dp.	-

G.A. CONCRETE COLUMNS SCHEDULE

REF.	SIZE	COMMENTS
C1	200 x 300 R.C. COLUMN	-

G.A. CONCRETE WALLS SCHEDULE

REF.	SIZE	COMMENTS
W1	150mm THK. R.C. WALL	-



ISSUE	DATE	DESCRIPTION	K.O.	D.B.	D.B.	D.B.
			DRN.	ORIG.	P.E.	P.D.
ISSUE STATUS ☒ PRELIMINARY (P1, P2, P3 etc.) ☐ PLANNING (PL1, PL2, PL3 etc.) ☐ TENDER (T1, T2, T3 etc.) ☐ CONSTRUCTION (O, I, 2 etc.)						



CLIENT
PAUL SIMON DEVELOPMENTS LIMITED

PROJECT TITLE
43 BELMONT AVENUE, LONDON, N17 6AX

DRAWING TITLE
PROPOSED BASEMENT PLAN

SCALE @ A1	JOB NO.	DRAWING NO.	ISSUE
1 : 50	22785	S-2(-)99	P1

PRELIMINARY

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS & ARCHITECTS' DRAWINGS. FIGURED DIMENSIONS ONLY (NOT SCALING) TO BE USED. WHERE A CONFLICT OF INFORMATION EXISTS OR IF IN ANY DOUBT-ASK.
2. CONSULTANTS TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE WORK PROCEEDS.

G.A. CONCRETE COLUMNS SCHEDULE

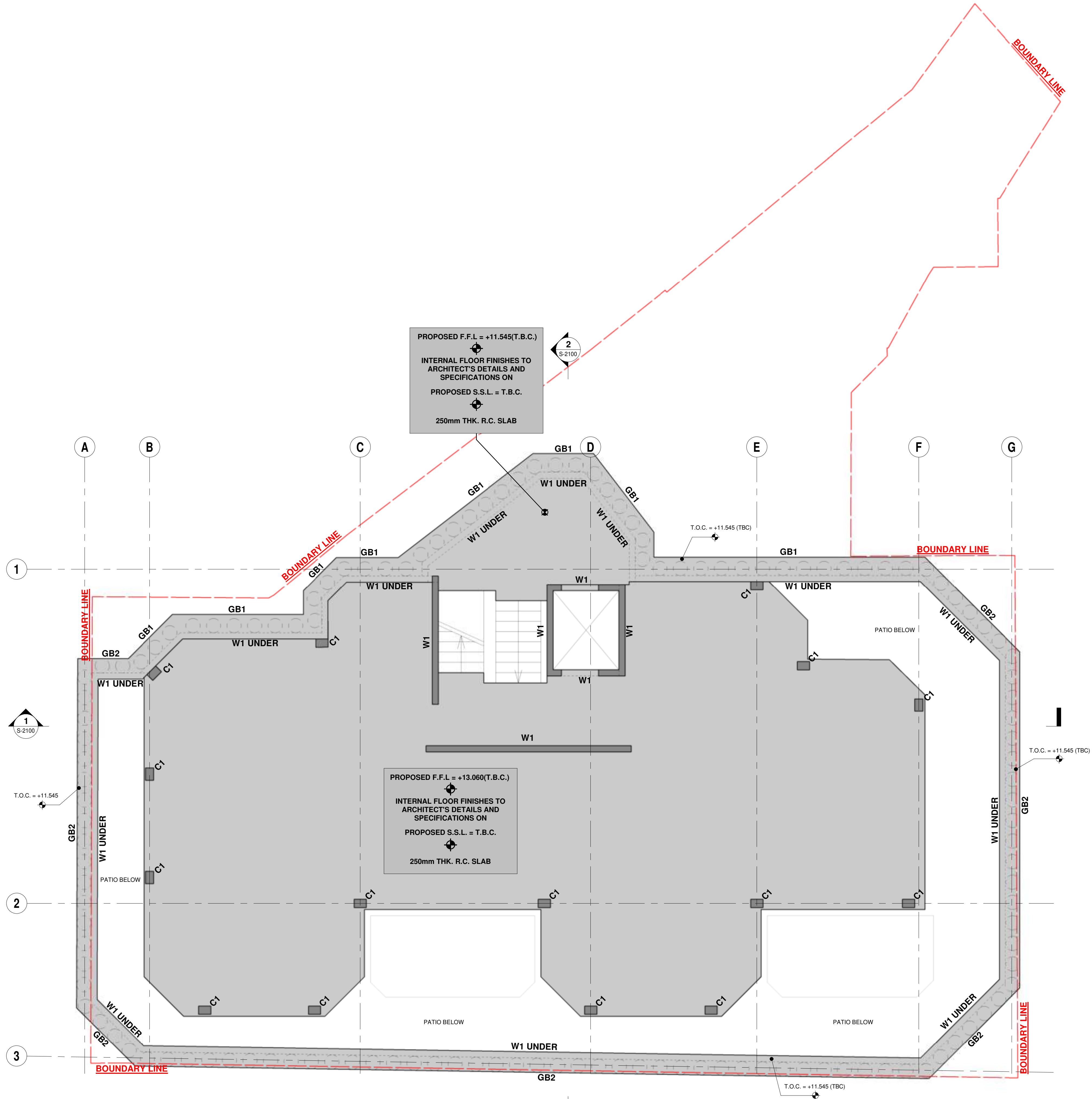
REF.	SIZE	COMMENTS
C1	200 x 300 R.C. COLUMN	

G.A. CONCRETE WALLS SCHEDULE

REF.	SIZE	COMMENTS
W1	150mm THK. R.C. WALL	

G.A. GROUND BEAMS SCHEDULE

REF.	SIZE	COMMENTS
GB1	600 x 600mm Dp. R.C. BEAM	
GB2	500 x 600mm Dp. R.C. BEAM	



PROPOSED GROUND FLOOR PLAN

SCALE @ A1: 1:50
SCALE @ A3: 1:100

ISSUE	DATE	DESCRIPTION	K.O.	D.B.	D.B.	D.B.
			DRN.	ORIG.	P.E.	P.D.
ISSUE STATUS ☒ PRELIMINARY (P1, P2, P3 etc.) ☐ PLANNING (PL1, PL2, PL3 etc.) ☐ TENDER (T1, T2, T3 etc.) ☐ CONSTRUCTION (O, 1, 2 etc.)						



CLIENT
PAUL SIMON DEVELOPMENTS LIMITED

PROJECT TITLE
43 BELMONT AVENUE, LONDON, N17 6AX

DRAWING TITLE
PROPOSED GROUND FLOOR PLAN

SCALE @ A1	JOB NO.	DRAWING NO.	ISSUE
1 : 50	22785	S-2000	P1

PRELIMINARY

NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL ENGINEERS & ARCHITECTS' DRAWINGS. FIGURED DIMENSIONS ONLY (NOT SCALING) TO BE USED. WHERE A CONFLICT OF INFORMATION EXISTS OR IF IN ANY DOUBT-ASK.
2. CONSULTANTS TO BE INFORMED IMMEDIATELY OF ANY DISCREPANCIES BEFORE WORK PROCEEDS.

G.A. PILE CAPS SCHEDULE

REF.	SIZE	COMMENTS
PC1	1500mm x 600mm x 700mm Dp.	-

G.A. CONCRETE COLUMNS SCHEDULE

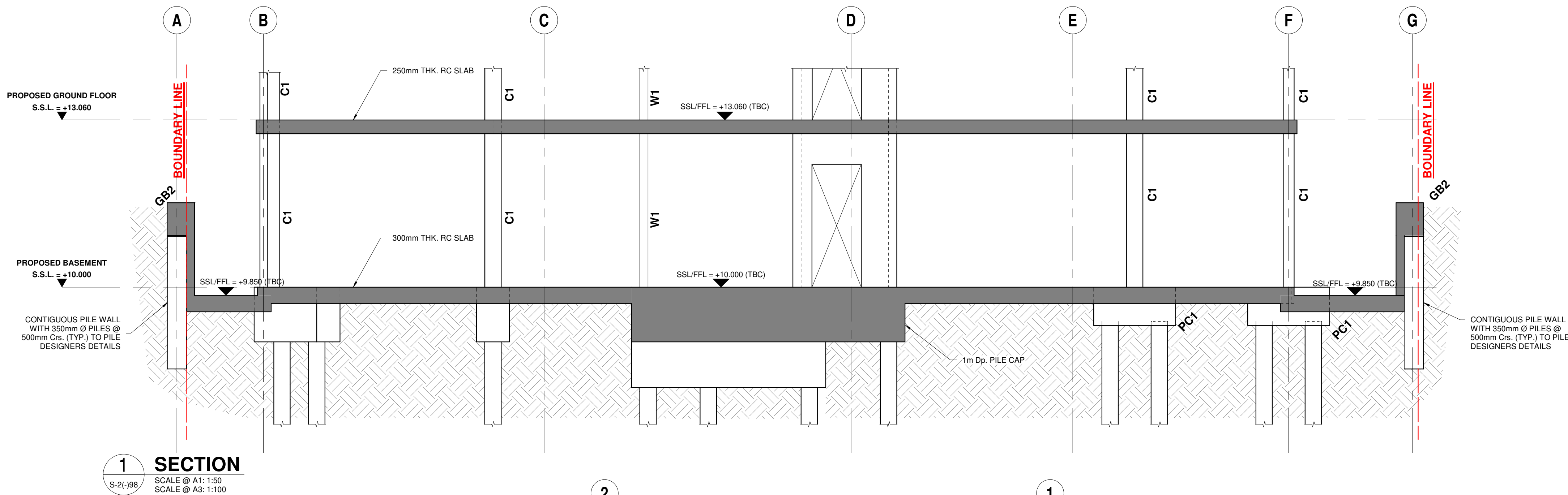
REF.	SIZE	COMMENTS
C1	200 x 300 R.C. COLUMN	-

G.A. CONCRETE WALLS SCHEDULE

REF.	SIZE	COMMENTS
W1	150mm THK. R.C. WALL	-

G.A. GROUND BEAMS SCHEDULE

REF.	SIZE	COMMENTS
GB1	600 x 600mm Dp. R.C. BEAM	-
GB2	500 x 600mm Dp. R.C. BEAM	-



SECTION 1

SCALE @ A1: 1:50
SCALE @ A3: 1:100

PROPOSED GROUND FLOOR
S.S.L. = +13.060

PROPOSED BASEMENT
S.S.L. = +10.000

CONTIGUOUS PILE WALL
WITH 350mm Ø PILES @
500mm Cts. (TYP.) TO PILE
DESIGNERS DETAILS

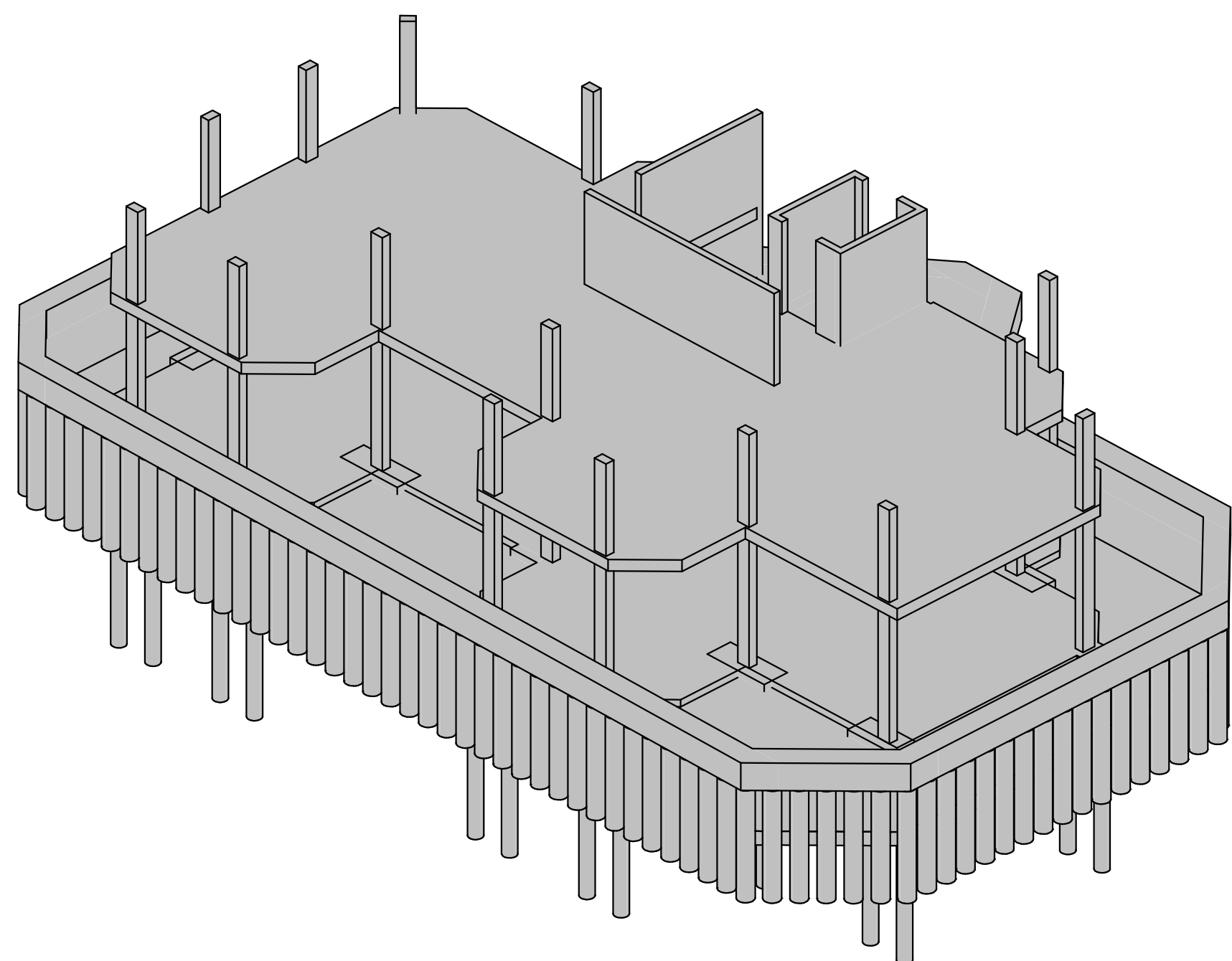
T.O.C. = +11.545 (TBC)

SECTION 2

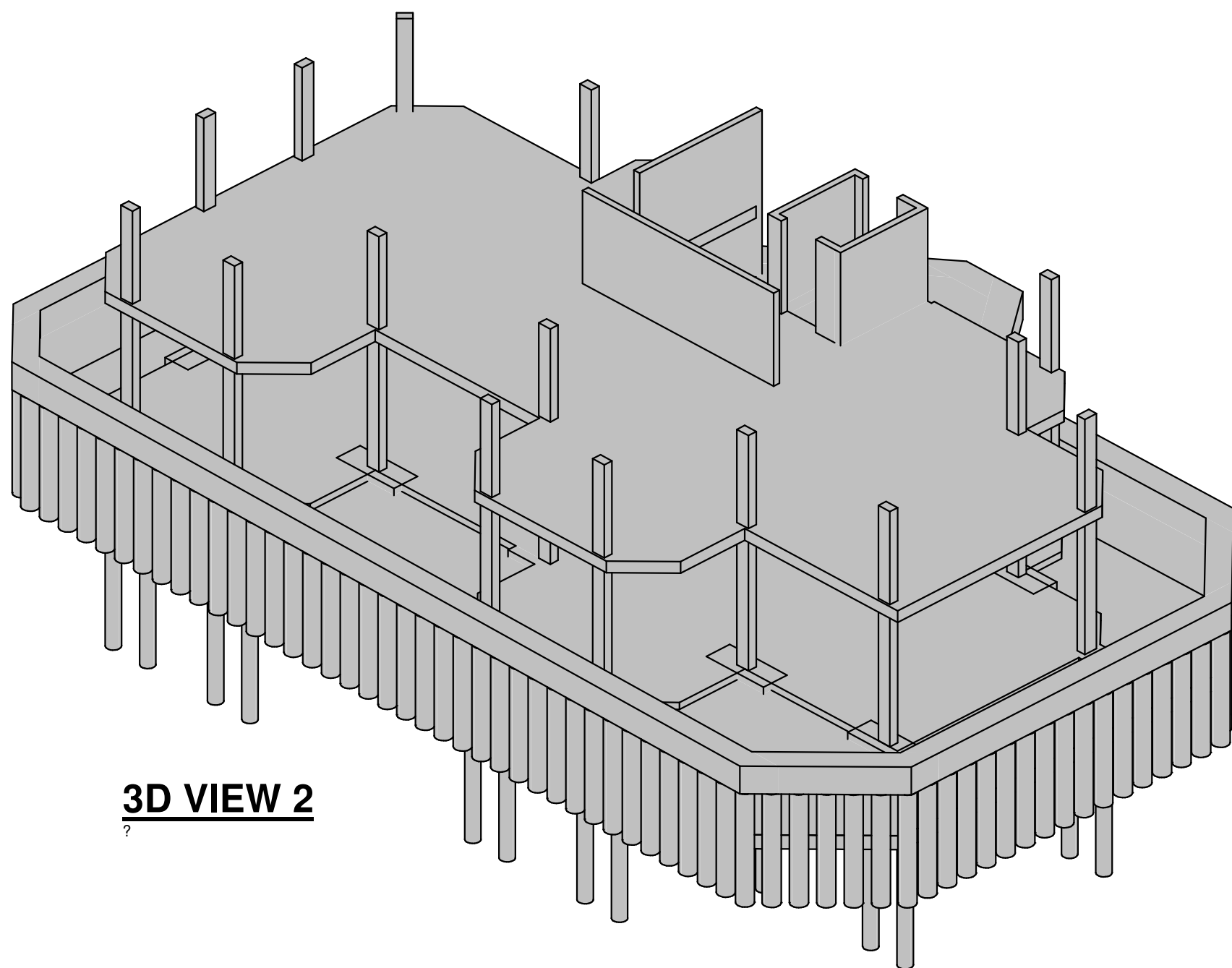
SCALE @ A1: 1:50
SCALE @ A3: 1:100

BOUNDARY LINE

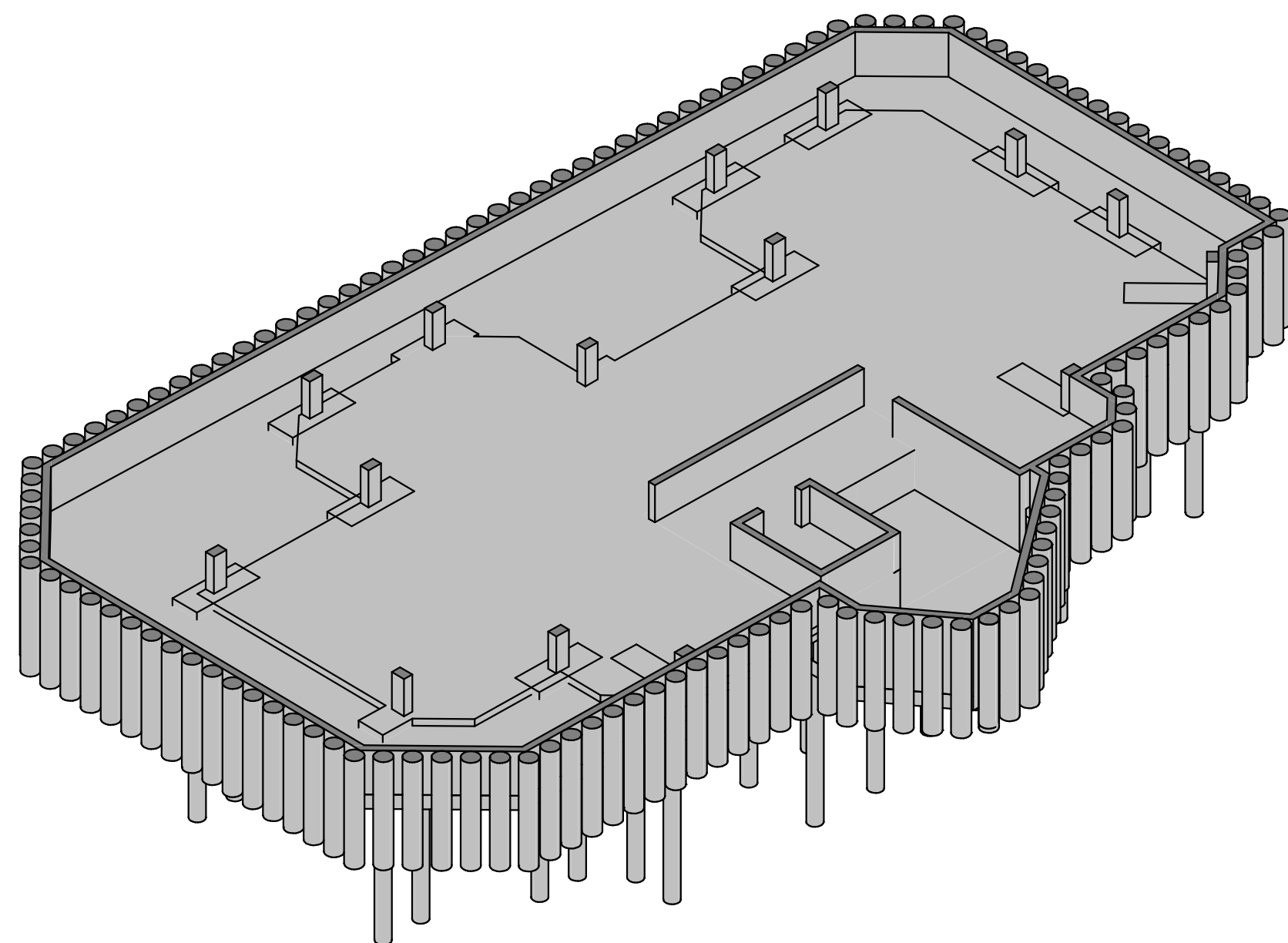
BOUNDARY LINE



3D VIEW 1



3D VIEW 2



3D VIEW 3 - BASEMENT

ISSUE	DATE	DESCRIPTION	K.O.	D.B.	D.B.	D.B.
			DRN.	ORIG.	P.E.	P.D.

ISSUE STATUS ☒ PRELIMINARY (P1, P2, P3 etc.) ☐ PLANNING (PL1, PL2, PL3 etc.)
☐ TENDER (T1, T2, T3 etc.) ☐ CONSTRUCTION (O, I, 2 etc.)



CLIENT
PAUL SIMON DEVELOPMENTS LIMITED

PROJECT TITLE
43 BELMONT AVENUE, LONDON, N17 6AX

DRAWING TITLE
FULL HEIGHT SECTIONS SHEET 1

SCALE @ A1	JOB NO.	DRAWING NO.	ISSUE
1 : 50	22785	S-2100	P1

APPENDIX VII - HAZARD/RISK ASSESSMENT

HAZARD/RISK ASSESSMENT RECORD SHEET

PROJECT NO:	22785	DESIGN ENGINEER:	DAVID BARDEN
PROJECT NAME:	43 Belmont Ave, London N17 6AX	PROJECT DIRECTOR:	DAVID BARDEN
DOCUMENT NO:	22785- RA – 01	DATE:	14-Jul-22
SHEET: 1 OF 4			

CONCEPT	(TP100)		STAGE REVIEW ✓ APPROPRIATE BOX
PLANNING	(TP302)	✓	
SCHEME	(TP310)		
TENDER	(TP320)		
DESIGN CHANGE DURING CONSTRUCTION			
TEMP WORKS	(TP330)		

REF	PREVIOUS (1) REF	Key Hazards / Risks Identified (2) (PR = Particular Risk)	Is Design Intervention Feasible to Eliminate or Mitigate Risk (3)	Assessment (4)		Actions to Mitigate / Control Risks	Action by (5) CTM SE
				Likelihood L M H	Severity L M H		
01		Seasonal Shrink-Swell	Yes. Seasonal Shrink-Swell to be accounted at RIBA Stage 4 detailed design stage of the project.	H	H	The Structural Engineer shall allow for heave protection to the underside of the proposed basement slab and/or shall design the proposed basement to account for any heave force. Heave forces to be accounted are outlined in site investigation report.	(SE)
02		Perched water bodies	No – Excavation of the proposed basement is an inherent part of the design.	M	L	Perches water bodies which would need to be controlled by the contractor during the excavation works. Generally this would be undertaken via local sump pumping.	(C)
03		Effects of Sulphates	Yes. Chemical analysis indicates that the basement concrete should be designed for a sulphate resistance class of AC-2.	H	M	The Structural Engineer shall allow for ACEC class of AC-2 on his proposed design drawings and ensure same is allowed for by piling contractor.	(SE) (C)
04		Protection to Human Health from contamination	Yes. The site is either covered by hardstanding or soft landscaping to contain a 600mm cover layer.	L	L	The architect/structural engineer shall provide min 600mm cover layer to all soft landscaping areas. Contractor shall ensure this is applied on site.	(SE) (C)
05		Basement Earthworks Support.	Yes. Basement contiguous pile wall to be designed to cantilever in the temporary sense to avoid the necessity of the contractor providing temporary earthworks support to the proposed basement earthworks support.	L	L	The Structural Engineer shall liaise with the piling contractor for the design of the proposed contiguous pile wall for the basement earthworks support to ensure it has been designed for the appropriate design loads, soil parameters and permanent works loads.	(SE) (C)
06		Basement Excavation Disposal of muck away.	No – Excavation of the proposed basement is an inherent part of the design.	L	L	Contractor to confirm the criteria acceptable for disposal of inert material with waste disposal facility.	(C)

Notes:

1. Previous Ref refers to reference given to a hazard / risk in a previous stage assessment brought forward (See classification (F) below)
2. Describe / explain nature of hazard / risk
3. Describe why it is not feasible to eliminate risk or, if feasible, describe design changes to eliminate or mitigate it
4. Assessment: L= Low; M= Medium; H= High
5. Action normally by: Structural Engineer (SE); Contractor (C); Temporary Works Designer (T) or Maintenance Operatives (M)

SUMMARY RISK CLASSIFICATION FOR ATTENTION OF PSDP, PSCS AND OTHER DESIGNERS		
Risk Ref No's	Classification	Remarks
	A: For attention of other designers	
	B: Particular risks	
	C: Other risks	
	D: Re assumed construction methods	
	E: Re maintenance – for safety file	
	F: Brought forward in-house for next stage assessment	

Other parties please take note:

1. These are designer's risk evaluations of design options carried out in-house for the purpose of our complying with designers' duties under the Construction (Design and Management) Regulations 2007 (CDM). The evaluations relate to those aspects / elements of the project which we are responsible for designing under the terms of our appointment by our client. Other parties should not rely on these evaluations for their own purposes; in particular, contractors, who must deal with and control all risks arising during construction, must carry out their own definitive risk assessments ab initio for that purpose. The contractor shall ensure compliance with all aspects of the Construction (Design and Management) Regulations 2007 (CDM) at all stages of the works.
2. The risks assessed are those which, in our opinion, (i) are significant and unusual and (ii) could not otherwise be reasonably known or deducted by a competent contractor.

APPENDIX VIII - BASEMENT CONSTRUCTION OUTLINE METHODOLOGY

PROJECT NO:	22785	PROJECT ENGINEER:	Shane McLoughlin
PROJECT NAME:	43 Belmont Avenue, London N17 6AX	PROJECT DIRECTOR:	David Barden
REVISION NO:	A	DATE:	15/07/2022
SHEET: 1 OF 1			

Barden Chapman Consulting Engineers Outline Methodology for Basement Construction Work



1. Installation of Piling Platform.

- 1.1. Excavate to a piling mat required depth over the proposed basement footprint.
- 1.2. Lay geotextile membrane over excavated area to piling contractor's details and specification.
- 1.3. Lay suitable granular material over geotextile membrane and compact in max 150mm layers. Material to be: -
 - 1.3.1. Free of organic matter.
 - 1.3.2. Contain no more than 15% fines.
 - 1.3.3. Be free draining.
 - 1.3.4. Durable and not easily degraded.
 - 1.3.5. Max particle size < 150mm.

2. Installation of Contiguous Piles & Capping Beam.

- 2.1. Set out centre line of basement Contiguous pile wall over entire basement footprint.
- 2.2. Construct RC guide wall to ensure correct alignment of basement Contiguous wall.
- 2.3. Construct piles to diameter and depth required by specialist piling designers.
- 2.4. On completion of item 2.3, excavate stratum within contig wall to a depth of +1.2m BGL to allow working space to cast capping beam.
- 2.5. Cut down Contiguous piles, leaving top of pile reinforcement exposed for anchorage length into capping beam.
- 2.6. Construct formwork for capping beam and fix rebar.
- 2.7. Cast capping beam for entire basement Contiguous wall.
- 2.8. Continue bulk excavation of basement dig with muck away provided by HGV.
- 2.9. Bulk excavation to be continued to a basement slab formation level with a 100mm allowance for trimming to final formation level.
- 2.10. **Note: Contiguous pile wall designed to cantilever in temporary and permanent sense to support retained earth to proposed basement excavation.**
- 2.11. Contiguous pile wall provided will not resist perched ground water entering bulk excavation. Any local ground water entering the excavation to be collected by local sumps excavated in the stratum and pumped from the excavation to ensure the bulk dig remains dry at all time.

3. Construction of Basement Slab.

- 3.1. On completion of Item 2, install basement drainage as outlined to Drainage Engineers details.
- 3.2. Trim formation to final basement level and cut down basement piles ensuring top of pile reinforcement is exposed for anchorage length into basement slab.
- 3.3. Provide 50mm concrete blinding over entire basement area.

- 3.4. Install Grade A external waterproofing to Cetco Details or similar approved.
- 3.5. Cast new RC concrete basement

4. Complete basement substructure & ground floor slab.

- 4.1. Clean face of basement Contiguous piles and remove debris from site.
- 4.2. Provide Grade A waterproofing to Cetco Details or similar approved to inside face of contiguous piles.
- 4.3. Cast basement RC rising elements and complete to ground floor slab level.
- 4.4. Install ground floor concrete slab to monolithically connect with capping beams at locations indicated on plan.
- 4.5. Install Grade C waterproofing (Drained cavity) to architect's details.

5. Complete Superstructure.

- 5.1. Progress with superstructure as required to permanent works engineer's drawings.
- 5.2. Complete internal finishes to architect's details.



London Office
25 Sackville Street
London
W1S 2AX

+44(0) 7765 948 685

www.bardenchapman.co.uk

info@bardenchapman.co.uk

