



A2 Site Investigation

99 Frogna1

Basement Impact Assessment

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Appendix A: Phase I Desk Study

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Appendix C: Structural Engineers Basement Construction Sequence

Appendix D: Ground Movement and Impact Assessment



1. Non-Technical Summary

- 1.1.1. The site location is at 99 Frognal, London, NW3 6XR .
- 1.1.2. The site currently comprises a Grade II listed, mid-18th century three-storey house (original mansion block) in the eastern portion of the site, with a one- two storey extension with a basement level (1970s) to the west of the mansion block, a private domestic garage with associated driveway in the northeastern corner of the site, and a garden to the west. The main existing structure (including the extension) is anticipated to comprise concrete floors supported by load-bearing masonry façades. The site is bounded by brick boundary walls on all sides, which are to be retained as part of the proposed scheme. There is a small existing basement situated within the centre of the original mansion building. There are multiple areas of soft landscaping on-site located in the garden in the western portion of the site, comprising a lawn and trees. In the front (southeastern portion) of the main house there is some soft-landscaping consisting of trees. A vegetable patch is present in the northeastern portion of the site, adjacent west of the existing garages.
- 1.1.3. A basement construction sequence document has been prepared by Structure Workshop Limited (Structure Workshop) (ref. 23020-AH-XX-DR-SKY27-P3), which outlines the proposed basement construction sequence in full, and is included as Appendix B.
- 1.1.4. It is understood that the bulk excavation works and the construction of permanent works elements will take place following the installation of all retention systems and the ground floor slab, i.e. utilising a *top-down* methodology. The original mansion block will be maintained during the works.
- 1.1.5. Movement monitoring of the existing walls to be retained is proposed, including those of the original mansion block, north and south boundary walls, the adjacent property “103 Frognal” to the north of the site and the eastern wall within the site. Stabilisation measures for the boundary walls and small retaining walls to the north of the west of the original mansion block will be installed. Soil anchoring is to be installed to the north boundary wall, which is to be left in-situ following works. The ground behind existing retaining walls will be lowered as required to reduce lateral loads while maintaining stability to adjacent structures and road. Temporary propping is to be added to the existing north retaining wall of the existing extension building (to be later demolished). Lateral propping to the top of the sheet pile of the proposed basement slab is to be allowed for. The props will increase the stiffness of the retention systems during construction and reduce the risk of adversely affecting neighbouring structures and/or third-party assets, due to excessive ground movement.
- 1.1.6. The following assessments are presented in the current document:
- Screening.
 - Scoping.
 - Additional evidence/assessments (as required), including:
 - Architectural and structural drawings.
 - Ground movement assessment.
 - Basement impact assessment.
- 1.1.7. The ground conditions beneath the site comprise (based on a review of BGS data and site-specific ground investigation):
- Made Ground: The Made Ground is expected to be at least 0.5m thick.
 - Bagshot Formation: The Bagshot Formation is expected to be at least 6.0m thick.
 - The Claygate Member of the London Clay Formation: The Claygate Member is expected to be at least 13.0m thick.



- 1.1.8. The hydrogeological conditions at the site, relevant to the proposed development, are predicted to comprise:
- The groundwater model is considered to be perched water above the Claygate Member of the London Clay Formation and within the Bagshot Formation.
 - The pore water pressure distribution within the Claygate Member of the London Clay Formation is hydrostatic.
 - The dominant direction of groundwater flow (if encountered) is anticipated to be in a southeastern direction, towards the River Thames.
- 1.1.9. The BIA has assessed land stability, and the impacts of the proposed development on neighbouring structures will be limited to Category 1 – Very Slight, in accordance with the Burland Scale. The impact to the adjacent public highway to the front of the property is also considered to be low, based on movements predicted in the ground movement assessment.
- 1.1.10. The BIA has identified a hydrogeological impact. The excavation will be within the Bagshot Formation and partially within the Claygate Member of the London Clay Formation, which are classed as Secondary A Aquifers. The Bagshot Formation and upper Claygate Member in which the basement sits are largely cohesive with low permeabilities, and the proposed basement is set back from the edges of the site. The overall risk of groundwater flooding associated with the creation of a new basement box is considered to be low.



2. Introduction

2.1. Overview

- 2.1.1. A2 Site Investigation Limited (A2SI) was engaged by private client to prepare a Basement Impact Assessment (BIA) for the proposed works at the 99 Frognal site, located in the London.
- 2.1.2. The purpose of this assessment is to consider the potential effects of the proposed works at 99 Frognal, London, NW3 6XR, on the local hydrology, geology and hydrogeology, and the potential impacts to neighbours and the wider environment.
- 2.1.3. The location of the proposed development is shown in Figure 2.1.

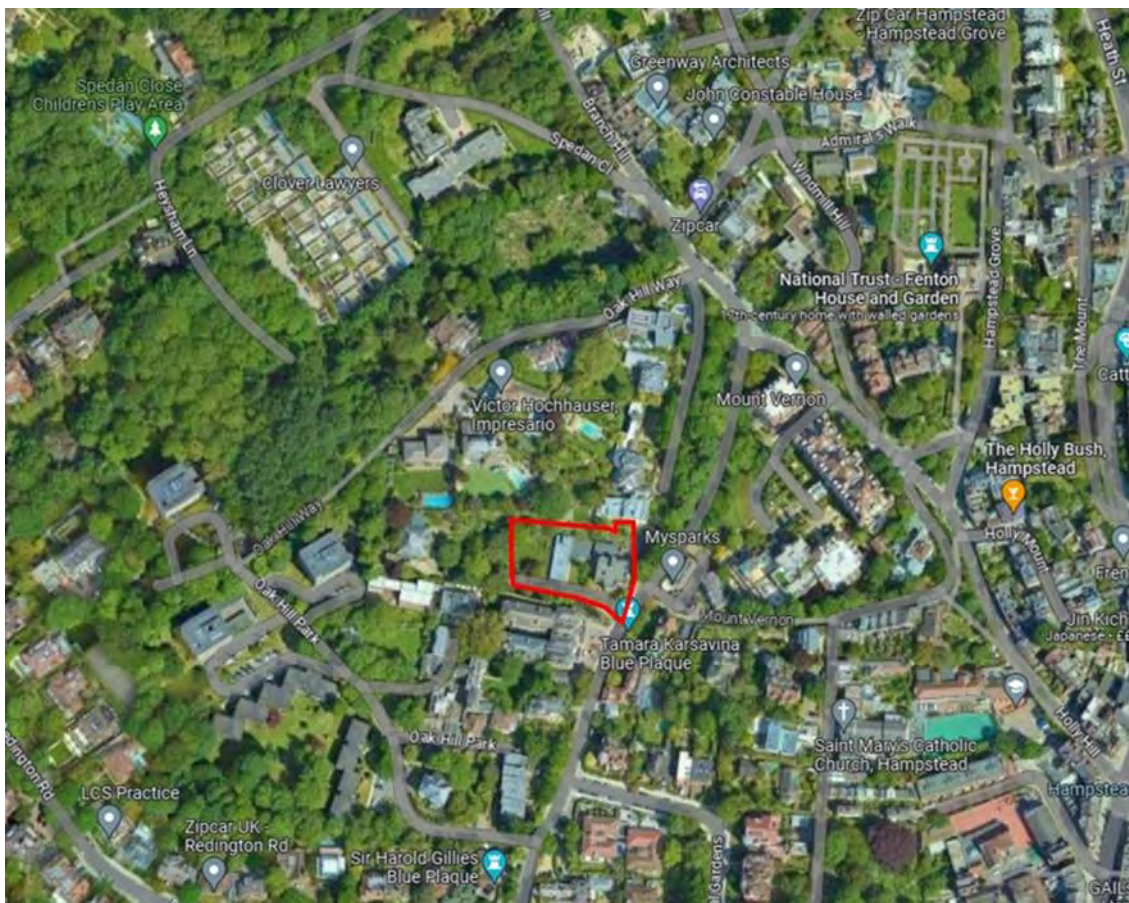


Figure 2.1 99 Frognal Site Location.

- 2.1.4. The development site is located within the jurisdiction of the London Borough of Camden.
- 2.1.5. The BIA has followed the approach developed by the London Borough of Camden, which is considered to represent current industry best practice.
- 2.1.6. The BIA comprises the following elements:
- Screening.
 - Scoping.
 - Additional evidence / assessments (as required), including:
 - Architectural and structural drawings.



- Ground movement assessment (GMA).
- Basement impact assessment.

2.2. Credentials

2.2.1. The BIA has been reviewed by Hamed Shariff. Hamed is a Chartered Member of the Institution of Civil Engineers (MICE) with several years of experience in geotechnical design, hydrogeological assessment and construction of basements. Hamed is currently an Associate at A-squared Studio Engineers Ltd (A-squared) and has a Master in Engineering from University College London. He also heads the hydrogeological division of A-squared and has experience in groundwater flow modelling and impact reviews.

2.2.2. The BIA has been approved by Alex Nikolic. Alex is a Chartered Member of the Institution of Civil Engineers (MICE) with more than 20 years of industry experience in geotechnical design and construction of ground engineering works. Alex has attained post-graduate qualifications, including a Master of Science in Soil Mechanics (MSc DIC) from the Imperial College London and a Master of Studies (MSt Cantab) in Sustainable Development from the University of Cambridge. Alex was formerly the Director of Ground Engineering at Buro Happold Ltd.

2.3. Sources of Information

2.3.1. The following baseline data has been referenced to complete the BIA in relation to the proposed development:

- *Envirocheck Report* for 99 Froggnal prepared by Landmark Information Group, dated May 2023 (ref. 311708021_1_1).
- *Phase I Desk Study* prepared by A2SI, dated October 2023 (ref. 32923-A2SI-XX-XX-RP-Y-0001-01), included as Appendix A.
- *Factual Report* prepared by A2SI, dated October 2023 (ref. 32923-A2SI-XX-XX-RP-X-0002-02), included as Appendix B.
- *Interpretive Report* prepared by A2SI, dated October 2023 (ref. 32923-A2SI-XX-XX-RP-Y-0003-02).
- *Ground Movement Assessment* prepared by A2SI, dated September 2023 (ref. 32923-A2SI-XX-XX-RP-Y-0004-00).
- *Structural Engineers Basement Construction Sequence* prepared by Structure Workshop, dated August 2023 (ref. 23020-AH-XX-DR-SKY27-P1), included as Appendix C.
- Various architectural and structural drawings provided by the project team.
- *Preliminary Unexploded Ordnance (UXO) Risk Assessment* for 99 Froggnal prepared by Brimstone Site Investigation, dated May 2023 (ref. PRA-23-2144).
- Site walkover undertaken by representatives of A2SI on 10th May 2023.
- British Geological Survey, GeoIndex Onshore GIS database (accessed 24th May 2023); <https://mapapps2.bgs.ac.uk/geoindex/>.
- Department for Environment, Food & Rural Affairs (DEFRA), Magic Map Application (accessed 24th May 2023); <http://magic.defra.gov.uk/MagicMap.aspx>.
- Historic England, online Aerial Photo Explorer (accessed 24th May 2023); <https://historicengland.org.uk/images-books/archive/collections/aerial-photos/>.
- UK Health Security Agency (UKHSA) and BGS radon mapping (accessed 24th May 2023); <https://www.ukradon.org/information/ukmaps>.
- *The Lost Rivers of London* by Nicholas Barton, 1962.
- Google Earth (ref. earth.google.com/web/), accessed 24th May 2023.
- Flood Maps for Planning (ref. <https://flood-map-for-planning.service.gov.uk/>), accessed 24th May 2023).



2.4. Existing Development

- 2.4.1. The development site is located at 99 Frognal, London, NW3 6XR. The site has approximate dimensions of 66m-long by 49m-wide, covering an area of approximately 0.27a.
- 2.4.2. The ground surface elevation at the site ranges from approximately 116 m Above Ordnance Datum (OD) within the western portion to 110mOD within the eastern portion, with ground surface levels in the surrounding area falling towards the south. The site is within a wider hillside setting and is founded on a gentle slope, with an decreasing ground level towards Frognal Rise, to the northeast of the site. The gradient of the slope across the site and the slope in close proximity to the site in the surrounding area are both less than 7 degrees.
- 2.4.3. As shown in Figure 2.1, the site is currently occupied by a Grade II listed, mid-18th century three-storey house (original mansion block), with a two- to three-storey extension building, a private domestic garage and a garden, some general soft-landscaping and a raised vegetable patch.

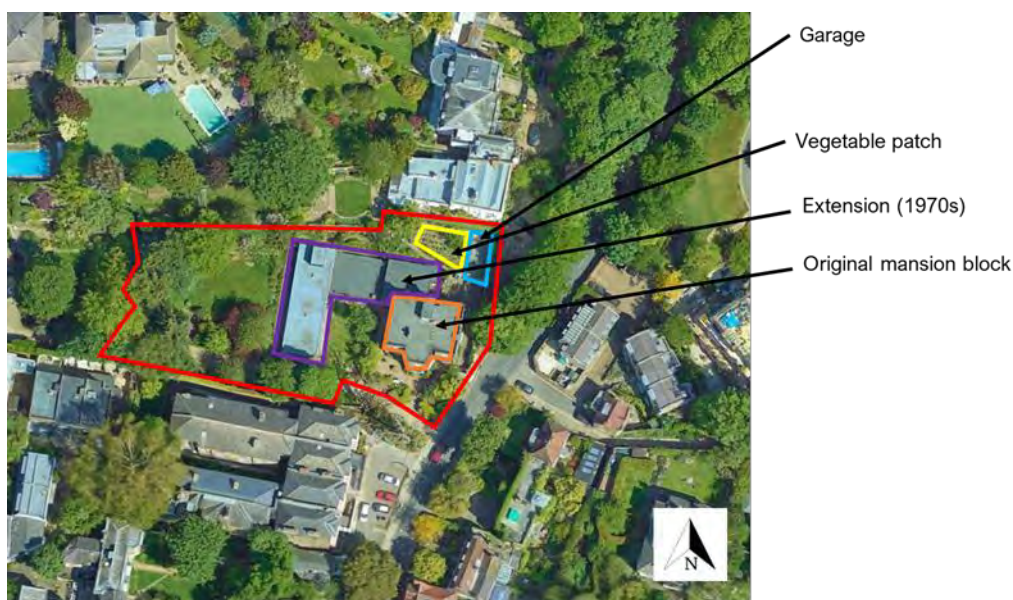


Figure 2.2 Existing site layout (red line indicative of site boundary)

2.5. Neighbouring Properties and Infrastructure

- 2.5.1. The site is bounded by brick walls on all sides. Each of these boundary walls are to be retained as part of the proposed scheme of development.
- 2.5.2. The northern boundary of the site comprises 103 Frognal, a multi-storey residential dwelling with private gardens. The eastern boundary of the site comprises “Frognal”, which is a single carriageway road. The southern boundary of the site comprises of a driveway trending E-W through to 99a Frognal. The western boundary of the site comprises of 99a Frognal, a multi-storey residential dwelling with private gardens.
- 2.5.3. There are two listed buildings within the zone of influence of the proposed development. There is an on-site Grade II listed (original mansion block) building and approximately 2m to the north from the site there is another Grade II listed building (“103 Frognal”).
- 2.5.4. Asset owners with existing underground services that may be impacted by the proposed development include the following:



- London Borough of Camden and the Greater London Authority.
- Thames Water Ltd – Clean water and wastewater
- BT (BT Group Plc) and Virgin Media Ltd – Telecoms.
- UK Power Networks Ltd – Electricity distribution.
- Cadent Gas Ltd and Southern Gas Networks Plc – Gas.

2.5.5. Asset protection teams for the assets listed in 2.5.4 may require engagement as the design of the proposed development continues. Where necessary, separate GMAs may be required to meet design assurance requirements.

2.6. Proposed Development

2.6.1. The proposed development *Structural Engineers Basement Construction Sequence* is included in Appendix B.

2.6.2. The development is planned to continue to be for private residential use.

2.6.3. The proposed development is to include the restoration of the original mansion building (eastern portion of the site) and the addition of a new mansard roof on the top storey of the building.

2.6.4. The proposed development will also include the demolition of the existing extension building (1970s), which is to be replaced by a new extension building. The proposed extension building will incorporate a wider one-two storey extension with a basement level across the northern portion of the site. The footprint of the proposed basement will follow a similar building footprint of the southern part of the existing extension building. The proposed basement of the new extension building includes an indoor swimming pool/sauna with associated facilities. The proposed basement is to be constructed to a maximum depth of 6.8m bgl, in the area of the pool.

2.6.5. It is proposed that the existing garage in the northeastern corner of the site will be demolished along with the removal of the adjacent raised vegetable patch to the west of the garages. The new development proposes two other homes on the site where the garage and raised vegetable garden are located. These buildings are one storey, sit sunken between boundary walls and are accessed from the same level as the existing garage/northern access. These homes are proposed to have a green roof.

2.6.6. All new structures will be supported by bearing pile foundations.

2.6.7. A new area of soft landscaping is proposed in the central courtyard of the site in the form of new bedding plants and bushes. In addition, soft-landscaping is proposed to be incorporated as part of the various courtyard/external amenity spaces.

2.6.8. The development does not include an increase in the number of storeys of the existing structure (original mansion block) within the zone of development of the proposed basement.

2.6.9. The proposed development scheme will consist of three main zones of new development, as shown in Figure 2.3. These three zones as described below:

- **Zone 1** - The area of the proposed extension with a single level basement, which is to be approximately 6.8m bgl deep.
- **Zone 2** – The area of the two proposed one-storey homes located in the northeastern corner of the site. These homes will be constructed so that they are accessed from the same level as the existing garage/northern access.
- **Zone 3** – Zone 3 has been split into two subzones, which have been designated as Zone 3i (northeast) and Zone 3ii (northwest). These zones are portions of the proposed extension without a basement.



Figure 2.3 First floor plan, annotated with the three zones of proposed development (red line indicative of site boundary)



3. Desk Study

- 3.1.1. A *Phase I Desk Study* report has been undertaken by A2 Site Investigation Limited for the project. The Desk Study report has been used to inform this BIA.
- 3.1.2. The Desk Study informs further actions in relation to ground contamination risks. It is provided in Appendix A.



4. Screening

4.1. Subterranean (Groundwater) Flow, Screening Flowchart

Question	Response	Details
1a. Is the site located directly above an aquifer?	Yes	The site is underlain by the Bagshot Formation which overlies the Claygate Member of the London Clay Formation with no superficial deposits. Both of these strata are classified as Secondary A Aquifers, defined as containing permeable layers capable of supporting water supplies at a local level, as noted in the desk study in Appendix A.
1b. Will the proposed basement extend beneath the water table surface?	Yes	The proposed basement is to be constructed to a maximum depth of 6.8m bgl (in the area of the pool) and it is recommended that a design water table of 1.0m bgl in the long-term condition is adopted for structural design across the site. Therefore; the basement will extend below the water table surface.
2. Is the site within 100m of a watercourse, well (used / disused) or potential spring line?	No	There are no surface water features within 100 m of the site boundary. The nearest surface water feature is located 413m northeast of the site and was identified as "Whitestone Pond". Given the shallow groundwater flow direction beneath the site (southeast towards the River Thames), the Whitestone pond, is considered not hydraulically connected to the site.
3. Is the site within the catchment of the pond chains on Hampstead Heath?	No	The site is not located within the catchment of the pond chains on Hampstead Heath.
4. Will the proposed basement development result in a change in the proportion of the hard surfaced / paved areas?	Yes	It is proposed that the existing extension building to the west of the original mansion building is to be demolished. A new extension building will be constructed, which will incorporate a basement level, following a footprint similar to the existing extension building. The southern part of the new extension building will only comprise the basement level and will have a green roof.
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	The proposed development will maintain the existing surface water discharge conditions. Within the existing scenario, surface water is positively drained and discharged to the public sewer. The proposed drainage strategy looks to continue to discharge all area to the public sewer however at a controlled rate of 2.00 litre per second (l/s).
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	The lowest level of the below ground space is not lower than the mean water level in any local pond.

4.2. Stability Screening Flow Chart

Question	Response	Details
1. Does the existing site include slopes, natural or man-made, greater than 7 degrees (approximately 1 in 8)?	No	Most of the site does not have slopes greater than 7 degrees (approximately 1:8), as the existing garden is split in two levels by the 1970s extension. However, part of the existing driveway leading to 99A Froggnal to the south of the site, has a slope of 1:6. This is however limited to the width of the driveway and separated by brick landscape retaining walls each side. Overall, the existing site is founded on a



Question	Response	Details
		gentle slope with a gradient of less than 7 degrees and this is not considered further in this assessment.
2. Will the proposed re-profiling or landscaping at the site change slopes at the property boundary to more than 7 degrees (approximately 1 in 8)?	No	While the two proposed homes to the northeastern corner of the site will be cut into the slope so that it is at a similar ground floor level to the original mansion building, there will be no re-profiling of the slope. Furthermore support measures are proposed to be incorporated as part of the excavation works in order to stabilise the soil around the excavation, and reinforced concrete walls are to be installed to provide permanent stabilisation to ensure no significant long-term movements or instability arise.
3. Does the development neighbour land, including railway cuttings and the like, with a slope greater than 7 degrees (approximately 1 in 8)?	No	The areas surrounding the site is founded on a slope with a gradient less than 7 degrees.
4. Is the site within a wider hillside setting in which the general slope is greater than 7 degrees (approximately 1 in 8)?	No	The site is founded on a wider hillside setting, with a slope with a gradient less than 7 degrees.
5. Is the London Clay the shallowest strata at the site?	No	BGS information and site-specific ground investigation proved the Bagshot Formation is the shallowest strata at the site.
6. Will any trees be felled as part of the development and/or are any works proposed within any tree protection zones where trees are to be retained?	Yes	Trees maybe felled during the development works. The works may take place in a tree protection zone.
7. Is there a history of seasonal shrink-swell subsidence in the local area and/or evidence of such effects at the site?	No	No history/evidence of seasonal shrink-swell subsidence where buildings are founded in desiccated soils.
8. Is the site within 100m of a watercourse or a potential spring line?	No	There are no surface water features within 100 m of the site boundary. The nearest surface water feature is located 413m northeast of the site and was identified as Whitestone Pond. Given the shallow groundwater flow direction beneath the site (southeast towards the River Thames), the Whitestone pond, is considered not hydraulically connected to the site.
9. Is the site within an area of previously worked ground?	No	The site is not in an area of previously reworked 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?	Yes	The basement will extend below the water table surface. Formation level of the basement is anticipated to be at 109.0mOD, 1.0m below the short-term design water table of 110.0mOD, which is specific for the area of the proposed basement (i.e. western portion of the site).
11. Is the site within 50m of the Hampstead Heath Ponds?	No	The site is not within 50m of the Hampstead Heath Ponds.
12. Is the site within 5m of a highway or pedestrian right of way?	Yes	"Frognaal", a single-carriageway road, is present directly to the east of the site.
13. Will the proposed basement significantly increase the differential depth of foundations relative to neighbouring properties?	Yes	The differential depth of the foundations of the existing development relative to neighbouring properties will be significantly increased. The maximum increase in foundation depth is 6.8m.
14. Is the site over (or within the exclusion zone of) any tunnels, e.g. railway lines?	No	There are no tunnels in close proximity to the site.



4.3. Surface Water and Flooding Screening Flowchart

Question	Response	Details
1. Is the site within the catchment of the ponds chains on Hampstead Heath?	No	The site is not located within the catchment of the pond chains on Hampstead Heath.
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?	No	The existing drainage system has not attenuated flows, and the proposed development is anticipated to maintain these existing conditions. Within the existing scenario, surface water is positively drained and discharged to the public sewer. The proposed drainage strategy looks to continue to discharge all area to the public sewer however at a controlled rate of 2.00 l/s.
3. Will the proposed basement development result in a change in the proportion of hard surfaced / paved external areas?	Yes	It is proposed that the existing extension building to the west of the original mansion building is to be demolished. A new extension building following will be constructed, which will incorporate a basement level, following a footprint similar to the existing extension building. The southern part of the new extension building will only comprise the basement level and will have a green roof.
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	Surface water will be captured at surface levels and discharged at a controlled rate to the sewer.
5. Will the proposed basement result in changes to the quality of surface water being received by adjacent properties or downstream watercourses?	No	Surface water will be captured at surface levels and discharged at a controlled rate to the sewer.
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 nearby surface water feature?	No	The site is in an area with very low risk of flooding due to surface water.

4.4. Non-Technical Summary of Screening Process

4.4.1. The screening process identifies the following issues to be carried forward to scoping for further assessment:

- The site is underlain by Secondary A Aquifers, i.e. the Bagshot Formation and the Claygate Member of the London Clay Formation (4.1[1a]).
- The formation level of the proposed basement is anticipated to be at 109.0mOD, which is below the short-term design water table of 110.00mOD, specific for that area of the site (4.1[1b], 4.2[10]).
- The proposed basement will change the effective proportion of hard surfaced/paved areas (4.1[4], 4.3[3]).
- Trees maybe felled during the development works. The works may take place in a tree protection zone. (4.2[6]).
- A single carriageway road (Frogna) is present directly to the east of the site (4.2[12]).
- The proposed basement excavation will increase the differential depth of foundations relative to neighbouring properties (4.2[13]).



- 4.4.2. The other potential concerns considered within the screening process have been demonstrated to be not applicable or not significant when applied to the proposed development.

5. Scoping

- 5.1. Subterranean (Groundwater) Flow: The site is underlain by Secondary A Aquifers, i.e. the Bagshot Formation and the Claygate Member of the London Clay Formation and the basement will be extended below the depth of the water table.

Hazards

- 5.1.1. The site is underlain by the Bagshot Formation which overlies the Claygate Member of the London Clay Formation with no superficial deposits. Both of these strata are classified as Secondary A Aquifers, defined as containing permeable layers capable of supporting water supplies at a local level.
- 5.1.2. The basement will extend below the water table surface. Formation level of the basement is anticipated to be at 109.0mOD, 1.0m below the short-term design water table of 110.0mOD, which is specific for the area of the proposed basement (i.e. the western portion of the site).

Potential Impacts

- 5.1.3. Groundwater may flow into the basement excavation during construction. Encountering water inflow during excavation of the basement may lead to collapse events or excavation flooding.
- 5.1.4. Underpinning works will not be able to take place below the water table, as pits within the Bagshot Formation will become unstable.
- 5.1.5. Basement construction may result in damming of the aquifer and groundwater flow regime.
- 5.1.6. Changes in groundwater head may cause stress changes or instability within the ground. The alteration of existing flow paths may result in a permanent increase in the local water table upstream of the proposed development due to the damming effect of the basement, and a corresponding drop in groundwater levels downstream.
- 5.1.7. Ground movements associated with these stress changes in the ground may impact existing properties.
- 5.1.8. The proposed basement will also be at an increased risk of flooding and damp in the long term due to permanent submergence beneath the groundwater table.

Mitigating Factors

- 5.1.9. Based on a review of the ground investigation results, the site-specific behaviour of the Claygate Member of the London Clay Formation within the proposed basement level development zone has been interpreted as an unproductive aquifer (rather than a Secondary A Aquifer) with cohesive material of low permeability encountered as the upper layers of the Claygate Member of the London Clay Formation. Therefore; it is unlikely that there will be any considerable water inflow during the basement excavation works within this stratum. Groundwater is anticipated to be present within the Bagshot Formation.



- 5.1.10. Water-cut off mechanisms through the Bagshot Formation and into the Claygate Member of the London Clay Formation and/or dewatering will be incorporated as part of the proposed scheme of basement excavation works. Dewatering would involve the pumping of groundwater from wells/sumps to reduce the groundwater table below the proposed excavation depth of 109.0mOD, with the aim of allowing the excavation to be carried out in dry conditions.
- 5.1.11. The hydrogeological regime of the site and surrounding areas is not anticipated to comprise significant groundwater flow, and any damming effects will likely result in minor increases in groundwater head. Any groundwater will likely flow around the basement box obstruction. Any effects of this obstruction on the groundwater table are mostly likely to be minor with other hydrogeological factors such as seasonality considered to be a greater influence on the existing variation of the groundwater table.
- 5.1.12. Several basements of similar depth and scale have been successfully constructed throughout London within similar geological conditions and urban settings.

Assesements and Further Actions

- 5.1.13. Appropriate detailing of the basement retaining wall waterproofing should be provided by a waterproofing specialist to mitigate the risk of flooding and damp conditions within the basement.
- 5.1.14. Where a dewatering array is proposed, the design of the system will consider the volume of water that is necessary to be pumped to sufficiently reduce the groundwater level and the site-specific soil permeability of the material surrounding the excavation (Made Ground, the Bagshot Formation and the Claygate Member of the London Clay Formation).

5.2. Subterranean (Groundwater) Flow: The proposed basement will change the proportion of hard surfaced/paved areas.

Hazards

- 5.2.1. There will be a change in the effective proportion of hard surfaced/paved areas.

Potential Impacts

- 5.2.2. The existing drainage across the site will be altered, with a reduction in hard surfaced/paved areas, leading to an increase in the ability for water to drain through the site.

Mitigating Factors

- 5.2.3. The proposed scheme increases the proportion of on-site soft landscaping and is favourable in terms of drainage.
- 5.2.4. Landscaping works proposed will ensure soil material is placed above areas of the proposed basement without structures above.
- 5.2.5. Green roofs are to be incorporated in the new extension building.

Assessments and Further Actions

- 5.2.6. Specialist drainage advice may be necessary for detailed design of the surface water management systems.



5.3. **Stability:** Trees maybe felled during the development works. The works may take place in a tree protection zone.

Hazards

- 5.3.1. Shrink/swell behaviour of underlying cohesive soil masses due to the removal of trees.
- 5.3.2. Potential reduction in the proportion of on-site soft-landscaping, leading to increased surface water run-off into the local drainage system due to a reduction in uptake from vegetation.

Potential Impacts

- 5.3.3. Additional ground movements from shrink/swell may cause impact to the neighbouring structures.
- 5.3.4. Properties downstream of the development may be subject to increased surface overland flow.

Mitigating Factors

- 5.3.5. Any potential changes to the surface water run-off volume are anticipated to be captured by the proposed drainage scheme.
- 5.3.6. The proposed scheme increases the proportion of on-site soft landscaping and is favourable in terms of drainage.
- 5.3.7. The proposed foundation solution across the site is piles. This foundation solution compared to other foundation schemes limits potential impact to roots during installation.

Assessments and Further Actions

- 5.3.8. If trees are to be felled during construction or the proposed works are to be undertaken within a tree protection zone, an arboriculture report should be obtained.

5.4. **Stability:** The site is bounded by a road to the immediate east and will significantly increase the differential depth of foundations relative to the neighboring properties.

Hazards

- 5.4.1. It is anticipated that the proposed differential depth of the foundations relative to neighbouring properties will increase.
- 5.4.2. The site is bounded by brick walls on all sides, which are to be retained. A residential building (103 Froggnal) is located approximately 2m from the northeastern site boundary and a residential apartment building (1 to 24 The Heights) is located approximately 10m from the southern site boundary.
- 5.4.3. The eastern part of the site boundary is immediately adjacent to "Froggnal" which is a single carriageway road.

Potential Impacts

- 5.4.4. Collapse of the excavation and associated impact on surrounding assets.
- 5.4.5. Impact of ground movement to 103 Froggnal resulting in cracking, impact and/or collapse.
- 5.4.6. Impact of ground movement to 1 to 24 The Heights resulting in cracking, impact and/or collapse.

Mitigating Factors



- 5.4.7. The majority of existing and proposed buildings on site do not share Party Walls with 103 Frognal or 1 to 24 The Heights.
- 5.4.8. No basement space is proposed directly adjacent to the site boundary and the proposed basement is more than 5m from Frognal.
- 5.4.9. Temporary propping of the basement walls is proposed during construction works to ensure no significant movements or instability of the surrounding roads arise.
- 5.4.10. Several basements of similar depth and scale have been successfully constructed throughout London within similar geological conditions and urban settings.
- 5.4.11. A ground movement assessment has been undertaken for the neighbouring buildings, and this indicates maximum vertical and horizontal movements of less than 4mm along the road.

Assessments and Further Actions

- 5.4.12. A ground movement assessment has been performed to determine the impact of proposed excavation works on the neighbouring properties, discussed in Section 8.2. The assessment predicts a maximum impact classification of Category 1 – very slight for the neighbouring properties, in accordance with the Burland Scale.
- 5.4.13. An assessment of the ground movements of the neighbouring roads associated within the proposed works will be undertaken as part of the detailed design to confirm that there is no significant impact during construction.
- 5.4.14. Various additional ground movement assessments may be required to determine the impact of the works on surrounding buried utilities and other third-party assets surrounding the site. These assessments should confirm anticipated impact categories in accordance with performance limits set by the relevant third-party asset protection teams.
- 5.4.15. Appropriate ground movement monitoring should be implemented during construction to assess the performance of the earth retention system (baseline monitoring pre-commencement of the works should be carried out to determine any potential existing movement trends).
- 5.4.16. The contractor should allow for making good of any superficial impact to the existing pavements and roads.



6. Site Investigation

- 6.1.1. A site-specific ground investigation was carried out in June 2023 by A2SI to support the design of the proposed below-ground space.
- 6.1.2. The *Factual Report* prepared by A2SI summarising the works undertaken is included as Appendix C.
- 6.1.3. The investigative works included the following:
- 3no. modular cable percussion borehole to a depth of 20.60mbgl (below ground level) with hand dug inspection pits to 1.50mbgl (BH01 to BH03).
 - 1no. dynamic sampler borehole to a depth of 5.00mbgl (WS01).
 - 18no. hand-dug trial pit to a depth of 1.50mbgl (TP01-TP04 & TP06-TP18) to investigate the existing foundations with dynamic probing in TP17 to determine the presence and extent of a toe to the existing retaining wall.
 - 2no. California Bearing Ratio (CBR) tests in TP03 & TP10 using a handheld Transmit Receive Longitudinal (TRL) Dynamic Cone Penetrometer (DCP) to a maximum depth of 1.38mbgl.
 - 4no. groundwater monitoring standpipe installations within the boreholes (BH01 to BH03) and standard headroom windowless sample (WS01).
 - 3no. return ground gas and vapour monitoring rounds within BH01, BH02, BH03, and WS01.
 - Logging and photographing of soils retrieved from investigative positions.
 - 4no. monitoring visits post-site work monitoring of groundwater elevations and vapours.
 - 4no. falling head test results in BH01 to BH03 & WS01 during the third visit for monitoring groundwater elevation, to provide an indication on the soakage rate of the soil.
 - 13no. moisture content tests.
 - 5no. classification/index tests (Atterberg Limit 4 Point Method).
 - 1no. particle size distribution test (Wet Sieving Method).
 - 8no. triaxial tests (100mm single stage).
 - 7no. BRE Suite D tests.
 - 13no. Total Organic Carbon (TOC) tests.
 - 3no. Soil Organic Matter (SOM) tests.
 - 3no. pH tests.
 - 3no. Fraction Organic Carbon (FOC) tests.
 - 3no. Water Soluble Sulphate tests.
 - 3no. Heavy Metals and Metalloids Suite (arsenic, barium, beryllium, boron, cadmium, chromium, hexavalent chromium, copper, lead, mercury, molybdenum, nickel, selenium, vanadium, and zinc) tests.
 - 3no. Total Petroleum Hydrocarbons Criteria Working Group (TPH CWG) tests.
 - 3no. Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) and Methyl Tertbutyl Ether (MTBE) tests.
 - 3no. Polycyclic Aromatic Hydrocarbons (PAH) EPA 16 tests.
 - 3no. Asbestos Identification tests.
 - 1no. Asbestos Quantification tests.
 - 1no. Acid Neutralisation Capacity tests.
 - 1no. Loss on Ignition (LOI) tests.
 - 1no. Full Waste Acceptance Criteria (WAC); tests.
 - 1no. Polychlorinated Hydrocarbons (PCB) (Total 7 Congeners) tests.



6.1.4. The locations of the ground investigation positions are shown in Figure 6.1.

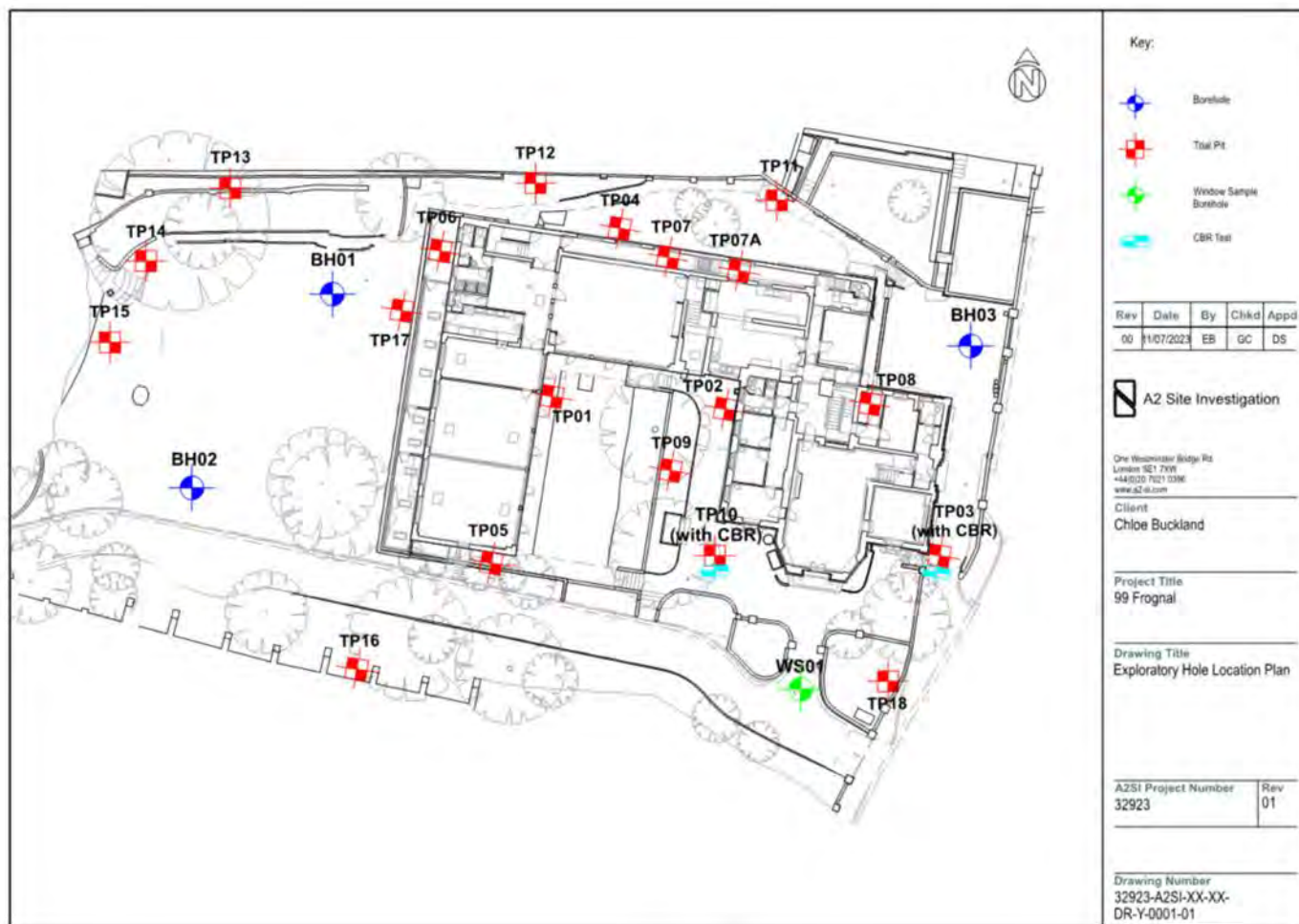


Figure 6.1 Exploratory hole locations

6.1.5. The encountered ground conditions at the site are summarised in Figure 6.1. There is a significant slope across the site with ground surface elevations falling towards the east.

Table 6.1 Encountered stratigraphic profile

Unit	Maximum Level (mOD)	Minimum Level (mOD)	Minimum Depth (m bgl)	Maximum Depth (m bgl)	Maximum Thickness (m)	Description
Made Ground ^[1]	+115.44	+110.74	0.00	1.20	0.90	BH01 (0.20 to 0.60m bgl) and BH03 (0.06 to 0.50m bgl) Dark brown mottled orangish brown gravelly very clayey fine to coarse SAND with occasional rootlets. Gravel is sub-angular to sub-rounded fine to coarse of brick and flint. BH02 (0.30 to 1.20m bgl) and WS01 (0.00 to 0.50m bgl) Dark brown gravelly sandy SILT. Sand is fine. Gravel is sub-angular to rounded fine to coarse of flint.
Bagshot Formation	+115.04	+106.44	0.50	9.20	8.60	Soft orangish brown mottled light grey very sandy gravelly micaceous CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded, fine to coarse of flint... becoming very clayey SAND (with depth).



Unit	Maximum Level (mOD)	Minimum Level (mOD)	Minimum Depth (m bgl)	Maximum Depth (m bgl)	Maximum Thickness (m)	Description
						Firm to stiff orangish brown mottled light grey very sandy micaceous CLAY. Sand is fine.
						Medium dense to very dense orangish brown clayey fine SAND.
London Clay Formation – Claygate Member ^[2]	+108.74	+95.04	3.80	>20.60 (unproven)	>13.00 (unproven)	Soft orangish brown mottled grey sandy micaceous CLAY. Sand is fine. (WEATHERED CLAYGATE MEMBER). Stiff dark grey sandy CLAY. Sand is fine. Stiff to very stiff dark grey silty clayey fine to medium SAND with frequent pockets of dark grey clay. Dense light yellowish brown clayey fine to medium SAND.

^[1] Topsoil was encountered in BH01 to a depth of 0.20m bgl (115.44mOD) directly overlying the Made Ground.
Topsoil was encountered in BH02 to a depth of 0.30m bgl (115.34mOD) directly overlying the Made Ground.

^[2] Alluvium was encountered in BH02 between 1.20m bgl (114.44mOD) to 2.00m bgl (113.64mOD) directly overlying the Bagshot Formation.

^[3] Weathered Claygate Member (overlying the Claygate Member) was encountered in BH02 between 8.00m bgl (107.64mOD) to 8.80m bgl (106.84mOD).
Weathered Claygate Member (overlying the Claygate Member) was encountered in BH03 between 2.00m bgl to 3.80mbgl (108.74 to 106.94mOD).

6.1.6. Groundwater was encountered between +106.74 to +109.99mOD and is considered to be perched water above the Claygate Member of the London Clay Formation and within the Bagshot Formation.



7. Construction Methodology / Engineer Statements

7.1. Outline Temporary and Permanent Works Proposals

- 7.1.1. The new basement is to be constructed following demolition of the existing extension building (which has no existing basement).
- 7.1.2. Soil anchoring is to be installed to the northern boundary brick wall, which is to be left in-situ following works. Soil anchoring and temporary support is to be installed to existing retaining walls within the area of the existing extension building. This stabilisation measures will increase the stiffness of the retaining walls and reduce the risk of adversely affecting neighbouring structures and third-party assets due to excessive ground movement.
- 7.1.3. A piled perimeter wall to basement and other piled foundations for the proposed extension building are to be installed from existing extension ground floor level simultaneously with the installation of piled foundations.
- 7.1.4. A piled base for a crane may be required within the center of the site.
- 7.1.5. To enable basement construction, the perimeter wall capping beam, basement roof slab and down stand beams will be cast, supported by temporary internal piles. Once basement slab cast, bulk excavation of basement can begin through large opening at south end of basement slab. *Top-down* basement construction methods will be adopted.
- 7.1.6. Once the two homes to the northeastern corner of the site (Zone 2) are constructed, the northeastern wall is stable therefore the props to this wall can be removed. The remainder of the existing extension building will then be demolished and land between the existing extension building and Zone 2 will be excavated.
- 7.1.7. Sheet piles are then to be installed where the proposed extension building extends beyond the existing retaining wall. The contractor will allow for lateral propping.
- 7.1.8. The remainder of the extension building ground floor slab is to be cast. Then the permanent retaining walls at ground floor on the north side and one along the south wall of the new extension building are to be constructed. The top of the temporary retaining walls will then be demolished and sheet piling where required.
- 7.1.9. Backfilling and installation of earth and landscaping works across the site will be undertaken. The superstructure of the proposed extension building is then to be constructed above.
- 7.1.10. Standard means and methods of excavation are expected to be suitable to excavate the basement, based upon the ground conditions proven by means of ground investigation works.
- 7.1.11. Design of the retaining walls and temporary propping shall be carried out in accordance with the relevant Eurocodes/British Standards, non-conflicting codes of practice, and associated design best practices.
- 7.1.12. It is anticipated that dewatering or groundwater management will be required to enable the basement excavation due to volumes of groundwater inflow within the Bagshot Formation. The volumes arising from the perched ground water can be suitably managed/mitigated with localised pumping where required.



7.2. Ground Movement and Impact Assessment

- 7.2.1. A GMA has been carried out in accordance with CIRIA C760 and takes into account the construction methodology and site-specific ground and groundwater conditions. The GMA is included as Appendix D.
- 7.2.2. All structures / properties within the zone of influence of the proposed development have been assessed.
- 7.2.3. The following assumptions have been made within the GMA:
- The pile wall is assumed to be installed in the Claygate Member of the London Clay Formation.
 - The buildings included in the GMA are assumed to be founded on ground surface.
 - The walls of the above-mentioned buildings are assumed to behave as equivalent beams.
- 7.2.4. The ground movements resulting from the works comprise deformations arising from the following mechanisms:
- Installation of the underpins.
 - Bulk excavation works.
 - Heave and settlements due to the unloading / load redistribution of the Bagshot Formation and Claygate Member of the London Clay Formation.
- 7.2.5. The following structures were assessed, having been identified as falling within the zone of influence of the proposed development:
- 99 Frogna1 (on-site, original mansion building)
 - 103 Frogna1 (2m to the northeast of the site)
 - 1 to 24 The Heights (10m to the south of the site)
- 7.2.6. The evaluated potential impact is contained within Category 1 – Very Slight, in accordance with the Burland Scale for both the base assessment and sensitivity check.
- 7.2.7. An outline impact review of the works on Frogna1 has also been undertaken. The road is anticipated to experience horizontal and vertical movements of less than 4mm.
- 7.2.8. The expected ground movements resulting from the proposed works are proposed to be limited by means of a propping ground floor slab, which is planned to be installed before the excavation phase.
- 7.2.9. The following mitigation measures are proposed to reduce ground movements and impact:
- Design of the propping measures shall be carried out in accordance with the relevant Eurocodes, non-conflicting codes of practice, and associated design best practice.
 - Wall construction works to be performed by an experienced piling contractor.
 - Frequent monitoring of neighbouring properties to be carried out during excavation, to validate ground movement predictions against reality.
 - Development of a monitoring-trigger-action plan that identifies trigger levels, responsible personnel and actions to be followed in the event of a trigger level exceedance.
 - Incorporating stiff, high level props into the temporary works design of the excavation, so as to provide a high stiffness wall. Design details regarding minimum wall flexural stiffness, prop stiffness and arrangement, shall be defined as part of detailed design development.



- Designated areas for stacking and storing materials behind the underpins should be identified. These should be located away from sensitive structures. The design of the underpins should incorporate an appropriate surcharge load to the rear of the wall, to capture effects of stacking and storing materials, vehicle traffic, etc.
- The GMA did not consider the impact of the proposed development on existing buried utilities (e.g. Thames Water sewer assets). It is expected that these assets will be assessed (if applicable to the proposed works) following engagement of the asset owner and direction from the asset protection team, with regards to establishing limiting performance criteria.

7.3. Control of Construction Works

- 7.3.1. Following the selection of a Principal Contractor, a Construction Method Statement should be developed, which will cover the items outlined in this section in detail.
- 7.3.2. Work method statements developed for main stages of the construction works, outlining the means and methods of safely carrying out the works.
- 7.3.3. Details of temporary propping and temporary works, required to ensure structural stability is maintained throughout demolition and excavation operations.
- 7.3.4. Construction traffic management plans.
- 7.3.5. Detailed development of structural and environmental monitoring strategy, developed to control construction works and maintain movements/impacts within the predicted limits and monitor environmental impacts, including:
 - A structural monitoring layout plan of instrumentation/survey points/critical sections.
 - Programme/frequency of monitoring.
 - Trigger values derived for each of the structures within the zone of influence of the proposed works.
 - Contingency actions and project team lines of responsibility.



8. Basement Impact Assessment

8.1. General

8.1.1. The Conceptual Site Model (CSM) is described below:

- The ground conditions of the site comprise Made Ground overlying the Bagshot Formation over Claygate Member of the London Clay Formation.
- There is a significant slope across the site with ground surface elevations falling towards the east.
- Groundwater was encountered between +106.74 to +109.99mOD and is considered to be perched water above the Claygate Member and within the Bagshot Formation.
- The site is currently occupied by a Grade II listed, mid-18th century three-storey house (original mansion block), with a two-to-three storey extension building, a private domestic garage and a garden, some general soft-landscaping and a vegetable patch. The site is bounded by brick walls on all sides, each of which are to be retained as part of the proposed scheme of development.
- Neighbouring buildings are assumed to be founded near surface.
- The proposed development may result in impact to the neighbouring buildings. Any potential impact will be mitigated by appropriate construction means and methods (such as temporary propping/shoring and controlled excavation operations).

8.2. Land Stability / Slope Stability

8.2.1. It is assumed that all new substructure elements will be founded on piles toed in the Claygate Member of the London Clay Formation, which is considered to be a suitable founding stratum.

8.2.2. The risk of movement and impact to this development due to volumetric changes of the Claygate Member of the London Clay Formation will be considered as part of the scheme design of the development. Heave mitigation measures (if appropriate) will be adopted, and the relevant soil structure interaction mechanisms will be reviewed.

8.2.3. A GMA has concluded that ground movements caused by excavation and construction of the proposed development will be limited. The upper bound impact category for surrounding structures within the zone of influence of the proposed development has been assessed as Category 1 – Very Slight in accordance with the Burland Scale.

8.2.4. The BIA has concluded that risks to the adjacent properties, public highway and infrastructure (including ultimate and serviceability limit state considerations) are limited and will be mitigated in a reasonable fashion as part of design development.

8.3. Hydrology and Groundwater Flooding

8.3.1. The BIA has concluded that there is no risk of groundwater flooding.

8.3.2. The BIA has concluded that there are no impacts to the wider hydrogeological environment.

8.4. Hydrology, Surface Water Flooding and Sewer Flooding

8.4.1. The BIA has concluded that there is a very low risk of surface water flooding.



8.4.2. The BIA has concluded that there are no impacts to the wider hydrological environment.



Appendix A: Phase I Desk Study



A2 Site Investigation

99 Frogmal

Phase I Desk Study

October 2023

32923-A2SI-XX-XX-RP-Y-0001-00





Project Name	99 Frogna1
Project Number	32923
Client	private client
Document Name	Phase I Desk Study

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Appendices

Appendix A: Qualitative Risk Assessment Matrix

Appendix B: Envirocheck Report

Appendix C: Unexploded Ordnance Risk Assessment

Appendix D: Site Walkover Records

Appendix E: Regulatory Correspondence

Appendix F: Various Existing and Proposed Development Plans



1. Introduction

A2 Site Investigation Ltd (A2SI) has been engaged by Chloe Buckland to prepare a phase I desk study report for the proposed development at 99 Froggnal, London, NW3 6XR (herein called the 'site').

1.1. Study Aims and Objectives

The desk study develops an initial Conceptual Site Model (CSM) and provides a qualitative Preliminary Risk Assessment (PRA) for the proposed development in accordance with *Land Contamination Risk Management* (LCRM) guidance, published by the Environment Agency on the UK Government website. The desk study has also been prepared in the context of the *National Planning Policy Framework* (NPPF) and *The Building Regulations 2010, Approved Document C - Site preparation and resistance to contaminants and moisture (2004 Edition incorporating 2010 and 2013 amendments)*. The desk study includes an assessment of whether there are any unacceptable risks (ref. LCRM guidance) which require further geo-environmental investigation.

Potential historical and current sources of contamination have been identified based on information available in the public domain and in provided documentation (including information sources referenced in Section 1.2).

The proposed development is described in more detail in Section 6 but can generally be described as the restoration of the current on-site development which will include the demolition of part of the development, the construction of a new extension with a basement pool and the erection of two small one-storey houses to the northeastern corner of the site. The site will continue to be for residential use.

Preliminary geotechnical assessment is not included in this desk study.

The outcomes of this desk study have been developed based on information current at the time of writing.

1.2. Information Sources

The primary sources of information which have informed the assessments presented herein include the following:

- *Envirocheck Report* for 99 Froggnal prepared by Landmark Information Group, dated May 2023 (ref. 311708021_1_1), included in Appendix B.
- *Preliminary Unexploded Ordnance (UXO) Risk Assessment* for 99 Froggnal prepared by Brimstone Site Investigation, dated May 2023 (ref. PRA-23-2144), included in Appendix C.
- Site walkover undertaken by representatives of A2SI on 10th May 2023.
- British Geological Survey, GeoIndex Onshore GIS database (accessed 24th May 2023); <https://mapapps2.bgs.ac.uk/geoindex/>.
- Department for Environment, Food & Rural Affairs (DEFRA), Magic Map Application (accessed 24th May 2023); <http://magic.defra.gov.uk/MagicMap.aspx>.
- Historic England, online Aerial Photo Explorer (accessed 24th May 2023); <https://historicengland.org.uk/images-books/archive/collections/aerial-photos/>.
- UK Health Security Agency (UKHSA) and BGS radon mapping (accessed 24th May 2023); <https://www.ukradon.org/information/ukmaps>.
- *The Lost Rivers of London* by Nicholas Barton, 1962.
- Google Earth (ref. earth.google.com/web/), accessed 24th May 2023.
- Flood Maps for Planning (ref. <https://flood-map-for-planning.service.gov.uk/>), accessed 24th May 2023).
- Local authority planning portal (ref. <https://accountforms.camden.gov.uk/planning-search/>), accessed 24th May 2023.
- Various existing and proposed development plans prepared by Hayhurst & Co Architects Limited, dated October 2023, included as Appendix F.



2. Site Setting

2.1. Development Location and Current Site Use

The development site is located at 99 Froggnal, London, NW3 6XR as shown in Figure 2.1. The approximate National Grid reference for the site is 526100, 185870 and the site footprint covers approximately 0.27 hectares. The approximate ground surface elevation at the site is 115 m Above Ordnance Datum (OD) with ground surface levels in the surrounding area fall towards the south. The development site falls within the administrative boundaries of the London Borough of Camden and currently includes a three storey residential building, a one-two storey extension with a basement level, a private domestic garage with a driveway and multiple areas of soft landscaping surrounding the buildings, i.e. a lawn, a raised vegetable patch and some trees.

The current land uses within a 250m radius surrounding the site are summarised in Table 2.1.



Figure 2.1 Approximate location of the proposed development (red line reflects the site boundary used for this assessment)



Table 2.1 Surrounding land uses summary

Bearing from Site	Features directly adjacent to the site boundary	Other identified land uses and key structures
North	103 Frogнал – Multi-storey residential dwelling with private garden.	Residential dwellings with private and shared gardens up to and beyond 250m north, northwest, and northeast of the site. 3no. private outdoor swimming pools identified within 50m northwest of the site. The residential road junction of Oak Hill Way and Frogнал Rise is present 130m north.
South	Driveway to 99a Frogнал, a residential dwelling with a private garden.	Residential dwellings with private and shared gardens up to and beyond 250m south of the site. St John-at-Hampstead Church with a graveyard located 250m southeast of the site. Commonwealth War Graves are located between 173m and 250m southeast.
East	Frogнал – Single carriageway road.	Residential dwellings with private gardens up to 185m east of the site. Saint Mary’s Catholic Church, Hampstead (with no associated graveyard) is located 133m southeast. University College School Junior Branch, with areas of soft landscaping, is located 170m east of the site. High street retail shops (which include salons, restaurants, and estate agents) along Heath St located approx. 250m east.
West	99a Frogнал – Residential dwelling with a private garden.	Beyond 99a Frogнал is a forested area between 110m to 250m west and northwest of the site. Residential dwelling with private gardens and shared areas of soft landscaping present within 250m west of the site.

2.2. Site Walkover

A site walkover was undertaken by A2SI on the 10th May 2023. A summary is presented in this Section 2.2. Walkover records are included as Appendix D and these should be reviewed alongside the summary details below.

The site currently exists as a three-storey house with a one-two storey extensions to the west and a private domestic garage with associated driveway in the northeastern corner of the site. At the site walkover there was access was prohibited to the garage and the contents are unknown.

The site is bounded by brick boundary walls on all sides. There are multiple areas of soft landscaping on-site located in the garden (western portion of the site) comprising of a lawn and trees around the western perimeter, a lawn with a couple of trees in the central courtyard, and at the front of the house (eastern portion) consisting of trees. A raised vegetable patch is present in the northeast portion of the site.

The site is generally sloped upwards towards the north. There is approximately a 5m difference between the highest and lowest point. A 4m high retaining wall is present between the lightwell and the garden to the west.

The site has two areas of lower ground floors and are used for storage and plant rooms containing boilers. The plant rooms are in good condition. Due to the slope on-site, part of the extension to the west is set at a lower ground floor level.

There is a bricked paved parking area to the east and a driveway up to No. 99A Frogнал to the south. A gravel courtyard is present in the centre with some paved patio areas.



There are no storage tanks, fill points or dispenser pumps observed on-site. Pipework associated with the building utilities is located across the site (to the east).

There are drains in the areas of hardstanding.

There are no visual or olfactory evidence of contamination and stockpiled materials observed at the time of the site walkover.

2.3. Planning Records

The Local Authority Planning Portal has been searched for relevant records. The following Planning reference numbers have been identified with respect to previous applications made for the site (ordered by decade):

- TCX0106804; 2005/3374/T;
- 2010/3328/T; 2010/3333/T; 2010/2222/T; 2016/1237/T; 2019/2102/P; 2019/2838/L;
- 2020/0574/T; 2021/2208/L; 2022/2859/P; 2022/2869/P; 2022/5443/T.

There are no relevant geo-environmental reports associated with the site.

2.4. Regulatory Consultation

Requests for information have been made to the following bodies:

- Environment Agency (EA), contacted via email on the 31st May 2023 (see Appendix E). Response awaited.
- London Borough of Camden, contacted via email on the 24th May 2023 (see Appendix E). Response awaited.

Copies of the regulatory consultation undertaken are included as Appendix E.

2.5. Unexploded Ordnance

A preliminary unexploded ordnance (UXO) risk assessment has been carried out by Brimstone Site Investigations, included in Appendix C.

At least one World War I (WWI) German Bombing raid affected the area of Hampstead. However, no bomb strikes are recorded within a significant distance. The site was located within the World War II (WWII)-era Metropolitan Borough of Hampstead, which sustained 160.3 bombs per 1000, a high bombing density.

London bomb census mapping records 24 bomb strikes, including two incendiary bomb (IB) showers and two unexploded bombs (UXBs) within an approximate 300m radius of the site; the closest high explosive (HE) strike was recorded on-site/adjacent to the northern boundary, whilst the closest IB shower was recorded approximately 130m southeast of the site. Due to the large scale of London bomb census mapping, the exact bomb strike location cannot be determined at a preliminary stage.

No damage was recorded to the structure on the site within London County Council (LCC) bomb mapping. However, blast damage, minor in nature is noted to properties approximately 30m east which were recorded as having sustained general blast damage, also minor in nature. WWII-era imagery does not show any obvious signs of bomb damage, such as structural damage on-site. Ground disturbance, indicative of potential bomb damage on-site, is visible in the west of the site, however, this may be the result of landscape works/usage.

Soldiers of the 31st City of London (10 GPO) (St. Pancras) and the 37th County of London (LMS) (St. Pancras) Home Guard (HG) battalions may have been active locally during WWII. However, armed HG troops are highly unlikely to have had access to the site due to its residential nature.



There are numerous (>30) permanent heavy anti-aircraft (HAA) batteries active within range of the site during WWII. Light anti-aircraft (LAA) guns likely defended vulnerable points within the wider area too. Luftwaffe activity in the region was frequent and intense. It is possible an unexploded anti-aircraft (AA) shell struck the site and penetrated to a shallow depth.

It appears that an additional structure was constructed in the centre of the site, conjoining the WWII structures in the east. An access way was laid south of the site, and landscaping works have occurred in the garden in the west of the site; this is known to have occurred by 1999.

The risk associated with (any) very shallow buried (<1m bgl) UXO may have been partially mitigated by landscaping works and the laying of the access way. The risk associated with (any) shallow buried (1-2m bgl) UXO may have been partially mitigated by the construction of the additional structures. The risk associated with (any) deep (>2m bgl) buried UXO likely remains unmitigated.

Due to the potential bombing incident on-site, in conjunction with uncondusive conditions for detection of evidence of UXO, the risk from UXO cannot be discounted at a preliminary stage and further research is recommended. A Stage 2 Detailed Risk Assessment is recommended in order to further assess the risk to proposed works. In lieu of a Detailed UXO Risk Assessment, Brimstone Site Investigations recommends on-site support for any planned ground works.

Details of risk management strategies are outlined in *CIRIA C681*.

The full assessment of the preliminary UXO risk assessment is provided in Appendix C must be referred to and takes precedence.



3. Geological Setting

3.1. Regional Geological Overview

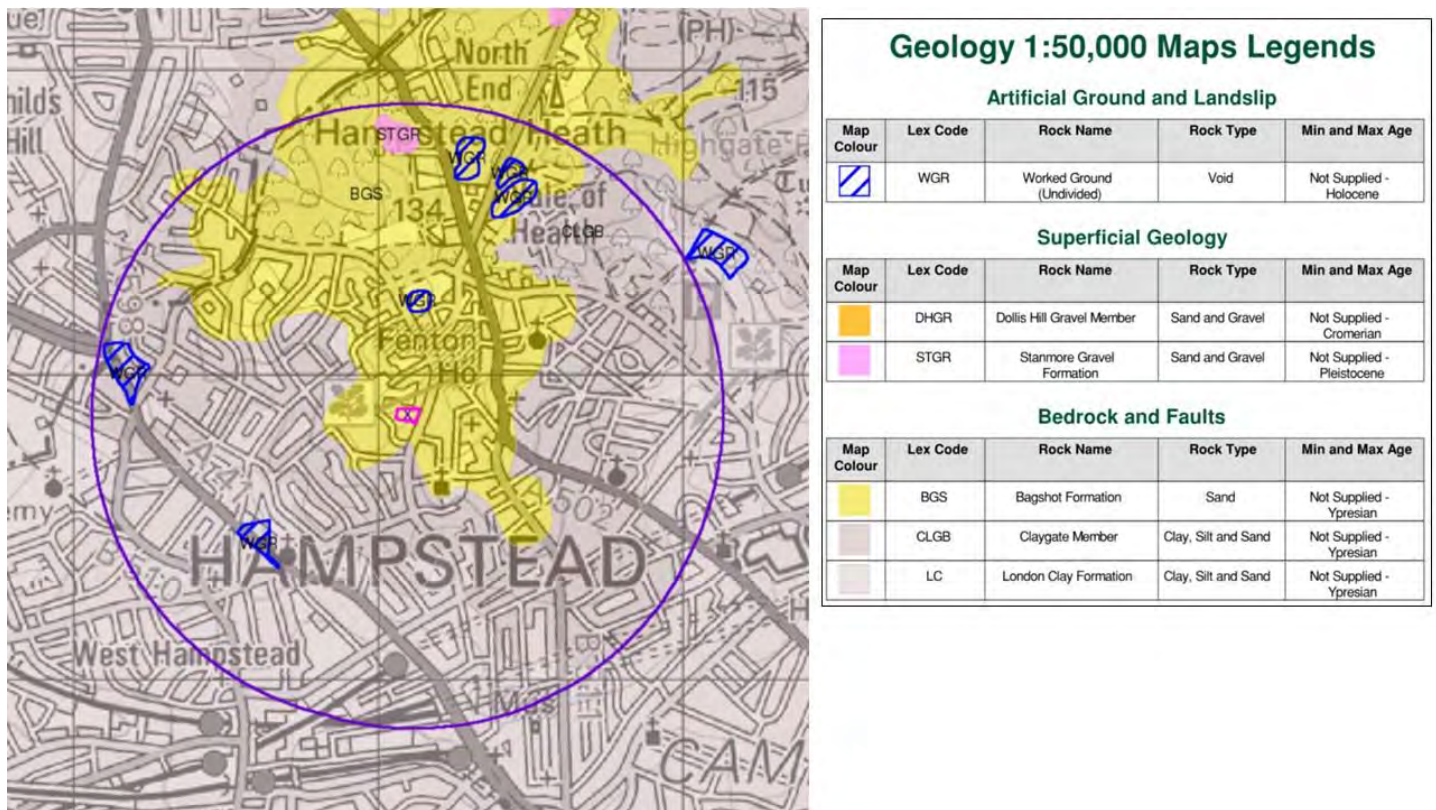
The development site is located within the London Basin, which refers to an approximately triangular synclinal structure in which the sedimentary units underlying London and much of southeast England were deposited. The London Basin is comprised of the following formations, in order of decreasing depth:

- A deep (~200m thick) layer of Chalk, deposited throughout the Upper Cretaceous period, forms the base of the basin and is the principal aquifer of the region.
- The Thanet Beds, which comprise fine, silty glauconitic sands originating in shallow seas.
- The Lambeth Group, a depositionally and geographically complex unit which comprises layers of sands and gravels, shelly and mottled clays, minor limestones and lignites, and occasional sandstone and conglomerate.
- The London Clay Formation, a fine-grained silty clay which is the dominant Thames Group Deposit.
- River Terrace Gravels, deposited by the River Thames and its tributaries on top of the London Clay.

3.2. Site Geology and Anticipated Ground Conditions

Figure 3.1 illustrates the location of the development within the context of a regional geological map. The map illustrates the spatial distribution of superficial (drift) deposits and bedrock outcrops at the ground surface. Made Ground is generally not shown but is assumed to be present on site due to historical demolition and construction works.

The geology map indicates that the site is located on top of the Bagshot Formation. The Claygate Member and the London Clay Formation are present beneath the Bagshot Formation. There are no superficial deposits in the nearby vicinity as indicated by the available geological maps.



Approximate site location marked by pink rectangle.

Figure 3.1 Geological context of the site



The British Geological Survey (BGS) Geology of Britain web map services provide access to the geographic locations and logs of historical borehole investigations and well installations. Historical boreholes surrounding the site are shown in Figure 3.2. The following historical records have been reviewed as part of this assessment: TQ28NE101, TQ28NE102, TQ28NE103, TQ28NE93, and TQ28NE104. Table 3.1 summarises the preliminary ground model adopted in this desk study, based on the information reviewed.



Figure 3.2 Locations of BGS boreholes in close proximity to the site boundary (approximate site footprint is in red)



Table 3.1 Preliminary ground model

Unit	Elevation ^[1] (mOD)	Depth ^[1] (m bgl)	Thickness (m)	Description
Topsoil (Localised)	115.0	0.0	<1.0	Organic soil with sand and stones.
Made Ground	115.0	0.0	2.0	Concrete, rubble, bricks, and stones.
Bagshot Formation	112.0	3.0	14.0	Brown-grey silty clayey sand.
Claygate Member	98.0	17.0	21.0 ^[2]	Loamy brown to grey sandy clay.
London Clay Formation	77.0	38.0	>7.3 ^[3] (base unproven)	Firm grey to dark grey silty sandy clay.

1. Elevation and depth refer to top of stratum.

2. Proved via TQ29NE103.

3. Proved via TQ29NE102.

3.3. Groundwater and Hydrogeology

The groundwater model is likely to comprise a perched water table, which is sustained within the more permeable superficial strata overlying the low permeability London Clay Formation. It is anticipated that the pore water pressure distribution within the London Clay Formation is likely to be in hydrostatic equilibrium with an average or mean perched water table level. Whilst it is considered that the pore water pressure distribution within the London Clay and upper Lambeth Group clays is hydrostatic, it is likely that the lower portion of the Lambeth Group, Thanet Sands and Chalk Formation are underdrained. Due to historical dewatering from the Chalk aquifer at depth, underdrainage effects are frequently observed within the strata at depth within the London Basin.

The Bagshot Formation and Claygate Member are classified as Secondary A Aquifers, defined as containing permeable layers capable of supporting water supplies at a local rather than strategic scale, in some cases forming an important source of base flow to rivers. These strata are aquifers formerly classified as Minor Aquifers.

The London Clay Formation is listed as Unproductive Strata. Unproductive Strata are low permeability strata which are not considered to retain significant quantities of groundwater. If groundwater is present within Unproductive Strata, for example within more permeable lenses or small fissures, it is typically discontinuous, of low value and very low sensitivity.

Data available from historical BGS borehole TQ28NE93, indicate that the shallow groundwater is present at approximately 9m bgl. However, due to the presence of the Bagshot Formation anticipated to be present beneath the site, it is likely that groundwater will be encountered at shallower depths.

The dominant direction of groundwater flow within the shallower Secondary A Aquifer (Bagshot Formation) is anticipated to be in a southeasterly direction towards the River Thames, which is located approximately 8.5km south and has an easterly flow.

The site is not identified as being located within a groundwater Source Protection Zone (SPZ) and there are no SPZs recorded within 500m.

Localised perched water may also be present associated with any Made Ground at the site.

There are no records of groundwater abstraction on-site and within 500m of the site.



3.4. Hydrology

There are no surface water features identified on-site and within 250m of the site. The nearest surface water feature is located 413m northeast of the site and was identified as Whitestone Pond.

A lost river of London, the River Westbourne, is present approximately 100m to the west of the site boundary. The River Westbourne is currently culverted. It has a southwestern flow, and ultimately connects to the River Thames. Owing to the culverted nature of the River Westbourne, it is not considered as a potential receptor.

The River Thames is located 8.5km south of the site. Due to the considerable distance between the River Thames and the site, it is not considered as a potential receptor.

There are no records of surface water abstraction on-site and within 500m of the site.

3.5. Mining and Mineral Extraction

The site is not listed within the Envirocheck Report as within an area affected by coal mining.

There are no BGS Mineral Site entries listed within the Envirocheck Report within 500m of the site.

No record of mining instability, man-made mining cavities or natural cavities have been recorded within 500m.

3.6. Radon

UK Health Security Agency (UKHSA) and BGS radon mapping indicates that the site is in an area with less than 1% of homes estimated to be at or above the Action Level. *The Building Regulations 2010, Approved Document C* state that without a site-specific Radon Risk Report the maximum requirement for radon protection in these areas is 'None'.

A new basement is to be incorporated into the proposed development. As indicated in *BRE 211: Radon – Guidance on Protective Measures for New Buildings (2015)*, all basements are at increased risk of elevated levels of radon, regardless of geographic location. Therefore, despite the radon risk mapping, it is recommended that appropriate radon protection is provided for the new basement. An appropriate radon protection strategy which is compatible with the building waterproofing should be developed by a suitable waterproofing and radon specialist.



4. Site History

Detailed historical maps, fire insurance plans and aerial photographs of the site and surrounding area dated between 1850 and 2023 (at scales of 1:1,056, 1:1,250, 1:2,500, 1:5,280, 1:10,000 and 1:10,560), provided as part of the Envirocheck Report (Appendix B), have been reviewed as part of the study. This process has been undertaken to identify any former land uses at the site and within the surrounding area that may have geo-environmental implications for the proposed redevelopment.

The findings are summarised in Table 4.1. Only features considered to have a potential geo-environmental impact on the site and usually within a notional 250m radius of the site boundaries are presented and discussed, with the exception of any potentially infilled land which is identified within 500m of the site. Any distances quoted for features remote from the site have been scaled from the maps and are approximate. Other information sources available in the public domain have also been reviewed to support this assessment, including the Historic England online Aerial Photo Explorer and historical aerial photographs available on Google Earth.

Table 4.1 History of the site and surrounding areas

Historical Feature	Distance and Bearing from Site	Date of First Map Appearance	Date of Last Map Appearance	Potential to Impact the Site
<i>On-Site</i>				
Open grounds occupying the entirety of the site footprint	-	1850	1850	No (Not a potential source of contamination)
Frogнал House – Grade II listed 18 th century property with a private garden. The building is situated on the eastern portion of the site.	-	1871	Present	Yes
Building extension in the western side of the property	-	1974	Present	Yes
<i>Off-Site</i>				
Frogнал – Single carriageway road	SE adjacent	1850	Present	No (Unlikely source of potential contamination)
Extensive soft landscaping (later Mantagu Grove then Frogнал Grove)	N adjacent	1871	1954	No (Unlikely source of potential contamination)
Terraced residential buildings	N adjacent	1966	Present	No (Unlikely source of potential contamination)
Frogнал Mansion	S adjacent	1915	Present	No (Unlikely source of potential contamination)
North London Hospital (Consumption) / Mount Vernon Hospital / Medical Research Council Laboratories	60m E	1896	1991	Yes
Electrical Substations	130m E	1955	Present	No



Historical Feature	Distance and Bearing from Site	Date of First Map Appearance	Date of Last Map Appearance	Potential to Impact the Site
				(Distance and anticipated groundwater flow indicates an unlikely pathway to the site)
	135m E	1955	Present	No (Distance and anticipated groundwater flow indicates an unlikely pathway to the site)
Garage	210m N	1955	1991	Yes
R.C. Chapel (Saint Mary's Catholic Church, Hampstead)	155m SE	1879	Present	No (Anticipated groundwater flow indicates an unlikely pathway to the site)
Burial Grounds	145m SE	1879	Present	No (Anticipated groundwater flow indicates an unlikely pathway to the site)
Residential Premises with Private Gardens	SE adjacent - >250m SE	1879	Present	No (Unlikely source of potential contamination)
Oak Hill Lodge	145m W	1879	Present	No (Unlikely source of potential contamination)
Oak Hill House	190m W	1879	Present	No (Unlikely source of potential contamination)
Branch Hill Lodge (later Branch Hill House)	165m N	1879	Present	No (Unlikely source of potential contamination)
Tennis Court	64m W	1934	1955	No (Unlikely source of potential contamination)
St John-at-Hampstead Church and Graveyard	250m SSE	1879	Present	No (Distance indicates an unlikely pathway to the site)



5. Environmental Designations and Data

5.1. Regulatory Data

Regulatory data from the Envirocheck Report in close proximity to the development site (generally within 250m of the site boundary, with the exception of landfill and infilled ground which is identified within 500m of the site) has been summarised in Table 5.1. The information provided for each item in Table 5.1 has been summarised from the Envirocheck Report for risk assessment purposes. For a full breakdown of the regulatory data refer to the Envirocheck Report in Appendix B.

Table 5.1 Summary of regulatory data

Item	Distance and Bearing from Site	Information	Potential to Impact the Site
<i>Agency & Hydrogeological</i>			
Discharge Consents <i>Records on site: 0</i> <i>Records within 0-250m: 1</i>	223m NE	Operator: Thames Water Utilities Ltd Status: Authorisation Revoked Discharge Type: Trade effluent Receiving water: River Thames	No (Discharged directly into water feature off-site)
<i>Waste and Landfill</i>			
Potentially Infilled Land (Water) <i>Records on site: 0</i> <i>Records within 0-250m: 0</i> <i>Records within 250-500m: 1</i>	408m SW	Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1991	No (Distance and anticipated groundwater flow indicates an unlikely pathway to the site)
<i>Facilities Registered as using Hazardous Substances</i>			
No relevant records			
<i>Industrial Land Uses and Points of Interest</i>			
<i>(potential sources of contamination are identified within 100 m of the site boundary, and more distant potential sources of contamination are identified where the anticipated shallow groundwater flow direction towards the south indicates a viable pathway to the site may be present)</i>			
Contemporary Trade Directories and Points of Interest <i>Records on site: 0</i> <i>Records within 0-250m: 8</i>	21m E	Type: Electrical Engineers Status: Active	No (Identified as an office therefore an unlikely source of potential contamination)
	214m SW	Type: Rubbish Clearance Status: Inactive	No (Identified within a residential area therefore an unlikely source of contamination)



Item	Distance and Bearing from Site	Information	Potential to Impact the Site
	235m E	Type: Tobacco Products - Manufacturers Status: Inactive	No (Identified as a retail shop therefore an unlikely source of contamination)
	235m SE	Type: Dry Cleaners Status: Active	No (Distance and anticipated groundwater flow indicates an unlikely pathway to the site)
	235m E	Type: Dry cleaners Status: Inactive	No (Distance and anticipated groundwater flow indicates an unlikely pathway to the site)
	178m NW	Category: Health Practitioners and Establishments Class Code: Hospitals	Yes
	186m SE	Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria	No (Distance and anticipated groundwater flow indicates an unlikely pathway to the site)
	191m SE	Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria	No (Distance and anticipated groundwater flow indicates an unlikely pathway to the site)

5.2. Flood Risk

Flood Maps for Planning (ref. <https://flood-map-for-planning.service.gov.uk/>, accessed 24th May 2023) indicates that the site is located in a Flood Zone 1 i.e. there is a low probability of flooding.

No further consideration of flood risk is given in this report. Specialist flood risk advice should be sought with regards to drainage and flooding.

5.3. Ecology, Flora and Fauna

No records of potentially sensitive ecological receptors as defined by the *Environmental Protection Act (1990) Part 2a (as amended)* have been identified.

An assessment of potential invasive species is not included in this report.



6. Proposed Development

As shown in Figure 6.1, the site currently comprises a Grade II listed, mid-18th century three-storey house (original mansion block) to the eastern portion of the site, with a two-to-three storey extension building (1970s) to the west of the original mansion block, a private domestic garage with associated driveway in the northeastern corner of the site and a garden to the west. The site is bounded by brick boundary walls on all sides, which are to be retained as part of the proposed scheme of development.

There is a small existing basement situated within the centre of the original mansion building, as shown in Figure 6.2.

There are multiple areas of soft landscaping on-site located in the garden to the western portion of the site, comprising of a lawn and trees and a lawn with a couple of trees in the central courtyard. At the front (southeastern portion) of the main house there is some soft-landscaping consisting of trees. A raised vegetable patch is present in the northeastern portion of the site, adjacent west of the existing garages.

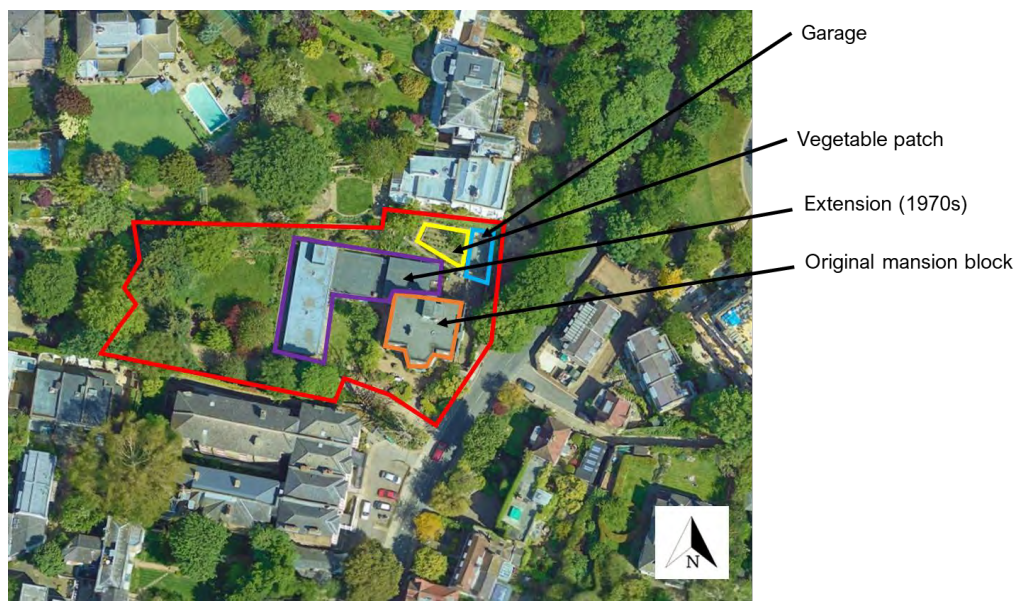


Figure 6.1 Existing site layout (red line indicative of site boundary)

The proposed development is to include the restoration of the original mansion building (eastern portion of the site) and the addition of a new mansard roof on the top storey of the building.

The proposed development will also include the demolition of the existing extension building (1970s) (to the west of the mansion building). It is proposed that this building is to be replaced by a new extension building, which will include a basement level following a similar building footprint of the southern part of the existing extension building, as shown in Figure 6.2. In addition, the proposed extension building will incorporate a wider one-two storey extension expansion, across the northern portion of the site, with a green roof, as shown in Figure 6.3, with some areas to the northeast and northwest of the new extension building with no basement level. The proposed basement of the new extension building includes an indoor swimming pool/sauna with associated facilities, i.e. plant rooms, storeroom, a utility room, a water closet (WC) and changing rooms. This proposed basement is to be constructed to a depth of 6.8m bgl. The above ground part of the extension (across the northern portion of the site) is one-two storeys in height. It is proposed that this above ground part of the extension will comprise of formal as well as informal dining facilities, a library, showers, WCs and further living/study space.



Figure 6.2 Proposed layout of the basement level of the proposed extension building (solid red line indicative of site boundary)



Figure 6.3 Proposed second floor layout the proposed development (solid red line indicative of site boundary)

It is proposed that the existing garage to the northeastern corner of the site, as shown in Figure 6.1, will be demolished along with the removal of the adjacent raised vegetable patch to the west of the garage. The new development proposes two new homes are to be constructed on the site where the garage and raised vegetable garden are located. These are one storey, sit sunken between



boundary walls and are accessed from the same level as the existing garage/northern access, as shown in Figure 6.4. These homes are proposed to have a green roof. Each unit will contain of a single bedroom, shower, wc, kitchen and living space as shown in Figure 6.5. There will also be a separate bike store/bin store incorporated to the southeastern portion, also shown in Figure 6.5. A separate bike/bin store will be provided on the site of the previous (currently existing) garage.



Figure 6.4 North-south cross-section to the eastern portion of the site

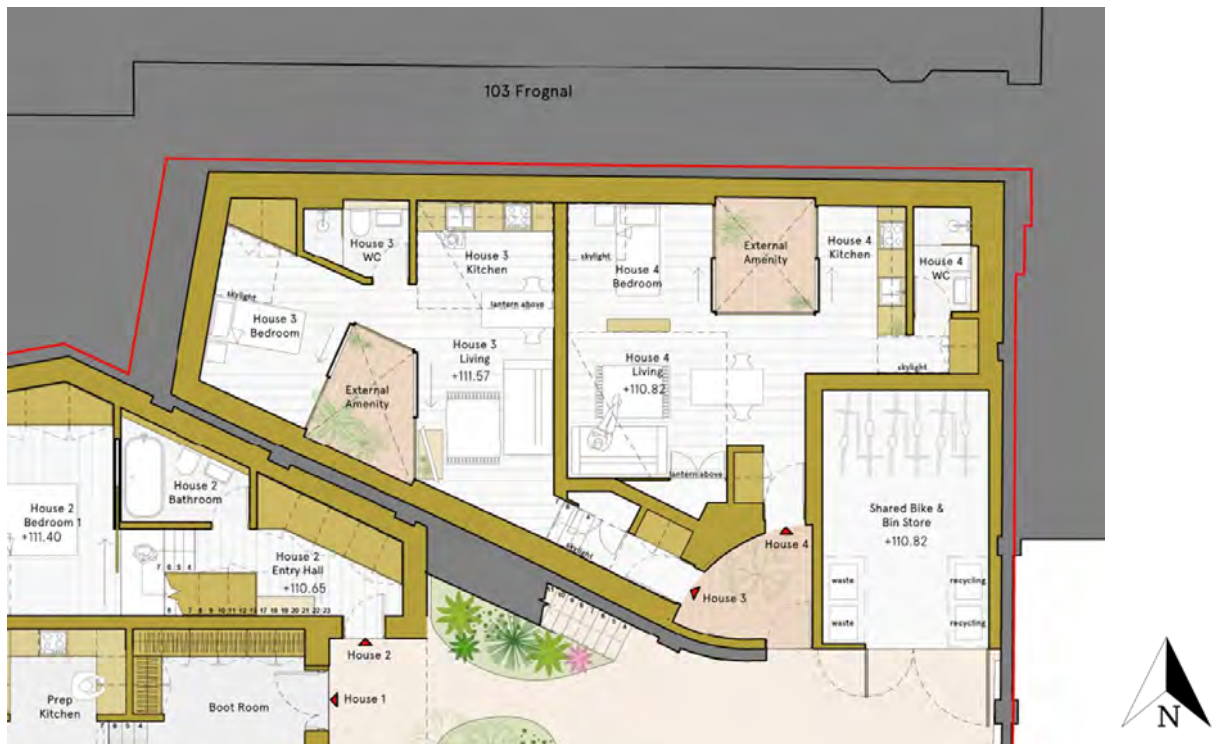


Figure 6.5 Proposed ground floor layout of the two proposed homes to the northeastern corner of the site



A new area of soft landscaping is proposed in the central courtyard of the site in the form of new bedding plants and bushes as shown in Figure 6.3.



7. Conceptual Site Model (CSM) and Preliminary Risk Assessment (PRA)

A means to qualitatively assess the risk posed by potential land contamination to a proposed development is to prepare an initial CSM and carry out a PRA. An initial CSM represents the characteristics of the site which influence the possible relationships between identified potential contaminant sources, pathways and receptors. A PRA is undertaken for each potentially complete source-pathway-receptor linkage (potential contaminant linkage). The PRA assessment matrix used in this report is included as Appendix A. The risk assessment approach is in accordance with *LCRM* guidance.

An initial CSM and PRA for the proposed development is set-out below in consideration of all the information detailed in the earlier sections of this report. Should any changes be made to the proposed development compared to the details presented herein, or should any new information become available, then the PRA must be updated.

7.1. Potential Contaminants of Concern

The potential contamination sources identified as part of this assessment are summarised in this section. Off-site potential sources of contamination within 100 m of the site boundary are identified and considered further, as well as potential sources of contamination within 250 m of the site boundary where the anticipated groundwater flow direction towards the southeast indicates a pathway to the site may be present. Relevant potential ground gas sources within 500 m of the site are also identified.

Current and former residential land-uses, retail units, offices and other general commercial uses (non-industrial) are not considered potential sources of contamination unless stated otherwise.

Naturally occurring radon risks are discussed in Section 3.

Please be aware that the nature of historical records mean that every potential source of contamination may not be detailed in the available documents. Therefore, there is potential for additional sources of contamination to be present.

7.1.1. On-Site Sources

- Made Ground – heavy metals and metalloids, acids / alkalis, PAHs, asbestos, elevated sulphate and ground gases.

Asbestos containing materials (ACMs) may be present in the current building fabric. Mitigation measures are described below separate to Table 7.1.

7.1.2. Off-Site Sources

- North London Hospital (Consumption) / Mount Vernon Hospital / Medical Research Council Laboratories (60m east)
- Hospital (178m north)
- Garage (210m north).

The relevant contaminants of concern associated with the potential off-site sources are; heavy metals and metalloids, acids / alkalis, asbestos, PAHs, MTBE, Phenols, TPHs (incl. BTEX and MTBE), VOCs, clinical waste, and elevated sulphates.

Asbestos has not been indicated for potential off-site sources as there is no relevant pathway for asbestos to migrate through the ground towards the site.

Notes –

TPH – total petroleum hydrocarbons (inc. BTEX)

PAH – polycyclic aromatic hydrocarbons

VOC – volatile organic compounds

SVOC – semi-volatile organic compounds



BTEX – benzene, toluene, ethylbenzene, xylenes

MTBE – methyl tert butyl ether

PCBs – polychlorinated biphenyls

Asbestos – potential free fibres, debris and / or fragments of asbestos containing material (ACM).

Ground gas – methane, carbon dioxide, carbon monoxide and / or hydrogen sulphide (excludes soil vapour)

7.2. Potential Pathways

The potential pathways identified as part of this assessment include:

7.2.1. On-Site Human Health

- Dermal contact or ingestion of soils at the site.
- Inhalation of ground gas, soil vapour or soils at the site.
- Consumption of water from impacted water supply pipes installed as part of the proposed redevelopment.

7.2.2. Off-Site Human Health

- Inhalation of wind-blown soil derived from the site.
- Migration off-site at shallow depth via preferential pathways and / or shallow perched groundwater followed by direct contact / inhalation / ingestion of contaminated soils.
- Off-site migration of ground gas or soil vapour followed by accumulation and inhalation within neighbouring properties.
- Migration off-site at shallow depth via preferential pathways and / or shallow perched groundwater followed by impact to water supply pipes and ingestion.

7.2.3. On-Site Buildings and Below Ground Structures

- Direct contact of 'aggressive' ground and / or grossly impacted soils with building structures / foundations.
- Accumulation of ground gas or soil vapour within buildings followed by ignition.

7.2.4. Off-Site Buildings and Below Ground Structures

- Migration off-site via preferential pathways, shallow groundwater and / or shallow perched groundwater followed by direct contact with building structures / foundations.
- Off-site migration of ground gas or soil vapour followed by accumulation within buildings and ignition.

7.2.5. Controlled Waters

- Leaching from the unsaturated zone.
- Perched water percolation and / or lateral migration.
- Migration via advection and diffusion in the saturated zone.
- Vertical and lateral migration of free-phase product in the unsaturated and saturated zones.

7.2.6. Sensitive Ecology, Flora and Fauna

- On-site ingestion / dermal contact / inhalation / root uptake.
- Off-site migration at shallow depth via preferential pathways and / or shallow perched groundwater followed by ingestion / dermal contact / inhalation / root uptake.
- Off-site migration via controlled waters pathways followed by ingestion / dermal contact / inhalation / root uptake.



7.3. Potential Receptors

The potential receptors identified as part of this assessment include:

- Human health of proposed site end users (residential users and occasional below-ground maintenance workers).
- Human health of off-site and residential end users (closest of which is in adjacent in all directions).
- Property including on-site (proposed) and off-site buildings / structures.
- Controlled waters (groundwater) – Secondary A Aquifer (via the Bagshot Formation and Claygate Member) associated with the bedrock deposits anticipated beneath the site.
- Flora and fauna in proposed soft-landscaped areas and off-site.

As stated in Section 3.4 the River Westbourne (located approximately 100m west of the site) is culverted and the identified swimming pools within 50m northwest are man-made and therefore both are unlikely to be hydraulically connected to the site. Therefore, these surface water features are not assessed further as potential receptors.

Given the anticipated shallow groundwater flow direction beneath the site (southeast towards the River Thames), the Whitestone pond, located 413m northeast of the site is considered not hydraulically connected to the site. Also, given the distance to the River Thames (approximately 8.5km to the southeast) it is considered that a viable pathway to not present between the site and the River Thames.

New foundation systems associated with the proposed redevelopment are not anticipated to penetrate the base of the London Clay Formation. Therefore, bedrock aquifers beneath the London Clay Formation are not considered further in this assessment as there is no risk of preferential pathways being created via piling. The Client should inform A2SI of the foundation termination depths once final designs have been prepared so that no requirement for a foundation works risk assessment can be confirmed.

Risks to site workers and the environment (from potential land contamination) during the construction phase of the proposed redevelopment can be appropriately managed by successful implementation of construction phase risk assessments and method statements (RAMS). The associated construction phase risks from potential contamination are not considered further in this document but should be appropriately considered and mitigated by the Principal Contractor in their preparation and implementation of construction phase RAMS and Construction Phase Plan (CPP).

7.4. Summary of Potential Contaminant Linkages

The information presented in this assessment has been compiled to produce a summary of the identified potential contaminant linkages, based on the initial CSM presented herein. Table 7.1 presents a PRA for the proposed redevelopment based on the identified potential contaminant linkages. This assessment has been performed considering the details of the proposed development presented in this report. Qualitative risk classifications are provided in accordance with *CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001)* (see summary in Appendix A). Where no potentially complete contaminant linkage is identified then no risk classification is provided.

Table 7.1 Preliminary Risk Assessment (PRA)

Potential Contaminant Source	Potential Pathway	Potential Receptor	Potential Contaminant Linkage	Risk Level Classification
On-site See Section 7.1.1	Direct contact with soil	Human health of proposed site end users (see Section 7.3)	Yes (Alterations to the areas of soft landscaping may complete the pathways)	Low to moderate
	Inhalation of windblown soil			Low to moderate
	Ingestion of soil			Low to moderate



Potential Contaminant Source	Potential Pathway	Potential Receptor	Potential Contaminant Linkage	Risk Level Classification
	Impact to water supply pipes followed by ingestion of contaminated water supply		Yes (New pipes may be laid in impacted soils)	Low to moderate
	Ground gas generation and inhalation		Yes (Made Ground represents a potential source of ground gas)	Low to moderate
	Soil vapour generation and inhalation		Yes (Former site history indicates it as an unlikely source of substantial volatile contamination)	Low
	Inhalation of windblown soil from the site		Yes (The site is not a substantial source of potential windblown dust)	Low
	Off-site migration and direct contact with impacted soil		Yes (However, site history does not indicate it to be a source of substantial contamination with the potential to migrate off-site)	Low
	Off-site migration and ingestion of impacted soil		Yes (Former site history suggest it as an unlikely substantial source which have the potential to migrate off-site)	Low
	Impact to water supply pipes followed by ingestion of contaminated water supply	Off-site human health (see Section 7.3)	Yes (Whilst Made Ground is a potential source of ground gas, the former site history indicates it is an unlikely source which will migrate off-site)	Low
	Ground gas generation, off-site migration and inhalation		Yes (Former site history indicates it as an unlikely source of volatiles)	Low
	Soil vapour generation, off-site migration and inhalation		Yes (Structures may be constructed in impacted soils or be subjected to sulphate "attack")	Low to moderate
	Direct contact	On-site buildings / structures (proposed)		



Potential Contaminant Source	Potential Pathway	Potential Receptor	Potential Contaminant Linkage	Risk Level Classification
	Migration followed by ignition of ground gas		Yes (Made Ground represents a potential source of ground gas)	Low to moderate
	Migration followed by ignition of soil vapour		Yes (Former site history indicates it as an unlikely source of volatiles)	Low
	Off-site migration followed by direct contact		Yes (Potential on-site contamination is unlikely to migrate off-site and damage nearby structures)	Low
	Off-site migration followed by ignition of ground gas	Off-site buildings / structures	Yes (Whilst Made Ground is a potential source of ground gas, the former site history indicates it is an unlikely source which will migrate off-site)	Low
	Off-site migration followed by ignition of soil vapour		Yes (Former site history indicates it as an unlikely source of volatiles)	Low
	Leaching and migration to groundwater via the unsaturated zone; Perched water percolation or lateral migration; Migration via advection and diffusion in the saturated zone; and Vertical and lateral migration of free-phase product in the unsaturated and saturated zones.	Controlled waters - Underlying Secondary A Aquifers (Bagshot Formation and Claygate Member)	Yes (Site history does not indicate a substantial source to affect the underlying Secondary A Aquifers beneath the site)	Low
	On-site ingestion / dermal contact / inhalation / root uptake	Flora and fauna in proposed soft-landscaped areas at the site	Yes (Whilst the site has an area of soft landscaping, it is of low sensitivity)	Low
	Off-site migration at shallow depth followed by ingestion / dermal contact / inhalation / root uptake	Off-site flora and fauna in soft-landscaped areas nearby	Yes (Multiple domestic gardens are present adjacent to the site and	Low



Potential Contaminant Source	Potential Pathway	Potential Receptor	Potential Contaminant Linkage	Risk Level Classification
			are generally of low ecological sensitivity)	
Off-site See Section 7.1.2	On-site migration followed by direct contact or ingestion of soil	Human health of proposed site end users (see Section 7.3)	Yes (Some potential off-site sources are located near the site; therefore localised shallow soils may be impacted)	Low to moderate
	Inhalation of windblown soil from off-site		Yes (A viable source of significant contaminated windblown dust has not been identified)	Very low
	On-site migration followed by impact to water supply pipes and ingestion of the water supply		Yes (However, it is unlikely that substantial off-site sources to migrate onto site)	Low
	Ground gas generation, on-site migration and inhalation		No (No ground gas sources have been identified in the vicinity of the site)	No classification
	Soil vapour generation, on-site migration and inhalation		Yes (Potential sources of volatiles have been identified in the vicinity)	Low to moderate
	On-site migration followed by direct contact	On-site buildings / structures (proposed)	Yes (Unlikely that gross contamination has the potential to damage structures is migrating onto site)	Very low
	On-site migration followed by ignition of ground gas		No (No ground gas sources have been identified in the vicinity of the site)	No classification
	On-site migration followed by ignition of soil vapour		Yes (Potential sources of volatiles have been identified in the vicinity)	Low to moderate
	On-site ingestion / dermal contact / inhalation / root uptake		Yes (Alterations to the soft landscaping is proposed)	Very low



Potential Contaminant Source	Potential Pathway	Potential Receptor	Potential Contaminant Linkage	Risk Level Classification
			and is of low ecological sensitivity)	

The PRA has identified potential contaminant linkages with a maximum 'low to moderate' risk classification. Based on the results of the PRA, it is considered that there are unacceptable risks (ref. *LCRM* guidance) so ground investigation is recommended. Appropriately targeted ground investigation should be undertaken for geo-environmental purposes to enable a refinement of the CSM and geo-environmental assessments. The next stage of geo-environmental assessment should include a generic quantitative risk assessment (GQRA). The recommended ground investigation and assessments should be undertaken and presented in a geo-environmental interpretive report in accordance with *BS10175:2011 Investigation of Potentially Contaminated Sites – Code of Practice* and *LCRM* guidance.

The risk represented by potential ACMs in the current building fabric can be addressed by commissioning an asbestos Demolition and Refurbishment Survey for the relevant areas of the current building to be demolished and / or renovated. If ACMs are identified then their onward management should be informed by an asbestos specialist, but it is considered that appropriate ACM removal will be required prior to any phases of demolition.

Design of a future geo-environmental site investigation is outside the scope of this document.



8. Closing Remarks

A2SI was appointed by a private client to prepare a Phase I Desk Study for the proposed development at 99 Froggnal, London, NW3 6XR. The desk study provides an initial CSM and qualitative PRA for the proposed development in accordance with *LCRM* guidance. The desk study has also been prepared in the context of the *NPPF* and *The Building Regulations 2010, Approved Document C - Site preparation and resistance to contaminants and moisture (2004 Edition incorporating 2010 and 2013 amendments)*.

The site currently includes Grade II listed 18th century three-storey residential building with a modern building extension in western side of the main building. The western portion of the site consists of areas of soft landscaping. The scheme comprises the restoration of the current on-site development which will include the demolition of part of the development and the construction of a new extension with a basement pool in addition to the erection of two small one-storey houses to the northeastern corner of the site. The site will continue to be for residential use.

The ground conditions at the site indicate the presence of Bagshot Formation over the Claygate Member of the London Clay Formation. Made Ground of variable thickness may be anticipated to be present across the site based on the identified site history.

It is recommended that a detailed UXO threat and risk assessment be performed to assess the risk in more detail. If the detailed risk assessment identifies that mitigation measures are required during future site work, a UXO specialist should be engaged to assess the site and provide recommendations on appropriate mitigation measures and strategies.

The PRA has identified potential contaminant linkages with a maximum 'low to moderate' risk classification. Based on the results of the PRA, it is considered that there are unacceptable risks (ref. *LCRM* guidance) so ground investigation is recommended. Appropriately targeted ground investigation should be undertaken for geo-environmental purposes to enable a refinement of the CSM and geo-environmental assessments. The next stage of geo-environmental assessment should include GQRA. The recommended ground investigation and assessments should be undertaken and presented in a geo-environmental interpretive report in accordance with *BS10175:2011 Investigation of Potentially Contaminated Sites – Code of Practice* and *LCRM* guidance.

Radon assessment is required and radon protection needs to be incorporated into the proposed building fabric.

The final specification for newly installed water supply pipes should be based on the risk assessments and recommendations presented herein and also agreed with the utility provider. It is anticipated that uprated water supply pipe construction may be necessary.

Risks to site workers and the environment (from potential land contamination) during the construction phase of the proposed redevelopment can be appropriately managed by successful implementation of construction phase RAMS. The associated construction phase risks from potential contamination should be appropriately considered and mitigated by the Principal Contractor in their preparation and implementation of construction phase RAMS and CPP.

This desk study should be made available to those preparing the operational site Health & Safety File for the proposed development.

Should any changes be made to the proposed development compared to the details presented herein, or should any new information become available, then the assessments included in this desk study must be updated.

The Client should inform A2SI of the foundation termination depths once final designs have been prepared so that no requirement for a foundation works risk assessment can be confirmed.



Appendix A: Qualitative Risk Assessment Matrix

A2SI qualitative risk assessment for geo-environmental purposes is undertaken in accordance with *CIRIA C552: Contaminated Land Risk Assessment, A Guide to Good Practice (Rudland et al., 2001)*. The CIRIA C552 risk categories and the assessment methodology are summarised below in Table A.1, Table A.2 and Table A.3. Potential magnitude and potential likelihood are both classified to enable a risk rating to be assessed.

Potential magnitude takes into account the potential consequences should a complete source–pathway–receptor linkage be present. Potential magnitude is classified as per Table A.1.

Table A.1 Definition of potential magnitude of consequence

Category	Definition
Severe	Acute risks to human health, catastrophic damage to buildings / property, major pollution to controlled waters.
Medium	Chronic risk to human health, pollution of sensitive controlled waters, significant effects on sensitive ecosystems or species, significant damage to buildings or structures.
Mild	Pollution of non-sensitive waters, minor damage to buildings or structures.
Minor	Damage to non-sensitive ecosystems or species.

Potential likelihood takes into account the presence of the hazard and receptor as well as the integrity of the pathway for exposure, i.e., whether a source-pathway-receptor linkage is present or not. Potential likelihood is classified as per Table A.2.

Table A.2 Definition of potential likelihood of exposure

Category	Definition
High Likelihood	Pollutant linkage may be present and is almost certain to occur in the long-term. Or there is evidence of harm to the receptor.
Likely	Pollutant linkage may be present, and it is probable that it will occur over the long-term.
Low Likelihood	Pollutant linkage may be present, and there is a possibility that it will occur, although there is no certainty that it will do so.
Unlikely	Pollutant linkage may be present, but it is improbable that it will occur.

The potential magnitude of consequence and the potential likelihood of exposure are assessed in accordance with the risk matrix presented in Table A.3.



Table A.3 Geo-environmental risk assessment matrix

		Potential Magnitude of Consequence			
		Severe	Medium	Mild	Minor
Potential Likelihood of Exposure	High Likelihood	Very High	High	Moderate	Low to Moderate
	Likely	High	Moderate	Low to Moderate	Low
	Low Likelihood	Moderate	Low to Moderate	Low	Very Low
	Unlikely	Low to Moderate	Low	Very Low	Very Low



Appendix B: Envirocheck Report

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

311708021_1_1

Customer Reference:

2892

National Grid Reference:

526100, 185870

Slice:

A

Site Area (Ha):

0.27

Search Buffer (m):

1000

Site Details:

Frognal House

99 Frognal

London

Greater London

NW3 6XR

Client Details:

Mr A Fasano

A-squared Studio

66 Church Road

Richmond

TW10 6LN

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	6
Hazardous Substances	-
Geological	7
Industrial Land Use	11
Sensitive Land Use	27
Data Currency	28
Data Suppliers	35
Useful Contacts	36

Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes			n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		1		1
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 1			1	7
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 2			Yes	
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 2				(*5)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 3	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 3	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 4				14

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage		1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 6				3
Potentially Infilled Land (Water)	pg 6			1	1
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 7	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry					
BGS Recorded Mineral Sites					
BGS Urban Soil Chemistry	pg 7		Yes	Yes	Yes
BGS Urban Soil Chemistry Averages	pg 10	Yes			
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 10	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 10	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 10	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 10		Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 11		5	21	104
Fuel Station Entries	pg 21				2
Points of Interest - Commercial Services	pg 22			1	18
Points of Interest - Education and Health	pg 23		1	2	
Points of Interest - Manufacturing and Production	pg 24				5
Points of Interest - Public Infrastructure	pg 24		2		9
Points of Interest - Recreational and Environmental	pg 25			1	3
Gas Pipelines					
Underground Electrical Cables	pg 25				10

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 27				1
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (N)	0	1	526096 185869
1	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: WTW/WATER COLLECTION/TREATMENT/SUPPLY Location: Hampstead Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0140 Permit Version: 1 Effective Date: 15th September 1989 Issued Date: 15th September 1989 Revocation Date: 5th October 2000 Discharge Type: Trade Effluent Discharge Environment: Freshwater Stream/River Receiving Water: River Thames Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	223	2	526200 186100
2	Discharge Consents Operator: Thames Water Utilities Ltd Property Type: WTW/WATER COLLECTION/TREATMENT/SUPPLY Location: Kidderpore Authority: Environment Agency, Thames Region Catchment Area: Not Supplied Reference: Temp.0165 Permit Version: 1 Effective Date: 15th September 1989 Issued Date: 15th September 1989 Revocation Date: 5th October 2000 Discharge Type: Trade Effluent Discharge Environment: Freshwater Stream/River Receiving Water: River Thames Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A12NW (W)	659	2	525400 185900
3	Local Authority Pollution Prevention and Controls Name: Perkins Dry Cleaners Location: 40 Heath Street, London, Nw3 6te Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC9 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	281	3	526374 185724
4	Local Authority Pollution Prevention and Controls Name: Cottontail Cleaners Location: 509 Finchley Road, London, Nw3 7bb Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC19 Dated: 5th February 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	708	3	525456 185484
4	Local Authority Pollution Prevention and Controls Name: Cottontail Cleaners Location: 509 Finchley Road, London, Nw3 7bb Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC48 Dated: 1st January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	709	3	525454 185484
4	Local Authority Pollution Prevention and Controls Name: The London Dry Cleaning Company Location: 519a Finchley Road, London, Nw3 7bb Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC51 Dated: 1st March 2008 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Manually positioned to the address or location	A7NE (SW)	715	3	525432 185511

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Local Authority Pollution Prevention and Controls Name: Janet'S Hand Laundry Ltd Location: 281a Finchley Road, London, Nw3 6nd Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC14 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m	A8SE (S)	919	3	526167 184924
5	Local Authority Pollution Prevention and Controls Name: Hampstead Express Dry Cleaning Location: 279a Finchley Road, London, Nw3 6lt Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC6 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m	A8SE (S)	941	3	526178 184902
6	Local Authority Pollution Prevention and Controls Name: Sparkle Dry Cleaning Location: 329 West End Lane, London, Nw6 1rs Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC34 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	937	3	525385 185205
7	Local Authority Pollution Prevention and Controls Name: Shamrock Express Cleaners Location: 210 West End Lane, London, Nw6 1uu Authority: London Borough of Camden, Pollution Projects Team Permit Reference: PPC/DC33 Dated: 12th January 2007 Process Type: Local Authority Pollution Prevention and Control Description: PG6/46 Dry cleaning Status: Permitted Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	973	3	525517 185048
	Nearest Surface Water Feature	A18SE (NE)	413	-	526271 186277
	Water Abstractions Operator: London Borough Of Camden Licence Number: Th/039/0039/087 Permit Version: 1 Location: Swiss Cottage Open Space- Borehole Authority: Environment Agency, Thames Region Abstraction: Municipal Grounds: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Swiss Cottage Open Space, Winchester Road, London Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 5th December 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A4SW (S)	1702	2	526750 184261
	Water Abstractions Operator: London Borough Of Camden Licence Number: Th/039/0039/087 Permit Version: 1 Location: Swiss Cottage Open Space- Borehole Authority: Environment Agency, Thames Region Abstraction: Municipal Grounds: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Swiss Cottage Open Space, Winchester Road, London Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 5th December 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A4SW (S)	1702	2	526750 184261

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: London Borough Of Camden Licence Number: Th/039/0039/087 Permit Version: 1 Location: Swiss Cottage Open Space- Borehole Authority: Environment Agency, Thames Region Abstraction: Municipal Grounds: Lake And Pond Throughflow Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Swiss Cottage Open Space, Winchester Road, London Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 5th December 2013 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A4SW (S)	1702	2	526750 184261
	Water Abstractions Operator: London Borough Of Camden Licence Number: 28/39/39/0219 Permit Version: 1 Location: Swiss Cottage Open Space- Borehole Authority: Environment Agency, Thames Region Abstraction: Municipal Grounds: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Swiss Cottage Open Space, Winchester Road, London. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	1703	2	526800 184280
	Water Abstractions Operator: National Rail Licence Number: Th/039/0039/169 Permit Version: 1 Location: Shallow Deposits & London Clay In Camden, London - B Authority: Environment Agency, Thames Region Abstraction: Drainage Operations: Dewatering Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 13th September 2022 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A4SE (SE)	1753	2	526817 184233
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Mixed Dilution: 300-550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13NE (N)	0	4	526096 185869
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NE (N)	0	4	526096 185869
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
8	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SW (N)	647	5	525931 186521
9	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 242.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SW (N)	649	5	525923 186521
10	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SW (N)	649	5	525924 186522
11	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SW (N)	649	5	525936 186524
12	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A18SW (N)	649	5	525934 186524
13	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 62.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19SW (NE)	794	5	526715 186428
14	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 112.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A17NE (NW)	812	5	525710 186619
15	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 214.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19SE (NE)	848	5	526771 186446

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 124.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19SE (NE)	848	5	526771 186446
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A17NE (NW)	912	5	525626 186687
18	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 208.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A17NE (NW)	930	5	525606 186697
19	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19SE (NE)	960	5	526954 186384
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 68.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Thames Primacy: 1	A19SE (NE)	960	5	526954 186384
21	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 117.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Hampstead Ponds Catchment Name: Thames Primacy: 1	A19SE (NE)	982	5	526937 186451

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: London Borough of Camden - Has no landfill data to supply		0	6	526096 185869
	Local Authority Landfill Coverage Name: London Borough of Barnet - Has supplied landfill data		705	7	525512 186326
22	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A9NW (SE)	738	9	526616 185296
23	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A12NW (W)	779	9	525303 186054
24	Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1991	A9SW (SE)	911	9	526467 184999
25	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1896	A12SE (SW)	408	9	525731 185613
26	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1873	A14NE (E)	692	9	526813 186007

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Bracklesham Group And Barton Group (Undifferentiated)	A13NE (N)	0	1	526096 185869
	BGS Estimated Soil Chemistry No data available				
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 526223, 185630 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 19.70 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 127.10 mg/kg Concentration: Lead Measured 514.80 mg/kg Concentration: Nickel Measured 23.20 mg/kg Concentration:	A13SE (SE)	236	1	526223 185630
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 525676, 185669 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 13.90 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 116.40 mg/kg Concentration: Lead Measured 247.30 mg/kg Concentration: Nickel Measured 22.60 mg/kg Concentration:	A12SE (SW)	425	1	525676 185669
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 526219, 186357 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 15.20 mg/kg Concentration: Cadmium Measured 0.30 mg/kg Concentration: Chromium Measured 91.10 mg/kg Concentration: Lead Measured 269.20 mg/kg Concentration: Nickel Measured 15.80 mg/kg Concentration:	A18SE (N)	477	1	526219 186357
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 525663, 186188 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 15.70 mg/kg Concentration: Cadmium Measured 0.70 mg/kg Concentration: Chromium Measured 156.80 mg/kg Concentration: Lead Measured 1130.60 mg/kg Concentration: Nickel Measured 23.00 mg/kg Concentration:	A12NE (NW)	500	1	525663 186188

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 526278, 185352 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 25.30 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 122.20 mg/kg Concentration: Lead Measured 273.70 mg/kg Concentration: Nickel Measured 19.50 mg/kg Concentration:	A8NE (S)	515	1	526278 185352
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 526732, 185657 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 40.30 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 97.40 mg/kg Concentration: Lead Measured 660.40 mg/kg Concentration: Nickel Measured 34.00 mg/kg Concentration:	A14SW (E)	638	1	526732 185657
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 525772, 185213 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 18.20 mg/kg Concentration: Cadmium Measured 0.90 mg/kg Concentration: Chromium Measured 73.50 mg/kg Concentration: Lead Measured 471.40 mg/kg Concentration: Nickel Measured 25.90 mg/kg Concentration:	A8NW (SW)	705	1	525772 185213
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 526737, 186262 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 11.40 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 155.00 mg/kg Concentration: Lead Measured 104.40 mg/kg Concentration: Nickel Measured 7.80 mg/kg Concentration:	A19SW (NE)	711	1	526737 186262
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 525369, 185647 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 22.30 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 96.20 mg/kg Concentration: Lead Measured 568.80 mg/kg Concentration: Nickel Measured 31.90 mg/kg Concentration:	A12SW (W)	720	1	525369 185647

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 525393, 186257 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 11.90 mg/kg Concentration: Cadmium Measured 1.50 mg/kg Concentration: Chromium Measured 51.30 mg/kg Concentration: Lead Measured 269.20 mg/kg Concentration: Nickel Measured 21.40 mg/kg Concentration:</p>	A17SW (NW)	765	1	525393 186257
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 525880, 186665 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 8.50 mg/kg Concentration: Cadmium Measured 0.30 mg/kg Concentration: Chromium Measured 98.60 mg/kg Concentration: Lead Measured 99.90 mg/kg Concentration: Nickel Measured 7.00 mg/kg Concentration:</p>	A18NW (N)	799	1	525880 186665
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 526370, 186775 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 17.40 mg/kg Concentration: Cadmium Measured 0.50 mg/kg Concentration: Chromium Measured 211.10 mg/kg Concentration: Lead Measured 184.00 mg/kg Concentration: Nickel Measured 12.90 mg/kg Concentration:</p>	A18NE (N)	918	1	526370 186775
	<p>BGS Measured Urban Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service Grid: 526763, 185153 Soil Sample Type: Topsoil Sample Area: London Arsenic Measured 17.60 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 55.10 mg/kg Concentration: Lead Measured 617.70 mg/kg Concentration: Nickel Measured 22.30 mg/kg Concentration:</p>	A9SW (SE)	943	1	526763 185153

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: London Count Id: 7209 Arsenic Minimum Concentration: 1.00 mg/kg Arsenic Average Concentration: 17.00 mg/kg Arsenic Maximum Concentration: 161.00 mg/kg Cadmium Minimum Concentration: 0.10 mg/kg Cadmium Average Concentration: 0.90 mg/kg Cadmium Maximum Concentration: 165.20 mg/kg Chromium Minimum Concentration: 13.00 mg/kg Chromium Average Concentration: 79.00 mg/kg Chromium Maximum Concentration: 2094.00 mg/kg Lead Minimum Concentration: 11.00 mg/kg Lead Average Concentration: 280.00 mg/kg Lead Maximum Concentration: 10000.00 mg/kg Nickel Minimum Concentration: 2.00 mg/kg Nickel Average Concentration: 28.00 mg/kg Nickel Maximum Concentration: 506.00 mg/kg	A13NE (N)	0	1	526096 185869
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	66	1	526096 185779
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	66	1	526096 185779
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	<p>Contemporary Trade Directory Entries</p> <p>Name: Mysparks Ltd Location: 122, Froggnal, London, NW3 6XU Classification: Electrical Engineers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A13SE (E)	21	-	526150 185865
28	<p>Contemporary Trade Directory Entries</p> <p>Name: All Rubbish Cleared Location: Redington Rd, London, NW3 7QX Classification: Rubbish Clearance Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A13SW (SW)	214	-	525919 185694
29	<p>Contemporary Trade Directory Entries</p> <p>Name: Vape Emporium Location: 87, Heath Street, London, NW3 6UG Classification: Tobacco Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13NE (E)	235	-	526367 185876
30	<p>Contemporary Trade Directory Entries</p> <p>Name: Perkins Dry Cleaners Location: 6, Holly Bush Vale, London, NW3 6TX Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	235	-	526343 185767
30	<p>Contemporary Trade Directory Entries</p> <p>Name: Perkins Dry Cleaners Location: 6, Holly Bush Vale, London, NW3 6TX Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13SE (E)	235	-	526343 185767
31	<p>Contemporary Trade Directory Entries</p> <p>Name: Hampstead Hardware Ltd Location: 54, HEATH STREET, LONDON, NW3 1DL Classification: Hardware Status: Active Positional Accuracy: Automatically positioned to the address</p>	A13SE (E)	272	-	526391 185793
31	<p>Contemporary Trade Directory Entries</p> <p>Name: Soul Revolver Location: 9, Back Lane, London, NW3 1HL Classification: Leather Garments & Products Status: Active Positional Accuracy: Automatically positioned to the address</p>	A13SE (E)	299	-	526425 185827
32	<p>Contemporary Trade Directory Entries</p> <p>Name: Scrap Yard In Hampstead Htt Location: Hampstead Station, Hampstead High Street, London, NW3 1QG Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13SE (E)	277	-	526393 185780
32	<p>Contemporary Trade Directory Entries</p> <p>Name: Hampstead Cleaners Location: 5, Flask Walk, London, NW3 1HJ Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13SE (E)	318	-	526429 185760
32	<p>Contemporary Trade Directory Entries</p> <p>Name: Bubbles & Light Ltd Location: 9a, Flask Walk, London, NW3 1HJ Classification: Candle Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A14SW (E)	323	-	526436 185766
33	<p>Contemporary Trade Directory Entries</p> <p>Name: Perkins Group Location: 40, Heath Street, London, NW3 6TE Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A13SE (SE)	281	-	526374 185724
33	<p>Contemporary Trade Directory Entries</p> <p>Name: American Dry Cleaning Location: 47, HAMPSTEAD HIGH STREET, LONDON, NW3 1QG Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address</p>	A13SE (E)	291	-	526400 185759

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	Contemporary Trade Directory Entries Name: Andrews Location: 22, Heath Street, London, NW3 6TE Classification: Hardware Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	315	-	526381 185666
34	Contemporary Trade Directory Entries Name: Destination Skin Location: 12, Heath Street, London, NW3 6TE Classification: Electrolysis Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	334	-	526396 185655
35	Contemporary Trade Directory Entries Name: Rubbish Collection Location: Heath St, London, NW3 6TP Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13SE (SE)	324	-	526372 185640
35	Contemporary Trade Directory Entries Name: Jeeves Location: 11, Heath Street, London, NW3 6TP Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	327	-	526365 185625
35	Contemporary Trade Directory Entries Name: Jeeves Of Belgravia Location: 11, HEATH STREET, LONDON, NW3 6TP Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (SE)	328	-	526365 185625
35	Contemporary Trade Directory Entries Name: Hampstead Autos Location: 28, Perrins Walk, London, NW3 6TH Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	342	-	526365 185603
35	Contemporary Trade Directory Entries Name: Office Cleaning Services Location: 3, Heath Street, London, NW3 6TP Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	345	-	526373 185608
36	Contemporary Trade Directory Entries Name: Crabtree & Evelyn Location: 65, Hampstead High Street, London, NW3 1QP Classification: Toiletries Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (SE)	333	-	526422 185704
37	Contemporary Trade Directory Entries Name: Xyz Location: 10, Flask Walk, London, NW3 1HE Classification: Ceramic Manufacturers, Supplies & Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14SW (E)	334	-	526445 185756
37	Contemporary Trade Directory Entries Name: Hillside Holdings Ltd Location: 32, Hampstead High Street, London, NW3 1QD Classification: Food Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	375	-	526475 185717
38	Contemporary Trade Directory Entries Name: Spotless Cleaning Location: 35, Flask Walk, London, NW3 1HH Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	350	-	526476 185825
38	Contemporary Trade Directory Entries Name: Hampstead Cleaners Location: 35, FLASK WALK, LONDON, NW3 1HH Classification: Carpet, Curtain & Upholstery Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (E)	350	-	526476 185825

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	Contemporary Trade Directory Entries Name: Cleaners Of Hampstead Location: 15, Hampstead High Street, London, NW3 1PX Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	486	-	526573 185667
39	Contemporary Trade Directory Entries Name: Cleaners Of Hampstead Location: 15, Hampstead High Street, London, NW3 1PX Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	486	-	526573 185667
40	Contemporary Trade Directory Entries Name: Hampstead Waste Location: Flat 68, Henderson Court, 102, Fitzjohns Avenue, London, NW3 6NR Classification: Medical Waste Disposal Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	508	-	526493 185498
41	Contemporary Trade Directory Entries Name: Cleaners Hampstead Location: 8, Hampstead High Street, London, NW3 1PR Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	528	-	526614 185656
41	Contemporary Trade Directory Entries Name: Radici Plastics Uk Location: 6a, Hampstead High Street, London, NW3 1PR Classification: Plaster Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	539	-	526626 185654
42	Contemporary Trade Directory Entries Name: Belsize Park Carpet Cleaners Location: 12 Gayton Crescent, Camden, London, NW3 1TT Classification: Carpet, Curtain & Upholstery Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (E)	563	-	526693 185837
42	Contemporary Trade Directory Entries Name: Skipwith Consulting Location: 37, Willow Road, London, NW3 1TN Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	595	-	526726 185866
43	Contemporary Trade Directory Entries Name: Florian Leonhard Fine Violins Location: 3, FROGNAL LANE, LONDON, NW3 7DY Classification: Musical Instrument - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	568	-	525716 185404
44	Contemporary Trade Directory Entries Name: Snappy Snaps Location: 80, Rosslyn Hill, London, NW3 1ND Classification: Photographic Processors Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	605	-	526685 185626
44	Contemporary Trade Directory Entries Name: Fast Cash 4 Scrap Cars London Aeg Location: 64, Rosslyn Hill, London, NW3 1ND Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (E)	628	-	526708 185619
45	Contemporary Trade Directory Entries Name: B O C Gas & Gear Location: 13 Arkwright Road, London, NW3 6AA Classification: Gas Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (SE)	607	-	526352 185281
46	Contemporary Trade Directory Entries Name: Plumbright Services Location: 47, Studholme Court, Finchley Road, London, NW3 7AE Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (SW)	627	-	525484 185603

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	<p>Contemporary Trade Directory Entries</p> <p>Name: Cleaning Services Hampstead Location: 58a, Rosslyn Hill, London, NW3 1ND Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A14SW (E)	645	-	526723 185614
47	<p>Contemporary Trade Directory Entries</p> <p>Name: Farrow & Ball Ltd Location: 58, Rosslyn Hill, London, NW3 1ND Classification: Wallpapers & Wall Coverings Status: Active Positional Accuracy: Automatically positioned to the address</p>	A14SW (E)	645	-	526723 185614
47	<p>Contemporary Trade Directory Entries</p> <p>Name: Lily'S Kitchen Location: 6, Rosslyn Mews, London, NW3 1NN Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A14SW (E)	688	-	526769 185611
47	<p>Contemporary Trade Directory Entries</p> <p>Name: Bang & Olufsen Location: 44, Rosslyn Hill, London, NW3 1NH Classification: Electrical Goods Sales, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A14SW (E)	689	-	526764 185598
48	<p>Contemporary Trade Directory Entries</p> <p>Name: Hampstead Cleaners Location: 63, Rosslyn Hill, London, NW3 5UQ Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A14SW (SE)	654	-	526714 185571
49	<p>Contemporary Trade Directory Entries</p> <p>Name: Maximus Property Services Ltd Location: 459, Finchley Road, LONDON, NW3 6HN Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7NE (SW)	666	-	525683 185306
49	<p>Contemporary Trade Directory Entries</p> <p>Name: Sara Bespoke Curtains Ltd Location: 459, Finchley Road, London, NW3 6HN Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7NE (SW)	667	-	525683 185306
50	<p>Contemporary Trade Directory Entries</p> <p>Name: Mfk Ltd Location: 461, Finchley Road, London, NW3 6HN Classification: Electronic Equipment - Manufacturers & Assemblers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7NE (SW)	666	-	525678 185310
50	<p>Contemporary Trade Directory Entries</p> <p>Name: Global Medical Trading Ltd Location: A, 338, West End Lane, London, NW6 1LN Classification: Chemicals - Distributors & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7NE (SW)	674	-	525661 185312
50	<p>Contemporary Trade Directory Entries</p> <p>Name: Look New Drycleaners Location: 334, WEST END LANE, LONDON, NW6 1LN Classification: Carpet, Curtain & Upholstery Cleaners Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7NE (SW)	681	-	525653 185309
50	<p>Contemporary Trade Directory Entries</p> <p>Name: Carmel Garage Location: 322, WEST END LANE, LONDON, NW6 1LN Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7NE (SW)	703	-	525630 185299
51	<p>Contemporary Trade Directory Entries</p> <p>Name: Classic Cleaners Location: 475, Finchley Road, London, NW3 6HS Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7NE (SW)	667	-	525623 185351

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
51	Contemporary Trade Directory Entries Name: Five Star Location: 469, Finchley Road, London, NW3 6HS Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	668	-	525635 185340
51	Contemporary Trade Directory Entries Name: Jav'S 5 Star Dry Cleaners Location: 469, Finchley Road, London, NW3 6HS Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	668	-	525635 185340
51	Contemporary Trade Directory Entries Name: Nineteen (Uk) Ltd Location: 369, West End Lane, London, NW6 1LP Classification: Telecommunications Equipment & Systems Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	682	-	525627 185329
52	Contemporary Trade Directory Entries Name: Tenancy Cleaners London Location: 4, Shepherds Walk, London, NW3 5UE Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	707	-	526744 185512
53	Contemporary Trade Directory Entries Name: Cleaners In Hampstead Location: 517, Finchley Road, London, NW3 7BB Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	709	-	525443 185504
53	Contemporary Trade Directory Entries Name: Cottontail Cleaners Ltd Location: 509, Finchley Road, London, NW3 7BB Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	710	-	525454 185484
53	Contemporary Trade Directory Entries Name: The London Dry Cleaning Company Location: 519a, Finchley Road, London, NW3 7BB Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	717	-	525431 185508
53	Contemporary Trade Directory Entries Name: London Dry Cleaning Location: 519a, Finchley Road, London, NW3 7BB Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (SW)	717	-	525431 185508
54	Contemporary Trade Directory Entries Name: Grand Products Ltd Location: A, 20, Hollycroft Avenue, London, NW3 7QL Classification: Furniture Manufacturers - Home & Office Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	716	-	525381 186106
55	Contemporary Trade Directory Entries Name: Mercedes Benz Location: 341, Finchley Road, London, NW3 6ET Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	733	-	525978 185122
55	Contemporary Trade Directory Entries Name: K C Gray Ltd Location: 341-347, Finchley Road, London, NW3 6ET Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	733	-	525978 185122
55	Contemporary Trade Directory Entries Name: Alan Day Location: Finchley Rd, London, NW3 6LT Classification: Commercial Vehicle Dealers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8SW (S)	733	-	525978 185122

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
55	<p>Contemporary Trade Directory Entries</p> <p>Name: Pot Co The Location: 56-58, Lymington Road, London, NW6 1JB Classification: Pottery Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SW (S)	769	-	525986 185084
56	<p>Contemporary Trade Directory Entries</p> <p>Name: Ravtex Uk Ltd Location: 95 Platts Lane, Barnet, London, NW3 7NH Classification: Packaging Materials Manufacturers & Suppliers Status: Active Positional Accuracy: Manually positioned to the address or location</p>	A17SE (NW)	738	-	525464 186318
57	<p>Contemporary Trade Directory Entries</p> <p>Name: Crest Leather Location: 202-204 Finchley Road, Camden, London, NW3 6BX Classification: Leather Garments & Products Status: Active Positional Accuracy: Manually positioned to the address or location</p>	A8SE (S)	761	-	526129 185080
57	<p>Contemporary Trade Directory Entries</p> <p>Name: Crown Hides Location: Meridian House, 202-204, Finchley Road, London, NW3 6BX Classification: Leather Merchants & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	761	-	526129 185080
57	<p>Contemporary Trade Directory Entries</p> <p>Name: Fenton Pharmaceuticals Location: Unit 4, Hampstead Gate, 1a, Frognal, London, NW3 6AL Classification: Chemists' & Pharmacists' Suppliers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	777	-	526140 185064
57	<p>Contemporary Trade Directory Entries</p> <p>Name: Diamond Laundrette Location: 190, Finchley Road, London, NW3 6BX Classification: Laundries & Launderettes Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	805	-	526143 185037
57	<p>Contemporary Trade Directory Entries</p> <p>Name: T & T Cleaning Services Location: 190, FINCHLEY ROAD, LONDON, NW3 6BX Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	805	-	526143 185037
57	<p>Contemporary Trade Directory Entries</p> <p>Name: Automotive Couture Ltd Location: 186, Finchley Road, London, NW3 6BX Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	812	-	526151 185030
57	<p>Contemporary Trade Directory Entries</p> <p>Name: Automotive Couture Gb Ltd Location: 186, Finchley Road, London, NW3 6BX Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SE (S)	812	-	526151 185030
57	<p>Contemporary Trade Directory Entries</p> <p>Name: Clean Line Location: 307c Finchley Rd, London, NW3 6EH Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A8SE (S)	821	-	526124 185020
58	<p>Contemporary Trade Directory Entries</p> <p>Name: Auto Air & Hi-Fi Services Location: 331-335, Finchley Road, London, NW3 6EP Classification: Air Conditioning Equipment & Systems Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SW (S)	770	-	526043 185075
58	<p>Contemporary Trade Directory Entries</p> <p>Name: Autohaus Location: 331-335, Finchley Road, London, NW3 6EP Classification: Car Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SW (S)	770	-	526043 185075

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	Contemporary Trade Directory Entries Name: Supershine Ltd Location: 329, Finchley Road, London, NW3 6EP Classification: Cleaning Services - Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	774	-	526038 185072
59	Contemporary Trade Directory Entries Name: Cleaning Services Hampstead Location: 529, Finchley Road, London, NW3 7BG Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	792	-	525302 185620
60	Contemporary Trade Directory Entries Name: Timberwise Uk Ltd Location: 176, Finchley Road, London, NW3 6BT Classification: Damp & Dry Rot Control Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (S)	832	-	526169 185011
60	Contemporary Trade Directory Entries Name: London Boys Scrap Yards In Hampstead Location: 176, Finchley Road, London, NW3 6BT Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	832	-	526169 185011
60	Contemporary Trade Directory Entries Name: Posh Clean Uk Location: 176, Finchley Road, London, NW3 6BT Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	832	-	526169 185011
60	Contemporary Trade Directory Entries Name: London Scrap Yards Hampstead Location: 176, Finchley Road, London, NW3 6BT Classification: Car Breakers & Dismantlers Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (S)	832	-	526169 185011
60	Contemporary Trade Directory Entries Name: Online Plumbing Location: 176, Finchley Road, London, NW3 6BT Classification: Boilers - Servicing, Replacements & Repairs Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8SE (S)	832	-	526169 185011
60	Contemporary Trade Directory Entries Name: Accel Pest Control Location: 176, Finchley Road, London, NW3 6BT Classification: Pest & Vermin Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	832	-	526169 185011
60	Contemporary Trade Directory Entries Name: A Professional Domestic Service Location: 176, Finchley Road, London, NW3 6BT Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	832	-	526169 185011
60	Contemporary Trade Directory Entries Name: 1st Damp Line Ltd Location: 176, Finchley Road, London, NW3 6BT Classification: Damp & Dry Rot Control Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8SE (S)	832	-	526169 185011
61	Contemporary Trade Directory Entries Name: Cleanline Location: First Floor, 307, Finchley Road, London, NW3 6EH Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	834	-	526109 185007
61	Contemporary Trade Directory Entries Name: London Crystal Ltd Location: 307c, Finchley Road, London, NW3 6EH Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	834	-	526109 185007

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
61	Contemporary Trade Directory Entries Name: Cleanline Location: 307C, Finchley Road, London, NW3 6EH Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8SE (S)	834	-	526109 185007
61	Contemporary Trade Directory Entries Name: Clean Line Location: 307c, Finchley Road, London, NW3 6EH Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8SE (S)	834	-	526109 185007
61	Contemporary Trade Directory Entries Name: Home Needs Location: 301-303, Finchley Road, London, NW3 6DT Classification: Hardware Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	856	-	526128 184985
61	Contemporary Trade Directory Entries Name: Maximal Ltd Location: 301, FINCHLEY ROAD, LONDON, NW3 6DT Classification: Hardware Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (S)	856	-	526128 184985
62	Contemporary Trade Directory Entries Name: Interior Couture Location: 14a, Downshire Hill, LONDON, NW3 1NR Classification: Wallpapers & Wall Coverings Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	834	-	526950 185723
63	Contemporary Trade Directory Entries Name: S E Ltd Location: 8, Frognal, London, NW3 6AJ Classification: Textile Manufacturing Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	864	-	526253 184987
64	Contemporary Trade Directory Entries Name: The Sustainable Sourcing Company Location: 10 Parsifal Road, Camden, London, NW6 1UH Classification: Packaging Materials Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	870	-	525287 185454
65	Contemporary Trade Directory Entries Name: Buzy Cleaning Location: 571, Finchley Road, London, NW3 7BN Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	886	-	525173 185793
65	Contemporary Trade Directory Entries Name: Specialist Building Products Location: 571, Finchley Road, London, NW3 7BN Classification: Damp & Dry Rot Control Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	887	-	525173 185793
65	Contemporary Trade Directory Entries Name: 24 Hour Euro Windscreen Ltd Location: 571, Finchley Road, London, NW3 7BN Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A12SW (W)	887	-	525173 185793
66	Contemporary Trade Directory Entries Name: R S Auto Location: 9, Rosemont Road, London, NW3 6NG Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	893	-	526093 184948
66	Contemporary Trade Directory Entries Name: Transeuropean Logistic Services Location: Suite 4,11 Rosemont Road, London, NW3 6NG Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A8SW (S)	894	-	526093 184948

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
66	Contemporary Trade Directory Entries Name: Porchetech Location: 9, ROSEMONT ROAD, LONDON, NW3 6NG Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A8SW (S)	894	-	526093 184948
66	Contemporary Trade Directory Entries Name: Ron'S Garage Location: 6, Rosemont Road, London, NW3 6NE Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	907	-	526122 184934
66	Contemporary Trade Directory Entries Name: Carmel Motors Location: 16, Rosemont Road, London, NW3 6NE Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	927	-	526088 184915
66	Contemporary Trade Directory Entries Name: Graffiti Art Ltd Location: 16, Rosemont Road, London, NW3 6NE Classification: Packaging & Wrapping Equipment & Supplies Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	927	-	526088 184915
66	Contemporary Trade Directory Entries Name: Vats It Ltd Location: 18-20, Rosemont Road, London, NW3 6NE Classification: Tanks, Vats & Cisterns Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	930	-	526079 184912
67	Contemporary Trade Directory Entries Name: Multiload Technology Ltd Location: 2, Rosemont Road, London, NW3 6NE Classification: Lighting Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	897	-	526145 184945
67	Contemporary Trade Directory Entries Name: Printing Works The Location: 287, Finchley Road, London, NW3 6ND Classification: Printers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8SE (S)	901	-	526157 184941
67	Contemporary Trade Directory Entries Name: American Wheels Location: 16, Frognal Parade, London, NW3 5HH Classification: Car Customisation & Conversion Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	907	-	526207 184939
67	Contemporary Trade Directory Entries Name: Ariana Hand Laundry Location: 281a, Finchley Road, London, NW3 6ND Classification: Laundries & Launderettes Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	920	-	526164 184922
67	Contemporary Trade Directory Entries Name: Siciliana Dry Cleaners Location: 12, Frognal Parade, London, NW3 5HH Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	928	-	526213 184918
67	Contemporary Trade Directory Entries Name: Hampstead Express Clothes Clinic Location: 279A, FINCHLEY ROAD, LONDON, NW3 6LT Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A8SE (S)	942	-	526174 184901
67	Contemporary Trade Directory Entries Name: Clothes Clinic Location: 279a, Finchley Road, LONDON, NW3 6LT Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	942	-	526174 184901

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
68	<p>Contemporary Trade Directory Entries</p> <p>Name: Wallace Paint Removal Location: Unit 6, London, NW6 1LG Classification: Paint & Varnish Stripping Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A7SE (SW)	904	-	525492 185152
69	<p>Contemporary Trade Directory Entries</p> <p>Name: Oven Cleaning (Hampstead) Location: 32, Downshire Hill, London, NW3 1NT Classification: Oven cleaning Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A14SE (E)	905	-	527034 185812
70	<p>Contemporary Trade Directory Entries</p> <p>Name: Camden & Islington Trust Location: 17, Lyndhurst Gardens, London, NW3 5NU Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	909	-	526829 185274
71	<p>Contemporary Trade Directory Entries</p> <p>Name: Natmet Ltd Location: A, 35, Lithos Road, London, NW3 6DX Classification: Metal Industries - Primary Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A8SW (S)	910	-	526027 184936
72	<p>Contemporary Trade Directory Entries</p> <p>Name: The Wash House Location: 228, West End Lane, London, NW6 1UR Classification: Laundries & Launderettes Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7SE (SW)	931	-	525510 185104
73	<p>Contemporary Trade Directory Entries</p> <p>Name: Sparkle Location: 329, West End Lane, London, NW6 1RS Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7NW (SW)	938	-	525383 185205
73	<p>Contemporary Trade Directory Entries</p> <p>Name: Woodstock Motors Location: WEST HEATH YARD, 174, MILL LANE, LONDON, NW6 1TB Classification: Car Body Repairs Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7NW (SW)	957	-	525358 185204
73	<p>Contemporary Trade Directory Entries</p> <p>Name: W Kenton Ltd Location: West Heath Yard, 174, Mill Lane, London, NW6 1TB Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A7NW (SW)	957	-	525358 185204
73	<p>Contemporary Trade Directory Entries</p> <p>Name: Car Express Location: West Heath Yard, 174, Mill Lane, London, NW6 1TB Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A7NW (SW)	957	-	525358 185204
74	<p>Contemporary Trade Directory Entries</p> <p>Name: Plastic Sandwich Location: HAMPSTEAD CEMETERY, FORTUNE GREEN ROAD, LONDON, NW6 1DR Classification: Bookbinding & Equipment Status: Active Positional Accuracy: Automatically positioned to the address</p>	A12SW (W)	952	-	525119 185695
74	<p>Contemporary Trade Directory Entries</p> <p>Name: Texaco Location: 63-65, Fortune Green Road, London, NW6 1DR Classification: Petrol Filling Stations - 24 Hour Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address</p>	A12SW (W)	961	-	525119 185648
74	<p>Contemporary Trade Directory Entries</p> <p>Name: Star Service Stations Location: 63-65, Fortune Green Road, London, NW6 1DR Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address</p>	A12SW (W)	961	-	525119 185648

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	Contemporary Trade Directory Entries Name: Repointing Brick Location: 138, CHOLMLEY GARDENS, LONDON, NW6 1AB Classification: Paint & Varnish Stripping Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	955	-	525321 185249
76	Contemporary Trade Directory Entries Name: Green & White Ltd Location: 112, FORTUNE GREEN ROAD, LONDON, NW6 1DH Classification: Vacuum Cleaners, Industrial & Commercial - Repairs & Servicing Status: Active Positional Accuracy: Automatically positioned to the address	A12SW (W)	956	-	525137 185599
76	Contemporary Trade Directory Entries Name: Hampstead Dry Cleaners Location: 57, Fortune Green Road, London, NW6 1DR Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SW (W)	987	-	525105 185596
77	Contemporary Trade Directory Entries Name: Agedefy- Vitasil Stockist Distributor Location: 38, ROSEMONT ROAD, LONDON, NW3 6NE Classification: Distribution Services Status: Active Positional Accuracy: Automatically positioned to the address	A8SW (S)	965	-	526019 184881
77	Contemporary Trade Directory Entries Name: Spring Cleaning Location: 57, Lithos Road, London, NW3 6EY Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	981	-	525973 184871
78	Contemporary Trade Directory Entries Name: Shamrock Location: 210, West End Lane, London, NW6 1UU Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SE (SW)	973	-	525518 185048
79	Contemporary Trade Directory Entries Name: Ampersand Location: 37c, Maresfield Gardens, London, NW3 5SG Classification: Lampshade Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (S)	994	-	526425 184896
80	Contemporary Trade Directory Entries Name: Rose Dry Cleaners Location: 68, Fortune Green Road, London, NW6 1DS Classification: Dry Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NW (SW)	998	-	525136 185472
80	Contemporary Trade Directory Entries Name: Hampstead Dry Cleaners Location: 68, FORTUNE GREEN ROAD, LONDON, NW6 1DS Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	999	-	525136 185472
81	Contemporary Trade Directory Entries Name: Mark 2 Services Location: Inglewood Garage, Inglewood Road, London, NW6 1QY Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A7SW (SW)	998	-	525374 185130
82	Fuel Station Entries Name: Cavendish Motors Location: West End Lane , , London, Inner London, NW6 1XF Brand: OBSOLETE Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Manually positioned to the road within the address or location	A7NW (SW)	923	-	525412 185197

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
83	Fuel Station Entries Name: Fortune Green Service Station Location: 63-65, Fortune Green Road , Fortune Green , London, Inner London, NW6 1DR Brand: Texaco Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Manually positioned to the road within the address or location	A12SW (W)	976	-	525113 185609
84	Points of Interest - Commercial Services Name: Overseas Marine & Transport Location: Flat 4 20, Lindfield Gardens, London, NW3 6PS Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A8NW (S)	479	8	525999 185378
85	Points of Interest - Commercial Services Name: A V Auto Locksmiths Location: 38 Willow Road, London, NW3 1TN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SW (E)	591	8	526722 185864
86	Points of Interest - Commercial Services Name: S M D Recycling Location: 461 Finchley Road, London, NW3 6HN Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A7NE (SW)	666	8	525678 185310
86	Points of Interest - Commercial Services Name: Carmel Garage Location: 322 West End Lane, London, NW6 1LN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NE (SW)	703	8	525630 185299
87	Points of Interest - Commercial Services Name: Automotive Couture UK Ltd Location: 186 Finchley Road, London, NW3 6BX Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SE (S)	812	8	526151 185030
88	Points of Interest - Commercial Services Name: E-numberplates Location: 176 Finchley Road, London, NW3 6BT Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SE (S)	832	8	526169 185011
88	Points of Interest - Commercial Services Name: London Scrap Yards Hampstead Location: 176 Finchley Road, London, NW3 6BT Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A8SE (S)	832	8	526169 185011
88	Points of Interest - Commercial Services Name: American Wheels Location: 16 Frognaal Parade, London, NW3 5HH Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SE (S)	907	8	526207 184939
89	Points of Interest - Commercial Services Name: Pack in Solutions Ltd Location: 571 Finchley Road, London, NW3 7BN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	886	8	525173 185793
89	Points of Interest - Commercial Services Name: 24 Hour Euro Windscreen Ltd Location: 571 Finchley Road, London, NW3 7BN Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	887	8	525173 185793

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
90	Points of Interest - Commercial Services Name: Porchetech Location: 9 Rosemont Road, London, NW3 6NG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SW (S)	893	8	526093 184948
90	Points of Interest - Commercial Services Name: Porchetech Location: 9 Rosemont Road, London, NW3 6NG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SW (S)	894	8	526093 184948
90	Points of Interest - Commercial Services Name: Transeuropean Logistic Services Location: 11 Rosemont Road, London, NW3 6NG Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A8SW (S)	896	8	526088 184946
90	Points of Interest - Commercial Services Name: Victory Motorcycles London Location: 13-15 Rosemont Road, London, NW3 6NG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SW (S)	909	8	526065 184934
90	Points of Interest - Commercial Services Name: Carmel Motors Location: 16 Rosemont Road, London, NW3 6NE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SW (S)	927	8	526088 184915
90	Points of Interest - Commercial Services Name: Carmel Motors Location: 16 Rosemont Road, London, NW3 6NE Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A8SW (S)	927	8	526088 184915
90	Points of Interest - Commercial Services Name: Agedefy- Vitasil Stockist Distributor Location: 38 Rosemont Road, London, NW3 6NE Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A8SW (S)	965	8	526019 184881
91	Points of Interest - Commercial Services Name: Woodstock Motors Location: Vehicle Repair Workshop and Premises at Ground Floor West Heath Yard 174, Mill Lane, London, NW6 1TB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NW (SW)	957	8	525358 185204
91	Points of Interest - Commercial Services Name: Karkhana Autotronic Location: West Heath Yard 174, Mill Lane, London, NW6 1TB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A7NW (SW)	958	8	525357 185204
92	Points of Interest - Education and Health Name: The Royal Free Hospital Location: 30 Spedan Close, London, NW3 7XF Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A13NW (NW)	178	8	525961 186033
93	Points of Interest - Education and Health Name: Queen Marys House Location: 23 East Heath Road, London, NW3 1DU Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18SE (NE)	403	8	526353 186225
93	Points of Interest - Education and Health Name: Piercey Day Hospital Location: 23 East Heath Road, London, NW3 1DU Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18SE (NE)	418	8	526380 186224

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
94	Points of Interest - Manufacturing and Production Name: Stone of London Location: 485 Finchley Road, London, NW3 6HS Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A7NE (SW)	668	8	525601 185369
95	Points of Interest - Manufacturing and Production Name: Air Shaft Location: NW3 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	918	8	526472 184994
96	Points of Interest - Manufacturing and Production Name: Shaft Location: NW3 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	975	8	526712 185068
97	Points of Interest - Manufacturing and Production Name: Works Location: NW6 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	991	8	525324 185191
97	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A7SW (SW)	992	8	525326 185187
98	Points of Interest - Public Infrastructure Name: Grave Yard Location: NW3 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	186	8	526241 185701
98	Points of Interest - Public Infrastructure Name: Graveyard Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	191	8	526249 185702
99	Points of Interest - Public Infrastructure Name: Metropolitan Police Service Hampstead Location: Hampstead Police Station 26, Rosslyn Hill, London, NW3 1PD Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A14SE (SE)	805	8	526866 185540
99	Points of Interest - Public Infrastructure Name: Hampstead Police Station Location: Hampstead Police Station 26, Rosslyn Hill, London, NW3 1PD Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A14SE (SE)	821	8	526883 185539
100	Points of Interest - Public Infrastructure Name: Finchley Road & Frognal Rail Station Location: Finchley Road, NW3 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A8SW (S)	818	8	526047 185026
100	Points of Interest - Public Infrastructure Name: Finchley Road and Frognal Station Location: Finchley Road, NW3 Category: Public Transport, Stations and Infrastructure Class Code: Railway Stations, Junctions and Halts Positional Accuracy: Positioned to address or location	A8SW (S)	818	8	526047 185026
101	Points of Interest - Public Infrastructure Name: West Hampstead Fire Station Location: West Hampstead Fire Station 325, West End Lane, London, NW6 1RR Category: Central and Local Government Class Code: Fire Brigade Stations Positional Accuracy: Positioned to address or location	A7SW (SW)	942	8	525394 185189

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
102	Points of Interest - Public Infrastructure Name: Sluice Location: NW3 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	980	8	526935 186450
102	Points of Interest - Public Infrastructure Name: Sluice Location: NW3 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	981	8	526938 186447
103	Points of Interest - Public Infrastructure Name: West Hampstead Police Station Location: West Hampstead Police Station 21, Fortune Green Road, London, NW6 1DX Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A7NW (SW)	997	8	525166 185409
103	Points of Interest - Public Infrastructure Name: Highgate Safer Neighbourhoods Base Location: West Hampstead Police Station 21, Fortune Green Road, London, NW6 1DX Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A7NW (SW)	998	8	525166 185409
104	Points of Interest - Recreational and Environmental Name: Play Area Location: NW3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13NW (NW)	271	8	525864 186072
105	Points of Interest - Recreational and Environmental Name: Play Area Location: NW3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	748	8	526752 186307
106	Points of Interest - Recreational and Environmental Name: Play Area Location: NW3 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	923	8	527055 185886
107	Points of Interest - Recreational and Environmental Name: Play Area Location: NW6 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A7NW (SW)	1000	8	525238 185284
108	Underground Electrical Cables Unique Feature Identifier: 10005913 Cable Status: Electrically Decommissioned Cable Type: Alternating Current Record Last Updated: 9th January 2023	A14NW (E)	513	9	526644 185897
109	Underground Electrical Cables Unique Feature Identifier: 10006070 Cable Status: Electrically Decommissioned Cable Type: Alternating Current Record Last Updated: 9th January 2023	A14NW (E)	513	9	526645 185897
110	Underground Electrical Cables Unique Feature Identifier: 10005915 Cable Status: Electrically Decommissioned Cable Type: Alternating Current Record Last Updated: 9th January 2023	A14NW (E)	545	9	526672 185963

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
111	<p>Underground Electrical Cables</p> <p>Unique Feature Identifier: 10006072</p> <p>Cable Status: Electrically Decommissioned</p> <p>Cable Type: Alternating Current</p> <p>Record Last Updated: 9th January 2023</p>	A14NW (E)	546	9	526673 185963
112	<p>Underground Electrical Cables</p> <p>Unique Feature Identifier: 10006073</p> <p>Cable Status: Electrically Decommissioned</p> <p>Cable Type: Alternating Current</p> <p>Record Last Updated: 9th January 2023</p>	A14SW (SE)	639	9	526711 185599
113	<p>Underground Electrical Cables</p> <p>Unique Feature Identifier: 10005912</p> <p>Cable Status: Electrically Decommissioned</p> <p>Cable Type: Alternating Current</p> <p>Record Last Updated: 9th January 2023</p>	A14SW (SE)	639	9	526711 185598
114	<p>Underground Electrical Cables</p> <p>Unique Feature Identifier: 10006071</p> <p>Cable Status: Electrically Decommissioned</p> <p>Cable Type: Alternating Current</p> <p>Record Last Updated: 9th January 2023</p>	A19SW (NE)	767	9	526615 186484
115	<p>Underground Electrical Cables</p> <p>Unique Feature Identifier: 10005914</p> <p>Cable Status: Electrically Decommissioned</p> <p>Cable Type: Alternating Current</p> <p>Record Last Updated: 9th January 2023</p>	A19SW (NE)	767	9	526615 186484
116	<p>Underground Electrical Cables</p> <p>Unique Feature Identifier: 10007954</p> <p>Cable Status: Electrically Decommissioned</p> <p>Cable Type: Alternating Current</p> <p>Record Last Updated: 9th January 2023</p>	A9NW (SE)	783	9	526593 185218
117	<p>Underground Electrical Cables</p> <p>Unique Feature Identifier: 10005743</p> <p>Cable Status: Electrically Decommissioned</p> <p>Cable Type: Alternating Current</p> <p>Record Last Updated: 9th January 2023</p>	A9NW (SE)	784	9	526593 185217

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
118	Ancient Woodland Name: Bishops Wood Reference: 1495665 Area(m ²): 146178.39 Type: Ancient and Semi-Natural Woodland	A18NE (N)	736	10	526250 186614

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Environment Agency - Head Office London Borough of Camden - Pollution Projects Team London Borough of Hackney - Environmental Health Department Royal Borough of Kensington And Chelsea - Environmental Services London Borough of Barnet - Environmental Health Department London Borough of Brent - Environmental Health Department London Borough of Hammersmith And Fulham - Environmental Health Department London Borough of Haringey - Planning and Environmental Health London Borough of Islington - Public Protection Westminster City Council - Environmental Health Department	June 2020 March 2013 October 2017 October 2017 September 2017 September 2017 September 2017 September 2017 September 2017 September 2017	Annually Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Thames Region	April 2023	Quarterly
Enforcement and Prohibition Notices Environment Agency - Thames Region	March 2013	
Integrated Pollution Controls Environment Agency - Thames Region	January 2009	
Integrated Pollution Prevention And Control Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region	January 2023 January 2023	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control London Borough of Barnet - Environmental Health Department London Borough of Islington - Environmental Health Department London Borough of Hackney - Environmental Health Department London Borough of Haringey - Planning and Environmental Health London Borough of Hammersmith And Fulham - Environmental Health Department London Borough of Brent - Environmental Health Department Westminster City Council - Environmental Health Department London Borough of Camden - Pollution Projects Team Royal Borough of Kensington And Chelsea - Environmental Health Department	December 2014 January 2015 July 2015 June 2014 March 2014 March 2016 November 2015 October 2014 September 2014	Variable Variable Variable Variable Variable Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls London Borough of Barnet - Environmental Health Department London Borough of Islington - Environmental Health Department London Borough of Hackney - Environmental Health Department London Borough of Haringey - Planning and Environmental Health London Borough of Hammersmith And Fulham - Environmental Health Department London Borough of Brent - Environmental Health Department Westminster City Council - Environmental Health Department London Borough of Camden - Pollution Projects Team Royal Borough of Kensington And Chelsea - Environmental Health Department	December 2014 January 2015 July 2015 June 2014 March 2014 March 2016 November 2015 October 2014 September 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Annual Rolling Update Not Applicable Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements London Borough of Barnet - Environmental Health Department London Borough of Islington - Environmental Health Department London Borough of Hackney - Environmental Health Department London Borough of Haringey - Planning and Environmental Health London Borough of Hammersmith And Fulham - Environmental Health Department London Borough of Brent - Environmental Health Department Westminster City Council - Environmental Health Department London Borough of Camden - Pollution Projects Team Royal Borough of Kensington And Chelsea - Environmental Health Department	December 2014 January 2015 July 2015 June 2014 March 2014 March 2016 November 2015 October 2014 September 2014	Variable Variable Variable Variable Variable Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	March 2023	
Pollution Incidents to Controlled Waters Environment Agency - Thames Region	September 1999	

Agency & Hydrological	Version	Update Cycle
Prosecutions Relating to Authorised Processes Environment Agency - Thames Region	July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - Thames Region	March 2013	
Registered Radioactive Substances Environment Agency - Thames Region	June 2016	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	April 2012	
River Quality Chemistry Sampling Points Environment Agency - Head Office	April 2012	
Substantiated Pollution Incident Register Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	April 2023 April 2023	Quarterly Quarterly
Water Abstractions Environment Agency - Thames Region	April 2023	Quarterly
Water Industry Act Referrals Environment Agency - Thames Region	October 2017	
Groundwater Vulnerability Map Environment Agency - Head Office	June 2018	As notified
Bedrock Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations Environment Agency - Head Office	January 2018	Annually
Source Protection Zones Environment Agency - Head Office	September 2022	Bi-Annually
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2023	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2023	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2023	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	February 2023	Quarterly
Flood Defences Environment Agency - Head Office	August 2022	Quarterly
OS Water Network Lines Ordnance Survey	January 2023	Quarterly
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	May 2018	Annually
Surface Water Suitability Environment Agency - Head Office	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Environment Agency - Head Office	March 2023	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Thames Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	January 2023 January 2023	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - South East Region - North East Thames Area Environment Agency - Thames Region - North East Area	January 2023 January 2023	Quarterly Quarterly
Local Authority Landfill Coverage London Borough of Barnet London Borough of Brent - Environmental Health Department London Borough of Camden London Borough of Hackney London Borough of Hammersmith And Fulham - Environmental Health Department London Borough of Haringey - Planning Department London Borough of Islington - Environmental Health Department Royal Borough of Kensington And Chelsea Westminster City Council - Environmental Health Department	February 2003 February 2003 February 2003 February 2003 February 2003 February 2003 February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites London Borough of Barnet London Borough of Brent - Environmental Health Department London Borough of Camden London Borough of Hackney London Borough of Hammersmith And Fulham - Environmental Health Department London Borough of Haringey - Planning Department London Borough of Islington - Environmental Health Department Royal Borough of Kensington And Chelsea Westminster City Council - Environmental Health Department	October 2018 October 2018 October 2018 October 2018 October 2018 October 2018 October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency - Thames Region - North East Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency - Thames Region - North East Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency - Thames Region - North East Area	June 2015	


Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	March 2023	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements London Borough of Hammersmith And Fulham - Environmental Protection London Borough of Barnet London Borough of Camden London Borough of Hackney Royal Borough of Kensington And Chelsea Westminster City Council London Borough of Haringey London Borough of Brent London Borough of Islington	August 2015 February 2016 February 2016 February 2016 February 2016 February 2016 February 2023 January 2016 October 2015	Variable Variable Variable Variable Variable Variable Variable Variable Variable
Planning Hazardous Substance Consents London Borough of Hammersmith And Fulham - Environmental Protection London Borough of Barnet London Borough of Camden London Borough of Hackney London Borough of Haringey Royal Borough of Kensington And Chelsea Westminster City Council London Borough of Brent London Borough of Islington	August 2015 February 2016 February 2016 February 2016 February 2016 February 2016 February 2016 February 2016 January 2016 October 2015	Variable Variable Variable Variable Variable Variable Variable Variable Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2022	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	December 2015	As notified
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	September 2022	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	September 2022	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	April 2023	Quarterly
Fuel Station Entries Catalist Ltd - Experian	February 2023	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	March 2023	Quarterly
Points of Interest - Education and Health PointX	March 2023	Quarterly
Points of Interest - Manufacturing and Production PointX	March 2023	Quarterly
Points of Interest - Public Infrastructure PointX	March 2023	Quarterly
Points of Interest - Recreational and Environmental PointX	March 2023	Quarterly
Underground Electrical Cables National Grid	February 2023	Bi-Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	February 2021	Bi-Annually
Areas of Adopted Green Belt London Borough of Barnet London Borough of Brent London Borough of Camden London Borough of Hackney London Borough of Hammersmith And Fulham - Environment Department London Borough of Haringey London Borough of Islington Royal Borough of Kensington And Chelsea Westminster City Council	July 2022 July 2022 July 2022 July 2022 July 2022 July 2022 July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt London Borough of Barnet London Borough of Brent London Borough of Camden London Borough of Hackney London Borough of Hammersmith And Fulham - Environment Department London Borough of Haringey London Borough of Islington Royal Borough of Kensington And Chelsea Westminster City Council	July 2022 July 2022 July 2022 July 2022 July 2022 July 2022 July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural England	April 2023	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Natural England	March 2023	Bi-Annually
Marine Nature Reserves Natural England	April 2023	Bi-Annually
National Nature Reserves Natural England	February 2023	Bi-Annually
National Parks Natural England	February 2018	Bi-Annually
Nitrate Sensitive Areas Natural England	April 2023	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Environment Agency - Head Office	April 2016 March 2023	Bi-Annually
Ramsar Sites Natural England	March 2023	Bi-Annually
Sites of Special Scientific Interest Natural England	March 2023	Bi-Annually
Special Areas of Conservation Natural England	April 2023	Bi-Annually
Special Protection Areas Natural England	April 2023	Bi-Annually

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	London Borough of Camden - Pollution Projects Team Seventh Floor, Town Hall Extension, Argyle Street, London, WC1H 8EQ	Telephone: 020 7278 4444 Fax: 020 7860 5713 Website: www.camden.gov.uk
4	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	London Borough of Camden Town Hall, Judd Street, London, WC1H 9JE	Telephone: 020 7974 4444 Fax: 020 7974 6866 Email: info@camden.gov.uk Website: www.camden.gov.uk
7	London Borough of Barnet - Land Charges The Town Hall, The Burroughs, Hendon, LONDON, NW4 4BQ	Telephone: 0208 3592482 Fax: 0208 3592493 Website: www.barnet.gov.uk
8	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
9	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
10	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Mr A Fasano, A-squared Studio, 66 Church Road, Richmond, TW10 6LN

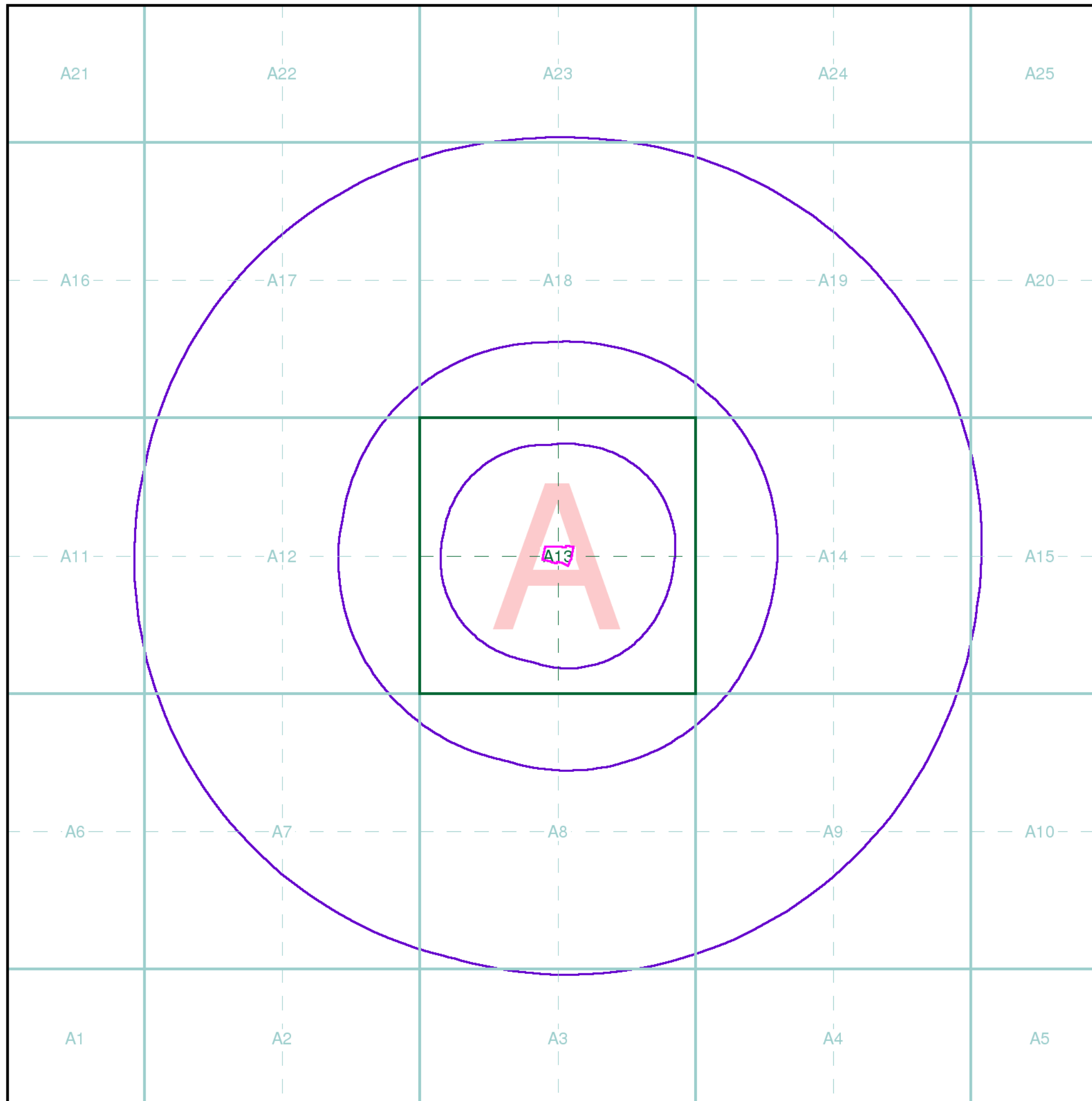
Order Details

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Customer Ref: 2892
National Grid Reference: 526100, 185870
Site Area (Ha): 0.27
Search Buffer (m): 1000

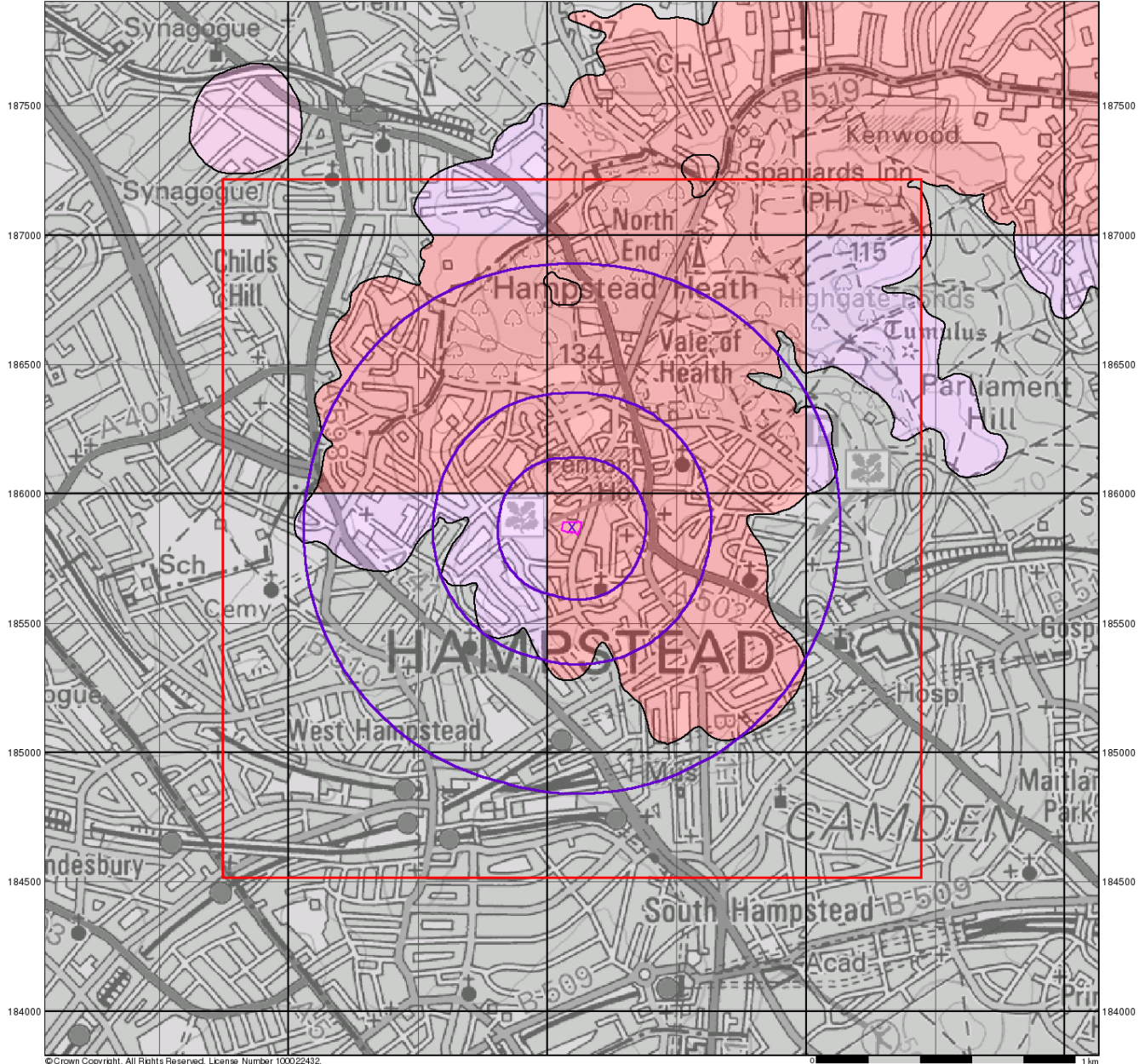
Site Details

Frognal House, 99 Frognal, London, Greater London, NW3 6XR

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Groundwater Vulnerability

General

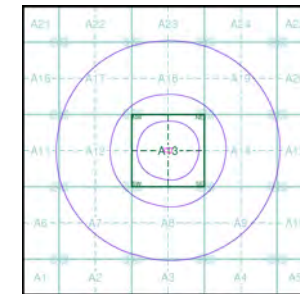
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- | Bedrock Aquifers | Superficial Aquifers |
|---|---|
| High Vulnerability, Principal Aquifer | High Vulnerability, Principal Aquifer |
| High Vulnerability, Secondary Aquifer | High Vulnerability, Secondary Aquifer |
| Medium Vulnerability, Principal Aquifer | Medium Vulnerability, Principal Aquifer |
| Medium Vulnerability, Secondary Aquifer | Medium Vulnerability, Secondary Aquifer |
| Low Vulnerability, Principal Aquifer | Low Vulnerability, Principal Aquifer |
| Low Vulnerability, Secondary Aquifer | Low Vulnerability, Secondary Aquifer |

- Unproductive Aquifer
- Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 311708021_1_1
 Customer Ref: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

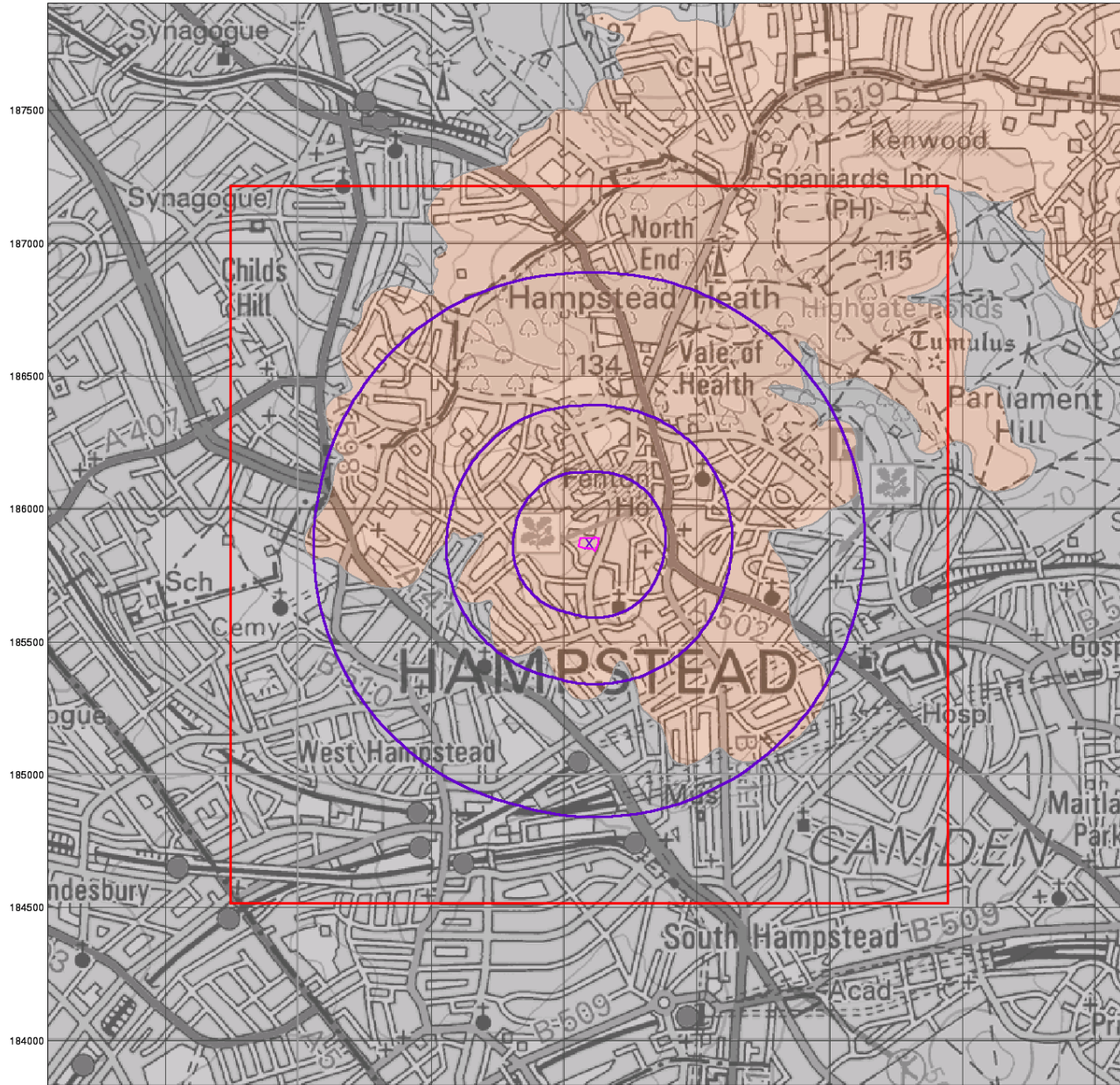
Site Details

Frognal House, 99 Frognal, London, Greater London, NW3 6XR

Landmark
 INFORMATION GROUP

Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

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Bedrock Aquifer Designation

General

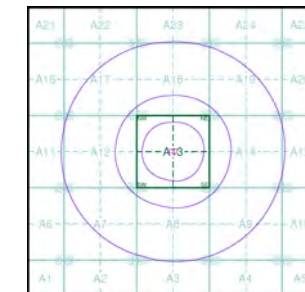
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

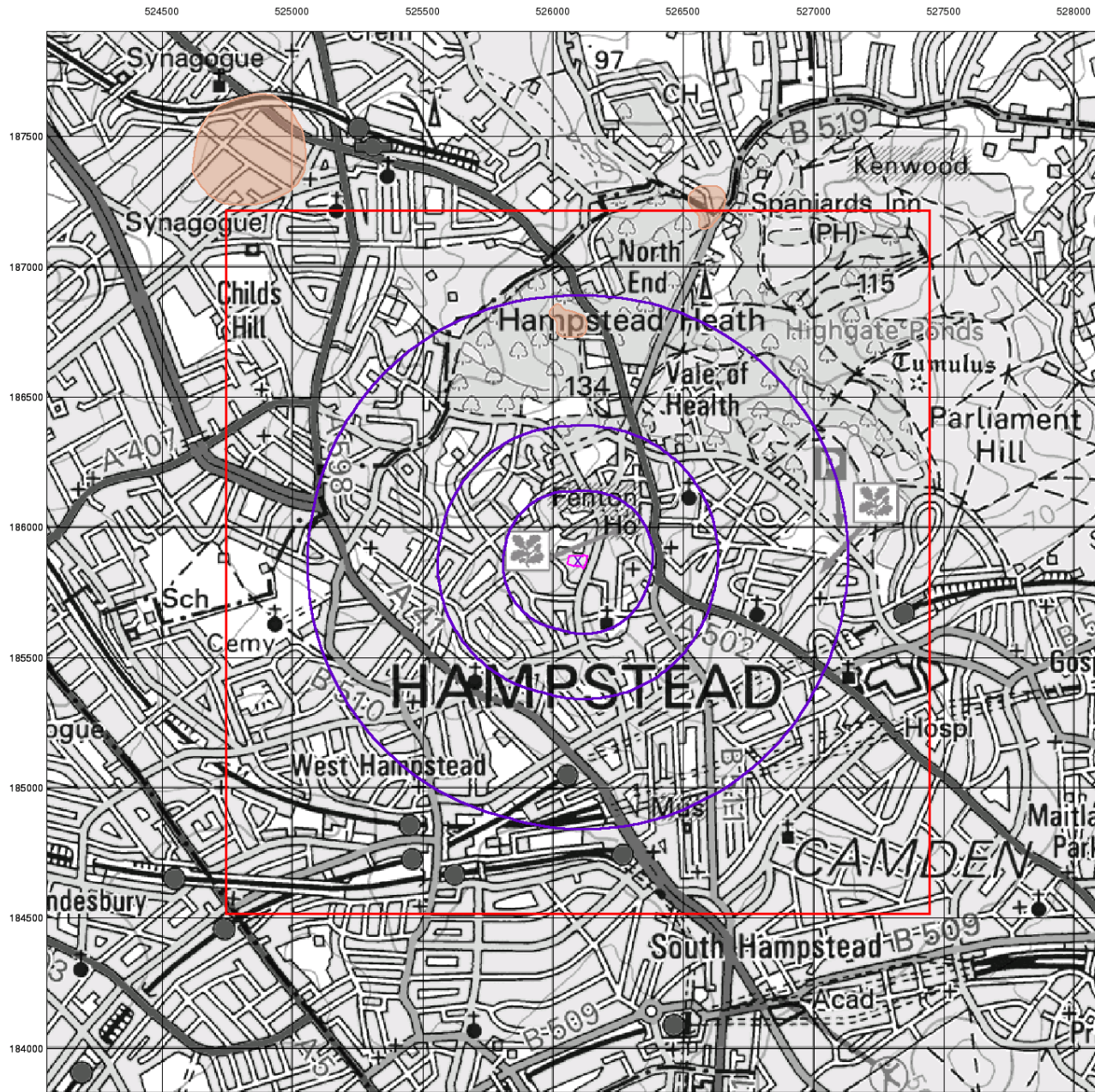
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 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

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Superficial Aquifer Designation

General

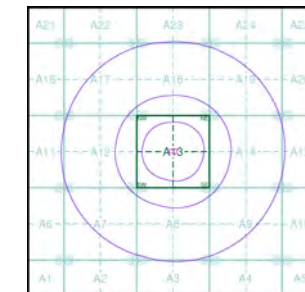
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- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

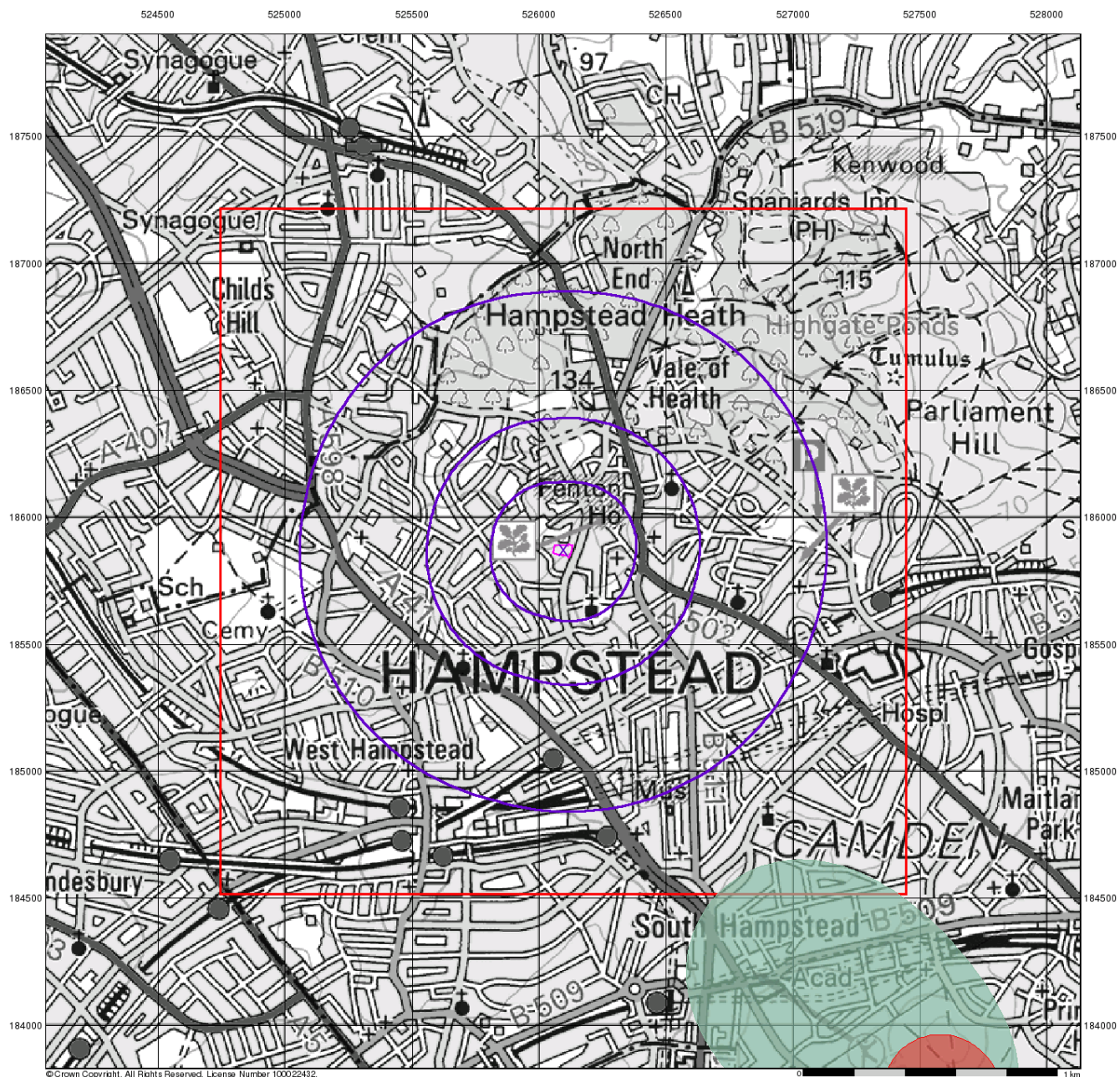
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 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details

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Source Protection Zones

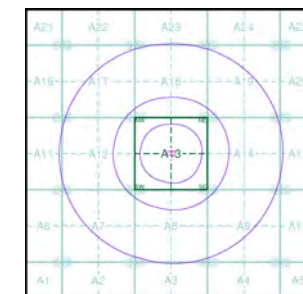
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



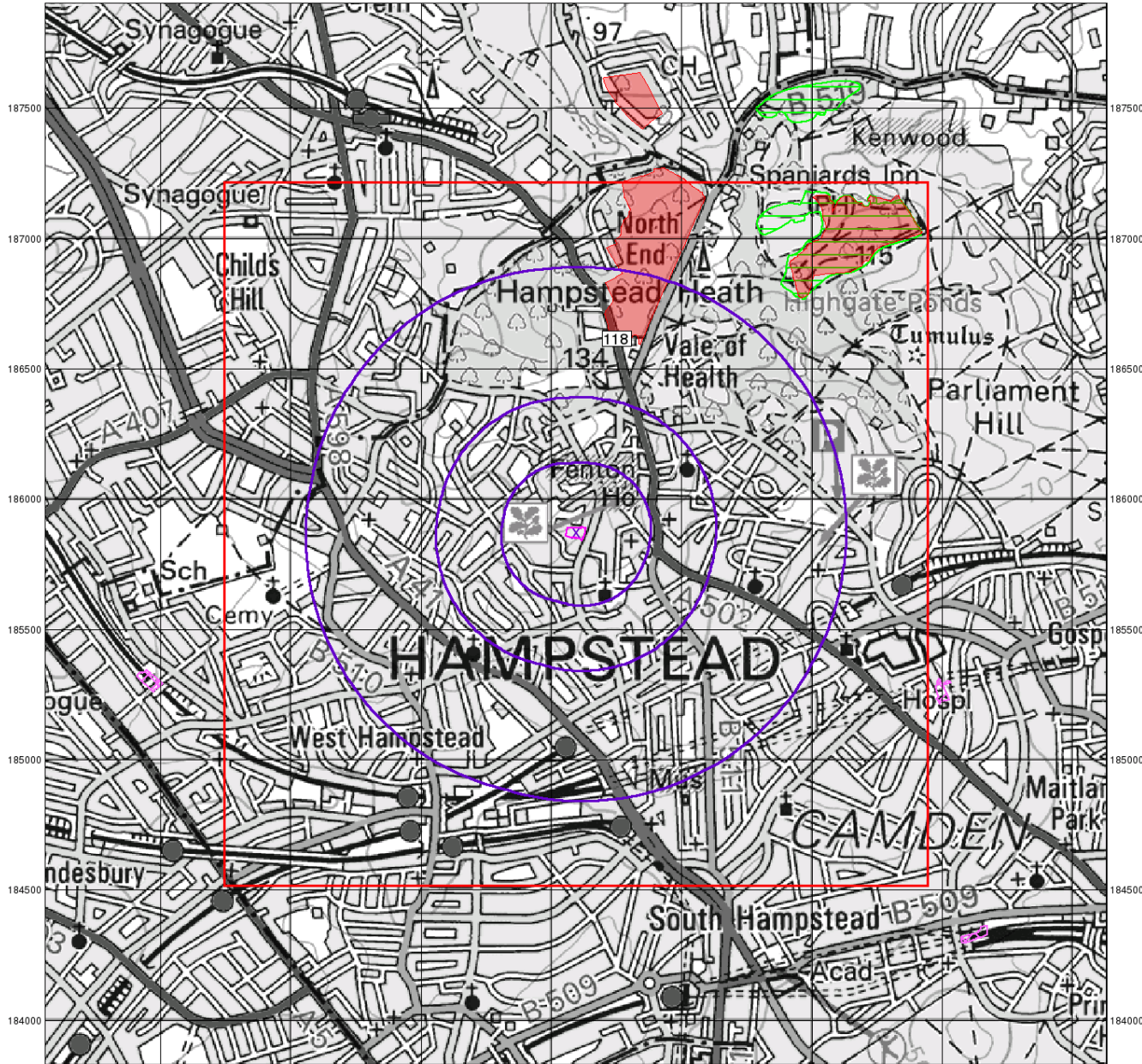
Order Details

Order Number: 311708021_1_1
 Customer Ref: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details

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Sensitive Land Uses

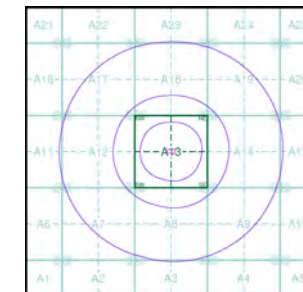
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 311708021_1_1
 Customer Ref: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

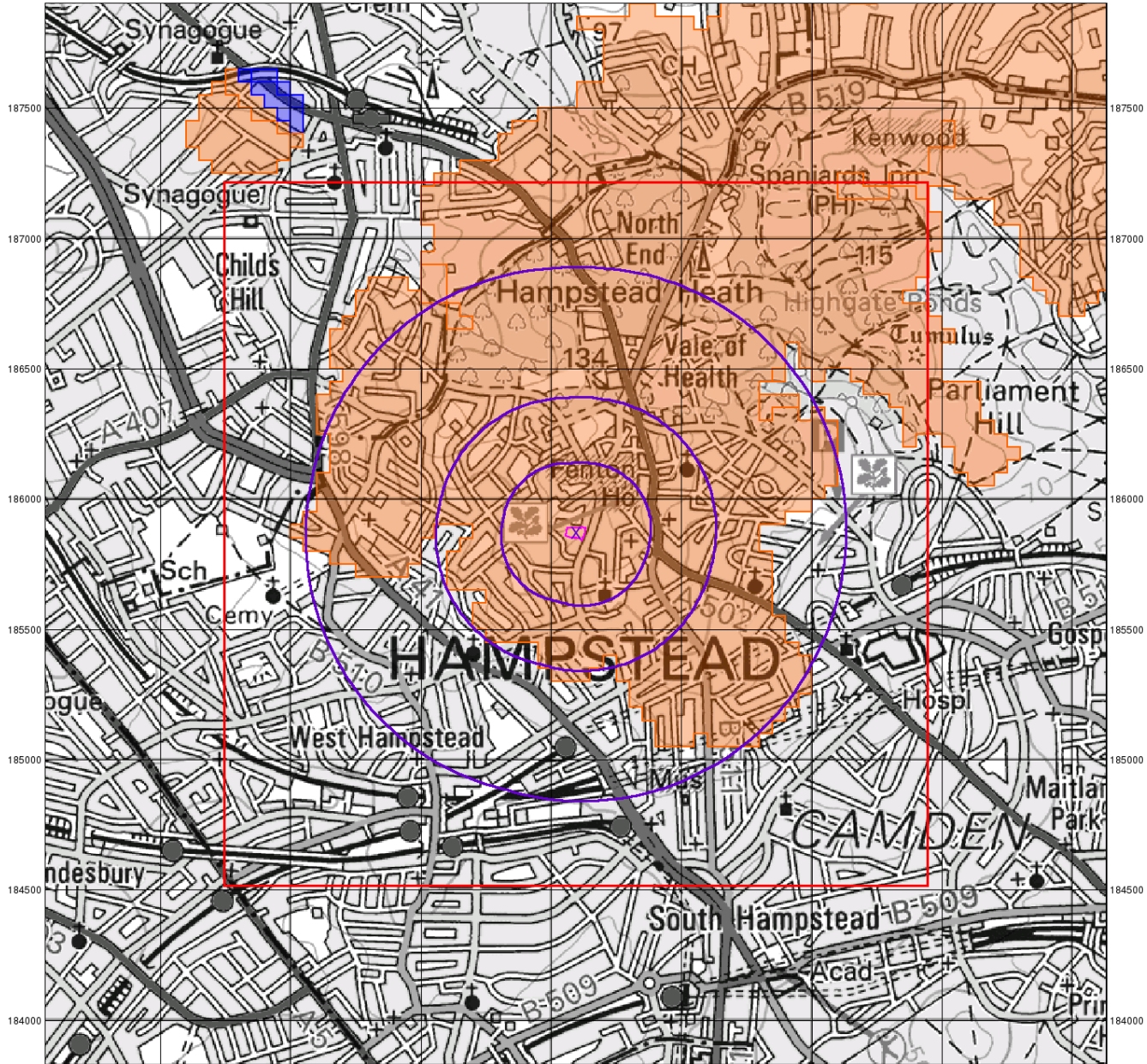
Site Details

Froggnal House, 99 Froggnal, London, Greater London, NW3 6XR

Landmark
 INFORMATION GROUP

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 Web: www.envirocheck.co.uk

524500 525000 525500 526000 526500 527000 527500 528000



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BGS Flood GFS Data

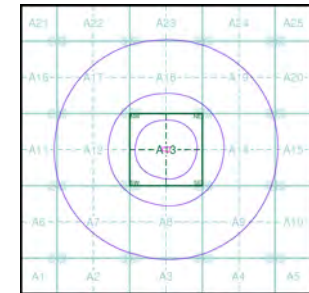
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 311708021_1_1
 Customer Ref: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details

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Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

311708021_1_1

Customer Reference:

2892

National Grid Reference:

526100, 185870

Slice:

A

Site Area (Ha):

0.27

Search Buffer (m):

1000

Site Details:

Frognal House

99 Frognal

London

Greater London

NW3 6XR

Client Details:

Mr A Fasano

A-squared Studio

66 Church Road

Richmond

TW10 6LN

Report Section and Details	Page Number
Summary	-
<p>The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected.</p> <p>For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).</p>	
Mining and Natural Cavities Data	-
<p>The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities.</p> <p>Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.</p>	
Historical Land Use Information (1:2,500)	-
<p>The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative.</p> <p>For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.</p>	
Historical Land Use Information (1:10,000)	1
<p>The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses.</p> <p>For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.</p>	
Ground Stability Data (1:50,000)	2
<p>The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.</p>	
Historical Map List	3
<p>The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.</p>	
Data Currency	4
Data Suppliers	5
Useful Contacts	6

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The brine subsidence data relating to the Driotwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites					
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability			n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)				n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts	pg 1				3
Disturbed Ground					
General Quarrying					
Heap, unknown constituents					
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits					
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 1				3
Potentially Infilled Land (Water)	pg 1			1	1
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 2	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 2	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 2	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 2	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 2	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 2	Yes	Yes	n/a	n/a
Salt Mining Related Features					

Report Version v53.0

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Air Shafts Use: Not Supplied Date of Mapping: 1873	A9NW (SE)	738	-	526616 185296
2	Air Shafts Use: Not Supplied Date of Mapping: 1920 - 1951	A9SW (SE)	911	-	526467 184999
3	Air Shafts Use: Not Supplied Date of Mapping: 1920 - 1951	A9SW (SE)	937	-	526658 185075
4	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A9NW (SE)	738	-	526616 185296
5	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1996	A12NW (W)	779	-	525303 186054
6	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1991	A9SW (SE)	911	-	526467 184999
7	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1896	A12SE (SW)	408	-	525731 185613
8	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1873	A14NE (E)	692	-	526813 186007

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
9	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
10	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
11	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869
12	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	66	1	526096 185779
13	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	66	1	526096 185779
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	526096 185869

The following mapping has been analysed for Historical Land Use Information (1:2,500):








1:2,500	Mapsheet	Published Date
Ordnance Survey Plan	TQ2686	1954

The following mapping has been analysed for Historical Land Use Information (1:10,000):

1:10,560	Mapsheet	Published Date
Middlesex	011_00	1873
Middlesex	016_00	1874
London	002_SE	1896
London	006_NE	1896
Middlesex	011_SE	1896
Middlesex	016_NE	1896
London	001_00	1920
London	004_00	1920
London	004_00	1938
Middlesex	011_SE	1938
Ordnance Survey Plan	TQ28NE	1951
Ordnance Survey Plan	TQ28NW	1951
Ordnance Survey Plan	TQ28SE	1951
Ordnance Survey Plan	TQ28SW	1951
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	TQ28SE	1991
Ordnance Survey Plan	TQ28NW	1993
Ordnance Survey Plan	TQ28NE	1996
Ordnance Survey Plan	TQ28SW	1996

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2022	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Man Made Mining Cavities Stantec UK Ltd	December 2022	Bi-Annually
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Natural Cavities Stantec UK Ltd	December 2022	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	Version	Update Cycle
Subterranean Features Landmark Information Group Limited	June 2022	Bi-Annually
Ground Stability Data (1:50,000)	Version	Update Cycle
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Brine Subsidence Solution Area Johnson Poole & Bloomer	December 2020	

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	
The Coal Authority	
Ove Arup	
Stantec UK Ltd	
Wardell Armstrong	
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

Historical Land Use Information (1:2,500)

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

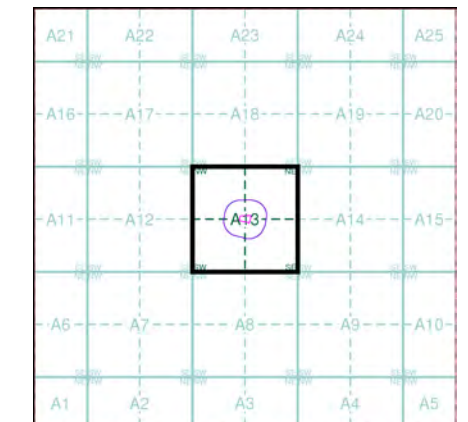
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909			
Extractive Industries Activity from 1893 - 1915			
Extractive Industries Activity from 1906 - 1937			
Extractive Industries Activity from 1924 - 1949			
Extractive Industries Activity from 1950 - 1980			

Subterranean Features

	Point	Line	Polygon
Subterranean Features			

Mining and Ground Stability - Segment A13

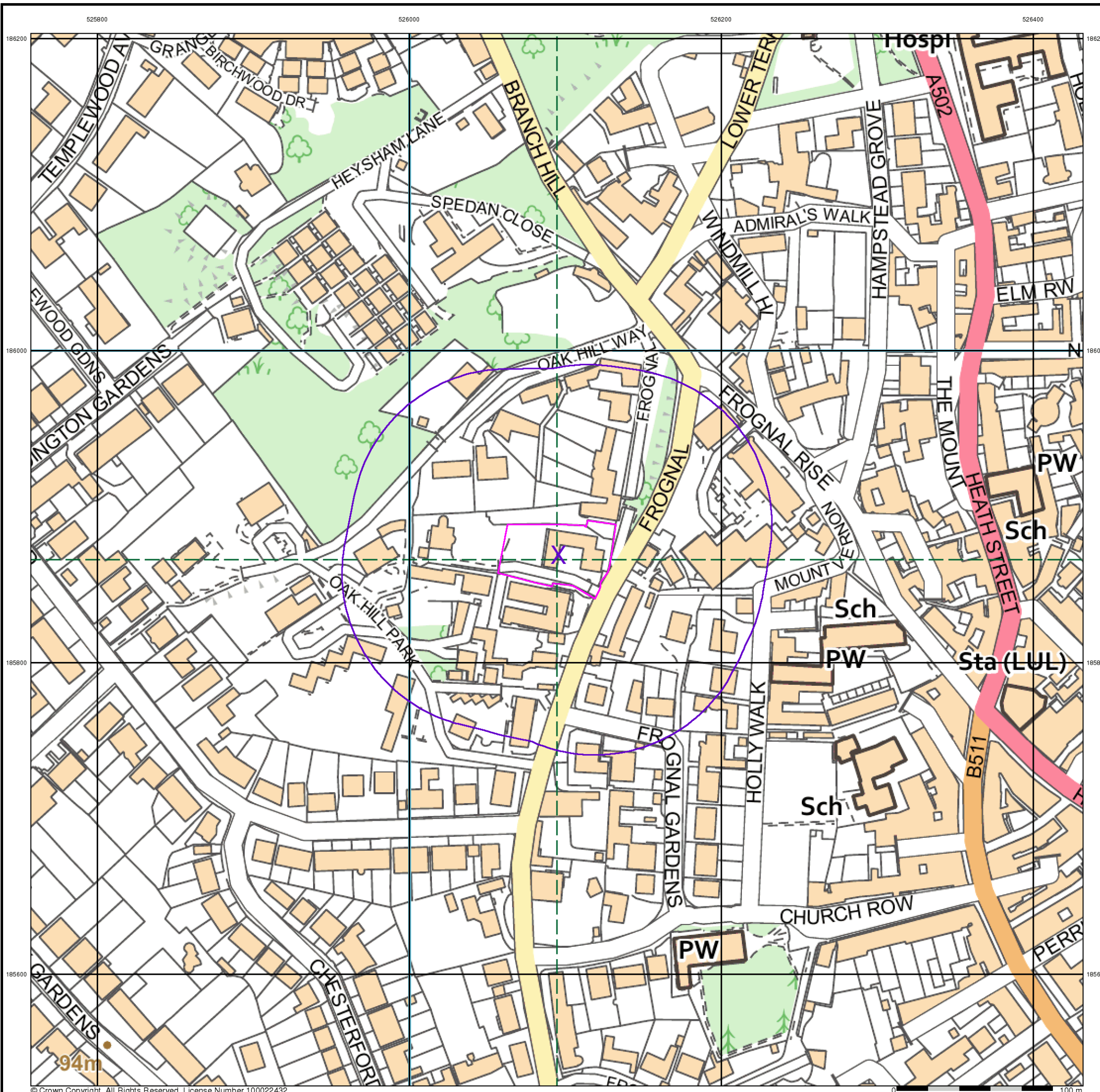


Order Details

Order Number: 311708021_1_1
 Customer Ref: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Plot Buffer (m): 100


Site Details

Frognal House, 99 Frognal, London, Greater London, NW3 6XR





Geology 1:50,000 Maps Legends




Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	DHGR	Dollis Hill Gravel Member	Sand and Gravel	Not Supplied - Cromerian
	STGR	Stanmore Gravel Formation	Sand and Gravel	Not Supplied - Pleistocene

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	BGS	Bagshot Formation	Sand	Not Supplied - Ypresian
	CLGB	Claygate Member	Clay, Silt and Sand	Not Supplied - Ypresian
	LC	London Clay Formation	Clay, Silt and Sand	Not Supplied - Ypresian

Geology 1:50,000 Maps

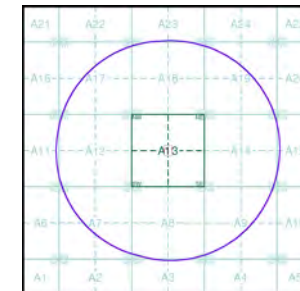
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID:	1
Map Sheet No:	256
Map Name:	North London
Map Date:	2006
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A

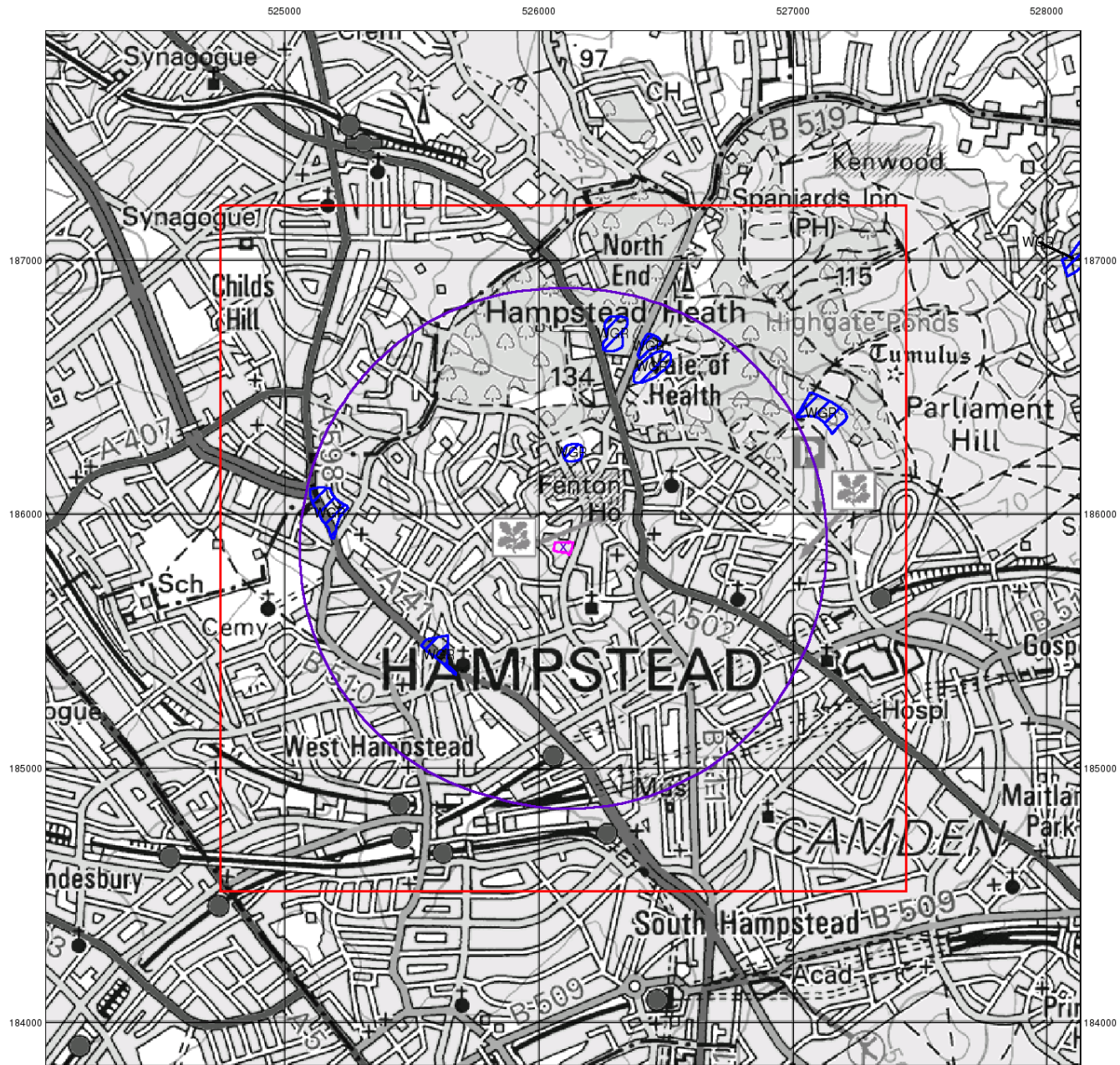


Order Details:

Order Number:	311708021_1_1
Customer Reference:	2892
National Grid Reference:	526100, 185870
Slice:	A
Site Area (Ha):	0.27
Search Buffer (m):	1000

Site Details:

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Artificial Ground and Landslip

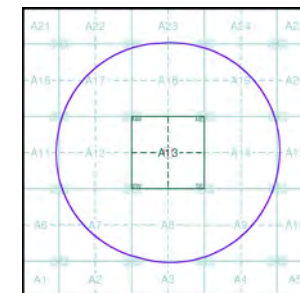
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details:

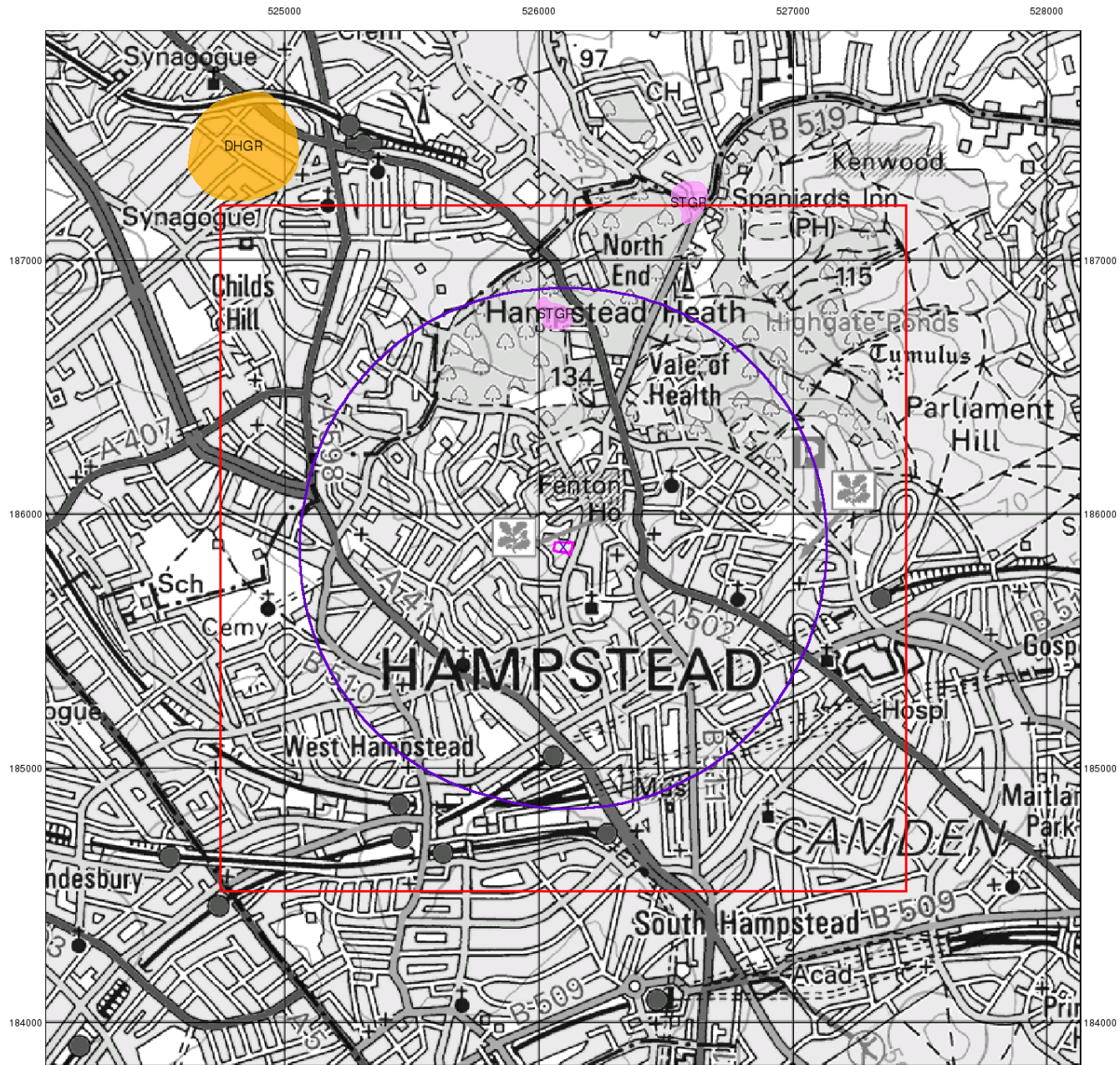
Order Number: 311708021_1_1
 Customer Reference: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details:

Froggnal House, 99 Froggnal, London, Greater London, NW3 6XR

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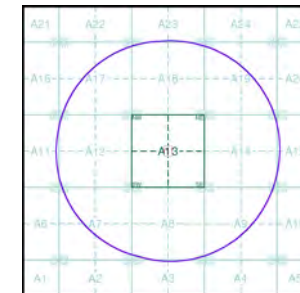
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details:

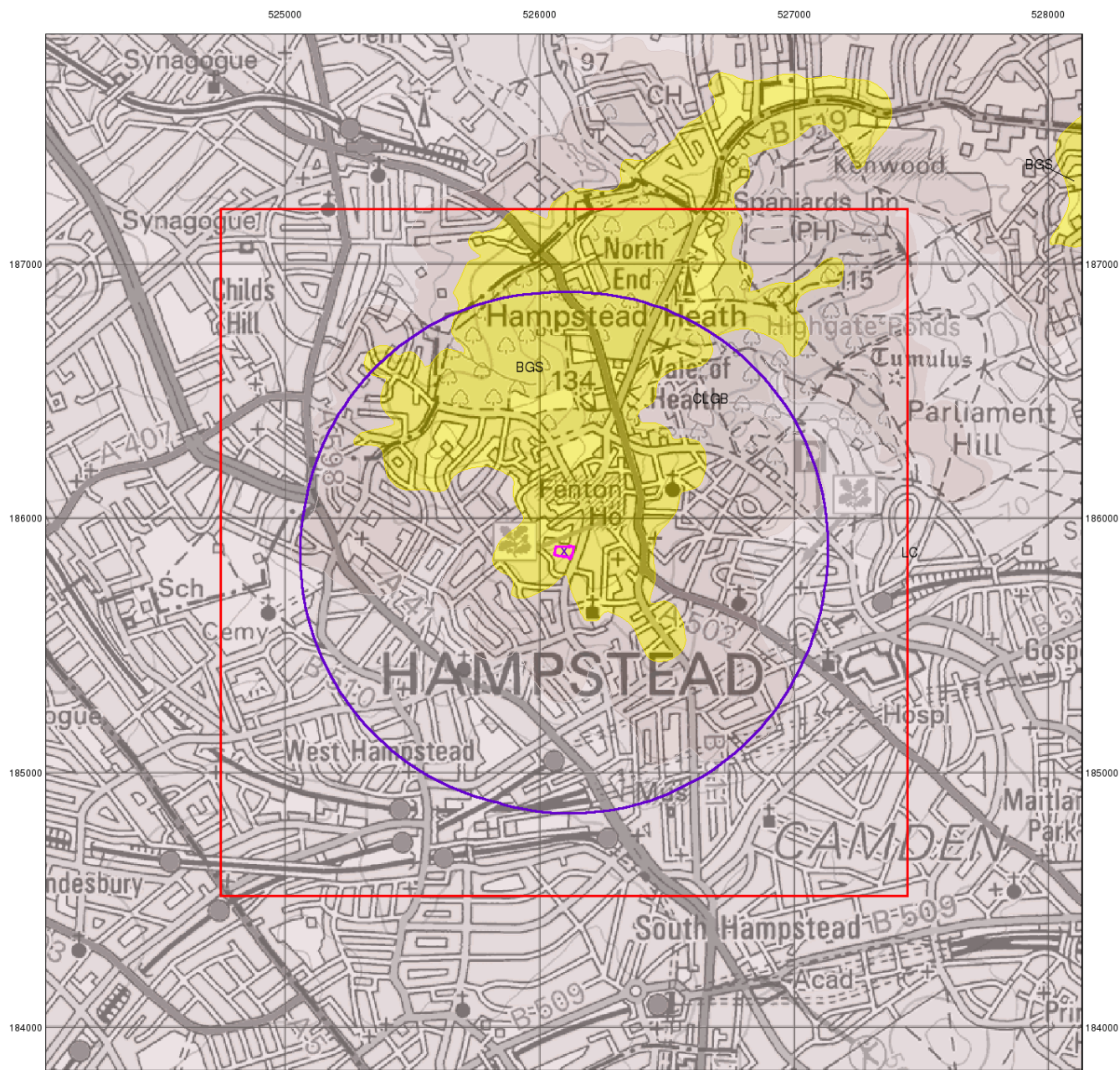
Order Number: 311708021_1_1
 Customer Reference: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details:

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Bedrock and Faults

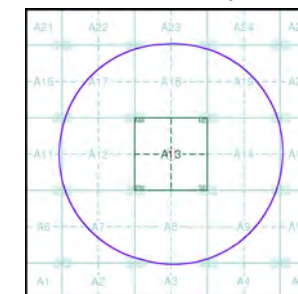
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

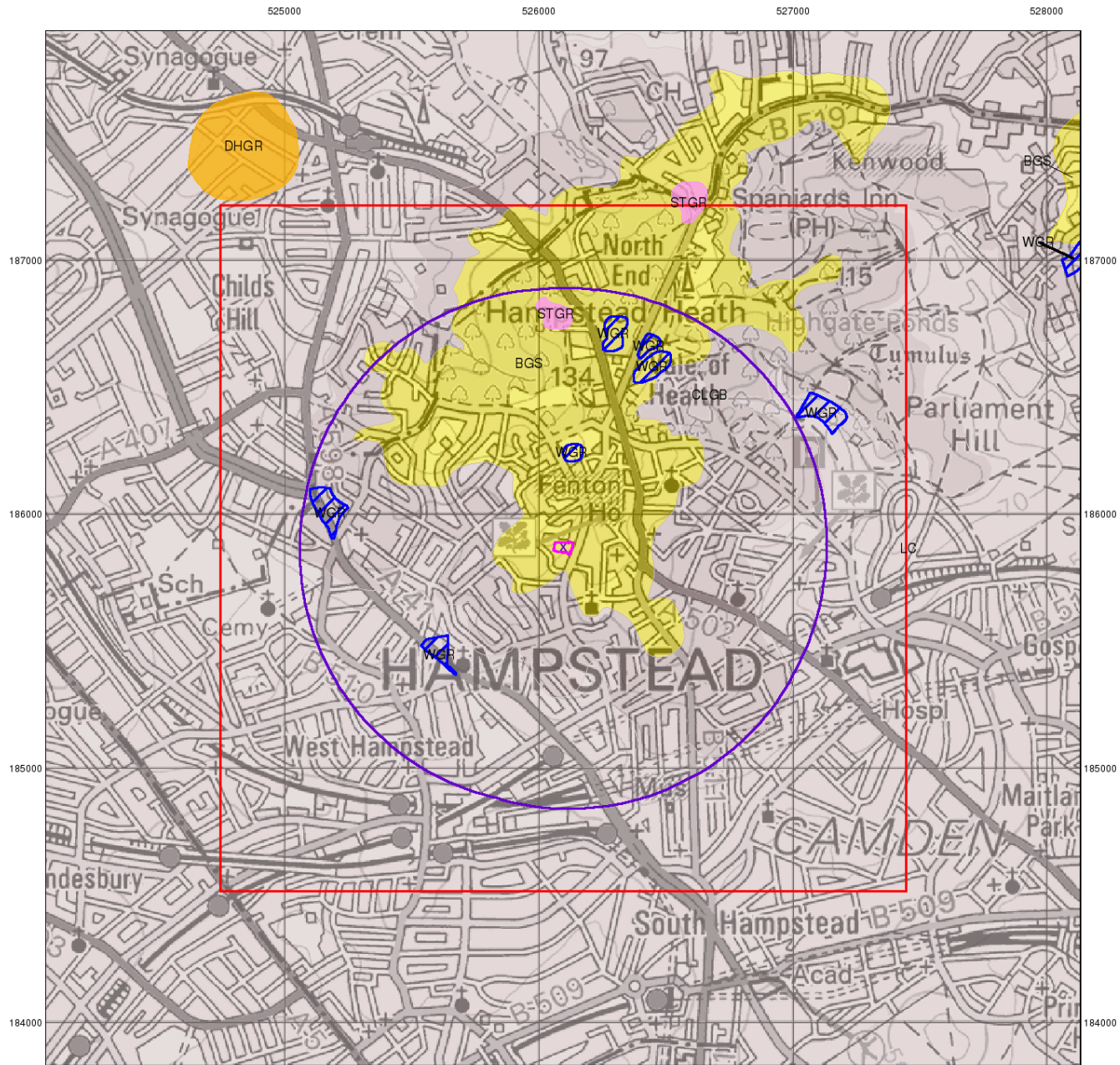
Order Number: 311708021_1_1
 Customer Reference: 2892
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 Site Area (Ha): 0.27
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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

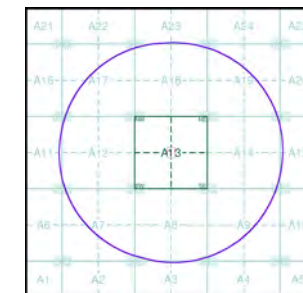
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
 Kingsley Dunham Centre
 Keyworth
 Nottingham
 NG12 5GG
 Telephone: 0115 936 3143
 Fax: 0115 936 3276
 email: enquiries@bgs.ac.uk
 website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

Order Number: 311708021_1_1
 Customer Reference: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
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Site Details:

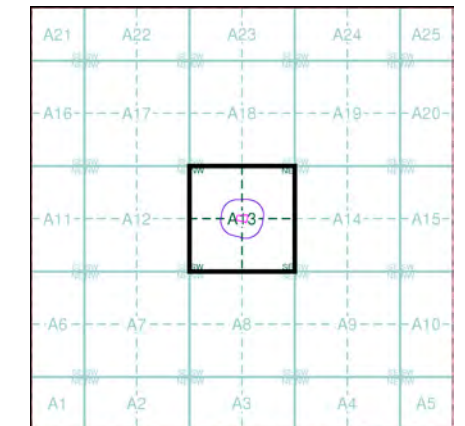
Froggnal House, 99 Froggnal, London, Greater London, NW3 6XR

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 Web: www.envirocheck.co.uk

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
 - Pylon
 - Overhead Transmission Line
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site

Site Sensitivity Map - Segment A13

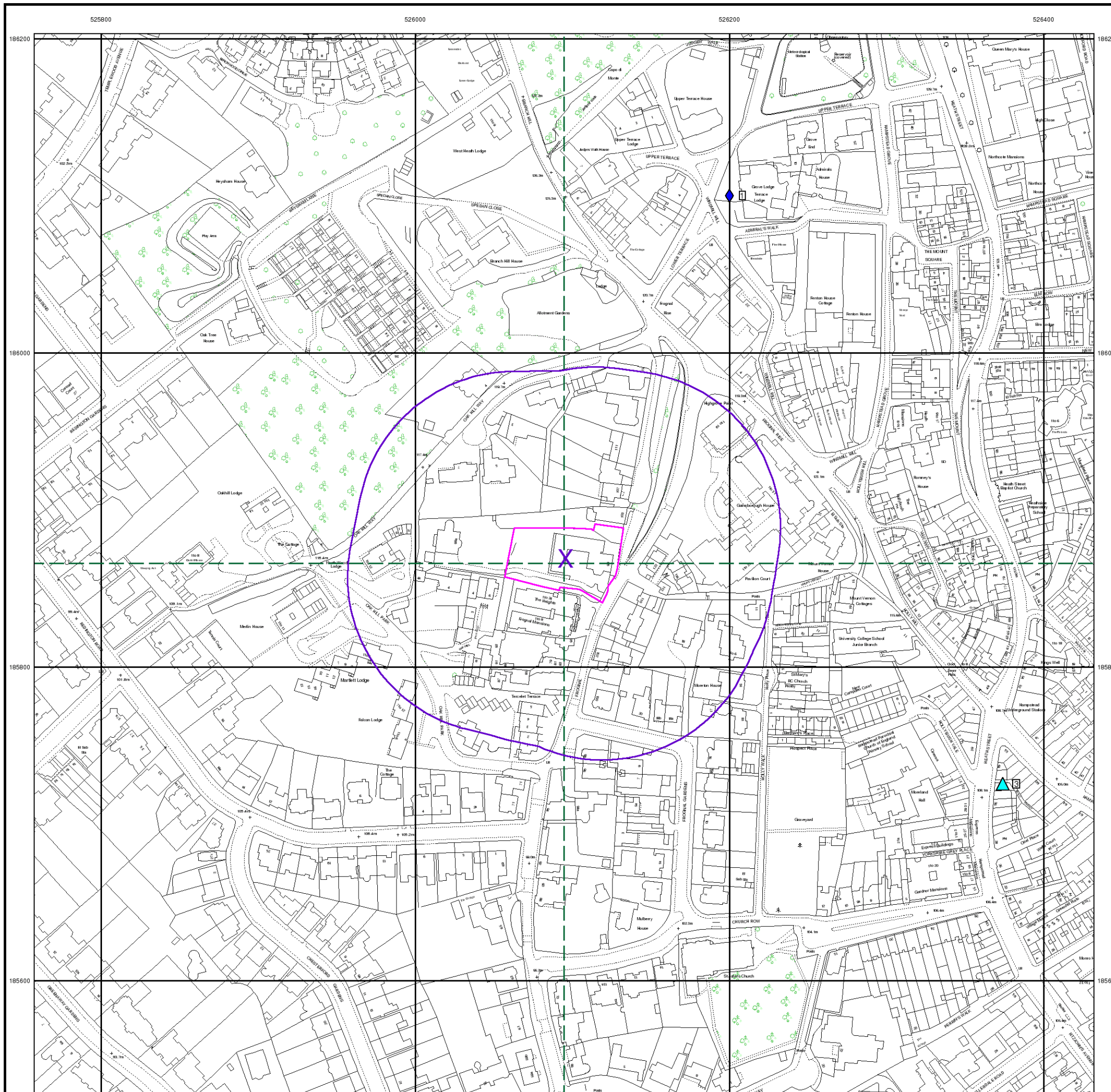


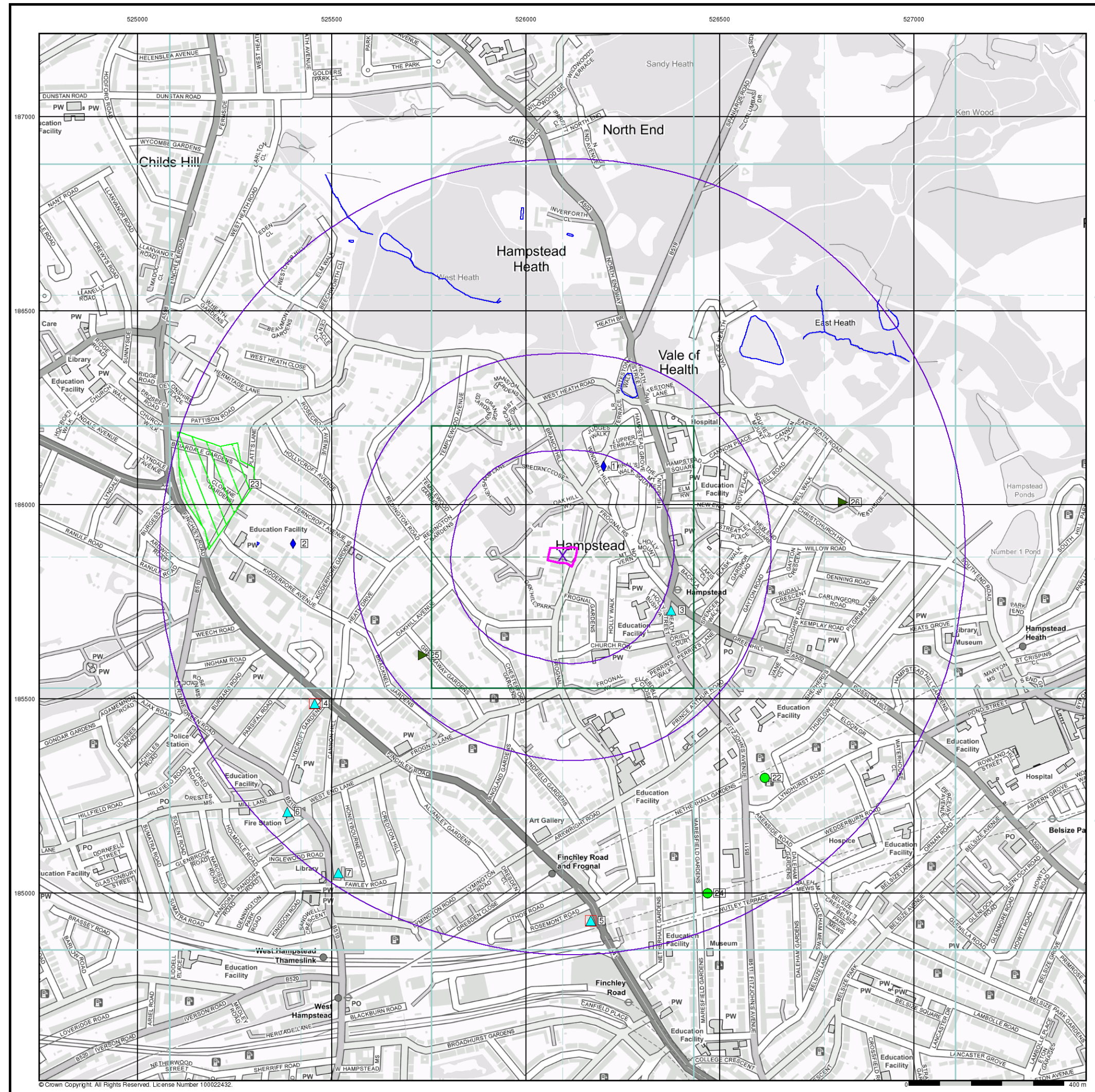
Order Details

Order Number: 311708021_1_1
 Customer Ref: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Plot Buffer (m): 100

Site Details

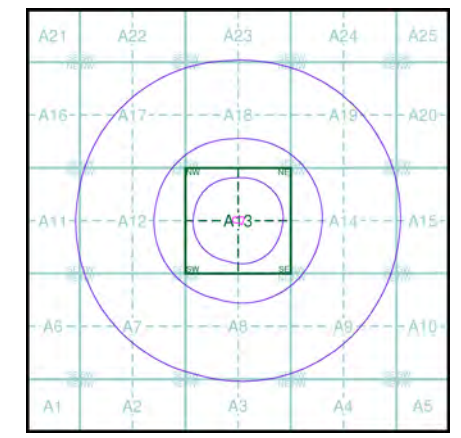
Frognal House, 99 Frognal, London, Greater London, NW3 6XR





- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site
- Geological**
- BGS Recorded Mineral Site

Site Sensitivity Map - Slice A



Order Details






Order Number: 311708021_1_1
 Customer Ref: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details










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Industrial Land Use Map

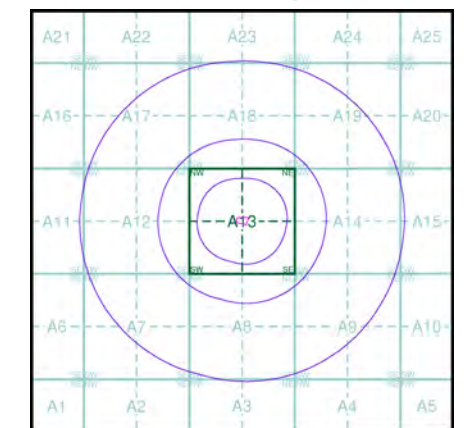
General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point
-  Slice
-  Map ID

Industrial Land Use

-  Contemporary Trade Directory Entry
-  Fuel Station Entry
-  Gas Pipeline
-  Points of Interest - Commercial Services
-  Points of Interest - Education and Health
-  Points of Interest - Manufacturing and Production
-  Points of Interest - Public Infrastructure
-  Points of Interest - Recreational and Environmental
-  Underground Electrical Cables

Industrial Land Use Map - Slice A

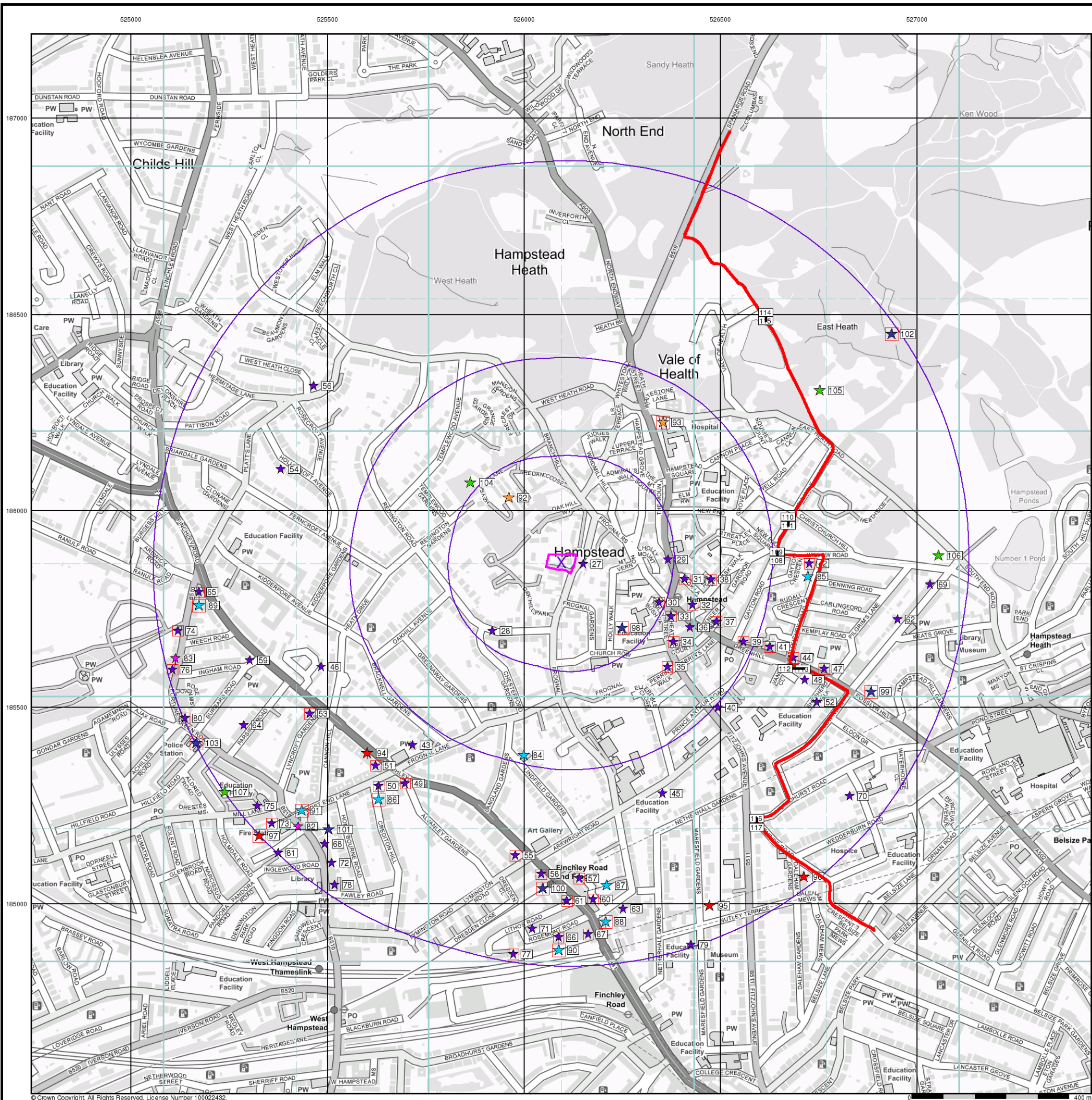


Order Details

Order Number: 311708021_1_1
 Customer Ref: 2892
 National Grid Reference: 526100, 185870
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details

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