



Preliminary Risk Assessment

807 High Road, Tottenham

February 2024

Waterman Infrastructure & Environment Limited

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(Tottenham) Limited
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This document has been prepared and checked in accordance with
Waterman Group's IMS (BS EN ISO 9001: 2015, BS EN ISO 14001: 2015 and BS EN ISO 45001: 2018)

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Second issue incorporates finalised drawings in Appendix A

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Executive Summary

Objectives	
F3 Architects LLP instructed Waterman Infrastructure & Environment Limited to undertake a Preliminary Risk Assessment for potential ground contamination for the proposed redevelopment of 807 High Road, Tottenham, London, N17 8ER.	
Conclusions	
Given the proposed end use, the overall risk rating for the Site is assessed as low. Given the Site history and the proposed development intrusive investigation to further quantify the contamination status of the Site is not required.	
Site Setting	
Current Use	The Site is currently largely vacant, with a former garage area at the rear being used for storage of football equipment.
History	The Site was historically in residential or commercial use. Between the 1890s and the 1910s the Site was used as a Smithy.
Geology	It is anticipated that the geology will comprise Made Ground underlain by the Kempton Park Gravel, with the London Clay Formation at greater depth.
Controlled Waters	Kempton Park Gravel Member is classified as a Secondary A Aquifer and the London Clay Formation an Unproductive Stratum. The Moselle Brook is located approximately 360m to the west of the Site. The Site is not within a Groundwater Source Protection Zone and there are no groundwater or surface water abstraction wells within 1km of the Site.
Ground Gas and Vapour	No potentially significant sources of ground gas and vapour have been identified on-site. No sources of ground gas have been identified within 250m of the Site.
Initial Conceptual Site Model	
Potential contaminant linkages identified for the Site are as follows: - Existing off-Site residents/users contacting ground contamination via surface runoff or dust generated during construction works; and - Construction workers contacting ground contamination or dust through material handling during the works.	
Recommendations	
- The UXO risk at the Site is designated as Moderate. Further investigation of the UXO risk and incorporation of mitigation measures during intrusive works should be undertaken; - Construction workers should wear appropriate personal and respiratory protective equipment (PPE/RPE), and adhere to good practice hygiene and safety measures, and the Control of Asbestos Regulations 2012; - A watching brief by experience personnel should be carried out during the construction for the presence of unforeseen contamination and greater deposits of made ground than previously anticipated. Should unforeseen contamination be encountered, works in the area of the contamination should be halted and the advice of an environmental consultant sought. The Environmental Health Officer will be informed of the contamination and remedial measures to be carried out to break identified contamination receptors; - Construction workers should be provided with personal protective equipment (PPE), and informed of good hygiene measures as protection against direct contact with contaminated soils, dust inhalation, ground gas and vapours; - A Construction Environmental Management Plan (CEMP) should be prepared for the Site, including measures to minimise runoff from stockpiled soils, and to suppress the generation of dust; - Construction materials brought on-Site as part of works should be appropriately stored to prevent spills and leaks; - Buried structures and services at the completed development should be suitably designed to resist chemical attack.	

1. Introduction

1.1 Objectives

F3 Architects LLP (“F3 Architects”) instructed Waterman Infrastructure & Environment Limited (“Waterman”) to undertake a Preliminary Risk Assessment (PRA) for potential ground contamination in relation to the proposed redevelopment of 807 High Road, Tottenham, London, N17 8ER (hereafter termed “the Site”).

The PRA will produce a preliminary conceptual model for the Site, identifying potential pollutant linkages in relation to ground contamination. This will be achieved through a desk top review of the Site and surrounding area’s environmental setting, history, and current uses. The preliminary conceptual model will incorporate a critical review of the sources pathways and receptors in line with Land Contamination Risk Management (LCRM) 2023.

1.2 Proposed Development

This PRA has been prepared to support a full planning application for the demolition of existing buildings and the erection of a replacement building of up four storeys to include purpose-built student accommodation (Sui Generis) and flexible commercial, business and service uses (Class E), hard and soft landscaping, and associated works.

F3 Architects Drawings are included in Appendix A.

1.3 Limitations and Constraints

The assessment was undertaken in accordance with the scope agreed between Waterman and F3 Architects, as documented in Waterman’s fee letter (WIE20269-100-231006-Fee-SC, dated 6th October 2023, and with Waterman’s standard Terms of Appointment.

The information contained in this report is based on a review of available historical, geological and hydrogeological sources, consultation with the regulatory authorities and observations made during a Site walkover on the 24th January 2024. Waterman has endeavoured to assess all information provided to them during this investigation but makes no guarantees or warranties as to the accuracy or completeness of this information.

The scope of this ground investigation includes an assessment of the presence of asbestos containing materials in the ground at the Site but not within buildings or structures or below ground structures (basements, buried service ducts and the like). The conclusions resulting from this study are not necessarily indicative of future conditions or operating practices at or adjacent to the Site.

The second and third floor at the front of the building were inaccessible, as was the second floor at the rear of the Site. A number of the rooms within the building were full of storage and could not be properly accessed. The property manager also informed us that a previous ‘cold room’ has been bricked up within the building, which no access was gained.

2. Methodology

This PRA has been undertaken in general accordance with the Environment Agency Guidance 'Land Contamination Risk Management (LCRM)' (LCRM: Environment Agency, 20 July 2023).

This Tier 1: Preliminary Risk Assessment report includes the following key features:

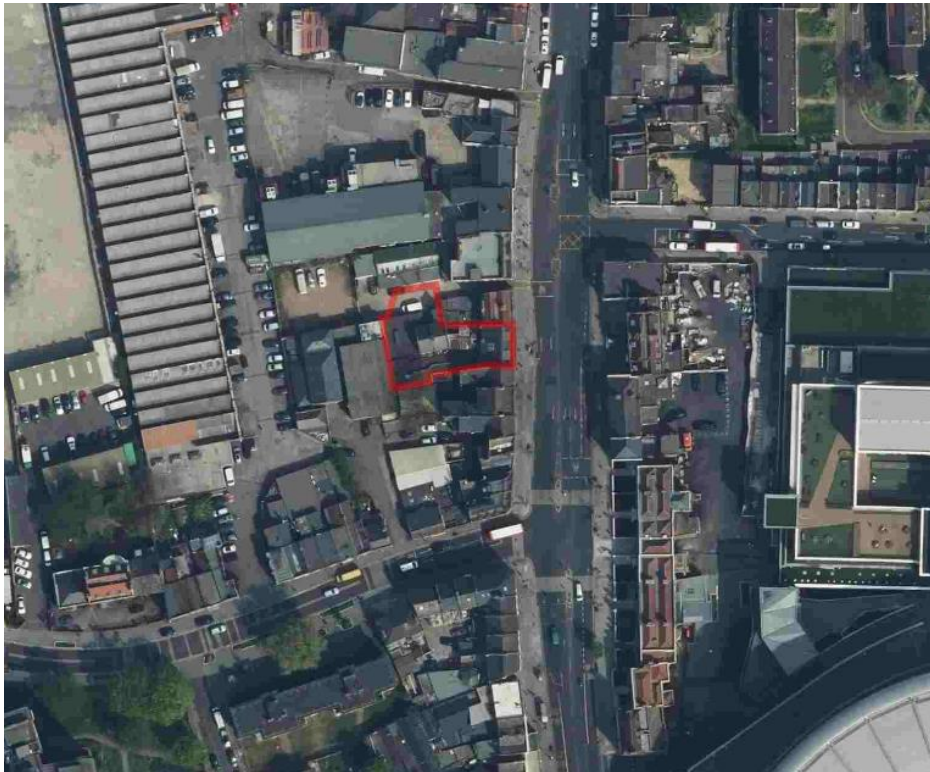
- Definition of overall site objectives;
- Collation of available current and historical information about the Site;
- Completion of a site walkover;
- Identification of the potential contaminants of concern, potential pathways and receptors expected to be present;
- Formulation of an Initial Conceptual Site Model;
- Qualitative risk assessment; and,
- A record of the findings and identification of recommendations for further action.

3. Hazard Identification

3.1 Site Location and Description

The Site extends to 585m² and is located at National Grid Reference 533846, 191455 on High Road (A1010), London, N17 8ER. A Site location plan (Ref. WIE20265-102_GR_PRA_A1A) and Site Layout Plan (Ref. WIE20265-102_GR_PRA_A2A) is presented as Appendix A. The Site comprises an L-shaped plot of land, with Figure 1 presenting the current Site layout.

Figure 1: Current Site Layout



Source: Groundsure Report (Ref. WTM1-XGN-T2S-FFG-6KQ)

3.2 Site Reconnaissance

A Site reconnaissance was undertaken on 24th January 2024 by Waterman representatives. The Site comprises a two-storey building with a pitched roof facing onto High Road, with an adjoining one storey flat roofed building at the rear. The Site is currently vacant and the ground floor doors and windows are shuttered.

The Site comprises 95% building footprint together with an area of hardstanding at the rear (north). The Site although all one building is not interconnected. A storage area at the rear (anecdotal evidence indicates formerly a garage) is accessed by roller shutter door and pedestrian door at the rear only (internal access not present). A narrow alleyway at the north leads to the rear of the property.

Access to the main building is from High Road into former office areas (formerly used for training of staff). Office areas, a meeting rooms toilet areas are present. Access to the upper floors is at the front of the building. The rooms were noted as being in a generally poor state of repair. The Site does not have a basement.

The former garage at the rear is one storey only and cannot be accessed from the offices. A vacant one roomed appartement is located at the rear of the property, accessed at the rear. No access was gained to this area during the walkover. The building comprises a pitched roof at the rear and is noted to be suspected Asbestos containing corrugated cement sheets.

The storage area at the rear, was noted at the time of the walkover to contain sports training kit, football equipment and lots of cardboard boxes is located at the rear of the Site.

A gully was noted to run along the outside of the garage and this was observed to be partially blocked with litter and vegetation. Surfacing in external Site areas comprised hardstanding that appeared to be in reasonably good condition. An area of fly-tipping was noted near the garage entrance, containing items such as children's toys, cardboard boxes, batteries, plastic bags and stationery. In addition, there was visual evidence of potential rat droppings were noted towards the rear of the property.

A selection of photographs taken during the Site inspection is presented as Appendix B.

3.2.1 Site Surroundings

The Site is located in a predominately mixed area, with residential and retail end-uses, a large industrial estate and the Tottenham Hotspur football stadium, of note are as follows:

- An MOT centre to the west of the Site, approximately 50m.
- The Peacock Industrial Estate, approximately 50m to the west;
- An area of vacant ground, approximately 15m to the west of the property with visual evidence of potential contamination / areas of burning;
- It was noted during the Site walkover that areas of fly tipping bounded the Site at the north and beyond.

Ecological Areas

The Groundsure Insights report confirms that there are no environmental designations located either on-Site or within 1km of the Site.

The dataset does indicate the Site to be located within a surface water nitrate vulnerable zone and a SSSI impact risk zone.

Heritage and Archaeology

The Groundsure report does not record any significant heritage or archaeological designation within 1km of the Site. re are no significant

The Site is located within the North Tottenham High Road Conservation Area and there are 17 No. Grade II and II* listed buildings within 250m of the Site, the nearest located 26m south.

3.2.2 Environmental Permits

According to the Groundsure Report there are no active or historical Environmental Permits registered at the Site.

Within the surrounding area, the following Permits are recorded within 500m of the Site:

- An active Part B Permit is registered to a dry cleaners located 61m to the south.
- A metal recycling site (vehicle dismantler) operates under a waste license at White Hart Lane, 111m northwest of the Site. Annual tonnage described as 824,989.
- An active petrol filling station is located 486m north of the Site.

4. Previous Environmental Assessments and Consultations

4.1 Previous Environmental Assessments

The following environmental reports relating to the Site have been reviewed as part of this study.

Table 1: Previous Environmental Reports Reviewed

Author	Title	Date and Reference
Waterman Infrastructure and Environment	Preliminary Risk Assessment	March 2020 WIE16362-101-R-1.3.1-PRA
Ground and Water Limited	Phase II Site Investigation Report	September 2022 GWPR4898/SIR/September 2022

The Preliminary Risk Assessment completed by Waterman Infrastructure and Environment in March 2020 identified the overall risk rating of this Site as low. The following statements were recommended with respect to ongoing operations:

- A watching brief by experienced personnel should be carried out during the construction for the presence of unforeseen contamination and greater deposits of made ground than previously anticipated. Should unforeseen contamination be encountered, works in the area of the contamination should be halted and the advice of an environmental consultant sought. The Environmental Health Officer will be informed of the contamination and remedial measures to be carried out to break identified contamination receptors;
- Construction workers should be provided with personal protective equipment (PPE), and informed of good hygiene measures as protection against direct contact with contaminated soils, dust inhalation, ground gas and vapours;
- A Construction Environmental Management Plan (CEMP) should be prepared for the Site, including measures to minimise runoff from stockpiled soils and to suppress the generation of dust;
- Construction materials brought on-Site as part of works should be appropriately stored to prevent spills and leaks; and
- Buried structures and services at the completed development should be suitably designed to resist chemical attack.

No recommendations for further works to investigate the risk were given. The report identified the following potential contaminant linkages for the Site:

- Existing off-Site residents/users contacting ground contamination via surface runoff or dust generated during construction works; and
- Construction workers contacting ground contamination or dust through material handling during the works.

The Phase II Site Investigation Report was completed by Ground and Water Limited in September 2022. The aim of the investigation was to supply the client and designers with information regarding the ground conditions on Site.

The report states that there were two rounds of investigation. The first round was on the 9th of August 2022 and comprised of the drilling of 5 No. Windowless Sample Boreholes to a depth of 3.1m - 4.0mbgl. The second round was on the 16th of August 2022 and comprised of 8 foundation exposures, where pits were hand excavated to 1.2m bgl to expose existing foundations.

The ground conditions encountered reflect the expected ground conditions detailed in table 3. The report states that no groundwater was encountered during the intrusive investigations.

Chemical laboratory testing was undertaken on three samples of made ground and were tested for the following contaminants:

- Asbestos screen.
- Semi-metals and heavy metals incl. Arsenic, Cadmium, Chromium (incl. Hexavalent Chromium), Copper, Lead, Mercury, Nickel, Selenium, Vanadium, Zinc.
- Polycyclic Aromatic Hydrocarbons (PAH's).
- Speciated TPH including full aliphatic/ aromatic split.
- BTEX compounds and MTBE – used as marker compounds for Volatile Organic Compounds (VOCs).

The report states that no elevated levels of contaminants when compared against GAC for a 'Residential without home-grown produce' land-use scenario. The intrusive investigation also did not reveal any visual or olfactory evidence to suggest any hydrocarbon-type contamination in the trial holes excavated on the Site.

The report concluded that no remediation is required on site as the investigation found no exceedances of contaminants in the soil or groundwater, and no sources of ground gas or vapour was identified. The report states that testing completed on the Made Ground on Site is likely to be classified as inert waste.

4.2 Consultations

4.2.1 Environmental Health

Information has been requested from the Environmental Health Officer (EHO) but a response is currently pending.

4.2.2 Planning Department

A review of the London Borough of Haringey's online planning register identified that previous planning applications are for minor alterations to the building structure and exterior. There were no environmental conditions attached to the planning applications.

4.2.3 Building Control Department

Information has been requested from Building Control Department but a response is currently pending.

5. Environmental Site Setting

5.1 History

A summary of the Site's and surrounding areas historical potential contamination sources as obtained from the Groundsure historical maps is included in Table . In summary the Site originally comprised a number of properties (assumed to be residential or commercial in nature), which in 1896 was listed as a Smithy and yard, and then no longer listed as a Smithy by 1913. The number and alignment of properties changed over time to its current layout.

Table 2: Pertinent Site History

Date (decade)	Feature	On-Site/distance off-site
1864	Residential or commercial use (6 blocks) Brunswick brewery	On-Site 80m northwest
1894	Enfield Branch Railway line and White Hart Lane station	158m west off-Site
1896	Terraced housing Smithy and yard Tramway on the High Road	On-Site On-Site 10m east off-Site
1913	Smithy no longer listed. Train depot for goods and coal	On-Site 100m west off-Site
1935	No change Warehouse Furniture manufactory Precision machinery manufacturer Dye works - hides and skins	On-Site 50m west off-Site 115m northwest off-Site 155m east off-Site 290m northeast off-Site
1955 – 1956	4 blocks of residential terraced housing Laundry Tramway dismantled The Herald Printing works Trading estate Unspecified tank Nesta Furniture Works Engineering works Imperial Engineering works Road Haulage depot Electrical substation	On-Site 60m southwest off-Site 10m east off-Site 35m north off-Site 185m southeast off-Site 175m southeast off-Site 110m northwest off-Site 130m east and 200m southeast off-Site 150m southwest off-Site 240m north off-Site 200m northeast off-Site
1956	No change	On-Site & off-Site
1964 – 1967	2 blocks of residential or commercial use Warehouse developed into paint box and paper bag factory Works Garage	On-Site 50m west off-Site 150m northeast off-Site 120m south off-Site
1970 – 1974	No change 3 Electrical substations Warehouse	On-Site 128m southeast, 128m east & 152m south off-Site 170m southeast off-Site 230m north off-Site

Date (decade)	Feature	On-Site/distance off-site
	Rubberware factory	
1974 – 1977	No change Electrical substation	On-Site 100m northwest off-Site
1983	No change Unspecified tanks Builder's and scrap yard	On-Site 27m west off-Site 190m west off-Site
1981 – 1986	No change Electrical substations	On-Site 98m northwest & 160m north off-Site
1991	No change	On-Site
1991 – 1992	Paint box and paper bag factory developed into industrial warehouse The Herald Printing works developed into builder's yard	50m west off-Site 35m north off-Site
2003 – 2019	No change	On-Site

5.2 Unexploded Ordnance

The Zetica Risk Map indicates that the Site is at a moderate risk of unexploded ordnance (UXO). The map also identifies 3 UXO finds within 1km of the Site. The risk from UXO should be further assessed ahead of intrusive works at the Site.

5.3 Geology

The geology beneath the Site has been established from the British Geological Survey (BGS) 1:50,000 scale Geological Map, Sheet 256 'North London'; 'Bedrock and Superficial', and BGS borehole logs 500m away from Site (Ref: BHO_804317, BHO_804149 and BHO_803913) from the BGS website (accessed online 05/12/2019). In addition, previous ground investigation (completed by Ground and Water Limited in August 2022 (ref. GWPR4898/SIR/September 2022) has been used for site specific information.

A summary of the anticipated geological sequence is presented in Table 3.

Table 3: Site Geology

Stratum	Area Covered	Estimated Thickness (m)	Typical Description
Hardstanding	Whole Site	0.1-0.5	Concrete
Made Ground	Whole Site	0.2-2.2	Dark brown clayey gravelly fine sand. Gravel was consisting of flint, brick and concrete.
Kempton Park Gravel	Whole Site	0.7-5.0	Orangish brown clayey gravelly fine to coarse sand. Orangish brown clayey fine to coarse gravel.
London Clay Formation	Whole Site	>1.6-19.5	Stiff bluey brown clay with of silt, fine sand and gravel.

5.3.1 Ground Stability

The Groundsure Report has identified the following geological hazards (Table).

Table 4: Geological hazard risk to the Site

Geological Hazard	Risk
Shrink swell clay	Moderate
Landslides	Very Low
Ground dissolution of soluble rocks	Negligible
Compressible deposits	Negligible
Collapsible deposits	Very Low
Running sand	Very Low

The BGS map does not reveal any structural, geomorphological or geochemical features on or near to the Site.

The Site is not in an area that could be affected by coal mining activity.

5.4 Radon

Information recovered from the Groundsure Report shows the Site is not in an area of high radon levels. Correspondingly, no radon protection measures will be required in the proposed development. This approach should be confirmed with the Building Control Officer.

5.5 Ground Gas

The Groundsure dataset identified no registered landfills and other potential sources of ground gas within 500m of the Site.

As identified in the CL:AIRE 2012 RB17 guidance document and CIRIA C665 ground gases only pose a risk to developments when the following can be satisfied, which is in line with source – pathway – receptor model followed by LCRM.

- An accumulation of a **large volume** of gas in the ground in or near the buildings (source).
- A pathway that allows gas to migrate through and/or out of the ground into a building or other structure sufficiently quickly to allow it to build up inside the building (pathway).
- A confined space within the building or structure where gas can build up to unacceptable levels (receptor).

In order for a risk from ground gases a source – pathway – receptor linkage needs to be present. This requires a sufficient quantity of gas to pose a hazard and one or more pathways by which it may cause significant harm to people. For sustained gas migration to occur gas must be replenished at the source to negate the effects of attenuating factors such as oxidation of the methane/ carbon dioxide to oxygen in the aerobic zone or low permeability soils decreasing the migration potential. Therefore, sustained high levels of gas generation are required for ground gas to migrate via advective or diffusive flow and cause high ground gas concentrations at the surface/within built structures. The volume of ground gas is therefore the principal factor which should be considered rather than the ground gas concentration and not the gas concentration present in the ground (or monitoring well) which is commonly mistaken as posing a risk to future Site users.

A review of the Site's environmental setting, and ground conditions identifies low ground gas generating sources;

- The Made Ground on-site is below a layer of hardstanding, meaning there is no possible pathway onto the Site.
- Off-site ground gas sources should only be considered a risk where a significant ground gas generating source is present. A review of historical maps identifies historical land uses similar to

those on-site or residential uses. Historical or current landfills are absent in the surrounding area, removing landfills as a viable ground gas source. The surrounding land uses are therefore likely to have a similar Made Ground composition and unlikely to represent a significant ground gas generating source.

A summary of the ground gas risk has been included in the Waterman Ground Gas Risk Assessment Tool, with results reproduced in Appendix C. Following assessment, the Site is considered low risk for ground gas issues. Based on the sensitivity of the end-use receptor no further ground gas investigation or assessment is required.

5.6 Vapour

The Site comprised a Smithy and yard in 1896 which was no longer listed by 1913. Over time the number and alignment of properties within the Site boundary has changed, with uses unknown, assumed to be residential or small commercial buildings.

The Site walkover has identified the presence of an MOT centre, an industrial estate and car garage within the immediate vicinity of the Site, approximately 50m to the west.

Whilst historical land uses with the potential to result in vapour risks have been identified within the immediate vicinity (e.g. railway infrastructure, train depot, engineering works, etc.), they are located a sufficient distance from the Site that they are considered to represent low risk.

In addition, the Groundsure dataset does not record any pollution incidents relating to oils or fuels within 250m of the Site.

Previous ground investigation undertaken at the Site did not record any visual or olfactory evidence of contamination, further confirming the risk to be Low.

5.7 Controlled Waters

5.7.1 Surface Waters

The nearest surface water to the Site is Moselle Brook, which is approximately 360m west. Moselle Brook flows west to east towards River Lea. The brook flows through a culvert along White Hart Lane and High Road. The EA has not classified the Ecological Potential of this surface water body under the Water Framework Directive.

The Groundsure report records two historical pollution incidents within 500m of the Site. An incident involving diesel was recorded 293m northeast of the Site in 2002 and an incident involving an unidentified oil was recorded 304m southwest of the Site, also in 2002. On both occasions, the incidents are described as having had 'no impact' on water, air and land.

5.7.2 Groundwater

The EA has classified the geological deposits on-site as having the following classification (Table 5).

Table 5: Summary of Hydrogeological Properties of the Main Geological Strata

Stratum	EA Classification	Hydrogeological Significance
Hardstanding/Made Ground	Non-Aquifer.	None.
Kempton Park Gravel	Secondary A Aquifer	May be important in supporting local abstractions or in providing baseflow to rivers and streams
London Clay Formation	Unproductive Strata	Contains insignificant quantities of vertically or laterally extensive groundwater

Stratum	EA Classification	Hydrogeological Significance
Lambeth Group	Secondary A Aquifer	May be important in supporting local abstractions or in providing baseflow to rivers and streams
Chalk	Principal Aquifer	Regionally important aquifer, likely to be used to support potable abstractions

The Site is not located within a groundwater Source Protection Zone.

Based on available information, it is anticipated groundwater flow in the chalk aquifer will be in an easterly direction. There are no recorded active groundwater abstractions or groundwater discharge consents listed within a 1km radius of the Site.

5.7.3 Flood Risk

According to the EA's indicative flooding data and the Groundsure Report the Site is located in Flood Zone 2 with respect to flooding from rivers and coastal sources.

The Site is recorded to be at negligible risk from surface water flooding. However, moderate risks are indicated with respect to potential groundwater flooding.

6. Hazard Assessment and Initial Conceptual Site Model

The Preliminary Conceptual Model for the Site is presented in Table 6 below and graphically in Figure A3 in Appendix A. The risk rating included in Table 7 has been assessed qualitatively using the criteria given in Appendix E and the potential receptors identified using the criteria given in Appendix F.

6.1 Contaminants of Concern

Contaminants of concern identified at the Site are summarised in Table 9. The potential contaminants associated with former and current land uses are informed by DoE Industry Profiles (1995) where applicable.

Table 6: Contaminants of Concern

Source	Metals	Semimetals /non-metals	PAHs	TPHs	MTBE	BTEX	VOC/SVOC	Solvents	PCBs	Asbestos	Ground Gas	Vapours	Sulphates/ Chlorides
On-Site													
Made Ground	x	x	x	x			x			x	x		x
Smithy (on-Site)	x	x		x	x	x				x			
Off-Site													
Unspecified Tank (off-Site)			x	x	x	x	x					x	
Railway and Tramway line (off-Site)	x		x	x			x		x	x			x
Vehicle repair and servicing (off-Site)	x	x	x	x	x	x	x	x		x			

Table 7: Initial Conceptual Site Model

Source	Linkage	Receptor	Risk	Justification / Mitigation	Residual Risk
Human Health					
Shallow ground contamination from former activities on-Site and surrounding land uses.	Dermal contact, ingestion and inhalation	Future Site Residents/Users	Low	The former site uses comprised a Smithy, a yard and a series of properties (unknown use, assumed to be residential / commercial). A ground investigation was undertaken in 2022 to provide ground conditions information. No visual or olfactory evidence of contamination was recorded and all soil samples subject to laboratory analysis were below the residential without plant update assessment criteria. The Site will be redeveloped to student accommodation which includes two blocks and a central courtyard. The central courtyard is over a podium area which will limit contact with the underlying soils.	Low
Dust and surface runoff during construction	Inhalation, ingestion, direct contact.	Off-Site users, Construction Workers	Low	Measures will be put in place during construction to minimise the amount of dust and surface runoff. As required, these will comprise a dampening down and covering of soil stockpiles. This would also include measures to prevent surface runoff of stockpiled soils or leaks from construction materials to drainage on-Site. Construction workers are also required to wear the correct Personal Protective Equipment (PPE) and be asbestos aware.	Low
Ground Gas	Inhalation and explosion	Future Site Users	Low	The extent of Made Ground has confirmed as limited, and the potential sources of ground gas are identified as limited. No further assessment of ground gas is proposed.	Low
Property and Buried Services					
Made Ground	Direct contact, chemical attack	Future on-site structures and services.	Low	Geotechnical investigation as part of design works for the development should include sampling and testing of soils to assess the risk posed by chemical attack. If required, appropriately designed buried concrete and barrier water supply pipes should be used at the development.	Low
Controlled Waters					
Potential for localised contamination resulting from fly tipping.	Leaching, lateral migration, surface water runoff.	Kempton Park Gravel Secondary A Aquifer	Low	Given the hardstanding across the entire site, the potential for localised contamination affecting the groundwater is unlikely. In addition, any localised groundwater contamination is unlikely to migrate due to the underlying geology of the Site.	Low

7. Conclusions

Given the proposed end use the overall risk rating for the Site is assessed as low.

Potentially Unacceptable Risks

Potential contaminant linkages identified for the Site are as follows:

- Existing off-Site residents/users contacting ground contamination via surface runoff or dust generated during construction works; and
- Construction workers contacting ground contamination or dust through material handling during the works.

Given the Site history and the proposed development and ground investigation works completed to date, further intrusive investigation to further quantify the contamination status of the Site is considered not to be required.

On completion of the development, the risks are anticipated to be low. Therefore, the NPPF requirement that on completion the Site can no longer be captured under the Part IIA regime is expected to be met.

8. Recommendations

The following actions are recommended to address the potentially unacceptable risks identified:

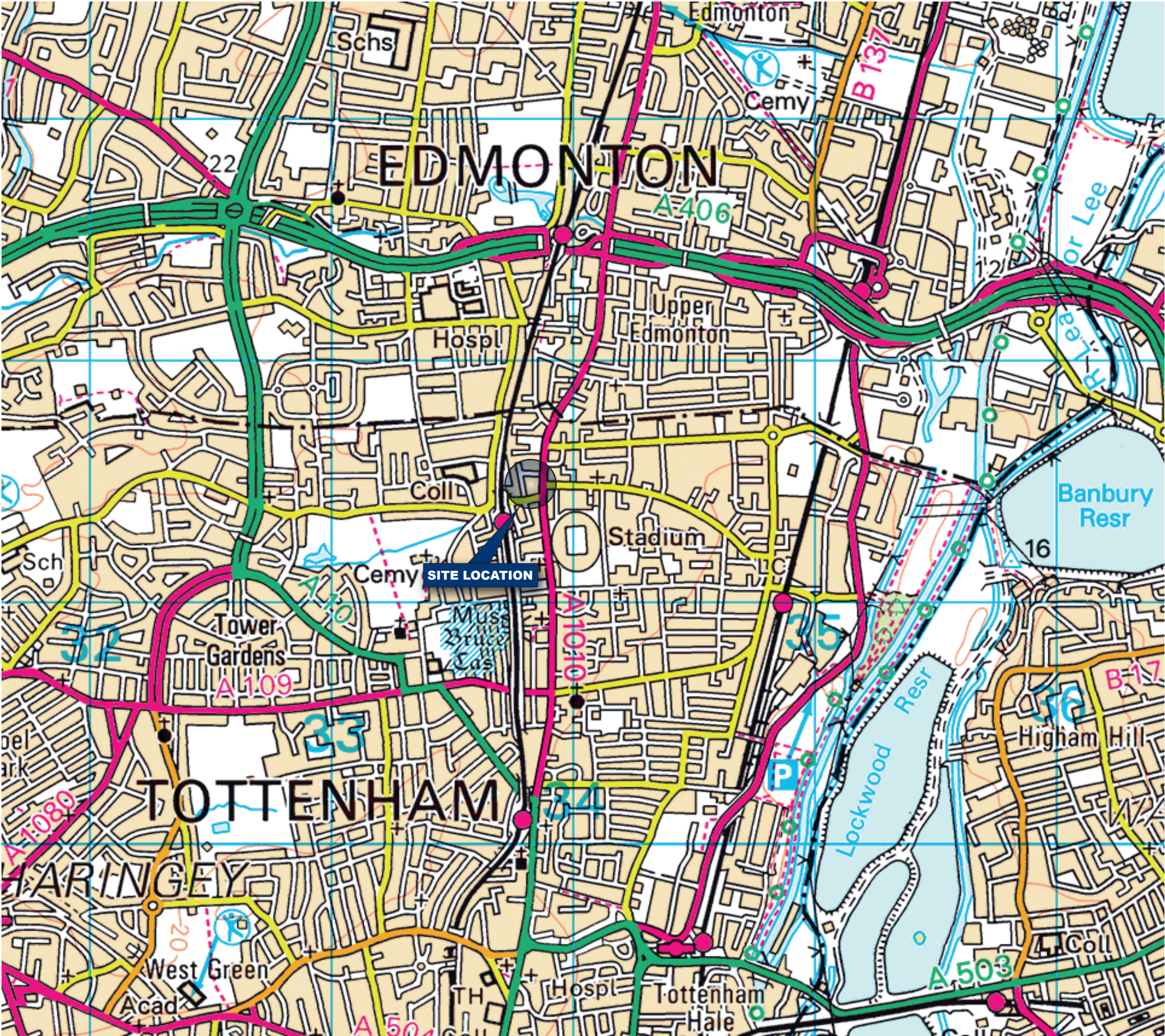
- The UXO risk at the Site is designated as Moderate. Further investigation of the UXO risk and incorporation of mitigation measures during intrusive works should be undertaken;
- Construction workers should wear appropriate personal and respiratory protective equipment (PPE/RPE), and adhere to good practice hygiene and safety measures, and the Control of Asbestos Regulations 2012;
- A watching brief by experience personnel should be carried out during the construction for the presence of unforeseen contamination and greater deposits of made ground than previously anticipated. Should unforeseen contamination be encountered, works in the area of the contamination should be halted and the advice of an environmental consultant sought. The Environmental Health Officer will be informed of the contamination and remedial measures to be carried out to break identified contamination receptors;
- Construction workers should be provided with personal protective equipment (PPE), and informed of good hygiene measures as protection against direct contact with contaminated soils, dust inhalation, ground gas and vapours;
- A Construction Environmental Management Plan (CEMP) should be prepared for the Site, including measures to minimise runoff from stockpiled soils, and to suppress the generation of dust;
- Construction materials brought on-Site as part of works should be appropriately stored to prevent spills and leaks; and,
- Buried structures and services at the completed development should be suitably designed to resist chemical attack.

APPENDICES

A. Site Plans

- Site Location Plan (Ref. WIE20265-102_GR_PRA_A1A)
- Site Plan (Ref. WIE20265-102_GR_PRA_A2A)
- Conceptual Site Model (WIE20265-102_GR_PRA_A3A)
- F3 Architects Drawings Ref. 807HR-F3A-XX-00-FA-A-0820, 01-GA-A-0821, 02-GA-A-0822, 03-FA-A-A-0823

Appendices



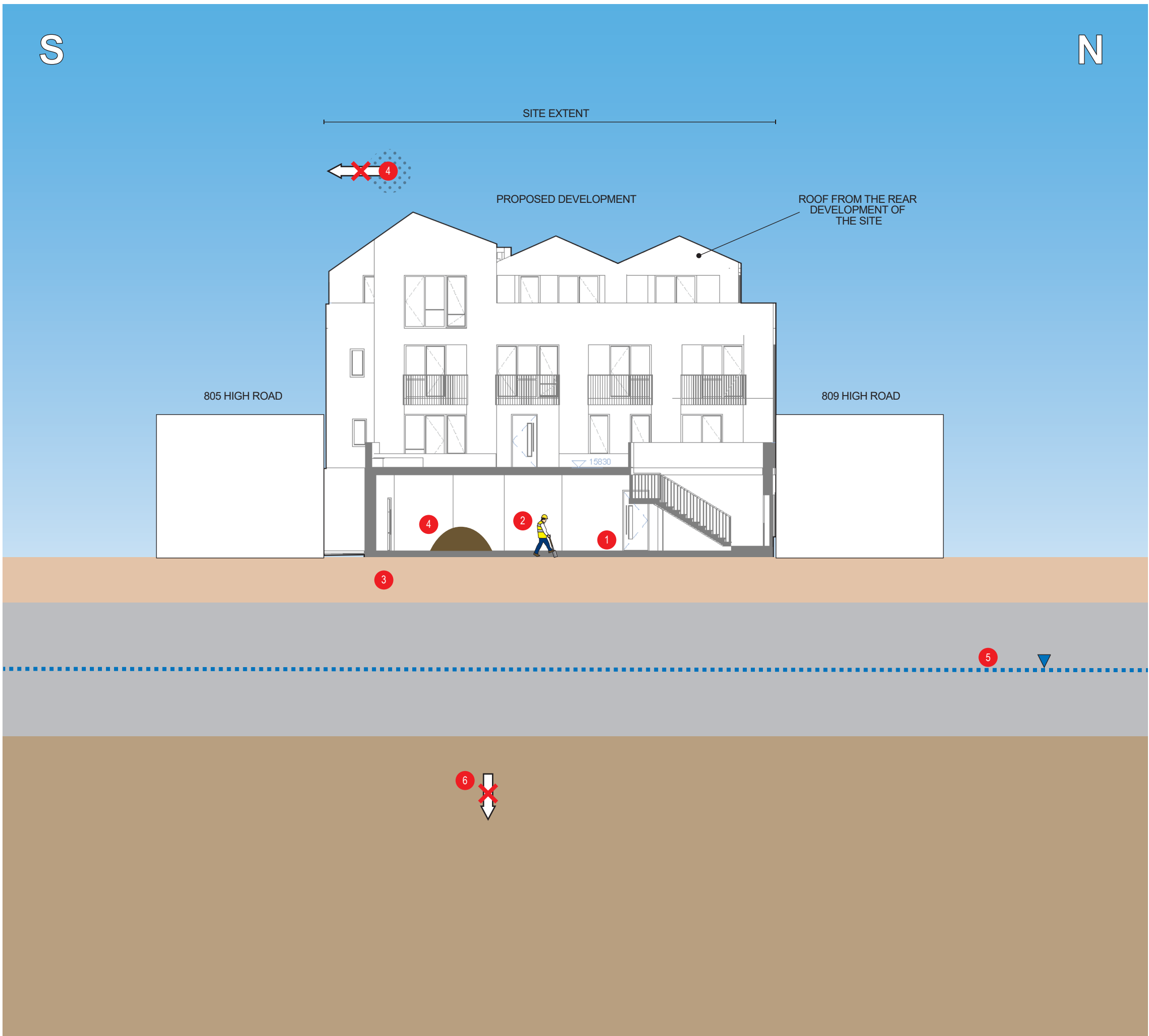
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Figure Ref	WIE20265-102_GR_PRA_A1A
Date	January 2024
File Location	\\s-Incs\wiel\projects\wie20265\102\graphics\pra\issued figures



Site Boundary

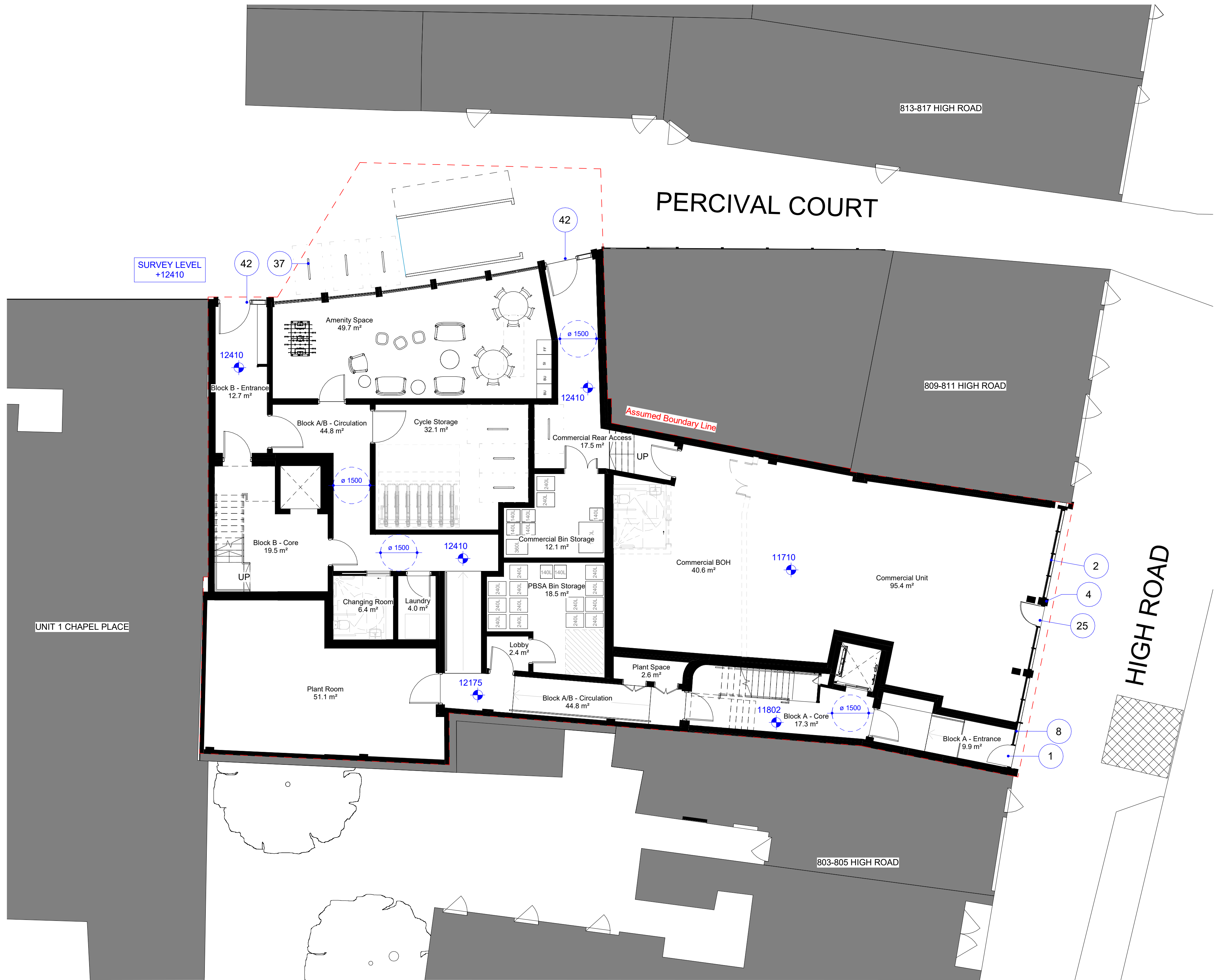


Project Details	WIE20265-102: 807 High Road
Figure Title	Figure A2: Site Plan
Figure Ref	WIE20265-102_GR_PRA_A2A
Date	January 2024
File Location	\\s-Incs\wiel\projects\wie20265\102\graphics\pralissued figures



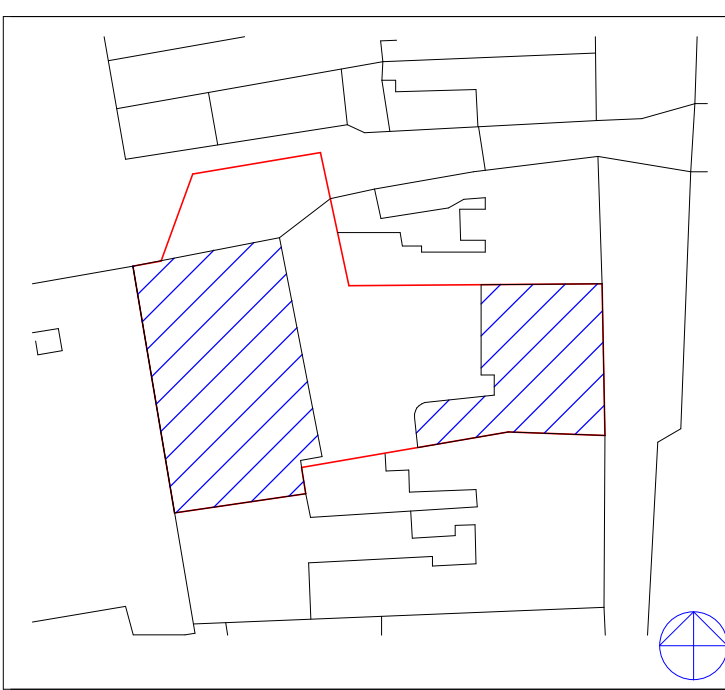
-  HARDSTANDING AND MADE GROUND
-  KEMPTON PARK GRAVEL MEMBER
-  LONDON CLAY FORMATION
-  1 THE NEW DEVELOPMENT STRUCTURE WILL COMPLETELY OCCUPY THE SITE, AND FORM A BARRIER BETWEEN ANY GROUND CONTAMINATION AND FUTURE SITE USERS
-  2 CONSTRUCTION WORKERS SHOULD WEAR PERSONAL PROTECTIVE EQUIPMENT (PPE) AND RESPIRATORY PROTECTIVE EQUIPMENT (RPE), AS PROTECTION AGAINST DIRECT CONTACT WITH CONTAMINATED SOILS AND DUST INHALATION
-  3 RUNOFF FROM STOCKPILED SOILS VIA DRAINAGE TO OFF-SITE RECEPTORS PREVENTED BY MEASURES SET OUT IN CEMP
-  4 WINDBOURNE DUST EMISSIONS PREVENTED BY STOCKPILE MANAGEMENT
-  5 SECONDARY A AQUIFER IN KEMPTON PARK GRAVEL MEMBER DOES NOT CONTAIN SIGNIFICANT GROUNDWATER WITH POTENTIAL TO BE IMPACTED BY ANY HISTORICAL CONTAMINATION ARISING FROM THE SITE
-  6 LONDON CLAY FORMATION ACTS AS BARRIER PREVENTING DOWNWARD MIGRATION OF CONTAMINATION TO DEEPER AQUIFERS

Project Details	WIE20265-102: 807 High Road
Figure Title	Figure A3: Conceptual Site Model
Figure Ref	WIE20265-102_GR_PRA_A3A
Date	January 2024
File Location	\\s-Incs\wiel\projects\wie20265\102\graphics\pra\issued figures
www.watermangroup.com	



MATERIAL KEY

- 1) Painted timber door
- 2) Painted timber framed glass shopfront
- 3) Painted timber stall riser
- 4) Painted pilaster
- 5) Brick - similar to 801 High Road
- 6) Composite stone lintel/column
- 7) Refuge area
- 8) Opaque glazed panel
- 10) PPC metal doors
- 11) Painted timber frame window
- 12) Contrasting brick panel
- 13) PPC aluminium window
- 14) Opaque glass panel
- 15) Planter boxes
- 16) Painted metal vertical balustrade and handrail
- 17) Brick guarding
- 18) Brick parapet
- 19) Composite stone coping/cornice
- 20) Slate roof
- 21) Standing seam metal finish
- 22) Red brick lintel
- 23) Soldier brick course
- 24) Recess metal finish
- 25) Painted timber door with glass panel
- 26) New brick chimney feature to match existing finish
- 27) Concealed gutter
- 28) Rainwater pipes
- 29) Lift Overrun
- 30) Openable vent
- 31) Area for PV
- 32) Smoke Shaft Outlet
- 33) New surface treatment to Percival Court
- 34) Proposed External Lighting
- 35) Infrastructure for active electric vehicle charger
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- 38) Long stay commercial cycle parking
- 39) Glass canopy
- 40) Fluted aluminium panel
- 41) Fixed aluminium glazing
- 42) Door with fluted aluminium details
- 43) Lightwell
- 44) Brick recess



KEY PLAN

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01/02/2024	AB	FOR INFORMATION	S2	P7
28/01/2024	AB	FOR INFORMATION	S2	P6
19/01/2024	AB	FOR INFORMATION	S2	P5
14/12/2023	AB	FOR INFORMATION	S2	P4
09/12/2023	AB	FOR INFORMATION	S2	P3
21/11/2023	AB	FOR INFORMATION	S2	P2
18/10/2023	AB	FOR INFORMATION	S2	P1

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project

807 HIGH ROAD PBSA
LONDON N17 8ER

title

PROPOSED GA PLAN L00

drawn by scale paper project no

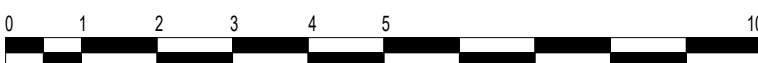
RB 1 : 100 A1 230605

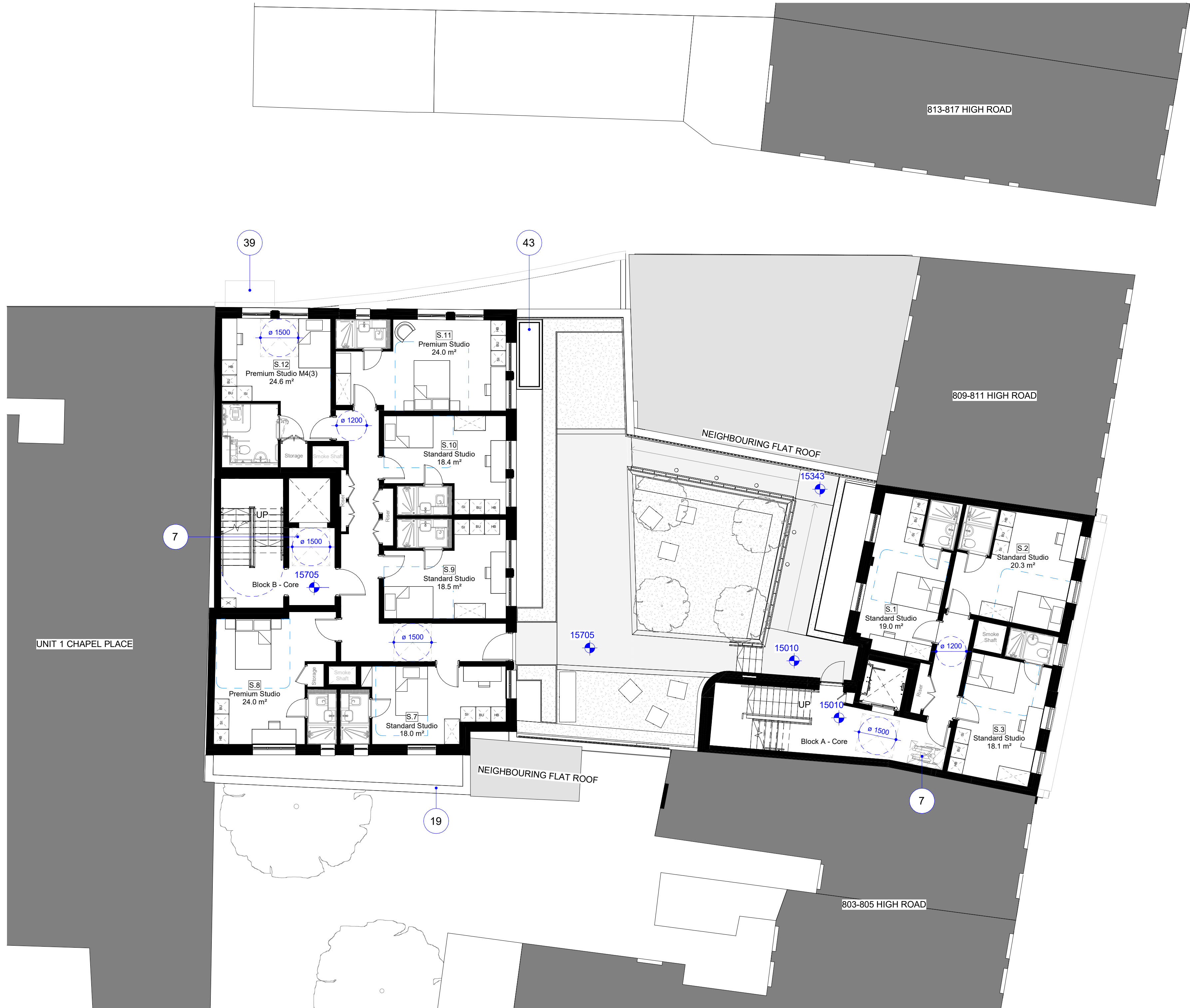
status revision

S4 - Suitable for stage approval S4.P1P1

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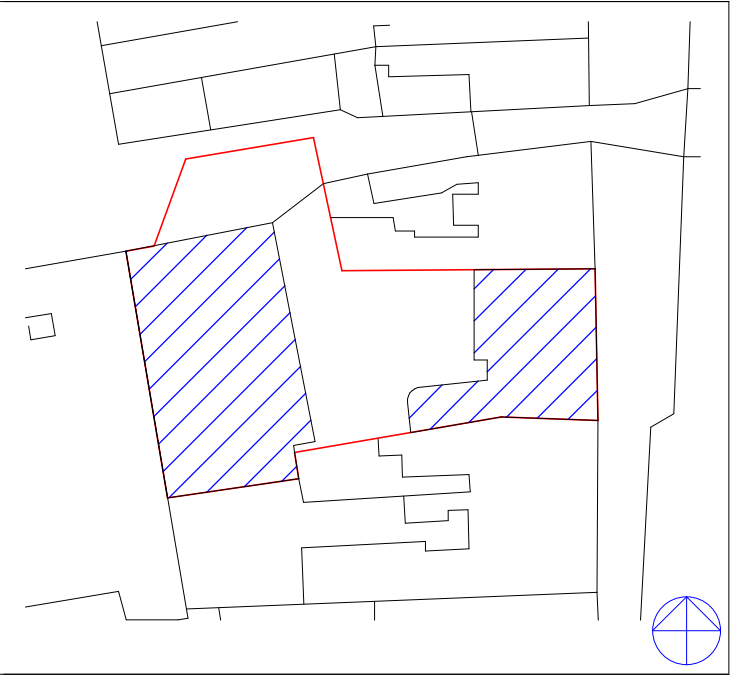
807HR-F3A-XX-00-GA-A-0820





MATERIAL KEY

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- 2) Painted timber framed glass shopfront
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- 20) Slate roof
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- 43) Lightwell
- 44) Brick recess



KEY PLAN

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18/10/2023	AB	FOR INFORMATION	S9	P1

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project

807 HIGH ROAD PBSA
LONDON N17 8ER

title
PROPOSED GA PLAN L01

drawn by	scale	paper	project no
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status	revision
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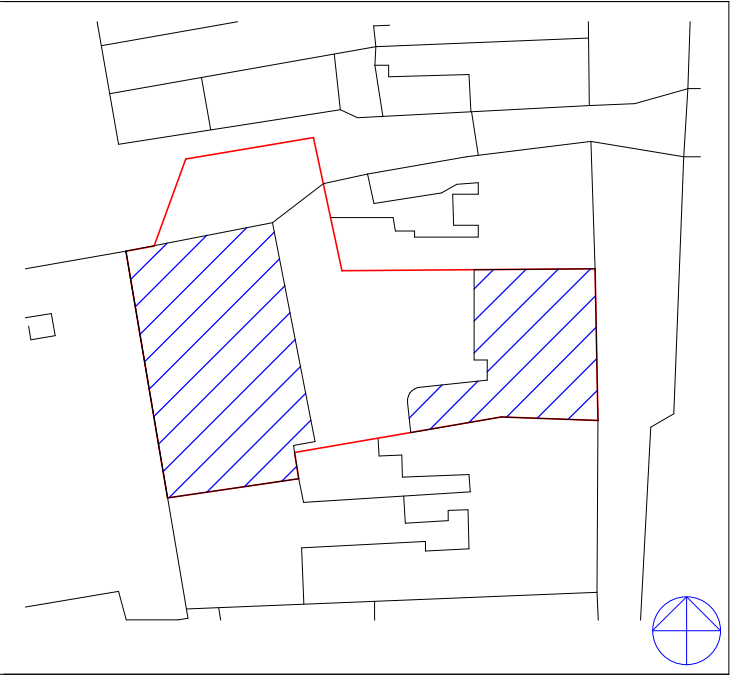
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DATE	CHK	DESCRIPTION	STA.	NO.

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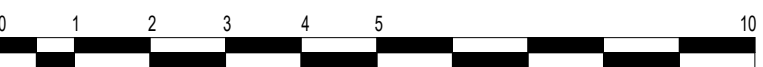
807 HIGH ROAD PBSA
LONDON N17 8ER

title
PROPOSED GA PLAN L02

drawn by	scale	paper	project no
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status	revision
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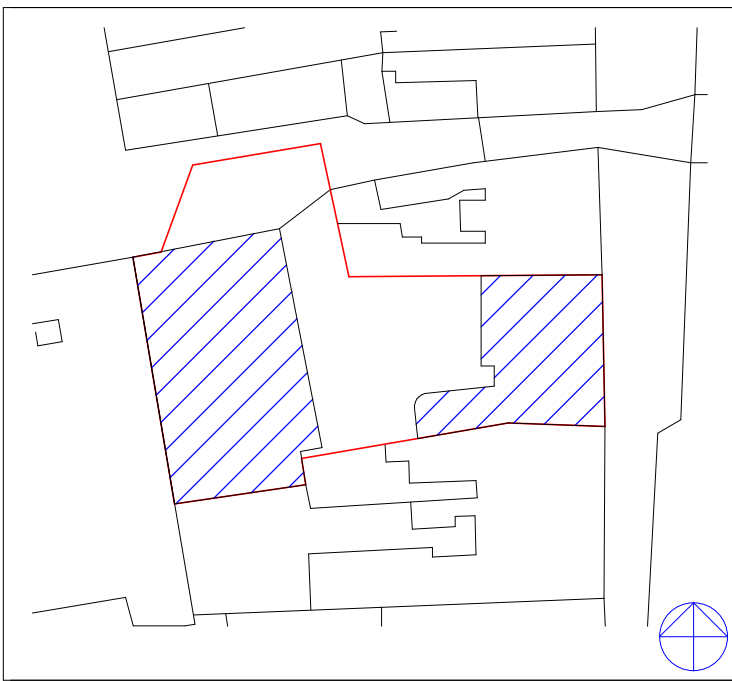
drawing no
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MATERIAL KEY

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- 2) Painted timber framed glass shopfront
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KEY PLAN

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21/11/2023	AB	FOR INFORMATION	S2	P2
18/10/2023	AB	FOR INFORMATION	S9	P1
DATE	CHK	DESCRIPTION	STA.	NO.

REVISION HISTORY

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project

807 HIGH ROAD PBSA
LONDON N17 8ER

title

PROPOSED GA PLAN L03

drawn by scale paper project no

RB 1 : 100 A1 230605

status revision

S4 - Suitable for stage approval S4.P9

drawing no

807HR-F3A-XX-03-GA-A-0823



B. Site Photographs

- **Photograph Plates**

Appendices