



9. Updated Risk Assessment Summary

The detailed results of the quantitative risk assessments presented in Section 8 are summarised in Table 9.1. Table 9.1 presents an update of Table 2.1 based on the results of the investigation and GQRA presented in this Report. The risk assessment matrix is provided in Appendix D.

It is considered that risks to site workers and the environment 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).

Table 9.1 Updated Risk Assessment Summary

Potential Contaminant Source	Potential Pathway	Potential Receptor	Potential Contaminant Linkage	Risk Level Classification
On-site	Direct contact with soil	Proposed site end users (residential)	Yes	Low to moderate [†]
	Inhalation of windblown soil		(Suspected ACM identified at TP08. Further investigation recommended. See Section 8.1)	Low to moderate [†]
	Ingestion of soil			Low to moderate [†]
	Impact to water supply pipes followed by ingestion of contaminated water supply		Yes (No water supply pipe GAC exceedances identified. See Section 8.4. New pipe specification to be agreed with the utility provider)	Low
	Ground gas generation and inhalation		Yes (Since monitoring has not captured low atmospheric pressure conditions, the assessment is preliminary at this stage and further monitoring is required. See Section 8.2.1)	Low to moderate [†]
	Soil vapour generation and inhalation		Yes (No unacceptable risks from soil vapour identified due to potential on-site sources. See Section 8.2.2)	Low
	Inhalation of windblown soil from the site	Off-site human health receptors	Yes (Suspected ACM identified at TP08. Further investigation recommended. See Section 8.1)	Low to moderate [†]



Potential Contaminant Source	Potential Pathway	Potential Receptor	Potential Contaminant Linkage	Risk Level Classification
	Off-site migration and direct contact with impacted soil	On-site below ground structures (proposed)	Yes (An on-site source of contamination which can migrate laterally at shallow depth and impact nearby shallow ground has not been identified. See Section 8.1)	Low
	Off-site migration and ingestion of impacted soil			Low
	Impact to water supply pipes followed by ingestion of contaminated water supply		Yes (An on-site source of contamination which can migrate laterally at shallow depth and impact nearby off-site water supply pipes has not been identified. See Section 8.4)	Low
	Ground gas generation, off-site migration and inhalation		Yes (Since monitoring has not captured low atmospheric pressure conditions, the assessment is preliminary at this stage and further monitoring is required. See Section 8.2.1)	Low to moderate [†]
	Soil vapour generation, off-site migration and inhalation		Yes (No unacceptable risks from soil vapour identified due to potential on-site sources. See Section 8.2.2)	Low
	Direct contact		Yes (No grossly impacted soil observed. Specified concrete class presented in Section 6.9)	Low (Assuming the specified concrete class is implemented)
	Migration followed by ignition of ground gas		Yes (Since monitoring has not captured low atmospheric pressure conditions, the assessment is preliminary at this stage and further monitoring is required. See Section 8.2.1)	Low to moderate [†]
	Migration followed by ignition of soil vapour		Yes (No unacceptable risks from soil vapour identified due to potential on-site	Low



Potential Contaminant Source	Potential Pathway	Potential Receptor	Potential Contaminant Linkage	Risk Level Classification
			sources. See Section 8.2.2)	
	Off-site migration followed by direct contact	Off-site below ground structures	Yes (No gross impact identified which may migrate off-site and damage structures. See Section 8.3)	Low
	Off-site migration followed by migration followed by ignition of ground gas		Yes (Since monitoring has not captured low atmospheric pressure conditions, the assessment is preliminary at this stage and further monitoring is required. See Section 8.2.1)	Low to moderate [†]
	Off-site migration followed by migration followed by ignition of soil vapour		Yes (No unacceptable risks from soil vapour identified due to potential on-site sources. See Section 8.2.2)	Low
	Controlled Water pathways	Controlled waters (groundwater) – London Clay Formation (Unproductive Strata)	Yes (No change from PRA. See Table 2.1)	Low
	Flora and fauna pathways	Flora and fauna in on site soft landscaped areas	Yes (See Section 8.5)	Low
Off-site	On-site migration followed by direct contact or ingestion of soil	Proposed site end users	Yes (No Human health GAC exceedances detected other than the presence of suspected asbestos most likely sourced from on-site. See Section 8.1)	Low
	Inhalation of windblown soil from off-site		Yes (Potential off-site sources have been identified in the near vicinity but are unlikely to liberate notable windblown soil / dust)	Low
	On-site migration followed by impact to water supply		Yes	Low



Potential Contaminant Source	Potential Pathway	Potential Receptor	Potential Contaminant Linkage	Risk Level Classification
	pipes and ingestion of the water supply		(No water supply pipe GAC exceedances identified. See Section 8.4. New pipe specification to be agreed with the utility provider)	
	Ground gas generation, on-site migration and inhalation		Yes (Since monitoring has not captured low atmospheric pressure conditions, the assessment is preliminary at this stage and further monitoring is required. See Section 8.2)	Low to moderate [†]
	Soil vapour generation, on-site migration and inhalation			Low to moderate [†]
	On-site migration followed by direct contact		Yes (No grossly impacted soil observed. See Section 8.3)	Low
	On-site migration followed by ignition of ground gas	On-site below ground structures (proposed)	Yes (Since monitoring has not captured low atmospheric pressure conditions, the assessment is preliminary at this stage and further monitoring is required. See Section 8.2)	Low to moderate [†]
	On-site migration followed by ignition of soil vapour			Low to moderate [†]
	Flora and fauna pathways	Flora and fauna in on site soft landscaped areas	Yes (No evidence of influence from off-site sources. See Section 8.5)	Low

[†] - unacceptable risk (ref. LCRM guidance)

Unacceptable risks (ref. LCRM) have been identified to human health due to the presence of suspected ACM fragments identified at TP08. It is recommended that further ground investigation is undertaken in the vicinity of TP08 to identify whether ACM fragments are actually present in Made Ground and to delineate any impacts. Should ACM fragments be positively identified then the risk can be addressed by excavation and disposal of the impacted soils or otherwise implementation of a suitable clean capping system in soft-landscaping areas. Either approach should be informed by an appropriately specified Remediation Strategy. If underground services were to be laid through soils impacted by ACMs then clean service corridors are also recommended for specification as part of a Remediation Strategy.

Where indicated, the ground gas and soil vapour assessments are provisional as the monitoring rounds undertaken to date do not capture a low atmospheric pressure event. For this reason, it is recommended that further monitoring is undertaken during low atmospheric pressure conditions to provide a more robust dataset before the ground gas and soil vapour assessments are finalised. Once this is done, the requirement for any relevant remedial actions can be confirmed.



10. Preliminary Waste Assessment

The results of the geo-environmental soil analysis have been considered in view of potential waste status in accordance with *Technical Guidance WM3 – Waste Classification: Guidance on the classification and assessment of waste (1st Edition v1.2)*. Soil samples have been collected from Made Ground and are generally indicative of Non-hazardous waste. However, suspected ACM has been identified in Made Ground at TP08. Should visible ACM fragments be identified within soils this area of the site then the impacted soils represent Hazardous waste should they be excavated and sent for off-site disposal.

The above is a preliminary assessment based on the ground investigation data recently gathered. It is recommended that the Principal Contractor for the proposed development undertakes a detailed waste classification exercise for any soil excavation and disposal works undertaken.



11. Conclusions and Closing Remarks

A2 Site Investigation Limited has been engaged by Meinhardt (UK) Ltd on behalf of London Borough of Haringey to prepare a Geotechnical Design Report for Phase 1 of the proposed development at Brunel Walk, London N15 5HQ. The proposed works include full demolition of the existing structures on site and construction of four new blocks ranging between three to four storey.

This GDR comprises an interpretation of the findings from the recent ground investigation undertaken at the site and provides an assessment of key geotechnical considerations associated with the proposed development. The aim of this report is to provide recommendations on primary geotechnical aspects relating to the scheme and to evaluate representative parameters, which will inform the design and performance assessment calculations/analyses to be carried out as part of design development.

The ground conditions at the site location comprise Made Ground overlying London Clay. Groundwater was encountered during post-fieldwork monitoring visits at 0.5mOD (approximately 2.0m below ground level). Design water tables conditions have been taken at 1.0mbgl considering the potential variation of perched water and the superficial aquifer, and any accidental rise in groundwater over the life of the development (for example, due to a burst water main).

Concrete aggressivity was determined based on laboratory testing within the London Clay. One sample taken from the London Clay indicates a significant quantity of Total Potential Sulphate is present, leading to a high Design Sulphate Class (DS-5, AC5) assuming a 50-year design life subject to considerations in Section 6.9. However, if the London Clay is protected during construction such that it will not be subject to significant disturbance or exposure to oxygen over extended periods of time, this may be reduced to DS-3 and AC-3s for selected structures and construction means and methods, subject to confirmation by the geotechnical engineer.

Equivalent safe working loads for pile foundations and safe working load bearing capacities, with respective settlements, have been calculated following Eurocode 7 approaches, and the viability of shallow and hybrid foundation solutions have been considered. Potential soil retention systems to support any excavations have also been discussed.

Design CBR values have been obtained via the correlation between the Plasticity Index and CBR values. In addition, guidance in relation to the constructability of the development has been provided, alongside key ground engineering risks associated which require project-specific mitigation measures to be developed. Further recommendations are presented in Section 6.

This Report has 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)*. All investigative works and sampling have been undertaken in general accordance with *BS10175:2011 Investigation of Potentially Contaminated Sites – Code of Practice*. This study has been undertaken in accordance principals set out in the *Land Contamination Risk Management (LCRM)* guidance, published by the EA on the UK Government website.

The detailed assessment of the results presented in this Report includes generic quantitative risk assessment (GQRA). Following GQRA the following is recommended:

- Due to the presence of suspected ACM fragments identified at TP08, it is recommended that further ground investigation is undertaken in the vicinity of TP08 to identify whether ACM fragments are actually present in Made Ground and to delineate any impacts. Should ACM fragments be positively identified then the risk can be addressed by excavation and disposal of the impacted soils or otherwise implementation of a suitable clean capping system in soft-landscaping areas. Either approach should be informed by an appropriately specified Remediation Strategy. If underground services were to be laid through soils impacted by ACMs then clean service corridors are also recommended for specification as part of a Remediation Strategy.
- Where indicated, the ground gas and soil vapour assessments are provisional as the monitoring rounds undertaken to date do not capture a low atmospheric pressure event. For this reason, it is recommended that further monitoring is undertaken



during low atmospheric pressure conditions to provide a more robust dataset before the ground gas and soil vapour assessments are finalised. Once this is done, the requirement for any relevant remedial actions can be confirmed.



Appendix A: Pile Safe Working Load Calculation Summary

Safe working load (SWL) capacities should be used with SLS loading, and contain the following relevant pile and concrete resistance checks:

- BS EN 1997-1 ULS GEO Design Approach 1 Combination 1 Pile Resistance.
- BS EN 1997-1 ULS GEO Design Approach 1 Combination 2 Pile Resistance.
- BS 8004:2015+A1:2020 SLS Ultimate Shaft Friction Settlement Check.
- BS EN 1992-1-1 ULS STR Pile Resistance.

A full summary of the partial factors implemented in each of the checks is shown in the table below. The partial factors presented are in accordance with BS EN 1997-1 (with the UK National Annex) Design Approach 1 (DA1) for contiguous flight auger (CFA) or bored piles.

DA1 design combinations are as follows:

- Combination 1 (C1): A1 + M1 + R1.
- Combination 2 (C2): A2 + M1 + R4.

Table A.1 Summary of design guidance and partial factors considered in the pile safe working loads

Check	Design Guidance	Action Factors (A)	Material Factors (M)	Resistance Factors (R)
ULS GEO Design Approach 1 Combination 1 Pile Resistance	BS EN 1997-1 BS 8004:2015 + A1:2020	$\gamma_G = 1.35, \gamma_Q = 1.50$	-	$\gamma_s = 1.00, \gamma_b = 1.00, \gamma_{Rd} = 1.40$
ULS GEO Design Approach 1 Combination 2 Pile Resistance	BS EN 1997-1 BS 8004:2015 + A1:2020	$\gamma_G = 1.00, \gamma_Q = 1.30$	-	$\gamma_s = 1.60, \gamma_b = 2.00, \gamma_{Rd} = 1.40$
SLS Ultimate Shaft Friction Settlement Check	BS 8004:2015 + A1:2020	$\gamma_G = 1.00, \gamma_Q = 1.00$	-	$\gamma_{s,SLS} = 1.20$
ULS STR Pile Resistance	BS EN 1992-1-1	$\gamma_G = 1.35, \gamma_Q = 1.50$	$\alpha_{cc} = 0.85, \gamma_c = 1.5, k_l = 1.1$	-

A1 and A2 are partial factor sets applied to the permanent (γ_G) and variable loading (γ_Q) applied to the pile and are independent of additional pile testing. Where action partial factors are applied, these have been converted into a lump factor based on an indicative dead/live load split of the building. Where loading has been provided, the load split is determined from this. Where no loading is provided, indicative splits of 60%/40% or 70%/30% (depending on the nature of the scheme) are adopted.

M1 is a material partial factor set, applied to the soils (1.00 for both combinations).

R1 and R4 are partial factors applied to the base and shaft resistance of the pile. An additional Model Factor (γ_{Rd}) is applied to the reduced base and shaft resistances in both combinations. In general, partial factors included in SWL capacities do not consider the presence of working load or preliminary pile testing. If working load or preliminary pile testing is proposed, the SWL values can be amended accordingly.

The settlement of the pile foundation is verified within the SWL calculations by ensuring that the characteristic compressive force applied to the pile is less than the characteristic value of the pile's ultimate shaft friction. Including a serviceability shaft friction partial factor $\gamma_{s,SLS}$ is one method of further controlling the settlement of an individual pile, and the SWL calculations apply a factor of $\gamma_{s,SLS} = 1.20$ to limit the settlement of the pile to less than 1% of the pile diameter.



The concrete axial capacity of the pile has been calculated in accordance with BS EN 1992-1-1 adopting a standard pile concrete cylinder strength of $f_{ck} = 28\text{MPa}$ and reduced diameter d_{nom} (in accordance with BS EN 1992-1-1, 2.3.4.2(2)). An additional safety factor multiplier of $k_f = 1.1$ is also applied in addition to the concrete material partial factor of $\gamma_c = 1.5$. α_{cc} is taken as 0.85. Structural resistance from steel reinforcement is not considered.

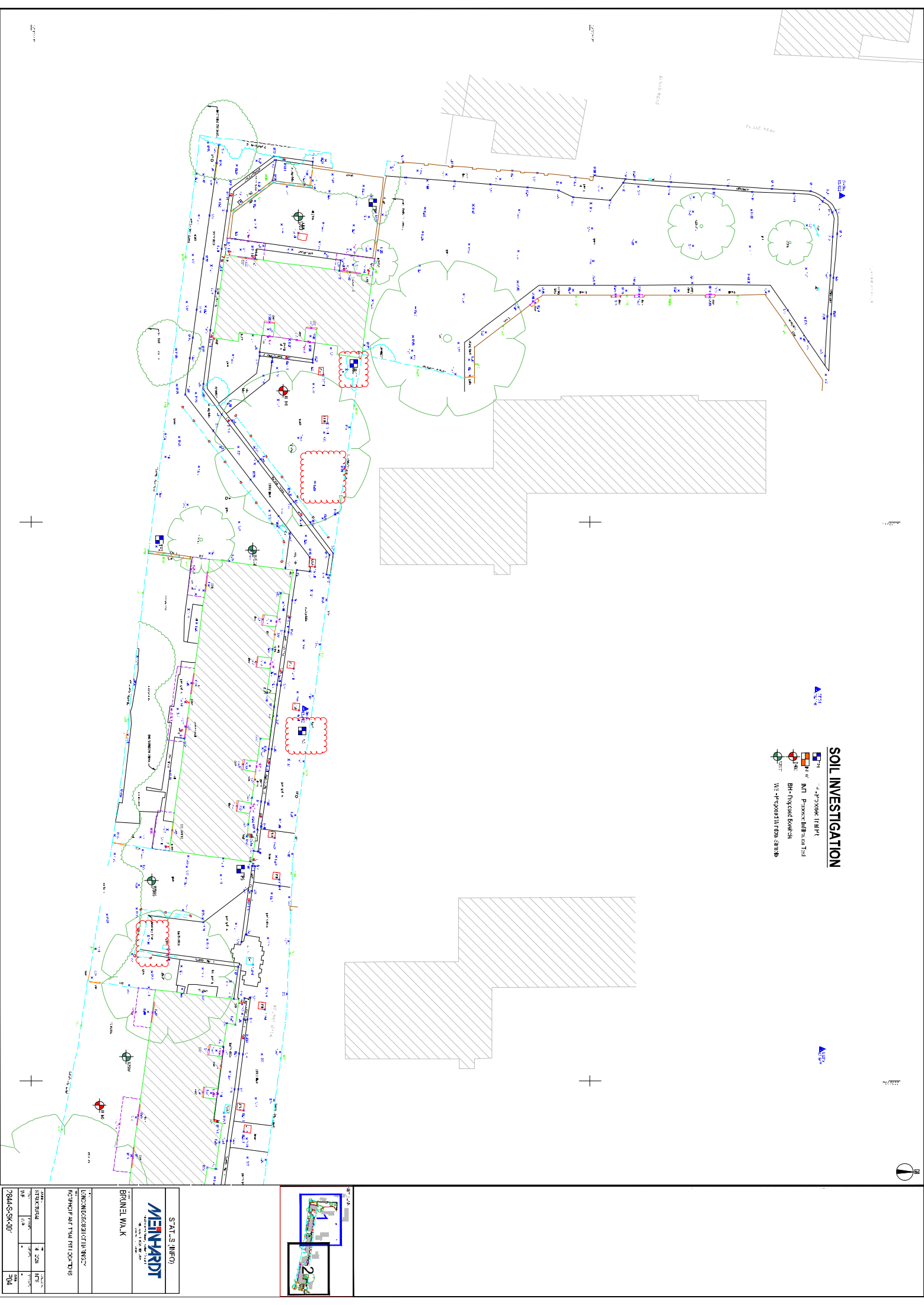


Appendix B: Explanatory Hole Location Plan



SOIL INVESTIGATION

- Legend:
- Blue square: 100% - 100% (100%)
- Red square: 100% - 100% (100%)
- Green square: 100% - 100% (100%)
- Blue circle: 100% - 100% (100%)
- Red circle: 100% - 100% (100%)
- Green circle: 100% - 100% (100%)
- Blue triangle: 100% - 100% (100%)
- Red triangle: 100% - 100% (100%)
- Green triangle: 100% - 100% (100%)
- Blue diamond: 100% - 100% (100%)
- Red diamond: 100% - 100% (100%)
- Green diamond: 100% - 100% (100%)
- Blue star: 100% - 100% (100%)
- Red star: 100% - 100% (100%)
- Green star: 100% - 100% (100%)
- Blue cross: 100% - 100% (100%)
- Red cross: 100% - 100% (100%)
- Green cross: 100% - 100% (100%)
- Blue plus: 100% - 100% (100%)
- Red plus: 100% - 100% (100%)
- Green plus: 100% - 100% (100%)
- Blue asterisk: 100% - 100% (100%)
- Red asterisk: 100% - 100% (100%)
- Green asterisk: 100% - 100% (100%)
- Blue hash: 100% - 100% (100%)
- Red hash: 100% - 100% (100%)
- Green hash: 100% - 100% (100%)
- Blue at: 100% - 100% (100%)
- Red at: 100% - 100% (100%)
- Green at: 100% - 100% (100%)
- Blue dollar: 100% - 100% (100%)
- Red dollar: 100% - 100% (100%)
- Green dollar: 100% - 100% (100%)
- Blue percent: 100% - 100% (100%)
- Red percent: 100% - 100% (100%)
- Green percent: 100% - 100% (100%)
- Blue question: 100% - 100% (100%)
- Red question: 100% - 100% (100%)
- Green question: 100% - 100% (100%)
- Blue at: 100% - 100% (100%)
- Red at: 100% - 100% (100%)
- Green at: 100% - 100% (100%)
- Blue dollar: 100% - 100% (100%)
- Red dollar: 100% - 100% (100%)
- Green dollar: 100% - 100% (100%)
- Blue percent: 100% - 100% (100%)
- Red percent: 100% - 100% (100%)
- Green percent: 100% - 100% (100%)
- Blue question: 100% - 100% (100%)
- Red question: 100% - 100% (100%)
- Green question: 100% - 100% (100%)



STATS (INFO)	
MEINHARDT	
BRUNEL WALK	
LONKINGSTON WISEY	
FOOTPATH AT THE PHOTON	
DATE	4/20/18
STATUS	100%
BY	100%
7044-SK-007	100%



-- P300660 (trial) PT
 NJ Province (NJ, NJ, NJ)
 BH - Proposed Bicycle
 We - Proposed Warden's



7-1					
LEONARDORICHOLTA-INS-2V					
7-2					
ROTHSCHILD PTM DOA TDS					
DATE 08-09-2007	STATION NO. 784-S-SK-007	IN 4 220	OUT 1875	TOTAL IN = 04	



Appendix C: Factual Report



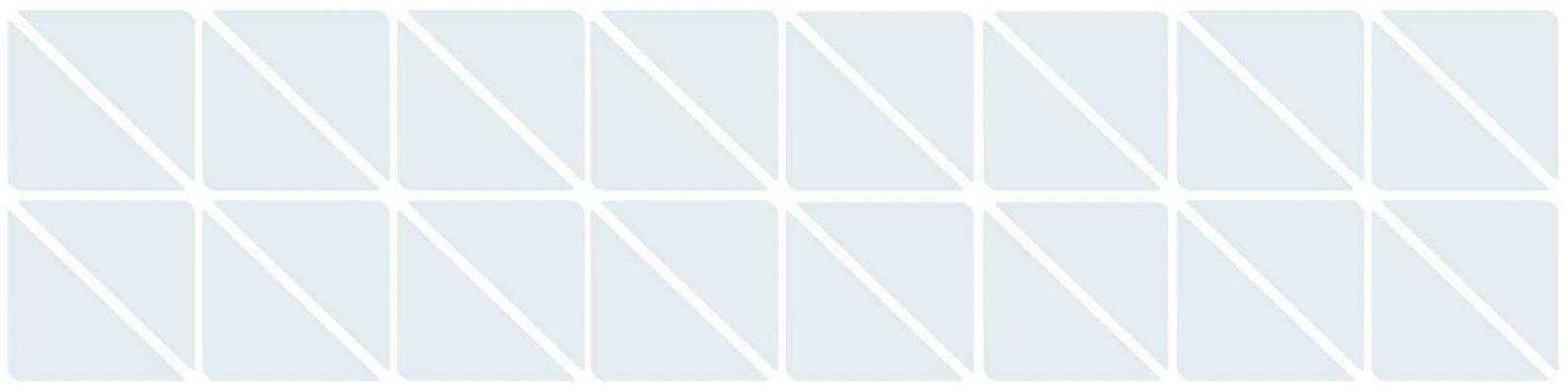
A2 Site Investigation

Brunel Walk

Factual Report

February 2022

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Project Name	Brunel Walk
Project Number	12621
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Engineer	Meinhardt (UK) Limited
Document Name	Factual Report

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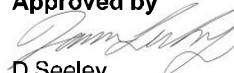
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Appendices

Appendix A: Exploratory Hole Location Plan

Appendix B: Exploratory Hole Logs, Sketches and Photographs

Appendix C: Gas and Groundwater Monitoring Results

Appendix D: Geotechnical Laboratory Testing

Appendix E: Geo-Environmental Laboratory Testing



1. Introduction

A2 Site Investigation were instructed by London Borough of Haringey to undertake a geotechnical and geo-environmental ground investigation at the proposed development at Brunel Walk, London N15 5HQ. The ground investigation was specified by Meinhardt (Ref: 2844-MHT-ST-SP-00001 Specification for Site Investigations T1, dated 14 December 2020), whom also acted as Investigation Supervisor.

2. Site Location

The site is situated in the London borough of Haringey, at Brunel Walk, London, N15 5HQ. The site is roughly rectangular, located approximately 0.5km northeast of Seven Sisters Underground Station. The site is currently occupied by an existing estate comprising of 35 single person flats, 1 family house and some communal facilities. The site is bordered by Turner Avenue estate (council owned) to the north, Kirkton Road to the east, Seaford Road to the south and Elmar Road to the west. Four two storey residential structures are currently occupying the site. The Ordnance Survey Grid reference for the centre of the site is TQ 33081 89026.



Figure 2.1 Site location and site extent marked in red

3. Proposed Development

The scheme for the proposed development comprises partial or full demolition (extent of the demolition yet to be confirmed) of the existing flats, houses and communal facilities and the construction of four new blocks ranging between three to four storeys.



4. Anticipated Ground Conditions

From a review of available geological maps and memoirs, including the online British Geological Survey “Geology of Britain Viewer”, the following geological sequence was anticipated.

Table 4.1 Anticipated geological sequence

Unit	Depth (mbgl)	Thickness (m)	Description
Made Ground	0.00	2.80	Variable anthropogenic deposits.
London Clay	2.80	15.20 proven	Stiff grey/brown mottled fissured clay with pockets of silty sand.

5. Purpose and Scope of the Investigation

The purpose of the investigation was to recover data on the ground and groundwater conditions at the site relating to geotechnical and geo-environmental risks that may affect the proposed development.

This investigation comprised the drilling of cable percussion and window sampler boreholes, excavation of trial pits, together with sampling and installation of combined gas and groundwater monitoring wells.

The fieldwork was undertaken between 16th – 23rd November 2021.

This detailed scope of works was as follows:

- 3 no. restricted access cable percussion boreholes (BH01-BH03) to a maximum depth of 20m to facilitate the collection of soil samples and to install wells for gas and groundwater monitoring.
- 12 no. structural trial pits (TP01-TP12) excavated using hand dug techniques. Trial pits are to expose and record details of existing foundations.
- 8 no. window sample boreholes (WS01-WS08) to facilitate the collection of soil samples and to install wells for gas and groundwater monitoring.
- 6 no. return site visits to monitor gas and groundwater.

6. Limitations of Report

This report has been prepared in accordance with the specification provided by the client. The data reported relates to the specific locations where each exploratory hole was formed and may not represent the ground and groundwater conditions of the site as a whole. Furthermore, it should be considered that groundwater levels may vary throughout the year due to seasonal conditions and other influences such as flooding and leaking mains, storm drainage and foul water systems.



7. Standards

The site investigation, soil descriptions and laboratory testing were undertaken in accordance with following standards

- UK Specification for Ground Investigation 2nd Edition, published by ICE Publishing (2012)
- BGS Geology of Britain Viewer: 2018. www.bgs.ac.uk. British Geological Survey
- British Standards Institution BS 5930:2015+A1:2020, Code of practice for site investigations.
- British Standards Institution BS 10175:2011+A2:2017, Investigation of potentially contaminated sites – code of practice.
- British Standards Institution BS EN ISO 14688-1:2018, Geotechnical investigation and testing, classification of soil. Identification and description.
- British Standards Institution BS EN ISO 14688-2:2018, Geotechnical investigation and testing. Identification and classification of soil. Principle for a classification.
- British Standards Institution BS EN ISO 22475-1 : 2006 : Geotechnical investigation and testing – Sampling methods and groundwater measurements - Part 1 Technical principles for execution.

8. Ground Investigation Summary

8.1. Fieldwork Overview

A walkover was conducted prior to the start of the ground investigation and confirmed the anticipated layout of the site.

Following a review of all available service information and site reconnaissance, all locations were scanned using Electromagnetic (CAT & Genny) and Ground Penetrating Radar (GPR) techniques to check for services within proximity to exploratory hole locations.

A preliminary UXO Risk Assessment was undertaken of the site (ref: EOD/21/21439/DTS/ Brunel Walk, South Tottenham, London). Based on the results; it was necessary to have UXO supervision onsite to conduct a watching brief and undertake downhole magnetometer testing during the drilling.

All works were supervised by a ground engineer.

An exploratory hole location plan is shown in Appendix A.

8.2. Cable Percussion Boreholes (BH01-BH03)

BH01, BH02 and BH03 was progressed using a modular cable percussion rig to 20.00mbgl.

All soils encountered were logged on site and samples recovered for geotechnical and geo-environmental laboratory analysis. A standpipe piezometer was installed in BH02 for subsequent monitoring of ground gas and groundwater levels.

8.3. Window Sampler Boreholes (WS01-WS08)

8 no. window sampler boreholes, WS01–WS08, were progressed using a tracked-mounted window sampling rig, utilising dynamic sampling techniques. All window sampler boreholes reached a maximum depth of 3.00mbgl.

All soils encountered were logged on site and samples recovered for geotechnical and geo-environmental laboratory analysis. A standpipe piezometer was installed WS01, WS05 and WS07 for subsequent monitoring of ground gas and groundwater levels.

8.4. Hand Excavated Trial Pits (TP01-TP12)

12 No. structural pits were completed across the site. The pits were excavated by hand to expose existing foundations to be recorded and photographed. The foundation drawings are presented in Appendix B.



8.5. Gas and Groundwater Monitoring Installations

Combined gas and groundwater monitoring pipes were installed in BH02 and WS01, WS05 and WS07 to a maximum depth of 1.30m, comprising of 50mm internal diameter PVC casings. Details are shown in Table 8.1 below.

Table 8.1 Gas and Groundwater Monitoring Installations

Location Ref	Base of Borehole (m bgl)	Installation Diameter (m bgl)	Type of Installation	Bottom of Response Zone (m bgl)	Top of Response Zone (m bgl)	Strata
BH02	20.00	50mm	SP/G	1.30m	1.00m	Made Ground
WS01	3.00m	50mm	SP/G	1.30m	0.50m	Made Ground
WS05	3.00m	50mm	SP/G	1.10m	0.50m	Made Ground
WS07	3.00m	50mm	SP/G	1.10m	0.50m	Made Ground, London Clay

Key

SP/G – Standpipe with Gas Monitoring Valve

9. Ground Conditions

9.1. Encountered Geology

The following ground conditions were encountered at the site. Details are shown in Table 9.1 below.

Table 9.1 Ground Conditions

Unit	Minimum Depth ¹ (m)	Maximum Depth ¹ (m)	Maximum Thickness (m)	Description
Topsoil	0.00	0.20	0.20	Dark brown sandy gravelly CLAY with abundant rootlets. Gravel is angular to subangular fine to coarse of flint, plastic, brick and concrete
Made Ground	0.10	0.80	1.70	Orangish brown clayey sandy angular to subangular fine to coarse flint, brick, wood GRAVEL to orangish brown sandy silty gravelly CLAY. Gravel is angular to rounded fine to coarse of flint, brick, bitumen and concrete.
London Clay Formation	0.25	20.00	19.20 proven	Firm to stiff brownish grey silty CLAY with pockets of fine sand.

¹ Depths refer to top of datum

Detailed exploratory hole logs can be found in Appendix B.

9.2. Groundwater

No groundwater was encountered whilst drilling.



10. Laboratory Testing

All laboratory testing was scheduled by A2 Site Investigation.

10.1. Geotechnical Testing.

The following type and number of tests scheduled is shown in Table 10.1 below and the results are presented in Appendix D.

Table 10.1 Geotechnical Testing

Test Description	Number of Tests
Moisture Content BS 1377:1990 - Part 2 : 3.2	10
4 Point Liquid & Plastic Limit BS 1377:1990 - Part 2 : 4.3 & 5.3	10
Particle Size Distribution Wet Sieve Method BS 1377:1990 - Part 2 : 9.2	3
Pipette Analysis BS EN ISO 17892-4:2016, clause 5.4	3
BRE Suite D (brownfield, pyrite present) BRE SD1	8
Quick Undrained Triaxial Test – 100mm single stage BS 1377:1990 – Part 7:8	13

10.2. Geo-environmental Testing

Selected soil samples were sent for geo-environmental laboratory testing which was undertaken by The Environmental Laboratory (ELAB), a United Kingdom Accreditation Service (UKAS) accredited laboratory. ISO17025 and MCERTS accredited methods were specified where applicable and can be seen on the laboratory testing certificates presented in Appendix E.

The following type and number of tests scheduled for soil samples is shown in Table 10.2 below and the results are presented in Appendix E.

Table 10.2 Geo-environmental Testing - Laboratory Analysis – Soils

Test Description	Number of Tests
A2SI Risk Assessment Suite	8
TOC Suite	3
PCBs	3



11. Gas, Vapour and Groundwater Monitoring

Six rounds of gas and groundwater monitoring has been undertaken. A summary is provided in Table 11.1 and Table 11.2 below. The results are presented in Appendix C.

11.1. Ground Gas/Vapour

Gas monitoring was undertaken using a calibrated Gas Data GFM436 hand-held gas analyser and a calibrated MiniRae Lite ATEX Photo Ionisation Detector (PID) and a summary is shown in 11.1 below.

Table 11.1 Ground Gas Monitoring Results

Exploratory Hole Reference	Monitoring Round Date	Peak Flow Rate (l/hr)	O ₂ (%) (Min)	CO ₂ (%) (Max)	CH ₄ (%) (Max)	H ₂ S (ppm)	CO (ppm)	Maximum PID (ppm)	Barometric Pressure (mb)
BH02	16/12/2021	NR	NR	NR	NR	NR	NR	NR	1033
WS01	16/12/2021	0.00	19.30	0.70	0.00	0.00	0.00	1.20	1033
WS05	16/12/2021	0.00	19.30	0.80	0.00	0.00	0.00	1.20	1033
WS07	16/12/2021	0.00	19.80	0.80	0.00	0.00	0.00	1.40	1034
BH02	23/12/2021	0.00	18.60	1.30	0.00	0.00	0.00	1.60	1003
WS01	23/12/2021	0.00	18.10	1.00	0.00	0.00	0.00	1.70	1005
WS05	23/12/2021	0.00	18.80	1.20	0.00	0.00	0.00	2.30	1005
WS07	23/12/2021	0.00	19.50	0.90	0.00	0.00	0.00	2.40	1005
BH02	10/01/2022	0.00	17.90	1.80	0.00	0.00	0.00	1.40	1018
WS01	10/01/2022	0.00	19.30	0.90	0.00	0.00	0.00	1.10	1018
WS05	10/01/2022	0.00	9.30	3.10	0.00	0.00	0.00	2.40	1018
WS07	10/01/2022	0.00	14.30	2.40	0.10	0.00	0.00	3.20	1018
BH02	19/01/2022	0.00	17.50	1.60	0.10	0.00	0.00	1.30	1025
WS01	19/01/2022	NR	NR	NR	NR	NR	NR	NR	1025
WS05	19/01/2022	0.00	17.70	2.30	0.00	0.00	0.00	1.70	1025
WS07	19/01/2022	0.00	14.50	2.40	0.20	0.00	0.00	2.50	1025
BH02	27/01/2022	0.00	17.60	1.50	0.20	0.00	0.00	1.20	1011
WS01	27/01/2022	NR	NR	NR	NR	NR	NR	NR	1011
WS05	27/01/2022	0.00	17.40	2.60	0.10	0.00	0.00	1.90	1011
WS07	27/01/2022	0.00	14.80	2.10	0.10	0.00	0.00	2.10	1011
BH02	31/01/2022	0.00	18.00	1.20	0.00	0.00	0.00	0.80	1021



WS01	31/01/2022	0.00	19.80	0.50	0.00	0.00	0.00	0.00	1021
WS05	31/01/2022	0.00	18.4	1.70	0.00	0.00	0.00	1.20	1021
WS07	31/01/2022	0.00	15.30	1.60	0.00	0.00	0.00	2.00	1021

Full results of ground gas monitoring can be found in Appendix C.

11.2. Groundwater

The groundwater levels and any free phase liquids were measured using a calibrated Geotech Oil/Water Interface meter. Groundwater levels were recorded in the monitoring wells during the monitoring visits and the results are presented in Table 11.2 below.

Table 11.2 Groundwater Monitoring Results (mbegl)

Exploratory Hole Reference	Depth of Monitoring Well (m bgl)	Round 1 16/12/2021		Round 2 23/12/2021		Round 3 10/01/2022		Notes
		(m bgl)	(m AOD)	(m bgl)	(m AOD)	(m bgl)	(m AOD)	
BH02	1.30	1.65	11.58	1.64	11.59	1.51	11.72	No Free Phase Product Detected
WS01	1.30	0.82	12.41	0.86	12.37	0.81	12.42	No Free Phase Product Detected
WS05	1.10	0.97	12.26	0.98	12.25	0.84	12.39	No Free Phase Product Detected
WS07	1.10	0.83	12.4	0.85	12.38	0.74	12.49	No Free Phase Product Detected

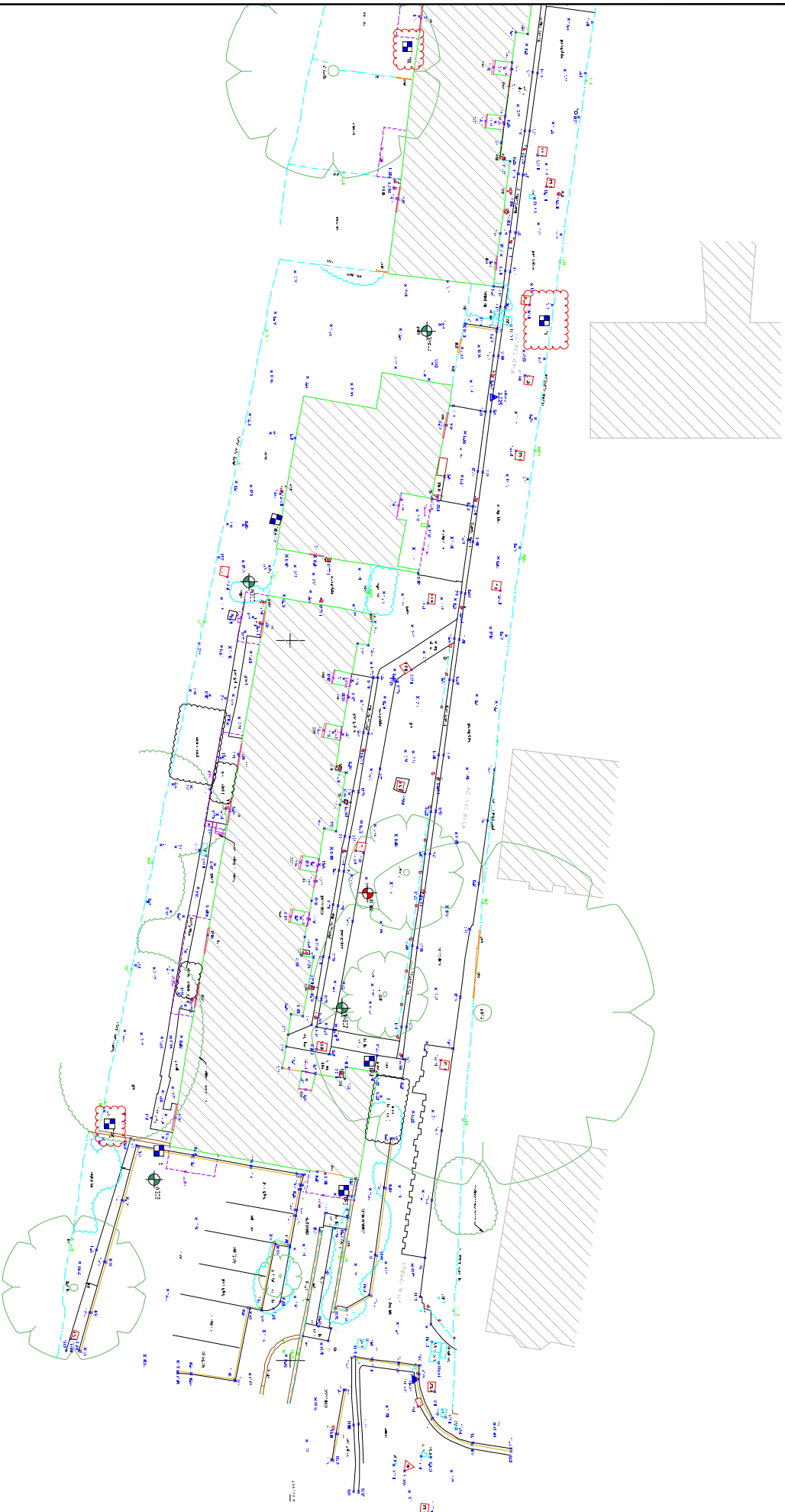
Exploratory Hole Reference	Depth of Monitoring Well (m bgl)	Round 4 19/12/2021		Round 5 27/12/2021		Round 6 31/01/2022		Notes
		(m bgl)	(m AOD)	(m bgl)	(m AOD)	(m bgl)	(m AOD)	
BH02	1.30	1.55	11.68	1.54	11.69	1.57	11.66	No Free Phase Product Detected
WS01	1.30	NR	NR	NR	NR	0.87	12.36	No Free Phase Product Detected
WS05	1.10	0.86	12.15	0.87	12.14	0.89	12.12	No Free Phase Product Detected
WS07	1.10	0.76	12.10	0.79	12.07	0.80	12.06	No Free Phase Product Detected



Appendix A: Exploratory Hole Location Plan



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Appendix B: Exploratory Hole Logs, Sketches and Photographs



Borehole Log

Project Brunel Walk				Borehole No BH01	
Job No 12621	Start 16-11-21 Finish 17-11-21	Ground Level (mOD) 13.15	Co-Ordinates E 533,043.0 N 189,022.0		Depth (m) 20m
Client London Borough of Haringey			SPT Energy Ratio 68%		Sheet 1 of 3

SAMPLES & TESTS			STRATA				Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	
0.00-0.30	B1	VOC 0.00 ppm		12.95		0.20	
0.20	ES2					(0.60)	
0.30-0.80	B3						
0.60	ES4	VOC 0.00 ppm		12.35		0.80	
0.60						(0.70)	
0.80-1.20	B5						
1.20	ES6	VOC 0.00 ppm		11.65		1.50	
1.20							
1.50-1.95	D7						
1.50	SPT (s)	(2, 2, 3, 3, 3, 4) N = 13					
2.50-2.95	UT8	19 blows					
3.00	D9	(2, 2, 3, 4, 3, 3) N = 13					
3.00	ES10					(3.50)	
3.50-3.95	D11						
3.50	SPT (s)						
4.50-4.95	UT12	23 blows					
5.00	D13	(2, 3, 4, 4, 5, 6) N = 19		8.15		5.00	
5.00	ES14					(1.80)	
6.00-6.45	D15						
6.00	SPT (s)						
6.80	B16			6.35		6.80	

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Casing Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike
All dimensions in metres Scale 1:43.75		Contractor A2 Site Investigation				Method/ Plant Used Dando 2000		Logged By FM		Status FINAL	



Borehole Log

Project Brunel Walk				Borehole No BH01	
Job No 12621	Start 16-11-21 Finish 17-11-21	Ground Level (mOD) 13.15	Co-Ordinates E 533,043.0 N 189,022.0		Depth (m) 20m
Client London Borough of Haringey			SPT Energy Ratio 68%		Sheet 2 of 3

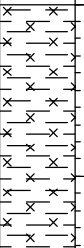
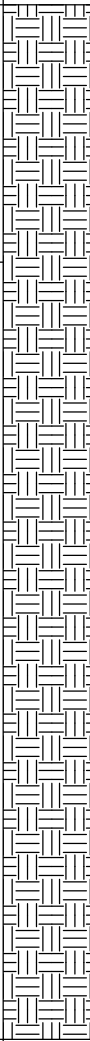
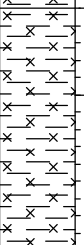
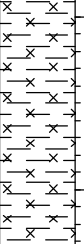
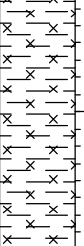
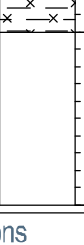
SAMPLES & TESTS			STRATA				Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	
7.00	ES17	28 blows		5.15		(1.20)	
7.50-7.95	UT18						
8.00	D19					8.00	
8.50	D20	(3, 3, 4, 4, 4, 5) N = 17					
9.00-9.45	D21						
9.00	ES22						
9.00	SPT (s)						
10.00	D23	36 blows				(7.50)	
11.00	ES25						
11.50-11.95	UT24						
12.00	D26						
12.50	D27						
13.00-13.45	D28	(3, 4, 5, 6, 6, 7) N = 24					
13.00	ES29						
13.00	SPT (s)						

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike
All dimensions in metres Scale 1:43.75		Contractor A2 Site Investigation				Method/ Plant Used Dando 2000		Logged By FM		Status FINAL	



Borehole Log

Project Brunel Walk				Borehole No BH01	
Job No 12621	Start 16-11-21 Finish 17-11-21	Ground Level (mOD) 13.15	Co-Ordinates E 533,043.0 N 189,022.0		Depth (m) 20m
Client London Borough of Haringey			SPT Energy Ratio 68%		Sheet 3 of 3

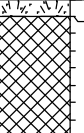
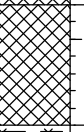
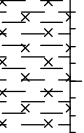
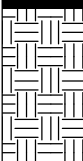
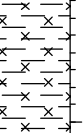
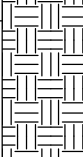
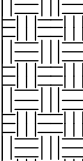
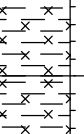
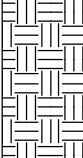
SAMPLES & TESTS							STRATA		Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description		
14.00	D31	47 blows		-2.35		15.50	Stiff brownish grey thinly laminated silty CLAY. Laminæ are grey silt and fine sand. Rare inclusions of sub-angular fine gravel sized Claystone (LONDON CLAY FORMATION) (continued)		
14.50-14.95	UT30								
15.00	D32								
15.00	ES33								
15.50	D34	(3, 4, 4, 5, 6, 6) N = 21				15.50	Stiff silty CLAY with frequent pockets (80x40x30mm) of white silt locally cemented to very weak siltstone, frequent inclusions of sub-angular, fine to medium gravel sized Claystone. (LONDON CLAY FORMATION)		
16.00-16.45	D35								
16.00	SPT (s)								
17.00	D37	52 blows				(4.50)			
17.00	ES38								
17.50-17.95	UT36								
18.00	D39								
18.50	D40								
19.00-19.45	D41	(4, 4, 5, 5, 6, 8) N = 24							
19.00	ES42								
19.00	SPT (s)								
20.00	UT43	56 blows				-6.85		20.00	---- Borehole Terminated at 20m ----

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
15-11-21	20.00	2.00	150								
All dimensions in metres Scale 1:43.75						Method/ Plant Used		Logged By		Status	
Contractor A2 Site Investigation						Dando 2000		FM		FINAL	



Borehole Log

Project Brunel Walk				Borehole No BH02	
Job No 12621	Start 18-11-21 Finish 19-11-21	Ground Level (mOD) 13.23	Co-Ordinates E 533,107.0 N 189,007.0		Depth (m) 20m
Client London Borough of Haringey			SPT Energy Ratio 68%		Sheet 1 of 3

SAMPLES & TESTS							STRATA		Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description		
0.00-0.20	B1	VOC 0.00 ppm		13.13		0.10	Soft brown sandy CLAY with abundant rootlets and occasional angular to subangular, fine to coarse gravel sized flint (TOPSOIL)		
0.20	ES2					(0.70)	Soft brown sandy gravelly CLAY with rare inclusions of subangular, fine to coarse gravel sized calcarious nodules. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, brick and rare bitumen. (MADE GROUND)		
0.20	B3								
0.30-0.80	B3								
0.60	ES4	VOC 0.00 ppm		12.43		0.80	Firm brownish orange mottled greenish grey silty gravelly CLAY with frequent inclusions of lignite (4mm), abundant decayed rootlets. Gravel is angular-sub-angular, fine to coarse of flint, brick and rare bitumen. (MADE GROUND/ REWORKED NATURAL)		
0.60	B5					(0.70)			
0.80-1.20	B5								
1.20	ES6	VOC 0.00 ppm		11.73		1.50	Firm grey mottled orangish brown silty CLAY with abundant partings of yellowish brown silt. Rare selenite crystals (2mm) (LONDON CLAY FORMATION)		
1.20	ES6								
1.50-1.95	D7	(1, 1, 2, 2, 2, 3) N = 9				(2.00)			
1.50	SPT (s)								
2.50-2.95	UT8								
3.00	D9	(1, 2, 2, 2, 3, 3) N = 10				(3.50)			
3.00	ES10								
3.50-3.95	D11	(1, 2, 2, 2, 3, 3) N = 10					Firm grey mottled orangish brown silty CLAY with frequent pockets (5x5x5mm) to (15x10x5mm) of orangish brown locally yellowish brown fine sand. Occasional pockets of selenite crystals (1mm to 5mm) (LONDON CLAY FORMATION)		
3.50	SPT (s)								
4.50-4.95	UT12								
5.00	D13	(2, 2, 2, 3, 3, 4) N = 12				(3.50)			
5.00	ES14								
6.00-6.45	D15	(2, 2, 2, 3, 3, 4) N = 12							
6.00	SPT (s)								
				6.23		7.00			

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Casing Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike
All dimensions in metres Scale 1:43.75		Contractor A2 Site Investigation				Method/ Plant Used Dando 2000		Logged By FM		Status FINAL	



Borehole Log

Project Brunel Walk				Borehole No BH02	
Job No 12621	Start 18-11-21 Finish 19-11-21	Ground Level (mOD) 13.23	Co-Ordinates E 533,107.0 N 189,007.0		Depth (m) 20m
Client London Borough of Haringey			SPT Energy Ratio 68%		Sheet 2 of 3

SAMPLES & TESTS						STRATA		Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	
7.00-7.50 7.00 7.00	B16 D17 ES18	(3, 3, 4, 4, 5, 6) N = 19		5.23		(1.00)	Firm to stiff dark brownish grey silty CLAY with rare flecks of mica. (LONDON CLAY FORMATION)	
7.50-7.95	UT19							
8.00	D20					8.00	Stiff dark brownish grey silty CLAY with abundant partings of white silt, abundant pockets of white fine sand (10x10x10mm) (LONDON CLAY FORMATION)	
8.50	D21							
9.00-9.45 9.00 9.00	D22 ES23 SPT (s)							
10.00	D24					(4.00)		
10.50-10.95	UT25							
11.00 11.00	D26 ES27							
11.50	D28							
12.00-12.45 12.00	D29 SPT (s)	(3, 4, 5, 6, 6, 7) N = 24		1.23		12.00	Stiff dark brownish grey silty CLAY with occasional nodules of angular to subangular, fine to medium gravel sized nodules of siltstone. Rare pockets of white fine sand. (LONDON CLAY FORMATION)	
13.00 13.00	D30 ES31					(2.50)		
13.50-13.95	UT32							

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike
All dimensions in metres Scale 1:43.75		Contractor A2 Site Investigation				Method/ Plant Used Dando 2000		Logged By FM		Status FINAL	



Borehole Log

Project Brunel Walk				Borehole No BH02	
Job No 12621	Start 18-11-21 Finish 19-11-21	Ground Level (mOD) 13.23	Co-Ordinates E 533,107.0 N 189,007.0		Depth (m) 20m
Client London Borough of Haringey			SPT Energy Ratio 68%		Sheet 3 of 3

SAMPLES & TESTS							STRATA		Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description		
14.00	D33	(3, 5, 6, 9, 7, 7) N = 29		-1.27		14.50	Stiff dark brownish grey silty CLAY with occasional nodules of angular to subangular, fine to medium gravel sized nodules of siltstone. Rare pockets of white fine sand. (LONDON CLAY FORMATION) (continued)		
14.50	D34					(5.50)			
15.00-15.45	D35								
15.00	ES36								
15.00	SPT (s)								
16.00	D37								
16.50-16.95	UT38								
17.00	D39								
17.00	ES40								
17.50	D41								
18.00-18.45	D42	(3, 4, 5, 6, 5, 7) N = 23		-6.77		20.00			
18.00	SPT (s)								
19.00	D43								
19.00	ES44								
19.50-19.95	UT45								
---- Borehole Terminated at 20m ----									

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Casing Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
18-11-21	20.00	1.75	150								

1. Borehole scanned with GPR, CAT & Genny
2. UXO Engineer in attendance
3. Hand excavated starter pit dug to 1.2m
4. No Water strike

All dimensions in metres Scale 1:43.75		Contractor A2 Site Investigation	Method/ Plant Used Dando 2000	Logged By FM	Status FINAL
---	--	--	--	------------------------	------------------------



Borehole Log

Project Brunel Walk				Borehole No BH03	
Job No 12621	Start 22-11-21 Finish 22-11-21	Ground Level (mOD) 12.78	Co-Ordinates E 533,173.0 N 189,006.0		Depth (m) 20m
Client London Borough of Haringey			SPT Energy Ratio 68%		Sheet 1 of 3

SAMPLES & TESTS							STRATA		Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description		
0.00-0.40 0.10 0.10 0.30 0.30 0.40-0.70 0.70-1.20	B1 ES2 ES3 B4 B5	VOC 0.00 ppm VOC 0.00 ppm		12.63 12.08	                  				



Borehole Log

Project Brunel Walk				Borehole No BH03	
Job No 12621	Start 22-11-21 Finish 22-11-21	Ground Level (mOD) 12.78	Co-Ordinates E 533,173.0 N 189,006.0		Depth (m) 20m
Client London Borough of Haringey			SPT Energy Ratio 68%		Sheet 2 of 3

SAMPLES & TESTS			STRATA				Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	
7.00 7.00	D16 ES17						
7.50-7.95	U18	36 blows				(1.70)	
8.00	D19						
8.50	D20			4.28		8.50	
9.00-9.45 9.00 9.00	D21 ES22 SPT (s)	(3, 3, 3, 4, 4, 3) N = 14					
10.00	D23						
10.50-10.95	U24	45 blows				(4.50)	
11.00 11.00	D25 ES26						
11.50	D27						
12.00-12.45 12.00	D28 SPT (s)	(2, 2, 3, 3, 4, 5) N = 15					
13.00 13.00	D29 ES30			-0.22		13.00	
13.50-13.95	U31	52 blows					

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike

All dimensions in metres Scale 1:43.75		Contractor A2 Site Investigation		Method/ Plant Used Dando 2000		Logged By FM		Status FINAL	
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Borehole Log

Project Brunel Walk				Borehole No BH03	
Job No 12621	Start 22-11-21 Finish 22-11-21	Ground Level (mOD) 12.78	Co-Ordinates E 533,173.0 N 189,006.0		Depth (m) 20m
Client London Borough of Haringey			SPT Energy Ratio 68%		Sheet 3 of 3

SAMPLES & TESTS							STRATA		Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description		
14.00	D32	(2, 2, 3, 4, 5, 4) N = 16		-3.22		(3.00)	Stiff brownish grey silty CLAY with occasional angular to subangular, fine to medium gravel sized mudstone. Rare flecks of mica. Abundant partings of fine white sand. (LONDON CLAY FORMATION) (continued)		
14.50	D33								
15.00-15.45	D34								
15.00	ES35								
15.00	SPT (s)								
16.00	D36	54 blows		-3.22		16.00	Stiff brownish grey silty sandy CLAY with frequent partings of fine white SAND and abundant locally thin laminae of white SAND (LONDON CLAY FORMATION)		
16.50-16.95	U37								
17.00	D38								
17.00	ES39								
17.50	D40								
18.00-18.45	D41	(3, 3, 4, 5, 5, 6) N = 20		-3.22		(4.00)			
18.00	SPT (s)								
19.00	D42								
19.00	ES43								
19.50-19.95	U44								
20.00	D45	63 blows		-7.22		20.00	---- Borehole Terminated at 20m ----		

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
22-11-21	20.00	1.50	150								1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike

All dimensions in metres Scale 1:43.75		Contractor A2 Site Investigation		Method/ Plant Used Dando 2000		Logged By FM		Status FINAL	
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Borehole Log

Project Brunel Walk				Borehole No WS01	
Job No 12621	Start 17-11-21 Finish 17-11-21	Ground Level (mOD) 13.23	Co-Ordinates E 533,025.0 N 189,025.0		Depth (m) 3m
Client London Borough of Haringey			SPT Energy Ratio 73%		Sheet 1 of 1

SAMPLES & TESTS				STRATA				Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	
0.30 0.30 0.30	D1 ES2	VOC 0.00 ppm		13.03		(0.20) 0.20	Soft dark brown sandy gravelly CLAY with abundant rootlets. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint and rare plastic (TOPSOIL)	
0.80 0.80 0.80	D3 ES4	VOC 0.00 ppm		12.43		(0.60)	Medium dense brown sandy GRAVEL locally clayey. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, concrete, brick and clinker. (MADE GROUND)	
1.20-1.65 1.20	D5 SPT (s)	(1, 1, 1, 1, 2, 2) N = 6		11.91		(0.52)	Medium dense reddish brown sandy GRAVEL. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of brick, clinker, concrete and flint. (MADE GROUND)	
2.00 2.00-2.45 2.00	ES6 D7 SPT (s)	(3, 3, 3, 4, 4, 4) N = 15		11.23		(0.68)	Firm orangish brown mottled brown silty CLAY with abundant angular to subangular, fine to coarse of gravel sized calcareous nodules. Abundant pockets (10mm x10mm x10mm) of orange fine sand. Occasional decayed rootlets. (LONDON CLAY FORMATION)	
3.00 3.00	D8 SPT (s)	(1, 2, 3, 4, 4, 4) N = 15		10.23		(1.00)	Firm greyish brown fissured silty CLAY with rare angular to subangular, fine to coarse of calcareous nodules, occasional pockets of orange fine sand. Fissures are extremely closely spaced, 0-90 degrees planar smooth grey gleyed (LONDON CLAY FORMATION)	
							---- Borehole Terminated at 3m ----	

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike
All dimensions in metres Scale 1:25		Contractor A2 Site Investigation				Method/ Plant Used WS Rig		Logged By FM		Status FINAL	



Borehole Log

Project Brunel Walk				Borehole No WS02	
Job No 12621	Start 17-11-21 Finish 17-11-21	Ground Level (mOD) 13.36	Co-Ordinates E 533,057.0 N 189,020.0		Depth (m) 3m
Client London Borough of Haringey			SPT Energy Ratio 73%		Sheet 1 of 1

SAMPLES & TESTS				STRATA				Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	
0.20 0.20 0.20	ES1 D2	VOC 0.00 ppm		13.31		0.05 (0.20) 0.25	Soft brown sandy CLAY with abundant Rootlets. Sand is fine to coarse. (TOPSOIL)	
0.60 0.60 0.60	D3 ES4	VOC 0.00 ppm		13.11		(0.55)	Soft brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, brick, concrete, plastic and asphalt (MADE GROUND)	
1.00 1.10 1.20-1.65 1.20	ES5 D6 SPT (s)	VOC 0.00 ppm (2, 2, 2, 4, 3, 3) N = 12		12.56		0.80 (0.30) 1.10	Loose brown sandy GRAVEL. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, concrete, brick and clinker. (MADE GROUND)	
				12.26		1.35	Medium dense reddish brown sandy GRAVEL. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of brick, clinker, concrete and flint. (MADE GROUND)	
				12.01		(0.25)	Medium dense greyish brown sandy clayey GRAVEL. Sand is fine to coarse. Gravel is angular, fine to coarse of flint (MADE GROUND)	
2.00-2.45 2.00 2.00	D7 ES8 SPT (s)	(2, 3, 4, 4, 4, 6) N = 18				(0.95)	Firm orangish brown mottled brown silty CLAY with abundant angular to subangular, fine to coarse gravel sized calcarious nodules. Abundant pockets (10mmx 10mm x 10mm) of orange fine sand. Occasional decayed rootlets. (LONDON CLAY FORMATION)	
3.00 3.00	D9 SPT (s)	(2, 2, 3, 3, 3, 4) N = 13		11.06		2.30 (0.70)	Firm greyish brown fissured silty CLAY with rare angular to subangular, fine to coarse gravel sized calcarious nodules, occasional pockets of orange fine sand. Fissures are extremely closely spaced, 0-90 degrees planar smooth grey gleyed (LONDON CLAY FORMATION)	
				10.36		3.00	----	

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike
All dimensions in metres Scale 1:25			Contractor A2 Site Investigation			Method/ Plant Used WS Rig			Logged By FM		Status FINAL



Borehole Log

Project Brunel Walk				Borehole No WS03	
Job No 12621	Start 17-11-21 Finish 17-11-21	Ground Level (mOD) 13.31	Co-Ordinates E 533,088.0 N 189,011.0		Depth (m) 3m
Client London Borough of Haringey			SPT Energy Ratio 73%		Sheet 1 of 1

SAMPLES & TESTS				STRATA			Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	
0.30 0.30 0.30	D1 ES2	VOC 0.00 ppm		13.21		0.10 (0.30)	
				12.91		0.40	
0.80 0.80 0.80	D3 ES4	VOC 0.00 ppm				(0.80)	
1.20 1.20-1.65 1.20 1.20	ES5 D6 SPT (s)	(2, 3, 3, 4, 4, 4) N = 15 VOC 0.00 ppm		12.11		1.20 (0.50)	
				11.61		1.70	
2.00 2.00-2.45 2.00	ES7 D8 SPT (s)	(2, 3, 4, 4, 6, 6) N = 20				(1.30)	
3.00 3.00	D9 SPT (s)	(2, 3, 3, 3, 5, 7) N = 18		10.31		3.00	
---- Borehole Terminated at 3m ----							

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike
All dimensions in metres Scale 1:25			Contractor A2 Site Investigation			Method/ Plant Used WS Rig			Logged By FM		Status FINAL



Borehole Log

Project Brunel Walk				Borehole No WS04	
Job No 12621	Start 17-11-21 Finish 17-11-21	Ground Level (mOD) 13.23	Co-Ordinates E 533,104.0 N 189,008.0		Depth (m) 3m
Client London Borough of Haringey			SPT Energy Ratio 73%		Sheet 1 of 1

SAMPLES & TESTS							STRATA		Instrument/ Backfill	
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description			
0.30 0.30 0.30	D1 ES2	VOC 0.00 ppm		13.03		(0.20) 0.20	Soft brown sandy CLAY with occasional angular to subangular, fine to coarse gravel sized flint. Sand is fine to coarse. (TOPSOIL)			
				12.43		(0.60) 0.80	Soft brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, brick, glass and rare bitumen. Rare pockets of calcareous nodules (MADE GROUND)			
0.80 0.80 0.80	D3 ES4	VOC 0.10 ppm		11.73		(0.70) 1.50	Firm brown orange mottled greenish grey silty gravelly CLAY with frequent inclusions of calcareous modules and frequent pockets of orangish brown fine sand. (LONDON CLAY FORMATION)			
1.20-1.65 1.20	D5 SPT (s)	(1, 1, 1, 1, 2, 2) N = 6		10.23		(1.50) 3.00	Firm brown mottled bluish grey fissured silty CLAY with occasional pockets of calcareous nodules (LONDON CLAY FORMATION)			
2.00 2.00-2.45 2.00	ES6 D7 SPT (s)	(2, 2, 2, 3, 3, 3) N = 11								
3.00 3.00	D8 SPT (s)	(1, 2, 2, 3, 3, 3) N = 11								
---- Borehole Terminated at 3m ----										

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike

All dimensions in metres Scale 1:25		Contractor A2 Site Investigation	Method/ Plant Used WS Rig	Logged By FM	Status FINAL
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Borehole Log

Project Brunel Walk				Borehole No WS05	
Job No 12621	Start 19-11-01 Finish 19-11-21	Ground Level (mOD) 13.01	Co-Ordinates E 533,133.0 N 189,008.0		Depth (m) 3m
Client London Borough of Haringey			SPT Energy Ratio 73%		Sheet 1 of 1

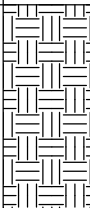
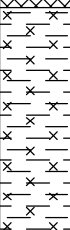
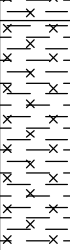
SAMPLES & TESTS			STRATA				Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	
0.30 0.30 0.30	D1 ES2	VOC 0.00 ppm		12.89		0.12	Soft brown sandy gravelly CLAY with abundant rootlets. Sand is fine to coarse. Gravel is angular to subangular, fine to medium of flint (TOPSOIL)
				12.56		0.45	Firm yellowish brown mottled greenish brown locally sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, bitumen and brick. (MADE GROUND)
0.60 0.60 0.60	D3 ES4	VOC 0.00 ppm		12.21		0.80	Soft brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, brick, ceramic, glass, bitumen and siltstone. (MADE GROUND)
1.20 1.20 1.20-1.65 1.20	D5 ES6 D7 SPT (s)	(1, 1, 2, 2, 3, 2) N = 9 VOC 0.00 ppm		11.66		1.35	Soft to firm brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, brick, plastic and bitumen (MADE GROUND)
						(1.65)	Firm brownish orange fissured silty CLAY with abundant nodules of subangular, fine to coarse gravel sized calcareous nodules and frequent pockets of orangish brown fine sand. Fissures are extremely closely spaced 0-90 degrees, planar smooth grey gleyed. (LONDON CLAY FORMATION)
2.00 2.00-2.45 2.00	ES8 D9 SPT (s)	(1, 2, 2, 3, 3, 3) N = 11		10.01		3.00	
3.00 3.00	D10 SPT (s)	(1, 1, 2, 2, 2, 3) N = 9					---- Borehole Terminated at 3m ----

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike
All dimensions in metres Scale 1:25		Contractor A2 Site Investigation				Method/ Plant Used WS Rig		Logged By FM		Status FINAL	



Borehole Log

Project Brunel Walk				Borehole No WS06	
Job No 12621	Start 19-11-21 Finish 19-11-21	Ground Level (mOD) 12.76	Co-Ordinates E 533,149.0 N 188,998.0		Depth (m) 3m
Client London Borough of Haringey			SPT Energy Ratio 73%		Sheet 1 of 1

SAMPLES & TESTS							STRATA		Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description		
0.30 0.30 0.30	D1 ES2	VOC 0.00 ppm				(0.70)	Soft dark grey mottled brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, ceramic, glass, brick, clinker and concrete (MADE GROUND)		
0.60 0.60 0.60	D3 ES4	VOC 0.10 ppm		12.06		0.70	Firm orangish brown mottled grey gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, brick, bitumen and concrete. (MADE GROUND)		
						(0.60)			
1.20 1.20 1.20-1.65 1.20	D5 ES6 D7 SPT (s)	(1, 1, 1, 1, 1, 2) N = 5 VOC 0.00 ppm		11.46		1.30	Firm orangish brown mottled brown silty CLAY with rare angular to subangular, fine to coarse gravel sized flint, frequent pockets (30x20x10mm) of orange fine sand. Abundant calcareous nodules. (LONDON CLAY FORMATION)		
1.20						(0.80)			
2.00 2.00-2.45 2.00	ES8 D9 SPT (s)	(1, 1, 1, 2, 3, 2) N = 8		10.66		2.10	Firm brown fissured silty CLAY with frequent pockets of orangish brown fine Sand. Fissures are extremely closely spaced, 0-90 degrees planar smooth and grey gleyed. (LONDON CLAY FORMATION)		
						(0.90)			
					9.76	3.00			
3.00 3.00	D10 SPT (s)	(1, 1, 1, 1, 2, 2) N = 6					---- Borehole Terminated at 3m ----		

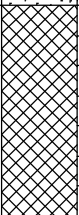
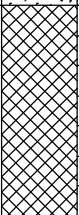
Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1.Borehole scanned with GPR, CAT & Genny 2.UXO Engineer in attendance 3.Hand excavated starter pit dug to 1.2m 4. No Water strike

All dimensions in metres Scale 1:25		Contractor A2 Site Investigation	Method/ Plant Used WS Rig	Logged By FM	Status FINAL
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Borehole Log

Project Brunel Walk				Borehole No WS07
Job No 12621	Start 17-11-21 Finish 17-11-21	Ground Level (mOD) 12.86	Co-Ordinates E 533,181.0 N 189,003.0	Depth (m) 3m
Client London Borough of Haringey			SPT Energy Ratio 73%	Sheet 1 of 1

SAMPLES & TESTS			STRATA				Instrument Backfill	
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description
0.30 0.30 0.30	D1 ES2	VOC 0.00 ppm		12.76		0.10	Soft brown sandy gravelly CLAY with frequent rootlets, Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint (TOPSOIL)	
0.60 0.60 0.60	D3 ES4	VOC 0.10 ppm		12.06		(0.70)	Soft brown mottled greenish grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, brick and concrete (MADE GROUND)	
0.60 0.60 0.60	D3 ES4	VOC 0.10 ppm		12.06		0.80	Soft orangish brown mottled greenish grey CLAY with abundant decayed rootlets, rare angular, fine to coarse gravel sized flint. (LONDON CLAY FORMATION)	
1.20 1.20 1.20-1.65 1.20	D5 ES6 D7 SPT (s)	(1, 2, 2, 3, 3, 4) N = 12 VOC 0.00 ppm		11.76		1.10	Firm orangish brown silty CLAY wit abundant pockets of orangish fine sand (10x15x10mm), frequent subangular, fine to coarse gravel sized calcarious nodules. (LONDON CLAY FORMATION)	
2.00-2.45 2.00	D8 SPT (s)	(2, 3, 4, 4, 4, 4) N = 16		10.71		2.15	Firm greyish brown fissured silty CLAY with abundant nodules of subangular, fine to coarse gravel sized calcarious nodules and frequent pockets of orangish brown fine sand. Fissures are extremely closely spaced 0-90 degrees, planar smooth grey gleyed. (LONDON CLAY FORMATION)	
3.00 3.00 3.00	ES9 D10 SPT (s)	(2, 3, 3, 4, 4, 5) N = 16		9.86		3.00	---- Borehole Terminated at 3m ----	

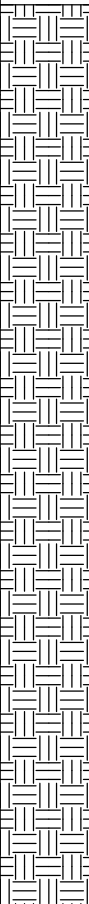
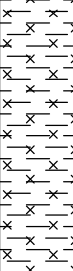
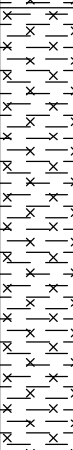
Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Casing Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike
All dimensions in metres Scale 1:25		Contractor A2 Site Investigation				Method/ Plant Used WS Rig			Logged By FM		Status FINAL

Report ID: A2SI AGS BH LOG FINAL || Project: 12621 BRUNEL WALK.GPJ || Library: A2SI AGS 4 0.GLB || Date: 21 January 2022
 12 Site Investigation, 1 Westminster Bridge Road London E1 7XW, Telephone: 0207 021 0396



Borehole Log

Project Brunel Walk				Borehole No WS08	
Job No 12621	Start 19-11-21 Finish 19-11-21	Ground Level (mOD) 10.73	Co-Ordinates E 533,192.0 N 188,991.0		Depth (m) 3m
Client London Borough of Haringey			SPT Energy Ratio 73%		Sheet 1 of 1

SAMPLES & TESTS			STRATA				Instrument/ Backfill
Depth (m)	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	
0.20 0.20 0.30	D1 ES2	VOC 0.10 ppm		10.63 10.43		0.10 (0.20) 0.30	
0.60 0.60 0.60	D3 ES4	VOC 0.20 ppm					
1.20 1.20 1.20-1.65 1.20	D5 ES6 D7 SPT (s)	(1, 1, 1, 2, 2, 2) N = 7 VOC 0.10 ppm		9.23		1.50	
2.00-2.45 2.00	D8 SPT (s)	(1, 0, 2, 2, 2, 3) N = 9				(1.50)	
3.00 3.00	D9 SPT (s)	(1, 2, 2, 2, 2, 3) N = 9		7.73		3.00	
---- Borehole Terminated at 3m ----							

Boring Progress and Water Observations						Chiselling			Water Added		General Remarks
Date	Hole Depth (m)	Casing Depth	Dia. mm	Water Depth (m)	Remarks	From	To	Hours	From	To	
											1. Borehole scanned with GPR, CAT & Genny 2. UXO Engineer in attendance 3. Hand excavated starter pit dug to 1.2m 4. No Water strike
All dimensions in metres Scale 1:25		Contractor A2 Site Investigation				Method/ Plant Used WS Rig		Logged By FM		Status FINAL	



Trial Pit Log

Project Brunel Walk				Trial Pit No TP01	
Job No 12621	Start 16-11-21 Finish 16-11-21	Ground Level (mOD) 13.29	Co-Ordinates E 533,024.0 N 189,031.0		Depth (m) 0.7m
Client London Borough of Haringey				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.30 0.30	ES1	VOC 0.10 ppm				(0.60)	Soft brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of metal, flint, brick, plastic, asphalt and concrete. (MADE GROUND)
				12.69		0.60	
				12.59		(0.10) 0.70	Firm orangish brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint and rare brick (MADE GROUND)
							---- Trial Pit Terminated at 0.7m ----

General Remarks

1. Location scanned with GPR, CAT & Genny
2. Hand excavated

All dimensions in metres Scale 1:12.5	Contractor A2 Site Investigation	Method/ Plant Used	Digging Tools	Logged By FM	Status FINAL
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Trial Pit Log

Project Brunel Walk				Trial Pit No TP02	
Job No 12621	Start 16-11-21 Finish 16-11-21	Ground Level (mOD) 13.57	Co-Ordinates E 533,057.0 N 189,014.0		Depth (m) 0.8m
Client London Borough of Haringey				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.20 0.20	ES1	VOC 0.00 ppm		13.32		(0.25) 0.25	Soft brown sandy gravelly CLAY. Sand is fine to coarse, Gravel is angular to subangular, fine to coarse of flint, concrete, brick and plastic. (MADE GROUND)
0.70 0.70	ES2	VOC 0.00 ppm		12.77		(0.55) 0.80	Soft brown sandy gravelly CLAY with high cobble content, Sand is fine to coarse, Gravel is angular to subangular, fine to coarse of flint, brick, wood, glass, plastic, bitumen and concrete. Cobbles are angular of brick and wood (MADE GROUND)
							----- Trial Pit Terminated at 0.8m -----

General Remarks

1. Location scanned with GPR, CAT & Genny
2. Hand excavated

All dimensions in metres Scale 1:12.5	Contractor A2 Site Investigation	Method/ Plant Used Digging Tools	Logged By FM	Status FINAL
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Trial Pit Log

Project Brunel Walk				Trial Pit No TP03	
Job No 12621	Start 16-11-21 Finish 16-11-21	Ground Level (mOD) 13.40	Co-Ordinates E 533,086.0 N 189,020.0		Depth (m) 1.4m
Client London Borough of Haringey				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.30 0.30	ES1	VOC 0.00 ppm		13.35		0.05	Soft dark brown sandy CLAY with abundant rootlets. Sand is fine to coarse. (TOPSOIL)
						(0.40)	Soft brown clayey sandy GRAVEL with low cobble content. Sand is fine to coarse. GRAVEL is angular to rounded, fine to coarse of flint, brick, wood. Cobbles are angular of brick. (MADE GROUND)
0.60 0.60	ES2	VOC 0.00 ppm		12.95		0.45	Soft to firm brown gravelly CLAY. Gravel is angular to subrounded, fine to coarse of flint. (LONDON CLAY FORMATION)
						(0.95)	
				12.00		1.40	
---- Trial Pit Terminated at 1.4m ----							

General Remarks

1. Location scanned with GPR, CAT & Genny
2. Hand excavated

All dimensions in metres Scale 1:12.5	Contractor A2 Site Investigation	Method/ Plant Used Digging Tools	Logged By FM	Status FINAL
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Trial Pit Log

Project Brunel Walk				Trial Pit No TP04	
Job No 12621	Start 16-11-21 Finish 16-11-21	Ground Level (mOD) 13.17	Co-Ordinates E 533,134.0 N 189,018.0		Depth (m) 0.6m
Client London Borough of Haringey				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.40 0.40	ES1	VOC 0.00 ppm		13.11		0.06	PAVEMENT SLAB
				13.03		0.14	Loose yellow fine to coarse Sand. (MADE GROUND)
				12.93		(0.10) 0.24	Weak coarse CONCRETE of 20mm flint
						(0.36)	Soft brownish grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, brick, asphalt and concrete (MADE GROUND)
				12.57		0.60	----- Trial Pit Terminated at 0.6m -----

General Remarks

1. Location scanned with GPR, CAT & Genny
2. Hand excavated

All dimensions in metres Scale 1:12.5	Contractor A2 Site Investigation	Method/ Plant Used Digging Tools	Logged By FM	Status FINAL
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Trial Pit Log

Project Brunel Walk				Trial Pit No TP05	
Job No 12621	Start 17-11-21 Finish 17-11-21	Ground Level (mOD) 10.82	Co-Ordinates E 533,194.0 N 189,002.0		Depth (m) 0.6m
Client London Borough of Haringey				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.30 0.30	ES1	VOC 0.00 ppm		10.76		0.06	PAVEMENT SLAB
				10.72		0.10	Loose yellow fine to coarse SAND. (MADE GROUND)
						(0.50)	Very soft brown sandy clayey GRAVEL with very high cobble content, Sand is fine to coarse, Gravel is angular to subangular, fine to coarse of flint, slate, brick, concrete, metal and plastic, Cobbles are angular of brick and concrete. (MADE GROUND)
				10.22		0.60	
				----- Trial Pit Terminated at 0.6m -----			

General Remarks

1. Location scanned with GPR, CAT & Genny
2. Hand excavated

All dimensions in metres
Scale 1:12.5

Contractor
A2 Site Investigation

Method/
Plant Used

Digging Tools

Logged By

FM

Status

FINAL



Trial Pit Log

Project Brunel Walk				Trial Pit No TP06
Job No 12621	Start 17-11-21 Finish 17-11-21	Ground Level (mOD) 10.73	Co-Ordinates E 533,190.0 N 188,991.0	Depth (m) 0.65m
Client London Borough of Haringey				Sheet 1 of 1

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.20 0.20	ES1	VOC 0.00 ppm		10.64		0.09	Brickwork (MADE GROUND)
						(0.26)	Loose yellowish brown sandy GRAVEL. Sand is fine to coarse. Gravel is angular to subrounded, fine to coarse of flint, brick and concrete (MADE GROUND)
10.38		0.35		Firm orangish brown fissured silty CLAY with rare subangular to subrounded, fine to coarse gravel sized flint. Fissures are extremely closely spaced, 0-90 degrees, planar smooth grey gleyed (LONDON CLAY FORMATION)			
0.60 0.60		ES2			VOC 0.10 ppm		(0.30)
						10.08	0.65
----- Trial Pit Terminated at 0.65m -----							

General Remarks

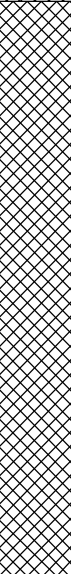
1. Location scanned with GPR, CAT & Genny
2. Hand excavated
3. Water encountered within the base of pit at approximately 0.50mbgl

All dimensions in metres Scale 1:12.5	Contractor A2 Site Investigation	Method/ Plant Used Digging Tools	Logged By FM	Status FINAL
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Trial Pit Log

Project Brunel Walk				Trial Pit No TP07	
Job No 12621	Start 18-11-21 Finish 18-11-21	Ground Level (mOD) 12.83	Co-Ordinates E 533,144.0 N 188,998.0		Depth (m) 1.25m
Client London Borough of Haringey				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.20 0.20	ES1	VOC 0.00 ppm		12.53		(0.30) 0.30	Soft brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, bitumen, concrete, asphalt, brick and plastic (MADE GROUND)
0.80 0.80	ES2	VOC 0.00 ppm		11.58		(0.95) 1.25	Soft to firm brown sandy gravelly CLAY with high cobble content. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, brick, glass, plastic, bitumen, concrete. Cobbles are angular of brick and concrete (MADE GROUND)
----- Trial Pit Terminated at 1.25m -----							

General Remarks

1. Location scanned with GPR, CAT & Genny
2. Hand excavated

All dimensions in metres
Scale 1:12.5

Contractor
A2 Site Investigation

Method/
Plant Used

Digging Tools

Logged By

FM

Status

FINAL



Trial Pit Log

Project Brunel Walk				Trial Pit No TP08	
Job No 12621	Start 18-11-21 Finish 18-11-21	Ground Level (mOD) 12.54	Co-Ordinates E 533,185.0 N 189,005.0		Depth (m) 1.34m
Client London Borough of Haringey				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.20 0.20	ES1	VOC 0.00 ppm		12.48		0.06	PAVEMENT SLAB
0.50 0.50	ES2	VOC 0.00 ppm				(1.28)	Soft brown sandy gravelly CLAY with high cobble content. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of metal, flint, concrete, ceramic, clinker, brick, suspected ACM material. Cobbles are angular of clinker, brick and concrete (MADE GROUND)
0.80 0.80	ES3	VOC 0.10 ppm					
				11.20		1.34	----- Trial Pit Terminated at 1.34m -----

General Remarks

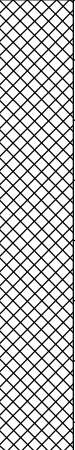
1. Location scanned with GPR, CAT & Genny
2. Hand excavated

All dimensions in metres Scale 1:12.5	Contractor A2 Site Investigation	Method/ Plant Used Digging Tools	Logged By FM	Status FINAL
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Trial Pit Log

Project Brunel Walk				Trial Pit No TP09	
Job No 12621	Start 18-11-21 Finish 18-11-21	Ground Level (mOD) 12.22	Co-Ordinates E 533,189.0 N 188,990.0		Depth (m) 0.75m
Client London Borough of Haringey				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.30 0.30	ES1	VOC 0.00 ppm				(0.75)	Firm brown sandy gravelly CLAY with high cobble content. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of lint, metal, brick, wood, concrete and clinker (MADE GROUND)
				11.47		0.75	----- Trial Pit Terminated at 0.75m -----

General Remarks

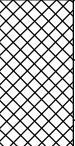
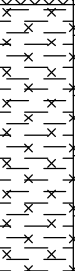
1. Location scanned with GPR, CAT & Genny
2. Hand excavated

All dimensions in metres Scale 1:12.5	Contractor A2 Site Investigation	Method/ Plant Used	Digging Tools	Logged By FM	Status FINAL
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Trial Pit Log

Project Brunel Walk				Trial Pit No TP10	
Job No 12621	Start 16-11-21 Finish 16-11-11	Ground Level (mOD) 13.16	Co-Ordinates E 533,112.0 N 189,008.0		Depth (m) 0.7m
Client London Borough of Haringey				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.20 0.20	ES1	VOC 0.00 ppm		12.91		(0.25) 0.25	Soft brown sandy gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of flint, glass, brick, flint, wood, metal. Cobbles are angular of brick (MADE GROUND)
0.70 0.70	ES2	VOC 0.00 ppm		12.46		(0.45) 0.70	Soft orangish brown gravelly CLAY. Gravel is angular to subangular, fine to coarse of flint. Abundant decayed rootlets (LONDON CLAY FORMATION)
---- Trial Pit Terminated at 0.7m ----							

General Remarks

1. Location scanned with GPR, CAT & Genny
2. Hand excavated

All dimensions in metres Scale 1:12.5	Contractor A2 Site Investigation	Method/ Plant Used Digging Tools	Logged By FM	Status FINAL
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Trial Pit Log

Project Brunel Walk				Trial Pit No TP11	
Job No 12621	Start 16-11-21 Finish 16-11-21	Ground Level (mOD) 13.16	Co-Ordinates E 533,040.0 N 189,029.0		Depth (m) 1.1m
Client London Borough of Haringey				Sheet 1 of 1	

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
0.20 0.20	ES1	VOC 0.10 ppm		12.91		(0.25) 0.25	Soft brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of plastic, flint, brick, concrete and bitumen. (MADE GROUND)
0.50 0.50	ES2	VOC 0.00 ppm				(0.75)	Soft greyish brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of glass, bitumen, clinker, brick, concrete, flint and wood (MADE GROUND)
1.00 1.00	ES3	VOC 0.00 ppm		12.16		1.00	Soft orangish brown silty CLAY with abundant decayed rootlets and abundant angular to subangular, fine to coarse of gravel sized flint. (LONDON CLAY FORMATION) ----- Trial Pit Terminated at 1.1m -----
				12.06		(0.10) 1.10	

General Remarks

1. Location scanned with GPR, CAT & Genny
2. Hand excavated

All dimensions in metres
Scale 1:12.5

Contractor
A2 Site Investigation

Method/
Plant Used

Digging Tools

Logged By

FM

Status

FINAL



Trial Pit Log

Project Brunel Walk				Trial Pit No TP12
Job No 12621	Start 19-11-21 Finish 19-11-21	Ground Level (mOD) 13.45	Co-Ordinates E 533,074.0 N 189,025.0	Depth (m) 0.1m
Client London Borough of Haringey				Sheet 1 of 1

SAMPLES & TESTS			Water	STRATA			
Depth (m)	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	Description
				13.39		0.06	PAVEMENT SLAB
				13.36		0.09	Loose orangish brown sandy gravelly SAND. Sand is fine to coarse. Gravel is angular to subangular, fine to coarse of mixed lithologies and flint. (MADE GROUND).
				13.35		0.10	
							CONCRETE
							---- Trial Pit Terminated at 0.1m ----

General Remarks

1. Location scanned with GPR, CAT & Genny
2. Hand excavated

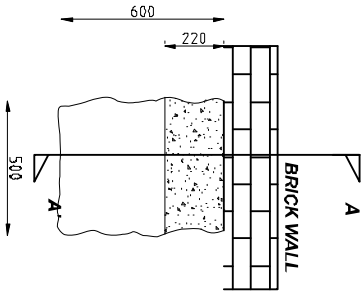
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42 Site Investigation, 1 Westminster Bridge Road SE1 7XW, _telephone: 020 7021 0396

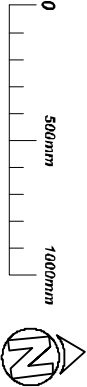
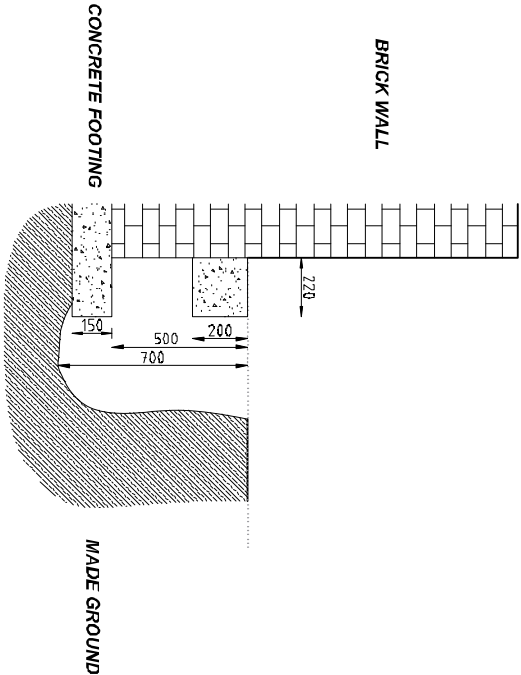
TP01 PHOTOGRAPH



TP01 PLAN VIEW



A-A' SECTION



REV	DATE	BY	CHKD	APPR
00	17/01/22	FA	RB	DS

Drawn by: J. Smith
Checked by: J. Smith
Reviewed by: J. Smith
Date: 17/01/22

Project Name:
London Borough of
Haringey

Project No:
Brunel Walk

Drawing No:
Trial Pit 01 Sketch

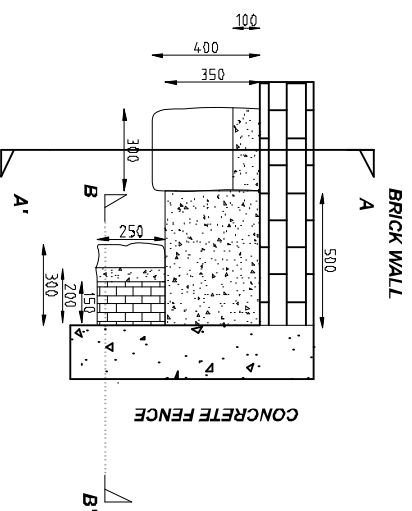
ASST	Rev
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Project Name:
12621-A2SP-XX-XX-DR-Y-0001-00

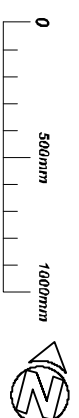
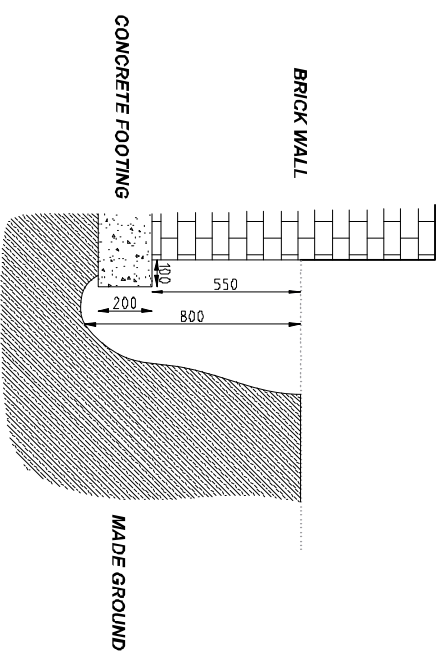
TP02 PHOTOGRAPH



TP02 PLAN VIEW



A-A' SECTION



Row	Date	By	Checked	Approved
00	17/01/22	FA	RB	DS

One World at a Time
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Other

**London Borough of
Haringey**

Project 11b

Brunel Walk

Примечание

Trial Pit 02 Sketch

Account Number	Page
12621	00

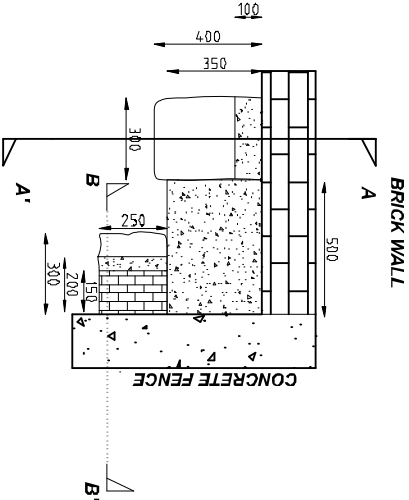
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12621-A2SI-XX-XX-DR-Y-0002A-00

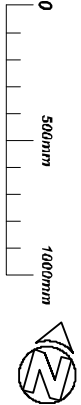
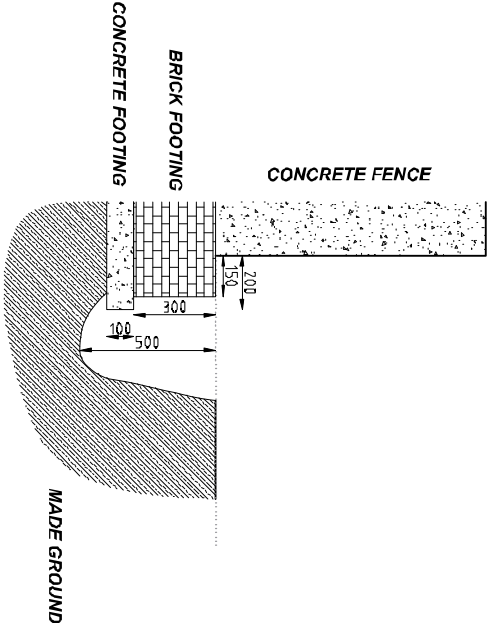
TP02 PHOTOGRAPH



TP02 PLAN VIEW



B-B' SECTION



REV	DATE	BY	CHK'D	APPRO
00	17/01/22	FA	RB	DS

Drawn by: J. Smith
Checked by: J. Smith
Reviewed by: J. Smith
Date: 17/01/22

Project Name:
London Borough of
Haringey

Project No:
Brunel Walk

Drawing No:
Trial Pit 02 Sketch

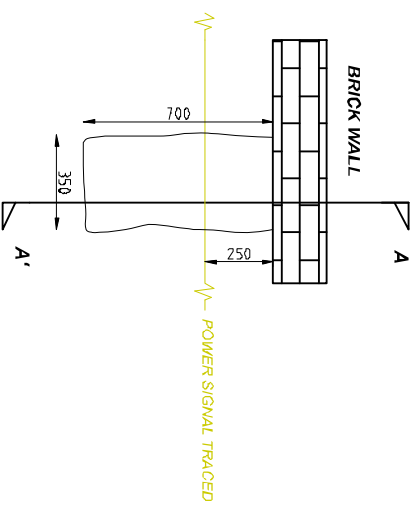
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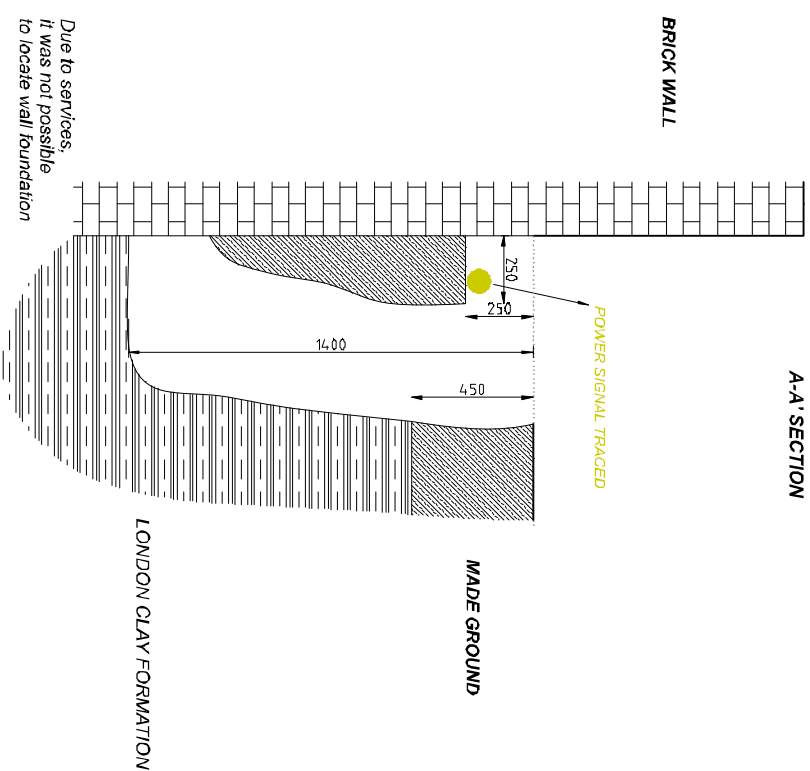
TP03 PHOTOGRAPH



TP03 PLAN VIEW

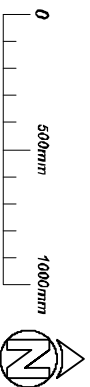
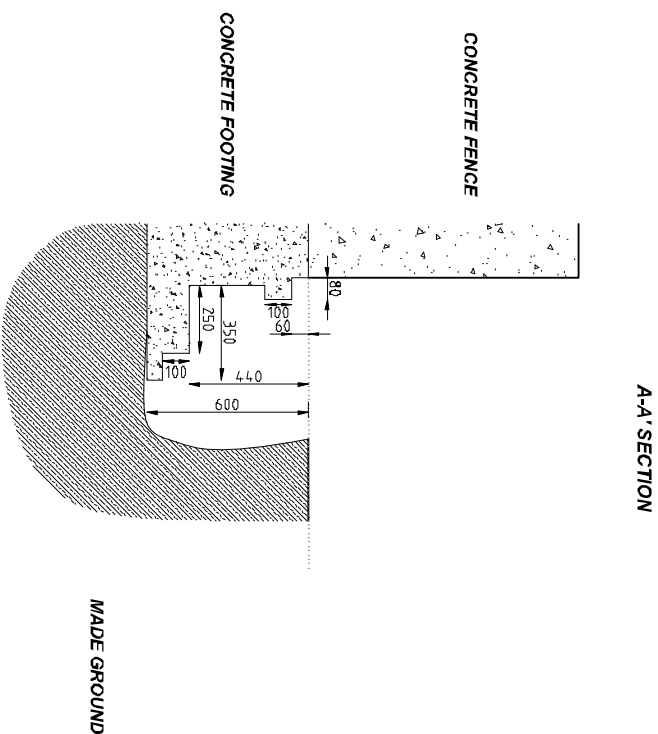
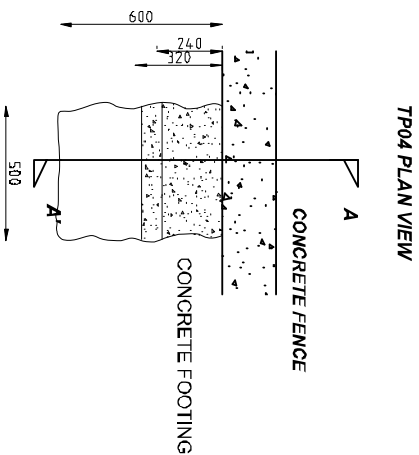


A-A' SECTION



Row	Date	By	Chkd	Appt
00	17/01/22	FA	RB	DS

One Washington Square, 7th Fl.
 Toronto, ON M5S 1A5
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REV	DATE	BY	CHKD	APPR
00	17/01/22	FA	RB	DS

On: 17/01/22, 15:41:31
File: 22-01-22-001
User: DS
Version: 1.00

Client
London Borough of
Haringey

Project No.
Brunel Walk

Drawing Title
Trial Pit 04 Sketch

ASST	THRU	DATE
12621		00

Drawing Name
12621-A2SP-XX-XX-D-R-Y-0004-00