



**QUANTITATIVE GROUND
CONTAMINATION RISK
ASSESSMENT AND
REMEDICATION STRATEGY
REPORT**

**LAND TO THE REAR OF 1
BROCKWELL COTTAGE
FAYGATE LANE
HORSHAM
WEST SUSSEX**

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EXECUTIVE SUMMARY

The following presents a summary of the main findings of the report. It is emphasised that no reliance should be placed on any individual point until the whole of the report has been read as other sections of the report may put into context the information contained herein.

It is proposed to construct a new detached single-storey dwelling on the land to the rear of 1 Brockwell Cottage, Faygate Lane, Horsham, West Sussex. The new property, fronting Old Forge Close to the west, will feature three off street parking bays and a private garden to the rear.

A previously undertaken preliminary ground contamination risk assessment identified potential pollutant linkages associated with made ground on site and the potential for ground gases from the backfilling of a former brick field and area of historical landfill to the north-east of the site.

Reference to geological datasets indicates that the site is expected to be underlain by the Weald Clay Formation. The Weald Clay Formation is classed as an Unproductive Stratum. The site does not lie within a SPZ.

The site investigation works identified a shallow thickness of made ground, overlying Weald Clay Formation deposits.

The made ground has been recorded to contain concentrations of lead above the screening values for a residential development.

The gas risk assessment has concluded that the site should be classified as Characteristic Situation 1 (CS1). No specific gas protection measures are required for sites designated as CS1.

A remediation strategy is included in the report setting out how the identified pollutant linkages can be severed. A verification plan details what information will be collated and presented to demonstrate that the remedial works have been correctly undertaken.

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1. INTRODUCTION

It is proposed to construct a new detached single-storey dwelling on the land to the rear of 1 Brockwell Cottage, Faygate Lane, Horsham, West Sussex. The new property, fronting Old Forge Close to the west, will feature three off street parking bays and a private garden to the rear. A copy of the proposed development layout is presented in Appendix A.

A Preliminary Contamination Risk Assessment Report for the site was prepared by Ashdown Site Investigation Ltd in October 2025¹. The report identified potential pollutant linkages to be present and included recommendations for an intrusive ground investigation to inform a quantitative risk assessment.

Ashdown Site Investigation Ltd was requested to carry out a ground investigation in line with the recommended works set out in the previous desk study and undertake a quantitative ground contamination risk assessment to assist with the discharge of the relevant planning conditions set out by Horsham District Council. A copy of the decision notice can be found in Appendix B.

The scope of the works covered by this report, and the terms and conditions under which they were undertaken, were set out within the offer letter Q16105, dated 12th January 2026. The instruction to proceed was received from the client, Telbridge Properties Ltd.

The specific objectives of the works were to:

- a) Establish the expected geology and hydrogeology at the site;
- b) Investigate the shallow ground and groundwater conditions in the area of the proposed development;
- c) Test for the presence of contaminants identified by the preliminary conceptual model;
- d) Develop a quantitative conceptual model of the site, refining the preliminary model to identify any pollutant linkages that may be present;
- e) Develop remedial measures to sever the identified pollutant linkages; and
- f) Develop a plan as to how remedial measures should be verified.

This report should be read in conjunction with the previous report for the site.

¹ Project Ref: P17439, Report Ref: R16919, dated 24th October 2025

2. SITE CONTEXT

2.1 Site Description

The site comprises an open plot of land to the rear of 1 Brockwell Cottage, Faygate Lane, Horsham, West Sussex, and is centred on the approximate Ordnance Survey national grid reference 521755, 134251. A site location plan and site plan are presented as Figure 1 and Figure 2, respectively.

At the time of the intrusive investigation works the site was clear of any structures but heavily overgrown. Old Forge Close is located to the immediate west of the site, and gardens and housing bound the site to the north, east and south.

2.2 Geological and Hydrogeological Data Review

2.2.1 Expected Geology and Aquifer Designation

The stratigraphic unit that may be expected to underlie the site has been established by reference to British Geological Survey (BGS) mapping and the BGS Lexicon of Named Rock Units. The expected stratigraphy is presented in the following table.

Table 1. Expected Strata and Aquifer Designation

Type	Stratum	Aquifer Designation
Bedrock	Weald Clay Formation	Unproductive Stratum

The Weald Clay Formation forms part of the Wealden Group. The formation is of Hauterivian to Barremian age (126.3 to 133.9 million years old; Early Cretaceous). The Weald Clay Formation comprises dark grey thinly-bedded mudstones (shales) and mudstones with subordinate siltstones, fine to medium grained sandstones, including calcareous sandstone (e.g. Horsham Stone Member), shelly limestones (the so called "Paludina Limestones") and clay ironstones. The formation is recorded by the BGS to range in thickness up to 460m.

2.2.2 Groundwater Source Protection Zones (SPZ)

The Environment Agency defines SPZs as those areas where groundwater supplies are at risk from potentially polluting activities and accidental releases of pollutants. SPZs are primarily a policy tool used to control activities close to water supplies intended for human consumption.

The site does not lie within a SPZ.

3. SITE WORKS

3.1 Introduction

The intrusive site works comprised a series of dynamic sampler boreholes and hand dug pits. The intrusive work was carried out on 19th January 2026. The exploratory hole locations are shown on Figure 2.

Descriptions of the strata encountered and comments on groundwater conditions are shown in the exploratory hole records given in Appendix C, which also includes explanatory notes to assist in their interpretation.

3.2 Exploratory Holes

The following table summarises the intrusive works undertaken at the site.

Table 2. Summary of Intrusive Works Undertaken

Designation	Depth (m bgl)	Method
WS101	1.80	Dynamic Sampler
WS102	2.00	Dynamic Sampler
WS103	1.90	Dynamic Sampler
TP101	0.60	Hand Dug Pit
TP102	0.70	Hand Dug Pit
TP103	0.75	Hand Dug Pit

3.3 Sampling

Samples of soil were taken from the exploratory holes at the depths shown in the exploratory hole records. The types of samples taken are indicated on the exploratory hole records. Details on the sample types are provided in the explanatory notes.

Where appropriate, samples were stored in cool boxes with cooling blocks to maintain temperatures below 4°C until transferred to refrigerators upon return to the office and subsequently forwarded to the external accredited chemical testing laboratory.

3.4 Installations

Gas and groundwater monitoring standpipes were installed to depths of between 1.80m and 2.00m in each of the three boreholes. Descriptions of the installations are shown on the exploratory hole records.

The concentrations of gases and depths to groundwater were recorded within the standpipes on six occasions between 30.th January and 3rd March 2026. The readings are presented in Appendix D.

3.5 Laboratory Testing

Laboratory testing was scheduled by Ashdown Site Investigation Ltd.

Chemical testing was undertaken by a laboratory with recognised (UKAS and MCERTS) accreditation for quality control.

Results from the laboratory tests are provided in Appendix E.

4. GROUND CONDITIONS

4.1 Stratigraphy

4.1.1 *Surface Covering*

No surfacing materials were encountered in any of the exploratory holes.

4.1.2 *Made Ground*

Made ground, generally comprising slightly gravelly clay, was recorded at each intrusive position, extending to depths of between 0.55m and 0.75m below ground level, where proven; two of the shallow trial pits were terminated within the made ground. The gravel fraction comprised variable quantities of brick, flint and charcoal-like material, with small amounts of concrete, plastic and glass also noted at some locations.

4.1.3 *Weald Clay Formation*

Underlying the made ground, the investigation progressed into undisturbed gravelly clay. The gravel fraction comprised mudstone, with occasional mudstone bands encountered in the boreholes. These soils continued to the full investigation depth of 2.00m below ground level.

These deposits are considered to represent the Weald Clay Formation indicated to underlie the site on BGS geological maps.

4.2 Stability

Each of the exploratory holes was recorded to remain stable during the course of drilling/excavation.

4.3 Groundwater Conditions

With the exception of WS103, each of the exploratory holes was recorded to remain dry during drilling/excavation. Within borehole WS103, groundwater was encountered at 0.70m, during excavation of the starter pit. The groundwater level was recorded at 0.60m depth on completion of the exploratory hole.

Depths to groundwater in the standpipes ranging between ground level and 0.70m below ground level were recorded during the return monitoring visits.

It should be noted that water levels within the exploratory holes may not have equilibrated with the groundwater table at the time the readings were recorded and that groundwater levels should be expected to fluctuate seasonally.

5. QUANTITATIVE CONTAMINATION ASSESSMENT

5.1 Introduction

The risk assessment for the site considers the sources of contamination identified, the receptors that may be present in view of the development proposals and the contaminant pathways by which these may be linked.

A complete pollutant linkage is only deemed to exist where all three are present and a site is considered suitable for use where no complete pollutant linkages are identified.

Where a complete pollutant linkage is considered to be present, an assessment of the level of risk associated with the pollutant linkage has been carried out in line with published guidance².

The level of risk is determined using the risk matrix presented in the following table. Classifications of probability, consequence and risk are presented in Appendix F.

Table 3. Risk Assessment Matrix

		Probability			
		Very Low	Low	Moderate	High
Consequence	Very Minor	Negligible	Very Low	Low	Low/Moderate
	Minor	Very Low	Low	Low/Moderate	Moderate
	Moderate	Low	Low/Moderate	Moderate	High
	Severe	Low/Moderate	Moderate	High	Very High

5.2 Preliminary Conceptual Model

A copy of the preliminary conceptual model is presented in Appendix G.

5.3 Assessment Strategy

The investigation strategy was set out in section 6.5 of the preliminary risk assessment, and the purpose of the intrusive positions undertaken is summarised in the following table.

Table 4. Investigation Works Carried Out

Contaminant source	Exploratory Positions
Made Ground and reworked soils associated with the former brick field, identified to be present during the previous investigation	Trial pits TP01 to TP03 and boreholes WS01 to WS03. Samples of the shallow made ground from each location were tested for the range of potential contaminants identified.
Ground gas generation from backfilling of the former brick field and area of historical landfill to the north-east	Installation of gas monitoring standpipes within boreholes WS01 to WS03. Monitoring on six occasions at approximately weekly intervals.

² Contaminated Land Risk Assessment: A guide to good practice, CIRIA C552, 2001.

5.4 Analysis of Contamination Test Results

5.4.1 Method of Assessment

For the assessment of risk to end users, comparison of the results of the laboratory testing has been made against published soil screening values (SSV) comprising the 'Suitable For Use Levels' (S4UL)³ or, in lieu of an S4UL being developed for lead, the Category 4 Screening Level (C4SL)⁴. In view of the development proposal, the SSV utilised in this assessment are those calculated for the generic "Residential with homegrown produce" land use.

5.4.2 Heavy Metals & Polycyclic Aromatic Hydrocarbon (PAH) Compounds

The following table summarises the SSV for heavy metals and PAH compounds, along with the maximum and minimum concentrations recorded.

Table 5. Summary of Test Results – Heavy Metals and PAH Compounds

Contaminant	SSV (mg/kg)	No. of Samples	Minimum Concentration (mg/kg)	Maximum concentration (mg/kg)	Limit of Detection (mg/kg)	No of exceedances
Arsenic	37	6	6.5	24	< 2	0
Water Soluble Boron	290	6	0.7	1.8	< 1	0
Cadmium	11	6	0.1	1.2	< 0.2	0
Chromium	910	6	20	29	< 2	0
Hexavalent Chromium	6	6	<LOD	<LOD	< 2	0
Copper	2400	6	22	480	< 4	0
Lead	200	6	27	780	< 3	4
Mercury	40	6	0.06	0.51	< 1	0
Nickel	180	6	11	34	< 3	0
Selenium	250	6	<LOD	<LOD	< 3	0
Zinc	3700	6	57	520	< 3	0
Naphthalene	2.3	6	<LOD	<LOD	< 0.1	0
Acenaphthylene	170	6	<LOD	<LOD	< 0.1	0
Acenaphthene	210	6	<LOD	<LOD	< 0.1	0
Fluorene	170	6	<LOD	<LOD	< 0.1	0
Phenanthrene	95	6	<LOD	0.2	< 0.1	0
Anthracene	2400	6	<LOD	0.03	< 0.1	0
Fluoranthene	280	6	<LOD	0.43	< 0.1	0
Pyrene	620	6	<LOD	0.36	< 0.1	0
Benz(a)anthracene	7.2	6	<LOD	0.13	< 0.1	0

³ Nathanail, C.P, et al., The LQM/CIEH S4ULs for Human Health Risk Assessment, 2015, Land Quality Press, Nottingham. Copyright Land Quality Management Limited reproduced with permission; Publication Number S4UL3071.

⁴ SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. Final Project Report, published by DEFRA, 2014.

Contaminant	SSV (mg/kg)	No. of Samples	Minimum Concentration (mg/kg)	Maximum concentration (mg/kg)	Limit of Detection (mg/kg)	No of exceedances
Chrysene	15	6	<LOD	0.14	< 0.1	0
Benzo(b)fluoranthene	2.6	6	<LOD	0.15	< 0.1	0
Benzo(k)fluoranthene	77	6	<LOD	0.05	< 0.1	0
Benzo(a)pyrene	2.2	6	<LOD	0.1	< 0.1	0
Indeno(123-cd)pyrene	27	6	<LOD	0.05	< 0.1	0
Dibenz(ah)anthracene	0.24	6	<LOD	<LOD	< 0.1	0
Benzo(ghi)perylene	320	6	<LOD	0.06	< 0.1	0

Four of the six samples have recorded concentrations of lead above the screening value and therefore the shallow made ground is considered to pose an unacceptable risk to end users where such soils may remain in areas of garden or soft landscaping.

5.4.3 Asbestos

No suspected asbestos materials were noted within any of the exploratory holes undertaken at the site. Six samples of the made ground were screened for the presence of asbestos. None of the samples recorded the presence of any asbestos materials.

There is not considered to be an unacceptable risk to end users from asbestos materials within soils. Due to the heterogeneity of made ground, there will always remain the potential for localised asbestos materials to be encountered during construction works, though the likelihood of this is considered to be very low. All workers at the site should be made aware of what actions to take in the event that suspected asbestos materials are identified at any time during the development works.

5.4.4 Petroleum Hydrocarbons

The following table lists the SSV for petroleum hydrocarbon equivalent carbon weight fractions and BTEX compounds calculated for 1% organic content.

Table 6. SSV for petroleum hydrocarbon equivalent carbon weight fractions

Petroleum Hydrocarbon Fraction	SSV (mg/kg)	Petroleum Hydrocarbon Fraction	SSV (mg/kg)
Aliphatic EC 5-6	42	Aromatic EC 5-7	70
Aliphatic EC >6-8	100	Aromatic EC >7-8	130
Aliphatic EC >8-10	27	Aromatic EC >8-10	34
Aliphatic EC >10-12	130	Aromatic EC >10-12	74
Aliphatic EC >12-16	1100	Aromatic EC >12-16	140
Aliphatic EC >16-35	65000	Aromatic EC >16-21	260
Aliphatic EC >35-44	65000	Aromatic EC >21-35	1100
		Aromatic EC >35-44	1100

Whilst full speciation of the concentrations of petroleum hydrocarbons by aromatic and aliphatic fractions was not undertaken, the results of the testing undertaken can still be compared with the more stringent of the screening values for the respective equivalent carbon weight fraction and, where the concentration recorded is found to be lower, it can be reasonably concluded that no significant risk is present.

None of the samples recorded concentrations of any fractions above the more conservative SSV. There is not considered to be a risk to end users from petroleum hydrocarbons within the made ground.

Comparison of the test results for petroleum hydrocarbons has been undertaken with the threshold value for PE water supply pipework⁵. The concentrations do not exceed the threshold value.

5.5 Analysis of Ground Gas Monitoring Results

Assessment of the risk from ground gases has been undertaken following the guidance presented within BS8576⁶ and BS8485⁷. Reference has also been made to good practice guidance provided within NF94⁸.

5.5.1 Potential Source of Ground Gases

The potential source of ground gas identified by the preliminary assessment was backfilling of the former brickfield and an area of historical landfill to the north-east of the site.

5.5.2 Location and Construction of Standpipes

The location of the standpipes takes into account the guidance presented in section 8.4 of BS8576. Standpipes were located within boreholes WS01 to WS03 which were positioned around the footprint of the proposed house.

The standpipes were constructed with the response zone (slotted section) sealed within the undisturbed soils of the Weald Clay Formation, below any shallow made ground soils (in accordance with Section 9.23 of BS8576).

5.5.3 Monitoring Period

Monitoring of the gas concentrations within the 3 standpipes was carried out on 6 occasions at approximately weekly intervals, between 30th January 2026 and 3rd March 2026. This is less than the idealised monitoring period recommended in Figure 6 of BS8576, and this is discussed further in Section 5.5.8.

It is noted that no monitoring was undertaken of WS101 throughout the monitoring period due to the standpipe being flooded.

⁵ Set out within Table 3.1 of the Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites, UK Water Industry Research, 2010.

⁶ BS8576:2013 Guidance on investigation for ground gas – Permanent gases and Volatile Organic Compounds (VOCs), BSI, April 2013,

⁷ BS8485:2019+A1:2019 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings, BSI, January 2019

⁸ NF94 Hazardous ground gas – an essential guidance for housebuilders, NHBC Foundation, April 2023

5.5.4 Summary of Monitoring Results

Atmospheric pressures varied between 973 and 1016 during the monitoring period. Monitoring was carried out during periods of both rising and falling atmospheric pressure.

The peak concentration of carbon dioxide recorded during the monitoring period was 0.5% by volume. No detectable concentrations of methane were recorded during the monitoring period.

A very low negative flow rate (-0.1l/r) was recorded in the two standpipes (WS102 and WS103) that were able to be monitored during the first visit. This would appear to be likely due to groundwater level changes following the standpipe installations, as the flows were negative (i.e. gases being sucked into the standpipes) and no other detectable flow rates were recorded during the monitoring visit. The flow recorded does not represent consistent flow from the gas regime at the site.

The monitoring readings are presented in Appendix D.

5.5.5 Assessment of Monitoring Results

Section 6.3 of BS8485 recommends that the gas monitoring data should be used to calculate the “borehole hazardous gas flow rate” (Q_{hg}) for each monitoring location and event for both carbon dioxide and methane. The Q_{hg} is calculated by multiplying the gas flow rate (l/hr) by gas concentration (percentage/100).

Where no detectable gas flow rates or gas concentrations are recorded, gas concentrations or the Q_{hg} are calculated assuming values equal to the limit of detection (LOD) of the instrument are present (0.1l/hr or 0.1%).

The following table summarises the calculated Q_{hg} for carbon dioxide and methane, along with the maximum gas flow rates and gas concentrations for standpipes for each monitoring visit.

Table 7. Summary of Monitoring Results and Calculated Q_{hg}

Standpipe	Date	Maximum Flow Rate (L/hr)	Maximum Methane Concentration (%)	Maximum Carbon Dioxide Concentration (%)	Q_{hg} Methane (L/hr)	Q_{hg} Carbon Dioxide (L/hr)
WS101	29/01/2026	n/a				
WS102	29/01/2026	0.1	0.1	0.1	0.0001	0.0001
WS103	29/01/2026	0.1	0.1	0.1	0.0001	0.0001
WS101	06/02/2026	n/a				
WS102	06/02/2026	0.1	0.1	0.1	0.0001	0.0001
WS103	06/02/2026	0.1	0.1	0.1	0.0001	0.0001
WS101	12/02/2026	n/a				
WS102	12/02/2026	0.1	0.1	0.1	0.0001	0.0001
WS103	12/02/2026	0.1	0.1	0.1	0.0001	0.0001
WS101	16/02/2026	n/a				
WS102	16/02/2026	0.1	0.1	0.4	0.0001	0.0004

Standpipe	Date	Maximum Flow Rate (L/hr)	Maximum Methane Concentration (%)	Maximum Carbon Dioxide Concentration (%)	Q _{hg} Methane (L/hr)	Q _{hg} Carbon Dioxide (L/hr)
WS103	16/02/2026	0.1	0.1	0.5	0.0001	0.0005
WS101	24/02/2026	n/a				
WS102	24/02/2026	0.1	0.1	0.2	0.0001	0.0002
WS103	24/02/2026	0.1	0.1	0.4	0.0001	0.0004
WS101	03/03/2026	n/a				
WS102	03/03/2026	0.1	0.1	0.2	0.0001	0.0002
WS103	03/03/2026	0.1	0.1	0.3	0.0001	0.0003

The guidance requires that a gas screening value (GSV) is derived for the site, taking into account the Q_{hg} and, where necessary, undertaking a worst case check. The plausible worst case condition is obtained by multiplying the maximum recorded flow rate in a standpipe with the maximum gas concentration within the same strata.

The Q_{hg} for WS103 on the 16th February 2026 (highlighted within the table above) is the “worst case” condition and can be used as the GSV for the site.

5.5.6 Assessment of Risk from Ground Gases

The calculated GSV for the site is then compared to the characteristic gas situations (CS) provided in Table 2 of BS8485, which is partially reproduced below:

Table 8. Reproduction of elements of Table 2 of BS8485 – CS by Site characteristic GSV

CS	Hazard potential	Site characteristics GSV (L/h)	Additional factors
CS1	Very Low	<0.07	Typically <1% methane concentration and <5% carbon dioxide concentration (otherwise consider an increase to CS2)
CS2	Low	0.07 to 0.7	Typical measured flow rate <70 L/h (otherwise consider an increase to CS3)
CS3	Moderate	0.7 to 3.5	-

The worst case GSV for the site of 0.0005 would put the site in CS1.

5.5.7 Assessment of Gas Protection Measures Required

Before assessing the gas protection measures that may be required, BS8485 requires that buildings be categorised in accordance with Table 3, in relation to ownership structure of the building and room size, together with control of the future structural changes to the building.

The site has been assessed as (conservatively) falling into Type A building types in accordance with Table 3.

Table 4 of BS8485 then identifies the gas protection score required by different characteristic situations for different “building types”. A partial reproduction of elements of this table is shown below:

Table 9. Reproduction of elements of Table 4 of BS8485 – Gas Protection Score by CS and type of building

Characteristic Situation	Minimum Gas Protection Score (Points)			
	High Risk		Medium Risk	Low Risk
	Type A	Type B	Type C	Type D
1	0	0	0	0
2	3.5	3.5	2.5	1.5

For CS1, the gas protection score is zero, and therefore no specific gas protection measures are necessary.

5.5.8 Sufficiency of Ground Gas Monitoring

As noted in Section 5.5.3, the monitoring period was less than the idealised monitoring period suggested in Figure 6 of BS8576.

However, Appendix F of BS8576 sets out a method of assessment of the sufficiency of monitoring data, detailed in Table F1. This assessment has been reproduced and has been completed in the table below.

Table 10. Assessment of sufficiency of Monitoring Data as set out in Table F1 of BS8576

Action	Result
From current results (concentrations, flow rates and pressure), estimate likely risk associated with ground gases (note steady state flow results are to be used, not peak values that only last a few seconds on opening the gas tap)	Current calculated GSV: 0.0005 Site is categorised as Characteristic Situation 1 very low risk.
What increase in gas concentrations is required to increase the estimate risk and the form of gas protection to be provided?	If it is assumed that the peak gas flow rate remains constant at 0.1l/hr, what concentration of carbon dioxide would need to be present for the GSV to exceed the threshold of Characteristic Situation 1 (0.07)? A concentration of carbon dioxide of 70% by volume would be required to calculate a GSV >0.07.
What increase in flow rate is required to increase the estimate risk and the form of gas protection to be provided?	If it is assumed that the concentrations of carbon dioxide are consistent at the current worst case level 0.5% by volume, what flow rate would need to be present for the GSV to exceed the threshold of Characteristic Situation 1 (0.07)? A gas flow rate of 14l/hr would give a calculated GSV >0.07.
Is the increase in gas concentrations feasible given the known source of gas, the collected gas monitoring data and the conceptual site model?	No – a carbon dioxide concentration of 70% by volume is considered entirely unrealistic in the context of the site, as this would be two orders of magnitude higher than the current highest gas concentration recorded, and the generation potential of the theoretical sources identified would not support such concentrations.

Action	Result
Is the increase in flow rate feasible given the known source of gas, the collected gas monitoring data and the conceptual site model?	No – It would be almost impossible to go from no detectable flow rates to a consistent flow rate of greater than 14l/hr given the presence of very low permeability clay underlying the site and surrounding area. If such flow rates were possible then some degree of detectable positive flow rate would have been recorded within at least one of the standpipes already.
Decide whether further monitoring is required.	No – further monitoring is not considered warranted based on the assessment undertaken above and the results recorded to date. A variance in the monitoring results significant enough to warrant a change in the level of risk posed is not considered to be feasible.

5.6 Quantitative Contamination Risk Assessment

5.6.1 Contaminant Pathways Identified

The development is to comprise new residential buildings together with areas of private garden.

Pathways associated with gas and vapour intrusion into new buildings are considered to be valid, along with direct contact and dust related pathways, and pathways associated with the consumption of home grown produce.

The site is underlain by the Weald Clay Formation which is classed as an Unproductive Stratum. The Weald Clay Formation is likely to yield a very low to negligible infiltration with any leachable contaminants unlikely to come into contact with sensitive groundwater receptors. No potable drinking water abstraction points are noted within 2km of the site and the site is not located within a SPZ. As such, there are not considered to be viable pathways linking potential contamination on the site with sensitive groundwater.

Should the proposed development plans be altered, a revised risk assessment may be required.

5.6.2 Contamination Source Identified

The following source of contamination has been identified by the quantitative contamination risk assessment:

- Made ground soils.

5.6.3 Quantitative Conceptual Model

The quantitative conceptual model for the proposed development is presented in Appendix H.

6. REMEDIATION STRATEGY

Current best practice guidance recommends that any remedial action proposed for the site should be justified. The pollutant linkages identified by the quantitative risk assessment are considered to provide sufficient justification for remedial works.

The remediation works have been developed to meet the technical objectives for the development, the major drivers behind which are:

- To achieve successful remediation within a particular timescale and budget;
- Familiarity with the methodology by the developer/ground worker;
- Confidence that the remediation can be carried out by good technical practices; and
- Likely success of the style of remediation.

6.1 Options Appraisal

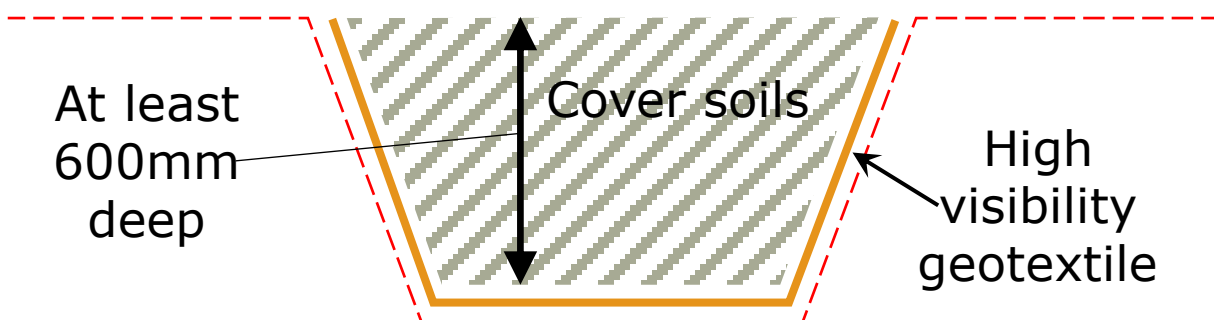
The driver for remediation at the site is the presence of made ground soils containing elevated concentrations of lead that are considered to pose an unacceptable level of risk to human health in the context of the development. There are no in situ or ex situ remediation techniques available to reduce the concentrations of lead within the made ground soils to below that of the published screening values.

The recommended works must be achievable by the groundworker, using techniques that they are familiar with. Given the depths of made ground recorded to be present, it is considered that the remediation proposals could either comprise the complete removal of the contaminant source (the made ground soils) from any areas where the end users may reasonably be expected to be exposed to the soils or soil derived dust (proposed garden or soft landscaped areas), or the provision of a cover system within such areas to sever the contaminant pathways.

Both approaches would be expected to be equally achievable, and both would be an effective approach to reducing the risk to end users of the site to an acceptable level.

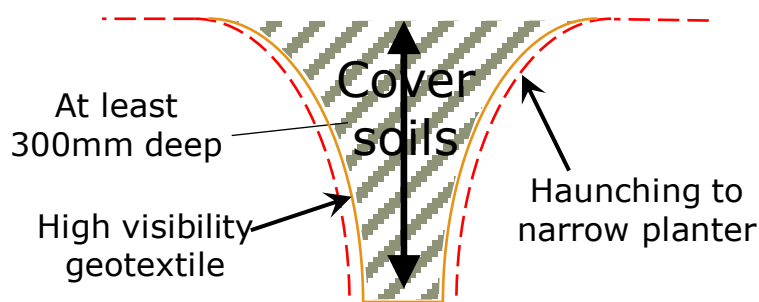
6.2 Protection of Human Health

Within all proposed garden areas, the made ground soils will be removed either to expose the undisturbed soils, or to a sufficient depth to allow the placement of **at least** 600mm of verified “clean” imported soils. The cover system soils must be underlain by a high visibility geotextile marker which laps up the sides of the excavation to prevent future intermixing between the cover system soils and the residual made ground. A schematic cross section of the cover system construction is shown below.



The depth of the cover system specified represents “two spade depths” to allow for planting of trees, shrubs etc. without residents coming into contact with the contaminated soils remaining at depth.

Where smaller planting beds are proposed it is recognised that it may be difficult to provide the full 600mm of cover due to the presence of concrete haunching or other adjacent fixtures. In such areas, the cover system should comprise 300mm of verified “clean” imported soils overlying the geotextile marker. A schematic cross section of the cover system construction is shown below.



Elsewhere on the site the presence of building cover, car parking, roadways and permanent access ways comprising hard cover will act to sever the contaminant pathways and thereby reduce the risk to end users to an acceptable level.

6.3 Protection of Controlled Waters

The risk assessment did not identify any unacceptable risks to controlled waters beneath the site and therefore no specific remedial works are considered necessary in this regard.

6.4 Protection of Services

All service providers' requirements must be fully adhered to, so as to reduce the risk to end users and services to an acceptable level.

Details of any specific measures required by service providers and confirmation of their implementation should be included within the verification report.

6.5 Protection of Construction Workers

All construction workers must undertake their own risk assessment, based upon the works to be carried out and the proposed method by which this will be achieved, in accordance with current health and safety legislation. Their assessment should take into account all available information about the site, including that present within this report.

Appropriate working procedures and PPE should be adopted to ensure the health and safety of the site operatives. Instruction should be given in the recognition of potentially hazardous materials. All site personnel should be appropriately briefed on the discovery strategy, presented below, and what actions they must take in the event that further evidence of contamination is identified or suspected.

6.6 Discovery Strategy

If, during the course of the site clearance and development works, any materials not previously identified by the investigation that are suspected of being 'contaminants' are encountered, then the following procedure will apply:

- All works in that area are to cease and the site manager informed.
- Advice sought from suitably qualified and experienced personnel as to whether any further site inspection, sampling, testing and/or assessment is deemed necessary.
- If required, the conclusions of any assessment and any proposed remedial works (if required) are to be agreed by the local authority.
- If necessary, full details of any remedial works are to be included in the verification report for the site.

Suspected 'contamination' may take the following form, though it is noted that this list is not exhaustive and site operatives should ask if they are at all unsure of any findings:

- Soil or water looks oily and/or has an oily odour
- Soil or water has a solvent type of odour
- Significant quantities of man-made materials within fill such as paint cans, car parts, glass fragments
- Suspected asbestos containing materials (insulating boards, cement, loose fibres etc.)
- Significant volumes of clinker like or ashy material
- Sand bags, and/or subsurface concrete structures
- Animal carcasses or evidence of animal burial pits

7. VERIFICATION PLAN

A checklist summarising the requirements of the verification report is presented within Appendix I

7.1 Stripped Formations and Placement of Geotextile Marker

For all soft landscaped areas where remediation works are required, the formation level will be inspected prior to placement of any cover soils to confirm either that all made ground soils have been removed or that the excavations are sufficiently deep to enable placement of the required thickness of cover soils, and to document the placement of the high visibility geotextile marker.

A photographic record of all stripped formations will be maintained for inclusion in the verification report.

If for any reason the above inspections are not undertaken in areas where remediation works are required, retrospective verification will be carried out by way of the excavation of trial pits to expose the geotextile in representative locations. In such circumstances these works may be undertaken in conjunction with the works detailed in Section 7.2.

7.2 Cover System Depth

The final depth of cover material placed in all required areas should be confirmed by use of tape measurements made within excavations to the base of the cover soils. In the event that all made ground soils have been removed from site, then the depth of cover soils will not be measured.

Photographic evidence of the depth of cover soils present will be included in the verification report.

7.3 Imported Materials

No imported materials will be sourced from potentially contaminated (e.g. industrial) sites. It is recommended that chemical testing results are obtained and supplied for comment prior to accepting the soils on site. Obtaining such results does not negate the need to carry out sampling and testing of the soils, once brought onto the site.

Once imported materials have been brought to site they should ideally be stockpiled and protected from cross contamination with any other materials already on site prior to inspection, sampling and testing by Ashdown Site Investigation Ltd. However, if this is not practical, soils may be placed directly into soft landscaped areas and subsequently inspected, sampled and tested.

The table below summarises the soil screening values⁹ against which any imported soils will be assessed.

⁹ Comprising 'Suitable For Use Levels' (S4ULs), 'The LQM/CIEH Suitable 4 Use Levels, 2015' and for lead, the Category 4 Screening Level (C4SL), SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination. Final Project Report, published by DEFRA, 2014.

Table 11. Screening Values for Imported Soils

Contaminant	Screening Value (mg/kg)	Contaminant	Screening Value (mg/kg)
Arsenic	37	Fluorene	170
Cadmium	11	Phenanthrene	95
Chromium	910	Anthracene	2400
Copper	2400	Fluoranthene	280
Lead	200	Pyrene	620
Mercury	40	Benz(a)anthracene	7.2
Nickel	180	Chrysene	15
Selenium	250	Benzo(b)fluoranthene	2.6
Zinc	3700	Benzo(k)fluoranthene	77
Hexavalent Chromium	6	Benzo(a)pyrene	2.2
Water Soluble Boron	290	Indeno(123-cd)pyrene	27
Naphthalene	2.3	Dibenz(ah)anthracene	0.24
Acenaphthylene	170	Benzo(ghi)perylene	320
Acenaphthene	210	Asbestos	None detected

It is noted that the SSV are only protective of long-term risk to human health and do not necessarily represent suitable concentrations for planting or landscaping. If necessary, a horticulturalist should be consulted in this regard.

All soils must be free from any visual or olfactory evidence of suspected petroleum hydrocarbon contamination and must not contain any significant quantity of putrescible material (incl. wood or paper). Along with testing for the contaminants listed above, testing will also be undertaken to confirm the absence of any significant concentrations of petroleum hydrocarbons.

All soils used as surface dressing or as part of the cover system must be free from propagules of aggressive weeds, fragments of glass, bricks, concrete, wire or other potentially hazardous foreign matter and bulk vegetative growth, in order to ensure negligible risk of subsequent weed problems (introduced in the soil) or traumatic injury.

In the event that any individual sample of imported material records concentrations of contaminants above the screening values listed above, the following method of assessment will be undertaken:

- Statistical analysis of the results, along with an assessment of whether any statistical 'outliers' should be removed from the dataset and treated as 'hotspots'. If the data indicates that the majority of the soil mass as a whole may be considered to contain contaminant concentrations below the screening values then it may be deemed suitable to remain.
- Depending on the findings of the analysis, additional testing (which may include retests of the original sample) may be undertaken along with further analysis of the results to determine if this is representative of a widespread issue, or if it may be attributed to a smaller part of the site, or batch of imported soils.

- Liaison with the regulators may be undertaken to agree whether or not the materials are to be considered suitable to remain.

Where testing and analysis identify a significant failure and the procedures above do not provide sufficient evidence that the imported materials are suitable to remain, then the imported soils will be removed and replaced with other suitable soils.

7.4 Sampling Rates of Imported Soils

All imported soils will be subject to verification testing at a rate of 1 sample per 250m³, with a minimum of three samples tested per batch of soils.

A batch in this instance is considered to refer to soils provided from a single supplier, and brought to site on the same day, or on consecutive days e.g. if 16 loads were delivered to site across a Monday, Tuesday and Wednesday, they would be considered as one batch, but if 3 loads were delivered on a Monday, and 5 loads 10 days later, these would be considered separate batches, even if the same supplier was used. Delivery notes for imported soils will be required to demonstrate compliance with testing rates.

7.5 Services

The contractor will provide evidence that the water supply company is satisfied with the pipe material used and has connected the new water supply.

Confirmation of any other service providers' requirements and evidence to demonstrate adherence to them are to be included in the verification report.

8. POST REMEDIATION RISK ASSESSMENT

The remedial works set out in this report are considered to remove or sever the identified pollutant linkages. A post remediation conceptual model is presented in the following table.

Table 12. Post Remediation Conceptual Model for End Users – Potential Pollutant Linkages and Assessment of Risk

Contaminant Source	Remedial Measures	Potential Pathway(s)	Assessment of Risk to Human Health
Made ground soils	Soft Landscaped Areas Removal of all made ground soils OR Provision of 600mm verified “clean” cover soils overlying a high visibility geotextile marker.	Pathways severed by remedial measures.	No significant pollutant linkages identified.
	Narrow Planters Removal of all made ground soils OR Provision of 300mm verified “clean” cover soils overlying a high visibility geotextile marker	Pathways severed by remedial measures.	
	Water Supply Pipework Provision of pipework acceptable to the local water supply company	Pathways severed by construction works and remedial works (if specified).	
	Hard Landscaping Building cover, parking areas, roadways and permanent access ways comprising hard cover	Pathways severed by construction works.	

9. REGULATORY APPROVAL

This report should be submitted to the Local Authority in support of an application to discharge planning condition 6.

The conclusions drawn in this report should be considered as provisional until such time as the report has been accepted and the relevant conditions have been discharged. Remedial works should not be undertaken until the Local Authority has approved the proposed remediation strategy.

It is noted that the condition 6 is a “Pre-Commencement Condition” but following parts a) to d) the wording states that “The scheme shall be implemented as approved.” However, a separate condition requiring the provision of a verification report has not been imposed. It is strongly recommended that explicit confirmation is sought from the Local Authority as to whether development may commence once the remediation strategy has been approved.

A copy of any regulatory/warrantor response should be included within the verification report.

FIGURES

- Figure 1 Site Location Plan
- Figure 2 Site Plan



Head Office

Unit 3
The Old Grain Store
Ditchling Common Business Park
Ditchling
East Sussex
BN6 8SG
contact@ashdownsi.co.uk

Site

Land to the Rear of 1 Brockwell Cottage
Faygate Lane
Horsham
West Sussex

Project Ref

P17583

Figure No

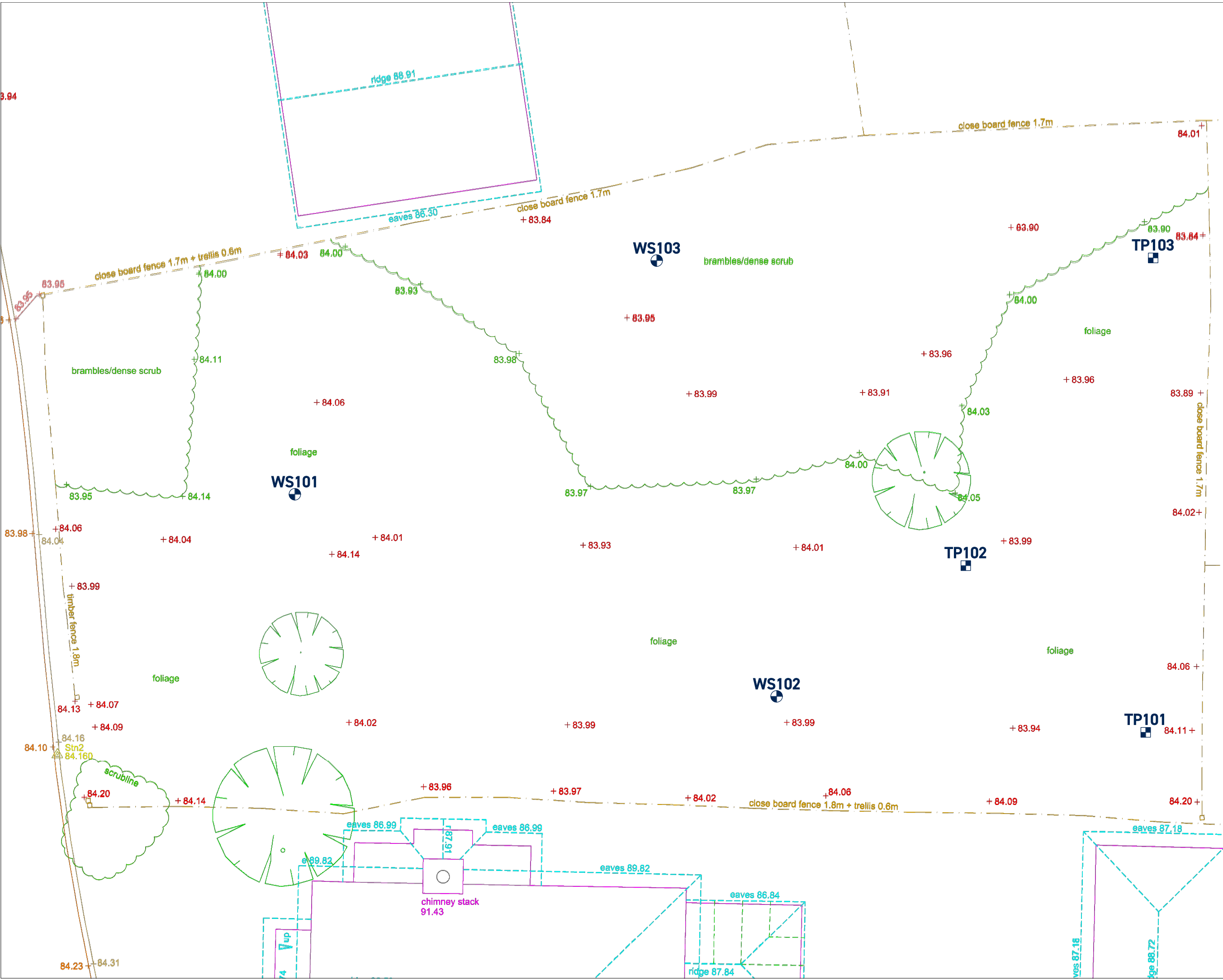
1

Drawing Title

Site Location Plan

Scale

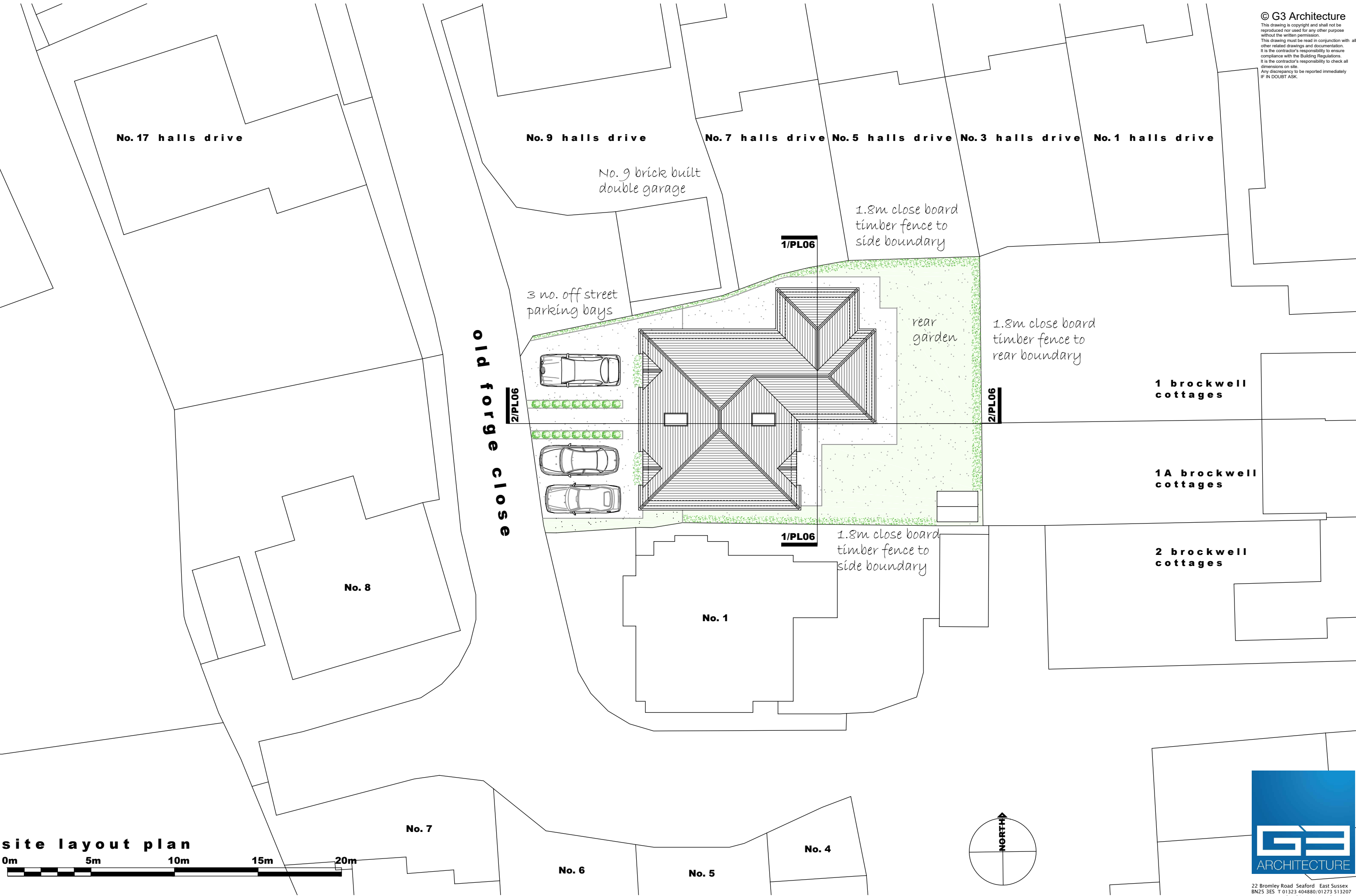
Not To Scale



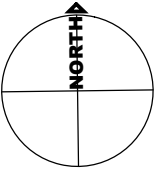
Head Office
Unit 3 The Old Grain Store Ditchling Common Business Park Ditchling East Sussex BN6 8SG contact@ashdownsi.co.uk
Site
Land to the Rear of 1 Brockwell Cottage Faygate Lane Horsham West Sussex
Project Ref
P17583
Figure No
2
Drawing Title
Site Plan
Scale
Not To Scale

APPENDIX A

Proposed Development Layout



site layout plan



22 Bromley Road Seaford East Sussex
BN25 3ES T 01323 404880/01273 513207
www.g3architecture.co.uk

notes + revisions						client + project	title	scale	number
						Telbridge Properties Ltd		1 : 200 @ A3	2038.PL01
						Land to rear of 1 Brockwell Cottage		date	status
						Faygate Lane, Horsham		09.02.2021	PLANNING

APPENDIX B

Decision Notice

Mr Doug Wright
WPS Planning
43 Timms Close
Horsham
RH12 4TN

**Land at 521753 134251 Old Forge Close Faygate Horsham West Sussex
Erection of a single storey dwelling with associated parking.**

Your application DC/21/0738 has now been determined and I enclose the decision notice. The decision notice contains important information. Please take a moment to read it as further action may be required.

Conditions

Before you start work, information must be submitted for any conditions that require discharge before development can begin. The decision notice will set out what information need to be sent.

Failure to discharge conditions before commencing development could result in the development being unlawful or enforcement action being taken. You can notify us of your intention to initiate development by completing a pre-commencement notification which will help us to monitor your development. There is no fee to use this service. To do this, or for further information about discharging planning conditions, visit us online at horsham.gov.uk/planning/discharging-a-planning-condition

Community Infrastructure Levy (CIL)

If this development is CIL liable, the requirements of CIL must be met before you start work. Failure to do so could result in additional financial penalties. For further information relating to CIL visit horsham.gov.uk/planning/planning-policy/community-infrastructure-levy/cil-charges-and-how-to-pay

If you have any questions about the decision notice, you can call us and speak to a member of the team on 01403 215187 between 9AM - 5PM, Monday to Friday.

If you are acting as the planning agent for this application, please ensure that the applicant is given a copy of the decision notice and this letter.

Yours Sincerely,
Development Management



Mr Doug Wright
WPS Planning
43 Timms Close
Horsham
RH12 4TN

Application Number: DC/21/0738

TOWN AND COUNTRY PLANNING ACT, 1990 (as amended)
TOWN AND COUNTRY PLANNING (Development Management Procedure) (England) Order 2015

On behalf of: Mr R Pestell Telbridge Properties

In pursuance of their powers under the above-mentioned Act and Order, the Council hereby notify you that they PERMIT the following development, that is to say:

Erection of a single storey dwelling with associated parking.

Land at 521753 134251 Old Forge Close Faygate Horsham West Sussex

to be carried out in accordance with Application No. DC/21/0738 submitted to the Council on 03/08/2021 and subject to compliance with the plans/documents and conditions specified hereunder.

Emma Parkes
Head of Development and Building Control
Date: 01/08/2023

- 1 **Plans Condition:** The development hereby permitted shall be carried out in accordance with the approved plans listed in the schedule below.

SCHEDULE OF PLANS/DOCUMENTS

Plan Type	Description	Drawing Number	Received Date
Location & Block plan		2038.LP01 A	03.08.2021
Elevation plan	Proposed Front and Side	2038.PL04	29.03.2021
Site plan	Proposed Site Layout	2038.PL01	29.03.2021
Floor plan	Proposed Ground Floor Plan	2038.PL02	29.03.2021
Elevation plan	Proposed Rear and Side	2038.PL05	29.03.2021

Reason: For the avoidance of doubt and in the interest of proper planning.

- 2 **Pre-Commencement Condition:** No development shall take place, including any works of demolition, until the following construction site set-up details have been submitted to, and approved in writing by, the Local Planning Authority.
- i. the location for the loading and unloading of plant and materials, site offices, and storage of plant and materials (including any stripped topsoil)
 - ii. the provision of wheel washing facilities (if necessary) and dust suppression facilities
- The approved details shall be adhered to throughout the construction period.

Reason: As this matter is fundamental in order to consider the potential impacts on the amenity of nearby occupiers during construction and in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 3 **Pre-Commencement Condition:** The development hereby approved shall not commence until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include details of the following relevant measures:
- i. An introduction consisting of a description of the construction programme, definitions and abbreviations and project description and location;
 - ii. Details of how residents will be advised of site management contact details and responsibilities;
 - iii. Detailed site logistics arrangements (to include details shown on a plan), including location of site compounds, location for the loading and unloading of plant and materials, site offices (including height and scale), and storage of plant and materials (including any stripped topsoil);
 - iv. Details regarding parking or site operatives and visitors, deliveries, and storage (to include details shown on a plan).
 - v. The method of access to and from the construction site;
 - vi. The arrangements for public consultation and liaison prior to and during the demolition and construction works - newsletters, fliers etc;
 - vii. Details of any floodlighting, including location, height, type and direction of light sources, hours of operation and intensity of illumination;
 - viii. Locations and details for the provision of wheel washing facilities and dust suppression facilities (to include details shown on a plan).

The construction shall thereafter be carried out in accordance with the details and measures approved in the CEMP.

Reason: As this matter is fundamental in order to consider the potential impacts on the amenity of nearby occupiers and highway safety during construction and in accordance with Policies 33 and 40 of the Horsham District Planning Framework (2015).

- 4 **Pre-Commencement Condition:** No development shall commence until a Great Crested Newt Risk Avoidance Method Statement, prepared by a suitably qualified ecologist (and preferably a member of CIEEM) has been submitted to and approved by the Local Planning Authority in writing. The approved provisions shall be implemented before development commences and shall thereafter be retained and maintained in accordance with the approved details.

Reason: As this matter is fundamental to safeguard the ecology and biodiversity of the area in accordance with Policy 31 of the Horsham District Planning Framework (2015).

- 5 **Pre-Commencement Condition:** No development shall commence until a Biodiversity Enhancement Strategy for Protected and Priority species has been submitted to and approved

in writing by the local planning authority. The content of the Biodiversity Enhancement Strategy shall include the following:

- a) Purpose and conservation objectives for the proposed enhancement measures;
- b) detailed designs to achieve stated objectives;
- c) locations of proposed enhancement measures by appropriate maps and plans;
- d) persons responsible for implementing the enhancement measures;
- e) details of initial aftercare and long-term maintenance (where relevant).

The works shall be implemented in accordance with the approved details and shall be retained in that manner thereafter.

Reason: As these matters are fundamental to safeguard the ecology and biodiversity of the area in accordance with Policy 31 of the Horsham District Planning Framework (2015), and to enhance Protected and Priority Species/habitats and allow the LPA to discharge its duties under the s40 of the NERC Act 2006 (Priority habitats & species).

- 6 **Pre-Commencement Condition:** No development shall commence until the following components of a scheme to deal with the risks associated with contamination, (including asbestos contamination), of the site be submitted to and approved, in writing, by the local planning authority:

- (a) A preliminary risk assessment which has identified:
 - all previous uses
 - potential contaminants associated with those uses
 - a conceptual model of the site indicating sources, pathways and receptors
 - Potentially unacceptable risks arising from contamination at the site.

The following aspects (b) - (d) shall be dependent on the outcome of the above preliminary risk assessment (a) and may not necessarily be required.

- (b) An intrusive site investigation scheme, based on (a) to provide information for a detailed risk assessment to the degree and nature of the risk posed by any contamination to all receptors that may be affected, including those off site.
- (c) Full details of the remediation measures required and how they are to be undertaken based on the results of the intrusive site investigation (b) and an options appraisal.
- (d) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (c) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action where required.

The scheme shall be implemented as approved. Any changes to these components require the consent of the local planning authority.

Reason: As this matter is fundamental to ensure that no unacceptable risks are caused to humans, controlled waters or the wider environment during and following the development works and to ensure that any pollution is dealt with in accordance with Policies 24 and 33 of the Horsham District Planning Framework (2015).

- 7 **Pre-Commencement (Slab Level) Condition:** No development above ground floor slab level of any part of the development hereby permitted shall take place until a schedule of materials and finishes and colours to be used for external walls, windows and roofs of the approved building(s) has been submitted to and approved by the Local Planning Authority in writing and all materials used in the construction of the development hereby permitted shall conform to those approved.

Reason: As this matter is fundamental to enable the Local Planning Authority to control the development in detail in the interests of amenity by endeavouring to achieve a building of visual quality in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 8 **Pre-Occupation Condition:** The development hereby permitted shall be undertaken in full accordance with the water neutrality strategy reference AEG0241_RH12_Fayagate_08_WNS dated 07.07.2020 by aegaea. No dwelling hereby permitted shall be first occupied until evidence has been submitted to and been approved in writing by the Local Planning Authority that the approved water neutrality strategy for that dwelling has been implemented in full. The evidence shall include the specification of fittings and appliances used, evidence of their installation, and completion of the as built Part G water calculator or equivalent. The installed measures shall be retained as such thereafter.

Reason: To ensure the development is water neutral to avoid an adverse impact on the Arun Valley SACSPA and Ramsar sites in accordance with Policy 31 of the Horsham District Planning Framework (2015), Paragraphs 179 and 180 of the National Planning Policy Framework (2021), its duties under the Conservation of Habitats and Species Regulations 2017 (as amended), and s40 of the NERC Act 2006 (Priority Habitats & Species).

- 9 **Pre-Occupation Condition:** No part of the development hereby permitted shall be occupied until the car parking spaces (including garages where applicable) necessary to serve it have been constructed and made available for use in accordance with approved drawing number 2038.PL01. The car parking spaces permitted shall thereafter be retained as such for their designated use.

Reason: To provide car-parking space for the use in accordance with Policy 40 of the Horsham District Planning Framework (2015).

- 10 **Pre-Occupation Condition:** No part of the development hereby permitted shall be occupied until a fast charge electric vehicle charging point for that dwelling has been installed. As a minimum, the charge point specification shall be 7kW mode 3 with type 2 connector. The means for charging electric vehicles shall be thereafter retained as such.

Reason: To mitigate the impact of the development on air quality within the District and to sustain compliance with and contribute towards EU limit values or national objectives for pollutants in accordance with Policies 24 & 41 of the Horsham District Planning Framework (2015).

- 11 **Pre-Occupation Condition:** No part of the development hereby permitted shall be occupied until the cycle parking facilities serving it have been provided within the side or rear garden for that dwelling. The facilities shall thereafter be retained for use at all times. The cycle parking facilities shall thereafter be retained as such for their designated use.

Reason: To ensure that there is adequate provision for the parking of cycles in accordance with Policy 40 of the Horsham District Planning Framework (2015).

- 12 **Pre-Occupation Condition:** No part of the development hereby permitted shall be occupied until provision for the storage of refuse and recycling has been provided within the side or rear garden for that dwelling. The facilities shall thereafter be retained for use at all times.

Reason: To ensure the adequate provision of refuse and recycling facilities in accordance with Policy 33 of the Horsham District Planning Framework (2015).

- 13 **Pre-Occupation Condition:** No part of the development hereby permitted shall be occupied until the necessary in-building physical infrastructure and external site-wide infrastructure to enable superfast broadband speeds of 30 megabytes per second through full fibre broadband connection has been provided to the premises.

Reason: To ensure a sustainable development that meets the needs of future occupiers in accordance with Policy 37 of the Horsham District Planning Framework (2015).

- 14 **Regulatory Condition:** Notwithstanding the provisions of the Town and Country Planning (General Permitted Development) (England) Order 2015 and/or any Order revoking and/or re-enacting that Order no development falling within Classes A and B of Part 1 of Schedule 2 of the order shall be erected, constructed or placed within the curtilage(s) of the development hereby permitted without express planning consent from the Local Planning Authority first being obtained.

Reason: In the interest of visual amenity and due to the constraints of the site, and in accordance with Policy 33 of the Horsham District Planning Framework (2015).

Note to Applicant – Community Infrastructure Levy (CIL):

Horsham District Council has adopted a Community Infrastructure Levy (CIL) Charging Schedule which took effect on 1st October 2017. **This development constitutes CIL liable development.**

If you have not received a Liability Notice from the Council within 1 month of the decision date please contact the CIL Team at cil@horsham.gov.uk

CIL is a mandatory financial charge on development. To avoid additional financial penalties, the requirements of CIL must be managed before development is commenced (including in the event of any successful appeal).

Payment must be made in accordance with the requirements of the CIL Demand Notice issued.

Note to Applicant

Statement pursuant to Article 35 of the Town and Country Planning (Development Management Procedure) (England) Order 2015. The Local Planning Authority has acted positively and proactively in determining this application by assessing the proposal against all material considerations, including planning policies and any representations that may have been received, in order to be able to, where possible, grant permission.

ADDITIONAL INFORMATION

Planning Permission – Important Provisos

If planning permission has been granted, please note that your Notice of Decision refers only to consideration of your proposal under the Town and Country Planning Acts. It is not a building regulations approval and does not mean that you can disregard other Acts of Regulations, or avoid any other legal obligations. Some of these obligations, of particular relevance to your proposal are referred to elsewhere in this note. Before you proceed with your proposal you should ensure that a Building Control application is not required, or has been submitted. The Building Control Department can be contacted on 01403 215151.

If this permission relates to new dwellings, commercial premises or other buildings which will require a new postal address you should contact the Council's Street Naming & Numbering Department as soon as possible or before work commences on site. Further details are available on the Street

Naming page on the Council's website or alternatively e-mail streetnaming@horsham.gov.uk or telephone 01403 215139.

It is the responsibility of the developer to provide bins for the development. If you are a developer and need to purchase bins, please email hop.oast.admin@horsham.gov.uk.

It must be stressed that the information included on this Notice of Decision may not include all your legal obligations, and it does not grant you rights to carry out works on or over lands, or to access land that is not within your control or ownership.

Amendments

Should alterations or amendments be required to the approved plans, it will be necessary to apply either under Section 96A of the Town and Country Planning Act 1990 for non material alterations, or under Section 73 of the Act for minor material alterations. An application must be made using the standard application form and you should consult with us, to establish the correct type of application to be made.

Monitoring

Horsham District Council monitors the implementation of planning permissions. Please be aware that monitoring officers may visit the application site at various stages of the development to ensure compliance with the approved plans and conditions.

Right of Appeals

If you are aggrieved by the decision to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under Section 78 of the Town and Country Planning Act 1990.

You must appeal within 12 weeks of the date of the decision notice for a householder application or 'minor commercial' (shop front) development, and within 6 months for other types of planning applications. There are different timescale – usually 28 days – if an enforcement notice is/has been served for the same (or very similar) land and development. Please note, only the applicant possesses the right of appeal.

Appeals can be made online at: <https://www.gov.uk/planning-inspectorate>. If you are unable to access the online appeal form, please contact the Planning Inspectorate to obtain a paper copy of the appeal form on tel: 0303 444 5000.

The Secretary of State can allow a longer period for giving notice of an appeal but will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal.

The Secretary of State need not consider an appeal if it seems to the Secretary of State that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

If you intend to submit an appeal that you would like examined by inquiry then you must notify the Local Planning Authority and Planning Inspectorate (inquiryappeals@planninginspectorate.gov.uk) at least 10 days before submitting the appeal. Further details are at <https://www.gov.uk/government/collections/casework-dealt-with-by-inquiries>.

APPENDIX C

Explanatory Notes
Exploratory Hole Records

EXPLANATORY NOTES

Symbols and abbreviations on Exploratory Hole Records

Samples

U	'Undisturbed' Sample: - 100mm diameter by 450mm long. The number of blows to drive in the sampling tube is shown after the test index letter in the SPT column.
L	Liner sample cut to length indicated.
D	Disturbed Sample
B	Bulk Disturbed Sample
W	Water Sample
ES	Environmental Suite (on older records may be referenced J T)

In Situ Testing

SPT	Standard penetration test (SPT): Using the split spoon sampler.
SPT(C)	Standard Penetration Test (SPT): Using a solid cone instead of the sampler – conducted usually in coarse grained soils or weak rocks.
HV	Shear Vane Test: Undrained shear strength (cohesion).
PP	Hand penetrometer Test: Undrained shear strength (cohesion).
P	Perth Penetrometer Test: Number of blows for 300mm penetration shown under remarks section.

Excavation Method

CP	Cable Percussion Borehole
RC/RO	Rotary Cored Borehole/Rotary Open Hole Borehole
WLS	Dynamic Sampler Borehole using windowless sampler tubes
WS	Dynamic Sampler Borehole using window sampler tubes
TP	Trial Pit excavated using mechanic excavator
HP	Trial Pit excavated using hand tools
HA	Hand Auger borehole

Soil Description

Description and classification of soils has been carried out using as a general basis the British Standard Geotechnical investigation and testing – Identification and classification of soil, Part 1 Identification and description (BS EN ISO 14688-1) and Part 2 Principles of classification (BS EN 14688-2) as well as the BS5930 code of Practice for Ground Investigations.

Rock Description

Description and classification of rocks has been carried out using as a general basis the British Standard Geotechnical investigation and testing – Identification and classification of rock, Part 1 Identification and classification (BS EN ISO 14689-1) as well as the BS5930 code of Practice for Ground Investigations. TCR – Total Core Recovery, SCR – Solid Core Recovery, RQD – Rock Quality Designation, NI – Non Intact, If – indicative fracture spacing (min/ave/max), FI – Fracture Index.

Chalk Description

Chalk description is based on BS EN ISO 14688, BS EN ISO 14689 and BS5930. The classification of chalk generally follows the guidance offered by the Construction Industry Research and Information Association (CIRIA) C574, 'Engineering in Chalk'. This is based on assessment of chalk density, discontinuity and aperture spacing, and the proportion of intact chalk to silt of chalk.

In Situ Strength Testing (where undertaken)

Standard penetration testing (SPT) carried out in accordance with BS EN ISO 22476-3:2005.

Continuous dynamic probe testing conducted using a super heavy DPSH-B (As defined by BS EN ISO 22476-2:2005) probing geometry. The DPSH-B configuration is similar to that of the standard penetration test (SPT); the main differences being that the tip comprises a 90° cone, the driving rods are lighter than those used for SPT testing and the blow counts are recorded over 100mm increments rather than 300mm, as is the case for the SPT.

Perth penetrometer tests carried out in accordance with Australian Standard AS 1289:6.3.3-1997, Method of Testing Soils for Engineering Purposes; no equivalent European or British Standard having been published to date.

Undrained shear strength determinations made in-situ using a Geonor hand shear vane or a hand penetrometer.

Testing to determine the in-situ California Bearing Ratio (CBR) of soils conducted at shallow depths using a hand-held Transport Research Laboratory (TRL) cone penetrometer.

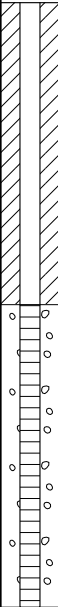
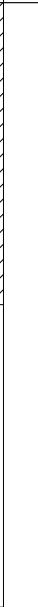
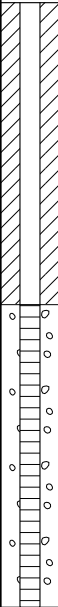
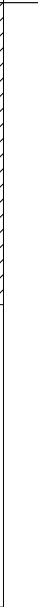
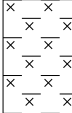
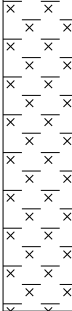


Inst/ Backfill		Water Levels	Samples and Tests			Level	Depth (thickness)	Strata		
			Depth (m)	Type/ Ref	Results			(m)	Legend	
			0.05	ES			(0.10) 0.10		MADE GROUND: Dark brown slightly gravelly clay. Gravel is subangular to subrounded fine to coarse brick flint, charcoal-like material, concrete and plastic.	
			0.35	ES			(0.35) 0.45		MADE GROUND: Orange brown and brown slightly gravelly silty clay. Gravel is subangular to subrounded fine to coarse flint, brick and charcoal-like material.	0.5
			0.55	ES			(0.20) 0.65		MADE GROUND/REWORKED: Brown silty clay with occasional red brown staining and rare gravel of flint.	
			0.90	D				Light grey, light brown and red brown mottled slightly gravelly silty CLAY. Gravel is subangular to subrounded fine to coarse sandstone. [Weald Clay Formation]	1.0	
								becoming gravelly and with occasional iron staining below 1.00m depth. (1.00m)		
			1.40	D			(1.15) 			1.5
			1.70	D						
							1.80			2.0
										2.5
										3.0
									3.5	
									4.0	
									4.5	
									5.0	
									End of Borehole at 1.80m	

Logger
GRD

Hole Type WLS	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name 1 Brockwell Cottage, Faygate Lane, Horsham	Project No. P17583	Start Date 2026-01-19	End Date 2026-01-19	

Client	Consultant	Contractor
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.25	ES			(0.40)		MADE GROUND: Dark brown slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint, brick, charcoal-like material and sandstone.	0.5
		0.50	ES			0.40 (0.20)		MADE GROUND: Brown and dark brown slightly gravelly clay with occasional orange brown and light brown pockets. Gravel is subangular to subrounded fine to coarse sandstone and charcoal-like material.	
		0.80	D			0.60		Orange brown, light brown and light grey mottled slightly gravelly silty CLAY. Gravel is subangular to subrounded fine to coarse mudstone. [Weald Clay Formation]	
		1.50	D			(1.40)			1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0
						2.00	End of Borehole at 2.00m		

Remarks Borehole dry on completion. Standpipe installed to 2.00m depth; 2.00m to 1.00m slotted pipe with gravel surround; 1.00m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.	Method, Plant, Stability, Dimensions 0.00 - 2.00m WLS Borehole stable on completion.	Logger GRD
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Dynamic (Windowless) Sampler

WS103
Sheet 1 of 1

Hole Type WLS	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name 1 Brockwell Cottage, Faygate Lane, Horsham	Project No. P17583	Start Date 2026-01-19	End Date 2026-01-19	

Client	Consultant	Contractor
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.10	ES			(0.75)		MADE GROUND: Brown slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint, brick, charcoal like material and sandstone. <i>becoming dark brown below 0.15m depth. (0.15m)</i>	0.5
		0.60	ES			0.75		Light grey, light brown, red brown and grey mottled gravelly silty CLAY. Gravel is subangular to subrounded fine to coarse mudstone. [Weald Clay Formation]	1.0
		1.00	D			(1.15)		<i>with bands of mudstone below 1.00m depth. (1.00m)</i>	1.5
		1.80	D			1.90		<i>End of Borehole at 1.90m</i>	2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks No further progress below 1.90m depth - too hard/dense. Groundwater encountered at 0.70m depth and recorded at 0.60m depth on completion. Standpipe installed to 1.90m depth; 1.90m to 0.90m slotted pipe with gravel surround; 0.90m to ground level plain pipe with bentonite seal; completed with gas tap and security cover concreted flush with ground surface.	Method, Plant, Stability, Dimensions 0.00 - 1.90m WLS Borehole stable on completion.	Logger GRD
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Hand Pit

TP101
Sheet 1 of 1

Hole Type HP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name 1 Brockwell Cottage, Faygate Lane, Horsham	Project No. P17583	Start Date 2026-01-19	End Date 2026-01-19	

Client	Consultant	Contractor
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.30	ES			(0.55)		MADE GROUND: Dark brown slighty gravelly clay. Gravel is subangular to subrounded fine to coarse flint, brick, charcoal-like material, sandstone and plastic.	0.5
						0.55 (0.05) 0.60		Orange brown, light grey and light brown slightly gravelly silty CLAY. Gravel is subangular to subrounded fine to coarse mudstone. [Weald Clay Formation]	
								End of Trial Pit at 0.60m	1.0
									1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks Trial pit dry on completion.	Method, Plant, Stability, Dimensions 0.00 - 0.60m HP Trial pit stable on completion.	Logger GRD
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Hand Pit

TP102

Sheet 1 of 1

Hole Type HP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name 1 Brockwell Cottage, Faygate Lane, Horsham	Project No. P17583	Start Date 2026-01-19	End Date 2026-01-19	

Client	Consultant	Contractor
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m) (thickness)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.15	ES					MADE GROUND: Dark brown slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint, brick, charcoal-like material and glass.	
		0.45	ES			(0.60)			0.5
						0.60 (0.10) 0.70		MADE GROUND/REWORKED: Brown clay.	
								End of Trial Pit at 0.70m	
									1.0
									1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks Trial pit dry on completion.	Method, Plant, Stability, Dimensions 0.00 - 0.70m HP Trial pit stable on completion.	Logger GRD
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Hand Pit

TP103
Sheet 1 of 1

Hole Type HP	Easting	Northing	Ground Level (m)	Scale 1:25
Project Name 1 Brockwell Cottage, Faygate Lane, Horsham	Project No. P17583	Start Date 2026-01-19	End Date 2026-01-19	

Client	Consultant	Contractor
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Inst/ Backfill	Water Levels	Samples and Tests			Level (m)	Depth (m)	Strata		
		Depth (m)	Type/ Ref	Results			Legend	Description	
		0.05	ES			(0.20)		MADE GROUND: Dark brown slightly gravelly clay. Gravel is subangular to subrounded flint, brick and charcoal-like material.	
		0.20	ES			0.20			
						(0.20)		MADE GROUND: Orange brown, light brown and light grey slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint, brick and charcoal-like material.	
						0.40			
		0.60	ES			(0.35)		MADE GROUND: Dark brown slightly gravelly clay. Gravel is subangular to subrounded fine to coarse flint, charcoal-like material and rare calcareous shell material.	0.5
						0.75		End of Trial Pit at 0.75m	
									1.0
									1.5
									2.0
									2.5
									3.0
									3.5
									4.0
									4.5
									5.0

Remarks Trial pit dry on completion.	Method, Plant, Stability, Dimensions 0.00 - 0.75m HP Trial pit stable on completion.	Logger GRD
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APPENDIX D

Gas Concentration and Groundwater Monitoring Results

Site: Land to the Rear of 1 Brockwell Cottage, Faygate Lane, Horsham, West Sussex

Project Ref: P17583

Position	Date	Time	Dynamic Pressure (pa)	Atmospheric Pressure (mbar)	Atmospheric Trend	Standing Water Depth (m bnl)	Flow Rate (l/hr)				Methane (%)				Carbon Dioxide (%)				Oxygen (%)				CO (ppm)	H ₂ S (ppm)
							Seconds				Seconds				Seconds				Seconds					
							15	30	45	60	15	30	45	60	15	30	45	60	15	30	45	60		
WS101	30/01/2026	Standpipe Flooded																						
WS102	30/01/2026	07:58	0	989	Rising	0.63	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.1	19.1	19.1	19.1	0	0
WS103	30/01/2026	08:06	0	989	Rising	0.49	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.3	19.2	19.2	19.2	0	0
WS101	06/02/2026	Standpipe Flooded																						
WS102	06/02/2026	12:38	0	974	Rising	0.31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.1	20.1	20.1	20.1	0	0
WS103	06/02/2026	12:33	0	974	Rising	0.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.7	19.9	20.0	20.0	0	0
WS101	12/02/2026	Standpipe Flooded																						
WS102	12/02/2026	10:15	0	973	Rising	0.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	19.9	19.9	19.9	19.8	0	0
WS103	12/02/2026	10:47	0	973	Rising	0.43	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.9	19.9	19.8	19.8	0	0
WS101	16/02/2026	Standpipe Flooded																						
WS102	16/02/2026	14:45	0	996	Falling	0.36	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.3	19.8	19.9	19.9	20.0	0	0
WS103	16/02/2026	14:53	0	996	Falling	0.44	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.5	0.4	20.1	20.1	20.1	20.1	0	0
WS101	24/02/2026	Standpipe Flooded																						
WS102	24/02/2026	13:17	0	1005	Falling	0.70	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.1	20.4	20.5	20.5	20.5	0	0
WS103	24/02/2026	13:12	0	1005	Falling	0.60	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.3	0.3	20.1	20.2	20.2	20.3	0	0
WS101	03/03/2026	Standpipe Flooded																						
WS102	03/03/2026	13:04	0	1016	Rising	0.69	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	20.3	20.4	20.4	20.4	0	0
WS103	03/03/2026	13:11	0	1016	Rising	0.64	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.1	0.1	0.0	20.3	20.3	20.4	20.5	0	0

APPENDIX E

Contamination Laboratory Test Results

Certificate of Analysis

Certificate Number 26-01451

Issued: 31-Jan-26

Client Ashdown Site Investigations Ltd
Unit 3 The Grain Store
Ditchling Common Business Park
Ditchling Common
West Sussex
BN6 8SG

Our Reference 26-01451

Client Reference ~ P17583_3207

Order No ~ 12647

Contract Title ~ 1 Brockwell Cottage, Faygate Lane, Horsham, West Sussex

Description 6 Soil samples.

Date Received 22-Jan-26

Date Started 22-Jan-26

Date Completed 31-Jan-26

Test Procedures Identified by prefix DETSn (details on request).

Notes Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

A handwritten signature in black ink, appearing to read "R. Irfan".

Reyhan Irfan
Operations Manager



Summary of Chemical Analysis

Soil Samples

Our Ref 26-01451

Client Ref ~ P17583_3207

Contract Title ~ 1 Brockwell Cottage, Faygate Lane, Horsham, West Sussex

Lab No	2629633	2629634	2629635	2629636	2629637	2629638
Sample ID ~	TP101	TP102	TP103	WS101	WS102	WS103
Depth ~	0.30	0.15	0.20	0.35	0.25	0.60
Other ID ~						
Sample Type ~	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
Sampling Date ~	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026	19/01/2026
Sampling Time ~	n/s	n/s	n/s	n/s	n/s	n/s

Test	Method	LOD	Units						
Metals									
Arsenic	DETSC 2301#	0.2	mg/kg	18	16	6.5	13	18	24
Boron, Water Soluble (2.5:1)	DETSC 2311#	0.2	mg/kg	0.9	1.1	0.7	1.8	0.9	1.0
Cadmium	DETSC 2301#	0.1	mg/kg	0.7	0.7	0.2	0.1	1.2	0.8
Chromium	DETSC 2301#	0.15	mg/kg	23	20	28	23	27	29
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	84	58	32	22	81	480
Lead	DETSC 2301#	0.3	mg/kg	240	330	50	27	780	340
Mercury	DETSC 2325#	0.05	mg/kg	0.37	0.22	0.06	0.08	0.27	0.51
Nickel	DETSC 2301#	1	mg/kg	20	19	23	11	20	34
Selenium	DETSC 2301#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Zinc	DETSC 2301#	1	mg/kg	250	320	84	57	520	470
Inorganics									
pH	DETSC 2008#		pH	7.4	7.5	8.6	7.8	7.9	8.2
Organic matter	DETSC 2002#	0.1	%	5.8	6.5	0.6	1.0	6.0	5.8
Sulphate as SO ₄ , Total	DETSC 2321#	0.01	%	0.07	0.08	0.02	0.02	0.07	0.06
Petroleum Hydrocarbons									
VPH (C8-C10): HS_1D_Total	DETSC 3321*	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
EPH (C10-C12): EH_1D_Total	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C12-C16): EH_1D_Total	DETSC 3311	10	mg/kg	< 10	< 10	< 10	< 10	< 10	< 10
EPH (C16-C21): EH_1D_Total	DETSC 3311	10	mg/kg	< 10	14	< 10	< 10	< 10	< 10
EPH (C21-C40): EH_1D_Total	DETSC 3311	10	mg/kg	20	69	< 10	< 10	< 10	< 10
TPH (C8-C40): HS_1D_Total	DETSC 3311*	10	mg/kg	29	86	< 10	< 10	< 10	< 10
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.16	0.09	< 0.03	< 0.03	0.20	0.04
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.36	0.23	0.05	< 0.03	0.43	0.11
Pyrene	DETSC 3303#	0.03	mg/kg	0.31	0.21	0.04	< 0.03	0.36	0.09
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.10	0.07	< 0.03	< 0.03	0.13	0.05
Chrysene	DETSC 3303	0.03	mg/kg	0.13	0.08	< 0.03	< 0.03	0.14	0.05
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.10	0.10	< 0.03	< 0.03	0.15	0.07
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.04	0.04	< 0.03	< 0.03	0.05	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.06	0.05	< 0.03	< 0.03	0.10	0.05
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.03	0.04	< 0.03	< 0.03	0.05	0.04
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.04	0.04	< 0.03	< 0.03	0.06	0.05
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.3	0.97	< 0.10	< 0.10	1.7	0.55

Summary of Asbestos Analysis

Soil Samples

Our Ref 26-01451

Client Ref ~ P17583_3207

Contract Title ~ 1 Brockwell Cottage, Faygate Lane, Horsham, West Sussex

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
2629633	TP101 0.30	SOIL	NAD	none	James Heath
2629634	TP102 0.15	SOIL	NAD	none	James Heath
2629635	TP103 0.20	SOIL	NAD	none	James Heath
2629636	WS101 0.35	SOIL	NAD	none	James Heath
2629637	WS102 0.25	SOIL	NAD	none	James Heath
2629638	WS103 0.60	SOIL	NAD	none	James Heath

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * -not included in laboratory scope of accreditation.

Information in Support of the Analytical Results

Our Ref 26-01451

Client Ref ~ P17583_3207

Contract ~ 1 Brockwell Cottage, Faygate Lane, Horsham, West Sussex

Containers Received & Deviating Samples

Lab No	Sample ID ~	Date Sampled ~	Containers Received	Holding time exceeded for tests	Incorrect container for tests
2629633	TP101 0.30 SOIL	19/01/26	GJ 250ml, GJ 30ml, PT 1L		
2629634	TP102 0.15 SOIL	19/01/26	GJ 250ml, GJ 30ml, PT 1L		
2629635	TP103 0.20 SOIL	19/01/26	GJ 250ml, GJ 30ml, PT 1L		
2629636	WS101 0.35 SOIL	19/01/26	GJ 250ml, GJ 30ml, PT 1L		
2629637	WS102 0.25 SOIL	19/01/26	GJ 250ml, GJ 30ml, PT 1L		
2629638	WS103 0.60 SOIL	19/01/26	GJ 250ml, GJ 30ml, PT 1L		

Key: G-Glass P-Plastic J-Jar T-Tub

Normec DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 250µm sieve

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

Information in Support of the Analytical Results

List of HWOL Acronyms and Operators

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total

Det	Acronym
VPH (C8-C10)	HS_1D_Total
EPH (C10-C12)	EH_1D_Total
EPH (C12-C16)	EH_1D_Total
EPH (C16-C21)	EH_1D_Total
EPH (C21-C40)	EH_1D_Total
TPH (C8-C40)	HS_1D_Total

Key:

~ Sample details are provided by the client and can affect the validity of the results

* -not accredited.

-MCERTS (accreditation only applies if report carries the MCERTS logo).

\$ -subcontracted.

n/s -not supplied.

I/S -insufficient sample.

U/S -unsuitable sample.

t/f -to follow.

nd -not detected.

End of Report Ver 25.10.03

APPENDIX F

Classification of Probability, Consequence and Risk

Probability Of Risk Being Realised	
Classification	Definition
High	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution.
Moderate	There is a pollution linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period such event would take place and is less likely in the shorter term.
Very Low	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

Consequence Of Risk Being Realised		
Classification	Category	Definition
Severe	Human Health	Short term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part IIA.
	Controlled Waters	Short term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource.
	Property	Catastrophic damage to buildings/property.
	Ecological Systems	A short term risk to a particular ecosystem or organisation forming part of such ecosystem.
Moderate	Human Health	Chronic damage to Human Health.
	Controlled Waters	Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution).
	Ecological System	A significant change in a particular ecosystem or organism forming part of such ecosystem.
Minor	Controlled Waters	Pollution of non-sensitive water resources.
	Property	Significant damage to crops, buildings, structures and services.
	Ecological Systems	Damage to sensitive buildings/structures/services or the environment.
Very Minor	Human Health	Non-permanent health effects to human health (easily prevented by means such as personal protective clothing, etc).
	Property	Easily repairable effects of damage to buildings, structures and services.
	Project	Harm, although not necessarily significant harm, which may result in a financial loss or expenditure to resolve.

Risk Classification Definitions	
Very High	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the long term.
Moderate	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Low	It is possible that harm could arise to a designated receptor from an identified hazard, but there is a low likelihood of this hazard occurring and if realised, harm would at worst normally be mild.
Very Low	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised, it is not likely to be severe.

APPENDIX G

Preliminary Conceptual Model

Site: Land to the Rear of Brockwell Cottage, Faygate Lane, Horsham, West Sussex

Project Ref: P17439

Potential Source	Potential Receptor	Potential Contaminants	Potential Pathway	Complete Linkage Present?	Probability	Consequence	Risk
Made Ground and reworked soils associated with the former brick field, identified to be present during the previous investigation	End Users	Asbestos, Heavy Metals and PAH Compounds	Dermal contact with soil and dust (indoor & outdoor)	Yes	P3: Moderate	C3: Moderate	Moderate
			Ingestion of soil and indoor dust	Yes	P3: Moderate	C3: Moderate	Moderate
			Consumption of home-grown produce and attached soil	Yes	P3: Moderate	C3: Moderate	Moderate
			Inhalation of soil dust (indoor and outdoor)	Yes	P3: Moderate	C3: Moderate	Moderate
			Inhalation of soil vapours	Identified contaminant(s) do not pose a risk via this pathway			N/A
			Inhalation of soil gases/ Risk of explosion	No potential gas source identified			N/A
	End Users (via Water Supply Pipework)		Contamination of incoming services	Identified contaminant(s) do not pose a risk via this pathway			N/A
	Groundwater	Heavy Metals and PAH Compounds	Migration to groundwater	No significant pathway to groundwater exists			N/A
Ground gas generation from backfilling of the former brick field and area of historical landfill to the north-east	End Users	Land Gases	Dermal contact with soil and dust (indoor & outdoor)	Identified contaminant(s) do not pose a risk via this pathway			N/A
			Ingestion of soil and indoor dust	Identified contaminant(s) do not pose a risk via this pathway			N/A
			Consumption of home-grown produce and attached soil	Identified contaminant(s) do not pose a risk via this pathway			N/A
			Inhalation of soil dust (indoor and outdoor)	Identified contaminant(s) do not pose a risk via this pathway			N/A
			Inhalation of soil vapours	Identified contaminant(s) do not pose a risk via this pathway			N/A
			Inhalation of soil gases/ Risk of explosion	Yes	P2: Low	C3: Moderate	Low/Moderate
	End Users (via Water Supply Pipework)		Contamination of incoming services	Identified contaminant(s) do not pose a risk via this pathway			N/A
	Groundwater		Migration to groundwater	Identified contaminant(s) do not pose a risk via this pathway			N/A

APPENDIX H

Quantitative Conceptual Model

Site: Land to the Rear of 1 Brockwell Cottage, Faygate Lane, Horsham

Project Ref: P17583

Source	Receptor	Contaminants	Pathway	Complete Linkage Present?	Probability	Consequence	Risk
Made ground soils	End Users	Lead	Dermal contact with soil and dust (indoor & outdoor)	Yes	P2: Low	C3: Moderate	Low/Moderate
			Ingestion of soil and indoor dust	Yes	P2: Low	C3: Moderate	Low/Moderate
			Consumption of home-grown produce and attached soil	Yes	P2: Low	C3: Moderate	Low/Moderate
			Inhalation of soil dust (indoor and outdoor)	Yes	P2: Low	C3: Moderate	Low/Moderate
			Inhalation of soil vapours	Identified contaminant does not pose a risk via this pathway			N/A
			Inhalation of soil gases/ Risk of explosion	Identified contaminant does not pose a risk via this pathway			N/A
	End Users (via Water Supply Pipework)		Contamination of incoming services	No contaminants present above screening criteria			N/A
	Groundwater		Migration to groundwater	No significant pathway to groundwater exists			N/A

APPENDIX I

Checklist for Verification Report

Item	Tick (✓)
Local Authority Approval of Risk Assessment and Remediation Strategy	
Documentation (Including Photographs) of Removed Made Ground in Soft Landscaped Areas	
Documentation (Including Photographs) confirming placement of High Visibility Geotextile Marker in Soft Landscaped Areas (If made ground remains in situ)	
Documentation (Including Photographs) Confirming Depth of Cover Soils in Soft Landscaped Areas (If made ground remains in situ)	
Supplier Certification for Imported Soils (If provided)	
Laboratory Test Data for Imported Soils	
Delivery Notes for Imported Soils	
Documentation to Demonstrate Water Supply Company satisfaction with installed Water Supply Pipe Material	
Confirmation of any Other Service Suppliers Requirements and Evidence to Support Compliance (If Imposed)	