Arboricultural Consultancy for Lloyds Bank

Note: This report is intended for use between the client, Environmental Services and any parties detailed within the report. It is based on the understanding at the time of visiting the property that Engineers are satisfied that damage is attributable to clay shrinkage subsidence exacerbated by vegetation.

1. Case Details

Insured	Mr & Mrs Saidam	Address	165 Swakeleys Road, Ickenham, Uxbridge, UB10 8DN		
Client	Subsidence Management Services	Contact	Peter Hughes	Claim No.	IFS-LBG-SUB-22-0101692
ES Ref	SA-250409	Consultant	Kirk Thompson	Contact No.	0330 380 1036
Report Date	06/10/2022				

Scope of Report: To survey the property and determine significant vegetation contributing to subsidence damage, make recommendation for remedial action and assess initial mitigation and recovery prospects. The survey does not make an assessment for decay or hazard evaluation.

2. Property and Damage Description

The insured structure is a 2 storey detached house. It has been extended with a single-storey extension to the left-flank. The property occupies a level site with no adverse topographical features.

We understand that the current damage relates to the lefts and right flanks of the insured dwelling where cracking indicates downwards movement.

3. Technical Reports

No technical investigations are available at the time of reporting, therefore assumptions outlined in Note above apply: recommendations may be subject to change following evaluation of any investigations that may be forthcoming.

4. Action Plan

Mitigation	
Insured involved?	Yes
Local Authority involved?	No
Other third party Mitigation involved?	Yes
Recovery	
Is there a potential recovery action?	No

Treeworks	
Local Authority	
TPO / Conservation Area / Planning Protection Searches	Awaiting Searches from LA
Additional Comments	
Awaiting Further Instructions.	

5. Technical Synopsis

This report is based upon our understanding at the time of visiting the property that Subsidence Management Services have concluded, on a preliminary basis, that the current damage is due to differential foundation movement exacerbated by moisture abstraction from vegetation growing adjacent to the property's foundations.

We have therefore been instructed to assess the potential for vegetation to be influencing soil moisture levels beneath the foundations of the property and, if deemed appropriate provide management proposals which will return long-term stability and allow effective repairs to be undertaken.

The potential drying influence of the vegetation on site, has been considered based on an assessment of overall size, species profile and the proximity of vegetation relative to the advised area of damage.

Based on our observations on site, it is our opinion that the footings of the subject property are within the normally accepted influencing distance of vegetation on site, thereby indicating the potential for the advised damage to be the result of clay shrinkage subsidence exacerbated by the moisture abstracting influence of vegetation.

With due regards to species profile, size and proximity, TG1 (Cypress), T1 (Oak), T2 (Oak) and T5 (Cypress) are considered the dominant features proximate to the focal areas of movement and accordingly, where vegetation is confirmed as being causal, we have identified them as the primary cause of the current subsidence damage.

T7 (Cypress) is also considered to retain a contributory influence, albeit in a secondary capacity when compared to the above.

The size and proximity of the above vegetation is consistent with the advised locations of damage and it is our opinion, on balance of probability, that roots from the above vegetation will be in proximity to the footings of the insured property.

Note: additional minor vegetation has been noted on site and, depending on trial-pit location may be identified within future site investigations; however, unless specifically identified within this report, these plants are not deemed material to the current claim nor pose a significant future risk.

Given the above and considering the suspected mechanism of movement, in order to mitigate the current damage thereby allowing soils beneath the property to recover to a position such that an effective engineering repair solution can be implemented, we recommend a program of vegetation management as detailed by this report.

Please refer to Section 6 for management prescriptions.

Preliminary recommendations contained within this report are prescribed on the basis that site investigations confirm vegetation to be causal; management advice is designed to offer the most reliable arboricultural solution likely to restore long-term stability and also facilitate liaison with third-party owners and/or Local Authorities where necessary.

Consequently, we have advocated the complete removal of T1 (Oak), T2 (Oak), T5 (Cypress) and T7 (Cypress) in conjunction with management, to include partial removal of a section of TG1 (as detailed)) as it will offer the most certain arboricultural solution likely to restore long-term stability.

We recommend the role of vegetation and the efficacy of management recommendations be qualified by means of monitoring.

Please note that the footing of the insured property fall within the anticipated rooting distance of additional vegetation which we believe presents a foreseeable risk of future damage and accordingly we have made recommendations in respect of this.

The extent / impact of vegetation management required to restore and maintain long-term stability at this property is acknowledged. However, we consider the impact on the wider public amenity from the proposed tree works is mitigated by the presence of further trees and the scope for replacement planting.

Is vegetation likely to be a contributory factor in the current damage?	Yes
Is vegetation management likely to contribute to the future stability of the property?	Yes
Is replacement planting considered appropriate?	Yes
Would DNA profiling be of assistance in this case?	No

6.0 Recommendations

6.1 Current Claim Requirements

These recommendations may be subject to review following additional site investigations.

Tree No.	Species	Age Cat	Approx. Height (m)	Distance to Building (m) *	Ownership	Action	Requirement
T1	Oak	3	18.7	16.5	C - Insured	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.
T2	Oak	3	16.5	14	C - Insured	Remove	Remove close to ground level; do not treat stump due to translocation risk. Where such a risk exists, we advise that any emergent regrowth is removed annually.
T5	Cypress	1	18	8	C - Insured	Remove	Remove close to ground level.
T7	Cypress	1	2.2	0.8	C - Insured	Remove	Remove close to ground level.
TG1	Cypress	1	13	4.9	C - Insured	Maintain as detailed	Remove section of group to achieve a minimum clearance of 10m (closest 6 trees) to the insured property. Maintain retained section thereafter at broadly current dimensions by way of regular pruning.
Age Cat: 1 = Younger than property; 2 = Similar age to the property; 3 = Significantly older than property							

* Estimated

6.2 Future Risk Recommendations

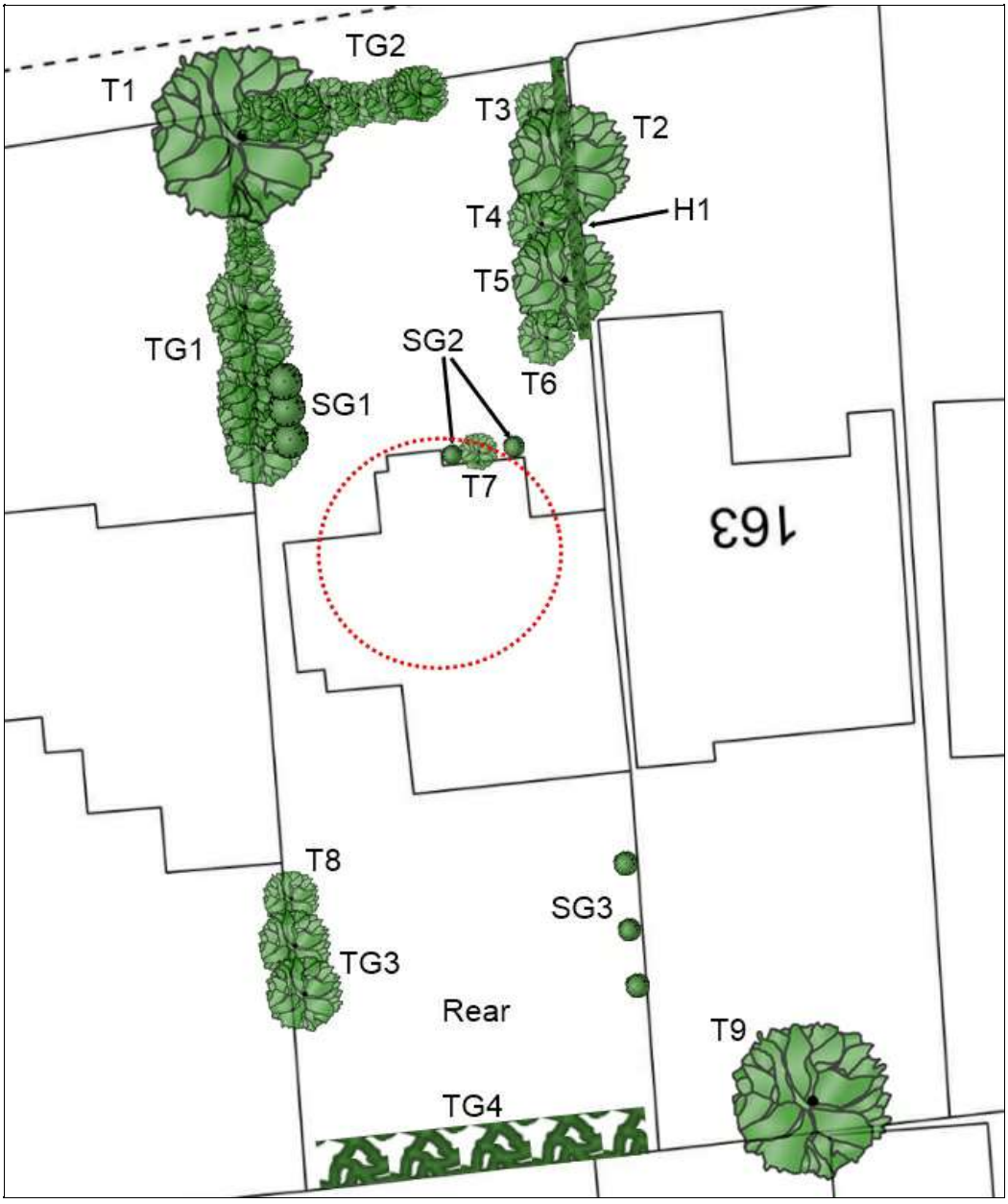
These recommendations may be subject to review following additional site investigations.

Tree No.	Species	Age Cat	Approx. Height (m)	Distance to Building (m) *	Ownership	Action	Requirement
H1	Mixed species hedge	1	4	6.5	C - Insured	No action	No works. Viburnum, Cotoneaster, Hawthorn, Holly
SG1	Mixed species shrubs: St John's Wort, Abelia and Viburnum	1	2	4.1	C - Insured	No action	No works.
SG2	Mixed species shrubs: Rose and Camellia	1	2	0.1	C - Insured	Action to avoid future risk	Maintain at broadly current dimensions by way of regular pruning.
SG3	Mixed species shrubs: Buddleia, Laurel, Forsythia	1	2.5	3.1	C - Insured	No action	No works.
T3	Cypress	1	10	15	C - Insured	Action to avoid future risk	Maintain at broadly current dimensions by way of regular pruning.
T4	Cypress	1	14	12.5	C - Insured	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
T6	Plum (Purple leafed)	1	5	6.5	C - Insured	Action to avoid future risk	Maintain at broadly current dimensions by way of regular pruning.
T8	Laurel (Cherry)	1	7	7.5	C - Insured	Action to avoid future risk	Maintain at broadly current dimensions by way of regular pruning.
T9	Oak	3	20	14	A - Third Party	Action to avoid future risk	Crown reduce overall canopy by 30% (minimum) to achieve a crown volume reduction in line with BRE IP7/06. Maintain at reduced dimensions by re-pruning back to points of previous reduction on a 3 year (max)cycle.
TG2	Cypress	1	17.5	17.5	C - Insured	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
TG3	Cypress	1	10.5	10	C - Insured	Action to avoid future risk	Do not allow to exceed current dimensions by way of regular pruning.
TG4	Mixed Species Group: Cypress, Sycamore and Hawthorn	1	15	16	C - Insured	Action to avoid future risk	Maintain at broadly current dimensions by way of regular pruning.
Age Cat: 1 = Younger than property; 2 = Similar age to the property; 3 = Significantly older than property							

* Estimated

Third party property addresses should be treated as indicative only, should precise detail be required then Environmental Services can undertake Land Registry Searches

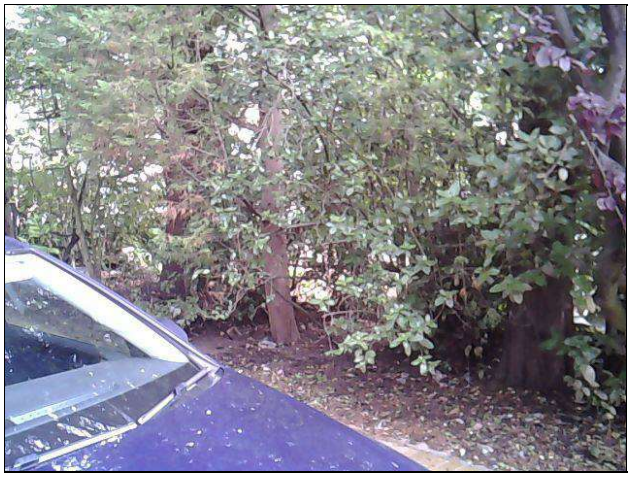
7. Site Plan



Please note that this plan is not to scale. OS Licence No. 100043218

8. Photographs

TG1 - Cypress



H1 - Mixed species hedge

T7 - Cypress

SG2 - Mixed species shrubs

T8 - Laurel (Cherry)

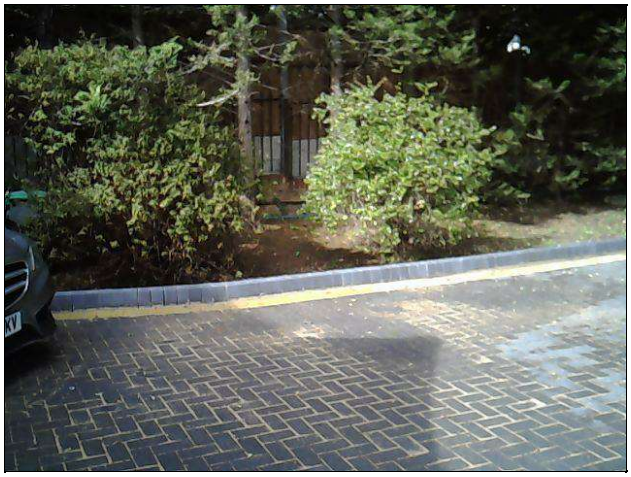
TG3 - Cypress

Arboricultural Consultancy for Lloyds Bank

SG3 - Mixed species shrubs

T9 - Oak

TG4 - Mixed species group

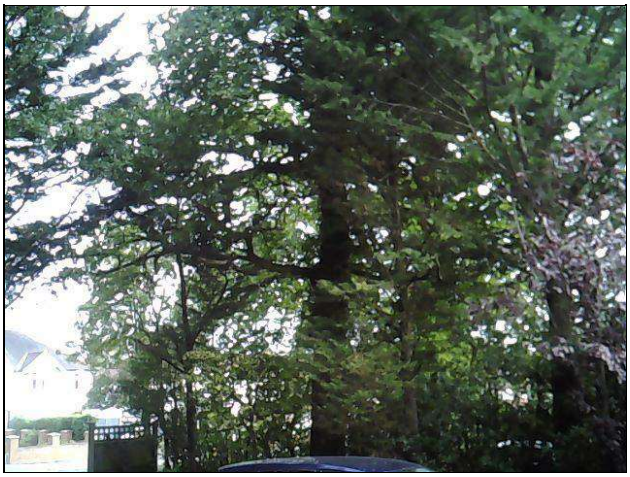


SG1 - Mixed species shrubs

T1 - Oak

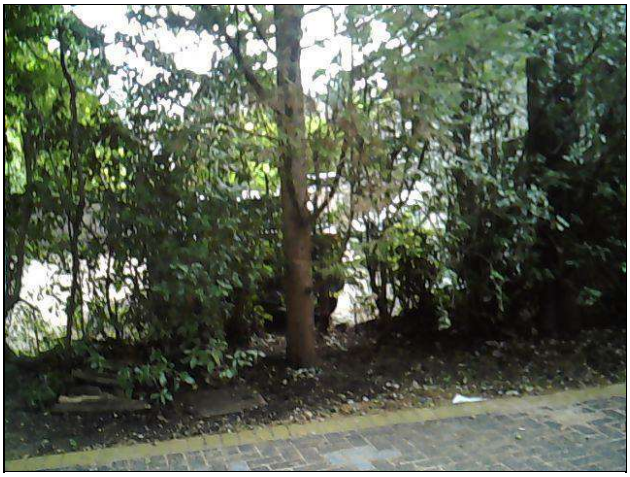
TG2 - Cypress

Arboricultural Consultancy for Lloyds Bank



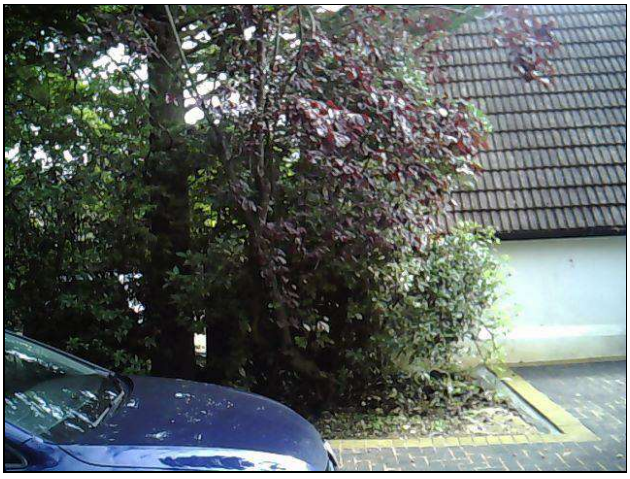
T2 - Oak

T3 - Cypress



T4 - Cypress

T5 - Cypress



T6 - Plum (Purple leafed)

Date: 06/10/2022 Property: 165 Swakeleys Road, Ickenham, Uxbridge, UB10 8DN

9. Tree Works Reserve - Does not include recommendations for future risk.

Insured Property Tree Works	£5750.00
Third Party Tree Works	£0.00
Provisional Sum	£0.00

- The above prices are based on works being performed as separate operations.
- The above is a reserve estimate only.
- Ownerships are assumed to be correct and as per Section 6.
- A fixed charge is made for Tree Preservation Order/Conservation Area searches unless charged by the Local Authority in which case it is cost plus 25%.
- Should tree works be prevented due to statutory protection then we will automatically proceed to seek consent for the works and Appeal to the Secretary of State if appropriate.
- All prices will be subject to V.A.T., which will be charged at the rate applying when the invoice is raised.
- Trees are removed as near as possible to ground level, stump and associated roots are not removed or included in the price.
- Where chemical application is made to stumps it cannot always be guaranteed that this will prevent future regrowth. Should this occur we would be pleased to provide advice to the insured on the best course of action available to them at that time. Where there is a risk to other trees of the same species due to root fusion, chemical control may not be appropriate.

10. Limitations

This report is an appraisal of vegetation influence on the property and is made on the understanding that that engineers suspect or have confirmed that vegetation is contributing to clay shrinkage subsidence, which is impacting upon the building. Recommendations for remedial tree works and future management are made to meet the primary objective of assisting in the restoration of stability to the property. In achieving this, it should be appreciated that recommendations may in some cases be contrary to best Arboricultural practice for tree pruning/management and is a necessary compromise between competing objectives.

Following tree surgery we recommended that the building be monitored to establish the effectiveness of the works in restoring stability.

The influence of trees on soils and building is dynamic and vegetation in close proximity to vulnerable structure should be inspected annually.

The statutory tree protection status as notified by the Local Authority was correct at the time of reporting. It should be noted however that this may be subject to change and we therefore advise that further checks with the Local Authority MUST be carried out prior to implementation of any tree works. Failure to do so can result in fines in excess of £20,000.

Our flagging of a possible recovery action is based on a broad approach that assume all third parties with vegetation contributing to the current claim have the potential for a recovery action (including domestic third parties). This way opportunities do not “fall through the net”; it is understood that domestic third parties with no prior knowledge may be difficult to recover against but that decision will be fully determined by the client.

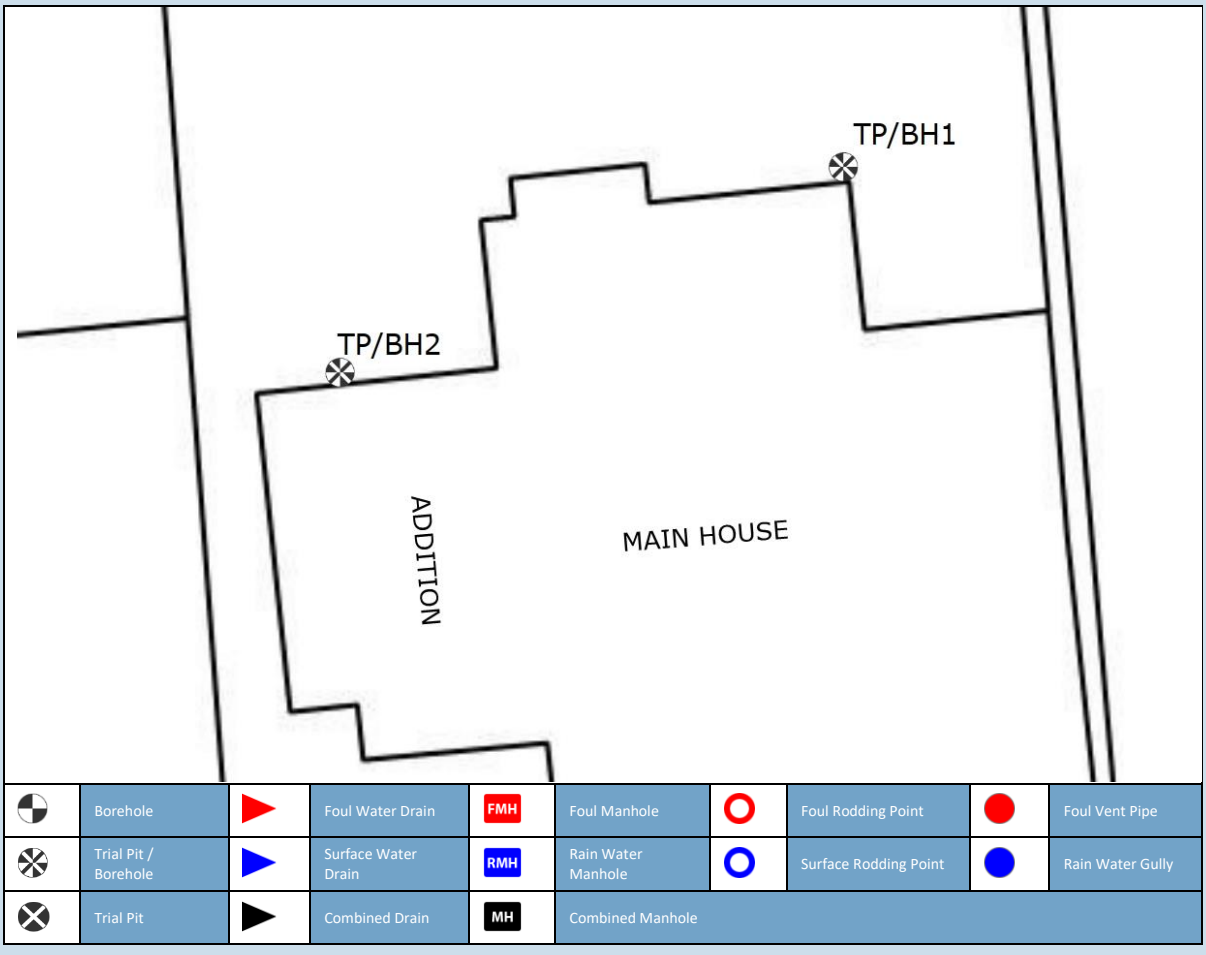
A legal Duty of Care requires that all works specified in this report should be performed by qualified, arboricultural contractors who have been competency tested to determine their suitability for such works in line with Health & Safety Executive Guidelines. Additionally all works should be carried out according to British Standard 3998:2010 *“Tree Work. Recommendations”*.

GEOTECHNICAL
for Subsidence Management Services

165 Swakeleys Road, Ickenham, Uxbridge, UB10 8DN

Client:	Subsidence Management Services
Client Contact:	Peter Hughes
Client Ref:	IFS-LBG-SUB-22-0101692
Policy Holder:	Mr & Mrs Amin & Souha Saidam
Report Date:	26 September 2022
Our Ref:	C65536G29627

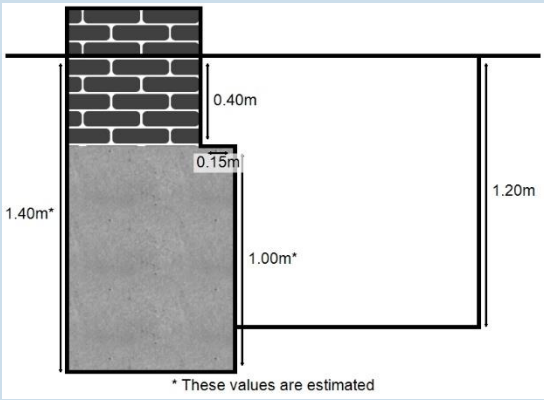
Site Plan



TP/BH1 Foundation Detail and Borehole Log

Foundation Detail

House foundation comprised of brick wall to 400mm bgl, bearing on concrete to an estimated depth of 1400mm bgl, with a total projection of 150mm from the elevation. Underside of foundation (USF) was estimated by pushing a probe, approximately 50mm back from the face of the foundation, at an angle with no apparent contact with the face of the foundation beyond the estimated depth.



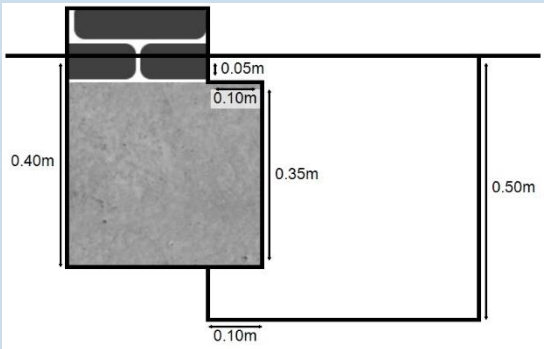
WS	Samples Type	Samples Depth (m)	Tests Type	Tests Depth (m)	Tests Results	Legend	Stratum Description and Observations
						0	TOPSOIL.
							MADE GROUND: brown mottled grey gravelly CLAY with occasional fine to medium brick. Gravel is fine to medium.
							...at 0.10m to 1.40m bgl occasional roots of live appearance encountered.
						0.5	
							Stiff orangish brown mottled grey CLAY.
						1.0	
							...at 1.20m bgl base of hand excavated trial pit.
	D R	1.40 - 1.90 1.40 - 2.30	PEN	1.40	HP=4.0 (4.0,4.0,4.0,4.0,4.0,4.0)		...at 1.40m bgl ESTIMATED UNDERSIDE OF HOUSE FOUNDATION. ...at 1.40m to 2.30m bgl occasional roots of live appearance encountered and sampled.
						1.5	
	D	1.90 - 2.40	PEN	1.90	HP=3.5 (3.5,3.5,3.5,3.5,3.5,3.5)	2.0	
							...at 2.30m to 4.00m bgl no roots encountered. Extensive inspection of soil samples encountered no roots.
	D	2.40 - 2.90	PEN	2.40	HP=3.5 (3.5,3.5,3.5,3.5,3.5,3.5)	2.5	
	D	2.90 - 3.40	PEN	2.90	HP=2.5 (2.5,2.5,2.5,2.5,2.5,2.5)		...at 2.90m bgl becoming firm.
						3.0	
	D	3.40 - 4.00	PEN	3.40	HP=2.5 (2.5,2.5,2.5,2.5,2.5,2.5)	3.5	
						4.0	...at 4.00m bgl target depth achieved.

-- End of borehole at 4.00m --
PEN = Hand Penetrometer (kg/sq cm). Groundwater strikes not encountered. Roots encountered to 2.30m bgl. Trial pit excavated to 1.20m bgl. Borehole completed by hand held percussive window sampler. Borehole completed by hand held percussive window sampler.

TP/BH2 Foundation Detail and Borehole Log

Foundation Detail

Addition foundation comprised of brick wall to 50mm bgl, bearing on concrete to 400mm bgl with a total projection of 100mm from the elevation. Underside of foundation (USF) was exposed to 100mm back from the face of the foundation and probed 400mm back from the face of the foundation.



WS	Samples Type	Samples Depth (m)	Tests Type	Tests Depth (m)	Tests Results
	D	0.40 - 0.90	PEN	0.40	HP=3.5 (3.5,3.5,3.5,3.5,3.5)
	R	0.40 - 1.40			
	D	0.90 - 1.40	PEN	0.90	HP=3.5 (3.5,3.5,3.5,3.5,3.5)
	D	1.40 - 1.90	PEN	1.40	HP=3.0 (3.0,3.0,3.0,3.0,3.0)
	D	1.90 - 2.40	PEN	1.90	HP=3.0 (3.0,3.0,3.0,3.0,3.0)
	D	2.40 - 2.90	PEN	2.40	HP=4.0 (4.0,4.0,4.0,4.0,4.0)
	D	2.90 - 3.40	PEN	2.90	HP=3.5 (3.5,3.5,3.5,3.5,3.5)
	D	3.40 - 4.00	PEN	3.40	HP=3.5 (3.5,3.5,3.5,3.5,3.5)

-- End of borehole at 4.00m --
PEN = Hand Penetrometer (kg/sq cm). Groundwater strikes not encountered. Roots encountered to 1.40m bgl. Trial pit excavated to 0.50m bgl.

Site Observations

GENERAL:
Site Investigation works undertaken on 13 September 2022 during dry weather (i.e. no rain).

HEALTH AND SAFETY:
Negative signal obtained in Power, Radio and Genny mode on the Cable Avoidance Tool (CAT) (TP/BH1).
Negative signal obtained in Power, Radio and Genny mode on the Cable Avoidance Tool (CAT) (TP/BH2).

FOUNDATIONS:
At 1.40m bgl ESTIMATED UNDERSIDE OF HOUSE FOUNDATION in TP/BH1.
At 0.40m bgl UNDERSIDE OF ADDITION FOUNDATION in TP/BH2.

BOREHOLE:
At 1.20m bgl base of hand excavated trial pit in TP/BH1.
At 4.00m bgl target depth achieved in TP/BH1.
At 0.50m bgl base of hand excavated trial pit in TP/BH2.
At 4.00m bgl target depth achieved in TP/BH2.

SOILS:
At 2.90m bgl becoming firm in TP/BH1.

ROOTS:
At 0.10m to 1.40m bgl occasional roots of live appearance encountered in TP/BH1.
At 1.40m to 2.30m bgl occasional roots of live appearance encountered and sampled in TP/BH1.
At 2.30m to 4.00m bgl no roots encountered. Extensive inspection of soil samples encountered no roots in TP/BH1.
At 0.10m to 0.40m bgl numerous roots of live appearance encountered in TP/BH2.
At 0.40m to 1.40m bgl occasional roots of live appearance encountered and sampled in TP/BH2.
At 1.40m to 4.00m bgl no roots encountered. Extensive inspection of soil samples encountered no roots in TP/BH2.

IN SITU TESTING:
Hand Penetrometer (PEN) undertaken at 1.40m bgl (TP/BH 1) within the window sampler at maximum 0.50m intervals.
Hand Penetrometer (PEN) undertaken at 0.40m bgl (TP/BH 2) within the window sampler at maximum 0.50m intervals.

WATER STRIKES:
No water strikes (NWS) encountered.

The groundwater observations do not necessarily indicate equilibrium conditions. It should be appreciated that groundwater levels are subject to both seasonal and weather induced variations. Other effects such as construction activities may also change groundwater levels.

Environmental Services

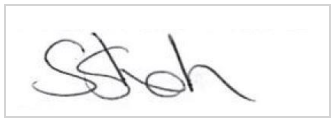
SOIL ANALYSIS

for Subsidence Management Services

165 Swakeleys Road, Uxbridge, UB10 8DN

Client:	Subsidence Management Services
Claim Number:	700014204
Policy Holder:	Mr & Mrs Amin & Souha Saidam
Report Date:	04/10/2022
Our Ref:	L23376

Compiled By:

Name	Position	Signature
Saira Dougan	Laboratory Technician	

Checked By:

Name	Position	Signature
Bob Walker	Laboratory Manager	

Date samples received:	15-Sep-22
Water Content Test Date:	23-Sep-22
Atterberg Limits Test Date:	29-Sep-22
Suction Test Date:	04-Oct-22

UKAS TESTING

9265

Environmental Services

Notes relating to soils testing

Unless otherwise stated, all soil testing was undertaken by Environmental Services at unit 10H Maybrook Business Park, B76 1AL for SubsNetUK of Unit 4 Linnet Court, Cawledge Business Park, Alnwick, NE66 2GD

Soil samples have been prepared in accordance with BS1377:Part 1: 2016 Section 7

Descriptions of soil samples within the laboratory have been undertaken generally in accordance with BS5930:2015. Descriptions of soil samples fall outside of the scope of UKAS accreditation and may have been shortened to remove tertiary components for ease of reference.

The graphical representation of 40% of the LL and the numerical representation of the modified plasticity index (mod. PI) fall outside of the scope of UKAS accreditation.

Following the issue of this soil analysis report, samples will be retained for at least 28 days should additional testing, or referencing, be required. It should be noted that any tests undertaken on soils retained subsequent to the issue of this report may not give an accurate indication of the in-situ conditions of the sample.

This Soil Analysis Report may not be reproduced, in part or in full, without written approval of the laboratory.

The results contained herein relate only to items tested and no others. Additionally as the laboratory is not responsible for the sampling process it takes no responsibility for the condition of the samples and all samples are tested "as received".

Where samples of the same test type are not tested on the same day, or the testing spans multiple days, the test date states the day of the final test or the test date of the final sample.

All information above the laboratory reference on the cover page of this report are as provided by the customer and the laboratory is not responsible for any errors or omissions therein.

Water Content Tests are undertaken in accordance with ISO 17892:Part 1:2014

The Liquid Limit test is undertaken in accordance with BS1377:Part 2:1990 Section 4.4 using an 80g cone with a 30° tip. Sieve percentages reported in blue denote that the sample has been sieved otherwise it has been prepared from its natural state. Sieve percentage reported in BOLD denote that the sample has been oven-dried prior to testing.

Unless otherwise specified herein, the one-point cone penetrometer method has been used with increasing water content. Atterberg results depicted in green have not been tested and are duplicates of the preceding sample, included for reference only.

The Plastic Limit test and the determination of the Plasticity Index is undertaken in accordance with BS1377:Part 2:1990. Where a plastic limit has been denoted with an asterisk (*) then it has been derived from the liquid limit and has not been tested.

The Filter Paper Suction Test is undertaken in accordance with the BRE paper IP4/93 (corrected) ‘A Method of Determining the State of Desiccation in Clay Soils’

Unless otherwise stated the moisture content of the filter paper was determined after 7 days contact with the sample and the test was prepared from a remoulded disturbed sample.

The Filter Paper Suction Tests are conducted in a controlled environment within a temperature range of 18°C and 22°C

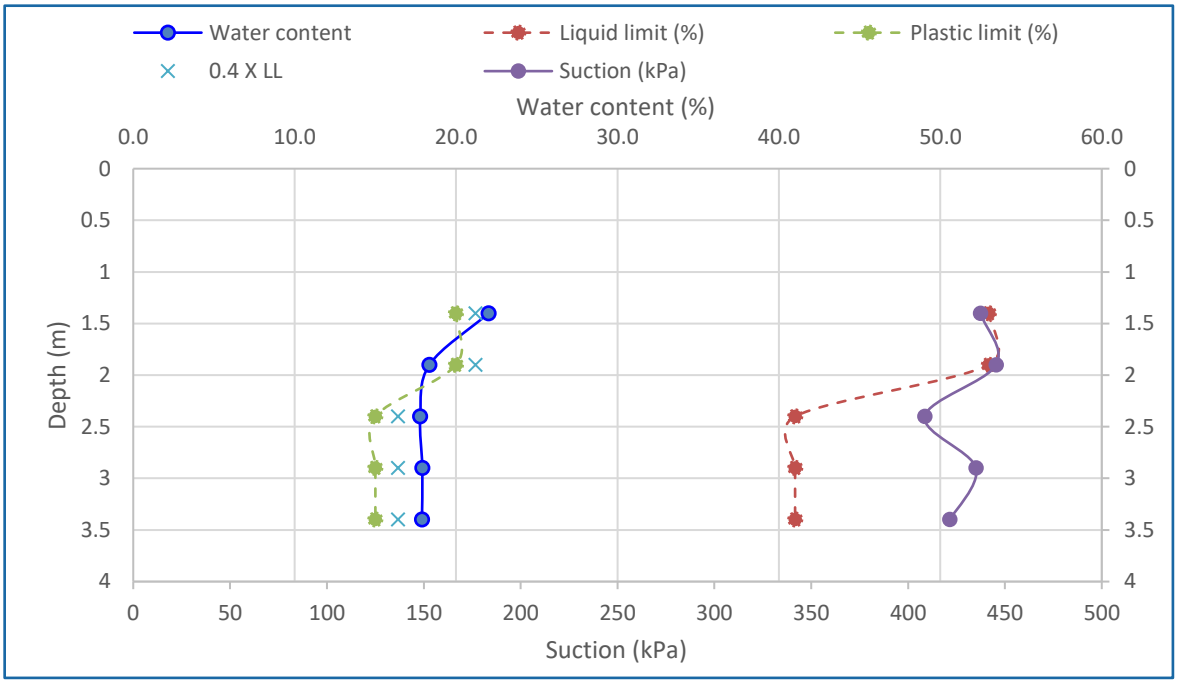
If you would like to provide feedback on this report or any laboratory services or performance, please complete the form below. All appropriate feedback will be used in the continual improvement of laboratory services.

Laboratory feedback form

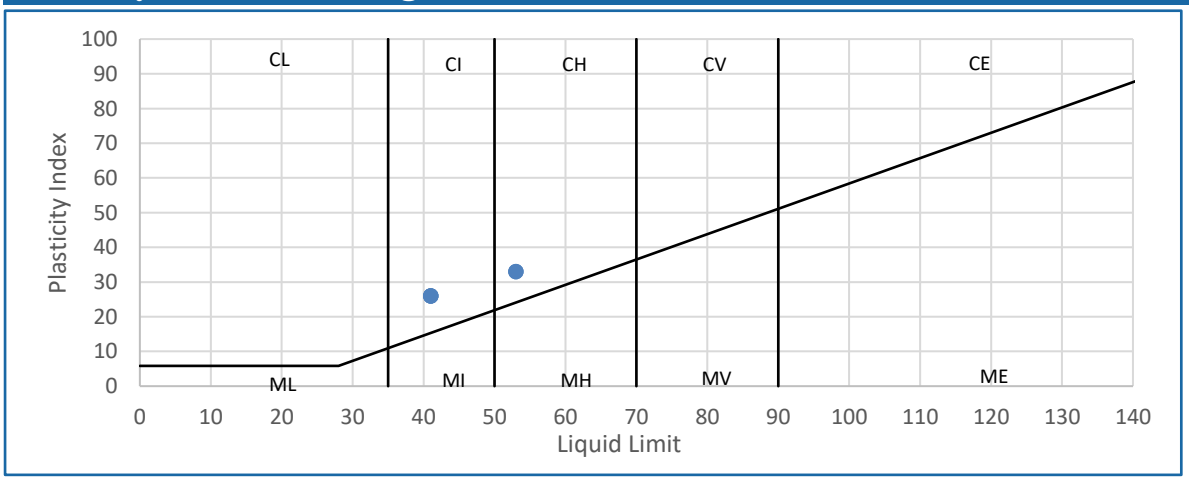
Environmental Services

Samples from BH1

Lab Ref	Depth (m)	WC (%)	LL (%)	PL (%)	PI (%)	.425 mm(%)	mod. PI (%)	Av. Suc. (kPa)	Description
1	1.4	22.0	53	20	33	100	33	437	Firm brown/orange-brown/grey mottled CLAY with rare gravel and sand. Gravel is fine, medium and coarse.
2	1.9	18.3	53	20	33	100	33	445	Firm brown/orange-brown/grey mottled CLAY with rare gravel and sand. Gravel is fine, medium and coarse.
3	2.4	17.8	41	15	26	98	25	409	Firm brown/orange-brown/grey mottled sandy CLAY
4	2.9	17.9	41	15	26	98	25	435	Firm brown/orange-brown/grey mottled sandy CLAY
5	3.4	17.9	41	15	26	98	25	422	Firm brown/orange-brown/grey mottled sandy CLAY



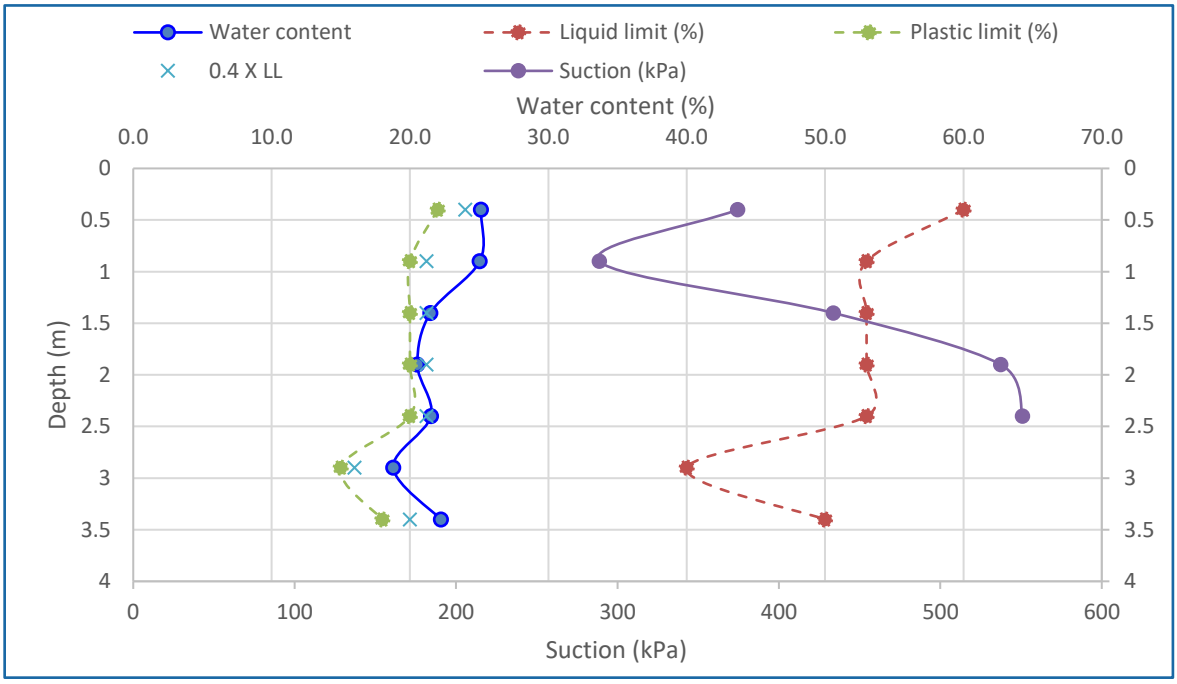
Plasticity Chart for Casagrande Classification



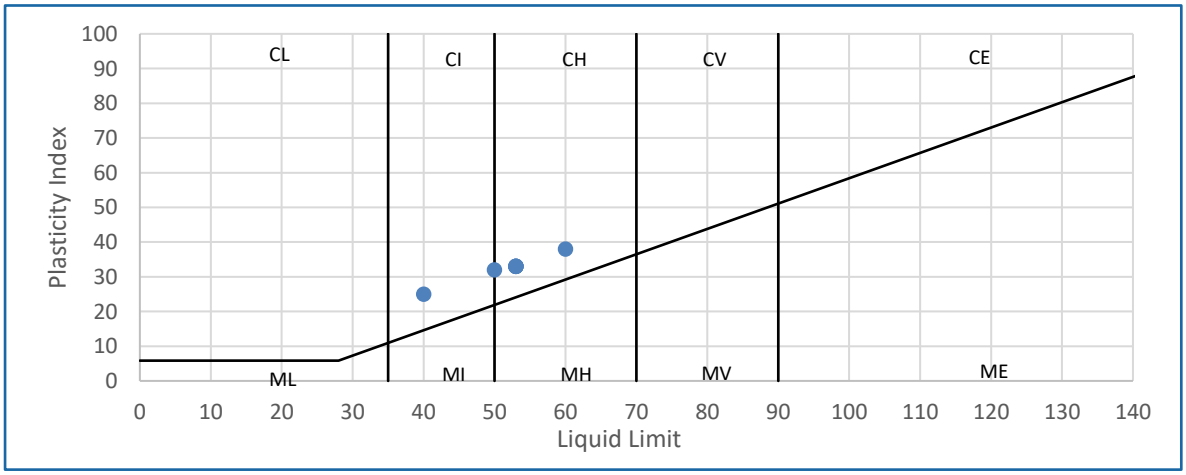
Environmental Services

Samples from BH2

Lab Ref	Depth (m)	WC (%)	LL (%)	PL (%)	PI (%)	.425 mm(%)	mod. PI (%)	Av. Suc. (kPa)	Description
6	0.4	25.1	60	22	38	100	38	374	Soft to firm brown/orange-brown/grey mottled slightly gravelly CLAY with rare sand. Gravel is fine and medium.
7	0.9	25.0	53	20	33	100	33	289	Firm brown/orange-brown/grey mottled slightly sandy CLAY with rare gravel. Gravel is fine and medium.
8	1.4	21.5	53	20	33	100	33	434	Firm brown/orange-brown/grey mottled slightly sandy CLAY with rare gravel. Gravel is fine and medium.
9	1.9	20.5	53	20	33	100	33	537	Firm brown/orange-brown/grey mottled slightly sandy CLAY with rare gravel. Gravel is fine and medium.
10	2.4	21.5	53	20	33	100	33	551	Firm brown/orange-brown/grey mottled slightly sandy CLAY with rare gravel. Gravel is fine and medium.
11	2.9	18.8	40	15	25	100	25		Soft grey-brown/light brown sandy CLAY
12	3.4	22.2	50	18	32	94	30		Firm orange-brown/grey-brown/light brown mottled CLAY with rare sand



Plasticity Chart for Casagrande Classification



Deviating Samples

The table below details any samples deviating from laboratory procedure or deviating in condition to an extent whereby the validity of results may be affected. A test denoted "I" is likely to have had testing abandoned but where a test result has been provided a non-standard procedure may have been used, details of which will be provided upon request.

LAB REF	CONDITION	WC	ATT	SUC	OED
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Key

D	Delay in sample receipt
C	Contaminated sample
B	Sample not bagged correctly
S	Sample too sandy (unsuitable for testing)
G	Sample too gravelly (unsuitable for testing)
V	Sample too soft (unsuitable for preparation)
L	Sample too silty
I	Insufficient sample
O	Too much organic content (unsuitable for testing)
N	Non-standard procedure used
H	Sample depth too shallow
X	Testing result too similar to above sample

References

The following provides a brief interpretation of the test results by comparison of the results to published classifications. The Atterberg Limit test may be used to classify the plasticity of soils; the plasticity classes defined in BS5930:2015 "Code of Practice for Site Investigations" are as follows.

CL (ML)	CLAY and CLAY/SILT of Low plasticity
CI (MI)	CLAY and CLAY/SILT of Intermediate plasticity
CH (MH)	CLAY and CLAY/SILT of High plasticity
CV (MV)	CLAY and CLAY/SILT of Very High plasticity
CE (ME)	CLAY and CLAY/SILT of Extremely High plasticity
O	The letter O is added to prefixes to symbolise a significant proportion of organic matter.
NP	Non-plastic

The Plasticity Index (PI) Result obtained from the Atterberg Limit tests may also be used to classify the potential for volume change of fine soils, in accordance with the National House Building Council's standards - Chapter 4.2 (2003) "Building Near Trees", as summarised below.

Modified PI < 10	Non Classified.
Modified PI = 10 to <20	Low volume change potential.
Modified PI = 20 to <40	Medium volume change potential.
Modified PI = 40 or greater	High volume change potential.

The 2003 edition of Chapter 4.2 also permits use of the Plasticity Index without modification. The classifications for this are grouped by soil type (soils with similar visual soils description and using unmodified Plasticity Indices.

ROOT IDENTIFICATION

for Subsidence Management Services

165 Swakeleys Road, Ickenham, Uxbridge, UB10 8DN

Client:	Subsidence Management Services
Client Contact:	Peter Hughes
Claim Number:	700014204
Client Reference:	IFS-LBG-SUB-22-0101692
Policy Holder:	Mr & Mrs Amin & Souha Saidam
Report Date:	21 September 2022
Our Ref:	R46053

Intec
Parc Menai, Bangor,
Gwynedd, North Wales
LL57 4FG
Tel: 01248 672652

Sub Sample	Species Identified		Root Diameter	Starch
TP/BH1:				
1.4m	*Quercus* spp.	1	2 mm	Moderate
TP/BH2:				
0.4-1.4m	*Quercus* spp.	2	1.5 mm	Abundant

Comments:

1 - Plus 2 others also identified as *Quercus* spp.
2 - Plus 2 others also identified as *Quercus* spp.

Quercus spp. are oaks (both deciduous and evergreen).

Signed: G S Turner

Unless we are otherwise instructed in writing, the above sample material will normally be disposed of 6 years after the date of this report.

SubsNetUK

Drainage Investigation Report

For Subsidence Management Services

Client Lloyds Banking Group

Risk Address: 165 Swakeleys Road, Ickenham, Uxbridge, UB10 8DN

Visit Date: 23/08/2022

Client Reference: IFS-LBG-SUB-22-0101692

Our Reference: C65536 D23013

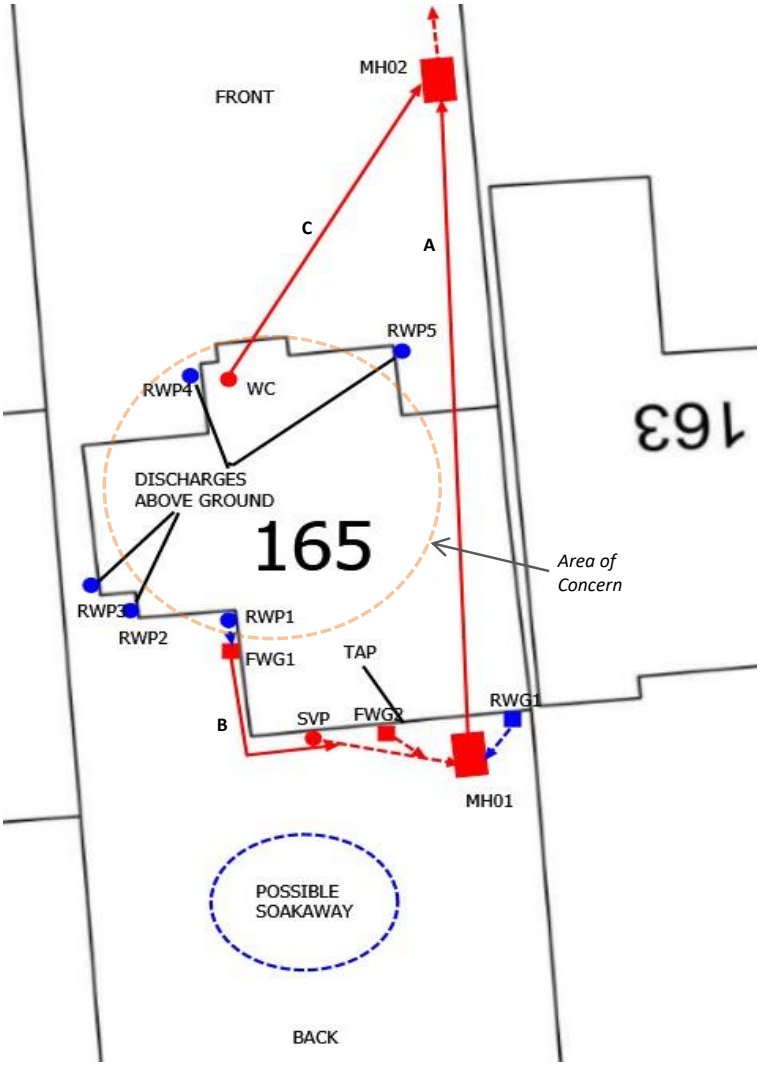
Report Date: 08/09/2022

Report Content:

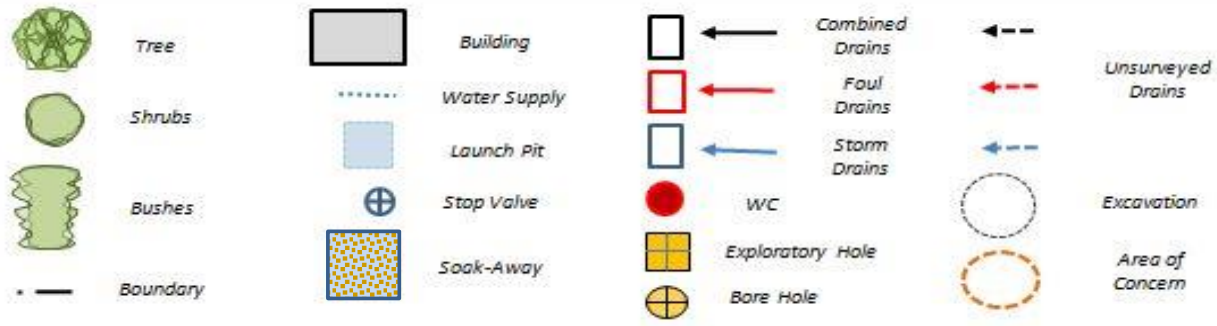
SubsNetUK

Site Plan

SubsNetUK



Key



Notes:	
Address:	165 Swakeleys Road, Ickenham, Uxbridge, UB10 8DN

CCTV Survey

RUN	Start From :	MH01	Finish at :	MH02	Pipe Ø:	100mm
A	Invert Level (m):	0.75	Invert Level (m):	n/a	Material:	Plastic
COMBINED	Condition grade:	B	Direction:	Downstream	Responsibility:	Home Owner
Distance	*Code*	*Hydraulic Test - Fail*				
0.00	SN	Start Node from MH01				
4.03	JDM	Joint Displaced (Medium)				
4.03	MC	Material of drain changes at this point to Clay				
4.56	JDM	Joint Displaced (Medium)				
4.56	REM	Remark - Entering area of concern				
5.17	CC	Crack Circumferential				
6.38	CC	Crack Circumferential				
6.95	CC	Crack Circumferential				
7.52	JDM	Joint Displaced (Medium)				
8.13	CC	Crack Circumferential				
8.74	JDM	Joint Displaced (Medium)				
9.84	CC	Crack Circumferential				
10.18	MC	Material of drain changes at this point to Liner				
10.64	MC	Material of drain changes at this point to Clay				
11.02	REM	Remark - Leaving area of concern				
11.21	JDM	Joint Displaced (Medium)				
11.67	CC	Crack Circumferential				
12.16	DEE	Attached Deposits (encrustation)				
12.77	DEE	Attached Deposits (encrustation)				
15.24	MC	Material of drain changes at this point to Liner				
21.85	MC	Material of drain changes at this point to Clay				
21.89	FN	Finish Node at MH02				
RUN	Start From :	FWG1	Finish at :	Carrier	Pipe Ø:	100mm
B	Invert Level (m):	0.3	Invert Level (m):	n/a	Material:	Plastic
FOUL	Condition grade:	A	Direction:	Downstream	Responsibility:	Home Owner
Distance	*Code*	*Hydraulic Test - Pass*				
0.00	SN	Start Node from FWG1				
2.70	REM	Remark - Leaving area of concern				
3.34	LL	Line of drain deviates left (sharp)				
5.78	FN	Finish Node at Carrier				
RUN	Start From :	WC	Finish at :	MH02	Pipe Ø:	100mm
C	Invert Level (m):	n/a	Invert Level (m):	n/a	Material:	Plastic
FOUL	Condition grade:	A	Direction:	Downstream	Responsibility:	Home Owner
Distance	*Code*	*Hydraulic Test - Pass*				
0.00	SN	Start Node from WC				
0.11	LU	Line of drain deviates up (sharp)				
4.20	REM	Remark - Leaving area of concern				
12.24	LL	Line of drain deviates left (slight)				
12.88	FN	Finish Node at MH02				

Address: 165 Swakeleys Road, Ickenham, Uxbridge, UB10 8DN

SubsNetUK

Drainage Overview

SubsNetUK

Following the receipt of your instruction, we attended site to carry out a CCTV survey.

The CCTV survey was undertaken in general accordance with the Manual of Sewer Classification and the WRc Drain Repair Book.

The following presents a summary of the findings with recommendations to repair and/or return the drains to a serviceable state, where necessary.

Drain Run A: MH01 Downstream to MH02
Pipe Diameter: 100mm
Responsibility: Home Owner
Hydraulic Pressure Test: Fail
CCTV Survey Result: Structural damage
Recommended Repair:

1) To prepare the drain line and insert up to 11m of structural liner to cover defects.

Drain Run B: FWG1 Downstream to Carrier
Pipe Diameter: 100mm
Responsibility: Home Owner
Hydraulic Pressure Test: Pass
CCTV Survey Result: No structural damage
Recommended Repair:

No repairs have been recommended as the drain line was found to be free from defects.

Drain Run C: WC Downstream to MH02
Pipe Diameter: 100mm
Responsibility: Home Owner
Hydraulic Pressure Test: Pass
CCTV Survey Result: No structural damage
Recommended Repair:

No repairs have been recommended as the drain line was found to be free from defects.

RWP1:

We were unable to gain access due to FWG1 being directly on top of the pipework for RWP1, we believe that it may run towards a Soakaway. We recommend removal of FWG1 to allow access to survey the line.

	Result	Acoustic Test
Water Main Test	**PASS**	No noise could be heard which indicates that there is no leak

Address: 165 Swakeleys Road, Ickenham, Uxbridge, UB10 8DN

SubsNetUK **Quote** SubsNetUK

RUN / LOCATION: RUN A

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK1133	Van pack HPWJ & CCTV in preparation of lining	nr	£148.44	1.00	£148.44
UK1135	Drain Lining - Initial Set-Up Fee (0-3.0m)	nr	£332.64	1.00	£332.64
UK1140	Drain Lining - 100mm. Install Structural liner into existing 100mm underground drain. 3mm Wall thickness.	m	£55.52	8.00	£444.13
				Total (Excl VAT)	£925.21

RUN / LOCATION: RWP1

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK1120155	32/40mm waste pipes. Remove existing and replace with new PVCu. Fixed to masonry.	m	£9.60	1.00	£9.60
UK1120165	32/40mm waste pipes. Shoes / bends.	nr	£10.81	2.00	£21.61
UK0595	Gully, 225mm x 225mm. Remove existing and replace with new PVCu item. Bed, surround and backfill .	nr	£146.43	1.00	£146.43
UK0605	Excavate & remove isolated length. Replace in new 110mm PVCu. Bed, surround & backfill. n.e. 1000mm deep.	nr	£131.47	1.00	£131.47
UK0880	Short Radius Bend. Remove existing item and replace with new 110mm PVCu.	nr	£14.89	2.00	£29.78
UK1060	Extra over pipework for surrounding drain run in 100mm thick concrete.	m	£14.40	1.00	£14.40
UK0025	Protection Temporary works to floors, 1000 gauge polythene.	m2	£1.79	2.00	£3.59
UK8120300	Hardcore Filling to excavations over 250 mm average thick.	m	£35.35	1.00	£35.35
UK2050005	Disposal by hand excavated contaminated/saturated material off site.	m3	£45.30	1.00	£45.30
UK1050	Removal, disposal and reinstatement of concrete path / hardstanding n.e 100mm thick.	m2	£54.19	1.00	£54.19
	CCTV survey of underground drainage & report (where undertaken as part of other drainage works on site)	nr	£165.00	1.00	£165.00
				Total (Excl VAT)	£656.72

REPAIR ESTIMATE TOTALS:

Run / Location		Amount (£)
RUN A		£925.21
RWP1		£656.72
	Total (Excl VAT)	£1,581.93

Address: 165 Swakeleys Road, Ickenham, Uxbridge, UB10 8DN