

# 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	Mrs Iryna Kotsur	Address	21 Bargrove Close, London, SE20 8DU		
Client	Subsidence Management Services	Contact	Kyza Derby	Claim No.	IFS-LBG-SUB-20-0088174
ES Ref	SA-246851	Consultant	Giles Mercer	Contact No.	0330 380 1036
Report Date	06/11/2020				

**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 end-terrace house. The property occupies a level site with no adverse topographical features.

Damage relates to the front elevation of the insured dwelling. Please refer to the engineers report for a full description of the claim history and damage.

## 3. Technical Reports

In preparing our report we have had the benefit of the following technical investigations:

Drain Report  Engineers Report

## 4. Action Plan

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

Treeworks	
Local Authority	Bromley London Borough Council
TPO / Conservation Area / Planning Protection Searches	Insured: None Adjacent & Adjoining properties: TPO
Additional Comments	
Awaiting Further Instructions.	
A potential recovery action has been identified.	
Engineers should consider focusing investigations to strengthen factual evidence for disclosure to third party tree owners.	

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## 5. Technical Synopsis

This report is based upon our understanding at the time of visiting the property that engineers are satisfied that damage is due to clay shrinkage subsidence exacerbated by vegetation.

We have therefore been instructed to advise on the causal vegetation and to deliver management proposals which will provide on-going and long term stability allowing repairs to be undertaken.

A survey of the drainage system at the property has been undertaken and some defects noted; however, the footings of the subject property are also within the normally accepted influencing distance of vegetation on site.

Given the above, where engineers confirm that they do not consider damaged or leaking drains to be a material cause of the current subsidence then vegetation is deemed to retain the capacity to be causal to the current movement / damage.

In assessing the potential drying influence of the vegetation on site, we have considered species profile, normally accepted influencing distance and the position of vegetation relative to the observed damage.

Our survey of the site identified the Oak (T5), Laurel (T7) and Cypress trees (TG2), given their position relative to the damage it is our opinion that these trees are the dominant features proximate to the area of movement and accordingly we have identified their collective / cohesive influence as the primary cause of the subsidence damage.

However, the Plum (T3) & Cypress (T6) cannot be discounted as contributing to the overall level of soil drying proximate to the area of damage and are therefore also considered to retain a contributory influence, albeit in a limited / secondary capacity when compared to the above.

The size and proximity of the above vegetation is consistent with the location of damage and advised mechanism of movement; 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.

Considering engineers conclusions and 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 management as listed by this report.

Please refer to Section 6 for management prescriptions.

The recommendations contained within this arboricultural report are prescribed to give the most reliable arboricultural solution likely to restore long-term stability.

Consequently, complete removal of the Plum (T3), the Oak ( T5), Cypress (T6), Bay Laurel (T7) and components of TG2 (as detailed) will offer the most certain arboricultural solution likely to restore long-term stability.

We recommend the efficacy of the management recommendations be qualified by means of further monitoring to confirm stability.

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.

Whilst replacement planting is considered appropriate, due consideration must be given to the ultimate size of the replacement and future management requirements. Species selection should be appropriate for the chosen site and ultimate tree height should not exceed 75% of the available distance to built structures.

# Arboricultural Consultancy for Lloyds Bank

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
T3	Plum	3	7.9	5.1	A - Third Party	Remove	Remove close to ground level and treat stump to inhibit regrowth.
T5	Oak	3	16	12	A - Third Party	Remove	Remove close to ground level and treat stumps to inhibit regrowth.
T6	Cypress	1	4.2	1.4	C - Insured	Remove	Remove close to ground level.
T7	Laurel (Bay)	1	6.6	3.55	C - Insured	Remove	Remove close to ground level and treat stump to inhibit regrowth.
TG2	Cypress	1	12	5.5	C - Insured	Maintain as detailed	Remove nearest (and largest) tree close to ground level. Balance to be maintained at broadly current dimensions by way of regular pruning. (Group of circa 7 trees)

**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
T1	Sycamore	3	18.6	11.5	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 strict 2-3 year cycle.
T2	Poplar	3	24	5.4	A - Third Party	Action to avoid future risk	Remove close to ground level and treat stumps to inhibit regrowth.
T4	Cypress	3	2.8	2.5	C - Insured	Action to avoid future risk	Maintain at broadly current dimensions by way of regular pruning.
TG1	Sycamore	3	6.1	4	A - Third Party	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

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## 8. Photographs



T1 - Sycamore



General Site



General Site



General Site



General Site



General Site



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General Site



General Site



T5 - Oak



T6 - Cypress

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TG2 - Cypress



T2 - Poplar



T7 - Laurel (Bay)



T7 - Laurel (Bay)



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T3 - Plum



TG1 - Sycamore



T5 - Oak



T4 - Cypress



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Rear



General Site



General Site

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Date: 06/11/2020

Property: 21 Bargrove Close, London, SE20 8DU

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

Insured Property Tree Works	£1120.00
Third Party Tree Works	£2450.00
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".**

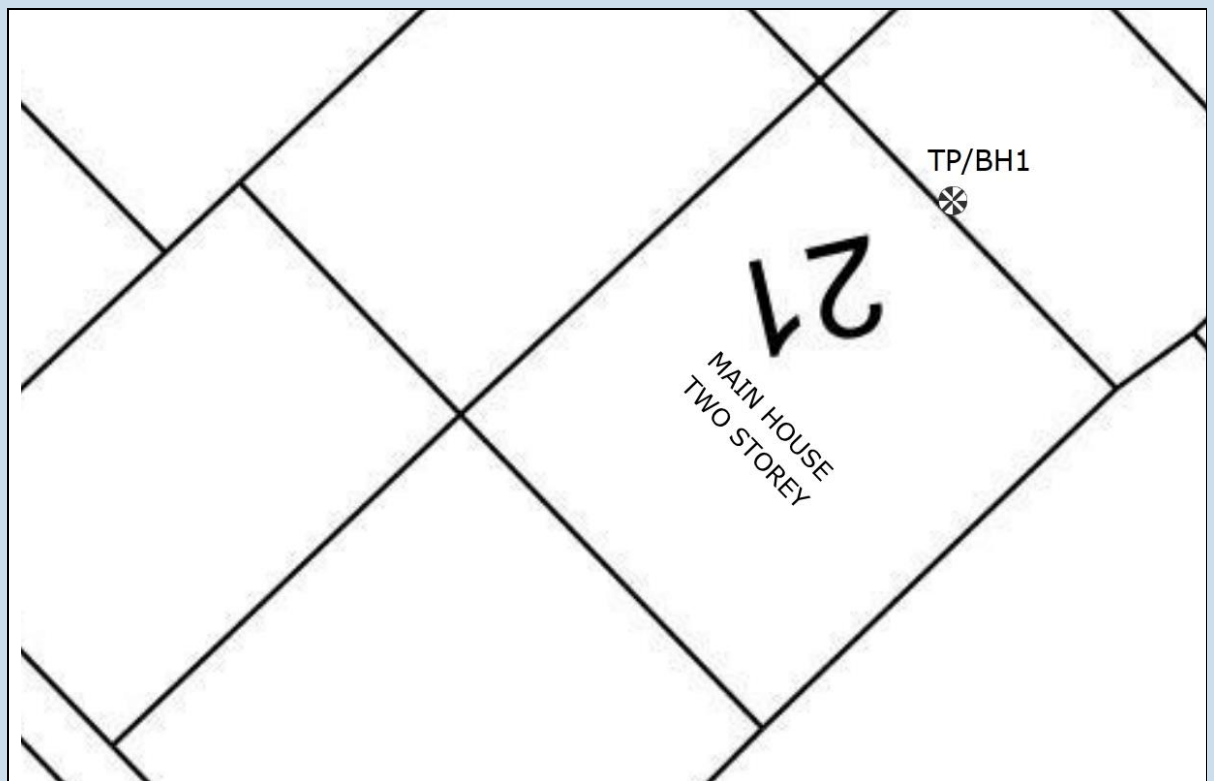
# GEOTECHNICAL

## for Subsidence Management Services

**21 Bargrove Close, London, SE20 8DU**

Client: Subsidence Management Services  
Client Contact: Ian Domigan  
Client Ref: IFS-LBG-SUB-20-0088174  
Policy Holder: Mrs Iryna Kotsur  
Report Date: 5 November 2020  
Our Ref: C56656G25320

### Site Plan



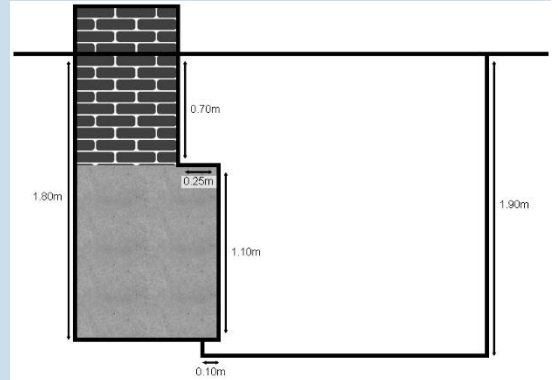
	Borehole		Foul Water Drain		Foul Manhole		Foul Rodding Point		Foul Vent Pipe
	Trial Pit / Borehole		Surface Water Drain		Rain Water Manhole		Surface Rodding Point		Rain Water Gully
	Trial Pit		Combined Drain		Combined Manhole				



## TP/BH1 Foundation Detail and Borehole Log

### Foundation Detail

House foundation comprised of brick wall to 700mm bgl, bearing on concrete to 1800mm bgl, with a total projection of 250mm from the elevation. Underside of foundation (USF) was exposed to 100mm back from the face of the foundation and probed 500mm back from the face of the foundation.



WS	Samples		Tests		Legend	Stratum Description and Observations
	Type	Depth (m)	Type	Depth (m)		
					0	0
					0.5	0.5
					1.0	1.0
					1.5	1.5
					2.0	2.0
	D R	1.90 - 2.40 1.90 - 2.90	PEN	1.90	HP=3.0 (3.0,3.0,3.0,3.0,3.0)	Firm dark brownish orange mottled grey CLAY.
	D	2.40 - 2.90	PEN	2.40	HP=3.4 (3.5,3.5,3.5,3.5,3.0)	Firm dark brownish grey mottled orange slightly sandy CLAY.
	D	2.90 - 3.40	PEN	2.90	HP=3.0 (3.0,3.0,3.0,3.0,3.0)	Firm dark brownish grey mottled orange slightly sandy CLAY.
	D	3.40 - 3.90	PEN	3.40	HP=3.0 (3.0,3.0,3.0,3.0,3.0)	Firm dark brownish grey mottled orange slightly sandy CLAY.
	D	3.90 - 4.00	PEN	3.90	HP=3.0 (3.0,...)	Firm dark brownish grey mottled orange slightly sandy CLAY.
					4.0	4.0

-- End of borehole at 4.00m --  
 Trial pit excavated to 1.90m bgl. Borehole completed by mech window sampler.

## Site Observations

### GENERAL:

Site Investigation works (TP/BH 1) undertaken on 20 October 2020 during dry weather (i.e. no rain).

### FOUNDATION :

House foundation was exposed and the underside of foundation (USF) recorded to be 1.8m bgl (TP/BH 1).

### ROOTS:

Roots encountered to 2.9m bgl (TP/BH 1).

### IN SITU TESTING:

Hand Penetrometer (PEN) undertaken at 1.9m bgl (TP/BH 1) within the window sample borehole and thereafter in the window sample borehole at maximum 0.1m intervals.

### WATER STRIKE:

No water strike/s (NWS) encountered (TP/BH 1).

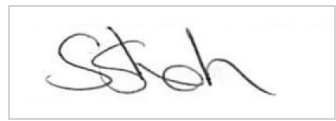
# SOIL ANALYSIS

## for Subsidence Management Services


**21 Bargrove Close, London, SE20 8DU**

Client: Subsidence Management Services  
Claim Number: 102309871  
Policy Holder: Mrs Iryna Kotsur  
Report Date: 10/11/2020  
Our Ref: L19668

Compiled By:

Name	Position	Signature
Saira Dougan	Laboratory Technician	

Checked By:

Name	Position	Signature
Bob Walker	Laboratory Manager	

Date samples received: 23-Oct-20  
Water Content Test Date: 03-Nov-20  
Atterberg Limits Test Date: 03-Nov-20



### 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

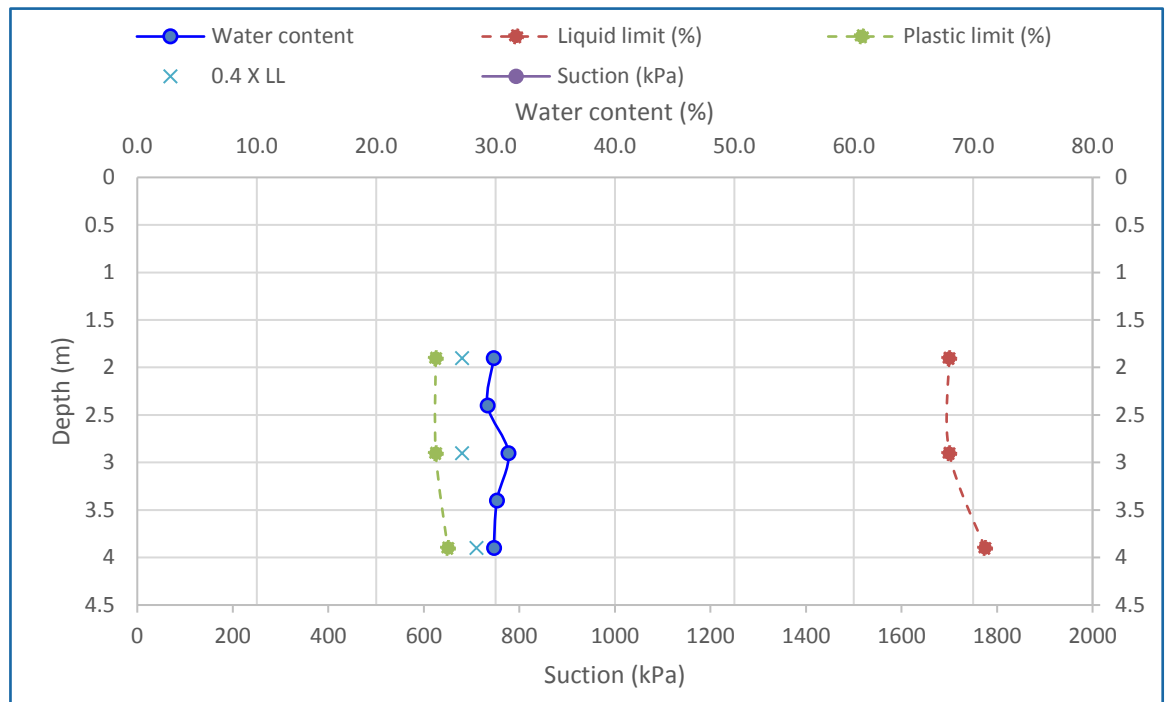
The Liquid Limit test is undertaken in accordance with BS1377:Part 2:1990 Section 4.4 using an 80g cone with a 30° tip. Sieve percentages reported in blue denote that the sample has been sieved otherwise it has been prepared from its natural state.

Unless otherwise specified herein, the four-point cone penetrometer method has been used with increasing water content

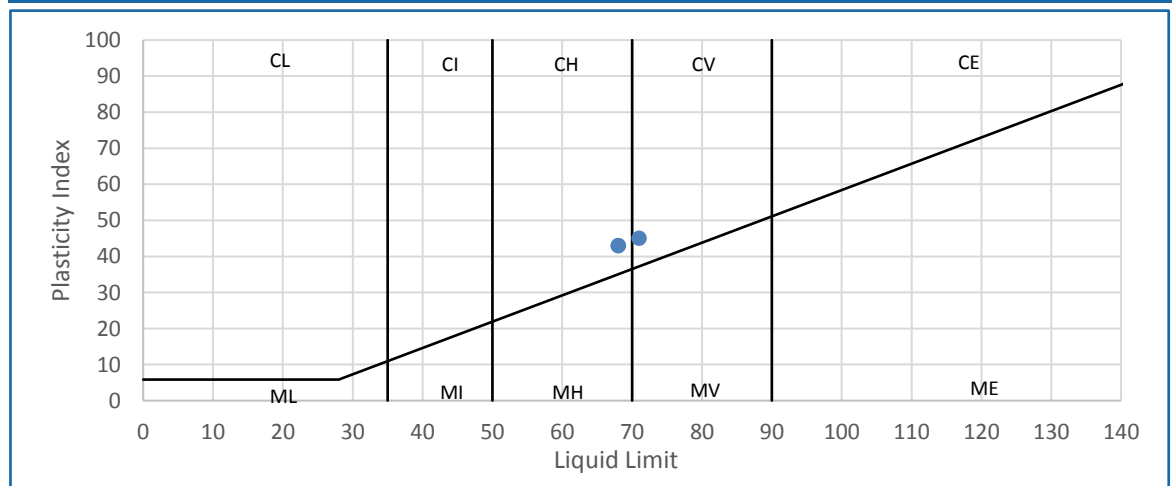
The Plastic Limit test and the determination of the Plasticity Index is undertaken in accordance with BS1377:Part 2:1990. Where a plastic limit has been denoted with an asterisk (\*) then it has been derived from the liquid limit and has not been tested.

### Samples from BH1

Lab Ref	Depth (m)	MC (%)	LL (%)	PL (%)	PI (%)	.425 mm(%)	mod. PI (%)	Av. Suc. (kPa)	Description
1	1.9	29.9	68	25	43	97	42		Soft to firm brown/orange-brown/grey veined CLAY with rare gravel and sand. Gravel is fine
2	2.4	29.3							Firm brown/orange-brown/grey veined CLAY with rare gravel and sand. Gravel is fine
3	2.9	31.1	68	25	43	95	41		Soft to firm brown/orange-brown/grey veined CLAY with rare gravel and sand. Gravel is fine
4	3.4	30.1							Firm brown/orange-brown/grey veined CLAY with rare gravel and sand. Gravel is fine
5	3.9	29.9	71	26	45	97	44		Firm brown/orange-brown/grey veined CLAY with rare gravel and sand. Gravel is fine



### 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					

#### 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

### 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

21 Bargrove Close, London, SE20 8DU

Client: Subsidence Management Services  
Client Contact: Ian Domigan  
Claim Number: 102309871  
Client Reference: IFS-LBG-SUB-20-0088174  
Policy Holder: Mrs Iryna Kotsur  
Report Date: 4 November 2020  
Our Ref: R37812



Intec  
Parc Menai, Bangor,  
Gwynedd, North Wales  
LL57 4FG  
Tel: 01248672652

Sub Sample	Species Identified		Root Diameter	Starch
<b>TP/BH1:</b>				
1.9-2.9m	<i>Quercus</i> spp.	1	7 mm	Absent
1.9-2.9m	<i>Fraxinus</i> spp.	2	2 mm	Absent
1.9-2.9m	broadleaved species, too decayed for positive identification		<1 mm	Absent

**Comments:**

- 1 - Very decayed.
- 2 - Very decayed.

*Quercus* spp. are oaks (both deciduous and evergreen).  
*Fraxinus* spp. include common ash.

**Signed:** R J Shaw

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

## Drainage Investigation Report

### For Subsidence Management Services

**Client** Mrs Iryna Kotsur

**Risk Address:** 21 Bargrove Close, London, SE20 8DU

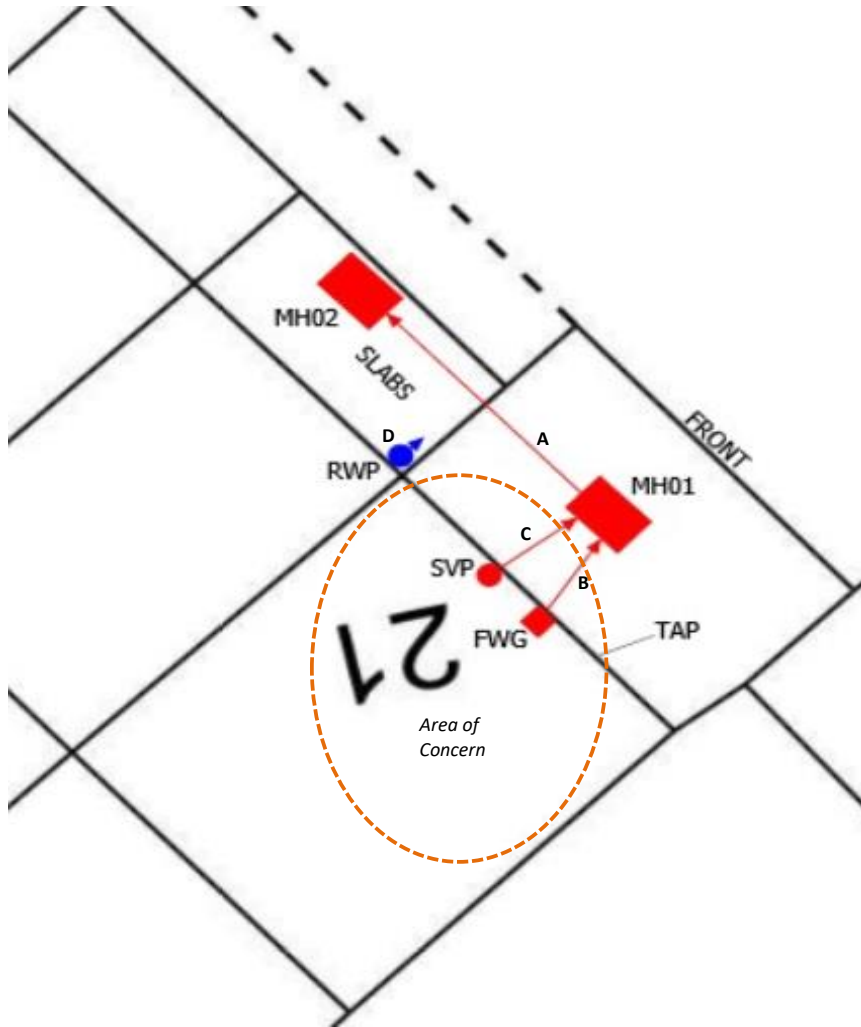
**Visit Date:** 1st October 2020

**Client Reference:** IFS-LBG-SUB-20-0088174




















**Our Reference:** C56656 D18836

**Report Date:** 10th October 2020

**Report Content:** Front Page  
Site Plan  
CCTV Coding  
Drain Overview  
Quote



Key

	Tree		Building		Combined Drains		Unsurveyed Drains
	Shrubs		Water Supply		Foul Drains		Unsurveyed Drains
	Bushes		Launch Pit		Storm Drains		Excavation
	Boundary		Stop Valve		WC		Area of Concern
			Soak-Away		Exploratory Hole		
					Bore Hole		

Notes:

Address:

21 Bargrove Close, London, SE20 8DU

<b>RUN</b>	<b>Start From :</b>	MH01	<b>Finish at :</b>	MH02	<b>Pipe Ø:</b>	100mm
<b>A</b>	<b>Invert Level (m):</b>	1.08	<b>Invert Level (m):</b>	N/A	<b>Material:</b>	Clay
<b>FOUL</b>	<b>Condition grade:</b>	<b>C</b>	<b>Direction:</b>	Downstream	<b>Responsibility:</b>	Home Owner / LWA
<i>Distance</i>	<i>Code</i>	<i>Hydraulic Test - Fail</i>				
0.00	SN	Start Node from MH01				
0.00	WL	Water Level 0%				
0.23	JDM	Joint Displaced (Medium)				
0.42	FC	Fracture Circumferential				
0.72	FC	Fracture Circumferential				
1.75	FC	Fracture Circumferential				
1.75	RF	Roots Fine				
2.89	RF	Roots Fine				
3.00	REM	Remark - At Boundary Line				
3.00	REM	Remark - Run becomes shared from this point				
3.57	FC	Fracture Circumferential				
6.50	FN	Finish Node at MH02				
<b>RUN</b>	<b>Start From :</b>	MH01	<b>Finish at :</b>	FWG	<b>Pipe Ø:</b>	100mm
<b>B</b>	<b>Invert Level (m):</b>	1.08	<b>Invert Level (m):</b>	N/A	<b>Material:</b>	Clay
<b>FOUL</b>	<b>Condition grade:</b>	<b>C</b>	<b>Direction:</b>	Upstream	<b>Responsibility:</b>	Home Owner
<i>Distance</i>	<i>Code</i>	<i>Hydraulic Test - Fail</i>				
0.00	SN	Start Node from MH01				
0.00	WL	Water Level 0%				
0.65	OJM	Open Joint (medium)				
0.99	LU	Line of drain deviates up 90°				
1.29	OJM	Open Joint (medium)				
1.44	FN	Finish Node at FWG				
<b>RUN</b>	<b>Start From :</b>	MH01	<b>Finish at :</b>	SVP	<b>Pipe Ø:</b>	100mm
<b>C</b>	<b>Invert Level (m):</b>	1.08	<b>Invert Level (m):</b>	N/A	<b>Material:</b>	Clay
<b>FOUL</b>	<b>Condition grade:</b>	<b>C</b>	<b>Direction:</b>	Upstream	<b>Responsibility:</b>	Home Owner
<i>Distance</i>	<i>Code</i>	<i>Hydraulic Test - Fail</i>				
0.00	SN	Start Node from MH01				
0.00	WL	Water Level 0%				
0.08	JDM	Joint Displaced (Medium)				
1.33	LU	Line of drain deviates up 90°				
1.71	FN	Finish Node at SVP				
<b>RUN</b>	<b>Start From :</b>	RWP	<b>Finish at :</b>	UNKNOWN	<b>Pipe Ø:</b>	100mm
<b>D</b>	<b>Invert Level (m):</b>	1.08	<b>Invert Level (m):</b>	N/A	<b>Material:</b>	Clay
<b>STORM</b>	<b>Condition grade:</b>	<b>C</b>	<b>Direction:</b>	Upstream	<b>Responsibility:</b>	Local Authority
<i>Distance</i>	<i>Code</i>	<i>Hydraulic Test - Fail</i>				
0.00	SN	Start Node from RWP1 (shared)				
0.00	WL	Water Level 0%				
0.08	XP	Collapsed Pipe				
0.08	SA	Survey Abandoned - Unable to push past defect				

Address:

21 Bargrove Close, London, SE20 8DU

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. All runs were cleaned by high pressure water jetting prior to the CCTV survey.

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 D/S TO MH02**

**Pipe Diameter:** 100mm

**Responsibility:** Home Owner / Local Water Authority

**Hydraulic Pressure Test:** Fail

**CCTV Survey Result:** Structural damage

**Recommended Repair:**

- Cover area in protective sheeting
- To prepare the drain line and insert 3m of structural liner to the boundary to cover defects.

**Drain Run B: MH01 U/S TO FWG**

**Pipe Diameter:** 100mm

**Responsibility:** Home Owner

**Hydraulic Pressure Test:** Fail

**CCTV Survey Result:** Structural damage

**Recommended Repair:**

- Cover area in protective sheeting
- To excavate and replace existing gully including 2m of adjacent pipework.
- Bed new pipe, compact, back fill and reinstate flag paving

**Drain Run C: MH01 U/S TO SVP**

**Pipe Diameter:** 100mm

**Responsibility:** Home Owner

**Hydraulic Pressure Test:** Fail

**CCTV Survey Result:** Structural damage

**Recommended Repair:**

- Cover area in protective sheeting
- To excavate and replace existing Rest bend at base of SVP including 1m of adjacent pipework
- Bed new pipe, compact, back fill and reinstate flag paving

**Drain Run D: RWP1 D/S TO UNKNOWN**

**Pipe Diameter:** 100mm

**Responsibility:** Local Water Authority

**Hydraulic Pressure Test:** Fail

**CCTV Survey Result:** Structural damage, Pipe collapsed

**Recommended Repair:**

No repairs have been recommended as the drain line is shared and is therefore a transferred asset.

The responsibility and maintenance of this drain falls with the Local Water Authority.

Water Main Test	Water Meter 1.8 Bar	Result	Notes
		PASS	No movement found on water meter

**Address:** 21 Bargrove Close, London, SE20 8DU



**RUN / LOCATION: RUN A**

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK1135	Drain Lining - Initial Set-Up Fee (0-3.0m)	nr	£332.64	1.00	£332.64
UK1133	Van pack HPWJ & CCTV in preparation of lining	nr	£148.44	1.00	£148.44
UK0025	Protection Temporary works to floors, 1000 gauge polythene	m2	£1.79	2.00	£3.59
Total (Excl VAT)					£484.67

**RUN / LOCATION: RUN B**

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK1120155	32/40mm waste pipes. Remove existing and replace with new PVCu items. Bed, surveyed and backfill.	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, surveyed and backfill.	nr	£146.43	1.00	£146.43
UK0605	Excavate & remove isolated length. Replace in new 110mm PVCu. Bed, surveyed & backfill to 1000mm	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	2.00	£28.81
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	2.00	£70.70
UK2050005	Disposal by hand excavated contaminated/saturated material off site	m3	£45.30	1.00	£45.30
UK0825	Excavate & remove pipework. Replace with new 110mm PVCu. Bed, surveyed & backfill to 1000mm	m	£81.39	1.00	£81.39
UK1045	Removal, set aside and reinstatement of concrete slab paving to 100mm thick	m2	£24.61	1.00	£24.61
Total (Excl VAT)					£593.29

**RUN / LOCATION: RUN C**

Repair Item	Description	Unit	Rate (£)	Quantity	Amount (£)
UK0650	Rest-bend. Remove existing and replace with new PVCu item. Bed, surveyed and backfill.	nr	£96.02	1.00	£96.02
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
UK0605	Excavate & remove isolated length. Replace in new 110mm PVCu. Bed, surveyed & backfill to 1000mm	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	2.00	£28.81
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	2.00	£70.70
UK2050005	Disposal by hand excavated contaminated/saturated material off site	m3	£45.30	1.00	£45.30
UK0825	Excavate & remove pipework. Replace with new 110mm PVCu. Bed, surveyed & backfill to 1000mm	m	£81.39	1.00	£81.39
UK1045	Removal, set aside and reinstatement of concrete slab paving to 100mm thick	m2	£24.61	1.00	£24.61
Total (Excl VAT)					£542.88

**REPAIR ESTIMATE TOTALS:**

Run / Location	Amount (£)
<b>RUN A</b>	£484.67
<b>RUN B</b>	£593.29
<b>RUN C</b>	£542.88
<b>Total (Excl VAT)</b>	<b>£1,620.84</b>

Address:

21 Bargrove Close, London, SE20 8DU