[redacted]

Project Summary

Investigation to determine existing foundations and ground conditions. The investigation included a hand excavated trial pit, laboratory testing and a drainage survey.

Customer Details

Date	**5th April 2019**
Client	**Sedgwick**
Policy Holder & Address	**Ruth Tamir** **Flat 6, Fitzjohns Mansions, 10 Netherhall Gardens, London, NW3 5RS**
Reference number	[redacted]
Shire Reference	
Report prepared by	**Rob Ray BSc(Hons) Env Eng**

Contents

1. Site Findings

1.1 Trial Pits

TP1 was located on the rear of the two-storey extension and revealed a concrete foundation. The foundation was formed at a depth of 0.95m with a projection of 0.36m. The ground below the foundation was made ground to 1.1m over firm becoming stiff silty clay.

Roots were noted to a depth of 3.7m.

1.2 Drainage

The CCTV camera was used to survey the existing drainage. The drains are in a satisfactory condition and the observations made are given below:

MHA Upstream (100mm clay) – MH depth 0.9m

Observation	Distance (m)
Start	0.0
Slight Displaced Joint (change to plastic)	1.6
Bend up	1.64
End	

MHA Branch A (100mm clay)

Observation	Distance (m)
Start	0.0
Slight Displaced Joint	0.35
Bend to left	0.4
Medium Displaced Joint	0.69
Large Displaced Joint & Bend up	1.7

MHA Branch B (100mm plastic)

Observation	Distance (m)
Start	0.0
Bend to left	0.8
Slight Displaced Joint & Bend to left	2.2
Limited view (cob webs)	
End	

MHB Downstream (100mm clay) - MHB depth 0.42m

Observation	Distance (m)
Start	0.0
In Manhole	9.55
End	

MHB Upstream (100mm clay)

Observation	Distance (m)
Start	0.0
Bend to right (RWG)	3.8
End	

MHB Branch A (100mm plastic)

Observation	Distance (m)
Start	0.0
Bend up to SVP	1.7
End	

MHA Branch B (100mm plastic)

Observation	Distance (m)
Start	0.0
Bend to RVP	0.8
End	

2. Laboratory Testing

Samples of clay were taken from the exploratory holes and sent to the laboratory for moisture content and atterberg testing. The clay has a high shrinkage potential.

Root samples were taken for laboratory identification. The results are in the appendices.

3. General Conditions

The site work and report has been carried out in accordance with BS 5930: 2015 "Code of practice for ground investigations."

Any samples taken are either retained or dispatched to a UKAS accredited laboratory for testing. The tests are carried out in accordance with the methods outlined in BS 1377: 1990 "Methods of test for soils for civil engineering purposes."

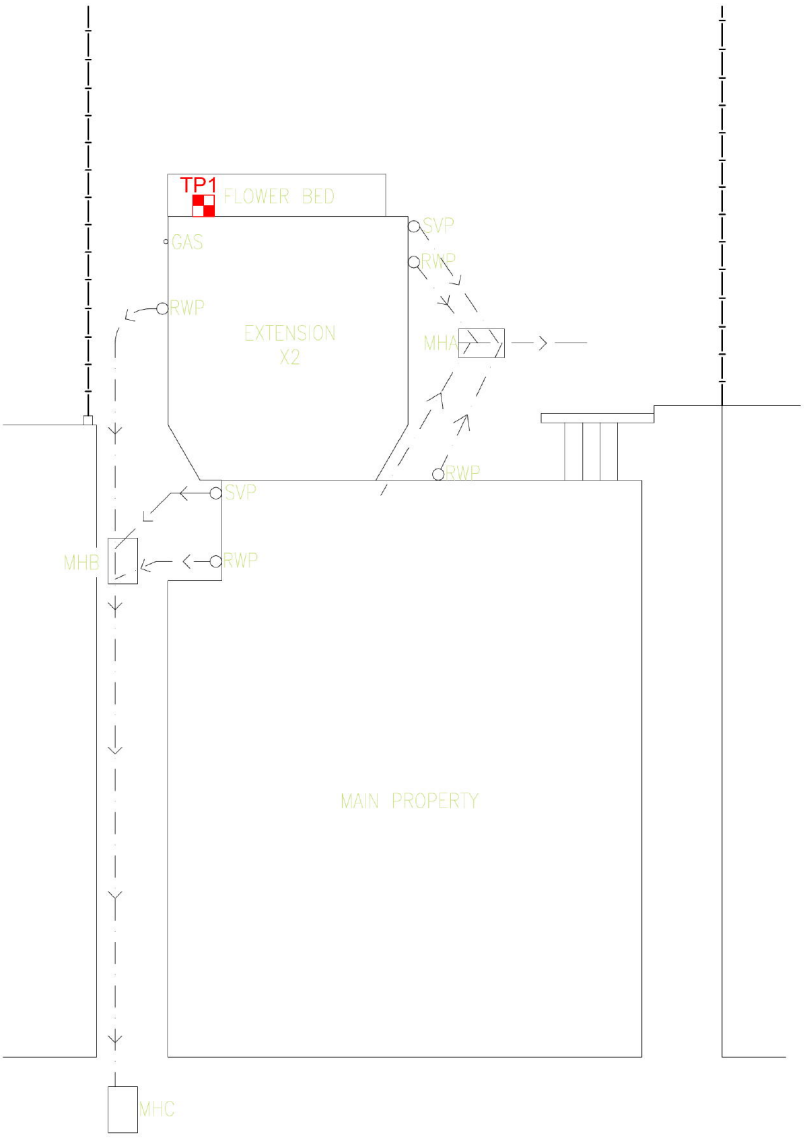
All root samples are sent to the European Plant Science Laboratory for identification.

4. Appendices

- Plan
- Logs
- Soil Test Results
- Root Identification Results

[redacted]

Rob Ray BSc(Hons) Env Eng



ORIGINAL DRAWING SIZE A4

[redacted]

Customer Name
SEDGWICK-CET

Date	Scale	Job No		
05/04/19	AS SHOWN	[redacted]		
Drawn	Checked	Drawing No	Issue	
BB	RR	**LP1**	**A**	

Address
FLAT 6 FITZJOHNS MANSIONS
10 NETHERHALL GARDENS
LONDON
NW3 5RS

Drawing Title
LOCATION PLAN No.1

Shire structures

[redacted]

MACKINTOSH PROBE RESULTS - FREEFALL

DEPTH (m)	READING BLOWS/ 100mm	M VALUE BLOWS/ 300mm	VERY LOOSE / LOOSE / MEDIUM DENSE (25 50 75 100 125 150 175 200 225)	SHEAR VANE kN/m2
0.3				
0.6				
0.9	7			
	9	40		
1.2	24			
	27			
	39	116		
1.5	50			
	40			
	50	140+		
1.8	50+			
2.1				
2.4				
2.7				
3.0				
	38			
	46	138		
3.3	54			
3.6				
3.9				
	51			
	57	178		
4.2	70			

DEPTH (m)	SOIL REF	DESCRIPTION
1.0	A	MADE GROUND: Brown sandy gravelly CLAY with brick glass and concrete fragments Concrete Fdn:Top @ G.L Depth 0.95m, Pjn 0.36m
1.1		
1.7	B	Soft to firm light brown silty CLAY with roots (Wet to 1.3m)
2.0		
3.0	C	Firm light brown silty CLAY with orange grey and dark brown flecks and roots
3.7		
4.0	D	Firm becoming stiff light brown silty CLAY with orange grey and dark brown flecks, roots and gypsum fragments
4.2		

ORIGINAL DRAWING SIZE A4

Claim Number [redacted]

Customer Name
SEDGWICK-CET

Date 05/04/19 | Scale NTS | Job No [redacted]

Drawn BB | Checked RR | Drawing No **TP1** | Issue **A**

Address
FLAT 6 FITZJOHNS MANSIONS
10 NETHERHALL GARDENS
LONDON
NW3 5RS

Drawing Title
TRIAL PIT No.1

Shirestructures [redacted]

EPSL
Independent Scientific Analysis

European Plant Science Laboratory

Shire Consulting Limited
The Chapel
Barnsley Hall Road
Bromsgrove
Worcestershire
B61 0SZ

Intec
[redacted]

ROOT IDENTIFICATION

Fitzjohns Mansion,

Client Reference: [redacted]
Report Date: 2 May 2019
Our Ref: R30058

Sub Sample	Species Identified		Root Diameter	Starch
TP1:				
USF to 3.7m	*Populus* spp. *	1	1.5 mm	Moderate

Comments:

1 - Plus 3 others also identified as *Populus* spp.

Populus spp. are poplars and aspens.

* EPSL research has developed a unique ability to differentiate Willows from Poplars. No other laboratory in the UK can currently provide this service. We now offer this benefit at no extra cost.

Signed: M D Mitchell

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

GEOLABS®

GEOLABS Limited

[redacted]

Shire Consulting
The Chapel
Barnsley Hall Road
Bromsgrove
Worcestershire
B61 0SZ

03 May 2019

[redacted]

For the attention of Mr R Ray

Dear Sirs

Date samples received	08/04/2019
Date written instructions received	08/04/2019
Date testing commenced	09/04/2019
Date of sample disposal	**31/05/2019**

Our ref [redacted]
Your Ref

Project **FITZJOHNS MANSION**

Further to your instructions we have pleasure in enclosing the results of the tests you requested in the attached figures.

LABORATORY TEST REPORT

Item No	Test Quantity	Description
1	~	Liquid & Plastic Limits Summary
~	7	Water Content
2	4	Liquid & Plastic Limits

Any opinions or interpretations expressed herein are outside the scope of UKAS accreditation. All results contained in this report are provisional unless signed by an approved signatory. The results contained in this report relate only to samples received in the laboratory and are tested 'as received' unless otherwise stated. This report should not be reproduced, except in full, without the written approval of the laboratory.

All the necessary data required by the documented test procedures has been recorded and will be stored for a period of not less than 6 years. This data will be issued to yourselves at your request. All samples will be disposed of after the date shown above. Written confirmation will be required to retain the samples beyond this period and a storage charge may be applied.

We trust that the above meets your requirements and should you require any further information or assistance, please do not hesitate to contact us.

Yours faithfully
on behalf of **GEOLABS Limited**

[redacted]

J A Reynolds
Laboratory Manager

1115 - PI Summary - 29081.XLSM

BS1377:Part 2:1990

SUMMARY OF LIQUID AND PLASTIC LIMIT TESTS

Borehole / Trial Pit	Depth m	Sample Ref	Sample Type	Description	Water Content BS EN ISO 17892-1 : 2014 %	Liquid Limit %	Plastic Limit %	Plasticity Index %	Percentage Passing 425µm %	Atterberg Classification	Test Type	Sample Condition
TP1	1.00		D	Brown CLAY with rare fine to meidum gravel.	31.1	69	26	43	97	CH	2	1
TP1	1.50		D	Brown CLAY with rare fine gravel.	31.9						~	
TP1	2.00		D	Brown CLAY with rare fine gravel.	30.8	71	29	42	99	CV	2	1
TP1	2.50		D	Brown CLAY with rare fine gypsum.	29.3						~	
TP1	3.00		D	Brown CLAY with rare fine gravel.	27.5	74	27	47	97	CV	2	1
TP1	3.50		D	Brown CLAY with rare fine gypsum.	27.8						~	
TP1	4.00		D	Brown CLAY with rare fine gravel.	29.8	71	27	44	99	CV	2	1

Test Type:
1 - 1 point cone penetrometer clause 4.4
2 - 4 point cone penetrometer clause 4.3
3 - Non plastic determination

Sample condition:
1 - As Received
2 - Air Dried
3 - Washed & Air Dried

Version 1.59 - 07/01/2019

Checked and Approved by:
[redacted]
J A Reynolds - Laboratory Manager
03/05/2019

Project Number:
GEO / 29081

Project Name:
FITZJOHNS MANSION [redacted]

GEOLABS

Test Report By GEOLABS Limited [redacted]

[redacted]

BS1377 : Part 2 : 1990 Clauses 4.3 & 5

LIQUID AND PLASTIC LIMITS

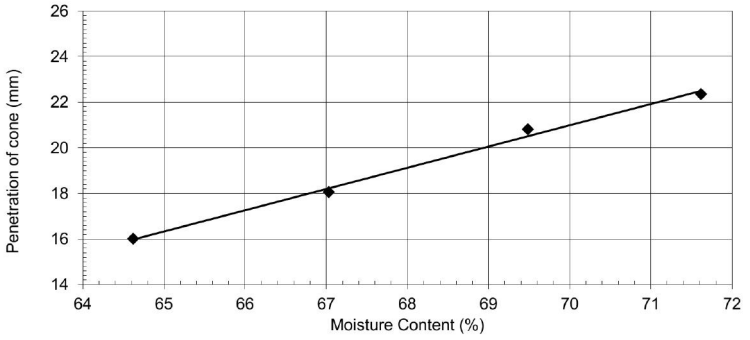
BH / TP	TP1
Depth (m)	1.00
Sample Type	D

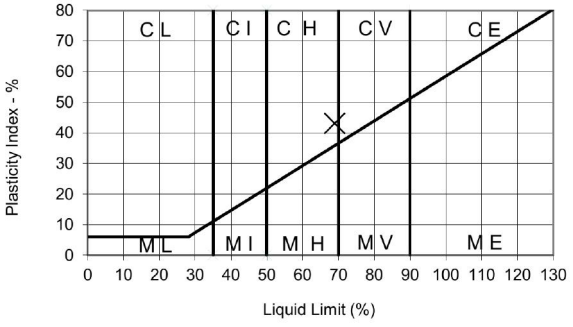
Description:

Brown CLAY with rare fine to meidum gravel.

Preparation : Sample as received

Water Content : (BS EN ISO 17892-1:2014)	31.1 %
Percentage passing 425µm sieve :	97 %
Liquid Limit :	69 %
Plastic Limit :	26 %
Plasticity Index :	43 %
Equivalent Water Content of material passing 425µm sieve :	31.9 %
Liquidity Index :	0.14





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J A Reynolds - Laboratory Manager
03/05/2019

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Project Name:
FITZJOHNS MANSION
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UKAS TESTING 1982

Test Report By GEOLABS Limited [redacted]

[redacted]

BS1377 : Part 2 : 1990 Clauses 4.3 & 5

LIQUID AND PLASTIC LIMITS

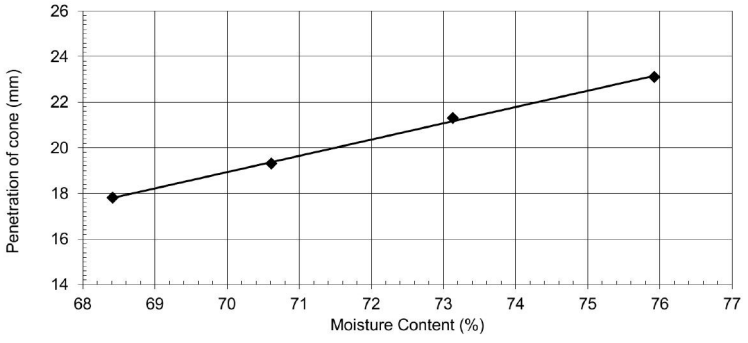
BH / TP	TP1
Depth (m)	2.00
Sample Type	D

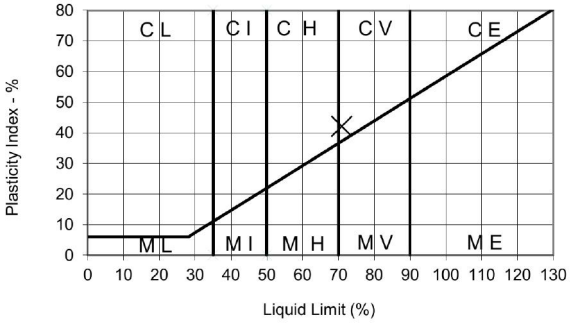
Description:

Brown CLAY with rare fine gravel.

Preparation : Sample as received

Water Content : (BS EN ISO 17892-1:2014)	30.8 %
Percentage passing 425µm sieve :	99 %
Liquid Limit :	71 %
Plastic Limit :	29 %
Plasticity Index :	42 %
Equivalent Water Content of material passing 425µm sieve :	31.2 %
Liquidity Index :	0.05





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Project Name:
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[redacted]

1220 - LLPL TP1 03.00 D - 29081-215196.XLSM

BS1377 : Part 2 : 1990 Clauses 4.3 & 5

LIQUID AND PLASTIC LIMITS

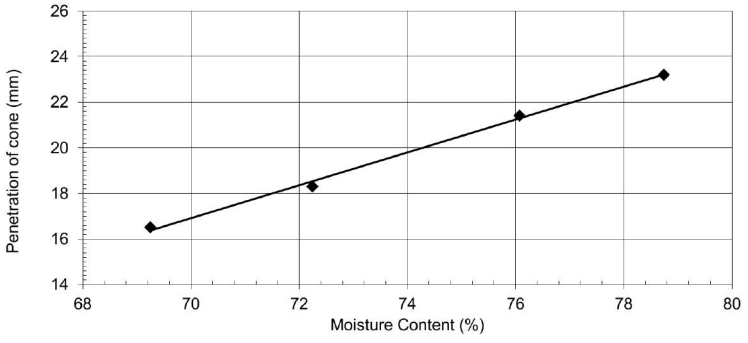
BH / TP	TP1
Depth (m)	3.00
Sample Type	D

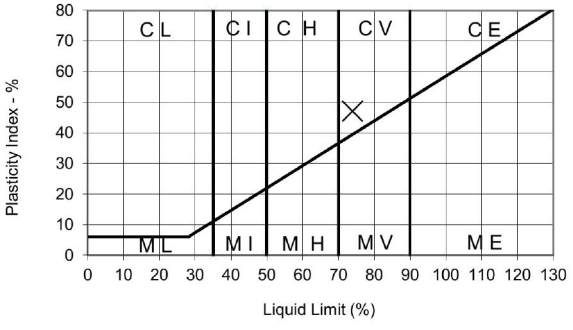
Description:

Brown CLAY with rare fine gravel.

Preparation : Sample as received

Water Content : (BS EN ISO 17892-1:2014)	27.5 %
Percentage passing 425µm sieve :	97 %
Liquid Limit :	74 %
Plastic Limit :	27 %
Plasticity Index :	47 %
Equivalent Water Content of material passing 425µm sieve :	28.2 %
Liquidity Index :	0.03





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03/05/2019

Project Number:
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Project Name:
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[redacted]

1220 - LLPL TP1 04.00 D - 29081-215198.XLSM

BS1377 : Part 2 : 1990 Clauses 4.3 & 5

LIQUID AND PLASTIC LIMITS

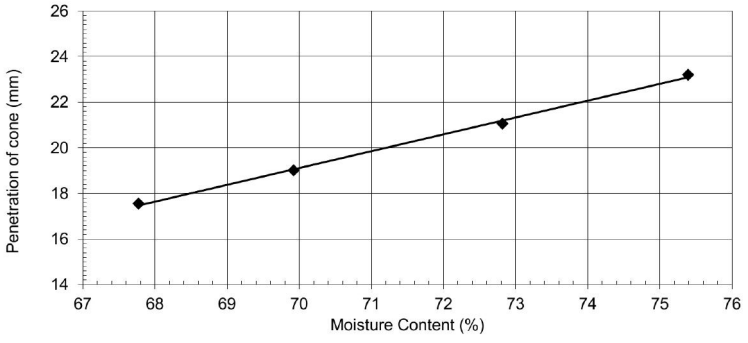
BH / TP	TP1
Depth (m)	4.00
Sample Type	D

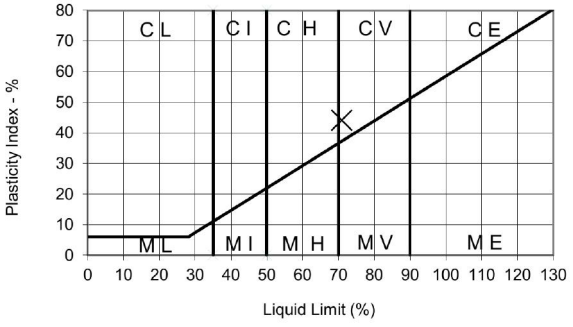
Description:

Brown CLAY with rare fine gravel.

Preparation : Sample as received

Water Content : (BS EN ISO 17892-1:2014)	29.8 %
Percentage passing 425µm sieve :	99 %
Liquid Limit :	71 %
Plastic Limit :	27 %
Plasticity Index :	44 %
Equivalent Water Content of material passing 425µm sieve :	30.2 %
Liquidity Index :	0.07





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J A Reynolds - Laboratory Manager
03/05/2019

Project Number:
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Project Name:
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