

Arboricultural Appraisal Report

Subsidence Damage Investigation at:

**55 Hamilton Terrace
London
NW8 9RG**



CLIENT:

CLIENT REF:

MWA REF:

MWA CONSULTANT:

REPORT DATE:

[REDACTED]

21/11/2018

SUMMARY

Statutory Controls		Mitigation (current claim works)	
TPO current claim	No	Policy Holder	No
TPO future risk	No	3rd Party	Yes
Cons. Area	Yes (St John's Wood)	Local Authority	No
Trusts schemes	No	Other	No
Local Authority:-	City of Westminster		



Introduction

Acting on instructions received from [REDACTED] the insured property was visited on 15/11/2018 for the purpose of assessing the potential role of vegetation in respect of subsidence damage.

We are instructed to provide opinion on whether moisture abstraction by vegetation is a causal factor in the damage to the property and give recommendations on what vegetation management, if any, may be carried out with a view to restoring stability to the property. The scope of our assessment includes opinion relating to mitigation of future risk. Vegetation not recorded is considered not to be significant to the current damage or pose a significant risk in the foreseeable future.

This is an initial appraisal report and recommendations are made with reference to the technical reports and information currently available and may be subject to review upon receipt of additional site investigation data, monitoring, engineering opinion or other information.

This report does not include a detailed assessment of tree condition or safety. Where indications of poor condition or health in accessible trees are observed, this will be indicated within the report. Assessment of the condition and safety of third party trees is excluded and third party owners are advised to seek their own advice on tree health and stability of trees under their control.

Property Description

The property comprises a 4 storey mid-terrace house of traditional construction, built c. 1830.

External areas comprise gardens to the front and rear.

The site is generally level with no adverse topographical features.

Damage Description & History

Internal damage is observed throughout the property across all 4 floors, with external damage also observed to the front and rear elevations of the insured dwelling. Damage is reported to have first been noted during late October, early November 2017.

We have not been made aware of any previous claims.

At the time of the engineers' inspection (23/11/2017) the structural significance of the damage was found to fall within Category 1-2 (Very slight to slight) of Table 1 of BRE Digest 251.

Geology / Soils

Reference has been made to the British Geological Survey maps for an indicative guide to underlying soil characteristics. The online 1:50 000 scale map records the bedrock geology as London Clay Formation - Clay, silt and sand. No superficial deposits are recorded.



Monitoring

A period of crack monitoring at various points around the property has been completed between 15/12/2017 and 31/08/2018. Monitoring demonstrates movement which, although minor, in parts does follow a seasonal trend of crack closure during the winter and spring months, followed by widening during the summer months, indicative of the seasonal soil drying effects of vegetation.

Seasonal movement however is not observed at all monitoring points.

Discussion

Opinion and recommendations are made on the understanding that Smithers Pur slow are satisfied that the current building movement and the associated damage is the result of clay shrinkage subsidence and that other possible causal factors have been discounted.

Preliminary desktop-based assessment has indicated the presence of subsoils which include a plastic clay component susceptible to undergoing volumetric change in relation to changes in soil moisture.

Based on the technical reports currently available, engineering opinion and our own site assessment we conclude the damage is on balance very likely to be due in part to shrinkage of the clay fraction related to moisture abstraction by vegetation. There is potential however that other factors may be involved.

We have identified numerous trees in and around the property, most notable of which are the third party T1 Poplar and T2 Norway Maple to the rear and the Local Authority T6, T7 and T8 London Planes to the front, all of which have the potential to be contributory cause of the damage. All except T2 Norway Maple have however been recently pollarded.

In view of the above, if an arboricultural solution is to be implemented to mitigate vegetation influence we recommend that in the first instance T2 Norway Maple is removed. Given the recent pollarding of T1 Poplar and T6, T7 and T8 London Planes, further works are potentially not necessary. If movement persists however following the removal of T2, or where other species are directly implicated as a current factor in the damage, further works may be required.

If movement persists additional removals are likely to be necessary although the council will require evidence which established their trees as a cause of damage.



Conclusions

- Conditions necessary for clay shrinkage subsidence to occur related to moisture abstraction by vegetation have been identified by desktop investigations.
- Engineering opinion is that the damage is potentially partly related to clay shrinkage subsidence.
- There is significant vegetation present with the potential to influence soil moisture and volumes below foundation level.



Table 1 Current Claim - Tree Details & Recommendations

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T2	Maple (Norway)	13.5	450 *	11.0	14.1	Younger than Property	Third Party: 57 Hamilton Terrace, NW8 9RG
Management history		No past management noted.					
Recommendation		Remove (fell) to near ground level and treat stump to inhibit regrowth					

Ms: multi-stemmed

* Estimated value

Table 2 Future Risk - Tree Details & Recommendations

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T1	Poplar	10.0	600 *	9.5 *	16.0	Younger than Property	Third Party: 57 Hamilton Terrace, NW8 9RG
Management history		Subject to past management – very recently pollarded. No visible regrowth					
Recommendation		Prune on a triennial cycle (re-pollarding)					
T3	Poplar (Lombardy)	21.0 *	400 *	4.5*	21.6	Younger than Property	Third Party: 57 Hamilton Terrace, NW8 9RG
Management history		No past management noted.					
Recommendation		Do not allow to exceed current dimensions.					
T4	Tree of Heaven	17.5	740	16.0	24.1	Younger than Property	Policy Holder
Management history		No past management noted					
Recommendation		Do not allow to exceed current dimensions					
T5	Plane (London)	19.5*	900 *	12.0*	35.0*	Younger than Property	Third Party: 51 Hamilton Terrace, NW8 9RG
Management history		No past management noted					
Recommendation		Do not allow to exceed current dimensions					
T6	Plane (London)	10.5	720	5.0	9.4	Younger than Property	Local Authority
Management history		Subject to past management – very recently pollarded. No visible regrowth					
Recommendation		Pollard annually					

Table 2

Future Risk - Tree Details & Recommendations (contd.)

Tree No.	Species	Ht (m)	Dia (mm)	Crown Spread (m)	Dist. to building (m)	Age Classification	Ownership
T7	Plane (London)	11.5	670	7.5	8.2	Younger than Property	Local Authority
Management history		Subject to past management – very recently pollarded. No visible regrowth					
Recommendation		Pollard annually					
T8	Plane (London)	10.0	530	5.5	13.0	Younger than Property	Local Authority
Management history		Subject to past management – very recently pollarded. No visible regrowth					
Recommendation		Pollard annually					
TG1	Lime group	14.0	320 Ms *	5.0	24.7	Younger than Property	Third Party: 57 Hamilton Terrace, NW8 9RG
Management history		No past management noted					
Recommendation		Do not allow to exceed current dimensions					

Ms: multi-stemmed

* Estimated value

SITE PLAN



Plan not to scale – Indicative only

Approximate areas of damage

Images



View of T1 Poplar



View of T2 Norway Maple, T3 Lombardy Poplar and TG1 Lime group to rear



View of T4 Tree of Heaven and T5 London Plane [small PH shrub based vegetation to foreground not recorded – not considered relevant to the damage]



View of T6, T7 and T8 London Plane



**CCTV REPORT FOR: 55 HAMILTON TERRACE
LONDON
NW8 9RG**

CONTENTS: SITE AND DRAINAGE LAYOUT
FOUNDATION RECORD
INVESTIGATION SUMMARY
RECOMMENDATIONS
PHOTOGRAPHS
LABORATORY TESTING RESULTS
ROOT IDENTIFICATION
LIMITATIONS OF REPORT



Client:

[REDACTED]

Insured:

Reference:

1st Site Visit: 14-Dec-17
1st Report Date: 22-Jan-18

2nd Site Visit: 22-Nov-18
2nd Report Date: 11-Dec-18

The Drainage Repair Company Ltd | Unit 6 | Riverside Court | Westminster Industrial Estate | Measham | DE12 7DS

Telephone: 01530 272 349 Email: Info@thedrainagerepaircompany.com

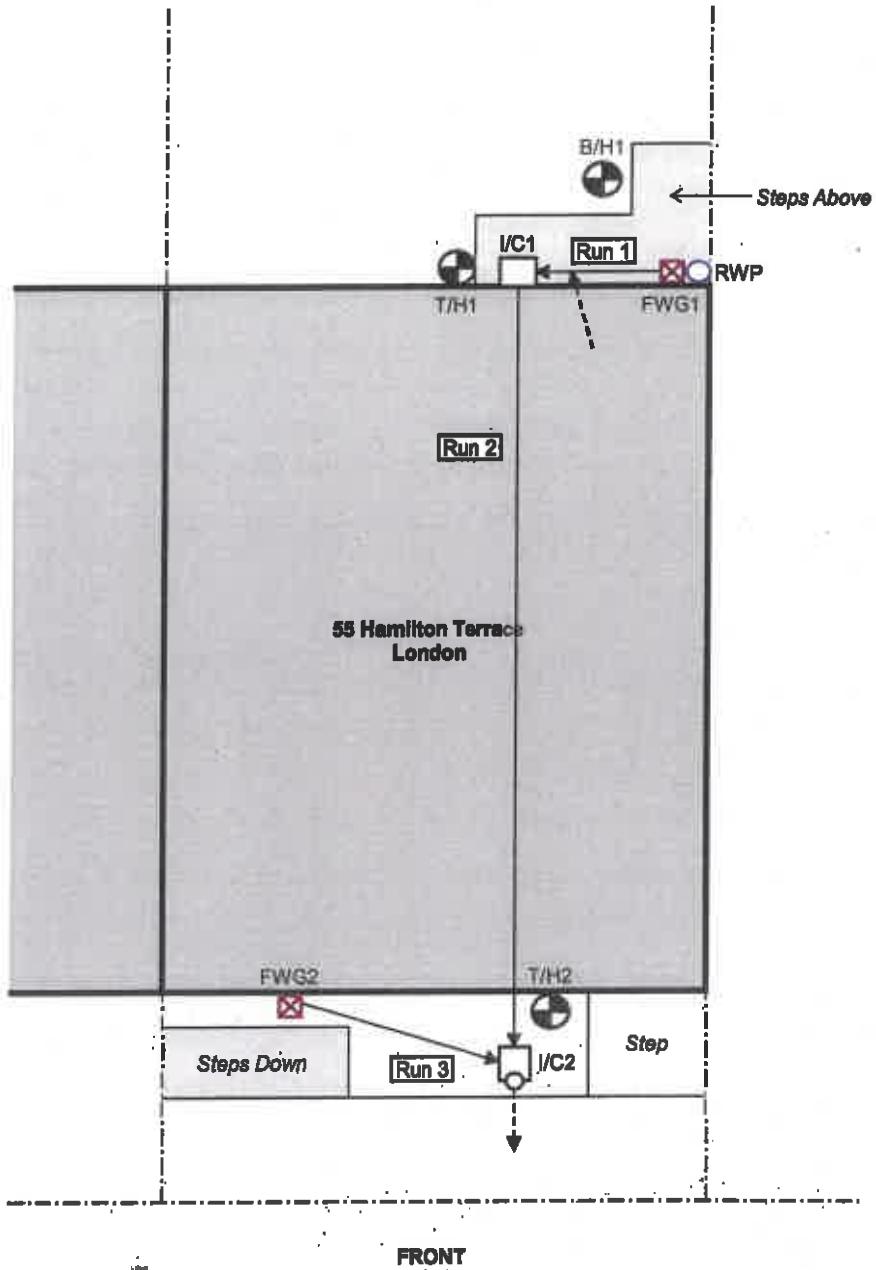
Registered In England & Wales Number: 08570351 | Registered Office: Bourne House, 475 Godstone Road, Whyteleafe, Surrey, CR3 0BL
www.thedrainagerepaircompany.com



SITE AND DRAINAGE LAYOUT

Site Crew: JT

Date: 22-Nov-18



FRONT

(This plan is not to be scaled and is provided to illustrate general layout only)

General Comments:

Note: Runs shown in red have been adopted by the local water authority.

Key :	= Storm Gully	= Storm Pipe	= Foul Gully	= W/C or Soil Pipe	= Inspection Chamber
	= Rodding Eye		→ = Surveyed pipe Indicating flow		→ = Unsurveyed pipe
	= Exploratory Hole (hand dug pit and/or hand auger)				= Boundary line
	= Hedges & Shrubs		= Trees & bushes		= Area of damage

Address: 55 HAMILTON TERRACE, LONDON, NW8 9RG



CCTV SURVEY DETAILS

Site Crew: JT & LP Date: 14-Dec-17

RUN: 1 Pipe Dia. (mm): 100 System: Foul Water Made of: Glazed Clay
From: I/C1 Inv (m): 0.31 Upstream To: FWG1 Inv (m): n/a

Metres	Faults / Defects	Remarks
0.60		Inlet at 3 o'clock to boiler room
1.73	No Visible Defects	At FWG1
		End of survey

RUN: 2 Pipe Dia. (mm): 150 System: Foul Water Made of: Glazed Clay
From: I/C1 Inv (m): 0.31 Downstream To: I/C2 Inv (m): ?

Metres	Faults / Defects	Remarks
0.60	Circumferential Crack 7 to 4 o'clock	
2.24	Circumferential Crack 7 to 5 o'clock	
4.70	Circumferential Crack 9 to 3 o'clock	
5.89	Circumferential Crack 7 to 4 o'clock	
	Water Level 10%	
11.12		Into I/C2 (front light well)
		End of survey

Cracks observed are to pipe surface only, run is in serviceable condition.

Site Crew: JT Date: 22-Nov-18

RUN: 3 Pipe Dia. (mm): 100 System: Foul Water Made of: Glazed Clay
From: I/C2 Inv (m): 0.42 Upstream To: FWG2 Inv (m): n/a

Metres	Faults / Defects	Remarks
3.80	No Visible Defects	At FWG2
		End of survey

Defects shown in RED relate to runs adopted by the Local Water Authority

Address: 55 HAMILTON TERRACE, LONDON, NW8 9RG



**Drainage
Repair Company**
FOUNDATION RECORD

Location: Rear Wall of Property

T/H No. 1

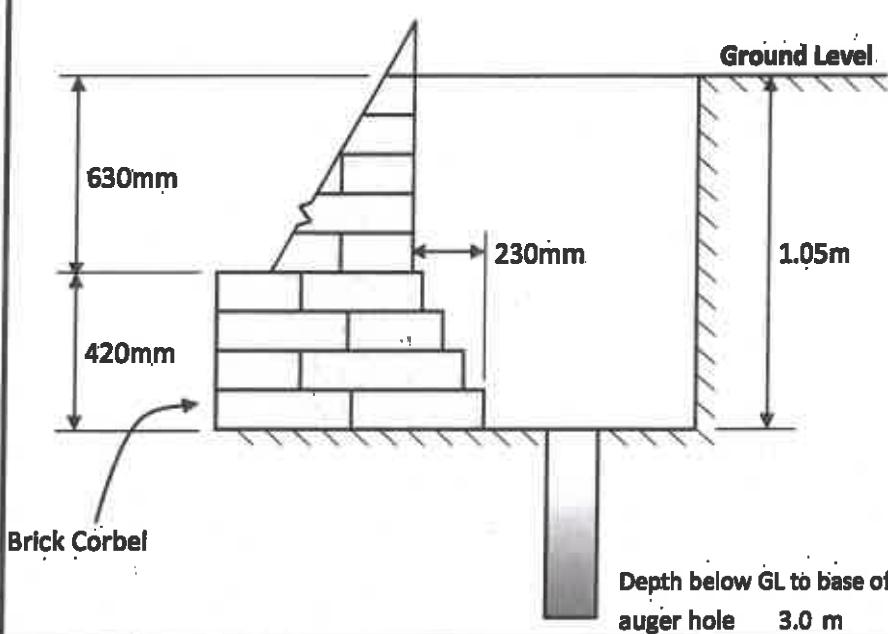
Ground Surface: Dry

Weather: Dry

Date: 14-Dec-17

Foundation Cross Section

(Not to Scale)



Roots Depth & Diameter:

None observed on site

Water Depth Hit & Rise:

Hit at 1.05m

Reason for Termination :

Hole at instructed depth

Depth (m)	Soil Descriptions <i>(Field crew description only)</i>	Test		Depth (m)	
		Type	From	To	
G.L.					
1.05	Firm brown CLAY				
2.00	Stiff brown CLAY				
3.00	End of Borehole				

Photograph

General Comments :

T/H1 relocated due to presence of gully and pipework in proposed location.

Some water noted below footing.

Key: Mac=MacIntosh Probe, V(n)=Natural Shear Vane, P.P. = Pocket Penetrometer

Address: 55 HAMILTON TERRACE, LONDON, NW8 9RG



**Drainage
Repair Company**
FOUNDATION RECORD

Location: Rear Garden		B/H No. 1	
Ground Surface: Dry	Weather: Dry	Date: 22-Nov-18	
		Roots Depth & Diameter: Down to 1.5m up to 2mm diameter	
		Water Depth Hit & Rise: None observed on site	
<u>Borehole Only</u>			
Depth (m)	Soil Descriptions (Field crew description only)	Test	
		Type	Depth (m) From To
G.L.			
1.05	Firm brown CLAY		
2.00	Stiff brown CLAY		
3.00	End of Borehole		
Photograph			
			
General Comments :			
<p><i>Key: Mac=Macintosh Probe, V(n)=Natural Shear Vane, P.P. = Pocket Penetrometer</i></p>			
Address: 55 HAMILTON TERRACE, LONDON, NW8 9RG			



Drainage
Repair Company
FOUNDATION RECORD

Location: **Front of Property**

T/H No. **2**

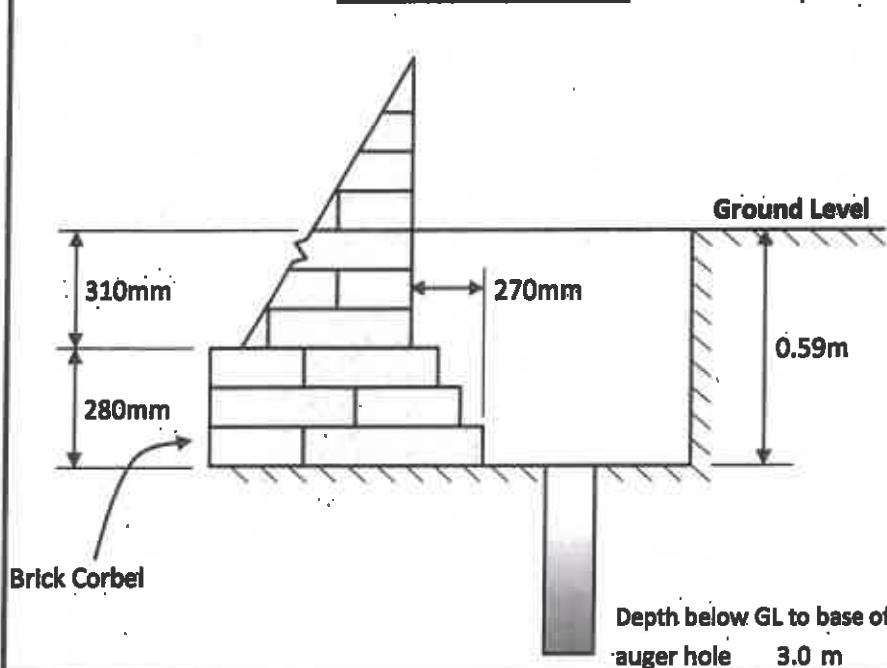
Ground Surface: **Dry**

Weather: **Dry**

Date: **22-Nov-18**

Foundation Cross Section

(Not to Scale)



Roots Depth & Diameter:

Down to 1.5m

up to 2mm diameter

Water Depth Hit & Rise:

None observed on site

Reason for Termination :

Hole at Instructed depth .

Depth (m)	Soil Descriptions (Field crew description only)	Test Type		Depth (m)	
		From	To		
G.L.					
0.59	Firm brown CLAY				
1.00	Stiff brown CLAY				
3.00	End of Borehole				

Photograph



General Comments :

Key: Mac=Macintosh Probe, V(n)=Natural Shear Vane, P.P. = Pocket Penetrometer

Address: 55 HAMILTON TERRACE, LONDON, NW8 9RG



**Drainage
Repair Company**
INVESTIGATION SUMMARY

1.0 EXECUTIVE SUMMARY

Brief:

The Drainage Repair Company Ltd were commissioned to undertake a CCTV survey / inspection of the drainage at the property.

Specific Area of Interest:

Drainage to front and rear of property.

System Access:

Inspection chambers to front and rear of property.

Visual Survey:

N/A

Water Pressure Test:

No

2.0 SUMMARY OF FINDINGS

Defects requiring repair:

No

Is any damaged section shared:

N/A

No. of properties sharing:

N/A

Age of property / system:

Unknown

Cause of damage:

N/A



Drainage
Repair Company
INVESTIGATION SUMMARY

3.0 GENERAL SUMMARY

The results of the CCTV / Inspection survey to the underground drainage system at the above address are as follows:

Run 1 - Foul - Private:

No visible pipework defects.

Run 2 - Foul - Private:

Circumferential cracks, minor standing water.

Run 3 - Foul - Private:

No visible pipework defects.



RECOMMENDATIONS

4.0 RECOMMENDATIONS

We would recommend returning the system to a watertight condition by repairing the defects as follows:

Run 1:

No recommendations are required.

Run 2:

Cracks observed are believed to be to the pipe surface only and the run is in a serviceable condition.

No recommendations are required.

Run 3:

No recommendations are required.



PHOTOGRAPHS - DECEMBER 2017



FWG1



I/C1 Upstream to FWG1



I/C1



T/H1

Address: 55 HAMILTON TERRACE, LONDON, NW8 9RG



**Drainage
Repair Company**
PHOTOGRAPHS - NOVEMBER 2018



B/H1

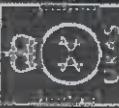


T/H2

Address: 55 HAMILTON TERRACE, LONDON, NW8 9RG

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Description of Sample		
			Top Depth m	Base Depth	
TP/BH1			1.00	1.50	Brown CLAY.
TP/BH1			1.50	2.00	Brown CLAY.
TP/BH1			2.00	2.50	Brown CLAY.
TP/BH1			2.50	3.00	Brown CLAY.
TP/BH2			1.00		Brown CLAY.
TP/BH2			1.00	1.50	Brown CLAY.
TP/BH2			1.50	2.00	Brown CLAY.
TP/BH2			2.00	2.50	Brown CLAY.
TP/BH2			2.50	3.00	Brown CLAY.

Contract No:	██████████
Client Ref:	
 Professional Soils Laboratory	
 4043	

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content %	Linear Shrinkage %	Particle Density Mg/m ³	Liquid Limit % <small>Class 4.3</small>	Plastic Limit % <small>Class 5.3</small>	Plasticity Index % <small>Class 5.4</small>	Pushing 425mm %	Remarks
TP/BH1			1.00	1.50	33			73	23	45	100	Very High plasticity CV.
TP/BH1			1.50	2.00	36							
TP/BH1			2.00	2.50	27							
TP/BH1			2.50	3.00	39							
TP/BH2			1.00		29			71	27	44	100	Very high plasticity CV.
TP/BH2			1.00	1.50	25							
TP/BH2			1.50	2.00	27			72	28	44	100	Very high plasticity CV.
TP/BH2			2.00	2.50	26							
TP/BH2			2.50	3.00	29			70	27	43	100	Very high plasticity CV.

SYMBOLS : NP : Non Plastic

* : Liquid Limit and Plastic Limit Wet Sieved.



PSL

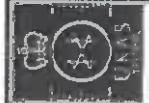
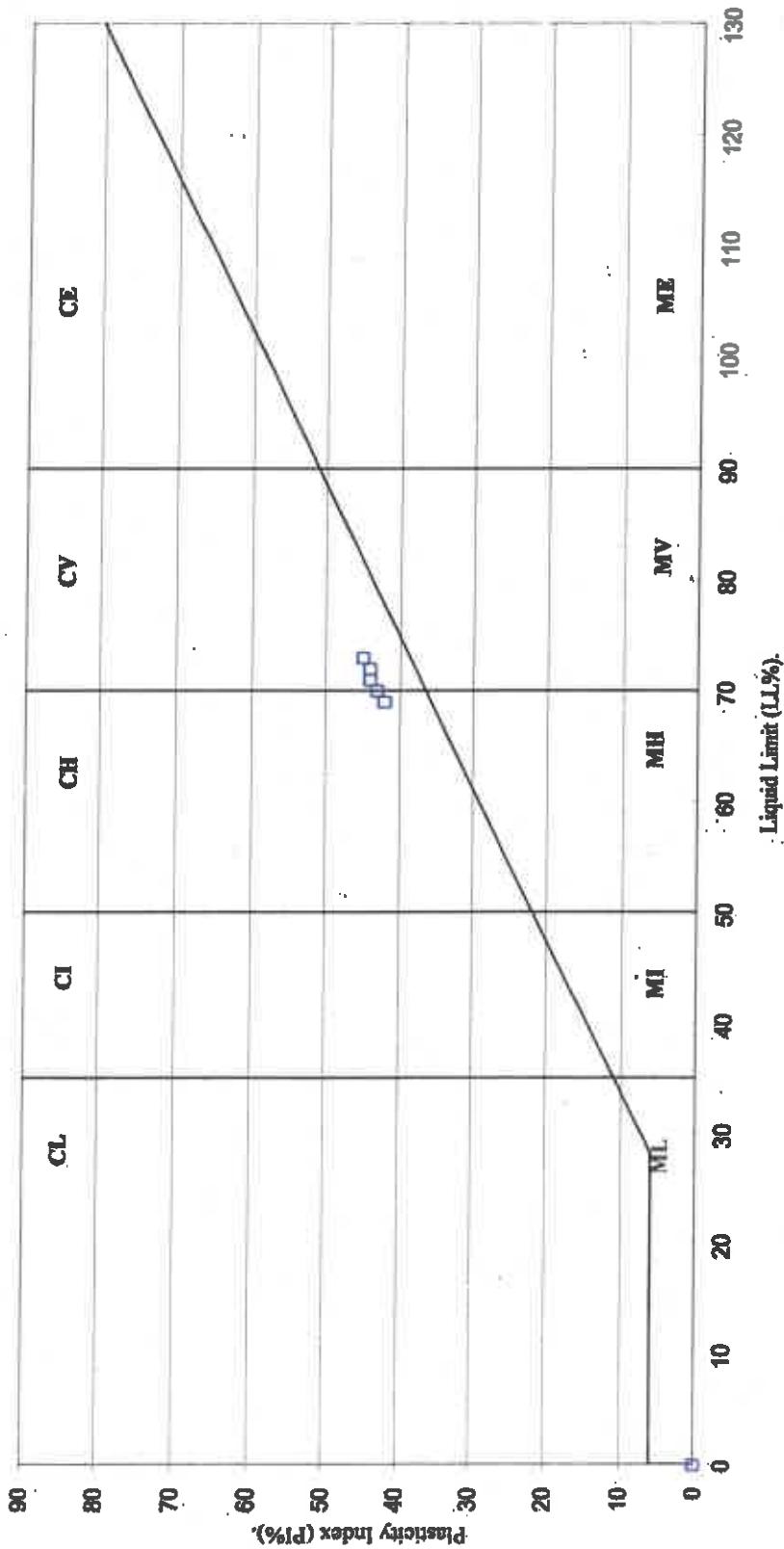
Professional Soils Laboratory

Contract No:
Client Ref:



**Drainage
Repair Company**
LABORATORY TESTING RESULTS

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

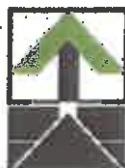


4043



Professional Soils Laboratory

Contract No:	<input type="text"/>
Client Ref:	<input type="text"/>
55 Hamilton Terrace London	



Richardson's Botanical Identifications

Root identification
Vegetation surveys
Tree/Building Investigations
Plant taxonomy

The Drainage Repair Company
Suite 15, Leatherline House
71 Narrow Lane
AYLESTONE
Leicester LE2 8NA

10/12/2018

Dr Ian B K Richardson
BSc, MSc, PhD, MRSB, FLS
James Richardson
BSc (Hons. Biology)

Enterprise House
49-51 Whiteknights Road
Reading
RG6 7BB
Tel: (0118) 966 6552 (Direct line)
E-mail: richardson@botanical.net
Web: www.botanical.net

Your ref: Root ID
Our ref: 765404

Dear Lisa

55 Hamilton Terrace

The samples you sent in relation to the above on 29/11/2018 have been examined. Their structures were referable as follows:

TP/BH1, to 1.5m

5 no. Examined root: the family SALICACEAE (Salix (Willows) and Populus (Poplars)).
1 no. A piece of BARK only, insufficient material for identification.

TP/BH2, to 1.5m

5 no. Examined root: PLATANUS (Plane).

Click here for more information: [PLATANUS](#) [SALICACEAE](#)

I trust this is of help. Please call us if you have any queries; our invoice is enclosed.

Yours sincerely

** Try out our web site on www.botanical.net **

Identified with no information on vegetation, on or off site.

Report commissioned by



Address: 55 HAMILTON TERRACE, LONDON, NW8 9RG



**Drainage
Repair Company**

LIMITATION OF REPORT

We were commissioned to carry out an inspection of the accessible areas of the drainage to the property, identifying any major defects and recommending any repair works that may be necessary. It should be appreciated that the exact layout of the system cannot be confirmed without the exposure of inaccessible branches and connections etc.

The lack of any significant defects within the main drainage line should not be regarded as a guarantee of water tightness. Defects may be encountered upon exposure of inaccessible branches and gullies etc.

The contents of this report are strictly confined to comments concerning those terms outlined above. It is not a structural survey and must not be construed as such.

The views expressed in this report are based entirely upon a visual examination of the drainage, supported by information obtained from a CCTV inspection / water pressure test.



SUBSIDENCE MONITORING

Crack Monitoring

Our Ref: 4026 **Date of Issue:** 14/12/2018

Provider Details

SML - 0116 2605309

Monitoring Details

Instruction Date:	11/12/2017		
Number of visits	3	Visit Frequency (Wks)	8

Visit Dates (future dates are estimated).

Setup	1	2	3	4	5	6
15/12/17	09/02/18	06/04/18	01/06/18			

Client Details

Insurance Co.:	
Client Ref:	170836
Client Name:	[REDACTED]
Technical Mgr:	[REDACTED]
Customer support	
Tel:	
Email:	

Risk Address

Occupier:	[REDACTED]
Address:	55 Hamilton Terrace
Address:	
Town:	London
County:	
Post Code:	NW8 9RG
Contact Name	



SUBSIDENCE MONITORING

Additional Instructions / notes

Our ref	Client ref	Client Name	Issue Date
4026	170336	[REDACTED]	14/12/2018
Stud locations			
1	INT 2F bath rear left wall		
2	INT RF rear left bedroom left party wall near rear		
3	INT 2F rear bedroom ensuite right wall		
4			
5			
6			

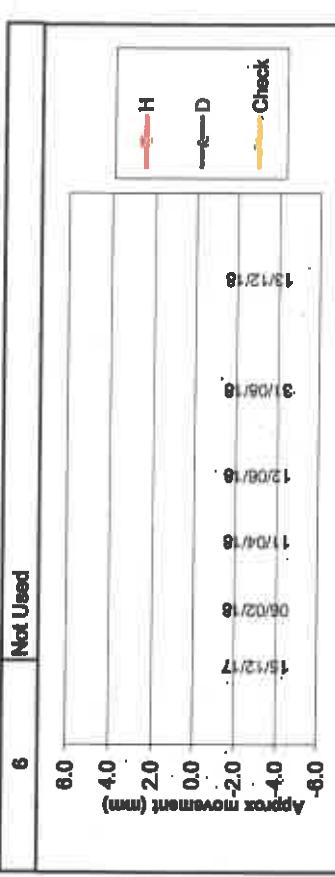
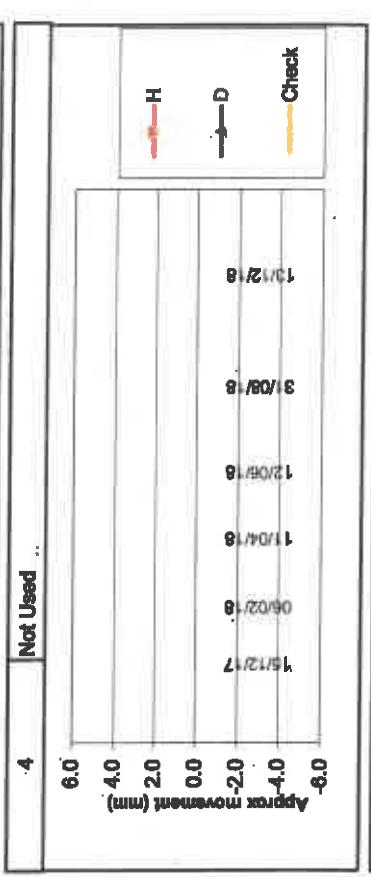
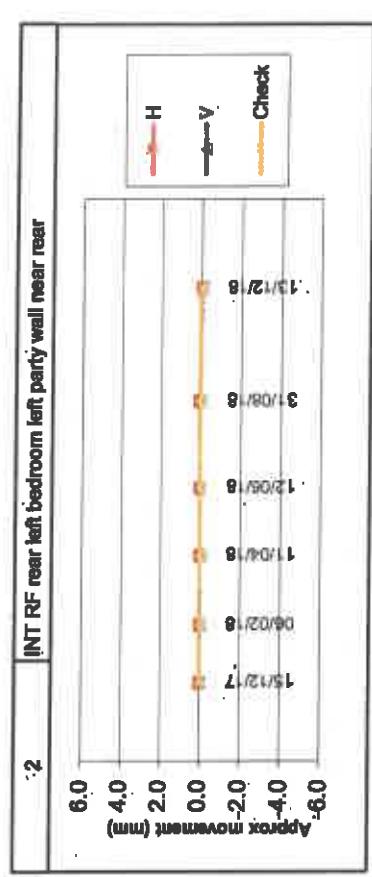
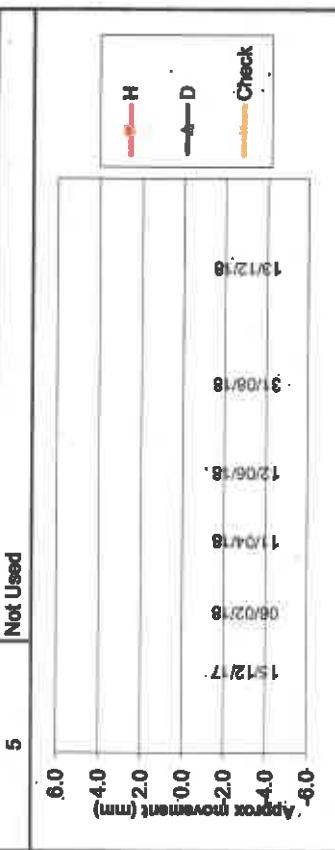
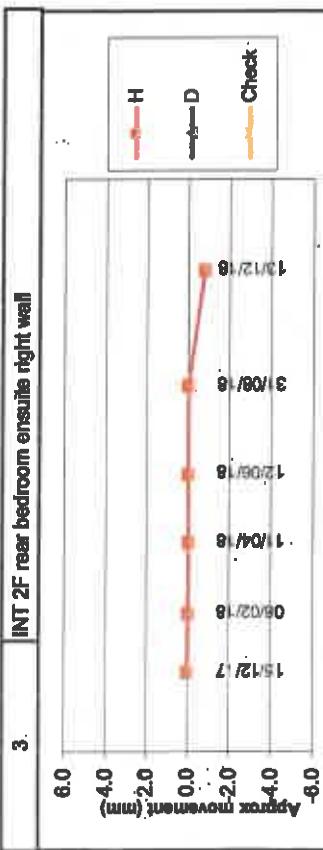
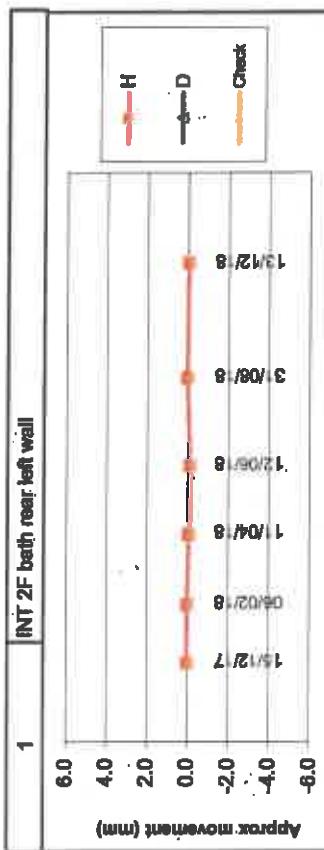
Crack Monitoring - Readings



SUBSIDENCE MONITORING

Our ref	Client ref	Client Name	Issue Date
4026	17003		14/12/2018

Crack Monitoring - Movement Against Time





SUBSIDENCE MONITORING

Crack Monitoring

Our Ref: 4026

Date of Issue: 14/12/2018

Provider Details

SML - 0116 2605309

Monitoring Details

Instruction Date:	11/12/2017					
Number of visits	3				Visit Frequency (Wks)	8

Visit Dates (future dates are estimated)

Setup	1	2	3	4	5	6
15/12/17	09/02/18	06/04/18	01/06/18			

Client Details

Insurance Co.:	
Client Ref:	170836
Client Name:	[REDACTED]
Technical Mgr:	[REDACTED]
Customer support	
Tel:	
Email:	

Risk Address

Occupier:	Removed for data protection purposes
Address:	55 Hamilton Terrace
Address:	
Town:	London
County:	
Post Code:	NW8 9RG
Contact Name	

SUBSIDENCE MONITORING



Our ref: 4026 Client ref: 170836 Client Name: [REDACTED] Issue Date: 14/12/2018

Study locations

1	EXT near upstairs above door to G/F
2	EXT near same door low RHS
3	INT GF Understairs cupboard off main front entrance
4	INT GF hall above door to rear kitchen
5	INT LGF dining above door
6	INT LGF hall near rear ext door on RHS

Additional Instructions / notes

[REDACTED]

Crack Monitoring - Readings

Study nos.	Alignment	Visit Date	15/12/17	Visit Date	06/02/18	Visit Date	11/04/18	Visit Date	12/06/18	Visit Date	31/08/18	Visit Date	13/12/18
1	H	37.46	1.48	37.25	1.24	36.75	1.00	36.88		36.37	1.08	36.95	1.73
1	D												
1	Check												
2	H	27.11	1.16	28.68	0.85	28.25	0.70	28.31		28.54	2.08	28.25	2.24
2	V	42.30	0.81	42.23	0.49	42.27	0.45	42.31		42.31	1.71	42.13	1.53
2	Check	48.81		48.84		48.87		48.81		48.86		48.86	
3	V	46.48	1.70	48.41	1.34	48.05	0.93	45.97		46.89	1.05	47.15	1.48
3	D												
3	Check												
4	H	127.00		127.03		126.93		126.85		126.96		125.45	1.79
4	D												
4	Check												
5	H	51.50	0.66	51.41	0.70	51.82		51.47	1.00	51.69	1.20	51.01	1.01
5	D												
5	Check*												
6	H	60.47	0.74	60.38	0.60	60.28		60.34		61.13	1.31	59.49	
6	V	45.83	0.23	45.88	0.57	45.86		45.79		45.76	0.50	44.03	0.40
6	Check	78.63		78.62		78.63		78.62		78.65		78.69	
Caliper nos :		9839		9839		4190		4190		4191		9834	
Technician :		AJZ		AJZ		AJZ		AJZ		JM		EM	

SUBSIDENCE MONITORING



CONTINUATION SHEET - STUD GROUPS 7-12

Our ref	Client ref	Client Name	Issue Date
4026	170830		14/12/2016

Stud locations

7	INT-LGF level above door towards light party
8	INT-landing between GF& 1ST FLOOR left rear wall
9	INT landing GF 1st f rear wall right low
10	INT 1/F front right bedroom rear wall
11	INT 1F-2F stairs R+S wall
12	INT -2F front right bedroom front wall

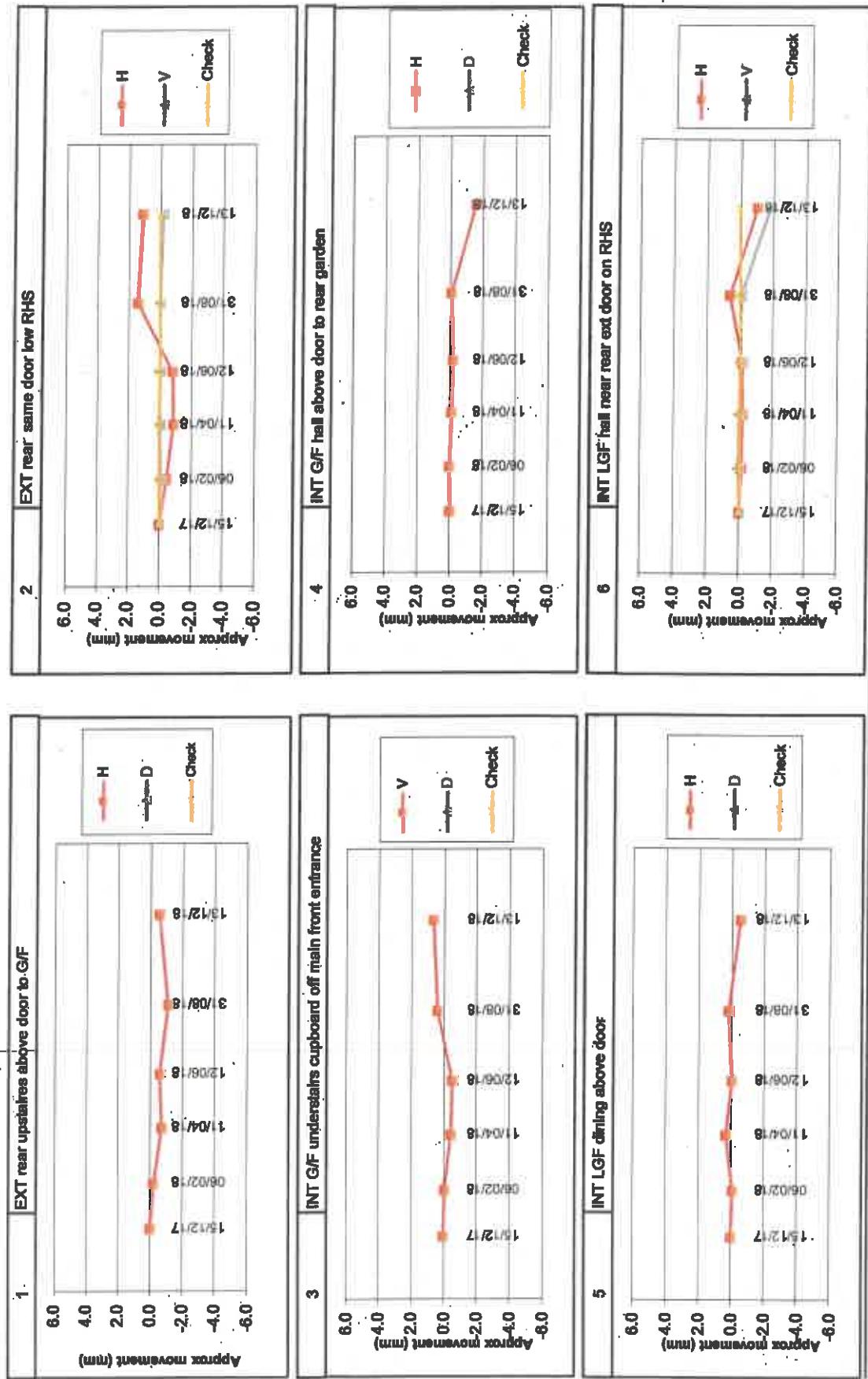
Studs no.	Align-ment	Visit Date	15/12/17	Visit Date	06/02/18	Visit Date	11/04/18	Visit Date	12/06/18	Visit Date	31/08/18	Visit Date	13/12/18
		Reading	Current c/w										
7	H	55.14	1.06	55.16		55.12		55.10		55.28		55.27	
7	V	48.94	0.81	49.03		49.00		49.76		50.40		49.80	
7	Check	78.07		78.09		78.06		78.06		78.08		78.00	
8	H	98.61		98.68		98.71		98.69		98.74		98.10	
8	D												
8	Check												
9	H	49.01	1.12	48.74	0.65	48.37	0.66	48.41	1.10	49.69	2.40	49.31	1.50
9	V	52.68	1.68	52.49	1.92	52.27	2.10	52.38	1.60	53.52	1.94	53.28	1.68
9	Check	70.02		70.01				69.99		70.28		70.26	
10	H	63.71	0.78	63.66	0.71	63.55		63.58		65.10	1.86	64.27	1.76
10	D												
10	Check												
11	H	49.86	0.50	49.84	0.50	50.03		50.03		50.15	0.29	50.04	0.20
11	V	63.10	0.25	63.14	0.25	63.22		63.17		63.03	0.45	62.69	0.39
11	Check	82.36		82.33		82.34		82.34		82.45			
12	H	34.13	1.52	34.14		34.08		34.14		34.18	1.00	33.42	0.89
12	D												
12	Check												
Caliper no:		9839		9839		4180		4190		4181		9804	
Technician:		AJZ		AJZ		AJZ		AJZ		JM		EM	

SUBSIDENCE MONITORING



Crack Monitoring - Movement Against Time

Our ref	Client ref	Client Name	Issue Date
4026	170338		14/12/2018

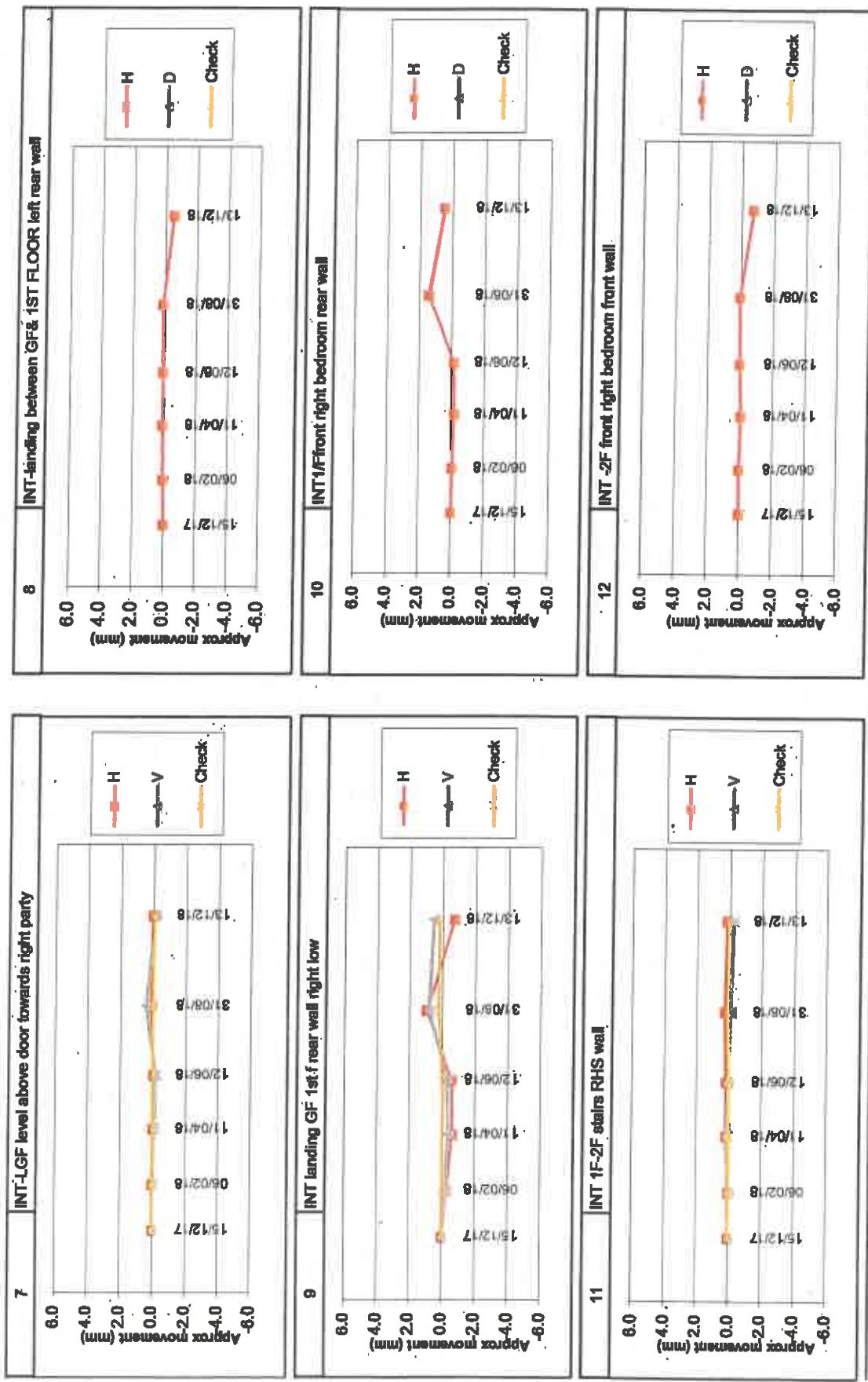




SUBSIDENCE MONITORING

Our ref	Client ref	Client Name	Issue Date
4026	170836		14/12/2018

Crack Monitoring - Movement Against Time





SUBSIDENCE MONITORING

Crack Monitoring

Our Ref: 4026 Date of Issue: 19/08/2019

Provider Details

SML - 0116 2605309

Monitoring Details

Instruction Date:	11/12/2017		
Number of visits	3	Visit Frequency (Wks)	8

Visit Dates (future dates are estimated)

Setup	1	2	3	4	5	6
15/12/17	09/02/18	06/04/18	01/06/18			

Client Details

Insurance Co.:	
Client Ref:	170836
Client Name:	[REDACTED]
Technical Mgr:	[REDACTED]
Customer support	
Tel:	
Email:	

Risk Address

Occupier:	Mr Stewart
Address:	55 Hamilton Terrace
Address:	
Town:	London
County:	
Post Code:	NW8 9RG
Contact Name	



SUBSIDENCE MONITORING

Our ref:

4026

Client ref:

170836

Issue Date:

18/08/2019

Client Name:

[REDACTED]

Additional Instructions / notes

Stud locations

- 13 INT 2F bath rear left wall
- 14 INT RF near left bedroom left party wall near rear
- 15 INT 2F rear bedroom ensuite right wall

Crack Monitoring - Readings

Studs nos.	Alignment	Visit Date	Visit Date	06/02/18	Visit Date	'11/04/18	Visit Date	12/06/18	Visit Date	31/08/18	Visit Date	13/12/18
		Reading	Current d/w	Reading	Current d/w	Reading	Current d/w	Reading	Current d/w	Reading	Current d/w	
13	H	92.62	1.86	92.32		92.44		92.40		92.55	1.45	92.50
13	D											1.35
13	Check											
14	H	42.26	1.12	42.24		42.27		42.26		42.34	1.02	42.20
14	V	57.95	0.90	57.94		57.95		57.96		57.96	0.32	57.93
14	Check	65.84		65.83		65.86		65.85		65.90		0.30
15	H	40.20	0.54	40.16		40.16		40.19		40.20	0.50	39.43
15	D											0.40
15	Check											

Calliper nos :

AIZ

Technician :

JM

9804

EM

4190

JM

4190



SUBSIDENCE
MONITORING

Our ref:

4026

Client ref:

170830

Client Name:

[Redacted]

Issue Date:

19/08/2019

Additional Instructions / notes:
[Large empty box for notes]

Studs nos.	Align-ment	Visit Date	08/03/19	Visit Date	25/08/19	Visit Date	19/08/19	Visit Date
		Reading	Current chw	Reading	Current chw	Reading	Current chw	Reading
13	H	92.42	1.30	92.90	1.35	92.76	1.61	
13	D							
13	Check							
14	H	42.19	0.98	42.16	0.98	42.51	1.19	
14	V	57.80		57.80		58.23		
14	Check	65.90		65.90		65.83		
15	H	40.17	0.40	39.86	0.37	40.34	0.68	
15	D							
15	Check							

Crack Monitoring - Readings (Continuation Sheet)

Studs nos.	Align-ment	Visit Date	08/03/19	Visit Date	25/08/19	Visit Date	19/08/19	Visit Date
		Reading	Current chw	Reading	Current chw	Reading	Current chw	Reading
13	H	92.42	1.30	92.90	1.35	92.76	1.61	
13	D							
13	Check							
14	H	42.19	0.98	42.16	0.98	42.51	1.19	
14	V	57.80		57.80		58.23		
14	Check	65.90		65.90		65.83		
15	H	40.17	0.40	39.86	0.37	40.34	0.68	
15	D							
15	Check							

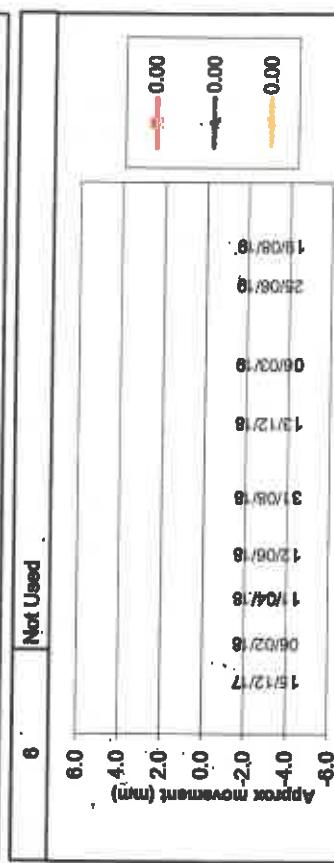
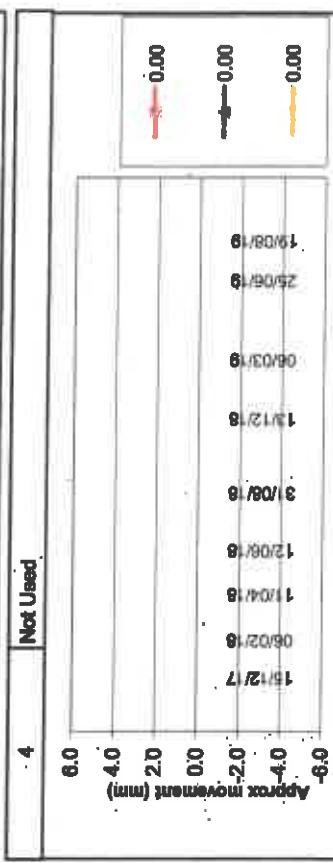
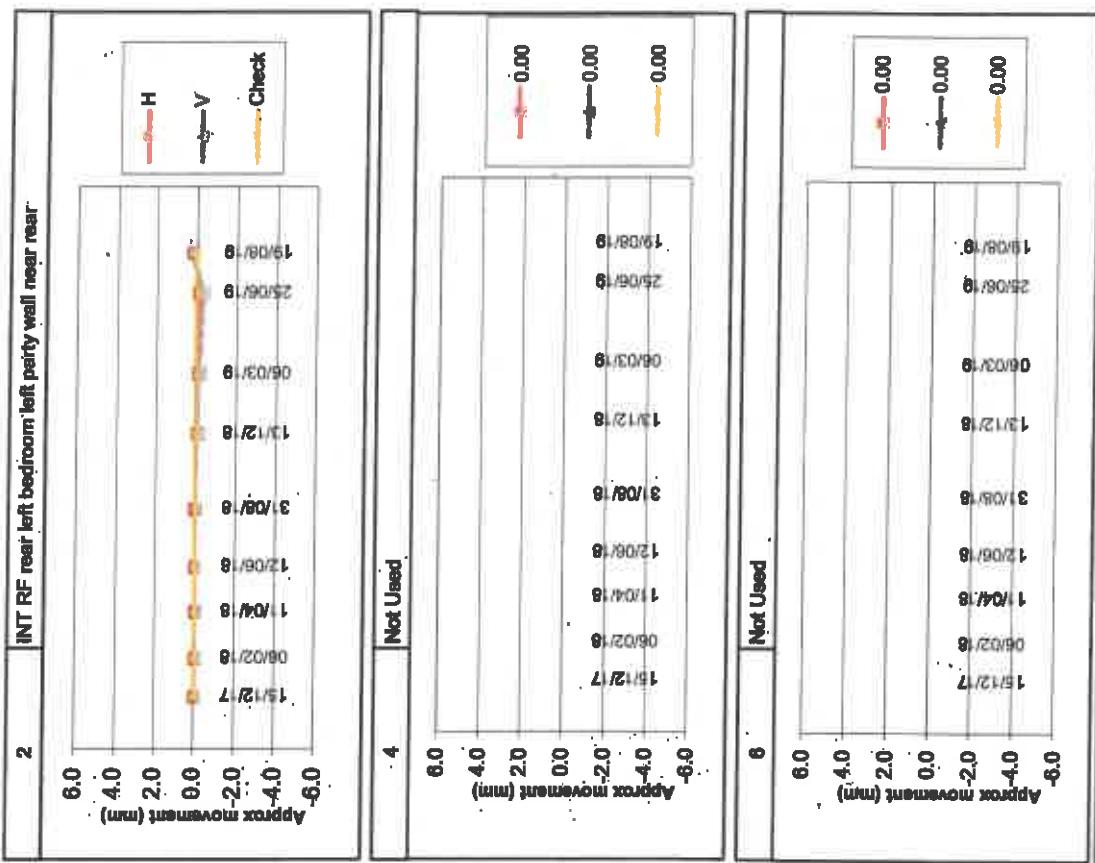
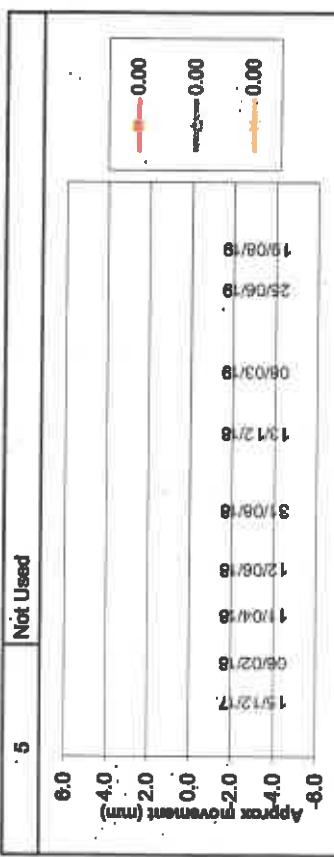
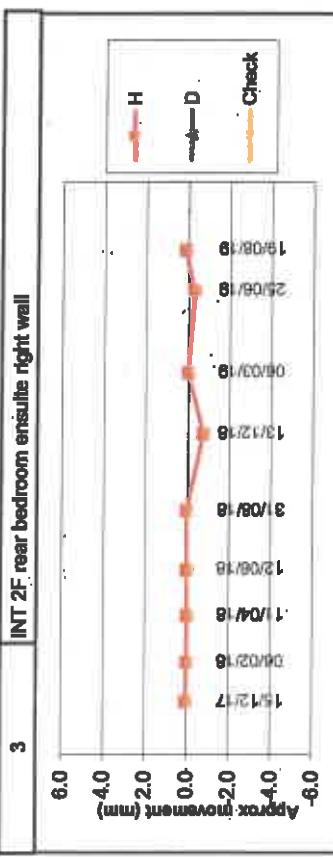
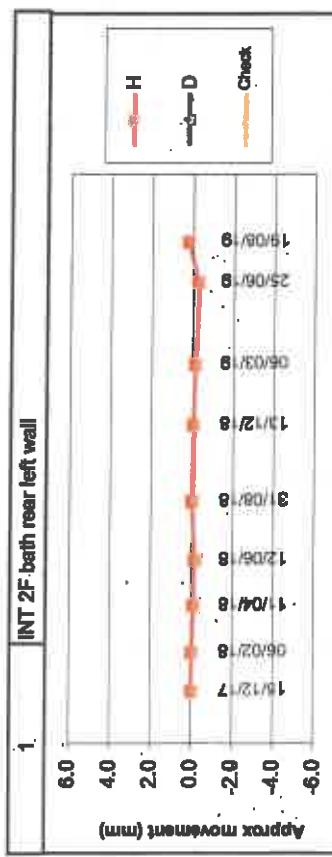
Caliper nos :	9804	9816	7539
Technician :	EM	JH	AH

SUBSIDENCE MONITORING



Our ref	Client ref	Client Name	Issue Date
4026	170636		19/08/19

Crack Monitoring - Movement Against Time





SUBSIDENCE MONITORING

Crack Monitoring

Our Ref: 4026 Date of Issue: 19/08/2019

Provider Details

SML - 0116 2605309

Monitoring Details

Instruction Date:	11/12/2017					
Number of visits	3	Visit Frequency (Wks)				8

Visit Dates (future dates are estimated)

Setup	1	2	3	4	5	6
15/12/17	09/02/18	06/04/18	01/06/18			

Client Details

Insurance Co.:	
Client Ref:	170836
Client Name:	[REDACTED]
Technical Mgr:	[REDACTED]
Customer support	
Tel:	
Email:	

Risk Address

Occupier:	Removed for data protection purposes
Address:	55 Hamilton Terrace
Address:	
Town:	London
County:	
Post Code:	NW8 9RG
Contact Name	



Our ref	Client ref	Client Name	Issue Date
4026	170836		18/08/2019

Stud locations	
1	EXT near upstairs above door to GF
2	EXT rear same door low RHS
3	INT GF under stairs cupboard off main front entrance
4	INT GF hall above door to rear garden
5	INT LGF dining above door
6	INT LGF hall near rear ext door on RHS

Additional Instructions / notes

Crack Monitoring - Readings

Studs no.	Alignment	Visit Date	15/12/17	Visit Date	08/02/18	Visit Date	11/04/18	Visit Date	12/06/18	Visit Date	31/08/18	Visit Date	13/12/18
		Reading	Current chw										
1	H	37.46	1.48	37.25	1.24	38.76	1.00	38.89		38.37	1.88	38.95	1.73
1	D												
1	Check												
2	H	27.11	1.16	28.06	0.85	28.25	0.70	28.31		28.54	2.58	28.25	2.24
2	V	42.30	0.81	42.23	0.49	42.27	0.45	42.31		42.31	1.71	42.13	1.53
2	Check	48.81		48.84		48.87		48.91		48.86		48.88	
3	V	46.48	1.70	46.41	1.24	46.05	0.93	46.97		46.89	1.05	47.15	1.46
3	D												
3	Check												
4	H	127.00		127.03		126.93		126.85		126.96		125.45	1.79
4	D												
4	Check												
5	H	51.50	0.66	51.41	0.70	51.82		51.47	1.00	51.69	1.20	51.01	1.01
5	D												
5	Check												
6	H	60.47	0.74	60.36	0.60	60.28		60.34		61.13	1.31	59.49	
6	V	45.83	0.23	45.89	0.57	45.86		45.79		45.76	0.50	44.03	0.40
6	Check	78.65		78.62		78.63		78.62		78.65		78.89	
Caliper nos :		8839		8839		4190		4190		4191		8804	
Technician :		AZ		AZ		AZ		AZ		JM		EM	

SUBSIDENCE MONITORING



CONTINUATION SHEET - STUD GROUPS 7-12

Our ref	Client ref	Client Name	Issue Date
4026	170836		19/08/2019

Stud locations

7	H	INT-LGF level above door towards right party
8	V	INT-landing between GF & 1ST FLOOR left rear wall
9	H	INT landing GF 1st f rear wall right low
10	V	INT/Front right bedroom rear wall
11	H	INT 1F-2F stairs RHS wall
12	D	INT -2F front right bedroom front wall

Studs no:	Align-ment	Visit Date	15/12/17	Visit Date	06/02/18	Visit Date	11/04/18	Visit Date	12/06/18	Visit Date	31/06/18	Visit Date	13/07/18
7	H	55.14	1.08	55.16		55.12		55.10		55.26	1.27	55.20	
7	V	49.94	0.81	49.93		49.90		49.76		50.40	1.69	49.80	1.20
7	Check	78.07		78.09		78.06		78.08		78.08		78.00	
8	H	98.61		98.66		98.71		98.69		98.74	0.84	98.10	0.80
8	D												
8	Check												
9	H	49.01	1.12	48.74	0.85	48.37	0.86	48.41	1.10	49.99	2.40	48.31	1.50
9	V	52.68	1.68	52.49	1.92	52.27	2.10	52.38	1.80	53.52	1.94	53.26	1.68
9	Check	70.02		70.01				69.99		70.28		70.26	
10	H	63.71	0.78	63.66	0.71	63.55		63.58		65.19	1.86	64.27	1.78
10	D												
10	Check												
11	H	49.86	0.50	49.84	0.50	50.03		50.03		50.15	0.29	50.04	0.20
11	V	63.10	0.25	63.14	0.25	63.22		63.17		63.03	0.45	62.89	0.39
11	Check	82.36		82.33		82.34		82.34		82.45		82.45	
12	H	34.13	1.52	34.14		34.06		34.14		34.16	1.00	33.42	0.89
12	D												
12	Check												
Caster nos :		9839		9839		4190		4190		4191		9804	
Technician :		AJZ		AJZ		AJZ		AJZ		JM		EM	



SUBSIDENCE MONITORING

Our ref	Client ref	Client Name	Issue Date
4026	170356	[REDACTED]	19/06/2018

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Study locations

- | | |
|---|---|
| 1 | EXT rear upstairs above door to GF |
| 2 | EXT near same door low RHS |
| 3 | INT GF understairs cupboard off main front entrance |
| 4 | INT GF hall above door to rear garden |
| 5 | INT LGF dining above door |
| 6 | INT LGF hall near rear ext door on RHS |

Additional instructions / notes

Crack Monitoring - Readings (Continuation Sheet)



SUBSIDENCE
MONITORING

CONTINUATION SHEET - STUD GROUPS 7-12

Our ref	Client ref	Client Name	Issue Date
4026	170036		19/08/2019

Studip location

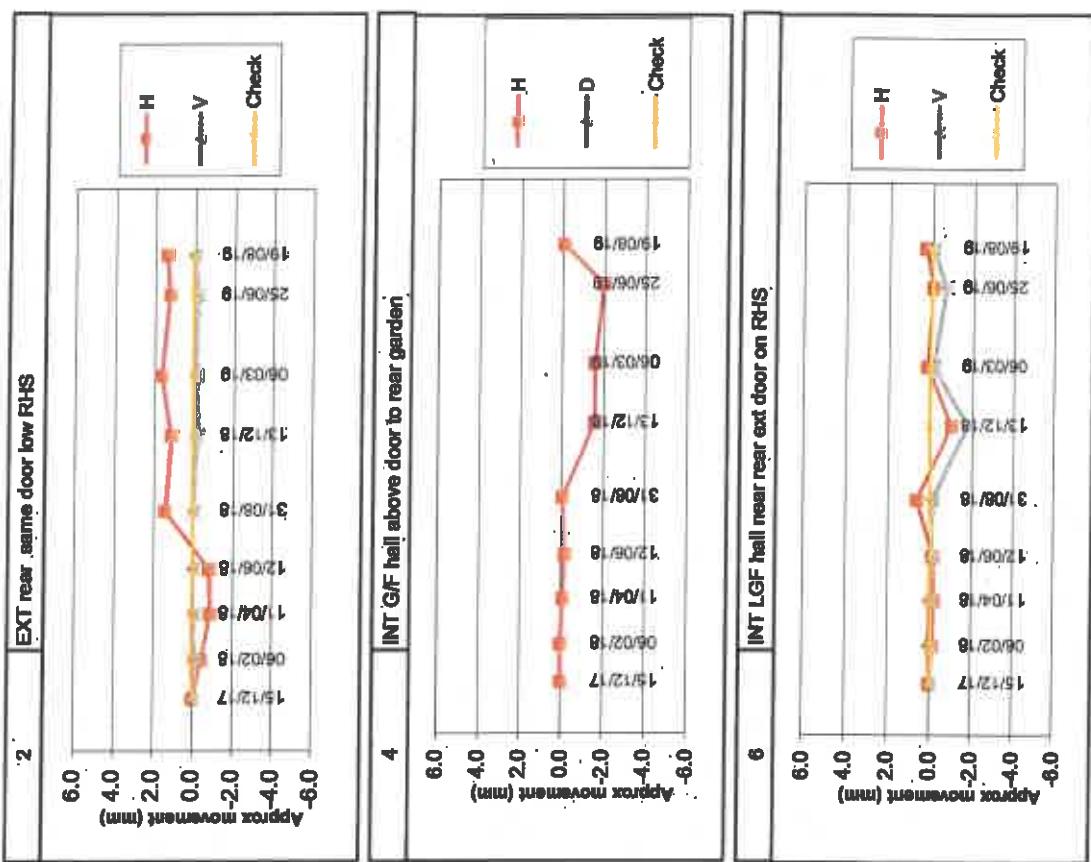
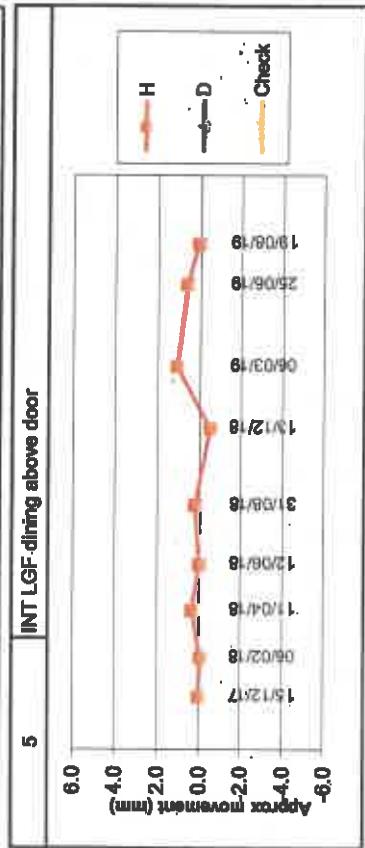
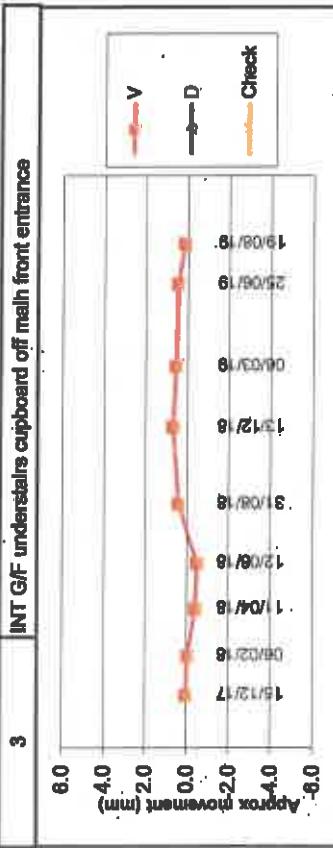
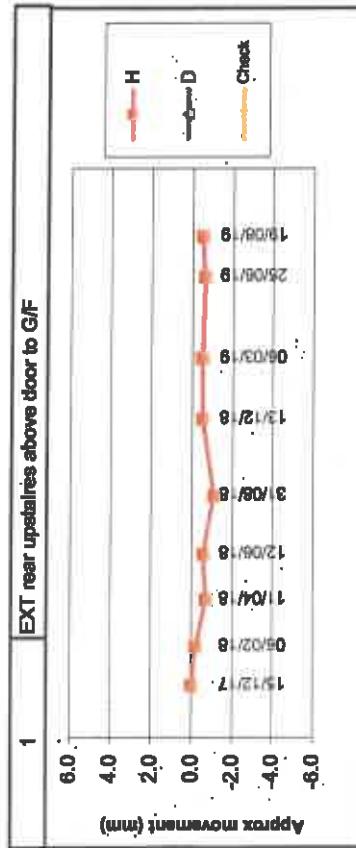
- | | |
|----|---|
| 7 | INT-LGF level above door towards right party |
| 8 | INT-hanging between GF&1ST FLOOR left rear wall |
| 9 | INT hanging GF 1st f rear wall right low |
| 10 | INT1/Front right bedroom rear wall |
| 11 | INT 1F-2F stairs R+IS well |
| 12 | INT -2F front right bedroom front wall |

SUBSIDENCE MONITORING



Our ref	Client ref	Client Name	Issue Date
4026	17063		19/08/2019

Crack Monitoring - Movement Against Time



SUBSIDENCE MONITORING



Our ref	Client ref	Client Name	Issue Date
4026	17038		19/08/2019

Crack Monitoring - Movement Against Time

