

We refer to the recent request made by Mrs Vincent for the felling of 4 (no.) beech trees located within the grounds of her property.

For your information we append the following documents:-

Site Investigation Report prepared by Matlab Limited; Supplementary Site Investigation Report prepared by Matlab Limited; Arboricultural Report prepared by Messrs Marishal Thompson & Co; Monitoring readings to date; Agrical Limited - Subsidence Technical Report

We write to advise that the situation at this location is not as clear cut as one would desire and the reason for this is that due to the property having, in effect, a patio garden the completion of appropriate site investigations was extremely restricted. The investigations we have undertaken have identified clear evidence that the cracking to the property is due to subsidence of the site and that the movement is seasonal, with cracks opening during the warmer summer months and closing over the winter period.

Whilst the site investigation results do not fully support this it should be borne in mind the issues with the restricted access and the fact that the site investigation was ultimately completed during the wetter, winter period.

In an effort to stabilise the property and preclude the risk of further movement the recommendations for vegetation management have been made based upon the advice of Messrs Marishal Thompson & Co. Without appropriate tree management measures then we are certain that further movement and damage will occur, even if superstructure repairs only are implemented.

We would therefore be pleased if you could take a favourable view on the application made by Mrs Vincent.

We look forward	to hearing from you further.	$\left(\begin{array}{c} \\ \\ \end{array} \right)$
Yours faithfully	611/182/1	(16)
	•··· • · · · • • · · · · · · · · · · ·	

The Old Estate Office, 56 Leeds Road, Tadcaster, North Yorkshire, LS24 9HB. Tel: 01937 838050 Fax: 01937 838055 e-mail: <u>york@agrical.com</u> Agrical Ltd, trading as Agrical, registered in England & Wales no. 4315284 Registered Office 35a Southover, Wells, Somerset, BA5 1UH



Contact Number: 01937 838057 Mobile Number: 07584 100241

ENCS: 5 Reports

Copy to:

Mrs N Vincent The Coach House 32 Daleham Gardens London NW3 5DE - 1



SITE INVESTIGATION REPORT

Client's Name: Vincent

Address: The Coach House, 32 Daleham Gardens, London, NW3 5DE

Report Date: 20-Jul-10 Job No.: 45346

(If _R suffix appears after Job No., this indicates Revision Number)

Insurance Co.: JR Clare Claim Ref. No.: 320100322002276

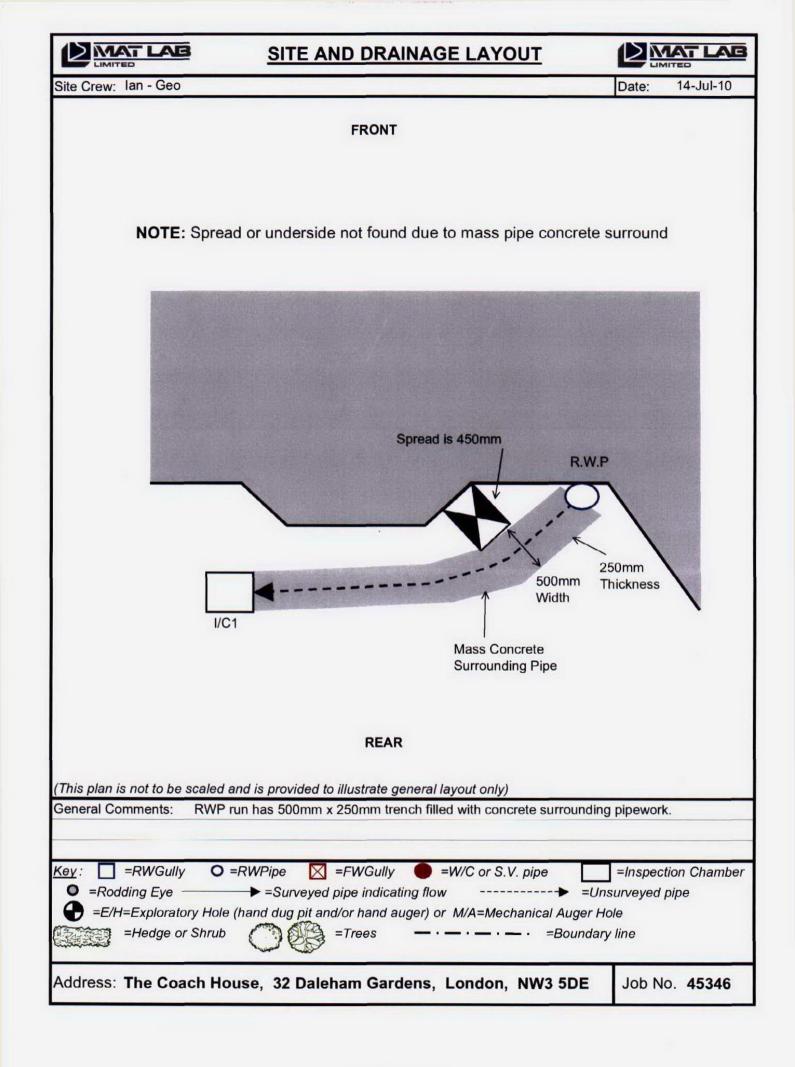
Project Engineer: M. Gent From: Agrical Engineers Ref.: TA70867

> **Contents:** Site and Drainage Layout Foundation Exploratory Hole Records

Address: Mat Lab Ltd The Dell Bickenhill Lane Catherine-De-Barnes Solihull B92 0DE Phone No.: 0121 704 3339 Fax No.: 0121 704 4675 E-mail: post@mat-lab.com

Checked By : Date :

PAGE 1 Of 3



PAGE 2 Of 3

	FOUNDATION PIT RECORD		
Location: Rear Left H	land Side of House		E/H No. 1
Ground Surface: Dry	Weather: Dry		Date: 14-Jul-10
F 450 mm Brick Corbel / Concrete ?	Oundation Cross Section (Not to Scale)	Pit Only	th & Dia: th Hit & Rise: Termination :
<u>Depth</u>	Soil Descriptions	Test	Depth (m)
(m)	(NB:Field crew description only)	Туре	From To
G.L. Pit Only			
General Comments: Sp	pread or underside not found due to mass pipe concret	e surround.	
Көу: Mac=Macintosh Prot	e Blow Count, V(n)=Natural Shear Vane (kN/m²)		
	House, 32 Daleham Gardens, London, N	W3 5DE	Job No. 45346



SITE INVESTIGATION REPORT

Client's Name: Vincent

Address: The Coach House, 32 Daleham Gardens, London, NW3 5DE

Report Date: 11-Oct-10 Job No.: 46297 R1

(If _R suffix appears after Job No., this indicates Revision Number)

Insurance Co.: JR Clare Claim Ref. No.: 320100322002276

Project Engineer: M Gent From: Agrical Limited Engineers Ref.: TA70867

> Contents: Site and Drainage Layout Hand Auger Hole Record Site Investigation Revision Record

Address: Mat Lab Ltd The Dell Bickenhill Lane Catherine-De-Barnes Solihull B92 0DE Phone No.: 0121 704 3339 Fax No.: 0121 704 4675 E-mail: post@mat-lab.com

Checked By : Date :

PAGE 1 Of 11



SITE INVESTIGATION REPORT

Client's Name: Vincent

Address: The Coach House, 32 Daleham Gardens, London, NW3 5DE

Report Date: 11-Oct-10 Job No.: 46297_R1

(If _R suffix appears after Job No., this indicates Revision Number)

Insurance Co.: JR Clare Claim Ref. No.: 320100322002276

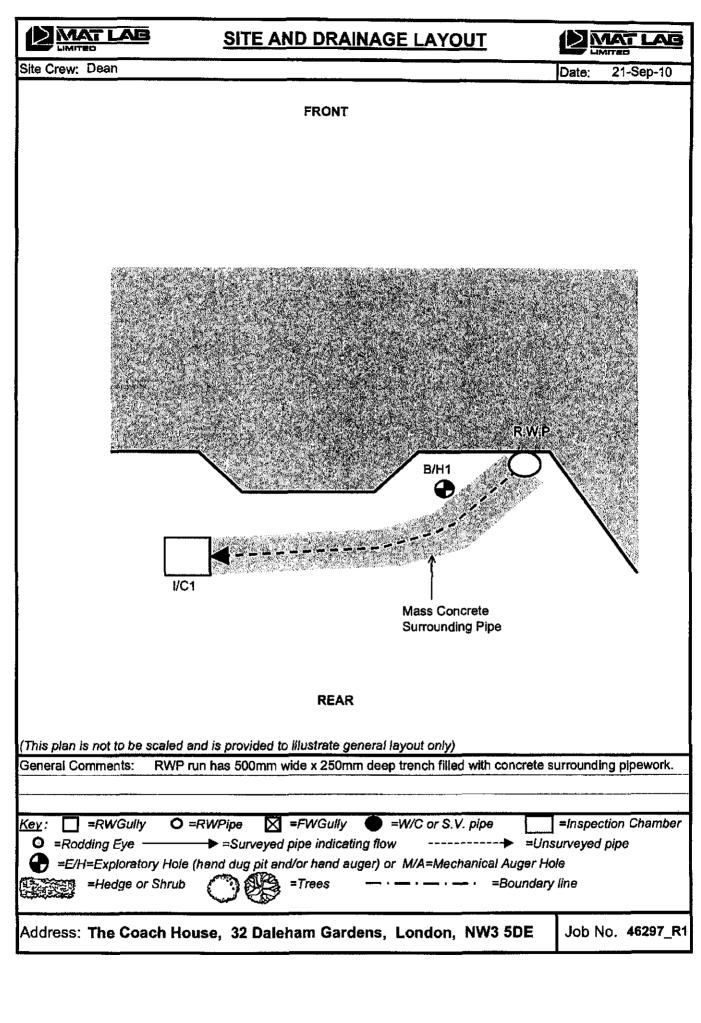
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Address: Mat Lab Ltd The Dell Bickenhill Lane Catherine-De-Barnes Solihuil B92 0DE Phone No.: 0121 704 3339 Fax No.: 0121 704 4675 E-mail: post@mat-lab.com

Checked By : Date :

PAGE 1 Of 11



PAGE 2 Of 11

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Down to 2.5m Up to 3mm max diameter. Water Strikes Depth & Rise :	Pooto Dent			į		
Water Strikes Depth & Rise : None observed on-site Reason for Termination: Hole at requested depth General Comments : Key: Mac=Macintosh Probe Blow Count, V(n)=Natural Shear Vane (kN/m²)			<u></u>			
None observed on-site Reason for Termination: Hole at requested depth General Comments : Key: Mac=Macintosh Probe Blow Count, V(n)=Natural Shear Vane (kN/m²)						
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	Key: Mac=	Macintosh Probe Blow Count, V(n)=Natural She	ar Vane (kN/m²)			
Address: The Coach House, 32 Daleham Gardens, London, NW3 5DE Job No. 46297	Address:	The Coach House, 32 Daleham Gar	dens, London, NW	3 5DE	Job No.	46297_R1

evision	Date	Page	ITE INVESTIGATION REVISION RECORD	
1	11-Oct-10	Pg 2	Site Layout Included	
		Pg 4	This Page Added	
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LABORATORY REPORT

Client's Name: Vincent

Address: The Coach House, 32 Daleham Gardens, London, NW3 5DE

Report Date: 07-Oct-10 Job No.: 46297

(If _R suffix appears after Job No., this indicates Revision Number)

Insurance Co.: JR Clare Claim Ref. No.: 320100322002276

Project Engineer: M Gent From: Agrical Limited Engineers Ref.: TA70867

> Contents: Root Analysis Swell Strain Tests Moisture Content Atterberg Limits

Address: Mat Lab Ltd The Dell Bickenhill Lane Catherine-De-Barnes Solihull B92 0DE E-mail: post@mat-lab.com Phone No.: 0121 704 3339 Fax No.: 0121 704 4675

07/10/2010

Authorised By:

AB - Reports Technician

Date Authorised:



ROOT IDENTIFICATION



Analysis subcontracted to European Plant Science Laboratory

Your ref: 46297 Job No: Roo(270910144252

Dear Sir

Re: Sample Origin: Root Identification The Coach House, 32 Daleham Gardens, London, NW3 SDE

The sample of roots taken from the above property and received by us on 27 September 2010, has been examined and identification appears to be as follows:

Reference	Depth	Species Identified		Root Diameter	Starch
THI lab	0.3-2.5m	Leguminosae spp.	1	3 mm	Abundanı
THI lab	0,3-2,5m	Rosa spp.	2	1.5 mm	Abundant
THI lab	0.3-2.5m	brondleaved species, too decayed for positive identification		<1 mm	None Visible

Comments:

1 - Plus 1 other also identified as Leguminosae spp.

2 - Plus 1 other also identified as Rosa spp.

Leguminosae spp. include laburnum, Robinia (false acacia or locust), broom, the pagoda tree and the climber wisteria.

Rosa spp. are roses.

2 species were identified.

Signed MDM

Unless we are otherwise instructed in writing, the above sample material will normally be disposed of 3 years after the date of this report.

Address: The Coach House, 32 Daleham Gardens, London, NW3 5DE

OEDOMETER RESULTS DATA

Swell/Strain Test Method

(UKAS accredited)

The In-house Procedure MTLB002 is based on "Determination of swelling and collapse characteristics" British Standards 1377:Part 5:1990 Section 4.4, carried out on a disturbed, remoulded sample. Test specimen has cylindrical dimensions 50mm (diameter) by 17mm (height).

Prior to the introduction of distilled water the specimen is reconsolidated to the approximate in situ vertical effective stress, calculated from the average sample extraction depth using the assumptions below. Laboratory tests are conducted in a controlled environment within a temperature range of 16°C to 24°C.

Assumptions

Soil Bulk Density (Moist Unit Weight) is equal to 2039 kg / m3. Depth to water table has been assumed as to be below sampling depth. Any possible surcharge stresses due to construction are not considered.

Predicted Free Surface Heave Calculation (Not UKAS accredited)

An approximated value of 0.010 strain is deducted from the measured oedometer strain to account for remoulding of the sample. Therefore strain in excess of Remoulding Disturbance Line (see Results Chart) is extrapolated for calculation of Predicted Heave per incremental layer displayed in the following table(s), in column labelled "Dd mm". A Shrinkage factor (Sf) of 2 is also applied to each heave value. Heave values per layer are summed as a total for each Borehole (in mm), and then displayed as a range in (in cm).

Predicted Free Surface Heave is calculated over a range defined by the sample depths tested, but not shallower than 0.2m below ground level, the assumed depth of topsoil. Heave inadvertently measured above foundation depth may be discounted by deducting the relevant layer value from the Borehole total. *Please note that the swell predicted is that expected of the ground if it were allowed to fully re-hydrate and come to equilibrium. This is possibly greater than the expected annual variation; due to reasons such as persistent annual deficits, changes in vegetation and annual climatic conditions, amongst others. The predicted total swell can take many years to fully propagate and in some cases this can take up to 25 years, though usually at least 70% happens within the first few years.*

Uncertainty of Measurement

The accuracy of the quoted strain measurement in an individual test is deemed to be within +/- 2.5%. The variation of repeated results on the same sample is determined by the uniformity of sample. Due to variability in strata changes and sample uniformity, it is more appropriate to consider the Heave Potential by the quoted range (in cm) rather than the precise total (in mm).

Further information relating to Swell/Strain Test is available on the MAT LAB Website:- www.mat-lab.com

Address: The Coach House, 32 Daleham Gardens, London, NW3 5DE

Test Date: 07-Oct-10

OEDOMETER RESULTS DATA

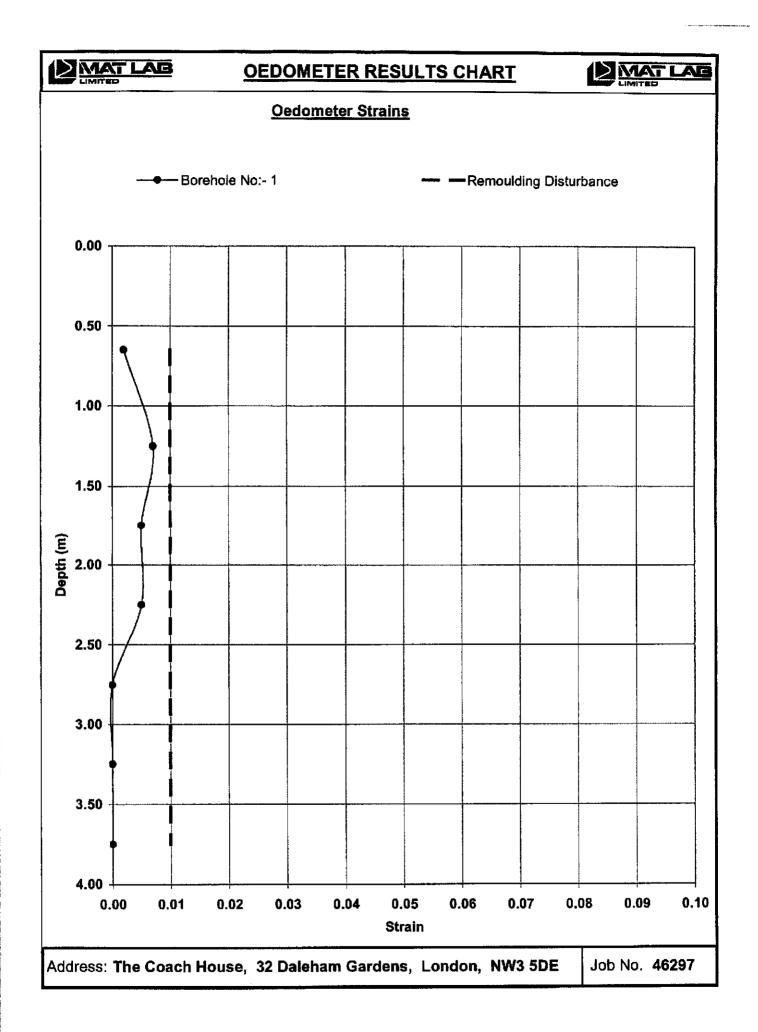


Location	Rear Left Hand Corner of House			
Depth(m)	Specimen No. & Comments	STRAIN	Dd (mm)	
0.65	Specimen No. 1A	0.0020	0.0	
1.25	Specimen No. 2A	0.0070	0.0	
1.75	Specimen No. 3A	0.0050	0.0	
2.25	Specimen No. 4A	0.0050	0.0	
2.75	Specimen No. 5A	0.0000	0.0	
3.25	Specimen No. 6A	0.0000	0,0	
3.75	Specimen No. 7A	0.0000	0.0	
	L tal Column Dd≖0mm Therefore Free Surface Heave Potential Over B/H D			

Address: The Coach House, 32 Daleham Gardens, London, NW3 5DE

Job No. 46297

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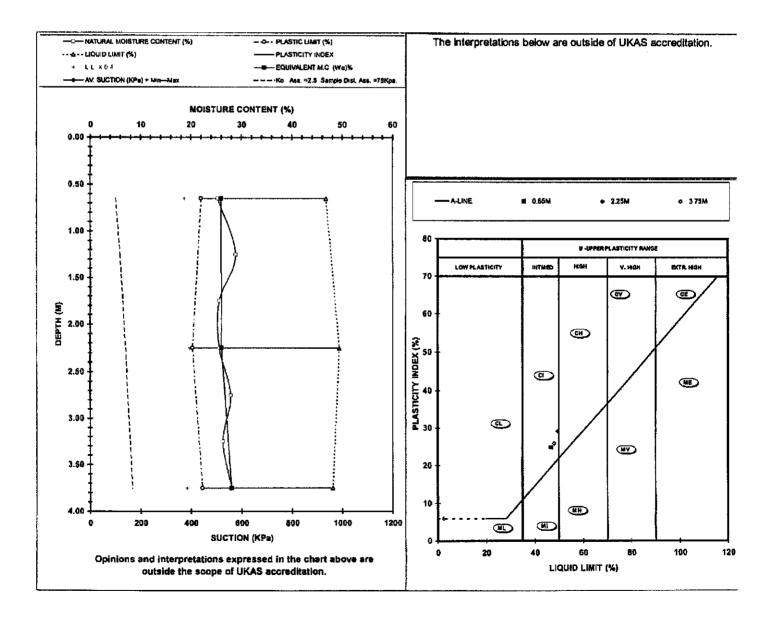
PAGE 9 Of 11

Notes	relating to Soils	<u>s Report</u>	
Date Soil Samples Received i Date Testing Requirements A	-	23-Sep-10 N/A	
This Soils Report contains	results for 1 bore	hole(s) on 1 page(s	L
General			
Soils were prepared in accordance with BS1377:Pr	art 1:1990 Section 7		
Laboratory soil sample descriptions in general acco	ordance with BS5930:1999		
Where samples are not tested on same date for a p	particular test type, Test Date	e quoted refers	
to the day of testing of final sample			
All samples will be disposed of within 1 month of p	resentation of this report unit	ass otherwise advised	
Natural Moisture Content Tested in accordance to BS1377:Part 2:1990 Sector	Test Date:	23-Sep-10	
A sample quantity of 100g is used for fine-grained	soils, where available		
Where sample quantity is critical, a minimum of 50		e with BS1377:Part 2:1990	
A sample quantity of 300g to 350g is used for med	ium-grained soils, 3kg is use	d for coarse-grained soils.	
Atterberg Limits	Test Date:	04-Oct-10	
Tested in accordance to B\$1377:Part 2:1990; Sec	tion 4.4 for the Liquid Limit, S	Section 5 for the	
determination of the Plastic Limit and Plasticity Ind	ex		
Suction Tests	Test Date:	N/A	(Q)*
Suction Test carried out in accordance to the accre			
the BRE paper IP4/93 (Corrected) 'A Method of De			
(Unless otherwise stated the filter paper moisture of			
the test was prepared from a remoulded disturbed	sample in accordance warn	nandose procedures;	
* Where denoted by '(Q)' following Test Date above			red filter papers.
The filter paper tests are conducted in a controlled			
Average Suction values (in kPa) calculated using t			m and
minimum suction obtained, as indicated by error bi			¢
Where possible, suction values should be compare	ed with remote borehole valu	es, to determine relative desicca	lion.
Each new batch of filter papers used for testing is	checked for its consistency a	gainst the standard BRE calibra	tion curve
using a pressure membrane extractor. The current			
more information is available upon request. Studi	es on In-house callbrations u	sing a pressure membrane extra	ctor continue.
This Report shall not be reproduced except in full, withou	t prior writtten approval being ob	tained from the Quality Manager	
of Mat Lab Ltd. It may contain private, confidential, or private	vileged information intended for	the individual or entity to whom	
it is addressed. No confidentiality or privilege is waived o	er lost by any mistransmission.		
			2093

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						RESULTS.	outside the scope of UKAS	MATLABLTD.	0121 704 3339
JOB	No.:	•		4629	7_R1		INSURANCE COMPANY	JR Clare REF:-320100322002276	
DATE S	AMPLE	S EXTRA	CTED:-	21 Se	ep 10		ENGINEER:-	M Gent REF:-TA70867	
CLIEN	TANSL	JRED N/	AME:-	Vince	ent		FROM :-	Agrical Limited	
ADDR	ESS:-	The C	oach	Hous	iê,		8.H. No. :-	1	
		32 Da	alehai	m Gai	rdens,		LOCATION:-	Rear Left Hand Corner of House.	
		Lond	ion,				REPORT DATE:-	07 Oct 10	2093
				NW	<u>3 5</u> DE				
		AT	TERBL	ERG L	IMITS.				
ОЕРТН.	M.C.	<u>i</u> .L	P.L.	P.L	425 um	AV. Filter Paper		BRIEF SOIL DESCRIPTION	

М.	(%)	(%)	(%)	(%)	(%)	M.C.(%) & No.	BRIEF SUIL DESCRIPTION
0.65	25	47	22	25	96	-	Firm dark brown/orange slightly sandy CLAY with rare \$ne/medium gravel (Inc brick fragments) & roots.
1.25	29		•		•	-	Firm orange-brown slightly sandy CLAY with rare fine gravel, dark brown bandings & roots.
1.75	26	•	•	*	-	-	Firm orange-brown slightly sandy CLAY with rare fine gravel, dark brown bandings & roots.
2.25	26	49	20	29	100	•	Firm orange-brown stightly sandy CLAY with rare fine gravel & roots.
2.75	28	-	•		•	•	Soft/firm orange-brown slightly sandy CLAY with rare fine gravel & gray vainings.
3.25	26	•	•	-	•	•	Soft/firm orange-brown slightly sandy CLAY with rare fine gravel & gray vainings.
3.75	28	48	22	26	100	•	Soft/firm grange-brown slightly sandy CLAY with rare fine gravel & gray veinings.



Authorised by :-----

Structural Monitoring Services Ltd

348 Pickhurst Rise	Client:	Agrical Ltd
West Wickham	insured:	Mrs Vincent
Kent BR4 0AY	Engineer	Martin Gent
Phone/Fax 020 8777 4585	Job Title:	32 Daleham Gdns

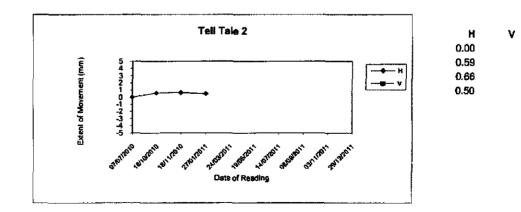
Tell Tale 1

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Date	н	V	Teil Tale 1
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18/10/2010	30.12		
18/11/2010	30.07		
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8/09/2011			"The file file file file file and the the the the
3/11/2011			STATED BURGED
29/12/2011			Date of Reading

Tell Tale 2

Location:	Internal - Hallway	
Date	н	v
07/07/2010	39.77	
18/10/2010	40.36	
18/11/2010	40.43	
27/01/2011	40.27	
24/03/2011		
19/05/2011		
14/07/2011		
08/09/2011		
03/11/2011		
29/12/2011		



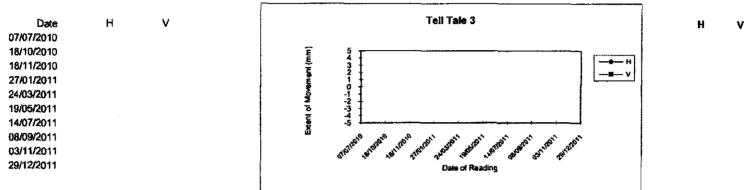
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Structural Monitoring Services Ltd

348 Pickhurst Rise	Client:	Agrical Ltd
West Wickham	insured:	Mrs Vincent
Kent BR4 0AY	Engineer	Martin Gent
Phone/Fax: 020 8777 4585	Job Title:	32 Daleham Gdns

Tell Tale 3

Location: External - front elevation x00000000



Tell Tale 4

Location:	External - front el	evation xxxxxxxxxx			
Date 07/07/2010 18/10/2010 18/11/2010 27/01/2011 24/03/2011 19/05/2011 14/07/2011 08/09/2011 03/11/2011 29/12/2011		V	Teli Tale 4	Н	v

Note⁽¹⁾: This reduced format report is an initial appraisal only and may have been produced without the benefit of site investigations. It is intended for use between the client, Marishal Thompson & Co. (Environmental) Ltd and any parties detailed within the report. It is based on the assumption that Englneers are satisfied that current damage is due to clay shrinkage subsidence attributable to vegetation.

1. Case Details

Insured Mrs N Vincent	Address	The Coach House, 32 Daleha	m Gardens, London, NW3 5DE
Client Agrical Limited	Contact	Martin Gent	Claim No: MG/TA70867
MT Ref NL/1012101639/AC	Contact	Andrew Cayley	Contact No. 08702 416 180

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

Property and Damage Description.

The insured structure is a 2 storey semi-detached house. It has been extended with a conservatory addition to the rear. The property occupies a level site with no adverse topographical features.

Engineers advise that damage indicates a differential movement between the front and rear sections of the property. Please refer to the engineers report for a detailed description of the current damage / claim(s) history.

3. Technical Reports

Soil Analysis

Borehole Log

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

\boxtimes	Foundation Detail	\boxtimes	Root Analysis	
20			•	

4. Action Plan

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

Treeworks	State Carlos
is there any statutory protection?	Awaiting Searches from LA
Additional Comments	

X

Awaiting Further Instructions.

5. Technical Synopsis

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

Site investigations have confirmed the presence of shrinkable clay below confirmed foundation depths; vegetation therefore retains the capacity to contribute to the current damage by means of moisture abstraction.

The footings of the subject property fall within the anticipated rooting range of a significant number of trees, many with the capacity to be influencing soil moisture values below foundation level. Felling of all the vegetation noted on the site plan would be necessary to fully eliminate the influence of trees within the garden. It is most unlikely that such extensive removals will be sanctioned and based on current circumstances such an approach is considered disproportionate.

This report therefore seeks to identify key individuals and target management so as to reduce the amplitude of influence to a level that is tolerable to the adjacent structure. Whilst this approach looks to return stability it should be accepted that a degree of risk remains albeit in a much reduced capacity than at present.

It is therefore recommended that trees marked as T4 (Birch (Silver)), T5 (Birch (Silver)) and T8 (Birch (Silver)) be removed.

Marishal Thompson Group

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AS DELIGIONAC Notational States

Pruning should not be considered as representing an effective or reliable long-term alternative solution. In the context of the current claim, given their size and proximity pruning will offer no meaningful reduction in the trees long-term moisture requirements; for this reason, removal is deemed to offer the most effective arboricultural solution.

The property should then be monitored to review the efficacy of these management prescriptions. Should stability not return then recommendations should be reviewed.

There is sufficient space within the garden to support replacement planting(s); species selection should be appropriate for the available space and ultimate tree height should not exceed 75% of the available distance to built structures.

Please refer to the Recommendations Table in Section 6 for full details of management prescriptions.

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?	See Above
Does the potential of ground heave need to be assessed by Consulting Engineers before management recommendations are implemented?	No
Will implementation of the management recommendations result in significant amenity loss?	No
Would DNA profiling be of assistance in this case?	No

6. Recommendations (Table 1)

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
Т1	Koelreuteria / Pride of India	2	8.7	3.29	C - Insured	Action to avoid future risk	Do not allow to exceed current dimensions.
T10	Pear	1	3.6	2.96	C - insured	Action to avoid future risk	Do not allow to exceed current dimensions.
Т2	llex sp.	3	7.7	2.5	C - Insured	Action to avoid future risk	Do not allow to exceed current dimensions.
ТЗ	Cherry (Japanese)	2	8.6	1.9	C - Insured	Action to avoid future risk	Do not allow to exceed current dimensions.
T4	Birch (Silver)	1	16	4.21	C - Insured	Remove	Remove.
T5	Birch (Silver)	1	14.8	4.84	C - Insured	Remove	Remove.
Т6	Birch (Silver)	1	12.5	10.3	C - Insured	Action to avoid future risk	Do not allow to exceed current dimensions.
Τ7	Loquat	1	5.7	5.76	C - Insured	Action to avold future risk	Do not allow to exceed current dimensions.
Т8	Birch (Silver)	1	14.8	4.51	C - Insured	Remove	Remove.
Т9	Pear	1	4.5	6	C - Insured	Action to avoid future risk	Do not allow to exceed 5.5m max height / spread.

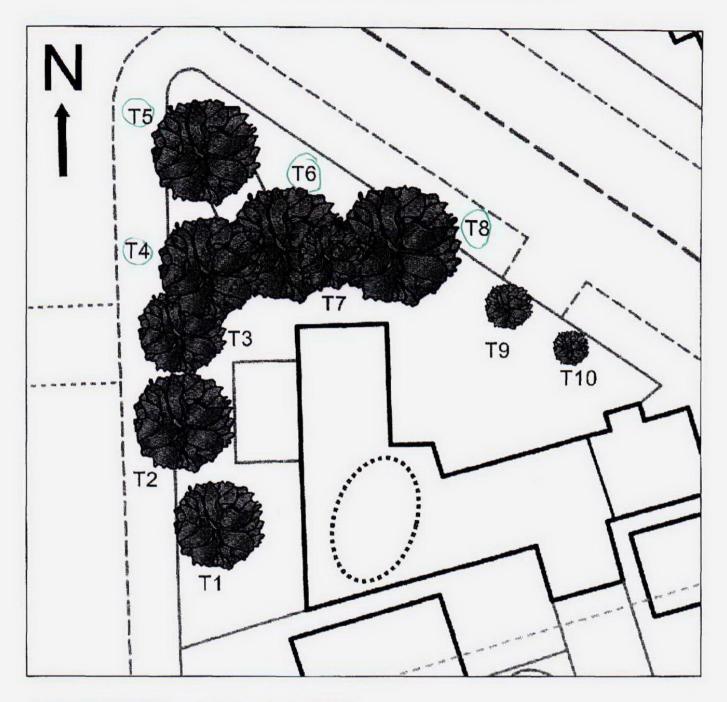
* Estimated

Third party property addresses should be treated as indicative only, should precise detail be required then Marishai Thompson can undertake Land Registry Saarches

Site Plan

Marishal Thompson Group Clarendon House: Shorted Road, Baret unwood, Herts, Vales FA

NUMBER BRIDE



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

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8. Photographs





T8 - Birch (Silver)



T1 - Pride of India



T9 - Pear

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T5 - Birch (Silver)



T4 & T6 - Birch (Silver)



T7 - Loquat

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T2 - Laurel



T3 - Cherry (Japanese)

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Date: 13/01/2011

Property: The Coach House

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

Insured Property Tree Works	Formal Quote Required
Third Party Tree Works	£0
Provisional Sum	£0

- > 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.
- Stump removal is not included within the above price, and would be an additional charge if required. Where this is requested please note that responsibility cannot be accepted for damage to underground services unless these are identified prior to the works being undertaken.
- Where chemical application is made to stumps it cannot always be guaranteed that this will prevent future re-growth. 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 intended as a preliminary appraisal of vegetation influence on the property and assumes 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.

Any connection between the structural damage to the property and trees will require the clear identification of shrinkable clay soils below foundation depths. Following tree works we recommended that the building be monitored to establish the effectiveness of the works. Should sufficient stability not be achieve this may be indicative of the fact that an Arboricultural solution is not possible in isolation.

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

The presence of Tree Preservation Orders (TPO) or Conservation Area status must be determined prior to any tree works being implemented, failure to do so can result in fines in excess of £20,000.

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 (1989) *Recommendations for Tree Work*.

Marishal Thompson Group

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21 October 2010



www.agrical.com

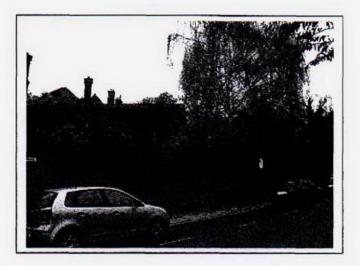
SUBSIDENCE TECHNICAL REPORT

POLICYHOLDER

RISK ADDRESS

Mrs N Vincent

The Coach House 32 Daleham Gardens London NW3 5DE



AGRICAL LIMITED

Date of Report:

21 October 2010

The Old Estate Office, 56 Leeds Road, Tadcaster, North Yorkshire, LS24 9HB Tel: 01937 838050 Fax: 01937 838055 e-mail: york@agrical.com Agrical Ltd, trading as Agrical, registered in England & Wales no. 4315284 Registered Office Agrical Limited, Ground Floor Offices, Old Deanery Court, Cathedral Green, Wells 8A5 2UQ

INTRODUCTION

We have been asked by J R Clare Underwriting Agencies Limited to comment on movement that has taken place to the above property. We are required to briefly describe the damage, identify the probable cause and describe appropriate remedial measures.

Our report should not be used in the same way as a pre-purchase survey. It has been prepared specifically in connection with the present insurance claim and should not be relied on as a statement of structural adequacy. It does not deal with the general condition of the bullding, decorations, services, timber rot or infestation etc.

Investigations have been carried out in accordance with the guidance issued by The Institution of Structural Engineers¹.

All directions are given relative to an observer facing the front of the property. We have not recommended on any part of the building that is covered or inaccessible.

PROPERTY

Description

The risk address is a former coach house and stables. The property, which dates to the late 19th Century, with modifications being undertaken during the 1960s, comprises solid brick construction under a pitched, tile clad roof. Floors and walls are of timber construction. Ground and intermediate floors are of timber construction and intermal walls are largely plastered brick built.

History and Ownership

Your Insured purchased the property in 1976 and has made no significant medications to the property since that time.

The property is owned and occupied as a domestic residence.

SITE

Topography

The property occupies a sloping site on a corner plot.

Vegetation

The property has gardens to three sides, in which there is located a number of mature and semi-mature trees and shrubs.

Further trees are positioned outside of the boundary of the site.

2

DAMAGE

Discovery

Mrs Vincent first became aware of problems in and around February 2010 when internal doors to the property failed to open and close properly. Cracking was then noted. A claim was intimated shortly thereafter.

External

There is no apparent damage evident to the exterior of the property.

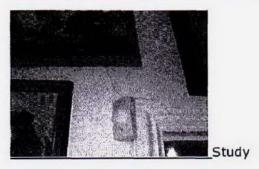
Internal

The main cracking noted was to the entrance hallway above the door to the study, evident both within the hallway and the study and measuring around 1mm wide.

At first floor level cracks are evident within two bedrooms, again of relatively minor degree, measuring up to 1mm wide.







Category

It is common to categorise damage in accordance with BRE Digest 251. In this instance, the damage falls within Category 1.

Category 0	"aesthetic damage"	< 0.1mm
Category 1	"aesthetic damage"	0.1 - 1mm
Category 2	"aesthetic damage"	>1 but < 5mm
Category 3	"serviceability damage"	>5 but < 15mm
Category 4	"serviceability damage"	>15 but < 25mm
Category 5	"stability damage"	>25 mm

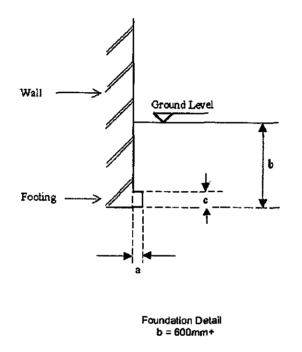
¹Institution of Structural Engineers (1994) "Subsidence of Low Rise Buildings"

INVESTIGATIONS

<u>Survey</u>

A detailed survey of the risk address was completed by our Chartered Surveyor on 7 July 2010 noting full details regarding the construction of the property and the nature and extent of damage evident at that time.

Site Investigations



Initial site investigations were undertaken in July 2010. Access to the external walls of the property was extremely limited and attempts were made to excavate a trial pit to the rear elevation. The excavations identified a brick corbel projecting from the foundation, commenced at around 450mm below ground level. However, due to an adjacent mass concrete drain pipe surround, it was not possible to extend the trial pit the underside of the foundations. Based on our experience, we would estimate that the foundation is likely seated at between 650mm and 700mm below ground level.

The underlying soil conditions were also not identified.

We instructed the site investigation crew to return to undertake a bore hole within the garden, albeit remote from the main area of damage. The purpose of this was to establish the ground conditions. The bore hole, which was extended to 4 metres, identified the soil as a firm, slightly sandy clay.

Numerous roots were identified within the bore hole, which was as expected.

¹Institution of Structural Engineers (1994) "Subsidence of Low Rise Buildings"

Soil Testing

Laboratory soil testing was undertaken, which confirmed the sub strata as being clay of intermediate plasticity, largely due to the sand content. Interestingly, the testing did not suggest any significant desiccation.

Drainage Investigation

Testing of the underground drains was not undertaken this time, as it is not believed that the drains are a contributory factor in the movement and damage.

Monitoring

Monitoring points were affixed at the time of our surveyor's visit in July 2010. In October 2010 further readings were taken and these showed minor opening of the cracks by around one half of a millimetre.

Monitoring will continue.

DISCUSSION

Damage to the risk address is relatively minor but does cause some inconvenience, with damage to wall finishes and sticking doors.

The area of damage is towards the central part of the property and indicates differential movement between front and rear sections of the property.

Having noted the pattern of fracturing, the site position and site features, our initial thought process was that we were dealing with a clay shrinkage problem.

Site investigations, whilst not fully conclusive due to restrictions on access, do show that the property is seated upon a shrinkable clay sub soil, albeit only of intermediate shrinkability. No significant desiccation was noted within the bore hole, although numerous roots were identified.

The monitoring has shown evidence of the cracks opening. Monitoring was initiated in July and the next set of readings will be key in identifying the likely pattern of movement, or whether the cracks continue to open or begin to close.

At this time, we remain of the view that the most likely cause of damage is seasonal clay shrinkage, exacerbated by moisture extraction by the roots of the numerous trees and shrubs positioned around the property.

RECOMMENDATIONS

We propose to continue the monitoring exercise and a further set of readings will be taken around December. This should start to determine a pattern of movement, assisting in confirmation of cause.

We anticipate a resolution to this claim by implementing super structure repairs only, possibly with the use of some brick reinforcement to provide additional strength.

In an effort to improve stability, vegetation management will be appropriate and in this regard we propose to obtain advice from an arboriculturalist.

Once we are in receipt of the arboriculturalist's report and the results of the next monitoring readings, we will be in a position to update all parties with further recommendations.

MARTIN GENT AGRICAL LTD

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¹Institution of Structural Engineers (1994) "Subsidence of Low Rise Buildings"
