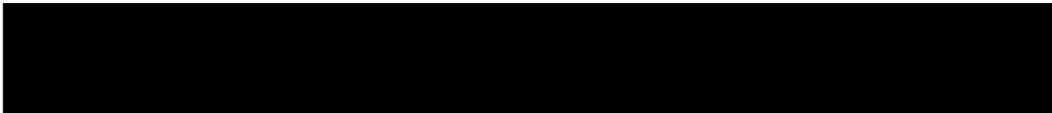


SITE INVESTIGATION FACTUAL REPORT

Report No: [REDACTED]
Client: Crawford Claims Management
Site: 37 Lancaster Grove
Client Ref: [REDACTED]
Date of Visit: 16/05/19



Home Emergency Response - Subsidence Investigation - Drainage Services – Crack & Level Monitoring – Property Video Surveys



Drainage Layout Plan

Sheet: 1 of 1

Site: 37 Lancaster Grove, NW3

Job No: [REDACTED]

Work carried

Date: 16/05/2019

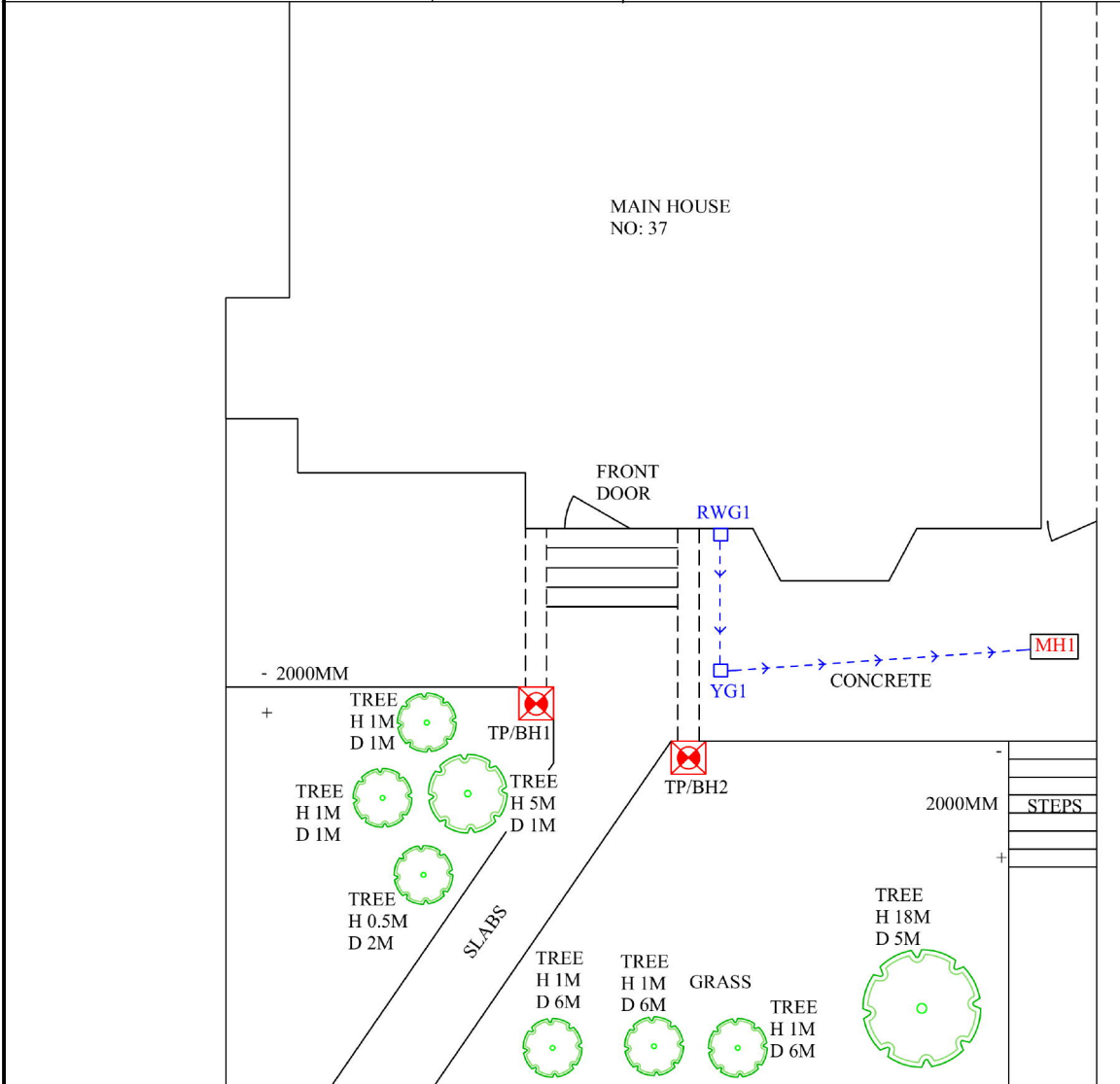
out for: Crawford Claims MGMT SUS

(SI)

(Checked)

CFT
(Drawn)

Weather: DRY



DRAIN REPAIR RECOMMENDATIONS

No recommendations required to the private drainage surveyed.

Scale: N.T.S.

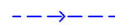
Parking:

Power:

Water:

Approx age:

Surface Water Drain



Foul Water Drain



TEST REPORT: Trial Pit

REPORT NUMBER: [REDACTED]

TRIAL PIT REF: [REDACTED]

CLIENT: Crawford & Co

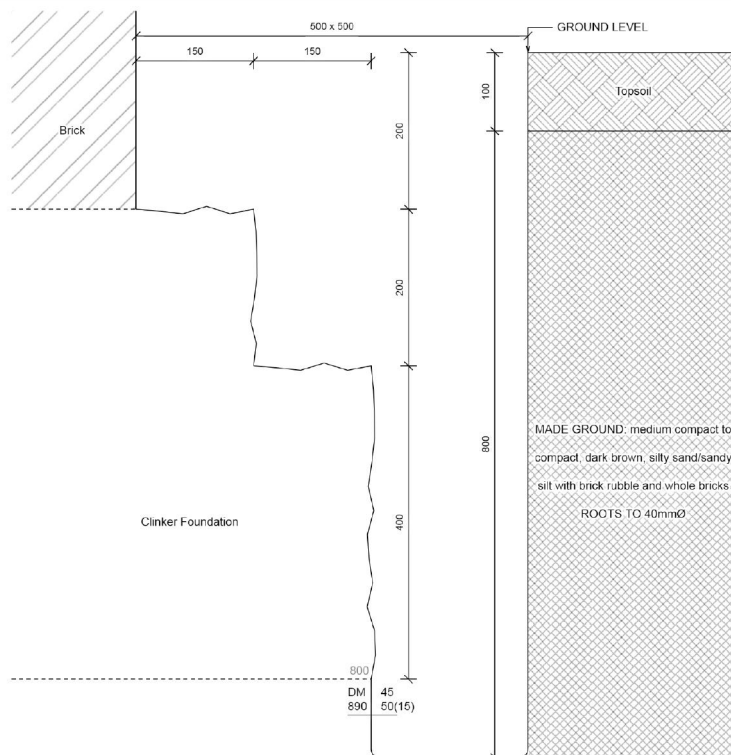
JOB NO: [REDACTED]

EXCAVATION METHOD: Hand tools

DATE: 23/05/2019

SITE: 37 Lancaster Grove, NW3 4HB

WEATHER: Dry



For Strata below 900mm see Bore Hole log

- Key:
- D Small disturbed sample J Jar sample
 - B Bulk disturbed sample V Pilcon vane (kPa)
 - W Water sample M Mackintosh probe
 - TDTD Too dense to drive

Remarks:

For and on behalf of CET
Sophie Cahalane - Admin Assistant

[REDACTED SIGNATURE]


Approved Signatory
23-May-19

Report Format:

[REDACTED]

[REDACTED]

[REDACTED]

Borehole		1	Sheet:	1 of 1	Site:	37 Lancaster Grove	
Boring Method:		Hand Auger	Job No:		Client:		
Diameter (mm):		75	Date:	16/05/2019	Crawford Claims Management		
Weather:		dry	Ground Level:				
Depth (m)	Soil Description				Thickness	Legend	Samples and Tests
0.00	See Trial Pit				0.90		
0.90	MADEGROUND medium compact to compact orange-brown silty sand				0.70		1.00 DM 50(S) TCID
1.20	End of BH						
Remarks: BH ends at 1.2m, too compact to hand auger. BH dry and open on completion.No roots observed below 1.2m.					Key: D - Disturbed Sample B - Bulk Sample W - Water Sample Roots J - Jar Sample Roots V - Pilcon Shear Vane (kPa) Roots M - Mackintosh Probe Depth to Water (m) TDTD - Too Dense To Drive		To Max Depth Dia (m) (mm) 1.20 2
Logged:	DP	PS	Checked:	Approved:	Version	V1.0 28/01/16	N.T.S.

TEST REPORT: Trial Pit

REPORT NUMBER: [REDACTED]

TRIAL PIT REF: [REDACTED]

DATE: 23/05/2019

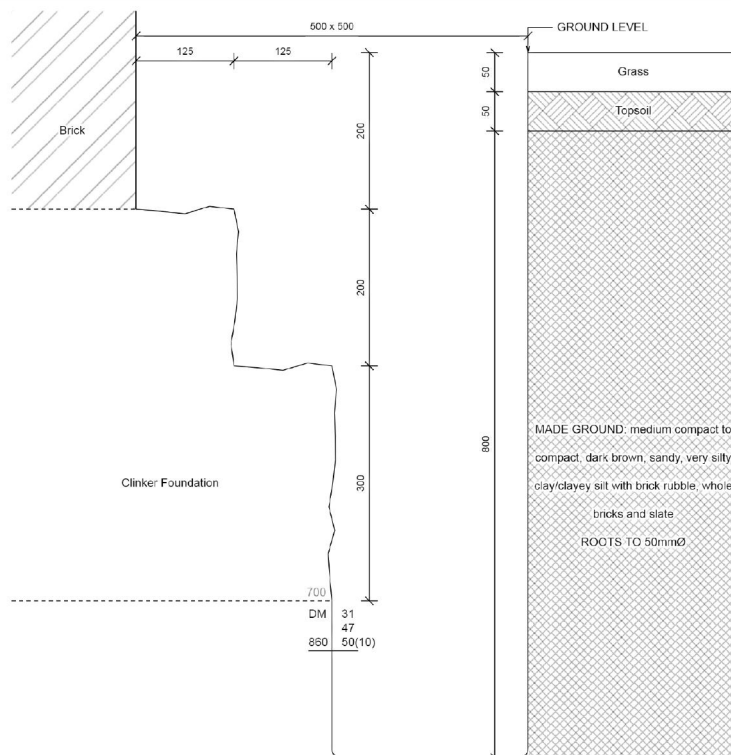
CLIENT: Crawford & Co

SITE: 37 Lancaster Grove, NW3 4HB

JOB NO: [REDACTED]

WEATHER: Dry

EXCAVATION METHOD: Hand tools



For Strata below 900mm see Bore Hole log


- Key:
- D Small disturbed sample J Jar sample
 - B Bulk disturbed sample V Pilcon vane (kPa)
 - W Water sample M Mackintosh probe
 - TDTD Too dense to drive

Remarks:

For and on behalf of CET
Sophie Cahalane - Admin Assistant

Approved Signatory
23-May-19

Report Format:

Borehole		2	Sheet:	1 of 1	Site:	37 Lancaster Grove	
			Job No:				
			Date:	16/05/2019			
Boring Method:	Hand Auger		Ground Level:		Client:	Crawford Claims Management	
Diameter (mm):	75	Weather:	DRY				
Depth (m)	Soil Description				Thickness	Legend	Samples and Tests
0.00	See Trial Pit				0.90		
0.90	MADEGROUND medium compact to compact orange-brown sandy silty clay with gravel and brick fragments				0.80		
						1.00	DM 49
							50(S)
							TCTD
1.20	End of BH						
Remarks: BH ends at 1.2m, too compact to hand auger. BH dry and open on completion. No roots observed below 1.2m.					Key:		To Max
					D - Disturbed Sample	Depth (m)	Dia (mm)
					B - Bulk Sample		
					W - Water Sample	Roots	1.20
					J - Jar Sample	Roots	3
					V - Pilcon Shear Vane (kPa)	Roots	
					M - Mackintosh Probe	Depth to Water (m)	
					TDTD - Too Dense To Drive		
Logged:	DP	PS	Checked:	Approved:	Version	V1.0 28/01/16	N.T.S.

Laboratory Summary Results

Our Ref: [REDACTED]
 Location: 37 Lancaster Grove, NW3
 Client: Crawford Claims Management
 Address: [REDACTED]

Date Sampled: 16/05/19
 Date Received: 21/05/19
 Date Tested: 22/05/19
 Date of Report: 31/05/19

TP/BH No	Sample Ref Depth (m)	Type	Moisture Content (%) [1]	Soil Fraction > 0.425mm (%) [2]	Liquid Limit (%) [3]	Plastic Limit (%) [4]	Plasticity Index (%) [5]	Liquidity Index [5]	Modified Plasticity Index (%) [6]	Soil Class [7]	Filter Paper Contact Time (h)	Soil Sample Suction (kPa) [8]	Oedometer Strain [9]	Estimated Heave Potential (DD) (mm) [10]	In situ Shear Vane Strength (kPa) [11]	Organic Content (%) [12]	pH Value [13]	Sulphate Content* (g/l)		* Class [16]		
																		SO3 [14]	SO4 [15]			
1	U/S 0.80	D	22	52	Not suitable for further testing - Made Ground																	
	1.0	D	19	53	Not suitable for further testing - Made Ground																	

Test Methods / Notes

- [1] BS 1377: Part 2: 1990, Test No 3.2
- [2] Estimated if CNS, otherwise measured
- [3] BS 1377: Part 2: 1990, Test No 4.4
- [4] BS 1377: Part 2: 1990, Test No 5.3
- [5] BS 1377: Part 2: 1990, Test No 5.4
- [6] BRE Digest 240: 1993
- [7] BS 5930: 2008: Figure 8 - Plasticity Chart for the classification of fine soil.

- [8] In-house method S9a adapted from BRE IP 450
- [9] In-house Test Procedure: S17a One Dimensional Swell/Strain Test
- [10] Estimated Heave Potential (DD)
- [11] Values of shear strength were determined in situ by CET using a Ploce hand vane or Geotest vane (GV).
- [12] BS 1377: Part 3: 1990, Test No 4
- [13] BS 1377: Part 2: 1990, Test No 9
- [14] BS 1377: Part 3: 1990, Test No 5.6
- [15] SO₄ - 1.2 x SO₃

- [16] BRE Special Digest One (Concrete in Aggressive Ground) August 2006
- Note that if the SO₄ content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-M or DS-SM class respectively unless water soluble suspension testing is undertaken to prove otherwise.
- * These tests are not UKAS accredited
- Full reports can be provided upon request.

Key

- D Disturbed sample (small)
- B Disturbed sample (bulk)
- U Undisturbed sample
- W Groundwater sample
- ENP Essentially Non-Plastic by inspection
- US Underside of Foundation



Our Ref: [REDACTED]

Laboratory Testing Results

Date Sampled : 16/05/19

Location : 37 Lancaster Grove, NW3
 Client : Crawford Claims Management
 Address : [REDACTED]

Date Received : 21/05/19
 Date Tested : 22/05/19
 Date of Report : 31/05/19

TP/BH No.	Sample Ref.		Moisture Content (%) [11]	Soil Fraction > 0.425mm (%) [12]	Liquid Limit (%) [13]	Plastic Limit (%) [14]	Plasticity Index (%) [15]	Liquidity Index [16]	Modified Plasticity Index (%) [16]	Soil * Class [17]	Filter Paper Contact Time (h)	Soil Sample Suction (kPa) [8]	Oedometer Strain [9]	Estimated Heave Potential (Dd) (mm) [10]	In situ * Shear Vane Strength (kPa) [11]	Organic * Content (%) [12]	pH * Value [13]	Sulphate Content * (g/l)		* Class [16]	
	Depth (m)	Type																S03 [14]	S04 [15]		
2	U/S 0.70	D	15	49	41	21	20	-0.30	10	CI											
	1.0	D	17	40	Not suitable for further testing - Made Ground																

Test Methods / Notes

- [1] BS 1377: Part 2: 1990, Test No 3.2
- [2] Estimated if <5%, otherwise measured
- [3] BS 1377: Part 2: 1990, Test No 4.4
- [4] BS 1377: Part 2: 1990, Test No 5.3
- [5] BS 1377: Part 2: 1990, Test No 5.4
- [6] BS 1377: Part 2: 1990, Test No 5.4
- [7] BS 9930: 1981, Figure 31 - Plasticity Chart for the classification of fine soils.

- [8] In-house Test Procedure S17: One Dimensional Swell/Shrink Test
- [9] Estimated Heave Potential (Dd)
- [10] Values of shear strength were determined in situ by CPT using a Picon hand vane or Geotest vane (GV).
- [11] BS 1377: Part 3: 1990, Test No 4
- [12] BS 1377: Part 3: 1990, Test No 9
- [13] BS 1377: Part 3: 1990, Test No 5.6
- [14] S0₃ = 12 x S0₄

- [16] BS 1377: Special Digest One (Concrete in Aggressive Ground) August 2006
- Note that if the S04 content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-4M or DS-5M class respectively unless water soluble magnesium testing is undertaken to prove otherwise.
- * These tests are not UKAS accredited
- Full reports can be provided upon request

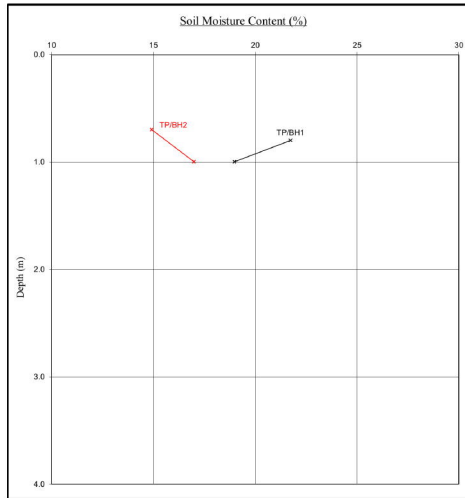
Key

- D Disturbed sample (small)
- B Disturbed sample (bulk)
- U Undisturbed sample
- W Groundwater sample
- ENP Essentially Non-Plastic by inspection
- IS Inside of Foundation



Moisture Content Profiles

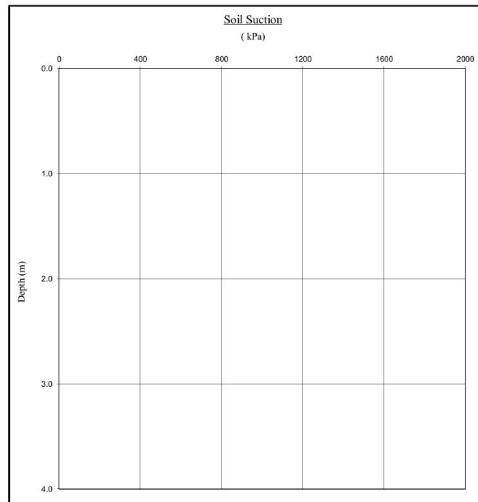
Our Ref: [REDACTED]
Location: 37 Lancaster Grove, NW3
Work carried out for: Crawford Claims Management



Notes
1. If plotted, $0.4LL$ and $PL/2$ (after Driscoll, 1983) should only be applied to London Clay (and similarly overconsolidated clay) at shallow depths.
2. Unless specifically noted the profiles have not been related to a site datum.

Soil Suction Profiles

Date Sampled: 16/05/19
Date Received: 21/05/19
Date Tested: 22/05/19
Date of Report: 31/05/19



Note
When shown, the theoretical equilibrium suction profiles are based on conventional assumptions associated with London Clay (and similarly overconsolidated clays) at shallow depths. Note that the sample disturbance component is dependant on the method of sampling and any subsequent recompaction. The above plots show this to be 100kPa which is the value suggested by the BRE on the basis of their limited number of tests on recompacted samples. This may or may not be appropriate in this instance and judgement should be exercised.

Certificate of Analysis

The following work was commissioned by CET on behalf of their client. Root samples were obtained in sealed packets from the above site with no reference given as to the types of tree or shrub from which they may have originated.
The results were as follows -

<u>Trial pit/ Borehole number</u>	<u>Root diameter (mm)</u>	<u>Tree, shrub or climber from which root originates</u>	<u>Result of starch test</u>
TP1 (USF)	2 mm	Monocotyledon spp. 3 roots	Positive
BH1 (1.2m)	1.5 mm	Monocotyledon spp.	Negative
BH1 (1.2m)	1 mm	Osmanthus/Phillyrea spp. or related shrub species 2 roots	Positive
TP2 (USF)	10 mm	Fagus spp. 4 roots	Positive
BH2 (1.2m)	2 mm	Fagus spp. 3 roots	Positive

Monocotyledon spp. include palms, grasses, bamboos and lilies.
Osmanthus/Phillyrea spp. are evergreen shrubs with white or cream fragrant flowers.
Fagus spp. include common beech and copper beech.

[REDACTED]
MDM

[REDACTED]
Head of Laboratory Services : M D Mitchell B.Sc. (Hons), M.Phil.
Plant Anatomist : Dr G S Turner B.Sc. (Hons), M.Sc., Ph.D
Plant Anatomist : Dr R J Shaw B.Sc. (Hons), Ph.D
Consultant: Dr M P Denne B.Sc. (Hons), M.Sc., Ph.D
[REDACTED]

To:
Fiao: Matt Deller

Crawford Claims Management



Site:

37 Lancaster Grove

Date: 04-Jun-19

ESTIMATE

Item		Amount
	No recommendations required to the private drainage surveyed.	

Notes

Repairs to shared runs and off boundary pipe-work may be the responsibility of the water authority.



Condition Grade

- A - Structurally sound with no leakage evident.
- B - Cracks and fractures observed.
- C - Structurally unsound

Quotation is binding only if accepted within 28 days from date of issue and is subject to our Standard Terms and Conditions
The price qualification notes, stated on the drainage solutions schedule of rates, apply to this quotation.
CET Structures Ltd undertakes to return to site free of charge to carry out remedial work to the drainage repairs set out above for a period of 2 months from the date of this invoice. The company standard charge rates will apply to the visit should the work requested be unrelated to the said repairs.

Coding Sheet		Sheet:		Site:	37 Lancaster Grove			
		Job No.:						
		Date:	16/05/19	Client:	Crawford Claims Management			

Run:		1							
From:		MH1	Invert Level:	550	Direction:	U/S			
To:		YG/1	Invert Level:		Function:	S/W			
Pipe Material:		VC	Pipe Dia:	100					
Water/Pressure Test:			Drain Break-In:		Gully Condition:	As Built			
Distance (m)	Code	Clock Ref at to	Dia mm	Intrusion % mm	Shared Run:				
					If Shared How:				
0.00	ST				Remarks	Surface Material	Length (m)		
0.10	DES			30	Silt and leaves	slabs			
5.70	JN		3		RWG/1				
5.70	FH				REACEHD YARD GULLY				
Comments:									

Run:		2							
From:		RWG/1	Invert Level:		Direction:	D/S			
To:		RUN 1	Invert Level:		Function:	F/W			
Pipe Material:		VC	Pipe Dia:	100					
Water/Pressure Test:			Drain Break-In:	No	Gully Condition:	As Built			
Distance (m)	Code	Clock Ref at to	Dia mm	Intrusion % mm	Shared Run:	No			
					If Shared How:				
0.00	ST				Remarks	Surface Material	Length (m)		
0.10	DES			15	SILT AND LEAVES	SLABS			
1.00	FH				REACEHD RUN 1				
Comments:									
Aco channels run over run 2.									