SITE INVESTIGATION
FACTUAL REPORT

Report No: [redacted]

Client: Crawford Claims Management

Site: 38 Steele's Road, , Hampstead,

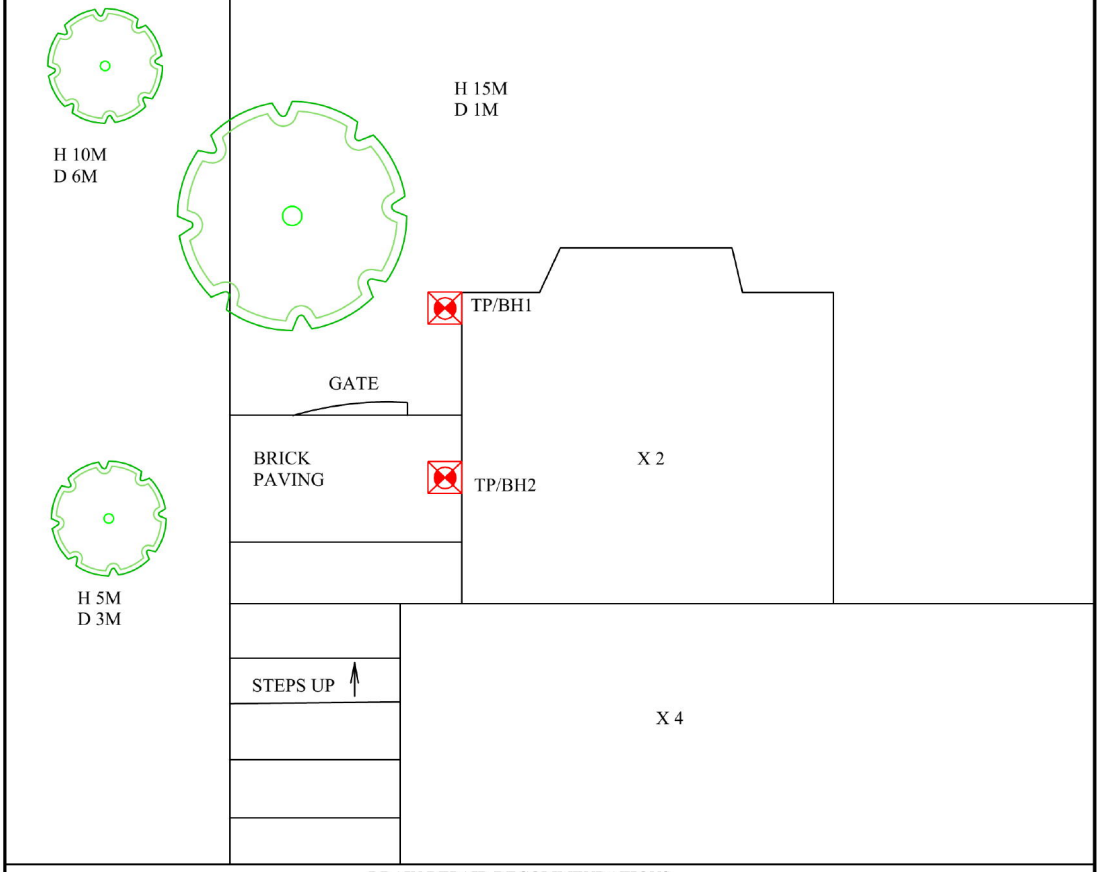
Client Ref: [redacted]

Date of Visit: 10/04/17

[redacted]

Drainage Layout Plan

Sheet: 1 of 1	Site: 38 Steeles Road	
Job No: [redacted]	Work carried out for: Crawford Claims MGMT SUS	
Date: 10/04/2017		
DB (SI) SA (Checked) PS (Drawn)	Weather: DRY	



DRAIN REPAIR RECOMMENDATIONS

Scale: N.T.S.	Parking:	Power:	Water:	Approx age:

Surface Water Drain

Foul Water Drain

Trial Pit No: 1

Sheet: 1 of 1

Job No: [redacted]

Date: 10/04/2017

Site: 38 Steele's Road, NW3

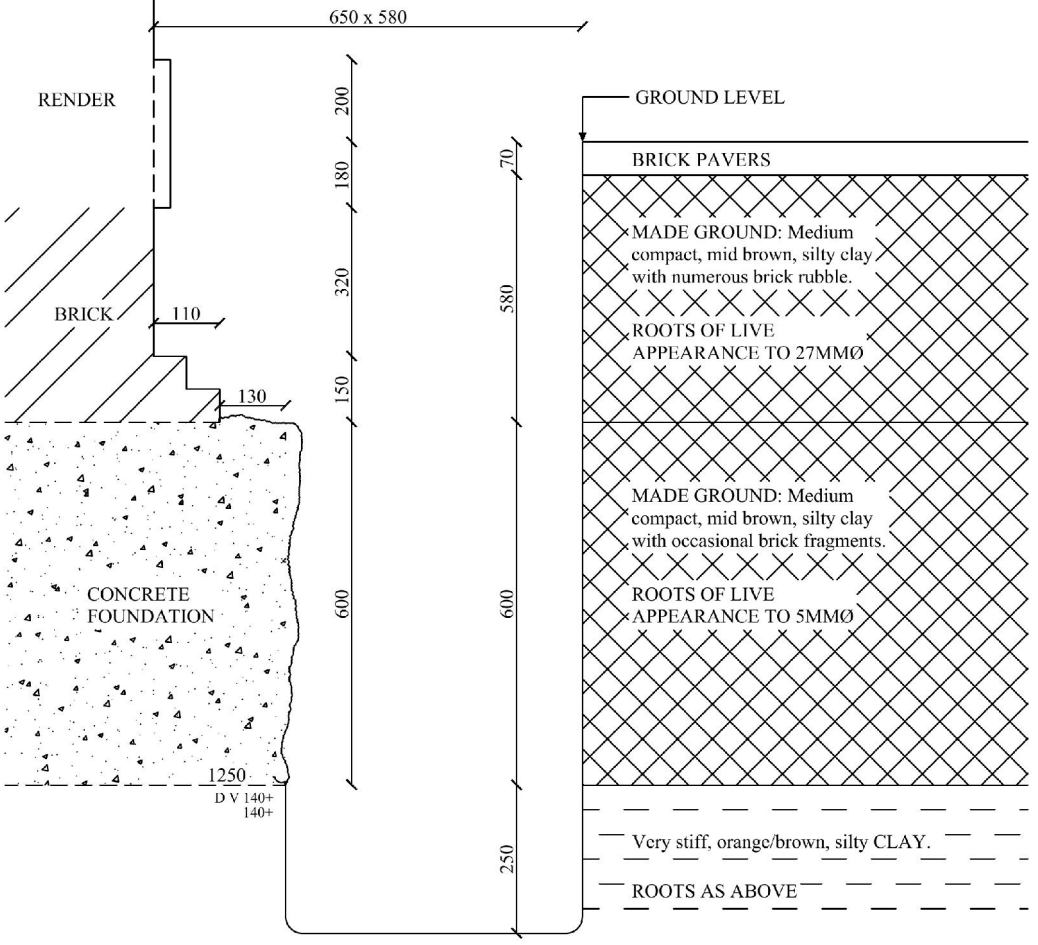
Work carried out for: Crawford Claims MGMT SUS

Hand Tools

Drawn by: KL

Weather: DRY

Ground Level mOD:



FOR STRATA BELOW 1500mm SEE BH LOG 1

Remarks: All measurements in millimetres.

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		

Logged: DB | Checked: SA | Approved:

Scale: N.T.S.

Borehole	1		Sheet:	1 of 1	Site:	38 Steele's Road
			Job No:	[redacted]		
			Date:	10/04/2017		
Boring Method:	Hand Auger		Ground Level:		Client:	Crawfords Claim Management - Repair Net
Diameter (mm):	75	Weather:	Dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	See Trial Pit	1.50				
1.50	Very Stiff orange-brown silty CLAY	1.50		1.50	DV	140+
						140+
				2.00	DV	140+
						140+
				2.50	DV	140+
						140+
3.00	End of BH			3.00	DV	140+
						140+

Remarks:
BH ends at 3.0m .BH dry and open on completion .No roots observed.

Key:

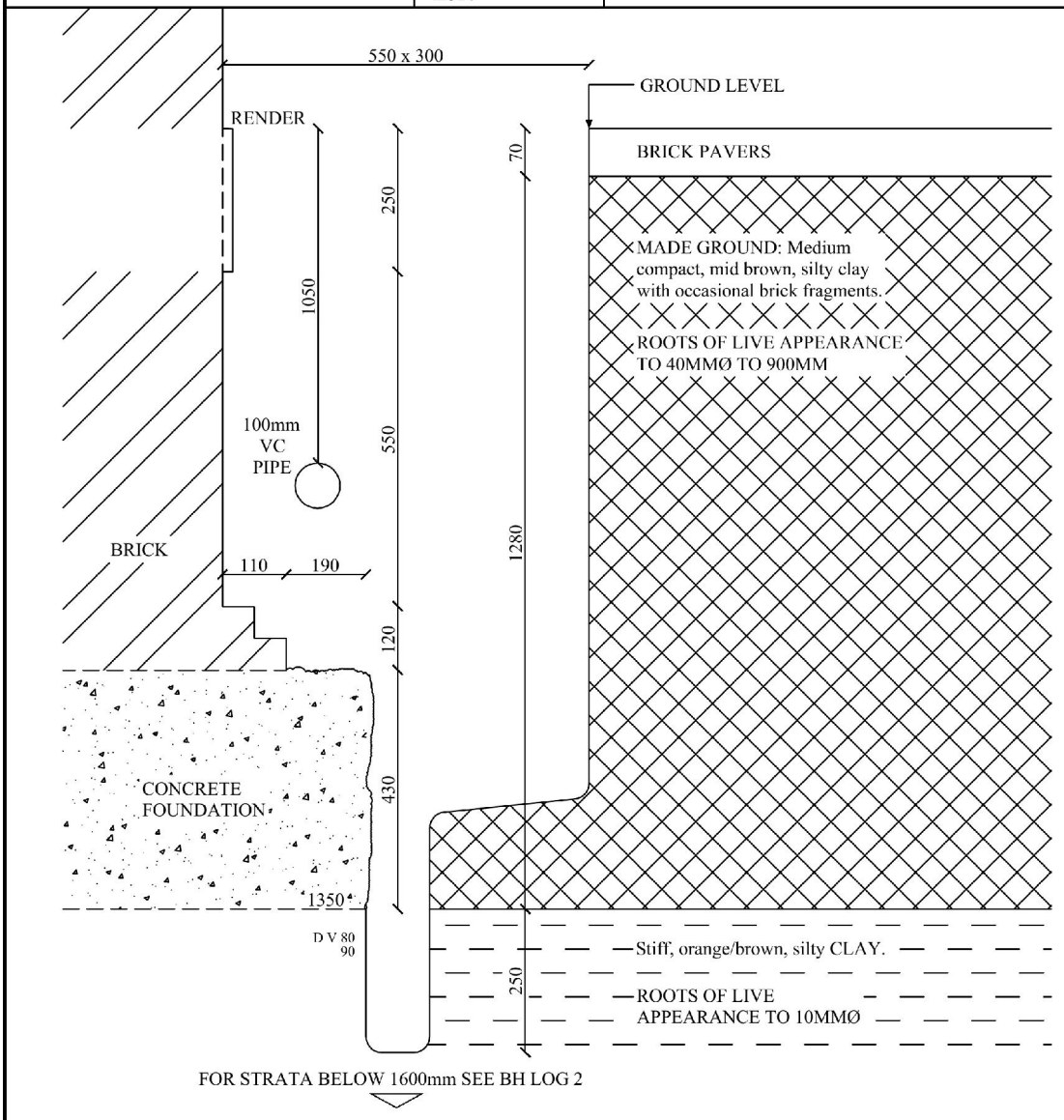
		To Depth (m)	Max Dia (mm)
D - Disturbed Sample			
B - Bulk Sample			
W - Water Sample	Roots		
J - Jar Sample	Roots		
V - Pilcon Shear Vane (kPa	Roots		
M - Mackintosh Probe	Depth to Water (m)		

TDTD - Too Dense To Drive

Logged:	Db	SA	Checked:	Approved:	Version	V1.0 28/01/16	N.T.S.

Trial Pit No: 2

	Sheet: 1 of 1		
	Job No: [redacted]		
	Date: 10/04/2017	Site:	38 Steele's Road, NW3
Hand Tools / Hand Auger	Drawn by: KL	Work carried out for:	Crawford Claims MGMT SUS
Weather: DRY	Ground Level mOD:		



Remarks: All measurements in millimetres.

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		

Logged:	Checked:	Approved:	Scale:
DB	SA		N.T.S.

Borehole	2		Sheet:	1 of 1	Site:	38 Steele's Road
			Job No:	[redacted]		
			Date:	10/04/2017		
Boring Method:	Hand Auger		Ground Level:		Client:	Crawfords Claim Management - Repair Net
Diameter (mm):	75	Weather:	Dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	See Trial Pit	1.60				
1.60	Very Stiff orange-brown silty CLAY	1.40		2.00	DV	140+
						140+
				2.50	DV	140+
						140+
3.00	End of BH			3.00	DV	140+
						140+

Remarks:
BH ends at 3.0m .BH dry and open on completion .No roots observed

Key:

		To Depth (m)	Max Dia (mm)
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

Logged:	Db	SA	Checked:	Approved:	Version	V1.0 28/01/16	N.T.S.

Laboratory Summary Results

Our Ref : [redacted]

Location : 38 Steele's Road, London, NW3 4RG

Client: Crawford Claims Management

Address: [redacted]

Date Sampled: 10/04/17

Date Received : 18/04/17

Date Tested : 19/04/17

Date of Report : 03/05/17

Sample Ref TP/BH No	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) SO_3 [14]	Sulphate Content * (g/l) SO_4 [15]	* Class [16]
1	U/S 1.25	D	28	<5	75	26	49	0.03	49	CV	168	312			> 140					
	1.5	D	27	<5							168	390			> 140					
	2.0	D	29	<5	73	25	48	0.08	48	CV	168	280			> 140					
	2.5	D	31	<5							168	254			> 140					
	3.0	D	32	<5	78	30	48	0.03	48	CV	168	208			> 140					

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] BRE Digest 240 : 1993

[7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils.

[8] In-house method S9a adapted from BRE IP 4/93

[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 Pilcon hand vane or Geonor 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] $SO_4 = 1.2 \times SO_3$

[16] BRE Special Digest One (Concrete in Aggressive Ground) August 2005 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-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
UIS	Underside of Foundation

Version: 5BH V1.4 - 11/05/15

UKAS TESTING 8618

[redacted]

Our Ref : [redacted]

Laboratory Testing Results

Date Sampled : 10/04/17

Location : 38 Steele's Road, London, NW3 4RG

Date Received : 18/04/17

Client: Crawford Claims Management

Date Tested : 19/04/17

Address: [redacted]

Date of Report : 03/05/17

Sample Ref. TP/BH No.	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) SO_3 [14]	Sulphate Content * (g / l) SO_4 [15]	* Class [16]
2	U/S 1.35	D	28	<5	75	25	50	0.06	50	CV	168	105			85					
	2.0	D	26	<5	80	26	54	0.01	54	CV	168	474			> 140					
	2.5	D	26	<5							168	482			> 140					
	3.0	D	27	<5	74	25	49	0.04	49	CV	168	392			> 140					

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] BRE Digest 240 : 1993

[7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils

[8] In-house method S86 adapted from BRE IP 4/93

[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 Pilcon hand vane or Geonor 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] $SO_4 = 1.2 \times SO_3$

[16] BRE Special Digest One (Concrete in Aggressive Ground) August 2005

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-4M or DS-5M class respectively unless water-soluable 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
FNP	Essentially Non-Plastic by inspection
UIS	Underside of Foundation

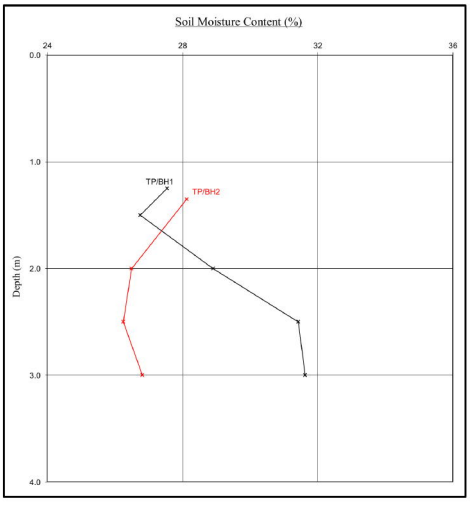
[redacted]

Version: 5BH V1.4 - 11/05/15

8618

Moisture Content Profiles

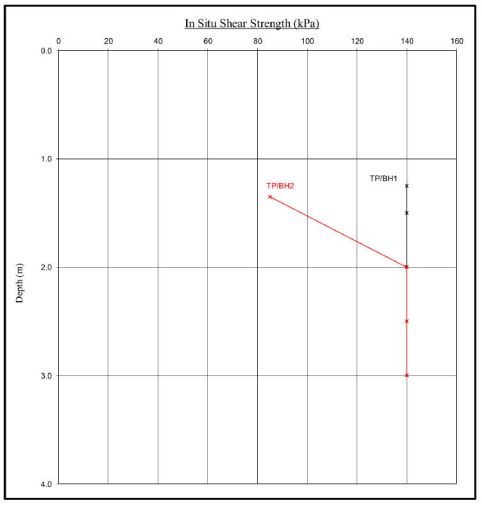
Our Ref : [redacted]
Location : 38 Steele's Road, London, NW3 4RG
Work carried out for: Crawford Claims Management



Notes
1. If plotted, 0.4 LL 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.

Shear Strength Profiles

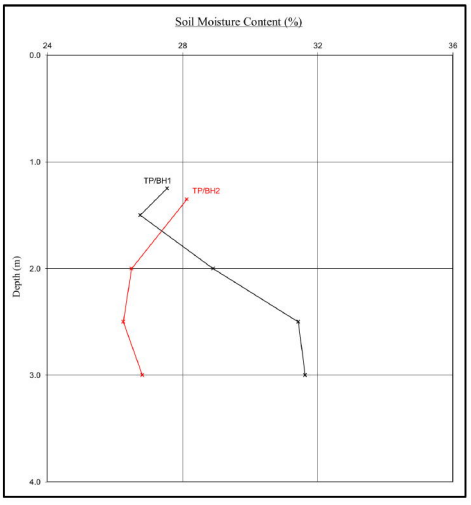
Date Sampled : 10/04/17
Date Received : 18/04/17
Date Tested : 19/04/17
Date of Report : 03/05/17



Note
1. Unless otherwise stated, values of Shear Strength were determined in situ by CET using a Pilcon Hand Vane the calibration of which is limited to a maximum reading of 140 kPa.
2. Unless specifically noted the profiles have not been related to a site datum.

Moisture Content Profiles

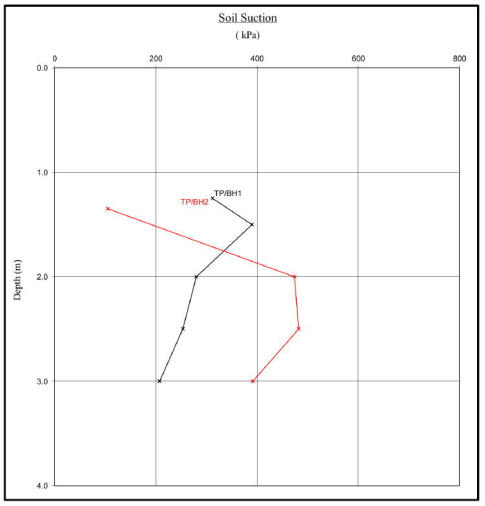
Our Ref : [redacted]
Location : 38 Steele's Road, London, NW3 4RG
Work carried out for: Crawford Claims Management



Notes
1. If plotted, 0.4 LL 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 : 10/04/17
Date Received : 18/04/17
Date Tested : 19/04/17
Date of Report : 03/05/17



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.

EPSL ***European Plant Science Laboratory***	Sheet: 1 of 1 Job No: [redacted] Date: **13/04/2017** Order No: [redacted] EPSL Ref: [redacted]	Site: **38 Speeles Road, London, NW3** Work carried out for: **Crawford Claims MGMT SUS**

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 -

Trial pit/ Borehole number	**Root diameter (mm)**	**Tree, shrub or climber from which root originates**	**Result of starch test**
TP1 (USF)	3 mm	Acer spp.	Positive
TP1 (USF)	5 mm	Betula spp. 4 roots	Positive
TP2 (USF)	10 mm	Acer spp. 5 roots	Positive

Acer spp. are maples, including sycamore, Norway maple, and Japanese maples.
Betula spp. are birches.

[redacted] MDM

[redacted] DPA

[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 D P Aebischer B.Sc. (Hons), M.Sc., Ph.D
Consultant: Dr M P Denne B.Sc. (Hons), M.Sc., Ph.D

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