PROPERTY ASSURANCE
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SITE INVESTIGATION
FACTUAL REPORT

Report No:	263080
Client:	Crawford Claims Management
Site:	9 Rosslyn Hill, London
Client Ref:	SU1300377-
Date of Visit:	21/04/2015

ISO 9001 REGISTERED FIRM
ISO 14001 REGISTERED FIRM
OHSAS 18001 REGISTERED FIRM
Link-up Qualified via Audit
SAFEcontractor APPROVED
CHAS Accredited Contractor
constructionline

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

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Investigation Layout Plan

Sheet: 1 of 1

Job No: 263080E

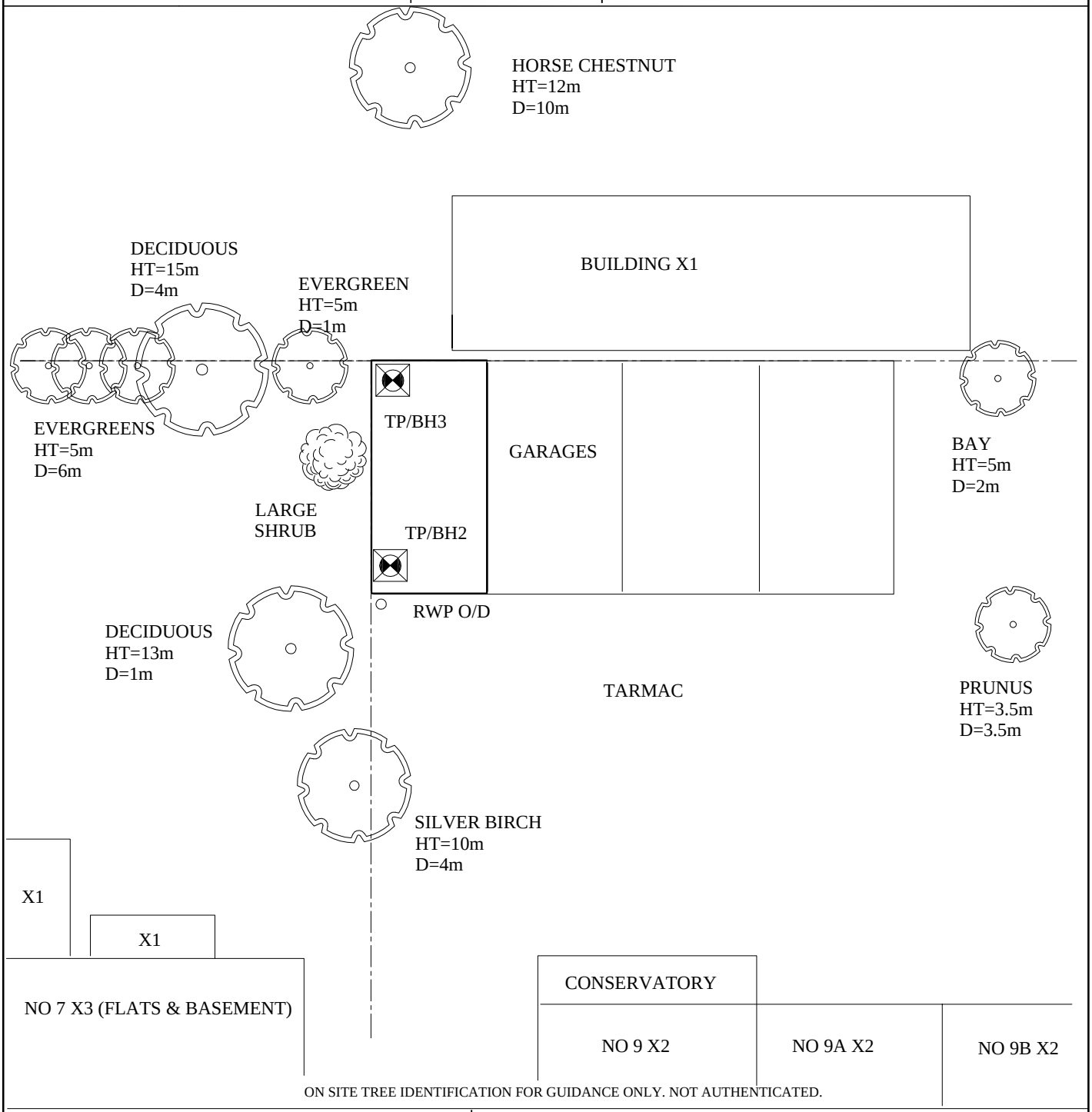
Date: 21.04.15

Site: 9 Rosslyn Hill, London NW3

Work carried out for: Crawford Claims Management Ltd

MH	SE	DVC
(SI)	(Checked)	(Drawn)

Weather: N/A



ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.

Remarks:

Scale: N.T.S.

Key:

Combined Gulley	RWWG	Surface Water Drain	
Manhole	MH	Foul Water Drain	
Rain Water Pipe	RWP	Tree / Bush (approx. ht in m)	
Rain Water Gulley	RWG		
Soil Vent Pipe	SVP	Trial Pit	
Waste Gulley	WG	Borehole	
Waste Pipe	WP		

Trial Pit No: 2
Internal

Sheet: 1 of 1

Job No: 263080E

Date: 21.04.15

Site: 9 Rosslyn Hill, London NW3

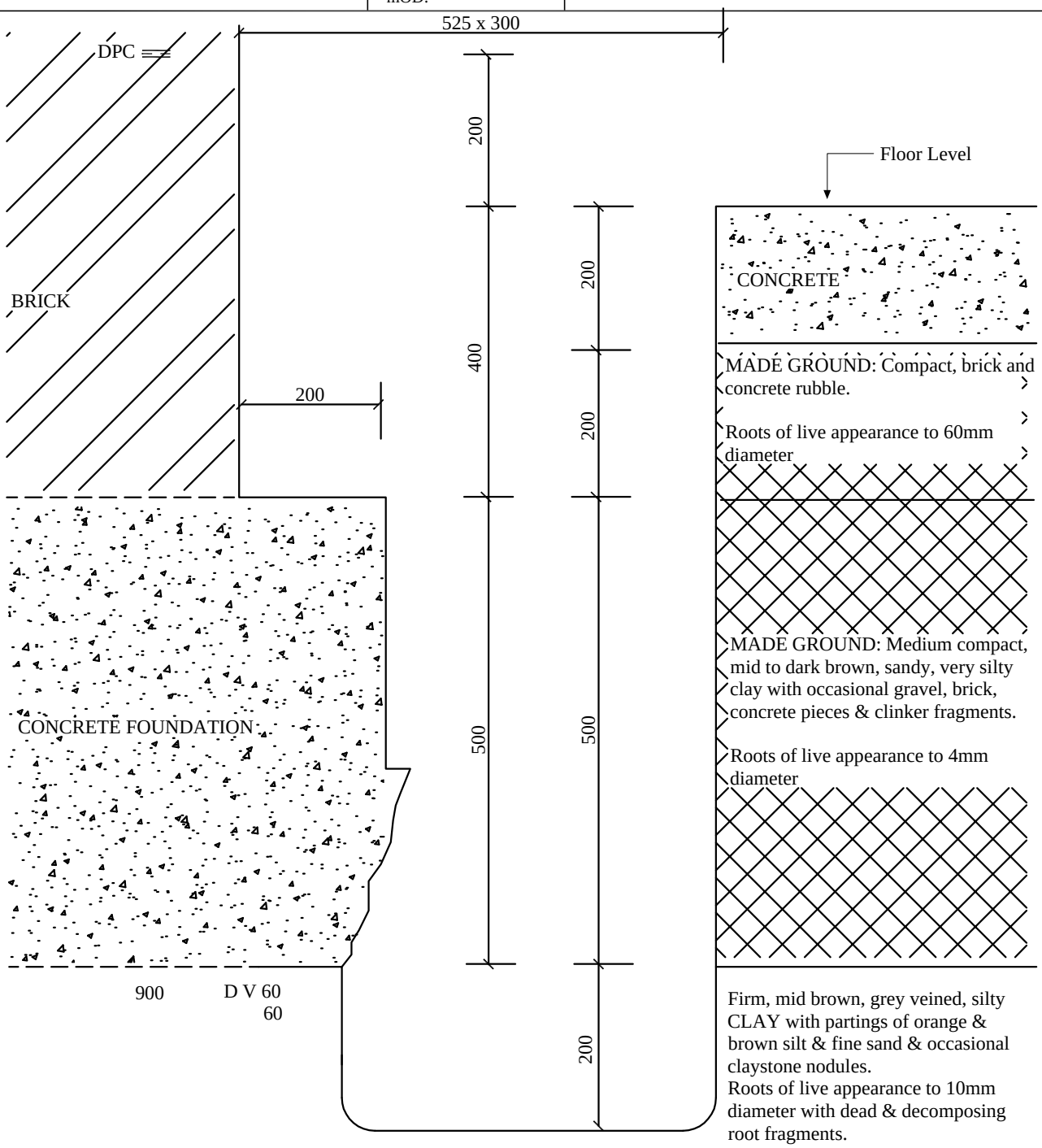
Excavation Method: Hand Tools

Drawn by: DVC

Work carried out for: Crawford Claims Management Ltd

Weather: N/A

Ground Level mOD:



FOR STRATA BELOW 1100mm SEE BH LOG 2

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: MH | Checked: SE | Approved: | Scale: N.T.S.

Borehole No: 2

Sheet: 1 of 1

Job No: 263080E

Site: 9 Rosslyn Hill

Boring Method: Hand Auger

Date: 21.04.15

Diameter: 75mm

Coordinates:

Ground Level mOD:

Work Carried out for: Crawford Claims Management Ltd

Depth (m)	Description of Strata	Thick-ness (m)	Legend	Sample	Test Type	Test Result	Depth (m)	Field Records/Comments	Depth to water (m)
	As Trial Pit 2	1.10							
1.10								Roots of live appearance to 1mm diameter to 2.2m	
	Stiff, mid brown, grey veined, silty CLAY with partings of orange & brown silt & fine sand & occasional claystone nodules	1.10		D	V	86 94	1.50		
				D	V	102 110	2.00		
2.20								Dead & decomposing root fragments to 3m	
	Stiff, as above, with occasional crystals.	0.80		D	V	112 122	2.50		
3.00				D	V	130+ 130+	3.00		
	Borehole ends at 3m								

Remarks: Borehole dry and open on completion

Key: T.D.T.D. Too Dense to Drive

D Small disturbed sample J Jar sample

B Bulk disturbed sample V Pilcon Vane (kPa)

W Water sample M Mackintosh Probe

Logged: MH Checked: SE Typed by: DVC Scale: NTS Weather: N/A

Trial Pit No: 3
Internal

Sheet: 1 of 1

Job No: 263080E

Date: 21.04.15

Site: 9 Rosslyn Hill, London NW3

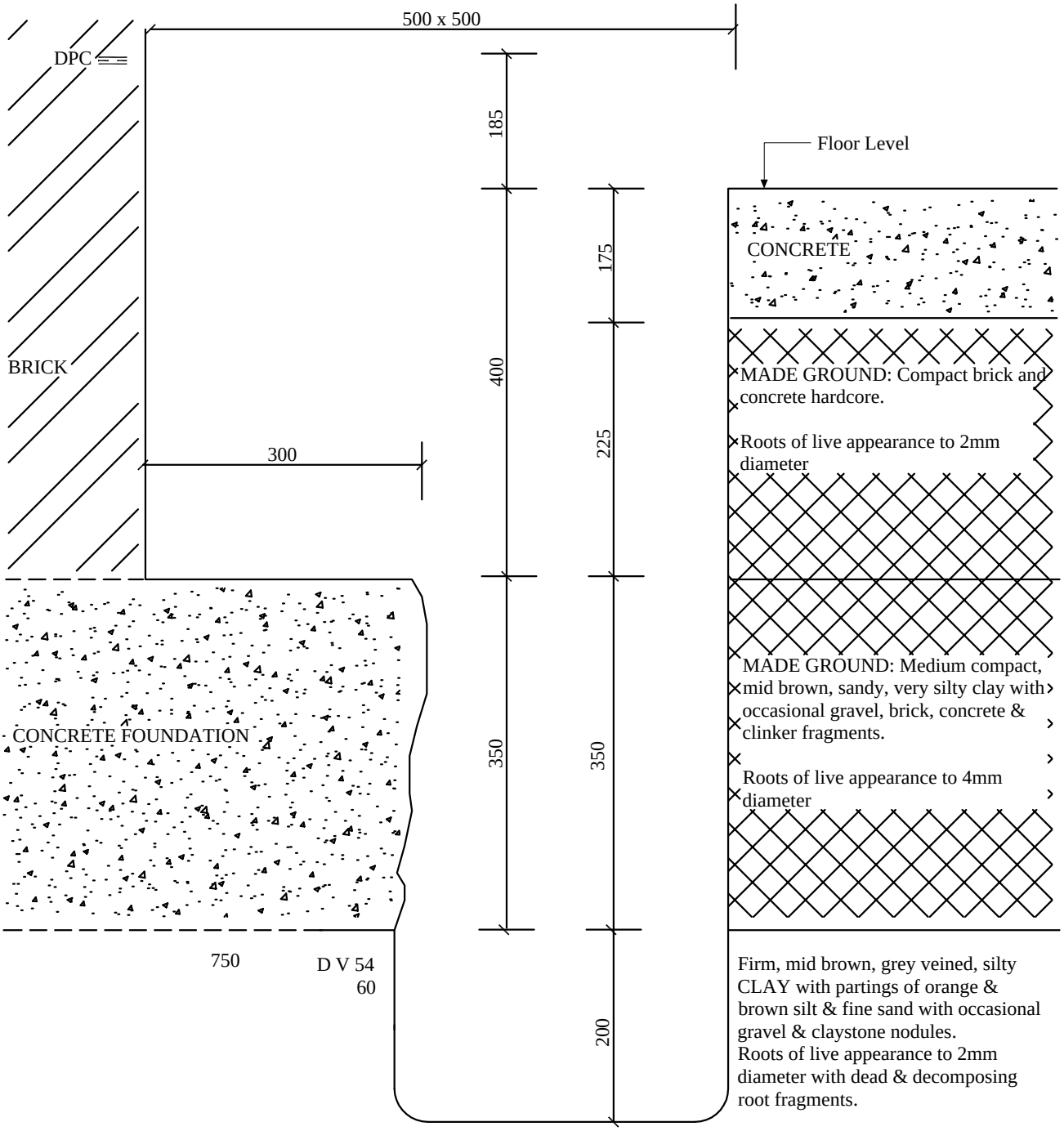
Work carried out for: Crawford Claims Management Ltd

Excavation Method: Hand Tools

Drawn by: DVC

Weather: N/A

Ground Level mOD:



FOR STRATA BELOW 950mm SEE BH LOG 3

Remarks: All measurements in millimetres.

Both foundations are similar

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: MH | Checked: SE | Approved: | Scale: N.T.S.

Borehole No: 3

Sheet: 1 of 1

Job No: 263080E

Site: 9 Rosslyn Hill

Boring Method: Hand Auger

Date: 21.04.15

Diameter: 75mm

Coordinates:

Ground Level mOD:

Work Carried out for: Crawford Claims Management Ltd

Depth (m)	Description of Strata	Thick-ness (m)	Legend	Sample	Test Type	Test Result	Depth (m)	Field Records/Comments	Depth to water (m)
	As Trial Pit 3	0.95							
0.95	Firm, mid brown, grey veined, silty CLAY with partings of orange & brown silt & fine sand & occasional claystone nodules.	0.25		D	V	74 74	1.00	Roots of live appearance to 1.5mm diameter to 2m	
1.20	Stiff, as above.	0.50		D	V	112 120	1.50		
1.70	Stiff, mid brown, grey veined, silty CLAY with partings of orange & brown silt & fine sand, occasional claystone nodules and crystals.	1.30		D	V	130+ 130+	2.00	Roots of live appearance to 1mm diameter to 2.5m	
				D	V	130+ 130+	2.50	Dead & decomposing root fragments to 3m	
3.00	Borehole ends at 3m			D	V	120 124	3.00		

Remarks:

Borehole dry and open on completion

Key: T.D.T.D. Too Dense to Drive

D Small disturbed sample

B Bulk disturbed sample

W Water sample

J Jar sample

V Pilcon Vane (kPa)

M Mackintosh Probe

Logged: MH

Checked: SE

Typed by: DVC

Scale: NTS

Weather: N/A

Our Ref : 263080

Laboratory Testing Results

Date Sampled: 21/04/2015

Location : 9, Rosslyn Hill, London

Date Received : 22/04/2015

Work carried out for: Crawford Claims Management

Date Tested : 23/04/2015

Date of Report : 08/05/2015

Sample Ref		Type	Moisture Content	Soil Fraction	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Modified Plasticity Index	Soil Class	Filter Paper Contact Time	Soil Sample Suction	In situ Shear Vane Strength	Organic Content	pH Value	Sulphate Content (g / l)		Class
TP/BH No	Depth (m)		(%) *[1]*	> 0.425mm (%) *[2]*	(%) *[3]*	(%) *[4]*	(%) *[5]*	*[5]*	(%) [6	*[7]*	(h) *[8]*	(kPa)	(kPa) *[9]*	(%)*[10]*	*[11]*	SO_3 *[12]*	SO_4 *[13]*	*[14]*
2	0.90(U/S)	D	34	<5	72	27	45	0.17	45	CV	168	150	60					
	1.5	D	32	<5							168	381	90					
	2.0	D	34	<5	82	29	53	0.10	53	CV	168	345	106					
	2.5	D	33	<5							168	364	117					
	3.0	D	30	<5	74	25	49	0.09	49	CV	168	371	> 130					

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] Values of shear strength were determined in situ by CET using a Pilcon hand vane or Geonor vane (GV).

[10] BS 1377 : Part 3 : 1990, Test No 4

[11] BS 1377 : Part 2 : 1990, Test No 9

[12] BS 1377 : Part 3 : 1990, Test No 5.6

[13] $SO_4 = 1.2 \times SO_3$

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

Note that if the SO_4 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

Key

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

Our Ref : 263080

Laboratory Testing Results

Date Sampled : 21/04/2015

Location : 9, Rosslyn Hill, London

Work carried out for: Crawford Claims Management

Date Received : 22/04/2015

Date Tested : 23/04/2015

Date of Report : 08/05/2015

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TP/BH No.	Depth (m)		(%) *[1]*	> 0.425mm (%) *[2]*	(%) *[3]*	(%) *[4]*	(%) *[5]*	*[5]*	(%) [6	*[7]*	(h) *[8]*	(kPa)	(kPa) *[9]*	(%)*[10]*	*[11]*	SO_3 *[12]*	SO_4 *[13]*	*[14]*
3	0.75(U/S)	D	25	<5	65	19	46	0.13	46	CH	168	101	57					
	1.0	D	31	<5							168	356	74					
	1.5	D	27	<5							168	928	116					
	2.0	D	30	<5	84	28	56	0.03	56	CV	168	841	> 130					
	2.5	D	32	<5							168	657	> 130					
	3.0	D	34	<5	84	31	53	0.05	53	CV	168	514	122					

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

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

Moisture Content and Suction Profiles

Our Ref : 263080

Location : 9, Rosslyn Hill, London

Work carried out for: Crawford Claims Management

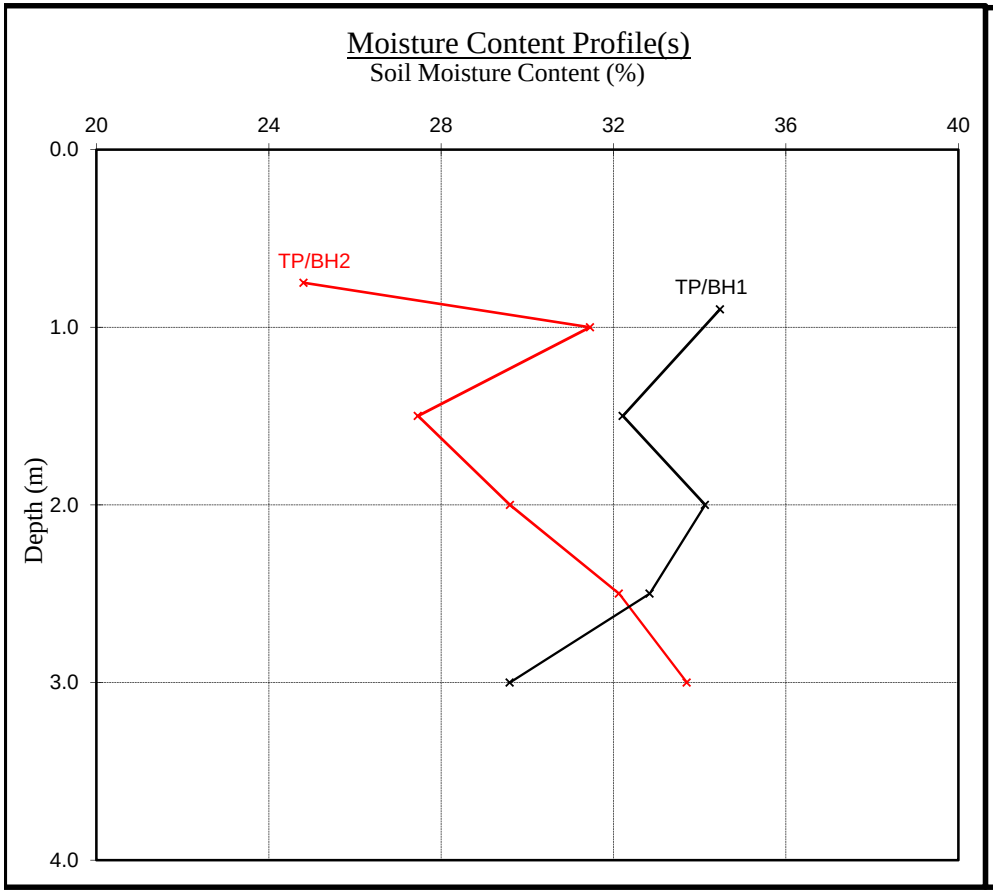
Note : Unless specifically noted the profiles have not been related to a site datum.

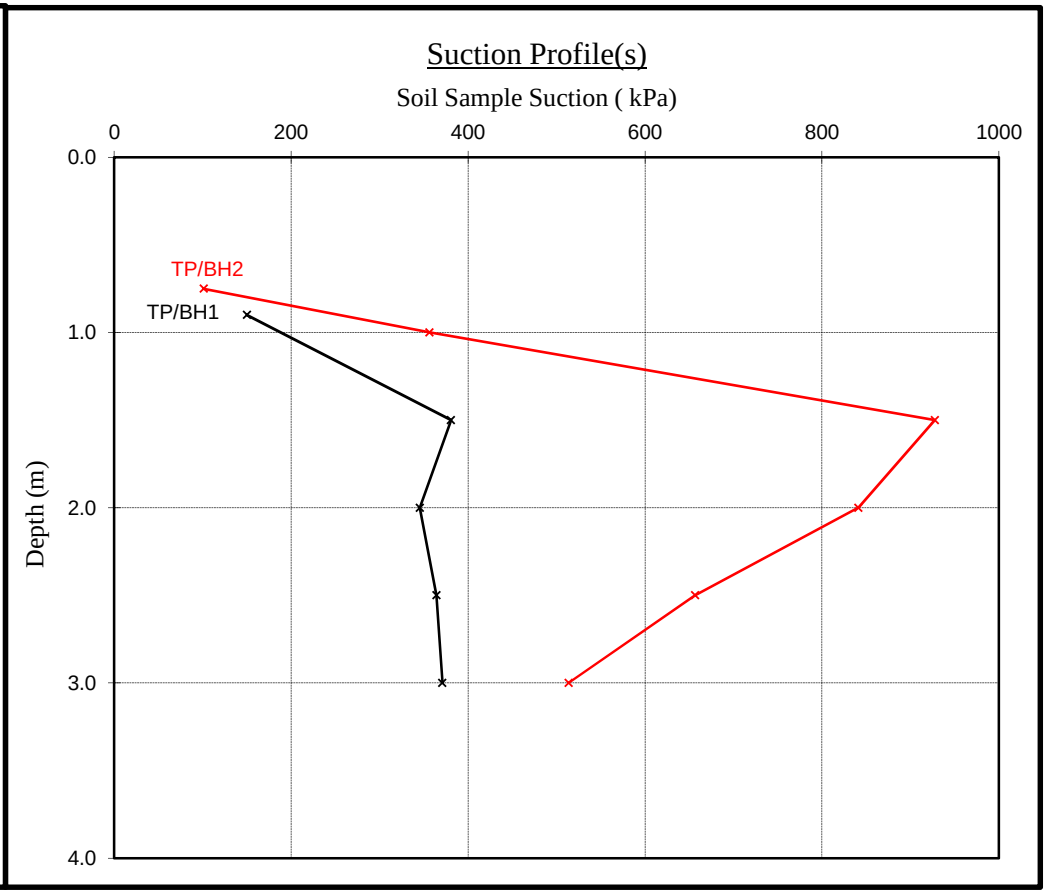
Date Sampled : 21/04/2015

Date Received : 22/04/2015

Date Tested : 23/04/2015

Date of Report : 08/05/2015





Notes

1. If plotted, 0.4 LL and PL+2 (after Driscoll, 1983) should only be applied to London Clay (and similarly overconsolidated clays) at shallow depths.

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.

Moisture Content and Shear Strength Profiles

Our Ref : 263080

Location : 9, Rosslyn Hill, London

Work carried out for: Crawford Claims Management

Note : Unless specifically noted the profiles have not been related to a site datum.

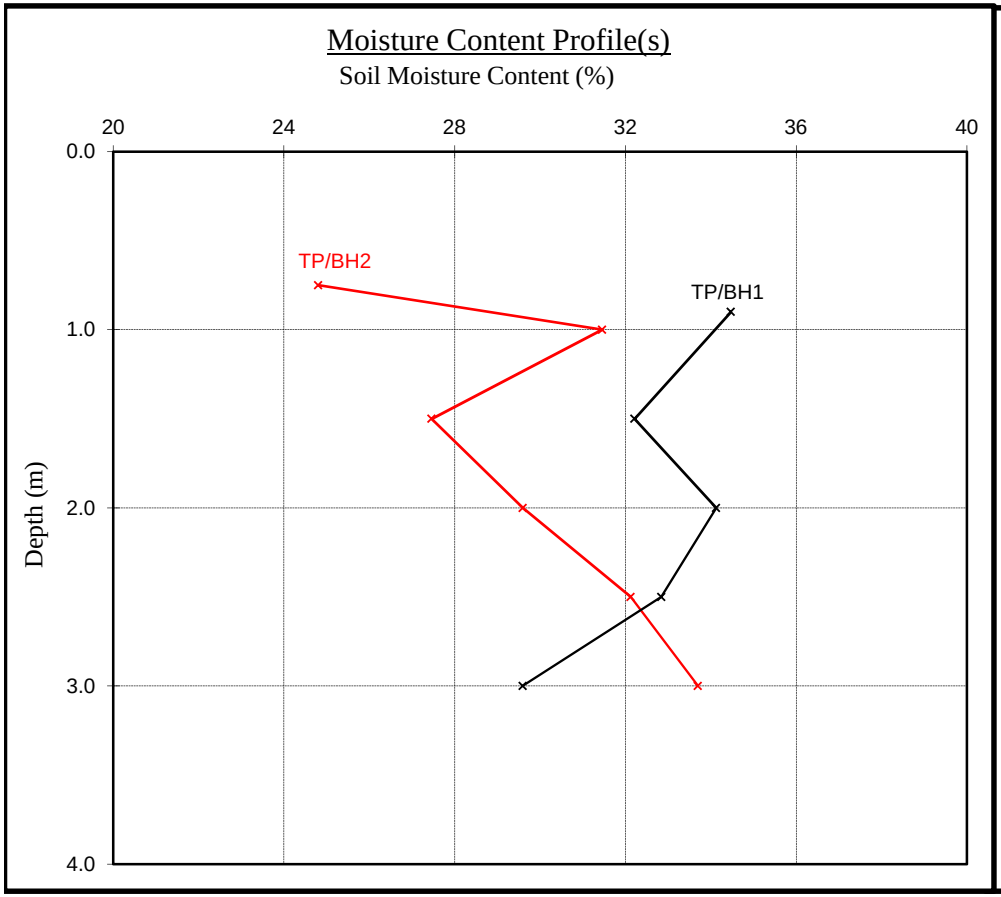
Date Sampled : 21/04/2015

Date Received : 22/04/2015

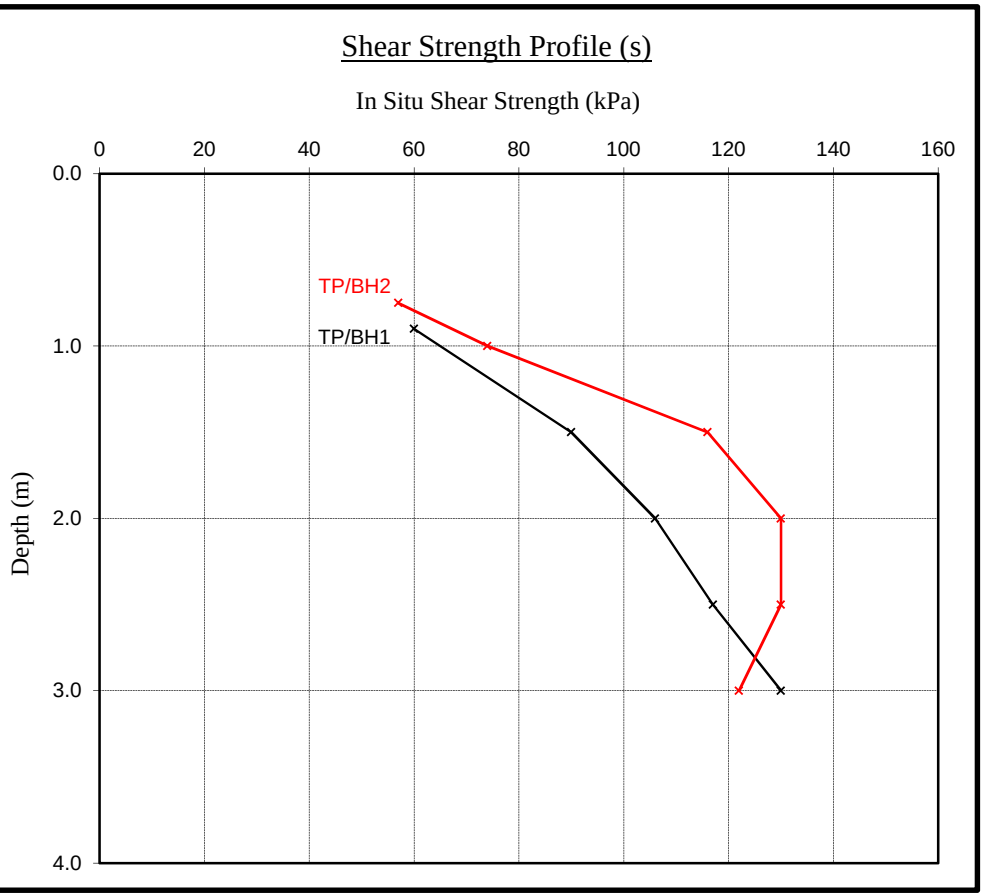
Date Tested : 23/04/2015

Date of Report : 08/05/2015

Moisture Content Profile(s)



Shear Strength Profile (s)



Notes

1. If plotted, 0.4 LL and PL+2 (after Driscoll, 1983) should only be applied to London Clay (and similarly overconsolidated clays) at shallow depths.

Note

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 130 kPa.

Moisture Content and Suction Profiles

Our Ref : 263080

Location : 9, Rosslyn Hill, London

Work carried out for: Crawford Claims Management

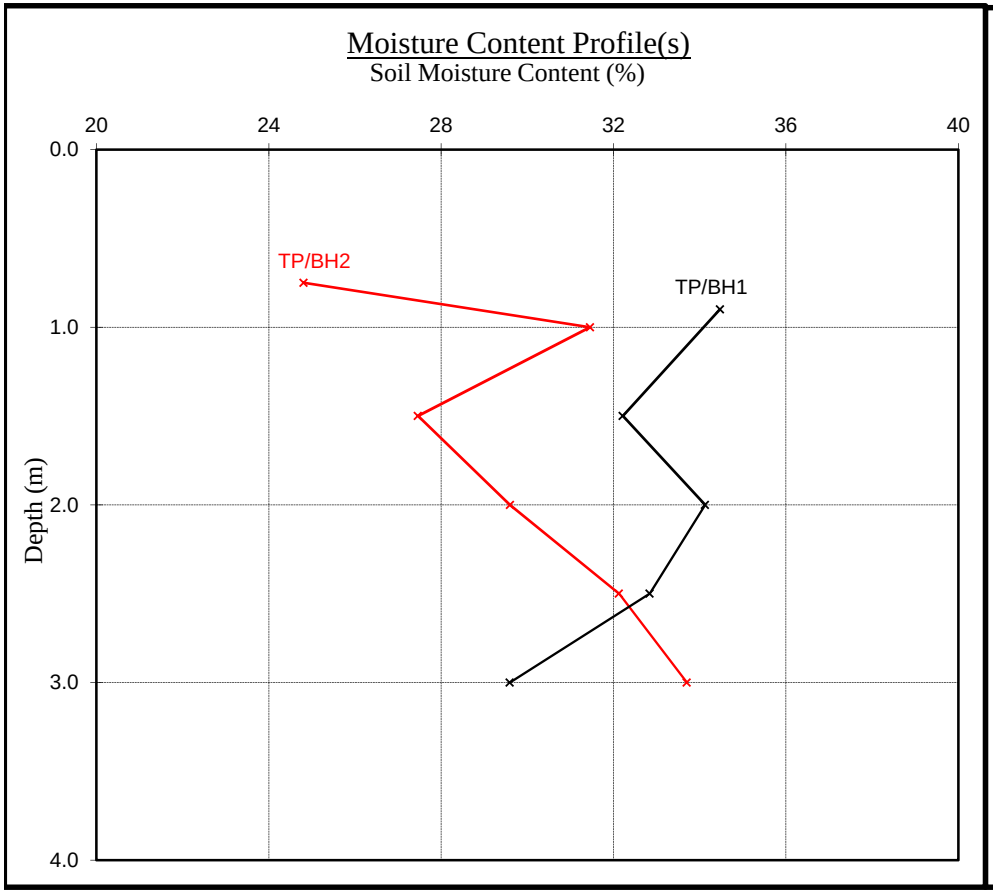
Note : Unless specifically noted the profiles have not been related to a site datum.

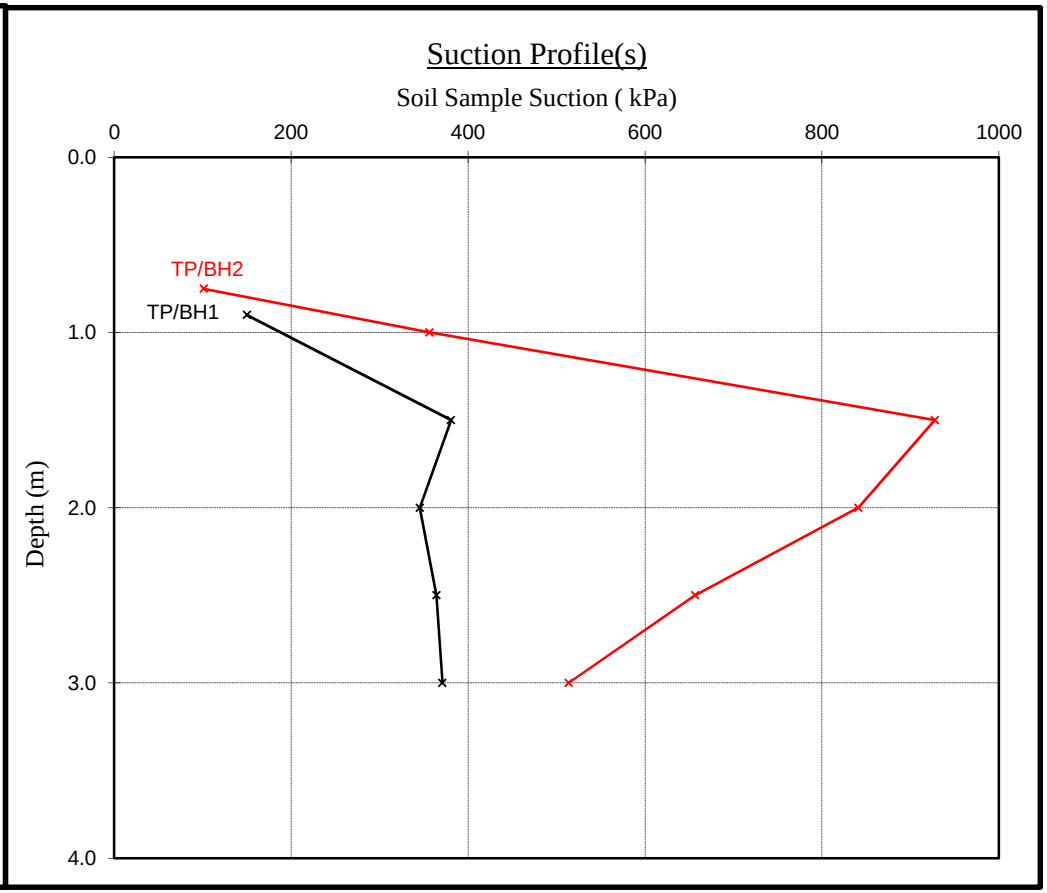
Date Sampled : 21/04/2015

Date Received : 22/04/2015

Date Tested : 23/04/2015

Date of Report : 08/05/2015





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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: **263080**
Date: **23/04/2015**
Order No: **695234**

EPSL Ref: **R11334**

Site: **9 Rosslyn Hill, 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
TP2 (USF)	5 mm	Acer spp. 2 roots	Positive
TP2 (USF)	10 mm	Fraxinus spp. 3 roots	Positive
BH2 (to 2.2m)	<1 mm	Acer spp.	Positive
BH2 (to 2.2m)	1 mm	Fraxinus spp. 2 roots	Positive
TP3 (USF)	2 mm	Tilia spp. 5 roots	Positive
BH3 (to 2.0m)	1.5 mm	Tilia spp. 4 roots	Positive
BH3 (to 2.5m)	<1 mm	probably Acer spp. *	Negative

* Rather juvenile & decayed.

Acer spp. are maples, including sycamore, Norway maple, and Japanese maples.
Fraxinus spp. include common ash.
Tilia spp. are limes.

MDM

M.P.Denne

MPD

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