SITE INVESTIGATION
FACTUAL REPORT

Report No:	377279
Client:	Crawford Claims Management
Site:	31 Heath Hurst Road, London
Client Ref:	1308651-
Date of Visit:	27/09/16

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

Unit E2 First Floor Suite, Boundary Court
Willow Farm Business Park, Castle Donington
Leicestershire, DE74 2NN

☎ 0843 2272362
✉ enquiries@cet-uk.com
www.cet-uk.com

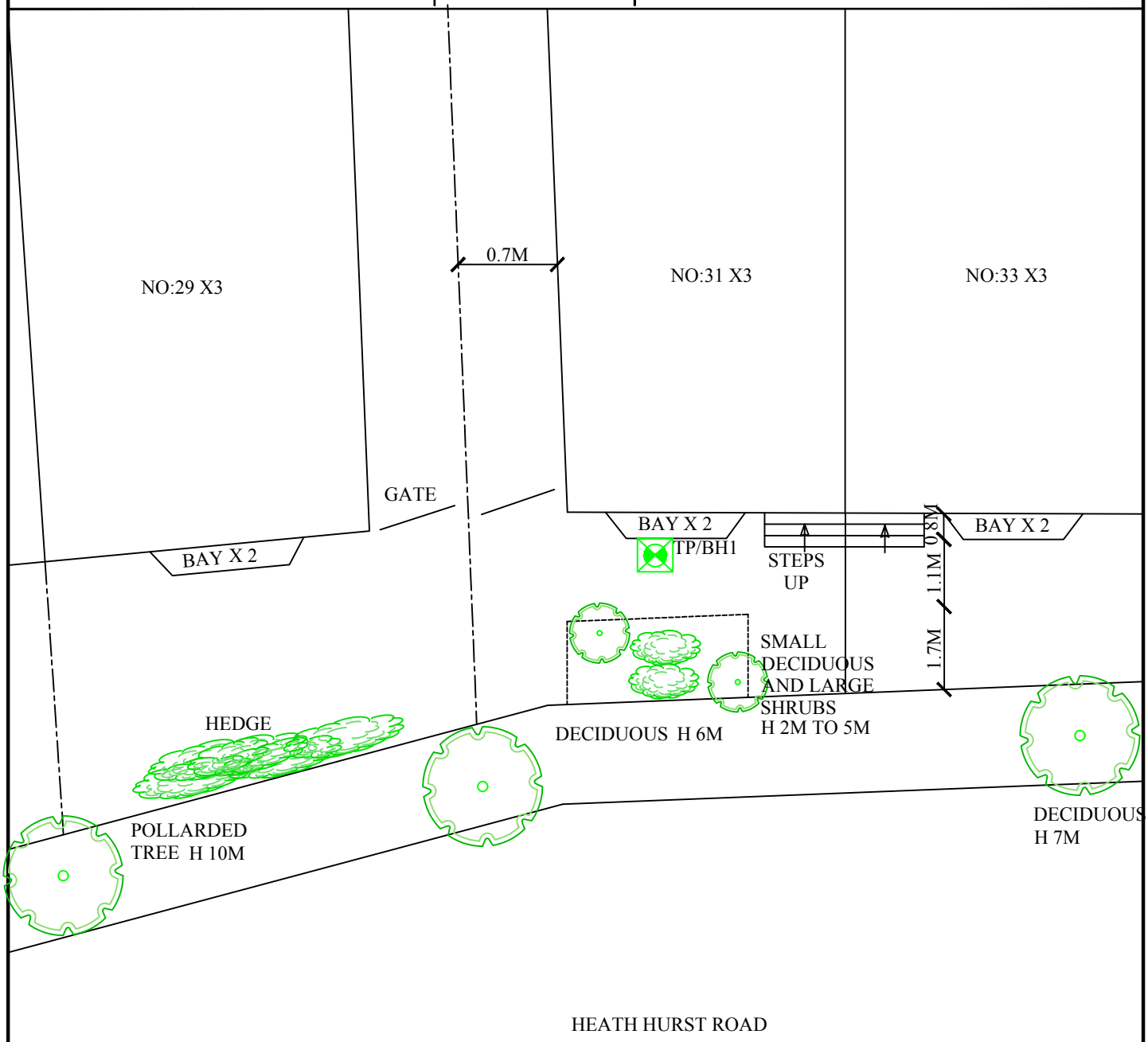
Investigation Layout Plan

Sheet: 1 of 1
Job No: 377279
Date: 27/09/2016

Site: 31 Heath Hurst Road
Work carried out for: Crawford Claims MGMT SUS

MH (SI) | SA (Checked) | CW (Drawn)

Weather: DRY



ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.

Remarks: WATER SUPPLY FORM OUTSIDE TAP.
POWER INTERNAL.
PARKING ON ROAD (PERMIT).
SITE ACCESS GOOD.

Scale: N.T.S.

Key:

Combined Gulley	RWWG
Manhole	MH
Rain Water Pipe	RWP
Rain Water Gulley	RWG
Soil Vent Pipe	SVP
Waste Gulley	WG
Waste Pipe	WP

Surface Water Drain
Foul Water Drain
Tree / Bush (approx. ht in m)
Trial Pit
Borehole
O/D - Open Discharge

Trial Pit No: 1

Sheet: 1 of 1

Job No: 377279

Date: 27/9/16

Site: 31 Heath Hurst Road

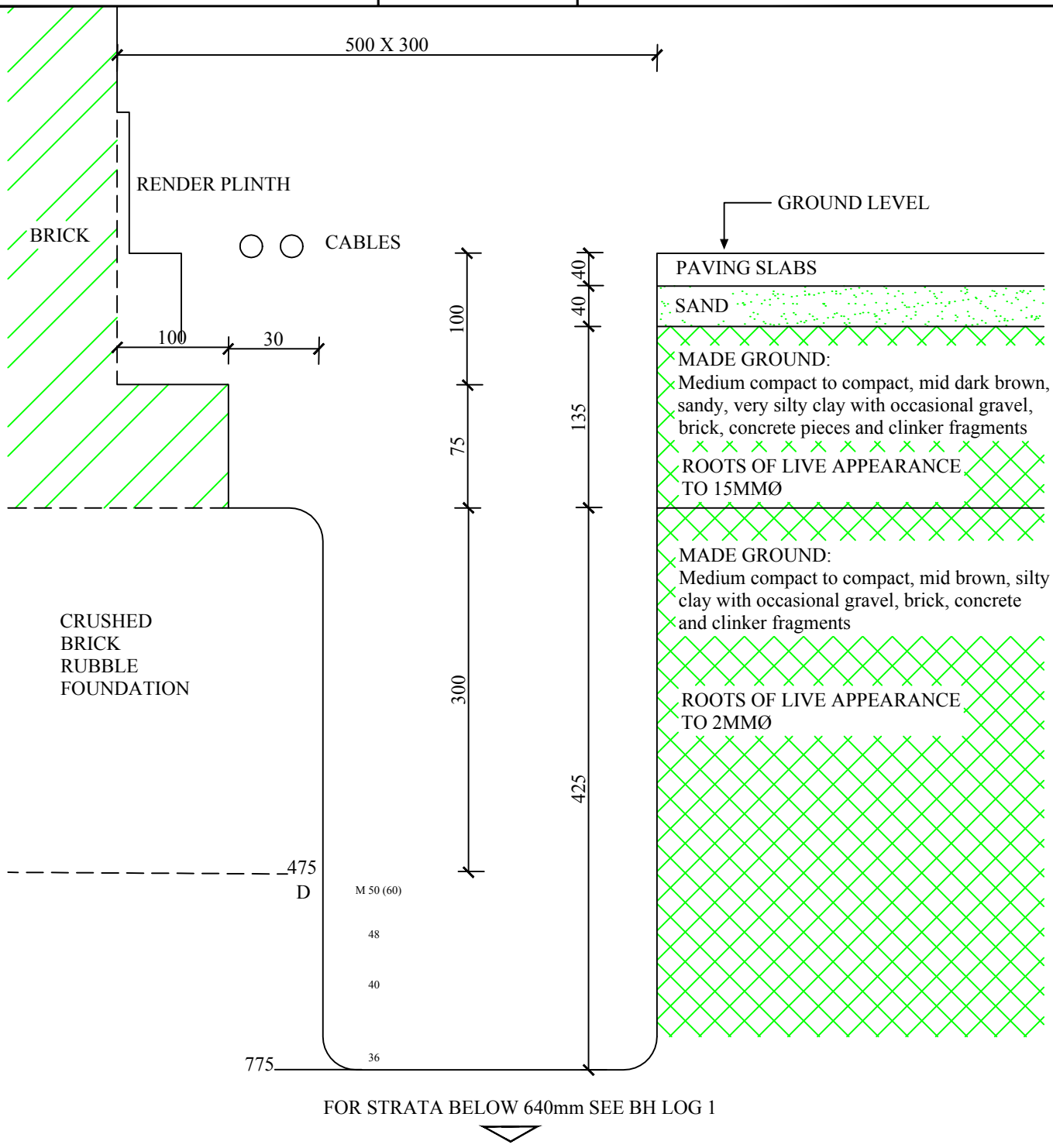
Work carried out for: Crawford Claims MGMT SUS

Hand Tools

Drawn by: SDL

Weather: DRY

Ground Level mOD:



FOR STRATA BELOW 640mm 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: MH | Checked: SA | Approved: | Scale: N.T.S.

Borehole	1		Sheet:	1 of 1	Site:	31 Heath Hurst Road
			Job No:	377279		
			Date:	27/09/2016		
Boring Method:	Rotary Auger		Ground Level:		Client:	Crawford Claims Management
Diameter (mm):	100	Weather:	Dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	See Trial Pit	0.60				
0.60	Stiff orange-brown silty CLAY	1.80		1.00	DV	90
						94
				1.50	D	
				2.00	DV	130
						120
2.40	Very Stiff orange-brown silty CLAY	0.60		2.50	D	
3.00	End of BH			3.00	DV	140+
						140+

Remarks:
BH ends at 3.0m. BH dry and open on completion. Hair and fibrous roots to 1.3m dead and decomposing roots to 3.0m.

Key:

		To Depth (m)	Max Dia (mm)
D - Disturbed Sample			
B - Bulk Sample			
W - Water Sample	Roots	1.30	1
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 : 377279

Date Sampled: 27/09/16

Location : 31, Heath Hurst Road, NW3

Date Received : 28/09/16

Client: Crawford Claims Management

Date Tested : 29/09/16

Address: Cartwright House, Tottle Road, Riverside Business Park, NG2 1RU

Date of Report : 11/10/16

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 0.475	D	33	9	85	28	57	0.10	52	CV	Not suitable for suction testing - Made ground									
	1.0	D	34	<5	81	30	51	0.08	51	CV	168	269			92					
	1.5	D	33	<5							168	222								
	2.0	D	35	<5	83	28	55	0.13	55	CV	168	211			125					
	2.5	D	37	<5							168	238								
	3.0	D	33	<5	81	28	53	0.10	53	CV	168	196			> 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 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
ENP	Essentially Non-Plastic by inspection
U/S	Underside of Foundation

UKAS TESTING

8618

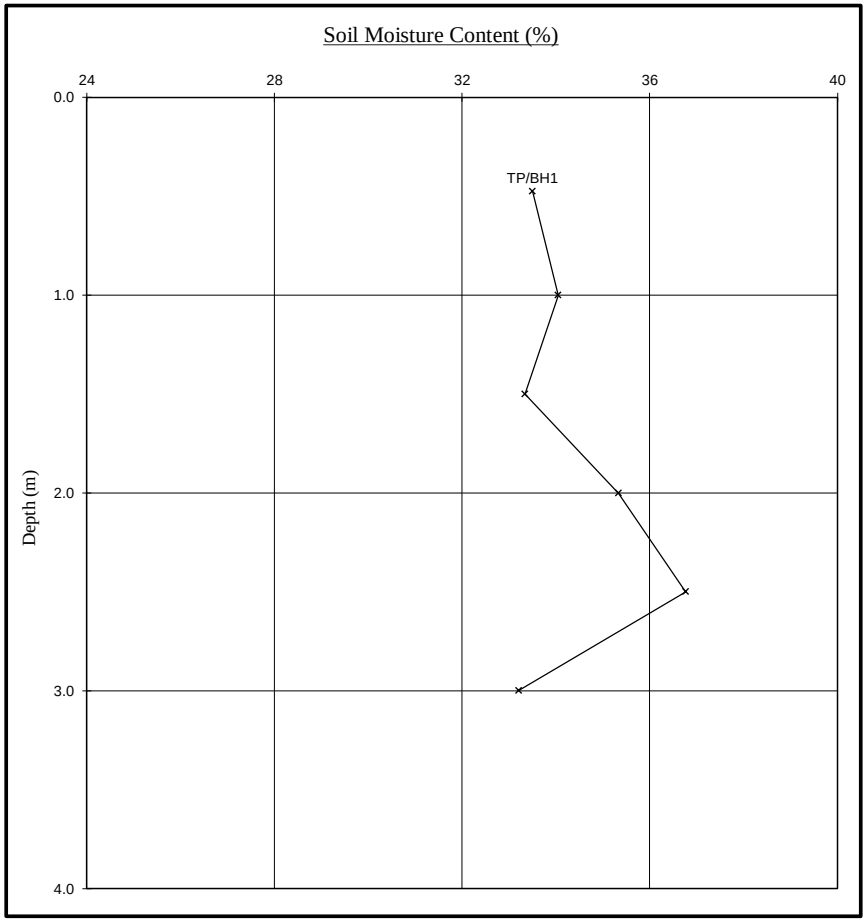
Version: 5BH V1.4 - 11/05/15

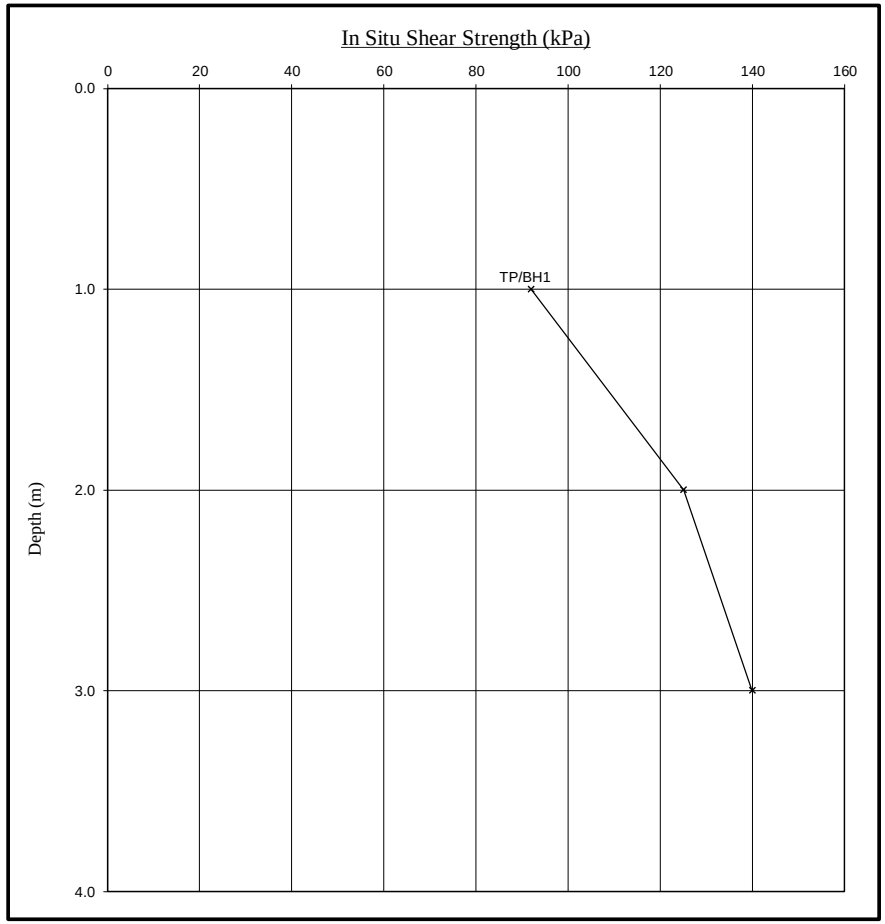
Moisture Content Profiles

Shear Strength Profiles

Our Ref : 377279
Location : 31, Heath Hurst Road, NW3
Work carried out for: Crawford Claims Management

Date Sampled : 27/09/16
Date Received : 28/09/16
Date Tested : 29/09/16
Date of Report : 11/10/16





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.

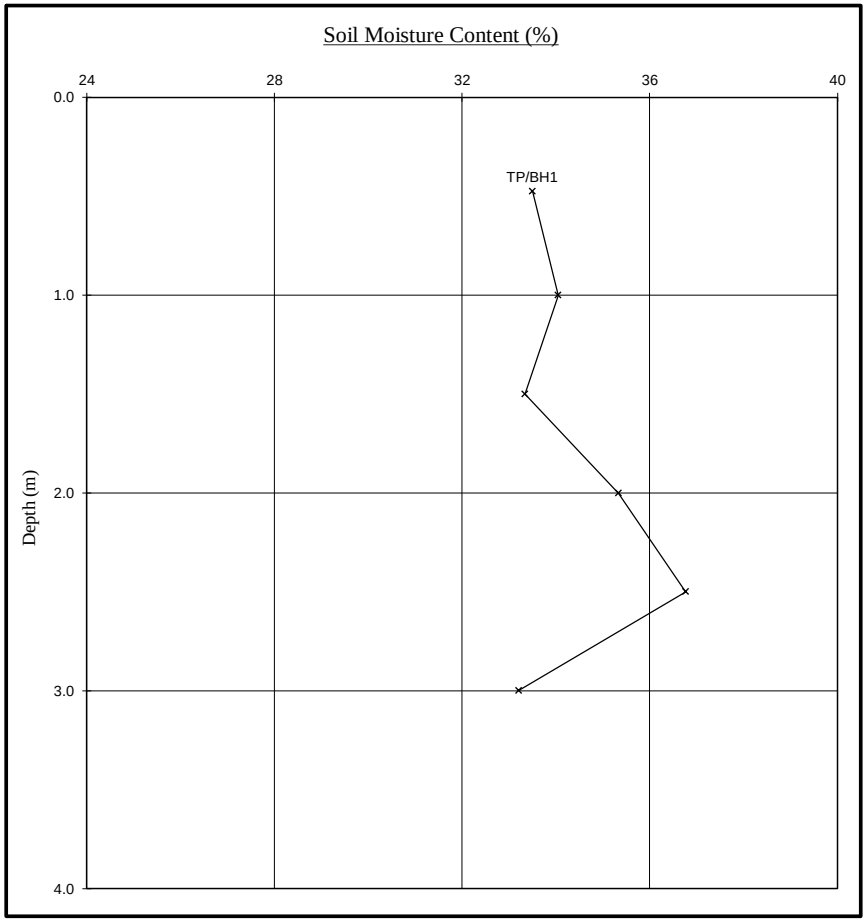
Note
1. Unless otherwise stated, values of Shear Strength were determined in situ by CET using a Pilcon Hand Vane the calibration of which is limited to a maximum reading of 140 kPa.
2. Unless specifically noted the profiles have not been related to a site datum.

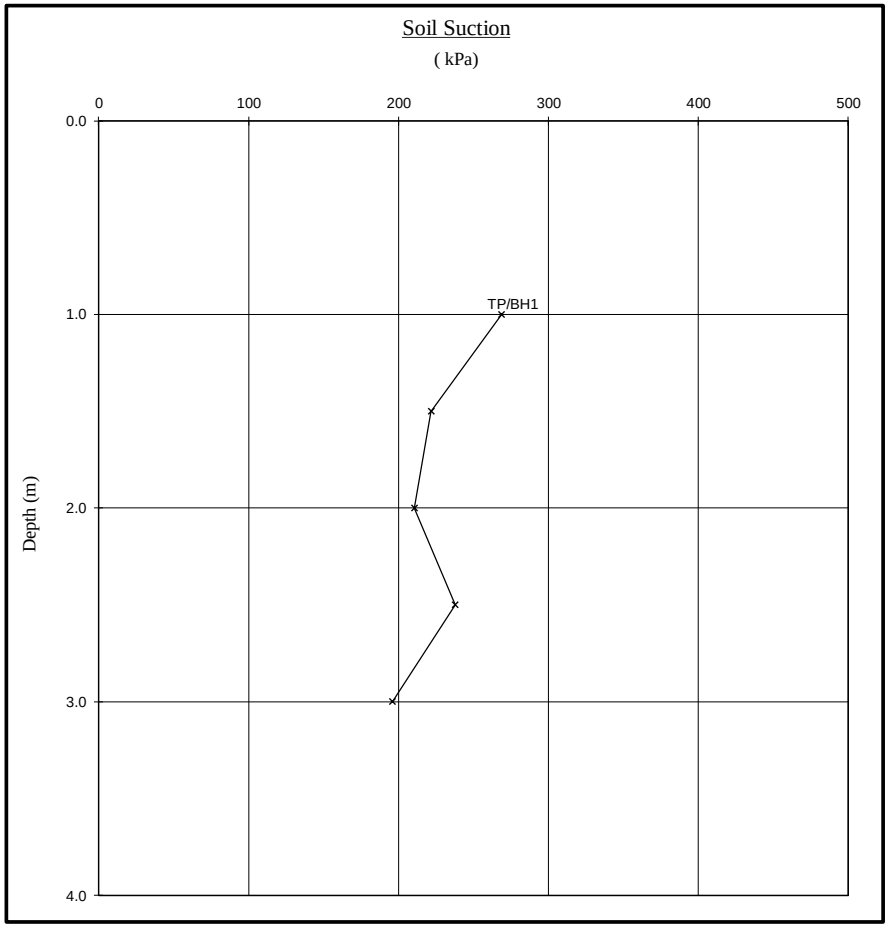
Moisture Content Profiles

Soil Suction Profiles

Our Ref : 377279
Location : 31, Heath Hurst Road, NW3
Work carried out for: Crawford Claims Management

Date Sampled : 27/09/16
Date Received : 28/09/16
Date Tested : 29/09/16
Date of Report : 11/10/16





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.

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: **377279** Date: **04/10/2016** Order No: **890048** EPSL Ref: **R15831**	Site: **31 Heath Hurst Road, 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)	1.5 mm	Viburnum spp.	Positive
TP1 (USF)	2 mm	Fraxinus spp.	Positive
BH1 (0.675-1.3m)	<1 mm	Cupressaceae spp.	Negative

Viburnum spp. are common flowering shrubs.
Fraxinus spp. include common ash.
Cupressaceae spp. include Lawson cypress, western red cedar, Monterey cypress, Leyland cypress and junipers.

MDM DPA

Address for correspondence: EPSL, Intec, Parc Menai, Bangor, Gwynedd, North Wales, LL57 4FG
Telephone: 01248 672 652
e-mail: lab@innovation-environmental.co.uk
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
Registered in England. No 3256771, Registered Office:Yarmouth House, 1300 Parkway, Solent Business Park, Hampshire, PO15 7AE

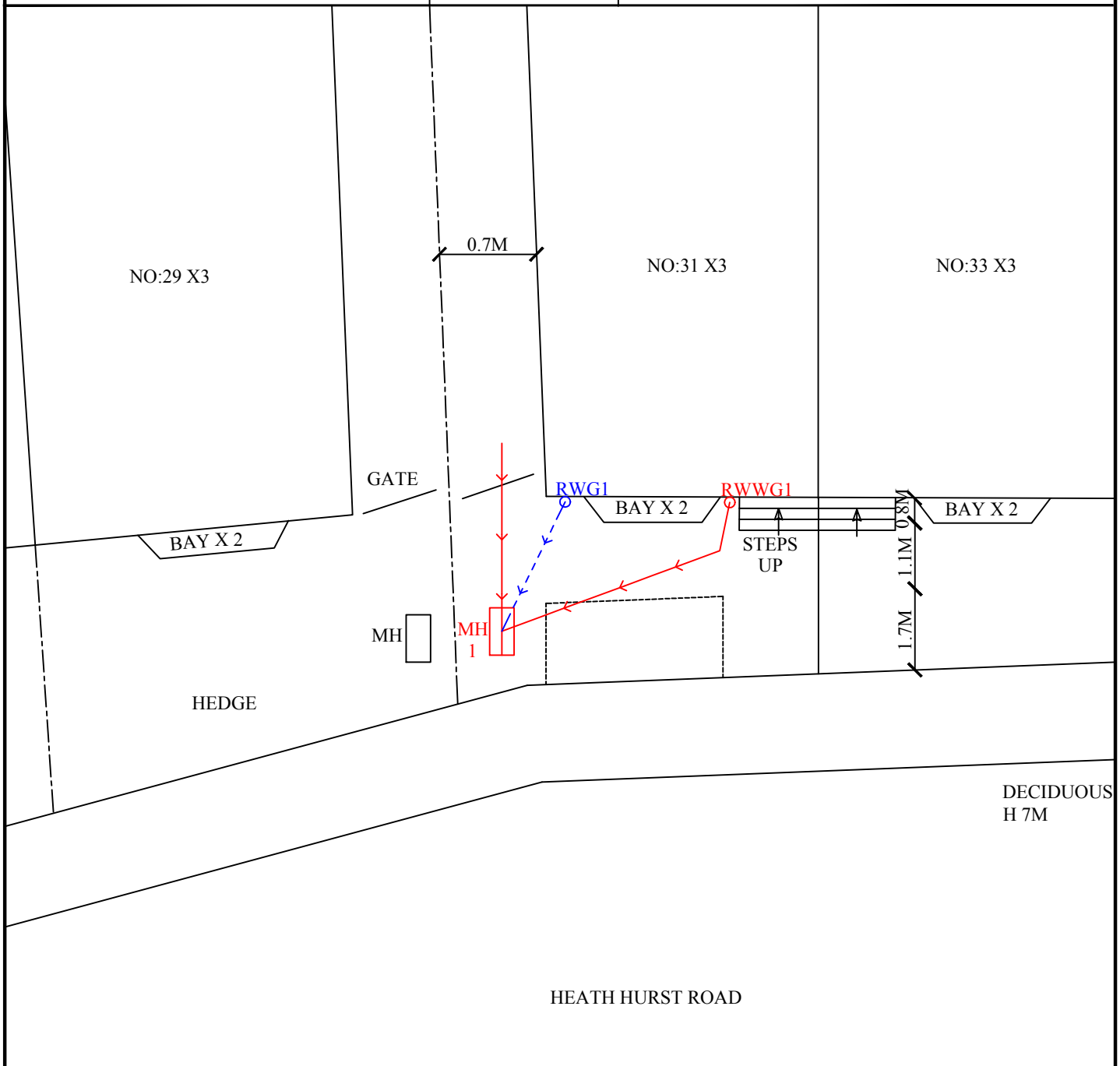
Drainage Layout Plan

Sheet: 1 of 1
Job No: 377279
Date: 27/09/2016

Site: 31 Heath Hurst Road
Work carried out for: Crawford Claims MGMT SUS

MH (SI) | SA (Checked) | CW (Drawn)

Weather: DRY



DRAIN REPAIR RECOMMENDATIONS

No recommendations required to the private drainage surveyed.

Scale: N.T.S.

Parking: ROAD (PERMIT) Power: INTERNAL Water: OUTSIDE TAP Approx age:

Surface Water Drain

Foul Water Drain

To:	**Crawford Claims Management**	Client Ref:	1308651
Ftao: Gordon McEwan		Job No.	377279
		Claim No:	251998/HSA/2016
Site:	**31 Heath Hurst Road**	Date:	06-Oct-16

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

Total	£0.00
plus VAT @20%	£0.00
Total + VAT	**£0.00**

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:	31 Heath Hurst Road	
Job No.:	377279			
Date:	27/09/16	Client:	Crawford Claims Management	

Run: 1

From:	MH1	Invert Level:	1850	Direction:	U/S
To:	Rwwg	Invert Level:		Function:	Comb
Pipe Material:	PVC	Pipe Dia:	100		
Water/Pressure Test:		Drain Break-In:	Yes	Gully Condition:	As Built
				Shared Run:	
				If Shared How:	

Distance (m)	Code	Clock Ref at	Clock Ref to	Dia mm	Intrusion %	Intrusion mm	Remarks	Surface Material	Length (m)
0.00	ST								
4.30	LL						Line deviates left	crazy paving	4.7
4.70	FH						End of survey		

Comments:

Run: 2

From:	MH1	Invert Level:	1850	Direction:	U/S
To:	Rwg	Invert Level:		Function:	S/W
Pipe Material:	PVC	Pipe Dia:	100		
Water/Pressure Test:		Drain Break-In:	Yes	Gully Condition:	As Built
				Shared Run:	No
				If Shared How:	

Distance (m)	Code	Clock Ref at	Clock Ref to	Dia mm	Intrusion %	Intrusion mm	Remarks	Surface Material	Length (m)
0.00	ST								
0.40	DES				10		Debris silt	crazy paving	2.1
1.00	WL				10		Water level		
1.20	LR						Line deviates right		
2.10	FH						reached rwg		

Comments:

Run: 3

From:	MH1	Invert Level:	1850	Direction:	U/S
To:	U/S	Invert Level:		Function:	Comb
Pipe Material:	VC	Pipe Dia:	150		
Water/Pressure Test:		Drain Break-In:	No	Gully Condition:	
				Shared Run:	
				If Shared How:	

Distance (m)	Code	Clock Ref at	Clock Ref to	Dia mm	Intrusion %	Intrusion mm	Remarks	Surface Material	Length (m)
0.00	ST								
5.00	GO						3m passed front	crazy paving	3
5.00	FH						Reached 5 meters u/s	behind gate ?	3m

Comments:

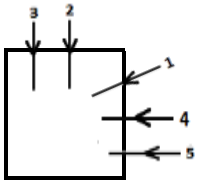
Run:	4									
From:		MH1		Invert Level:		1850	Direction:		U/S	
To:		U/S		Invert Level:			Function:			
Pipe Material:		VC		Pipe Dia:		100				
Water/Pressure Test:				Drain Break-In:		No	Gully Condition:			
Distance (m)	Code	Clock Ref at	to	Dia mm	Intrusion %	mm	Shared Run:		No	
							If Shared How:			
0.00	ST						Remarks	Surface Material		Length (m)
0.00	FH						Capped off			
Comments:										

Run:	5									
From:		MH1		Invert Level:		1850	Direction:		U/S	
To:		U/S		Invert Level:			Function:			
Pipe Material:		VC		Pipe Dia:		100				
Water/Pressure Test:				Drain Break-In:		No	Gully Condition:			
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)
0.00	FH						Capped off			
Comments:										

Manhole Details

	Sheet:	1 of 1	Site:	31 Heath Hurst Road
	Job No.:	377279		
	Date:	27/09/16	Client:	Crawford Claims Management

MH:- MH1 Depth:- 1850mm (mm)



Depths of run if different to invert level:-

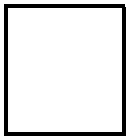
Run	Depth (mm)
1	400
2	500

Manhole Condition:- Good

Reasons for poor condition.

Chamber Dimension:- 450 / 600 (mm)

MH:- Depth:- (mm)



Depths of run if different to invert level:-

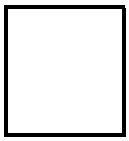
Run	Depth (mm)

Manhole Condition:-

Reasons for poor condition.

Chamber Dimension:- / (mm)

MH:- Depth:- (mm)



Depths of run if different to invert level:-

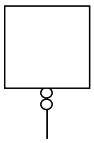
Run	Depth (mm)

Manhole Condition:-

Reasons for poor condition.

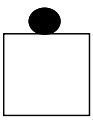
Chamber Dimension:- / (mm)

Key



Interceptor

Internal Back Drop.



External Back Drop.

Additional Comments for Poor Condition