CET PROPERTY ASSURANCE
Giving our all

SITE INVESTIGATION
FACTUAL REPORT

Report No: [redacted]

Client: Crawford Claims Management

Site: 52 ST ALBANS ROAD, LONDON

Client Ref: [redacted]

Date of Visit: 01/02/2021

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

[redacted]

Investigation Layout Plan

Sheet: 1 of 1

Job No: [redacted]

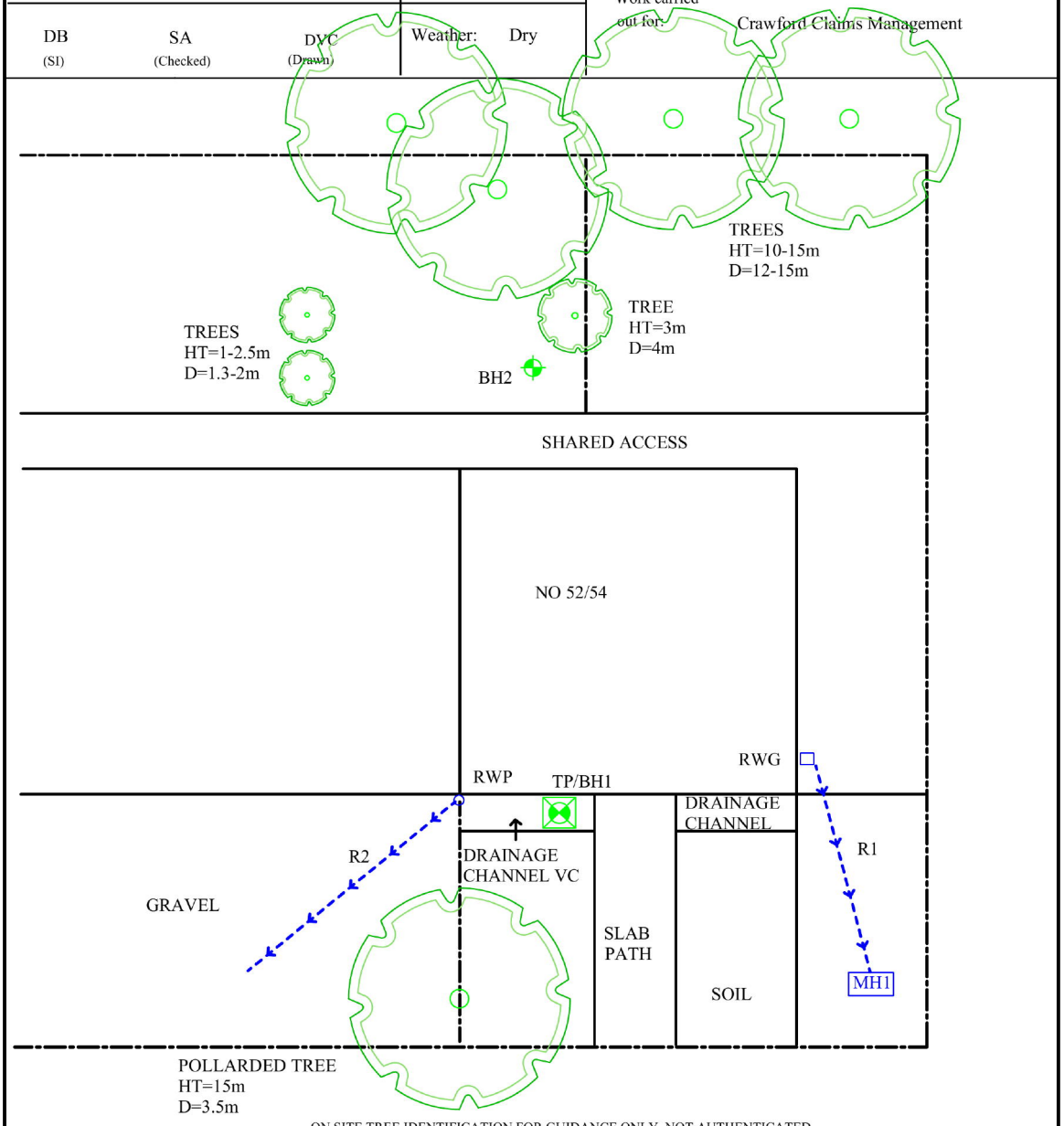
Date: 01/02/21

Site: 52 ST ALBANS ROAD

Work carried out for: Crawford Claims Management

Weather: Dry

DB	SA	DVC
(SI)	(Checked)	(Drawn)



ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.

Remarks:

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

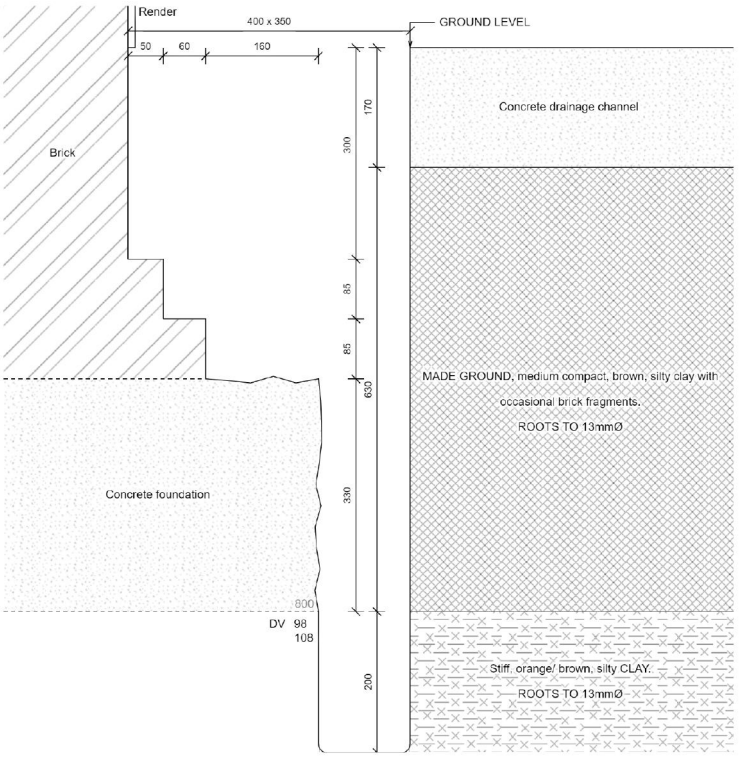
O/D - Open Discharge

Construction Testing Solutions

TEST REPORT: **Trial Pit**

REPORT NUMBER: [redacted]

TRIAL PIT REF:	TP1	DATE:	01/02/2021
CLIENT:	Sedgwick International UK	SITE:	52 ST ALBANS ROAD
JOB NO:	[redacted]	WEATHER:	Dry
EXCAVATION METHOD:	Hand tools		



For Strata below 1000mm see Bore Hole log

Render : -

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:
Test results reported relate only to the items tested.
This report shall not be reproduced except in full without approval of the Laboratory.

For and on behalf of CTS
Scott Alger - Lab

Approved Signatory
04-Feb-21

Report Format:

[redacted]

[redacted]

Construction Testing Solutions Ltd.
Registered in England No. 05998333

Borehole	1		Sheet:	1 of 1	Site:	52 ST ALBANS ROAD
			Job No:	[redacted]		
			Date:	01/02/2021		
Boring Method:	Hand Auger		Ground Level:		Client:	Crawford Claims Management
Diameter (mm):	75	Weather:	Dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	See Trial Pit	1.00				
1.00	Stiff orange-brown silty CLAY	1.00		1.00	DV	100
						100
				1.50	DV	100
						110
2.00	Very stiff orange-brown silty CLAY	1.00		2.00	DV	140+
						140+
				2.50	DV	140+
						140+
3.00	End of BH			3.00	DV	140+
						140+

Remarks:
BH ends at 3m.BH dry and open on completion,no roots observed below 2.2m.

Key:

D - Disturbed Sample
B - Bulk Sample
W - Water Sample
J - Jar Sample
V - Pilcon Shear Vane (kPa
M - Mackintosh Probe
TDTD - Too Dense To Drive

Roots
Roots
Roots
Depth to Water (m)

To Depth (m)	Max Dia (mm)
1.50	3
2.20	1

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

Borehole	2		Sheet:	1 of 1	Site:	52 ST ALBANS ROAD
			Job No:	[redacted]		
			Date:	01/02/2021		
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	Turf over MADEGROUND	0.50				
0.50	Stiff orange-brown silty CLAY	2.00		1.00	DV	120
						130
				1.50	D	
				2.00	DV	130
						140
2.50	Very stiff orange-brown silty CLAY	0.50		2.50	D	
3.00	End of BH			3.00	DV	140+
						140+

Remarks:
Bh ends at 3m.bh dry and open on completion,no roots observed below 1.5m.

Key:

D - Disturbed Sample
B - Bulk Sample
W - Water Sample
J - Jar Sample
V - Pilcon Shear Vane (kPa
M - Mackintosh Probe
TDTD - Too Dense To Drive

Roots
Roots
Roots
Depth to Water (m)

To Depth (m)	Max Dia (mm)
1.00	2
1.50	1

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

Construction Testing Solutions

SITE INVESTIGATION
LABORATORY TEST REPORT

SI REPORT NUMBER: [redacted]

CLIENT : CET Property Assurance (Crawford Claims Management)

SITE:
52 St Albans Road
London

DATE OF SITE VISIT:
01/02/2021

DATE RECEIVED BY LABORATORY:
04/02/2021

Compiled by [redacted]
J. Garrett - Laboratory Supervisor (B)

Approved by [redacted]
J. Garrett - Laboratory Supervisor (B)

DATE REPORTED: 12-Feb-2021

Laboratory Summary Results

Our Ref : [redacted]

Date Sampled: 01/02/2021

Location : 52, St Albans Road, London

Date Received : 04/02/2021

Client: CET Property Assurance (Crawford Claims Management)

Date Tested : 04/02/2021

Address: [redacted]

Date of Report : 12/02/2021

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 (d)	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 0.80	D	34	<5	78	24	54	0.18	54	CV	7	200			103					
	1.0	D	28	<5											100					
	1.5	D	29	<5											105					
	2.0	D	31	<5	80	28	52	0.07	52	CV	7	596			> 140					
	2.5	D	31	<5											> 140					
	3.0	D	33	<5	79	29	50	0.08	50	CV	7	549			> 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 : 2018 : Figure 8 - Plasticity Chart for the classification of fine soils

[8] In-house method S0a adopted from RRF 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
U/S	Underside of Foundation

Test results reported relate only to the items tested.

[redacted]

Version: SBH V1 - 06.01.21

Our Ref : [redacted]

Laboratory Testing Results

Date Sampled : 01/02/2021

Location : 52, St Albans Road, London

Date Received : 04/02/2021

Client: CET Property Assurance (Crawford Claims Management)

Date Tested : 04/02/2021

Address: [redacted]

Date of Report : 12/02/2021

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 (d)	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]
BH2	1.0	D	33	<5	85	26	59	0.11	59	CV	7	291			125					
	1.5	D	27	<5																
	2.0	D	31	<5	76	28	48	0.07	48	CV	7	427			135					
	2.5	D	34	<5																
	3.0	D	33	<5	76	28	48	0.11	48	CV	7	358			> 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 Soil samples from HDC 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 CPT 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

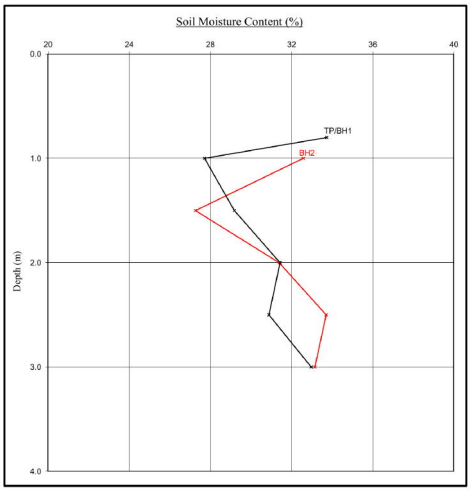
D	Disturbed sample (small)
B	Disturbed sample (bulk)
U	Undisturbed sample
W	Groundwater sample
LNP	Essentially Non-Plastic by inspection
U/S	Underside of Foundation

Test results reported relate only to the items tested.

[redacted]

Moisture Content Profiles

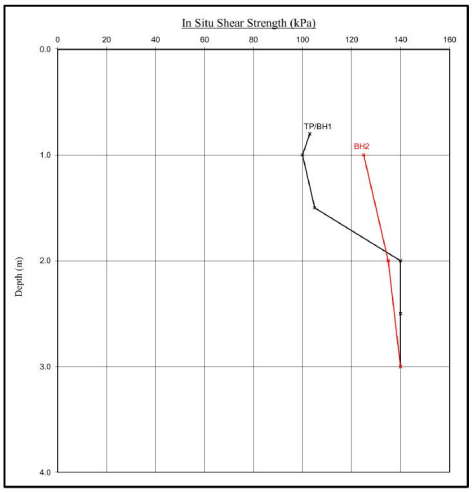
Our Ref : [redacted]
Location : 52, St Albans Road, London
Work carried out for: CET Property Assurance (Crawford Claims Management)



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

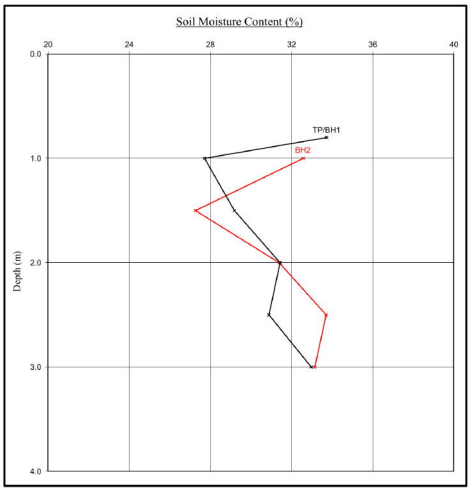
Date Sampled : 01/02/2021
Date Received : 04/02/2021
Date Tested : 04/02/2021
Date of Report : 12/02/2021



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

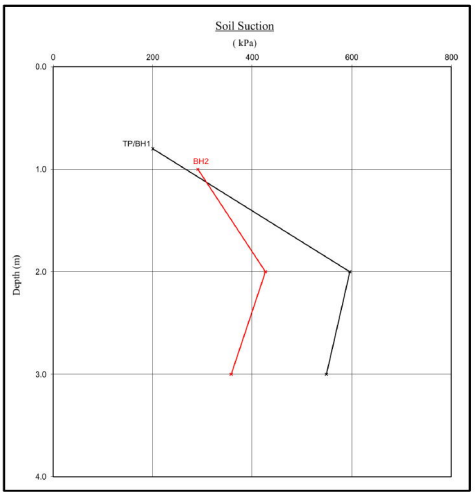
Our Ref : [redacted]
Location : 52, St Albans Road, London
Work carried out for: CET Property Assurance (Crawford Claims Management)



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 : 01/02/2021
Date Received : 04/02/2021
Date Tested : 04/02/2021
Date of Report : 12/02/2021



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: **10/02/2021** Order No: **MDManual** EPSL Ref: [redacted]	Site: **52 St Albans Road,** 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)	13 mm	Platanus spp. 4 roots	Positive
BH1 (1.5-2.2m)	1 mm	Platanus spp. 3 roots	Positive
BH2 (1-1.5m)	1.5 mm	Quercus spp. 3 roots	Positive

Platanus spp. include London plane and Oriental plane.
Quercus spp. are oaks (both deciduous and evergreen).

[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: **Crawford Claims Management**
Ftao:
Site: **52 ST ALBANS ROAD**

Client Ref: [redacted]
Job No.
Claim No:
Date: 04-Feb-21

ESTIMATE

[redacted]

Item		
1.0	Location	**run 1 MH1 upstream RWG1**
	Shared System	no
	Condition Grade	B
	Drain Serviceability	Unserviceable
	Work Spec	root cut and 5 metre 100mm liner

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

[redacted]

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.

ESTIMATING & COSTING SHEET - DOMESTIC DRAINAGE

Site:-	52 ST ALBANS ROAD	Client Ref	[redacted]
		Job No.	
Client :-	**Crawford Claims Management**	Claim No	
		Date	
		Recommendation	1

Rate Code	Description run 1 MH1 upstream RWG1	Unit	Qty
TITLE	**Survey**		
SN0561	Mechanical Root Cutting	m	5
TITLE	**Drain Lining**		
SN1133	Van pack HPWJ & CCTV in preparation of lining	nr	1
SN1135	Drain Lining - Initial Set-Up Fee (0-3.0m)	nr	1
SN1140	Drain Lining - 100mm. Install Structural liner into existing 100mm underground drain. 3mm Wall thickness.	m	2
	Total subject to VAT @ 20%		

Note: Subject to the attached Terms and Condtions

Depths are taken to the base of excavations. Every effort will be made to match existing surfaces where disturbed although this cannot be guaranteed. All rates exclude VAT. Depths are taken to the base of excavations. The above rates are subject to re-measurement. Daywork rates do not include for materials that are charged at cost plus

KEY: ne = not exceeding, eo = extra over rate, m = linear metre, nr = number, hr = hour

Coding Sheet

Sheet:	1	Site:	52 ST ALBANS ROAD		
Job No.:	[redacted]				
Date:	#########	Client:	Crawford Claims Management		

Run: 1

From:	MH1	Invert Level:	1350	Direction:	U/S		
To:	rwg1	Invert Level:		Function:	S/W		
Pipe Material:	VC	Pipe Dia:	100				
Water/Pressure Test:		Drain Break-In:	No	Gully Condition:	As Built		
				Shared Run:	Yes		
				If Shared How:	Via the guttering		

Distance (m)	Code	Clock Ref at	Clock Ref to	Dia mm	Intrusion %	Intrusion mm	Remarks	Surface Material	Length (m)
0.00	ST								
0.80	CC	12	12				Crack circumferential	slabs	4
1.90	CC	12	12				Crack circumferential		
1.90	RFJ						Roots fine at joint		
3.20	DES				20		Debris silt		
4.00	DES				100		Debris silt		
4.00	FH						unable to push		

Comments:

gully pot was full of silt.had to clear out by hand to get direction of outfall.see photos.poured water in gully.pot just fills up.

Run: 2

From:	rwg2	Invert Level:		Direction:	D/S		
To:	side	Invert Level:		Function:	S/W		
Pipe Material:	PVC	Pipe Dia:	100				
Water/Pressure Test:		Drain Break-In:	Yes	Gully Condition:	As Built		
				Shared Run:	Yes		
				If Shared How:	With flats		

Distance (m)	Code	Clock Ref at	Clock Ref to	Dia mm	Intrusion %	Intrusion mm	Remarks	Surface Material	Length (m)
0.00	ST								
1.50	LR						Line deviates right	Gravel	3
2.10	GO						lined		
3.00	FH						End of survey		

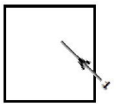
Comments:

shared with flats+off boundry.

Manhole Details

	Sheet:	1	Site:	52 ST ALBANS ROAD
	Job No.:	[redacted]		
	Date:	01/02/21	Client:	Crawford Claims Management

MH:- MH1 Depth:- 1350 (mm)



Depths of run if different to invert level:-

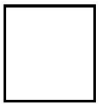
Run	Depth (mm)
1	1250

Manhole Condition:- Very Good

Reasons for poor condition.

Chamber Dimension:- 600 / 750 (mm)

MH:- Depth:- (mm)



Depths of run if different to invert level:-

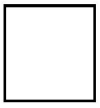
Run	Depth (mm)

Manhole Condition:-

Reasons for poor condition.

Chamber Dimension:- / (mm)

MH:- Depth:- (mm)



Depths of run if different to invert level:-

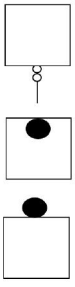
Run	Depth (mm)

Manhole Condition:-

Reasons for poor condition.

Chamber Dimension:- / (mm)

Key



Interceptor

Internal Back Drop.

External Back Drop.

Additional Comments for Poor Condition