

## SITE INVESTIGATION FACTUAL REPORT

Report No: SI-595596  
Client: Crawford Claims Management  
Site: The Elms, Badwell Road, Walsham-le-Willows  
Suffolk  
Client Ref: SU2205985  
Date of Visit: 25/04/2023



### 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

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✉ enquiries@cet-uk.com  
🌐 www.cet-uk.com

CET is the trading name of CET Structures Ltd  
Registered in England No. 02527130

# Investigation Layout Plan

Sheet: 1 of 1

Job No: 595596

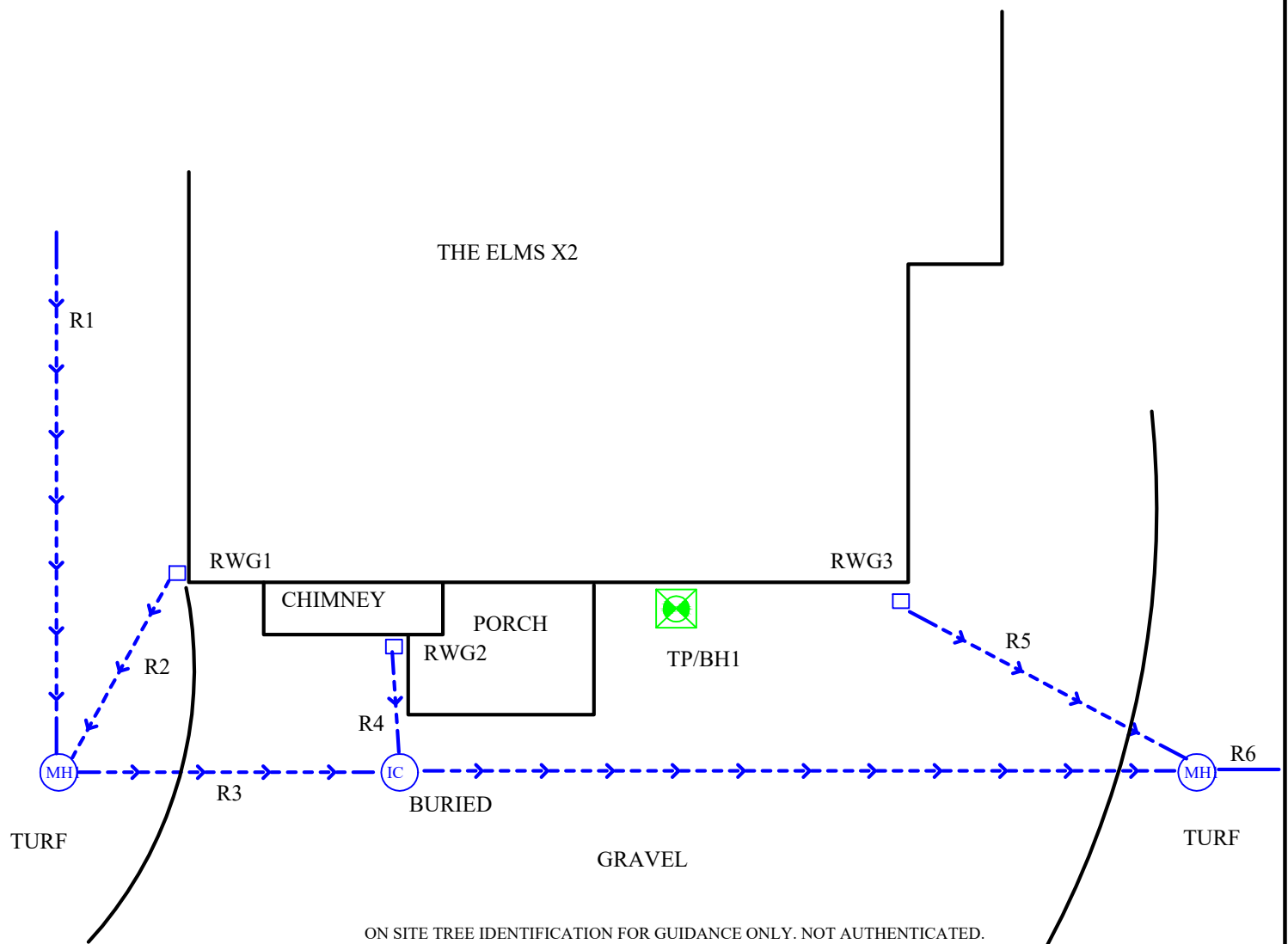
Date: 25/04/23

Site: THE ELMS

Work carried out for: Crawford Claims Management

SP (SI) SL (Checked) DVC (Drawn)

Weather: Dry



ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.

Remarks:

Key:

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

Surface Water Drain

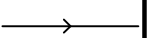
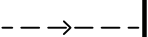
Foul Water Drain

Tree / Bush  
(approx. ht in m)

Trial Pit

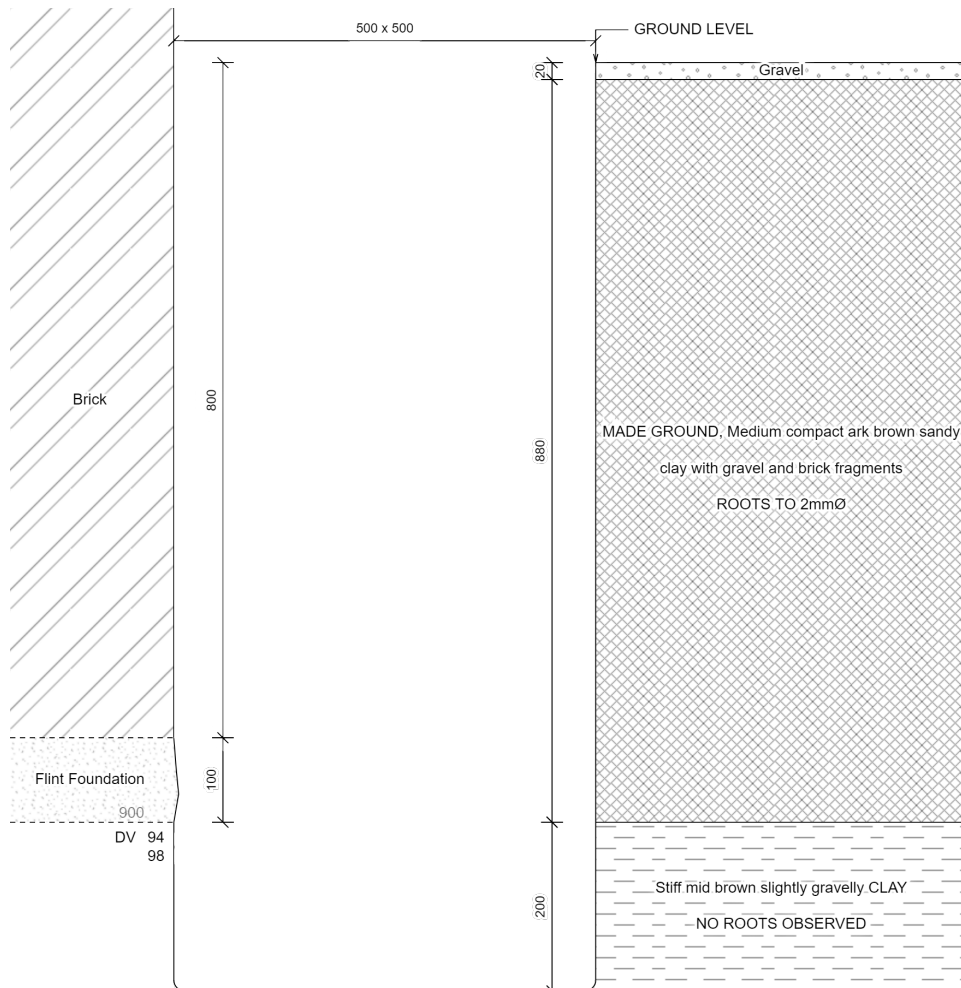
Borehole

O/D - Open Discharge



Scale: N.T.S.

**TEST REPORT:** Trial Pit  
**REPORT NUMBER:** C1077197 / 253260.1.1.1  
**TRIAL PIT REF:** TP1 **DATE:** 11/05/2023  
**CLIENT:** Crawford & Co **SITE:** The Elms  
**JOB NO:** 595596 **WEATHER:** Dry  
**EXCAVATION METHOD:** Hand tools



For Strata below 1100mm 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  
 DTD Too dense to drive

**Remarks:**

Test results reported relate only to the items tested.  
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 The laboratory does not apply a conformity statement to test reports as standard, unless specifically requested by the customer.

For and on behalf of CTS  
 Scott Alger - Lab



Approved Signatory  
 Report date 11-May-23

<b>Borehole</b>		<b>1</b>		Sheet:	1 of 1	Site:	THE ELMS				
Boring Method:		Hand Auger		Job No:	595596		Client:	Crawford Claims Management			
Diameter (mm):		75		Date:	25/04/2023			Ground Level:			
Weather:		dry									
Depth	Soil Description						Samples and Tests				
(m)							Thickness	Legend	Depth	Type	Result
0.00	See Trial Pit						1.10				
1.10	Stiff orange-brown, slightly gravelly CLAY						0.60	— b			
								— b			
								— b			
								— b	1.50	DV	104
								— b			106
1.70	End of BH										
Remarks:						Key:				To	Max
BH ends at 1.7m, too stiff to hand auger. BH dry and open completion, no roots observed.						D - Disturbed Sample				Depth	Dia
						B - Bulk Sample				(m)	(mm)
						W - Water Sample					
						J - Jar Sample					
						V - Pilcon Shear Vane (kPa)					
						M - Mackintosh Probe					
						TDTD - Too Dense To Drive					
Logged:						Version				N.T.S.	
SP		AM		Checked:		Approved:		V1.0 28/01/16			



# LABORATORY REPORT



**Contract Number: PSL23/3315**

Report Date: 31 May 2023  
Client's Reference: 595596  
Client Name: CET Property Assurance(Crawford Claims MGMT)

Contract Title: The Elms  
Date Received: 5/5/2023  
Date Commenced: 5/5/2023  
Date Completed: 31/05/2023

**Notes: Opinions and Interpretations are outside the UKAS Accreditation**

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

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# Laboratory Summary Results

Our Ref : 595596  
 Location : The Elms  
 Client: CET Property Assurance (Crawford Claims Management)  
 Address: CET, Unit 4, Boundary Court, Willow Farm Business Park, Castle Donington, DE74 2NN

Date Sampled: 25/04/2023  
 Date Received : 28/04/2023  
 Date Tested : 28/05/2023  
 Date of Report : 31/05/2023

Sample Ref		Type	# Moisture Content (%) [11]	# 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		* Class [16]
TP/BH No	Depth (m)																	SO <sub>3</sub> (g/l)* [14]	SO <sub>4</sub> (mg/l) [15]	
1	U/S 0.90	D	22	8	50	24	26	-0.09	24	CH					96					
	1.5	D	23	9	57	25	32	-0.05	29	CH					105					

**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 fines soils

[8] Building Research Establishment Information Paper 4/93

- [9] In Accordance with BS 1377-5 : 1990 : Clause 3
- [10] Estimated Heave Potential (Dd)
- [11] Values of shear strength were determined in situ by CTS using a Pilon hand vane or Geonor vane (GV).
- [12] BS 1377 : Part 3 : 2018 + A1 2021 Clause 4 - Tested By CTS Leicester
- [13] BS 1377 : Part 3 : 2018 + A1 2021 Clause 12 - Tested By CTS Leicester
- [14] Sulphate content as SO<sub>3</sub> as required by BS 1377: Part 3: 1990 has been provided for information purposes - Tested By CTS Leicester
- [15] BS 1377 : Part 3 : 2018 + A1 2021 Clause 7.6 - Tested By CTS Leicester

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

Note that if the SO<sub>4</sub> 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.  
 PSD Chart - BS 1377: Part 2 : 1990, Test No 9.2

- Calculations performed using subcontracted data.

\* These tests are not UKAS accredited

**# These tests have been subcontracted and carried out by PSL (Part of the Phenna Group)**

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

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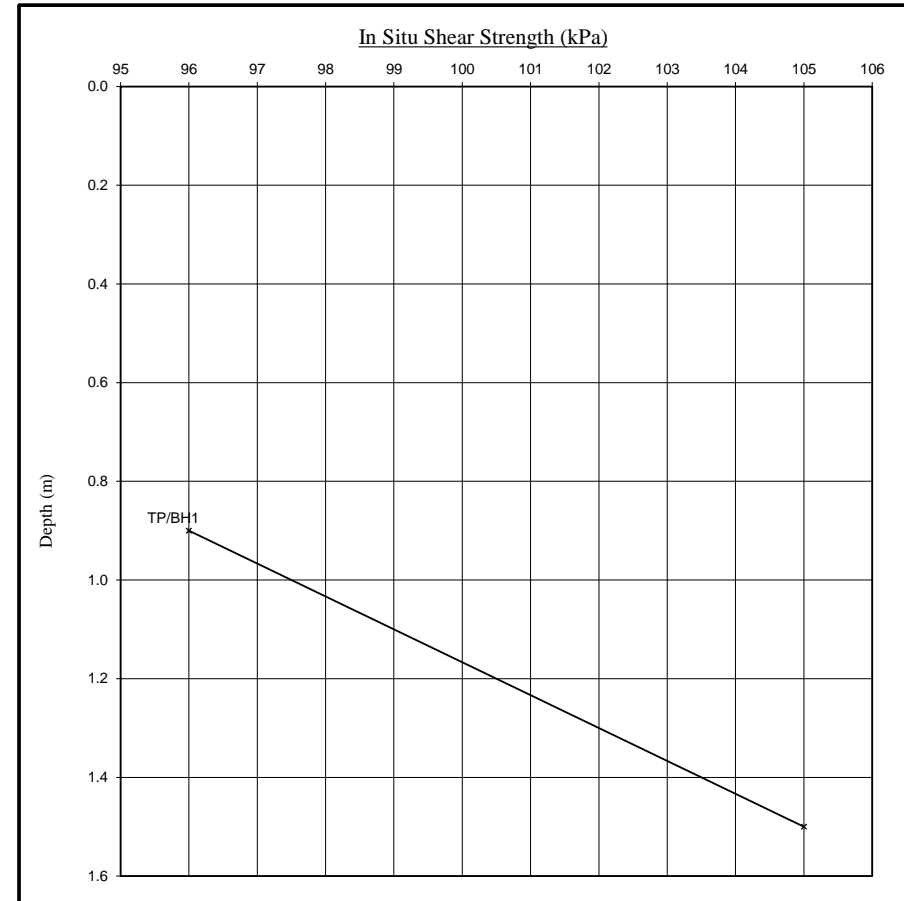
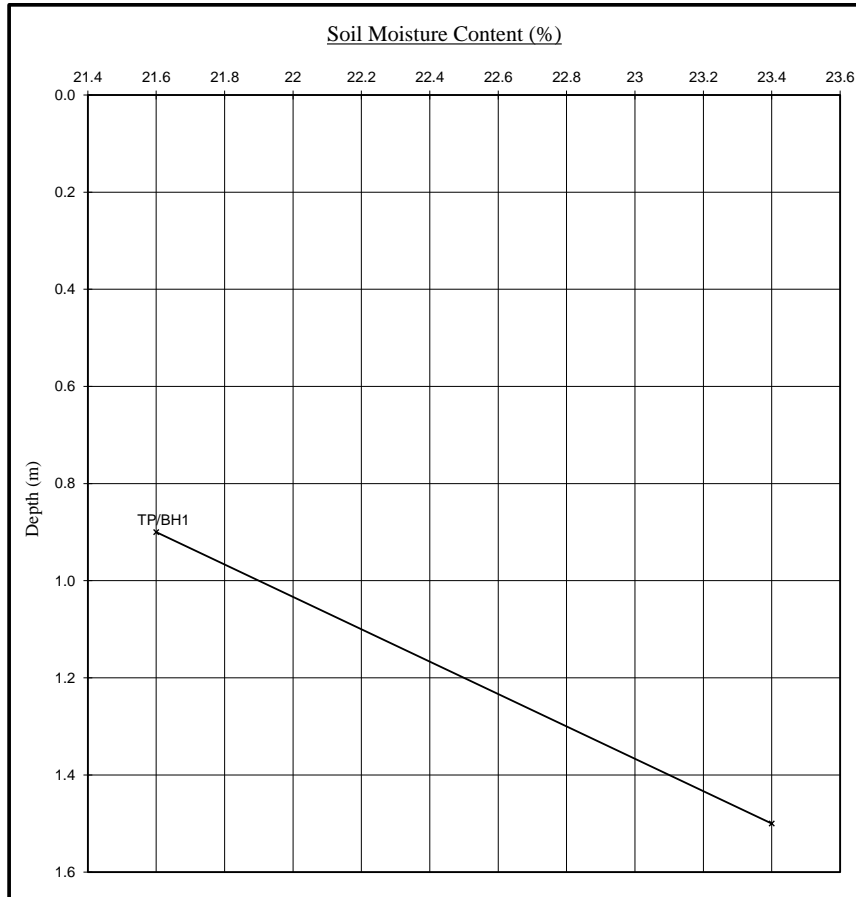
Version: BH V1 SUBCON - 28.03.2023

# Moisture Content Profiles

Our Ref : 595596  
Location : The Elms  
Work carried out for: CET Property Assurance (Crawford Claims Management)

Date Sampled : 25/04/2023  
Date Received : 28/04/2023  
Date Tested : 28/05/2023  
Date of Report : 31/05/2023

# Shear Strength Profiles



### 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 CTS using a Picon Hand Vane the calibration of which is limited to a maximum reading of 130 kPa.
2. Unless specifically noted the profiles have not been related to a site datum.

<b>Coding Sheet</b>	Sheet:		Site:	THE ELMS
	Job No.:	595596		
	Date:	25/04/2023	Client:	CRAWFORD CLAIMS MANAGEMENT

<b>Run:</b>	<b>1</b>									
From:	MH1		Invert Level:	825		Direction:	U/S			
To:	U/S		Invert Level:			Function:	S/W			
Pipe Material:	PVC		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	WL				10		THROUGHOUT			
11.00	FH						REACHED U/S	TURF		
Comments:										

<b>Run:</b>	<b>2</b>									
From:	MH1		Invert Level:	825		Direction:	U/S			
To:	RWG1		Invert Level:			Function:	S/W			
Pipe Material:	PVC		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)	
5.80	FH						REACHED RWG1			
Comments:										

<b>Run:</b>	<b>3</b>									
From:	MH1		Invert Level:	825		Direction:	D/S			
To:	MH2		Invert Level:	800		Function:	S/W			
Pipe Material:	PVC		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)	
5.20	WL				10		Water level			
6.10	IC						BURIED IC	TURF 2.0M		
20.90	DES				20		Debris silt			
21.90	FH						REACHED MH2	GRAVEL 18M		
Comments:										



<b>Run:</b>		<b>4</b>									
From:		RWG2		Invert Level:		800		Direction:		D/S	
To:		BURIED IC		Invert Level:				Function:		S/W	
Pipe Material:		PVC		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: If Shared How:		No		
0.00	ST						Remarks		Surface Material	Length (m)	
4.20	FH						REACHED RWG2				

Comments:

<b>Run:</b>		<b>5</b>									
From:		MH2		Invert Level:		800		Direction:		U/S	
To:		RWG3		Invert Level:				Function:		S/W	
Pipe Material:		PVC		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: If Shared How:		No		
0.00	ST						Remarks		Surface Material	Length (m)	
6.70	FH						REACHED RWG3				

Comments:

<b>Run:</b>		<b>6</b>									
From:		MH2		Invert Level:		800		Direction:		D/S	
To:		D/S		Invert Level:				Function:		S/W	
Pipe Material:		PVC		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: If Shared How:		No		
0.00	ST						Remarks		Surface Material	Length (m)	
5.00	FH						REACHED D/S				

Comments:

To:  
Ftaco:  
Site:

**Crawford Claims Management**

**The Elms**

Client Ref:  
Job No: 595596  
Claim No:  
Date: 23-May-23

**ESTIMATE**

Item		Amount
------	--	--------

No recommendations to the drainage surveyed.

**Notes**

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

Total £0.00

**Condition Grade**

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

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.

## **CET STRUCTURES LTD TERMS AND CONDITIONS**

**Site:-** The Elms

Client Ref:-

**Client :-** Crawford Claims Management

Job No.:- 595596

**Attention of:-**

Claim No:-

Date:- 23-May-23

### **General Terms and Conditions**

- 1 On site parking is a prerequisite of any drain repair contract. This quotation is to the addressee only and should not be forwarded unless prior agreement is obtained from CET Structures Ltd. Every effort will be made to match existing surfaces however, there will be evidence of excavation works in certain circumstances.
- 2 The rates do not include for excavation of surfaces other than soft ground or concrete < 100mm thick; reinstatement other than concrete <100mm thick; internal excavations; reinstatement >750mm in width; excavation of depths greater than 1.2m; reinforced concrete.
- 3 CET's standard soakaway that is priced on the agreed alliance schedule of drainage rates is constructed to dimensions specified in the NHBC Guidelines for small soakaways. The soakaway is generally located 5m from any foundations (should site constraints permit) and is constructed to provide adequate short term surface water storage and percolation into surrounding ground. This small 1m<sup>3</sup> soakaway is usually of sufficient capacity to accommodate average rainfall from an average surface area of roof space, however in extreme weather conditions and /or larger than average roof surface area feeding the soakaway, surcharging may occur. Alternative designs and prices are available at a cost along with percolation testing. Certain ground conditions may not be suitable for soakaway design due to low permeability and this information is not always readily available.

### **Notes**

For excavation and reinstatement of any steps, will be done on day work rate.

With a minimum of 4 hours. Materials at cost plus 25%.

Any obstacles, shrubs & plants that are located in the working area will need to be removed by others to allow for these works

## Water Authority Sewer Condition Codes

<b>B</b> Broken pipe at... (or from... to...) o'clock	<b>JN</b> Junction at...o'clock, diameter...mm
<b>BR</b> Branch Major	<b>JX</b> Junction defective at.. o'clock, diameter.. mm
<b>CC</b> Crack circumferential from... to... o'clock	<b>LC</b> Lining of sewer changes/starts/finishes at this point
<b>CL</b> Crack longitudinal @... o'clock	<b>LD</b> Line of sewer deviates down
<b>CM</b> Cracks multiple from... to... o'clock	<b>LL</b> Line of sewer deviates left
<b>CN</b> Connection at... o'clock, diameter... mm	<b>LN</b> Line defect at (or from.. to.. ) o'clock
<b>CNI</b> Connection at... o'clock, diameter... mm, intrusion... mm	<b>LR</b> Line of sewer deviates right
<b>CU</b> Camera under water	<b>LU</b> Line of sewer deviates up
<b>CX</b> Connection defective at... o'clock	<b>MB</b> Missing bricks at.. (or from.. to..) o'clock
<b>CXI</b> Connection defective at... o'clock, diameter... mm, intrusion... mm	<b>MC</b> Material of sewer changes at this point
<b>D</b> Deformed sewer... %	<b>MH</b> Manhole/node
<b>DB</b> Displaced bricks at (or from.. to..) o'clock	<b>MM</b> Mortar missing medium at.. (or from.. to..) o'clock
<b>DC</b> Dimension of sewer changes at this point	<b>MS</b> Mortar missing surface at.. (or from.. to..) o'clock
<b>DE</b> Debris (non silt/grease)... % cross-sectional loss	<b>MT</b> Mortar missing total at.. (or from.. to..) o'clock
<b>DEG</b> Debris grease... % cross-sectional area loss	<b>OB</b> Obstruction... % height/diameter loss
<b>DES</b> Debris silt... % cross-sectional area loss	<b>OJL</b> Open joint large
<b>DI</b> Dropped invert, gap... mm	<b>OJM</b> Open joint medium
<b>EHJ</b> Encrustation heavy from.. to.. o'clock % cross-sectional area loss (at joint)	<b>PC</b> Length of pipe forming sewer changes at this point, new length...mm
<b>ELJ</b> Encrustation light from.. to.. o'clock%	<b>RFJ</b> Roots fine (at joint)
<b>EMJ</b> Encrustation medium from.. to.. o'clock %, cross-sectional area loss (at joint)	<b>RMJ</b> Roots mass... % cross-sectional area loss (at joint)
<b>ESH</b> Scale heavy... % cross-sectional area loss from... to... o'clock	<b>RTJ</b> Roots tap (at joint)
<b>ESL</b> Scale light from... to... o'clock	<b>SA</b> Survey abandoned
<b>ESM</b> Scale medium... % cross-sectional area loss from... to... o'clock	<b>SC</b> Shape of sewer changes at this point
<b>FC</b> Fracture circumferential from... to... o'clock	<b>SSL</b> Surface damage, spalling large at (or from.. to..) o'clock
<b>FL</b> Fracture longitudinal at... o'clock	<b>SSM</b> Surface damage, spalling medium at (or from.. to..) o'clock
<b>FM</b> Fractures multiple from... to... o'clock	<b>SSS</b> Surface damage, spalling slight at (or from.. to..) o'clock
<b>GO</b> General observation at this point	<b>SWL</b> Surface damage, wear large at... (or from.. to..) o'clock
<b>GP</b> General photograph number... taken at this point	<b>SWN</b> Surface damage, wear medium at... (or from.. to..) o'clock
<b>H</b> Hole in sewer at... o'clock	<b>SWS</b> Surface damage, wear slight at.. (or from.. to..) o'clock
<b>IDJ</b> Infiltration dripper at (or from... to...) o'clock (at joint)	<b>V</b> Vermin (rats and mice)
<b>IGJ</b> Infiltration gusher at (or from... to...) o'clock (at joint)	<b>WL</b> Water level... % height/diameter
<b>IRJ</b> Infiltration runner at (or from... to...) o'clock (at joint)	<b>X</b> Sewer collapsed... % cross-sectional area loss
<b>ISJ</b> Infiltration seeper at (or from... to...) o'clock (at joint)	<b>FH</b> End of survey
<b>JDM</b> Joint displaced medium	
<b>JDL</b> Joint displaced large	