



Geotechnical Survey Report

FSI Ref:	26156
Issue Date:	February 2023
Risk Address:	113 North Street Crowland Peterborough Cambridgeshire PE6 0EG
Engineer:	Field - Holding
Company:	Crawford
Claim Ref:	SU2205333

Managing Director:	Martin Rush MSc FGS
Finance Director:	Louise Banks BSc (Hons)
Geotechnical Compliance & Logistics Supervisor:	Perry Martin MCIHT
Laboratory Manager:	Jade McLellan
Senior Geologist:	Scott Parker BSc (Hons) FGS
Assistant Geologist:	Sarah Brand
Geotechnical Assistant:	Bradley Webb



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Appendix No: 1
FSI Ref: 26156

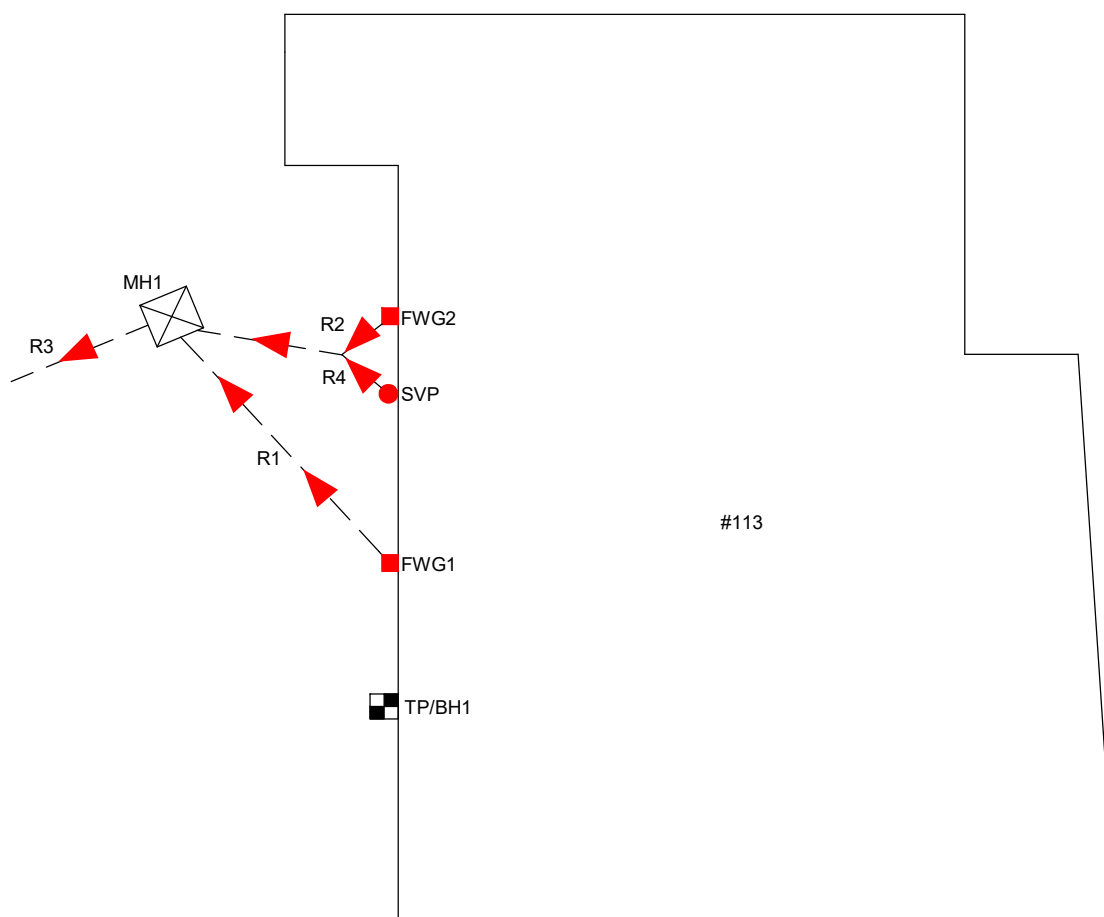
SITE PLAN

Property Address: 113 North Street, Crowland, Peterborough, Cambridgeshire, PE6 0EG

Client Claim Ref: SU2205333

Survey date: 07/02/2023

Operative: SE2

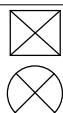


Front

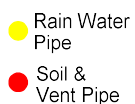
Scale:
NTS

Drawn by:
SB

Key:



Manholes



Tree
(Conifer)



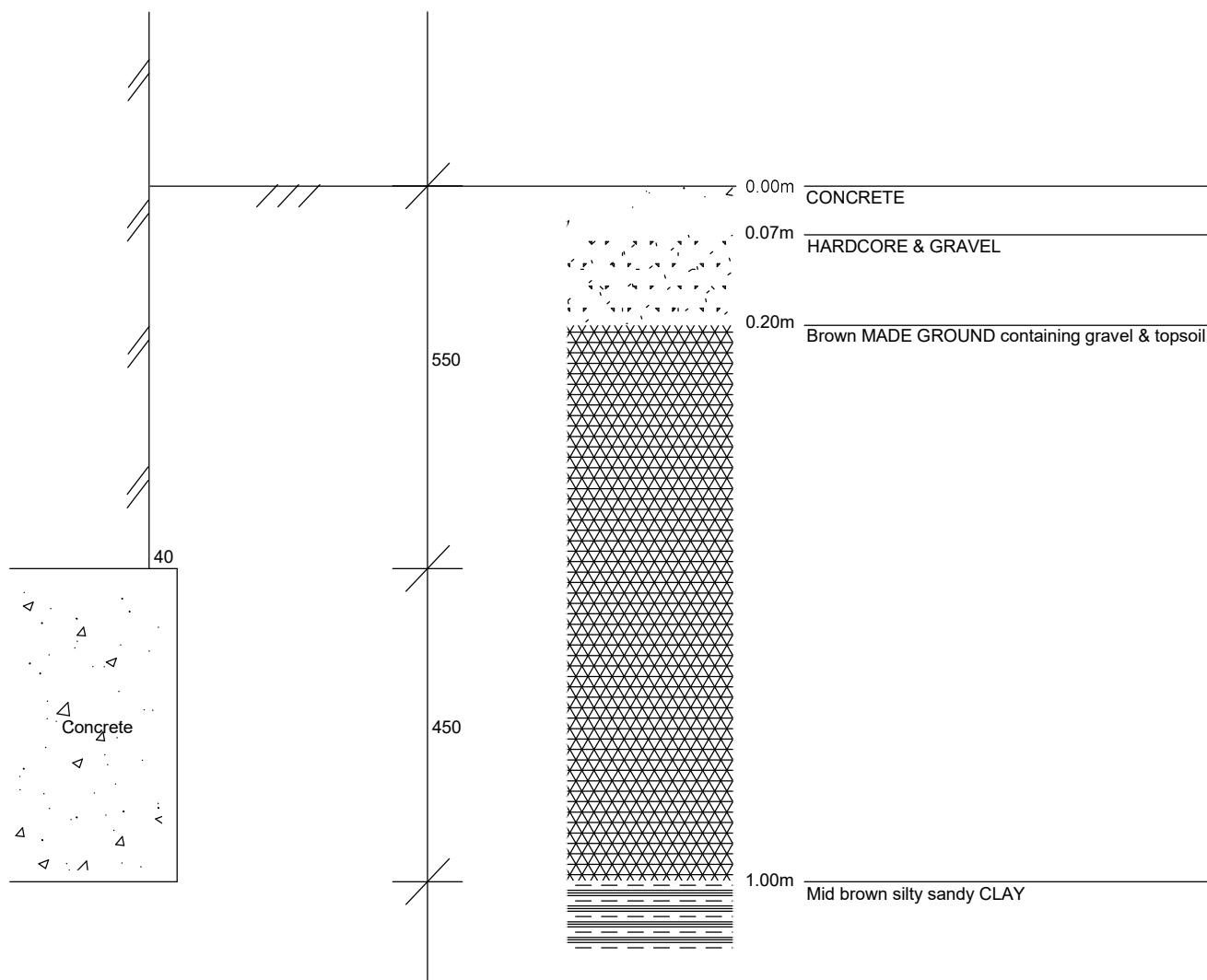
Tree
(Deciduous)

TRIAL PIT 1

Property Address: 113 North Street, Crowland, Peterborough, Cambridgeshire, PE6 0EG

Client Claim Ref: SU2205333

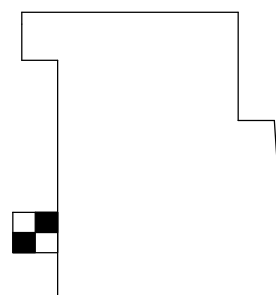
Survey date: 07/02/2023

Operative: SE2


D1 @ F.L. (1.00m)

V = 69-74kPa

Founding strata: Mid brown silty sandy CLAY

Trial Pit Location:

Drawn by:

SB

Scale:

1:10

D= small disturbed sample, B= large bulk sample, U= undisturbed sample,
MP= mackintosh probe blow counts, V= shear vane reading (kPa)



Fastrack Site Investigations Ltd
Unit 9, Tyndales Farm
Southend Road
Maldon CM9 6TQ

Borehole Log

Borehole No.

BH1

Sheet 1 of 1

Project Name: SU2205333

Project No.
26156

Site Date: 07/02/2023

Hole Type
BH

Location: 113 North Street, Crowland, Peterborough, Cambridgeshire, PE6 OEG

Scale
1:17

Client: Crawford

Logged By
SE2

Water Strikes	Sample and In Situ Testing			Depth (m)	Legend	Stratum Description	
	Depth (m)	Type	Results				
				0.07		CONCRETE	
				0.20		HARDCORE & GRAVEL	
						Brown MADE GROUND containing gravel & topsoil	
						Foundation top-0.55mm(Concrte construct projects 40mm with a thickness of 450mm)	
	1.00	D	V (kPa) = 69 V (kPa) = 74	1.00		Mid brown silty sandy CLAY Foundation level-1.00m Noted to contain 1-3mm roots at F/L	1
	1.50	D	V (kPa) = 82 V (kPa) = 87			Noted to contain 1-3mm roots at 1.50m	
	2.00	D	V (kPa) = 81 V (kPa) = 86	2.00		Dark grey sandy CLAY Noted to contain 1-3mm roots at 2.00m	2
	2.50	D	V (kPa) = 63 V (kPa) = 68	2.50		Grey silty sandy CLAY Noted to contain 1-3mm roots at 2.50m	
	3.00	D	V (kPa) = 65 V (kPa) = 70	3.00		End of Borehole at 3.000m	3

Key: D - Disturbed Sample V - Insitu Vane Test MP - Mackintosh Probe Test

Remarks: Borehole closed at 3.00m.
Borehole noted to be dry on completion.





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Appendix No: 3
FSI Ref: 26156

LABORATORY RESULTS

Property Address: 113 North Street, Crowland, Peterborough, Cambridgeshire, PE6 0EG
Client Claim Ref: SU2205333 **Client:** Crawford & Company

SAMPLE DETAILS		ANALYSIS REQUESTED	
Investigation date:	07/02/2023	Moisture Content	☒ PSD ☐
Sample details:	Bags as received	Liquid Limit	☒ Soil Suction ☐
Samples received:	09/02/2023	Plastic Limit	☒ Shear Strength ☐
Schedule recieved:	09/02/2023	Plasticity Index	☒ Contamination ☐
Samples tested:	14/02/2023-17/02/2023	Root ID	☒ Root/Tree DNA ☐
Results reported:	17/02/2023		Roots obtained _____

TEST DETAILS

General

Sample descriptions were written in accordance with BS 5930:1999.

Samples were prepared in accordance with BS 1377: Part 1: 1990, section 7

Samples from this contract will be retained for 1 calendar month following the issue of this report unless otherwise notified

Written approval is required from Fastrack Site Investigations Limited to reproduce report in full. The results shown within this report only relate to the samples tested

Moisture Content

Samples were tested in accordance with BS 1377: Part 2: 1990, section 3.2 (Oven drying method)

In accordance with Note 1 to paragraph 3.2.4 of BS 1377 Part 2 1990; these moisture contents have been corrected to give the equivalent moisture content of the fraction passing the 425µm sieve, to enable comparison with the liquid & plastic limits. (If condition of test is 'natural' the retained percentage is an estimated value, if condition is 'washed' the percentage is a measured value).

Samples are dried at 105-110°C unless otherwise stated.

Atterberg Limits

Samples were tested in accordance with BS 1377: Part 2: 1990, section 4.3 (4 drop LL), 4.4 (1 drop LL), 5.3 (PL) and 5.4 (PI)

Test results on samples with a sand content, may show less accurate results. If condition of test is 'washed' results relate to the fraction passing the 425µm sieve only.

* Driscoll's rules deem the soil to be desiccated where the moisture content is less than the value calculated using driscoll's rule 1 and/or 2

Particle Size Distribution

Samples were tested in accordance with BS 1377: Part 2: 1990 section 9.2 (Wet sieving method)

Undrained Shear Strength

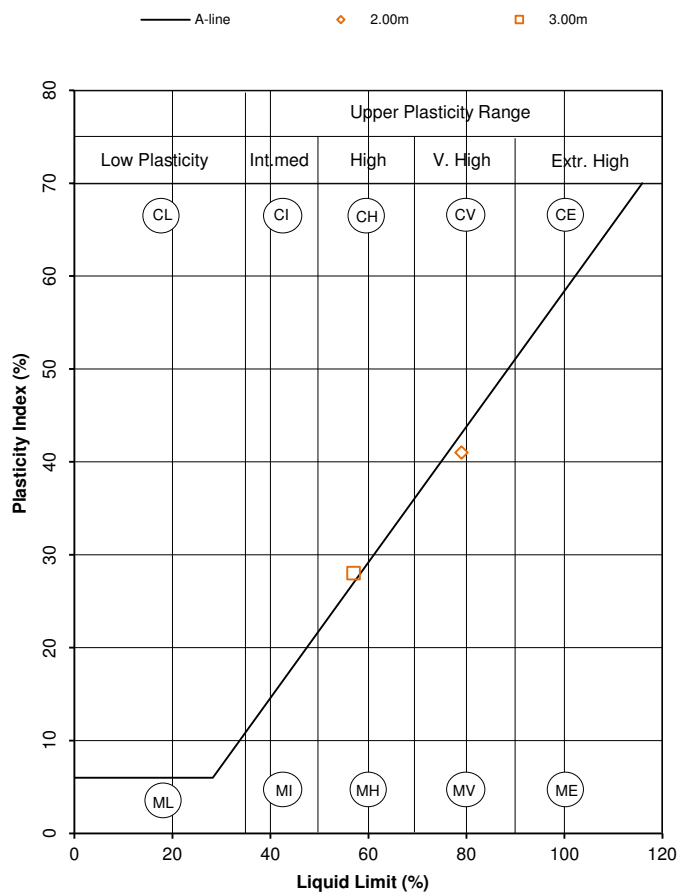
Samples were prepared in accordance with BS 1377: Part 7: 1990 section 8.3 and testing in accordance with BS 1377: Part 7: 1990: section 8.4 (undrained shear strength in triaxial compression without measurement of pore pressure (UU))

Soil Suction

Samples were prepared and tested based on the BRE digest No:IP4/93 (Corrected). 'A method of determining the state of desiccation in clay soils.' (Filter paper method).

Test results on samples with a sand or silt content, may show less accurate results. Deviation to standard procedure - Polythene bags are not used from weighing filter papers.

Property Address:	113 North Street, Crowland, Peterborough, Cambridgeshire, PE6 0EG
Client Claim Ref:	SU2205333

[illegible]

Comments:	BH1 @ 1.00m - Unable to perform atterberg limits due to incohesive soil
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☐ Ted Smith (Laboratory Technician)

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ROOT IDENTIFICATION

113 North Street,

Client Reference: 26156
Report Date: 17 February 2023
Our Ref: R50774

Sub Sample	Species Identified		Root Diameter	Starch
BH1:				
1m	probably <i>Hedera</i> or <i>Fatsia</i> spp.	1	<1 mm	Absent
1.5m	<i>Hedera</i> or <i>Fatsia</i> spp.		<1 mm	Absent
2m	too small and decayed for identification	2	<1 mm	Absent
2.5m	too decayed for identification	3	4 mm	Absent

Comments:

- 1 - Very juvenile.
- 2 - Probably a decayed fragment of bark.
- 3 - Extremely rotted fragment.

Hedera spp. include ivy; *Fatsia* spp. are shrubs closely related to ivy.

Signed: M D Mitchell

Unless we are otherwise instructed in writing, the above sample material will normally be disposed of 6 years after the date of this report.

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Appendix No: 4**FSI Ref:** 26156**DRAINAGE SURVEY****Property Address:** 113 North Street, Crowland, Peterborough, Cambridgeshire, PE6 0EG**Client Claim Ref:** SU2205333**Survey date:** 07/02/2023**Operative:** CE3

Following your recent instruction we attended the above property and carried out a cctv camera survey and hydraulic testing of the drainage, in accordance with procedures detailed in the WRc Drain Repair Book.

Manhole / Inspection chamber Summary:

Node	Invert Level (m)	Manhole Construction	Pipe Size	Pipe Material	Manhole Condition	Type of Cover	Size of Cover
MH1	0.55	Brick & concrete	100/110mm	Clay/UPVC	FAIR	Cast iron	650x450mm

Hydraulic Testing Summary:

Run	From	To	Result	Remarks
1				
2				
3				
4				
5				
6				

Serviceability:

1	Is the system failing to discharge normal household flows to the sewer system? (i.e. recurrence of blockage)	No
2	Is there evidence of leakage occurring (infiltration or exfiltration)?	No
3	Is there intermittent storm-water flooding?	Undetermined
4	Has a hydraulic leakage test failed?	N/A
5	Do observed defects make the drain unserviceable?	No

Comments:

Water mains test passed.

Recommendations for Repair:

Run	Grade	Recommended action
1	A	None required
2	A	None required
3	A	None required
4	A	None required
5		
6		



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Property Address:	113 North Street, Crowland, Peterborough, Cambridgeshire, PE6 0EG
Client Claim Ref:	SU2205333

Run	From	To	Pipe Diameter	Pipe Materials	Duty	Direction	Ownership
1	FWG1	MH1	100mm	Clay	Foul	Downstream	Private
2	MH1	FWG2	100mm	Clay	Foul	Upstream	Private
3	MH1	Downstream	100mm	Clay	Foul	Downstream	Shared
4	MH1	SVP	100mm	Clay	Foul	Upstream	Private
5							
6							

Grade A	Condition grade A: <i>Structurally sound with no leakage evident. Slight crack/defects permitted.</i>
Grade B	Condition grade B: <i>Cracks and/or fractures observed but pipe provides sufficient arching support. Some leakage may be evident.</i>
Grade C	Condition grade C: <i>Structurally unsound with insufficient arching support. Total collapse/blockage likely in the future.</i>

[illegible]