SITE INVESTIGATION
FACTUAL REPORT

Report No: [redacted]

Client: Sedgwick International UK - Maidstone

Site: 17 Brookfield Park

Client Ref: [redacted]

Date of Visit: 13/01/2020

[redacted]

Investigation Layout Plan

Sheet: 1 of 1

Job No: [redacted]

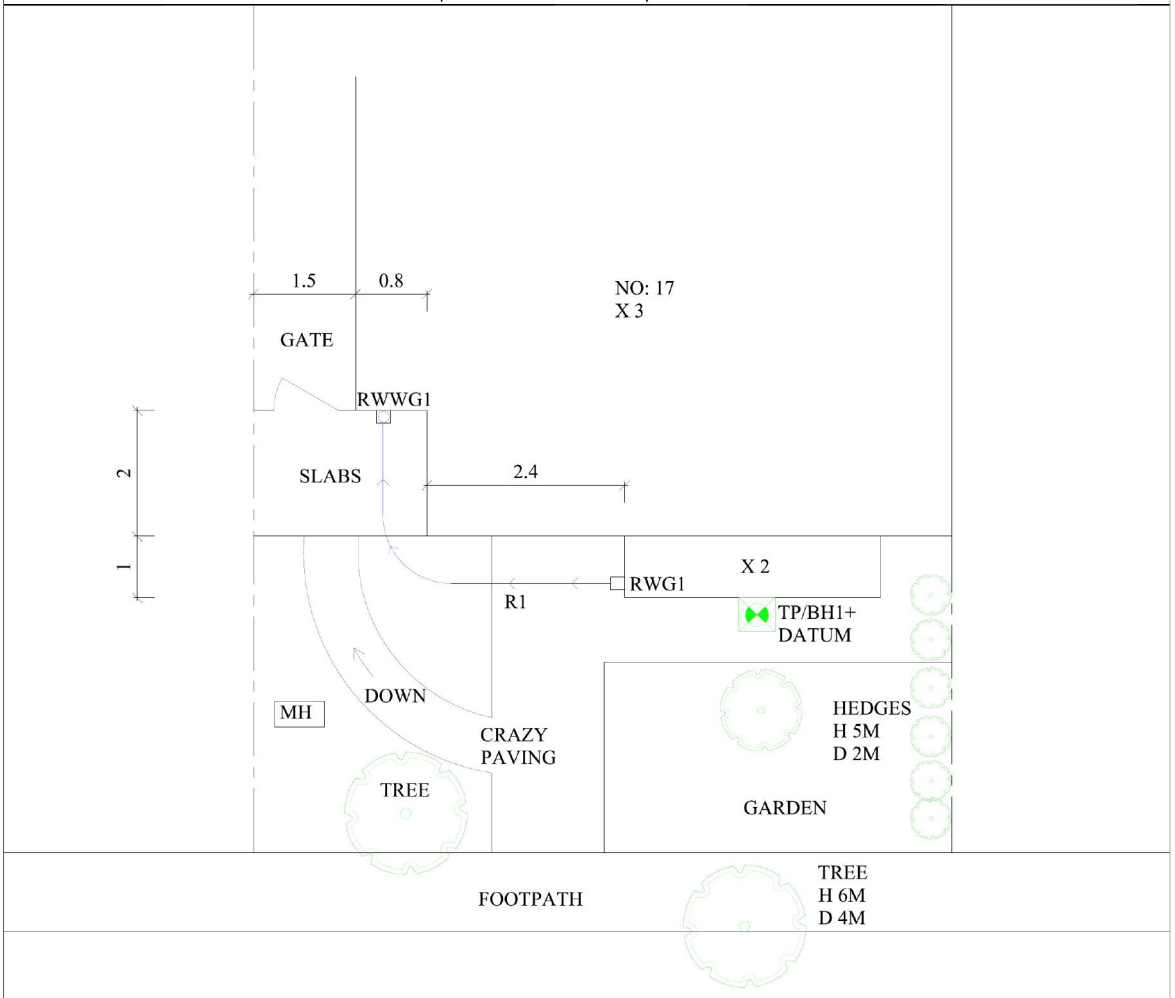
Date: 13/01/2020

Site: 17 Brookfield Park NW5

Work carried out for: Sedgwick International UK

Weather: DRY

(SI) PS (Checked) CFT (Drawn)



Water Supply : Inhouse - outside Tap
Power : Internal - External - None
Parking : Onsite - Road - red Route - Metered - Permit - Other
Site Access : Good - Bad (explain)

FRONT OF PROPERTY
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

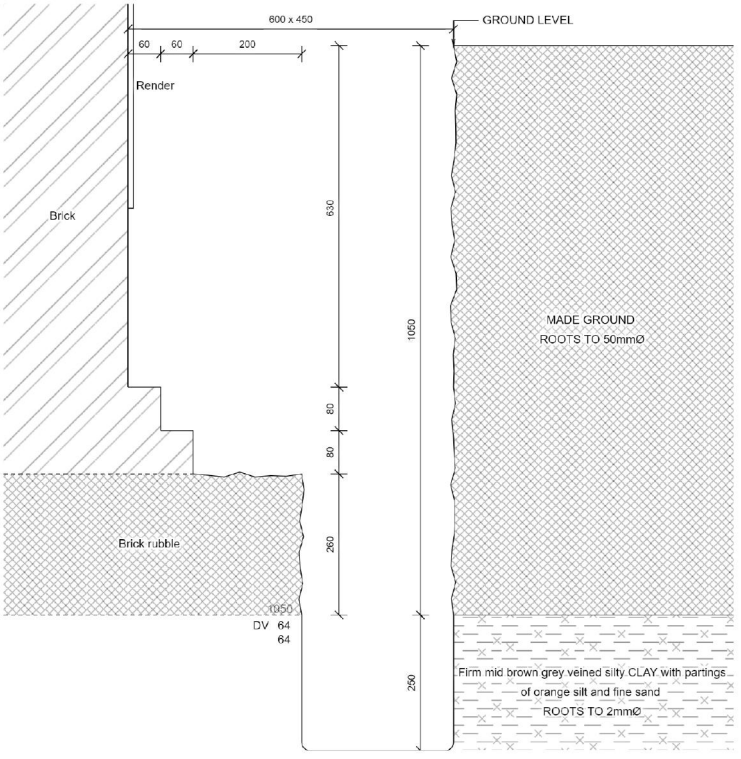
O/D - Open Discharge

PROPERTY ASSURANCE
Giving our all

TEST REPORT: **Trial Pit**

REPORT NUMBER: [redacted]

TRIAL PIT REF:	TP1	DATE:	13/01/2020
CLIENT:	Sedgwick International UK	SITE:	17 Brookfield Park
JOB NO:	[redacted]	WEATHER:	Dry
EXCAVATION METHOD:	Hand tools		



For Strata below 1300mm 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
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.
Amended report.This test report supersedes test report version 1

For and on behalf of CET
Phil Snowden - Geotechnical Manager

[redacted]

Approved Signatory
14-Jan-20

Report Format:

[redacted]

[redacted]

[redacted]

Borehole	1		Sheet:	1 of 2	Site:	17 Brookfield Park
			Job No:	[redacted]		
			Date:	13/01/2020		
Boring Method:	Rotary Auger		Ground Level:		Client:	Sedgwick International UK - Maidstone
Diameter (mm):	100	Weather:	Dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	See Trial Pit	1.30				
1.30	Firm brown grey veind silty CLAY with partings of orange silt and fine sand	0.70		1.50	D	
2.00	Stiff brown grey veind silty CLAY	4.00		2.00	DV	80
						88
				2.50	D	
				3.00	DV	100
						108
				3.50	D	
				4.00	DV	130+
						130+
				4.50	D	

Remarks:

Key:

		To Depth (m)	Max Dia (mm)
D - Disturbed Sample			
B - Bulk Sample			
W - Water Sample	Roots		
J - Jar Sample	Roots		
V - Pilcon Shear Vane (kPa	Roots		
M - Mackintosh Probe	Depth to Water (m)		

TDTD - Too Dense To Drive

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

Borehole	1		Sheet:	2 of 2	Site:	17 Brookfield Park
			Job No:	[redacted]		
			Date:	13/01/2020		
Boring Method:	Rotary Auger		Ground Level:		Client:	Sedgwick International UK - Maidstone
Diameter (mm):	100	Weather:	Dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
				Depth	Type	Result
(m)				5.00	DV	130+
						130+
6.00	End of BH					

Remarks:
BH ends at 6m. BH dry and open on completion. Datum installed at 6m. No roots observed below 1.8m. No soil samples taken or insitu strength tests carried out below 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

	To Depth (m)	Max Dia (mm)
Roots	1.80	1
Roots		
Roots		
Depth to Water (m)		

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

Laboratory Summary Results

Our Ref : [redacted]

Location : 17, Brookfield Park, London

Client: Sedgwick International UK - Maidstone

Address: [redacted]

Date Sampled: 13/01/2020

Date Received : 14/01/2020

Date Tested : 14/01/2020

Date of Report : 22/01/2020

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 1.05	D	32	<5	77	28	49	0.09	49	CV	168	138			64					
	1.5	D	27	<5	75	26	49	0.02	49	CV	168	411								
	2.0	D	32	<5											84					
	2.5	D	33	<5	76	30	46	0.07	46	CV	168	228								
	3.0	D	33	<5											104					
	3.5	D	33	<5	77	28	49	0.11	49	CV	168	294								
	4.0	D	32	<5											> 130					
	4.5	D	31	<5							168	334								
	5.0	D	32	<5							168	398			> 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 : 2018 : Figure 8 - Plasticity Chart for the classification of fine soils

[8] In-house method S5a 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] $SO_3 = 1.2 \times SO_4$

[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
US	Underside of Foundation

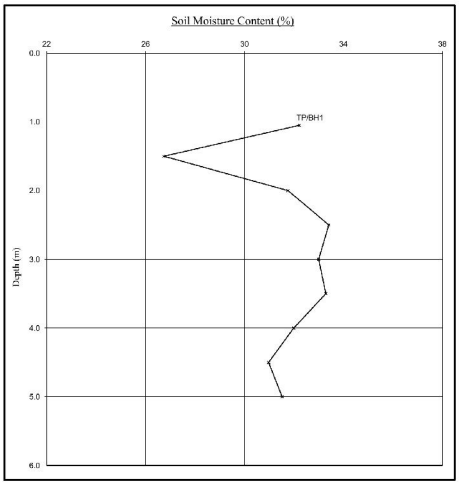
UKAS TESTING

Test results reported relate only to the items tested.

[redacted]

Moisture Content Profiles

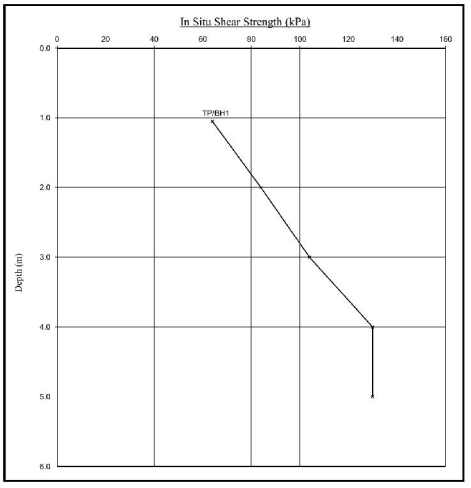
Our Ref : [redacted]
Location : 17, Brookfield Park, London
Work carried out for: Sedgwick International UK - Maidstone



Notes
1. If plotted, 0.4 LL and PI/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

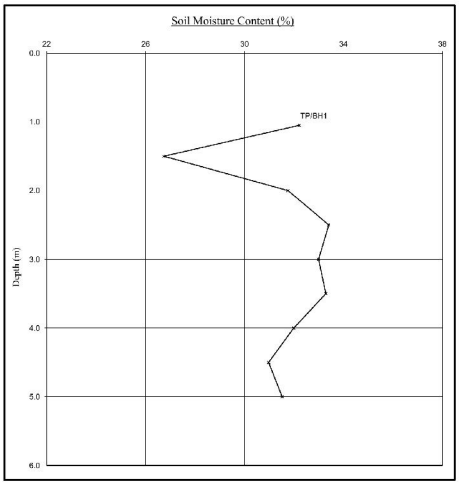
Date Sampled : 13/01/2020
Date Received : 14/01/2020
Date Tested : 14/01/2020
Date of Report : 22/01/2020



Note
1. Unless otherwise stated, values of Shear Strength were determined in situ by CPT using a Pilcon 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.

Moisture Content Profiles

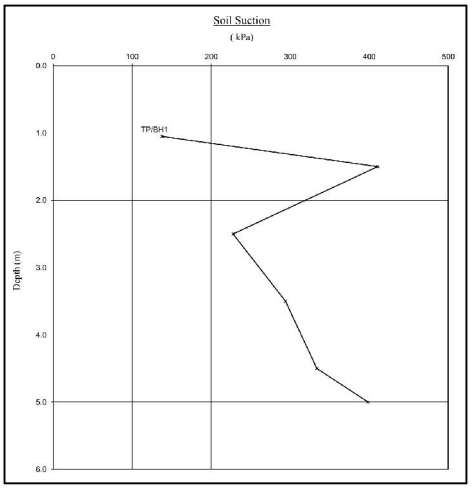
Our Ref : [redacted]
Location : 17, Brookfield Park, London
Work carried out for: Sedgwick International UK - Maidstone



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 : 13/01/2020
Date Received : 14/01/2020
Date Tested : 14/01/2020
Date of Report : 22/01/2020



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: **15/01/2020** Order No: [redacted] EPSL Ref: [redacted]	Site: **17 Brookfield Park, NW5** Work carried out for: **Sedgwick International UK**

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	Pomoideae gp.	Positive
TP1 (USF)	1 mm	probably Cupressaceae spp. but possibly Taxodiaceae spp. * 3 roots	Positive
BH1 (to 1.8m)	1 mm	Pomoideae gp. 2 roots	Positive
BH1 (to 1.8m)	1.5 mm	Rosa spp. 2 roots	Positive

* Juvenile roots.

Pomoideae gp include apple, cotoneaster, hawthorn, pear, pyracantha, quince, rowan, snowy mespil and whitebeam.
Cupressaceae spp. include Lawson cypress, western red cedar, Monterey cypress, Leyland cypress and junipers.
Taxodiaceae spp. include coast redwood, dawn redwood, Wellingtonia and Japanese red cedar.
Rosa spp. are roses.

[redacted] [redacted]

MDM GST

[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]

[redacted]

To: Sedgwick International UK - Maidstone
4 North Court
South Park Business Village
Armstrong Road
Kent
ME15 6JZ

Date: **14-Jan-20**

Fao: Gavin Cutheline

ESTIMATE

Site:- 17 Brookfield Park

[redacted]

Item		
1.0	Location	**RWG1 downstream to RWWG1 - Run 1.**
	Shared System	Yes with flats
	Condition Grade	B
	Drain Serviceability	Unserviceable
	Work Spec	Excavate and replace gully plus 3 metres of pipe work downstream.

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:- **17 Brookfield Park**

Client :- **Sedgwick International UK - Maidstone**
Attention of:- **Gavin Catheline**

Client ref [redacted]
Job Number :-
Insurer Unknown Insurer (Not Relevant)
Date:- 14-Jan-20
Recommendation 1

Item No	Description RWGI downstream to RWWGI - Run 1.	Unit	Quantity	[redacted]
1.0	**Emergency Drain Blockage Clearance**			
1.1	Unblock drain 8am-6pm - First 1/2 Hour	Item		
1.2	Unblock drain 8am-6pm- Subsequent 1/2 Hour	Item		
1.3	Unblock drain 6pm-midnight	Item		
1.4	Unblock drain 6pm-midnight - Subsequent 1/2 hour	Item		
2.1	**CCTV Surveys**			
2.2	Undertake CCTV survey 8am-6pm (up to 3 hours)	Item		
2.3	Additional 1/2 hr survey charge	Item		
3.0	**Replacing Underground Drainage**			
3.1	**Gullies**			
3.2	Take out and replace gulley (100mm outlet)	Item	1	
3.3	Take out and replace rodding point (100mm outlet)	Item		
3.4	**Bends/junctions**			
3.5	Excavate and replace rest bend (100mm outlet)	Item		
3.6	Excavate and replace rest bend (150mm outlet)	Item		
3.7	Excavate and replace junction/bend (100mmØ), Excavation depth 0-1m.	Item	3	
3.8	Excavate and replace junction/bend (150mmØ), Excavation depth 0-1m	Item		
3.9	Excavate and replace junction/bend (100mmØ), Excavation depth 1-1.5m.	Item		
3.10	Excavate and replace junction/bend (150mmØ), Excavation depth 1-1.5m.	Item		
3.11	Excavate and replace junction/bend (100mmØ), Excavation depth 1.5-2.0m.	Item		
3.12	Excavate and replace junction/bend (150mmØ), Excavation depth 1.5-2.0m.	Item		
3.13	**Pipes**			
3.14	Excavate trench and replace 100mmØ pipework, Excavation depth 0-1m, First 10m.	m	3	
3.15	Excavate trench and replace 150mmØ pipework, Excavation depth 0-1m, First 10m.	m		
3.16	Excavate trench and replace 100mmØ pipework, Excavation depth 0-1m.	m		
3.17	Excavate trench and replace 150mmØ pipework, Excavation depth 0-1m.	m		
3.18	Excavate trench and replace 100mmØ pipework, Excavation depth 1-1.5m, First 10m.	m		
3.19	Excavate trench and replace 150mmØ pipework, Excavation depth 1-1.5m, First 10m.	m		
3.20	Excavate trench and replace 100mmØ pipework, Excavation depth 1-1.5m.	m		
3.21	Excavate trench and replace 150mmØ pipework, Excavation depth 1-1.5m.	m		
3.22	Excavate trench and replace 100mmØ pipework, Excavation depth 1.5-2.0m, First 10m.	m		
3.23	Excavate trench and replace 150mmØ pipework, Excavation depth 1.5-2.0m, First 10m.	m		
3.24	Excavate trench and replace 100mmØ pipework, Excavation depth 1.5-2.0m.	m		
3.25	Excavate trench and replace 150mmØ pipework, Excavation depth 1.5-2.0m.	m		
3.26	**Surface Reinstatement of Trenches**			
3.27	Excavate through and reinstate turf.			
3.28	Excavate through and replace concrete paving slabs	m	1	
3.29	Excavate through and replace block paving	m		
3.30	Excavate through and reinstate plain concrete, maximum thickness 100mm.	m		
3.31	Excavate through and reinstate plain concrete, thickness 100- 200mm.	m		
3.32	Excavate through and reinstate reinforced concrete, maximum thickness 100mm.	m		
3.33	Excavate through and reinstate reinforced concrete, thickness 100-200mm.	m		
3.34	Excavate through and reinstate Tarmac - Cold rolled	m		
3.35	Excavate through and reinstate Tarmac - Hot rolled	m		
3.36	Reinstatement of crazy paving	m	1	
4.0	**Lining**			
4.1	Set up lining rig for drain lining including first 3m of lining per run, for 100mm or 150mm	Item		
4.2	Line 100mmØ drain	m		
	Super Flex Liner 100mm drain	m		
4.3	Line 150mmØ drain	m		
	Super Flex Liner 150mm drain	m		
4.4	Post lining CCTV survey	no		
4.5	Minimum lining charge	Item		
4.6	Root cutting of drain prior to lining	hr		
4.7	Set up lining rig for patch lining	Item		
4.8	Patch line 100mmØ drain	no		
4.9	Patch line 150mmØ drain	no		
4.10	Post patch lining CCTV survey	Item		
4.11	Minimum patch lining charge	Item		
4.12	Re-open lateral branch up to 2m length, pipe up to 150mm	no		
4.13	Re-open lateral branch over 2m length, pipe up to 150mm	no		
	Epoxy resin	no		
5.0	**Miscellaneous**			
5.1	Excavation and backfill of soakaway (1m3) with stone	Item		
5.2	% Uplift on disbursements and suppliers charges	%		
5.3	Daywork - Hourly labour rate	hr		
5.4	Minimum project value	Item		
5.5				
5.6				
5.7				
5.8				
6.0	**Additional items**			
6.1	De-scaling (fat/grime)	hr		
6.2	De-scaling (scale using chain flails)	hr		
6.3	Gully surround	item		
6.4	Manhole works (up to 1.2m)	item		
6.6	Oversize soakaway (1.5m3)	item		
6.7	Soakaway >1.5m3	item		
6.8	Waste disposal	m	3	
6.9	Shoring	m	0	
	Total Estimate Price For Recommendation Number		1.0	
	Subject to discount		**0.00**	
	Total subject to VAT @ 20%			

Note: Subject to the attached Terms and Condtions
A - When calculating prices, all measurements are rounded up
B - Depths are taken to the base of excavations
C - Every effort will be made to match existing surfaces where disturbed although this cannot be guaranteed
D - All rates exclude VAT
G - Daywork rates do not include for materials that are charged at cost plus 25%
F - The above rates are subject to re-measurement
KEY: ne = not exceeding, eo = extra over rate, m = linear metre, nr = number, hr = hour
E - Depths are taken to the base of excavations

Coding Sheet

Sheet:		Site:	17 Brookfield Park		
Job No.:	[redacted]				
Date:	[redacted]	Client:	Sedgwick International UK - Maidstone		

Run:	**1**							
From:		Rwg1	Invert Level:			Direction:	D/S	
To:		Rwwg1	Invert Level:			Function:	S/W	
Pipe Material:		VC	Pipe Dia:		100			
Water/Pressure Test:			Drain Break-In:		Yes	Gully Condition:	Poor	
						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								
0.00	LD						Line deviates down	Crazy paving	
0.10	OJM						Open joint medium	Flower bed	
0.40	GO						Line levels	Slabs	
0.50	JDM						Joint displaced medium		
0.90	DES				20		Debris silt		
0.90	RMJ				10		Roots mass		
1.30	JDM						Joint displaced medium		
1.80	CC	12	12				Crack circumferential		
1.80	RFJ						Roots fine at joint		
2.10	LR						Line deviates right		
2.20	JDM						Joint displaced medium		
2.50	JDM						Joint displaced medium		
3.00	JN	3		100			Unknown		
3.10	DES				20		Debris silt		
4.40	FH						Reached Rwwg1		

Comments: