SITE INVESTIGATION
FACTUAL REPORT

Report No:	471347
Client:	Cunningham Lindsey - Maidstone
Site:	88 Albert Street
Client Ref:	6562721-Miss Eugenia Hartono & Mr Alexander David Howson
Date of Visit:	08/11/17

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: 471347

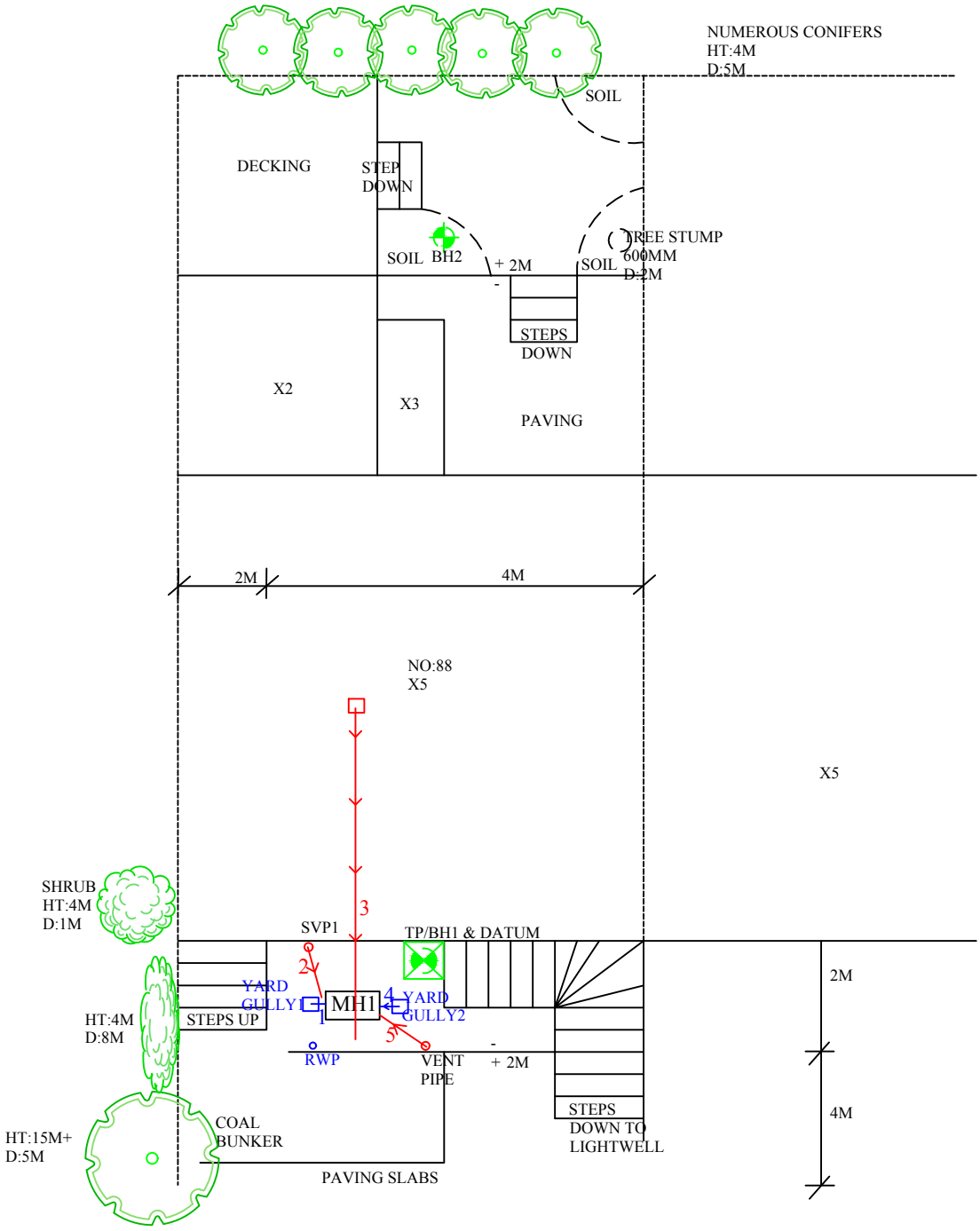
Date: 08/11/2017

Site: 88 Albert Street, MW1

Work carried out for: Cunningham Lindsey

SP	SA	SK
(SI)	(Checked)	(Drawn)

Weather: DRY



ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.

Remarks:

Water supply- Inhouse
Power- Internal
Parking- Road- Permit
Site access- Bad- Through house, down slippery steps to lightwell

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: 471347

Date: 08/11/2017

Site: 88 Albert Street

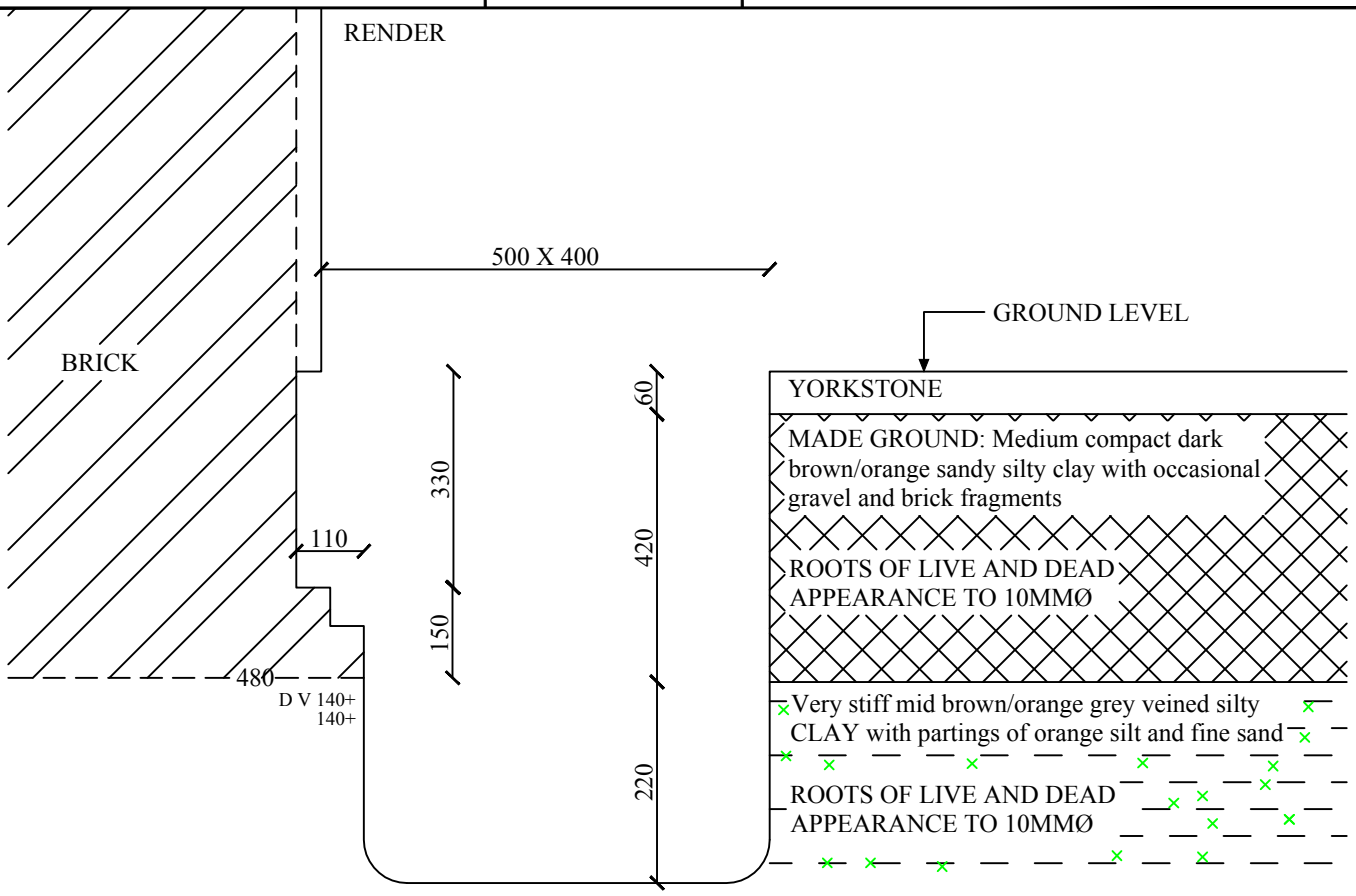
Work carried out for: Cunningham Lindsey

Hand Tools

Drawn by: ANS

Weather: DRY

Ground Level mOD:



FOR STRATA BELOW 700 mm SEE BH LOG

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: SP | Checked: SA | Approved: | Scale: N.T.S.

Borehole	1+datum		Sheet:	1 of 2	Site:	88 Albert Street,
			Job No:	471347		
			Date:	08/11/2017		
Boring Method:	Hand Auger		Ground Level:		Client:	Cunningham Lindsey - Maidstone
Diameter (mm):	75	Weather:	dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	See Trial Pit	0.70				
0.70	Very Stiff mid brown-orange grey veined silty CLAY with partings of orange silt and fine sand.	0.30				
1.00	Stiff orange-brown silty CLAY	1.00		1.00	DV	120
						124
				1.50	DV	126
						126
2.00	Very Stiff orange-brown silty CLAY with ocassional claystone nodules	4.00		2.00	DV	140+
						140+
				2.50	DV	140+
						140+
				3.00	DV	140+
						140+
				3.50	DV	140+
						140+
				4.00	DV	140+
						140+
				4.50	DV	140+
						140+

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 (kP	Roots		
M - Mackintosh Probe	Depth to Water (m)		

TDTD - Too Dense To Drive

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

Borehole	1+datum		Sheet:	2 of 2	Site:	88 Albert Street,
			Job No:	471347		
			Date:	08/11/2017		
Boring Method:	Hand Auger		Ground Level:		Client:	Cunningham Lindsey - Maidstone
Diameter (mm):	75	Weather:	dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
				5.00	DV	140+
						140+
6.00	End of BH					

Remarks:
BH ends at 6.0m.BH dry and open on completion,
no roots observed below 2.2m.
Datum installed at 6.0m no soil samples taken or insitu strength tests carried out below 5.0m.

Key:

		To Depth (m)	Max Dia (mm)
D - Disturbed Sample			
B - Bulk Sample			
W - Water Sample	Roots	1.50	2
J - Jar Sample	Roots	2.20	1
V - Pilcon Shear Vane (kPa	Roots		
M - Mackintosh Probe	Depth to Water (m)		

TDTD - Too Dense To Drive

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

Borehole	2		Sheet:	1 of 1	Site:	88 Albert Street,
			Job No:	471347		
			Date:	08/11/2017		
Boring Method:	Hand Auger		Ground Level:		Client:	Cunningham Lindsey - Maidstone
Diameter (mm):	75	Weather:	dry			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	MADEGROUND medium compact brown silty sandy clay with ocassional gravel and brick fragments	1.20		1.00	DM	26
						28
1.20	Very Stiff orange-brown silty CLAY with ocassional claystone nodules	3.80				50(60)
						50(70)
				1.50	DV	140+
						140+
				2.00	DV	140+
						140+
				2.50	DV	140+
						140+
				3.00	DV	140+
						140+
				3.50	DV	140+
						140+
				4.00	DV	140+
						140+
				4.50	DV	140+
						140+
				5.00	DV	140+
5.00	End of BH					140+

Remarks:
BH ends at 5.0m.BH dry and open on completion.No roots observed below 2.8m.

Key:

		To Depth (m)	Max Dia (mm)
D - Disturbed Sample			
B - Bulk Sample			
W - Water Sample	Roots	2.80	1
J - Jar Sample	Roots		
V - Pilcon Shear Vane (kPa	Roots		
M - Mackintosh Probe	Depth to Water (m)		

TDTD - Too Dense To Drive

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

Laboratory Summary Results

Our Ref : 471347

Location : 88, Albert Street, London

Client: Cunningham Lindsey - Maidstone

Address: 4 North Court, South Park Business Village, Armstrong Road, ME15 6JZ

Date Sampled: 08/11/17

Date Received : 09/11/17

Date Tested : 10/11/17

Date of Report : 23/11/17

Sample Ref TP/BH No	Sample Ref 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 0.48	D	30	<5	77	27	50	0.07	50	CV	168	745			> 140					
	1.0	D	32	<5	80	28	52	0.08	52	CV	168	640			122					
	1.5	D	32	<5											126					
	2.0	D	31	<5	75	26	49	0.11	49	CV	168	667			> 140					
	2.5	D	35	<5											> 140					
	3.0	D	30	<5	74	27	47	0.06	47	CV	168	835			> 140					
	3.5	D	26	<5											> 140					
	4.0	D	30	<5							168	893			> 140					
	4.5	D	30	<5											> 140					
	5.0	D	31	<5							168	1019			> 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

Our Ref : 471347

Laboratory Testing Results

Date Sampled : 08/11/17

Location : 88, Albert Street, London

Date Received : 09/11/17

Client: Cunningham Lindsey - Maidstone

Date Tested : 10/11/17

Address: 4 North Court, South Park Business Village, Armstrong Road, ME15 6JZ

Date of Report : 23/11/17

Sample Ref.		Type	Moisture Content	Soil Fraction	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity * Index	Modified * Plasticity Index	Soil * Class	Filter Paper Contact Time	Soil Sample Suction	Oedometer Strain	Estimated Heave Potential (Dd)	In situ * Shear Vane Strength	Organic * Content	pH * Value	Sulphate Content * (g / l)		* Class
TP/BH No.	Depth (m)		(%) *[1]*	> 0.425mm (%) *[2]*	(%) *[3]*	(%) *[4]*	(%) *[5]*	*[5]*	(%) [6]	*[7]*	(h)	(kPa) [8]	*[9]*	*(mm)[10]*	(kPa) *[11]*	(%)*[12]*	*[13]*	SO_3 *[14]*	SO_4 *[15]*	*[16]*
BH2	1.0	D	24	11	62	25	37	-0.02	33	CH	168	558								
	1.5	D	29	<5											> 140					
	2.0	D	26	<5	80	24	56	0.04	56	CV	168	1357			> 140					
	2.5	D	26	<5											> 140					
	3.0	D	26	<5	78	26	52	-0.01	52	CV	168	1328			> 140					
	3.5	D	26	<5											> 140					
	4.0	D	25	<5							168	1361			> 140					
	4.5	D	26	<5											> 140					
	5.0	D	29	<5							168	1178			> 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.

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Full reports can be provided upon request

Key

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U/S	Underside of Foundation

UKAS TESTING

8618

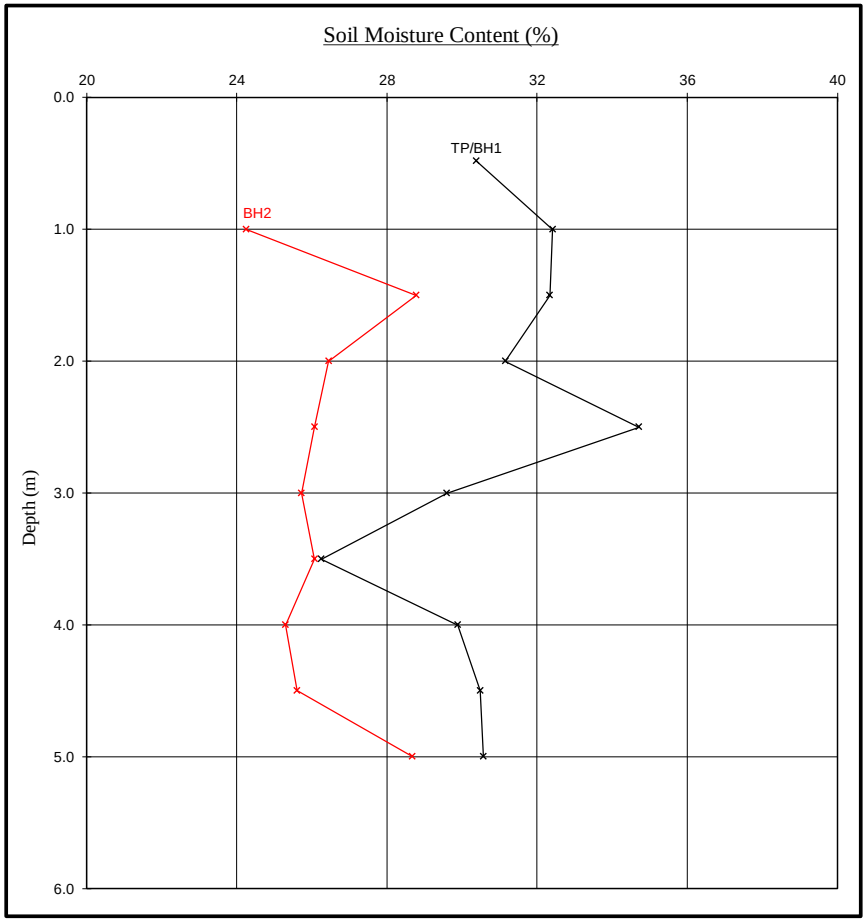
Version: 5BH V1.4 - 11/05/15

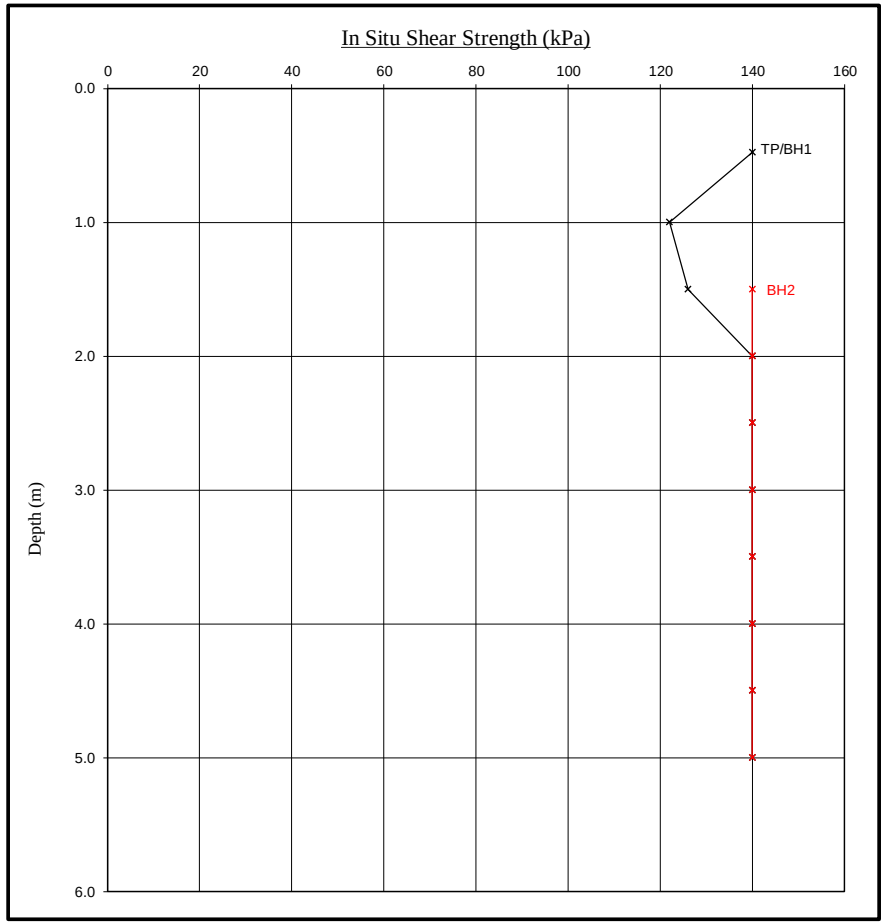
Moisture Content Profiles

Shear Strength Profiles

Our Ref : 471347
Location : 88, Albert Street, London
Work carried out for: Cunningham Lindsey - Maidstone

Date Sampled : 08/11/17
Date Received : 09/11/17
Date Tested : 10/11/17
Date of Report : 23/11/17





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.

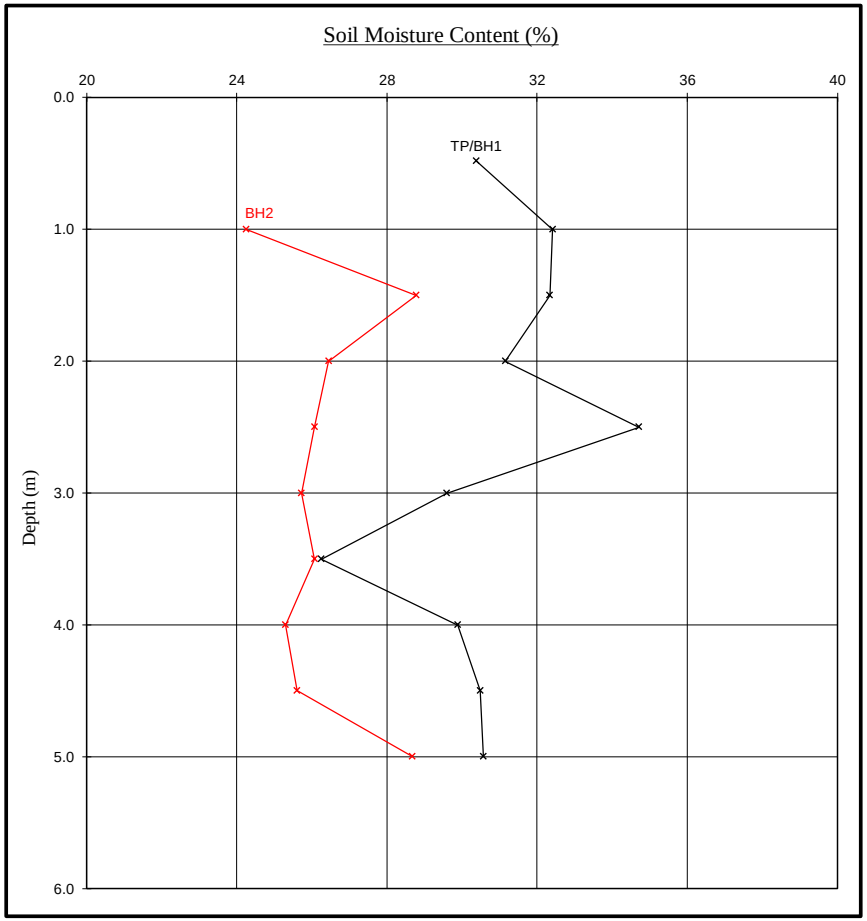
Note
1. Unless otherwise stated, values of Shear Strength were determined in situ by CET using a Pilcon Hand Vane the calibration of which is limited to a maximum reading of 140 kPa.
2. Unless specifically noted the profiles have not been related to a site datum.

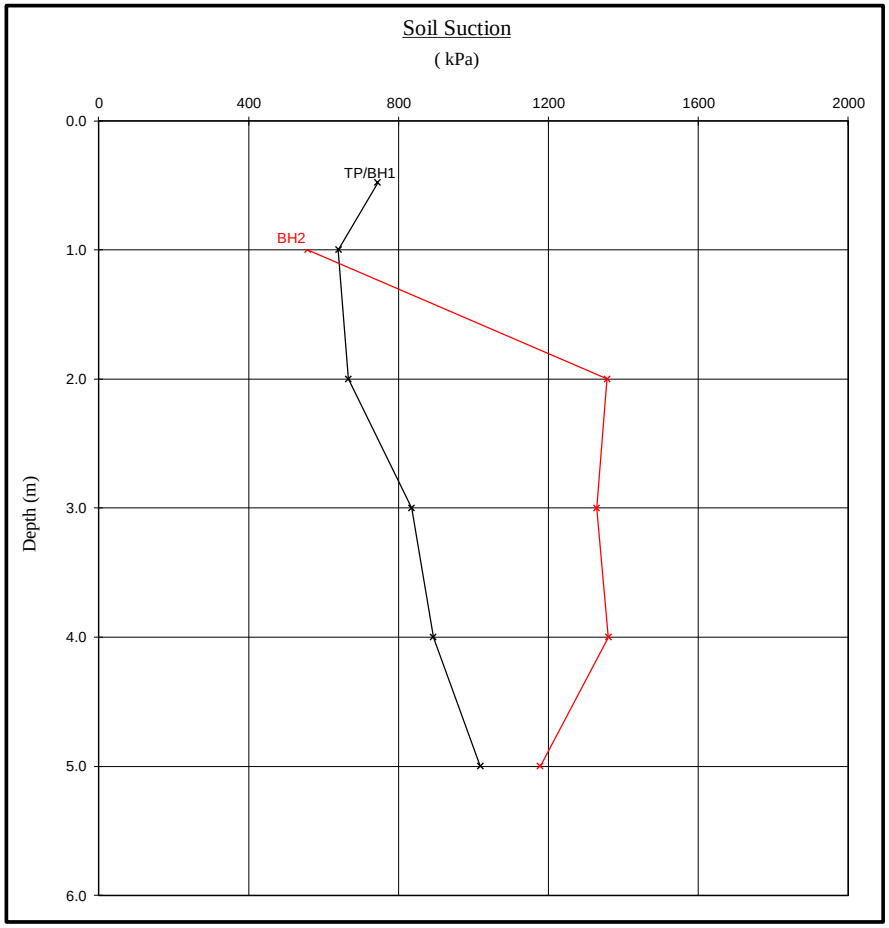
Moisture Content Profiles

Soil Suction Profiles

Our Ref : 471347
Location : 88, Albert Street, London
Work carried out for: Cunningham Lindsey - Maidstone

Date Sampled : 08/11/17
Date Received : 09/11/17
Date Tested : 10/11/17
Date of Report : 23/11/17





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.

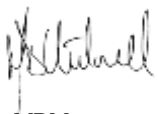
EPSL ***European Plant Science Laboratory***	Sheet: 1 of 1 Job No: **471347** Date: **13/11/2017** Order No: **1065527** EPSL Ref: **R20645**	Site: **88 Albert Street, NW1** Work carried out for: **Cunningham Lindsey**

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)	10 mm	Tilia spp. 4 roots	Positive
TP1 (USF)	8 mm	Vitaceae spp.	Positive
BH1 (1.5-2.2m)	1.5 mm	Fuchsia spp.	Positive
BH1 (1.5-2.2m)	1 mm	Vitaceae spp.	Positive
BH1 (1.5-2.2m)	1 mm	Tilia spp. 3 roots	Positive
BH2 (to 2.8m)	1 mm	Cupressaceae spp. 2 roots	Positive

Tilia spp. are limes.
Vitaceae spp. include creepers such as Parthenocissus (Virginia creeper), Vitis (grape vine) and Ampelopsis.
Fuchsia spp. are common flowering shrubs.
Cupressaceae spp. include Lawson cypress, western red cedar, Monterey cypress, Leyland cypress and junipers.



MDM

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 R J Shaw B.Sc. (Hons), 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

To: Cunningham Lindsey - Maidstone
4 North Court
South Park Business Village
Armstrong Road
Kent
ME15 6JZ

Our Ref: **471347**
Your Ref: **6562721**
Date: **14-Nov-17**

Ftao: Gavin Catheline

ESTIMATE

Site:- 88 Albert Street

Item			Amount
1.0	Location	**Mh 1 upstream to Yard gully 1 - Run 1**	£1,361.50
	Shared System	Yes with flats	
	Condition Grade	B	
	Drain Serviceability	Unserviceable	
	Work Spec	Remove Mh cover + frame. Break down 500mm of side wall to Mh. Excavate and replace gully + re-route pipework to enter Mh at a higher level and install an internal back drop to discharge into Mh. Re-build side wall of Mh. Replace Mh frame + cover.	
2.0	Location	**Mh 1 upstream to Yard gully 2 - Run 4**	£499.00
	Shared System	Yes with flats	
	Condition Grade	B	
	Drain Serviceability	unserviceable	
	Work Spec	Break down 500mm of side wall to Mh. Excavate and replace gully + pipework downstream to Mh 1.	

Works is in a lightwell care to be taken when using steps up and down.

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

Total	£1,860.50
plus VAT @20%	£372.10
Total + VAT	£2,232.60

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:- **88 Albert Street**

Client :- **Cunningham Lindsey - Maidstone**
Attention of:- **Gavin Catheline**

Client ref	6562721
Job Number :-	471347
Insurer	Prestige
Date:-	14-Nov-17
Recommendation	1

Item No	Description Mh 1 upstream to Yard gully 1 - Run 1	Unit	Quantity	Rate (£)	Price (£)
1.0	**Emergency Drain Blockage Clearance**				
1.1	Unblock drain 8am-6pm - First 1/2 Hour	Item		**£70.00**	£0.00
1.2	Unblock drain 8am-6pm- Subsequent 1/2 Hour	Item		**£30.00**	£0.00
1.3	Unblock drain 6pm-midnight	Item		**£100.00**	£0.00
1.4	Unblock drain 6pm-midnight - Subsequent 1/2 hour	Item		**£35.00**	£0.00
2.1	**CCTV Surveys**				
2.2	Undertake CCTV survey 8am-6pm (up to 3 hours)	Item		**£130.00**	£0.00
2.3	Additional 1/2 hr survey charge	Item		**£30.00**	£0.00
3.0	**Replacing Underground Drainage**				
3.1	**Gullies**				
3.2	Take out and replace gulley (100mm outlet)	Item	1	**£130.00**	£130.00
3.3	Take out and replace rodding point (100mm outlet)	Item		**£90.00**	£0.00
3.4	**Bends/junctions**				
3.5	Excavate and replace rest bend (100mm outlet)	Item		**£90.00**	£0.00
3.6	Excavate and replace rest bend (150mm outlet)	Item		**£120.00**	£0.00
3.7	Excavate and replace junction/bend (100mmØ), Excavation depth 0-1m.	Item	2	**£70.00**	£140.00
3.8	Excavate and replace junction/bend (150mmØ), Excavation depth 0-1m	Item		**£70.00**	£0.00
3.9	Excavate and replace junction/bend (100mmØ), Excavation depth 1-1.5m.	Item		**£70.00**	£0.00
3.10	Excavate and replace junction/bend (150mmØ), Excavation depth 1-1.5m.	Item		**£70.00**	£0.00
3.11	Excavate and replace junction/bend (100mmØ), Excavation depth 1.5-2.0m.	Item		**£70.00**	£0.00
3.12	Excavate and replace junction/bend (150mmØ), Excavation depth 1.5-2.0m.	Item		**£70.00**	£0.00
3.13	**Pipes**				
3.14	Excavate trench and replace 100mmØ pipework, Excavation depth 0-1m, First 10m.	m	1.5	**£95.00**	£142.50
3.15	Excavate trench and replace 150mmØ pipework, Excavation depth 0-1m, First 10m.	m		**£120.00**	£0.00
3.16	Excavate trench and replace 100mmØ pipework, Excavation depth 0-1m.	m		**£95.00**	£0.00
3.17	Excavate trench and replace 150mmØ pipework, Excavation depth 0-1m.	m		**£120.00**	£0.00
3.18	Excavate trench and replace 100mmØ pipework, Excavation depth 1-1.5m, First 10m.	m		**£150.00**	£0.00
3.19	Excavate trench and replace 150mmØ pipework, Excavation depth 1-1.5m, First 10m.	m		**£160.00**	£0.00
3.20	Excavate trench and replace 100mmØ pipework, Excavation depth 1-1.5m.	m		**£150.00**	£0.00
3.21	Excavate trench and replace 150mmØ pipework, Excavation depth 1-1.5m.	m		**£160.00**	£0.00
3.22	Excavate trench and replace 100mmØ pipework, Excavation depth 1.5-2.0m, First 10m.	m		**£270.00**	£0.00
3.23	Excavate trench and replace 150mmØ pipework, Excavation depth 1.5-2.0m, First 10m.	m		**£290.00**	£0.00
3.24	Excavate trench and replace 100mmØ pipework, Excavation depth 1.5-2.0m.	m		**£250.00**	£0.00
3.25	Excavate trench and replace 150mmØ pipework, Excavation depth 1.5-2.0m.	m		**£270.00**	£0.00
3.26	**Surface Reinstatement of Trenches**				
3.27	Excavate through and reinstate turf.			**£0.00**	£0.00
3.28	Excavate through and replace concrete paving slabs	m		**£30.00**	£0.00
3.29	Excavate through and replace block paving	m		**£50.00**	£0.00
3.30	Excavate through and reinstate plain concrete, maximum thickness 100mm.	m	2	**£47.00**	£94.00
3.31	Excavate through and reinstate plain concrete, thickness 100- 200mm.	m		**£95.00**	£0.00
3.32	Excavate through and reinstate reinforced concrete, maximum thickness 100mm.	m		**£90.00**	£0.00
3.33	Excavate through and reinstate reinforced concrete, thickness 100-200mm.	m		**£115.00**	£0.00
3.34	Excavate through and reinstate Tarmac - Cold rolled	m		**£48.00**	£0.00
3.35	Excavate through and reinstate Tarmac - Hot rolled	m		**POA**	
3.36	Reinstatement of crazy paving	m		**£75.00**	£0.00
4.0	**Lining**				
4.1	Set up lining rig for drain lining including first 3m of lining per run, for 100mm or 150mm	Item		**£290.00**	£0.00
4.2	Line 100mmØ drain	m		**£50.00**	£0.00
	Super Flex Liner 100mm drain	m		**£90.00**	
4.3	Line 150mmØ drain	m		**£70.00**	£0.00
	Super Flex Liner 150mm drain	m		**£110.00**	
4.4	Post lining CCTV survey	no		**£100.00**	£0.00
4.5	Minimum lining charge	Item		**£290.00**	£0.00
4.6	Root cutting of drain prior to lining	hr		**£65.00**	£0.00
4.7	Set up lining rig for patch lining	Item		**£0.00**	£0.00
4.8	Patch line 100mmØ drain	no		**£250.00**	£0.00
4.9	Patch line 150mmØ drain	no		**£280.00**	£0.00
4.10	Post patch lining CCTV survey	Item		**£100.00**	£0.00
4.11	Minimum patch lining charge	Item		**£250.00**	£0.00
4.12	Re-open lateral branch up to 2m length, pipe up to 150mm	no		**£190.00**	£0.00
4.13	Re-open lateral branch over 2m length, pipe up to 150mm	no		**£280.00**	£0.00
5.0	**Miscellaneous**				
5.1	Excavation and backfill of soakaway (1m3) with stone	Item		**£400.00**	£0.00
5.2	% Uplift on disbursements and suppliers charges	%		**1.25**	£0.00
5.3	Daywork - Hourly labour rate	hr	18	**£30.00**	£540.00
5.4	Minimum project value	Item		**£346.50**	£0.00
5.5	Removal of Mh cover + frame	Item	1	**£75.00**	£75.00
5.6	Break down and re-building of side wall to Mh	Item	1	**£200**	£200.00
5.7					£0.00
5.8					£0.00
6.0	**Additional items**				
6.1	De-scaling (fat/grime)	hr		**£65.00**	£0.00
6.2	De-scaling (scale using chain flails)	hr		**£90.00**	£0.00
6.3	Gully surround	item		**£30.00**	£0.00
6.4	Manhole works (up to 1.2m)	item		**£80.00**	£0.00
6.6	Oversize soakaway (1.5m3)	item		**£600.00**	£0.00
6.7	Soakaway >1.5m3	item		**POA**	
6.8	Waste disposal	m	2	**£20.00**	£40.00
6.9	Shoring	m		**£40.00**	£0.00
	Total Estimate Price For Recommendation Number		1.0		£1,361.50
	Subject to discount		**0.00**		£0.00
	Total subject to VAT @ 20%				£1,361.50

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

ESTIMATING & COSTING SHEET - DOMESTIC DRAINAGE

Site:- **88 Albert Street**

Client :- **Cunningham Lindsey - Maidstone**
Attention of:- **Gavin Catheline**

Client ref	6562721
Job Number :-	471347
Insurer	Prestige
Date:-	14-Nov-17
Recommendation	2

Item No	Description Mh 1 upstream to Yard gully 2 - Run 4	Unit	Quantity	Rate	Price
				(£)	(£)
1.0	**Emergency Drain Blockage Clearance**				
1.1	Unblock drain 8am-6pm - First 1/2 Hour	Item		**£70.00**	£0.00
1.2	Unblock drain 8am-6pm- Subsequent 1/2 Hour	Item		**£30.00**	£0.00
1.3	Unblock drain 6pm-midnight	Item		**£100.00**	£0.00
1.4	Unblock drain 6pm-midnight - Subsequent 1/2 hour	Item		**£35.00**	£0.00
2.1	**CCTV Surveys**				
2.2	Undertake CCTV survey 8am-6pm (up to 3 hours)	Item		**£130.00**	£0.00
2.3	Additional 1/2 hr survey charge	Item		**£30.00**	£0.00
3.0	**Replacing Underground Drainage**				
3.1	**Gullies**				
3.2	Take out and replace gulley (100mm outlet)	Item	1	**£130.00**	£130.00
3.3	Take out and replace rodding point (100mm outlet)	Item		**£90.00**	£0.00
3.4	**Bends/junctions**				
3.5	Excavate and replace rest bend (100mm outlet)	Item		**£90.00**	£0.00
3.6	Excavate and replace rest bend (150mm outlet)	Item		**£120.00**	£0.00
3.7	Excavate and replace junction/bend (100mmØ), Excavation depth 0-1m.	Item	2	**£70.00**	£140.00
3.8	Excavate and replace junction/bend (150mmØ), Excavation depth 0-1m	Item		**£70.00**	£0.00
3.9	Excavate and replace junction/bend (100mmØ), Excavation depth 1-1.5m.	Item		**£70.00**	£0.00
3.10	Excavate and replace junction/bend (150mmØ), Excavation depth 1-1.5m.	Item		**£70.00**	£0.00
3.11	Excavate and replace junction/bend (100mmØ), Excavation depth 1.5-2.0m.	Item		**£70.00**	£0.00
3.12	Excavate and replace junction/bend (150mmØ), Excavation depth 1.5-2.0m.	Item		**£70.00**	£0.00
3.13	**Pipes**				
3.14	Excavate trench and replace 100mmØ pipework, Excavation depth 0-1m, First 10m.	m	1	**£95.00**	£95.00
3.15	Excavate trench and replace 150mmØ pipework, Excavation depth 0-1m, First 10m.	m		**£120.00**	£0.00
3.16	Excavate trench and replace 100mmØ pipework, Excavation depth 0-1m.	m		**£95.00**	£0.00
3.17	Excavate trench and replace 150mmØ pipework, Excavation depth 0-1m.	m		**£120.00**	£0.00
3.18	Excavate trench and replace 100mmØ pipework, Excavation depth 1-1.5m, First 10m.	m		**£150.00**	£0.00
3.19	Excavate trench and replace 150mmØ pipework, Excavation depth 1-1.5m, First 10m.	m		**£160.00**	£0.00
3.20	Excavate trench and replace 100mmØ pipework, Excavation depth 1-1.5m.	m		**£150.00**	£0.00
3.21	Excavate trench and replace 150mmØ pipework, Excavation depth 1-1.5m.	m		**£160.00**	£0.00
3.22	Excavate trench and replace 100mmØ pipework, Excavation depth 1.5-2.0m, First 10m.	m		**£270.00**	£0.00
3.23	Excavate trench and replace 150mmØ pipework, Excavation depth 1.5-2.0m, First 10m.	m		**£290.00**	£0.00
3.24	Excavate trench and replace 100mmØ pipework, Excavation depth 1.5-2.0m.	m		**£250.00**	£0.00
3.25	Excavate trench and replace 150mmØ pipework, Excavation depth 1.5-2.0m.	m		**£270.00**	£0.00
3.26	**Surface Reinstatement of Trenches**				
3.27	Excavate through and reinstate turf.			**£0.00**	£0.00
3.28	Excavate through and replace concrete paving slabs	m		**£30.00**	£0.00
3.29	Excavate through and replace block paving	m		**£50.00**	£0.00
3.30	Excavate through and reinstate plain concrete, maximum thickness 100mm.	m	2	**£47.00**	£94.00
3.31	Excavate through and reinstate plain concrete, thickness 100- 200mm.	m		**£95.00**	£0.00
3.32	Excavate through and reinstate reinforced concrete, maximum thickness 100mm.	m		**£90.00**	£0.00
3.33	Excavate through and reinstate reinforced concrete, thickness 100-200mm.	m		**£115.00**	£0.00
3.34	Excavate through and reinstate Tarmac - Cold rolled	m		**£48.00**	£0.00
3.35	Excavate through and reinstate Tarmac - Hot rolled	m		**POA**	
3.36	Reinstatement of crazy paving	m		**£75.00**	£0.00
4.0	**Lining**				
4.1	Set up lining rig for drain lining including first 3m of lining per run, for 100mm or 150mm	Item		**£290.00**	£0.00
4.2	Line 100mmØ drain	m		**£50.00**	£0.00
	Super Flex Liner 100mm drain	m		**£90.00**	
4.3	Line 150mmØ drain	m		**£70.00**	£0.00
	Super Flex Liner 150mm drain	m		**£110.00**	
4.4	Post lining CCTV survey	no		**£100.00**	£0.00
4.5	Minimum lining charge	Item		**£290.00**	£0.00
4.6	Root cutting of drain prior to lining	hr		**£65.00**	£0.00
4.7	Set up lining rig for patch lining	Item		**£0.00**	£0.00
4.8	Patch line 100mmØ drain	no		**£250.00**	£0.00
4.9	Patch line 150mmØ drain	no		**£280.00**	£0.00
4.10	Post patch lining CCTV survey	Item		**£100.00**	£0.00
4.11	Minimum patch lining charge	Item		**£250.00**	£0.00
4.12	Re-open lateral branch up to 2m length, pipe up to 150mm	no		**£190.00**	£0.00
4.13	Re-open lateral branch over 2m length, pipe up to 150mm	no		**£280.00**	£0.00
5.0	**Miscellaneous**				
5.1	Excavation and backfill of soakaway (1m3) with stone	Item		**£400.00**	£0.00
5.2	% Uplift on disbursements and suppliers charges	%		**£1.25**	£0.00
5.3	Daywork - Hourly labour rate	hr		**£30.00**	£0.00
5.4	Minimum project value	Item		**£346.50**	£0.00
5.5				**£75.00**	£0.00
5.6				**£200.00**	£0.00
5.7				**£0.00**	£0.00
5.8				**£0.00**	£0.00
6.0	**Additional items**				
6.1	De-scaling (fat/grime)	hr		**£65.00**	£0.00
6.2	De-scaling (scale using chain flails)	hr		**£90.00**	£0.00
6.3	Gully surround	item		**£30.00**	£0.00
6.4	Manhole works (up to 1.2m)	item		**£80.00**	£0.00
6.6	Oversize soakaway (1.5m3)	item		**£600.00**	£0.00
6.7	Soakaway >1.5m3	item		**POA**	
6.8	Waste disposal	m	2	**£20.00**	£40.00
6.9	Shoring	m		**£40.00**	£0.00
	Total Estimate Price For Recommendation Number		2.0		£499.00
	Subject to discount		**0.00**		£0.00
	Total subject to VAT @ 20%				£499.00

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:	88 Albert Street,	
Job No.:	471347			
Date:	08/11/17	Client:	Cunningham Lindsey - Maidstone	

Run: 1

From:	MH1	Invert Level:	1100	Direction:	U/S
To:	YARD GULLY1	Invert Level:		Function:	S/W
Pipe Material:	VC	Pipe Dia:	100		
Water/Pressure Test:	Fail	Drain Break-In:	No	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	LL						SLIGHT		
0.20	LU						Line deviates up	CONCRETE	0.3
0.30	SA						UNABLE TO PUSH		

Comments:

Run: 2

From:	MH1	Invert Level:	1100	Direction:	U/S
To:	SVP1	Invert Level:		Function:	F/W
Pipe Material:	VC	Pipe Dia:	100		
Water/Pressure Test:		Drain Break-In:	No	Gully Condition:	
				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								
0.30	LU						Line deviates up		
0.60	FH						REACHED SVP1	CONCRETE	0.6

Comments:

UNABLE TO TEST

Run: 3

From:	MH1	Invert Level:	1100	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:	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								
6.60	DE				20		Debris	CONCRETE	0.8
7.00	FH						REACHED INTERNAL MH	UNDER BUILDING	6.2

Comments:

UNABLE TO TEST

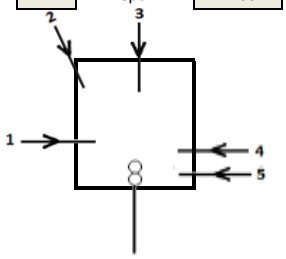
Run:	**4**									
From:		MH1		Invert Level:		225	Direction:		U/S	
To:		YARD GULLY 2		Invert Level:			Function:		S/W	
Pipe Material:		VC		Pipe Dia:		100				
Water/Pressure Test:		Fail		Drain Break-In:		No	Gully Condition:		Poor	
Distance (m)	Code	Clock Ref at	to	Dia mm	Intrusion %	mm	Shared Run:		Yes	
							If Shared How:		With flats	
0.00	ST						Remarks	Surface Material		Length (m)
0.00	RFJ						Roots fine at joint			
0.10	FH						REACHED YARD GULLY 2	CONCRETE		0.1
Comments:										

Run:	**5**									
From:		MH1		Invert Level:		225	Direction:		U/S	
To:		VENT PIPE		Invert Level:			Function:			
Pipe Material:		VC		Pipe Dia:		100				
Water/Pressure Test:				Drain Break-In:			Gully Condition:			
Distance (m)	Code	Clock Ref at	to	Dia mm	Intrusion %	mm	Shared Run:			
							If Shared How:			
0.00	ST						Remarks	Surface Material		Length (m)
0.10	DE				40		Debris			
0.70	B	10	2				Broken pipe at	CONCRETE		0.7
0.70	DE				50		Debris			
0.70	SA						UNABLE TO PUSH			
Comments:										

Manhole Details

	Sheet:	1 of 1	Site:	88 Albert Street,
	Job No.:	471347		
	Date:	08/11/17	Client:	Cunningham Lindsey - Maidstone

MH:- MH1 Depth:- 1100 (mm)



Depths of run if different to invert level:-

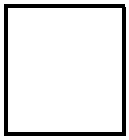
Run	Depth (mm)
4	225
5	225

Manhole Condition:- Good

Reasons for poor condition.

Chamber Dimension:- 600 / 450 (mm)

MH:- Depth:- (mm)



Depths of run if different to invert level:-

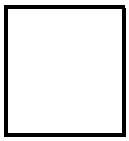
Run	Depth (mm)

Manhole Condition:-

Reasons for poor condition.

Chamber Dimension:- / (mm)

MH:- Depth:- (mm)



Depths of run if different to invert level:-

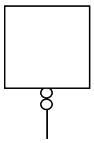
Run	Depth (mm)

Manhole Condition:-

Reasons for poor condition.

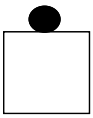
Chamber Dimension:- / (mm)

Key



Interceptor

Internal Back Drop.



External Back Drop.

Additional Comments for Poor Condition