Newton House, Cross Road, Tarworth K720 SSR, Tel: 01737 814221 Email: admingsolalimited, ou.k Project Name: Phase 1a & 18 Project No:: 15860 Method: Holde Trial Hole Trial Location: Biocester Gateway Season Clent: Hill Street Holdings Ltd Trial Pit Length: Trial Pit Width: 1:25 Samples & In-Star Testing Depth Type Samples & In-Star Testing Depth Type Results O: 40 O:	soil	c		Soils Limi							Trial P	it No.
Project No.: 15860 Method: Holding Lid Floor Support: Sup		E D	Newton House, C Tel: 01737 814221	ross Road, Email: adm	Tadwor nin@soil	th KT20 Islimited) 5SR d.co.uk	Tı	rial Pit Log	J		
Clent Hill Street Holdings Ltd Trial PI Length: m Trial PI Width: m Trial PI		ne. Phase	1a & 1R		Project	ot No :	15000	Method:				
Client: Hill Street Holdings Ltd Trial PI Length: m Trial PI Vividith: m 1.25 Logged Dates: 271/10/2016 Level: Co-ords: Statum Description Type Results (n) Legend Day Stratum Description Only Legend Day Stratum Description Day Novem slightly gravely sandy SILT. Sand is fine to coarse, gravel is fine to maken, make up of first. Frequent roofess gravel is fine to maken, make up of first. Frequent finet ORAVEL. Sand is fine to coarse. Light yellow orange very sandy slightly clayey fine to medium flint ORAVEL. Sand is fine to coarse.	<u> </u>				rioje	Ct NO	13000					
Dates: 27/10/2016 Level: Co-ords: Depth Samples & In Situ Testing Depth Type Results (m) Level Legend Dark brown slightly gravelly sandy SLT. Sand is fine to coarse, gravel is fine to medium, made up of fini. Frequent rootlets 1.40 Dark brown slightly gravelly sandy SLT. Sand is fine to coarse, gravel is fine to coarse, gravel is fine to coarse. GRAVEL Sand is fine to coarse. GRAVEL Sand is fine to coarse. San											-1	
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Dark from slighty gravely sandy SLIT. Sand is fine to coarse, gravel is fine to medium, made up of flint. Frequent rootets Lugh yellow crange very sandy slightly clayey fine to medium flint GRAVEL. Sand is fine to coarse. 1.40 End of Pil in 1 dim The sample Type to observed to 0.50m bgl. Groundwater encountered at 2.9m bgl. standing at 1.10m bgl after 2 hours. Sample Type D. Destricted Service of the sample Suprace of Suprace				-		1	Co-or	rds:			Logge	и Бу
and Remarks: 1.40 Light vellow crange very sandy slightly dayey fine to medium flint GRAVEL. Sand is fine to coarse. Light vellow crange very sandy slightly dayey fine to medium flint GRAVEL. Sand is fine to coarse. End of Pit at 1.60a	Strik					Legen						
ts observed to 0.50m bgl. Groundwater encountered at 2.9m bgl, standing at 1.10m bgl after 2 hours. D: Disturbed B: Bulk	neral Remark	(S:					gravel is	ow orange ve	n, made up of flint. Freq ry sandy slightly clayey f to coarse.	ine to mo	edium flint	1 2
10.14			Groundwater encounter	red at 2.9m t	ogl, stand	ding at 1	.10m bgl after 2	hours.		D	: Disturbed	
undwater Remarks:	undwater Re	marks:								J:	Jar	

CO	ilc		Sc	ils Limi	ted					Trial Pit	t No.
L H Geotechnical &	T E D	٦	Newton House, Cro Tel: 01737 814221 E	ss Road, mail: adm	Tadwoi	rth KT20	5SR d.co.uk	Tr	ial Pit Log	TP1	04
Consultants							Upries and a transport pa	14-11-1		Sheet 1	
	Name: Ph				Proje	ct No.:	15860	Method: Plant:		Hole T	
Location	n: Bic	ester G	ateway					Support:		Scal	
Client:	Hill	Street	Holdings Ltd	,			Trial Pit Leng	ith: m	Trial Pit Width: m	1:25	
Dates:			10/2016	Level:			Co-or	ds:		Logged CF	
Nater		7		Depth (m)	Level (m)	Legen	d		Stratum Description		
Water	0.30 0.60 0.90 2.00	D D D	Results	Depth (m) 0.40 1.20	Level (m)	Legen X X X X X X X X X X X X X X X X X X X	Dark brov gravel is Light yelk coarse. Grootlets, b	wn slightly gra fine to mediun ow orange ver gravel is fine to becoming less	velly sandy SILT. Sand is fine in, made up of flint. Frequent in y sandy gravelly CLAY. Sand to medium made up of flint. Frequent gravelly and less sandy with the sandy wi	e to coarse, rootlets	1 3
											- 5
eneral Rer	marke:									T	
oots obser	ved to 1.20n	n bgl. Gr	oundwater encountere	d at 2,30m	bgl, sta	nding at	2.20m bgl after	10 minutes.		Sample Type D: Disturbed B: Bulk	
oundwate	r Remarks:							-		J: Jar W: Water	- 1

Soi				Soils Limi							-17 1980	Trial Pi	it No.
L I M I Geotechnical & Env	T E D	Te	lewton House, C I: 01737 814221	ross Road, Email: adm	Tadwoi in@soi	rth KT20 ilslimited	5SR d.co.uk		Tr	rial Pit Log	3	TP1	05
Project Na	ama: Dh	200 10 8	10		D:	-1.51	45000	Meti	hod:			Sheet 1	
Location:					Proje	ct No.:	15860	Plan				Hole T	
		cester Ga						1	port:	T.		Sca	
Client:	Hil		oldings Ltd				Trial Pit Leng	gth:	m	Trial Pit Width:	m	1:2: Logged	
Dates:			0/2016	Level:			Co-o	rds:				CF	
Strike	Depth	Type	Situ Testing Results	Depth (m)	Level (m)	Legen	d			Stratum Description			
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neral Rema		n bgl. Grou	undwater encounte	red at 2.70m	bgl, star	nding at	2.40m bal after	10 mir	nutes		100	ample Type	
					0.701						E	B: Bulk B: Jar	
undwater F	Remarks:								-			: Jar V: Water	- 1

SC L I H Geotechnica Consultants	DIS 18 Environmental	1	S Newton House, Cr Tel: 01737 814221 I	oils Limi oss Road, Email: adm	Tadwor	th KT20 Islimited	5SR I.co.uk	Tr	ial Pit Log		Trial Pit No
	t Name: Pha	ase 1a	& 1B	_	Proje	ct No.:	15860	Method:			Sheet 1 of Hole Type
Location	on: Bic	ester G	ateway	12 12 12				Plant: Support:			TP Scale
Client:	Hill	Street	Holdings Ltd	-			Trial Pit Leng		Trial Pit Width:	m	1:25
Dates:		27/	10/2016	Level:			Co-or	ds:			Logged By CF
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	0.90	D		0.65			Light yelld GRAVEL.	ow orange ver Sand is fine t	y sandy slightly clayey fi o coarse.	ne to me	dium flint
•	1.50	D		1.60		× × × × × × × × × × × × × × × × × × ×		grey CLAYEY	SILT. Frequent shell fra	gments	-
	2.00	D				× × × × × × × × × × × × × × × × × × ×					- - - - - - - -
	2.50	D		2.70		(End of Pit at 2.70m		
ots obs	emarks: erved to 0.50n ter Remarks:	n bgl . Gr	oundwater encounter	red at 1.60m	bgl.					D: B: J:	Imple Type Disturbed Bulk Jar Water

soil	c		Soils Limi							Trial Pit No
L I M I T Geotechnical & Enviro	E D	Newton House, C Tel: 01737 814221	ross Road, Email: adm	Tadwoi nin@soi	rth KT20) 5SR d.co.uk	Tr	ial Pit Log	g	TP106A
Project New	ma: Dhasa		1990				Method:			Sheet 1 of
	me: Phase 1			Proje	ct No.:	15860	Plant:			Hole Type TP
Location:		r Gateway					Support:			Scale
Client:	Hill Stre	et Holdings Ltd				Trial Pit Leng	th: m	Trial Pit Width:	m	1:25
Dates:		27/10/2016	Level:			Co-ore	ds:			Logged By
Strike		& In Situ Testing	Depth (m)	Level (m)	Legen	d		Stratum Description		
What Strik		pe Results	0.65	Level (m)	Legen	Dark brow gravel is f	ine to mediun	velly sandy SILT. Sand n, made up of flint. Free	quent roof	dets -
neral Remark									Sa	ample Type
ots observed	to 0.50m bgl.	Groundwater encounte	red at 1.60m	bgl.					D	Disturbed
oundwater Re	marks:								1.1	: Bulk Jar
unuwater Ke	marks.								W	/: Water

CO	ile			Soils Limi							Trial Pit	No.
L I M I Geotechnical & Consultants	T E D Environmental	1	Newton House, 0 Tel: 01737 81422	Cross Road, I Email: adm	Tadwor nin@soi	rth KT20 ilslimite	0 5SR d.co.uk		Tr	ial Pit Log	TP10	
Project	Name: Pl	hase 1a	& 1R		Proje	ct No.:	15060	Metho	d:		Sheet 1 Hole Ty	
Location					rioje	CI IVO	13000	Plant:			TP	, pc
		cester G					T	Suppo	rt:		Scale	
Client:	Hi	II Street	Holdings Ltd				Trial Pit Len	gth:	m	Trial Pit Width: m	1:25 Logged	
Dates:		27/	10/2016	Level:			Co-c	ords:			CF	Бу
/ater trike			n Situ Testing	Depth	Level	Legen	d			Stratum Description		
50	Depth	Туре	Results	(m)	(m)	XUXXU		own eliaht	ly ara		to coores	
Water Strike	Depth 0.30 0.60 0.90 1.50 2.00	D D D	Results	2.40 2.50	Level	Legen (X X X X X X X X X X X X X X X X X X X	Dark brugavel is Light ye coarse, rootlets Dark blu	llow orang Gravel is becoming	ge verifine to	Stratum Description velly sandy SILT. Sand is fine n, made up of flint. Frequent r y sandy gravelly CLAY. Sand medium made up of flint. Fre gravelly and less sandy with of AY. Frequent shell fragments AY. End of Pit at 2.50m	is fine to	1 2
												5
eneral Re		lm hal O	roundwater care	orod -+ C FC	. hel		0.40				Sample Type	\neg
cots obser	veu 10 1.00	ını uğı. Gi	roundwater encount	ered at 2,50m	ı bgı, sta	inding at	∠.40m bgl afte	r 10 minu	tes.		D: Disturbed B: Bulk	
roundwate	r Remarks	:									J: Jar W: Water	

Groundwater Remarks:

Soils Limited 9 of 11

Appendix B - Geotechnical Analysis





Contract Number: 32973

Client's Reference: 15860

Report Date: 08-11-2016

Client Soils Limited

Newton House Cross Road Tadworth Surrey **KT20 5SR**

Contract Title: 1a and 1b Gateway Bicester

For the attention of: James Hucklesby

Date Received: 02-11-2016 Date Commenced: 02-11-2016 Date Completed: 08-11-2016

Test Description	Qt
4 Point Liquid & Plastic Limit (LL/PL) 1377 : 1990 Part 2 : 4.3 & 5.3 - * UKAS	2
Moisture Content 1377 : 1990 Part 2 : 3.2 - * UKAS	4
Disposal of Samples on Project	1

Notes: Observations and Interpretations are outside the UKAS Accreditation

* - denotes test included in laboratory scope of accreditation

- denotes test carried out by approved contractor

@ - denotes non accredited tests

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 except in full, without the prior written approval of the laboratory.

Approved Signatories:

Alex Wynn (Associate Director) - Benjamin Sharp (Contracts Manager) - Emma Sharp (Office Manager) Paul Evans (Quality/Technical Manager) - Vaughan Edwards (Managing Director)

GEO Site & Testing Services Ltd

Unit 3-4, Heol Aur, Dafen Ind Estate, Dafen, Llanelli, Carmarthenshire SA14 8QN Tel: 01554 784040 Fax: 01554 784041 info@gstl.co.uk gstl.co.uk

Client ref:

15860

Location:

1a & 1b Gateway Bicester

Contract Number:

32973

	Sample Number		Donth ()	
	Number	Туре	Depth (m)	Description of Sample*
TP101		S/B		Grey silty CLAY
TP103			1.50	Brown fine to medium gravelly SAND
TP105		S/B	2.50	Grey silty CLAY. Contains shell fragments
TP107		S/B	2.50	Grey silty CLAY. Contains shell fragments
		-		
$\overline{}$		-		
		\rightarrow		
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		-+		
	-+	\dashv		
		_		
		\dashv		
		\neg		

Note: Results on this table are in summary format and may not meet the requirements of the relevant standards, additional information is held by the laboratory



For and behalf of GEO Site & Testing Services Ltd

Authorised By:

Emma Sharp (Office Manager)

Date: 8.11.16





Test Report: Method of the Determination of the plastic limit and plasticity index

BS 1377: Part 2: 1990 Method 5

Client ref:

15860

Location:

1a & 1b Gateway Bicester

Contract Number:

32973

Open and the second	STATE OF THE PERSON NAMED IN	AND DESCRIPTION OF THE PERSON		STATE OF THE OWNER, WHEN	2007			
Hole/			Moisture	Liquid	Plastic	Plasticity	%	
Sample	Sample	Depth	Content	Limit	Limit	Index	Passing	Remarks
Number	Туре	m	%	%	%	%	.425mm	
			Cl. 3.2	Cl. 4.3/4.4	Cl. 5.	Cl. 6.		
TP101	S/B	2.00	38	62	31	31	100	CH High Plasticity
TP103	S/B	1.50	8.2		NP		50	,
TP105	S/B	2.50	25	43	18	25	95	CI Intermediate Plasticity
TP107	S/B	2.50	28	54	25	29	92	CH High Plasticity
1								
	l							
				1				
							I	

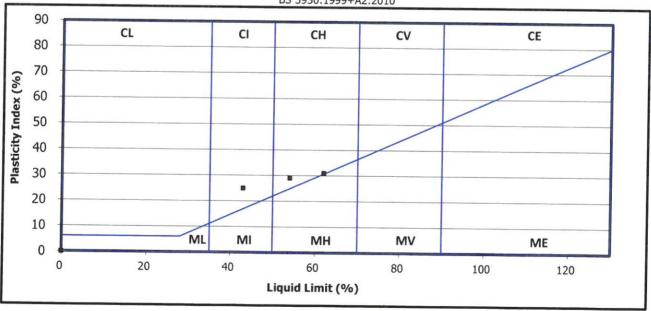
Symbols:

NP : Non Plastic

#: Liquid Limit and Plastic Limit Wet Sieved

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

BS 5930:1999+A2:2010





For and behalf of GEO Site & Testing Services Ltd

Authorised By:

Emma Sharp (Office Manager)

Date: 8.11.16

Eud



Soils Limited

Appendix C - Soakaway Results

Soakaway Calculations

Soakaway Test No.	TP103	
Contract:	Phase 1a & 1b Bicester Gateway	
Contract No.	15860	

Field Test

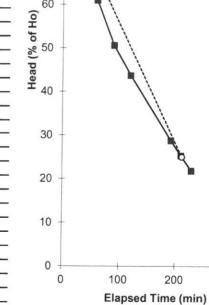
Trial Pit Log (include details of groundwater): See trial Pit record

T25

Depth of Pit	1.20 m
Width of Pit	0.60 m
Length of Pit	2.10 m
Depth of Pit Soaked	0.87 m
ар50	3.609 m2
Vp75-25	0.5481 m3
t75-25	183.2 min
water used	1.0962 m3
f	1.382E-05 m/sec.

Field Data

Depth to	Elapsed	Head of	Head of
Water	Time	Water	Water
(m)	(min)	(% of Ho)	(m)
0.33	0	100	0.87
0.35	1.0	98	0.85
0.36	2.0	97	0.84
0.40	5.0	92	0.80
0.42	8.0	90	0.78
0.50	22.0	80	0.70
0.56	30.0	74	0.64
0.61	46.0	68	0.59
0.67	60.0	61	0.53
0.76	90.0	51	0.44
0.82	120.0	44	0.38
0.95	192.0	29	0.25
0.98	210.0	25	0.22
1.01	228.0	22	0.19



T75

100

90

80

70

60

Comments

T75

T25

SOILS LIMITED

Newton House, Cross Road, Tadworth Surrey, KT20 5SR

28.333

211.500

25

183.167 Derived from Best Fit

Telephone: 01737 814 221 Facsimile: 01737 812 557 300

Soakaway Calculations

Soakaway Test No.	TP106	
Contract:	Phase 1a & 1b Bicester Gateway	0.000
Contract No.	15860	

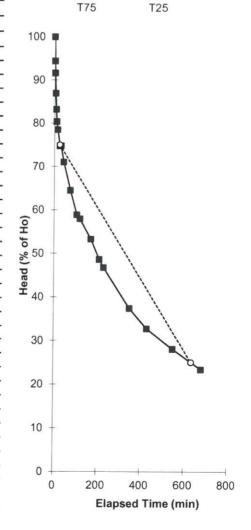
Field Test

Trial Pit Log (include details of groundwater): See trial Pit record

Depth of Pit	1.50 m
Width of Pit	0.60 m
Length of Pit	2.30 m
Depth of Pit Soaked	1.07 m
ap50	4.483 m2
Vp75-25	0.7383 m3
t75-25	610.1 min
water used	1.4766 m3
f	4.499E-06 m/sec.

Field Data

Depth to	Elapsed	Head of	Head of
Water	Time	Water	Water
(m)	(min)	(% of Ho)	(m)
0.43	0	100	1.07
0.49	1.0	94	1.01
0.52	2.0	92	0.98
0.57	5.0	87	0.93
0.61	8.0	83	0.89
0.64	10.0	80	0.86
0.66	15.0	79	0.84
0.70	25.0	75	0.80
0.7	30.0	75	0.80
0.74	43.0	71	0.76
0.81	75.0	64	0.69
0.87	105.0	59	0.63
0.88	120.0	58	0.62
0.93	171.0	53	0.57
0.98	210.0	49	0.52
1.00	230.0	47	0.50
1.10	350.0	37	0.40
1.15	430.0	33	0.35
1.20	550.0	28	0.30
1.25	680.0	23	0.25



T75	24.375	75
T25	634.500	25
T75-25	610.125	Derived from Best Fit

Comments

Extrapolated from 230 mins in order to calculate an indicative infiltration rate

SOILS LIMITED

Newton House, Cross Road, Tadworth Surrey, KT20 5SR

Telephone: Facsimile:

01737 814 221 01737 812 557 Soils Limited