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Ref: 11-130-L2
Date: 4th December 2019

Russell Homes
13 Westpoint Enterprise Park
Clarence Avenue
Trafford Park
Manchester
M17 1QS

BY Email

Dear Sirs,

STANSTY CHAIN ROAD-WREXHAM BRE365 SOAKAWAY TESTS

Background & Objectives

E3P was instructed by Russell Homes to undertake ten BRE365 Soakaway Tests at the above-mentioned site. The tests were carried out at pre-determined locations spatially distributed across the site in order to determine whether SUDS infrastructure would be suitable for the proposed residential development.

Ten mechanically excavated trial pits were advanced to a maximum depth of 2.00 m bgl, the locations of which are indicated on the attached E3P Drawing 11-130-005.

BRE365 Soakaway Tests

BRE365 Soakaway Tests were undertaken within each of the trial pits. Groundwater was not encountered during the advancement of the pits, therefore the tests were undertaken within the unsaturated zone.

The results are summarised in Table 1.0 and the test certificates are attached to this letter.



TABLE 1.0 SUMMARY OF BRE 365 SOAKAWAY TEST RESULTS

LOCATION	DEPTH (m)	MATERIAL	TEST NO.	SOIL INFILTRATION RATE (m/s)
SA201	2.00	Gravelly CLAY/GRAVEL	Test No.1	3.43E-05
			Test No.2	3.01E-05
			Test No.3	1.86E-05
SA202	2.00	Gravelly SAND	Test No.1	6.33E-04
			Test No.2	2.52E-04
			Test No.3	2.11E-04
SA203	1.80	Gravelly CLAY/SANDY GRAVEL	Test No.1	2.88E-04
			Test No.2	2.47E-04
			Test No.3	2.11E-04
SA204	1.80	Gravelly SAND	Test No.1	2.56E-05
			Test No.2	2.47E-05
			Test No.3	1.14E-05
SA205	2.00	Sandy GRAVEL	Test No.1	5.24E-04
			Test No.2	1.92E-04
			Test No.3	2.22E-04
SA206	2.00	Gravelly CLAY/ SAND	Test No.1	2.43E-05
			Test No.2	9.35E-06
SA207	1.80	Sandy GRAVEL	Test No.1	3.52E-05
			Test No.2	1.94E-05
			Test No.3	3.80E-05
SA208	2.00	Gravelly SAND	Test No.1	1.59E-05
			Test No.2	1.34E-05
			Test No.3	1.59E-05
SA209	1.80	Gravelly SAND	Test No.1	9.87E-04
			Test No.2	9.40E-04
			Test No.3	8.33E-04



LOCATION	DEPTH (m)	MATERIAL	TEST NO.	SOIL INFILTRATION RATE (m/s)
SA210	1.70	Gravelly SAND	Test No.1	9.50E-04
			Test No.2	8.90E-04
			Test No.3	7.56E-04

The infiltration rates calculated indicate that the ground conditions offer a good degree of soakage potential and it is considered that soakaway drainage systems would be deemed suitable.

The application of soakaway drainage will ultimately be dependent on the specific requirements of the development. All soakaways should be designed in accordance with BRE Special Digest 365 – *Soakaway Design*.

I trust the above is acceptable and if you require anything further please do not hesitate to contact me.

Yours sincerely,

For and on behalf of E3P Ltd



Nicola Sellars
Senior Geo-Environmental Consultant



Attached:
Soakaway Test Location Plan
BRE 365 Soakaway Test Certificates
Exploratory Hole Logs





Location Symbols

 Approximate Soakaway Test Location

Notes:					
P1	-	04.11.2019	DRAFT	CB	NS
Phase	Revision	Date	Issue	Drawn	Checked

Client:	Russell Homes
Job Title:	Stansty Chain Road, Wrexham

Job No:	11-130	Date:	04.11.2019
Drawing No:	005	Scale:	NTS @ A3
Drawing Title:	Soakaway Location Plan		



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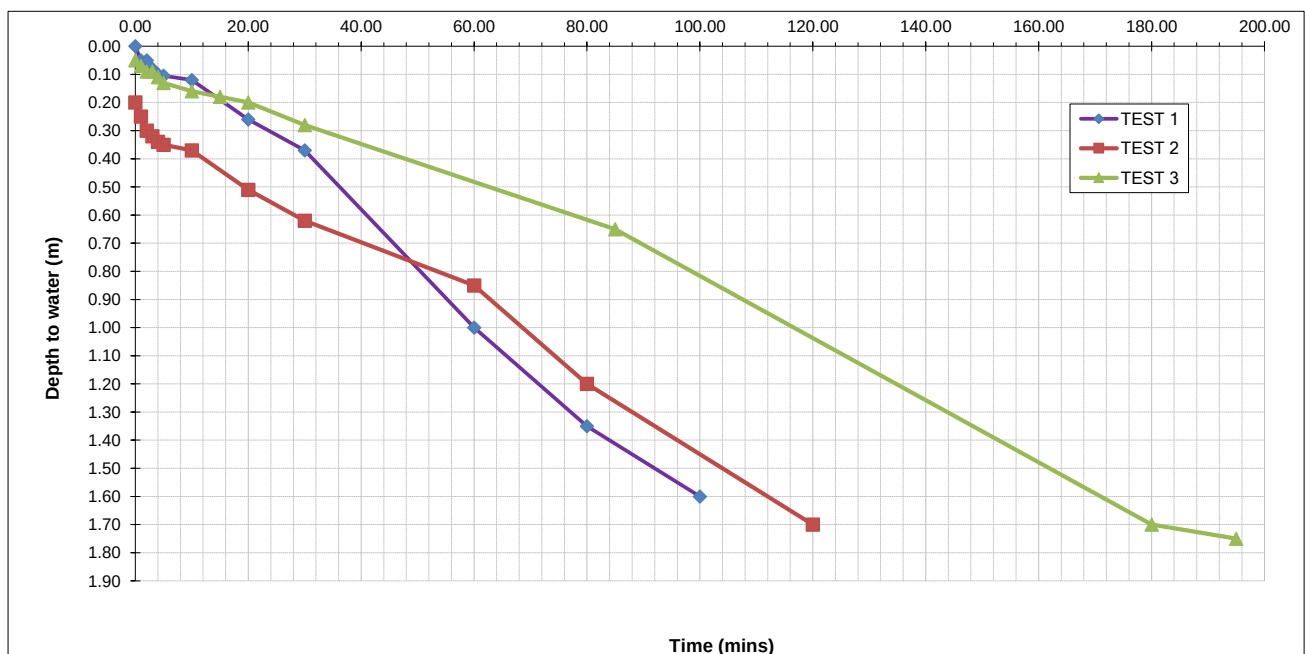


Site: Stansty Chain Road, Wrexham
Job Number: 11-130
Date of Test: 15/10/2019

Trial Pit Number: SA201
Length: 2.00 m
Width: 0.30 m
Depth: 2.00 m
Groundwater Level: N/A m

		TEST 1		TEST 2		TEST 3	
		Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
		0.00	0.00	0.00	0.20	0.00	0.05
		1.00	0.05	1.00	0.25	1.00	0.07
		2.00	0.05	2.00	0.30	2.00	0.09
		3.00	0.08	3.00	0.32	3.00	0.09
		4.00	0.1	4.00	0.34	4.00	0.11
		5.00	0.105	5.00	0.35	5.00	0.13
		10.00	0.12	10.00	0.37	10.00	0.16
		20.00	0.26	20.00	0.51	15.00	0.18
		30.00	0.37	30.00	0.62	20.00	0.2
		60.00	1	60.00	0.85	30.00	0.28
		80.00	1.35	80.00	1.2	85.00	0.65
		100.00	1.60	120.00	1.7	180.00	1.7
						195.00	1.75
Effective Storage Depth	m	2.00		1.80		1.95	
75% Effective Storage Depth	m	1.50		1.35		1.46	
(i.e. depth below GL)	m	0.50		0.65		0.54	
25% Effective Storage Depth	m	0.50		0.45		0.49	
(i.e. depth below GL)	m	1.50		1.55		1.51	
Effective Storage Depth 75%-25%	m	1.00		0.90		0.98	
Time to fall to 75% effective depth	mins	36.00		45.00		60.00	
Time to fall to 25% effective depth	mins	92.00		108.00		163.00	
V (75%-25%)	m3	0.60		0.54		0.59	
a (50%)	m2	5.20		4.74		5.09	
t (75%-25%)	mins	56.00		63.00		103.00	
SOIL INFILTRATION RATE	m/s	3.43E-05		3.01E-05		1.86E-05	

DESIGN SOIL INFILTRATION RATE, f
1.86E-05





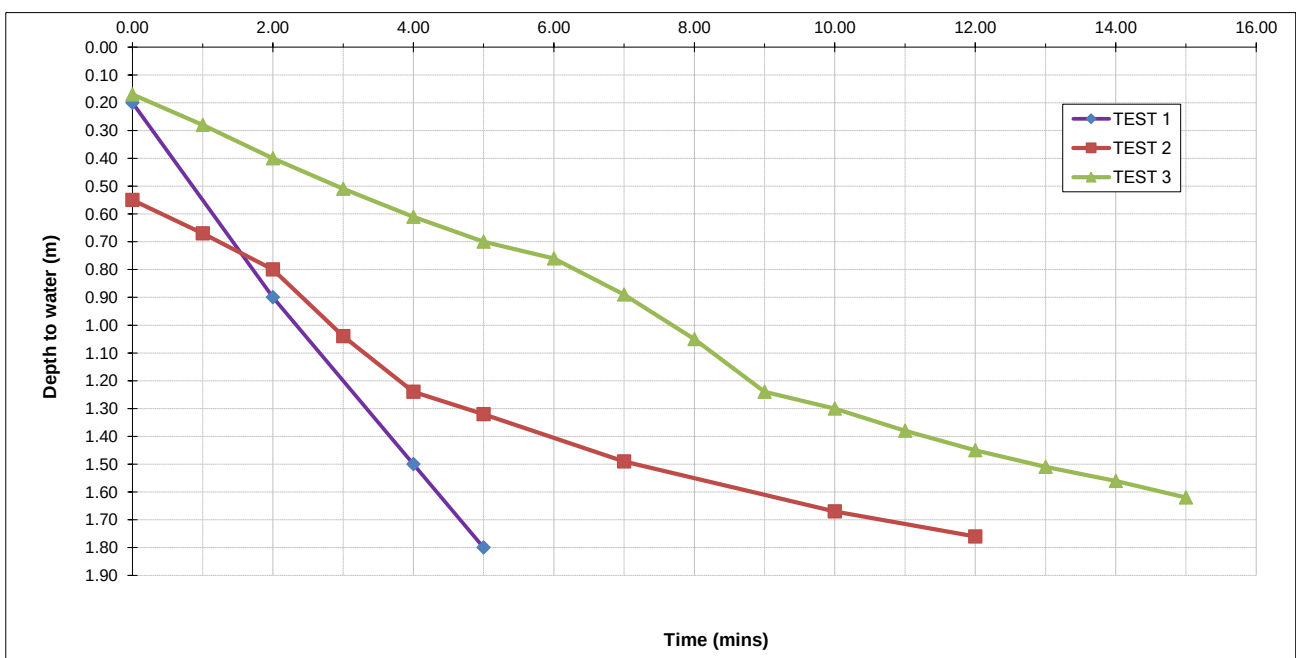
Site: Stansty Chain Road, Wrexham
Job Number: 11-130
Date of Test: 15/10/2019

Trial Pit Number: SA202
Length: 2.00 m
Width: 0.30 m
Depth: 2.00 m
Groundwater Level: m

		TEST 1		TEST 2		TEST 3	
		Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
		0.00	0.20	0.00	0.55	0.00	0.17
		2.00	0.90	1.00	0.67	1.00	0.28
		4.00	1.5	2.00	0.8	2.00	0.4
		5.00	1.8	3.00	1.04	3.00	0.51
				4.00	1.24	4.00	0.61
				5.00	1.32	5.00	0.7
				7.00	1.49	6.00	0.76
				10.00	1.67	7.00	0.89
				12.00	1.76	8.00	1.05
						9.00	1.24
						10.00	1.3
						11.00	1.38
						12.00	1.45
						13.00	1.51
						14.00	1.56
						15.00	1.62
Effective Storage Depth	m		1.80		1.45		1.83
75% Effective Storage Depth	m		1.35		1.09		1.37
(i.e. depth below GL)	m		0.65		0.91		0.63
25% Effective Storage Depth	m		0.45		0.36		0.46
(i.e. depth below GL)	m		1.55		1.64		1.54
Effective Storage Depth 75%-25%	m		0.90		0.73		0.92
Time to fall to 75% effective depth	mins		1.20		2.20		4.50
Time to fall to 25% effective depth	mins		4.20		9.50		13.50
V (75%-25%)	m3		0.54		0.44		0.55
a (50%)	m2		4.74		3.94		4.81
t (75%-25%)	mins		3.00		7.30		9.00
SOIL INFILTRATION RATE	m/s		6.33E-04		2.52E-04		2.11E-04

DESIGN SOIL INFILTRATION RATE, f

2.11E-04



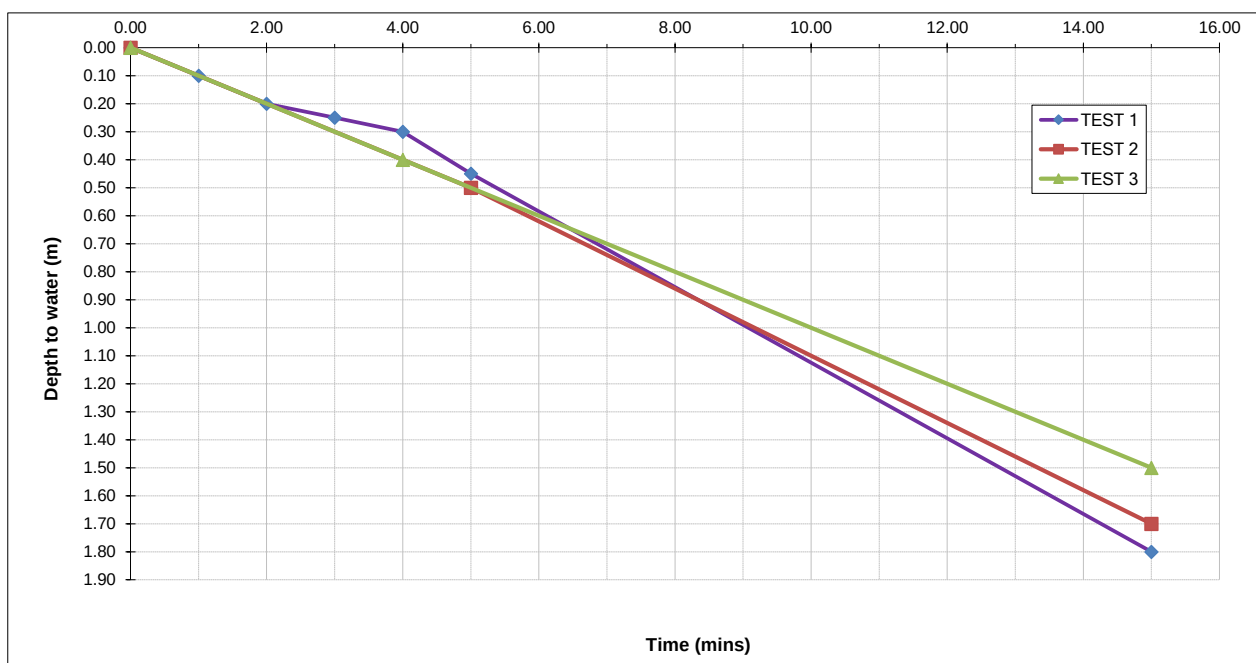
Site: Stansty Chain Road, Wrexham
Job Number: 11-130
Date of Test: 15/10/2019

Trial Pit Number: SA203
Length: 2.00 m
Width: 0.30 m
Depth: 1.80 m
Groundwater Level: m

		TEST 1		TEST 2		TEST 3	
		Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
		0.00	0.00	0.00	0.00	0.00	0.00
		1.00	0.10	5.00	0.5	4.00	0.40
		2.00	0.2	15.00	1.7	15.00	1.50
		3.00	0.25				
		4.00	0.3				
		5.00	0.45				
		15.00	1.8				
Effective Storage Depth	m		1.80		1.80		1.80
75% Effective Storage Depth	m		1.35		1.35		1.35
(i.e. depth below GL)	m		0.45		0.45		0.45
25% Effective Storage Depth	m		0.45		0.45		0.45
(i.e. depth below GL)	m		1.35		1.35		1.35
Effective Storage Depth 75%-25%	m		0.90		0.90		0.90
Time to fall to 75% effective depth	mins		5.00		4.50		4.60
Time to fall to 25% effective depth	mins		11.60		12.20		13.60
V (75%-25%)	m3		0.54		0.54		0.54
a (50%)	m2		4.74		4.74		4.74
t (75%-25%)	mins		6.60		7.70		9.00
SOIL INFILTRATION RATE	m/s		2.88E-04		2.47E-04		2.11E-04

DESIGN SOIL INFILTRATION RATE, f

2.11E-04





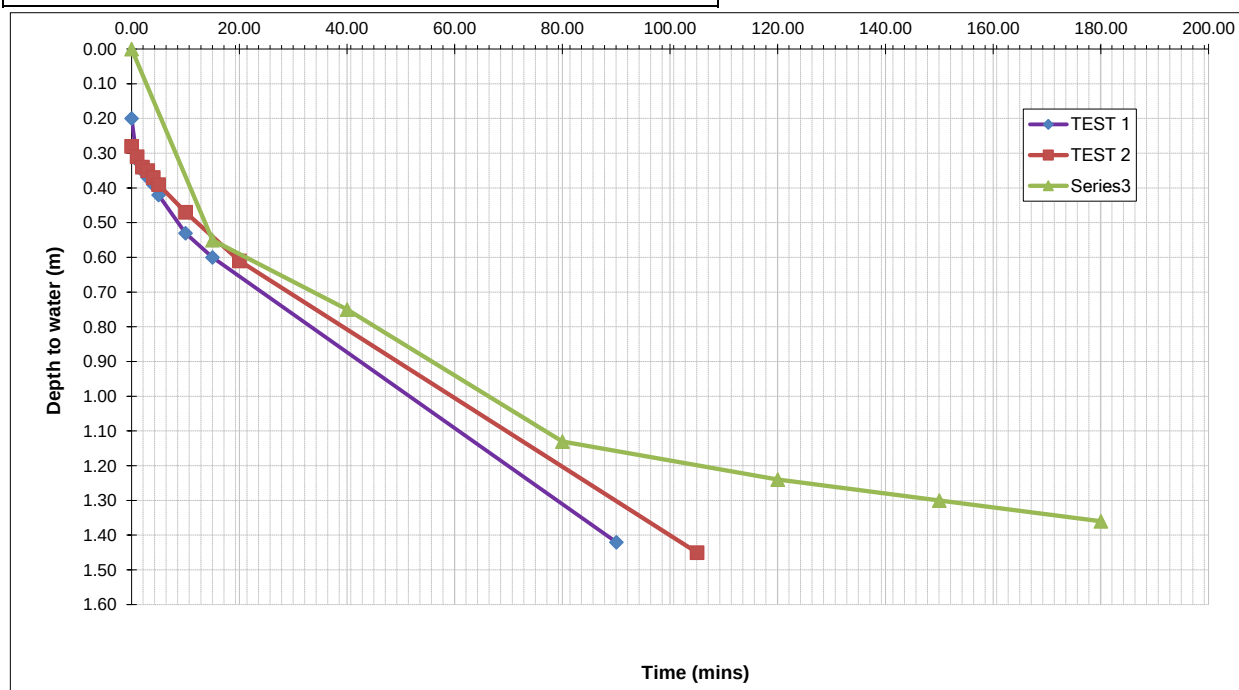
Site: Stansty Chain Road, Wrexham
Job Number: 11-130
Date of Test: 15/10/2019

Trial Pit Number: SA204
Length: 2.00 m
Width: 0.30 m
Depth: 1.80 m
Groundwater Level: m

		TEST 1		TEST 2		TEST 3	
		Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
		0.00	0.20	0.00	0.28	0.00	0.00
		1.00	0.32	1.00	0.31	15.00	0.55
		2.00	0.35	2.00	0.34	40.00	0.75
		3.00	0.37	3.00	0.35	80.00	1.13
		4.00	0.39	4.00	0.37	120.00	1.24
		5.00	0.42	5.00	0.39	150.00	1.30
		10.00	0.53	10.00	0.47	180.00	1.36
		15.00	0.6	20.00	0.61		
		90.00	1.42	105.00	1.45		
Effective Storage Depth	m		1.60		1.52		1.80
75% Effective Storage Depth	m		1.20		1.14		1.35
(i.e. depth below GL)	m		0.60		0.66		0.45
25% Effective Storage Depth	m		0.40		0.38		0.45
(i.e. depth below GL)	m		1.40		1.42		1.35
Effective Storage Depth 75%-25%	m		0.80		0.76		0.90
Time to fall to 75% effective depth	mins		15.00		26.00		12.00
Time to fall to 25% effective depth	mins		88.00		101.00		178.00
V (75%-25%)	m3		0.48		0.46		0.54
a (50%)	m2		4.28		4.10		4.74
t (75%-25%)	mins		73.00		75.00		166.00
SOIL INFILTRATION RATE	m/s		2.56E-05		2.47E-05		1.14E-05

DESIGN SOIL INFILTRATION RATE, f

1.14E-05



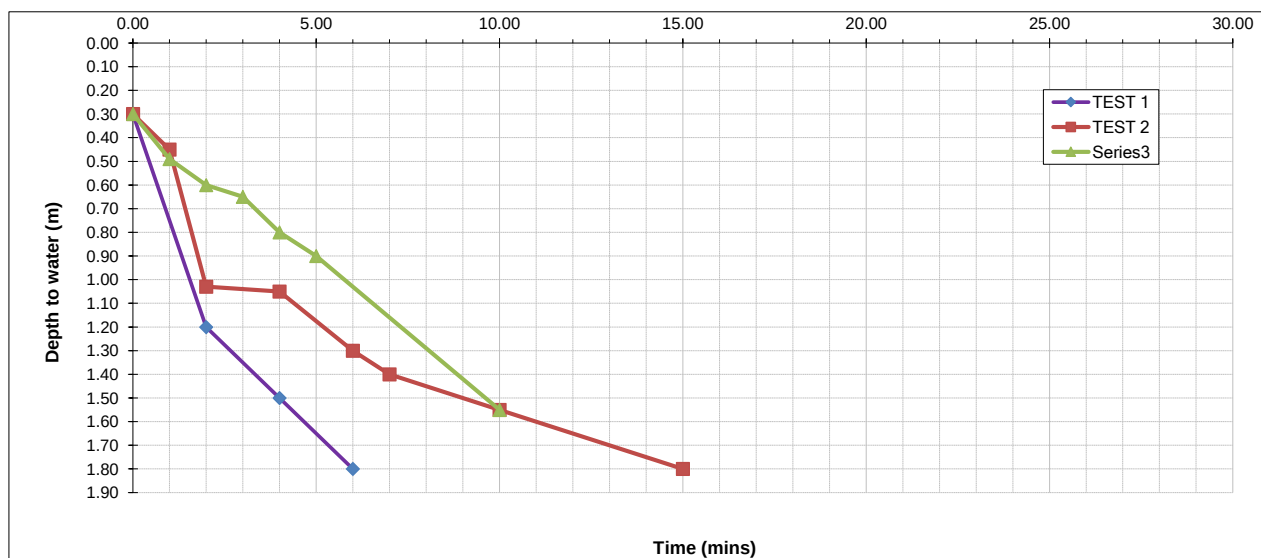


Site: Stansty Chain Road, Wrexham
Job Number: 11-130
Date of Test: 15/10/2019

Trial Pit Number: SA205
Length: 2.00 m
Width: 0.30 m
Depth: 2.00 m
Groundwater Level: m

		TEST 1		TEST 2		TEST 3	
		Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
		0.00	0.30	0.00	0.30	0.00	0.30
		2.00	1.20	1.00	0.45	1.00	0.49
		4.00	1.5	2.00	1.03	2.00	0.6
		6.00	1.8	4.00	1.05	3.00	0.65
				6.00	1.3	4.00	0.8
				7.00	1.4	5.00	0.9
				10.00	1.55	10.00	1.55
				15.00	1.8	15.00	1.7
						20.00	1.8
Effective Storage Depth	m		1.70		1.70		1.70
75% Effective Storage Depth	m		1.28		1.28		1.28
(i.e. depth below GL)	m		0.73		0.73		0.73
25% Effective Storage Depth	m		0.43		0.43		0.43
(i.e. depth below GL)	m		1.58		1.58		1.58
Effective Storage Depth 75%-25%	m		0.85		0.85		0.85
Time to fall to 75% effective depth	mins		1.00		1.20		3.50
Time to fall to 25% effective depth	mins		4.60		11.00		12.00
V (75%-25%)	m3		0.51		0.51		0.51
a (50%)	m2		4.51		4.51		4.51
t (75%-25%)	mins		3.60		9.80		8.50
SOIL INFILTRATION RATE	m/s		5.24E-04		1.92E-04		2.22E-04

DESIGN SOIL INFILTRATION RATE, f
1.92E-04





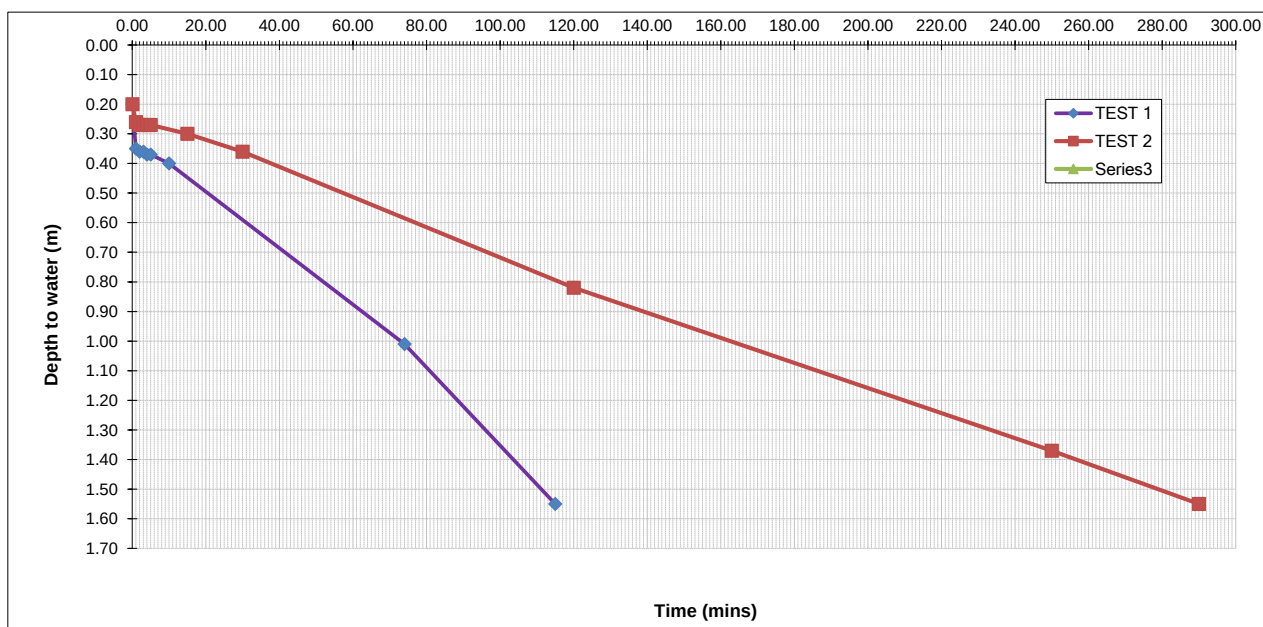
Site: Stansty Chain Road, Wrexham
Job Number: 11-130
Date of Test: 15/10/2019

Trial Pit Number: SA206
Length: 2.00 m
Width: 0.30 m
Depth: 2.00 m
Groundwater Level: m

		TEST 1		TEST 2		TEST 3	
		Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
		0.00	0.20	0.00	0.20		
		1.00	0.35	1.00	0.26		
		2.00	0.36	2.00	0.27		
		3.00	0.36	3.00	0.27		
		4.00	0.37	4.00	0.27		
		5.00	0.37	5.00	0.27		
		10.00	0.4	15.00	0.3		
		74.00	1.01	30.00	0.36		
		115.00	1.55	120.00	0.82		
				250.00	1.37		
				290.00	1.55		
Effective Storage Depth	m		1.80		1.80		
75% Effective Storage Depth	m		1.35		1.35		
(i.e. depth below GL)	m		0.65		0.65		
25% Effective Storage Depth	m		0.45		0.45		
(i.e. depth below GL)	m		1.55		1.55		
Effective Storage Depth 75%-25%	m		0.90		0.90		
Time to fall to 75% effective depth	mins		37.00		87.00		
Time to fall to 25% effective depth	mins		115.00		290.00		
V (75%-25%)	m3		0.54		0.54		
a (50%)	m2		4.74		4.74		
t (75%-25%)	mins		78.00		203.00		
SOIL INFILTRATION RATE	m/s		2.43E-05		9.35E-06		

DESIGN SOIL INFILTRATION RATE, f

9.35E-06





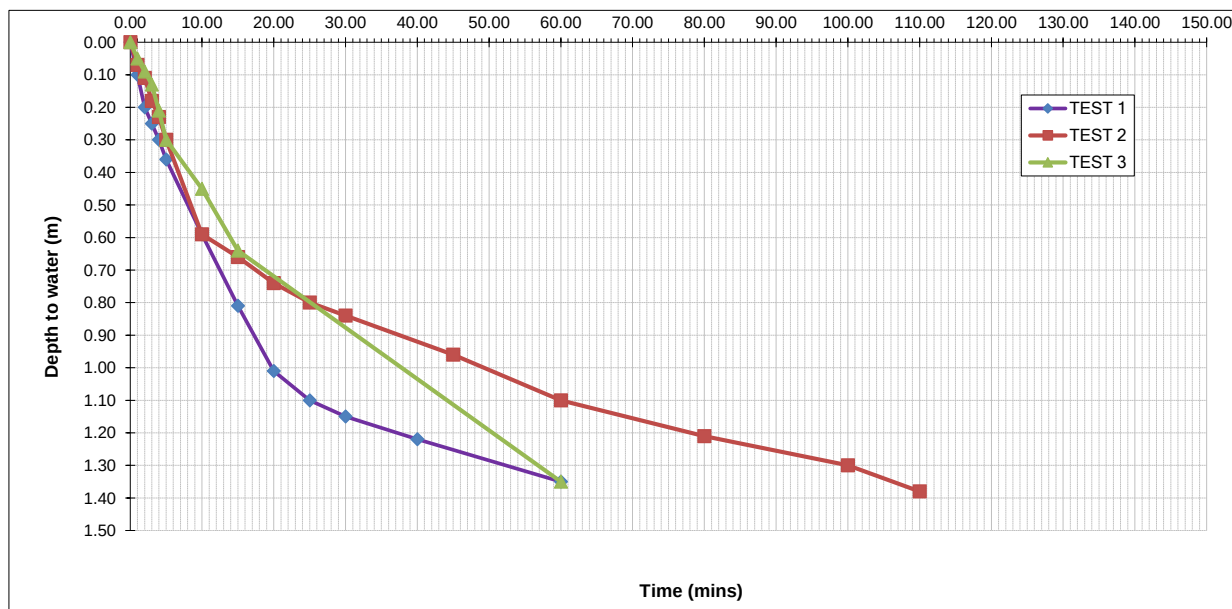
Site: Stansty Chain Road, Wrexham
Job Number: 11-130
Date of Test: 15/10/2019

Trial Pit Number: SA207
Length: 2.00 m
Width: 0.30 m
Depth: 1.80 m
Groundwater Level: m

		TEST 1		TEST 2		TEST 3	
		Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
		0.00	0.00	0.00	0.00	0.00	0.00
		1.00	0.10	1.00	0.07	1.00	0.05
		2.00	0.2	2.00	0.11	2.00	0.09
		3.00	0.25	3.00	0.18	3.00	0.13
		4.00	0.3	4.00	0.23	4.00	0.21
		5.00	0.36	5.00	0.3	5.00	0.30
		10.00	0.59	10.00	0.59	10.00	0.45
		15.00	0.81	15.00	0.66	15.00	0.64
		20.00	1.01	20.00	0.74	60.00	1.35
		25.00	1.1	25.00	0.8		
		30.00	1.15	30.00	0.84		
		40.00	1.22	45.00	0.96		
		60.00	1.35	60.00	1.1		
				80.00	1.21		
				100.00	1.3		
				110.00	1.38		
Effective Storage Depth		m	1.80		1.80		1.80
75% Effective Storage Depth		m	1.35		1.35		1.35
(i.e. depth below GL)		m	0.45		0.45		0.45
25% Effective Storage Depth		m	0.45		0.45		0.45
(i.e. depth below GL)		m	1.35		1.35		1.35
Effective Storage Depth 75%-25%		m	0.90		0.90		0.90
Time to fall to 75% effective depth		mins	6.00		7.00		10.00
Time to fall to 25% effective depth		mins	60.00		105.00		60.00
V (75%-25%)		m3	0.54		0.54		0.54
a (50%)		m2	4.74		4.74		4.74
t (75%-25%)		mins	54.00		98.00		50.00
SOIL INFILTRATION RATE		m/s	3.52E-05		1.94E-05		3.80E-05

DESIGN SOIL INFILTRATION RATE, f

1.94E-05



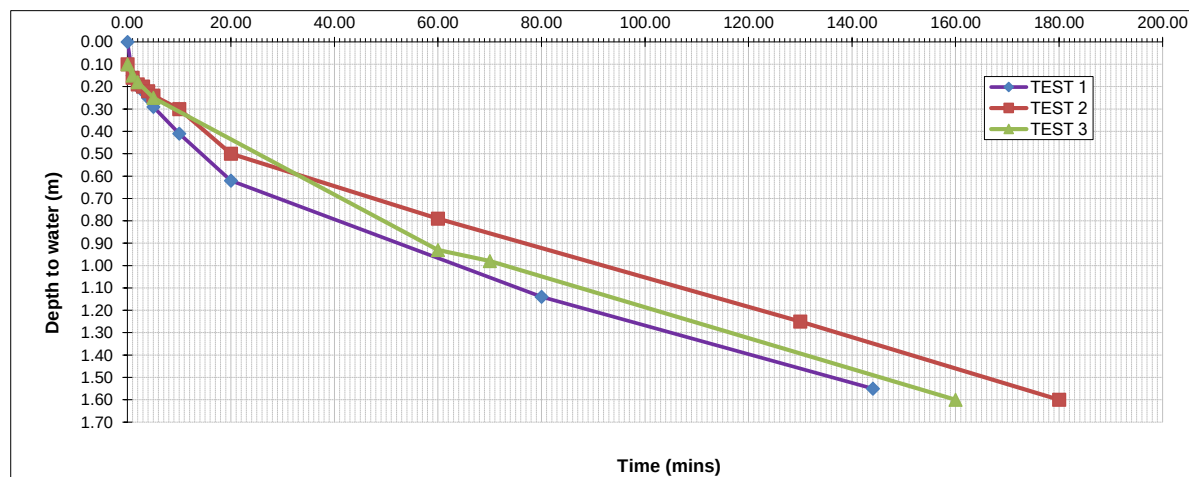


Site: Stansty Chain Road, Wrexham
Job Number: 11-130
Date of Test: 15/10/2019

Trial Pit Number: SA208
Length: 2.00 m
Width: 0.30 m
Depth: 2.00 m
Groundwater Level: m

		TEST 1		TEST 2		TEST 3	
		Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
		0.00	0.00	0.00	0.10	0.00	0.10
		1.00	0.15	1.00	0.16	1.00	0.15
		2.00	0.2	2.00	0.19	2.00	0.18
		3.00	0.22	3.00	0.2	5.00	0.25
		4.00	0.25	4.00	0.22	60.00	0.93
		5.00	0.29	5.00	0.24	70.00	0.98
		10.00	0.41	10.00	0.3	160.00	1.60
		20.00	0.62	20.00	0.5		
		80.00	1.14	60.00	0.79		
		144.00	1.55	130.00	1.25		
				180.00	1.6		
Effective Storage Depth	m		2.00		1.90		1.90
75% Effective Storage Depth	m		1.50		1.43		1.43
(i.e. depth below GL)	m		0.50		0.58		0.58
25% Effective Storage Depth	m		0.50		0.48		0.48
(i.e. depth below GL)	m		1.50		1.53		1.53
Effective Storage Depth 75%-25%	m		1.00		0.95		0.95
Time to fall to 75% effective depth	mins		14.00		30.00		32.00
Time to fall to 25% effective depth	mins		135.00		173.00		152.00
V (75%-25%)	m3		0.60		0.57		0.57
a (50%)	m2		5.20		4.97		4.97
t (75%-25%)	mins		121.00		143.00		120.00
SOIL INFILTRATION RATE	m/s		1.59E-05		1.34E-05		1.59E-05

DESIGN SOIL INFILTRATION RATE, f 1.34E-05





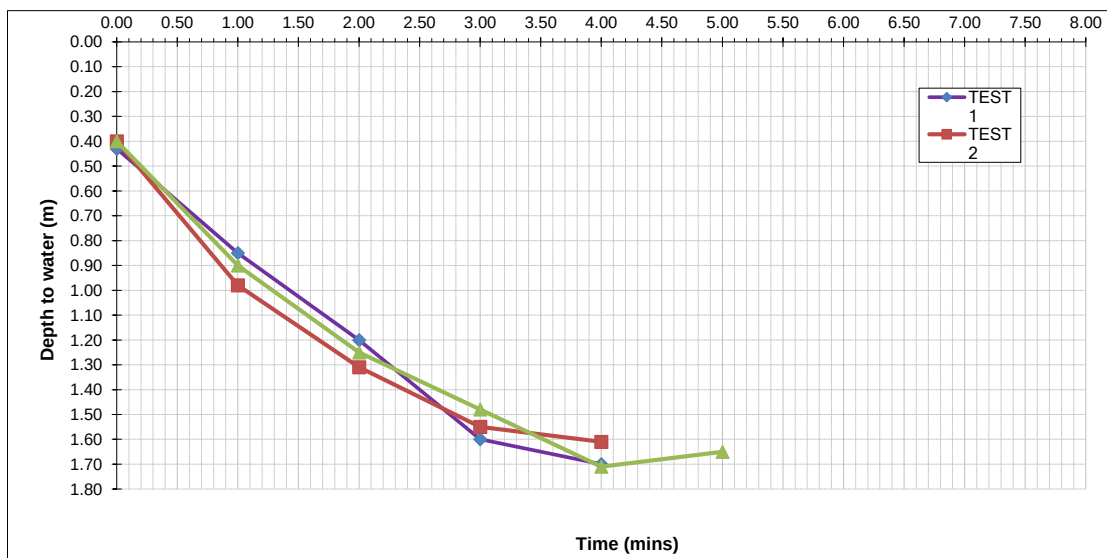
Site: Stansty Chain Road, Wrexham
Job Number: 11-130
Date of Test: 15/10/2019

Trial Pit Number: SA209
Length: 2.00 m
Width: 0.30 m
Depth: 1.80 m
Groundwater Level: m

		TEST 1		TEST 2		TEST 3	
		Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
		0.00	0.43	0.00	0.40	0.00	0.40
		1.00	0.85	1.00	0.98	1.00	0.90
		2.00	1.2	2.00	1.31	2.00	1.25
		3.00	1.6	3.00	1.55	3.00	1.48
		4.00	1.7	4.00	1.61	4.00	1.71
						5.00	1.65
Effective Storage Depth	m		1.37		1.40		1.40
75% Effective Storage Depth	m		1.03		1.05		1.05
(i.e. depth below GL)	m		0.77		0.75		0.75
25% Effective Storage Depth	m		0.34		0.35		0.35
(i.e. depth below GL)	m		1.46		1.45		1.45
Effective Storage Depth 75%-25%	m		0.69		0.70		0.70
Time to fall to 75% effective depth	mins		0.80		0.65		0.70
Time to fall to 25% effective depth	mins		2.65		2.60		2.90
V (75%-25%)	m3		0.41		0.42		0.42
a (50%)	m2		3.75		3.82		3.82
t (75%-25%)	mins		1.85		1.95		2.20
SOIL INFILTRATION RATE	m/s		9.87E-04		9.40E-04		8.33E-04

DESIGN SOIL INFILTRATION RATE, f

8.33E-04





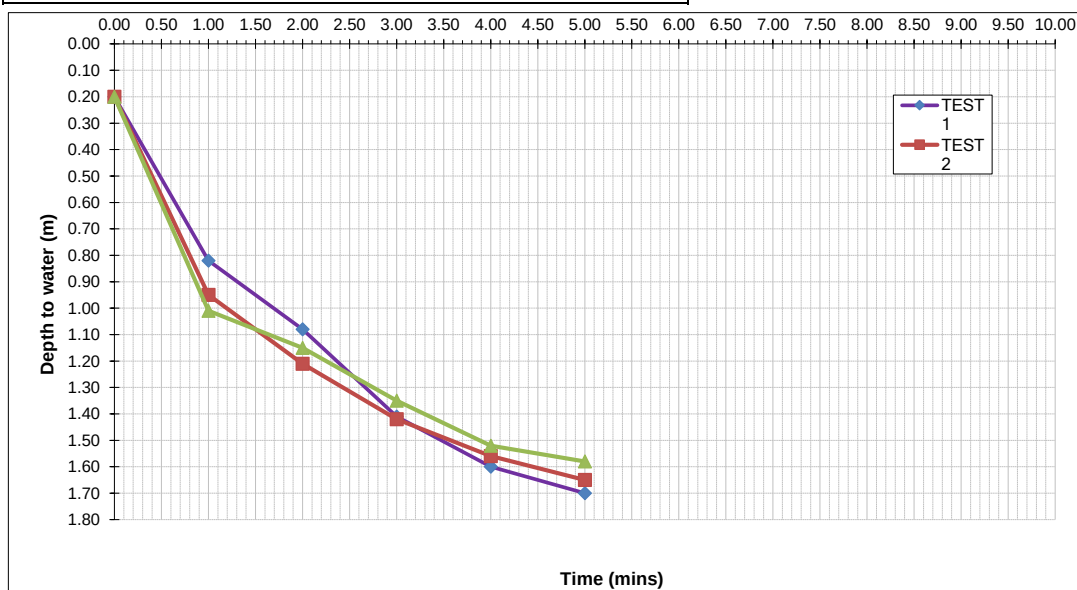
Site: Stansty Chain Road, Wrexham
Job Number: 11-130
Date of Test: 15/10/2019

Trial Pit Number: SA210
Length: 2.00 m
Width: 0.30 m
Depth: 1.70 m
Groundwater Level: m

		TEST 1		TEST 2		TEST 3	
		Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)	Time(min)	Depth to Water (m)
		0.00	0.20	0.00	0.20	0.00	0.20
		1.00	0.82	1.00	0.95	1.00	1.01
		2.00	1.08	2.00	1.21	2.00	1.15
		3.00	1.41	3.00	1.42	3.00	1.35
		4.00	1.6	4.00	1.56	4.00	1.52
		5.00	1.7	5.00	1.65	5.00	1.58
Effective Storage Depth	m		1.50		1.50		1.50
75% Effective Storage Depth	m		1.13		1.13		1.13
(i.e. depth below GL)	m		0.58		0.58		0.58
25% Effective Storage Depth	m		0.38		0.38		0.38
(i.e. depth below GL)	m		1.33		1.33		1.33
Effective Storage Depth 75%-25%	m		0.75		0.75		0.75
Time to fall to 75% effective depth	mins		0.75		0.52		0.45
Time to fall to 25% effective depth	mins		2.70		2.60		2.90
V (75%-25%)	m3		0.45		0.45		0.45
a (50%)	m2		4.05		4.05		4.05
t (75%-25%)	mins		1.95		2.08		2.45
SOIL INFILTRATION RATE	m/s		9.50E-04		8.90E-04		7.56E-04

DESIGN SOIL INFILTRATION RATE, f

7.56E-04



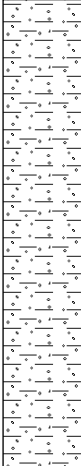
Trial Pit Log

TrialPit No
SA201
Sheet 1 of 1

Project Name: Stansty Chain Road Project No. 11130 Co-ords: 332435.54 - 352183.61 Date 15/10/2019
Level: 87.06

Location: Wrexham Dimensions (m): 2.00 Scale 1:24

Client: Russell Homes Depth 2.00 0.30 Logged M. Whittaker

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.30	86.76		Dark brown clayey fine to medium SAND (TOPSOIL) with rootlets.	
							Firm brown slightly silty gravelly CLAY. Gravel is fine to coarse angular to sub-rounded of mudstone and sandstone.	1
				1.80	85.26			
				2.00	85.06		Brown GRAVEL. Gravel is fine to coarse sub angular to sub rounded of mudstone and sandstone.	2
							End of Pit at 2.00m	3
								4
								5

Remarks: Complete

Stability: Stable

Project Name: Stansty Chain Road	Project No. 11130	Co-ords: 332538.64 - 352110.36 Level: 88.74	Date 15/10/2019
Location: Wrexham	Client: Russell Homes	Dimensions (m): 2.00 0.30 Depth 2.00	Scale 1:30 Logged M. Whittaker

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.35	88.39		Dark brown clayey fine to medium SAND (TOPSOIL) with rootlets.	
							Firm brown slightly silty gravelly CLAY with lenses of brown clayey gravelly fine to coarse sand. Gravel is fine to coarse angular to sub angular of mudstone and sandstone.	1
				2.00	86.74		End of Pit at 2.00m	2
								3
								4

Trial Pit Photographs



Soakaway 202



Soakaway 202 Spoil

Remarks: Complete

Stability: Stable

Project Name: Stansty Chain Road	Project No. 11130	Co-ords: 332684.33 - 352209.01 Level: 86.93	Date 15/10/2019
Location: Wrexham	Dimensions (m): 2.00 Depth 1.80 0.30		Scale 1:30
Client: Russell Homes			Logged M. Whittaker

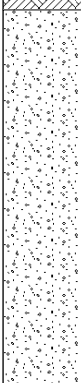
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.30	86.63		Dark brown clayey fine to medium SAND (TOPSOIL) with rootlets.	
				0.95	85.98		Firm brown slightly silty gravelly CLAY. Gravel is fine to coarse angular to sub rounded of mudstone and sandstone.	
				1.80	85.13		Brown slightly sandy GRAVEL. Gravel is fine to coarse angular to sub rounded of mudstone, sandstone and rare coal fragments.	1
							End of Pit at 1.80m	2
								3
								4

Trial Pit Photographs



Remarks: Complete	
Stability: Unstable from 0.85m bgl.	

Project Name: Stansty Chain Road	Project No. 11130	Co-ords: 332511.49 - 351942.93 Level: 86.04	Date 15/10/2019
Location: Wrexham	Dimensions (m): Depth 1.80		Scale 1:30
Client: Russell Homes	0.30 		Logged M. Whittaker

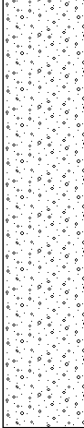
Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.30	85.74		Dark brown clayey fine to medium SAND (TOPSOIL) with rootlets.	
							Brown slightly clayey gravelly fine to medium SAND. Gravel is fine to coarse angular to sub rounded of mudstone and sandstone. (Becoming saturated at base)	1
 1.80				1.80	84.24		End of Pit at 1.80m	2
								3
								4

Trial Pit Photographs



Remarks: Complete	
Stability: 1. Unstable from 0.70m bgl. 2. Water strike at 1.80m bgl, becoming saturated at base.	

Project Name: Stansty Chain Road	Project No. 11130	Co-ords: 332379.10 - 351890.30 Level: 90.03	Date 15/10/2019
Location: Wrexham		Dimensions (m): 2.00 Depth 2.00	Scale 1:30
Client: Russell Homes			Logged M. Whittaker

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.30	89.73		Dark brown clayey fine to medium SAND (TOPSOIL) with rootlets.	
				2.00	88.03		Brown slightly silty sandy GRAVEL with cobbles. Gravel is fine to coarse angular to sub angular of mudstone sandstone mixed lithology and coal. Cobbles are angular to sub angular of mudstone and sandstone.	1
							End of Pit at 2.00m	2
								3
								4

Trial Pit Photographs



Soakaway 205

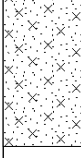


Soakaway 205 Spoil

Remarks: Complete

Stability: Unstable

Project Name: Stansty Chain Road	Project No. 11130	Co-ords: 332197.46 - 351934.46 Level: 91.27	Date 15/10/2019
Location: Wrexham		Dimensions (m): 2.00	Scale 1:30
Client: Russell Homes		Depth 2.00	Logged M. Whittaker

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.25	91.02		Dark brown clayey fine to medium SAND (TOPSOIL) with rootlets.	
				1.40	89.87		Firm brown slightly silty sandy gravelly CLAY. Gravel is fine to coarse angular to sub rounded of mudstone sandstone and coal.	1
				2.00	89.27		Red/Brown slightly silty fine to medium SAND.	2
							End of Pit at 2.00m	3
								4

Trial Pit Photographs



Soakaway 206



Soakaway 206 Spoil

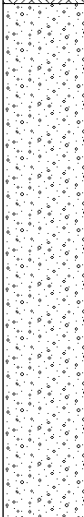
Remarks: Complete

Stability:

Project Name: Stansty Chain Road Project No. 11130 Co-ords: 332308.75 - 351536.52
Level: 87.73 Date 15/10/2019

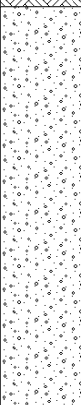
Location: Wrexham Dimensions (m): 2.00 Scale 1:24

Client: Russell Homes Depth 1.80 0.30 Logged M. Whittaker

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
				0.15	87.58		Dark brown clayey fine to medium SAND (TOPSOIL) with rootlets.
							Brown slightly silty clayey sandy GRAVEL. Gravel is fine to coarse angular to sub angular to sub rounded of mudstone sandstone and coal.
				1.80	85.93		End of Pit at 1.80m

Remarks: Complete Stability: Stable

Project Name: Stansty Chain Road	Project No. 11130	Co-ords: 332249.70 - 351724.86 Level: 89.01	Date 15/10/2019
Location: Wrexham	Dimensions (m): 2.00 0.30		Scale 1:30
Client: Russell Homes	Depth 2.00		Logged M. Whittaker

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.20	88.81		Dark brown clayey fine to medium SAND (TOPSOIL) with rootlets.	
							Brown slightly clayey silty gravelly fine to medium SAND. Gravel is fine to coarse angular to sub rounded of mudstone, sandstone and rare coal fragments.	1
				1.80	87.21			
				2.00	87.01		Brown silty slightly clayey gravelly fine to medium SAND. Gravel is fine to coarse sub angular to sub rounded of Mudstone sandstone and rare coal fragments.	2
							End of Pit at 2.00m	
								3
								4

Trial Pit Photographs



Soakaway 208

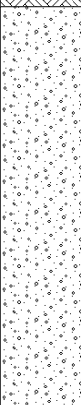


Soakaway 208 Spoil

Remarks: Complete

Stability: Stable

Project Name: Stansty Chain Road	Project No. 11130	Co-ords: 332360.73 - 351722.40 Level: 87.30	Date 15/10/2019
Location: Wrexham		Dimensions (m): 0.30 2.00	Scale 1:30
Client: Russell Homes		Depth 1.80	Logged M. Whittaker

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.20	87.10		Dark brown clayey fine to medium SAND (TOPSOIL) with rootlets.	
				1.80	85.50		Brown slightly clayey gravelly fine to medium SAND with cobbles. Gravel is fine to coarse angular to sub rounded of mudstone sandstone and rare coal fragments. Cobbles are sub-angular to sub-rounded of sandstone.	1
							End of Pit at 1.80m	2
								3
								4

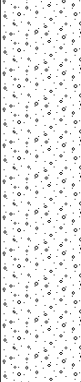
Trial Pit Photographs



Remarks: Complete

Stability: Stable

Project Name: Stansty Chain Road	Project No. 11130	Co-ords: 332427.45 - 351740.82 Level: 86.82	Date 15/10/2019
Location: Wrexham	Dimensions (m): Depth 1.70		Scale 1:30
Client: Russell Homes	0.30 		Logged M. Whittaker

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
				0.15	86.67		Dark brown clayey fine to medium SAND (TOPSOIL) with rootlets.	
				1.70	85.12		Brown slightly clayey gravelly fine to medium SAND with cobbles. Gravel is fine to coarse angular to sub angular to sub rounded of mudstone and sandstone. Cobbles are sub-angular to sub-rounded of sandstone.	1
							End of Pit at 1.70m	2
								3
								4

Trial Pit Photographs



Soakaway 210

Remarks: Complete

Stability: Unstable from 1.00m bgl.