Intégral Géotechnique

Intégral House 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel: 029 20807991 mail@integralgeotec.com

12692/FG/Nov Revision

22 November 2023

Bloor Homes Western
Rudgeway House
Celandine Road
Walton Cardiff
Tewkesbury
Gloucestershire GL20 7FU

For the attention of Jon Launchbury,

Bretch Hill, Phase 4, (Withycombe Farm), Banbury–Soil Infiltration Testing Letter Report – November 2023 Revision

Further to your recent instruction, and subsequent to our previous Soil Infiltration Testing Letter Report of 28 September 2023, we have now completed the supplementary BRE 365 compliant soil infiltration testing at the above site and have revised and updated our previous report..

This report (including all appendices to it and any subsequent addendums or correspondence) has been prepared for the sole benefit, use and information of our client (Bloor Homes Western) and no third party is entitled or permitted to rely upon it. This report may not be used, reproduced, or circulated (in whole or part) for any purpose without the written consent of Intégral Géotechnique (Wales) Limited. Intégral Géotechnique (Wales) Limited shall not be liable to any third party who does not have such express written permission to rely on the report for any losses they may suffer.

Background

As part of the ongoing development, Bloor Homes Western are proposing to construct three attenuation basins at Bretch Hill, Phase 4, otherwise referred to as Withycombe Farm Site, Banbury.

Intégral Géotechnique were initially instructed to undertake soil infiltration testing at the site at specified locations of the proposed attenuation basins to determine the soil infiltration rate. We attended site on the 21st September 2023 to carry our BRE 365 compliant soakaway testing at four location (referenced SA01, SA02, SA03 and SA04). The findings of these initial soakaway tests were reported in our Soil Infiltration Testing Letter Report of 28 September 2023.

Supplementary testing was then instructed to be undertaken within the vicinity of the previously excavated SA02 to confirm the design infiltration rates within this area of the site.

It should be noted that during the first infiltration tests, the locations and depths of the soil infiltration testing to be carried out was supplied by Bloor Homes Western.

During the subsequent works the supplemental locations and respective depths were determined by the qualified engineer from Intégral Géotechnique.

Fieldworks

We attended site initially on 21st September 2023 to carry out BRE 365 compliant soil infiltration testing at four locations (referenced SA01, SA02, SA03 and SA04).

Soil infiltration tests SA01 and SA02 were undertaken at the approximate locations of two of the attenuation basins. SA03 was undertaken at the proposed location of the third basin and SA04 was undertaken as an additional location if the results for SA03 were not sufficient.

Supplementary works were then conducted on 23rd October 2023 to carry out further ground investigation and BRE 365 compliant soil infiltration testing at additional locations), within the vicinity of the previously excavated SA02.

Four additional trial pits were excavated, references SA101, SA102, SA103 and SA104. However, it should be noted that soil infiltration testing was only carried out in three of these locations (SA102, SA103 and SA104). The ground conditions observed within SA101 were comparable to those encountered in SA102 and hence a soil infiltration test was only carried out in one of these locations (SA102).

During the two phases of investigations the trial pits were excavated using a 20-tonne and an 8 Tonne tracked excavator respectively, supplied by Bloor Homes Western.

The initial trial pits (SA01 to SA04 inclusive) were excavated to maximum depths of approximately 1.3m, as specified by Bloor Homes Western. The supplementary trial pits (SA101 to SA104 inclusive) were excavated to depths ranging from 1.5m to 2.3m below existing ground level.

Upon reaching the final excavation depth, the trial pits were rapidly filled with water from a 2000-gallon water bowser, and the water level was monitored over a period of time. Repeat cycle testing was undertaken in accordance with the requirements of BRE365 where infiltration rates allowed.

The fieldworks were supervised by a qualified geotechnical engineer from Intégral Géotechnique who logged the trial pits and monitored the soil infiltration tests.

The location of the site is presented in Figure 1, while the approximate locations of the trial pit/soil infiltration tests over the two investigations are shown in Figure 2.

The trial pit logs, and soil infiltration test calculation sheets are presented in Appendices A and B respectively.

Ground Conditions

The ground conditions encountered within the trial pits remained reasonably consistent with the sites respective underlying geology and previous investigations.

<u>Initial Site Investigation (September 2023)</u>

The ground conditions typically comprised a surface covering of cohesive topsoil comprising soft brown and locally orangish brown, slightly sandy slightly gravelly silt, up to approximately 0.3m thick. Local to SA04 the topsoil comprised soft brown organic rich silt. The topsoil was recorded as organic, rich with generally common roots and rootlets.

Underlying the topsoil, an upper mantle of soft to firm brown and orangish brown slightly sandy and gravelly silt was recorded, proven to a depth of approximately 0.6m to 0.8m bgl. Stiff brown, slightly silty gravelly clay, were generally encountered from 0.6m to 1.3m bgl.

Local to SA01, dense brown silty slightly sandy clayey gravel was encountered from 0.6m below existing ground level.

Supplementary Site Investigation (November 2023)

Soil infiltration test pits SA101 to SA104 inclusive are defined by a surface covering of reworked made ground, comprised of soft to firm, brown, slightly sandy slightly silty slightly gravelly clay between approximately 0.0m to 0.3m depth. Gravels constitute fine to coarse angular mudstone.

The reworked material is the result of the backfilling of the site after a 150mm to 600mm field wide site strip was undertaken by a team of archaeologists.

Underlying the surface covering of reworked material the ground conditions remained reasonably consistent with the previous investigations. The natural soils encountered generally comprised an upper mantle of sub-soil comprising either a firm brown slightly silty slightly gravelly clay or a medium dense orange, brown slightly silty slightly gravelly sand. No subsoil was identified within SA104.

A localized outlier in the ground conditions across the site was encountered within SA103 which encountered generally cohesive soils underlying the reworked made ground. Between the depths of 0.2m and 0.6m a sub-soil comprising soft brown clayey sandy silt was encountered. Underlying the sub-soil, the natural soils generally comprised a firm to stiff brownish grey gravelly clay.

Within the remaining pits the natural soils encountered generally comprised loose to dense brown silty sandy, locally clayey gravel/cobble.

Locally, a moderate to high cobble content was recorded throughout the trial pit locations. The cobbles generally comprised angular to sub-rounded ferruginous limestone.

All trial pits were terminated at depths between of 1.3m and 2.3m bgl in accordance with soil infiltration test depths provided by Bloor Homes and specified by Integral Geotechnique's Engineer during current investigation.

Groundwater was not encountered within the excavated depths of the soakaway test pits SA01 to SA04 inclusive and supplementary soil infiltration test pits SA101 to SA104 inclusive.

A copy of the trial pit logs is presented in Appendix A.

Soil Infiltration Testing Results

The results of the soil infiltration testing have been summarised below in Table 1.

Table 1: Soil Infiltration Test Results

Soil Infiltration Test	Excavation	Soi	l Infiltration Rate	(ms ⁻¹)	Design Soil
Location	Depth (m bgl)	Cycle 1	Cycle 2	Cycle 3	Infiltration Rate (ms ⁻¹)
SA01	1.3	4.2x10 ⁻⁵	3.1x10 ⁻⁵	n/a	3.1x10 ⁻⁵
SA02	1.3	n/a	n/a	n/a	n/a
SA03	1.3	n/a	n/a	n/a	n/a
SA04	1.3	1.2x10 ⁻⁴	7.2x10 ⁻⁵	5.6x10 ⁻⁵	5.6x10 ⁻⁵
SA102	2.3	1.3x10 ⁻⁴	8.9x10 ⁻⁵	8.7x10 ⁻⁵	8.7x10 ⁻⁵
SA103	1.9	n/a	n/a	n/a	n/a
SA104	1.5	1.2x10 ⁻⁴	7.5x10 ⁻⁵	7.2x10 ⁻⁵	7.2x10 ⁻⁵

The soil infiltration test calculation sheets are presented in Appendix B.

The results indicate a design soil infiltration rate of approximately between 3.1x10⁻⁵m/sec at the location of SA01 and 8.7x10⁻⁵m/sec at the location of SA102.

Insufficient infiltration was observed in soil infiltration test locations SA02, SA03 and SA103 and therefore it was not possible to calculate a soil infiltration rate at these locations. Due to time constraints, it was not possible undertake a third test cycle in SA01.

Note that the soakaway test results are specific to the location and depth of the tests undertaken.

The soil infiltration test results should be provided to a suitably qualified drainage engineer.

It is recommended that allowances are made for silt protection within the construction of any soak away drainage system at the site.

We trust the above and enclosed are to your satisfaction. However, if you have any queries or require any further information, please do not hesitate to contact us.

Yours faithfully,



Finn Guilfoyle For Intégral Géotechnique (Wales) Limited

Encl.
Appendix A –Trial Pit Logs
Appendix B – Soil Infiltration Test Calculation Sheets
Figures

APPENDIX A

TRIAL PIT LOGS

Int Géotech	t égral inique	Intégral House, 7 Beddau W Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176	ay	Project Bretc		Banbury	Project No.: 12692	Trial Pit No.: SA01 Sheet 1 of 1
Location: Banbury		mail@integralgeotec.com		Client	: Bloc	or Homes Western	Logged By: FG	Scale 1:25
Equipment:	20-ton	ne tracked excavato	r	Coordir	nates:	240353.69mE - 443256.13mN	Dimensions	3.00m
Date Excava		21/09/2023		Level:			Depth : E 1.30m 2.0	
Sam Depth (m)	ples & Ir Type	n-situ Testing Results	Depth (m)	Level (m AOD)	Legend	Stratum De	escription	
			0.30		* * * * * * * * * * * * * * * * * * *	Grass over soft brown and slightly orangish bro- rich SILT with common roots and rootlets. Grave ferruginous limestone. [Topsoil] Firm orangish brown slightly sandy gravelly SIL to sub-rounded ferruginous limestone. Gravel is ferruginous limestone.	el is fine to coarse sub-rour T with moderate cobble cor	ided to rounded
			0.60			Dense brown silty slightly sandy clayey GRAVE rounded ferruginous sandstone and limestone.	L. Gravel is fine to coarse s	sub-angular to
			1.30			End of Trialp	it at 1.30 m	-2
								-3
								-4
Remarks: 1. Trial pit dep	th specifie	ed by client.	G	 Groundwa	l ter:	No groundwater encountered.	Key: D - Small disturbed samp	le III
2. Soil infiltrati	on testing	undertaken in pit.	s	tability:	1. Ge	enerally stable in the short term with local instability	B - Bulk disturbed sample ES - Environmental soil s	



Géotech	nique	Intégral House, 7 Beddau W Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	ay	Project Bretc		Banbury	Project No.: 12692	Trial Pit No.: SA02 Sheet 1 of 1	
Location:				Client	: Bloc	or Homes Western	Logged By:	Scale	
Banbury							FG	1:25	
Equipment:	20-ton	ne tracked excavato	r	Coordir	nates:	240312.49mE - 443527.88mN	Dimensions	2.80m	\neg
Date Excava		21/09/2023		Level:			Depth : E		
Sam Depth (m)	ples & In Type	r-situ Testing Results	Depth (m)	Level (m AOD)	Legend	Stratum D	escription		
			0.30			Grass over soft brown slightly gravelly organic r Gravel is fine to coarse sub-rounded ferruginous Soft orangish brown slightly sandy very slightly rounded ferruginous limestone. Stiff brown very slightly gravelly CLAY. Gravel is	s limestone. gravelly SILT. Gravel is fine	to medium sub-	
			1.10			Stiff brown gravelly CLAY with moderate cobble limestone. Gravel is fine to coarse sub-rounded fragments.	ferruginous limestone and		-1
									- 3
Down and a			1-				lea		- - - - 5
Remarks: 1. Trial pit dept 2. Soil infiltration	th specifie on testing	ed by client. undertaken in pit.		tability:		No groundwater encountered. enerally stable in the short term with local instability ciated with cobble removal.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil s	VCC	

W - Water sample

Int Géotech	tégral inique	Intégral House, 7 Beddau W Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	ay	Project Bretc		Banbury	Project No.: 12692	Trial Pit No.: SA03 Sheet 1 of 1
Location: Banbury				Client	: Blo	or Homes Western	Logged By:	Scale 1:25
Equipment:	20-ton	nne tracked excavato	r	Coordir	nates:	240078.36mE - 443337.97mN	Dimensions	2.90m
Date Excava		21/09/2023		Level:			Depth : 402.	
Sam Depth (m)	ples & Ir Type	n-situ Testing Results	Depth (m)	Level (m AOD)	Legend	Stratum D	escription	
	71		0.30		* * * * * * * * * * * * * * * * * * *	Grass over soft brown and orangish brown sligh roots and rootlets. Gravel is fine to coarse sub-research soft to firm orangish brown very slightly gravelly ferruginous sandstone.	ounded ferruginous limesto	one and sandstone.
			0.70		(× · × · × · × · × · × · × · × · × · ×	Stiff brown mottled red and orange silty CLAY.		-1
			1.30		<u>* </u>	End of Trialp	it at 1.30 m	
								-2
								-3
								-4
Remarks:			G	Groundwa	ter:	No groundwater encountered.	Key:	-5
Trial pit dep Soil infiltrati	th specific on testing	ed by client. I undertaken in pit.	s	tability:	1. Ge	enerally stable in the short term with local instability ciated with cobble removal.	D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil s W - Water sample	A C C



Intégral Géotechnique	Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Name:	Banbury	Project No.: 12692	Trial Pit No.: SA04 Sheet 1 of 1
Location: Banbury		Client	:: Blo	or Homes Western	Logged By: FG	Scale 1:25
Equipment: 20-tor	nne tracked excavator	Coordi	nates:	240115.93mE - 443327.03mN	Dimensions	2.70m
	21/09/2023	Level:			Depth : E	
Samples & I Depth (m) Type	n-situ Testing Dep Results (m	th Level) (m AOD	Legend	Stratum D		
	0.3			Grass over soft brown organic rich SILT wit cor Soft brown and orangish brown slightly sandy with medium rounded sandstone.		ravel is fine and
	0.8		× × · × · × · × · × · × · × · × · ×	Stiff brown slightly silty slightly gravelly CLAY w sandstone. Gravel is fine to coarse, angular fer	ith high cobble content of a ruginous sandstone.	ngular ferruginous - 1
	1.3			End of Trial	it at 1.30 m	-2
						-45
Remarks: 1. Trial pit depth specification testing	ed by client. g undertaken in pit.	Groundwa Stability:	1. Ge	No groundwater encountered. enerally stable in the short term with local instability ciated with cobble removal.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil s W - Water sample	ACC

Int Géotech	t égral nique	Intégral House, 7 Beddau Wa Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	ау	Project Bretc		Banbury	Project No.: 12692	Trial Pit No.: SA101 Sheet 1 of 1
Location: Banbury				Client	Bloo	or Homes Western	Logged By: FG	Scale 1:25
Equipment:	8-tonn	e Tracked Excavator		Coordin	ates:		Dimensions	2.80m
Date Excava	ited:	14/11/2023		Level:			Depth : 60 2.00m 2.00m	
		n-situ Testing	Depth	Level	Legend	Stratum De	escription	
Sam Depth (m)	ples & In Type	Results	Depth (m) 0.20 0.30	Level (m AOD)	Legend	MADE GROUND: Soft to firm brown slightly san is fine to coarse angular of mudstone (Reworker Medium dense orange brown slightly silty slightly angular ferruginous limestone. Dense orange brown silty slightly sandy to sand content of angular ferruginous limestone. Grave sub-rounded of ferruginous limestone.	dy slightly silty slightly graved ground). y gravelly SAND. Gravel is y gravelly COBBLES with new companies and cobbles are fine to companie to the companies are fine to companies.	fine to coarse sub-
								-5
Remarks:				iroundwat	er:	No groundwater encountered.	Key:	
Trial pit term excavation.	ninated a	2.0m due to slow progre	-	tability:	1. Ge	nerally stable with local instability associated with c	D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sa W - Water sample	ACC

	t égral nique	Intégral House, 7 Beddau Wi Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	ay	Project Bretc		3anbury	Project No.: 12692	Trial Pit No.: SA102 Sheet 1 of 1
Location: Banbury		manigint sgrang colors of the		Client	Bloc	or Homes Western	Logged By: FG	Scale 1:25
Equipment:	8-tonn	e Tracked Excavator		Coordir	ates:		Dimensions	3.00m
Date Excava		14/11/2023		Level:			Depth : 59 2.30m 90	
Sam Depth (m)	ples & In Type	-situ Testing Results	Depth (m)	Level (m AOD)	Legend	Stratum De	escription	
	- 34-2		0.30			MADE GROUND: Soft to firm brown slightly sar is fine to coarse angular of mudstone (Reworker Firm brown slightly silty slightly gravelly CLAY was ferruginous limestone. Gravel is fine to coarse s	d ground). ith low cobble content of su	ıb-angular
			1.00			Loose to medium dense orange brown slightly s high cobble and boulder content of angular ferru angular and sub-angular of ferruginous limestor	iginous limestone. Gravel is	
			2.30			Ēnd of Trialp	īt aī 2.30 m	-2
								-3
								-4
								[- 5
		2.0m due to slow progration testing undertaker	ess of	iroundwat		No groundwater encountered. nerally stable with local instability associated with coal.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil s W - Water sample	ACC

Int Géotech	égral nique	Intégral House, 7 Beddau Wa Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	ay	Project Bretc		Banbury	Project No.: 12692	Trial Pit No.: SA103 Sheet 1 of 1
Location: Banbury				Client	: Bloc	or Homes Western	Logged By: FG	Scale 1:25
Equipment:	8-tonn	e Tracked Excavator		Coordin	nates:		Dimensions	2.10m
Date Excava		14/11/2023		Level:			Depth: 59 1.90m 0	
Sam Depth (m)	ples & In Type	n-situ Testing Results	Depth (m)	Level (m AOD)	Legend	Stratum De	escription	
	71		0.20			MADE GROUND: Soft to firm brown slightly san is fine to coarse angular of mudstone (Reworked Soft brown clayey sandy SILT. Firm to stiff brownish grey gravelly CLAY with m	d ground).	
						Gravel is fine to coarse angular to sub-angular li	mesione.	-1
			1.75					
			1.90			Suspected limestone bedrock.		-
						End of Trialpi	t at 1.30 III	
								-3
								- 4
Remarks:				Groundwat	ter:	1. No groundwater encountered.	Key:	
Trial pit term excavation. 2. within pit.	ninated at Soil infiltr	2.0m due to slow progre ation testing undertaken		tability:	1. Ge	nerally stable with local instability associated with c val.	D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil si W - Water sample	ACC

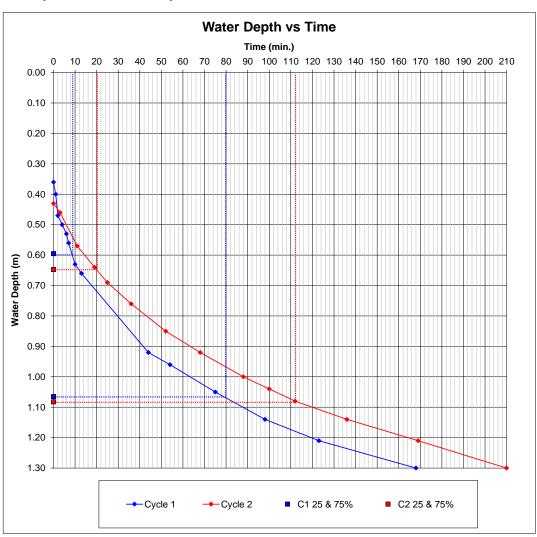
Int Géotech	t égral nique	Intégral House, 7 Beddau Wi Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	ay	Project Bretc		3anbury	Project No.: 12692	Trial Pit No.: SA104 Sheet 1 of 1	
Location: Banbury				Client	: Bloo	or Homes Western	Logged By: FG	Scale 1:25	
Equipment:	8-tonn	e Tracked Excavacto	or	Coordin	nates:		Dimensions	2.70m	
Date Excava		14/11/2023		Level:			Depth:		
Sam Depth (m)	ples & In Type	-situ Testing Results	Depth (m)	Level (m AOD)	Legend	Stratum De	escription		
Depail (iii)	турс	Results	0.30			MADE GROUND: Soft to firm brown slightly sar is fine to coarse angular of mudstone (Reworker Medium dense brown silty sandy GRAVEL with angular ferruginous limestone. Gravel is fine to	d ground). high cobble and boulder co	ntent of sub-	
			1.50			limestone. End of Trialp		-1	1
								-2	2
								- 3	3
								-4	
Remarks: 1. Trial pit term excavation. 2. within pit.	ninated at Soil infiltra	2.0m due to slow progration testing undertaker	ess of	roundwat		No groundwater encountered. nerally stable with local instability associated with coal.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil s W - Water sample	ACC	

APPENDIX B

SOIL INFILTRATION TEST CALCULATION SHEETS

12692 Phase 4 Withycombe Farm, Banbury

		Cyc	cle 1	Сус	le 2	Сус	ie 3
Length (m)	3.00	Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m
Width (m)	0.70	0	0.36	0	0.43	` '	
Depth (m)	1.30	1	0.40	3	0.46		
Groundwater	dry	2	0.47	11	0.57		
Weather Conditions	sunny	4	0.50	19	0.64		
Date	21-Sep-23	6	0.53	25	0.69		
		7	0.56	36	0.76		
		10	0.63	52	0.85		
Remarks		13	0.66	68	0.92		
		44	0.92	88	1.00		
		54	0.96	100	1.04		
		75	1.05	112	1.08		
		98	1.14	136	1.14		
		123	1.21	169	1.21		
		168	1.30	210	1.30		
		100	1.50	210	1.50		
		<u> </u>					
1. Test undertaken within natu	ural cohesive deposits.						
	•						
		-					
Final Excavation Depth (m)		Сус	cle 1	Сус	ile 2	Сус	le 3
,		Сус	cle 1	Сус	:le 2	Сус	le 3
At end of testing cycle		Сус		Сус		Сус	le 3
Final Excavation Depth (m) At end of testing cycle Water Depths (m) Water depth at start of test	'	Сус	1.30	Сус	1.30	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test		Сус	1.30 0.36	Сус	1.30 0.43	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test		Сус	1.30 0.36 1.30	Сус	1.30 0.43 1.30	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured)		Сус	0.36 1.30 0.94	Сус	0.43 1.30 0.87	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) Effective storage depth		Сус	1.30 0.36 1.30	Сус	1.30 0.43 1.30	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at start of test Effective depth (measured) % Effective storage depth Effective Storage Depths (m)		Сус	0.36 1.30 0.94 1.00	Сус	0.43 1.30 0.87 1.00	Сус	ile 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at start of test Effective depth (measured) % Effective storage depth Effective Storage Depths (m)		Сус	0.36 1.30 0.94	Сус	0.43 1.30 0.87	Сус	ile 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective Storage Depths (m) Effective storage depth 100%		Cyc	0.36 1.30 0.94 1.00	Cyc	0.43 1.30 0.87 1.00	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective Storage Depths (m) Effective storage depth (100% Effective storage depth (75%)		Сус	0.36 1.30 0.94 1.00	Сус	1.30 0.43 1.30 0.87 1.00	Сус	lle 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective Storage Depths (m) Effective storage depth (100% Effective storage depth (75%) Effective storage depth (50%)		Сус	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47	Сус	1.30 0.43 1.30 0.87 1.00 0.87 0.65	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) Effective storage depth Effective storage depth (175%) Effective storage depth (175%) Effective storage depth (50%) Effective storage depth (50%) Effective storage depth (50%)		Сус	0.36 1.30 0.94 1.00	Сус	1.30 0.43 1.30 0.87 1.00 0.87 0.65	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective Storage Depths (m) Effective storage depth (100% Effective storage depth (75%) Effective storage depth (55%) Gutflow Time (min)		Сус	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24	Сус	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective Storage depth (100% Effective storage depth (75%) Effective storage depth (50%) Effective storage depth (50%) Effective storage depth (25%) Outflow Time (min) Time for measured outflow		Cyc	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24	Сус	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) Effective storage depth Effective storage depth (100% Effective storage depth (175%) Effective storage depth (50%) Effective storage depth (50%) Effective storage depth (50%) Effective storage depth (55%) Outflow Time (min) Time for measured outflow Time for 100% outflow		Сус	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24	Сус	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective storage depth (100% Effective storage depth (75%) Effective storage depth (55%) Outflow Time (min) Time for measured outflow Time for measured outflow Time for 75-25% outflow		Сус	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24	Сус	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22	Сус	ile 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective storage depth (100% Effective storage depth (75%) Effective storage depth (55%) Outflow Time (min) Time for measured outflow Time for measured outflow Time for 75-25% outflow		Cyc	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24	Сус	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22	Cyc	lle 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective Storage Depths (m) Effective storage depth (100% Effective storage depth (75%) Effective storage depth (50%) Effective storage depth (55%) Outflow Time (min) Time for measured outflow Time for 100% outflow Time for 75-25% outflow Volume of Outflow (m³))	Сус	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24	Cyc	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22	Cyc	ile 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) Effective storage depth Effective storage depth (175%) Effective storage depth (57%) Effective storage depth (59%) Effective storage depth (59%) Effective storage depth (59%) Effective storage depth (59%) Until me (min) Time for measured outflow Time for 100% outflow Time for 75-25% outflow Volume of Outflow (m) Over measured effective depti)	Сус	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24 168 168 71	Cyc	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22 210 210 92	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective storage depth (100% Effective storage depth (50%) Effective storage depth (50%) Outflow Time (min) Time for measured outflow Time for 100% outflow Time for 75-25% outflow Volume of Outflow (m³) Over measured effective depth Over 100% effective depth	h	Cyc	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.24 168 1688 71	Сус	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22 210 92 1.83 1.83	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective Storage Depths (m) Effective storage depth (75%) Effective storage depth (75%) Effective storage depth (55%) Outflow Time (min) Time for measured outflow Time for 100% outflow Volume of Outflow (m³) Over measured effective depth From 75% - 25% effective depth From 75% - 25% effective depth	h	Сус	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24 168 168 71	Cyc	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22 210 210 92	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at starn of test Water depth at starn of test Water depth at starn of test Effective depth (measured) Effective storage Depths (m) Effective storage depth (175%) Effective storage depth (50%) Effective storage depth (50%) Effective storage depth (50%) Effective storage depth (50%) Outflow Time (min) Time for neasured outflow Time for 100% outflow Time for 75-25% outflow Volume of Outflow (m²) Over neasured effective depth Over 100% effective depth From 75% - 25% effective dep Surface Area (m²)	h	Cyc	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.24 168 168 71	Cyc	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22 210 210 210 92 1.83 1.83 0.91	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at start of test Water depth at end of test Effective depth (measured) Effective storage depth Effective storage depth (175%) Effective storage depth (50%) Effective storage depth (50%) Effective storage depth (55%) Outflow Time (min) Time for neasured outflow Time for 75-25% outflow Volume of Outflow (m³) Over measured effective depth Over 100% effective depth From 75% - 25% effective depth From 75% - 25% effective depth	h	Cyc	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24 168 168 71 1.97 0.99	Cyc	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 4.0.22 210 92 1.83 1.83 0.91	Cyc	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective storage depth (100% Effective storage depth (75%) Effective storage depth (50%) Outflow Time (min) Time for measured outflow Time for 100% outflow Time for 75'-25% outflow Volume of Outflow (m²) Over measured effective depth Over 100% effective depth From 75% - 25% effective depth From 75% - 25% effective depth From 75% effective storage For 50% effective storage For 50% effective storage	h	Сус	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24 168 168 71 1.97 0.99	Cyc	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22 210 92 1.83 0.91 8.54 5.32	Сус	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective Storage Depths (m) Effective storage depth (100% Effective storage depth (75%) Effective storage depth (55%) Gutflow Time (min)	h	Cyc	1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24 168 168 71 1.97 0.99	Cyc	1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 4.0.22 210 92 1.83 1.83 0.91	Cyc	le 3
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at start Effective depth (measured) Effective storage Depths (m) Effective storage depth (100% Effective storage depth (50%) Effective storage depth (55%) Outflow Time (min) Time for neasured outflow Time for 100% outflow Volume of Outflow (m) Over 100% effective depth From 75% - 25% effective depth From 75% - 25% effective depth From 75% - 25% effective depth From 100% effective storage Over measured depth For 50% effective storage Over measured depth	h		1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24 168 168 71 1.97 0.99		1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22 210 92 1.83 0.91 8.54 5.32	Cyc	
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at start of test Water depth at end of test Effective depth (measured) Effective storage depth Effective storage depth (176%) Effective storage depth (57%) Effective storage depth (59%) Effective storage depth (59%) Effective storage depth (59%) Outflow Time (min) Time for measured outflow Time for 100% outflow Wolume of Outflow (m³) Over measured effective depth Over 100% effective depth From 75% - 25% effective depth From 75% - 25% effective depth For 100% effective storage For 50% effective storage For 50% effective storage For 50% effective storage For 50% effective storage Soil Infilitration Rate (m/s)	h		1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.47 0.24 1688 71 1.97 1.97 0.99 9.06 5.58 9.06		1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22 210 210 92 1.83 1.83 0.91 8.54 5.32 8.54		
At end of testing cycle Water Depths (m) Water depth at start of test Water depth at start of test Water depth at end of test Effective depth (measured) % Effective storage depth Effective storage depth (100% Effective storage depth (75%) Effective storage depth (55%) Outflow Time (min) Time for measured outflow Time for 100% outflow Wolume of Outflow (m²) Over measured effective depth Over 100% effective depth From 75% - 25% effective depth From 75% - 25% effective depth For 100% effective storage For 50% effective storage For 50% effective storage	h		1.30 0.36 1.30 0.94 1.00 0.94 0.71 0.24 168 168 71 1.97 0.99		1.30 0.43 1.30 0.87 1.00 0.87 0.65 0.44 0.22 210 210 92 1.83 0.91 8.54 5.32 8.54		



Design Soil Infiltration Rate: 3.1E-05 m/s



12692 Phase 4 Withycombe Farm, Banbury

Trial Pit Information		Cyc	cle 1	Cyc	cle 2	Cyc	cle 3									,	Wate	or D	ont	h ve	· Ti	ma									
ength (m)	2.80	Time (min)		Time (min)		Time (min)											vvalt	ei D	epi	11 VS) II	IIIE	;								
Vidth (m)	0.70	0	0.50	. ,,	.,,.,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,											т:	me (r	nin \											
Pepth (m)	1.30	1	0.50																												
Groundwater	dry	3	0.50						(0	5	10)	15	20	0	25	30)	35	40)	45	:	50	55		60	65		70
/eather Conditions	sunny	9	0.51						0.00 -		-			_						-					<u> </u>			<u> </u>			<u> </u>
ate	21-Sep-23	52	0.53						0.00																						
ate	21-3ep-23	70	0.53																		\Box										Н
																				+++			+								Н
emarks																															Ш
																															Н
									0.25 -				Ш	ш	\square				ш		ш					ш					Ц
									0.20																						
			-				\vdash			++++		+++		+++	ш		++++	+++	+++	+++	++	+++	+++	+++	+++				+++	+++	Н
			 				\vdash																								
			 								+++	++	++++	+	+++		+HH		++++	+++		++	+	+	+++	+++		+			Н
. Insufficient infiltration in order to	calculate design						\vdash						ш		Ш				Ш		Ш										П
infiltration rate.					-		\vdash		0.50		$\perp \! \! \perp$	Ш	ш	ш	ш	ш	+	ш	ш	44	ш	ш	ш	$\perp \! \! \perp \! \! \perp$	$\perp \! \! \perp \! \! \! \perp$	\Box	44	Щ	$\perp \downarrow \downarrow$	ш	Щ
			 				\vdash													+++	+++		+	+++	+	+++				-	4
			-								+++	\Box							+++	+++	++		+	+++	111					++	H
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			 					e	•			ш																			\Box
			 					"	0.75 -	+++	+++	+	ш	+	+++	ш	+++	+++	$+\!+\!+\!+$	++	++		$+\!\!+\!\!\!+$	+	++	++	44	$\perp \perp$	+++	#	4
			-					重	C																						
			-					Water Depth (m)							Ш				+++		++										\forall
			 					>				Ш			ш						Ш									Ш	Ш
inal Excavation Depth (m)		Сус	cle 1	Сус	le 2	Cyc	cle 3																								
at end of testing cycle			1.30												Ш																П
Vater Depths (m)										+++	+++	+++	+++	+++	+++		+	+++	+++	+++	++	+++	+	+++	+++	+++			+++		+
Vater depth at start of test			0.50						4.00																						
Vater depth at end of test			0.53						1.00 -		\top	++	т	т	\Box				тт	\top	\Box		+	\top	\top	ш	\top	\Box			П
ffective depth (measured)			0.03							\square				ш			$\perp \downarrow \downarrow \downarrow \downarrow$			$\perp \perp \perp$	Ш		\Box	$\perp \perp \perp$	$\perp \perp \perp$	\Box	\perp				Ш
Effective storage depth			0.04																												
ffective Storage Depths (m)			·						•	•		Ш	+++	+++	+++		+		+++	+++	++	++	+	+++	++		+	+		+++	\forall
ffective storage depth (100%)			0.80																												Ш
ffective storage depth (75%)			0.60																												
fective storage depth (50%)			0.40							+++		+++		+++	+++		+		++++	+++	+++		+	+++	+++	+++	++	+			Н
ffective storage depth (25%)			0.20						1.05																						
utflow Time (min)									1.25 -			\Box	Ш		\Box				$\Box\Box$		$\sqcap \uparrow$										П
ime for measured outflow			70																		Ш					Ш					Ш
ime for 100% outflow																															
me for 75-25% outflow											Γ																				
olume of Outflow (m³)																															
ver measured effective depth			0.06													-	Cycle	1					C1	25 &	75%						
ver 100% effective depth			1.57														-														
om 75% - 25% effective depth			0.78								L																				
urface Area (m²)																															_
or 100% effective storage			7.56																												
or 50% effective storage			4.76									Г																			
over measured depth			2.17																												
oil Infiltration Rate (m/s)		Сус	cle 1		cle 2	Сус	cle 3					L																			
ver 100% effective depth																															
ver measured depth		1																													
over 75% - 25% effective depth																															



12692 Phase 4 Withycombe Farm, Banbury

Trial Pit Information		C	ycle 1	Cv	cle 2	Cv	cle 3									Mate	or D	onsh		Tim	20							
Length (m)	2.90	Time (min)		Time (min)											'	vvate	er D	ehtn	ı VS	ıın	IE							
Width (m)	0.70	0	0.43														т:	me (m	in \									
Depth (m)	1.30	1	0.46																									
Groundwater	dry	2	0.50						0		5	10)	15	20		25	30		35	40)	45	5	0	55	6	60
Weather Conditions	sunny	4	0.51					0.	.00 +		-			-			+			1					-			+
Date	21-Sep-23	8	0.52									$ \cdot $																
		15	0.52																									
		29	0.52						-																			-
Remarks		45	0.53																									
		63	0.53																									
Insufficient infiltration in order infiltration rate								Water Depth (m)	.50																			
								Wa																				
Final Excavation Depth (m)		C)	ycle 1		cle 2	Су	cle 3					Ш																
At end of testing cycle			1.30)																								
Water Depths (m)																												
Nater depth at start of test			0.43					1	.00 ↓	$\perp \perp \perp$	\perp	$\perp \perp \perp$	ш	Ш	шШ	ш	\perp	$\sqcup \sqcup$	Ш	ш		$\perp \perp \perp$		ШЦ	ш		ш	\perp
Vater depth at end of test			0.53					'.	.50									$\sqcup \sqcup \sqcup \sqcup$										
Effective depth (measured)			0.10																									
6 Effective storage depth			0.11	1					•																			
Effective Storage Depths (m)																												
Effective storage depth (100%)			0.87																									
Effective storage depth (75%)			0.65																									
Effective storage depth (50%)			0.44																									
Effective storage depth (25%) Outflow Time (min)			0.22	-																								
Time for measured outflow			63																									
Fime for 100% outflow			03	Ί										-														
Fime for 75-25% outflow																												
/olume of Outflow (m³)																												
Over measured effective depth			0.20	1												Cycle	1				C	1 25	& 75%	'n				
Over 100% effective depth			1.77												• •	2,500					- 0	. 20	<i>∞.0/</i>	•				
rom 75% - 25% effective depth			0.88																									
urface Area (m²)			0.00	1																								
For 100% effective storage			8.29																									
For 100% effective storage For 50% effective storage			8.29 5.16																								\neg	
Over measured depth			2.75																									
Soil Infiltration Rate (m/s)		C	ycle 1		cle 2	Cv	cle 3																					
Over 100% effective depth																												
		1		1		1																						
Over measured depth																												



12692 Phase 4 Withycombe Farm, Banbury

Trial Pit Information		Cy	CIE I	Cyc	JIE Z	Cyc	ie o	
Length (m)	2.70	Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m)	
Width (m)	0.70	0	0.50	0	0.50	0	0.40	
Depth (m)	1.30	1	0.60	7	0.73	1	0.47	
Groundwater	dry	2	0.66	12	0.83	2	0.52	
Weather Conditions	sunny	3	0.70	25	0.98	3	0.56	
Date	21-Sep-23	5	0.77	34	1.04	4	0.59	
		7	0.83	39	1.07	5	0.61	
		10	0.91	53	1.16	8	0.70	
Remarks		12	0.94	75	1.27	10	0.74	
		17	1.01	80	1.30	15	0.80	
		22	1.07			23	0.88	
		26	1.10			38	0.96	
		31	1.13			50	1.03	
		36	1.16			61	1.10	
		62	1.30			78	1.18	
						91	1.23	
						117	1.30	
1. Test undertaken within natur	al coheisve deposits.							
Final Excavation Depth (m)		Су	Cycle 1		le 2	Cycle 3		
At end of testing cycle			1.30	-	1.30	-	1.3	
Water Depths (m)								
Water depth at start of test			0.50		0.50		0.4	
Water depth at end of test			1.30		1.30		1.3	
Effective depth (measured)			0.80		0.80			
% Effective storage depth			1.00		1.00			
Effective Storage Depths (m)			1.00		1.00		1.0	
Effective storage depth (100%)			0.80		0.80		0.9	
Effective storage depth (75%)			0.60		0.60		0.6	
Effective storage depth (50%)			0.40		0.40		0.4	
Effective storage depth (25%)			0.20		0.40		0.4	
Outflow Time (min)			0.20		0.20		0.2	
Time for measured outflow			62		80		11	
Time for 100% outflow			62		80		11	
Time for 75-25% outflow			62				5	
Volume of Outflow (m ³)			23		30		5	
			4 - 4		1.51		1.7	
Over measured effective depth			1.51					
Over 100% effective depth	_		1.51		1.51		1.7	
From 75% - 25% effective dept	n		0.76		0.76	0.8		

7.33

4.61

7.33

5.5E-05

5.5E-05

1.2E-04

Cycle 1

7.33

4.61

7.33

4.3E-05

4.3E-05

7.2E-05

Cycle 2

8.01

4.95

8.01

3.0E-05

3.0E-05

5.6E-05

Cycle 3

Trial Pit Information

Surface Area (m²)
For 100% effective storage

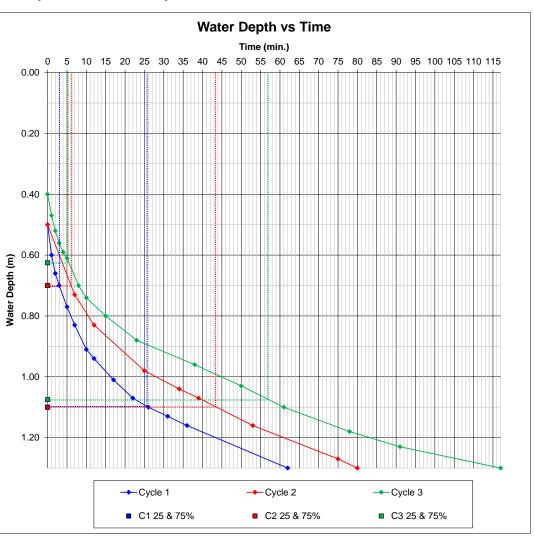
For 50% effective storage

Soil Infiltration Rate (m/s)
Over 100% effective depth

Over measured depth

Over measured depth
Over 75% - 25% effective depth

Cycle 1 Cycle 2



Design Soil Infiltration Rate: 5.5E-05 m/s



12692 Phase 4 Withycombe Farm, Banbury

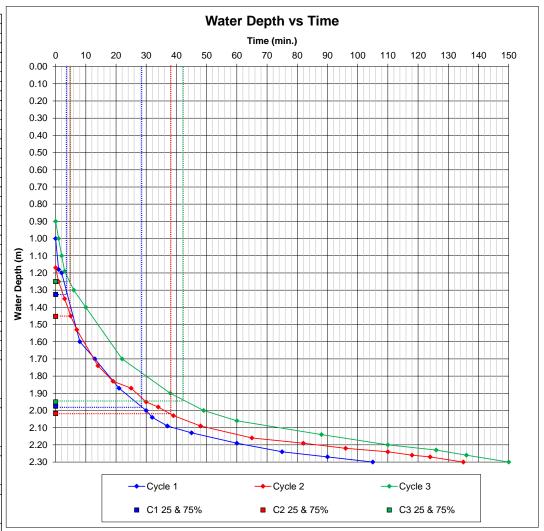
Trial Pit Information	
Length (m)	3.00
Width (m)	0.65
Depth (m)	2.30
Groundwater	Dry
Weather Conditions	Cloudy
Date	23-Oct-23

Remarks

Test undertaken within granular natural soil deposits.

Cyc	cie 1	Cyc	ile 2	Cycle 3		
Time (min)	Depth (m)	Depth (m) Time (min) Depth (m)		Time (min)	Depth (m)	
0	1.00	0	1.17	0	0.90	
1	1.18	1	1.25	1	1.00	
2	1.20	3	1.35	2	1.10	
8	1.60	5	1.45	3	1.19	
13	1.70	7	1.53	6	1.30	
21	1.87	14	1.74	10	1.40	
30	2.00	19	1.83	22	1.70	
32	2.04	25	1.87	38	1.90	
37	2.09	30	1.95	49	2.00	
45	2.13	34	1.98	60	2.06	
60	2.19	39	2.03	88	2.14	
75	2.24	48	2.09	110	2.20	
90	2.27	65	2.16	126	2.23	
105	2.30	82	2.19	136	2.26	
		96	2.22	150	2.30	
		110	2.24			
		118	2.26			
		124	2.27			
		135	2.3			

Final Excavation Depth (m)	Cyc	le 1	Cvc	cle 2	Cvc	le 3
At end of testing cycle	1,0	2.30	-,-	2.30	-,-	2.30
Water Depths (m)		2.00		2.00		2.00
Water depth at start of test		1.00		1.17		0.90
Water depth at end of test		2.30		2.30		2.30
Effective depth (measured)		1.30		1.13		1.40
% Effective storage depth		1.00		1.00		1.00
Effective Storage Depths (m)						
Effective storage depth (100%)		1.30		1.13		1.40
Effective storage depth (75%)		0.98		0.85		1.05
Effective storage depth (50%)		0.65		0.57		0.70
Effective storage depth (25%)		0.33		0.28		0.35
Outflow Time (min)						
Time for measured outflow		105		135		150
Time for 100% outflow		105		135		150
Time for 75-25% outflow		25		33		37
Volume of Outflow (m ³)						
Over measured effective depth		2.54		2.20		2.73
Over 100% effective depth		2.54		2.20		2.73
From 75% - 25% effective depth		1.27		1.10		1.37
Surface Area (m ²)						
For 100% effective storage		11.44		10.20		12.17
For 50% effective storage		6.70		6.07		7.06
Over measured depth		11.44		10.20		12.17
Soil Infiltration Rate (m/s)	Сус	le 1	Cyc	cle 2	Сус	le 3
Over 100% effective depth		3.5E-05		2.7E-05		2.5E-05
Over measured depth		3.5E-05		2.7E-05		2.5E-05
Over 75% - 25% effective depth		1.3E-04		9.2E-05		8.7E-05

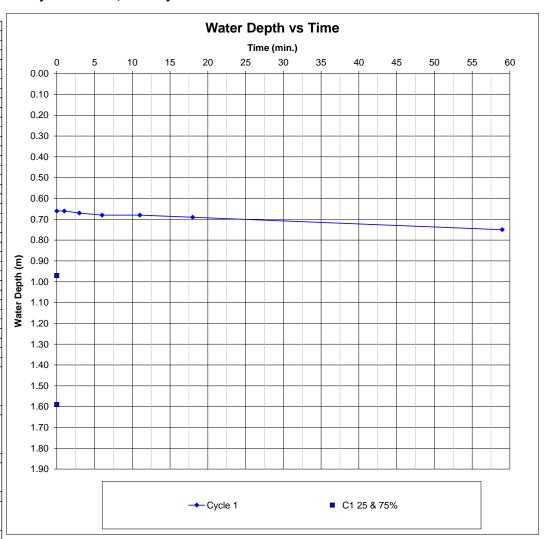


Design Soil Infiltration Rate: 8.7E-05 m/s



12692 Phase 4 Withycombe Farm, Banbury

Trial Pit Information		Cyc	Cycle 1		Cycle 2		Cycle 3	
Length (m)	2.10	Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m	
/idth (m)	0.65	0	0.66	` ,		` '	. ,	
Depth (m)	1.90	1	0.66					
Groundwater	Standing at 1.2m	3	0.67					
Weather Conditions	Cloudy	6	0.68					
Date	23-Oct-23	11	0.68					
Sato	25 55.25	18	0.69					
		59	0.75					
Remarks								
Insufficient infiltration in ord								
infiltration ra	ate.							
Final Excavation Depth (m)		Cvc	le 1	Cvc	le 2	Cvc	le 3	
At end of testing cycle			1.90					
Water Depths (m)			1.90					
Water depth at start of test			0.66					
Water depth at end of test			0.75					
Effective depth (measured)		0.09						
% Effective storage depth		0.07						
			0.07					
Effective Storage Depths (m)			1.24					
Effective storage depth (100%)			0.93					
Effective storage depth (75%)			0.93					
Effective storage depth (50%)								
Effective storage depth (25%)			0.31					
Outflow Time (min)			NI/A					
Time for measured outflow			N/A					
Time for 100% outflow			N/A					
Time for 75-25% outflow			N/A					
Volume of Outflow (m³)								
Over measured effective depth								
Over 100% effective depth								
From 75% - 25% effective depth								
Surface Area (m²)								
For 100% effective storage								
For 50% effective storage								
Over measured depth								
Soil Infiltration Rate (m/s)		Cyc	le 1	Сус	le 2	Cyc	le 3	
Over 100% effective depth			N/A					
			N/A N/A N/A					

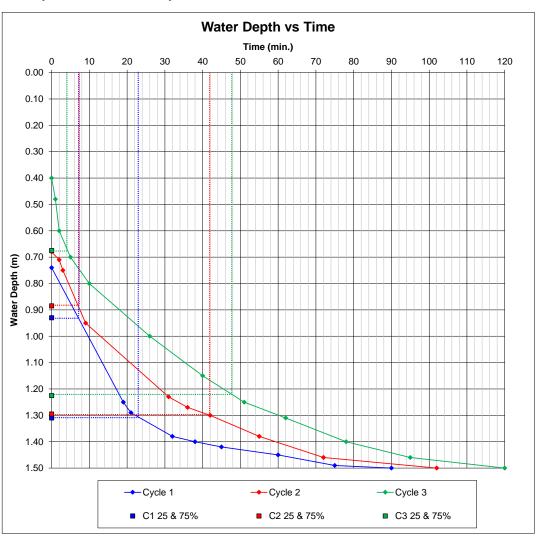


Design Soil Infiltration Rate: 0.0E+00 m/s



12692 Phase 4 Withycombe Farm, Banbury

Trial Pit Information			le 1		le 2		le 3	
Length (m)	2.70	Time (min)	Depth (m)	Time (min)	Depth (m)	Time (min)	Depth (m)	
Width (m)	0.75	0	0.74	0	0.68	0	0.40	
Depth (m)	1.50	19	1.25	2	0.71	1	0.48	
Groundwater	Dry	21	1.29	3	0.75	2	0.60	
Weather Conditions	Cloudy	32	1.38	9	0.95	5	0.70	
Date	23-Oct-23	38	1.40	31	1.23	10	0.80	
	-	45	1.42	36	1.27	26	1.00	
		60	1.45	42	1.30	40	1.15	
Remarks		75	1.49	55	1.38	51	1.25	
		90	1.50	72	1.46	62	1.31	
				102	1.50	78	1.40	
						95	1.46	
						120	1.50	
A Transmission to 1997								
Test undertaken within gran	nular natural soil							
deposits.								
		-						
		-						
Final Excavation Depth (m)		Cvc	le 1	Cvc	le 2	Cvc	le 3	
At end of testing cycle			1.50	-,-	1.50	1.		
Water Depths (m)			1.00		1.00			
Water depth at start of test			0.74		0.68		0.4	
Water depth at end of test			1.50		1.50		1.5	
Effective depth (measured)			0.76 1.00		0.82			
% Effective storage depth					1.00		1.0	
Effective Storage Depths (m)			1.00		1.00		1.0	
Effective storage depth (100%)			0.76		0.82		1.1	
			0.76		0.62		0.8	
Effective storage depth (75%)			0.37		0.02			
Effective storage depth (50%)					0.41		0.2	
Effective storage depth (25%)			0.19		0.21		0.2	
Outflanctime (min)							12	
					400			
Outflow Time (min) Time for measured outflow			90		102			
Time for measured outflow Time for 100% outflow			90		102		12	
Time for measured outflow Time for 100% outflow Time for 75-25% outflow								
Time for measured outflow Time for 100% outflow Time for 75-25% outflow Volume of Outflow (m³)			90 16		102 34		12 4	
Time for measured outflow Time for 100% outflow Time for 75-25% outflow Volume of Outflow (m³) Over measured effective depth			90 16		102 34 1.66		2.2	
Firme for measured outflow Firme for 100% outflow Firme for 75-25% outflow Folume of Outflow (m³) Four measured effective depth Four 100% effective depth			90 16 1.54 1.54		102 34 1.66 1.66		2.2	
Time for measured outflow Firme for 100% outflow Firme for 75-25% outflow Volume of Outflow (m³) Over measured effective depth Over 100% effective depth From 75% - 25% effective depth			90 16		102 34 1.66		2.2	
Time for measured outflow Time for 100% outflow Time for 75-25% outflow Volume of Outflow (m³) Over measured effective depth Over 100% effective depth From 75% - 25% effective depth Surface Area (m²)			90 16 1.54 1.54 0.77		1.66 1.66 0.83		2.2 2.2 1.1	
Time for measured outflow Time for 100% outflow Time for 75-25% outflow Volume of Outflow (m³) Over measured effective depth Over 100% effective depth From 75% - 25% effective depth Surface Area (m²) For 100% effective storage			90 16 1.54 1.54 0.77 7.27		102 34 1.66 1.66 0.83		2.3 2.3 1.7	
Firme for measured outflow Firme for 100% outflow Firme for 75-25% outflow Follow Foll			90 16 1.54 1.54 0.77 7.27 4.65		1.66 1.66 0.83 7.68 4.85		2.3 2.3 1.1	
Firme for measured outflow Firme for 100% outflow Firme for 75-25% outflow Follow Foll			90 16 1.54 1.54 0.77 7.27 4.65 7.27		102 34 1.66 1.66 0.83 7.68 4.85 7.68		2.2 2.2 1.1	
Firm for measured outflow Firme for 100% outflow Firme for 75-25% outflow Folume of Outflow (m³) For measured effective depth For 100% effective depth For 75% - 25% effective depth For 100% effective storage		Сус	90 16 1.54 1.54 0.77 7.27 4.65	Сус	1.66 1.66 0.83 7.68 4.85	Сус	2.2	
Firme for measured outflow Firme for 100% outflow Firme for 75-25% outflow Follow Foll		Сус	90 16 1.54 1.54 0.77 7.27 4.65 7.27	Cyc	102 34 1.66 1.66 0.83 7.68 4.85 7.68	Сус	2.2 2.2 1.1	
Firme for measured outflow Firme for 100% outflow Firme for 75-25% outflow Folume of Outflow (m³) For measured effective depth For 100% effective depth For 100% effective depth For 100% effective storage For 50% effective storage For 50% effective storage For 100% effective storage		Сус	90 16 1.54 1.54 0.77 7.27 4.65 7.27	Сус	102 34 1.66 1.66 0.83 7.68 4.85 7.68	Сус	2.2 2.2 1.3 9.6 5.8 9.6	



Design Soil Infiltration Rate: 7.2E-05 m/s





