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Project No	20488
Sheet	1 of 10
Engineer	CC
Date	13/01/2017
Revision	-

DESIGN CALCULATIONS FRONT SHEET

SCHEME	Parcel F / Country Park, Longford Park, Banbury
CLIENT	Barratt Homes, Bovis Homes and Taylor Wimpey
ASPECTS OF SCHEME TO BE DESIGNED	Soil Infiltration Test
CODES OF PRACTICE, DESIGN SPECIFICATIONS & BRITISH STANDARDS	BRE Digest 365, 2007, Soakaway Design
NOTES	Firm and stiff varicoloured silty sandy clay encountered across the site. Limited infiltration recorded after 3 hour testing.

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Client	**Taylor Wimpey, Barratt Homes & Bovis Homes**	Calcs by	JP
Job ref.	**20488**	Date	17/01/17

Soil infiltration test

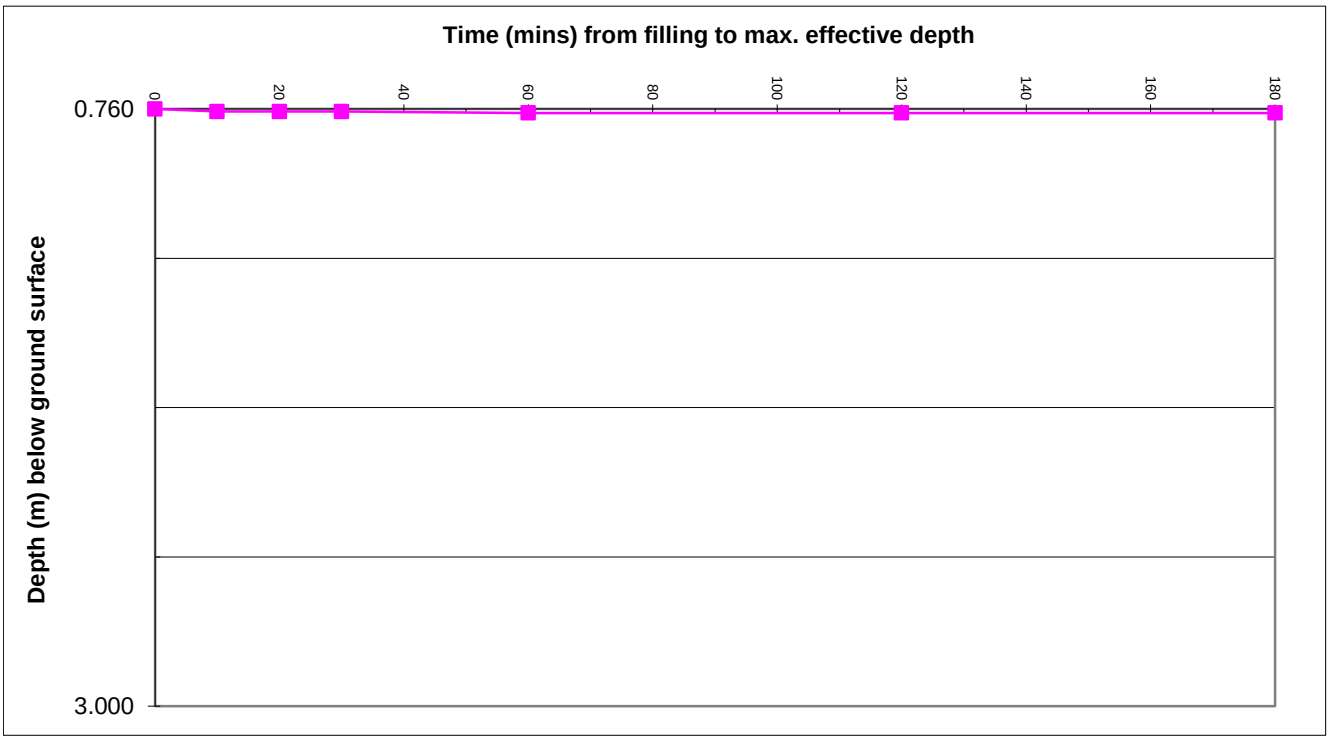
(in accordance with BRE Digest 365, 2007, Soakaway Design)

Trial pit ref.	**SA1**
Length	**2.50** m
Width	**0.45** m
Depth	**3.00** m
Ground water level	**N/A** m
Ground conditions	**0.00-0.25 - Brown Silty, Sandy Clay (Topsoil)**
	0.25-2.30 Firm yellowish brown Silty Sandy Clay
	2.3-3.00 - Stiff grey Clay

Time mins	Depth to water
0	0.760
10	0.770
20	0.770
30	0.770
60	0.775
120	0.775
180	0.775

Effective storage depth =	2.240	m
75% effective storage depth =	1.68	m
(ie depth below GL) =	1.32	m
25% effective storage depth =	0.56	m
(ie depth below GL) =	2.44	m
effective storage depth 75%-25% =	1.12	m
Time to fall to 75% effective depth =		mins
Time to fall to 25% effective depth =		mins
V (75%-25%) =	1.2600	m3
a (50%) =	7.7330	m2
t (75%-25%) =	0	mins
SOIL INFILTRATION RATE =	**#DIV/0!**	**m/s**

INFILTRATION FAILED



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Job ref.	**20488**	Date	17/01/17

Soil infiltration test

(in accordance with BRE Digest 365, 2007, Soakaway Design)

Trial pit ref.	**SA2**
Length	**2.60** m
Width	**0.45** m
Depth	**3.15** m
Ground water level	**N/A** m
Ground conditions	**0.00-2.50 Firm yellowish brown Sandy Clay**
	2.50-3.15 Stiff grey Clay

Time mins	Depth to water
0	0.885
10	0.890
20	0.890
30	0.890
60	0.890
120	0.890
180	0.890

Effective storage depth =	2.265	m
75% effective storage depth =	1.70	m
(ie depth below GL) =	1.45	m
25% effective storage depth =	0.57	m
(ie depth below GL) =	2.58	m
effective storage depth 75%-25% =	1.13	m
Time to fall to 75% effective depth =		mins
Time to fall to 25% effective depth =		mins
V (75%-25%) =	1.3250	m3
a (50%) =	8.0783	m2
t (75%-25%) =	0	mins
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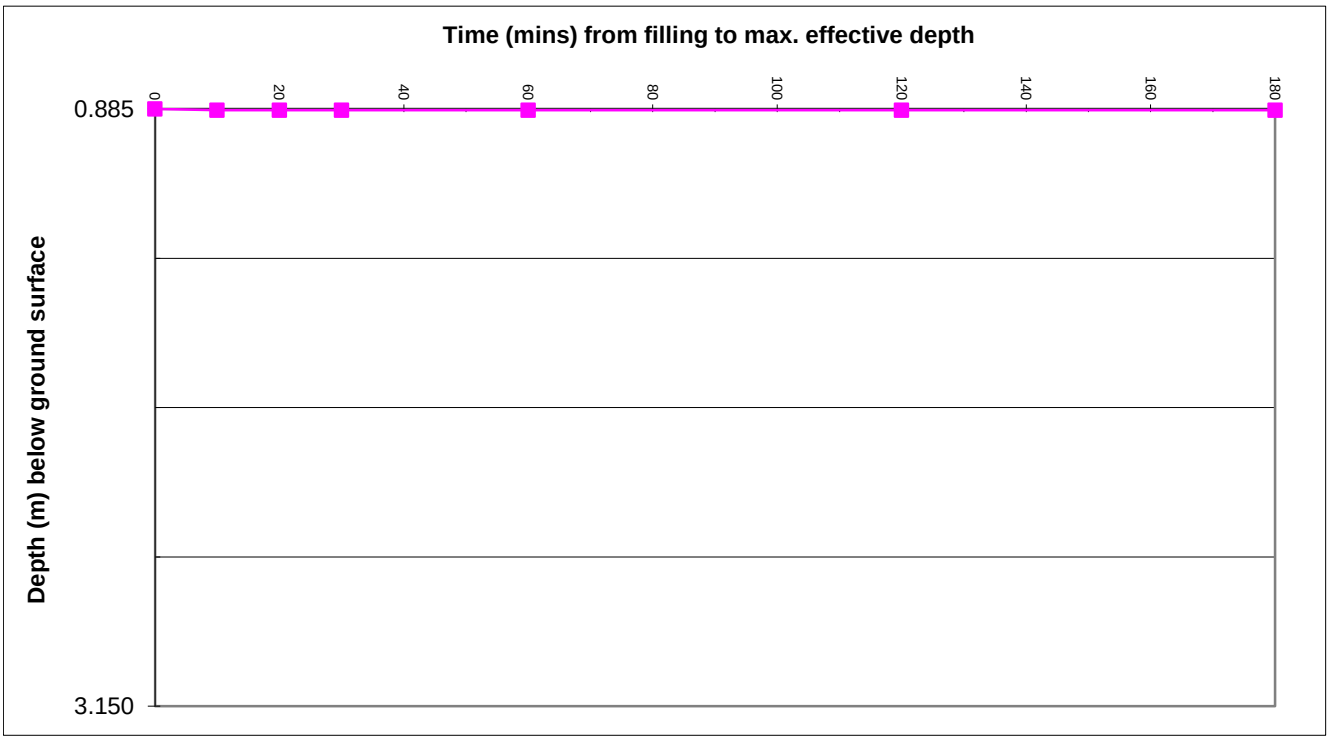

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Soil infiltration test

(in accordance with BRE Digest 365, 2007, Soakaway Design)

Trial pit ref.	**SA3**
Length	**3.00** m
Width	**0.45** m
Depth	**3.00** m
Ground water level	**N/A** m
Ground conditions	**0.00-0.30 Brown Silty Sandy Clay (Topsoil)**
	0.30-2.25 Firm yellowish brown Silty Sandy Clay
	2.25-3.00 Stiff grey Clay

Time mins	Depth to water
0	0.670
10	0.670
20	0.670
30	0.670
60	0.670
120	0.670
180	0.670

Effective storage depth =	2.330	m
75% effective storage depth =	1.75	m
(ie depth below GL) =	1.25	m
25% effective storage depth =	0.58	m
(ie depth below GL) =	2.42	m
effective storage depth 75%-25% =	1.17	m
Time to fall to 75% effective depth =		mins
Time to fall to 25% effective depth =		mins
V (75%-25%) =	1.5728	m3
a (50%) =	9.3885	m2
t (75%-25%) =	0	mins
SOIL INFILTRATION RATE =	**#DIV/0!**	**m/s**

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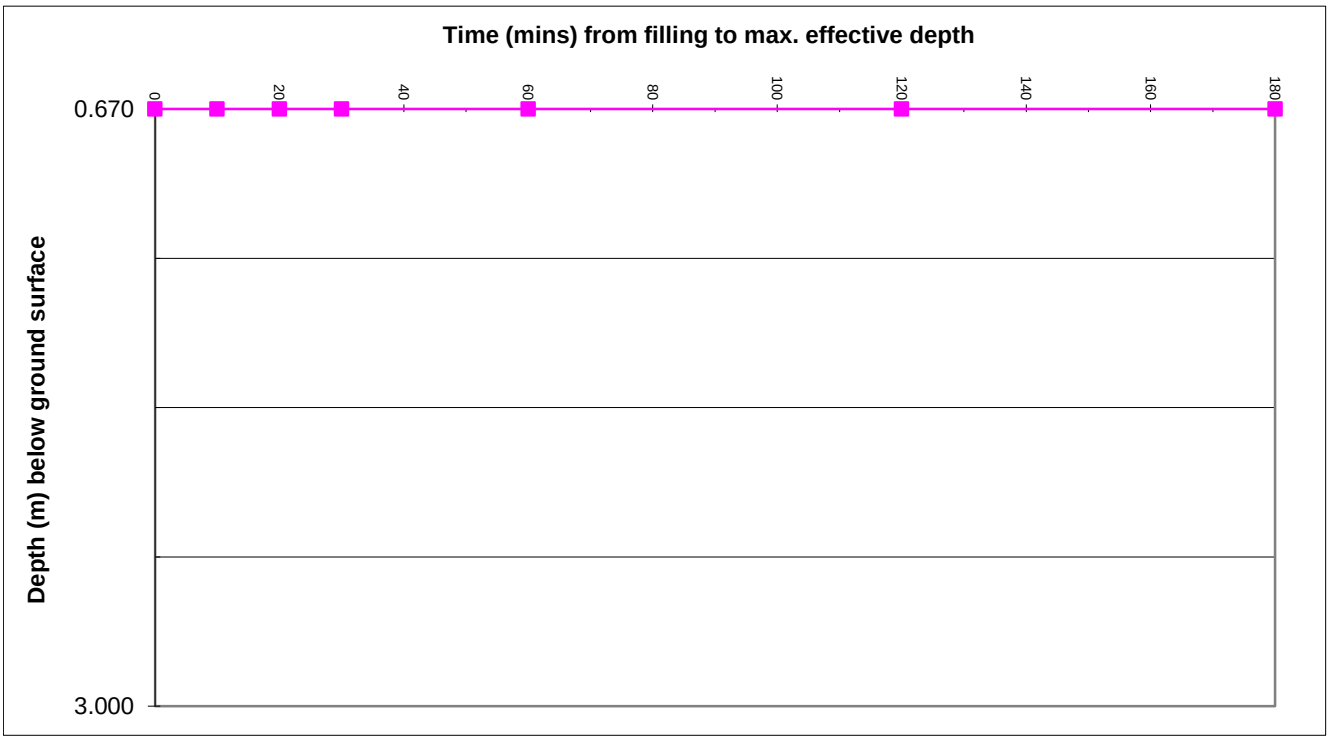

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Soil infiltration test

(in accordance with BRE Digest 365, 2007, Soakaway Design)

Trial pit ref.	**SA4**
Length	**2.50** m
Width	**0.45** m
Depth	**3.00** m
Ground water level	**N/A** m
Ground conditions	**0.00-0.30 Brown Silty Sandy Clay (Topsoil)**
	0.30-2.45 Firm yellowish brown Silty Sandy Clay
	2.45-3.00 Stiff grey Clay

Time mins	Depth to water
0	0.715
10	0.715
20	0.725
30	0.725
60	0.735
120	0.740
180	0.740

Effective storage depth =	2.285	m
75% effective storage depth =	1.71	m
(ie depth below GL) =	1.29	m
25% effective storage depth =	0.57	m
(ie depth below GL) =	2.43	m
effective storage depth 75%-25% =	1.14	m
Time to fall to 75% effective depth =		mins
Time to fall to 25% effective depth =		mins
V (75%-25%) =	1.2853	m3
a (50%) =	7.8658	m2
t (75%-25%) =	0	mins
SOIL INFILTRATION RATE =	**#DIV/0!**	**m/s**

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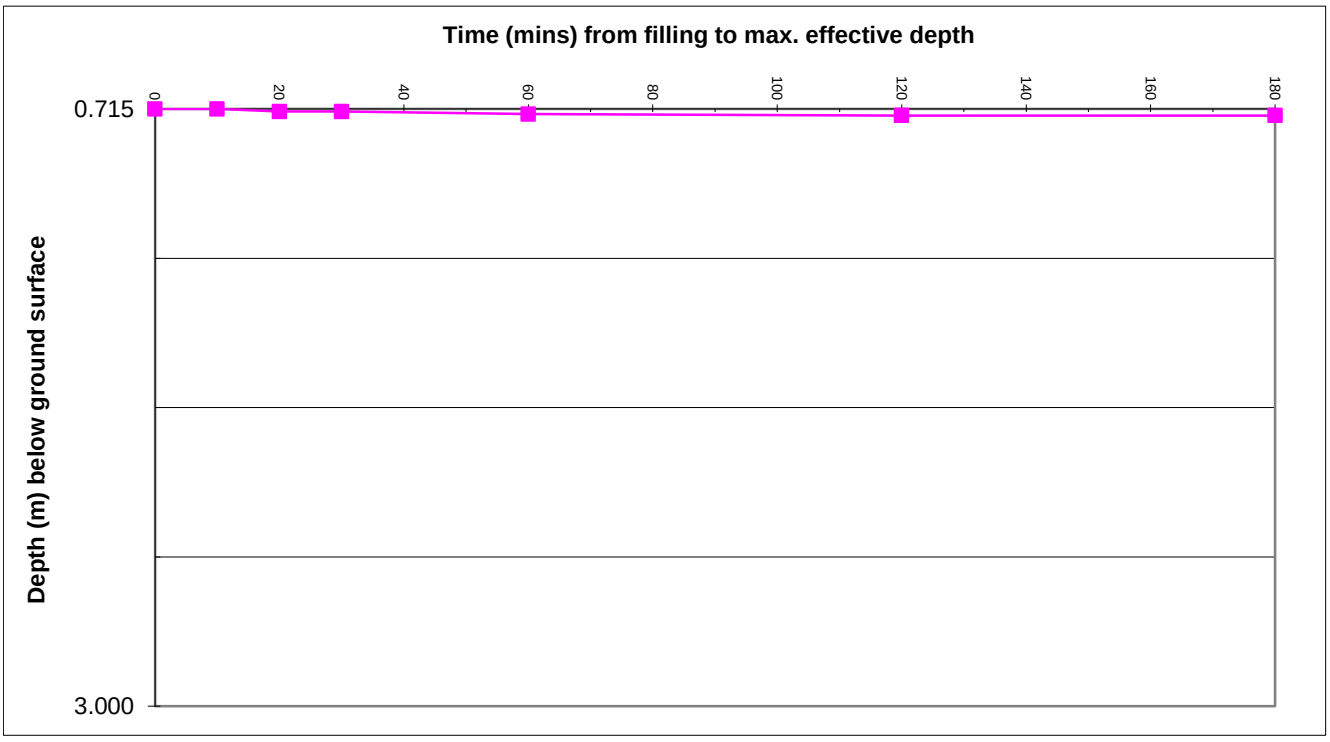

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Soil infiltration test

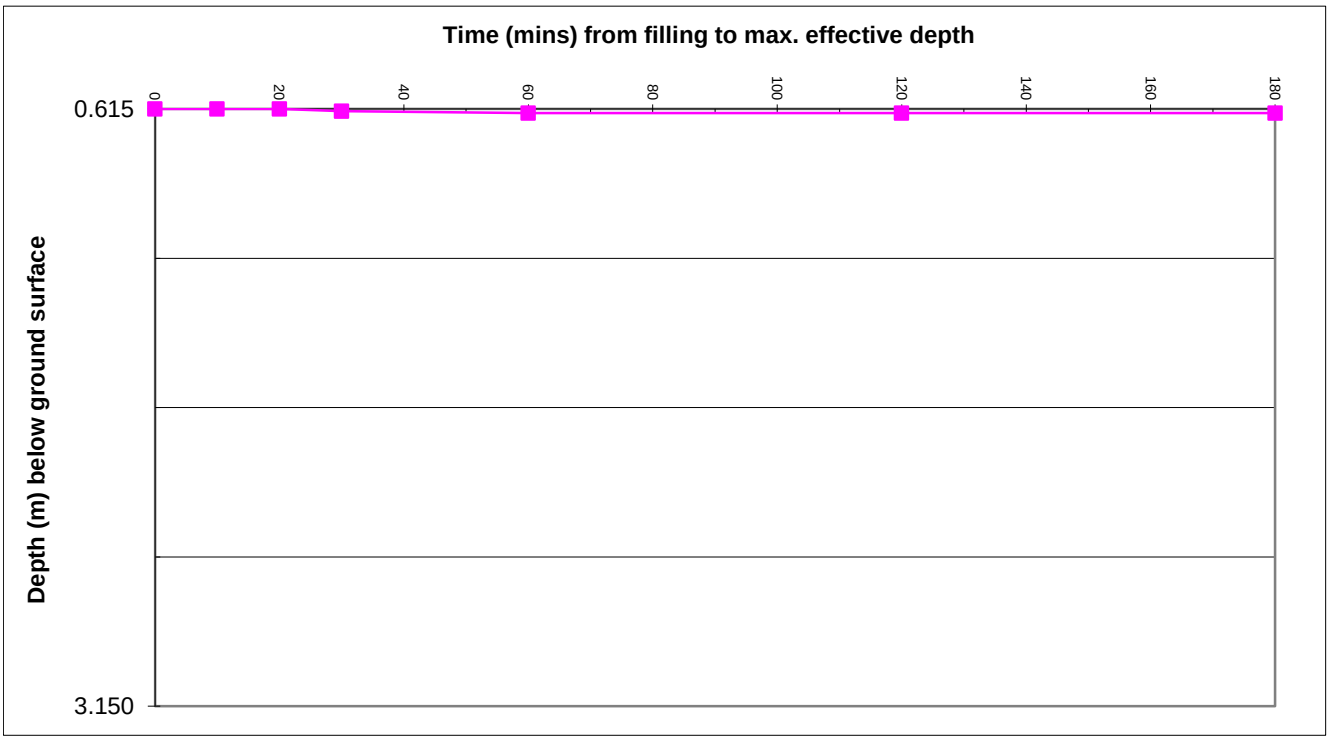
(in accordance with BRE Digest 365, 2007, Soakaway Design)

Trial pit ref.	**SA5**
Length	**2.70** m
Width	**0.45** m
Depth	**3.15** m
Ground water level	**N/A** m
Ground conditions	**0.00-0.25 Brown Silty Sandy Clay (Topsoil)**
	0.25-2.70 Firm yellowish brown Silty Sandy Clay
	2.70-3.15 Stiff grey Clay

Time mins	Depth to water
0	0.615
10	0.615
20	0.615
30	0.625
60	0.633
120	0.633
180	0.633

Effective storage depth =	2.535	m
75% effective storage depth =	1.90	m
(ie depth below GL) =	1.25	m
25% effective storage depth =	0.63	m
(ie depth below GL) =	2.52	m
effective storage depth 75%-25% =	1.27	m
Time to fall to 75% effective depth =		mins
Time to fall to 25% effective depth =		mins
V (75%-25%) =	1.5400	m3
a (50%) =	9.2003	m2
t (75%-25%) =	0	mins
SOIL INFILTRATION RATE =	**#DIV/0!**	**m/s**

INFILTRATION FAILED



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Soil infiltration test

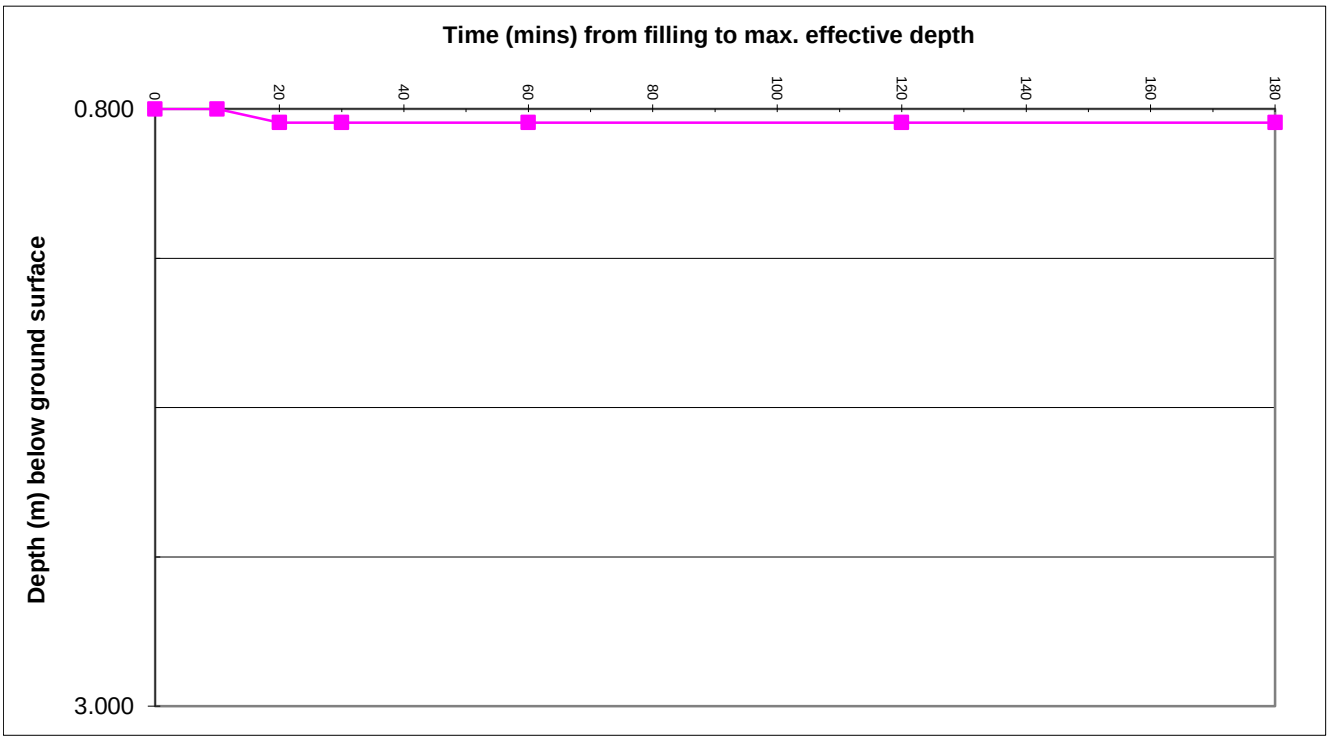
(in accordance with BRE Digest 365, 2007, Soakaway Design)

Trial pit ref.	**SA6**
Length	**2.40** m
Width	**0.45** m
Depth	**3.00** m
Ground water level	**N/A** m
Ground conditions	**0.00-0.30 Firm yellowish brown Silty Sandy Clay**
	0.30-2.10 Firm yellowish brown Silty Sandy Clay
	2.10-3.00 Stiff grey Clay

Time mins	Depth to water
0	0.800
10	0.800
20	0.850
30	0.850
60	0.850
120	0.850
180	0.850

Effective storage depth =	2.200	m
75% effective storage depth =	1.65	m
(ie depth below GL) =	1.35	m
25% effective storage depth =	0.55	m
(ie depth below GL) =	2.45	m
effective storage depth 75%-25% =	1.10	m
Time to fall to 75% effective depth =		mins
Time to fall to 25% effective depth =		mins
V (75%-25%) =	1.1880	m3
a (50%) =	7.3500	m2
t (75%-25%) =	0	mins
SOIL INFILTRATION RATE =	**#DIV/0!**	**m/s**

INFILTRATION FAILED



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Soil infiltration test

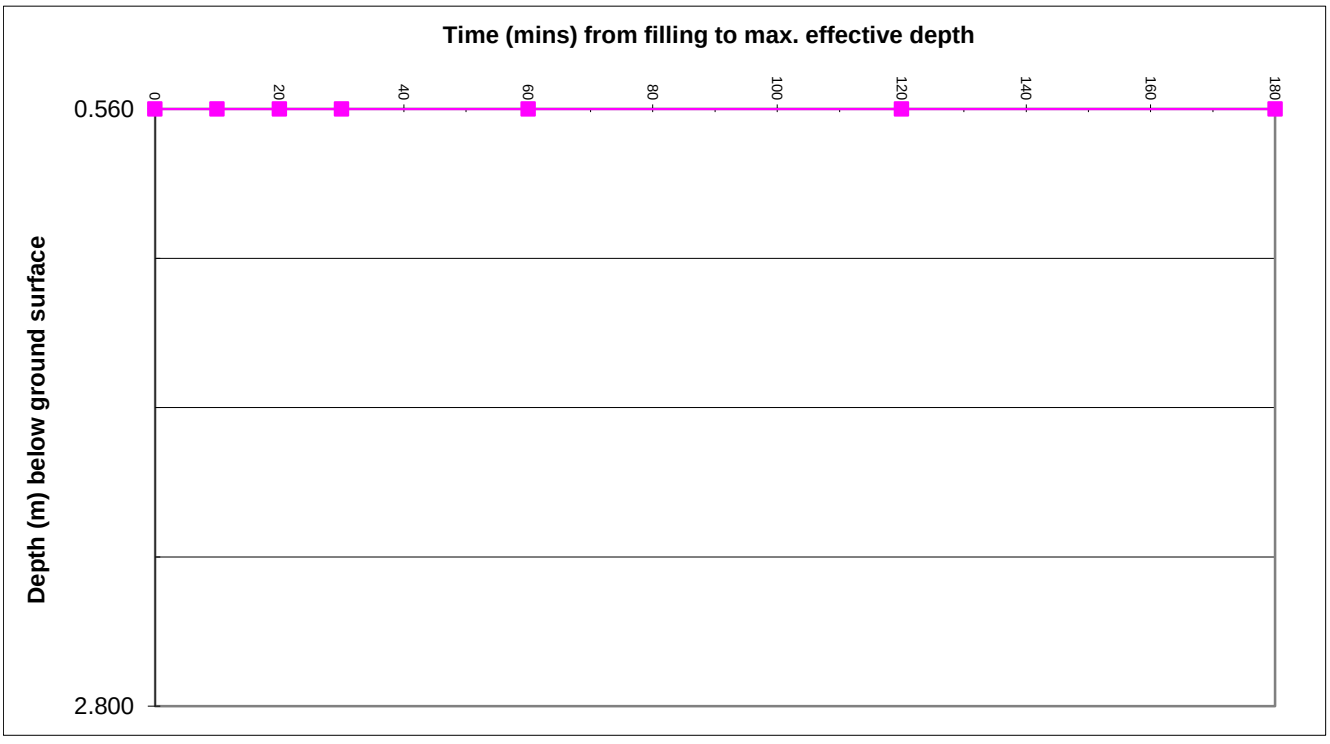
(in accordance with BRE Digest 365, 2007, Soakaway Design)

Trial pit ref.	**SA7**
Length	**2.50** m
Width	**0.45** m
Depth	**2.80** m
Ground water level	**N/A** m
Ground conditions	**0.00-0.20 Firm yellowish brown Silty Sandy Clay**
	0.20-1.70 Firm yellowish brown Silty Sandy Clay
	1.70-2.80 Stiff grey Clay

Time mins	Depth to water
0	0.560
10	0.560
20	0.560
30	0.560
60	0.560
120	0.560
180	0.560

Effective storage depth =	2.240	m
75% effective storage depth =	1.68	m
(ie depth below GL) =	1.12	m
25% effective storage depth =	0.56	m
(ie depth below GL) =	2.24	m
effective storage depth 75%-25% =	1.12	m
Time to fall to 75% effective depth =		mins
Time to fall to 25% effective depth =		mins
V (75%-25%) =	1.2600	m3
a (50%) =	7.7330	m2
t (75%-25%) =	0	mins
SOIL INFILTRATION RATE =	**#DIV/0!**	**m/s**

INFILTRATION FAILED



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Soil infiltration test

(in accordance with BRE Digest 365, 2007, Soakaway Design)

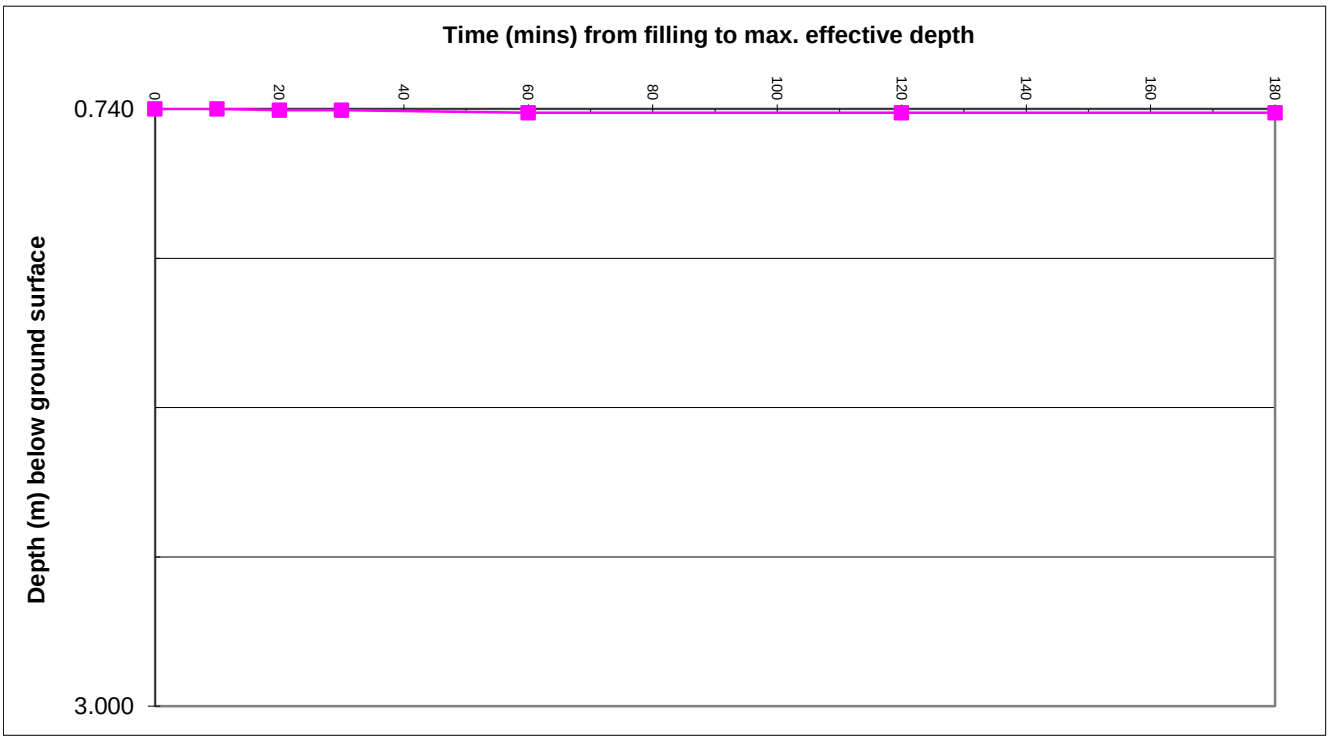
Trial pit ref.	**SA8**
Length	**3.00** m
Width	**0.45** m
Depth	**3.00** m
Ground water level	**N/A** m
Ground conditions	**0.00-0.35 Firm yellowish brown Silty Sandy Clay**
	0.35-1.60 Firm yellowish brown Silty Sandy Clay
	1.60-2.80 Stiff grey Clay

Time mins	Depth to water
0	0.740
10	0.740
20	0.745
30	0.745
60	0.755
120	0.755
180	0.755

Effective storage depth =	2.260	m
75% effective storage depth =	1.70	m
(ie depth below GL) =	1.31	m
25% effective storage depth =	0.57	m
(ie depth below GL) =	2.44	m
effective storage depth 75%-25% =	1.13	m
Time to fall to 75% effective depth =		mins
Time to fall to 25% effective depth =		mins
V (75%-25%) =	1.5255	m3
a (50%) =	9.1470	m2
t (75%-25%) =	0	mins

SOIL INFILTRATION RATE = #DIV/0! m/s

INFILTRATION FAILED



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Soil infiltration test

(in accordance with BRE Digest 365, 2007, Soakaway Design)

Trial pit ref.	**SA9**
Length	**2.60** m
Width	**0.45** m
Depth	**3.30** m
Ground water level	**N/A** m
Ground conditions	**0.00-0.30 Firm brown Silty Sandy Clay**
	0.30-2.20 Firm yellowish brown Silty Sandy Clay
	2.20-3.35 Soft very Sandy Clay

Time mins	Depth to water
0	0.415
10	0.426
20	0.435
30	0.445
60	0.465
120	0.465
180	0.465

Effective storage depth =	2.885	m
75% effective storage depth =	2.16	m
(ie depth below GL) =	1.14	m
25% effective storage depth =	0.72	m
(ie depth below GL) =	2.58	m
effective storage depth 75%-25% =	1.44	m
Time to fall to 75% effective depth =		mins
Time to fall to 25% effective depth =		mins
V (75%-25%) =	1.6877	m3
a (50%) =	9.9693	m2
t (75%-25%) =	0	mins
SOIL INFILTRATION RATE =	**#DIV/0!**	**m/s**

INFILTRATION FAILED