



**STEPHEN WILSON
PARTNERSHIP LTD**
CONSULTING STRUCTURAL & CIVIL ENGINEERS

99 South Street, Eastbourne, Sussex BN21 4LU



Soakaway Calculations

for

Hollyacre

Toddington Lane

Toddington

Littlehampton

E5589

April 2014 (Rev. 2 June 2014)

Hollyacre, Toddington Lane, Toddington, Littlehampton

Soakaway Calculations

April 2014 (Rev. 2 June 2014)

Prepared by	Reviewed by
George Marshall	Liam Foord

Client:

PMC Construction

The proposed soakaways and porous paving have been designed to accommodate a 1 in 100 year storm plus an increase in rainfall intensity of 30% to allow for the effects of climate change.

Infiltration testing by Opus in June 2013 provided rates between 2.65×10^{-5} m/s and 8.68×10^{-7} m/s across the site.

Soakaways 1 and 2 are to receive the surface runoff from the roads that run through the development. An infiltration rate of 8.16×10^{-7} m/s has been used for the design of Soakaway 1 and an infiltration rate of 2.65×10^{-5} m/s has been used for the design of Soakaway 2.

The private soakaways have been designed using the test results from the nearest trial pit.

An average infiltration rate of 5.665×10^{-6} m/s has been used for the design of the porous paving. A number of the parking bays / spaces will serve as a combined soakaway for the disposal of private drainage. Therefore they have been designed as follows; an individual parking space has been designed with no additional catchment area, two parking spaces have been designed that receive an additional 50m² catchment, and three parking spaces have been designed that receive an additional 100m² catchment area.

Generally, the proposed soakaways comply with the requirement to half drain within 24hours. However, SA10 and SA11 are located in an area where the infiltration rate is lowest and this results in a prolonged emptying time. In order to mitigate this, to ensure that capacity exists within the soakaway for a subsequent storm, they have been oversized.

Microdrainage calculations are attached to this document.

Stephen Wilson Partnership Limited					Page 1																																																																																																																																																																																																																		
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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SA1 Rev A				
Date 17/04/14 File Soakaway 1 Rev A.srcx		Designed by GM Checked by				
Micro Drainage		Source Control 2014.1				
Summary of Results for 100 year Return Period (+30%)						
	Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
	30 min Winter	99.608	0.758	0.2	20.0	O K
	60 min Winter	99.815	0.965	0.2	25.5	O K
	120 min Winter	100.029	1.179	0.2	31.1	O K
	180 min Winter	100.148	1.298	0.3	34.3	O K
	240 min Winter	100.224	1.374	0.3	36.3	O K
	360 min Winter	100.323	1.473	0.3	38.9	O K
	480 min Winter	100.386	1.536	0.3	40.5	O K
	600 min Winter	100.426	1.576	0.3	41.6	O K
	720 min Winter	100.452	1.602	0.3	42.3	O K
	960 min Winter	100.476	1.626	0.3	42.9	O K
	1440 min Winter	100.470	1.620	0.3	42.8	O K
	2160 min Winter	100.447	1.597	0.3	42.2	O K
	2880 min Winter	100.401	1.551	0.3	40.9	O K
	4320 min Winter	100.287	1.437	0.3	37.9	O K
	5760 min Winter	100.172	1.322	0.3	34.9	O K
	7200 min Winter	100.065	1.215	0.2	32.1	O K
	8640 min Winter	99.973	1.123	0.2	29.6	O K
	10080 min Winter	99.892	1.042	0.2	27.5	O K
	Storm Event		Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	
	30 min Winter		77.804	0.0	37	
	60 min Winter		49.937	0.0	66	
	120 min Winter		30.956	0.0	124	
	180 min Winter		23.058	0.0	182	
	240 min Winter		18.577	0.0	240	
	360 min Winter		13.656	0.0	358	
	480 min Winter		10.974	0.0	472	
	600 min Winter		9.254	0.0	586	
	720 min Winter		8.046	0.0	700	
	960 min Winter		6.447	0.0	918	
	1440 min Winter		4.709	0.0	1196	
	2160 min Winter		3.432	0.0	1628	
	2880 min Winter		2.739	0.0	2100	
	4320 min Winter		1.989	0.0	2984	
	5760 min Winter		1.583	0.0	3864	
	7200 min Winter		1.325	0.0	4688	
	8640 min Winter		1.147	0.0	5536	
	10080 min Winter		1.015	0.0	6360	
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Stephen Wilson Partnership Limited		Page 3																																										
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File Soakaway 1 Rev A.srcx	Checked by																					
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<u>Model Details</u> Storage is Online Cover Level (m) 101.380 <u>Trench Soakaway Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00294</td> <td>Trench Width (m)</td> <td>1.0</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.00294</td> <td>Trench Length (m)</td> <td>88.0</td> </tr> <tr> <td>Safety Factor</td> <td>1.0</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>0.000</td> </tr> <tr> <td>Invert Level (m)</td> <td>98.850</td> <td>Cap Infiltration Depth (m)</td> <td>0.000</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00294	Trench Width (m)	1.0	Infiltration Coefficient Side (m/hr)	0.00294	Trench Length (m)	88.0	Safety Factor	1.0	Slope (1:X)	0.0	Porosity	0.30	Cap Volume Depth (m)	0.000	Invert Level (m)	98.850	Cap Infiltration Depth (m)	0.000
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Date 17/04/14 File Soakaway 2 Rev A.srcx		Designed by GM Checked by				
Micro Drainage		Source Control 2014.1				
Summary of Results for 100 year Return Period (+30%)						
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	
30 min Winter	99.987	0.537		0.1 10.6	O K	
60 min Winter	100.133	0.683		0.1 13.5	O K	
120 min Winter	100.284	0.834		0.1 16.5	O K	
180 min Winter	100.368	0.918		0.1 18.2	O K	
240 min Winter	100.422	0.972		0.1 19.2	O K	
360 min Winter	100.491	1.041		0.1 20.6	O K	
480 min Winter	100.534	1.084		0.2 21.5	O K	
600 min Winter	100.562	1.112		0.2 22.0	O K	
720 min Winter	100.580	1.130		0.2 22.4	O K	
960 min Winter	100.596	1.146		0.2 22.7	O K	
1440 min Winter	100.588	1.138		0.2 22.5	O K	
2160 min Winter	100.564	1.114		0.2 22.1	O K	
2880 min Winter	100.526	1.076		0.2 21.3	O K	
4320 min Winter	100.435	0.985		0.1 19.5	O K	
5760 min Winter	100.347	0.897		0.1 17.8	O K	
7200 min Winter	100.268	0.818		0.1 16.2	O K	
8640 min Winter	100.199	0.749		0.1 14.8	O K	
10080 min Winter	100.136	0.686		0.1 13.6	O K	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)			
30 min Winter	77.804	0.0	37			
60 min Winter	49.937	0.0	66			
120 min Winter	30.956	0.0	124			
180 min Winter	23.058	0.0	182			
240 min Winter	18.577	0.0	240			
360 min Winter	13.656	0.0	358			
480 min Winter	10.974	0.0	472			
600 min Winter	9.254	0.0	588			
720 min Winter	8.046	0.0	700			
960 min Winter	6.447	0.0	922			
1440 min Winter	4.709	0.0	1312			
2160 min Winter	3.432	0.0	1644			
2880 min Winter	2.739	0.0	2104			
4320 min Winter	1.989	0.0	3024			
5760 min Winter	1.583	0.0	3872			
7200 min Winter	1.325	0.0	4752			
8640 min Winter	1.147	0.0	5544			
10080 min Winter	1.015	0.0	6360			
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Stephen Wilson Partnership Limited		Page 3																																										
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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 3,4 Rev A			
Date 12/05/14 File Soakaway 3,4 Rev A.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2014.1			
Summary of Results for 100 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	100.371	0.391	0.1	6.8	O K
60 min Winter	100.477	0.497	0.1	8.6	O K
120 min Winter	100.584	0.604	0.1	10.4	O K
180 min Winter	100.643	0.663	0.1	11.5	O K
240 min Winter	100.680	0.700	0.1	12.1	O K
360 min Winter	100.726	0.746	0.1	12.9	O K
480 min Winter	100.754	0.774	0.1	13.4	O K
600 min Winter	100.770	0.790	0.1	13.7	O K
720 min Winter	100.780	0.800	0.1	13.8	O K
960 min Winter	100.784	0.804	0.1	13.9	O K
1440 min Winter	100.771	0.791	0.1	13.7	O K
2160 min Winter	100.744	0.764	0.1	13.2	O K
2880 min Winter	100.707	0.727	0.1	12.6	O K
4320 min Winter	100.629	0.649	0.1	11.2	O K
5760 min Winter	100.558	0.578	0.1	10.0	O K
7200 min Winter	100.494	0.514	0.1	8.9	O K
8640 min Winter	100.438	0.458	0.1	7.9	O K
10080 min Winter	100.388	0.408	0.1	7.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	77.804	0.0	33		
60 min Winter	49.937	0.0	62		
120 min Winter	30.956	0.0	122		
180 min Winter	23.058	0.0	180		
240 min Winter	18.577	0.0	238		
360 min Winter	13.656	0.0	356		
480 min Winter	10.974	0.0	470		
600 min Winter	9.254	0.0	584		
720 min Winter	8.046	0.0	694		
960 min Winter	6.447	0.0	912		
1440 min Winter	4.709	0.0	1154		
2160 min Winter	3.432	0.0	1620		
2880 min Winter	2.739	0.0	2076		
4320 min Winter	1.989	0.0	2980		
5760 min Winter	1.583	0.0	3816		
7200 min Winter	1.325	0.0	4680		
8640 min Winter	1.147	0.0	5456		
10080 min Winter	1.015	0.0	6256		
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43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 3,4 Rev A	
Date 12/05/14 File Soakaway 3,4 Rev A.srcx	Designed by GM Checked by	
Micro Drainage Source Control 2014.1		

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.021

Time (mins)	Area
From: To:	(ha)
0 4	0.021

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43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 3,4 Rev A																					
Date 12/05/14 File Soakaway 3,4 Rev A.srcx	Designed by GM Checked by																					
Micro Drainage Source Control 2014.1																						
<u>Model Details</u> Storage is Online Cover Level (m) 101.280 <u>Trench Soakaway Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00294</td> <td>Trench Width (m)</td> <td>1.2</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.00294</td> <td>Trench Length (m)</td> <td>48.0</td> </tr> <tr> <td>Safety Factor</td> <td>1.0</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>0.000</td> </tr> <tr> <td>Invert Level (m)</td> <td>99.980</td> <td>Cap Infiltration Depth (m)</td> <td>0.000</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00294	Trench Width (m)	1.2	Infiltration Coefficient Side (m/hr)	0.00294	Trench Length (m)	48.0	Safety Factor	1.0	Slope (1:X)	0.0	Porosity	0.30	Cap Volume Depth (m)	0.000	Invert Level (m)	99.980	Cap Infiltration Depth (m)	0.000
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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 5 Rev A			
Date 12/05/14 File Soakaway 5 Rev A.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2014.1			
Summary of Results for 100 year Return Period (+30%)					
Half Drain Time : 1439 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	100.390	0.380	0.0	3.0	O K
30 min Summer	100.519	0.509	0.0	4.0	O K
60 min Summer	100.657	0.647	0.0	5.1	O K
120 min Summer	100.798	0.788	0.1	6.2	O K
180 min Summer	100.877	0.867	0.1	6.9	O K
240 min Summer	100.926	0.916	0.1	7.3	O K
360 min Summer	100.989	0.979	0.1	7.8	O K
480 min Summer	101.028	1.018	0.1	8.1	Flood Risk
600 min Summer	101.051	1.041	0.1	8.2	Flood Risk
720 min Summer	101.065	1.055	0.1	8.4	Flood Risk
960 min Summer	101.074	1.064	0.1	8.4	Flood Risk
1440 min Summer	101.071	1.061	0.1	8.4	Flood Risk
2160 min Summer	101.051	1.041	0.1	8.2	Flood Risk
2880 min Summer	101.023	1.013	0.1	8.0	Flood Risk
4320 min Summer	100.956	0.946	0.1	7.5	O K
5760 min Summer	100.892	0.882	0.1	7.0	O K
7200 min Summer	100.835	0.825	0.1	6.5	O K
8640 min Summer	100.784	0.774	0.1	6.1	O K
10080 min Summer	100.738	0.728	0.0	5.8	O K
15 min Winter	100.436	0.426	0.0	3.4	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	115.731	0.0	19		
30 min Summer	77.804	0.0	34		
60 min Summer	49.937	0.0	64		
120 min Summer	30.956	0.0	124		
180 min Summer	23.058	0.0	182		
240 min Summer	18.577	0.0	242		
360 min Summer	13.656	0.0	362		
480 min Summer	10.974	0.0	482		
600 min Summer	9.254	0.0	602		
720 min Summer	8.046	0.0	720		
960 min Summer	6.447	0.0	950		
1440 min Summer	4.709	0.0	1166		
2160 min Summer	3.432	0.0	1552		
2880 min Summer	2.739	0.0	1960		
4320 min Summer	1.989	0.0	2808		
5760 min Summer	1.583	0.0	3632		
7200 min Summer	1.325	0.0	4400		
8640 min Summer	1.147	0.0	5192		
10080 min Summer	1.015	0.0	6048		
15 min Winter	115.731	0.0	19		
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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 5 Rev A			
Date 12/05/14 File Soakaway 5 Rev A.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2014.1			
Summary of Results for 100 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	100.580	0.570	0.0	4.5	O K
60 min Winter	100.736	0.726	0.0	5.7	O K
120 min Winter	100.896	0.886	0.1	7.0	O K
180 min Winter	100.985	0.975	0.1	7.7	O K
240 min Winter	101.042	1.032	0.1	8.2	Flood Risk
360 min Winter	101.115	1.105	0.1	8.8	Flood Risk
480 min Winter	101.162	1.152	0.1	9.1	Flood Risk
600 min Winter	101.191	1.181	0.1	9.4	Flood Risk
720 min Winter	101.210	1.200	0.1	9.5	Flood Risk
960 min Winter	101.228	1.218	0.1	9.6	Flood Risk
1440 min Winter	101.220	1.210	0.1	9.6	Flood Risk
2160 min Winter	101.196	1.186	0.1	9.4	Flood Risk
2880 min Winter	101.157	1.147	0.1	9.1	Flood Risk
4320 min Winter	101.063	1.053	0.1	8.3	Flood Risk
5760 min Winter	100.970	0.960	0.1	7.6	O K
7200 min Winter	100.888	0.878	0.1	7.0	O K
8640 min Winter	100.815	0.805	0.1	6.4	O K
10080 min Winter	100.750	0.740	0.0	5.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	77.804	0.0	34		
60 min Winter	49.937	0.0	64		
120 min Winter	30.956	0.0	122		
180 min Winter	23.058	0.0	180		
240 min Winter	18.577	0.0	240		
360 min Winter	13.656	0.0	356		
480 min Winter	10.974	0.0	472		
600 min Winter	9.254	0.0	586		
720 min Winter	8.046	0.0	700		
960 min Winter	6.447	0.0	920		
1440 min Winter	4.709	0.0	1310		
2160 min Winter	3.432	0.0	1644		
2880 min Winter	2.739	0.0	2104		
4320 min Winter	1.989	0.0	3024		
5760 min Winter	1.583	0.0	3872		
7200 min Winter	1.325	0.0	4752		
8640 min Winter	1.147	0.0	5544		
10080 min Winter	1.015	0.0	6360		
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43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 5 Rev A																															
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Summary of Results for 100 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	100.297	0.497	0.0	1.6	O K
60 min Winter	100.432	0.632	0.0	2.0	O K
120 min Winter	100.570	0.770	0.0	2.5	O K
180 min Winter	100.646	0.846	0.0	2.7	O K
240 min Winter	100.694	0.894	0.0	2.9	O K
360 min Winter	100.755	0.955	0.0	3.1	O K
480 min Winter	100.793	0.993	0.0	3.2	O K
600 min Winter	100.815	1.015	0.0	3.3	O K
720 min Winter	100.829	1.029	0.0	3.3	O K
960 min Winter	100.839	1.039	0.0	3.4	O K
1440 min Winter	100.827	1.027	0.0	3.3	O K
2160 min Winter	100.800	1.000	0.0	3.2	O K
2880 min Winter	100.759	0.959	0.0	3.1	O K
4320 min Winter	100.669	0.869	0.0	2.8	O K
5760 min Winter	100.584	0.784	0.0	2.5	O K
7200 min Winter	100.509	0.709	0.0	2.3	O K
8640 min Winter	100.444	0.644	0.0	2.1	O K
10080 min Winter	100.385	0.585	0.0	1.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	77.804	0.0	33		
60 min Winter	49.937	0.0	64		
120 min Winter	30.956	0.0	122		
180 min Winter	23.058	0.0	180		
240 min Winter	18.577	0.0	238		
360 min Winter	13.656	0.0	356		
480 min Winter	10.974	0.0	470		
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960 min Winter	6.447	0.0	914		
1440 min Winter	4.709	0.0	1156		
2160 min Winter	3.432	0.0	1620		
2880 min Winter	2.739	0.0	2076		
4320 min Winter	1.989	0.0	2980		
5760 min Winter	1.583	0.0	3856		
7200 min Winter	1.325	0.0	4688		
8640 min Winter	1.147	0.0	5528		
10080 min Winter	1.015	0.0	6352		
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Date 12/05/14	Designed by GM																					
File Soakaway 6 Rev A.srcx	Checked by																					
Micro Drainage		Source Control 2014.1																				
<u>Model Details</u> Storage is Online Cover Level (m) 101.140 <u>Trench Soakaway Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00294</td> <td>Trench Width (m)</td> <td>1.2</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.00294</td> <td>Trench Length (m)</td> <td>9.0</td> </tr> <tr> <td>Safety Factor</td> <td>1.0</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>0.000</td> </tr> <tr> <td>Invert Level (m)</td> <td>99.800</td> <td>Cap Infiltration Depth (m)</td> <td>0.000</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00294	Trench Width (m)	1.2	Infiltration Coefficient Side (m/hr)	0.00294	Trench Length (m)	9.0	Safety Factor	1.0	Slope (1:X)	0.0	Porosity	0.30	Cap Volume Depth (m)	0.000	Invert Level (m)	99.800	Cap Infiltration Depth (m)	0.000
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Stephen Wilson Partnership Limited				Page 1	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 7 Rev A			
Date 12/05/14 File Soakaway 7 Rev A.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2014.1			
Summary of Results for 100 year Return Period (+30%)					
Half Drain Time : 1305 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	100.198	0.398	0.0	1.3	O K
30 min Summer	100.332	0.532	0.0	1.7	O K
60 min Summer	100.477	0.677	0.0	2.2	O K
120 min Summer	100.623	0.823	0.0	2.7	O K
180 min Summer	100.704	0.904	0.0	2.9	O K
240 min Summer	100.754	0.954	0.0	3.1	O K
360 min Summer	100.817	1.017	0.0	3.3	Flood Risk
480 min Summer	100.854	1.054	0.0	3.4	Flood Risk
600 min Summer	100.876	1.076	0.0	3.5	Flood Risk
720 min Summer	100.887	1.087	0.0	3.5	Flood Risk
960 min Summer	100.892	1.092	0.0	3.5	Flood Risk
1440 min Summer	100.888	1.088	0.0	3.5	Flood Risk
2160 min Summer	100.865	1.065	0.0	3.5	Flood Risk
2880 min Summer	100.832	1.032	0.0	3.3	Flood Risk
4320 min Summer	100.759	0.959	0.0	3.1	O K
5760 min Summer	100.690	0.890	0.0	2.9	O K
7200 min Summer	100.629	0.829	0.0	2.7	O K
8640 min Summer	100.574	0.774	0.0	2.5	O K
10080 min Summer	100.525	0.725	0.0	2.4	O K
15 min Winter	100.246	0.446	0.0	1.4	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	115.731	0.0	19		
30 min Summer	77.804	0.0	34		
60 min Summer	49.937	0.0	64		
120 min Summer	30.956	0.0	124		
180 min Summer	23.058	0.0	182		
240 min Summer	18.577	0.0	242		
360 min Summer	13.656	0.0	362		
480 min Summer	10.974	0.0	482		
600 min Summer	9.254	0.0	600		
720 min Summer	8.046	0.0	720		
960 min Summer	6.447	0.0	894		
1440 min Summer	4.709	0.0	1124		
2160 min Summer	3.432	0.0	1516		
2880 min Summer	2.739	0.0	1932		
4320 min Summer	1.989	0.0	2764		
5760 min Summer	1.583	0.0	3576		
7200 min Summer	1.325	0.0	4392		
8640 min Summer	1.147	0.0	5184		
10080 min Summer	1.015	0.0	5952		
15 min Winter	115.731	0.0	19		
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Stephen Wilson Partnership Limited				Page 2	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 7 Rev A			
Date 12/05/14 File Soakaway 7 Rev A.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2014.1			
Summary of Results for 100 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	100.397	0.597	0.0	1.9	O K
60 min Winter	100.559	0.759	0.0	2.5	O K
120 min Winter	100.725	0.925	0.0	3.0	O K
180 min Winter	100.817	1.017	0.0	3.3	Flood Risk
240 min Winter	100.875	1.075	0.0	3.5	Flood Risk
360 min Winter	100.949	1.149	0.0	3.7	Flood Risk
480 min Winter	100.994	1.194	0.0	3.9	Flood Risk
600 min Winter	101.022	1.222	0.0	4.0	Flood Risk
720 min Winter	101.038	1.238	0.0	4.0	Flood Risk
960 min Winter	101.051	1.251	0.0	4.1	Flood Risk
1440 min Winter	101.039	1.239	0.0	4.0	Flood Risk
2160 min Winter	101.010	1.210	0.0	3.9	Flood Risk
2880 min Winter	100.964	1.164	0.0	3.8	Flood Risk
4320 min Winter	100.859	1.059	0.0	3.4	Flood Risk
5760 min Winter	100.759	0.959	0.0	3.1	O K
7200 min Winter	100.672	0.872	0.0	2.8	O K
8640 min Winter	100.595	0.795	0.0	2.6	O K
10080 min Winter	100.528	0.728	0.0	2.4	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	77.804	0.0	33		
60 min Winter	49.937	0.0	64		
120 min Winter	30.956	0.0	122		
180 min Winter	23.058	0.0	180		
240 min Winter	18.577	0.0	238		
360 min Winter	13.656	0.0	356		
480 min Winter	10.974	0.0	470		
600 min Winter	9.254	0.0	584		
720 min Winter	8.046	0.0	696		
960 min Winter	6.447	0.0	914		
1440 min Winter	4.709	0.0	1156		
2160 min Winter	3.432	0.0	1620		
2880 min Winter	2.739	0.0	2076		
4320 min Winter	1.989	0.0	2980		
5760 min Winter	1.583	0.0	3856		
7200 min Winter	1.325	0.0	4680		
8640 min Winter	1.147	0.0	5528		
10080 min Winter	1.015	0.0	6352		
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Stephen Wilson Partnership Limited		Page 3																														
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 7 Rev A																															
Date 12/05/14	Designed by GM																															
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Micro Drainage		Source Control 2014.1																														
<u>Rainfall Details</u> <table> <tr> <td>Rainfall Model</td> <td>FSR</td> <td>Winter Storms</td> <td>Yes</td> </tr> <tr> <td>Return Period (years)</td> <td>100</td> <td>Cv (Summer)</td> <td>0.750</td> </tr> <tr> <td>Region</td> <td>England and Wales</td> <td>Cv (Winter)</td> <td>0.840</td> </tr> <tr> <td>M5-60 (mm)</td> <td>19.000</td> <td>Shortest Storm (mins)</td> <td>15</td> </tr> <tr> <td>Ratio R</td> <td>0.350</td> <td>Longest Storm (mins)</td> <td>10080</td> </tr> <tr> <td>Summer Storms</td> <td>Yes</td> <td>Climate Change %</td> <td>+30</td> </tr> </table> <u>Time Area Diagram</u> Total Area (ha) 0.006 <table> <tr> <td>Time (mins)</td> <td>Area</td> </tr> <tr> <td>From: To:</td> <td>(ha)</td> </tr> <tr> <td>0</td> <td>4 0.006</td> </tr> </table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	19.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+30	Time (mins)	Area	From: To:	(ha)	0	4 0.006
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Stephen Wilson Partnership Limited		Page 4																				
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Summer</td><td>100.516</td><td>0.916</td><td>0.0</td><td>4.0</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>100.534</td><td>0.934</td><td>0.0</td><td>4.0</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>100.542</td><td>0.942</td><td>0.0</td><td>4.1</td><td>Flood Risk</td></tr><tr><td>960 min Summer</td><td>100.545</td><td>0.945</td><td>0.0</td><td>4.1</td><td>Flood Risk</td></tr><tr><td>1440 min Summer</td><td>100.538</td><td>0.938</td><td>0.0</td><td>4.1</td><td>Flood Risk</td></tr><tr><td>2160 min Summer</td><td>100.515</td><td>0.915</td><td>0.0</td><td>4.0</td><td>Flood Risk</td></tr><tr><td>2880 min Summer</td><td>100.483</td><td>0.883</td><td>0.0</td><td>3.8</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>100.416</td><td>0.816</td><td>0.0</td><td>3.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>100.354</td><td>0.754</td><td>0.0</td><td>3.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>100.299</td><td>0.699</td><td>0.0</td><td>3.0</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>100.250</td><td>0.650</td><td>0.0</td><td>2.8</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>100.205</td><td>0.605</td><td>0.0</td><td>2.6</td><td>O K</td></tr><tr><td>15 min Winter</td><td>99.990</td><td>0.390</td><td>0.0</td><td>1.7</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>115.731</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>77.804</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>49.937</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>30.956</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>23.058</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>18.577</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>13.656</td><td>0.0</td><td>362</td></tr><tr><td>480 min 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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 8 Rev A			
Date 12/05/14 File Soakaway 8 Rev A.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2014.1			
Summary of Results for 100 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	100.122	0.522	0.0	2.3	O K
60 min Winter	100.263	0.663	0.0	2.9	O K
120 min Winter	100.408	0.808	0.0	3.5	O K
180 min Winter	100.487	0.887	0.0	3.8	O K
240 min Winter	100.537	0.937	0.0	4.0	Flood Risk
360 min Winter	100.600	1.000	0.0	4.3	Flood Risk
480 min Winter	100.639	1.039	0.0	4.5	Flood Risk
600 min Winter	100.662	1.062	0.0	4.6	Flood Risk
720 min Winter	100.675	1.075	0.0	4.6	Flood Risk
960 min Winter	100.684	1.084	0.0	4.7	Flood Risk
1440 min Winter	100.671	1.071	0.0	4.6	Flood Risk
2160 min Winter	100.641	1.041	0.0	4.5	Flood Risk
2880 min Winter	100.596	0.996	0.0	4.3	Flood Risk
4320 min Winter	100.499	0.899	0.0	3.9	O K
5760 min Winter	100.410	0.810	0.0	3.5	O K
7200 min Winter	100.331	0.731	0.0	3.2	O K
8640 min Winter	100.262	0.662	0.0	2.9	O K
10080 min Winter	100.200	0.600	0.0	2.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	77.804	0.0	33		
60 min Winter	49.937	0.0	64		
120 min Winter	30.956	0.0	122		
180 min Winter	23.058	0.0	180		
240 min Winter	18.577	0.0	238		
360 min Winter	13.656	0.0	356		
480 min Winter	10.974	0.0	470		
600 min Winter	9.254	0.0	584		
720 min Winter	8.046	0.0	694		
960 min Winter	6.447	0.0	912		
1440 min Winter	4.709	0.0	1154		
2160 min Winter	3.432	0.0	1604		
2880 min Winter	2.739	0.0	2076		
4320 min Winter	1.989	0.0	2980		
5760 min Winter	1.583	0.0	3816		
7200 min Winter	1.325	0.0	4680		
8640 min Winter	1.147	0.0	5528		
10080 min Winter	1.015	0.0	6264		
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43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 8 Rev A																															
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<u>Rainfall Details</u> <table> <tr> <td>Rainfall Model</td> <td>FSR</td> <td>Winter Storms</td> <td>Yes</td> </tr> <tr> <td>Return Period (years)</td> <td>100</td> <td>Cv (Summer)</td> <td>0.750</td> </tr> <tr> <td>Region</td> <td>England and Wales</td> <td>Cv (Winter)</td> <td>0.840</td> </tr> <tr> <td>M5-60 (mm)</td> <td>19.000</td> <td>Shortest Storm (mins)</td> <td>15</td> </tr> <tr> <td>Ratio R</td> <td>0.350</td> <td>Longest Storm (mins)</td> <td>10080</td> </tr> <tr> <td>Summer Storms</td> <td>Yes</td> <td>Climate Change %</td> <td>+30</td> </tr> </table> <u>Time Area Diagram</u> Total Area (ha) 0.007 <table> <tr> <td>Time (mins)</td> <td>Area</td> </tr> <tr> <td>From: To:</td> <td>(ha)</td> </tr> <tr> <td>0</td> <td>4 0.007</td> </tr> </table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	19.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+30	Time (mins)	Area	From: To:	(ha)	0	4 0.007
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<u>Model Details</u> Storage is Online Cover Level (m) 100.800 <u>Infiltration Trench Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00313</td> <td>Trench Width (m)</td> <td>1.2</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.00313</td> <td>Trench Length (m)</td> <td>12.0</td> </tr> <tr> <td>Safety Factor</td> <td>1.0</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>0.000</td> </tr> <tr> <td>Invert Level (m)</td> <td>99.600</td> <td>Cap Infiltration Depth (m)</td> <td>0.000</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00313	Trench Width (m)	1.2	Infiltration Coefficient Side (m/hr)	0.00313	Trench Length (m)	12.0	Safety Factor	1.0	Slope (1:X)	0.0	Porosity	0.30	Cap Volume Depth (m)	0.000	Invert Level (m)	99.600	Cap Infiltration Depth (m)	0.000
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Stephen Wilson Partnership Limited				Page 2	
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Date 12/05/14 File Soakaway 9 Rev A.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2014.1			
Summary of Results for 100 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	100.167	0.367	0.0	2.6	O K
60 min Winter	100.266	0.466	0.0	3.3	O K
120 min Winter	100.368	0.568	0.0	4.0	O K
180 min Winter	100.425	0.625	0.0	4.4	O K
240 min Winter	100.461	0.661	0.0	4.6	O K
360 min Winter	100.507	0.707	0.0	5.0	O K
480 min Winter	100.536	0.736	0.0	5.2	O K
600 min Winter	100.554	0.754	0.0	5.3	O K
720 min Winter	100.565	0.765	0.0	5.4	O K
960 min Winter	100.575	0.775	0.0	5.4	O K
1440 min Winter	100.566	0.766	0.0	5.4	O K
2160 min Winter	100.539	0.739	0.0	5.2	O K
2880 min Winter	100.506	0.706	0.0	5.0	O K
4320 min Winter	100.435	0.635	0.0	4.5	O K
5760 min Winter	100.367	0.567	0.0	4.0	O K
7200 min Winter	100.303	0.503	0.0	3.5	O K
8640 min Winter	100.246	0.446	0.0	3.1	O K
10080 min Winter	100.194	0.394	0.0	2.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	77.804	0.0	33		
60 min Winter	49.937	0.0	64		
120 min Winter	30.956	0.0	122		
180 min Winter	23.058	0.0	180		
240 min Winter	18.577	0.0	240		
360 min Winter	13.656	0.0	356		
480 min Winter	10.974	0.0	472		
600 min Winter	9.254	0.0	588		
720 min Winter	8.046	0.0	700		
960 min Winter	6.447	0.0	924		
1440 min Winter	4.709	0.0	1340		
2160 min Winter	3.432	0.0	1664		
2880 min Winter	2.739	0.0	2132		
4320 min Winter	1.989	0.0	3028		
5760 min Winter	1.583	0.0	3920		
7200 min Winter	1.325	0.0	4760		
8640 min Winter	1.147	0.0	5616		
10080 min Winter	1.015	0.0	6360		
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<u>Rainfall Details</u> <table> <tr> <td>Rainfall Model</td> <td>FSR</td> <td>Winter Storms</td> <td>Yes</td> </tr> <tr> <td>Return Period (years)</td> <td>100</td> <td>Cv (Summer)</td> <td>0.750</td> </tr> <tr> <td>Region</td> <td>England and Wales</td> <td>Cv (Winter)</td> <td>0.840</td> </tr> <tr> <td>M5-60 (mm)</td> <td>19.000</td> <td>Shortest Storm (mins)</td> <td>15</td> </tr> <tr> <td>Ratio R</td> <td>0.350</td> <td>Longest Storm (mins)</td> <td>10080</td> </tr> <tr> <td>Summer Storms</td> <td>Yes</td> <td>Climate Change %</td> <td>+30</td> </tr> </table> <u>Time Area Diagram</u> Total Area (ha) 0.008 <table> <tr> <td>Time (mins)</td> <td>Area</td> </tr> <tr> <td>From: To:</td> <td>(ha)</td> </tr> <tr> <td>0</td> <td>4 0.008</td> </tr> </table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	19.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+30	Time (mins)	Area	From: To:	(ha)	0	4 0.008
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Stephen Wilson Partnership Limited		Page 4																				
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<u>Model Details</u> Storage is Online Cover Level (m) 101.150 <u>Trench Soakaway Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00313</td> <td>Trench Width (m)</td> <td>2.6</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.00313</td> <td>Trench Length (m)</td> <td>9.0</td> </tr> <tr> <td>Safety Factor</td> <td>1.0</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>0.000</td> </tr> <tr> <td>Invert Level (m)</td> <td>99.800</td> <td>Cap Infiltration Depth (m)</td> <td>0.000</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00313	Trench Width (m)	2.6	Infiltration Coefficient Side (m/hr)	0.00313	Trench Length (m)	9.0	Safety Factor	1.0	Slope (1:X)	0.0	Porosity	0.30	Cap Volume Depth (m)	0.000	Invert Level (m)	99.800	Cap Infiltration Depth (m)	0.000
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Stephen Wilson Partnership Limited		Page 1																																																																																																																																																																																																								
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Design is unsatisfactory. <table border="1"> <thead> <tr> <th>Storm Event</th> <th>Max Level (m)</th> <th>Max Depth (m)</th> <th>Max Infiltration (l/s)</th> <th>Max Volume (m³)</th> <th>Status</th> </tr> </thead> <tbody> <tr><td>15 min Summer</td><td>99.472</td><td>0.122</td><td>0.0</td><td>1.7</td><td>O K</td></tr> <tr><td>30 min Summer</td><td>99.514</td><td>0.164</td><td>0.0</td><td>2.3</td><td>O K</td></tr> <tr><td>60 min Summer</td><td>99.560</td><td>0.210</td><td>0.0</td><td>3.0</td><td>O K</td></tr> <tr><td>120 min Summer</td><td>99.610</td><td>0.260</td><td>0.0</td><td>3.7</td><td>O K</td></tr> <tr><td>180 min Summer</td><td>99.639</td><td>0.289</td><td>0.0</td><td>4.1</td><td>O K</td></tr> <tr><td>240 min Summer</td><td>99.660</td><td>0.310</td><td>0.0</td><td>4.4</td><td>O K</td></tr> <tr><td>360 min Summer</td><td>99.691</td><td>0.341</td><td>0.0</td><td>4.9</td><td>O K</td></tr> <tr><td>480 min Summer</td><td>99.714</td><td>0.364</td><td>0.0</td><td>5.2</td><td>O 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Summer	99.691	0.341	0.0	4.9	O K	480 min Summer	99.714	0.364	0.0	5.2	O K	600 min Summer	99.733	0.383	0.0	5.5	O K	720 min Summer	99.748	0.398	0.0	5.7	O K	960 min Summer	99.773	0.423	0.0	6.0	O K	1440 min Summer	99.808	0.458	0.0	6.5	O K	2160 min Summer	99.843	0.493	0.0	7.0	O K	2880 min Summer	99.867	0.517	0.0	7.4	O K	4320 min Summer	99.896	0.546	0.0	7.8	O K	5760 min Summer	99.912	0.562	0.0	8.0	O K	7200 min Summer	99.921	0.571	0.0	8.1	O K	8640 min Summer	99.927	0.577	0.0	8.2	O K	10080 min Summer	99.929	0.579	0.0	8.3	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	115.731	0.0	19	30 min Summer	77.804	0.0	34	60 min Summer	49.937	0.0	64	120 min Summer	30.956	0.0	124	180 min Summer	23.058	0.0	184	240 min Summer	18.577	0.0	244	360 min Summer	13.656	0.0	364	480 min Summer	10.974	0.0	484	600 min Summer	9.254	0.0	604	720 min Summer	8.046	0.0	724	960 min Summer	6.447	0.0	964	1440 min Summer	4.709	0.0	1444	2160 min Summer	3.432	0.0	2164	2880 min 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Summary of Results for 100 year Return Period (+30%)						
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	
15 min Winter	99.486	0.136	0.0	1.9	O K	
30 min Winter	99.533	0.183	0.0	2.6	O K	
60 min Winter	99.585	0.235	0.0	3.3	O K	
120 min Winter	99.641	0.291	0.0	4.1	O K	
180 min Winter	99.674	0.324	0.0	4.6	O K	
240 min Winter	99.698	0.348	0.0	5.0	O K	
360 min Winter	99.732	0.382	0.0	5.4	O K	
480 min Winter	99.759	0.409	0.0	5.8	O K	
600 min Winter	99.779	0.429	0.0	6.1	O K	
720 min Winter	99.797	0.447	0.0	6.4	O K	
960 min Winter	99.825	0.475	0.0	6.8	O K	
1440 min Winter	99.865	0.515	0.0	7.3	O K	
2160 min Winter	99.904	0.554	0.0	7.9	O K	
2880 min Winter	99.931	0.581	0.0	8.3	O K	
4320 min Winter	99.966	0.616	0.0	8.8	O K	
5760 min Winter	99.986	0.636	0.0	9.1	O K	
7200 min Winter	99.998	0.648	0.0	9.2	O K	
8640 min Winter	100.006	0.656	0.0	9.4	O K	
10080 min Winter	100.011	0.661	0.0	9.4	O K	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)			
15 min Winter	115.731	0.0	19			
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8640 min Winter	1.147	0.0	8384			
10080 min Winter	1.015	0.0	9776			
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43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 10 Rev A																															
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Summary of Results for 100 year Return Period (+30%)						
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	
15 min Winter	99.225	0.125	0.0	2.7	O K	
30 min Winter	99.268	0.168	0.0	3.6	O K	
60 min Winter	99.315	0.215	0.0	4.6	O K	
120 min Winter	99.367	0.267	0.0	5.7	O K	
180 min Winter	99.397	0.297	0.0	6.4	O K	
240 min Winter	99.419	0.319	0.0	6.8	O K	
360 min Winter	99.451	0.351	0.0	7.5	O K	
480 min Winter	99.475	0.375	0.0	8.0	O K	
600 min Winter	99.494	0.394	0.0	8.4	O K	
720 min Winter	99.511	0.411	0.0	8.8	O K	
960 min Winter	99.537	0.437	0.0	9.3	O K	
1440 min Winter	99.574	0.474	0.0	10.1	O K	
2160 min Winter	99.612	0.512	0.0	11.0	O K	
2880 min Winter	99.639	0.539	0.0	11.5	O K	
4320 min Winter	99.674	0.574	0.0	12.3	O K	
5760 min Winter	99.696	0.596	0.0	12.7	O K	
7200 min Winter	99.711	0.611	0.0	13.1	O K	
8640 min Winter	99.722	0.622	0.0	13.3	O K	
10080 min Winter	99.729	0.629	0.0	13.5	O K	
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15 min Winter	115.731	0.0	19			
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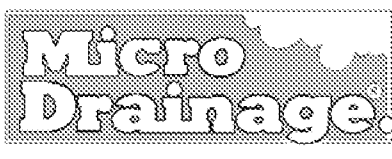
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0	4 0.011																															
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43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 11 Rev A																			
Date 12/05/14	Designed by GM																			
File Soakaway 11 Rev A.srcx	Checked by																			
Micro Drainage		Source Control 2014.1																		
<u>Model Details</u> Storage is Online Cover Level (m) 100.860 <u>Cellular Storage Structure</u> Invert Level (m) 99.100 Safety Factor 1.0 Infiltration Coefficient Base (m/hr) 0.00051 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.00051 <table border="1"> <thead> <tr> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> </tr> </thead> <tbody> <tr> <td>0.000</td> <td>22.5</td> <td>22.5</td> <td>1.300</td> <td>0.0</td> <td>50.1</td> </tr> <tr> <td>1.200</td> <td>22.5</td> <td>50.1</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	22.5	22.5	1.300	0.0	50.1	1.200	22.5	50.1			
Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)															
0.000	22.5	22.5	1.300	0.0	50.1															
1.200	22.5	50.1																		
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Stephen Wilson Partnership Limited				Page 1	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 12			
Date 12/05/14 File Soakaway 12.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
Summary of Results for 100 year Return Period (+30%) Half Drain Time : 145 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	99.774	0.384	0.4	4.0	O K
30 min Summer	99.886	0.496	0.5	5.2	O K
60 min Summer	99.978	0.588	0.5	6.1	O K
120 min Summer	100.021	0.631	0.5	6.6	O K
180 min Summer	100.022	0.632	0.5	6.6	O K
240 min Summer	100.010	0.620	0.5	6.5	O K
360 min Summer	99.977	0.587	0.5	6.1	O K
480 min Summer	99.944	0.554	0.5	5.8	O K
600 min Summer	99.912	0.522	0.5	5.5	O K
720 min Summer	99.880	0.490	0.5	5.1	O K
960 min Summer	99.821	0.431	0.4	4.5	O K
1440 min Summer	99.720	0.330	0.4	3.4	O K
2160 min Summer	99.607	0.217	0.4	2.3	O K
2880 min Summer	99.528	0.138	0.3	1.4	O K
4320 min Summer	99.445	0.055	0.3	0.6	O K
5760 min Summer	99.432	0.042	0.3	0.4	O K
7200 min Summer	99.425	0.035	0.2	0.4	O K
8640 min Summer	99.420	0.030	0.2	0.3	O K
10080 min Summer	99.417	0.027	0.2	0.3	O K
15 min Winter	99.823	0.433	0.4	4.5	O K
30 min Winter	99.952	0.562	0.5	5.9	O K
60 min Winter	100.062	0.672	0.5	7.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	115.731	0.0	18		
30 min Summer	77.804	0.0	32		
60 min Summer	49.937	0.0	62		
120 min Summer	30.956	0.0	104		
180 min Summer	23.058	0.0	136		
240 min Summer	18.577	0.0	170		
360 min Summer	13.656	0.0	240		
480 min Summer	10.974	0.0	308		
600 min Summer	9.254	0.0	376		
720 min Summer	8.046	0.0	444		
960 min Summer	6.447	0.0	578		
1440 min Summer	4.709	0.0	834		
2160 min Summer	3.432	0.0	1192		
2880 min Summer	2.739	0.0	1552		
4320 min Summer	1.989	0.0	2204		
5760 min Summer	1.583	0.0	2936		
7200 min Summer	1.325	0.0	3664		
8640 min Summer	1.147	0.0	4400		
10080 min Summer	1.015	0.0	5128		
15 min Winter	115.731	0.0	18		
30 min Winter	77.804	0.0	32		
60 min Winter	49.937	0.0	60		
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Stephen Wilson Partnership Limited				Page 2	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 12			
Date 12/05/14 File Soakaway 12.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
120 min Winter	100.143	0.753	0.5	7.6	O K
180 min Winter	100.134	0.744	0.5	7.6	O K
240 min Winter	100.103	0.713	0.5	7.4	O K
360 min Winter	100.053	0.663	0.5	6.9	O K
480 min Winter	100.002	0.612	0.5	6.4	O K
600 min Winter	99.953	0.563	0.5	5.9	O K
720 min Winter	99.906	0.516	0.5	5.4	O K
960 min Winter	99.819	0.429	0.4	4.5	O K
1440 min Winter	99.678	0.288	0.4	3.0	O K
2160 min Winter	99.532	0.142	0.3	1.5	O K
2880 min Winter	99.447	0.057	0.3	0.6	O K
4320 min Winter	99.428	0.038	0.2	0.4	O K
5760 min Winter	99.420	0.030	0.2	0.3	O K
7200 min Winter	99.415	0.025	0.2	0.3	O K
8640 min Winter	99.412	0.022	0.1	0.2	O K
10080 min Winter	99.410	0.020	0.1	0.2	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
120 min Winter	30.956	0.0	114		
180 min Winter	23.058	0.0	144		
240 min Winter	18.577	0.0	182		
360 min Winter	13.656	0.0	258		
480 min Winter	10.974	0.0	334		
600 min Winter	9.254	0.0	406		
720 min Winter	8.046	0.0	476		
960 min Winter	6.447	0.0	614		
1440 min Winter	4.709	0.0	868		
2160 min Winter	3.432	0.0	1232		
2880 min Winter	2.739	0.0	1524		
4320 min Winter	1.989	0.0	2200		
5760 min Winter	1.583	0.0	2936		
7200 min Winter	1.325	0.0	3672		
8640 min Winter	1.147	0.0	4400		
10080 min Winter	1.015	0.0	5032		
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Stephen Wilson Partnership Limited		Page 3																																	
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 12																																		
Date 12/05/14 File Soakaway 12.srcx	Designed by GM Checked by																																		
Micro Drainage Source Control 2013.1																																			
Rainfall Details <table><tr><td>Rainfall Model</td><td>FSR</td><td>Winter Storms</td><td>Yes</td></tr><tr><td>Return Period (years)</td><td>100</td><td>Cv (Summer)</td><td>0.750</td></tr><tr><td>Region</td><td>England and Wales</td><td>Cv (Winter)</td><td>0.840</td></tr><tr><td>M5-60 (mm)</td><td>19.000</td><td>Shortest Storm (mins)</td><td>15</td></tr><tr><td>Ratio R</td><td>0.350</td><td>Longest Storm (mins)</td><td>10080</td></tr><tr><td>Summer Storms</td><td>Yes</td><td>Climate Change %</td><td>+30</td></tr></table> Time Area Diagram Total Area (ha) 0.020 <table><tr><td>Time</td><td>(mins)</td><td>Area</td></tr><tr><td>From:</td><td>To:</td><td>(ha)</td></tr><tr><td>0</td><td>4</td><td>0.020</td></tr></table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	19.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+30	Time	(mins)	Area	From:	To:	(ha)	0	4	0.020
Rainfall Model	FSR	Winter Storms	Yes																																
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From:	To:	(ha)																																	
0	4	0.020																																	
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Stephen Wilson Partnership Limited		Page 4
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 12	
Date 12/05/14 File Soakaway 12.srcx	Designed by GM Checked by	
Micro Drainage Source Control 2013.1		

Model Details

Storage is Online Cover Level (m) 100.690

Cellular Storage Structure

Invert Level (m) 99.390 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.09540 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.09540

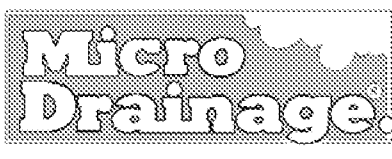
Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	11.0	11.0	1.300	0.0	20.9
0.100	11.0	12.3	1.400	0.0	20.9
0.200	11.0	13.7	1.500	0.0	20.9
0.300	11.0	15.0	1.600	0.0	20.9
0.400	11.0	16.3	1.700	0.0	20.9
0.500	11.0	17.6	1.800	0.0	20.9
0.600	11.0	19.0	1.900	0.0	20.9
0.700	11.0	20.3	2.000	0.0	20.9
0.800	0.0	20.9	2.100	0.0	20.9
0.900	0.0	20.9	2.200	0.0	20.9
1.000	0.0	20.9	2.300	0.0	20.9
1.100	0.0	20.9	2.400	0.0	20.9
1.200	0.0	20.9	2.500	0.0	20.9

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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 13			
Date 12/05/14 File Soakaway 13.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
Summary of Results for 100 year Return Period (+30%) Half Drain Time : 135 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	99.775	0.375	0.4	3.2	O K
30 min Summer	99.883	0.483	0.4	4.1	O K
60 min Summer	99.970	0.570	0.4	4.9	O K
120 min Summer	100.009	0.609	0.4	5.2	O K
180 min Summer	100.009	0.609	0.4	5.2	O K
240 min Summer	99.996	0.596	0.4	5.1	O K
360 min Summer	99.963	0.563	0.4	4.8	O K
480 min Summer	99.929	0.529	0.4	4.5	O K
600 min Summer	99.896	0.496	0.4	4.2	O K
720 min Summer	99.865	0.465	0.4	4.0	O K
960 min Summer	99.807	0.407	0.4	3.5	O K
1440 min Summer	99.708	0.308	0.3	2.6	O K
2160 min Summer	99.600	0.200	0.3	1.7	O K
2880 min Summer	99.525	0.125	0.3	1.1	O K
4320 min Summer	99.451	0.051	0.3	0.4	O K
5760 min Summer	99.441	0.041	0.2	0.3	O K
7200 min Summer	99.434	0.034	0.2	0.3	O K
8640 min Summer	99.430	0.030	0.2	0.3	O K
10080 min Summer	99.426	0.026	0.1	0.2	O K
15 min Winter	99.822	0.422	0.4	3.6	O K
30 min Winter	99.947	0.547	0.4	4.7	O K
60 min Winter	100.051	0.651	0.4	5.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	115.731	0.0	18		
30 min Summer	77.804	0.0	32		
60 min Summer	49.937	0.0	60		
120 min Summer	30.956	0.0	102		
180 min Summer	23.058	0.0	134		
240 min Summer	18.577	0.0	168		
360 min Summer	13.656	0.0	238		
480 min Summer	10.974	0.0	306		
600 min Summer	9.254	0.0	374		
720 min Summer	8.046	0.0	442		
960 min Summer	6.447	0.0	570		
1440 min Summer	4.709	0.0	824		
2160 min Summer	3.432	0.0	1188		
2880 min Summer	2.739	0.0	1532		
4320 min Summer	1.989	0.0	2204		
5760 min Summer	1.583	0.0	2920		
7200 min Summer	1.325	0.0	3672		
8640 min Summer	1.147	0.0	4392		
10080 min Summer	1.015	0.0	5048		
15 min Winter	115.731	0.0	18		
30 min Winter	77.804	0.0	32		
60 min Winter	49.937	0.0	60		
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Stephen Wilson Partnership Limited				Page 2	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 13			
Date 12/05/14 File Soakaway 13.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
120 min Winter	100.102	0.702	0.5	6.0	O K
180 min Winter	100.100	0.700	0.5	6.0	O K
240 min Winter	100.082	0.682	0.5	5.8	O K
360 min Winter	100.032	0.632	0.4	5.4	O K
480 min Winter	99.981	0.581	0.4	5.0	O K
600 min Winter	99.931	0.531	0.4	4.5	O K
720 min Winter	99.884	0.484	0.4	4.1	O K
960 min Winter	99.800	0.400	0.4	3.4	O K
1440 min Winter	99.665	0.265	0.3	2.3	O K
2160 min Winter	99.526	0.126	0.3	1.1	O K
2880 min Winter	99.451	0.051	0.3	0.4	O K
4320 min Winter	99.437	0.037	0.2	0.3	O K
5760 min Winter	99.429	0.029	0.1	0.3	O K
7200 min Winter	99.425	0.025	0.1	0.2	O K
8640 min Winter	99.421	0.021	0.1	0.2	O K
10080 min Winter	99.419	0.019	0.1	0.2	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
120 min Winter	30.956	0.0	114		
180 min Winter	23.058	0.0	142		
240 min Winter	18.577	0.0	180		
360 min Winter	13.656	0.0	256		
480 min Winter	10.974	0.0	330		
600 min Winter	9.254	0.0	402		
720 min Winter	8.046	0.0	472		
960 min Winter	6.447	0.0	608		
1440 min Winter	4.709	0.0	866		
2160 min Winter	3.432	0.0	1216		
2880 min Winter	2.739	0.0	1496		
4320 min Winter	1.989	0.0	2204		
5760 min Winter	1.583	0.0	2936		
7200 min Winter	1.325	0.0	3656		
8640 min Winter	1.147	0.0	4408		
10080 min Winter	1.015	0.0	5128		
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43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 13																															
Date 12/05/14 File Soakaway 13.srcx	Designed by GM Checked by																															
Micro Drainage Source Control 2013.1																																
Rainfall Details <table><tr><td>Rainfall Model</td><td>FSR</td><td>Winter Storms</td><td>Yes</td></tr><tr><td>Return Period (years)</td><td>100</td><td>Cv (Summer)</td><td>0.750</td></tr><tr><td>Region</td><td>England and Wales</td><td>Cv (Winter)</td><td>0.840</td></tr><tr><td>M5-60 (mm)</td><td>19.000</td><td>Shortest Storm (mins)</td><td>15</td></tr><tr><td>Ratio R</td><td>0.350</td><td>Longest Storm (mins)</td><td>10080</td></tr><tr><td>Summer Storms</td><td>Yes</td><td>Climate Change %</td><td>+30</td></tr></table> Time Area Diagram Total Area (ha) 0.016 <table><tr><td>Time (mins)</td><td>Area</td></tr><tr><td>From: To: (ha)</td><td></td></tr><tr><td>0 4</td><td>0.016</td></tr></table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	19.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+30	Time (mins)	Area	From: To: (ha)		0 4	0.016
Rainfall Model	FSR	Winter Storms	Yes																													
Return Period (years)	100	Cv (Summer)	0.750																													
Region	England and Wales	Cv (Winter)	0.840																													
M5-60 (mm)	19.000	Shortest Storm (mins)	15																													
Ratio R	0.350	Longest Storm (mins)	10080																													
Summer Storms	Yes	Climate Change %	+30																													
Time (mins)	Area																															
From: To: (ha)																																
0 4	0.016																															
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Stephen Wilson Partnership Limited		Page 4
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 13	
Date 12/05/14 File Soakaway 13.srcx	Designed by GM Checked by	
Micro Drainage Source Control 2013.1		

Model Details

Storage is Online Cover Level (m) 100.700

Cellular Storage Structure

Invert Level (m) 99.400 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.09540 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.09540

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	9.0	9.0	1.300	0.0	18.0
0.100	9.0	10.2	1.400	0.0	18.0
0.200	9.0	11.4	1.500	0.0	18.0
0.300	9.0	12.6	1.600	0.0	18.0
0.400	9.0	13.8	1.700	0.0	18.0
0.500	9.0	15.0	1.800	0.0	18.0
0.600	9.0	16.2	1.900	0.0	18.0
0.700	9.0	17.4	2.000	0.0	18.0
0.800	0.0	18.0	2.100	0.0	18.0
0.900	0.0	18.0	2.200	0.0	18.0
1.000	0.0	18.0	2.300	0.0	18.0
1.100	0.0	18.0	2.400	0.0	18.0
1.200	0.0	18.0	2.500	0.0	18.0

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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 14																																																																																																																																																																																																																																									
Date 12/05/14 File Soakaway 14.srcx		Designed by GM Checked by																																																																																																																																																																																																																																									
Micro Drainage		Source Control 2013.1																																																																																																																																																																																																																																									
Summary of Results for 100 year Return Period (+30%) Half Drain Time : 92 minutes. <table><thead><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr></thead><tbody><tr><td>15 min Summer</td><td>99.625</td><td>0.345</td><td>0.1</td><td>1.0</td><td>O K</td></tr><tr><td>30 min Summer</td><td>99.719</td><td>0.439</td><td>0.2</td><td>1.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>99.785</td><td>0.505</td><td>0.2</td><td>1.4</td><td>O K</td></tr><tr><td>120 min Summer</td><td>99.811</td><td>0.531</td><td>0.2</td><td>1.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>99.806</td><td>0.526</td><td>0.2</td><td>1.5</td><td>O K</td></tr><tr><td>240 min Summer</td><td>99.789</td><td>0.509</td><td>0.2</td><td>1.5</td><td>O K</td></tr><tr><td>360 min Summer</td><td>99.751</td><td>0.471</td><td>0.2</td><td>1.3</td><td>O K</td></tr><tr><td>480 min Summer</td><td>99.715</td><td>0.435</td><td>0.2</td><td>1.2</td><td>O K</td></tr><tr><td>600 min Summer</td><td>99.682</td><td>0.402</td><td>0.2</td><td>1.1</td><td>O K</td></tr><tr><td>720 min Summer</td><td>99.650</td><td>0.370</td><td>0.1</td><td>1.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>99.595</td><td>0.315</td><td>0.1</td><td>0.9</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>99.509</td><td>0.229</td><td>0.1</td><td>0.7</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>99.421</td><td>0.141</td><td>0.1</td><td>0.4</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>99.366</td><td>0.086</td><td>0.1</td><td>0.2</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>99.326</td><td>0.046</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>99.316</td><td>0.036</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>99.311</td><td>0.031</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>99.307</td><td>0.027</td><td>0.0</td><td>0.1</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>99.303</td><td>0.023</td><td>0.0</td><td>0.1</td><td>O K</td></tr><tr><td>15 min Winter</td><td>99.669</td><td>0.389</td><td>0.2</td><td>1.1</td><td>O K</td></tr><tr><td>30 min Winter</td><td>99.778</td><td>0.498</td><td>0.2</td><td>1.4</td><td>O K</td></tr><tr><td>60 min Winter</td><td>99.859</td><td>0.579</td><td>0.2</td><td>1.6</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>115.731</td><td>0.0</td><td>18</td></tr><tr><td>30 min Summer</td><td>77.804</td><td>0.0</td><td>32</td></tr><tr><td>60 min Summer</td><td>49.937</td><td>0.0</td><td>60</td></tr><tr><td>120 min Summer</td><td>30.956</td><td>0.0</td><td>90</td></tr><tr><td>180 min Summer</td><td>23.058</td><td>0.0</td><td>124</td></tr><tr><td>240 min Summer</td><td>18.577</td><td>0.0</td><td>160</td></tr><tr><td>360 min Summer</td><td>13.656</td><td>0.0</td><td>228</td></tr><tr><td>480 min Summer</td><td>10.974</td><td>0.0</td><td>296</td></tr><tr><td>600 min Summer</td><td>9.254</td><td>0.0</td><td>362</td></tr><tr><td>720 min Summer</td><td>8.046</td><td>0.0</td><td>428</td></tr><tr><td>960 min Summer</td><td>6.447</td><td>0.0</td><td>556</td></tr><tr><td>1440 min Summer</td><td>4.709</td><td>0.0</td><td>806</td></tr><tr><td>2160 min Summer</td><td>3.432</td><td>0.0</td><td>1164</td></tr><tr><td>2880 min Summer</td><td>2.739</td><td>0.0</td><td>1500</td></tr><tr><td>4320 min Summer</td><td>1.989</td><td>0.0</td><td>2196</td></tr><tr><td>5760 min Summer</td><td>1.583</td><td>0.0</td><td>2936</td></tr><tr><td>7200 min Summer</td><td>1.325</td><td>0.0</td><td>3640</td></tr><tr><td>8640 min Summer</td><td>1.147</td><td>0.0</td><td>4384</td></tr><tr><td>10080 min Summer</td><td>1.015</td><td>0.0</td><td>5136</td></tr><tr><td>15 min 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Summer	99.307	0.027	0.0	0.1	O K	10080 min Summer	99.303	0.023	0.0	0.1	O K	15 min Winter	99.669	0.389	0.2	1.1	O K	30 min Winter	99.778	0.498	0.2	1.4	O K	60 min Winter	99.859	0.579	0.2	1.6	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	115.731	0.0	18	30 min Summer	77.804	0.0	32	60 min Summer	49.937	0.0	60	120 min Summer	30.956	0.0	90	180 min Summer	23.058	0.0	124	240 min Summer	18.577	0.0	160	360 min Summer	13.656	0.0	228	480 min Summer	10.974	0.0	296	600 min Summer	9.254	0.0	362	720 min Summer	8.046	0.0	428	960 min Summer	6.447	0.0	556	1440 min Summer	4.709	0.0	806	2160 min Summer	3.432	0.0	1164	2880 min Summer	2.739	0.0	1500	4320 min Summer	1.989	0.0	2196	5760 min Summer	1.583	0.0	2936	7200 min Summer	1.325	0.0	3640	8640 min Summer	1.147	0.0	4384	10080 min Summer	1.015	0.0	5136	15 min Winter	115.731	0.0	18	30 min Winter	77.804	0.0	31	60 min Winter	49.937	0.0	58
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Stephen Wilson Partnership Limited				Page 2	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 14			
Date 12/05/14 File Soakaway 14.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
120 min Winter	99.887	0.607	0.2	1.7	OK
180 min Winter	99.876	0.596	0.2	1.7	OK
240 min Winter	99.851	0.571	0.2	1.6	OK
360 min Winter	99.793	0.513	0.2	1.5	OK
480 min Winter	99.739	0.459	0.2	1.3	OK
600 min Winter	99.690	0.410	0.2	1.2	OK
720 min Winter	99.646	0.366	0.1	1.0	OK
960 min Winter	99.570	0.290	0.1	0.8	OK
1440 min Winter	99.459	0.179	0.1	0.5	OK
2160 min Winter	99.357	0.077	0.1	0.2	OK
2880 min Winter	99.325	0.045	0.1	0.1	OK
4320 min Winter	99.313	0.033	0.1	0.1	OK
5760 min Winter	99.306	0.026	0.0	0.1	OK
7200 min Winter	99.302	0.022	0.0	0.1	OK
8640 min Winter	99.299	0.019	0.0	0.1	OK
10080 min Winter	99.297	0.017	0.0	0.0	OK
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
120 min Winter	30.956	0.0	96		
180 min Winter	23.058	0.0	134		
240 min Winter	18.577	0.0	172		
360 min Winter	13.656	0.0	246		
480 min Winter	10.974	0.0	316		
600 min Winter	9.254	0.0	386		
720 min Winter	8.046	0.0	454		
960 min Winter	6.447	0.0	586		
1440 min Winter	4.709	0.0	836		
2160 min Winter	3.432	0.0	1168		
2880 min Winter	2.739	0.0	1472		
4320 min Winter	1.989	0.0	2176		
5760 min Winter	1.583	0.0	2936		
7200 min Winter	1.325	0.0	3592		
8640 min Winter	1.147	0.0	4328		
10080 min Winter	1.015	0.0	5064		
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Stephen Wilson Partnership Limited		Page 3
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 14	
Date 12/05/14 File Soakaway 14.srcx	Designed by GM Checked by	
Micro Drainage Source Control 2013.1		

Rainfall Details

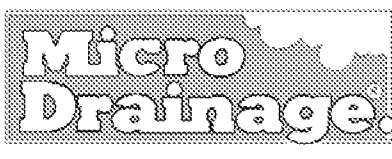
Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.005

Time (mins)	Area
From:	To: (ha)
0	4 0.005

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Stephen Wilson Partnership Limited		Page 4
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 14	
Date 12/05/14 File Soakaway 14.srcx	Designed by GM Checked by	
Micro Drainage Source Control 2013.1		

Model Details

Storage is Online Cover Level (m) 100.580

Cellular Storage Structure

Invert Level (m) 99.280 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.09540 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.09540

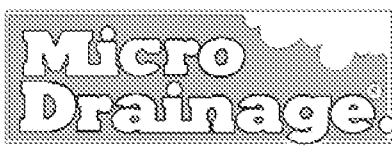
Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	3.0	3.0	1.300	0.0	8.2
0.100	3.0	3.7	1.400	0.0	8.2
0.200	3.0	4.4	1.500	0.0	8.2
0.300	3.0	5.1	1.600	0.0	8.2
0.400	3.0	5.8	1.700	0.0	8.2
0.500	3.0	6.5	1.800	0.0	8.2
0.600	3.0	7.2	1.900	0.0	8.2
0.700	3.0	7.8	2.000	0.0	8.2
0.800	0.0	8.2	2.100	0.0	8.2
0.900	0.0	8.2	2.200	0.0	8.2
1.000	0.0	8.2	2.300	0.0	8.2
1.100	0.0	8.2	2.400	0.0	8.2
1.200	0.0	8.2	2.500	0.0	8.2

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Summer</td><td>99.741</td><td>0.791</td><td>0.1</td><td>3.0</td><td>O K</td></tr><tr><td>600 min Summer</td><td>99.718</td><td>0.768</td><td>0.1</td><td>2.9</td><td>O K</td></tr><tr><td>720 min Summer</td><td>99.695</td><td>0.745</td><td>0.1</td><td>2.8</td><td>O K</td></tr><tr><td>960 min Summer</td><td>99.648</td><td>0.698</td><td>0.1</td><td>2.7</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>99.565</td><td>0.615</td><td>0.1</td><td>2.3</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>99.461</td><td>0.511</td><td>0.1</td><td>1.9</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>99.376</td><td>0.426</td><td>0.1</td><td>1.6</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>99.250</td><td>0.300</td><td>0.1</td><td>1.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>99.160</td><td>0.210</td><td>0.1</td><td>0.8</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>99.095</td><td>0.145</td><td>0.1</td><td>0.5</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>99.048</td><td>0.098</td><td>0.1</td><td>0.4</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>99.016</td><td>0.066</td><td>0.1</td><td>0.3</td><td>O K</td></tr><tr><td>15 min Winter</td><td>99.441</td><td>0.491</td><td>0.1</td><td>1.9</td><td>O K</td></tr><tr><td>30 min Winter</td><td>99.596</td><td>0.646</td><td>0.1</td><td>2.5</td><td>O K</td></tr><tr><td>60 min Winter</td><td>99.743</td><td>0.793</td><td>0.1</td><td>3.0</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>115.731</td><td>0.0</td><td>18</td></tr><tr><td>30 min Summer</td><td>77.804</td><td>0.0</td><td>33</td></tr><tr><td>60 min Summer</td><td>49.937</td><td>0.0</td><td>62</td></tr><tr><td>120 min Summer</td><td>30.956</td><td>0.0</td><td>120</td></tr><tr><td>180 min Summer</td><td>23.058</td><td>0.0</td><td>162</td></tr><tr><td>240 min Summer</td><td>18.577</td><td>0.0</td><td>192</td></tr><tr><td>360 min Summer</td><td>13.656</td><td>0.0</td><td>258</td></tr><tr><td>480 min Summer</td><td>10.974</td><td>0.0</td><td>326</td></tr><tr><td>600 min Summer</td><td>9.254</td><td>0.0</td><td>396</td></tr><tr><td>720 min Summer</td><td>8.046</td><td>0.0</td><td>464</td></tr><tr><td>960 min Summer</td><td>6.447</td><td>0.0</td><td>604</td></tr><tr><td>1440 min Summer</td><td>4.709</td><td>0.0</td><td>868</td></tr><tr><td>2160 min Summer</td><td>3.432</td><td>0.0</td><td>1256</td></tr><tr><td>2880 min Summer</td><td>2.739</td><td>0.0</td><td>1644</td></tr><tr><td>4320 min Summer</td><td>1.989</td><td>0.0</td><td>2376</td></tr><tr><td>5760 min Summer</td><td>1.583</td><td>0.0</td><td>3112</td></tr><tr><td>7200 min Summer</td><td>1.325</td><td>0.0</td><td>3816</td></tr><tr><td>8640 min Summer</td><td>1.147</td><td>0.0</td><td>4496</td></tr><tr><td>10080 min Summer</td><td>1.015</td><td>0.0</td><td>5152</td></tr><tr><td>15 min 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Summer	99.048	0.098	0.1	0.4	O K	10080 min Summer	99.016	0.066	0.1	0.3	O K	15 min Winter	99.441	0.491	0.1	1.9	O K	30 min Winter	99.596	0.646	0.1	2.5	O K	60 min Winter	99.743	0.793	0.1	3.0	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	115.731	0.0	18	30 min Summer	77.804	0.0	33	60 min Summer	49.937	0.0	62	120 min Summer	30.956	0.0	120	180 min Summer	23.058	0.0	162	240 min Summer	18.577	0.0	192	360 min Summer	13.656	0.0	258	480 min Summer	10.974	0.0	326	600 min Summer	9.254	0.0	396	720 min Summer	8.046	0.0	464	960 min Summer	6.447	0.0	604	1440 min Summer	4.709	0.0	868	2160 min Summer	3.432	0.0	1256	2880 min Summer	2.739	0.0	1644	4320 min Summer	1.989	0.0	2376	5760 min Summer	1.583	0.0	3112	7200 min Summer	1.325	0.0	3816	8640 min Summer	1.147	0.0	4496	10080 min Summer	1.015	0.0	5152	15 min Winter	115.731	0.0	18	30 min Winter	77.804	0.0	32	60 min Winter	49.937	0.0	62
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Stephen Wilson Partnership Limited				Page 2	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 15			
Date 12/05/14		Designed by GM			
File Soakaway 15.srcx		Checked by			
Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
120 min Winter	99.856	0.906	0.2	3.4	O K
180 min Winter	99.886	0.936	0.2	3.6	O K
240 min Winter	99.884	0.934	0.2	3.5	O K
360 min Winter	99.871	0.921	0.2	3.5	O K
480 min Winter	99.845	0.895	0.2	3.4	O K
600 min Winter	99.812	0.862	0.1	3.3	O K
720 min Winter	99.776	0.826	0.1	3.1	O K
960 min Winter	99.707	0.757	0.1	2.9	O K
1440 min Winter	99.586	0.636	0.1	2.4	O K
2160 min Winter	99.441	0.491	0.1	1.9	O K
2880 min Winter	99.330	0.380	0.1	1.4	O K
4320 min Winter	99.173	0.223	0.1	0.8	O K
5760 min Winter	99.071	0.121	0.1	0.5	O K
7200 min Winter	99.007	0.057	0.1	0.2	O K
8640 min Winter	98.995	0.045	0.1	0.2	O K
10080 min Winter	98.990	0.040	0.0	0.2	O K
Storm Event	Rain (mm/hr)		Flooded Volume (m³)	Time-Peak (mins)	
120 min Winter	30.956		0.0	118	
180 min Winter	23.058		0.0	172	
240 min Winter	18.577		0.0	200	
360 min Winter	13.656		0.0	274	
480 min Winter	10.974		0.0	350	
600 min Winter	9.254		0.0	428	
720 min Winter	8.046		0.0	500	
960 min Winter	6.447		0.0	646	
1440 min Winter	4.709		0.0	924	
2160 min Winter	3.432		0.0	1324	
2880 min Winter	2.739		0.0	1704	
4320 min Winter	1.989		0.0	2464	
5760 min Winter	1.583		0.0	3168	
7200 min Winter	1.325		0.0	3752	
8640 min Winter	1.147		0.0	4376	
10080 min Winter	1.015		0.0	5144	
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Stephen Wilson Partnership Limited		Page 3																																	
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Rainfall Details <table><tr><td>Rainfall Model</td><td>FSR</td><td>Winter Storms</td><td>Yes</td></tr><tr><td>Return Period (years)</td><td>100</td><td>Cv (Summer)</td><td>0.750</td></tr><tr><td>Region</td><td>England and Wales</td><td>Cv (Winter)</td><td>0.840</td></tr><tr><td>M5-60 (mm)</td><td>19.000</td><td>Shortest Storm (mins)</td><td>15</td></tr><tr><td>Ratio R</td><td>0.350</td><td>Longest Storm (mins)</td><td>10080</td></tr><tr><td>Summer Storms</td><td>Yes</td><td>Climate Change %</td><td>+30</td></tr></table> Time Area Diagram Total Area (ha) 0.008 <table><tr><td>Time</td><td>(mins)</td><td>Area</td></tr><tr><td>From:</td><td>To:</td><td>(ha)</td></tr><tr><td>0</td><td>4</td><td>0.008</td></tr></table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	19.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+30	Time	(mins)	Area	From:	To:	(ha)	0	4	0.008
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Stephen Wilson Partnership Limited		Page 4
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 15	
Date 12/05/14 File Soakaway 15.srcx	Designed by GM Checked by	
Micro Drainage Source Control 2013.1		

Model Details

Storage is Online Cover Level (m) 101.450

Cellular Storage Structure

Invert Level (m) 98.950 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.04917 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.04917

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	4.0	4.0	1.300	0.0	13.2
0.100	4.0	4.8	1.400	0.0	13.2
0.200	4.0	5.6	1.500	0.0	13.2
0.300	4.0	6.4	1.600	0.0	13.2
0.400	4.0	7.2	1.700	0.0	13.2
0.500	4.0	8.0	1.800	0.0	13.2
0.600	4.0	8.8	1.900	0.0	13.2
0.700	4.0	9.6	2.000	0.0	13.2
0.800	4.0	10.4	2.100	0.0	13.2
0.900	4.0	11.2	2.200	0.0	13.2
1.000	4.0	12.0	2.300	0.0	13.2
1.100	4.0	12.8	2.400	0.0	13.2
1.200	0.0	13.2	2.500	0.0	13.2

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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 16			
Date 12/05/14 File SOAKAWAY 16.SRCX		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u> Half Drain Time : 92 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	100.095	0.345	0.1	1.0	O K
30 min Summer	100.189	0.439	0.2	1.3	O K
60 min Summer	100.255	0.505	0.2	1.4	O K
120 min Summer	100.281	0.531	0.2	1.5	O K
180 min Summer	100.276	0.526	0.2	1.5	O K
240 min Summer	100.259	0.509	0.2	1.5	O K
360 min Summer	100.221	0.471	0.2	1.3	O K
480 min Summer	100.185	0.435	0.2	1.2	O K
600 min Summer	100.152	0.402	0.2	1.1	O K
720 min Summer	100.120	0.370	0.1	1.1	O K
960 min Summer	100.065	0.315	0.1	0.9	O K
1440 min Summer	99.979	0.229	0.1	0.7	O K
2160 min Summer	99.891	0.141	0.1	0.4	O K
2880 min Summer	99.836	0.086	0.1	0.2	O K
4320 min Summer	99.796	0.046	0.1	0.1	O K
5760 min Summer	99.786	0.036	0.1	0.1	O K
7200 min Summer	99.781	0.031	0.1	0.1	O K
8640 min Summer	99.777	0.027	0.0	0.1	O K
10080 min Summer	99.773	0.023	0.0	0.1	O K
15 min Winter	100.139	0.389	0.2	1.1	O K
30 min Winter	100.248	0.498	0.2	1.4	O K
60 min Winter	100.329	0.579	0.2	1.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	115.731	0.0	18		
30 min Summer	77.804	0.0	32		
60 min Summer	49.937	0.0	60		
120 min Summer	30.956	0.0	90		
180 min Summer	23.058	0.0	124		
240 min Summer	18.577	0.0	160		
360 min Summer	13.656	0.0	228		
480 min Summer	10.974	0.0	296		
600 min Summer	9.254	0.0	362		
720 min Summer	8.046	0.0	428		
960 min Summer	6.447	0.0	556		
1440 min Summer	4.709	0.0	806		
2160 min Summer	3.432	0.0	1164		
2880 min Summer	2.739	0.0	1500		
4320 min Summer	1.989	0.0	2196		
5760 min Summer	1.583	0.0	2936		
7200 min Summer	1.325	0.0	3640		
8640 min Summer	1.147	0.0	4384		
10080 min Summer	1.015	0.0	5136		
15 min Winter	115.731	0.0	18		
30 min Winter	77.804	0.0	31		
60 min Winter	49.937	0.0	58		
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Stephen Wilson Partnership Limited				Page 2	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 16			
Date 12/05/14 File SOAKAWAY 16.SRCX		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
120 min Winter	100.357	0.607	0.2	1.7	O K
180 min Winter	100.346	0.596	0.2	1.7	O K
240 min Winter	100.321	0.571	0.2	1.6	O K
360 min Winter	100.263	0.513	0.2	1.5	O K
480 min Winter	100.209	0.459	0.2	1.3	O K
600 min Winter	100.160	0.410	0.2	1.2	O K
720 min Winter	100.116	0.366	0.1	1.0	O K
960 min Winter	100.040	0.290	0.1	0.8	O K
1440 min Winter	99.929	0.179	0.1	0.5	O K
2160 min Winter	99.827	0.077	0.1	0.2	O K
2880 min Winter	99.795	0.045	0.1	0.1	O K
4320 min Winter	99.783	0.033	0.1	0.1	O K
5760 min Winter	99.776	0.026	0.0	0.1	O K
7200 min Winter	99.772	0.022	0.0	0.1	O K
8640 min Winter	99.769	0.019	0.0	0.1	O K
10080 min Winter	99.767	0.017	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
120 min Winter	30.956	0.0	96		
180 min Winter	23.058	0.0	134		
240 min Winter	18.577	0.0	172		
360 min Winter	13.656	0.0	246		
480 min Winter	10.974	0.0	316		
600 min Winter	9.254	0.0	386		
720 min Winter	8.046	0.0	454		
960 min Winter	6.447	0.0	586		
1440 min Winter	4.709	0.0	836		
2160 min Winter	3.432	0.0	1168		
2880 min Winter	2.739	0.0	1472		
4320 min Winter	1.989	0.0	2176		
5760 min Winter	1.583	0.0	2936		
7200 min Winter	1.325	0.0	3592		
8640 min Winter	1.147	0.0	4328		
10080 min Winter	1.015	0.0	5064		
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Stephen Wilson Partnership Limited		Page 4
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 16	
Date 12/05/14 File SOAKAWAY 16.SRCX	Designed by GM Checked by	
Micro Drainage Source Control 2013.1		

Model Details

Storage is Online Cover Level (m) 101.050

Cellular Storage Structure

Invert Level (m) 99.750 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.09540 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.09540

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	3.0	3.0	2.600	0.0	7.8
0.200	3.0	4.4	2.800	0.0	7.8
0.400	3.0	5.8	3.000	0.0	7.8
0.600	3.0	7.2	3.200	0.0	7.8
0.800	0.0	7.8	3.400	0.0	7.8
1.000	0.0	7.8	3.600	0.0	7.8
1.200	0.0	7.8	3.800	0.0	7.8
1.400	0.0	7.8	4.000	0.0	7.8
1.600	0.0	7.8	4.200	0.0	7.8
1.800	0.0	7.8	4.400	0.0	7.8
2.000	0.0	7.8	4.600	0.0	7.8
2.200	0.0	7.8	4.800	0.0	7.8
2.400	0.0	7.8	5.000	0.0	7.8

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Stephen Wilson Partnership Limited				Page 1	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 17			
Date 12/05/14 File Soakaway 17.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u> Half Drain Time : 202 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	100.403	0.303	0.1	1.4	O K
30 min Summer	100.497	0.397	0.1	1.9	O K
60 min Summer	100.582	0.482	0.1	2.3	O K
120 min Summer	100.639	0.539	0.1	2.6	O K
180 min Summer	100.649	0.549	0.1	2.6	O K
240 min Summer	100.648	0.548	0.1	2.6	O K
360 min Summer	100.635	0.535	0.1	2.5	O K
480 min Summer	100.618	0.518	0.1	2.5	O K
600 min Summer	100.599	0.499	0.1	2.4	O K
720 min Summer	100.580	0.480	0.1	2.3	O K
960 min Summer	100.543	0.443	0.1	2.1	O K
1440 min Summer	100.476	0.376	0.1	1.8	O K
2160 min Summer	100.394	0.294	0.1	1.4	O K
2880 min Summer	100.328	0.228	0.1	1.1	O K
4320 min Summer	100.236	0.136	0.1	0.6	O K
5760 min Summer	100.179	0.079	0.1	0.4	O K
7200 min Summer	100.151	0.051	0.1	0.2	O K
8640 min Summer	100.144	0.044	0.1	0.2	O K
10080 min Summer	100.139	0.039	0.1	0.2	O K
15 min Winter	100.441	0.341	0.1	1.6	O K
30 min Winter	100.547	0.447	0.1	2.1	O K
60 min Winter	100.646	0.546	0.1	2.6	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	115.731	0.0	18		
30 min Summer	77.804	0.0	33		
60 min Summer	49.937	0.0	62		
120 min Summer	30.956	0.0	120		
180 min Summer	23.058	0.0	156		
240 min Summer	18.577	0.0	186		
360 min Summer	13.656	0.0	252		
480 min Summer	10.974	0.0	322		
600 min Summer	9.254	0.0	392		
720 min Summer	8.046	0.0	460		
960 min Summer	6.447	0.0	596		
1440 min Summer	4.709	0.0	864		
2160 min Summer	3.432	0.0	1236		
2880 min Summer	2.739	0.0	1612		
4320 min Summer	1.989	0.0	2332		
5760 min Summer	1.583	0.0	3000		
7200 min Summer	1.325	0.0	3672		
8640 min Summer	1.147	0.0	4400		
10080 min Summer	1.015	0.0	5136		
15 min Winter	115.731	0.0	18		
30 min Winter	77.804	0.0	32		
60 min Winter	49.937	0.0	60		
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Stephen Wilson Partnership Limited				Page 2	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 17			
Date 12/05/14 File Soakaway 17.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
120 min Winter	100.720	0.620	0.1	2.9	O K
180 min Winter	100.740	0.640	0.1	3.0	O K
240 min Winter	100.733	0.633	0.1	3.0	O K
360 min Winter	100.711	0.611	0.1	2.9	O K
480 min Winter	100.685	0.585	0.1	2.8	O K
600 min Winter	100.657	0.557	0.1	2.6	O K
720 min Winter	100.628	0.528	0.1	2.5	O K
960 min Winter	100.573	0.473	0.1	2.2	O K
1440 min Winter	100.476	0.376	0.1	1.8	O K
2160 min Winter	100.362	0.262	0.1	1.2	O K
2880 min Winter	100.277	0.177	0.1	0.8	O K
4320 min Winter	100.168	0.068	0.1	0.3	O K
5760 min Winter	100.144	0.044	0.1	0.2	O K
7200 min Winter	100.137	0.037	0.1	0.2	O K
8640 min Winter	100.132	0.032	0.0	0.2	O K
10080 min Winter	100.128	0.028	0.0	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
120 min Winter	30.956	0.0	118		
180 min Winter	23.058	0.0	170		
240 min Winter	18.577	0.0	194		
360 min Winter	13.656	0.0	272		
480 min Winter	10.974	0.0	348		
600 min Winter	9.254	0.0	422		
720 min Winter	8.046	0.0	498		
960 min Winter	6.447	0.0	642		
1440 min Winter	4.709	0.0	912		
2160 min Winter	3.432	0.0	1300		
2880 min Winter	2.739	0.0	1672		
4320 min Winter	1.989	0.0	2332		
5760 min Winter	1.583	0.0	2936		
7200 min Winter	1.325	0.0	3672		
8640 min Winter	1.147	0.0	4408		
10080 min Winter	1.015	0.0	5120		
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Stephen Wilson Partnership Limited		Page 3																														
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 17																															
Date 12/05/14 File Soakaway 17.srcx	Designed by GM Checked by																															
Micro Drainage Source Control 2013.1																																
Rainfall Details <table><tr><td>Rainfall Model</td><td>FSR</td><td>Winter Storms</td><td>Yes</td></tr><tr><td>Return Period (years)</td><td>100</td><td>Cv (Summer)</td><td>0.750</td></tr><tr><td>Region</td><td>England and Wales</td><td>Cv (Winter)</td><td>0.840</td></tr><tr><td>M5-60 (mm)</td><td>19.000</td><td>Shortest Storm (mins)</td><td>15</td></tr><tr><td>Ratio R</td><td>0.350</td><td>Longest Storm (mins)</td><td>10080</td></tr><tr><td>Summer Storms</td><td>Yes</td><td>Climate Change %</td><td>+30</td></tr></table> Time Area Diagram Total Area (ha) 0.007 <table><tr><td>Time (mins)</td><td>Area</td></tr><tr><td>From: To:</td><td>(ha)</td></tr><tr><td>0 4</td><td>0.007</td></tr></table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	19.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+30	Time (mins)	Area	From: To:	(ha)	0 4	0.007
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Stephen Wilson Partnership Limited		Page 4
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 17	
Date 12/05/14 File Soakaway 17.srcx	Designed by GM Checked by	
Micro Drainage Source Control 2013.1		

Model Details

Storage is Online Cover Level (m) 101.410

Cellular Storage Structure

Invert Level (m) 100.100 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.04917 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.04917

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	5.0	5.0	2.600	0.0	11.3
0.200	5.0	6.8	2.800	0.0	11.3
0.400	5.0	8.6	3.000	0.0	11.3
0.600	5.0	10.4	3.200	0.0	11.3
0.800	0.0	11.3	3.400	0.0	11.3
1.000	0.0	11.3	3.600	0.0	11.3
1.200	0.0	11.3	3.800	0.0	11.3
1.400	0.0	11.3	4.000	0.0	11.3
1.600	0.0	11.3	4.200	0.0	11.3
1.800	0.0	11.3	4.400	0.0	11.3
2.000	0.0	11.3	4.600	0.0	11.3
2.200	0.0	11.3	4.800	0.0	11.3
2.400	0.0	11.3	5.000	0.0	11.3

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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 18 Rev A																																																																																																																																																																																																																						
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Micro Drainage		Source Control 2014.1																																																																																																																																																																																																																						
Summary of Results for 100 year Return Period (+30%) Half Drain Time : 1209 minutes. <table><thead><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr></thead><tbody><tr><td>15 min Summer</td><td>100.258</td><td>0.358</td><td>0.0</td><td>1.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>100.379</td><td>0.479</td><td>0.0</td><td>1.4</td><td>O K</td></tr><tr><td>60 min Summer</td><td>100.508</td><td>0.608</td><td>0.0</td><td>1.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>100.639</td><td>0.739</td><td>0.0</td><td>2.2</td><td>O K</td></tr><tr><td>180 min Summer</td><td>100.710</td><td>0.810</td><td>0.0</td><td>2.4</td><td>O K</td></tr><tr><td>240 min Summer</td><td>100.755</td><td>0.855</td><td>0.0</td><td>2.6</td><td>O K</td></tr><tr><td>360 min Summer</td><td>100.809</td><td>0.909</td><td>0.0</td><td>2.7</td><td>O K</td></tr><tr><td>480 min Summer</td><td>100.840</td><td>0.940</td><td>0.0</td><td>2.8</td><td>O K</td></tr><tr><td>600 min Summer</td><td>100.857</td><td>0.957</td><td>0.0</td><td>2.9</td><td>O K</td></tr><tr><td>720 min Summer</td><td>100.864</td><td>0.964</td><td>0.0</td><td>2.9</td><td>O K</td></tr><tr><td>960 min Summer</td><td>100.867</td><td>0.967</td><td>0.0</td><td>2.9</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>100.862</td><td>0.962</td><td>0.0</td><td>2.9</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>100.839</td><td>0.939</td><td>0.0</td><td>2.8</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>100.807</td><td>0.907</td><td>0.0</td><td>2.7</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>100.738</td><td>0.838</td><td>0.0</td><td>2.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>100.674</td><td>0.774</td><td>0.0</td><td>2.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>100.618</td><td>0.718</td><td>0.0</td><td>2.2</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>100.568</td><td>0.668</td><td>0.0</td><td>2.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>100.524</td><td>0.624</td><td>0.0</td><td>1.9</td><td>O K</td></tr><tr><td>15 min Winter</td><td>100.301</td><td>0.401</td><td>0.0</td><td>1.2</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>115.731</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>77.804</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>49.937</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>30.956</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>23.058</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>18.577</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>13.656</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>10.974</td><td>0.0</td><td>482</td></tr><tr><td>600 min Summer</td><td>9.254</td><td>0.0</td><td>600</td></tr><tr><td>720 min Summer</td><td>8.046</td><td>0.0</td><td>720</td></tr><tr><td>960 min Summer</td><td>6.447</td><td>0.0</td><td>840</td></tr><tr><td>1440 min Summer</td><td>4.709</td><td>0.0</td><td>1094</td></tr><tr><td>2160 min Summer</td><td>3.432</td><td>0.0</td><td>1492</td></tr><tr><td>2880 min Summer</td><td>2.739</td><td>0.0</td><td>1904</td></tr><tr><td>4320 min Summer</td><td>1.989</td><td>0.0</td><td>2728</td></tr><tr><td>5760 min Summer</td><td>1.583</td><td>0.0</td><td>3568</td></tr><tr><td>7200 min Summer</td><td>1.325</td><td>0.0</td><td>4328</td></tr><tr><td>8640 min Summer</td><td>1.147</td><td>0.0</td><td>5184</td></tr><tr><td>10080 min Summer</td><td>1.015</td><td>0.0</td><td>5944</td></tr><tr><td>15 min Winter</td><td>115.731</td><td>0.0</td><td>19</td></tr></tbody></table>							Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	100.258	0.358	0.0	1.1	O K	30 min Summer	100.379	0.479	0.0	1.4	O K	60 min Summer	100.508	0.608	0.0	1.8	O K	120 min Summer	100.639	0.739	0.0	2.2	O K	180 min Summer	100.710	0.810	0.0	2.4	O K	240 min Summer	100.755	0.855	0.0	2.6	O K	360 min Summer	100.809	0.909	0.0	2.7	O K	480 min Summer	100.840	0.940	0.0	2.8	O K	600 min Summer	100.857	0.957	0.0	2.9	O K	720 min Summer	100.864	0.964	0.0	2.9	O K	960 min Summer	100.867	0.967	0.0	2.9	O K	1440 min Summer	100.862	0.962	0.0	2.9	O K	2160 min Summer	100.839	0.939	0.0	2.8	O K	2880 min Summer	100.807	0.907	0.0	2.7	O K	4320 min Summer	100.738	0.838	0.0	2.5	O K	5760 min Summer	100.674	0.774	0.0	2.3	O K	7200 min Summer	100.618	0.718	0.0	2.2	O K	8640 min Summer	100.568	0.668	0.0	2.0	O K	10080 min Summer	100.524	0.624	0.0	1.9	O K	15 min Winter	100.301	0.401	0.0	1.2	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	115.731	0.0	19	30 min Summer	77.804	0.0	34	60 min Summer	49.937	0.0	64	120 min Summer	30.956	0.0	124	180 min Summer	23.058	0.0	182	240 min Summer	18.577	0.0	242	360 min Summer	13.656	0.0	362	480 min Summer	10.974	0.0	482	600 min Summer	9.254	0.0	600	720 min Summer	8.046	0.0	720	960 min Summer	6.447	0.0	840	1440 min Summer	4.709	0.0	1094	2160 min Summer	3.432	0.0	1492	2880 min Summer	2.739	0.0	1904	4320 min Summer	1.989	0.0	2728	5760 min Summer	1.583	0.0	3568	7200 min Summer	1.325	0.0	4328	8640 min Summer	1.147	0.0	5184	10080 min Summer	1.015	0.0	5944	15 min Winter	115.731	0.0	19
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status																																																																																																																																																																																																																			
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120 min Summer	100.639	0.739	0.0	2.2	O K																																																																																																																																																																																																																			
180 min Summer	100.710	0.810	0.0	2.4	O K																																																																																																																																																																																																																			
240 min Summer	100.755	0.855	0.0	2.6	O K																																																																																																																																																																																																																			
360 min Summer	100.809	0.909	0.0	2.7	O K																																																																																																																																																																																																																			
480 min Summer	100.840	0.940	0.0	2.8	O K																																																																																																																																																																																																																			
600 min Summer	100.857	0.957	0.0	2.9	O K																																																																																																																																																																																																																			
720 min Summer	100.864	0.964	0.0	2.9	O K																																																																																																																																																																																																																			
960 min Summer	100.867	0.967	0.0	2.9	O K																																																																																																																																																																																																																			
1440 min Summer	100.862	0.962	0.0	2.9	O K																																																																																																																																																																																																																			
2160 min Summer	100.839	0.939	0.0	2.8	O K																																																																																																																																																																																																																			
2880 min Summer	100.807	0.907	0.0	2.7	O K																																																																																																																																																																																																																			
4320 min Summer	100.738	0.838	0.0	2.5	O K																																																																																																																																																																																																																			
5760 min Summer	100.674	0.774	0.0	2.3	O K																																																																																																																																																																																																																			
7200 min Summer	100.618	0.718	0.0	2.2	O K																																																																																																																																																																																																																			
8640 min Summer	100.568	0.668	0.0	2.0	O K																																																																																																																																																																																																																			
10080 min Summer	100.524	0.624	0.0	1.9	O K																																																																																																																																																																																																																			
15 min Winter	100.301	0.401	0.0	1.2	O K																																																																																																																																																																																																																			
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																					
15 min Summer	115.731	0.0	19																																																																																																																																																																																																																					
30 min Summer	77.804	0.0	34																																																																																																																																																																																																																					
60 min Summer	49.937	0.0	64																																																																																																																																																																																																																					
120 min Summer	30.956	0.0	124																																																																																																																																																																																																																					
180 min Summer	23.058	0.0	182																																																																																																																																																																																																																					
240 min Summer	18.577	0.0	242																																																																																																																																																																																																																					
360 min Summer	13.656	0.0	362																																																																																																																																																																																																																					
480 min Summer	10.974	0.0	482																																																																																																																																																																																																																					
600 min Summer	9.254	0.0	600																																																																																																																																																																																																																					
720 min Summer	8.046	0.0	720																																																																																																																																																																																																																					
960 min Summer	6.447	0.0	840																																																																																																																																																																																																																					
1440 min Summer	4.709	0.0	1094																																																																																																																																																																																																																					
2160 min Summer	3.432	0.0	1492																																																																																																																																																																																																																					
2880 min Summer	2.739	0.0	1904																																																																																																																																																																																																																					
4320 min Summer	1.989	0.0	2728																																																																																																																																																																																																																					
5760 min Summer	1.583	0.0	3568																																																																																																																																																																																																																					
7200 min Summer	1.325	0.0	4328																																																																																																																																																																																																																					
8640 min Summer	1.147	0.0	5184																																																																																																																																																																																																																					
10080 min Summer	1.015	0.0	5944																																																																																																																																																																																																																					
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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 18 Rev A			
Date 12/05/14 File Soakaway 18 Rev A.srcx		Designed by GM Checked by			
Micro Drainage		Source Control 2014.1			
Summary of Results for 100 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	100.437	0.537	0.0	1.6	O K
60 min Winter	100.582	0.682	0.0	2.0	O K
120 min Winter	100.731	0.831	0.0	2.5	O K
180 min Winter	100.812	0.912	0.0	2.7	O K
240 min Winter	100.863	0.963	0.0	2.9	O K
360 min Winter	100.926	1.026	0.0	3.1	O K
480 min Winter	100.965	1.065	0.0	3.2	O K
600 min Winter	100.987	1.087	0.0	3.3	Flood Risk
720 min Winter	101.000	1.100	0.0	3.3	Flood Risk
960 min Winter	101.007	1.107	0.0	3.3	Flood Risk
1440 min Winter	100.995	1.095	0.0	3.3	Flood Risk
2160 min Winter	100.963	1.063	0.0	3.2	O K
2880 min Winter	100.918	1.018	0.0	3.1	O K
4320 min Winter	100.819	0.919	0.0	2.8	O K
5760 min Winter	100.727	0.827	0.0	2.5	O K
7200 min Winter	100.647	0.747	0.0	2.2	O K
8640 min Winter	100.578	0.678	0.0	2.0	O K
10080 min Winter	100.517	0.617	0.0	1.9	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	77.804	0.0	33		
60 min Winter	49.937	0.0	62		
120 min Winter	30.956	0.0	122		
180 min Winter	23.058	0.0	180		
240 min Winter	18.577	0.0	238		
360 min Winter	13.656	0.0	354		
480 min Winter	10.974	0.0	470		
600 min Winter	9.254	0.0	582		
720 min Winter	8.046	0.0	694		
960 min Winter	6.447	0.0	906		
1440 min Winter	4.709	0.0	1138		
2160 min Winter	3.432	0.0	1600		
2880 min Winter	2.739	0.0	2048		
4320 min Winter	1.989	0.0	2940		
5760 min Winter	1.583	0.0	3808		
7200 min Winter	1.325	0.0	4616		
8640 min Winter	1.147	0.0	5448		
10080 min Winter	1.015	0.0	6256		
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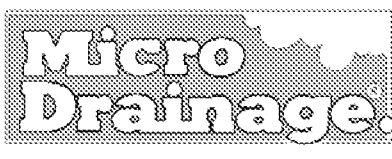
Stephen Wilson Partnership Limited		Page 3																														
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 18 Rev A																															
Date 12/05/14	Designed by GM																															
File Soakaway 18 Rev A.srcx	Checked by																															
Micro Drainage		Source Control 2014.1																														
<u>Rainfall Details</u> <table> <tr> <td>Rainfall Model</td> <td>FSR</td> <td>Winter Storms</td> <td>Yes</td> </tr> <tr> <td>Return Period (years)</td> <td>100</td> <td>Cv (Summer)</td> <td>0.750</td> </tr> <tr> <td>Region</td> <td>England and Wales</td> <td>Cv (Winter)</td> <td>0.840</td> </tr> <tr> <td>M5-60 (mm)</td> <td>19.000</td> <td>Shortest Storm (mins)</td> <td>15</td> </tr> <tr> <td>Ratio R</td> <td>0.350</td> <td>Longest Storm (mins)</td> <td>10080</td> </tr> <tr> <td>Summer Storms</td> <td>Yes</td> <td>Climate Change %</td> <td>+30</td> </tr> </table> <u>Time Area Diagram</u> Total Area (ha) 0.005 <table> <tr> <td>Time (mins)</td> <td>Area</td> </tr> <tr> <td>From: To: (ha)</td> <td></td> </tr> <tr> <td>0 4</td> <td>0.005</td> </tr> </table>			Rainfall Model	FSR	Winter Storms	Yes	Return Period (years)	100	Cv (Summer)	0.750	Region	England and Wales	Cv (Winter)	0.840	M5-60 (mm)	19.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+30	Time (mins)	Area	From: To: (ha)		0 4	0.005
Rainfall Model	FSR	Winter Storms	Yes																													
Return Period (years)	100	Cv (Summer)	0.750																													
Region	England and Wales	Cv (Winter)	0.840																													
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0 4	0.005																															
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Stephen Wilson Partnership Limited		Page 4																				
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON SOAKAWAY 18 Rev A																					
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File Soakaway 18 Rev A.srcx	Checked by																					
Micro Drainage		Source Control 2014.1																				
<u>Model Details</u> Storage is Online Cover Level (m) 101.270 <u>Trench Soakaway Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00294</td> <td>Trench Width (m)</td> <td>1.0</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.00294</td> <td>Trench Length (m)</td> <td>10.0</td> </tr> <tr> <td>Safety Factor</td> <td>1.0</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>0.000</td> </tr> <tr> <td>Invert Level (m)</td> <td>99.900</td> <td>Cap Infiltration Depth (m)</td> <td>0.000</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00294	Trench Width (m)	1.0	Infiltration Coefficient Side (m/hr)	0.00294	Trench Length (m)	10.0	Safety Factor	1.0	Slope (1:X)	0.0	Porosity	0.30	Cap Volume Depth (m)	0.000	Invert Level (m)	99.900	Cap Infiltration Depth (m)	0.000
Infiltration Coefficient Base (m/hr)	0.00294	Trench Width (m)	1.0																			
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Date 13/05/2014 10:30 File Porous paving + ...		Designed by george.ma... Checked by																																																																																																																																																																																																																																									
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Summary of Results for 100 year Return Period (+30%) Half Drain Time : 99 minutes. <table><thead><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr></thead><tbody><tr><td>15 min Summer</td><td>99.816</td><td>0.246</td><td>0.3</td><td>1.7</td><td>O K</td></tr><tr><td>30 min Summer</td><td>99.857</td><td>0.287</td><td>0.3</td><td>2.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>99.889</td><td>0.319</td><td>0.3</td><td>2.8</td><td>O K</td></tr><tr><td>120 min Summer</td><td>99.905</td><td>0.335</td><td>0.3</td><td>3.0</td><td>O K</td></tr><tr><td>180 min Summer</td><td>99.905</td><td>0.335</td><td>0.3</td><td>3.0</td><td>O K</td></tr><tr><td>240 min Summer</td><td>99.899</td><td>0.329</td><td>0.3</td><td>2.9</td><td>O K</td></tr><tr><td>360 min Summer</td><td>99.883</td><td>0.313</td><td>0.3</td><td>2.7</td><td>O K</td></tr><tr><td>480 min Summer</td><td>99.865</td><td>0.295</td><td>0.3</td><td>2.4</td><td>O K</td></tr><tr><td>600 min Summer</td><td>99.848</td><td>0.278</td><td>0.3</td><td>2.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>99.833</td><td>0.263</td><td>0.3</td><td>2.0</td><td>O K</td></tr><tr><td>960 min Summer</td><td>99.808</td><td>0.238</td><td>0.3</td><td>1.6</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>99.776</td><td>0.206</td><td>0.3</td><td>1.2</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>99.741</td><td>0.171</td><td>0.2</td><td>0.8</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>99.716</td><td>0.146</td><td>0.2</td><td>0.6</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>99.684</td><td>0.114</td><td>0.2</td><td>0.4</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>99.663</td><td>0.093</td><td>0.1</td><td>0.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>99.649</td><td>0.079</td><td>0.1</td><td>0.2</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>99.639</td><td>0.069</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>99.631</td><td>0.061</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>15 min Winter</td><td>99.835</td><td>0.265</td><td>0.3</td><td>2.0</td><td>O K</td></tr><tr><td>30 min Winter</td><td>99.882</td><td>0.312</td><td>0.3</td><td>2.7</td><td>O K</td></tr><tr><td>60 min Winter</td><td>99.921</td><td>0.351</td><td>0.3</td><td>3.2</td><td>O K</td></tr></tbody></table> <table><thead><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr></thead><tbody><tr><td>15 min Summer</td><td>115.731</td><td>0.0</td><td>17</td></tr><tr><td>30 min Summer</td><td>77.804</td><td>0.0</td><td>32</td></tr><tr><td>60 min Summer</td><td>49.937</td><td>0.0</td><td>60</td></tr><tr><td>120 min Summer</td><td>30.956</td><td>0.0</td><td>94</td></tr><tr><td>180 min Summer</td><td>23.058</td><td>0.0</td><td>128</td></tr><tr><td>240 min Summer</td><td>18.577</td><td>0.0</td><td>162</td></tr><tr><td>360 min Summer</td><td>13.656</td><td>0.0</td><td>230</td></tr><tr><td>480 min Summer</td><td>10.974</td><td>0.0</td><td>296</td></tr><tr><td>600 min Summer</td><td>9.254</td><td>0.0</td><td>360</td></tr><tr><td>720 min Summer</td><td>8.046</td><td>0.0</td><td>422</td></tr><tr><td>960 min Summer</td><td>6.447</td><td>0.0</td><td>540</td></tr><tr><td>1440 min Summer</td><td>4.709</td><td>0.0</td><td>780</td></tr><tr><td>2160 min Summer</td><td>3.432</td><td>0.0</td><td>1144</td></tr><tr><td>2880 min Summer</td><td>2.739</td><td>0.0</td><td>1500</td></tr><tr><td>4320 min Summer</td><td>1.989</td><td>0.0</td><td>2208</td></tr><tr><td>5760 min Summer</td><td>1.583</td><td>0.0</td><td>2936</td></tr><tr><td>7200 min Summer</td><td>1.325</td><td>0.0</td><td>3672</td></tr><tr><td>8640 min Summer</td><td>1.147</td><td>0.0</td><td>4400</td></tr><tr><td>10080 min Summer</td><td>1.015</td><td>0.0</td><td>5136</td></tr><tr><td>15 min 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600 min Summer	99.848	0.278	0.3	2.2	O K																																																																																																																																																																																																																																						
720 min Summer	99.833	0.263	0.3	2.0	O K																																																																																																																																																																																																																																						
960 min Summer	99.808	0.238	0.3	1.6	O K																																																																																																																																																																																																																																						
1440 min Summer	99.776	0.206	0.3	1.2	O K																																																																																																																																																																																																																																						
2160 min Summer	99.741	0.171	0.2	0.8	O K																																																																																																																																																																																																																																						
2880 min Summer	99.716	0.146	0.2	0.6	O K																																																																																																																																																																																																																																						
4320 min Summer	99.684	0.114	0.2	0.4	O K																																																																																																																																																																																																																																						
5760 min Summer	99.663	0.093	0.1	0.3	O K																																																																																																																																																																																																																																						
7200 min Summer	99.649	0.079	0.1	0.2	O K																																																																																																																																																																																																																																						
8640 min Summer	99.639	0.069	0.1	0.1	O K																																																																																																																																																																																																																																						
10080 min Summer	99.631	0.061	0.1	0.1	O K																																																																																																																																																																																																																																						
15 min Winter	99.835	0.265	0.3	2.0	O K																																																																																																																																																																																																																																						
30 min Winter	99.882	0.312	0.3	2.7	O K																																																																																																																																																																																																																																						
60 min Winter	99.921	0.351	0.3	3.2	O K																																																																																																																																																																																																																																						
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)																																																																																																																																																																																																																																								
15 min Summer	115.731	0.0	17																																																																																																																																																																																																																																								
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180 min Summer	23.058	0.0	128																																																																																																																																																																																																																																								
240 min Summer	18.577	0.0	162																																																																																																																																																																																																																																								
360 min Summer	13.656	0.0	230																																																																																																																																																																																																																																								
480 min Summer	10.974	0.0	296																																																																																																																																																																																																																																								
600 min Summer	9.254	0.0	360																																																																																																																																																																																																																																								
720 min Summer	8.046	0.0	422																																																																																																																																																																																																																																								
960 min Summer	6.447	0.0	540																																																																																																																																																																																																																																								
1440 min Summer	4.709	0.0	780																																																																																																																																																																																																																																								
2160 min Summer	3.432	0.0	1144																																																																																																																																																																																																																																								
2880 min Summer	2.739	0.0	1500																																																																																																																																																																																																																																								
4320 min Summer	1.989	0.0	2208																																																																																																																																																																																																																																								
5760 min Summer	1.583	0.0	2936																																																																																																																																																																																																																																								
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8640 min Summer	1.147	0.0	4400																																																																																																																																																																																																																																								
10080 min Summer	1.015	0.0	5136																																																																																																																																																																																																																																								
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43 South Street Eastbourne Sussex BN21 4UT					
Date 13/05/2014 10:30 File Porous paving + ...		Designed by george.ma... Checked by			
Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
120 min Winter	99.937	0.367	0.3	3.4	OK
180 min Winter	99.936	0.366	0.3	3.4	OK
240 min Winter	99.926	0.356	0.3	3.3	OK
360 min Winter	99.899	0.329	0.3	2.9	OK
480 min Winter	99.872	0.302	0.3	2.5	OK
600 min Winter	99.846	0.276	0.3	2.2	OK
720 min Winter	99.824	0.254	0.3	1.9	OK
960 min Winter	99.794	0.224	0.3	1.4	OK
1440 min Winter	99.753	0.183	0.2	1.0	OK
2160 min Winter	99.712	0.142	0.2	0.6	OK
2880 min Winter	99.687	0.117	0.2	0.4	OK
4320 min Winter	99.656	0.086	0.1	0.2	OK
5760 min Winter	99.639	0.069	0.1	0.1	OK
7200 min Winter	99.627	0.057	0.1	0.1	OK
8640 min Winter	99.620	0.050	0.1	0.1	OK
10080 min Winter	99.617	0.047	0.1	0.1	OK
Storm Event	Rain (mm/hr)		Flooded Volume (m³)	Time-Peak (mins)	
120 min Winter	30.956		0.0	104	
180 min Winter	23.058		0.0	138	
240 min Winter	18.577		0.0	176	
360 min Winter	13.656		0.0	250	
480 min Winter	10.974		0.0	318	
600 min Winter	9.254		0.0	382	
720 min Winter	8.046		0.0	442	
960 min Winter	6.447		0.0	560	
1440 min Winter	4.709		0.0	806	
2160 min Winter	3.432		0.0	1152	
2880 min Winter	2.739		0.0	1500	
4320 min Winter	1.989		0.0	2204	
5760 min Winter	1.583		0.0	2936	
7200 min Winter	1.325		0.0	3672	
8640 min Winter	1.147		0.0	4400	
10080 min Winter	1.015		0.0	5136	
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43 South Street Eastbourne Sussex BN21 4UT																																			
Date 13/05/2014 10:30	Designed by george.ma...																																		
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Micro Drainage		Source Control 2013.1																																	
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Rainfall Model	FSR	Winter Storms	Yes																																
Return Period (years)	100	Cv (Summer)	0.750																																
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Time (mins)		Area																																	
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0	4	0.010																																	
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Date 13/05/2014 10:30 File Porous paving + ...	Designed by george.ma... Checked by																									
Micro Drainage Source Control 2013.1																										
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Infiltration Coefficient Base (m/hr)	0.02500	Width (m)	4.8																							
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Invert Level (m)	99.570	Cap Volume Depth (m)	0.000																							
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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON P. PAVING 2 SPCS + 50m2			
Date 13/05/14 File Porous paving + ...		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
Summary of Results for 100 year Return Period (+30%) Half Drain Time : 98 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	99.761	0.191	0.2	0.9	○ K
30 min Summer	99.805	0.235	0.2	1.2	○ K
60 min Summer	99.838	0.268	0.2	1.4	○ K
120 min Summer	99.852	0.282	0.2	1.5	○ K
180 min Summer	99.849	0.279	0.2	1.4	○ K
240 min Summer	99.841	0.271	0.2	1.4	○ K
360 min Summer	99.820	0.250	0.2	1.3	○ K
480 min Summer	99.800	0.230	0.2	1.1	○ K
600 min Summer	99.780	0.210	0.2	1.0	○ K
720 min Summer	99.762	0.192	0.2	0.9	○ K
960 min Summer	99.731	0.161	0.2	0.7	○ K
1440 min Summer	99.688	0.118	0.2	0.4	○ K
2160 min Summer	99.664	0.094	0.1	0.3	○ K
2880 min Summer	99.648	0.078	0.1	0.2	○ K
4320 min Summer	99.629	0.059	0.1	0.1	○ K
5760 min Summer	99.619	0.049	0.1	0.1	○ K
7200 min Summer	99.615	0.045	0.1	0.1	○ K
8640 min Summer	99.612	0.042	0.0	0.0	○ K
10080 min Summer	99.609	0.039	0.0	0.0	○ K
15 min Winter	99.781	0.211	0.2	1.0	○ K
30 min Winter	99.831	0.261	0.2	1.3	○ K
60 min Winter	99.872	0.302	0.2	1.6	○ K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	115.731	0.0	18		
30 min Summer	77.804	0.0	32		
60 min Summer	49.937	0.0	60		
120 min Summer	30.956	0.0	98		
180 min Summer	23.058	0.0	130		
240 min Summer	18.577	0.0	164		
360 min Summer	13.656	0.0	232		
480 min Summer	10.974	0.0	298		
600 min Summer	9.254	0.0	364		
720 min Summer	8.046	0.0	426		
960 min Summer	6.447	0.0	548		
1440 min Summer	4.709	0.0	766		
2160 min Summer	3.432	0.0	1124		
2880 min Summer	2.739	0.0	1472		
4320 min Summer	1.989	0.0	2204		
5760 min Summer	1.583	0.0	2912		
7200 min Summer	1.325	0.0	3656		
8640 min Summer	1.147	0.0	4344		
10080 min Summer	1.015	0.0	5128		
15 min Winter	115.731	0.0	18		
30 min Winter	77.804	0.0	32		
60 min Winter	49.937	0.0	60		
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43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON P. PAVING 2 SPCS + 50m2			
Date 13/05/14 File Porous paving + ...		Designed by GM Checked by			
Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
120 min Winter	99.888	0.318	0.2	1.7	O K
180 min Winter	99.883	0.313	0.2	1.7	O K
240 min Winter	99.871	0.301	0.2	1.6	O K
360 min Winter	99.839	0.269	0.2	1.4	O K
480 min Winter	99.807	0.237	0.2	1.2	O K
600 min Winter	99.777	0.207	0.2	1.0	O K
720 min Winter	99.749	0.179	0.2	0.8	O K
960 min Winter	99.704	0.134	0.2	0.5	O K
1440 min Winter	99.668	0.098	0.1	0.3	O K
2160 min Winter	99.644	0.074	0.1	0.2	O K
2880 min Winter	99.630	0.060	0.1	0.1	O K
4320 min Winter	99.617	0.047	0.1	0.1	O K
5760 min Winter	99.612	0.042	0.0	0.0	O K
7200 min Winter	99.608	0.038	0.0	0.0	O K
8640 min Winter	99.605	0.035	0.0	0.0	O K
10080 min Winter	99.603	0.033	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
120 min Winter	30.956	0.0	112		
180 min Winter	23.058	0.0	140		
240 min Winter	18.577	0.0	178		
360 min Winter	13.656	0.0	252		
480 min Winter	10.974	0.0	322		
600 min Winter	9.254	0.0	388		
720 min Winter	8.046	0.0	450		
960 min Winter	6.447	0.0	560		
1440 min Winter	4.709	0.0	776		
2160 min Winter	3.432	0.0	1124		
2880 min Winter	2.739	0.0	1472		
4320 min Winter	1.989	0.0	2188		
5760 min Winter	1.583	0.0	2936		
7200 min Winter	1.325	0.0	3664		
8640 min Winter	1.147	0.0	4360		
10080 min Winter	1.015	0.0	5048		
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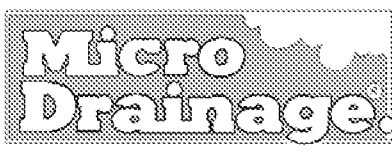
Stephen Wilson Partnership Limited		Page 3																																	
43 South Street Eastbourne Sussex BN21 4UT	TODDINGTON LANE LITTLEHAMPTON P. PAVING 2 SPCS + 50m2																																		
Date 13/05/14	Designed by GM																																		
File Porous paving + ...	Checked by																																		
Micro Drainage		Source Control 2013.1																																	
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Rainfall Model	FSR	Winter Storms	Yes																																
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Stephen Wilson Partnership Limited		Page 4																								
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Stephen Wilson Partnership Limited				Page 2	
43 South Street Eastbourne Sussex BN21 4UT		TODDINGTON LANE LITTLEHAMPTON P. PAVING 1 SPACE			
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Micro Drainage		Source Control 2013.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
120 min Winter	99.694	0.124	0.1	0.2	O K
180 min Winter	99.686	0.116	0.1	0.2	O K
240 min Winter	99.677	0.107	0.1	0.2	O K
360 min Winter	99.663	0.093	0.1	0.1	O K
480 min Winter	99.652	0.082	0.1	0.1	O K
600 min Winter	99.643	0.073	0.0	0.1	O K
720 min Winter	99.635	0.065	0.0	0.1	O K
960 min Winter	99.624	0.054	0.0	0.0	O K
1440 min Winter	99.615	0.045	0.0	0.0	O K
2160 min Winter	99.609	0.039	0.0	0.0	O K
2880 min Winter	99.605	0.035	0.0	0.0	O K
4320 min Winter	99.599	0.029	0.0	0.0	O K
5760 min Winter	99.596	0.026	0.0	0.0	O K
7200 min Winter	99.594	0.024	0.0	0.0	O K
8640 min Winter	99.592	0.022	0.0	0.0	O K
10080 min Winter	99.591	0.021	0.0	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
120 min Winter	30.956	0.0	84		
180 min Winter	23.058	0.0	118		
240 min Winter	18.577	0.0	150		
360 min Winter	13.656	0.0	214		
480 min Winter	10.974	0.0	274		
600 min Winter	9.254	0.0	332		
720 min Winter	8.046	0.0	392		
960 min Winter	6.447	0.0	510		
1440 min Winter	4.709	0.0	736		
2160 min Winter	3.432	0.0	1104		
2880 min Winter	2.739	0.0	1468		
4320 min Winter	1.989	0.0	2192		
5760 min Winter	1.583	0.0	2928		
7200 min Winter	1.325	0.0	3656		
8640 min Winter	1.147	0.0	4400		
10080 min Winter	1.015	0.0	5000		
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Micro Drainage Source Control 2013.1		

Model Details

Storage is Online Cover Level (m) 100.000

Porous Car Park Structure

Infiltration Coefficient Base (m/hr) 0.02500	Width (m) 2.4
Membrane Percolation (mm/hr) 1000	Length (m) 4.5
Max Percolation (l/s) 3.0	Slope (1:X) 40.0
Safety Factor 1.0	Depression Storage (mm) 5
Porosity 0.30	Evaporation (mm/day) 3
Invert Level (m) 99.570	Cap Volume Depth (m) 0.000

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