

Robert Clark Associates				Page 1		
Willow Cottage		The Wolds				
Herne Lane		Fontwell Avenue				
Rustington BN16 3EE		Eastergate				
Date 29 May 2018		Designed by RTFC				
File Geocellular soakaway.SRCX		Checked by				
Micro Drainage		Source Control 2016.1				
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 23 minutes.						
Storm Event		Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer		13.343	0.523	0.8	1.5	0 K
30 min Summer		13.433	0.613	0.9	1.7	0 K
60 min Summer		13.477	0.657	1.0	1.9	0 K
120 min Summer		13.449	0.629	0.9	1.8	0 K
180 min Summer		13.396	0.576	0.8	1.6	0 K
240 min Summer		13.345	0.525	0.8	1.5	0 K
360 min Summer		13.269	0.449	0.7	1.3	0 K
480 min Summer		13.213	0.393	0.6	1.1	0 K
600 min Summer		13.171	0.351	0.5	1.0	0 K
720 min Summer		13.138	0.318	0.5	0.9	0 K
960 min Summer		13.089	0.269	0.4	0.8	0 K
1440 min Summer		13.028	0.208	0.3	0.6	0 K
2160 min Summer		12.978	0.158	0.2	0.5	0 K
2880 min Summer		12.949	0.129	0.2	0.4	0 K
4320 min Summer		12.915	0.095	0.1	0.3	0 K
5760 min Summer		12.896	0.076	0.1	0.2	0 K
7200 min Summer		12.884	0.064	0.1	0.2	0 K
8640 min Summer		12.875	0.055	0.1	0.2	0 K
10080 min Summer		12.869	0.049	0.1	0.1	0 K
15 min Winter		13.407	0.587	0.9	1.7	0 K
Storm Event		Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer		124.633	0.0	15		
30 min Summer		83.789	0.0	24		
60 min Summer		53.779	0.0	40		
120 min Summer		33.337	0.0	74		
180 min Summer		24.832	0.0	106		
240 min Summer		20.006	0.0	138		
360 min Summer		14.706	0.0	200		
480 min Summer		11.818	0.0	260		
600 min Summer		9.966	0.0	320		
720 min Summer		8.665	0.0	382		
960 min Summer		6.943	0.0	502		
1440 min Summer		5.071	0.0	748		
2160 min Summer		3.696	0.0	1104		
2880 min Summer		2.949	0.0	1468		
4320 min Summer		2.142	0.0	2204		
5760 min Summer		1.705	0.0	2936		
7200 min Summer		1.427	0.0	3672		
8640 min Summer		1.235	0.0	4400		
10080 min Summer		1.093	0.0	5072		
15 min Winter		124.633	0.0	15		
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Summary of Results for 100 year Return Period (+40%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	13.503	0.683	1.0	1.9	0 K
60 min Winter	13.529	0.709	1.0	2.0	0 K
120 min Winter	13.463	0.643	0.9	1.8	0 K
180 min Winter	13.385	0.565	0.8	1.6	0 K
240 min Winter	13.320	0.500	0.7	1.4	0 K
360 min Winter	13.225	0.405	0.6	1.2	0 K
480 min Winter	13.163	0.343	0.5	1.0	0 K
600 min Winter	13.118	0.298	0.4	0.8	0 K
720 min Winter	13.084	0.264	0.4	0.8	0 K
960 min Winter	13.036	0.216	0.3	0.6	0 K
1440 min Winter	12.981	0.161	0.2	0.5	0 K
2160 min Winter	12.939	0.119	0.2	0.3	0 K
2880 min Winter	12.915	0.095	0.1	0.3	0 K
4320 min Winter	12.889	0.069	0.1	0.2	0 K
5760 min Winter	12.875	0.055	0.1	0.2	0 K
7200 min Winter	12.866	0.046	0.1	0.1	0 K
8640 min Winter	12.860	0.040	0.1	0.1	0 K
10080 min Winter	12.856	0.036	0.1	0.1	0 K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	83.789	0.0	25		
60 min Winter	53.779	0.0	44		
120 min Winter	33.337	0.0	78		
180 min Winter	24.832	0.0	110		
240 min Winter	20.006	0.0	144		
360 min Winter	14.706	0.0	206		
480 min Winter	11.818	0.0	266		
600 min Winter	9.966	0.0	328		
720 min Winter	8.665	0.0	390		
960 min Winter	6.943	0.0	510		
1440 min Winter	5.071	0.0	750		
2160 min Winter	3.696	0.0	1104		
2880 min Winter	2.949	0.0	1468		
4320 min Winter	2.142	0.0	2204		
5760 min Winter	1.705	0.0	2936		
7200 min Winter	1.427	0.0	3672		
8640 min Winter	1.235	0.0	4328		
10080 min Winter	1.093	0.0	5104		
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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>+40</td> </tr> </table> <u>Time Area Diagram</u> Total Area (ha) 0.008 <table> <tr> <th colspan="2">Time (mins)</th> <th>Area</th> </tr> <tr> <th>From:</th> <th>To:</th> <th>(ha)</th> </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 %	+40	Time (mins)		Area	From:	To:	(ha)	0	4	0.008
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Model Details

Storage is Online Cover Level (m) 14.220

Cellular Storage Structure

Invert Level (m)	12.820
Infiltration Coefficient Base (m/hr)	0.00000
Infiltration Coefficient Side (m/hr)	1.12320
Safety Factor	1.5
Porosity	0.95

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	3.0	3.0	0.900	0.0	8.6
0.800	3.0	8.6			

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