

Robert Clark Associates		Page 1
Willow Cottage Herne Lane Rustington BN16 3EE	Arundel Road Angmering Geocellular soakaways	
Date 2.5.18 File Rear geocell-2.SRCX	Designed by RTFC Checked by	
Micro Drainage	Source Control 2016.1	

Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 357 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	16.837	0.237	0.1	2.7	0 K
30 min Summer	16.914	0.314	0.1	3.6	0 K
60 min Summer	16.989	0.389	0.1	4.4	0 K
120 min Summer	17.053	0.453	0.2	5.2	0 K
180 min Summer	17.077	0.477	0.2	5.4	0 K
240 min Summer	17.082	0.482	0.2	5.5	0 K
360 min Summer	17.080	0.480	0.2	5.5	0 K
480 min Summer	17.073	0.473	0.2	5.4	0 K
600 min Summer	17.065	0.465	0.2	5.3	0 K
720 min Summer	17.055	0.455	0.2	5.2	0 K
960 min Summer	17.033	0.433	0.2	4.9	0 K
1440 min Summer	16.991	0.391	0.1	4.5	0 K
2160 min Summer	16.931	0.331	0.1	3.8	0 K
2880 min Summer	16.879	0.279	0.1	3.2	0 K
4320 min Summer	16.795	0.195	0.1	2.2	0 K
5760 min Summer	16.733	0.133	0.1	1.5	0 K
7200 min Summer	16.689	0.089	0.1	1.0	0 K
8640 min Summer	16.662	0.062	0.1	0.7	0 K
10080 min Summer	16.649	0.049	0.1	0.6	0 K
15 min Winter	16.867	0.267	0.1	3.0	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	124.633	0.0	19
30 min Summer	83.789	0.0	33
60 min Summer	53.779	0.0	62
120 min Summer	33.337	0.0	122
180 min Summer	24.832	0.0	180
240 min Summer	20.006	0.0	240
360 min Summer	14.706	0.0	298
480 min Summer	11.818	0.0	362
600 min Summer	9.966	0.0	428
720 min Summer	8.665	0.0	496
960 min Summer	6.943	0.0	636
1440 min Summer	5.071	0.0	910
2160 min Summer	3.696	0.0	1300
2880 min Summer	2.949	0.0	1700
4320 min Summer	2.142	0.0	2424
5760 min Summer	1.705	0.0	3120
7200 min Summer	1.427	0.0	3816
8640 min Summer	1.235	0.0	4488
10080 min Summer	1.093	0.0	5136
15 min Winter	124.633	0.0	18

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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	16.953	0.353	0.1	4.0	0 K
60 min Winter	17.039	0.439	0.2	5.0	0 K
120 min Winter	17.115	0.515	0.2	5.9	0 K
180 min Winter	17.145	0.545	0.2	6.2	0 K
240 min Winter	17.156	0.556	0.2	6.3	0 K
360 min Winter	17.154	0.554	0.2	6.3	0 K
480 min Winter	17.145	0.545	0.2	6.2	0 K
600 min Winter	17.133	0.533	0.2	6.1	0 K
720 min Winter	17.120	0.520	0.2	5.9	0 K
960 min Winter	17.088	0.488	0.2	5.6	0 K
1440 min Winter	17.024	0.424	0.2	4.8	0 K
2160 min Winter	16.936	0.336	0.1	3.8	0 K
2880 min Winter	16.861	0.261	0.1	3.0	0 K
4320 min Winter	16.746	0.146	0.1	1.7	0 K
5760 min Winter	16.671	0.071	0.1	0.8	0 K
7200 min Winter	16.647	0.047	0.1	0.5	0 K
8640 min Winter	16.641	0.041	0.1	0.5	0 K
10080 min Winter	16.636	0.036	0.1	0.4	0 K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	83.789	0.0	33		
60 min Winter	53.779	0.0	62		
120 min Winter	33.337	0.0	120		
180 min Winter	24.832	0.0	176		
240 min Winter	20.006	0.0	232		
360 min Winter	14.706	0.0	336		
480 min Winter	11.818	0.0	380		
600 min Winter	9.966	0.0	458		
720 min Winter	8.665	0.0	534		
960 min Winter	6.943	0.0	686		
1440 min Winter	5.071	0.0	982		
2160 min Winter	3.696	0.0	1404		
2880 min Winter	2.949	0.0	1788		
4320 min Winter	2.142	0.0	2512		
5760 min Winter	1.705	0.0	3168		
7200 min Winter	1.427	0.0	3672		
8640 min Winter	1.235	0.0	4408		
10080 min Winter	1.093	0.0	5136		
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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) 0.012 <table> <tr> <th colspan="2">Time (mins)</th> <th rowspan="2">Area (ha)</th> </tr> <tr> <th>From:</th> <th>To:</th> </tr> <tr> <td>0</td> <td>4</td> <td>0.012</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 (ha)	From:	To:	0	4	0.012
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<u>Model Details</u> Storage is Online Cover Level (m) 17.800 <u>Cellular Storage Structure</u> Invert Level (m) 16.600 Infiltration Coefficient Base (m/hr) 0.04568 Infiltration Coefficient Side (m/hr) 0.04568 Safety Factor 1.5 Porosity 0.95 <table border="1" style="width: 100%; border-collapse: collapse;"> <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>12.0</td> <td>12.0</td> <td>0.700</td> <td>0.0</td> <td>20.4</td> </tr> <tr> <td>0.600</td> <td>12.0</td> <td>20.4</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)	0.000	12.0	12.0	0.700	0.0	20.4	0.600	12.0	20.4			
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