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Willow Cottage Herne Lane Rustington BN16 3EE	Arundel Road Angmering Front geocellular soakaway	
Date 2.5.18 File Front 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 : 356 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	16.917	0.317	0.1	2.3	0 K
30 min Summer	17.020	0.420	0.1	3.0	0 K
60 min Summer	17.122	0.522	0.1	3.7	0 K
120 min Summer	17.209	0.609	0.1	4.3	0 K
180 min Summer	17.241	0.641	0.1	4.6	0 K
240 min Summer	17.250	0.650	0.1	4.6	0 K
360 min Summer	17.250	0.650	0.1	4.6	0 K
480 min Summer	17.244	0.644	0.1	4.6	0 K
600 min Summer	17.235	0.635	0.1	4.5	0 K
720 min Summer	17.224	0.624	0.1	4.4	0 K
960 min Summer	17.198	0.598	0.1	4.3	0 K
1440 min Summer	17.147	0.547	0.1	3.9	0 K
2160 min Summer	17.077	0.477	0.1	3.4	0 K
2880 min Summer	17.016	0.416	0.1	3.0	0 K
4320 min Summer	16.916	0.316	0.1	2.3	0 K
5760 min Summer	16.839	0.239	0.1	1.7	0 K
7200 min Summer	16.780	0.180	0.1	1.3	0 K
8640 min Summer	16.734	0.134	0.1	1.0	0 K
10080 min Summer	16.699	0.099	0.1	0.7	0 K
15 min Winter	16.956	0.356	0.1	2.5	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	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	296
480 min Summer	11.818	0.0	358
600 min Summer	9.966	0.0	424
720 min Summer	8.665	0.0	494
960 min Summer	6.943	0.0	634
1440 min Summer	5.071	0.0	910
2160 min Summer	3.696	0.0	1316
2880 min Summer	2.949	0.0	1700
4320 min Summer	2.142	0.0	2464
5760 min Summer	1.705	0.0	3176
7200 min Summer	1.427	0.0	3896
8640 min Summer	1.235	0.0	4592
10080 min Summer	1.093	0.0	5336
15 min Winter	124.633	0.0	18

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<u>Summary of Results for 100 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	17.072	0.472	0.1	3.4	0 K
60 min Winter	17.188	0.588	0.1	4.2	0 K
120 min Winter	17.290	0.690	0.1	4.9	0 K
180 min Winter	17.331	0.731	0.1	5.2	0 K
240 min Winter	17.346	0.746	0.1	5.3	0 K
360 min Winter	17.345	0.745	0.1	5.3	0 K
480 min Winter	17.338	0.738	0.1	5.3	0 K
600 min Winter	17.326	0.726	0.1	5.2	0 K
720 min Winter	17.310	0.710	0.1	5.1	0 K
960 min Winter	17.272	0.672	0.1	4.8	0 K
1440 min Winter	17.196	0.596	0.1	4.2	0 K
2160 min Winter	17.094	0.494	0.1	3.5	0 K
2880 min Winter	17.007	0.407	0.1	2.9	0 K
4320 min Winter	16.873	0.273	0.1	1.9	0 K
5760 min Winter	16.776	0.176	0.1	1.3	0 K
7200 min Winter	16.705	0.105	0.1	0.8	0 K
8640 min Winter	16.659	0.059	0.1	0.4	0 K
10080 min Winter	16.647	0.047	0.1	0.3	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	332		
480 min Winter	11.818	0.0	376		
600 min Winter	9.966	0.0	452		
720 min Winter	8.665	0.0	530		
960 min Winter	6.943	0.0	684		
1440 min Winter	5.071	0.0	980		
2160 min Winter	3.696	0.0	1404		
2880 min Winter	2.949	0.0	1812		
4320 min Winter	2.142	0.0	2592		
5760 min Winter	1.705	0.0	3296		
7200 min Winter	1.427	0.0	3968		
8640 min Winter	1.235	0.0	4584		
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) 0.010 <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>0.010</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	0.010
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Model Details

Storage is Online Cover Level (m) 18.000

Cellular Storage Structure

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

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	7.5	7.5	0.900	0.0	17.9
0.800	7.5	17.9			

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