

Robert Clark Associates		Page 1
Willow Cottage Herne Lane Rustington BN16 3EE	r/o 182 Chichester Road Bognor Permeable Driveway	
Date 15.5.19 File Permeable paving.SRCX	Designed by rca-l Checked by	
Micro Drainage	Source Control 2016.1	

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 718 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	6.259	0.064	0.0	0.7	Flood Risk
30 min Summer	6.286	0.091	0.0	1.0	Flood Risk
60 min Summer	6.315	0.120	0.0	1.3	Flood Risk
120 min Summer	6.343	0.148	0.0	1.6	Flood Risk
180 min Summer	6.357	0.162	0.0	1.7	Flood Risk
240 min Summer	6.366	0.171	0.0	1.8	Flood Risk
360 min Summer	6.374	0.179	0.0	1.9	Flood Risk
480 min Summer	6.378	0.183	0.0	1.9	Flood Risk
600 min Summer	6.379	0.184	0.0	1.9	Flood Risk
720 min Summer	6.379	0.184	0.0	1.9	Flood Risk
960 min Summer	6.378	0.183	0.0	1.9	Flood Risk
1440 min Summer	6.372	0.177	0.0	1.9	Flood Risk
2160 min Summer	6.358	0.163	0.0	1.7	Flood Risk
2880 min Summer	6.344	0.149	0.0	1.6	Flood Risk
4320 min Summer	6.316	0.121	0.0	1.3	Flood Risk
5760 min Summer	6.291	0.096	0.0	1.0	Flood Risk
7200 min Summer	6.272	0.077	0.0	0.8	Flood Risk
8640 min Summer	6.258	0.063	0.0	0.7	Flood Risk
10080 min Summer	6.248	0.053	0.0	0.6	OK
15 min Winter	6.269	0.074	0.0	0.8	Flood Risk

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	33
60 min Summer	49.937	0.0	64
120 min Summer	30.956	0.0	122
180 min Summer	23.058	0.0	182
240 min Summer	18.577	0.0	242
360 min Summer	13.656	0.0	360
480 min Summer	10.974	0.0	480
600 min Summer	9.254	0.0	558
720 min Summer	8.046	0.0	608
960 min Summer	6.447	0.0	730
1440 min Summer	4.709	0.0	994
2160 min Summer	3.432	0.0	1404
2880 min Summer	2.739	0.0	1812
4320 min Summer	1.989	0.0	2592
5760 min Summer	1.583	0.0	3296
7200 min Summer	1.325	0.0	3968
8640 min Summer	1.147	0.0	4664
10080 min Summer	1.015	0.0	5256
15 min Winter	115.731	0.0	19

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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	6.300	0.105	0.0	1.1	Flood Risk
60 min Winter	6.332	0.137	0.0	1.4	Flood Risk
120 min Winter	6.364	0.169	0.0	1.8	Flood Risk
180 min Winter	6.381	0.186	0.0	1.9	Flood Risk
240 min Winter	6.390	0.195	0.0	2.1	Flood Risk
360 min Winter	6.401	0.206	0.0	2.2	Flood Risk
480 min Winter	6.407	0.212	0.0	2.2	Flood Risk
600 min Winter	6.409	0.214	0.0	2.2	Flood Risk
720 min Winter	6.409	0.214	0.0	2.2	Flood Risk
960 min Winter	6.405	0.210	0.0	2.2	Flood Risk
1440 min Winter	6.395	0.200	0.0	2.1	Flood Risk
2160 min Winter	6.375	0.180	0.0	1.9	Flood Risk
2880 min Winter	6.352	0.157	0.0	1.7	Flood Risk
4320 min Winter	6.309	0.114	0.0	1.2	Flood Risk
5760 min Winter	6.274	0.079	0.0	0.8	Flood Risk
7200 min Winter	6.250	0.055	0.0	0.6	Flood Risk
8640 min Winter	6.241	0.046	0.0	0.5	0 K
10080 min Winter	6.236	0.041	0.0	0.4	0 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	120		
180 min Winter	23.058	0.0	180		
240 min Winter	18.577	0.0	238		
360 min Winter	13.656	0.0	352		
480 min Winter	10.974	0.0	466		
600 min Winter	9.254	0.0	576		
720 min Winter	8.046	0.0	680		
960 min Winter	6.447	0.0	782		
1440 min Winter	4.709	0.0	1082		
2160 min Winter	3.432	0.0	1532		
2880 min Winter	2.739	0.0	1960		
4320 min Winter	1.989	0.0	2728		
5760 min Winter	1.583	0.0	3408		
7200 min Winter	1.325	0.0	3968		
8640 min Winter	1.147	0.0	4584		
10080 min Winter	1.015	0.0	5344		
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<u>Model Details</u> Storage is Online Cover Level (m) 6.550 <u>Porous Car Park Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.01092</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>9.7</td> </tr> <tr> <td>Safety Factor</td> <td>4.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> </tr> <tr> <td>Invert Level (m)</td> <td>6.195</td> </tr> <tr> <td>Width (m)</td> <td>5.0</td> </tr> <tr> <td>Length (m)</td> <td>7.0</td> </tr> <tr> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Membrane Depth (m)</td> <td>0</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.01092	Membrane Percolation (mm/hr)	1000	Max Percolation (l/s)	9.7	Safety Factor	4.0	Porosity	0.30	Invert Level (m)	6.195	Width (m)	5.0	Length (m)	7.0	Slope (1:X)	0.0	Depression Storage (mm)	5	Evaporation (mm/day)	3	Membrane Depth (m)	0
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