

Robert Clark Associates				Page 1	
Willow Cottage Herne Lane Rustington BN16 3EE		Ferringham Lane Area 3 Permeable paving design			
Date 7 April 2022 File Area 3 pp calcs.SRCX		Designed by RTFC Checked by			
Micro Drainage		Source Control 2016.1			
Summary of Results for 100 year Return Period (+40%)					
Half Drain Time : 207 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Winter	5.724	0.189	0.7	8.5	O K
30 min Winter	5.773	0.238	0.7	11.5	Flood Risk
60 min Winter	5.818	0.283	0.7	14.4	Flood Risk
120 min Winter	5.854	0.319	0.7	16.6	Flood Risk
180 min Winter	5.863	0.328	0.7	17.2	Flood Risk
240 min Winter	5.861	0.326	0.7	17.1	Flood Risk
360 min Winter	5.851	0.316	0.7	16.4	Flood Risk
480 min Winter	5.838	0.303	0.7	15.6	Flood Risk
600 min Winter	5.822	0.287	0.7	14.6	Flood Risk
720 min Winter	5.805	0.270	0.7	13.6	Flood Risk
960 min Winter	5.772	0.237	0.7	11.5	Flood Risk
1440 min Winter	5.712	0.177	0.7	7.8	O K
2160 min Winter	5.650	0.115	0.7	3.9	O K
2880 min Winter	5.628	0.093	0.6	2.5	O K
4320 min Winter	5.604	0.069	0.5	1.4	O K
5760 min Winter	5.591	0.056	0.4	0.9	O K
7200 min Winter	5.583	0.048	0.3	0.7	O K
8640 min Winter	5.580	0.045	0.3	0.6	O K
10080 min Winter	5.577	0.042	0.2	0.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Winter	124.633	0.0	18		
30 min Winter	83.789	0.0	32		
60 min Winter	53.779	0.0	62		
120 min Winter	33.337	0.0	118		
180 min Winter	24.832	0.0	174		
240 min Winter	20.006	0.0	226		
360 min Winter	14.706	0.0	280		
480 min Winter	11.818	0.0	356		
600 min Winter	9.966	0.0	432		
720 min Winter	8.665	0.0	506		
960 min Winter	6.943	0.0	646		
1440 min Winter	5.071	0.0	898		
2160 min Winter	3.696	0.0	1216		
2880 min Winter	2.949	0.0	1532		
4320 min Winter	2.142	0.0	2248		
5760 min Winter	1.705	0.0	2944		
7200 min Winter	1.427	0.0	3672		
8640 min Winter	1.235	0.0	4352		
10080 min Winter	1.093	0.0	5104		
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Micro Drainage Source Control 2016.1		

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.750
M5-60 (mm)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	No	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.043

Time (mins)	Area
From:	To: (ha)
0	4 0.043



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<u>Model Details</u> Storage is Online Cover Level (m) 6.065 <u>Porous Car Park Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.04936</td> <td>Width (m)</td> <td>9.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>23.1</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>57.8</td> <td>Slope (1:X)</td> <td>219.0</td> </tr> <tr> <td>Safety Factor</td> <td>4.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>5.535</td> <td>Membrane Depth (m)</td> <td>0</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.04936	Width (m)	9.0	Membrane Percolation (mm/hr)	1000	Length (m)	23.1	Max Percolation (l/s)	57.8	Slope (1:X)	219.0	Safety Factor	4.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	5.535	Membrane Depth (m)	0
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