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Willow Cottage Herne Lane Rustington BN16 3EE	70 Woodland Avenue Rustington West Sussex	
Date 22.May 2018 File Permeable paving 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 : 9 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	7.314	0.084	3.2	2.4	0 K
30 min Summer	7.325	0.095	3.2	2.9	0 K
60 min Summer	7.323	0.093	3.2	2.8	0 K
120 min Summer	7.305	0.075	3.2	2.0	0 K
180 min Summer	7.291	0.061	3.2	1.4	0 K
240 min Summer	7.284	0.054	2.8	1.1	0 K
360 min Summer	7.277	0.047	2.3	0.8	0 K
480 min Summer	7.272	0.042	1.8	0.7	0 K
600 min Summer	7.269	0.039	1.6	0.6	0 K
720 min Summer	7.267	0.037	1.4	0.5	0 K
960 min Summer	7.263	0.033	1.1	0.4	0 K
1440 min Summer	7.258	0.028	0.8	0.3	0 K
2160 min Summer	7.254	0.024	0.6	0.2	0 K
2880 min Summer	7.252	0.022	0.5	0.2	0 K
4320 min Summer	7.248	0.018	0.3	0.1	0 K
5760 min Summer	7.246	0.016	0.3	0.1	0 K
7200 min Summer	7.245	0.015	0.2	0.1	0 K
8640 min Summer	7.244	0.014	0.2	0.1	0 K
10080 min Summer	7.243	0.013	0.2	0.1	0 K
15 min Winter	7.323	0.093	3.2	2.8	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	124.633	0.0	13
30 min Summer	83.789	0.0	22
60 min Summer	53.779	0.0	38
120 min Summer	33.337	0.0	70
180 min Summer	24.832	0.0	98
240 min Summer	20.006	0.0	128
360 min Summer	14.706	0.0	186
480 min Summer	11.818	0.0	246
600 min Summer	9.966	0.0	306
720 min Summer	8.665	0.0	368
960 min Summer	6.943	0.0	490
1440 min Summer	5.071	0.0	736
2160 min Summer	3.696	0.0	1084
2880 min Summer	2.949	0.0	1432
4320 min Summer	2.142	0.0	2200
5760 min Summer	1.705	0.0	2936
7200 min Summer	1.427	0.0	3640
8640 min Summer	1.235	0.0	4336
10080 min Summer	1.093	0.0	5128
15 min Winter	124.633	0.0	14

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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	7.333	0.103	3.2	3.3	0 K	
60 min Winter	7.324	0.094	3.2	2.9	0 K	
120 min Winter	7.296	0.066	3.2	1.6	0 K	
180 min Winter	7.283	0.053	2.7	1.0	0 K	
240 min Winter	7.277	0.047	2.3	0.8	0 K	
360 min Winter	7.271	0.041	1.7	0.6	0 K	
480 min Winter	7.267	0.037	1.4	0.5	0 K	
600 min Winter	7.264	0.034	1.2	0.4	0 K	
720 min Winter	7.261	0.031	1.0	0.4	0 K	
960 min Winter	7.258	0.028	0.8	0.3	0 K	
1440 min Winter	7.254	0.024	0.6	0.2	0 K	
2160 min Winter	7.251	0.021	0.4	0.2	0 K	
2880 min Winter	7.248	0.018	0.3	0.1	0 K	
4320 min Winter	7.246	0.016	0.3	0.1	0 K	
5760 min Winter	7.244	0.014	0.2	0.1	0 K	
7200 min Winter	7.243	0.013	0.2	0.1	0 K	
8640 min Winter	7.242	0.012	0.1	0.1	0 K	
10080 min Winter	7.241	0.011	0.1	0.0	0 K	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)			
30 min Winter	83.789	0.0	24			
60 min Winter	53.779	0.0	42			
120 min Winter	33.337	0.0	72			
180 min Winter	24.832	0.0	98			
240 min Winter	20.006	0.0	126			
360 min Winter	14.706	0.0	186			
480 min Winter	11.818	0.0	244			
600 min Winter	9.966	0.0	306			
720 min Winter	8.665	0.0	370			
960 min Winter	6.943	0.0	480			
1440 min Winter	5.071	0.0	738			
2160 min Winter	3.696	0.0	1072			
2880 min Winter	2.949	0.0	1492			
4320 min Winter	2.142	0.0	2232			
5760 min Winter	1.705	0.0	2920			
7200 min Winter	1.427	0.0	3544			
8640 min Winter	1.235	0.0	4368			
10080 min Winter	1.093	0.0	5216			
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Rainfall Details

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 Area Diagram

Total Area (ha) 0.020

Time (mins)	Area
From:	To: (ha)
0	4 0.020

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Model Details Storage is Online Cover Level (m) 7.700 Porous Car Park Structure Infiltration Coefficient Base (m/hr) 0.11310 Membrane Percolation (mm/hr) 1000 Max Percolation (l/s) 42.0 Safety Factor 1.5 Porosity 0.30 Invert Level (m) 7.230 Width (m) 12.3 Length (m) 12.3 Slope (1:X) 200.0 Depression Storage (mm) 5 Evaporation (mm/day) 3 Membrane Depth (m) 0		
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