

Robert Clark Associates				Page 1	
Willow Cottage Herne Lane Rustington BN16 3EE		99 Victoria Drive Bognor Regis Concrete ring soakaways			
Date 15 July 2020 File Concrete Rings.SRCX		Designed by RC Checked by			
Micro Drainage		Source Control 2016.1			
Summary of Results for 100 year Return Period (+40%)					
Half Drain Time : 2319 minutes.					
Storm Event		Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³) Status
15 min Summer		6.473	0.231	0.0	1.2 O K
30 min Summer		6.552	0.310	0.0	1.6 O K
60 min Summer		6.638	0.396	0.0	2.0 O K
120 min Summer		6.729	0.487	0.0	2.5 O K
180 min Summer		6.782	0.540	0.0	2.7 O K
240 min Summer		6.817	0.575	0.0	2.9 Flood Risk
360 min Summer		6.865	0.623	0.0	3.1 Flood Risk
480 min Summer		6.898	0.656	0.0	3.3 Flood Risk
600 min Summer		6.922	0.680	0.0	3.4 Flood Risk
720 min Summer		6.940	0.698	0.0	3.5 Flood Risk
960 min Summer		6.962	0.720	0.0	3.6 Flood Risk
1440 min Summer		6.980	0.738	0.0	3.7 Flood Risk
2160 min Summer		6.990	0.748	0.0	3.8 Flood Risk
2880 min Summer		6.993	0.751	0.0	3.8 Flood Risk
4320 min Summer		6.988	0.746	0.0	3.8 Flood Risk
5760 min Summer		6.974	0.732	0.0	3.7 Flood Risk
7200 min Summer		6.957	0.715	0.0	3.6 Flood Risk
8640 min Summer		6.938	0.696	0.0	3.5 Flood Risk
10080 min Summer		6.919	0.677	0.0	3.4 Flood Risk
15 min Winter		6.501	0.259	0.0	1.3 O 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	34
60 min Summer			53.779	0.0	64
120 min Summer			33.337	0.0	124
180 min Summer			24.832	0.0	184
240 min Summer			20.006	0.0	244
360 min Summer			14.706	0.0	362
480 min Summer			11.818	0.0	482
600 min Summer			9.966	0.0	602
720 min Summer			8.665	0.0	722
960 min Summer			6.943	0.0	960
1440 min Summer			5.071	0.0	1396
2160 min Summer			3.696	0.0	1708
2880 min Summer			2.949	0.0	2076
4320 min Summer			2.142	0.0	2896
5760 min Summer			1.705	0.0	3696
7200 min Summer			1.427	0.0	4536
8640 min Summer			1.235	0.0	5360
10080 min Summer			1.093	0.0	6152
15 min Winter			124.633	0.0	19
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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	6.589	0.347	0.0	1.8	O K
60 min Winter	6.686	0.444	0.0	2.2	O K
120 min Winter	6.788	0.546	0.0	2.8	O K
180 min Winter	6.847	0.605	0.0	3.0	Flood Risk
240 min Winter	6.886	0.644	0.0	3.2	Flood Risk
360 min Winter	6.941	0.699	0.0	3.5	Flood Risk
480 min Winter	6.978	0.736	0.0	3.7	Flood Risk
600 min Winter	7.005	0.763	0.0	3.8	Flood Risk
720 min Winter	7.025	0.783	0.0	3.9	Flood Risk
960 min Winter	7.052	0.810	0.0	4.1	Flood Risk
1440 min Winter	7.076	0.834	0.0	4.2	Flood Risk
2160 min Winter	7.080	0.838	0.0	4.2	Flood Risk
2880 min Winter	7.081	0.839	0.0	4.2	Flood Risk
4320 min Winter	7.064	0.822	0.0	4.1	Flood Risk
5760 min Winter	7.036	0.794	0.0	4.0	Flood Risk
7200 min Winter	7.006	0.764	0.0	3.9	Flood Risk
8640 min Winter	6.977	0.735	0.0	3.7	Flood Risk
10080 min Winter	6.948	0.706	0.0	3.6	Flood Risk
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	83.789	0.0	34		
60 min Winter	53.779	0.0	64		
120 min Winter	33.337	0.0	122		
180 min Winter	24.832	0.0	182		
240 min Winter	20.006	0.0	240		
360 min Winter	14.706	0.0	358		
480 min Winter	11.818	0.0	474		
600 min Winter	9.966	0.0	590		
720 min Winter	8.665	0.0	706		
960 min Winter	6.943	0.0	932		
1440 min Winter	5.071	0.0	1370		
2160 min Winter	3.696	0.0	1732		
2880 min Winter	2.949	0.0	2188		
4320 min Winter	2.142	0.0	3112		
5760 min Winter	1.705	0.0	3984		
7200 min Winter	1.427	0.0	4832		
8640 min Winter	1.235	0.0	5704		
10080 min Winter	1.093	0.0	6552		
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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) 0.005

Time (mins)	Area
From: To:	(ha)
0 4	0.005

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Model Details

Storage is Online Cover Level (m) 7.100

Lined Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.00000	Ring Diameter (m)	1.20
Infiltration Coefficient Side (m/hr)	0.01824	Pit Multiplier	2.0
Safety Factor	4.0	Number Required	2
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	6.242	Cap Infiltration Depth (m)	6.700

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