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Willow Cottage Herne Lane Rustington BN16 3EE	The Vinery, Poling Southern Area Concrete Ring Soakaways	
Date 14.3.18 File southern soakaways.SRCX	Designed by RTFC Checked by	
Micro Drainage	Source Control 2016.1	

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

Half Drain Time : 1041 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	13.830	0.330	0.0	2.6	O K
30 min Summer	13.942	0.442	0.0	3.5	O K
60 min Summer	14.062	0.562	0.0	4.4	O K
120 min Summer	14.184	0.684	0.1	5.4	O K
180 min Summer	14.249	0.749	0.1	5.9	O K
240 min Summer	14.290	0.790	0.1	6.2	O K
360 min Summer	14.339	0.839	0.1	6.6	O K
480 min Summer	14.365	0.865	0.1	6.8	O K
600 min Summer	14.379	0.879	0.1	6.9	O K
720 min Summer	14.386	0.886	0.1	7.0	O K
960 min Summer	14.397	0.897	0.1	7.1	O K
1440 min Summer	14.405	0.905	0.1	7.1	O K
2160 min Summer	14.398	0.898	0.1	7.1	O K
2880 min Summer	14.379	0.879	0.1	6.9	O K
4320 min Summer	14.330	0.830	0.1	6.5	O K
5760 min Summer	14.280	0.780	0.1	6.1	O K
7200 min Summer	14.234	0.734	0.1	5.8	O K
8640 min Summer	14.194	0.694	0.1	5.5	O K
10080 min Summer	14.158	0.658	0.1	5.2	O K
15 min Winter	13.870	0.370	0.0	2.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	116.283	0.0	19
30 min Summer	78.208	0.0	34
60 min Summer	50.211	0.0	64
120 min Summer	31.127	0.0	124
180 min Summer	23.183	0.0	182
240 min Summer	18.673	0.0	242
360 min Summer	13.733	0.0	362
480 min Summer	11.037	0.0	480
600 min Summer	9.308	0.0	598
720 min Summer	8.094	0.0	644
960 min Summer	6.486	0.0	760
1440 min Summer	4.738	0.0	1012
2160 min Summer	3.454	0.0	1428
2880 min Summer	2.756	0.0	1844
4320 min Summer	2.001	0.0	2640
5760 min Summer	1.593	0.0	3456
7200 min Summer	1.334	0.0	4248
8640 min Summer	1.155	0.0	5008
10080 min Summer	1.022	0.0	5752
15 min Winter	116.283	0.0	19

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<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	13.995	0.495	0.0	3.9	O K
60 min Winter	14.130	0.630	0.1	5.0	O K
120 min Winter	14.266	0.766	0.1	6.0	O K
180 min Winter	14.341	0.841	0.1	6.6	O K
240 min Winter	14.386	0.886	0.1	7.0	O K
360 min Winter	14.442	0.942	0.1	7.4	O K
480 min Winter	14.474	0.974	0.1	7.7	O K
600 min Winter	14.492	0.992	0.1	7.8	O K
720 min Winter	14.501	1.001	0.1	7.9	O K
960 min Winter	14.513	1.013	0.1	7.9	O K
1440 min Winter	14.518	1.018	0.1	7.9	O K
2160 min Winter	14.484	0.984	0.1	7.7	O K
2880 min Winter	14.447	0.947	0.1	7.5	O K
4320 min Winter	14.369	0.869	0.1	6.8	O K
5760 min Winter	14.297	0.797	0.1	6.3	O K
7200 min Winter	14.233	0.733	0.1	5.8	O K
8640 min Winter	14.180	0.680	0.1	5.4	O K
10080 min Winter	14.134	0.634	0.1	5.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	78.208	0.0	33		
60 min Winter	50.211	0.0	62		
120 min Winter	31.127	0.0	122		
180 min Winter	23.183	0.0	180		
240 min Winter	18.673	0.0	238		
360 min Winter	13.733	0.0	352		
480 min Winter	11.037	0.0	466		
600 min Winter	9.308	0.0	574		
720 min Winter	8.094	0.0	680		
960 min Winter	6.486	0.0	778		
1440 min Winter	4.738	0.0	1080		
2160 min Winter	3.454	0.0	1532		
2880 min Winter	2.756	0.0	1964		
4320 min Winter	2.001	0.0	2812		
5760 min Winter	1.593	0.0	3632		
7200 min Winter	1.334	0.0	4464		
8640 min Winter	1.155	0.0	5192		
10080 min Winter	1.022	0.0	5960		
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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)	19.100	Shortest Storm (mins)	15
Ratio R	0.349	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.012

Time (mins)	Area (ha)
From: 0	To: 4 0.012

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Model Details

Storage is Online Cover Level (m) 15.000

Lined Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.00000
Infiltration Coefficient Side (m/hr)	0.01911
Safety Factor	1.5
Porosity	0.30
Invert Level (m)	13.500
Ring Diameter (m)	1.50
Pit Multiplier	2.0
Number Required	2
Cap Volume Depth (m)	0.000
Cap Infiltration Depth (m)	1.000

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