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Willow Cottage Herne Lane Rustington BN16 3EE		The Vinery, Poling Southern Area Geocellular Soakaway				
Date 14.3.18 File southern geocells-4.SRCX		Designed by RTFC Checked by				
Micro Drainage		Source Control 2016.1				
Summary of Results for 100 year Return Period (+30%)						
Half Drain Time : 732 minutes.						
Storm Event		Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer		14.119	0.139	0.3	9.4	O K
30 min Summer		14.165	0.185	0.3	12.5	O K
60 min Summer		14.213	0.233	0.3	15.8	O K
120 min Summer		14.259	0.279	0.3	18.9	O K
180 min Summer		14.282	0.302	0.3	20.5	O K
240 min Summer		14.295	0.315	0.3	21.3	O K
360 min Summer		14.307	0.327	0.3	22.1	O K
480 min Summer		14.310	0.330	0.3	22.4	O K
600 min Summer		14.309	0.329	0.3	22.3	O K
720 min Summer		14.307	0.327	0.3	22.1	O K
960 min Summer		14.301	0.321	0.3	21.8	O K
1440 min Summer		14.286	0.306	0.3	20.7	O K
2160 min Summer		14.261	0.281	0.3	19.0	O K
2880 min Summer		14.236	0.256	0.3	17.4	O K
4320 min Summer		14.190	0.210	0.3	14.3	O K
5760 min Summer		14.151	0.171	0.3	11.6	O K
7200 min Summer		14.117	0.137	0.3	9.3	O K
8640 min Summer		14.090	0.110	0.3	7.4	O K
10080 min Summer		14.068	0.088	0.3	6.0	O K
15 min Winter		14.135	0.155	0.3	10.5	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	122		
180 min Summer		23.183	0.0	182		
240 min Summer		18.673	0.0	242		
360 min Summer		13.733	0.0	360		
480 min Summer		11.037	0.0	480		
600 min Summer		9.308	0.0	558		
720 min Summer		8.094	0.0	608		
960 min Summer		6.486	0.0	732		
1440 min Summer		4.738	0.0	996		
2160 min Summer		3.454	0.0	1408		
2880 min Summer		2.756	0.0	1816		
4320 min Summer		2.001	0.0	2596		
5760 min Summer		1.593	0.0	3352		
7200 min Summer		1.334	0.0	4104		
8640 min Summer		1.155	0.0	4760		
10080 min Summer		1.022	0.0	5448		
15 min Winter		116.283	0.0	19		
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Summary of Results for 100 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	14.187	0.207	0.3	14.1	O K
60 min Winter	14.242	0.262	0.3	17.7	O K
120 min Winter	14.295	0.315	0.3	21.3	O K
180 min Winter	14.322	0.342	0.3	23.2	O K
240 min Winter	14.337	0.357	0.3	24.2	O K
360 min Winter	14.354	0.374	0.3	25.3	O K
480 min Winter	14.361	0.381	0.3	25.8	O K
600 min Winter	14.362	0.382	0.3	25.8	O K
720 min Winter	14.359	0.379	0.3	25.7	O K
960 min Winter	14.350	0.370	0.3	25.1	O K
1440 min Winter	14.330	0.350	0.3	23.7	O K
2160 min Winter	14.293	0.313	0.3	21.2	O K
2880 min Winter	14.256	0.276	0.3	18.7	O K
4320 min Winter	14.187	0.207	0.3	14.0	O K
5760 min Winter	14.129	0.149	0.3	10.1	O K
7200 min Winter	14.082	0.102	0.3	6.9	O K
8640 min Winter	14.048	0.068	0.3	4.6	O K
10080 min Winter	14.030	0.050	0.3	3.4	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	120		
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	464		
600 min Winter	9.308	0.0	574		
720 min Winter	8.094	0.0	678		
960 min Winter	6.486	0.0	778		
1440 min Winter	4.738	0.0	1080		
2160 min Winter	3.454	0.0	1536		
2880 min Winter	2.756	0.0	1964		
4320 min Winter	2.001	0.0	2772		
5760 min Winter	1.593	0.0	3520		
7200 min Winter	1.334	0.0	4248		
8640 min Winter	1.155	0.0	4840		
10080 min Winter	1.022	0.0	5240		
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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)	0.840
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) 0.044

Time (mins)	Area (ha)
From:	To:
0	4 0.044

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Model Details

Storage is Online Cover Level (m) 15.000

Cellular Storage Structure

Invert Level (m) 13.980

Infiltration Coefficient Base (m/hr) 0.01911

Infiltration Coefficient Side (m/hr) 0.01911

Safety Factor 1.5

Porosity 0.95

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	71.3	71.3	0.500	0.0	90.0
0.400	71.3	90.0			

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