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Willow Cottage Herne Lane Rustington BN16 3EE		The Vinery, Poling Northern Area Geocellular Soakaway				
Date 14.3.18 File northern geocell.SRCX		Designed by RTFC Checked by				
Micro Drainage		Source Control 2016.1				
<u>Summary of Results for 100 year Return Period (+30%)</u> Half Drain Time : 873 minutes.						
Storm Event		Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer		15.076	0.146	0.8	31.2	0 K
30 min Summer		15.125	0.195	0.8	41.6	0 K
60 min Summer		15.176	0.246	0.8	52.6	0 K
120 min Summer		15.226	0.296	0.9	63.3	0 K
180 min Summer		15.252	0.322	0.9	68.7	0 K
240 min Summer		15.266	0.336	0.9	71.8	0 K
360 min Summer		15.282	0.352	0.9	75.2	0 K
480 min Summer		15.288	0.358	0.9	76.6	0 K
600 min Summer		15.289	0.359	0.9	76.8	0 K
720 min Summer		15.287	0.357	0.9	76.3	0 K
960 min Summer		15.281	0.351	0.9	75.1	0 K
1440 min Summer		15.267	0.337	0.9	72.0	0 K
2160 min Summer		15.242	0.312	0.9	66.8	0 K
2880 min Summer		15.218	0.288	0.9	61.5	0 K
4320 min Summer		15.171	0.241	0.8	51.5	0 K
5760 min Summer		15.129	0.199	0.8	42.5	0 K
7200 min Summer		15.092	0.162	0.8	34.6	0 K
8640 min Summer		15.061	0.131	0.8	28.1	0 K
10080 min Summer		15.036	0.106	0.8	22.7	0 K
15 min Winter		15.094	0.164	0.8	35.0	0 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	362		
480 min Summer		11.037	0.0	480		
600 min Summer		9.308	0.0	600		
720 min Summer		8.094	0.0	672		
960 min Summer		6.486	0.0	782		
1440 min Summer		4.738	0.0	1038		
2160 min Summer		3.454	0.0	1448		
2880 min Summer		2.756	0.0	1848		
4320 min Summer		2.001	0.0	2640		
5760 min Summer		1.593	0.0	3408		
7200 min Summer		1.334	0.0	4176		
8640 min Summer		1.155	0.0	4848		
10080 min Summer		1.022	0.0	5544		
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	15.149	0.219	0.8	46.7	0 K
60 min Winter	15.207	0.277	0.9	59.1	0 K
120 min Winter	15.264	0.334	0.9	71.4	0 K
180 min Winter	15.294	0.364	0.9	77.8	0 K
240 min Winter	15.312	0.382	0.9	81.6	0 K
360 min Winter	15.332	0.402	0.9	85.9	0 K
480 min Winter	15.344	0.414	0.9	88.1	0 K
600 min Winter	15.349	0.419	0.9	88.9	0 K
720 min Winter	15.350	0.420	0.9	88.9	0 K
960 min Winter	15.340	0.410	0.9	87.4	0 K
1440 min Winter	15.319	0.389	0.9	83.1	0 K
2160 min Winter	15.284	0.354	0.9	75.7	0 K
2880 min Winter	15.247	0.317	0.9	67.8	0 K
4320 min Winter	15.176	0.246	0.8	52.5	0 K
5760 min Winter	15.113	0.183	0.8	39.0	0 K
7200 min Winter	15.060	0.130	0.8	27.7	0 K
8640 min Winter	15.018	0.088	0.8	18.9	0 K
10080 min Winter	14.990	0.060	0.8	12.7	0 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	354		
480 min Winter	11.037	0.0	468		
600 min Winter	9.308	0.0	580		
720 min Winter	8.094	0.0	690		
960 min Winter	6.486	0.0	896		
1440 min Winter	4.738	0.0	1112		
2160 min Winter	3.454	0.0	1576		
2880 min Winter	2.756	0.0	2016		
4320 min Winter	2.001	0.0	2852		
5760 min Winter	1.593	0.0	3632		
7200 min Winter	1.334	0.0	4328		
8640 min Winter	1.155	0.0	4936		
10080 min Winter	1.022	0.0	5456		
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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) 0.146

Time (mins)	Area (ha)
From: 0	To: 4 0.146

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Model Details

Storage is Online Cover Level (m) 15.850

Cellular Storage Structure

Invert Level (m) 14.930

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	225.0	225.0	0.500	0.0	249.0
0.400	225.0	249.0			

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