

Veryards Ltd			Page 1		
Burton House	MAELOR PLACE				
Rossett	RUABON				
Wrexham LL12 0HY	SA3				
Date 18/07/2014 16:25	Designed by rtjgr0				
File RUABON2.srcx	Checked by				
Micro Drainage	Source Control W.12.6.1				
Summary of Results for 100 year Return Period (+30%)					
Half Drain Time : 54 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	98.688	1.188	1.3	5.1	O K
30 min Summer	98.979	1.479	1.5	6.3	O K
60 min Summer	99.297	1.797	1.5	7.2	O K
120 min Summer	99.411	1.911	1.5	7.4	O K
180 min Summer	99.304	1.804	1.5	7.2	O K
240 min Summer	99.145	1.645	1.5	6.8	O K
360 min Summer	98.913	1.413	1.4	6.0	O K
480 min Summer	98.771	1.271	1.3	5.4	O K
600 min Summer	98.647	1.147	1.3	4.9	O K
720 min Summer	98.538	1.038	1.2	4.4	O K
960 min Summer	98.359	0.859	1.1	3.7	O K
1440 min Summer	98.099	0.599	0.9	2.6	O K
2160 min Summer	97.852	0.352	0.7	1.5	O K
2880 min Summer	97.698	0.198	0.6	0.8	O K
4320 min Summer	97.549	0.049	0.5	0.2	O K
5760 min Summer	97.539	0.039	0.4	0.2	O K
7200 min Summer	97.533	0.033	0.3	0.1	O K
8640 min Summer	97.529	0.029	0.3	0.1	O K
10080 min Summer	97.526	0.026	0.3	0.1	O K
15 min Winter	98.845	1.345	1.4	5.7	O K
30 min Winter	99.331	1.831	1.5	7.2	O K
60 min Winter	99.726	2.226	1.5	8.3	Flood Risk
Storm Event	Rain (mm/hr)		Time-Peak (mins)		
15 min Summer	105.574		17		
30 min Summer	72.145		30		
60 min Summer	47.182		48		
120 min Summer	29.832		82		
180 min Summer	22.475		118		
240 min Summer	18.245		150		
360 min Summer	13.519		216		
480 min Summer	10.929		280		
600 min Summer	9.259		344		
720 min Summer	8.080		406		
960 min Summer	6.511		530		
1440 min Summer	4.792		778		
2160 min Summer	3.519		1144		
2880 min Summer	2.822		1496		
4320 min Summer	2.063		2172		
5760 min Summer	1.649		2920		
7200 min Summer	1.388		3664		
8640 min Summer	1.205		4312		
10080 min Summer	1.070		5072		
15 min Winter	105.574		17		
30 min Winter	72.145		30		
60 min Winter	47.182		52		
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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
120 min Winter	99.825	2.325	1.5	8.5	Flood Risk
180 min Winter	99.636	2.136	1.5	8.0	O K
240 min Winter	99.365	1.865	1.5	7.3	O K
360 min Winter	98.940	1.440	1.5	6.1	O K
480 min Winter	98.740	1.240	1.3	5.3	O K
600 min Winter	98.573	1.073	1.2	4.6	O K
720 min Winter	98.433	0.933	1.1	4.0	O K
960 min Winter	98.212	0.712	1.0	3.0	O K
1440 min Winter	97.917	0.417	0.8	1.8	O K
2160 min Winter	97.662	0.162	0.6	0.7	O K
2880 min Winter	97.548	0.048	0.5	0.2	O K
4320 min Winter	97.535	0.035	0.4	0.2	O K
5760 min Winter	97.528	0.028	0.3	0.1	O K
7200 min Winter	97.524	0.024	0.2	0.1	O K
8640 min Winter	97.521	0.021	0.2	0.1	O K
10080 min Winter	97.519	0.019	0.2	0.1	O K
Storm Event	Rain (mm/hr)		Time-Peak (mins)		
120 min Winter	29.832		90		
180 min Winter	22.475		128		
240 min Winter	18.245		162		
360 min Winter	13.519		228		
480 min Winter	10.929		296		
600 min Winter	9.259		360		
720 min Winter	8.080		424		
960 min Winter	6.511		550		
1440 min Winter	4.792		794		
2160 min Winter	3.519		1148		
2880 min Winter	2.822		1468		
4320 min Winter	2.063		2200		
5760 min Winter	1.649		2880		
7200 min Winter	1.388		3536		
8640 min Winter	1.205		4248		
10080 min Winter	1.070		4976		
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<u>Model Details</u> Storage is Online Cover Level (m) 100.000 <u>Lined Soakaway Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.21000</td> <td>Ring Diameter (m)</td> <td>1.80</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.21000</td> <td>Pit Multiplier</td> <td>1.6</td> </tr> <tr> <td>Safety Factor</td> <td>1.0</td> <td>Number Required</td> <td>1</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>2.500</td> </tr> <tr> <td>Invert Level (m)</td> <td>97.500</td> <td>Cap Infiltration Depth (m)</td> <td>1.500</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.21000	Ring Diameter (m)	1.80	Infiltration Coefficient Side (m/hr)	0.21000	Pit Multiplier	1.6	Safety Factor	1.0	Number Required	1	Porosity	0.30	Cap Volume Depth (m)	2.500	Invert Level (m)	97.500	Cap Infiltration Depth (m)	1.500
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