

Veryards Ltd			Page 1																																																																																																																																																																																																																			
Burton House Rossett Wrexham LL12 0HY		Former ATS Garage Marford SA2																																																																																																																																																																																																																				
Date 30/11/2015 11:18 File SA2.SRCX		Designed by J Russell Checked by																																																																																																																																																																																																																				
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<u>Summary of Results for 10 year Return Period</u> Half Drain Time : 40 minutes. <table><thead><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr></thead><tbody><tr><td>15 min Summer</td><td>20.942</td><td>0.542</td><td>0.7</td><td>2.3</td><td>O K</td></tr><tr><td>30 min Summer</td><td>21.066</td><td>0.666</td><td>0.8</td><td>2.8</td><td>O K</td></tr><tr><td>60 min Summer</td><td>21.118</td><td>0.718</td><td>0.8</td><td>3.1</td><td>O K</td></tr><tr><td>120 min Summer</td><td>21.104</td><td>0.704</td><td>0.8</td><td>3.0</td><td>O K</td></tr><tr><td>180 min Summer</td><td>21.063</td><td>0.663</td><td>0.8</td><td>2.8</td><td>O K</td></tr><tr><td>240 min Summer</td><td>21.018</td><td>0.618</td><td>0.8</td><td>2.6</td><td>O K</td></tr><tr><td>360 min Summer</td><td>20.930</td><td>0.530</td><td>0.7</td><td>2.3</td><td>O K</td></tr><tr><td>480 min Summer</td><td>20.853</td><td>0.453</td><td>0.7</td><td>1.9</td><td>O K</td></tr><tr><td>600 min Summer</td><td>20.786</td><td>0.386</td><td>0.6</td><td>1.6</td><td>O K</td></tr><tr><td>720 min Summer</td><td>20.729</td><td>0.329</td><td>0.6</td><td>1.4</td><td>O K</td></tr><tr><td>960 min Summer</td><td>20.636</td><td>0.236</td><td>0.6</td><td>1.0</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>20.514</td><td>0.114</td><td>0.5</td><td>0.5</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>20.447</td><td>0.047</td><td>0.4</td><td>0.2</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>20.438</td><td>0.038</td><td>0.3</td><td>0.2</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>20.429</td><td>0.029</td><td>0.3</td><td>0.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>20.423</td><td>0.023</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>20.420</td><td>0.020</td><td>0.2</td><td>0.1</td><td>O K</td></tr><tr><td>8640 min 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Summer	21.066	0.666	0.8	2.8	O K	60 min Summer	21.118	0.718	0.8	3.1	O K	120 min Summer	21.104	0.704	0.8	3.0	O K	180 min Summer	21.063	0.663	0.8	2.8	O K	240 min Summer	21.018	0.618	0.8	2.6	O K	360 min Summer	20.930	0.530	0.7	2.3	O K	480 min Summer	20.853	0.453	0.7	1.9	O K	600 min Summer	20.786	0.386	0.6	1.6	O K	720 min Summer	20.729	0.329	0.6	1.4	O K	960 min Summer	20.636	0.236	0.6	1.0	O K	1440 min Summer	20.514	0.114	0.5	0.5	O K	2160 min Summer	20.447	0.047	0.4	0.2	O K	2880 min Summer	20.438	0.038	0.3	0.2	O K	4320 min Summer	20.429	0.029	0.3	0.1	O K	5760 min Summer	20.423	0.023	0.2	0.1	O K	7200 min Summer	20.420	0.020	0.2	0.1	O K	8640 min Summer	20.417	0.017	0.2	0.1	O K	10080 min Summer	20.415	0.015	0.1	0.1	O K	15 min Winter	21.015	0.615	0.8	2.6	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	51.212	0.0	22	30 min Summer	33.890	0.0	32	60 min Summer	21.577	0.0	50	120 min Summer	13.412	0.0	86	180 min Summer	10.078	0.0	120	240 min Summer	8.204	0.0	152	360 min 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Date 30/11/2015 11:18 File SA2.SRCX		Designed by J Russell Checked by			
Micro Drainage		Source Control 2015.1			
<u>Summary of Results for 10 year Return Period</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	21.160	0.760	0.9	3.2	O K
60 min Winter	21.223	0.823	0.9	3.5	O K
120 min Winter	21.189	0.789	0.9	3.4	O K
180 min Winter	21.119	0.719	0.8	3.1	O K
240 min Winter	21.047	0.647	0.8	2.8	O K
360 min Winter	20.915	0.515	0.7	2.2	O K
480 min Winter	20.807	0.407	0.6	1.7	O K
600 min Winter	20.718	0.318	0.6	1.4	O K
720 min Winter	20.644	0.244	0.6	1.0	O K
960 min Winter	20.533	0.133	0.5	0.6	O K
1440 min Winter	20.446	0.046	0.4	0.2	O K
2160 min Winter	20.434	0.034	0.3	0.1	O K
2880 min Winter	20.428	0.028	0.2	0.1	O K
4320 min Winter	20.421	0.021	0.2	0.1	O K
5760 min Winter	20.417	0.017	0.1	0.1	O K
7200 min Winter	20.414	0.014	0.1	0.1	O K
8640 min Winter	20.412	0.012	0.1	0.1	O K
10080 min Winter	20.411	0.011	0.1	0.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	33.890	0.0	33		
60 min Winter	21.577	0.0	54		
120 min Winter	13.412	0.0	90		
180 min Winter	10.078	0.0	128		
240 min Winter	8.204	0.0	162		
360 min Winter	6.119	0.0	230		
480 min Winter	4.968	0.0	296		
600 min Winter	4.224	0.0	358		
720 min Winter	3.699	0.0	420		
960 min Winter	2.998	0.0	536		
1440 min Winter	2.229	0.0	738		
2160 min Winter	1.655	0.0	1088		
2880 min Winter	1.340	0.0	1468		
4320 min Winter	0.994	0.0	2196		
5760 min Winter	0.804	0.0	2848		
7200 min Winter	0.681	0.0	3560		
8640 min Winter	0.595	0.0	4408		
10080 min Winter	0.531	0.0	5080		
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<u>Model Details</u> Storage is Online Cover Level (m) 22.400 <u>Lined Soakaway Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.36000</td> <td>Ring Diameter (m)</td> <td>1.80</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.36000</td> <td>Pit Multiplier</td> <td>1.6</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Number Required</td> <td>1</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>2.000</td> </tr> <tr> <td>Invert Level (m)</td> <td>20.400</td> <td>Cap Infiltration Depth (m)</td> <td>1.240</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.36000	Ring Diameter (m)	1.80	Infiltration Coefficient Side (m/hr)	0.36000	Pit Multiplier	1.6	Safety Factor	2.0	Number Required	1	Porosity	0.30	Cap Volume Depth (m)	2.000	Invert Level (m)	20.400	Cap Infiltration Depth (m)	1.240
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