

Paul Basham Associates				Page 1																																																																																																																																																																																																																			
Lancaster Court Fareham Hampshire, PO15 5TU		09																																																																																																																																																																																																																					
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<p>Summary of Results for 10 year Return Period (+30%)</p> <p>Half Drain Time : 67 minutes.</p> <table><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><tr><td>15 min Summer</td><td>-0.819</td><td>0.181</td><td>0.3</td><td>1.6</td><td>O K</td></tr><tr><td>30 min Summer</td><td>-0.778</td><td>0.222</td><td>0.3</td><td>2.0</td><td>O K</td></tr><tr><td>60 min Summer</td><td>-0.754</td><td>0.246</td><td>0.3</td><td>2.2</td><td>O K</td></tr><tr><td>120 min Summer</td><td>-0.748</td><td>0.252</td><td>0.4</td><td>2.3</td><td>O K</td></tr><tr><td>180 min Summer</td><td>-0.756</td><td>0.244</td><td>0.3</td><td>2.2</td><td>O K</td></tr><tr><td>240 min Summer</td><td>-0.768</td><td>0.232</td><td>0.3</td><td>2.1</td><td>O K</td></tr><tr><td>360 min Summer</td><td>-0.793</td><td>0.207</td><td>0.3</td><td>1.9</td><td>O K</td></tr><tr><td>480 min Summer</td><td>-0.818</td><td>0.182</td><td>0.3</td><td>1.6</td><td>O K</td></tr><tr><td>600 min Summer</td><td>-0.841</td><td>0.159</td><td>0.3</td><td>1.4</td><td>O K</td></tr><tr><td>720 min Summer</td><td>-0.861</td><td>0.139</td><td>0.3</td><td>1.3</td><td>O K</td></tr><tr><td>960 min Summer</td><td>-0.895</td><td>0.105</td><td>0.3</td><td>0.9</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>-0.939</td><td>0.061</td><td>0.3</td><td>0.6</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>-0.957</td><td>0.043</td><td>0.2</td><td>0.4</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>-0.965</td><td>0.035</td><td>0.2</td><td>0.3</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>-0.974</td><td>0.026</td><td>0.2</td><td>0.2</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>-0.979</td><td>0.021</td><td>0.1</td><td>0.2</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>-0.982</td><td>0.018</td><td>0.1</td><td>0.2</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>-0.984</td><td>0.016</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>-0.986</td><td>0.014</td><td>0.1</td><td>0.1</td><td>O K</td></tr><tr><td>15 min Winter</td><td>-0.796</td><td>0.204</td><td>0.3</td><td>1.8</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>70.770</td><td>0.0</td><td>17</td></tr><tr><td>30 min Summer</td><td>46.698</td><td>0.0</td><td>31</td></tr><tr><td>60 min Summer</td><td>29.629</td><td>0.0</td><td>54</td></tr><tr><td>120 min Summer</td><td>18.344</td><td>0.0</td><td>86</td></tr><tr><td>180 min Summer</td><td>13.747</td><td>0.0</td><td>122</td></tr><tr><td>240 min Summer</td><td>11.169</td><td>0.0</td><td>156</td></tr><tr><td>360 min Summer</td><td>8.317</td><td>0.0</td><td>222</td></tr><tr><td>480 min Summer</td><td>6.743</td><td>0.0</td><td>288</td></tr><tr><td>600 min Summer</td><td>5.728</td><td>0.0</td><td>352</td></tr><tr><td>720 min Summer</td><td>5.011</td><td>0.0</td><td>412</td></tr><tr><td>960 min Summer</td><td>4.057</td><td>0.0</td><td>530</td></tr><tr><td>1440 min Summer</td><td>3.009</td><td>0.0</td><td>752</td></tr><tr><td>2160 min Summer</td><td>2.231</td><td>0.0</td><td>1104</td></tr><tr><td>2880 min Summer</td><td>1.803</td><td>0.0</td><td>1468</td></tr><tr><td>4320 min Summer</td><td>1.335</td><td>0.0</td><td>2200</td></tr><tr><td>5760 min Summer</td><td>1.078</td><td>0.0</td><td>2936</td></tr><tr><td>7200 min Summer</td><td>0.913</td><td>0.0</td><td>3616</td></tr><tr><td>8640 min Summer</td><td>0.798</td><td>0.0</td><td>4400</td></tr><tr><td>10080 min Summer</td><td>0.711</td><td>0.0</td><td>5064</td></tr><tr><td>15 min Winter</td><td>70.770</td><td>0.0</td><td>17</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	-0.819	0.181	0.3	1.6	O K	30 min Summer	-0.778	0.222	0.3	2.0	O K	60 min Summer	-0.754	0.246	0.3	2.2	O K	120 min Summer	-0.748	0.252	0.4	2.3	O K	180 min Summer	-0.756	0.244	0.3	2.2	O K	240 min Summer	-0.768	0.232	0.3	2.1	O K	360 min Summer	-0.793	0.207	0.3	1.9	O K	480 min Summer	-0.818	0.182	0.3	1.6	O K	600 min Summer	-0.841	0.159	0.3	1.4	O K	720 min Summer	-0.861	0.139	0.3	1.3	O K	960 min Summer	-0.895	0.105	0.3	0.9	O K	1440 min Summer	-0.939	0.061	0.3	0.6	O K	2160 min Summer	-0.957	0.043	0.2	0.4	O K	2880 min Summer	-0.965	0.035	0.2	0.3	O K	4320 min Summer	-0.974	0.026	0.2	0.2	O K	5760 min Summer	-0.979	0.021	0.1	0.2	O K	7200 min Summer	-0.982	0.018	0.1	0.2	O K	8640 min Summer	-0.984	0.016	0.1	0.1	O K	10080 min Summer	-0.986	0.014	0.1	0.1	O K	15 min Winter	-0.796	0.204	0.3	1.8	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	70.770	0.0	17	30 min Summer	46.698	0.0	31	60 min Summer	29.629	0.0	54	120 min Summer	18.344	0.0	86	180 min Summer	13.747	0.0	122	240 min Summer	11.169	0.0	156	360 min Summer	8.317	0.0	222	480 min Summer	6.743	0.0	288	600 min Summer	5.728	0.0	352	720 min Summer	5.011	0.0	412	960 min Summer	4.057	0.0	530	1440 min Summer	3.009	0.0	752	2160 min Summer	2.231	0.0	1104	2880 min Summer	1.803	0.0	1468	4320 min Summer	1.335	0.0	2200	5760 min Summer	1.078	0.0	2936	7200 min Summer	0.913	0.0	3616	8640 min Summer	0.798	0.0	4400	10080 min Summer	0.711	0.0	5064	15 min Winter	70.770	0.0	17
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Date 24/04/2019		Designed by JB			
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Innovyze		Source Control 2018.1.1			
Summary of Results for 10 year Return Period (+30%)					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	-0.747	0.253	0.4	2.3	O K
60 min Winter	-0.716	0.284	0.4	2.6	O K
120 min Winter	-0.713	0.287	0.4	2.6	O K
180 min Winter	-0.727	0.273	0.4	2.5	O K
240 min Winter	-0.746	0.254	0.4	2.3	O K
360 min Winter	-0.786	0.214	0.3	1.9	O K
480 min Winter	-0.824	0.176	0.3	1.6	O K
600 min Winter	-0.858	0.142	0.3	1.3	O K
720 min Winter	-0.887	0.113	0.3	1.0	O K
960 min Winter	-0.932	0.068	0.3	0.6	O K
1440 min Winter	-0.957	0.043	0.2	0.4	O K
2160 min Winter	-0.968	0.032	0.2	0.3	O K
2880 min Winter	-0.974	0.026	0.1	0.2	O K
4320 min Winter	-0.981	0.019	0.1	0.2	O K
5760 min Winter	-0.984	0.016	0.1	0.1	O K
7200 min Winter	-0.987	0.013	0.1	0.1	O K
8640 min Winter	-0.988	0.012	0.1	0.1	O K
10080 min Winter	-0.990	0.010	0.1	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	46.698	0.0	31		
60 min Winter	29.629	0.0	58		
120 min Winter	18.344	0.0	92		
180 min Winter	13.747	0.0	132		
240 min Winter	11.169	0.0	168		
360 min Winter	8.317	0.0	240		
480 min Winter	6.743	0.0	306		
600 min Winter	5.728	0.0	370		
720 min Winter	5.011	0.0	430		
960 min Winter	4.057	0.0	538		
1440 min Winter	3.009	0.0	750		
2160 min Winter	2.231	0.0	1104		
2880 min Winter	1.803	0.0	1468		
4320 min Winter	1.335	0.0	2192		
5760 min Winter	1.078	0.0	2896		
7200 min Winter	0.913	0.0	3560		
8640 min Winter	0.798	0.0	4440		
10080 min Winter	0.711	0.0	5112		
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	10	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.014

Time (mins)		Area
From:	To:	(ha)
0	4	0.014

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<p style="text-align: center;"><u>Model Details</u></p> <p style="text-align: center;">Storage is Online Cover Level (m) 0.000</p> <p style="text-align: center;"><u>Trench Soakaway Structure</u></p> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.13104</td> <td>Trench Width (m)</td> <td>2.0</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.13104</td> <td>Trench Length (m)</td> <td>15.0</td> </tr> <tr> <td>Safety Factor</td> <td>4.0</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Cap Volume Depth (m)</td> <td>0.700</td> </tr> <tr> <td>Invert Level (m)</td> <td>-1.000</td> <td>Cap Infiltration Depth (m)</td> <td>0.700</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.13104	Trench Width (m)	2.0	Infiltration Coefficient Side (m/hr)	0.13104	Trench Length (m)	15.0	Safety Factor	4.0	Slope (1:X)	0.0	Porosity	0.30	Cap Volume Depth (m)	0.700	Invert Level (m)	-1.000	Cap Infiltration Depth (m)	0.700
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