

Cole Easdon Consultants				Page 1																																																																																																																																																																																																																			
York House, Edison Park Dorcan Way Swindon, SN3 3RB		Godbey House, Hayling Island. North Soakaway																																																																																																																																																																																																																					
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<u>Summary of Results for 30 year Return Period</u> Half Drain Time : 856 minutes. <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>4.067</td><td>0.067</td><td>0.1</td><td>2.4</td><td>0 K</td></tr><tr><td>30 min Summer</td><td>4.088</td><td>0.088</td><td>0.1</td><td>3.2</td><td>0 K</td></tr><tr><td>60 min Summer</td><td>4.111</td><td>0.111</td><td>0.1</td><td>4.0</td><td>0 K</td></tr><tr><td>120 min Summer</td><td>4.134</td><td>0.134</td><td>0.1</td><td>4.8</td><td>0 K</td></tr><tr><td>180 min Summer</td><td>4.146</td><td>0.146</td><td>0.1</td><td>5.3</td><td>0 K</td></tr><tr><td>240 min Summer</td><td>4.154</td><td>0.154</td><td>0.1</td><td>5.5</td><td>0 K</td></tr><tr><td>360 min Summer</td><td>4.163</td><td>0.163</td><td>0.1</td><td>5.9</td><td>0 K</td></tr><tr><td>480 min Summer</td><td>4.167</td><td>0.167</td><td>0.1</td><td>6.0</td><td>0 K</td></tr><tr><td>600 min Summer</td><td>4.169</td><td>0.169</td><td>0.1</td><td>6.1</td><td>0 K</td></tr><tr><td>720 min Summer</td><td>4.170</td><td>0.170</td><td>0.1</td><td>6.1</td><td>0 K</td></tr><tr><td>960 min Summer</td><td>4.170</td><td>0.170</td><td>0.1</td><td>6.1</td><td>0 K</td></tr><tr><td>1440 min Summer</td><td>4.167</td><td>0.167</td><td>0.1</td><td>6.0</td><td>0 K</td></tr><tr><td>2160 min Summer</td><td>4.159</td><td>0.159</td><td>0.1</td><td>5.8</td><td>0 K</td></tr><tr><td>2880 min Summer</td><td>4.150</td><td>0.150</td><td>0.1</td><td>5.4</td><td>0 K</td></tr><tr><td>4320 min Summer</td><td>4.131</td><td>0.131</td><td>0.1</td><td>4.7</td><td>0 K</td></tr><tr><td>5760 min Summer</td><td>4.113</td><td>0.113</td><td>0.1</td><td>4.1</td><td>0 K</td></tr><tr><td>7200 min Summer</td><td>4.098</td><td>0.098</td><td>0.1</td><td>3.5</td><td>0 K</td></tr><tr><td>8640 min Summer</td><td>4.084</td><td>0.084</td><td>0.1</td><td>3.0</td><td>0 K</td></tr><tr><td>10080 min Summer</td><td>4.073</td><td>0.073</td><td>0.1</td><td>2.6</td><td>0 K</td></tr><tr><td>15 min Winter</td><td>4.075</td><td>0.075</td><td>0.1</td><td>2.7</td><td>0 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>68.836</td><td>0.0</td><td>19</td></tr><tr><td>30 min Summer</td><td>45.828</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>29.238</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>18.112</td><td>0.0</td><td>122</td></tr><tr><td>180 min Summer</td><td>13.534</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>10.952</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>8.106</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>6.544</td><td>0.0</td><td>480</td></tr><tr><td>600 min Summer</td><td>5.539</td><td>0.0</td><td>598</td></tr><tr><td>720 min 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Summer	4.134	0.134	0.1	4.8	0 K	180 min Summer	4.146	0.146	0.1	5.3	0 K	240 min Summer	4.154	0.154	0.1	5.5	0 K	360 min Summer	4.163	0.163	0.1	5.9	0 K	480 min Summer	4.167	0.167	0.1	6.0	0 K	600 min Summer	4.169	0.169	0.1	6.1	0 K	720 min Summer	4.170	0.170	0.1	6.1	0 K	960 min Summer	4.170	0.170	0.1	6.1	0 K	1440 min Summer	4.167	0.167	0.1	6.0	0 K	2160 min Summer	4.159	0.159	0.1	5.8	0 K	2880 min Summer	4.150	0.150	0.1	5.4	0 K	4320 min Summer	4.131	0.131	0.1	4.7	0 K	5760 min Summer	4.113	0.113	0.1	4.1	0 K	7200 min Summer	4.098	0.098	0.1	3.5	0 K	8640 min Summer	4.084	0.084	0.1	3.0	0 K	10080 min Summer	4.073	0.073	0.1	2.6	0 K	15 min Winter	4.075	0.075	0.1	2.7	0 K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	68.836	0.0	19	30 min Summer	45.828	0.0	34	60 min Summer	29.238	0.0	64	120 min Summer	18.112	0.0	122	180 min Summer	13.534	0.0	182	240 min Summer	10.952	0.0	242	360 min Summer	8.106	0.0	362	480 min Summer	6.544	0.0	480	600 min Summer	5.539	0.0	598	720 min Summer	4.832	0.0	656	960 min Summer	3.892	0.0	770	1440 min Summer	2.866	0.0	1026	2160 min Summer	2.108	0.0	1444	2880 min Summer	1.693	0.0	1844	4320 min Summer	1.242	0.0	2640	5760 min Summer	0.996	0.0	3408	7200 min Summer	0.839	0.0	4176	8640 min Summer	0.730	0.0	4848	10080 min Summer	0.648	0.0	5552	15 min Winter	68.836	0.0	19
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Elstree Computing Ltd		Source Control 2016.1

Summary of Results for 30 year Return Period

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	4.099	0.099	0.1	3.6	0 K
60 min Winter	4.125	0.125	0.1	4.5	0 K
120 min Winter	4.150	0.150	0.1	5.4	0 K
180 min Winter	4.165	0.165	0.1	5.9	0 K
240 min Winter	4.174	0.174	0.1	6.3	0 K
360 min Winter	4.185	0.185	0.1	6.7	0 K
480 min Winter	4.191	0.191	0.1	6.9	0 K
600 min Winter	4.194	0.194	0.1	7.0	0 K
720 min Winter	4.196	0.196	0.1	7.1	0 K
960 min Winter	4.195	0.195	0.1	7.0	0 K
1440 min Winter	4.190	0.190	0.1	6.9	0 K
2160 min Winter	4.178	0.178	0.1	6.4	0 K
2880 min Winter	4.164	0.164	0.1	5.9	0 K
4320 min Winter	4.134	0.134	0.1	4.9	0 K
5760 min Winter	4.108	0.108	0.1	3.9	0 K
7200 min Winter	4.085	0.085	0.1	3.1	0 K
8640 min Winter	4.066	0.066	0.1	2.4	0 K
10080 min Winter	4.054	0.054	0.1	1.9	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	45.828	0.0	33
60 min Winter	29.238	0.0	62
120 min Winter	18.112	0.0	122
180 min Winter	13.534	0.0	180
240 min Winter	10.952	0.0	238
360 min Winter	8.106	0.0	354
480 min Winter	6.544	0.0	468
600 min Winter	5.539	0.0	578
720 min Winter	4.832	0.0	686
960 min Winter	3.892	0.0	892
1440 min Winter	2.866	0.0	1110
2160 min Winter	2.108	0.0	1560
2880 min Winter	1.693	0.0	2016
4320 min Winter	1.242	0.0	2852
5760 min Winter	0.996	0.0	3632
7200 min Winter	0.839	0.0	4328
8640 min Winter	0.730	0.0	5008
10080 min Winter	0.648	0.0	5552

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	30	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 %	+0

Time Area Diagram

Total Area (ha) 0.019

Time (mins)	Area
From: To:	(ha)

0	4	0.019
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Model Details

Storage is Online Cover Level (m) 5.200

Cellular Storage Structure

Invert Level (m) 4.000 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.01200 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.01200

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	38.0	38.0	0.401	0.0	47.9
0.400	38.0	47.9			