

The Civil Engineering Practice					Page 1																																																																																																																																																																																																																			
11 Tungsten Building George Street Fishersgate BN41 1RA			Manor Nursery Angmering West Sussex																																																																																																																																																																																																																					
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 345 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>15.087</td><td>0.937</td><td>0.4</td><td>6.9</td><td>O K</td></tr><tr><td>30 min Summer</td><td>15.443</td><td>1.293</td><td>0.4</td><td>9.1</td><td>O K</td></tr><tr><td>60 min Summer</td><td>15.797</td><td>1.647</td><td>0.4</td><td>11.3</td><td>O K</td></tr><tr><td>120 min Summer</td><td>16.096</td><td>1.946</td><td>0.4</td><td>13.2</td><td>O K</td></tr><tr><td>180 min Summer</td><td>16.205</td><td>2.055</td><td>0.4</td><td>13.9</td><td>O K</td></tr><tr><td>240 min Summer</td><td>16.231</td><td>2.081</td><td>0.4</td><td>14.1</td><td>O K</td></tr><tr><td>360 min Summer</td><td>16.220</td><td>2.070</td><td>0.4</td><td>14.0</td><td>O K</td></tr><tr><td>480 min Summer</td><td>16.186</td><td>2.036</td><td>0.4</td><td>13.8</td><td>O K</td></tr><tr><td>600 min Summer</td><td>16.140</td><td>1.990</td><td>0.4</td><td>13.5</td><td>O K</td></tr><tr><td>720 min Summer</td><td>16.087</td><td>1.937</td><td>0.4</td><td>13.2</td><td>O K</td></tr><tr><td>960 min Summer</td><td>15.969</td><td>1.819</td><td>0.4</td><td>12.4</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>15.725</td><td>1.575</td><td>0.4</td><td>10.9</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>15.386</td><td>1.236</td><td>0.4</td><td>8.8</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>15.097</td><td>0.947</td><td>0.4</td><td>6.9</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>14.689</td><td>0.539</td><td>0.4</td><td>4.4</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>14.494</td><td>0.344</td><td>0.4</td><td>3.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>14.446</td><td>0.296</td><td>0.3</td><td>2.7</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>14.411</td><td>0.261</td><td>0.3</td><td>2.4</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>14.384</td><td>0.234</td><td>0.3</td><td>2.1</td><td>O K</td></tr><tr><td>15 min Winter</td><td>15.223</td><td>1.073</td><td>0.4</td><td>7.7</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>128.238</td><td>0.0</td><td>21</td></tr><tr><td>30 min Summer</td><td>86.178</td><td>0.0</td><td>35</td></tr><tr><td>60 min Summer</td><td>55.250</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>34.177</td><td>0.0</td><td>122</td></tr><tr><td>180 min Summer</td><td>25.410</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>20.436</td><td>0.0</td><td>240</td></tr><tr><td>360 min Summer</td><td>15.037</td><td>0.0</td><td>304</td></tr><tr><td>480 min Summer</td><td>12.081</td><td>0.0</td><td>366</td></tr><tr><td>600 min Summer</td><td>10.185</td><td>0.0</td><td>430</td></tr><tr><td>720 min Summer</td><td>8.854</td><td>0.0</td><td>498</td></tr><tr><td>960 min Summer</td><td>7.093</td><td>0.0</td><td>636</td></tr><tr><td>1440 min Summer</td><td>5.178</td><td>0.0</td><td>908</td></tr><tr><td>2160 min Summer</td><td>3.772</td><td>0.0</td><td>1296</td></tr><tr><td>2880 min Summer</td><td>3.009</td><td>0.0</td><td>1648</td></tr><tr><td>4320 min Summer</td><td>2.184</td><td>0.0</td><td>2336</td></tr><tr><td>5760 min Summer</td><td>1.738</td><td>0.0</td><td>2992</td></tr><tr><td>7200 min Summer</td><td>1.455</td><td>0.0</td><td>3680</td></tr><tr><td>8640 min Summer</td><td>1.260</td><td>0.0</td><td>4408</td></tr><tr><td>10080 min Summer</td><td>1.115</td><td>0.0</td><td>5144</td></tr><tr><td>15 min Winter</td><td>128.238</td><td>0.0</td><td>21</td></tr></table>							Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	15.087	0.937	0.4	6.9	O K	30 min Summer	15.443	1.293	0.4	9.1	O K	60 min Summer	15.797	1.647	0.4	11.3	O K	120 min Summer	16.096	1.946	0.4	13.2	O K	180 min Summer	16.205	2.055	0.4	13.9	O K	240 min Summer	16.231	2.081	0.4	14.1	O K	360 min Summer	16.220	2.070	0.4	14.0	O K	480 min Summer	16.186	2.036	0.4	13.8	O K	600 min Summer	16.140	1.990	0.4	13.5	O K	720 min Summer	16.087	1.937	0.4	13.2	O K	960 min Summer	15.969	1.819	0.4	12.4	O K	1440 min Summer	15.725	1.575	0.4	10.9	O K	2160 min Summer	15.386	1.236	0.4	8.8	O K	2880 min Summer	15.097	0.947	0.4	6.9	O K	4320 min Summer	14.689	0.539	0.4	4.4	O K	5760 min Summer	14.494	0.344	0.4	3.1	O K	7200 min Summer	14.446	0.296	0.3	2.7	O K	8640 min Summer	14.411	0.261	0.3	2.4	O K	10080 min Summer	14.384	0.234	0.3	2.1	O K	15 min Winter	15.223	1.073	0.4	7.7	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	128.238	0.0	21	30 min Summer	86.178	0.0	35	60 min Summer	55.250	0.0	64	120 min Summer	34.177	0.0	122	180 min Summer	25.410	0.0	182	240 min 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The Civil Engineering Practice					Page 2
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Date 23/09/2020 File Soakaway 4 Factor Safet...		Designed by S Burgess Checked by SRD			
Innovyze		Source Control 2020.1			
<u>Summary of Results for 100 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	15.627	1.477		0.4 10.3	O K
60 min Winter	16.031	1.881		0.4 12.8	O K
120 min Winter	16.385	2.235		0.4 15.0	Flood Risk
180 min Winter	16.527	2.377		0.4 15.9	Flood Risk
240 min Winter	16.575	2.425		0.4 16.2	Flood Risk
360 min Winter	16.575	2.425		0.4 16.2	Flood Risk
480 min Winter	16.515	2.365		0.4 15.8	Flood Risk
600 min Winter	16.453	2.303		0.4 15.5	Flood Risk
720 min Winter	16.376	2.226		0.4 15.0	Flood Risk
960 min Winter	16.200	2.050		0.4 13.9	O K
1440 min Winter	15.825	1.675		0.4 11.5	O K
2160 min Winter	15.303	1.153		0.4 8.2	O K
2880 min Winter	14.882	0.732		0.4 5.6	O K
4320 min Winter	14.481	0.331		0.4 3.0	O K
5760 min Winter	14.417	0.267		0.3 2.4	O K
7200 min Winter	14.375	0.225		0.3 2.1	O K
8640 min Winter	14.346	0.196		0.2 1.8	O K
10080 min Winter	14.324	0.174		0.2 1.6	O K
Storm Event		Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	
30 min Winter		86.178	0.0	35	
60 min Winter		55.250	0.0	64	
120 min Winter		34.177	0.0	120	
180 min Winter		25.410	0.0	178	
240 min Winter		20.436	0.0	234	
360 min Winter		15.037	0.0	342	
480 min Winter		12.081	0.0	392	
600 min Winter		10.185	0.0	464	
720 min Winter		8.854	0.0	542	
960 min Winter		7.093	0.0	694	
1440 min Winter		5.178	0.0	982	
2160 min Winter		3.772	0.0	1368	
2880 min Winter		3.009	0.0	1728	
4320 min Winter		2.184	0.0	2288	
5760 min Winter		1.738	0.0	3000	
7200 min Winter		1.455	0.0	3744	
8640 min Winter		1.260	0.0	4416	
10080 min Winter		1.115	0.0	5144	
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The Civil Engineering Practice		Page 4																				
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<u>Model Details</u> Storage is Online Cover Level (m) 16.650 <u>Lined Soakaway Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Ring Diameter (m)</td> <td>2.00</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>0.72360</td> <td>Pit Multiplier</td> <td>1.4</td> </tr> <tr> <td>Safety Factor</td> <td>4.0</td> <td>Number Required</td> <td>2</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>14.150</td> <td>Cap Infiltration Depth (m)</td> <td>0.350</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00000	Ring Diameter (m)	2.00	Infiltration Coefficient Side (m/hr)	0.72360	Pit Multiplier	1.4	Safety Factor	4.0	Number Required	2	Porosity	0.30	Cap Volume Depth (m)	2.500	Invert Level (m)	14.150	Cap Infiltration Depth (m)	0.350
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