

The Civil Engineering Practice					Page 1																																																																																																																																																																																																																			
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 801 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>13.553</td><td>0.553</td><td>1.3</td><td>45.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>13.739</td><td>0.739</td><td>1.3</td><td>60.2</td><td>O K</td></tr><tr><td>60 min Summer</td><td>13.933</td><td>0.933</td><td>1.3</td><td>76.0</td><td>O K</td></tr><tr><td>120 min Summer</td><td>14.123</td><td>1.123</td><td>1.3</td><td>91.5</td><td>O K</td></tr><tr><td>180 min Summer</td><td>14.220</td><td>1.220</td><td>1.3</td><td>99.4</td><td>O K</td></tr><tr><td>240 min Summer</td><td>14.274</td><td>1.274</td><td>1.3</td><td>103.8</td><td>O K</td></tr><tr><td>360 min Summer</td><td>14.337</td><td>1.337</td><td>1.3</td><td>108.9</td><td>O K</td></tr><tr><td>480 min Summer</td><td>14.363</td><td>1.363</td><td>1.3</td><td>111.0</td><td>O K</td></tr><tr><td>600 min Summer</td><td>14.368</td><td>1.368</td><td>1.3</td><td>111.4</td><td>O K</td></tr><tr><td>720 min Summer</td><td>14.364</td><td>1.364</td><td>1.3</td><td>111.1</td><td>O K</td></tr><tr><td>960 min Summer</td><td>14.351</td><td>1.351</td><td>1.3</td><td>110.1</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>14.305</td><td>1.305</td><td>1.3</td><td>106.3</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>14.215</td><td>1.215</td><td>1.3</td><td>99.0</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>14.118</td><td>1.118</td><td>1.3</td><td>91.1</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>13.933</td><td>0.933</td><td>1.3</td><td>76.0</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>13.772</td><td>0.772</td><td>1.3</td><td>62.9</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>13.639</td><td>0.639</td><td>1.3</td><td>52.1</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>13.535</td><td>0.535</td><td>1.3</td><td>43.6</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>13.456</td><td>0.456</td><td>1.3</td><td>37.1</td><td>O K</td></tr><tr><td>15 min Winter</td><td>13.621</td><td>0.621</td><td>1.3</td><td>50.6</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>22</td></tr><tr><td>30 min Summer</td><td>86.178</td><td>0.0</td><td>36</td></tr><tr><td>60 min Summer</td><td>55.250</td><td>0.0</td><td>66</td></tr><tr><td>120 min Summer</td><td>34.177</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>25.410</td><td>0.0</td><td>184</td></tr><tr><td>240 min Summer</td><td>20.436</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>15.037</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>12.081</td><td>0.0</td><td>480</td></tr><tr><td>600 min Summer</td><td>10.185</td><td>0.0</td><td>594</td></tr><tr><td>720 min Summer</td><td>8.854</td><td>0.0</td><td>640</td></tr><tr><td>960 min Summer</td><td>7.093</td><td>0.0</td><td>760</td></tr><tr><td>1440 min Summer</td><td>5.178</td><td>0.0</td><td>1012</td></tr><tr><td>2160 min Summer</td><td>3.772</td><td>0.0</td><td>1428</td></tr><tr><td>2880 min Summer</td><td>3.009</td><td>0.0</td><td>1820</td></tr><tr><td>4320 min Summer</td><td>2.184</td><td>0.0</td><td>2600</td></tr><tr><td>5760 min Summer</td><td>1.738</td><td>0.0</td><td>3352</td></tr><tr><td>7200 min Summer</td><td>1.455</td><td>0.0</td><td>4040</td></tr><tr><td>8640 min Summer</td><td>1.260</td><td>0.0</td><td>4752</td></tr><tr><td>10080 min Summer</td><td>1.115</td><td>0.0</td><td>5352</td></tr><tr><td>15 min Winter</td><td>128.238</td><td>0.0</td><td>22</td></tr></table>							Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	13.553	0.553	1.3	45.1	O K	30 min Summer	13.739	0.739	1.3	60.2	O K	60 min Summer	13.933	0.933	1.3	76.0	O K	120 min Summer	14.123	1.123	1.3	91.5	O K	180 min Summer	14.220	1.220	1.3	99.4	O K	240 min Summer	14.274	1.274	1.3	103.8	O K	360 min Summer	14.337	1.337	1.3	108.9	O K	480 min Summer	14.363	1.363	1.3	111.0	O K	600 min Summer	14.368	1.368	1.3	111.4	O K	720 min Summer	14.364	1.364	1.3	111.1	O K	960 min Summer	14.351	1.351	1.3	110.1	O K	1440 min Summer	14.305	1.305	1.3	106.3	O K	2160 min Summer	14.215	1.215	1.3	99.0	O K	2880 min Summer	14.118	1.118	1.3	91.1	O K	4320 min Summer	13.933	0.933	1.3	76.0	O K	5760 min Summer	13.772	0.772	1.3	62.9	O K	7200 min Summer	13.639	0.639	1.3	52.1	O K	8640 min Summer	13.535	0.535	1.3	43.6	O K	10080 min Summer	13.456	0.456	1.3	37.1	O K	15 min Winter	13.621	0.621	1.3	50.6	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	128.238	0.0	22	30 min Summer	86.178	0.0	36	60 min Summer	55.250	0.0	66	120 min Summer	34.177	0.0	124	180 min Summer	25.410	0.0	184	240 min Summer	20.436	0.0	242	360 min Summer	15.037	0.0	362	480 min Summer	12.081	0.0	480	600 min Summer	10.185	0.0	594	720 min Summer	8.854	0.0	640	960 min Summer	7.093	0.0	760	1440 min Summer	5.178	0.0	1012	2160 min Summer	3.772	0.0	1428	2880 min Summer	3.009	0.0	1820	4320 min Summer	2.184	0.0	2600	5760 min Summer	1.738	0.0	3352	7200 min Summer	1.455	0.0	4040	8640 min Summer	1.260	0.0	4752	10080 min Summer	1.115	0.0	5352	15 min Winter	128.238	0.0	22
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Date 23/09/2020 File Soakaway 1 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	13.830	0.830	1.3	67.6	O K
60 min Winter	14.050	1.050	1.3	85.5	O K
120 min Winter	14.267	1.267	1.3	103.2	O K
180 min Winter	14.379	1.379	1.3	112.3	O K
240 min Winter	14.444	1.444	1.3	117.6	O K
360 min Winter	14.523	1.523	1.3	124.1	O K
480 min Winter	14.562	1.562	1.3	127.3	O K
600 min Winter	14.577	1.577	1.3	128.5	O K
720 min Winter	14.578	1.578	1.3	128.5	O K
960 min Winter	14.552	1.552	1.3	126.4	O K
1440 min Winter	14.485	1.485	1.3	121.0	O K
2160 min Winter	14.351	1.351	1.3	110.1	O K
2880 min Winter	14.204	1.204	1.3	98.1	O K
4320 min Winter	13.921	0.921	1.3	75.0	O K
5760 min Winter	13.682	0.682	1.3	55.5	O K
7200 min Winter	13.501	0.501	1.3	40.8	O K
8640 min Winter	13.398	0.398	1.3	32.4	O K
10080 min Winter	13.357	0.357	1.2	29.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	86.178	0.0	36		
60 min Winter	55.250	0.0	64		
120 min Winter	34.177	0.0	122		
180 min Winter	25.410	0.0	180		
240 min Winter	20.436	0.0	238		
360 min Winter	15.037	0.0	354		
480 min Winter	12.081	0.0	468		
600 min Winter	10.185	0.0	578		
720 min Winter	8.854	0.0	688		
960 min Winter	7.093	0.0	886		
1440 min Winter	5.178	0.0	1098		
2160 min Winter	3.772	0.0	1556		
2880 min Winter	3.009	0.0	1988		
4320 min Winter	2.184	0.0	2808		
5760 min Winter	1.738	0.0	3520		
7200 min Winter	1.455	0.0	4176		
8640 min Winter	1.260	0.0	4664		
10080 min Winter	1.115	0.0	5352		
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<u>Model Details</u> Storage is Online Cover Level (m) 15.800 <u>Infiltration Trench Structure</u> <table> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.00000</td> <td>Trench Width (m)</td> <td>3.5</td> </tr> <tr> <td>Infiltration Coefficient Side (m/hr)</td> <td>1.40400</td> <td>Trench Length (m)</td> <td>24.5</td> </tr> <tr> <td>Safety Factor</td> <td>6.5</td> <td>Slope (1:X)</td> <td>0.0</td> </tr> <tr> <td>Porosity</td> <td>0.95</td> <td>Cap Volume Depth (m)</td> <td>1.600</td> </tr> <tr> <td>Invert Level (m)</td> <td>13.000</td> <td>Cap Infiltration Depth (m)</td> <td>0.400</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.00000	Trench Width (m)	3.5	Infiltration Coefficient Side (m/hr)	1.40400	Trench Length (m)	24.5	Safety Factor	6.5	Slope (1:X)	0.0	Porosity	0.95	Cap Volume Depth (m)	1.600	Invert Level (m)	13.000	Cap Infiltration Depth (m)	0.400
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