

The Stables  
High Cogges, Witney  
Oxfordshire, OX29 6UN

Sports Pavillion, Pound Lane  
Cellular Soakaway



Date 06/09/2022 19:36  
File CELLULAR SOAKAWAY.SRCX

Designed by Richard.White  
Checked by

Innovyze

Source Control 2019.1

Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 1053 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	52.479	0.479	0.2	10.9	O K
30 min Summer	52.626	0.626	0.2	14.3	O K
60 min Summer	52.776	0.776	0.2	17.7	O K
120 min Summer	52.920	0.920	0.2	21.0	O K
180 min Summer	52.996	0.996	0.2	22.7	O K
240 min Summer	53.042	1.042	0.2	23.8	O K
360 min Summer	53.089	1.089	0.2	24.8	O K
480 min Summer	53.113	1.113	0.2	25.4	O K
600 min Summer	53.121	1.121	0.2	25.6	O K
720 min Summer	53.120	1.120	0.2	25.5	O K
960 min Summer	53.105	1.105	0.2	25.2	O K
1440 min Summer	53.069	1.069	0.2	24.4	O K
2160 min Summer	53.009	1.009	0.2	23.0	O K
2880 min Summer	52.951	0.951	0.2	21.7	O K
4320 min Summer	52.850	0.850	0.2	19.4	O K
5760 min Summer	52.761	0.761	0.2	17.3	O K
7200 min Summer	52.681	0.681	0.2	15.5	O K
8640 min Summer	52.609	0.609	0.2	13.9	O K
10080 min Summer	52.544	0.544	0.2	12.4	O K
15 min Winter	52.479	0.479	0.2	10.9	O K
30 min Winter	52.626	0.626	0.2	14.3	O K
60 min Winter	52.776	0.776	0.2	17.7	O K
120 min Winter	52.922	0.922	0.2	21.0	O K
180 min Winter	52.998	0.998	0.2	22.8	O K
240 min Winter	53.045	1.045	0.2	23.8	O K
360 min Winter	53.094	1.094	0.2	24.9	O K
480 min Winter	53.119	1.119	0.2	25.5	O K
600 min Winter	53.130	1.130	0.2	25.8	O K
720 min Winter	53.131	1.131	0.2	25.8	O K
960 min Winter	53.118	1.118	0.2	25.5	O K
1440 min Winter	53.072	1.072	0.2	24.5	O K
2160 min Winter	52.999	0.999	0.2	22.8	O K
2880 min Winter	52.924	0.924	0.2	21.1	O K
4320 min Winter	52.786	0.786	0.2	17.9	O K
5760 min Winter	52.666	0.666	0.2	15.2	O K
7200 min Winter	52.560	0.560	0.2	12.8	O K
8640 min Winter	52.468	0.468	0.2	10.7	O K
10080 min Winter	52.386	0.386	0.2	8.8	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	129.843	0.0	27
30 min Summer	85.337	0.0	41
60 min Summer	53.483	0.0	70
120 min Summer	32.428	0.0	130
180 min Summer	23.896	0.0	188
240 min Summer	19.136	0.0	248
360 min Summer	13.890	0.0	366
480 min Summer	11.074	0.0	484
600 min Summer	9.283	0.0	602
720 min Summer	8.033	0.0	720
960 min Summer	6.389	0.0	854
1440 min Summer	4.620	0.0	1098
2160 min Summer	3.335	0.0	1496
2880 min Summer	2.644	0.0	1908
4320 min Summer	1.904	0.0	2732
5760 min Summer	1.506	0.0	3528
7200 min Summer	1.256	0.0	4328
8640 min Summer	1.082	0.0	5104
10080 min Summer	0.953	0.0	5856
15 min Winter	129.843	0.0	26
30 min Winter	85.337	0.0	41
60 min Winter	53.483	0.0	70
120 min Winter	32.428	0.0	128
180 min Winter	23.896	0.0	184
240 min Winter	19.136	0.0	242
360 min Winter	13.890	0.0	358
480 min Winter	11.074	0.0	472
600 min Winter	9.283	0.0	586
720 min Winter	8.033	0.0	696
960 min Winter	6.389	0.0	906
1440 min Winter	4.620	0.0	1132
2160 min Winter	3.335	0.0	1600
2880 min Winter	2.644	0.0	2052
4320 min Winter	1.904	0.0	2940
5760 min Winter	1.506	0.0	3760
7200 min Winter	1.256	0.0	4608
8640 min Winter	1.082	0.0	5368
10080 min Winter	0.953	0.0	6152

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Rainfall Details

Rainfall Model	FSR	M5-60 (mm)	18.900	Winter Storms	Yes	Shortest Storm (mins)	15
Return Period (years)	100	Ratio R	0.400	Cv (Summer)	0.950	Longest Storm (mins)	10080
Region	England and Wales	Summer Storms	Yes	Cv (Winter)	0.950	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.036

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
From:	To:	From:	To:	From:	To:
0	4	4	8	8	12
	0.012		0.012		0.012

Time Area Diagram

Total Area (ha) 0.000

Time (mins)	Area (ha)
From:	To:
0	4
	0.000

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Model Details

Storage is Online Cover Level (m) 53.800

Cellular Storage Structure

Invert Level (m) 52.000 Infiltration Coefficient Side (m/hr) 0.03600 Porosity 0.95  
 Infiltration Coefficient Base (m/hr) 0.03600 Safety Factor 2.0

Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )	Inf. Area (m <sup>2</sup> )
0.000	24.0	24.0	1.200	24.0	48.0	1.300	0.0	48.0