



Stuart Michael Associates		Page 1
Coombe House Coombe Square Thatcham RG19 4JF	LAND SOUTH ROMSEY AVENUE PORTCHESTER	
Date 10/10/2018 11:57 File A - 60M2.SRCX	Designed by JOK Checked by KJ	
Micro Drainage	Source Control 2016.1	

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

Half Drain Time : 1257 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	8.709	0.209	0.0	1.5	O K
30 min Summer	8.760	0.260	0.0	1.9	O K
60 min Summer	8.820	0.320	0.0	2.3	O K
120 min Summer	8.892	0.392	0.0	2.8	O K
180 min Summer	8.937	0.437	0.0	3.1	O K
240 min Summer	8.970	0.470	0.0	3.4	O K
360 min Summer	9.017	0.517	0.0	3.7	O K
480 min Summer	9.048	0.548	0.0	3.9	O K
600 min Summer	9.070	0.570	0.0	4.1	O K
720 min Summer	9.085	0.585	0.0	4.2	O K
960 min Summer	9.078	0.578	0.0	4.1	O K
1440 min Summer	9.063	0.563	0.0	4.0	O K
2160 min Summer	9.038	0.538	0.0	3.8	O K
2880 min Summer	9.012	0.512	0.0	3.6	O K
4320 min Summer	8.978	0.478	0.0	3.4	O K
5760 min Summer	8.945	0.445	0.0	3.2	O K
7200 min Summer	8.913	0.413	0.0	2.9	O K
8640 min Summer	8.883	0.383	0.0	2.7	O K
10080 min Summer	8.855	0.355	0.0	2.5	O K
15 min Winter	8.735	0.235	0.0	1.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	134.458	0.0	23
30 min Summer	83.947	0.0	37
60 min Summer	52.411	0.0	66
120 min Summer	32.722	0.0	126
180 min Summer	24.841	0.0	186
240 min Summer	20.430	0.0	244
360 min Summer	15.509	0.0	364
480 min Summer	12.755	0.0	482
600 min Summer	10.960	0.0	602
720 min Summer	9.683	0.0	720
960 min Summer	7.687	0.0	898
1440 min Summer	5.551	0.0	1130
2160 min Summer	4.009	0.0	1516
2880 min Summer	3.183	0.0	1936
4320 min Summer	2.351	0.0	2768
5760 min Summer	1.897	0.0	3576
7200 min Summer	1.606	0.0	4392
8640 min Summer	1.401	0.0	5184
10080 min Summer	1.249	0.0	5952
15 min Winter	134.458	0.0	23

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

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
30 min Winter	8.791	0.291	0.0	2.1	O K
60 min Winter	8.860	0.360	0.0	2.6	O K
120 min Winter	8.941	0.441	0.0	3.1	O K
180 min Winter	8.993	0.493	0.0	3.5	O K
240 min Winter	9.031	0.531	0.0	3.8	O K
360 min Winter	9.086	0.586	0.0	4.2	O K
480 min Winter	9.123	0.623	0.0	4.4	O K
600 min Winter	9.150	0.650	0.0	4.6	O K
720 min Winter	9.169	0.669	0.0	4.8	O K
960 min Winter	9.167	0.667	0.0	4.8	O K
1440 min Winter	9.146	0.646	0.0	4.6	O K
2160 min Winter	9.115	0.615	0.0	4.4	O K
2880 min Winter	9.080	0.580	0.0	4.1	O K
4320 min Winter	9.028	0.528	0.0	3.8	O K
5760 min Winter	8.976	0.476	0.0	3.4	O K
7200 min Winter	8.928	0.428	0.0	3.0	O K
8640 min Winter	8.883	0.383	0.0	2.7	O K
10080 min Winter	8.842	0.342	0.0	2.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
30 min Winter	83.947	0.0	37
60 min Winter	52.411	0.0	66
120 min Winter	32.722	0.0	124
180 min Winter	24.841	0.0	182
240 min Winter	20.430	0.0	240
360 min Winter	15.509	0.0	358
480 min Winter	12.755	0.0	472
600 min Winter	10.960	0.0	586
720 min Winter	9.683	0.0	700
960 min Winter	7.687	0.0	918
1440 min Winter	5.551	0.0	1180
2160 min Winter	4.009	0.0	1624
2880 min Winter	3.183	0.0	2080
4320 min Winter	2.351	0.0	2984
5760 min Winter	1.897	0.0	3864
7200 min Winter	1.606	0.0	4688
8640 min Winter	1.401	0.0	5528
10080 min Winter	1.249	0.0	6344

Coombe House
 Coombe Square
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Micro Drainage

Source Control 2016.1

Rainfall Details

Rainfall Model	FEH
Return Period (years)	100
Site Location	GB 459600 105500 SU 59600 05500
C (1km)	-0.026
D1 (1km)	0.440
D2 (1km)	0.317
D3 (1km)	0.373
E (1km)	0.301
F (1km)	2.238
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	0.750
Cv (Winter)	0.840
Shortest Storm (mins)	15
Longest Storm (mins)	10080
Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.006

Time (mins)		Area	Time (mins)		Area
From:	To:	(ha)	From:	To:	(ha)
0	4	0.003	4	8	0.003

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Model Details

Storage is Online Cover Level (m) 10.000

Cellular Storage Structure

Invert Level (m) 8.500 Safety Factor 2.0
 Infiltration Coefficient Base (m/hr) 0.01760 Porosity 0.95
 Infiltration Coefficient Side (m/hr) 0.01760

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	7.5	7.5	0.900	0.0	16.3
0.800	7.5	16.3			