

Paul Basham Associates		Page 1
Lancaster Court Fareham Hampshire, PO15 5TU	1:100+40%CC ROAD CATCHMENT 2 INFILTRATION TRENCH	
Date 28/10/2021 09:54	Designed by CLP	
File 108.5009 - ROAD CATCHMENT 2.SRCX	Checked by RW	
Innovyze	Source Control 2020.1.3	

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

Half Drain Time : 88 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	16.189	0.569	1.0	6.0	O K
30 min Summer	16.363	0.743	1.1	7.8	O K
60 min Summer	16.490	0.870	1.2	9.1	O K
120 min Summer	16.528	0.908	1.2	9.5	O K
180 min Summer	16.506	0.886	1.2	9.3	O K
240 min Summer	16.471	0.851	1.2	8.9	O K
360 min Summer	16.402	0.782	1.1	8.2	O K
480 min Summer	16.332	0.712	1.1	7.5	O K
600 min Summer	16.265	0.645	1.1	6.8	O K
720 min Summer	16.202	0.582	1.0	6.1	O K
960 min Summer	16.089	0.469	1.0	4.9	O K
1440 min Summer	15.913	0.293	0.9	3.1	O K
2160 min Summer	15.747	0.127	0.8	1.3	O K
2880 min Summer	15.672	0.052	0.8	0.6	O K
4320 min Summer	15.657	0.037	0.6	0.4	O K
5760 min Summer	15.650	0.030	0.5	0.3	O K
7200 min Summer	15.645	0.025	0.4	0.3	O K
8640 min Summer	15.642	0.022	0.3	0.2	O K
10080 min Summer	15.639	0.019	0.3	0.2	O K
15 min Winter	16.265	0.645	1.1	6.8	O K
30 min Winter	16.467	0.847	1.2	8.9	O K
60 min Winter	16.623	1.003	1.3	10.5	O K
120 min Winter	16.670	1.050	1.3	11.0	O K
180 min Winter	16.638	1.018	1.3	10.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	125.250	0.0	23
30 min Summer	85.368	0.0	35
60 min Summer	55.544	0.0	60
120 min Summer	34.816	0.0	96
180 min Summer	26.038	0.0	130
240 min Summer	21.042	0.0	164
360 min Summer	15.601	0.0	232
480 min Summer	12.593	0.0	300
600 min Summer	10.656	0.0	366
720 min Summer	9.290	0.0	430
960 min Summer	7.475	0.0	556
1440 min Summer	5.489	0.0	798
2160 min Summer	4.021	0.0	1148
2880 min Summer	3.220	0.0	1472
4320 min Summer	2.348	0.0	2200
5760 min Summer	1.878	0.0	2912
7200 min Summer	1.581	0.0	3640
8640 min Summer	1.373	0.0	4384
10080 min Summer	1.219	0.0	5136
15 min Winter	125.250	0.0	23
30 min Winter	85.368	0.0	36
60 min Winter	55.544	0.0	62
120 min Winter	34.816	0.0	100
180 min Winter	26.038	0.0	138

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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 (m³)	Status
240 min Winter	16.583	0.963	1.2	10.1	O K
360 min Winter	16.473	0.853	1.2	9.0	O K
480 min Winter	16.365	0.745	1.1	7.8	O K
600 min Winter	16.264	0.644	1.1	6.8	O K
720 min Winter	16.173	0.553	1.0	5.8	O K
960 min Winter	16.015	0.395	1.0	4.2	O K
1440 min Winter	15.788	0.168	0.8	1.8	O K
2160 min Winter	15.666	0.046	0.7	0.5	O K
2880 min Winter	15.657	0.037	0.6	0.4	O K
4320 min Winter	15.647	0.027	0.4	0.3	O K
5760 min Winter	15.642	0.022	0.3	0.2	O K
7200 min Winter	15.638	0.018	0.3	0.2	O K
8640 min Winter	15.636	0.016	0.2	0.2	O K
10080 min Winter	15.634	0.014	0.2	0.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
240 min Winter	21.042	0.0	176
360 min Winter	15.601	0.0	250
480 min Winter	12.593	0.0	322
600 min Winter	10.656	0.0	390
720 min Winter	9.290	0.0	456
960 min Winter	7.475	0.0	584
1440 min Winter	5.489	0.0	816
2160 min Winter	4.021	0.0	1104
2880 min Winter	3.220	0.0	1468
4320 min Winter	2.348	0.0	2204
5760 min Winter	1.878	0.0	2944
7200 min Winter	1.581	0.0	3600
8640 min Winter	1.373	0.0	4384
10080 min Winter	1.219	0.0	5136

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.600	Shortest Storm (mins)	15
Ratio R	0.322	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.030

Time (mins)	Area	Time (mins)	Area	Time (mins)	Area
From: To: (ha)	From: To: (ha)	From: To: (ha)	From: To: (ha)	From: To: (ha)	From: To: (ha)
0 4 0.010	4 8 0.010	8 12 0.010			

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Model Details

Storage is Online Cover Level (m) 17.200

Cellular Storage Structure

Invert Level (m) 15.620 Safety Factor 4.0
Infiltration Coefficient Base (m/hr) 0.30852 Porosity 0.30
Infiltration Coefficient Side (m/hr) 0.30852

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	35.0	35.0	1.300	35.0	65.8	1.301	0.0	65.8