

Paul Basham Associates		Page 1
Lancaster Court Fareham Hampshire, PO15 5TU	1:10+40%CC ROAD CATCHMENT INFILTRATION TRENCH	
Date 18/08/2021 10:32 File 108.5009 - Road Catchment 2.SRCX	Designed by CLP Checked by RW	
Innovyze	Source Control 2020.1.3	

Summary of Results for 10 year Return Period (+40%)

Half Drain Time : 53 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	15.944	0.324	0.9	3.4	O K
30 min Summer	16.029	0.409	1.0	4.3	O K
60 min Summer	16.074	0.454	1.0	4.8	O K
120 min Summer	16.076	0.456	1.0	4.8	O K
180 min Summer	16.056	0.436	1.0	4.6	O K
240 min Summer	16.030	0.410	1.0	4.3	O K
360 min Summer	15.977	0.357	0.9	3.7	O K
480 min Summer	15.925	0.305	0.9	3.2	O K
600 min Summer	15.878	0.258	0.9	2.7	O K
720 min Summer	15.835	0.215	0.9	2.3	O K
960 min Summer	15.767	0.147	0.8	1.5	O K
1440 min Summer	15.686	0.066	0.8	0.7	O K
2160 min Summer	15.662	0.042	0.6	0.4	O K
2880 min Summer	15.654	0.034	0.5	0.4	O K
4320 min Summer	15.646	0.026	0.4	0.3	O K
5760 min Summer	15.641	0.021	0.3	0.2	O K
7200 min Summer	15.638	0.018	0.3	0.2	O K
8640 min Summer	15.636	0.016	0.2	0.2	O K
10080 min Summer	15.634	0.014	0.2	0.1	O K
15 min Winter	15.989	0.369	0.9	3.9	O K
30 min Winter	16.089	0.469	1.0	4.9	O K
60 min Winter	16.146	0.526	1.0	5.5	O K
120 min Winter	16.142	0.522	1.0	5.5	O K
180 min Winter	16.106	0.486	1.0	5.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	76.566	0.0	22
30 min Summer	51.183	0.0	33
60 min Summer	32.926	0.0	54
120 min Summer	20.664	0.0	88
180 min Summer	15.602	0.0	122
240 min Summer	12.744	0.0	156
360 min Summer	9.573	0.0	224
480 min Summer	7.806	0.0	288
600 min Summer	6.660	0.0	350
720 min Summer	5.849	0.0	410
960 min Summer	4.762	0.0	528
1440 min Summer	3.561	0.0	752
2160 min Summer	2.660	0.0	1100
2880 min Summer	2.162	0.0	1452
4320 min Summer	1.613	0.0	2172
5760 min Summer	1.311	0.0	2936
7200 min Summer	1.116	0.0	3640
8640 min Summer	0.978	0.0	4336
10080 min Summer	0.875	0.0	5056
15 min Winter	76.566	0.0	23
30 min Winter	51.183	0.0	34
60 min Winter	32.926	0.0	58
120 min Winter	20.664	0.0	94
180 min Winter	15.602	0.0	132

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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
240 min Winter	16.063	0.443	1.0	4.6	O K
360 min Winter	15.976	0.356	0.9	3.7	O K
480 min Winter	15.896	0.276	0.9	2.9	O K
600 min Winter	15.827	0.207	0.9	2.2	O K
720 min Winter	15.769	0.149	0.8	1.6	O K
960 min Winter	15.687	0.067	0.8	0.7	O K
1440 min Winter	15.661	0.041	0.6	0.4	O K
2160 min Winter	15.650	0.030	0.5	0.3	O K
2880 min Winter	15.645	0.025	0.4	0.3	O K
4320 min Winter	15.639	0.019	0.3	0.2	O K
5760 min Winter	15.635	0.015	0.2	0.2	O K
7200 min Winter	15.633	0.013	0.2	0.1	O K
8640 min Winter	15.631	0.011	0.2	0.1	O K
10080 min Winter	15.630	0.010	0.2	0.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
240 min Winter	12.744	0.0	168
360 min Winter	9.573	0.0	238
480 min Winter	7.806	0.0	304
600 min Winter	6.660	0.0	366
720 min Winter	5.849	0.0	424
960 min Winter	4.762	0.0	524
1440 min Winter	3.561	0.0	732
2160 min Winter	2.660	0.0	1104
2880 min Winter	2.162	0.0	1452
4320 min Winter	1.613	0.0	2196
5760 min Winter	1.311	0.0	2928
7200 min Winter	1.116	0.0	3544
8640 min Winter	0.978	0.0	4320
10080 min Winter	0.875	0.0	5168

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	10	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)
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