

Paul Basham Associates		Page 1
Lancaster Court Fareham Hampshire, PO15 5TU	1:100+40%CC ROAD CATCHMENT 3 INFILTRATION TRENCH	
Date 28/10/2021 09:56	Designed by CLP	
File 108.5009 - ROAD CATCHMENT 3.SRCX	Checked by RW	
Innovyze	Source Control 2020.1.3	

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

Half Drain Time : 67 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	15.949	0.629	0.7	3.6	O K
30 min Summer	16.117	0.797	0.8	4.6	O K
60 min Summer	16.224	0.904	0.9	5.2	Flood Risk
120 min Summer	16.251	0.931	0.9	5.4	Flood Risk
180 min Summer	16.220	0.900	0.9	5.2	Flood Risk
240 min Summer	16.179	0.859	0.8	5.0	Flood Risk
360 min Summer	16.101	0.781	0.8	4.5	O K
480 min Summer	16.027	0.707	0.8	4.1	O K
600 min Summer	15.958	0.638	0.7	3.6	O K
720 min Summer	15.896	0.576	0.7	3.3	O K
960 min Summer	15.788	0.468	0.7	2.6	O K
1440 min Summer	15.625	0.305	0.6	1.7	O K
2160 min Summer	15.470	0.150	0.5	0.7	O K
2880 min Summer	15.387	0.067	0.4	0.3	O K
4320 min Summer	15.364	0.044	0.3	0.1	O K
5760 min Summer	15.360	0.040	0.3	0.1	O K
7200 min Summer	15.356	0.036	0.2	0.1	O K
8640 min Summer	15.354	0.034	0.2	0.1	O K
10080 min Summer	15.352	0.032	0.2	0.1	O K
15 min Winter	16.030	0.710	0.8	4.1	O K
30 min Winter	16.226	0.906	0.9	5.2	Flood Risk
60 min Winter	16.359	1.039	0.9	6.0	Flood Risk
120 min Winter	16.387	1.067	1.0	6.2	Flood Risk
180 min Winter	16.336	1.016	0.9	5.9	Flood Risk

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	125.250	0.0	20
30 min Summer	85.368	0.0	32
60 min Summer	55.544	0.0	54
120 min Summer	34.816	0.0	88
180 min Summer	26.038	0.0	122
240 min Summer	21.042	0.0	158
360 min Summer	15.601	0.0	224
480 min Summer	12.593	0.0	292
600 min Summer	10.656	0.0	356
720 min Summer	9.290	0.0	420
960 min Summer	7.475	0.0	544
1440 min Summer	5.489	0.0	786
2160 min Summer	4.021	0.0	1144
2880 min Summer	3.220	0.0	1476
4320 min Summer	2.348	0.0	2180
5760 min Summer	1.878	0.0	2880
7200 min Summer	1.581	0.0	3544
8640 min Summer	1.373	0.0	4392
10080 min Summer	1.219	0.0	5008
15 min Winter	125.250	0.0	20
30 min Winter	85.368	0.0	33
60 min Winter	55.544	0.0	58
120 min Winter	34.816	0.0	94
180 min Winter	26.038	0.0	132

Paul Basham Associates		Page 2
Lancaster Court Fareham Hampshire, PO15 5TU	1:100+40%CC ROAD CATCHMENT 3 INFILTRATION TRENCH	
Date 28/10/2021 09:56	Designed by CLP	
File 108.5009 - ROAD CATCHMENT 3.SRCX	Checked by RW	
Innovyze	Source Control 2020.1.3	

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	16.269	0.949	0.9	5.5	Flood Risk
360 min Winter	16.148	0.828	0.8	4.8	Flood Risk
480 min Winter	16.037	0.717	0.8	4.1	O K
600 min Winter	15.939	0.619	0.7	3.5	O K
720 min Winter	15.853	0.533	0.7	3.0	O K
960 min Winter	15.710	0.390	0.6	2.2	O K
1440 min Winter	15.511	0.191	0.5	1.0	O K
2160 min Winter	15.369	0.049	0.4	0.1	O K
2880 min Winter	15.364	0.044	0.3	0.1	O K
4320 min Winter	15.358	0.038	0.3	0.1	O K
5760 min Winter	15.354	0.034	0.2	0.1	O K
7200 min Winter	15.351	0.031	0.2	0.1	O K
8640 min Winter	15.349	0.029	0.1	0.1	O K
10080 min Winter	15.347	0.027	0.1	0.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
240 min Winter	21.042	0.0	170
360 min Winter	15.601	0.0	240
480 min Winter	12.593	0.0	310
600 min Winter	10.656	0.0	376
720 min Winter	9.290	0.0	442
960 min Winter	7.475	0.0	568
1440 min Winter	5.489	0.0	810
2160 min Winter	4.021	0.0	1076
2880 min Winter	3.220	0.0	1428
4320 min Winter	2.348	0.0	2148
5760 min Winter	1.878	0.0	2848
7200 min Winter	1.581	0.0	3672
8640 min Winter	1.373	0.0	4368
10080 min Winter	1.219	0.0	5232

Paul Basham Associates		Page 3
Lancaster Court Fareham Hampshire, PO15 5TU	1:100+40%CC ROAD CATCHMENT 3 INFILTRATION TRENCH	
Date 28/10/2021 09:56	Designed by CLP	
File 108.5009 - ROAD CATCHMENT 3.SRCX	Checked by RW	
Innovyze	Source Control 2020.1.3	

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) 0.018

Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)
0	4	0.009	4	8	0.009

Paul Basham Associates		Page 4
Lancaster Court Fareham Hampshire, PO15 5TU	1:100+40%CC ROAD CATCHMENT 3 INFILTRATION TRENCH	
Date 28/10/2021 09:56	Designed by CLP	
File 108.5009 - ROAD CATCHMENT 3.SRCX	Checked by RW	
Innovyze	Source Control 2020.1.3	

Model Details

Storage is Online Cover Level (m) 16.420

Infiltration Trench Structure

Infiltration Coefficient Base (m/hr)	0.30852	Trench Width (m)	2.0
Infiltration Coefficient Side (m/hr)	0.30852	Trench Length (m)	9.9
Safety Factor	4.0	Slope (1:X)	200.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	15.320	Cap Infiltration Depth (m)	0.000