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62 Reservoir Road Solihull West Midlands B92 8AN	RYBROOK HANDY CROSS SOAKAWAY - CATCHMENT 3	
Date 30/06/2021 17:22 File CATCHMENT 3 - PORSCHE.SRCX	Designed by PCS Checked by	
Micro Drainage	Source Control 2018.1	

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 2069 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
15 min Summer	143.999	0.999	1.5	166.0	O K
30 min Summer	144.307	1.307	1.6	217.3	O K
60 min Summer	144.623	1.623	1.8	269.9	O K
120 min Summer	144.935	1.935	1.9	321.7	O K
180 min Summer	145.104	2.104	1.9	349.8	O K
240 min Summer	145.212	2.212	2.0	367.7	O K
360 min Summer	145.352	2.352	2.0	391.0	O K
480 min Summer	145.441	2.441	2.1	405.8	O K
600 min Summer	145.499	2.499	2.1	415.4	O K
720 min Summer	145.536	2.536	2.1	421.5	O K
960 min Summer	145.570	2.570	2.1	427.3	O K
1440 min Summer	145.551	2.551	2.1	424.1	O K
2160 min Summer	145.465	2.465	2.1	409.8	O K
2880 min Summer	145.373	2.373	2.0	394.4	O K
4320 min Summer	145.198	2.198	2.0	365.4	O K
5760 min Summer	145.049	2.049	1.9	340.7	O K
7200 min Summer	144.917	1.917	1.9	318.7	O K
8640 min Summer	144.794	1.794	1.8	298.3	O K


Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
15 min Summer	128.285	0.0	27
30 min Summer	84.226	0.0	42
60 min Summer	52.662	0.0	72
120 min Summer	31.800	0.0	130
180 min Summer	23.353	0.0	190
240 min Summer	18.644	0.0	250
360 min Summer	13.543	0.0	368
480 min Summer	10.792	0.0	488
600 min Summer	9.043	0.0	606
720 min Summer	7.823	0.0	726
960 min Summer	6.219	0.0	964
1440 min Summer	4.493	0.0	1436
2160 min Summer	3.241	0.0	1772
2880 min Summer	2.568	0.0	2140
4320 min Summer	1.847	0.0	2948
5760 min Summer	1.461	0.0	3800
7200 min Summer	1.217	0.0	4616
8640 min Summer	1.048	0.0	5448

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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
10080 min Summer	144.679	1.679	1.8	279.1	O K
15 min Winter	144.119	1.119	1.6	186.1	O K
30 min Winter	144.466	1.466	1.7	243.8	O K
60 min Winter	144.822	1.822	1.8	302.9	O K
120 min Winter	145.175	2.175	2.0	361.5	O K
180 min Winter	145.368	2.368	2.0	393.7	O K
240 min Winter	145.493	2.493	2.1	414.4	O K
360 min Winter	145.657	2.657	2.1	441.8	O K
480 min Winter	145.765	2.765	2.2	459.6	O K
600 min Winter	145.837	2.837	2.2	471.6	O K
720 min Winter	145.886	2.886	2.2	479.8	O K
960 min Winter	145.940	2.940	2.2	488.8	O K
1440 min Winter	145.952	2.952	2.2	490.7	O K
2160 min Winter	145.862	2.862	2.2	475.8	O K
2880 min Winter	145.758	2.758	2.2	458.5	O K
4320 min Winter	145.536	2.536	2.1	421.6	O K
5760 min Winter	145.322	2.322	2.0	386.0	O K
7200 min Winter	145.133	2.133	1.9	354.6	O K
8640 min Winter	144.955	1.955	1.9	325.0	O K


Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
10080 min Summer	0.923	0.0	6248
15 min Winter	128.285	0.0	27
30 min Winter	84.226	0.0	41
60 min Winter	52.662	0.0	70
120 min Winter	31.800	0.0	128
180 min Winter	23.353	0.0	186
240 min Winter	18.644	0.0	246
360 min Winter	13.543	0.0	362
480 min Winter	10.792	0.0	478
600 min Winter	9.043	0.0	596
720 min Winter	7.823	0.0	710
960 min Winter	6.219	0.0	940
1440 min Winter	4.493	0.0	1386
2160 min Winter	3.241	0.0	1996
2880 min Winter	2.568	0.0	2252
4320 min Winter	1.847	0.0	3196
5760 min Winter	1.461	0.0	4096
7200 min Winter	1.217	0.0	4976
8640 min Winter	1.048	0.0	5872

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Summary of Results for 100 year Return Period (+30%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status
10080 min Winter	144.789	1.789	1.8	297.4	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m ³)	Time-Peak (mins)
10080 min Winter	0.923	0.0	6664

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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)	20.000	Shortest Storm (mins)	15
Ratio R	0.400	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.698

Time (mins) Area			Time (mins) Area			Time (mins) Area		
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.230	4	8	0.230	8	12	0.238

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Model Details

Storage is Online Cover Level (m) 148.250

Cellular Storage Structure

Invert Level (m) 143.000 Safety Factor 1.5
 Infiltration Coefficient Base (m/hr) 0.03600 Porosity 0.95
 Infiltration Coefficient Side (m/hr) 0.03600

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	175.0	175.0	3.000	175.0	340.0
1.000	175.0	230.0	3.001	0.0	340.0
2.000	175.0	285.0			