

Escher Silverman		Page 1
Lone Barn Studios Stanbridge Lane Romsey SO51 0HE	Hurst Road East Preston Trench Soakaway So1	
Date September 2017 File So1 New 100yr+40%.SRC	Designed By KN Checked By	
Micro Drainage	Source Control W.11.2	

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

Half Drain Time : 247 minutes

Storm Duration (mins)	Maximum Filtration (1/s)	Maximum Outflow (1/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m ³)	Status
15 Summer	0.2	0.2	8.3848	0.9348	3.9	0 K
30 Summer	0.2	0.2	8.6543	1.2043	5.1	0 K
60 Summer	0.3	0.3	8.8982	1.4482	6.1	0 K
120 Summer	0.3	0.3	9.0672	1.6172	6.8	0 K
180 Summer	0.3	0.3	9.1082	1.6582	7.0	0 K
240 Summer	0.3	0.3	9.1237	1.6737	7.0	0 K
360 Summer	0.3	0.3	9.1257	1.6757	7.0	0 K
480 Summer	0.3	0.3	9.1107	1.6607	7.0	0 K
600 Summer	0.3	0.3	9.0852	1.6352	6.9	0 K
720 Summer	0.3	0.3	9.0542	1.6042	6.7	0 K
960 Summer	0.3	0.3	8.9857	1.5357	6.5	0 K
1440 Summer	0.3	0.3	8.8512	1.4012	5.9	0 K
15 Winter	0.2	0.2	8.4978	1.0478	4.4	0 K
30 Winter	0.3	0.3	8.8002	1.3502	5.7	0 K
60 Winter	0.3	0.3	9.0747	1.6247	6.8	0 K
120 Winter	0.4	0.4	9.2727	1.8227	7.7	0 K
180 Winter	0.4	0.4	9.3192	1.8692	7.9	0 K
240 Winter	0.4	0.4	9.3257	1.8757	7.9	0 K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
15 Summer	134.37	23
30 Summer	88.27	37
60 Summer	55.25	66
120 Summer	33.43	124
180 Summer	24.59	160
240 Summer	19.66	190
360 Summer	14.27	256
480 Summer	11.37	324
600 Summer	9.53	392
720 Summer	8.25	460
960 Summer	6.56	594
1440 Summer	4.74	858
15 Winter	134.37	22
30 Winter	88.27	36
60 Winter	55.25	64
120 Winter	33.43	122
180 Winter	24.59	174
240 Winter	19.66	196

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Storm Duration (mins)	Maximum Filtration (l/s)	Maximum Outflow (l/s)	Maximum Water Level (m OD)	Maximum Depth (m)	Maximum Volume (m³)	Status
360 Winter	0.4	0.4	9.3112	1.8612	7.8	0 K
480 Winter	0.4	0.4	9.2732	1.8232	7.7	0 K
600 Winter	0.3	0.3	9.2237	1.7737	7.5	0 K
720 Winter	0.3	0.3	9.1702	1.7202	7.2	0 K
960 Winter	0.3	0.3	9.0627	1.6127	6.8	0 K
1440 Winter	0.3	0.3	8.8697	1.4197	6.0	0 K

Storm Duration (mins)	Rain (mm/hr)	Time-Peak (mins)
360 Winter	14.27	272
480 Winter	11.37	348
600 Winter	9.53	420
720 Winter	8.25	494
960 Winter	6.56	636
1440 Winter	4.74	912

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Rainfall Details

Region	ENG+WAL	Cv (Summer)	0.750	Summer Storms	Yes
Return Period (years)	100	Cv (Winter)	0.840	Winter Storms	Yes
M5-60 (mm)	19.500	Shortest Storm (mins)	15	Climate Change %	+40
Ratio-R	0.400	Longest Storm (mins)	1440		

Time / Area Diagram

Total Area (ha) = 0.016

Time from:	(mins) to:	Area (ha)	Time from:	(mins) to:	Area (ha)
0	4	0.000	4	8	0.016

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Trench Soakaway Details

Infil Coef - Base (m/hr)	0.000000	Length (m)	7.0
Infil Coef - Sides (m/hr)	0.041400	Invert Level (m)	7.450
Safety Factor	1.0	Cover Level (m)	9.350
Porosity	0.40	Slope (1:x)	0.0
Width (m)	1.5		