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Willow Cottage Herne Lane Rustington BN16 3EE	Herons Farm Dappers Lane Angmering	
Date 19.2.18 File Trench soakaways.SRCX	Designed by RTFC Checked by	
Micro Drainage	Source Control 2016.1	

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

Half Drain Time : 96 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	10.208	0.438	1.1	7.5	Flood Risk
30 min Summer	10.278	0.508	1.2	9.6	Flood Risk
60 min Summer	10.331	0.561	1.3	11.2	Flood Risk
120 min Summer	10.355	0.585	1.3	12.0	Flood Risk
180 min Summer	10.356	0.586	1.3	12.0	Flood Risk
240 min Summer	10.347	0.577	1.3	11.7	Flood Risk
360 min Summer	10.322	0.552	1.3	11.0	Flood Risk
480 min Summer	10.296	0.526	1.2	10.2	Flood Risk
600 min Summer	10.272	0.502	1.2	9.5	Flood Risk
720 min Summer	10.249	0.479	1.1	8.8	Flood Risk
960 min Summer	10.209	0.439	1.1	7.6	Flood Risk
1440 min Summer	10.151	0.381	1.0	5.8	Flood Risk
2160 min Summer	10.098	0.328	0.8	4.3	O K
2880 min Summer	10.060	0.290	0.7	3.4	O K
4320 min Summer	10.007	0.237	0.6	2.2	O K
5760 min Summer	9.972	0.202	0.5	1.6	O K
7200 min Summer	9.947	0.177	0.4	1.3	O K
8640 min Summer	9.928	0.158	0.3	1.0	O K
10080 min Summer	9.913	0.143	0.3	0.8	O K
15 min Winter	10.240	0.470	1.1	8.5	Flood Risk

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	115.731	0.0	18
30 min Summer	77.804	0.0	32
60 min Summer	49.937	0.0	60
120 min Summer	30.956	0.0	92
180 min Summer	23.058	0.0	126
240 min Summer	18.577	0.0	160
360 min Summer	13.656	0.0	230
480 min Summer	10.974	0.0	296
600 min Summer	9.254	0.0	362
720 min Summer	8.046	0.0	426
960 min Summer	6.447	0.0	550
1440 min Summer	4.709	0.0	792
2160 min Summer	3.432	0.0	1148
2880 min Summer	2.739	0.0	1504
4320 min Summer	1.989	0.0	2244
5760 min Summer	1.583	0.0	2944
7200 min Summer	1.325	0.0	3672
8640 min Summer	1.147	0.0	4408
10080 min Summer	1.015	0.0	5136
15 min Winter	115.731	0.0	18

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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 (m³)	Status
30 min Winter	10.320	0.550	1.2	10.9	Flood Risk
60 min Winter	10.383	0.613	1.3	12.8	Flood Risk
120 min Winter	10.409	0.639	1.4	13.6	Flood Risk
180 min Winter	10.407	0.637	1.4	13.5	Flood Risk
240 min Winter	10.391	0.621	1.4	13.1	Flood Risk
360 min Winter	10.352	0.582	1.3	11.9	Flood Risk
480 min Winter	10.313	0.543	1.2	10.7	Flood Risk
600 min Winter	10.277	0.507	1.2	9.6	Flood Risk
720 min Winter	10.244	0.474	1.1	8.6	Flood Risk
960 min Winter	10.189	0.419	1.1	7.0	Flood Risk
1440 min Winter	10.120	0.350	0.9	4.9	0 K
2160 min Winter	10.058	0.288	0.7	3.3	0 K
2880 min Winter	10.016	0.246	0.6	2.4	0 K
4320 min Winter	9.962	0.192	0.4	1.5	0 K
5760 min Winter	9.929	0.159	0.4	1.0	0 K
7200 min Winter	9.906	0.136	0.3	0.7	0 K
8640 min Winter	9.890	0.120	0.3	0.6	0 K
10080 min Winter	9.877	0.107	0.2	0.5	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	77.804	0.0	31
60 min Winter	49.937	0.0	60
120 min Winter	30.956	0.0	96
180 min Winter	23.058	0.0	136
240 min Winter	18.577	0.0	174
360 min Winter	13.656	0.0	246
480 min Winter	10.974	0.0	318
600 min Winter	9.254	0.0	386
720 min Winter	8.046	0.0	450
960 min Winter	6.447	0.0	578
1440 min Winter	4.709	0.0	810
2160 min Winter	3.432	0.0	1172
2880 min Winter	2.739	0.0	1528
4320 min Winter	1.989	0.0	2248
5760 min Winter	1.583	0.0	2944
7200 min Winter	1.325	0.0	3672
8640 min Winter	1.147	0.0	4400
10080 min Winter	1.015	0.0	5136

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<u>Rainfall Details</u> <table> <tr> <td>Rainfall Model</td> <td>FSR</td> <td>Winter Storms</td> <td>Yes</td> </tr> <tr> <td>Return Period (years)</td> <td>100</td> <td>Cv (Summer)</td> <td>0.750</td> </tr> <tr> <td>Region</td> <td>England and Wales</td> <td>Cv (Winter)</td> <td>0.840</td> </tr> <tr> <td>M5-60 (mm)</td> <td>19.000</td> <td>Shortest Storm (mins)</td> <td>15</td> </tr> <tr> <td>Ratio R</td> <td>0.350</td> <td>Longest Storm (mins)</td> <td>10080</td> </tr> <tr> <td>Summer Storms</td> <td>Yes</td> <td>Climate Change %</td> <td>+30</td> </tr> </table> <u>Time Area Diagram</u> Total Area (ha) 0.038 <table> <tr> <td>Time (mins)</td> <td>Area</td> </tr> <tr> <td>From: To:</td> <td>(ha)</td> </tr> <tr> <td>0 4</td> <td>0.038</td> </tr> </table>			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)	19.000	Shortest Storm (mins)	15	Ratio R	0.350	Longest Storm (mins)	10080	Summer Storms	Yes	Climate Change %	+30	Time (mins)	Area	From: To:	(ha)	0 4	0.038
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Model Details

Storage is Online Cover Level (m) 10.450

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.05150
Infiltration Coefficient Side (m/hr)	0.05150
Safety Factor	1.5
Porosity	0.40
Invert Level (m)	9.770
Trench Width (m)	1.0
Trench Length (m)	75.6
Slope (1:X)	200.0
Cap Volume Depth (m)	0.000
Cap Infiltration Depth (m)	0.000

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