

Infrastruct CS Ltd				Page 1																																																																																																																																																																																																																			
The Stables High Cogges, Witney Oxfordshire																																																																																																																																																																																																																							
Date 18/08/2018 09:32 File 170sqm house.srcx		Designed by Tim.Trotman Checked by																																																																																																																																																																																																																					
Micro Drainage		Source Control 2015.1																																																																																																																																																																																																																					
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 1307 minutes. <table><tr><th>Storm Event</th><th>Max Level (m)</th><th>Max Depth (m)</th><th>Max Infiltration (l/s)</th><th>Max Volume (m³)</th><th>Status</th></tr><tr><td>15 min Summer</td><td>59.830</td><td>0.130</td><td>0.1</td><td>4.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>59.870</td><td>0.170</td><td>0.1</td><td>5.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>59.910</td><td>0.210</td><td>0.1</td><td>6.6</td><td>O K</td></tr><tr><td>120 min Summer</td><td>59.949</td><td>0.249</td><td>0.1</td><td>7.8</td><td>O K</td></tr><tr><td>180 min Summer</td><td>59.969</td><td>0.269</td><td>0.1</td><td>8.4</td><td>O K</td></tr><tr><td>240 min Summer</td><td>59.981</td><td>0.281</td><td>0.1</td><td>8.8</td><td>O K</td></tr><tr><td>360 min Summer</td><td>59.996</td><td>0.296</td><td>0.1</td><td>9.3</td><td>O K</td></tr><tr><td>480 min Summer</td><td>60.003</td><td>0.303</td><td>0.1</td><td>9.5</td><td>O K</td></tr><tr><td>600 min Summer</td><td>60.007</td><td>0.307</td><td>0.1</td><td>9.6</td><td>O K</td></tr><tr><td>720 min Summer</td><td>60.008</td><td>0.308</td><td>0.1</td><td>9.7</td><td>O K</td></tr><tr><td>960 min Summer</td><td>60.005</td><td>0.305</td><td>0.1</td><td>9.6</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>59.994</td><td>0.294</td><td>0.1</td><td>9.2</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>59.977</td><td>0.277</td><td>0.1</td><td>8.7</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>59.960</td><td>0.260</td><td>0.1</td><td>8.1</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>59.927</td><td>0.227</td><td>0.1</td><td>7.1</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>59.897</td><td>0.197</td><td>0.1</td><td>6.2</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>59.869</td><td>0.169</td><td>0.1</td><td>5.3</td><td>O K</td></tr><tr><td>8640 min 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Summer	59.870	0.170	0.1	5.3	O K	60 min Summer	59.910	0.210	0.1	6.6	O K	120 min Summer	59.949	0.249	0.1	7.8	O K	180 min Summer	59.969	0.269	0.1	8.4	O K	240 min Summer	59.981	0.281	0.1	8.8	O K	360 min Summer	59.996	0.296	0.1	9.3	O K	480 min Summer	60.003	0.303	0.1	9.5	O K	600 min Summer	60.007	0.307	0.1	9.6	O K	720 min Summer	60.008	0.308	0.1	9.7	O K	960 min Summer	60.005	0.305	0.1	9.6	O K	1440 min Summer	59.994	0.294	0.1	9.2	O K	2160 min Summer	59.977	0.277	0.1	8.7	O K	2880 min Summer	59.960	0.260	0.1	8.1	O K	4320 min Summer	59.927	0.227	0.1	7.1	O K	5760 min Summer	59.897	0.197	0.1	6.2	O K	7200 min Summer	59.869	0.169	0.1	5.3	O K	8640 min Summer	59.845	0.145	0.1	4.5	O K	10080 min Summer	59.823	0.123	0.1	3.9	O K	15 min Winter	59.846	0.146	0.1	4.6	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	138.153	0.0	23	30 min Summer	90.705	0.0	37	60 min Summer	56.713	0.0	68	120 min Summer	34.246	0.0	126	180 min Summer	25.149	0.0	186	240 min Summer	20.078	0.0	246	360 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The Stables High Cogges, Witney Oxfordshire					
Date 18/08/2018 09:32 File 170sqm house.srcx		Designed by Tim.Trotman Checked by			
Micro Drainage		Source Control 2015.1			
<u>Summary of Results for 100 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	59.891	0.191	0.1	6.0	O K
60 min Winter	59.936	0.236	0.1	7.4	O K
120 min Winter	59.980	0.280	0.1	8.8	O K
180 min Winter	60.004	0.304	0.1	9.5	O K
240 min Winter	60.018	0.318	0.1	10.0	O K
360 min Winter	60.036	0.336	0.1	10.5	O K
480 min Winter	60.046	0.346	0.1	10.8	O K
600 min Winter	60.051	0.351	0.1	11.0	O K
720 min Winter	60.054	0.354	0.1	11.1	O K
960 min Winter	60.054	0.354	0.1	11.1	O K
1440 min Winter	60.042	0.342	0.1	10.7	O K
2160 min Winter	60.019	0.319	0.1	10.0	O K
2880 min Winter	59.995	0.295	0.1	9.3	O K
4320 min Winter	59.947	0.247	0.1	7.7	O K
5760 min Winter	59.901	0.201	0.1	6.3	O K
7200 min Winter	59.860	0.160	0.1	5.0	O K
8640 min Winter	59.824	0.124	0.1	3.9	O K
10080 min Winter	59.794	0.094	0.1	3.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	90.705	0.0	37		
60 min Winter	56.713	0.0	66		
120 min Winter	34.246	0.0	124		
180 min Winter	25.149	0.0	182		
240 min Winter	20.078	0.0	242		
360 min Winter	14.585	0.0	358		
480 min Winter	11.622	0.0	474		
600 min Winter	9.738	0.0	590		
720 min Winter	8.424	0.0	704		
960 min Winter	6.697	0.0	928		
1440 min Winter	4.839	0.0	1348		
2160 min Winter	3.490	0.0	1668		
2880 min Winter	2.766	0.0	2132		
4320 min Winter	1.989	0.0	2992		
5760 min Winter	1.573	0.0	3816		
7200 min Winter	1.311	0.0	4608		
8640 min Winter	1.129	0.0	5280		
10080 min Winter	0.994	0.0	5952		
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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 %	+40

Time Area Diagram

Total Area (ha) 0.016

Time (mins)	Area	Time (mins)	Area
From: To:	(ha)	From: To:	(ha)
0 4	0.008	4 8	0.008

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Model Details

Storage is Online Cover Level (m) 60.300

Cellular Storage Structure

Invert Level (m) 59.700 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.01548 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	33.0	33.0	0.500	0.0	43.3
0.400	33.0	42.2			

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