

CGS Civils Ltd			Page 1		
65 St Pauls Road Chichester West Sussex PO19 3DD		L'Apache, Westergate Soakaway Trench 1&2			
Date 14/09/2018 File SAT_1.srcx		Designed by CS Checked by			
Micro Drainage		Source Control 2018.1			
<u>Summary of Results for 100 year Return Period (+40%)</u>					
Half Drain Time : 681 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	8.522	0.322	0.0	1.8	O K
30 min Summer	8.628	0.428	0.1	2.4	O K
60 min Summer	8.740	0.540	0.1	3.1	O K
120 min Summer	8.846	0.646	0.1	3.7	O K
180 min Summer	8.898	0.698	0.1	4.0	O K
240 min Summer	8.926	0.726	0.1	4.1	O K
360 min Summer	8.950	0.750	0.1	4.3	O K
480 min Summer	8.955	0.755	0.1	4.3	O K
600 min Summer	8.955	0.755	0.1	4.3	O K
720 min Summer	8.952	0.752	0.1	4.3	O K
960 min Summer	8.942	0.742	0.1	4.2	O K
1440 min Summer	8.911	0.711	0.1	4.1	O K
2160 min Summer	8.861	0.661	0.1	3.8	O K
2880 min Summer	8.813	0.613	0.1	3.5	O K
4320 min Summer	8.728	0.528	0.1	3.0	O K
5760 min Summer	8.655	0.455	0.1	2.6	O K
7200 min Summer	8.592	0.392	0.0	2.2	O K
8640 min Summer	8.539	0.339	0.0	1.9	O K
10080 min Summer	8.494	0.294	0.0	1.7	O K
15 min Winter	8.561	0.361	0.0	2.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	124.633	0.0	19		
30 min Summer	83.789	0.0	34		
60 min Summer	53.779	0.0	64		
120 min Summer	33.337	0.0	122		
180 min Summer	24.832	0.0	182		
240 min Summer	20.006	0.0	242		
360 min Summer	14.706	0.0	360		
480 min Summer	11.818	0.0	458		
600 min Summer	9.966	0.0	510		
720 min Summer	8.665	0.0	572		
960 min Summer	6.943	0.0	700		
1440 min Summer	5.071	0.0	978		
2160 min Summer	3.696	0.0	1384		
2880 min Summer	2.949	0.0	1792		
4320 min Summer	2.142	0.0	2596		
5760 min Summer	1.705	0.0	3400		
7200 min Summer	1.427	0.0	4112		
8640 min Summer	1.235	0.0	4848		
10080 min Summer	1.093	0.0	5648		
15 min Winter	124.633	0.0	19		
©1982-2018 Innovyze					

CGS Civils Ltd			Page 2		
65 St Pauls Road CHichester West Sussex PO19 3DD		L'Apache, Westergate Soakaway Trench 1&2			
Date 14/09/2018 File SAT_1.srcx		Designed by CS Checked by			
Micro Drainage		Source Control 2018.1			
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
30 min Winter	8.681	0.481	0.1	2.7	O K
60 min Winter	8.807	0.607	0.1	3.5	O K
120 min Winter	8.929	0.729	0.1	4.2	O K
180 min Winter	8.990	0.790	0.1	4.5	O K
240 min Winter	9.033	0.833	0.1	4.7	O K
360 min Winter	9.240	1.040	0.1	4.9	O K
480 min Winter	9.315	1.115	0.1	5.0	O K
600 min Winter	9.317	1.117	0.1	5.0	O K
720 min Winter	9.277	1.077	0.1	4.9	O K
960 min Winter	9.198	0.998	0.1	4.8	O K
1440 min Winter	9.008	0.808	0.1	4.6	O K
2160 min Winter	8.933	0.733	0.1	4.2	O K
2880 min Winter	8.863	0.663	0.1	3.8	O K
4320 min Winter	8.740	0.540	0.1	3.1	O K
5760 min Winter	8.639	0.439	0.1	2.5	O K
7200 min Winter	8.555	0.355	0.0	2.0	O K
8640 min Winter	8.487	0.287	0.0	1.6	O K
10080 min Winter	8.429	0.229	0.0	1.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	83.789	0.0	33		
60 min Winter	53.779	0.0	62		
120 min Winter	33.337	0.0	120		
180 min Winter	24.832	0.0	178		
240 min Winter	20.006	0.0	236		
360 min Winter	14.706	0.0	350		
480 min Winter	11.818	0.0	460		
600 min Winter	9.966	0.0	566		
720 min Winter	8.665	0.0	658		
960 min Winter	6.943	0.0	744		
1440 min Winter	5.071	0.0	1052		
2160 min Winter	3.696	0.0	1496		
2880 min Winter	2.949	0.0	1932		
4320 min Winter	2.142	0.0	2768		
5760 min Winter	1.705	0.0	3576		
7200 min Winter	1.427	0.0	4328		
8640 min Winter	1.235	0.0	5104		
10080 min Winter	1.093	0.0	5848		
©1982-2018 Innovyze					

CGS Civils Ltd		Page 3																														
65 St Pauls Road Chichester West Sussex PO19 3DD	L'Apache, Westergate Soakaway Trench 1&2																															
Date 14/09/2018 File SAT_1.srcx	Designed by CS Checked by																															
Micro Drainage		Source Control 2018.1																														
<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>+40</td> </tr> </table> <u>Time Area Diagram</u> Total Area (ha) 0.008 <table> <tr> <td>Time (mins)</td> <td>Area</td> </tr> <tr> <td>From: To:</td> <td>(ha)</td> </tr> <tr> <td>0</td> <td>4 0.008</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 %	+40	Time (mins)	Area	From: To:	(ha)	0	4 0.008
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 %	+40																													
Time (mins)	Area																															
From: To:	(ha)																															
0	4 0.008																															
©1982-2018 Innovyze																																

CGS Civils Ltd		Page 4																		
65 St Pauls Road Chichester West Sussex PO19 3DD	L'Apache, Westergate Soakaway Trench 1&2																			
Date 14/09/2018 File SAT_1.srcx	Designed by CS Checked by																			
Micro Drainage		Source Control 2018.1																		
<u>Model Details</u> Storage is Online Cover Level (m) 9.500 <u>Cellular Storage Structure</u> Invert Level (m) 8.200 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.03600 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.03600 <table border="1"> <thead> <tr> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> <th>Depth (m)</th> <th>Area (m²)</th> <th>Inf. Area (m²)</th> </tr> </thead> <tbody> <tr> <td>0.000</td> <td>6.0</td> <td>6.0</td> <td>0.900</td> <td>0.0</td> <td>14.0</td> </tr> <tr> <td>0.800</td> <td>6.0</td> <td>14.0</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	6.0	6.0	0.900	0.0	14.0	0.800	6.0	14.0			
Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)															
0.000	6.0	6.0	0.900	0.0	14.0															
0.800	6.0	14.0																		
©1982-2018 Innovyze																				