

Systra Ltd			Page 1		
Innovation Court 121 Edmund Street Birmingham B3 2HJ		Station Rd, Chirk, Wrexham, Soakaway Design Access Road North Section			
Date 23/10/2019 File Access Road north sectio...		Designed by GP Checked by GP			
Micro Drainage		Source Control 2019.1			
<u>Summary of Results for 100 year Return Period (+40%)</u>					
Half Drain Time : 34 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	0.502	0.502	3.8	9.5	O K
30 min Summer	0.636	0.636	4.5	12.1	O K
60 min Summer	0.710	0.710	4.9	13.5	O K
120 min Summer	0.714	0.714	4.9	13.6	O K
180 min Summer	0.674	0.674	4.7	12.8	O K
240 min Summer	0.626	0.626	4.5	11.9	O K
360 min Summer	0.541	0.541	4.0	10.3	O K
480 min Summer	0.472	0.472	3.7	9.0	O K
600 min Summer	0.415	0.415	3.4	7.9	O K
720 min Summer	0.367	0.367	3.1	7.0	O K
960 min Summer	0.292	0.292	2.7	5.5	O K
1440 min Summer	0.190	0.190	2.2	3.6	O K
2160 min Summer	0.101	0.101	1.8	1.9	O K
2880 min Summer	0.054	0.054	1.5	1.0	O K
4320 min Summer	0.038	0.038	1.1	0.7	O K
5760 min Summer	0.031	0.031	0.9	0.6	O K
7200 min Summer	0.026	0.026	0.8	0.5	O K
8640 min Summer	0.023	0.023	0.7	0.4	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	111.276	0.0	21		
30 min Summer	76.836	0.0	31		
60 min Summer	50.812	0.0	48		
120 min Summer	32.465	0.0	82		
180 min Summer	24.581	0.0	116		
240 min Summer	20.008	0.0	148		
360 min Summer	14.913	0.0	212		
480 min Summer	12.100	0.0	274		
600 min Summer	10.277	0.0	336		
720 min Summer	8.989	0.0	398		
960 min Summer	7.267	0.0	518		
1440 min Summer	5.372	0.0	760		
2160 min Summer	3.960	0.0	1116		
2880 min Summer	3.185	0.0	1472		
4320 min Summer	2.337	0.0	2200		
5760 min Summer	1.876	0.0	2904		
7200 min Summer	1.584	0.0	3624		
8640 min Summer	1.379	0.0	4384		
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Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
10080 min Summer	0.020	0.020	0.6	0.4	O K
15 min Winter	0.566	0.566	4.1	10.7	O K
30 min Winter	0.719	0.719	4.9	13.7	O K
60 min Winter	0.795	0.795	5.3	15.1	O K
120 min Winter	0.774	0.774	5.2	14.7	O K
180 min Winter	0.704	0.704	4.9	13.4	O K
240 min Winter	0.631	0.631	4.5	12.0	O K
360 min Winter	0.512	0.512	3.9	9.7	O K
480 min Winter	0.422	0.422	3.4	8.0	O K
600 min Winter	0.352	0.352	3.1	6.7	O K
720 min Winter	0.296	0.296	2.8	5.6	O K
960 min Winter	0.212	0.212	2.3	4.0	O K
1440 min Winter	0.109	0.109	1.8	2.1	O K
2160 min Winter	0.046	0.046	1.4	0.9	O K
2880 min Winter	0.037	0.037	1.1	0.7	O K
4320 min Winter	0.027	0.027	0.8	0.5	O K
5760 min Winter	0.022	0.022	0.7	0.4	O K
7200 min Winter	0.019	0.019	0.6	0.4	O K
8640 min Winter	0.016	0.016	0.5	0.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
10080 min Summer	1.227	0.0	5112		
15 min Winter	111.276	0.0	22		
30 min Winter	76.836	0.0	32		
60 min Winter	50.812	0.0	50		
120 min Winter	32.465	0.0	86		
180 min Winter	24.581	0.0	122		
240 min Winter	20.008	0.0	156		
360 min Winter	14.913	0.0	222		
480 min Winter	12.100	0.0	284		
600 min Winter	10.277	0.0	348		
720 min Winter	8.989	0.0	408		
960 min Winter	7.267	0.0	530		
1440 min Winter	5.372	0.0	770		
2160 min Winter	3.960	0.0	1100		
2880 min Winter	3.185	0.0	1444		
4320 min Winter	2.337	0.0	2204		
5760 min Winter	1.876	0.0	2928		
7200 min Winter	1.584	0.0	3600		
8640 min Winter	1.379	0.0	4336		
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<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
10080 min Winter	0.015	0.015	0.4	0.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
10080 min Winter	1.227	0.0	5024		
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