



Cole Easdon Consultants		Page 1
York House, Edison Park Dorcan Way Swindon, SN3 3RB	Garage 31-32 Whitelands Farm Bicester	
Date Feb 2011 File AREA 15 (GARAGE 3...	Designed By TGL Checked By	
Elstree Computing Ltd	Source Control W.12.4	

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

Half Drain Time : 145 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (1/s)	Max Volume (m <sup>3</sup> )	Status
15 min Summer	100.159	0.159	0.2	1.8	O K
30 min Summer	100.202	0.202	0.2	2.3	O K
60 min Summer	100.235	0.235	0.2	2.8	O K
120 min Summer	100.248	0.248	0.2	2.9	O K
180 min Summer	100.244	0.244	0.2	2.9	O K
240 min Summer	100.236	0.236	0.2	2.8	O K
360 min Summer	100.218	0.218	0.2	2.6	O K
480 min Summer	100.200	0.200	0.2	2.3	O K
600 min Summer	100.182	0.182	0.2	2.1	O K
720 min Summer	100.166	0.166	0.2	1.9	O K
960 min Summer	100.135	0.135	0.2	1.5	O K
1440 min Summer	100.089	0.089	0.2	0.9	O K
2160 min Summer	100.052	0.052	0.2	0.4	O K
2880 min Summer	100.042	0.042	0.2	0.3	O K
4320 min Summer	100.032	0.032	0.1	0.2	O K
5760 min Summer	100.028	0.028	0.1	0.2	O K
7200 min Summer	100.026	0.026	0.1	0.1	O K
8640 min Summer	100.024	0.024	0.1	0.1	O K
10080 min Summer	100.023	0.023	0.1	0.1	O K
15 min Winter	100.179	0.179	0.2	2.1	O K
30 min Winter	100.228	0.228	0.2	2.7	O K
60 min Winter	100.268	0.268	0.2	3.2	O K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
15 min Summer	128.285	18
30 min Summer	84.226	32
60 min Summer	52.662	62
120 min Summer	31.800	114
180 min Summer	23.353	142
240 min Summer	18.644	174
360 min Summer	13.543	242
480 min Summer	10.792	308
600 min Summer	9.043	376
720 min Summer	7.823	440
960 min Summer	6.219	568
1440 min Summer	4.493	796
2160 min Summer	3.241	1124
2880 min Summer	2.568	1472
4320 min Summer	1.847	2204
5760 min Summer	1.461	2936
7200 min Summer	1.217	3672
8640 min Summer	1.048	4392
10080 min Summer	0.923	5080
15 min Winter	128.285	18
30 min Winter	84.226	32
60 min Winter	52.662	60

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

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (1/s)	Max Volume (m <sup>3</sup> )	Status
120 min Winter	100.287	0.287	0.2	3.4	O K
180 min Winter	100.281	0.281	0.2	3.4	O K
240 min Winter	100.271	0.271	0.2	3.2	O K
360 min Winter	100.245	0.245	0.2	2.9	O K
480 min Winter	100.218	0.218	0.2	2.5	O K
600 min Winter	100.191	0.191	0.2	2.2	O K
720 min Winter	100.165	0.165	0.2	1.9	O K
960 min Winter	100.120	0.120	0.2	1.3	O K
1440 min Winter	100.059	0.059	0.2	0.5	O K
2160 min Winter	100.040	0.040	0.2	0.3	O K
2880 min Winter	100.032	0.032	0.1	0.2	O K
4320 min Winter	100.027	0.027	0.1	0.1	O K
5760 min Winter	100.024	0.024	0.1	0.1	O K
7200 min Winter	100.022	0.022	0.1	0.1	O K
8640 min Winter	100.020	0.020	0.1	0.1	O K
10080 min Winter	100.019	0.019	0.0	0.1	O K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
120 min Winter	31.800	116
180 min Winter	23.353	166
240 min Winter	18.644	188
360 min Winter	13.543	264
480 min Winter	10.792	336
600 min Winter	9.043	406
720 min Winter	7.823	472
960 min Winter	6.219	598
1440 min Winter	4.493	796
2160 min Winter	3.241	1124
2880 min Winter	2.568	1476
4320 min Winter	1.847	2188
5760 min Winter	1.461	2904
7200 min Winter	1.217	3632
8640 min Winter	1.048	4400
10080 min Winter	0.923	5072

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Model Details

Storage is Online Cover Level (m) 102.000

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.03600	Width (m)	6.4
Membrane Percolation (mm/hr)	1000	Length (m)	6.6
Max Percolation (l/s)	11.7	Slope (1:X)	200.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	100.000	Cap Volume Depth (m)	0.000