

Cole Easdon Consultants				Page 1																																																																																																																																																																																																																			
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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 2392 minutes. <table><thead><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></thead><tbody><tr><td>15 min Summer</td><td>4.110</td><td>0.110</td><td>0.1</td><td>8.6</td><td>0 K</td></tr><tr><td>30 min Summer</td><td>4.147</td><td>0.147</td><td>0.1</td><td>11.5</td><td>0 K</td></tr><tr><td>60 min Summer</td><td>4.188</td><td>0.188</td><td>0.1</td><td>14.6</td><td>0 K</td></tr><tr><td>120 min Summer</td><td>4.230</td><td>0.230</td><td>0.1</td><td>17.9</td><td>0 K</td></tr><tr><td>180 min Summer</td><td>4.254</td><td>0.254</td><td>0.1</td><td>19.8</td><td>0 K</td></tr><tr><td>240 min Summer</td><td>4.270</td><td>0.270</td><td>0.1</td><td>21.0</td><td>0 K</td></tr><tr><td>360 min Summer</td><td>4.292</td><td>0.292</td><td>0.1</td><td>22.7</td><td>0 K</td></tr><tr><td>480 min Summer</td><td>4.306</td><td>0.306</td><td>0.1</td><td>23.9</td><td>0 K</td></tr><tr><td>600 min Summer</td><td>4.316</td><td>0.316</td><td>0.1</td><td>24.7</td><td>0 K</td></tr><tr><td>720 min Summer</td><td>4.324</td><td>0.324</td><td>0.1</td><td>25.2</td><td>0 K</td></tr><tr><td>960 min Summer</td><td>4.333</td><td>0.333</td><td>0.1</td><td>26.0</td><td>0 K</td></tr><tr><td>1440 min Summer</td><td>4.339</td><td>0.339</td><td>0.1</td><td>26.4</td><td>0 K</td></tr><tr><td>2160 min Summer</td><td>4.334</td><td>0.334</td><td>0.1</td><td>26.1</td><td>0 K</td></tr><tr><td>2880 min Summer</td><td>4.327</td><td>0.327</td><td>0.1</td><td>25.5</td><td>0 K</td></tr><tr><td>4320 min Summer</td><td>4.311</td><td>0.311</td><td>0.1</td><td>24.2</td><td>0 K</td></tr><tr><td>5760 min Summer</td><td>4.293</td><td>0.293</td><td>0.1</td><td>22.8</td><td>0 K</td></tr><tr><td>7200 min Summer</td><td>4.276</td><td>0.276</td><td>0.1</td><td>21.5</td><td>0 K</td></tr><tr><td>8640 min 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Summer	4.147	0.147	0.1	11.5	0 K	60 min Summer	4.188	0.188	0.1	14.6	0 K	120 min Summer	4.230	0.230	0.1	17.9	0 K	180 min Summer	4.254	0.254	0.1	19.8	0 K	240 min Summer	4.270	0.270	0.1	21.0	0 K	360 min Summer	4.292	0.292	0.1	22.7	0 K	480 min Summer	4.306	0.306	0.1	23.9	0 K	600 min Summer	4.316	0.316	0.1	24.7	0 K	720 min Summer	4.324	0.324	0.1	25.2	0 K	960 min Summer	4.333	0.333	0.1	26.0	0 K	1440 min Summer	4.339	0.339	0.1	26.4	0 K	2160 min Summer	4.334	0.334	0.1	26.1	0 K	2880 min Summer	4.327	0.327	0.1	25.5	0 K	4320 min Summer	4.311	0.311	0.1	24.2	0 K	5760 min Summer	4.293	0.293	0.1	22.8	0 K	7200 min Summer	4.276	0.276	0.1	21.5	0 K	8640 min Summer	4.259	0.259	0.1	20.2	0 K	10080 min Summer	4.243	0.243	0.1	19.0	0 K	15 min Winter	4.123	0.123	0.1	9.6	0 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	124	180 min Summer	24.832	0.0	184	240 min Summer	20.006	0.0	244	360 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Date January 2017 File 5550 SOUTH SA.SRCX	Designed by RT Checked by RB	
Elstree Computing Ltd		Source Control 2016.1

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	4.165	0.165	0.1	12.9	0 K
60 min Winter	4.211	0.211	0.1	16.4	0 K
120 min Winter	4.259	0.259	0.1	20.1	0 K
180 min Winter	4.286	0.286	0.1	22.3	0 K
240 min Winter	4.304	0.304	0.1	23.7	0 K
360 min Winter	4.329	0.329	0.1	25.6	0 K
480 min Winter	4.346	0.346	0.1	27.0	0 K
600 min Winter	4.358	0.358	0.1	27.9	0 K
720 min Winter	4.368	0.368	0.1	28.6	0 K
960 min Winter	4.380	0.380	0.1	29.6	0 K
1440 min Winter	4.390	0.390	0.1	30.4	0 K
2160 min Winter	4.389	0.389	0.1	30.3	0 K
2880 min Winter	4.378	0.378	0.1	29.5	0 K
4320 min Winter	4.357	0.357	0.1	27.8	0 K
5760 min Winter	4.332	0.332	0.1	25.9	0 K
7200 min Winter	4.306	0.306	0.1	23.9	0 K
8640 min Winter	4.281	0.281	0.1	21.9	0 K
10080 min Winter	4.258	0.258	0.1	20.1	0 K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	83.789	0.0	34
60 min Winter	53.779	0.0	64
120 min Winter	33.337	0.0	122
180 min Winter	24.832	0.0	182
240 min Winter	20.006	0.0	240
360 min Winter	14.706	0.0	358
480 min Winter	11.818	0.0	476
600 min Winter	9.966	0.0	594
720 min Winter	8.665	0.0	708
960 min Winter	6.943	0.0	942
1440 min Winter	5.071	0.0	1398
2160 min Winter	3.696	0.0	2052
2880 min Winter	2.949	0.0	2624
4320 min Winter	2.142	0.0	3284
5760 min Winter	1.705	0.0	4208
7200 min Winter	1.427	0.0	5112
8640 min Winter	1.235	0.0	5968
10080 min Winter	1.093	0.0	6768

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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)	19.000	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.037

Time (mins)	Area
From:	To: (ha)
0	4 0.037

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Model Details

Storage is Online Cover Level (m) 5.100

Cellular Storage Structure

Invert Level (m) 4.000 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00830 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00830

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	82.0	82.0	0.401	0.0	96.5
0.400	82.0	96.5			