

Reuby & Stagg Ltd				Page 1																																																																																																																																																																												
Dewey House 55 High Street Ringwood BH24 1AE		Rusington Porous Paving 200mm Construction																																																																																																																																																																														
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 155 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>4.053</td><td>0.083</td><td>0.1</td><td>1.1</td><td>O K</td></tr><tr><td>30 min Summer</td><td>4.083</td><td>0.113</td><td>0.1</td><td>1.5</td><td>O K</td></tr><tr><td>60 min Summer</td><td>4.109</td><td>0.139</td><td>0.1</td><td>1.9</td><td>Flood Risk</td></tr><tr><td>120 min Summer</td><td>4.127</td><td>0.157</td><td>0.1</td><td>2.1</td><td>Flood Risk</td></tr><tr><td>180 min Summer</td><td>4.130</td><td>0.160</td><td>0.1</td><td>2.2</td><td>Flood Risk</td></tr><tr><td>240 min Summer</td><td>4.130</td><td>0.160</td><td>0.1</td><td>2.1</td><td>Flood Risk</td></tr><tr><td>360 min Summer</td><td>4.125</td><td>0.155</td><td>0.1</td><td>2.1</td><td>Flood Risk</td></tr><tr><td>480 min Summer</td><td>4.117</td><td>0.147</td><td>0.1</td><td>2.0</td><td>Flood Risk</td></tr><tr><td>600 min Summer</td><td>4.109</td><td>0.139</td><td>0.1</td><td>1.8</td><td>Flood Risk</td></tr><tr><td>720 min Summer</td><td>4.100</td><td>0.130</td><td>0.1</td><td>1.7</td><td>O K</td></tr><tr><td>960 min Summer</td><td>4.083</td><td>0.113</td><td>0.1</td><td>1.5</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>4.053</td><td>0.083</td><td>0.1</td><td>1.1</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>4.026</td><td>0.056</td><td>0.1</td><td>0.7</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>4.015</td><td>0.045</td><td>0.1</td><td>0.6</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>4.004</td><td>0.034</td><td>0.1</td><td>0.4</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>3.998</td><td>0.028</td><td>0.1</td><td>0.3</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>3.994</td><td>0.024</td><td>0.1</td><td>0.3</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>3.991</td><td>0.021</td><td>0.1</td><td>0.2</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>124.633</td><td>18</td></tr><tr><td>30 min Summer</td><td>83.789</td><td>32</td></tr><tr><td>60 min Summer</td><td>53.779</td><td>62</td></tr><tr><td>120 min Summer</td><td>33.337</td><td>116</td></tr><tr><td>180 min Summer</td><td>24.832</td><td>146</td></tr><tr><td>240 min Summer</td><td>20.006</td><td>176</td></tr><tr><td>360 min Summer</td><td>14.706</td><td>244</td></tr><tr><td>480 min Summer</td><td>11.818</td><td>312</td></tr><tr><td>600 min Summer</td><td>9.966</td><td>380</td></tr><tr><td>720 min Summer</td><td>8.665</td><td>448</td></tr><tr><td>960 min Summer</td><td>6.943</td><td>578</td></tr><tr><td>1440 min Summer</td><td>5.071</td><td>820</td></tr><tr><td>2160 min Summer</td><td>3.696</td><td>1148</td></tr><tr><td>2880 min Summer</td><td>2.949</td><td>1500</td></tr><tr><td>4320 min Summer</td><td>2.142</td><td>2208</td></tr><tr><td>5760 min Summer</td><td>1.705</td><td>2944</td></tr><tr><td>7200 min Summer</td><td>1.427</td><td>3672</td></tr><tr><td>8640 min Summer</td><td>1.235</td><td>4400</td></tr></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	4.053	0.083	0.1	1.1	O K	30 min Summer	4.083	0.113	0.1	1.5	O K	60 min Summer	4.109	0.139	0.1	1.9	Flood Risk	120 min Summer	4.127	0.157	0.1	2.1	Flood Risk	180 min Summer	4.130	0.160	0.1	2.2	Flood Risk	240 min Summer	4.130	0.160	0.1	2.1	Flood Risk	360 min Summer	4.125	0.155	0.1	2.1	Flood Risk	480 min Summer	4.117	0.147	0.1	2.0	Flood Risk	600 min Summer	4.109	0.139	0.1	1.8	Flood Risk	720 min Summer	4.100	0.130	0.1	1.7	O K	960 min Summer	4.083	0.113	0.1	1.5	O K	1440 min Summer	4.053	0.083	0.1	1.1	O K	2160 min Summer	4.026	0.056	0.1	0.7	O K	2880 min Summer	4.015	0.045	0.1	0.6	O K	4320 min Summer	4.004	0.034	0.1	0.4	O K	5760 min Summer	3.998	0.028	0.1	0.3	O K	7200 min Summer	3.994	0.024	0.1	0.3	O K	8640 min Summer	3.991	0.021	0.1	0.2	O K	Storm Event	Rain (mm/hr)	Time-Peak (mins)	15 min Summer	124.633	18	30 min Summer	83.789	32	60 min Summer	53.779	62	120 min Summer	33.337	116	180 min Summer	24.832	146	240 min Summer	20.006	176	360 min Summer	14.706	244	480 min Summer	11.818	312	600 min Summer	9.966	380	720 min Summer	8.665	448	960 min Summer	6.943	578	1440 min Summer	5.071	820	2160 min Summer	3.696	1148	2880 min Summer	2.949	1500	4320 min Summer	2.142	2208	5760 min Summer	1.705	2944	7200 min Summer	1.427	3672	8640 min Summer	1.235	4400
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Micro Drainage		Source Control W.12.4			
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
10080 min Summer	3.989	0.019	0.1	0.2	O K
15 min Winter	4.065	0.095	0.1	1.3	O K
30 min Winter	4.099	0.129	0.1	1.7	O K
60 min Winter	4.129	0.159	0.1	2.1	Flood Risk
120 min Winter	4.151	0.181	0.1	2.4	Flood Risk
180 min Winter	4.154	0.184	0.1	2.5	Flood Risk
240 min Winter	4.152	0.182	0.1	2.5	Flood Risk
360 min Winter	4.144	0.174	0.1	2.3	Flood Risk
480 min Winter	4.132	0.162	0.1	2.2	Flood Risk
600 min Winter	4.118	0.148	0.1	2.0	Flood Risk
720 min Winter	4.104	0.134	0.1	1.8	Flood Risk
960 min Winter	4.078	0.108	0.1	1.4	O K
1440 min Winter	4.036	0.066	0.1	0.8	O K
2160 min Winter	4.013	0.043	0.1	0.5	O K
2880 min Winter	4.005	0.035	0.1	0.4	O K
4320 min Winter	3.996	0.026	0.1	0.3	O K
5760 min Winter	3.991	0.021	0.1	0.2	O K
7200 min Winter	3.988	0.018	0.0	0.2	O K
8640 min Winter	3.987	0.017	0.0	0.2	O K
Storm Event	Rain (mm/hr)		Time-Peak (mins)		
10080 min Summer	1.093		5136		
15 min Winter	124.633		18		
30 min Winter	83.789		32		
60 min Winter	53.779		60		
120 min Winter	33.337		116		
180 min Winter	24.832		168		
240 min Winter	20.006		190		
360 min Winter	14.706		266		
480 min Winter	11.818		342		
600 min Winter	9.966		414		
720 min Winter	8.665		484		
960 min Winter	6.943		614		
1440 min Winter	5.071		838		
2160 min Winter	3.696		1148		
2880 min Winter	2.949		1500		
4320 min Winter	2.142		2244		
5760 min Winter	1.705		2968		
7200 min Winter	1.427		3568		
8640 min Winter	1.235		4392		
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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
10080 min Winter	3.986	0.016	0.0	0.2	O K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
10080 min Winter	1.093	5152

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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) 0.006

Time (mins)	Area (ha)
0-4	0.006

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Model Details

Storage is Online Cover Level (m) 4.400

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.01662	Width (m)	9.6
Membrane Percolation (mm/hr)	1000	Length (m)	4.8
Max Percolation (l/s)	12.8	Slope (1:X)	500.0
Safety Factor	1.5	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	3.970	Cap Volume Depth (m)	0.200

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