

ROWNTREE PARTNERSHIP				Page 1																																																																																																																																																																																																																			
12 Wheatstone Court, Davy Way Waterwells Business Park Quedgeley Gloucester GL2 9LS		Land Adjacent to Oaklands Gorsley road catchment																																																																																																																																																																																																																					
Date 16/10/2019 10:35 File 12653 - Permeable pavin...		Designed by RW Checked by																																																																																																																																																																																																																					
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Summary of Results for 100 year Return Period (+40%) Half Drain Time : 229 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>87.351</td><td>0.156</td><td>0.1</td><td>0.7</td><td>O K</td></tr><tr><td>30 min Summer</td><td>87.380</td><td>0.185</td><td>0.1</td><td>1.0</td><td>Flood Risk</td></tr><tr><td>60 min Summer</td><td>87.404</td><td>0.209</td><td>0.1</td><td>1.3</td><td>Flood Risk</td></tr><tr><td>120 min Summer</td><td>87.424</td><td>0.229</td><td>0.1</td><td>1.5</td><td>Flood Risk</td></tr><tr><td>180 min Summer</td><td>87.430</td><td>0.235</td><td>0.1</td><td>1.6</td><td>Flood Risk</td></tr><tr><td>240 min Summer</td><td>87.431</td><td>0.236</td><td>0.1</td><td>1.6</td><td>Flood Risk</td></tr><tr><td>360 min Summer</td><td>87.432</td><td>0.237</td><td>0.1</td><td>1.6</td><td>Flood Risk</td></tr><tr><td>480 min 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K</td></tr><tr><td>8640 min Summer</td><td>87.289</td><td>0.094</td><td>0.0</td><td>0.3</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>87.281</td><td>0.086</td><td>0.0</td><td>0.2</td><td>O K</td></tr><tr><td>15 min Winter</td><td>87.363</td><td>0.168</td><td>0.1</td><td>0.8</td><td>O K</td></tr></table> <table><tr><th>Storm Event</th><th>Rain (mm/hr)</th><th>Flooded Volume (m³)</th><th>Time-Peak (mins)</th></tr><tr><td>15 min Summer</td><td>124.633</td><td>0.0</td><td>18</td></tr><tr><td>30 min Summer</td><td>83.789</td><td>0.0</td><td>33</td></tr><tr><td>60 min Summer</td><td>53.779</td><td>0.0</td><td>62</td></tr><tr><td>120 min Summer</td><td>33.337</td><td>0.0</td><td>120</td></tr><tr><td>180 min Summer</td><td>24.832</td><td>0.0</td><td>170</td></tr><tr><td>240 min Summer</td><td>20.006</td><td>0.0</td><td>198</td></tr><tr><td>360 min Summer</td><td>14.706</td><td>0.0</td><td>260</td></tr><tr><td>480 min Summer</td><td>11.818</td><td>0.0</td><td>328</td></tr><tr><td>600 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Summer	87.380	0.185	0.1	1.0	Flood Risk	60 min Summer	87.404	0.209	0.1	1.3	Flood Risk	120 min Summer	87.424	0.229	0.1	1.5	Flood Risk	180 min Summer	87.430	0.235	0.1	1.6	Flood Risk	240 min Summer	87.431	0.236	0.1	1.6	Flood Risk	360 min Summer	87.432	0.237	0.1	1.6	Flood Risk	480 min Summer	87.430	0.235	0.1	1.6	Flood Risk	600 min Summer	87.427	0.232	0.1	1.5	Flood Risk	720 min Summer	87.423	0.228	0.1	1.5	Flood Risk	960 min Summer	87.413	0.218	0.1	1.4	Flood Risk	1440 min Summer	87.395	0.200	0.1	1.2	Flood Risk	2160 min Summer	87.375	0.180	0.1	0.9	O K	2880 min Summer	87.358	0.163	0.1	0.8	O K	4320 min Summer	87.333	0.138	0.1	0.6	O K	5760 min Summer	87.315	0.120	0.0	0.4	O K	7200 min Summer	87.301	0.106	0.0	0.3	O K	8640 min Summer	87.289	0.094	0.0	0.3	O K	10080 min Summer	87.281	0.086	0.0	0.2	O K	15 min Winter	87.363	0.168	0.1	0.8	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	124.633	0.0	18	30 min Summer	83.789	0.0	33	60 min Summer	53.779	0.0	62	120 min 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12 Wheatstone Court, Davy Way Waterwells Business Park Quedgeley Gloucester GL2 9LS		Land Adjacent to Oaklands Gorsley road catchment			
Date 16/10/2019 10:35 File 12653 - Permeable pavin...		Designed by RW Checked by			
XP Solutions		Source Control 2018.1.1			
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	87.393	0.198	0.1	1.1	Flood Risk
60 min Winter	87.421	0.226	0.1	1.5	Flood Risk
120 min Winter	87.444	0.249	0.1	1.7	Flood Risk
180 min Winter	87.452	0.257	0.1	1.8	Flood Risk
240 min Winter	87.454	0.259	0.1	1.8	Flood Risk
360 min Winter	87.452	0.257	0.1	1.8	Flood Risk
480 min Winter	87.449	0.254	0.1	1.8	Flood Risk
600 min Winter	87.443	0.248	0.1	1.7	Flood Risk
720 min Winter	87.436	0.241	0.1	1.6	Flood Risk
960 min Winter	87.422	0.227	0.1	1.5	Flood Risk
1440 min Winter	87.394	0.199	0.1	1.2	Flood Risk
2160 min Winter	87.367	0.172	0.1	0.9	O K
2880 min Winter	87.346	0.151	0.1	0.7	O K
4320 min Winter	87.315	0.120	0.0	0.4	O K
5760 min Winter	87.294	0.099	0.0	0.3	O K
7200 min Winter	87.279	0.084	0.0	0.2	O K
8640 min Winter	87.268	0.073	0.0	0.2	O K
10080 min Winter	87.260	0.065	0.0	0.1	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	83.789	0.0	32		
60 min Winter	53.779	0.0	62		
120 min Winter	33.337	0.0	118		
180 min Winter	24.832	0.0	174		
240 min Winter	20.006	0.0	226		
360 min Winter	14.706	0.0	282		
480 min Winter	11.818	0.0	358		
600 min Winter	9.966	0.0	434		
720 min Winter	8.665	0.0	506		
960 min Winter	6.943	0.0	646		
1440 min Winter	5.071	0.0	908		
2160 min Winter	3.696	0.0	1280		
2880 min Winter	2.949	0.0	1644		
4320 min Winter	2.142	0.0	2376		
5760 min Winter	1.705	0.0	3064		
7200 min Winter	1.427	0.0	3752		
8640 min Winter	1.235	0.0	4488		
10080 min Winter	1.093	0.0	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) 0.004

Time (mins)		Area
From:	To:	(ha)
0	4	0.004

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