

ABMH		Page 1																																																																																																																																																																																																																		
1 The Grove Felpham West Sussex PO22 7EY	34-44 CARLTON ROAD BOGNOR REGIS W SUSSEX																																																																																																																																																																																																																			
Date 30/06/2021 15:19 File FC2891 SWD 100YR40CC BL...	Designed by MH Checked by																																																																																																																																																																																																																			
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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 1193 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>49.474</td><td>0.134</td><td>1.2</td><td>54.7</td><td>O K</td></tr><tr><td>30 min Summer</td><td>49.519</td><td>0.179</td><td>1.2</td><td>73.1</td><td>O K</td></tr><tr><td>60 min Summer</td><td>49.566</td><td>0.226</td><td>1.2</td><td>92.7</td><td>O K</td></tr><tr><td>120 min Summer</td><td>49.614</td><td>0.274</td><td>1.2</td><td>112.2</td><td>O K</td></tr><tr><td>180 min Summer</td><td>49.640</td><td>0.300</td><td>1.2</td><td>122.8</td><td>O K</td></tr><tr><td>240 min Summer</td><td>49.655</td><td>0.315</td><td>1.2</td><td>129.2</td><td>O K</td></tr><tr><td>360 min Summer</td><td>49.674</td><td>0.334</td><td>1.2</td><td>136.8</td><td>O K</td></tr><tr><td>480 min Summer</td><td>49.685</td><td>0.345</td><td>1.2</td><td>141.1</td><td>O K</td></tr><tr><td>600 min Summer</td><td>49.690</td><td>0.350</td><td>1.2</td><td>143.2</td><td>O K</td></tr><tr><td>720 min Summer</td><td>49.692</td><td>0.352</td><td>1.2</td><td>144.0</td><td>O K</td></tr><tr><td>960 min Summer</td><td>49.689</td><td>0.349</td><td>1.2</td><td>143.0</td><td>O K</td></tr><tr><td>1440 min Summer</td><td>49.679</td><td>0.339</td><td>1.2</td><td>138.9</td><td>O K</td></tr><tr><td>2160 min Summer</td><td>49.661</td><td>0.321</td><td>1.2</td><td>131.6</td><td>O K</td></tr><tr><td>2880 min Summer</td><td>49.642</td><td>0.302</td><td>1.2</td><td>123.8</td><td>O K</td></tr><tr><td>4320 min Summer</td><td>49.605</td><td>0.265</td><td>1.2</td><td>108.5</td><td>O K</td></tr><tr><td>5760 min Summer</td><td>49.570</td><td>0.230</td><td>1.2</td><td>94.1</td><td>O K</td></tr><tr><td>7200 min Summer</td><td>49.537</td><td>0.197</td><td>1.2</td><td>80.8</td><td>O K</td></tr><tr><td>8640 min Summer</td><td>49.508</td><td>0.168</td><td>1.2</td><td>69.0</td><td>O K</td></tr><tr><td>10080 min Summer</td><td>49.483</td><td>0.143</td><td>1.2</td><td>58.6</td><td>O K</td></tr><tr><td>15 min Winter</td><td>49.490</td><td>0.150</td><td>1.2</td><td>61.4</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>19</td></tr><tr><td>30 min Summer</td><td>83.789</td><td>0.0</td><td>34</td></tr><tr><td>60 min Summer</td><td>53.779</td><td>0.0</td><td>64</td></tr><tr><td>120 min Summer</td><td>33.337</td><td>0.0</td><td>124</td></tr><tr><td>180 min Summer</td><td>24.832</td><td>0.0</td><td>182</td></tr><tr><td>240 min Summer</td><td>20.006</td><td>0.0</td><td>242</td></tr><tr><td>360 min Summer</td><td>14.706</td><td>0.0</td><td>362</td></tr><tr><td>480 min Summer</td><td>11.818</td><td>0.0</td><td>482</td></tr><tr><td>600 min 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Summer	49.519	0.179	1.2	73.1	O K	60 min Summer	49.566	0.226	1.2	92.7	O K	120 min Summer	49.614	0.274	1.2	112.2	O K	180 min Summer	49.640	0.300	1.2	122.8	O K	240 min Summer	49.655	0.315	1.2	129.2	O K	360 min Summer	49.674	0.334	1.2	136.8	O K	480 min Summer	49.685	0.345	1.2	141.1	O K	600 min Summer	49.690	0.350	1.2	143.2	O K	720 min Summer	49.692	0.352	1.2	144.0	O K	960 min Summer	49.689	0.349	1.2	143.0	O K	1440 min Summer	49.679	0.339	1.2	138.9	O K	2160 min Summer	49.661	0.321	1.2	131.6	O K	2880 min Summer	49.642	0.302	1.2	123.8	O K	4320 min Summer	49.605	0.265	1.2	108.5	O K	5760 min Summer	49.570	0.230	1.2	94.1	O K	7200 min Summer	49.537	0.197	1.2	80.8	O K	8640 min Summer	49.508	0.168	1.2	69.0	O K	10080 min Summer	49.483	0.143	1.2	58.6	O K	15 min Winter	49.490	0.150	1.2	61.4	O 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	182	240 min Summer	20.006	0.0	242	360 min Summer	14.706	0.0	362	480 min Summer	11.818	0.0	482	600 min Summer	9.966	0.0	602	720 min Summer	8.665	0.0	720	960 min Summer	6.943	0.0	930	1440 min Summer	5.071	0.0	1140	2160 min Summer	3.696	0.0	1532	2880 min Summer	2.949	0.0	1932	4320 min Summer	2.142	0.0	2728	5760 min Summer	1.705	0.0	3520	7200 min Summer	1.427	0.0	4320	8640 min Summer	1.235	0.0	5024	10080 min Summer	1.093	0.0	5752	15 min Winter	124.633	0.0	19
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1 The Grove Felpham West Sussex PO22 7EY		34-44 CARLTON ROAD BOGNOR REGIS W SUSSEX			
Date 30/06/2021 15:19 File FC2891 SWD 100YR40CC BL...		Designed by MH Checked by			
Micro Drainage		Source Control 2019.1			
<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
30 min Winter	49.540	0.200	1.2	82.1	O K
60 min Winter	49.594	0.254	1.2	104.1	O K
120 min Winter	49.649	0.309	1.2	126.5	O K
180 min Winter	49.679	0.339	1.2	138.7	O K
240 min Winter	49.697	0.357	1.2	146.2	O K
360 min Winter	49.720	0.380	1.2	155.6	Flood Risk
480 min Winter	49.734	0.394	1.2	161.3	Flood Risk
600 min Winter	49.742	0.402	1.2	164.5	Flood Risk
720 min Winter	49.746	0.406	1.2	166.3	Flood Risk
960 min Winter	49.747	0.407	1.2	166.8	Flood Risk
1440 min Winter	49.735	0.395	1.2	161.8	Flood Risk
2160 min Winter	49.711	0.371	1.2	151.8	Flood Risk
2880 min Winter	49.684	0.344	1.2	140.8	O K
4320 min Winter	49.627	0.287	1.2	117.6	O K
5760 min Winter	49.573	0.233	1.2	95.4	O K
7200 min Winter	49.524	0.184	1.2	75.2	O K
8640 min Winter	49.481	0.141	1.2	57.8	O K
10080 min Winter	49.445	0.105	1.2	43.0	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	83.789	0.0	33		
60 min Winter	53.779	0.0	62		
120 min Winter	33.337	0.0	122		
180 min Winter	24.832	0.0	180		
240 min Winter	20.006	0.0	240		
360 min Winter	14.706	0.0	356		
480 min Winter	11.818	0.0	472		
600 min Winter	9.966	0.0	586		
720 min Winter	8.665	0.0	700		
960 min Winter	6.943	0.0	924		
1440 min Winter	5.071	0.0	1330		
2160 min Winter	3.696	0.0	1648		
2880 min Winter	2.949	0.0	2108		
4320 min Winter	2.142	0.0	2984		
5760 min Winter	1.705	0.0	3808		
7200 min Winter	1.427	0.0	4608		
8640 min Winter	1.235	0.0	5280		
10080 min Winter	1.093	0.0	5952		
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Micro Drainage Source Control 2019.1		

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) 0.238

Time (mins)	Area
From:	To: (ha)
0	4 0.238

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<u>Model Details</u> Storage is Online Cover Level (m) 50.000 <u>Infiltration Blanket Structure</u> <table style="margin-left: auto; margin-right: auto;"> <tr> <td>Infiltration Coefficient Base (m/hr)</td> <td>0.01800</td> <td>Diameter/Width (m)</td> <td>11.7</td> </tr> <tr> <td>Safety Factor</td> <td>5.0</td> <td>Length (m)</td> <td>100.0</td> </tr> <tr> <td>Porosity</td> <td>0.35</td> <td>Cap Volume Depth (m)</td> <td>0.450</td> </tr> <tr> <td>Invert Level (m)</td> <td>49.340</td> <td></td> <td></td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.01800	Diameter/Width (m)	11.7	Safety Factor	5.0	Length (m)	100.0	Porosity	0.35	Cap Volume Depth (m)	0.450	Invert Level (m)	49.340		
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