

J D P Limited				Page 1																																																																																																																																																																																																																			
Townfoot Longtown, Carlisle Cumbria CA6 5LY		Pallaflat Farm, Bigrigg JDP Project Ref: 2302-98 Tank Size: 5.4 x 4.8 x 0.84m																																																																																																																																																																																																																					
Date 24-02-2023 File 2302-98 - Pallaflat Far...		Designed by J.C Checked by																																																																																																																																																																																																																					
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<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 492 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>8.927</td><td>0.267</td><td>0.3</td><td>6.6</td><td>O K</td></tr><tr><td>30 min Summer</td><td>9.039</td><td>0.379</td><td>0.3</td><td>9.3</td><td>O K</td></tr><tr><td>60 min Summer</td><td>9.168</td><td>0.508</td><td>0.3</td><td>12.5</td><td>O K</td></tr><tr><td>120 min Summer</td><td>9.297</td><td>0.637</td><td>0.3</td><td>15.7</td><td>O K</td></tr><tr><td>180 min Summer</td><td>9.360</td><td>0.700</td><td>0.4</td><td>17.2</td><td>O K</td></tr><tr><td>240 min Summer</td><td>9.400</td><td>0.740</td><td>0.4</td><td>18.2</td><td>O K</td></tr><tr><td>360 min Summer</td><td>9.440</td><td>0.780</td><td>0.4</td><td>19.2</td><td>O K</td></tr><tr><td>480 min 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Summer</td><td>12.925</td><td>0.0</td><td>484</td></tr><tr><td>720 min Summer</td><td>11.381</td><td>0.0</td><td>550</td></tr><tr><td>960 min Summer</td><td>9.296</td><td>0.0</td><td>684</td></tr><tr><td>1440 min Summer</td><td>6.963</td><td>0.0</td><td>966</td></tr><tr><td>2160 min Summer</td><td>5.218</td><td>0.0</td><td>1380</td></tr><tr><td>2880 min Summer</td><td>4.256</td><td>0.0</td><td>1788</td></tr><tr><td>4320 min Summer</td><td>3.202</td><td>0.0</td><td>2592</td></tr><tr><td>5760 min Summer</td><td>2.625</td><td>0.0</td><td>3352</td></tr><tr><td>7200 min Summer</td><td>2.257</td><td>0.0</td><td>4112</td></tr><tr><td>8640 min Summer</td><td>2.001</td><td>0.0</td><td>4848</td></tr><tr><td>10080 min Summer</td><td>1.812</td><td>0.0</td><td>5552</td></tr><tr><td>15 min Winter</td><td>118.293</td><td>0.0</td><td>18</td></tr></tbody></table>						Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	15 min Summer	8.927	0.267	0.3	6.6	O K	30 min Summer	9.039	0.379	0.3	9.3	O K	60 min Summer	9.168	0.508	0.3	12.5	O K	120 min Summer	9.297	0.637	0.3	15.7	O K	180 min Summer	9.360	0.700	0.4	17.2	O K	240 min Summer	9.400	0.740	0.4	18.2	O K	360 min Summer	9.440	0.780	0.4	19.2	O K	480 min Summer	9.456	0.796	0.4	19.6	O K	600 min Summer	9.464	0.804	0.4	19.8	O K	720 min Summer	9.467	0.807	0.4	19.9	O K	960 min Summer	9.463	0.803	0.4	19.8	O K	1440 min Summer	9.439	0.779	0.4	19.2	O K	2160 min Summer	9.395	0.735	0.4	18.1	O K	2880 min Summer	9.349	0.689	0.4	17.0	O K	4320 min Summer	9.259	0.599	0.3	14.8	O K	5760 min Summer	9.180	0.520	0.3	12.8	O K	7200 min Summer	9.110	0.450	0.3	11.1	O K	8640 min Summer	9.051	0.391	0.3	9.6	O K	10080 min Summer	9.000	0.340	0.3	8.4	O K	15 min Winter	8.927	0.267	0.3	6.6	O K	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)	15 min Summer	118.293	0.0	19	30 min Summer	85.067	0.0	33	60 min Summer	58.456	0.0	62	120 min Summer	38.305	0.0	122	180 min Summer	29.271	0.0	182	240 min Summer	24.165	0.0	242	360 min 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Date 24-02-2023 File 2302-98 - Pallaflat Far...		Designed by J.C Checked by			
Micro Drainage		Source Control 2014.1			
<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	9.040	0.380	0.3	9.3	O K
60 min Winter	9.170	0.510	0.3	12.5	O K
120 min Winter	9.299	0.639	0.3	15.7	O K
180 min Winter	9.363	0.703	0.4	17.3	O K
240 min Winter	9.404	0.744	0.4	18.3	O K
360 min Winter	9.448	0.788	0.4	19.4	O K
480 min Winter	9.465	0.805	0.4	19.8	O K
600 min Winter	9.467	0.807	0.4	19.9	O K
720 min Winter	9.469	0.809	0.4	19.9	O K
960 min Winter	9.459	0.799	0.4	19.7	O K
1440 min Winter	9.416	0.756	0.4	18.6	O K
2160 min Winter	9.341	0.681	0.4	16.8	O K
2880 min Winter	9.267	0.607	0.3	14.9	O K
4320 min Winter	9.131	0.471	0.3	11.6	O K
5760 min Winter	9.019	0.359	0.3	8.8	O K
7200 min Winter	8.928	0.268	0.3	6.6	O K
8640 min Winter	8.853	0.193	0.3	4.8	O K
10080 min Winter	8.794	0.134	0.3	3.3	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	85.067	0.0	33		
60 min Winter	58.456	0.0	62		
120 min Winter	38.305	0.0	120		
180 min Winter	29.271	0.0	178		
240 min Winter	24.165	0.0	234		
360 min Winter	18.371	0.0	346		
480 min Winter	15.083	0.0	452		
600 min Winter	12.925	0.0	496		
720 min Winter	11.381	0.0	564		
960 min Winter	9.296	0.0	722		
1440 min Winter	6.963	0.0	1026		
2160 min Winter	5.218	0.0	1472		
2880 min Winter	4.256	0.0	1904		
4320 min Winter	3.202	0.0	2724		
5760 min Winter	2.625	0.0	3512		
7200 min Winter	2.257	0.0	4248		
8640 min Winter	2.001	0.0	4936		
10080 min Winter	1.812	0.0	5648		
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Pallaflat Farm, Bigrigg
JDP Project Ref: 2302-98
Tank Size: 5.4 x 4.8 x 0.84m



Designed by J.C

Checked by

Source Control 2014.1

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Model Details

Storage is Online Cover Level (m) 10.000

Cellular Storage Structure

Invert Level (m) 8.660 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.06480 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.06480

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	25.9	25.9	0.841	0.0	42.2
0.840	25.9	42.2			

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