

Reuby & Stagg Ltd		Page 1																																																																																																																																																																											
Dewey House 55 High Street Ringwood BH24 1AE	Rustington Convalescent... Block C1-C7 Reuby & Stagg 10379																																																																																																																																																																												
Date 01/10/2018 File 10379 Block C1-C7...	Designed By PJ Checked By																																																																																																																																																																												
Micro Drainage	Source Control W.12.4																																																																																																																																																																												
<u>Summary of Results for 100 year Return Period (+40%)</u> Half Drain Time : 607 minutes. <table border="1"> <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>2.586</td><td>0.156</td><td>0.3</td><td>11.9</td><td>O K</td></tr> <tr><td>30 min Summer</td><td>2.638</td><td>0.208</td><td>0.4</td><td>15.8</td><td>O K</td></tr> <tr><td>60 min Summer</td><td>2.693</td><td>0.263</td><td>0.4</td><td>20.0</td><td>O K</td></tr> <tr><td>120 min Summer</td><td>2.744</td><td>0.314</td><td>0.4</td><td>23.9</td><td>O K</td></tr> <tr><td>180 min Summer</td><td>2.769</td><td>0.339</td><td>0.5</td><td>25.8</td><td>O K</td></tr> <tr><td>240 min Summer</td><td>2.782</td><td>0.352</td><td>0.5</td><td>26.8</td><td>O K</td></tr> <tr><td>360 min Summer</td><td>2.793</td><td>0.363</td><td>0.5</td><td>27.6</td><td>O K</td></tr> <tr><td>480 min Summer</td><td>2.796</td><td>0.366</td><td>0.5</td><td>27.8</td><td>O K</td></tr> <tr><td>600 min Summer</td><td>2.796</td><td>0.366</td><td>0.5</td><td>27.8</td><td>O K</td></tr> <tr><td>720 min Summer</td><td>2.796</td><td>0.366</td><td>0.5</td><td>27.8</td><td>O K</td></tr> <tr><td>960 min Summer</td><td>2.792</td><td>0.362</td><td>0.5</td><td>27.5</td><td>O K</td></tr> <tr><td>1440 min Summer</td><td>2.779</td><td>0.349</td><td>0.5</td><td>26.5</td><td>O K</td></tr> <tr><td>2160 min Summer</td><td>2.755</td><td>0.325</td><td>0.5</td><td>24.7</td><td>O K</td></tr> <tr><td>2880 min Summer</td><td>2.731</td><td>0.301</td><td>0.4</td><td>22.8</td><td>O K</td></tr> <tr><td>4320 min Summer</td><td>2.688</td><td>0.258</td><td>0.4</td><td>19.6</td><td>O K</td></tr> <tr><td>5760 min Summer</td><td>2.653</td><td>0.223</td><td>0.4</td><td>17.0</td><td>O K</td></tr> <tr><td>7200 min Summer</td><td>2.624</td><td>0.194</td><td>0.3</td><td>14.7</td><td>O K</td></tr> <tr><td>8640 min Summer</td><td>2.599</td><td>0.169</td><td>0.3</td><td>12.9</td><td>O K</td></tr> </tbody> </table> <table border="1"> <thead> <tr> <th>Storm Event</th> <th>Rain (mm/hr)</th> <th>Time-Peak (mins)</th> </tr> </thead> <tbody> <tr><td>15 min Summer</td><td>124.633</td><td>22</td></tr> <tr><td>30 min Summer</td><td>83.789</td><td>37</td></tr> <tr><td>60 min Summer</td><td>53.779</td><td>66</td></tr> <tr><td>120 min Summer</td><td>33.337</td><td>124</td></tr> <tr><td>180 min Summer</td><td>24.832</td><td>182</td></tr> <tr><td>240 min Summer</td><td>20.006</td><td>242</td></tr> <tr><td>360 min Summer</td><td>14.706</td><td>360</td></tr> <tr><td>480 min Summer</td><td>11.818</td><td>426</td></tr> <tr><td>600 min Summer</td><td>9.966</td><td>486</td></tr> <tr><td>720 min Summer</td><td>8.665</td><td>548</td></tr> <tr><td>960 min Summer</td><td>6.943</td><td>680</td></tr> <tr><td>1440 min Summer</td><td>5.071</td><td>956</td></tr> <tr><td>2160 min Summer</td><td>3.696</td><td>1368</td></tr> <tr><td>2880 min Summer</td><td>2.949</td><td>1784</td></tr> <tr><td>4320 min Summer</td><td>2.142</td><td>2556</td></tr> <tr><td>5760 min Summer</td><td>1.705</td><td>3344</td></tr> <tr><td>7200 min Summer</td><td>1.427</td><td>4104</td></tr> <tr><td>8640 min Summer</td><td>1.235</td><td>4840</td></tr> </tbody> </table>			Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status	15 min Summer	2.586	0.156	0.3	11.9	O K	30 min Summer	2.638	0.208	0.4	15.8	O K	60 min Summer	2.693	0.263	0.4	20.0	O K	120 min Summer	2.744	0.314	0.4	23.9	O K	180 min Summer	2.769	0.339	0.5	25.8	O K	240 min Summer	2.782	0.352	0.5	26.8	O K	360 min Summer	2.793	0.363	0.5	27.6	O K	480 min Summer	2.796	0.366	0.5	27.8	O K	600 min Summer	2.796	0.366	0.5	27.8	O K	720 min Summer	2.796	0.366	0.5	27.8	O K	960 min Summer	2.792	0.362	0.5	27.5	O K	1440 min Summer	2.779	0.349	0.5	26.5	O K	2160 min Summer	2.755	0.325	0.5	24.7	O K	2880 min Summer	2.731	0.301	0.4	22.8	O K	4320 min Summer	2.688	0.258	0.4	19.6	O K	5760 min Summer	2.653	0.223	0.4	17.0	O K	7200 min Summer	2.624	0.194	0.3	14.7	O K	8640 min Summer	2.599	0.169	0.3	12.9	O K	Storm Event	Rain (mm/hr)	Time-Peak (mins)	15 min Summer	124.633	22	30 min Summer	83.789	37	60 min Summer	53.779	66	120 min Summer	33.337	124	180 min Summer	24.832	182	240 min Summer	20.006	242	360 min Summer	14.706	360	480 min Summer	11.818	426	600 min Summer	9.966	486	720 min Summer	8.665	548	960 min Summer	6.943	680	1440 min Summer	5.071	956	2160 min Summer	3.696	1368	2880 min Summer	2.949	1784	4320 min Summer	2.142	2556	5760 min Summer	1.705	3344	7200 min Summer	1.427	4104	8640 min Summer	1.235	4840
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m ³)	Status																																																																																																																																																																								
15 min Summer	2.586	0.156	0.3	11.9	O K																																																																																																																																																																								
30 min Summer	2.638	0.208	0.4	15.8	O K																																																																																																																																																																								
60 min Summer	2.693	0.263	0.4	20.0	O K																																																																																																																																																																								
120 min Summer	2.744	0.314	0.4	23.9	O K																																																																																																																																																																								
180 min Summer	2.769	0.339	0.5	25.8	O K																																																																																																																																																																								
240 min Summer	2.782	0.352	0.5	26.8	O K																																																																																																																																																																								
360 min Summer	2.793	0.363	0.5	27.6	O K																																																																																																																																																																								
480 min Summer	2.796	0.366	0.5	27.8	O K																																																																																																																																																																								
600 min Summer	2.796	0.366	0.5	27.8	O K																																																																																																																																																																								
720 min Summer	2.796	0.366	0.5	27.8	O K																																																																																																																																																																								
960 min Summer	2.792	0.362	0.5	27.5	O K																																																																																																																																																																								
1440 min Summer	2.779	0.349	0.5	26.5	O K																																																																																																																																																																								
2160 min Summer	2.755	0.325	0.5	24.7	O K																																																																																																																																																																								
2880 min Summer	2.731	0.301	0.4	22.8	O K																																																																																																																																																																								
4320 min Summer	2.688	0.258	0.4	19.6	O K																																																																																																																																																																								
5760 min Summer	2.653	0.223	0.4	17.0	O K																																																																																																																																																																								
7200 min Summer	2.624	0.194	0.3	14.7	O K																																																																																																																																																																								
8640 min Summer	2.599	0.169	0.3	12.9	O K																																																																																																																																																																								
Storm Event	Rain (mm/hr)	Time-Peak (mins)																																																																																																																																																																											
15 min Summer	124.633	22																																																																																																																																																																											
30 min Summer	83.789	37																																																																																																																																																																											
60 min Summer	53.779	66																																																																																																																																																																											
120 min Summer	33.337	124																																																																																																																																																																											
180 min Summer	24.832	182																																																																																																																																																																											
240 min Summer	20.006	242																																																																																																																																																																											
360 min Summer	14.706	360																																																																																																																																																																											
480 min Summer	11.818	426																																																																																																																																																																											
600 min Summer	9.966	486																																																																																																																																																																											
720 min Summer	8.665	548																																																																																																																																																																											
960 min Summer	6.943	680																																																																																																																																																																											
1440 min Summer	5.071	956																																																																																																																																																																											
2160 min Summer	3.696	1368																																																																																																																																																																											
2880 min Summer	2.949	1784																																																																																																																																																																											
4320 min Summer	2.142	2556																																																																																																																																																																											
5760 min Summer	1.705	3344																																																																																																																																																																											
7200 min Summer	1.427	4104																																																																																																																																																																											
8640 min Summer	1.235	4840																																																																																																																																																																											
©1982-2010 Micro Drainage Ltd																																																																																																																																																																													

Reuby & Stagg Ltd			Page 2		
Dewey House 55 High Street Ringwood BH24 1AE		Rustington Convalesent... Block C1-C7 Reuby & Stagg 10379			
Date 01/10/2018 File 10379 Block C1-C7...		Designed By PJ Checked By			
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	2.578	0.148	0.3	11.3	O K
15 min Winter	2.605	0.175	0.3	13.3	O K
30 min Winter	2.664	0.234	0.4	17.8	O K
60 min Winter	2.725	0.295	0.4	22.4	O K
120 min Winter	2.784	0.354	0.5	26.9	O K
180 min Winter	2.813	0.383	0.5	29.1	O K
240 min Winter	2.829	0.399	0.5	30.3	O K
360 min Winter	2.846	0.416	0.5	31.5	O K
480 min Winter	2.853	0.423	0.5	31.8	O K
600 min Winter	2.851	0.421	0.5	31.7	O K
720 min Winter	2.849	0.419	0.5	31.6	O K
960 min Winter	2.841	0.411	0.5	31.1	O K
1440 min Winter	2.819	0.389	0.5	29.6	O K
2160 min Winter	2.783	0.353	0.5	26.9	O K
2880 min Winter	2.749	0.319	0.4	24.2	O K
4320 min Winter	2.689	0.259	0.4	19.7	O K
5760 min Winter	2.641	0.211	0.4	16.1	O K
7200 min Winter	2.603	0.173	0.3	13.1	O K
8640 min Winter	2.572	0.142	0.3	10.8	O K
Storm Event	Rain (mm/hr)		Time-Peak (mins)		
10080 min Summer	1.093		5552		
15 min Winter	124.633		22		
30 min Winter	83.789		36		
60 min Winter	53.779		64		
120 min Winter	33.337		122		
180 min Winter	24.832		180		
240 min Winter	20.006		236		
360 min Winter	14.706		350		
480 min Winter	11.818		456		
600 min Winter	9.966		550		
720 min Winter	8.665		572		
960 min Winter	6.943		724		
1440 min Winter	5.071		1028		
2160 min Winter	3.696		1472		
2880 min Winter	2.949		1904		
4320 min Winter	2.142		2724		
5760 min Winter	1.705		3520		
7200 min Winter	1.427		4256		
8640 min Winter	1.235		5016		
©1982-2010 Micro Drainage Ltd					

Reuby & Stagg Ltd			Page 3		
Dewey House 55 High Street Ringwood BH24 1AE		Rustington Convalescent... Block C1-C7 Reuby & Stagg 10379			
Date 01/10/2018		Designed By PJ			
File 10379 Block C1-C7...		Checked By			
Micro Drainage		Source Control W.12.4			
<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
10080 min Winter	2.546	0.116	0.3	8.8	O K
Storm Event		Rain (mm/hr)	Time-Peak (mins)		
10080 min Winter		1.093	5752		
©1982-2010 Micro Drainage Ltd					

Reuby & Stagg Ltd		Page 4
Dewey House 55 High Street Ringwood BH24 1AE	Rustington Convalescent... Block C1-C7 Reuby & Stagg 10379	
Date 01/10/2018 File 10379 Block C1-C7...	Designed By PJ Checked By	
Micro Drainage	Source Control W.12.4	

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) 0.000

Time (mins)	Area (ha)
0-4	0.000

©1982-2010 Micro Drainage Ltd

Reuby & Stagg Ltd		Page 5
Dewey House 55 High Street Ringwood BH24 1AE	Rustington Convalescent... Block C1-C7 Reuby & Stagg 10379	
Date 01/10/2018 File 10379 Block C1-C7...	Designed By PJ Checked By	
Micro Drainage	Source Control W.12.4	

Model Details

Storage is Online Cover Level (m) 4.300

Cellular Storage Structure

Invert Level (m) 2.430 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.01662 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.16620

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	80.0	80.0	1.300	0.0	96.1
0.100	80.0	83.6	1.400	0.0	96.1
0.200	80.0	87.2	1.500	0.0	96.1
0.300	80.0	90.7	1.600	0.0	96.1
0.400	80.0	94.3	1.700	0.0	96.1
0.500	0.0	96.1	1.800	0.0	96.1
0.600	0.0	96.1	1.900	0.0	96.1
0.700	0.0	96.1	2.000	0.0	96.1
0.800	0.0	96.1	2.100	0.0	96.1
0.900	0.0	96.1	2.200	0.0	96.1
1.000	0.0	96.1	2.300	0.0	96.1
1.100	0.0	96.1	2.400	0.0	96.1
1.200	0.0	96.1	2.500	0.0	96.1

©1982-2010 Micro Drainage Ltd