

Mountbatten House
 Basing View
 Basingstoke RG21 4HJ

Area 2
 P.Paving
 10yr Rainfall Event



Date 03/05/2016
 File Area 2 Permeable Paving Design 100cc year OP 400...

Designed by UKLXB334
 Checked by MW

Micro Drainage

Source Control 2015.1

Summary of Results for 100 year Return Period (+30%)

Half Drain Time : 249 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Control (l/s)	Max Overflow (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	99.481	0.231	0.0	5.8	4.8	10.7	112.9	O K
30 min Summer	99.518	0.268	0.0	6.4	26.6	32.9	135.6	O K
60 min Summer	99.535	0.285	0.0	6.6	39.7	46.3	146.0	O K
120 min Summer	99.541	0.291	0.0	6.7	44.3	51.0	149.4	O K
180 min Summer	99.538	0.288	0.0	6.7	42.2	48.9	147.6	O K
240 min Summer	99.533	0.283	0.0	6.6	38.1	44.7	144.8	O K
360 min Summer	99.525	0.275	0.0	6.5	31.4	37.8	139.6	O K
480 min Summer	99.518	0.268	0.0	6.4	26.6	32.9	135.6	O K
600 min Summer	99.513	0.263	0.0	6.3	22.7	29.0	132.2	O K
720 min Summer	99.508	0.258	0.0	6.2	19.7	25.9	129.4	O K
960 min Summer	99.501	0.251	0.0	6.1	15.0	21.1	125.0	O K
1440 min Summer	99.491	0.241	0.0	6.0	9.5	15.4	118.9	O K
2160 min Summer	99.481	0.231	0.0	5.8	4.8	10.7	112.8	O K
2880 min Summer	99.473	0.223	0.0	5.7	2.0	7.7	108.0	O K
4320 min Summer	99.438	0.188	0.0	5.1	0.0	5.1	87.1	O K
5760 min Summer	99.406	0.156	0.0	4.5	0.0	4.5	67.4	O K
7200 min Summer	99.384	0.134	0.0	4.1	0.0	4.1	54.0	O K
8640 min Summer	99.369	0.119	0.0	3.7	0.0	3.7	44.8	O K
10080 min Summer	99.359	0.109	0.0	3.4	0.0	3.4	38.8	O K
15 min Winter	99.501	0.251	0.0	6.1	15.0	21.1	125.1	O K
30 min Winter	99.538	0.288	0.0	6.7	42.2	48.9	147.8	O K
60 min Winter	99.552	0.302	0.0	6.8	54.5	61.4	156.3	O K
120 min Winter	99.550	0.300	0.0	6.8	52.7	59.5	154.9	O K
180 min Winter	99.542	0.292	0.0	6.7	45.2	51.9	149.8	O K
240 min Winter	99.534	0.284	0.0	6.6	38.5	45.1	145.1	O K
360 min Winter	99.522	0.272	0.0	6.4	29.5	35.9	138.0	O K
480 min Winter	99.514	0.264	0.0	6.3	23.4	29.7	132.8	O K
600 min Winter	99.508	0.258	0.0	6.2	19.4	25.6	129.1	O K
720 min Winter	99.503	0.253	0.0	6.2	16.2	22.4	126.1	O K
960 min Winter	99.495	0.245	0.0	6.1	11.8	17.9	121.6	O K
1440 min Winter	99.486	0.236	0.0	5.9	7.0	12.9	115.8	O K
2160 min Winter	99.476	0.226	0.0	5.8	3.1	8.9	110.1	O K
2880 min Winter	99.467	0.217	0.0	5.6	0.6	6.2	104.6	O K
4320 min Winter	99.412	0.162	0.0	4.7	0.0	4.7	71.0	O K
5760 min Winter	99.378	0.128	0.0	4.0	0.0	4.0	50.2	O K
7200 min Winter	99.359	0.109	0.0	3.4	0.0	3.4	39.1	O K
8640 min Winter	99.349	0.099	0.0	3.0	0.0	3.0	32.7	O K
10080 min Winter	99.341	0.091	0.0	2.6	0.0	2.6	27.9	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Overflow Volume (m³)	Time-Peak (mins)
15 min Summer	130.490	0.0	119.2	3.9	25
30 min Summer	84.962	0.0	158.2	33.3	33
60 min Summer	52.662	0.0	198.5	66.6	48
120 min Summer	31.544	0.0	239.6	96.4	80
180 min Summer	23.073	0.0	263.7	108.8	112
240 min Summer	18.380	0.0	280.5	113.7	142
360 min Summer	13.286	0.0	304.6	113.9	204
480 min Summer	10.557	0.0	322.9	110.1	266
600 min Summer	8.826	0.0	337.5	105.5	328
720 min Summer	7.621	0.0	349.6	100.4	388
960 min Summer	6.042	0.0	369.3	89.6	512
1440 min Summer	4.349	0.0	397.9	67.7	766
2160 min Summer	3.126	0.0	427.2	38.1	1152
2880 min Summer	2.471	0.0	448.2	14.2	1564
4320 min Summer	1.771	0.0	477.6	0.0	2380
5760 min Summer	1.398	0.0	497.9	0.0	3104
7200 min Summer	1.162	0.0	512.9	0.0	3816
8640 min Summer	1.000	0.0	524.5	0.0	4496
10080 min Summer	0.880	0.0	533.7	0.0	5240
15 min Winter	130.490	0.0	134.7	14.7	23
30 min Winter	84.962	0.0	178.5	51.4	32
60 min Winter	52.662	0.0	223.6	89.9	48
120 min Winter	31.544	0.0	269.7	124.1	82
180 min Winter	23.073	0.0	296.7	138.8	114
240 min Winter	18.380	0.0	315.5	145.1	146
360 min Winter	13.286	0.0	342.5	146.8	208
480 min Winter	10.557	0.0	363.1	142.3	270
600 min Winter	8.826	0.0	379.5	135.3	332
720 min Winter	7.621	0.0	393.2	128.2	392
960 min Winter	6.042	0.0	415.4	112.7	516
1440 min Winter	4.349	0.0	447.6	80.2	768
2160 min Winter	3.126	0.0	480.8	36.3	1180
2880 min Winter	2.471	0.0	504.7	3.7	1672
4320 min Winter	1.771	0.0	538.4	0.0	2432
5760 min Winter	1.398	0.0	561.9	0.0	3120
7200 min Winter	1.162	0.0	579.6	0.0	3816
8640 min Winter	1.000	0.0	593.4	0.0	4504
10080 min Winter	0.880	0.0	604.5	0.0	5248

Mountbatten House
 Basing View
 Basingstoke RG21 4HJ

Area 2
 P.Paving
 10yr Rainfall Event



Date 03/05/2016
 File Area 2 Permeable Paving Design 100cc year OP 400...

Designed by UKLXB334
 Checked by MW

Micro Drainage

Source Control 2015.1

Rainfall Details

Rainfall Model FSR M5-60 (mm) 20.000 Winter Storms Yes Shortest Storm (mins) 15
 Return Period (years) 100 Ratio R 0.420 Cv (Summer) 0.750 Longest Storm (mins) 10080
 Region England and Wales Summer Storms Yes Cv (Winter) 0.840 Climate Change % +30

Time Area Diagram

Total Area (ha) 0.529

Time (mins)		Area	Time (mins)		Area	Time (mins)		Area
From:	To:	(ha)	From:	To:	(ha)	From:	To:	(ha)
0	4	0.176	4	8	0.176	8	12	0.176

Mountbatten House
 Basing View
 Basingstoke RG21 4HJ

Area 2
 P.Paving
 10yr Rainfall Event



Date 03/05/2016
 File Area 2 Permeable Paving Design 100cc year OP 400...

Designed by UKLXB334
 Checked by MW

Micro Drainage

Source Control 2015.1

Model Details

Storage is Online Cover Level (m) 100.000

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	500.0
Membrane Percolation (mm/hr)	1000	Invert Level (m)	99.250	Depression Storage (mm)	5
Max Percolation (l/s)	562.5	Width (m)	45.0	Evaporation (mm/day)	3
Safety Factor	2.0	Length (m)	45.0	Cap Volume Depth (m)	0.000

Orifice Outflow Control

Diameter (m) 0.080 Discharge Coefficient 0.600 Invert Level (m) 99.250

Weir Overflow Control

Discharge Coef 0.544 Width (m) 1.200 Invert Level (m) 99.463