



RPS P&D		Page 1
20 Milton Park Abingdon Oxfordshire OX14 4SH	Land North of Green Lane Plot1 Porous Driveway	
Date 29/11/2016 File JNY8140 Plot 1 Trench S...	Designed by HSS Checked by JR	
Causeway		Source Control 2014.1.1

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

Half Drain Time : 35 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Overflow (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
15 min Summer	77.278	0.378	0.9	7.5	8.4	3.4	Flood Risk
30 min Summer	77.289	0.389	0.9	7.8	8.7	3.5	Flood Risk
60 min Summer	77.256	0.356	0.9	6.8	7.7	3.2	Flood Risk
120 min Summer	77.216	0.316	0.9	4.7	5.6	2.8	Flood Risk
180 min Summer	77.195	0.295	0.9	3.4	4.3	2.7	O K
240 min Summer	77.181	0.281	0.9	2.6	3.5	2.5	O K
360 min Summer	77.160	0.260	0.9	1.7	2.6	2.3	O K
480 min Summer	77.149	0.249	0.9	1.1	2.0	2.2	O K
600 min Summer	77.138	0.238	0.9	0.7	1.6	2.1	O K
720 min Summer	77.126	0.226	0.9	0.3	1.2	2.0	O K
960 min Summer	77.055	0.155	0.9	0.0	0.9	1.4	O K
1440 min Summer	76.951	0.051	0.9	0.0	0.9	0.5	O K
2160 min Summer	76.937	0.037	0.7	0.0	0.7	0.3	O K
2880 min Summer	76.929	0.029	0.5	0.0	0.5	0.3	O K
4320 min Summer	76.921	0.021	0.4	0.0	0.4	0.2	O K
5760 min Summer	76.917	0.017	0.3	0.0	0.3	0.1	O K
7200 min Summer	76.914	0.014	0.2	0.0	0.2	0.1	O K
8640 min Summer	76.912	0.012	0.2	0.0	0.2	0.1	O K
10080 min Summer	76.911	0.011	0.2	0.0	0.2	0.1	O K
15 min Winter	77.301	0.401	0.9	8.1	9.0	3.6	Flood Risk


Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Overflow Volume (m³)	Time-Peak (mins)
15 min Summer	128.285	0.0	2.9	12
30 min Summer	84.226	0.0	4.2	20
60 min Summer	52.662	0.0	4.9	34
120 min Summer	31.800	0.0	4.8	64
180 min Summer	23.353	0.0	4.3	94
240 min Summer	18.644	0.0	3.8	126
360 min Summer	13.543	0.0	2.9	186
480 min Summer	10.792	0.0	2.0	250
600 min Summer	9.043	0.0	1.2	316
720 min Summer	7.823	0.0	0.5	386
960 min Summer	6.219	0.0	0.0	522
1440 min Summer	4.493	0.0	0.0	734
2160 min Summer	3.241	0.0	0.0	1092
2880 min Summer	2.568	0.0	0.0	1468
4320 min Summer	1.847	0.0	0.0	2200
5760 min Summer	1.461	0.0	0.0	2856
7200 min Summer	1.217	0.0	0.0	3568
8640 min Summer	1.048	0.0	0.0	4400
10080 min Summer	0.923	0.0	0.0	5120
15 min Winter	128.285	0.0	3.6	12

RPS P&D		Page 2
20 Milton Park Abingdon Oxfordshire OX14 4SH	Land North of Green Lane Plot1 Porous Driveway	
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Summary of Results for 100 year Return Period (+30%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Overflow (l/s)	Max Σ Outflow (l/s)	Max Volume (m³)	Status
30 min Winter	77.293	0.393	0.9	7.9	8.8	3.5	Flood Risk
60 min Winter	77.240	0.340	0.9	6.2	7.1	3.1	Flood Risk
120 min Winter	77.198	0.298	0.9	3.6	4.5	2.7	O K
180 min Winter	77.178	0.278	0.9	2.5	3.4	2.5	O K
240 min Winter	77.162	0.262	0.9	1.8	2.7	2.4	O K
360 min Winter	77.148	0.248	0.9	1.1	2.0	2.2	O K
480 min Winter	77.136	0.236	0.9	0.6	1.5	2.1	O K
600 min Winter	77.124	0.224	0.9	0.3	1.2	2.0	O K
720 min Winter	77.069	0.169	0.9	0.0	0.9	1.5	O K
960 min Winter	76.951	0.051	0.9	0.0	0.9	0.5	O K
1440 min Winter	76.937	0.037	0.7	0.0	0.7	0.3	O K
2160 min Winter	76.926	0.026	0.5	0.0	0.5	0.2	O K
2880 min Winter	76.921	0.021	0.4	0.0	0.4	0.2	O K
4320 min Winter	76.915	0.015	0.3	0.0	0.3	0.1	O K
5760 min Winter	76.912	0.012	0.2	0.0	0.2	0.1	O K
7200 min Winter	76.910	0.010	0.2	0.0	0.2	0.1	O K
8640 min Winter	76.909	0.009	0.2	0.0	0.2	0.1	O K
10080 min Winter	76.908	0.008	0.1	0.0	0.1	0.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Overflow Volume (m³)	Time-Peak (mins)
30 min Winter	84.226	0.0	5.1	20
60 min Winter	52.662	0.0	6.1	34
120 min Winter	31.800	0.0	5.9	64
180 min Winter	23.353	0.0	5.3	96
240 min Winter	18.644	0.0	4.5	126
360 min Winter	13.543	0.0	3.1	186
480 min Winter	10.792	0.0	1.7	256
600 min Winter	9.043	0.0	0.6	336
720 min Winter	7.823	0.0	0.0	422
960 min Winter	6.219	0.0	0.0	494
1440 min Winter	4.493	0.0	0.0	726
2160 min Winter	3.241	0.0	0.0	1100
2880 min Winter	2.568	0.0	0.0	1444
4320 min Winter	1.847	0.0	0.0	2180
5760 min Winter	1.461	0.0	0.0	2928
7200 min Winter	1.217	0.0	0.0	3648
8640 min Winter	1.048	0.0	0.0	4264
10080 min Winter	0.923	0.0	0.0	5144

RPS P&D		Page 3
20 Milton Park Abingdon Oxfordshire OX14 4SH	Land North of Green Lane Plot1 Porous Driveway	
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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)	20.000	Shortest Storm (mins)	15
Ratio R	0.400	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.025

Time (mins)		Area
From:	To:	(ha)
0	4	0.025

RPS P&D		Page 4
20 Milton Park Abingdon Oxfordshire OX14 4SH	Land North of Green Lane Plot1 Porous Driveway	
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Model Details

Storage is Online Cover Level (m) 77.500

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.21732	Width (m)	3.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	8.3	Slope (1:X)	0.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	76.900	Cap Volume Depth (m)	0.000

Orifice Overflow Control

Diameter (m) 0.100 Discharge Coefficient 0.600 Invert Level (m) 77.100