

Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 180 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	53.761	0.321	0.9	17.3	O K
30 min Summer	53.784	0.344	0.9	18.6	O K
60 min Summer	53.799	0.359	0.9	19.4	O K
120 min Summer	53.794	0.354	0.9	19.1	O K
180 min Summer	53.775	0.335	0.9	18.1	O K
240 min Summer	53.758	0.318	0.9	17.2	O K
360 min Summer	53.729	0.289	0.9	15.6	O K
480 min Summer	53.702	0.262	0.9	14.1	O K
600 min Summer	53.678	0.238	0.9	12.8	O K
720 min Summer	53.655	0.215	0.9	11.6	O K
960 min Summer	53.618	0.178	0.9	9.6	O K
1440 min Summer	53.558	0.118	0.9	6.4	O K
2160 min Summer	53.505	0.065	0.9	3.5	O K
2880 min Summer	53.486	0.046	0.8	2.5	O K
4320 min Summer	53.474	0.034	0.6	1.8	O K
5760 min Summer	53.467	0.027	0.5	1.5	O K
7200 min Summer	53.463	0.023	0.4	1.2	O K
8640 min Summer	53.460	0.020	0.4	1.1	O K
10080 min Summer	53.457	0.017	0.3	0.9	O K
15 min Winter	53.761	0.321	0.9	17.4	O K
30 min Winter	53.784	0.344	0.9	18.6	O K
60 min Winter	53.799	0.359	0.9	19.4	O K
120 min Winter	53.795	0.355	0.9	19.2	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	266.133	0.0	18
30 min Summer	145.876	0.0	33
60 min Summer	79.959	0.0	62
120 min Summer	43.828	0.0	120
180 min Summer	30.833	0.0	164
240 min Summer	24.024	0.0	190
360 min Summer	16.900	0.0	252
480 min Summer	13.168	0.0	320
600 min Summer	10.851	0.0	386
720 min Summer	9.264	0.0	452
960 min Summer	7.264	0.0	578
1440 min Summer	5.156	0.0	822
2160 min Summer	3.660	0.0	1148
2880 min Summer	2.869	0.0	1472
4320 min Summer	2.057	0.0	2204
5760 min Summer	1.624	0.0	2936
7200 min Summer	1.352	0.0	3672
8640 min Summer	1.164	0.0	4408
10080 min Summer	1.025	0.0	5136
15 min Winter	266.133	0.0	18
30 min Winter	145.876	0.0	32
60 min Winter	79.959	0.0	62
120 min Winter	43.828	0.0	118

Infrastruct CS Ltd		Page 2
The Stables High Cogges, Witney Oxfordshire, OX29 6UN	Orchid House 236 Reading Road Winnersh, RG41 5AA	
Date 24/06/2025 16:13 File 6392-ORCH-CAR PARK.SRCX	Designed by RSI Checked by MBD	
Innovyze	Source Control 2020.1.3	

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
180 min Winter	53.777	0.337	0.9	18.2	O K
240 min Winter	53.756	0.316	0.9	17.0	O K
360 min Winter	53.720	0.280	0.9	15.1	O K
480 min Winter	53.684	0.244	0.9	13.2	O K
600 min Winter	53.651	0.211	0.9	11.4	O K
720 min Winter	53.620	0.180	0.9	9.7	O K
960 min Winter	53.569	0.129	0.9	7.0	O K
1440 min Winter	53.501	0.061	0.9	3.3	O K
2160 min Winter	53.480	0.040	0.7	2.1	O K
2880 min Winter	53.471	0.031	0.6	1.7	O K
4320 min Winter	53.462	0.022	0.4	1.2	O K
5760 min Winter	53.458	0.018	0.3	0.9	O K
7200 min Winter	53.455	0.015	0.3	0.8	O K
8640 min Winter	53.453	0.013	0.2	0.7	O K
10080 min Winter	53.451	0.011	0.2	0.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
180 min Winter	30.833	0.0	172
240 min Winter	24.024	0.0	194
360 min Winter	16.900	0.0	268
480 min Winter	13.168	0.0	342
600 min Winter	10.851	0.0	410
720 min Winter	9.264	0.0	478
960 min Winter	7.264	0.0	604
1440 min Winter	5.156	0.0	808
2160 min Winter	3.660	0.0	1124
2880 min Winter	2.869	0.0	1472
4320 min Winter	2.057	0.0	2208
5760 min Winter	1.624	0.0	2944
7200 min Winter	1.352	0.0	3592
8640 min Winter	1.164	0.0	4288
10080 min Winter	1.025	0.0	5072

Rainfall Details

Rainfall Model	FEH	F (1km)	2.642
Return Period (years)	100	Summer Storms	Yes
FEH Rainfall Version	1999	Winter Storms	Yes
Site Location	GB 479150 170300 SU 79150 70300	Cv (Summer)	0.950
C (1km)	-0.029	Cv (Winter)	0.950
D1 (1km)	0.266	Shortest Storm (mins)	15
D2 (1km)	0.288	Longest Storm (mins)	10080
D3 (1km)	0.312	Climate Change %	+40
E (1km)	0.305		

Time Area Diagram

Total Area (ha) 0.030

Time (mins)		Area
From:	To:	(ha)
0	4	0.030

Model Details

Storage is Online Cover Level (m) 53.850

Porous Car Park Structure

Infiltration Coefficient Base (m/hr)	0.03600	Width (m)	18.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	50.0	Slope (1:X)	0.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	53.440	Membrane Depth (m)	0