

STORM WATER - EXISTING SITE RUN-OFFS

(Using guidance from BRE 365)

Job No.: 405000
Job Name: 5-7 Station Road

Total site Area		1895	m2
Surface	Area (m2)	Run-off coeff	Eff Area (m2)
Building 7 Station road	104	1.00	104 Roof and hard paved impermeable areas
Building meridian motorhomes	112.6	1.00	112.6 Roof and hard paved impermeable areas
Building Island Tyres	76	1.00	76 Roof and hard paved impermeable areas
Building Herons Autos	319	1.00	319 Roof and hard paved impermeable areas
Concrete hardstandings	1187	1.00	1187.4 Roof and hard paved impermeable areas
Softlandscaped	96	0.00	0 Permeable surfacing
Sum	1895		

Document A

1 in 100 year event + 40% climate change

Eff Area	1799	m2					
100 year return period + climate change			Storm duration (Min.)	T	N	r	Climate allowance 30%
R5	0.03242	m	5	0.08 hrs	0.083333	0.1	0.023154
R10	0.04017	m	10	0.17 hrs	0.166667	0.1	0.028694
R15	0.04546	m	15	0.25 hrs	0.25	0.1	0.032473
R30	0.05603	m	30	0.50 hrs	0.5	0.1	0.040022
R60	0.06888	m	60	1.00 hrs	1	0.1	0.0492
R120	0.08450	m	120	2.00 hrs	2	0.1	0.060356
R240	0.10348	m	240	4.00 hrs	4	0.1	0.073917
R360	0.11643	m	360	6.00 hrs	6	0.1	0.083168

Run-off from site during 6 Hour event			Flow in Ltrs / second during event
Volume of total run-off			Flow 9.698 L/s
I360	209.466	m3	

Therefore total run off 209.5 m3 OR 9.698 L/s

1 in 1 year event

Eff Area	1799	m2					
1 year return period + climate change			Storm duration (Min.)	T	N	r	Climate allowance 30%
R5	0.01416	m	5	0.08 hrs	0.083333	1	0.010892
R10	0.01792	m	10	0.17 hrs	0.166667	1	0.013788
R15	0.02049	m	15	0.25 hrs	0.25	1	0.015764
R30	0.02562	m	30	0.50 hrs	0.5	1	0.01971
R60	0.03186	m	60	1.00 hrs	1	1	0.024508
R120	0.03944	m	120	2.00 hrs	2	1	0.03034
R240	0.04866	m	240	4.00 hrs	4	1	0.037429
R360	0.05494	m	360	6.00 hrs	6	1	0.042265

Run-off from site during 6 Hour event			Flow in Ltrs / second during event
Volume of total run-off			Flow 4.576 L/s
I360	98.846	m3	

Therefore total run off 98.8 m3 OR 4.576 L/s