



ARCH
ASSOCIATES

APPENDIX 8

SURFACE WATER DRAINAGE CALCULATIONS



Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	1	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	0.500
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	100.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.014	5.00	9.431	1200	504106.175	118546.445	1.300
2	0.007	5.00	10.404	1200	504121.762	118547.671	2.504
3	0.028	5.00	10.361	1200	504162.733	118540.229	2.877
4	0.012	5.00	9.936	1200	504183.786	118569.558	2.813
5	0.023	5.00	9.247	1200	504209.323	118571.239	1.350
ROAD AT			9.450		504197.353	118571.203	2.790
7			9.174	1200	504211.118	118572.610	2.524
8			9.044	1200	504214.291	118570.705	2.431
9			8.820		504221.928	118566.122	2.296
10	0.006	5.00	9.978	1200	504189.238	118567.161	0.600
11			9.612	1200	504202.055	118568.037	0.662
12	0.005	5.00	9.831	1200	504202.511	118560.259	1.012
13	0.018	5.00	9.852	1200	504195.709	118555.870	1.121
14			9.700	1200	504198.699	118554.039	1.028
P18/19/20 SOAKAWAY			9.700		504196.497	118548.533	1.045
16	0.008	5.00	10.262	1200	504175.008	118547.668	0.600
17			10.304	1200	504167.798	118535.937	0.874
19	0.010	5.00	10.259	1200	504186.850	118541.366	0.600
20			10.308	1200	504178.928	118528.439	0.904
22		5.00	10.577	1200	504161.827	118534.905	0.600
24	0.008	5.00	10.521	1200	504160.762	118526.263	0.600
26			10.220	1200	504172.346	118523.408	0.833
CAR PARK PP	0.036		10.220		504173.583	118521.302	0.858
28	0.006	5.00	9.250	1200	504075.390	118556.429	0.600
WESTERN PP	0.062		9.250		504051.837	118558.333	0.998
30	0.006	5.00	10.699	1200	504147.841	118545.532	0.600
31			10.679	1200	504150.790	118561.436	0.852
P23 SOAKAWAY			10.705		504151.035	118562.848	0.903
33	0.006	5.00	9.560	1200	504088.746	118562.440	0.600
34			10.223	1200	504098.978	118563.245	1.438
35			9.592	1200	504099.142	118561.166	0.843
P27 SOAKAWAY			9.807		504103.529	118561.511	1.132
37	0.006	5.00	10.166	1200	504170.654	118556.024	0.600
38			10.126	1200	504163.282	118560.542	0.706
39			10.035	1200	504164.888	118563.162	0.717
P21 SOAKAWAY			10.155		504161.376	118565.314	0.907
41	0.007	5.00	10.976	1200	504029.065	118530.029	0.600
42			11.042	1200	504018.234	118529.175	0.849



Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
P1 SOAKAWAY			11.183		504013.997	118528.842	1.062
44	0.006	5.00	10.824	1200	504143.958	118548.591	0.600
45			10.766	1200	504146.408	118561.806	0.768
P24 SOAKAWAY			10.767		504146.659	118563.158	0.793
47	0.006	5.00	10.669	1200	504042.246	118547.261	0.600
48			10.587	1200	504043.294	118533.938	0.743
P4 SOAKAWAY			10.521		504043.392	118532.692	0.698
50	0.006	5.00	11.494	1200	504025.410	118555.450	0.600
51			11.665	1200	504014.380	118554.582	0.957
P3 SOAKAWAY			11.783		504012.318	118554.420	1.110
53	0.006	5.00	10.664	1200	504123.654	118532.106	0.600
54			10.741	1200	504125.413	118541.596	0.840
P10 PP	0.005		10.706		504124.233	118541.815	0.826
56		5.00	10.576	1200	504116.600	118560.422	0.600
57	0.006	5.00	10.577	1200	504126.898	118558.318	0.600
58			10.599	1200	504124.406	118562.560	0.759
P26 SOAKAWAY			10.621		504124.679	118564.034	0.807
60	0.006	5.00	10.767	1200	504144.231	118529.594	0.600
61			10.753	1200	504145.757	118537.825	0.727
P11 PP	0.005		10.722		504146.937	118537.607	0.717
63	0.006	5.00	9.556	1200	504111.613	118535.623	0.600
64			9.860	1200	504111.059	118542.666	1.023
P9 PP	0.004		9.600		504112.653	118542.791	0.790
66	0.006	5.00	9.127	1200	504100.434	118554.502	0.600
P28 SOAKAWAY			9.469		504104.058	118554.788	1.004
68	0.040	5.00	7.382	1200	504085.029	118531.458	0.750
ROAD SOAKAWAY			7.509		504084.882	118533.328	0.909
70	0.006	5.00	10.288	1200	504158.663	118560.888	0.600
P22 SOAKAWAY			10.368		504157.905	118562.590	0.712
72	0.010	5.00	8.964	1200	504076.254	118548.345	0.645
P7 PP			8.957		504078.068	118548.488	0.669
74	0.006	5.00	10.798	1200	504137.646	118562.980	0.600
P25 SOAKAWAY			10.769		504137.977	118564.767	0.602
76	0.010	5.00	7.794	1200	504077.876	118533.364	0.600
P6 PP			7.696		504079.659	118533.504	0.533
78			11.282	1200	504014.431	118539.466	0.815
P2 SOAKAWAY			11.330		504013.130	118539.364	0.885
80	0.006	5.00	10.219	1200	504056.028	118534.940	0.600
P5 SOAKAWAY			10.196		504056.126	118533.694	0.598
P4 PP	0.004		10.450		504045.622	118550.594	0.670
P5/8 PP	0.008		10.100		504057.424	118551.171	0.670
P27/28 PP	0.006		10.150		504112.056	118555.793	0.670
P25/26 PP	0.008		10.650		504128.974	118554.194	0.770
P23/24 PP	0.007		10.730		504146.635	118551.502	0.770
P21/22 PP	0.006		10.140		504165.369	118556.041	0.670
VIS PP	0.004		10.125		504174.694	118568.255	0.670
15	0.007	5.00	11.113	1200	504017.161	118537.135	0.600
P20 PP	0.008		9.650		504207.141	118566.187	0.670
6		5.00	9.280	1200	504067.252	118547.637	0.600



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	2	15.635	0.600	8.131	7.975	0.156	100.0	150	5.26	36.5
1.001	2	3	41.641	0.600	7.900	7.484	0.416	100.0	225	5.79	35.2
1.002	3	4	36.103	0.600	7.484	7.123	0.361	100.0	225	6.25	34.0
1.003	4	ROAD AT	1.000	0.600	7.123	7.113	0.010	100.0	225	6.26	34.0
2.000	5	ROAD AT	1.000	0.600	7.897	7.887	0.010	100.0	150	5.02	37.2
1.004	ROAD AT	7	1.000	0.600	6.660	6.650	0.010	100.0	225	6.28	34.0
1.005	7	8	3.701	0.600	6.650	6.613	0.037	100.0	225	6.32	33.9
1.006	8	9	8.907	0.600	6.613	6.524	0.089	100.0	225	6.44	33.6
3.000	10	11	12.847	0.600	9.378	8.950	0.428	30.0	100	5.15	36.8
3.001	11	12	7.791	0.600	8.950	8.819	0.131	59.5	100	5.28	36.5
3.002	12	14	7.295	0.600	8.819	8.672	0.147	49.6	100	5.39	36.2
4.000	13	14	3.506	0.600	8.731	8.696	0.035	100.0	100	5.08	37.0
3.003	14	P18/19/20 SOAKAWAY	1.000	0.600	8.672	8.655	0.017	60.0	100	5.41	36.1
7.000	16	17	13.770	0.600	9.662	9.430	0.232	59.4	100	5.23	36.6
7.001	17	26	1.000	0.600	9.430	9.413	0.017	59.0	100	5.25	36.6
8.000	22	26	1.000	0.600	9.977	9.960	0.017	59.0	100	5.02	37.2
6.000	19	20	15.161	0.600	9.659	9.404	0.255	59.5	100	5.25	36.6
9.000	24	26	1.000	0.600	9.921	9.904	0.017	59.0	100	5.02	37.2
6.001	20	26	1.000	0.600	9.404	9.387	0.017	59.0	100	5.27	36.5
6.002	26	CAR PARK PP	2.442	0.600	9.387	9.362	0.025	97.7	100	5.32	36.4
5.000	28	WESTERN PP	23.630	0.600	8.650	8.252	0.398	59.4	100	5.39	36.2
10.000	30	31	16.175	0.600	10.099	9.827	0.272	59.5	100	5.27	36.5
10.001	31	P23 SOAKAWAY	1.433	0.600	9.827	9.802	0.025	57.3	100	5.29	36.4

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.005	17.8	1.9	1.150	2.279	0.014	0.0	33	0.656
1.001	1.307	52.0	2.8	2.279	2.652	0.022	0.0	35	0.694
1.002	1.307	52.0	6.1	2.652	2.588	0.050	0.0	51	0.877
1.003	1.307	52.0	7.5	2.588	2.112	0.061	0.0	58	0.936
2.000	1.005	17.8	3.1	1.200	1.413	0.023	0.0	42	0.757
1.004	1.307	52.0	10.4	2.565	2.299	0.084	0.0	68	1.026
1.005	1.307	52.0	10.3	2.299	2.206	0.084	0.0	68	1.026
1.006	1.307	52.0	10.3	2.206	2.071	0.084	0.0	67	1.019
3.000	1.414	11.1	0.8	0.500	0.562	0.006	0.0	18	0.821
3.001	1.000	7.9	0.8	0.562	0.912	0.006	0.0	21	0.638
3.002	1.096	8.6	1.5	0.912	0.928	0.011	0.0	28	0.813
4.000	0.769	6.0	2.3	1.021	0.904	0.018	0.0	43	0.721
3.003	0.996	7.8	3.8	0.928	0.945	0.029	0.0	49	0.986
7.000	1.001	7.9	1.1	0.500	0.774	0.008	0.0	25	0.706
7.001	1.004	7.9	1.1	0.774	0.707	0.008	0.0	25	0.708
8.000	1.004	7.9	0.0	0.500	0.160	0.000	0.0	0	0.000
6.000	1.001	7.9	1.3	0.500	0.804	0.010	0.0	27	0.730
9.000	1.004	7.9	1.1	0.500	0.216	0.008	0.0	25	0.695
6.001	1.004	7.9	1.3	0.804	0.733	0.010	0.0	27	0.733
6.002	0.778	6.1	3.4	0.733	0.758	0.026	0.0	54	0.800
5.000	1.001	7.9	0.8	0.500	0.898	0.006	0.0	21	0.639
10.000	1.000	7.9	0.8	0.500	0.752	0.006	0.0	21	0.639
10.001	1.019	8.0	0.8	0.752	0.803	0.006	0.0	21	0.651



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
11.000	33	34	10.264	0.600	8.960	8.785	0.175	58.6	100	5.17	36.8
11.001	34	35	2.085	0.600	8.785	8.749	0.036	57.9	100	5.20	36.7
11.002	35	P27 SOAKAWAY	4.401	0.600	8.749	8.675	0.074	59.5	100	5.28	36.5
12.000	37	38	8.646	0.600	9.566	9.420	0.146	59.2	100	5.14	36.8
12.001	38	39	3.073	0.600	9.420	9.318	0.102	30.0	100	5.18	36.7
12.002	39	P21 SOAKAWAY	4.119	0.600	9.318	9.248	0.070	59.0	100	5.25	36.6
13.000	41	42	10.865	0.600	10.376	10.193	0.183	59.4	100	5.18	36.7
13.001	42	P1 SOAKAWAY	4.250	0.600	10.193	10.121	0.072	59.0	100	5.25	36.6
14.000	44	45	13.440	0.600	10.224	9.998	0.226	59.5	100	5.22	36.6
14.001	45	P24 SOAKAWAY	1.375	0.600	9.998	9.974	0.024	57.3	100	5.25	36.6
15.000	47	48	13.364	0.600	10.069	9.844	0.225	59.4	100	5.22	36.6
15.001	48	P4 SOAKAWAY	1.250	0.600	9.844	9.823	0.021	59.5	100	5.24	36.6
16.000	50	51	11.064	0.600	10.894	10.708	0.186	59.5	100	5.18	36.7
16.001	51	P3 SOAKAWAY	2.068	0.600	10.708	10.673	0.035	59.1	100	5.22	36.6
17.000	53	54	9.652	0.600	10.064	9.901	0.163	59.2	100	5.16	36.8
17.001	54	P10 PP	1.200	0.600	9.901	9.880	0.021	57.2	100	5.18	36.7
19.000	56	58	8.093	0.600	9.976	9.840	0.136	59.5	100	5.13	36.9
20.000	57	58	4.920	0.600	9.977	9.840	0.137	35.9	100	5.06	37.0
19.001	58	P26 SOAKAWAY	1.499	0.600	9.840	9.814	0.026	57.7	100	5.16	36.8
21.000	60	61	8.371	0.600	10.167	10.026	0.141	59.4	100	5.14	36.8
21.001	61	P11 PP	1.200	0.600	10.026	10.005	0.021	57.1	100	5.16	36.8
22.000	63	64	7.065	0.600	8.956	8.837	0.119	59.4	100	5.12	36.9
22.001	64	P9 PP	1.599	0.600	8.837	8.810	0.027	59.2	100	5.14	36.8
24.000	66	P28 SOAKAWAY	3.635	0.600	8.527	8.465	0.062	58.6	100	5.06	37.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
11.000	1.007	7.9	0.7	0.500	1.338	0.006	0.0	21	0.629
11.001	1.014	8.0	0.7	1.338	0.743	0.006	0.0	21	0.633
11.002	1.000	7.9	0.7	0.743	1.032	0.006	0.0	21	0.624
12.000	1.003	7.9	0.8	0.500	0.606	0.006	0.0	21	0.640
12.001	1.414	11.1	0.8	0.606	0.617	0.006	0.0	18	0.821
12.002	1.004	7.9	0.8	0.617	0.807	0.006	0.0	21	0.641
13.000	1.001	7.9	0.9	0.500	0.749	0.007	0.0	22	0.653
13.001	1.004	7.9	0.9	0.749	0.962	0.007	0.0	22	0.655
14.000	1.000	7.9	0.7	0.500	0.668	0.006	0.0	21	0.624
14.001	1.019	8.0	0.7	0.668	0.693	0.006	0.0	21	0.636
15.000	1.001	7.9	0.7	0.500	0.643	0.006	0.0	21	0.625
15.001	1.000	7.9	0.7	0.643	0.598	0.006	0.0	21	0.624
16.000	1.000	7.9	0.8	0.500	0.857	0.006	0.0	22	0.652
16.001	1.004	7.9	0.8	0.857	1.010	0.006	0.0	22	0.655
17.000	1.003	7.9	0.8	0.500	0.740	0.006	0.0	21	0.626
17.001	1.021	8.0	0.8	0.740	0.726	0.006	0.0	21	0.637
19.000	1.000	7.9	0.0	0.500	0.659	0.000	0.0	0	0.000
20.000	1.291	10.1	0.8	0.500	0.659	0.006	0.0	19	0.769
19.001	1.016	8.0	0.8	0.659	0.707	0.006	0.0	21	0.649
21.000	1.001	7.9	0.8	0.500	0.627	0.006	0.0	21	0.639
21.001	1.021	8.0	0.8	0.627	0.617	0.006	0.0	21	0.637
22.000	1.001	7.9	0.8	0.500	0.923	0.006	0.0	21	0.639
22.001	1.003	7.9	0.8	0.923	0.690	0.006	0.0	21	0.640
24.000	1.008	7.9	0.7	0.500	0.904	0.006	0.0	21	0.629



Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
25.000	68	ROAD SOAKAWAY	1.876	0.600	6.632	6.600	0.032	58.6	150	5.02	37.1
26.000	70	P22 SOAKAWAY	1.863	0.600	9.688	9.656	0.032	58.2	100	5.03	37.1
18.001	72	P7 PP	1.820	0.600	8.319	8.288	0.031	58.7	100	5.13	36.9
27.000	74	P25 SOAKAWAY	1.817	0.600	10.198	10.167	0.031	58.6	100	5.03	37.1
28.000	76	P6 PP	1.788	0.600	7.194	7.163	0.031	57.7	100	5.03	37.1
23.001	78	P2 SOAKAWAY	1.305	0.600	10.467	10.445	0.022	59.3	100	5.09	37.0
29.000	80	P5 SOAKAWAY	1.250	0.600	9.619	9.598	0.021	59.5	100	5.02	37.1
23.000	15	78	3.590	0.600	10.513	10.467	0.046	78.0	100	5.07	37.0
18.000	6	72	9.030	0.600	8.680	8.319	0.361	25.0	100	5.10	37.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
25.000	1.316	23.3	5.3	0.600	0.759	0.040	0.0	49	1.072
26.000	1.011	7.9	0.8	0.500	0.612	0.006	0.0	22	0.659
18.001	1.007	7.9	1.3	0.545	0.569	0.010	0.0	28	0.747
27.000	1.008	7.9	0.8	0.500	0.502	0.006	0.0	21	0.629
28.000	1.016	8.0	1.3	0.500	0.433	0.010	0.0	28	0.754
23.001	1.002	7.9	0.9	0.715	0.785	0.007	0.0	22	0.653
29.000	1.000	7.9	0.8	0.500	0.498	0.006	0.0	21	0.624
23.000	0.872	6.8	0.9	0.500	0.715	0.007	0.0	24	0.592
18.000	1.550	12.2	0.0	0.500	0.545	0.000	0.0	0	0.000

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	15.635	100.0	150	Circular	9.431	8.131	1.150	10.404	7.975	2.279
1.001	41.641	100.0	225	Circular	10.404	7.900	2.279	10.361	7.484	2.652
1.002	36.103	100.0	225	Circular	10.361	7.484	2.652	9.936	7.123	2.588
1.003	1.000	100.0	225	Circular	9.936	7.123	2.588	9.450	7.113	2.112
2.000	1.000	100.0	150	Circular	9.247	7.897	1.200	9.450	7.887	1.413
1.004	1.000	100.0	225	Circular	9.450	6.660	2.565	9.174	6.650	2.299
1.005	3.701	100.0	225	Circular	9.174	6.650	2.299	9.044	6.613	2.206
1.006	8.907	100.0	225	Circular	9.044	6.613	2.206	8.820	6.524	2.071
3.000	12.847	30.0	100	Circular	9.978	9.378	0.500	9.612	8.950	0.562
3.001	7.791	59.5	100	Circular	9.612	8.950	0.562	9.831	8.819	0.912
3.002	7.295	49.6	100	Circular	9.831	8.819	0.912	9.700	8.672	0.928

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1200	Manhole	Adoptable	2	1200	Manhole	Adoptable
1.001	2	1200	Manhole	Adoptable	3	1200	Manhole	Adoptable
1.002	3	1200	Manhole	Adoptable	4	1200	Manhole	Adoptable
1.003	4	1200	Manhole	Adoptable	ROAD AT		Junction	
2.000	5	1200	Manhole	Adoptable	ROAD AT		Junction	
1.004	ROAD AT		Junction		7	1200	Manhole	Adoptable
1.005	7	1200	Manhole	Adoptable	8	1200	Manhole	Adoptable
1.006	8	1200	Manhole	Adoptable	9		Junction	
3.000	10	1200	Manhole	Adoptable	11	1200	Manhole	Adoptable
3.001	11	1200	Manhole	Adoptable	12	1200	Manhole	Adoptable
3.002	12	1200	Manhole	Adoptable	14	1200	Manhole	Adoptable



Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
4.000	3.506	100.0	100	Circular	9.852	8.731	1.021	9.700	8.696	0.904
3.003	1.000	60.0	100	Circular	9.700	8.672	0.928	9.700	8.655	0.945
7.000	13.770	59.4	100	Circular	10.262	9.662	0.500	10.304	9.430	0.774
7.001	1.000	59.0	100	Circular	10.304	9.430	0.774	10.220	9.413	0.707
8.000	1.000	59.0	100	Circular	10.577	9.977	0.500	10.220	9.960	0.160
6.000	15.161	59.5	100	Circular	10.259	9.659	0.500	10.308	9.404	0.804
9.000	1.000	59.0	100	Circular	10.521	9.921	0.500	10.220	9.904	0.216
6.001	1.000	59.0	100	Circular	10.308	9.404	0.804	10.220	9.387	0.733
6.002	2.442	97.7	100	Circular	10.220	9.387	0.733	10.220	9.362	0.758
5.000	23.630	59.4	100	Circular	9.250	8.650	0.500	9.250	8.252	0.898
10.000	16.175	59.5	100	Circular	10.699	10.099	0.500	10.679	9.827	0.752
10.001	1.433	57.3	100	Circular	10.679	9.827	0.752	10.705	9.802	0.803
11.000	10.264	58.6	100	Circular	9.560	8.960	0.500	10.223	8.785	1.338
11.001	2.085	57.9	100	Circular	10.223	8.785	1.338	9.592	8.749	0.743
11.002	4.401	59.5	100	Circular	9.592	8.749	0.743	9.807	8.675	1.032
12.000	8.646	59.2	100	Circular	10.166	9.566	0.500	10.126	9.420	0.606
12.001	3.073	30.0	100	Circular	10.126	9.420	0.606	10.035	9.318	0.617
12.002	4.119	59.0	100	Circular	10.035	9.318	0.617	10.155	9.248	0.807
13.000	10.865	59.4	100	Circular	10.976	10.376	0.500	11.042	10.193	0.749
13.001	4.250	59.0	100	Circular	11.042	10.193	0.749	11.183	10.121	0.962
14.000	13.440	59.5	100	Circular	10.824	10.224	0.500	10.766	9.998	0.668
14.001	1.375	57.3	100	Circular	10.766	9.998	0.668	10.767	9.974	0.693
15.000	13.364	59.4	100	Circular	10.669	10.069	0.500	10.587	9.844	0.643
15.001	1.250	59.5	100	Circular	10.587	9.844	0.643	10.521	9.823	0.598

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
4.000	13	1200	Manhole	Adoptable	14	1200	Manhole	Adoptable
3.003	14	1200	Manhole	Adoptable	P18/19/20 SOAKAWAY		Junction	
7.000	16	1200	Manhole	Adoptable	17	1200	Manhole	Adoptable
7.001	17	1200	Manhole	Adoptable	26	1200	Manhole	Adoptable
8.000	22	1200	Manhole	Adoptable	26	1200	Manhole	Adoptable
6.000	19	1200	Manhole	Adoptable	20	1200	Manhole	Adoptable
9.000	24	1200	Manhole	Adoptable	26	1200	Manhole	Adoptable
6.001	20	1200	Manhole	Adoptable	26	1200	Manhole	Adoptable
6.002	26	1200	Manhole	Adoptable	CAR PARK PP		Junction	
5.000	28	1200	Manhole	Adoptable	WESTERN PP		Junction	
10.000	30	1200	Manhole	Adoptable	31	1200	Manhole	Adoptable
10.001	31	1200	Manhole	Adoptable	P23 SOAKAWAY		Junction	
11.000	33	1200	Manhole	Adoptable	34	1200	Manhole	Adoptable
11.001	34	1200	Manhole	Adoptable	35	1200	Manhole	Adoptable
11.002	35	1200	Manhole	Adoptable	P27 SOAKAWAY		Junction	
12.000	37	1200	Manhole	Adoptable	38	1200	Manhole	Adoptable
12.001	38	1200	Manhole	Adoptable	39	1200	Manhole	Adoptable
12.002	39	1200	Manhole	Adoptable	P21 SOAKAWAY		Junction	
13.000	41	1200	Manhole	Adoptable	42	1200	Manhole	Adoptable
13.001	42	1200	Manhole	Adoptable	P1 SOAKAWAY		Junction	
14.000	44	1200	Manhole	Adoptable	45	1200	Manhole	Adoptable
14.001	45	1200	Manhole	Adoptable	P24 SOAKAWAY		Junction	
15.000	47	1200	Manhole	Adoptable	48	1200	Manhole	Adoptable
15.001	48	1200	Manhole	Adoptable	P4 SOAKAWAY		Junction	



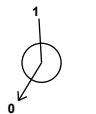
Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
16.000	11.064	59.5	100	Circular	11.494	10.894	0.500	11.665	10.708	0.857
16.001	2.068	59.1	100	Circular	11.665	10.708	0.857	11.783	10.673	1.010
17.000	9.652	59.2	100	Circular	10.664	10.064	0.500	10.741	9.901	0.740
17.001	1.200	57.2	100	Circular	10.741	9.901	0.740	10.706	9.880	0.726
19.000	8.093	59.5	100	Circular	10.576	9.976	0.500	10.599	9.840	0.659
20.000	4.920	35.9	100	Circular	10.577	9.977	0.500	10.599	9.840	0.659
19.001	1.499	57.7	100	Circular	10.599	9.840	0.659	10.621	9.814	0.707
21.000	8.371	59.4	100	Circular	10.767	10.167	0.500	10.753	10.026	0.627
21.001	1.200	57.1	100	Circular	10.753	10.026	0.627	10.722	10.005	0.617
22.000	7.065	59.4	100	Circular	9.556	8.956	0.500	9.860	8.837	0.923
22.001	1.599	59.2	100	Circular	9.860	8.837	0.923	9.600	8.810	0.690
24.000	3.635	58.6	100	Circular	9.127	8.527	0.500	9.469	8.465	0.904
25.000	1.876	58.6	150	Circular	7.382	6.632	0.600	7.509	6.600	0.759
26.000	1.863	58.2	100	Circular	10.288	9.688	0.500	10.368	9.656	0.612
18.001	1.820	58.7	100	Circular	8.964	8.319	0.545	8.957	8.288	0.569
27.000	1.817	58.6	100	Circular	10.798	10.198	0.500	10.769	10.167	0.502
28.000	1.788	57.7	100	Circular	7.794	7.194	0.500	7.696	7.163	0.433
23.001	1.305	59.3	100	Circular	11.282	10.467	0.715	11.330	10.445	0.785
29.000	1.250	59.5	100	Circular	10.219	9.619	0.500	10.196	9.598	0.498
23.000	3.590	78.0	100	Circular	11.113	10.513	0.500	11.282	10.467	0.715
18.000	9.030	25.0	100	Circular	9.280	8.680	0.500	8.964	8.319	0.545

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
16.000	50	1200	Manhole	Adoptable	51	1200	Manhole	Adoptable
16.001	51	1200	Manhole	Adoptable	P3 SOAKAWAY		Junction	
17.000	53	1200	Manhole	Adoptable	54	1200	Manhole	Adoptable
17.001	54	1200	Manhole	Adoptable	P10 PP		Junction	
19.000	56	1200	Manhole	Adoptable	58	1200	Manhole	Adoptable
20.000	57	1200	Manhole	Adoptable	58	1200	Manhole	Adoptable
19.001	58	1200	Manhole	Adoptable	P26 SOAKAWAY		Junction	
21.000	60	1200	Manhole	Adoptable	61	1200	Manhole	Adoptable
21.001	61	1200	Manhole	Adoptable	P11 PP		Junction	
22.000	63	1200	Manhole	Adoptable	64	1200	Manhole	Adoptable
22.001	64	1200	Manhole	Adoptable	P9 PP		Junction	
24.000	66	1200	Manhole	Adoptable	P28 SOAKAWAY		Junction	
25.000	68	1200	Manhole	Adoptable	ROAD SOAKAWAY		Junction	
26.000	70	1200	Manhole	Adoptable	P22 SOAKAWAY		Junction	
18.001	72	1200	Manhole	Adoptable	P7 PP		Junction	
27.000	74	1200	Manhole	Adoptable	P25 SOAKAWAY		Junction	
28.000	76	1200	Manhole	Adoptable	P6 PP		Junction	
23.001	78	1200	Manhole	Adoptable	P2 SOAKAWAY		Junction	
29.000	80	1200	Manhole	Adoptable	P5 SOAKAWAY		Junction	
23.000	15	1200	Manhole	Adoptable	78	1200	Manhole	Adoptable
18.000	6	1200	Manhole	Adoptable	72	1200	Manhole	Adoptable



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
1	504106.175	118546.445	9.431	1.300	1200	 0	1.000	8.131	150
2	504121.762	118547.671	10.404	2.504	1200	 1	1.000	7.975	150
						0 1.001	7.900	225	
3	504162.733	118540.229	10.361	2.877	1200	 1	1.001	7.484	225
						0 1.002	7.484	225	
4	504183.786	118569.558	9.936	2.813	1200	 1	1.002	7.123	225
						0 1.003	7.123	225	
5	504209.323	118571.239	9.247	1.350	1200	 0	2.000	7.897	150
ROAD AT	504197.353	118571.203	9.450	2.790		 1	2.000	7.887	150
						2 1.003	7.113	225	
						0 1.004	6.660	225	
7	504211.118	118572.610	9.174	2.524	1200	 1	1.004	6.650	225
						0 1.005	6.650	225	
8	504214.291	118570.705	9.044	2.431	1200	 1	1.005	6.613	225
						0 1.006	6.613	225	
9	504221.928	118566.122	8.820	2.296		 1	1.006	6.524	225
10	504189.238	118567.161	9.978	0.600	1200	 0	3.000	9.378	100
11	504202.055	118568.037	9.612	0.662	1200	 1	3.000	8.950	100
						0 3.001	8.950	100	
12	504202.511	118560.259	9.831	1.012	1200	 1	3.001	8.819	100
						0 3.002	8.819	100	
13	504195.709	118555.870	9.852	1.121	1200	 0	4.000	8.731	100

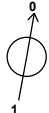


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
14	504198.699	118554.039	9.700	1.028	1200		1 2 0	4.000 3.002 3.003	8.696 8.672 8.672	100 100 100
P18/19/20 SOAKAWAY	504196.497	118548.533	9.700	1.045			1	3.003	8.655	100
16	504175.008	118547.668	10.262	0.600	1200		0	7.000	9.662	100
17	504167.798	118535.937	10.304	0.874	1200		1 0	7.000 7.001	9.430 9.430	100 100
19	504186.850	118541.366	10.259	0.600	1200		0	6.000	9.659	100
20	504178.928	118528.439	10.308	0.904	1200		1 0	6.000 6.001	9.404 9.404	100 100
22	504161.827	118534.905	10.577	0.600	1200		0	8.000	9.977	100
24	504160.762	118526.263	10.521	0.600	1200		0	9.000	9.921	100
26	504172.346	118523.408	10.220	0.833	1200		1 2 3 4 0	9.000 8.000 7.001 6.001 6.002	9.904 9.960 9.413 9.387 9.387	100 100 100 100 100
CAR PARK PP	504173.583	118521.302	10.220	0.858			1	6.002	9.362	100
28	504075.390	118556.429	9.250	0.600	1200		0	5.000	8.650	100
WESTERN PP	504051.837	118558.333	9.250	0.998			1	5.000	8.252	100
30	504147.841	118545.532	10.699	0.600	1200		0	10.000	10.099	100



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
31	504150.790	118561.436	10.679	0.852	1200	 1	10.000	9.827	100
P23 SOAKAWAY	504151.035	118562.848	10.705	0.903		0 1	10.001 10.001	9.827 9.802	100 100
33	504088.746	118562.440	9.560	0.600	1200	 0	11.000	8.960	100
34	504098.978	118563.245	10.223	1.438	1200	1 0	11.000 11.001	8.785 8.785	100 100
35	504099.142	118561.166	9.592	0.843	1200	 1	11.001	8.749	100
P27 SOAKAWAY	504103.529	118561.511	9.807	1.132		0 1	11.002 11.002	8.749 8.675	100 100
37	504170.654	118556.024	10.166	0.600	1200	 0	12.000	9.566	100
38	504163.282	118560.542	10.126	0.706	1200	 1	12.000	9.420	100
39	504164.888	118563.162	10.035	0.717	1200	0 1	12.001 12.001	9.420 9.318	100 100
P21 SOAKAWAY	504161.376	118565.314	10.155	0.907		 0 1	12.002 12.002	9.318 9.248	100 100
41	504029.065	118530.029	10.976	0.600	1200	 0	13.000	10.376	100
42	504018.234	118529.175	11.042	0.849	1200	 1	13.000	10.193	100
P1 SOAKAWAY	504013.997	118528.842	11.183	1.062		0 1	13.001 13.001	10.193 10.121	100 100

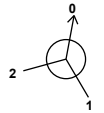


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
44	504143.958	118548.591	10.824	0.600	1200	0	14.000	10.224	100
45	504146.408	118561.806	10.766	0.768	1200	1 0	14.000	9.998	100
P24 SOAKAWAY	504146.659	118563.158	10.767	0.793		1	14.001	9.974	100
47	504042.246	118547.261	10.669	0.600	1200	0	15.000	10.069	100
48	504043.294	118533.938	10.587	0.743	1200	1 0	15.000	9.844	100
P4 SOAKAWAY	504043.392	118532.692	10.521	0.698		1	15.001	9.823	100
50	504025.410	118555.450	11.494	0.600	1200	0	16.000	10.894	100
51	504014.380	118554.582	11.665	0.957	1200	1 0	16.000	10.708	100
P3 SOAKAWAY	504012.318	118554.420	11.783	1.110		1	16.001	10.673	100
53	504123.654	118532.106	10.664	0.600	1200	0	17.000	10.064	100
54	504125.413	118541.596	10.741	0.840	1200	1 0	17.000	9.901	100
P10 PP	504124.233	118541.815	10.706	0.826		1	17.001	9.880	100
56	504116.600	118560.422	10.576	0.600	1200	0	19.000	9.976	100

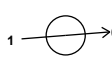


Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
57	504126.898	118558.318	10.577	0.600	1200				
						0	20.000	9.977	100
58	504124.406	118562.560	10.599	0.759	1200				
						1	20.000	9.840	100
						2	19.000	9.840	100
						0	19.001	9.840	100
P26 SOAKAWAY	504124.679	118564.034	10.621	0.807		1	19.001	9.814	100
									
60	504144.231	118529.594	10.767	0.600	1200				
						0	21.000	10.167	100
61	504145.757	118537.825	10.753	0.727	1200				
						1	21.000	10.026	100
						0	21.001	10.026	100
P11 PP	504146.937	118537.607	10.722	0.717		1	21.001	10.005	100
									
63	504111.613	118535.623	9.556	0.600	1200				
						0	22.000	8.956	100
64	504111.059	118542.666	9.860	1.023	1200				
						1	22.000	8.837	100
						0	22.001	8.837	100
P9 PP	504112.653	118542.791	9.600	0.790		1	22.001	8.810	100
									
66	504100.434	118554.502	9.127	0.600	1200				
						0	24.000	8.527	100
P28 SOAKAWAY	504104.058	118554.788	9.469	1.004		1	24.000	8.465	100
									
68	504085.029	118531.458	7.382	0.750	1200				
						0	25.000	6.632	150
ROAD SOAKAWAY	504084.882	118533.328	7.509	0.909		1	25.000	6.600	150
									



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
70	504158.663	118560.888	10.288	0.600	1200		0	26.000	9.688	100
P22 SOAKAWAY	504157.905	118562.590	10.368	0.712			1	26.000	9.656	100
72	504076.254	118548.345	8.964	0.645	1200		1	18.000	8.319	100
							0	18.001	8.319	100
P7 PP	504078.068	118548.488	8.957	0.669			1	18.001	8.288	100
										
74	504137.646	118562.980	10.798	0.600	1200		0	27.000	10.198	100
P25 SOAKAWAY	504137.977	118564.767	10.769	0.602			1	27.000	10.167	100
76	504077.876	118533.364	7.794	0.600	1200		0	28.000	7.194	100
P6 PP	504079.659	118533.504	7.696	0.533			1	28.000	7.163	100
78	504014.431	118539.466	11.282	0.815	1200		1	23.000	10.467	100
							0	23.001	10.467	100
P2 SOAKAWAY	504013.130	118539.364	11.330	0.885			1	23.001	10.445	100
80	504056.028	118534.940	10.219	0.600	1200		0	29.000	9.619	100
P5 SOAKAWAY	504056.126	118533.694	10.196	0.598			1	29.000	9.598	100
P4 PP	504045.622	118550.594	10.450	0.670						



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
P5/8 PP	504057.424	118551.171	10.100	0.670						
P27/28 PP	504112.056	118555.793	10.150	0.670						
P25/26 PP	504128.974	118554.194	10.650	0.770						
P23/24 PP	504146.635	118551.502	10.730	0.770						
P21/22 PP	504165.369	118556.041	10.140	0.670						
VIS PP	504174.694	118568.255	10.125	0.670						
15	504017.161	118537.135	11.113	0.600	1200		0	23.000	10.513	100
P20 PP	504207.141	118566.187	9.650	0.670						
6	504067.252	118547.637	9.280	0.600	1200		0	18.000	8.680	100

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	0.0		

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	



Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	40	0	0
100	45	10	0

Node 7 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	6.650	Product Number	CTL-SHE-0092-5000-1960-5000
Design Depth (m)	1.960	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node P2 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.795	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	3980	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	3.000	Number Required	1
Porosity	0.95	Pit Length (m)	4.000		

Node P3 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	10.023	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	3980	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	3.000	Number Required	1
Porosity	0.95	Pit Length (m)	4.000		

Node P1 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.471	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	3980	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	3.000	Number Required	1
Porosity	0.95	Pit Length (m)	4.000		

Node P4 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.173	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	2786	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	1.500	Number Required	1
Porosity	0.95	Pit Length (m)	6.000		

Node WESTERN PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	8.252	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	588	Depth (m)	0.600
Safety Factor	3.0	Width (m)	20.000	Inf Depth (m)	
Porosity	0.30	Length (m)	31.000		

Node P7 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	7.912	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	546	Depth (m)	0.825
Safety Factor	2.0	Width (m)	4.000	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		



Node P6 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	6.776	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	455	Depth (m)	0.700
Safety Factor	2.0	Width (m)	4.600	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		

Node ROAD SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	4.800	Depth (m)	2.000
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	6965	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	6.000	Number Required	1
Porosity	0.95	Pit Length (m)	6.000		

Node P27 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	8.025	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	3483	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	3.000	Number Required	1
Porosity	0.95	Pit Length (m)	3.000		

Node P28 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	7.815	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	3751	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	3.000	Number Required	1
Porosity	0.95	Pit Length (m)	3.500		

Node P26 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.014	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	2786	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	1.500	Number Required	1
Porosity	0.95	Pit Length (m)	6.000		

Node P9 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	8.380	Slope (1:X)	9999.9
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	675	Depth (m)	1.000
Safety Factor	2.0	Width (m)	5.400	Inf Depth (m)	
Porosity	0.30	Length (m)	6.000		

Node P10 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	9.486	Slope (1:X)	9999.9
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	675	Depth (m)	1.000
Safety Factor	2.0	Width (m)	5.400	Inf Depth (m)	
Porosity	0.30	Length (m)	6.000		

Node P11 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	9.452	Slope (1:X)	9999.9
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	711	Depth (m)	1.000
Safety Factor	2.0	Width (m)	5.400	Inf Depth (m)	
Porosity	0.30	Length (m)	6.000		



Node P25 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.117	Depth (m)	1.200
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	2533	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	1.500	Number Required	1
Porosity	0.95	Pit Length (m)	4.000		

Node P24 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.324	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	2786	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	1.500	Number Required	1
Porosity	0.95	Pit Length (m)	6.000		

Node P23 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	9.152	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	3215	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	2.000	Number Required	1
Porosity	0.95	Pit Length (m)	4.500		

Node P22 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	8.606	Depth (m)	1.200
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	3345	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	2.500	Number Required	1
Porosity	0.95	Pit Length (m)	3.400		

Node P21 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	8.198	Depth (m)	1.200
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	3345	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	2.500	Number Required	1
Porosity	0.95	Pit Length (m)	3.400		

Node P4 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	9.780	Slope (1:X)	55.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	239	Depth (m)	0.450
Safety Factor	2.0	Width (m)	4.300	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		

Node P5/8 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	9.430	Slope (1:X)	21.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	264	Depth (m)	0.550
Safety Factor	2.0	Width (m)	6.000	Inf Depth (m)	
Porosity	0.30	Length (m)	12.000		

Node P27/28 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	9.480	Slope (1:X)	37.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	272	Depth (m)	0.450
Safety Factor	2.0	Width (m)	6.000	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		



Node P25/26 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	9.880	Slope (1:X)	24.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	346	Depth (m)	0.500
Safety Factor	2.0	Width (m)	8.000	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		

Node P23/24 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	9.960	Slope (1:X)	28.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	346	Depth (m)	0.550
Safety Factor	2.0	Width (m)	6.000	Inf Depth (m)	
Porosity	0.30	Length (m)	12.000		

Node P21/22 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	9.470	Slope (1:X)	40.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	269	Depth (m)	0.450
Safety Factor	2.0	Width (m)	6.000	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		

Node VIS PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	9.455	Slope (1:X)	61.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	272	Depth (m)	0.450
Safety Factor	2.0	Width (m)	5.500	Inf Depth (m)	
Porosity	0.30	Length (m)	6.000		

Node P18/19/20 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	7.419	Depth (m)	1.600
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	7836	Inf Depth (m)	
Safety Factor	3.0	Pit Width (m)	3.000	Number Required	1
Porosity	0.95	Pit Length (m)	9.000		

Node P5 SOAKAWAY Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	8.948	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.02455	Time to half empty (mins)	2786	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	1.500	Number Required	1
Porosity	0.95	Pit Length (m)	6.000		

Node ROAD AT Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	6.660	Depth (m)	1.600
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	132	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	3.000	Number Required	1
Porosity	0.95	Pit Length (m)	10.000		

Node CAR PARK PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	9.362	Slope (1:X)	100.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	594	Depth (m)	0.700
Safety Factor	3.0	Width (m)	18.000	Inf Depth (m)	
Porosity	0.30	Length (m)	20.000		



Node P20 PP Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.02455	Invert Level (m)	8.980	Slope (1:X)	21.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	258	Depth (m)	0.450
Safety Factor	2.0	Width (m)	8.000	Inf Depth (m)	
Porosity	0.30	Length (m)	10.000		



Results for 1 year Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	8.163	0.032	1.8	0.0366	0.0000	OK
15 minute summer	2	11	7.934	0.034	2.6	0.0388	0.0000	OK
15 minute summer	3	11	7.535	0.051	5.9	0.0574	0.0000	OK
15 minute summer	4	11	7.185	0.062	7.3	0.0699	0.0000	OK
15 minute summer	5	10	7.941	0.044	2.9	0.0499	0.0000	OK
120 minute summer	ROAD AT	74	6.813	0.153	6.0	4.3562	0.0000	OK
120 minute summer	7	74	6.813	0.163	3.4	0.1840	0.0000	OK
120 minute summer	8	74	6.652	0.039	3.4	0.0446	0.0000	OK
120 minute summer	9	74	6.563	0.039	3.4	0.0000	0.0000	OK
15 minute summer	10	10	9.396	0.018	0.8	0.0203	0.0000	OK
15 minute summer	11	11	8.971	0.021	0.8	0.0236	0.0000	OK
15 minute summer	12	11	8.846	0.027	1.3	0.0303	0.0000	OK
15 minute summer	13	10	8.776	0.045	2.2	0.0508	0.0000	OK
15 minute summer	14	11	8.724	0.052	3.5	0.0584	0.0000	OK
720 minute winter	P18/19/20 SOAKAWAY	630	7.697	-0.958	0.5	7.1244	0.0000	OK
15 minute summer	16	11	9.686	0.024	1.0	0.0273	0.0000	OK
240 minute summer	17	176	9.520	0.090	0.4	0.1012	0.0000	OK
15 minute summer	19	10	9.685	0.026	1.2	0.0295	0.0000	OK
240 minute summer	20	176	9.520	0.116	0.5	0.1307	0.0000	SURCHARGED
15 minute summer	22	1	9.977	0.000	0.0	0.0000	0.0000	OK
15 minute summer	24	10	9.948	0.027	1.0	0.0305	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	1.7	0.635	0.098	0.0430	12.0
15 minute summer	2	1.001	3	2.6	0.507	0.051	0.2185	
15 minute summer	3	1.002	4	5.9	0.757	0.113	0.2802	
15 minute summer	4	1.003	ROAD AT	7.2	0.866	0.138	0.0083	
15 minute summer	5	2.000	ROAD AT	2.9	0.702	0.161	0.0041	
120 minute summer	ROAD AT	1.004	7	3.4	0.285	0.065	0.0297	
120 minute summer	7	1.005	8	3.4	0.691	0.065	0.0180	
120 minute summer	8	1.006	9	3.4	0.733	0.065	0.0409	
15 minute summer	10	3.000	11	0.8	0.734	0.069	0.0135	
15 minute summer	11	3.001	12	0.7	0.524	0.095	0.0112	
15 minute summer	12	3.002	14	1.4	0.475	0.157	0.0210	
15 minute summer	13	4.000	14	2.2	0.671	0.359	0.0113	
15 minute summer	14	3.003	P18/19/20 SOAKAWAY	3.5	0.914	0.446	0.0038	
720 minute winter	P18/19/20 SOAKAWAY	Infiltration		0.0				
15 minute summer	16	7.000	17	1.0	0.648	0.127	0.0231	
240 minute summer	17	7.001	26	0.6	0.336	0.074	0.0076	
15 minute summer	19	6.000	20	1.2	0.630	0.148	0.0401	
240 minute summer	20	6.001	26	0.4	0.332	0.056	0.0078	
15 minute summer	22	8.000	26	0.0	0.000	0.000	0.0000	
15 minute summer	24	9.000	26	1.0	0.623	0.123	0.0016	



Results for 1 year Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	26	184	9.520	0.133	0.9	0.1499	0.0000	SURCHARGED
240 minute winter	CAR PARK PP	184	9.519	0.157	2.0	6.6775	0.0000	OK
15 minute summer	28	11	8.670	0.020	0.7	0.0228	0.0000	OK
360 minute summer	WESTERN PP	240	8.412	0.160	2.8	7.7293	0.0000	OK
15 minute winter	30	10	10.119	0.020	0.7	0.0230	0.0000	OK
15 minute summer	31	11	9.848	0.021	0.7	0.0237	0.0000	OK
960 minute winter	P23 SOAKAWAY	630	9.313	-0.489	0.1	1.3796	0.0000	OK
15 minute summer	33	10	8.980	0.020	0.7	0.0230	0.0000	OK
15 minute summer	34	11	8.806	0.021	0.7	0.0243	0.0000	OK
15 minute summer	35	11	8.769	0.020	0.7	0.0231	0.0000	OK
960 minute winter	P27 SOAKAWAY	615	8.167	-0.508	0.1	1.2122	0.0000	OK
15 minute summer	37	11	9.587	0.021	0.7	0.0238	0.0000	OK
15 minute summer	38	11	9.437	0.017	0.7	0.0196	0.0000	OK
15 minute summer	39	11	9.339	0.021	0.7	0.0232	0.0000	OK
600 minute winter	P21 SOAKAWAY	435	8.348	-0.900	0.1	1.2107	0.0000	OK
15 minute summer	41	10	10.398	0.022	0.8	0.0248	0.0000	OK
15 minute summer	42	11	10.215	0.022	0.8	0.0249	0.0000	OK
960 minute winter	P1 SOAKAWAY	645	9.608	-0.513	0.1	1.5613	0.0000	OK
15 minute summer	44	10	10.244	0.020	0.7	0.0231	0.0000	OK
15 minute summer	45	11	10.019	0.021	0.7	0.0237	0.0000	OK
720 minute winter	P24 SOAKAWAY	480	9.464	-0.510	0.1	1.1985	0.0000	OK
15 minute summer	47	10	10.089	0.020	0.7	0.0231	0.0000	OK
15 minute summer	48	11	9.865	0.021	0.7	0.0240	0.0000	OK
720 minute winter	P4 SOAKAWAY	480	9.313	-0.510	0.1	1.1984	0.0000	OK
15 minute summer	50	10	10.915	0.021	0.8	0.0243	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	26	6.002	CAR PARK PP	0.8	0.246	0.132	0.0191	
240 minute winter	CAR PARK PP	Infiltration		0.6				
15 minute summer	28	5.000	WESTERN PP	0.7	0.212	0.089	0.1019	
360 minute summer	WESTERN PP	Infiltration		0.7				
15 minute winter	30	10.000	31	0.7	0.612	0.089	0.0188	
15 minute summer	31	10.001	P23 SOAKAWAY	0.7	0.608	0.087	0.0016	
960 minute winter	P23 SOAKAWAY	Infiltration		0.0				
15 minute summer	33	11.000	34	0.7	0.601	0.089	0.0121	
15 minute summer	34	11.001	35	0.7	0.596	0.088	0.0025	
15 minute summer	35	11.002	P27 SOAKAWAY	0.7	0.610	0.088	0.0050	
960 minute winter	P27 SOAKAWAY	Infiltration		0.0				
15 minute summer	37	12.000	38	0.7	0.667	0.089	0.0091	
15 minute summer	38	12.001	39	0.7	0.693	0.063	0.0032	
15 minute summer	39	12.002	P21 SOAKAWAY	0.7	0.614	0.089	0.0047	
600 minute winter	P21 SOAKAWAY	Infiltration		0.0				
15 minute summer	41	13.000	42	0.8	0.640	0.102	0.0138	
15 minute summer	42	13.001	P1 SOAKAWAY	0.8	0.638	0.101	0.0053	
960 minute winter	P1 SOAKAWAY	Infiltration		0.0				
15 minute summer	44	14.000	45	0.7	0.612	0.089	0.0156	
15 minute summer	45	14.001	P24 SOAKAWAY	0.7	0.608	0.087	0.0016	
720 minute winter	P24 SOAKAWAY	Infiltration		0.0				
15 minute summer	47	15.000	48	0.7	0.608	0.089	0.0157	
15 minute summer	48	15.001	P4 SOAKAWAY	0.7	0.598	0.089	0.0015	
720 minute winter	P4 SOAKAWAY	Infiltration		0.0				
15 minute summer	50	16.000	51	0.8	0.627	0.097	0.0135	



Results for 1 year Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	51	11	10.730	0.022	0.8	0.0246	0.0000	OK
720 minute winter	P3 SOAKAWAY	510	10.145	-0.528	0.1	1.3926	0.0000	OK
15 minute summer	53	10	10.084	0.020	0.7	0.0231	0.0000	OK
15 minute summer	54	11	9.922	0.021	0.7	0.0238	0.0000	OK
360 minute summer	P10 PP	240	9.601	-0.279	0.4	1.1098	0.0000	OK
15 minute summer	56	1	9.976	0.000	0.0	0.0000	0.0000	OK
15 minute summer	57	10	9.995	0.018	0.7	0.0203	0.0000	OK
15 minute summer	58	11	9.861	0.021	0.7	0.0237	0.0000	OK
600 minute winter	P26 SOAKAWAY	420	9.154	-0.660	0.1	1.1995	0.0000	OK
15 minute summer	60	10	10.188	0.021	0.7	0.0232	0.0000	OK
15 minute summer	61	11	10.047	0.021	0.7	0.0238	0.0000	OK
360 minute summer	P11 PP	240	9.567	-0.438	0.4	1.1099	0.0000	OK
15 minute summer	63	10	8.977	0.021	0.7	0.0233	0.0000	OK
15 minute summer	64	11	8.858	0.021	0.7	0.0238	0.0000	OK
360 minute summer	P9 PP	240	8.495	-0.315	0.4	1.1100	0.0000	OK
15 minute summer	66	11	8.548	0.021	0.7	0.0233	0.0000	OK
720 minute winter	P28 SOAKAWAY	480	7.938	-0.527	0.1	1.2222	0.0000	OK
15 minute summer	68	10	6.683	0.051	4.9	0.0572	0.0000	OK
10080 minute winter	ROAD SOAKAWAY	7020	5.316	-1.284	0.1	17.6426	0.0000	OK
15 minute summer	70	10	9.710	0.022	0.8	0.0248	0.0000	OK
720 minute winter	P22 SOAKAWAY	495	8.777	-0.879	0.1	1.3839	0.0000	OK
15 minute summer	72	11	8.347	0.028	1.2	0.0313	0.0000	OK
240 minute summer	P7 PP	160	8.045	-0.243	0.5	1.0063	0.0000	OK
15 minute summer	74	11	10.219	0.021	0.7	0.0236	0.0000	OK
720 minute winter	P25 SOAKAWAY	480	9.328	-0.839	0.1	1.2016	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	51	16.001	P3 SOAKAWAY	0.8	0.621	0.096	0.0025	
720 minute winter	P3 SOAKAWAY	Infiltration		0.0				
15 minute summer	53	17.000	54	0.7	0.612	0.089	0.0113	
15 minute summer	54	17.001	P10 PP	0.7	0.606	0.087	0.0014	
360 minute summer	P10 PP	Infiltration		0.1				
15 minute summer	56	19.000	58	0.0	0.000	0.000	0.0048	
15 minute summer	57	20.000	58	0.7	0.676	0.069	0.0052	
15 minute summer	58	19.001	P26 SOAKAWAY	0.7	0.608	0.088	0.0017	
600 minute winter	P26 SOAKAWAY	Infiltration		0.0				
15 minute summer	60	21.000	61	0.7	0.609	0.089	0.0098	
15 minute summer	61	21.001	P11 PP	0.7	0.606	0.087	0.0014	
360 minute summer	P11 PP	Infiltration		0.1				
15 minute summer	63	22.000	64	0.7	0.607	0.089	0.0083	
15 minute summer	64	22.001	P9 PP	0.7	0.603	0.089	0.0019	
360 minute summer	P9 PP	Infiltration		0.1				
15 minute summer	66	24.000	P28 SOAKAWAY	0.7	0.614	0.088	0.0041	
720 minute winter	P28 SOAKAWAY	Infiltration		0.0				
15 minute summer	68	25.000	ROAD SOAKAWAY	4.9	0.988	0.210	0.0093	
10080 minute winter	ROAD SOAKAWAY	Infiltration		0.0				
15 minute summer	70	26.000	P22 SOAKAWAY	0.8	0.624	0.097	0.0023	
720 minute winter	P22 SOAKAWAY	Infiltration		0.0				
15 minute summer	72	18.001	P7 PP	1.2	0.704	0.152	0.0031	
240 minute summer	P7 PP	Infiltration		0.1				
15 minute summer	74	27.000	P25 SOAKAWAY	0.7	0.607	0.088	0.0021	
720 minute winter	P25 SOAKAWAY	Infiltration		0.0				



Results for 1 year Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	76	10	7.221	0.027	1.2	0.0309	0.0000	OK
180 minute summer	P6 PP	124	6.892	-0.271	0.6	0.9170	0.0000	OK
15 minute summer	78	11	10.490	0.023	0.8	0.0257	0.0000	OK
960 minute winter	P2 SOAKAWAY	645	9.932	-0.513	0.1	1.5613	0.0000	OK
15 minute summer	80	11	9.640	0.021	0.7	0.0240	0.0000	OK
720 minute winter	P5 SOAKAWAY	480	9.089	-0.509	0.1	1.2032	0.0000	OK
360 minute summer	P4 PP	232	9.883	0.103	0.2	0.3839	0.0000	OK
240 minute winter	P5/8 PP	216	9.658	0.228	0.3	0.9650	0.0000	OK
240 minute summer	P27/28 PP	176	9.610	0.130	0.3	0.5756	0.0000	OK
180 minute summer	P25/26 PP	120	10.049	0.169	0.5	0.8347	0.0000	OK
240 minute summer	P23/24 PP	152	10.135	0.175	0.4	0.7829	0.0000	OK
240 minute summer	P21/22 PP	148	9.594	0.124	0.3	0.5639	0.0000	OK
600 minute winter	VIS PP	360	9.526	0.071	0.1	0.2585	0.0000	OK
15 minute summer	15	11	10.537	0.024	0.8	0.0275	0.0000	OK
180 minute summer	P20 PP	120	9.167	0.187	0.5	0.8451	0.0000	OK
15 minute summer	6	1	8.680	0.000	0.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	76	28.000	P6 PP	1.2	0.703	0.147	0.0030	
180 minute summer	P6 PP	Infiltration		0.2				
15 minute summer	78	23.001	P2 SOAKAWAY	0.8	0.622	0.102	0.0017	
960 minute winter	P2 SOAKAWAY	Infiltration		0.0				
15 minute summer	80	29.000	P5 SOAKAWAY	0.7	0.598	0.089	0.0015	
720 minute winter	P5 SOAKAWAY	Infiltration		0.0				
360 minute summer	P4 PP	Infiltration		0.1				
240 minute winter	P5/8 PP	Infiltration		0.1				
240 minute summer	P27/28 PP	Infiltration		0.1				
180 minute summer	P25/26 PP	Infiltration		0.1				
240 minute summer	P23/24 PP	Infiltration		0.1				
240 minute summer	P21/22 PP	Infiltration		0.1				
600 minute winter	VIS PP	Infiltration		0.1				
15 minute summer	15	23.000	78	0.8	0.577	0.117	0.0050	
180 minute summer	P20 PP	Infiltration		0.1				
15 minute summer	6	18.000	72	0.0	0.000	0.000	0.0080	



Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	1	10	8.220	0.089	10.8	0.1001	0.0000	OK
15 minute summer	2	10	7.985	0.085	16.2	0.0961	0.0000	OK
120 minute summer	3	98	7.791	0.307	17.3	0.3475	0.0000	SURCHARGED
120 minute summer	4	98	7.791	0.668	21.3	0.7550	0.0000	SURCHARGED
15 minute summer	5	10	8.035	0.138	17.7	0.1563	0.0000	OK
120 minute summer	ROAD AT	98	7.790	1.130	26.5	32.2182	0.0000	SURCHARGED
120 minute summer	7	98	7.790	1.140	5.0	1.2897	0.0000	SURCHARGED
180 minute summer	8	88	6.657	0.044	4.2	0.0497	0.0000	OK
15 minute summer	9	67	6.567	0.043	4.2	0.0000	0.0000	OK
15 minute summer	10	10	9.423	0.045	4.7	0.0513	0.0000	OK
15 minute summer	11	12	9.099	0.149	4.7	0.1687	0.0000	SURCHARGED
15 minute summer	12	12	9.057	0.238	7.8	0.2695	0.0000	SURCHARGED
15 minute summer	13	11	9.158	0.427	13.3	0.4827	0.0000	SURCHARGED
15 minute summer	14	12	8.933	0.261	19.0	0.2951	0.0000	SURCHARGED
2880 minute winter	P18/19/20 SOAKAWAY	2700	8.614	-0.041	0.5	30.6406	0.0000	OK
15 minute summer	16	12	9.892	0.230	6.3	0.2600	0.0000	SURCHARGED
360 minute winter	17	344	9.835	0.405	0.9	0.4576	0.0000	SURCHARGED
15 minute summer	19	12	9.952	0.293	7.3	0.3317	0.0000	SURCHARGED
360 minute winter	20	344	9.835	0.431	1.0	0.4870	0.0000	SURCHARGED
15 minute summer	22	1	9.977	0.000	0.0	0.0000	0.0000	OK
15 minute summer	24	10	10.002	0.081	6.0	0.0917	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	1	1.000	2	10.6	1.019	0.599	0.1632	65.2
15 minute summer	2	1.001	3	16.0	0.796	0.307	0.8367	
120 minute summer	3	1.002	4	17.3	0.977	0.333	1.4359	
120 minute summer	4	1.003	ROAD AT	18.3	1.119	0.353	0.0398	
15 minute summer	5	2.000	ROAD AT	17.6	1.089	0.991	0.0162	
120 minute summer	ROAD AT	1.004	7	5.0	0.340	0.096	0.0398	
120 minute summer	7	1.005	8	4.2	0.732	0.081	0.0212	
180 minute summer	8	1.006	9	4.2	0.781	0.081	0.0478	
15 minute summer	10	3.000	11	4.7	1.178	0.420	0.0719	
15 minute summer	11	3.001	12	4.2	0.724	0.531	0.0610	
15 minute summer	12	3.002	14	6.9	0.888	0.807	0.0571	
15 minute summer	13	4.000	14	12.5	1.592	2.063	0.0274	
15 minute summer	14	3.003	P18/19/20 SOAKAWAY	18.8	2.401	2.402	0.0077	
2880 minute winter	P18/19/20 SOAKAWAY	Infiltration		0.1				
15 minute summer	16	7.000	17	5.1	0.741	0.651	0.1077	
360 minute winter	17	7.001	26	0.8	0.336	0.105	0.0078	
15 minute summer	19	6.000	20	5.8	0.746	0.743	0.1186	
360 minute winter	20	6.001	26	0.9	0.229	0.117	0.0078	
15 minute summer	22	8.000	26	0.0	0.000	0.000	0.0000	
15 minute summer	24	9.000	26	6.0	0.973	0.755	0.0061	



Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	26	344	9.835	0.448	2.6	0.5062	0.0000	SURCHARGED
360 minute winter	CAR PARK PP	344	9.835	0.473	6.3	40.2414	0.0000	OK
15 minute summer	28	10	8.704	0.054	4.5	0.0609	0.0000	OK
240 minute winter	WESTERN PP	228	8.636	0.384	10.0	42.6703	0.0000	OK
15 minute summer	30	10	10.155	0.056	4.6	0.0633	0.0000	OK
15 minute summer	31	11	9.886	0.059	4.5	0.0664	0.0000	OK
960 minute winter	P23 SOAKAWAY	870	9.874	0.072	0.3	6.1716	0.0000	OK
15 minute summer	33	10	9.013	0.053	4.2	0.0604	0.0000	OK
15 minute summer	34	11	8.845	0.060	4.2	0.0675	0.0000	OK
15 minute summer	35	11	8.803	0.054	4.1	0.0611	0.0000	OK
600 minute summer	P27 SOAKAWAY	615	8.713	0.038	0.6	5.8828	0.0000	OK
15 minute summer	37	10	9.623	0.057	4.4	0.0644	0.0000	OK
15 minute summer	38	10	9.468	0.048	4.4	0.0548	0.0000	OK
15 minute summer	39	11	9.374	0.056	4.3	0.0628	0.0000	OK
600 minute summer	P21 SOAKAWAY	615	8.925	-0.323	0.6	5.8739	0.0000	OK
15 minute summer	41	10	10.436	0.060	4.9	0.0676	0.0000	OK
15 minute summer	42	10	10.253	0.060	4.9	0.0673	0.0000	OK
720 minute summer	P1 SOAKAWAY	735	10.073	-0.048	0.6	6.8683	0.0000	OK
15 minute summer	44	10	10.277	0.053	4.2	0.0603	0.0000	OK
15 minute summer	45	10	10.054	0.056	4.2	0.0632	0.0000	OK
600 minute summer	P24 SOAKAWAY	615	9.998	0.024	0.6	5.7604	0.0000	OK
15 minute summer	47	10	10.122	0.053	4.2	0.0601	0.0000	OK
15 minute summer	48	10	9.901	0.057	4.2	0.0641	0.0000	OK
600 minute summer	P4 SOAKAWAY	615	9.847	0.024	0.6	5.7605	0.0000	OK
15 minute summer	50	10	10.952	0.058	4.7	0.0655	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	26	6.002	CAR PARK PP	2.5	0.319	0.408	0.0191	
360 minute winter	CAR PARK PP	Infiltration		0.8				
15 minute summer	28	5.000	WESTERN PP	4.4	0.647	0.565	0.1432	
240 minute winter	WESTERN PP	Infiltration		1.4				
15 minute summer	30	10.000	31	4.5	0.976	0.576	0.0750	
15 minute summer	31	10.001	P23 SOAKAWAY	4.5	0.987	0.557	0.0065	
960 minute winter	P23 SOAKAWAY	Infiltration		0.0				
15 minute summer	33	11.000	34	4.2	0.912	0.525	0.0468	
15 minute summer	34	11.001	35	4.1	0.897	0.514	0.0096	
15 minute summer	35	11.002	P27 SOAKAWAY	4.1	0.985	0.525	0.0184	
600 minute summer	P27 SOAKAWAY	Infiltration		0.0				
15 minute summer	37	12.000	38	4.4	1.042	0.553	0.0361	
15 minute summer	38	12.001	39	4.3	1.054	0.389	0.0126	
15 minute summer	39	12.002	P21 SOAKAWAY	4.3	0.999	0.548	0.0178	
600 minute summer	P21 SOAKAWAY	Infiltration		0.0				
15 minute summer	41	13.000	42	4.9	0.998	0.618	0.0529	
15 minute summer	42	13.001	P1 SOAKAWAY	4.8	1.022	0.608	0.0200	
720 minute summer	P1 SOAKAWAY	Infiltration		0.0				
15 minute summer	44	14.000	45	4.2	0.951	0.529	0.0587	
15 minute summer	45	14.001	P24 SOAKAWAY	4.1	0.967	0.512	0.0058	
600 minute summer	P24 SOAKAWAY	Infiltration		0.0				
15 minute summer	47	15.000	48	4.2	0.944	0.528	0.0588	
15 minute summer	48	15.001	P4 SOAKAWAY	4.1	0.952	0.522	0.0054	
600 minute summer	P4 SOAKAWAY	Infiltration		0.0				
15 minute summer	50	16.000	51	4.7	0.973	0.593	0.0529	



Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	51	10	10.768	0.060	4.7	0.0675	0.0000	OK
720 minute summer	P3 SOAKAWAY	720	10.617	-0.056	0.6	6.7660	0.0000	OK
480 minute summer	53	480	10.204	0.140	0.7	0.1583	0.0000	SURCHARGED
480 minute summer	54	480	10.204	0.303	0.7	0.3426	0.0000	SURCHARGED
480 minute summer	P10 PP	480	10.204	0.324	1.9	6.9732	0.0000	OK
15 minute summer	56	1	9.976	0.000	0.0	0.0000	0.0000	OK
15 minute summer	57	10	10.026	0.049	4.4	0.0556	0.0000	OK
15 minute summer	58	10	9.898	0.058	4.4	0.0651	0.0000	OK
600 minute summer	P26 SOAKAWAY	615	9.688	-0.126	0.6	5.7617	0.0000	OK
15 minute summer	60	10	10.222	0.055	4.3	0.0626	0.0000	OK
480 minute summer	61	480	10.202	0.176	0.7	0.1985	0.0000	SURCHARGED
480 minute summer	P11 PP	480	10.202	0.197	1.3	7.2805	0.0000	OK
480 minute summer	63	472	9.115	0.159	0.7	0.1798	0.0000	SURCHARGED
480 minute summer	64	472	9.115	0.278	0.7	0.3143	0.0000	SURCHARGED
480 minute summer	P9 PP	472	9.115	0.305	1.6	7.1384	0.0000	OK
15 minute summer	66	10	8.582	0.055	4.2	0.0617	0.0000	OK
600 minute summer	P28 SOAKAWAY	615	8.411	-0.054	0.6	5.9434	0.0000	OK
15 minute summer	68	10	6.838	0.206	30.0	0.2332	0.0000	SURCHARGED
10080 minute summer	ROAD SOAKAWAY	6420	6.250	-0.350	0.5	49.5767	0.0000	OK
15 minute summer	70	10	9.748	0.060	4.7	0.0681	0.0000	OK
960 minute winter	P22 SOAKAWAY	900	9.416	-0.240	0.3	6.5384	0.0000	OK
240 minute winter	72	236	8.501	0.182	1.5	0.2063	0.0000	SURCHARGED
240 minute winter	P7 PP	236	8.501	0.213	1.9	6.4776	0.0000	OK
15 minute summer	74	10	10.254	0.056	4.2	0.0635	0.0000	OK
600 minute summer	P25 SOAKAWAY	615	10.119	-0.048	0.6	5.7088	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	51	16.001	P3 SOAKAWAY	4.6	0.993	0.583	0.0096	
720 minute summer	P3 SOAKAWAY	Infiltration		0.0				
480 minute summer	53	17.000	54	0.7	0.599	0.089	0.0755	
480 minute summer	54	17.001	P10 PP	1.4	0.604	0.178	0.0094	
480 minute summer	P10 PP	Infiltration		0.1				
15 minute summer	56	19.000	58	0.0	0.000	0.000	0.0189	
15 minute summer	57	20.000	58	4.4	1.028	0.431	0.0209	
15 minute summer	58	19.001	P26 SOAKAWAY	4.3	0.978	0.540	0.0066	
600 minute summer	P26 SOAKAWAY	Infiltration		0.0				
15 minute summer	60	21.000	61	4.3	0.939	0.541	0.0379	
480 minute summer	61	21.001	P11 PP	0.7	0.606	0.087	0.0094	
480 minute summer	P11 PP	Infiltration		0.1				
480 minute summer	63	22.000	64	0.7	0.596	0.089	0.0553	
480 minute summer	64	22.001	P9 PP	1.2	0.603	0.148	0.0125	
480 minute summer	P9 PP	Infiltration		0.1				
15 minute summer	66	24.000	P28 SOAKAWAY	4.2	0.987	0.526	0.0153	
600 minute summer	P28 SOAKAWAY	Infiltration		0.0				
15 minute summer	68	25.000	ROAD SOAKAWAY	29.8	1.695	1.283	0.0327	
10080 minute summer	ROAD SOAKAWAY	Infiltration		0.1				
15 minute summer	70	26.000	P22 SOAKAWAY	4.7	0.998	0.587	0.0087	
960 minute winter	P22 SOAKAWAY	Infiltration		0.0				
240 minute winter	72	18.001	P7 PP	1.9	0.746	0.243	0.0142	
240 minute winter	P7 PP	Infiltration		0.1				
15 minute summer	74	27.000	P25 SOAKAWAY	4.2	0.969	0.526	0.0078	
600 minute summer	P25 SOAKAWAY	Infiltration		0.0				



Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	76	10	7.277	0.083	7.3	0.0944	0.0000	OK
240 minute winter	P6 PP	232	7.264	0.101	1.4	6.0456	0.0000	OK
15 minute summer	78	10	10.530	0.063	4.9	0.0708	0.0000	OK
720 minute summer	P2 SOAKAWAY	735	10.398	-0.047	0.6	6.8686	0.0000	OK
15 minute summer	80	10	9.676	0.057	4.2	0.0648	0.0000	OK
600 minute summer	P5 SOAKAWAY	615	9.622	0.024	0.6	5.7630	0.0000	OK
240 minute summer	P4 PP	180	10.046	0.266	0.9	2.2703	0.0000	OK
240 minute summer	P5/8 PP	188	9.952	0.522	1.8	4.9817	0.0000	OK
240 minute summer	P27/28 PP	172	9.797	0.317	1.3	3.2787	0.0000	OK
180 minute winter	P25/26 PP	168	10.281	0.401	1.5	4.6510	0.0000	OK
240 minute summer	P23/24 PP	180	10.367	0.407	1.6	4.1973	0.0000	OK
240 minute winter	P21/22 PP	184	9.780	0.310	0.9	3.3373	0.0000	OK
180 minute winter	VIS PP	144	9.689	0.234	0.6	1.8350	0.0000	OK
15 minute summer	15	10	10.583	0.070	4.9	0.0794	0.0000	OK
180 minute winter	P20 PP	168	9.423	0.443	1.5	4.7049	0.0000	OK

15 minute summer	6	1	8.680	0.000	0.0	0.0000	0.0000	OK
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Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	76	28.000	P6 PP	7.2	1.090	0.906	0.0118	
240 minute winter	P6 PP	Infiltration		0.2				
15 minute summer	78	23.001	P2 SOAKAWAY	4.8	0.989	0.611	0.0063	
720 minute summer	P2 SOAKAWAY	Infiltration		0.0				
15 minute summer	80	29.000	P5 SOAKAWAY	4.2	0.954	0.530	0.0055	
600 minute summer	P5 SOAKAWAY	Infiltration		0.0				
240 minute summer	P4 PP	Infiltration		0.1				
240 minute summer	P5/8 PP	Infiltration		0.2				
240 minute summer	P27/28 PP	Infiltration		0.2				
180 minute winter	P25/26 PP	Infiltration		0.3				
240 minute summer	P23/24 PP	Infiltration		0.2				
240 minute winter	P21/22 PP	Infiltration		0.2				
180 minute winter	VIS PP	Infiltration		0.1				
15 minute summer	15	23.000	78	4.9	0.879	0.709	0.0198	
180 minute winter	P20 PP	Infiltration		0.3				
15 minute summer	6	18.000	72	0.0	0.000	0.000	0.0326	



Results for 100 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	1	112	8.611	0.480	4.9	0.5429	0.0000	SURCHARGED
120 minute winter	2	112	8.611	0.711	7.4	0.8038	0.0000	SURCHARGED
120 minute winter	3	112	8.610	1.126	16.9	1.2740	0.0000	SURCHARGED
120 minute winter	4	112	8.609	1.486	20.2	1.6809	0.0000	SURCHARGED
120 minute winter	5	112	8.609	0.712	8.0	0.8055	0.0000	SURCHARGED
120 minute winter	ROAD AT	112	8.609	1.949	25.7	45.6143	0.0000	SURCHARGED
120 minute winter	7	112	8.609	1.959	5.7	2.2154	0.0000	SURCHARGED
120 minute winter	8	112	6.661	0.048	4.9	0.0541	0.0000	OK
120 minute winter	9	112	6.571	0.047	4.9	0.0000	0.0000	OK
15 minute summer	10	12	9.446	0.068	6.7	0.0772	0.0000	OK
15 minute summer	11	12	9.346	0.396	6.4	0.4482	0.0000	FLOOD RISK
15 minute summer	12	12	9.282	0.463	9.5	0.5236	0.0000	SURCHARGED
15 minute summer	13	11	9.496	0.765	19.0	0.8650	0.0000	SURCHARGED
4320 minute winter	14	4080	9.195	0.523	0.5	0.5920	0.0000	SURCHARGED
4320 minute winter	P18/19/20 SOAKAWAY	4080	9.195	0.540	0.5	41.0528	0.0000	OK
30 minute summer	16	20	10.191	0.529	8.3	0.5985	0.0000	FLOOD RISK
360 minute summer	17	360	10.020	0.590	1.7	0.6677	0.0000	FLOOD RISK
30 minute summer	19	19	10.259	0.600	9.6	0.6786	0.0805	FLOOD
30 minute summer	20	20	10.024	0.620	7.4	0.7007	0.0000	FLOOD RISK
360 minute summer	22	360	10.020	0.043	0.0	0.0490	0.0000	OK
15 minute summer	24	10	10.050	0.129	8.6	0.1459	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	1	1.000	2	4.9	0.844	0.276	0.2753	81.1
120 minute winter	2	1.001	3	7.4	0.670	0.142	1.6561	
120 minute winter	3	1.002	4	16.4	0.930	0.315	1.4359	
120 minute winter	4	1.003	ROAD AT	18.0	1.067	0.346	0.0398	
120 minute winter	5	2.000	ROAD AT	8.0	0.925	0.451	0.0176	
120 minute winter	ROAD AT	1.004	7	5.7	0.412	0.109	0.0398	
120 minute winter	7	1.005	8	4.9	0.765	0.095	0.0240	
120 minute winter	8	1.006	9	4.9	0.819	0.095	0.0538	
15 minute summer	10	3.000	11	6.4	1.227	0.579	0.0869	
15 minute summer	11	3.001	12	5.3	0.714	0.677	0.0610	
15 minute summer	12	3.002	14	9.1	1.159	1.053	0.0571	
15 minute summer	13	4.000	14	17.2	2.195	2.845	0.0274	
4320 minute winter	14	3.003	P18/19/20 SOAKAWAY	0.5	0.544	0.064	0.0078	81.1
4320 minute winter	P18/19/20 SOAKAWAY	Infiltration		0.1				
30 minute summer	16	7.000	17	6.5	0.827	0.823	0.1077	
360 minute summer	17	7.001	26	1.6	0.408	0.202	0.0078	
30 minute summer	19	6.000	20	7.4	0.949	0.945	0.1186	
30 minute summer	20	6.001	26	6.8	0.868	0.861	0.0078	
360 minute summer	22	8.000	26	0.0	-0.032	0.004	0.0041	
15 minute summer	24	9.000	26	8.5	1.082	1.073	0.0076	



Results for 100 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute summer	26	360	10.020	0.633	5.3	0.7163	0.0000	FLOOD RISK
360 minute summer	CAR PARK PP	360	10.020	0.658	13.3	60.2771	0.0000	OK
240 minute summer	28	240	8.752	0.102	1.8	0.1155	0.0000	SURCHARGED
240 minute summer	WESTERN PP	240	8.752	0.500	21.0	64.1641	0.0000	OK
960 minute summer	30	975	10.548	0.449	0.6	0.5075	0.0000	FLOOD RISK
960 minute summer	31	975	10.548	0.721	0.6	0.8151	0.0000	FLOOD RISK
960 minute summer	P23 SOAKAWAY	975	10.548	0.746	0.8	6.8443	0.0000	OK
960 minute summer	33	930	9.092	0.132	0.6	0.1489	0.0000	SURCHARGED
960 minute summer	34	930	9.092	0.307	0.6	0.3469	0.0000	SURCHARGED
960 minute summer	35	930	9.092	0.343	0.6	0.3876	0.0000	SURCHARGED
960 minute summer	P27 SOAKAWAY	930	9.092	0.417	0.6	6.8443	0.0000	OK
15 minute summer	37	10	9.639	0.073	6.3	0.0827	0.0000	OK
15 minute summer	38	10	9.482	0.062	6.2	0.0703	0.0000	OK
15 minute summer	39	11	9.389	0.071	6.2	0.0804	0.0000	OK
960 minute summer	P21 SOAKAWAY	960	9.226	-0.022	0.6	8.3017	0.0000	OK
1440 minute winter	41	1350	10.484	0.108	0.3	0.1224	0.0000	SURCHARGED
1440 minute winter	42	1350	10.484	0.291	0.3	0.3294	0.0000	SURCHARGED
1440 minute winter	P1 SOAKAWAY	1350	10.484	0.363	0.3	9.1257	0.0000	OK
960 minute summer	44	930	10.388	0.164	0.6	0.1856	0.0000	SURCHARGED
960 minute summer	45	930	10.388	0.390	0.6	0.4412	0.0000	SURCHARGED
960 minute summer	P24 SOAKAWAY	930	10.388	0.414	0.6	6.8443	0.0000	OK
960 minute summer	47	930	10.235	0.166	0.6	0.1882	0.0000	SURCHARGED
960 minute summer	48	930	10.235	0.391	0.6	0.4427	0.0000	SURCHARGED
960 minute summer	P4 SOAKAWAY	930	10.235	0.412	0.9	6.8443	0.0000	OK
15 minute summer	50	10	10.970	0.076	6.8	0.0863	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute summer	26	6.002	CAR PARK PP	5.1	0.656	0.839	0.0191	
360 minute summer	CAR PARK PP	Infiltration		0.8				
240 minute summer	28	5.000	WESTERN PP	1.8	0.300	0.228	0.1849	
240 minute summer	WESTERN PP	Infiltration		1.4				
960 minute summer	30	10.000	31	0.6	0.578	0.076	0.1266	
960 minute summer	31	10.001	P23 SOAKAWAY	0.8	0.583	0.104	0.0112	
960 minute summer	P23 SOAKAWAY	Infiltration		0.0				
960 minute summer	33	11.000	34	0.6	0.570	0.076	0.0803	
960 minute summer	34	11.001	35	0.6	0.563	0.075	0.0163	
960 minute summer	35	11.002	P27 SOAKAWAY	0.6	0.586	0.076	0.0344	
960 minute summer	P27 SOAKAWAY	Infiltration		0.0				
15 minute summer	37	12.000	38	6.2	1.106	0.791	0.0486	
15 minute summer	38	12.001	39	6.2	1.120	0.555	0.0170	
15 minute summer	39	12.002	P21 SOAKAWAY	6.2	1.076	0.784	0.0237	
960 minute summer	P21 SOAKAWAY	Infiltration		0.0				
1440 minute winter	41	13.000	42	0.3	0.477	0.038	0.0850	
1440 minute winter	42	13.001	P1 SOAKAWAY	0.3	0.480	0.038	0.0333	
1440 minute winter	P1 SOAKAWAY	Infiltration		0.0				
960 minute summer	44	14.000	45	0.6	0.576	0.076	0.1052	
960 minute summer	45	14.001	P24 SOAKAWAY	0.6	0.582	0.075	0.0108	
960 minute summer	P24 SOAKAWAY	Infiltration		0.0				
960 minute summer	47	15.000	48	0.6	0.572	0.076	0.1046	
960 minute summer	48	15.001	P4 SOAKAWAY	0.9	0.573	0.120	0.0098	
960 minute summer	P4 SOAKAWAY	Infiltration		0.0				
15 minute summer	50	16.000	51	6.7	1.040	0.855	0.0715	



Results for 100 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	51	1350	10.822	0.114	0.3	0.1295	0.0000	SURCHARGED
1440 minute winter	P3 SOAKAWAY	1350	10.822	0.149	0.4	9.1142	0.0000	OK
720 minute summer	53	720	10.642	0.578	0.7	0.6533	0.0000	FLOOD RISK
720 minute summer	54	720	10.642	0.741	0.7	0.8376	0.0000	FLOOD RISK
720 minute summer	P10 PP	720	10.642	0.762	1.1	9.7201	0.0000	OK
960 minute summer	56	960	10.171	0.195	0.0	0.2204	0.0000	SURCHARGED
960 minute summer	57	960	10.171	0.194	0.6	0.2193	0.0000	SURCHARGED
960 minute summer	58	960	10.171	0.331	0.6	0.3742	0.0000	SURCHARGED
960 minute summer	P26 SOAKAWAY	960	10.171	0.357	0.6	6.8443	0.0000	OK
720 minute summer	60	720	10.716	0.549	0.7	0.6206	0.0000	FLOOD RISK
720 minute summer	61	720	10.716	0.690	1.0	0.7801	0.0000	FLOOD RISK
720 minute summer	P11 PP	720	10.716	0.711	1.3	9.7201	0.0000	OK
720 minute summer	63	690	9.556	0.600	0.7	0.6786	0.1065	FLOOD
720 minute summer	64	705	9.556	0.719	0.7	0.8130	0.0000	SURCHARGED
720 minute summer	P9 PP	705	9.556	0.746	1.2	9.7201	0.0000	OK
960 minute summer	66	930	8.652	0.125	0.6	0.1416	0.0000	SURCHARGED
960 minute summer	P28 SOAKAWAY	930	8.652	0.187	0.6	7.9850	0.0000	OK
15 minute summer	68	10	6.938	0.306	43.0	0.3466	0.0000	SURCHARGED
10080 minute summer	ROAD SOAKAWAY	6660	6.750	0.150	0.7	66.6996	0.0000	OK
15 minute summer	70	10	9.766	0.078	6.7	0.0877	0.0000	OK
1440 minute winter	P22 SOAKAWAY	1350	9.719	0.063	0.3	8.9909	0.0000	OK
360 minute winter	72	360	8.822	0.503	1.5	0.5693	0.0000	FLOOD RISK
360 minute winter	P7 PP	360	8.822	0.534	1.9	9.3110	0.0000	OK
960 minute summer	74	930	10.692	0.494	0.6	0.5592	0.0000	FLOOD RISK
960 minute summer	P25 SOAKAWAY	930	10.692	0.525	0.6	6.8429	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
1440 minute winter	51	16.001	P3 SOAKAWAY	0.4	0.476	0.050	0.0162	
1440 minute winter	P3 SOAKAWAY	Infiltration		0.0				
720 minute summer	53	17.000	54	0.7	0.545	0.089	0.0755	
720 minute summer	54	17.001	P10 PP	0.5	0.550	0.068	0.0094	
720 minute summer	P10 PP	Infiltration		0.1				
960 minute summer	56	19.000	58	0.0	-0.003	-0.002	0.0633	
960 minute summer	57	20.000	58	0.6	0.631	0.059	0.0385	
960 minute summer	58	19.001	P26 SOAKAWAY	0.6	0.582	0.075	0.0117	
960 minute summer	P26 SOAKAWAY	Infiltration		0.0				
720 minute summer	60	21.000	61	0.7	0.597	0.089	0.0655	
720 minute summer	61	21.001	P11 PP	0.7	0.605	0.087	0.0094	
720 minute summer	P11 PP	Infiltration		0.1				
720 minute summer	63	22.000	64	0.7	0.571	0.089	0.0553	
720 minute summer	64	22.001	P9 PP	0.6	0.576	0.077	0.0125	
720 minute summer	P9 PP	Infiltration		0.1				
960 minute summer	66	24.000	P28 SOAKAWAY	0.6	0.587	0.076	0.0284	
960 minute summer	P28 SOAKAWAY	Infiltration		0.0				
15 minute summer	68	25.000	ROAD SOAKAWAY	42.7	2.423	1.834	0.0327	
10080 minute summer	ROAD SOAKAWAY	Infiltration		0.2				
15 minute summer	70	26.000	P22 SOAKAWAY	6.6	1.073	0.836	0.0115	
1440 minute winter	P22 SOAKAWAY	Infiltration		0.0				
360 minute winter	72	18.001	P7 PP	1.9	0.733	0.240	0.0142	
360 minute winter	P7 PP	Infiltration		0.1				
960 minute summer	74	27.000	P25 SOAKAWAY	0.6	0.581	0.076	0.0142	
960 minute summer	P25 SOAKAWAY	Infiltration		0.0				



Results for 100 year +45% CC +10% A Critical Storm Duration. Lowest mass balance: 99.75%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
240 minute winter	76	236	7.516	0.322	2.0	0.3638	0.0000	FLOOD RISK
240 minute winter	P6 PP	236	7.516	0.353	2.0	8.9819	0.0000	OK
1440 minute winter	78	1350	10.764	0.297	0.3	0.3360	0.0000	SURCHARGED
1440 minute winter	P2 SOAKAWAY	1350	10.764	0.319	0.5	9.1257	0.0000	OK
960 minute summer	80	930	10.174	0.555	0.6	0.6274	0.0000	FLOOD RISK
960 minute summer	P5 SOAKAWAY	930	10.174	0.576	0.7	6.8443	0.0000	OK
180 minute summer	P4 PP	176	10.143	0.363	1.6	3.5115	0.0000	OK
240 minute summer	P5/8 PP	220	10.066	0.636	2.5	7.3145	0.0000	OK
240 minute summer	P27/28 PP	192	9.899	0.419	1.9	5.1154	0.0000	OK
180 minute winter	P25/26 PP	176	10.376	0.496	2.1	6.9188	0.0000	OK
240 minute winter	P23/24 PP	228	10.467	0.507	1.5	6.3384	0.0000	OK
240 minute summer	P21/22 PP	192	9.877	0.407	1.9	5.0902	0.0000	OK
180 minute winter	VIS PP	172	9.798	0.343	0.9	2.9127	0.0000	OK
1440 minute winter	15	1350	10.764	0.251	0.3	0.2839	0.0000	SURCHARGED
180 minute winter	P20 PP	176	9.525	0.545	2.1	6.9925	0.0000	OK
360 minute winter	6	360	8.822	0.142	0.1	0.1610	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute winter	76	28.000	P6 PP	2.0	0.812	0.251	0.0140	
240 minute winter	P6 PP	Infiltration		0.2				
1440 minute winter	78	23.001	P2 SOAKAWAY	0.5	0.472	0.068	0.0102	
1440 minute winter	P2 SOAKAWAY	Infiltration		0.0				
960 minute summer	80	29.000	P5 SOAKAWAY	0.7	0.573	0.090	0.0098	
960 minute summer	P5 SOAKAWAY	Infiltration		0.0				
180 minute summer	P4 PP	Infiltration		0.1				
240 minute summer	P5/8 PP	Infiltration		0.2				
240 minute summer	P27/28 PP	Infiltration		0.2				
180 minute winter	P25/26 PP	Infiltration		0.3				
240 minute winter	P23/24 PP	Infiltration		0.2				
240 minute summer	P21/22 PP	Infiltration		0.2				
180 minute winter	VIS PP	Infiltration		0.1				
1440 minute winter	15	23.000	78	0.3	0.439	0.044	0.0281	
180 minute winter	P20 PP	Infiltration		0.3				
360 minute winter	6	18.000	72	-0.1	-0.008	-0.004	0.0707	