

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	x

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
re1	0.007	5.00	104.850		439762.533	297373.497	0.750
s1			104.875		439761.632	297380.341	0.842
s2			105.000		439770.818	297381.550	1.034
re2	0.011	5.00	104.850		439776.655	297391.807	0.750
s3			104.850		439769.603	297390.871	0.947
S102L			105.400		439752.679	297396.555	1.720
S102	0.013	5.00	105.800		439749.090	297401.075	2.697
re3	0.003	5.00	106.250		439734.025	297372.020	1.475
s4	0.007	5.00	106.250		439733.015	297385.787	1.614
s5a	0.017	5.00	106.050		439740.993	297372.862	0.750
s5	0.016	5.00	106.020		439740.007	297386.300	1.462
s6	0.008	5.00	105.800		439739.318	297394.792	1.468
re4	0.003	5.00	106.050		439723.165	297371.214	0.750
re5	0.008	5.00	105.600		439708.470	297380.685	0.750
s7	0.003	5.00	106.050		439722.395	297381.707	1.454
s8			106.050		439722.030	297386.688	1.704
s9			106.200		439730.397	297387.302	2.064
S103L			105.800		439729.841	297394.879	2.423
S103	0.009	5.00	105.350		439726.060	297400.931	2.349
re6	0.009	5.00	103.400		439647.328	297404.190	0.650
s10	0.005	5.00	103.350		439649.624	297394.717	0.687
re7	0.004	5.00	103.450		439651.204	297388.774	0.700
s11	0.012	5.00	103.450		439664.833	297398.403	0.891
re8	0.007	5.00	103.550		439662.205	297409.251	0.450
s12	0.003	5.00	104.200		439666.873	297389.985	1.699
s13			104.100		439673.734	297391.648	1.646
s14	0.003	5.00	104.100		439675.186	297385.656	1.687
re9	0.002	5.00	104.300		439676.048	297382.101	0.900
s15	0.004	5.00	104.250		439684.590	297387.934	1.901
s16	0.009	5.00	105.150		439700.374	297388.972	2.907
re10	0.004	5.00	105.450		439711.887	297393.944	0.750
s17			105.100		439699.907	297394.751	2.896
S104LA			105.250		439703.195	297396.481	3.070
S104	0.076	5.00	105.150		439704.845	297402.949	3.000
re11	0.004	5.00	104.250		439683.812	297399.706	0.750
s18			105.000		439694.455	297400.406	1.862
re12	0.003	5.00	105.100		439769.461	297408.487	0.750
s19	0.023	5.00	105.300		439757.880	297406.783	1.125
re13	0.004	5.00	105.100		439711.561	297415.582	0.750
S104LB			105.150		439711.561	297406.093	2.298
re14	0.003	5.00	104.600		439767.433	297423.401	0.750

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
s20	0.002	5.00	104.600		439760.446	297422.372	0.828
s21	0.004	5.00	105.000		439761.168	297417.465	1.352
s22	0.007	5.00	105.150		439749.826	297416.633	1.786
re15	0.014	5.00	104.350		439762.539	297444.300	0.750
s23	0.008	5.00	104.350		439764.743	297431.710	0.970
s25	0.004	5.00	104.600		439748.912	297429.093	1.549
re16	0.018	5.00	104.500		439748.833	297448.587	0.750
s24			104.575		439751.536	297433.014	1.367
S201LA			104.600		439739.499	297428.028	1.644
S201	0.003	5.00	104.250		439731.830	297427.161	1.390
re17	0.022	5.00	105.150		439728.320	297415.572	0.750
s26			104.700		439739.606	297426.402	1.581
S201LB			104.400		439730.999	297434.854	0.841
re19	0.009	5.00	104.550		439748.300	297437.296	0.750
re20	0.006	5.00	103.750		439717.216	297432.909	0.750
S202L	0.008	5.00	103.700		439709.175	297431.763	0.877
S202	0.020	5.00	104.400		439707.858	297424.572	1.650
re21	0.023	5.00	103.700		439716.792	297444.563	0.750
s30	0.003	5.00	103.400		439694.139	297446.195	2.064
s31	0.012	5.00	103.400		439685.892	297447.855	2.232
s32			102.700		439667.308	297445.362	1.907
s33	0.005	5.00	102.700		439664.770	297438.950	2.045
s34	0.009	5.00	102.750		439667.258	297421.123	2.455
re22	0.030	5.00	103.000		439676.178	297430.097	0.900
TankL			102.900		439677.236	297422.515	2.807
Tank			103.100		439694.429	297418.031	3.100
S101	0.027	5.00	104.750	800	439770.900	297404.324	1.425
S203	0.008	5.00	104.800	800	439705.911	297413.937	2.700
S105			103.800	1200	439681.085	297415.270	3.900
Outfall			103.700	800	439666.685	297416.146	4.248

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	re1	s1	6.903	0.600	104.100	104.033	0.067	103.0	150	5.12	50.0
1.001	s1	s2	9.265	0.600	104.033	103.966	0.067	138.3	150	5.30	50.0
1.002	s2	s3	9.400	0.600	103.966	103.903	0.063	149.2	150	5.49	50.0
2.000	re2	s3	7.113	0.600	104.100	103.903	0.197	36.1	150	5.07	50.0
1.003	s3	S102L	17.853	0.600	103.903	103.680	0.223	80.1	150	5.75	50.0
1.004	S102L	S102	5.772	0.600	103.680	103.103	0.577	10.0	150	5.78	50.0

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)
1.000	0.990	17.5	0.9	0.600	0.692	0.007	0.0	24	0.527
1.001	0.852	15.1	0.9	0.692	0.884	0.007	0.0	25	0.474
1.002	0.820	14.5	0.9	0.884	0.797	0.007	0.0	26	0.463
2.000	1.680	29.7	1.5	0.600	0.797	0.011	0.0	23	0.871
1.003	1.124	19.9	2.4	0.797	1.570	0.018	0.0	35	0.765
1.004	3.204	56.6	2.4	1.570	2.547	0.018	0.0	21	1.611

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)
6.000	re3	s4	13.889	0.600	104.775	104.636	0.139	99.9	150	5.23	50.0
8.001	s4	s5	7.011	0.600	104.636	104.558	0.078	89.9	150	5.34	50.0
7.000	s5a	s5	8.011	0.600	105.300	104.558	0.742	10.8	150	5.04	50.0
6.002	s5	s6	7.911	0.600	104.558	104.332	0.226	35.0	150	5.42	50.0
6.003	s6	S103L	9.552	0.600	104.332	103.377	0.955	10.0	150	5.47	50.0
5.000	re4	s7	10.621	0.600	105.300	104.596	0.704	15.1	150	5.07	50.0
4.000	re5	s7	19.063	0.600	104.850	104.596	0.254	75.1	150	5.27	50.0
4.001	s7	s8	4.994	0.600	104.596	104.346	0.250	20.0	150	5.31	50.0
4.002	s8	s9	8.390	0.600	104.346	104.136	0.210	40.0	150	5.40	50.0
4.003	s9	S103L	7.597	0.600	104.136	103.377	0.759	10.0	150	5.44	50.0
4.004	S103L	S103	7.136	0.600	103.377	103.001	0.376	19.0	150	5.52	50.0
8.000	re6	s10	10.499	0.600	102.750	102.663	0.087	120.7	150	5.19	50.0
8.001_1	s10	s11	15.650	0.600	102.663	102.559	0.104	150.5	150	5.51	50.0
9.000	re7	s10	6.135	0.600	102.750	102.663	0.087	70.5	150	5.09	50.0
8.002	s11	s12	8.661	0.600	102.559	102.501	0.058	149.3	150	5.69	50.0
10.000	re8	s11	7.000	0.600	103.100	102.559	0.541	12.9	150	5.04	50.0
8.003	s12	s13	7.060	0.600	102.501	102.454	0.047	150.2	150	5.83	50.0
8.004	s13	s14	6.165	0.600	102.454	102.413	0.041	150.4	150	5.96	50.0
8.005	s14	s15	9.676	0.600	102.413	102.349	0.064	151.2	150	6.15	50.0
11.000	re9	s14	2.890	0.600	103.400	103.263	0.137	21.1	150	5.02	50.0
8.006	s15	s16	15.819	0.600	102.349	102.243	0.106	149.2	150	6.48	50.0
8.007	s16	s17	5.798	0.600	102.243	102.204	0.039	148.7	150	6.59	50.0
13.000	re10	S104LA	9.050	0.600	104.700	103.855	0.845	10.7	150	5.05	50.0
8.008	s17	S104LA	3.716	0.600	102.204	102.180	0.024	154.8	150	6.67	50.0

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)
6.000	1.005	17.8	0.4	1.325	1.464	0.003	0.0	16	0.407
8.001	1.060	18.7	1.4	1.464	1.312	0.010	0.0	27	0.616
7.000	3.083	54.5	2.3	0.600	1.312	0.017	0.0	21	1.524
6.002	1.707	30.2	5.8	1.312	1.318	0.043	0.0	45	1.327
6.003	3.204	56.6	6.9	1.318	2.273	0.051	0.0	35	2.187
5.000	2.606	46.1	0.4	0.600	1.304	0.003	0.0	10	0.808
4.000	1.162	20.5	1.1	0.600	1.304	0.008	0.0	23	0.610
4.001	2.263	40.0	1.9	1.304	1.554	0.014	0.0	22	1.156
4.002	1.597	28.2	1.9	1.554	1.914	0.014	0.0	26	0.905
4.003	3.203	56.6	1.9	1.914	2.273	0.014	0.0	19	1.497
4.004	2.322	41.0	8.8	2.273	2.199	0.065	0.0	47	1.857
8.000	0.913	16.1	1.2	0.500	0.537	0.009	0.0	28	0.537
8.001_1	0.817	14.4	2.4	0.537	0.741	0.018	0.0	42	0.610
9.000	1.199	21.2	0.5	0.550	0.537	0.004	0.0	17	0.511
8.002	0.820	14.5	5.0	0.741	1.549	0.037	0.0	61	0.744
10.000	2.815	49.8	0.9	0.300	0.741	0.007	0.0	14	1.095
8.003	0.817	14.4	5.4	1.549	1.496	0.040	0.0	64	0.759
8.004	0.817	14.4	5.4	1.496	1.537	0.040	0.0	64	0.759
8.005	0.815	14.4	6.1	1.537	1.751	0.045	0.0	68	0.782
11.000	2.202	38.9	0.3	0.750	0.687	0.002	0.0	9	0.627
8.006	0.820	14.5	6.6	1.751	2.757	0.049	0.0	71	0.802
8.007	0.822	14.5	7.9	2.757	2.746	0.058	0.0	79	0.838
13.000	3.096	54.7	0.5	0.600	1.245	0.004	0.0	11	0.998
8.008	0.805	14.2	7.9	2.746	2.920	0.058	0.0	79	0.824

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)
8.009	S104LA	S104	6.675	0.600	102.180	102.150	0.030	222.5	150	6.84	50.0
12.000	re11	s18	10.663	0.600	103.500	103.138	0.362	29.5	150	5.10	50.0
12.001	s18	S104LA	9.580	0.600	103.138	102.180	0.958	10.0	150	5.15	50.0
14.000	re12	s19	12.071	0.600	104.350	104.175	0.175	69.0	150	5.17	50.0
14.001	s19	S104LB	46.325	0.600	104.175	102.852	1.323	35.0	150	5.62	50.0
15.000	re13	S104LB	9.489	0.600	104.350	103.452	0.898	10.6	150	5.05	50.0
14.002	S104LB	S104	7.017	0.600	102.852	102.150	0.702	10.0	150	5.65	50.0
16.000	re14	s20	7.063	0.600	103.850	103.772	0.078	90.6	150	5.11	50.0
16.001	s20	s21	4.960	0.600	103.772	103.648	0.124	40.0	150	5.16	50.0
16.002	s21	s22	11.373	0.600	103.648	103.364	0.284	40.0	150	5.28	50.0
16.003	s22	s25	12.493	0.600	103.364	103.051	0.313	39.9	150	5.41	50.0
17.000	re15	s23	12.782	0.600	103.600	103.380	0.220	58.1	150	5.16	50.0
17.001	s23	s25	16.459	0.600	103.380	103.051	0.329	50.0	150	5.35	50.0
16.004	s25	S201LA	9.473	0.600	103.051	102.956	0.095	99.7	150	5.57	50.0
18.000	re16	s24	15.849	0.600	103.750	103.208	0.542	29.2	150	5.14	50.0
18.001	s24	s25	4.718	0.600	103.208	103.051	0.157	30.1	150	5.18	50.0
16.005	S201LA	S201	7.717	0.600	102.956	102.860	0.096	80.4	150	5.68	50.0
19.000	re17	s26	15.642	0.600	104.400	103.119	1.281	12.2	150	5.09	50.0
19.001	s26	S201LA	1.629	0.600	103.119	102.956	0.163	10.0	150	5.10	50.0
20.001	S201LB	S201	17.472	0.600	103.559	102.935	0.624	28.0	150	5.22	50.0
20.000	re19	S201LB	7.738	0.600	103.800	103.559	0.241	32.1	150	5.07	50.0
21.000	re20	S202L	18.000	0.600	103.000	102.823	0.177	101.7	150	5.30	50.0
21.001	S202L	S202	7.311	0.600	102.823	102.750	0.073	100.2	150	5.42	50.0
22.000	re21	s30	22.712	0.600	102.950	101.336	1.614	14.1	150	5.14	50.0

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)
8.009	0.669	11.8	8.9	2.920	2.850	0.066	0.0	98	0.735
12.000	1.862	32.9	0.5	0.600	1.712	0.004	0.0	13	0.682
12.001	3.204	56.6	0.5	1.712	2.920	0.004	0.0	10	0.995
14.000	1.212	21.4	0.4	0.600	0.975	0.003	0.0	14	0.467
14.001	1.706	30.2	3.5	0.975	2.148	0.026	0.0	34	1.140
15.000	3.117	55.1	0.5	0.600	1.548	0.004	0.0	11	1.005
14.002	3.205	56.6	4.1	2.148	2.850	0.030	0.0	27	1.872
16.000	1.056	18.7	0.4	0.600	0.678	0.003	0.0	16	0.428
16.001	1.596	28.2	0.7	0.678	1.202	0.005	0.0	16	0.666
16.002	1.595	28.2	1.2	1.202	1.636	0.009	0.0	21	0.799
16.003	1.597	28.2	2.2	1.636	1.399	0.016	0.0	28	0.943
17.000	1.322	23.4	1.9	0.600	0.820	0.014	0.0	29	0.799
17.001	1.426	25.2	3.0	0.820	1.399	0.022	0.0	35	0.961
16.004	1.006	17.8	8.1	1.399	1.494	0.060	0.0	71	0.984
18.000	1.868	33.0	2.4	0.600	1.217	0.018	0.0	27	1.089
18.001	1.843	32.6	2.4	1.217	1.399	0.018	0.0	28	1.088
16.005	1.122	19.8	11.1	1.494	1.240	0.082	0.0	81	1.155
19.000	2.899	51.2	3.0	0.600	1.431	0.022	0.0	24	1.579
19.001	3.205	56.6	3.0	1.431	1.494	0.022	0.0	23	1.694
20.001	1.910	33.7	1.2	0.691	1.165	0.009	0.0	20	0.907
20.000	1.783	31.5	1.2	0.600	0.691	0.009	0.0	20	0.862
21.000	0.996	17.6	0.8	0.600	0.727	0.006	0.0	22	0.506
21.001	1.004	17.7	1.9	0.727	1.500	0.014	0.0	33	0.656
22.000	2.699	47.7	3.1	0.600	1.914	0.023	0.0	26	1.534

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)
22.001	s30	s31	8.412	0.600	101.336	101.168	0.168	50.1	150	5.24	50.0
22.002	s31	s32	18.750	0.600	101.168	100.793	0.375	50.0	150	5.46	50.0
22.003	s32	s33	6.896	0.600	100.793	100.655	0.138	50.0	150	5.54	50.0
22.004	s33	s34	18.000	0.600	100.655	100.295	0.360	50.0	150	5.75	50.0
22.005	s34	TankL	10.075	0.600	100.295	100.093	0.202	49.9	150	5.87	50.0
23.000	re22	TankL	7.772	0.600	102.100	101.393	0.707	11.0	150	5.04	50.0
22.006	TankL	Tank	9.323	0.600	100.093	100.000	0.093	100.2	150	6.02	50.0
1.006	S103	S104	21.311	0.600	103.001	102.150	0.851	25.0	225	6.36	50.0
1.007	S104	S203	11.040	0.600	102.150	102.100	0.050	220.8	225	7.05	50.0
1.009	Tank	S105	5.906	0.600	100.000	99.900	0.100	59.1	150	7.15	50.0
1.010	S105	Outfall	14.427	0.600	99.900	99.452	0.448	32.2	150	7.28	50.0
3.000	S101	S102	22.051	0.600	103.325	103.103	0.222	99.3	150	5.36	50.0
1.005	S102	S103	23.030	0.600	103.103	103.001	0.102	225.8	225	6.23	50.0
16.006	S201	S202	24.111	0.600	102.860	102.750	0.110	219.2	225	6.14	50.0
16.007	S202	S203	10.812	0.600	102.750	102.100	0.650	16.6	225	6.20	50.0
1.008	S203	Tank	5.604	0.600	102.100	101.600	0.500	11.2	225	7.07	50.0

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)
22.001	1.425	25.2	3.5	1.914	2.082	0.026	0.0	38	1.007
22.002	1.426	25.2	5.1	2.082	1.757	0.038	0.0	46	1.124
22.003	1.426	25.2	5.1	1.757	1.895	0.038	0.0	46	1.124
22.004	1.426	25.2	5.8	1.895	2.305	0.043	0.0	49	1.162
22.005	1.428	25.2	7.0	2.305	2.657	0.052	0.0	54	1.227
23.000	3.056	54.0	4.1	0.750	1.357	0.030	0.0	28	1.808
22.006	1.003	17.7	11.1	2.657	2.950	0.082	0.0	86	1.057
1.006	2.625	104.4	17.9	2.124	2.775	0.132	0.0	63	1.976
1.007	0.876	34.8	41.2	2.775	2.475	0.304	0.0	225	0.892
1.009	1.311	23.2	70.7	2.950	3.750	0.522	0.0	150	1.335
1.010	1.780	31.5	70.7	3.750	4.098	0.522	0.0	150	1.813
3.000	1.008	17.8	3.7	1.275	2.547	0.027	0.0	46	0.794
1.005	0.866	34.4	7.9	2.472	2.124	0.058	0.0	73	0.702
16.006	0.879	34.9	12.7	1.165	1.425	0.094	0.0	94	0.810
16.007	3.224	128.2	17.3	1.425	2.475	0.128	0.0	56	2.273
1.008	3.930	156.3	59.6	2.475	1.275	0.440	0.0	96	3.672

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	6.903	103.0	150	Circular	104.850	104.100	0.600	104.875	104.033	0.692
1.001	9.265	138.3	150	Circular	104.875	104.033	0.692	105.000	103.966	0.884
1.002	9.400	149.2	150	Circular	105.000	103.966	0.884	104.850	103.903	0.797
2.000	7.113	36.1	150	Circular	104.850	104.100	0.600	104.850	103.903	0.797
1.003	17.853	80.1	150	Circular	104.850	103.903	0.797	105.400	103.680	1.570
1.004	5.772	10.0	150	Circular	105.400	103.680	1.570	105.800	103.103	2.547
6.000	13.889	99.9	150	Circular	106.250	104.775	1.325	106.250	104.636	1.464
8.001	7.011	89.9	150	Circular	106.250	104.636	1.464	106.020	104.558	1.312
7.000	8.011	10.8	150	Circular	106.050	105.300	0.600	106.020	104.558	1.312
6.002	7.911	35.0	150	Circular	106.020	104.558	1.312	105.800	104.332	1.318
6.003	9.552	10.0	150	Circular	105.800	104.332	1.318	105.800	103.377	2.273
5.000	10.621	15.1	150	Circular	106.050	105.300	0.600	106.050	104.596	1.304
4.000	19.063	75.1	150	Circular	105.600	104.850	0.600	106.050	104.596	1.304
4.001	4.994	20.0	150	Circular	106.050	104.596	1.304	106.050	104.346	1.554
4.002	8.390	40.0	150	Circular	106.050	104.346	1.554	106.200	104.136	1.914
4.003	7.597	10.0	150	Circular	106.200	104.136	1.914	105.800	103.377	2.273
4.004	7.136	19.0	150	Circular	105.800	103.377	2.273	105.350	103.001	2.199
8.000	10.499	120.7	150	Circular	103.400	102.750	0.500	103.350	102.663	0.537
8.001_1	15.650	150.5	150	Circular	103.350	102.663	0.537	103.450	102.559	0.741
9.000	6.135	70.5	150	Circular	103.450	102.750	0.550	103.350	102.663	0.537
8.002	8.661	149.3	150	Circular	103.450	102.559	0.741	104.200	102.501	1.549
10.000	7.000	12.9	150	Circular	103.550	103.100	0.300	103.450	102.559	0.741
8.003	7.060	150.2	150	Circular	104.200	102.501	1.549	104.100	102.454	1.496
8.004	6.165	150.4	150	Circular	104.100	102.454	1.496	104.100	102.413	1.537
8.005	9.676	151.2	150	Circular	104.100	102.413	1.537	104.250	102.349	1.751

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	re1		Junction		s1		Junction	
1.001	s1		Junction		s2		Junction	
1.002	s2		Junction		s3		Junction	
2.000	re2		Junction		s3		Junction	
1.003	s3		Junction		S102L		Junction	
1.004	S102L		Junction		S102		Junction	
6.000	re3		Junction		s4		Junction	
8.001	s4		Junction		s5		Junction	
7.000	s5a		Junction		s5		Junction	
6.002	s5		Junction		s6		Junction	
6.003	s6		Junction		S103L		Junction	
5.000	re4		Junction		s7		Junction	
4.000	re5		Junction		s7		Junction	
4.001	s7		Junction		s8		Junction	
4.002	s8		Junction		s9		Junction	
4.003	s9		Junction		S103L		Junction	
4.004	S103L		Junction		S103		Junction	
8.000	re6		Junction		s10		Junction	
8.001_1	s10		Junction		s11		Junction	
9.000	re7		Junction		s10		Junction	
8.002	s11		Junction		s12		Junction	
10.000	re8		Junction		s11		Junction	
8.003	s12		Junction		s13		Junction	
8.004	s13		Junction		s14		Junction	
8.005	s14		Junction		s15		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)
11.000	2.890	21.1	150	Circular	104.300	103.400	0.750	104.100	103.263	0.687
8.006	15.819	149.2	150	Circular	104.250	102.349	1.751	105.150	102.243	2.757
8.007	5.798	148.7	150	Circular	105.150	102.243	2.757	105.100	102.204	2.746
13.000	9.050	10.7	150	Circular	105.450	104.700	0.600	105.250	103.855	1.245
8.008	3.716	154.8	150	Circular	105.100	102.204	2.746	105.250	102.180	2.920
8.009	6.675	222.5	150	Circular	105.250	102.180	2.920	105.150	102.150	2.850
12.000	10.663	29.5	150	Circular	104.250	103.500	0.600	105.000	103.138	1.712
12.001	9.580	10.0	150	Circular	105.000	103.138	1.712	105.250	102.180	2.920
14.000	12.071	69.0	150	Circular	105.100	104.350	0.600	105.300	104.175	0.975
14.001	46.325	35.0	150	Circular	105.300	104.175	0.975	105.150	102.852	2.148
15.000	9.489	10.6	150	Circular	105.100	104.350	0.600	105.150	103.452	1.548
14.002	7.017	10.0	150	Circular	105.150	102.852	2.148	105.150	102.150	2.850
16.000	7.063	90.6	150	Circular	104.600	103.850	0.600	104.600	103.772	0.678
16.001	4.960	40.0	150	Circular	104.600	103.772	0.678	105.000	103.648	1.202
16.002	11.373	40.0	150	Circular	105.000	103.648	1.202	105.150	103.364	1.636
16.003	12.493	39.9	150	Circular	105.150	103.364	1.636	104.600	103.051	1.399
17.000	12.782	58.1	150	Circular	104.350	103.600	0.600	104.350	103.380	0.820
17.001	16.459	50.0	150	Circular	104.350	103.380	0.820	104.600	103.051	1.399
16.004	9.473	99.7	150	Circular	104.600	103.051	1.399	104.600	102.956	1.494
18.000	15.849	29.2	150	Circular	104.500	103.750	0.600	104.575	103.208	1.217
18.001	4.718	30.1	150	Circular	104.575	103.208	1.217	104.600	103.051	1.399
16.005	7.717	80.4	150	Circular	104.600	102.956	1.494	104.250	102.860	1.240
19.000	15.642	12.2	150	Circular	105.150	104.400	0.600	104.700	103.119	1.431
19.001	1.629	10.0	150	Circular	104.700	103.119	1.431	104.600	102.956	1.494
20.001	17.472	28.0	150	Circular	104.400	103.559	0.691	104.250	102.935	1.165

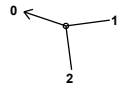
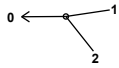
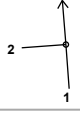
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
11.000	re9		Junction		s14		Junction	
8.006	s15		Junction		s16		Junction	
8.007	s16		Junction		s17		Junction	
13.000	re10		Junction		S104LA		Junction	
8.008	s17		Junction		S104LA		Junction	
8.009	S104LA		Junction		S104		Junction	
12.000	re11		Junction		s18		Junction	
12.001	s18		Junction		S104LA		Junction	
14.000	re12		Junction		s19		Junction	
14.001	s19		Junction		S104LB		Junction	
15.000	re13		Junction		S104LB		Junction	
14.002	S104LB		Junction		S104		Junction	
16.000	re14		Junction		s20		Junction	
16.001	s20		Junction		s21		Junction	
16.002	s21		Junction		s22		Junction	
16.003	s22		Junction		s25		Junction	
17.000	re15		Junction		s23		Junction	
17.001	s23		Junction		s25		Junction	
16.004	s25		Junction		S201LA		Junction	
18.000	re16		Junction		s24		Junction	
18.001	s24		Junction		s25		Junction	
16.005	S201LA		Junction		S201		Junction	
19.000	re17		Junction		s26		Junction	
19.001	s26		Junction		S201LA		Junction	
20.001	S201LB		Junction		S201		Junction	

Pipeline Schedule

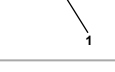
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
20.000	7.738	32.1	150	Circular	104.550	103.800	0.600	104.400	103.559	0.691
21.000	18.000	101.7	150	Circular	103.750	103.000	0.600	103.700	102.823	0.727
21.001	7.311	100.2	150	Circular	103.700	102.823	0.727	104.400	102.750	1.500
22.000	22.712	14.1	150	Circular	103.700	102.950	0.600	103.400	101.336	1.914
22.001	8.412	50.1	150	Circular	103.400	101.336	1.914	103.400	101.168	2.082
22.002	18.750	50.0	150	Circular	103.400	101.168	2.082	102.700	100.793	1.757
22.003	6.896	50.0	150	Circular	102.700	100.793	1.757	102.700	100.655	1.895
22.004	18.000	50.0	150	Circular	102.700	100.655	1.895	102.750	100.295	2.305
22.005	10.075	49.9	150	Circular	102.750	100.295	2.305	102.900	100.093	2.657
23.000	7.772	11.0	150	Circular	103.000	102.100	0.750	102.900	101.393	1.357
22.006	9.323	100.2	150	Circular	102.900	100.093	2.657	103.100	100.000	2.950
1.006	21.311	25.0	225	Circular	105.350	103.001	2.124	105.150	102.150	2.775
1.007	11.040	220.8	225	Circular	105.150	102.150	2.775	104.800	102.100	2.475
1.009	5.906	59.1	150	Circular	103.100	100.000	2.950	103.800	99.900	3.750
1.010	14.427	32.2	150	Circular	103.800	99.900	3.750	103.700	99.452	4.098
3.000	22.051	99.3	150	Circular	104.750	103.325	1.275	105.800	103.103	2.547
1.005	23.030	225.8	225	Circular	105.800	103.103	2.472	105.350	103.001	2.124
16.006	24.111	219.2	225	Circular	104.250	102.860	1.165	104.400	102.750	1.425
16.007	10.812	16.6	225	Circular	104.400	102.750	1.425	104.800	102.100	2.475
1.008	5.604	11.2	225	Circular	104.800	102.100	2.475	103.100	101.600	1.275

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
20.000	re19		Junction		S201LB		Junction	
21.000	re20		Junction		S202L		Junction	
21.001	S202L		Junction		S202		Junction	
22.000	re21		Junction		s30		Junction	
22.001	s30		Junction		s31		Junction	
22.002	s31		Junction		s32		Junction	
22.003	s32		Junction		s33		Junction	
22.004	s33		Junction		s34		Junction	
22.005	s34		Junction		TankL		Junction	
23.000	re22		Junction		TankL		Junction	
22.006	TankL		Junction		Tank		Junction	
1.006	S103		Junction		S104		Junction	
1.007	S104		Junction		S203	800	Manhole	Adoptable
1.009	Tank		Junction		S105	1200	Manhole	Adoptable
1.010	S105	1200	Manhole	Adoptable	Outfall	800	Manhole	Adoptable
3.000	S101	800	Manhole	Adoptable	S102		Junction	
1.005	S102		Junction		S103		Junction	
16.006	S201		Junction		S202		Junction	
16.007	S202		Junction		S203	800	Manhole	Adoptable
1.008	S203	800	Manhole	Adoptable	Tank		Junction	

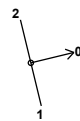
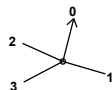
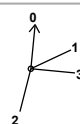
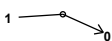
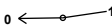
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
re1	439762.533	297373.497	104.850	0.750						
						0	1.000	104.100	150	
s1	439761.632	297380.341	104.875	0.842			1	1.000	104.033	150
						0	1.001	104.033	150	
s2	439770.818	297381.550	105.000	1.034			1	1.001	103.966	150
						0	1.002	103.966	150	
re2	439776.655	297391.807	104.850	0.750						
						0	2.000	104.100	150	
s3	439769.603	297390.871	104.850	0.947			1	2.000	103.903	150
						2	1.002	103.903	150	
						0	1.003	103.903	150	
S102L	439752.679	297396.555	105.400	1.720			1	1.003	103.680	150
						0	1.004	103.680	150	
S102	439749.090	297401.075	105.800	2.697			1	3.000	103.103	150
						2	1.004	103.103	150	
						0	1.005	103.103	225	
re3	439734.025	297372.020	106.250	1.475						
						0	6.000	104.775	150	
s4	439733.015	297385.787	106.250	1.614			1	6.000	104.636	150
						0	8.001	104.636	150	
s5a	439740.993	297372.862	106.050	0.750						
						0	7.000	105.300	150	
s5	439740.007	297386.300	106.020	1.462			1	7.000	104.558	150
						2	8.001	104.558	150	
						0	6.002	104.558	150	
s6	439739.318	297394.792	105.800	1.468			1	6.002	104.332	150
						0	6.003	104.332	150	
re4	439723.165	297371.214	106.050	0.750						
						0	5.000	105.300	150	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
re5	439708.470	297380.685	105.600	0.750			0	4.000	104.850	150
s7	439722.395	297381.707	106.050	1.454			1 2 0	5.000 4.000 4.001	104.596 104.596 104.596	150 150 150
s8	439722.030	297386.688	106.050	1.704			1 0	4.001 4.002	104.346 104.346	150 150
s9	439730.397	297387.302	106.200	2.064			1 0	4.002 4.003	104.136 104.136	150 150
S103L	439729.841	297394.879	105.800	2.423			1 2 0	6.003 4.003 4.004	103.377 103.377 103.377	150 150 150
S103	439726.060	297400.931	105.350	2.349			1 2 0	4.004 1.005 1.006	103.001 103.001 103.001	150 225 225
re6	439647.328	297404.190	103.400	0.650			0	8.000	102.750	150
s10	439649.624	297394.717	103.350	0.687			1 2 0	9.000 8.000 8.001_1	102.663 102.663 102.663	150 150 150
re7	439651.204	297388.774	103.450	0.700			0	9.000	102.750	150
s11	439664.833	297398.403	103.450	0.891			1 2 0	10.000 8.001_1 8.002	102.559 102.559 102.559	150 150 150
re8	439662.205	297409.251	103.550	0.450			0	10.000	103.100	150
s12	439666.873	297389.985	104.200	1.699			1 0	8.002 8.003	102.501 102.501	150 150
s13	439673.734	297391.648	104.100	1.646			1 0	8.003 8.004	102.454 102.454	150 150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
s14	439675.186	297385.656	104.100	1.687		1	11.000	103.263	150
						2	8.004	102.413	150
						0	8.005	102.413	150
re9	439676.048	297382.101	104.300	0.900		0	11.000	103.400	150
						0	8.005	102.349	150
s15	439684.590	297387.934	104.250	1.901		1	8.005	102.349	150
						0	8.006	102.349	150
s16	439700.374	297388.972	105.150	2.907		1	8.006	102.243	150
						0	8.007	102.243	150
re10	439711.887	297393.944	105.450	0.750		0	13.000	104.700	150
						0	8.007	102.204	150
s17	439699.907	297394.751	105.100	2.896		1	8.007	102.204	150
						0	8.008	102.204	150
S104LA	439703.195	297396.481	105.250	3.070		1	13.000	103.855	150
						2	12.001	102.180	150
						3	8.008	102.180	150
						0	8.009	102.180	150
S104	439704.845	297402.949	105.150	3.000		1	14.002	102.150	150
						2	8.009	102.150	150
						3	1.006	102.150	225
						0	1.007	102.150	225
re11	439683.812	297399.706	104.250	0.750		0	12.000	103.500	150
						1	12.000	103.138	150
s18	439694.455	297400.406	105.000	1.862		0	12.001	103.138	150
re12	439769.461	297408.487	105.100	0.750		0	14.000	104.350	150
s19	439757.880	297406.783	105.300	1.125		1	14.000	104.175	150
						0	14.001	104.175	150
re13	439711.561	297415.582	105.100	0.750		0	15.000	104.350	150

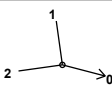
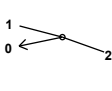
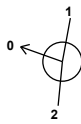
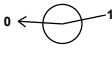
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S104LB	439711.561	297406.093	105.150	2.298		1 15.000	103.452	150	
						2 14.001	102.852	150	
						0 14.002	102.852	150	
re14	439767.433	297423.401	104.600	0.750		0 16.000	103.850	150	
						0 16.000	103.772	150	
s20	439760.446	297422.372	104.600	0.828		1 16.000	103.772	150	
						0 16.001	103.772	150	
s21	439761.168	297417.465	105.000	1.352		1 16.001	103.648	150	
						0 16.002	103.648	150	
s22	439749.826	297416.633	105.150	1.786		1 16.002	103.364	150	
						0 16.003	103.364	150	
re15	439762.539	297444.300	104.350	0.750		0 17.000	103.600	150	
						0 17.000	103.380	150	
s23	439764.743	297431.710	104.350	0.970		1 17.000	103.380	150	
						0 17.001	103.380	150	
s25	439748.912	297429.093	104.600	1.549		1 18.001	103.051	150	
						2 17.001	103.051	150	
						3 16.003	103.051	150	
						0 16.004	103.051	150	
re16	439748.833	297448.587	104.500	0.750		0 18.000	103.750	150	
						0 18.000	103.208	150	
s24	439751.536	297433.014	104.575	1.367		1 18.000	103.208	150	
						0 18.001	103.208	150	
S201LA	439739.499	297428.028	104.600	1.644		1 19.001	102.956	150	
						2 16.004	102.956	150	
						0 16.005	102.956	150	
S201	439731.830	297427.161	104.250	1.390		1 20.001	102.935	150	
						2 16.005	102.860	150	
						0 16.006	102.860	225	
re17	439728.320	297415.572	105.150	0.750		0 19.000	104.400	150	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
s26	439739.606	297426.402	104.700	1.581			1 19.000	103.119	150
S201LB	439730.999	297434.854	104.400	0.841			0 19.001 1 20.000	103.119 103.559	150 150
re19	439748.300	297437.296	104.550	0.750			0 20.000	103.559	150
re20	439717.216	297432.909	103.750	0.750			0 21.000	103.800	150
S202L	439709.175	297431.763	103.700	0.877			1 21.000 0 21.001	103.000 102.823	150 150
S202	439707.858	297424.572	104.400	1.650			1 21.001 2 16.006 0 16.007	102.750 102.750 102.750	150 225 225
re21	439716.792	297444.563	103.700	0.750			0 22.000	102.950	150
s30	439694.139	297446.195	103.400	2.064			1 22.000 0 22.001	101.336	150
s31	439685.892	297447.855	103.400	2.232			1 22.001 0 22.002	101.168	150
s32	439667.308	297445.362	102.700	1.907			1 22.002 0 22.003	100.793	150
s33	439664.770	297438.950	102.700	2.045			1 22.003 0 22.004	100.655	150
s34	439667.258	297421.123	102.750	2.455			1 22.004 0 22.005	100.295	150
re22	439676.178	297430.097	103.000	0.900			0 23.000	102.100	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
TankL	439677.236	297422.515	102.900	2.807			1 23.000 2 22.005	101.393 100.093	150 150
						0	22.006	100.093	150
Tank	439694.429	297418.031	103.100	3.100			1 22.006 2 1.008	100.000 101.600	150 225
						0	1.009	100.000	150
S101	439770.900	297404.324	104.750	1.425	800		0 3.000	103.325	150
S203	439705.911	297413.937	104.800	2.700	800		1 16.007 2 1.007	102.100 102.100	225 225
						0	1.008	102.100	225
S105	439681.085	297415.270	103.800	3.900	1200		1 1.009	99.900	150
						0	1.010	99.900	150
Outfall	439666.685	297416.146	103.700	4.248	800		1 1.010	99.452	150

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Detailed
Rainfall Events	Singular	Skip Steady State	x
FSR Region	England and Wales	Drain Down Time (mins)	240
M5-60 (mm)	20.000	Additional Storage (m ³ /ha)	20.0
Ratio-R	0.400	Starting Level (m)	
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

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

Node S105 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	99.900	Product Number	CTL-SHE-0090-4800-2000-4800
Design Depth (m)	2.000	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	4.8	Min Node Diameter (mm)	1200

Node Tank Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	100.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	156.0	0.0	2.000	156.0	0.0	2.010	0.0	0.0

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	re1	10	104.151	0.051	4.4	0.0096	0.0000	OK
15 minute winter	s1	10	104.088	0.055	4.4	0.0000	0.0000	OK
15 minute winter	s2	10	104.022	0.056	4.3	0.0000	0.0000	OK
15 minute winter	re2	10	104.149	0.049	6.9	0.0144	0.0000	OK
15 minute winter	s3	13	103.991	0.088	11.1	0.0000	0.0000	OK
15 minute winter	S102L	12	103.974	0.294	11.0	0.0000	0.0000	SURCHARGED
15 minute winter	S102	12	103.964	0.861	32.7	0.0826	0.0000	SURCHARGED
15 minute winter	re3	10	104.808	0.033	1.9	0.0014	0.0000	OK
15 minute winter	s4	10	104.695	0.059	6.3	0.0052	0.0000	OK
15 minute winter	s5a	10	105.345	0.045	10.7	0.0204	0.0000	OK
15 minute winter	s5	10	104.670	0.112	27.0	0.0245	0.0000	OK
15 minute winter	s6	11	104.434	0.102	31.9	0.0112	0.0000	OK
15 minute winter	re4	10	105.321	0.021	1.9	0.0017	0.0000	OK
15 minute winter	re5	10	104.901	0.051	5.0	0.0108	0.0000	OK
15 minute winter	s7	10	104.644	0.048	8.7	0.0019	0.0000	OK
15 minute winter	s8	10	104.406	0.060	8.7	0.0000	0.0000	OK
15 minute winter	s9	10	104.176	0.040	8.7	0.0000	0.0000	OK
15 minute winter	S103L	12	104.181	0.804	39.9	0.0000	0.0000	SURCHARGED
15 minute winter	S103	12	103.901	0.900	66.7	0.0693	0.0000	SURCHARGED
15 minute summer	re6	12	103.400	0.650	5.4	0.2507	0.0000	FLOOD RISK
15 minute summer	s10	11	103.350	0.687	8.1	0.1449	0.0000	FLOOD RISK
15 minute summer	re7	12	103.450	0.700	5.1	0.1032	0.0000	FLOOD RISK
15 minute summer	s11	12	103.450	0.891	16.0	0.2926	0.0000	FLOOD RISK
15 minute summer	re8	13	103.550	0.450	4.2	0.1702	0.0000	FLOOD RISK
15 minute winter	s12	14	103.760	1.258	13.3	0.0440	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)
15 minute winter	re1	1.000	s1	4.4	0.783	0.250	0.0385	
15 minute winter	s1	1.001	s2	4.3	0.734	0.287	0.0546	
15 minute winter	s2	1.002	s3	4.3	0.553	0.295	0.0758	
15 minute winter	re2	2.000	s3	6.9	0.921	0.231	0.0540	
15 minute winter	s3	1.003	S102L	11.0	1.520	0.554	0.2524	
15 minute winter	S102L	1.004	S102	11.2	0.834	0.198	0.1016	
15 minute winter	S102	1.005	S103	28.4	0.960	0.825	0.9159	
15 minute winter	re3	6.000	s4	1.9	0.410	0.106	0.0649	
15 minute winter	s4	8.001	s5	6.2	0.604	0.332	0.0722	
15 minute winter	s5a	7.000	s5	10.7	1.147	0.196	0.0743	
15 minute winter	s5	6.002	s6	26.9	2.216	0.891	0.1036	
15 minute winter	s6	6.003	S103L	31.3	2.449	0.552	0.1453	
15 minute winter	re4	5.000	s7	1.9	0.627	0.041	0.0333	
15 minute winter	re5	4.000	s7	5.0	0.990	0.241	0.0954	
15 minute winter	s7	4.001	s8	8.7	1.540	0.217	0.0282	
15 minute winter	s8	4.002	s9	8.7	1.704	0.307	0.0429	
15 minute winter	s9	4.003	S103L	8.6	0.872	0.153	0.0810	
15 minute winter	S103L	4.004	S103	36.6	2.079	0.892	0.1256	
15 minute winter	S103	1.006	S104	64.9	1.632	0.622	0.8476	
15 minute summer	re6	8.000	s10	4.0	0.572	0.248	0.1848	
15 minute summer	s10	8.001_1	s11	8.5	0.557	0.589	0.2755	
15 minute summer	re7	9.000	s10	-2.8	0.330	-0.133	0.1080	
15 minute summer	s11	8.002	s12	13.0	0.818	0.895	0.1525	
15 minute summer	re8	10.000	s11	4.0	0.344	0.079	0.1232	
15 minute winter	s12	8.003	s13	15.9	0.904	1.101	0.1243	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	s13	14	103.740	1.286	15.9	0.0000	0.0000	SURCHARGED
15 minute winter	s14	14	103.723	1.310	18.6	0.0472	0.0000	SURCHARGED
15 minute winter	re9	14	103.724	0.324	3.9	0.0142	0.0000	SURCHARGED
15 minute winter	s15	14	103.688	1.339	21.3	0.0562	0.0000	SURCHARGED
15 minute winter	s16	13	103.636	1.393	24.8	0.0864	0.0000	SURCHARGED
15 minute winter	re10	10	104.722	0.022	2.5	0.0023	0.0000	OK
15 minute winter	s17	13	103.611	1.407	27.8	0.0000	0.0000	SURCHARGED
15 minute winter	S104LA	13	103.595	1.415	33.4	0.0000	0.0000	SURCHARGED
15 minute winter	S104	12	103.553	1.403	122.5	0.7114	0.0000	SURCHARGED
15 minute winter	re11	13	103.596	0.096	2.5	0.0102	0.0000	OK
15 minute winter	s18	13	103.597	0.459	7.6	0.0000	0.0000	SURCHARGED
15 minute winter	re12	10	104.380	0.030	1.9	0.0024	0.0000	OK
15 minute winter	s19	10	104.253	0.078	16.4	0.0320	0.0000	OK
15 minute winter	re13	10	104.372	0.022	2.5	0.0023	0.0000	OK
15 minute winter	S104LB	12	103.603	0.750	18.6	0.0000	0.0000	SURCHARGED
15 minute winter	re14	10	103.882	0.032	1.9	0.0026	0.0000	OK
15 minute winter	s20	12	103.815	0.043	3.2	0.0020	0.0000	OK
15 minute winter	s21	13	103.813	0.165	5.7	0.0097	0.0000	SURCHARGED
15 minute winter	s22	12	103.809	0.445	10.0	0.0347	0.0000	SURCHARGED
15 minute winter	re15	12	103.868	0.268	8.8	0.1000	0.0000	SURCHARGED
15 minute winter	s23	12	103.849	0.469	12.8	0.0774	0.0000	SURCHARGED
15 minute winter	s25	12	103.789	0.738	28.6	0.0384	0.0000	SURCHARGED
15 minute winter	re16	12	103.820	0.070	11.3	0.0335	0.0000	OK
15 minute winter	s24	12	103.800	0.592	11.2	0.0000	0.0000	SURCHARGED
15 minute winter	S201LA	12	103.539	0.583	39.5	0.0000	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)
15 minute winter	s13	8.004	s14	18.5	1.052	1.282	0.1085	
15 minute winter	s14	8.005	s15	21.2	1.204	1.472	0.1703	
15 minute winter	re9	11.000	s14	-2.7	1.015	-0.069	0.0509	
15 minute winter	s15	8.006	s16	24.4	1.385	1.683	0.2785	
15 minute winter	s16	8.007	s17	27.8	1.581	1.916	0.1021	
15 minute winter	re10	13.000	S104LA	2.5	1.572	0.046	0.0143	
15 minute winter	s17	8.008	S104LA	32.7	1.860	2.302	0.0654	
15 minute winter	S104LA	8.009	S104	38.4	2.180	3.243	0.1175	
15 minute winter	S104	1.007	S203	120.4	3.029	3.459	0.4391	
15 minute winter	re11	12.000	s18	2.5	1.246	0.076	0.1570	
15 minute winter	s18	12.001	S104LA	-5.1	0.352	-0.090	0.1687	
15 minute winter	re12	14.000	s19	1.9	0.330	0.088	0.0711	
15 minute winter	s19	14.001	S104LB	16.2	1.801	0.536	0.6226	
15 minute winter	re13	15.000	S104LB	2.5	1.579	0.045	0.0900	
15 minute winter	S104LB	14.002	S104	14.5	0.915	0.256	0.1235	
15 minute winter	re14	16.000	s20	1.9	0.656	0.101	0.0230	
15 minute winter	s20	16.001	s21	3.2	0.849	0.112	0.0538	
15 minute winter	s21	16.002	s22	5.6	0.929	0.200	0.2002	
15 minute winter	s22	16.003	s25	8.4	0.540	0.299	0.2199	
15 minute winter	re15	17.000	s23	8.2	1.004	0.349	0.2250	
15 minute winter	s23	17.001	s25	10.5	0.699	0.416	0.2898	
15 minute winter	s25	16.004	S201LA	28.0	1.590	1.574	0.1668	
15 minute winter	re16	18.000	s24	11.2	1.442	0.341	0.2030	
15 minute winter	s24	18.001	s25	9.1	0.552	0.279	0.0831	
15 minute winter	S201LA	16.005	S201	38.6	2.192	1.946	0.1359	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.94%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S201	12	103.161	0.301	45.8	0.0129	0.0000	SURCHARGED
15 minute winter	re17	10	104.453	0.053	13.8	0.0312	0.0000	OK
15 minute winter	s26	12	103.545	0.426	13.7	0.0000	0.0000	SURCHARGED
15 minute winter	S201LB	10	103.601	0.041	5.7	0.0000	0.0000	OK
15 minute winter	re19	10	103.843	0.043	5.7	0.0104	0.0000	OK
15 minute winter	re20	10	103.047	0.047	3.8	0.0075	0.0000	OK
15 minute winter	S202L	12	102.999	0.176	8.8	0.0320	0.0000	SURCHARGED
15 minute winter	S202	12	102.988	0.238	64.1	0.0577	0.0000	SURCHARGED
15 minute winter	re21	10	103.007	0.057	14.5	0.0347	0.0000	OK
360 minute winter	s30	352	101.959	0.623	2.3	0.0181	0.0000	SURCHARGED
360 minute winter	s31	352	101.959	0.791	3.3	0.0854	0.0000	SURCHARGED
360 minute winter	s32	352	101.959	1.166	3.3	0.0000	0.0000	SURCHARGED
360 minute winter	s33	352	101.959	1.304	3.4	0.0639	0.0000	SURCHARGED
360 minute winter	s34	352	101.959	1.664	3.9	0.1215	0.0000	SURCHARGED
15 minute winter	re22	10	102.161	0.061	18.9	0.0409	0.0000	OK
360 minute winter	TankL	352	101.959	1.866	6.3	0.0000	0.0000	SURCHARGED
360 minute winter	Tank	352	101.959	1.959	43.9	290.2946	0.0000	SURCHARGED
15 minute winter	S101	12	104.099	0.774	17.0	0.6824	0.0000	SURCHARGED
15 minute winter	S203	12	102.815	0.715	183.7	0.4017	0.0000	SURCHARGED
360 minute winter	S105	352	101.953	2.053	5.9	2.3221	0.0000	SURCHARGED
360 minute winter	Outfall	352	99.492	0.040	4.8	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 winter	S201	16.006	S202	45.4	1.515	1.300	0.9589	
15 minute winter	re17	19.000	s26	13.7	2.151	0.268	0.1813	
15 minute winter	s26	19.001	S201LA	12.2	1.204	0.215	0.0287	
15 minute winter	S201LB	20.001	S201	5.6	0.918	0.167	0.1873	
15 minute winter	re19	20.000	S201LB	5.7	1.385	0.180	0.0317	
15 minute winter	re20	21.000	S202L	3.8	0.562	0.214	0.1946	
15 minute winter	S202L	21.001	S202	8.3	0.707	0.470	0.1287	
15 minute winter	S202	16.007	S203	62.3	1.671	0.486	0.4300	
15 minute winter	re21	22.000	s30	14.4	1.701	0.302	0.2664	
360 minute winter	s30	22.001	s31	2.3	0.780	0.091	0.1481	
360 minute winter	s31	22.002	s32	3.3	0.954	0.131	0.3301	
360 minute winter	s32	22.003	s33	3.0	0.899	0.120	0.1214	
360 minute winter	s33	22.004	s34	3.2	0.770	0.126	0.3169	
360 minute winter	s34	22.005	TankL	3.7	0.518	0.146	0.1774	
15 minute winter	re22	23.000	TankL	18.8	2.786	0.349	0.0525	
360 minute winter	TankL	22.006	Tank	6.0	0.836	0.339	0.1641	
360 minute winter	Tank	1.009	S105	5.9	0.419	0.253	0.1040	
15 minute winter	S101	3.000	S102	15.2	0.906	0.855	0.3882	
15 minute winter	S203	1.008	Tank	183.4	4.611	1.173	0.2229	
360 minute winter	S105	1.010	Outfall	4.8	1.268	0.153	0.0549	146.9