STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Surface Network 1

Pipe Sizes STANDARD Manhole Sizes STANDARD

FEH Rainfall Model

Return Period (years)	100
FEH Rainfall Version	1999
Site Location	GB 497500 102350 SU 97500 02350
C (1km)	-0.025
D1 (1km)	0.390
D2 (1km)	0.245
D3 (1km)	0.403
E (1km)	0.310
F (1km)	2.321
Maximum Rainfall (mm/hr)	50
Maximum Time of Concentration (mins)	30
Foul Sewage (l/s/ha)	0.000
Volumetric Runoff Coeff.	0.750
PIMP (%)	100
Add Flow / Climate Change (%)	40
Minimum Backdrop Height (m)	0.200
Maximum Backdrop Height (m)	1.500
Min Design Depth for Optimisation (m)	1.200
Min Vel for Auto Design only (m/s)	1.00
Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Surface Network 1

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.015	8-12	0.566	16-20	0.873	24-28	0.844	32-36	0.011	40-44	0.012
4-8	0.363	12-16	0.841	20-24	0.573	28-32	0.216	36-40	0.000	44-48	0.016

Total Area Contributing (ha) = 4.331

Total Pipe Volume (m^3) = 165.176

Network Design Table for Surface Network 1

« - Indicates pipe capacity < flow

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design

Network Results Table

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Network Design Table for Surface Network 1

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.000	79.638	0.000	0.0	0.028	5.00	0.0	0.600	o	150	Pipe/Conduit	
1.001	3.896	0.050	77.9	0.009	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.002	31.170	0.240	129.9	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.003	7.034	0.070	100.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.004	34.423	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
2.000	48.100	0.370	130.0	0.016	5.00	0.0	0.600	o	150	Pipe/Conduit	
2.001	6.496	0.050	129.9	0.021	0.00	0.0	0.600	o	150	Pipe/Conduit	
2.002	9.686	0.075	129.1	0.014	0.00	0.0	0.600	o	150	Pipe/Conduit	
2.003	32.873	0.270	121.8	0.041	0.00	0.0	0.600	o	150	Pipe/Conduit	
2.004	2.949	0.040	73.7	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
2.005	2.131	0.010	213.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.005	49.746	0.100	497.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.000	7.158	0.060	119.3	0.015	5.00	0.0	0.600	o	150	Pipe/Conduit	
3.001	5.290	0.080	66.1	0.047	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.002	3.462	0.040	86.6	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.003	23.754	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.004	11.051	0.075	147.3	0.018	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.005	6.763	0.050	135.3	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	19.32	5.600	0.028	0.0	0.0	1.5	0.09	1.6«	5.3
1.001	50.00	19.38	6.200	0.037	0.0	0.0	2.0	1.14	20.1	7.0
1.002	50.00	19.97	6.150	0.037	0.0	0.0	2.0	0.88	15.6	7.0
1.003	50.00	20.08	5.910	0.037	0.0	0.0	2.0	1.00	17.7	7.0
1.004	50.00	23.94	5.250	0.037	0.0	0.0	2.0	0.15	10.5	7.0
2.000	50.00	5.91	6.325	0.016	0.0	0.0	0.9	0.88	15.5	3.0
2.001	50.00	6.03	5.955	0.037	0.0	0.0	2.0	0.88	15.6	7.0
2.002	50.00	6.22	5.905	0.051	0.0	0.0	2.8	0.88	15.6	9.7
2.003	50.00	6.82	5.830	0.092	0.0	0.0	5.0	0.91	16.1«	17.4
2.004	50.00	6.86	5.560	0.092	0.0	0.0	5.0	1.17	20.7	17.4
2.005	50.00	6.91	5.520	0.092	0.0	0.0	5.0	0.68	12.1«	17.4
1.005	50.00	25.12	5.250	0.129	0.0	0.0	7.0	0.70	49.4	24.5
3.000	50.00	5.13	5.880	0.015	0.0	0.0	0.8	0.92	16.2	2.8
3.001	50.00	5.20	5.820	0.062	0.0	0.0	3.4	1.24	21.9	11.8
3.002	50.00	5.25	5.740	0.062	0.0	0.0	3.4	1.08	19.1	11.8
3.003	50.00	9.53	5.700	0.062	0.0	0.0	3.4	0.09	1.6«	11.8
3.004	50.00	9.75	6.115	0.080	0.0	0.0	4.3	0.83	14.6«	15.2
3.005	50.00	9.88	6.040	0.080	0.0	0.0	4.3	0.86	15.2	15.2

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
4.000	14.266	0.110	129.7	0.021	5.00	0.0	0.600	o	150	Pipe/Conduit	
3.006	14.865	0.110	135.1	0.038	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.007	9.626	0.230	41.9	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
5.000	3.524	0.000	0.0	0.028	5.00	0.0	0.600	o	150	Pipe/Conduit	
5.001	3.983	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
5.002	23.848	0.120	198.7	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
6.000	6.882	0.204	33.7	0.068	5.00	0.0	0.600	o	150	Pipe/Conduit	
3.008	27.083	0.097	279.2	0.026	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.009	12.356	0.044	280.8	0.024	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.010	11.015	0.039	282.4	0.054	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.011	18.288	0.100	182.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
7.000	12.139	0.087	139.5	0.070	5.00	0.0	0.600	o	150	Pipe/Conduit	
3.012	8.479	0.040	212.0	0.030	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.013	4.885	0.030	162.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.006	65.460	0.030	2182.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
4.000	50.00	5.27	6.100	0.021	0.0	0.0	1.1	0.88	15.6	4.0
3.006	50.00	10.17	5.990	0.139	0.0	0.0	7.5	0.86	15.2«	26.4
3.007	50.00	10.27	5.880	0.139	0.0	0.0	7.5	1.56	27.6	26.4
5.000	50.00	5.63	5.620	0.028	0.0	0.0	1.5	0.09	1.6«	5.3
5.001	50.00	6.35	5.620	0.028	0.0	0.0	1.5	0.09	1.6«	5.3
5.002	50.00	6.78	5.620	0.028	0.0	0.0	1.5	0.92	36.7	5.3
6.000	50.00	5.07	5.854	0.068	0.0	0.0	3.7	1.74	30.7	12.9
3.008	50.00	10.75	5.500	0.261	0.0	0.0	14.1	0.94	66.2	49.5
3.009	50.00	10.97	5.403	0.285	0.0	0.0	15.4	0.93	66.0	54.0
3.010	50.00	11.17	5.359	0.339	0.0	0.0	18.4	0.93	65.8	64.3
3.011	50.00	11.43	5.320	0.339	0.0	0.0	18.4	1.16	82.0	64.3
7.000	50.00	5.24	5.457	0.070	0.0	0.0	3.8	0.85	15.0	13.3
3.012	50.00	11.56	5.220	0.439	0.0	0.0	23.8	1.08	76.1«	83.2
3.013	50.00	11.63	5.180	0.439	0.0	0.0	23.8	1.23	86.9	83.2
1.006	50.00	28.45	5.150	0.568	0.0	0.0	30.8	0.33	23.2«	107.7

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
8.000	22.407	0.260	86.2	0.024	5.00	0.0	0.600	o	150	Pipe/Conduit	
9.000	8.117	0.060	135.3	0.050	5.00	0.0	0.600	o	150	Pipe/Conduit	
8.001	2.047	0.020	102.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.007	11.501	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.008	2.310	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.009	15.488	0.160	96.8	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.010	13.870	0.110	126.1	0.017	0.00	0.0	0.600	o	150	Pipe/Conduit	
10.000	19.391	0.150	129.3	0.016	5.00	0.0	0.600	o	150	Pipe/Conduit	
10.001	12.727	0.100	127.3	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
10.002	21.907	0.120	182.6	0.034	0.00	0.0	0.600	o	150	Pipe/Conduit	
10.003	6.116	0.070	87.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
10.004	20.997	0.350	60.0	0.014	0.00	0.0	0.600	o	150	Pipe/Conduit	
11.000	13.280	0.130	102.2	0.025	5.00	0.0	0.600	o	150	Pipe/Conduit	
10.005	11.443	0.110	104.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
10.006	20.944	0.150	139.6	0.037	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
8.000	50.00	5.34	5.550	0.024	0.0	0.0	1.3	1.08	19.1	4.5
9.000	50.00	5.16	5.350	0.050	0.0	0.0	2.7	0.86	15.2	9.5
8.001	50.00	5.38	5.290	0.074	0.0	0.0	4.0	0.99	17.5	14.0
1.007	50.00	29.74	5.120	0.642	0.0	0.0	34.8	0.15	10.5«	121.7
1.008	50.00	30.00	5.120	0.642	0.0	0.0	34.8	0.15	10.5«	121.7
1.009	50.00	30.00	5.120	0.642	0.0	0.0	34.8	1.02	18.1«	121.7
1.010	50.00	30.00	4.960	0.659	0.0	0.0	35.7	0.89	15.8«	124.9
10.000	50.00	5.37	6.050	0.016	0.0	0.0	0.9	0.88	15.6	3.0
10.001	50.00	5.60	5.900	0.016	0.0	0.0	0.9	0.89	15.7	3.0
10.002	50.00	6.10	5.800	0.050	0.0	0.0	2.7	0.74	13.1	9.5
10.003	50.00	6.19	5.680	0.050	0.0	0.0	2.7	1.08	19.0	9.5
10.004	50.00	6.46	5.610	0.064	0.0	0.0	3.5	1.30	23.0	12.1
11.000	50.00	5.22	5.390	0.025	0.0	0.0	1.4	0.99	17.6	4.7
10.005	50.00	6.66	5.260	0.089	0.0	0.0	4.8	0.98	17.4	16.9
10.006	50.00	7.07	5.150	0.126	0.0	0.0	6.8	0.85	15.0«	23.9

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
10.007	27.264	0.050	545.3	0.038	0.00	0.0	0.600	o	150	Pipe/Conduit	
10.008	8.359	0.050	167.2	0.017	0.00	0.0	0.600	o	150	Pipe/Conduit	
10.009	8.609	0.050	172.2	0.008	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.011	5.898	0.050	118.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.012	17.211	0.086	200.1	0.036	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.013	9.176	0.046	199.5	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
12.000	28.335	0.190	149.1	0.020	5.00	0.0	0.600	o	150	Pipe/Conduit	
12.001	2.239	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.014	33.907	0.126	269.1	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.015	27.240	0.190	143.4	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.016	12.467	0.102	122.2	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
13.000	12.825	0.140	91.6	0.052	5.00	0.0	0.600	o	150	Pipe/Conduit	
13.001	8.557	0.090	95.1	0.015	0.00	0.0	0.600	o	150	Pipe/Conduit	
13.002	12.946	0.110	117.7	0.023	0.00	0.0	0.600	o	150	Pipe/Conduit	
13.003	15.042	0.200	75.2	0.025	0.00	0.0	0.600	o	150	Pipe/Conduit	
1.017	46.870	0.050	937.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
10.007	50.00	8.14	5.000	0.164	0.0	0.0	8.9	0.42	7.5«	31.1
10.008	50.00	8.32	4.950	0.181	0.0	0.0	9.8	0.77	13.7«	34.3
10.009	50.00	8.51	4.900	0.189	0.0	0.0	10.2	0.76	13.5«	35.8
1.011	50.00	30.00	4.850	0.848	0.0	0.0	45.9	0.92	16.3«	160.8
1.012	50.00	30.00	4.800	0.884	0.0	0.0	47.9	0.92	36.6«	167.6
1.013	50.00	30.00	4.714	0.884	0.0	0.0	47.9	0.92	36.7«	167.6
12.000	50.00	5.58	5.250	0.020	0.0	0.0	1.1	0.82	14.5	3.8
12.001	50.00	5.98	5.060	0.020	0.0	0.0	1.1	0.09	1.6«	3.8
1.014	50.00	30.00	4.668	0.904	0.0	0.0	49.0	0.79	31.5«	171.4
1.015	50.00	30.00	4.542	0.904	0.0	0.0	49.0	1.09	43.3«	171.4
1.016	50.00	30.00	4.352	0.904	0.0	0.0	49.0	1.18	47.0«	171.4
13.000	50.00	5.20	4.790	0.052	0.0	0.0	2.8	1.05	18.6	9.9
13.001	50.00	5.34	4.650	0.067	0.0	0.0	3.6	1.03	18.2	12.7
13.002	50.00	5.58	4.560	0.090	0.0	0.0	4.9	0.93	16.4«	17.1
13.003	50.00	5.79	4.450	0.115	0.0	0.0	6.2	1.16	20.5«	21.8
1.017	50.00	30.00	4.250	1.019	0.0	0.0	55.2	0.51	35.7«	193.2

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
14.000	62.024	0.475	130.6	0.058	5.00	0.0	0.600	o	150	Pipe/Conduit	
15.000	41.672	0.330	126.3	0.041	5.00	0.0	0.600	o	150	Pipe/Conduit	
14.001	24.212	0.200	121.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
14.002	3.715	0.330	11.3	0.032	0.00	0.0	0.600	o	150	Pipe/Conduit	
14.003	37.147	0.290	128.1	0.026	0.00	0.0	0.600	o	300	Pipe/Conduit	
14.004	35.580	0.350	101.7	0.042	0.00	0.0	0.600	o	300	Pipe/Conduit	
16.000	19.366	0.160	121.0	0.032	5.00	0.0	0.600	o	150	Pipe/Conduit	
16.001	7.069	0.260	27.2	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
14.005	26.222	0.100	262.2	0.044	0.00	0.0	0.600	o	300	Pipe/Conduit	
14.006	5.601	0.030	186.7	0.056	0.00	0.0	0.600	o	300	Pipe/Conduit	
14.007	5.773	0.060	96.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
17.000	25.210	0.550	45.8	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	
18.000	12.463	0.280	44.5	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	
17.001	9.756	0.080	122.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
17.002	32.780	0.420	78.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
14.000	50.00	6.18	6.185	0.058	0.0	0.0	3.1	0.88	15.5	11.0
15.000	50.00	5.78	6.040	0.041	0.0	0.0	2.2	0.89	15.8	7.8
14.001	50.00	6.62	5.710	0.099	0.0	0.0	5.4	0.91	16.1«	18.8
14.002	50.00	6.64	5.510	0.131	0.0	0.0	7.1	3.02	53.4	24.8
14.003	50.00	7.09	5.030	0.157	0.0	0.0	8.5	1.39	98.1	29.8
14.004	50.00	7.47	4.740	0.199	0.0	0.0	10.8	1.56	110.2	37.7
16.000	50.00	5.35	4.960	0.032	0.0	0.0	1.7	0.91	16.1	6.1
16.001	50.00	5.41	4.800	0.032	0.0	0.0	1.7	1.94	34.3	6.1
14.005	50.00	7.92	4.390	0.275	0.0	0.0	14.9	0.97	68.3	52.1
14.006	50.00	8.00	4.290	0.331	0.0	0.0	17.9	1.15	81.1	62.8
14.007	50.00	8.06	4.260	0.331	0.0	0.0	17.9	1.60	113.3	62.8
17.000	50.00	5.28	5.400	0.023	0.0	0.0	1.2	1.49	26.3	4.4
18.000	50.00	5.14	5.130	0.023	0.0	0.0	1.2	1.51	26.7	4.4
17.001	50.00	5.46	4.850	0.046	0.0	0.0	2.5	0.91	16.1	8.7
17.002	50.00	5.94	4.770	0.046	0.0	0.0	2.5	1.14	20.1	8.7

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.018	6.009	0.050	120.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.019	10.456	0.050	209.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.020	31.084	0.050	621.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.021	34.007	0.215	158.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.000	13.799	0.067	206.0	0.035	5.00	0.0	0.600	o	225	Pipe/Conduit	
19.001	21.664	0.106	204.4	0.036	0.00	0.0	0.600	o	225	Pipe/Conduit	
20.000	8.199	0.061	134.4	0.024	5.00	0.0	0.600	o	150	Pipe/Conduit	
19.002	15.413	0.055	280.2	0.029	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.003	20.973	0.075	279.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.004	27.653	0.099	279.3	0.029	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.005	29.912	0.108	277.0	0.022	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.006	10.054	0.045	223.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.007	20.595	0.087	236.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.008	6.292	0.028	224.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
21.000	4.298	0.000	0.0	0.067	5.00	0.0	0.600	o	150	Pipe/Conduit	
21.001	13.399	0.160	83.7	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
21.002	23.360	0.116	201.4	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.018	50.00	30.00	4.200	1.396	0.0	0.0	75.6	1.43	101.3«	264.7
1.019	50.00	30.00	4.150	1.396	0.0	0.0	75.6	1.08	76.6«	264.7
1.020	50.00	30.00	4.100	1.396	0.0	0.0	75.6	0.62	44.1«	264.7
1.021	50.00	30.00	4.050	1.396	0.0	0.0	75.6	1.25	88.2«	264.7
19.000	50.00	5.25	5.660	0.035	0.0	0.0	1.9	0.91	36.1	6.6
19.001	50.00	5.65	5.593	0.071	0.0	0.0	3.8	0.91	36.2	13.5
20.000	50.00	5.16	5.623	0.024	0.0	0.0	1.3	0.87	15.3	4.5
19.002	50.00	5.92	5.412	0.124	0.0	0.0	6.7	0.93	66.0	23.5
19.003	50.00	6.30	5.357	0.124	0.0	0.0	6.7	0.94	66.1	23.5
19.004	50.00	6.79	5.282	0.153	0.0	0.0	8.3	0.94	66.1	29.0
19.005	50.00	7.32	5.183	0.175	0.0	0.0	9.5	0.94	66.4	33.2
19.006	50.00	7.48	5.075	0.175	0.0	0.0	9.5	1.05	74.1	33.2
19.007	50.00	7.82	5.030	0.175	0.0	0.0	9.5	1.02	71.9	33.2
19.008	50.00	7.92	4.943	0.175	0.0	0.0	9.5	1.04	73.8	33.2
21.000	50.00	5.77	5.900	0.067	0.0	0.0	3.6	0.09	1.6«	12.7
21.001	50.00	5.98	5.900	0.067	0.0	0.0	3.6	1.10	19.4	12.7
21.002	50.00	6.40	5.665	0.067	0.0	0.0	3.6	0.92	36.5	12.7

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
21.003	19.767	0.099	199.7	0.061	0.00	0.0	0.600	o	225	Pipe/Conduit	
21.004	10.130	0.050	202.6	0.051	0.00	0.0	0.600	o	225	Pipe/Conduit	
21.005	21.349	0.105	203.3	0.043	0.00	0.0	0.600	o	225	Pipe/Conduit	
21.006	20.837	0.101	206.3	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
22.000	26.569	0.530	50.1	0.019	5.00	0.0	0.600	o	150	Pipe/Conduit	
22.001	3.435	0.231	14.9	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
23.000	6.758	0.381	17.7	0.010	5.00	0.0	0.600	o	150	Pipe/Conduit	
21.007	26.521	0.132	200.9	0.033	0.00	0.0	0.600	o	225	Pipe/Conduit	
21.008	10.259	0.052	197.3	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
21.009	4.237	0.020	211.9	0.062	0.00	0.0	0.600	o	225	Pipe/Conduit	
21.010	3.485	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.009	7.791	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.010	24.064	0.165	145.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.011	11.457	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
24.000	18.358	0.150	122.4	0.019	5.00	0.0	0.600	o	150	Pipe/Conduit	
24.001	23.010	0.190	121.1	0.016	0.00	0.0	0.600	o	150	Pipe/Conduit	
24.002	11.017	0.470	23.4	0.010	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
21.003	50.00	6.76	5.549	0.128	0.0	0.0	6.9	0.92	36.6	24.3
21.004	50.00	6.94	5.450	0.179	0.0	0.0	9.7	0.91	36.4	33.9
21.005	50.00	7.33	5.400	0.222	0.0	0.0	12.0	0.91	36.3«	42.1
21.006	50.00	7.71	5.295	0.222	0.0	0.0	12.0	0.91	36.0«	42.1
22.000	50.00	5.31	6.030	0.019	0.0	0.0	1.0	1.42	25.2	3.6
22.001	50.00	5.33	5.500	0.019	0.0	0.0	1.0	2.63	46.4	3.6
23.000	50.00	5.05	5.650	0.010	0.0	0.0	0.5	2.40	42.5	1.9
21.007	50.00	8.20	5.194	0.284	0.0	0.0	15.4	0.92	36.5«	53.8
21.008	50.00	8.38	5.062	0.284	0.0	0.0	15.4	0.93	36.9«	53.8
21.009	50.00	8.46	5.010	0.346	0.0	0.0	18.7	0.89	35.6«	65.6
21.010	50.00	8.85	4.915	0.346	0.0	0.0	18.7	0.15	10.5«	65.6
19.009	50.00	9.72	4.915	0.521	0.0	0.0	28.2	0.15	10.5«	98.8
19.010	50.00	10.03	4.915	0.521	0.0	0.0	28.2	1.30	91.9«	98.8
19.011	50.00	11.31	4.750	0.521	0.0	0.0	28.2	0.15	10.5«	98.8
24.000	50.00	5.34	6.310	0.019	0.0	0.0	1.0	0.91	16.0	3.6
24.001	50.00	5.76	6.160	0.035	0.0	0.0	1.9	0.91	16.1	6.6
24.002	50.00	5.85	5.970	0.045	0.0	0.0	2.4	2.09	36.9	8.5

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
24.003	10.252	0.500	20.5	0.009	0.00	0.0	0.600	o	150	Pipe/Conduit	
19.012	25.858	0.110	235.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
25.000	17.917	0.050	358.3	0.048	5.00	0.0	0.600	o	150	Pipe/Conduit	
25.001	17.329	0.020	866.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
25.002	33.286	0.030	1109.5	0.059	0.00	0.0	0.600	o	150	Pipe/Conduit	
25.003	6.308	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
25.004	18.925	0.010	1892.5	0.021	0.00	0.0	0.600	o	150	Pipe/Conduit	
25.005	8.662	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
25.006	18.362	0.020	918.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
25.007	6.116	0.010	611.6	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
26.000	46.370	0.050	927.4	0.055	5.00	0.0	0.600	o	300	Pipe/Conduit	
26.001	9.129	0.150	60.9	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
26.002	16.992	0.050	339.8	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
26.003	8.356	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
26.004	12.917	0.090	143.5	0.056	0.00	0.0	0.600	o	150	Pipe/Conduit	
27.000	17.312	0.115	150.5	0.019	5.00	0.0	0.600	o	150	Pipe/Conduit	
19.013	15.685	0.040	392.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
24.003	50.00	5.92	5.500	0.054	0.0	0.0	2.9	2.23	39.5	10.2
19.012	50.00	11.73	4.750	0.575	0.0	0.0	31.1	1.02	72.2«	109.0
25.000	50.00	5.57	6.050	0.048	0.0	0.0	2.6	0.53	9.3	9.1
25.001	50.00	6.43	6.000	0.048	0.0	0.0	2.6	0.33	5.9«	9.1
25.002	50.00	8.32	5.980	0.107	0.0	0.0	5.8	0.29	5.2«	20.3
25.003	50.00	9.46	5.950	0.107	0.0	0.0	5.8	0.09	1.6«	20.3
25.004	50.00	10.87	5.950	0.128	0.0	0.0	6.9	0.22	3.9«	24.3
25.005	50.00	12.43	5.940	0.128	0.0	0.0	6.9	0.09	1.6«	24.3
25.006	50.00	13.38	5.940	0.128	0.0	0.0	6.9	0.32	5.7«	24.3
25.007	50.00	13.63	5.920	0.128	0.0	0.0	6.9	0.40	7.1«	24.3
26.000	50.00	6.52	6.100	0.055	0.0	0.0	3.0	0.51	35.9	10.4
26.001	50.00	6.64	6.200	0.055	0.0	0.0	3.0	1.29	22.8	10.4
26.002	50.00	7.16	6.050	0.055	0.0	0.0	3.0	0.54	9.5«	10.4
26.003	50.00	8.67	6.000	0.055	0.0	0.0	3.0	0.09	1.6«	10.4
26.004	50.00	8.92	6.000	0.111	0.0	0.0	6.0	0.84	14.8«	21.0
27.000	50.00	5.35	6.025	0.019	0.0	0.0	1.0	0.82	14.4	3.6
19.013	50.00	13.96	4.640	0.833	0.0	0.0	45.1	0.79	55.7«	157.9

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
28.000	9.451	0.090	105.0	0.034	5.00	0.0	0.600	o	150	Pipe/Conduit	
28.001	9.804	0.190	51.6	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
19.014	34.119	0.140	243.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
29.000	7.073	0.190	37.2	0.033	5.00	0.0	0.600	o	150	Pipe/Conduit	
29.001	13.576	0.120	113.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
29.002	8.815	0.290	30.4	0.078	0.00	0.0	0.600	o	150	Pipe/Conduit	
19.015	23.076	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
30.000	9.323	0.840	11.1	0.015	5.00	0.0	0.600	o	150	Pipe/Conduit	
19.016	15.391	0.060	256.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
31.000	10.092	0.450	22.4	0.028	5.00	0.0	0.600	o	150	Pipe/Conduit	
19.017	14.640	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
32.000	19.257	0.150	128.4	0.032	5.00	0.0	0.600	o	150	Pipe/Conduit	
32.001	21.001	0.160	131.3	0.011	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
28.000	50.00	5.16	5.880	0.034	0.0	0.0	1.8	0.98	17.3	6.4
28.001	50.00	5.28	5.790	0.034	0.0	0.0	1.8	1.40	24.8	6.4
19.014	50.00	14.53	4.600	0.867	0.0	0.0	47.0	1.00	70.9«	164.4
29.000	50.00	5.07	5.310	0.033	0.0	0.0	1.8	1.65	29.2	6.3
29.001	50.00	5.31	5.120	0.033	0.0	0.0	1.8	0.94	16.7	6.3
29.002	50.00	5.39	5.000	0.111	0.0	0.0	6.0	1.83	32.4	21.0
19.015	50.00	17.11	4.460	0.978	0.0	0.0	53.0	0.15	10.5«	185.4
30.000	50.00	5.05	5.550	0.015	0.0	0.0	0.8	3.04	53.7	2.8
19.016	50.00	17.37	4.460	0.993	0.0	0.0	53.8	0.98	69.1«	188.3
31.000	50.00	5.08	5.100	0.028	0.0	0.0	1.5	2.14	37.7	5.3
19.017	50.00	19.01	4.400	1.021	0.0	0.0	55.3	0.15	10.5«	193.6
32.000	50.00	5.36	5.280	0.032	0.0	0.0	1.7	0.89	15.6	6.1
32.001	50.00	5.76	5.130	0.043	0.0	0.0	2.3	0.88	15.5	8.2

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
32.002	6.741	0.060	112.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
33.000	20.846	0.378	55.1	0.024	5.00	0.0	0.600	o	150	Pipe/Conduit	
32.003	7.942	0.260	30.5	0.028	0.00	0.0	0.600	o	150	Pipe/Conduit	
19.018	11.784	0.250	47.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
34.000	56.564	0.470	120.3	0.125	5.00	0.0	0.600	o	150	Pipe/Conduit	
35.000	4.645	0.450	10.3	0.048	5.00	0.0	0.600	o	150	Pipe/Conduit	
34.001	18.478	0.220	84.0	0.017	0.00	0.0	0.600	o	300	Pipe/Conduit	
34.002	12.434	0.070	177.6	0.020	0.00	0.0	0.600	o	300	Pipe/Conduit	
34.003	14.555	0.090	161.7	0.025	0.00	0.0	0.600	o	300	Pipe/Conduit	
34.004	22.413	0.120	186.8	0.069	0.00	0.0	0.600	o	300	Pipe/Conduit	
36.000	20.257	0.270	75.0	0.046	5.00	0.0	0.600	o	150	Pipe/Conduit	
19.019	4.632	0.030	154.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
37.000	9.059	0.305	29.7	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
32.002	50.00	5.88	4.970	0.043	0.0	0.0	2.3	0.95	16.7	8.2
33.000	50.00	5.26	5.288	0.024	0.0	0.0	1.3	1.36	24.0	4.5
32.003	50.00	5.95	4.910	0.095	0.0	0.0	5.1	1.83	32.3	18.0
19.018	50.00	19.10	4.400	1.116	0.0	0.0	60.4	2.30	162.3«	211.6
34.000	50.00	6.03	5.270	0.125	0.0	0.0	6.8	0.91	16.2«	23.7
35.000	50.00	5.02	5.100	0.048	0.0	0.0	2.6	3.15	55.7	9.1
34.001	50.00	6.21	4.650	0.190	0.0	0.0	10.3	1.72	121.3	36.0
34.002	50.00	6.39	4.430	0.210	0.0	0.0	11.4	1.18	83.2	39.8
34.003	50.00	6.58	4.360	0.235	0.0	0.0	12.7	1.23	87.2	44.6
34.004	50.00	6.91	4.270	0.304	0.0	0.0	16.5	1.15	81.1	57.6
36.000	50.00	5.29	4.570	0.046	0.0	0.0	2.5	1.16	20.5	8.7
19.019	50.00	19.16	4.150	1.466	0.0	0.0	79.4	1.26	89.3«	277.9
37.000	50.00	5.08	4.575	0.023	0.0	0.0	1.2	1.85	32.8	4.4

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
38.000	6.094	0.180	33.9	0.017	5.00	0.0	0.600	o	150	Pipe/Conduit	
19.020	11.644	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.021	32.158	0.155	207.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.022	6.651	0.080	83.1	0.036	0.00	0.0	0.600	o	300	Pipe/Conduit	
39.000	5.810	0.300	19.4	0.032	5.00	0.0	0.600	o	150	Pipe/Conduit	
39.001	14.385	0.150	95.9	0.019	0.00	0.0	0.600	o	150	Pipe/Conduit	
39.002	7.928	0.085	93.3	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
40.000	6.955	0.060	115.9	0.035	5.00	0.0	0.600	o	225	Pipe/Conduit	
19.023	4.513	0.016	282.1	0.022	0.00	0.0	0.600	o	300	Pipe/Conduit	
19.024	8.201	0.034	241.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.022	17.390	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.023	48.402	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.024	38.318	0.115	333.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
41.000	11.954	0.120	99.6	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
38.000	50.00	5.06	4.450	0.017	0.0	0.0	0.9	1.74	30.7	3.2
19.020	50.00	20.46	4.120	1.506	0.0	0.0	81.6	0.15	10.5«	285.5
19.021	50.00	20.96	4.120	1.506	0.0	0.0	81.6	1.09	76.9«	285.5
19.022	50.00	21.02	3.965	1.542	0.0	0.0	83.5	1.73	122.0«	292.3
39.000	50.00	5.04	4.570	0.032	0.0	0.0	1.7	2.30	40.6	6.1
39.001	50.00	5.28	4.270	0.051	0.0	0.0	2.8	1.03	18.1	9.7
39.002	50.00	5.40	4.120	0.051	0.0	0.0	2.8	1.04	18.4	9.7
40.000	50.00	5.10	4.020	0.035	0.0	0.0	1.9	1.21	48.2	6.6
19.023	50.00	21.10	3.885	1.650	0.0	0.0	89.4	0.93	65.8«	312.8
19.024	50.00	21.24	3.869	1.650	0.0	0.0	89.4	1.01	71.2«	312.8
1.022	50.00	30.00	3.835	3.046	0.0	0.0	165.0	0.15	10.5«	577.5
1.023	50.00	30.00	3.835	3.046	0.0	0.0	165.0	0.15	10.5«	577.5
1.024	50.00	30.00	3.835	3.046	0.0	0.0	165.0	0.86	60.5«	577.5
41.000	50.00	5.20	4.280	0.023	0.0	0.0	1.2	1.01	17.8	4.4

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
42.000	7.349	0.560	13.1	0.019	5.00	0.0	0.600	o	150	Pipe/Conduit	
41.001	22.295	0.172	129.6	0.024	0.00	0.0	0.600	o	150	Pipe/Conduit	
43.000	6.317	0.260	24.3	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	
43.001	6.785	0.052	130.5	0.018	0.00	0.0	0.600	o	150	Pipe/Conduit	
41.002	11.709	0.058	201.9	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
41.003	27.011	0.135	200.1	0.020	0.00	0.0	0.600	o	225	Pipe/Conduit	
44.000	6.461	0.050	129.2	0.051	5.00	0.0	0.600	o	150	Pipe/Conduit	
41.004	6.311	0.000	0.0	0.014	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.025	20.213	0.020	1010.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.026	20.756	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
45.000	15.268	0.250	61.1	0.043	5.00	0.0	0.600	o	150	Pipe/Conduit	
45.001	17.732	0.136	130.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
45.002	13.608	0.105	129.6	0.022	0.00	0.0	0.600	o	150	Pipe/Conduit	
45.003	19.402	0.149	130.2	0.011	0.00	0.0	0.600	o	150	Pipe/Conduit	
45.004	6.955	0.155	44.9	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
42.000	50.00	5.04	4.720	0.019	0.0	0.0	1.0	2.80	49.4	3.6
41.001	50.00	5.62	4.160	0.066	0.0	0.0	3.6	0.88	15.6	12.5
43.000	50.00	5.05	4.300	0.023	0.0	0.0	1.2	2.05	36.3	4.4
43.001	50.00	5.18	4.040	0.041	0.0	0.0	2.2	0.88	15.5	7.8
41.002	50.00	5.83	3.913	0.107	0.0	0.0	5.8	0.92	36.4	20.3
41.003	50.00	6.32	3.855	0.127	0.0	0.0	6.9	0.92	36.6	24.1
44.000	50.00	5.12	3.845	0.051	0.0	0.0	2.8	0.88	15.6	9.7
41.004	50.00	7.18	3.720	0.192	0.0	0.0	10.4	0.12	4.9«	36.4
1.025	50.00	30.00	3.720	3.238	0.0	0.0	175.4	0.49	34.4«	613.9
1.026	50.00	30.00	3.700	3.238	0.0	0.0	175.4	0.15	10.5«	613.9
45.000	50.00	5.20	6.150	0.043	0.0	0.0	2.3	1.29	22.8	8.2
45.001	50.00	5.53	5.900	0.043	0.0	0.0	2.3	0.88	15.5	8.2
45.002	50.00	5.79	5.764	0.065	0.0	0.0	3.5	0.88	15.6	12.3
45.003	50.00	6.16	5.659	0.076	0.0	0.0	4.1	0.88	15.5	14.4
45.004	50.00	6.24	5.510	0.076	0.0	0.0	4.1	1.51	26.6	14.4

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
46.000	12.734	0.098	129.9	0.011	5.00	0.0	0.600	o	150	Pipe/Conduit	
45.005	14.384	0.120	119.9	0.022	0.00	0.0	0.600	o	225	Pipe/Conduit	
45.006	24.977	0.200	124.9	0.039	0.00	0.0	0.600	o	225	Pipe/Conduit	
45.007	8.469	0.080	105.9	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
45.008	6.810	0.030	227.0	0.009	0.00	0.0	0.600	o	225	Pipe/Conduit	
45.009	9.471	0.030	315.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
45.010	11.295	0.040	282.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
45.011	11.386	0.030	379.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
47.000	11.315	0.160	70.7	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	
47.001	3.838	0.400	9.6	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
45.012	18.379	0.120	153.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
45.013	18.447	0.130	141.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
48.000	14.874	0.390	38.1	0.036	5.00	0.0	0.600	o	150	Pipe/Conduit	
49.000	7.319	0.690	10.6	0.010	5.00	0.0	0.600	o	150	Pipe/Conduit	
48.001	14.874	0.190	78.3	0.029	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
46.000	50.00	5.24	5.453	0.011	0.0	0.0	0.6	0.88	15.6	2.1
45.005	50.00	6.44	5.280	0.109	0.0	0.0	5.9	1.19	47.4	20.7
45.006	50.00	6.79	5.160	0.148	0.0	0.0	8.0	1.17	46.5	28.1
45.007	50.00	6.90	4.960	0.148	0.0	0.0	8.0	1.27	50.5	28.1
45.008	50.00	7.04	4.880	0.157	0.0	0.0	8.5	0.86	34.3	29.8
45.009	50.00	7.22	4.850	0.157	0.0	0.0	8.5	0.88	62.2	29.8
45.010	50.00	7.42	4.820	0.157	0.0	0.0	8.5	0.93	65.8	29.8
45.011	50.00	7.65	4.780	0.157	0.0	0.0	8.5	0.80	56.6	29.8
47.000	50.00	5.16	5.560	0.023	0.0	0.0	1.2	1.20	21.2	4.4
47.001	50.00	5.18	5.400	0.023	0.0	0.0	1.2	3.27	57.8	4.4
45.012	50.00	7.90	4.750	0.180	0.0	0.0	9.7	1.27	89.6	34.1
45.013	50.00	8.13	4.630	0.180	0.0	0.0	9.7	1.32	93.2	34.1
48.000	50.00	5.15	5.400	0.036	0.0	0.0	1.9	1.63	28.9	6.8
49.000	50.00	5.04	5.700	0.010	0.0	0.0	0.5	3.11	55.0	1.9
48.001	50.00	5.37	5.010	0.075	0.0	0.0	4.1	1.14	20.1	14.2

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
48.002	12.797	0.170	75.3	0.014	0.00	0.0	0.600	o	150	Pipe/Conduit	
48.003	7.578	0.060	126.3	0.027	0.00	0.0	0.600	o	150	Pipe/Conduit	
48.004	4.811	0.090	53.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
45.014	23.863	0.050	477.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
50.000	14.888	0.250	59.6	0.004	5.00	0.0	0.600	o	150	Pipe/Conduit	
50.001	12.946	0.150	86.3	0.019	0.00	0.0	0.600	o	150	Pipe/Conduit	
50.002	8.198	0.300	27.3	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
50.003	6.381	0.050	127.6	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
45.015	22.453	0.370	60.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
51.000	11.028	0.090	122.5	0.020	5.00	0.0	0.600	o	150	Pipe/Conduit	
52.000	25.533	0.315	81.1	0.056	5.00	0.0	0.600	o	150	Pipe/Conduit	
51.001	8.644	0.050	172.9	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
51.002	5.990	0.035	171.1	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
51.003	20.542	0.120	171.2	0.049	0.00	0.0	0.600	o	225	Pipe/Conduit	
53.000	6.398	0.665	9.6	0.039	5.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
48.002	50.00	5.55	4.820	0.089	0.0	0.0	4.8	1.16	20.5	16.9
48.003	50.00	5.69	4.650	0.116	0.0	0.0	6.3	0.89	15.8«	22.0
48.004	50.00	5.75	4.590	0.116	0.0	0.0	6.3	1.38	24.4	22.0
45.014	50.00	8.69	4.500	0.296	0.0	0.0	16.0	0.71	50.4«	56.1
50.000	50.00	5.19	5.200	0.004	0.0	0.0	0.2	1.31	23.1	0.8
50.001	50.00	5.39	4.950	0.023	0.0	0.0	1.2	1.08	19.1	4.4
50.002	50.00	5.46	4.800	0.023	0.0	0.0	1.2	1.93	34.2	4.4
50.003	50.00	5.58	4.500	0.023	0.0	0.0	1.2	0.89	15.7	4.4
45.015	50.00	8.87	4.450	0.319	0.0	0.0	17.3	2.02	142.9	60.5
51.000	50.00	5.20	5.650	0.020	0.0	0.0	1.1	0.91	16.0	3.8
52.000	50.00	5.38	5.875	0.056	0.0	0.0	3.0	1.12	19.7	10.6
51.001	50.00	5.57	5.560	0.076	0.0	0.0	4.1	0.76	13.5«	14.4
51.002	50.00	5.67	5.435	0.076	0.0	0.0	4.1	1.00	39.6	14.4
51.003	50.00	6.01	5.400	0.125	0.0	0.0	6.8	1.00	39.6	23.7
53.000	50.00	5.03	6.020	0.039	0.0	0.0	2.1	3.27	57.7	7.4

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
51.004	25.121	0.135	186.1	0.039	0.00	0.0	0.600	o	225	Pipe/Conduit	
54.000	7.911	0.110	71.9	0.015	5.00	0.0	0.600	o	150	Pipe/Conduit	
51.005	14.419	0.120	120.2	0.034	0.00	0.0	0.600	o	300	Pipe/Conduit	
55.000	5.913	0.130	45.5	0.021	5.00	0.0	0.600	o	150	Pipe/Conduit	
51.006	35.195	0.440	80.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
56.000	4.517	0.040	112.9	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	
51.007	23.594	0.250	94.4	0.059	0.00	0.0	0.600	o	300	Pipe/Conduit	
51.008	9.979	0.060	166.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
51.009	5.909	0.100	59.1	0.034	0.00	0.0	0.600	o	300	Pipe/Conduit	
51.010	4.450	0.020	222.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
45.016	22.062	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
57.000	6.067	0.040	151.7	0.016	5.00	0.0	0.600	o	300	Pipe/Conduit	
57.001	4.644	0.020	232.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
51.004	50.00	6.45	5.280	0.203	0.0	0.0	11.0	0.96	38.0«	38.5
54.000	50.00	5.11	5.330	0.015	0.0	0.0	0.8	1.19	21.0	2.8
51.005	50.00	6.62	5.070	0.252	0.0	0.0	13.6	1.43	101.3	47.8
55.000	50.00	5.07	5.230	0.021	0.0	0.0	1.1	1.50	26.4	4.0
51.006	50.00	6.95	4.950	0.273	0.0	0.0	14.8	1.76	124.4	51.8
56.000	50.00	5.08	4.700	0.023	0.0	0.0	1.2	0.94	16.7	4.4
51.007	50.00	7.20	4.510	0.355	0.0	0.0	19.2	1.62	114.4	67.3
51.008	50.00	7.33	4.260	0.355	0.0	0.0	19.2	1.22	86.0	67.3
51.009	50.00	7.38	4.200	0.389	0.0	0.0	21.1	2.05	144.8	73.7
51.010	50.00	7.45	4.100	0.389	0.0	0.0	21.1	1.05	74.2	73.7
45.016	50.00	11.34	4.080	0.708	0.0	0.0	38.3	0.15	10.5«	134.2
57.000	50.00	5.08	4.140	0.016	0.0	0.0	0.9	1.27	90.1	3.0
57.001	50.00	5.15	4.100	0.016	0.0	0.0	0.9	1.03	72.6	3.0

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
45.017	25.461	0.020	1273.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
58.000	19.027	0.530	35.9	0.004	5.00	0.0	0.600	o	150	Pipe/Conduit	
58.001	10.816	0.100	108.2	0.029	0.00	0.0	0.600	o	150	Pipe/Conduit	
58.002	9.026	0.130	69.4	0.040	0.00	0.0	0.600	o	150	Pipe/Conduit	
58.003	2.619	0.040	65.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
45.018	5.411	0.020	270.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
45.019	22.710	0.090	252.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
45.020	10.353	0.050	207.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
45.021	12.519	0.150	83.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
59.000	22.046	0.190	116.0	0.030	5.00	0.0	0.600	o	150	Pipe/Conduit	
59.001	9.725	0.090	108.1	0.038	0.00	0.0	0.600	o	150	Pipe/Conduit	
60.000	6.462	0.490	13.2	0.038	5.00	0.0	0.600	o	150	Pipe/Conduit	
59.002	19.638	0.280	70.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
61.000	7.982	0.715	11.2	0.009	5.00	0.0	0.600	o	150	Pipe/Conduit	
61.001	10.368	0.300	34.6	0.024	0.00	0.0	0.600	o	150	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
45.017	50.00	12.32	4.080	0.724	0.0	0.0	39.2	0.43	30.6«	137.3
58.000	50.00	5.19	5.180	0.004	0.0	0.0	0.2	1.69	29.8	0.8
58.001	50.00	5.37	4.650	0.033	0.0	0.0	1.8	0.97	17.1	6.3
58.002	50.00	5.50	4.550	0.073	0.0	0.0	4.0	1.21	21.4	13.8
58.003	50.00	5.53	4.350	0.073	0.0	0.0	4.0	1.24	22.0	13.8
45.018	50.00	12.42	4.060	0.797	0.0	0.0	43.2	0.95	67.2«	151.1
45.019	50.00	12.80	4.040	0.797	0.0	0.0	43.2	0.99	69.6«	151.1
45.020	50.00	12.96	3.950	0.797	0.0	0.0	43.2	1.09	77.0«	151.1
45.021	50.00	13.08	3.900	0.797	0.0	0.0	43.2	1.72	121.7«	151.1
59.000	50.00	5.39	4.860	0.030	0.0	0.0	1.6	0.93	16.5	5.7
59.001	50.00	5.56	4.670	0.068	0.0	0.0	3.7	0.97	17.1	12.9
60.000	50.00	5.04	5.070	0.038	0.0	0.0	2.1	2.79	49.3	7.2
59.002	50.00	5.83	4.580	0.106	0.0	0.0	5.7	1.20	21.2	20.1
61.000	50.00	5.04	5.315	0.009	0.0	0.0	0.5	3.03	53.6	1.7
61.001	50.00	5.14	4.600	0.033	0.0	0.0	1.8	1.72	30.4	6.3

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Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
59.003	12.789	0.080	159.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
59.004	47.729	0.250	190.9	0.080	0.00	0.0	0.600	o	300	Pipe/Conduit	
62.000	4.985	0.430	11.6	0.026	5.00	0.0	0.600	o	150	Pipe/Conduit	
59.005	12.346	0.050	246.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
59.006	5.698	0.020	284.9	0.027	0.00	0.0	0.600	o	300	Pipe/Conduit	
59.007	3.876	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
45.022	32.579	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
63.000	11.089	0.095	116.7	0.024	5.00	0.0	0.600	o	150	Pipe/Conduit	
63.001	22.582	0.350	64.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
45.023	9.002	0.050	180.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.027	9.559	0.050	191.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.028	4.451	0.050	89.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
59.003	50.00	6.01	4.150	0.139	0.0	0.0	7.5	1.24	87.7	26.4
59.004	50.00	6.71	4.070	0.219	0.0	0.0	11.9	1.13	80.2	41.5
62.000	50.00	5.03	4.400	0.026	0.0	0.0	1.4	2.98	52.6	4.9
59.005	50.00	6.91	3.820	0.245	0.0	0.0	13.3	1.00	70.4	46.4
59.006	50.00	7.02	3.770	0.272	0.0	0.0	14.7	0.93	65.5	51.6
59.007	50.00	7.45	3.750	0.272	0.0	0.0	14.7	0.15	10.5«	51.6
45.022	50.00	16.73	3.750	1.069	0.0	0.0	57.9	0.15	10.5«	202.7
63.000	50.00	5.20	4.345	0.024	0.0	0.0	1.3	0.93	16.4	4.5
63.001	50.00	5.50	4.250	0.024	0.0	0.0	1.3	1.25	22.2	4.5
45.023	50.00	16.86	3.750	1.093	0.0	0.0	59.2	1.17	82.6«	207.2
1.027	50.00	30.00	3.700	4.331	0.0	0.0	234.6	1.13	80.1«	821.1
1.028	50.00	30.00	3.650	4.331	0.0	0.0	234.6	1.67	117.8«	821.1

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Manhole Schedules for Surface Network 1

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S1	6.900	1.300	Open Manhole	1200	1.000	5.600	150				
S2	6.900	1.300	Open Manhole	1200	1.001	6.200	150	1.000	5.600	150	
S3	6.900	0.750	Open Manhole	1200	1.002	6.150	150	1.001	6.150	150	
S4	7.180	1.270	Open Manhole	1200	1.003	5.910	150	1.002	5.910	150	
S5	6.900	1.650	Open Manhole	1200	1.004	5.250	300	1.003	5.840	150	440
S6	7.300	0.975	Open Manhole	1200	2.000	6.325	150				
S7	7.200	1.245	Open Manhole	1200	2.001	5.955	150	2.000	5.955	150	
S8	7.261	1.356	Open Manhole	1200	2.002	5.905	150	2.001	5.905	150	
S9	7.083	1.253	Open Manhole	1200	2.003	5.830	150	2.002	5.830	150	
S10	6.809	1.249	Open Manhole	1200	2.004	5.560	150	2.003	5.560	150	
S11	6.900	1.380	Open Manhole	1200	2.005	5.520	150	2.004	5.520	150	
S12	6.900	1.650	Open Manhole	1200	1.005	5.250	300	1.004	5.250	300	
								2.005	5.510	150	110
S13	7.227	1.347	Open Manhole	1200	3.000	5.880	150				
S14	7.280	1.460	Open Manhole	1200	3.001	5.820	150	3.000	5.820	150	
S15	7.290	1.550	Open Manhole	1200	3.002	5.740	150	3.001	5.740	150	
S16	7.277	1.577	Open Manhole	1200	3.003	5.700	150	3.002	5.700	150	
S17	7.378	1.678	Open Manhole	1200	3.004	6.115	150	3.003	5.700	150	
S18	7.323	1.283	Open Manhole	1200	3.005	6.040	150	3.004	6.040	150	
S19	7.436	1.336	Open Manhole	1200	4.000	6.100	150				
S20	7.300	1.310	Open Manhole	1200	3.006	5.990	150	3.005	5.990	150	
								4.000	5.990	150	
S21	7.180	1.300	Open Manhole	1200	3.007	5.880	150	3.006	5.880	150	
S255	7.100	1.480	Open Manhole	1200	5.000	5.620	150				
S254	7.104	1.484	Open Manhole	1200	5.001	5.620	150	5.000	5.620	150	
S22	7.425	1.805	Open Manhole	1200	5.002	5.620	225	5.001	5.620	150	
S23	7.250	1.396	Open Manhole	1200	6.000	5.854	150				
S24	7.100	1.600	Open Manhole	1200	3.008	5.500	300	3.007	5.650	150	
								5.002	5.500	225	
								6.000	5.650	150	
S26	6.876	1.473	Open Manhole	1200	3.009	5.403	300	3.008	5.403	300	
S27	6.772	1.413	Open Manhole	1200	3.010	5.359	300	3.009	5.359	300	
S28	6.674	1.354	Open Manhole	1200	3.011	5.320	300	3.010	5.320	300	
S29	6.571	1.114	Open Manhole	1200	7.000	5.457	150				
S30	6.481	1.261	Open Manhole	1200	3.012	5.220	300	3.011	5.220	300	
								7.000	5.370	150	
S31	6.514	1.334	Open Manhole	1200	3.013	5.180	300	3.012	5.180	300	
S32	6.650	1.500	Open Manhole	1200	1.006	5.150	300	1.005	5.150	300	

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Manhole Schedules for Surface Network 1

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
								3.013	5.150	300	
S33	6.400	0.850	Open Manhole	1200	8.000	5.550	150				
S34	6.350	1.000	Open Manhole	1200	9.000	5.350	150				
S35	6.350	1.060	Open Manhole	1200	8.001	5.290	150	8.000	5.290	150	
								9.000	5.290	150	
S36	6.900	1.780	Open Manhole	1200	1.007	5.120	300	1.006	5.120	300	
								8.001	5.270	150	
S37	6.400	1.280	Open Manhole	1200	1.008	5.120	300	1.007	5.120	300	
S38	6.400	1.280	Open Manhole	1200	1.009	5.120	150	1.008	5.120	300	
S39	6.200	1.240	Open Manhole	1200	1.010	4.960	150	1.009	4.960	150	
S112	7.000	0.950	Open Manhole	1200	10.000	6.050	150				
S111	6.800	0.900	Open Manhole	1200	10.001	5.900	150	10.000	5.900	150	
S40	6.800	1.000	Open Manhole	1200	10.002	5.800	150	10.001	5.800	150	
S41	6.900	1.220	Open Manhole	1200	10.003	5.680	150	10.002	5.680	150	
S42	6.900	1.290	Open Manhole	1200	10.004	5.610	150	10.003	5.610	150	
S256	6.741	1.351	Open Manhole	1200	11.000	5.390	150				
S43	6.618	1.358	Open Manhole	1200	10.005	5.260	150	10.004	5.260	150	
								11.000	5.260	150	
S44	6.482	1.332	Open Manhole	1200	10.006	5.150	150	10.005	5.150	150	
S45	6.293	1.293	Open Manhole	1200	10.007	5.000	150	10.006	5.000	150	
S46	6.096	1.146	Open Manhole	1200	10.008	4.950	150	10.007	4.950	150	
S47	6.095	1.195	Open Manhole	1200	10.009	4.900	150	10.008	4.900	150	
S48	6.450	1.600	Open Manhole	1200	1.011	4.850	150	1.010	4.850	150	
								10.009	4.850	150	
S49	5.800	1.000	Open Manhole	1200	1.012	4.800	225	1.011	4.800	150	
S50	5.800	1.086	Open Manhole	1200	1.013	4.714	225	1.012	4.714	225	
S51	6.150	0.900	Open Manhole	1200	12.000	5.250	150				
S52	6.000	0.940	Open Manhole	1200	12.001	5.060	150	12.000	5.060	150	
S53	6.000	1.332	Open Manhole	1200	1.014	4.668	225	1.013	4.668	225	
								12.001	5.060	150	317
S54	6.000	1.458	Open Manhole	1200	1.015	4.542	225	1.014	4.542	225	
S55	5.800	1.448	Open Manhole	1200	1.016	4.352	225	1.015	4.352	225	
S56	6.134	1.344	Open Manhole	1200	13.000	4.790	150				
S57	5.996	1.346	Open Manhole	1200	13.001	4.650	150	13.000	4.650	150	
S58	5.916	1.356	Open Manhole	1200	13.002	4.560	150	13.001	4.560	150	
S59	5.807	1.357	Open Manhole	1200	13.003	4.450	150	13.002	4.450	150	
S60	5.750	1.500	Open Manhole	1200	1.017	4.250	300	1.016	4.250	225	
								13.003	4.250	150	

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Manhole Schedules for Surface Network 1

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S61	6.980	0.795	Open Manhole	1200	14.000	6.185	150				
S62	6.900	0.860	Open Manhole	1200	15.000	6.040	150				
S63	6.900	1.190	Open Manhole	1200	14.001	5.710	150	14.000	5.710	150	
								15.000	5.710	150	
S64	6.450	0.940	Open Manhole	1200	14.002	5.510	150	14.001	5.510	150	
S65	6.574	1.544	Open Manhole	1200	14.003	5.030	300	14.002	5.180	150	
S66	6.237	1.497	Open Manhole	1200	14.004	4.740	300	14.003	4.740	300	
S67	6.750	1.790	Open Manhole	1200	16.000	4.960	150				
S68	6.160	1.360	Open Manhole	1200	16.001	4.800	150	16.000	4.800	150	
S69	5.886	1.496	Open Manhole	1200	14.005	4.390	300	14.004	4.390	300	
								16.001	4.540	150	
S70	5.667	1.377	Open Manhole	1200	14.006	4.290	300	14.005	4.290	300	
S71	5.900	1.640	Open Manhole	1200	14.007	4.260	300	14.006	4.260	300	
S72	6.150	0.750	Open Manhole	1200	17.000	5.400	150				
S73	6.000	0.870	Open Manhole	1200	18.000	5.130	150				
S74	6.050	1.200	Open Manhole	1200	17.001	4.850	150	17.000	4.850	150	
								18.000	4.850	150	
S75	5.560	0.790	Open Manhole	1200	17.002	4.770	150	17.001	4.770	150	
S76	5.550	1.350	Open Manhole	1200	1.018	4.200	300	1.017	4.200	300	
								14.007	4.200	300	
								17.002	4.350	150	
S77	5.550	1.400	Open Manhole	1200	1.019	4.150	300	1.018	4.150	300	
S78	5.750	1.650	Open Manhole	1200	1.020	4.100	300	1.019	4.100	300	
S79	5.420	1.370	Open Manhole	1200	1.021	4.050	300	1.020	4.050	300	
S80	7.005	1.345	Open Manhole	1200	19.000	5.660	225				
S81	6.895	1.302	Open Manhole	1200	19.001	5.593	225	19.000	5.593	225	
S82	6.825	1.202	Open Manhole	1200	20.000	5.623	150				
S83	6.669	1.257	Open Manhole	1200	19.002	5.412	300	19.001	5.487	225	
								20.000	5.562	150	
S84	6.529	1.172	Open Manhole	1200	19.003	5.357	300	19.002	5.357	300	
S85	6.499	1.217	Open Manhole	1200	19.004	5.282	300	19.003	5.282	300	
S86	6.497	1.314	Open Manhole	1200	19.005	5.183	300	19.004	5.183	300	
S87	6.600	1.525	Open Manhole	1200	19.006	5.075	300	19.005	5.075	300	
S88	6.550	1.520	Open Manhole	1200	19.007	5.030	300	19.006	5.030	300	
S89	6.550	1.607	Open Manhole	1200	19.008	4.943	300	19.007	4.943	300	
S253	7.300	1.400	Open Manhole	1200	21.000	5.900	150				
S90	7.300	1.400	Open Manhole	1200	21.001	5.900	150	21.000	5.900	150	
S91	7.623	1.958	Open Manhole	1200	21.002	5.665	225	21.001	5.740	150	

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Manhole Schedules for Surface Network 1

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S92	7.429	1.880	Open Manhole	1200	21.003	5.549	225	21.002	5.549	225	
S93	7.250	1.800	Open Manhole	1200	21.004	5.450	225	21.003	5.450	225	
S94	7.164	1.764	Open Manhole	1200	21.005	5.400	225	21.004	5.400	225	
S95	6.981	1.686	Open Manhole	1200	21.006	5.295	225	21.005	5.295	225	
S96	7.020	0.990	Open Manhole	1200	22.000	6.030	150				
S97	6.780	1.280	Open Manhole	1200	22.001	5.500	150	22.000	5.500	150	
S98	6.780	1.130	Open Manhole	1200	23.000	5.650	150				
S99	6.800	1.606	Open Manhole	1200	21.007	5.194	225	21.006	5.194	225	
								22.001	5.269	150	
								23.000	5.269	150	
S100	6.536	1.474	Open Manhole	1200	21.008	5.062	225	21.007	5.062	225	
S101	6.430	1.420	Open Manhole	1200	21.009	5.010	225	21.008	5.010	225	
S102	6.550	1.635	Open Manhole	1200	21.010	4.915	300	21.009	4.990	225	
S103	6.556	1.641	Open Manhole	1200	19.009	4.915	300	19.008	4.915	300	
								21.010	4.915	300	
S104	6.556	1.641	Open Manhole	1200	19.010	4.915	300	19.009	4.915	300	
S105	6.900	2.150	Open Manhole	1200	19.011	4.750	300	19.010	4.750	300	
S106	7.120	0.810	Open Manhole	1200	24.000	6.310	150				
S107	7.200	1.040	Open Manhole	1200	24.001	6.160	150	24.000	6.160	150	
S108	7.050	1.080	Open Manhole	1200	24.002	5.970	150	24.001	5.970	150	
S109	6.900	1.400	Open Manhole	1200	24.003	5.500	150	24.002	5.500	150	
S110	6.900	2.150	Open Manhole	1200	19.012	4.750	300	19.011	4.750	300	
								24.003	5.000	150	100
S113	7.000	0.950	Open Manhole	1200	25.000	6.050	150				
S114	6.804	0.804	Open Manhole	1200	25.001	6.000	150	25.000	6.000	150	
S115	6.849	0.869	Open Manhole	1200	25.002	5.980	150	25.001	5.980	150	
S116	7.100	1.150	Open Manhole	1200	25.003	5.950	150	25.002	5.950	150	
S117	7.100	1.150	Open Manhole	1200	25.004	5.950	150	25.003	5.950	150	
S118	7.000	1.060	Open Manhole	1200	25.005	5.940	150	25.004	5.940	150	
S119	7.000	1.060	Open Manhole	1200	25.006	5.940	150	25.005	5.940	150	
S120	6.750	0.830	Open Manhole	1200	25.007	5.920	150	25.006	5.920	150	
S121	6.900	0.800	Open Manhole	1200	26.000	6.100	300				
S122	7.100	1.050	Open Manhole	1200	26.001	6.200	150	26.000	6.050	300	
S123	7.105	1.055	Open Manhole	1200	26.002	6.050	150	26.001	6.050	150	
S124	6.900	0.900	Open Manhole	1200	26.003	6.000	150	26.002	6.000	150	
S125	6.719	0.719	Open Manhole	1200	26.004	6.000	150	26.003	6.000	150	
S126	6.753	0.728	Open Manhole	1200	27.000	6.025	150				
S127	6.753	2.113	Open Manhole	1200	19.013	4.640	300	19.012	4.640	300	

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Manhole Schedules for Surface Network 1

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
								25.007	5.910	150	1120
								26.004	5.910	150	1120
								27.000	5.910	150	1120
S128	6.700	0.820	Open Manhole	1200	28.000	5.880	150				
S129	6.745	0.955	Open Manhole	1200	28.001	5.790	150	28.000	5.790	150	
S130	6.600	2.000	Open Manhole	1200	19.014	4.600	300	19.013	4.600	300	
								28.001	5.600	150	850
S131	6.577	1.267	Open Manhole	1200	29.000	5.310	150				
S132	6.474	1.354	Open Manhole	1200	29.001	5.120	150	29.000	5.120	150	
S133	6.320	1.320	Open Manhole	1200	29.002	5.000	150	29.001	5.000	150	
S134	6.600	2.140	Open Manhole	1200	19.015	4.460	300	19.014	4.460	300	
								29.002	4.710	150	100
S135	6.370	0.820	Open Manhole	1200	30.000	5.550	150				
S136	6.600	2.140	Open Manhole	1200	19.016	4.460	300	19.015	4.460	300	
								30.000	4.710	150	100
S137	6.250	1.150	Open Manhole	1200	31.000	5.100	150				
S138	5.938	1.538	Open Manhole	1200	19.017	4.400	300	19.016	4.400	300	
								31.000	4.650	150	100
S139	6.300	1.020	Open Manhole	1200	32.000	5.280	150				
S140	6.000	0.870	Open Manhole	1200	32.001	5.130	150	32.000	5.130	150	
S141	5.930	0.960	Open Manhole	1200	32.002	4.970	150	32.001	4.970	150	
S142	6.074	0.786	Open Manhole	1200	33.000	5.288	150				
S143	6.070	1.160	Open Manhole	1200	32.003	4.910	150	32.002	4.910	150	
								33.000	4.910	150	
S144	5.900	1.500	Open Manhole	1200	19.018	4.400	300	19.017	4.400	300	
								32.003	4.650	150	100
S145	6.617	1.347	Open Manhole	1200	34.000	5.270	150				
S146	6.310	1.210	Open Manhole	1200	35.000	5.100	150				
S147	6.152	1.502	Open Manhole	1200	34.001	4.650	300	34.000	4.800	150	
								35.000	4.650	150	
S148	5.993	1.563	Open Manhole	1200	34.002	4.430	300	34.001	4.430	300	
S149	5.898	1.538	Open Manhole	1200	34.003	4.360	300	34.002	4.360	300	
S150	5.782	1.512	Open Manhole	1200	34.004	4.270	300	34.003	4.270	300	
S151	5.920	1.350	Open Manhole	1200	36.000	4.570	150				
S152	5.640	1.490	Open Manhole	1200	19.019	4.150	300	19.018	4.150	300	
								34.004	4.150	300	
								36.000	4.300	150	
S153	5.970	1.395	Open Manhole	1200	37.000	4.575	150				

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Manhole Schedules for Surface Network 1

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S154	5.850	1.400	Open Manhole	1200	38.000	4.450	150				
S155	5.780	1.660	Open Manhole	1200	19.020	4.120	300	19.019	4.120	300	
								37.000	4.270	150	
								38.000	4.270	150	
S156	5.780	1.660	Open Manhole	1200	19.021	4.120	300	19.020	4.120	300	
S157	5.635	1.670	Open Manhole	1200	19.022	3.965	300	19.021	3.965	300	
S158	5.750	1.180	Open Manhole	1200	39.000	4.570	150				
S159	5.617	1.347	Open Manhole	1200	39.001	4.270	150	39.000	4.270	150	
S160	5.474	1.354	Open Manhole	1200	39.002	4.120	150	39.001	4.120	150	
S161	5.367	1.347	Open Manhole	1200	40.000	4.020	225				
S162	5.397	1.512	Open Manhole	1200	19.023	3.885	300	19.022	3.885	300	
								39.002	4.035	150	
								40.000	3.960	225	
S163	5.400	1.531	Open Manhole	1200	19.024	3.869	300	19.023	3.869	300	
S164	5.420	1.585	Open Manhole	1200	1.022	3.835	300	1.021	3.835	300	
								19.024	3.835	300	
S165	5.200	1.365	Open Manhole	1200	1.023	3.835	300	1.022	3.835	300	
S166	5.200	1.365	Open Manhole	1200	1.024	3.835	300	1.023	3.835	300	
S167	5.602	1.322	Open Manhole	1200	41.000	4.280	150				
S168	5.700	0.980	Open Manhole	1200	42.000	4.720	150				
S169	5.505	1.345	Open Manhole	1200	41.001	4.160	150	41.000	4.160	150	
								42.000	4.160	150	
S170	5.630	1.330	Open Manhole	1200	43.000	4.300	150				
S171	5.369	1.329	Open Manhole	1200	43.001	4.040	150	43.000	4.040	150	
S172	5.276	1.363	Open Manhole	1200	41.002	3.913	225	41.001	3.988	150	
								43.001	3.988	150	
S173	5.122	1.267	Open Manhole	1200	41.003	3.855	225	41.002	3.855	225	
S174	5.170	1.325	Open Manhole	1200	44.000	3.845	150				
S175	5.050	1.330	Open Manhole	1200	41.004	3.720	225	41.003	3.720	225	
								44.000	3.795	150	
S176	4.950	1.230	Open Manhole	1200	1.025	3.720	300	1.024	3.720	300	
								41.004	3.720	225	
S177	4.450	0.750	Open Manhole	1200	1.026	3.700	300	1.025	3.700	300	
S178	6.900	0.750	Open Manhole	1200	45.000	6.150	150				
S179	6.900	1.000	Open Manhole	1200	45.001	5.900	150	45.000	5.900	150	
S180	6.750	0.986	Open Manhole	1200	45.002	5.764	150	45.001	5.764	150	
S181	6.530	0.871	Open Manhole	1200	45.003	5.659	150	45.002	5.659	150	
S182	6.780	1.270	Open Manhole	1200	45.004	5.510	150	45.003	5.510	150	

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Manhole Schedules for Surface Network 1

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S183	6.739	1.286	Open Manhole	1200	46.000	5.453	150				
S184	6.863	1.583	Open Manhole	1200	45.005	5.280	225	45.004	5.355	150	
								46.000	5.355	150	
S185	6.728	1.568	Open Manhole	1200	45.006	5.160	225	45.005	5.160	225	
S186	6.550	1.590	Open Manhole	1200	45.007	4.960	225	45.006	4.960	225	
S187	6.300	1.420	Open Manhole	1200	45.008	4.880	225	45.007	4.880	225	
S188	6.750	1.900	Open Manhole	1200	45.009	4.850	300	45.008	4.850	225	
S189	6.750	1.930	Open Manhole	1200	45.010	4.820	300	45.009	4.820	300	
S190	6.300	1.520	Open Manhole	1200	45.011	4.780	300	45.010	4.780	300	
S191	6.370	0.810	Open Manhole	1200	47.000	5.560	150				
S192	6.200	0.800	Open Manhole	1200	47.001	5.400	150	47.000	5.400	150	
S193	6.200	1.450	Open Manhole	1200	45.012	4.750	300	45.011	4.750	300	
								47.001	5.000	150	100
S194	6.150	1.520	Open Manhole	1200	45.013	4.630	300	45.012	4.630	300	
S195	6.614	1.214	Open Manhole	1200	48.000	5.400	150				
S196	6.700	1.000	Open Manhole	1200	49.000	5.700	150				
S197	6.385	1.375	Open Manhole	1200	48.001	5.010	150	48.000	5.010	150	
								49.000	5.010	150	
S198	6.129	1.309	Open Manhole	1200	48.002	4.820	150	48.001	4.820	150	
S199	5.992	1.342	Open Manhole	1200	48.003	4.650	150	48.002	4.650	150	
S200	5.950	1.360	Open Manhole	1200	48.004	4.590	150	48.003	4.590	150	
S201	5.950	1.450	Open Manhole	1200	45.014	4.500	300	45.013	4.500	300	
								48.004	4.500	150	
S202	6.180	0.980	Open Manhole	1200	50.000	5.200	150				
S203	6.000	1.050	Open Manhole	1200	50.001	4.950	150	50.000	4.950	150	
S204	5.850	1.050	Open Manhole	1200	50.002	4.800	150	50.001	4.800	150	
S205	5.700	1.200	Open Manhole	1200	50.003	4.500	150	50.002	4.500	150	
S206	5.500	1.050	Open Manhole	1200	45.015	4.450	300	45.014	4.450	300	
								50.003	4.450	150	
S207	7.068	1.418	Open Manhole	1200	51.000	5.650	150				
S208a	7.225	1.350	Open Manhole	1050	52.000	5.875	150				
S208	7.026	1.466	Open Manhole	1200	51.001	5.560	150	51.000	5.560	150	
								52.000	5.560	150	
S209	6.950	1.515	Open Manhole	1200	51.002	5.435	225	51.001	5.510	150	
S210	6.919	1.519	Open Manhole	1200	51.003	5.400	225	51.002	5.400	225	
S211	7.000	0.980	Open Manhole	1200	53.000	6.020	150				
S212	6.749	1.469	Open Manhole	1200	51.004	5.280	225	51.003	5.280	225	
								53.000	5.355	150	

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Manhole Schedules for Surface Network 1

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S213	6.709	1.379	Open Manhole	1200	54.000	5.330	150				
S214	6.538	1.468	Open Manhole	1200	51.005	5.070	300	51.004	5.145	225	
								54.000	5.220	150	
S215	6.680	1.450	Open Manhole	1200	55.000	5.230	150				
S216	6.425	1.475	Open Manhole	1200	51.006	4.950	300	51.005	4.950	300	
								55.000	5.100	150	
S217	5.979	1.279	Open Manhole	1200	56.000	4.700	150				
S218	5.997	1.487	Open Manhole	1200	51.007	4.510	300	51.006	4.510	300	
								56.000	4.660	150	
S219	5.767	1.507	Open Manhole	1200	51.008	4.260	300	51.007	4.260	300	
S220	5.666	1.466	Open Manhole	1200	51.009	4.200	300	51.008	4.200	300	
S221	5.500	1.400	Open Manhole	1200	51.010	4.100	300	51.009	4.100	300	
S222	5.500	1.420	Open Manhole	1200	45.016	4.080	300	45.015	4.080	300	
								51.010	4.080	300	
S223	5.636	1.496	Open Manhole	1200	57.000	4.140	300				
S224	5.600	1.500	Open Manhole	1200	57.001	4.100	300	57.000	4.100	300	
S225	5.500	1.420	Open Manhole	1200	45.017	4.080	300	45.016	4.080	300	
								57.001	4.080	300	
S226	5.930	0.750	Open Manhole	1200	58.000	5.180	150				
S227	5.400	0.750	Open Manhole	1200	58.001	4.650	150	58.000	4.650	150	
S228	5.400	0.850	Open Manhole	1200	58.002	4.550	150	58.001	4.550	150	
S229	5.300	0.950	Open Manhole	1200	58.003	4.350	150	58.002	4.420	150	70
S230	5.250	1.190	Open Manhole	1200	45.018	4.060	300	45.017	4.060	300	
								58.003	4.310	150	100
S231	5.200	1.160	Open Manhole	1200	45.019	4.040	300	45.018	4.040	300	
S232	5.150	1.200	Open Manhole	1200	45.020	3.950	300	45.019	3.950	300	
S233	5.150	1.250	Open Manhole	1200	45.021	3.900	300	45.020	3.900	300	
S234	6.235	1.375	Open Manhole	1200	59.000	4.860	150				
S235	6.050	1.380	Open Manhole	1200	59.001	4.670	150	59.000	4.670	150	
S236	6.180	1.110	Open Manhole	1200	60.000	5.070	150				
S237	5.966	1.386	Open Manhole	1200	59.002	4.580	150	59.001	4.580	150	
								60.000	4.580	150	
S238	6.200	0.885	Open Manhole	1200	61.000	5.315	150				
S239	5.952	1.352	Open Manhole	1200	61.001	4.600	150	61.000	4.600	150	
S240	5.803	1.653	Open Manhole	1200	59.003	4.150	300	59.002	4.300	150	
								61.001	4.300	150	
S241	5.694	1.624	Open Manhole	1200	59.004	4.070	300	59.003	4.070	300	
S242	5.500	1.100	Open Manhole	600	62.000	4.400	150				

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Manhole Schedules for Surface Network 1

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
S243	5.279	1.459	Open Manhole	1200	59.005	3.820	300	59.004	3.820	300	
								62.000	3.970	150	
S244	5.172	1.402	Open Manhole	1200	59.006	3.770	300	59.005	3.770	300	
S245	5.100	1.350	Open Manhole	1200	59.007	3.750	300	59.006	3.750	300	
S246	5.000	1.250	Open Manhole	1200	45.022	3.750	300	45.021	3.750	300	
								59.007	3.750	300	
S247	5.250	0.905	Open Manhole	1200	63.000	4.345	150				
S248	5.100	0.850	Open Manhole	1200	63.001	4.250	150	63.000	4.250	150	
S249	4.500	0.750	Open Manhole	1200	45.023	3.750	300	45.022	3.750	300	
								63.001	3.900	150	
S250	4.450	0.750	Open Manhole	1200	1.027	3.700	300	1.026	3.700	300	
								45.023	3.700	300	
S251	4.450	0.800	Open Manhole	1800	1.028	3.650	300	1.027	3.650	300	
S252	4.450	0.850	Open Manhole	1200		OUTFALL		1.028	3.600	300	

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	o	150	S1	6.900	5.600	1.150	Open Manhole	1200
1.001	o	150	S2	6.900	6.200	0.550	Open Manhole	1200
1.002	o	150	S3	6.900	6.150	0.600	Open Manhole	1200
1.003	o	150	S4	7.180	5.910	1.120	Open Manhole	1200
1.004	o	300	S5	6.900	5.250	1.350	Open Manhole	1200
2.000	o	150	S6	7.300	6.325	0.825	Open Manhole	1200
2.001	o	150	S7	7.200	5.955	1.095	Open Manhole	1200
2.002	o	150	S8	7.261	5.905	1.206	Open Manhole	1200
2.003	o	150	S9	7.083	5.830	1.103	Open Manhole	1200
2.004	o	150	S10	6.809	5.560	1.099	Open Manhole	1200
2.005	o	150	S11	6.900	5.520	1.230	Open Manhole	1200
1.005	o	300	S12	6.900	5.250	1.350	Open Manhole	1200
3.000	o	150	S13	7.227	5.880	1.197	Open Manhole	1200
3.001	o	150	S14	7.280	5.820	1.310	Open Manhole	1200
3.002	o	150	S15	7.290	5.740	1.400	Open Manhole	1200
3.003	o	150	S16	7.277	5.700	1.427	Open Manhole	1200
3.004	o	150	S17	7.378	6.115	1.113	Open Manhole	1200
3.005	o	150	S18	7.323	6.040	1.133	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	79.638	0.0	S2	6.900	5.600	1.150	Open Manhole	1200
1.001	3.896	77.9	S3	6.900	6.150	0.600	Open Manhole	1200
1.002	31.170	129.9	S4	7.180	5.910	1.120	Open Manhole	1200
1.003	7.034	100.5	S5	6.900	5.840	0.910	Open Manhole	1200
1.004	34.423	0.0	S12	6.900	5.250	1.350	Open Manhole	1200
2.000	48.100	130.0	S7	7.200	5.955	1.095	Open Manhole	1200
2.001	6.496	129.9	S8	7.261	5.905	1.206	Open Manhole	1200
2.002	9.686	129.1	S9	7.083	5.830	1.103	Open Manhole	1200
2.003	32.873	121.8	S10	6.809	5.560	1.099	Open Manhole	1200
2.004	2.949	73.7	S11	6.900	5.520	1.230	Open Manhole	1200
2.005	2.131	213.1	S12	6.900	5.510	1.240	Open Manhole	1200
1.005	49.746	497.5	S32	6.650	5.150	1.200	Open Manhole	1200
3.000	7.158	119.3	S14	7.280	5.820	1.310	Open Manhole	1200
3.001	5.290	66.1	S15	7.290	5.740	1.400	Open Manhole	1200
3.002	3.462	86.6	S16	7.277	5.700	1.427	Open Manhole	1200
3.003	23.754	0.0	S17	7.378	5.700	1.528	Open Manhole	1200
3.004	11.051	147.3	S18	7.323	6.040	1.133	Open Manhole	1200
3.005	6.763	135.3	S20	7.300	5.990	1.160	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
4.000	o	150	S19	7.436	6.100	1.186	Open Manhole	1200
3.006	o	150	S20	7.300	5.990	1.160	Open Manhole	1200
3.007	o	150	S21	7.180	5.880	1.150	Open Manhole	1200
5.000	o	150	S255	7.100	5.620	1.330	Open Manhole	1200
5.001	o	150	S254	7.104	5.620	1.334	Open Manhole	1200
5.002	o	225	S22	7.425	5.620	1.580	Open Manhole	1200
6.000	o	150	S23	7.250	5.854	1.246	Open Manhole	1200
3.008	o	300	S24	7.100	5.500	1.300	Open Manhole	1200
3.009	o	300	S26	6.876	5.403	1.173	Open Manhole	1200
3.010	o	300	S27	6.772	5.359	1.113	Open Manhole	1200
3.011	o	300	S28	6.674	5.320	1.054	Open Manhole	1200
7.000	o	150	S29	6.571	5.457	0.964	Open Manhole	1200
3.012	o	300	S30	6.481	5.220	0.961	Open Manhole	1200
3.013	o	300	S31	6.514	5.180	1.034	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
4.000	14.266	129.7	S20	7.300	5.990	1.160	Open Manhole	1200
3.006	14.865	135.1	S21	7.180	5.880	1.150	Open Manhole	1200
3.007	9.626	41.9	S24	7.100	5.650	1.300	Open Manhole	1200
5.000	3.524	0.0	S254	7.104	5.620	1.334	Open Manhole	1200
5.001	3.983	0.0	S22	7.425	5.620	1.655	Open Manhole	1200
5.002	23.848	198.7	S24	7.100	5.500	1.375	Open Manhole	1200
6.000	6.882	33.7	S24	7.100	5.650	1.300	Open Manhole	1200
3.008	27.083	279.2	S26	6.876	5.403	1.173	Open Manhole	1200
3.009	12.356	280.8	S27	6.772	5.359	1.113	Open Manhole	1200
3.010	11.015	282.4	S28	6.674	5.320	1.054	Open Manhole	1200
3.011	18.288	182.9	S30	6.481	5.220	0.961	Open Manhole	1200
7.000	12.139	139.5	S30	6.481	5.370	0.961	Open Manhole	1200
3.012	8.479	212.0	S31	6.514	5.180	1.034	Open Manhole	1200
3.013	4.885	162.8	S32	6.650	5.150	1.200	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.006	o	300	S32	6.650	5.150	1.200	Open Manhole	1200
8.000	o	150	S33	6.400	5.550	0.700	Open Manhole	1200
9.000	o	150	S34	6.350	5.350	0.850	Open Manhole	1200
8.001	o	150	S35	6.350	5.290	0.910	Open Manhole	1200
1.007	o	300	S36	6.900	5.120	1.480	Open Manhole	1200
1.008	o	300	S37	6.400	5.120	0.980	Open Manhole	1200
1.009	o	150	S38	6.400	5.120	1.130	Open Manhole	1200
1.010	o	150	S39	6.200	4.960	1.090	Open Manhole	1200
10.000	o	150	S112	7.000	6.050	0.800	Open Manhole	1200
10.001	o	150	S111	6.800	5.900	0.750	Open Manhole	1200
10.002	o	150	S40	6.800	5.800	0.850	Open Manhole	1200
10.003	o	150	S41	6.900	5.680	1.070	Open Manhole	1200
10.004	o	150	S42	6.900	5.610	1.140	Open Manhole	1200
11.000	o	150	S256	6.741	5.390	1.201	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.006	65.460	2182.0	S36	6.900	5.120	1.480	Open Manhole	1200
8.000	22.407	86.2	S35	6.350	5.290	0.910	Open Manhole	1200
9.000	8.117	135.3	S35	6.350	5.290	0.910	Open Manhole	1200
8.001	2.047	102.4	S36	6.900	5.270	1.480	Open Manhole	1200
1.007	11.501	0.0	S37	6.400	5.120	0.980	Open Manhole	1200
1.008	2.310	0.0	S38	6.400	5.120	0.980	Open Manhole	1200
1.009	15.488	96.8	S39	6.200	4.960	1.090	Open Manhole	1200
1.010	13.870	126.1	S48	6.450	4.850	1.450	Open Manhole	1200
10.000	19.391	129.3	S111	6.800	5.900	0.750	Open Manhole	1200
10.001	12.727	127.3	S40	6.800	5.800	0.850	Open Manhole	1200
10.002	21.907	182.6	S41	6.900	5.680	1.070	Open Manhole	1200
10.003	6.116	87.4	S42	6.900	5.610	1.140	Open Manhole	1200
10.004	20.997	60.0	S43	6.618	5.260	1.208	Open Manhole	1200
11.000	13.280	102.2	S43	6.618	5.260	1.208	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
10.005	o	150	S43	6.618	5.260	1.208	Open Manhole	1200
10.006	o	150	S44	6.482	5.150	1.182	Open Manhole	1200
10.007	o	150	S45	6.293	5.000	1.143	Open Manhole	1200
10.008	o	150	S46	6.096	4.950	0.996	Open Manhole	1200
10.009	o	150	S47	6.095	4.900	1.045	Open Manhole	1200
1.011	o	150	S48	6.450	4.850	1.450	Open Manhole	1200
1.012	o	225	S49	5.800	4.800	0.775	Open Manhole	1200
1.013	o	225	S50	5.800	4.714	0.861	Open Manhole	1200
12.000	o	150	S51	6.150	5.250	0.750	Open Manhole	1200
12.001	o	150	S52	6.000	5.060	0.790	Open Manhole	1200
1.014	o	225	S53	6.000	4.668	1.107	Open Manhole	1200
1.015	o	225	S54	6.000	4.542	1.233	Open Manhole	1200
1.016	o	225	S55	5.800	4.352	1.223	Open Manhole	1200
13.000	o	150	S56	6.134	4.790	1.194	Open Manhole	1200
13.001	o	150	S57	5.996	4.650	1.196	Open Manhole	1200
13.002	o	150	S58	5.916	4.560	1.206	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
10.005	11.443	104.0	S44	6.482	5.150	1.182	Open Manhole	1200
10.006	20.944	139.6	S45	6.293	5.000	1.143	Open Manhole	1200
10.007	27.264	545.3	S46	6.096	4.950	0.996	Open Manhole	1200
10.008	8.359	167.2	S47	6.095	4.900	1.045	Open Manhole	1200
10.009	8.609	172.2	S48	6.450	4.850	1.450	Open Manhole	1200
1.011	5.898	118.0	S49	5.800	4.800	0.850	Open Manhole	1200
1.012	17.211	200.1	S50	5.800	4.714	0.861	Open Manhole	1200
1.013	9.176	199.5	S53	6.000	4.668	1.107	Open Manhole	1200
12.000	28.335	149.1	S52	6.000	5.060	0.790	Open Manhole	1200
12.001	2.239	0.0	S53	6.000	5.060	0.790	Open Manhole	1200
1.014	33.907	269.1	S54	6.000	4.542	1.233	Open Manhole	1200
1.015	27.240	143.4	S55	5.800	4.352	1.223	Open Manhole	1200
1.016	12.467	122.2	S60	5.750	4.250	1.275	Open Manhole	1200
13.000	12.825	91.6	S57	5.996	4.650	1.196	Open Manhole	1200
13.001	8.557	95.1	S58	5.916	4.560	1.206	Open Manhole	1200
13.002	12.946	117.7	S59	5.807	4.450	1.207	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
13.003	o	150	S59	5.807	4.450	1.207	Open Manhole	1200
1.017	o	300	S60	5.750	4.250	1.200	Open Manhole	1200
14.000	o	150	S61	6.980	6.185	0.645	Open Manhole	1200
15.000	o	150	S62	6.900	6.040	0.710	Open Manhole	1200
14.001	o	150	S63	6.900	5.710	1.040	Open Manhole	1200
14.002	o	150	S64	6.450	5.510	0.790	Open Manhole	1200
14.003	o	300	S65	6.574	5.030	1.244	Open Manhole	1200
14.004	o	300	S66	6.237	4.740	1.197	Open Manhole	1200
16.000	o	150	S67	6.750	4.960	1.640	Open Manhole	1200
16.001	o	150	S68	6.160	4.800	1.210	Open Manhole	1200
14.005	o	300	S69	5.886	4.390	1.196	Open Manhole	1200
14.006	o	300	S70	5.667	4.290	1.077	Open Manhole	1200
14.007	o	300	S71	5.900	4.260	1.340	Open Manhole	1200
17.000	o	150	S72	6.150	5.400	0.600	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
13.003	15.042	75.2	S60	5.750	4.250	1.350	Open Manhole	1200
1.017	46.870	937.4	S76	5.550	4.200	1.050	Open Manhole	1200
14.000	62.024	130.6	S63	6.900	5.710	1.040	Open Manhole	1200
15.000	41.672	126.3	S63	6.900	5.710	1.040	Open Manhole	1200
14.001	24.212	121.1	S64	6.450	5.510	0.790	Open Manhole	1200
14.002	3.715	11.3	S65	6.574	5.180	1.244	Open Manhole	1200
14.003	37.147	128.1	S66	6.237	4.740	1.197	Open Manhole	1200
14.004	35.580	101.7	S69	5.886	4.390	1.196	Open Manhole	1200
16.000	19.366	121.0	S68	6.160	4.800	1.210	Open Manhole	1200
16.001	7.069	27.2	S69	5.886	4.540	1.196	Open Manhole	1200
14.005	26.222	262.2	S70	5.667	4.290	1.077	Open Manhole	1200
14.006	5.601	186.7	S71	5.900	4.260	1.340	Open Manhole	1200
14.007	5.773	96.2	S76	5.550	4.200	1.050	Open Manhole	1200
17.000	25.210	45.8	S74	6.050	4.850	1.050	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
18.000	o	150	S73	6.000	5.130	0.720	Open Manhole	1200
17.001	o	150	S74	6.050	4.850	1.050	Open Manhole	1200
17.002	o	150	S75	5.560	4.770	0.640	Open Manhole	1200
1.018	o	300	S76	5.550	4.200	1.050	Open Manhole	1200
1.019	o	300	S77	5.550	4.150	1.100	Open Manhole	1200
1.020	o	300	S78	5.750	4.100	1.350	Open Manhole	1200
1.021	o	300	S79	5.420	4.050	1.070	Open Manhole	1200
19.000	o	225	S80	7.005	5.660	1.120	Open Manhole	1200
19.001	o	225	S81	6.895	5.593	1.077	Open Manhole	1200
20.000	o	150	S82	6.825	5.623	1.052	Open Manhole	1200
19.002	o	300	S83	6.669	5.412	0.957	Open Manhole	1200
19.003	o	300	S84	6.529	5.357	0.872	Open Manhole	1200
19.004	o	300	S85	6.499	5.282	0.917	Open Manhole	1200
19.005	o	300	S86	6.497	5.183	1.014	Open Manhole	1200
19.006	o	300	S87	6.600	5.075	1.225	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
18.000	12.463	44.5	S74	6.050	4.850	1.050	Open Manhole	1200
17.001	9.756	122.0	S75	5.560	4.770	0.640	Open Manhole	1200
17.002	32.780	78.0	S76	5.550	4.350	1.050	Open Manhole	1200
1.018	6.009	120.2	S77	5.550	4.150	1.100	Open Manhole	1200
1.019	10.456	209.1	S78	5.750	4.100	1.350	Open Manhole	1200
1.020	31.084	621.7	S79	5.420	4.050	1.070	Open Manhole	1200
1.021	34.007	158.2	S164	5.420	3.835	1.285	Open Manhole	1200
19.000	13.799	206.0	S81	6.895	5.593	1.077	Open Manhole	1200
19.001	21.664	204.4	S83	6.669	5.487	0.957	Open Manhole	1200
20.000	8.199	134.4	S83	6.669	5.562	0.957	Open Manhole	1200
19.002	15.413	280.2	S84	6.529	5.357	0.872	Open Manhole	1200
19.003	20.973	279.6	S85	6.499	5.282	0.917	Open Manhole	1200
19.004	27.653	279.3	S86	6.497	5.183	1.014	Open Manhole	1200
19.005	29.912	277.0	S87	6.600	5.075	1.225	Open Manhole	1200
19.006	10.054	223.4	S88	6.550	5.030	1.220	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
19.007	o	300	S88	6.550	5.030	1.220	Open Manhole	1200
19.008	o	300	S89	6.550	4.943	1.307	Open Manhole	1200
21.000	o	150	S253	7.300	5.900	1.250	Open Manhole	1200
21.001	o	150	S90	7.300	5.900	1.250	Open Manhole	1200
21.002	o	225	S91	7.623	5.665	1.733	Open Manhole	1200
21.003	o	225	S92	7.429	5.549	1.655	Open Manhole	1200
21.004	o	225	S93	7.250	5.450	1.575	Open Manhole	1200
21.005	o	225	S94	7.164	5.400	1.539	Open Manhole	1200
21.006	o	225	S95	6.981	5.295	1.461	Open Manhole	1200
22.000	o	150	S96	7.020	6.030	0.840	Open Manhole	1200
22.001	o	150	S97	6.780	5.500	1.130	Open Manhole	1200
23.000	o	150	S98	6.780	5.650	0.980	Open Manhole	1200
21.007	o	225	S99	6.800	5.194	1.381	Open Manhole	1200
21.008	o	225	S100	6.536	5.062	1.249	Open Manhole	1200
21.009	o	225	S101	6.430	5.010	1.195	Open Manhole	1200
21.010	o	300	S102	6.550	4.915	1.335	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
19.007	20.595	236.7	S89	6.550	4.943	1.307	Open Manhole	1200
19.008	6.292	224.7	S103	6.556	4.915	1.341	Open Manhole	1200
21.000	4.298	0.0	S90	7.300	5.900	1.250	Open Manhole	1200
21.001	13.399	83.7	S91	7.623	5.740	1.733	Open Manhole	1200
21.002	23.360	201.4	S92	7.429	5.549	1.655	Open Manhole	1200
21.003	19.767	199.7	S93	7.250	5.450	1.575	Open Manhole	1200
21.004	10.130	202.6	S94	7.164	5.400	1.539	Open Manhole	1200
21.005	21.349	203.3	S95	6.981	5.295	1.461	Open Manhole	1200
21.006	20.837	206.3	S99	6.800	5.194	1.381	Open Manhole	1200
22.000	26.569	50.1	S97	6.780	5.500	1.130	Open Manhole	1200
22.001	3.435	14.9	S99	6.800	5.269	1.381	Open Manhole	1200
23.000	6.758	17.7	S99	6.800	5.269	1.381	Open Manhole	1200
21.007	26.521	200.9	S100	6.536	5.062	1.249	Open Manhole	1200
21.008	10.259	197.3	S101	6.430	5.010	1.195	Open Manhole	1200
21.009	4.237	211.9	S102	6.550	4.990	1.335	Open Manhole	1200
21.010	3.485	0.0	S103	6.556	4.915	1.341	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
19.009	o	300	S103	6.556	4.915	1.341	Open Manhole	1200
19.010	o	300	S104	6.556	4.915	1.341	Open Manhole	1200
19.011	o	300	S105	6.900	4.750	1.850	Open Manhole	1200
24.000	o	150	S106	7.120	6.310	0.660	Open Manhole	1200
24.001	o	150	S107	7.200	6.160	0.890	Open Manhole	1200
24.002	o	150	S108	7.050	5.970	0.930	Open Manhole	1200
24.003	o	150	S109	6.900	5.500	1.250	Open Manhole	1200
19.012	o	300	S110	6.900	4.750	1.850	Open Manhole	1200
25.000	o	150	S113	7.000	6.050	0.800	Open Manhole	1200
25.001	o	150	S114	6.804	6.000	0.654	Open Manhole	1200
25.002	o	150	S115	6.849	5.980	0.719	Open Manhole	1200
25.003	o	150	S116	7.100	5.950	1.000	Open Manhole	1200
25.004	o	150	S117	7.100	5.950	1.000	Open Manhole	1200
25.005	o	150	S118	7.000	5.940	0.910	Open Manhole	1200
25.006	o	150	S119	7.000	5.940	0.910	Open Manhole	1200
25.007	o	150	S120	6.750	5.920	0.680	Open Manhole	1200
26.000	o	300	S121	6.900	6.100	0.500	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
19.009	7.791	0.0	S104	6.556	4.915	1.341	Open Manhole	1200
19.010	24.064	145.8	S105	6.900	4.750	1.850	Open Manhole	1200
19.011	11.457	0.0	S110	6.900	4.750	1.850	Open Manhole	1200
24.000	18.358	122.4	S107	7.200	6.160	0.890	Open Manhole	1200
24.001	23.010	121.1	S108	7.050	5.970	0.930	Open Manhole	1200
24.002	11.017	23.4	S109	6.900	5.500	1.250	Open Manhole	1200
24.003	10.252	20.5	S110	6.900	5.000	1.750	Open Manhole	1200
19.012	25.858	235.1	S127	6.753	4.640	1.813	Open Manhole	1200
25.000	17.917	358.3	S114	6.804	6.000	0.654	Open Manhole	1200
25.001	17.329	866.5	S115	6.849	5.980	0.719	Open Manhole	1200
25.002	33.286	1109.5	S116	7.100	5.950	1.000	Open Manhole	1200
25.003	6.308	0.0	S117	7.100	5.950	1.000	Open Manhole	1200
25.004	18.925	1892.5	S118	7.000	5.940	0.910	Open Manhole	1200
25.005	8.662	0.0	S119	7.000	5.940	0.910	Open Manhole	1200
25.006	18.362	918.1	S120	6.750	5.920	0.680	Open Manhole	1200
25.007	6.116	611.6	S127	6.753	5.910	0.693	Open Manhole	1200
26.000	46.370	927.4	S122	7.100	6.050	0.750	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
26.001	o	150	S122	7.100	6.200	0.750	Open Manhole	1200
26.002	o	150	S123	7.105	6.050	0.905	Open Manhole	1200
26.003	o	150	S124	6.900	6.000	0.750	Open Manhole	1200
26.004	o	150	S125	6.719	6.000	0.569	Open Manhole	1200
27.000	o	150	S126	6.753	6.025	0.578	Open Manhole	1200
19.013	o	300	S127	6.753	4.640	1.813	Open Manhole	1200
28.000	o	150	S128	6.700	5.880	0.670	Open Manhole	1200
28.001	o	150	S129	6.745	5.790	0.805	Open Manhole	1200
19.014	o	300	S130	6.600	4.600	1.700	Open Manhole	1200
29.000	o	150	S131	6.577	5.310	1.117	Open Manhole	1200
29.001	o	150	S132	6.474	5.120	1.204	Open Manhole	1200
29.002	o	150	S133	6.320	5.000	1.170	Open Manhole	1200
19.015	o	300	S134	6.600	4.460	1.840	Open Manhole	1200
30.000	o	150	S135	6.370	5.550	0.670	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
26.001	9.129	60.9	S123	7.105	6.050	0.905	Open Manhole	1200
26.002	16.992	339.8	S124	6.900	6.000	0.750	Open Manhole	1200
26.003	8.356	0.0	S125	6.719	6.000	0.569	Open Manhole	1200
26.004	12.917	143.5	S127	6.753	5.910	0.693	Open Manhole	1200
27.000	17.312	150.5	S127	6.753	5.910	0.693	Open Manhole	1200
19.013	15.685	392.1	S130	6.600	4.600	1.700	Open Manhole	1200
28.000	9.451	105.0	S129	6.745	5.790	0.805	Open Manhole	1200
28.001	9.804	51.6	S130	6.600	5.600	0.850	Open Manhole	1200
19.014	34.119	243.7	S134	6.600	4.460	1.840	Open Manhole	1200
29.000	7.073	37.2	S132	6.474	5.120	1.204	Open Manhole	1200
29.001	13.576	113.1	S133	6.320	5.000	1.170	Open Manhole	1200
29.002	8.815	30.4	S134	6.600	4.710	1.740	Open Manhole	1200
19.015	23.076	0.0	S136	6.600	4.460	1.840	Open Manhole	1200
30.000	9.323	11.1	S136	6.600	4.710	1.740	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
19.016	o	300	S136	6.600	4.460	1.840	Open Manhole	1200
31.000	o	150	S137	6.250	5.100	1.000	Open Manhole	1200
19.017	o	300	S138	5.938	4.400	1.238	Open Manhole	1200
32.000	o	150	S139	6.300	5.280	0.870	Open Manhole	1200
32.001	o	150	S140	6.000	5.130	0.720	Open Manhole	1200
32.002	o	150	S141	5.930	4.970	0.810	Open Manhole	1200
33.000	o	150	S142	6.074	5.288	0.636	Open Manhole	1200
32.003	o	150	S143	6.070	4.910	1.010	Open Manhole	1200
19.018	o	300	S144	5.900	4.400	1.200	Open Manhole	1200
34.000	o	150	S145	6.617	5.270	1.197	Open Manhole	1200
35.000	o	150	S146	6.310	5.100	1.060	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
19.016	15.391	256.5	S138	5.938	4.400	1.238	Open Manhole	1200
31.000	10.092	22.4	S138	5.938	4.650	1.138	Open Manhole	1200
19.017	14.640	0.0	S144	5.900	4.400	1.200	Open Manhole	1200
32.000	19.257	128.4	S140	6.000	5.130	0.720	Open Manhole	1200
32.001	21.001	131.3	S141	5.930	4.970	0.810	Open Manhole	1200
32.002	6.741	112.4	S143	6.070	4.910	1.010	Open Manhole	1200
33.000	20.846	55.1	S143	6.070	4.910	1.010	Open Manhole	1200
32.003	7.942	30.5	S144	5.900	4.650	1.100	Open Manhole	1200
19.018	11.784	47.1	S152	5.640	4.150	1.190	Open Manhole	1200
34.000	56.564	120.3	S147	6.152	4.800	1.202	Open Manhole	1200
35.000	4.645	10.3	S147	6.152	4.650	1.352	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
34.001	o	300	S147	6.152	4.650	1.202	Open Manhole	1200
34.002	o	300	S148	5.993	4.430	1.263	Open Manhole	1200
34.003	o	300	S149	5.898	4.360	1.238	Open Manhole	1200
34.004	o	300	S150	5.782	4.270	1.212	Open Manhole	1200
36.000	o	150	S151	5.920	4.570	1.200	Open Manhole	1200
19.019	o	300	S152	5.640	4.150	1.190	Open Manhole	1200
37.000	o	150	S153	5.970	4.575	1.245	Open Manhole	1200
38.000	o	150	S154	5.850	4.450	1.250	Open Manhole	1200
19.020	o	300	S155	5.780	4.120	1.360	Open Manhole	1200
19.021	o	300	S156	5.780	4.120	1.360	Open Manhole	1200
19.022	o	300	S157	5.635	3.965	1.370	Open Manhole	1200
39.000	o	150	S158	5.750	4.570	1.030	Open Manhole	1200
39.001	o	150	S159	5.617	4.270	1.197	Open Manhole	1200
39.002	o	150	S160	5.474	4.120	1.204	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
34.001	18.478	84.0	S148	5.993	4.430	1.263	Open Manhole	1200
34.002	12.434	177.6	S149	5.898	4.360	1.238	Open Manhole	1200
34.003	14.555	161.7	S150	5.782	4.270	1.212	Open Manhole	1200
34.004	22.413	186.8	S152	5.640	4.150	1.190	Open Manhole	1200
36.000	20.257	75.0	S152	5.640	4.300	1.190	Open Manhole	1200
19.019	4.632	154.4	S155	5.780	4.120	1.360	Open Manhole	1200
37.000	9.059	29.7	S155	5.780	4.270	1.360	Open Manhole	1200
38.000	6.094	33.9	S155	5.780	4.270	1.360	Open Manhole	1200
19.020	11.644	0.0	S156	5.780	4.120	1.360	Open Manhole	1200
19.021	32.158	207.5	S157	5.635	3.965	1.370	Open Manhole	1200
19.022	6.651	83.1	S162	5.397	3.885	1.212	Open Manhole	1200
39.000	5.810	19.4	S159	5.617	4.270	1.197	Open Manhole	1200
39.001	14.385	95.9	S160	5.474	4.120	1.204	Open Manhole	1200
39.002	7.928	93.3	S162	5.397	4.035	1.212	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
40.000	o	225	S161	5.367	4.020	1.122	Open Manhole	1200
19.023	o	300	S162	5.397	3.885	1.212	Open Manhole	1200
19.024	o	300	S163	5.400	3.869	1.231	Open Manhole	1200
1.022	o	300	S164	5.420	3.835	1.285	Open Manhole	1200
1.023	o	300	S165	5.200	3.835	1.065	Open Manhole	1200
1.024	o	300	S166	5.200	3.835	1.065	Open Manhole	1200
41.000	o	150	S167	5.602	4.280	1.172	Open Manhole	1200
42.000	o	150	S168	5.700	4.720	0.830	Open Manhole	1200
41.001	o	150	S169	5.505	4.160	1.195	Open Manhole	1200
43.000	o	150	S170	5.630	4.300	1.180	Open Manhole	1200
43.001	o	150	S171	5.369	4.040	1.179	Open Manhole	1200
41.002	o	225	S172	5.276	3.913	1.138	Open Manhole	1200
41.003	o	225	S173	5.122	3.855	1.042	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
40.000	6.955	115.9	S162	5.397	3.960	1.212	Open Manhole	1200
19.023	4.513	282.1	S163	5.400	3.869	1.231	Open Manhole	1200
19.024	8.201	241.2	S164	5.420	3.835	1.285	Open Manhole	1200
1.022	17.390	0.0	S165	5.200	3.835	1.065	Open Manhole	1200
1.023	48.402	0.0	S166	5.200	3.835	1.065	Open Manhole	1200
1.024	38.318	333.2	S176	4.950	3.720	0.930	Open Manhole	1200
41.000	11.954	99.6	S169	5.505	4.160	1.195	Open Manhole	1200
42.000	7.349	13.1	S169	5.505	4.160	1.195	Open Manhole	1200
41.001	22.295	129.6	S172	5.276	3.988	1.138	Open Manhole	1200
43.000	6.317	24.3	S171	5.369	4.040	1.179	Open Manhole	1200
43.001	6.785	130.5	S172	5.276	3.988	1.138	Open Manhole	1200
41.002	11.709	201.9	S173	5.122	3.855	1.042	Open Manhole	1200
41.003	27.011	200.1	S175	5.050	3.720	1.105	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
44.000	o	150	S174	5.170	3.845	1.175	Open Manhole	1200
41.004	o	225	S175	5.050	3.720	1.105	Open Manhole	1200
1.025	o	300	S176	4.950	3.720	0.930	Open Manhole	1200
1.026	o	300	S177	4.450	3.700	0.450	Open Manhole	1200
45.000	o	150	S178	6.900	6.150	0.600	Open Manhole	1200
45.001	o	150	S179	6.900	5.900	0.850	Open Manhole	1200
45.002	o	150	S180	6.750	5.764	0.836	Open Manhole	1200
45.003	o	150	S181	6.530	5.659	0.721	Open Manhole	1200
45.004	o	150	S182	6.780	5.510	1.120	Open Manhole	1200
46.000	o	150	S183	6.739	5.453	1.136	Open Manhole	1200
45.005	o	225	S184	6.863	5.280	1.358	Open Manhole	1200
45.006	o	225	S185	6.728	5.160	1.343	Open Manhole	1200
45.007	o	225	S186	6.550	4.960	1.365	Open Manhole	1200
45.008	o	225	S187	6.300	4.880	1.195	Open Manhole	1200
45.009	o	300	S188	6.750	4.850	1.600	Open Manhole	1200
45.010	o	300	S189	6.750	4.820	1.630	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
44.000	6.461	129.2	S175	5.050	3.795	1.105	Open Manhole	1200
41.004	6.311	0.0	S176	4.950	3.720	1.005	Open Manhole	1200
1.025	20.213	1010.7	S177	4.450	3.700	0.450	Open Manhole	1200
1.026	20.756	0.0	S250	4.450	3.700	0.450	Open Manhole	1200
45.000	15.268	61.1	S179	6.900	5.900	0.850	Open Manhole	1200
45.001	17.732	130.4	S180	6.750	5.764	0.836	Open Manhole	1200
45.002	13.608	129.6	S181	6.530	5.659	0.721	Open Manhole	1200
45.003	19.402	130.2	S182	6.780	5.510	1.120	Open Manhole	1200
45.004	6.955	44.9	S184	6.863	5.355	1.358	Open Manhole	1200
46.000	12.734	129.9	S184	6.863	5.355	1.358	Open Manhole	1200
45.005	14.384	119.9	S185	6.728	5.160	1.343	Open Manhole	1200
45.006	24.977	124.9	S186	6.550	4.960	1.365	Open Manhole	1200
45.007	8.469	105.9	S187	6.300	4.880	1.195	Open Manhole	1200
45.008	6.810	227.0	S188	6.750	4.850	1.675	Open Manhole	1200
45.009	9.471	315.7	S189	6.750	4.820	1.630	Open Manhole	1200
45.010	11.295	282.4	S190	6.300	4.780	1.220	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
45.011	o	300	S190	6.300	4.780	1.220	Open Manhole	1200
47.000	o	150	S191	6.370	5.560	0.660	Open Manhole	1200
47.001	o	150	S192	6.200	5.400	0.650	Open Manhole	1200
45.012	o	300	S193	6.200	4.750	1.150	Open Manhole	1200
45.013	o	300	S194	6.150	4.630	1.220	Open Manhole	1200
48.000	o	150	S195	6.614	5.400	1.064	Open Manhole	1200
49.000	o	150	S196	6.700	5.700	0.850	Open Manhole	1200
48.001	o	150	S197	6.385	5.010	1.225	Open Manhole	1200
48.002	o	150	S198	6.129	4.820	1.159	Open Manhole	1200
48.003	o	150	S199	5.992	4.650	1.192	Open Manhole	1200
48.004	o	150	S200	5.950	4.590	1.210	Open Manhole	1200
45.014	o	300	S201	5.950	4.500	1.150	Open Manhole	1200
50.000	o	150	S202	6.180	5.200	0.830	Open Manhole	1200
50.001	o	150	S203	6.000	4.950	0.900	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
45.011	11.386	379.5	S193	6.200	4.750	1.150	Open Manhole	1200
47.000	11.315	70.7	S192	6.200	5.400	0.650	Open Manhole	1200
47.001	3.838	9.6	S193	6.200	5.000	1.050	Open Manhole	1200
45.012	18.379	153.2	S194	6.150	4.630	1.220	Open Manhole	1200
45.013	18.447	141.9	S201	5.950	4.500	1.150	Open Manhole	1200
48.000	14.874	38.1	S197	6.385	5.010	1.225	Open Manhole	1200
49.000	7.319	10.6	S197	6.385	5.010	1.225	Open Manhole	1200
48.001	14.874	78.3	S198	6.129	4.820	1.159	Open Manhole	1200
48.002	12.797	75.3	S199	5.992	4.650	1.192	Open Manhole	1200
48.003	7.578	126.3	S200	5.950	4.590	1.210	Open Manhole	1200
48.004	4.811	53.5	S201	5.950	4.500	1.300	Open Manhole	1200
45.014	23.863	477.3	S206	5.500	4.450	0.750	Open Manhole	1200
50.000	14.888	59.6	S203	6.000	4.950	0.900	Open Manhole	1200
50.001	12.946	86.3	S204	5.850	4.800	0.900	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
50.002	o	150	S204	5.850	4.800	0.900	Open Manhole	1200
50.003	o	150	S205	5.700	4.500	1.050	Open Manhole	1200
45.015	o	300	S206	5.500	4.450	0.750	Open Manhole	1200
51.000	o	150	S207	7.068	5.650	1.268	Open Manhole	1200
52.000	o	150	S208a	7.225	5.875	1.200	Open Manhole	1050
51.001	o	150	S208	7.026	5.560	1.316	Open Manhole	1200
51.002	o	225	S209	6.950	5.435	1.290	Open Manhole	1200
51.003	o	225	S210	6.919	5.400	1.294	Open Manhole	1200
53.000	o	150	S211	7.000	6.020	0.830	Open Manhole	1200
51.004	o	225	S212	6.749	5.280	1.244	Open Manhole	1200
54.000	o	150	S213	6.709	5.330	1.229	Open Manhole	1200
51.005	o	300	S214	6.538	5.070	1.168	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
50.002	8.198	27.3	S205	5.700	4.500	1.050	Open Manhole	1200
50.003	6.381	127.6	S206	5.500	4.450	0.900	Open Manhole	1200
45.015	22.453	60.7	S222	5.500	4.080	1.120	Open Manhole	1200
51.000	11.028	122.5	S208	7.026	5.560	1.316	Open Manhole	1200
52.000	25.533	81.1	S208	7.026	5.560	1.316	Open Manhole	1200
51.001	8.644	172.9	S209	6.950	5.510	1.290	Open Manhole	1200
51.002	5.990	171.1	S210	6.919	5.400	1.294	Open Manhole	1200
51.003	20.542	171.2	S212	6.749	5.280	1.244	Open Manhole	1200
53.000	6.398	9.6	S212	6.749	5.355	1.244	Open Manhole	1200
51.004	25.121	186.1	S214	6.538	5.145	1.168	Open Manhole	1200
54.000	7.911	71.9	S214	6.538	5.220	1.168	Open Manhole	1200
51.005	14.419	120.2	S216	6.425	4.950	1.175	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
55.000	o	150	S215	6.680	5.230	1.300	Open Manhole	1200
51.006	o	300	S216	6.425	4.950	1.175	Open Manhole	1200
56.000	o	150	S217	5.979	4.700	1.129	Open Manhole	1200
51.007	o	300	S218	5.997	4.510	1.187	Open Manhole	1200
51.008	o	300	S219	5.767	4.260	1.207	Open Manhole	1200
51.009	o	300	S220	5.666	4.200	1.166	Open Manhole	1200
51.010	o	300	S221	5.500	4.100	1.100	Open Manhole	1200
45.016	o	300	S222	5.500	4.080	1.120	Open Manhole	1200
57.000	o	300	S223	5.636	4.140	1.196	Open Manhole	1200
57.001	o	300	S224	5.600	4.100	1.200	Open Manhole	1200
45.017	o	300	S225	5.500	4.080	1.120	Open Manhole	1200
58.000	o	150	S226	5.930	5.180	0.600	Open Manhole	1200
58.001	o	150	S227	5.400	4.650	0.600	Open Manhole	1200
58.002	o	150	S228	5.400	4.550	0.700	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
55.000	5.913	45.5	S216	6.425	5.100	1.175	Open Manhole	1200
51.006	35.195	80.0	S218	5.997	4.510	1.187	Open Manhole	1200
56.000	4.517	112.9	S218	5.997	4.660	1.187	Open Manhole	1200
51.007	23.594	94.4	S219	5.767	4.260	1.207	Open Manhole	1200
51.008	9.979	166.3	S220	5.666	4.200	1.166	Open Manhole	1200
51.009	5.909	59.1	S221	5.500	4.100	1.100	Open Manhole	1200
51.010	4.450	222.5	S222	5.500	4.080	1.120	Open Manhole	1200
45.016	22.062	0.0	S225	5.500	4.080	1.120	Open Manhole	1200
57.000	6.067	151.7	S224	5.600	4.100	1.200	Open Manhole	1200
57.001	4.644	232.2	S225	5.500	4.080	1.120	Open Manhole	1200
45.017	25.461	1273.0	S230	5.250	4.060	0.890	Open Manhole	1200
58.000	19.027	35.9	S227	5.400	4.650	0.600	Open Manhole	1200
58.001	10.816	108.2	S228	5.400	4.550	0.700	Open Manhole	1200
58.002	9.026	69.4	S229	5.300	4.420	0.730	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
58.003	o	150	S229	5.300	4.350	0.800	Open Manhole	1200
45.018	o	300	S230	5.250	4.060	0.890	Open Manhole	1200
45.019	o	300	S231	5.200	4.040	0.860	Open Manhole	1200
45.020	o	300	S232	5.150	3.950	0.900	Open Manhole	1200
45.021	o	300	S233	5.150	3.900	0.950	Open Manhole	1200
59.000	o	150	S234	6.235	4.860	1.225	Open Manhole	1200
59.001	o	150	S235	6.050	4.670	1.230	Open Manhole	1200
60.000	o	150	S236	6.180	5.070	0.960	Open Manhole	1200
59.002	o	150	S237	5.966	4.580	1.236	Open Manhole	1200
61.000	o	150	S238	6.200	5.315	0.735	Open Manhole	1200
61.001	o	150	S239	5.952	4.600	1.202	Open Manhole	1200
59.003	o	300	S240	5.803	4.150	1.353	Open Manhole	1200
59.004	o	300	S241	5.694	4.070	1.324	Open Manhole	1200
62.000	o	150	S242	5.500	4.400	0.950	Open Manhole	600

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
58.003	2.619	65.5	S230	5.250	4.310	0.790	Open Manhole	1200
45.018	5.411	270.6	S231	5.200	4.040	0.860	Open Manhole	1200
45.019	22.710	252.3	S232	5.150	3.950	0.900	Open Manhole	1200
45.020	10.353	207.1	S233	5.150	3.900	0.950	Open Manhole	1200
45.021	12.519	83.5	S246	5.000	3.750	0.950	Open Manhole	1200
59.000	22.046	116.0	S235	6.050	4.670	1.230	Open Manhole	1200
59.001	9.725	108.1	S237	5.966	4.580	1.236	Open Manhole	1200
60.000	6.462	13.2	S237	5.966	4.580	1.236	Open Manhole	1200
59.002	19.638	70.1	S240	5.803	4.300	1.353	Open Manhole	1200
61.000	7.982	11.2	S239	5.952	4.600	1.202	Open Manhole	1200
61.001	10.368	34.6	S240	5.803	4.300	1.353	Open Manhole	1200
59.003	12.789	159.9	S241	5.694	4.070	1.324	Open Manhole	1200
59.004	47.729	190.9	S243	5.279	3.820	1.159	Open Manhole	1200
62.000	4.985	11.6	S243	5.279	3.970	1.159	Open Manhole	1200

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PIPELINE SCHEDULES for Surface Network 1

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
59.005	o	300	S243	5.279	3.820	1.159	Open Manhole	1200
59.006	o	300	S244	5.172	3.770	1.102	Open Manhole	1200
59.007	o	300	S245	5.100	3.750	1.050	Open Manhole	1200
45.022	o	300	S246	5.000	3.750	0.950	Open Manhole	1200
63.000	o	150	S247	5.250	4.345	0.755	Open Manhole	1200
63.001	o	150	S248	5.100	4.250	0.700	Open Manhole	1200
45.023	o	300	S249	4.500	3.750	0.450	Open Manhole	1200
1.027	o	300	S250	4.450	3.700	0.450	Open Manhole	1200
1.028	o	300	S251	4.450	3.650	0.500	Open Manhole	1800

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
59.005	12.346	246.9	S244	5.172	3.770	1.102	Open Manhole	1200
59.006	5.698	284.9	S245	5.100	3.750	1.050	Open Manhole	1200
59.007	3.876	0.0	S246	5.000	3.750	0.950	Open Manhole	1200
45.022	32.579	0.0	S249	4.500	3.750	0.450	Open Manhole	1200
63.000	11.089	116.7	S248	5.100	4.250	0.700	Open Manhole	1200
63.001	22.582	64.5	S249	4.500	3.900	0.450	Open Manhole	1200
45.023	9.002	180.0	S250	4.450	3.700	0.450	Open Manhole	1200
1.027	9.559	191.2	S251	4.450	3.650	0.500	Open Manhole	1800
1.028	4.451	89.0	S252	4.450	3.600	0.550	Open Manhole	1200

Surcharged Outfall Details for Surface Network 1

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.028	S252	4.450	3.600	0.000	1200	0

Datum (m) 0.000 Offset (mins) 0

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Surcharged Outfall Details for Surface Network 1

Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)
100	4.000	3500	4.000	6900	4.000	10300	4.000	13700	4.000	17100	4.000
200	4.000	3600	4.000	7000	4.000	10400	4.000	13800	4.000	17200	4.000
300	4.000	3700	4.000	7100	4.000	10500	4.000	13900	4.000	17300	4.000
400	4.000	3800	4.000	7200	4.000	10600	4.000	14000	4.000	17400	4.000
500	4.000	3900	4.000	7300	4.000	10700	4.000	14100	4.000	17500	4.000
600	4.000	4000	4.000	7400	4.000	10800	4.000	14200	4.000	17600	4.000
700	4.000	4100	4.000	7500	4.000	10900	4.000	14300	4.000	17700	4.000
800	4.000	4200	4.000	7600	4.000	11000	4.000	14400	4.000	17800	4.000
900	4.000	4300	4.000	7700	4.000	11100	4.000	14500	4.000	17900	4.000
1000	4.000	4400	4.000	7800	4.000	11200	4.000	14600	4.000	18000	4.000
1100	4.000	4500	4.000	7900	4.000	11300	4.000	14700	4.000	18100	4.000
1200	4.000	4600	4.000	8000	4.000	11400	4.000	14800	4.000	18200	4.000
1300	4.000	4700	4.000	8100	4.000	11500	4.000	14900	4.000	18300	4.000
1400	4.000	4800	4.000	8200	4.000	11600	4.000	15000	4.000	18400	4.000
1500	4.000	4900	4.000	8300	4.000	11700	4.000	15100	4.000	18500	4.000
1600	4.000	5000	4.000	8400	4.000	11800	4.000	15200	4.000	18600	4.000
1700	4.000	5100	4.000	8500	4.000	11900	4.000	15300	4.000	18700	4.000
1800	4.000	5200	4.000	8600	4.000	12000	4.000	15400	4.000	18800	4.000
1900	4.000	5300	4.000	8700	4.000	12100	4.000	15500	4.000	18900	4.000
2000	4.000	5400	4.000	8800	4.000	12200	4.000	15600	4.000	19000	4.000
2100	4.000	5500	4.000	8900	4.000	12300	4.000	15700	4.000	19100	4.000
2200	4.000	5600	4.000	9000	4.000	12400	4.000	15800	4.000	19200	4.000
2300	4.000	5700	4.000	9100	4.000	12500	4.000	15900	4.000	19300	4.000
2400	4.000	5800	4.000	9200	4.000	12600	4.000	16000	4.000	19400	4.000
2500	4.000	5900	4.000	9300	4.000	12700	4.000	16100	4.000	19500	4.000
2600	4.000	6000	4.000	9400	4.000	12800	4.000	16200	4.000	19600	4.000
2700	4.000	6100	4.000	9500	4.000	12900	4.000	16300	4.000	19700	4.000
2800	4.000	6200	4.000	9600	4.000	13000	4.000	16400	4.000	19800	4.000
2900	4.000	6300	4.000	9700	4.000	13100	4.000	16500	4.000	19900	4.000
3000	4.000	6400	4.000	9800	4.000	13200	4.000	16600	4.000	20000	4.000
3100	4.000	6500	4.000	9900	4.000	13300	4.000	16700	4.000		
3200	4.000	6600	4.000	10000	4.000	13400	4.000	16800	4.000		
3300	4.000	6700	4.000	10100	4.000	13500	4.000	16900	4.000		
3400	4.000	6800	4.000	10200	4.000	13600	4.000	17000	4.000		

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Online Controls for Surface Network 1

Hydro-Brake® Optimum Manhole: S22, DS/PN: 5.002, Volume (m³): 2.1

Unit Reference	MD-SHE-0045-1000-1200-1000
Design Head (m)	1.200
Design Flow (l/s)	1.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	45
Invert Level (m)	5.620
Minimum Outlet Pipe Diameter (mm)	75
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.200	1.0
Flush-Flo™	0.196	0.7
Kick-Flo®	0.398	0.6
Mean Flow over Head Range	-	0.8

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	0.7	1.200	1.0	3.000	1.5	7.000	2.2
0.200	0.7	1.400	1.1	3.500	1.6	7.500	2.3
0.300	0.7	1.600	1.1	4.000	1.7	8.000	2.4
0.400	0.6	1.800	1.2	4.500	1.8	8.500	2.4
0.500	0.7	2.000	1.3	5.000	1.9	9.000	2.5
0.600	0.7	2.200	1.3	5.500	2.0	9.500	2.6
0.800	0.8	2.400	1.4	6.000	2.1		
1.000	0.9	2.600	1.4	6.500	2.2		

Hydro-Brake® Optimum Manhole: S32, DS/PN: 1.006, Volume (m³): 5.4

Unit Reference	MD-SHE-0103-5000-1200-5000
Design Head (m)	1.200
Design Flow (l/s)	5.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	103
Invert Level (m)	5.150
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

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Hydro-Brake® Optimum Manhole: S32, DS/PN: 1.006, Volume (m³): 5.4

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.200	5.0
Flush-Flo™	0.354	5.0
Kick-Flo®	0.745	4.0
Mean Flow over Head Range	-	4.4

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	3.4	1.200	5.0	3.000	7.7	7.000	11.5
0.200	4.7	1.400	5.4	3.500	8.3	7.500	11.8
0.300	5.0	1.600	5.7	4.000	8.8	8.000	12.2
0.400	5.0	1.800	6.0	4.500	9.3	8.500	12.6
0.500	4.9	2.000	6.3	5.000	9.8	9.000	12.9
0.600	4.7	2.200	6.6	5.500	10.2	9.500	13.3
0.800	4.1	2.400	6.9	6.000	10.7		
1.000	4.6	2.600	7.2	6.500	11.1		

Orifice Manhole: S38, DS/PN: 1.009, Volume (m³): 1.5

Diameter (m) 0.077 Discharge Coefficient 0.600 Invert Level (m) 5.120

Hydro-Brake® Optimum Manhole: S48, DS/PN: 1.011, Volume (m³): 2.2

Unit Reference	MD-SHE-0136-9000-1200-9000
Design Head (m)	1.200
Design Flow (l/s)	9.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	136
Invert Level (m)	4.850
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.200	9.0
Flush-Flo™	0.354	9.0
Kick-Flo®	0.769	7.3
Mean Flow over Head Range	-	7.8

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

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Hydro-Brake® Optimum Manhole: S48, DS/PN: 1.011, Volume (m³): 2.2

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	4.9	1.200	9.0	3.000	13.9	7.000	20.8
0.200	8.5	1.400	9.7	3.500	14.9	7.500	21.5
0.300	8.9	1.600	10.3	4.000	15.9	8.000	22.2
0.400	9.0	1.800	10.9	4.500	16.8	8.500	22.8
0.500	8.8	2.000	11.4	5.000	17.7	9.000	23.5
0.600	8.5	2.200	12.0	5.500	18.5	9.500	24.1
0.800	7.4	2.400	12.5	6.000	19.3		
1.000	8.3	2.600	13.0	6.500	20.1		

Orifice Manhole: S50, DS/PN: 1.013, Volume (m³): 1.9

Diameter (m) 0.077 Discharge Coefficient 0.600 Invert Level (m) 4.714

Orifice Manhole: S77, DS/PN: 1.019, Volume (m³): 1.9

Diameter (m) 0.073 Discharge Coefficient 0.600 Invert Level (m) 4.150

Orifice Manhole: S88, DS/PN: 19.007, Volume (m³): 2.3

Diameter (m) 0.053 Discharge Coefficient 0.600 Invert Level (m) 5.030

Orifice Manhole: S104, DS/PN: 19.010, Volume (m³): 2.3

Diameter (m) 0.077 Discharge Coefficient 0.600 Invert Level (m) 4.915

Orifice Manhole: S110, DS/PN: 19.012, Volume (m³): 3.3

Diameter (m) 0.047 Discharge Coefficient 0.600 Invert Level (m) 4.750

Hydro-Brake® Optimum Manhole: S127, DS/PN: 19.013, Volume (m³): 4.7

Unit Reference	MD-SHE-0143-1000-1200-1000
Design Head (m)	1.200
Design Flow (l/s)	10.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	143
Invert Level (m)	4.640
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.200	10.0
Flush-Flo™	0.357	10.0
Kick-Flo®	0.778	8.2

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Hydro-Brake® Optimum Manhole: S127, DS/PN: 19.013, Volume (m³): 4.7

Control Points	Head (m)	Flow (l/s)
Mean Flow over Head Range	-	8.7

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	5.1	1.200	10.0	3.000	15.4	7.000	23.2
0.200	9.4	1.400	10.8	3.500	16.6	7.500	23.9
0.300	9.9	1.600	11.5	4.000	17.7	8.000	24.7
0.400	10.0	1.800	12.1	4.500	18.7	8.500	25.4
0.500	9.8	2.000	12.7	5.000	19.7	9.000	26.1
0.600	9.5	2.200	13.3	5.500	20.6	9.500	26.8
0.800	8.3	2.400	13.9	6.000	21.5		
1.000	9.2	2.600	14.4	6.500	22.3		

Orifice Manhole: S130, DS/PN: 19.014, Volume (m³): 3.4

Diameter (m) 0.092 Discharge Coefficient 0.600 Invert Level (m) 4.600

Hydro-Brake® Optimum Manhole: S136, DS/PN: 19.016, Volume (m³): 4.1

Unit Reference	MD-SHE-0125-7500-1200-7500
Design Head (m)	1.200
Design Flow (l/s)	7.5
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	125
Invert Level (m)	4.460
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.200	7.5
Flush-Flo™	0.356	7.5
Kick-Flo®	0.763	6.1
Mean Flow over Head Range	-	6.5

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

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Hydro-Brake® Optimum Manhole: S136, DS/PN: 19.016, Volume (m³): 4.1

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	4.5	1.200	7.5	3.000	11.5	7.000	17.3
0.200	7.1	1.400	8.1	3.500	12.4	7.500	17.9
0.300	7.5	1.600	8.6	4.000	13.2	8.000	18.4
0.400	7.5	1.800	9.1	4.500	14.0	8.500	19.0
0.500	7.4	2.000	9.5	5.000	14.7	9.000	19.5
0.600	7.1	2.200	10.0	5.500	15.4	9.500	20.0
0.800	6.2	2.400	10.4	6.000	16.1		
1.000	6.9	2.600	10.8	6.500	16.7		

Orifice Manhole: S144, DS/PN: 19.018, Volume (m³): 2.8

Diameter (m) 0.077 Discharge Coefficient 0.600 Invert Level (m) 4.400

Orifice Manhole: S164, DS/PN: 1.022, Volume (m³): 4.6

Diameter (m) 0.096 Discharge Coefficient 0.600 Invert Level (m) 3.835

Orifice Manhole: S166, DS/PN: 1.024, Volume (m³): 4.9

Diameter (m) 0.112 Discharge Coefficient 0.600 Invert Level (m) 3.835

Orifice Manhole: S176, DS/PN: 1.025, Volume (m³): 4.2

Diameter (m) 0.142 Discharge Coefficient 0.600 Invert Level (m) 3.720

Orifice Manhole: S180, DS/PN: 45.002, Volume (m³): 1.4

Diameter (m) 0.053 Discharge Coefficient 0.600 Invert Level (m) 5.764

Orifice Manhole: S189, DS/PN: 45.010, Volume (m³): 2.8

Diameter (m) 0.096 Discharge Coefficient 0.600 Invert Level (m) 4.820

Orifice Manhole: S193, DS/PN: 45.012, Volume (m³): 2.4

Diameter (m) 0.077 Discharge Coefficient 0.600 Invert Level (m) 4.750

Orifice Manhole: S201, DS/PN: 45.014, Volume (m³): 2.9

Diameter (m) 0.077 Discharge Coefficient 0.600 Invert Level (m) 4.500

Orifice Manhole: S225, DS/PN: 45.017, Volume (m³): 3.3

Diameter (m) 0.077 Discharge Coefficient 0.600 Invert Level (m) 4.080

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Orifice Manhole: S246, DS/PN: 45.022, Volume (m³): 2.4

Diameter (m) 0.106 Discharge Coefficient 0.600 Invert Level (m) 3.750

Hydro-Brake® Optimum Manhole: S251, DS/PN: 1.028, Volume (m³): 2.6

Unit Reference	MD-SHE-0195-1820-0600-1820
Design Head (m)	0.600
Design Flow (l/s)	18.2
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	195
Invert Level (m)	3.650
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.600	18.2
Flush-Flo™	0.289	18.2
Kick-Flo®	0.485	16.5
Mean Flow over Head Range	-	14.3

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	6.8	1.200	25.3	3.000	39.4	7.000	59.1
0.200	17.7	1.400	27.3	3.500	42.4	7.500	61.2
0.300	18.2	1.600	29.1	4.000	45.2	8.000	63.2
0.400	17.7	1.800	30.8	4.500	47.9	8.500	65.2
0.500	16.7	2.000	32.4	5.000	50.4	9.000	67.1
0.600	18.2	2.200	33.9	5.500	52.8	9.500	68.9
0.800	20.9	2.400	35.3	6.000	55.1		
1.000	23.2	2.600	36.7	6.500	56.9		

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Storage Structures for Surface Network 1

Trench Soakaway Manhole: S1, DS/PN: 1.000

Infiltration Coefficient Base (m/hr)	0.00000	Trench Width (m)	1.0
Infiltration Coefficient Side (m/hr)	0.00000	Trench Length (m)	72.0
Safety Factor	2.0	Slope (1:X)	200.0
Porosity	0.30	Cap Volume Depth (m)	6.600
Invert Level (m)	5.600	Cap Infiltration Depth (m)	6.600

Porous Car Park Manhole: S6, DS/PN: 2.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	288.1
Max Percolation (l/s)	800.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.690	Cap Volume Depth (m)	0.400

Swale Manhole: S12, DS/PN: 1.005

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	80.0
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	4.0
Safety Factor	2.0	Slope (1:X)	200.0
Porosity	0.30	Cap Volume Depth (m)	1.650
Invert Level (m)	5.250	Cap Infiltration Depth (m)	0.000
Base Width (m)	2.5	Include Swale Volume	Yes

Porous Car Park Manhole: S13, DS/PN: 3.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	11.1
Max Percolation (l/s)	30.8	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.617	Cap Volume Depth (m)	0.400

Swale Manhole: S17, DS/PN: 3.004

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	23.8
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	4.0
Safety Factor	2.0	Slope (1:X)	200.0
Porosity	0.30	Cap Volume Depth (m)	7.000
Invert Level (m)	5.700	Cap Infiltration Depth (m)	7.000
Base Width (m)	2.4	Include Swale Volume	Yes

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Complex Manhole: S255, DS/PN: 5.000

Cellular Storage

Invert Level (m) 5.620 Safety Factor 1.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	81.0	108.0	0.900	0.0	146.4
0.800	81.0	146.4			

Porous Car Park

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	25.5
Max Percolation (l/s)	70.8	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.420	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S22, DS/PN: 5.002

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	7.6
Max Percolation (l/s)	21.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.815	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S23, DS/PN: 6.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	51.4
Max Percolation (l/s)	142.8	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.540	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S26, DS/PN: 3.009

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.7
Max Percolation (l/s)	29.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.288	Cap Volume Depth (m)	0.400

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Porous Car Park Manhole: S27, DS/PN: 3.010

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	4.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	11.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.216	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S29, DS/PN: 7.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	22.1
Max Percolation (l/s)	61.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.956	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S33, DS/PN: 8.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	37.2
Max Percolation (l/s)	103.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.790	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S34, DS/PN: 9.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	38.8
Max Percolation (l/s)	107.8	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.740	Cap Volume Depth (m)	0.400

Complex Manhole: S36, DS/PN: 1.007

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	75.0
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	4.0
Safety Factor	2.0	Slope (1:X)	359.0
Porosity	0.30	Cap Volume Depth (m)	1.650
Invert Level (m)	5.120	Cap Infiltration Depth (m)	0.000
Base Width (m)	2.5	Include Swale Volume	Yes

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Swale Manhole: S41, DS/PN: 10.003

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	39.0
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	4.0
Safety Factor	2.0	Slope (1:X)	100.0
Porosity	0.30	Cap Volume Depth (m)	6.500
Invert Level (m)	5.680	Cap Infiltration Depth (m)	6.500
Base Width (m)	2.4	Include Swale Volume	Yes

Swale Manhole: S47, DS/PN: 10.009

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	64.8
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	4.0
Safety Factor	2.0	Slope (1:X)	100.0
Porosity	0.30	Cap Volume Depth (m)	6.000
Invert Level (m)	4.900	Cap Infiltration Depth (m)	6.000
Base Width (m)	2.0	Include Swale Volume	Yes

Tank or Pond Manhole: S49, DS/PN: 1.012

Invert Level (m) 4.800

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	25.3	1.000	146.1

Porous Car Park Manhole: S51, DS/PN: 12.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	20.0
Max Percolation (l/s)	55.6	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.540	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S56, DS/PN: 13.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	2.9
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	8.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.524	Cap Volume Depth (m)	0.400

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Porous Car Park Manhole: S58, DS/PN: 13.002

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	16.3
Max Percolation (l/s)	45.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.306	Cap Volume Depth (m)	0.400

Complex Manhole: S60, DS/PN: 1.017

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.150
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	4.250	Cap Volume Depth (m)	0.400
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	83.5		

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	83.5
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	4.650	Cap Infiltration Depth (m)	0.000
Base Width (m)	1.0	Include Swale Volume	Yes

Porous Car Park Manhole: S63, DS/PN: 14.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	47.2
Max Percolation (l/s)	131.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.290	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S68, DS/PN: 16.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	20.9
Max Percolation (l/s)	58.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.550	Cap Volume Depth (m)	0.400

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Porous Car Park Manhole: S70, DS/PN: 14.006

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	8.8
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	24.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.057	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S72, DS/PN: 17.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	22.9
Max Percolation (l/s)	63.6	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.540	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S73, DS/PN: 18.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	23.2
Max Percolation (l/s)	64.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.390	Cap Volume Depth (m)	0.400

Tank or Pond Manhole: S76, DS/PN: 1.018

Invert Level (m) 4.550

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	610.9	1.000	966.0

Complex Manhole: S79, DS/PN: 1.021

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	4.050	Cap Volume Depth (m)	1.400
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	38.7		

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

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Swale

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	38.7
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	387.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	5.450	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

Porous Car Park Manhole: S80, DS/PN: 19.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	35.8
Max Percolation (l/s)	99.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.395	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S81, DS/PN: 19.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	13.8
Max Percolation (l/s)	38.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.285	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S82, DS/PN: 20.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	25.2
Max Percolation (l/s)	70.0	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.215	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S85, DS/PN: 19.004

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	15.7
Max Percolation (l/s)	43.6	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.889	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S86, DS/PN: 19.005

Infiltration Coefficient Base (m/hr)	0.00000	Invert Level (m)	5.887
Membrane Percolation (mm/hr)	1000	Width (m)	10.0
Max Percolation (l/s)	86.1	Length (m)	31.0
Safety Factor	2.0	Slope (1:X)	100.0
Porosity	0.30	Depression Storage (mm)	5

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Porous Car Park Manhole: S86, DS/PN: 19.005

Evaporation (mm/day) 3 Cap Volume Depth (m) 0.400

Cellular Storage Manhole: S88, DS/PN: 19.007

Invert Level (m) 5.030 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	64.0	64.0	1.300	0.0	104.0
1.200	64.0	102.4			

Complex Manhole: S253, DS/PN: 21.000

Cellular Storage

Invert Level (m) 5.900 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	76.5	76.5	0.500	0.0	90.5
0.400	76.5	90.5			

Porous Car Park

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	89.5
Max Percolation (l/s)	248.6	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.690	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S91, DS/PN: 21.002

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	13.0
Max Percolation (l/s)	36.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	7.013	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S93, DS/PN: 21.004

Infiltration Coefficient Base (m/hr)	0.00000	Safety Factor	2.0
Membrane Percolation (mm/hr)	1000	Porosity	0.30
Max Percolation (l/s)	33.1	Invert Level (m)	6.640

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Porous Car Park Manhole: S93, DS/PN: 21.004

Width (m)	10.0	Depression Storage (mm)	5
Length (m)	11.9	Evaporation (mm/day)	3
Slope (1:X)	100.0	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S97, DS/PN: 22.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	15.2
Max Percolation (l/s)	42.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.170	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S98, DS/PN: 23.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	11.3
Max Percolation (l/s)	31.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.170	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S101, DS/PN: 21.009

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	27.1
Max Percolation (l/s)	75.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.820	Cap Volume Depth (m)	0.400

Cellular Storage Manhole: S103, DS/PN: 19.009

Invert Level (m)	4.915	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	186.0	186.0	0.500	0.0	210.5
0.400	186.0	207.8			

Porous Car Park Manhole: S107, DS/PN: 24.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	28.2
Max Percolation (l/s)	78.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.590	Cap Volume Depth (m)	0.400

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Porous Car Park Manhole: S108, DS/PN: 24.002

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	11.5
Max Percolation (l/s)	31.9	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.440	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S109, DS/PN: 24.003

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	8.4
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	23.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.290	Cap Volume Depth (m)	0.400

Complex Manhole: S110, DS/PN: 19.012

Cellular Storage

Invert Level (m)	4.750	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	180.0	180.0	0.500	0.0	204.1
0.400	180.0	201.5			

Tank or Pond

Invert Level (m) 6.300

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	270.3	1.400	0.0	2.800	0.0	4.200	0.0
0.200	315.4	1.600	0.0	3.000	0.0	4.400	0.0
0.400	363.0	1.800	0.0	3.200	0.0	4.600	0.0
0.600	427.1	2.000	0.0	3.400	0.0	4.800	0.0
0.800	0.0	2.200	0.0	3.600	0.0	5.000	0.0
1.000	0.0	2.400	0.0	3.800	0.0		
1.200	0.0	2.600	0.0	4.000	0.0		

Swale Manhole: S116, DS/PN: 25.003

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Safety Factor	2.0
Infiltration Coefficient Side (m/hr)	0.00000	Porosity	0.30

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Swale Manhole: S116, DS/PN: 25.003

Invert Level (m)	5.950	Slope (1:X)	100.0
Base Width (m)	2.4	Cap Volume Depth (m)	6.850
Length (m)	50.3	Cap Infiltration Depth (m)	6.850
Side Slope (1:X)	4.0	Include Swale Volume	Yes

Swale Manhole: S121, DS/PN: 26.000

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	14.5
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	4.0
Safety Factor	2.0	Slope (1:X)	100.0
Porosity	0.30	Cap Volume Depth (m)	6.850
Invert Level (m)	6.100	Cap Infiltration Depth (m)	6.850
Base Width (m)	2.4	Include Swale Volume	Yes

Porous Car Park Manhole: S126, DS/PN: 27.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	40.1
Max Percolation (l/s)	111.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.143	Cap Volume Depth (m)	0.400

Swale Manhole: S127, DS/PN: 19.013

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	50.3
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	4.0
Safety Factor	2.0	Slope (1:X)	100.0
Porosity	0.30	Cap Volume Depth (m)	6.800
Invert Level (m)	5.910	Cap Infiltration Depth (m)	6.800
Base Width (m)	2.4	Include Swale Volume	Yes

Porous Car Park Manhole: S128, DS/PN: 28.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	17.0
Max Percolation (l/s)	47.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.090	Cap Volume Depth (m)	0.400

Complex Manhole: S130, DS/PN: 19.014

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Cellular Storage

Invert Level (m) 4.600 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	49.0	49.0	0.500	0.0	60.2
0.400	49.0	60.2			

Tank or Pond

Invert Level (m) 6.200

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	269.2	0.400	346.7

Porous Car Park Manhole: S131, DS/PN: 29.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.7
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	10.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.967	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S133, DS/PN: 29.002

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	26.8
Max Percolation (l/s)	74.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.710	Cap Volume Depth (m)	0.400

Complex Manhole: S134, DS/PN: 19.015

Cellular Storage

Invert Level (m) 4.460 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	49.0	49.0	0.500	0.0	60.2
0.400	49.0	60.2			

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Tank or Pond

Invert Level (m) 6.200

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	250.5	0.400	329.9

Porous Car Park Manhole: S135, DS/PN: 30.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	28.6
Max Percolation (l/s)	79.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.760	Cap Volume Depth (m)	0.400

Cellular Storage Manhole: S136, DS/PN: 19.016

Invert Level (m)	4.460	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	36.0	36.0	0.500	0.0	45.6
0.400	36.0	45.6			

Cellular Storage Manhole: S138, DS/PN: 19.017

Invert Level (m)	4.400	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	49.0	49.0	0.500	0.0	60.2
0.400	49.0	60.2			

Porous Car Park Manhole: S139, DS/PN: 32.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	52.0
Max Percolation (l/s)	144.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.690	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S140, DS/PN: 32.001

Infiltration Coefficient Base (m/hr)	0.00000	Safety Factor	2.0
Membrane Percolation (mm/hr)	1000	Porosity	0.30
Max Percolation (l/s)	25.3	Invert Level (m)	5.390

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Porous Car Park Manhole: S140, DS/PN: 32.001

Width (m)	9.1	Depression Storage (mm)	5
Length (m)	10.0	Evaporation (mm/day)	3
Slope (1:X)	100.0	Cap Volume Depth (m)	0.400

Complex Manhole: S144, DS/PN: 19.018

Cellular Storage

Invert Level (m)	4.400	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	49.0	49.0	0.500	0.0	60.2
0.400	49.0	60.2			

Tank or Pond

Invert Level (m) 5.500

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	260.0	0.400	345.2

Porous Car Park Manhole: S145, DS/PN: 34.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	56.7
Max Percolation (l/s)	157.5	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.007	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S146, DS/PN: 35.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	18.8
Max Percolation (l/s)	52.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.700	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S150, DS/PN: 34.004

Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30
Membrane Percolation (mm/hr)	1000	Invert Level (m)	5.172
Max Percolation (l/s)	132.8	Width (m)	10.0
Safety Factor	2.0	Length (m)	47.8

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Porous Car Park Manhole: S150, DS/PN: 34.004

Slope (1:X)	100.0	Evaporation (mm/day)	3
Depression Storage (mm)	5	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S151, DS/PN: 36.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	18.8
Max Percolation (l/s)	52.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.310	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S153, DS/PN: 37.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	13.8
Max Percolation (l/s)	38.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.360	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S154, DS/PN: 38.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	8.3
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	23.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.240	Cap Volume Depth (m)	0.400

Cellular Storage Manhole: S156, DS/PN: 19.021

Invert Level (m)	4.120	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	80.5	80.5	0.900	0.0	111.0
0.800	80.5	109.2			

Porous Car Park Manhole: S157, DS/PN: 19.022

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	36.5
Max Percolation (l/s)	101.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.025	Cap Volume Depth (m)	0.400

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Porous Car Park Manhole: S158, DS/PN: 39.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	13.1
Max Percolation (l/s)	36.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.140	Cap Volume Depth (m)	0.400

Complex Manhole: S164, DS/PN: 1.022

Cellular Storage

Invert Level (m) 3.835 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	110.0	110.0	0.500	0.0	128.9
0.400	110.0	126.8			

Tank or Pond

Invert Level (m) 4.420

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	115.7	1.000	373.6

Complex Manhole: S166, DS/PN: 1.024

Tank or Pond

Invert Level (m) 4.200

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	184.2	1.000	508.0

Cellular Storage

Invert Level (m) 3.835 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	225.5	225.5	0.500	0.0	252.5
0.400	225.5	249.5			

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Porous Car Park Manhole: S167, DS/PN: 41.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	8.4
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	23.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	4.992	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S168, DS/PN: 42.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	13.1
Max Percolation (l/s)	36.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.090	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S170, DS/PN: 43.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.9
Max Percolation (l/s)	30.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.020	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S175, DS/PN: 41.004

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	23.6
Max Percolation (l/s)	65.6	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	4.440	Cap Volume Depth (m)	0.400

Complex Manhole: S176, DS/PN: 1.025

Cellular Storage

Invert Level (m)	3.720	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	201.5	201.5	0.500	0.0	227.1
0.400	201.5	224.2			

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Tank or Pond

Invert Level (m) 4.200

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	106.0	0.750	211.5

Complex Manhole: S177, DS/PN: 1.026

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	3.700	Cap Volume Depth (m)	0.450
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	3.7		

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	3.7
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	4.150	Cap Infiltration Depth (m)	0.000
Base Width (m)	2.4	Include Swale Volume	Yes

Porous Car Park Manhole: S178, DS/PN: 45.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	20.9
Max Percolation (l/s)	58.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.290	Cap Volume Depth (m)	0.400

Cellular Storage Manhole: S179, DS/PN: 45.001

Invert Level (m)	5.900	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	55.0	55.0	0.500	0.0	68.3
0.400	55.0	66.9			

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Porous Car Park Manhole: S183, DS/PN: 46.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	28.9
Max Percolation (l/s)	80.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.129	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S186, DS/PN: 45.007

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	25.1
Max Percolation (l/s)	69.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.940	Cap Volume Depth (m)	0.400

Complex Manhole: S188, DS/PN: 45.009

Cellular Storage

Invert Level (m)	4.850	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	95.0	95.0	0.500	0.0	110.6
0.400	95.0	110.6			

Tank or Pond

Invert Level (m) 5.750

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	77.9	1.000	211.5

Complex Manhole: S190, DS/PN: 45.011

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	5.600	Cap Volume Depth (m)	1.000
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	11.4		

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Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	11.4
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	6.600	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

Porous Car Park Manhole: S191, DS/PN: 47.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	17.0
Max Percolation (l/s)	47.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.760	Cap Volume Depth (m)	0.400

Complex Manhole: S193, DS/PN: 45.012

Cellular Storage

Invert Level (m)	4.750	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	25.0	25.0	0.500	0.0	33.0
0.400	25.0	33.0			

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	4.750	Cap Volume Depth (m)	1.000
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	11.5		

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Porosity	1.00
Infiltration Coefficient Side (m/hr)	0.00000	Invert Level (m)	5.900
Safety Factor	2.0	Base Width (m)	0.8

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Swale

Length (m)	11.5	Cap Volume Depth (m)	0.300
Side Slope (1:X)	3.0	Cap Infiltration Depth (m)	0.000
Slope (1:X)	0.0	Include Swale Volume	Yes

Complex Manhole: S194, DS/PN: 45.013

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.225
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	4.630	Cap Volume Depth (m)	1.000
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	18.5		

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	18.5
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	5.630	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

Porous Car Park Manhole: S195, DS/PN: 48.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	7.3
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	20.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.004	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S196, DS/PN: 49.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.6
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	10.0	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.090	Cap Volume Depth (m)	0.400

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Complex Manhole: S201, DS/PN: 45.014

Cellular Storage

Invert Level (m) 4.500 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	42.0	42.0	0.500	0.0	52.4
0.400	42.0	52.4			

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	4.500	Cap Volume Depth (m)	1.350
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	18.6		

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	18.6
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	5.850	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

Porous Car Park Manhole: S203, DS/PN: 50.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	17.6
Max Percolation (l/s)	48.9	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.390	Cap Volume Depth (m)	0.400

Complex Manhole: S206, DS/PN: 45.015

Cellular Storage

Invert Level (m) 4.450 Infiltration Coefficient Side (m/hr) 0.00000
Infiltration Coefficient Base (m/hr) 0.00000 Safety Factor 2.0

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Cellular Storage

Porosity 0.95

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	45.5	45.5	0.500	0.0	56.3
0.400	45.5	56.3			

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	4.450	Cap Volume Depth (m)	1.000
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	24.0		

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	24.0
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	5.450	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

Porous Car Park Manhole: S208a, DS/PN: 52.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	20.8
Max Percolation (l/s)	57.8	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.615	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S211, DS/PN: 53.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.6
Max Percolation (l/s)	29.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.390	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S213, DS/PN: 54.000

Infiltration Coefficient Base (m/hr)	0.00000	Max Percolation (l/s)	32.2
Membrane Percolation (mm/hr)	1000	Safety Factor	2.0

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Porous Car Park Manhole: S213, DS/PN: 54.000

Porosity	0.30	Slope (1:X)	100.0
Invert Level (m)	6.099	Depression Storage (mm)	5
Width (m)	10.0	Evaporation (mm/day)	3
Length (m)	11.6	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S215, DS/PN: 55.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	33.2
Max Percolation (l/s)	92.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.070	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S217, DS/PN: 56.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	20.3
Max Percolation (l/s)	56.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.369	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S218, DS/PN: 51.007

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	7.8
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	21.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.387	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S220, DS/PN: 51.009

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	17.9
Max Percolation (l/s)	49.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.056	Cap Volume Depth (m)	0.400

Complex Manhole: S222, DS/PN: 45.016

Cellular Storage

Invert Level (m)	4.080	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

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Cellular Storage

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	54.0	54.0	0.900	0.0	79.0
0.800	54.0	77.5			

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	4.080	Cap Volume Depth (m)	1.000
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	22.4		

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	22.4
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	5.200	Cap Infiltration Depth (m)	0.000
Base Width (m)	1.0	Include Swale Volume	Yes

Complex Manhole: S225, DS/PN: 45.017

Cellular Storage

Invert Level (m)	4.080	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	54.0	54.0	0.900	0.0	79.0
0.800	54.0	77.5			

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	4.080	Cap Volume Depth (m)	1.000
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	22.5		

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Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	22.5
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	5.200	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

Porous Car Park Manhole: S227, DS/PN: 58.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	16.8
Max Percolation (l/s)	46.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	4.790	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S228, DS/PN: 58.002

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	27.9
Max Percolation (l/s)	77.5	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	4.790	Cap Volume Depth (m)	0.400

Complex Manhole: S230, DS/PN: 45.018

Cellular Storage

Invert Level (m)	4.060	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	42.0	42.0	0.500	0.0	53.7
0.400	42.0	52.4			

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	4.060	Cap Volume Depth (m)	1.000
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	25.5		

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Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	25.5
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	4.950	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

Complex Manhole: S232, DS/PN: 45.020

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	3.950	Cap Volume Depth (m)	0.900
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	28.2		

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	28.2
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	4.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	4.850	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

Complex Manhole: S233, DS/PN: 45.021

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	3.900	Cap Volume Depth (m)	0.950
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	10.4		

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Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	10.4
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	4.850	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

Porous Car Park Manhole: S235, DS/PN: 59.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	14.9
Max Percolation (l/s)	41.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.440	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S236, DS/PN: 60.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.5
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	15.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.570	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S238, DS/PN: 61.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	27.8	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.590	Cap Volume Depth (m)	0.400

Porous Car Park Manhole: S242, DS/PN: 62.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	11.3
Max Percolation (l/s)	31.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	4.840	Cap Volume Depth (m)	0.400

Complex Manhole: S246, DS/PN: 45.022

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Cellular Storage

Invert Level (m) 3.750 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	102.0	102.0	0.900	0.0	136.3
0.800	102.0	134.3			

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr) 0.00000 Length (m) 12.6
Infiltration Coefficient Side (m/hr) 0.00000 Side Slope (1:X) 3.0
Safety Factor 2.0 Slope (1:X) 0.0
Porosity 1.00 Cap Volume Depth (m) 0.300
Invert Level (m) 4.700 Cap Infiltration Depth (m) 0.000
Base Width (m) 0.8 Include Swale Volume Yes

Filter Drain

Infiltration Coefficient Base (m/hr) 0.00000 Pipe Diameter (m) 0.300
Infiltration Coefficient Side (m/hr) 0.00000 Pipe Depth above Invert (m) 0.000
Safety Factor 2.0 Number of Pipes 1
Porosity 0.30 Slope (1:X) 0.0
Invert Level (m) 4.750 Cap Volume Depth (m) 0.950
Trench Width (m) 2.4 Cap Infiltration Depth (m) 0.000
Trench Length (m) 12.6

Porous Car Park Manhole: S247, DS/PN: 63.000

Infiltration Coefficient Base (m/hr) 0.00000 Width (m) 10.0
Membrane Percolation (mm/hr) 1000 Length (m) 21.8
Max Percolation (l/s) 60.6 Slope (1:X) 100.0
Safety Factor 2.0 Depression Storage (mm) 5
Porosity 0.30 Evaporation (mm/day) 3
Invert Level (m) 4.640 Cap Volume Depth (m) 0.400

Complex Manhole: S248, DS/PN: 63.001

Cellular Storage

Invert Level (m) 4.250 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

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Cellular Storage

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	20.0	20.0	0.500	0.0	28.0
0.400	20.0	27.2			

Complex Manhole: S249, DS/PN: 45.023

Filter Drain

Infiltration Coefficient Base (m/hr)	0.00000	Pipe Diameter (m)	0.300
Infiltration Coefficient Side (m/hr)	0.00000	Pipe Depth above Invert (m)	0.000
Safety Factor	2.0	Number of Pipes	1
Porosity	0.30	Slope (1:X)	0.0
Invert Level (m)	3.750	Cap Volume Depth (m)	0.450
Trench Width (m)	2.4	Cap Infiltration Depth (m)	0.000
Trench Length (m)	33.0		

Swale

Warning:- Volume should always be included unless the upstream pipe is being used for storage and/or as a carrier

Infiltration Coefficient Base (m/hr)	0.00000	Length (m)	33.0
Infiltration Coefficient Side (m/hr)	0.00000	Side Slope (1:X)	3.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	1.00	Cap Volume Depth (m)	0.300
Invert Level (m)	4.200	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

Complex Manhole: S250, DS/PN: 1.027

Tank or Pond

Invert Level (m) 3.700

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	178.0	0.750	326.9

Cellular Storage

Invert Level (m)	3.700	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.95
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	250.0	0.0	0.400	250.0	0.0

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Cellular Storage

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.500	0.0	0.0			

Time Area Diagram at Pipe Number 2.000 for Surface Network 1

Total Area (ha) 0.044

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.044

Time Area Diagram at Pipe Number 3.000 for Surface Network 1

Total Area (ha) 0.012

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.012

Time Area Diagram at Pipe Number 3.006 for Surface Network 1

Total Area (ha) 0.006

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.006

Time Area Diagram at Pipe Number 5.002 for Surface Network 1

Total Area (ha) 0.028

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.028

Time Area Diagram at Pipe Number 6.000 for Surface Network 1

Total Area (ha) 0.056

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.056

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Time Area Diagram at Pipe Number 3.009 for Surface Network 1

Total Area (ha) 0.012

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.012

Time Area Diagram at Pipe Number 3.010 for Surface Network 1

Total Area (ha) 0.013

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.013

Time Area Diagram at Pipe Number 7.000 for Surface Network 1

Total Area (ha) 0.027

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.027

Time Area Diagram at Pipe Number 8.000 for Surface Network 1

Total Area (ha) 0.042

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.042

Time Area Diagram at Pipe Number 9.000 for Surface Network 1

Total Area (ha) 0.043

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.043

Time Area Diagram at Pipe Number 10.007 for Surface Network 1

Total Area (ha) 0.011

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.011

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Time Area Diagram at Pipe Number 1.012 for Surface Network 1

Total Area (ha) 0.072

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.036	8	12	0.036

Time Area Diagram at Pipe Number 12.000 for Surface Network 1

Total Area (ha) 0.022

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.022

Time Area Diagram at Pipe Number 13.000 for Surface Network 1

Total Area (ha) 0.004

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.004

Time Area Diagram at Pipe Number 13.002 for Surface Network 1

Total Area (ha) 0.018

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.018

Time Area Diagram at Pipe Number 14.000 for Surface Network 1

Total Area (ha) 0.035

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.035

Time Area Diagram at Pipe Number 15.000 for Surface Network 1

Total Area (ha) 0.017

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.017

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Time Area Diagram at Pipe Number 14.002 for Surface Network 1

Total Area (ha) 0.040

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.040

Time Area Diagram at Pipe Number 14.003 for Surface Network 1

Total Area (ha) 0.025

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.025

Time Area Diagram at Pipe Number 14.004 for Surface Network 1

Total Area (ha) 0.004

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.004

Time Area Diagram at Pipe Number 16.000 for Surface Network 1

Total Area (ha) 0.023

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.023

Time Area Diagram at Pipe Number 14.006 for Surface Network 1

Total Area (ha) 0.010

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.010

Time Area Diagram at Pipe Number 18.000 for Surface Network 1

Total Area (ha) 0.026

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.026

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Time Area Diagram at Pipe Number 17.001 for Surface Network 1

Total Area (ha) 0.025

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.025

Time Area Diagram at Pipe Number 19.000 for Surface Network 1

Total Area (ha) 0.010

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.010

Time Area Diagram at Pipe Number 19.001 for Surface Network 1

Total Area (ha) 0.015

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.015

Time Area Diagram at Pipe Number 20.000 for Surface Network 1

Total Area (ha) 0.028

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.028

Time Area Diagram at Pipe Number 21.000 for Surface Network 1

Total Area (ha) 0.096

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.096

Time Area Diagram at Pipe Number 21.003 for Surface Network 1

Total Area (ha) 0.014

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.014

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Time Area Diagram at Pipe Number 21.004 for Surface Network 1

Total Area (ha) 0.005

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.005

Time Area Diagram at Pipe Number 21.005 for Surface Network 1

Total Area (ha) 0.011

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.011

Time Area Diagram at Pipe Number 22.001 for Surface Network 1

Total Area (ha) 0.016

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.016

Time Area Diagram at Pipe Number 23.000 for Surface Network 1

Total Area (ha) 0.013

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.013

Time Area Diagram at Pipe Number 21.009 for Surface Network 1

Total Area (ha) 0.046

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.030	12	16	0.016

Time Area Diagram at Pipe Number 24.000 for Surface Network 1

Total Area (ha) 0.009

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.009

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Time Area Diagram at Pipe Number 24.001 for Surface Network 1

Total Area (ha) 0.014

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.014

Time Area Diagram at Pipe Number 24.003 for Surface Network 1

Total Area (ha) 0.009

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.009

Time Area Diagram at Pipe Number 27.000 for Surface Network 1

Total Area (ha) 0.056

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.012	8	12	0.044

Time Area Diagram at Pipe Number 28.000 for Surface Network 1

Total Area (ha) 0.017

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.017

Time Area Diagram at Pipe Number 29.000 for Surface Network 1

Total Area (ha) 0.004

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.004

Time Area Diagram at Pipe Number 29.002 for Surface Network 1

Total Area (ha) 0.027

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.027

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Time Area Diagram at Pipe Number 32.000 for Surface Network 1

Total Area (ha) 0.093

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.093

Time Area Diagram at Pipe Number 32.001 for Surface Network 1

Total Area (ha) 0.011

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.011

Time Area Diagram at Pipe Number 34.000 for Surface Network 1

Total Area (ha) 0.041

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.041

Time Area Diagram at Pipe Number 35.000 for Surface Network 1

Total Area (ha) 0.036

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.036

Time Area Diagram at Pipe Number 34.004 for Surface Network 1

Total Area (ha) 0.036

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.036

Time Area Diagram at Pipe Number 36.000 for Surface Network 1

Total Area (ha) 0.022

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.022

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Time Area Diagram at Pipe Number 37.000 for Surface Network 1

Total Area (ha) 0.015

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.015

Time Area Diagram at Pipe Number 38.000 for Surface Network 1

Total Area (ha) 0.009

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.009

Time Area Diagram at Pipe Number 19.022 for Surface Network 1

Total Area (ha) 0.041

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.041

Time Area Diagram at Pipe Number 39.000 for Surface Network 1

Total Area (ha) 0.014

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.014

Time Area Diagram at Pipe Number 41.000 for Surface Network 1

Total Area (ha) 0.009

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.009

Time Area Diagram at Pipe Number 42.000 for Surface Network 1

Total Area (ha) 0.015

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.015

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Time Area Diagram at Pipe Number 44.000 for Surface Network 1

Total Area (ha) 0.026

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.026

Time Area Diagram at Pipe Number 45.000 for Surface Network 1

Total Area (ha) 0.023

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.023

Time Area Diagram at Pipe Number 46.000 for Surface Network 1

Total Area (ha) 0.032

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.032

Time Area Diagram at Pipe Number 45.006 for Surface Network 1

Total Area (ha) 0.028

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.028

Time Area Diagram at Pipe Number 47.000 for Surface Network 1

Total Area (ha) 0.019

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.019

Time Area Diagram at Pipe Number 48.000 for Surface Network 1

Total Area (ha) 0.008

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.008

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Time Area Diagram at Pipe Number 49.000 for Surface Network 1

Total Area (ha) 0.004

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.004

Time Area Diagram at Pipe Number 50.002 for Surface Network 1

Total Area (ha) 0.019

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.019

Time Area Diagram at Pipe Number 52.000 for Surface Network 1

Total Area (ha) 0.022

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.022

Time Area Diagram at Pipe Number 51.004 for Surface Network 1

Total Area (ha) 0.012

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.012

Time Area Diagram at Pipe Number 54.000 for Surface Network 1

Total Area (ha) 0.013

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.013

Time Area Diagram at Pipe Number 55.000 for Surface Network 1

Total Area (ha) 0.039

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.039

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Time Area Diagram at Pipe Number 56.000 for Surface Network 1

Total Area (ha) 0.022

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.022

Time Area Diagram at Pipe Number 51.007 for Surface Network 1

Total Area (ha) 0.009

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.009

Time Area Diagram at Pipe Number 51.009 for Surface Network 1

Total Area (ha) 0.020

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.020

Time Area Diagram at Pipe Number 58.001 for Surface Network 1

Total Area (ha) 0.018

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.018

Time Area Diagram at Pipe Number 58.002 for Surface Network 1

Total Area (ha) 0.031

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.031

Time Area Diagram at Pipe Number 59.001 for Surface Network 1

Total Area (ha) 0.016

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.016

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Time Area Diagram at Pipe Number 60.000 for Surface Network 1

Total Area (ha) 0.006

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.006

Time Area Diagram at Pipe Number 61.000 for Surface Network 1

Total Area (ha) 0.011

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.011

Time Area Diagram at Pipe Number 63.000 for Surface Network 1

Total Area (ha) 0.024

Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.024

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coeffiecient	0.800
Manhole Headloss Coeff (Global)	0.500	Flow per Person per Day (l/per/day)	0.000
Foul Sewage per hectare (l/s)	0.000		

Number of Input Hydrographs	0	Number of Storage Structures	114
Number of Online Controls	23	Number of Time/Area Diagrams	74
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FEH
FEH Rainfall Version	1999
Site Location	GB 497500 102350 SU 97500 02350
C (1km)	-0.025
D1 (1km)	0.390
D2 (1km)	0.245
D3 (1km)	0.403
E (1km)	0.310
F (1km)	2.321
Cv (Summer)	0.750
Cv (Winter)	0.840

Margin for Flood Risk Warning (mm)	300.0
Analysis Timestep	2.5 Second Increment (Extended)
DTS Status	OFF
DVD Status	ON
Inertia Status	ON

Profile(s)	Summer and Winter
Duration(s) (mins)	15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years)	1, 30, 100
Climate Change (%)	0, 0, 0

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	S1	1440 Winter	1	+0%	1/30 Winter				6.105
1.001	S2	1440 Winter	1	+0%					6.105
1.002	S3	60 Winter	1	+0%					6.150
1.003	S4	60 Winter	1	+0%	100/120 Winter				5.910
1.004	S5	240 Winter	1	+0%	30/15 Summer				5.439
2.000	S6	60 Winter	1	+0%	100/15 Summer				6.325
2.001	S7	15 Winter	1	+0%	30/15 Summer				5.993
2.002	S8	15 Winter	1	+0%	30/15 Summer				5.954
2.003	S9	15 Winter	1	+0%	30/15 Summer				5.900
2.004	S10	15 Winter	1	+0%	30/15 Summer				5.639
2.005	S11	15 Winter	1	+0%	30/15 Summer				5.606

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	S1	0.355	0.000	0.01		0.0	SURCHARGED	
1.001	S2	-0.245	0.000	0.00		0.0	OK	
1.002	S3	-0.150	0.000	0.00		0.0	OK	
1.003	S4	-0.150	0.000	0.00		0.0	OK	
1.004	S5	-0.111	0.000	0.00		0.0	OK	
2.000	S6	-0.150	0.000	0.00		0.0	OK	
2.001	S7	-0.112	0.000	0.14		1.9	OK	
2.002	S8	-0.101	0.000	0.23		3.2	OK	
2.003	S9	-0.080	0.000	0.43		6.7	OK	
2.004	S10	-0.071	0.000	0.54		6.7	OK	
2.005	S11	-0.064	0.000	0.62		6.7	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.005	S12	240 Winter	1	+0%	30/15 Summer				5.439
3.000	S13	960 Winter	1	+0%	1/240 Summer				6.136
3.001	S14	960 Winter	1	+0%	1/120 Summer				6.136
3.002	S15	960 Winter	1	+0%	1/30 Winter				6.135
3.003	S16	960 Winter	1	+0%	1/15 Summer				6.135
3.004	S17	960 Winter	1	+0%	100/30 Winter				6.133
3.005	S18	960 Winter	1	+0%	100/15 Winter				6.058
4.000	S19	15 Winter	1	+0%	100/30 Winter				6.140
3.006	S20	15 Winter	1	+0%	100/15 Summer				6.030
3.007	S21	15 Winter	1	+0%	100/15 Summer				5.911
5.000	S255	480 Winter	1	+0%	30/120 Summer				5.668
5.001	S254	15 Winter	1	+0%	30/15 Summer				5.680
5.002	S22	15 Winter	1	+0%	30/15 Summer				5.714
6.000	S23	30 Winter	1	+0%	100/15 Summer				5.893
3.008	S24	60 Winter	1	+0%	30/15 Winter				5.562
3.009	S26	60 Winter	1	+0%	30/15 Summer				5.471
3.010	S27	120 Winter	1	+0%	30/15 Summer				5.445
3.011	S28	120 Winter	1	+0%	30/15 Summer				5.443
7.000	S29	30 Winter	1	+0%	30/15 Summer				5.495
3.012	S30	240 Winter	1	+0%	30/15 Summer				5.441
3.013	S31	240 Winter	1	+0%	30/15 Summer				5.439
1.006	S32	240 Winter	1	+0%	30/15 Summer				5.438
8.000	S33	30 Winter	1	+0%	30/15 Summer				5.588
9.000	S34	30 Winter	1	+0%	30/15 Summer				5.395
8.001	S35	60 Summer	1	+0%	30/15 Summer				5.362
1.007	S36	360 Winter	1	+0%	30/30 Summer				5.321
1.008	S37	360 Winter	1	+0%	30/30 Summer				5.319
1.009	S38	360 Winter	1	+0%	1/60 Winter				5.318
1.010	S39	360 Winter	1	+0%	1/30 Summer				5.222
10.000	S112	15 Winter	1	+0%	100/15 Summer				6.084
10.001	S111	15 Winter	1	+0%	100/15 Summer				5.934
10.002	S40	15 Winter	1	+0%	30/15 Summer				5.864
10.003	S41	15 Winter	1	+0%	30/15 Summer				5.734
10.004	S42	15 Winter	1	+0%	30/15 Summer				5.662
11.000	S256	15 Winter	1	+0%	30/15 Summer				5.431
10.005	S43	15 Winter	1	+0%	30/15 Summer				5.336
10.006	S44	15 Winter	1	+0%	30/15 Summer				5.275
10.007	S45	360 Winter	1	+0%	1/15 Summer				5.224
10.008	S46	360 Winter	1	+0%	1/15 Summer				5.216
10.009	S47	360 Winter	1	+0%	1/15 Summer				5.211
1.011	S48	360 Winter	1	+0%	1/15 Summer				5.207
1.012	S49	360 Winter	1	+0%	1/60 Summer				5.102
1.013	S50	360 Winter	1	+0%	1/15 Summer				5.149
12.000	S51	60 Summer	1	+0%					5.280
12.001	S52	60 Winter	1	+0%	100/15 Summer				5.093
1.014	S53	360 Winter	1	+0%	30/960 Winter				4.737
1.015	S54	960 Winter	1	+0%	30/240 Winter				4.626
1.016	S55	960 Winter	1	+0%	1/240 Summer				4.616

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.005	S12	-0.111	0.000	0.03		1.3	OK	
3.000	S13	0.106	0.000	0.01		0.1	SURCHARGED	
3.001	S14	0.166	0.000	0.03		0.6	SURCHARGED	
3.002	S15	0.245	0.000	0.04		0.5	SURCHARGED	
3.003	S16	0.285	0.000	0.12		0.5	SURCHARGED	
3.004	S17	-0.132	0.000	0.03		0.4	OK	
3.005	S18	-0.132	0.000	0.03		0.4	OK	
4.000	S19	-0.110	0.000	0.15		2.2	OK	
3.006	S20	-0.110	0.000	0.16		2.3	OK	
3.007	S21	-0.119	0.000	0.09		2.3	OK	
5.000	S255	-0.102	0.000	0.03		0.3	OK	
5.001	S254	-0.090	0.000	0.00		0.0	OK	
5.002	S22	-0.131	0.000	0.02		0.7	OK	
6.000	S23	-0.111	0.000	0.13		3.3	OK	
3.008	S24	-0.238	0.000	0.09		5.4	OK	
3.009	S26	-0.232	0.000	0.11		5.9	OK	
3.010	S27	-0.214	0.000	0.10		5.4	OK	
3.011	S28	-0.177	0.000	0.07		5.3	OK	
7.000	S29	-0.112	0.000	0.13		1.8	OK	
3.012	S30	-0.079	0.000	0.08		4.7	OK	
3.013	S31	-0.041	0.000	0.08		4.5	OK	
1.006	S32	-0.012	0.000	0.11		3.8	OK	
8.000	S33	-0.112	0.000	0.13		2.4	OK	
9.000	S34	-0.105	0.000	0.18		2.4	OK	
8.001	S35	-0.078	0.000	0.44		4.8	OK	
1.007	S36	-0.099	0.000	0.16		4.2	OK	
1.008	S37	-0.101	0.000	0.08		4.1	OK	
1.009	S38	0.048	0.000	0.24		4.0	SURCHARGED	
1.010	S39	0.112	0.000	0.29		4.2	SURCHARGED	
10.000	S112	-0.116	0.000	0.11		1.7	OK	
10.001	S111	-0.116	0.000	0.12		1.7	OK	
10.002	S40	-0.086	0.000	0.37		4.6	OK	
10.003	S41	-0.096	0.000	0.29		4.6	OK	
10.004	S42	-0.098	0.000	0.26		5.7	OK	
11.000	S256	-0.109	0.000	0.16		2.6	OK	
10.005	S43	-0.074	0.000	0.51		8.0	OK	
10.006	S44	-0.025	0.000	0.73		10.3	OK	
10.007	S45	0.074	0.000	0.35		2.5	SURCHARGED	
10.008	S46	0.116	0.000	0.23		2.7	SURCHARGED	
10.009	S47	0.161	0.000	0.16		1.9	SURCHARGED	
1.011	S48	0.207	0.000	0.40		5.4	SURCHARGED	
1.012	S49	0.077	0.000	0.18		6.0	SURCHARGED	
1.013	S50	0.210	0.000	0.19		5.7	SURCHARGED	
12.000	S51	-0.120	0.000	0.08		1.2	OK	
12.001	S52	-0.117	0.000	0.11		1.2	OK	
1.014	S53	-0.156	0.000	0.20		5.9	OK	
1.015	S54	-0.141	0.000	0.13		5.4	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.016	S55	0.039	0.000	0.13		5.4	SURCHARGED	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
13.000	S56	30 Winter	1	+0%	100/480 Winter			
13.001	S57	15 Winter	1	+0%	30/360 Winter			
13.002	S58	960 Winter	1	+0%	30/240 Summer			
13.003	S59	960 Winter	1	+0%	1/480 Winter			
1.017	S60	960 Winter	1	+0%	1/120 Summer			
14.000	S61	15 Winter	1	+0%	100/15 Summer			
15.000	S62	15 Winter	1	+0%				
14.001	S63	15 Winter	1	+0%	30/15 Summer			
14.002	S64	15 Winter	1	+0%	100/15 Summer			
14.003	S65	15 Winter	1	+0%				
14.004	S66	15 Winter	1	+0%	100/1440 Winter			
16.000	S67	15 Winter	1	+0%				
16.001	S68	15 Winter	1	+0%	100/480 Winter			
14.005	S69	960 Winter	1	+0%	30/15 Summer			
14.006	S70	960 Winter	1	+0%	1/480 Winter			
14.007	S71	960 Winter	1	+0%	1/120 Winter			
17.000	S72	60 Winter	1	+0%				
18.000	S73	30 Winter	1	+0%	100/15 Summer			
17.001	S74	60 Winter	1	+0%	30/15 Summer			
17.002	S75	60 Winter	1	+0%	30/15 Winter			
1.018	S76	960 Winter	1	+0%	1/60 Winter			
1.019	S77	480 Winter	1	+0%	1/60 Winter			
1.020	S78	1440 Winter	1	+0%	1/960 Winter			
1.021	S79	1440 Winter	1	+0%	1/360 Winter			
19.000	S80	960 Winter	1	+0%	100/360 Winter			
19.001	S81	60 Winter	1	+0%	100/240 Winter			
20.000	S82	30 Winter	1	+0%	100/15 Summer			
19.002	S83	60 Winter	1	+0%	100/240 Winter			
19.003	S84	60 Winter	1	+0%	100/240 Winter			
19.004	S85	15 Winter	1	+0%	100/240 Summer			
19.005	S86	15 Winter	1	+0%	100/60 Winter			
19.006	S87	240 Winter	1	+0%	30/240 Winter			
19.007	S88	240 Winter	1	+0%	30/120 Winter			
19.008	S89	960 Winter	1	+0%	30/240 Winter			
21.000	S253	240 Winter	1	+0%	100/15 Summer			
21.001	S90	240 Winter	1	+0%	100/480 Winter			
21.002	S91	240 Winter	1	+0%	100/240 Winter			
21.003	S92	240 Winter	1	+0%	100/240 Summer			
21.004	S93	240 Winter	1	+0%	100/240 Summer			
21.005	S94	15 Winter	1	+0%	100/240 Summer			
21.006	S95	15 Winter	1	+0%	100/120 Winter			
22.000	S96	15 Winter	1	+0%				
22.001	S97	15 Winter	1	+0%	100/240 Summer			
23.000	S98	30 Winter	1	+0%	100/240 Winter			
21.007	S99	15 Winter	1	+0%	100/15 Summer			
21.008	S100	15 Winter	1	+0%	30/360 Winter			
21.009	S101	60 Winter	1	+0%	30/15 Summer			
21.010	S102	960 Winter	1	+0%	30/240 Winter			

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
13.000	S56	4.802	-0.138	0.000	0.02		0.3	OK	
13.001	S57	4.679	-0.121	0.000	0.08		1.4	OK	
13.002	S58	4.610	-0.100	0.000	0.03		0.4	OK	
13.003	S59	4.609	0.009	0.000	0.03		0.6	SURCHARGED	
1.017	S60	4.609	0.059	0.000	0.17		5.6	SURCHARGED	
14.000	S61	6.237	-0.098	0.000	0.24		3.7	OK	
15.000	S62	6.075	-0.115	0.000	0.12		1.8	OK	
14.001	S63	5.772	-0.088	0.000	0.36		5.4	OK	
14.002	S64	5.563	-0.097	0.000	0.26		9.4	OK	
14.003	S65	5.103	-0.227	0.000	0.13		11.9	OK	
14.004	S66	4.809	-0.231	0.000	0.12		12.1	OK	
16.000	S67	5.002	-0.108	0.000	0.17		2.6	OK	
16.001	S68	4.830	-0.120	0.000	0.09		2.6	OK	
14.005	S69	4.603	-0.087	0.000	0.03		1.9	OK	
14.006	S70	4.603	0.013	0.000	0.04		2.0	SURCHARGED	
14.007	S71	4.603	0.043	0.000	0.03		2.0	SURCHARGED	
17.000	S72	5.421	-0.129	0.000	0.05		1.2	OK	
18.000	S73	5.157	-0.123	0.000	0.06		1.6	OK	
17.001	S74	4.901	-0.099	0.000	0.25		3.5	OK	
17.002	S75	4.814	-0.106	0.000	0.18		3.5	OK	
1.018	S76	4.603	0.103	0.000	0.08		4.8	SURCHARGED	
1.019	S77	4.606	0.156	0.000	0.09		5.2	SURCHARGED	
1.020	S78	4.425	0.025	0.000	0.11		4.6	SURCHARGED	
1.021	S79	4.419	0.069	0.000	0.06		4.9	SURCHARGED	
19.000	S80	5.663	-0.222	0.000	0.00		0.1	OK	
19.001	S81	5.616	-0.202	0.000	0.02		0.7	OK	
20.000	S82	5.660	-0.113	0.000	0.12		1.6	OK	
19.002	S83	5.457	-0.255	0.000	0.05		3.0	OK	
19.003	S84	5.401	-0.256	0.000	0.05		3.0	OK	
19.004	S85	5.338	-0.244	0.000	0.08		4.5	OK	
19.005	S86	5.236	-0.247	0.000	0.07		4.3	OK	
19.006	S87	5.132	-0.243	0.000	0.05		3.1	OK	
19.007	S88	5.127	-0.203	0.000	0.02		1.6	OK	
19.008	S89	5.037	-0.206	0.000	0.02		1.2	OK	
21.000	S253	5.945	-0.105	0.000	0.19		1.8	OK	
21.001	S90	5.932	-0.118	0.000	0.10		1.8	OK	
21.002	S91	5.698	-0.192	0.000	0.05		1.8	OK	
21.003	S92	5.585	-0.189	0.000	0.06		2.0	OK	
21.004	S93	5.488	-0.187	0.000	0.07		2.0	OK	
21.005	S94	5.443	-0.182	0.000	0.08		2.7	OK	
21.006	S95	5.337	-0.183	0.000	0.08		2.6	OK	
22.000	S96	6.059	-0.121	0.000	0.08		2.0	OK	
22.001	S97	5.525	-0.125	0.000	0.07		2.0	OK	
23.000	S98	5.666	-0.134	0.000	0.02		0.8	OK	
21.007	S99	5.251	-0.168	0.000	0.14		4.9	OK	
21.008	S100	5.122	-0.165	0.000	0.16		4.9	OK	
21.009	S101	5.092	-0.143	0.000	0.28		7.1	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
21.010	S102	5.037	-0.178	0.000	0.05		2.6	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
19.009	S103	960 Winter	1	+0%	30/240 Winter			
19.010	S104	960 Winter	1	+0%	30/240 Winter			
19.011	S105	960 Winter	1	+0%	30/120 Summer			
24.000	S106	15 Winter	1	+0%				
24.001	S107	15 Winter	1	+0%				
24.002	S108	30 Winter	1	+0%				
24.003	S109	30 Winter	1	+0%	100/120 Winter			
19.012	S110	960 Winter	1	+0%	30/120 Summer			
25.000	S113	15 Winter	1	+0%	1/15 Winter	100/15 Summer		
25.001	S114	15 Winter	1	+0%	1/15 Summer	100/15 Summer		
25.002	S115	15 Winter	1	+0%	1/15 Summer			
25.003	S116	30 Winter	1	+0%	1/15 Summer			
25.004	S117	30 Winter	1	+0%	1/15 Summer			
25.005	S118	30 Winter	1	+0%	1/15 Winter			
25.006	S119	30 Winter	1	+0%	30/15 Summer			
25.007	S120	30 Winter	1	+0%	30/15 Summer			
26.000	S121	60 Winter	1	+0%	100/15 Summer			
26.001	S122	60 Winter	1	+0%	100/15 Summer			
26.002	S123	60 Winter	1	+0%	30/15 Summer			
26.003	S124	60 Winter	1	+0%	30/15 Summer			
26.004	S125	15 Winter	1	+0%	30/15 Summer			
27.000	S126	30 Winter	1	+0%	30/15 Summer			
19.013	S127	360 Winter	1	+0%	1/360 Winter			
28.000	S128	60 Winter	1	+0%	100/120 Winter			
28.001	S129	60 Winter	1	+0%	100/120 Summer			
19.014	S130	360 Winter	1	+0%	30/30 Winter			
29.000	S131	30 Winter	1	+0%	100/60 Winter			
29.001	S132	60 Winter	1	+0%	30/360 Winter			
29.002	S133	60 Winter	1	+0%	30/240 Winter			
19.015	S134	360 Winter	1	+0%	30/60 Summer			
30.000	S135	360 Winter	1	+0%	100/120 Summer			
19.016	S136	360 Winter	1	+0%	30/60 Summer			
31.000	S137	15 Winter	1	+0%	100/120 Winter			
19.017	S138	360 Winter	1	+0%	30/120 Summer			
32.000	S139	15 Winter	1	+0%	30/15 Summer			
32.001	S140	15 Winter	1	+0%	30/15 Summer			
32.002	S141	15 Winter	1	+0%	30/15 Summer			
33.000	S142	15 Winter	1	+0%	100/240 Summer			
32.003	S143	30 Summer	1	+0%	30/360 Winter			
19.018	S144	360 Winter	1	+0%	30/60 Winter			
34.000	S145	120 Winter	1	+0%	100/15 Summer			
35.000	S146	15 Summer	1	+0%				
34.001	S147	15 Winter	1	+0%	100/15 Winter			
34.002	S148	30 Winter	1	+0%	100/15 Summer			
34.003	S149	960 Winter	1	+0%	30/480 Winter			
34.004	S150	960 Winter	1	+0%	30/15 Winter			
36.000	S151	30 Winter	1	+0%	100/240 Summer			
19.019	S152	960 Winter	1	+0%	30/15 Summer			

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
19.009	S103	5.037	-0.178	0.000	0.09		3.2	OK	
19.010	S104	5.036	-0.179	0.000	0.04		3.2	OK	
19.011	S105	4.946	-0.104	0.000	0.12		3.1	OK	
24.000	S106	6.336	-0.124	0.000	0.07		1.0	OK	
24.001	S107	6.185	-0.125	0.000	0.07		1.0	OK	
24.002	S108	5.987	-0.133	0.000	0.03		1.0	OK	
24.003	S109	5.520	-0.130	0.000	0.04		1.4	OK	
19.012	S110	4.944	-0.106	0.000	0.03		1.8	OK	
25.000	S113	6.205	0.005	0.000	0.48		4.1	SURCHARGED	4
25.001	S114	6.188	0.038	0.000	0.84		3.7	SURCHARGED	4
25.002	S115	6.171	0.041	0.000	1.53		7.8	SURCHARGED	
25.003	S116	6.136	0.036	0.000	0.55		4.5	SURCHARGED	
25.004	S117	6.127	0.027	0.000	1.25		5.2	SURCHARGED	
25.005	S118	6.105	0.015	0.000	0.75		4.6	SURCHARGED	
25.006	S119	6.090	0.000	0.000	1.07		4.6	OK	
25.007	S120	5.999	-0.071	0.000	0.54		4.5	OK	
26.000	S121	6.235	-0.165	0.000	0.06		2.1	OK	
26.001	S122	6.232	-0.118	0.000	0.10		2.0	OK	
26.002	S123	6.100	-0.100	0.000	0.23		2.0	OK	
26.003	S124	6.071	-0.079	0.000	0.32		2.1	OK	
26.004	S125	6.062	-0.088	0.000	0.35		4.7	OK	
27.000	S126	6.081	-0.094	0.000	0.29		4.0	OK	
19.013	S127	4.946	0.006	0.000	0.17		7.0	SURCHARGED	
28.000	S128	5.904	-0.126	0.000	0.06		0.9	OK	
28.001	S129	5.809	-0.131	0.000	0.04		0.9	OK	
19.014	S130	4.843	-0.057	0.000	0.09		5.8	OK	
29.000	S131	5.317	-0.143	0.000	0.01		0.2	OK	
29.001	S132	5.130	-0.140	0.000	0.01		0.2	OK	
29.002	S133	5.024	-0.126	0.000	0.06		1.6	OK	
19.015	S134	4.680	-0.080	0.000	0.21		4.3	OK	
30.000	S135	5.555	-0.145	0.000	0.01		0.3	OK	
19.016	S136	4.676	-0.084	0.000	0.07		3.9	OK	
31.000	S137	5.130	-0.120	0.000	0.09		3.0	OK	
19.017	S138	4.583	-0.117	0.000	0.18		3.9	OK	
32.000	S139	5.365	-0.065	0.000	0.54		8.0	OK	
32.001	S140	5.210	-0.070	0.000	0.53		7.7	OK	
32.002	S141	5.052	-0.068	0.000	0.55		7.8	OK	
33.000	S142	5.322	-0.116	0.000	0.11		2.5	OK	
32.003	S143	4.969	-0.091	0.000	0.32		8.8	OK	
19.018	S144	4.580	-0.120	0.000	0.04		4.7	OK	
34.000	S145	5.300	-0.120	0.000	0.09		1.4	OK	
35.000	S146	5.133	-0.117	0.000	0.08		3.5	OK	
34.001	S147	4.692	-0.258	0.000	0.04		4.0	OK	
34.002	S148	4.481	-0.249	0.000	0.06		4.3	OK	
34.003	S149	4.431	-0.229	0.000	0.02		1.5	OK	
34.004	S150	4.431	-0.139	0.000	0.03		1.8	OK	
36.000	S151	4.597	-0.123	0.000	0.07		1.3	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
19.019	S152	4.430	-0.020	0.000	0.10		5.8	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
37.000	S153	30 Winter	1	+0%	100/240 Winter			
38.000	S154	60 Summer	1	+0%	30/360 Winter			
19.020	S155	960 Winter	1	+0%	1/960 Winter			
19.021	S156	960 Winter	1	+0%	1/960 Winter			
19.022	S157	960 Winter	1	+0%	1/240 Summer			
39.000	S158	60 Winter	1	+0%	100/240 Winter			
39.001	S159	1440 Winter	1	+0%	30/120 Summer			
39.002	S160	1440 Winter	1	+0%	1/240 Summer			
40.000	S161	1440 Winter	1	+0%	1/240 Summer			
19.023	S162	1440 Winter	1	+0%	1/120 Summer			
19.024	S163	960 Winter	1	+0%	1/120 Summer			
1.022	S164	960 Winter	1	+0%	1/60 Summer			
1.023	S165	1440 Winter	1	+0%	1/240 Summer			
1.024	S166	1440 Winter	1	+0%	1/240 Winter			
41.000	S167	60 Winter	1	+0%				
42.000	S168	30 Winter	1	+0%				
41.001	S169	15 Winter	1	+0%	100/15 Summer			
43.000	S170	15 Winter	1	+0%				
43.001	S171	1440 Winter	1	+0%	30/15 Summer			
41.002	S172	1440 Winter	1	+0%	1/960 Summer			
41.003	S173	1440 Winter	1	+0%	1/360 Winter			
44.000	S174	1440 Winter	1	+0%	1/240 Summer			
41.004	S175	1440 Winter	1	+0%	1/240 Summer			
1.025	S176	1440 Winter	1	+0%	1/240 Summer			
1.026	S177	1440 Winter	1	+0%	1/360 Summer			
45.000	S178	30 Winter	1	+0%				
45.001	S179	240 Winter	1	+0%				
45.002	S180	15 Winter	1	+0%	30/15 Summer			
45.003	S181	15 Winter	1	+0%				
45.004	S182	15 Winter	1	+0%				
46.000	S183	30 Winter	1	+0%	100/15 Summer			
45.005	S184	15 Winter	1	+0%				
45.006	S185	15 Winter	1	+0%				
45.007	S186	15 Winter	1	+0%	100/15 Summer			
45.008	S187	15 Winter	1	+0%	30/240 Winter			
45.009	S188	360 Winter	1	+0%	100/60 Winter			
45.010	S189	360 Winter	1	+0%	100/30 Winter			
45.011	S190	360 Winter	1	+0%	100/120 Winter			
47.000	S191	30 Winter	1	+0%				
47.001	S192	60 Winter	1	+0%				
45.012	S193	360 Winter	1	+0%	100/120 Winter			
45.013	S194	360 Winter	1	+0%	100/240 Winter			
48.000	S195	30 Winter	1	+0%				
49.000	S196	30 Summer	1	+0%				
48.001	S197	15 Winter	1	+0%	100/15 Summer			
48.002	S198	15 Winter	1	+0%	30/15 Summer			
48.003	S199	15 Winter	1	+0%	30/15 Summer			
48.004	S200	15 Winter	1	+0%	30/15 Summer			

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
37.000	S153	4.593	-0.132	0.000	0.03		0.9	OK	
38.000	S154	4.464	-0.136	0.000	0.02		0.5	OK	
19.020	S155	4.428	0.008	0.000	0.23		6.0	SURCHARGED	
19.021	S156	4.425	0.005	0.000	0.08		5.3	SURCHARGED	
19.022	S157	4.427	0.162	0.000	0.08		5.6	SURCHARGED	
39.000	S158	4.586	-0.134	0.000	0.02		0.8	OK	
39.001	S159	4.416	-0.004	0.000	0.02		0.3	OK	
39.002	S160	4.418	0.148	0.000	0.03		0.4	SURCHARGED	
40.000	S161	4.421	0.176	0.000	0.02		0.7	SURCHARGED	
19.023	S162	4.421	0.236	0.000	0.13		6.2	SURCHARGED	
19.024	S163	4.422	0.253	0.000	0.12		6.3	SURCHARGED	
1.022	S164	4.420	0.285	0.000	0.47		9.5	SURCHARGED	
1.023	S165	4.265	0.130	0.000	0.29		9.3	SURCHARGED	
1.024	S166	4.255	0.120	0.000	0.15		8.7	SURCHARGED	
41.000	S167	4.297	-0.133	0.000	0.03		0.5	OK	
42.000	S168	4.736	-0.134	0.000	0.02		0.9	OK	
41.001	S169	4.198	-0.112	0.000	0.15		2.2	OK	
43.000	S170	4.330	-0.120	0.000	0.08		2.4	OK	
43.001	S171	4.176	-0.014	0.000	0.02		0.3	OK	
41.002	S172	4.176	0.038	0.000	0.02		0.7	SURCHARGED	
41.003	S173	4.176	0.096	0.000	0.02		0.8	SURCHARGED	
44.000	S174	4.176	0.181	0.000	0.01		0.2	SURCHARGED	
41.004	S175	4.176	0.231	0.000	0.05		1.0	SURCHARGED	
1.025	S176	4.176	0.156	0.000	0.47		9.1	SURCHARGED	
1.026	S177	4.125	0.125	0.000	0.46		8.9	SURCHARGED	
45.000	S178	6.176	-0.124	0.000	0.06		1.3	OK	
45.001	S179	5.916	-0.134	0.000	0.03		0.4	OK	
45.002	S180	5.871	-0.043	0.000	0.12		1.7	OK	
45.003	S181	5.701	-0.108	0.000	0.17		2.5	OK	
45.004	S182	5.543	-0.117	0.000	0.11		2.5	OK	
46.000	S183	5.491	-0.112	0.000	0.13		1.9	OK	
45.005	S184	5.329	-0.176	0.000	0.10		4.3	OK	
45.006	S185	5.214	-0.171	0.000	0.13		5.7	OK	
45.007	S186	5.017	-0.168	0.000	0.14		5.7	OK	
45.008	S187	4.952	-0.153	0.000	0.22		5.9	OK	
45.009	S188	4.941	-0.209	0.000	0.03		1.5	OK	
45.010	S189	4.940	-0.180	0.000	0.03		1.5	OK	
45.011	S190	4.830	-0.250	0.000	0.04		1.5	OK	
47.000	S191	5.585	-0.125	0.000	0.06		1.1	OK	
47.001	S192	5.417	-0.133	0.000	0.03		1.1	OK	
45.012	S193	4.819	-0.231	0.000	0.02		1.6	OK	
45.013	S194	4.659	-0.271	0.000	0.02		1.6	OK	
48.000	S195	5.413	-0.137	0.000	0.02		0.5	OK	
49.000	S196	5.705	-0.145	0.000	0.00		0.2	OK	
48.001	S197	5.048	-0.112	0.000	0.14		2.6	OK	
48.002	S198	4.867	-0.103	0.000	0.21		3.9	OK	
48.003	S199	4.722	-0.078	0.000	0.46		6.3	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
48.004	S200	4.650	-0.090	0.000	0.34		6.3	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
45.014	S201	240 Winter	1	+0%	30/240 Winter			
50.000	S202	15 Winter	1	+0%				
50.001	S203	60 Summer	1	+0%				
50.002	S204	30 Winter	1	+0%				
50.003	S205	30 Winter	1	+0%	30/240 Winter			
45.015	S206	240 Winter	1	+0%	100/120 Winter			
51.000	S207	15 Winter	1	+0%	100/15 Winter			
52.000	S208a	60 Summer	1	+0%				
51.001	S208	15 Winter	1	+0%	100/15 Summer			
51.002	S209	15 Winter	1	+0%	100/15 Summer			
51.003	S210	15 Winter	1	+0%	100/15 Summer			
53.000	S211	15 Winter	1	+0%				
51.004	S212	15 Winter	1	+0%	100/15 Summer			
54.000	S213	30 Winter	1	+0%				
51.005	S214	15 Winter	1	+0%				
55.000	S215	30 Winter	1	+0%				
51.006	S216	15 Winter	1	+0%				
56.000	S217	60 Winter	1	+0%	100/15 Summer			
51.007	S218	15 Winter	1	+0%	100/15 Summer			
51.008	S219	960 Winter	1	+0%	30/15 Winter			
51.009	S220	960 Winter	1	+0%	30/15 Winter			
51.010	S221	960 Winter	1	+0%	1/480 Winter			
45.016	S222	960 Winter	1	+0%	1/480 Winter			
57.000	S223	960 Winter	1	+0%	30/30 Winter			
57.001	S224	960 Winter	1	+0%	1/480 Winter			
45.017	S225	960 Winter	1	+0%	1/480 Winter			
58.000	S226	15 Winter	1	+0%				
58.001	S227	60 Winter	1	+0%	100/15 Summer			
58.002	S228	60 Winter	1	+0%	100/15 Summer			
58.003	S229	60 Winter	1	+0%	30/15 Summer			
45.018	S230	1440 Winter	1	+0%	100/240 Winter			
45.019	S231	1440 Winter	1	+0%	100/240 Winter			
45.020	S232	1440 Winter	1	+0%	30/480 Winter			
45.021	S233	1440 Winter	1	+0%	30/240 Winter			
59.000	S234	15 Winter	1	+0%				
59.001	S235	15 Winter	1	+0%				
60.000	S236	30 Winter	1	+0%				
59.002	S237	15 Winter	1	+0%				
61.000	S238	30 Winter	1	+0%				
61.001	S239	15 Winter	1	+0%				
59.003	S240	15 Winter	1	+0%	100/15 Summer			
59.004	S241	15 Winter	1	+0%	100/15 Summer			
62.000	S242	15 Summer	1	+0%				
59.005	S243	1440 Winter	1	+0%	1/960 Winter			
59.006	S244	1440 Winter	1	+0%	1/480 Winter			
59.007	S245	1440 Winter	1	+0%	1/360 Summer			
45.022	S246	1440 Winter	1	+0%	1/360 Summer			
63.000	S247	30 Winter	1	+0%				

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
45.014	S201	4.592	-0.208	0.000	0.06		2.5	OK	
50.000	S202	5.214	-0.136	0.000	0.02		0.4	OK	
50.001	S203	4.977	-0.123	0.000	0.07		1.2	OK	
50.002	S204	4.830	-0.120	0.000	0.09		2.6	OK	
50.003	S205	4.546	-0.104	0.000	0.20		2.7	OK	
45.015	S206	4.482	-0.268	0.000	0.03		3.2	OK	
51.000	S207	5.689	-0.111	0.000	0.15		2.1	OK	
52.000	S208a	5.900	-0.125	0.000	0.06		1.1	OK	
51.001	S208	5.603	-0.107	0.000	0.18		2.1	OK	
51.002	S209	5.478	-0.182	0.000	0.07		2.1	OK	
51.003	S210	5.464	-0.161	0.000	0.18		6.4	OK	
53.000	S211	6.050	-0.120	0.000	0.09		4.1	OK	
51.004	S212	5.364	-0.141	0.000	0.30		10.5	OK	
54.000	S213	5.351	-0.129	0.000	0.04		0.8	OK	
51.005	S214	5.150	-0.220	0.000	0.16		13.4	OK	
55.000	S215	5.265	-0.115	0.000	0.11		2.5	OK	
51.006	S216	5.019	-0.231	0.000	0.12		13.5	OK	
56.000	S217	4.732	-0.118	0.000	0.10		1.2	OK	
51.007	S218	4.582	-0.228	0.000	0.13		13.4	OK	
51.008	S219	4.420	-0.140	0.000	0.04		2.7	OK	
51.009	S220	4.419	-0.081	0.000	0.04		2.9	OK	
51.010	S221	4.419	0.019	0.000	0.06		2.8	SURCHARGED	
45.016	S222	4.419	0.039	0.000	0.20		4.1	SURCHARGED	
57.000	S223	4.415	-0.025	0.000	0.00		0.1	OK	
57.001	S224	4.415	0.015	0.000	0.00		0.1	SURCHARGED	
45.017	S225	4.415	0.035	0.000	0.16		3.5	SURCHARGED	
58.000	S226	5.191	-0.139	0.000	0.02		0.4	OK	
58.001	S227	4.677	-0.123	0.000	0.07		1.1	OK	
58.002	S228	4.588	-0.112	0.000	0.15		2.7	OK	
58.003	S229	4.398	-0.102	0.000	0.22		2.8	OK	
45.018	S230	4.141	-0.219	0.000	0.08		3.5	OK	
45.019	S231	4.141	-0.199	0.000	0.06		3.5	OK	
45.020	S232	4.140	-0.110	0.000	0.06		3.5	OK	
45.021	S233	4.139	-0.061	0.000	0.04		3.5	OK	
59.000	S234	4.906	-0.104	0.000	0.20		3.1	OK	
59.001	S235	4.716	-0.104	0.000	0.21		3.2	OK	
60.000	S236	5.077	-0.143	0.000	0.01		0.4	OK	
59.002	S237	4.620	-0.110	0.000	0.16		3.1	OK	
61.000	S238	5.326	-0.139	0.000	0.01		0.7	OK	
61.001	S239	4.628	-0.122	0.000	0.08		2.2	OK	
59.003	S240	4.204	-0.246	0.000	0.07		5.3	OK	
59.004	S241	4.151	-0.219	0.000	0.16		12.1	OK	
62.000	S242	4.426	-0.124	0.000	0.06		2.6	OK	
59.005	S243	4.138	0.018	0.000	0.02		1.4	SURCHARGED	
59.006	S244	4.138	0.068	0.000	0.03		1.6	SURCHARGED	
59.007	S245	4.138	0.088	0.000	0.03		1.5	SURCHARGED	
45.022	S246	4.138	0.088	0.000	0.17		4.5	SURCHARGED	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
63.000	S247	4.376	-0.119	0.000	0.09		1.3	OK	

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
63.001	S248	120 Winter	1	+0%					4.268
45.023	S249	1440 Winter	1	+0%	1/360 Winter				4.119
1.027	S250	1440 Winter	1	+0%	1/360 Summer				4.118
1.028	S251	1440 Winter	1	+0%	1/360 Summer				4.113

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
63.001	S248	-0.132	0.000	0.04		0.8	OK	
45.023	S249	0.069	0.000	0.06		3.7	SURCHARGED	
1.027	S250	0.118	0.000	0.13		8.0	SURCHARGED	
1.028	S251	0.163	0.000	0.13		8.0	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
Hot Start Level (mm) 0 Inlet Coeffiecient 0.800
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0 Number of Storage Structures 114
Number of Online Controls 23 Number of Time/Area Diagrams 74
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FEH
FEH Rainfall Version	1999
Site Location	GB 497500 102350 SU 97500 02350
C (1km)	-0.025
D1 (1km)	0.390
D2 (1km)	0.245
D3 (1km)	0.403
E (1km)	0.310
F (1km)	2.321
Cv (Summer)	0.750
Cv (Winter)	0.840

Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status OFF
DVD Status ON
Inertia Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 0

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	S1	480 Winter	30	+0%	1/30 Winter				6.229
1.001	S2	480 Winter	30	+0%					6.222
1.002	S3	480 Winter	30	+0%					6.171
1.003	S4	480 Winter	30	+0%	100/120 Winter				5.931
1.004	S5	480 Winter	30	+0%	30/15 Summer				5.873
2.000	S6	480 Winter	30	+0%	100/15 Summer				6.354
2.001	S7	15 Winter	30	+0%	30/15 Summer				6.276
2.002	S8	15 Winter	30	+0%	30/15 Summer				6.266
2.003	S9	15 Winter	30	+0%	30/15 Summer				6.239
2.004	S10	480 Winter	30	+0%	30/15 Summer				5.876
2.005	S11	480 Winter	30	+0%	30/15 Summer				5.874

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	S1	0.479	0.000	0.10		0.6	SURCHARGED	
1.001	S2	-0.128	0.000	0.05		0.7	OK	
1.002	S3	-0.129	0.000	0.05		0.7	OK	
1.003	S4	-0.129	0.000	0.05		0.7	OK	
1.004	S5	0.323	0.000	0.03		0.7	SURCHARGED	
2.000	S6	-0.121	0.000	0.08		1.3	OK	
2.001	S7	0.171	0.000	0.51		6.7	SURCHARGED	
2.002	S8	0.211	0.000	0.71		9.9	SURCHARGED	
2.003	S9	0.259	0.000	1.22		18.9	SURCHARGED	
2.004	S10	0.166	0.000	0.25		3.1	SURCHARGED	
2.005	S11	0.204	0.000	0.28		3.1	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.005	S12	480 Winter	30	+0%	30/15 Summer				5.873
3.000	S13	120 Winter	30	+0%	1/240 Summer				6.213
3.001	S14	120 Winter	30	+0%	1/120 Summer				6.210
3.002	S15	120 Winter	30	+0%	1/30 Winter				6.202
3.003	S16	120 Winter	30	+0%	1/15 Summer				6.196
3.004	S17	120 Winter	30	+0%	100/30 Winter				6.176
3.005	S18	120 Winter	30	+0%	100/15 Winter				6.101
4.000	S19	15 Winter	30	+0%	100/30 Winter				6.176
3.006	S20	15 Winter	30	+0%	100/15 Summer				6.067
3.007	S21	15 Winter	30	+0%	100/15 Summer				5.936
5.000	S255	480 Winter	30	+0%	30/120 Summer				5.877
5.001	S254	480 Winter	30	+0%	30/15 Summer				5.877
5.002	S22	480 Winter	30	+0%	30/15 Summer				5.877
6.000	S23	15 Summer	30	+0%	100/15 Summer				5.955
3.008	S24	30 Winter	30	+0%	30/15 Winter				5.885
3.009	S26	480 Winter	30	+0%	30/15 Summer				5.879
3.010	S27	480 Winter	30	+0%	30/15 Summer				5.878
3.011	S28	480 Winter	30	+0%	30/15 Summer				5.876
7.000	S29	480 Winter	30	+0%	30/15 Summer				5.874
3.012	S30	480 Winter	30	+0%	30/15 Summer				5.873
3.013	S31	480 Winter	30	+0%	30/15 Summer				5.871
1.006	S32	480 Winter	30	+0%	30/15 Summer				5.870
8.000	S33	15 Winter	30	+0%	30/15 Summer				5.745
9.000	S34	15 Winter	30	+0%	30/15 Summer				5.674
8.001	S35	480 Winter	30	+0%	30/15 Summer				5.657
1.007	S36	480 Winter	30	+0%	30/30 Summer				5.656
1.008	S37	480 Winter	30	+0%	30/30 Summer				5.705
1.009	S38	480 Winter	30	+0%	1/60 Winter				5.710
1.010	S39	360 Winter	30	+0%	1/30 Summer				5.490
10.000	S112	15 Winter	30	+0%	100/15 Summer				6.114
10.001	S111	15 Winter	30	+0%	100/15 Summer				6.049
10.002	S40	15 Winter	30	+0%	30/15 Summer				6.035
10.003	S41	15 Winter	30	+0%	30/15 Summer				5.949
10.004	S42	15 Winter	30	+0%	30/15 Summer				5.933
11.000	S256	15 Winter	30	+0%	30/15 Summer				5.923
10.005	S43	15 Winter	30	+0%	30/15 Summer				5.900
10.006	S44	15 Winter	30	+0%	30/15 Summer				5.869
10.007	S45	30 Winter	30	+0%	1/15 Summer				5.688
10.008	S46	240 Winter	30	+0%	1/15 Summer				5.492
10.009	S47	240 Winter	30	+0%	1/15 Summer				5.481
1.011	S48	360 Winter	30	+0%	1/15 Summer				5.474
1.012	S49	240 Winter	30	+0%	1/60 Summer				5.313
1.013	S50	240 Winter	30	+0%	1/15 Summer				5.364
12.000	S51	15 Winter	30	+0%					5.332
12.001	S52	15 Summer	30	+0%	100/15 Summer				5.157
1.014	S53	1440 Winter	30	+0%	30/960 Winter				4.920
1.015	S54	1440 Winter	30	+0%	30/240 Winter				4.905
1.016	S55	1440 Winter	30	+0%	1/240 Summer				4.893

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.005	S12	0.323	0.000	0.06		3.0	SURCHARGED	
3.000	S13	0.183	0.000	0.08		1.1	SURCHARGED	
3.001	S14	0.240	0.000	0.31		5.4	SURCHARGED	
3.002	S15	0.312	0.000	0.41		5.2	SURCHARGED	
3.003	S16	0.346	0.000	1.12		5.0	SURCHARGED	
3.004	S17	-0.089	0.000	0.35		4.6	OK	
3.005	S18	-0.089	0.000	0.35		4.6	OK	
4.000	S19	-0.074	0.000	0.50		7.1	OK	
3.006	S20	-0.073	0.000	0.52		7.3	OK	
3.007	S21	-0.094	0.000	0.30		7.2	OK	
5.000	S255	0.107	0.000	0.08		0.8	SURCHARGED	
5.001	S254	0.107	0.000	0.08		0.8	SURCHARGED	
5.002	S22	0.032	0.000	0.02		0.7	SURCHARGED	
6.000	S23	-0.049	0.000	0.79		20.5	OK	
3.008	S24	0.085	0.000	0.28		16.8	SURCHARGED	
3.009	S26	0.176	0.000	0.14		7.7	SURCHARGED	
3.010	S27	0.219	0.000	0.15		8.0	SURCHARGED	
3.011	S28	0.256	0.000	0.11		7.7	SURCHARGED	
7.000	S29	0.267	0.000	0.07		1.0	SURCHARGED	
3.012	S30	0.353	0.000	0.17		9.7	SURCHARGED	
3.013	S31	0.391	0.000	0.17		9.6	SURCHARGED	
1.006	S32	0.420	0.000	0.15		4.8	SURCHARGED	
8.000	S33	0.045	0.000	0.73		13.3	SURCHARGED	
9.000	S34	0.174	0.000	1.05		13.9	SURCHARGED	
8.001	S35	0.217	0.000	0.29		3.2	SURCHARGED	
1.007	S36	0.236	0.000	0.26		6.8	SURCHARGED	
1.008	S37	0.285	0.000	0.11		6.1	SURCHARGED	
1.009	S38	0.440	0.000	0.33		5.4	SURCHARGED	
1.010	S39	0.380	0.000	0.37		5.4	SURCHARGED	
10.000	S112	-0.086	0.000	0.37		5.4	OK	
10.001	S111	-0.001	0.000	0.33		4.8	OK	
10.002	S40	0.085	0.000	1.18		14.6	SURCHARGED	
10.003	S41	0.119	0.000	0.61		9.8	SURCHARGED	
10.004	S42	0.173	0.000	0.58		12.5	SURCHARGED	
11.000	S256	0.383	0.000	0.43		6.9	SURCHARGED	
10.005	S43	0.490	0.000	0.71		11.2	SURCHARGED	
10.006	S44	0.569	0.000	1.29		18.3	SURCHARGED	
10.007	S45	0.538	0.000	2.32		16.6	SURCHARGED	
10.008	S46	0.392	0.000	0.76		9.1	SURCHARGED	
10.009	S47	0.431	0.000	0.42		5.0	SURCHARGED	
1.011	S48	0.474	0.000	0.51		7.0	SURCHARGED	
1.012	S49	0.288	0.000	0.24		8.0	SURCHARGED	
1.013	S50	0.425	0.000	0.26		8.0	SURCHARGED	
12.000	S51	-0.068	0.000	0.56		7.8	OK	
12.001	S52	-0.053	0.000	0.72		7.8	OK	
1.014	S53	0.027	0.000	0.25		7.3	SURCHARGED	
1.015	S54	0.138	0.000	0.18		7.2	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.016	S55	0.316	0.000	0.18		7.2	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
13.000	S56	1440 Winter	30	+0%	100/480 Winter			
13.001	S57	1440 Winter	30	+0%	30/360 Winter			
13.002	S58	1440 Winter	30	+0%	30/240 Summer			
13.003	S59	1440 Winter	30	+0%	1/480 Winter			
1.017	S60	1440 Winter	30	+0%	1/120 Summer			
14.000	S61	15 Winter	30	+0%	100/15 Summer			
15.000	S62	15 Winter	30	+0%				
14.001	S63	15 Winter	30	+0%	30/15 Summer			
14.002	S64	15 Winter	30	+0%	100/15 Summer			
14.003	S65	15 Winter	30	+0%				
14.004	S66	1440 Winter	30	+0%	100/1440 Winter			
16.000	S67	15 Winter	30	+0%				
16.001	S68	1440 Winter	30	+0%	100/480 Winter			
14.005	S69	1440 Winter	30	+0%	30/15 Summer			
14.006	S70	1440 Winter	30	+0%	1/480 Winter			
14.007	S71	1440 Winter	30	+0%	1/120 Winter			
17.000	S72	15 Winter	30	+0%				
18.000	S73	15 Summer	30	+0%	100/15 Summer			
17.001	S74	15 Winter	30	+0%	30/15 Summer			
17.002	S75	15 Winter	30	+0%	30/15 Winter			
1.018	S76	1440 Winter	30	+0%	1/60 Winter			
1.019	S77	1440 Winter	30	+0%	1/60 Winter			
1.020	S78	960 Winter	30	+0%	1/960 Winter			
1.021	S79	960 Winter	30	+0%	1/360 Winter			
19.000	S80	60 Winter	30	+0%	100/360 Winter			
19.001	S81	15 Winter	30	+0%	100/240 Winter			
20.000	S82	15 Summer	30	+0%	100/15 Summer			
19.002	S83	15 Winter	30	+0%	100/240 Winter			
19.003	S84	15 Winter	30	+0%	100/240 Winter			
19.004	S85	960 Winter	30	+0%	100/240 Summer			
19.005	S86	960 Winter	30	+0%	100/60 Winter			
19.006	S87	960 Winter	30	+0%	30/240 Winter			
19.007	S88	960 Winter	30	+0%	30/120 Winter			
19.008	S89	960 Winter	30	+0%	30/240 Winter			
21.000	S253	60 Winter	30	+0%	100/15 Summer			
21.001	S90	60 Winter	30	+0%	100/480 Winter			
21.002	S91	60 Winter	30	+0%	100/240 Winter			
21.003	S92	60 Winter	30	+0%	100/240 Summer			
21.004	S93	60 Winter	30	+0%	100/240 Summer			
21.005	S94	30 Winter	30	+0%	100/240 Summer			
21.006	S95	960 Winter	30	+0%	100/120 Winter			
22.000	S96	15 Winter	30	+0%				
22.001	S97	15 Winter	30	+0%	100/240 Summer			
23.000	S98	15 Winter	30	+0%	100/240 Winter			
21.007	S99	960 Winter	30	+0%	100/15 Summer			
21.008	S100	960 Winter	30	+0%	30/360 Winter			
21.009	S101	960 Winter	30	+0%	30/15 Summer			
21.010	S102	960 Winter	30	+0%	30/240 Winter			

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
13.000	S56	4.885	-0.055	0.000	0.00		0.1	OK	
13.001	S57	4.885	0.085	0.000	0.02		0.3	SURCHARGED	
13.002	S58	4.885	0.175	0.000	0.04		0.6	SURCHARGED	
13.003	S59	4.885	0.285	0.000	0.05		1.0	SURCHARGED	
1.017	S60	4.885	0.335	0.000	0.20		6.9	SURCHARGED	
14.000	S61	6.291	-0.044	0.000	0.78		11.9	OK	
15.000	S62	6.106	-0.084	0.000	0.39		6.0	OK	
14.001	S63	5.876	0.016	0.000	1.05		16.1	SURCHARGED	
14.002	S64	5.615	-0.045	0.000	0.80		28.9	OK	
14.003	S65	5.167	-0.163	0.000	0.41		37.3	OK	
14.004	S66	4.878	-0.162	0.000	0.02		2.1	OK	
16.000	S67	5.040	-0.070	0.000	0.56		8.4	OK	
16.001	S68	4.878	-0.072	0.000	0.01		0.4	OK	
14.005	S69	4.878	0.188	0.000	0.05		3.1	SURCHARGED	
14.006	S70	4.878	0.288	0.000	0.06		3.2	SURCHARGED	
14.007	S71	4.878	0.318	0.000	0.05		3.2	SURCHARGED	
17.000	S72	5.458	-0.092	0.000	0.31		7.7	OK	
18.000	S73	5.195	-0.085	0.000	0.39		9.5	OK	
17.001	S74	5.062	0.062	0.000	1.31		18.8	SURCHARGED	
17.002	S75	4.923	0.003	0.000	0.93		18.0	SURCHARGED	
1.018	S76	4.878	0.378	0.000	0.08		5.0	SURCHARGED	
1.019	S77	4.883	0.433	0.000	0.08		5.0	SURCHARGED	
1.020	S78	4.688	0.288	0.000	0.13		5.2	SURCHARGED	
1.021	S79	4.683	0.333	0.000	0.07		5.3	SURCHARGED	
19.000	S80	5.687	-0.198	0.000	0.03		1.0	OK	
19.001	S81	5.654	-0.164	0.000	0.16		5.4	OK	
20.000	S82	5.724	-0.049	0.000	0.78		10.3	OK	
19.002	S83	5.522	-0.190	0.000	0.28		15.6	OK	
19.003	S84	5.463	-0.194	0.000	0.27		15.6	OK	
19.004	S85	5.423	-0.159	0.000	0.04		2.7	OK	
19.005	S86	5.423	-0.060	0.000	0.05		3.2	OK	
19.006	S87	5.422	0.047	0.000	0.05		3.0	SURCHARGED	
19.007	S88	5.422	0.092	0.000	0.03		1.6	SURCHARGED	
19.008	S89	5.405	0.162	0.000	0.03		1.5	SURCHARGED	
21.000	S253	6.018	-0.032	0.000	0.98		9.3	OK	
21.001	S90	5.977	-0.073	0.000	0.52		9.3	OK	
21.002	S91	5.745	-0.145	0.000	0.28		9.3	OK	
21.003	S92	5.636	-0.138	0.000	0.32		10.6	OK	
21.004	S93	5.544	-0.131	0.000	0.37		11.1	OK	
21.005	S94	5.495	-0.130	0.000	0.37		12.2	OK	
21.006	S95	5.414	-0.106	0.000	0.09		3.0	OK	
22.000	S96	6.083	-0.097	0.000	0.27		6.4	OK	
22.001	S97	5.549	-0.101	0.000	0.23		6.8	OK	
23.000	S98	5.686	-0.114	0.000	0.13		4.8	OK	
21.007	S99	5.412	-0.007	0.000	0.15		4.9	OK	
21.008	S100	5.409	0.122	0.000	0.16		4.9	SURCHARGED	
21.009	S101	5.407	0.172	0.000	0.24		5.9	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
21.010	S102	5.406	0.191	0.000	0.12		5.9	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
19.009	S103	960 Winter	30	+0%	30/240 Winter			
19.010	S104	960 Winter	30	+0%	30/240 Winter			
19.011	S105	960 Winter	30	+0%	30/120 Summer			
24.000	S106	15 Winter	30	+0%				
24.001	S107	15 Winter	30	+0%				
24.002	S108	15 Winter	30	+0%				
24.003	S109	15 Winter	30	+0%	100/120 Winter			
19.012	S110	960 Winter	30	+0%	30/120 Summer			
25.000	S113	15 Winter	30	+0%	1/15 Winter	100/15 Summer		
25.001	S114	15 Winter	30	+0%	1/15 Summer	100/15 Summer		
25.002	S115	15 Winter	30	+0%	1/15 Summer			
25.003	S116	30 Winter	30	+0%	1/15 Summer			
25.004	S117	30 Winter	30	+0%	1/15 Summer			
25.005	S118	60 Winter	30	+0%	1/15 Winter			
25.006	S119	60 Winter	30	+0%	30/15 Summer			
25.007	S120	60 Winter	30	+0%	30/15 Summer			
26.000	S121	15 Winter	30	+0%	100/15 Summer			
26.001	S122	30 Winter	30	+0%	100/15 Summer			
26.002	S123	60 Winter	30	+0%	30/15 Summer			
26.003	S124	60 Winter	30	+0%	30/15 Summer			
26.004	S125	60 Winter	30	+0%	30/15 Summer			
27.000	S126	60 Winter	30	+0%	30/15 Summer			
19.013	S127	60 Winter	30	+0%	1/360 Winter			
28.000	S128	15 Summer	30	+0%	100/120 Winter			
28.001	S129	15 Summer	30	+0%	100/120 Summer			
19.014	S130	240 Winter	30	+0%	30/30 Winter			
29.000	S131	480 Winter	30	+0%	100/60 Winter			
29.001	S132	480 Winter	30	+0%	30/360 Winter			
29.002	S133	480 Winter	30	+0%	30/240 Winter			
19.015	S134	480 Winter	30	+0%	30/60 Summer			
30.000	S135	15 Winter	30	+0%	100/120 Summer			
19.016	S136	480 Winter	30	+0%	30/60 Summer			
31.000	S137	480 Winter	30	+0%	100/120 Winter			
19.017	S138	480 Winter	30	+0%	30/120 Summer			
32.000	S139	15 Winter	30	+0%	30/15 Summer			
32.001	S140	15 Winter	30	+0%	30/15 Summer			
32.002	S141	480 Winter	30	+0%	30/15 Summer			
33.000	S142	15 Winter	30	+0%	100/240 Summer			
32.003	S143	480 Winter	30	+0%	30/360 Winter			
19.018	S144	480 Winter	30	+0%	30/60 Winter			
34.000	S145	15 Winter	30	+0%	100/15 Summer			
35.000	S146	15 Winter	30	+0%				
34.001	S147	15 Winter	30	+0%	100/15 Winter			
34.002	S148	960 Winter	30	+0%	100/15 Summer			
34.003	S149	960 Winter	30	+0%	30/480 Winter			
34.004	S150	960 Winter	30	+0%	30/15 Winter			
36.000	S151	960 Winter	30	+0%	100/240 Summer			
19.019	S152	960 Winter	30	+0%	30/15 Summer			

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
19.009	S103	5.405	0.190	0.000	0.11		4.2	SURCHARGED	
19.010	S104	5.404	0.189	0.000	0.05		4.0	SURCHARGED	
19.011	S105	5.358	0.308	0.000	0.14		3.9	SURCHARGED	
24.000	S106	6.357	-0.103	0.000	0.22		3.3	OK	
24.001	S107	6.233	-0.077	0.000	0.43		6.5	OK	
24.002	S108	6.017	-0.103	0.000	0.20		6.7	OK	
24.003	S109	5.552	-0.098	0.000	0.25		8.8	OK	
19.012	S110	5.357	0.307	0.000	0.04		2.3	SURCHARGED	
25.000	S113	6.930	0.730	0.000	1.53		13.2	FLOOD RISK	4
25.001	S114	6.801	0.651	0.000	2.90		12.7	FLOOD RISK	4
25.002	S115	6.801	0.671	0.000	4.13		21.1	FLOOD RISK	
25.003	S116	6.375	0.275	0.000	0.87		7.1	SURCHARGED	
25.004	S117	6.359	0.259	0.000	2.47		10.4	SURCHARGED	
25.005	S118	6.323	0.233	0.000	1.44		8.9	SURCHARGED	
25.006	S119	6.300	0.210	0.000	2.00		8.5	SURCHARGED	
25.007	S120	6.267	0.197	0.000	0.97		8.1	SURCHARGED	
26.000	S121	6.327	-0.073	0.000	0.35		11.9	OK	
26.001	S122	6.314	-0.036	0.000	0.39		7.9	OK	
26.002	S123	6.298	0.098	0.000	0.77		6.8	SURCHARGED	
26.003	S124	6.281	0.131	0.000	0.95		6.0	SURCHARGED	
26.004	S125	6.270	0.120	0.000	1.01		13.6	SURCHARGED	
27.000	S126	6.269	0.094	0.000	0.45		6.1	SURCHARGED	
19.013	S127	6.250	1.310	0.000	0.26		10.8	SURCHARGED	
28.000	S128	5.948	-0.082	0.000	0.41		6.3	OK	
28.001	S129	5.848	-0.092	0.000	0.28		6.3	OK	
19.014	S130	5.490	0.590	0.000	0.15		9.7	SURCHARGED	
29.000	S131	5.352	-0.108	0.000	0.01		0.2	OK	
29.001	S132	5.351	0.081	0.000	0.02		0.3	SURCHARGED	
29.002	S133	5.351	0.201	0.000	0.04		1.3	SURCHARGED	
19.015	S134	5.349	0.589	0.000	0.35		7.2	SURCHARGED	
30.000	S135	5.583	-0.117	0.000	0.09		4.3	OK	
19.016	S136	5.343	0.583	0.000	0.13		7.3	SURCHARGED	
31.000	S137	5.205	-0.045	0.000	0.03		1.1	OK	
19.017	S138	5.203	0.503	0.000	0.28		6.0	SURCHARGED	
32.000	S139	5.787	0.357	0.000	1.47		21.6	SURCHARGED	
32.001	S140	5.484	0.204	0.000	1.39		20.3	SURCHARGED	
32.002	S141	5.214	0.094	0.000	0.30		4.2	SURCHARGED	
33.000	S142	5.351	-0.087	0.000	0.36		8.1	OK	
32.003	S143	5.208	0.148	0.000	0.22		6.3	SURCHARGED	
19.018	S144	5.198	0.498	0.000	0.07		9.3	SURCHARGED	
34.000	S145	5.386	-0.034	0.000	0.94		14.8	OK	
35.000	S146	5.157	-0.093	0.000	0.31		13.2	OK	
34.001	S147	4.758	-0.192	0.000	0.25		26.4	OK	
34.002	S148	4.698	-0.032	0.000	0.04		2.7	OK	
34.003	S149	4.698	0.038	0.000	0.04		3.2	SURCHARGED	
34.004	S150	4.697	0.127	0.000	0.06		4.0	SURCHARGED	
36.000	S151	4.697	-0.023	0.000	0.03		0.5	OK	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
19.019	S152	4.697	0.247	0.000	0.18		10.5	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
37.000	S153	960 Winter	30	+0%	100/240 Winter			
38.000	S154	960 Winter	30	+0%	30/360 Winter			
19.020	S155	960 Winter	30	+0%	1/960 Winter			
19.021	S156	960 Winter	30	+0%	1/960 Winter			
19.022	S157	960 Winter	30	+0%	1/240 Summer			
39.000	S158	960 Winter	30	+0%	100/240 Winter			
39.001	S159	960 Winter	30	+0%	30/120 Summer			
39.002	S160	960 Winter	30	+0%	1/240 Summer			
40.000	S161	960 Winter	30	+0%	1/240 Summer			
19.023	S162	960 Winter	30	+0%	1/120 Summer			
19.024	S163	960 Winter	30	+0%	1/120 Summer			
1.022	S164	960 Winter	30	+0%	1/60 Summer			
1.023	S165	1440 Winter	30	+0%	1/240 Summer			
1.024	S166	1440 Winter	30	+0%	1/240 Winter			
41.000	S167	15 Summer	30	+0%				
42.000	S168	15 Winter	30	+0%				
41.001	S169	1440 Winter	30	+0%	100/15 Summer			
43.000	S170	15 Winter	30	+0%				
43.001	S171	1440 Winter	30	+0%	30/15 Summer			
41.002	S172	1440 Winter	30	+0%	1/960 Summer			
41.003	S173	1440 Winter	30	+0%	1/360 Winter			
44.000	S174	1440 Winter	30	+0%	1/240 Summer			
41.004	S175	1440 Winter	30	+0%	1/240 Summer			
1.025	S176	1440 Winter	30	+0%	1/240 Summer			
1.026	S177	1440 Winter	30	+0%	1/360 Summer			
45.000	S178	15 Summer	30	+0%				
45.001	S179	60 Winter	30	+0%				
45.002	S180	15 Winter	30	+0%	30/15 Summer			
45.003	S181	15 Summer	30	+0%				
45.004	S182	15 Winter	30	+0%				
46.000	S183	15 Summer	30	+0%	100/15 Summer			
45.005	S184	15 Summer	30	+0%				
45.006	S185	15 Winter	30	+0%				
45.007	S186	240 Winter	30	+0%	100/15 Summer			
45.008	S187	240 Winter	30	+0%	30/240 Winter			
45.009	S188	240 Winter	30	+0%	100/60 Winter			
45.010	S189	240 Winter	30	+0%	100/30 Winter			
45.011	S190	360 Winter	30	+0%	100/120 Winter			
47.000	S191	15 Summer	30	+0%				
47.001	S192	15 Summer	30	+0%				
45.012	S193	360 Winter	30	+0%	100/120 Winter			
45.013	S194	480 Winter	30	+0%	100/240 Winter			
48.000	S195	15 Summer	30	+0%				
49.000	S196	15 Winter	30	+0%				
48.001	S197	15 Winter	30	+0%	100/15 Summer			
48.002	S198	15 Winter	30	+0%	30/15 Summer			
48.003	S199	15 Winter	30	+0%	30/15 Summer			
48.004	S200	480 Winter	30	+0%	30/15 Summer			

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
37.000	S153	4.695	-0.030	0.000	0.01		0.4	OK	
38.000	S154	4.695	0.095	0.000	0.01		0.2	SURCHARGED	
19.020	S155	4.695	0.275	0.000	0.41		10.9	SURCHARGED	
19.021	S156	4.691	0.271	0.000	0.14		9.5	SURCHARGED	
19.022	S157	4.685	0.420	0.000	0.14		10.2	SURCHARGED	
39.000	S158	4.683	-0.037	0.000	0.01		0.3	OK	
39.001	S159	4.683	0.263	0.000	0.05		0.8	SURCHARGED	
39.002	S160	4.683	0.413	0.000	0.05		0.8	SURCHARGED	
40.000	S161	4.682	0.437	0.000	0.03		1.1	SURCHARGED	
19.023	S162	4.682	0.497	0.000	0.24		11.5	SURCHARGED	
19.024	S163	4.680	0.511	0.000	0.21		11.5	SURCHARGED	
1.022	S164	4.677	0.542	0.000	0.59		11.8	SURCHARGED	
1.023	S165	4.430	0.295	0.000	0.34		10.8	SURCHARGED	
1.024	S166	4.415	0.280	0.000	0.18		9.9	SURCHARGED	
41.000	S167	4.326	-0.104	0.000	0.21		3.3	OK	
42.000	S168	4.756	-0.114	0.000	0.13		5.5	OK	
41.001	S169	4.284	-0.026	0.000	0.06		0.8	OK	
43.000	S170	4.352	-0.098	0.000	0.26		7.9	OK	
43.001	S171	4.283	0.093	0.000	0.05		0.7	SURCHARGED	
41.002	S172	4.283	0.145	0.000	0.05		1.5	SURCHARGED	
41.003	S173	4.282	0.202	0.000	0.05		1.8	SURCHARGED	
44.000	S174	4.282	0.287	0.000	0.03		0.4	SURCHARGED	
41.004	S175	4.282	0.337	0.000	0.11		2.5	SURCHARGED	
1.025	S176	4.281	0.261	0.000	0.55		10.5	SURCHARGED	
1.026	S177	4.209	0.209	0.000	0.52		10.2	FLOOD RISK	
45.000	S178	6.216	-0.084	0.000	0.40		8.5	OK	
45.001	S179	5.963	-0.087	0.000	0.15		2.1	OK	
45.002	S180	6.087	0.173	0.000	0.22		3.1	SURCHARGED	
45.003	S181	5.733	-0.076	0.000	0.47		6.9	OK	
45.004	S182	5.568	-0.092	0.000	0.31		7.0	OK	
46.000	S183	5.559	-0.044	0.000	0.83		11.8	OK	
45.005	S184	5.376	-0.129	0.000	0.35		14.7	OK	
45.006	S185	5.284	-0.101	0.000	0.57		24.6	OK	
45.007	S186	5.115	-0.070	0.000	0.20		8.1	OK	
45.008	S187	5.111	0.006	0.000	0.32		8.5	SURCHARGED	
45.009	S188	5.108	-0.042	0.000	0.09		4.1	OK	
45.010	S189	5.106	-0.014	0.000	0.08		4.0	OK	
45.011	S190	4.955	-0.125	0.000	0.09		3.7	OK	
47.000	S191	5.623	-0.087	0.000	0.37		7.0	OK	
47.001	S192	5.444	-0.106	0.000	0.18		7.1	OK	
45.012	S193	4.953	-0.097	0.000	0.05		3.8	OK	
45.013	S194	4.829	-0.101	0.000	0.04		3.0	OK	
48.000	S195	5.433	-0.117	0.000	0.11		2.9	OK	
49.000	S196	5.717	-0.133	0.000	0.03		1.5	OK	
48.001	S197	5.095	-0.065	0.000	0.57		10.6	OK	
48.002	S198	5.045	0.075	0.000	0.76		14.3	SURCHARGED	
48.003	S199	4.945	0.145	0.000	1.67		22.8	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
48.004	S200	4.829	0.089	0.000	0.17		3.2	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
45.014	S201	480 Winter	30	+0%	30/240 Winter			
50.000	S202	15 Winter	30	+0%				
50.001	S203	15 Winter	30	+0%				
50.002	S204	15 Summer	30	+0%				
50.003	S205	480 Winter	30	+0%	30/240 Winter			
45.015	S206	480 Winter	30	+0%	100/120 Winter			
51.000	S207	15 Winter	30	+0%	100/15 Winter			
52.000	S208a	15 Winter	30	+0%				
51.001	S208	15 Winter	30	+0%	100/15 Summer			
51.002	S209	15 Winter	30	+0%	100/15 Summer			
51.003	S210	15 Winter	30	+0%	100/15 Summer			
53.000	S211	15 Winter	30	+0%				
51.004	S212	15 Winter	30	+0%	100/15 Summer			
54.000	S213	15 Summer	30	+0%				
51.005	S214	15 Winter	30	+0%				
55.000	S215	15 Winter	30	+0%				
51.006	S216	15 Winter	30	+0%				
56.000	S217	15 Summer	30	+0%	100/15 Summer			
51.007	S218	30 Winter	30	+0%	100/15 Summer			
51.008	S219	480 Winter	30	+0%	30/15 Winter			
51.009	S220	480 Winter	30	+0%	30/15 Winter			
51.010	S221	480 Winter	30	+0%	1/480 Winter			
45.016	S222	480 Winter	30	+0%	1/480 Winter			
57.000	S223	480 Winter	30	+0%	30/30 Winter			
57.001	S224	480 Winter	30	+0%	1/480 Winter			
45.017	S225	480 Winter	30	+0%	1/480 Winter			
58.000	S226	15 Winter	30	+0%				
58.001	S227	15 Summer	30	+0%	100/15 Summer			
58.002	S228	15 Summer	30	+0%	100/15 Summer			
58.003	S229	15 Winter	30	+0%	30/15 Summer			
45.018	S230	1440 Winter	30	+0%	100/240 Winter			
45.019	S231	1440 Winter	30	+0%	100/240 Winter			
45.020	S232	1440 Winter	30	+0%	30/480 Winter			
45.021	S233	1440 Winter	30	+0%	30/240 Winter			
59.000	S234	15 Winter	30	+0%				
59.001	S235	15 Winter	30	+0%				
60.000	S236	15 Summer	30	+0%				
59.002	S237	15 Summer	30	+0%				
61.000	S238	15 Winter	30	+0%				
61.001	S239	15 Winter	30	+0%				
59.003	S240	1440 Winter	30	+0%	100/15 Summer			
59.004	S241	1440 Winter	30	+0%	100/15 Summer			
62.000	S242	15 Winter	30	+0%				
59.005	S243	1440 Winter	30	+0%	1/960 Winter			
59.006	S244	1440 Winter	30	+0%	1/480 Winter			
59.007	S245	1440 Winter	30	+0%	1/360 Summer			
45.022	S246	1440 Winter	30	+0%	1/360 Summer			
63.000	S247	15 Summer	30	+0%				

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
45.014	S201	4.827	0.027	0.000	0.09		4.1	SURCHARGED	
50.000	S202	5.225	-0.125	0.000	0.06		1.4	OK	
50.001	S203	5.023	-0.077	0.000	0.48		8.3	OK	
50.002	S204	4.857	-0.093	0.000	0.30		8.9	OK	
50.003	S205	4.688	0.038	0.000	0.13		1.7	SURCHARGED	
45.015	S206	4.687	-0.063	0.000	0.04		5.1	OK	
51.000	S207	5.723	-0.077	0.000	0.47		6.8	OK	
52.000	S208a	5.943	-0.082	0.000	0.42		8.0	OK	
51.001	S208	5.655	-0.055	0.000	0.72		8.5	OK	
51.002	S209	5.551	-0.109	0.000	0.28		8.5	OK	
51.003	S210	5.545	-0.080	0.000	0.66		23.7	OK	
53.000	S211	6.074	-0.096	0.000	0.27		13.3	OK	
51.004	S212	5.499	-0.006	0.000	1.00		35.0	OK	
54.000	S213	5.382	-0.098	0.000	0.26		4.8	OK	
51.005	S214	5.231	-0.139	0.000	0.54		46.0	OK	
55.000	S215	5.318	-0.062	0.000	0.65		14.3	OK	
51.006	S216	5.083	-0.167	0.000	0.40		46.0	OK	
56.000	S217	4.789	-0.061	0.000	0.65		8.1	OK	
51.007	S218	4.716	-0.094	0.000	0.43		43.4	OK	
51.008	S219	4.687	0.127	0.000	0.17		10.4	SURCHARGED	
51.009	S220	4.685	0.185	0.000	0.14		11.1	SURCHARGED	
51.010	S221	4.683	0.283	0.000	0.23		11.0	SURCHARGED	
45.016	S222	4.682	0.302	0.000	0.48		9.8	SURCHARGED	
57.000	S223	4.675	0.235	0.000	0.01		0.6	SURCHARGED	
57.001	S224	4.675	0.275	0.000	0.01		0.5	SURCHARGED	
45.017	S225	4.675	0.295	0.000	0.33		7.2	SURCHARGED	
58.000	S226	5.201	-0.129	0.000	0.05		1.4	OK	
58.001	S227	4.721	-0.079	0.000	0.44		6.8	OK	
58.002	S228	4.669	-0.031	0.000	0.96		18.1	OK	
58.003	S229	4.545	0.045	0.000	1.45		18.2	SURCHARGED	
45.018	S230	4.321	-0.039	0.000	0.15		6.8	OK	
45.019	S231	4.319	-0.021	0.000	0.11		6.8	OK	
45.020	S232	4.307	0.057	0.000	0.11		6.8	SURCHARGED	
45.021	S233	4.303	0.103	0.000	0.07		6.6	SURCHARGED	
59.000	S234	4.950	-0.060	0.000	0.65		10.1	OK	
59.001	S235	4.761	-0.059	0.000	0.67		10.2	OK	
60.000	S236	5.092	-0.128	0.000	0.05		2.2	OK	
59.002	S237	4.656	-0.074	0.000	0.49		9.7	OK	
61.000	S238	5.345	-0.120	0.000	0.09		4.0	OK	
61.001	S239	4.659	-0.091	0.000	0.32		8.8	OK	
59.003	S240	4.301	-0.149	0.000	0.02		1.5	OK	
59.004	S241	4.301	-0.069	0.000	0.04		2.8	OK	
62.000	S242	4.447	-0.103	0.000	0.22		8.9	OK	
59.005	S243	4.300	0.180	0.000	0.06		3.2	SURCHARGED	
59.006	S244	4.299	0.229	0.000	0.08		3.6	SURCHARGED	
59.007	S245	4.299	0.249	0.000	0.07		3.6	SURCHARGED	
45.022	S246	4.298	0.248	0.000	0.31		8.0	SURCHARGED	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
63.000	S247	4.429	-0.066	0.000	0.60		8.9	OK	

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
63.001	S248	15 Winter	30	+0%					4.304
45.023	S249	1440 Winter	30	+0%	1/360 Winter				4.203
1.027	S250	1440 Winter	30	+0%	1/360 Summer				4.198
1.028	S251	1440 Winter	30	+0%	1/360 Summer				4.188

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
63.001	S248	-0.096	0.000	0.28		5.9	OK	
45.023	S249	0.153	0.000	0.13		7.8	FLOOD RISK	
1.027	S250	0.198	0.000	0.27		16.3	FLOOD RISK	
1.028	S251	0.238	0.000	0.27		16.3	FLOOD RISK	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
Hot Start Level (mm) 0 Inlet Coeffiecient 0.800
Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
Foul Sewage per hectare (l/s) 0.000

Number of Input Hydrographs 0 Number of Storage Structures 114
Number of Online Controls 23 Number of Time/Area Diagrams 74
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FEH
FEH Rainfall Version	1999
Site Location	GB 497500 102350 SU 97500 02350
C (1km)	-0.025
D1 (1km)	0.390
D2 (1km)	0.245
D3 (1km)	0.403
E (1km)	0.310
F (1km)	2.321
Cv (Summer)	0.750
Cv (Winter)	0.840

Margin for Flood Risk Warning (mm) 300.0
Analysis Timestep 2.5 Second Increment (Extended)
DTS Status OFF
DVD Status ON
Inertia Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 0

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.000	S1	240 Winter	100	+0%	1/30 Winter				6.254
1.001	S2	240 Winter	100	+0%					6.237
1.002	S3	240 Winter	100	+0%					6.185
1.003	S4	480 Winter	100	+0%	100/120 Winter				6.122
1.004	S5	480 Winter	100	+0%	30/15 Summer				6.121
2.000	S6	15 Winter	100	+0%	100/15 Summer				6.674
2.001	S7	15 Winter	100	+0%	30/15 Summer				6.696
2.002	S8	15 Winter	100	+0%	30/15 Summer				6.687
2.003	S9	15 Winter	100	+0%	30/15 Summer				6.658
2.004	S10	480 Winter	100	+0%	30/15 Summer				6.124
2.005	S11	480 Winter	100	+0%	30/15 Summer				6.122

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	S1	0.504	0.000	0.27		1.4	SURCHARGED	
1.001	S2	-0.113	0.000	0.14		1.9	OK	
1.002	S3	-0.115	0.000	0.13		1.9	OK	
1.003	S4	0.062	0.000	0.10		1.6	SURCHARGED	
1.004	S5	0.571	0.000	0.06		1.5	SURCHARGED	
2.000	S6	0.199	0.000	0.22		3.3	SURCHARGED	
2.001	S7	0.591	0.000	0.74		9.7	SURCHARGED	
2.002	S8	0.632	0.000	0.91		12.7	SURCHARGED	
2.003	S9	0.678	0.000	1.61		24.9	SURCHARGED	
2.004	S10	0.414	0.000	0.47		5.9	SURCHARGED	
2.005	S11	0.452	0.000	0.53		5.8	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
1.005	S12	480 Winter	100	+0%	30/15 Summer				6.120
3.000	S13	15 Winter	100	+0%	1/240 Summer				6.445
3.001	S14	15 Winter	100	+0%	1/120 Summer				6.455
3.002	S15	15 Winter	100	+0%	1/30 Winter				6.372
3.003	S16	15 Winter	100	+0%	1/15 Summer				6.304
3.004	S17	60 Winter	100	+0%	100/30 Winter				6.272
3.005	S18	30 Winter	100	+0%	100/15 Winter				6.265
4.000	S19	30 Winter	100	+0%	100/30 Winter				6.278
3.006	S20	30 Winter	100	+0%	100/15 Summer				6.272
3.007	S21	30 Winter	100	+0%	100/15 Summer				6.262
5.000	S255	480 Winter	100	+0%	30/120 Summer				6.079
5.001	S254	480 Winter	100	+0%	30/15 Summer				6.079
5.002	S22	480 Winter	100	+0%	30/15 Summer				6.080
6.000	S23	15 Winter	100	+0%	100/15 Summer				6.449
3.008	S24	15 Winter	100	+0%	30/15 Winter				6.261
3.009	S26	30 Winter	100	+0%	30/15 Summer				6.230
3.010	S27	30 Winter	100	+0%	30/15 Summer				6.175
3.011	S28	480 Winter	100	+0%	30/15 Summer				6.123
7.000	S29	480 Winter	100	+0%	30/15 Summer				6.121
3.012	S30	480 Winter	100	+0%	30/15 Summer				6.120
3.013	S31	480 Winter	100	+0%	30/15 Summer				6.118
1.006	S32	480 Winter	100	+0%	30/15 Summer				6.117
8.000	S33	15 Winter	100	+0%	30/15 Summer				5.876
9.000	S34	15 Winter	100	+0%	30/15 Summer				5.807
8.001	S35	480 Winter	100	+0%	30/15 Summer				5.801
1.007	S36	480 Winter	100	+0%	30/30 Summer				5.801
1.008	S37	480 Winter	100	+0%	30/30 Summer				5.853
1.009	S38	480 Winter	100	+0%	1/60 Winter				5.860
1.010	S39	360 Winter	100	+0%	1/30 Summer				5.627
10.000	S112	15 Winter	100	+0%	100/15 Summer				6.342
10.001	S111	15 Winter	100	+0%	100/15 Summer				6.313
10.002	S40	15 Winter	100	+0%	30/15 Summer				6.292
10.003	S41	15 Winter	100	+0%	30/15 Summer				6.105
10.004	S42	15 Winter	100	+0%	30/15 Summer				6.097
11.000	S256	15 Winter	100	+0%	30/15 Summer				6.212
10.005	S43	15 Winter	100	+0%	30/15 Summer				6.150
10.006	S44	15 Winter	100	+0%	30/15 Summer				6.136
10.007	S45	15 Winter	100	+0%	1/15 Summer				5.875
10.008	S46	120 Winter	100	+0%	1/15 Summer				5.638
10.009	S47	240 Winter	100	+0%	1/15 Summer				5.620
1.011	S48	360 Winter	100	+0%	1/15 Summer				5.611
1.012	S49	360 Winter	100	+0%	1/60 Summer				5.429
1.013	S50	360 Winter	100	+0%	1/15 Summer				5.464
12.000	S51	15 Winter	100	+0%					5.359
12.001	S52	15 Winter	100	+0%	100/15 Summer				5.224
1.014	S53	1440 Winter	100	+0%	30/960 Winter				5.088
1.015	S54	1440 Winter	100	+0%	30/240 Winter				5.072
1.016	S55	1440 Winter	100	+0%	1/240 Summer				5.060

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.005	S12	0.570	0.000	0.08		3.8	SURCHARGED	
3.000	S13	0.415	0.000	0.49		6.8	SURCHARGED	
3.001	S14	0.485	0.000	1.09		19.4	SURCHARGED	
3.002	S15	0.482	0.000	1.43		18.0	SURCHARGED	
3.003	S16	0.454	0.000	3.80		16.8	SURCHARGED	
3.004	S17	0.007	0.000	0.65		8.5	SURCHARGED	
3.005	S18	0.075	0.000	0.73		9.5	SURCHARGED	
4.000	S19	0.028	0.000	0.55		7.9	SURCHARGED	
3.006	S20	0.132	0.000	0.77		10.8	SURCHARGED	
3.007	S21	0.232	0.000	0.49		11.9	SURCHARGED	
5.000	S255	0.309	0.000	0.07		0.7	SURCHARGED	
5.001	S254	0.309	0.000	0.07		0.7	SURCHARGED	
5.002	S22	0.235	0.000	0.02		0.7	SURCHARGED	
6.000	S23	0.445	0.000	0.98		25.7	SURCHARGED	
3.008	S24	0.461	0.000	0.40		23.6	SURCHARGED	
3.009	S26	0.527	0.000	0.47		25.3	SURCHARGED	
3.010	S27	0.516	0.000	0.57		29.6	SURCHARGED	
3.011	S28	0.503	0.000	0.15		10.6	SURCHARGED	
7.000	S29	0.514	0.000	0.10		1.3	SURCHARGED	
3.012	S30	0.600	0.000	0.23		13.4	SURCHARGED	
3.013	S31	0.638	0.000	0.23		13.3	SURCHARGED	
1.006	S32	0.667	0.000	0.15		5.0	SURCHARGED	
8.000	S33	0.176	0.000	0.90		16.2	SURCHARGED	
9.000	S34	0.307	0.000	1.37		18.2	SURCHARGED	
8.001	S35	0.361	0.000	0.41		4.4	SURCHARGED	
1.007	S36	0.381	0.000	0.28		7.4	SURCHARGED	
1.008	S37	0.433	0.000	0.13		6.6	SURCHARGED	
1.009	S38	0.590	0.000	0.35		5.9	SURCHARGED	
1.010	S39	0.517	0.000	0.40		5.9	SURCHARGED	
10.000	S112	0.142	0.000	0.46		6.7	SURCHARGED	
10.001	S111	0.263	0.000	0.48		6.9	SURCHARGED	
10.002	S40	0.342	0.000	1.53		19.0	SURCHARGED	
10.003	S41	0.275	0.000	0.72		11.5	SURCHARGED	
10.004	S42	0.337	0.000	0.55		11.9	SURCHARGED	
11.000	S256	0.672	0.000	0.69		11.0	SURCHARGED	
10.005	S43	0.740	0.000	0.80		12.5	SURCHARGED	
10.006	S44	0.836	0.000	1.44		20.4	SURCHARGED	
10.007	S45	0.725	0.000	2.73		19.5	SURCHARGED	
10.008	S46	0.538	0.000	1.36		16.2	SURCHARGED	
10.009	S47	0.570	0.000	0.48		5.7	SURCHARGED	
1.011	S48	0.611	0.000	0.57		7.7	SURCHARGED	
1.012	S49	0.404	0.000	0.27		8.9	SURCHARGED	
1.013	S50	0.525	0.000	0.30		8.9	SURCHARGED	
12.000	S51	-0.041	0.000	0.87		12.0	OK	
12.001	S52	0.014	0.000	0.99		10.7	SURCHARGED	
1.014	S53	0.195	0.000	0.27		8.1	SURCHARGED	
1.015	S54	0.305	0.000	0.20		8.1	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
1.016	S55	0.483	0.000	0.20		8.1	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
13.000	S56	1440 Winter	100	+0%	100/480 Winter			
13.001	S57	1440 Winter	100	+0%	30/360 Winter			
13.002	S58	1440 Winter	100	+0%	30/240 Summer			
13.003	S59	1440 Winter	100	+0%	1/480 Winter			
1.017	S60	1440 Winter	100	+0%	1/120 Summer			
14.000	S61	15 Winter	100	+0%	100/15 Summer			
15.000	S62	15 Winter	100	+0%				
14.001	S63	15 Winter	100	+0%	30/15 Summer			
14.002	S64	15 Winter	100	+0%	100/15 Summer			
14.003	S65	15 Winter	100	+0%				
14.004	S66	1440 Winter	100	+0%	100/1440 Winter			
16.000	S67	15 Winter	100	+0%				
16.001	S68	1440 Winter	100	+0%	100/480 Winter			
14.005	S69	1440 Winter	100	+0%	30/15 Summer			
14.006	S70	1440 Winter	100	+0%	1/480 Winter			
14.007	S71	1440 Winter	100	+0%	1/120 Winter			
17.000	S72	15 Winter	100	+0%				
18.000	S73	15 Winter	100	+0%	100/15 Summer			
17.001	S74	15 Winter	100	+0%	30/15 Summer			
17.002	S75	15 Winter	100	+0%	30/15 Winter			
1.018	S76	1440 Winter	100	+0%	1/60 Winter			
1.019	S77	960 Winter	100	+0%	1/60 Winter			
1.020	S78	960 Winter	100	+0%	1/960 Winter			
1.021	S79	960 Winter	100	+0%	1/360 Winter			
19.000	S80	960 Winter	100	+0%	100/360 Winter			
19.001	S81	960 Winter	100	+0%	100/240 Winter			
20.000	S82	960 Winter	100	+0%	100/15 Summer			
19.002	S83	960 Winter	100	+0%	100/240 Winter			
19.003	S84	960 Winter	100	+0%	100/240 Winter			
19.004	S85	960 Winter	100	+0%	100/240 Summer			
19.005	S86	960 Winter	100	+0%	100/60 Winter			
19.006	S87	960 Winter	100	+0%	30/240 Winter			
19.007	S88	960 Winter	100	+0%	30/120 Winter			
19.008	S89	480 Winter	100	+0%	30/240 Winter			
21.000	S253	30 Winter	100	+0%	100/15 Summer			
21.001	S90	480 Winter	100	+0%	100/480 Winter			
21.002	S91	480 Winter	100	+0%	100/240 Winter			
21.003	S92	480 Winter	100	+0%	100/240 Summer			
21.004	S93	480 Winter	100	+0%	100/240 Summer			
21.005	S94	480 Winter	100	+0%	100/240 Summer			
21.006	S95	480 Winter	100	+0%	100/120 Winter			
22.000	S96	15 Winter	100	+0%				
22.001	S97	480 Winter	100	+0%	100/240 Summer			
23.000	S98	480 Winter	100	+0%	100/240 Winter			
21.007	S99	480 Winter	100	+0%	100/15 Summer			
21.008	S100	480 Winter	100	+0%	30/360 Winter			
21.009	S101	480 Winter	100	+0%	30/15 Summer			
21.010	S102	480 Winter	100	+0%	30/240 Winter			

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
13.000	S56	5.051	0.111	0.000	0.01		0.1	SURCHARGED	
13.001	S57	5.051	0.251	0.000	0.03		0.4	SURCHARGED	
13.002	S58	5.051	0.341	0.000	0.05		0.8	SURCHARGED	
13.003	S59	5.051	0.451	0.000	0.07		1.3	SURCHARGED	
1.017	S60	5.051	0.501	0.000	0.22		7.3	SURCHARGED	
14.000	S61	6.543	0.208	0.000	1.03		15.7	SURCHARGED	
15.000	S62	6.125	-0.065	0.000	0.59		9.1	OK	
14.001	S63	6.058	0.198	0.000	1.41		21.6	SURCHARGED	
14.002	S64	5.691	0.031	0.000	1.05		37.8	SURCHARGED	
14.003	S65	5.192	-0.138	0.000	0.55		50.1	OK	
14.004	S66	5.043	0.003	0.000	0.03		2.7	SURCHARGED	
16.000	S67	5.066	-0.044	0.000	0.84		12.8	OK	
16.001	S68	5.043	0.093	0.000	0.02		0.5	SURCHARGED	
14.005	S69	5.043	0.353	0.000	0.07		4.2	SURCHARGED	
14.006	S70	5.043	0.453	0.000	0.08		4.4	SURCHARGED	
14.007	S71	5.043	0.483	0.000	0.07		4.4	SURCHARGED	
17.000	S72	5.473	-0.077	0.000	0.47		11.8	OK	
18.000	S73	5.406	0.126	0.000	0.48		11.7	SURCHARGED	
17.001	S74	5.351	0.351	0.000	1.62		23.1	SURCHARGED	
17.002	S75	5.146	0.226	0.000	1.16		22.5	SURCHARGED	
1.018	S76	5.043	0.543	0.000	0.10		6.2	SURCHARGED	
1.019	S77	5.042	0.592	0.000	0.10		5.9	SURCHARGED	
1.020	S78	4.870	0.470	0.000	0.15		5.9	SURCHARGED	
1.021	S79	4.865	0.515	0.000	0.07		6.0	SURCHARGED	
19.000	S80	6.037	0.152	0.000	0.01		0.3	SURCHARGED	
19.001	S81	6.037	0.219	0.000	0.02		0.8	SURCHARGED	
20.000	S82	6.038	0.265	0.000	0.07		0.9	SURCHARGED	
19.002	S83	6.037	0.325	0.000	0.05		2.6	SURCHARGED	
19.003	S84	6.037	0.380	0.000	0.05		2.6	SURCHARGED	
19.004	S85	6.037	0.455	0.000	0.06		3.5	SURCHARGED	
19.005	S86	6.036	0.553	0.000	0.07		4.0	SURCHARGED	
19.006	S87	6.035	0.660	0.000	0.07		3.9	SURCHARGED	
19.007	S88	6.034	0.704	0.000	0.04		2.3	SURCHARGED	
19.008	S89	6.056	0.813	0.000	0.05		2.4	SURCHARGED	
21.000	S253	6.095	0.045	0.000	1.50		14.2	SURCHARGED	
21.001	S90	6.073	0.023	0.000	0.29		5.2	SURCHARGED	
21.002	S91	6.070	0.180	0.000	0.15		5.2	SURCHARGED	
21.003	S92	6.069	0.295	0.000	0.18		5.9	SURCHARGED	
21.004	S93	6.067	0.392	0.000	0.20		6.2	SURCHARGED	
21.005	S94	6.066	0.441	0.000	0.21		6.8	SURCHARGED	
21.006	S95	6.064	0.544	0.000	0.21		6.8	SURCHARGED	
22.000	S96	6.097	-0.083	0.000	0.41		9.8	OK	
22.001	S97	6.062	0.412	0.000	0.06		1.9	SURCHARGED	
23.000	S98	6.062	0.262	0.000	0.02		0.7	SURCHARGED	
21.007	S99	6.062	0.643	0.000	0.33		11.2	SURCHARGED	
21.008	S100	6.058	0.771	0.000	0.36		11.2	SURCHARGED	
21.009	S101	6.056	0.821	0.000	0.55		13.7	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
21.010	S102	6.057	0.842	0.000	0.27		13.6	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
19.009	S103	480 Winter	100	+0%	30/240 Winter			
19.010	S104	480 Winter	100	+0%	30/240 Winter			
19.011	S105	480 Winter	100	+0%	30/120 Summer			
24.000	S106	15 Winter	100	+0%				
24.001	S107	15 Winter	100	+0%				
24.002	S108	480 Winter	100	+0%				
24.003	S109	480 Winter	100	+0%	100/120 Winter			
19.012	S110	480 Winter	100	+0%	30/120 Summer			
25.000	S113	15 Winter	100	+0%	1/15 Winter	100/15 Summer		
25.001	S114	15 Winter	100	+0%	1/15 Summer	100/15 Summer		
25.002	S115	15 Winter	100	+0%	1/15 Summer			
25.003	S116	60 Winter	100	+0%	1/15 Summer			
25.004	S117	60 Winter	100	+0%	1/15 Summer			
25.005	S118	60 Winter	100	+0%	1/15 Winter			
25.006	S119	60 Winter	100	+0%	30/15 Summer			
25.007	S120	60 Winter	100	+0%	30/15 Summer			
26.000	S121	15 Winter	100	+0%	100/15 Summer			
26.001	S122	30 Winter	100	+0%	100/15 Summer			
26.002	S123	30 Winter	100	+0%	30/15 Summer			
26.003	S124	30 Winter	100	+0%	30/15 Summer			
26.004	S125	15 Winter	100	+0%	30/15 Summer			
27.000	S126	60 Winter	100	+0%	30/15 Summer			
19.013	S127	60 Winter	100	+0%	1/360 Winter			
28.000	S128	120 Winter	100	+0%	100/120 Winter			
28.001	S129	120 Winter	100	+0%	100/120 Summer			
19.014	S130	120 Winter	100	+0%	30/30 Winter			
29.000	S131	240 Winter	100	+0%	100/60 Winter			
29.001	S132	240 Winter	100	+0%	30/360 Winter			
29.002	S133	240 Winter	100	+0%	30/240 Winter			
19.015	S134	240 Winter	100	+0%	30/60 Summer			
30.000	S135	240 Winter	100	+0%	100/120 Summer			
19.016	S136	240 Winter	100	+0%	30/60 Summer			
31.000	S137	480 Winter	100	+0%	100/120 Winter			
19.017	S138	480 Winter	100	+0%	30/120 Summer			
32.000	S139	15 Winter	100	+0%	30/15 Summer			
32.001	S140	480 Winter	100	+0%	30/15 Summer			
32.002	S141	480 Winter	100	+0%	30/15 Summer			
33.000	S142	480 Winter	100	+0%	100/240 Summer			
32.003	S143	480 Winter	100	+0%	30/360 Winter			
19.018	S144	480 Winter	100	+0%	30/60 Winter			
34.000	S145	15 Winter	100	+0%	100/15 Summer			
35.000	S146	15 Winter	100	+0%				
34.001	S147	15 Winter	100	+0%	100/15 Winter			
34.002	S148	960 Winter	100	+0%	100/15 Summer			
34.003	S149	960 Winter	100	+0%	30/480 Winter			
34.004	S150	960 Winter	100	+0%	30/15 Winter			
36.000	S151	960 Winter	100	+0%	100/240 Summer			
19.019	S152	960 Winter	100	+0%	30/15 Summer			

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
19.009	S103	6.057	0.842	0.000	0.14		5.1	SURCHARGED	
19.010	S104	6.057	0.842	0.000	0.06		5.0	SURCHARGED	
19.011	S105	6.062	1.012	0.000	0.18		4.8	SURCHARGED	
24.000	S106	6.370	-0.090	0.000	0.33		5.0	OK	
24.001	S107	6.265	-0.045	0.000	0.79		12.1	OK	
24.002	S108	6.069	-0.051	0.000	0.05		1.8	OK	
24.003	S109	6.067	0.417	0.000	0.07		2.3	SURCHARGED	
19.012	S110	6.065	1.015	0.000	0.06		3.7	SURCHARGED	
25.000	S113	7.001	0.801	1.121	1.98		17.2	FLOOD	4
25.001	S114	6.810	0.660	6.528	3.36		14.8	FLOOD	4
25.002	S115	6.848	0.718	0.000	4.36		22.3	FLOOD RISK	
25.003	S116	6.512	0.412	0.000	0.88		7.2	SURCHARGED	
25.004	S117	6.495	0.395	0.000	2.30		9.7	SURCHARGED	
25.005	S118	6.450	0.360	0.000	1.50		9.2	SURCHARGED	
25.006	S119	6.424	0.334	0.000	2.02		8.6	SURCHARGED	
25.007	S120	6.381	0.311	0.000	0.95		8.0	SURCHARGED	
26.000	S121	6.490	0.090	0.000	0.40		13.6	SURCHARGED	
26.001	S122	6.475	0.125	0.000	0.42		8.4	SURCHARGED	
26.002	S123	6.447	0.247	0.000	0.95		8.5	SURCHARGED	
26.003	S124	6.409	0.259	0.000	1.34		8.5	SURCHARGED	
26.004	S125	6.402	0.252	0.000	1.93		26.1	SURCHARGED	
27.000	S126	6.375	0.200	0.000	0.44		5.9	SURCHARGED	
19.013	S127	6.362	1.422	0.000	0.26		11.0	SURCHARGED	
28.000	S128	6.104	0.074	0.000	0.17		2.6	SURCHARGED	
28.001	S129	6.103	0.163	0.000	0.12		2.6	SURCHARGED	
19.014	S130	6.102	1.202	0.000	0.15		9.6	SURCHARGED	
29.000	S131	5.891	0.431	0.000	0.03		0.7	SURCHARGED	
29.001	S132	5.891	0.621	0.000	0.09		1.3	SURCHARGED	
29.002	S133	5.891	0.741	0.000	0.16		4.5	SURCHARGED	
19.015	S134	5.889	1.129	0.000	0.39		8.1	SURCHARGED	
30.000	S135	5.882	0.182	0.000	0.03		1.4	SURCHARGED	
19.016	S136	5.881	1.121	0.000	0.13		7.5	SURCHARGED	
31.000	S137	5.551	0.301	0.000	0.05		1.6	SURCHARGED	
19.017	S138	5.550	0.850	0.000	0.40		8.7	SURCHARGED	
32.000	S139	5.888	0.458	0.000	1.59		23.3	SURCHARGED	
32.001	S140	5.571	0.291	0.000	0.39		5.8	SURCHARGED	
32.002	S141	5.557	0.437	0.000	0.41		5.8	SURCHARGED	
33.000	S142	5.553	0.115	0.000	0.06		1.3	SURCHARGED	
32.003	S143	5.551	0.491	0.000	0.31		8.6	SURCHARGED	
19.018	S144	5.543	0.843	0.000	0.09		11.1	SURCHARGED	
34.000	S145	5.708	0.288	0.000	1.24		19.5	SURCHARGED	
35.000	S146	5.173	-0.077	0.000	0.48		20.1	OK	
34.001	S147	4.972	0.022	0.000	0.34		35.4	SURCHARGED	
34.002	S148	4.899	0.169	0.000	0.05		3.6	SURCHARGED	
34.003	S149	4.898	0.238	0.000	0.06		4.4	SURCHARGED	
34.004	S150	4.897	0.327	0.000	0.08		5.4	SURCHARGED	
36.000	S151	4.897	0.177	0.000	0.03		0.7	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
19.019	S152	4.896	0.446	0.000	0.28		15.9	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
37.000	S153	960 Winter	100	+0%	100/240 Winter			
38.000	S154	960 Winter	100	+0%	30/360 Winter			
19.020	S155	960 Winter	100	+0%	1/960 Winter			
19.021	S156	960 Winter	100	+0%	1/960 Winter			
19.022	S157	960 Winter	100	+0%	1/240 Summer			
39.000	S158	960 Winter	100	+0%	100/240 Winter			
39.001	S159	960 Winter	100	+0%	30/120 Summer			
39.002	S160	960 Winter	100	+0%	1/240 Summer			
40.000	S161	960 Winter	100	+0%	1/240 Summer			
19.023	S162	960 Winter	100	+0%	1/120 Summer			
19.024	S163	960 Winter	100	+0%	1/120 Summer			
1.022	S164	960 Winter	100	+0%	1/60 Summer			
1.023	S165	1440 Winter	100	+0%	1/240 Summer			
1.024	S166	1440 Winter	100	+0%	1/240 Winter			
41.000	S167	1440 Winter	100	+0%				
42.000	S168	15 Winter	100	+0%				
41.001	S169	1440 Winter	100	+0%	100/15 Summer			
43.000	S170	15 Winter	100	+0%				
43.001	S171	15 Winter	100	+0%	30/15 Summer			
41.002	S172	1440 Winter	100	+0%	1/960 Summer			
41.003	S173	1440 Winter	100	+0%	1/360 Winter			
44.000	S174	1440 Winter	100	+0%	1/240 Summer			
41.004	S175	1440 Winter	100	+0%	1/240 Summer			
1.025	S176	1440 Winter	100	+0%	1/240 Summer			
1.026	S177	1440 Winter	100	+0%	1/360 Summer			
45.000	S178	15 Summer	100	+0%				
45.001	S179	60 Winter	100	+0%				
45.002	S180	15 Summer	100	+0%	30/15 Summer			
45.003	S181	15 Summer	100	+0%				
45.004	S182	15 Winter	100	+0%				
46.000	S183	15 Summer	100	+0%	100/15 Summer			
45.005	S184	15 Summer	100	+0%				
45.006	S185	15 Winter	100	+0%				
45.007	S186	15 Summer	100	+0%	100/15 Summer			
45.008	S187	360 Winter	100	+0%	30/240 Winter			
45.009	S188	360 Winter	100	+0%	100/60 Winter			
45.010	S189	360 Winter	100	+0%	100/30 Winter			
45.011	S190	360 Winter	100	+0%	100/120 Winter			
47.000	S191	15 Summer	100	+0%				
47.001	S192	15 Summer	100	+0%				
45.012	S193	360 Winter	100	+0%	100/120 Winter			
45.013	S194	480 Winter	100	+0%	100/240 Winter			
48.000	S195	15 Winter	100	+0%				
49.000	S196	15 Winter	100	+0%				
48.001	S197	15 Winter	100	+0%	100/15 Summer			
48.002	S198	15 Winter	100	+0%	30/15 Summer			
48.003	S199	15 Winter	100	+0%	30/15 Summer			
48.004	S200	480 Winter	100	+0%	30/15 Summer			

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
37.000	S153	4.892	0.167	0.000	0.02		0.5	SURCHARGED	
38.000	S154	4.892	0.292	0.000	0.01		0.2	SURCHARGED	
19.020	S155	4.892	0.472	0.000	0.63		16.5	SURCHARGED	
19.021	S156	4.885	0.465	0.000	0.20		13.9	SURCHARGED	
19.022	S157	4.873	0.608	0.000	0.21		15.0	SURCHARGED	
39.000	S158	4.870	0.150	0.000	0.01		0.4	SURCHARGED	
39.001	S159	4.870	0.450	0.000	0.06		1.0	SURCHARGED	
39.002	S160	4.869	0.599	0.000	0.06		1.0	SURCHARGED	
40.000	S161	4.868	0.623	0.000	0.03		1.2	SURCHARGED	
19.023	S162	4.868	0.683	0.000	0.36		17.2	SURCHARGED	
19.024	S163	4.865	0.696	0.000	0.32		17.2	SURCHARGED	
1.022	S164	4.860	0.725	0.000	0.65		13.2	SURCHARGED	
1.023	S165	4.546	0.411	0.000	0.36		11.6	SURCHARGED	
1.024	S166	4.530	0.395	0.000	0.20		11.1	SURCHARGED	
41.000	S167	4.369	-0.061	0.000	0.01		0.2	OK	
42.000	S168	4.765	-0.105	0.000	0.20		8.4	OK	
41.001	S169	4.369	0.059	0.000	0.07		1.1	SURCHARGED	
43.000	S170	4.427	-0.023	0.000	0.36		11.0	OK	
43.001	S171	4.394	0.204	0.000	1.44		19.0	SURCHARGED	
41.002	S172	4.368	0.230	0.000	0.06		2.0	SURCHARGED	
41.003	S173	4.368	0.288	0.000	0.07		2.3	SURCHARGED	
44.000	S174	4.367	0.372	0.000	0.04		0.6	SURCHARGED	
41.004	S175	4.367	0.422	0.000	0.15		3.2	SURCHARGED	
1.025	S176	4.366	0.346	0.000	0.61		11.8	SURCHARGED	
1.026	S177	4.285	0.285	0.000	0.61		11.9	FLOOD RISK	
45.000	S178	6.235	-0.065	0.000	0.61		12.8	OK	
45.001	S179	6.024	-0.026	0.000	0.18		2.6	OK	
45.002	S180	6.115	0.201	0.000	0.23		3.3	SURCHARGED	
45.003	S181	5.747	-0.062	0.000	0.65		9.4	OK	
45.004	S182	5.577	-0.083	0.000	0.41		9.4	OK	
46.000	S183	5.658	0.055	0.000	1.27		17.9	SURCHARGED	
45.005	S184	5.396	-0.109	0.000	0.52		21.4	OK	
45.006	S185	5.356	-0.029	0.000	0.81		34.8	OK	
45.007	S186	5.235	0.050	0.000	0.80		31.9	SURCHARGED	
45.008	S187	5.196	0.091	0.000	0.34		9.1	SURCHARGED	
45.009	S188	5.192	0.042	0.000	0.13		6.0	SURCHARGED	
45.010	S189	5.190	0.070	0.000	0.11		5.9	SURCHARGED	
45.011	S190	5.130	0.050	0.000	0.14		5.7	SURCHARGED	
47.000	S191	5.640	-0.070	0.000	0.56		10.6	OK	
47.001	S192	5.453	-0.097	0.000	0.27		10.6	OK	
45.012	S193	5.128	0.078	0.000	0.06		4.5	SURCHARGED	
45.013	S194	5.032	0.102	0.000	0.05		4.1	SURCHARGED	
48.000	S195	5.441	-0.109	0.000	0.17		4.5	OK	
49.000	S196	5.721	-0.129	0.000	0.05		2.2	OK	
48.001	S197	5.443	0.283	0.000	0.67		12.5	SURCHARGED	
48.002	S198	5.354	0.384	0.000	1.00		18.7	SURCHARGED	
48.003	S199	5.185	0.385	0.000	2.22		30.2	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
48.004	S200	5.031	0.291	0.000	0.23		4.3	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
45.014	S201	480 Winter	100	+0%	30/240 Winter				5.029
50.000	S202	15 Winter	100	+0%					5.231
50.001	S203	15 Winter	100	+0%					5.045
50.002	S204	480 Winter	100	+0%					4.891
50.003	S205	480 Winter	100	+0%	30/240 Winter				4.889
45.015	S206	480 Winter	100	+0%	100/120 Winter				4.888
51.000	S207	15 Winter	100	+0%	100/15 Winter				5.816
52.000	S208a	15 Winter	100	+0%					5.963
51.001	S208	15 Winter	100	+0%	100/15 Summer				5.772
51.002	S209	15 Winter	100	+0%	100/15 Summer				5.738
51.003	S210	15 Winter	100	+0%	100/15 Summer				5.730
53.000	S211	15 Winter	100	+0%					6.088
51.004	S212	15 Winter	100	+0%	100/15 Summer				5.639
54.000	S213	15 Winter	100	+0%					5.396
51.005	S214	15 Winter	100	+0%					5.274
55.000	S215	15 Summer	100	+0%					5.351
51.006	S216	15 Winter	100	+0%					5.114
56.000	S217	120 Winter	100	+0%	100/15 Summer				4.954
51.007	S218	120 Winter	100	+0%	100/15 Summer				4.949
51.008	S219	120 Winter	100	+0%	30/15 Winter				4.888
51.009	S220	480 Winter	100	+0%	30/15 Winter				4.885
51.010	S221	480 Winter	100	+0%	1/480 Winter				4.884
45.016	S222	480 Winter	100	+0%	1/480 Winter				4.883
57.000	S223	480 Winter	100	+0%	30/30 Winter				4.873
57.001	S224	480 Winter	100	+0%	1/480 Winter				4.873
45.017	S225	480 Winter	100	+0%	1/480 Winter				4.873
58.000	S226	15 Winter	100	+0%					5.207
58.001	S227	15 Winter	100	+0%	100/15 Summer				4.830
58.002	S228	15 Winter	100	+0%	100/15 Summer				4.800
58.003	S229	15 Winter	100	+0%	30/15 Summer				4.594
45.018	S230	960 Winter	100	+0%	100/240 Winter				4.430
45.019	S231	960 Winter	100	+0%	100/240 Winter				4.426
45.020	S232	960 Winter	100	+0%	30/480 Winter				4.418
45.021	S233	960 Winter	100	+0%	30/240 Winter				4.412
59.000	S234	15 Winter	100	+0%					4.987
59.001	S235	15 Winter	100	+0%					4.797
60.000	S236	15 Winter	100	+0%					5.098
59.002	S237	15 Winter	100	+0%					4.714
61.000	S238	15 Winter	100	+0%					5.351
61.001	S239	15 Winter	100	+0%					4.674
59.003	S240	15 Winter	100	+0%	100/15 Summer				4.581
59.004	S241	15 Winter	100	+0%	100/15 Summer				4.505
62.000	S242	15 Winter	100	+0%					4.460
59.005	S243	960 Winter	100	+0%	1/960 Winter				4.408
59.006	S244	960 Winter	100	+0%	1/480 Winter				4.407
59.007	S245	960 Winter	100	+0%	1/360 Summer				4.406
45.022	S246	960 Winter	100	+0%	1/360 Summer				4.406
63.000	S247	15 Summer	100	+0%					4.457

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
45.014	S201	0.229	0.000	0.10		4.6	SURCHARGED	
50.000	S202	-0.119	0.000	0.10		2.1	OK	
50.001	S203	-0.055	0.000	0.72		12.6	OK	
50.002	S204	-0.059	0.000	0.08		2.3	OK	
50.003	S205	0.239	0.000	0.17		2.2	SURCHARGED	
45.015	S206	0.138	0.000	0.04		5.3	SURCHARGED	
51.000	S207	0.016	0.000	0.66		9.5	SURCHARGED	
52.000	S208a	-0.062	0.000	0.65		12.2	OK	
51.001	S208	0.062	0.000	1.00		11.8	SURCHARGED	
51.002	S209	0.078	0.000	0.42		12.6	SURCHARGED	
51.003	S210	0.105	0.000	0.83		29.9	SURCHARGED	
53.000	S211	-0.082	0.000	0.42		20.3	OK	
51.004	S212	0.134	0.000	1.42		49.7	SURCHARGED	
54.000	S213	-0.084	0.000	0.40		7.2	OK	
51.005	S214	-0.096	0.000	0.78		66.1	OK	
55.000	S215	-0.029	0.000	0.99		21.8	OK	
51.006	S216	-0.136	0.000	0.57		65.2	OK	
56.000	S217	0.104	0.000	0.24		3.0	SURCHARGED	
51.007	S218	0.139	0.000	0.35		35.9	SURCHARGED	
51.008	S219	0.328	0.000	0.58		35.6	SURCHARGED	
51.009	S220	0.385	0.000	0.19		14.7	SURCHARGED	
51.010	S221	0.484	0.000	0.31		14.6	SURCHARGED	
45.016	S222	0.503	0.000	0.54		10.9	SURCHARGED	
57.000	S223	0.433	0.000	0.01		0.8	SURCHARGED	
57.001	S224	0.473	0.000	0.02		0.7	SURCHARGED	
45.017	S225	0.493	0.000	0.39		8.6	SURCHARGED	
58.000	S226	-0.123	0.000	0.07		2.1	OK	
58.001	S227	0.030	0.000	0.67		10.2	SURCHARGED	
58.002	S228	0.100	0.000	1.25		23.5	SURCHARGED	
58.003	S229	0.094	0.000	1.88		23.5	SURCHARGED	
45.018	S230	0.070	0.000	0.20		9.0	SURCHARGED	
45.019	S231	0.086	0.000	0.15		8.9	SURCHARGED	
45.020	S232	0.168	0.000	0.14		8.4	SURCHARGED	
45.021	S233	0.212	0.000	0.08		8.2	SURCHARGED	
59.000	S234	-0.023	0.000	0.99		15.4	OK	
59.001	S235	-0.023	0.000	1.00		15.1	OK	
60.000	S236	-0.122	0.000	0.08		3.3	OK	
59.002	S237	-0.016	0.000	0.75		15.0	OK	
61.000	S238	-0.114	0.000	0.13		6.1	OK	
61.001	S239	-0.076	0.000	0.49		13.4	OK	
59.003	S240	0.131	0.000	0.36		25.6	SURCHARGED	
59.004	S241	0.135	0.000	0.79		59.2	SURCHARGED	
62.000	S242	-0.090	0.000	0.33		13.6	OK	
59.005	S243	0.288	0.000	0.10		6.0	SURCHARGED	
59.006	S244	0.337	0.000	0.15		6.8	SURCHARGED	
59.007	S245	0.356	0.000	0.14		6.8	SURCHARGED	
45.022	S246	0.356	0.000	0.43		11.1	SURCHARGED	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
63.000	S247	-0.038	0.000	0.91		13.4	OK	

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100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 1

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level (m)
63.001	S248	15 Winter	100	+0%					4.327
45.023	S249	1440 Winter	100	+0%	1/360 Winter				4.277
1.027	S250	1440 Winter	100	+0%	1/360 Summer				4.273
1.028	S251	1440 Winter	100	+0%	1/360 Summer				4.262

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded
63.001	S248	-0.073	0.000	0.52		10.8	OK	
45.023	S249	0.227	0.000	0.16		9.6	FLOOD RISK	
1.027	S250	0.273	0.000	0.29		18.0	FLOOD RISK	
1.028	S251	0.312	0.000	0.29		18.0	FLOOD RISK	

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