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	0.018	8-12	0.496	16-20	0.770	24-28	0.793	32-36	0.015	40-44	0.017
4-8	0.282	12-16	0.719	20-24	0.552	28-32	0.199	36-40	0.000	44-48	0.021

Total Area Contributing (ha) = 3.882

Total Pipe Volume (m^3) = 168.219

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	0.038	5.00	0.0	0.600	o	150	Pipe/Conduit	
1.001	3.896	0.050	77.9	0.000	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	0.028	5.00	0.0	0.600	o	150	Pipe/Conduit	
2.001	7.174	0.050	143.5	0.009	0.00	0.0	0.600	o	150	Pipe/Conduit	
2.002	9.200	0.075	122.7	0.012	0.00	0.0	0.600	o	150	Pipe/Conduit	
2.003	32.873	0.270	121.8	0.037	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	14.970	0.125	119.8	0.014	5.00	0.0	0.600	o	150	Pipe/Conduit	
4.000	5.293	0.045	117.6	0.014	5.00	0.0	0.600	o	150	Pipe/Conduit	
3.001	7.158	0.060	119.3	0.029	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.002	5.040	0.080	63.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.003	4.332	0.040	108.3	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	0.038	0.0	0.0	2.1	0.09	1.6«	7.2
1.001	50.00	19.38	6.200	0.038	0.0	0.0	2.1	1.14	20.1	7.2
1.002	50.00	19.97	6.150	0.038	0.0	0.0	2.1	0.88	15.6	7.2
1.003	50.00	20.08	5.910	0.038	0.0	0.0	2.1	1.00	17.7	7.2
1.004	50.00	23.94	5.250	0.038	0.0	0.0	2.1	0.15	10.5	7.2
2.000	50.00	5.91	6.325	0.028	0.0	0.0	1.5	0.88	15.5	5.3
2.001	50.00	6.05	5.955	0.037	0.0	0.0	2.0	0.84	14.8	7.0
2.002	50.00	6.22	5.905	0.049	0.0	0.0	2.7	0.91	16.0	9.3
2.003	50.00	6.83	5.830	0.086	0.0	0.0	4.7	0.91	16.1«	16.3
2.004	50.00	6.87	5.560	0.086	0.0	0.0	4.7	1.17	20.7	16.3
2.005	50.00	6.92	5.520	0.086	0.0	0.0	4.7	0.68	12.1«	16.3
1.005	50.00	25.12	5.250	0.124	0.0	0.0	6.7	0.70	49.4	23.5
3.000	50.00	5.27	6.005	0.014	0.0	0.0	0.8	0.92	16.2	2.7
4.000	50.00	5.10	5.925	0.014	0.0	0.0	0.8	0.93	16.4	2.7
3.001	50.00	5.40	5.880	0.057	0.0	0.0	3.1	0.92	16.2	10.8
3.002	50.00	5.47	5.820	0.057	0.0	0.0	3.1	1.27	22.4	10.8
3.003	50.00	5.54	5.740	0.057	0.0	0.0	3.1	0.97	17.1	10.8

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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
3.004	23.754	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.005	11.849	0.090	131.7	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.006	7.279	0.050	145.6	0.016	0.00	0.0	0.600	o	150	Pipe/Conduit	
5.000	14.965	0.125	119.7	0.021	5.00	0.0	0.600	o	150	Pipe/Conduit	
3.007	13.786	0.095	145.1	0.033	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.008	9.626	0.297	32.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
6.000	3.524	0.000	0.0	0.026	5.00	0.0	0.600	o	150	Pipe/Conduit	
6.001	3.983	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
6.002	24.147	0.112	215.6	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
7.000	7.481	0.271	27.6	0.059	5.00	0.0	0.600	o	150	Pipe/Conduit	
3.009	6.683	0.023	290.6	0.017	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.010	8.363	0.028	298.7	0.018	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.011	18.389	0.062	296.6	0.055	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.012	29.488	0.100	294.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
8.000	12.139	0.087	139.5	0.071	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)
3.004	50.00	9.81	5.700	0.057	0.0	0.0	3.1	0.09	1.6«	10.8
3.005	50.00	10.04	6.115	0.057	0.0	0.0	3.1	0.87	15.4	10.8
3.006	50.00	10.19	6.025	0.073	0.0	0.0	4.0	0.83	14.7	13.8
5.000	50.00	5.27	6.100	0.021	0.0	0.0	1.1	0.92	16.2	4.0
3.007	50.00	10.46	5.975	0.127	0.0	0.0	6.9	0.83	14.7«	24.1
3.008	50.00	10.55	5.880	0.127	0.0	0.0	6.9	1.77	31.4	24.1
6.000	50.00	5.63	5.620	0.026	0.0	0.0	1.4	0.09	1.6«	4.9
6.001	50.00	6.35	5.620	0.026	0.0	0.0	1.4	0.09	1.6«	4.9
6.002	50.00	6.80	5.620	0.026	0.0	0.0	1.4	0.89	35.2	4.9
7.000	50.00	5.06	5.854	0.059	0.0	0.0	3.2	1.92	34.0	11.2
3.009	50.00	10.67	5.433	0.229	0.0	0.0	12.4	0.92	64.8	43.4
3.010	50.00	10.83	5.410	0.247	0.0	0.0	13.4	0.90	63.9	46.8
3.011	50.00	11.17	5.382	0.302	0.0	0.0	16.4	0.91	64.2	57.3
3.012	50.00	11.71	5.320	0.302	0.0	0.0	16.4	0.91	64.4	57.3
8.000	50.00	5.24	5.457	0.071	0.0	0.0	3.8	0.85	15.0	13.5

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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
3.013	8.479	0.040	212.0	0.027	0.00	0.0	0.600	o	300	Pipe/Conduit	
3.014	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	
9.000	23.578	0.170	138.7	0.026	5.00	0.0	0.600	o	150	Pipe/Conduit	
10.000	8.117	0.060	135.3	0.056	5.00	0.0	0.600	o	150	Pipe/Conduit	
9.001	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	0.015	0.00	0.0	0.600	o	150	Pipe/Conduit	
11.000	19.391	0.150	129.3	0.014	5.00	0.0	0.600	o	150	Pipe/Conduit	
11.001	12.727	0.100	127.3	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
11.002	21.907	0.120	182.6	0.029	0.00	0.0	0.600	o	150	Pipe/Conduit	
11.003	6.116	0.070	87.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
11.004	20.997	0.350	60.0	0.013	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)
3.013	50.00	11.84	5.220	0.400	0.0	0.0	21.7	1.08	76.1	75.8
3.014	50.00	11.90	5.180	0.400	0.0	0.0	21.7	1.23	86.9	75.8
1.006	50.00	28.45	5.150	0.524	0.0	0.0	28.4	0.33	23.2«	99.3
9.000	50.00	5.46	5.460	0.026	0.0	0.0	1.4	0.85	15.0	4.9
10.000	50.00	5.16	5.350	0.056	0.0	0.0	3.0	0.86	15.2	10.6
9.001	50.00	5.50	5.290	0.082	0.0	0.0	4.4	0.99	17.5	15.5
1.007	50.00	29.74	5.120	0.606	0.0	0.0	32.8	0.15	10.5«	114.9
1.008	50.00	30.00	5.120	0.606	0.0	0.0	32.8	0.15	10.5«	114.9
1.009	50.00	30.00	5.120	0.606	0.0	0.0	32.8	1.02	18.1«	114.9
1.010	50.00	30.00	4.960	0.621	0.0	0.0	33.6	0.89	15.8«	117.7
11.000	50.00	5.37	6.050	0.014	0.0	0.0	0.8	0.88	15.6	2.7
11.001	50.00	5.60	5.900	0.014	0.0	0.0	0.8	0.89	15.7	2.7
11.002	50.00	6.10	5.800	0.043	0.0	0.0	2.3	0.74	13.1	8.2
11.003	50.00	6.19	5.680	0.043	0.0	0.0	2.3	1.08	19.0	8.2
11.004	50.00	6.46	5.610	0.056	0.0	0.0	3.0	1.30	23.0	10.6

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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
12.000	13.607	0.100	136.1	0.026	5.00	0.0	0.600	o	150	Pipe/Conduit	
11.005	11.443	0.110	104.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
11.006	20.944	0.150	139.6	0.035	0.00	0.0	0.600	o	150	Pipe/Conduit	
11.007	27.264	0.050	545.3	0.035	0.00	0.0	0.600	o	150	Pipe/Conduit	
11.008	8.359	0.050	167.2	0.016	0.00	0.0	0.600	o	150	Pipe/Conduit	
11.009	8.609	0.050	172.2	0.000	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	0.000	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	
13.000	24.977	0.190	131.5	0.022	5.00	0.0	0.600	o	150	Pipe/Conduit	
13.001	5.196	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	
14.000	33.124	0.325	101.9	0.047	5.00	0.0	0.600	o	150	Pipe/Conduit	
14.001	12.825	0.140	91.6	0.014	0.00	0.0	0.600	o	150	Pipe/Conduit	
14.002	8.557	0.090	95.1	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)
12.000	50.00	5.26	5.360	0.026	0.0	0.0	1.4	0.86	15.2	4.9
11.005	50.00	6.66	5.260	0.082	0.0	0.0	4.4	0.98	17.4	15.5
11.006	50.00	7.07	5.150	0.117	0.0	0.0	6.3	0.85	15.0«	22.2
11.007	50.00	8.14	5.000	0.152	0.0	0.0	8.2	0.42	7.5«	28.8
11.008	50.00	8.32	4.950	0.168	0.0	0.0	9.1	0.77	13.7«	31.8
11.009	50.00	8.51	4.900	0.168	0.0	0.0	9.1	0.76	13.5«	31.8
1.011	50.00	30.00	4.850	0.789	0.0	0.0	42.7	0.92	16.3«	149.6
1.012	50.00	30.00	4.800	0.789	0.0	0.0	42.7	0.92	36.6«	149.6
1.013	50.00	30.00	4.714	0.789	0.0	0.0	42.7	0.92	36.7«	149.6
13.000	50.00	5.48	5.250	0.022	0.0	0.0	1.2	0.87	15.5	4.2
13.001	50.00	6.41	5.060	0.022	0.0	0.0	1.2	0.09	1.6«	4.2
1.014	50.00	30.00	4.668	0.811	0.0	0.0	43.9	0.79	31.5«	153.7
1.015	50.00	30.00	4.542	0.811	0.0	0.0	43.9	1.09	43.3«	153.7
1.016	50.00	30.00	4.352	0.811	0.0	0.0	43.9	1.18	47.0«	153.7
14.000	50.00	5.55	5.115	0.047	0.0	0.0	2.5	1.00	17.6	8.9
14.001	50.00	5.76	4.790	0.061	0.0	0.0	3.3	1.05	18.6	11.6
14.002	50.00	5.90	4.650	0.061	0.0	0.0	3.3	1.03	18.2	11.6

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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
14.003	12.946	0.110	117.7	0.023	0.00	0.0	0.600	o	150	Pipe/Conduit	
14.004	15.042	0.200	75.2	0.024	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	
15.000	58.893	0.460	128.0	0.049	5.00	0.0	0.600	o	150	Pipe/Conduit	
16.000	34.982	0.280	124.9	0.026	5.00	0.0	0.600	o	150	Pipe/Conduit	
15.001	23.421	0.200	117.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
15.002	4.054	0.330	12.3	0.033	0.00	0.0	0.600	o	150	Pipe/Conduit	
15.003	37.147	0.290	128.1	0.049	0.00	0.0	0.600	o	300	Pipe/Conduit	
15.004	35.580	0.350	101.7	0.037	0.00	0.0	0.600	o	300	Pipe/Conduit	
17.000	17.686	0.160	110.5	0.022	5.00	0.0	0.600	o	150	Pipe/Conduit	
17.001	8.188	0.260	31.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
15.005	26.222	0.100	262.2	0.022	0.00	0.0	0.600	o	300	Pipe/Conduit	
15.006	5.601	0.030	186.7	0.027	0.00	0.0	0.600	o	300	Pipe/Conduit	
15.007	5.773	0.060	96.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
18.000	25.210	0.210	120.0	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)
14.003	50.00	6.13	4.560	0.084	0.0	0.0	4.5	0.93	16.4	15.9
14.004	50.00	6.35	4.450	0.108	0.0	0.0	5.8	1.16	20.5	20.5
1.017	50.00	30.00	4.250	0.919	0.0	0.0	49.8	0.51	35.7«	174.2
15.000	50.00	6.11	6.170	0.049	0.0	0.0	2.7	0.89	15.7	9.3
16.000	50.00	5.65	5.990	0.026	0.0	0.0	1.4	0.90	15.9	4.9
15.001	50.00	6.53	5.710	0.075	0.0	0.0	4.1	0.93	16.4	14.2
15.002	50.00	6.55	5.510	0.108	0.0	0.0	5.8	2.89	51.1	20.5
15.003	50.00	7.00	5.030	0.157	0.0	0.0	8.5	1.39	98.1	29.8
15.004	50.00	7.38	4.740	0.194	0.0	0.0	10.5	1.56	110.2	36.8
17.000	50.00	5.31	4.960	0.022	0.0	0.0	1.2	0.96	16.9	4.2
17.001	50.00	5.38	4.800	0.022	0.0	0.0	1.2	1.80	31.8	4.2
15.005	50.00	7.83	4.390	0.238	0.0	0.0	12.9	0.97	68.3	45.1
15.006	50.00	7.91	4.290	0.265	0.0	0.0	14.4	1.15	81.1	50.2
15.007	50.00	7.97	4.260	0.265	0.0	0.0	14.4	1.60	113.3	50.2
18.000	50.00	5.46	5.060	0.023	0.0	0.0	1.2	0.92	16.2	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
19.000	12.463	0.280	44.5	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	
18.001	9.756	0.080	122.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
18.002	32.780	0.420	78.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
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	
20.000	13.799	0.067	206.0	0.029	5.00	0.0	0.600	o	225	Pipe/Conduit	
20.001	21.664	0.106	204.4	0.029	0.00	0.0	0.600	o	225	Pipe/Conduit	
21.000	8.199	0.061	134.4	0.028	5.00	0.0	0.600	o	150	Pipe/Conduit	
20.002	14.818	0.055	269.4	0.023	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.003	21.572	0.075	287.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.004	27.653	0.099	279.3	0.043	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.005	29.912	0.108	277.0	0.009	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.006	10.054	0.045	223.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.007	20.595	0.087	236.7	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)
19.000	50.00	5.14	5.130	0.023	0.0	0.0	1.2	1.51	26.7	4.4
18.001	50.00	5.64	4.850	0.046	0.0	0.0	2.5	0.91	16.1	8.7
18.002	50.00	6.12	4.770	0.046	0.0	0.0	2.5	1.14	20.1	8.7
1.018	50.00	30.00	4.200	1.230	0.0	0.0	66.6	1.43	101.3«	233.2
1.019	50.00	30.00	4.150	1.230	0.0	0.0	66.6	1.08	76.6«	233.2
1.020	50.00	30.00	4.100	1.230	0.0	0.0	66.6	0.62	44.1«	233.2
1.021	50.00	30.00	4.050	1.230	0.0	0.0	66.6	1.25	88.2«	233.2
20.000	50.00	5.25	5.660	0.029	0.0	0.0	1.6	0.91	36.1	5.5
20.001	50.00	5.65	5.593	0.058	0.0	0.0	3.1	0.91	36.2	11.0
21.000	50.00	5.16	5.623	0.028	0.0	0.0	1.5	0.87	15.3	5.3
20.002	50.00	5.91	5.412	0.109	0.0	0.0	5.9	0.95	67.4	20.7
20.003	50.00	6.30	5.357	0.109	0.0	0.0	5.9	0.92	65.2	20.7
20.004	50.00	6.79	5.282	0.152	0.0	0.0	8.2	0.94	66.1	28.8
20.005	50.00	7.32	5.183	0.161	0.0	0.0	8.7	0.94	66.4	30.5
20.006	50.00	7.48	5.075	0.161	0.0	0.0	8.7	1.05	74.1	30.5
20.007	50.00	7.82	5.030	0.161	0.0	0.0	8.7	1.02	71.9	30.5

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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
20.008	6.292	0.028	224.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
22.000	4.298	0.000	0.0	0.064	5.00	0.0	0.600	o	150	Pipe/Conduit	
22.001	13.399	0.160	83.7	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
22.002	23.360	0.116	201.4	0.023	0.00	0.0	0.600	o	225	Pipe/Conduit	
22.003	19.767	0.099	199.7	0.035	0.00	0.0	0.600	o	225	Pipe/Conduit	
22.004	10.130	0.050	202.6	0.049	0.00	0.0	0.600	o	225	Pipe/Conduit	
22.005	21.349	0.105	203.3	0.033	0.00	0.0	0.600	o	225	Pipe/Conduit	
22.006	20.837	0.101	206.3	0.028	0.00	0.0	0.600	o	225	Pipe/Conduit	
23.000	22.542	0.405	55.7	0.020	5.00	0.0	0.600	o	150	Pipe/Conduit	
23.001	3.051	0.231	13.2	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
24.000	8.441	0.681	12.4	0.010	5.00	0.0	0.600	o	150	Pipe/Conduit	
22.007	26.521	0.132	200.9	0.032	0.00	0.0	0.600	o	225	Pipe/Conduit	
22.008	10.259	0.052	197.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
22.009	4.485	0.020	224.3	0.063	0.00	0.0	0.600	o	300	Pipe/Conduit	
22.010	3.485	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.009	7.791	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.010	23.788	0.165	144.2	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)
20.008	50.00	7.92	4.943	0.161	0.0	0.0	8.7	1.04	73.8	30.5
22.000	50.00	5.77	5.900	0.064	0.0	0.0	3.5	0.09	1.6«	12.1
22.001	50.00	5.98	5.900	0.064	0.0	0.0	3.5	1.10	19.4	12.1
22.002	50.00	6.40	5.665	0.087	0.0	0.0	4.7	0.92	36.5	16.5
22.003	50.00	6.76	5.549	0.122	0.0	0.0	6.6	0.92	36.6	23.1
22.004	50.00	6.94	5.450	0.171	0.0	0.0	9.3	0.91	36.4	32.4
22.005	50.00	7.33	5.400	0.204	0.0	0.0	11.0	0.91	36.3«	38.7
22.006	50.00	7.71	5.295	0.232	0.0	0.0	12.6	0.91	36.0«	44.0
23.000	50.00	5.28	5.905	0.020	0.0	0.0	1.1	1.35	23.9	3.8
23.001	50.00	5.30	5.500	0.020	0.0	0.0	1.1	2.79	49.3	3.8
24.000	50.00	5.05	5.950	0.010	0.0	0.0	0.5	2.88	50.8	1.9
22.007	50.00	8.20	5.194	0.294	0.0	0.0	15.9	0.92	36.5«	55.7
22.008	50.00	8.35	4.987	0.294	0.0	0.0	15.9	1.12	78.9	55.7
22.009	50.00	8.42	4.935	0.357	0.0	0.0	19.3	1.05	73.9	67.7
22.010	50.00	8.81	4.915	0.357	0.0	0.0	19.3	0.15	10.5«	67.7
20.009	50.00	9.68	4.915	0.518	0.0	0.0	28.1	0.15	10.5«	98.2
20.010	50.00	9.99	4.915	0.518	0.0	0.0	28.1	1.31	92.4«	98.2

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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
20.011	11.457	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
25.000	18.358	0.150	122.4	0.019	5.00	0.0	0.600	o	150	Pipe/Conduit	
25.001	23.010	0.190	121.1	0.016	0.00	0.0	0.600	o	150	Pipe/Conduit	
25.002	11.017	0.375	29.4	0.010	0.00	0.0	0.600	o	150	Pipe/Conduit	
25.003	10.252	0.500	20.5	0.007	0.00	0.0	0.600	o	150	Pipe/Conduit	
20.012	25.858	0.110	235.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
26.000	17.917	0.050	358.3	0.044	5.00	0.0	0.600	o	150	Pipe/Conduit	
26.001	17.329	0.020	866.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
27.000	18.765	0.130	144.3	0.035	5.00	0.0	0.600	o	150	Pipe/Conduit	
26.002	33.286	0.030	1109.5	0.019	0.00	0.0	0.600	o	150	Pipe/Conduit	
26.003	6.308	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
26.004	18.925	0.010	1892.5	0.019	0.00	0.0	0.600	o	150	Pipe/Conduit	
26.005	8.662	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
26.006	18.362	0.020	918.1	0.015	0.00	0.0	0.600	o	150	Pipe/Conduit	
26.007	6.116	0.010	611.6	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
28.000	46.370	0.050	927.4	0.033	5.00	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)
20.011	50.00	11.27	4.750	0.518	0.0	0.0	28.1	0.15	10.5«	98.2
25.000	50.00	5.34	6.215	0.019	0.0	0.0	1.0	0.91	16.0	3.6
25.001	50.00	5.76	6.065	0.035	0.0	0.0	1.9	0.91	16.1	6.6
25.002	50.00	5.86	5.875	0.045	0.0	0.0	2.4	1.86	32.9	8.5
25.003	50.00	5.93	5.500	0.052	0.0	0.0	2.8	2.23	39.5	9.9
20.012	50.00	11.69	4.750	0.570	0.0	0.0	30.9	1.02	72.2«	108.1
26.000	50.00	5.57	6.050	0.044	0.0	0.0	2.4	0.53	9.3	8.3
26.001	50.00	6.43	6.000	0.044	0.0	0.0	2.4	0.33	5.9«	8.3
27.000	50.00	5.37	6.110	0.035	0.0	0.0	1.9	0.83	14.7	6.6
26.002	50.00	8.32	5.980	0.098	0.0	0.0	5.3	0.29	5.2«	18.6
26.003	50.00	9.46	5.950	0.098	0.0	0.0	5.3	0.09	1.6«	18.6
26.004	50.00	10.87	5.950	0.117	0.0	0.0	6.3	0.22	3.9«	22.2
26.005	50.00	12.43	5.940	0.117	0.0	0.0	6.3	0.09	1.6«	22.2
26.006	50.00	13.38	5.940	0.132	0.0	0.0	7.1	0.32	5.7«	25.0
26.007	50.00	13.63	5.920	0.132	0.0	0.0	7.1	0.40	7.1«	25.0
28.000	50.00	6.52	6.100	0.033	0.0	0.0	1.8	0.51	35.9	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
28.001	9.129	0.150	60.9	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
28.002	16.992	0.050	339.8	0.037	0.00	0.0	0.600	o	150	Pipe/Conduit	
28.003	8.356	0.000	0.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
28.004	12.917	0.090	143.5	0.010	0.00	0.0	0.600	o	150	Pipe/Conduit	
29.000	16.326	0.115	142.0	0.013	5.00	0.0	0.600	o	150	Pipe/Conduit	
20.013	15.685	0.040	392.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
30.000	8.044	0.090	89.4	0.053	5.00	0.0	0.600	o	150	Pipe/Conduit	
30.001	11.191	0.190	58.9	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
20.014	34.119	0.140	243.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
31.000	6.178	0.190	32.5	0.021	5.00	0.0	0.600	o	150	Pipe/Conduit	
31.001	13.576	0.120	113.1	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
31.002	8.815	0.290	30.4	0.059	0.00	0.0	0.600	o	150	Pipe/Conduit	
20.015	23.076	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
32.000	9.323	0.840	11.1	0.014	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)
28.001	50.00	6.64	6.200	0.033	0.0	0.0	1.8	1.29	22.8	6.3
28.002	50.00	7.16	6.050	0.070	0.0	0.0	3.8	0.54	9.5«	13.3
28.003	50.00	8.67	6.000	0.070	0.0	0.0	3.8	0.09	1.6«	13.3
28.004	50.00	8.92	6.000	0.080	0.0	0.0	4.3	0.84	14.8«	15.2
29.000	50.00	5.32	6.025	0.013	0.0	0.0	0.7	0.84	14.9	2.5
20.013	50.00	13.96	4.640	0.795	0.0	0.0	43.1	0.79	55.7«	150.7
30.000	50.00	5.13	5.880	0.053	0.0	0.0	2.9	1.06	18.8	10.0
30.001	50.00	5.27	5.790	0.053	0.0	0.0	2.9	1.31	23.2	10.0
20.014	50.00	14.53	4.600	0.848	0.0	0.0	45.9	1.00	70.9«	160.8
31.000	50.00	5.06	5.310	0.021	0.0	0.0	1.1	1.77	31.3	4.0
31.001	50.00	5.30	5.120	0.021	0.0	0.0	1.1	0.94	16.7	4.0
31.002	50.00	5.38	5.000	0.080	0.0	0.0	4.3	1.83	32.4	15.2
20.015	50.00	17.11	4.460	0.928	0.0	0.0	50.3	0.15	10.5«	175.9
32.000	50.00	5.05	5.550	0.014	0.0	0.0	0.8	3.04	53.7	2.7

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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
20.016	15.391	0.060	256.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
33.000	10.092	0.450	22.4	0.030	5.00	0.0	0.600	o	150	Pipe/Conduit	
20.017	14.640	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
34.000	19.780	0.150	131.9	0.032	5.00	0.0	0.600	o	150	Pipe/Conduit	
34.001	19.374	0.130	149.0	0.023	0.00	0.0	0.600	o	150	Pipe/Conduit	
34.002	6.741	0.060	112.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
35.000	20.846	0.378	55.1	0.028	5.00	0.0	0.600	o	150	Pipe/Conduit	
34.003	7.942	0.260	30.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
20.018	11.784	0.250	47.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
36.000	49.652	0.470	105.6	0.112	5.00	0.0	0.600	o	150	Pipe/Conduit	
37.000	5.828	0.300	19.4	0.026	5.00	0.0	0.600	o	150	Pipe/Conduit	
36.001	15.880	0.220	72.2	0.021	0.00	0.0	0.600	o	300	Pipe/Conduit	
36.002	17.265	0.070	246.6	0.013	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)
20.016	50.00	17.37	4.460	0.942	0.0	0.0	51.0	0.98	69.1«	178.6
33.000	50.00	5.08	5.100	0.030	0.0	0.0	1.6	2.14	37.7	5.7
20.017	50.00	19.01	4.400	0.972	0.0	0.0	52.6	0.15	10.5«	184.3
34.000	50.00	5.38	5.250	0.032	0.0	0.0	1.7	0.87	15.4	6.1
34.001	50.00	5.77	5.100	0.055	0.0	0.0	3.0	0.82	14.5	10.4
34.002	50.00	5.89	4.970	0.055	0.0	0.0	3.0	0.95	16.7	10.4
35.000	50.00	5.26	5.288	0.028	0.0	0.0	1.5	1.36	24.0	5.3
34.003	50.00	5.96	4.910	0.083	0.0	0.0	4.5	1.83	32.3	15.7
20.018	50.00	19.10	4.400	1.055	0.0	0.0	57.1	2.30	162.3«	200.0
36.000	50.00	5.85	5.270	0.112	0.0	0.0	6.1	0.98	17.3«	21.2
37.000	50.00	5.04	5.100	0.026	0.0	0.0	1.4	2.30	40.6	4.9
36.001	50.00	5.99	4.650	0.159	0.0	0.0	8.6	1.85	131.0	30.1
36.002	50.00	6.28	4.430	0.172	0.0	0.0	9.3	1.00	70.4	32.6

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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	15.485	0.119	130.1	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	
38.001	17.814	0.287	62.1	0.051	0.00	0.0	0.600	o	150	Pipe/Conduit	
36.003	23.494	0.090	261.0	0.021	0.00	0.0	0.600	o	300	Pipe/Conduit	
36.004	22.413	0.120	186.8	0.027	0.00	0.0	0.600	o	300	Pipe/Conduit	
39.000	20.257	0.270	75.0	0.033	5.00	0.0	0.600	o	150	Pipe/Conduit	
20.019	4.632	0.030	154.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
40.000	9.059	0.305	29.7	0.017	5.00	0.0	0.600	o	150	Pipe/Conduit	
41.000	6.094	0.180	33.9	0.021	5.00	0.0	0.600	o	150	Pipe/Conduit	
20.020	11.644	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.021	32.158	0.155	207.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.022	6.651	0.080	83.1	0.041	0.00	0.0	0.600	o	300	Pipe/Conduit	
42.000	11.918	0.098	121.6	0.007	5.00	0.0	0.600	o	150	Pipe/Conduit	
42.001	13.879	0.198	70.1	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)
38.000	50.00	5.29	4.766	0.023	0.0	0.0	1.2	0.88	15.5	4.4
38.001	50.00	5.53	4.647	0.074	0.0	0.0	4.0	1.28	22.6	14.0
36.003	50.00	6.68	4.360	0.267	0.0	0.0	14.5	0.97	68.5	50.6
36.004	50.00	7.01	4.270	0.294	0.0	0.0	15.9	1.15	81.1	55.7
39.000	50.00	5.29	4.570	0.033	0.0	0.0	1.8	1.16	20.5	6.3
20.019	50.00	19.16	4.150	1.382	0.0	0.0	74.9	1.26	89.3«	262.0
40.000	50.00	5.08	4.575	0.017	0.0	0.0	0.9	1.85	32.8	3.2
41.000	50.00	5.06	4.450	0.021	0.0	0.0	1.1	1.74	30.7	4.0
20.020	50.00	20.46	4.120	1.420	0.0	0.0	76.9	0.15	10.5«	269.2
20.021	50.00	20.96	4.120	1.420	0.0	0.0	76.9	1.09	76.9«	269.2
20.022	50.00	21.02	3.965	1.461	0.0	0.0	79.1	1.73	122.0«	277.0
42.000	50.00	5.22	4.566	0.007	0.0	0.0	0.4	0.91	16.1	1.3
42.001	50.00	5.41	4.468	0.018	0.0	0.0	1.0	1.20	21.3	3.4

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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
43.000	9.055	0.300	30.2	0.035	5.00	0.0	0.600	o	150	Pipe/Conduit	
42.002	16.673	0.150	111.2	0.014	0.00	0.0	0.600	o	150	Pipe/Conduit	
42.003	7.928	0.085	93.3	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
20.023	4.513	0.016	282.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.024	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	
44.000	11.954	0.120	99.6	0.021	5.00	0.0	0.600	o	150	Pipe/Conduit	
45.000	7.349	0.560	13.1	0.021	5.00	0.0	0.600	o	150	Pipe/Conduit	
44.001	22.295	0.172	129.6	0.023	0.00	0.0	0.600	o	150	Pipe/Conduit	
46.000	6.317	0.260	24.3	0.024	5.00	0.0	0.600	o	150	Pipe/Conduit	
46.001	6.785	0.052	130.5	0.007	0.00	0.0	0.600	o	150	Pipe/Conduit	
44.002	11.212	0.058	193.3	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)
43.000	50.00	5.08	4.570	0.035	0.0	0.0	1.9	1.84	32.5	6.6
42.002	50.00	5.70	4.270	0.067	0.0	0.0	3.6	0.95	16.8	12.7
42.003	50.00	5.83	4.120	0.067	0.0	0.0	3.6	1.04	18.4	12.7
20.023	50.00	21.10	3.885	1.528	0.0	0.0	82.8	0.93	65.8«	289.7
20.024	50.00	21.24	3.869	1.528	0.0	0.0	82.8	1.01	71.2«	289.7
1.022	50.00	30.00	3.835	2.758	0.0	0.0	149.4	0.15	10.5«	522.9
1.023	50.00	30.00	3.835	2.758	0.0	0.0	149.4	0.15	10.5«	522.9
1.024	50.00	30.00	3.835	2.758	0.0	0.0	149.4	0.86	60.5«	522.9
44.000	50.00	5.20	4.280	0.021	0.0	0.0	1.1	1.01	17.8	4.0
45.000	50.00	5.04	4.720	0.021	0.0	0.0	1.1	2.80	49.4	4.0
44.001	50.00	5.62	4.160	0.065	0.0	0.0	3.5	0.88	15.6	12.3
46.000	50.00	5.05	4.300	0.024	0.0	0.0	1.3	2.05	36.3	4.5
46.001	50.00	5.18	4.040	0.031	0.0	0.0	1.7	0.88	15.5	5.9
44.002	50.00	5.82	3.913	0.096	0.0	0.0	5.2	0.94	37.3	18.2

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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
44.003	27.508	0.135	203.8	0.020	0.00	0.0	0.600	o	225	Pipe/Conduit	
47.000	6.461	0.050	129.2	0.030	5.00	0.0	0.600	o	150	Pipe/Conduit	
44.004	6.311	0.000	0.0	0.000	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	
48.000	15.268	0.110	138.8	0.043	5.00	0.0	0.600	o	150	Pipe/Conduit	
48.001	17.732	0.136	130.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
48.002	13.988	0.105	133.2	0.022	0.00	0.0	0.600	o	150	Pipe/Conduit	
48.003	17.575	0.149	118.0	0.011	0.00	0.0	0.600	o	150	Pipe/Conduit	
48.004	8.713	0.155	56.2	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
49.000	13.321	0.445	29.9	0.019	5.00	0.0	0.600	o	150	Pipe/Conduit	
50.000	12.734	0.098	129.9	0.011	5.00	0.0	0.600	o	150	Pipe/Conduit	
48.005	14.384	0.120	119.9	0.011	0.00	0.0	0.600	o	225	Pipe/Conduit	
48.006	24.977	0.200	124.9	0.025	0.00	0.0	0.600	o	225	Pipe/Conduit	
48.007	8.469	0.080	105.9	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)
44.003	50.00	6.32	3.855	0.116	0.0	0.0	6.3	0.91	36.3	22.0
47.000	50.00	5.12	3.845	0.030	0.0	0.0	1.6	0.88	15.6	5.7
44.004	50.00	7.18	3.720	0.146	0.0	0.0	7.9	0.12	4.9«	27.7
1.025	50.00	30.00	3.720	2.904	0.0	0.0	157.3	0.49	34.4«	550.5
1.026	50.00	30.00	3.700	2.904	0.0	0.0	157.3	0.15	10.5«	550.5
48.000	50.00	5.30	6.010	0.043	0.0	0.0	2.3	0.85	15.0	8.2
48.001	50.00	5.64	5.900	0.043	0.0	0.0	2.3	0.88	15.5	8.2
48.002	50.00	5.90	5.764	0.065	0.0	0.0	3.5	0.87	15.4	12.3
48.003	50.00	6.22	5.659	0.076	0.0	0.0	4.1	0.92	16.3	14.4
48.004	50.00	6.33	5.510	0.076	0.0	0.0	4.1	1.34	23.8	14.4
49.000	50.00	5.12	5.800	0.019	0.0	0.0	1.0	1.85	32.6	3.6
50.000	50.00	5.24	5.453	0.011	0.0	0.0	0.6	0.88	15.6	2.1
48.005	50.00	6.53	5.280	0.117	0.0	0.0	6.3	1.19	47.4	22.2
48.006	50.00	6.89	5.160	0.142	0.0	0.0	7.7	1.17	46.5	26.9
48.007	50.00	7.00	4.960	0.142	0.0	0.0	7.7	1.27	50.5	26.9

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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
48.008	6.810	0.030	227.0	0.009	0.00	0.0	0.600	o	225	Pipe/Conduit	
48.009	9.471	0.030	315.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
48.010	11.295	0.040	282.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
48.011	11.386	0.030	379.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
51.000	11.315	0.090	125.7	0.014	5.00	0.0	0.600	o	150	Pipe/Conduit	
51.001	3.838	0.400	9.6	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
48.012	18.379	0.120	153.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
48.013	18.447	0.130	141.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
52.000	14.874	0.390	38.1	0.033	5.00	0.0	0.600	o	150	Pipe/Conduit	
53.000	7.319	0.390	18.8	0.010	5.00	0.0	0.600	o	150	Pipe/Conduit	
52.001	14.874	0.190	78.3	0.026	0.00	0.0	0.600	o	150	Pipe/Conduit	
52.002	12.797	0.170	75.3	0.009	0.00	0.0	0.600	o	150	Pipe/Conduit	
52.003	7.578	0.060	126.3	0.025	0.00	0.0	0.600	o	150	Pipe/Conduit	
52.004	4.811	0.090	53.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
48.014	23.863	0.050	477.3	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)
48.008	50.00	7.13	4.880	0.151	0.0	0.0	8.2	0.86	34.3	28.6
48.009	50.00	7.31	4.850	0.151	0.0	0.0	8.2	0.88	62.2	28.6
48.010	50.00	7.51	4.820	0.151	0.0	0.0	8.2	0.93	65.8	28.6
48.011	50.00	7.75	4.780	0.151	0.0	0.0	8.2	0.80	56.6	28.6
51.000	50.00	5.21	5.490	0.014	0.0	0.0	0.8	0.89	15.8	2.7
51.001	50.00	5.23	5.400	0.014	0.0	0.0	0.8	3.27	57.8	2.7
48.012	50.00	7.99	4.750	0.165	0.0	0.0	8.9	1.27	89.6	31.3
48.013	50.00	8.22	4.630	0.165	0.0	0.0	8.9	1.32	93.2	31.3
52.000	50.00	5.15	5.400	0.033	0.0	0.0	1.8	1.63	28.9	6.3
53.000	50.00	5.05	5.400	0.010	0.0	0.0	0.5	2.34	41.3	1.9
52.001	50.00	5.37	5.010	0.069	0.0	0.0	3.7	1.14	20.1	13.1
52.002	50.00	5.55	4.820	0.078	0.0	0.0	4.2	1.16	20.5	14.8
52.003	50.00	5.69	4.650	0.103	0.0	0.0	5.6	0.89	15.8«	19.5
52.004	50.00	5.75	4.590	0.103	0.0	0.0	5.6	1.38	24.4	19.5
48.014	50.00	8.78	4.500	0.268	0.0	0.0	14.5	0.71	50.4«	50.8

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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
54.000	13.989	0.150	93.3	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	
54.001	8.454	0.300	28.2	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
54.002	6.381	0.050	127.6	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
48.015	22.453	0.370	60.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
55.000	10.492	0.090	116.6	0.039	5.00	0.0	0.600	o	150	Pipe/Conduit	
56.000	23.817	0.315	75.6	0.062	5.00	0.0	0.600	o	150	Pipe/Conduit	
55.001	8.119	0.050	162.4	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
55.002	5.990	0.035	171.1	0.010	0.00	0.0	0.600	o	225	Pipe/Conduit	
55.003	22.156	0.120	184.6	0.016	0.00	0.0	0.600	o	225	Pipe/Conduit	
57.000	6.476	0.350	18.5	0.017	5.00	0.0	0.600	o	150	Pipe/Conduit	
55.004	23.506	0.135	174.1	0.020	0.00	0.0	0.600	o	225	Pipe/Conduit	
58.000	13.814	0.380	36.4	0.031	5.00	0.0	0.600	o	300	Pipe/Conduit	
55.005	14.419	0.120	120.2	0.016	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)
54.000	50.00	5.22	4.950	0.023	0.0	0.0	1.2	1.04	18.4	4.4
54.001	50.00	5.30	4.800	0.023	0.0	0.0	1.2	1.90	33.6	4.4
54.002	50.00	5.42	4.500	0.023	0.0	0.0	1.2	0.89	15.7	4.4
48.015	50.00	8.96	4.450	0.291	0.0	0.0	15.8	2.02	142.9	55.2
55.000	50.00	5.19	5.650	0.039	0.0	0.0	2.1	0.93	16.4	7.4
56.000	50.00	5.34	5.875	0.062	0.0	0.0	3.4	1.16	20.5	11.8
55.001	50.00	5.52	5.560	0.101	0.0	0.0	5.5	0.79	13.9«	19.1
55.002	50.00	5.62	5.435	0.111	0.0	0.0	6.0	1.00	39.6	21.0
55.003	50.00	6.00	5.400	0.127	0.0	0.0	6.9	0.96	38.1	24.1
57.000	50.00	5.05	5.705	0.017	0.0	0.0	0.9	2.35	41.6	3.2
55.004	50.00	6.40	5.280	0.164	0.0	0.0	8.9	0.99	39.3	31.1
58.000	50.00	5.09	5.450	0.031	0.0	0.0	1.7	2.62	184.9	5.9
55.005	50.00	6.56	5.070	0.211	0.0	0.0	11.4	1.43	101.3	40.0

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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
59.000	5.913	0.130	45.5	0.022	5.00	0.0	0.600	o	150	Pipe/Conduit	
55.006	35.195	0.440	80.0	0.024	0.00	0.0	0.600	o	300	Pipe/Conduit	
60.000	4.517	0.040	112.9	0.023	5.00	0.0	0.600	o	150	Pipe/Conduit	
55.007	23.594	0.250	94.4	0.036	0.00	0.0	0.600	o	300	Pipe/Conduit	
55.008	9.979	0.060	166.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
55.009	5.909	0.100	59.1	0.036	0.00	0.0	0.600	o	300	Pipe/Conduit	
55.010	4.450	0.020	222.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
48.016	22.062	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
61.000	6.067	0.040	151.7	0.014	5.00	0.0	0.600	o	300	Pipe/Conduit	
61.001	4.644	0.020	232.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
48.017	25.461	0.020	1273.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
62.000	15.286	0.150	101.9	0.047	5.00	0.0	0.600	o	150	Pipe/Conduit	
62.001	6.494	0.045	144.3	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
62.002	2.619	0.040	65.5	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)
59.000	50.00	5.07	5.230	0.022	0.0	0.0	1.2	1.50	26.4	4.2
55.006	50.00	6.90	4.950	0.257	0.0	0.0	13.9	1.76	124.4	48.7
60.000	50.00	5.08	4.700	0.023	0.0	0.0	1.2	0.94	16.7	4.4
55.007	50.00	7.14	4.510	0.316	0.0	0.0	17.1	1.62	114.4	59.9
55.008	50.00	7.28	4.260	0.316	0.0	0.0	17.1	1.22	86.0	59.9
55.009	50.00	7.33	4.200	0.352	0.0	0.0	19.1	2.05	144.8	66.7
55.010	50.00	7.40	4.100	0.352	0.0	0.0	19.1	1.05	74.2	66.7
48.016	50.00	11.43	4.080	0.643	0.0	0.0	34.8	0.15	10.5«	121.9
61.000	50.00	5.08	4.140	0.014	0.0	0.0	0.8	1.27	90.1	2.7
61.001	50.00	5.15	4.100	0.014	0.0	0.0	0.8	1.03	72.6	2.7
48.017	50.00	12.42	4.080	0.657	0.0	0.0	35.6	0.43	30.6«	124.6
62.000	50.00	5.26	4.545	0.047	0.0	0.0	2.5	1.00	17.6	8.9
62.001	50.00	5.39	4.395	0.047	0.0	0.0	2.5	0.83	14.7	8.9
62.002	50.00	5.42	4.350	0.047	0.0	0.0	2.5	1.24	22.0	8.9

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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
48.018	5.411	0.020	270.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
48.019	22.710	0.090	252.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
48.020	10.353	0.050	207.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
48.021	12.519	0.150	83.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
63.000	20.274	0.190	106.7	0.027	5.00	0.0	0.600	o	150	Pipe/Conduit	
63.001	9.065	0.090	100.7	0.036	0.00	0.0	0.600	o	150	Pipe/Conduit	
64.000	5.788	0.490	11.8	0.027	5.00	0.0	0.600	o	150	Pipe/Conduit	
63.002	20.889	0.280	74.6	0.010	0.00	0.0	0.600	o	150	Pipe/Conduit	
65.000	7.286	0.715	10.2	0.006	5.00	0.0	0.600	o	150	Pipe/Conduit	
65.001	11.020	0.300	36.7	0.022	0.00	0.0	0.600	o	150	Pipe/Conduit	
63.003	11.398	0.080	142.5	0.040	0.00	0.0	0.600	o	300	Pipe/Conduit	
63.004	48.097	0.250	192.4	0.027	0.00	0.0	0.600	o	300	Pipe/Conduit	
66.000	5.957	0.270	22.1	0.026	5.00	0.0	0.600	o	150	Pipe/Conduit	
63.005	12.346	0.050	246.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
63.006	5.698	0.020	284.9	0.025	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)
48.018	50.00	12.51	4.060	0.704	0.0	0.0	38.1	0.95	67.2«	133.5
48.019	50.00	12.89	4.040	0.704	0.0	0.0	38.1	0.99	69.6«	133.5
48.020	50.00	13.05	3.950	0.704	0.0	0.0	38.1	1.09	77.0«	133.5
48.021	50.00	13.17	3.900	0.704	0.0	0.0	38.1	1.72	121.7«	133.5
63.000	50.00	5.35	4.860	0.027	0.0	0.0	1.5	0.97	17.2	5.1
63.001	50.00	5.50	4.670	0.063	0.0	0.0	3.4	1.00	17.7	11.9
64.000	50.00	5.03	5.070	0.027	0.0	0.0	1.5	2.95	52.1	5.1
63.002	50.00	5.80	4.580	0.100	0.0	0.0	5.4	1.17	20.6	19.0
65.000	50.00	5.04	5.315	0.006	0.0	0.0	0.3	3.17	56.1	1.1
65.001	50.00	5.15	4.600	0.028	0.0	0.0	1.5	1.67	29.4	5.3
63.003	50.00	5.94	4.150	0.168	0.0	0.0	9.1	1.32	93.0	31.8
63.004	50.00	6.65	4.070	0.195	0.0	0.0	10.6	1.13	79.9	37.0
66.000	50.00	5.05	4.240	0.026	0.0	0.0	1.4	2.15	38.1	4.9
63.005	50.00	6.86	3.820	0.221	0.0	0.0	12.0	1.00	70.4	41.9
63.006	50.00	6.96	3.770	0.246	0.0	0.0	13.3	0.93	65.5	46.6

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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
63.007	3.876	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
48.022	32.579	0.000	0.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
67.000	11.089	0.080	138.6	0.028	5.00	0.0	0.600	o	150	Pipe/Conduit	
67.001	22.582	0.350	64.5	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit	
48.023	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)
63.007	50.00	7.39	3.750	0.246	0.0	0.0	13.3	0.15	10.5«	46.6
48.022	50.00	16.82	3.750	0.950	0.0	0.0	51.5	0.15	10.5«	180.1
67.000	50.00	5.22	4.330	0.028	0.0	0.0	1.5	0.85	15.0	5.3
67.001	50.00	5.52	4.250	0.028	0.0	0.0	1.5	1.25	22.2	5.3
48.023	50.00	16.95	3.750	0.978	0.0	0.0	53.0	1.17	82.6«	185.4
1.027	50.00	30.00	3.700	3.882	0.0	0.0	210.3	1.13	80.1«	735.9
1.028	50.00	30.00	3.650	3.882	0.0	0.0	210.3	1.67	117.8«	735.9

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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
S13a	7.019	1.014	Open Manhole	1050	3.000	6.005	150				
S13b	7.275	1.350	Open Manhole	1050	4.000	5.925	150				
S13	7.250	1.370	Open Manhole	1200	3.001	5.880	150	3.000	5.880	150	
								4.000	5.880	150	
S14	7.280	1.460	Open Manhole	1200	3.002	5.820	150	3.001	5.820	150	
S15	7.290	1.550	Open Manhole	1200	3.003	5.740	150	3.002	5.740	150	
S16	7.277	1.577	Open Manhole	1200	3.004	5.700	150	3.003	5.700	150	
S17	7.378	1.678	Open Manhole	1200	3.005	6.115	150	3.004	5.700	150	
S18	7.262	1.237	Open Manhole	1200	3.006	6.025	150	3.005	6.025	150	
S19	7.490	1.390	Open Manhole	1200	5.000	6.100	150				
S20	7.328	1.353	Open Manhole	1200	3.007	5.975	150	3.006	5.975	150	
								5.000	5.975	150	
S21	7.116	1.236	Open Manhole	1200	3.008	5.880	150	3.007	5.880	150	
S255	7.071	1.451	Open Manhole	1200	6.000	5.620	150				
S254	7.104	1.484	Open Manhole	1200	6.001	5.620	150	6.000	5.620	150	
S22	7.425	1.805	Open Manhole	1200	6.002	5.620	225	6.001	5.620	150	
S23	7.150	1.296	Open Manhole	1200	7.000	5.854	150				
S24	6.982	1.549	Open Manhole	1200	3.009	5.433	300	3.008	5.583	150	
								6.002	5.508	225	
								7.000	5.583	150	
S26	6.908	1.498	Open Manhole	1200	3.010	5.410	300	3.009	5.410	300	
S27	6.806	1.424	Open Manhole	1200	3.011	5.382	300	3.010	5.382	300	
S28	6.629	1.309	Open Manhole	1200	3.012	5.320	300	3.011	5.320	300	
S29	6.571	1.114	Open Manhole	1200	8.000	5.457	150				
S30	6.481	1.261	Open Manhole	1200	3.013	5.220	300	3.012	5.220	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)
								8.000	5.370	150	
S31	6.514	1.334	Open Manhole	1200	3.014	5.180	300	3.013	5.180	300	
S32	6.650	1.500	Open Manhole	1200	1.006	5.150	300	1.005	5.150	300	
								3.014	5.150	300	
S33	6.400	0.940	Open Manhole	1200	9.000	5.460	150				
S34	6.350	1.000	Open Manhole	1200	10.000	5.350	150				
S35	6.350	1.060	Open Manhole	1200	9.001	5.290	150	9.000	5.290	150	
								10.000	5.290	150	
S36	6.900	1.780	Open Manhole	1200	1.007	5.120	300	1.006	5.120	300	
								9.001	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	11.000	6.050	150				
S111	6.800	0.900	Open Manhole	1200	11.001	5.900	150	11.000	5.900	150	
S40	6.800	1.000	Open Manhole	1200	11.002	5.800	150	11.001	5.800	150	
S41	6.900	1.220	Open Manhole	1200	11.003	5.680	150	11.002	5.680	150	
S42	6.900	1.290	Open Manhole	1200	11.004	5.610	150	11.003	5.610	150	
S256	6.777	1.417	Open Manhole	1200	12.000	5.360	150				
S43	6.618	1.358	Open Manhole	1200	11.005	5.260	150	11.004	5.260	150	
								12.000	5.260	150	
S44	6.482	1.332	Open Manhole	1200	11.006	5.150	150	11.005	5.150	150	
S45	6.293	1.293	Open Manhole	1200	11.007	5.000	150	11.006	5.000	150	
S46	6.096	1.146	Open Manhole	1200	11.008	4.950	150	11.007	4.950	150	
S47	6.095	1.195	Open Manhole	1200	11.009	4.900	150	11.008	4.900	150	
S48	6.450	1.600	Open Manhole	1200	1.011	4.850	150	1.010	4.850	150	
								11.009	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	13.000	5.250	150				
S52	6.000	0.940	Open Manhole	1200	13.001	5.060	150	13.000	5.060	150	
S53	6.000	1.332	Open Manhole	1200	1.014	4.668	225	1.013	4.668	225	
								13.001	5.060	150	317
S54	5.800	1.258	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	
S56a	6.462	1.347	Open Manhole	1050	14.000	5.115	150				
S56	6.134	1.344	Open Manhole	1200	14.001	4.790	150	14.000	4.790	150	
S57	5.996	1.346	Open Manhole	1200	14.002	4.650	150	14.001	4.650	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)
S58	5.916	1.356	Open Manhole	1200	14.003	4.560	150	14.002	4.560	150	
S59	5.807	1.357	Open Manhole	1200	14.004	4.450	150	14.003	4.450	150	
S60	5.750	1.500	Open Manhole	1200	1.017	4.250	300	1.016	4.250	225	
								14.004	4.250	150	
S61	6.975	0.805	Open Manhole	1200	15.000	6.170	150				
S62	6.900	0.910	Open Manhole	1200	16.000	5.990	150				
S63	6.900	1.190	Open Manhole	1200	15.001	5.710	150	15.000	5.710	150	
								16.000	5.710	150	
S64	6.725	1.215	Open Manhole	1200	15.002	5.510	150	15.001	5.510	150	
S65	6.574	1.544	Open Manhole	1200	15.003	5.030	300	15.002	5.180	150	
S66	6.237	1.497	Open Manhole	1200	15.004	4.740	300	15.003	4.740	300	
S67	6.750	1.790	Open Manhole	1200	17.000	4.960	150				
S68	6.160	1.360	Open Manhole	1200	17.001	4.800	150	17.000	4.800	150	
S69	5.886	1.496	Open Manhole	1200	15.005	4.390	300	15.004	4.390	300	
								17.001	4.540	150	
S70	5.667	1.377	Open Manhole	1200	15.006	4.290	300	15.005	4.290	300	
S71	5.900	1.640	Open Manhole	1200	15.007	4.260	300	15.006	4.260	300	
S72	6.150	1.090	Open Manhole	1200	18.000	5.060	150				
S73	6.000	0.870	Open Manhole	1200	19.000	5.130	150				
S74	6.050	1.200	Open Manhole	1200	18.001	4.850	150	18.000	4.850	150	
								19.000	4.850	150	
S75	5.560	0.790	Open Manhole	1200	18.002	4.770	150	18.001	4.770	150	
S76	5.550	1.350	Open Manhole	1200	1.018	4.200	300	1.017	4.200	300	
								15.007	4.200	300	
								18.002	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	20.000	5.660	225				
S81	6.895	1.302	Open Manhole	1200	20.001	5.593	225	20.000	5.593	225	
S82	6.825	1.202	Open Manhole	1200	21.000	5.623	150				
S83	6.669	1.257	Open Manhole	1200	20.002	5.412	300	20.001	5.487	225	
								21.000	5.562	150	
S84	6.542	1.185	Open Manhole	1200	20.003	5.357	300	20.002	5.357	300	
S85	6.499	1.217	Open Manhole	1200	20.004	5.282	300	20.003	5.282	300	
S86	6.497	1.314	Open Manhole	1200	20.005	5.183	300	20.004	5.183	300	
S87	6.600	1.525	Open Manhole	1200	20.006	5.075	300	20.005	5.075	300	
S88	6.550	1.520	Open Manhole	1200	20.007	5.030	300	20.006	5.030	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)
S89	6.550	1.607	Open Manhole	1200	20.008	4.943	300	20.007	4.943	300	
S253	7.300	1.400	Open Manhole	1200	22.000	5.900	150				
S90	7.300	1.400	Open Manhole	1200	22.001	5.900	150	22.000	5.900	150	
S91	7.623	1.958	Open Manhole	1200	22.002	5.665	225	22.001	5.740	150	
S92	7.429	1.880	Open Manhole	1200	22.003	5.549	225	22.002	5.549	225	
S93	7.350	1.900	Open Manhole	1200	22.004	5.450	225	22.003	5.450	225	
S94	7.173	1.773	Open Manhole	1200	22.005	5.400	225	22.004	5.400	225	
S95	7.045	1.750	Open Manhole	1200	22.006	5.295	225	22.005	5.295	225	
S96	7.000	1.095	Open Manhole	1200	23.000	5.905	150				
S97	6.780	1.280	Open Manhole	1200	23.001	5.500	150	23.000	5.500	150	
S98	6.980	1.030	Open Manhole	1200	24.000	5.950	150				
S99	6.850	1.656	Open Manhole	1200	22.007	5.194	225	22.006	5.194	225	
								23.001	5.269	150	
								24.000	5.269	150	
S100	6.583	1.596	Open Manhole	1200	22.008	4.987	300	22.007	5.062	225	
S101	6.495	1.560	Open Manhole	1200	22.009	4.935	300	22.008	4.935	300	
S102	6.550	1.635	Open Manhole	1200	22.010	4.915	300	22.009	4.915	300	
S103	6.556	1.641	Open Manhole	1200	20.009	4.915	300	20.008	4.915	300	
								22.010	4.915	300	
S104	6.556	1.641	Open Manhole	1200	20.010	4.915	300	20.009	4.915	300	
S105	6.900	2.150	Open Manhole	1200	20.011	4.750	300	20.010	4.750	300	
S106	7.120	0.905	Open Manhole	1200	25.000	6.215	150				
S107	7.200	1.135	Open Manhole	1200	25.001	6.065	150	25.000	6.065	150	
S108	7.050	1.175	Open Manhole	1200	25.002	5.875	150	25.001	5.875	150	
S109	6.900	1.400	Open Manhole	1200	25.003	5.500	150	25.002	5.500	150	
S110	6.900	2.150	Open Manhole	1200	20.012	4.750	300	20.011	4.750	300	
								25.003	5.000	150	100
S113	7.000	0.950	Open Manhole	1200	26.000	6.050	150				
S114	6.804	0.804	Open Manhole	1200	26.001	6.000	150	26.000	6.000	150	
S115a	7.015	0.905	Open Manhole	1050	27.000	6.110	150				
S115	6.849	0.869	Open Manhole	1200	26.002	5.980	150	26.001	5.980	150	
								27.000	5.980	150	
S116	7.100	1.150	Open Manhole	1200	26.003	5.950	150	26.002	5.950	150	
S117	7.100	1.150	Open Manhole	1200	26.004	5.950	150	26.003	5.950	150	
S118	7.000	1.060	Open Manhole	1200	26.005	5.940	150	26.004	5.940	150	
S119	7.000	1.060	Open Manhole	1200	26.006	5.940	150	26.005	5.940	150	
S120	6.750	0.830	Open Manhole	1200	26.007	5.920	150	26.006	5.920	150	
S121	6.900	0.800	Open Manhole	1200	28.000	6.100	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)
S122	7.100	1.050	Open Manhole	1200	28.001	6.200	150	28.000	6.050	300	
S123	7.105	1.055	Open Manhole	1200	28.002	6.050	150	28.001	6.050	150	
S124	6.900	0.900	Open Manhole	1200	28.003	6.000	150	28.002	6.000	150	
S125	6.719	0.719	Open Manhole	1200	28.004	6.000	150	28.003	6.000	150	
S126	6.753	0.728	Open Manhole	1200	29.000	6.025	150				
S127	6.753	2.113	Open Manhole	1200	20.013	4.640	300	20.012	4.640	300	
								26.007	5.910	150	1120
								28.004	5.910	150	1120
								29.000	5.910	150	1120
S128	6.700	0.820	Open Manhole	1200	30.000	5.880	150				
S129	6.708	0.918	Open Manhole	1200	30.001	5.790	150	30.000	5.790	150	
S130	6.600	2.000	Open Manhole	1200	20.014	4.600	300	20.013	4.600	300	
								30.001	5.600	150	850
S131	6.577	1.267	Open Manhole	1200	31.000	5.310	150				
S132	6.474	1.354	Open Manhole	1200	31.001	5.120	150	31.000	5.120	150	
S133	6.320	1.320	Open Manhole	1200	31.002	5.000	150	31.001	5.000	150	
S134	6.600	2.140	Open Manhole	1200	20.015	4.460	300	20.014	4.460	300	
								31.002	4.710	150	100
S135	6.370	0.820	Open Manhole	1200	32.000	5.550	150				
S136	6.600	2.140	Open Manhole	1200	20.016	4.460	300	20.015	4.460	300	
								32.000	4.710	150	100
S137	6.250	1.150	Open Manhole	1200	33.000	5.100	150				
S138	5.938	1.538	Open Manhole	1200	20.017	4.400	300	20.016	4.400	300	
								33.000	4.650	150	100
S139	6.325	1.075	Open Manhole	1200	34.000	5.250	150				
S140	6.050	0.950	Open Manhole	1200	34.001	5.100	150	34.000	5.100	150	
S141	5.930	0.960	Open Manhole	1200	34.002	4.970	150	34.001	4.970	150	
S142	6.074	0.786	Open Manhole	1200	35.000	5.288	150				
S143	6.070	1.160	Open Manhole	1200	34.003	4.910	150	34.002	4.910	150	
								35.000	4.910	150	
S144	5.900	1.500	Open Manhole	1200	20.018	4.400	300	20.017	4.400	300	
								34.003	4.650	150	100
S145	6.617	1.347	Open Manhole	1200	36.000	5.270	150				
S146	6.310	1.210	Open Manhole	1200	37.000	5.100	150				
S147	6.026	1.376	Open Manhole	1200	36.001	4.650	300	36.000	4.800	150	
								37.000	4.800	150	
S148	5.922	1.492	Open Manhole	1200	36.002	4.430	300	36.001	4.430	300	
S149a	5.942	1.176	Open Manhole	1050	38.000	4.766	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)
S149b	6.026	1.379	Open Manhole	1050	38.001	4.647	150	38.000	4.647	150	
S149	6.117	1.757	Open Manhole	1200	36.003	4.360	300	36.002	4.360	300	
								38.001	4.360	150	
S150	5.782	1.512	Open Manhole	1200	36.004	4.270	300	36.003	4.270	300	
S151	5.695	1.125	Open Manhole	1200	39.000	4.570	150				
S152	5.640	1.490	Open Manhole	1200	20.019	4.150	300	20.018	4.150	300	
								36.004	4.150	300	
								39.000	4.300	150	
S153	5.970	1.395	Open Manhole	1200	40.000	4.575	150				
S154	5.850	1.400	Open Manhole	1200	41.000	4.450	150				
S155	5.780	1.660	Open Manhole	1200	20.020	4.120	300	20.019	4.120	300	
								40.000	4.270	150	
								41.000	4.270	150	
S156	5.780	1.660	Open Manhole	1200	20.021	4.120	300	20.020	4.120	300	
S157	5.635	1.670	Open Manhole	1200	20.022	3.965	300	20.021	3.965	300	
S159a	5.916	1.350	Open Manhole	1050	42.000	4.566	150				
S159b	5.818	1.350	Open Manhole	1050	42.001	4.468	150	42.000	4.468	150	
S158	5.750	1.180	Open Manhole	1050	43.000	4.570	150				
S159	5.660	1.390	Open Manhole	1200	42.002	4.270	150	42.001	4.270	150	
								43.000	4.270	150	
S160	5.474	1.354	Open Manhole	1200	42.003	4.120	150	42.002	4.120	150	
S162	5.500	1.615	Open Manhole	1200	20.023	3.885	300	20.022	3.885	300	
								42.003	4.035	150	
S163	5.420	1.551	Open Manhole	1200	20.024	3.869	300	20.023	3.869	300	
S164	5.420	1.585	Open Manhole	1200	1.022	3.835	300	1.021	3.835	300	
								20.024	3.835	300	
S165	5.350	1.515	Open Manhole	1200	1.023	3.835	300	1.022	3.835	300	
S166	5.350	1.515	Open Manhole	1200	1.024	3.835	300	1.023	3.835	300	
S167	5.602	1.322	Open Manhole	1200	44.000	4.280	150				
S168	5.700	0.980	Open Manhole	1200	45.000	4.720	150				
S169	5.528	1.368	Open Manhole	1200	44.001	4.160	150	44.000	4.160	150	
								45.000	4.160	150	
S170	5.630	1.330	Open Manhole	1200	46.000	4.300	150				
S171	5.369	1.329	Open Manhole	1200	46.001	4.040	150	46.000	4.040	150	
S172	5.276	1.363	Open Manhole	1200	44.002	3.913	225	44.001	3.988	150	
								46.001	3.988	150	
S173	5.132	1.277	Open Manhole	1200	44.003	3.855	225	44.002	3.855	225	
S174	5.170	1.325	Open Manhole	1200	47.000	3.845	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)
S175	5.050	1.330	Open Manhole	1200	44.004	3.720	225	44.003	3.720	225	
								47.000	3.795	150	
S176	4.950	1.230	Open Manhole	1200	1.025	3.720	300	1.024	3.720	300	
								44.004	3.720	225	
S177	4.450	0.750	Open Manhole	1200	1.026	3.700	300	1.025	3.700	300	
S178	7.100	1.090	Open Manhole	1200	48.000	6.010	150				
S179	6.900	1.000	Open Manhole	1200	48.001	5.900	150	48.000	5.900	150	
S180	6.750	0.986	Open Manhole	1200	48.002	5.764	150	48.001	5.764	150	
S181	6.675	1.016	Open Manhole	1200	48.003	5.659	150	48.002	5.659	150	
S182	6.900	1.390	Open Manhole	1200	48.004	5.510	150	48.003	5.510	150	
S184a	7.000	1.200	Open Manhole	1050	49.000	5.800	150				
S183	6.739	1.286	Open Manhole	1050	50.000	5.453	150				
S184	6.863	1.583	Open Manhole	1200	48.005	5.280	225	48.004	5.355	150	
								49.000	5.355	150	
								50.000	5.355	150	
S185	6.728	1.568	Open Manhole	1200	48.006	5.160	225	48.005	5.160	225	
S186	6.550	1.590	Open Manhole	1200	48.007	4.960	225	48.006	4.960	225	
S187	6.300	1.420	Open Manhole	1200	48.008	4.880	225	48.007	4.880	225	
S188	6.750	1.900	Open Manhole	1200	48.009	4.850	300	48.008	4.850	225	
S189	6.750	1.930	Open Manhole	1200	48.010	4.820	300	48.009	4.820	300	
S190	6.300	1.520	Open Manhole	1200	48.011	4.780	300	48.010	4.780	300	
S191	6.500	1.010	Open Manhole	1200	51.000	5.490	150				
S192	6.200	0.800	Open Manhole	1200	51.001	5.400	150	51.000	5.400	150	
S193	6.200	1.450	Open Manhole	1200	48.012	4.750	300	48.011	4.750	300	
								51.001	5.000	150	100
S194	6.150	1.520	Open Manhole	1200	48.013	4.630	300	48.012	4.630	300	
S195	6.614	1.214	Open Manhole	1200	52.000	5.400	150				
S196	6.450	1.050	Open Manhole	1200	53.000	5.400	150				
S197	6.385	1.375	Open Manhole	1200	52.001	5.010	150	52.000	5.010	150	
								53.000	5.010	150	
S198	6.129	1.309	Open Manhole	1200	52.002	4.820	150	52.001	4.820	150	
S199	5.992	1.342	Open Manhole	1200	52.003	4.650	150	52.002	4.650	150	
S200	5.950	1.360	Open Manhole	1200	52.004	4.590	150	52.003	4.590	150	
S201	5.950	1.450	Open Manhole	1200	48.014	4.500	300	48.013	4.500	300	
								52.004	4.500	150	
S203	6.000	1.050	Open Manhole	1200	54.000	4.950	150				
S204	5.850	1.050	Open Manhole	1200	54.001	4.800	150	54.000	4.800	150	
S205	5.700	1.200	Open Manhole	1200	54.002	4.500	150	54.001	4.500	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)
S206	5.500	1.050	Open Manhole	1200	48.015	4.450	300	48.014	4.450	300	
								54.002	4.450	150	
S207	7.068	1.418	Open Manhole	1200	55.000	5.650	150				
S208a	7.225	1.350	Open Manhole	1050	56.000	5.875	150				
S208	7.012	1.452	Open Manhole	1200	55.001	5.560	150	55.000	5.560	150	
								56.000	5.560	150	
S209	6.950	1.515	Open Manhole	1200	55.002	5.435	225	55.001	5.510	150	
S210	6.919	1.519	Open Manhole	1200	55.003	5.400	225	55.002	5.400	225	
S211	6.925	1.220	Open Manhole	1200	57.000	5.705	150				
S212	6.736	1.456	Open Manhole	1200	55.004	5.280	225	55.003	5.280	225	
								57.000	5.355	150	
S213	6.867	1.417	Open Manhole	1200	58.000	5.450	300				
S214	6.538	1.468	Open Manhole	1200	55.005	5.070	300	55.004	5.145	225	
								58.000	5.070	300	
S215	6.680	1.450	Open Manhole	1200	59.000	5.230	150				
S216	6.425	1.475	Open Manhole	1200	55.006	4.950	300	55.005	4.950	300	
								59.000	5.100	150	
S217	5.979	1.279	Open Manhole	1200	60.000	4.700	150				
S218	5.997	1.487	Open Manhole	1200	55.007	4.510	300	55.006	4.510	300	
								60.000	4.660	150	
S219	5.767	1.507	Open Manhole	1200	55.008	4.260	300	55.007	4.260	300	
S220	5.666	1.466	Open Manhole	1200	55.009	4.200	300	55.008	4.200	300	
S221	5.500	1.400	Open Manhole	1200	55.010	4.100	300	55.009	4.100	300	
S222	5.500	1.420	Open Manhole	1200	48.016	4.080	300	48.015	4.080	300	
								55.010	4.080	300	
S223	5.636	1.496	Open Manhole	1200	61.000	4.140	300				
S224	5.600	1.500	Open Manhole	1200	61.001	4.100	300	61.000	4.100	300	
S225	5.500	1.420	Open Manhole	1200	48.017	4.080	300	48.016	4.080	300	
								61.001	4.080	300	
S227	5.500	0.955	Open Manhole	1200	62.000	4.545	150				
S228	5.450	1.055	Open Manhole	1200	62.001	4.395	150	62.000	4.395	150	
S229	5.300	0.950	Open Manhole	1200	62.002	4.350	150	62.001	4.350	150	
S230	5.250	1.190	Open Manhole	1200	48.018	4.060	300	48.017	4.060	300	
								62.002	4.310	150	100
S231	5.200	1.160	Open Manhole	1200	48.019	4.040	300	48.018	4.040	300	
S232	5.150	1.200	Open Manhole	1200	48.020	3.950	300	48.019	3.950	300	
S233	5.150	1.250	Open Manhole	1200	48.021	3.900	300	48.020	3.900	300	
S234	6.236	1.376	Open Manhole	1200	63.000	4.860	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)
S235	6.050	1.380	Open Manhole	1200	63.001	4.670	150	63.000	4.670	150	
S236	6.180	1.110	Open Manhole	1200	64.000	5.070	150				
S237	5.966	1.386	Open Manhole	1200	63.002	4.580	150	63.001	4.580	150	
								64.000	4.580	150	
S238	6.200	0.885	Open Manhole	1200	65.000	5.315	150				
S239	6.056	1.456	Open Manhole	1200	65.001	4.600	150	65.000	4.600	150	
S240	5.878	1.728	Open Manhole	1200	63.003	4.150	300	63.002	4.300	150	
								65.001	4.300	150	
S241	5.760	1.690	Open Manhole	1200	63.004	4.070	300	63.003	4.070	300	
S242	5.450	1.210	Open Manhole	600	66.000	4.240	150				
S243	5.279	1.459	Open Manhole	1200	63.005	3.820	300	63.004	3.820	300	
								66.000	3.970	150	
S244	5.172	1.402	Open Manhole	1200	63.006	3.770	300	63.005	3.770	300	
S245	5.100	1.350	Open Manhole	1200	63.007	3.750	300	63.006	3.750	300	
S246	5.000	1.250	Open Manhole	1200	48.022	3.750	300	48.021	3.750	300	
								63.007	3.750	300	
S247	5.250	0.920	Open Manhole	1200	67.000	4.330	150				
S248	5.100	0.850	Open Manhole	1200	67.001	4.250	150	67.000	4.250	150	
S249	4.500	0.750	Open Manhole	1200	48.023	3.750	300	48.022	3.750	300	
								67.001	3.900	150	
S250	4.450	0.750	Open Manhole	1200	1.027	3.700	300	1.026	3.700	300	
								48.023	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	

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S1	497521.671	103169.673	497521.671	103169.673	Required	
S2	497568.932	103233.771	497568.932	103233.771	Required	
S3	497571.244	103236.907	497571.244	103236.907	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S4	497546.131	103255.383	497546.131	103255.383	Required	
S5	497541.226	103250.341	497541.226	103250.341	Required	
S6	497515.610	103194.835	497515.610	103194.835	Required	
S7	497544.019	103233.649	497544.019	103233.649	Required	
S8	497538.245	103237.907	497538.245	103237.907	Required	
S9	497536.911	103247.010	497536.911	103247.010	Required	
S10	497510.121	103266.061	497510.121	103266.061	Required	
S11	497511.843	103268.455	497511.843	103268.455	Required	
S12	497513.095	103270.180	497513.095	103270.180	Required	
S13a	497503.839	103186.271	497503.839	103186.271	Required	
S13b	497510.913	103204.419	497510.913	103204.419	Required	
S13	497506.946	103200.915	497506.946	103200.915	Required	
S14	497500.671	103204.358	497500.671	103204.358	Required	
S15	497495.647	103204.761	497495.647	103204.761	Required	
S16	497494.587	103200.561	497494.587	103200.561	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S17	497471.274	103205.114	497471.274	103205.114	Required	
S18	497462.829	103213.425	497462.829	103213.425	Required	
S19	497455.357	103198.609	497455.357	103198.609	Required	
S20	497455.552	103213.573	497455.552	103213.573	Required	
S21	497452.984	103227.118	497452.984	103227.118	Required	
S255	497481.331	103243.104	497481.331	103243.104	Required	
S254	497479.248	103240.262	497479.248	103240.262	Required	
S22	497476.939	103237.016	497476.939	103237.016	Required	
S23	497446.025	103233.558	497446.025	103233.558	Required	
S24	497452.794	103236.743	497452.794	103236.743	Required	
S26	497451.393	103243.278	497451.393	103243.278	Required	
S27	497448.508	103251.128	497448.508	103251.128	Required	
S28	497459.187	103266.099	497459.187	103266.099	Required	
S29	497486.412	103282.921	497486.412	103282.921	Required	
S30	497476.519	103289.956	497476.519	103289.956	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S31	497469.609	103294.870	497469.609	103294.870	Required	
S32	497472.442	103298.850	497472.442	103298.850	Required	
S33	497436.820	103321.138	497436.820	103321.138	Required	
S34	497413.100	103328.290	497413.100	103328.290	Required	
S35	497417.721	103334.963	497417.721	103334.963	Required	
S36	497418.958	103336.594	497418.958	103336.594	Required	
S37	497409.562	103343.225	497409.562	103343.225	Required	
S38	497407.675	103344.557	497407.675	103344.557	Required	
S39	497392.293	103342.741	497392.293	103342.741	Required	
S112	497388.091	103186.760	497388.091	103186.760	Required	
S111	497387.653	103206.146	497387.653	103206.146	Required	
S40	497387.796	103218.873	497387.796	103218.873	Required	
S41	497388.868	103240.753	497388.868	103240.753	Required	
S42	497389.161	103246.862	497389.161	103246.862	Required	
S256	497402.052	103261.795	497402.052	103261.795	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S43	497389.865	103267.847	497389.865	103267.847	Required	
S44	497387.814	103279.105	497387.814	103279.105	Required	
S45	497386.839	103300.026	497386.839	103300.026	Required	
S46	497385.617	103327.263	497385.617	103327.263	Required	
S47	497385.137	103335.608	497385.137	103335.608	Required	
S48	497378.519	103341.114	497378.519	103341.114	Required	
S49	497372.652	103340.508	497372.652	103340.508	Required	
S50	497356.796	103333.815	497356.796	103333.815	Required	
S51	497381.048	103326.478	497381.048	103326.478	Required	
S52	497356.097	103325.337	497356.097	103325.337	Required	
S53	497351.069	103326.646	497351.069	103326.646	Required	
S54	497326.997	103302.767	497326.997	103302.767	Required	
S55	497313.989	103278.833	497313.989	103278.833	Required	
S56a	497381.013	103275.556	497381.013	103275.556	Required	
S56	497347.895	103274.919	497347.895	103274.919	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S57	497335.749	103279.039	497335.749	103279.039	Required	
S58	497328.083	103282.839	497328.083	103282.839	Required	
S59	497321.800	103271.520	497321.800	103271.520	Required	
S60	497307.073	103268.460	497307.073	103268.460	Required	
S61	497401.103	103159.840	497401.103	103159.840	Required	
S62	497401.446	103253.698	497401.446	103253.698	Required	
S63	497400.473	103218.730	497400.473	103218.730	Required	
S64	497377.062	103218.046	497377.062	103218.046	Required	
S65	497376.187	103214.088	497376.187	103214.088	Required	
S66	497339.041	103214.024	497339.041	103214.024	Required	
S67	497326.978	103208.395	497326.978	103208.395	Required	
S68	497309.294	103208.679	497309.294	103208.679	Required	
S69	497303.465	103214.429	497303.465	103214.429	Required	
S70	497277.695	103219.279	497277.695	103219.279	Required	
S71	497278.836	103224.901	497278.836	103224.901	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S72	497319.586	103218.120	497319.586	103218.120	Required	
S73	497321.332	103255.629	497321.332	103255.629	Required	
S74	497319.326	103243.329	497319.326	103243.329	Required	
S75	497309.571	103243.408	497309.571	103243.408	Required	
S76	497279.376	103230.649	497279.376	103230.649	Required	
S77	497273.369	103230.790	497273.369	103230.790	Required	
S78	497263.674	103226.873	497263.674	103226.873	Required	
S79	497242.077	103204.518	497242.077	103204.518	Required	
S80	497475.392	103115.722	497475.392	103115.722	Required	
S81	497488.044	103110.215	497488.044	103110.215	Required	
S82	497505.899	103103.928	497505.899	103103.928	Required	
S83	497504.294	103095.888	497504.294	103095.888	Required	
S84	497494.228	103085.014	497494.228	103085.014	Required	
S85	497481.087	103067.907	497481.087	103067.907	Required	
S86	497461.548	103048.338	497461.548	103048.338	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S87	497439.830	103027.770	497439.830	103027.770	Required	
S88	497430.248	103031.179	497430.248	103031.179	Required	
S89	497414.293	103044.095	497414.293	103044.095	Required	
S253	497472.942	103165.727	497472.942	103165.727	Required	
S90	497468.645	103165.777	497468.645	103165.777	Required	
S91	497455.246	103165.738	497455.246	103165.738	Required	
S92	497454.717	103142.434	497454.717	103142.434	Required	
S93	497451.572	103122.919	497451.572	103122.919	Required	
S94	497449.599	103113.095	497449.599	103113.095	Required	
S95	497440.749	103093.819	497440.749	103093.819	Required	
S96	497444.318	103093.028	497444.318	103093.028	Required	
S97	497428.895	103076.588	497428.895	103076.588	Required	
S98	497425.354	103086.883	497425.354	103086.883	Required	
S99	497426.538	103078.525	497426.538	103078.525	Required	
S100	497408.413	103059.224	497408.413	103059.224	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S101	497415.342	103051.573	497415.342	103051.573	Required	
S102	497412.501	103048.102	497412.501	103048.102	Required	
S103	497408.866	103047.605	497408.866	103047.605	Required	
S104	497404.233	103053.803	497404.233	103053.803	Required	
S105	497380.777	103057.763	497380.777	103057.763	Required	
S106	497394.751	103119.219	497394.751	103119.219	Required	
S107	497387.297	103102.442	497387.297	103102.442	Required	
S108	497375.503	103082.684	497375.503	103082.684	Required	
S109	497378.765	103072.162	497378.765	103072.162	Required	
S110	497371.690	103064.741	497371.690	103064.741	Required	
S113	497388.240	103180.587	497388.240	103180.587	Required	
S114	497388.640	103162.674	497388.640	103162.674	Required	
S115a	497406.138	103139.729	497406.138	103139.729	Required	
S115	497388.235	103145.350	497388.235	103145.350	Required	
S116	497378.933	103113.390	497378.933	103113.390	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S117	497375.980	103107.816	497375.980	103107.816	Required	
S118	497365.023	103092.386	497365.023	103092.386	Required	
S119	497359.104	103086.062	497359.104	103086.062	Required	
S120	497348.177	103071.305	497348.177	103071.305	Required	
S121	497397.658	102995.579	497397.658	102995.579	Required	
S122	497360.142	103022.832	497360.142	103022.832	Required	
S123	497353.714	103029.314	497353.714	103029.314	Required	
S124	497346.102	103044.506	497346.102	103044.506	Required	
S125	497344.866	103052.770	497344.866	103052.770	Required	
S126	497336.647	103079.135	497336.647	103079.135	Required	
S127	497345.848	103065.649	497345.848	103065.649	Required	
S128	497317.493	103049.069	497317.493	103049.069	Required	
S129	497323.404	103054.525	497323.404	103054.525	Required	
S130	497330.339	103063.308	497330.339	103063.308	Required	
S131	497300.865	103066.922	497300.865	103066.922	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S132	497305.423	103071.092	497305.423	103071.092	Required	
S133	497296.293	103081.140	497296.293	103081.140	Required	
S134	497304.137	103085.161	497304.137	103085.161	Required	
S135	497296.674	103110.068	497296.674	103110.068	Required	
S136	497290.089	103103.469	497290.089	103103.469	Required	
S137	497268.188	103105.213	497268.188	103105.213	Required	
S138	497276.572	103110.830	497276.572	103110.830	Required	
S139	497301.873	103135.214	497301.873	103135.214	Required	
S140	497285.582	103146.432	497285.582	103146.432	Required	
S141	497271.320	103133.319	497271.320	103133.319	Required	
S142	497289.594	103112.679	497289.594	103112.679	Required	
S143	497275.442	103127.986	497275.442	103127.986	Required	
S144	497268.991	103123.354	497268.991	103123.354	Required	
S145	497370.861	103154.145	497370.861	103154.145	Required	
S146	497323.671	103160.163	497323.671	103160.163	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S147	497321.214	103154.878	497321.214	103154.878	Required	
S148	497306.265	103160.235	497306.265	103160.235	Required	
S149a	497300.144	103199.042	497300.144	103199.042	Required	
S149b	497297.793	103183.737	497297.793	103183.737	Required	
S149	497290.579	103167.449	497290.579	103167.449	Required	
S150	497277.850	103147.702	497277.850	103147.702	Required	
S151	497246.539	103118.713	497246.539	103118.713	Required	
S152	497261.458	103132.416	497261.458	103132.416	Required	
S153	497251.855	103129.486	497251.855	103129.486	Required	
S154	497262.814	103139.950	497262.814	103139.950	Required	
S155	497258.325	103135.828	497258.325	103135.828	Required	
S156	497250.316	103144.281	497250.316	103144.281	Required	
S157	497227.944	103167.381	497227.944	103167.381	Required	
S159a	497257.502	103213.265	497257.502	103213.265	Required	
S159b	497250.418	103203.681	497250.418	103203.681	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S158	497250.470	103187.124	497250.470	103187.124	Required	
S159	497242.864	103192.038	497242.864	103192.038	Required	
S160	497231.770	103179.591	497231.770	103179.591	Required	
S162	497226.245	103173.946	497226.245	103173.946	Required	
S163	497223.331	103177.211	497223.331	103177.211	Required	
S164	497216.638	103181.950	497216.638	103181.950	Required	
S165	497203.093	103171.043	497203.093	103171.043	Required	
S166	497164.456	103141.890	497164.456	103141.890	Required	
S167	497190.320	103107.956	497190.320	103107.956	Required	
S168	497191.151	103115.690	497191.151	103115.690	Required	
S169	497184.314	103118.385	497184.314	103118.385	Required	
S170	497180.221	103136.225	497180.221	103136.225	Required	
S171	497175.034	103139.831	497175.034	103139.831	Required	
S172	497169.901	103135.394	497169.901	103135.394	Required	
S173	497161.637	103127.817	497161.637	103127.817	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S174	497146.319	103105.101	497146.319	103105.101	Required	
S175	497141.352	103109.237	497141.352	103109.237	Required	
S176	497137.745	103114.416	497137.745	103114.416	Required	
S177	497124.709	103098.968	497124.709	103098.968	Required	
S178	497395.841	102988.435	497395.841	102988.435	Required	
S179	497386.410	102976.365	497386.410	102976.365	Required	
S180	497372.103	102965.890	497372.103	102965.890	Required	
S181	497361.361	102956.930	497361.361	102956.930	Required	
S182	497344.820	102950.990	497344.820	102950.990	Required	
S184a	497332.547	102955.766	497332.547	102955.766	Required	
S183	497351.201	102948.733	497351.201	102948.733	Required	
S184	497339.275	102944.269	497339.275	102944.269	Required	
S185	497326.958	102936.842	497326.958	102936.842	Required	
S186	497307.460	102921.231	497307.460	102921.231	Required	
S187	497299.851	102917.513	497299.851	102917.513	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S188	497294.873	102912.866	497294.873	102912.866	Required	
S189	497285.405	102913.088	497285.405	102913.088	Required	
S190	497276.229	102919.675	497276.229	102919.675	Required	
S191	497280.732	102939.877	497280.732	102939.877	Required	
S192	497272.752	102931.855	497272.752	102931.855	Required	
S193	497269.984	102929.196	497269.984	102929.196	Required	
S194	497258.375	102943.445	497258.375	102943.445	Required	
S195	497283.036	102975.727	497283.036	102975.727	Required	
S196	497279.081	102963.622	497279.081	102963.622	Required	
S197	497272.060	102965.689	497272.060	102965.689	Required	
S198	497261.085	102955.651	497261.085	102955.651	Required	
S199	497251.403	102964.018	497251.403	102964.018	Required	
S200	497246.483	102958.254	497246.483	102958.254	Required	
S201	497243.559	102954.433	497243.559	102954.433	Required	
S203	497245.090	102969.448	497245.090	102969.448	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S204	497234.234	102978.271	497234.234	102978.271	Required	
S205	497228.486	102972.072	497228.486	102972.072	Required	
S206	497223.750	102967.738	497223.750	102967.738	Required	
S207	497312.255	102985.562	497312.255	102985.562	Required	
S208a	497329.006	103001.639	497329.006	103001.639	Required	
S208	497306.366	102994.246	497306.366	102994.246	Required	
S209	497298.732	102991.483	497298.732	102991.483	Required	
S210	497293.553	102994.493	497293.553	102994.493	Required	
S211	497284.825	103012.313	497284.825	103012.313	Required	
S212	497278.533	103010.781	497278.533	103010.781	Required	
S213	497272.626	103037.562	497272.626	103037.562	Required	
S214	497262.598	103028.061	497262.598	103028.061	Required	
S215	497256.688	103042.178	497256.688	103042.178	Required	
S216	497252.329	103038.184	497252.329	103038.184	Required	
S217	497230.375	103012.422	497230.375	103012.422	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S218	497226.339	103014.451	497226.339	103014.451	Required	
S219	497208.916	102998.541	497208.916	102998.541	Required	
S220	497214.900	102990.555	497214.900	102990.555	Required	
S221	497210.753	102986.345	497210.753	102986.345	Required	
S222	497207.579	102983.226	497207.579	102983.226	Required	
S223	497197.694	103006.570	497197.694	103006.570	Required	
S224	497194.018	103001.743	497194.018	103001.743	Required	
S225	497191.224	102998.033	497191.224	102998.033	Required	
S227	497191.520	103011.857	497191.520	103011.857	Required	
S228	497179.768	103021.600	497179.768	103021.600	Required	
S229	497174.872	103017.333	497174.872	103017.333	Required	
S230	497172.855	103015.663	497172.855	103015.663	Required	
S231	497168.842	103019.293	497168.842	103019.293	Required	
S232	497152.061	103034.594	497152.061	103034.594	Required	
S233	497147.795	103044.027	497147.795	103044.027	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S234	497231.054	103048.893	497231.054	103048.893	Required	
S235	497216.722	103063.233	497216.722	103063.233	Required	
S236	497215.924	103072.357	497215.924	103072.357	Required	
S237	497210.653	103069.967	497210.653	103069.967	Required	
S238	497218.511	103085.366	497218.511	103085.366	Required	
S239	497212.079	103088.788	497212.079	103088.788	Required	
S240	497201.062	103088.524	497201.062	103088.524	Required	
S241	497190.563	103084.087	497190.563	103084.087	Required	
S242	497161.136	103052.667	497161.136	103052.667	Required	
S243	497155.327	103051.349	497155.327	103051.349	Required	
S244	497147.097	103060.553	497147.097	103060.553	Required	
S245	497142.972	103056.623	497142.972	103056.623	Required	
S246	497140.164	103053.952	497140.164	103053.952	Required	
S247	497146.105	103068.752	497146.105	103068.752	Required	
S248	497135.290	103066.301	497135.290	103066.301	Required	

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Manhole Schedules for Surface Network 1

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
S249	497113.716	103072.974	497113.716	103072.974	Required	
S250	497112.849	103081.935	497112.849	103081.935	Required	
S251	497103.290	103082.044	497103.290	103082.044	Required	
S252	497098.845	103082.274			No Entry	

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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	S13a	7.019	6.005	0.864	Open Manhole	1050
4.000	o	150	S13b	7.275	5.925	1.200	Open Manhole	1050
3.001	o	150	S13	7.250	5.880	1.220	Open Manhole	1200
3.002	o	150	S14	7.280	5.820	1.310	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	7.174	143.5	S8	7.261	5.905	1.206	Open Manhole	1200
2.002	9.200	122.7	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	14.970	119.8	S13	7.250	5.880	1.220	Open Manhole	1200
4.000	5.293	117.6	S13	7.250	5.880	1.220	Open Manhole	1200
3.001	7.158	119.3	S14	7.280	5.820	1.310	Open Manhole	1200
3.002	5.040	63.0	S15	7.290	5.740	1.400	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)
3.003	o	150	S15	7.290	5.740	1.400	Open Manhole	1200
3.004	o	150	S16	7.277	5.700	1.427	Open Manhole	1200
3.005	o	150	S17	7.378	6.115	1.113	Open Manhole	1200
3.006	o	150	S18	7.262	6.025	1.087	Open Manhole	1200
5.000	o	150	S19	7.490	6.100	1.240	Open Manhole	1200
3.007	o	150	S20	7.328	5.975	1.203	Open Manhole	1200
3.008	o	150	S21	7.116	5.880	1.086	Open Manhole	1200
6.000	o	150	S255	7.071	5.620	1.301	Open Manhole	1200
6.001	o	150	S254	7.104	5.620	1.334	Open Manhole	1200
6.002	o	225	S22	7.425	5.620	1.580	Open Manhole	1200
7.000	o	150	S23	7.150	5.854	1.146	Open Manhole	1200
3.009	o	300	S24	6.982	5.433	1.249	Open Manhole	1200
3.010	o	300	S26	6.908	5.410	1.198	Open Manhole	1200
3.011	o	300	S27	6.806	5.382	1.124	Open Manhole	1200
3.012	o	300	S28	6.629	5.320	1.009	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)
3.003	4.332	108.3	S16	7.277	5.700	1.427	Open Manhole	1200
3.004	23.754	0.0	S17	7.378	5.700	1.528	Open Manhole	1200
3.005	11.849	131.7	S18	7.262	6.025	1.087	Open Manhole	1200
3.006	7.279	145.6	S20	7.328	5.975	1.203	Open Manhole	1200
5.000	14.965	119.7	S20	7.328	5.975	1.203	Open Manhole	1200
3.007	13.786	145.1	S21	7.116	5.880	1.086	Open Manhole	1200
3.008	9.626	32.4	S24	6.982	5.583	1.249	Open Manhole	1200
6.000	3.524	0.0	S254	7.104	5.620	1.334	Open Manhole	1200
6.001	3.983	0.0	S22	7.425	5.620	1.655	Open Manhole	1200
6.002	24.147	215.6	S24	6.982	5.508	1.249	Open Manhole	1200
7.000	7.481	27.6	S24	6.982	5.583	1.249	Open Manhole	1200
3.009	6.683	290.6	S26	6.908	5.410	1.198	Open Manhole	1200
3.010	8.363	298.7	S27	6.806	5.382	1.124	Open Manhole	1200
3.011	18.389	296.6	S28	6.629	5.320	1.009	Open Manhole	1200
3.012	29.488	294.9	S30	6.481	5.220	0.961	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)
8.000	o	150	S29	6.571	5.457	0.964	Open Manhole	1200
3.013	o	300	S30	6.481	5.220	0.961	Open Manhole	1200
3.014	o	300	S31	6.514	5.180	1.034	Open Manhole	1200
1.006	o	300	S32	6.650	5.150	1.200	Open Manhole	1200
9.000	o	150	S33	6.400	5.460	0.790	Open Manhole	1200
10.000	o	150	S34	6.350	5.350	0.850	Open Manhole	1200
9.001	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
11.000	o	150	S112	7.000	6.050	0.800	Open Manhole	1200
11.001	o	150	S111	6.800	5.900	0.750	Open Manhole	1200
11.002	o	150	S40	6.800	5.800	0.850	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)
8.000	12.139	139.5	S30	6.481	5.370	0.961	Open Manhole	1200
3.013	8.479	212.0	S31	6.514	5.180	1.034	Open Manhole	1200
3.014	4.885	162.8	S32	6.650	5.150	1.200	Open Manhole	1200
1.006	65.460	2182.0	S36	6.900	5.120	1.480	Open Manhole	1200
9.000	23.578	138.7	S35	6.350	5.290	0.910	Open Manhole	1200
10.000	8.117	135.3	S35	6.350	5.290	0.910	Open Manhole	1200
9.001	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
11.000	19.391	129.3	S111	6.800	5.900	0.750	Open Manhole	1200
11.001	12.727	127.3	S40	6.800	5.800	0.850	Open Manhole	1200
11.002	21.907	182.6	S41	6.900	5.680	1.070	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)
11.003	o	150	S41	6.900	5.680	1.070	Open Manhole	1200
11.004	o	150	S42	6.900	5.610	1.140	Open Manhole	1200
12.000	o	150	S256	6.777	5.360	1.267	Open Manhole	1200
11.005	o	150	S43	6.618	5.260	1.208	Open Manhole	1200
11.006	o	150	S44	6.482	5.150	1.182	Open Manhole	1200
11.007	o	150	S45	6.293	5.000	1.143	Open Manhole	1200
11.008	o	150	S46	6.096	4.950	0.996	Open Manhole	1200
11.009	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
13.000	o	150	S51	6.150	5.250	0.750	Open Manhole	1200
13.001	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	5.800	4.542	1.033	Open Manhole	1200
1.016	o	225	S55	5.800	4.352	1.223	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)
11.003	6.116	87.4	S42	6.900	5.610	1.140	Open Manhole	1200
11.004	20.997	60.0	S43	6.618	5.260	1.208	Open Manhole	1200
12.000	13.607	136.1	S43	6.618	5.260	1.208	Open Manhole	1200
11.005	11.443	104.0	S44	6.482	5.150	1.182	Open Manhole	1200
11.006	20.944	139.6	S45	6.293	5.000	1.143	Open Manhole	1200
11.007	27.264	545.3	S46	6.096	4.950	0.996	Open Manhole	1200
11.008	8.359	167.2	S47	6.095	4.900	1.045	Open Manhole	1200
11.009	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
13.000	24.977	131.5	S52	6.000	5.060	0.790	Open Manhole	1200
13.001	5.196	0.0	S53	6.000	5.060	0.790	Open Manhole	1200
1.014	33.907	269.1	S54	5.800	4.542	1.033	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

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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)
14.000	o	150	S56a	6.462	5.115	1.197	Open Manhole	1050
14.001	o	150	S56	6.134	4.790	1.194	Open Manhole	1200
14.002	o	150	S57	5.996	4.650	1.196	Open Manhole	1200
14.003	o	150	S58	5.916	4.560	1.206	Open Manhole	1200
14.004	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
15.000	o	150	S61	6.975	6.170	0.655	Open Manhole	1200
16.000	o	150	S62	6.900	5.990	0.760	Open Manhole	1200
15.001	o	150	S63	6.900	5.710	1.040	Open Manhole	1200
15.002	o	150	S64	6.725	5.510	1.065	Open Manhole	1200
15.003	o	300	S65	6.574	5.030	1.244	Open Manhole	1200
15.004	o	300	S66	6.237	4.740	1.197	Open Manhole	1200
17.000	o	150	S67	6.750	4.960	1.640	Open Manhole	1200
17.001	o	150	S68	6.160	4.800	1.210	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)
14.000	33.124	101.9	S56	6.134	4.790	1.194	Open Manhole	1200
14.001	12.825	91.6	S57	5.996	4.650	1.196	Open Manhole	1200
14.002	8.557	95.1	S58	5.916	4.560	1.206	Open Manhole	1200
14.003	12.946	117.7	S59	5.807	4.450	1.207	Open Manhole	1200
14.004	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
15.000	58.893	128.0	S63	6.900	5.710	1.040	Open Manhole	1200
16.000	34.982	124.9	S63	6.900	5.710	1.040	Open Manhole	1200
15.001	23.421	117.1	S64	6.725	5.510	1.065	Open Manhole	1200
15.002	4.054	12.3	S65	6.574	5.180	1.244	Open Manhole	1200
15.003	37.147	128.1	S66	6.237	4.740	1.197	Open Manhole	1200
15.004	35.580	101.7	S69	5.886	4.390	1.196	Open Manhole	1200
17.000	17.686	110.5	S68	6.160	4.800	1.210	Open Manhole	1200
17.001	8.188	31.5	S69	5.886	4.540	1.196	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)
15.005	o	300	S69	5.886	4.390	1.196	Open Manhole	1200
15.006	o	300	S70	5.667	4.290	1.077	Open Manhole	1200
15.007	o	300	S71	5.900	4.260	1.340	Open Manhole	1200
18.000	o	150	S72	6.150	5.060	0.940	Open Manhole	1200
19.000	o	150	S73	6.000	5.130	0.720	Open Manhole	1200
18.001	o	150	S74	6.050	4.850	1.050	Open Manhole	1200
18.002	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
20.000	o	225	S80	7.005	5.660	1.120	Open Manhole	1200
20.001	o	225	S81	6.895	5.593	1.077	Open Manhole	1200
21.000	o	150	S82	6.825	5.623	1.052	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)
15.005	26.222	262.2	S70	5.667	4.290	1.077	Open Manhole	1200
15.006	5.601	186.7	S71	5.900	4.260	1.340	Open Manhole	1200
15.007	5.773	96.2	S76	5.550	4.200	1.050	Open Manhole	1200
18.000	25.210	120.0	S74	6.050	4.850	1.050	Open Manhole	1200
19.000	12.463	44.5	S74	6.050	4.850	1.050	Open Manhole	1200
18.001	9.756	122.0	S75	5.560	4.770	0.640	Open Manhole	1200
18.002	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
20.000	13.799	206.0	S81	6.895	5.593	1.077	Open Manhole	1200
20.001	21.664	204.4	S83	6.669	5.487	0.957	Open Manhole	1200
21.000	8.199	134.4	S83	6.669	5.562	0.957	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)
20.002	o	300	S83	6.669	5.412	0.957	Open Manhole	1200
20.003	o	300	S84	6.542	5.357	0.885	Open Manhole	1200
20.004	o	300	S85	6.499	5.282	0.917	Open Manhole	1200
20.005	o	300	S86	6.497	5.183	1.014	Open Manhole	1200
20.006	o	300	S87	6.600	5.075	1.225	Open Manhole	1200
20.007	o	300	S88	6.550	5.030	1.220	Open Manhole	1200
20.008	o	300	S89	6.550	4.943	1.307	Open Manhole	1200
22.000	o	150	S253	7.300	5.900	1.250	Open Manhole	1200
22.001	o	150	S90	7.300	5.900	1.250	Open Manhole	1200
22.002	o	225	S91	7.623	5.665	1.733	Open Manhole	1200
22.003	o	225	S92	7.429	5.549	1.655	Open Manhole	1200
22.004	o	225	S93	7.350	5.450	1.675	Open Manhole	1200
22.005	o	225	S94	7.173	5.400	1.548	Open Manhole	1200
22.006	o	225	S95	7.045	5.295	1.525	Open Manhole	1200
23.000	o	150	S96	7.000	5.905	0.945	Open Manhole	1200
23.001	o	150	S97	6.780	5.500	1.130	Open Manhole	1200
24.000	o	150	S98	6.980	5.950	0.880	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)
20.002	14.818	269.4	S84	6.542	5.357	0.885	Open Manhole	1200
20.003	21.572	287.6	S85	6.499	5.282	0.917	Open Manhole	1200
20.004	27.653	279.3	S86	6.497	5.183	1.014	Open Manhole	1200
20.005	29.912	277.0	S87	6.600	5.075	1.225	Open Manhole	1200
20.006	10.054	223.4	S88	6.550	5.030	1.220	Open Manhole	1200
20.007	20.595	236.7	S89	6.550	4.943	1.307	Open Manhole	1200
20.008	6.292	224.7	S103	6.556	4.915	1.341	Open Manhole	1200
22.000	4.298	0.0	S90	7.300	5.900	1.250	Open Manhole	1200
22.001	13.399	83.7	S91	7.623	5.740	1.733	Open Manhole	1200
22.002	23.360	201.4	S92	7.429	5.549	1.655	Open Manhole	1200
22.003	19.767	199.7	S93	7.350	5.450	1.675	Open Manhole	1200
22.004	10.130	202.6	S94	7.173	5.400	1.548	Open Manhole	1200
22.005	21.349	203.3	S95	7.045	5.295	1.525	Open Manhole	1200
22.006	20.837	206.3	S99	6.850	5.194	1.431	Open Manhole	1200
23.000	22.542	55.7	S97	6.780	5.500	1.130	Open Manhole	1200
23.001	3.051	13.2	S99	6.850	5.269	1.431	Open Manhole	1200
24.000	8.441	12.4	S99	6.850	5.269	1.431	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)
22.007	o	225	S99	6.850	5.194	1.431	Open Manhole	1200
22.008	o	300	S100	6.583	4.987	1.296	Open Manhole	1200
22.009	o	300	S101	6.495	4.935	1.260	Open Manhole	1200
22.010	o	300	S102	6.550	4.915	1.335	Open Manhole	1200
20.009	o	300	S103	6.556	4.915	1.341	Open Manhole	1200
20.010	o	300	S104	6.556	4.915	1.341	Open Manhole	1200
20.011	o	300	S105	6.900	4.750	1.850	Open Manhole	1200
25.000	o	150	S106	7.120	6.215	0.755	Open Manhole	1200
25.001	o	150	S107	7.200	6.065	0.985	Open Manhole	1200
25.002	o	150	S108	7.050	5.875	1.025	Open Manhole	1200
25.003	o	150	S109	6.900	5.500	1.250	Open Manhole	1200
20.012	o	300	S110	6.900	4.750	1.850	Open Manhole	1200
26.000	o	150	S113	7.000	6.050	0.800	Open Manhole	1200
26.001	o	150	S114	6.804	6.000	0.654	Open Manhole	1200
27.000	o	150	S115a	7.015	6.110	0.755	Open Manhole	1050

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)
22.007	26.521	200.9	S100	6.583	5.062	1.296	Open Manhole	1200
22.008	10.259	197.3	S101	6.495	4.935	1.260	Open Manhole	1200
22.009	4.485	224.3	S102	6.550	4.915	1.335	Open Manhole	1200
22.010	3.485	0.0	S103	6.556	4.915	1.341	Open Manhole	1200
20.009	7.791	0.0	S104	6.556	4.915	1.341	Open Manhole	1200
20.010	23.788	144.2	S105	6.900	4.750	1.850	Open Manhole	1200
20.011	11.457	0.0	S110	6.900	4.750	1.850	Open Manhole	1200
25.000	18.358	122.4	S107	7.200	6.065	0.985	Open Manhole	1200
25.001	23.010	121.1	S108	7.050	5.875	1.025	Open Manhole	1200
25.002	11.017	29.4	S109	6.900	5.500	1.250	Open Manhole	1200
25.003	10.252	20.5	S110	6.900	5.000	1.750	Open Manhole	1200
20.012	25.858	235.1	S127	6.753	4.640	1.813	Open Manhole	1200
26.000	17.917	358.3	S114	6.804	6.000	0.654	Open Manhole	1200
26.001	17.329	866.5	S115	6.849	5.980	0.719	Open Manhole	1200
27.000	18.765	144.3	S115	6.849	5.980	0.719	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)
26.002	o	150	S115	6.849	5.980	0.719	Open Manhole	1200
26.003	o	150	S116	7.100	5.950	1.000	Open Manhole	1200
26.004	o	150	S117	7.100	5.950	1.000	Open Manhole	1200
26.005	o	150	S118	7.000	5.940	0.910	Open Manhole	1200
26.006	o	150	S119	7.000	5.940	0.910	Open Manhole	1200
26.007	o	150	S120	6.750	5.920	0.680	Open Manhole	1200
28.000	o	300	S121	6.900	6.100	0.500	Open Manhole	1200
28.001	o	150	S122	7.100	6.200	0.750	Open Manhole	1200
28.002	o	150	S123	7.105	6.050	0.905	Open Manhole	1200
28.003	o	150	S124	6.900	6.000	0.750	Open Manhole	1200
28.004	o	150	S125	6.719	6.000	0.569	Open Manhole	1200
29.000	o	150	S126	6.753	6.025	0.578	Open Manhole	1200
20.013	o	300	S127	6.753	4.640	1.813	Open Manhole	1200
30.000	o	150	S128	6.700	5.880	0.670	Open Manhole	1200
30.001	o	150	S129	6.708	5.790	0.768	Open Manhole	1200
20.014	o	300	S130	6.600	4.600	1.700	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)
26.002	33.286	1109.5	S116	7.100	5.950	1.000	Open Manhole	1200
26.003	6.308	0.0	S117	7.100	5.950	1.000	Open Manhole	1200
26.004	18.925	1892.5	S118	7.000	5.940	0.910	Open Manhole	1200
26.005	8.662	0.0	S119	7.000	5.940	0.910	Open Manhole	1200
26.006	18.362	918.1	S120	6.750	5.920	0.680	Open Manhole	1200
26.007	6.116	611.6	S127	6.753	5.910	0.693	Open Manhole	1200
28.000	46.370	927.4	S122	7.100	6.050	0.750	Open Manhole	1200
28.001	9.129	60.9	S123	7.105	6.050	0.905	Open Manhole	1200
28.002	16.992	339.8	S124	6.900	6.000	0.750	Open Manhole	1200
28.003	8.356	0.0	S125	6.719	6.000	0.569	Open Manhole	1200
28.004	12.917	143.5	S127	6.753	5.910	0.693	Open Manhole	1200
29.000	16.326	142.0	S127	6.753	5.910	0.693	Open Manhole	1200
20.013	15.685	392.1	S130	6.600	4.600	1.700	Open Manhole	1200
30.000	8.044	89.4	S129	6.708	5.790	0.768	Open Manhole	1200
30.001	11.191	58.9	S130	6.600	5.600	0.850	Open Manhole	1200
20.014	34.119	243.7	S134	6.600	4.460	1.840	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)
31.000	o	150	S131	6.577	5.310	1.117	Open Manhole	1200
31.001	o	150	S132	6.474	5.120	1.204	Open Manhole	1200
31.002	o	150	S133	6.320	5.000	1.170	Open Manhole	1200
20.015	o	300	S134	6.600	4.460	1.840	Open Manhole	1200
32.000	o	150	S135	6.370	5.550	0.670	Open Manhole	1200
20.016	o	300	S136	6.600	4.460	1.840	Open Manhole	1200
33.000	o	150	S137	6.250	5.100	1.000	Open Manhole	1200
20.017	o	300	S138	5.938	4.400	1.238	Open Manhole	1200
34.000	o	150	S139	6.325	5.250	0.925	Open Manhole	1200
34.001	o	150	S140	6.050	5.100	0.800	Open Manhole	1200
34.002	o	150	S141	5.930	4.970	0.810	Open Manhole	1200
35.000	o	150	S142	6.074	5.288	0.636	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)
31.000	6.178	32.5	S132	6.474	5.120	1.204	Open Manhole	1200
31.001	13.576	113.1	S133	6.320	5.000	1.170	Open Manhole	1200
31.002	8.815	30.4	S134	6.600	4.710	1.740	Open Manhole	1200
20.015	23.076	0.0	S136	6.600	4.460	1.840	Open Manhole	1200
32.000	9.323	11.1	S136	6.600	4.710	1.740	Open Manhole	1200
20.016	15.391	256.5	S138	5.938	4.400	1.238	Open Manhole	1200
33.000	10.092	22.4	S138	5.938	4.650	1.138	Open Manhole	1200
20.017	14.640	0.0	S144	5.900	4.400	1.200	Open Manhole	1200
34.000	19.780	131.9	S140	6.050	5.100	0.800	Open Manhole	1200
34.001	19.374	149.0	S141	5.930	4.970	0.810	Open Manhole	1200
34.002	6.741	112.4	S143	6.070	4.910	1.010	Open Manhole	1200
35.000	20.846	55.1	S143	6.070	4.910	1.010	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)
34.003	o	150	S143	6.070	4.910	1.010	Open Manhole	1200
20.018	o	300	S144	5.900	4.400	1.200	Open Manhole	1200
36.000	o	150	S145	6.617	5.270	1.197	Open Manhole	1200
37.000	o	150	S146	6.310	5.100	1.060	Open Manhole	1200
36.001	o	300	S147	6.026	4.650	1.076	Open Manhole	1200
36.002	o	300	S148	5.922	4.430	1.192	Open Manhole	1200
38.000	o	150	S149a	5.942	4.766	1.026	Open Manhole	1050
38.001	o	150	S149b	6.026	4.647	1.229	Open Manhole	1050
36.003	o	300	S149	6.117	4.360	1.457	Open Manhole	1200
36.004	o	300	S150	5.782	4.270	1.212	Open Manhole	1200
39.000	o	150	S151	5.695	4.570	0.975	Open Manhole	1200
20.019	o	300	S152	5.640	4.150	1.190	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)
34.003	7.942	30.5	S144	5.900	4.650	1.100	Open Manhole	1200
20.018	11.784	47.1	S152	5.640	4.150	1.190	Open Manhole	1200
36.000	49.652	105.6	S147	6.026	4.800	1.076	Open Manhole	1200
37.000	5.828	19.4	S147	6.026	4.800	1.076	Open Manhole	1200
36.001	15.880	72.2	S148	5.922	4.430	1.192	Open Manhole	1200
36.002	17.265	246.6	S149	6.117	4.360	1.457	Open Manhole	1200
38.000	15.485	130.1	S149b	6.026	4.647	1.229	Open Manhole	1050
38.001	17.814	62.1	S149	6.117	4.360	1.607	Open Manhole	1200
36.003	23.494	261.0	S150	5.782	4.270	1.212	Open Manhole	1200
36.004	22.413	186.8	S152	5.640	4.150	1.190	Open Manhole	1200
39.000	20.257	75.0	S152	5.640	4.300	1.190	Open Manhole	1200
20.019	4.632	154.4	S155	5.780	4.120	1.360	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	150	S153	5.970	4.575	1.245	Open Manhole	1200
41.000	o	150	S154	5.850	4.450	1.250	Open Manhole	1200
20.020	o	300	S155	5.780	4.120	1.360	Open Manhole	1200
20.021	o	300	S156	5.780	4.120	1.360	Open Manhole	1200
20.022	o	300	S157	5.635	3.965	1.370	Open Manhole	1200
42.000	o	150	S159a	5.916	4.566	1.200	Open Manhole	1050
42.001	o	150	S159b	5.818	4.468	1.200	Open Manhole	1050
43.000	o	150	S158	5.750	4.570	1.030	Open Manhole	1050
42.002	o	150	S159	5.660	4.270	1.240	Open Manhole	1200
42.003	o	150	S160	5.474	4.120	1.204	Open Manhole	1200
20.023	o	300	S162	5.500	3.885	1.315	Open Manhole	1200
20.024	o	300	S163	5.420	3.869	1.251	Open Manhole	1200
1.022	o	300	S164	5.420	3.835	1.285	Open Manhole	1200
1.023	o	300	S165	5.350	3.835	1.215	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	9.059	29.7	S155	5.780	4.270	1.360	Open Manhole	1200
41.000	6.094	33.9	S155	5.780	4.270	1.360	Open Manhole	1200
20.020	11.644	0.0	S156	5.780	4.120	1.360	Open Manhole	1200
20.021	32.158	207.5	S157	5.635	3.965	1.370	Open Manhole	1200
20.022	6.651	83.1	S162	5.500	3.885	1.315	Open Manhole	1200
42.000	11.918	121.6	S159b	5.818	4.468	1.200	Open Manhole	1050
42.001	13.879	70.1	S159	5.660	4.270	1.240	Open Manhole	1200
43.000	9.055	30.2	S159	5.660	4.270	1.240	Open Manhole	1200
42.002	16.673	111.2	S160	5.474	4.120	1.204	Open Manhole	1200
42.003	7.928	93.3	S162	5.500	4.035	1.315	Open Manhole	1200
20.023	4.513	282.1	S163	5.420	3.869	1.251	Open Manhole	1200
20.024	8.201	241.2	S164	5.420	3.835	1.285	Open Manhole	1200
1.022	17.390	0.0	S165	5.350	3.835	1.215	Open Manhole	1200
1.023	48.402	0.0	S166	5.350	3.835	1.215	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)
1.024	o	300	S166	5.350	3.835	1.215	Open Manhole	1200
44.000	o	150	S167	5.602	4.280	1.172	Open Manhole	1200
45.000	o	150	S168	5.700	4.720	0.830	Open Manhole	1200
44.001	o	150	S169	5.528	4.160	1.218	Open Manhole	1200
46.000	o	150	S170	5.630	4.300	1.180	Open Manhole	1200
46.001	o	150	S171	5.369	4.040	1.179	Open Manhole	1200
44.002	o	225	S172	5.276	3.913	1.138	Open Manhole	1200
44.003	o	225	S173	5.132	3.855	1.052	Open Manhole	1200
47.000	o	150	S174	5.170	3.845	1.175	Open Manhole	1200
44.004	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

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)
1.024	38.318	333.2	S176	4.950	3.720	0.930	Open Manhole	1200
44.000	11.954	99.6	S169	5.528	4.160	1.218	Open Manhole	1200
45.000	7.349	13.1	S169	5.528	4.160	1.218	Open Manhole	1200
44.001	22.295	129.6	S172	5.276	3.988	1.138	Open Manhole	1200
46.000	6.317	24.3	S171	5.369	4.040	1.179	Open Manhole	1200
46.001	6.785	130.5	S172	5.276	3.988	1.138	Open Manhole	1200
44.002	11.212	193.3	S173	5.132	3.855	1.052	Open Manhole	1200
44.003	27.508	203.8	S175	5.050	3.720	1.105	Open Manhole	1200
47.000	6.461	129.2	S175	5.050	3.795	1.105	Open Manhole	1200
44.004	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

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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)
48.000	o	150	S178	7.100	6.010	0.940	Open Manhole	1200
48.001	o	150	S179	6.900	5.900	0.850	Open Manhole	1200
48.002	o	150	S180	6.750	5.764	0.836	Open Manhole	1200
48.003	o	150	S181	6.675	5.659	0.866	Open Manhole	1200
48.004	o	150	S182	6.900	5.510	1.240	Open Manhole	1200
49.000	o	150	S184a	7.000	5.800	1.050	Open Manhole	1050
50.000	o	150	S183	6.739	5.453	1.136	Open Manhole	1050
48.005	o	225	S184	6.863	5.280	1.358	Open Manhole	1200
48.006	o	225	S185	6.728	5.160	1.343	Open Manhole	1200
48.007	o	225	S186	6.550	4.960	1.365	Open Manhole	1200
48.008	o	225	S187	6.300	4.880	1.195	Open Manhole	1200
48.009	o	300	S188	6.750	4.850	1.600	Open Manhole	1200
48.010	o	300	S189	6.750	4.820	1.630	Open Manhole	1200
48.011	o	300	S190	6.300	4.780	1.220	Open Manhole	1200
51.000	o	150	S191	6.500	5.490	0.860	Open Manhole	1200
51.001	o	150	S192	6.200	5.400	0.650	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)
48.000	15.268	138.8	S179	6.900	5.900	0.850	Open Manhole	1200
48.001	17.732	130.4	S180	6.750	5.764	0.836	Open Manhole	1200
48.002	13.988	133.2	S181	6.675	5.659	0.866	Open Manhole	1200
48.003	17.575	118.0	S182	6.900	5.510	1.240	Open Manhole	1200
48.004	8.713	56.2	S184	6.863	5.355	1.358	Open Manhole	1200
49.000	13.321	29.9	S184	6.863	5.355	1.358	Open Manhole	1200
50.000	12.734	129.9	S184	6.863	5.355	1.358	Open Manhole	1200
48.005	14.384	119.9	S185	6.728	5.160	1.343	Open Manhole	1200
48.006	24.977	124.9	S186	6.550	4.960	1.365	Open Manhole	1200
48.007	8.469	105.9	S187	6.300	4.880	1.195	Open Manhole	1200
48.008	6.810	227.0	S188	6.750	4.850	1.675	Open Manhole	1200
48.009	9.471	315.7	S189	6.750	4.820	1.630	Open Manhole	1200
48.010	11.295	282.4	S190	6.300	4.780	1.220	Open Manhole	1200
48.011	11.386	379.5	S193	6.200	4.750	1.150	Open Manhole	1200
51.000	11.315	125.7	S192	6.200	5.400	0.650	Open Manhole	1200
51.001	3.838	9.6	S193	6.200	5.000	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)
48.012	o	300	S193	6.200	4.750	1.150	Open Manhole	1200
48.013	o	300	S194	6.150	4.630	1.220	Open Manhole	1200
52.000	o	150	S195	6.614	5.400	1.064	Open Manhole	1200
53.000	o	150	S196	6.450	5.400	0.900	Open Manhole	1200
52.001	o	150	S197	6.385	5.010	1.225	Open Manhole	1200
52.002	o	150	S198	6.129	4.820	1.159	Open Manhole	1200
52.003	o	150	S199	5.992	4.650	1.192	Open Manhole	1200
52.004	o	150	S200	5.950	4.590	1.210	Open Manhole	1200
48.014	o	300	S201	5.950	4.500	1.150	Open Manhole	1200
54.000	o	150	S203	6.000	4.950	0.900	Open Manhole	1200
54.001	o	150	S204	5.850	4.800	0.900	Open Manhole	1200
54.002	o	150	S205	5.700	4.500	1.050	Open Manhole	1200
48.015	o	300	S206	5.500	4.450	0.750	Open Manhole	1200
55.000	o	150	S207	7.068	5.650	1.268	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)
48.012	18.379	153.2	S194	6.150	4.630	1.220	Open Manhole	1200
48.013	18.447	141.9	S201	5.950	4.500	1.150	Open Manhole	1200
52.000	14.874	38.1	S197	6.385	5.010	1.225	Open Manhole	1200
53.000	7.319	18.8	S197	6.385	5.010	1.225	Open Manhole	1200
52.001	14.874	78.3	S198	6.129	4.820	1.159	Open Manhole	1200
52.002	12.797	75.3	S199	5.992	4.650	1.192	Open Manhole	1200
52.003	7.578	126.3	S200	5.950	4.590	1.210	Open Manhole	1200
52.004	4.811	53.5	S201	5.950	4.500	1.300	Open Manhole	1200
48.014	23.863	477.3	S206	5.500	4.450	0.750	Open Manhole	1200
54.000	13.989	93.3	S204	5.850	4.800	0.900	Open Manhole	1200
54.001	8.454	28.2	S205	5.700	4.500	1.050	Open Manhole	1200
54.002	6.381	127.6	S206	5.500	4.450	0.900	Open Manhole	1200
48.015	22.453	60.7	S222	5.500	4.080	1.120	Open Manhole	1200
55.000	10.492	116.6	S208	7.012	5.560	1.302	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)
56.000	o	150	S208a	7.225	5.875	1.200	Open Manhole	1050
55.001	o	150	S208	7.012	5.560	1.302	Open Manhole	1200
55.002	o	225	S209	6.950	5.435	1.290	Open Manhole	1200
55.003	o	225	S210	6.919	5.400	1.294	Open Manhole	1200
57.000	o	150	S211	6.925	5.705	1.070	Open Manhole	1200
55.004	o	225	S212	6.736	5.280	1.231	Open Manhole	1200
58.000	o	300	S213	6.867	5.450	1.117	Open Manhole	1200
55.005	o	300	S214	6.538	5.070	1.168	Open Manhole	1200
59.000	o	150	S215	6.680	5.230	1.300	Open Manhole	1200
55.006	o	300	S216	6.425	4.950	1.175	Open Manhole	1200
60.000	o	150	S217	5.979	4.700	1.129	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)
56.000	23.817	75.6	S208	7.012	5.560	1.302	Open Manhole	1200
55.001	8.119	162.4	S209	6.950	5.510	1.290	Open Manhole	1200
55.002	5.990	171.1	S210	6.919	5.400	1.294	Open Manhole	1200
55.003	22.156	184.6	S212	6.736	5.280	1.231	Open Manhole	1200
57.000	6.476	18.5	S212	6.736	5.355	1.231	Open Manhole	1200
55.004	23.506	174.1	S214	6.538	5.145	1.168	Open Manhole	1200
58.000	13.814	36.4	S214	6.538	5.070	1.168	Open Manhole	1200
55.005	14.419	120.2	S216	6.425	4.950	1.175	Open Manhole	1200
59.000	5.913	45.5	S216	6.425	5.100	1.175	Open Manhole	1200
55.006	35.195	80.0	S218	5.997	4.510	1.187	Open Manhole	1200
60.000	4.517	112.9	S218	5.997	4.660	1.187	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)
55.007	o	300	S218	5.997	4.510	1.187	Open Manhole	1200
55.008	o	300	S219	5.767	4.260	1.207	Open Manhole	1200
55.009	o	300	S220	5.666	4.200	1.166	Open Manhole	1200
55.010	o	300	S221	5.500	4.100	1.100	Open Manhole	1200
48.016	o	300	S222	5.500	4.080	1.120	Open Manhole	1200
61.000	o	300	S223	5.636	4.140	1.196	Open Manhole	1200
61.001	o	300	S224	5.600	4.100	1.200	Open Manhole	1200
48.017	o	300	S225	5.500	4.080	1.120	Open Manhole	1200
62.000	o	150	S227	5.500	4.545	0.805	Open Manhole	1200
62.001	o	150	S228	5.450	4.395	0.905	Open Manhole	1200
62.002	o	150	S229	5.300	4.350	0.800	Open Manhole	1200
48.018	o	300	S230	5.250	4.060	0.890	Open Manhole	1200
48.019	o	300	S231	5.200	4.040	0.860	Open Manhole	1200
48.020	o	300	S232	5.150	3.950	0.900	Open Manhole	1200
48.021	o	300	S233	5.150	3.900	0.950	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)
55.007	23.594	94.4	S219	5.767	4.260	1.207	Open Manhole	1200
55.008	9.979	166.3	S220	5.666	4.200	1.166	Open Manhole	1200
55.009	5.909	59.1	S221	5.500	4.100	1.100	Open Manhole	1200
55.010	4.450	222.5	S222	5.500	4.080	1.120	Open Manhole	1200
48.016	22.062	0.0	S225	5.500	4.080	1.120	Open Manhole	1200
61.000	6.067	151.7	S224	5.600	4.100	1.200	Open Manhole	1200
61.001	4.644	232.2	S225	5.500	4.080	1.120	Open Manhole	1200
48.017	25.461	1273.0	S230	5.250	4.060	0.890	Open Manhole	1200
62.000	15.286	101.9	S228	5.450	4.395	0.905	Open Manhole	1200
62.001	6.494	144.3	S229	5.300	4.350	0.800	Open Manhole	1200
62.002	2.619	65.5	S230	5.250	4.310	0.790	Open Manhole	1200
48.018	5.411	270.6	S231	5.200	4.040	0.860	Open Manhole	1200
48.019	22.710	252.3	S232	5.150	3.950	0.900	Open Manhole	1200
48.020	10.353	207.1	S233	5.150	3.900	0.950	Open Manhole	1200
48.021	12.519	83.5	S246	5.000	3.750	0.950	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)
63.000	o	150	S234	6.236	4.860	1.226	Open Manhole	1200
63.001	o	150	S235	6.050	4.670	1.230	Open Manhole	1200
64.000	o	150	S236	6.180	5.070	0.960	Open Manhole	1200
63.002	o	150	S237	5.966	4.580	1.236	Open Manhole	1200
65.000	o	150	S238	6.200	5.315	0.735	Open Manhole	1200
65.001	o	150	S239	6.056	4.600	1.306	Open Manhole	1200
63.003	o	300	S240	5.878	4.150	1.428	Open Manhole	1200
63.004	o	300	S241	5.760	4.070	1.390	Open Manhole	1200
66.000	o	150	S242	5.450	4.240	1.060	Open Manhole	600
63.005	o	300	S243	5.279	3.820	1.159	Open Manhole	1200
63.006	o	300	S244	5.172	3.770	1.102	Open Manhole	1200
63.007	o	300	S245	5.100	3.750	1.050	Open Manhole	1200
48.022	o	300	S246	5.000	3.750	0.950	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)
63.000	20.274	106.7	S235	6.050	4.670	1.230	Open Manhole	1200
63.001	9.065	100.7	S237	5.966	4.580	1.236	Open Manhole	1200
64.000	5.788	11.8	S237	5.966	4.580	1.236	Open Manhole	1200
63.002	20.889	74.6	S240	5.878	4.300	1.428	Open Manhole	1200
65.000	7.286	10.2	S239	6.056	4.600	1.306	Open Manhole	1200
65.001	11.020	36.7	S240	5.878	4.300	1.428	Open Manhole	1200
63.003	11.398	142.5	S241	5.760	4.070	1.390	Open Manhole	1200
63.004	48.097	192.4	S243	5.279	3.820	1.159	Open Manhole	1200
66.000	5.957	22.1	S243	5.279	3.970	1.159	Open Manhole	1200
63.005	12.346	246.9	S244	5.172	3.770	1.102	Open Manhole	1200
63.006	5.698	284.9	S245	5.100	3.750	1.050	Open Manhole	1200
63.007	3.876	0.0	S246	5.000	3.750	0.950	Open Manhole	1200
48.022	32.579	0.0	S249	4.500	3.750	0.450	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)
67.000	o	150	S247	5.250	4.330	0.770	Open Manhole	1200
67.001	o	150	S248	5.100	4.250	0.700	Open Manhole	1200
48.023	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)
67.000	11.089	138.6	S248	5.100	4.250	0.700	Open Manhole	1200
67.001	22.582	64.5	S249	4.500	3.900	0.450	Open Manhole	1200
48.023	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

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	1300	4.000	2500	4.000	3700	4.000	4900	4.000	6100	4.000
200	4.000	1400	4.000	2600	4.000	3800	4.000	5000	4.000	6200	4.000
300	4.000	1500	4.000	2700	4.000	3900	4.000	5100	4.000	6300	4.000
400	4.000	1600	4.000	2800	4.000	4000	4.000	5200	4.000	6400	4.000
500	4.000	1700	4.000	2900	4.000	4100	4.000	5300	4.000	6500	4.000
600	4.000	1800	4.000	3000	4.000	4200	4.000	5400	4.000	6600	4.000
700	4.000	1900	4.000	3100	4.000	4300	4.000	5500	4.000	6700	4.000
800	4.000	2000	4.000	3200	4.000	4400	4.000	5600	4.000	6800	4.000
900	4.000	2100	4.000	3300	4.000	4500	4.000	5700	4.000	6900	4.000
1000	4.000	2200	4.000	3400	4.000	4600	4.000	5800	4.000	7000	4.000
1100	4.000	2300	4.000	3500	4.000	4700	4.000	5900	4.000	7100	4.000
1200	4.000	2400	4.000	3600	4.000	4800	4.000	6000	4.000	7200	4.000

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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)
7300	4.000	9500	4.000	11700	4.000	13900	4.000	16100	4.000	18300	4.000
7400	4.000	9600	4.000	11800	4.000	14000	4.000	16200	4.000	18400	4.000
7500	4.000	9700	4.000	11900	4.000	14100	4.000	16300	4.000	18500	4.000
7600	4.000	9800	4.000	12000	4.000	14200	4.000	16400	4.000	18600	4.000
7700	4.000	9900	4.000	12100	4.000	14300	4.000	16500	4.000	18700	4.000
7800	4.000	10000	4.000	12200	4.000	14400	4.000	16600	4.000	18800	4.000
7900	4.000	10100	4.000	12300	4.000	14500	4.000	16700	4.000	18900	4.000
8000	4.000	10200	4.000	12400	4.000	14600	4.000	16800	4.000	19000	4.000
8100	4.000	10300	4.000	12500	4.000	14700	4.000	16900	4.000	19100	4.000
8200	4.000	10400	4.000	12600	4.000	14800	4.000	17000	4.000	19200	4.000
8300	4.000	10500	4.000	12700	4.000	14900	4.000	17100	4.000	19300	4.000
8400	4.000	10600	4.000	12800	4.000	15000	4.000	17200	4.000	19400	4.000
8500	4.000	10700	4.000	12900	4.000	15100	4.000	17300	4.000	19500	4.000
8600	4.000	10800	4.000	13000	4.000	15200	4.000	17400	4.000	19600	4.000
8700	4.000	10900	4.000	13100	4.000	15300	4.000	17500	4.000	19700	4.000
8800	4.000	11000	4.000	13200	4.000	15400	4.000	17600	4.000	19800	4.000
8900	4.000	11100	4.000	13300	4.000	15500	4.000	17700	4.000	19900	4.000
9000	4.000	11200	4.000	13400	4.000	15600	4.000	17800	4.000	20000	4.000
9100	4.000	11300	4.000	13500	4.000	15700	4.000	17900	4.000		
9200	4.000	11400	4.000	13600	4.000	15800	4.000	18000	4.000		
9300	4.000	11500	4.000	13700	4.000	15900	4.000	18100	4.000		
9400	4.000	11600	4.000	13800	4.000	16000	4.000	18200	4.000		

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Online Controls for Surface Network 1

Hydro-Brake® Optimum Manhole: S22, DS/PN: 6.002, 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: 20.007, Volume (m³): 2.3

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

Orifice Manhole: S104, DS/PN: 20.010, Volume (m³): 2.3

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

Orifice Manhole: S110, DS/PN: 20.012, Volume (m³): 3.3

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

Hydro-Brake® Optimum Manhole: S127, DS/PN: 20.013, 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: 20.013, 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: 20.014, Volume (m³): 3.5

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

Hydro-Brake® Optimum Manhole: S136, DS/PN: 20.016, 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: 20.016, 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: 20.018, 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): 5.0

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: 48.002, Volume (m³): 1.4

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

Orifice Manhole: S189, DS/PN: 48.010, Volume (m³): 2.8

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

Orifice Manhole: S193, DS/PN: 48.012, Volume (m³): 2.4

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

Orifice Manhole: S201, DS/PN: 48.014, Volume (m³): 2.9

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

Orifice Manhole: S225, DS/PN: 48.017, 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: 48.022, 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)	6.200	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)	45.6
Max Percolation (l/s)	126.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.690	Cap Volume Depth (m)	0.450

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: S13a, DS/PN: 3.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	4.2
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	11.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.005	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S13b, DS/PN: 4.000

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)	6.600	Cap Volume Depth (m)	0.450

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Swale Manhole: S17, DS/PN: 3.005

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)	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

Porous Car Park Manhole: S20, DS/PN: 3.007

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	5.1
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	14.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.650	Cap Volume Depth (m)	0.450

Complex Manhole: S255, DS/PN: 6.000

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)	33.0
Max Percolation (l/s)	91.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.420	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S23, DS/PN: 7.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	43.2
Max Percolation (l/s)	120.0	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.500	Cap Volume Depth (m)	0.450

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Porous Car Park Manhole: S27, DS/PN: 3.011

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)	6.100	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S29, DS/PN: 8.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	24.5
Max Percolation (l/s)	68.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.900	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S33, DS/PN: 9.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	38.4
Max Percolation (l/s)	106.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.750	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S34, DS/PN: 10.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	42.6
Max Percolation (l/s)	118.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.700	Cap Volume Depth (m)	0.450

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: 11.003

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: 11.009

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: 13.000

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)	0.450

Porous Car Park Manhole: S56a, DS/PN: 14.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	3.3
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	9.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.115	Cap Volume Depth (m)	0.450

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Porous Car Park Manhole: S58, DS/PN: 14.003

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)	0.450

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)	1.000
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: S61, DS/PN: 15.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	33.9
Max Percolation (l/s)	94.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.185	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S62, DS/PN: 16.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	16.2
Max Percolation (l/s)	45.0	Slope (1:X)	0.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.250	Cap Volume Depth (m)	0.450

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Porous Car Park Manhole: S64, DS/PN: 15.002

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	35.5
Max Percolation (l/s)	98.6	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.510	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S65, DS/PN: 15.003

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	11.7
Max Percolation (l/s)	32.5	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.900	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S66, DS/PN: 15.004

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)	5.600	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S67, DS/PN: 17.000

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)	6.100	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S72, DS/PN: 18.000

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)	0.450

Porous Car Park Manhole: S73, DS/PN: 19.000

Infiltration Coefficient Base (m/hr)	0.00000	Invert Level (m)	5.390
Membrane Percolation (mm/hr)	1000	Width (m)	10.0
Max Percolation (l/s)	63.9	Length (m)	23.0
Safety Factor	2.0	Slope (1:X)	100.0
Porosity	0.30	Depression Storage (mm)	5

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Porous Car Park Manhole: S73, DS/PN: 19.000

Evaporation (mm/day) 3 Cap Volume Depth (m) 0.450

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)	1.000
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

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: 20.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.1
Max Percolation (l/s)	28.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.395	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S81, DS/PN: 20.001

Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30
Membrane Percolation (mm/hr)	1000	Invert Level (m)	6.285
Max Percolation (l/s)	42.8	Width (m)	10.0
Safety Factor	2.0	Length (m)	15.4

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Porous Car Park Manhole: S81, DS/PN: 20.001

Slope (1:X)	100.0	Evaporation (mm/day)	3
Depression Storage (mm)	5	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S82, DS/PN: 21.000

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)	6.215	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S85, DS/PN: 20.004

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	50.7
Max Percolation (l/s)	140.8	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.889	Cap Volume Depth (m)	0.450

Cellular Storage Manhole: S88, DS/PN: 20.007

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: 22.000

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	Max Percolation (l/s)	190.6
Membrane Percolation (mm/hr)	1000	Safety Factor	2.0

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Porous Car Park

Porosity	0.30	Slope (1:X)	100.0
Invert Level (m)	6.690	Depression Storage (mm)	5
Width (m)	10.0	Evaporation (mm/day)	3
Length (m)	68.6	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S92, DS/PN: 22.003

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)	6.800	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S93, DS/PN: 22.004

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	4.4
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	12.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.640	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S96, DS/PN: 23.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	16.2
Max Percolation (l/s)	45.0	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.350	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S98, DS/PN: 24.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	11.8
Max Percolation (l/s)	32.8	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.170	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S101, DS/PN: 22.009

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	26.0
Max Percolation (l/s)	72.2	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.820	Cap Volume Depth (m)	0.450

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Cellular Storage Manhole: S103, DS/PN: 20.009

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: S106, DS/PN: 25.000

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)	6.450	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S107, DS/PN: 25.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	12.9
Max Percolation (l/s)	35.8	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.590	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S109, DS/PN: 25.003

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)	6.290	Cap Volume Depth (m)	0.450

Complex Manhole: S110, DS/PN: 20.012

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			

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Tank or Pond

Invert Level (m) 6.200

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: 26.003

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)	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)	6.850
Invert Level (m)	5.950	Cap Infiltration Depth (m)	6.850
Base Width (m)	2.4	Include Swale Volume	Yes

Swale Manhole: S121, DS/PN: 28.000

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: 29.000

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)	6.100	Cap Volume Depth (m)	0.450

Swale Manhole: S127, DS/PN: 20.013

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 Infiltration Coefficient Side (m/hr) 0.00000

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Swale Manhole: S127, DS/PN: 20.013

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

Porous Car Park Manhole: S128, DS/PN: 30.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	30.8
Max Percolation (l/s)	85.6	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.050	Cap Volume Depth (m)	0.450

Complex Manhole: S130, DS/PN: 20.014

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: 31.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	9.1
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	25.3	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)	0.450

Porous Car Park Manhole: S133, DS/PN: 31.002

Infiltration Coefficient Base (m/hr)	0.00000	Max Percolation (l/s)	76.4
Membrane Percolation (mm/hr)	1000	Safety Factor	2.0

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Porous Car Park Manhole: S133, DS/PN: 31.002

Porosity	0.30	Slope (1:X)	100.0
Invert Level (m)	5.650	Depression Storage (mm)	5
Width (m)	10.0	Evaporation (mm/day)	3
Length (m)	27.5	Cap Volume Depth (m)	0.450

Complex Manhole: S134, DS/PN: 20.015

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			

Tank or Pond

Invert Level (m) 6.200

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

Cellular Storage Manhole: S136, DS/PN: 20.016

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			

Porous Car Park Manhole: S137, DS/PN: 33.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	12.5
Max Percolation (l/s)	34.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.550	Cap Volume Depth (m)	0.450

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Cellular Storage Manhole: S138, DS/PN: 20.017

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: 34.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	85.8
Max Percolation (l/s)	238.3	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.650	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S140, DS/PN: 34.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.3
Max Percolation (l/s)	28.6	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.390	Cap Volume Depth (m)	0.450

Complex Manhole: S144, DS/PN: 20.018

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

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Porous Car Park Manhole: S145, DS/PN: 36.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	76.3
Max Percolation (l/s)	211.9	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.900	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S146, DS/PN: 37.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	19.7
Max Percolation (l/s)	54.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.650	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S149b, DS/PN: 38.001

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)	5.350	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S151, DS/PN: 39.000

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)	0.450

Porous Car Park Manhole: S153, DS/PN: 40.000

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)	5.360	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S154, DS/PN: 41.000

Infiltration Coefficient Base (m/hr)	0.00000	Invert Level (m)	5.200
Membrane Percolation (mm/hr)	1000	Width (m)	10.0
Max Percolation (l/s)	40.0	Length (m)	14.4
Safety Factor	2.0	Slope (1:X)	100.0
Porosity	0.30	Depression Storage (mm)	5

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Porous Car Park Manhole: S154, DS/PN: 41.000

Evaporation (mm/day) 3 Cap Volume Depth (m) 0.450

Cellular Storage Manhole: S156, DS/PN: 20.021

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: 20.022

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	31.1
Max Percolation (l/s)	86.4	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)	0.450

Porous Car Park Manhole: S158, DS/PN: 43.000

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)	5.100	Cap Volume Depth (m)	0.450

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

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Tank or Pond

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

Complex Manhole: S166, DS/PN: 1.024

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			

Tank or Pond

Invert Level (m) 4.350

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

Porous Car Park Manhole: S167, DS/PN: 44.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	7.2
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	20.0	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)	0.450

Porous Car Park Manhole: S168, DS/PN: 45.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	9.7
Max Percolation (l/s)	26.9	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.090	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S170, DS/PN: 46.000

Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30
Membrane Percolation (mm/hr)	1000	Invert Level (m)	5.020
Max Percolation (l/s)	80.3	Width (m)	10.0
Safety Factor	2.0	Length (m)	28.9

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Porous Car Park Manhole: S170, DS/PN: 46.000

Slope (1:X)	100.0	Evaporation (mm/day)	3
Depression Storage (mm)	5	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S174, DS/PN: 47.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	24.4
Max Percolation (l/s)	67.8	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	4.500	Cap Volume Depth (m)	0.450

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			

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		

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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)	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: 48.000

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)	0.450

Cellular Storage Manhole: S179, DS/PN: 48.001

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			

Porous Car Park Manhole: S180, DS/PN: 48.002

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)	6.050	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S181, DS/PN: 48.003

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	4.9
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	13.6	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.659	Cap Volume Depth (m)	0.450

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Porous Car Park Manhole: S183, DS/PN: 50.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	13.2
Max Percolation (l/s)	36.7	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.050	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S185, DS/PN: 48.006

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)	6.050	Cap Volume Depth (m)	0.450

Complex Manhole: S188, DS/PN: 48.009

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	0.1	112.6
0.400	95.0	110.6			

Complex Manhole: S190, DS/PN: 48.011

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		

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	Safety Factor	2.0
Infiltration Coefficient Side (m/hr)	0.00000	Porosity	1.00

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Swale

Invert Level (m)	6.600	Slope (1:X)	0.0
Base Width (m)	0.8	Cap Volume Depth (m)	0.300
Length (m)	11.4	Cap Infiltration Depth (m)	0.000
Side Slope (1:X)	3.0	Include Swale Volume	Yes

Porous Car Park Manhole: S191, DS/PN: 51.000

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)	0.450

Complex Manhole: S193, DS/PN: 48.012

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	Length (m)	11.5
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)	5.900	Cap Infiltration Depth (m)	0.000
Base Width (m)	0.8	Include Swale Volume	Yes

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Complex Manhole: S194, DS/PN: 48.013

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: 52.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	7.7
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	21.4	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.004	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S196, DS/PN: 53.000

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)	0.450

Complex Manhole: S201, DS/PN: 48.014

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		

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Cellular Storage

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: 54.000

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)	0.450

Complex Manhole: S206, DS/PN: 48.015

Cellular Storage

Invert Level (m)	4.450	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	45.5	45.5	0.500	0.0	56.3
0.400	45.5	56.3			

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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: 56.000

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)	6.550	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S211, DS/PN: 57.000

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)	0.450

Porous Car Park Manhole: S213, DS/PN: 58.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	8.1
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	22.5	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	6.099	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S215, DS/PN: 59.000

Infiltration Coefficient Base (m/hr)	0.00000	Membrane Percolation (mm/hr)	1000

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Porous Car Park Manhole: S215, DS/PN: 59.000

Max Percolation (l/s)	68.6	Length (m)	24.7
Safety Factor	2.0	Slope (1:X)	100.0
Porosity	0.30	Depression Storage (mm)	5
Invert Level (m)	6.070	Evaporation (mm/day)	3
Width (m)	10.0	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S217, DS/PN: 60.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	19.8
Max Percolation (l/s)	55.0	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.300	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S218, DS/PN: 55.007

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)	0.450

Porous Car Park Manhole: S220, DS/PN: 55.009

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)	0.450

Complex Manhole: S222, DS/PN: 48.016

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		

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			

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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: 48.017

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		

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	Safety Factor	2.0
Infiltration Coefficient Side (m/hr)	0.00000	Porosity	1.00

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Swale

Invert Level (m)	5.200	Slope (1:X)	0.0
Base Width (m)	0.8	Cap Volume Depth (m)	0.300
Length (m)	22.5	Cap Infiltration Depth (m)	0.000
Side Slope (1:X)	3.0	Include Swale Volume	Yes

Porous Car Park Manhole: S227, DS/PN: 62.000

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)	0.450

Complex Manhole: S230, DS/PN: 48.018

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		

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

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Complex Manhole: S232, DS/PN: 48.020

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: 48.021

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		

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

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Porous Car Park Manhole: S235, DS/PN: 63.001

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)	0.450

Porous Car Park Manhole: S236, DS/PN: 64.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	10.0
Membrane Percolation (mm/hr)	1000	Length (m)	19.1
Max Percolation (l/s)	53.1	Slope (1:X)	100.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	5.500	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S238, DS/PN: 65.000

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)	5.550	Cap Volume Depth (m)	0.450

Porous Car Park Manhole: S242, DS/PN: 66.000

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)	4.800	Cap Volume Depth (m)	0.450

Complex Manhole: S246, DS/PN: 48.022

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			

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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)	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: 67.000

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)	4.600	Cap Volume Depth (m)	0.450

Complex Manhole: S248, DS/PN: 67.001

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		

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: 48.023

Filter Drain

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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Filter Drain

Invert Level (m)	3.750	Number of Pipes	1
Trench Width (m)	2.4	Slope (1:X)	0.0
Trench Length (m)	33.0	Cap Volume Depth (m)	0.450
Pipe Diameter (m)	0.300	Cap Infiltration Depth (m)	0.000
Pipe Depth above Invert (m)	0.000		

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	0.500	0.0	0.0
0.400	250.0	0.0			

Time Area Diagram at Pipe Number 2.000 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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.046

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Time Area Diagram at Pipe Number 2.001 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	4	8	0.000	8	12	0.000	12	16	0.009

Time Area Diagram at Pipe Number 3.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.004

Time Area Diagram at Pipe Number 4.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.011

Time Area Diagram at Pipe Number 3.007 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.005

Time Area Diagram at Pipe Number 6.000 for Surface Network 1

Total Area (ha) 0.033

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.033

Time Area Diagram at Pipe Number 7.000 for Surface Network 1

Total Area (ha) 0.043

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Time Area Diagram at Pipe Number 7.000 for Surface Network 1

Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.043

Time Area Diagram at Pipe Number 3.011 for Surface Network 1

Total Area (ha) 0.022

Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.022

Time Area Diagram at Pipe Number 8.000 for Surface Network 1

Total Area (ha) 0.024

Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)
0	4	0.000	12	16	0.000	24	28	0.000
4	8	0.000	16	20	0.000	28	32	0.000
8	12	0.000	20	24	0.000	32	36	0.024

Time Area Diagram at Pipe Number 9.000 for Surface Network 1

Total Area (ha) 0.038

Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.038

Time Area Diagram at Pipe Number 10.000 for Surface Network 1

Total Area (ha) 0.043

Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)	Time From:	(mins) To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.043

Time Area Diagram at Pipe Number 13.000 for Surface Network 1

Total Area (ha) 0.020

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Time Area Diagram at Pipe Number 13.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.020

Time Area Diagram at Pipe Number 14.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.019	20	24	0.000	28	32	0.003

Time Area Diagram at Pipe Number 14.003 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.016

Time Area Diagram at Pipe Number 15.000 for Surface Network 1

Total Area (ha) 0.034

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.034

Time Area Diagram at Pipe Number 16.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.016

Time Area Diagram at Pipe Number 15.002 for Surface Network 1

Total Area (ha) 0.035

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Time Area Diagram at Pipe Number 15.002 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.035

Time Area Diagram at Pipe Number 15.003 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.012

Time Area Diagram at Pipe Number 15.004 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.009	20	24	0.000	28	32	0.003

Time Area Diagram at Pipe Number 17.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.014

Time Area Diagram at Pipe Number 18.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.023

Time Area Diagram at Pipe Number 19.000 for Surface Network 1

Total Area (ha) 0.023

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Time Area Diagram at Pipe Number 19.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.023

Time Area Diagram at Pipe Number 20.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.011

Time Area Diagram at Pipe Number 20.001 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.015

Time Area Diagram at Pipe Number 21.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.022

Time Area Diagram at Pipe Number 20.004 for Surface Network 1

Total Area (ha) 0.051

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.051

Time Area Diagram at Pipe Number 22.000 for Surface Network 1

Total Area (ha) 0.069

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Time Area Diagram at Pipe Number 22.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.069

Time Area Diagram at Pipe Number 22.003 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.013

Time Area Diagram at Pipe Number 22.004 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.027	20	24	0.000	28	32	0.004

Time Area Diagram at Pipe Number 23.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.016

Time Area Diagram at Pipe Number 24.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.012

Time Area Diagram at Pipe Number 22.009 for Surface Network 1

Total Area (ha) 0.026

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Time Area Diagram at Pipe Number 22.009 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.026

Time Area Diagram at Pipe Number 25.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.008

Time Area Diagram at Pipe Number 25.001 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.013

Time Area Diagram at Pipe Number 25.002 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.010

Time Area Diagram at Pipe Number 25.003 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.007	20	24	0.000	28	32	0.008

Time Area Diagram at Pipe Number 29.000 for Surface Network 1

Total Area (ha) 0.013

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Time Area Diagram at Pipe Number 29.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.013

Time Area Diagram at Pipe Number 30.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.031

Time Area Diagram at Pipe Number 31.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.009

Time Area Diagram at Pipe Number 31.002 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.027

Time Area Diagram at Pipe Number 33.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.013

Time Area Diagram at Pipe Number 34.000 for Surface Network 1

Total Area (ha) 0.032

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Time Area Diagram at Pipe Number 34.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.032

Time Area Diagram at Pipe Number 34.001 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.010

Time Area Diagram at Pipe Number 36.000 for Surface Network 1

Total Area (ha) 0.076

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.076

Time Area Diagram at Pipe Number 37.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.020

Time Area Diagram at Pipe Number 38.001 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.024

Time Area Diagram at Pipe Number 40.000 for Surface Network 1

Total Area (ha) 0.016

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Time Area Diagram at Pipe Number 40.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.016

Time Area Diagram at Pipe Number 41.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.014

Time Area Diagram at Pipe Number 20.022 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.031

Time Area Diagram at Pipe Number 43.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.018

Time Area Diagram at Pipe Number 44.000 for Surface Network 1

Total Area (ha) 0.007

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.007

Time Area Diagram at Pipe Number 45.000 for Surface Network 1

Total Area (ha) 0.010

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Time Area Diagram at Pipe Number 45.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.010

Time Area Diagram at Pipe Number 46.000 for Surface Network 1

Total Area (ha) 0.029

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.029

Time Area Diagram at Pipe Number 47.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.024

Time Area Diagram at Pipe Number 48.000 for Surface Network 1

Total Area (ha) 0.021

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.021

Time Area Diagram at Pipe Number 48.002 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.011

Time Area Diagram at Pipe Number 48.003 for Surface Network 1

Total Area (ha) 0.005

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Time Area Diagram at Pipe Number 48.003 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.005

Time Area Diagram at Pipe Number 50.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.013

Time Area Diagram at Pipe Number 48.006 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.025

Time Area Diagram at Pipe Number 51.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.017

Time Area Diagram at Pipe Number 52.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.008

Time Area Diagram at Pipe Number 53.000 for Surface Network 1

Total Area (ha) 0.004

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Time Area Diagram at Pipe Number 53.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.004

Time Area Diagram at Pipe Number 52.002 for Surface Network 1

Total Area (ha) 0.009

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

Time Area Diagram at Pipe Number 54.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.018

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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.022

Time Area Diagram at Pipe Number 57.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.011

Time Area Diagram at Pipe Number 58.000 for Surface Network 1

Total Area (ha) 0.008

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Time Area Diagram at Pipe Number 58.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.008

Time Area Diagram at Pipe Number 59.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.025

Time Area Diagram at Pipe Number 60.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.020

Time Area Diagram at Pipe Number 55.007 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.008

Time Area Diagram at Pipe Number 55.009 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.018

Time Area Diagram at Pipe Number 62.000 for Surface Network 1

Total Area (ha) 0.045

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Time Area Diagram at Pipe Number 62.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.045

Time Area Diagram at Pipe Number 63.001 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.015

Time Area Diagram at Pipe Number 64.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.019

Time Area Diagram at Pipe Number 65.000 for Surface Network 1

Total Area (ha) 0.007

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.007

Time Area Diagram at Pipe Number 66.000 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)	Time (mins) From:	To:	Area (ha)
0	4	0.000	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.011

Time Area Diagram at Pipe Number 67.000 for Surface Network 1

Total Area (ha) 0.022

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Time Area Diagram at Pipe Number 67.000 for Surface Network 1

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	8	12	0.000	16	20	0.000	24	28	0.000
4	8	0.000	12	16	0.000	20	24	0.000	28	32	0.022

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2 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 117
Number of Online Controls 23 Number of Time/Area Diagrams 77
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH
FEH Rainfall Version 2013
Site Location GB 497500 102350 SU 97500 02350
Data Type Catchment
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) 2, 30, 100
Climate Change (%) 0, 0, 0

WARNING: Half Drain Time has not been calculated as the structure is too full.

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	120 Summer	2	+0%	2/15 Summer				6.262
1.001	S2	120 Winter	2	+0%					6.238
1.002	S3	120 Winter	2	+0%					6.187
1.003	S4	120 Winter	2	+0%					5.946
1.004	S5	240 Winter	2	+0%	2/120 Winter				5.595
2.000	S6	15 Winter	2	+0%	30/15 Summer				6.397
2.001	S7	30 Summer	2	+0%	30/15 Summer				6.029
2.002	S8	30 Winter	2	+0%	30/15 Summer				5.974
2.003	S9	15 Winter	2	+0%	30/15 Summer				5.902
2.004	S10	15 Winter	2	+0%	30/15 Summer				5.640
2.005	S11	15 Winter	2	+0%	30/15 Summer				5.608
1.005	S12	240 Winter	2	+0%	2/120 Winter				5.595
3.000	S13a	1440 Winter	2	+0%	100/120 Winter				6.119

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	S1	0.512	0.000	0.38			2.0	SURCHARGED	
1.001	S2	-0.112	0.000	0.15			2.0	OK	
1.002	S3	-0.113	0.000	0.14			2.0	OK	
1.003	S4	-0.114	0.000	0.13			2.0	OK	
1.004	S5	0.045	0.000	0.05			1.4	SURCHARGED	
2.000	S6	-0.078	0.000	0.39		5	6.0	OK	
2.001	S7	-0.076	0.000	0.46			5.8	OK	
2.002	S8	-0.081	0.000	0.41			5.8	OK	
2.003	S9	-0.078	0.000	0.45			7.0	OK	
2.004	S10	-0.070	0.000	0.56			7.0	OK	
2.005	S11	-0.062	0.000	0.65			7.0	OK	
1.005	S12	0.045	0.000	0.05		98	2.2	SURCHARGED	
3.000	S13a	-0.036	0.000	0.00			0.0	OK	

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2 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.
4.000	S13b	1440 Winter	2	+0%	2/960 Summer			
3.001	S13	1440 Winter	2	+0%	2/360 Winter			
3.002	S14	1440 Winter	2	+0%	2/120 Winter			
3.003	S15	1440 Winter	2	+0%	2/60 Summer			
3.004	S16	1440 Winter	2	+0%	2/15 Winter			
3.005	S17	1440 Winter	2	+0%				
3.006	S18	15 Winter	2	+0%				
5.000	S19	15 Winter	2	+0%				
3.007	S20	15 Winter	2	+0%	100/15 Summer			
3.008	S21	15 Winter	2	+0%	100/120 Winter			
6.000	S255	240 Winter	2	+0%	30/120 Winter			
6.001	S254	240 Winter	2	+0%	30/120 Winter			
6.002	S22	240 Winter	2	+0%	100/120 Winter			
7.000	S23	15 Summer	2	+0%	100/30 Summer			
3.009	S24	240 Winter	2	+0%	30/30 Summer			
3.010	S26	240 Winter	2	+0%	30/30 Summer			
3.011	S27	240 Winter	2	+0%	30/15 Winter			
3.012	S28	240 Winter	2	+0%	30/15 Summer			
8.000	S29	240 Winter	2	+0%	30/15 Summer			
3.013	S30	240 Winter	2	+0%	2/120 Summer			
3.014	S31	240 Winter	2	+0%	2/60 Winter			
1.006	S32	240 Winter	2	+0%	2/60 Summer			
9.000	S33	15 Winter	2	+0%	30/15 Summer			
10.000	S34	15 Winter	2	+0%	30/15 Summer			
9.001	S35	240 Winter	2	+0%	30/15 Summer			
1.007	S36	240 Winter	2	+0%	30/30 Summer			
1.008	S37	240 Winter	2	+0%	30/30 Summer			
1.009	S38	240 Winter	2	+0%	2/30 Summer			
1.010	S39	360 Winter	2	+0%	2/15 Summer			
11.000	S112	15 Winter	2	+0%				
11.001	S111	15 Winter	2	+0%	100/15 Summer			
11.002	S40	15 Winter	2	+0%	30/15 Summer			
11.003	S41	15 Winter	2	+0%	30/15 Summer			
11.004	S42	15 Winter	2	+0%	30/15 Summer			
12.000	S256	15 Winter	2	+0%	2/15 Winter			
11.005	S43	15 Winter	2	+0%	2/15 Summer			
11.006	S44	15 Winter	2	+0%	2/15 Summer			
11.007	S45	15 Winter	2	+0%	2/15 Summer			
11.008	S46	240 Winter	2	+0%	2/15 Summer			
11.009	S47	360 Winter	2	+0%	2/15 Summer			
1.011	S48	360 Winter	2	+0%	2/15 Summer			
1.012	S49	360 Winter	2	+0%	2/30 Summer			
1.013	S50	360 Winter	2	+0%	2/15 Summer			
13.000	S51	15 Winter	2	+0%				
13.001	S52	30 Summer	2	+0%				
1.014	S53	30 Winter	2	+0%	100/480 Winter			
1.015	S54	960 Winter	2	+0%	30/360 Winter			
1.016	S55	960 Winter	2	+0%	2/120 Summer			

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
4.000	S13b	6.119	0.044	0.000	0.01			0.1	SURCHARGED
3.001	S13	6.119	0.089	0.000	0.03			0.4	SURCHARGED
3.002	S14	6.119	0.149	0.000	0.02			0.4	SURCHARGED
3.003	S15	6.118	0.228	0.000	0.03			0.4	SURCHARGED
3.004	S16	6.118	0.268	0.000	0.08			0.4	SURCHARGED
3.005	S17	6.118	-0.147	0.000	0.00			0.1	OK
3.006	S18	6.069	-0.106	0.000	0.18			2.3	OK
5.000	S19	6.150	-0.100	0.000	0.24			3.5	OK
3.007	S20	6.044	-0.081	0.000	0.44		7	5.9	OK
3.008	S21	5.926	-0.104	0.000	0.21			5.8	OK
6.000	S255	5.667	-0.103	0.000	0.04		154	0.4	OK
6.001	S254	5.666	-0.104	0.000	0.04			0.4	OK
6.002	S22	5.665	-0.180	0.000	0.01			0.4	OK
7.000	S23	5.905	-0.099	0.000	0.16		3	4.8	OK
3.009	S24	5.602	-0.131	0.000	0.08			3.6	OK
3.010	S26	5.601	-0.109	0.000	0.09			4.2	OK
3.011	S27	5.600	-0.082	0.000	0.09		90	4.8	OK
3.012	S28	5.598	-0.022	0.000	0.08			4.5	OK
8.000	S29	5.597	-0.010	0.000	0.07		78	0.9	OK
3.013	S30	5.595	0.075	0.000	0.09			5.3	SURCHARGED
3.014	S31	5.594	0.114	0.000	0.09			5.2	SURCHARGED
1.006	S32	5.593	0.143	0.000	0.14			4.7	SURCHARGED
9.000	S33	5.527	-0.083	0.000	0.33		5	4.7	OK
10.000	S34	5.428	-0.072	0.000	0.41		5	5.4	OK
9.001	S35	5.418	-0.022	0.000	0.29			3.2	OK
1.007	S36	5.417	-0.003	0.000	0.18		117	4.8	OK
1.008	S37	5.411	-0.009	0.000	0.09			4.8	OK
1.009	S38	5.409	0.139	0.000	0.29			4.8	SURCHARGED
1.010	S39	5.272	0.162	0.000	0.33			4.7	SURCHARGED
11.000	S112	6.091	-0.109	0.000	0.16			2.4	OK
11.001	S111	5.941	-0.109	0.000	0.17			2.4	OK
11.002	S40	5.877	-0.073	0.000	0.52			6.4	OK
11.003	S41	5.746	-0.084	0.000	0.40		7	6.3	OK
11.004	S42	5.673	-0.087	0.000	0.37			8.0	OK
12.000	S256	5.560	0.050	0.000	0.31			4.3	SURCHARGED
11.005	S43	5.554	0.144	0.000	0.55			8.7	SURCHARGED
11.006	S44	5.524	0.224	0.000	0.82			11.6	SURCHARGED
11.007	S45	5.426	0.276	0.000	2.05			14.6	SURCHARGED
11.008	S46	5.267	0.167	0.000	0.51			6.1	SURCHARGED
11.009	S47	5.260	0.210	0.000	0.28		200	3.3	SURCHARGED
1.011	S48	5.254	0.254	0.000	0.49			6.6	SURCHARGED
1.012	S49	5.122	0.097	0.000	0.19			6.3	SURCHARGED
1.013	S50	5.169	0.230	0.000	0.20			5.9	SURCHARGED
13.000	S51	5.296	-0.104	0.000	0.18		5	2.7	OK
13.001	S52	5.115	-0.095	0.000	0.28			2.5	OK
1.014	S53	4.743	-0.150	0.000	0.24			7.0	OK
1.015	S54	4.663	-0.104	0.000	0.14			5.7	OK

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.016	S55	4.652	0.075	0.000	0.14			5.7	SURCHARGED

PN	US/MH Name	Level Exceeded
4.000	S13b	
3.001	S13	
3.002	S14	
3.003	S15	
3.004	S16	
3.005	S17	
3.006	S18	
5.000	S19	
3.007	S20	
3.008	S21	
6.000	S255	
6.001	S254	
6.002	S22	
7.000	S23	
3.009	S24	
3.010	S26	
3.011	S27	
3.012	S28	
8.000	S29	
3.013	S30	
3.014	S31	
1.006	S32	
9.000	S33	
10.000	S34	
9.001	S35	
1.007	S36	
1.008	S37	
1.009	S38	
1.010	S39	
11.000	S112	
11.001	S111	
11.002	S40	
11.003	S41	
11.004	S42	
12.000	S256	
11.005	S43	
11.006	S44	
11.007	S45	
11.008	S46	
11.009	S47	
1.011	S48	

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

PN	US/MH Name	Level Exceeded
1.012	S49	
1.013	S50	
13.000	S51	
13.001	S52	
1.014	S53	
1.015	S54	
1.016	S55	

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2 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.
14.000	S56a	15 Winter	2	+0%				
14.001	S56	15 Winter	2	+0%				
14.002	S57	15 Winter	2	+0%	30/960 Winter			
14.003	S58	960 Winter	2	+0%	30/240 Winter			
14.004	S59	960 Winter	2	+0%	2/240 Winter			
1.017	S60	960 Winter	2	+0%	2/60 Summer			
15.000	S61	30 Winter	2	+0%				
16.000	S62	15 Winter	2	+0%				
15.001	S63	30 Winter	2	+0%	100/15 Summer			
15.002	S64	30 Winter	2	+0%				
15.003	S65	30 Winter	2	+0%				
15.004	S66	30 Winter	2	+0%				
17.000	S67	15 Winter	2	+0%				
17.001	S68	15 Winter	2	+0%				
15.005	S69	960 Winter	2	+0%	30/15 Winter			
15.006	S70	960 Winter	2	+0%	2/240 Summer			
15.007	S71	960 Winter	2	+0%	2/120 Summer			
18.000	S72	15 Winter	2	+0%				
19.000	S73	15 Summer	2	+0%				
18.001	S74	15 Winter	2	+0%	30/15 Summer			
18.002	S75	30 Summer	2	+0%	100/15 Summer			
1.018	S76	960 Winter	2	+0%	2/60 Summer			
1.019	S77	960 Winter	2	+0%	2/30 Winter			
1.020	S78	1440 Winter	2	+0%	2/360 Winter			
1.021	S79	1440 Winter	2	+0%	2/240 Summer			
20.000	S80	15 Winter	2	+0%				
20.001	S81	15 Winter	2	+0%	100/360 Winter			
21.000	S82	15 Winter	2	+0%	100/240 Winter			
20.002	S83	30 Summer	2	+0%	100/240 Winter			
20.003	S84	30 Winter	2	+0%	100/240 Winter			
20.004	S85	30 Winter	2	+0%	100/240 Winter			
20.005	S86	30 Winter	2	+0%	100/60 Winter			
20.006	S87	240 Winter	2	+0%	30/60 Winter			
20.007	S88	240 Winter	2	+0%	30/60 Summer			
20.008	S89	480 Winter	2	+0%	30/120 Winter			
22.000	S253	120 Winter	2	+0%				
22.001	S90	120 Winter	2	+0%				
22.002	S91	15 Winter	2	+0%	100/240 Winter			
22.003	S92	120 Winter	2	+0%	100/240 Winter			
22.004	S93	15 Winter	2	+0%	100/240 Winter			
22.005	S94	15 Winter	2	+0%	100/15 Summer			
22.006	S95	15 Winter	2	+0%	100/15 Summer			
23.000	S96	15 Winter	2	+0%				
23.001	S97	15 Winter	2	+0%	100/240 Winter			
24.000	S98	15 Summer	2	+0%				
22.007	S99	15 Winter	2	+0%	30/15 Summer			
22.008	S100	480 Winter	2	+0%	30/240 Winter			
22.009	S101	480 Winter	2	+0%	30/120 Winter			

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
14.000	S56a	5.161	-0.104	0.000	0.20		5	3.3	OK
14.001	S56	4.835	-0.105	0.000	0.20			3.3	OK
14.002	S57	4.696	-0.104	0.000	0.21			3.3	OK
14.003	S58	4.646	-0.064	0.000	0.05		198	0.7	OK
14.004	S59	4.646	0.046	0.000	0.05			1.0	SURCHARGED
1.017	S60	4.645	0.095	0.000	0.18		457	6.1	SURCHARGED
15.000	S61	6.220	-0.100	0.000	0.23		6	3.5	OK
16.000	S62	6.030	-0.110	0.000	0.14		5	2.1	OK
15.001	S63	5.770	-0.090	0.000	0.33			5.2	OK
15.002	S64	5.558	-0.102	0.000	0.22		7	8.1	OK
15.003	S65	5.094	-0.236	0.000	0.10		10	9.0	OK
15.004	S66	4.801	-0.239	0.000	0.09		11	9.2	OK
17.000	S67	4.997	-0.113	0.000	0.12		5	1.9	OK
17.001	S68	4.827	-0.123	0.000	0.07			1.9	OK
15.005	S69	4.639	-0.051	0.000	0.03			2.0	OK
15.006	S70	4.639	0.049	0.000	0.04			2.4	SURCHARGED
15.007	S71	4.639	0.079	0.000	0.04			2.4	SURCHARGED
18.000	S72	5.109	-0.101	0.000	0.19		5	3.0	OK
19.000	S73	5.169	-0.111	0.000	0.11		3	2.6	OK
18.001	S74	4.920	-0.080	0.000	0.42			6.0	OK
18.002	S75	4.827	-0.093	0.000	0.31			5.9	OK
1.018	S76	4.639	0.139	0.000	0.08			4.8	SURCHARGED
1.019	S77	4.651	0.201	0.000	0.08			4.8	SURCHARGED
1.020	S78	4.465	0.065	0.000	0.12			4.6	SURCHARGED
1.021	S79	4.460	0.110	0.000	0.06		669	4.7	SURCHARGED
20.000	S80	5.694	-0.191	0.000	0.05		5	1.5	OK
20.001	S81	5.642	-0.176	0.000	0.10		6	3.3	OK
21.000	S82	5.676	-0.097	0.000	0.22		5	2.9	OK
20.002	S83	5.477	-0.235	0.000	0.10			5.8	OK
20.003	S84	5.422	-0.235	0.000	0.10			5.7	OK
20.004	S85	5.369	-0.213	0.000	0.18		8	10.6	OK
20.005	S86	5.266	-0.217	0.000	0.17			10.2	OK
20.006	S87	5.219	-0.156	0.000	0.08			4.7	OK
20.007	S88	5.218	-0.112	0.000	0.03		147	1.8	OK
20.008	S89	5.114	-0.129	0.000	0.03			1.5	OK
22.000	S253	5.953	-0.097	0.000	0.27		56	2.6	OK
22.001	S90	5.938	-0.112	0.000	0.14			2.6	OK
22.002	S91	5.713	-0.177	0.000	0.10			3.3	OK
22.003	S92	5.596	-0.178	0.000	0.10		44	3.3	OK
22.004	S93	5.513	-0.162	0.000	0.18		21	5.3	OK
22.005	S94	5.474	-0.151	0.000	0.23			7.7	OK
22.006	S95	5.388	-0.132	0.000	0.35			11.5	OK
23.000	S96	5.938	-0.117	0.000	0.09		4	2.1	OK
23.001	S97	5.529	-0.121	0.000	0.07			2.2	OK
24.000	S98	5.970	-0.130	0.000	0.03		3	1.3	OK
22.007	S99	5.302	-0.117	0.000	0.46			15.6	OK
22.008	S100	5.115	-0.172	0.000	0.09			5.5	OK

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
22.009	S101	5.115	-0.120	0.000	0.13		262	6.1	OK

PN	US/MH Name	Level Exceeded
14.000	S56a	
14.001	S56	
14.002	S57	
14.003	S58	
14.004	S59	
1.017	S60	
15.000	S61	
16.000	S62	
15.001	S63	
15.002	S64	
15.003	S65	
15.004	S66	
17.000	S67	
17.001	S68	
15.005	S69	
15.006	S70	
15.007	S71	
18.000	S72	
19.000	S73	
18.001	S74	
18.002	S75	
1.018	S76	
1.019	S77	
1.020	S78	
1.021	S79	
20.000	S80	
20.001	S81	
21.000	S82	
20.002	S83	
20.003	S84	
20.004	S85	
20.005	S86	
20.006	S87	
20.007	S88	
20.008	S89	
22.000	S253	
22.001	S90	
22.002	S91	
22.003	S92	
22.004	S93	
22.005	S94	

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

PN	US/MH Name	Level Exceeded
22.006	S95	
23.000	S96	
23.001	S97	
24.000	S98	
22.007	S99	
22.008	S100	
22.009	S101	

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2 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.
22.010	S102	480 Winter	2	+0%	30/120 Summer			
20.009	S103	480 Winter	2	+0%	30/120 Summer			
20.010	S104	480 Winter	2	+0%	30/120 Summer			
20.011	S105	480 Winter	2	+0%	30/120 Summer			
25.000	S106	15 Winter	2	+0%				
25.001	S107	30 Winter	2	+0%				
25.002	S108	30 Winter	2	+0%				
25.003	S109	30 Winter	2	+0%	100/240 Winter			
20.012	S110	480 Winter	2	+0%	30/120 Summer			
26.000	S113	15 Winter	2	+0%	2/15 Summer	100/15 Winter		
26.001	S114	15 Winter	2	+0%	2/15 Summer	100/15 Winter		
27.000	S115a	15 Winter	2	+0%	2/15 Summer			
26.002	S115	15 Winter	2	+0%	2/15 Summer			
26.003	S116	30 Winter	2	+0%	2/15 Summer			
26.004	S117	30 Winter	2	+0%	2/15 Summer			
26.005	S118	30 Winter	2	+0%	2/15 Summer			
26.006	S119	30 Winter	2	+0%	2/15 Summer			
26.007	S120	30 Winter	2	+0%	30/15 Summer			
28.000	S121	120 Summer	2	+0%				
28.001	S122	120 Summer	2	+0%	100/30 Winter			
28.002	S123	15 Winter	2	+0%	30/15 Summer			
28.003	S124	15 Winter	2	+0%	30/15 Summer			
28.004	S125	15 Winter	2	+0%	30/15 Summer			
29.000	S126	15 Winter	2	+0%	100/30 Winter			
20.013	S127	240 Winter	2	+0%	2/30 Winter			
30.000	S128	15 Winter	2	+0%				
30.001	S129	15 Winter	2	+0%				
20.014	S130	360 Winter	2	+0%	30/30 Summer			
31.000	S131	15 Winter	2	+0%	100/120 Winter			
31.001	S132	30 Winter	2	+0%	100/120 Winter			
31.002	S133	15 Winter	2	+0%	100/120 Winter			
20.015	S134	360 Winter	2	+0%	30/60 Winter			
32.000	S135	15 Winter	2	+0%				
20.016	S136	360 Winter	2	+0%	30/60 Winter			
33.000	S137	15 Summer	2	+0%				
20.017	S138	360 Winter	2	+0%	30/240 Summer			
34.000	S139	120 Winter	2	+0%				
34.001	S140	120 Winter	2	+0%				
34.002	S141	240 Winter	2	+0%	100/240 Winter			
35.000	S142	15 Winter	2	+0%				
34.003	S143	15 Winter	2	+0%	100/240 Winter			
20.018	S144	360 Winter	2	+0%	30/240 Summer			
36.000	S145	15 Winter	2	+0%	30/15 Summer			
37.000	S146	15 Summer	2	+0%				
36.001	S147	30 Winter	2	+0%				
36.002	S148	15 Winter	2	+0%	100/15 Winter			
38.000	S149a	15 Winter	2	+0%				
38.001	S149b	15 Winter	2	+0%				

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
22.010	S102	5.114	-0.101	0.000	0.12			6.0	OK
20.009	S103	5.114	-0.101	0.000	0.12		366	4.5	OK
20.010	S104	5.113	-0.102	0.000	0.05			4.5	OK
20.011	S105	5.012	-0.038	0.000	0.16			4.3	OK
25.000	S106	6.242	-0.123	0.000	0.06		5	1.0	OK
25.001	S107	6.106	-0.109	0.000	0.16		8	2.5	OK
25.002	S108	5.910	-0.115	0.000	0.12			3.6	OK
25.003	S109	5.536	-0.114	0.000	0.13		7	4.6	OK
20.012	S110	5.011	-0.039	0.000	0.03			2.1	OK
26.000	S113	6.324	0.124	0.000	0.65			5.6	SURCHARGED
26.001	S114	6.300	0.150	0.000	1.15			5.1	SURCHARGED
27.000	S115a	6.297	0.037	0.000	0.35			4.9	SURCHARGED
26.002	S115	6.280	0.150	0.000	2.13			10.9	SURCHARGED
26.003	S116	6.191	0.091	0.000	0.82		16	6.7	SURCHARGED
26.004	S117	6.175	0.075	0.000	1.79			7.5	SURCHARGED
26.005	S118	6.134	0.044	0.000	1.23			7.5	SURCHARGED
26.006	S119	6.110	0.020	0.000	1.93			8.2	SURCHARGED
26.007	S120	6.039	-0.031	0.000	0.98			8.2	OK
28.000	S121	6.233	-0.167	0.000	0.06			2.0	OK
28.001	S122	6.231	-0.119	0.000	0.09			1.9	OK
28.002	S123	6.135	-0.065	0.000	0.60			5.3	OK
28.003	S124	6.105	-0.045	0.000	0.82			5.2	OK
28.004	S125	6.075	-0.075	0.000	0.49			6.6	OK
29.000	S126	6.063	-0.112	0.000	0.13		5	1.7	OK
20.013	S127	4.965	0.025	0.000	0.20		121	8.3	SURCHARGED
30.000	S128	5.937	-0.093	0.000	0.25		5	4.1	OK
30.001	S129	5.841	-0.099	0.000	0.21			4.5	OK
20.014	S130	4.850	-0.050	0.000	0.09		267	5.9	OK
31.000	S131	5.333	-0.127	0.000	0.04		4	1.2	OK
31.001	S132	5.149	-0.121	0.000	0.08			1.2	OK
31.002	S133	5.042	-0.108	0.000	0.16		5	4.5	OK
20.015	S134	4.686	-0.074	0.000	0.24		353	5.0	OK
32.000	S135	5.572	-0.128	0.000	0.05			2.4	OK
20.016	S136	4.681	-0.079	0.000	0.07		342	4.3	OK
33.000	S137	5.124	-0.126	0.000	0.04		3	1.5	OK
20.017	S138	4.587	-0.113	0.000	0.19			4.1	OK
34.000	S139	5.278	-0.122	0.000	0.08		19	1.1	OK
34.001	S140	5.133	-0.117	0.000	0.11		20	1.5	OK
34.002	S141	5.002	-0.118	0.000	0.10			1.5	OK
35.000	S142	5.335	-0.103	0.000	0.21			4.7	OK
34.003	S143	4.952	-0.108	0.000	0.17			4.8	OK
20.018	S144	4.583	-0.117	0.000	0.04		361	4.6	OK
36.000	S145	5.363	-0.057	0.000	0.61		5	10.3	OK
37.000	S146	5.132	-0.118	0.000	0.07		3	2.3	OK
36.001	S147	4.719	-0.231	0.000	0.11			12.7	OK
36.002	S148	4.528	-0.202	0.000	0.20			12.3	OK
38.000	S149a	4.820	-0.096	0.000	0.27			3.9	OK

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
38.001	S149b	4.691	-0.106	0.000	0.19		33	3.9	OK

PN	US/MH Name	Level Exceeded
22.010	S102	
20.009	S103	
20.010	S104	
20.011	S105	
25.000	S106	
25.001	S107	
25.002	S108	
25.003	S109	
20.012	S110	
26.000	S113	1
26.001	S114	2
27.000	S115a	
26.002	S115	
26.003	S116	
26.004	S117	
26.005	S118	
26.006	S119	
26.007	S120	
28.000	S121	
28.001	S122	
28.002	S123	
28.003	S124	
28.004	S125	
29.000	S126	
20.013	S127	
30.000	S128	
30.001	S129	
20.014	S130	
31.000	S131	
31.001	S132	
31.002	S133	
20.015	S134	
32.000	S135	
20.016	S136	
33.000	S137	
20.017	S138	
34.000	S139	
34.001	S140	
34.002	S141	
35.000	S142	
34.003	S143	

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

PN	US/MH Name	Level Exceeded
20.018	S144	
36.000	S145	
37.000	S146	
36.001	S147	
36.002	S148	
38.000	S149a	
38.001	S149b	

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2 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.
36.003	S149	1440 Winter	2	+0%	100/15 Summer			
36.004	S150	1440 Winter	2	+0%	30/15 Winter			
39.000	S151	15 Winter	2	+0%	100/360 Winter			
20.019	S152	1440 Winter	2	+0%	2/960 Winter			
40.000	S153	15 Summer	2	+0%	100/480 Winter			
41.000	S154	15 Winter	2	+0%	30/480 Winter			
20.020	S155	1440 Winter	2	+0%	2/360 Winter			
20.021	S156	1440 Winter	2	+0%	2/360 Winter			
20.022	S157	1440 Winter	2	+0%	2/120 Summer			
42.000	S159a	15 Winter	2	+0%	100/960 Winter			
42.001	S159b	15 Winter	2	+0%	30/960 Winter			
43.000	S158	15 Summer	2	+0%	100/960 Winter			
42.002	S159	1440 Winter	2	+0%	2/360 Winter			
42.003	S160	1440 Winter	2	+0%	2/120 Summer			
20.023	S162	1440 Winter	2	+0%	2/60 Winter			
20.024	S163	1440 Winter	2	+0%	2/60 Summer			
1.022	S164	1440 Winter	2	+0%	2/60 Summer			
1.023	S165	1440 Winter	2	+0%	2/240 Summer			
1.024	S166	1440 Winter	2	+0%	2/240 Summer			
44.000	S167	15 Winter	2	+0%				
45.000	S168	15 Summer	2	+0%				
44.001	S169	15 Winter	2	+0%				
46.000	S170	15 Summer	2	+0%				
46.001	S171	1440 Winter	2	+0%	2/1440 Winter			
44.002	S172	1440 Winter	2	+0%	2/480 Winter			
44.003	S173	1440 Winter	2	+0%	2/360 Summer			
47.000	S174	1440 Winter	2	+0%	2/240 Summer			
44.004	S175	1440 Winter	2	+0%	2/240 Summer			
1.025	S176	1440 Winter	2	+0%	2/240 Summer			
1.026	S177	1440 Winter	2	+0%	2/360 Summer			
48.000	S178	15 Winter	2	+0%				
48.001	S179	120 Winter	2	+0%				
48.002	S180	30 Winter	2	+0%	30/15 Summer			
48.003	S181	30 Winter	2	+0%				
48.004	S182	30 Winter	2	+0%				
49.000	S184a	15 Winter	2	+0%				
50.000	S183	15 Winter	2	+0%				
48.005	S184	15 Winter	2	+0%				
48.006	S185	30 Winter	2	+0%				
48.007	S186	30 Winter	2	+0%				
48.008	S187	240 Winter	2	+0%	100/120 Winter			
48.009	S188	240 Winter	2	+0%				
48.010	S189	240 Winter	2	+0%				
48.011	S190	240 Winter	2	+0%				
51.000	S191	15 Winter	2	+0%				
51.001	S192	15 Winter	2	+0%				
48.012	S193	240 Winter	2	+0%				
48.013	S194	240 Winter	2	+0%				

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
36.003	S149	4.468	-0.192	0.000	0.03			2.0	OK
36.004	S150	4.468	-0.102	0.000	0.03			2.2	OK
39.000	S151	4.626	-0.094	0.000	0.29		6	5.5	OK
20.019	S152	4.468	0.018	0.000	0.10			5.9	SURCHARGED
40.000	S153	4.606	-0.119	0.000	0.06		3	1.8	OK
41.000	S154	4.480	-0.120	0.000	0.07		4	1.8	OK
20.020	S155	4.467	0.047	0.000	0.23			6.2	SURCHARGED
20.021	S156	4.464	0.044	0.000	0.08		525	5.8	SURCHARGED
20.022	S157	4.460	0.195	0.000	0.09		816	6.1	SURCHARGED
42.000	S159a	4.595	-0.121	0.000	0.08			1.2	OK
42.001	S159b	4.506	-0.112	0.000	0.14			2.8	OK
43.000	S158	4.602	-0.118	0.000	0.07		3	2.0	OK
42.002	S159	4.459	0.039	0.000	0.04			0.6	SURCHARGED
42.003	S160	4.458	0.188	0.000	0.04			0.7	SURCHARGED
20.023	S162	4.458	0.273	0.000	0.14			6.4	SURCHARGED
20.024	S163	4.457	0.288	0.000	0.12			6.3	SURCHARGED
1.022	S164	4.455	0.320	0.000	0.48			9.7	SURCHARGED
1.023	S165	4.297	0.162	0.000	0.30			9.7	SURCHARGED
1.024	S166	4.286	0.151	0.000	0.16		1294	9.2	SURCHARGED
44.000	S167	4.306	-0.124	0.000	0.06		4	0.9	OK
45.000	S168	4.739	-0.131	0.000	0.03		3	1.1	OK
44.001	S169	4.208	-0.102	0.000	0.23			3.3	OK
46.000	S170	4.340	-0.110	0.000	0.11		3	3.2	OK
46.001	S171	4.197	0.007	0.000	0.03			0.4	SURCHARGED
44.002	S172	4.197	0.059	0.000	0.02			0.8	SURCHARGED
44.003	S173	4.197	0.117	0.000	0.03			0.9	SURCHARGED
47.000	S174	4.196	0.201	0.000	0.02			0.2	SURCHARGED
44.004	S175	4.197	0.252	0.000	0.05			1.1	SURCHARGED
1.025	S176	4.196	0.176	0.000	0.49			9.4	SURCHARGED
1.026	S177	4.139	0.139	0.000	0.47			9.2	SURCHARGED
48.000	S178	6.059	-0.101	0.000	0.20		5	2.8	OK
48.001	S179	5.922	-0.128	0.000	0.05		55	0.8	OK
48.002	S180	5.838	-0.076	0.000	0.09			1.2	OK
48.003	S181	5.691	-0.118	0.000	0.11		11	1.6	OK
48.004	S182	5.537	-0.123	0.000	0.08			1.6	OK
49.000	S184a	5.833	-0.117	0.000	0.11			3.2	OK
50.000	S183	5.492	-0.111	0.000	0.12		4	1.7	OK
48.005	S184	5.331	-0.174	0.000	0.12			4.8	OK
48.006	S185	5.212	-0.173	0.000	0.12		12	5.2	OK
48.007	S186	5.013	-0.172	0.000	0.13			5.1	OK
48.008	S187	4.956	-0.149	0.000	0.13			3.5	OK
48.009	S188	4.955	-0.195	0.000	0.04		116	1.7	OK
48.010	S189	4.953	-0.167	0.000	0.03			1.7	OK
48.011	S190	4.837	-0.243	0.000	0.04		167	1.7	OK
51.000	S191	5.535	-0.105	0.000	0.16		4	2.3	OK
51.001	S192	5.426	-0.124	0.000	0.06			2.4	OK
48.012	S193	4.827	-0.223	0.000	0.03		185	2.0	OK

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
48.013	S194	4.661	-0.269	0.000	0.02		166	2.0	OK

PN	US/MH Name	Level Exceeded
36.003	S149	
36.004	S150	
39.000	S151	
20.019	S152	
40.000	S153	
41.000	S154	
20.020	S155	
20.021	S156	
20.022	S157	
42.000	S159a	
42.001	S159b	
43.000	S158	
42.002	S159	
42.003	S160	
20.023	S162	
20.024	S163	
1.022	S164	
1.023	S165	
1.024	S166	
44.000	S167	
45.000	S168	
44.001	S169	
46.000	S170	
46.001	S171	
44.002	S172	
44.003	S173	
47.000	S174	
44.004	S175	
1.025	S176	
1.026	S177	
48.000	S178	
48.001	S179	
48.002	S180	
48.003	S181	
48.004	S182	
49.000	S184a	
50.000	S183	
48.005	S184	
48.006	S185	
48.007	S186	
48.008	S187	

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

PN	US/MH Name	Level Exceeded
48.009	S188	
48.010	S189	
48.011	S190	
51.000	S191	
51.001	S192	
48.012	S193	
48.013	S194	

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2 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.
52.000	S195	15 Summer	2	+0%				
53.000	S196	15 Winter	2	+0%				
52.001	S197	15 Winter	2	+0%				
52.002	S198	15 Winter	2	+0%	100/15 Summer			
52.003	S199	15 Winter	2	+0%	30/15 Summer			
52.004	S200	15 Winter	2	+0%	30/15 Summer			
48.014	S201	240 Winter	2	+0%	100/120 Winter			
54.000	S203	15 Summer	2	+0%				
54.001	S204	15 Winter	2	+0%				
54.002	S205	30 Winter	2	+0%	100/120 Winter			
48.015	S206	240 Winter	2	+0%				
55.000	S207	15 Winter	2	+0%	100/15 Summer			
56.000	S208a	15 Winter	2	+0%				
55.001	S208	15 Winter	2	+0%	30/15 Summer			
55.002	S209	15 Winter	2	+0%				
55.003	S210	15 Winter	2	+0%				
57.000	S211	15 Summer	2	+0%				
55.004	S212	15 Winter	2	+0%				
58.000	S213	15 Summer	2	+0%				
55.005	S214	15 Winter	2	+0%				
59.000	S215	15 Summer	2	+0%				
55.006	S216	15 Winter	2	+0%				
60.000	S217	15 Winter	2	+0%				
55.007	S218	15 Winter	2	+0%				
55.008	S219	480 Winter	2	+0%	30/120 Winter			
55.009	S220	480 Winter	2	+0%	30/60 Winter			
55.010	S221	480 Winter	2	+0%	2/240 Winter			
48.016	S222	480 Winter	2	+0%	2/240 Winter			
61.000	S223	480 Winter	2	+0%	30/60 Summer			
61.001	S224	480 Winter	2	+0%	2/240 Winter			
48.017	S225	480 Winter	2	+0%	2/240 Winter			
62.000	S227	15 Winter	2	+0%	30/15 Summer			
62.001	S228	15 Summer	2	+0%	30/15 Summer			
62.002	S229	15 Winter	2	+0%	30/15 Summer			
48.018	S230	1440 Winter	2	+0%				
48.019	S231	1440 Winter	2	+0%				
48.020	S232	1440 Winter	2	+0%	30/960 Winter			
48.021	S233	1440 Winter	2	+0%	30/240 Winter			
63.000	S234	15 Winter	2	+0%				
63.001	S235	15 Winter	2	+0%				
64.000	S236	15 Summer	2	+0%				
63.002	S237	15 Winter	2	+0%				
65.000	S238	15 Winter	2	+0%				
65.001	S239	15 Winter	2	+0%				
63.003	S240	15 Winter	2	+0%				
63.004	S241	15 Winter	2	+0%				
66.000	S242	15 Winter	2	+0%				
63.005	S243	1440 Winter	2	+0%	2/960 Summer			

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
52.000	S195	5.421	-0.129	0.000	0.03		3	0.9	OK
53.000	S196	5.413	-0.137	0.000	0.02		4	0.6	OK
52.001	S197	5.056	-0.104	0.000	0.20			3.8	OK
52.002	S198	4.871	-0.099	0.000	0.26			4.9	OK
52.003	S199	4.735	-0.065	0.000	0.60			8.2	OK
52.004	S200	4.660	-0.080	0.000	0.44			8.2	OK
48.014	S201	4.602	-0.198	0.000	0.07		208	3.0	OK
54.000	S203	4.992	-0.108	0.000	0.12		3	2.0	OK
54.001	S204	4.833	-0.117	0.000	0.09			2.6	OK
54.002	S205	4.545	-0.105	0.000	0.19			2.5	OK
48.015	S206	4.483	-0.267	0.000	0.03		149	3.6	OK
55.000	S207	5.721	-0.079	0.000	0.45			6.6	OK
56.000	S208a	5.917	-0.108	0.000	0.15		5	2.9	OK
55.001	S208	5.640	-0.070	0.000	0.55			6.7	OK
55.002	S209	5.515	-0.145	0.000	0.27			8.1	OK
55.003	S210	5.483	-0.142	0.000	0.29			10.3	OK
57.000	S211	5.727	-0.128	0.000	0.03		3	1.2	OK
55.004	S212	5.374	-0.131	0.000	0.36			13.0	OK
58.000	S213	5.462	-0.288	0.000	0.01		2	0.9	OK
55.005	S214	5.156	-0.214	0.000	0.18			15.2	OK
59.000	S215	5.274	-0.106	0.000	0.13		3	2.8	OK
55.006	S216	5.031	-0.219	0.000	0.16			18.4	OK
60.000	S217	4.752	-0.098	0.000	0.21		5	2.6	OK
55.007	S218	4.595	-0.215	0.000	0.18		33	18.3	OK
55.008	S219	4.445	-0.115	0.000	0.08			5.0	OK
55.009	S220	4.444	-0.056	0.000	0.07		240	5.3	OK
55.010	S221	4.444	0.044	0.000	0.11			5.3	SURCHARGED
48.016	S222	4.443	0.063	0.000	0.28		384	5.7	SURCHARGED
61.000	S223	4.439	-0.001	0.000	0.00			0.3	OK
61.001	S224	4.439	0.039	0.000	0.00			0.2	SURCHARGED
48.017	S225	4.439	0.059	0.000	0.17		392	3.8	SURCHARGED
62.000	S227	4.621	-0.074	0.000	0.49		5	7.9	OK
62.001	S228	4.486	-0.059	0.000	0.63			7.9	OK
62.002	S229	4.442	-0.058	0.000	0.65			8.2	OK
48.018	S230	4.161	-0.199	0.000	0.08		560	3.7	OK
48.019	S231	4.161	-0.179	0.000	0.06			3.6	OK
48.020	S232	4.159	-0.091	0.000	0.06		1051	3.5	OK
48.021	S233	4.158	-0.042	0.000	0.04			3.5	OK
63.000	S234	4.915	-0.095	0.000	0.28			4.5	OK
63.001	S235	4.726	-0.094	0.000	0.29		32	4.6	OK
64.000	S236	5.097	-0.123	0.000	0.05		3	2.1	OK
63.002	S237	4.637	-0.093	0.000	0.31			6.0	OK
65.000	S238	5.331	-0.134	0.000	0.02		3	0.9	OK
65.001	S239	4.635	-0.115	0.000	0.12			3.2	OK
63.003	S240	4.243	-0.207	0.000	0.21			14.9	OK
63.004	S241	4.171	-0.199	0.000	0.24			18.3	OK
66.000	S242	4.269	-0.121	0.000	0.05		4	1.7	OK

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2 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
63.005	S243	4.157	0.037	0.000	0.03			1.7	SURCHARGED

PN	US/MH Name	Level Exceeded
52.000	S195	
53.000	S196	
52.001	S197	
52.002	S198	
52.003	S199	
52.004	S200	
48.014	S201	
54.000	S203	
54.001	S204	
54.002	S205	
48.015	S206	
55.000	S207	
56.000	S208a	
55.001	S208	
55.002	S209	
55.003	S210	
57.000	S211	
55.004	S212	
58.000	S213	
55.005	S214	
59.000	S215	
55.006	S216	
60.000	S217	
55.007	S218	
55.008	S219	
55.009	S220	
55.010	S221	
48.016	S222	
61.000	S223	
61.001	S224	
48.017	S225	
62.000	S227	
62.001	S228	
62.002	S229	
48.018	S230	
48.019	S231	
48.020	S232	
48.021	S233	
63.000	S234	
63.001	S235	
64.000	S236	

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

PN	US/MH Name	Level Exceeded
63.002	S237	
65.000	S238	
65.001	S239	
63.003	S240	
63.004	S241	
66.000	S242	
63.005	S243	

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2 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)
63.006	S244	1440 Winter	2	+0%	2/240 Winter				4.157
63.007	S245	1440 Winter	2	+0%	2/240 Winter				4.157
48.022	S246	1440 Winter	2	+0%	2/240 Winter				4.157
67.000	S247	15 Winter	2	+0%					4.382
67.001	S248	120 Summer	2	+0%					4.276
48.023	S249	1440 Winter	2	+0%	2/360 Summer				4.132
1.027	S250	1440 Winter	2	+0%	2/360 Summer				4.131
1.028	S251	1440 Winter	2	+0%	2/240 Winter				4.125

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
63.006	S244	0.087	0.000	0.04			1.9	SURCHARGED	
63.007	S245	0.107	0.000	0.04			1.9	SURCHARGED	
48.022	S246	0.107	0.000	0.18			4.7	SURCHARGED	
67.000	S247	-0.098	0.000	0.22		5	2.9	OK	
67.001	S248	-0.124	0.000	0.07		26	1.5	OK	
48.023	S249	0.082	0.000	0.06			3.8	SURCHARGED	
1.027	S250	0.131	0.000	0.15			9.3	SURCHARGED	
1.028	S251	0.175	0.000	0.15			9.3	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 117
Number of Online Controls 23 Number of Time/Area Diagrams 77
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH
FEH Rainfall Version 2013
Site Location GB 497500 102350 SU 97500 02350
Data Type Catchment
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) 2, 30, 100
Climate Change (%) 0, 0, 0

WARNING: Half Drain Time has not been calculated as the structure is too full.

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	30 Winter	30	+0%	2/15 Summer				6.388
1.001	S2	15 Winter	30	+0%					6.278
1.002	S3	15 Summer	30	+0%					6.219
1.003	S4	30 Winter	30	+0%					5.977
1.004	S5	240 Winter	30	+0%	2/120 Winter				5.912
2.000	S6	15 Winter	30	+0%	30/15 Summer				6.545
2.001	S7	15 Winter	30	+0%	30/15 Summer				6.133
2.002	S8	15 Winter	30	+0%	30/15 Summer				6.060
2.003	S9	15 Winter	30	+0%	30/15 Summer				6.042
2.004	S10	240 Winter	30	+0%	30/15 Summer				5.916
2.005	S11	240 Winter	30	+0%	30/15 Summer				5.913
1.005	S12	240 Winter	30	+0%	2/120 Winter				5.912
3.000	S13a	480 Winter	30	+0%	100/120 Winter				6.148

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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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	S1	0.638	0.000	1.18		11	6.3	SURCHARGED	
1.001	S2	-0.072	0.000	0.44			6.2	OK	
1.002	S3	-0.081	0.000	0.34			5.2	OK	
1.003	S4	-0.083	0.000	0.42			6.3	OK	
1.004	S5	0.362	0.000	0.10			2.5	SURCHARGED	
2.000	S6	0.070	0.000	1.04		3	15.8	SURCHARGED	
2.001	S7	0.028	0.000	1.20			15.2	SURCHARGED	
2.002	S8	0.005	0.000	1.07			15.2	SURCHARGED	
2.003	S9	0.062	0.000	1.00			15.4	SURCHARGED	
2.004	S10	0.206	0.000	0.51			6.4	SURCHARGED	
2.005	S11	0.243	0.000	0.58			6.2	SURCHARGED	
1.005	S12	0.362	0.000	0.09		156	4.3	SURCHARGED	
3.000	S13a	-0.007	0.000	0.01			0.1	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.
4.000	S13b	480 Winter	30	+0%	2/960 Summer			
3.001	S13	480 Winter	30	+0%	2/360 Winter			
3.002	S14	480 Winter	30	+0%	2/120 Winter			
3.003	S15	480 Winter	30	+0%	2/60 Summer			
3.004	S16	480 Winter	30	+0%	2/15 Winter			
3.005	S17	480 Winter	30	+0%				
3.006	S18	15 Winter	30	+0%				
5.000	S19	15 Winter	30	+0%				
3.007	S20	15 Winter	30	+0%	100/15 Summer			
3.008	S21	15 Winter	30	+0%	100/120 Winter			
6.000	S255	360 Winter	30	+0%	30/120 Winter			
6.001	S254	360 Winter	30	+0%	30/120 Winter			
6.002	S22	360 Winter	30	+0%	100/120 Winter			
7.000	S23	15 Winter	30	+0%	100/30 Summer			
3.009	S24	120 Winter	30	+0%	30/30 Summer			
3.010	S26	240 Winter	30	+0%	30/30 Summer			
3.011	S27	240 Winter	30	+0%	30/15 Winter			
3.012	S28	240 Winter	30	+0%	30/15 Summer			
8.000	S29	240 Winter	30	+0%	30/15 Summer			
3.013	S30	240 Winter	30	+0%	2/120 Summer			
3.014	S31	240 Winter	30	+0%	2/60 Winter			
1.006	S32	240 Winter	30	+0%	2/60 Summer			
9.000	S33	15 Winter	30	+0%	30/15 Summer			
10.000	S34	15 Winter	30	+0%	30/15 Summer			
9.001	S35	240 Winter	30	+0%	30/15 Summer			
1.007	S36	240 Winter	30	+0%	30/30 Summer			
1.008	S37	240 Winter	30	+0%	30/30 Summer			
1.009	S38	240 Winter	30	+0%	2/30 Summer			
1.010	S39	240 Winter	30	+0%	2/15 Summer			
11.000	S112	15 Winter	30	+0%				
11.001	S111	15 Winter	30	+0%	100/15 Summer			
11.002	S40	15 Winter	30	+0%	30/15 Summer			
11.003	S41	30 Winter	30	+0%	30/15 Summer			
11.004	S42	30 Winter	30	+0%	30/15 Summer			
12.000	S256	15 Winter	30	+0%	2/15 Winter			
11.005	S43	15 Winter	30	+0%	2/15 Summer			
11.006	S44	15 Winter	30	+0%	2/15 Summer			
11.007	S45	15 Winter	30	+0%	2/15 Summer			
11.008	S46	60 Winter	30	+0%	2/15 Summer			
11.009	S47	120 Winter	30	+0%	2/15 Summer			
1.011	S48	120 Winter	30	+0%	2/15 Summer			
1.012	S49	240 Winter	30	+0%	2/30 Summer			
1.013	S50	240 Winter	30	+0%	2/15 Summer			
13.000	S51	15 Winter	30	+0%				
13.001	S52	15 Summer	30	+0%				
1.014	S53	1440 Winter	30	+0%	100/480 Winter			
1.015	S54	1440 Winter	30	+0%	30/360 Winter			
1.016	S55	1440 Winter	30	+0%	2/120 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
4.000	S13b	6.148	0.073	0.000	0.03			0.4	SURCHARGED
3.001	S13	6.148	0.118	0.000	0.11			1.5	SURCHARGED
3.002	S14	6.145	0.175	0.000	0.08			1.4	SURCHARGED
3.003	S15	6.144	0.254	0.000	0.11			1.4	SURCHARGED
3.004	S16	6.142	0.292	0.000	0.30			1.3	SURCHARGED
3.005	S17	6.138	-0.127	0.000	0.06			0.8	OK
3.006	S18	6.112	-0.063	0.000	0.47			6.0	OK
5.000	S19	6.176	-0.074	0.000	0.50			7.5	OK
3.007	S20	6.095	-0.030	0.000	0.99		6	13.3	OK
3.008	S21	5.953	-0.077	0.000	0.48			13.4	OK
6.000	S255	5.831	0.061	0.000	0.08		249	0.8	SURCHARGED
6.001	S254	5.831	0.061	0.000	0.08			0.7	SURCHARGED
6.002	S22	5.831	-0.014	0.000	0.02			0.7	OK
7.000	S23	5.935	-0.069	0.000	0.57		5	16.6	OK
3.009	S24	5.919	0.186	0.000	0.16			7.3	SURCHARGED
3.010	S26	5.918	0.208	0.000	0.14			6.9	SURCHARGED
3.011	S27	5.917	0.235	0.000	0.14		247	7.8	SURCHARGED
3.012	S28	5.914	0.294	0.000	0.13			7.4	SURCHARGED
8.000	S29	5.914	0.307	0.000	0.12		167	1.6	SURCHARGED
3.013	S30	5.912	0.392	0.000	0.18			10.1	SURCHARGED
3.014	S31	5.910	0.430	0.000	0.17			10.0	SURCHARGED
1.006	S32	5.909	0.459	0.000	0.15			5.0	SURCHARGED
9.000	S33	5.723	0.113	0.000	0.85		3	12.2	SURCHARGED
10.000	S34	5.664	0.164	0.000	1.09		5	14.4	SURCHARGED
9.001	S35	5.631	0.191	0.000	0.49			5.3	SURCHARGED
1.007	S36	5.631	0.211	0.000	0.27			7.2	SURCHARGED
1.008	S37	5.677	0.257	0.000	0.12			6.4	SURCHARGED
1.009	S38	5.684	0.414	0.000	0.34			5.7	SURCHARGED
1.010	S39	5.450	0.340	0.000	0.39			5.7	SURCHARGED
11.000	S112	6.111	-0.089	0.000	0.34			5.0	OK
11.001	S111	6.049	-0.001	0.000	0.27			3.8	OK
11.002	S40	6.037	0.087	0.000	1.06			13.1	SURCHARGED
11.003	S41	6.002	0.172	0.000	0.62		11	9.9	SURCHARGED
11.004	S42	5.992	0.232	0.000	0.48			10.4	SURCHARGED
12.000	S256	6.056	0.546	0.000	0.56			7.7	SURCHARGED
11.005	S43	6.025	0.615	0.000	0.81			12.8	SURCHARGED
11.006	S44	6.019	0.719	0.000	0.99			14.1	SURCHARGED
11.007	S45	5.913	0.763	0.000	3.04			21.7	SURCHARGED
11.008	S46	5.508	0.408	0.000	1.69			20.2	SURCHARGED
11.009	S47	5.465	0.415	0.000	0.77		142	9.1	SURCHARGED
1.011	S48	5.442	0.442	0.000	0.65			8.9	SURCHARGED
1.012	S49	5.241	0.216	0.000	0.23			7.5	SURCHARGED
1.013	S50	5.288	0.349	0.000	0.24			7.3	SURCHARGED
13.000	S51	5.327	-0.073	0.000	0.52		5	7.6	OK
13.001	S52	5.167	-0.043	0.000	0.84			7.5	OK
1.014	S53	4.844	-0.049	0.000	0.22			6.6	OK
1.015	S54	4.830	0.063	0.000	0.16			6.6	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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.016	S55	4.819	0.242	0.000	0.16			6.5	SURCHARGED

PN	US/MH Name	Level Exceeded
4.000	S13b	
3.001	S13	
3.002	S14	
3.003	S15	
3.004	S16	
3.005	S17	
3.006	S18	
5.000	S19	
3.007	S20	
3.008	S21	
6.000	S255	
6.001	S254	
6.002	S22	
7.000	S23	
3.009	S24	
3.010	S26	
3.011	S27	
3.012	S28	
8.000	S29	
3.013	S30	
3.014	S31	
1.006	S32	
9.000	S33	
10.000	S34	
9.001	S35	
1.007	S36	
1.008	S37	
1.009	S38	
1.010	S39	
11.000	S112	
11.001	S111	
11.002	S40	
11.003	S41	
11.004	S42	
12.000	S256	
11.005	S43	
11.006	S44	
11.007	S45	
11.008	S46	
11.009	S47	
1.011	S48	

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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	Level Exceeded
1.012	S49	
1.013	S50	
13.000	S51	
13.001	S52	
1.014	S53	
1.015	S54	
1.016	S55	

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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.
14.000	S56a	15 Winter	30	+0%				
14.001	S56	15 Winter	30	+0%				
14.002	S57	1440 Winter	30	+0%	30/960 Winter			
14.003	S58	1440 Winter	30	+0%	30/240 Winter			
14.004	S59	1440 Winter	30	+0%	2/240 Winter			
1.017	S60	1440 Winter	30	+0%	2/60 Summer			
15.000	S61	15 Winter	30	+0%				
16.000	S62	15 Winter	30	+0%				
15.001	S63	15 Winter	30	+0%	100/15 Summer			
15.002	S64	30 Summer	30	+0%				
15.003	S65	30 Summer	30	+0%				
15.004	S66	30 Summer	30	+0%				
17.000	S67	15 Winter	30	+0%				
17.001	S68	15 Summer	30	+0%				
15.005	S69	1440 Winter	30	+0%	30/15 Winter			
15.006	S70	1440 Winter	30	+0%	2/240 Summer			
15.007	S71	1440 Winter	30	+0%	2/120 Summer			
18.000	S72	15 Winter	30	+0%				
19.000	S73	15 Summer	30	+0%				
18.001	S74	15 Winter	30	+0%	30/15 Summer			
18.002	S75	15 Winter	30	+0%	100/15 Summer			
1.018	S76	1440 Winter	30	+0%	2/60 Summer			
1.019	S77	1440 Winter	30	+0%	2/30 Winter			
1.020	S78	1440 Winter	30	+0%	2/360 Winter			
1.021	S79	1440 Winter	30	+0%	2/240 Summer			
20.000	S80	15 Winter	30	+0%				
20.001	S81	15 Winter	30	+0%	100/360 Winter			
21.000	S82	15 Summer	30	+0%	100/240 Winter			
20.002	S83	15 Winter	30	+0%	100/240 Winter			
20.003	S84	15 Winter	30	+0%	100/240 Winter			
20.004	S85	240 Winter	30	+0%	100/240 Winter			
20.005	S86	240 Winter	30	+0%	100/60 Winter			
20.006	S87	240 Winter	30	+0%	30/60 Winter			
20.007	S88	240 Winter	30	+0%	30/60 Summer			
20.008	S89	480 Winter	30	+0%	30/120 Winter			
22.000	S253	60 Winter	30	+0%				
22.001	S90	60 Winter	30	+0%				
22.002	S91	15 Winter	30	+0%	100/240 Winter			
22.003	S92	60 Winter	30	+0%	100/240 Winter			
22.004	S93	15 Winter	30	+0%	100/240 Winter			
22.005	S94	15 Winter	30	+0%	100/15 Summer			
22.006	S95	15 Winter	30	+0%	100/15 Summer			
23.000	S96	15 Winter	30	+0%				
23.001	S97	15 Summer	30	+0%	100/240 Winter			
24.000	S98	15 Winter	30	+0%				
22.007	S99	15 Winter	30	+0%	30/15 Summer			
22.008	S100	480 Winter	30	+0%	30/240 Winter			
22.009	S101	480 Winter	30	+0%	30/120 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
14.000	S56a	5.183	-0.082	0.000	0.41		4	7.0	OK
14.001	S56	4.857	-0.083	0.000	0.42			7.0	OK
14.002	S57	4.813	0.013	0.000	0.04			0.6	SURCHARGED
14.003	S58	4.813	0.103	0.000	0.06		488	0.8	SURCHARGED
14.004	S59	4.812	0.212	0.000	0.06			1.2	SURCHARGED
1.017	S60	4.812	0.262	0.000	0.20		564	6.8	SURCHARGED
15.000	S61	6.260	-0.060	0.000	0.61		4	9.4	OK
16.000	S62	6.056	-0.084	0.000	0.39		5	6.0	OK
15.001	S63	5.822	-0.038	0.000	0.90			14.0	OK
15.002	S64	5.596	-0.064	0.000	0.61		6	22.0	OK
15.003	S65	5.138	-0.192	0.000	0.27		9	24.8	OK
15.004	S66	4.842	-0.198	0.000	0.25		10	25.5	OK
17.000	S67	5.020	-0.090	0.000	0.34		6	5.4	OK
17.001	S68	4.847	-0.103	0.000	0.19			5.4	OK
15.005	S69	4.806	0.116	0.000	0.04			2.3	SURCHARGED
15.006	S70	4.806	0.216	0.000	0.05			2.7	SURCHARGED
15.007	S71	4.806	0.246	0.000	0.04			2.7	SURCHARGED
18.000	S72	5.142	-0.068	0.000	0.56		5	8.6	OK
19.000	S73	5.193	-0.087	0.000	0.37		4	8.9	OK
18.001	S74	5.029	0.029	0.000	1.19			17.0	SURCHARGED
18.002	S75	4.879	-0.041	0.000	0.85			16.5	OK
1.018	S76	4.806	0.306	0.000	0.08			4.8	SURCHARGED
1.019	S77	4.795	0.345	0.000	0.08			4.7	SURCHARGED
1.020	S78	4.631	0.231	0.000	0.11			4.6	SURCHARGED
1.021	S79	4.626	0.276	0.000	0.06		1172	4.7	SURCHARGED
20.000	S80	5.717	-0.168	0.000	0.13		5	4.2	OK
20.001	S81	5.678	-0.140	0.000	0.29		6	9.7	OK
21.000	S82	5.712	-0.061	0.000	0.64		5	8.6	OK
20.002	S83	5.529	-0.183	0.000	0.32			17.8	OK
20.003	S84	5.484	-0.173	0.000	0.30			17.1	OK
20.004	S85	5.449	-0.133	0.000	0.14		86	8.1	OK
20.005	S86	5.447	-0.036	0.000	0.14			8.3	OK
20.006	S87	5.444	0.069	0.000	0.13			7.5	SURCHARGED
20.007	S88	5.443	0.113	0.000	0.03			2.1	SURCHARGED
20.008	S89	5.353	0.110	0.000	0.03			1.8	SURCHARGED
22.000	S253	6.004	-0.046	0.000	0.83		27	7.8	OK
22.001	S90	5.970	-0.080	0.000	0.44			7.8	OK
22.002	S91	5.743	-0.147	0.000	0.26			8.8	OK
22.003	S92	5.630	-0.144	0.000	0.28		28	9.3	OK
22.004	S93	5.558	-0.117	0.000	0.35		39	10.6	OK
22.005	S94	5.548	-0.077	0.000	0.59			19.5	OK
22.006	S95	5.508	-0.012	0.000	0.83			27.3	OK
23.000	S96	5.958	-0.097	0.000	0.27		6	6.2	OK
23.001	S97	5.548	-0.102	0.000	0.21			6.2	OK
24.000	S98	5.982	-0.118	0.000	0.10		5	4.6	OK
22.007	S99	5.437	0.018	0.000	1.08			36.7	SURCHARGED
22.008	S100	5.354	0.067	0.000	0.16			9.8	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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
22.009	S101	5.353	0.118	0.000	0.22			10.7	SURCHARGED

PN	US/MH Name	Level Exceeded
14.000	S56a	
14.001	S56	
14.002	S57	
14.003	S58	
14.004	S59	
1.017	S60	
15.000	S61	
16.000	S62	
15.001	S63	
15.002	S64	
15.003	S65	
15.004	S66	
17.000	S67	
17.001	S68	
15.005	S69	
15.006	S70	
15.007	S71	
18.000	S72	
19.000	S73	
18.001	S74	
18.002	S75	
1.018	S76	
1.019	S77	
1.020	S78	
1.021	S79	
20.000	S80	
20.001	S81	
21.000	S82	
20.002	S83	
20.003	S84	
20.004	S85	
20.005	S86	
20.006	S87	
20.007	S88	
20.008	S89	
22.000	S253	
22.001	S90	
22.002	S91	
22.003	S92	
22.004	S93	
22.005	S94	

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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	Level Exceeded
22.006	S95	
23.000	S96	
23.001	S97	
24.000	S98	
22.007	S99	
22.008	S100	
22.009	S101	

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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.
22.010	S102	480 Winter	30	+0%	30/120 Summer			
20.009	S103	480 Winter	30	+0%	30/120 Summer			
20.010	S104	480 Winter	30	+0%	30/120 Summer			
20.011	S105	480 Winter	30	+0%	30/120 Summer			
25.000	S106	15 Winter	30	+0%				
25.001	S107	15 Winter	30	+0%				
25.002	S108	15 Winter	30	+0%				
25.003	S109	15 Winter	30	+0%	100/240 Winter			
20.012	S110	480 Winter	30	+0%	30/120 Summer			
26.000	S113	15 Winter	30	+0%	2/15 Summer	100/15 Winter		
26.001	S114	15 Winter	30	+0%	2/15 Summer	100/15 Winter		
27.000	S115a	15 Winter	30	+0%	2/15 Summer			
26.002	S115	15 Winter	30	+0%	2/15 Summer			
26.003	S116	30 Winter	30	+0%	2/15 Summer			
26.004	S117	60 Winter	30	+0%	2/15 Summer			
26.005	S118	60 Winter	30	+0%	2/15 Summer			
26.006	S119	60 Winter	30	+0%	2/15 Summer			
26.007	S120	60 Winter	30	+0%	30/15 Summer			
28.000	S121	30 Winter	30	+0%				
28.001	S122	30 Winter	30	+0%	100/30 Winter			
28.002	S123	15 Winter	30	+0%	30/15 Summer			
28.003	S124	15 Winter	30	+0%	30/15 Summer			
28.004	S125	60 Winter	30	+0%	30/15 Summer			
29.000	S126	60 Winter	30	+0%	100/30 Winter			
20.013	S127	60 Winter	30	+0%	2/30 Winter			
30.000	S128	15 Summer	30	+0%				
30.001	S129	15 Summer	30	+0%				
20.014	S130	120 Winter	30	+0%	30/30 Summer			
31.000	S131	15 Summer	30	+0%	100/120 Winter			
31.001	S132	15 Summer	30	+0%	100/120 Winter			
31.002	S133	15 Winter	30	+0%	100/120 Winter			
20.015	S134	360 Winter	30	+0%	30/60 Winter			
32.000	S135	15 Winter	30	+0%				
20.016	S136	360 Winter	30	+0%	30/60 Winter			
33.000	S137	15 Winter	30	+0%				
20.017	S138	480 Winter	30	+0%	30/240 Summer			
34.000	S139	30 Winter	30	+0%				
34.001	S140	30 Winter	30	+0%				
34.002	S141	30 Winter	30	+0%	100/240 Winter			
35.000	S142	15 Winter	30	+0%				
34.003	S143	15 Winter	30	+0%	100/240 Winter			
20.018	S144	480 Winter	30	+0%	30/240 Summer			
36.000	S145	15 Winter	30	+0%	30/15 Summer			
37.000	S146	15 Winter	30	+0%				
36.001	S147	15 Winter	30	+0%				
36.002	S148	1440 Winter	30	+0%	100/15 Winter			
38.000	S149a	15 Winter	30	+0%				
38.001	S149b	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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
22.010	S102	5.353	0.138	0.000	0.21			10.6	SURCHARGED
20.009	S103	5.352	0.137	0.000	0.14			5.2	SURCHARGED
20.010	S104	5.354	0.139	0.000	0.06			5.1	SURCHARGED
20.011	S105	5.295	0.245	0.000	0.19			5.0	SURCHARGED
25.000	S106	6.261	-0.104	0.000	0.20		5	3.0	OK
25.001	S107	6.143	-0.072	0.000	0.50		5	7.7	OK
25.002	S108	5.941	-0.084	0.000	0.38			11.3	OK
25.003	S109	5.568	-0.082	0.000	0.40		6	14.2	OK
20.012	S110	5.293	0.243	0.000	0.04			2.5	SURCHARGED
26.000	S113	6.890	0.690	0.000	1.24			10.7	FLOOD RISK
26.001	S114	6.800	0.650	0.000	2.41			10.6	FLOOD RISK
27.000	S115a	6.816	0.556	0.000	0.62			8.6	FLOOD RISK
26.002	S115	6.766	0.636	0.000	3.97			20.3	FLOOD RISK
26.003	S116	6.381	0.281	0.000	1.15		16	9.4	SURCHARGED
26.004	S117	6.359	0.259	0.000	2.24			9.4	SURCHARGED
26.005	S118	6.297	0.207	0.000	1.51			9.3	SURCHARGED
26.006	S119	6.265	0.175	0.000	2.67			11.4	SURCHARGED
26.007	S120	6.195	0.125	0.000	1.34			11.2	SURCHARGED
28.000	S121	6.303	-0.097	0.000	0.17		13	5.7	OK
28.001	S122	6.294	-0.056	0.000	0.32			6.4	OK
28.002	S123	6.310	0.110	0.000	1.38			12.3	SURCHARGED
28.003	S124	6.219	0.069	0.000	1.87			11.9	SURCHARGED
28.004	S125	6.194	0.044	0.000	0.90			12.2	SURCHARGED
29.000	S126	6.169	-0.006	0.000	0.25		10	3.4	OK
20.013	S127	6.167	1.227	0.000	0.25		32	10.7	SURCHARGED
30.000	S128	5.978	-0.052	0.000	0.74		5	12.1	OK
30.001	S129	5.878	-0.062	0.000	0.59			12.3	OK
20.014	S130	5.173	0.273	0.000	0.17			10.8	SURCHARGED
31.000	S131	5.346	-0.114	0.000	0.13		5	3.5	OK
31.001	S132	5.172	-0.098	0.000	0.23			3.5	OK
31.002	S133	5.075	-0.075	0.000	0.49		6	14.0	OK
20.015	S134	4.912	0.152	0.000	0.37			7.7	SURCHARGED
32.000	S135	5.583	-0.117	0.000	0.11			5.0	OK
20.016	S136	4.906	0.146	0.000	0.09			5.3	SURCHARGED
33.000	S137	5.138	-0.112	0.000	0.15		5	5.0	OK
20.017	S138	4.786	0.086	0.000	0.21			4.6	SURCHARGED
34.000	S139	5.332	-0.068	0.000	0.53		7	7.7	OK
34.001	S140	5.194	-0.056	0.000	0.69		7	9.4	OK
34.002	S141	5.062	-0.058	0.000	0.68			9.6	OK
35.000	S142	5.359	-0.079	0.000	0.44			10.0	OK
34.003	S143	4.973	-0.087	0.000	0.36			10.0	OK
20.018	S144	4.782	0.082	0.000	0.04			5.2	SURCHARGED
36.000	S145	5.883	0.463	0.000	1.40		3	23.6	SURCHARGED
37.000	S146	5.148	-0.102	0.000	0.23		5	7.7	OK
36.001	S147	4.756	-0.194	0.000	0.26			29.2	OK
36.002	S148	4.639	-0.091	0.000	0.04			2.1	OK
38.000	S149a	4.848	-0.068	0.000	0.57			8.2	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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
38.001	S149b	4.717	-0.080	0.000	0.44		5	9.3	OK

PN	US/MH Name	Level Exceeded
22.010	S102	
20.009	S103	
20.010	S104	
20.011	S105	
25.000	S106	
25.001	S107	
25.002	S108	
25.003	S109	
20.012	S110	
26.000	S113	1
26.001	S114	2
27.000	S115a	
26.002	S115	
26.003	S116	
26.004	S117	
26.005	S118	
26.006	S119	
26.007	S120	
28.000	S121	
28.001	S122	
28.002	S123	
28.003	S124	
28.004	S125	
29.000	S126	
20.013	S127	
30.000	S128	
30.001	S129	
20.014	S130	
31.000	S131	
31.001	S132	
31.002	S133	
20.015	S134	
32.000	S135	
20.016	S136	
33.000	S137	
20.017	S138	
34.000	S139	
34.001	S140	
34.002	S141	
35.000	S142	
34.003	S143	

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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	Level Exceeded
20.018	S144	
36.000	S145	
37.000	S146	
36.001	S147	
36.002	S148	
38.000	S149a	
38.001	S149b	

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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.
36.003	S149	1440 Winter	30	+0%	100/15 Summer			
36.004	S150	1440 Winter	30	+0%	30/15 Winter			
39.000	S151	15 Winter	30	+0%	100/360 Winter			
20.019	S152	1440 Winter	30	+0%	2/960 Winter			
40.000	S153	1440 Winter	30	+0%	100/480 Winter			
41.000	S154	1440 Winter	30	+0%	30/480 Winter			
20.020	S155	1440 Winter	30	+0%	2/360 Winter			
20.021	S156	1440 Winter	30	+0%	2/360 Winter			
20.022	S157	1440 Winter	30	+0%	2/120 Summer			
42.000	S159a	1440 Winter	30	+0%	100/960 Winter			
42.001	S159b	1440 Winter	30	+0%	30/960 Winter			
43.000	S158	1440 Winter	30	+0%	100/960 Winter			
42.002	S159	1440 Winter	30	+0%	2/360 Winter			
42.003	S160	1440 Winter	30	+0%	2/120 Summer			
20.023	S162	1440 Winter	30	+0%	2/60 Winter			
20.024	S163	1440 Winter	30	+0%	2/60 Summer			
1.022	S164	1440 Winter	30	+0%	2/60 Summer			
1.023	S165	1440 Winter	30	+0%	2/240 Summer			
1.024	S166	1440 Winter	30	+0%	2/240 Summer			
44.000	S167	15 Summer	30	+0%				
45.000	S168	15 Winter	30	+0%				
44.001	S169	1440 Winter	30	+0%				
46.000	S170	15 Winter	30	+0%				
46.001	S171	1440 Winter	30	+0%	2/1440 Winter			
44.002	S172	1440 Winter	30	+0%	2/480 Winter			
44.003	S173	1440 Winter	30	+0%	2/360 Summer			
47.000	S174	1440 Winter	30	+0%	2/240 Summer			
44.004	S175	1440 Winter	30	+0%	2/240 Summer			
1.025	S176	1440 Winter	30	+0%	2/240 Summer			
1.026	S177	1440 Winter	30	+0%	2/360 Summer			
48.000	S178	15 Winter	30	+0%				
48.001	S179	60 Winter	30	+0%				
48.002	S180	15 Winter	30	+0%	30/15 Summer			
48.003	S181	30 Summer	30	+0%				
48.004	S182	30 Summer	30	+0%				
49.000	S184a	15 Winter	30	+0%				
50.000	S183	15 Summer	30	+0%				
48.005	S184	15 Winter	30	+0%				
48.006	S185	15 Winter	30	+0%				
48.007	S186	240 Winter	30	+0%				
48.008	S187	240 Winter	30	+0%	100/120 Winter			
48.009	S188	240 Winter	30	+0%				
48.010	S189	240 Winter	30	+0%				
48.011	S190	240 Winter	30	+0%				
51.000	S191	15 Summer	30	+0%				
51.001	S192	15 Summer	30	+0%				
48.012	S193	240 Winter	30	+0%				
48.013	S194	240 Winter	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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
36.003	S149	4.639	-0.021	0.000	0.05			3.2	OK
36.004	S150	4.638	0.068	0.000	0.05			3.5	SURCHARGED
39.000	S151	4.656	-0.064	0.000	0.61		6	11.7	OK
20.019	S152	4.637	0.187	0.000	0.13			7.7	SURCHARGED
40.000	S153	4.636	-0.089	0.000	0.01		210	0.3	OK
41.000	S154	4.636	0.036	0.000	0.01		460	0.2	SURCHARGED
20.020	S155	4.636	0.216	0.000	0.31			8.1	SURCHARGED
20.021	S156	4.632	0.212	0.000	0.10		1072	7.2	SURCHARGED
20.022	S157	4.627	0.362	0.000	0.11		1444	7.7	SURCHARGED
42.000	S159a	4.625	-0.091	0.000	0.01			0.1	OK
42.001	S159b	4.625	0.007	0.000	0.02			0.3	SURCHARGED
43.000	S158	4.625	-0.095	0.000	0.01		206	0.3	OK
42.002	S159	4.625	0.205	0.000	0.05			0.8	SURCHARGED
42.003	S160	4.625	0.355	0.000	0.05			0.9	SURCHARGED
20.023	S162	4.624	0.439	0.000	0.18			8.4	SURCHARGED
20.024	S163	4.623	0.454	0.000	0.16			8.4	SURCHARGED
1.022	S164	4.620	0.485	0.000	0.52			10.6	SURCHARGED
1.023	S165	4.396	0.261	0.000	0.33			10.5	SURCHARGED
1.024	S166	4.383	0.248	0.000	0.17			9.4	SURCHARGED
44.000	S167	4.322	-0.108	0.000	0.17		5	2.7	OK
45.000	S168	4.750	-0.120	0.000	0.09		5	3.9	OK
44.001	S169	4.263	-0.047	0.000	0.04			0.7	OK
46.000	S170	4.363	-0.087	0.000	0.37		5	11.2	OK
46.001	S171	4.263	0.073	0.000	0.05			0.6	SURCHARGED
44.002	S172	4.262	0.124	0.000	0.04			1.2	SURCHARGED
44.003	S173	4.262	0.182	0.000	0.05			1.6	SURCHARGED
47.000	S174	4.262	0.267	0.000	0.03			0.4	SURCHARGED
44.004	S175	4.261	0.316	0.000	0.09			2.0	SURCHARGED
1.025	S176	4.261	0.241	0.000	0.53			10.2	SURCHARGED
1.026	S177	4.192	0.192	0.000	0.51			9.9	FLOOD RISK
48.000	S178	6.092	-0.068	0.000	0.58		5	8.1	OK
48.001	S179	5.959	-0.091	0.000	0.13		25	1.8	OK
48.002	S180	5.956	0.042	0.000	0.17		14	2.4	SURCHARGED
48.003	S181	5.709	-0.100	0.000	0.24			3.6	OK
48.004	S182	5.552	-0.108	0.000	0.17			3.6	OK
49.000	S184a	5.849	-0.101	0.000	0.23			6.8	OK
50.000	S183	5.515	-0.088	0.000	0.36		5	5.0	OK
48.005	S184	5.359	-0.146	0.000	0.27			11.0	OK
48.006	S185	5.257	-0.128	0.000	0.37		7	15.9	OK
48.007	S186	5.063	-0.122	0.000	0.16			6.3	OK
48.008	S187	5.059	-0.046	0.000	0.25			6.6	OK
48.009	S188	5.056	-0.094	0.000	0.07		136	3.4	OK
48.010	S189	5.054	-0.066	0.000	0.06			3.4	OK
48.011	S190	4.903	-0.177	0.000	0.08		87	3.4	OK
51.000	S191	5.563	-0.077	0.000	0.46		5	6.6	OK
51.001	S192	5.444	-0.106	0.000	0.17			6.7	OK
48.012	S193	4.901	-0.149	0.000	0.05		107	3.8	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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
48.013	S194	4.781	-0.149	0.000	0.04		117	3.3	OK

PN	US/MH Name	Level Exceeded
36.003	S149	
36.004	S150	
39.000	S151	
20.019	S152	
40.000	S153	
41.000	S154	
20.020	S155	
20.021	S156	
20.022	S157	
42.000	S159a	
42.001	S159b	
43.000	S158	
42.002	S159	
42.003	S160	
20.023	S162	
20.024	S163	
1.022	S164	
1.023	S165	
1.024	S166	
44.000	S167	
45.000	S168	
44.001	S169	
46.000	S170	
46.001	S171	
44.002	S172	
44.003	S173	
47.000	S174	
44.004	S175	
1.025	S176	
1.026	S177	
48.000	S178	
48.001	S179	
48.002	S180	
48.003	S181	
48.004	S182	
49.000	S184a	
50.000	S183	
48.005	S184	
48.006	S185	
48.007	S186	
48.008	S187	

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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	Level Exceeded
48.009	S188	
48.010	S189	
48.011	S190	
51.000	S191	
51.001	S192	
48.012	S193	
48.013	S194	

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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.
52.000	S195	15 Summer	30	+0%				
53.000	S196	15 Winter	30	+0%				
52.001	S197	15 Summer	30	+0%				
52.002	S198	15 Winter	30	+0%	100/15 Summer			
52.003	S199	15 Winter	30	+0%	30/15 Summer			
52.004	S200	240 Winter	30	+0%	30/15 Summer			
48.014	S201	240 Winter	30	+0%	100/120 Winter			
54.000	S203	15 Summer	30	+0%				
54.001	S204	15 Summer	30	+0%				
54.002	S205	360 Winter	30	+0%	100/120 Winter			
48.015	S206	360 Winter	30	+0%				
55.000	S207	15 Winter	30	+0%	100/15 Summer			
56.000	S208a	15 Winter	30	+0%				
55.001	S208	15 Winter	30	+0%	30/15 Summer			
55.002	S209	15 Winter	30	+0%				
55.003	S210	15 Winter	30	+0%				
57.000	S211	15 Winter	30	+0%				
55.004	S212	15 Winter	30	+0%				
58.000	S213	15 Summer	30	+0%				
55.005	S214	15 Winter	30	+0%				
59.000	S215	15 Summer	30	+0%				
55.006	S216	15 Winter	30	+0%				
60.000	S217	15 Summer	30	+0%				
55.007	S218	15 Winter	30	+0%				
55.008	S219	360 Winter	30	+0%	30/120 Winter			
55.009	S220	360 Winter	30	+0%	30/60 Winter			
55.010	S221	360 Winter	30	+0%	2/240 Winter			
48.016	S222	360 Winter	30	+0%	2/240 Winter			
61.000	S223	360 Winter	30	+0%	30/60 Summer			
61.001	S224	360 Winter	30	+0%	2/240 Winter			
48.017	S225	360 Winter	30	+0%	2/240 Winter			
62.000	S227	15 Winter	30	+0%	30/15 Summer			
62.001	S228	15 Winter	30	+0%	30/15 Summer			
62.002	S229	15 Winter	30	+0%	30/15 Summer			
48.018	S230	1440 Winter	30	+0%				
48.019	S231	1440 Winter	30	+0%				
48.020	S232	1440 Winter	30	+0%	30/960 Winter			
48.021	S233	1440 Winter	30	+0%	30/240 Winter			
63.000	S234	15 Winter	30	+0%				
63.001	S235	15 Winter	30	+0%				
64.000	S236	15 Winter	30	+0%				
63.002	S237	15 Winter	30	+0%				
65.000	S238	15 Winter	30	+0%				
65.001	S239	15 Winter	30	+0%				
63.003	S240	15 Winter	30	+0%				
63.004	S241	1440 Winter	30	+0%				
66.000	S242	15 Summer	30	+0%				
63.005	S243	1440 Winter	30	+0%	2/960 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
52.000	S195	5.434	-0.116	0.000	0.12		4	3.1	OK
53.000	S196	5.420	-0.130	0.000	0.04		5	1.5	OK
52.001	S197	5.089	-0.071	0.000	0.54			10.1	OK
52.002	S198	4.934	-0.036	0.000	0.61			11.4	OK
52.003	S199	4.874	0.074	0.000	1.46			19.8	SURCHARGED
52.004	S200	4.779	0.039	0.000	0.26			4.9	SURCHARGED
48.014	S201	4.778	-0.022	0.000	0.10		178	4.6	OK
54.000	S203	5.017	-0.083	0.000	0.41		5	7.0	OK
54.001	S204	4.852	-0.098	0.000	0.24			7.1	OK
54.002	S205	4.604	-0.046	0.000	0.07			0.9	OK
48.015	S206	4.603	-0.147	0.000	0.04		165	4.7	OK
55.000	S207	5.790	-0.010	0.000	0.91			13.4	OK
56.000	S208a	5.944	-0.081	0.000	0.44		5	8.5	OK
55.001	S208	5.715	0.005	0.000	1.09			13.2	SURCHARGED
55.002	S209	5.556	-0.104	0.000	0.54			16.3	OK
55.003	S210	5.530	-0.095	0.000	0.62			21.7	OK
57.000	S211	5.740	-0.115	0.000	0.12		5	4.2	OK
55.004	S212	5.434	-0.071	0.000	0.80			28.7	OK
58.000	S213	5.479	-0.271	0.000	0.02		4	3.1	OK
55.005	S214	5.203	-0.167	0.000	0.40			34.0	OK
59.000	S215	5.299	-0.081	0.000	0.44		4	9.7	OK
55.006	S216	5.076	-0.174	0.000	0.37			41.8	OK
60.000	S217	4.787	-0.063	0.000	0.62		5	7.8	OK
55.007	S218	4.644	-0.166	0.000	0.41		32	41.2	OK
55.008	S219	4.604	0.044	0.000	0.17			10.7	SURCHARGED
55.009	S220	4.602	0.102	0.000	0.15		355	11.5	SURCHARGED
55.010	S221	4.601	0.201	0.000	0.24			11.5	SURCHARGED
48.016	S222	4.600	0.220	0.000	0.53			10.7	SURCHARGED
61.000	S223	4.593	0.153	0.000	0.01			0.6	SURCHARGED
61.001	S224	4.593	0.193	0.000	0.01			0.5	SURCHARGED
48.017	S225	4.593	0.213	0.000	0.29			6.3	SURCHARGED
62.000	S227	4.742	0.047	0.000	0.99		4	16.0	SURCHARGED
62.001	S228	4.589	0.044	0.000	1.27			15.9	SURCHARGED
62.002	S229	4.518	0.018	0.000	1.26			15.8	SURCHARGED
48.018	S230	4.276	-0.084	0.000	0.12		539	5.5	OK
48.019	S231	4.274	-0.066	0.000	0.09			5.5	OK
48.020	S232	4.268	0.018	0.000	0.09		1442	5.5	SURCHARGED
48.021	S233	4.265	0.065	0.000	0.06			5.4	SURCHARGED
63.000	S234	4.945	-0.065	0.000	0.59			9.5	OK
63.001	S235	4.756	-0.064	0.000	0.62		32	9.7	OK
64.000	S236	5.111	-0.109	0.000	0.17		5	7.3	OK
63.002	S237	4.672	-0.058	0.000	0.68			13.2	OK
65.000	S238	5.338	-0.127	0.000	0.06		7	2.7	OK
65.001	S239	4.658	-0.092	0.000	0.32			8.5	OK
63.003	S240	4.304	-0.146	0.000	0.51			36.4	OK
63.004	S241	4.263	-0.107	0.000	0.04			2.8	OK
66.000	S242	4.278	-0.112	0.000	0.13		6	4.2	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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
63.005	S243	4.262	0.142	0.000	0.05			2.9	SURCHARGED

PN	US/MH Name	Level Exceeded
52.000	S195	
53.000	S196	
52.001	S197	
52.002	S198	
52.003	S199	
52.004	S200	
48.014	S201	
54.000	S203	
54.001	S204	
54.002	S205	
48.015	S206	
55.000	S207	
56.000	S208a	
55.001	S208	
55.002	S209	
55.003	S210	
57.000	S211	
55.004	S212	
58.000	S213	
55.005	S214	
59.000	S215	
55.006	S216	
60.000	S217	
55.007	S218	
55.008	S219	
55.009	S220	
55.010	S221	
48.016	S222	
61.000	S223	
61.001	S224	
48.017	S225	
62.000	S227	
62.001	S228	
62.002	S229	
48.018	S230	
48.019	S231	
48.020	S232	
48.021	S233	
63.000	S234	
63.001	S235	
64.000	S236	

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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	Level Exceeded
63.002	S237	
65.000	S238	
65.001	S239	
63.003	S240	
63.004	S241	
66.000	S242	
63.005	S243	

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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)
63.006	S244	1440 Winter	30	+0%	2/240 Winter				4.262
63.007	S245	1440 Winter	30	+0%	2/240 Winter				4.262
48.022	S246	1440 Winter	30	+0%	2/240 Winter				4.261
67.000	S247	15 Summer	30	+0%					4.418
67.001	S248	30 Summer	30	+0%					4.303
48.023	S249	1440 Winter	30	+0%	2/360 Summer				4.185
1.027	S250	1440 Winter	30	+0%	2/360 Summer				4.182
1.028	S251	1440 Winter	30	+0%	2/240 Winter				4.173

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
63.006	S244	0.192	0.000	0.07			3.3	SURCHARGED	
63.007	S245	0.212	0.000	0.07			3.3	SURCHARGED	
48.022	S246	0.211	0.000	0.30			7.6	SURCHARGED	
67.000	S247	-0.062	0.000	0.63		5	8.6	OK	
67.001	S248	-0.097	0.000	0.27		10	5.6	OK	
48.023	S249	0.135	0.000	0.12			7.1	SURCHARGED	
1.027	S250	0.182	0.000	0.24			14.6	FLOOD RISK	
1.028	S251	0.223	0.000	0.24			14.6	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 117
Number of Online Controls 23 Number of Time/Area Diagrams 77
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH
FEH Rainfall Version 2013
Site Location GB 497500 102350 SU 97500 02350
Data Type Catchment
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) 2, 30, 100
Climate Change (%) 0, 0, 0

WARNING: Half Drain Time has not been calculated as the structure is too full.

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	30 Winter	100	+0%	2/15 Summer				6.450
1.001	S2	15 Summer	100	+0%					6.293
1.002	S3	15 Winter	100	+0%					6.230
1.003	S4	240 Winter	100	+0%					6.059
1.004	S5	240 Winter	100	+0%	2/120 Winter				6.058
2.000	S6	15 Winter	100	+0%	30/15 Summer				6.715
2.001	S7	15 Winter	100	+0%	30/15 Summer				6.199
2.002	S8	15 Winter	100	+0%	30/15 Summer				6.152
2.003	S9	15 Winter	100	+0%	30/15 Summer				6.144
2.004	S10	240 Winter	100	+0%	30/15 Summer				6.060
2.005	S11	240 Winter	100	+0%	30/15 Summer				6.058
1.005	S12	240 Winter	100	+0%	2/120 Winter				6.057
3.000	S13a	240 Winter	100	+0%	100/120 Winter				6.172

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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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
1.000	S1	0.700	0.000	1.43		10	7.7	SURCHARGED	
1.001	S2	-0.057	0.000	0.55			7.7	OK	
1.002	S3	-0.070	0.000	0.47			7.0	OK	
1.003	S4	-0.001	0.000	0.22			3.3	OK	
1.004	S5	0.508	0.000	0.12			3.2	SURCHARGED	
2.000	S6	0.240	0.000	1.20		3	18.2	SURCHARGED	
2.001	S7	0.094	0.000	1.37			17.3	SURCHARGED	
2.002	S8	0.097	0.000	1.18			16.7	SURCHARGED	
2.003	S9	0.164	0.000	1.12			17.3	SURCHARGED	
2.004	S10	0.350	0.000	0.61			7.6	SURCHARGED	
2.005	S11	0.388	0.000	0.69			7.5	SURCHARGED	
1.005	S12	0.507	0.000	0.09		191	4.3	SURCHARGED	
3.000	S13a	0.017	0.000	0.02			0.3	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.
4.000	S13b	240 Winter	100	+0%	2/960 Summer			
3.001	S13	240 Winter	100	+0%	2/360 Winter			
3.002	S14	240 Winter	100	+0%	2/120 Winter			
3.003	S15	240 Winter	100	+0%	2/60 Summer			
3.004	S16	240 Winter	100	+0%	2/15 Winter			
3.005	S17	240 Winter	100	+0%				
3.006	S18	15 Winter	100	+0%				
5.000	S19	15 Winter	100	+0%				
3.007	S20	15 Winter	100	+0%	100/15 Summer			
3.008	S21	240 Winter	100	+0%	100/120 Winter			
6.000	S255	480 Winter	100	+0%	30/120 Winter			
6.001	S254	480 Winter	100	+0%	30/120 Winter			
6.002	S22	480 Winter	100	+0%	100/120 Winter			
7.000	S23	240 Winter	100	+0%	100/30 Summer			
3.009	S24	240 Winter	100	+0%	30/30 Summer			
3.010	S26	240 Winter	100	+0%	30/30 Summer			
3.011	S27	240 Winter	100	+0%	30/15 Winter			
3.012	S28	240 Winter	100	+0%	30/15 Summer			
8.000	S29	240 Winter	100	+0%	30/15 Summer			
3.013	S30	240 Winter	100	+0%	2/120 Summer			
3.014	S31	240 Winter	100	+0%	2/60 Winter			
1.006	S32	240 Winter	100	+0%	2/60 Summer			
9.000	S33	15 Winter	100	+0%	30/15 Summer			
10.000	S34	15 Winter	100	+0%	30/15 Summer			
9.001	S35	240 Winter	100	+0%	30/15 Summer			
1.007	S36	240 Winter	100	+0%	30/30 Summer			
1.008	S37	240 Winter	100	+0%	30/30 Summer			
1.009	S38	240 Winter	100	+0%	2/30 Summer			
1.010	S39	120 Winter	100	+0%	2/15 Summer			
11.000	S112	15 Winter	100	+0%				
11.001	S111	15 Winter	100	+0%	100/15 Summer			
11.002	S40	15 Winter	100	+0%	30/15 Summer			
11.003	S41	30 Winter	100	+0%	30/15 Summer			
11.004	S42	30 Winter	100	+0%	30/15 Summer			
12.000	S256	15 Winter	100	+0%	2/15 Winter			
11.005	S43	15 Winter	100	+0%	2/15 Summer			
11.006	S44	15 Winter	100	+0%	2/15 Summer			
11.007	S45	15 Winter	100	+0%	2/15 Summer			
11.008	S46	120 Winter	100	+0%	2/15 Summer			
11.009	S47	120 Winter	100	+0%	2/15 Summer			
1.011	S48	120 Winter	100	+0%	2/15 Summer			
1.012	S49	360 Winter	100	+0%	2/30 Summer			
1.013	S50	360 Winter	100	+0%	2/15 Summer			
13.000	S51	15 Winter	100	+0%				
13.001	S52	15 Winter	100	+0%				
1.014	S53	1440 Winter	100	+0%	100/480 Winter			
1.015	S54	1440 Winter	100	+0%	30/360 Winter			
1.016	S55	1440 Winter	100	+0%	2/120 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
4.000	S13b	6.172	0.097	0.000	0.07			0.9	SURCHARGED
3.001	S13	6.171	0.141	0.000	0.21			2.9	SURCHARGED
3.002	S14	6.166	0.196	0.000	0.15			2.7	SURCHARGED
3.003	S15	6.162	0.272	0.000	0.21			2.6	SURCHARGED
3.004	S16	6.159	0.309	0.000	0.58			2.6	SURCHARGED
3.005	S17	6.150	-0.115	0.000	0.12			1.7	OK
3.006	S18	6.164	-0.011	0.000	0.53			6.7	OK
5.000	S19	6.192	-0.058	0.000	0.62			9.3	OK
3.007	S20	6.146	0.021	0.000	1.13		4	15.3	SURCHARGED
3.008	S21	6.070	0.040	0.000	0.13			3.6	SURCHARGED
6.000	S255	5.928	0.158	0.000	0.08		342	0.8	SURCHARGED
6.001	S254	5.928	0.158	0.000	0.08			0.8	SURCHARGED
6.002	S22	5.928	0.083	0.000	0.02			0.7	SURCHARGED
7.000	S23	6.066	0.062	0.000	0.12		102	3.6	SURCHARGED
3.009	S24	6.064	0.331	0.000	0.15			7.0	SURCHARGED
3.010	S26	6.063	0.353	0.000	0.17			8.1	SURCHARGED
3.011	S27	6.062	0.380	0.000	0.17			9.7	SURCHARGED
3.012	S28	6.060	0.440	0.000	0.16			9.5	SURCHARGED
8.000	S29	6.058	0.451	0.000	0.13		63	1.8	SURCHARGED
3.013	S30	6.057	0.537	0.000	0.22			12.9	SURCHARGED
3.014	S31	6.055	0.575	0.000	0.22			12.7	SURCHARGED
1.006	S32	6.054	0.604	0.000	0.15			5.0	SURCHARGED
9.000	S33	5.801	0.191	0.000	0.95		3	13.5	SURCHARGED
10.000	S34	5.743	0.243	0.000	1.27		3	16.8	SURCHARGED
9.001	S35	5.720	0.280	0.000	0.61			6.6	SURCHARGED
1.007	S36	5.719	0.299	0.000	0.28			7.6	SURCHARGED
1.008	S37	5.770	0.350	0.000	0.13			6.8	SURCHARGED
1.009	S38	5.777	0.507	0.000	0.36			6.0	SURCHARGED
1.010	S39	5.554	0.444	0.000	0.41			5.9	SURCHARGED
11.000	S112	6.185	-0.015	0.000	0.42			6.2	OK
11.001	S111	6.165	0.115	0.000	0.33			4.7	SURCHARGED
11.002	S40	6.149	0.199	0.000	1.17			14.5	SURCHARGED
11.003	S41	6.100	0.270	0.000	0.72		14	11.4	SURCHARGED
11.004	S42	6.101	0.341	0.000	0.54			11.8	SURCHARGED
12.000	S256	6.242	0.732	0.000	0.71			9.9	SURCHARGED
11.005	S43	6.192	0.782	0.000	0.85			13.4	SURCHARGED
11.006	S44	6.206	0.906	0.000	1.02			14.5	FLOOD RISK
11.007	S45	6.116	0.966	0.000	3.33			23.8	FLOOD RISK
11.008	S46	5.590	0.490	0.000	1.52			18.1	SURCHARGED
11.009	S47	5.563	0.513	0.000	0.80		120	9.4	SURCHARGED
1.011	S48	5.543	0.543	0.000	0.66			8.9	SURCHARGED
1.012	S49	5.292	0.267	0.000	0.24			7.9	SURCHARGED
1.013	S50	5.339	0.400	0.000	0.26			7.8	SURCHARGED
13.000	S51	5.339	-0.061	0.000	0.65		5	9.6	OK
13.001	S52	5.196	-0.014	0.000	1.00			8.9	OK
1.014	S53	4.936	0.043	0.000	0.24			7.2	SURCHARGED
1.015	S54	4.921	0.154	0.000	0.18			7.2	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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.016	S55	4.909	0.332	0.000	0.18			7.2	SURCHARGED

PN	US/MH Name	Level Exceeded
4.000	S13b	
3.001	S13	
3.002	S14	
3.003	S15	
3.004	S16	
3.005	S17	
3.006	S18	
5.000	S19	
3.007	S20	
3.008	S21	
6.000	S255	
6.001	S254	
6.002	S22	
7.000	S23	
3.009	S24	
3.010	S26	
3.011	S27	
3.012	S28	
8.000	S29	
3.013	S30	
3.014	S31	
1.006	S32	
9.000	S33	
10.000	S34	
9.001	S35	
1.007	S36	
1.008	S37	
1.009	S38	
1.010	S39	
11.000	S112	
11.001	S111	
11.002	S40	
11.003	S41	
11.004	S42	
12.000	S256	
11.005	S43	
11.006	S44	
11.007	S45	
11.008	S46	
11.009	S47	
1.011	S48	

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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	Level Exceeded
1.012	S49	
1.013	S50	
13.000	S51	
13.001	S52	
1.014	S53	
1.015	S54	
1.016	S55	

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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.
14.000	S56a	15 Winter	100	+0%				
14.001	S56	1440 Winter	100	+0%				
14.002	S57	1440 Winter	100	+0%	30/960 Winter			
14.003	S58	1440 Winter	100	+0%	30/240 Winter			
14.004	S59	1440 Winter	100	+0%	2/240 Winter			
1.017	S60	1440 Winter	100	+0%	2/60 Summer			
15.000	S61	15 Winter	100	+0%				
16.000	S62	15 Winter	100	+0%				
15.001	S63	15 Winter	100	+0%	100/15 Summer			
15.002	S64	15 Winter	100	+0%				
15.003	S65	15 Winter	100	+0%				
15.004	S66	1440 Winter	100	+0%				
17.000	S67	15 Winter	100	+0%				
17.001	S68	1440 Winter	100	+0%				
15.005	S69	1440 Winter	100	+0%	30/15 Winter			
15.006	S70	1440 Winter	100	+0%	2/240 Summer			
15.007	S71	1440 Winter	100	+0%	2/120 Summer			
18.000	S72	15 Winter	100	+0%				
19.000	S73	15 Winter	100	+0%				
18.001	S74	15 Winter	100	+0%	30/15 Summer			
18.002	S75	15 Winter	100	+0%	100/15 Summer			
1.018	S76	1440 Winter	100	+0%	2/60 Summer			
1.019	S77	1440 Winter	100	+0%	2/30 Winter			
1.020	S78	960 Winter	100	+0%	2/360 Winter			
1.021	S79	960 Winter	100	+0%	2/240 Summer			
20.000	S80	480 Winter	100	+0%				
20.001	S81	480 Winter	100	+0%	100/360 Winter			
21.000	S82	480 Winter	100	+0%	100/240 Winter			
20.002	S83	480 Winter	100	+0%	100/240 Winter			
20.003	S84	480 Winter	100	+0%	100/240 Winter			
20.004	S85	480 Winter	100	+0%	100/240 Winter			
20.005	S86	480 Winter	100	+0%	100/60 Winter			
20.006	S87	480 Winter	100	+0%	30/60 Winter			
20.007	S88	480 Winter	100	+0%	30/60 Summer			
20.008	S89	240 Winter	100	+0%	30/120 Winter			
22.000	S253	60 Winter	100	+0%				
22.001	S90	30 Winter	100	+0%				
22.002	S91	240 Winter	100	+0%	100/240 Winter			
22.003	S92	240 Winter	100	+0%	100/240 Winter			
22.004	S93	240 Winter	100	+0%	100/240 Winter			
22.005	S94	240 Winter	100	+0%	100/15 Summer			
22.006	S95	240 Winter	100	+0%	100/15 Summer			
23.000	S96	15 Winter	100	+0%				
23.001	S97	240 Winter	100	+0%	100/240 Winter			
24.000	S98	15 Winter	100	+0%				
22.007	S99	240 Winter	100	+0%	30/15 Summer			
22.008	S100	240 Winter	100	+0%	30/240 Winter			
22.009	S101	240 Winter	100	+0%	30/120 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
14.000	S56a	5.193	-0.072	0.000	0.52		4	8.8	OK
14.001	S56	4.901	-0.039	0.000	0.04			0.7	OK
14.002	S57	4.901	0.101	0.000	0.05			0.7	SURCHARGED
14.003	S58	4.901	0.191	0.000	0.07		750	1.0	SURCHARGED
14.004	S59	4.901	0.301	0.000	0.08			1.5	SURCHARGED
1.017	S60	4.901	0.351	0.000	0.21		701	7.2	SURCHARGED
15.000	S61	6.276	-0.044	0.000	0.78		5	12.0	OK
16.000	S62	6.066	-0.074	0.000	0.49		5	7.6	OK
15.001	S63	5.883	0.023	0.000	1.07			16.6	SURCHARGED
15.002	S64	5.610	-0.050	0.000	0.77		7	27.6	OK
15.003	S65	5.153	-0.177	0.000	0.34		8	31.3	OK
15.004	S66	4.894	-0.146	0.000	0.02		283	2.2	OK
17.000	S67	5.029	-0.081	0.000	0.43		6	6.8	OK
17.001	S68	4.894	-0.056	0.000	0.01			0.3	OK
15.005	S69	4.894	0.204	0.000	0.05			2.9	SURCHARGED
15.006	S70	4.894	0.304	0.000	0.06			3.4	SURCHARGED
15.007	S71	4.894	0.334	0.000	0.05			3.3	SURCHARGED
18.000	S72	5.190	-0.020	0.000	0.67		4	10.4	OK
19.000	S73	5.201	-0.079	0.000	0.46		5	11.2	OK
18.001	S74	5.101	0.101	0.000	1.39			19.8	SURCHARGED
18.002	S75	4.960	0.040	0.000	0.98			19.0	SURCHARGED
1.018	S76	4.894	0.394	0.000	0.08			5.1	SURCHARGED
1.019	S77	4.904	0.454	0.000	0.08			5.1	SURCHARGED
1.020	S78	4.727	0.327	0.000	0.13			5.2	SURCHARGED
1.021	S79	4.722	0.372	0.000	0.07			5.3	SURCHARGED
20.000	S80	5.867	-0.018	0.000	0.02		84	0.6	OK
20.001	S81	5.867	0.049	0.000	0.04		102	1.3	SURCHARGED
21.000	S82	5.867	0.094	0.000	0.08		96	1.1	SURCHARGED
20.002	S83	5.867	0.155	0.000	0.06			3.5	SURCHARGED
20.003	S84	5.867	0.210	0.000	0.06			3.4	SURCHARGED
20.004	S85	5.867	0.285	0.000	0.10		260	5.9	SURCHARGED
20.005	S86	5.866	0.383	0.000	0.10			6.0	SURCHARGED
20.006	S87	5.865	0.490	0.000	0.10			6.0	SURCHARGED
20.007	S88	5.864	0.534	0.000	0.03		300	2.2	SURCHARGED
20.008	S89	5.905	0.662	0.000	0.04			2.2	SURCHARGED
22.000	S253	6.035	-0.015	0.000	1.00		25	9.5	OK
22.001	S90	5.978	-0.072	0.000	0.53			9.5	OK
22.002	S91	5.937	0.047	0.000	0.20			6.8	SURCHARGED
22.003	S92	5.934	0.160	0.000	0.24		65	7.9	SURCHARGED
22.004	S93	5.931	0.256	0.000	0.33		96	10.2	SURCHARGED
22.005	S94	5.929	0.304	0.000	0.37			12.2	SURCHARGED
22.006	S95	5.924	0.404	0.000	0.43			14.1	SURCHARGED
23.000	S96	5.966	-0.089	0.000	0.34		5	7.8	OK
23.001	S97	5.919	0.269	0.000	0.05			1.4	SURCHARGED
24.000	S98	5.986	-0.114	0.000	0.13		5	5.8	OK
22.007	S99	5.919	0.500	0.000	0.55			18.7	SURCHARGED
22.008	S100	5.912	0.625	0.000	0.30			18.6	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	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
22.009	S101	5.910	0.675	0.000	0.44		74	20.9	SURCHARGED

PN	US/MH Name	Level Exceeded
14.000	S56a	
14.001	S56	
14.002	S57	
14.003	S58	
14.004	S59	
1.017	S60	
15.000	S61	
16.000	S62	
15.001	S63	
15.002	S64	
15.003	S65	
15.004	S66	
17.000	S67	
17.001	S68	
15.005	S69	
15.006	S70	
15.007	S71	
18.000	S72	
19.000	S73	
18.001	S74	
18.002	S75	
1.018	S76	
1.019	S77	
1.020	S78	
1.021	S79	
20.000	S80	
20.001	S81	
21.000	S82	
20.002	S83	
20.003	S84	
20.004	S85	
20.005	S86	
20.006	S87	
20.007	S88	
20.008	S89	
22.000	S253	
22.001	S90	
22.002	S91	
22.003	S92	
22.004	S93	
22.005	S94	

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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	Level Exceeded
22.006	S95	
23.000	S96	
23.001	S97	
24.000	S98	
22.007	S99	
22.008	S100	
22.009	S101	

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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.
22.010	S102	240 Winter	100	+0%	30/120 Summer			
20.009	S103	240 Winter	100	+0%	30/120 Summer			
20.010	S104	240 Winter	100	+0%	30/120 Summer			
20.011	S105	240 Winter	100	+0%	30/120 Summer			
25.000	S106	15 Winter	100	+0%				
25.001	S107	15 Winter	100	+0%				
25.002	S108	15 Winter	100	+0%				
25.003	S109	240 Winter	100	+0%	100/240 Winter			
20.012	S110	240 Winter	100	+0%	30/120 Summer			
26.000	S113	15 Winter	100	+0%	2/15 Summer	100/15 Winter		
26.001	S114	30 Winter	100	+0%	2/15 Summer	100/15 Winter		
27.000	S115a	15 Winter	100	+0%	2/15 Summer			
26.002	S115	30 Summer	100	+0%	2/15 Summer			
26.003	S116	60 Winter	100	+0%	2/15 Summer			
26.004	S117	60 Winter	100	+0%	2/15 Summer			
26.005	S118	60 Winter	100	+0%	2/15 Summer			
26.006	S119	60 Winter	100	+0%	2/15 Summer			
26.007	S120	60 Winter	100	+0%	30/15 Summer			
28.000	S121	30 Winter	100	+0%				
28.001	S122	30 Winter	100	+0%	100/30 Winter			
28.002	S123	15 Summer	100	+0%	30/15 Summer			
28.003	S124	60 Winter	100	+0%	30/15 Summer			
28.004	S125	60 Winter	100	+0%	30/15 Summer			
29.000	S126	60 Winter	100	+0%	100/30 Winter			
20.013	S127	60 Winter	100	+0%	2/30 Winter			
30.000	S128	15 Winter	100	+0%				
30.001	S129	15 Summer	100	+0%				
20.014	S130	240 Winter	100	+0%	30/30 Summer			
31.000	S131	240 Winter	100	+0%	100/120 Winter			
31.001	S132	240 Winter	100	+0%	100/120 Winter			
31.002	S133	240 Winter	100	+0%	100/120 Winter			
20.015	S134	240 Winter	100	+0%	30/60 Winter			
32.000	S135	240 Winter	100	+0%				
20.016	S136	240 Winter	100	+0%	30/60 Winter			
33.000	S137	360 Winter	100	+0%				
20.017	S138	360 Winter	100	+0%	30/240 Summer			
34.000	S139	15 Winter	100	+0%				
34.001	S140	30 Summer	100	+0%				
34.002	S141	360 Winter	100	+0%	100/240 Winter			
35.000	S142	15 Winter	100	+0%				
34.003	S143	360 Winter	100	+0%	100/240 Winter			
20.018	S144	360 Winter	100	+0%	30/240 Summer			
36.000	S145	15 Winter	100	+0%	30/15 Summer			
37.000	S146	15 Winter	100	+0%				
36.001	S147	30 Winter	100	+0%				
36.002	S148	30 Winter	100	+0%	100/15 Winter			
38.000	S149a	15 Winter	100	+0%				
38.001	S149b	15 Winter	100	+0%				

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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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
22.010	S102	5.908	0.693	0.000	0.42			20.9	SURCHARGED
20.009	S103	5.908	0.693	0.000	0.21			7.8	SURCHARGED
20.010	S104	5.908	0.693	0.000	0.09			7.6	SURCHARGED
20.011	S105	5.880	0.830	0.000	0.28			7.5	SURCHARGED
25.000	S106	6.267	-0.098	0.000	0.26		5	3.9	OK
25.001	S107	6.155	-0.060	0.000	0.65		5	9.9	OK
25.002	S108	5.951	-0.074	0.000	0.49			14.5	OK
25.003	S109	5.882	0.232	0.000	0.11		53	4.0	SURCHARGED
20.012	S110	5.880	0.830	0.000	0.05			3.4	SURCHARGED
26.000	S113	7.000	0.800	0.032	1.96			17.0	FLOOD
26.001	S114	6.805	0.655	1.018	2.67			11.7	FLOOD
27.000	S115a	6.944	0.684	0.000	1.00			13.9	FLOOD RISK
26.002	S115	6.806	0.676	0.000	4.00			20.5	FLOOD RISK
26.003	S116	6.469	0.369	0.000	1.13		29	9.2	SURCHARGED
26.004	S117	6.445	0.345	0.000	2.42			10.1	SURCHARGED
26.005	S118	6.372	0.282	0.000	1.64			10.1	SURCHARGED
26.006	S119	6.336	0.246	0.000	2.82			12.0	SURCHARGED
26.007	S120	6.259	0.189	0.000	1.39			11.6	SURCHARGED
28.000	S121	6.373	-0.027	0.000	0.18		14	5.9	OK
28.001	S122	6.365	0.015	0.000	0.33			6.6	SURCHARGED
28.002	S123	6.375	0.175	0.000	1.54			13.7	SURCHARGED
28.003	S124	6.281	0.131	0.000	1.79			11.3	SURCHARGED
28.004	S125	6.252	0.102	0.000	0.98			13.2	SURCHARGED
29.000	S126	6.244	0.069	0.000	0.24		17	3.3	SURCHARGED
20.013	S127	6.232	1.292	0.000	0.26		34	10.8	SURCHARGED
30.000	S128	5.993	-0.037	0.000	0.92		6	15.1	OK
30.001	S129	5.886	-0.054	0.000	0.72			15.1	OK
20.014	S130	5.844	0.944	0.000	0.18			11.5	SURCHARGED
31.000	S131	5.700	0.240	0.000	0.03		39	0.8	SURCHARGED
31.001	S132	5.699	0.429	0.000	0.05			0.8	SURCHARGED
31.002	S133	5.697	0.547	0.000	0.11		53	3.2	SURCHARGED
20.015	S134	5.693	0.933	0.000	0.48			9.9	SURCHARGED
32.000	S135	5.686	-0.014	0.000	0.03			1.2	OK
20.016	S136	5.686	0.926	0.000	0.13			7.5	SURCHARGED
33.000	S137	5.217	-0.033	0.000	0.02		32	0.8	OK
20.017	S138	5.216	0.516	0.000	0.35			7.5	SURCHARGED
34.000	S139	5.362	-0.038	0.000	0.76		4	11.0	OK
34.001	S140	5.247	-0.003	0.000	1.00		3	13.6	OK
34.002	S141	5.215	0.095	0.000	0.19			2.7	SURCHARGED
35.000	S142	5.369	-0.069	0.000	0.55			12.5	OK
34.003	S143	5.213	0.153	0.000	0.15			4.2	SURCHARGED
20.018	S144	5.209	0.509	0.000	0.07			8.8	SURCHARGED
36.000	S145	5.986	0.566	0.000	1.49		4	25.1	SURCHARGED
37.000	S146	5.155	-0.095	0.000	0.29		5	9.7	OK
36.001	S147	4.807	-0.143	0.000	0.28			31.2	OK
36.002	S148	4.780	0.050	0.000	0.47			28.5	SURCHARGED
38.000	S149a	4.862	-0.054	0.000	0.71			10.2	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	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
38.001	S149b	4.752	-0.045	0.000	0.55		31	11.7	OK

PN	US/MH Name	Level Exceeded
22.010	S102	
20.009	S103	
20.010	S104	
20.011	S105	
25.000	S106	
25.001	S107	
25.002	S108	
25.003	S109	
20.012	S110	
26.000	S113	1
26.001	S114	2
27.000	S115a	
26.002	S115	
26.003	S116	
26.004	S117	
26.005	S118	
26.006	S119	
26.007	S120	
28.000	S121	
28.001	S122	
28.002	S123	
28.003	S124	
28.004	S125	
29.000	S126	
20.013	S127	
30.000	S128	
30.001	S129	
20.014	S130	
31.000	S131	
31.001	S132	
31.002	S133	
20.015	S134	
32.000	S135	
20.016	S136	
33.000	S137	
20.017	S138	
34.000	S139	
34.001	S140	
34.002	S141	
35.000	S142	
34.003	S143	

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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	Level Exceeded
20.018	S144	
36.000	S145	
37.000	S146	
36.001	S147	
36.002	S148	
38.000	S149a	
38.001	S149b	

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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.
36.003	S149	960 Winter	100	+0%	100/15 Summer			
36.004	S150	960 Winter	100	+0%	30/15 Winter			
39.000	S151	960 Winter	100	+0%	100/360 Winter			
20.019	S152	960 Winter	100	+0%	2/960 Winter			
40.000	S153	960 Winter	100	+0%	100/480 Winter			
41.000	S154	960 Winter	100	+0%	30/480 Winter			
20.020	S155	960 Winter	100	+0%	2/360 Winter			
20.021	S156	960 Winter	100	+0%	2/360 Winter			
20.022	S157	960 Winter	100	+0%	2/120 Summer			
42.000	S159a	960 Winter	100	+0%	100/960 Winter			
42.001	S159b	960 Winter	100	+0%	30/960 Winter			
43.000	S158	960 Winter	100	+0%	100/960 Winter			
42.002	S159	960 Winter	100	+0%	2/360 Winter			
42.003	S160	960 Winter	100	+0%	2/120 Summer			
20.023	S162	960 Winter	100	+0%	2/60 Winter			
20.024	S163	960 Winter	100	+0%	2/60 Summer			
1.022	S164	960 Winter	100	+0%	2/60 Summer			
1.023	S165	1440 Winter	100	+0%	2/240 Summer			
1.024	S166	1440 Winter	100	+0%	2/240 Summer			
44.000	S167	15 Winter	100	+0%				
45.000	S168	15 Winter	100	+0%				
44.001	S169	1440 Winter	100	+0%				
46.000	S170	15 Winter	100	+0%				
46.001	S171	1440 Winter	100	+0%	2/1440 Winter			
44.002	S172	1440 Winter	100	+0%	2/480 Winter			
44.003	S173	1440 Winter	100	+0%	2/360 Summer			
47.000	S174	1440 Winter	100	+0%	2/240 Summer			
44.004	S175	1440 Winter	100	+0%	2/240 Summer			
1.025	S176	1440 Winter	100	+0%	2/240 Summer			
1.026	S177	1440 Winter	100	+0%	2/360 Summer			
48.000	S178	15 Winter	100	+0%				
48.001	S179	60 Winter	100	+0%				
48.002	S180	15 Winter	100	+0%	30/15 Summer			
48.003	S181	15 Winter	100	+0%				
48.004	S182	15 Winter	100	+0%				
49.000	S184a	15 Winter	100	+0%				
50.000	S183	15 Winter	100	+0%				
48.005	S184	15 Winter	100	+0%				
48.006	S185	15 Winter	100	+0%				
48.007	S186	240 Winter	100	+0%				
48.008	S187	240 Winter	100	+0%	100/120 Winter			
48.009	S188	240 Winter	100	+0%				
48.010	S189	240 Winter	100	+0%				
48.011	S190	240 Winter	100	+0%				
51.000	S191	15 Winter	100	+0%				
51.001	S192	15 Winter	100	+0%				
48.012	S193	240 Winter	100	+0%				
48.013	S194	240 Winter	100	+0%				

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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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
36.003	S149	4.744	0.084	0.000	0.09			5.6	SURCHARGED
36.004	S150	4.743	0.173	0.000	0.09			6.3	SURCHARGED
39.000	S151	4.742	0.022	0.000	0.05		563	0.9	SURCHARGED
20.019	S152	4.741	0.291	0.000	0.20			11.7	SURCHARGED
40.000	S153	4.739	0.014	0.000	0.02		543	0.5	SURCHARGED
41.000	S154	4.739	0.139	0.000	0.01		877	0.4	SURCHARGED
20.020	S155	4.738	0.318	0.000	0.46			12.2	SURCHARGED
20.021	S156	4.734	0.314	0.000	0.15			10.8	SURCHARGED
20.022	S157	4.726	0.461	0.000	0.16			11.4	SURCHARGED
42.000	S159a	4.725	0.009	0.000	0.01			0.2	SURCHARGED
42.001	S159b	4.725	0.107	0.000	0.03			0.5	SURCHARGED
43.000	S158	4.725	0.005	0.000	0.02		391	0.5	SURCHARGED
42.002	S159	4.725	0.305	0.000	0.08			1.3	SURCHARGED
42.003	S160	4.724	0.454	0.000	0.08			1.3	SURCHARGED
20.023	S162	4.723	0.538	0.000	0.25			12.1	SURCHARGED
20.024	S163	4.721	0.552	0.000	0.23			12.1	SURCHARGED
1.022	S164	4.717	0.582	0.000	0.58			11.8	SURCHARGED
1.023	S165	4.451	0.316	0.000	0.34			10.9	SURCHARGED
1.024	S166	4.436	0.301	0.000	0.18			10.1	SURCHARGED
44.000	S167	4.326	-0.104	0.000	0.21		6	3.4	OK
45.000	S168	4.754	-0.116	0.000	0.11		5	4.9	OK
44.001	S169	4.295	-0.015	0.000	0.05			0.8	OK
46.000	S170	4.371	-0.079	0.000	0.46		5	14.1	OK
46.001	S171	4.295	0.105	0.000	0.05			0.7	SURCHARGED
44.002	S172	4.294	0.156	0.000	0.05			1.5	SURCHARGED
44.003	S173	4.294	0.214	0.000	0.06			1.9	SURCHARGED
47.000	S174	4.293	0.298	0.000	0.04			0.5	SURCHARGED
44.004	S175	4.293	0.348	0.000	0.11			2.3	SURCHARGED
1.025	S176	4.293	0.273	0.000	0.54			10.5	SURCHARGED
1.026	S177	4.217	0.217	0.000	0.54			10.5	FLOOD RISK
48.000	S178	6.106	-0.054	0.000	0.73		5	10.2	OK
48.001	S179	5.990	-0.060	0.000	0.16		29	2.3	OK
48.002	S180	6.013	0.099	0.000	0.19		21	2.7	SURCHARGED
48.003	S181	5.715	-0.094	0.000	0.29		18	4.4	OK
48.004	S182	5.557	-0.103	0.000	0.21			4.4	OK
49.000	S184a	5.855	-0.095	0.000	0.29			8.6	OK
50.000	S183	5.523	-0.080	0.000	0.45		6	6.3	OK
48.005	S184	5.370	-0.135	0.000	0.33			13.8	OK
48.006	S185	5.273	-0.112	0.000	0.48		6	20.6	OK
48.007	S186	5.131	-0.054	0.000	0.19			7.7	OK
48.008	S187	5.126	0.021	0.000	0.30			8.1	SURCHARGED
48.009	S188	5.122	-0.028	0.000	0.08		173	4.0	OK
48.010	S189	5.120	0.000	0.000	0.08			4.0	OK
48.011	S190	4.974	-0.106	0.000	0.10		131	3.9	OK
51.000	S191	5.572	-0.068	0.000	0.58		6	8.3	OK
51.001	S192	5.446	-0.104	0.000	0.21			8.3	OK
48.012	S193	4.972	-0.078	0.000	0.05		172	3.7	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	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
48.013	S194	4.842	-0.088	0.000	0.04		174	3.3	OK

PN	US/MH Name	Level Exceeded
36.003	S149	
36.004	S150	
39.000	S151	
20.019	S152	
40.000	S153	
41.000	S154	
20.020	S155	
20.021	S156	
20.022	S157	
42.000	S159a	
42.001	S159b	
43.000	S158	
42.002	S159	
42.003	S160	
20.023	S162	
20.024	S163	
1.022	S164	
1.023	S165	
1.024	S166	
44.000	S167	
45.000	S168	
44.001	S169	
46.000	S170	
46.001	S171	
44.002	S172	
44.003	S173	
47.000	S174	
44.004	S175	
1.025	S176	
1.026	S177	
48.000	S178	
48.001	S179	
48.002	S180	
48.003	S181	
48.004	S182	
49.000	S184a	
50.000	S183	
48.005	S184	
48.006	S185	
48.007	S186	
48.008	S187	

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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	Level Exceeded
48.009	S188	
48.010	S189	
48.011	S190	
51.000	S191	
51.001	S192	
48.012	S193	
48.013	S194	

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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.
52.000	S195	15 Winter	100	+0%				
53.000	S196	15 Winter	100	+0%				
52.001	S197	15 Winter	100	+0%				
52.002	S198	15 Winter	100	+0%	100/15 Summer			
52.003	S199	15 Winter	100	+0%	30/15 Summer			
52.004	S200	240 Winter	100	+0%	30/15 Summer			
48.014	S201	240 Winter	100	+0%	100/120 Winter			
54.000	S203	15 Winter	100	+0%				
54.001	S204	15 Winter	100	+0%				
54.002	S205	360 Winter	100	+0%	100/120 Winter			
48.015	S206	360 Winter	100	+0%				
55.000	S207	15 Winter	100	+0%	100/15 Summer			
56.000	S208a	15 Winter	100	+0%				
55.001	S208	15 Winter	100	+0%	30/15 Summer			
55.002	S209	15 Winter	100	+0%				
55.003	S210	15 Winter	100	+0%				
57.000	S211	15 Winter	100	+0%				
55.004	S212	15 Winter	100	+0%				
58.000	S213	15 Winter	100	+0%				
55.005	S214	15 Winter	100	+0%				
59.000	S215	15 Winter	100	+0%				
55.006	S216	15 Winter	100	+0%				
60.000	S217	15 Winter	100	+0%				
55.007	S218	60 Summer	100	+0%				
55.008	S219	60 Winter	100	+0%	30/120 Winter			
55.009	S220	360 Winter	100	+0%	30/60 Winter			
55.010	S221	360 Winter	100	+0%	2/240 Winter			
48.016	S222	360 Winter	100	+0%	2/240 Winter			
61.000	S223	360 Winter	100	+0%	30/60 Summer			
61.001	S224	360 Winter	100	+0%	2/240 Winter			
48.017	S225	360 Winter	100	+0%	2/240 Winter			
62.000	S227	15 Winter	100	+0%	30/15 Summer			
62.001	S228	15 Winter	100	+0%	30/15 Summer			
62.002	S229	15 Winter	100	+0%	30/15 Summer			
48.018	S230	1440 Winter	100	+0%				
48.019	S231	1440 Winter	100	+0%				
48.020	S232	1440 Winter	100	+0%	30/960 Winter			
48.021	S233	1440 Winter	100	+0%	30/240 Winter			
63.000	S234	15 Winter	100	+0%				
63.001	S235	15 Winter	100	+0%				
64.000	S236	15 Winter	100	+0%				
63.002	S237	15 Winter	100	+0%				
65.000	S238	15 Winter	100	+0%				
65.001	S239	15 Winter	100	+0%				
63.003	S240	15 Winter	100	+0%				
63.004	S241	1440 Winter	100	+0%				
66.000	S242	1440 Winter	100	+0%				
63.005	S243	1440 Winter	100	+0%	2/960 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)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
52.000	S195	5.438	-0.112	0.000	0.15		5	3.9	OK
53.000	S196	5.423	-0.127	0.000	0.05		6	1.9	OK
52.001	S197	5.110	-0.050	0.000	0.67			12.5	OK
52.002	S198	5.048	0.078	0.000	0.75			14.0	SURCHARGED
52.003	S199	4.965	0.165	0.000	1.72			23.4	SURCHARGED
52.004	S200	4.841	0.101	0.000	0.32			6.0	SURCHARGED
48.014	S201	4.839	0.039	0.000	0.11		244	4.8	SURCHARGED
54.000	S203	5.027	-0.073	0.000	0.52		6	8.7	OK
54.001	S204	4.856	-0.094	0.000	0.30			8.8	OK
54.002	S205	4.695	0.045	0.000	0.08			1.1	SURCHARGED
48.015	S206	4.695	-0.055	0.000	0.04		180	4.8	OK
55.000	S207	5.875	0.075	0.000	1.16			17.1	SURCHARGED
56.000	S208a	5.954	-0.071	0.000	0.55		5	10.6	OK
55.001	S208	5.752	0.042	0.000	1.39			16.8	SURCHARGED
55.002	S209	5.575	-0.085	0.000	0.69			20.7	OK
55.003	S210	5.552	-0.073	0.000	0.78			27.1	OK
57.000	S211	5.744	-0.111	0.000	0.15		5	5.3	OK
55.004	S212	5.458	-0.047	0.000	0.97			35.0	OK
58.000	S213	5.482	-0.268	0.000	0.03		4	3.9	OK
55.005	S214	5.219	-0.151	0.000	0.49			41.5	OK
59.000	S215	5.310	-0.070	0.000	0.55		5	12.1	OK
55.006	S216	5.092	-0.158	0.000	0.45			51.4	OK
60.000	S217	4.800	-0.050	0.000	0.78		6	9.7	OK
55.007	S218	4.771	-0.039	0.000	0.37		5	37.2	OK
55.008	S219	4.733	0.173	0.000	0.50			30.7	SURCHARGED
55.009	S220	4.693	0.193	0.000	0.18		412	14.2	SURCHARGED
55.010	S221	4.691	0.291	0.000	0.29			14.0	SURCHARGED
48.016	S222	4.690	0.310	0.000	0.59			11.9	SURCHARGED
61.000	S223	4.683	0.243	0.000	0.01			0.8	SURCHARGED
61.001	S224	4.683	0.283	0.000	0.01			0.7	SURCHARGED
48.017	S225	4.683	0.303	0.000	0.33			7.3	SURCHARGED
62.000	S227	4.828	0.133	0.000	1.13		3	18.4	SURCHARGED
62.001	S228	4.636	0.091	0.000	1.47			18.3	SURCHARGED
62.002	S229	4.539	0.039	0.000	1.46			18.3	SURCHARGED
48.018	S230	4.336	-0.024	0.000	0.15		521	6.6	OK
48.019	S231	4.333	-0.007	0.000	0.11			6.6	OK
48.020	S232	4.317	0.067	0.000	0.11		1437	6.5	SURCHARGED
48.021	S233	4.313	0.113	0.000	0.07			6.3	SURCHARGED
63.000	S234	4.959	-0.051	0.000	0.74			12.0	OK
63.001	S235	4.771	-0.049	0.000	0.78		32	12.2	OK
64.000	S236	5.117	-0.103	0.000	0.21		5	9.2	OK
63.002	S237	4.688	-0.042	0.000	0.85			16.5	OK
65.000	S238	5.341	-0.124	0.000	0.07		5	3.4	OK
65.001	S239	4.666	-0.084	0.000	0.40			10.7	OK
63.003	S240	4.338	-0.112	0.000	0.64			45.6	OK
63.004	S241	4.312	-0.058	0.000	0.04			3.4	OK
66.000	S242	4.311	-0.079	0.000	0.01		277	0.2	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	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
63.005	S243	4.311	0.191	0.000	0.06			3.5	SURCHARGED

PN	US/MH Name	Level Exceeded
52.000	S195	
53.000	S196	
52.001	S197	
52.002	S198	
52.003	S199	
52.004	S200	
48.014	S201	
54.000	S203	
54.001	S204	
54.002	S205	
48.015	S206	
55.000	S207	
56.000	S208a	
55.001	S208	
55.002	S209	
55.003	S210	
57.000	S211	
55.004	S212	
58.000	S213	
55.005	S214	
59.000	S215	
55.006	S216	
60.000	S217	
55.007	S218	
55.008	S219	
55.009	S220	
55.010	S221	
48.016	S222	
61.000	S223	
61.001	S224	
48.017	S225	
62.000	S227	
62.001	S228	
62.002	S229	
48.018	S230	
48.019	S231	
48.020	S232	
48.021	S233	
63.000	S234	
63.001	S235	
64.000	S236	

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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	Level Exceeded
63.002	S237	
65.000	S238	
65.001	S239	
63.003	S240	
63.004	S241	
66.000	S242	
63.005	S243	

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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)
63.006	S244	1440 Winter	100	+0%	2/240 Winter				4.310
63.007	S245	1440 Winter	100	+0%	2/240 Winter				4.309
48.022	S246	1440 Winter	100	+0%	2/240 Winter				4.309
67.000	S247	15 Winter	100	+0%					4.431
67.001	S248	15 Winter	100	+0%					4.314
48.023	S249	1440 Winter	100	+0%	2/360 Summer				4.210
1.027	S250	1440 Winter	100	+0%	2/360 Summer				4.206
1.028	S251	1440 Winter	100	+0%	2/240 Winter				4.195

PN	US/MH Name	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status	Level Exceeded
63.006	S244	0.240	0.000	0.09			4.0	SURCHARGED	
63.007	S245	0.259	0.000	0.08			4.0	SURCHARGED	
48.022	S246	0.259	0.000	0.32			8.1	SURCHARGED	
67.000	S247	-0.049	0.000	0.79		6	10.7	OK	
67.001	S248	-0.086	0.000	0.38		8	8.0	OK	
48.023	S249	0.160	0.000	0.13			8.0	FLOOD RISK	
1.027	S250	0.206	0.000	0.28			17.1	FLOOD RISK	
1.028	S251	0.245	0.000	0.28			17.1	FLOOD RISK	

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