STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	1	PIMP (%)	100
M5-60 (mm)	18.000	Add Flow / Climate Change (%)	0
Ratio R	0.358	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	50	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	0.750	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Network Design Table for Storm

« - 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
1.000	35.733	0.460	77.7	0.060	8.00	0.0	0.600	oo	-3	Pipe/Conduit	🔒
2.000	16.597	0.125	132.8	0.090	8.00	0.0	0.600	o	225	Pipe/Conduit	🔒
3.000	11.320	0.120	94.3	0.080	8.00	0.0	0.600	o	225	Pipe/Conduit	🔒
2.001	32.074	0.345	93.0	0.048	0.00	0.0	0.600	o	375	Pipe/Conduit	🔒
2.002	20.454	0.155	132.0	0.020	0.00	0.0	0.600	o	375	Pipe/Conduit	🔒
4.000	44.035	0.230	191.5	0.270	8.00	0.0	0.600	o	300	Pipe/Conduit	🔒
4.001	7.579	0.025	303.2	0.100	0.00	0.0	0.600	o	375	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	37.09	8.22	169.365	0.060	0.0	0.0	0.0	2.77	1565.8	6.0
2.000	37.02	8.24	171.675	0.090	0.0	0.0	0.0	1.13	45.0	9.0
3.000	37.26	8.14	171.670	0.080	0.0	0.0	0.0	1.35	53.5	8.1
2.001	36.39	8.53	171.400	0.218	0.0	0.0	0.0	1.88	207.6	21.5
2.002	35.92	8.74	171.055	0.238	0.0	0.0	0.0	1.58	174.0	23.2
4.000	36.13	8.65	171.290	0.270	0.0	0.0	0.0	1.13	80.1	26.4
4.001	35.87	8.77	170.985	0.370	0.0	0.0	0.0	1.04	114.3	35.9

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
4.002	18.283	0.060	304.7	0.020	0.00	0.0	0.600	o	375	Pipe/Conduit	
2.003	50.935	0.320	159.2	0.110	0.00	0.0	0.600	o	450	Pipe/Conduit	
2.004	9.620	1.420	6.8	0.135	0.00	0.0	0.600	o	450	Pipe/Conduit	
2.005	9.490	0.030	316.3	0.004	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.001	46.547	0.095	490.0	0.084	0.00	0.0	0.600	o	600	Pipe/Conduit	
5.000	18.182	0.330	55.1	0.214	8.00	0.0	0.600	o	225	Pipe/Conduit	
5.001	14.822	0.230	64.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
5.002	15.004	0.240	62.5	0.088	0.00	0.0	0.600	o	300	Pipe/Conduit	
5.003	23.710	0.390	60.8	0.135	0.00	0.0	0.600	o	300	Pipe/Conduit	
5.004	13.340	0.240	55.6	0.016	0.00	0.0	0.600	o	375	Pipe/Conduit	
5.005	24.333	0.310	78.5	0.015	0.00	0.0	0.600	o	375	Pipe/Conduit	
5.006	21.005	2.830	7.4	0.040	0.00	0.0	0.600	o	375	Pipe/Conduit	
5.007	8.504	0.420	20.2	0.130	0.00	0.0	0.600	o	375	Pipe/Conduit	
1.002	28.767	0.060	479.5	0.048	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.003	38.069	0.080	475.9	0.030	0.00	0.0	0.600	o	600	Pipe/Conduit	
6.000	11.026	0.360	30.6	0.158	8.00	0.0	0.600	o	225	Pipe/Conduit	
6.001	13.597	0.420	32.4	0.030	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)
4.002	35.26	9.06	170.960	0.390	0.0	0.0	0.0	1.03	114.1	37.2
2.003	34.22	9.59	170.825	0.738	0.0	0.0	0.0	1.61	255.9	68.4
2.004	34.19	9.61	170.505	0.873	0.0	0.0	0.0	7.85	1248.2	80.8
2.005	33.93	9.75	169.085	0.877	0.0	0.0	0.0	1.14	180.9	80.8
1.001	32.67	10.46	168.905	1.021	0.0	0.0	0.0	1.09	309.1	90.3
5.000	37.19	8.17	174.175	0.214	0.0	0.0	0.0	1.77	70.2	21.6
5.001	36.90	8.30	173.770	0.214	0.0	0.0	0.0	1.96	138.7	21.6
5.002	36.62	8.42	173.540	0.302	0.0	0.0	0.0	1.99	140.8	30.0
5.003	36.19	8.62	173.300	0.437	0.0	0.0	0.0	2.02	142.8	42.8
5.004	36.00	8.71	172.835	0.453	0.0	0.0	0.0	2.43	268.9	44.2
5.005	35.58	8.91	172.595	0.468	0.0	0.0	0.0	2.05	226.1	45.1
5.006	35.47	8.96	172.285	0.508	0.0	0.0	0.0	6.69	738.4	48.8
5.007	35.40	9.00	169.455	0.638	0.0	0.0	0.0	4.04	446.5	61.2
1.002	31.95	10.90	168.810	1.707	0.0	0.0	0.0	1.11	312.5	147.7
1.003	31.06	11.47	168.750	1.737	0.0	0.0	0.0	1.11	313.7	147.7
6.000	37.40	8.08	173.975	0.158	0.0	0.0	0.0	2.37	94.3	16.0
6.001	37.18	8.18	173.615	0.188	0.0	0.0	0.0	2.31	91.7	18.9

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Network Design Table for Storm

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
6.002	37.063	1.260	29.4	0.052	0.00	0.0	0.600	o	300	Pipe/Conduit	
6.003	17.845	2.890	6.2	0.117	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.004	39.493	0.080	493.7	0.039	0.00	0.0	0.600	o	600	Pipe/Conduit	
7.000	44.351	0.295	150.3	0.120	8.00	0.0	0.600	o	225	Pipe/Conduit	
8.000	5.188	0.035	148.2	0.100	8.00	0.0	0.600	o	225	Pipe/Conduit	
7.001	28.516	0.120	237.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
7.002	29.476	0.860	34.3	0.121	0.00	0.0	0.600	o	300	Pipe/Conduit	
9.000	18.956	0.255	74.3	0.161	8.00	0.0	0.600	o	300	Pipe/Conduit	
9.001	22.354	0.300	74.5	0.074	0.00	0.0	0.600	o	300	Pipe/Conduit	
7.003	18.001	0.080	225.0	0.025	0.00	0.0	0.600	o	375	Pipe/Conduit	
7.004	15.402	0.070	220.0	0.075	0.00	0.0	0.600	o	375	Pipe/Conduit	
7.005	20.038	1.155	17.3	0.089	0.00	0.0	0.600	o	375	Pipe/Conduit	
1.005	23.992	0.045	533.2	0.017	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.006	49.510	0.095	521.2	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.007	14.059	0.030	468.6	0.050	0.00	0.0	0.600	o	600	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)
6.002	36.70	8.39	173.120	0.240	0.0	0.0	0.0	2.91	205.7	23.9
6.003	36.59	8.43	171.860	0.357	0.0	0.0	0.0	6.37	450.0	35.4
1.004	30.18	12.07	168.670	2.133	0.0	0.0	0.0	1.09	308.0	174.3
7.000	36.03	8.69	171.545	0.120	0.0	0.0	0.0	1.06	42.3	11.7
8.000	37.40	8.08	171.285	0.100	0.0	0.0	0.0	1.07	42.6	10.1
7.001	35.06	9.16	171.175	0.220	0.0	0.0	0.0	1.02	71.8	20.9
7.002	34.70	9.35	171.055	0.341	0.0	0.0	0.0	2.69	190.5	32.0
9.000	37.18	8.17	170.750	0.161	0.0	0.0	0.0	1.83	129.0	16.2
9.001	36.72	8.38	170.495	0.235	0.0	0.0	0.0	1.82	128.9	23.4
7.003	34.22	9.59	170.120	0.601	0.0	0.0	0.0	1.20	132.9	55.7
7.004	33.83	9.81	170.040	0.676	0.0	0.0	0.0	1.22	134.5	61.9
7.005	33.69	9.88	169.970	0.765	0.0	0.0	0.0	4.37	482.5	69.8
1.005	29.67	12.45	168.590	2.915	0.0	0.0	0.0	1.05	296.2	234.2
1.006	28.71	13.23	168.445	2.915	0.0	0.0	0.0	1.06	299.6	234.2
1.007	28.46	13.44	168.350	2.965	0.0	0.0	0.0	1.12	316.2	234.2

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Network Design Table for Storm

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
1.008	39.588	0.075	527.8	0.050	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.009	65.926	0.050	1318.5	0.018	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.010	30.846	0.060	514.1	0.049	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.011	13.928	0.030	464.3	0.023	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.012	18.071	0.035	516.3	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.013	40.180	0.075	535.7	0.025	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.014	60.275	0.115	524.1	0.036	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.015	72.911	0.135	540.1	0.225	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.016	32.015	0.050	640.3	0.000	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.000	9.411	0.095	99.1	0.068	8.00	0.0	0.600	o	225	Pipe/Conduit	
11.000	8.130	0.090	90.3	0.062	8.00	0.0	0.600	o	225	Pipe/Conduit	
10.001	24.043	0.285	84.4	0.021	0.00	0.0	0.600	o	300	Pipe/Conduit	
10.002	14.339	0.170	84.3	0.042	0.00	0.0	0.600	o	300	Pipe/Conduit	
10.003	13.760	0.325	42.3	0.014	0.00	0.0	0.600	o	300	Pipe/Conduit	
10.004	10.288	0.220	46.8	0.089	0.00	0.0	0.600	o	300	Pipe/Conduit	
10.005	25.736	2.710	9.5	0.009	0.00	0.0	0.600	o	300	Pipe/Conduit	
12.000	11.220	0.145	77.4	0.074	8.00	0.0	0.600	o	225	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.008	27.75	14.07	168.320	3.015	0.0	0.0	0.0	1.05	297.7	234.2
1.009	26.07	15.73	168.245	3.033	0.0	0.0	0.0	0.66	187.1«	234.2
1.010	25.63	16.21	168.120	3.082	0.0	0.0	0.0	1.07	301.7	234.2
1.011	25.44	16.42	168.060	3.105	0.0	0.0	0.0	1.12	317.7	234.2
1.012	25.19	16.70	168.030	3.105	0.0	0.0	0.0	1.06	301.1	234.2
1.013	24.65	17.34	167.995	3.130	0.0	0.0	0.0	1.05	295.5	234.2
1.014	23.90	18.29	167.920	3.166	0.0	0.0	0.0	1.06	298.8	234.2
1.015	23.04	19.46	167.805	3.391	0.0	0.0	0.0	1.04	294.3	234.2
1.016	22.66	20.02	167.670	3.391	0.0	0.0	0.0	0.95	270.0	234.2
10.000	37.31	8.12	178.050	0.068	0.0	0.0	0.0	1.31	52.2	6.9
11.000	37.36	8.10	177.880	0.062	0.0	0.0	0.0	1.38	54.7	6.3
10.001	36.77	8.35	177.880	0.151	0.0	0.0	0.0	1.71	121.1	15.0
10.002	36.47	8.49	177.595	0.193	0.0	0.0	0.0	1.71	121.1	19.1
10.003	36.26	8.59	177.425	0.207	0.0	0.0	0.0	2.42	171.3	20.3
10.004	36.10	8.66	177.100	0.296	0.0	0.0	0.0	2.31	162.9	28.9
10.005	35.92	8.75	176.880	0.305	0.0	0.0	0.0	5.13	362.7	29.7
12.000	37.29	8.13	174.700	0.074	0.0	0.0	0.0	1.49	59.2	7.5

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Network Design Table for Storm

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
13.000	14.955	0.215	69.6	0.075	8.00	0.0	0.600	o	225	Pipe/Conduit	
12.001	29.721	0.180	165.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
12.002	21.121	0.130	162.5	0.122	0.00	0.0	0.600	o	300	Pipe/Conduit	
10.006	45.093	0.155	290.9	0.152	0.00	0.0	0.600	o	375	Pipe/Conduit	
14.000	10.224	1.435	7.1	0.115	8.00	0.0	0.600	o	375	Pipe/Conduit	
10.007	31.065	0.210	147.9	0.095	0.00	0.0	0.600	o	450	Pipe/Conduit	
10.008	22.316	1.365	16.3	0.100	0.00	0.0	0.600	o	600	Pipe/Conduit	
15.000	6.960	0.685	10.2	0.000	8.00	0.0	0.600	o	150	Pipe/Conduit	
15.001	28.193	0.075	375.9	0.062	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.009	48.329	0.195	247.8	0.124	0.00	0.0	0.600	o	600	Pipe/Conduit	
16.000	10.652	0.460	23.2	0.034	8.00	0.0	0.600	o	225	Pipe/Conduit	
17.000	8.376	0.185	45.3	0.041	8.00	0.0	0.600	o	225	Pipe/Conduit	
16.001	15.788	0.155	101.9	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)
13.000	37.22	8.16	174.770	0.075	0.0	0.0	0.0	1.57	62.4	7.6
12.001	36.31	8.56	174.480	0.149	0.0	0.0	0.0	1.22	86.3	14.7
12.002	35.70	8.85	174.300	0.271	0.0	0.0	0.0	1.23	87.0	26.2
10.006	34.28	9.56	174.095	0.728	0.0	0.0	0.0	1.06	116.8	67.6
14.000	37.53	8.02	175.375	0.115	0.0	0.0	0.0	6.82	753.7	11.7
10.007	33.71	9.87	173.865	0.938	0.0	0.0	0.0	1.67	265.5	85.6
10.008	33.59	9.93	173.655	1.038	0.0	0.0	0.0	6.04	1708.4	94.4
15.000	37.50	8.04	174.300	0.000	0.0	0.0	0.0	3.18	56.2	0.0
15.001	36.64	8.41	172.215	0.062	0.0	0.0	0.0	1.25	353.4	6.2
10.009	32.68	10.46	172.140	1.224	0.0	0.0	0.0	1.54	436.1	108.3
16.000	37.43	8.07	177.485	0.034	0.0	0.0	0.0	2.73	108.6	3.4
17.000	37.42	8.07	177.210	0.041	0.0	0.0	0.0	1.95	77.5	4.2
16.001	37.03	8.24	176.950	0.075	0.0	0.0	0.0	1.56	110.1	7.5

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16.002	19.247	0.785	24.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
16.003	27.296	0.685	39.8	0.133	0.00	0.0	0.600	o	300	Pipe/Conduit	
18.000	17.375	1.010	17.2	0.104	8.00	0.0	0.600	o	225	Pipe/Conduit	
19.000	13.101	0.090	145.6	0.046	8.00	0.0	0.600	o	225	Pipe/Conduit	
18.001	27.384	0.255	107.4	0.039	0.00	0.0	0.600	o	300	Pipe/Conduit	
18.002	27.362	0.255	107.3	0.046	0.00	0.0	0.600	o	300	Pipe/Conduit	
16.004	38.151	0.790	48.3	0.115	0.00	0.0	0.600	o	375	Pipe/Conduit	
16.005	21.550	2.290	9.4	0.074	0.00	0.0	0.600	o	375	Pipe/Conduit	
10.010	24.907	0.100	249.1	0.063	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.011	19.307	0.080	241.3	0.049	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.012	15.398	0.060	256.6	0.047	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.013	18.195	0.075	242.6	0.026	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.014	35.099	0.140	250.7	0.116	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.015	22.959	0.090	255.1	0.097	0.00	0.0	0.600	o	600	Pipe/Conduit	
20.000	9.823	0.935	10.5	0.087	8.00	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)
16.002	36.80	8.34	176.795	0.075	0.0	0.0	0.0	3.19	225.4	7.5
16.003	36.40	8.52	176.010	0.208	0.0	0.0	0.0	2.50	176.6	20.5
18.000	37.37	8.09	176.920	0.104	0.0	0.0	0.0	3.17	126.1	10.5
19.000	37.12	8.20	176.000	0.046	0.0	0.0	0.0	1.08	43.0	4.6
18.001	36.44	8.50	175.835	0.189	0.0	0.0	0.0	1.52	107.2	18.7
18.002	35.80	8.80	175.580	0.235	0.0	0.0	0.0	1.52	107.3	22.8
16.004	35.30	9.05	175.250	0.558	0.0	0.0	0.0	2.61	288.6	53.3
16.005	35.17	9.11	174.460	0.632	0.0	0.0	0.0	5.94	655.6	60.2
10.010	32.23	10.73	171.945	1.919	0.0	0.0	0.0	1.54	435.0	167.5
10.011	31.89	10.93	171.845	1.968	0.0	0.0	0.0	1.56	442.0	170.0
10.012	31.62	11.10	171.765	2.015	0.0	0.0	0.0	1.52	428.5	172.6
10.013	31.32	11.29	171.705	2.041	0.0	0.0	0.0	1.56	440.8	173.1
10.014	30.75	11.68	171.630	2.157	0.0	0.0	0.0	1.53	433.6	179.6
10.015	30.38	11.93	171.490	2.254	0.0	0.0	0.0	1.52	429.8	185.5
20.000	37.49	8.04	174.395	0.087	0.0	0.0	0.0	4.06	161.4	8.8

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Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
21.000	9.417	0.060	157.0	0.077	8.00	0.0	0.600	o	225	Pipe/Conduit	
20.001	16.852	0.305	55.3	0.026	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.002	15.657	0.430	36.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.003	22.508	0.595	37.8	0.077	0.00	0.0	0.600	o	300	Pipe/Conduit	
20.004	13.131	0.355	37.0	0.114	0.00	0.0	0.600	o	300	Pipe/Conduit	
10.016	20.793	0.450	46.2	0.079	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.017	25.678	0.500	51.4	0.029	0.00	0.0	0.600	o	600	Pipe/Conduit	
22.000	18.491	0.210	88.1	0.097	8.00	0.0	0.600	o	300	Pipe/Conduit	
10.018	21.772	0.540	40.3	0.022	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.019	12.599	0.510	24.7	0.101	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.020	37.973	1.780	21.3	0.115	0.00	0.0	0.600	o	600	Pipe/Conduit	
23.000	13.477	0.225	59.9	0.050	8.00	0.0	0.600	o	225	Pipe/Conduit	
24.000	11.163	0.345	32.4	0.050	8.00	0.0	0.600	o	225	Pipe/Conduit	
23.001	29.854	0.375	79.6	0.050	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)
21.000	37.23	8.15	173.520	0.077	0.0	0.0	0.0	1.04	41.4	7.8
20.001	36.93	8.28	173.385	0.190	0.0	0.0	0.0	2.12	149.8	19.0
20.002	36.71	8.38	173.080	0.190	0.0	0.0	0.0	2.61	184.8	19.0
20.003	36.39	8.53	172.650	0.267	0.0	0.0	0.0	2.56	181.3	26.3
20.004	36.20	8.61	172.055	0.381	0.0	0.0	0.0	2.59	183.3	37.4
10.016	30.24	12.02	171.400	2.714	0.0	0.0	0.0	3.59	1014.7	222.3
10.017	30.07	12.15	170.950	2.743	0.0	0.0	0.0	3.40	962.3	223.4
22.000	37.16	8.18	170.990	0.097	0.0	0.0	0.0	1.68	118.5	9.8
10.018	29.94	12.24	170.450	2.862	0.0	0.0	0.0	3.84	1086.5	232.1
10.019	29.88	12.29	169.910	2.963	0.0	0.0	0.0	4.91	1389.1	239.8
10.020	29.73	12.41	169.400	3.078	0.0	0.0	0.0	5.29	1495.1	247.8
23.000	37.28	8.13	171.225	0.050	0.0	0.0	0.0	1.69	67.3	5.0
24.000	37.40	8.08	171.345	0.050	0.0	0.0	0.0	2.31	91.8	5.1
23.001	36.64	8.41	170.925	0.150	0.0	0.0	0.0	1.76	124.7	14.9

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Network Design Table for Storm

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
25.000	51.153	0.840	60.9	0.175	8.00	0.0	0.600	o	225	Pipe/Conduit	
23.002	33.019	0.335	98.6	0.114	0.00	0.0	0.600	o	375	Pipe/Conduit	
23.003	23.756	0.240	99.0	0.067	0.00	0.0	0.600	o	375	Pipe/Conduit	
26.000	38.678	0.610	63.4	0.038	8.00	0.0	0.600	o	225	Pipe/Conduit	
26.001	10.206	2.495	4.1	0.114	0.00	0.0	0.600	o	300	Pipe/Conduit	
23.004	7.992	0.070	114.2	0.038	0.00	0.0	0.600	o	450	Pipe/Conduit	
23.005	55.826	0.560	99.7	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
23.006	21.105	0.325	64.9	0.113	0.00	0.0	0.600	o	450	Pipe/Conduit	
23.007	38.885	1.250	31.1	0.114	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.017	35.363	0.050	707.3	0.030	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.018	11.501	0.050	230.0	0.000	0.00	0.0	0.600	o	375	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)
25.000	36.43	8.51	171.465	0.175	0.0	0.0	0.0	1.68	66.8	17.3
23.002	35.79	8.81	170.475	0.439	0.0	0.0	0.0	1.83	201.6	42.5
23.003	35.34	9.03	170.140	0.506	0.0	0.0	0.0	1.82	201.2	48.4
26.000	36.69	8.39	173.080	0.038	0.0	0.0	0.0	1.65	65.4	3.8
26.001	36.64	8.41	172.470	0.152	0.0	0.0	0.0	7.82	553.1	15.1
23.004	35.19	9.10	169.825	0.696	0.0	0.0	0.0	1.90	302.5	66.3
23.005	34.30	9.55	169.755	0.696	0.0	0.0	0.0	2.04	323.9	66.3
23.006	34.04	9.69	169.195	0.809	0.0	0.0	0.0	2.53	401.8	74.6
23.007	33.71	9.87	168.870	0.923	0.0	0.0	0.0	3.66	581.4	84.3
1.017	22.23	20.67	167.620	7.422	0.0	0.0	0.0	0.91	256.7«	446.9
1.018	22.13	20.83	167.570	7.422	0.0	0.0	0.0	1.19	131.5«	446.9

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Manhole Schedules for Storm

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)
SMH1	171.685	2.320	Open Manhole	3000	1.000	169.365	-3				
SMH2	173.100	1.425	Open Manhole	1200	2.000	171.675	225				
SMH3	173.020	1.350	Open Manhole	1200	3.000	171.670	225				
SMH4	173.285	1.885	Open Manhole	1350	2.001	171.400	375	2.000	171.550	225	
								3.000	171.550	225	
SMH5	173.600	2.545	Open Manhole	1350	2.002	171.055	375	2.001	171.055	375	
SMH6	173.000	1.710	Open Manhole	1200	4.000	171.290	300				
SMH7	173.560	2.575	Open Manhole	1350	4.001	170.985	375	4.000	171.060	300	
SMH8	173.630	2.670	Open Manhole	1350	4.002	170.960	375	4.001	170.960	375	
SMH9	173.750	2.925	Open Manhole	1350	2.003	170.825	450	2.002	170.900	375	
								4.002	170.900	375	
SMH10	172.980	2.475	Open Manhole	1350	2.004	170.505	450	2.003	170.505	450	
SMH11	172.950	3.865	Open Manhole	1350	2.005	169.085	450	2.004	169.085	450	
SMH12	173.080	4.175	Open Manhole	3000	1.001	168.905	600	1.000	168.905	-3	
								2.005	169.055	450	
SMH13	175.540	1.365	Open Manhole	1200	5.000	174.175	225				
SMH14	175.270	1.500	Open Manhole	1200	5.001	173.770	300	5.000	173.845	225	
SMH15	175.040	1.500	Open Manhole	1200	5.002	173.540	300	5.001	173.540	300	
SMH16	174.800	1.500	Open Manhole	1200	5.003	173.300	300	5.002	173.300	300	
SMH17	174.420	1.585	Open Manhole	1350	5.004	172.835	375	5.003	172.910	300	
SMH18	174.210	1.615	Open Manhole	1350	5.005	172.595	375	5.004	172.595	375	
SMH19	173.820	1.535	Open Manhole	1350	5.006	172.285	375	5.005	172.285	375	
SMH20	173.500	4.045	Open Manhole	1350	5.007	169.455	375	5.006	169.455	375	
SMH21	173.530	4.720	Open Manhole	1500	1.002	168.810	600	1.001	168.810	600	
								5.007	169.035	375	
SMH22	173.210	4.460	Open Manhole	1500	1.003	168.750	600	1.002	168.750	600	
SMH23	175.400	1.425	Open Manhole	1200	6.000	173.975	225				
SMH24	175.040	1.425	Open Manhole	1200	6.001	173.615	225	6.000	173.615	225	
SMH25	174.600	1.480	Open Manhole	1200	6.002	173.120	300	6.001	173.195	225	
SMH26	173.360	1.500	Open Manhole	1200	6.003	171.860	300	6.002	171.860	300	
SMH27	173.020	4.350	Open Manhole	1500	1.004	168.670	600	1.003	168.670	600	
								6.003	168.970	300	
SMH28	173.080	1.535	Open Manhole	1200	7.000	171.545	225				
SMH29	172.800	1.515	Open Manhole	1200	8.000	171.285	225				
SMH30	172.740	1.565	Open Manhole	1200	7.001	171.175	300	7.000	171.250	225	
								8.000	171.250	225	
SMH31	172.850	1.795	Open Manhole	1200	7.002	171.055	300	7.001	171.055	300	
SMH32	172.960	2.210	Open Manhole	1200	9.000	170.750	300				

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Manhole Schedules for Storm

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)
SMH33	173.160	2.665	Open Manhole	1200	9.001	170.495	300	9.000	170.495	300	
SMH34	173.380	3.260	Open Manhole	1350	7.003	170.120	375	7.002	170.195	300	
								9.001	170.195	300	
SMH35	173.530	3.490	Open Manhole	1350	7.004	170.040	375	7.003	170.040	375	
SMH36	173.480	3.510	Open Manhole	1350	7.005	169.970	375	7.004	169.970	375	
SMH37	173.320	4.730	Open Manhole	1500	1.005	168.590	600	1.004	168.590	600	
								7.005	168.815	375	
SMH38	173.695	5.250	Open Manhole	1500	1.006	168.445	600	1.005	168.545	600	100
SMH39	174.565	6.215	Open Manhole	1500	1.007	168.350	600	1.006	168.350	600	
SMH40	174.720	6.400	Open Manhole	1500	1.008	168.320	600	1.007	168.320	600	
SMH41	173.700	5.455	Open Manhole	1500	1.009	168.245	600	1.008	168.245	600	
SMH42	172.100	3.980	Open Manhole	1500	1.010	168.120	600	1.009	168.195	600	75
SMH43	171.280	3.220	Open Manhole	1500	1.011	168.060	600	1.010	168.060	600	
SMH44	171.000	2.970	Open Manhole	1500	1.012	168.030	600	1.011	168.030	600	
SMH45	170.540	2.545	Open Manhole	1500	1.013	167.995	600	1.012	167.995	600	
SMH46	170.680	2.760	Open Manhole	1500	1.014	167.920	600	1.013	167.920	600	
SMH47	170.600	2.795	Open Manhole	1500	1.015	167.805	600	1.014	167.805	600	
SMH48	170.800	3.130	Open Manhole	1500	1.016	167.670	600	1.015	167.670	600	
SMH200	179.960	1.910	Open Manhole	1200	10.000	178.050	225				
SMH201	179.730	1.850	Open Manhole	1200	11.000	177.880	225				
SMH202	179.840	2.050	Open Manhole	1200	10.001	177.880	300	10.000	177.955	225	
								11.000	177.790	225	
SMH203	179.210	1.615	Open Manhole	1200	10.002	177.595	300	10.001	177.595	300	
SMH204	178.840	1.415	Open Manhole	1200	10.003	177.425	300	10.002	177.425	300	
SMH205	178.490	1.390	Open Manhole	1200	10.004	177.100	300	10.003	177.100	300	
SMH206	178.240	1.360	Open Manhole	1200	10.005	176.880	300	10.004	176.880	300	
SMH207	176.125	1.425	Open Manhole	1200	12.000	174.700	225				
SMH208	176.860	2.090	Open Manhole	1200	13.000	174.770	225				
SMH209	176.630	2.150	Open Manhole	1200	12.001	174.480	300	12.000	174.555	225	
								13.000	174.555	225	
SMH210	177.300	3.000	Open Manhole	1200	12.002	174.300	300	12.001	174.300	300	
SMH211	177.630	3.535	Open Manhole	1350	10.006	174.095	375	10.005	174.170	300	
								12.002	174.170	300	
SMH212	176.960	1.585	Open Manhole	1350	14.000	175.375	375				
SMH213	176.840	2.975	Open Manhole	1350	10.007	173.865	450	10.006	173.940	375	
								14.000	173.940	375	
SMH214	176.050	2.395	Open Manhole	1500	10.008	173.655	600	10.007	173.655	450	
TANK	175.300	1.000	Open Manhole	1200	15.000	174.300	150				

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Manhole Schedules for Storm

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)	Backdro (mm)
SMH214A	175.165	2.950	Open Manhole	1500	15.001	172.215	600	15.000	173.615	150	95
SMH215	175.490	3.350	Open Manhole	1500	10.009	172.140	600	10.008	172.290	600	15
								15.001	172.140	600	
SMH216	178.900	1.415	Open Manhole	1200	16.000	177.485	225				
SMH217	178.660	1.450	Open Manhole	1200	17.000	177.210	225				
SMH218	178.760	1.810	Open Manhole	1200	16.001	176.950	300	16.000	177.025	225	
								17.000	177.025	225	
SMH219	178.390	1.595	Open Manhole	1200	16.002	176.795	300	16.001	176.795	300	
SMH220	177.910	1.900	Open Manhole	1200	16.003	176.010	300	16.002	176.010	300	
SMH221	178.310	1.390	Open Manhole	1200	18.000	176.920	225				
SMH222	177.560	1.560	Open Manhole	1200	19.000	176.000	225				
SMH223	177.880	2.045	Open Manhole	1200	18.001	175.835	300	18.000	175.910	225	
								19.000	175.910	225	
SMH224	177.530	1.950	Open Manhole	1200	18.002	175.580	300	18.001	175.580	300	
SMH225	177.260	2.010	Open Manhole	1350	16.004	175.250	375	16.003	175.325	300	
								18.002	175.325	300	
SMH226	176.340	1.880	Open Manhole	1350	16.005	174.460	375	16.004	174.460	375	
SMH227	175.820	3.875	Open Manhole	1500	10.010	171.945	600	10.009	171.945	600	
								16.005	172.170	375	
SMH228	175.380	3.535	Open Manhole	1500	10.011	171.845	600	10.010	171.845	600	
SMH229	175.080	3.315	Open Manhole	1500	10.012	171.765	600	10.011	171.765	600	
SMH230	174.840	3.135	Open Manhole	1500	10.013	171.705	600	10.012	171.705	600	
SMH231	174.560	2.930	Open Manhole	1500	10.014	171.630	600	10.013	171.630	600	
SMH232	173.840	2.350	Open Manhole	1500	10.015	171.490	600	10.014	171.490	600	
SMH233	175.500	1.105	Open Manhole	1200	20.000	174.395	225				
SMH234	175.020	1.500	Open Manhole	1200	21.000	173.520	225				
SMH235	175.250	1.865	Open Manhole	1200	20.001	173.385	300	20.000	173.460	225	
								21.000	173.460	225	
SMH236	174.750	1.670	Open Manhole	1200	20.002	173.080	300	20.001	173.080	300	
SMH237	174.320	1.670	Open Manhole	1200	20.003	172.650	300	20.002	172.650	300	
SMH238	173.660	1.605	Open Manhole	1200	20.004	172.055	300	20.003	172.055	300	
SMH239	173.290	1.890	Open Manhole	1500	10.016	171.400	600	10.015	171.400	600	
								20.004	171.700	300	
SMH240	172.790	1.840	Open Manhole	1500	10.017	170.950	600	10.016	170.950	600	
SMH241	172.730	1.740	Open Manhole	1200	22.000	170.990	300				
SMH242	172.270	1.820	Open Manhole	1500	10.018	170.450	600	10.017	170.450	600	
								22.000	170.780	300	3
SMH243	171.710	1.800	Open Manhole	1500	10.019	169.910	600	10.018	169.910	600	

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Manhole Schedules for Storm

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)
SMH244	171.200	1.800	Open Manhole	1500	10.020	169.400	600	10.019	169.400	600
SMH245	172.650	1.425	Open Manhole	1200	23.000	171.225	225			
SMH246	172.770	1.425	Open Manhole	1200	24.000	171.345	225			
SMH247	172.750	1.825	Open Manhole	1200	23.001	170.925	300	23.000	171.000	225
								24.000	171.000	225
SMH248	172.820	1.355	Open Manhole	1200	25.000	171.465	225			
SMH249	172.910	2.435	Open Manhole	1350	23.002	170.475	375	23.001	170.550	300
								25.000	170.625	225
SMH250	173.420	3.280	Open Manhole	1350	23.003	170.140	375	23.002	170.140	375
SMH251	174.560	1.480	Open Manhole	1200	26.000	173.080	225			
SMH252	173.930	1.460	Open Manhole	1200	26.001	172.470	300	26.000	172.470	225
SMH253	173.800	3.975	Open Manhole	1350	23.004	169.825	450	23.003	169.900	375
								26.001	169.975	300
SMH254	173.900	4.145	Open Manhole	1350	23.005	169.755	450	23.004	169.755	450
SMH255	171.760	2.565	Open Manhole	1350	23.006	169.195	450	23.005	169.195	450
SMH256	171.470	2.600	Open Manhole	1350	23.007	168.870	450	23.006	168.870	450
TANK	171.020	3.400	Open Manhole	100	1.017	167.620	600	1.016	167.620	600
								10.020	167.620	600
								23.007	167.620	450
SMH43	171.000	3.430	Open Manhole	3000	1.018	167.570	375	1.017	167.570	600
HIGHWAY DITCH	170.000	2.480	Open Manhole	1200		OUTFALL		1.018	167.520	375

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
SMH1	396529.594	340591.872	396529.594	340591.872	Required	
SMH2	396446.171	340554.513	396446.171	340554.513	Required	
SMH3	396468.663	340571.006	396468.663	340571.006	Required	
SMH4	396459.894	340563.847	396459.894	340563.847	Required	
SMH5	396478.890	340538.003	396478.890	340538.003	Required	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
SMH6	396466.807	340473.192	396466.807	340473.192	Required	
SMH7	396502.251	340499.323	396502.251	340499.323	Required	
SMH8	396501.978	340506.897	396501.978	340506.897	Required	
SMH9	396490.886	340521.430	396490.886	340521.430	Required	
SMH10	396531.431	340552.260	396531.431	340552.260	Required	
SMH11	396539.418	340557.622	396539.418	340557.622	Required	
SMH12	396548.151	340561.336	396548.151	340561.336	Required	
SMH13	396600.318	340630.142	396600.318	340630.142	Required	
SMH14	396605.306	340612.658	396605.306	340612.658	Required	
SMH15	396607.476	340597.996	396607.476	340597.996	Required	
SMH16	396611.869	340583.649	396611.869	340583.649	Required	
SMH17	396618.057	340560.586	396618.057	340560.586	Required	
SMH18	396611.804	340548.803	396611.804	340548.803	Required	
SMH19	396596.881	340529.583	396596.881	340529.583	Required	
SMH20	396577.114	340522.479	396577.114	340522.479	Required	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
SMH21	396569.060	340519.749	396569.060	340519.749	Required	
SMH22	396585.024	340495.818	396585.024	340495.818	Required	
SMH23	396663.260	340529.686	396663.260	340529.686	Required	
SMH24	396661.043	340518.885	396661.043	340518.885	Required	
SMH25	396653.620	340507.493	396653.620	340507.493	Required	
SMH26	396628.980	340479.807	396628.980	340479.807	Required	
SMH27	396613.622	340470.690	396613.622	340470.690	Required	
SMH28	396531.921	340408.608	396531.921	340408.608	Required	
SMH29	396566.362	340442.984	396566.362	340442.984	Required	
SMH30	396565.198	340437.928	396565.198	340437.928	Required	
SMH31	396584.115	340416.758	396584.115	340416.758	Required	
SMH32	396576.450	340364.708	396576.450	340364.708	Required	
SMH33	396588.444	340379.387	396588.444	340379.387	Required	
SMH34	396604.299	340395.147	396604.299	340395.147	Required	
SMH35	396617.454	340407.299	396617.454	340407.299	Required	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
SMH36	396626.182	340419.990	396626.182	340419.990	Required	
SMH37	396635.432	340437.765	396635.432	340437.765	Required	
SMH38	396657.570	340428.517	396657.570	340428.517	Required	
SMH39	396706.400	340420.338	396706.400	340420.338	Required	
SMH40	396719.104	340414.316	396719.104	340414.316	Required	
SMH41	396698.773	340380.348	396698.773	340380.348	Required	
SMH42	396654.726	340331.294	396654.726	340331.294	Required	
SMH43	396632.007	340310.431	396632.007	340310.431	Required	
SMH44	396623.029	340299.951	396623.029	340299.951	Required	
SMH45	396635.295	340286.681	396635.295	340286.681	Required	
SMH46	396667.014	340262.017	396667.014	340262.017	Required	
SMH47	396714.762	340225.230	396714.762	340225.230	Required	
SMH48	396772.532	340180.748	396772.532	340180.748	Required	
SMH200	396814.386	340530.021	396814.386	340530.021	Required	
SMH201	396827.410	340518.270	396827.410	340518.270	Required	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
SMH202	396821.345	340523.685	396821.345	340523.685	Required	
SMH203	396805.670	340505.476	396805.670	340505.476	Required	
SMH204	396793.740	340497.520	396793.740	340497.520	Required	
SMH205	396784.814	340487.049	396784.814	340487.049	Required	
SMH206	396780.072	340477.919	396780.072	340477.919	Required	
SMH207	396717.430	340483.080	396717.430	340483.080	Required	
SMH208	396732.542	340504.348	396732.542	340504.348	Required	
SMH209	396724.750	340491.584	396724.750	340491.584	Required	
SMH210	396747.275	340472.194	396747.275	340472.194	Required	
SMH211	396763.282	340458.414	396763.282	340458.414	Required	
SMH212	396807.456	340431.129	396807.456	340431.129	Required	
SMH213	396797.458	340428.996	396797.458	340428.996	Required	
SMH214	396777.191	340405.452	396777.191	340405.452	Required	
SMH214A	396745.911	340397.002	396745.911	340397.002	Required	
SMH215	396770.942	340384.029	396770.942	340384.029	Required	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
SMH216	396884.223	340475.718	396884.223	340475.718	Required	
SMH217	396897.600	340462.186	396897.600	340462.186	Required	
SMH218	396891.712	340468.143	396891.712	340468.143	Required	
SMH219	396880.483	340457.043	396880.483	340457.043	Required	
SMH220	396874.681	340438.691	396874.681	340438.691	Required	
SMH221	396908.962	340396.067	396908.962	340396.067	Required	
SMH222	396889.827	340372.363	396889.827	340372.363	Required	
SMH223	396898.373	340382.292	396898.373	340382.292	Required	
SMH224	396877.617	340400.154	396877.617	340400.154	Required	
SMH225	396856.877	340418.001	396856.877	340418.001	Required	
SMH226	396831.992	340389.083	396831.992	340389.083	Required	
SMH227	396817.935	340372.748	396817.935	340372.748	Required	
SMH228	396831.054	340351.576	396831.054	340351.576	Required	
SMH229	396834.701	340332.616	396834.701	340332.616	Required	
SMH230	396835.746	340317.255	396835.746	340317.255	Required	

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Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
SMH231	396840.564	340299.704	396840.564	340299.704	Required	
SMH232	396860.947	340271.130	396860.947	340271.130	Required	
SMH233	396929.553	340276.217	396929.553	340276.217	Required	
SMH234	396940.094	340260.122	396940.094	340260.122	Required	
SMH235	396934.935	340267.999	396934.935	340267.999	Required	
SMH236	396920.837	340258.766	396920.837	340258.766	Required	
SMH237	396905.588	340255.212	396905.588	340255.212	Required	
SMH238	396883.201	340252.882	396883.201	340252.882	Required	
SMH239	396870.350	340250.185	396870.350	340250.185	Required	
SMH240	396872.209	340229.475	396872.209	340229.475	Required	
SMH241	396883.714	340199.999	396883.714	340199.999	Required	
SMH242	396865.807	340204.609	396865.807	340204.609	Required	
SMH243	396844.412	340209.178	396844.412	340209.178	Required	
SMH244	396840.132	340197.328	396840.132	340197.328	Required	
SMH245	396723.699	340286.305	396723.699	340286.305	Required	

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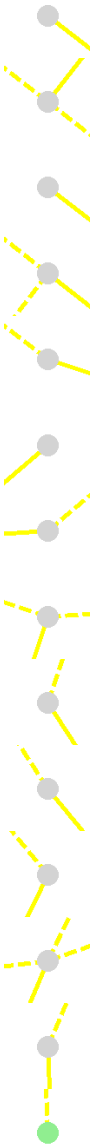
Manhole Schedules for Storm

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
SMH246	396704.237	340301.416	396704.237	340301.416	Required	
SMH247	396713.054	340294.570	396713.054	340294.570	Required	
SMH248	396690.958	340349.521	396690.958	340349.521	Required	
SMH249	396731.363	340318.150	396731.363	340318.150	Required	
SMH250	396757.444	340297.900	396757.444	340297.900	Required	
SMH251	396819.738	340315.996	396819.738	340315.996	Required	
SMH252	396790.159	340291.074	396790.159	340291.074	Required	
SMH253	396779.977	340290.379	396779.977	340290.379	Required	
SMH254	396777.447	340282.798	396777.447	340282.798	Required	
SMH255	396807.907	340236.014	396807.907	340236.014	Required	
SMH256	396821.336	340219.733	396821.336	340219.733	Required	
TANK	396804.291	340184.783	396804.291	340184.783	Required	
SMH43	396790.494	340152.223	396790.494	340152.223	Required	
HIGHWAY DITCH	396790.982	340140.732			No Entry	



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PIPELINE SCHEDULES for Storm

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	oo	-3	SMH1	171.685	169.365	1.720	Open Manhole	3000
2.000	o	225	SMH2	173.100	171.675	1.200	Open Manhole	1200
3.000	o	225	SMH3	173.020	171.670	1.125	Open Manhole	1200
2.001	o	375	SMH4	173.285	171.400	1.510	Open Manhole	1350
2.002	o	375	SMH5	173.600	171.055	2.170	Open Manhole	1350
4.000	o	300	SMH6	173.000	171.290	1.410	Open Manhole	1200
4.001	o	375	SMH7	173.560	170.985	2.200	Open Manhole	1350
4.002	o	375	SMH8	173.630	170.960	2.295	Open Manhole	1350
2.003	o	450	SMH9	173.750	170.825	2.475	Open Manhole	1350
2.004	o	450	SMH10	172.980	170.505	2.025	Open Manhole	1350
2.005	o	450	SMH11	172.950	169.085	3.415	Open Manhole	1350
1.001	o	600	SMH12	173.080	168.905	3.575	Open Manhole	3000
5.000	o	225	SMH13	175.540	174.175	1.140	Open Manhole	1200
5.001	o	300	SMH14	175.270	173.770	1.200	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	35.733	77.7	SMH12	173.080	168.905	3.575	Open Manhole	3000
2.000	16.597	132.8	SMH4	173.285	171.550	1.510	Open Manhole	1350
3.000	11.320	94.3	SMH4	173.285	171.550	1.510	Open Manhole	1350
2.001	32.074	93.0	SMH5	173.600	171.055	2.170	Open Manhole	1350
2.002	20.454	132.0	SMH9	173.750	170.900	2.475	Open Manhole	1350
4.000	44.035	191.5	SMH7	173.560	171.060	2.200	Open Manhole	1350
4.001	7.579	303.2	SMH8	173.630	170.960	2.295	Open Manhole	1350
4.002	18.283	304.7	SMH9	173.750	170.900	2.475	Open Manhole	1350
2.003	50.935	159.2	SMH10	172.980	170.505	2.025	Open Manhole	1350
2.004	9.620	6.8	SMH11	172.950	169.085	3.415	Open Manhole	1350
2.005	9.490	316.3	SMH12	173.080	169.055	3.575	Open Manhole	3000
1.001	46.547	490.0	SMH21	173.530	168.810	4.120	Open Manhole	1500
5.000	18.182	55.1	SMH14	175.270	173.845	1.200	Open Manhole	1200
5.001	14.822	64.4	SMH15	175.040	173.540	1.200	Open Manhole	1200

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PIPELINE SCHEDULES for Storm

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)
5.002	o	300	SMH15	175.040	173.540	1.200	Open Manhole	1200
5.003	o	300	SMH16	174.800	173.300	1.200	Open Manhole	1200
5.004	o	375	SMH17	174.420	172.835	1.210	Open Manhole	1350
5.005	o	375	SMH18	174.210	172.595	1.240	Open Manhole	1350
5.006	o	375	SMH19	173.820	172.285	1.160	Open Manhole	1350
5.007	o	375	SMH20	173.500	169.455	3.670	Open Manhole	1350
1.002	o	600	SMH21	173.530	168.810	4.120	Open Manhole	1500
1.003	o	600	SMH22	173.210	168.750	3.860	Open Manhole	1500
6.000	o	225	SMH23	175.400	173.975	1.200	Open Manhole	1200
6.001	o	225	SMH24	175.040	173.615	1.200	Open Manhole	1200
6.002	o	300	SMH25	174.600	173.120	1.180	Open Manhole	1200
6.003	o	300	SMH26	173.360	171.860	1.200	Open Manhole	1200
1.004	o	600	SMH27	173.020	168.670	3.750	Open Manhole	1500
7.000	o	225	SMH28	173.080	171.545	1.310	Open Manhole	1200
8.000	o	225	SMH29	172.800	171.285	1.290	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)
5.002	15.004	62.5	SMH16	174.800	173.300	1.200	Open Manhole	1200
5.003	23.710	60.8	SMH17	174.420	172.910	1.210	Open Manhole	1350
5.004	13.340	55.6	SMH18	174.210	172.595	1.240	Open Manhole	1350
5.005	24.333	78.5	SMH19	173.820	172.285	1.160	Open Manhole	1350
5.006	21.005	7.4	SMH20	173.500	169.455	3.670	Open Manhole	1350
5.007	8.504	20.2	SMH21	173.530	169.035	4.120	Open Manhole	1500
1.002	28.767	479.5	SMH22	173.210	168.750	3.860	Open Manhole	1500
1.003	38.069	475.9	SMH27	173.020	168.670	3.750	Open Manhole	1500
6.000	11.026	30.6	SMH24	175.040	173.615	1.200	Open Manhole	1200
6.001	13.597	32.4	SMH25	174.600	173.195	1.180	Open Manhole	1200
6.002	37.063	29.4	SMH26	173.360	171.860	1.200	Open Manhole	1200
6.003	17.845	6.2	SMH27	173.020	168.970	3.750	Open Manhole	1500
1.004	39.493	493.7	SMH37	173.320	168.590	4.130	Open Manhole	1500
7.000	44.351	150.3	SMH30	172.740	171.250	1.265	Open Manhole	1200
8.000	5.188	148.2	SMH30	172.740	171.250	1.265	Open Manhole	1200

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PIPELINE SCHEDULES for Storm

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)
7.001	o	300	SMH30	172.740	171.175	1.265	Open Manhole	1200
7.002	o	300	SMH31	172.850	171.055	1.495	Open Manhole	1200
9.000	o	300	SMH32	172.960	170.750	1.910	Open Manhole	1200
9.001	o	300	SMH33	173.160	170.495	2.365	Open Manhole	1200
7.003	o	375	SMH34	173.380	170.120	2.885	Open Manhole	1350
7.004	o	375	SMH35	173.530	170.040	3.115	Open Manhole	1350
7.005	o	375	SMH36	173.480	169.970	3.135	Open Manhole	1350
1.005	o	600	SMH37	173.320	168.590	4.130	Open Manhole	1500
1.006	o	600	SMH38	173.695	168.445	4.650	Open Manhole	1500
1.007	o	600	SMH39	174.565	168.350	5.615	Open Manhole	1500
1.008	o	600	SMH40	174.720	168.320	5.800	Open Manhole	1500
1.009	o	600	SMH41	173.700	168.245	4.855	Open Manhole	1500
1.010	o	600	SMH42	172.100	168.120	3.380	Open Manhole	1500
1.011	o	600	SMH43	171.280	168.060	2.620	Open Manhole	1500
1.012	o	600	SMH44	171.000	168.030	2.370	Open Manhole	1500
1.013	o	600	SMH45	170.540	167.995	1.945	Open Manhole	1500
1.014	o	600	SMH46	170.680	167.920	2.160	Open Manhole	1500
1.015	o	600	SMH47	170.600	167.805	2.195	Open Manhole	1500

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)
7.001	28.516	237.6	SMH31	172.850	171.055	1.495	Open Manhole	1200
7.002	29.476	34.3	SMH34	173.380	170.195	2.885	Open Manhole	1350
9.000	18.956	74.3	SMH33	173.160	170.495	2.365	Open Manhole	1200
9.001	22.354	74.5	SMH34	173.380	170.195	2.885	Open Manhole	1350
7.003	18.001	225.0	SMH35	173.530	170.040	3.115	Open Manhole	1350
7.004	15.402	220.0	SMH36	173.480	169.970	3.135	Open Manhole	1350
7.005	20.038	17.3	SMH37	173.320	168.815	4.130	Open Manhole	1500
1.005	23.992	533.2	SMH38	173.695	168.545	4.550	Open Manhole	1500
1.006	49.510	521.2	SMH39	174.565	168.350	5.615	Open Manhole	1500
1.007	14.059	468.6	SMH40	174.720	168.320	5.800	Open Manhole	1500
1.008	39.588	527.8	SMH41	173.700	168.245	4.855	Open Manhole	1500
1.009	65.926	1318.5	SMH42	172.100	168.195	3.305	Open Manhole	1500
1.010	30.846	514.1	SMH43	171.280	168.060	2.620	Open Manhole	1500
1.011	13.928	464.3	SMH44	171.000	168.030	2.370	Open Manhole	1500
1.012	18.071	516.3	SMH45	170.540	167.995	1.945	Open Manhole	1500
1.013	40.180	535.7	SMH46	170.680	167.920	2.160	Open Manhole	1500
1.014	60.275	524.1	SMH47	170.600	167.805	2.195	Open Manhole	1500
1.015	72.911	540.1	SMH48	170.800	167.670	2.530	Open Manhole	1500

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PIPELINE SCHEDULES for Storm

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)
1.016	o	600	SMH48	170.800	167.670	2.530	Open Manhole	1500
10.000	o	225	SMH200	179.960	178.050	1.685	Open Manhole	1200
11.000	o	225	SMH201	179.730	177.880	1.625	Open Manhole	1200
10.001	o	300	SMH202	179.840	177.880	1.660	Open Manhole	1200
10.002	o	300	SMH203	179.210	177.595	1.315	Open Manhole	1200
10.003	o	300	SMH204	178.840	177.425	1.115	Open Manhole	1200
10.004	o	300	SMH205	178.490	177.100	1.090	Open Manhole	1200
10.005	o	300	SMH206	178.240	176.880	1.060	Open Manhole	1200
12.000	o	225	SMH207	176.125	174.700	1.200	Open Manhole	1200
13.000	o	225	SMH208	176.860	174.770	1.865	Open Manhole	1200
12.001	o	300	SMH209	176.630	174.480	1.850	Open Manhole	1200
12.002	o	300	SMH210	177.300	174.300	2.700	Open Manhole	1200
10.006	o	375	SMH211	177.630	174.095	3.160	Open Manhole	1350

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)
1.016	32.015	640.3	TANK	171.020	167.620	2.800	Open Manhole	100
10.000	9.411	99.1	SMH202	179.840	177.955	1.660	Open Manhole	1200
11.000	8.130	90.3	SMH202	179.840	177.790	1.825	Open Manhole	1200
10.001	24.043	84.4	SMH203	179.210	177.595	1.315	Open Manhole	1200
10.002	14.339	84.3	SMH204	178.840	177.425	1.115	Open Manhole	1200
10.003	13.760	42.3	SMH205	178.490	177.100	1.090	Open Manhole	1200
10.004	10.288	46.8	SMH206	178.240	176.880	1.060	Open Manhole	1200
10.005	25.736	9.5	SMH211	177.630	174.170	3.160	Open Manhole	1350
12.000	11.220	77.4	SMH209	176.630	174.555	1.850	Open Manhole	1200
13.000	14.955	69.6	SMH209	176.630	174.555	1.850	Open Manhole	1200
12.001	29.721	165.1	SMH210	177.300	174.300	2.700	Open Manhole	1200
12.002	21.121	162.5	SMH211	177.630	174.170	3.160	Open Manhole	1350
10.006	45.093	290.9	SMH213	176.840	173.940	2.525	Open Manhole	1350

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PIPELINE SCHEDULES for Storm

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	375	SMH212	176.960	175.375	1.210	Open Manhole	1350
10.007	o	450	SMH213	176.840	173.865	2.525	Open Manhole	1350
10.008	o	600	SMH214	176.050	173.655	1.795	Open Manhole	1500
15.000	o	150	TANK	175.300	174.300	0.850	Open Manhole	1200
15.001	o	600	SMH214A	175.165	172.215	2.350	Open Manhole	1500
10.009	o	600	SMH215	175.490	172.140	2.750	Open Manhole	1500
16.000	o	225	SMH216	178.900	177.485	1.190	Open Manhole	1200
17.000	o	225	SMH217	178.660	177.210	1.225	Open Manhole	1200
16.001	o	300	SMH218	178.760	176.950	1.510	Open Manhole	1200
16.002	o	300	SMH219	178.390	176.795	1.295	Open Manhole	1200
16.003	o	300	SMH220	177.910	176.010	1.600	Open Manhole	1200
18.000	o	225	SMH221	178.310	176.920	1.165	Open Manhole	1200
19.000	o	225	SMH222	177.560	176.000	1.335	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
14.000	10.224	7.1	SMH213	176.840	173.940	2.525	Open Manhole	1350
10.007	31.065	147.9	SMH214	176.050	173.655	1.945	Open Manhole	1500
10.008	22.316	16.3	SMH215	175.490	172.290	2.600	Open Manhole	1500
15.000	6.960	10.2	SMH214A	175.165	173.615	1.400	Open Manhole	1500
15.001	28.193	375.9	SMH215	175.490	172.140	2.750	Open Manhole	1500
10.009	48.329	247.8	SMH227	175.820	171.945	3.275	Open Manhole	1500
16.000	10.652	23.2	SMH218	178.760	177.025	1.510	Open Manhole	1200
17.000	8.376	45.3	SMH218	178.760	177.025	1.510	Open Manhole	1200
16.001	15.788	101.9	SMH219	178.390	176.795	1.295	Open Manhole	1200
16.002	19.247	24.5	SMH220	177.910	176.010	1.600	Open Manhole	1200
16.003	27.296	39.8	SMH225	177.260	175.325	1.635	Open Manhole	1350
18.000	17.375	17.2	SMH223	177.880	175.910	1.745	Open Manhole	1200
19.000	13.101	145.6	SMH223	177.880	175.910	1.745	Open Manhole	1200

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PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
18.001	o	300	SMH223	177.880	175.835	1.745	Open Manhole	1200
18.002	o	300	SMH224	177.530	175.580	1.650	Open Manhole	1200
16.004	o	375	SMH225	177.260	175.250	1.635	Open Manhole	1350
16.005	o	375	SMH226	176.340	174.460	1.505	Open Manhole	1350
10.010	o	600	SMH227	175.820	171.945	3.275	Open Manhole	1500
10.011	o	600	SMH228	175.380	171.845	2.935	Open Manhole	1500
10.012	o	600	SMH229	175.080	171.765	2.715	Open Manhole	1500
10.013	o	600	SMH230	174.840	171.705	2.535	Open Manhole	1500
10.014	o	600	SMH231	174.560	171.630	2.330	Open Manhole	1500
10.015	o	600	SMH232	173.840	171.490	1.750	Open Manhole	1500
20.000	o	225	SMH233	175.500	174.395	0.880	Open Manhole	1200
21.000	o	225	SMH234	175.020	173.520	1.275	Open Manhole	1200
20.001	o	300	SMH235	175.250	173.385	1.565	Open Manhole	1200
20.002	o	300	SMH236	174.750	173.080	1.370	Open Manhole	1200
20.003	o	300	SMH237	174.320	172.650	1.370	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
18.001	27.384	107.4	SMH224	177.530	175.580	1.650	Open Manhole	1200
18.002	27.362	107.3	SMH225	177.260	175.325	1.635	Open Manhole	1350
16.004	38.151	48.3	SMH226	176.340	174.460	1.505	Open Manhole	1350
16.005	21.550	9.4	SMH227	175.820	172.170	3.275	Open Manhole	1500
10.010	24.907	249.1	SMH228	175.380	171.845	2.935	Open Manhole	1500
10.011	19.307	241.3	SMH229	175.080	171.765	2.715	Open Manhole	1500
10.012	15.398	256.6	SMH230	174.840	171.705	2.535	Open Manhole	1500
10.013	18.195	242.6	SMH231	174.560	171.630	2.330	Open Manhole	1500
10.014	35.099	250.7	SMH232	173.840	171.490	1.750	Open Manhole	1500
10.015	22.959	255.1	SMH239	173.290	171.400	1.290	Open Manhole	1500
20.000	9.823	10.5	SMH235	175.250	173.460	1.565	Open Manhole	1200
21.000	9.417	157.0	SMH235	175.250	173.460	1.565	Open Manhole	1200
20.001	16.852	55.3	SMH236	174.750	173.080	1.370	Open Manhole	1200
20.002	15.657	36.4	SMH237	174.320	172.650	1.370	Open Manhole	1200
20.003	22.508	37.8	SMH238	173.660	172.055	1.305	Open Manhole	1200

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PIPELINE SCHEDULES for Storm

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)
20.004	o	300	SMH238	173.660	172.055	1.305	Open Manhole	1200
10.016	o	600	SMH239	173.290	171.400	1.290	Open Manhole	1500
10.017	o	600	SMH240	172.790	170.950	1.240	Open Manhole	1500
22.000	o	300	SMH241	172.730	170.990	1.440	Open Manhole	1200
10.018	o	600	SMH242	172.270	170.450	1.220	Open Manhole	1500
10.019	o	600	SMH243	171.710	169.910	1.200	Open Manhole	1500
10.020	o	600	SMH244	171.200	169.400	1.200	Open Manhole	1500
23.000	o	225	SMH245	172.650	171.225	1.200	Open Manhole	1200
24.000	o	225	SMH246	172.770	171.345	1.200	Open Manhole	1200
23.001	o	300	SMH247	172.750	170.925	1.525	Open Manhole	1200
25.000	o	225	SMH248	172.820	171.465	1.130	Open Manhole	1200
23.002	o	375	SMH249	172.910	170.475	2.060	Open Manhole	1350
23.003	o	375	SMH250	173.420	170.140	2.905	Open Manhole	1350

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)
20.004	13.131	37.0	SMH239	173.290	171.700	1.290	Open Manhole	1500
10.016	20.793	46.2	SMH240	172.790	170.950	1.240	Open Manhole	1500
10.017	25.678	51.4	SMH242	172.270	170.450	1.220	Open Manhole	1500
22.000	18.491	88.1	SMH242	172.270	170.780	1.190	Open Manhole	1500
10.018	21.772	40.3	SMH243	171.710	169.910	1.200	Open Manhole	1500
10.019	12.599	24.7	SMH244	171.200	169.400	1.200	Open Manhole	1500
10.020	37.973	21.3	TANK	171.020	167.620	2.800	Open Manhole	100
23.000	13.477	59.9	SMH247	172.750	171.000	1.525	Open Manhole	1200
24.000	11.163	32.4	SMH247	172.750	171.000	1.525	Open Manhole	1200
23.001	29.854	79.6	SMH249	172.910	170.550	2.060	Open Manhole	1350
25.000	51.153	60.9	SMH249	172.910	170.625	2.060	Open Manhole	1350
23.002	33.019	98.6	SMH250	173.420	170.140	2.905	Open Manhole	1350
23.003	23.756	99.0	SMH253	173.800	169.900	3.525	Open Manhole	1350

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PIPELINE SCHEDULES for Storm

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)
26.000	o	225	SMH251	174.560	173.080	1.255	Open Manhole	1200
26.001	o	300	SMH252	173.930	172.470	1.160	Open Manhole	1200
23.004	o	450	SMH253	173.800	169.825	3.525	Open Manhole	1350
23.005	o	450	SMH254	173.900	169.755	3.695	Open Manhole	1350
23.006	o	450	SMH255	171.760	169.195	2.115	Open Manhole	1350
23.007	o	450	SMH256	171.470	168.870	2.150	Open Manhole	1350
1.017	o	600	TANK	171.020	167.620	2.800	Open Manhole	100
1.018	o	375	SMH43	171.000	167.570	3.055	Open Manhole	3000

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)
26.000	38.678	63.4	SMH252	173.930	172.470	1.235	Open Manhole	1200
26.001	10.206	4.1	SMH253	173.800	169.975	3.525	Open Manhole	1350
23.004	7.992	114.2	SMH254	173.900	169.755	3.695	Open Manhole	1350
23.005	55.826	99.7	SMH255	171.760	169.195	2.115	Open Manhole	1350
23.006	21.105	64.9	SMH256	171.470	168.870	2.150	Open Manhole	1350
23.007	38.885	31.1	TANK	171.020	167.620	2.950	Open Manhole	100
1.017	35.363	707.3	SMH43	171.000	167.570	2.830	Open Manhole	3000
1.018	11.501	230.0	HIGHWAY DITCH	170.000	167.520	2.105	Open Manhole	1200

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Setting Out Information - True Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
1.000	SMH1	3000		396529.594	340591.872	396529.594	340591.872	
2.000	SMH2	1200		396446.171	340554.513	396446.171	340554.513	
3.000	SMH3	1200		396468.663	340571.006	396468.663	340571.006	
2.001	SMH4	1350		396459.894	340563.847	396459.894	340563.847	
2.002	SMH5	1350		396478.890	340538.003	396478.890	340538.003	
4.000	SMH6	1200		396466.807	340473.192	396466.807	340473.192	
4.001	SMH7	1350		396502.251	340499.323	396502.251	340499.323	
4.002	SMH8	1350		396501.978	340506.897	396501.978	340506.897	
2.003	SMH9	1350		396490.886	340521.430	396490.886	340521.430	
2.004	SMH10	1350		396531.431	340552.260	396531.431	340552.260	
2.005	SMH11	1350		396539.418	340557.622	396539.418	340557.622	
1.001	SMH12	3000		396548.151	340561.336	396548.151	340561.336	
5.000	SMH13	1200		396600.318	340630.142	396600.318	340630.142	
5.001	SMH14	1200		396605.306	340612.658	396605.306	340612.658	
5.002	SMH15	1200		396607.476	340597.996	396607.476	340597.996	
5.003	SMH16	1200		396611.869	340583.649	396611.869	340583.649	

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Setting Out Information - True Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
5.004	SMH17	1350		396618.057	340560.586	396618.057	340560.586	
5.005	SMH18	1350		396611.804	340548.803	396611.804	340548.803	
5.006	SMH19	1350		396596.881	340529.583	396596.881	340529.583	
5.007	SMH20	1350		396577.114	340522.479	396577.114	340522.479	
1.002	SMH21	1500		396569.060	340519.749	396569.060	340519.749	
1.003	SMH22	1500		396585.024	340495.818	396585.024	340495.818	
6.000	SMH23	1200		396663.260	340529.686	396663.260	340529.686	
6.001	SMH24	1200		396661.043	340518.885	396661.043	340518.885	
6.002	SMH25	1200		396653.620	340507.493	396653.620	340507.493	
6.003	SMH26	1200		396628.980	340479.807	396628.980	340479.807	
1.004	SMH27	1500		396613.622	340470.690	396613.622	340470.690	
7.000	SMH28	1200		396531.921	340408.608	396531.921	340408.608	
8.000	SMH29	1200		396566.362	340442.984	396566.362	340442.984	
7.001	SMH30	1200		396565.198	340437.928	396565.198	340437.928	
7.002	SMH31	1200		396584.115	340416.758	396584.115	340416.758	
9.000	SMH32	1200		396576.450	340364.708	396576.450	340364.708	

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Setting Out Information - True Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
9.001	SMH33	1200		396588.444	340379.387	396588.444	340379.387	
7.003	SMH34	1350		396604.299	340395.147	396604.299	340395.147	
7.004	SMH35	1350		396617.454	340407.299	396617.454	340407.299	
7.005	SMH36	1350		396626.182	340419.990	396626.182	340419.990	
1.005	SMH37	1500		396635.432	340437.765	396635.432	340437.765	
1.006	SMH38	1500		396657.570	340428.517	396657.570	340428.517	
1.007	SMH39	1500		396706.400	340420.338	396706.400	340420.338	
1.008	SMH40	1500		396719.104	340414.316	396719.104	340414.316	
1.009	SMH41	1500		396698.773	340380.348	396698.773	340380.348	
1.010	SMH42	1500		396654.726	340331.294	396654.726	340331.294	
1.011	SMH43	1500		396632.007	340310.431	396632.007	340310.431	
1.012	SMH44	1500		396623.029	340299.951	396623.029	340299.951	
1.013	SMH45	1500		396635.295	340286.681	396635.295	340286.681	
1.014	SMH46	1500		396667.014	340262.017	396667.014	340262.017	
1.015	SMH47	1500		396714.762	340225.230	396714.762	340225.230	
1.016	SMH48	1500		396772.532	340180.748	396772.532	340180.748	

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Setting Out Information - True Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
10.000	SMH200	1200		396814.386	340530.021	396814.386	340530.021	
11.000	SMH201	1200		396827.410	340518.270	396827.410	340518.270	
10.001	SMH202	1200		396821.345	340523.685	396821.345	340523.685	
10.002	SMH203	1200		396805.670	340505.476	396805.670	340505.476	
10.003	SMH204	1200		396793.740	340497.520	396793.740	340497.520	
10.004	SMH205	1200		396784.814	340487.049	396784.814	340487.049	
10.005	SMH206	1200		396780.072	340477.919	396780.072	340477.919	
12.000	SMH207	1200		396717.430	340483.080	396717.430	340483.080	
13.000	SMH208	1200		396732.542	340504.348	396732.542	340504.348	
12.001	SMH209	1200		396724.750	340491.584	396724.750	340491.584	
12.002	SMH210	1200		396747.275	340472.194	396747.275	340472.194	
10.006	SMH211	1350		396763.282	340458.414	396763.282	340458.414	
14.000	SMH212	1350		396807.456	340431.129	396807.456	340431.129	
10.007	SMH213	1350		396797.458	340428.996	396797.458	340428.996	
10.008	SMH214	1500		396777.191	340405.452	396777.191	340405.452	
15.000	TANK	1200						

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Setting Out Information - True Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
15.001	SMH214A	1500		396745.911	340397.002	396745.911	340397.002	
10.009	SMH215	1500		396770.942	340384.029	396770.942	340384.029	
16.000	SMH216	1200		396884.223	340475.718	396884.223	340475.718	
17.000	SMH217	1200		396897.600	340462.186	396897.600	340462.186	
16.001	SMH218	1200		396891.712	340468.143	396891.712	340468.143	
16.002	SMH219	1200		396880.483	340457.043	396880.483	340457.043	
16.003	SMH220	1200		396874.681	340438.691	396874.681	340438.691	
18.000	SMH221	1200		396908.962	340396.067	396908.962	340396.067	
19.000	SMH222	1200		396889.827	340372.363	396889.827	340372.363	
18.001	SMH223	1200		396898.373	340382.292	396898.373	340382.292	
18.002	SMH224	1200		396877.617	340400.154	396877.617	340400.154	
16.004	SMH225	1350		396856.877	340418.001	396856.877	340418.001	
16.005	SMH226	1350		396831.992	340389.083	396831.992	340389.083	
10.010	SMH227	1500		396817.935	340372.748	396817.935	340372.748	
10.011	SMH228	1500		396831.054	340351.576	396831.054	340351.576	
10.012	SMH229	1500		396834.701	340332.616	396834.701	340332.616	

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Setting Out Information - True Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
10.013	SMH230	1500		396835.746	340317.255	396835.746	340317.255	
10.014	SMH231	1500		396840.564	340299.704	396840.564	340299.704	
10.015	SMH232	1500		396860.947	340271.130	396860.947	340271.130	
20.000	SMH233	1200		396929.553	340276.217	396929.553	340276.217	
21.000	SMH234	1200		396940.094	340260.122	396940.094	340260.122	
20.001	SMH235	1200		396934.935	340267.999	396934.935	340267.999	
20.002	SMH236	1200		396920.837	340258.766	396920.837	340258.766	
20.003	SMH237	1200		396905.588	340255.212	396905.588	340255.212	
20.004	SMH238	1200		396883.201	340252.882	396883.201	340252.882	
10.016	SMH239	1500		396870.350	340250.185	396870.350	340250.185	
10.017	SMH240	1500		396872.209	340229.475	396872.209	340229.475	
22.000	SMH241	1200		396883.714	340199.999	396883.714	340199.999	
10.018	SMH242	1500		396865.807	340204.609	396865.807	340204.609	
10.019	SMH243	1500		396844.412	340209.178	396844.412	340209.178	
10.020	SMH244	1500		396840.132	340197.328	396840.132	340197.328	
23.000	SMH245	1200		396723.699	340286.305	396723.699	340286.305	

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Setting Out Information - True Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
24.000	SMH246	1200		396704.237	340301.416	396704.237	340301.416	
23.001	SMH247	1200		396713.054	340294.570	396713.054	340294.570	
25.000	SMH248	1200		396690.958	340349.521	396690.958	340349.521	
23.002	SMH249	1350		396731.363	340318.150	396731.363	340318.150	
23.003	SMH250	1350		396757.444	340297.900	396757.444	340297.900	
26.000	SMH251	1200		396819.738	340315.996	396819.738	340315.996	
26.001	SMH252	1200		396790.159	340291.074	396790.159	340291.074	
23.004	SMH253	1350		396779.977	340290.379	396779.977	340290.379	
23.005	SMH254	1350		396777.447	340282.798	396777.447	340282.798	
23.006	SMH255	1350		396807.907	340236.014	396807.907	340236.014	
23.007	SMH256	1350		396821.336	340219.733	396821.336	340219.733	
1.017	TANK	100		396804.291	340184.783	396804.291	340184.783	
1.018	SMH43	3000		396790.494	340152.223	396790.494	340152.223	

PN	DSMH Name	Dia/Len (mm)	Width (mm)	DS Easting (m)	DS Northing (m)	Layout (North)
1.018	HIGHWAY DITCH	1200		396790.982	340140.732	

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Setting Out Information - Site Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
1.000	SMH1	3000		396529.594	340591.872	396529.594	340591.872	
2.000	SMH2	1200		396446.171	340554.513	396446.171	340554.513	
3.000	SMH3	1200		396468.663	340571.006	396468.663	340571.006	
2.001	SMH4	1350		396459.894	340563.847	396459.894	340563.847	
2.002	SMH5	1350		396478.890	340538.003	396478.890	340538.003	
4.000	SMH6	1200		396466.807	340473.192	396466.807	340473.192	
4.001	SMH7	1350		396502.251	340499.323	396502.251	340499.323	
4.002	SMH8	1350		396501.978	340506.897	396501.978	340506.897	
2.003	SMH9	1350		396490.886	340521.430	396490.886	340521.430	
2.004	SMH10	1350		396531.431	340552.260	396531.431	340552.260	
2.005	SMH11	1350		396539.418	340557.622	396539.418	340557.622	
1.001	SMH12	3000		396548.151	340561.336	396548.151	340561.336	
5.000	SMH13	1200		396600.318	340630.142	396600.318	340630.142	
5.001	SMH14	1200		396605.306	340612.658	396605.306	340612.658	
5.002	SMH15	1200		396607.476	340597.996	396607.476	340597.996	
5.003	SMH16	1200		396611.869	340583.649	396611.869	340583.649	

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Setting Out Information - Site Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
5.004	SMH17	1350		396618.057	340560.586	396618.057	340560.586	
5.005	SMH18	1350		396611.804	340548.803	396611.804	340548.803	
5.006	SMH19	1350		396596.881	340529.583	396596.881	340529.583	
5.007	SMH20	1350		396577.114	340522.479	396577.114	340522.479	
1.002	SMH21	1500		396569.060	340519.749	396569.060	340519.749	
1.003	SMH22	1500		396585.024	340495.818	396585.024	340495.818	
6.000	SMH23	1200		396663.260	340529.686	396663.260	340529.686	
6.001	SMH24	1200		396661.043	340518.885	396661.043	340518.885	
6.002	SMH25	1200		396653.620	340507.493	396653.620	340507.493	
6.003	SMH26	1200		396628.980	340479.807	396628.980	340479.807	
1.004	SMH27	1500		396613.622	340470.690	396613.622	340470.690	
7.000	SMH28	1200		396531.921	340408.608	396531.921	340408.608	
8.000	SMH29	1200		396566.362	340442.984	396566.362	340442.984	
7.001	SMH30	1200		396565.198	340437.928	396565.198	340437.928	
7.002	SMH31	1200		396584.115	340416.758	396584.115	340416.758	
9.000	SMH32	1200		396576.450	340364.708	396576.450	340364.708	

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Setting Out Information - Site Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
9.001	SMH33	1200		396588.444	340379.387	396588.444	340379.387	
7.003	SMH34	1350		396604.299	340395.147	396604.299	340395.147	
7.004	SMH35	1350		396617.454	340407.299	396617.454	340407.299	
7.005	SMH36	1350		396626.182	340419.990	396626.182	340419.990	
1.005	SMH37	1500		396635.432	340437.765	396635.432	340437.765	
1.006	SMH38	1500		396657.570	340428.517	396657.570	340428.517	
1.007	SMH39	1500		396706.400	340420.338	396706.400	340420.338	
1.008	SMH40	1500		396719.104	340414.316	396719.104	340414.316	
1.009	SMH41	1500		396698.773	340380.348	396698.773	340380.348	
1.010	SMH42	1500		396654.726	340331.294	396654.726	340331.294	
1.011	SMH43	1500		396632.007	340310.431	396632.007	340310.431	
1.012	SMH44	1500		396623.029	340299.951	396623.029	340299.951	
1.013	SMH45	1500		396635.295	340286.681	396635.295	340286.681	
1.014	SMH46	1500		396667.014	340262.017	396667.014	340262.017	
1.015	SMH47	1500		396714.762	340225.230	396714.762	340225.230	
1.016	SMH48	1500		396772.532	340180.748	396772.532	340180.748	

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Setting Out Information - Site Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
10.000	SMH200	1200		396814.386	340530.021	396814.386	340530.021	
11.000	SMH201	1200		396827.410	340518.270	396827.410	340518.270	
10.001	SMH202	1200		396821.345	340523.685	396821.345	340523.685	
10.002	SMH203	1200		396805.670	340505.476	396805.670	340505.476	
10.003	SMH204	1200		396793.740	340497.520	396793.740	340497.520	
10.004	SMH205	1200		396784.814	340487.049	396784.814	340487.049	
10.005	SMH206	1200		396780.072	340477.919	396780.072	340477.919	
12.000	SMH207	1200		396717.430	340483.080	396717.430	340483.080	
13.000	SMH208	1200		396732.542	340504.348	396732.542	340504.348	
12.001	SMH209	1200		396724.750	340491.584	396724.750	340491.584	
12.002	SMH210	1200		396747.275	340472.194	396747.275	340472.194	
10.006	SMH211	1350		396763.282	340458.414	396763.282	340458.414	
14.000	SMH212	1350		396807.456	340431.129	396807.456	340431.129	
10.007	SMH213	1350		396797.458	340428.996	396797.458	340428.996	
10.008	SMH214	1500		396777.191	340405.452	396777.191	340405.452	
15.000	TANK	1200						

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Setting Out Information - Site Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
15.001	SMH214A	1500		396745.911	340397.002	396745.911	340397.002	
10.009	SMH215	1500		396770.942	340384.029	396770.942	340384.029	
16.000	SMH216	1200		396884.223	340475.718	396884.223	340475.718	
17.000	SMH217	1200		396897.600	340462.186	396897.600	340462.186	
16.001	SMH218	1200		396891.712	340468.143	396891.712	340468.143	
16.002	SMH219	1200		396880.483	340457.043	396880.483	340457.043	
16.003	SMH220	1200		396874.681	340438.691	396874.681	340438.691	
18.000	SMH221	1200		396908.962	340396.067	396908.962	340396.067	
19.000	SMH222	1200		396889.827	340372.363	396889.827	340372.363	
18.001	SMH223	1200		396898.373	340382.292	396898.373	340382.292	
18.002	SMH224	1200		396877.617	340400.154	396877.617	340400.154	
16.004	SMH225	1350		396856.877	340418.001	396856.877	340418.001	
16.005	SMH226	1350		396831.992	340389.083	396831.992	340389.083	
10.010	SMH227	1500		396817.935	340372.748	396817.935	340372.748	
10.011	SMH228	1500		396831.054	340351.576	396831.054	340351.576	
10.012	SMH229	1500		396834.701	340332.616	396834.701	340332.616	

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Setting Out Information - Site Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
10.013	SMH230	1500		396835.746	340317.255	396835.746	340317.255	
10.014	SMH231	1500		396840.564	340299.704	396840.564	340299.704	
10.015	SMH232	1500		396860.947	340271.130	396860.947	340271.130	
20.000	SMH233	1200		396929.553	340276.217	396929.553	340276.217	
21.000	SMH234	1200		396940.094	340260.122	396940.094	340260.122	
20.001	SMH235	1200		396934.935	340267.999	396934.935	340267.999	
20.002	SMH236	1200		396920.837	340258.766	396920.837	340258.766	
20.003	SMH237	1200		396905.588	340255.212	396905.588	340255.212	
20.004	SMH238	1200		396883.201	340252.882	396883.201	340252.882	
10.016	SMH239	1500		396870.350	340250.185	396870.350	340250.185	
10.017	SMH240	1500		396872.209	340229.475	396872.209	340229.475	
22.000	SMH241	1200		396883.714	340199.999	396883.714	340199.999	
10.018	SMH242	1500		396865.807	340204.609	396865.807	340204.609	
10.019	SMH243	1500		396844.412	340209.178	396844.412	340209.178	
10.020	SMH244	1500		396840.132	340197.328	396840.132	340197.328	
23.000	SMH245	1200		396723.699	340286.305	396723.699	340286.305	

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Setting Out Information - Site Coordinates (Storm)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Layout (North)
24.000	SMH246	1200		396704.237	340301.416	396704.237	340301.416	
23.001	SMH247	1200		396713.054	340294.570	396713.054	340294.570	
25.000	SMH248	1200		396690.958	340349.521	396690.958	340349.521	
23.002	SMH249	1350		396731.363	340318.150	396731.363	340318.150	
23.003	SMH250	1350		396757.444	340297.900	396757.444	340297.900	
26.000	SMH251	1200		396819.738	340315.996	396819.738	340315.996	
26.001	SMH252	1200		396790.159	340291.074	396790.159	340291.074	
23.004	SMH253	1350		396779.977	340290.379	396779.977	340290.379	
23.005	SMH254	1350		396777.447	340282.798	396777.447	340282.798	
23.006	SMH255	1350		396807.907	340236.014	396807.907	340236.014	
23.007	SMH256	1350		396821.336	340219.733	396821.336	340219.733	
1.017	TANK	100		396804.291	340184.783	396804.291	340184.783	
1.018	SMH43	3000		396790.494	340152.223	396790.494	340152.223	

PN	DSMH Name	Dia/Len (mm)	Width (mm)	DS Easting (m)	DS Northing (m)	Layout (North)
1.018	HIGHWAY DITCH	1200		396790.982	340140.732	

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Network Classifications for Storm

PN	USMH Name	Pipe Dia (mm)	Min Cover Depth (m)	Max Cover Depth (m)	Pipe Type	MH Dia (mm)	MH Width (mm)	MH Ring Depth (m)	MH Type
1.000	SMH1	-3	1.720	3.575	Unclassified	3000	0	1.720	Unclassified
2.000	SMH2	225	1.200	1.510	Unclassified	1200	0	1.200	Unclassified
3.000	SMH3	225	1.125	1.510	Unclassified	1200	0	1.125	Unclassified
2.001	SMH4	375	1.510	2.170	Unclassified	1350	0	1.510	Unclassified
2.002	SMH5	375	2.170	2.475	Unclassified	1350	0	2.170	Unclassified
4.000	SMH6	300	1.410	2.200	Unclassified	1200	0	1.410	Unclassified
4.001	SMH7	375	2.200	2.295	Unclassified	1350	0	2.200	Unclassified
4.002	SMH8	375	2.295	2.475	Unclassified	1350	0	2.295	Unclassified
2.003	SMH9	450	2.025	2.475	Unclassified	1350	0	2.475	Unclassified
2.004	SMH10	450	2.025	3.415	Unclassified	1350	0	2.025	Unclassified
2.005	SMH11	450	3.415	3.575	Unclassified	1350	0	3.415	Unclassified
1.001	SMH12	600	3.575	4.120	Unclassified	3000	0	3.575	Unclassified
5.000	SMH13	225	1.140	1.200	Unclassified	1200	0	1.140	Unclassified
5.001	SMH14	300	1.200	1.200	Unclassified	1200	0	1.200	Unclassified
5.002	SMH15	300	1.200	1.200	Unclassified	1200	0	1.200	Unclassified
5.003	SMH16	300	1.200	1.210	Unclassified	1200	0	1.200	Unclassified
5.004	SMH17	375	1.210	1.240	Unclassified	1350	0	1.210	Unclassified
5.005	SMH18	375	1.160	1.240	Unclassified	1350	0	1.240	Unclassified
5.006	SMH19	375	1.160	3.670	Unclassified	1350	0	1.160	Unclassified
5.007	SMH20	375	3.670	4.120	Unclassified	1350	0	3.670	Unclassified
1.002	SMH21	600	3.860	4.120	Unclassified	1500	0	4.120	Unclassified
1.003	SMH22	600	3.750	3.860	Unclassified	1500	0	3.860	Unclassified
6.000	SMH23	225	1.200	1.200	Unclassified	1200	0	1.200	Unclassified
6.001	SMH24	225	1.180	1.200	Unclassified	1200	0	1.200	Unclassified
6.002	SMH25	300	1.180	1.200	Unclassified	1200	0	1.180	Unclassified
6.003	SMH26	300	1.200	3.750	Unclassified	1200	0	1.200	Unclassified
1.004	SMH27	600	3.750	4.130	Unclassified	1500	0	3.750	Unclassified
7.000	SMH28	225	1.265	1.310	Unclassified	1200	0	1.310	Unclassified
8.000	SMH29	225	1.265	1.290	Unclassified	1200	0	1.290	Unclassified
7.001	SMH30	300	1.265	1.495	Unclassified	1200	0	1.265	Unclassified
7.002	SMH31	300	1.495	2.885	Unclassified	1200	0	1.495	Unclassified
9.000	SMH32	300	1.910	2.365	Unclassified	1200	0	1.910	Unclassified
9.001	SMH33	300	2.365	2.885	Unclassified	1200	0	2.365	Unclassified
7.003	SMH34	375	2.885	3.115	Unclassified	1350	0	2.885	Unclassified
7.004	SMH35	375	3.115	3.135	Unclassified	1350	0	3.115	Unclassified
7.005	SMH36	375	3.135	4.130	Unclassified	1350	0	3.135	Unclassified
1.005	SMH37	600	4.130	4.550	Unclassified	1500	0	4.130	Unclassified
1.006	SMH38	600	4.650	5.615	Unclassified	1500	0	4.650	Unclassified
1.007	SMH39	600	5.615	5.800	Unclassified	1500	0	5.615	Unclassified
1.008	SMH40	600	4.855	5.800	Unclassified	1500	0	5.800	Unclassified
1.009	SMH41	600	3.305	4.855	Unclassified	1500	0	4.855	Unclassified
1.010	SMH42	600	2.620	3.380	Unclassified	1500	0	3.380	Unclassified
1.011	SMH43	600	2.370	2.620	Unclassified	1500	0	2.620	Unclassified
1.012	SMH44	600	1.945	2.370	Unclassified	1500	0	2.370	Unclassified
1.013	SMH45	600	1.945	2.160	Unclassified	1500	0	1.945	Unclassified
1.014	SMH46	600	2.160	2.195	Unclassified	1500	0	2.160	Unclassified
1.015	SMH47	600	2.195	2.530	Unclassified	1500	0	2.195	Unclassified
1.016	SMH48	600	2.530	2.800	Unclassified	1500	0	2.530	Unclassified
10.000	SMH200	225	1.660	1.685	Unclassified	1200	0	1.685	Unclassified

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Network Classifications for Storm

PN	USMH Name	Pipe Dia (mm)	Min Cover Depth (m)	Max Cover Depth (m)	Pipe Type	MH Dia (mm)	MH Width (mm)	MH Ring Depth (m)	MH Type
11.000	SMH201	225	1.625	1.825	Unclassified	1200	0	1.625	Unclassified
10.001	SMH202	300	1.315	1.660	Unclassified	1200	0	1.660	Unclassified
10.002	SMH203	300	1.115	1.315	Unclassified	1200	0	1.315	Unclassified
10.003	SMH204	300	1.090	1.115	Unclassified	1200	0	1.115	Unclassified
10.004	SMH205	300	1.060	1.090	Unclassified	1200	0	1.090	Unclassified
10.005	SMH206	300	1.060	3.160	Unclassified	1200	0	1.060	Unclassified
12.000	SMH207	225	1.200	1.850	Unclassified	1200	0	1.200	Unclassified
13.000	SMH208	225	1.850	1.865	Unclassified	1200	0	1.865	Unclassified
12.001	SMH209	300	1.850	2.700	Unclassified	1200	0	1.850	Unclassified
12.002	SMH210	300	2.700	3.160	Unclassified	1200	0	2.700	Unclassified
10.006	SMH211	375	2.525	3.160	Unclassified	1350	0	3.160	Unclassified
14.000	SMH212	375	1.210	2.525	Unclassified	1350	0	1.210	Unclassified
10.007	SMH213	450	1.945	2.525	Unclassified	1350	0	2.525	Unclassified
10.008	SMH214	600	1.795	2.600	Unclassified	1500	0	1.795	Unclassified
15.000	TANK	150	0.850	1.400	Unclassified	1200	0	0.850	Unclassified
15.001	SMH214A	600	2.350	2.750	Unclassified	1500	0	2.350	Unclassified
10.009	SMH215	600	2.750	3.275	Unclassified	1500	0	2.750	Unclassified
16.000	SMH216	225	1.190	1.510	Unclassified	1200	0	1.190	Unclassified
17.000	SMH217	225	1.225	1.510	Unclassified	1200	0	1.225	Unclassified
16.001	SMH218	300	1.295	1.510	Unclassified	1200	0	1.510	Unclassified
16.002	SMH219	300	1.295	1.600	Unclassified	1200	0	1.295	Unclassified
16.003	SMH220	300	1.600	1.635	Unclassified	1200	0	1.600	Unclassified
18.000	SMH221	225	1.165	1.745	Unclassified	1200	0	1.165	Unclassified
19.000	SMH222	225	1.335	1.745	Unclassified	1200	0	1.335	Unclassified
18.001	SMH223	300	1.650	1.745	Unclassified	1200	0	1.745	Unclassified
18.002	SMH224	300	1.635	1.650	Unclassified	1200	0	1.650	Unclassified
16.004	SMH225	375	1.505	1.635	Unclassified	1350	0	1.635	Unclassified
16.005	SMH226	375	1.505	3.275	Unclassified	1350	0	1.505	Unclassified
10.010	SMH227	600	2.935	3.275	Unclassified	1500	0	3.275	Unclassified
10.011	SMH228	600	2.715	2.935	Unclassified	1500	0	2.935	Unclassified
10.012	SMH229	600	2.535	2.715	Unclassified	1500	0	2.715	Unclassified
10.013	SMH230	600	2.330	2.535	Unclassified	1500	0	2.535	Unclassified
10.014	SMH231	600	1.750	2.330	Unclassified	1500	0	2.330	Unclassified
10.015	SMH232	600	1.290	1.750	Unclassified	1500	0	1.750	Unclassified
20.000	SMH233	225	0.880	1.565	Unclassified	1200	0	0.880	Unclassified
21.000	SMH234	225	1.275	1.565	Unclassified	1200	0	1.275	Unclassified
20.001	SMH235	300	1.370	1.565	Unclassified	1200	0	1.565	Unclassified
20.002	SMH236	300	1.370	1.370	Unclassified	1200	0	1.370	Unclassified
20.003	SMH237	300	1.305	1.370	Unclassified	1200	0	1.370	Unclassified
20.004	SMH238	300	1.290	1.305	Unclassified	1200	0	1.305	Unclassified
10.016	SMH239	600	1.240	1.290	Unclassified	1500	0	1.290	Unclassified
10.017	SMH240	600	1.220	1.240	Unclassified	1500	0	1.240	Unclassified
22.000	SMH241	300	1.190	1.440	Unclassified	1200	0	1.440	Unclassified
10.018	SMH242	600	1.200	1.220	Unclassified	1500	0	1.220	Unclassified
10.019	SMH243	600	1.200	1.200	Unclassified	1500	0	1.200	Unclassified
10.020	SMH244	600	1.200	2.800	Unclassified	1500	0	1.200	Unclassified
23.000	SMH245	225	1.200	1.525	Unclassified	1200	0	1.200	Unclassified
24.000	SMH246	225	1.200	1.525	Unclassified	1200	0	1.200	Unclassified
23.001	SMH247	300	1.525	2.060	Unclassified	1200	0	1.525	Unclassified

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Network Classifications for Storm

PN	USMH Name	Pipe Dia (mm)	Min Cover Depth (m)	Max Cover Depth (m)	Pipe Type	MH Dia (mm)	MH Width (mm)	MH Ring Depth (m)	MH Type
25.000	SMH248	225	1.130	2.060	Unclassified	1200	0	1.130	Unclassified
23.002	SMH249	375	2.060	2.905	Unclassified	1350	0	2.060	Unclassified
23.003	SMH250	375	2.905	3.525	Unclassified	1350	0	2.905	Unclassified
26.000	SMH251	225	1.235	1.255	Unclassified	1200	0	1.255	Unclassified
26.001	SMH252	300	1.160	3.525	Unclassified	1200	0	1.160	Unclassified
23.004	SMH253	450	3.525	3.695	Unclassified	1350	0	3.525	Unclassified
23.005	SMH254	450	2.115	3.695	Unclassified	1350	0	3.695	Unclassified
23.006	SMH255	450	2.115	2.150	Unclassified	1350	0	2.115	Unclassified
23.007	SMH256	450	2.150	2.950	Unclassified	1350	0	2.150	Unclassified
1.017	TANK	600	2.800	2.830	Unclassified	100	0	2.800	Unclassified
1.018	SMH43	375	2.105	3.055	Unclassified	3000	0	3.055	Unclassified

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.018	HIGHWAY DITCH	170.000	167.520	0.000	1200	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	0.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Storage Structures	14
Number of Online Controls	2	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	1	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	18.000	Storm Duration (mins)	30
Ratio R	0.358		

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Online Controls for Storm

Non Return Valve Manhole: SMH12, DS/PN: 1.001, Volume (m³): 49.2

Hydro-Brake® Optimum Manhole: SMH43, DS/PN: 1.018, Volume (m³): 33.8

Unit Reference	MD-SHE-0333-7300-2000-7300
Design Head (m)	2.000
Design Flow (l/s)	73.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	333
Invert Level (m)	167.570
Minimum Outlet Pipe Diameter (mm)	375
Suggested Manhole Diameter (mm)	Site Specific Design (Contact Hydro International)

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.000	73.0
Flush-Flo™	0.638	73.0
Kick-Flo®	1.381	61.0
Mean Flow over Head Range	-	62.3

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	9.8	1.200	67.6	3.000	88.8	7.000	134.2
0.200	33.9	1.400	61.4	3.500	95.8	7.500	138.8
0.300	60.9	1.600	65.5	4.000	102.2	8.000	143.3
0.400	70.4	1.800	69.4	4.500	108.2	8.500	147.6
0.500	72.3	2.000	73.0	5.000	113.9	9.000	151.8
0.600	73.0	2.200	76.4	5.500	119.3	9.500	155.9
0.800	72.4	2.400	79.7	6.000	124.5		
1.000	70.8	2.600	82.9	6.500	129.5		

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Storage Structures for Storm

Porous Car Park Manhole: SMH200, DS/PN: 10.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	36.0
Membrane Percolation (mm/hr)	1000	Length (m)	4.2
Max Percolation (l/s)	42.0	Slope (1:X)	50.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	178.700	Membrane Depth (mm)	0

Porous Car Park Manhole: SMH201, DS/PN: 11.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	28.0
Membrane Percolation (mm/hr)	1000	Length (m)	4.2
Max Percolation (l/s)	32.7	Slope (1:X)	80.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	178.800	Membrane Depth (mm)	0

Porous Car Park Manhole: SMH207, DS/PN: 12.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	43.0
Membrane Percolation (mm/hr)	1000	Length (m)	4.2
Max Percolation (l/s)	50.2	Slope (1:X)	50.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	175.000	Membrane Depth (mm)	0

Porous Car Park Manhole: SMH208, DS/PN: 13.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	43.0
Membrane Percolation (mm/hr)	1000	Length (m)	4.2
Max Percolation (l/s)	50.2	Slope (1:X)	40.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	174.770	Membrane Depth (mm)	0

Cellular Storage Manhole: TANK, DS/PN: 15.000

Invert Level (m)	174.300	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	16.0	16.0	0.500	0.0	24.0
0.400	16.0	24.0			

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Porous Car Park Manhole: SMH216, DS/PN: 16.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	13.0
Membrane Percolation (mm/hr)	1000	Length (m)	4.2
Max Percolation (l/s)	15.2	Slope (1:X)	50.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	178.200	Membrane Depth (mm)	0

Porous Car Park Manhole: SMH217, DS/PN: 17.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	25.0
Membrane Percolation (mm/hr)	1000	Length (m)	4.2
Max Percolation (l/s)	29.2	Slope (1:X)	40.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	177.210	Membrane Depth (mm)	0

Porous Car Park Manhole: SMH221, DS/PN: 18.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	4.2
Membrane Percolation (mm/hr)	1000	Length (m)	35.0
Max Percolation (l/s)	40.8	Slope (1:X)	40.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	177.300	Membrane Depth (mm)	0

Porous Car Park Manhole: SMH222, DS/PN: 19.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	4.2
Membrane Percolation (mm/hr)	1000	Length (m)	30.0
Max Percolation (l/s)	35.0	Slope (1:X)	30.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	176.500	Membrane Depth (mm)	0

Porous Car Park Manhole: SMH233, DS/PN: 20.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	40.0
Membrane Percolation (mm/hr)	1000	Length (m)	4.2
Max Percolation (l/s)	46.7	Slope (1:X)	50.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	174.500	Membrane Depth (mm)	0

Porous Car Park Manhole: SMH234, DS/PN: 21.000

Infiltration Coefficient Base (m/hr)	0.00000	Invert Level (m)	174.000
Membrane Percolation (mm/hr)	1000	Width (m)	35.0
Max Percolation (l/s)	40.8	Length (m)	4.2
Safety Factor	2.0	Slope (1:X)	40.0
Porosity	0.30	Depression Storage (mm)	5

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Porous Car Park Manhole: SMH234, DS/PN: 21.000

Evaporation (mm/day) 3 Membrane Depth (mm) 0

Porous Car Park Manhole: SMH241, DS/PN: 22.000

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	4.2
Membrane Percolation (mm/hr)	1000	Length (m)	40.0
Max Percolation (l/s)	46.7	Slope (1:X)	35.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	170.990	Membrane Depth (mm)	0

Porous Car Park Manhole: SMH255, DS/PN: 23.006

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	23.0
Membrane Percolation (mm/hr)	1000	Length (m)	4.2
Max Percolation (l/s)	26.8	Slope (1:X)	80.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	171.300	Membrane Depth (mm)	0

Cellular Storage Manhole: TANK, DS/PN: 1.017

Invert Level (m)	167.620	Safety Factor	2.0
Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.96
Infiltration Coefficient Side (m/hr)	0.00000		

Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)
0.000	1858.6	1858.6	2.100	0.0	2205.8
2.000	1858.6	2205.8			

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

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 0.000
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 14
Number of Online Controls 2 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.359
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 18.000 Cv (Winter) 0.840

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

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
1.000	SMH1	15 Winter	1	+0%	30/15 Summer	100/15 Summer		
2.000	SMH2	15 Winter	1	+0%	100/15 Summer			
3.000	SMH3	15 Winter	1	+0%	100/15 Summer	100/30 Winter		
2.001	SMH4	15 Winter	1	+0%	100/15 Summer			
2.002	SMH5	15 Winter	1	+0%	100/15 Summer			
4.000	SMH6	15 Winter	1	+0%	100/15 Summer	100/15 Winter		
4.001	SMH7	15 Winter	1	+0%	30/15 Winter			
4.002	SMH8	15 Winter	1	+0%	100/15 Summer			
2.003	SMH9	15 Winter	1	+0%	100/15 Summer			
2.004	SMH10	15 Winter	1	+0%	100/15 Summer			
2.005	SMH11	15 Winter	1	+0%	30/15 Summer			
1.001	SMH12	30 Winter	1	+0%	30/15 Summer			
5.000	SMH13	15 Winter	1	+0%	100/15 Summer			
5.001	SMH14	15 Winter	1	+0%	100/15 Summer			
5.002	SMH15	15 Winter	1	+0%	100/15 Summer			
5.003	SMH16	15 Winter	1	+0%	100/15 Summer			
5.004	SMH17	15 Winter	1	+0%	100/30 Winter			
5.005	SMH18	15 Winter	1	+0%	100/30 Winter			

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

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	Level Exceeded
1.000	SMH1	169.375	-0.590	0.000	0.00			5.7	OK	6
2.000	SMH2	171.745	-0.155	0.000	0.21			8.6	OK	
3.000	SMH3	171.731	-0.164	0.000	0.17			7.6	OK	1
2.001	SMH4	171.484	-0.291	0.000	0.11			20.7	OK	
2.002	SMH5	171.154	-0.276	0.000	0.15			22.6	OK	
4.000	SMH6	171.411	-0.179	0.000	0.34			25.5	OK	2
4.001	SMH7	171.161	-0.199	0.000	0.44			34.7	OK	
4.002	SMH8	171.122	-0.213	0.000	0.39			36.5	OK	
2.003	SMH9	170.993	-0.282	0.000	0.29			68.5	OK	
2.004	SMH10	170.608	-0.347	0.000	0.12			80.6	OK	
2.005	SMH11	169.356	-0.179	0.000	0.67			80.7	OK	
1.001	SMH12	169.280	-0.225	0.000	0.29			78.5	OK	
5.000	SMH13	174.263	-0.137	0.000	0.32			20.4	OK	
5.001	SMH14	173.854	-0.216	0.000	0.18			20.4	OK	
5.002	SMH15	173.641	-0.199	0.000	0.24			28.8	OK	
5.003	SMH16	173.420	-0.180	0.000	0.33			42.2	OK	
5.004	SMH17	172.956	-0.254	0.000	0.23			43.8	OK	
5.005	SMH18	172.717	-0.253	0.000	0.23			45.1	OK	

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

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
5.006	SMH19	15 Winter	1	+0%	100/30 Winter			
5.007	SMH20	15 Winter	1	+0%	30/15 Summer			
1.002	SMH21	30 Winter	1	+0%	30/15 Summer			
1.003	SMH22	30 Winter	1	+0%	30/15 Summer			
6.000	SMH23	15 Winter	1	+0%				
6.001	SMH24	15 Winter	1	+0%				
6.002	SMH25	15 Winter	1	+0%				
6.003	SMH26	15 Winter	1	+0%	100/30 Winter			
1.004	SMH27	30 Winter	1	+0%	30/15 Summer			
7.000	SMH28	15 Winter	1	+0%	100/15 Summer			
8.000	SMH29	15 Winter	1	+0%	100/15 Summer	100/30 Winter		
7.001	SMH30	15 Winter	1	+0%	100/15 Summer	100/30 Winter		
7.002	SMH31	15 Winter	1	+0%	100/15 Summer			
9.000	SMH32	15 Winter	1	+0%	100/15 Summer			
9.001	SMH33	15 Winter	1	+0%	100/15 Summer			
7.003	SMH34	15 Winter	1	+0%	30/15 Summer			
7.004	SMH35	15 Winter	1	+0%	30/15 Summer			
7.005	SMH36	15 Winter	1	+0%	30/30 Winter			
1.005	SMH37	30 Winter	1	+0%	30/15 Summer			
1.006	SMH38	15 Winter	1	+0%	30/15 Summer			
1.007	SMH39	30 Winter	1	+0%	30/15 Summer			
1.008	SMH40	30 Winter	1	+0%	30/15 Summer			
1.009	SMH41	30 Winter	1	+0%	30/15 Summer			
1.010	SMH42	30 Winter	1	+0%	30/15 Summer			
1.011	SMH43	30 Winter	1	+0%	30/15 Summer			
1.012	SMH44	30 Winter	1	+0%	30/15 Summer			
1.013	SMH45	30 Winter	1	+0%	30/15 Summer			
1.014	SMH46	30 Winter	1	+0%	30/15 Summer			
1.015	SMH47	30 Winter	1	+0%	30/15 Summer			
1.016	SMH48	30 Winter	1	+0%	30/15 Summer			
10.000	SMH200	15 Winter	1	+0%				
11.000	SMH201	15 Winter	1	+0%	100/15 Winter			
10.001	SMH202	15 Winter	1	+0%				
10.002	SMH203	15 Winter	1	+0%				
10.003	SMH204	15 Winter	1	+0%				
10.004	SMH205	15 Winter	1	+0%	100/15 Summer			
10.005	SMH206	15 Winter	1	+0%				
12.000	SMH207	15 Winter	1	+0%	100/15 Summer			
13.000	SMH208	15 Winter	1	+0%	100/15 Summer			
12.001	SMH209	15 Winter	1	+0%	30/15 Summer			
12.002	SMH210	15 Winter	1	+0%	30/15 Summer			
10.006	SMH211	15 Winter	1	+0%	30/15 Summer			
14.000	SMH212	15 Winter	1	+0%				
10.007	SMH213	15 Winter	1	+0%	100/15 Summer			
10.008	SMH214	15 Winter	1	+0%	100/15 Summer			
15.000	TANK	15 Summer	1	+0%	100/15 Winter			
15.001	SMH214A	15 Winter	1	+0%	30/15 Summer			
10.009	SMH215	15 Winter	1	+0%	30/15 Summer			

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

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
5.006	SMH19	172.355	-0.305	0.000	0.08			48.9	OK
5.007	SMH20	169.581	-0.249	0.000	0.24			61.6	OK
1.002	SMH21	169.240	-0.170	0.000	0.51			128.2	OK
1.003	SMH22	169.202	-0.148	0.000	0.48			127.7	OK
6.000	SMH23	174.041	-0.159	0.000	0.19			15.0	OK
6.001	SMH24	173.687	-0.153	0.000	0.22			17.8	OK
6.002	SMH25	173.189	-0.231	0.000	0.12			23.0	OK
6.003	SMH26	171.921	-0.239	0.000	0.09			34.7	OK
1.004	SMH27	169.149	-0.121	0.000	0.58			150.8	OK
7.000	SMH28	171.626	-0.144	0.000	0.28			11.3	OK
8.000	SMH29	171.372	-0.138	0.000	0.32			9.5	OK
7.001	SMH30	171.292	-0.183	0.000	0.32			20.7	OK
7.002	SMH31	171.142	-0.213	0.000	0.18			31.5	OK
9.000	SMH32	170.823	-0.227	0.000	0.14			15.3	OK
9.001	SMH33	170.586	-0.209	0.000	0.20			22.5	OK
7.003	SMH34	170.312	-0.183	0.000	0.51			56.3	OK
7.004	SMH35	170.248	-0.167	0.000	0.59			63.5	OK
7.005	SMH36	170.076	-0.269	0.000	0.18			71.7	OK
1.005	SMH37	169.087	-0.103	0.000	0.93			205.2	OK
1.006	SMH38	169.045	0.000	0.000	0.75			196.2	OK
1.007	SMH39	168.946	-0.004	0.000	1.00			175.3	OK
1.008	SMH40	168.776	-0.144	0.000	0.70			176.5	OK
1.009	SMH41	168.706	-0.139	0.000	0.90			174.2	OK
1.010	SMH42	168.585	-0.135	0.000	0.70			172.0	OK
1.011	SMH43	168.531	-0.129	0.000	0.97			171.9	OK
1.012	SMH44	168.483	-0.147	0.000	0.92			171.4	OK
1.013	SMH45	168.385	-0.210	0.000	0.68			170.6	OK
1.014	SMH46	168.284	-0.236	0.000	0.63			168.2	OK
1.015	SMH47	168.171	-0.234	0.000	0.62			165.1	OK
1.016	SMH48	168.054	-0.216	0.000	0.74			163.6	OK
10.000	SMH200	178.108	-0.167	0.000	0.15		7	6.5	OK
11.000	SMH201	177.960	-0.145	0.000	0.14		8	5.9	OK
10.001	SMH202	177.953	-0.227	0.000	0.13			14.3	OK
10.002	SMH203	177.682	-0.213	0.000	0.18			18.4	OK
10.003	SMH204	177.500	-0.225	0.000	0.14			19.7	OK
10.004	SMH205	177.200	-0.200	0.000	0.24			28.6	OK
10.005	SMH206	176.941	-0.239	0.000	0.09			29.5	OK
12.000	SMH207	174.756	-0.169	0.000	0.14		7	7.0	OK
13.000	SMH208	174.821	-0.174	0.000	0.12		6	6.5	OK
12.001	SMH209	174.562	-0.218	0.000	0.17			13.1	OK
12.002	SMH210	174.414	-0.186	0.000	0.30			23.1	OK
10.006	SMH211	174.310	-0.160	0.000	0.60			64.7	OK
14.000	SMH212	175.414	-0.336	0.000	0.02			10.9	OK
10.007	SMH213	174.054	-0.261	0.000	0.37			83.7	OK
10.008	SMH214	173.767	-0.488	0.000	0.08			92.1	OK
15.000	TANK	174.300	-0.150	0.000	0.00			0.0	OK
15.001	SMH214A	172.362	-0.453	0.000	0.02			5.8	OK

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

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
10.009	SMH215	172.360	-0.380	0.000	0.28			105.3	OK

PN	US/MH Name	Level Exceeded
5.006	SMH19	
5.007	SMH20	
1.002	SMH21	
1.003	SMH22	
6.000	SMH23	
6.001	SMH24	
6.002	SMH25	
6.003	SMH26	
1.004	SMH27	
7.000	SMH28	
8.000	SMH29	1
7.001	SMH30	1
7.002	SMH31	
9.000	SMH32	
9.001	SMH33	
7.003	SMH34	
7.004	SMH35	
7.005	SMH36	
1.005	SMH37	
1.006	SMH38	
1.007	SMH39	
1.008	SMH40	
1.009	SMH41	
1.010	SMH42	
1.011	SMH43	
1.012	SMH44	
1.013	SMH45	
1.014	SMH46	
1.015	SMH47	
1.016	SMH48	
10.000	SMH200	
11.000	SMH201	
10.001	SMH202	
10.002	SMH203	
10.003	SMH204	
10.004	SMH205	
10.005	SMH206	
12.000	SMH207	
13.000	SMH208	
12.001	SMH209	
12.002	SMH210	

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

PN	US/MH Name	Level Exceeded
10.006	SMH211	
14.000	SMH212	
10.007	SMH213	
10.008	SMH214	
15.000	TANK	
15.001	SMH214A	
10.009	SMH215	

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

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
16.000	SMH216	15 Winter	1	+0%				
17.000	SMH217	15 Winter	1	+0%				
16.001	SMH218	15 Winter	1	+0%				
16.002	SMH219	15 Winter	1	+0%				
16.003	SMH220	15 Winter	1	+0%				
18.000	SMH221	15 Winter	1	+0%				
19.000	SMH222	15 Winter	1	+0%				
18.001	SMH223	15 Winter	1	+0%				
18.002	SMH224	15 Winter	1	+0%				
16.004	SMH225	15 Winter	1	+0%				
16.005	SMH226	15 Winter	1	+0%	100/15 Winter			
10.010	SMH227	15 Winter	1	+0%	30/15 Summer			
10.011	SMH228	15 Winter	1	+0%	30/15 Summer			
10.012	SMH229	15 Winter	1	+0%	30/15 Summer			
10.013	SMH230	15 Winter	1	+0%	30/15 Summer			
10.014	SMH231	15 Winter	1	+0%	30/15 Summer			
10.015	SMH232	15 Winter	1	+0%	30/15 Summer			
20.000	SMH233	15 Winter	1	+0%				
21.000	SMH234	15 Winter	1	+0%				
20.001	SMH235	15 Winter	1	+0%				
20.002	SMH236	15 Winter	1	+0%				
20.003	SMH237	15 Winter	1	+0%				
20.004	SMH238	15 Winter	1	+0%	100/15 Summer			
10.016	SMH239	15 Winter	1	+0%	100/15 Summer			
10.017	SMH240	15 Winter	1	+0%	100/15 Summer			
22.000	SMH241	15 Winter	1	+0%	100/15 Winter			
10.018	SMH242	15 Winter	1	+0%	100/15 Summer			
10.019	SMH243	15 Winter	1	+0%	100/15 Summer			
10.020	SMH244	15 Winter	1	+0%				
23.000	SMH245	15 Winter	1	+0%				
24.000	SMH246	15 Winter	1	+0%				
23.001	SMH247	15 Winter	1	+0%				
25.000	SMH248	15 Winter	1	+0%	100/15 Summer			
23.002	SMH249	15 Winter	1	+0%	100/15 Summer			
23.003	SMH250	15 Winter	1	+0%	100/15 Summer			
26.000	SMH251	15 Winter	1	+0%				
26.001	SMH252	15 Winter	1	+0%				
23.004	SMH253	15 Winter	1	+0%	30/15 Winter			
23.005	SMH254	15 Winter	1	+0%				
23.006	SMH255	15 Winter	1	+0%				
23.007	SMH256	15 Winter	1	+0%	100/180 Winter			
1.017	TANK	240 Winter	1	+0%	30/60 Summer			
1.018	SMH43	240 Winter	1	+0%	1/180 Winter			

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

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
16.000	SMH216	177.512	-0.198	0.000	0.04		6	3.2	OK
17.000	SMH217	177.246	-0.189	0.000	0.06		6	3.8	OK
16.001	SMH218	177.004	-0.246	0.000	0.07			7.0	OK
16.002	SMH219	176.832	-0.263	0.000	0.04			7.0	OK
16.003	SMH220	176.080	-0.230	0.000	0.12			19.3	OK
18.000	SMH221	176.965	-0.180	0.000	0.09		7	9.9	OK
19.000	SMH222	176.051	-0.174	0.000	0.12		7	4.4	OK
18.001	SMH223	175.923	-0.212	0.000	0.19			17.9	OK
18.002	SMH224	175.678	-0.202	0.000	0.23			22.3	OK
16.004	SMH225	175.365	-0.260	0.000	0.20			52.5	OK
16.005	SMH226	174.542	-0.293	0.000	0.11			59.4	OK
10.010	SMH227	172.238	-0.307	0.000	0.48			164.3	OK
10.011	SMH228	172.149	-0.296	0.000	0.51			167.4	OK
10.012	SMH229	172.087	-0.278	0.000	0.56			169.8	OK
10.013	SMH230	172.016	-0.289	0.000	0.53			171.8	OK
10.014	SMH231	171.929	-0.301	0.000	0.49			178.3	OK
10.015	SMH232	171.808	-0.282	0.000	0.55			182.2	OK
20.000	SMH233	174.431	-0.189	0.000	0.06		7	8.3	OK
21.000	SMH234	173.590	-0.155	0.000	0.21		7	7.3	OK
20.001	SMH235	173.460	-0.225	0.000	0.14			18.0	OK
20.002	SMH236	173.148	-0.232	0.000	0.12			18.1	OK
20.003	SMH237	172.730	-0.220	0.000	0.16			25.5	OK
20.004	SMH238	172.156	-0.199	0.000	0.25			36.9	OK
10.016	SMH239	171.630	-0.370	0.000	0.31			210.9	OK
10.017	SMH240	171.174	-0.376	0.000	0.30			211.7	OK
22.000	SMH241	171.051	-0.239	0.000	0.09		7	9.2	OK
10.018	SMH242	170.674	-0.376	0.000	0.30			219.2	OK
10.019	SMH243	170.141	-0.369	0.000	0.31			224.4	OK
10.020	SMH244	169.573	-0.427	0.000	0.18			229.8	OK
23.000	SMH245	171.268	-0.182	0.000	0.08			4.8	OK
24.000	SMH246	171.381	-0.189	0.000	0.06			4.8	OK
23.001	SMH247	170.996	-0.229	0.000	0.13			14.4	OK
25.000	SMH248	171.543	-0.147	0.000	0.26			16.7	OK
23.002	SMH249	170.598	-0.252	0.000	0.23			41.7	OK
23.003	SMH250	170.275	-0.240	0.000	0.28			48.1	OK
26.000	SMH251	173.115	-0.190	0.000	0.06			3.6	OK
26.001	SMH252	172.508	-0.262	0.000	0.04			15.0	OK
23.004	SMH253	170.022	-0.253	0.000	0.39			66.5	OK
23.005	SMH254	169.899	-0.306	0.000	0.22			66.5	OK
23.006	SMH255	169.344	-0.301	0.000	0.24		7	77.0	OK
23.007	SMH256	168.995	-0.325	0.000	0.17			87.4	OK
1.017	TANK	167.991	-0.229	0.000	0.33		170	70.0	OK
1.018	SMH43	167.964	0.019	0.000	0.70			69.6	SURCHARGED

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

PN	US/MH Name	Level Exceeded
16.000	SMH216	
17.000	SMH217	
16.001	SMH218	
16.002	SMH219	
16.003	SMH220	
18.000	SMH221	
19.000	SMH222	
18.001	SMH223	
18.002	SMH224	
16.004	SMH225	
16.005	SMH226	
10.010	SMH227	
10.011	SMH228	
10.012	SMH229	
10.013	SMH230	
10.014	SMH231	
10.015	SMH232	
20.000	SMH233	
21.000	SMH234	
20.001	SMH235	
20.002	SMH236	
20.003	SMH237	
20.004	SMH238	
10.016	SMH239	
10.017	SMH240	
22.000	SMH241	
10.018	SMH242	
10.019	SMH243	
10.020	SMH244	
23.000	SMH245	
24.000	SMH246	
23.001	SMH247	
25.000	SMH248	
23.002	SMH249	
23.003	SMH250	
26.000	SMH251	
26.001	SMH252	
23.004	SMH253	
23.005	SMH254	
23.006	SMH255	
23.007	SMH256	
1.017	TANK	
1.018	SMH43	

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

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 0.000
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 14
Number of Online Controls 2 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.359
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 18.000 Cv (Winter) 0.840

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

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
1.000	SMH1	30 Winter	30	+0%	30/15 Summer	100/15 Summer		
2.000	SMH2	15 Winter	30	+0%	100/15 Summer			
3.000	SMH3	15 Winter	30	+0%	100/15 Summer	100/30 Winter		
2.001	SMH4	15 Winter	30	+0%	100/15 Summer			
2.002	SMH5	15 Winter	30	+0%	100/15 Summer			
4.000	SMH6	15 Winter	30	+0%	100/15 Summer	100/15 Winter		
4.001	SMH7	15 Winter	30	+0%	30/15 Winter			
4.002	SMH8	15 Winter	30	+0%	100/15 Summer			
2.003	SMH9	15 Winter	30	+0%	100/15 Summer			
2.004	SMH10	15 Winter	30	+0%	100/15 Summer			
2.005	SMH11	30 Winter	30	+0%	30/15 Summer			
1.001	SMH12	30 Winter	30	+0%	30/15 Summer			
5.000	SMH13	15 Winter	30	+0%	100/15 Summer			
5.001	SMH14	15 Winter	30	+0%	100/15 Summer			
5.002	SMH15	15 Winter	30	+0%	100/15 Summer			
5.003	SMH16	15 Winter	30	+0%	100/15 Summer			
5.004	SMH17	15 Winter	30	+0%	100/30 Winter			
5.005	SMH18	15 Winter	30	+0%	100/30 Winter			

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

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
1.000	SMH1	170.543	0.578	0.000	0.01			18.9	SURCHARGED
2.000	SMH2	171.791	-0.109	0.000	0.52			21.0	OK
3.000	SMH3	171.770	-0.125	0.000	0.41			18.6	OK
2.001	SMH4	171.537	-0.238	0.000	0.28			52.3	OK
2.002	SMH5	171.221	-0.209	0.000	0.40			58.0	OK
4.000	SMH6	171.525	-0.065	0.000	0.83			62.1	OK
4.001	SMH7	171.365	0.005	0.000	1.06			83.2	SURCHARGED
4.002	SMH8	171.242	-0.093	0.000	0.92			86.8	OK
2.003	SMH9	171.117	-0.158	0.000	0.73			169.6	OK
2.004	SMH10	170.676	-0.279	0.000	0.31			205.6	OK
2.005	SMH11	170.563	1.028	0.000	1.44			173.9	SURCHARGED
1.001	SMH12	170.527	1.022	0.000	0.60			162.0	SURCHARGED
5.000	SMH13	174.327	-0.073	0.000	0.79			49.8	OK
5.001	SMH14	173.907	-0.163	0.000	0.43			49.8	OK
5.002	SMH15	173.716	-0.124	0.000	0.62			73.3	OK
5.003	SMH16	173.528	-0.072	0.000	0.90			114.3	OK
5.004	SMH17	173.052	-0.158	0.000	0.62			118.0	OK
5.005	SMH18	172.814	-0.156	0.000	0.63			123.7	OK

PN	US/MH Name	Level Exceeded
1.000	SMH1	6
2.000	SMH2	
3.000	SMH3	1
2.001	SMH4	
2.002	SMH5	
4.000	SMH6	2
4.001	SMH7	
4.002	SMH8	
2.003	SMH9	
2.004	SMH10	
2.005	SMH11	
1.001	SMH12	
5.000	SMH13	
5.001	SMH14	
5.002	SMH15	
5.003	SMH16	
5.004	SMH17	
5.005	SMH18	

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

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
5.006	SMH19	15 Winter	30	+0%	100/30 Winter			
5.007	SMH20	30 Winter	30	+0%	30/15 Summer			
1.002	SMH21	30 Winter	30	+0%	30/15 Summer			
1.003	SMH22	30 Winter	30	+0%	30/15 Summer			
6.000	SMH23	15 Winter	30	+0%				
6.001	SMH24	15 Winter	30	+0%				
6.002	SMH25	15 Winter	30	+0%				
6.003	SMH26	15 Winter	30	+0%	100/30 Winter			
1.004	SMH27	30 Winter	30	+0%	30/15 Summer			
7.000	SMH28	15 Winter	30	+0%	100/15 Summer			
8.000	SMH29	15 Winter	30	+0%	100/15 Summer	100/30 Winter		
7.001	SMH30	15 Winter	30	+0%	100/15 Summer	100/30 Winter		
7.002	SMH31	15 Winter	30	+0%	100/15 Summer			
9.000	SMH32	15 Winter	30	+0%	100/15 Summer			
9.001	SMH33	30 Winter	30	+0%	100/15 Summer			
7.003	SMH34	30 Winter	30	+0%	30/15 Summer			
7.004	SMH35	30 Winter	30	+0%	30/15 Summer			
7.005	SMH36	30 Winter	30	+0%	30/30 Winter			
1.005	SMH37	30 Winter	30	+0%	30/15 Summer			
1.006	SMH38	30 Winter	30	+0%	30/15 Summer			
1.007	SMH39	30 Winter	30	+0%	30/15 Summer			
1.008	SMH40	30 Winter	30	+0%	30/15 Summer			
1.009	SMH41	30 Winter	30	+0%	30/15 Summer			
1.010	SMH42	30 Winter	30	+0%	30/15 Summer			
1.011	SMH43	30 Winter	30	+0%	30/15 Summer			
1.012	SMH44	30 Winter	30	+0%	30/15 Summer			
1.013	SMH45	30 Winter	30	+0%	30/15 Summer			
1.014	SMH46	30 Winter	30	+0%	30/15 Summer			
1.015	SMH47	30 Winter	30	+0%	30/15 Summer			
1.016	SMH48	240 Winter	30	+0%	30/15 Summer			
10.000	SMH200	15 Winter	30	+0%				
11.000	SMH201	15 Winter	30	+0%	100/15 Winter			
10.001	SMH202	15 Winter	30	+0%				
10.002	SMH203	15 Winter	30	+0%				
10.003	SMH204	15 Winter	30	+0%				
10.004	SMH205	15 Winter	30	+0%	100/15 Summer			
10.005	SMH206	15 Winter	30	+0%				
12.000	SMH207	15 Winter	30	+0%	100/15 Summer			
13.000	SMH208	15 Winter	30	+0%	100/15 Summer			
12.001	SMH209	15 Winter	30	+0%	30/15 Summer			
12.002	SMH210	15 Winter	30	+0%	30/15 Summer			
10.006	SMH211	15 Winter	30	+0%	30/15 Summer			
14.000	SMH212	15 Winter	30	+0%				
10.007	SMH213	15 Winter	30	+0%	100/15 Summer			
10.008	SMH214	15 Winter	30	+0%	100/15 Summer			
15.000	TANK	15 Summer	30	+0%	100/15 Winter			
15.001	SMH214A	15 Winter	30	+0%	30/15 Summer			
10.009	SMH215	15 Winter	30	+0%	30/15 Summer			

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

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
5.006	SMH19	172.404	-0.256	0.000	0.22			135.4	OK
5.007	SMH20	170.700	0.870	0.000	0.53			134.9	SURCHARGED
1.002	SMH21	170.487	1.077	0.000	1.06			269.0	SURCHARGED
1.003	SMH22	170.443	1.093	0.000	1.00			265.0	SURCHARGED
6.000	SMH23	174.082	-0.118	0.000	0.46			36.8	OK
6.001	SMH24	173.736	-0.104	0.000	0.56			44.6	OK
6.002	SMH25	173.237	-0.183	0.000	0.31			59.4	OK
6.003	SMH26	171.962	-0.198	0.000	0.25			95.8	OK
1.004	SMH27	170.389	1.119	0.000	1.21			317.6	SURCHARGED
7.000	SMH28	171.683	-0.087	0.000	0.69			27.7	OK
8.000	SMH29	171.435	-0.075	0.000	0.78			23.3	OK
7.001	SMH30	171.376	-0.099	0.000	0.78			50.7	OK
7.002	SMH31	171.202	-0.153	0.000	0.47			80.5	OK
9.000	SMH32	170.870	-0.180	0.000	0.34			37.5	OK
9.001	SMH33	170.725	-0.070	0.000	0.44			50.3	OK
7.003	SMH34	170.692	0.197	0.000	1.15			126.4	SURCHARGED
7.004	SMH35	170.608	0.193	0.000	1.33			142.4	SURCHARGED
7.005	SMH36	170.525	0.180	0.000	0.40			161.3	SURCHARGED
1.005	SMH37	170.309	1.119	0.000	2.05			450.8	SURCHARGED
1.006	SMH38	170.186	1.141	0.000	1.69			443.4	SURCHARGED
1.007	SMH39	170.032	1.082	0.000	2.55			446.3	SURCHARGED
1.008	SMH40	169.908	0.988	0.000	1.75			442.5	SURCHARGED
1.009	SMH41	169.774	0.929	0.000	2.18			424.6	SURCHARGED
1.010	SMH42	169.552	0.832	0.000	1.71			422.6	SURCHARGED
1.011	SMH43	169.405	0.745	0.000	2.38			420.4	SURCHARGED
1.012	SMH44	169.250	0.620	0.000	2.24			415.8	SURCHARGED
1.013	SMH45	169.099	0.504	0.000	1.63			409.6	SURCHARGED
1.014	SMH46	168.917	0.397	0.000	1.50			401.2	SURCHARGED
1.015	SMH47	168.664	0.259	0.000	1.50			401.4	SURCHARGED
1.016	SMH48	168.582	0.312	0.000	0.77			170.4	SURCHARGED
10.000	SMH200	178.144	-0.131	0.000	0.37		7	15.8	OK
11.000	SMH201	178.015	-0.090	0.000	0.34		7	14.5	OK
10.001	SMH202	177.999	-0.181	0.000	0.33			35.7	OK
10.002	SMH203	177.743	-0.152	0.000	0.47			47.4	OK
10.003	SMH204	177.552	-0.173	0.000	0.36			51.7	OK
10.004	SMH205	177.282	-0.118	0.000	0.66			77.8	OK
10.005	SMH206	176.982	-0.198	0.000	0.25			80.0	OK
12.000	SMH207	174.875	-0.050	0.000	0.35		4	17.6	OK
13.000	SMH208	174.873	-0.122	0.000	0.39		6	21.3	OK
12.001	SMH209	174.851	0.071	0.000	0.56			43.6	SURCHARGED
12.002	SMH210	174.827	0.227	0.000	0.78			59.4	SURCHARGED
10.006	SMH211	174.724	0.254	0.000	1.56			167.7	SURCHARGED
14.000	SMH212	175.433	-0.317	0.000	0.06			26.8	OK
10.007	SMH213	174.215	-0.100	0.000	0.95			217.4	OK
10.008	SMH214	173.840	-0.415	0.000	0.20			238.5	OK
15.000	TANK	174.300	-0.150	0.000	0.00			0.0	OK
15.001	SMH214A	173.055	0.240	0.000	0.06			16.9	SURCHARGED

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

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
10.009	SMH215	173.054	0.314	0.000	0.65			248.7	SURCHARGED

PN	US/MH Name	Level Exceeded
5.006	SMH19	
5.007	SMH20	
1.002	SMH21	
1.003	SMH22	
6.000	SMH23	
6.001	SMH24	
6.002	SMH25	
6.003	SMH26	
1.004	SMH27	
7.000	SMH28	
8.000	SMH29	1
7.001	SMH30	1
7.002	SMH31	
9.000	SMH32	
9.001	SMH33	
7.003	SMH34	
7.004	SMH35	
7.005	SMH36	
1.005	SMH37	
1.006	SMH38	
1.007	SMH39	
1.008	SMH40	
1.009	SMH41	
1.010	SMH42	
1.011	SMH43	
1.012	SMH44	
1.013	SMH45	
1.014	SMH46	
1.015	SMH47	
1.016	SMH48	
10.000	SMH200	
11.000	SMH201	
10.001	SMH202	
10.002	SMH203	
10.003	SMH204	
10.004	SMH205	
10.005	SMH206	
12.000	SMH207	
13.000	SMH208	
12.001	SMH209	
12.002	SMH210	

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

PN	US/MH Name	Level Exceeded
10.006	SMH211	
14.000	SMH212	
10.007	SMH213	
10.008	SMH214	
15.000	TANK	
15.001	SMH214A	
10.009	SMH215	

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

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
16.000	SMH216	15 Winter	30	+0%				
17.000	SMH217	15 Winter	30	+0%				
16.001	SMH218	15 Winter	30	+0%				
16.002	SMH219	15 Winter	30	+0%				
16.003	SMH220	15 Winter	30	+0%				
18.000	SMH221	15 Winter	30	+0%				
19.000	SMH222	15 Winter	30	+0%				
18.001	SMH223	15 Winter	30	+0%				
18.002	SMH224	15 Winter	30	+0%				
16.004	SMH225	15 Winter	30	+0%				
16.005	SMH226	15 Winter	30	+0%	100/15 Winter			
10.010	SMH227	15 Winter	30	+0%	30/15 Summer			
10.011	SMH228	15 Winter	30	+0%	30/15 Summer			
10.012	SMH229	15 Winter	30	+0%	30/15 Summer			
10.013	SMH230	15 Winter	30	+0%	30/15 Summer			
10.014	SMH231	15 Winter	30	+0%	30/15 Summer			
10.015	SMH232	15 Winter	30	+0%	30/15 Summer			
20.000	SMH233	15 Winter	30	+0%				
21.000	SMH234	15 Winter	30	+0%				
20.001	SMH235	15 Winter	30	+0%				
20.002	SMH236	15 Winter	30	+0%				
20.003	SMH237	15 Winter	30	+0%				
20.004	SMH238	15 Winter	30	+0%	100/15 Summer			
10.016	SMH239	15 Winter	30	+0%	100/15 Summer			
10.017	SMH240	15 Winter	30	+0%	100/15 Summer			
22.000	SMH241	15 Winter	30	+0%	100/15 Winter			
10.018	SMH242	15 Winter	30	+0%	100/15 Summer			
10.019	SMH243	15 Winter	30	+0%	100/15 Summer			
10.020	SMH244	15 Winter	30	+0%				
23.000	SMH245	15 Winter	30	+0%				
24.000	SMH246	15 Winter	30	+0%				
23.001	SMH247	15 Winter	30	+0%				
25.000	SMH248	15 Winter	30	+0%	100/15 Summer			
23.002	SMH249	15 Winter	30	+0%	100/15 Summer			
23.003	SMH250	15 Winter	30	+0%	100/15 Summer			
26.000	SMH251	15 Winter	30	+0%				
26.001	SMH252	15 Winter	30	+0%				
23.004	SMH253	15 Winter	30	+0%	30/15 Winter			
23.005	SMH254	15 Winter	30	+0%				
23.006	SMH255	15 Winter	30	+0%				
23.007	SMH256	15 Winter	30	+0%	100/180 Winter			
1.017	TANK	240 Winter	30	+0%	30/60 Summer			
1.018	SMH43	180 Winter	30	+0%	1/180 Winter			

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

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
16.000	SMH216	177.529	-0.181	0.000	0.09		7	7.9	OK
17.000	SMH217	177.269	-0.166	0.000	0.15		6	9.4	OK
16.001	SMH218	177.037	-0.213	0.000	0.18			17.1	OK
16.002	SMH219	176.855	-0.240	0.000	0.09			17.2	OK
16.003	SMH220	176.135	-0.175	0.000	0.35			55.9	OK
18.000	SMH221	176.990	-0.155	0.000	0.22		7	24.2	OK
19.000	SMH222	176.082	-0.143	0.000	0.29		7	10.7	OK
18.001	SMH223	175.980	-0.155	0.000	0.47			45.3	OK
18.002	SMH224	175.751	-0.129	0.000	0.60			58.3	OK
16.004	SMH225	175.455	-0.170	0.000	0.56			146.7	OK
16.005	SMH226	174.603	-0.232	0.000	0.30			168.4	OK
10.010	SMH227	172.950	0.405	0.000	1.13			387.2	SURCHARGED
10.011	SMH228	172.798	0.353	0.000	1.19			392.7	SURCHARGED
10.012	SMH229	172.645	0.280	0.000	1.31			399.5	SURCHARGED
10.013	SMH230	172.494	0.189	0.000	1.24			401.8	SURCHARGED
10.014	SMH231	172.336	0.106	0.000	1.13			410.4	SURCHARGED
10.015	SMH232	172.151	0.061	0.000	1.26			420.9	SURCHARGED
20.000	SMH233	174.453	-0.167	0.000	0.15		7	20.3	OK
21.000	SMH234	173.636	-0.109	0.000	0.52		7	17.9	OK
20.001	SMH235	173.508	-0.177	0.000	0.35			44.8	OK
20.002	SMH236	173.190	-0.190	0.000	0.29			44.8	OK
20.003	SMH237	172.788	-0.162	0.000	0.42			66.5	OK
20.004	SMH238	172.240	-0.115	0.000	0.68			101.6	OK
10.016	SMH239	171.783	-0.217	0.000	0.73			489.4	OK
10.017	SMH240	171.318	-0.232	0.000	0.69			491.0	OK
22.000	SMH241	171.085	-0.205	0.000	0.22		7	22.6	OK
10.018	SMH242	170.820	-0.230	0.000	0.69			509.7	OK
10.019	SMH243	170.294	-0.216	0.000	0.72			517.6	OK
10.020	SMH244	169.673	-0.327	0.000	0.42			528.3	OK
23.000	SMH245	171.293	-0.157	0.000	0.20			11.6	OK
24.000	SMH246	171.403	-0.167	0.000	0.15			11.6	OK
23.001	SMH247	171.045	-0.180	0.000	0.33			37.0	OK
25.000	SMH248	171.595	-0.095	0.000	0.63			40.6	OK
23.002	SMH249	170.690	-0.160	0.000	0.60			108.8	OK
23.003	SMH250	170.414	-0.101	0.000	0.72			124.8	OK
26.000	SMH251	173.136	-0.169	0.000	0.14			8.8	OK
26.001	SMH252	172.537	-0.233	0.000	0.11			43.9	OK
23.004	SMH253	170.286	0.011	0.000	1.02			171.8	SURCHARGED
23.005	SMH254	170.002	-0.203	0.000	0.57			170.2	OK
23.006	SMH255	169.455	-0.190	0.000	0.62		6	200.0	OK
23.007	SMH256	169.084	-0.236	0.000	0.45			231.7	OK
1.017	TANK	168.574	0.354	0.000	0.88		362	189.9	SURCHARGED
1.018	SMH43	168.937	0.992	0.000	0.73			72.9	SURCHARGED

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

PN	US/MH Name	Level Exceeded
16.000	SMH216	
17.000	SMH217	
16.001	SMH218	
16.002	SMH219	
16.003	SMH220	
18.000	SMH221	
19.000	SMH222	
18.001	SMH223	
18.002	SMH224	
16.004	SMH225	
16.005	SMH226	
10.010	SMH227	
10.011	SMH228	
10.012	SMH229	
10.013	SMH230	
10.014	SMH231	
10.015	SMH232	
20.000	SMH233	
21.000	SMH234	
20.001	SMH235	
20.002	SMH236	
20.003	SMH237	
20.004	SMH238	
10.016	SMH239	
10.017	SMH240	
22.000	SMH241	
10.018	SMH242	
10.019	SMH243	
10.020	SMH244	
23.000	SMH245	
24.000	SMH246	
23.001	SMH247	
25.000	SMH248	
23.002	SMH249	
23.003	SMH250	
26.000	SMH251	
26.001	SMH252	
23.004	SMH253	
23.005	SMH254	
23.006	SMH255	
23.007	SMH256	
1.017	TANK	
1.018	SMH43	

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

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 0.000
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 14
Number of Online Controls 2 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.359
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 18.000 Cv (Winter) 0.840

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

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
Return Period(s) (years) 1, 30, 100
Climate Change (%) 0, 0, 30

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
1.000	SMH1	30 Winter	100	+30%	30/15 Summer	100/15 Summer		
2.000	SMH2	30 Winter	100	+30%	100/15 Summer			
3.000	SMH3	30 Winter	100	+30%	100/15 Summer	100/30 Winter		
2.001	SMH4	30 Winter	100	+30%	100/15 Summer			
2.002	SMH5	30 Winter	100	+30%	100/15 Summer			
4.000	SMH6	30 Winter	100	+30%	100/15 Summer	100/15 Winter		
4.001	SMH7	30 Winter	100	+30%	30/15 Winter			
4.002	SMH8	30 Winter	100	+30%	100/15 Summer			
2.003	SMH9	30 Winter	100	+30%	100/15 Summer			
2.004	SMH10	30 Winter	100	+30%	100/15 Summer			
2.005	SMH11	30 Winter	100	+30%	30/15 Summer			
1.001	SMH12	30 Summer	100	+30%	30/15 Summer			
5.000	SMH13	15 Winter	100	+30%	100/15 Summer			
5.001	SMH14	15 Winter	100	+30%	100/15 Summer			
5.002	SMH15	15 Winter	100	+30%	100/15 Summer			
5.003	SMH16	15 Winter	100	+30%	100/15 Summer			
5.004	SMH17	30 Winter	100	+30%	100/30 Winter			
5.005	SMH18	30 Winter	100	+30%	100/30 Winter			

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

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
1.000	SMH1	171.791	1.826	106.006	0.13			165.1	FLOOD
2.000	SMH2	173.035	1.135	0.000	0.74			29.6	FLOOD RISK
3.000	SMH3	173.020	1.125	0.080	0.59			27.0	FLOOD
2.001	SMH4	172.931	1.156	0.000	0.40			73.1	SURCHARGED
2.002	SMH5	172.777	1.347	0.000	0.53			78.1	SURCHARGED
4.000	SMH6	173.002	1.412	1.602	1.13			84.9	FLOOD
4.001	SMH7	172.778	1.418	0.000	1.46			114.0	SURCHARGED
4.002	SMH8	172.743	1.408	0.000	1.24			116.8	SURCHARGED
2.003	SMH9	172.665	1.390	0.000	0.92			215.0	SURCHARGED
2.004	SMH10	172.412	1.457	0.000	0.35			234.1	SURCHARGED
2.005	SMH11	171.985	2.450	0.000	1.94			235.4	SURCHARGED
1.001	SMH12	171.835	2.330	0.000	0.95			254.1	SURCHARGED
5.000	SMH13	174.959	0.559	0.000	1.37			86.5	SURCHARGED
5.001	SMH14	174.376	0.306	0.000	0.81			93.5	SURCHARGED
5.002	SMH15	174.220	0.380	0.000	1.02			120.7	SURCHARGED
5.003	SMH16	173.985	0.385	0.000	1.39			176.2	SURCHARGED
5.004	SMH17	173.255	0.045	0.000	0.83			159.0	SURCHARGED
5.005	SMH18	173.096	0.126	0.000	0.84			164.4	SURCHARGED

PN	US/MH Name	Level Exceeded
1.000	SMH1	6
2.000	SMH2	
3.000	SMH3	1
2.001	SMH4	
2.002	SMH5	
4.000	SMH6	2
4.001	SMH7	
4.002	SMH8	
2.003	SMH9	
2.004	SMH10	
2.005	SMH11	
1.001	SMH12	
5.000	SMH13	
5.001	SMH14	
5.002	SMH15	
5.003	SMH16	
5.004	SMH17	
5.005	SMH18	

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

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
5.006	SMH19	30 Winter	100	+30%	100/30 Winter			
5.007	SMH20	30 Winter	100	+30%	30/15 Summer			
1.002	SMH21	30 Winter	100	+30%	30/15 Summer			
1.003	SMH22	30 Winter	100	+30%	30/15 Summer			
6.000	SMH23	15 Winter	100	+30%				
6.001	SMH24	15 Winter	100	+30%				
6.002	SMH25	15 Winter	100	+30%				
6.003	SMH26	30 Winter	100	+30%	100/30 Winter			
1.004	SMH27	30 Winter	100	+30%	30/15 Summer			
7.000	SMH28	30 Winter	100	+30%	100/15 Summer			
8.000	SMH29	30 Winter	100	+30%	100/15 Summer	100/30 Winter		
7.001	SMH30	30 Winter	100	+30%	100/15 Summer	100/30 Winter		
7.002	SMH31	30 Winter	100	+30%	100/15 Summer			
9.000	SMH32	30 Winter	100	+30%	100/15 Summer			
9.001	SMH33	30 Winter	100	+30%	100/15 Summer			
7.003	SMH34	30 Winter	100	+30%	30/15 Summer			
7.004	SMH35	30 Winter	100	+30%	30/15 Summer			
7.005	SMH36	30 Winter	100	+30%	30/30 Winter			
1.005	SMH37	30 Winter	100	+30%	30/15 Summer			
1.006	SMH38	30 Winter	100	+30%	30/15 Summer			
1.007	SMH39	30 Winter	100	+30%	30/15 Summer			
1.008	SMH40	30 Winter	100	+30%	30/15 Summer			
1.009	SMH41	30 Winter	100	+30%	30/15 Summer			
1.010	SMH42	30 Winter	100	+30%	30/15 Summer			
1.011	SMH43	30 Winter	100	+30%	30/15 Summer			
1.012	SMH44	30 Winter	100	+30%	30/15 Summer			
1.013	SMH45	30 Winter	100	+30%	30/15 Summer			
1.014	SMH46	30 Winter	100	+30%	30/15 Summer			
1.015	SMH47	360 Winter	100	+30%	30/15 Summer			
1.016	SMH48	360 Winter	100	+30%	30/15 Summer			
10.000	SMH200	15 Winter	100	+30%				
11.000	SMH201	15 Winter	100	+30%	100/15 Winter			
10.001	SMH202	15 Winter	100	+30%				
10.002	SMH203	15 Winter	100	+30%				
10.003	SMH204	15 Winter	100	+30%				
10.004	SMH205	15 Winter	100	+30%	100/15 Summer			
10.005	SMH206	15 Winter	100	+30%				
12.000	SMH207	15 Winter	100	+30%	100/15 Summer			
13.000	SMH208	15 Winter	100	+30%	100/15 Summer			
12.001	SMH209	15 Summer	100	+30%	30/15 Summer			
12.002	SMH210	15 Winter	100	+30%	30/15 Summer			
10.006	SMH211	15 Winter	100	+30%	30/15 Summer			
14.000	SMH212	15 Winter	100	+30%				
10.007	SMH213	15 Winter	100	+30%	100/15 Summer			
10.008	SMH214	15 Winter	100	+30%	100/15 Summer			
15.000	TANK	15 Winter	100	+30%	100/15 Winter			
15.001	SMH214A	15 Winter	100	+30%	30/15 Summer			
10.009	SMH215	15 Winter	100	+30%	30/15 Summer			

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

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
5.006	SMH19	172.956	0.296	0.000	0.29			179.0	SURCHARGED
5.007	SMH20	172.575	2.745	0.000	0.83			209.3	SURCHARGED
1.002	SMH21	172.337	2.927	0.000	1.28			323.3	SURCHARGED
1.003	SMH22	172.300	2.950	0.000	1.19			316.7	SURCHARGED
6.000	SMH23	174.124	-0.076	0.000	0.77			61.7	OK
6.001	SMH24	173.788	-0.052	0.000	0.94			74.8	OK
6.002	SMH25	173.278	-0.142	0.000	0.52			99.7	OK
6.003	SMH26	172.445	0.285	0.000	0.35			133.3	SURCHARGED
1.004	SMH27	172.258	2.988	0.000	1.67			437.7	SURCHARGED
7.000	SMH28	173.023	1.253	0.000	0.95			38.2	FLOOD RISK
8.000	SMH29	172.801	1.291	0.626	1.06			31.7	FLOOD
7.001	SMH30	172.749	1.274	9.080	1.10			71.7	FLOOD
7.002	SMH31	172.740	1.385	0.000	0.58			100.8	FLOOD RISK
9.000	SMH32	172.953	1.903	0.000	0.43			48.1	FLOOD RISK
9.001	SMH33	172.805	2.010	0.000	0.61			69.1	SURCHARGED
7.003	SMH34	172.669	2.174	0.000	1.45			159.0	SURCHARGED
7.004	SMH35	172.579	2.164	0.000	1.70			182.1	SURCHARGED
7.005	SMH36	172.484	2.139	0.000	0.50			202.0	SURCHARGED
1.005	SMH37	172.162	2.972	0.000	2.78			611.2	SURCHARGED
1.006	SMH38	171.974	2.929	0.000	2.25			589.8	SURCHARGED
1.007	SMH39	171.707	2.757	0.000	3.38			593.1	SURCHARGED
1.008	SMH40	171.461	2.541	0.000	2.34			591.4	SURCHARGED
1.009	SMH41	171.206	2.361	0.000	2.92			567.8	SURCHARGED
1.010	SMH42	170.767	2.047	0.000	2.28			564.3	SURCHARGED
1.011	SMH43	170.500	1.840	0.000	3.19			562.5	SURCHARGED
1.012	SMH44	170.212	1.582	0.000	2.99			555.2	SURCHARGED
1.013	SMH45	169.924	1.329	0.000	2.19			552.3	SURCHARGED
1.014	SMH46	169.591	1.071	0.000	2.04			545.6	SURCHARGED
1.015	SMH47	169.542	1.137	0.000	0.88			236.3	SURCHARGED
1.016	SMH48	169.530	1.260	0.000	1.06			235.9	SURCHARGED
10.000	SMH200	178.178	-0.097	0.000	0.62		7	26.6	OK
11.000	SMH201	178.118	0.013	0.000	0.58		6	24.4	SURCHARGED
10.001	SMH202	178.041	-0.139	0.000	0.55			59.0	OK
10.002	SMH203	177.801	-0.094	0.000	0.78			78.9	OK
10.003	SMH204	177.597	-0.128	0.000	0.61			86.1	OK
10.004	SMH205	177.456	0.056	0.000	1.11			130.6	SURCHARGED
10.005	SMH206	177.017	-0.163	0.000	0.42			135.8	OK
12.000	SMH207	175.288	0.363	0.000	0.90		6	45.3	SURCHARGED
13.000	SMH208	175.260	0.265	0.000	0.92		7	50.5	SURCHARGED
12.001	SMH209	175.335	0.555	0.000	1.06			83.4	SURCHARGED
12.002	SMH210	175.628	1.028	0.000	1.26			95.8	SURCHARGED
10.006	SMH211	175.702	1.232	0.000	2.12			227.6	SURCHARGED
14.000	SMH212	175.453	-0.297	0.000	0.10			44.9	OK
10.007	SMH213	175.333	1.018	0.000	1.28			293.3	SURCHARGED
10.008	SMH214	175.129	0.874	0.000	0.25			296.1	SURCHARGED
15.000	TANK	174.513	0.063	0.000	0.53		3	25.3	SURCHARGED
15.001	SMH214A	174.751	1.936	0.000	0.15			44.1	SURCHARGED

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

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
10.009	SMH215	174.757	2.017	0.000	0.89			339.3	SURCHARGED

PN	US/MH Name	Level Exceeded
5.006	SMH19	
5.007	SMH20	
1.002	SMH21	
1.003	SMH22	
6.000	SMH23	
6.001	SMH24	
6.002	SMH25	
6.003	SMH26	
1.004	SMH27	
7.000	SMH28	
8.000	SMH29	1
7.001	SMH30	1
7.002	SMH31	
9.000	SMH32	
9.001	SMH33	
7.003	SMH34	
7.004	SMH35	
7.005	SMH36	
1.005	SMH37	
1.006	SMH38	
1.007	SMH39	
1.008	SMH40	
1.009	SMH41	
1.010	SMH42	
1.011	SMH43	
1.012	SMH44	
1.013	SMH45	
1.014	SMH46	
1.015	SMH47	
1.016	SMH48	
10.000	SMH200	
11.000	SMH201	
10.001	SMH202	
10.002	SMH203	
10.003	SMH204	
10.004	SMH205	
10.005	SMH206	
12.000	SMH207	
13.000	SMH208	
12.001	SMH209	
12.002	SMH210	

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

PN	US/MH Name	Level Exceeded
10.006	SMH211	
14.000	SMH212	
10.007	SMH213	
10.008	SMH214	
15.000	TANK	
15.001	SMH214A	
10.009	SMH215	

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

PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.
16.000	SMH216	15 Winter	100	+30%				
17.000	SMH217	15 Winter	100	+30%				
16.001	SMH218	15 Winter	100	+30%				
16.002	SMH219	15 Winter	100	+30%				
16.003	SMH220	15 Winter	100	+30%				
18.000	SMH221	15 Winter	100	+30%				
19.000	SMH222	15 Winter	100	+30%				
18.001	SMH223	15 Winter	100	+30%				
18.002	SMH224	15 Winter	100	+30%				
16.004	SMH225	15 Winter	100	+30%				
16.005	SMH226	15 Winter	100	+30%	100/15 Winter			
10.010	SMH227	15 Winter	100	+30%	30/15 Summer			
10.011	SMH228	15 Winter	100	+30%	30/15 Summer			
10.012	SMH229	15 Winter	100	+30%	30/15 Summer			
10.013	SMH230	15 Winter	100	+30%	30/15 Summer			
10.014	SMH231	15 Winter	100	+30%	30/15 Summer			
10.015	SMH232	15 Winter	100	+30%	30/15 Summer			
20.000	SMH233	15 Winter	100	+30%				
21.000	SMH234	15 Winter	100	+30%				
20.001	SMH235	15 Winter	100	+30%				
20.002	SMH236	15 Winter	100	+30%				
20.003	SMH237	15 Winter	100	+30%				
20.004	SMH238	15 Winter	100	+30%	100/15 Summer			
10.016	SMH239	15 Winter	100	+30%	100/15 Summer			
10.017	SMH240	15 Winter	100	+30%	100/15 Summer			
22.000	SMH241	15 Winter	100	+30%	100/15 Winter			
10.018	SMH242	15 Winter	100	+30%	100/15 Summer			
10.019	SMH243	15 Winter	100	+30%	100/15 Summer			
10.020	SMH244	30 Winter	100	+30%				
23.000	SMH245	15 Winter	100	+30%				
24.000	SMH246	15 Winter	100	+30%				
23.001	SMH247	15 Winter	100	+30%				
25.000	SMH248	15 Winter	100	+30%	100/15 Summer			
23.002	SMH249	15 Winter	100	+30%	100/15 Summer			
23.003	SMH250	15 Winter	100	+30%	100/15 Summer			
26.000	SMH251	15 Winter	100	+30%				
26.001	SMH252	15 Winter	100	+30%				
23.004	SMH253	15 Winter	100	+30%	30/15 Winter			
23.005	SMH254	15 Winter	100	+30%				
23.006	SMH255	15 Winter	100	+30%				
23.007	SMH256	360 Winter	100	+30%	100/180 Winter			
1.017	TANK	360 Winter	100	+30%	30/60 Summer			
1.018	SMH43	360 Winter	100	+30%	1/180 Winter			

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

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
16.000	SMH216	177.542	-0.168	0.000	0.15		7	13.3	OK
17.000	SMH217	177.288	-0.147	0.000	0.26		6	15.7	OK
16.001	SMH218	177.065	-0.185	0.000	0.31			28.8	OK
16.002	SMH219	176.872	-0.223	0.000	0.15			28.8	OK
16.003	SMH220	176.179	-0.131	0.000	0.59			94.1	OK
18.000	SMH221	177.013	-0.132	0.000	0.36		7	40.6	OK
19.000	SMH222	176.110	-0.115	0.000	0.48		7	18.0	OK
18.001	SMH223	176.038	-0.097	0.000	0.79			76.0	OK
18.002	SMH224	175.835	-0.045	0.000	1.00			96.5	OK
16.004	SMH225	175.543	-0.082	0.000	0.94			245.3	OK
16.005	SMH226	175.020	0.185	0.000	0.51			281.9	SURCHARGED
10.010	SMH227	174.629	2.084	0.000	1.69			578.6	SURCHARGED
10.011	SMH228	174.329	1.884	0.000	1.78			588.1	SURCHARGED
10.012	SMH229	173.996	1.631	0.000	1.96			596.3	SURCHARGED
10.013	SMH230	173.642	1.337	0.000	1.83			596.8	SURCHARGED
10.014	SMH231	173.283	1.053	0.000	1.73			625.7	SURCHARGED
10.015	SMH232	172.880	0.790	0.000	1.94			647.4	SURCHARGED
20.000	SMH233	174.472	-0.148	0.000	0.25		7	34.0	OK
21.000	SMH234	173.684	-0.061	0.000	0.88		6	30.1	OK
20.001	SMH235	173.552	-0.133	0.000	0.59			75.2	OK
20.002	SMH236	173.228	-0.152	0.000	0.48			75.2	OK
20.003	SMH237	172.841	-0.109	0.000	0.70			111.6	OK
20.004	SMH238	172.660	0.305	0.000	1.12			167.2	SURCHARGED
10.016	SMH239	172.470	0.470	0.000	1.17			787.5	SURCHARGED
10.017	SMH240	171.878	0.328	0.000	1.11			784.5	SURCHARGED
22.000	SMH241	171.347	0.057	0.000	0.41		4	42.3	SURCHARGED
10.018	SMH242	171.275	0.225	0.000	1.09			799.8	SURCHARGED
10.019	SMH243	170.636	0.126	0.000	1.14			814.8	SURCHARGED
10.020	SMH244	169.758	-0.242	0.000	0.66			836.3	OK
23.000	SMH245	171.314	-0.136	0.000	0.33			19.5	OK
24.000	SMH246	171.421	-0.149	0.000	0.25			19.5	OK
23.001	SMH247	171.174	-0.051	0.000	0.54			60.9	OK
25.000	SMH248	171.978	0.288	0.000	1.07			68.6	SURCHARGED
23.002	SMH249	171.066	0.216	0.000	0.96			172.2	SURCHARGED
23.003	SMH250	170.758	0.243	0.000	1.16			199.6	SURCHARGED
26.000	SMH251	173.154	-0.151	0.000	0.24			14.8	OK
26.001	SMH252	172.558	-0.212	0.000	0.19			73.8	OK
23.004	SMH253	170.441	0.166	0.000	1.66			281.2	SURCHARGED
23.005	SMH254	170.101	-0.104	0.000	0.94			277.9	OK
23.006	SMH255	169.578	-0.067	0.000	1.00		6	321.3	OK
23.007	SMH256	169.525	0.205	0.000	0.14			70.2	SURCHARGED
1.017	TANK	169.522	1.302	0.000	0.97		470	208.8	SURCHARGED
1.018	SMH43	169.830	1.885	0.000	0.73			72.9	SURCHARGED

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

PN	US/MH Name	Level Exceeded
16.000	SMH216	
17.000	SMH217	
16.001	SMH218	
16.002	SMH219	
16.003	SMH220	
18.000	SMH221	
19.000	SMH222	
18.001	SMH223	
18.002	SMH224	
16.004	SMH225	
16.005	SMH226	
10.010	SMH227	
10.011	SMH228	
10.012	SMH229	
10.013	SMH230	
10.014	SMH231	
10.015	SMH232	
20.000	SMH233	
21.000	SMH234	
20.001	SMH235	
20.002	SMH236	
20.003	SMH237	
20.004	SMH238	
10.016	SMH239	
10.017	SMH240	
22.000	SMH241	
10.018	SMH242	
10.019	SMH243	
10.020	SMH244	
23.000	SMH245	
24.000	SMH246	
23.001	SMH247	
25.000	SMH248	
23.002	SMH249	
23.003	SMH250	
26.000	SMH251	
26.001	SMH252	
23.004	SMH253	
23.005	SMH254	
23.006	SMH255	
23.007	SMH256	
1.017	TANK	
1.018	SMH43	

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