

RGP Design Limited		Page 1
2 West Barn Norton Lane Chichester PO20 3AF	Bilsham Road, Yapton	
Date 05/05/2022 11:29 File 2021-11-23 NETWORK.MDX	Designed by lf Checked by	
Innovyze Network 2018.1		

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FEH Rainfall Model

Return Period (years)	100
FEH Rainfall Version	2013
Site Location GB 497526 102719 SU 97526 02719	
Data Type	Point
Maximum Rainfall (mm/hr)	50
Maximum Time of Concentration (mins)	30
Foul Sewage (l/s/ha)	0.000
Volumetric Runoff Coeff.	0.750
PIMP (%)	100
Add Flow / Climate Change (%)	0
Minimum Backdrop Height (m)	0.200
Maximum Backdrop Height (m)	1.500
Min Design Depth for Optimisation (m)	1.200
Min Vel for Auto Design only (m/s)	1.00
Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.624	4-8	2.285	8-12	2.360	12-16	0.201

Total Area Contributing (ha) = 5.470

Total Pipe Volume (m³) = 343.616

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	29.623	0.188	157.6	0.041	5.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	5.39	5.469	0.041	0.0	0.0	0.0	1.25	88.4	5.6

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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
2.000	26.224	0.131	200.0	0.149	5.00	0.0	0.600	o	375	Pipe/Conduit		
2.001	15.003	0.048	313.0	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit		
1.001	15.735	0.050	313.0	0.100	0.00	0.0	0.600	o	375	Pipe/Conduit		
1.002	34.637	0.169	205.0	0.037	0.00	0.0	0.600	o	375	Pipe/Conduit		
3.000	22.261	0.221	100.7	0.080	5.00	0.0	0.600	o	375	Pipe/Conduit		
3.001	8.782	0.123	71.4	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit		
1.003	28.730	0.075	383.1	0.138	0.00	0.0	0.600	o	450	Pipe/Conduit		
1.004	27.193	0.136	199.9	0.095	0.00	0.0	0.600	o	450	Pipe/Conduit		
1.005	16.213	0.116	139.8	0.101	0.00	0.0	0.600	o	450	Pipe/Conduit		
4.000	22.527	0.072	312.9	0.046	5.00	0.0	0.600	o	375	Pipe/Conduit		
1.006	108.735	0.234	464.7	0.115	0.00	0.0	0.600	o	600	Pipe/Conduit		
5.000	34.516	0.514	67.2	0.206	5.00	0.0	0.600	o	375	Pipe/Conduit		
5.001	11.951	0.038	313.0	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit		
5.002	42.967	0.137	313.0	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit		
5.003	19.007	0.061	313.0	0.146	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)		
2.000	50.00	5.34	5.385	0.149	0.0	0.0	0.0	1.28	141.1	20.2		
2.001	50.00	5.59	5.254	0.149	0.0	0.0	0.0	1.02	112.5	20.2		
1.001	50.00	5.84	5.206	0.290	0.0	0.0	0.0	1.02	112.5	39.3		
1.002	50.00	6.30	5.156	0.327	0.0	0.0	0.0	1.26	139.4	44.3		
3.000	50.00	5.21	5.331	0.080	0.0	0.0	0.0	1.81	199.4	10.8		
3.001	50.00	5.27	5.110	0.080	0.0	0.0	0.0	2.15	237.1	10.8		
1.003	50.00	6.77	4.912	0.545	0.0	0.0	0.0	1.03	164.2	73.8		
1.004	50.00	7.08	4.837	0.640	0.0	0.0	0.0	1.43	228.1	86.7		
1.005	50.00	7.24	4.701	0.741	0.0	0.0	0.0	1.72	273.2	100.3		
4.000	50.00	5.37	4.732	0.046	0.0	0.0	0.0	1.02	112.5	6.2		
1.006	50.00	8.85	4.435	0.902	0.0	0.0	0.0	1.12	317.5	122.1		
5.000	50.00	5.26	5.800	0.206	0.0	0.0	0.0	2.21	244.4	27.9		
5.001	50.00	5.46	5.286	0.206	0.0	0.0	0.0	1.02	112.5	27.9		
5.002	50.00	6.16	5.248	0.206	0.0	0.0	0.0	1.02	112.5	27.9		
5.003	50.00	6.47	5.111	0.352	0.0	0.0	0.0	1.02	112.5	47.7		
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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
6.000	42.648	0.200	213.2	0.109	5.00	0.0	0.600	o	300	Pipe/Conduit		
6.001	6.210	0.050	124.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
6.002	6.407	0.125	51.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
5.004	26.102	0.068	385.0	0.016	0.00	0.0	0.600	o	450	Pipe/Conduit		
5.005	27.205	0.121	224.8	0.072	0.00	0.0	0.600	o	450	Pipe/Conduit		
7.000	39.044	0.355	110.0	0.082	5.00	0.0	0.600	o	375	Pipe/Conduit		
7.001	9.832	0.259	38.0	0.103	0.00	0.0	0.600	o	375	Pipe/Conduit		
5.006	24.581	0.150	163.9	0.063	0.00	0.0	0.600	o	525	Pipe/Conduit		
5.007	21.692	0.171	126.9	0.036	0.00	0.0	0.600	o	525	Pipe/Conduit		
8.000	14.072	0.057	246.9	0.041	5.00	0.0	0.600	o	150	Pipe/Conduit		
5.008	14.285	0.060	238.1	0.064	0.00	0.0	0.600	o	525	Pipe/Conduit		
9.000	15.131	0.097	156.0	0.104	5.00	0.0	0.600	o	225	Pipe/Conduit		
5.009	22.656	0.129	175.6	0.035	0.00	0.0	0.600	o	525	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)		
6.000	50.00	5.66	5.500	0.109	0.0	0.0	0.0	1.07	75.8	14.8		
6.001	50.00	5.74	5.300	0.109	0.0	0.0	0.0	1.41	99.6	14.8		
6.002	50.00	5.78	5.250	0.109	0.0	0.0	0.0	2.20	155.6	14.8		
5.004	50.00	6.89	4.975	0.477	0.0	0.0	0.0	1.03	163.8	64.6		
5.005	50.00	7.23	4.907	0.549	0.0	0.0	0.0	1.35	215.0	74.3		
7.000	50.00	5.38	5.475	0.082	0.0	0.0	0.0	1.73	190.7	11.1		
7.001	50.00	5.43	5.120	0.185	0.0	0.0	0.0	2.95	325.5	25.1		
5.006	50.00	7.46	4.711	0.797	0.0	0.0	0.0	1.75	378.2	107.9		
5.007	50.00	7.64	4.561	0.833	0.0	0.0	0.0	1.99	430.2	112.8		
8.000	50.00	5.37	4.822	0.041	0.0	0.0	0.0	0.64	11.2	5.6		
5.008	50.00	7.81	4.390	0.938	0.0	0.0	0.0	1.45	313.3	127.0		
9.000	50.00	5.24	4.727	0.104	0.0	0.0	0.0	1.04	41.5	14.1		
5.009	50.00	8.03	4.330	1.077	0.0	0.0	0.0	1.69	365.2	145.8		
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10.000	10.994	0.103	107.0	0.107	5.00	0.0	0.600	o	300	Pipe/Conduit	
10.001	36.167	0.116	313.0	0.104	0.00	0.0	0.600	o	375	Pipe/Conduit	
10.002	33.536	0.107	313.0	0.061	0.00	0.0	0.600	o	375	Pipe/Conduit	
10.003	31.399	0.100	314.0	0.096	0.00	0.0	0.600	o	375	Pipe/Conduit	
10.004	16.139	0.154	105.0	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit	
10.005	16.741	0.053	313.0	0.169	0.00	0.0	0.600	o	375	Pipe/Conduit	
10.006	38.524	0.368	104.7	0.054	0.00	0.0	0.600	o	375	Pipe/Conduit	
1.007	35.029	0.068	515.1	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.008	5.284	0.014	377.4	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.009	42.278	0.110	384.3	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.010	14.131	0.037	381.9	0.046	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.011	9.197	0.024	383.2	0.056	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.012	11.526	0.030	384.2	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.013	32.608	0.292	111.7	0.040	0.00	0.0	0.600	o	450	Pipe/Conduit	
11.000	38.334	0.225	170.0	0.153	5.00	0.0	0.600	o	300	Pipe/Conduit	
11.001	7.265	0.049	148.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
1.014	29.639	0.077	385.0	0.058	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.015	33.280	0.086	385.0	0.052	0.00	0.0	0.600	o	450	Pipe/Conduit	
Network Results Table											
PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)	
10.000	50.00	5.12	5.277	0.107	0.0	0.0	0.0	1.52	107.4	14.5	
10.001	50.00	5.71	5.099	0.211	0.0	0.0	0.0	1.02	112.5	28.6	
10.002	50.00	6.26	4.984	0.272	0.0	0.0	0.0	1.02	112.5	36.8	
10.003	50.00	6.78	4.877	0.368	0.0	0.0	0.0	1.02	112.3	49.8	
10.004	50.00	6.93	4.777	0.368	0.0	0.0	0.0	1.77	195.3	49.8	
10.005	50.00	7.20	4.623	0.537	0.0	0.0	0.0	1.02	112.5	72.7	
10.006	50.00	7.56	4.569	0.591	0.0	0.0	0.0	1.77	195.6	80.0	
1.007	50.00	9.51	4.201	2.570	0.0	0.0	0.0	0.89	141.4	348.0	
1.008	50.00	9.59	4.133	2.570	0.0	0.0	0.0	1.04	165.5	348.0	
1.009	50.00	10.28	4.119	2.570	0.0	0.0	0.0	1.03	164.0	348.0	
1.010	50.00	10.51	4.009	2.616	0.0	0.0	0.0	1.03	164.5	354.2	
1.011	50.00	10.65	3.972	2.672	0.0	0.0	0.0	1.03	164.2	361.8	
1.012	50.00	10.84	3.948	2.672	0.0	0.0	0.0	1.03	164.0	361.8	
1.013	50.00	11.12	3.918	2.712	0.0	0.0	0.0	1.92	305.9	367.2	
11.000	50.00	5.53	4.050	0.153	0.0	0.0	0.0	1.20	85.0	20.7	
11.001	50.00	5.63	3.825	0.153	0.0	0.0	0.0	1.29	91.1	20.7	
1.014	50.00	11.60	3.626	2.923	0.0	0.0	0.0	1.03	163.8	395.8	
1.015	50.00	12.14	3.549	2.975	0.0	0.0	0.0	1.03	163.8	402.9	
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12.000	21.226	0.214	99.2	0.046	5.00	0.0	0.600	o	225	Pipe/Conduit	
13.000	11.599	0.125	93.0	0.029	5.00	0.0	0.600	o	300	Pipe/Conduit	
13.001	8.661	0.080	108.3	0.050	0.00	0.0	0.600	o	300	Pipe/Conduit	
13.002	29.592	0.124	238.0	0.022	0.00	0.0	0.600	o	300	Pipe/Conduit	
12.001	23.632	0.099	238.0	0.067	0.00	0.0	0.600	o	300	Pipe/Conduit	
12.002	16.754	0.070	238.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
12.003	17.691	0.057	313.0	0.051	0.00	0.0	0.600	o	375	Pipe/Conduit	
12.004	30.500	0.124	246.0	0.019	0.00	0.0	0.600	o	450	Pipe/Conduit	
14.000	8.115	0.034	238.0	0.115	5.00	0.0	0.600	o	300	Pipe/Conduit	
12.005	19.159	0.050	385.0	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
12.006	64.550	0.171	377.5	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
15.000	10.566	0.044	238.0	0.090	5.00	0.0	0.600	o	300	Pipe/Conduit	
15.001	21.828	0.196	111.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
15.002	11.956	0.102	117.2	0.091	0.00	0.0	0.600	o	300	Pipe/Conduit	
16.000	19.906	0.260	76.6	0.072	5.00	0.0	0.600	o	300	Pipe/Conduit	
16.001	12.505	0.122	102.2	0.051	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 Flow (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)	
12.000	50.00	5.27	5.805	0.046	0.0	0.0	0.0	1.31	52.2	6.2	
13.000	50.00	5.12	5.845	0.029	0.0	0.0	0.0	1.63	115.3	3.9	
13.001	50.00	5.21	5.720	0.079	0.0	0.0	0.0	1.51	106.8	10.7	
13.002	50.00	5.70	5.640	0.101	0.0	0.0	0.0	1.01	71.7	13.7	
12.001	50.00	6.09	5.516	0.214	0.0	0.0	0.0	1.01	71.7	29.0	
12.002	50.00	6.36	5.417	0.214	0.0	0.0	0.0	1.01	71.7	29.0	
12.003	50.00	6.65	5.272	0.265	0.0	0.0	0.0	1.02	112.5	35.9	
12.004	50.00	7.05	5.140	0.284	0.0	0.0	0.0	1.29	205.5	38.5	
14.000	50.00	5.13	5.200	0.115	0.0	0.0	0.0	1.01	71.7	15.6	
12.005	50.00	7.36	5.016	0.399	0.0	0.0	0.0	1.03	163.8	54.0	
12.006	50.00	8.39	4.966	0.399	0.0	0.0	0.0	1.04	165.5	54.0	
15.000	50.00	5.17	5.640	0.090	0.0	0.0	0.0	1.01	71.7	12.2	
15.001	50.00	5.42	5.596	0.090	0.0	0.0	0.0	1.49	105.3	12.2	
15.002	50.00	5.56	5.400	0.181	0.0	0.0	0.0	1.45	102.6	24.5	
16.000	50.00	5.18	5.680	0.072	0.0	0.0	0.0	1.80	127.1	9.7	
16.001	50.00	5.32	5.420	0.123	0.0	0.0	0.0	1.56	109.9	16.7	
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15.003	20.466	0.298	68.7	0.042	0.00	0.0	0.600	o	375	Pipe/Conduit	
15.004	21.142	0.130	162.6	0.120	0.00	0.0	0.600	o	375	Pipe/Conduit	
12.007	33.565	0.087	385.8	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
12.008	24.805	0.064	385.0	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
12.009	26.253	0.068	385.0	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
17.000	15.513	0.140	110.8	0.136	5.00	0.0	0.600	o	300	Pipe/Conduit	
17.001	9.427	0.040	235.7	0.044	0.00	0.0	0.600	o	300	Pipe/Conduit	
17.002	36.243	0.260	139.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
17.003	19.704	0.174	113.2	0.163	0.00	0.0	0.600	o	300	Pipe/Conduit	
12.010	24.041	0.911	26.4	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
12.011	35.682	0.087	410.1	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
12.012	40.766	0.100	407.7	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
12.013	6.269	0.015	417.9	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
1.016	16.777	0.037	450.0	0.183	0.00	0.0	0.600	o	525	Pipe/Conduit	
1.017	28.335	0.063	450.0	0.081	0.00	0.0	0.600	o	525	Pipe/Conduit	
18.000	5.866	0.013	451.2	0.000	5.00	0.0	0.600	o	525	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)	
15.003	50.00	5.71	5.223	0.346	0.0	0.0	0.0	2.19	241.8	46.9	
15.004	50.00	5.96	4.925	0.466	0.0	0.0	0.0	1.42	156.6	63.1	
12.007	50.00	8.93	4.795	0.865	0.0	0.0	0.0	1.03	163.7	117.1	
12.008	50.00	9.34	4.708	0.865	0.0	0.0	0.0	1.03	163.8	117.1	
12.009	50.00	9.76	4.644	0.865	0.0	0.0	0.0	1.03	163.8	117.1	
17.000	50.00	5.17	5.340	0.136	0.0	0.0	0.0	1.49	105.5	18.4	
17.001	50.00	5.33	5.200	0.180	0.0	0.0	0.0	1.02	72.1	24.4	
17.002	50.00	5.78	5.160	0.180	0.0	0.0	0.0	1.33	94.0	24.4	
17.003	50.00	6.00	4.900	0.343	0.0	0.0	0.0	1.48	104.4	46.4	
12.010	50.00	9.86	4.576	1.208	0.0	0.0	0.0	3.97	631.4	163.6	
12.011	50.00	10.46	3.665	1.208	0.0	0.0	0.0	1.00	158.7«	163.6	
12.012	50.00	11.14	3.578	1.208	0.0	0.0	0.0	1.00	159.2«	163.6	
12.013	50.00	11.24	3.478	1.208	0.0	0.0	0.0	0.99	157.2«	163.6	
1.016	50.00	12.41	3.388	4.366	0.0	0.0	0.0	1.05	227.2«	591.2	
1.017	50.00	12.86	3.351	4.447	0.0	0.0	0.0	1.05	227.2«	602.2	
18.000	50.00	5.09	3.301	0.000	0.0	0.0	0.0	1.05	226.8	0.0	
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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	
1.018	23.040	0.039	590.8	0.000	0.00	0.0	0.600	o	525	Pipe/Conduit		
1.019	15.210	0.034	447.4	0.000	0.00	0.0	0.600	o	525	Pipe/Conduit		
1.020	58.087	0.731	79.5	0.000	0.00	0.0	0.600	o	525	Pipe/Conduit		
19.000	27.788	0.139	199.9	0.122	5.00	0.0	0.600	o	525	Pipe/Conduit		
20.000	35.481	0.113	313.0	0.145	5.00	0.0	0.600	o	375	Pipe/Conduit		
20.001	8.071	0.419	19.3	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit		
19.001	55.215	0.138	400.1	0.040	0.00	0.0	0.600	o	525	Pipe/Conduit		
19.002	10.549	0.026	400.0	0.071	0.00	0.0	0.600	o	525	Pipe/Conduit		
21.000	28.079	0.118	238.0	0.126	5.00	0.0	0.600	o	300	Pipe/Conduit		
21.001	8.510	0.578	14.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit		
19.003	52.174	0.130	400.0	0.017	0.00	0.0	0.600	o	525	Pipe/Conduit		
22.000	21.192	0.127	166.9	0.116	5.00	0.0	0.600	o	225	Pipe/Conduit		
22.001	9.468	0.599	15.8	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit		
19.004	16.548	0.043	385.0	0.110	0.00	0.0	0.600	o	525	Pipe/Conduit		
Network Results Table												
PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)		
1.018	50.00	13.28	3.288	4.447		0.0	0.0	0.0	0.91	197.9«	602.2	
1.019	50.00	13.52	3.249	4.447		0.0	0.0	0.0	1.05	227.8«	602.2	
1.020	50.00	13.90	3.215	4.447		0.0	0.0	0.0	2.51	544.3«	602.2	
19.000	50.00	5.29	4.332	0.122		0.0	0.0	0.0	1.58	342.2	16.5	
20.000	50.00	5.58	4.875	0.145		0.0	0.0	0.0	1.02	112.5	19.6	
20.001	50.00	5.61	4.762	0.145		0.0	0.0	0.0	4.14	457.8	19.6	
19.001	50.00	6.44	4.193	0.307		0.0	0.0	0.0	1.11	241.1	41.6	
19.002	50.00	6.60	4.055	0.378		0.0	0.0	0.0	1.11	241.1	51.2	
21.000	50.00	5.46	4.950	0.126		0.0	0.0	0.0	1.01	71.7	17.1	
21.001	50.00	5.50	4.832	0.126		0.0	0.0	0.0	4.12	291.1	17.1	
19.003	50.00	7.38	4.029	0.521		0.0	0.0	0.0	1.11	241.1	70.5	
22.000	50.00	5.35	4.925	0.116		0.0	0.0	0.0	1.01	40.1	15.7	
22.001	50.00	5.40	4.798	0.116		0.0	0.0	0.0	3.31	131.5	15.7	
19.004	50.00	7.62	3.899	0.747		0.0	0.0	0.0	1.14	245.8	101.2	
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PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
19.005	49.152	0.128	385.0	0.058	0.00	0.0	0.600	o	525	Pipe/Conduit	
19.006	27.544	0.072	385.0	0.148	0.00	0.0	0.600	o	525	Pipe/Conduit	
19.007	18.709	0.708	26.4	0.070	0.00	0.0	0.600	o	525	Pipe/Conduit	
19.008	20.031	0.464	43.2	0.000	0.00	0.0	0.600	o	525	Pipe/Conduit	
1.021	10.643	0.025	425.7	0.000	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)	
19.005	50.00	8.34	3.856	0.805	0.0	0.0	0.0	1.14	245.8	109.0	
19.006	50.00	8.75	3.728	0.953	0.0	0.0	0.0	1.14	245.8	129.0	
19.007	50.00	8.82	3.656	1.023	0.0	0.0	0.0	4.37	946.0	138.5	
19.008	50.00	8.92	2.948	1.023	0.0	0.0	0.0	3.42	739.5	138.5	
1.021	50.00	14.05	2.409	5.470	0.0	0.0	0.0	1.17	331.9«	740.7	
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Manhole Schedules for Storm										
MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
1	6.969	1.500	Open Manhole	1200	1.000	5.469	300			
2	6.660	1.275	Open Manhole	1350	2.000	5.385	375			
3	6.850	1.596	Open Manhole	1350	2.001	5.254	375	2.000	5.254	375
4	6.929	1.723	Open Manhole	1350	1.001	5.206	375	1.000	5.281	300
								2.001	5.206	375
5	6.846	1.690	Open Manhole	1350	1.002	5.156	375	1.001	5.156	375
6	6.906	1.575	Open Manhole	1350	3.000	5.331	375			
7	6.685	1.575	Open Manhole	1350	3.001	5.110	375	3.000	5.110	375
8	6.563	1.651	Open Manhole	1350	1.003	4.912	450	1.002	4.987	375
								3.001	4.987	375
9	6.314	1.477	Open Manhole	1350	1.004	4.837	450	1.003	4.837	450
10	6.051	1.350	Open Manhole	1350	1.005	4.701	450	1.004	4.701	450
11	6.307	1.575	Open Manhole	1350	4.000	4.732	375			
12	5.984	1.549	Open Manhole	1500	1.006	4.435	600	1.005	4.585	450
								4.000	4.660	375
13	7.000	1.200	Open Manhole	1350	5.000	5.800	375			
14	7.250	1.964	Open Manhole	1350	5.001	5.286	375	5.000	5.286	375
15	7.066	1.818	Open Manhole	1350	5.002	5.248	375	5.001	5.248	375
16	6.762	1.651	Open Manhole	1350	5.003	5.111	375	5.002	5.111	375
17	6.700	1.200	Open Manhole	1200	6.000	5.500	300			
18	6.800	1.500	Open Manhole	1200	6.001	5.300	300	6.000	5.300	300
19	6.750	1.500	Open Manhole	1200	6.002	5.250	300	6.001	5.250	300
20	6.567	1.592	Open Manhole	1350	5.004	4.975	450	5.003	5.050	375
								6.002	5.125	300
21	6.374	1.467	Open Manhole	1350	5.005	4.907	450	5.004	4.907	450
22	6.750	1.275	Open Manhole	1350	7.000	5.475	375			
23	6.400	1.280	Open Manhole	1350	7.001	5.120	375	7.000	5.120	375
24	6.155	1.444	Open Manhole	1500	5.006	4.711	525	5.005	4.786	450
								7.001	4.861	375
25	6.005	1.444	Open Manhole	1500	5.007	4.561	525	5.006	4.561	525
26	5.872	1.050	Open Manhole	1200	8.000	4.822	150			
27	5.834	1.444	Open Manhole	1500	5.008	4.390	525	5.007	4.390	525
								8.000	4.765	150
28	5.952	1.225	Open Manhole	1200	9.000	4.727	225			
29	5.755	1.425	Open Manhole	1500	5.009	4.330	525	5.008	4.330	525
								9.000	4.630	225
30	6.777	1.500	Open Manhole	1200	10.000	5.277	300			
31	6.674	1.575	Open Manhole	1350	10.001	5.099	375	10.000	5.174	300
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Manhole Schedules for Storm									
MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)
32	7.054	2.070	Open Manhole	1350	10.002	4.984	375	10.001	4.984
33	6.721	1.844	Open Manhole	1350	10.003	4.877	375	10.002	4.877
34	6.362	1.585	Open Manhole	1350	10.004	4.777	375	10.003	4.777
35	6.198	1.575	Open Manhole	1350	10.005	4.623	375	10.004	4.623
36	6.237	1.668	Open Manhole	1350	10.006	4.569	375	10.005	4.569
BASIN 1	5.900	1.699	Open Manhole	1500	1.007	4.201	450	1.006	4.201
								5.009	4.201
								10.006	4.201
38	6.242	2.109	Open Manhole	1350	1.008	4.133	450	1.007	4.133
39	6.472	2.353	Open Manhole	1350	1.009	4.119	450	1.008	4.119
40	6.318	2.309	Open Manhole	1350	1.010	4.009	450	1.009	4.009
41	6.174	2.202	Open Manhole	1350	1.011	3.972	450	1.010	3.972
42	6.077	2.129	Open Manhole	1350	1.012	3.948	450	1.011	3.948
43	5.967	2.049	Open Manhole	1350	1.013	3.918	450	1.012	3.918
44	5.250	1.200	Open Manhole	1200	11.000	4.050	300		
45	5.750	1.925	Open Manhole	1200	11.001	3.825	300	11.000	3.825
46	5.687	2.061	Open Manhole	1350	1.014	3.626	450	1.013	3.626
								11.001	3.776
47	5.372	1.823	Open Manhole	1350	1.015	3.549	450	1.014	3.549
48	7.030	1.225	Open Manhole	1200	12.000	5.805	225		
49	7.345	1.500	Open Manhole	1200	13.000	5.845	300		
50	7.220	1.500	Open Manhole	1200	13.001	5.720	300	13.000	5.720
51	7.140	1.500	Open Manhole	1200	13.002	5.640	300	13.001	5.640
52	6.850	1.334	Open Manhole	1200	12.001	5.516	300	12.000	5.591
								13.002	5.516
53	6.650	1.233	Open Manhole	1200	12.002	5.417	300	12.001	5.417
54	6.850	1.578	Open Manhole	1350	12.003	5.272	375	12.002	5.347
55	6.400	1.260	Open Manhole	1350	12.004	5.140	450	12.003	5.215
56	6.400	1.200	Open Manhole	1200	14.000	5.200	300		
57	6.232	1.216	Open Manhole	1350	12.005	5.016	450	12.004	5.016
								14.000	5.166
58	6.180	1.214	Open Manhole	1350	12.006	4.966	450	12.005	4.966
59	7.140	1.500	Open Manhole	1200	15.000	5.640	300		
60	7.120	1.524	Open Manhole	1200	15.001	5.596	300	15.000	5.596
61	6.900	1.500	Open Manhole	1200	15.002	5.400	300	15.001	5.400
62	7.180	1.500	Open Manhole	1200	16.000	5.680	300		
63	6.920	1.500	Open Manhole	1200	16.001	5.420	300	16.000	5.420
64	6.800	1.577	Open Manhole	1350	15.003	5.223	375	15.002	5.298
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Manhole Schedules for Storm										
MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	
65 BASIN 2	6.500	1.575	Open Manhole	1350	15.004	4.925	375	16.001	5.298	
	6.015	1.220	Open Manhole	1350	12.007	4.795	450	15.003	4.925	
67	6.337	1.629	Open Manhole	1350	12.008	4.708	450	12.006	4.795	
	6.369	1.725	Open Manhole	1350	12.009	4.644	450	15.004	4.795	
68	6.840	1.500	Open Manhole	1200	17.000	5.340	300	12.007	4.708	
69	6.700	1.500	Open Manhole	1200	17.001	5.200	300	12.008	4.644	
70	6.680	1.520	Open Manhole	1200	17.002	5.160	300	17.000	5.200	
71	6.400	1.500	Open Manhole	1200	17.003	4.900	300	17.001	5.160	
72	6.031	1.455	Open Manhole	1350	12.010	4.576	450	17.002	4.900	
73	BASIN 3	5.664	1.999	Open Manhole	1350	12.011	3.665	450	12.009	4.576
									17.003	4.726
75	5.400	1.822	Open Manhole	1350	12.012	3.578	450	12.010	3.665	
76	5.100	1.622	Open Manhole	1350	12.013	3.478	450	12.011	3.578	
77	5.054	1.666	Open Manhole	1500	1.016	3.388	525	12.012	3.478	
78	TANK	4.912	1.561	Open Manhole	1500	1.017	3.351	525	1.015	3.463
									12.013	3.463
80	4.991	1.703	Open Manhole	1500	1.018	3.288	525	1.016	3.351	
82	BASIN 4	5.070	1.821	Open Manhole	1500	1.019	3.249	525	1.017	3.288
									18.000	3.288
83	4.914	1.699	Open Manhole	1500	1.020	3.215	525	1.018	3.249	
84	5.757	1.425	Open Manhole	1500	19.000	4.332	525	1.019	3.215	
85	6.150	1.275	Open Manhole	1350	20.000	4.875	375			
86	6.300	1.538	Open Manhole	1350	20.001	4.762	375	20.000	4.762	
87		6.248	2.055	Open Manhole	1500	19.001	4.193	525	19.000	4.193
									20.001	4.343
88	6.822	2.767	Open Manhole	1500	19.002	4.055	525	19.001	4.055	
89	6.450	1.500	Open Manhole	1200	21.000	4.950	300			
90	6.800	1.968	Open Manhole	1200	21.001	4.832	300	21.000	4.832	
91	6.689	2.660	Open Manhole	1500	19.003	4.029	525	19.002	4.029	
92	91	6.350	1.425	Open Manhole	1200	22.000	4.925	225	21.001	4.254
93									22.000	4.798
93	6.300	1.502	Open Manhole	1200	22.001	4.798	225	22.000	4.798	
94	6.169	2.270	Open Manhole	1500	19.004	3.899	525	19.003	3.899	
94	6.029	2.173	Open Manhole	1500	19.005	3.856	525	22.001	4.199	
								19.004	3.856	
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Manhole Schedules for Storm

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
95	5.537	1.809	Open Manhole	1500	19.006	3.728	525	19.005	3.728	525	
96	5.269	1.613	Open Manhole	1500	19.007	3.656	525	19.006	3.656	525	
BASIN 5	4.948	2.000	Open Manhole	1500	19.008	2.948	525	19.007	2.948	525	
98	4.758	2.349	Open Manhole	1500	1.021	2.409	600	1.020	2.484	525	
	4.829	2.445	Open Manhole	0		OUTFALL		19.008	2.484	525	
								1.021	2.384	600	

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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	o	300	1	6.969	5.469	1.200	Open Manhole		1200
2.000	o	375	2	6.660	5.385	0.900	Open Manhole		1350
2.001	o	375	3	6.850	5.254	1.221	Open Manhole		1350
1.001	o	375	4	6.929	5.206	1.348	Open Manhole		1350
1.002	o	375	5	6.846	5.156	1.315	Open Manhole		1350
3.000	o	375	6	6.906	5.331	1.200	Open Manhole		1350
3.001	o	375	7	6.685	5.110	1.200	Open Manhole		1350
1.003	o	450	8	6.563	4.912	1.201	Open Manhole		1350
1.004	o	450	9	6.314	4.837	1.027	Open Manhole		1350
1.005	o	450	10	6.051	4.701	0.900	Open Manhole		1350
4.000	o	375	11	6.307	4.732	1.200	Open Manhole		1350
1.006	o	600	12	5.984	4.435	0.949	Open Manhole		1500
5.000	o	375	13	7.000	5.800	0.825	Open Manhole		1350
5.001	o	375	14	7.250	5.286	1.589	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)	
1.000	29.623	157.6		4	6.929	5.281	1.348	Open Manhole	1350
2.000	26.224	200.0		3	6.850	5.254	1.221	Open Manhole	1350
2.001	15.003	313.0		4	6.929	5.206	1.348	Open Manhole	1350
1.001	15.735	313.0		5	6.846	5.156	1.315	Open Manhole	1350
1.002	34.637	205.0		8	6.563	4.987	1.201	Open Manhole	1350
3.000	22.261	100.7		7	6.685	5.110	1.200	Open Manhole	1350
3.001	8.782	71.4		8	6.563	4.987	1.201	Open Manhole	1350
1.003	28.730	383.1		9	6.314	4.837	1.027	Open Manhole	1350
1.004	27.193	199.9		10	6.051	4.701	0.900	Open Manhole	1350
1.005	16.213	139.8		12	5.984	4.585	0.949	Open Manhole	1500
4.000	22.527	312.9		12	5.984	4.660	0.949	Open Manhole	1500
1.006	108.735	464.7	BASIN 1		5.900	4.201	1.099	Open Manhole	1500
5.000	34.516	67.2		14	7.250	5.286	1.589	Open Manhole	1350
5.001	11.951	313.0		15	7.066	5.248	1.443	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)	
5.002	o	375	15	7.066	5.248	1.443	Open Manhole		1350
5.003	o	375	16	6.762	5.111	1.276	Open Manhole		1350
6.000	o	300	17	6.700	5.500	0.900	Open Manhole		1200
6.001	o	300	18	6.800	5.300	1.200	Open Manhole		1200
6.002	o	300	19	6.750	5.250	1.200	Open Manhole		1200
5.004	o	450	20	6.567	4.975	1.142	Open Manhole		1350
5.005	o	450	21	6.374	4.907	1.017	Open Manhole		1350
7.000	o	375	22	6.750	5.475	0.900	Open Manhole		1350
7.001	o	375	23	6.400	5.120	0.905	Open Manhole		1350
5.006	o	525	24	6.155	4.711	0.919	Open Manhole		1500
5.007	o	525	25	6.005	4.561	0.919	Open Manhole		1500
8.000	o	150	26	5.872	4.822	0.900	Open Manhole		1200
5.008	o	525	27	5.834	4.390	0.919	Open Manhole		1500
9.000	o	225	28	5.952	4.727	1.000	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	42.967	313.0	16	6.762	5.111	1.276	Open Manhole		1350
5.003	19.007	313.0	20	6.567	5.050	1.142	Open Manhole		1350
6.000	42.648	213.2	18	6.800	5.300	1.200	Open Manhole		1200
6.001	6.210	124.2	19	6.750	5.250	1.200	Open Manhole		1200
6.002	6.407	51.3	20	6.567	5.125	1.142	Open Manhole		1350
5.004	26.102	385.0	21	6.374	4.907	1.017	Open Manhole		1350
5.005	27.205	224.8	24	6.155	4.786	0.919	Open Manhole		1500
7.000	39.044	110.0	23	6.400	5.120	0.905	Open Manhole		1350
7.001	9.832	38.0	24	6.155	4.861	0.919	Open Manhole		1500
5.006	24.581	163.9	25	6.005	4.561	0.919	Open Manhole		1500
5.007	21.692	126.9	27	5.834	4.390	0.919	Open Manhole		1500
8.000	14.072	246.9	27	5.834	4.765	0.919	Open Manhole		1500
5.008	14.285	238.1	29	5.755	4.330	0.900	Open Manhole		1500
9.000	15.131	156.0	29	5.755	4.630	0.900	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)	
5.009	o	525	29	5.755	4.330	0.900	Open Manhole		1500
10.000	o	300	30	6.777	5.277	1.200	Open Manhole		1200
10.001	o	375	31	6.674	5.099	1.200	Open Manhole		1350
10.002	o	375	32	7.054	4.984	1.695	Open Manhole		1350
10.003	o	375	33	6.721	4.877	1.469	Open Manhole		1350
10.004	o	375	34	6.362	4.777	1.210	Open Manhole		1350
10.005	o	375	35	6.198	4.623	1.200	Open Manhole		1350
10.006	o	375	36	6.237	4.569	1.293	Open Manhole		1350
1.007	o	450	BASIN 1	5.900	4.201	1.249	Open Manhole		1500
1.008	o	450	38	6.242	4.133	1.659	Open Manhole		1350
1.009	o	450	39	6.472	4.119	1.903	Open Manhole		1350
1.010	o	450	40	6.318	4.009	1.859	Open Manhole		1350
1.011	o	450	41	6.174	3.972	1.752	Open Manhole		1350
1.012	o	450	42	6.077	3.948	1.679	Open Manhole		1350
1.013	o	450	43	5.967	3.918	1.599	Open Manhole		1350
11.000	o	300	44	5.250	4.050	0.900	Open Manhole		1200
11.001	o	300	45	5.750	3.825	1.625	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)	
5.009	22.656	175.6	BASIN 1	5.900	4.201	1.174	Open Manhole		1500
10.000	10.994	107.0	31	6.674	5.174	1.200	Open Manhole		1350
10.001	36.167	313.0	32	7.054	4.984	1.695	Open Manhole		1350
10.002	33.536	313.0	33	6.721	4.877	1.469	Open Manhole		1350
10.003	31.399	314.0	34	6.362	4.777	1.210	Open Manhole		1350
10.004	16.139	105.0	35	6.198	4.623	1.200	Open Manhole		1350
10.005	16.741	313.0	36	6.237	4.569	1.293	Open Manhole		1350
10.006	38.524	104.7	BASIN 1	5.900	4.201	1.324	Open Manhole		1500
1.007	35.029	515.1	38	6.242	4.133	1.659	Open Manhole		1350
1.008	5.284	377.4	39	6.472	4.119	1.903	Open Manhole		1350
1.009	42.278	384.3	40	6.318	4.009	1.859	Open Manhole		1350
1.010	14.131	381.9	41	6.174	3.972	1.752	Open Manhole		1350
1.011	9.197	383.2	42	6.077	3.948	1.679	Open Manhole		1350
1.012	11.526	384.2	43	5.967	3.918	1.599	Open Manhole		1350
1.013	32.608	111.7	46	5.687	3.626	1.611	Open Manhole		1350
11.000	38.334	170.0	45	5.750	3.825	1.625	Open Manhole		1200
11.001	7.265	148.3	46	5.687	3.776	1.611	Open Manhole		1350
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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)	
1.014	o	450	46	5.687	3.626	1.611	Open Manhole		1350
1.015	o	450	47	5.372	3.549	1.373	Open Manhole		1350
12.000	o	225	48	7.030	5.805	1.000	Open Manhole		1200
13.000	o	300	49	7.345	5.845	1.200	Open Manhole		1200
13.001	o	300	50	7.220	5.720	1.200	Open Manhole		1200
13.002	o	300	51	7.140	5.640	1.200	Open Manhole		1200
12.001	o	300	52	6.850	5.516	1.034	Open Manhole		1200
12.002	o	300	53	6.650	5.417	0.933	Open Manhole		1200
12.003	o	375	54	6.850	5.272	1.203	Open Manhole		1350
12.004	o	450	55	6.400	5.140	0.810	Open Manhole		1350
14.000	o	300	56	6.400	5.200	0.900	Open Manhole		1200
12.005	o	450	57	6.232	5.016	0.766	Open Manhole		1350
12.006	o	450	58	6.180	4.966	0.764	Open Manhole		1350
15.000	o	300	59	7.140	5.640	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)	
1.014	29.639	385.0	47	5.372	3.549	1.373	Open Manhole		1350
1.015	33.280	385.0	77	5.054	3.463	1.141	Open Manhole		1500
12.000	21.226	99.2	52	6.850	5.591	1.034	Open Manhole		1200
13.000	11.599	93.0	50	7.220	5.720	1.200	Open Manhole		1200
13.001	8.661	108.3	51	7.140	5.640	1.200	Open Manhole		1200
13.002	29.592	238.0	52	6.850	5.516	1.034	Open Manhole		1200
12.001	23.632	238.0	53	6.650	5.417	0.933	Open Manhole		1200
12.002	16.754	238.0	54	6.850	5.347	1.203	Open Manhole		1350
12.003	17.691	313.0	55	6.400	5.215	0.810	Open Manhole		1350
12.004	30.500	246.0	57	6.232	5.016	0.766	Open Manhole		1350
14.000	8.115	238.0	57	6.232	5.166	0.766	Open Manhole		1350
12.005	19.159	385.0	58	6.180	4.966	0.764	Open Manhole		1350
12.006	64.550	377.5	BASIN 2	6.015	4.795	0.770	Open Manhole		1350
15.000	10.566	238.0	60	7.120	5.596	1.224	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)	
15.001	o	300		7.120	5.596	1.224	Open Manhole	1200	
15.002	o	300		6.900	5.400	1.200	Open Manhole	1200	
16.000	o	300		7.180	5.680	1.200	Open Manhole	1200	
16.001	o	300		6.920	5.420	1.200	Open Manhole	1200	
15.003	o	375		6.800	5.223	1.202	Open Manhole	1350	
15.004	o	375		6.500	4.925	1.200	Open Manhole	1350	
12.007	o	450	BASIN 2	6.015	4.795	0.770	Open Manhole	1350	
12.008	o	450		6.337	4.708	1.179	Open Manhole	1350	
12.009	o	450		6.369	4.644	1.275	Open Manhole	1350	
17.000	o	300		6.840	5.340	1.200	Open Manhole	1200	
17.001	o	300		6.700	5.200	1.200	Open Manhole	1200	
17.002	o	300		6.680	5.160	1.220	Open Manhole	1200	
17.003	o	300		6.400	4.900	1.200	Open Manhole	1200	
12.010	o	450		6.031	4.576	1.005	Open Manhole	1350	
12.011	o	450	BASIN 3	5.664	3.665	1.549	Open Manhole	1350	
12.012	o	450		5.400	3.578	1.372	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)	
15.001	21.828	111.4		6.900	5.400	1.200	Open Manhole	1200	
15.002	11.956	117.2		6.800	5.298	1.202	Open Manhole	1350	
16.000	19.906	76.6		6.920	5.420	1.200	Open Manhole	1200	
16.001	12.505	102.2		6.800	5.298	1.202	Open Manhole	1350	
15.003	20.466	68.7		6.500	4.925	1.200	Open Manhole	1350	
15.004	21.142	162.6	BASIN 2	6.015	4.795	0.845	Open Manhole	1350	
12.007	33.565	385.8		6.337	4.708	1.179	Open Manhole	1350	
12.008	24.805	385.0		6.369	4.644	1.275	Open Manhole	1350	
12.009	26.253	385.0		6.031	4.576	1.005	Open Manhole	1350	
17.000	15.513	110.8		6.700	5.200	1.200	Open Manhole	1200	
17.001	9.427	235.7		6.680	5.160	1.220	Open Manhole	1200	
17.002	36.243	139.4		6.400	4.900	1.200	Open Manhole	1200	
17.003	19.704	113.2		6.031	4.726	1.005	Open Manhole	1350	
12.010	24.041	26.4	BASIN 3	5.664	3.665	1.549	Open Manhole	1350	
12.011	35.682	410.1		5.400	3.578	1.372	Open Manhole	1350	
12.012	40.766	407.7		5.100	3.478	1.172	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)	
12.013	o	450	76	5.100	3.478	1.172	Open Manhole		1350
1.016	o	525	77	5.054	3.388	1.141	Open Manhole		1500
1.017	o	525	78	4.912	3.351	1.036	Open Manhole		1500
18.000	o	525	TANK	5.101	3.301	1.275	Open Manhole		1500
1.018	o	525	BASIN 4	80	4.991	3.288	Open Manhole		1500
1.019	o	525		82	5.070	3.249	Open Manhole		1500
1.020	o	525		82	4.914	3.215	Open Manhole		1500
19.000	o	525	83	5.757	4.332	0.900	Open Manhole		1500
20.000	o	375	84	6.150	4.875	0.900	Open Manhole		1350
20.001	o	375	85	6.300	4.762	1.163	Open Manhole		1350
19.001	o	525	86	6.248	4.193	1.530	Open Manhole		1500
19.002	o	525	87	6.822	4.055	2.242	Open Manhole		1500
21.000	o	300	88	6.450	4.950	1.200	Open Manhole		1200
21.001	o	300	89	6.800	4.832	1.668	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)	
12.013	6.269	417.9	77	5.054	3.463	1.141	Open Manhole		1500
1.016	16.777	450.0	78	4.912	3.351	1.036	Open Manhole		1500
1.017	28.335	450.0	80	4.991	3.288	1.178	Open Manhole		1500
18.000	5.866	451.2	80	4.991	3.288	1.178	Open Manhole		1500
1.018	23.040	590.8	BASIN 4	82	5.070	3.249	Open Manhole		1500
1.019	15.210	447.4		82	4.914	3.215	Open Manhole		1500
1.020	58.087	79.5		98	4.758	2.484	Open Manhole		1500
19.000	27.788	199.9	86	6.248	4.193	1.530	Open Manhole		1500
20.000	35.481	313.0	85	6.300	4.762	1.163	Open Manhole		1350
20.001	8.071	19.3	86	6.248	4.343	1.530	Open Manhole		1500
19.001	55.215	400.1	87	6.822	4.055	2.242	Open Manhole		1500
19.002	10.549	400.0	90	6.689	4.029	2.135	Open Manhole		1500
21.000	28.079	238.0	89	6.800	4.832	1.668	Open Manhole		1200
21.001	8.510	14.7	90	6.689	4.254	2.135	Open Manhole		1500
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<u>PIPELINE SCHEDULES for Storm</u> <u>Upstream Manhole</u> <table><tr><th>PN</th><th>Hyd Sect</th><th>Diam (mm)</th><th>MH Name</th><th>C.Level (m)</th><th>I.Level (m)</th><th>D.Depth (m)</th><th>MH Connection</th><th>MH DIAM., L*W (mm)</th></tr><tr><td>19.003</td><td>o</td><td>525</td><td>90</td><td>6.689</td><td>4.029</td><td>2.135</td><td>Open Manhole</td><td>1500</td></tr><tr><td>22.000</td><td>o</td><td>225</td><td>91</td><td>6.350</td><td>4.925</td><td>1.200</td><td>Open Manhole</td><td>1200</td></tr><tr><td>22.001</td><td>o</td><td>225</td><td>92</td><td>6.300</td><td>4.798</td><td>1.277</td><td>Open Manhole</td><td>1200</td></tr><tr><td>19.004</td><td>o</td><td>525</td><td>93</td><td>6.169</td><td>3.899</td><td>1.745</td><td>Open Manhole</td><td>1500</td></tr><tr><td>19.005</td><td>o</td><td>525</td><td>94</td><td>6.029</td><td>3.856</td><td>1.648</td><td>Open Manhole</td><td>1500</td></tr><tr><td>19.006</td><td>o</td><td>525</td><td>95</td><td>5.537</td><td>3.728</td><td>1.284</td><td>Open Manhole</td><td>1500</td></tr><tr><td>19.007</td><td>o</td><td>525</td><td>96</td><td>5.269</td><td>3.656</td><td>1.088</td><td>Open Manhole</td><td>1500</td></tr><tr><td>19.008</td><td>o</td><td>525</td><td>BASIN 5</td><td>4.948</td><td>2.948</td><td>1.475</td><td>Open Manhole</td><td>1500</td></tr><tr><td>1.021</td><td>o</td><td>600</td><td>98</td><td>4.758</td><td>2.409</td><td>1.749</td><td>Open Manhole</td><td>1500</td></tr></table> <u>Downstream Manhole</u> <table><tr><th>PN</th><th>Length (m)</th><th>Slope (1:X)</th><th>MH Name</th><th>C.Level (m)</th><th>I.Level (m)</th><th>D.Depth (m)</th><th>MH Connection</th><th>MH DIAM., L*W (mm)</th></tr><tr><td>19.003</td><td>52.174</td><td>400.0</td><td>93</td><td>6.169</td><td>3.899</td><td>1.745</td><td>Open Manhole</td><td>1500</td></tr><tr><td>22.000</td><td>21.192</td><td>166.9</td><td>92</td><td>6.300</td><td>4.798</td><td>1.277</td><td>Open Manhole</td><td>1200</td></tr><tr><td>22.001</td><td>9.468</td><td>15.8</td><td>93</td><td>6.169</td><td>4.199</td><td>1.745</td><td>Open Manhole</td><td>1500</td></tr><tr><td>19.004</td><td>16.548</td><td>385.0</td><td>94</td><td>6.029</td><td>3.856</td><td>1.648</td><td>Open Manhole</td><td>1500</td></tr><tr><td>19.005</td><td>49.152</td><td>385.0</td><td>95</td><td>5.537</td><td>3.728</td><td>1.284</td><td>Open Manhole</td><td>1500</td></tr><tr><td>19.006</td><td>27.544</td><td>385.0</td><td>96</td><td>5.269</td><td>3.656</td><td>1.088</td><td>Open Manhole</td><td>1500</td></tr><tr><td>19.007</td><td>18.709</td><td>26.4</td><td>BASIN 5</td><td>4.948</td><td>2.948</td><td>1.475</td><td>Open Manhole</td><td>1500</td></tr><tr><td>19.008</td><td>20.031</td><td>43.2</td><td>98</td><td>4.758</td><td>2.484</td><td>1.749</td><td>Open Manhole</td><td>1500</td></tr><tr><td>1.021</td><td>10.643</td><td>425.7</td><td></td><td>4.829</td><td>2.384</td><td>1.845</td><td>Open Manhole</td><td>0</td></tr></table> <u>Free Flowing Outfall Details for Storm</u> <table><tr><th>Outfall Pipe Number</th><th>Outfall Name</th><th>C. Level (m)</th><th>I. Level (m)</th><th>Min I. Level (m)</th><th>D,L (mm)</th><th>W (mm)</th></tr><tr><td>1.021</td><td></td><td>4.829</td><td>2.384</td><td>0.000</td><td>0</td><td>0</td></tr></table>										PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)	19.003	o	525	90	6.689	4.029	2.135	Open Manhole	1500	22.000	o	225	91	6.350	4.925	1.200	Open Manhole	1200	22.001	o	225	92	6.300	4.798	1.277	Open Manhole	1200	19.004	o	525	93	6.169	3.899	1.745	Open Manhole	1500	19.005	o	525	94	6.029	3.856	1.648	Open Manhole	1500	19.006	o	525	95	5.537	3.728	1.284	Open Manhole	1500	19.007	o	525	96	5.269	3.656	1.088	Open Manhole	1500	19.008	o	525	BASIN 5	4.948	2.948	1.475	Open Manhole	1500	1.021	o	600	98	4.758	2.409	1.749	Open Manhole	1500	PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)	19.003	52.174	400.0	93	6.169	3.899	1.745	Open Manhole	1500	22.000	21.192	166.9	92	6.300	4.798	1.277	Open Manhole	1200	22.001	9.468	15.8	93	6.169	4.199	1.745	Open Manhole	1500	19.004	16.548	385.0	94	6.029	3.856	1.648	Open Manhole	1500	19.005	49.152	385.0	95	5.537	3.728	1.284	Open Manhole	1500	19.006	27.544	385.0	96	5.269	3.656	1.088	Open Manhole	1500	19.007	18.709	26.4	BASIN 5	4.948	2.948	1.475	Open Manhole	1500	19.008	20.031	43.2	98	4.758	2.484	1.749	Open Manhole	1500	1.021	10.643	425.7		4.829	2.384	1.845	Open Manhole	0	Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)	1.021		4.829	2.384	0.000	0	0
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Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start (mins)	0	Inlet Coefficient	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	6
Number of Online Controls	5	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FEH
Return Period (years)	100
FEH Rainfall Version	1999
Site Location	GB 497050 103400 SU 97050 03400
C (1km)	-0.025
D1 (1km)	0.395
D2 (1km)	0.244
D3 (1km)	0.395
E (1km)	0.309
F (1km)	2.339
Summer Storms	Yes
Winter Storms	Yes
Cv (Summer)	0.750
Cv (Winter)	0.840
Storm Duration (mins)	30

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Online Controls for Storm

Hydro-Brake® Optimum Manhole: BASIN 1, DS/PN: 1.007, Volume (m³): 42.0

Unit Reference	MD-SHE-0091-4200-1400-4200
Design Head (m)	1.400
Design Flow (l/s)	4.2
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	91
Invert Level (m)	4.201
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.400	4.2
Flush-Flo™	0.398	4.1
Kick-Flo®	0.814	3.3
Mean Flow over Head Range	-	3.6

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	2.9	1.200	3.9	3.000	6.0	7.000	8.9
0.200	3.8	1.400	4.2	3.500	6.4	7.500	9.2
0.300	4.0	1.600	4.5	4.000	6.9	8.000	9.5
0.400	4.1	1.800	4.7	4.500	7.2	8.500	9.8
0.500	4.0	2.000	5.0	5.000	7.6	9.000	10.1
0.600	3.9	2.200	5.2	5.500	8.0	9.500	10.3
0.800	3.3	2.400	5.4	6.000	8.3		
1.000	3.6	2.600	5.6	6.500	8.6		

Hydro-Brake® Optimum Manhole: BASIN 2, DS/PN: 12.007, Volume (m³): 14.0

Unit Reference	MD-SHE-0319-6000-0920-6000
Design Head (m)	0.920
Design Flow (l/s)	60.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	319
Invert Level (m)	4.795
Minimum Outlet Pipe Diameter (mm)	375
Suggested Manhole Diameter (mm)	1800

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Hydro-Brake® Optimum Manhole: BASIN 2, DS/PN: 12.007, Volume (m³): 14.0

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.920	60.0
Flush-Flo™	0.462	60.0
Kick-Flo®	0.754	54.5
Mean Flow over Head Range	-	46.8

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

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	9.6	1.200	68.2	3.000	106.4	7.000	161.0
0.200	32.7	1.400	73.5	3.500	114.7	7.500	166.5
0.300	57.3	1.600	78.4	4.000	122.4	8.000	171.9
0.400	59.7	1.800	83.0	4.500	129.7	8.500	177.1
0.500	59.9	2.000	87.4	5.000	136.5	9.000	182.1
0.600	58.8	2.200	91.5	5.500	143.1	9.500	185.5
0.800	56.1	2.400	95.5	6.000	149.3		
1.000	62.4	2.600	99.2	6.500	155.2		

Hydro-Brake® Optimum Manhole: BASIN 3, DS/PN: 12.011, Volume (m³): 6.5

Unit Reference	MD-SHE-0175-1800-2000-1800
Design Head (m)	2.000
Design Flow (l/s)	18.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	175
Invert Level (m)	3.665
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1800

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	2.000	18.0
Flush-Flo™	0.585	18.0
Kick-Flo®	1.230	14.3
Mean Flow over Head Range	-	15.7

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

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	6.2	0.300	16.7	0.500	17.9	0.800	17.7
0.200	15.0	0.400	17.5	0.600	18.0	1.000	16.8

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Hydro-Brake® Optimum Manhole: BASIN 3, DS/PN: 12.011, Volume (m³): 6.5 <table><tr><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td></tr><tr><td>1.200</td><td>14.8</td><td>2.400</td><td>19.6</td><td>5.000</td><td>27.9</td><td>8.000</td><td>35.0</td></tr><tr><td>1.400</td><td>15.2</td><td>2.600</td><td>20.4</td><td>5.500</td><td>29.2</td><td>8.500</td><td>36.0</td></tr><tr><td>1.600</td><td>16.2</td><td>3.000</td><td>21.8</td><td>6.000</td><td>30.5</td><td>9.000</td><td>37.0</td></tr><tr><td>1.800</td><td>17.1</td><td>3.500</td><td>23.5</td><td>6.500</td><td>31.7</td><td>9.500</td><td>38.0</td></tr><tr><td>2.000</td><td>18.0</td><td>4.000</td><td>25.1</td><td>7.000</td><td>32.8</td><td></td><td></td></tr><tr><td>2.200</td><td>18.8</td><td>4.500</td><td>26.5</td><td>7.500</td><td>33.9</td><td></td><td></td></tr></table> Hydro-Brake® Optimum Manhole: BASIN 4, DS/PN: 1.019, Volume (m³): 7.9 <table><tr><td>Unit Reference</td><td>MD-SHE-0182-1800-1520-1800</td></tr><tr><td>Design Head (m)</td><td>1.520</td></tr><tr><td>Design Flow (l/s)</td><td>18.0</td></tr><tr><td>Flush-Flo™</td><td>Calculated</td></tr><tr><td>Objective</td><td>Minimise upstream storage</td></tr><tr><td>Application</td><td>Surface</td></tr><tr><td>Sump Available</td><td>Yes</td></tr><tr><td>Diameter (mm)</td><td>182</td></tr><tr><td>Invert Level (m)</td><td>3.249</td></tr><tr><td>Minimum Outlet Pipe Diameter (mm)</td><td>225</td></tr><tr><td>Suggested Manhole Diameter (mm)</td><td>1500</td></tr></table> <table><tr><td>Control Points</td><td>Head (m)</td><td>Flow (l/s)</td></tr><tr><td>Design Point (Calculated)</td><td>1.520</td><td>18.0</td></tr><tr><td>Flush-Flo™</td><td>0.454</td><td>18.0</td></tr><tr><td>Kick-Flo®</td><td>0.986</td><td>14.7</td></tr><tr><td>Mean Flow over Head Range</td><td>-</td><td>15.6</td></tr></table> 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 <table><tr><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td><td>Depth (m)</td><td>Flow (l/s)</td></tr><tr><td>0.100</td><td>6.4</td><td>1.200</td><td>16.1</td><td>3.000</td><td>24.9</td><td>7.000</td><td>37.4</td></tr><tr><td>0.200</td><td>16.1</td><td>1.400</td><td>17.3</td><td>3.500</td><td>26.8</td><td>7.500</td><td>38.7</td></tr><tr><td>0.300</td><td>17.5</td><td>1.600</td><td>18.4</td><td>4.000</td><td>28.6</td><td>8.000</td><td>39.9</td></tr><tr><td>0.400</td><td>17.9</td><td>1.800</td><td>19.5</td><td>4.500</td><td>30.2</td><td>8.500</td><td>41.1</td></tr><tr><td>0.500</td><td>18.0</td><td>2.000</td><td>20.5</td><td>5.000</td><td>31.8</td><td>9.000</td><td>42.3</td></tr><tr><td>0.600</td><td>17.8</td><td>2.200</td><td>21.5</td><td>5.500</td><td>33.3</td><td>9.500</td><td>43.4</td></tr><tr><td>0.800</td><td>16.9</td><td>2.400</td><td>22.4</td><td>6.000</td><td>34.7</td><td></td><td></td></tr><tr><td>1.000</td><td>14.8</td><td>2.600</td><td>23.2</td><td>6.500</td><td>36.1</td><td></td><td></td></tr></table> Hydro-Brake® Optimum Manhole: BASIN 5, DS/PN: 19.008, Volume (m³): 7.3 <table><tr><td>Unit Reference</td><td>MD-SHE-0058-1900-1700-1900</td></tr><tr><td>Design Head (m)</td><td>1.700</td></tr><tr><td>Design Flow (l/s)</td><td>1.9</td></tr><tr><td>Flush-Flo™</td><td>Calculated</td></tr></table>				Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	1.200	14.8	2.400	19.6	5.000	27.9	8.000	35.0	1.400	15.2	2.600	20.4	5.500	29.2	8.500	36.0	1.600	16.2	3.000	21.8	6.000	30.5	9.000	37.0	1.800	17.1	3.500	23.5	6.500	31.7	9.500	38.0	2.000	18.0	4.000	25.1	7.000	32.8			2.200	18.8	4.500	26.5	7.500	33.9			Unit Reference	MD-SHE-0182-1800-1520-1800	Design Head (m)	1.520	Design Flow (l/s)	18.0	Flush-Flo™	Calculated	Objective	Minimise upstream storage	Application	Surface	Sump Available	Yes	Diameter (mm)	182	Invert Level (m)	3.249	Minimum Outlet Pipe Diameter (mm)	225	Suggested Manhole Diameter (mm)	1500	Control Points	Head (m)	Flow (l/s)	Design Point (Calculated)	1.520	18.0	Flush-Flo™	0.454	18.0	Kick-Flo®	0.986	14.7	Mean Flow over Head Range	-	15.6	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	0.100	6.4	1.200	16.1	3.000	24.9	7.000	37.4	0.200	16.1	1.400	17.3	3.500	26.8	7.500	38.7	0.300	17.5	1.600	18.4	4.000	28.6	8.000	39.9	0.400	17.9	1.800	19.5	4.500	30.2	8.500	41.1	0.500	18.0	2.000	20.5	5.000	31.8	9.000	42.3	0.600	17.8	2.200	21.5	5.500	33.3	9.500	43.4	0.800	16.9	2.400	22.4	6.000	34.7			1.000	14.8	2.600	23.2	6.500	36.1			Unit Reference	MD-SHE-0058-1900-1700-1900	Design Head (m)	1.700	Design Flow (l/s)	1.9	Flush-Flo™	Calculated
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Storage Structures for Storm Tank or Pond Manhole: BASIN 1, DS/PN: 1.007 Invert Level (m) 4.201 <table><thead><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr></thead><tbody><tr><td>0.000</td><td>952.2</td><td>1.700</td><td>2459.3</td></tr></tbody></table> Tank or Pond Manhole: BASIN 2, DS/PN: 12.007 Invert Level (m) 4.795 <table><thead><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr></thead><tbody><tr><td>0.000</td><td>110.1</td><td>1.220</td><td>344.8</td></tr></tbody></table> Tank or Pond Manhole: BASIN 3, DS/PN: 12.011 Invert Level (m) 4.164 <table><thead><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr></thead><tbody><tr><td>0.000</td><td>187.2</td><td>1.500</td><td>501.8</td></tr></tbody></table> Cellular Storage Manhole: TANK, DS/PN: 18.000 Invert Level (m) 3.301 Safety Factor 2.0 Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.00000 <table><thead><tr><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th><th>Inf. Area (m²)</th></tr></thead><tbody><tr><td>0.000</td><td>240.0</td><td>240.0</td><td>1.501</td><td>0.0</td><td>333.0</td></tr><tr><td>1.500</td><td>240.0</td><td>333.0</td><td></td><td></td><td></td></tr></tbody></table> Tank or Pond Manhole: BASIN 4, DS/PN: 1.019 Invert Level (m) 3.249 <table><thead><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr></thead><tbody><tr><td>0.000</td><td>63.2</td><td>1.820</td><td>322.8</td></tr></tbody></table> Tank or Pond Manhole: BASIN 5, DS/PN: 19.008 Invert Level (m) 2.948 <table><thead><tr><th>Depth (m)</th><th>Area (m²)</th><th>Depth (m)</th><th>Area (m²)</th></tr></thead><tbody><tr><td>0.000</td><td>209.5</td><td>2.000</td><td>944.9</td></tr></tbody></table>			Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	952.2	1.700	2459.3	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	110.1	1.220	344.8	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	187.2	1.500	501.8	Depth (m)	Area (m²)	Inf. Area (m²)	Depth (m)	Area (m²)	Inf. Area (m²)	0.000	240.0	240.0	1.501	0.0	333.0	1.500	240.0	333.0				Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	63.2	1.820	322.8	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	209.5	2.000	944.9
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Areal Reduction Factor		1.000	Additional Flow - % of Total Flow		0.000																																																																																																																																																																														
Hot Start (mins)		0	MADD Factor * 10m³/ha Storage		2.000																																																																																																																																																																														
Hot Start Level (mm)		0	Inlet Coefficient		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		6																																																																																																																																																																														
Number of Online Controls		5	Number of Time/Area Diagrams		0																																																																																																																																																																														
Number of Offline Controls		0	Number of Real Time Controls		0																																																																																																																																																																														
<u>Synthetic Rainfall Details</u>																																																																																																																																																																																			
Rainfall Model		FEH																																																																																																																																																																																	
FEH Rainfall Version		2013																																																																																																																																																																																	
Site Location		GB 497526 102719 SU 97526 02719																																																																																																																																																																																	
Data Type		Point																																																																																																																																																																																	
Cv (Summer)		0.750																																																																																																																																																																																	
Cv (Winter)		0.840																																																																																																																																																																																	
Margin for Flood Risk Warning (mm)		300.0																																																																																																																																																																																	
Analysis Timestep		2.5 Second Increment (Extended)																																																																																																																																																																																	
DTS Status		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, 2160, 2880, 4320, 5760, 7200, 8640, 10080																																																																																																																																																																																	
Return Period(s) (years)		100																																																																																																																																																																																	
Climate Change (%)		40																																																																																																																																																																																	
<table><tr><td></td><td>US/MH</td><td></td><td>Return</td><td>Climate</td><td>First (X)</td><td>First (Y)</td><td>First (Z)</td><td>Overflow</td><td>Water</td></tr><tr><td>PN</td><td>Name</td><td>Storm</td><td>Period</td><td>Change</td><td>Surcharge</td><td>Flood</td><td>Overflow</td><td>Act.</td><td>Level</td></tr><tr><td>1.000</td><td>1</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.505</td></tr><tr><td>2.000</td><td>2</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.631</td></tr><tr><td>2.001</td><td>3</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.522</td></tr><tr><td>1.001</td><td>4</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.483</td></tr><tr><td>1.002</td><td>5</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.364</td></tr><tr><td>3.000</td><td>6</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.379</td></tr><tr><td>3.001</td><td>7</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.248</td></tr><tr><td>1.003</td><td>8</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.131</td></tr><tr><td>1.004</td><td>9</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>5.894</td></tr><tr><td>1.005</td><td>10</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>5.595</td></tr><tr><td>4.000</td><td>11</td><td>10080 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>5.588</td></tr><tr><td>1.006</td><td>12</td><td>10080 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>5.588</td></tr><tr><td>5.000</td><td>13</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.623</td></tr><tr><td>5.001</td><td>14</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.461</td></tr><tr><td>5.002</td><td>15</td><td>15 Winter</td><td>100</td><td>+40%</td><td>100/15 Summer</td><td></td><td></td><td></td><td>6.393</td></tr></table>											US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Water	PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	Level	1.000	1	15 Winter	100	+40%	100/15 Summer				6.505	2.000	2	15 Winter	100	+40%	100/15 Summer				6.631	2.001	3	15 Winter	100	+40%	100/15 Summer				6.522	1.001	4	15 Winter	100	+40%	100/15 Summer				6.483	1.002	5	15 Winter	100	+40%	100/15 Summer				6.364	3.000	6	15 Winter	100	+40%	100/15 Summer				6.379	3.001	7	15 Winter	100	+40%	100/15 Summer				6.248	1.003	8	15 Winter	100	+40%	100/15 Summer				6.131	1.004	9	15 Winter	100	+40%	100/15 Summer				5.894	1.005	10	15 Winter	100	+40%	100/15 Summer				5.595	4.000	11	10080 Winter	100	+40%	100/15 Summer				5.588	1.006	12	10080 Winter	100	+40%	100/15 Summer				5.588	5.000	13	15 Winter	100	+40%	100/15 Summer				6.623	5.001	14	15 Winter	100	+40%	100/15 Summer				6.461	5.002	15	15 Winter	100	+40%	100/15 Summer				6.393
	US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Water																																																																																																																																																																										
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	Level																																																																																																																																																																										
1.000	1	15 Winter	100	+40%	100/15 Summer				6.505																																																																																																																																																																										
2.000	2	15 Winter	100	+40%	100/15 Summer				6.631																																																																																																																																																																										
2.001	3	15 Winter	100	+40%	100/15 Summer				6.522																																																																																																																																																																										
1.001	4	15 Winter	100	+40%	100/15 Summer				6.483																																																																																																																																																																										
1.002	5	15 Winter	100	+40%	100/15 Summer				6.364																																																																																																																																																																										
3.000	6	15 Winter	100	+40%	100/15 Summer				6.379																																																																																																																																																																										
3.001	7	15 Winter	100	+40%	100/15 Summer				6.248																																																																																																																																																																										
1.003	8	15 Winter	100	+40%	100/15 Summer				6.131																																																																																																																																																																										
1.004	9	15 Winter	100	+40%	100/15 Summer				5.894																																																																																																																																																																										
1.005	10	15 Winter	100	+40%	100/15 Summer				5.595																																																																																																																																																																										
4.000	11	10080 Winter	100	+40%	100/15 Summer				5.588																																																																																																																																																																										
1.006	12	10080 Winter	100	+40%	100/15 Summer				5.588																																																																																																																																																																										
5.000	13	15 Winter	100	+40%	100/15 Summer				6.623																																																																																																																																																																										
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<u>Summary of Critical Results by Maximum Level (Rank 1) for Storm</u>							

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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.
5.003	16	15 Winter	100	+40%	100/15 Summer		
6.000	17	15 Winter	100	+40%	100/15 Summer		
6.001	18	15 Winter	100	+40%	100/15 Summer		
6.002	19	15 Winter	100	+40%	100/15 Summer		
5.004	20	15 Winter	100	+40%	100/15 Summer		
5.005	21	15 Winter	100	+40%	100/15 Summer		
7.000	22	15 Winter	100	+40%	100/15 Summer		
7.001	23	15 Winter	100	+40%	100/15 Summer		
5.006	24	15 Winter	100	+40%	100/15 Summer		
5.007	25	10080 Winter	100	+40%	100/15 Summer		
8.000	26	10080 Winter	100	+40%	100/15 Summer		
5.008	27	10080 Winter	100	+40%	100/15 Summer		
9.000	28	10080 Winter	100	+40%	100/15 Summer		
5.009	29	10080 Winter	100	+40%	100/15 Summer		
10.000	30	15 Winter	100	+40%	100/15 Summer		
10.001	31	15 Winter	100	+40%	100/15 Summer		
10.002	32	15 Winter	100	+40%	100/15 Summer		
10.003	33	15 Winter	100	+40%	100/15 Summer		
10.004	34	15 Winter	100	+40%	100/15 Summer		
10.005	35	15 Winter	100	+40%	100/15 Summer		
10.006	36	10080 Winter	100	+40%	100/15 Summer		
1.007	BASIN 1	10080 Winter	100	+40%	100/15 Summer		
1.008	38	720 Winter	100	+40%	100/240 Summer		
1.009	39	720 Winter	100	+40%	100/240 Summer		
1.010	40	720 Winter	100	+40%	100/180 Summer		
1.011	41	720 Winter	100	+40%	100/15 Winter		
1.012	42	720 Winter	100	+40%	100/120 Winter		
1.013	43	720 Winter	100	+40%	100/15 Winter		
11.000	44	720 Winter	100	+40%	100/15 Summer		
11.001	45	720 Winter	100	+40%	100/15 Summer		
1.014	46	720 Winter	100	+40%	100/15 Summer		
1.015	47	720 Winter	100	+40%	100/15 Summer		
12.000	48	15 Winter	100	+40%	100/15 Summer		
13.000	49	15 Winter	100	+40%	100/15 Summer		
13.001	50	15 Winter	100	+40%	100/15 Summer		
13.002	51	15 Winter	100	+40%	100/15 Summer		
12.001	52	15 Winter	100	+40%	100/15 Summer		
12.002	53	60 Winter	100	+40%	100/15 Summer		
12.003	54	60 Winter	100	+40%	100/15 Summer		
12.004	55	60 Winter	100	+40%	100/15 Summer		
14.000	56	60 Winter	100	+40%	100/15 Summer		
12.005	57	60 Winter	100	+40%	100/15 Summer		
12.006	58	60 Winter	100	+40%	100/15 Summer		
15.000	59	15 Winter	100	+40%	100/15 Summer		
15.001	60	15 Winter	100	+40%	100/15 Summer		
15.002	61	60 Winter	100	+40%	100/15 Summer		
16.000	62	15 Winter	100	+40%	100/15 Summer		
16.001	63	15 Winter	100	+40%	100/15 Summer		
15.003	64	60 Winter	100	+40%	100/15 Summer		
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Summary of Critical Results by Maximum Level (Rank 1) for Storm									
		Water	Surcharged	Flooded		Pipe			
PN	US/MH Name	Level (m)	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status	Level Exceeded
5.003	16	6.274	0.788	0.000	1.64		153.8	SURCHARGED	
6.000	17	6.426	0.626	0.000	0.79		55.7	FLOOD RISK	
6.001	18	6.310	0.710	0.000	0.85		52.1	SURCHARGED	
6.002	19	6.228	0.678	0.000	0.61		54.1	SURCHARGED	
5.004	20	6.112	0.687	0.000	1.52		210.4	SURCHARGED	
5.005	21	5.954	0.597	0.000	1.29		235.7	SURCHARGED	
7.000	22	6.056	0.206	0.000	0.28		49.2	SURCHARGED	
7.001	23	5.919	0.424	0.000	0.52		103.6	SURCHARGED	
5.006	24	5.749	0.513	0.000	1.12		334.2	SURCHARGED	
5.007	25	5.589	0.503	0.000	0.02		6.2	SURCHARGED	
8.000	26	5.589	0.617	0.000	0.03		0.3	FLOOD RISK	
5.008	27	5.589	0.674	0.000	0.03		7.0	FLOOD RISK	
9.000	28	5.589	0.637	0.000	0.02		0.8	SURCHARGED	
5.009	29	5.589	0.734	0.000	0.03		8.1	FLOOD RISK	
10.000	30	6.756	1.179	0.000	0.69		55.5	FLOOD RISK	
10.001	31	6.665	1.191	0.000	1.02		103.1	FLOOD RISK	
10.002	32	6.540	1.181	0.000	1.28		128.9	SURCHARGED	
10.003	33	6.359	1.108	0.000	1.71		170.6	SURCHARGED	
10.004	34	6.057	0.905	0.000	1.14		174.6	SURCHARGED	
10.005	35	5.873	0.875	0.000	2.70		247.9	SURCHARGED	
10.006	36	5.589	0.644	0.000	0.02		4.3	SURCHARGED	
1.007	BASIN	1	5.588	0.937	0.000	0.03	4.2	SURCHARGED	
1.008		38	4.925	0.342	0.000	0.04	4.9	SURCHARGED	
1.009		39	4.925	0.356	0.000	0.04	5.4	SURCHARGED	
1.010		40	4.923	0.464	0.000	0.06	6.7	SURCHARGED	
1.011		41	4.921	0.499	0.000	0.09	8.8	SURCHARGED	
1.012		42	4.920	0.522	0.000	0.09	9.1	SURCHARGED	
1.013		43	4.919	0.551	0.000	0.04	10.8	SURCHARGED	
11.000		44	4.917	0.567	0.000	0.10	7.6	SURCHARGED	
11.001		45	4.917	0.792	0.000	0.12	7.5	SURCHARGED	
1.014		46	4.917	0.841	0.000	0.15	21.1	SURCHARGED	
1.015	47	4.915	0.916	0.000	0.16	23.3	SURCHARGED		
12.000	48	6.413	0.383	0.000	0.51	24.2	SURCHARGED		
13.000	49	6.540	0.395	0.000	0.17	14.8	SURCHARGED		
13.001	50	6.530	0.510	0.000	0.59	42.0	SURCHARGED		
13.002	51	6.436	0.496	0.000	0.79	51.6	SURCHARGED		
12.001	52	6.363	0.547	0.000	1.73	110.1	SURCHARGED		
12.002	53	6.229	0.512	0.000	0.98	59.8	SURCHARGED		
12.003	54	6.167	0.521	0.000	0.80	73.7	SURCHARGED		
12.004	55	6.089	0.499	0.000	0.44	78.0	SURCHARGED		
14.000	56	6.007	0.507	0.000	0.69	37.2	SURCHARGED		
12.005	57	6.003	0.537	0.000	0.84	110.5	FLOOD RISK		
12.006	58	5.991	0.575	0.000	0.71	108.6	FLOOD RISK		
15.000	59	6.371	0.431	0.000	0.90	51.1	SURCHARGED		
15.001	60	6.301	0.405	0.000	0.55	51.3	SURCHARGED		
15.002	61	6.196	0.496	0.000	0.69	55.3	SURCHARGED		
16.000	62	6.269	0.289	0.000	0.37	40.5	SURCHARGED		
16.001	63	6.134	0.414	0.000	0.77	67.9	SURCHARGED		
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<u>Summary of Critical Results by Maximum Level (Rank 1) for Storm</u>										
PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded	
15.003	64	6.119	0.522	0.000	0.52		105.7	SURCHARGED		
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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.
15.004	65	60 Winter	100	+40%	100/15 Summer			
12.007	BASIN 2	60 Winter	100	+40%	100/15 Summer			
12.008	67	120 Winter	100	+40%	100/30 Winter			
12.009	68	240 Winter	100	+40%	100/30 Summer			
17.000	69	15 Winter	100	+40%	100/15 Summer			
17.001	70	15 Winter	100	+40%	100/15 Summer			
17.002	71	15 Winter	100	+40%	100/15 Summer			
17.003	72	15 Winter	100	+40%	100/15 Summer			
12.010	73	240 Winter	100	+40%	100/30 Summer			
12.011	BASIN 3	240 Winter	100	+40%	100/15 Summer			
12.012	75	720 Winter	100	+40%	100/15 Summer			
12.013	76	720 Winter	100	+40%	100/15 Summer			
1.016	77	720 Winter	100	+40%	100/15 Summer			
1.017	78	720 Winter	100	+40%	100/15 Summer	100/600 Winter		
18.000	TANK	720 Winter	100	+40%	100/30 Summer			
1.018	80	720 Winter	100	+40%	100/15 Summer			
1.019	BASIN 4	720 Winter	100	+40%	100/15 Summer			
1.020	82	720 Winter	100	+40%				
19.000	83	15 Winter	100	+40%	100/15 Summer			
20.000	84	15 Winter	100	+40%	100/15 Summer			
20.001	85	15 Winter	100	+40%	100/15 Summer			
19.001	86	15 Winter	100	+40%	100/15 Summer			
19.002	87	15 Winter	100	+40%	100/15 Summer			
21.000	88	15 Winter	100	+40%	100/15 Summer			
21.001	89	15 Winter	100	+40%	100/15 Winter			
19.003	90	15 Winter	100	+40%	100/15 Summer			
22.000	91	15 Winter	100	+40%	100/15 Summer			
22.001	92	15 Winter	100	+40%	100/15 Summer			
19.004	93	15 Winter	100	+40%	100/15 Summer			
19.005	94	15 Winter	100	+40%	100/15 Summer			
19.006	95	2880 Winter	100	+40%	100/15 Summer			
19.007	96	2880 Winter	100	+40%	100/60 Summer			
19.008	BASIN 5	2880 Winter	100	+40%	100/15 Summer			
1.021	98	720 Winter	100	+40%				
PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Pipe Flow / Cap. (l/s)	Overflow Flow (l/s)	Status	Level Exceeded
15.004	65	6.006	0.706	0.000	1.07	141.9	SURCHARGED	
12.007	BASIN 2	5.899	0.654	0.000	0.42	59.8	FLOOD RISK	
12.008	67	5.501	0.343	0.000	0.43	59.6	SURCHARGED	
12.009	68	5.482	0.388	0.000	0.41	56.4	SURCHARGED	
17.000	69	6.450	0.810	0.000	0.88	78.2	SURCHARGED	
17.001	70	6.335	0.835	0.000	1.83	101.9	SURCHARGED	
17.002	71	6.160	0.700	0.000	1.20	103.9	SURCHARGED	
17.003	72	5.809	0.609	0.000	2.11	191.1	SURCHARGED	
12.010	73	5.475	0.449	0.000	0.18	92.2	SURCHARGED	
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2 West Barn Norton Lane Chichester PO20 3AF				Bilsham Road, Yapton					
Date 05/05/2022 11:29				Designed by lf					
File 2021-11-23 NETWORK.MDX				Checked by					
Innovyze				Network 2018.1					
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)	Pipe Flow (l/s)	Status	Level Exceeded
12.011	BASIN 3	5.468	1.353	0.000	0.13		18.0	FLOOD RISK	
12.012	75	4.924	0.896	0.000	0.13		18.8	SURCHARGED	
12.013	76	4.916	0.988	0.000	0.18		19.4	FLOOD RISK	
1.016	77	4.914	1.001	0.000	0.33		48.8	FLOOD RISK	
1.017	78	4.909	1.033	0.084	0.28		52.4	FLOOD	
18.000	TANK	4.903	1.077	0.000	0.05		8.4	FLOOD RISK	
1.018	80	4.903	1.090	0.000	0.31		43.7	FLOOD RISK	
1.019	BASIN 4	4.898	1.124	0.000	0.13		18.5	FLOOD RISK	
1.020	82	3.280	-0.460	0.000	0.04		18.5	OK	
19.000	83	5.274	0.417	0.000	0.23		63.7	SURCHARGED	
20.000	84	5.466	0.216	0.000	0.86		87.1	SURCHARGED	
20.001	85	5.389	0.252	0.000	0.31		77.7	SURCHARGED	
19.001	86	5.160	0.442	0.000	0.62		133.7	SURCHARGED	
19.002	87	5.103	0.523	0.000	1.12		157.5	SURCHARGED	
21.000	88	5.364	0.114	0.000	1.21		78.2	SURCHARGED	
21.001	89	5.252	0.120	0.000	0.38		73.0	SURCHARGED	
19.003	90	5.072	0.518	0.000	1.03		222.1	SURCHARGED	
22.000	91	5.518	0.368	0.000	1.94		70.8	SURCHARGED	
22.001	92	5.130	0.107	0.000	0.60		65.3	SURCHARGED	
19.004	93	4.929	0.505	0.000	1.88		320.6	SURCHARGED	
19.005	94	4.750	0.369	0.000	1.55		338.6	SURCHARGED	
19.006	95	4.646	0.393	0.000	0.07		14.8	SURCHARGED	
19.007	96	4.645	0.464	0.000	0.02		15.6	SURCHARGED	
19.008	BASIN 5	4.645	1.171	0.000	0.00		1.9	SURCHARGED	
1.021	98	2.543	-0.466	0.000	0.11		20.4	OK	
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