

GTA Civils Ltd		Page 0
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Surface Network 1

Pipe Sizes STANDARD Manhole Sizes STANDARD

FEH Rainfall Model

Return Period (years)	2	Volumetric Runoff Coeff.	0.750
		PIMP (%)	100
FEH Rainfall Version	2013	Add Flow / Climate Change (%)	0
Site Location	GB 490175 99535 SZ 90175 99535	Minimum Backdrop Height (m)	0.200
Data Type	Point	Maximum Backdrop Height (m)	1.500
Maximum Rainfall (mm/hr)	50	Min Design Depth for Optimisation (m)	1.200
Maximum Time of Concentration (mins)	30	Min Vel for Auto Design only (m/s)	1.00
Foul Sewage (l/s/ha)	0.000	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Network Design Table for Surface Network 1

« - Indicates pipe capacity < flow

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

Network Results Table

©1982-2020 Innovyze

GTA Civils Ltd		Page 1											
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E												
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR												
XP Solutions	Network 2020.1												
Network Design Table for Surface Network 1 <table><thead><tr><th>PN</th><th>Rain (mm/hr)</th><th>T.C. (mins)</th><th>US/IL (m)</th><th>Σ I.Area (ha)</th><th>Σ Base Flow (l/s)</th><th>Foul (l/s)</th><th>Add Flow (l/s)</th><th>Vel (m/s)</th><th>Cap (l/s)</th><th>Flow (l/s)</th></tr></thead></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)
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)			
©1982-2020 Innovyze													

GTA Civils Ltd		Page 2
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section	Type	Auto Design
1.000	22.604	0.100	226.0	0.081	5.00	0.0	0.600	o	300	Pipe/Conduit		
1.001	13.797	0.060	230.0	0.031	0.00	0.0	0.600	o	300	Pipe/Conduit		
2.000	24.197	0.110	220.0	0.051	5.00	0.0	0.600	o	300	Pipe/Conduit		
1.002	19.031	0.085	223.9	0.015	0.00	0.0	0.600	o	300	Pipe/Conduit		
1.003	29.271	0.125	234.2	0.032	0.00	0.0	0.600	o	300	Pipe/Conduit		
1.004	25.240	0.115	219.5	0.133	0.00	0.0	0.600	o	300	Pipe/Conduit		
1.005	12.549	0.050	251.0	0.019	0.00	0.0	0.600	o	375	Pipe/Conduit		
1.006	13.582	0.050	271.6	0.061	0.00	0.0	0.600	o	375	Pipe/Conduit		

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	I.Area (ha)	Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.000	50.00	5.36	6.420	0.081	0.0	0.0	0.0	1.04	73.6	10.9
1.001	50.00	5.58	6.320	0.112	0.0	0.0	0.0	1.03	73.0	15.2
2.000	50.00	5.38	6.370	0.051	0.0	0.0	0.0	1.06	74.6	6.9
1.002	50.00	5.89	6.260	0.178	0.0	0.0	0.0	1.05	74.0	24.1
1.003	50.00	6.36	6.175	0.210	0.0	0.0	0.0	1.02	72.3	28.4
1.004	50.00	6.76	6.050	0.343	0.0	0.0	0.0	1.06	74.7	46.5
1.005	50.00	6.95	5.860	0.362	0.0	0.0	0.0	1.14	125.8	49.1
1.006	50.00	7.15	5.810	0.424	0.0	0.0	0.0	1.09	120.9	57.4

GTA Civils Ltd		Page 3
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section	Type	Auto Design
1.007	18.730	0.040	468.3	0.046	0.00	0.0	0.600	o	525	Pipe/Conduit		
1.008	14.188	0.030	472.9	0.078	0.00	0.0	0.600	o	525	Pipe/Conduit		
3.000	5.329	0.025	213.2	0.074	5.00	0.0	0.600	oo	300	Double Pipe		
3.001	31.286	0.140	223.5	0.026	0.00	0.0	0.600	oo	300	Double Pipe		
3.002	36.716	0.160	229.5	0.051	0.00	0.0	0.600	oo	300	Double Pipe		
3.003	23.147	0.075	308.6	0.148	0.00	0.0	0.600	oo	375	Double Pipe		
3.004	48.068	0.160	300.4	0.094	0.00	0.0	0.600	oo	375	Double Pipe		
3.005	15.078	0.050	301.6	0.124	0.00	0.0	0.600	oo	375	Double Pipe		

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL E (m)	I.Area (ha)	E Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.007	50.00	7.46	5.610	0.469	0.0	0.0	0.0	1.03	222.6	63.6
1.008	50.00	7.69	5.570	0.547	0.0	0.0	0.0	1.02	221.5	74.1
3.000	50.00	5.08	6.375	0.074	0.0	0.0	0.0	1.07	151.7	10.0
3.001	50.00	5.58	6.350	0.100	0.0	0.0	0.0	1.05	148.1	13.5
3.002	50.00	6.17	6.210	0.151	0.0	0.0	0.0	1.03	146.1	20.4
3.003	50.00	6.55	5.975	0.299	0.0	0.0	0.0	1.03	226.6	40.5
3.004	50.00	7.32	5.900	0.393	0.0	0.0	0.0	1.04	229.7	53.2
3.005	50.00	7.56	5.740	0.517	0.0	0.0	0.0	1.04	229.3	70.0

GTA Civils Ltd		Page 4
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section	Type	Auto Design
1.009	27.493	0.040	687.3	0.016	0.00	0.0	0.600	o	825	Pipe/Conduit		
4.000	18.021	0.085	212.0	0.081	5.00	0.0	0.600	o	300	Pipe/Conduit		
1.010	19.037	0.025	761.5	0.019	0.00	0.0	0.600	o	825	Pipe/Conduit		
1.011	41.994	0.055	763.5	0.047	0.00	0.0	0.600	o	825	Pipe/Conduit		
5.000	26.306	0.050	526.1	0.102	5.00	0.0	0.600	o	600	Pipe/Conduit		
5.001	19.776	0.045	439.5	0.046	0.00	0.0	0.600	o	600	Pipe/Conduit		
5.002	15.321	0.030	510.7	0.048	0.00	0.0	0.600	o	600	Pipe/Conduit		

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	I.Area (ha)	Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.009	50.00	8.09	5.240	1.081	0.0	0.0	0.0	1.12	601.3	146.3
4.000	50.00	5.28	5.810	0.081	0.0	0.0	0.0	1.08	76.1	10.9
1.010	50.00	8.39	5.200	1.181	0.0	0.0	0.0	1.07	570.9	159.9
1.011	49.88	9.05	5.175	1.227	0.0	0.0	0.0	1.07	570.1	165.8
5.000	50.00	5.42	5.470	0.102	0.0	0.0	0.0	1.05	298.2	13.9
5.001	50.00	5.70	5.420	0.149	0.0	0.0	0.0	1.16	326.6	20.1
5.002	50.00	5.94	5.375	0.196	0.0	0.0	0.0	1.07	302.7	26.6

GTA Civils Ltd		Page 5
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.012	9.074	0.020	453.7	0.049	0.00	0.0	0.600	o	825	Pipe/Conduit	
6.000	10.145	0.045	225.4	0.043	5.00	0.0	0.600	o	300	Pipe/Conduit	
6.001	15.017	0.075	200.2	0.000	0.00	0.0	0.600	o	375	Pipe/Conduit	
6.002	9.081	0.025	363.2	0.017	0.00	0.0	0.600	o	450	Pipe/Conduit	
6.003	25.274	0.050	505.5	0.059	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.013	21.333	0.030	711.1	0.000	0.00	0.0	0.600	o	825	Pipe/Conduit	
1.014	36.395	0.050	727.9	0.136	0.00	0.0	0.600	o	825	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.012	49.57	9.16	5.120	1.472	0.0	0.0	0.0	1.39	741.6	197.6
6.000	50.00	5.16	5.820	0.043	0.0	0.0	0.0	1.04	73.7	5.8
6.001	50.00	5.36	5.700	0.043	0.0	0.0	0.0	1.28	141.0	5.8
6.002	50.00	5.50	5.550	0.060	0.0	0.0	0.0	1.06	168.7	8.1
6.003	50.00	5.89	5.375	0.118	0.0	0.0	0.0	1.08	304.3	16.0
1.013	48.68	9.48	5.100	1.590	0.0	0.0	0.0	1.11	591.0	209.7
1.014	47.22	10.03	5.070	1.727	0.0	0.0	0.0	1.09	584.1	220.8

GTA Civils Ltd		Page 6
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.015	23.898	0.030	796.6	0.000	0.00	0.0	0.600	o	825	Pipe/Conduit	
1.016	22.122	0.005	4424.4	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
7.000	17.960	0.035	513.1	0.097	5.00	0.0	0.600	o	600	Pipe/Conduit	
7.001	26.537	0.055	482.5	0.117	0.00	0.0	0.600	o	600	Pipe/Conduit	
7.002	54.277	0.100	542.8	0.057	0.00	0.0	0.600	o	600	Pipe/Conduit	
7.003	21.592	0.045	479.8	0.059	0.00	0.0	0.600	o	600	Pipe/Conduit	
7.004	38.205	0.070	545.8	0.017	0.00	0.0	0.600	o	600	Pipe/Conduit	
7.005	11.740	0.020	587.0	0.154	0.00	0.0	0.600	o	825	Pipe/Conduit	
7.006	67.496	0.075	899.9	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL E (m)	I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
1.015	46.27	10.42	5.020	1.727	0.0	0.0	0.0	1.04	558.0	220.8
1.016	44.43	11.21	4.990	1.727	0.0	0.0	0.0	0.46	293.3	220.8
7.000	50.00	5.28	5.610	0.097	0.0	0.0	0.0	1.07	302.0	13.1
7.001	50.00	5.68	5.575	0.214	0.0	0.0	0.0	1.10	311.6	28.9
7.002	50.00	6.55	5.520	0.271	0.0	0.0	0.0	1.04	293.5	36.7
7.003	50.00	6.88	5.420	0.330	0.0	0.0	0.0	1.10	312.4	44.7
7.004	50.00	7.49	5.375	0.347	0.0	0.0	0.0	1.04	292.7	47.0
7.005	50.00	7.65	5.080	0.500	0.0	0.0	0.0	1.22	651.2	67.8
7.006	50.00	8.74	5.060	0.500	0.0	0.0	0.0	1.04	659.2	67.8

GTA Civils Ltd		Page 7
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.017	6.376	0.010	637.6	0.123	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.018	11.936	0.010	1193.6	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.019	15.943	0.020	797.2	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.020	7.207	0.015	480.5	0.067	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.021	7.183	0.010	718.3	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.022	44.051	0.050	881.0	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.023	6.836	0.010	683.6	0.080	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.024	7.118	0.020	355.9	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.025	191.121	0.190	1005.9	0.000	0.00	0.0	0.600	o	900	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)
1.017	44.24	11.30	4.985	2.350	0.0	0.0	0.0	1.23	784.6	281.6
1.018	43.76	11.52	4.975	2.350	0.0	0.0	0.0	0.90	571.4	281.6
1.019	43.26	11.76	4.965	2.350	0.0	0.0	0.0	1.10	700.9	281.6
1.020	43.09	11.85	4.945	2.417	0.0	0.0	0.0	1.42	905.1	282.0
1.021	42.88	11.95	4.930	2.417	0.0	0.0	0.0	1.16	738.8	282.0
1.022	41.51	12.65	4.920	2.417	0.0	0.0	0.0	1.05	666.3	282.0
1.023	41.33	12.75	4.870	2.497	0.0	0.0	0.0	1.19	757.5	282.0
1.024	41.20	12.82	4.860	2.497	0.0	0.0	0.0	1.66	1052.9	282.0
1.025	36.09	16.07	4.840	2.497	0.0	0.0	0.0	0.98	623.1	282.0

GTA Civils Ltd		Page 8
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
8.000	9.974	0.025	399.0	0.071	5.00	0.0	0.600	o	450	Pipe/Conduit	
8.001	20.411	0.055	371.1	0.073	0.00	0.0	0.600	o	450	Pipe/Conduit	
8.002	13.745	0.035	392.7	0.000	0.00	0.0	0.600	o	450	Pipe/Conduit	
8.003	8.450	0.025	338.0	0.050	0.00	0.0	0.600	o	450	Pipe/Conduit	
8.004	55.649	0.140	397.5	0.093	0.00	0.0	0.600	o	450	Pipe/Conduit	
8.005	24.842	0.035	709.8	0.074	0.00	0.0	0.600	o	750	Pipe/Conduit	
8.006	8.430	0.015	562.0	0.020	0.00	0.0	0.600	o	750	Pipe/Conduit	
9.000	8.883	0.120	74.0	0.067	5.00	0.0	0.600	o	300	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL E (m)	I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
8.000	50.00	5.16	5.560	0.071	0.0	0.0	0.0	1.01	160.9	9.6
8.001	50.00	5.49	5.535	0.144	0.0	0.0	0.0	1.05	166.9	19.4
8.002	50.00	5.71	5.480	0.144	0.0	0.0	0.0	1.02	162.2	19.4
8.003	50.00	5.84	5.445	0.193	0.0	0.0	0.0	1.10	175.0	26.2
8.004	50.00	6.76	5.420	0.286	0.0	0.0	0.0	1.01	161.2	38.7
8.005	50.00	7.15	4.980	0.360	0.0	0.0	0.0	1.04	460.6	48.8
8.006	50.00	7.27	4.945	0.380	0.0	0.0	0.0	1.17	518.4	51.4
9.000	50.00	5.08	5.500	0.067	0.0	0.0	0.0	1.83	129.3	9.1

GTA Civils Ltd		Page 9
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
8.007	12.254	0.020	612.7	0.000	0.00	0.0	0.600	o	750	Pipe/Conduit	
8.008	11.965	0.020	598.3	0.025	0.00	0.0	0.600	o	750	Pipe/Conduit	
10.000	11.364	0.050	227.3	0.053	5.00	0.0	0.600	o	300	Pipe/Conduit	
10.001	24.994	0.050	499.9	0.115	0.00	0.0	0.600	o	600	Pipe/Conduit	
10.002	29.967	0.100	299.7	0.077	0.00	0.0	0.600	o	600	Pipe/Conduit	
8.009	44.684	0.060	744.7	0.039	0.00	0.0	0.600	o	750	Pipe/Conduit	

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
8.007	50.00	7.45	4.930	0.447	0.0	0.0	0.0	1.12	496.2	60.5
8.008	50.00	7.63	4.910	0.472	0.0	0.0	0.0	1.14	502.2	63.9
10.000	50.00	5.18	5.540	0.053	0.0	0.0	0.0	1.04	73.4	7.2
10.001	50.00	5.57	5.190	0.168	0.0	0.0	0.0	1.08	306.0	22.7
10.002	50.00	5.92	5.140	0.245	0.0	0.0	0.0	1.40	396.3	33.1
8.009	50.00	8.36	4.890	0.756	0.0	0.0	0.0	1.02	449.6	102.3

GTA Civils Ltd		Page 10
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
11.000	24.755	0.050	495.1	0.071	5.00	0.0	0.600	o	600	Pipe/Conduit	
11.001	37.821	0.090	420.2	0.208	0.00	0.0	0.600	o	600	Pipe/Conduit	
8.010	12.070	0.020	603.5	0.056	0.00	0.0	0.600	o	750	Pipe/Conduit	
12.000	5.289	0.030	176.3	0.097	5.00	0.0	0.600	o	300	Pipe/Conduit	
12.001	18.105	0.085	213.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit	
12.002	40.357	0.075	538.1	0.072	0.00	0.0	0.600	o	675	Pipe/Conduit	
8.011	18.207	0.030	606.9	0.002	0.00	0.0	0.600	o	750	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)
11.000	50.00	5.38	5.120	0.071	0.0	0.0	0.0	1.09	307.5	9.7
11.001	50.00	5.91	5.070	0.280	0.0	0.0	0.0	1.18	334.1	37.8
8.010	50.00	8.54	4.830	1.091	0.0	0.0	0.0	1.13	500.0	147.7
12.000	50.00	5.07	5.450	0.097	0.0	0.0	0.0	1.18	83.5	13.1
12.001	50.00	5.36	5.420	0.097	0.0	0.0	0.0	1.07	75.9	13.1
12.002	50.00	5.95	4.960	0.169	0.0	0.0	0.0	1.12	401.8	22.9
8.011	50.00	8.81	4.810	1.263	0.0	0.0	0.0	1.13	498.6	171.0

GTA Civils Ltd		Page 11
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
8.012	33.378	0.045	741.7	0.044	0.00	0.0	0.600	o	750	Pipe/Conduit	
8.013	5.866	0.010	586.6	0.073	0.00	0.0	0.600	o	750	Pipe/Conduit	
13.000	17.462	0.085	205.4	0.107	5.00	0.0	0.600	o	300	Pipe/Conduit	
8.014	10.414	0.015	694.2	0.000	0.00	0.0	0.600	o	750	Pipe/Conduit	
8.015	64.619	0.060	1077.0	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
14.000	24.809	0.050	496.2	0.039	5.00	0.0	0.600	o	600	Pipe/Conduit	
14.001	24.411	0.050	488.2	0.088	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)
8.012	49.02	9.35	4.780	1.307	0.0	0.0	0.0	1.02	450.5	173.5
8.013	48.78	9.44	4.735	1.380	0.0	0.0	0.0	1.15	507.3	182.3
13.000	50.00	5.27	5.260	0.107	0.0	0.0	0.0	1.09	77.3	14.5
8.014	48.34	9.60	4.725	1.487	0.0	0.0	0.0	1.05	465.8	194.7
8.015	45.50	10.74	4.710	1.487	0.0	0.0	0.0	0.95	601.9	194.7
14.000	50.00	5.38	4.960	0.039	0.0	0.0	0.0	1.09	307.2	5.3
14.001	50.00	5.75	4.910	0.126	0.0	0.0	0.0	1.10	309.7	17.1

GTA Civils Ltd		Page 12
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
15.000	13.554	0.060	225.9	0.081	5.00	0.0	0.600	o	300	Pipe/Conduit	
15.001	13.323	0.060	222.0	0.043	0.00	0.0	0.600	o	300	Pipe/Conduit	
14.002	10.119	0.020	506.0	0.028	0.00	0.0	0.600	o	600	Pipe/Conduit	
14.003	185.548	0.190	976.6	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.026	11.304	0.012	942.0	0.244	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.027	31.352	0.032	972.4	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.028	53.567	0.055	972.4	0.000	0.00	0.0	0.600	o	900	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)
15.000	50.00	5.22	5.280	0.081	0.0	0.0	0.0	1.04	73.6	11.0
15.001	50.00	5.43	5.220	0.124	0.0	0.0	0.0	1.05	74.3	16.9
14.002	50.00	5.91	4.860	0.279	0.0	0.0	0.0	1.08	304.2	37.8
14.003	49.97	9.02	4.840	0.279	0.0	0.0	0.0	0.99	632.5	37.8
1.026	35.84	16.26	4.650	4.507	0.0	0.0	0.0	1.01	644.2	437.5
1.027	35.16	16.78	4.638	4.507	0.0	0.0	0.0	1.00	633.9	437.5
1.028	34.07	17.68	4.606	4.507	0.0	0.0	0.0	1.00	633.9	437.5

GTA Civils Ltd		Page 13
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Network Design Table for Surface Network 1

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
1.029	27.461	0.028	972.4	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
1.030	51.346	0.053	972.4	0.000	0.00	0.0	0.600	o	900	Pipe/Conduit	
16.000	18.132	0.115	157.7	0.030	5.00	0.0	0.600	o	225	Pipe/Conduit	
16.001	25.554	0.155	164.9	0.119	0.00	0.0	0.600	o	225	Pipe/Conduit	
16.002	7.419	0.050	148.4	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
16.003	3.724	0.025	149.0	0.018	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.031	27.812	0.120	231.8	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)
1.029	33.54	18.14	4.551	4.507	0.0	0.0	0.0	1.00	633.9	437.5
1.030	32.60	19.00	4.523	4.507	0.0	0.0	0.0	1.00	633.9	437.5
16.000	50.00	5.29	5.490	0.030	0.0	0.0	0.0	1.04	41.3	4.0
16.001	50.00	5.71	5.375	0.149	0.0	0.0	0.0	1.02	40.4	20.2
16.002	50.00	5.83	5.220	0.149	0.0	0.0	0.0	1.07	42.6	20.2
16.003	50.00	5.88	5.170	0.168	0.0	0.0	0.0	1.07	42.5	22.7
1.031	32.13	19.45	4.470	4.675	0.0	0.0	0.0	1.03	72.7«	437.5

GTA Civils Ltd		Page 14
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	User	-	110	0.007	0.007	0.007
	User	-	110	0.004	0.004	0.012
	User	-	110	0.007	0.007	0.019
	User	-	110	0.006	0.006	0.025
	User	-	110	0.004	0.004	0.030
	User	-	110	0.003	0.003	0.033
	User	-	100	0.015	0.015	0.048
	User	-	100	0.006	0.006	0.054
	User	-	100	0.027	0.027	0.081
1.001	User	-	110	0.003	0.003	0.003
	User	-	110	0.008	0.008	0.011
	User	-	110	0.004	0.004	0.016
	User	-	110	0.007	0.008	0.023
	User	-	100	0.008	0.008	0.031
2.000	User	-	100	0.021	0.021	0.021
	User	-	110	0.006	0.006	0.027
	User	-	110	0.002	0.002	0.029
	User	-	100	0.004	0.004	0.033
	User	-	100	0.017	0.017	0.051
1.002	User	-	100	0.015	0.015	0.015
1.003	User	-	110	0.009	0.010	0.010
	User	-	110	0.002	0.002	0.012
	User	-	110	0.003	0.003	0.015
	User	-	100	0.004	0.004	0.019
	User	-	100	0.013	0.013	0.032
1.004	User	-	110	0.006	0.006	0.006

GTA Civils Ltd		Page 15
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
	User	-	110	0.002	0.002	0.009
	User	-	110	0.006	0.006	0.015
	User	-	110	0.002	0.002	0.017
	User	-	110	0.010	0.011	0.028
	User	-	110	0.003	0.003	0.031
	User	-	110	0.002	0.002	0.033
	User	-	110	0.006	0.006	0.039
	User	-	110	0.002	0.002	0.041
	User	-	110	0.006	0.006	0.047
	User	-	110	0.004	0.004	0.052
	User	-	110	0.006	0.006	0.058
	User	-	100	0.004	0.004	0.062
	User	-	100	0.008	0.008	0.070
	User	-	100	0.004	0.004	0.074
	User	-	100	0.004	0.004	0.078
	User	-	100	0.004	0.004	0.083
	User	-	100	0.009	0.009	0.092
	User	-	100	0.006	0.006	0.098
	User	-	100	0.016	0.016	0.114
	User	-	100	0.019	0.019	0.133
1.005	User	-	100	0.006	0.006	0.006
	User	-	100	0.013	0.013	0.019
1.006	User	-	110	0.006	0.006	0.006
	User	-	110	0.004	0.004	0.010
	User	-	110	0.011	0.012	0.022
	User	-	110	0.002	0.002	0.025

GTA Civils Ltd		Page 18
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.009	User	-	110	0.015	0.016	0.016
4.000	User	-	110	0.005	0.005	0.005
	User	-	110	0.004	0.004	0.010
	User	-	110	0.010	0.011	0.021
	User	-	100	0.007	0.007	0.028
	User	-	100	0.029	0.029	0.057
	User	-	100	0.023	0.023	0.081
1.010	User	-	100	0.019	0.019	0.019
1.011	User	-	110	0.004	0.004	0.004
	User	-	110	0.010	0.011	0.015
	User	-	110	0.002	0.002	0.017
	User	-	110	0.005	0.006	0.023
	User	-	110	0.004	0.004	0.027
	User	-	100	0.008	0.008	0.035
	User	-	100	0.004	0.004	0.039
	User	-	100	0.008	0.008	0.047
5.000	User	-	110	0.014	0.016	0.016
	User	-	100	0.010	0.010	0.026
	User	-	100	0.026	0.026	0.053
	User	-	100	0.008	0.008	0.061
	User	-	100	0.021	0.021	0.081
	User	-	100	0.021	0.021	0.102
5.001	User	-	110	0.002	0.002	0.002
	User	-	110	0.014	0.016	0.018
	User	-	110	0.015	0.017	0.035
	User	-	110	0.010	0.011	0.046

GTA Civils Ltd		Page 19
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
5.002	User	-	110	0.013	0.014	0.014
	User	-	110	0.010	0.011	0.025
	User	-	100	0.008	0.008	0.033
	User	-	100	0.009	0.009	0.043
	User	-	100	0.005	0.005	0.048
1.012	User	-	110	0.014	0.015	0.015
	User	-	100	0.005	0.005	0.020
	User	-	100	0.028	0.028	0.049
6.000	User	-	110	0.002	0.002	0.002
	User	-	110	0.007	0.008	0.010
	User	-	100	0.009	0.009	0.018
	User	-	100	0.016	0.016	0.034
	User	-	100	0.009	0.009	0.043
6.001	-	-	100	0.000	0.000	0.000
6.002	User	-	110	0.003	0.003	0.003
	User	-	110	0.006	0.006	0.009
	User	-	100	0.007	0.007	0.017
6.003	User	-	110	0.004	0.004	0.004
	User	-	110	0.010	0.011	0.015
	User	-	110	0.010	0.011	0.026
	User	-	100	0.001	0.001	0.027
	User	-	100	0.006	0.006	0.033
	User	-	100	0.025	0.025	0.059
1.013	-	-	100	0.000	0.000	0.000
1.014	User	-	110	0.026	0.028	0.028
	User	-	110	0.007	0.008	0.036

GTA Civils Ltd		Page 20
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
	User	-	110	0.010	0.011	0.047
	User	-	100	0.005	0.005	0.052
	User	-	100	0.059	0.059	0.111
	User	-	100	0.025	0.025	0.136
1.015	-	-	100	0.000	0.000	0.000
1.016	-	-	100	0.000	0.000	0.000
7.000	User	-	110	0.004	0.005	0.005
	User	-	110	0.002	0.002	0.007
	User	-	110	0.006	0.006	0.013
	User	-	100	0.004	0.004	0.018
	User	-	110	0.010	0.011	0.028
	User	-	100	0.028	0.028	0.057
	User	-	100	0.019	0.019	0.076
	User	-	100	0.013	0.013	0.089
	User	-	100	0.008	0.008	0.097
7.001	User	-	110	0.010	0.011	0.011
	User	-	110	0.006	0.006	0.017
	User	-	110	0.002	0.002	0.019
	User	-	110	0.013	0.014	0.034
	User	-	110	0.004	0.005	0.039
	User	-	110	0.008	0.008	0.047
	User	-	110	0.004	0.004	0.051
	User	-	110	0.007	0.007	0.058
	User	-	110	0.002	0.002	0.061
	User	-	110	0.007	0.008	0.068
	User	-	100	0.004	0.004	0.072

GTA Civils Ltd		Page 22
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
	User	-	110	0.002	0.002	0.067
	User	-	110	0.007	0.007	0.075
	User	-	100	0.061	0.061	0.136
	User	-	100	0.008	0.008	0.144
	User	-	100	0.008	0.008	0.152
	User	-	100	0.001	0.001	0.154
7.006	-	-	100	0.000	0.000	0.000
1.017	-	-	100	0.123	0.123	0.123
1.018	-	-	100	0.000	0.000	0.000
1.019	-	-	100	0.000	0.000	0.000
1.020	-	-	100	0.067	0.067	0.067
1.021	-	-	100	0.000	0.000	0.000
1.022	-	-	100	0.000	0.000	0.000
1.023	-	-	100	0.080	0.080	0.080
1.024	-	-	100	0.000	0.000	0.000
1.025	-	-	100	0.000	0.000	0.000
8.000	User	-	110	0.006	0.006	0.006
	User	-	110	0.004	0.004	0.011
	User	-	110	0.006	0.006	0.017
	User	-	110	0.013	0.014	0.031
	User	-	110	0.002	0.002	0.034
	User	-	100	0.001	0.001	0.035
	User	-	100	0.006	0.006	0.041
	User	-	100	0.008	0.008	0.048
	User	-	100	0.022	0.022	0.071
8.001	User	-	110	0.010	0.011	0.011

GTA Civils Ltd		Page 23
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
	User	-	100	0.032	0.032	0.043
	User	-	100	0.030	0.030	0.073
8.002	-	-	100	0.000	0.000	0.000
8.003	User	-	110	0.006	0.006	0.006
	User	-	110	0.014	0.016	0.022
	User	-	100	0.027	0.027	0.050
8.004	User	-	110	0.031	0.034	0.034
	User	-	100	0.014	0.014	0.049
	User	-	100	0.026	0.026	0.075
	User	-	100	0.018	0.018	0.093
8.005	User	-	110	0.021	0.023	0.023
	User	-	110	0.002	0.002	0.025
	User	-	100	0.049	0.049	0.074
8.006	User	-	100	0.020	0.020	0.020
9.000	User	-	110	0.006	0.006	0.006
	User	-	110	0.004	0.004	0.011
	User	-	110	0.010	0.011	0.022
	User	-	110	0.004	0.004	0.026
	User	-	110	0.005	0.005	0.031
	User	-	100	0.007	0.007	0.039
	User	-	100	0.008	0.008	0.047
	User	-	100	0.021	0.021	0.067
8.007	-	-	100	0.000	0.000	0.000
8.008	User	-	110	0.002	0.003	0.003
	User	-	110	0.010	0.011	0.013
	User	-	110	0.006	0.006	0.020

GTA Civils Ltd		Page 26
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
	User	-	100	0.007	0.007	0.170
	User	-	100	0.026	0.026	0.195
	User	-	100	0.006	0.006	0.201
	User	-	100	0.005	0.005	0.206
	User	-	100	0.002	0.002	0.208
8.010	User	-	110	0.006	0.006	0.006
	User	-	110	0.004	0.004	0.011
	User	-	110	0.006	0.006	0.017
	User	-	110	0.002	0.002	0.019
	User	-	100	0.005	0.005	0.024
	User	-	100	0.009	0.009	0.033
	User	-	100	0.013	0.013	0.046
	User	-	100	0.010	0.010	0.056
12.000	User	-	110	0.009	0.010	0.010
	User	-	110	0.002	0.002	0.012
	User	-	110	0.007	0.007	0.019
	User	-	110	0.002	0.002	0.021
	User	-	110	0.007	0.007	0.028
	User	-	110	0.004	0.004	0.033
	User	-	110	0.006	0.006	0.039
	User	-	100	0.008	0.008	0.047
	User	-	100	0.027	0.027	0.074
	User	-	100	0.023	0.023	0.097
12.001	-	-	100	0.000	0.000	0.000
12.002	User	-	110	0.006	0.006	0.006
	User	-	110	0.011	0.013	0.019

GTA Civils Ltd		Page 27
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
	User	-	100	0.015	0.015	0.034
	User	-	100	0.021	0.021	0.055
	User	-	100	0.009	0.009	0.064
	User	-	100	0.008	0.008	0.072
8.011	User	-	100	0.002	0.002	0.002
8.012	User	-	110	0.002	0.002	0.002
	User	-	110	0.011	0.012	0.014
	User	-	110	0.002	0.002	0.016
	User	-	110	0.006	0.006	0.023
	User	-	110	0.002	0.002	0.025
	User	-	100	0.003	0.003	0.028
	User	-	100	0.004	0.004	0.032
	User	-	100	0.004	0.004	0.036
	User	-	100	0.008	0.008	0.044
8.013	User	-	110	0.008	0.008	0.008
	User	-	110	0.004	0.004	0.013
	User	-	110	0.007	0.008	0.020
	User	-	100	0.014	0.014	0.034
	User	-	100	0.018	0.018	0.052
	User	-	100	0.021	0.021	0.073
13.000	User	-	110	0.002	0.002	0.002
	User	-	110	0.008	0.008	0.011
	User	-	110	0.002	0.002	0.013
	User	-	110	0.008	0.009	0.022
	User	-	110	0.002	0.002	0.024
	User	-	110	0.007	0.008	0.031

GTA Civils Ltd		Page 28
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
	User	-	100	0.004	0.004	0.035
	User	-	100	0.004	0.004	0.039
	User	-	100	0.004	0.004	0.043
	User	-	110	0.003	0.003	0.046
	User	-	110	0.014	0.015	0.061
	User	-	100	0.036	0.036	0.097
	User	-	100	0.010	0.010	0.107
8.014	-	-	100	0.000	0.000	0.000
8.015	-	-	100	0.000	0.000	0.000
14.000	User	-	110	0.007	0.007	0.007
	User	-	110	0.002	0.002	0.010
	User	-	110	0.004	0.004	0.014
	User	-	100	0.005	0.005	0.019
	User	-	100	0.005	0.005	0.024
	User	-	100	0.015	0.015	0.039
14.001	User	-	110	0.007	0.007	0.007
	User	-	110	0.013	0.014	0.022
	User	-	110	0.002	0.002	0.024
	User	-	110	0.006	0.006	0.030
	User	-	100	0.045	0.045	0.075
	User	-	100	0.012	0.012	0.088
15.000	User	-	110	0.019	0.021	0.021
	User	-	100	0.037	0.037	0.058
	User	-	100	0.023	0.023	0.081
15.001	User	-	110	0.006	0.006	0.006
	User	-	110	0.004	0.004	0.011

GTA Civils Ltd		Page 29
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Area Summary for Surface Network 1

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
	User	-	110	0.003	0.003	0.014
	User	-	100	0.004	0.004	0.018
	User	-	100	0.008	0.008	0.025
	User	-	100	0.018	0.018	0.043
14.002	User	-	110	0.008	0.009	0.009
	User	-	110	0.004	0.004	0.013
	User	-	110	0.006	0.006	0.020
	User	-	100	0.008	0.008	0.028
14.003	-	-	100	0.000	0.000	0.000
1.026	-	-	100	0.244	0.244	0.244
1.027	-	-	100	0.000	0.000	0.000
1.028	-	-	100	0.000	0.000	0.000
1.029	-	-	100	0.000	0.000	0.000
1.030	-	-	100	0.000	0.000	0.000
16.000	User	-	100	0.006	0.006	0.006
	User	-	100	0.009	0.009	0.016
	User	-	100	0.004	0.004	0.020
	User	-	100	0.002	0.002	0.022
	User	-	100	0.008	0.008	0.030
16.001	User	-	110	0.020	0.022	0.022
	User	-	110	0.015	0.017	0.039
	User	-	100	0.002	0.002	0.041
	User	-	100	0.054	0.054	0.095
	User	-	100	0.015	0.015	0.110
	User	-	100	0.010	0.010	0.119
16.002	-	-	100	0.000	0.000	0.000

GTA Civils Ltd		Page 31
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Online Controls for Surface Network 1

Hydro-Brake® Optimum Manhole: SWMH1.19, DS/PN: 1.024, Volume (m³): 8.6

Unit Reference	MD-SHE-0128-8000-1231-8000	Sump Available	Yes
Design Head (m)	1.231	Diameter (mm)	128
Design Flow (l/s)	8.0	Invert Level (m)	4.860
Flush-Flo™	Calculated	Minimum Outlet Pipe Diameter (mm)	150
Objective	Minimise upstream storage	Suggested Manhole Diameter (mm)	1200
Application	Surface		

Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	1.231	8.0	Kick-Flo®	0.780	6.5
Flush-Flo™	0.362	8.0	Mean Flow over Head Range	-	7.0

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)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	4.6	0.600	7.6	1.600	9.0	2.600	11.4	5.000	15.5	7.500	18.9
0.200	7.5	0.800	6.5	1.800	9.6	3.000	12.2	5.500	16.3	8.000	19.5
0.300	7.9	1.000	7.3	2.000	10.0	3.500	13.1	6.000	16.9	8.500	20.0
0.400	8.0	1.200	7.9	2.200	10.5	4.000	14.0	6.500	17.6	9.000	20.6
0.500	7.9	1.400	8.5	2.400	11.0	4.500	14.8	7.000	18.2	9.500	21.1

GTA Civils Ltd		Page 32																																																																									
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E																																																																										
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR																																																																										
XP Solutions																																																																											
Network 2020.1																																																																											
<u>Hydro-Brake® Optimum Manhole: SWMH1.24, DS/PN: 1.031, Volume (m³): 42.2</u>																																																																											
<table><tr><td>Unit Reference</td><td>MD-SHE-0165-1460-1549-1460</td><td>Sump Available</td><td>Yes</td></tr><tr><td>Design Head (m)</td><td>1.549</td><td>Diameter (mm)</td><td>165</td></tr><tr><td>Design Flow (l/s)</td><td>14.6</td><td>Invert Level (m)</td><td>4.470</td></tr><tr><td>Flush-Flo™</td><td>Calculated</td><td>Minimum Outlet Pipe Diameter (mm)</td><td>225</td></tr><tr><td>Objective</td><td>Minimise upstream storage</td><td>Suggested Manhole Diameter (mm)</td><td>1500</td></tr><tr><td>Application</td><td>Surface</td><td></td><td></td></tr></table>				Unit Reference	MD-SHE-0165-1460-1549-1460	Sump Available	Yes	Design Head (m)	1.549	Diameter (mm)	165	Design Flow (l/s)	14.6	Invert Level (m)	4.470	Flush-Flo™	Calculated	Minimum Outlet Pipe Diameter (mm)	225	Objective	Minimise upstream storage	Suggested Manhole Diameter (mm)	1500	Application	Surface																																																		
Unit Reference	MD-SHE-0165-1460-1549-1460	Sump Available	Yes																																																																								
Design Head (m)	1.549	Diameter (mm)	165																																																																								
Design Flow (l/s)	14.6	Invert Level (m)	4.470																																																																								
Flush-Flo™	Calculated	Minimum Outlet Pipe Diameter (mm)	225																																																																								
Objective	Minimise upstream storage	Suggested Manhole Diameter (mm)	1500																																																																								
Application	Surface																																																																										
<table><tr><td>Control Points</td><td>Head (m)</td><td>Flow (l/s)</td><td>Control Points</td><td>Head (m)</td><td>Flow (l/s)</td></tr><tr><td>Design Point (Calculated)</td><td>1.549</td><td>14.6</td><td>Kick-Flo®</td><td>0.982</td><td>11.8</td></tr><tr><td>Flush-Flo™</td><td>0.458</td><td>14.6</td><td>Mean Flow over Head Range</td><td>-</td><td>12.7</td></tr></table>				Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)	Design Point (Calculated)	1.549	14.6	Kick-Flo®	0.982	11.8	Flush-Flo™	0.458	14.6	Mean Flow over Head Range	-	12.7																																																						
Control Points	Head (m)	Flow (l/s)	Control Points	Head (m)	Flow (l/s)																																																																						
Design Point (Calculated)	1.549	14.6	Kick-Flo®	0.982	11.8																																																																						
Flush-Flo™	0.458	14.6	Mean Flow over Head Range	-	12.7																																																																						
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																																																																											
<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><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>5.9</td><td>0.600</td><td>14.4</td><td>1.600</td><td>14.8</td><td>2.600</td><td>18.7</td><td>5.000</td><td>25.5</td><td>7.500</td><td>31.0</td></tr><tr><td>0.200</td><td>13.1</td><td>0.800</td><td>13.7</td><td>1.800</td><td>15.7</td><td>3.000</td><td>20.0</td><td>5.500</td><td>26.7</td><td>8.000</td><td>32.0</td></tr><tr><td>0.300</td><td>14.2</td><td>1.000</td><td>11.9</td><td>2.000</td><td>16.5</td><td>3.500</td><td>21.5</td><td>6.000</td><td>27.9</td><td>8.500</td><td>33.0</td></tr><tr><td>0.400</td><td>14.5</td><td>1.200</td><td>12.9</td><td>2.200</td><td>17.2</td><td>4.000</td><td>22.9</td><td>6.500</td><td>29.0</td><td>9.000</td><td>33.9</td></tr><tr><td>0.500</td><td>14.6</td><td>1.400</td><td>13.9</td><td>2.400</td><td>18.0</td><td>4.500</td><td>24.3</td><td>7.000</td><td>30.0</td><td>9.500</td><td>34.8</td></tr></table>				Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	0.100	5.9	0.600	14.4	1.600	14.8	2.600	18.7	5.000	25.5	7.500	31.0	0.200	13.1	0.800	13.7	1.800	15.7	3.000	20.0	5.500	26.7	8.000	32.0	0.300	14.2	1.000	11.9	2.000	16.5	3.500	21.5	6.000	27.9	8.500	33.0	0.400	14.5	1.200	12.9	2.200	17.2	4.000	22.9	6.500	29.0	9.000	33.9	0.500	14.6	1.400	13.9	2.400	18.0	4.500	24.3	7.000	30.0	9.500	34.8
Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)																																																																
0.100	5.9	0.600	14.4	1.600	14.8	2.600	18.7	5.000	25.5	7.500	31.0																																																																
0.200	13.1	0.800	13.7	1.800	15.7	3.000	20.0	5.500	26.7	8.000	32.0																																																																
0.300	14.2	1.000	11.9	2.000	16.5	3.500	21.5	6.000	27.9	8.500	33.0																																																																
0.400	14.5	1.200	12.9	2.200	17.2	4.000	22.9	6.500	29.0	9.000	33.9																																																																
0.500	14.6	1.400	13.9	2.400	18.0	4.500	24.3	7.000	30.0	9.500	34.8																																																																
©1982-2020 Innovyze																																																																											

GTA Civils Ltd		Page 33
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

Storage Structures for Surface Network 1

Porous Car Park Manhole: SWMH1.1, DS/PN: 1.000

Infiltration Coefficient Base (m/hr)	0.00000	Porosity	0.30	Slope (1:X)	0.0
Membrane Percolation (mm/hr)	1000	Invert Level (m)	6.755	Depression Storage (mm)	5
Max Percolation (l/s)	84.5	Width (m)	7.8	Evaporation (mm/day)	3
Safety Factor	2.0	Length (m)	39.0	Cap Volume Depth (m)	0.450

Tank or Pond Manhole: Headwall 3, DS/PN: 1.017

Invert Level (m) 4.985

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	569.8	0.301	701.0	0.601	837.3	0.901	978.7	1.201	1125.2	1.415	1232.8
0.101	613.0	0.401	745.9	0.701	883.9	1.001	1026.9	1.301	1175.1		
0.201	656.7	0.501	791.3	0.801	931.0	1.101	1075.8	1.401	1225.6		

Tank or Pond Manhole: Headwall 5, DS/PN: 1.020

Invert Level (m) 4.945

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	311.2	0.301	375.5	0.601	444.8	0.901	519.3	1.201	598.9	1.455	670.3
0.101	332.0	0.401	398.0	0.701	469.1	1.001	545.3	1.301	626.6		
0.201	353.5	0.501	421.1	0.801	493.9	1.101	571.8	1.401	654.8		

GTA Civils Ltd		Page 35
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

Simulation Criteria

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

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
 Number of Online Controls 2 Number of Storage Structures 6 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Data Type Point
 FEH Rainfall Version 2013 Cv (Summer) 1.000
 Site Location GB 490175 99535 SZ 90175 99535 Cv (Winter) 1.000

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

Profile(s) Summer and Winter
 Duration(s) (mins) 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880
 Return Period(s) (years) 2, 10, 30, 100
 Climate Change (%) 0, 0, 0, 40

		Water Surcharged			Flooded		Half Drain		Pipe	
US/MH	US/CL	Level	Depth	Volume	Maximum	Time	Flow			
PN	Name	Event	(m)	(m)	(m ³)	Vol (m ³)	(mins)	(l/s)	Status	

GTA Civils Ltd		Page 36
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Maximum Vol (m³)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	SWMH1.1	30 minute 2 year Summer I+0%	7.729	6.519	-0.201	0.000	0.134	7	15.5	OK
1.001	SWMH1.2	30 minute 2 year Summer I+0%	7.631	6.447	-0.173	0.000	0.483		20.2	OK
2.000	SWMH2.1	30 minute 2 year Summer I+0%	7.675	6.454	-0.216	0.000	0.113		9.6	OK
1.002	SWMH1.3	30 minute 2 year Summer I+0%	7.485	6.410	-0.150	0.000	0.970		31.9	OK
1.003	SWMH1.4	30 minute 2 year Summer I+0%	7.637	6.337	-0.138	0.000	0.676		36.6	OK
1.004	SWMH1.5	30 minute 2 year Summer I+0%	7.364	6.263	-0.087	0.000	1.240		56.0	OK
1.005	SWMH1.6	30 minute 2 year Summer I+0%	7.404	6.080	-0.155	0.000	0.711		58.3	OK
1.006	SWMH1.7	30 minute 2 year Summer I+0%	7.544	6.044	-0.141	0.000	0.960		66.7	OK
1.007	SWMH1.8	30 minute 2 year Summer I+0%	7.400	5.912	-0.223	0.000	0.858		72.6	OK
1.008	SWMH1.9	30 minute 2 year Summer I+0%	7.211	5.877	-0.218	0.000	2.282		82.0	OK
3.000	SWMH3.1	30 minute 2 year Summer I+0%	7.608	6.443	-0.232	0.000	0.090		14.2	OK
3.001	SWMH3.2	30 minute 2 year Summer I+0%	7.621	6.422	-0.228	0.000	0.165		18.3	OK
3.002	SWMH3.3	30 minute 2 year Summer I+0%	7.577	6.299	-0.211	0.000	0.428		26.5	OK
3.003	SWMH3.4	30 minute 2 year Summer I+0%	7.403	6.107	-0.243	0.000	0.407		50.0	OK
3.004	SWMH3.5	30 minute 2 year Summer I+0%	7.246	6.040	-0.235	0.000	1.294		63.6	OK
3.005	SWMH3.6	30 minute 2 year Summer I+0%	7.109	5.913	-0.202	0.000	2.456		80.5	OK
1.009	SWMH1.10	30 minute 2 year Summer I+0%	7.079	5.733	-0.332	0.000	1.868		160.5	OK
4.000	SWMH4.1	30 minute 2 year Summer I+0%	7.086	5.909	-0.201	0.000	0.134		15.6	OK
1.010	SWMH1.11	30 minute 2 year Summer I+0%	7.152	5.704	-0.321	0.000	8.222		165.6	OK
1.011	SWMH1.12	30 minute 2 year Summer I+0%	7.270	5.662	-0.338	0.000	5.646		164.4	OK
5.000	SWMH5.1	30 minute 2 year Summer I+0%	7.167	5.630	-0.440	0.000	0.274		19.3	OK
5.001	SWMH5.2	30 minute 2 year Summer I+0%	6.987	5.629	-0.391	0.000	1.679		25.4	OK
5.002	SWMH5.3	30 minute 2 year Summer I+0%	7.256	5.628	-0.347	0.000	1.847		31.4	OK
1.012	SWMH1.13	30 minute 2 year Summer I+0%	7.168	5.626	-0.319	0.000	13.477		171.6	OK

GTA Civils Ltd		Page 38
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m ³)	Maximum Vol (m ³)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
8.000	SWMH8.1	30 minute 2 year Summer I+0%	7.343	5.700	-0.310	0.000	0.194		13.5	OK
8.001	SWMH8.2	30 minute 2 year Summer I+0%	7.235	5.686	-0.299	0.000	0.457		25.0	OK
8.002	SWMH8.3	30 minute 2 year Summer I+0%	7.030	5.647	-0.283	0.000	0.891		24.8	OK
8.003	SWMH8.4	30 minute 2 year Summer I+0%	7.031	5.619	-0.276	0.000	0.705		32.4	OK
8.004	SWMH8.5	30 minute 2 year Summer I+0%	7.089	5.595	-0.275	0.000	0.509		46.8	OK
8.005	SWMH8.6	30 minute 2 year Summer I+0%	7.641	5.339	-0.391	0.000	1.128		54.9	OK
8.006	SWMH8.7	30 minute 2 year Summer I+0%	7.512	5.327	-0.368	0.000	4.812		53.8	OK
9.000	SWMH9.1	30 minute 2 year Summer I+0%	7.319	5.577	-0.223	0.000	0.081		13.0	OK
8.007	SWMH8.8	30 minute 2 year Summer I+0%	7.412	5.323	-0.357	0.000	2.145		60.3	OK
8.008	SWMH8.9	30 minute 2 year Summer I+0%	7.251	5.313	-0.347	0.000	2.919		61.2	OK
10.000	SWMH10.1	30 minute 2 year Summer I+0%	6.774	5.624	-0.216	0.000	0.113		10.2	OK
10.001	SWMH10.2	30 minute 2 year Summer I+0%	6.797	5.349	-0.441	0.000	0.273		28.9	OK
10.002	SWMH10.3	30 minute 2 year Summer I+0%	6.818	5.320	-0.420	0.000	1.268		39.0	OK
8.009	SWMH8.10	30 minute 2 year Summer I+0%	7.025	5.305	-0.335	0.000	5.335		91.9	OK
11.000	SWMH11.1	30 minute 2 year Summer I+0%	7.098	5.301	-0.419	0.000	0.311		13.2	OK
11.001	SWMH11.2	30 minute 2 year Summer I+0%	6.848	5.300	-0.370	0.000	1.897		44.0	OK
8.010	SWMH8.11	30 minute 2 year Summer I+0%	6.648	5.272	-0.308	0.000	13.755		121.9	OK
12.000	SWMH12.1	30 minute 2 year Summer I+0%	7.089	5.569	-0.181	0.000	0.163		18.7	OK
12.001	SWMH12.2	30 minute 2 year Summer I+0%	7.142	5.529	-0.191	0.000	0.204		18.7	OK
12.002	SWMH12.3	30 minute 2 year Summer I+0%	6.925	5.258	-0.377	0.000	0.518		28.8	OK
8.011	SWMH8.12	30 minute 2 year Summer I+0%	6.679	5.246	-0.314	0.000	8.887		136.8	OK
8.012	SWMH8.13	30 minute 2 year Summer I+0%	6.730	5.208	-0.322	0.000	4.374		138.8	OK
8.013	SWMH8.14	30 minute 2 year Summer I+0%	6.407	5.159	-0.326	0.000	7.316		144.5	OK
13.000	SWMH13.1	30 minute 2 year Summer I+0%	6.533	5.375	-0.185	0.000	0.157		20.7	OK

GTA Civils Ltd		Page 39
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m ³)	Maximum Vol (m ³)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
8.014	SWCP8.15	30 minute 2 year Summer	I+0% 6.424	5.150	-0.325	0.000	1.880		150.3	OK
8.015	Headwall 10	600 minute 2 year Winter	I+0% 6.200	5.109	-0.501	0.000	2.547		32.8	OK
14.000	SWMH14.1	600 minute 2 year Winter	I+0% 7.276	5.107	-0.453	0.000	0.252		0.9	OK
14.001	SWMH14.2	600 minute 2 year Winter	I+0% 7.076	5.107	-0.403	0.000	1.456		2.9	OK
15.000	SWMH15.1	30 minute 2 year Summer	I+0% 6.568	5.387	-0.193	0.000	0.145		15.6	OK
15.001	SWMH15.2	30 minute 2 year Summer	I+0% 6.695	5.347	-0.173	0.000	0.406		22.8	OK
14.002	SWCP14.3	600 minute 2 year Winter	I+0% 6.831	5.108	-0.352	0.000	2.308		6.3	OK
14.003	Headwall 9	600 minute 2 year Winter	I+0% 6.200	5.108	-0.632	0.000	1.378		6.2	OK
1.026	Headwall 11	600 minute 2 year Winter	I+0% 6.200	5.108	-0.442	0.000	446.038		14.9	OK
1.027	SWMH1.20	600 minute 2 year Winter	I+0% 6.075	5.106	-0.432	0.000	3.556		14.6	OK
1.028	SWMH1.21	600 minute 2 year Winter	I+0% 6.980	5.101	-0.405	0.000	9.330		14.1	OK
1.029	SWMH1.22	600 minute 2 year Winter	I+0% 6.460	5.090	-0.361	0.000	17.544		14.3	OK
1.030	SWMH1.23	600 minute 2 year Winter	I+0% 6.796	5.085	-0.338	0.000	9.976		14.4	OK
16.000	SWMH16.1	30 minute 2 year Summer	I+0% 6.683	5.552	-0.163	0.000	0.081		5.6	OK
16.001	SWMH16.2	30 minute 2 year Summer	I+0% 6.703	5.513	-0.087	0.000	0.405	7	25.3	OK
16.002	SWMH16.3	30 minute 2 year Summer	I+0% 6.975	5.375	-0.070	0.000	0.492		25.2	OK
16.003	SWCP16.4	30 minute 2 year Summer	I+0% 7.000	5.347	-0.048	0.000	0.599		27.9	OK
1.031	SWMH1.24	600 minute 2 year Winter	I+0% 6.850	5.072	0.302	0.000	20.884		14.5	SURCHARGED

GTA Civils Ltd		Page 40
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions		Network 2020.1

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

Simulation Criteria

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

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
 Number of Online Controls 2 Number of Storage Structures 6 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Data Type Point
 FEH Rainfall Version 2013 Cv (Summer) 1.000
 Site Location GB 490175 99535 SZ 90175 99535 Cv (Winter) 1.000

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

Profile(s) Summer and Winter
 Duration(s) (mins) 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880
 Return Period(s) (years) 2, 10, 30, 100
 Climate Change (%) 0, 0, 0, 40

US/MH		US/CL		Water Level		Surcharged Depth		Flooded Volume		Maximum		Half Drain Time		Pipe Flow	
PN	Name	Event	(m)	(m)	(m)	(m³)	Vol	(m³)	(m³)	(m³)	(mins)	(l/s)	Status		

©1982-2020 Innovyze

GTA Civils Ltd		Page 41
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Maximum Vol (m³)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	SWMH1.1	30 minute 10 year Summer I+0%	7.729	6.731	0.011	0.000	0.439	5	24.1	SURCHARGED
1.001	SWMH1.2	30 minute 10 year Summer I+0%	7.631	6.669	0.049	0.000	1.893		28.9	SURCHARGED
2.000	SWMH2.1	30 minute 10 year Summer I+0%	7.675	6.616	-0.054	0.000	0.344		14.4	OK
1.002	SWMH1.3	30 minute 10 year Summer I+0%	7.485	6.593	0.033	0.000	2.767		41.1	SURCHARGED
1.003	SWMH1.4	30 minute 10 year Summer I+0%	7.637	6.510	0.035	0.000	1.637		46.5	SURCHARGED
1.004	SWMH1.5	30 minute 10 year Summer I+0%	7.364	6.422	0.072	0.000	2.389		82.9	SURCHARGED
1.005	SWMH1.6	30 minute 10 year Summer I+0%	7.404	6.282	0.047	0.000	2.173		80.0	SURCHARGED
1.006	SWMH1.7	30 minute 10 year Summer I+0%	7.544	6.198	0.013	0.000	1.711		94.9	SURCHARGED
1.007	SWMH1.8	30 minute 10 year Summer I+0%	7.400	6.029	-0.106	0.000	1.572		107.1	OK
1.008	SWMH1.9	30 minute 10 year Summer I+0%	7.211	5.998	-0.097	0.000	3.535		127.5	OK
3.000	SWMH3.1	30 minute 10 year Summer I+0%	7.608	6.466	-0.209	0.000	0.124		23.5	OK
3.001	SWMH3.2	30 minute 10 year Summer I+0%	7.621	6.448	-0.202	0.000	0.228		32.0	OK
3.002	SWMH3.3	30 minute 10 year Summer I+0%	7.577	6.333	-0.177	0.000	0.791		47.2	OK
3.003	SWMH3.4	30 minute 10 year Summer I+0%	7.403	6.171	-0.179	0.000	0.928		92.6	OK
3.004	SWMH3.5	30 minute 10 year Summer I+0%	7.246	6.107	-0.168	0.000	2.375		119.0	OK
3.005	SWMH3.6	30 minute 10 year Summer I+0%	7.109	6.007	-0.108	0.000	5.449		147.8	OK
1.009	SWMH1.10	30 minute 10 year Summer I+0%	7.079	5.916	-0.149	0.000	4.874		269.0	OK
4.000	SWMH4.1	30 minute 10 year Summer I+0%	7.086	5.941	-0.169	0.000	0.180		25.8	OK
1.010	SWMH1.11	30 minute 10 year Summer I+0%	7.152	5.882	-0.143	0.000	12.660		279.0	OK
1.011	SWMH1.12	30 minute 10 year Summer I+0%	7.270	5.854	-0.146	0.000	8.746		274.7	OK
5.000	SWMH5.1	30 minute 10 year Summer I+0%	7.167	5.821	-0.249	0.000	0.611		31.3	OK
5.001	SWMH5.2	30 minute 10 year Summer I+0%	6.987	5.816	-0.204	0.000	4.649		37.6	OK
5.002	SWMH5.3	30 minute 10 year Summer I+0%	7.256	5.807	-0.168	0.000	4.048		45.0	OK
1.012	SWMH1.13	30 minute 10 year Summer I+0%	7.168	5.797	-0.148	0.000	20.689		284.7	OK

GTA Civils Ltd		Page 44
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m ³)	Maximum Vol (m ³)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
8.014	SWCP8.15	30 minute 10 year Summer I+0%	6.424	5.284	-0.191	0.000	2.830		256.3	OK
8.015	Headwall 10	600 minute 10 year Winter I+0%	6.200	5.256	-0.354	0.000	3.855		43.5	OK
14.000	SWMH14.1	600 minute 10 year Winter I+0%	7.276	5.254	-0.306	0.000	0.511		1.2	OK
14.001	SWMH14.2	600 minute 10 year Winter I+0%	7.076	5.254	-0.256	0.000	3.604		3.8	OK
15.000	SWMH15.1	30 minute 10 year Summer I+0%	6.568	5.431	-0.149	0.000	0.210		26.0	OK
15.001	SWMH15.2	30 minute 10 year Summer I+0%	6.695	5.400	-0.120	0.000	0.665		40.4	OK
14.002	SWCP14.3	600 minute 10 year Winter I+0%	6.831	5.254	-0.206	0.000	4.732		8.4	OK
14.003	Headwall 9	600 minute 10 year Winter I+0%	6.200	5.254	-0.486	0.000	2.457		8.1	OK
1.026	Headwall 11	600 minute 10 year Winter I+0%	6.200	5.254	-0.296	0.000	666.800		15.2	OK
1.027	SWMH1.20	600 minute 10 year Winter I+0%	6.075	5.252	-0.286	0.000	5.159		14.8	OK
1.028	SWMH1.21	600 minute 10 year Winter I+0%	6.980	5.245	-0.261	0.000	13.449		14.2	OK
1.029	SWMH1.22	600 minute 10 year Winter I+0%	6.460	5.228	-0.223	0.000	24.168		14.4	OK
1.030	SWMH1.23	600 minute 10 year Winter I+0%	6.796	5.222	-0.201	0.000	13.380		14.4	OK
16.000	SWMH16.1	30 minute 10 year Summer I+0%	6.683	5.798	0.083	0.000	0.433		9.7	SURCHARGED
16.001	SWMH16.2	30 minute 10 year Summer I+0%	6.703	5.782	0.182	0.000	1.243	5	42.8	SURCHARGED
16.002	SWMH16.3	30 minute 10 year Summer I+0%	6.975	5.566	0.121	0.000	1.312		42.8	SURCHARGED
16.003	SWCP16.4	30 minute 10 year Summer I+0%	7.000	5.474	0.079	0.000	0.996		47.7	SURCHARGED
1.031	SWMH1.24	600 minute 10 year Winter I+0%	6.850	5.202	0.432	0.000	26.872		14.5	SURCHARGED

GTA Civils Ltd		Page 46
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Maximum Vol (m³)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
1.000	SWMH1.1	30 minute 30 year Summer I+0%	7.729	6.800	0.080	0.000	4.621	5	27.4	SURCHARGED
1.001	SWMH1.2	30 minute 30 year Summer I+0%	7.631	6.793	0.173	0.000	2.172		30.5	SURCHARGED
2.000	SWMH2.1	30 minute 30 year Summer I+0%	7.675	6.804	0.134	0.000	0.613		19.7	SURCHARGED
1.002	SWMH1.3	30 minute 30 year Summer I+0%	7.485	6.783	0.223	0.000	3.236		47.2	SURCHARGED
1.003	SWMH1.4	30 minute 30 year Summer I+0%	7.637	6.703	0.228	0.000	1.998		55.1	SURCHARGED
1.004	SWMH1.5	30 minute 30 year Summer I+0%	7.364	6.621	0.271	0.000	2.784		101.1	SURCHARGED
1.005	SWMH1.6	30 minute 30 year Summer I+0%	7.404	6.336	0.101	0.000	2.322		108.1	SURCHARGED
1.006	SWMH1.7	30 minute 30 year Summer I+0%	7.544	6.248	0.063	0.000	1.840		129.6	SURCHARGED
1.007	SWMH1.8	30 minute 30 year Summer I+0%	7.400	6.135	0.000	0.000	2.140		144.5	OK
1.008	SWMH1.9	30 minute 30 year Summer I+0%	7.211	6.100	0.005	0.000	4.387		170.4	SURCHARGED
3.000	SWMH3.1	30 minute 30 year Summer I+0%	7.608	6.482	-0.193	0.000	0.146		30.5	OK
3.001	SWMH3.2	30 minute 30 year Summer I+0%	7.621	6.464	-0.186	0.000	0.277		41.5	OK
3.002	SWMH3.3	30 minute 30 year Summer I+0%	7.577	6.354	-0.156	0.000	1.108		61.3	OK
3.003	SWMH3.4	30 minute 30 year Summer I+0%	7.403	6.238	-0.112	0.000	2.123		117.7	OK
3.004	SWMH3.5	30 minute 30 year Summer I+0%	7.246	6.202	-0.073	0.000	4.037		148.5	OK
3.005	SWMH3.6	30 minute 30 year Summer I+0%	7.109	6.143	0.028	0.000	9.749		184.1	SURCHARGED
1.009	SWMH1.10	30 minute 30 year Summer I+0%	7.079	6.065	0.000	0.000	7.287		327.1	OK
4.000	SWMH4.1	30 minute 30 year Summer I+0%	7.086	6.061	-0.049	0.000	0.352		33.5	OK
1.010	SWMH1.11	30 minute 30 year Summer I+0%	7.152	6.028	0.003	0.000	15.930		335.6	SURCHARGED
1.011	SWMH1.12	30 minute 30 year Summer I+0%	7.270	6.000	0.000	0.000	10.676		323.2	OK
5.000	SWMH5.1	30 minute 30 year Summer I+0%	7.167	6.019	-0.051	0.000	0.961		39.4	OK
5.001	SWMH5.2	30 minute 30 year Summer I+0%	6.987	5.995	-0.025	0.000	7.286		44.4	OK
5.002	SWMH5.3	30 minute 30 year Summer I+0%	7.256	5.962	-0.013	0.000	5.745		52.6	OK
1.012	SWMH1.13	30 minute 30 year Summer I+0%	7.168	5.924	-0.021	0.000	25.263		334.8	OK

GTA Civils Ltd		Page 48
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Maximum Vol (m³)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
8.000	SWMH8.1	30 minute 30 year Summer I+0%	7.343	5.869	-0.141	0.000	0.435		29.1	OK
8.001	SWMH8.2	30 minute 30 year Summer I+0%	7.235	5.864	-0.121	0.000	1.350		59.1	OK
8.002	SWMH8.3	30 minute 30 year Summer I+0%	7.030	5.837	-0.093	0.000	2.681		58.7	OK
8.003	SWMH8.4	30 minute 30 year Summer I+0%	7.031	5.817	-0.078	0.000	2.021		77.5	OK
8.004	SWMH8.5	30 minute 30 year Summer I+0%	7.089	5.798	-0.072	0.000	1.406		110.1	OK
8.005	SWMH8.6	30 minute 30 year Summer I+0%	7.641	5.730	0.000	0.000	9.312		102.5	OK
8.006	SWMH8.7	30 minute 30 year Summer I+0%	7.512	5.695	0.000	0.000	11.342		91.1	OK
9.000	SWMH9.1	30 minute 30 year Summer I+0%	7.319	5.689	-0.111	0.000	0.208		28.0	OK
8.007	SWMH8.8	30 minute 30 year Summer I+0%	7.412	5.680	0.000	0.000	5.029		104.7	OK
8.008	SWMH8.9	30 minute 30 year Summer I+0%	7.251	5.660	0.000	0.000	6.181		102.7	OK
10.000	SWMH10.1	30 minute 30 year Summer I+0%	6.774	5.805	-0.035	0.000	0.372		22.0	OK
10.001	SWMH10.2	30 minute 30 year Summer I+0%	6.797	5.790	0.000	0.000	1.701		68.0	OK
10.002	SWMH10.3	30 minute 30 year Summer I+0%	6.818	5.728	-0.012	0.000	7.108		84.0	OK
8.009	SWMH8.10	30 minute 30 year Summer I+0%	7.025	5.637	-0.003	0.000	13.391		161.1	OK
11.000	SWMH11.1	30 minute 30 year Summer I+0%	7.098	5.638	-0.082	0.000	0.907		26.6	OK
11.001	SWMH11.2	30 minute 30 year Summer I+0%	6.848	5.610	-0.060	0.000	6.461		98.0	OK
8.010	SWMH8.11	30 minute 30 year Summer I+0%	6.648	5.527	-0.053	0.000	27.103		230.8	OK
12.000	SWMH12.1	30 minute 30 year Summer I+0%	7.089	5.639	-0.111	0.000	0.263		40.3	OK
12.001	SWMH12.2	30 minute 30 year Summer I+0%	7.142	5.628	-0.092	0.000	0.457		40.2	OK
12.002	SWMH12.3	30 minute 30 year Summer I+0%	6.925	5.597	-0.038	0.000	1.986		63.2	OK
8.011	SWMH8.12	30 minute 30 year Summer I+0%	6.679	5.504	-0.056	0.000	17.648		265.4	OK
8.012	SWMH8.13	30 minute 30 year Summer I+0%	6.730	5.457	-0.073	0.000	7.852		267.1	OK
8.013	SWMH8.14	30 minute 30 year Summer I+0%	6.407	5.390	-0.095	0.000	13.031		280.0	OK
13.000	SWMH13.1	30 minute 30 year Summer I+0%	6.533	5.440	-0.120	0.000	0.251		44.5	OK

GTA Civils Ltd		Page 49
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Maximum Vol (m³)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
8.014	SWCP8.15	30 minute 30 year Summer I+0%	6.424	5.373	-0.102	0.000	3.651		303.1	OK
8.015	Headwall 10	600 minute 30 year Winter I+0%	6.200	5.362	-0.248	0.000	4.740		51.1	OK
14.000	SWMH14.1	720 minute 30 year Winter I+0%	7.276	5.358	-0.202	0.000	0.694		1.3	OK
14.001	SWMH14.2	720 minute 30 year Winter I+0%	7.076	5.358	-0.152	0.000	5.197		3.8	OK
15.000	SWMH15.1	30 minute 30 year Summer I+0%	6.568	5.465	-0.115	0.000	0.257		33.7	OK
15.001	SWMH15.2	30 minute 30 year Summer I+0%	6.695	5.436	-0.084	0.000	0.839		52.4	OK
14.002	SWCP14.3	720 minute 30 year Winter I+0%	6.831	5.358	-0.102	0.000	6.669		8.5	OK
14.003	Headwall 9	720 minute 30 year Winter I+0%	6.200	5.358	-0.382	0.000	3.197		8.2	OK
1.026	Headwall 11	720 minute 30 year Winter I+0%	6.200	5.358	-0.192	0.000	839.070		15.0	OK
1.027	SWMH1.20	720 minute 30 year Winter I+0%	6.075	5.356	-0.182	0.000	6.263		14.6	OK
1.028	SWMH1.21	720 minute 30 year Winter I+0%	6.980	5.345	-0.161	0.000	16.195		14.3	OK
1.029	SWMH1.22	720 minute 30 year Winter I+0%	6.460	5.321	-0.130	0.000	28.273		14.4	OK
1.030	SWMH1.23	720 minute 30 year Winter I+0%	6.796	5.311	-0.112	0.000	15.425		14.4	OK
16.000	SWMH16.1	30 minute 30 year Summer I+0%	6.683	5.932	0.217	0.000	0.626		11.7	SURCHARGED
16.001	SWMH16.2	30 minute 30 year Summer I+0%	6.703	5.910	0.310	0.000	2.726	3	49.6	SURCHARGED
16.002	SWMH16.3	30 minute 30 year Summer I+0%	6.975	5.641	0.196	0.000	1.436		49.8	SURCHARGED
16.003	SWCP16.4	30 minute 30 year Summer I+0%	7.000	5.521	0.126	0.000	1.116		56.0	SURCHARGED
1.031	SWMH1.24	600 minute 30 year Summer I+0%	6.850	5.280	0.510	0.000	30.258		14.5	SURCHARGED

GTA Civils Ltd		Page 50
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

Simulation Criteria

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

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 2 Number of Storage Structures 6 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Data Type Point
FEH Rainfall Version 2013 Cv (Summer) 1.000
Site Location GB 490175 99535 SZ 90175 99535 Cv (Winter) 1.000

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

Profile(s) Summer and Winter
Duration(s) (mins) 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880
Return Period(s) (years) 2, 10, 30, 100
Climate Change (%) 0, 0, 0, 40

		Water		Surcharged		Flooded		Half Drain		Pipe
US/MH		US/CL	Level	Depth	Volume	Maximum		Time		Flow
PN	Name	Event	(m)	(m)	(m³)	Vol (m³)	(mins)	(l/s)	Status	

©1982-2020 Innovyze

GTA Civils Ltd		Page 54
Gloucester House 66a Church Walk Burgess Hill, BN43 6LB	10768 - Sefter Road Simulation Network 1 Revision E	
Date 03/01/2023 File 10768_Network 1_revE - 03.01.23.MDX	Designed by DT Checked by MR	
XP Solutions	Network 2020.1	

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

PN	US/MH Name	Event	US/CL (m)	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Maximum Vol (m³)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
8.014	SWCP8.15	30 minute 100 year Summer I+40%	6.424	5.813	0.338	0.000	5.675		684.3	SURCHARGED
8.015	Headwall 10	960 minute 100 year Winter I+40%	6.200	5.804	0.194	0.000	6.577		64.6	SURCHARGED
14.000	SWMH14.1	960 minute 100 year Winter I+40%	7.276	5.804	0.244	0.000	1.482		1.7	SURCHARGED
14.001	SWMH14.2	960 minute 100 year Winter I+40%	7.076	5.804	0.294	0.000	8.161		5.2	SURCHARGED
15.000	SWMH15.1	960 minute 100 year Winter I+40%	6.568	5.804	0.224	0.000	0.743		3.7	SURCHARGED
15.001	SWMH15.2	960 minute 100 year Winter I+40%	6.695	5.804	0.284	0.000	1.692		5.6	SURCHARGED
14.002	SWCP14.3	960 minute 100 year Winter I+40%	6.831	5.804	0.344	0.000	9.655		11.3	SURCHARGED
14.003	Headwall 9	960 minute 100 year Winter I+40%	6.200	5.804	0.064	0.000	4.793		11.1	SURCHARGED
1.026	Headwall 11	960 minute 100 year Winter I+40%	6.200	5.804	0.254	0.000	1643.221		130.2	SURCHARGED
1.027	SWMH1.20	480 minute 100 year Winter I+40%	6.075	5.843	0.305	0.000	9.100		168.1	FLOOD RISK
1.028	SWMH1.21	360 minute 100 year Winter I+40%	6.980	5.989	0.483	0.000	22.307		146.4	SURCHARGED
1.029	SWMH1.22	360 minute 100 year Winter I+40%	6.460	6.097	0.646	0.000	36.855		112.6	SURCHARGED
1.030	SWMH1.23	360 minute 100 year Winter I+40%	6.796	6.098	0.676	0.000	20.321		78.3	SURCHARGED
16.000	SWMH16.1	30 minute 100 year Summer I+40%	6.683	6.063	0.348	0.000	0.814		20.8	SURCHARGED
16.001	SWMH16.2	30 minute 100 year Summer I+40%	6.703	6.016	0.416	0.000	17.209	8	54.3	SURCHARGED
16.002	SWMH16.3	480 minute 100 year Winter I+40%	6.975	6.042	0.597	0.000	1.890		35.1	SURCHARGED
16.003	SWCP16.4	480 minute 100 year Winter I+40%	7.000	6.111	0.716	0.000	2.618		38.9	SURCHARGED
1.031	SWMH1.24	480 minute 100 year Winter I+40%	6.850	6.154	1.384	0.000	38.990		14.6	SURCHARGED