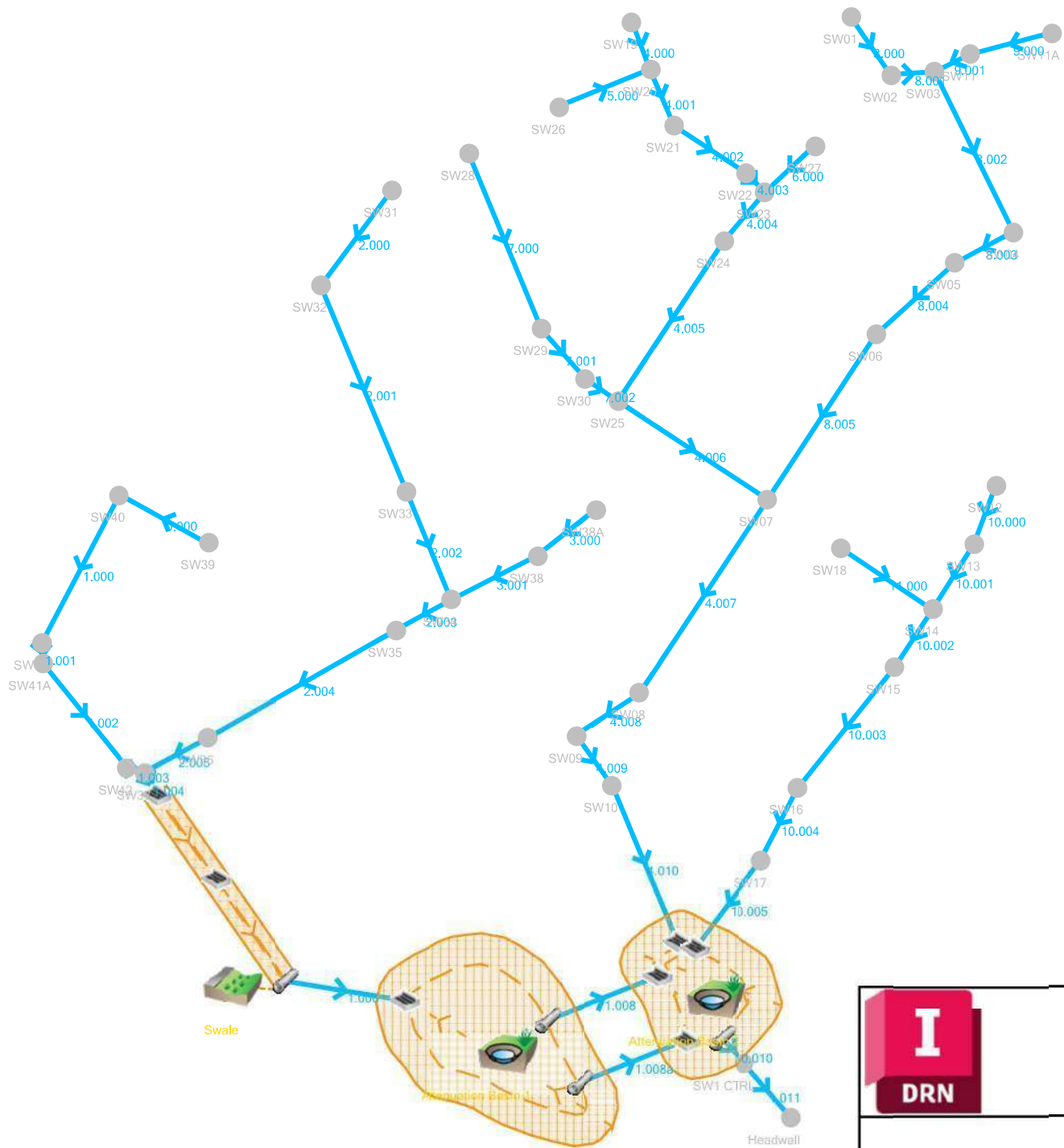




Date: 26/06/2024 08:24:24
Designed by:
Checked by:
File: Surface Water Network 1.iddx
Plot Scale: 1:2001
Surface Water Network 1
InfoDrainage 2025.2
©2024 Autodesk, Inc. All rights reserved

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	Company Address:		



Name	Junction Type	Easting (m)	Northing (m)	Sealed	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape
SW39	Manhole	495483.771	104104.477	☐	7.060	1.425	5.635	Circular
SW40	Manhole	495454.133	104120.026	☐	6.850	1.500	5.350	Circular
SW41A	Manhole	495429.204	104064.688	☐	5.330	1.575	3.755	Circular
SW42	Manhole	495456.648	104030.343	☐	5.560	2.016	3.544	Circular
SW37	Manhole	495462.705	104028.764	☐	5.750	2.226	3.524	Circular
SW36	Manhole	495483.193	104040.354	☐	6.510	1.650	4.860	Circular
SW35	Manhole	495545.399	104075.543	☐	7.300	1.855	5.445	Circular
SW34	Manhole	495563.464	104085.763	☐	7.505	1.793	5.712	Circular
SW38	Manhole	495592.011	104099.993	☐	7.725	1.675	6.050	Circular
SW33	Manhole	495548.778	104121.223	☐	7.795	1.816	5.979	Circular
SW32	Manhole	495520.673	104189.081	☐	8.035	1.500	6.535	Circular
SW31	Manhole	495544.033	104220.267	☐	8.450	1.425	7.025	Circular
SW28	Manhole	495569.381	104232.405	☐	8.770	1.605	7.165	Circular
SW29	Manhole	495593.216	104174.862	☐	8.010	1.585	6.425	Circular
SW30	Manhole	495607.540	104158.293	☐	7.760	1.590	6.170	Circular
SW25	Manhole	495618.554	104151.003	☐	7.705	2.184	5.521	Circular
SW24	Manhole	495653.376	104203.614	☐	7.475	1.725	5.750	Circular
SW23	Manhole	495666.604	104219.664	☐	7.665	1.816	5.849	Circular
SW22	Manhole	495660.530	104225.930	☐	7.685	1.725	5.960	Circular
SW27	Manhole	495683.329	104234.759	☐	7.800	1.495	6.305	Circular
SW21	Manhole	495636.848	104241.604	☐	8.165	1.570	6.595	Circular
SW20	Manhole	495629.206	104260.055	☐	8.495	1.525	6.970	Circular
SW19	Manhole	495622.810	104275.496	☐	8.675	1.532	7.143	Circular
SW26	Manhole	495599.064	104247.569	☐	8.720	1.425	7.295	Circular
SW07	Manhole	495667.420	104118.660	☐	7.050	4.099	2.951	Circular
SW06	Manhole	495703.386	104172.999	☐	7.415	3.871	3.544	Circular
SW05	Manhole	495729.096	104196.521	☐	7.025	3.178	3.847	Circular
SW04	Manhole	495748.412	104206.446	☐	6.840	1.600	5.240	Circular
SW03	Manhole	495722.433	104259.327	☐	7.760	1.833	5.927	Circular
SW11	Manhole	495734.215	104265.115	☐	7.635	1.555	6.080	Circular
SW02	Manhole	495708.300	104258.113	☐	7.790	1.455	6.335	Circular
SW01	Manhole	495695.151	104277.309	☐	8.135	1.545	6.590	Circular
SW08	Manhole	495625.358	104055.111	☐	6.755	4.009	2.746	Circular
SW09	Manhole	495604.805	104040.799	☐	6.965	4.482	2.483	Circular
SW10	Manhole	495616.341	104024.534	☐	6.680	4.229	2.451	Circular
SW17	Manhole	495665.329	103999.833	☐	5.500	3.009	2.491	Circular
SW16	Manhole	495677.398	104023.801	☐	5.245	2.688	2.557	Circular
SW15	Manhole	495709.315	104063.463	☐	4.570	1.781	2.789	Circular
SW14	Manhole	495721.980	104082.598	☐	4.760	1.900	2.860	Circular
SW18	Manhole	495691.677	104102.604	☐	6.345	1.425	4.920	Circular
SW13	Manhole	495735.540	104103.959	☐	4.985	1.946	3.039	Circular
SW12	Manhole	495742.816	104123.180	☐	4.755	1.595	3.160	Circular
SW38A	Manhole	495611.239	104115.159	☐	7.710	1.515	6.195	Circular
SW1 CTRL	Manhole	495659.689	103933.448	☐	4.350	2.042	2.308	Circular
Headwall	Manhole	495675.144	103915.717	☐	3.000	0.830	2.170	Circular
SW41	Manhole	495428.849	104071.414	☐	5.480	1.575	3.905	Circular
SW11A	Manhole	495761.252	104271.924	☐	7.325	1.081	6.244	Circular

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrsp	Checked by:	Approved By:
Report Details: Type: Junctions Storm Phase: Phase	Company Address:		



Name	Diameter (m)	Lock
SW39	1.350	None
SW40	1.350	None
SW41A	1.350	None
SW42	1.350	None
SW37	1.350	None
SW36	1.350	None
SW35	1.350	None
SW34	1.350	None
SW38	1.350	None
SW33	1.350	None
SW32	1.350	None
SW31	1.350	None
SW28	1.350	None
SW29	1.350	None
SW30	1.350	None
SW25	1.200	None
SW24	1.350	None
SW23	1.350	None
SW22	1.350	None
SW27	1.350	None
SW21	1.350	None
SW20	1.350	None
SW19	1.350	None
SW26	1.350	None
SW07	1.500	None
SW06	1.500	None
SW05	1.350	None
SW04	1.350	None
SW03	1.200	None
SW11	1.350	None
SW02	1.350	None
SW01	1.350	None
SW08	1.500	None
SW09	1.800	None
SW10	1.800	None
SW17	1.350	None
SW16	1.350	None
SW15	1.350	None
SW14	1.350	None
SW18	1.350	None
SW13	1.200	None
SW12	1.350	None
SW38A	1.350	None
SW1 CTRL	1.800	None
Headwall	0.001	None
SW41	1.350	None
SW11A	1.350	None

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		





Attenuation Basin 1

Type : Pond

Dimensions

Exceedance Level (m)	4.350
Depth (m)	1.900
Base Level (m)	2.450
Freeboard (mm)	300
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	17.923
Total Volume (m³)	3407.360

Depth (m)	Area (m²)	Volume (m³)
0.000	0.001	0.000
0.100	0.001	0.000
0.200	0.001	0.000
0.300	1799.000	60.012
0.400	1886.000	244.244
0.500	1974.000	437.228
0.600	2064.000	639.111
0.700	2156.000	850.094
0.800	2249.000	1070.328
0.900	2737.000	1319.229
1.000	2798.000	1595.973
1.100	2860.000	1878.868
1.200	2923.000	2168.012
1.300	2986.000	2463.456
1.400	3092.000	2767.341
1.500	3200.000	3081.926
1.600	3309.000	3407.360
1.700	3420.000	3743.795
1.800	3533.000	4091.430
1.900	3647.000	4450.415

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	1.006
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	3640m2 Basin 1 Area
Bypass Destination	(None)
Capacity Type	No Restriction

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		



Outlets

Outlet

Outgoing Connection	1.008
Outlet Type	Free Discharge

Outlet (1)

Outgoing Connection	1.008a
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	89.436
Friction Scheme	Manning's n
n	0.03



Attenuation Basin 2

Type : Pond

Dimensions

Exceedance Level (m)	4.350
Depth (m)	2.000
Base Level (m)	2.350
Freeboard (mm)	300
Initial Depth (m)	0.000
Porosity (%)	100
Average Slope (1:X)	12.438
Total Volume (m³)	1671.833

Depth (m)	Area (m²)	Volume (m³)
0.000	0.001	0.000
0.100	0.001	0.000
0.200	0.001	0.000
0.300	682.000	22.761
0.400	713.000	92.505
0.500	765.000	166.390
0.600	820.000	245.624
0.700	876.000	330.409
0.800	934.000	420.893
0.900	993.000	517.228
1.000	1317.000	632.348
1.100	1359.000	766.142
1.200	1401.000	904.137
1.300	1443.000	1046.332
1.400	1486.000	1192.776
1.500	1559.000	1345.012
1.600	1634.000	1504.647
1.700	1710.000	1671.833
1.800	1787.000	1846.669
1.900	1866.000	2029.304
2.000	1947.000	2219.940

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		



Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	4.010
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	10.005
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (2)

Inlet Type	Point Inflow
Incoming Item(s)	1.008
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (3)

Inlet Type	Point Inflow
Incoming Item(s)	1.008a
Bypass Destination	(None)
Capacity Type	No Restriction

Inlet (4)

Inlet Type	Point Inflow
Incoming Item(s)	1947m2 Basin 2 Area
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	10.010
Outlet Type	Free Discharge

Advanced

Perimeter	Circular
Length (m)	55.138
Friction Scheme	Manning's n
n	0.03

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address:		





Swale

Type : Swale

Swale

Exceedance Level (m)	4.360
Depth (m)	1.310
Base Level (m)	3.050
Top Width (m)	8.400
Side Slope (1:X)	3.00
Base Width (m)	0.540
Freeboard (mm)	300
Length (m)	75.113
Long. Slope (1:X)	190.159
Filtration Rate (m/hr)	0.0
Friction Scheme	Manning's n
n	0.03
Total Volume (m³)	270.835

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	1.004
Bypass Destination	(None)
Inlet Destination	Ponding Area
Capacity Type	No Restriction

Inlet (1)

Inlet Type	Point Inflow
Incoming Item(s)	710m2 Swale Area
Bypass Destination	(None)
Inlet Destination	Ponding Area
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	1.006
Outlet Type	Free Discharge

Advanced

Swale

Porosity (%)	100
--------------	-----

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	Company Address:		



Name	From	To	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)
0.000	SW39	SW40	33.470	Pipe	159.379		0.6	225
1.002	SW41A	SW42	43.963	Pipe	323.260		0.6	375
1.003	SW42	SW37	6.260	Pipe	312.984		0.6	450
2.000	SW31	SW32	38.965	Pipe	93.891		0.6	225
2.002	SW33	SW34	38.382	Pipe	143.752		0.6	375
3.000	SW38A	SW38	24.489	Pipe	168.890		0.6	225
3.001	SW38	SW34	31.897	Pipe	169.666		0.6	225
2.003	SW34	SW35	20.756	Pipe	108.102		0.6	375
2.004	SW35	SW36	71.469	Pipe	122.169		0.6	450
2.005	SW36	SW37	23.539	Pipe	17.619		0.6	450
4.000	SW19	SW20	16.713	Pipe	170.539		0.6	225
5.000	SW26	SW20	32.626	Pipe	130.503		0.6	225
4.001	SW20	SW21	19.971	Pipe	53.255		0.6	300
4.002	SW21	SW22	28.399	Pipe	50.712		0.6	300
4.003	SW22	SW23	8.727	Pipe	242.418		0.6	375
6.000	SW27	SW23	22.530	Pipe	97.532		0.6	225
4.004	SW23	SW24	20.798	Pipe	210.085		0.6	450
4.005	SW24	SW25	63.091	Pipe	409.684		0.6	450
7.000	SW28	SW29	62.284	Pipe	93.660		0.6	225
7.001	SW29	SW30	21.902	Pipe	85.891		0.6	300
7.002	SW30	SW25	13.208	Pipe	31.151		0.6	300
4.006	SW25	SW07	58.600	Pipe	23.487		0.6	525
8.000	SW01	SW02	23.267	Pipe	91.245		0.6	225
8.001	SW02	SW03	14.184	Pipe	42.596		0.6	225
9.001	SW11	SW03	13.127	Pipe	168.298		0.6	225
8.002	SW03	SW04	58.917	Pipe	96.270		0.6	300
8.003	SW04	SW05	21.717	Pipe	16.477		0.6	375
8.004	SW05	SW06	34.846	Pipe	152.833		0.6	450
8.005	SW06	SW07	65.164	Pipe	125.800		0.6	525
4.007	SW07	SW08	76.208	Pipe	586.215		0.6	600
4.008	SW08	SW09	25.045	Pipe	133.219		0.6	675
4.009	SW09	SW10	19.940	Pipe	623.120		0.6	750
4.010	SW10	Attenuation Basin 2	55.579	Pipe	610.755		0.6	750
10.000	SW12	SW13	20.552	Pipe	169.851		0.6	300
10.001	SW13	SW14	25.302	Pipe	243.286		0.6	300
10.002	SW14	SW15	22.947	Pipe	323.192		0.6	375
10.003	SW15	SW16	50.910	Pipe	324.265		0.6	375
10.004	SW16	SW17	26.834	Pipe	406.583		0.6	450
10.005	SW17	Attenuation Basin 2	35.931	Pipe	274.280		0.6	450
11.000	SW18	SW14	36.311	Pipe	19.011		0.6	225
1.006	Swale	Attenuation Basin 1	39.624	Pipe	132.080		0.6	450
1.008	Attenuation Basin 1	Attenuation Basin 2	39.097	Pipe	434.411		0.6	600
1.008a	Attenuation Basin 1	Attenuation Basin 2	37.218	Pipe	413.531		0.6	600
10.010	Attenuation Basin 2	SW1 CTRL	10.951	Pipe	260.738		0.6	750
1.011	SW1 CTRL	Headwall	23.521	Pipe	170.442		0.6	225
1.004	SW37	Swale	8.068	Pipe	65.062		0.6	450
2.001	SW32	SW33	73.447	Pipe	152.697		0.6	300
1.000	SW40	SW41	54.794	Pipe	39.996		0.6	300
1.001	SW41	SW41A	6.735	Pipe	44.900		0.6	375
9.000	SW11A	SW11	27.881	Pipe	170.008		0.6	225

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrsp	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	Company Address:		



Name	Upstream Cover Level (m)	Upstream Invert Level (m)	Downstream Cover Level (m)	Downstream Invert Level (m)	Lock	Min. Cover Depth (m)	Min. Downstream Invert Level (m)	Flow Restriction (L/s)
0.000	7.060	5.635	6.850	5.425	All	0.000	0.000	
1.002	5.330	3.755	5.560	3.619	All	0.000	0.000	
1.003	5.560	3.544	5.750	3.524	All	0.000	0.000	
2.000	8.450	7.025	8.035	6.610	All	0.000	0.000	
2.002	7.795	5.979	7.505	5.712	All	0.000	0.000	
3.000	7.710	6.195	7.725	6.050	All	0.000	0.000	
3.001	7.725	6.050	7.505	5.862	All	0.000	0.000	
2.003	7.505	5.712	7.300	5.520	All	0.000	0.000	
2.004	7.300	5.445	6.510	4.860	All	0.000	0.000	
2.005	6.510	4.860	5.750	3.524	All	0.000	0.000	
4.000	8.675	7.143	8.495	7.045	All	0.000	0.000	
5.000	8.720	7.295	8.495	7.045	All	0.000	0.000	
4.001	8.495	6.970	8.165	6.595	All	0.000	0.000	
4.002	8.165	6.595	7.685	6.035	All	0.000	0.000	
4.003	7.685	5.960	7.665	5.924	All	0.000	0.000	
6.000	7.800	6.305	7.665	6.074	All	0.000	0.000	
4.004	7.665	5.849	7.475	5.750	All	0.000	0.000	
4.005	7.475	5.750	7.705	5.596	All	0.000	0.000	
7.000	8.770	7.165	8.010	6.500	All	0.000	0.000	
7.001	8.010	6.425	7.760	6.170	All	0.000	0.000	
7.002	7.760	6.170	7.705	5.746	All	0.000	0.000	
4.006	7.705	5.521	7.050	3.026	All	0.000	0.000	
8.000	8.135	6.590	7.790	6.335	All	0.000	0.000	
8.001	7.790	6.335	7.760	6.002	All	0.000	0.000	
9.001	7.635	6.080	7.760	6.002	All	0.000	0.000	
8.002	7.760	5.927	6.840	5.315	All	0.000	0.000	
8.003	6.840	5.240	7.025	3.922	All	0.000	0.000	
8.004	7.025	3.847	7.415	3.619	All	0.000	0.000	
8.005	7.415	3.544	7.050	3.026	All	0.000	0.000	
4.007	7.050	2.951	6.755	2.821	All	0.000	0.000	
4.008	6.755	2.746	6.965	2.558	All	0.000	0.000	
4.009	6.965	2.483	6.680	2.451	All	0.000	0.000	
4.010	6.680	2.451	4.350	2.360	All	0.000	0.000	
10.000	4.755	3.160	4.985	3.039	All	0.000	0.000	
10.001	4.985	3.039	4.760	2.935	All	0.000	0.000	
10.002	4.760	2.860	4.570	2.789	All	0.000	0.000	
10.003	4.570	2.789	5.245	2.632	All	0.000	0.000	
10.004	5.245	2.557	5.500	2.491	All	0.000	0.000	
10.005	5.500	2.491	4.350	2.360	All	0.000	0.000	
11.000	6.345	4.920	4.760	3.010	All	0.000	0.000	
1.006	4.360	3.050	4.350	2.750	All	0.000	0.000	
1.008	4.350	2.450	4.350	2.360	All	0.000	0.000	
1.008a	4.350	2.450	4.350	2.360	All	0.000	0.000	
10.010	4.350	2.350	4.350	2.308	All	0.000	0.000	
1.011	4.350	2.308	3.000	2.170	All	0.000	0.000	14.2
1.004	5.750	3.524	4.700	3.400	All	0.000	0.000	
2.001	8.035	6.535	7.795	6.054	All	0.000	0.000	
1.000	6.850	5.350	5.480	3.980	All	0.000	0.000	
1.001	5.480	3.905	5.330	3.755	All	0.000	0.000	
9.000	7.325	6.244	7.635	6.080	All	0.000	0.000	

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrsp	Checked by:	Approved By:
Report Details: Type: Connections Storm Phase: Phase	Company Address:		



Name	Velocity (m/s)
0.000	
1.002	
1.003	
2.000	
2.002	
3.000	
3.001	
2.003	
2.004	
2.005	
4.000	
5.000	
4.001	
4.002	
4.003	
6.000	
4.004	
4.005	
7.000	
7.001	
7.002	
4.006	
8.000	
8.001	
9.001	
8.002	
8.003	
8.004	
8.005	
4.007	
4.008	
4.009	
4.010	
10.000	
10.001	
10.002	
10.003	
10.004	
10.005	
11.000	
1.006	
1.008	
1.008a	
10.010	
1.011	
1.004	
2.001	
1.000	
1.001	
9.000	

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Inflow Summary Storm Phase: Phase	Company Address:		



Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
0.000	SW39		Time of Concentration	0.093	100	0	100	0.093
1.000	SW40		Time of Concentration	0.136	100	0	100	0.136
1.002	SW41A		Time of Concentration	0.088	100	0	100	0.088
1.003	SW42		Time of Concentration	0.017	100	0	100	0.017
1.004	SW37		Time of Concentration	0.051	100	0	100	0.051
2.000	SW31		Time of Concentration	0.059	100	0	100	0.059
2.001	SW32		Time of Concentration	0.092	100	0	100	0.092
2.002	SW33		Time of Concentration	0.174	100	0	100	0.174
2.003	SW34		Time of Concentration	0.043	100	0	100	0.043
2.004	SW35		Time of Concentration	0.173	100	0	100	0.173
2.005	SW36		Time of Concentration	0.114	100	0	100	0.114
3.000	SW38A		Time of Concentration	0.059	100	0	100	0.059
3.001	SW38		Time of Concentration	0.052	100	0	100	0.052
4.000	SW19		Time of Concentration	0.022	100	0	100	0.022
4.001	SW20		Time of Concentration	0.105	100	0	100	0.105
4.002	SW21		Time of Concentration	0.116	100	0	100	0.116
4.003	SW22		Time of Concentration	0.008	100	0	100	0.008
4.004	SW23		Time of Concentration	0.087	100	0	100	0.087
4.005	SW24		Time of Concentration	0.161	100	0	100	0.161
4.006	SW25		Time of Concentration	0.145	100	0	100	0.145
4.007	SW07		Time of Concentration	0.260	100	0	100	0.260
4.008	SW08		Time of Concentration	0.165	100	0	100	0.165
4.009	SW09		Time of Concentration	0.026	100	0	100	0.026
4.010	SW10		Time of Concentration	0.053	100	0	100	0.053
5.000	SW26		Time of Concentration	0.052	100	0	100	0.052
6.000	SW27		Time of Concentration	0.088	100	0	100	0.088
7.000	SW28		Time of Concentration	0.094	100	0	100	0.094
7.001	SW29		Time of Concentration	0.117	100	0	100	0.117
7.002	SW30		Time of Concentration	0.065	100	0	100	0.065
8.000	SW01		Time of Concentration	0.080	100	0	100	0.080
8.001	SW02		Time of Concentration	0.057	100	0	100	0.057
8.002	SW03		Time of Concentration	0.048	100	0	100	0.048
8.003	SW04		Time of Concentration	0.123	100	0	100	0.123

Project: Surface Water Network 1		Date: 26/06/2024			
		Designed by: chrisp	Checked by:		Approved By:
Report Details: Type: Inflow Summary Storm Phase: Phase		Company Address:			

8.004	SW05		Time of Concentration	0.102	100	0	100	0.102
8.005	SW06		Time of Concentration	0.141	100	0	100	0.141
9.000	SW11A		Time of Concentration	0.040	100	0	100	0.040
9.001	SW11		Time of Concentration	0.054	100	0	100	0.054
10.000	SW12		Time of Concentration	0.101	100	0	100	0.101
10.001	SW13		Time of Concentration	0.035	100	0	100	0.035
10.002	SW14		Time of Concentration	0.039	100	0	100	0.039
10.003	SW15		Time of Concentration	0.100	100	0	100	0.100
10.004	SW16		Time of Concentration	0.061	100	0	100	0.061
10.005	SW17		Time of Concentration	0.066	100	0	100	0.066
11.000	SW18		Time of Concentration	0.067	100	0	100	0.067
710m2 Swale Area	Swale		Time of Concentration	0.071	100	0	100	0.071
1947m2 Basin 2 Area	Attenuation Basin 2		Time of Concentration	0.195	100	0	100	0.195
3640m2 Basin 1 Area	Attenuation Basin 1		Time of Concentration	0.364	100	0	100	0.364
TOTAL		0.0		4.459				4.459

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address:		



Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	1.200
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Manhole Options

Apply Offset	☐
--------------	--------------------------

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrsp	Checked by:	Approved By:
Report Details: Type: Outfall Details Storm Phase: Phase	Company Address:		



Outfalls

Outfall	Outfall Type	Fixed Surcharged Level (m)	Level Curve
Headwall	Fixed Surcharged Level	2.395	
FEH : 100 years: +45 %: 15 mins: Summer		2.395	
FEH : 100 years: +45 %: 15 mins: Winter		2.395	
FEH : 30 years: +45 %: 15 mins: Summer		2.395	
FEH : 30 years: +45 %: 15 mins: Winter		2.395	
FEH : 2 years: +0 %: 15 mins: Summer		2.395	
FEH : 2 years: +0 %: 15 mins: Winter		2.395	
FEH : 100 years: +45 %: 30 mins: Summer		2.395	
FEH : 100 years: +45 %: 30 mins: Winter		2.395	
FEH : 30 years: +45 %: 30 mins: Summer		2.395	
FEH : 30 years: +45 %: 30 mins: Winter		2.395	
FEH : 2 years: +0 %: 30 mins: Summer		2.395	
FEH : 2 years: +0 %: 30 mins: Winter		2.395	
FEH : 100 years: +45 %: 60 mins: Summer		2.395	
FEH : 100 years: +45 %: 60 mins: Winter		2.395	
FEH : 30 years: +45 %: 60 mins: Summer		2.395	
FEH : 30 years: +45 %: 60 mins: Winter		2.395	
FEH : 2 years: +0 %: 60 mins: Summer		2.395	
FEH : 2 years: +0 %: 60 mins: Winter		2.395	
FEH : 100 years: +45 %: 120 mins: Summer		2.395	
FEH : 100 years: +45 %: 120 mins: Winter		2.395	
FEH : 30 years: +45 %: 120 mins: Summer		2.395	
FEH : 30 years: +45 %: 120 mins: Winter		2.395	
FEH : 2 years: +0 %: 120 mins: Summer		2.395	
FEH : 2 years: +0 %: 120 mins: Winter		2.395	
FEH : 100 years: +45 %: 180 mins: Summer		2.395	
FEH : 100 years: +45 %: 180 mins: Winter		2.395	
FEH : 30 years: +45 %: 180 mins: Summer		2.395	
FEH : 30 years: +45 %: 180 mins: Winter		2.395	
FEH : 2 years: +0 %: 180 mins: Summer		2.395	
FEH : 2 years: +0 %: 180 mins: Winter		2.395	
FEH : 100 years: +45 %: 240 mins: Summer		2.395	
FEH : 100 years: +45 %: 240 mins: Winter		2.395	

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrsp	Checked by:	Approved By:
Report Details: Type: Outfall Details Storm Phase: Phase	Company Address:		



FEH : 30 years: +45 %: 240 mins: Summer		2.395	
FEH : 30 years: +45 %: 240 mins: Winter		2.395	
FEH : 2 years: +0 %: 240 mins: Summer		2.395	
FEH : 2 years: +0 %: 240 mins: Winter		2.395	
FEH : 100 years: +45 %: 360 mins: Summer		2.395	
FEH : 100 years: +45 %: 360 mins: Winter		2.395	
FEH : 30 years: +45 %: 360 mins: Summer		2.395	
FEH : 30 years: +45 %: 360 mins: Winter		2.395	
FEH : 2 years: +0 %: 360 mins: Summer		2.395	
FEH : 2 years: +0 %: 360 mins: Winter		2.395	
FEH : 100 years: +45 %: 480 mins: Summer		2.395	
FEH : 100 years: +45 %: 480 mins: Winter		2.395	
FEH : 30 years: +45 %: 480 mins: Summer		2.395	
FEH : 30 years: +45 %: 480 mins: Winter		2.395	
FEH : 2 years: +0 %: 480 mins: Summer		2.395	
FEH : 2 years: +0 %: 480 mins: Winter		2.395	
FEH : 100 years: +45 %: 600 mins: Summer		2.395	
FEH : 100 years: +45 %: 600 mins: Winter		2.395	
FEH : 30 years: +45 %: 600 mins: Summer		2.395	
FEH : 30 years: +45 %: 600 mins: Winter		2.395	
FEH : 2 years: +0 %: 600 mins: Summer		2.395	
FEH : 2 years: +0 %: 600 mins: Winter		2.395	
FEH : 100 years: +45 %: 720 mins: Summer		2.395	
FEH : 100 years: +45 %: 720 mins: Winter		2.395	
FEH : 30 years: +45 %: 720 mins: Summer		2.395	
FEH : 30 years: +45 %: 720 mins: Winter		2.395	
FEH : 2 years: +0 %: 720 mins: Summer		2.395	
FEH : 2 years: +0 %: 720 mins: Winter		2.395	
FEH : 100 years: +45 %: 960 mins: Summer		2.395	
FEH : 100 years: +45 %: 960 mins: Winter		2.395	
FEH : 30 years: +45 %: 960 mins: Summer		2.395	
FEH : 30 years: +45 %: 960 mins: Winter		2.395	
FEH : 2 years: +0 %: 960 mins: Summer		2.395	
FEH : 2 years: +0 %: 960 mins: Winter		2.395	
FEH : 100 years: +45 %: 1440 mins: Summer		2.395	

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Outfall Details Storm Phase: Phase	Company Address:		



FEH : 100 years: +45 %: 1440 mins: Winter		2.395	
FEH : 30 years: +45 %: 1440 mins: Summer		2.395	
FEH : 30 years: +45 %: 1440 mins: Winter		2.395	
FEH : 2 years: +0 %: 1440 mins: Summer		2.395	
FEH : 2 years: +0 %: 1440 mins: Winter		2.395	
FEH : 100 years: +45 %: 2160 mins: Summer		2.395	
FEH : 100 years: +45 %: 2160 mins: Winter		2.395	
FEH : 30 years: +45 %: 2160 mins: Summer		2.395	
FEH : 30 years: +45 %: 2160 mins: Winter		2.395	
FEH : 2 years: +0 %: 2160 mins: Summer		2.395	
FEH : 2 years: +0 %: 2160 mins: Winter		2.395	
FEH : 100 years: +45 %: 2880 mins: Summer		2.395	
FEH : 100 years: +45 %: 2880 mins: Winter		2.395	
FEH : 30 years: +45 %: 2880 mins: Summer		2.395	
FEH : 30 years: +45 %: 2880 mins: Winter		2.395	
FEH : 2 years: +0 %: 2880 mins: Summer		2.395	
FEH : 2 years: +0 %: 2880 mins: Winter		2.395	
FEH : 100 years: +45 %: 4320 mins: Summer		2.395	
FEH : 100 years: +45 %: 4320 mins: Winter		2.395	
FEH : 30 years: +45 %: 4320 mins: Summer		2.395	
FEH : 30 years: +45 %: 4320 mins: Winter		2.395	
FEH : 2 years: +0 %: 4320 mins: Summer		2.395	
FEH : 2 years: +0 %: 4320 mins: Winter		2.395	
FEH : 100 years: +45 %: 5760 mins: Summer		2.395	
FEH : 100 years: +45 %: 5760 mins: Winter		2.395	
FEH : 30 years: +45 %: 5760 mins: Summer		2.395	
FEH : 30 years: +45 %: 5760 mins: Winter		2.395	
FEH : 2 years: +0 %: 5760 mins: Summer		2.395	
FEH : 2 years: +0 %: 5760 mins: Winter		2.395	
FEH : 100 years: +45 %: 7200 mins: Summer		2.395	
FEH : 100 years: +45 %: 7200 mins: Winter		2.395	
FEH : 30 years: +45 %: 7200 mins: Summer		2.395	
FEH : 30 years: +45 %: 7200 mins: Winter		2.395	
FEH : 2 years: +0 %: 7200 mins: Summer		2.395	
FEH : 2 years: +0 %: 7200 mins: Winter		2.395	

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Outfall Details Storm Phase: Phase	Company Address:		



FEH : 100 years: +45 %: 8640 mins: Summer		2.395	
FEH : 100 years: +45 %: 8640 mins: Winter		2.395	
FEH : 30 years: +45 %: 8640 mins: Summer		2.395	
FEH : 30 years: +45 %: 8640 mins: Winter		2.395	
FEH : 2 years: +0 %: 8640 mins: Summer		2.395	
FEH : 2 years: +0 %: 8640 mins: Winter		2.395	
FEH : 100 years: +45 %: 10080 mins: Summer		2.395	
FEH : 100 years: +45 %: 10080 mins: Winter		2.395	
FEH : 30 years: +45 %: 10080 mins: Summer		2.395	
FEH : 30 years: +45 %: 10080 mins: Winter		2.395	
FEH : 2 years: +0 %: 10080 mins: Summer		2.395	
FEH : 2 years: +0 %: 10080 mins: Winter		2.395	

Project: Surface Water Network 1	Date: 26/06/2024			
	Designed by: chrisp	Checked by:	Approved By:	
Report Title: Rainfall Analysis Criteria	Company Address:			

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall		
FEH		Type: FEH
Site Location	GB 495700 103950 SU 95700 03950	
Rainfall Version	2022	
Summer	☐	
Winter	☐	

Return Period

Return Period (years)	Increase Rainfall (%)
100.0	45.000
30.0	45.000
2.0	0.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880
2160	4320
2880	5760
4320	8640
5760	11520
7200	14400
8640	17280
10080	20160

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrissp	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		





FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SW39	FEH: 100 years: +45 %: 15 mins: Summer	7.060	5.635	7.060	1.425	79.6	2.104	0.065	58.1	34.488	Flood
SW40	FEH: 100 years: +45 %: 15 mins: Summer	6.850	5.350	6.642	1.292	174.4	1.849	0.000	160.3	84.550	Flood Risk
SW41A	FEH: 100 years: +45 %: 15 mins: Summer	5.330	3.755	5.330	1.575	234.1	2.703	0.449	204.0	117.546	Flood
SW42	FEH: 100 years: +45 %: 15 mins: Summer	5.560	3.544	4.822	1.278	218.5	1.829	0.000	215.5	124.895	Surcharged
SW37	FEH: 100 years: +45 %: 15 mins: Summer	5.750	3.524	4.756	1.232	689.4	1.762	0.000	682.3	431.197	Surcharged
SW36	FEH: 100 years: +45 %: 15 mins: Summer	6.510	4.860	5.386	0.526	506.1	0.753	0.000	430.3	287.254	Surcharged
SW35	FEH: 100 years: +45 %: 15 mins: Summer	7.300	5.445	6.698	1.253	424.5	1.793	0.000	408.5	244.333	Surcharged
SW34	FEH: 100 years: +45 %: 15 mins: Summer	7.505	5.712	7.234	1.522	295.3	2.178	0.000	276.5	179.556	Flood Risk
SW38	FEH: 100 years: +45 %: 15 mins: Summer	7.725	6.050	7.592	1.542	74.6	2.206	0.000	78.8	41.318	Flood Risk
SW33	FEH: 100 years: +45 %: 15 mins: Summer	7.795	5.979	7.706	1.727	226.0	2.472	0.000	204.2	121.821	Flood Risk
SW32	FEH: 100 years: +45 %: 15 mins: Summer	8.035	6.535	8.035	1.500	105.5	2.252	0.105	89.2	56.659	Flood
SW31	FEH: 100 years: +45 %: 15 mins: Summer	8.450	7.025	8.185	1.160	50.5	1.659	0.000	46.2	22.039	Flood Risk
SW28	FEH: 100 years: +45 %: 15 mins: Summer	8.770	7.165	8.268	1.103	80.4	1.579	0.000	55.5	34.607	Surcharged
SW29	FEH: 100 years: +45 %: 15 mins: Summer	8.010	6.425	7.577	1.152	155.6	1.648	0.000	131.8	78.780	Surcharged
SW30	FEH: 100 years: +45 %: 30 mins: Summer	7.760	6.170	7.264	1.094	150.6	1.566	0.000	147.6	138.758	Surcharged
SW25	FEH: 100 years: +45 %: 30 mins: Summer	7.705	5.521	6.948	1.427	514.2	1.613	0.000	512.5	533.431	Surcharged
SW24	FEH: 100 years: +45 %: 15 mins: Summer	7.475	5.750	7.479	1.729	308.1	6.461	3.992	383.8	238.999	Flood
SW23	FEH: 100 years: +45 %: 30 mins: Summer	7.665	5.849	7.620	1.771	246.6	2.535	0.000	259.0	240.618	Flood Risk
SW22	FEH: 100 years: +45 %: 15 mins: Summer	7.685	5.960	7.688	1.728	142.2	5.145	2.676	131.7	113.147	Flood
SW27	FEH: 100 years: +45 %: 15 mins: Summer	7.800	6.305	7.800	1.495	46.4	2.371	0.232	45.5	32.717	Flood

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		



SW21	FEH: 100 years: +45 %: 15 mins: Summer	8.165	6.595	8.168	1.573	134.4	5.334	3.087	138.0	109.953	Flood
SW20	FEH: 100 years: +45 %: 30 mins: Summer	8.495	6.970	8.291	1.321	84.3	1.890	0.000	94.1	90.356	Flood Risk
SW19	FEH: 100 years: +45 %: 30 mins: Summer	8.675	7.143	8.295	1.152	12.8	1.649	0.000	15.0	11.238	Surcharged
SW26	FEH: 100 years: +45 %: 30 mins: Summer	8.720	7.295	8.346	1.051	30.2	1.504	0.000	28.0	25.990	Surcharged
SW07	FEH: 100 years: +45 %: 30 mins: Summer	7.050	2.951	6.204	3.253	968.2	5.749	0.000	965.6	961.484	Surcharged
SW06	FEH: 100 years: +45 %: 30 mins: Summer	7.415	3.544	6.472	2.928	306.8	5.174	0.000	304.6	325.287	Surcharged
SW05	FEH: 100 years: +45 %: 30 mins: Summer	7.025	3.847	6.659	2.812	225.9	4.025	0.000	230.0	253.636	Surcharged
SW04	FEH: 100 years: +45 %: 15 mins: Summer	6.840	5.240	6.844	1.604	187.9	6.324	4.035	266.3	150.711	Flood
SW03	FEH: 100 years: +45 %: 30 mins: Summer	7.760	5.927	7.567	1.640	139.1	1.855	0.000	149.4	141.108	Flood Risk
SW11	FEH: 100 years: +45 %: 15 mins: Summer	7.635	6.080	7.639	1.559	49.6	5.802	3.576	36.0	35.785	Flood
SW02	FEH: 100 years: +45 %: 15 mins: Summer	7.790	6.335	7.792	1.457	97.4	4.166	2.084	73.9	50.920	Flood
SW01	FEH: 100 years: +45 %: 30 mins: Summer	8.135	6.590	7.992	1.402	46.5	2.006	0.000	46.9	40.284	Flood Risk
SW08	FEH: 100 years: +45 %: 30 mins: Summer	6.755	2.746	4.545	1.799	1061.4	3.179	0.000	1058.7	1040.370	Surcharged
SW09	FEH: 100 years: +45 %: 30 mins: Summer	6.965	2.483	4.021	1.538	1073.8	3.913	0.000	1070.5	1043.166	Surcharged
SW10	FEH: 100 years: +45 %: 1440 mins: Winter	6.680	2.451	3.914	1.463	80.8	3.724	0.000	80.6	2757.887	Surcharged
SW17	FEH: 100 years: +45 %: 1440 mins: Winter	5.500	2.491	3.914	1.423	20.1	2.037	0.000	20.2	593.688	Surcharged
SW16	FEH: 100 years: +45 %: 1440 mins: Winter	5.245	2.557	3.914	1.357	21.1	1.942	0.000	15.1	504.505	Surcharged
SW15	FEH: 100 years: +45 %: 30 mins: Summer	4.570	2.789	4.021	1.232	178.0	1.762	0.000	176.0	159.939	Surcharged
SW14	FEH: 100 years: +45 %: 30 mins: Summer	4.760	2.860	4.129	1.269	121.9	1.816	0.000	119.9	115.546	Surcharged
SW18	FEH: 100 years: +45 %: 15 mins: Summer	6.345	4.920	5.029	0.109	57.3	0.156	0.000	56.8	24.810	OK
SW13	FEH: 100 years: +45 %: 30 mins: Summer	4.985	3.039	4.219	1.180	62.1	1.335	0.000	60.4	65.634	Surcharged
SW12	FEH: 100 years: +45 %: 30 mins: Summer	4.755	3.160	4.257	1.097	44.4	1.570	0.000	47.6	50.104	Surcharged
SW38A	FEH: 100 years: +45 %: 15 mins: Summer	7.710	6.195	7.680	1.485	50.5	2.130	0.000	41.9	22.037	Flood Risk

Project: Surface Water Network 1		Date: 26/06/2024		
		Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase		Company Address:		



SW1 CTRL	FEH: 100 years: +45 %: 1440 mins: Winter	4.350	2.308	3.914	1.606	14.5	4.087	0.000	14.2	2185.093	Surcharged
Headwall	FEH: 100 years: +45 %: 15 mins: Summer	3.000	2.170	2.395	0.225	14.7	0.000	0.000	14.2	17.456	OK
SW41	FEH: 100 years: +45 %: 15 mins: Summer	5.480	3.905	5.423	1.518	160.3	2.172	0.000	158.8	85.935	Flood Risk
SW11A	FEH: 100 years: +45 %: 15 mins: Summer	7.325	6.244	7.325	1.081	21.1	1.547	0.000	21.1	15.431	Surcharged

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		





FEH: 30 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SW39	FEH: 30 years: +45 %: 15 mins: Summer	7.060	5.635	6.197	0.562	63.7	0.804	0.000	48.9	27.700	Surcharged
SW40	FEH: 30 years: +45 %: 15 mins: Summer	6.850	5.350	5.882	0.532	142.2	0.761	0.000	127.6	67.431	Surcharged
SW41A	FEH: 30 years: +45 %: 15 mins: Summer	5.330	3.755	5.017	1.262	178.7	1.806	0.000	169.9	93.891	Surcharged
SW42	FEH: 30 years: +45 %: 15 mins: Summer	5.560	3.544	4.651	1.107	181.6	1.584	0.000	174.6	99.745	Surcharged
SW37	FEH: 30 years: +45 %: 15 mins: Summer	5.750	3.524	4.603	1.079	615.8	1.544	0.000	609.2	343.260	Surcharged
SW36	FEH: 30 years: +45 %: 15 mins: Summer	6.510	4.860	5.093	0.233	415.0	0.333	0.000	406.2	228.386	OK
SW35	FEH: 30 years: +45 %: 15 mins: Summer	7.300	5.445	6.044	0.599	361.2	0.857	0.000	336.8	194.641	Surcharged
SW34	FEH: 30 years: +45 %: 15 mins: Summer	7.505	5.712	6.476	0.764	255.0	1.093	0.000	242.6	143.007	Surcharged
SW38	FEH: 30 years: +45 %: 15 mins: Summer	7.725	6.050	6.854	0.804	65.3	1.150	0.000	54.2	32.905	Surcharged
SW33	FEH: 30 years: +45 %: 15 mins: Summer	7.795	5.979	6.841	0.862	191.1	1.233	0.000	171.3	97.077	Surcharged
SW32	FEH: 30 years: +45 %: 15 mins: Summer	8.035	6.535	7.222	0.687	86.4	0.982	0.000	71.8	45.113	Surcharged
SW31	FEH: 30 years: +45 %: 15 mins: Summer	8.450	7.025	7.201	0.176	40.4	0.252	0.000	23.4	17.457	OK
SW28	FEH: 30 years: +45 %: 15 mins: Summer	8.770	7.165	7.488	0.323	64.4	0.462	0.000	52.7	27.903	Surcharged
SW29	FEH: 30 years: +45 %: 15 mins: Summer	8.010	6.425	6.826	0.401	132.9	0.574	0.000	126.3	62.885	Surcharged
SW30	FEH: 30 years: +45 %: 15 mins: Summer	7.760	6.170	6.429	0.259	170.8	0.370	0.000	165.6	82.021	OK
SW25	FEH: 30 years: +45 %: 15 mins: Summer	7.705	5.521	5.831	0.310	487.8	0.351	0.000	434.9	315.091	OK
SW24	FEH: 30 years: +45 %: 15 mins: Summer	7.475	5.750	6.507	0.757	274.8	1.084	0.000	276.6	190.461	Surcharged
SW23	FEH: 30 years: +45 %: 15 mins: Summer	7.665	5.849	6.632	0.783	206.0	1.120	0.000	207.1	142.518	Surcharged
SW22	FEH: 30 years: +45 %: 15 mins: Summer	7.685	5.960	6.703	0.743	130.1	1.063	0.000	131.3	90.195	Surcharged
SW27	FEH: 30 years: +45 %: 15 mins: Summer	7.800	6.305	6.773	0.468	37.0	0.669	0.000	38.1	26.172	Surcharged

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		



SW21	FEH: 30 years: +45 %: 15 mins: Summer	8.165	6.595	7.140	0.545	137.4	0.780	0.000	126.7	87.652	Surcharged
SW20	FEH: 30 years: +45 %: 15 mins: Summer	8.495	6.970	7.253	0.283	91.6	0.405	0.000	88.8	53.393	OK
SW19	FEH: 30 years: +45 %: 15 mins: Summer	8.675	7.143	7.261	0.118	15.1	0.168	0.000	14.6	6.594	OK
SW26	FEH: 30 years: +45 %: 15 mins: Summer	8.720	7.295	7.448	0.153	35.6	0.219	0.000	33.1	15.136	OK
SW07	FEH: 30 years: +45 %: 15 mins: Summer	7.050	2.951	5.424	2.473	860.9	4.370	0.000	835.6	569.478	Surcharged
SW06	FEH: 30 years: +45 %: 15 mins: Summer	7.415	3.544	5.664	2.120	274.6	3.747	0.000	290.0	192.681	Surcharged
SW05	FEH: 30 years: +45 %: 15 mins: Summer	7.025	3.847	5.826	1.979	243.4	2.832	0.000	252.2	150.476	Surcharged
SW04	FEH: 30 years: +45 %: 15 mins: Summer	6.840	5.240	5.966	0.726	184.5	1.039	0.000	227.3	120.304	Surcharged
SW03	FEH: 30 years: +45 %: 30 mins: Summer	7.760	5.927	6.472	0.545	107.7	0.617	0.000	103.2	111.879	Surcharged
SW11	FEH: 30 years: +45 %: 15 mins: Summer	7.635	6.080	6.653	0.573	47.8	0.820	0.000	55.8	28.476	Surcharged
SW02	FEH: 30 years: +45 %: 15 mins: Summer	7.790	6.335	6.708	0.373	85.1	0.533	0.000	73.9	40.568	Surcharged
SW01	FEH: 30 years: +45 %: 15 mins: Summer	8.135	6.590	6.916	0.326	54.8	0.466	0.000	46.1	23.796	Surcharged
SW08	FEH: 30 years: +45 %: 15 mins: Summer	6.755	2.746	4.149	1.403	948.7	2.480	0.000	928.7	616.591	Surcharged
SW09	FEH: 30 years: +45 %: 15 mins: Summer	6.965	2.483	3.733	1.250	946.5	3.182	0.000	928.0	615.704	Surcharged
SW10	FEH: 30 years: +45 %: 960 mins: Winter	6.680	2.451	3.702	1.251	89.6	3.183	0.000	89.3	2054.927	Surcharged
SW17	FEH: 30 years: +45 %: 960 mins: Winter	5.500	2.491	3.702	1.211	19.0	1.733	0.000	18.9	439.127	Surcharged
SW16	FEH: 30 years: +45 %: 960 mins: Winter	5.245	2.557	3.702	1.145	16.3	1.638	0.000	16.2	373.833	Surcharged
SW15	FEH: 30 years: +45 %: 960 mins: Winter	4.570	2.789	3.702	0.913	13.8	1.306	0.000	13.7	317.297	Surcharged
SW14	FEH: 30 years: +45 %: 960 mins: Winter	4.760	2.860	3.702	0.842	9.8	1.205	0.000	9.6	226.419	Surcharged
SW18	FEH: 30 years: +45 %: 15 mins: Summer	6.345	4.920	5.016	0.096	45.9	0.137	0.000	45.4	19.744	OK
SW13	FEH: 30 years: +45 %: 30 mins: Summer	4.985	3.039	3.743	0.704	49.3	0.796	0.000	47.8	52.568	Surcharged
SW12	FEH: 30 years: +45 %: 30 mins: Summer	4.755	3.160	3.768	0.608	35.2	0.870	0.000	38.0	40.083	Surcharged
SW38A	FEH: 30 years: +45 %: 15 mins: Summer	7.710	6.195	6.949	0.754	40.4	1.079	0.000	29.7	17.619	Surcharged
SW1 CTRL	FEH: 30 years: +45 %: 960 mins: Winter	4.350	2.308	3.702	1.394	186.0	3.547	0.000	14.2	1372.557	Surcharged
Headwall	FEH: 30 years: +45 %: 15 mins: Summer	3.000	2.170	2.395	0.225	13.9	0.000	0.000	13.9	17.396	OK

Project: Surface Water Network 1				Date: 26/06/2024							
				Designed by: chrisp	Checked by:		Approved By:				
Report Details: Type: Junctions Summary Storm Phase: Phase				Company Address:							
SW41	FEH: 30 years: +45 %: 15 mins: Summer	5.480	3.905	5.068	1.163	127.6	1.665	0.000	118.4	68.479	Surcharged
SW11A	FEH: 30 years: +45 %: 15 mins: Summer	7.325	6.244	6.731	0.487	16.8	0.697	0.000	25.1	12.267	Surcharged

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address:		





FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
SW39	FEH: 2 years: +0 %: 15 mins: Summer	7.060	5.635	5.747	0.112	20.3	0.160	0.000	18.5	8.817	OK
SW40	FEH: 2 years: +0 %: 15 mins: Summer	6.850	5.350	5.457	0.107	48.2	0.153	0.000	45.2	21.702	OK
SW41A	FEH: 2 years: +0 %: 15 mins: Summer	5.330	3.755	3.964	0.209	63.8	0.299	0.000	59.5	29.688	OK
SW42	FEH: 2 years: +0 %: 15 mins: Summer	5.560	3.544	3.833	0.289	63.2	0.413	0.000	55.9	31.550	OK
SW37	FEH: 2 years: +0 %: 15 mins: Summer	5.750	3.524	3.824	0.300	203.8	0.429	0.000	197.5	108.765	OK
SW36	FEH: 2 years: +0 %: 15 mins: Summer	6.510	4.860	4.988	0.128	141.4	0.182	0.000	136.7	72.418	OK
SW35	FEH: 2 years: +0 %: 15 mins: Summer	7.300	5.445	5.662	0.217	123.6	0.310	0.000	116.6	61.666	OK
SW34	FEH: 2 years: +0 %: 15 mins: Summer	7.505	5.712	5.907	0.195	92.5	0.279	0.000	85.9	45.312	OK
SW38	FEH: 2 years: +0 %: 15 mins: Summer	7.725	6.050	6.173	0.123	23.7	0.176	0.000	21.0	10.514	OK
SW33	FEH: 2 years: +0 %: 15 mins: Summer	7.795	5.979	6.150	0.171	64.8	0.244	0.000	62.1	30.782	OK
SW32	FEH: 2 years: +0 %: 15 mins: Summer	8.035	6.535	6.652	0.117	31.8	0.167	0.000	26.8	14.282	OK
SW31	FEH: 2 years: +0 %: 15 mins: Summer	8.450	7.025	7.099	0.074	12.9	0.105	0.000	11.7	5.594	OK
SW28	FEH: 2 years: +0 %: 15 mins: Summer	8.770	7.165	7.258	0.093	20.5	0.133	0.000	18.1	8.900	OK
SW29	FEH: 2 years: +0 %: 15 mins: Summer	8.010	6.425	6.558	0.133	43.6	0.190	0.000	42.5	19.990	OK
SW30	FEH: 2 years: +0 %: 15 mins: Summer	7.760	6.170	6.289	0.119	56.7	0.170	0.000	55.0	26.143	OK
SW25	FEH: 2 years: +0 %: 15 mins: Summer	7.705	5.521	5.657	0.136	152.2	0.153	0.000	148.5	99.822	OK
SW24	FEH: 2 years: +0 %: 15 mins: Summer	7.475	5.750	5.993	0.243	82.8	0.348	0.000	85.1	60.220	OK
SW23	FEH: 2 years: +0 %: 30 mins: Summer	7.665	5.849	6.043	0.194	66.6	0.277	0.000	65.8	59.246	OK
SW22	FEH: 2 years: +0 %: 30 mins: Summer	7.685	5.960	6.123	0.163	42.4	0.233	0.000	42.0	37.543	OK
SW27	FEH: 2 years: +0 %: 30 mins: Summer	7.800	6.305	6.382	0.077	12.6	0.110	0.000	12.2	10.907	OK
SW21	FEH: 2 years: +0 %: 15 mins: Summer	8.165	6.595	6.706	0.111	43.6	0.159	0.000	41.2	27.963	OK
SW20	FEH: 2 years: +0 %: 15 mins: Summer	8.495	6.970	7.060	0.090	28.7	0.129	0.000	28.1	16.972	OK
SW19	FEH: 2 years: +0 %: 15 mins: Summer	8.675	7.143	7.196	0.053	4.8	0.075	0.000	4.4	2.083	OK
SW26	FEH: 2 years: +0 %: 15 mins: Summer	8.720	7.295	7.371	0.076	11.3	0.108	0.000	10.3	4.930	OK
SW07	FEH: 2 years: +0 %: 30 mins: Summer	7.050	2.951	3.391	0.440	267.9	0.777	0.000	252.8	243.197	OK
SW06	FEH: 2 years: +0 %: 15 mins: Summer	7.415	3.544	3.712	0.168	103.3	0.296	0.000	98.0	60.558	OK
SW05	FEH: 2 years: +0 %: 15 mins: Summer	7.025	3.847	4.021	0.174	79.0	0.249	0.000	72.5	47.669	OK
SW04	FEH: 2 years: +0 %: 15 mins: Summer	6.840	5.240	5.328	0.088	57.4	0.125	0.000	56.8	38.075	OK
SW03	FEH: 2 years: +0 %: 15 mins: Summer	7.760	5.927	6.057	0.130	45.5	0.147	0.000	41.0	26.396	OK
SW11	FEH: 2 years: +0 %: 30 mins: Summer	7.635	6.080	6.173	0.093	13.3	0.133	0.000	12.8	11.644	OK

Project: Surface Water Network 1		Date: 26/06/2024			
		Designed by: chrisp	Checked by:	Approved By:	
Report Details: Type: Junctions Summary Storm Phase: Phase		Company Address:			

SW02	FEH: 2 years: +0 %: 15 mins: Summer	7.790	6.335	6.435	0.100	29.3	0.143	0.000	28.1	12.994	OK
SW01	FEH: 2 years: +0 %: 15 mins: Summer	8.135	6.590	6.680	0.090	17.4	0.128	0.000	16.9	7.592	OK
SW08	FEH: 2 years: +0 %: 600 mins: Winter	6.755	2.746	3.097	0.351	51.4	0.620	0.000	51.2	731.936	OK
SW09	FEH: 2 years: +0 %: 600 mins: Winter	6.965	2.483	3.097	0.614	51.8	1.562	0.000	51.2	735.500	OK
SW10	FEH: 2 years: +0 %: 600 mins: Winter	6.680	2.451	3.097	0.646	52.5	1.644	0.000	51.6	749.112	OK
SW17	FEH: 2 years: +0 %: 600 mins: Winter	5.500	2.491	3.097	0.606	17.0	0.867	0.000	21.7	169.003	Surcharged
SW16	FEH: 2 years: +0 %: 600 mins: Winter	5.245	2.557	3.097	0.540	10.8	0.772	0.000	12.5	139.893	Surcharged
SW15	FEH: 2 years: +0 %: 600 mins: Winter	4.570	2.789	3.097	0.308	8.2	0.440	0.000	7.7	116.735	OK
SW14	FEH: 2 years: +0 %: 600 mins: Winter	4.760	2.860	3.097	0.237	5.8	0.339	0.000	5.7	83.710	OK
SW18	FEH: 2 years: +0 %: 15 mins: Summer	6.345	4.920	4.973	0.053	14.6	0.075	0.000	14.0	6.352	OK
SW13	FEH: 2 years: +0 %: 30 mins: Summer	4.985	3.039	3.137	0.098	15.7	0.111	0.000	15.2	16.857	OK
SW12	FEH: 2 years: +0 %: 30 mins: Summer	4.755	3.160	3.234	0.074	10.9	0.106	0.000	10.9	12.519	OK
SW38A	FEH: 2 years: +0 %: 15 mins: Summer	7.710	6.195	6.281	0.086	12.9	0.123	0.000	12.3	5.601	OK
SW1 CTRL	FEH: 2 years: +0 %: 600 mins: Winter	4.350	2.308	3.097	0.789	15.1	2.007	0.000	14.2	875.270	Surcharged
Headwall	FEH: 2 years: +0 %: 15 mins: Summer	3.000	2.170	2.395	0.225	14.2	0.000	0.000	14.2	14.758	OK
SW41	FEH: 2 years: +0 %: 15 mins: Summer	5.480	3.905	4.025	0.120	45.2	0.172	0.000	44.6	21.697	OK
SW11A	FEH: 2 years: +0 %: 30 mins: Summer	7.325	6.244	6.300	0.056	5.7	0.081	0.000	5.6	4.956	OK

Project: Surface Water Network 1		Date: 26/06/2024			
		Designed by: chrisp	Checked by:		Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address:			



FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residant Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Swale	FEH: 100 years: +45 %: 30 mins: Summer	4.067	4.064	0.622	1.014	688.9	188.530	0.000	0.000	431.7	606.987	30.389	OK
Attenuation Basin 1	FEH: 100 years: +45 %: 1440 mins: Winter	3.914	3.914	1.464	1.464	100.7	2966.776	0.000	0.000	55.7	898.722	12.930	OK
Attenuation Basin 2	FEH: 100 years: +45 %: 1440 mins: Winter	3.914	3.914	1.564	1.564	105.1	1445.883	0.000	0.000	14.5	3401.054	13.515	OK

Project: Surface Water Network 1		Date: 26/06/2024			
		Designed by: chrisp	Checked by:		Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address:			



FEH: 30 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max.
Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Swale	FEH: 30 years: +45 %: 15 mins: Summer	3.931	3.918	0.486	0.868	657.9	134.274	0.000	0.000	398.8	362.513	50.422	OK
Attenuation Basin 1	FEH: 30 years: +45 %: 960 mins: Winter	3.702	3.702	1.252	1.252	115.2	2320.413	0.000	0.000	38.3	577.762	31.900	OK
Attenuation Basin 2	FEH: 30 years: +45 %: 960 mins: Winter	3.702	3.702	1.352	1.352	116.4	1121.617	0.000	0.000	186.0	2353.921	32.911	OK

Project: Surface Water Network 1		Date: 26/06/2024			
		Designed by: chrisp	Checked by:		Approved By:
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Company Address:			



FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Swale	FEH: 2 years: +0 %: 30 mins: Summer	3.668	3.327	0.223	0.277	174.7	22.033	0.000	0.000	172.8	151.074	91.865	OK
Attenuation Basin 1	FEH: 2 years: +0 %: 600 mins: Winter	3.097	3.097	0.647	0.647	82.5	736.770	0.000	0.000	72.3	444.139	78.377	OK
Attenuation Basin 2	FEH: 2 years: +0 %: 600 mins: Winter	3.097	3.097	0.747	0.747	122.6	372.040	0.000	0.000	15.1	1193.767	77.747	OK

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrsp	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		





FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
0.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW39	SW40	7.060	7.060	0.225	34.488	1.5	1.41	58.1	Flood
1.002	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW41A	SW42	5.330	5.330	0.375	117.546	1.8	1.84	204.0	Flood
1.003	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW42	SW37	5.560	4.822	0.450	124.895	1.4	1.18	215.5	Surcharged
2.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW31	SW32	8.450	8.185	0.225	22.039	1.2	0.86	46.2	Flood Risk
2.002	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW33	SW34	7.795	7.706	0.375	121.821	1.8	1.23	204.2	Flood Risk
3.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW38A	SW38	7.710	7.680	0.225	22.037	1.1	1.05	41.9	Flood Risk
3.001	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW38	SW34	7.725	7.592	0.225	41.318	2.0	1.98	78.8	Flood Risk
2.003	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW34	SW35	7.505	7.234	0.375	179.556	2.5	1.44	276.5	Flood Risk
2.004	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW35	SW36	7.300	6.698	0.450	244.333	2.6	1.4	408.5	Surcharged
2.005	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW36	SW37	6.510	5.386	0.450	287.254	2.7	0.56	430.3	Surcharged
4.000	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW19	SW20	8.675	8.295	0.225	11.113	0.8	0.38	15.0	Surcharged
5.000	FEH: 100 years: +45 %: 15 mins: Winter	Pipe	SW26	SW20	8.720	8.281	0.225	19.033	0.9	0.82	37.4	Surcharged
4.001	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW20	SW21	8.495	8.291	0.300	90.231	1.6	0.62	94.1	Flood Risk
4.002	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW21	SW22	8.165	8.165	0.300	148.225	2.2	0.98	152.9	Flood Risk

Project: Surface Water Network 1				Date: 26/06/2024								
				Designed by: chrsp	Checked by:	Approved By:						
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address:								

4.003	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW22	SW23	7.685	7.685	0.375	152.350	1.5	1.32	169.3	Flood
6.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW27	SW23	7.800	7.800	0.225	32.717	1.1	0.87	45.5	Flood
4.004	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW23	SW24	7.665	7.620	0.450	240.618	1.6	1.16	259.0	Flood Risk
4.005	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW24	SW25	7.475	7.479	0.450	238.999	2.4	2.42	383.8	Flood
7.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW28	SW29	8.770	8.268	0.225	34.607	1.4	1.03	55.5	Surcharged
7.001	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW29	SW30	8.010	7.577	0.300	78.780	1.9	1.1	131.8	Surcharged
7.002	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW30	SW25	7.760	7.193	0.300	102.828	2.3	0.82	164.4	Surcharged
4.006	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW25	SW07	7.705	6.782	0.525	395.804	2.4	0.52	519.5	Surcharged
8.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW01	SW02	8.135	7.809	0.225	29.898	1.2	0.89	48.6	Surcharged
8.001	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW02	SW03	7.790	7.791	0.225	68.786	1.9	0.93	74.0	Flood
9.001	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW11	SW03	7.635	7.636	0.225	47.416	2.1	2.11	84.3	Flood
8.002	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW03	SW04	7.760	7.567	0.300	141.108	2.1	1.32	149.4	Flood Risk
8.003	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW04	SW05	6.840	6.844	0.375	150.711	2.9	0.54	266.3	Flood
8.004	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW05	SW06	7.025	6.577	0.450	188.482	1.8	1.11	290.5	Surcharged
8.005	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW06	SW07	7.415	6.422	0.525	241.594	1.5	0.75	325.4	Surcharged
4.007	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW07	SW08	7.050	6.204	0.600	959.719	3.4	3.42	965.6	Surcharged
4.008	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW08	SW09	6.755	4.534	0.675	770.554	3.0	1.32	1069.7	Surcharged

Project: Surface Water Network 1				Date: 26/06/2024											
				Designed by: chrissp		Checked by:							Approved By:		
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address:											

4.009	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW09	SW10	6.965	3.985	0.750	770.811	2.4	2.2	1081.4	Surcharged
4.010	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW10	Attenuation Basin 2	6.680	3.676	0.750	765.889	2.5	2.24	1113.0	Surcharged
10.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW12	SW13	4.755	4.167	0.300	37.597	0.7	0.56	47.9	Surcharged
10.001	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW13	SW14	4.985	4.219	0.300	65.313	0.9	0.85	60.4	Surcharged
10.002	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW14	SW15	4.760	4.129	0.375	115.040	1.1	1.08	119.9	Surcharged
10.003	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW15	SW16	4.570	3.998	0.375	117.033	1.7	1.7	187.4	Surcharged
10.004	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW16	SW17	5.245	3.466	0.450	135.541	1.5	1.46	232.7	Surcharged
10.005	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW17	Attenuation Basin 2	5.500	3.260	0.450	153.601	1.8	1.46	283.5	Surcharged
11.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW18	SW14	6.345	5.029	0.225	24.810	1.9	0.47	56.8	OK
1.006	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	Swale	Attenuation Basin 1	4.360	3.868	0.450	601.632	2.7	1.54	431.7	Flood Risk
1.008	FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	Attenuation Basin 1	Attenuation Basin 2	4.350	3.738	0.600	1605.045	0.8	0.34	112.1	Surcharged
1.008a	FEH: 100 years: +45 %: 10080 mins: Summer	Pipe	Attenuation Basin 1	Attenuation Basin 2	4.350	3.738	0.600	1643.955	0.8	0.34	114.1	Surcharged
10.010	FEH: 100 years: +45 %: 5760 mins: Summer	Pipe	Attenuation Basin 2	SW1 CTRL	4.350	3.763	0.750	7677.627	1.2	0.25	187.5	Surcharged
1.011	FEH: 100 years: +45 %: 4320 mins: Winter	Pipe	SW1 CTRL	Headwall	4.350	3.802	0.182	6440.198	0.5	0.43	14.2	Surcharged
1.004	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW37	Swale	5.750	4.756	0.450	431.197	4.3	1.7	682.3	Surcharged
2.001	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW32	SW33	8.035	8.035	0.300	56.659	1.3	0.99	89.2	Flood
1.000	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW40	SW41	6.850	6.642	0.300	84.550	2.3	0.91	160.3	Flood Risk

Project: Surface Water Network 1				Date: 26/06/2024									
				Designed by: chrsp		Checked by:		Approved By:					
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address:									
1.001	FEH: 100 years: +45 %: 15 mins: Summer	Pipe	SW41	SW41A	5.480	5.423	0.375	85.935	1.4	0.53	158.8	Flood Risk	
9.000	FEH: 100 years: +45 %: 30 mins: Summer	Pipe	SW11A	SW11	7.325	7.325	0.225	20.228	0.6	0.63	25.1	Surch arged	

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrsp	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		





FEH: 30 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
0.000	FEH: 30 years: +45 %: 15 mins: Winter	Pipe	SW39	SW40	7.060	6.058	0.225	27.687	1.3	1.3	53.4	Surcharged
1.002	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW41A	SW42	5.330	5.017	0.375	93.891	1.5	1.54	169.9	Surcharged
1.003	FEH: 30 years: +45 %: 15 mins: Winter	Pipe	SW42	SW37	5.560	4.587	0.450	99.648	1.1	0.96	174.9	Surcharged
2.000	FEH: 30 years: +45 %: 15 mins: Winter	Pipe	SW31	SW32	8.450	7.164	0.225	17.463	1.1	0.68	36.7	OK
2.002	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW33	SW34	7.795	6.841	0.375	97.077	1.6	1.03	171.3	Surcharged
3.000	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW38A	SW38	7.710	6.949	0.225	17.619	0.7	0.74	29.7	Surcharged
3.001	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW38	SW34	7.725	6.854	0.225	32.905	1.4	1.36	54.2	Surcharged
2.003	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW34	SW35	7.505	6.476	0.375	143.007	2.2	1.26	242.6	Surcharged
2.004	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW35	SW36	7.300	6.044	0.416	194.641	2.5	1.15	336.8	Surcharged
2.005	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW36	SW37	6.510	5.093	0.450	228.386	2.6	0.53	406.2	OK
4.000	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW19	SW20	8.675	7.261	0.163	6.522	0.8	0.37	14.6	OK
5.000	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW26	SW20	8.720	7.448	0.147	15.136	1.2	0.73	33.1	OK
4.001	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW20	SW21	8.495	7.253	0.300	53.320	1.6	0.58	88.8	OK
4.002	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW21	SW22	8.165	7.140	0.300	87.652	1.8	0.81	126.7	Surcharged

Project: Surface Water Network 1				Date: 26/06/2024								
				Designed by: chrsp	Checked by:	Approved By:						
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address:								

4.003	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW22	SW23	7.685	6.703	0.375	90.195	1.2	1.03	131.3	Surcharged
6.000	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW27	SW23	7.800	6.773	0.225	26.172	1.0	0.72	38.1	Surcharged
4.004	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW23	SW24	7.665	6.632	0.450	142.518	1.3	0.93	207.1	Surcharged
4.005	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW24	SW25	7.475	6.507	0.450	190.461	1.7	1.74	276.6	Surcharged
7.000	FEH: 30 years: +45 %: 15 mins: Winter	Pipe	SW28	SW29	8.770	7.390	0.225	27.954	1.3	0.98	52.7	OK
7.001	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW29	SW30	8.010	6.826	0.300	62.885	1.8	1.05	126.3	Surcharged
7.002	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW30	SW25	7.760	6.429	0.233	82.021	2.8	0.83	165.6	OK
4.006	FEH: 30 years: +45 %: 30 mins: Summer	Pipe	SW25	SW07	7.705	5.822	0.525	422.404	2.1	0.45	446.7	OK
8.000	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW01	SW02	8.135	6.916	0.225	23.796	1.2	0.85	46.1	Surcharged
8.001	FEH: 30 years: +45 %: 15 mins: Winter	Pipe	SW02	SW03	7.790	6.638	0.225	40.569	1.9	0.95	76.0	Surcharged
9.001	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW11	SW03	7.635	6.653	0.225	28.241	1.4	1.4	55.8	Surcharged
8.002	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW03	SW04	7.760	6.460	0.300	83.752	1.9	1.17	132.8	Surcharged
8.003	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW04	SW05	6.840	5.966	0.375	120.304	2.6	0.46	227.3	Surcharged
8.004	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW05	SW06	7.025	5.826	0.450	150.476	1.6	0.97	252.2	Surcharged
8.005	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW06	SW07	7.415	5.664	0.525	192.681	1.3	0.67	290.0	Surcharged
4.007	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW07	SW08	7.050	5.424	0.600	569.244	3.0	2.96	835.6	Surcharged
4.008	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW08	SW09	6.755	4.149	0.675	616.102	2.6	1.14	928.7	Surcharged

Project: Surface Water Network 1				Date: 26/06/2024							
				Designed by: chrissp	Checked by:	Approved By:					
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address:							

4.009	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW09	SW10	6.965	3.733	0.750	615.209	2.1	1.89	928.0	Surcharged
4.010	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW10	Attenuation Basin 2	6.680	3.506	0.750	607.613	2.1	1.88	934.7	Surcharged
10.000	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW12	SW13	4.755	3.540	0.300	30.158	0.9	0.45	38.3	Surcharged
10.001	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW13	SW14	4.985	3.493	0.300	39.933	0.7	0.68	48.3	Surcharged
10.002	FEH: 30 years: +45 %: 30 mins: Summer	Pipe	SW14	SW15	4.760	3.683	0.375	91.222	0.9	0.86	94.8	Surcharged
10.003	FEH: 30 years: +45 %: 30 mins: Summer	Pipe	SW15	SW16	4.570	3.613	0.375	125.334	1.3	1.26	139.2	Surcharged
10.004	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW16	SW17	5.245	3.157	0.450	107.860	1.1	1.06	168.4	Surcharged
10.005	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW17	Attenuation Basin 2	5.500	3.134	0.450	121.138	1.3	1.06	206.6	Surcharged
11.000	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW18	SW14	6.345	5.016	0.225	19.744	1.8	0.38	45.4	OK
1.006	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	Swale	Attenuation Basin 1	4.360	3.725	0.450	362.513	2.5	1.42	398.8	Surcharged
1.008	FEH: 30 years: +45 %: 2880 mins: Winter	Pipe	Attenuation Basin 1	Attenuation Basin 2	4.350	3.638	0.600	579.679	0.8	0.35	113.8	Surcharged
1.008a	FEH: 30 years: +45 %: 2880 mins: Winter	Pipe	Attenuation Basin 1	Attenuation Basin 2	4.350	3.638	0.600	591.086	0.8	0.35	116.7	Surcharged
10.010	FEH: 30 years: +45 %: 120 mins: Summer	Pipe	Attenuation Basin 2	SW1 CTRL	4.350	3.497	0.750	163.185	1.2	0.25	188.1	Surcharged
1.011	FEH: 30 years: +45 %: 240 mins: Winter	Pipe	SW1 CTRL	Headwall	4.350	3.597	0.173	330.316	0.5	0.45	14.2	Surcharged
1.004	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW37	Swale	5.750	4.603	0.450	343.260	3.8	1.52	609.2	Surcharged
2.001	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW32	SW33	8.035	7.222	0.300	45.113	1.0	0.8	71.8	Surcharged
1.000	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW40	SW41	6.850	5.882	0.300	67.431	1.8	0.72	127.6	Surcharged

Project: Surface Water Network 1				Date: 26/06/2024							
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address:							
Designed by: chrisp				Checked by:		Approved By:					

1.001	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW41	SW41A	5.480	5.068	0.375	68.479	1.1	0.4	118.4	Surcharged
9.000	FEH: 30 years: +45 %: 15 mins: Summer	Pipe	SW11A	SW11	7.325	6.731	0.225	12.032	0.6	0.63	25.1	Surcharged

Project: Surface Water Network 1	Date: 26/06/2024		
	Designed by: chrisp	Checked by:	Approved By:
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address:		





FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Flow

Connection	Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
0.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW39	SW40	7.060	5.747	0.108	8.817	1.0	0.45	18.5	OK
1.002	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW41A	SW42	5.330	3.964	0.211	29.688	0.9	0.54	59.5	OK
1.003	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW42	SW37	5.560	3.833	0.294	31.550	0.5	0.31	55.9	OK
2.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW31	SW32	8.450	7.099	0.072	5.594	1.1	0.22	11.7	OK
2.002	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW33	SW34	7.795	6.150	0.183	30.782	1.2	0.37	62.1	OK
3.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW38A	SW38	7.710	6.281	0.104	5.601	0.7	0.31	12.3	OK
3.001	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW38	SW34	7.725	6.173	0.119	10.514	1.0	0.53	21.0	OK
2.003	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW34	SW35	7.505	5.907	0.185	45.312	1.6	0.45	85.9	OK
2.004	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW35	SW36	7.300	5.662	0.172	61.666	2.1	0.4	116.6	OK
2.005	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW36	SW37	6.510	4.988	0.214	72.418	1.8	0.18	136.7	OK
4.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW19	SW20	8.675	7.196	0.052	2.083	0.6	0.11	4.4	OK
5.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW26	SW20	8.720	7.371	0.074	4.930	0.9	0.23	10.3	OK
4.001	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW20	SW21	8.495	7.060	0.100	16.972	1.4	0.18	28.1	OK
4.002	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW21	SW22	8.165	6.705	0.108	36.556	1.8	0.26	41.3	OK
4.003	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW22	SW23	7.685	6.123	0.155	37.543	1.0	0.33	42.0	OK
6.000	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW27	SW23	7.800	6.382	0.075	10.907	1.1	0.23	12.2	OK
4.004	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW23	SW24	7.665	6.043	0.218	59.246	0.9	0.3	65.8	OK
4.005	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW24	SW25	7.475	5.993	0.223	60.220	1.1	0.54	85.1	OK
7.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW28	SW29	8.770	7.258	0.091	8.900	1.2	0.34	18.1	OK

Project: Surface Water Network 1				Date: 26/06/2024								
				Designed by: chrissp	Checked by:	Approved By:						
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address:								

7.001	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW29	SW30	8.010	6.558	0.126	19.990	1.5	0.35	42.5	OK
7.002	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW30	SW25	7.760	6.289	0.113	26.143	2.3	0.28	55.0	OK
4.006	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW25	SW07	7.705	5.657	0.233	99.822	1.9	0.15	148.5	OK
8.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW01	SW02	8.135	6.680	0.095	7.592	1.1	0.31	16.9	OK
8.001	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW02	SW03	7.790	6.435	0.096	12.994	1.7	0.35	28.1	OK
9.001	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW11	SW03	7.635	6.173	0.090	11.644	0.9	0.32	12.8	OK
8.002	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW03	SW04	7.760	6.057	0.127	26.396	1.4	0.36	41.0	OK
8.003	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW04	SW05	6.840	5.328	0.093	38.075	2.8	0.11	56.8	OK
8.004	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW05	SW06	7.025	4.021	0.168	47.669	1.3	0.28	72.5	OK
8.005	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW06	SW07	7.415	3.712	0.249	60.558	1.0	0.23	98.0	OK
4.007	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW07	SW08	7.050	3.391	0.383	243.197	1.3	0.9	252.8	OK
4.008	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW08	SW09	6.755	3.075	0.354	262.560	1.4	0.34	275.0	OK
4.009	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW09	SW10	6.965	2.938	0.444	260.884	1.0	0.56	275.5	OK
4.010	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW10	Attenuati on Basin 2	6.680	2.888	0.477	256.089	1.1	0.56	277.1	OK
10.000	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW12	SW13	4.755	3.234	0.085	12.519	0.7	0.13	10.9	OK
10.001	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW13	SW14	4.985	3.137	0.096	16.857	0.8	0.21	15.2	OK
10.002	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW14	SW15	4.760	3.021	0.176	22.769	0.7	0.32	35.1	OK
10.003	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW15	SW16	4.570	2.979	0.185	31.009	0.9	0.45	50.2	OK
10.004	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW16	SW17	5.245	2.837	0.313	34.360	0.7	0.43	68.1	OK
10.005	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW17	Attenuati on Basin 2	5.500	2.837	0.412	35.926	0.6	0.4	77.8	OK
11.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW18	SW14	6.345	4.973	0.052	6.352	2.0	0.12	14.0	OK
1.006	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	Swale	Attenuati on Basin 1	4.360	3.281	0.276	114.626	1.8	0.66	186.1	OK
1.008	FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	Attenuat ion Basin 1	Attenuati on Basin 2	4.350	3.017	0.600	393.739	0.7	0.35	115.1	OK

Project: Surface Water Network 1				Date: 26/06/2024									
				Designed by: chrisp		Checked by:						Approved By:	
Report Details: Type: Connections Summary Storm Phase: Phase				Company Address:									

1.008a	FEH: 2 years: +0 %: 2880 mins: Summer	Pipe	Attenuat ion Basin 1	Attenuati on Basin 2	4.350	3.017	0.600	400.657	0.8	0.35	118.1	OK
10.010	FEH: 2 years: +0 %: 60 mins: Summer	Pipe	Attenuat ion Basin 2	SW1 CTRL	4.350	2.929	0.600	80.815	0.5	0.16	119.7	OK
1.011	FEH: 2 years: +0 %: 240 mins: Summer	Pipe	SW1 CTRL	Headwal l	4.350	3.065	0.178	336.266	0.5	0.45	14.2	Surch arged
1.004	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW37	Swale	5.750	3.824	0.269	108.765	2.0	0.49	197.5	OK
2.001	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW32	SW33	8.035	6.652	0.114	14.282	1.1	0.3	26.8	OK
1.000	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW40	SW41	6.850	5.457	0.105	21.702	2.0	0.26	45.2	OK
1.001	FEH: 2 years: +0 %: 15 mins: Summer	Pipe	SW41	SW41A	5.480	4.025	0.164	21.697	1.0	0.15	44.6	OK
9.000	FEH: 2 years: +0 %: 30 mins: Summer	Pipe	SW11A	SW11	7.325	6.300	0.075	4.956	0.5	0.14	5.6	OK