

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	99.00
Return Period (years)	1	Maximum Rainfall (mm/hr)	0.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	1.000
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	x
Time of Entry (mins)	5.00	Enforce best practice design rules	x

Adoptable Manhole Type

Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)	Max Width (mm)	Diameter (mm)
374	1200	499	1350	749	1500	900	1800

>900 Link+900 mm

Max Depth (m)	Diameter (mm)	Max Depth (m)	Diameter (mm)
1.500	1050	99.999	1200

Circular Link Type

Shape Circular | Barrels 1 | Auto Increment (mm) 75 | Follow Ground x

Available Diameters (mm)

100 | 150

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S1	0.090	5.00	91.969	1350	450928.749	305356.698	1.934
S2	0.064	5.00	91.283	1350	450946.993	305364.548	1.633
S3	0.141	5.00	90.578	1350	451010.554	305422.616	1.538
S4	0.076	5.00	89.345	1350	451011.895	305394.182	1.495
S5	0.097	5.00	89.062	1350	451013.324	305372.349	1.724
S6	0.062	5.00	88.570	2100	451023.312	305368.388	1.805
S7	0.119	5.00	87.734	1350	451024.927	305344.290	1.919
S8	0.051	5.00	87.709	1350	450984.723	305313.124	1.684
S9	0.046	5.00	87.074	1350	451002.669	305313.802	1.749
S10	0.049	5.00	86.626	1350	451015.126	305309.874	1.856
S11	0.070	5.00	86.038	1350	451008.003	305287.592	1.868
S12	0.127	5.00	84.448	1350	450992.213	305234.329	2.038
S13	0.048	5.00	94.212	1350	450885.597	305389.463	1.502
S14	0.018	5.00	92.956	1350	450902.001	305362.489	1.581
S15	0.069	5.00	92.000	1500	450907.515	305346.432	1.310
S16	0.058	5.00	89.000	1350	450928.407	305295.132	1.430
S17	0.028	5.00	87.930	1350	450934.282	305275.519	1.670
S18	0.059	5.00	86.068	1350	450947.830	305243.874	1.508
S19	0.027	5.00	85.300	1350	450958.795	305232.552	1.420
S20			84.276	1500	450977.158	305224.764	1.009
S21	0.016	5.00	84.250	1350	450983.126	305222.876	1.250
S22	0.017	5.00	83.890	1800	450995.680	305218.130	2.115
S23	0.048	5.00	83.448	1500	451006.900	305206.405	2.163
S24	0.030	5.00	82.791	1500	451033.539	305198.718	2.086
S25			79.150	1500	451046.119	305170.170	1.800
S26			78.350	1500	451050.281	305159.824	1.295
S27	0.092	5.00	85.592	1350	451040.479	305302.873	1.322
S28	0.128	5.00	84.436	1350	451068.958	305294.106	1.616
S29	0.140	5.00	83.182	1350	451098.183	305285.396	1.512
S30	0.114	5.00	81.132	1350	451158.093	305267.460	2.237
S31	0.086	5.00	80.390	1800	451169.295	305257.088	2.866
S32	0.061	5.00	79.726	1800	451208.330	305258.808	2.175

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S33	0.028	5.00	79.564	1800	451197.956	305245.573	2.047
S34	0.107	5.00	79.479	1800	451180.049	305235.189	2.003
S35	0.176	5.00	82.187	1500	451057.961	305202.450	2.352
S36	0.105	5.00	81.475	1500	451087.567	305207.620	2.242
S37	0.171	5.00	80.131	1800	451144.770	305217.725	2.734
S38	0.263	5.00	79.126	1800	451154.394	305165.614	1.835
S39	0.199	5.00	78.979	1800	451111.741	305157.005	1.799
S40			78.350	1500	451111.638	305141.811	1.295
S41		5.00	78.350	1500	451059.568	305115.187	1.350
S42			78.350	3000	451061.198	305110.296	1.371
S44			77.761	1200	451136.474	305127.498	1.225
S45			76.950	1200	451201.546	305153.919	0.948
S46			76.681	1500	451213.767	305154.012	0.781

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	S1	S2	19.861	0.600	90.035	89.650	0.385	51.6	225	5.18	0.0
1.001	S2	S6	76.415	0.600	89.650	86.915	2.735	27.9	225	5.69	0.0
2.000	S3	S4	28.466	0.600	89.040	87.850	1.190	23.9	225	5.18	0.0
2.001	S4	S5	21.879	0.600	87.850	87.413	0.437	50.1	225	5.37	0.0
2.002	S5	S6	10.745	0.600	87.338	86.840	0.498	21.6	300	5.43	0.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.000	1.825	72.6	0.0	1.709	1.408	0.090	0.0
1.001	2.484	98.8	0.0	1.408	1.430	0.155	0.0
2.000	2.686	106.8	0.0	1.313	1.270	0.141	0.0
2.001	1.853	73.7	0.0	1.270	1.424	0.217	0.0
2.002	3.399	240.3	0.0	1.424	1.430	0.314	0.0

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.002	S6	S7	24.152	0.600	86.765	85.815	0.950	25.4	375	5.81	0.0
1.003	S7	S10	35.785	0.600	85.815	84.845	0.970	36.9	375	6.01	0.0
3.000	S8	S9	17.959	0.600	86.025	85.325	0.700	25.7	225	5.12	0.0
3.001	S9	S10	13.061	0.600	85.325	84.995	0.330	39.6	225	5.22	0.0
1.004	S10	S11	23.393	0.600	84.770	84.170	0.600	39.0	450	6.12	0.0
1.005	S11	S12	55.554	0.600	84.170	82.410	1.760	31.6	450	6.38	0.0
1.006	S12	S22	16.566	0.600	82.410	81.850	0.560	29.6	450	6.45	0.0
4.000	S13	S14	31.571	0.600	92.710	91.375	1.335	23.6	225	5.19	0.0
4.001	S14	S15	16.977	0.600	91.375	90.765	0.610	27.8	225	5.31	0.0
4.002	S15	S16	55.392	0.600	90.690	87.570	3.120	17.8	300	5.55	0.0
4.003	S16	S17	20.473	0.600	87.570	86.260	1.310	15.6	300	5.64	0.0
4.004	S17	S18	34.424	0.600	86.260	84.560	1.700	20.2	300	5.80	0.0
4.005	S18	S19	15.761	0.600	84.560	83.880	0.680	23.2	300	5.88	0.0
4.006	S19	S20	19.946	0.600	83.880	83.267	0.613	32.5	300	6.00	0.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
1.002	3.606	398.2	0.0	1.430	1.544	0.531	0.0
1.003	2.991	330.3	0.0	1.544	1.406	0.650	0.0
3.000	2.593	103.1	0.0	1.459	1.524	0.051	0.0
3.001	2.085	82.9	0.0	1.524	1.406	0.097	0.0
1.004	3.263	519.0	0.0	1.406	1.418	0.797	0.0
1.005	3.628	577.0	0.0	1.418	1.588	0.867	0.0
1.006	3.748	596.1	0.0	1.588	1.590	0.994	0.0
4.000	2.701	107.4	0.0	1.277	1.356	0.048	0.0
4.001	2.489	99.0	0.0	1.356	1.010	0.065	0.0
4.002	3.748	265.0	0.0	1.010	1.130	0.134	0.0
4.003	3.996	282.5	0.0	1.130	1.370	0.192	0.0
4.004	3.509	248.0	0.0	1.370	1.208	0.219	0.0
4.005	3.279	231.8	0.0	1.208	1.120	0.278	0.0
4.006	2.765	195.5	0.0	1.120	0.709	0.305	0.0

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
4.007	S20	S21	6.259	0.600	83.267	83.075	0.192	32.6	300	6.04	0.0
4.008	S21	S22	13.422	0.600	83.000	81.925	1.075	12.5	375	6.09	0.0
1.007	S22	S23	16.228	0.600	81.775	81.285	0.490	33.1	525	6.52	0.0
1.008	S23	S24	27.726	0.600	81.285	80.705	0.580	47.8	525	6.67	0.0
1.009	S24	S25	31.197	0.600	80.705	77.350	3.355	9.3	525	6.74	0.0
1.010	S25	S26	11.152	0.600	77.350	77.300	0.050	223.0	525	6.86	0.0
5.000	S27	S28	29.798	0.600	84.270	82.895	1.375	21.7	150	5.23	0.0
5.001	S28	S29	30.495	0.600	82.820	81.745	1.075	28.4	225	5.43	0.0
5.002	S29	S30	62.537	0.600	81.670	79.045	2.625	23.8	300	5.76	0.0
5.003	S30	S31	15.267	0.600	78.895	77.824	1.071	14.3	450	5.80	0.0
5.004	S31	S34	24.397	0.600	77.524	77.476	0.048	508.3	750	6.13	0.0
6.000	S32	S33	16.817	0.600	77.551	77.517	0.034	494.6	750	5.22	0.0
6.001	S33	S34	20.700	0.600	77.517	77.476	0.041	504.9	750	5.50	0.0
5.005	S34	S37	39.364	0.600	77.476	77.397	0.079	498.3	750	6.66	0.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
4.007	2.763	195.3	0.0	0.709	0.875	0.305	0.0
4.008	5.151	568.9	0.0	0.875	1.590	0.321	0.0
1.007	3.901	844.5	0.0	1.590	1.638	1.333	0.0
1.008	3.245	702.5	0.0	1.638	1.561	1.380	0.0
1.009	7.374	1596.3	0.0	1.561	1.275	1.410	0.0
1.010	1.495	323.7	0.0	1.275	0.525	1.410	0.0
5.000	2.173	38.4	0.0	1.172	1.391	0.092	0.0
5.001	2.465	98.0	0.0	1.391	1.212	0.220	0.0
5.002	3.234	228.6	0.0	1.212	1.787	0.360	0.0
5.003	5.405	859.7	0.0	1.787	2.116	0.474	0.0
5.004	1.234	545.2	0.0	2.116	1.253	0.560	0.0
6.000	1.251	552.8	0.0	1.425	1.297	0.061	0.0
6.001	1.238	547.1	0.0	1.297	1.253	0.088	0.0
5.005	1.247	550.7	0.0	1.253	1.984	0.755	0.0

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
7.000	S35	S36	30.054	0.600	79.835	79.233	0.602	49.9	525	5.16	0.0
7.001	S36	S37	58.089	0.600	79.233	77.622	1.611	36.1	525	5.42	0.0
5.006	S37	S38	52.993	0.600	77.397	77.291	0.106	499.9	750	7.37	0.0
5.007	S38	S39	43.513	0.600	77.291	77.180	0.111	392.0	750	7.89	0.0
5.008	S39	S40	15.194	0.600	77.180	77.150	0.030	506.5	750	8.09	0.0
1.012	S41	S42	5.155	0.600	77.000	76.979	0.021	245.5	750	5.05	0.0
1.013	S42	S44	77.216	0.600	76.979	76.536	0.443	174.3	225	6.35	0.0
1.014	S44	S45	70.231	0.600	76.536	76.002	0.534	131.5	225	7.38	0.0
1.015	S45	S46	12.221	0.600	76.002	75.900	0.102	119.8	225	7.55	0.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)
7.000	3.175	687.3	0.0	1.827	1.717	0.176	0.0
7.001	3.738	809.3	0.0	1.717	1.984	0.281	0.0
5.006	1.244	549.8	0.0	1.984	1.085	1.207	0.0
5.007	1.407	621.6	0.0	1.085	1.049	1.470	0.0
5.008	1.236	546.2	0.0	1.049	0.450	1.669	0.0
1.012	1.781	787.0	0.0	0.600	0.621	0.000	0.0
1.013	0.987	39.2	0.0	1.146	1.000	0.000	0.0
1.014	1.138	45.3	0.0	1.000	0.723	0.000	0.0
1.015	1.193	47.4	0.0	0.723	0.556	0.000	0.0

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	19.861	51.6	225	Circular	91.969	90.035	1.709	91.283	89.650	1.408
1.001	76.415	27.9	225	Circular	91.283	89.650	1.408	88.570	86.915	1.430
2.000	28.466	23.9	225	Circular	90.578	89.040	1.313	89.345	87.850	1.270
2.001	21.879	50.1	225	Circular	89.345	87.850	1.270	89.062	87.413	1.424
2.002	10.745	21.6	300	Circular	89.062	87.338	1.424	88.570	86.840	1.430
1.002	24.152	25.4	375	Circular	88.570	86.765	1.430	87.734	85.815	1.544
1.003	35.785	36.9	375	Circular	87.734	85.815	1.544	86.626	84.845	1.406
3.000	17.959	25.7	225	Circular	87.709	86.025	1.459	87.074	85.325	1.524
3.001	13.061	39.6	225	Circular	87.074	85.325	1.524	86.626	84.995	1.406
1.004	23.393	39.0	450	Circular	86.626	84.770	1.406	86.038	84.170	1.418
1.005	55.554	31.6	450	Circular	86.038	84.170	1.418	84.448	82.410	1.588
1.006	16.566	29.6	450	Circular	84.448	82.410	1.588	83.890	81.850	1.590
4.000	31.571	23.6	225	Circular	94.212	92.710	1.277	92.956	91.375	1.356
4.001	16.977	27.8	225	Circular	92.956	91.375	1.356	92.000	90.765	1.010
4.002	55.392	17.8	300	Circular	92.000	90.690	1.010	89.000	87.570	1.130

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S1	1350	Manhole	Adoptable	S2	1350	Manhole	Adoptable
1.001	S2	1350	Manhole	Adoptable	S6	2100	Manhole	Adoptable
2.000	S3	1350	Manhole	Adoptable	S4	1350	Manhole	Adoptable
2.001	S4	1350	Manhole	Adoptable	S5	1350	Manhole	Adoptable
2.002	S5	1350	Manhole	Adoptable	S6	2100	Manhole	Adoptable
1.002	S6	2100	Manhole	Adoptable	S7	1350	Manhole	Adoptable
1.003	S7	1350	Manhole	Adoptable	S10	1350	Manhole	Adoptable
3.000	S8	1350	Manhole	Adoptable	S9	1350	Manhole	Adoptable
3.001	S9	1350	Manhole	Adoptable	S10	1350	Manhole	Adoptable
1.004	S10	1350	Manhole	Adoptable	S11	1350	Manhole	Adoptable
1.005	S11	1350	Manhole	Adoptable	S12	1350	Manhole	Adoptable
1.006	S12	1350	Manhole	Adoptable	S22	1800	Manhole	Adoptable
4.000	S13	1350	Manhole	Adoptable	S14	1350	Manhole	Adoptable
4.001	S14	1350	Manhole	Adoptable	S15	1500	Manhole	Adoptable
4.002	S15	1500	Manhole	Adoptable	S16	1350	Manhole	Adoptable

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
4.003	20.473	15.6	300	Circular	89.000	87.570	1.130	87.930	86.260	1.370
4.004	34.424	20.2	300	Circular	87.930	86.260	1.370	86.068	84.560	1.208
4.005	15.761	23.2	300	Circular	86.068	84.560	1.208	85.300	83.880	1.120
4.006	19.946	32.5	300	Circular	85.300	83.880	1.120	84.276	83.267	0.709
4.007	6.259	32.6	300	Circular	84.276	83.267	0.709	84.250	83.075	0.875
4.008	13.422	12.5	375	Circular	84.250	83.000	0.875	83.890	81.925	1.590
1.007	16.228	33.1	525	Circular	83.890	81.775	1.590	83.448	81.285	1.638
1.008	27.726	47.8	525	Circular	83.448	81.285	1.638	82.791	80.705	1.561
1.009	31.197	9.3	525	Circular	82.791	80.705	1.561	79.150	77.350	1.275
1.010	11.152	223.0	525	Circular	79.150	77.350	1.275	78.350	77.300	0.525
5.000	29.798	21.7	150	Circular	85.592	84.270	1.172	84.436	82.895	1.391
5.001	30.495	28.4	225	Circular	84.436	82.820	1.391	83.182	81.745	1.212
5.002	62.537	23.8	300	Circular	83.182	81.670	1.212	81.132	79.045	1.787
5.003	15.267	14.3	450	Circular	81.132	78.895	1.787	80.390	77.824	2.116
5.004	24.397	508.3	750	Circular	80.390	77.524	2.116	79.479	77.476	1.253

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
4.003	S16	1350	Manhole	Adoptable	S17	1350	Manhole	Adoptable
4.004	S17	1350	Manhole	Adoptable	S18	1350	Manhole	Adoptable
4.005	S18	1350	Manhole	Adoptable	S19	1350	Manhole	Adoptable
4.006	S19	1350	Manhole	Adoptable	S20	1500	Manhole	Adoptable
4.007	S20	1500	Manhole	Adoptable	S21	1350	Manhole	Adoptable
4.008	S21	1350	Manhole	Adoptable	S22	1800	Manhole	Adoptable
1.007	S22	1800	Manhole	Adoptable	S23	1500	Manhole	Adoptable
1.008	S23	1500	Manhole	Adoptable	S24	1500	Manhole	Adoptable
1.009	S24	1500	Manhole	Adoptable	S25	1500	Manhole	Adoptable
1.010	S25	1500	Manhole	Adoptable	S26	1500	Manhole	Adoptable
5.000	S27	1350	Manhole	Adoptable	S28	1350	Manhole	Adoptable
5.001	S28	1350	Manhole	Adoptable	S29	1350	Manhole	Adoptable
5.002	S29	1350	Manhole	Adoptable	S30	1350	Manhole	Adoptable
5.003	S30	1350	Manhole	Adoptable	S31	1800	Manhole	Adoptable
5.004	S31	1800	Manhole	Adoptable	S34	1800	Manhole	Adoptable

Pipeline Schedule

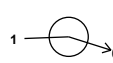
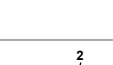
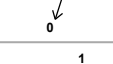
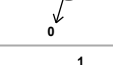
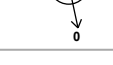
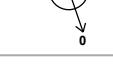
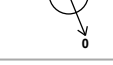
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
6.000	16.817	494.6	750	Circular	79.726	77.551	1.425	79.564	77.517	1.297
6.001	20.700	504.9	750	Circular	79.564	77.517	1.297	79.479	77.476	1.253
5.005	39.364	498.3	750	Circular	79.479	77.476	1.253	80.131	77.397	1.984
7.000	30.054	49.9	525	Circular	82.187	79.835	1.827	81.475	79.233	1.717
7.001	58.089	36.1	525	Circular	81.475	79.233	1.717	80.131	77.622	1.984
5.006	52.993	499.9	750	Circular	80.131	77.397	1.984	79.126	77.291	1.085
5.007	43.513	392.0	750	Circular	79.126	77.291	1.085	78.979	77.180	1.049
5.008	15.194	506.5	750	Circular	78.979	77.180	1.049	78.350	77.150	0.450
1.012	5.155	245.5	750	Circular	78.350	77.000	0.600	78.350	76.979	0.621
1.013	77.216	174.3	225	Circular	78.350	76.979	1.146	77.761	76.536	1.000
1.014	70.231	131.5	225	Circular	77.761	76.536	1.000	76.950	76.002	0.723
1.015	12.221	119.8	225	Circular	76.950	76.002	0.723	76.681	75.900	0.556

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
6.000	S32	1800	Manhole	Adoptable	S33	1800	Manhole	Adoptable
6.001	S33	1800	Manhole	Adoptable	S34	1800	Manhole	Adoptable
5.005	S34	1800	Manhole	Adoptable	S37	1800	Manhole	Adoptable
7.000	S35	1500	Manhole	Adoptable	S36	1500	Manhole	Adoptable
7.001	S36	1500	Manhole	Adoptable	S37	1800	Manhole	Adoptable
5.006	S37	1800	Manhole	Adoptable	S38	1800	Manhole	Adoptable
5.007	S38	1800	Manhole	Adoptable	S39	1800	Manhole	Adoptable
5.008	S39	1800	Manhole	Adoptable	S40	1500	Manhole	Adoptable
1.012	S41	1500	Manhole	Adoptable	S42	3000	Manhole	Adoptable
1.013	S42	3000	Manhole	Adoptable	S44	1200	Manhole	Adoptable
1.014	S44	1200	Manhole	Adoptable	S45	1200	Manhole	Adoptable
1.015	S45	1200	Manhole	Adoptable	S46	1500	Manhole	Adoptable

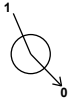
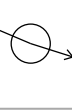
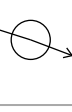
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S1	450928.749	305356.698	91.969	1.934	1350		0	1.000	90.035	225
S2	450946.993	305364.548	91.283	1.633	1350		1	1.000	89.650	225
							0	1.001	89.650	225
S3	451010.554	305422.616	90.578	1.538	1350		0	2.000	89.040	225
S4	451011.895	305394.182	89.345	1.495	1350		1	2.000	87.850	225
							0	2.001	87.850	225
S5	451013.324	305372.349	89.062	1.724	1350		1	2.001	87.413	225
							0	2.002	87.338	300
S6	451023.312	305368.388	88.570	1.805	2100		1	2.002	86.840	300
							2	1.001	86.915	225
							0	1.002	86.765	375
S7	451024.927	305344.290	87.734	1.919	1350		1	1.002	85.815	375
							0	1.003	85.815	375
S8	450984.723	305313.124	87.709	1.684	1350		0	3.000	86.025	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S9	451002.669	305313.802	87.074	1.749	1350	 1	3.000	85.325	225
						 0	3.001	85.325	225
S10	451015.126	305309.874	86.626	1.856	1350	 1	3.001	84.995	225
						 2	1.003	84.845	375
						 0	1.004	84.770	450
S11	451008.003	305287.592	86.038	1.868	1350	 1	1.004	84.170	450
						 0	1.005	84.170	450
S12	450992.213	305234.329	84.448	2.038	1350	 1	1.005	82.410	450
						 0	1.006	82.410	450
S13	450885.597	305389.463	94.212	1.502	1350	 0	4.000	92.710	225
S14	450902.001	305362.489	92.956	1.581	1350	 1	4.000	91.375	225
						 0	4.001	91.375	225
S15	450907.515	305346.432	92.000	1.310	1500	 1	4.001	90.765	225
						 0	4.002	90.690	300
S16	450928.407	305295.132	89.000	1.430	1350	 1	4.002	87.570	300
						 0	4.003	87.570	300

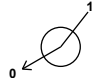
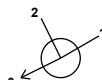
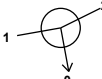
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections		Link	IL (m)	Dia (mm)
S17	450934.282	305275.519	87.930	1.670	1350		1	4.003	86.260	300
							0	4.004	86.260	300
S18	450947.830	305243.874	86.068	1.508	1350		1	4.004	84.560	300
							0	4.005	84.560	300
S19	450958.795	305232.552	85.300	1.420	1350		1	4.005	83.880	300
							0	4.006	83.880	300
S20	450977.158	305224.764	84.276	1.009	1500		1	4.006	83.267	300
							0	4.007	83.267	300
S21	450983.126	305222.876	84.250	1.250	1350		1	4.007	83.075	300
							0	4.008	83.000	375
S22	450995.680	305218.130	83.890	2.115	1800		1	4.008	81.925	375
							2	1.006	81.850	450
							0	1.007	81.775	525
S23	451006.900	305206.405	83.448	2.163	1500		1	1.007	81.285	525
							0	1.008	81.285	525
S24	451033.539	305198.718	82.791	2.086	1500		1	1.008	80.705	525
							0	1.009	80.705	525

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections		Link	IL (m)	Dia (mm)
S25	451046.119	305170.170	79.150	1.800	1500		1	1.009	77.350	525
S26	451050.281	305159.824	78.350	1.295	1500		1	1.010	77.300	525
S27	451040.479	305302.873	85.592	1.322	1350		0	5.000	84.270	150
S28	451068.958	305294.106	84.436	1.616	1350		1	5.000	82.895	150
S29	451098.183	305285.396	83.182	1.512	1350		1	5.001	82.820	225
S30	451158.093	305267.460	81.132	2.237	1350		1	5.002	81.670	300
S31	451169.295	305257.088	80.390	2.866	1800		1	5.003	78.895	450
S32	451208.330	305258.808	79.726	2.175	1800		0	6.000	77.551	750

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S33	451197.956	305245.573	79.564	2.047	1800		1	6.000	77.517	750
							0	6.001	77.517	750
S34	451180.049	305235.189	79.479	2.003	1800		1	6.001	77.476	750
							2	5.004	77.476	750
							0	5.005	77.476	750
S35	451057.961	305202.450	82.187	2.352	1500					
							0	7.000	79.835	525
S36	451087.567	305207.620	81.475	2.242	1500		1	7.000	79.233	525
							0	7.001	79.233	525
S37	451144.770	305217.725	80.131	2.734	1800		1	7.001	77.622	525
							2	5.005	77.397	750
							0	5.006	77.397	750
S38	451154.394	305165.614	79.126	1.835	1800		1	5.006	77.291	750
							0	5.007	77.291	750
S39	451111.741	305157.005	78.979	1.799	1800		1	5.007	77.180	750
							0	5.008	77.180	750
S40	451111.638	305141.811	78.350	1.295	1500		1	5.008	77.150	750

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S41	451059.568	305115.187	78.350	1.350	1500		0	1.012	77.000	750
S42	451061.198	305110.296	78.350	1.371	3000		1	1.012	76.979	750
							0	1.013	76.979	225
S44	451136.474	305127.498	77.761	1.225	1200		1	1.013	76.536	225
							0	1.014	76.536	225
S45	451201.546	305153.919	76.950	0.948	1200		1	1.014	76.002	225
							0	1.015	76.002	225
S46	451213.767	305154.012	76.681	0.781	1500		1	1.015	75.900	225

Simulation Settings

Rainfall Methodology	FSR	Summer CV	0.750	Additional Storage (m ³ /ha)	25.0
Rainfall Events	Singular	Winter CV	0.840	Starting Level (m)	
FSR Region	England and Wales	Analysis Speed	Normal	Check Discharge Rate(s)	x
M5-60 (mm)	20.000	Skip Steady State	x	Check Discharge Volume	x
Ratio-R	0.400	Drain Down Time (mins)	10080		

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0	100	40	0	0
30	0	0	0				

Node S42 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	76.979	Product Number	CTL-SHE-0182-1630-0950-1630
Design Depth (m)	0.950	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	16.3	Min Node Diameter (mm)	1500

Node S41 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	55.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	77.000	Main Channel Slope (1:X)	1000.0
Safety Factor	2.0	Time to half empty (mins)	1020	Main Channel n	0.040

Inlets

S40 | S26

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	1813.0	0.0	0.300	2054.6	0.0	0.600	2305.9	0.0	0.900	2565.3	0.0	1.200	2833.0	0.0
0.100	1891.6	0.0	0.400	2137.4	0.0	0.700	2391.5	0.0	1.000	2653.6	0.0	1.300	3241.5	0.0
0.200	1972.6	0.0	0.500	2221.2	0.0	0.800	2477.9	0.0	1.100	2742.8	0.0	1.350	3621.8	0.0

Node S20 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	83.267
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	0

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	0.0	0.0	0.100	2.1	0.0	0.200	6.4	0.0	0.300	12.9	0.0	0.400	21.4	0.0
												0.486	30.4	0.0

Other (defaults)

Entry Loss (manhole)	0.250	Entry Loss (junction)	0.000	Apply Recommended Losses	x
Exit Loss (manhole)	0.250	Exit Loss (junction)	0.000	Flood Risk (m)	0.300

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
1 year 15 minute summer	109.521	30.991	30 year 30 minute winter	122.757	49.499
1 year 15 minute winter	76.857	30.991	30 year 60 minute summer	116.589	30.811
1 year 30 minute summer	71.439	20.215	30 year 60 minute winter	77.459	30.811
1 year 30 minute winter	50.133	20.215	30 year 120 minute summer	70.438	18.615
1 year 60 minute summer	48.435	12.800	30 year 120 minute winter	46.797	18.615
1 year 60 minute winter	32.179	12.800	30 year 180 minute summer	53.298	13.715
1 year 120 minute summer	30.053	7.942	30 year 180 minute winter	34.645	13.715
1 year 120 minute winter	19.966	7.942	30 year 240 minute summer	41.604	10.995
1 year 180 minute summer	23.233	5.979	30 year 240 minute winter	27.641	10.995
1 year 180 minute winter	15.102	5.979	30 year 360 minute summer	31.221	8.034
1 year 240 minute summer	18.475	4.882	30 year 360 minute winter	20.295	8.034
1 year 240 minute winter	12.274	4.882	30 year 480 minute summer	24.324	6.428
1 year 360 minute summer	14.169	3.646	30 year 480 minute winter	16.160	6.428
1 year 360 minute winter	9.210	3.646	30 year 600 minute summer	19.756	5.404
1 year 480 minute summer	11.185	2.956	30 year 600 minute winter	13.498	5.404
1 year 480 minute winter	7.431	2.956	30 year 720 minute summer	17.490	4.687
1 year 600 minute summer	9.182	2.511	30 year 720 minute winter	11.754	4.687
1 year 600 minute winter	6.274	2.511	30 year 960 minute summer	14.215	3.743
1 year 720 minute summer	8.203	2.199	30 year 960 minute winter	9.416	3.743
1 year 720 minute winter	5.513	2.199	30 year 1440 minute summer	10.161	2.723
1 year 960 minute summer	6.768	1.782	30 year 1440 minute winter	6.829	2.723
1 year 960 minute winter	4.483	1.782	100 year +40% CC 15 minute summer	488.233	138.153
1 year 1440 minute summer	4.949	1.326	100 year +40% CC 15 minute winter	342.620	138.153
1 year 1440 minute winter	3.326	1.326	100 year +40% CC 30 minute summer	320.551	90.705
30 year 15 minute summer	268.706	76.035	100 year +40% CC 30 minute winter	224.948	90.705
30 year 15 minute winter	188.566	76.035	100 year +40% CC 60 minute summer	214.603	56.713
30 year 30 minute summer	174.929	49.499	100 year +40% CC 60 minute winter	142.577	56.713

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 120 minute summer	129.587	34.246	100 year +40% CC 480 minute winter	29.219	11.622
100 year +40% CC 120 minute winter	86.094	34.246	100 year +40% CC 600 minute summer	35.604	9.738
100 year +40% CC 180 minute summer	97.729	25.149	100 year +40% CC 600 minute winter	24.327	9.738
100 year +40% CC 180 minute winter	63.526	25.149	100 year +40% CC 720 minute summer	31.433	8.424
100 year +40% CC 240 minute summer	75.977	20.078	100 year +40% CC 720 minute winter	21.125	8.424
100 year +40% CC 240 minute winter	50.477	20.078	100 year +40% CC 960 minute summer	25.432	6.697
100 year +40% CC 360 minute summer	56.677	14.585	100 year +40% CC 960 minute winter	16.847	6.697
100 year +40% CC 360 minute winter	36.841	14.585	100 year +40% CC 1440 minute summer	18.055	4.839
100 year +40% CC 480 minute summer	43.979	11.622	100 year +40% CC 1440 minute winter	12.134	4.839

Results for 1 year Critical Storm Duration. Lowest mass balance: 96.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	90.099	0.064	12.7	0.1673	0.0000	OK
15 minute winter	S2	11	89.721	0.071	21.7	0.1721	0.0000	OK
15 minute winter	S3	10	89.105	0.065	19.8	0.2418	0.0000	OK
15 minute winter	S4	10	87.955	0.105	30.3	0.2828	0.0000	OK
15 minute winter	S5	10	87.432	0.094	43.3	0.2673	0.0000	OK
15 minute winter	S6	11	86.873	0.108	72.3	0.4689	0.0000	OK
15 minute winter	S7	11	85.953	0.138	88.5	0.4133	0.0000	OK
15 minute winter	S8	10	86.065	0.040	7.3	0.0883	0.0000	OK
15 minute winter	S9	10	85.389	0.064	13.7	0.1347	0.0000	OK
15 minute winter	S10	11	84.920	0.150	108.9	0.3142	0.0000	OK
15 minute winter	S11	11	84.307	0.137	118.5	0.3249	0.0000	OK
15 minute winter	S12	11	82.572	0.162	135.8	0.4848	0.0000	OK
15 minute winter	S13	10	92.748	0.038	6.7	0.0841	0.0000	OK
15 minute winter	S14	10	91.422	0.047	9.1	0.0800	0.0000	OK
15 minute winter	S15	10	90.743	0.053	18.6	0.1633	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	12.6	1.261	0.173	0.1982	
15 minute winter	S2	1.001	S6	21.1	1.981	0.214	0.8158	
15 minute winter	S3	2.000	S4	19.6	1.433	0.183	0.3922	
15 minute winter	S4	2.001	S5	29.6	1.708	0.402	0.3803	
15 minute winter	S5	2.002	S6	42.9	2.434	0.179	0.1899	
15 minute winter	S6	1.002	S7	72.6	2.301	0.182	0.7636	
15 minute winter	S7	1.003	S10	89.2	2.502	0.270	1.2751	
15 minute winter	S8	3.000	S9	7.2	1.032	0.070	0.1272	
15 minute winter	S9	3.001	S10	13.5	1.490	0.162	0.1179	
15 minute winter	S10	1.004	S11	109.2	2.513	0.210	1.0169	
15 minute winter	S11	1.005	S12	119.1	2.586	0.206	2.5608	
15 minute winter	S12	1.006	S22	135.9	2.860	0.228	0.7875	
15 minute winter	S13	4.000	S14	6.6	1.282	0.062	0.1633	
15 minute winter	S14	4.001	S15	8.9	1.525	0.090	0.0990	
15 minute winter	S15	4.002	S16	18.3	1.943	0.069	0.5214	

Results for 1 year Critical Storm Duration. Lowest mass balance: 96.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S16	10	87.632	0.062	26.5	0.1511	0.0000	OK
15 minute winter	S17	11	86.330	0.070	29.9	0.1291	0.0000	OK
15 minute winter	S18	11	84.644	0.084	37.8	0.2035	0.0000	OK
15 minute winter	S19	11	83.977	0.097	41.7	0.1839	0.0000	OK
15 minute winter	S20	11	83.377	0.110	41.9	0.3218	0.0000	OK
15 minute winter	S21	11	83.075	0.075	44.0	0.1304	0.0000	OK
15 minute winter	S22	11	81.957	0.182	182.2	0.5007	0.0000	OK
15 minute winter	S23	11	81.497	0.212	188.5	0.4929	0.0000	OK
15 minute winter	S24	11	80.826	0.121	192.1	0.2563	0.0000	OK
15 minute winter	S25	11	77.673	0.323	191.6	0.5701	0.0000	OK
15 minute winter	S26	12	77.422	0.367	190.0	0.6484	0.0000	OK
15 minute winter	S27	10	84.331	0.061	13.0	0.1937	0.0000	OK
15 minute winter	S28	10	82.909	0.089	30.7	0.3021	0.0000	OK
15 minute winter	S29	11	81.766	0.096	49.9	0.3575	0.0000	OK
15 minute winter	S30	11	78.983	0.088	64.6	0.2395	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S16	4.003	S17	26.2	2.289	0.093	0.2345	
15 minute winter	S17	4.004	S18	30.0	2.098	0.121	0.4941	
15 minute winter	S18	4.005	S19	38.1	2.128	0.164	0.2823	
15 minute winter	S19	4.006	S20	41.9	1.952	0.214	0.4281	
15 minute winter	S20	4.007	S21	41.9	1.992	0.214	0.1317	
15 minute winter	S21	4.008	S22	44.0	2.970	0.077	0.1987	
15 minute winter	S22	1.007	S23	182.1	2.460	0.216	1.2027	
15 minute winter	S23	1.008	S24	188.1	3.201	0.268	1.6524	
15 minute winter	S24	1.009	S25	191.6	2.212	0.120	2.7536	
15 minute winter	S25	1.010	S26	190.0	1.479	0.587	1.4317	
15 minute winter	S26	Flow through Pond	S41	356.1	0.156	0.013	191.4442	
15 minute winter	S27	5.000	S28	12.7	1.925	0.331	0.1969	
15 minute winter	S28	5.001	S29	30.2	2.136	0.308	0.4310	
15 minute winter	S29	5.002	S30	49.2	2.582	0.215	1.1913	
15 minute winter	S30	5.003	S31	64.6	3.096	0.075	0.3188	

Results for 1 year Critical Storm Duration. Lowest mass balance: 96.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S31	11	77.735	0.211	76.2	0.6937	0.0000	OK
15 minute winter	S32	12	77.711	0.160	8.6	0.5197	0.0000	OK
15 minute winter	S33	12	77.713	0.196	11.6	0.5652	0.0000	OK
15 minute winter	S34	12	77.710	0.234	94.8	0.9074	0.0000	OK
15 minute winter	S35	10	79.902	0.067	24.8	0.2441	0.0000	OK
15 minute winter	S36	11	79.311	0.078	39.3	0.2287	0.0000	OK
15 minute winter	S37	12	77.677	0.280	150.7	1.1530	0.0000	OK
15 minute winter	S38	12	77.587	0.296	177.7	1.8128	0.0000	OK
15 minute winter	S39	12	77.495	0.315	198.8	1.6718	0.0000	OK
15 minute winter	S40	13	77.404	0.349	195.9	0.6168	0.0000	OK
600 minute winter	S41	450	77.248	0.248	27.3	0.4390	0.0000	OK
600 minute winter	S42	450	77.248	0.269	14.2	1.9028	0.0000	SURCHARGED
600 minute winter	S44	450	76.623	0.087	14.2	0.0981	0.0000	OK
600 minute winter	S45	450	76.092	0.090	14.2	0.1015	0.0000	OK
600 minute winter	S46	450	75.984	0.084	14.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S31	5.004	S34	75.4	0.774	0.138	2.6281	
15 minute winter	S32	6.000	S33	8.6	0.322	0.016	1.3476	
15 minute winter	S33	6.001	S34	13.5	0.206	0.025	2.1609	
15 minute winter	S34	5.005	S37	93.2	0.700	0.169	5.2610	
15 minute winter	S35	7.000	S36	24.6	1.372	0.036	0.5386	
15 minute winter	S36	7.001	S37	38.4	1.952	0.047	1.1430	
15 minute winter	S37	5.006	S38	148.8	0.956	0.271	8.2534	
15 minute winter	S38	5.007	S39	176.9	1.051	0.285	7.3226	
15 minute winter	S39	5.008	S40	195.9	1.244	0.359	2.4010	
15 minute winter	S40	Flow through Pond	S41	356.1	0.156	0.013	191.4442	
600 minute winter	S41	1.012	S42	14.2	0.219	0.018	0.6940	
600 minute winter	S42	1.013	S44	14.2	0.948	0.363	1.1608	
600 minute winter	S44	1.014	S45	14.2	0.987	0.315	1.0134	
600 minute winter	S45	1.015	S46	14.2	1.009	0.300	0.1725	650.4

Results for 30 year Critical Storm Duration. Lowest mass balance: 96.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	90.142	0.107	31.2	0.2781	0.0000	OK
15 minute winter	S2	11	89.767	0.117	53.2	0.2841	0.0000	OK
15 minute winter	S3	10	89.146	0.106	48.7	0.3924	0.0000	OK
15 minute winter	S4	11	88.066	0.216	74.6	0.5849	0.0000	OK
15 minute winter	S5	10	87.500	0.162	105.1	0.4598	0.0000	OK
15 minute winter	S6	10	86.948	0.183	177.3	0.7912	0.0000	OK
15 minute winter	S7	11	86.055	0.240	217.5	0.7177	0.0000	OK
15 minute winter	S8	10	86.088	0.063	17.8	0.1378	0.0000	OK
15 minute winter	S9	10	85.433	0.108	33.6	0.2252	0.0000	OK
15 minute winter	S10	11	85.028	0.258	265.7	0.5397	0.0000	OK
15 minute winter	S11	11	84.396	0.226	289.4	0.5369	0.0000	OK
15 minute winter	S12	11	82.697	0.287	332.6	0.8578	0.0000	OK
15 minute winter	S13	10	92.769	0.059	16.5	0.1315	0.0000	OK
15 minute winter	S14	10	91.451	0.076	22.4	0.1294	0.0000	OK
15 minute winter	S15	10	90.773	0.083	45.7	0.2563	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	30.9	1.565	0.426	0.3924	
15 minute winter	S2	1.001	S6	51.9	2.509	0.525	1.5810	
15 minute winter	S3	2.000	S4	48.3	1.695	0.452	0.8100	
15 minute winter	S4	2.001	S5	72.1	2.018	0.978	0.8519	
15 minute winter	S5	2.002	S6	104.5	2.982	0.435	0.3769	
15 minute winter	S6	1.002	S7	176.6	2.764	0.443	1.5404	
15 minute winter	S7	1.003	S10	217.4	3.080	0.658	2.5255	
15 minute winter	S8	3.000	S9	17.7	1.282	0.171	0.2498	
15 minute winter	S9	3.001	S10	33.1	1.869	0.399	0.2313	
15 minute winter	S10	1.004	S11	266.5	3.069	0.513	2.0312	
15 minute winter	S11	1.005	S12	291.3	3.118	0.505	5.1824	
15 minute winter	S12	1.006	S22	334.2	3.336	0.561	1.6706	
15 minute winter	S13	4.000	S14	16.3	1.636	0.152	0.3162	
15 minute winter	S14	4.001	S15	22.0	1.949	0.223	0.1921	
15 minute winter	S15	4.002	S16	45.2	2.476	0.171	1.0143	

Results for 30 year Critical Storm Duration. Lowest mass balance: 96.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S16	10	87.671	0.101	65.3	0.2458	0.0000	OK
15 minute winter	S17	11	86.371	0.111	74.0	0.2045	0.0000	OK
15 minute winter	S18	11	84.702	0.142	93.7	0.3415	0.0000	OK
15 minute winter	S19	11	84.045	0.165	102.1	0.3134	0.0000	OK
15 minute winter	S20	11	83.463	0.196	102.8	0.8545	0.0000	OK
15 minute winter	S21	11	83.111	0.111	108.4	0.1939	0.0000	OK
15 minute winter	S22	11	82.110	0.335	448.4	0.9221	0.0000	OK
15 minute winter	S23	11	81.663	0.378	464.6	0.8771	0.0000	OK
15 minute winter	S24	11	80.897	0.192	474.4	0.4081	0.0000	OK
15 minute winter	S25	11	78.012	0.662	474.0	1.1690	0.0000	SURCHARGED
15 minute winter	S26	11	77.752	0.697	472.7	1.2310	0.0000	OK
15 minute winter	S27	10	84.378	0.108	31.9	0.3442	0.0000	OK
15 minute winter	S28	10	82.977	0.157	75.5	0.5345	0.0000	OK
15 minute winter	S29	10	81.829	0.159	122.6	0.5963	0.0000	OK
15 minute winter	S30	10	79.041	0.146	159.6	0.3954	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S16	4.003	S17	64.5	2.912	0.228	0.4538	
15 minute winter	S17	4.004	S18	73.5	2.610	0.296	0.9708	
15 minute winter	S18	4.005	S19	93.4	2.583	0.403	0.5700	
15 minute winter	S19	4.006	S20	102.8	2.330	0.526	0.8824	
15 minute winter	S20	4.007	S21	103.2	2.421	0.529	0.2664	
15 minute winter	S21	4.008	S22	108.5	3.289	0.191	0.5461	
15 minute winter	S22	1.007	S23	449.0	2.876	0.532	2.5308	
15 minute winter	S23	1.008	S24	464.7	3.883	0.661	3.2977	
15 minute winter	S24	1.009	S25	474.0	2.793	0.297	4.4849	
15 minute winter	S25	1.010	S26	472.7	2.195	1.460	2.3188	
15 minute winter	S26	Flow through Pond	S41	888.1	0.221	0.032	469.9018	
15 minute winter	S27	5.000	S28	31.2	2.358	0.814	0.3946	
15 minute winter	S28	5.001	S29	74.3	2.628	0.758	0.8636	
15 minute winter	S29	5.002	S30	120.8	3.256	0.528	2.3201	
15 minute winter	S30	5.003	S31	158.8	3.886	0.185	0.6258	

Results for 30 year Critical Storm Duration. Lowest mass balance: 96.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S31	12	77.942	0.418	188.3	1.3751	0.0000	OK
15 minute winter	S32	12	77.937	0.386	21.0	1.2537	0.0000	OK
15 minute winter	S33	12	77.929	0.412	25.3	1.1876	0.0000	OK
15 minute winter	S34	12	77.932	0.456	233.5	1.7660	0.0000	OK
15 minute winter	S35	10	79.941	0.106	60.9	0.3864	0.0000	OK
15 minute winter	S36	10	79.353	0.120	96.6	0.3512	0.0000	OK
15 minute winter	S37	12	77.907	0.510	366.9	2.0965	0.0000	OK
15 minute winter	S38	12	77.838	0.547	420.3	3.3522	0.0000	OK
15 minute winter	S39	12	77.760	0.580	467.3	3.0807	0.0000	OK
15 minute winter	S40	12	77.675	0.620	464.7	1.0961	0.0000	OK
480 minute winter	S41	456	77.524	0.524	66.3	0.9260	0.0000	OK
480 minute winter	S42	456	77.524	0.545	16.7	3.8524	0.0000	SURCHARGED
60 minute winter	S44	79	76.629	0.093	16.3	0.1056	0.0000	OK
60 minute winter	S45	80	76.099	0.097	16.3	0.1097	0.0000	OK
60 minute winter	S46	80	75.990	0.090	16.3	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S31	5.004	S34	180.8	0.861	0.332	6.4891	
15 minute winter	S32	6.000	S33	18.2	0.348	0.033	4.0070	
15 minute winter	S33	6.001	S34	33.1	0.248	0.061	5.4626	
15 minute winter	S34	5.005	S37	217.7	0.757	0.395	11.7832	
15 minute winter	S35	7.000	S36	60.3	1.776	0.088	1.0226	
15 minute winter	S36	7.001	S37	95.3	2.243	0.118	4.4301	
15 minute winter	S37	5.006	S38	344.4	1.069	0.626	17.5688	
15 minute winter	S38	5.007	S39	413.5	1.165	0.665	15.4391	
15 minute winter	S39	5.008	S40	464.7	1.336	0.851	5.2785	
15 minute winter	S40	Flow through Pond	S41	888.1	0.221	0.032	469.9018	
480 minute winter	S41	1.012	S42	16.7	0.296	0.021	1.7304	
480 minute winter	S42	1.013	S44	16.3	0.981	0.415	1.2821	
60 minute winter	S44	1.014	S45	16.3	1.021	0.360	1.1211	
60 minute winter	S45	1.015	S46	16.3	1.044	0.343	0.1907	801.8

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 96.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S1	10	90.197	0.162	56.7	0.4205	0.0000	OK
15 minute winter	S2	10	89.830	0.180	96.6	0.4354	0.0000	OK
15 minute winter	S3	12	89.685	0.645	88.4	2.3986	0.0000	SURCHARGED
15 minute winter	S4	12	88.985	1.135	120.3	3.0675	0.0000	SURCHARGED
15 minute winter	S5	12	87.663	0.325	174.0	0.9221	0.0000	SURCHARGED
15 minute winter	S6	12	87.281	0.516	302.6	2.2306	0.0000	SURCHARGED
15 minute winter	S7	12	86.630	0.815	363.4	2.4329	0.0000	SURCHARGED
15 minute winter	S8	10	86.111	0.086	32.3	0.1883	0.0000	OK
15 minute winter	S9	10	85.487	0.162	61.0	0.3390	0.0000	OK
15 minute winter	S10	12	85.323	0.553	441.2	1.1578	0.0000	SURCHARGED
15 minute winter	S11	12	84.750	0.580	479.3	1.3753	0.0000	SURCHARGED
15 minute winter	S12	11	83.456	1.046	530.0	3.1265	0.0000	SURCHARGED
15 minute winter	S13	10	92.791	0.081	30.0	0.1793	0.0000	OK
15 minute winter	S14	10	91.482	0.107	40.8	0.1830	0.0000	OK
15 minute winter	S15	10	90.804	0.114	83.2	0.3509	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S1	1.000	S2	56.1	1.743	0.773	0.6418	
15 minute winter	S2	1.001	S6	94.2	2.787	0.953	2.7758	
15 minute winter	S3	2.000	S4	75.3	1.916	0.705	1.1321	
15 minute winter	S4	2.001	S5	116.6	2.932	1.583	0.8702	
15 minute winter	S5	2.002	S6	170.9	3.188	0.711	0.7567	
15 minute winter	S6	1.002	S7	288.5	2.841	0.724	2.6639	
15 minute winter	S7	1.003	S10	353.5	3.318	1.070	3.9470	
15 minute winter	S8	3.000	S9	32.1	1.432	0.311	0.4001	
15 minute winter	S9	3.001	S10	60.4	2.073	0.728	0.4482	
15 minute winter	S10	1.004	S11	437.7	3.221	0.843	3.7065	
15 minute winter	S11	1.005	S12	455.0	3.206	0.788	8.8022	
15 minute winter	S12	1.006	S22	526.9	3.451	0.884	2.6248	
15 minute winter	S13	4.000	S14	29.8	1.899	0.277	0.4956	
15 minute winter	S14	4.001	S15	40.2	2.264	0.406	0.3012	
15 minute winter	S15	4.002	S16	82.6	2.866	0.312	1.5974	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 96.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S16	10	87.713	0.143	119.0	0.3496	0.0000	OK
15 minute winter	S17	10	86.416	0.156	135.1	0.2880	0.0000	OK
15 minute winter	S18	11	84.811	0.251	171.2	0.6038	0.0000	OK
15 minute winter	S19	11	84.350	0.470	185.1	0.8944	0.0000	SURCHARGED
15 minute winter	S20	12	83.641	0.374	181.6	3.3474	0.0000	SURCHARGED
15 minute winter	S21	12	83.189	0.189	182.6	0.3307	0.0000	OK
15 minute winter	S22	12	82.740	0.965	714.6	2.6556	0.0000	SURCHARGED
15 minute winter	S23	12	82.120	0.835	732.9	1.9385	0.0000	SURCHARGED
15 minute winter	S24	12	80.990	0.285	747.2	0.6056	0.0000	OK
15 minute winter	S25	12	78.911	1.561	747.2	2.7579	0.0000	FLOOD RISK
15 minute winter	S26	12	78.343	1.288	745.4	2.2766	0.0000	OK
15 minute winter	S27	12	85.503	1.233	58.0	3.9158	0.0000	FLOOD RISK
15 minute winter	S28	11	83.556	0.736	118.5	2.5108	0.0000	SURCHARGED
15 minute winter	S29	11	81.893	0.223	193.9	0.8339	0.0000	OK
15 minute winter	S30	12	79.120	0.225	261.9	0.6093	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S16	4.003	S17	117.8	3.355	0.417	0.7186	
15 minute winter	S17	4.004	S18	134.1	2.892	0.541	1.7139	
15 minute winter	S18	4.005	S19	168.2	2.710	0.726	1.0503	
15 minute winter	S19	4.006	S20	181.6	2.579	0.929	1.4046	
15 minute winter	S20	4.007	S21	174.8	2.590	0.895	0.3923	
15 minute winter	S21	4.008	S22	182.8	3.176	0.321	1.1135	
15 minute winter	S22	1.007	S23	708.2	3.279	0.839	3.5058	
15 minute winter	S23	1.008	S24	732.6	4.316	1.043	4.6551	
15 minute winter	S24	1.009	S25	747.2	3.934	0.468	5.2379	
15 minute winter	S25	1.010	S26	745.4	3.451	2.303	2.4092	
15 minute winter	S26	Flow through Pond	S41	1229.8	0.261	0.045	856.8311	
15 minute winter	S27	5.000	S28	43.5	2.474	1.134	0.5246	
15 minute winter	S28	5.001	S29	111.3	2.799	1.135	1.2110	
15 minute winter	S29	5.002	S30	194.2	3.570	0.850	3.4009	
15 minute winter	S30	5.003	S31	260.2	4.076	0.303	1.8137	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 96.63%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	S31	12	78.849	1.325	313.4	4.3611	0.0000	SURCHARGED
15 minute winter	S32	12	78.808	1.257	40.8	4.0774	0.0000	SURCHARGED
15 minute winter	S33	12	78.835	1.318	64.8	3.7979	0.0000	SURCHARGED
15 minute winter	S34	12	78.813	1.337	388.3	5.1832	0.0000	SURCHARGED
15 minute winter	S35	10	79.981	0.146	110.7	0.5329	0.0000	OK
15 minute winter	S36	10	79.395	0.162	175.7	0.4763	0.0000	OK
15 minute winter	S37	12	78.756	1.359	612.8	5.5891	0.0000	SURCHARGED
15 minute winter	S38	12	78.580	1.289	744.0	7.8950	0.0000	SURCHARGED
15 minute winter	S39	12	78.357	1.177	838.9	6.2523	0.0000	SURCHARGED
15 minute winter	S40	12	78.196	1.141	837.6	2.0166	0.0000	OK
720 minute winter	S41	690	77.931	0.931	81.6	1.6449	0.0000	SURCHARGED
720 minute winter	S42	690	77.931	0.952	16.8	6.7289	0.0000	SURCHARGED
15 minute winter	S44	16	76.630	0.094	16.3	0.1059	0.0000	OK
15 minute winter	S45	18	76.099	0.097	16.3	0.1097	0.0000	OK
15 minute winter	S46	18	75.990	0.090	16.3	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	S31	5.004	S34	308.3	0.903	0.565	10.7376	
15 minute winter	S32	6.000	S33	54.9	0.377	0.099	7.4015	
15 minute winter	S33	6.001	S34	67.4	0.293	0.123	9.1105	
15 minute winter	S34	5.005	S37	382.6	0.869	0.695	17.3249	
15 minute winter	S35	7.000	S36	109.8	2.078	0.160	1.5893	
15 minute winter	S36	7.001	S37	173.7	2.236	0.215	7.9193	
15 minute winter	S37	5.006	S38	611.3	1.389	1.112	23.3233	
15 minute winter	S38	5.007	S39	741.2	1.684	1.192	19.1510	
15 minute winter	S39	5.008	S40	837.6	1.903	1.534	6.6872	
15 minute winter	S40	Flow through Pond	S41	1229.8	0.261	0.045	856.8311	
720 minute winter	S41	1.012	S42	16.8	0.222	0.021	2.2688	
720 minute winter	S42	1.013	S44	16.3	0.981	0.415	1.2821	
15 minute winter	S44	1.014	S45	16.3	1.052	0.361	1.1216	
15 minute winter	S45	1.015	S46	16.3	1.044	0.344	0.1909	899.1