Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	100	Maximum Rainfall (mm/hr)	1.0
Additional Flow (%)	40	Minimum Velocity (m/s)	0.10
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	0.450
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	x

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
Headwall			3.220	1200	524143.867	326607.486	0.660
MH-0001-S	0.012	5.00	3.665	1800	524175.298	326599.402	1.005
MH-0002-S	0.037	5.00	3.590	1350	524187.638	326601.013	0.890
MH-0003-S	0.020	5.00	3.730	1200	524228.830	326591.423	0.910
MH-0005-S	0.020	5.00	4.025	1200	524276.746	326578.179	1.125
MH-0006-S	0.014	5.00	3.695	1350	524199.228	326618.681	0.920
MH-0007-S	0.017	5.00	3.775	1200	524213.196	326622.685	0.950
MH-0008-S			3.850	1200	524214.485	326626.467	1.000
MH-0009-S	0.004	5.00	3.925	1200	524217.309	326634.749	1.025
MH-0010-S	0.020	5.00	3.650	1200	524250.533	326617.725	0.700
MH-0011-S	0.013	5.00	3.700	1200	524258.848	326625.067	0.700
MH-0012-S	0.017	5.00	3.825	1200	524264.929	326650.632	0.745
MH-0013-S	0.019	5.00	3.970	1200	524271.812	326679.563	0.770
MH-0014-S	0.006	5.00	3.800	1200	524275.780	326611.006	0.750
IC-0101-S	0.005	5.00	4.020	450	524272.711	326688.754	0.750
IC-0102-S	0.005	5.00	4.020	450	524283.759	326695.482	0.570
IC-0103-S	0.023	5.00	4.020	450	524277.753	326706.032	0.490
IC-0201-S	0.005	5.00	4.020	450	524263.864	326685.037	0.760
IC-0202-S	0.005	5.00	4.020	450	524251.904	326676.744	0.570
IC-0203-S	0.023	5.00	4.020	450	524244.770	326686.567	0.500
IC-0301-S	0.014	5.00	3.905	450	524267.240	326642.194	0.800
IC-0302-S	0.003	5.00	3.950	450	524281.252	326639.177	0.690
IC-0401-S	0.016	5.00	3.900	450	524263.182	326620.342	0.630
IC-0402-S	0.006	5.00	4.025	450	524275.227	326616.822	0.935
IC-0001-S	0.011	5.00	3.945	450	524284.880	326613.859	0.835
IC-0002-S	0.021	5.00	4.025	450	524292.054	326618.961	0.825
IC-0901-S	0.022	5.00	4.090	450	524289.492	326596.109	0.550
IC-1101-S	0.015	5.00	4.100	450	524286.725	326584.928	1.070
IC-1301-S	0.007	5.00	4.130	450	524294.794	326562.429	0.890
IC-1302-S			4.050	450	524292.546	326550.827	0.730
IC-1303-S	0.007	5.00	4.050	450	524305.595	326547.564	0.650
IC-1401-S	0.030	5.00	4.100	450	524279.975	326567.151	0.960
IC-1501-S	0.018	5.00	4.120	450	524274.304	326568.597	1.110

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Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
IC-1701-S	0.022	5.00	3.990	450	524241.717	326577.737	0.920
IC-1801-S	0.014	5.00	3.960	450	524236.458	326579.060	0.920
IC-1901-S	0.008	5.00	3.950	450	524226.375	326581.595	1.060
IC-1902-S	0.003	5.00	3.910	450	524220.685	326583.027	0.900
IC-2001-S	0.028	5.00	3.900	450	524218.332	326583.618	0.870
IC-2201-S	0.017	5.00	3.750	450	524181.227	326591.250	0.780
IC-2301-S	0.022	5.00	3.750	450	524173.539	326592.289	0.920
IC-2401-S	0.011	5.00	3.800	450	524158.700	326596.019	0.780
IC-2402-S			3.800	450	524154.868	326581.932	0.680
IC-2403-S	0.011	5.00	3.800	450	524143.385	326585.229	0.600
IC-2501-S	0.003	5.00	3.700	450	524175.751	326601.200	0.610
IC-2502-S	0.009	5.00	3.820	450	524177.559	326609.675	0.670
IC-2601-S	0.014	5.00	3.800	450	524182.527	326613.872	0.780
IC-2701-S	0.013	5.00	3.925	450	524184.891	326622.008	1.055
IC-2801-S	0.015	5.00	3.975	450	524191.156	326628.293	0.975
IC-3001-S	0.008	5.00	3.990	450	524212.840	326635.859	1.060
IC-3002-S	0.007	5.00	4.050	450	524207.661	326637.245	1.080
IC-3201-S	0.015	5.00	3.890	450	524213.372	326651.555	0.800
IC-3401-S	0.022	5.00	3.800	450	524224.614	326632.519	0.830
IC-3501-S	0.004	5.00	3.975	450	524238.118	326627.993	0.865
IC-3502-S	0.004	5.00	3.900	450	524250.040	326625.348	0.680
Dummy Node			3.665	1800	524172.313	326600.131	1.006

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)
PN-001-S	Dummy Node	Headwall	29.381	0.600	2.659	2.560	0.099	296.8	300	9.91	1.0
PN-002-S	MH-0002-S	MH-0001-S	12.445	0.600	2.700	2.660	0.040	311.1	400	9.28	1.0
PN-003-S	MH-0003-S	MH-0002-S	42.294	0.600	2.820	2.700	0.120	352.4	300	8.36	1.0
PN-004-S	MH-0005-S	MH-0003-S	49.713	0.600	2.900	2.820	0.080	621.4	300	7.51	1.0
PN-006-S	MH-0006-S	MH-0002-S	21.130	0.600	2.775	2.700	0.075	281.7	375	9.08	1.0
PN-007-S	MH-0007-S	MH-0006-S	14.531	0.600	2.825	2.775	0.050	290.6	300	8.75	1.0
PN-008-S	MH-0008-S	MH-0007-S	3.996	0.600	2.850	2.825	0.025	159.8	300	8.49	1.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
PN-001-S	0.907	64.1	2.6	0.706	0.360	0.685	0.0	41	0.446
PN-002-S	1.064	133.8	2.3	0.490	0.605	0.600	0.0	36	0.409
PN-003-S	0.832	58.8	0.8	0.610	0.590	0.214	0.0	25	0.297
PN-004-S	0.623	44.1	0.5	0.825	0.610	0.119	0.0	21	0.200
PN-006-S	1.074	118.6	1.3	0.545	0.515	0.349	0.0	27	0.358
PN-007-S	0.917	64.8	1.1	0.650	0.620	0.293	0.0	27	0.349
PN-008-S	1.241	87.7	1.0	0.700	0.650	0.276	0.0	23	0.426

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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)
PN-009-S	MH-0009-S	MH-0008-S	8.750	0.600	2.900	2.850	0.050	175.0	300	5.71	1.0
PN-010-S	MH-0010-S	MH-0008-S	37.093	0.600	2.950	2.850	0.100	370.9	225	8.44	1.0
PN-011-S	MH-0011-S	MH-0010-S	11.093	0.600	3.000	2.950	0.050	221.9	300	7.52	1.0
PN-012-S	MH-0012-S	MH-0011-S	26.278	0.600	3.080	3.000	0.080	328.5	150	7.34	1.0
PN-013-S	MH-0013-S	MH-0012-S	29.739	0.600	3.200	3.080	0.120	247.8	150	6.54	1.0
PN-014-S	MH-0014-S	MH-0010-S	26.126	0.600	3.050	2.950	0.100	261.3	150	6.07	1.0
PN-0101-S	IC-0101-S	MH-0013-S	9.235	0.600	3.270	3.200	0.070	131.9	150	5.68	1.0
PN-0102-S	IC-0102-S	IC-0101-S	12.935	0.600	3.450	3.360	0.090	143.7	150	5.51	1.0
PN-0103-S	IC-0103-S	IC-0102-S	12.140	0.600	3.530	3.450	0.080	151.7	150	5.25	1.0
PN-0201-S	IC-0201-S	MH-0013-S	9.651	0.600	3.260	3.200	0.060	160.8	150	5.76	1.0
PN-0202-S	IC-0202-S	IC-0201-S	14.554	0.600	3.450	3.350	0.100	145.5	150	5.56	1.0
PN-0203-S	IC-0203-S	IC-0202-S	12.140	0.600	3.520	3.450	0.070	173.4	150	5.27	1.0
PN-0301-S	IC-0301-S	MH-0012-S	8.749	0.600	3.105	3.080	0.025	349.9	150	5.63	1.0
PN-0302-S	IC-0302-S	IC-0301-S	14.333	0.600	3.260	3.195	0.065	220.5	150	5.36	1.0
PN-0401-S	IC-0402-S	MH-0014-S	5.842	0.600	3.090	3.050	0.040	146.1	150	5.36	1.0
PN-0402-S	IC-0401-S	IC-0402-S	12.549	0.600	3.270	3.180	0.090	139.4	150	5.25	1.0
PN-0501-S	IC-0001-S	MH-0014-S	9.537	0.600	3.110	3.050	0.060	159.0	150	5.34	1.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
PN-009-S	1.185	83.8	0.2	0.725	0.700	0.064	0.0	12	0.260
PN-010-S	0.673	26.8	0.8	0.475	0.775	0.212	0.0	27	0.301
PN-011-S	1.051	74.3	0.5	0.400	0.400	0.132	0.0	18	0.302
PN-012-S	0.549	9.7	0.5	0.595	0.550	0.119	0.0	22	0.276
PN-013-S	0.634	11.2	0.3	0.620	0.595	0.085	0.0	18	0.279
PN-014-S	0.617	10.9	0.2	0.600	0.550	0.060	0.0	15	0.241
PN-0101-S	0.873	15.4	0.1	0.600	0.620	0.033	0.0	10	0.255
PN-0102-S	0.836	14.8	0.1	0.420	0.510	0.028	0.0	9	0.233
PN-0103-S	0.813	14.4	0.1	0.340	0.420	0.023	0.0	8	0.216
PN-0201-S	0.790	14.0	0.1	0.610	0.620	0.033	0.0	10	0.239
PN-0202-S	0.831	14.7	0.1	0.420	0.520	0.028	0.0	9	0.232
PN-0203-S	0.760	13.4	0.1	0.350	0.420	0.023	0.0	9	0.211
PN-0301-S	0.531	9.4	0.1	0.650	0.595	0.017	0.0	9	0.146
PN-0302-S	0.673	11.9	0.0	0.540	0.560	0.003	0.0	4	0.096
PN-0401-S	0.829	14.7	0.1	0.785	0.600	0.022	0.0	8	0.220
PN-0402-S	0.849	15.0	0.1	0.480	0.695	0.016	0.0	7	0.203
PN-0501-S	0.794	14.0	0.1	0.685	0.600	0.032	0.0	10	0.241

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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)
PN-0502-S	IC-0002-S	IC-0001-S	8.804	0.600	3.200	3.110	0.090	97.8	150	5.14	1.0
PN-1201-S	IC-1101-S	MH-0005-S	12.046	0.600	3.030	2.950	0.080	150.6	150	6.04	1.0
PN-1202-S	IC-0901-S	IC-1101-S	11.518	0.600	3.540	3.528	0.012	959.9	100	5.80	1.0
PN-1501-S	IC-1501-S	MH-0005-S	9.888	0.600	3.010	2.950	0.060	164.8	150	6.18	1.0
PN-1502-S	IC-1401-S	IC-1501-S	5.852	0.600	3.140	3.100	0.040	146.3	150	5.97	1.0
PN-1503-S	IC-1301-S	IC-1401-S	15.553	0.600	3.240	3.140	0.100	155.5	150	5.85	1.0
PN-1504-S	IC-1302-S	IC-1301-S	11.818	0.600	3.320	3.240	0.080	147.7	150	5.53	1.0
PN-1505-S	IC-1303-S	IC-1302-S	13.451	0.600	3.400	3.320	0.080	168.1	150	5.29	1.0
PN-1901-S	IC-1901-S	MH-0003-S	10.130	0.600	2.890	2.820	0.070	144.7	225	5.49	1.0
PN-1902-S	IC-1902-S	IC-1901-S	5.867	0.600	3.010	2.970	0.040	146.7	150	5.16	1.0
PN-1903-S	IC-2001-S	IC-1902-S	2.426	0.600	3.030	3.010	0.020	121.3	150	5.04	1.0
PN-1904-S	IC-1801-S	IC-1901-S	10.397	0.600	3.040	2.970	0.070	148.5	150	5.33	1.0
PN-1905-S	IC-1701-S	IC-1801-S	5.423	0.600	3.070	3.040	0.030	180.8	150	5.12	1.0
PN-2301-S	IC-2301-S	MH-0001-S	7.327	0.600	2.830	2.780	0.050	146.5	300	5.95	1.0
PN-2302-S	IC-2401-S	IC-2301-S	15.301	0.600	3.020	2.920	0.100	153.0	150	5.85	1.0
PN-2201-S	IC-2201-S	IC-2301-S	7.758	0.600	2.970	2.920	0.050	155.2	150	5.16	1.0
PN-2401-S	IC-2402-S	IC-2401-S	14.599	0.600	3.120	3.020	0.100	146.0	150	5.54	1.0
PN-2402-S	IC-2403-S	IC-2402-S	11.947	0.600	3.200	3.120	0.080	149.3	150	5.24	1.0
PN-2501-S	IC-2501-S	MH-0001-S	1.854	0.600	3.090	3.080	0.010	185.4	150	5.22	1.0
PN-2502-S	IC-2502-S	IC-2501-S	8.666	0.600	3.150	3.090	0.060	144.4	150	5.17	1.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
PN-0502-S	1.016	18.0	0.1	0.675	0.685	0.021	0.0	7	0.244
PN-1201-S	0.816	14.4	0.1	0.920	0.925	0.037	0.0	11	0.258
PN-1202-S	0.241	1.9	0.1	0.450	0.472	0.022	0.0	14	0.116
PN-1501-S	0.780	13.8	0.2	0.960	0.925	0.062	0.0	14	0.290
PN-1502-S	0.828	14.6	0.2	0.810	0.870	0.044	0.0	11	0.271
PN-1503-S	0.803	14.2	0.1	0.740	0.810	0.014	0.0	7	0.180
PN-1504-S	0.824	14.6	0.0	0.580	0.740	0.007	0.0	5	0.147
PN-1505-S	0.772	13.6	0.0	0.500	0.580	0.007	0.0	5	0.138
PN-1901-S	1.085	43.1	0.3	0.835	0.685	0.075	0.0	13	0.297
PN-1902-S	0.827	14.6	0.1	0.750	0.830	0.031	0.0	10	0.241
PN-1903-S	0.911	16.1	0.1	0.720	0.750	0.028	0.0	9	0.255
PN-1904-S	0.822	14.5	0.1	0.770	0.830	0.036	0.0	10	0.250
PN-1905-S	0.744	13.1	0.1	0.770	0.770	0.022	0.0	8	0.197
PN-2301-S	1.296	91.6	0.2	0.620	0.585	0.061	0.0	11	0.275
PN-2302-S	0.810	14.3	0.1	0.630	0.680	0.022	0.0	8	0.215
PN-2201-S	0.804	14.2	0.1	0.630	0.680	0.017	0.0	7	0.192
PN-2401-S	0.829	14.7	0.0	0.530	0.630	0.011	0.0	6	0.174
PN-2402-S	0.820	14.5	0.0	0.450	0.530	0.011	0.0	6	0.172
PN-2501-S	0.735	13.0	0.0	0.460	0.435	0.012	0.0	7	0.164
PN-2502-S	0.834	14.7	0.0	0.520	0.460	0.009	0.0	6	0.162

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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)
PN-2701-S	IC-2701-S	MH-0006-S	14.718	0.600	2.870	2.775	0.095	154.9	225	5.45	1.0
PN-2702-S	IC-2601-S	IC-2701-S	8.472	0.600	3.020	2.960	0.060	141.2	150	5.17	1.0
PN-2703-S	IC-2801-S	IC-2701-S	8.874	0.600	3.000	2.960	0.040	221.9	150	5.22	1.0
PN-3001-S	IC-3001-S	MH-0009-S	4.605	0.600	2.930	2.900	0.030	153.5	225	5.18	1.0
PN-3002-S	IC-3002-S	IC-3001-S	5.361	0.600	2.970	2.930	0.040	134.0	150	5.10	1.0
PN-3004-S	IC-3201-S	MH-0009-S	17.258	0.600	3.090	2.900	0.190	90.8	150	5.27	1.0
PN-3005-S	IC-3401-S	MH-0009-S	7.638	0.600	2.970	2.900	0.070	109.1	150	5.58	1.0
PN-3006-S	IC-3501-S	IC-3401-S	14.242	0.600	3.110	2.970	0.140	101.7	150	5.45	1.0
PN-3007-S	IC-3502-S	IC-3501-S	12.212	0.600	3.220	3.110	0.110	111.0	150	5.21	1.0
Dummy Pipe	MH-0001-S	Dummy Node	3.073	0.600	2.660	2.659	0.001	3072.7	900	9.37	1.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
PN-2701-S	1.048	41.7	0.2	0.830	0.695	0.042	0.0	10	0.244
PN-2702-S	0.843	14.9	0.1	0.630	0.815	0.014	0.0	7	0.189
PN-2703-S	0.670	11.8	0.1	0.825	0.815	0.015	0.0	8	0.168
PN-3001-S	1.053	41.9	0.1	0.835	0.800	0.015	0.0	7	0.179
PN-3002-S	0.866	15.3	0.0	0.930	0.910	0.007	0.0	5	0.155
PN-3004-S	1.055	18.6	0.1	0.650	0.875	0.015	0.0	6	0.223
PN-3005-S	0.961	17.0	0.1	0.680	0.875	0.030	0.0	9	0.269
PN-3006-S	0.996	17.6	0.0	0.715	0.680	0.008	0.0	5	0.180
PN-3007-S	0.953	16.8	0.0	0.530	0.715	0.004	0.0	4	0.139
Dummy Pipe	0.555	353.3	2.6	0.105	0.106	0.685	0.0	54	0.165

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)
PN-001-S	29.381	296.8	300	Circular	3.665	2.659	0.706	3.220	2.560	0.360
PN-002-S	12.445	311.1	400	Circular	3.590	2.700	0.490	3.665	2.660	0.605
PN-003-S	42.294	352.4	300	Circular	3.730	2.820	0.610	3.590	2.700	0.590
PN-004-S	49.713	621.4	300	Circular	4.025	2.900	0.825	3.730	2.820	0.610
PN-006-S	21.130	281.7	375	Circular	3.695	2.775	0.545	3.590	2.700	0.515
PN-007-S	14.531	290.6	300	Circular	3.775	2.825	0.650	3.695	2.775	0.620

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
PN-001-S	Dummy Node	1800	Manhole	Adoptable	Headwall	1200	Manhole	Adoptable
PN-002-S	MH-0002-S	1350	Manhole	Adoptable	MH-0001-S	1800	Manhole	Adoptable
PN-003-S	MH-0003-S	1200	Manhole	Adoptable	MH-0002-S	1350	Manhole	Adoptable
PN-004-S	MH-0005-S	1200	Manhole	Adoptable	MH-0003-S	1200	Manhole	Adoptable
PN-006-S	MH-0006-S	1350	Manhole	Adoptable	MH-0002-S	1350	Manhole	Adoptable
PN-007-S	MH-0007-S	1200	Manhole	Adoptable	MH-0006-S	1350	Manhole	Adoptable

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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)
PN-008-S	3.996	159.8	300	Circular	3.850	2.850	0.700	3.775	2.825	0.650
PN-009-S	8.750	175.0	300	Circular	3.925	2.900	0.725	3.850	2.850	0.700
PN-010-S	37.093	370.9	225	Circular	3.650	2.950	0.475	3.850	2.850	0.775
PN-011-S	11.093	221.9	300	Circular	3.700	3.000	0.400	3.650	2.950	0.400
PN-012-S	26.278	328.5	150	Circular	3.825	3.080	0.595	3.700	3.000	0.550
PN-013-S	29.739	247.8	150	Circular	3.970	3.200	0.620	3.825	3.080	0.595
PN-014-S	26.126	261.3	150	Circular	3.800	3.050	0.600	3.650	2.950	0.550
PN-0101-S	9.235	131.9	150	Circular	4.020	3.270	0.600	3.970	3.200	0.620
PN-0102-S	12.935	143.7	150	Circular	4.020	3.450	0.420	4.020	3.360	0.510
PN-0103-S	12.140	151.7	150	Circular	4.020	3.530	0.340	4.020	3.450	0.420
PN-0201-S	9.651	160.8	150	Circular	4.020	3.260	0.610	3.970	3.200	0.620
PN-0202-S	14.554	145.5	150	Circular	4.020	3.450	0.420	4.020	3.350	0.520
PN-0203-S	12.140	173.4	150	Circular	4.020	3.520	0.350	4.020	3.450	0.420
PN-0301-S	8.749	349.9	150	Circular	3.905	3.105	0.650	3.825	3.080	0.595
PN-0302-S	14.333	220.5	150	Circular	3.950	3.260	0.540	3.905	3.195	0.560
PN-0401-S	5.842	146.1	150	Circular	4.025	3.090	0.785	3.800	3.050	0.600
PN-0402-S	12.549	139.4	150	Circular	3.900	3.270	0.480	4.025	3.180	0.695
PN-0501-S	9.537	159.0	150	Circular	3.945	3.110	0.685	3.800	3.050	0.600

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
PN-008-S	MH-0008-S	1200	Manhole	Adoptable	MH-0007-S	1200	Manhole	Adoptable
PN-009-S	MH-0009-S	1200	Manhole	Adoptable	MH-0008-S	1200	Manhole	Adoptable
PN-010-S	MH-0010-S	1200	Manhole	Adoptable	MH-0008-S	1200	Manhole	Adoptable
PN-011-S	MH-0011-S	1200	Manhole	Adoptable	MH-0010-S	1200	Manhole	Adoptable
PN-012-S	MH-0012-S	1200	Manhole	Adoptable	MH-0011-S	1200	Manhole	Adoptable
PN-013-S	MH-0013-S	1200	Manhole	Adoptable	MH-0012-S	1200	Manhole	Adoptable
PN-014-S	MH-0014-S	1200	Manhole	Adoptable	MH-0010-S	1200	Manhole	Adoptable
PN-0101-S	IC-0101-S	450	Manhole	Adoptable	MH-0013-S	1200	Manhole	Adoptable
PN-0102-S	IC-0102-S	450	Manhole	Adoptable	IC-0101-S	450	Manhole	Adoptable
PN-0103-S	IC-0103-S	450	Manhole	Adoptable	IC-0102-S	450	Manhole	Adoptable
PN-0201-S	IC-0201-S	450	Manhole	Adoptable	MH-0013-S	1200	Manhole	Adoptable
PN-0202-S	IC-0202-S	450	Manhole	Adoptable	IC-0201-S	450	Manhole	Adoptable
PN-0203-S	IC-0203-S	450	Manhole	Adoptable	IC-0202-S	450	Manhole	Adoptable
PN-0301-S	IC-0301-S	450	Manhole	Adoptable	MH-0012-S	1200	Manhole	Adoptable
PN-0302-S	IC-0302-S	450	Manhole	Adoptable	IC-0301-S	450	Manhole	Adoptable
PN-0401-S	IC-0402-S	450	Manhole	Adoptable	MH-0014-S	1200	Manhole	Adoptable
PN-0402-S	IC-0401-S	450	Manhole	Adoptable	IC-0402-S	450	Manhole	Adoptable
PN-0501-S	IC-0001-S	450	Manhole	Adoptable	MH-0014-S	1200	Manhole	Adoptable

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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)
PN-0502-S	8.804	97.8	150	Circular	4.025	3.200	0.675	3.945	3.110	0.685
PN-1201-S	12.046	150.6	150	Circular	4.100	3.030	0.920	4.025	2.950	0.925
PN-1202-S	11.518	959.9	100	Circular	4.090	3.540	0.450	4.100	3.528	0.472
PN-1501-S	9.888	164.8	150	Circular	4.120	3.010	0.960	4.025	2.950	0.925
PN-1502-S	5.852	146.3	150	Circular	4.100	3.140	0.810	4.120	3.100	0.870
PN-1503-S	15.553	155.5	150	Circular	4.130	3.240	0.740	4.100	3.140	0.810
PN-1504-S	11.818	147.7	150	Circular	4.050	3.320	0.580	4.130	3.240	0.740
PN-1505-S	13.451	168.1	150	Circular	4.050	3.400	0.500	4.050	3.320	0.580
PN-1901-S	10.130	144.7	225	Circular	3.950	2.890	0.835	3.730	2.820	0.685
PN-1902-S	5.867	146.7	150	Circular	3.910	3.010	0.750	3.950	2.970	0.830
PN-1903-S	2.426	121.3	150	Circular	3.900	3.030	0.720	3.910	3.010	0.750
PN-1904-S	10.397	148.5	150	Circular	3.960	3.040	0.770	3.950	2.970	0.830
PN-1905-S	5.423	180.8	150	Circular	3.990	3.070	0.770	3.960	3.040	0.770
PN-2301-S	7.327	146.5	300	Circular	3.750	2.830	0.620	3.665	2.780	0.585
PN-2302-S	15.301	153.0	150	Circular	3.800	3.020	0.630	3.750	2.920	0.680
PN-2201-S	7.758	155.2	150	Circular	3.750	2.970	0.630	3.750	2.920	0.680
PN-2401-S	14.599	146.0	150	Circular	3.800	3.120	0.530	3.800	3.020	0.630
PN-2402-S	11.947	149.3	150	Circular	3.800	3.200	0.450	3.800	3.120	0.530
PN-2501-S	1.854	185.4	150	Circular	3.700	3.090	0.460	3.665	3.080	0.435
PN-2502-S	8.666	144.4	150	Circular	3.820	3.150	0.520	3.700	3.090	0.460

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
PN-0502-S	IC-0002-S	450	Manhole	Adoptable	IC-0001-S	450	Manhole	Adoptable
PN-1201-S	IC-1101-S	450	Manhole	Adoptable	MH-0005-S	1200	Manhole	Adoptable
PN-1202-S	IC-0901-S	450	Manhole	Adoptable	IC-1101-S	450	Manhole	Adoptable
PN-1501-S	IC-1501-S	450	Manhole	Adoptable	MH-0005-S	1200	Manhole	Adoptable
PN-1502-S	IC-1401-S	450	Manhole	Adoptable	IC-1501-S	450	Manhole	Adoptable
PN-1503-S	IC-1301-S	450	Manhole	Adoptable	IC-1401-S	450	Manhole	Adoptable
PN-1504-S	IC-1302-S	450	Manhole	Adoptable	IC-1301-S	450	Manhole	Adoptable
PN-1505-S	IC-1303-S	450	Manhole	Adoptable	IC-1302-S	450	Manhole	Adoptable
PN-1901-S	IC-1901-S	450	Manhole	Adoptable	MH-0003-S	1200	Manhole	Adoptable
PN-1902-S	IC-1902-S	450	Manhole	Adoptable	IC-1901-S	450	Manhole	Adoptable
PN-1903-S	IC-2001-S	450	Manhole	Adoptable	IC-1902-S	450	Manhole	Adoptable
PN-1904-S	IC-1801-S	450	Manhole	Adoptable	IC-1901-S	450	Manhole	Adoptable
PN-1905-S	IC-1701-S	450	Manhole	Adoptable	IC-1801-S	450	Manhole	Adoptable
PN-2301-S	IC-2301-S	450	Manhole	Adoptable	MH-0001-S	1800	Manhole	Adoptable
PN-2302-S	IC-2401-S	450	Manhole	Adoptable	IC-2301-S	450	Manhole	Adoptable
PN-2201-S	IC-2201-S	450	Manhole	Adoptable	IC-2301-S	450	Manhole	Adoptable
PN-2401-S	IC-2402-S	450	Manhole	Adoptable	IC-2401-S	450	Manhole	Adoptable
PN-2402-S	IC-2403-S	450	Manhole	Adoptable	IC-2402-S	450	Manhole	Adoptable
PN-2501-S	IC-2501-S	450	Manhole	Adoptable	MH-0001-S	1800	Manhole	Adoptable
PN-2502-S	IC-2502-S	450	Manhole	Adoptable	IC-2501-S	450	Manhole	Adoptable

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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)
PN-2701-S	14.718	154.9	225	Circular	3.925	2.870	0.830	3.695	2.775	0.695
PN-2702-S	8.472	141.2	150	Circular	3.800	3.020	0.630	3.925	2.960	0.815
PN-2703-S	8.874	221.9	150	Circular	3.975	3.000	0.825	3.925	2.960	0.815
PN-3001-S	4.605	153.5	225	Circular	3.990	2.930	0.835	3.925	2.900	0.800
PN-3002-S	5.361	134.0	150	Circular	4.050	2.970	0.930	3.990	2.930	0.910
PN-3004-S	17.258	90.8	150	Circular	3.890	3.090	0.650	3.925	2.900	0.875
PN-3005-S	7.638	109.1	150	Circular	3.800	2.970	0.680	3.925	2.900	0.875
PN-3006-S	14.242	101.7	150	Circular	3.975	3.110	0.715	3.800	2.970	0.680
PN-3007-S	12.212	111.0	150	Circular	3.900	3.220	0.530	3.975	3.110	0.715
Dummy Pipe	3.073	3072.7	900	Circular	3.665	2.660	0.105	3.665	2.659	0.106

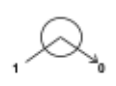
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
PN-2701-S	IC-2701-S	450	Manhole	Adoptable	MH-0006-S	1350	Manhole	Adoptable
PN-2702-S	IC-2601-S	450	Manhole	Adoptable	IC-2701-S	450	Manhole	Adoptable
PN-2703-S	IC-2801-S	450	Manhole	Adoptable	IC-2701-S	450	Manhole	Adoptable
PN-3001-S	IC-3001-S	450	Manhole	Adoptable	MH-0009-S	1200	Manhole	Adoptable
PN-3002-S	IC-3002-S	450	Manhole	Adoptable	IC-3001-S	450	Manhole	Adoptable
PN-3004-S	IC-3201-S	450	Manhole	Adoptable	MH-0009-S	1200	Manhole	Adoptable
PN-3005-S	IC-3401-S	450	Manhole	Adoptable	MH-0009-S	1200	Manhole	Adoptable
PN-3006-S	IC-3501-S	450	Manhole	Adoptable	IC-3401-S	450	Manhole	Adoptable
PN-3007-S	IC-3502-S	450	Manhole	Adoptable	IC-3501-S	450	Manhole	Adoptable
Dummy Pipe	MH-0001-S	1800	Manhole	Adoptable	Dummy Node	1800	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
Headwall	524143.867	326607.486	3.220	0.660	1200	1	PN-001-S	2.560	300
MH-0001-S	524175.298	326599.402	3.665	1.005	1800	1	PN-2501-S	3.080	150
						2	PN-2301-S	2.780	300
						3	PN-002-S	2.660	400
						0	Dummy Pipe	2.660	900
MH-0002-S	524187.638	326601.013	3.590	0.890	1350	1	PN-003-S	2.700	300
						2	PN-006-S	2.700	375
						0	PN-002-S	2.700	400
MH-0003-S	524228.830	326591.423	3.730	0.910	1200	1	PN-1901-S	2.820	225
						2	PN-004-S	2.820	300
						0	PN-003-S	2.820	300
MH-0005-S	524276.746	326578.179	4.025	1.125	1200	1	PN-1201-S	2.950	150
						2	PN-1501-S	2.950	150
						0	PN-004-S	2.900	300

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Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
MH-0006-S	524199.228	326618.681	3.695	0.920	1350		1 PN-2701-S	2.775	225
							2 PN-007-S	2.775	300
							0 PN-006-S	2.775	375
MH-0007-S	524213.196	326622.685	3.775	0.950	1200		1 PN-008-S	2.825	300
							0 PN-007-S	2.825	300
MH-0008-S	524214.485	326626.467	3.850	1.000	1200		1 PN-009-S	2.850	300
							2 PN-010-S	2.850	225
							0 PN-008-S	2.850	300
MH-0009-S	524217.309	326634.749	3.925	1.025	1200		1 PN-3001-S	2.900	225
							2 PN-3004-S	2.900	150
							3 PN-3005-S	2.900	150
							0 PN-009-S	2.900	300
MH-0010-S	524250.533	326617.725	3.650	0.700	1200		1 PN-014-S	2.950	150
							2 PN-011-S	2.950	300
							0 PN-010-S	2.950	225
MH-0011-S	524258.848	326625.067	3.700	0.700	1200		1 PN-012-S	3.000	150
							0 PN-011-S	3.000	300
MH-0012-S	524264.929	326650.632	3.825	0.745	1200		1 PN-0301-S	3.080	150
							2 PN-013-S	3.080	150
							0 PN-012-S	3.080	150
MH-0013-S	524271.812	326679.563	3.970	0.770	1200		1 PN-0101-S	3.200	150
							2 PN-0201-S	3.200	150
							0 PN-013-S	3.200	150
MH-0014-S	524275.780	326611.006	3.800	0.750	1200		1 PN-0501-S	3.050	150
							2 PN-0401-S	3.050	150
							0 PN-014-S	3.050	150
IC-0101-S	524272.711	326688.754	4.020	0.750	450		1 PN-0102-S	3.360	150
							0 PN-0101-S	3.270	150
IC-0102-S	524283.759	326695.482	4.020	0.570	450		1 PN-0103-S	3.450	150
							0 PN-0102-S	3.450	150
IC-0103-S	524277.753	326706.032	4.020	0.490	450		0 PN-0103-S	3.530	150
IC-0201-S	524263.864	326685.037	4.020	0.760	450		1 PN-0202-S	3.350	150
							0 PN-0201-S	3.260	150

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Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections		Link	IL (m)	Dia (mm)
IC-0202-S	524251.904	326676.744	4.020	0.570	450		1	PN-0203-S	3.450	150
							0	PN-0202-S	3.450	150
IC-0203-S	524244.770	326686.567	4.020	0.500	450		0	PN-0203-S	3.520	150
IC-0301-S	524267.240	326642.194	3.905	0.800	450		1	PN-0302-S	3.195	150
							0	PN-0301-S	3.105	150
IC-0302-S	524281.252	326639.177	3.950	0.690	450		0	PN-0302-S	3.260	150
IC-0401-S	524263.182	326620.342	3.900	0.630	450		0	PN-0402-S	3.270	150
IC-0402-S	524275.227	326616.822	4.025	0.935	450		1	PN-0402-S	3.180	150
							0	PN-0401-S	3.090	150
IC-0001-S	524284.880	326613.859	3.945	0.835	450		1	PN-0502-S	3.110	150
							0	PN-0501-S	3.110	150
IC-0002-S	524292.054	326618.961	4.025	0.825	450		0	PN-0502-S	3.200	150
IC-0901-S	524289.492	326596.109	4.090	0.550	450		0	PN-1202-S	3.540	100
IC-1101-S	524286.725	326584.928	4.100	1.070	450		1	PN-1202-S	3.528	100
							0	PN-1201-S	3.030	150
IC-1301-S	524294.794	326562.429	4.130	0.890	450		1	PN-1504-S	3.240	150
							0	PN-1503-S	3.240	150
IC-1302-S	524292.546	326550.827	4.050	0.730	450		1	PN-1505-S	3.320	150
							0	PN-1504-S	3.320	150
IC-1303-S	524305.595	326547.564	4.050	0.650	450		0	PN-1505-S	3.400	150

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Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
IC-1401-S	524279.975	326567.151	4.100	0.960	450	1	PN-1503-S	3.140	150
						0	PN-1502-S	3.140	150
IC-1501-S	524274.304	326568.597	4.120	1.110	450	1	PN-1502-S	3.100	150
						0	PN-1501-S	3.010	150
IC-1701-S	524241.717	326577.737	3.990	0.920	450	0	PN-1905-S	3.070	150
IC-1801-S	524236.458	326579.060	3.960	0.920	450	1	PN-1905-S	3.040	150
						0	PN-1904-S	3.040	150
IC-1901-S	524226.375	326581.595	3.950	1.060	450	1	PN-1902-S	2.970	150
						2	PN-1904-S	2.970	150
						0	PN-1901-S	2.890	225
IC-1902-S	524220.685	326583.027	3.910	0.900	450	1	PN-1903-S	3.010	150
						0	PN-1902-S	3.010	150
IC-2001-S	524218.332	326583.618	3.900	0.870	450	0	PN-1903-S	3.030	150
IC-2201-S	524181.227	326591.250	3.750	0.780	450	0	PN-2201-S	2.970	150
IC-2301-S	524173.539	326592.289	3.750	0.920	450	1	PN-2201-S	2.920	150
						2	PN-2302-S	2.920	150
						0	PN-2301-S	2.830	300
IC-2401-S	524158.700	326596.019	3.800	0.780	450	1	PN-2401-S	3.020	150
						0	PN-2302-S	3.020	150
IC-2402-S	524154.868	326581.932	3.800	0.680	450	1	PN-2402-S	3.120	150
						0	PN-2401-S	3.120	150
IC-2403-S	524143.385	326585.229	3.800	0.600	450	0	PN-2402-S	3.200	150
IC-2501-S	524175.751	326601.200	3.700	0.610	450	1	PN-2502-S	3.090	150
						0	PN-2501-S	3.090	150

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Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
IC-2502-S	524177.559	326609.675	3.820	0.670	450	 0	PN-2502-S	3.150	150
IC-2601-S	524182.527	326613.872	3.800	0.780	450	 0	PN-2702-S	3.020	150
IC-2701-S	524184.891	326622.008	3.925	1.055	450	 1	PN-2702-S	2.960	150
						2	PN-2703-S	2.960	150
						0	PN-2701-S	2.870	225
IC-2801-S	524191.156	326628.293	3.975	0.975	450	 0	PN-2703-S	3.000	150
IC-3001-S	524212.840	326635.859	3.990	1.060	450	 1	PN-3002-S	2.930	150
						0	PN-3001-S	2.930	225
IC-3002-S	524207.661	326637.245	4.050	1.080	450	 0	PN-3002-S	2.970	150
IC-3201-S	524213.372	326651.555	3.890	0.800	450	 0	PN-3004-S	3.090	150
IC-3401-S	524224.614	326632.519	3.800	0.830	450	 1	PN-3006-S	2.970	150
						0	PN-3005-S	2.970	150
IC-3501-S	524238.118	326627.993	3.975	0.865	450	 1	PN-3007-S	3.110	150
						0	PN-3006-S	3.110	150
IC-3502-S	524250.040	326625.348	3.900	0.680	450	 0	PN-3007-S	3.220	150
Dummy Node	524172.313	326600.131	3.665	1.006	1800	 1	Dummy Pipe	2.659	900
						0	PN-001-S	2.659	300

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	20.000	Drain Down Time (mins)	240
Ratio-R	0.400	Additional Storage (m³/ha)	0.0
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

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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 %)
1	0	0	0
5	0	0	0
10	0	0	0
30	0	0	0
100	0	0	0
100	40	0	0

Node MH-0001-S Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	2.660	Product Number	CTL-SHE-0077-2600-1005-2600
Design Depth (m)	1.005	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	2.6	Min Node Diameter (mm)	1200

Node MH-0001-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.660
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	95.0	0.0	0.400	95.0	0.0	0.401	0.0	0.0

Node MH-0002-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.700
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	5.0	0.0	0.490	11.0	0.0	0.891	0.0	0.0
0.489	5.0	0.0	0.890	55.0	0.0			

Node MH-0002-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.700
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	5.0	0.0	0.490	24.0	0.0	0.891	0.0	0.0
0.489	5.0	0.0	0.890	118.0	0.0			

Node MH-0002-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.700
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

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Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	50.0	0.0	0.390	715.0	0.0	0.891	0.0	0.0
0.389	75.0	0.0	0.890	1080.0	0.0			

Node IC-0103-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.530
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	21

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	118.0	0.0	0.230	118.0	0.0	0.381	0.0	0.0
0.229	118.0	0.0	0.380	118.0	0.0			

Node IC-0203-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.520
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	22

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	118.0	0.0	0.240	118.0	0.0	0.391	0.0	0.0
0.239	118.0	0.0	0.390	118.0	0.0			

Node IC-0301-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.105
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.540	100.0	0.0	0.691	0.0	0.0
0.539	0.0	0.0	0.690	100.0	0.0			

Node IC-0401-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.270
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.370	100.0	0.0	0.521	0.0	0.0
0.369	0.0	0.0	0.520	100.0	0.0			

Node IC-0001-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.110
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.575	57.0	0.0	0.726	0.0	0.0
0.574	0.0	0.0	0.725	57.0	0.0			

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Node IC-0002-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.200
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.565	110.0	0.0	0.716	0.0	0.0
0.564	0.0	0.0	0.715	110.0	0.0			

Node IC-0901-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.540
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.720	54.0	0.0	0.871	0.0	0.0
0.719	0.0	0.0	0.870	54.0	0.0			

Node IC-1101-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.030
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.800	62.0	0.0	0.951	0.0	0.0
0.799	0.0	0.0	0.950	62.0	0.0			

Node IC-1401-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.140
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.700	120.0	0.0	0.851	0.0	0.0
0.699	0.0	0.0	0.850	120.0	0.0			

Node IC-1501-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.010
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.850	130.0	0.0	1.001	0.0	0.0
0.849	0.0	0.0	1.000	130.0	0.0			

Node IC-1701-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.070
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

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Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.640	60.0	0.0	0.811	0.0	0.0
0.639	0.0	0.0	0.810	60.0	0.0			

Node IC-1801-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.040
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.640	130.0	0.0	0.811	0.0	0.0
0.639	0.0	0.0	0.810	130.0	0.0			

Node IC-1902-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.010
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.640	66.0	0.0	0.791	0.0	0.0
0.639	0.0	0.0	0.790	66.0	0.0			

Node IC-2301-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.830
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.660	133.0	0.0	0.811	0.0	0.0
0.659	0.0	0.0	0.810	133.0	0.0			

Node IC-2401-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.020
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.520	70.0	0.0	0.671	0.0	0.0
0.519	0.0	0.0	0.670	70.0	0.0			

Node IC-2601-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.020
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.520	60.0	0.0	0.671	0.0	0.0
0.519	0.0	0.0	0.670	60.0	0.0			

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Node IC-2701-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.870
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.795	85.0	0.0	0.946	0.0	0.0
0.794	0.0	0.0	0.945	85.0	0.0			

Node IC-2801-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.000
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.705	85.0	0.0	0.866	0.0	0.0
0.704	0.0	0.0	0.865	85.0	0.0			

Node IC-3001-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.930
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	0

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.750	80.0	0.0	0.901	0.0	0.0
0.749	0.0	0.0	0.900	80.0	0.0			

Node IC-3201-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	3.090
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.540	145.0	0.0	0.691	0.0	0.0
0.539	0.0	0.0	0.690	145.0	0.0			

Node IC-3401-S Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	2.970
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.580	145.0	0.0	0.721	0.0	0.0
0.579	0.0	0.0	0.720	145.0	0.0			

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute summer	Headwall	120	2.598	0.038	2.6	0.0000	0.0000	OK
360 minute winter	MH-0001-S	320	3.090	0.430	7.9	37.2395	0.0000	OK
360 minute winter	MH-0002-S	328	3.090	0.390	10.8	29.1888	0.0000	OK
360 minute winter	MH-0003-S	328	3.090	0.270	4.6	0.3055	0.0000	OK
360 minute winter	MH-0005-S	328	3.090	0.190	2.5	0.2150	0.0000	OK
360 minute winter	MH-0006-S	320	3.090	0.315	6.7	0.4509	0.0000	OK
360 minute winter	MH-0007-S	328	3.090	0.265	5.9	0.2998	0.0000	OK
360 minute winter	MH-0008-S	328	3.090	0.240	5.7	0.2715	0.0000	OK
360 minute winter	MH-0009-S	328	3.090	0.190	1.5	0.2149	0.0000	OK
15 minute winter	MH-0010-S	12	3.105	0.155	21.1	0.1751	0.0000	OK
15 minute winter	MH-0011-S	12	3.109	0.109	11.4	0.1235	0.0000	OK
15 minute winter	MH-0012-S	12	3.211	0.131	10.4	0.1482	0.0000	OK
15 minute winter	MH-0013-S	12	3.280	0.080	6.3	0.0900	0.0000	OK
15 minute winter	MH-0014-S	11	3.146	0.096	8.1	0.1091	0.0000	OK
30 minute winter	IC-0101-S	21	3.307	0.037	2.1	0.0059	0.0000	OK
30 minute winter	IC-0102-S	21	3.485	0.035	1.7	0.0056	0.0000	OK
30 minute winter	IC-0103-S	23	3.561	0.031	2.5	1.1043	0.0000	OK
15 minute winter	IC-0201-S	12	3.299	0.039	2.1	0.0062	0.0000	OK
30 minute winter	IC-0202-S	21	3.484	0.034	1.6	0.0055	0.0000	OK
30 minute winter	IC-0203-S	23	3.552	0.032	2.5	1.1265	0.0000	OK
15 minute winter	IC-0301-S	12	3.212	0.107	2.4	0.0170	0.0000	OK
15 minute winter	IC-0302-S	11	3.279	0.019	0.4	0.0030	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)
360 minute winter	MH-0001-S	Dummy Pipe	Dummy Node	2.6	0.233	0.007	0.0343	
360 minute winter	MH-0002-S	PN-002-S	MH-0001-S	6.1	0.557	0.046	1.5528	
360 minute winter	MH-0003-S	PN-003-S	MH-0002-S	3.8	0.461	0.064	2.9019	
360 minute winter	MH-0005-S	PN-004-S	MH-0003-S	2.5	0.292	0.057	2.8305	
360 minute winter	MH-0006-S	PN-006-S	MH-0002-S	6.3	0.406	0.053	2.2099	
360 minute winter	MH-0007-S	PN-007-S	MH-0006-S	5.7	0.504	0.088	0.9902	
360 minute winter	MH-0008-S	PN-008-S	MH-0007-S	5.5	0.548	0.062	0.2524	
360 minute winter	MH-0009-S	PN-009-S	MH-0008-S	1.4	0.225	0.017	0.4703	
15 minute winter	MH-0010-S	PN-010-S	MH-0008-S	20.9	0.724	0.780	1.0693	
15 minute winter	MH-0011-S	PN-011-S	MH-0010-S	11.3	0.432	0.152	0.3318	
15 minute winter	MH-0012-S	PN-012-S	MH-0011-S	10.0	0.670	1.029	0.3949	
15 minute winter	MH-0013-S	PN-013-S	MH-0012-S	6.3	0.476	0.559	0.3838	
15 minute winter	MH-0014-S	PN-014-S	MH-0010-S	8.0	0.538	0.731	0.3861	
30 minute winter	IC-0101-S	PN-0101-S	MH-0013-S	2.1	0.350	0.136	0.0567	
30 minute winter	IC-0102-S	PN-0102-S	IC-0101-S	1.7	0.551	0.114	0.0396	
30 minute winter	IC-0103-S	PN-0103-S	IC-0102-S	1.3	0.469	0.092	0.0346	
15 minute winter	IC-0201-S	PN-0201-S	MH-0013-S	2.0	0.321	0.147	0.0631	
30 minute winter	IC-0202-S	PN-0202-S	IC-0201-S	1.6	0.545	0.111	0.0436	
30 minute winter	IC-0203-S	PN-0203-S	IC-0202-S	1.3	0.453	0.096	0.0346	
15 minute winter	IC-0301-S	PN-0301-S	MH-0012-S	2.0	0.225	0.216	0.1302	
15 minute winter	IC-0302-S	PN-0302-S	IC-0301-S	0.4	0.323	0.033	0.0173	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	IC-0401-S	10	3.310	0.040	2.3	0.0064	0.0000	OK
15 minute winter	IC-0402-S	11	3.148	0.058	3.0	0.0093	0.0000	OK
15 minute winter	IC-0001-S	10	3.168	0.058	4.6	0.0092	0.0000	OK
15 minute winter	IC-0002-S	10	3.242	0.042	3.0	0.0067	0.0000	OK
15 minute winter	IC-0901-S	11	3.633	0.093	3.1	0.0147	0.0000	OK
15 minute winter	IC-1101-S	10	3.093	0.063	5.0	0.0101	0.0000	OK
15 minute winter	IC-1301-S	11	3.277	0.037	1.9	0.0058	0.0000	OK
15 minute winter	IC-1302-S	11	3.346	0.026	1.0	0.0041	0.0000	OK
15 minute winter	IC-1303-S	10	3.428	0.028	1.0	0.0044	0.0000	OK
15 minute winter	IC-1401-S	11	3.212	0.072	6.0	0.0114	0.0000	OK
15 minute winter	IC-1501-S	11	3.100	0.090	8.3	0.0143	0.0000	OK
15 minute winter	IC-1701-S	10	3.124	0.054	3.1	0.0085	0.0000	OK
15 minute winter	IC-1801-S	10	3.103	0.063	5.0	0.0101	0.0000	OK
360 minute winter	IC-1901-S	328	3.090	0.200	1.7	0.0318	0.0000	OK
360 minute winter	IC-1902-S	328	3.090	0.080	0.7	0.0127	0.0000	OK
360 minute winter	IC-2001-S	328	3.090	0.060	0.6	0.0096	0.0000	OK
360 minute winter	IC-2201-S	320	3.090	0.120	0.4	0.0191	0.0000	OK
360 minute winter	IC-2301-S	320	3.090	0.260	1.3	0.0413	0.0000	OK
360 minute winter	IC-2401-S	304	3.090	0.070	0.4	0.0111	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	IC-0401-S	PN-0402-S	IC-0402-S	2.2	0.600	0.148	0.0463	
15 minute winter	IC-0402-S	PN-0401-S	MH-0014-S	2.9	0.369	0.200	0.0535	
15 minute winter	IC-0001-S	PN-0501-S	MH-0014-S	4.5	0.509	0.319	0.0867	
15 minute winter	IC-0002-S	PN-0502-S	IC-0001-S	3.0	0.577	0.165	0.0454	
15 minute winter	IC-0901-S	PN-1202-S	IC-1101-S	3.0	0.478	1.572	0.0693	
15 minute winter	IC-1101-S	PN-1201-S	MH-0005-S	5.0	0.691	0.348	0.0940	
15 minute winter	IC-1301-S	PN-1503-S	IC-1401-S	1.9	0.331	0.132	0.0903	
15 minute winter	IC-1302-S	PN-1504-S	IC-1301-S	1.0	0.358	0.065	0.0316	
15 minute winter	IC-1303-S	PN-1505-S	IC-1302-S	1.0	0.461	0.070	0.0281	
15 minute winter	IC-1401-S	PN-1502-S	IC-1501-S	5.9	0.752	0.405	0.0461	
15 minute winter	IC-1501-S	PN-1501-S	MH-0005-S	8.4	0.790	0.607	0.1047	
15 minute winter	IC-1701-S	PN-1905-S	IC-1801-S	3.0	0.480	0.232	0.0345	
15 minute winter	IC-1801-S	PN-1904-S	IC-1901-S	4.9	0.727	0.340	0.0709	
360 minute winter	IC-1901-S	PN-1901-S	MH-0003-S	1.7	0.299	0.039	0.3905	
360 minute winter	IC-1902-S	PN-1902-S	IC-1901-S	0.7	0.421	0.048	0.0724	
360 minute winter	IC-2001-S	PN-1903-S	IC-1902-S	0.6	0.386	0.037	0.0196	
360 minute winter	IC-2201-S	PN-2201-S	IC-2301-S	0.4	0.351	0.028	0.1269	
360 minute winter	IC-2301-S	PN-2301-S	MH-0001-S	1.2	0.382	0.013	0.4956	
360 minute winter	IC-2401-S	PN-2302-S	IC-2301-S	0.4	0.355	0.028	0.1964	

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Results for 1 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	IC-2402-S	11	3.153	0.033	1.6	0.0052	0.0000	OK
15 minute winter	IC-2403-S	10	3.234	0.034	1.6	0.0054	0.0000	OK
15 minute winter	IC-2501-S	11	3.129	0.039	1.7	0.0063	0.0000	OK
15 minute winter	IC-2502-S	10	3.180	0.030	1.3	0.0047	0.0000	OK
360 minute winter	IC-2601-S	328	3.090	0.070	0.3	0.0111	0.0000	OK
360 minute winter	IC-2701-S	328	3.090	0.220	0.9	0.0350	0.0000	OK
360 minute winter	IC-2801-S	328	3.090	0.090	0.3	0.0143	0.0000	OK
360 minute winter	IC-3001-S	328	3.090	0.160	0.4	0.0254	0.0000	OK
360 minute winter	IC-3002-S	328	3.090	0.120	0.2	0.0191	0.0000	OK
15 minute winter	IC-3201-S	10	3.124	0.034	2.1	0.0054	0.0000	OK
360 minute winter	IC-3401-S	320	3.090	0.120	0.7	0.0191	0.0000	OK
15 minute winter	IC-3501-S	11	3.135	0.025	1.2	0.0040	0.0000	OK
15 minute winter	IC-3502-S	10	3.239	0.019	0.6	0.0030	0.0000	OK
120 minute summer	Dummy Node	118	2.701	0.042	2.6	0.1070	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	IC-2402-S	PN-2401-S	IC-2401-S	1.6	0.404	0.106	0.0566	
15 minute winter	IC-2403-S	PN-2402-S	IC-2402-S	1.6	0.542	0.108	0.0346	
15 minute winter	IC-2501-S	PN-2501-S	MH-0001-S	1.7	0.477	0.127	0.0064	
15 minute winter	IC-2502-S	PN-2502-S	IC-2501-S	1.3	0.418	0.086	0.0265	
360 minute winter	IC-2601-S	PN-2702-S	IC-2701-S	0.3	0.334	0.020	0.1029	
360 minute winter	IC-2701-S	PN-2701-S	MH-0006-S	0.9	0.162	0.021	0.5835	
360 minute winter	IC-2801-S	PN-2703-S	IC-2701-S	0.3	0.300	0.026	0.1210	
360 minute winter	IC-3001-S	PN-3001-S	MH-0009-S	0.4	0.198	0.009	0.1519	
360 minute winter	IC-3002-S	PN-3002-S	IC-3001-S	0.2	0.244	0.013	0.0877	
15 minute winter	IC-3201-S	PN-3004-S	MH-0009-S	2.1	0.401	0.111	0.1338	
360 minute winter	IC-3401-S	PN-3005-S	MH-0009-S	0.7	0.389	0.041	0.1249	
15 minute winter	IC-3501-S	PN-3006-S	IC-3401-S	1.1	0.316	0.062	0.0507	
15 minute winter	IC-3502-S	PN-3007-S	IC-3501-S	0.6	0.352	0.033	0.0194	
120 minute summer	Dummy Node	PN-001-S	Headwall	2.6	0.470	0.041	0.1630	47.2

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Results for 5 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	Headwall	40	2.598	0.038	2.6	0.0000	0.0000	OK
480 minute winter	MH-0001-S	464	3.163	0.503	8.3	37.4247	0.0000	OK
480 minute winter	MH-0002-S	456	3.163	0.463	15.6	83.8202	0.0000	SURCHARGED
480 minute winter	MH-0003-S	456	3.163	0.343	5.9	0.3876	0.0000	SURCHARGED
480 minute winter	MH-0005-S	456	3.163	0.263	3.2	0.2973	0.0000	OK
600 minute winter	MH-0006-S	465	3.164	0.389	6.9	0.5567	0.0000	SURCHARGED
480 minute winter	MH-0007-S	440	3.174	0.349	7.6	0.3946	0.0000	SURCHARGED
600 minute winter	MH-0008-S	510	3.178	0.328	7.1	0.3713	0.0000	SURCHARGED
600 minute winter	MH-0009-S	555	3.165	0.265	1.3	0.2999	0.0000	OK
600 minute winter	MH-0010-S	510	3.169	0.219	4.4	0.2477	0.0000	OK
15 minute winter	MH-0011-S	13	3.170	0.170	15.3	0.1928	0.0000	OK
15 minute winter	MH-0012-S	13	3.347	0.267	13.6	0.3023	0.0000	SURCHARGED
15 minute winter	MH-0013-S	14	3.441	0.241	9.9	0.2722	0.0000	SURCHARGED
15 minute winter	MH-0014-S	12	3.281	0.231	11.5	0.2616	0.0000	SURCHARGED
15 minute winter	IC-0101-S	14	3.447	0.177	4.1	0.0281	0.0000	SURCHARGED
30 minute winter	IC-0102-S	21	3.499	0.049	3.3	0.0078	0.0000	OK
30 minute winter	IC-0103-S	22	3.574	0.044	4.1	1.5729	0.0000	OK
15 minute winter	IC-0201-S	14	3.447	0.187	4.0	0.0297	0.0000	SURCHARGED
30 minute winter	IC-0202-S	21	3.498	0.048	3.2	0.0076	0.0000	OK
30 minute winter	IC-0203-S	22	3.565	0.045	4.1	1.6108	0.0000	OK
15 minute winter	IC-0301-S	13	3.348	0.243	4.0	0.0387	0.0000	SURCHARGED
15 minute winter	IC-0302-S	13	3.348	0.088	1.2	0.0140	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)
480 minute winter	MH-0001-S	Dummy Pipe	Dummy Node	2.6	0.233	0.007	0.0343	
480 minute winter	MH-0002-S	PN-002-S	MH-0001-S	6.4	0.588	0.048	1.5580	
480 minute winter	MH-0003-S	PN-003-S	MH-0002-S	5.9	0.467	0.100	2.9783	
480 minute winter	MH-0005-S	PN-004-S	MH-0003-S	3.3	0.285	0.074	3.3768	
600 minute winter	MH-0006-S	PN-006-S	MH-0002-S	6.9	0.373	0.058	2.3306	
480 minute winter	MH-0007-S	PN-007-S	MH-0006-S	7.5	0.482	0.116	1.0233	
600 minute winter	MH-0008-S	PN-008-S	MH-0007-S	5.4	0.509	0.062	0.2814	
600 minute winter	MH-0009-S	PN-009-S	MH-0008-S	1.3	0.219	0.015	0.5960	
600 minute winter	MH-0010-S	PN-010-S	MH-0008-S	4.2	0.460	0.157	1.4694	
15 minute winter	MH-0011-S	PN-011-S	MH-0010-S	15.5	0.519	0.209	0.5316	
15 minute winter	MH-0012-S	PN-012-S	MH-0011-S	13.8	0.783	1.420	0.4626	
15 minute winter	MH-0013-S	PN-013-S	MH-0012-S	9.6	0.571	0.858	0.5235	
15 minute winter	MH-0014-S	PN-014-S	MH-0010-S	10.8	0.616	0.994	0.4599	
15 minute winter	IC-0101-S	PN-0101-S	MH-0013-S	4.0	0.343	0.257	0.1626	
30 minute winter	IC-0102-S	PN-0102-S	IC-0101-S	3.2	0.658	0.218	0.0669	
30 minute winter	IC-0103-S	PN-0103-S	IC-0102-S	2.6	0.565	0.181	0.0565	
15 minute winter	IC-0201-S	PN-0201-S	MH-0013-S	4.0	0.336	0.287	0.1699	
30 minute winter	IC-0202-S	PN-0202-S	IC-0201-S	3.2	0.647	0.218	0.0839	
30 minute winter	IC-0203-S	PN-0203-S	IC-0202-S	2.5	0.557	0.188	0.0564	
15 minute winter	IC-0301-S	PN-0301-S	MH-0012-S	2.8	0.248	0.299	0.1540	
15 minute winter	IC-0302-S	PN-0302-S	IC-0301-S	1.1	0.329	0.090	0.2029	

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Results for 5 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	IC-0401-S	10	3.323	0.053	3.8	0.0084	0.0000	OK
15 minute winter	IC-0402-S	12	3.286	0.196	5.1	0.0312	0.0000	SURCHARGED
15 minute winter	IC-0001-S	12	3.294	0.184	7.6	0.0293	0.0000	SURCHARGED
15 minute winter	IC-0002-S	12	3.298	0.098	5.0	0.0155	0.0000	OK
15 minute winter	IC-0901-S	11	3.692	0.152	5.2	0.0242	0.0000	SURCHARGED
480 minute winter	IC-1101-S	456	3.163	0.133	1.0	0.0211	0.0000	OK
15 minute winter	IC-1301-S	11	3.289	0.049	3.3	0.0078	0.0000	OK
15 minute winter	IC-1302-S	11	3.354	0.034	1.7	0.0054	0.0000	OK
15 minute winter	IC-1303-S	10	3.436	0.036	1.7	0.0058	0.0000	OK
15 minute winter	IC-1401-S	11	3.241	0.101	10.2	0.0161	0.0000	OK
480 minute winter	IC-1501-S	456	3.163	0.153	1.7	0.0243	0.0000	SURCHARGED
480 minute winter	IC-1701-S	456	3.163	0.093	0.6	0.0147	0.0000	OK
480 minute winter	IC-1801-S	456	3.163	0.123	1.0	0.0195	0.0000	OK
480 minute winter	IC-1901-S	456	3.163	0.273	2.1	0.0434	0.0000	SURCHARGED
480 minute winter	IC-1902-S	456	3.163	0.153	0.8	0.0243	0.0000	SURCHARGED
480 minute winter	IC-2001-S	456	3.163	0.133	0.7	0.0211	0.0000	OK
480 minute winter	IC-2201-S	432	3.163	0.193	0.4	0.0307	0.0000	SURCHARGED
480 minute winter	IC-2301-S	456	3.163	0.333	1.8	0.0530	0.0000	SURCHARGED
480 minute winter	IC-2401-S	456	3.163	0.143	0.6	0.0228	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	IC-0401-S	PN-0402-S	IC-0402-S	3.7	0.691	0.248	0.1128	
15 minute winter	IC-0402-S	PN-0401-S	MH-0014-S	4.5	0.376	0.304	0.1028	
15 minute winter	IC-0001-S	PN-0501-S	MH-0014-S	6.4	0.537	0.457	0.1679	
15 minute winter	IC-0002-S	PN-0502-S	IC-0001-S	5.0	0.625	0.276	0.1310	
15 minute winter	IC-0901-S	PN-1202-S	IC-1101-S	5.0	0.666	2.641	0.0801	
480 minute winter	IC-1101-S	PN-1201-S	MH-0005-S	1.0	0.438	0.070	0.2054	
15 minute winter	IC-1301-S	PN-1503-S	IC-1401-S	3.3	0.374	0.231	0.1367	
15 minute winter	IC-1302-S	PN-1504-S	IC-1301-S	1.7	0.418	0.114	0.0470	
15 minute winter	IC-1303-S	PN-1505-S	IC-1302-S	1.7	0.537	0.122	0.0418	
15 minute winter	IC-1401-S	PN-1502-S	IC-1501-S	10.1	0.848	0.689	0.0696	
480 minute winter	IC-1501-S	PN-1501-S	MH-0005-S	1.7	0.506	0.125	0.1741	
480 minute winter	IC-1701-S	PN-1905-S	IC-1801-S	0.6	0.327	0.047	0.0728	
480 minute winter	IC-1801-S	PN-1904-S	IC-1901-S	1.0	0.439	0.071	0.1717	
480 minute winter	IC-1901-S	PN-1901-S	MH-0003-S	2.1	0.282	0.049	0.4029	
480 minute winter	IC-1902-S	PN-1902-S	IC-1901-S	0.9	0.435	0.059	0.1033	
480 minute winter	IC-2001-S	PN-1903-S	IC-1902-S	0.7	0.404	0.045	0.0414	
480 minute winter	IC-2201-S	PN-2201-S	IC-2301-S	0.9	0.349	0.060	0.1366	
480 minute winter	IC-2301-S	PN-2301-S	MH-0001-S	2.8	0.363	0.030	0.5160	
480 minute winter	IC-2401-S	PN-2302-S	IC-2301-S	0.7	0.355	0.050	0.2673	

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Results for 5 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
480 minute winter	IC-2402-S	464	3.163	0.043	0.3	0.0068	0.0000	OK
15 minute winter	IC-2403-S	10	3.244	0.044	2.6	0.0070	0.0000	OK
480 minute winter	IC-2501-S	456	3.163	0.073	0.4	0.0116	0.0000	OK
15 minute winter	IC-2502-S	10	3.188	0.038	2.1	0.0060	0.0000	OK
480 minute winter	IC-2601-S	456	3.165	0.145	0.4	0.0230	0.0000	OK
480 minute winter	IC-2701-S	456	3.164	0.294	1.1	0.0467	0.0000	SURCHARGED
480 minute winter	IC-2801-S	456	3.165	0.165	0.4	0.0262	0.0000	SURCHARGED
480 minute winter	IC-3001-S	400	3.166	0.236	0.4	0.0375	0.0000	SURCHARGED
480 minute winter	IC-3002-S	400	3.166	0.196	0.2	0.0312	0.0000	SURCHARGED
600 minute winter	IC-3201-S	510	3.167	0.077	0.3	0.0122	0.0000	OK
600 minute winter	IC-3401-S	510	3.166	0.196	0.7	0.0312	0.0000	SURCHARGED
600 minute winter	IC-3501-S	510	3.166	0.056	0.4	0.0089	0.0000	OK
15 minute winter	IC-3502-S	11	3.244	0.024	0.9	0.0037	0.0000	OK
15 minute winter	Dummy Node	38	2.701	0.042	2.6	0.1070	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)
480 minute winter	IC-2402-S	PN-2401-S	IC-2401-S	0.3	0.254	0.020	0.1566	
15 minute winter	IC-2403-S	PN-2402-S	IC-2402-S	2.5	0.618	0.176	0.0493	
480 minute winter	IC-2501-S	PN-2501-S	MH-0001-S	0.3	0.306	0.023	0.0171	
15 minute winter	IC-2502-S	PN-2502-S	IC-2501-S	2.1	0.470	0.141	0.0384	
480 minute winter	IC-2601-S	PN-2702-S	IC-2701-S	0.4	0.334	0.027	0.1484	
480 minute winter	IC-2701-S	PN-2701-S	MH-0006-S	1.0	0.166	0.023	0.5854	
480 minute winter	IC-2801-S	PN-2703-S	IC-2701-S	0.4	0.300	0.034	0.1562	
480 minute winter	IC-3001-S	PN-3001-S	MH-0009-S	0.4	0.198	0.011	0.1831	
480 minute winter	IC-3002-S	PN-3002-S	IC-3001-S	-0.2	0.201	-0.016	0.0944	
600 minute winter	IC-3201-S	PN-3004-S	MH-0009-S	0.3	0.228	0.017	0.2301	
600 minute winter	IC-3401-S	PN-3005-S	MH-0009-S	0.7	0.372	0.041	0.1345	
600 minute winter	IC-3501-S	PN-3006-S	IC-3401-S	-0.4	0.231	-0.020	0.1681	
15 minute winter	IC-3502-S	PN-3007-S	IC-3501-S	0.9	0.400	0.053	0.0277	
15 minute winter	Dummy Node	PN-001-S	Headwall	2.6	0.470	0.041	0.1630	37.5

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Results for 10 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	Headwall	57	2.598	0.038	2.6	0.0000	0.0000	OK
600 minute winter	MH-0001-S	570	3.195	0.535	7.6	37.5079	0.0000	OK
600 minute winter	MH-0002-S	570	3.196	0.496	14.2	110.1405	0.0000	SURCHARGED
600 minute winter	MH-0003-S	570	3.196	0.376	5.2	0.4247	0.0000	SURCHARGED
600 minute winter	MH-0005-S	570	3.196	0.296	3.1	0.3345	0.0000	OK
600 minute winter	MH-0006-S	585	3.196	0.421	8.3	0.6030	0.0000	SURCHARGED
600 minute winter	MH-0007-S	615	3.196	0.371	6.9	0.4201	0.0000	SURCHARGED
720 minute winter	MH-0008-S	645	3.201	0.351	5.6	0.3966	0.0000	SURCHARGED
600 minute winter	MH-0009-S	585	3.197	0.297	1.8	0.3361	0.0000	OK
15 minute winter	MH-0010-S	13	3.220	0.270	31.5	0.3054	0.0000	SURCHARGED
15 minute winter	MH-0011-S	13	3.223	0.223	16.5	0.2527	0.0000	OK
15 minute winter	MH-0012-S	13	3.430	0.350	14.6	0.3958	0.0000	SURCHARGED
15 minute winter	MH-0013-S	14	3.533	0.333	10.8	0.3761	0.0000	SURCHARGED
15 minute winter	MH-0014-S	12	3.342	0.292	12.3	0.3308	0.0000	SURCHARGED
15 minute winter	IC-0101-S	14	3.540	0.270	4.9	0.0429	0.0000	SURCHARGED
15 minute winter	IC-0102-S	14	3.547	0.097	4.1	0.0154	0.0000	OK
30 minute winter	IC-0103-S	21	3.579	0.049	4.8	1.7508	0.0000	OK
15 minute winter	IC-0201-S	14	3.540	0.280	4.8	0.0445	0.0000	SURCHARGED
15 minute winter	IC-0202-S	14	3.547	0.097	3.9	0.0154	0.0000	OK
30 minute winter	IC-0203-S	21	3.570	0.050	4.8	1.7906	0.0000	OK
15 minute winter	IC-0301-S	13	3.433	0.328	4.3	0.0522	0.0000	SURCHARGED
15 minute winter	IC-0302-S	13	3.435	0.175	2.1	0.0278	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	MH-0001-S	Dummy Pipe	Dummy Node	2.6	0.233	0.007	0.0343	
600 minute winter	MH-0002-S	PN-002-S	MH-0001-S	5.8	0.589	0.043	1.5580	
600 minute winter	MH-0003-S	PN-003-S	MH-0002-S	5.1	0.395	0.086	2.9783	
600 minute winter	MH-0005-S	PN-004-S	MH-0003-S	2.9	0.269	0.066	3.4958	
600 minute winter	MH-0006-S	PN-006-S	MH-0002-S	8.2	0.421	0.069	2.3306	
600 minute winter	MH-0007-S	PN-007-S	MH-0006-S	6.9	0.453	0.106	1.0233	
720 minute winter	MH-0008-S	PN-008-S	MH-0007-S	5.5	0.514	0.063	0.2814	
600 minute winter	MH-0009-S	PN-009-S	MH-0008-S	1.5	0.210	0.018	0.6156	
15 minute winter	MH-0010-S	PN-010-S	MH-0008-S	31.7	0.798	1.186	1.4701	
15 minute winter	MH-0011-S	PN-011-S	MH-0010-S	17.2	0.493	0.231	0.6826	
15 minute winter	MH-0012-S	PN-012-S	MH-0011-S	14.9	0.845	1.534	0.4626	
15 minute winter	MH-0013-S	PN-013-S	MH-0012-S	11.3	0.641	1.008	0.5235	
15 minute winter	MH-0014-S	PN-014-S	MH-0010-S	11.5	0.653	1.055	0.4599	
15 minute winter	IC-0101-S	PN-0101-S	MH-0013-S	4.9	0.341	0.316	0.1626	
15 minute winter	IC-0102-S	PN-0102-S	IC-0101-S	4.0	0.623	0.274	0.1914	
30 minute winter	IC-0103-S	PN-0103-S	IC-0102-S	3.3	0.585	0.232	0.0803	
15 minute winter	IC-0201-S	PN-0201-S	MH-0013-S	4.9	0.338	0.354	0.1699	
15 minute winter	IC-0202-S	PN-0202-S	IC-0201-S	4.1	0.615	0.279	0.2156	
30 minute winter	IC-0203-S	PN-0203-S	IC-0202-S	3.3	0.564	0.243	0.0821	
15 minute winter	IC-0301-S	PN-0301-S	MH-0012-S	2.9	0.258	0.314	0.1540	
15 minute winter	IC-0302-S	PN-0302-S	IC-0301-S	-1.3	0.339	-0.112	0.2523	

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Results for 10 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	IC-0401-S	12	3.350	0.080	4.4	0.0127	0.0000	OK
15 minute winter	IC-0402-S	12	3.347	0.257	6.0	0.0409	0.0000	SURCHARGED
15 minute winter	IC-0001-S	12	3.359	0.249	8.1	0.0396	0.0000	SURCHARGED
15 minute winter	IC-0002-S	12	3.365	0.165	5.7	0.0262	0.0000	SURCHARGED
15 minute winter	IC-0901-S	11	3.721	0.181	6.0	0.0288	0.0000	SURCHARGED
600 minute winter	IC-1101-S	570	3.196	0.166	1.0	0.0264	0.0000	SURCHARGED
15 minute winter	IC-1301-S	11	3.292	0.052	3.7	0.0082	0.0000	OK
15 minute winter	IC-1302-S	11	3.356	0.036	1.9	0.0057	0.0000	OK
15 minute winter	IC-1303-S	10	3.439	0.039	1.9	0.0061	0.0000	OK
15 minute winter	IC-1401-S	11	3.252	0.112	11.8	0.0178	0.0000	OK
15 minute winter	IC-1501-S	11	3.200	0.190	16.3	0.0303	0.0000	SURCHARGED
600 minute winter	IC-1701-S	570	3.196	0.126	0.6	0.0200	0.0000	OK
600 minute winter	IC-1801-S	570	3.196	0.156	1.0	0.0248	0.0000	SURCHARGED
600 minute winter	IC-1901-S	555	3.196	0.306	1.9	0.0486	0.0000	SURCHARGED
600 minute winter	IC-1902-S	585	3.195	0.185	0.8	0.0295	0.0000	SURCHARGED
600 minute winter	IC-2001-S	555	3.196	0.166	0.7	0.0264	0.0000	SURCHARGED
600 minute winter	IC-2201-S	570	3.195	0.225	0.8	0.0358	0.0000	SURCHARGED
600 minute winter	IC-2301-S	570	3.196	0.366	1.5	0.0581	0.0000	SURCHARGED
600 minute winter	IC-2401-S	540	3.196	0.176	0.7	0.0280	0.0000	SURCHARGED

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	IC-0401-S	PN-0402-S	IC-0402-S	4.4	0.694	0.294	0.1706	
15 minute winter	IC-0402-S	PN-0401-S	MH-0014-S	4.5	0.368	0.305	0.1028	
15 minute winter	IC-0001-S	PN-0501-S	MH-0014-S	6.7	0.546	0.474	0.1679	
15 minute winter	IC-0002-S	PN-0502-S	IC-0001-S	5.3	0.625	0.296	0.1550	
15 minute winter	IC-0901-S	PN-1202-S	IC-1101-S	5.7	0.749	3.022	0.0825	
600 minute winter	IC-1101-S	PN-1201-S	MH-0005-S	1.0	0.421	0.066	0.2121	
15 minute winter	IC-1301-S	PN-1503-S	IC-1401-S	3.7	0.377	0.259	0.1516	
15 minute winter	IC-1302-S	PN-1504-S	IC-1301-S	1.9	0.432	0.127	0.0511	
15 minute winter	IC-1303-S	PN-1505-S	IC-1302-S	1.9	0.554	0.137	0.0454	
15 minute winter	IC-1401-S	PN-1502-S	IC-1501-S	11.5	0.864	0.785	0.0779	
15 minute winter	IC-1501-S	PN-1501-S	MH-0005-S	16.1	0.914	1.168	0.1735	
600 minute winter	IC-1701-S	PN-1905-S	IC-1801-S	0.6	0.315	0.045	0.0906	
600 minute winter	IC-1801-S	PN-1904-S	IC-1901-S	0.9	0.438	0.063	0.1830	
600 minute winter	IC-1901-S	PN-1901-S	MH-0003-S	1.8	0.256	0.042	0.4029	
600 minute winter	IC-1902-S	PN-1902-S	IC-1901-S	0.8	0.420	0.054	0.1033	
600 minute winter	IC-2001-S	PN-1903-S	IC-1902-S	0.7	0.404	0.043	0.0427	
600 minute winter	IC-2201-S	PN-2201-S	IC-2301-S	-0.4	0.321	-0.028	0.1366	
600 minute winter	IC-2301-S	PN-2301-S	MH-0001-S	1.6	0.347	0.018	0.5160	
600 minute winter	IC-2401-S	PN-2302-S	IC-2301-S	0.6	0.355	0.041	0.2694	

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Results for 10 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	IC-2402-S	555	3.196	0.076	0.3	0.0121	0.0000	OK
15 minute winter	IC-2403-S	10	3.248	0.048	3.0	0.0076	0.0000	OK
600 minute winter	IC-2501-S	570	3.196	0.106	0.3	0.0168	0.0000	OK
600 minute winter	IC-2502-S	555	3.196	0.046	0.2	0.0072	0.0000	OK
600 minute winter	IC-2601-S	585	3.197	0.177	0.4	0.0281	0.0000	SURCHARGED
600 minute winter	IC-2701-S	585	3.196	0.326	1.0	0.0519	0.0000	SURCHARGED
600 minute winter	IC-2801-S	585	3.196	0.196	0.4	0.0312	0.0000	SURCHARGED
600 minute winter	IC-3001-S	570	3.198	0.268	0.5	0.0426	0.0000	SURCHARGED
600 minute winter	IC-3002-S	585	3.197	0.227	0.2	0.0362	0.0000	SURCHARGED
600 minute winter	IC-3201-S	585	3.197	0.107	0.4	0.0170	0.0000	OK
600 minute winter	IC-3401-S	555	3.197	0.227	0.8	0.0361	0.0000	SURCHARGED
600 minute winter	IC-3501-S	585	3.198	0.088	0.2	0.0139	0.0000	OK
15 minute winter	IC-3502-S	10	3.246	0.026	1.1	0.0041	0.0000	OK
15 minute summer	Dummy Node	56	2.701	0.042	2.6	0.1070	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)
600 minute winter	IC-2402-S	PN-2401-S	IC-2401-S	0.5	0.251	0.034	0.1936	
15 minute winter	IC-2403-S	PN-2402-S	IC-2402-S	2.9	0.642	0.204	0.0549	
600 minute winter	IC-2501-S	PN-2501-S	MH-0001-S	0.3	0.306	0.026	0.0258	
600 minute winter	IC-2502-S	PN-2502-S	IC-2501-S	0.2	0.235	0.014	0.0769	
600 minute winter	IC-2601-S	PN-2702-S	IC-2701-S	0.4	0.332	0.024	0.1491	
600 minute winter	IC-2701-S	PN-2701-S	MH-0006-S	1.0	0.161	0.024	0.5854	
600 minute winter	IC-2801-S	PN-2703-S	IC-2701-S	0.4	0.300	0.032	0.1562	
600 minute winter	IC-3001-S	PN-3001-S	MH-0009-S	0.6	0.193	0.014	0.1831	
600 minute winter	IC-3002-S	PN-3002-S	IC-3001-S	0.3	0.201	0.017	0.0944	
600 minute winter	IC-3201-S	PN-3004-S	MH-0009-S	0.4	0.228	0.021	0.2681	
600 minute winter	IC-3401-S	PN-3005-S	MH-0009-S	0.8	0.372	0.045	0.1345	
600 minute winter	IC-3501-S	PN-3006-S	IC-3401-S	0.4	0.219	0.022	0.2015	
15 minute winter	IC-3502-S	PN-3007-S	IC-3501-S	1.1	0.422	0.063	0.0310	
15 minute summer	Dummy Node	PN-001-S	Headwall	2.6	0.470	0.041	0.1630	37.6

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	Headwall	195	2.598	0.038	2.6	0.0000	0.0000	OK
720 minute winter	MH-0001-S	690	3.258	0.598	7.3	37.6679	0.0000	OK
720 minute winter	MH-0002-S	690	3.258	0.558	15.1	164.3219	0.0000	SURCHARGED
720 minute winter	MH-0003-S	690	3.258	0.438	5.5	0.4957	0.0000	SURCHARGED
720 minute winter	MH-0005-S	690	3.258	0.358	3.1	0.4051	0.0000	SURCHARGED
480 minute winter	MH-0006-S	472	3.259	0.484	12.0	0.6919	0.0000	SURCHARGED
600 minute winter	MH-0007-S	600	3.259	0.434	8.4	0.4906	0.0000	SURCHARGED
480 minute winter	MH-0008-S	464	3.264	0.414	9.5	0.4683	0.0000	SURCHARGED
480 minute winter	MH-0009-S	464	3.260	0.360	2.4	0.4072	0.0000	SURCHARGED
15 minute winter	MH-0010-S	12	3.332	0.382	37.0	0.4317	0.0000	SURCHARGED
15 minute winter	MH-0011-S	12	3.337	0.337	18.4	0.3807	0.0000	SURCHARGED
15 minute winter	MH-0012-S	12	3.554	0.474	15.2	0.5361	0.0000	FLOOD RISK
15 minute winter	MH-0013-S	12	3.611	0.411	11.8	0.4643	0.0000	SURCHARGED
15 minute winter	MH-0014-S	13	3.514	0.464	14.0	0.5246	0.0000	FLOOD RISK
15 minute winter	IC-0101-S	12	3.609	0.339	5.7	0.0539	0.0000	SURCHARGED
15 minute winter	IC-0102-S	12	3.608	0.158	5.2	0.0251	0.0000	SURCHARGED
15 minute winter	IC-0103-S	15	3.606	0.076	9.3	2.6885	0.0000	OK
15 minute winter	IC-0201-S	12	3.610	0.350	5.6	0.0556	0.0000	SURCHARGED
15 minute winter	IC-0202-S	12	3.603	0.153	5.4	0.0243	0.0000	SURCHARGED
30 minute winter	IC-0203-S	24	3.604	0.084	7.3	2.9911	0.0000	OK
15 minute winter	IC-0301-S	12	3.561	0.456	4.8	0.0725	0.0000	SURCHARGED
15 minute winter	IC-0302-S	12	3.567	0.307	3.0	0.0488	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
720 minute winter	MH-0001-S	Dummy Pipe	Dummy Node	2.6	0.233	0.007	0.0343	
720 minute winter	MH-0002-S	PN-002-S	MH-0001-S	5.5	0.591	0.041	1.5580	
720 minute winter	MH-0003-S	PN-003-S	MH-0002-S	5.4	0.391	0.092	2.9783	
720 minute winter	MH-0005-S	PN-004-S	MH-0003-S	3.1	0.269	0.069	3.5008	
480 minute winter	MH-0006-S	PN-006-S	MH-0002-S	12.0	0.482	0.101	2.3306	
600 minute winter	MH-0007-S	PN-007-S	MH-0006-S	8.3	0.430	0.129	1.0233	
480 minute winter	MH-0008-S	PN-008-S	MH-0007-S	9.5	0.536	0.108	0.2814	
480 minute winter	MH-0009-S	PN-009-S	MH-0008-S	2.3	0.228	0.027	0.6162	
15 minute winter	MH-0010-S	PN-010-S	MH-0008-S	36.8	0.927	1.377	1.4752	
15 minute winter	MH-0011-S	PN-011-S	MH-0010-S	18.2	0.393	0.245	0.7812	
15 minute winter	MH-0012-S	PN-012-S	MH-0011-S	14.9	0.847	1.537	0.4626	
15 minute winter	MH-0013-S	PN-013-S	MH-0012-S	12.2	0.695	1.092	0.5235	
15 minute winter	MH-0014-S	PN-014-S	MH-0010-S	14.1	0.799	1.290	0.4599	
15 minute winter	IC-0101-S	PN-0101-S	MH-0013-S	5.7	0.343	0.371	0.1626	
15 minute winter	IC-0102-S	PN-0102-S	IC-0101-S	5.4	0.619	0.368	0.2277	
15 minute winter	IC-0103-S	PN-0103-S	IC-0102-S	5.0	0.566	0.345	0.1608	
15 minute winter	IC-0201-S	PN-0201-S	MH-0013-S	6.3	0.356	0.449	0.1699	
15 minute winter	IC-0202-S	PN-0202-S	IC-0201-S	5.6	0.611	0.385	0.2562	
30 minute winter	IC-0203-S	PN-0203-S	IC-0202-S	4.5	0.558	0.338	0.1685	
15 minute winter	IC-0301-S	PN-0301-S	MH-0012-S	4.8	0.273	0.512	0.1540	
15 minute winter	IC-0302-S	PN-0302-S	IC-0301-S	-2.0	0.329	-0.169	0.2523	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	IC-0401-S	13	3.528	0.258	5.5	0.0410	0.0000	SURCHARGED
15 minute winter	IC-0402-S	13	3.521	0.431	7.1	0.0686	0.0000	SURCHARGED
15 minute winter	IC-0001-S	13	3.535	0.425	9.3	0.0676	0.0000	SURCHARGED
15 minute winter	IC-0002-S	13	3.543	0.343	7.3	0.0545	0.0000	SURCHARGED
15 minute winter	IC-0901-S	11	3.794	0.254	7.6	0.0404	0.0000	FLOOD RISK
480 minute winter	IC-1101-S	472	3.259	0.229	1.4	0.0363	0.0000	SURCHARGED
15 minute winter	IC-1301-S	12	3.340	0.100	4.7	0.0160	0.0000	OK
15 minute winter	IC-1302-S	11	3.361	0.041	2.4	0.0065	0.0000	OK
15 minute winter	IC-1303-S	10	3.444	0.044	2.4	0.0069	0.0000	OK
15 minute winter	IC-1401-S	12	3.330	0.190	14.0	0.0302	0.0000	SURCHARGED
15 minute winter	IC-1501-S	12	3.282	0.272	19.2	0.0432	0.0000	SURCHARGED
480 minute winter	IC-1701-S	472	3.258	0.188	0.8	0.0300	0.0000	SURCHARGED
720 minute winter	IC-1801-S	690	3.258	0.218	1.0	0.0347	0.0000	SURCHARGED
720 minute winter	IC-1901-S	690	3.258	0.368	2.0	0.0586	0.0000	SURCHARGED
720 minute winter	IC-1902-S	690	3.258	0.248	0.9	0.0395	0.0000	SURCHARGED
480 minute winter	IC-2001-S	464	3.259	0.229	1.1	0.0363	0.0000	SURCHARGED
720 minute winter	IC-2201-S	690	3.259	0.289	0.5	0.0459	0.0000	SURCHARGED
480 minute winter	IC-2301-S	464	3.260	0.430	2.4	0.0683	0.0000	SURCHARGED
720 minute winter	IC-2401-S	690	3.259	0.239	0.6	0.0380	0.0000	SURCHARGED

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	IC-0401-S	PN-0402-S	IC-0402-S	5.1	0.695	0.343	0.2209	
15 minute winter	IC-0402-S	PN-0401-S	MH-0014-S	5.1	0.373	0.351	0.1028	
15 minute winter	IC-0001-S	PN-0501-S	MH-0014-S	8.2	0.548	0.584	0.1679	
15 minute winter	IC-0002-S	PN-0502-S	IC-0001-S	5.5	0.638	0.308	0.1550	
15 minute winter	IC-0901-S	PN-1202-S	IC-1101-S	7.2	0.929	3.826	0.0863	
480 minute winter	IC-1101-S	PN-1201-S	MH-0005-S	1.4	0.464	0.094	0.2121	
15 minute winter	IC-1301-S	PN-1503-S	IC-1401-S	5.3	0.372	0.373	0.2343	
15 minute winter	IC-1302-S	PN-1504-S	IC-1301-S	2.4	0.446	0.162	0.0954	
15 minute winter	IC-1303-S	PN-1505-S	IC-1302-S	2.4	0.590	0.174	0.0540	
15 minute winter	IC-1401-S	PN-1502-S	IC-1501-S	13.0	0.872	0.891	0.1030	
15 minute winter	IC-1501-S	PN-1501-S	MH-0005-S	18.4	1.047	1.338	0.1741	
480 minute winter	IC-1701-S	PN-1905-S	IC-1801-S	0.8	0.347	0.059	0.0955	
720 minute winter	IC-1801-S	PN-1904-S	IC-1901-S	0.9	0.438	0.065	0.1830	
720 minute winter	IC-1901-S	PN-1901-S	MH-0003-S	2.0	0.256	0.046	0.4029	
720 minute winter	IC-1902-S	PN-1902-S	IC-1901-S	0.9	0.420	0.058	0.1033	
480 minute winter	IC-2001-S	PN-1903-S	IC-1902-S	1.1	0.437	0.066	0.0427	
720 minute winter	IC-2201-S	PN-2201-S	IC-2301-S	1.1	0.321	0.074	0.1366	
480 minute winter	IC-2301-S	PN-2301-S	MH-0001-S	2.4	0.363	0.027	0.5160	
720 minute winter	IC-2401-S	PN-2302-S	IC-2301-S	0.6	0.355	0.045	0.2694	

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Results for 30 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute winter	IC-2402-S	690	3.259	0.139	0.3	0.0221	0.0000	OK
480 minute winter	IC-2403-S	456	3.259	0.059	0.4	0.0094	0.0000	OK
720 minute winter	IC-2501-S	690	3.259	0.169	0.5	0.0268	0.0000	SURCHARGED
720 minute winter	IC-2502-S	690	3.259	0.109	0.2	0.0173	0.0000	OK
720 minute winter	IC-2601-S	660	3.260	0.240	0.4	0.0381	0.0000	SURCHARGED
720 minute winter	IC-2701-S	660	3.259	0.389	1.2	0.0619	0.0000	SURCHARGED
720 minute winter	IC-2801-S	660	3.260	0.260	0.4	0.0413	0.0000	SURCHARGED
720 minute winter	IC-3001-S	660	3.260	0.330	0.5	0.0525	0.0000	SURCHARGED
480 minute winter	IC-3002-S	464	3.261	0.291	0.3	0.0462	0.0000	SURCHARGED
480 minute winter	IC-3201-S	464	3.262	0.172	0.6	0.0273	0.0000	SURCHARGED
480 minute winter	IC-3401-S	464	3.262	0.292	1.1	0.0464	0.0000	SURCHARGED
480 minute winter	IC-3501-S	472	3.260	0.150	0.5	0.0238	0.0000	OK
480 minute winter	IC-3502-S	472	3.261	0.041	0.2	0.0065	0.0000	OK
15 minute summer	Dummy Node	194	2.701	0.042	2.6	0.1070	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)
720 minute winter	IC-2402-S	PN-2401-S	IC-2401-S	0.3	0.251	0.020	0.2527	
480 minute winter	IC-2403-S	PN-2402-S	IC-2402-S	0.4	0.359	0.028	0.1399	
720 minute winter	IC-2501-S	PN-2501-S	MH-0001-S	-0.4	0.306	-0.028	0.0326	
720 minute winter	IC-2502-S	PN-2502-S	IC-2501-S	0.4	0.235	0.027	0.1354	
720 minute winter	IC-2601-S	PN-2702-S	IC-2701-S	0.4	0.332	0.025	0.1491	
720 minute winter	IC-2701-S	PN-2701-S	MH-0006-S	1.1	0.161	0.027	0.5854	
720 minute winter	IC-2801-S	PN-2703-S	IC-2701-S	0.4	0.298	0.032	0.1562	
720 minute winter	IC-3001-S	PN-3001-S	MH-0009-S	0.4	0.198	0.011	0.1831	
480 minute winter	IC-3002-S	PN-3002-S	IC-3001-S	0.3	0.244	0.020	0.0944	
480 minute winter	IC-3201-S	PN-3004-S	MH-0009-S	0.5	0.229	0.029	0.3038	
480 minute winter	IC-3401-S	PN-3005-S	MH-0009-S	1.1	0.389	0.064	0.1345	
480 minute winter	IC-3501-S	PN-3006-S	IC-3401-S	-0.5	0.231	-0.026	0.2506	
480 minute winter	IC-3502-S	PN-3007-S	IC-3501-S	-0.2	0.235	-0.013	0.1311	
15 minute summer	Dummy Node	PN-001-S	Headwall	2.6	0.470	0.041	0.1630	37.9

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	Headwall	315	2.598	0.038	2.6	0.0000	0.0000	OK
600 minute winter	MH-0001-S	585	3.346	0.686	8.6	37.8907	0.0000	OK
600 minute winter	MH-0002-S	585	3.347	0.647	23.4	248.0056	0.0000	FLOOD RISK
600 minute winter	MH-0003-S	585	3.347	0.527	8.3	0.5956	0.0000	SURCHARGED
600 minute winter	MH-0005-S	585	3.347	0.447	4.7	0.5051	0.0000	SURCHARGED
600 minute winter	MH-0006-S	570	3.346	0.571	13.2	0.8171	0.0000	SURCHARGED
600 minute winter	MH-0007-S	600	3.351	0.526	11.0	0.5949	0.0000	SURCHARGED
600 minute winter	MH-0008-S	585	3.355	0.505	10.3	0.5711	0.0000	SURCHARGED
600 minute winter	MH-0009-S	600	3.349	0.449	2.6	0.5082	0.0000	SURCHARGED
30 minute winter	MH-0010-S	20	3.445	0.495	38.8	0.5604	0.0000	FLOOD RISK
30 minute winter	MH-0011-S	20	3.450	0.450	19.6	0.5086	0.0000	FLOOD RISK
15 minute winter	MH-0012-S	12	3.640	0.560	16.0	0.6334	0.0000	FLOOD RISK
30 minute winter	MH-0013-S	24	3.664	0.464	12.4	0.5250	0.0000	SURCHARGED
15 minute winter	MH-0014-S	11	3.656	0.606	15.7	0.6855	0.0000	FLOOD RISK
30 minute winter	IC-0101-S	24	3.668	0.398	6.1	0.0633	0.0000	SURCHARGED
30 minute winter	IC-0102-S	24	3.672	0.222	5.9	0.0353	0.0000	SURCHARGED
30 minute winter	IC-0103-S	25	3.675	0.145	11.7	5.1605	0.0000	OK
30 minute winter	IC-0201-S	24	3.668	0.408	6.0	0.0649	0.0000	SURCHARGED
30 minute winter	IC-0202-S	24	3.672	0.222	5.8	0.0353	0.0000	SURCHARGED
30 minute winter	IC-0203-S	25	3.676	0.156	12.8	5.5376	0.0000	SURCHARGED
15 minute winter	IC-0301-S	12	3.651	0.546	8.5	0.2782	0.0000	FLOOD RISK
15 minute winter	IC-0302-S	11	3.664	0.404	3.5	0.0642	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
600 minute winter	MH-0001-S	Dummy Pipe	Dummy Node	2.6	0.233	0.007	0.0343	
600 minute winter	MH-0002-S	PN-002-S	MH-0001-S	6.6	0.580	0.049	1.5580	
600 minute winter	MH-0003-S	PN-003-S	MH-0002-S	8.2	0.432	0.140	2.9783	
600 minute winter	MH-0005-S	PN-004-S	MH-0003-S	4.6	0.256	0.105	3.5008	
600 minute winter	MH-0006-S	PN-006-S	MH-0002-S	13.1	0.479	0.111	2.3306	
600 minute winter	MH-0007-S	PN-007-S	MH-0006-S	11.0	0.412	0.169	1.0233	
600 minute winter	MH-0008-S	PN-008-S	MH-0007-S	10.3	0.517	0.117	0.2814	
600 minute winter	MH-0009-S	PN-009-S	MH-0008-S	2.4	0.212	0.029	0.6162	
30 minute winter	MH-0010-S	PN-010-S	MH-0008-S	37.9	0.953	1.416	1.4752	
30 minute winter	MH-0011-S	PN-011-S	MH-0010-S	18.6	0.382	0.250	0.7812	
15 minute winter	MH-0012-S	PN-012-S	MH-0011-S	14.5	0.827	1.500	0.4626	
30 minute winter	MH-0013-S	PN-013-S	MH-0012-S	12.6	0.714	1.122	0.5235	
15 minute winter	MH-0014-S	PN-014-S	MH-0010-S	15.5	0.883	1.426	0.4599	
30 minute winter	IC-0101-S	PN-0101-S	MH-0013-S	6.2	0.355	0.405	0.1626	
30 minute winter	IC-0102-S	PN-0102-S	IC-0101-S	6.1	0.632	0.413	0.2277	
30 minute winter	IC-0103-S	PN-0103-S	IC-0102-S	5.9	0.575	0.408	0.2127	
30 minute winter	IC-0201-S	PN-0201-S	MH-0013-S	6.4	0.361	0.456	0.1699	
30 minute winter	IC-0202-S	PN-0202-S	IC-0201-S	6.0	0.614	0.410	0.2562	
30 minute winter	IC-0203-S	PN-0203-S	IC-0202-S	5.8	0.583	0.431	0.2137	
15 minute winter	IC-0301-S	PN-0301-S	MH-0012-S	6.5	0.369	0.692	0.1540	
15 minute winter	IC-0302-S	PN-0302-S	IC-0301-S	2.6	0.325	0.218	0.2523	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	IC-0401-S	14	3.664	0.394	7.2	0.8017	0.0000	FLOOD RISK
15 minute winter	IC-0402-S	13	3.658	0.568	9.7	0.0904	0.0000	SURCHARGED
15 minute winter	IC-0001-S	12	3.695	0.585	12.9	0.2741	0.0000	FLOOD RISK
15 minute winter	IC-0002-S	11	3.720	0.520	9.4	0.0827	0.0000	SURCHARGED
15 minute winter	IC-0901-S	11	3.932	0.392	9.9	0.0623	0.0000	FLOOD RISK
15 minute winter	IC-1101-S	12	3.418	0.388	15.5	0.0617	0.0000	SURCHARGED
15 minute winter	IC-1301-S	13	3.532	0.292	6.6	0.0464	0.0000	SURCHARGED
15 minute winter	IC-1302-S	13	3.537	0.217	4.9	0.0346	0.0000	SURCHARGED
15 minute winter	IC-1303-S	13	3.542	0.142	3.1	0.0226	0.0000	OK
15 minute winter	IC-1401-S	12	3.519	0.379	14.5	0.0602	0.0000	SURCHARGED
15 minute winter	IC-1501-S	12	3.469	0.459	21.7	0.0729	0.0000	SURCHARGED
15 minute winter	IC-1701-S	12	3.369	0.299	9.9	0.0475	0.0000	SURCHARGED
15 minute winter	IC-1801-S	12	3.354	0.314	14.8	0.0499	0.0000	SURCHARGED
600 minute winter	IC-1901-S	585	3.347	0.457	2.9	0.0726	0.0000	SURCHARGED
600 minute winter	IC-1902-S	600	3.346	0.336	1.2	0.0535	0.0000	SURCHARGED
600 minute winter	IC-2001-S	585	3.346	0.316	1.1	0.0503	0.0000	SURCHARGED
600 minute winter	IC-2201-S	585	3.347	0.377	0.7	0.0599	0.0000	SURCHARGED
600 minute winter	IC-2301-S	585	3.348	0.518	2.8	0.0824	0.0000	SURCHARGED
600 minute winter	IC-2401-S	600	3.346	0.326	0.8	0.0519	0.0000	SURCHARGED

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	IC-0401-S	PN-0402-S	IC-0402-S	9.2	0.682	0.614	0.2209	
15 minute winter	IC-0402-S	PN-0401-S	MH-0014-S	10.2	0.579	0.695	0.1028	
15 minute winter	IC-0001-S	PN-0501-S	MH-0014-S	10.3	0.588	0.737	0.1679	
15 minute winter	IC-0002-S	PN-0502-S	IC-0001-S	8.3	0.642	0.460	0.1550	
15 minute winter	IC-0901-S	PN-1202-S	IC-1101-S	9.2	1.179	4.880	0.0887	
15 minute winter	IC-1101-S	PN-1201-S	MH-0005-S	14.2	0.805	0.982	0.2121	
15 minute winter	IC-1301-S	PN-1503-S	IC-1401-S	8.2	0.503	0.581	0.2738	
15 minute winter	IC-1302-S	PN-1504-S	IC-1301-S	5.8	0.436	0.400	0.2081	
15 minute winter	IC-1303-S	PN-1505-S	IC-1302-S	3.2	0.629	0.233	0.2344	
15 minute winter	IC-1401-S	PN-1502-S	IC-1501-S	13.6	0.890	0.930	0.1030	
15 minute winter	IC-1501-S	PN-1501-S	MH-0005-S	20.8	1.181	1.509	0.1741	
15 minute winter	IC-1701-S	PN-1905-S	IC-1801-S	8.6	0.565	0.658	0.0955	
15 minute winter	IC-1801-S	PN-1904-S	IC-1901-S	13.5	0.862	0.930	0.1830	
600 minute winter	IC-1901-S	PN-1901-S	MH-0003-S	2.8	0.250	0.066	0.4029	
600 minute winter	IC-1902-S	PN-1902-S	IC-1901-S	1.1	0.436	0.079	0.1033	
600 minute winter	IC-2001-S	PN-1903-S	IC-1902-S	1.1	0.421	0.067	0.0427	
600 minute winter	IC-2201-S	PN-2201-S	IC-2301-S	1.3	0.321	0.092	0.1366	
600 minute winter	IC-2301-S	PN-2301-S	MH-0001-S	2.2	0.347	0.024	0.5160	
600 minute winter	IC-2401-S	PN-2302-S	IC-2301-S	0.8	0.355	0.055	0.2694	

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Results for 100 year Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
600 minute winter	IC-2402-S	585	3.347	0.227	0.4	0.0360	0.0000	SURCHARGED
600 minute winter	IC-2403-S	585	3.347	0.147	0.4	0.0234	0.0000	OK
600 minute winter	IC-2501-S	600	3.347	0.257	0.5	0.0409	0.0000	SURCHARGED
600 minute winter	IC-2502-S	585	3.346	0.196	0.4	0.0312	0.0000	SURCHARGED
600 minute winter	IC-2601-S	600	3.347	0.327	0.6	0.0519	0.0000	SURCHARGED
600 minute winter	IC-2701-S	600	3.346	0.476	1.6	0.0757	0.0000	SURCHARGED
600 minute winter	IC-2801-S	600	3.347	0.347	0.6	0.0551	0.0000	SURCHARGED
600 minute winter	IC-3001-S	585	3.351	0.421	0.6	0.0669	0.0000	SURCHARGED
600 minute winter	IC-3002-S	585	3.349	0.379	0.3	0.0603	0.0000	SURCHARGED
600 minute winter	IC-3201-S	585	3.350	0.260	0.6	0.0414	0.0000	SURCHARGED
600 minute winter	IC-3401-S	585	3.350	0.380	1.2	0.0605	0.0000	SURCHARGED
600 minute winter	IC-3501-S	585	3.350	0.240	0.4	0.0381	0.0000	SURCHARGED
600 minute winter	IC-3502-S	585	3.349	0.129	0.2	0.0206	0.0000	OK
720 minute summer	Dummy Node	315	2.701	0.042	2.6	0.1070	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)
600 minute winter	IC-2402-S	PN-2401-S	IC-2401-S	0.4	0.254	0.027	0.2570	
600 minute winter	IC-2403-S	PN-2402-S	IC-2402-S	0.4	0.359	0.028	0.2098	
600 minute winter	IC-2501-S	PN-2501-S	MH-0001-S	0.5	0.328	0.038	0.0326	
600 minute winter	IC-2502-S	PN-2502-S	IC-2501-S	0.4	0.277	0.027	0.1526	
600 minute winter	IC-2601-S	PN-2702-S	IC-2701-S	0.6	0.332	0.038	0.1491	
600 minute winter	IC-2701-S	PN-2701-S	MH-0006-S	1.6	0.186	0.039	0.5854	
600 minute winter	IC-2801-S	PN-2703-S	IC-2701-S	0.6	0.298	0.048	0.1562	
600 minute winter	IC-3001-S	PN-3001-S	MH-0009-S	0.7	0.198	0.017	0.1831	
600 minute winter	IC-3002-S	PN-3002-S	IC-3001-S	0.3	0.201	0.021	0.0944	
600 minute winter	IC-3201-S	PN-3004-S	MH-0009-S	0.6	0.226	0.030	0.3038	
600 minute winter	IC-3401-S	PN-3005-S	MH-0009-S	1.2	0.383	0.070	0.1345	
600 minute winter	IC-3501-S	PN-3006-S	IC-3401-S	0.3	0.220	0.018	0.2507	
600 minute winter	IC-3502-S	PN-3007-S	IC-3501-S	0.2	0.207	0.012	0.2060	
720 minute summer	Dummy Node	PN-001-S	Headwall	2.6	0.470	0.041	0.1630	118.8

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
1440 minute winter	Headwall	510	2.598	0.038	2.6	0.0000	0.0000	OK
960 minute winter	MH-0001-S	945	3.496	0.836	6.5	38.2732	0.0000	OK
960 minute winter	MH-0002-S	945	3.496	0.796	23.4	408.2513	0.0000	FLOOD RISK
960 minute winter	MH-0003-S	945	3.496	0.676	8.3	0.7646	0.0000	FLOOD RISK
15 minute winter	MH-0005-S	12	3.599	0.699	51.9	0.7902	0.0000	SURCHARGED
960 minute winter	MH-0006-S	945	3.497	0.722	13.0	1.0325	0.0000	FLOOD RISK
960 minute winter	MH-0007-S	975	3.498	0.673	10.8	0.7611	0.0000	FLOOD RISK
720 minute winter	MH-0008-S	735	3.499	0.649	12.2	0.7336	0.0000	SURCHARGED
960 minute winter	MH-0009-S	945	3.497	0.597	2.5	0.6753	0.0000	SURCHARGED
15 minute winter	MH-0010-S	12	3.584	0.634	44.0	0.7173	0.0000	FLOOD RISK
15 minute winter	MH-0011-S	12	3.589	0.589	21.3	0.6660	0.0000	FLOOD RISK
15 minute winter	MH-0012-S	13	3.720	0.640	17.3	0.7235	0.0000	FLOOD RISK
30 minute winter	MH-0013-S	26	3.777	0.577	12.9	0.6521	0.0000	FLOOD RISK
15 minute winter	MH-0014-S	14	3.731	0.681	18.0	0.7698	0.0000	FLOOD RISK
30 minute winter	IC-0101-S	26	3.780	0.510	6.3	0.0811	0.0000	FLOOD RISK
30 minute winter	IC-0102-S	27	3.784	0.334	7.0	0.0530	0.0000	FLOOD RISK
30 minute winter	IC-0103-S	28	3.786	0.256	17.7	9.1133	0.0000	FLOOD RISK
30 minute winter	IC-0201-S	26	3.780	0.520	6.2	0.0827	0.0000	FLOOD RISK
30 minute winter	IC-0202-S	28	3.784	0.334	7.5	0.0531	0.0000	FLOOD RISK
30 minute winter	IC-0203-S	28	3.787	0.267	18.1	9.4899	0.0000	FLOOD RISK
15 minute winter	IC-0301-S	14	3.728	0.623	12.0	2.5981	0.0000	FLOOD RISK
15 minute winter	IC-0302-S	14	3.730	0.470	4.2	0.0747	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
960 minute winter	MH-0001-S	Dummy Pipe	Dummy Node	2.6	0.233	0.007	0.0343	
960 minute winter	MH-0002-S	PN-002-S	MH-0001-S	5.1	0.535	0.038	1.5580	
960 minute winter	MH-0003-S	PN-003-S	MH-0002-S	8.2	0.394	0.140	2.9783	
15 minute winter	MH-0005-S	PN-004-S	MH-0003-S	50.2	0.713	1.140	3.5008	
960 minute winter	MH-0006-S	PN-006-S	MH-0002-S	12.9	0.422	0.109	2.3306	
960 minute winter	MH-0007-S	PN-007-S	MH-0006-S	10.7	0.386	0.166	1.0233	
720 minute winter	MH-0008-S	PN-008-S	MH-0007-S	12.1	0.470	0.138	0.2814	
960 minute winter	MH-0009-S	PN-009-S	MH-0008-S	2.7	0.188	0.032	0.6162	
15 minute winter	MH-0010-S	PN-010-S	MH-0008-S	42.5	1.068	1.587	1.4752	
15 minute winter	MH-0011-S	PN-011-S	MH-0010-S	18.8	0.398	0.253	0.7812	
15 minute winter	MH-0012-S	PN-012-S	MH-0011-S	16.3	0.924	1.676	0.4626	
30 minute winter	MH-0013-S	PN-013-S	MH-0012-S	13.1	0.743	1.167	0.5235	
15 minute winter	MH-0014-S	PN-014-S	MH-0010-S	16.6	0.945	1.526	0.4599	
30 minute winter	IC-0101-S	PN-0101-S	MH-0013-S	6.5	0.368	0.420	0.1626	
30 minute winter	IC-0102-S	PN-0102-S	IC-0101-S	6.3	0.652	0.427	0.2277	
30 minute winter	IC-0103-S	PN-0103-S	IC-0102-S	-6.5	0.557	-0.450	0.2137	
30 minute winter	IC-0201-S	PN-0201-S	MH-0013-S	6.4	0.364	0.459	0.1699	
30 minute winter	IC-0202-S	PN-0202-S	IC-0201-S	6.2	0.644	0.425	0.2562	
30 minute winter	IC-0203-S	PN-0203-S	IC-0202-S	-6.9	0.554	-0.513	0.2137	
15 minute winter	IC-0301-S	PN-0301-S	MH-0012-S	7.5	0.428	0.803	0.1540	
15 minute winter	IC-0302-S	PN-0302-S	IC-0301-S	-2.7	0.350	-0.228	0.2523	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	IC-0401-S	15	3.741	0.471	14.1	3.1322	0.0000	FLOOD RISK
15 minute winter	IC-0402-S	14	3.736	0.646	12.0	0.1027	0.0000	FLOOD RISK
15 minute winter	IC-0001-S	14	3.765	0.655	18.6	1.4751	0.0000	FLOOD RISK
15 minute winter	IC-0002-S	14	3.779	0.579	13.2	0.5682	0.0000	FLOOD RISK
15 minute winter	IC-0901-S	10	4.090	0.550	13.8	0.0875	0.4250	FLOOD
15 minute winter	IC-1101-S	12	3.746	0.716	20.7	0.1138	0.0000	SURCHARGED
15 minute winter	IC-1301-S	12	3.890	0.650	8.7	0.1034	0.0000	FLOOD RISK
15 minute winter	IC-1302-S	12	3.895	0.575	6.9	0.0915	0.0000	FLOOD RISK
15 minute winter	IC-1303-S	12	3.903	0.503	4.4	0.0800	0.0000	FLOOD RISK
15 minute winter	IC-1401-S	13	3.865	0.725	22.4	1.0434	0.0000	FLOOD RISK
15 minute winter	IC-1501-S	12	3.806	0.796	25.2	0.1266	0.0000	SURCHARGED
15 minute winter	IC-1701-S	12	3.713	0.643	13.8	0.1602	0.0000	FLOOD RISK
15 minute winter	IC-1801-S	12	3.682	0.642	19.5	0.1848	0.0000	FLOOD RISK
15 minute winter	IC-1901-S	12	3.559	0.669	37.2	0.1064	0.0000	SURCHARGED
15 minute winter	IC-1902-S	12	3.632	0.622	16.7	0.0989	0.0000	FLOOD RISK
15 minute winter	IC-2001-S	12	3.665	0.635	17.6	0.1009	0.0000	FLOOD RISK
960 minute winter	IC-2201-S	945	3.496	0.526	0.7	0.0837	0.0000	FLOOD RISK
960 minute winter	IC-2301-S	945	3.496	0.666	2.5	0.3718	0.0000	FLOOD RISK
960 minute winter	IC-2401-S	945	3.496	0.476	0.9	0.0757	0.0000	SURCHARGED

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	IC-0401-S	PN-0402-S	IC-0402-S	12.0	0.682	0.800	0.2209	
15 minute winter	IC-0402-S	PN-0401-S	MH-0014-S	12.6	0.714	0.858	0.1028	
15 minute winter	IC-0001-S	PN-0501-S	MH-0014-S	10.1	0.575	0.721	0.1679	
15 minute winter	IC-0002-S	PN-0502-S	IC-0001-S	11.8	0.668	0.655	0.1550	
15 minute winter	IC-0901-S	PN-1202-S	IC-1101-S	11.3	1.445	5.981	0.0901	
15 minute winter	IC-1101-S	PN-1201-S	MH-0005-S	17.8	1.012	1.234	0.2121	
15 minute winter	IC-1301-S	PN-1503-S	IC-1401-S	11.8	0.669	0.829	0.2738	
15 minute winter	IC-1302-S	PN-1504-S	IC-1301-S	7.9	0.489	0.540	0.2081	
15 minute winter	IC-1303-S	PN-1505-S	IC-1302-S	4.1	0.651	0.299	0.2368	
15 minute winter	IC-1401-S	PN-1502-S	IC-1501-S	22.2	1.263	1.518	0.1030	
15 minute winter	IC-1501-S	PN-1501-S	MH-0005-S	26.2	1.487	1.899	0.1741	
15 minute winter	IC-1701-S	PN-1905-S	IC-1801-S	11.1	0.633	0.847	0.0955	
15 minute winter	IC-1801-S	PN-1904-S	IC-1901-S	18.4	1.046	1.268	0.1830	
15 minute winter	IC-1901-S	PN-1901-S	MH-0003-S	36.9	0.927	0.855	0.4029	
15 minute winter	IC-1902-S	PN-1902-S	IC-1901-S	16.1	0.914	1.100	0.1033	
15 minute winter	IC-2001-S	PN-1903-S	IC-1902-S	14.9	0.844	0.923	0.0427	
960 minute winter	IC-2201-S	PN-2201-S	IC-2301-S	0.9	0.288	0.061	0.1366	
960 minute winter	IC-2301-S	PN-2301-S	MH-0001-S	2.4	0.347	0.026	0.5160	
960 minute winter	IC-2401-S	PN-2302-S	IC-2301-S	0.8	0.290	0.055	0.2694	

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Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 97.55%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
960 minute winter	IC-2402-S	945	3.496	0.376	0.5	0.0598	0.0000	SURCHARGED
960 minute winter	IC-2403-S	945	3.496	0.296	0.4	0.0471	0.0000	SURCHARGED
960 minute winter	IC-2501-S	945	3.496	0.406	0.7	0.0646	0.0000	FLOOD RISK
960 minute winter	IC-2502-S	945	3.496	0.346	0.4	0.0550	0.0000	SURCHARGED
960 minute winter	IC-2601-S	930	3.498	0.478	0.6	0.0759	0.0000	SURCHARGED
960 minute winter	IC-2701-S	930	3.497	0.627	1.7	0.0997	0.0000	SURCHARGED
960 minute winter	IC-2801-S	930	3.498	0.498	0.6	0.0791	0.0000	SURCHARGED
960 minute winter	IC-3001-S	945	3.497	0.567	0.9	0.0901	0.0000	SURCHARGED
960 minute winter	IC-3002-S	945	3.497	0.527	0.3	0.0838	0.0000	SURCHARGED
960 minute winter	IC-3201-S	945	3.498	0.408	0.6	0.0648	0.0000	SURCHARGED
960 minute winter	IC-3401-S	945	3.497	0.527	1.3	0.0838	0.0000	SURCHARGED
960 minute winter	IC-3501-S	945	3.498	0.388	0.4	0.0616	0.0000	SURCHARGED
960 minute winter	IC-3502-S	945	3.498	0.278	0.2	0.0443	0.0000	SURCHARGED
1440 minute winter	Dummy Node	510	2.701	0.042	2.6	0.1070	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)
960 minute winter	IC-2402-S	PN-2401-S	IC-2401-S	0.5	0.224	0.033	0.2570	
960 minute winter	IC-2403-S	PN-2402-S	IC-2402-S	0.5	0.330	0.035	0.2103	
960 minute winter	IC-2501-S	PN-2501-S	MH-0001-S	0.6	0.306	0.044	0.0326	
960 minute winter	IC-2502-S	PN-2502-S	IC-2501-S	0.5	0.235	0.032	0.1526	
960 minute winter	IC-2601-S	PN-2702-S	IC-2701-S	0.6	0.296	0.039	0.1491	
960 minute winter	IC-2701-S	PN-2701-S	MH-0006-S	1.6	0.155	0.039	0.5854	
960 minute winter	IC-2801-S	PN-2703-S	IC-2701-S	0.6	0.267	0.051	0.1562	
960 minute winter	IC-3001-S	PN-3001-S	MH-0009-S	0.7	0.198	0.016	0.1831	
960 minute winter	IC-3002-S	PN-3002-S	IC-3001-S	0.6	0.201	0.038	0.0944	
960 minute winter	IC-3201-S	PN-3004-S	MH-0009-S	0.6	0.226	0.031	0.3038	
960 minute winter	IC-3401-S	PN-3005-S	MH-0009-S	1.2	0.279	0.070	0.1345	
960 minute winter	IC-3501-S	PN-3006-S	IC-3401-S	0.4	0.231	0.021	0.2507	
960 minute winter	IC-3502-S	PN-3007-S	IC-3501-S	0.2	0.207	0.013	0.2150	
1440 minute winter	Dummy Node	PN-001-S	Headwall	2.6	0.470	0.041	0.1630	214.2

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