

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	0.75
FSR Region	England and Wales	Connection Type	Level Inverts
M5-60 (mm)	17.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	0.500
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	4.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S1		4.00	128.500	450	0.000	0.000	0.500
S2			128.500	450	13.000	0.770	0.650
S3	0.030	4.00	128.500	450	13.700	-10.330	0.770
S4			128.500	1200	19.670	-19.670	2.400
S5		4.00	128.050	450	17.180	0.450	0.550
S6			128.050	450	29.500	1.240	0.690
S7	0.030	4.00	128.050	450	30.300	-11.300	0.830
S8			128.500	1200	30.765	-19.000	2.600
S9		4.00	127.600	450	47.600	2.000	0.600
S10			127.600	450	35.127	1.300	0.740
S11	0.030	4.00	127.600	450	35.800	-11.000	0.880
S12			128.000	1200	36.350	-18.700	2.870
S13		4.00	127.150	450	64.000	3.500	0.600
S14			127.150	450	51.900	2.900	0.740
S15	0.030	4.00	127.150	450	52.500	-10.000	0.880
S16			127.400	1200	47.400	-18.126	2.333
T1			128.500	3380	13.900	-15.300	2.350
T2			128.050	3380	30.500	-14.500	2.050
T3			127.600	3380	36.000	-14.100	2.320
T4			127.150	3380	52.600	-13.350	1.600
Outfall			124.000	1000	56.000	-26.400	1.393

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	13.023	0.600	128.000	127.850	0.150	86.8	150	4.20	50.0
1.001	S2	S3	11.122	0.600	127.850	127.730	0.120	92.7	150	4.38	49.4
2.000	S5	S6	12.345	0.600	127.500	127.360	0.140	88.2	150	4.19	50.0
2.001	S6	S7	12.565	0.600	127.360	127.220	0.140	89.8	150	4.39	49.3
3.000	S9	S10	12.493	0.600	127.000	126.860	0.140	89.2	150	4.20	50.0

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)
1.000	1.079	19.1	0.0	0.350	0.500	0.000	0.0	0	0.000
1.001	1.044	18.4	0.0	0.500	0.620	0.000	0.0	0	0.000
2.000	1.071	18.9	0.0	0.400	0.540	0.000	0.0	0	0.000
2.001	1.061	18.8	0.0	0.540	0.680	0.000	0.0	0	0.000
3.000	1.064	18.8	0.0	0.450	0.590	0.000	0.0	0	0.000

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)
3.001	S10	S11	12.318	0.600	126.860	126.720	0.140	88.0	150	4.39	49.3
4.000	S13	S14	12.115	0.600	126.550	126.410	0.140	86.5	150	4.19	50.0
4.001	S14	S15	12.914	0.600	126.410	126.270	0.140	92.2	150	4.39	49.3
1.002	S3	T1	4.974	0.600	127.730	126.150	1.580	3.1	150	4.39	49.3
1.003	T1	S4	7.238	0.600	126.150	126.100	0.050	144.8	150	4.54	48.6
1.004	S4	S8	11.115	0.600	126.100	126.000	0.100	111.2	225	4.69	48.0
1.005	S8	S12	5.593	0.600	125.900	125.130	0.770	7.3	225	4.71	47.9
1.006	S12	S16	11.065	0.600	125.130	125.067	0.063	175.6	225	4.89	47.1
2.002	S7	T2	3.206	0.600	127.220	126.000	1.220	2.6	150	4.40	49.3
2.003	T2	S8	4.508	0.600	126.000	125.900	0.100	45.1	150	4.45	49.0
3.002	S11	T3	3.106	0.600	126.720	125.280	1.440	2.2	150	4.39	49.3
3.003	T3	S12	4.613	0.600	125.280	125.130	0.150	30.8	150	4.44	49.1
4.002	S15	T4	3.351	0.600	126.270	125.550	0.720	4.7	150	4.40	49.2
4.003	T4	S16	7.060	0.600	125.550	125.067	0.483	14.6	150	4.45	49.0
1.007	S16	Outfall	11.934	0.600	125.067	122.607	2.460	4.9	150	4.94	46.9

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)
3.001	1.072	18.9	0.0	0.590	0.730	0.000	0.0	0	0.000
4.000	1.081	19.1	0.0	0.450	0.590	0.000	0.0	0	0.000
4.001	1.046	18.5	0.0	0.590	0.730	0.000	0.0	0	0.000
1.002	5.721	101.1	4.0	0.620	2.200	0.030	0.0	20	2.782
1.003	0.833	14.7	4.0	2.200	2.250	0.030	0.0	53	0.707
1.004	1.239	49.3	3.9	2.175	2.275	0.030	0.0	43	0.745
1.005	4.885	194.2	7.8	2.375	2.645	0.060	0.0	30	2.400
1.006	0.983	39.1	11.5	2.645	2.108	0.090	0.0	83	0.855
2.002	6.263	110.7	4.0	0.680	1.900	0.030	0.0	20	2.990
2.003	1.502	26.5	4.0	1.900	2.450	0.030	0.0	39	1.080
3.002	6.914	122.2	4.0	0.730	2.170	0.030	0.0	18	3.176
3.003	1.822	32.2	4.0	2.170	2.720	0.030	0.0	35	1.241
4.002	4.703	83.1	4.0	0.730	1.450	0.030	0.0	23	2.449
4.003	2.648	46.8	4.0	1.450	2.183	0.030	0.0	30	1.624
1.007	4.606	81.4	15.3	2.183	1.243	0.120	0.0	44	3.535

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	13.023	86.8	150	Circular	128.500	128.000	0.350	128.500	127.850	0.500
1.001	11.122	92.7	150	Circular	128.500	127.850	0.500	128.500	127.730	0.620
2.000	12.345	88.2	150	Circular	128.050	127.500	0.400	128.050	127.360	0.540
2.001	12.565	89.8	150	Circular	128.050	127.360	0.540	128.050	127.220	0.680
3.000	12.493	89.2	150	Circular	127.600	127.000	0.450	127.600	126.860	0.590

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S1	450	Manhole	Adoptable	S2	450	Manhole	Adoptable
1.001	S2	450	Manhole	Adoptable	S3	450	Manhole	Adoptable
2.000	S5	450	Manhole	Adoptable	S6	450	Manhole	Adoptable
2.001	S6	450	Manhole	Adoptable	S7	450	Manhole	Adoptable
3.000	S9	450	Manhole	Adoptable	S10	450	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)
3.001	12.318	88.0	150	Circular	127.600	126.860	0.590	127.600	126.720	0.730
4.000	12.115	86.5	150	Circular	127.150	126.550	0.450	127.150	126.410	0.590
4.001	12.914	92.2	150	Circular	127.150	126.410	0.590	127.150	126.270	0.730
1.002	4.974	3.1	150	Circular	128.500	127.730	0.620	128.500	126.150	2.200
1.003	7.238	144.8	150	Circular	128.500	126.150	2.200	128.500	126.100	2.250
1.004	11.115	111.2	225	Circular	128.500	126.100	2.175	128.500	126.000	2.275
1.005	5.593	7.3	225	Circular	128.500	125.900	2.375	128.000	125.130	2.645
1.006	11.065	175.6	225	Circular	128.000	125.130	2.645	127.400	125.067	2.108
2.002	3.206	2.6	150	Circular	128.050	127.220	0.680	128.050	126.000	1.900
2.003	4.508	45.1	150	Circular	128.050	126.000	1.900	128.500	125.900	2.450
3.002	3.106	2.2	150	Circular	127.600	126.720	0.730	127.600	125.280	2.170
3.003	4.613	30.8	150	Circular	127.600	125.280	2.170	128.000	125.130	2.720
4.002	3.351	4.7	150	Circular	127.150	126.270	0.730	127.150	125.550	1.450
4.003	7.060	14.6	150	Circular	127.150	125.550	1.450	127.400	125.067	2.183
1.007	11.934	4.9	150	Circular	127.400	125.067	2.183	124.000	122.607	1.243

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
3.001	S10	450	Manhole	Adoptable	S11	450	Manhole	Adoptable
4.000	S13	450	Manhole	Adoptable	S14	450	Manhole	Adoptable
4.001	S14	450	Manhole	Adoptable	S15	450	Manhole	Adoptable
1.002	S3	450	Manhole	Adoptable	T1	3380	Manhole	Adoptable
1.003	T1	3380	Manhole	Adoptable	S4	1200	Manhole	Adoptable
1.004	S4	1200	Manhole	Adoptable	S8	1200	Manhole	Adoptable
1.005	S8	1200	Manhole	Adoptable	S12	1200	Manhole	Adoptable
1.006	S12	1200	Manhole	Adoptable	S16	1200	Manhole	Adoptable
2.002	S7	450	Manhole	Adoptable	T2	3380	Manhole	Adoptable
2.003	T2	3380	Manhole	Adoptable	S8	1200	Manhole	Adoptable
3.002	S11	450	Manhole	Adoptable	T3	3380	Manhole	Adoptable
3.003	T3	3380	Manhole	Adoptable	S12	1200	Manhole	Adoptable
4.002	S15	450	Manhole	Adoptable	T4	3380	Manhole	Adoptable
4.003	T4	3380	Manhole	Adoptable	S16	1200	Manhole	Adoptable
1.007	S16	1200	Manhole	Adoptable	Outfall	1000	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)
S1	0.000	0.000	128.500	0.500	450	Manhole	Adoptable				
								0	1.000	128.000	150
S2	13.000	0.770	128.500	0.650	450	Manhole	Adoptable				
								1	1.000	127.850	150
								0	1.001	127.850	150
S3	13.700	-10.330	128.500	0.770	450	Manhole	Adoptable				
								1	1.001	127.730	150
								0	1.002	127.730	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)	
S4	19.670	-19.670	128.500	2.400	1200	Manhole	Adoptable		1	1.003	126.100	150
									0	1.004	126.100	225
S5	17.180	0.450	128.050	0.550	450	Manhole	Adoptable		0	2.000	127.500	150
S6	29.500	1.240	128.050	0.690	450	Manhole	Adoptable		1	2.000	127.360	150
									0	2.001	127.360	150
S7	30.300	-11.300	128.050	0.830	450	Manhole	Adoptable		1	2.001	127.220	150
									0	2.002	127.220	150
S8	30.765	-19.000	128.500	2.600	1200	Manhole	Adoptable		1	2.003	125.900	150
									2	1.004	126.000	225
									0	1.005	125.900	225
S9	47.600	2.000	127.600	0.600	450	Manhole	Adoptable		0	3.000	127.000	150
S10	35.127	1.300	127.600	0.740	450	Manhole	Adoptable		1	3.000	126.860	150
									0	3.001	126.860	150
S11	35.800	-11.000	127.600	0.880	450	Manhole	Adoptable		1	3.001	126.720	150
									0	3.002	126.720	150
S12	36.350	-18.700	128.000	2.870	1200	Manhole	Adoptable		1	3.003	125.130	150
									2	1.005	125.130	225
									0	1.006	125.130	225
S13	64.000	3.500	127.150	0.600	450	Manhole	Adoptable		0	4.000	126.550	150
S14	51.900	2.900	127.150	0.740	450	Manhole	Adoptable		1	4.000	126.410	150
									0	4.001	126.410	150
S15	52.500	-10.000	127.150	0.880	450	Manhole	Adoptable		1	4.001	126.270	150
									0	4.002	126.270	150
S16	47.400	-18.126	127.400	2.333	1200	Manhole	Adoptable		1	4.003	125.067	150
									2	1.006	125.067	225
									0	1.007	125.067	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Node Type	MH Type	Connections	Link	IL (m)	Dia (mm)
T1	13.900	-15.300	128.500	2.350	3380	Manhole	Adoptable		1.002	126.150	150
T2	30.500	-14.500	128.050	2.050	3380	Manhole	Adoptable		2.002	126.000	150
T3	36.000	-14.100	127.600	2.320	3380	Manhole	Adoptable		3.002	125.280	150
T4	52.600	-13.350	127.150	1.600	3380	Manhole	Adoptable		4.002	125.550	150
Outfall	56.000	-26.400	124.000	1.393	1000	Manhole	Adoptable		1.007	122.607	150

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Detailed
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	17.000	Drain Down Time (mins)	240
Ratio-R	0.400	Additional Storage (m ³ /ha)	20.0
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

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
30	0	0	0
100	40	0	0

Node S16 Online Hydro-Brake® Control

Flap Valve	x	Objective (HE)	Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	125.067	Product Number	CTL-SHE-0080-5000-3433-5000
Design Depth (m)	3.433	Min Outlet Diameter (m)	0.100
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node T1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	126.150
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)
0.000	2.5	0.0	1.000	2.5	0.0	1.001	0.0	0.0

Node T2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	126.000
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)
0.000	2.5	0.0	1.000	2.5	0.0	1.001	0.0	0.0

Node T3 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	125.280
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	212

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	2.5	0.0	1.000	2.5	0.0	1.001	0.0	0.0

Node T4 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	125.550
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	118

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	2.5	0.0	1.000	2.5	0.0	1.001	0.0	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

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	1	128.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S2	1	127.850	0.000	0.0	0.0000	0.0000	OK
15 minute winter	S3	10	127.750	0.020	3.8	0.0185	0.0000	OK
15 minute winter	S4	12	126.139	0.039	3.2	0.0445	0.0000	OK
15 minute summer	S5	1	127.500	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S6	1	127.360	0.000	0.0	0.0000	0.0000	OK
15 minute winter	S7	10	127.239	0.019	3.8	0.0166	0.0000	OK
15 minute winter	S8	11	125.928	0.028	6.5	0.0318	0.0000	OK
15 minute summer	S9	1	127.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S10	1	126.860	0.000	0.0	0.0000	0.0000	OK
15 minute winter	S11	10	126.738	0.018	3.8	0.0149	0.0000	OK
30 minute winter	S12	27	125.506	0.375	6.3	0.4246	0.0000	SURCHARGED
15 minute summer	S13	1	126.550	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S14	1	126.410	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S15	9	126.292	0.022	3.8	0.0188	0.0000	OK
30 minute winter	S16	27	125.505	0.438	5.6	0.4955	0.0000	SURCHARGED
15 minute winter	T1	11	126.199	0.049	3.8	0.5669	0.0000	OK
15 minute winter	T2	11	126.040	0.040	3.8	0.4616	0.0000	OK
30 minute winter	T3	27	125.506	0.226	6.0	2.5885	0.0000	SURCHARGED
15 minute winter	T4	10	125.578	0.028	3.8	0.3242	0.0000	OK
15 minute winter	Outfall	23	122.627	0.020	3.0	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 summer	S1	1.000	S2	0.0	0.000	0.000	0.0000	
15 minute summer	S2	1.001	S3	0.0	0.000	0.000	0.0076	
15 minute winter	S3	1.002	T1	3.8	2.270	0.038	0.0156	
15 minute winter	S4	1.004	S8	3.1	0.685	0.063	0.0504	
15 minute summer	S5	2.000	S6	0.0	0.000	0.000	0.0000	
15 minute summer	S6	2.001	S7	0.0	0.000	0.000	0.0080	
15 minute winter	S7	2.002	T2	3.8	2.373	0.034	0.0080	
15 minute winter	S8	1.005	S12	6.5	0.692	0.033	0.1192	
15 minute summer	S9	3.000	S10	0.0	0.000	0.000	0.0000	
15 minute summer	S10	3.001	S11	0.0	0.000	0.000	0.0072	
15 minute winter	S11	3.002	T3	3.8	2.526	0.031	0.0284	
30 minute winter	S12	1.006	S16	3.1	0.211	0.080	0.4401	
15 minute summer	S13	4.000	S14	0.0	0.000	0.000	0.0000	
15 minute summer	S14	4.001	S15	0.0	0.000	0.000	0.0106	
15 minute summer	S15	4.002	T4	3.8	2.112	0.046	0.0065	
30 minute winter	S16	1.007	Outfall	3.0	2.180	0.037	0.0165	8.5
15 minute winter	T1	1.003	S4	3.2	0.727	0.215	0.0316	
15 minute winter	T2	2.003	S8	3.4	1.137	0.129	0.0137	
30 minute winter	T3	3.003	S12	-3.5	0.521	-0.108	0.0812	
15 minute winter	T4	4.003	S16	3.6	0.808	0.077	0.0702	

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	1	128.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S2	1	127.850	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S3	10	127.760	0.030	9.2	0.0284	0.0000	OK
15 minute winter	S4	11	126.166	0.066	8.4	0.0747	0.0000	OK
15 minute summer	S5	1	127.500	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S6	1	127.360	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S7	10	127.249	0.029	9.2	0.0254	0.0000	OK
60 minute winter	S8	59	126.019	0.119	8.9	0.1346	0.0000	OK
15 minute summer	S9	1	127.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S10	1	126.860	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S11	10	126.747	0.027	9.2	0.0228	0.0000	OK
60 minute winter	S12	58	126.019	0.889	8.9	1.0054	0.0000	SURCHARGED
15 minute summer	S13	1	126.550	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S14	1	126.410	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S15	9	126.305	0.035	9.2	0.0297	0.0000	OK
60 minute winter	S16	58	126.019	0.952	6.9	1.0764	0.0000	SURCHARGED
15 minute winter	T1	11	126.235	0.085	9.2	0.9740	0.0000	OK
15 minute winter	T2	10	126.068	0.068	9.2	0.7769	0.0000	OK
60 minute winter	T3	58	126.019	0.739	9.9	8.4811	0.0000	SURCHARGED
60 minute winter	T4	58	126.019	0.469	7.7	5.3817	0.0000	SURCHARGED
60 minute summer	Outfall	134	122.627	0.020	3.0	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 summer	S1	1.000	S2	0.0	0.000	0.000	0.0000	
15 minute summer	S2	1.001	S3	0.0	0.000	0.000	0.0141	
15 minute summer	S3	1.002	T1	9.2	2.544	0.091	0.0307	
15 minute winter	S4	1.004	S8	8.4	0.901	0.171	0.1037	
15 minute summer	S5	2.000	S6	0.0	0.000	0.000	0.0000	
15 minute summer	S6	2.001	S7	0.0	0.000	0.000	0.0148	
15 minute summer	S7	2.002	T2	9.2	2.626	0.083	0.0160	
60 minute winter	S8	1.005	S12	8.9	0.549	0.046	0.1708	
15 minute summer	S9	3.000	S10	0.0	0.000	0.000	0.0000	
15 minute summer	S10	3.001	S11	0.0	0.000	0.000	0.0134	
15 minute summer	S11	3.002	T3	9.2	2.835	0.075	0.0307	
60 minute winter	S12	1.006	S16	6.9	0.231	0.175	0.4401	
15 minute summer	S13	4.000	S14	0.0	0.000	0.000	0.0000	
15 minute summer	S14	4.001	S15	0.0	0.000	0.000	0.0204	
15 minute summer	S15	4.002	T4	9.2	2.536	0.111	0.0317	
60 minute winter	S16	1.007	Outfall	3.0	2.180	0.037	0.0165	26.2
15 minute winter	T1	1.003	S4	8.4	0.944	0.569	0.0642	
15 minute winter	T2	2.003	S8	8.7	1.451	0.326	0.0271	
60 minute winter	T3	3.003	S12	-5.8	0.558	-0.179	0.0812	
60 minute winter	T4	4.003	S16	3.9	0.739	0.084	0.1243	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
15 minute summer	S1	1	128.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S2	1	127.850	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S3	10	127.771	0.041	16.7	0.0383	0.0000	OK
120 minute winter	S4	114	126.465	0.365	5.1	0.4130	0.0000	SURCHARGED
15 minute summer	S5	1	127.500	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S6	1	127.360	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S7	10	127.259	0.039	16.7	0.0342	0.0000	OK
120 minute winter	S8	114	126.465	0.565	10.4	0.6392	0.0000	SURCHARGED
15 minute summer	S9	1	127.000	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S10	1	126.860	0.000	0.0	0.0000	0.0000	OK
15 minute summer	S11	10	126.757	0.036	16.7	0.0307	0.0000	OK
120 minute winter	S12	114	126.465	1.335	9.2	1.5100	0.0000	SURCHARGED
15 minute summer	S13	1	126.550	0.000	0.0	0.0000	0.0000	OK
120 minute winter	S14	114	126.465	0.055	0.3	0.0088	0.0000	OK
120 minute winter	S15	114	126.465	0.195	5.1	0.1640	0.0000	SURCHARGED
120 minute winter	S16	114	126.465	1.398	5.8	1.5808	0.0000	SURCHARGED
120 minute winter	T1	114	126.465	0.315	5.1	3.6188	0.0000	SURCHARGED
120 minute winter	T2	114	126.465	0.465	8.6	5.3386	0.0000	SURCHARGED
120 minute winter	T3	114	126.465	1.185	7.7	13.1362	0.0000	SURCHARGED
120 minute winter	T4	114	126.465	0.915	7.6	10.4971	0.0000	SURCHARGED
120 minute winter	Outfall	114	122.628	0.021	3.3	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m ³)	Discharge Vol (m ³)
15 minute summer	S1	1.000	S2	0.0	0.000	0.000	0.0000	
15 minute summer	S2	1.001	S3	0.0	0.000	0.000	0.0215	
15 minute summer	S3	1.002	T1	16.7	2.955	0.165	0.0482	
120 minute winter	S4	1.004	S8	5.2	0.778	0.106	0.4421	
15 minute summer	S5	2.000	S6	0.0	0.000	0.000	0.0000	
15 minute summer	S6	2.001	S7	0.0	0.000	0.000	0.0226	
15 minute summer	S7	2.002	T2	16.7	3.056	0.151	0.0292	
120 minute winter	S8	1.005	S12	9.2	0.545	0.048	0.2224	
15 minute summer	S9	3.000	S10	0.0	0.000	0.000	0.0000	
15 minute summer	S10	3.001	S11	0.0	0.000	0.000	0.0204	
15 minute summer	S11	3.002	T3	16.7	3.262	0.137	0.0325	
120 minute winter	S12	1.006	S16	5.8	0.217	0.149	0.4401	
15 minute summer	S13	4.000	S14	0.0	0.000	0.000	0.0000	
120 minute winter	S14	4.001	S15	-0.3	-0.030	-0.015	0.1515	
120 minute winter	S15	4.002	T4	5.1	1.801	0.061	0.0590	
120 minute winter	S16	1.007	Outfall	3.3	2.232	0.040	0.0175	58.8
120 minute winter	T1	1.003	S4	5.1	0.847	0.346	0.1274	
120 minute winter	T2	2.003	S8	5.5	1.213	0.206	0.0794	
120 minute winter	T3	3.003	S12	-3.4	0.495	-0.106	0.0812	
120 minute winter	T4	4.003	S16	-2.6	0.673	-0.055	0.1243	