

**Design Settings**

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	2	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.650
CV	1.000	Preferred Cover Depth (m)	1.350
Time of Entry (mins)	4.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	✓
Maximum Rainfall (mm/hr)	100.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
13	0.063	4.00	33.650	1200	344358.787	391280.071	1.944	31.706
14	0.061	4.00	33.700	1200	344354.378	391309.476	1.925	31.775
12	0.000		33.470	1500	344370.933	391289.715	1.942	31.528
11	0.025	4.00	33.400	1500	344377.193	391295.290	2.052	31.348
10	0.150	4.00	33.200	1500	344386.909	391309.702	2.069	31.131
17	0.140	4.00	32.920	1800	344493.284	391331.026	2.462	30.458
16	0.129	4.00	33.050	1800	344503.354	391319.868	2.630	30.420
19	0.129	4.00	33.650	1500	344446.092	391256.121	2.125	31.525
20	0.055	4.00	32.650	1500	344493.345	391273.816	1.755	30.895
18	0.072	4.00	33.150	1800	344479.740	391287.347	2.522	30.628
15	0.057	4.00	33.400	1800	344475.673	391293.960	3.075	30.325
9	0.174	4.00	32.600	1800	344429.168	391343.441	2.445	30.155
8	0.000		32.500	1800	344422.587	391350.912	2.370	30.130
7	0.020	4.00	31.650	1800	344397.582	391356.949	1.584	30.066
6	0.000		31.500	1800	344358.351	391353.394	1.532	29.968
5	0.000		31.300		344354.609	391359.424	1.461	29.839
4	0.000	4.00	31.300		344386.768	391375.174	1.500	29.800
3	0.000		31.300	2400	344393.128	391376.363	1.520	29.780
2	0.000		31.300	1200	344418.220	391380.326	1.669	29.631
1			31.250		344417.406	391385.479	1.650	29.600

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	13	12	15.509	0.600	31.706	31.603	0.103	150.0	225	4.24	55.2
2.000	14	12	25.779	0.600	31.775	31.603	0.172	150.0	225	4.40	55.2
1.001	12	11	8.383	0.600	31.528	31.423	0.105	80.0	300	4.48	55.2
1.002	11	10	17.381	0.600	31.348	31.131	0.217	80.0	375	4.63	55.2
1.003	10	9	54.075	0.600	31.131	30.380	0.751	72.0	375	5.05	55.0
3.000	17	16	15.030	0.600	30.458	30.420	0.038	400.0	600	4.21	55.2

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	1.065	42.3	12.6	1.719	1.642	0.063	0.0	84	0.931
2.000	1.065	42.3	12.2	1.700	1.642	0.061	0.0	82	0.922
1.001	1.759	124.3	24.7	1.642	1.677	0.124	0.0	91	1.383
1.002	2.027	223.9	29.7	1.677	1.694	0.149	0.0	92	1.426
1.003	2.137	236.0	59.4	1.694	1.845	0.299	0.0	128	1.792
3.000	1.211	342.4	27.9	1.862	2.030	0.140	0.0	115	0.742

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	16	15	37.914	0.600	30.420	30.325	0.095	400.0	600	4.73	55.2
4.000	19	18	45.905	0.600	31.525	30.703	0.822	55.8	300	4.36	55.2
5.000	20	18	19.188	0.600	30.895	30.703	0.192	100.0	300	4.20	55.2
4.001	18	15	7.764	0.600	30.628	30.550	0.078	100.0	375	4.43	55.2
3.002	15	9	67.905	0.600	30.325	30.155	0.170	400.0	600	5.66	52.0
1.004	9	8	9.956	0.600	30.155	30.130	0.025	400.0	600	5.80	51.3
1.005	8	7	25.723	0.600	30.130	30.066	0.064	400.0	600	6.15	49.8
1.006	7	6	39.392	0.600	30.066	29.968	0.098	400.0	600	6.70	47.7
1.007	6	5	7.097	0.600	29.968	29.950	0.018	400.0	600	6.79	47.3
6.000	4	3	6.470	0.600	29.800	29.780	0.020	323.5	600	4.08	55.2
1.009	3	2	25.403	0.600	29.780	29.631	0.149	170.0	225	4.50	55.2
1.010	2	1	5.217	0.600	29.631	29.600	0.031	170.0	225	4.59	55.2

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	1.211	342.4	53.7	2.030	2.475	0.269	0.0	159	0.892
4.000	2.108	149.0	25.7	1.825	2.147	0.129	0.0	84	1.593
5.000	1.572	111.1	11.0	1.455	2.147	0.055	0.0	63	1.009
4.001	1.812	200.1	51.1	2.147	2.475	0.256	0.0	129	1.523
3.002	1.211	342.4	109.4	2.475	1.845	0.582	0.0	232	1.082
1.004	1.211	342.4	195.7	1.845	1.770	1.055	0.0	325	1.250
1.005	1.211	342.4	189.8	1.770	0.984	1.055	0.0	320	1.241
1.006	1.211	342.4	185.4	0.984	0.932	1.075	0.0	315	1.234
1.007	1.211	342.4	183.9	0.932	0.750	1.075	0.0	313	1.232
6.000	1.348	381.2	0.0	0.900	0.920	0.000	0.0	0	0.000
1.009	1.000	39.7	0.0	1.295	1.444	0.000	0.0	0	0.000
1.010	1.000	39.7	0.0	1.444	1.425	0.000	0.0	0	0.000

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	15.509	150.0	225	Circular_Default Sewer Type	33.650	31.706	1.719	33.470	31.603	1.642
2.000	25.779	150.0	225	Circular_Default Sewer Type	33.700	31.775	1.700	33.470	31.603	1.642
1.001	8.383	80.0	300	Circular_Default Sewer Type	33.470	31.528	1.642	33.400	31.423	1.677
1.002	17.381	80.0	375	Circular_Default Sewer Type	33.400	31.348	1.677	33.200	31.131	1.694
1.003	54.075	72.0	375	Circular_Default Sewer Type	33.200	31.131	1.694	32.600	30.380	1.845
3.000	15.030	400.0	600	Circular_Default Sewer Type	32.920	30.458	1.862	33.050	30.420	2.030
3.001	37.914	400.0	600	Circular_Default Sewer Type	33.050	30.420	2.030	33.400	30.325	2.475
4.000	45.905	55.8	300	Circular_Default Sewer Type	33.650	31.525	1.825	33.150	30.703	2.147

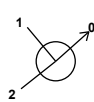
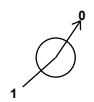
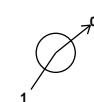
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	13	1200	Manhole	Adoptable	12	1500	Manhole	Adoptable
2.000	14	1200	Manhole	Adoptable	12	1500	Manhole	Adoptable
1.001	12	1500	Manhole	Adoptable	11	1500	Manhole	Adoptable
1.002	11	1500	Manhole	Adoptable	10	1500	Manhole	Adoptable
1.003	10	1500	Manhole	Adoptable	9	1800	Manhole	Adoptable
3.000	17	1800	Manhole	Adoptable	16	1800	Manhole	Adoptable
3.001	16	1800	Manhole	Adoptable	15	1800	Manhole	Adoptable
4.000	19	1500	Manhole	Adoptable	18	1800	Manhole	Adoptable

Pipeline Schedule

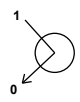
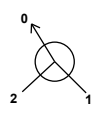
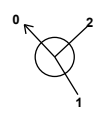
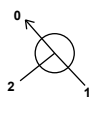
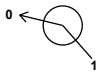
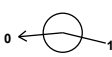
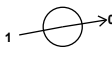
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
5.000	19.188	100.0	300	Circular_Default Sewer Type	32.650	30.895	1.455	33.150	30.703	2.147
4.001	7.764	100.0	375	Circular_Default Sewer Type	33.150	30.628	2.147	33.400	30.550	2.475
3.002	67.905	400.0	600	Circular_Default Sewer Type	33.400	30.325	2.475	32.600	30.155	1.845
1.004	9.956	400.0	600	Circular_Default Sewer Type	32.600	30.155	1.845	32.500	30.130	1.770
1.005	25.723	400.0	600	Circular_Default Sewer Type	32.500	30.130	1.770	31.650	30.066	0.984
1.006	39.392	400.0	600	Circular_Default Sewer Type	31.650	30.066	0.984	31.500	29.968	0.932
1.007	7.097	400.0	600	Circular_Default Sewer Type	31.500	29.968	0.932	31.300	29.950	0.750
6.000	6.470	323.5	600	Circular_Default Sewer Type	31.300	29.800	0.900	31.300	29.780	0.920
1.009	25.403	170.0	225	Circular_Default Sewer Type	31.300	29.780	1.295	31.300	29.631	1.444
1.010	5.217	170.0	225	Circular_Default Sewer Type	31.300	29.631	1.444	31.250	29.600	1.425

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
5.000	20	1500	Manhole	Adoptable	18	1800	Manhole	Adoptable
4.001	18	1800	Manhole	Adoptable	15	1800	Manhole	Adoptable
3.002	15	1800	Manhole	Adoptable	9	1800	Manhole	Adoptable
1.004	9	1800	Manhole	Adoptable	8	1800	Manhole	Adoptable
1.005	8	1800	Manhole	Adoptable	7	1800	Manhole	Adoptable
1.006	7	1800	Manhole	Adoptable	6	1800	Manhole	Adoptable
1.007	6	1800	Manhole	Adoptable	5		Junction	
6.000	4		Junction		3	2400	Manhole	Adoptable
1.009	3	2400	Manhole	Adoptable	2	1200	Manhole	Adoptable
1.010	2	1200	Manhole	Adoptable	1		Junction	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
13	344358.787	391280.071	33.650	1.944	1200					
						0	1.000	31.706	225	
14	344354.378	391309.476	33.700	1.925	1200					
						0	2.000	31.775	225	
12	344370.933	391289.715	33.470	1.942	1500		1	2.000	31.603	225
						2	1.000	31.603	225	
						0	1.001	31.528	300	
11	344377.193	391295.290	33.400	2.052	1500		1	1.001	31.423	300
						0	1.002	31.348	375	
10	344386.909	391309.702	33.200	2.069	1500		1	1.002	31.131	375
						0	1.003	31.131	375	
17	344493.284	391331.026	32.920	2.462	1800					
						0	3.000	30.458	600	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
16	344503.354	391319.868	33.050	2.630	1800		1 3.000	30.420	600
							0 3.001	30.420	600
19	344446.092	391256.121	33.650	2.125	1500				
							0 4.000	31.525	300
20	344493.345	391273.816	32.650	1.755	1500				
							0 5.000	30.895	300
18	344479.740	391287.347	33.150	2.522	1800		1 5.000	30.703	300
							2 4.000	30.703	300
							0 4.001	30.628	375
15	344475.673	391293.960	33.400	3.075	1800		1 4.001	30.550	375
							2 3.001	30.325	600
							0 3.002	30.325	600
9	344429.168	391343.441	32.600	2.445	1800		1 3.002	30.155	600
							2 1.003	30.380	375
							0 1.004	30.155	600
8	344422.587	391350.912	32.500	2.370	1800		1 1.004	30.130	600
							0 1.005	30.130	600
7	344397.582	391356.949	31.650	1.584	1800		1 1.005	30.066	600
							0 1.006	30.066	600
6	344358.351	391353.394	31.500	1.532	1800		1 1.006	29.968	600
							0 1.007	29.968	600
5	344354.609	391359.424	31.300	1.461			1 1.007	29.950	600
4	344386.768	391375.174	31.300	1.500					
							0 6.000	29.800	600
3	344393.128	391376.363	31.300	1.520	2400		1 6.000	29.780	600
							0 1.009	29.780	225
2	344418.220	391380.326	31.300	1.669	1200		1 1.009	29.631	225
							0 1.010	29.631	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
1	344417.406	391385.479	31.250	1.650		1	1.010	29.600	225

Simulation Settings

Rainfall Methodology	FEH-22	Drain Down Time (mins)	240	30 year (l/s)	23.3
Rainfall Events	Singular	Additional Storage (m³/ha)	0.0	100 year (l/s)	28.6
Summer CV	1.000	Starting Level (m)		Check Discharge Volume	✓
Winter CV	1.000	Check Discharge Rate(s)	✓	100 year 360 minute (m³)	450
Analysis Speed	Detailed	1 year (l/s)	11.9		
Skip Steady State	✓	2 year (l/s)	12.8		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440	2160
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
2	0	0	0
30	40	0	0
100	45	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.70
Greenfield Method	FEH	Growth Factor 100 year	2.08
Positively Drained Area (ha)	1.741	Betterment (%)	0
SAAR (mm)	871	QMed	12.8
Host	1	QBar	13.7
BFIHost	0.351	Q 1 year (l/s)	11.9
Region	10	Q 2 year (l/s)	12.8
QBar/QMed conversion factor	1.075	Q 30 year (l/s)	23.3
Growth Factor 1 year	0.87	Q 100 year (l/s)	28.6
Growth Factor 2 year	0.93		

Pre-development Discharge Volume

Site Makeup	Greenfield	Return Period (years)	100
Greenfield Method	FSR/FEH	Climate Change (%)	0
Positively Drained Area (ha)	1.741	Storm Duration (mins)	360
Soil Index	4	Betterment (%)	0
SPR	0.49	PR	0.512
CWI	124.678	Runoff Volume (m³)	450

Node 1 Surcharged Outfall

Overrides Design Area	x	Depression Storage Area (m²)	0	Evapo-transpiration (mm/day)	0
Overrides Design Additional Inflow	x	Depression Storage Depth (mm)	0		
Applies to All storms					

Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)	Time (mins)	Depth (m)
0	1.000	245	1.000	490	1.000	735	1.000	980	1.000	1225	1.000
5	1.000	250	1.000	495	1.000	740	1.000	985	1.000	1230	1.000
10	1.000	255	1.000	500	1.000	745	1.000	990	1.000	1235	1.000
15	1.000	260	1.000	505	1.000	750	1.000	995	1.000	1240	1.000
20	1.000	265	1.000	510	1.000	755	1.000	1000	1.000	1245	1.000
25	1.000	270	1.000	515	1.000	760	1.000	1005	1.000	1250	1.000
30	1.000	275	1.000	520	1.000	765	1.000	1010	1.000	1255	1.000
35	1.000	280	1.000	525	1.000	770	1.000	1015	1.000	1260	1.000
40	1.000	285	1.000	530	1.000	775	1.000	1020	1.000	1265	1.000
45	1.000	290	1.000	535	1.000	780	1.000	1025	1.000	1270	1.000
50	1.000	295	1.000	540	1.000	785	1.000	1030	1.000	1275	1.000
55	1.000	300	1.000	545	1.000	790	1.000	1035	1.000	1280	1.000
60	1.000	305	1.000	550	1.000	795	1.000	1040	1.000	1285	1.000
65	1.000	310	1.000	555	1.000	800	1.000	1045	1.000	1290	1.000
70	1.000	315	1.000	560	1.000	805	1.000	1050	1.000	1295	1.000
75	1.000	320	1.000	565	1.000	810	1.000	1055	1.000	1300	1.000
80	1.000	325	1.000	570	1.000	815	1.000	1060	1.000	1305	1.000
85	1.000	330	1.000	575	1.000	820	1.000	1065	1.000	1310	1.000
90	1.000	335	1.000	580	1.000	825	1.000	1070	1.000	1315	1.000
95	1.000	340	1.000	585	1.000	830	1.000	1075	1.000	1320	1.000
100	1.000	345	1.000	590	1.000	835	1.000	1080	1.000	1325	1.000
105	1.000	350	1.000	595	1.000	840	1.000	1085	1.000	1330	1.000
110	1.000	355	1.000	600	1.000	845	1.000	1090	1.000	1335	1.000
115	1.000	360	1.000	605	1.000	850	1.000	1095	1.000	1340	1.000
120	1.000	365	1.000	610	1.000	855	1.000	1100	1.000	1345	1.000
125	1.000	370	1.000	615	1.000	860	1.000	1105	1.000	1350	1.000
130	1.000	375	1.000	620	1.000	865	1.000	1110	1.000	1355	1.000
135	1.000	380	1.000	625	1.000	870	1.000	1115	1.000	1360	1.000
140	1.000	385	1.000	630	1.000	875	1.000	1120	1.000	1365	1.000
145	1.000	390	1.000	635	1.000	880	1.000	1125	1.000	1370	1.000
150	1.000	395	1.000	640	1.000	885	1.000	1130	1.000	1375	1.000
155	1.000	400	1.000	645	1.000	890	1.000	1135	1.000	1380	1.000
160	1.000	405	1.000	650	1.000	895	1.000	1140	1.000	1385	1.000
165	1.000	410	1.000	655	1.000	900	1.000	1145	1.000	1390	1.000
170	1.000	415	1.000	660	1.000	905	1.000	1150	1.000	1395	1.000
175	1.000	420	1.000	665	1.000	910	1.000	1155	1.000	1400	1.000
180	1.000	425	1.000	670	1.000	915	1.000	1160	1.000	1405	1.000
185	1.000	430	1.000	675	1.000	920	1.000	1165	1.000	1410	1.000
190	1.000	435	1.000	680	1.000	925	1.000	1170	1.000	1415	1.000
195	1.000	440	1.000	685	1.000	930	1.000	1175	1.000	1420	1.000
200	1.000	445	1.000	690	1.000	935	1.000	1180	1.000	1425	1.000
205	1.000	450	1.000	695	1.000	940	1.000	1185	1.000	1430	1.000
210	1.000	455	1.000	700	1.000	945	1.000	1190	1.000	1435	1.000
215	1.000	460	1.000	705	1.000	950	1.000	1195	1.000	1440	1.000
220	1.000	465	1.000	710	1.000	955	1.000	1200	1.000		
225	1.000	470	1.000	715	1.000	960	1.000	1205	1.000		
230	1.000	475	1.000	720	1.000	965	1.000	1210	1.000		
235	1.000	480	1.000	725	1.000	970	1.000	1215	1.000		
240	1.000	485	1.000	730	1.000	975	1.000	1220	1.000		

Node 3 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	29.780	Product Number	CTL-SHE-0165-1370-1200-1370
Design Depth (m)	1.200	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	13.7	Min Node Diameter (mm)	1500

Node 4 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	39.000
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	29.800	Main Channel Slope (1:X)	1000.0
Safety Factor	2.0	Time to half empty (mins)		Main Channel n	0.030

Inlets

5

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	259.0	259.0	1.500	736.2	749.8

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	13	10	31.779	0.073	9.0	0.0828	0.0000	OK
15 minute summer	14	10	31.846	0.071	8.7	0.0799	0.0000	OK
15 minute summer	12	10	31.611	0.083	17.7	0.1464	0.0000	OK
15 minute summer	11	10	31.427	0.079	21.2	0.1397	0.0000	OK
15 minute summer	10	10	31.239	0.108	42.5	0.1908	0.0000	OK
2160 minute summer	17	2160	30.630	0.172	1.4	0.4366	0.0000	OK
2160 minute summer	16	2160	30.630	0.210	2.7	0.5333	0.0000	OK
15 minute summer	19	10	31.597	0.072	18.3	0.1267	0.0000	OK
15 minute summer	20	10	30.950	0.055	7.8	0.0972	0.0000	OK
15 minute summer	18	10	30.748	0.120	36.2	0.3062	0.0000	OK
2160 minute summer	15	2160	30.630	0.305	5.8	0.7751	0.0000	OK
2160 minute summer	9	2160	30.630	0.475	10.4	1.2078	0.0000	OK
2160 minute summer	8	2160	30.630	0.500	9.9	1.2714	0.0000	OK
2160 minute summer	7	2160	30.630	0.564	9.9	1.4343	0.0000	OK
2160 minute summer	6	2160	30.630	0.662	9.4	1.6837	0.0000	SURCHARGED
2160 minute summer	5	2160	30.630	0.791	9.1	0.0000	0.0000	OK
2160 minute summer	4	2160	30.630	0.830	4.6	0.0000	0.0000	SURCHARGED
2160 minute summer	3	2160	30.630	0.850	0.6	3.8434	0.0000	SURCHARGED
2160 minute summer	2	2160	30.600	0.969	0.6	1.0960	0.0000	SURCHARGED
15 minute summer	1	1	30.600	1.000	0.0	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	13	1.000	12	9.0	0.830	0.213	0.1683	
15 minute summer	14	2.000	12	8.7	0.831	0.204	0.2686	
15 minute summer	12	1.001	11	17.6	1.187	0.142	0.1246	
15 minute summer	11	1.002	10	21.2	0.990	0.095	0.3743	
15 minute summer	10	1.003	9	41.1	1.607	0.174	1.3864	
2160 minute summer	17	3.000	16	1.4	0.238	0.004	1.1570	
2160 minute summer	16	3.001	15	2.7	0.279	0.008	4.3821	
15 minute summer	19	4.000	18	18.2	1.432	0.122	0.5834	
15 minute summer	20	5.000	18	7.8	0.901	0.070	0.1659	
15 minute summer	18	4.001	15	36.1	1.289	0.181	0.2178	
2160 minute summer	15	3.002	9	5.8	0.323	0.017	12.9927	
2160 minute summer	9	1.004	8	9.9	0.463	0.029	2.4384	
2160 minute summer	8	1.005	7	9.7	0.433	0.028	6.7588	
2160 minute summer	7	1.006	6	9.4	0.342	0.027	10.9595	
2160 minute summer	6	1.007	5	9.1	0.381	0.026	1.9991	
2160 minute summer	5	Flow through Pond	4	4.6	0.017	0.000	314.5011	
2160 minute summer	4	6.000	3	0.6	0.126	0.002	1.8225	
2160 minute summer	3	1.009	2	0.6	0.173	0.016	1.0103	
2160 minute summer	2	1.010	1	0.6	0.016	0.016	0.2075	13.5

**Results for 2 year Critical Storm Duration. Lowest mass balance: 99.74%**

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	13	10	31.793	0.087	12.3	0.0984	0.0000	OK
15 minute summer	14	10	31.859	0.084	11.9	0.0947	0.0000	OK
15 minute summer	12	10	31.627	0.099	24.2	0.1743	0.0000	OK
15 minute summer	11	10	31.442	0.094	29.1	0.1664	0.0000	OK
15 minute summer	10	10	31.260	0.129	58.4	0.2276	0.0000	OK
2160 minute winter	17	1800	30.646	0.188	1.1	0.4782	0.0000	OK
2160 minute winter	16	1800	30.646	0.226	2.1	0.5752	0.0000	OK
15 minute summer	19	10	31.610	0.085	25.2	0.1496	0.0000	OK
15 minute summer	20	10	30.959	0.064	10.7	0.1130	0.0000	OK
15 minute summer	18	10	30.772	0.144	49.8	0.3670	0.0000	OK
2160 minute winter	15	1800	30.646	0.321	4.5	0.8181	0.0000	OK
2160 minute winter	9	1800	30.646	0.491	8.3	1.2497	0.0000	OK
2160 minute winter	8	1800	30.646	0.516	7.9	1.3133	0.0000	OK
2160 minute winter	7	1800	30.646	0.580	7.9	1.4762	0.0000	OK
2160 minute winter	6	1800	30.646	0.678	7.5	1.7258	0.0000	SURCHARGED
2160 minute winter	5	1800	30.646	0.807	7.2	0.0000	0.0000	OK
2160 minute winter	4	1800	30.646	0.846	3.7	0.0000	0.0000	SURCHARGED
2160 minute winter	3	1800	30.646	0.866	1.5	3.9183	0.0000	SURCHARGED
2160 minute winter	2	1800	30.600	0.969	1.5	1.0960	0.0000	SURCHARGED
15 minute summer	1	1	30.600	1.000	0.0	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	13	1.000	12	12.3	0.901	0.291	0.2118	
15 minute summer	14	2.000	12	11.9	0.905	0.280	0.3383	
15 minute summer	12	1.001	11	24.2	1.287	0.194	0.1575	
15 minute summer	11	1.002	10	29.1	1.073	0.130	0.4788	
15 minute summer	10	1.003	9	57.3	1.726	0.243	1.8933	
2160 minute winter	17	3.000	16	1.1	0.223	0.003	1.2956	
2160 minute winter	16	3.001	15	2.1	0.261	0.006	4.7531	
15 minute summer	19	4.000	18	25.1	1.567	0.169	0.7358	
15 minute summer	20	5.000	18	10.7	0.948	0.096	0.2228	
15 minute summer	18	4.001	15	49.8	1.397	0.249	0.2769	
2160 minute winter	15	3.002	9	4.5	0.298	0.013	13.6000	
2160 minute winter	9	1.004	8	7.9	0.459	0.023	2.5125	
2160 minute winter	8	1.005	7	7.7	0.431	0.022	6.9038	
2160 minute winter	7	1.006	6	7.5	0.375	0.022	11.0419	
2160 minute winter	6	1.007	5	7.2	0.395	0.021	1.9991	
2160 minute winter	5	Flow through Pond	4	3.7	0.027	0.000	323.1377	
2160 minute winter	4	6.000	3	1.5	0.094	0.004	1.8225	
2160 minute winter	3	1.009	2	1.5	0.037	0.037	1.0103	
2160 minute winter	2	1.010	1	1.5	0.037	0.037	0.2075	61.9

Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	13	10	31.892	0.186	38.5	0.2100	0.0000	OK
15 minute summer	14	10	31.950	0.175	37.3	0.1975	0.0000	OK
15 minute summer	12	10	31.726	0.198	75.7	0.3496	0.0000	OK
15 minute summer	11	11	31.597	0.249	91.0	0.4392	0.0000	OK
15 minute summer	10	11	31.552	0.421	183.4	0.7440	0.0000	SURCHARGED
15 minute summer	17	11	31.445	0.987	85.6	2.5117	0.0000	SURCHARGED
15 minute summer	16	11	31.425	1.005	192.9	2.5567	0.0000	SURCHARGED
15 minute summer	19	11	31.680	0.155	78.9	0.2743	0.0000	OK
15 minute summer	20	11	31.498	0.603	54.7	1.0649	0.0000	SURCHARGED
15 minute summer	18	11	31.493	0.865	153.3	2.2026	0.0000	SURCHARGED
15 minute summer	15	11	31.431	1.106	297.1	2.8145	0.0000	SURCHARGED
15 minute summer	9	11	31.256	1.101	532.3	2.8018	0.0000	SURCHARGED
15 minute summer	8	11	31.106	0.976	530.9	2.4838	0.0000	SURCHARGED
1440 minute summer	7	900	30.910	0.844	33.9	2.1468	0.0000	SURCHARGED
1440 minute summer	6	900	30.909	0.941	33.8	2.3957	0.0000	SURCHARGED
1440 minute summer	5	900	30.909	1.070	33.8	0.0000	0.0000	OK
1440 minute summer	4	900	30.909	1.109	22.0	0.0000	0.0000	SURCHARGED
1440 minute summer	3	900	30.909	1.129	13.5	5.1085	0.0000	SURCHARGED
1440 minute summer	2	900	30.605	0.974	13.5	1.1018	0.0000	SURCHARGED
15 minute summer	1	1	30.600	1.000	0.0	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	13	1.000	12	38.5	1.161	0.909	0.5132	
15 minute summer	14	2.000	12	37.2	1.171	0.879	0.8189	
15 minute summer	12	1.001	11	75.7	1.689	0.609	0.3753	
15 minute summer	11	1.002	10	91.7	1.315	0.410	1.6320	
15 minute summer	10	1.003	9	171.4	1.760	0.726	5.9643	
15 minute summer	17	3.000	16	114.0	0.565	0.333	4.2336	
15 minute summer	16	3.001	15	168.1	0.701	0.491	10.6795	
15 minute summer	19	4.000	18	78.9	1.753	0.530	2.4606	
15 minute summer	20	5.000	18	32.7	0.928	0.294	1.3512	
15 minute summer	18	4.001	15	136.3	1.653	0.681	0.8563	
15 minute summer	15	3.002	9	301.6	1.071	0.881	19.1273	
15 minute summer	9	1.004	8	530.9	1.885	1.550	2.8044	
15 minute summer	8	1.005	7	528.4	1.876	1.543	7.2456	
1440 minute summer	7	1.006	6	33.8	0.427	0.099	11.0958	
1440 minute summer	6	1.007	5	33.8	0.492	0.099	1.9991	
1440 minute summer	5	Flow through Pond	4	22.0	0.039	0.002	471.5868	
1440 minute summer	4	6.000	3	13.5	0.246	0.035	1.8225	
1440 minute summer	3	1.009	2	13.5	0.339	0.339	1.0103	
1440 minute summer	2	1.010	1	13.5	0.339	0.339	0.2075	489.7

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	13	11	32.593	0.887	49.4	1.0032	0.0000	SURCHARGED
15 minute summer	14	11	32.641	0.866	47.8	0.9795	0.0000	SURCHARGED
15 minute summer	12	11	32.477	0.949	89.9	1.6776	0.0000	SURCHARGED
15 minute summer	11	11	32.410	1.062	107.2	1.8772	0.0000	SURCHARGED
15 minute summer	10	11	32.355	1.224	224.7	2.1628	0.0000	SURCHARGED
15 minute summer	17	11	32.114	1.656	109.7	4.2137	0.0000	SURCHARGED
15 minute summer	16	11	32.098	1.678	209.1	4.2700	0.0000	SURCHARGED
15 minute summer	19	11	32.491	0.966	101.1	1.7064	0.0000	SURCHARGED
15 minute summer	20	11	32.206	1.311	55.3	2.3162	0.0000	SURCHARGED
15 minute summer	18	11	32.185	1.557	166.0	3.9631	0.0000	SURCHARGED
15 minute summer	15	11	32.077	1.752	376.2	4.4578	0.0000	SURCHARGED
15 minute summer	9	11	31.819	1.664	672.5	4.2353	0.0000	SURCHARGED
15 minute summer	8	11	31.579	1.449	670.9	3.6887	0.0000	SURCHARGED
15 minute summer	7	11	31.191	1.125	682.6	2.8624	0.0000	SURCHARGED
1440 minute summer	6	930	31.131	1.163	44.8	2.9599	0.0000	SURCHARGED
1440 minute summer	5	930	31.131	1.292	44.7	0.0000	0.0000	OK
1440 minute summer	4	930	31.131	1.331	29.0	0.0000	0.0000	FLOOD RISK
1440 minute summer	3	930	31.131	1.351	13.9	6.1121	0.0000	FLOOD RISK
960 minute winter	2	570	30.605	0.974	13.6	1.1019	0.0000	SURCHARGED
15 minute summer	1	1	30.600	1.000	0.0	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	13	1.000	12	46.4	1.195	1.097	0.6168	
15 minute summer	14	2.000	12	43.5	1.195	1.027	1.0253	
15 minute summer	12	1.001	11	87.7	1.732	0.705	0.5903	
15 minute summer	11	1.002	10	117.6	1.234	0.525	1.9171	
15 minute summer	10	1.003	9	181.9	1.753	0.771	5.9643	
15 minute summer	17	3.000	16	108.0	0.561	0.315	4.2336	
15 minute summer	16	3.001	15	177.7	0.704	0.519	10.6795	
15 minute summer	19	4.000	18	95.3	1.763	0.640	3.2326	
15 minute summer	20	5.000	18	37.4	0.931	0.337	1.3512	
15 minute summer	18	4.001	15	162.7	1.771	0.813	0.8563	
15 minute summer	15	3.002	9	377.6	1.341	1.103	19.1273	
15 minute summer	9	1.004	8	670.9	2.382	1.959	2.8044	
15 minute summer	8	1.005	7	669.7	2.378	1.956	7.2456	
15 minute summer	7	1.006	6	682.3	2.423	1.992	11.0958	
1440 minute summer	6	1.007	5	44.7	0.511	0.130	1.9991	
1440 minute summer	5	Flow through Pond	4	29.0	0.037	0.002	613.8183	
1440 minute summer	4	6.000	3	13.9	0.200	0.036	1.8225	
1440 minute summer	3	1.009	2	13.6	0.343	0.343	1.0103	
960 minute winter	2	1.010	1	13.6	0.343	0.343	0.2075	569.4