

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

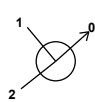
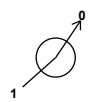
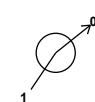
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	13	1200	Manhole	Adoptable	12	1500	Manhole	Adoptable
2.000	14	1200	Manhole	Adoptable	12	1500	Manhole	Adoptable
1.001	12	1500	Manhole	Adoptable	11	1500	Manhole	Adoptable
1.002	11	1500	Manhole	Adoptable	10	1500	Manhole	Adoptable
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

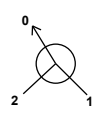
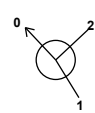
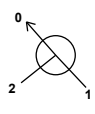
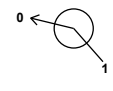
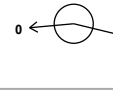
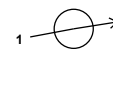
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
5.000	19.188	100.0	300	Circular_Default Sewer Type	32.650	30.895	1.455	33.150	30.703	2.147
4.001	7.764	100.0	375	Circular_Default Sewer Type	33.150	30.628	2.147	33.400	30.550	2.475
3.002	67.905	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 0 	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 				
							0	5.000	30.895	300
18	344479.740	391287.347	33.150	2.522	1800	0 2 1 	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	0 2 1 	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	0 2 1 	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	0 1 	1	1.004	30.130	600
							0	1.005	30.130	600
7	344397.582	391356.949	31.650	1.584	1800	0 1 	1	1.005	30.066	600
							0	1.006	30.066	600
6	344358.351	391353.394	31.500	1.532	1800	0 1 	1	1.006	29.968	600
							0	1.007	29.968	600
5	344354.609	391359.424	31.300	1.461		0 1 	1	1.007	29.950	600
4	344386.768	391375.174	31.300	1.500		0 				
							0	6.000	29.800	600
3	344393.128	391376.363	31.300	1.520	2400	1 0 	1	6.000	29.780	600
							0	1.009	29.780	225
2	344418.220	391380.326	31.300	1.669	1200	0 1 	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 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: 99.92%

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
15 minute summer	17	10	30.567	0.109	19.9	0.2777	0.0000	OK
15 minute summer	16	10	30.553	0.133	38.0	0.3376	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
15 minute summer	15	11	30.515	0.190	81.8	0.4829	0.0000	OK
15 minute summer	9	11	30.462	0.307	140.4	0.7813	0.0000	OK
15 minute summer	8	11	30.417	0.287	137.2	0.7314	0.0000	OK
15 minute summer	7	12	30.341	0.275	137.9	0.7002	0.0000	OK
15 minute summer	6	12	30.227	0.259	136.5	0.6591	0.0000	OK
240 minute summer	5	160	30.112	0.273	44.9	0.0000	0.0000	OK
240 minute summer	4	160	30.112	0.312	28.7	0.0000	0.0000	OK
240 minute summer	3	160	30.112	0.332	13.3	1.5010	0.0000	SURCHARGED
240 minute summer	2	160	29.724	0.093	13.2	0.1054	0.0000	OK
240 minute summer	1	160	29.688	0.088	13.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute 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	
15 minute summer	17	3.000	16	19.7	0.492	0.058	0.6093	
15 minute summer	16	3.001	15	37.6	0.633	0.110	2.2785	
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	
15 minute summer	15	3.002	9	78.0	0.722	0.228	7.5181	
15 minute summer	9	1.004	8	137.2	0.988	0.401	1.3857	
15 minute summer	8	1.005	7	135.6	1.047	0.396	3.3300	
15 minute summer	7	1.006	6	136.5	1.127	0.399	4.7743	
15 minute summer	6	1.007	5	137.3	1.246	0.401	0.7820	
240 minute summer	5	Flow through Pond	4	28.7	0.058	0.002	89.5033	
240 minute summer	4	6.000	3	13.3	0.294	0.035	0.9958	
240 minute summer	3	1.009	2	13.2	0.861	0.333	0.3911	
240 minute summer	2	1.010	1	13.2	0.884	0.333	0.0782	165.4

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.75%

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
15 minute summer	17	10	30.593	0.135	27.3	0.3427	0.0000	OK
15 minute summer	16	10	30.581	0.161	52.1	0.4099	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
15 minute summer	15	11	30.560	0.235	111.9	0.5973	0.0000	OK
15 minute summer	9	11	30.526	0.371	191.6	0.9435	0.0000	OK
15 minute summer	8	11	30.477	0.347	184.4	0.8837	0.0000	OK
15 minute summer	7	11	30.396	0.330	186.6	0.8404	0.0000	OK
15 minute summer	6	12	30.271	0.303	182.5	0.7720	0.0000	OK
240 minute summer	5	164	30.182	0.343	55.9	0.0000	0.0000	OK
240 minute summer	4	164	30.182	0.382	35.1	0.0000	0.0000	OK
240 minute summer	3	164	30.182	0.402	13.9	1.8202	0.0000	SURCHARGED
240 minute summer	2	164	29.725	0.094	13.6	0.1068	0.0000	OK
240 minute summer	1	164	29.690	0.090	13.6	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	
15 minute summer	17	3.000	16	26.9	0.513	0.079	0.8112	
15 minute summer	16	3.001	15	51.0	0.673	0.149	3.0453	
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	
15 minute summer	15	3.002	9	102.7	0.750	0.300	9.6721	
15 minute summer	9	1.004	8	184.4	1.060	0.538	1.7511	
15 minute summer	8	1.005	7	183.4	1.119	0.536	4.2172	
15 minute summer	7	1.006	6	182.5	1.219	0.533	5.9013	
15 minute summer	6	1.007	5	184.8	1.368	0.540	0.9591	
240 minute summer	5	Flow through Pond	4	35.1	0.058	0.003	115.1240	
240 minute summer	4	6.000	3	13.9	0.320	0.036	1.2630	
240 minute summer	3	1.009	2	13.6	0.866	0.342	0.3983	
240 minute summer	2	1.010	1	13.6	0.890	0.342	0.0796	203.8

**Results for 30 year +40% CC Critical Storm Duration. Lowest mass balance: 99.72%**

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
15 minute summer	7	11	30.864	0.798	538.5	2.0319	0.0000	SURCHARGED
240 minute winter	6	232	30.719	0.751	90.7	1.9109	0.0000	SURCHARGED
240 minute winter	5	232	30.719	0.880	88.0	0.0000	0.0000	OK
240 minute winter	4	232	30.719	0.919	51.3	0.0000	0.0000	SURCHARGED
240 minute winter	3	232	30.719	0.939	14.7	4.2474	0.0000	SURCHARGED
2160 minute winter	2	1440	29.726	0.095	13.6	0.1071	0.0000	OK
2160 minute winter	1	1440	29.690	0.090	13.6	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	
15 minute summer	7	1.006	6	535.3	1.901	1.563	10.9673	
240 minute winter	6	1.007	5	88.0	0.971	0.257	1.9991	
240 minute winter	5	Flow through Pond	4	51.3	0.082	0.004	361.9363	
240 minute winter	4	6.000	3	14.7	0.348	0.038	1.8225	
240 minute winter	3	1.009	2	13.6	0.867	0.343	0.3996	
2160 minute winter	2	1.010	1	13.6	0.891	0.343	0.0799	976.0

Results for 100 year +45% CC 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	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
240 minute winter	6	236	30.934	0.966	108.7	2.4597	0.0000	SURCHARGED
240 minute winter	5	236	30.935	1.096	106.3	0.0000	0.0000	OK
240 minute winter	4	236	30.935	1.135	60.5	0.0000	0.0000	SURCHARGED
240 minute winter	3	236	30.935	1.155	14.7	5.2230	0.0000	SURCHARGED
15 minute summer	2	236	29.726	0.095	13.6	0.1071	0.0000	OK
15 minute summer	1	236	29.690	0.090	13.6	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	
240 minute winter	6	1.007	5	106.3	0.938	0.310	1.9991	
240 minute winter	5	Flow through Pond	4	60.5	0.097	0.005	486.9940	
240 minute winter	4	6.000	3	14.7	0.414	0.039	1.8225	
240 minute winter	3	1.009	2	13.6	0.867	0.343	0.3996	
15 minute summer	2	1.010	1	13.6	0.891	0.343	0.0799	195.9