

Design Settings

Rainfall Methodology	FEH-13	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	40	Minimum Backdrop Height (m)	1.000
CV	0.750	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
RWIC1.0	0.017	5.00	157.407	600	423582.702	427502.984	1.407	156.000
SWMH3.3	0.013	5.00	157.065	1200	423577.115	427493.526	1.350	155.715
SWMH3.2	0.030	5.00	157.200	1200	423586.580	427484.045	1.600	155.600
SWMH3.1	0.014	5.00	156.870	1200	423609.362	427486.146	1.475	155.395
SWMH4.0	0.018	5.00	156.677	1200	423626.221	427504.657	1.794	154.883
SWMH5.0			156.330	1200	423638.965	427505.565	1.915	154.415
SWMH6.0			155.980	1200	423651.861	427499.890	2.080	153.900
SWMH7.0	0.012	5.00	155.709	2100	423653.426	427491.688	2.128	153.581
SWMH7.1			155.610	1800	423652.545	427485.216	2.100	153.510
SWMH7.2			155.680	1200	423648.642	427474.596	3.980	151.700
RW3.1		5.00	157.135	1200	423595.349	427513.392	1.415	155.720
SWMH2.1	0.015	5.00	157.100	1200	423596.040	427514.637	1.325	155.775
SWMH2.0	0.015	5.00	157.067	1200	423609.777	427504.350	1.780	155.287
SWIC2.2	0.005	5.00	157.255	600	423615.459	427520.009	1.381	155.874
SWMH2.2	0.005	5.00	157.273	600	423619.832	427515.837	1.598	155.675
SWMH6.3	0.021	5.00	155.845	1200	423632.989	427465.512	1.367	154.478
SWMH6.2	0.066	5.00	156.174	1200	423621.321	427475.960	1.800	154.374
SWMH6.1	0.043	5.00	156.104	1200	423641.820	427499.462	1.937	154.167
SWMH6.4	0.009	5.00	155.770	1200	423640.492	427467.469	1.240	154.530
RW1.0			157.130	1200	423576.774	427497.476	1.250	155.880
RW2.0			157.275	1200	423586.475	427488.626	1.485	155.790
RW3.0			157.155	1200	423610.468	427502.909	1.560	155.595
RWIC4.1	0.007	5.00	157.250	600	423611.421	427523.195	1.705	155.545
RW4.0			157.250	600	423620.126	427514.550	1.830	155.420
RW5.0	0.034	5.00	155.940	1200	423650.376	427497.823	1.450	154.490
RWIC3.2	0.007	5.00	157.145	600	423599.656	427510.271	1.461	155.684

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
4.000	SWMH3.3	SWMH3.2	13.397	0.600	155.715	155.600	0.115	116.5	150	5.24	50.0
4.001	SWMH3.2	SWMH3.1	22.879	0.600	155.600	155.395	0.205	111.6	150	5.64	50.0
4.002	SWMH3.1	SWMH4.0	25.038	0.600	155.395	154.958	0.437	57.3	150	5.95	50.0
4.003	SWMH4.0	SWMH5.0	12.776	0.600	154.883	154.415	0.468	27.3	225	6.04	50.0
4.004	SWMH5.0	SWMH6.0	14.089	0.600	154.415	153.900	0.515	27.4	225	6.13	50.0
4.005	SWMH6.0	SWMH7.0	8.350	0.600	153.900	153.581	0.319	26.2	225	6.19	50.0
7.003	SWMH6.1	SWMH6.0	10.050	0.600	154.167	153.900	0.267	37.6	225	5.93	50.0
5.000	SWIC2.2	SWMH2.2	6.055	0.600	155.874	155.675	0.199	30.4	150	5.06	50.0
5.001	SWMH2.2	SWMH2.0	15.266	0.600	155.675	155.287	0.388	39.3	150	5.21	50.0
6.000	SWMH2.1	SWMH2.0	17.162	0.600	155.775	155.287	0.488	35.2	150	5.17	50.0
5.002	SWMH2.0	SWMH4.0	16.447	0.600	155.287	154.958	0.329	50.0	150	5.41	50.0
7.000	SWMH6.4	SWMH6.3	7.754	0.600	154.530	154.478	0.052	149.1	225	5.12	50.0
7.001	SWMH6.3	SWMH6.2	15.662	0.600	154.478	154.374	0.104	150.6	225	5.37	50.0
7.002	SWMH6.2	SWMH6.1	31.186	0.600	154.374	154.167	0.207	150.7	225	5.86	50.0
1.006	SWMH7.0	SWMH7.1	6.532	0.600	153.581	153.510	0.071	92.0	225	6.62	50.0
1.007	SWMH7.1	SWMH7.2	11.314	0.600	153.510	151.700	1.810	6.3	225	6.66	50.0
1.000	RWIC1.0	RW1.0	8.092	0.600	156.000	155.880	0.120	67.4	150	5.11	50.0
1.001	RW1.0	RW2.0	13.131	0.600	155.880	155.790	0.090	145.9	150	5.37	50.0
1.002	RW2.0	RW3.0	27.923	0.600	155.790	155.595	0.195	143.2	150	5.93	50.0
1.003	RW3.0	RW4.0	15.126	0.600	155.595	155.420	0.175	86.4	150	6.16	50.0
1.004	RW4.0	RW5.0	34.536	0.600	155.420	154.490	0.930	37.1	150	6.51	50.0
1.005	RW5.0	SWMH7.0	6.867	0.600	154.490	153.581	0.909	7.6	150	6.54	50.0
2.000	RW3.1	RWIC3.2	5.319	0.600	155.720	155.684	0.036	147.8	150	5.11	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)
4.000	0.930	16.4	2.5	1.200	1.450	0.013	0.0	39	0.667
4.001	0.950	16.8	8.1	1.450	1.325	0.043	0.0	74	0.942
4.002	1.331	23.5	10.8	1.325	1.569	0.057	0.0	71	1.302
4.003	2.513	99.9	21.7	1.569	1.690	0.114	0.0	71	2.016
4.004	2.511	99.8	21.7	1.690	1.855	0.114	0.0	71	2.014
4.005	2.567	102.1	48.0	1.855	1.903	0.253	0.0	109	2.529
7.003	2.139	85.0	26.4	1.712	1.855	0.139	0.0	86	1.891
5.000	1.831	32.4	0.9	1.231	1.448	0.005	0.0	17	0.801
5.001	1.609	28.4	1.8	1.448	1.630	0.009	0.0	25	0.900
6.000	1.703	30.1	2.8	1.175	1.630	0.015	0.0	31	1.067
5.002	1.426	25.2	7.4	1.630	1.569	0.039	0.0	56	1.245
7.000	1.068	42.5	1.7	1.015	1.142	0.009	0.0	31	0.530
7.001	1.063	42.3	5.6	1.142	1.575	0.030	0.0	55	0.740
7.002	1.063	42.3	18.1	1.575	1.712	0.096	0.0	103	1.025
1.006	1.363	54.2	62.6	1.903	1.875	0.330	0.0	225	1.389
1.007	5.267	209.4	62.6	1.875	3.755	0.330	0.0	84	4.612
1.000	1.226	21.7	3.3	1.257	1.100	0.017	0.0	39	0.881
1.001	0.830	14.7	3.3	1.100	1.335	0.017	0.0	48	0.666
1.002	0.838	14.8	3.3	1.335	1.410	0.017	0.0	48	0.673
1.003	1.082	19.1	4.6	1.410	1.680	0.024	0.0	50	0.892
1.004	1.657	29.3	5.9	1.680	1.300	0.031	0.0	45	1.297
1.005	3.689	65.2	12.3	1.300	1.978	0.065	0.0	44	2.851
2.000	0.824	14.6	0.0	1.265	1.311	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)
2.001	RWIC3.2	RW3.0	13.080	0.600	155.684	155.595	0.089	147.0	150	5.37	50.0
3.000	RWIC4.1	RW4.0	12.268	0.600	155.545	155.420	0.125	98.1	150	5.20	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)
2.001	0.827	14.6	1.3	1.311	1.410	0.007	0.0	31	0.516
3.000	1.014	17.9	1.3	1.555	1.680	0.007	0.0	28	0.597

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
4.000	13.397	116.5	150	Circular	157.065	155.715	1.200	157.200	155.600	1.450
4.001	22.879	111.6	150	Circular	157.200	155.600	1.450	156.870	155.395	1.325
4.002	25.038	57.3	150	Circular	156.870	155.395	1.325	156.677	154.958	1.569
4.003	12.776	27.3	225	Circular	156.677	154.883	1.569	156.330	154.415	1.690
4.004	14.089	27.4	225	Circular	156.330	154.415	1.690	155.980	153.900	1.855
4.005	8.350	26.2	225	Circular	155.980	153.900	1.855	155.709	153.581	1.903
7.003	10.050	37.6	225	Circular	156.104	154.167	1.712	155.980	153.900	1.855
5.000	6.055	30.4	150	Circular	157.255	155.874	1.231	157.273	155.675	1.448
5.001	15.266	39.3	150	Circular	157.273	155.675	1.448	157.067	155.287	1.630
6.000	17.162	35.2	150	Circular	157.100	155.775	1.175	157.067	155.287	1.630
5.002	16.447	50.0	150	Circular	157.067	155.287	1.630	156.677	154.958	1.569
7.000	7.754	149.1	225	Circular	155.770	154.530	1.015	155.845	154.478	1.142
7.001	15.662	150.6	225	Circular	155.845	154.478	1.142	156.174	154.374	1.575
7.002	31.186	150.7	225	Circular	156.174	154.374	1.575	156.104	154.167	1.712
1.006	6.532	92.0	225	Circular	155.709	153.581	1.903	155.610	153.510	1.875
1.007	11.314	6.3	225	Circular	155.610	153.510	1.875	155.680	151.700	3.755
1.000	8.092	67.4	150	Circular	157.407	156.000	1.257	157.130	155.880	1.100

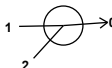
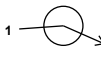
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
4.000	SWMH3.3	1200	Manhole	Adoptable	SWMH3.2	1200	Manhole	Adoptable
4.001	SWMH3.2	1200	Manhole	Adoptable	SWMH3.1	1200	Manhole	Adoptable
4.002	SWMH3.1	1200	Manhole	Adoptable	SWMH4.0	1200	Manhole	Adoptable
4.003	SWMH4.0	1200	Manhole	Adoptable	SWMH5.0	1200	Manhole	Adoptable
4.004	SWMH5.0	1200	Manhole	Adoptable	SWMH6.0	1200	Manhole	Adoptable
4.005	SWMH6.0	1200	Manhole	Adoptable	SWMH7.0	2100	Manhole	Adoptable
7.003	SWMH6.1	1200	Manhole	Adoptable	SWMH6.0	1200	Manhole	Adoptable
5.000	SWIC2.2	600	Manhole	Adoptable	SWMH2.2	600	Manhole	Adoptable
5.001	SWMH2.2	600	Manhole	Adoptable	SWMH2.0	1200	Manhole	Adoptable
6.000	SWMH2.1	1200	Manhole	Adoptable	SWMH2.0	1200	Manhole	Adoptable
5.002	SWMH2.0	1200	Manhole	Adoptable	SWMH4.0	1200	Manhole	Adoptable
7.000	SWMH6.4	1200	Manhole	Adoptable	SWMH6.3	1200	Manhole	Adoptable
7.001	SWMH6.3	1200	Manhole	Adoptable	SWMH6.2	1200	Manhole	Adoptable
7.002	SWMH6.2	1200	Manhole	Adoptable	SWMH6.1	1200	Manhole	Adoptable
1.006	SWMH7.0	2100	Manhole	Adoptable	SWMH7.1	1800	Manhole	Adoptable
1.007	SWMH7.1	1800	Manhole	Adoptable	SWMH7.2	1200	Manhole	Adoptable
1.000	RWIC1.0	600	Manhole	Adoptable	RW1.0	1200	Manhole	Adoptable

Pipeline Schedule

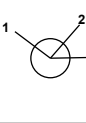
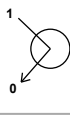
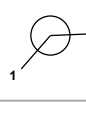
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.001	13.131	145.9	150	Circular	157.130	155.880	1.100	157.275	155.790	1.335
1.002	27.923	143.2	150	Circular	157.275	155.790	1.335	157.155	155.595	1.410
1.003	15.126	86.4	150	Circular	157.155	155.595	1.410	157.250	155.420	1.680
1.004	34.536	37.1	150	Circular	157.250	155.420	1.680	155.940	154.490	1.300
1.005	6.867	7.6	150	Circular	155.940	154.490	1.300	155.709	153.581	1.978
2.000	5.319	147.8	150	Circular	157.135	155.720	1.265	157.145	155.684	1.311
2.001	13.080	147.0	150	Circular	157.145	155.684	1.311	157.155	155.595	1.410
3.000	12.268	98.1	150	Circular	157.250	155.545	1.555	157.250	155.420	1.680

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.001	RW1.0	1200	Manhole	Adoptable	RW2.0	1200	Manhole	Adoptable
1.002	RW2.0	1200	Manhole	Adoptable	RW3.0	1200	Manhole	Adoptable
1.003	RW3.0	1200	Manhole	Adoptable	RW4.0	600	Manhole	Adoptable
1.004	RW4.0	600	Manhole	Adoptable	RW5.0	1200	Manhole	Adoptable
1.005	RW5.0	1200	Manhole	Adoptable	SWMH7.0	2100	Manhole	Adoptable
2.000	RW3.1	1200	Manhole	Adoptable	RWIC3.2	600	Manhole	Adoptable
2.001	RWIC3.2	600	Manhole	Adoptable	RW3.0	1200	Manhole	Adoptable
3.000	RWIC4.1	600	Manhole	Adoptable	RW4.0	600	Manhole	Adoptable

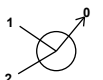
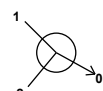
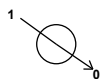
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
RWIC1.0	423582.702	427502.984	157.407	1.407	600		0	1.000	156.000	150
SWMH3.3	423577.115	427493.526	157.065	1.350	1200		0	4.000	155.715	150
SWMH3.2	423586.580	427484.045	157.200	1.600	1200		1	4.000	155.600	150
							0	4.001	155.600	150
SWMH3.1	423609.362	427486.146	156.870	1.475	1200		1	4.001	155.395	150
							0	4.002	155.395	150
SWMH4.0	423626.221	427504.657	156.677	1.794	1200		1	5.002	154.958	150
							2	4.002	154.958	150
							0	4.003	154.883	225
SWMH5.0	423638.965	427505.565	156.330	1.915	1200		1	4.003	154.415	225
							0	4.004	154.415	225
SWMH6.0	423651.861	427499.890	155.980	2.080	1200		1	7.003	153.900	225
							2	4.004	153.900	225
							0	4.005	153.900	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
SWMH7.0	423653.426	427491.688	155.709	2.128	2100		1 4.005 153.581 225 2 1.005 153.581 150 0 1.006 153.581 225	225	150
SWMH7.1	423652.545	427485.216	155.610	2.100	1800		1 1.006 153.510 225 0 1.007 153.510 225	225	225
SWMH7.2	423648.642	427474.596	155.680	3.980	1200		1 1.007 151.700 225	225	225
RW3.1	423595.349	427513.392	157.135	1.415	1200		0 2.000 155.720 150	150	150
SWMH2.1	423596.040	427514.637	157.100	1.325	1200		0 6.000 155.775 150	150	150
SWMH2.0	423609.777	427504.350	157.067	1.780	1200		1 6.000 155.287 150 2 5.001 155.287 150 0 5.002 155.287 150	150	150
SWIC2.2	423615.459	427520.009	157.255	1.381	600		0 5.000 155.874 150	150	150
SWMH2.2	423619.832	427515.837	157.273	1.598	600		1 5.000 155.675 150 0 5.001 155.675 150	150	150
SWMH6.3	423632.989	427465.512	155.845	1.367	1200		1 7.000 154.478 225 0 7.001 154.478 225	225	225
SWMH6.2	423621.321	427475.960	156.174	1.800	1200		1 7.001 154.374 225 0 7.002 154.374 225	225	225
SWMH6.1	423641.820	427499.462	156.104	1.937	1200		1 7.002 154.167 225 0 7.003 154.167 225	225	225
SWMH6.4	423640.492	427467.469	155.770	1.240	1200		0 7.000 154.530 225	225	225
RW1.0	423576.774	427497.476	157.130	1.250	1200		1 1.000 155.880 150 0 1.001 155.880 150	150	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
RW2.0	423586.475	427488.626	157.275	1.485	1200		1	1.001	155.790	150
						0	1.002	155.790	150	
RW3.0	423610.468	427502.909	157.155	1.560	1200		1	2.001	155.595	150
						2	1.002	155.595	150	
						0	1.003	155.595	150	
RWIC4.1	423611.421	427523.195	157.250	1.705	600		0	3.000	155.545	150
RW4.0	423620.126	427514.550	157.250	1.830	600		1	3.000	155.420	150
						2	1.003	155.420	150	
						0	1.004	155.420	150	
RW5.0	423650.376	427497.823	155.940	1.450	1200		1	1.004	154.490	150
						0	1.005	154.490	150	
RWIC3.2	423599.656	427510.271	157.145	1.461	600		1	2.000	155.684	150
						0	2.001	155.684	150	

Simulation Settings

Rainfall Methodology	FEH-13	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	0.750	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	0.840	Additional Storage (m³/ha)	20.0		

Storm Durations

15	60	180	360	600	960	2160	4320
30	120	240	480	720	1440	2880	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	0	0	0
100	40	0	0

Node SWMH7.0 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Downstream Link	1.006	Sump Available	✓
Replaces Downstream Link	✓	Product Number	CTL-SHE-0183-2030-2145-2030
Invert Level (m)	153.581	Min Outlet Diameter (m)	0.225
Design Depth (m)	2.145	Min Node Diameter (mm)	2100
Design Flow (l/s)	20.3		

Node SWMH5.0 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	154.415
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	44

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	95.0	95.0	0.800	95.0	122.6	0.801	0.0	122.6

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year 15 minute summer	90.470	25.600	30 year 360 minute winter	19.910	7.882
2 year 15 minute winter	63.488	25.600	30 year 480 minute summer	24.017	6.347
2 year 30 minute summer	58.976	16.688	30 year 480 minute winter	15.956	6.347
2 year 30 minute winter	41.387	16.688	30 year 600 minute summer	19.605	5.362
2 year 60 minute summer	39.899	10.544	30 year 600 minute winter	13.395	5.362
2 year 60 minute winter	26.508	10.544	30 year 720 minute summer	17.430	4.671
2 year 120 minute summer	27.812	7.350	30 year 720 minute winter	11.714	4.671
2 year 120 minute winter	18.478	7.350	30 year 960 minute summer	14.263	3.756
2 year 180 minute summer	22.683	5.837	30 year 960 minute winter	9.448	3.756
2 year 180 minute winter	14.745	5.837	30 year 1440 minute summer	10.318	2.765
2 year 240 minute summer	18.630	4.923	30 year 1440 minute winter	6.934	2.765
2 year 240 minute winter	12.377	4.923	30 year 2160 minute summer	7.363	2.035
2 year 360 minute summer	14.924	3.841	30 year 2160 minute winter	5.073	2.035
2 year 360 minute winter	9.701	3.841	30 year 2880 minute summer	6.121	1.640
2 year 480 minute summer	12.126	3.204	30 year 2880 minute winter	4.113	1.640
2 year 480 minute winter	8.056	3.204	30 year 4320 minute summer	4.660	1.218
2 year 600 minute summer	10.158	2.778	30 year 4320 minute winter	3.069	1.218
2 year 600 minute winter	6.940	2.778	100 year +40% CC 15 minute summer	457.177	129.365
2 year 720 minute summer	9.215	2.470	100 year +40% CC 15 minute winter	320.826	129.365
2 year 720 minute winter	6.193	2.470	100 year +40% CC 30 minute summer	307.043	86.883
2 year 960 minute summer	7.777	2.048	100 year +40% CC 30 minute winter	215.469	86.883
2 year 960 minute winter	5.151	2.048	100 year +40% CC 60 minute summer	211.151	55.801
2 year 1440 minute summer	5.831	1.563	100 year +40% CC 60 minute winter	140.283	55.801
2 year 1440 minute winter	3.919	1.563	100 year +40% CC 120 minute summer	125.044	33.045
2 year 2160 minute summer	4.286	1.185	100 year +40% CC 120 minute winter	83.076	33.045
2 year 2160 minute winter	2.953	1.185	100 year +40% CC 180 minute summer	94.491	24.316
2 year 2880 minute summer	3.624	0.971	100 year +40% CC 180 minute winter	61.421	24.316
2 year 2880 minute winter	2.435	0.971	100 year +40% CC 240 minute summer	73.932	19.538
2 year 4320 minute summer	2.801	0.732	100 year +40% CC 240 minute winter	49.119	19.538
2 year 4320 minute winter	1.844	0.732	100 year +40% CC 360 minute summer	55.598	14.307
30 year 15 minute summer	248.256	70.248	100 year +40% CC 360 minute winter	36.140	14.307
30 year 15 minute winter	174.215	70.248	100 year +40% CC 480 minute summer	43.299	11.443
30 year 30 minute summer	165.265	46.764	100 year +40% CC 480 minute winter	28.767	11.443
30 year 30 minute winter	115.976	46.764	100 year +40% CC 600 minute summer	35.146	9.613
30 year 60 minute summer	112.597	29.756	100 year +40% CC 600 minute winter	24.014	9.613
30 year 60 minute winter	74.807	29.756	100 year +40% CC 720 minute summer	31.095	8.334
30 year 120 minute summer	67.599	17.864	100 year +40% CC 720 minute winter	20.898	8.334
30 year 120 minute winter	44.911	17.864	100 year +40% CC 960 minute summer	25.247	6.648
30 year 180 minute summer	51.410	13.230	100 year +40% CC 960 minute winter	16.724	6.648
30 year 180 minute winter	33.418	13.230	100 year +40% CC 1440 minute summer	18.053	4.839
30 year 240 minute summer	40.411	10.680	100 year +40% CC 1440 minute winter	12.133	4.839
30 year 240 minute winter	26.848	10.680	100 year +40% CC 2160 minute summer	12.762	3.527
30 year 360 minute summer	30.630	7.882	100 year +40% CC 2160 minute winter	8.793	3.527

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
100 year +40% CC 2880 minute summer	10.554	2.829	100 year +40% CC 4320 minute summer	8.002	2.092
100 year +40% CC 2880 minute winter	7.093	2.829	100 year +40% CC 4320 minute winter	5.270	2.092

Results for 2 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 winter	RWIC1.0	10	156.031	0.031	2.0	0.0163	0.0000	OK
15 minute winter	SWMH3.3	10	155.745	0.030	1.5	0.0399	0.0000	OK
15 minute winter	SWMH3.2	10	155.656	0.056	4.9	0.0844	0.0000	OK
15 minute winter	SWMH3.1	11	155.450	0.055	6.5	0.0729	0.0000	OK
15 minute winter	SWMH4.0	10	154.949	0.066	12.9	0.0872	0.0000	OK
30 minute winter	SWMH5.0	22	154.455	0.040	10.2	3.6303	0.0000	OK
15 minute winter	SWMH6.0	14	154.068	0.168	19.2	0.1897	0.0000	OK
15 minute winter	SWMH7.0	14	154.060	0.479	27.2	1.7149	0.0000	SURCHARGED
15 minute winter	SWMH7.1	14	153.559	0.049	20.0	0.1252	0.0000	OK
15 minute winter	SWMH7.2	14	151.747	0.047	20.0	0.0000	0.0000	OK
15 minute summer	RW3.1	1	155.720	0.000	0.0	0.0000	0.0000	OK
15 minute winter	SWMH2.1	10	155.799	0.024	1.7	0.0325	0.0000	OK
15 minute winter	SWMH2.0	11	155.331	0.044	4.5	0.0570	0.0000	OK
15 minute winter	SWIC2.2	10	155.888	0.014	0.6	0.0050	0.0000	OK
15 minute winter	SWMH2.2	10	155.695	0.020	1.1	0.0067	0.0000	OK
15 minute winter	SWMH6.3	11	154.521	0.043	3.5	0.0613	0.0000	OK
15 minute winter	SWMH6.2	11	154.454	0.080	11.0	0.1487	0.0000	OK
15 minute winter	SWMH6.1	11	154.237	0.070	15.7	0.1110	0.0000	OK
15 minute winter	SWMH6.4	10	154.555	0.024	1.1	0.0313	0.0000	OK
15 minute winter	RW1.0	10	155.918	0.038	2.0	0.0429	0.0000	OK
15 minute winter	RW2.0	11	155.827	0.037	2.0	0.0417	0.0000	OK
15 minute winter	RW3.0	11	155.634	0.039	2.8	0.0443	0.0000	OK
15 minute winter	RWIC4.1	11	155.567	0.022	0.8	0.0079	0.0000	OK
15 minute winter	RW4.0	12	155.455	0.035	3.4	0.0100	0.0000	OK
15 minute winter	RW5.0	11	154.523	0.033	7.0	0.0529	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	RWIC1.0	1.000	RW1.0	2.0	0.652	0.092	0.0247	
15 minute winter	SWMH3.3	4.000	SWMH3.2	1.5	0.348	0.089	0.0572	
15 minute winter	SWMH3.2	4.001	SWMH3.1	4.8	0.817	0.286	0.1351	
15 minute winter	SWMH3.1	4.002	SWMH4.0	6.5	1.124	0.274	0.1438	
15 minute winter	SWMH4.0	4.003	SWMH5.0	13.0	2.336	0.131	0.0775	
30 minute winter	SWMH5.0	4.004	SWMH6.0	6.8	1.131	0.068	0.1745	
15 minute winter	SWMH6.0	4.005	SWMH7.0	19.1	0.640	0.187	0.2986	
15 minute winter	SWMH7.0	Hydro-Brake®	SWMH7.1	20.0				
15 minute winter	SWMH7.1	1.007	SWMH7.2	20.0	3.246	0.096	0.0699	17.5
15 minute summer	RW3.1	2.000	RWIC3.2	0.0	0.000	0.000	0.0046	
15 minute winter	SWMH2.1	6.000	SWMH2.0	1.7	0.566	0.055	0.0520	
15 minute winter	SWMH2.0	5.002	SWMH4.0	4.5	1.061	0.177	0.0690	
15 minute winter	SWIC2.2	5.000	SWMH2.2	0.6	0.532	0.018	0.0066	
15 minute winter	SWMH2.2	5.001	SWMH2.0	1.1	0.392	0.037	0.0430	
15 minute winter	SWMH6.3	7.001	SWMH6.2	3.4	0.388	0.080	0.1396	
15 minute winter	SWMH6.2	7.002	SWMH6.1	10.8	0.947	0.256	0.3612	
15 minute winter	SWMH6.1	7.003	SWMH6.0	15.8	1.597	0.186	0.1907	
15 minute winter	SWMH6.4	7.000	SWMH6.3	1.1	0.287	0.025	0.0293	
15 minute winter	RW1.0	1.001	RW2.0	2.0	0.580	0.134	0.0448	
15 minute winter	RW2.0	1.002	RW3.0	2.0	0.558	0.132	0.0978	
15 minute winter	RW3.0	1.003	RW4.0	2.7	0.788	0.140	0.0514	
15 minute winter	RWIC4.1	3.000	RW4.0	0.8	0.455	0.045	0.0284	
15 minute winter	RW4.0	1.004	RW5.0	3.4	1.144	0.116	0.1030	
15 minute winter	RW5.0	1.005	SWMH7.0	7.0	1.148	0.107	0.0704	

Results for 2 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 winter	RWIC3.2	11	155.708	0.024	0.8	0.0090	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	RWIC3.2	2.001	RW3.0	0.8	0.391	0.055	0.0356	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.89%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	RWIC1.0	10	156.054	0.054	5.5	0.0283	0.0000	OK
15 minute winter	SWMH3.3	10	155.766	0.051	4.2	0.0676	0.0000	OK
15 minute winter	SWMH3.2	10	155.706	0.106	13.6	0.1584	0.0000	OK
15 minute winter	SWMH3.1	11	155.497	0.102	17.8	0.1357	0.0000	OK
15 minute summer	SWMH4.0	10	154.990	0.107	33.9	0.1422	0.0000	OK
30 minute winter	SWMH5.0	28	154.692	0.277	51.8	25.2812	0.0000	SURCHARGED
30 minute winter	SWMH6.0	27	154.688	0.788	30.5	0.8915	0.0000	SURCHARGED
30 minute winter	SWMH7.0	27	154.679	1.098	36.8	3.9274	0.0000	SURCHARGED
60 minute winter	SWMH7.1	80	153.560	0.049	20.3	0.1260	0.0000	OK
60 minute winter	SWMH7.2	80	151.747	0.047	20.3	0.0000	0.0000	OK
15 minute winter	RW3.1	11	155.723	0.003	0.0	0.0034	0.0000	OK
15 minute winter	SWMH2.1	10	155.815	0.040	4.7	0.0539	0.0000	OK
15 minute winter	SWMH2.0	10	155.364	0.077	12.3	0.1000	0.0000	OK
15 minute winter	SWIC2.2	11	155.896	0.022	1.5	0.0078	0.0000	OK
15 minute winter	SWMH2.2	11	155.707	0.032	2.9	0.0110	0.0000	OK
15 minute winter	SWMH6.3	12	154.784	0.306	10.4	0.4384	0.0000	SURCHARGED
15 minute winter	SWMH6.2	12	154.775	0.401	28.0	0.7469	0.0000	SURCHARGED
15 minute winter	SWMH6.1	12	154.710	0.543	39.9	0.8574	0.0000	SURCHARGED
15 minute winter	SWMH6.4	12	154.778	0.248	7.2	0.3163	0.0000	SURCHARGED
15 minute winter	RW1.0	10	155.946	0.066	5.5	0.0741	0.0000	OK
15 minute winter	RW2.0	11	155.853	0.063	5.4	0.0716	0.0000	OK
15 minute winter	RW3.0	11	155.664	0.069	7.5	0.0775	0.0000	OK
15 minute winter	RWIC4.1	10	155.580	0.035	2.2	0.0129	0.0000	OK
15 minute winter	RW4.0	11	155.479	0.059	9.6	0.0166	0.0000	OK
15 minute winter	RW5.0	12	154.735	0.245	19.6	0.3905	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	RWIC1.0	1.000	RW1.0	5.5	0.836	0.252	0.0529	
15 minute winter	SWMH3.3	4.000	SWMH3.2	4.1	0.443	0.250	0.1241	
15 minute winter	SWMH3.2	4.001	SWMH3.1	13.2	1.028	0.788	0.2963	
15 minute winter	SWMH3.1	4.002	SWMH4.0	17.8	1.432	0.758	0.3117	
15 minute winter	SWMH4.0	4.003	SWMH5.0	35.7	2.713	0.357	0.3072	
15 minute winter	SWMH5.0	4.004	SWMH6.0	-31.3	1.058	-0.313	0.5603	
15 minute summer	SWMH6.0	4.005	SWMH7.0	28.4	0.817	0.279	0.3321	
60 minute winter	SWMH7.0	Hydro-Brake®	SWMH7.1	20.3				
60 minute winter	SWMH7.1	1.007	SWMH7.2	20.3	3.257	0.097	0.0705	82.1
15 minute winter	RW3.1	2.000	RWIC3.2	0.0	-0.028	-0.003	0.0097	
15 minute winter	SWMH2.1	6.000	SWMH2.0	4.6	0.732	0.154	0.1101	
15 minute winter	SWMH2.0	5.002	SWMH4.0	12.1	1.374	0.479	0.1446	
15 minute winter	SWIC2.2	5.000	SWMH2.2	1.5	0.690	0.046	0.0133	
15 minute winter	SWMH2.2	5.001	SWMH2.0	2.9	0.512	0.102	0.0906	
15 minute summer	SWMH6.3	7.001	SWMH6.2	8.9	0.478	0.211	0.6229	
15 minute winter	SWMH6.2	7.002	SWMH6.1	26.9	1.079	0.638	1.2403	
15 minute winter	SWMH6.1	7.003	SWMH6.0	33.1	1.738	0.390	0.3997	
15 minute summer	SWMH6.4	7.000	SWMH6.3	-9.8	-0.395	-0.231	0.3005	
15 minute winter	RW1.0	1.001	RW2.0	5.4	0.751	0.366	0.0944	
15 minute winter	RW2.0	1.002	RW3.0	5.4	0.726	0.366	0.2081	
15 minute winter	RW3.0	1.003	RW4.0	7.4	1.047	0.390	0.1076	
15 minute winter	RWIC4.1	3.000	RW4.0	2.2	0.508	0.122	0.0581	
15 minute winter	RW4.0	1.004	RW5.0	9.5	1.153	0.324	0.4143	
15 minute winter	RW5.0	1.005	SWMH7.0	17.2	1.285	0.264	0.1209	

Results for 30 year Critical Storm Duration. Lowest mass balance: 99.89%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	RWIC3.2	10	155.723	0.039	2.2	0.0146	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	RWIC3.2	2.001	RW3.0	2.1	0.466	0.146	0.0746	

Results for 100 year +40% 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 winter	RWIC1.0	10	156.079	0.079	10.1	0.0415	0.0000	OK
15 minute winter	SWMH3.3	12	156.100	0.384	7.7	0.5091	0.0000	SURCHARGED
15 minute winter	SWMH3.2	12	156.079	0.479	21.9	0.7185	0.0000	SURCHARGED
15 minute winter	SWMH3.1	12	155.737	0.342	27.4	0.4533	0.0000	SURCHARGED
60 minute winter	SWMH4.0	57	155.379	0.496	36.3	0.6601	0.0000	SURCHARGED
60 minute winter	SWMH5.0	57	155.377	0.962	75.8	73.3327	0.0000	SURCHARGED
60 minute winter	SWMH6.0	57	155.374	1.474	40.9	1.6667	0.0000	SURCHARGED
60 minute winter	SWMH7.0	57	155.364	1.783	31.2	6.3773	0.0000	SURCHARGED
360 minute winter	SWMH7.1	272	153.560	0.049	20.3	0.1260	0.0000	OK
360 minute winter	SWMH7.2	272	151.747	0.047	20.3	0.0000	0.0000	OK
15 minute winter	RW3.1	10	155.738	0.018	0.2	0.0200	0.0000	OK
15 minute winter	SWMH2.1	10	155.830	0.055	8.7	0.0743	0.0000	OK
15 minute winter	SWMH2.0	11	155.408	0.121	23.0	0.1568	0.0000	OK
15 minute winter	SWIC2.2	10	155.904	0.030	2.9	0.0107	0.0000	OK
15 minute winter	SWMH2.2	10	155.720	0.045	5.6	0.0152	0.0000	OK
15 minute winter	SWMH6.3	12	155.532	1.054	13.9	1.5095	0.0000	SURCHARGED
15 minute winter	SWMH6.2	12	155.517	1.143	46.1	2.1310	0.0000	SURCHARGED
60 minute winter	SWMH6.1	57	155.377	1.210	39.8	1.9103	0.0000	SURCHARGED
15 minute winter	SWMH6.4	12	155.528	0.998	9.8	1.2747	0.0000	FLOOD RISK
15 minute winter	RW1.0	10	155.976	0.096	10.0	0.1082	0.0000	OK
15 minute winter	RW2.0	11	155.881	0.091	9.8	0.1034	0.0000	OK
15 minute winter	RW3.0	11	155.696	0.101	13.9	0.1142	0.0000	OK
15 minute winter	RWIC4.1	13	155.615	0.070	4.1	0.0257	0.0000	OK
15 minute winter	RW4.0	13	155.621	0.201	17.8	0.0568	0.0000	SURCHARGED
60 minute winter	RW5.0	57	155.368	0.878	20.5	1.3996	0.0000	SURCHARGED

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	RWIC1.0	1.000	RW1.0	10.0	0.943	0.462	0.0859	
15 minute summer	SWMH3.3	4.000	SWMH3.2	7.7	0.488	0.466	0.2359	
15 minute winter	SWMH3.2	4.001	SWMH3.1	19.9	1.132	1.186	0.4028	
15 minute winter	SWMH3.1	4.002	SWMH4.0	26.8	1.521	1.138	0.4352	
15 minute winter	SWMH4.0	4.003	SWMH5.0	58.4	2.856	0.584	0.4225	
15 minute winter	SWMH5.0	4.004	SWMH6.0	-70.2	-1.766	-0.704	0.5603	
15 minute winter	SWMH6.0	4.005	SWMH7.0	27.4	0.810	0.268	0.3321	
60 minute winter	SWMH7.0	Hydro-Brake®	SWMH7.1	20.3				
360 minute winter	SWMH7.1	1.007	SWMH7.2	20.3	3.257	0.097	0.0705	236.7
15 minute summer	RW3.1	2.000	RWIC3.2	-0.2	-0.083	-0.014	0.0171	
15 minute winter	SWMH2.1	6.000	SWMH2.0	8.6	0.824	0.286	0.1799	
15 minute winter	SWMH2.0	5.002	SWMH4.0	22.5	1.547	0.893	0.2389	
15 minute winter	SWIC2.2	5.000	SWMH2.2	2.9	0.836	0.089	0.0210	
15 minute winter	SWMH2.2	5.001	SWMH2.0	5.5	0.563	0.194	0.1492	
15 minute summer	SWMH6.3	7.001	SWMH6.2	14.0	0.515	0.330	0.6229	
15 minute winter	SWMH6.2	7.002	SWMH6.1	40.9	1.138	0.968	1.2403	
15 minute winter	SWMH6.1	7.003	SWMH6.0	60.3	1.837	0.709	0.3997	
15 minute summer	SWMH6.4	7.000	SWMH6.3	-19.5	-0.491	-0.460	0.3084	
15 minute winter	RW1.0	1.001	RW2.0	9.8	0.858	0.670	0.1507	
15 minute winter	RW2.0	1.002	RW3.0	9.9	0.832	0.670	0.3330	
15 minute winter	RW3.0	1.003	RW4.0	13.9	1.171	0.727	0.2224	
15 minute winter	RWIC4.1	3.000	RW4.0	4.1	0.589	0.227	0.1578	
15 minute winter	RW4.0	1.004	RW5.0	15.9	1.163	0.544	0.6080	
15 minute winter	RW5.0	1.005	SWMH7.0	28.2	1.603	0.433	0.1209	

Results for 100 year +40% 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 winter	RWIC3.2	10	155.738	0.053	4.1	0.0203	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	RWIC3.2	2.001	RW3.0	4.0	0.532	0.274	0.1191	