Design Settings

Rainfall Methodology	FEH-22	Maximum Time of Concentration (mins)	30.00	Preferred Cover Depth (m)	1.200
Return Period (years)	100	Maximum Rainfall (mm/hr)	50.0	Include Intermediate Ground	✓
Additional Flow (%)	40	Minimum Velocity (m/s)	1.00	Enforce best practice design rules	✓
CV	0.750	Connection Type	Level Soffits		
Time of Entry (mins)	5.00	Minimum Backdrop Height (m)	0.200		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S1.0	0.028	5.00	31.500	450	-46.471	-5.718	0.889
S2.0			31.500	450	-17.941	-4.655	1.174
S6.0			31.500	1200	-18.424	20.687	1.427
S7.0			31.500	1200	-11.276	26.193	1.500
S3.0	0.008	5.00	31.500	450	-47.086	15.652	0.800
S4.0	0.016	5.00	31.500	450	-44.642	15.621	0.824
S5.0	0.019	5.00	31.500	450	-28.001	15.529	0.990

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Additional Storage (m³/ha)	20.0
Summer CV	0.750	Skip Steady State	x	Check Discharge Rate(s)	x
Winter CV	0.840	Drain Down Time (mins)	240	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 %)	Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0	100	0	0	0
10	0	0	0	100	40	0	0
30	0	0	0				

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
2 year 15 minute summer	103.320	29.236
2 year 15 minute winter	72.505	29.236
2 year 30 minute summer	65.975	18.669
2 year 30 minute winter	46.298	18.669
2 year 60 minute summer	43.516	11.500
2 year 60 minute winter	28.911	11.500
2 year 120 minute summer	32.082	8.478
2 year 120 minute winter	21.315	8.478
2 year 180 minute summer	26.059	6.706
2 year 180 minute winter	16.939	6.706
2 year 240 minute summer	21.042	5.561
2 year 240 minute winter	13.980	5.561
2 year 360 minute summer	16.149	4.156
2 year 360 minute winter	10.497	4.156
2 year 480 minute summer	12.614	3.333
2 year 480 minute winter	8.380	3.333
2 year 600 minute summer	10.226	2.797
2 year 600 minute winter	6.987	2.797
2 year 720 minute summer	9.024	2.418
2 year 720 minute winter	6.064	2.418
2 year 960 minute summer	7.288	1.919
2 year 960 minute winter	4.828	1.919
2 year 1440 minute summer	5.182	1.389
2 year 1440 minute winter	3.483	1.389
10 year 15 minute summer	228.224	64.580
10 year 15 minute winter	160.157	64.580
10 year 30 minute summer	145.918	41.290
10 year 30 minute winter	102.399	41.290
10 year 60 minute summer	95.871	25.336
10 year 60 minute winter	63.695	25.336
10 year 120 minute summer	62.456	16.505
10 year 120 minute winter	41.494	16.505
10 year 180 minute summer	48.265	12.420
10 year 180 minute winter	31.374	12.420
10 year 240 minute summer	37.915	10.020
10 year 240 minute winter	25.190	10.020
10 year 360 minute summer	28.275	7.276
10 year 360 minute winter	18.379	7.276
10 year 480 minute summer	21.705	5.736
10 year 480 minute winter	14.420	5.736
10 year 600 minute summer	17.383	4.755
10 year 600 minute winter	11.877	4.755
10 year 720 minute summer	15.198	4.073
10 year 720 minute winter	10.214	4.073
10 year 960 minute summer	12.109	3.189
10 year 960 minute winter	8.021	3.189
10 year 1440 minute summer	8.461	2.268
10 year 1440 minute winter	5.686	2.268
30 year 15 minute summer	306.180	86.638
30 year 15 minute winter	214.863	86.638
30 year 30 minute summer	197.276	55.822
30 year 30 minute winter	138.439	55.822
30 year 60 minute summer	130.297	34.434
30 year 60 minute winter	86.566	34.434
30 year 120 minute summer	82.445	21.788
30 year 120 minute winter	54.775	21.788
30 year 180 minute summer	62.922	16.192
30 year 180 minute winter	40.901	16.192
30 year 240 minute summer	49.071	12.968
30 year 240 minute winter	32.602	12.968
30 year 360 minute summer	36.298	9.341
30 year 360 minute winter	23.594	9.341
30 year 480 minute summer	27.777	7.341
30 year 480 minute winter	18.454	7.341

Rainfall

Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)	Event	Peak Intensity (mm/hr)	Average Intensity (mm/hr)
30 year 600 minute summer	22.188	6.069	100 year 960 minute summer	19.860	5.230
30 year 600 minute winter	15.160	6.069	100 year 960 minute winter	13.156	5.230
30 year 720 minute summer	19.349	5.186	100 year 1440 minute summer	13.695	3.670
30 year 720 minute winter	13.004	5.186	100 year 1440 minute winter	9.204	3.670
30 year 960 minute summer	15.315	4.033	100 year +40% CC 15 minute summer	554.552	156.919
30 year 960 minute winter	10.145	4.033	100 year +40% CC 15 minute winter	389.159	156.919
30 year 1440 minute summer	10.630	2.849	100 year +40% CC 30 minute summer	360.529	102.017
30 year 1440 minute winter	7.144	2.849	100 year +40% CC 30 minute winter	253.003	102.017
100 year 15 minute summer	396.109	112.085	100 year +40% CC 60 minute summer	239.406	63.268
100 year 15 minute winter	277.971	112.085	100 year +40% CC 60 minute winter	159.056	63.268
100 year 30 minute summer	257.521	72.870	100 year +40% CC 120 minute summer	149.334	39.465
100 year 30 minute winter	180.716	72.870	100 year +40% CC 120 minute winter	99.214	39.465
100 year 60 minute summer	171.005	45.191	100 year +40% CC 180 minute summer	114.058	29.351
100 year 60 minute winter	113.611	45.191	100 year +40% CC 180 minute winter	74.141	29.351
100 year 120 minute summer	106.667	28.189	100 year +40% CC 240 minute summer	89.058	23.535
100 year 120 minute winter	70.867	28.189	100 year +40% CC 240 minute winter	59.168	23.535
100 year 180 minute summer	81.470	20.965	100 year +40% CC 360 minute summer	65.868	16.950
100 year 180 minute winter	52.958	20.965	100 year +40% CC 360 minute winter	42.816	16.950
100 year 240 minute summer	63.613	16.811	100 year +40% CC 480 minute summer	50.417	13.324
100 year 240 minute winter	42.263	16.811	100 year +40% CC 480 minute winter	33.496	13.324
100 year 360 minute summer	47.049	12.107	100 year +40% CC 600 minute summer	40.276	11.016
100 year 360 minute winter	30.583	12.107	100 year +40% CC 600 minute winter	27.519	11.016
100 year 480 minute summer	36.012	9.517	100 year +40% CC 720 minute summer	35.123	9.413
100 year 480 minute winter	23.925	9.517	100 year +40% CC 720 minute winter	23.605	9.413
100 year 600 minute summer	28.768	7.869	100 year +40% CC 960 minute summer	27.804	7.321
100 year 600 minute winter	19.656	7.869	100 year +40% CC 960 minute winter	18.418	7.321
100 year 720 minute summer	25.088	6.724	100 year +40% CC 1440 minute summer	19.173	5.139
100 year 720 minute winter	16.861	6.724	100 year +40% CC 1440 minute winter	12.885	5.139

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	S1.0	10	30.658	0.047	3.7	0.0371	0.0000	OK
15 minute winter	S2.0	11	30.372	0.046	3.6	0.0073	0.0000	OK
15 minute winter	S6.0	11	30.161	0.088	9.2	0.0995	0.0000	OK
15 minute winter	S7.0	11	30.081	0.081	9.2	0.0000	0.0000	OK
15 minute winter	S3.0	10	30.726	0.026	1.1	0.0094	0.0000	OK
15 minute winter	S4.0	10	30.718	0.042	3.2	0.0231	0.0000	OK
15 minute winter	S5.0	11	30.571	0.061	5.7	0.0335	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	S1.0	1.000	S2.0	3.6	0.797	0.205	0.1306	
15 minute winter	S2.0	1.001	S6.0	3.6	0.476	0.203	0.1936	
15 minute winter	S6.0	1.002	S7.0	9.2	0.898	0.577	0.0925	4.3
15 minute winter	S3.0	2.000	S4.0	1.1	0.353	0.060	0.0075	
15 minute winter	S4.0	2.001	S5.0	3.1	0.582	0.175	0.0893	
15 minute winter	S5.0	2.002	S6.0	5.6	0.868	0.315	0.0700	

Results for 10 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	S1.0	10	30.684	0.073	8.2	0.0576	0.0000	OK
15 minute winter	S2.0	11	30.396	0.070	8.1	0.0112	0.0000	OK
15 minute winter	S6.0	11	30.283	0.210	20.4	0.2373	0.0000	SURCHARGED
15 minute winter	S7.0	11	30.130	0.130	20.3	0.0000	0.0000	OK
15 minute winter	S3.0	10	30.745	0.045	2.4	0.0163	0.0000	OK
15 minute winter	S4.0	10	30.741	0.065	7.0	0.0354	0.0000	OK
15 minute winter	S5.0	10	30.610	0.100	12.6	0.0551	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	S1.0	1.000	S2.0	8.1	0.978	0.455	0.2357	
15 minute winter	S2.0	1.001	S6.0	8.0	0.539	0.450	0.3258	
15 minute winter	S6.0	1.002	S7.0	20.3	1.157	1.272	0.1525	9.7
15 minute winter	S3.0	2.000	S4.0	2.3	0.400	0.132	0.0144	
15 minute winter	S4.0	2.001	S5.0	6.9	0.701	0.391	0.1642	
15 minute winter	S5.0	2.002	S6.0	12.4	1.046	0.698	0.1288	

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 winter	S1.0	10	30.699	0.088	11.0	0.0689	0.0000	OK
15 minute winter	S2.0	12	30.453	0.127	10.9	0.0202	0.0000	OK
15 minute winter	S6.0	11	30.384	0.311	25.6	0.3522	0.0000	SURCHARGED
15 minute winter	S7.0	11	30.139	0.139	25.4	0.0000	0.0000	OK
15 minute winter	S3.0	10	30.756	0.056	3.2	0.0204	0.0000	OK
15 minute winter	S4.0	10	30.753	0.077	9.3	0.0417	0.0000	OK
15 minute winter	S5.0	11	30.637	0.127	16.9	0.0704	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	S1.0	1.000	S2.0	10.9	1.037	0.615	0.3557	
15 minute winter	S2.0	1.001	S6.0	10.4	0.636	0.584	0.4244	
15 minute winter	S6.0	1.002	S7.0	25.4	1.440	1.590	0.1564	13.0
15 minute winter	S3.0	2.000	S4.0	3.1	0.418	0.177	0.0185	
15 minute winter	S4.0	2.001	S5.0	9.2	0.732	0.521	0.2075	
15 minute winter	S5.0	2.002	S6.0	16.6	1.091	0.934	0.1649	

Results for 100 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	S1.0	12	30.786	0.175	14.2	0.1375	0.0000	SURCHARGED
15 minute winter	S2.0	12	30.648	0.322	13.7	0.0513	0.0000	SURCHARGED
15 minute winter	S6.0	12	30.521	0.448	31.9	0.5070	0.0000	SURCHARGED
15 minute summer	S7.0	11	30.142	0.142	30.7	0.0000	0.0000	OK
15 minute winter	S3.0	11	30.783	0.083	4.1	0.0298	0.0000	OK
15 minute winter	S4.0	11	30.780	0.104	11.8	0.0568	0.0000	OK
15 minute winter	S5.0	11	30.718	0.208	21.1	0.1152	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	S1.0	1.000	S2.0	13.7	1.054	0.769	0.5026	
15 minute summer	S2.0	1.001	S6.0	12.2	0.724	0.689	0.4462	
15 minute winter	S6.0	1.002	S7.0	31.7	1.799	1.986	0.1572	16.8
15 minute winter	S3.0	2.000	S4.0	3.9	0.423	0.219	0.0281	
15 minute winter	S4.0	2.001	S5.0	11.5	0.740	0.648	0.2554	
15 minute winter	S5.0	2.002	S6.0	21.0	1.193	1.180	0.1849	

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 (m³)	Flood (m³)	Status
15 minute winter	S1.0	12	31.272	0.661	19.9	0.5203	0.0000	FLOOD RISK
15 minute winter	S2.0	12	30.999	0.673	17.0	0.1070	0.0000	SURCHARGED
15 minute winter	S6.0	12	30.756	0.683	40.5	0.7729	0.0000	SURCHARGED
15 minute summer	S7.0	9	30.142	0.142	38.8	0.0000	0.0000	OK
15 minute winter	S3.0	12	31.149	0.449	5.8	0.1620	0.0000	SURCHARGED
15 minute winter	S4.0	12	31.145	0.469	14.7	0.2552	0.0000	SURCHARGED
15 minute winter	S5.0	12	31.027	0.517	26.2	0.2858	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	S1.0	1.000	S2.0	17.0	1.061	0.958	0.5026	
15 minute winter	S2.0	1.001	S6.0	16.0	0.909	0.902	0.4462	
15 minute winter	S6.0	1.002	S7.0	40.3	2.288	2.526	0.1572	23.5
15 minute winter	S3.0	2.000	S4.0	5.2	0.422	0.294	0.0430	
15 minute winter	S4.0	2.001	S5.0	13.5	0.766	0.759	0.2930	
15 minute winter	S5.0	2.002	S6.0	24.8	1.407	1.395	0.1915	