

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	0.950	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	0.950	Additional Storage (m³/ha)	0.0		

Storm Durations

60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
2	0	0	0
30	0	0	0
100	40	0	0

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)	9.999
CV	0.950	Preferred Cover Depth (m)	1.250
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)	550.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
S-R13-1	0.024	5.00	61.432	1200	482682.490	167665.912	1.475	59.957
S-R13-2	0.140	5.00	61.319	1200	482664.534	167693.510	1.631	59.688
S-R13-3	0.070	5.00	60.997	1200	482655.604	167707.265	1.647	59.350
S-R13-26	0.055	5.00	60.567	1350	482625.481	167688.044	1.700	58.867
S-R13-27	0.082	5.00	60.365	1200	482602.649	167701.239	1.475	58.890
S-R13-28	0.061	5.00	60.206	1500	482601.957	167689.422	2.051	58.155
S-R13-20	0.059	5.00	60.425	1200	482599.655	167600.285	1.475	58.950
S-R13-21	0.008	5.00	60.453	1200	482606.473	167602.044	1.573	58.880
S-R13-22	0.121	5.00	60.610	1200	482633.689	167619.009	1.475	59.135
S-R13-23	0.004	5.00	60.716	1200	482617.530	167609.226	2.256	58.460
S-R13-24	0.051	5.00	60.207	1350	482601.288	167636.705	1.956	58.251
S-R13-25	0.048	5.00	60.056	1350	482599.445	167646.548	1.909	58.147
S-R13-29	0.052	5.00	59.968	1500	482599.798	167652.587	2.252	57.716
S-R13-30	0.082	5.00	59.817	1500	482545.531	167655.610	2.180	57.637
S-R13-31			59.929	1500	482541.843	167663.968	2.307	57.622
S-R13-32	0.114	5.00	59.376	1800	482545.518	167725.552	1.973	57.403
S-R13-15	0.011	5.00	61.182	1200	482668.730	167771.287	2.908	58.274
S-R13-16	0.082	5.00	60.872	1200	482644.530	167770.565	2.748	58.124
S-R13-17	0.081	5.00	60.459	1200	482612.532	167769.441	2.610	57.849
S-R13-18	0.075	5.00	60.723	1200	482604.241	167728.132	1.400	59.323
S-R13-19	0.051	5.00	60.382	1350	482606.330	167766.848	2.627	57.755
S-R13-33	0.136	5.00	59.717	1800	482547.712	167766.870	2.417	57.300
S-R13-34	0.014	5.00	59.460	1800	482547.289	167779.171	2.240	57.220
S-R13-35			59.056	1800	482544.118	167797.758	1.886	57.170
S-R13-36	0.015	5.00	58.492	1800	482545.026	167824.049	1.392	57.100
S-R13-37		5.00	59.460		482535.440	167670.797	0.455	59.005
S-R13-38			59.467		482534.749	167680.727	0.627	58.840
S-R13-39			59.201		482537.546	167719.548	0.523	58.678
S-R13-40			59.004		482538.298	167731.954	0.485	58.519
S-R13-41			59.312		482541.133	167771.668	1.015	58.297
S-R13-43			58.725		482536.139	167801.942	0.684	58.041
S-R13-44			58.313	1200	482535.475	167814.026	0.493	57.820
S-R13-45			58.420	1200	482536.734	167825.000	0.753	57.667
S-R13-46	0.029	5.00	58.277	1800	482541.743	167832.752	1.250	57.027
S-R13-HW1			58.200		482568.056	167850.638	1.550	56.650
S-R13-5	0.030	5.00	62.807	1200	482761.028	167731.034	1.475	61.332
S-R13-6	0.005	5.00	63.003	1200	482756.212	167717.267	1.758	61.245
S-R13-7	0.065	5.00	63.050	1200	482741.232	167699.436	1.475	61.575
S-R13-8			63.024	1200	482750.420	167710.168	1.833	61.191
S-R13-9			62.783	1200	482742.955	167715.804	1.652	61.131
S-R13-10	0.037	5.00	62.377	1200	482726.663	167725.172	1.357	61.020
S-R13-11	0.016	5.00	61.900	1200	482705.747	167732.694	2.500	59.400

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)	Invert Level (m)
S-R13-12	0.036	5.00	61.557	1200	482689.542	167736.003	2.832	58.725
S-R13-13	0.038	5.00	61.629	1200	482690.445	167741.886	2.969	58.660
S-R13-47	0.120	5.00	61.961	1200	482771.654	167800.763	1.261	60.700
S-R13-48	0.048	5.00	62.561	1200	482766.227	167763.957	1.475	61.086
S-R13-49	0.016	5.00	62.407	1200	482767.027	167780.550	1.807	60.600
S-R13-50	0.062	5.00	61.691	1200	482717.958	167782.844	1.449	60.242
S-R13-51			61.499	1200	482704.600	167782.262	1.389	60.110
S-R13-52	0.035	5.00	61.298	1350	482690.995	167782.597	1.248	60.050
S-R13-53	0.028	5.00	60.988	1350	482691.042	167800.209	1.238	59.750
S-R13-54	0.051	5.00	60.849	1350	482689.944	167807.899	1.349	59.500
S-R13-55	0.013	5.00	60.598	1350	482690.124	167822.984	1.698	58.900
S-R13-56	0.098	5.00	60.476	1200	482703.334	167841.902	1.246	59.230
S-R13-57	0.034	5.00	60.301	1200	482695.628	167836.029	1.281	59.020
S-R13-58			60.373	1350	482687.221	167831.758	1.573	58.800
S-R13-59	0.038	5.00	60.296	1350	482675.338	167829.966	1.746	58.550
S-R13-60	0.034	5.00	59.889	1350	482643.216	167827.982	1.898	57.991
S-R13-61	0.092	5.00	59.337	1350	482600.386	167825.133	2.137	57.200
S-R13-62	0.101	5.00	58.984	1350	482580.637	167825.847	2.184	56.800
S-R13-HW2			58.200		482580.801	167849.375	1.550	56.650
S-R13-HW3		5.00	58.200		482563.421	167872.987	1.700	56.500
S-R13-64			58.200	1500	482561.362	167879.919	1.749	56.451
S-R13-HW4			58.496		482559.664	167885.638	2.095	56.401
S-R13-4	0.071	5.00	61.440	1350	482684.397	167726.660	2.450	58.990
S-R13-14	0.038	5.00	61.504	1350	482690.838	167770.988	3.019	58.485
S-R13-42			59.028		482537.886	167788.284	0.832	58.196
S-R13-30A	0.049	5.00	59.563	1200	482544.571	167638.385	1.250	58.313

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	S-R13-1	S-R13-2	32.925	0.600	59.957	59.763	0.194	169.7	225	5.32	54.3
1.001	S-R13-2	S-R13-3	16.400	0.600	59.688	59.500	0.188	87.2	300	5.40	54.0
1.002	S-R13-3	S-R13-4	34.716	0.600	59.350	58.990	0.360	96.4	450	5.68	52.9
1.003	S-R13-4	S-R13-12	10.666	0.600	58.990	58.725	0.265	40.2	450	5.73	52.6
2.000	S-R13-5	S-R13-6	14.585	0.600	61.332	61.245	0.087	167.6	225	5.24	54.6
2.001	S-R13-6	S-R13-8	9.162	0.600	61.245	61.191	0.054	169.7	225	5.26	54.5
3.000	S-R13-7	S-R13-8	14.128	0.600	61.575	61.191	0.384	36.8	225	5.24	54.6
2.002	S-R13-8	S-R13-9	9.354	0.600	61.191	61.131	0.060	155.9	225	5.43	53.9

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.000	39.8	4.4	1.250	1.331	0.024	0.0	51	0.664
1.001	1.684	119.0	30.3	1.331	1.197	0.163	0.0	103	1.414
1.002	2.070	329.3	42.5	1.197	2.000	0.234	0.0	109	1.446
1.003	3.212	510.8	55.1	2.000	2.382	0.305	0.0	99	2.132
2.000	1.007	40.0	5.6	1.250	1.533	0.030	0.0	57	0.714
2.001	1.001	39.8	6.5	1.533	1.608	0.035	0.0	61	0.740
3.000	2.163	86.0	12.1	1.250	1.608	0.065	0.0	57	1.538
2.002	1.044	41.5	18.4	1.608	1.427	0.099	0.0	105	1.014

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)
2.003	S-R13-9	S-R13-10	18.793	0.600	61.131	61.020	0.111	169.3	225	5.74	52.6
2.004	S-R13-10	S-R13-11	22.227	0.600	61.020	59.400	1.620	13.7	225	6.11	51.2
2.005	S-R13-11	S-R13-12	16.539	0.600	59.400	58.950	0.450	36.8	225	6.39	50.2
1.004	S-R13-12	S-R13-13	5.952	0.600	58.725	58.660	0.065	91.6	450	6.49	49.8
1.005	S-R13-13	S-R13-14	29.105	0.600	58.660	58.485	0.175	166.3	450	6.80	48.7
1.006	S-R13-14	S-R13-15	22.110	0.600	58.485	58.274	0.211	104.8	450	6.98	48.0
1.007	S-R13-15	S-R13-16	24.211	0.600	58.274	58.124	0.150	161.4	450	5.19	54.8
1.008	S-R13-16	S-R13-17	32.018	0.600	58.124	57.849	0.275	116.4	450	5.70	52.8
1.009	S-R13-17	S-R13-19	6.722	0.600	57.849	57.829	0.020	336.1	450	5.71	52.7
4.000	S-R13-18	S-R13-19	38.772	0.600	59.323	58.055	1.268	30.6	225	5.60	53.2
1.010	S-R13-19	S-R13-33	58.618	0.600	57.755	57.525	0.230	254.9	525	6.23	50.7
5.000	S-R13-20	S-R13-21	7.041	0.600	58.950	58.880	0.070	100.6	225	5.12	55.1
5.001	S-R13-21	S-R13-23	13.185	0.600	58.880	58.535	0.345	38.2	225	5.34	54.2
6.000	S-R13-22	S-R13-23	18.890	0.600	59.135	58.535	0.600	31.5	225	5.19	54.8
5.002	S-R13-23	S-R13-24	31.920	0.600	58.460	58.326	0.134	238.2	300	5.80	52.4
5.003	S-R13-24	S-R13-25	10.014	0.600	58.251	58.222	0.029	345.3	375	5.87	52.1
5.004	S-R13-25	S-R13-29	6.049	0.600	58.147	57.941	0.206	29.4	450	5.92	51.9
7.000	S-R13-26	S-R13-28	23.564	0.600	58.867	58.230	0.637	37.0	450	6.13	51.1
8.000	S-R13-27	S-R13-28	11.837	0.600	58.890	58.455	0.435	27.2	225	5.07	55.3
7.001	S-R13-28	S-R13-29	36.898	0.600	58.155	57.866	0.289	127.7	525	6.41	50.1
5.005	S-R13-29	S-R13-30	54.351	0.600	57.716	57.637	0.079	688.0	675	7.29	47.0
9.000	S-R13-30A	S-R13-30	17.252	0.600	58.313	58.012	0.301	57.3	300	5.14	55.0
5.006	S-R13-30	S-R13-31	9.136	0.600	57.637	57.622	0.015	609.1	675	7.35	46.8
5.007	S-R13-31	S-R13-32	61.694	0.600	57.622	57.478	0.144	428.4	675	8.32	43.9

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
2.003	1.002	39.8	17.9	1.427	1.132	0.099	0.0	106	0.976
2.004	3.551	141.2	23.9	1.132	2.275	0.136	0.0	62	2.653
2.005	2.164	86.1	26.3	2.275	2.382	0.153	0.0	85	1.904
1.004	2.125	337.9	84.4	2.382	2.519	0.493	0.0	152	1.778
1.005	1.573	250.2	88.9	2.519	2.569	0.532	0.0	185	1.445
1.006	1.985	315.8	93.9	2.569	2.458	0.570	0.0	167	1.740
1.007	1.597	254.0	109.3	2.458	2.298	0.581	0.0	206	1.540
1.008	1.883	299.5	120.1	2.298	2.160	0.663	0.0	198	1.785
1.009	1.103	175.4	134.6	2.160	2.103	0.744	0.0	297	1.211
4.000	2.374	94.4	13.7	1.175	2.102	0.075	0.0	58	1.702
1.010	1.398	302.7	151.4	2.102	1.667	0.870	0.0	263	1.399
5.000	1.303	51.8	11.1	1.250	1.348	0.059	0.0	71	1.044
5.001	2.122	84.4	12.5	1.348	1.956	0.067	0.0	58	1.534
6.000	2.340	93.0	22.8	1.250	1.956	0.121	0.0	76	1.948
5.002	1.014	71.7	34.6	1.956	1.581	0.192	0.0	147	1.005
5.003	0.969	107.0	43.6	1.581	1.459	0.244	0.0	167	0.922
5.004	3.762	598.3	51.9	1.459	1.577	0.291	0.0	88	2.343
7.000	3.350	532.9	9.6	1.250	1.526	0.055	0.0	42	1.326
8.000	2.518	100.1	15.5	1.250	1.526	0.082	0.0	59	1.836
7.001	1.981	428.7	34.1	1.526	1.577	0.198	0.0	99	1.203
5.005	0.991	354.8	87.3	1.577	1.505	0.541	0.0	227	0.827
9.000	2.080	147.1	9.3	0.950	1.505	0.049	0.0	51	1.177
5.006	1.054	377.3	108.0	1.505	1.632	0.672	0.0	246	0.916
5.007	1.260	450.7	101.3	1.632	1.223	0.672	0.0	216	1.025

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)
5.008	S-R13-32	S-R13-33	41.376	0.600	57.403	57.300	0.103	401.7	750	9.06	41.9
1.011	S-R13-33	S-R13-34	12.308	0.600	57.300	57.220	0.080	153.9	750	9.10	41.8
1.012	S-R13-34	S-R13-35	18.856	0.600	57.220	57.170	0.050	377.1	750	9.35	41.4
1.013	S-R13-35	S-R13-36	26.307	0.600	57.170	57.100	0.070	375.8	750	9.63	40.5
1.014	S-R13-36	S-R13-46	9.302	0.600	57.100	57.027	0.073	127.4	750	9.73	40.3
10.000	S-R13-37	S-R13-38	9.962	0.600	59.005	58.840	0.165	60.4	500	5.04	55.3
10.001	S-R13-38	S-R13-39	38.927	0.600	58.840	58.678	0.162	240.3	500	5.32	54.2
10.002	S-R13-39	S-R13-40	12.441	0.600	58.678	58.519	0.159	78.2	500	5.37	54.1
10.003	S-R13-40	S-R13-41	39.815	0.600	58.519	58.297	0.222	179.3	225	6.06	51.4
10.004	S-R13-41	S-R13-42	16.936	0.600	58.297	58.196	0.101	167.7	500	6.16	51.0
10.005	S-R13-42	S-R13-43	13.773	0.600	58.196	58.041	0.155	88.9	500	6.22	50.4
10.006	S-R13-43	S-R13-44	12.102	0.600	58.041	57.820	0.221	54.8	500	6.26	50.3
10.007	S-R13-44	S-R13-45	11.046	0.600	57.820	57.667	0.153	72.2	150	6.57	49.5
10.008	S-R13-45	S-R13-46	9.229	0.600	57.667	57.627	0.040	230.7	150	6.62	49.3
1.015	S-R13-46	S-R13-HW1	31.816	0.600	57.027	56.650	0.377	84.4	750	10.25	39.1
11.000	S-R13-47	S-R13-49	20.736	0.600	60.700	60.600	0.100	207.4	300	5.34	54.2
12.000_1	S-R13-48	S-R13-49	16.612	0.600	61.086	60.675	0.411	40.4	225	5.22	54.7
11.001	S-R13-49	S-R13-50	49.123	0.600	60.600	60.242	0.358	137.2	300	5.99	51.6
11.002	S-R13-50	S-R13-51	13.371	0.600	60.242	60.185	0.057	234.6	300	6.10	51.2
11.003	S-R13-51	S-R13-52	13.609	0.600	60.110	60.050	0.060	226.8	375	6.14	51.1
11.004	S-R13-52	S-R13-53	17.612	0.600	60.050	59.750	0.300	58.7	375	7.46	46.5
11.005	S-R13-53	S-R13-54	7.768	0.600	59.750	59.500	0.250	31.1	375	7.59	46.1
11.006	S-R13-54	S-R13-55	15.086	0.600	59.500	58.900	0.600	25.1	375	7.84	45.3
11.007	S-R13-55	S-R13-58	9.242	0.600	58.900	58.800	0.100	92.4	375	7.99	44.8

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)
5.008	1.390	614.0	113.1	1.223	1.667	0.786	0.0	216	1.073
1.011	2.253	995.5	257.3	1.667	1.490	1.793	0.0	258	1.905
1.012	1.435	633.8	256.8	1.490	1.136	1.806	0.0	331	1.362
1.013	1.437	635.0	251.2	1.136	0.642	1.806	0.0	327	1.357
1.014	2.477	1094.5	252.0	0.642	0.500	1.821	0.0	243	2.031
10.000	4.548	4547.5	1.0	-0.045	0.127	0.005	0.0	5	0.334
10.001	2.273	2273.0	1.0	0.127	0.023	0.005	0.0	8	0.221
10.002	3.993	3993.1	3.6	0.023	-0.015	0.019	0.0	12	0.509
10.003	0.973	38.7	3.7	0.260	0.790	0.021	0.0	46	0.612
10.004	2.723	2723.5	4.4	0.515	0.332	0.025	0.0	18	0.442
10.005	3.746	3746.1	4.4	0.332	0.184	0.025	0.0	15	0.548
10.006	4.776	4775.6	6.0	0.184	-0.007	0.035	0.0	15	0.701
10.007	1.185	20.9	5.9	0.343	0.603	0.035	0.0	55	1.023
10.008	0.657	11.6	5.9	0.603	0.500	0.035	0.0	76	0.660
1.015	3.047	1346.2	253.0	0.500	0.800	1.885	0.0	219	2.368
11.000	1.088	76.9	22.3	0.961	1.507	0.120	0.0	110	0.946
12.000_1	2.063	82.0	9.0	1.250	1.507	0.048	0.0	50	1.360
11.001	1.340	94.7	32.6	1.507	1.149	0.184	0.0	121	1.219
11.002	1.022	72.2	43.2	1.149	1.014	0.246	0.0	167	1.066
11.003	1.199	132.4	43.1	1.014	0.873	0.246	0.0	147	1.075
11.004	2.368	261.6	44.8	0.873	0.863	0.281	0.0	104	1.787
11.005	3.260	360.1	48.8	0.863	0.974	0.308	0.0	93	2.306
11.006	3.626	400.4	55.9	0.974	1.323	0.360	0.0	94	2.587
11.007	1.885	208.2	57.3	1.323	1.198	0.373	0.0	134	1.616

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)
12.000	S-R13-56	S-R13-57	9.689	0.600	59.230	59.170	0.060	161.5	225	5.16	54.9
13.001	S-R13-57	S-R13-58	9.430	0.600	59.020	58.800	0.220	42.9	375	5.25	54.6
11.008	S-R13-58	S-R13-59	12.017	0.600	58.800	58.550	0.250	48.1	375	8.19	44.2
11.009	S-R13-59	S-R13-60	32.183	0.600	58.550	57.991	0.559	57.6	375	8.72	42.8
11.010	S-R13-60	S-R13-61	42.925	0.600	57.991	57.275	0.716	60.0	375	9.43	41.0
11.011	S-R13-61	S-R13-62	19.762	0.600	57.200	56.800	0.400	49.4	450	9.53	40.7
11.012	S-R13-62	S-R13-HW2	23.529	0.600	56.800	56.650	0.150	156.9	450	9.69	40.4
14.000	S-R13-HW3	S-R13-64	7.231	0.600	56.500	56.451	0.049	147.6	225	5.14	55.0
14.001	S-R13-64	S-R13-HW4	5.966	0.600	56.451	56.401	0.050	119.3	225	5.28	54.5

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)
12.000	1.026	40.8	18.5	1.021	0.906	0.098	0.0	106	1.000
13.001	2.774	306.4	24.7	0.906	1.198	0.132	0.0	71	1.692
11.008	2.619	289.2	76.5	1.198	1.371	0.504	0.0	131	2.227
11.009	2.392	264.1	79.7	1.371	1.523	0.542	0.0	141	2.105
11.010	2.343	258.8	81.1	1.523	1.687	0.576	0.0	144	2.083
11.011	2.897	460.8	93.4	1.687	1.734	0.668	0.0	137	2.293
11.012	1.620	257.7	106.7	1.734	1.100	0.770	0.0	202	1.548
14.000	1.074	42.7	0.0	1.475	1.524	0.000	0.0	0	0.000
14.001	1.196	47.5	0.0	1.524	1.870	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	32.925	169.7	225	ADOPTABLE	61.432	59.957	1.250	61.319	59.763	1.331
1.001	16.400	87.2	300	ADOPTABLE	61.319	59.688	1.331	60.997	59.500	1.197
1.002	34.716	96.4	450	ADOPTABLE	60.997	59.350	1.197	61.440	58.990	2.000
1.003	10.666	40.2	450	ADOPTABLE	61.440	58.990	2.000	61.557	58.725	2.382
2.000	14.585	167.6	225	ADOPTABLE	62.807	61.332	1.250	63.003	61.245	1.533
2.001	9.162	169.7	225	ADOPTABLE	63.003	61.245	1.533	63.024	61.191	1.608
3.000	14.128	36.8	225	ADOPTABLE	63.050	61.575	1.250	63.024	61.191	1.608
2.002	9.354	155.9	225	ADOPTABLE	63.024	61.191	1.608	62.783	61.131	1.427
2.003	18.793	169.3	225	ADOPTABLE	62.783	61.131	1.427	62.377	61.020	1.132
2.004	22.227	13.7	225	ADOPTABLE	62.377	61.020	1.132	61.900	59.400	2.275
2.005	16.539	36.8	225	ADOPTABLE	61.900	59.400	2.275	61.557	58.950	2.382

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S-R13-1	1200	Manhole	Adoptable	S-R13-2	1200	Manhole	Adoptable
1.001	S-R13-2	1200	Manhole	Adoptable	S-R13-3	1200	Manhole	Adoptable
1.002	S-R13-3	1200	Manhole	Adoptable	S-R13-4	1350	Manhole	Adoptable
1.003	S-R13-4	1350	Manhole	Adoptable	S-R13-12	1200	Manhole	Adoptable
2.000	S-R13-5	1200	Manhole	Adoptable	S-R13-6	1200	Manhole	Adoptable
2.001	S-R13-6	1200	Manhole	Adoptable	S-R13-8	1200	Manhole	Adoptable
3.000	S-R13-7	1200	Manhole	Adoptable	S-R13-8	1200	Manhole	Adoptable
2.002	S-R13-8	1200	Manhole	Adoptable	S-R13-9	1200	Manhole	Adoptable
2.003	S-R13-9	1200	Manhole	Adoptable	S-R13-10	1200	Manhole	Adoptable
2.004	S-R13-10	1200	Manhole	Adoptable	S-R13-11	1200	Manhole	Adoptable
2.005	S-R13-11	1200	Manhole	Adoptable	S-R13-12	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)
1.004	5.952	91.6	450	ADOPTABLE	61.557	58.725	2.382	61.629	58.660	2.519
1.005	29.105	166.3	450	ADOPTABLE	61.629	58.660	2.519	61.504	58.485	2.569
1.006	22.110	104.8	450	ADOPTABLE	61.504	58.485	2.569	61.182	58.274	2.458
1.007	24.211	161.4	450	ADOPTABLE	61.182	58.274	2.458	60.872	58.124	2.298
1.008	32.018	116.4	450	ADOPTABLE	60.872	58.124	2.298	60.459	57.849	2.160
1.009	6.722	336.1	450	ADOPTABLE	60.459	57.849	2.160	60.382	57.829	2.103
4.000	38.772	30.6	225	ADOPTABLE	60.723	59.323	1.175	60.382	58.055	2.102
1.010	58.618	254.9	525	ADOPTABLE	60.382	57.755	2.102	59.717	57.525	1.667
5.000	7.041	100.6	225	ADOPTABLE	60.425	58.950	1.250	60.453	58.880	1.348
5.001	13.185	38.2	225	ADOPTABLE	60.453	58.880	1.348	60.716	58.535	1.956
6.000	18.890	31.5	225	ADOPTABLE	60.610	59.135	1.250	60.716	58.535	1.956
5.002	31.920	238.2	300	ADOPTABLE	60.716	58.460	1.956	60.207	58.326	1.581
5.003	10.014	345.3	375	ADOPTABLE	60.207	58.251	1.581	60.056	58.222	1.459
5.004	6.049	29.4	450	ADOPTABLE	60.056	58.147	1.459	59.968	57.941	1.577
7.000	23.564	37.0	450	ADOPTABLE	60.567	58.867	1.250	60.206	58.230	1.526
8.000	11.837	27.2	225	ADOPTABLE	60.365	58.890	1.250	60.206	58.455	1.526
7.001	36.898	127.7	525	ADOPTABLE	60.206	58.155	1.526	59.968	57.866	1.577
5.005	54.351	688.0	675	ADOPTABLE	59.968	57.716	1.577	59.817	57.637	1.505
9.000	17.252	57.3	300	ADOPTABLE	59.563	58.313	0.950	59.817	58.012	1.505
5.006	9.136	609.1	675	ADOPTABLE	59.817	57.637	1.505	59.929	57.622	1.632
5.007	61.694	428.4	675	ADOPTABLE	59.929	57.622	1.632	59.376	57.478	1.223
5.008	41.376	401.7	750	ADOPTABLE	59.376	57.403	1.223	59.717	57.300	1.667
1.011	12.308	153.9	750	ADOPTABLE	59.717	57.300	1.667	59.460	57.220	1.490
1.012	18.856	377.1	750	ADOPTABLE	59.460	57.220	1.490	59.056	57.170	1.136
1.013	26.307	375.8	750	ADOPTABLE	59.056	57.170	1.136	58.492	57.100	0.642

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.004	S-R13-12	1200	Manhole	Adoptable	S-R13-13	1200	Manhole	Adoptable
1.005	S-R13-13	1200	Manhole	Adoptable	S-R13-14	1350	Manhole	Adoptable
1.006	S-R13-14	1350	Manhole	Adoptable	S-R13-15	1200	Manhole	Adoptable
1.007	S-R13-15	1200	Manhole	Adoptable	S-R13-16	1200	Manhole	Adoptable
1.008	S-R13-16	1200	Manhole	Adoptable	S-R13-17	1200	Manhole	Adoptable
1.009	S-R13-17	1200	Manhole	Adoptable	S-R13-19	1350	Manhole	Adoptable
4.000	S-R13-18	1200	Manhole	Adoptable	S-R13-19	1350	Manhole	Adoptable
1.010	S-R13-19	1350	Manhole	Adoptable	S-R13-33	1800	Manhole	Adoptable
5.000	S-R13-20	1200	Manhole	Adoptable	S-R13-21	1200	Manhole	Adoptable
5.001	S-R13-21	1200	Manhole	Adoptable	S-R13-23	1200	Manhole	Adoptable
6.000	S-R13-22	1200	Manhole	Adoptable	S-R13-23	1200	Manhole	Adoptable
5.002	S-R13-23	1200	Manhole	Adoptable	S-R13-24	1350	Manhole	Adoptable
5.003	S-R13-24	1350	Manhole	Adoptable	S-R13-25	1350	Manhole	Adoptable
5.004	S-R13-25	1350	Manhole	Adoptable	S-R13-29	1500	Manhole	Adoptable
7.000	S-R13-26	1350	Manhole	Adoptable	S-R13-28	1500	Manhole	Adoptable
8.000	S-R13-27	1200	Manhole	Adoptable	S-R13-28	1500	Manhole	Adoptable
7.001	S-R13-28	1500	Manhole	Adoptable	S-R13-29	1500	Manhole	Adoptable
5.005	S-R13-29	1500	Manhole	Adoptable	S-R13-30	1500	Manhole	Adoptable
9.000	S-R13-30A	1200	Manhole	Adoptable	S-R13-30	1500	Manhole	Adoptable
5.006	S-R13-30	1500	Manhole	Adoptable	S-R13-31	1500	Manhole	Adoptable
5.007	S-R13-31	1500	Manhole	Adoptable	S-R13-32	1800	Manhole	Adoptable
5.008	S-R13-32	1800	Manhole	Adoptable	S-R13-33	1800	Manhole	Adoptable
1.011	S-R13-33	1800	Manhole	Adoptable	S-R13-34	1800	Manhole	Adoptable
1.012	S-R13-34	1800	Manhole	Adoptable	S-R13-35	1800	Manhole	Adoptable
1.013	S-R13-35	1800	Manhole	Adoptable	S-R13-36	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)
1.014	9.302	127.4	750	ADOPTABLE	58.492	57.100	0.642	58.277	57.027	0.500
10.000	9.962	60.4	500	DRY SWALE	59.460	59.005	-0.045	59.467	58.840	0.127
10.001	38.927	240.3	500	DRY SWALE	59.467	58.840	0.127	59.201	58.678	0.023
10.002	12.441	78.2	500	DRY SWALE	59.201	58.678	0.023	59.004	58.519	-0.015
10.003	39.815	179.3	225	ADOPTABLE	59.004	58.519	0.260	59.312	58.297	0.790
10.004	16.936	167.7	500	DRY SWALE	59.312	58.297	0.515	59.028	58.196	0.332
10.005	13.773	88.9	500	DRY SWALE	59.028	58.196	0.332	58.725	58.041	0.184
10.006	12.102	54.8	500	DRY SWALE	58.725	58.041	0.184	58.313	57.820	-0.007
10.007	11.046	72.2	150	ADOPTABLE	58.313	57.820	0.343	58.420	57.667	0.603
10.008	9.229	230.7	150	ADOPTABLE	58.420	57.667	0.603	58.277	57.627	0.500
1.015	31.816	84.4	750	ADOPTABLE	58.277	57.027	0.500	58.200	56.650	0.800
11.000	20.736	207.4	300	ADOPTABLE	61.961	60.700	0.961	62.407	60.600	1.507
12.000_1	16.612	40.4	225	ADOPTABLE	62.561	61.086	1.250	62.407	60.675	1.507
11.001	49.123	137.2	300	ADOPTABLE	62.407	60.600	1.507	61.691	60.242	1.149
11.002	13.371	234.6	300	ADOPTABLE	61.691	60.242	1.149	61.499	60.185	1.014
11.003	13.609	226.8	375	ADOPTABLE	61.499	60.110	1.014	61.298	60.050	0.873
11.004	17.612	58.7	375	ADOPTABLE	61.298	60.050	0.873	60.988	59.750	0.863
11.005	7.768	31.1	375	ADOPTABLE	60.988	59.750	0.863	60.849	59.500	0.974
11.006	15.086	25.1	375	ADOPTABLE	60.849	59.500	0.974	60.598	58.900	1.323
11.007	9.242	92.4	375	ADOPTABLE	60.598	58.900	1.323	60.373	58.800	1.198
12.000	9.689	161.5	225	ADOPTABLE	60.476	59.230	1.021	60.301	59.170	0.906
13.001	9.430	42.9	375	ADOPTABLE	60.301	59.020	0.906	60.373	58.800	1.198
11.008	12.017	48.1	375	ADOPTABLE	60.373	58.800	1.198	60.296	58.550	1.371
11.009	32.183	57.6	375	ADOPTABLE	60.296	58.550	1.371	59.889	57.991	1.523
11.010	42.925	60.0	375	ADOPTABLE	59.889	57.991	1.523	59.337	57.275	1.687

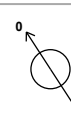
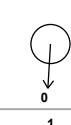
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1.014	S-R13-36	1800	Manhole	Adoptable	S-R13-46	1800	Manhole	Adoptable
10.000	S-R13-37		Junction		S-R13-38		Junction	
10.001	S-R13-38		Junction		S-R13-39		Junction	
10.002	S-R13-39		Junction		S-R13-40		Junction	
10.003	S-R13-40		Junction		S-R13-41		Junction	
10.004	S-R13-41		Junction		S-R13-42		Junction	
10.005	S-R13-42		Junction		S-R13-43		Junction	
10.006	S-R13-43		Junction		S-R13-44	1200	Manhole	Adoptable
10.007	S-R13-44	1200	Manhole	Adoptable	S-R13-45	1200	Manhole	Adoptable
10.008	S-R13-45	1200	Manhole	Adoptable	S-R13-46	1800	Manhole	Adoptable
1.015	S-R13-46	1800	Manhole	Adoptable	S-R13-HW1		Junction	
11.000	S-R13-47	1200	Manhole	Adoptable	S-R13-49	1200	Manhole	Adoptable
12.000_1	S-R13-48	1200	Manhole	Adoptable	S-R13-49	1200	Manhole	Adoptable
11.001	S-R13-49	1200	Manhole	Adoptable	S-R13-50	1200	Manhole	Adoptable
11.002	S-R13-50	1200	Manhole	Adoptable	S-R13-51	1200	Manhole	Adoptable
11.003	S-R13-51	1200	Manhole	Adoptable	S-R13-52	1350	Manhole	Adoptable
11.004	S-R13-52	1350	Manhole	Adoptable	S-R13-53	1350	Manhole	Adoptable
11.005	S-R13-53	1350	Manhole	Adoptable	S-R13-54	1350	Manhole	Adoptable
11.006	S-R13-54	1350	Manhole	Adoptable	S-R13-55	1350	Manhole	Adoptable
11.007	S-R13-55	1350	Manhole	Adoptable	S-R13-58	1350	Manhole	Adoptable
12.000	S-R13-56	1200	Manhole	Adoptable	S-R13-57	1200	Manhole	Adoptable
13.001	S-R13-57	1200	Manhole	Adoptable	S-R13-58	1350	Manhole	Adoptable
11.008	S-R13-58	1350	Manhole	Adoptable	S-R13-59	1350	Manhole	Adoptable
11.009	S-R13-59	1350	Manhole	Adoptable	S-R13-60	1350	Manhole	Adoptable
11.010	S-R13-60	1350	Manhole	Adoptable	S-R13-61	1350	Manhole	Adoptable

Pipeline Schedule

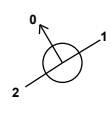
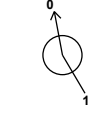
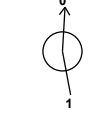
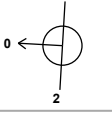
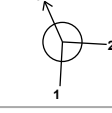
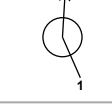
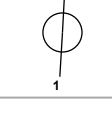
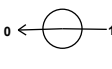
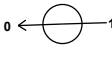
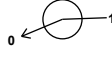
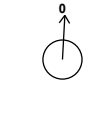
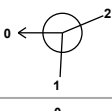
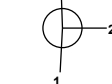
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
11.011	19.762	49.4	450	ADOPTABLE	59.337	57.200	1.687	58.984	56.800	1.734
11.012	23.529	156.9	450	ADOPTABLE	58.984	56.800	1.734	58.200	56.650	1.100
14.000	7.231	147.6	225	ADOPTABLE	58.200	56.500	1.475	58.200	56.451	1.524
14.001	5.966	119.3	225	ADOPTABLE	58.200	56.451	1.524	58.496	56.401	1.870

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
11.011	S-R13-61	1350	Manhole	Adoptable	S-R13-62	1350	Manhole	Adoptable
11.012	S-R13-62	1350	Manhole	Adoptable	S-R13-HW2		Junction	
14.000	S-R13-HW3		Junction		S-R13-64	1500	Manhole	Adoptable
14.001	S-R13-64	1500	Manhole	Adoptable	S-R13-HW4		Junction	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S-R13-1	482682.490	167665.912	61.432	1.475	1200		0	1.000	59.957	225
S-R13-2	482664.534	167693.510	61.319	1.631	1200		1	1.000	59.763	225
							0	1.001	59.688	300
S-R13-3	482655.604	167707.265	60.997	1.647	1200		1	1.001	59.500	300
							0	1.002	59.350	450
S-R13-26	482625.481	167688.044	60.567	1.700	1350		0	7.000	58.867	450
S-R13-27	482602.649	167701.239	60.365	1.475	1200		0	8.000	58.890	225
S-R13-28	482601.957	167689.422	60.206	2.051	1500		1	8.000	58.455	225
							2	7.000	58.230	450
							0	7.001	58.155	525
S-R13-20	482599.655	167600.285	60.425	1.475	1200		0	5.000	58.950	225
S-R13-21	482606.473	167602.044	60.453	1.573	1200		1	5.000	58.880	225
							0	5.001	58.880	225
S-R13-22	482633.689	167619.009	60.610	1.475	1200		0	6.000	59.135	225

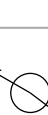
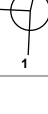
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S-R13-23	482617.530	167609.226	60.716	2.256	1200		1	6.000	58.535	225
							2	5.001	58.535	225
							0	5.002	58.460	300
S-R13-24	482601.288	167636.705	60.207	1.956	1350		1	5.002	58.326	300
							0	5.003	58.251	375
S-R13-25	482599.445	167646.548	60.056	1.909	1350		1	5.003	58.222	375
							0	5.004	58.147	450
S-R13-29	482599.798	167652.587	59.968	2.252	1500		1	7.001	57.866	525
							2	5.004	57.941	450
							0	5.005	57.716	675
S-R13-30	482545.531	167655.610	59.817	2.180	1500		1	9.000	58.012	300
							2	5.005	57.637	675
							0	5.006	57.637	675
S-R13-31	482541.843	167663.968	59.929	2.307	1500		1	5.006	57.622	675
							0	5.007	57.622	675
S-R13-32	482545.518	167725.552	59.376	1.973	1800		1	5.007	57.478	675
							0	5.008	57.403	750
S-R13-15	482668.730	167771.287	61.182	2.908	1200		1	1.006	58.274	450
							0	1.007	58.274	450
S-R13-16	482644.530	167770.565	60.872	2.748	1200		1	1.007	58.124	450
							0	1.008	58.124	450
S-R13-17	482612.532	167769.441	60.459	2.610	1200		1	1.008	57.849	450
							0	1.009	57.849	450
S-R13-18	482604.241	167728.132	60.723	1.400	1200					
							0	4.000	59.323	225
S-R13-19	482606.330	167766.848	60.382	2.627	1350		1	4.000	58.055	225
							2	1.009	57.829	450
							0	1.010	57.755	525
S-R13-33	482547.712	167766.870	59.717	2.417	1800		1	5.008	57.300	750
							2	1.010	57.525	525
							0	1.011	57.300	750

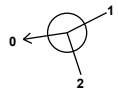
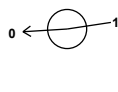
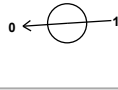
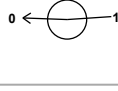
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S-R13-34	482547.289	167779.171	59.460	2.240	1800		1.011	57.220	750
S-R13-35	482544.118	167797.758	59.056	1.886	1800		1.012	57.220	750
S-R13-36	482545.026	167824.049	58.492	1.392	1800		1.013	57.170	750
S-R13-37	482535.440	167670.797	59.460	0.455			1.014	57.100	750
S-R13-38	482534.749	167680.727	59.467	0.627			10.000	59.005	500
S-R13-39	482537.546	167719.548	59.201	0.523			10.001	58.840	500
S-R13-40	482538.298	167731.954	59.004	0.485			10.002	58.678	500
S-R13-41	482541.133	167771.668	59.312	1.015			10.003	58.519	225
S-R13-43	482536.139	167801.942	58.725	0.684			10.004	58.297	500
S-R13-44	482535.475	167814.026	58.313	0.493	1200		10.005	58.041	500
S-R13-45	482536.734	167825.000	58.420	0.753	1200		10.006	57.820	150
S-R13-46	482541.743	167832.752	58.277	1.250	1800		10.007	57.667	150
S-R13-HW1	482568.056	167850.638	58.200	1.550			1.015	57.627	750

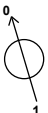
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S-R13-5	482761.028	167731.034	62.807	1.475	1200	 0	0	2.000	61.332	225
S-R13-6	482756.212	167717.267	63.003	1.758	1200	 0	1 0	2.000 2.001	61.245 61.245	225 225
S-R13-7	482741.232	167699.436	63.050	1.475	1200	 0	0	3.000	61.575	225
S-R13-8	482750.420	167710.168	63.024	1.833	1200	 0 1	1 2 0	3.000 2.001 2.002	61.191 61.191 61.191	225 225 225
S-R13-9	482742.955	167715.804	62.783	1.652	1200	 0	1 0	2.002 2.003	61.131 61.131	225 225
S-R13-10	482726.663	167725.172	62.377	1.357	1200	 0	1 0	2.003 2.004	61.020 61.020	225 225
S-R13-11	482705.747	167732.694	61.900	2.500	1200	 0	1 0	2.004 2.005	59.400 59.400	225 225
S-R13-12	482689.542	167736.003	61.557	2.832	1200	 0 2	1 2 0	2.005 1.003 1.004	58.950 58.725 58.725	225 450 450
S-R13-13	482690.445	167741.886	61.629	2.969	1200	 0 1	1 0	1.004 1.005	58.660 58.660	450 450
S-R13-47	482771.654	167800.763	61.961	1.261	1200	 0	0	11.000	60.700	300
S-R13-48	482766.227	167763.957	62.561	1.475	1200	 0	0	12.000_1	61.086	225
S-R13-49	482767.027	167780.550	62.407	1.807	1200	 0 1	1 2 0	12.000_1 11.000 11.001	60.675 60.600 60.600	225 300 300
S-R13-50	482717.958	167782.844	61.691	1.449	1200	 0	1 0	11.001 11.002	60.242 60.242	300 300

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S-R13-51	482704.600	167782.262	61.499	1.389	1200	 1	11.002	60.185	300
S-R13-52	482690.995	167782.597	61.298	1.248	1350	 1	11.003	60.110	375
S-R13-53	482691.042	167800.209	60.988	1.238	1350	 1	11.004	60.050	375
S-R13-54	482689.944	167807.899	60.849	1.349	1350	 1	11.005	60.050	375
S-R13-55	482690.124	167822.984	60.598	1.698	1350	 1	11.006	59.750	375
S-R13-56	482703.334	167841.902	60.476	1.246	1200	 1	11.007	59.500	375
S-R13-57	482695.628	167836.029	60.301	1.281	1200	 1	12.000	59.230	225
S-R13-58	482687.221	167831.758	60.373	1.573	1350	 1	13.001	59.170	225
S-R13-59	482675.338	167829.966	60.296	1.746	1350	 1	11.008	59.020	375
S-R13-60	482643.216	167827.982	59.889	1.898	1350	 1	11.009	58.800	375
S-R13-61	482600.386	167825.133	59.337	2.137	1350	 1	11.010	58.800	375
S-R13-62	482580.637	167825.847	58.984	2.184	1350	 1	11.011	58.550	375
S-R13-HW2	482580.801	167849.375	58.200	1.550		 1	11.012	57.991	450

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S-R13-HW3	482563.421	167872.987	58.200	1.700					
						0	14.000	56.500	225
S-R13-64	482561.362	167879.919	58.200	1.749	1500		1	14.000	56.451
						0	14.001	56.451	225
S-R13-HW4	482559.664	167885.638	58.496	2.095			1	14.001	56.401
						0	1.002	58.990	450
S-R13-4	482684.397	167726.660	61.440	2.450	1350		1	1.003	58.990
						0	1.005	58.485	450
S-R13-14	482690.838	167770.988	61.504	3.019	1350		1	1.006	58.485
						0	10.004	58.196	500
S-R13-42	482537.886	167788.284	59.028	0.832			0	10.005	58.196
						0	9.000	58.313	300
S-R13-30A	482544.571	167638.385	59.563	1.250	1200				

Node S-R13-HW2 Online Orifice Control

Flap Valve	x	Invert Level (m)	56.650	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.450		

Node S-R13-HW1 Online Orifice Control

Flap Valve	x	Invert Level (m)	56.650	Discharge Coefficient	0.600
Replaces Downstream Link	x	Diameter (m)	0.750		

Node S-R13-64 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	56.451	Product Number	CTL-SHE-0155-1260-1443-1260
Design Depth (m)	1.443	Min Outlet Diameter (m)	0.225
Design Flow (l/s)	12.6	Min Node Diameter (mm)	1500

Node S-R13-HW3 Flow through Pond Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Main Channel Length (m)	29.194
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	56.500	Main Channel Slope (1:X)	195.0
Safety Factor	2.0	Time to half empty (mins)		Main Channel n	0.035

Inlets

S-R13-HW2			S-R13-HW1		
Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	1573.9	1573.9	1.700	3086.1	3991.6

Node S-R13-56 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	59.230	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	0	Depth (m)	0.710
Safety Factor	2.0	Width (m)	12.990	Inf Depth (m)	
Porosity	0.30	Length (m)	31.335		

Node S-R13-62 Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	56.800	Slope (1:X)	500.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)		Depth (m)	0.710
Safety Factor	2.0	Width (m)	4.525	Inf Depth (m)	
Porosity	0.30	Length (m)	73.905		

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.53%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S-R13-1	33	59.988	0.031	1.6	0.0345	0.0000	OK
60 minute summer	S-R13-2	33	59.751	0.063	10.8	0.0712	0.0000	OK
60 minute summer	S-R13-3	33	59.418	0.068	15.3	0.0764	0.0000	OK
60 minute summer	S-R13-26	33	58.894	0.027	3.6	0.0382	0.0000	OK
60 minute summer	S-R13-27	33	58.927	0.037	5.4	0.0413	0.0000	OK
60 minute summer	S-R13-28	33	58.218	0.063	13.0	0.1111	0.0000	OK
60 minute summer	S-R13-20	33	58.994	0.044	3.9	0.0499	0.0000	OK
60 minute summer	S-R13-21	33	58.916	0.036	4.5	0.0409	0.0000	OK
60 minute summer	S-R13-22	33	59.180	0.045	7.9	0.0513	0.0000	OK
60 minute summer	S-R13-23	33	58.546	0.086	12.6	0.0978	0.0000	OK
60 minute summer	S-R13-24	33	58.352	0.101	15.9	0.1449	0.0000	OK
60 minute summer	S-R13-25	33	58.207	0.060	18.9	0.0854	0.0000	OK
60 minute summer	S-R13-29	34	57.859	0.143	35.2	0.2529	0.0000	OK
60 minute summer	S-R13-30	35	57.794	0.157	43.4	0.2773	0.0000	OK
60 minute summer	S-R13-31	35	57.763	0.141	42.7	0.2491	0.0000	OK
60 minute summer	S-R13-32	35	57.543	0.140	48.4	0.3557	0.0000	OK
60 minute summer	S-R13-15	34	58.396	0.122	37.7	0.1379	0.0000	OK
60 minute summer	S-R13-16	34	58.239	0.115	42.8	0.1302	0.0000	OK
60 minute summer	S-R13-17	34	58.020	0.171	47.9	0.1935	0.0000	OK
60 minute summer	S-R13-18	33	59.358	0.035	4.9	0.0397	0.0000	OK
60 minute summer	S-R13-19	35	57.909	0.154	55.5	0.2200	0.0000	OK
60 minute summer	S-R13-33	35	57.503	0.203	110.9	0.5178	0.0000	OK
60 minute summer	S-R13-34	35	57.449	0.229	111.2	0.5822	0.0000	OK
60 minute summer	S-R13-35	36	57.383	0.213	110.8	0.5423	0.0000	OK
60 minute summer	S-R13-36	36	57.280	0.180	112.1	0.4589	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)
60 minute summer	S-R13-1	1.000	S-R13-2	1.6	0.489	0.039	0.1049	
60 minute summer	S-R13-2	1.001	S-R13-3	10.7	1.032	0.090	0.1706	
60 minute summer	S-R13-3	1.002	S-R13-4	15.3	1.119	0.047	0.4756	
60 minute summer	S-R13-26	7.000	S-R13-28	3.6	0.963	0.007	0.0880	
60 minute summer	S-R13-27	8.000	S-R13-28	5.4	1.324	0.054	0.0483	
60 minute summer	S-R13-28	7.001	S-R13-29	12.9	0.900	0.030	0.5296	
60 minute summer	S-R13-20	5.000	S-R13-21	3.9	0.817	0.075	0.0337	
60 minute summer	S-R13-21	5.001	S-R13-23	4.5	1.116	0.053	0.0531	
60 minute summer	S-R13-22	6.000	S-R13-23	7.9	1.414	0.085	0.1056	
60 minute summer	S-R13-23	5.002	S-R13-24	12.5	0.762	0.174	0.5244	
60 minute summer	S-R13-24	5.003	S-R13-25	15.8	0.721	0.148	0.2199	
60 minute summer	S-R13-25	5.004	S-R13-29	18.9	1.628	0.032	0.0701	
60 minute summer	S-R13-29	5.005	S-R13-30	35.2	0.598	0.099	3.2019	
60 minute summer	S-R13-30	5.006	S-R13-31	42.7	0.745	0.113	0.5332	
60 minute summer	S-R13-31	5.007	S-R13-32	42.0	0.851	0.093	3.0606	
60 minute summer	S-R13-32	5.008	S-R13-33	48.0	0.638	0.078	3.1628	
60 minute summer	S-R13-15	1.007	S-R13-16	37.7	1.134	0.149	0.8062	
60 minute summer	S-R13-16	1.008	S-R13-17	42.8	0.989	0.143	1.3965	
60 minute summer	S-R13-17	1.009	S-R13-19	47.6	0.941	0.271	0.3401	
60 minute summer	S-R13-18	4.000	S-R13-19	4.9	1.254	0.052	0.1512	
60 minute summer	S-R13-19	1.010	S-R13-33	55.2	1.075	0.183	3.0122	
60 minute summer	S-R13-33	1.011	S-R13-34	110.4	1.053	0.111	1.2917	
60 minute summer	S-R13-34	1.012	S-R13-35	110.8	1.026	0.175	2.0372	
60 minute summer	S-R13-35	1.013	S-R13-36	111.4	1.212	0.175	2.4210	
60 minute summer	S-R13-36	1.014	S-R13-46	112.1	1.582	0.102	0.6612	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.53%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S-R13-37	1	59.005	0.000	0.0	0.0000	0.0000	OK
60 minute summer	10.000:50%	33	58.926	0.003	0.4	0.0000	0.0000	OK
60 minute summer	S-R13-38	34	58.845	0.005	0.4	0.0000	0.0000	OK
60 minute summer	S-R13-39	35	58.681	0.003	0.4	0.0000	0.0000	OK
60 minute summer	10.002:50%	34	58.605	0.007	1.2	0.0000	0.0000	OK
60 minute summer	S-R13-40	34	58.546	0.027	1.2	0.0000	0.0000	OK
60 minute summer	10.003:50%	35	58.440	0.032	1.3	0.0000	0.0000	OK
60 minute summer	S-R13-41	35	58.306	0.009	1.3	0.0000	0.0000	OK
60 minute summer	10.004:50%	35	58.256	0.010	1.6	0.0027	0.0000	OK
60 minute summer	S-R13-43	36	58.048	0.007	1.6	0.0000	0.0000	OK
60 minute summer	10.006:50%	34	57.939	0.008	2.1	0.0029	0.0000	OK
60 minute summer	S-R13-44	35	57.852	0.032	2.1	0.0362	0.0000	OK
60 minute summer	S-R13-45	36	57.712	0.045	2.1	0.0504	0.0000	OK
60 minute summer	S-R13-46	36	57.174	0.147	115.6	0.3750	0.0000	OK
60 minute summer	S-R13-HW1	36	56.872	0.223	115.6	0.0000	0.0000	OK
60 minute summer	S-R13-5	33	61.367	0.035	2.0	0.0391	0.0000	OK
60 minute summer	S-R13-6	33	61.281	0.036	2.3	0.0412	0.0000	OK
60 minute summer	S-R13-7	33	61.609	0.034	4.2	0.0382	0.0000	OK
60 minute summer	S-R13-8	33	61.254	0.063	6.5	0.0718	0.0000	OK
60 minute summer	S-R13-9	34	61.196	0.065	6.5	0.0733	0.0000	OK
60 minute summer	S-R13-10	33	61.058	0.038	8.8	0.0429	0.0000	OK
60 minute summer	S-R13-11	34	59.453	0.053	9.9	0.0599	0.0000	OK
60 minute summer	S-R13-12	33	58.835	0.110	32.1	0.1245	0.0000	OK
60 minute summer	S-R13-13	33	58.776	0.116	34.5	0.1316	0.0000	OK
60 minute summer	S-R13-47	33	60.766	0.066	7.8	0.0742	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)
60 minute summer	S-R13-37	10.000	10.000:50%	0.0	0.000	0.000	0.0040	
60 minute summer	S-R13-37	10.000	S-R13-38	0.4	0.197	0.000	0.0101	
60 minute summer	S-R13-38	10.001	S-R13-39	0.4	0.176	0.000	0.0791	
60 minute summer	S-R13-39	10.002	10.002:50%	0.3	0.142	0.000	0.0156	
60 minute summer	S-R13-39	10.002	S-R13-40	1.2	0.132	0.000	0.0598	
60 minute summer	S-R13-40	10.003	10.003:50%	1.2	0.399	0.031	0.0604	
60 minute summer	S-R13-40	10.003	S-R13-41	1.3	0.752	0.034	0.0384	
60 minute summer	S-R13-41	10.004	10.004:50%	1.3	0.265	0.000	0.0417	
60 minute summer	S-R13-41	10.004	S-R13-42	1.6	0.333	0.001	0.0406	
60 minute summer	S-R13-43	10.006	10.006:50%	1.6	0.397	0.000	0.0240	
60 minute summer	S-R13-43	10.006	S-R13-44	2.1	0.188	0.000	0.0708	
60 minute summer	S-R13-44	10.007	S-R13-45	2.1	0.596	0.100	0.0393	
60 minute summer	S-R13-45	10.008	S-R13-46	2.1	0.505	0.180	0.0381	
60 minute summer	S-R13-46	1.015	S-R13-HW1	115.6	1.372	0.086	2.7085	
60 minute summer	S-R13-HW1	Flow through Pond	S-R13-HW3	152.9	0.073	0.001	161.6248	
60 minute summer	S-R13-5	2.000	S-R13-6	2.0	0.501	0.050	0.0583	
60 minute summer	S-R13-6	2.001	S-R13-8	2.3	0.350	0.058	0.0611	
60 minute summer	S-R13-7	3.000	S-R13-8	4.2	0.675	0.049	0.0910	
60 minute summer	S-R13-8	2.002	S-R13-9	6.5	0.695	0.156	0.0870	
60 minute summer	S-R13-9	2.003	S-R13-10	6.4	0.947	0.162	0.1301	
60 minute summer	S-R13-10	2.004	S-R13-11	8.8	1.537	0.062	0.1279	
60 minute summer	S-R13-11	2.005	S-R13-12	9.8	1.418	0.114	0.1147	
60 minute summer	S-R13-12	1.004	S-R13-13	32.0	1.025	0.095	0.1857	
60 minute summer	S-R13-13	1.005	S-R13-14	34.4	1.124	0.138	0.8921	
60 minute summer	S-R13-47	11.000	S-R13-49	7.8	0.648	0.102	0.2502	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.53%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S-R13-48	33	61.116	0.030	3.1	0.0343	0.0000	OK
60 minute summer	S-R13-49	33	60.671	0.071	12.0	0.0806	0.0000	OK
60 minute summer	S-R13-50	34	60.342	0.100	15.9	0.1133	0.0000	OK
60 minute summer	S-R13-51	34	60.200	0.090	15.8	0.1013	0.0000	OK
60 minute summer	S-R13-52	34	60.119	0.069	18.0	0.0991	0.0000	OK
60 minute summer	S-R13-53	34	59.814	0.064	19.7	0.0916	0.0000	OK
60 minute summer	S-R13-54	34	59.560	0.060	22.9	0.0864	0.0000	OK
60 minute summer	S-R13-55	34	58.993	0.093	23.7	0.1327	0.0000	OK
120 minute summer	S-R13-56	68	59.280	0.050	5.5	2.4611	0.0000	OK
120 minute summer	S-R13-57	66	59.055	0.035	5.6	0.0397	0.0000	OK
60 minute summer	S-R13-58	34	58.885	0.085	29.3	0.1219	0.0000	OK
60 minute summer	S-R13-59	34	58.639	0.089	31.6	0.1270	0.0000	OK
60 minute summer	S-R13-60	35	58.084	0.093	33.7	0.1324	0.0000	OK
60 minute summer	S-R13-61	34	57.288	0.088	39.0	0.1264	0.0000	OK
60 minute summer	S-R13-62	36	56.925	0.125	45.2	5.5091	0.0000	OK
60 minute summer	S-R13-HW2	37	56.808	0.158	41.2	0.0000	0.0000	OK
480 minute summer	S-R13-HW3	344	56.770	0.270	44.0	0.0000	0.0000	SURCHARGED
480 minute summer	S-R13-64	344	56.765	0.314	11.9	0.5544	0.0000	SURCHARGED
480 minute summer	S-R13-HW4	344	56.477	0.076	11.9	0.0000	0.0000	OK
60 minute summer	S-R13-4	33	59.050	0.060	20.0	0.0860	0.0000	OK
60 minute summer	S-R13-14	34	58.593	0.107	36.8	0.1538	0.0000	OK
60 minute summer	S-R13-42	35	58.204	0.008	1.6	0.0000	0.0000	OK
60 minute summer	S-R13-30A	33	58.344	0.031	3.2	0.0351	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)
60 minute summer	S-R13-48	12.000_1	S-R13-49	3.1	0.986	0.038	0.0522	
60 minute summer	S-R13-49	11.001	S-R13-50	11.9	0.722	0.126	0.8165	
60 minute summer	S-R13-50	11.002	S-R13-51	15.8	0.800	0.218	0.2639	
60 minute summer	S-R13-51	11.003	S-R13-52	15.8	0.931	0.119	0.2320	
60 minute summer	S-R13-52	11.004	S-R13-53	18.0	1.367	0.069	0.2325	
60 minute summer	S-R13-53	11.005	S-R13-54	19.7	1.652	0.055	0.0928	
60 minute summer	S-R13-54	11.006	S-R13-55	22.9	1.425	0.057	0.2458	
60 minute summer	S-R13-55	11.007	S-R13-58	23.8	1.192	0.114	0.1845	
120 minute summer	S-R13-56	12.000	S-R13-57	4.1	0.644	0.100	0.0611	
120 minute summer	S-R13-57	13.001	S-R13-58	5.6	0.585	0.018	0.1047	
60 minute summer	S-R13-58	11.008	S-R13-59	29.3	1.517	0.101	0.2322	
60 minute summer	S-R13-59	11.009	S-R13-60	31.6	1.544	0.120	0.6590	
60 minute summer	S-R13-60	11.010	S-R13-61	33.5	1.619	0.129	0.8885	
60 minute summer	S-R13-61	11.011	S-R13-62	38.9	1.419	0.084	0.5629	
60 minute summer	S-R13-62	11.012	S-R13-HW2	41.2	0.965	0.160	1.0070	
60 minute summer	S-R13-HW2	Flow through Pond	S-R13-HW3	152.9	0.073	0.001	161.6248	
480 minute summer	S-R13-HW3	14.000	S-R13-64	11.9	0.381	0.278	0.2876	
480 minute summer	S-R13-64	14.001	S-R13-HW4	11.9	0.972	0.250	0.0729	362.0
60 minute summer	S-R13-4	1.003	S-R13-12	20.0	0.962	0.039	0.2267	
60 minute summer	S-R13-14	1.006	S-R13-15	37.0	1.164	0.117	0.7036	
60 minute summer	S-R13-42	10.005	S-R13-43	1.6	0.398	0.000	0.0548	
60 minute summer	S-R13-30A	9.000	S-R13-30	3.2	0.846	0.022	0.0653	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.53%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S-R13-1	33	59.996	0.039	2.6	0.0441	0.0000	OK
60 minute summer	S-R13-2	33	59.770	0.082	18.0	0.0932	0.0000	OK
60 minute summer	S-R13-3	33	59.437	0.087	25.7	0.0986	0.0000	OK
60 minute summer	S-R13-26	33	58.901	0.034	6.1	0.0489	0.0000	OK
60 minute summer	S-R13-27	33	58.937	0.047	9.0	0.0536	0.0000	OK
60 minute summer	S-R13-28	33	58.236	0.081	21.9	0.1438	0.0000	OK
60 minute summer	S-R13-20	33	59.007	0.057	6.5	0.0649	0.0000	OK
60 minute summer	S-R13-21	33	58.927	0.047	7.4	0.0526	0.0000	OK
60 minute summer	S-R13-22	33	59.194	0.059	13.3	0.0671	0.0000	OK
60 minute summer	S-R13-23	33	58.574	0.114	21.1	0.1295	0.0000	OK
60 minute summer	S-R13-24	33	58.384	0.133	26.7	0.1909	0.0000	OK
60 minute summer	S-R13-25	33	58.226	0.079	31.9	0.1134	0.0000	OK
60 minute summer	S-R13-29	34	57.906	0.190	59.4	0.3357	0.0000	OK
60 minute summer	S-R13-30	34	57.843	0.206	72.9	0.3647	0.0000	OK
60 minute summer	S-R13-31	35	57.806	0.184	72.3	0.3254	0.0000	OK
60 minute summer	S-R13-32	35	57.607	0.204	82.4	0.5193	0.0000	OK
60 minute summer	S-R13-15	34	58.436	0.162	63.3	0.1832	0.0000	OK
60 minute summer	S-R13-16	34	58.278	0.154	72.1	0.1742	0.0000	OK
60 minute summer	S-R13-17	34	58.078	0.229	80.7	0.2585	0.0000	OK
60 minute summer	S-R13-18	33	59.369	0.046	8.3	0.0515	0.0000	OK
60 minute summer	S-R13-19	34	57.960	0.205	93.9	0.2929	0.0000	OK
60 minute summer	S-R13-33	35	57.583	0.283	188.3	0.7202	0.0000	OK
60 minute summer	S-R13-34	35	57.528	0.308	189.6	0.7851	0.0000	OK
60 minute summer	S-R13-35	35	57.453	0.283	189.2	0.7206	0.0000	OK
60 minute summer	S-R13-36	36	57.342	0.242	189.8	0.6161	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)
60 minute summer	S-R13-1	1.000	S-R13-2	2.6	0.565	0.064	0.1494	
60 minute summer	S-R13-2	1.001	S-R13-3	17.9	1.188	0.151	0.2479	
60 minute summer	S-R13-3	1.002	S-R13-4	25.7	1.276	0.078	0.7007	
60 minute summer	S-R13-26	7.000	S-R13-28	6.1	1.131	0.011	0.1271	
60 minute summer	S-R13-27	8.000	S-R13-28	9.0	1.529	0.090	0.0697	
60 minute summer	S-R13-28	7.001	S-R13-29	21.8	1.050	0.051	0.7671	
60 minute summer	S-R13-20	5.000	S-R13-21	6.5	0.940	0.125	0.0488	
60 minute summer	S-R13-21	5.001	S-R13-23	7.4	1.285	0.088	0.0759	
60 minute summer	S-R13-22	6.000	S-R13-23	13.3	1.634	0.143	0.1537	
60 minute summer	S-R13-23	5.002	S-R13-24	21.0	0.876	0.293	0.7668	
60 minute summer	S-R13-24	5.003	S-R13-25	26.6	0.829	0.249	0.3223	
60 minute summer	S-R13-25	5.004	S-R13-29	31.9	1.862	0.053	0.1037	
60 minute summer	S-R13-29	5.005	S-R13-30	59.1	0.682	0.166	4.7424	
60 minute summer	S-R13-30	5.006	S-R13-31	72.3	0.856	0.192	0.7789	
60 minute summer	S-R13-31	5.007	S-R13-32	71.7	0.986	0.159	4.4880	
60 minute summer	S-R13-32	5.008	S-R13-33	82.2	0.670	0.134	5.1460	
60 minute summer	S-R13-15	1.007	S-R13-16	63.5	1.280	0.250	1.2016	
60 minute summer	S-R13-16	1.008	S-R13-17	72.2	1.126	0.241	2.0611	
60 minute summer	S-R13-17	1.009	S-R13-19	80.6	1.094	0.459	0.4951	
60 minute summer	S-R13-18	4.000	S-R13-19	8.3	1.462	0.088	0.2199	
60 minute summer	S-R13-19	1.010	S-R13-33	93.3	1.239	0.308	4.4177	
60 minute summer	S-R13-33	1.011	S-R13-34	188.3	1.168	0.189	1.9851	
60 minute summer	S-R13-34	1.012	S-R13-35	189.2	1.173	0.299	3.0425	
60 minute summer	S-R13-35	1.013	S-R13-36	188.4	1.377	0.297	3.6111	
60 minute summer	S-R13-36	1.014	S-R13-46	190.4	1.753	0.174	1.0120	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.53%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S-R13-37	1	59.005	0.000	0.0	0.0000	0.0000	OK
60 minute summer	10.000:50%	34	58.927	0.004	0.6	0.0000	0.0000	OK
60 minute summer	S-R13-38	34	58.846	0.006	0.6	0.0000	0.0000	OK
60 minute summer	S-R13-39	35	58.682	0.004	0.6	0.0000	0.0000	OK
60 minute summer	10.002:50%	33	58.607	0.009	2.0	0.0000	0.0000	OK
60 minute summer	S-R13-40	34	58.554	0.035	2.0	0.0000	0.0000	OK
60 minute summer	10.003:50%	34	58.448	0.040	2.2	0.0000	0.0000	OK
60 minute summer	S-R13-41	34	58.309	0.012	2.2	0.0000	0.0000	OK
60 minute summer	10.004:50%	34	58.260	0.013	2.7	0.0049	0.0000	OK
60 minute summer	S-R13-43	35	58.051	0.010	2.6	0.0000	0.0000	OK
60 minute summer	10.006:50%	34	57.942	0.011	3.6	0.0055	0.0000	OK
60 minute summer	S-R13-44	35	57.862	0.042	3.6	0.0476	0.0000	OK
60 minute summer	S-R13-45	35	57.727	0.060	3.6	0.0677	0.0000	OK
60 minute summer	S-R13-46	36	57.228	0.201	196.2	0.5117	0.0000	OK
60 minute summer	S-R13-HW1	36	56.968	0.318	196.8	0.0000	0.0000	OK
60 minute summer	S-R13-5	33	61.376	0.044	3.3	0.0503	0.0000	OK
60 minute summer	S-R13-6	33	61.292	0.047	3.8	0.0527	0.0000	OK
60 minute summer	S-R13-7	33	61.619	0.044	7.1	0.0493	0.0000	OK
60 minute summer	S-R13-8	33	61.276	0.085	10.9	0.0958	0.0000	OK
60 minute summer	S-R13-9	33	61.216	0.085	10.9	0.0957	0.0000	OK
60 minute summer	S-R13-10	33	61.069	0.049	14.9	0.0556	0.0000	OK
60 minute summer	S-R13-11	33	59.470	0.070	16.7	0.0790	0.0000	OK
60 minute summer	S-R13-12	33	58.875	0.150	54.0	0.1695	0.0000	OK
60 minute summer	S-R13-13	33	58.814	0.154	58.1	0.1741	0.0000	OK
60 minute summer	S-R13-47	33	60.787	0.087	13.2	0.0982	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)
60 minute summer	S-R13-37	10.000	10.000:50%	0.0	0.000	0.000	0.0052	
60 minute summer	S-R13-37	10.000	S-R13-38	0.6	0.235	0.000	0.0135	
60 minute summer	S-R13-38	10.001	S-R13-39	0.6	0.214	0.000	0.1071	
60 minute summer	S-R13-39	10.002	10.002:50%	0.6	0.175	0.000	0.0212	
60 minute summer	S-R13-39	10.002	S-R13-40	2.0	0.165	0.001	0.0794	
60 minute summer	S-R13-40	10.003	10.003:50%	2.0	0.467	0.052	0.0855	
60 minute summer	S-R13-40	10.003	S-R13-41	2.2	0.871	0.057	0.0551	
60 minute summer	S-R13-41	10.004	10.004:50%	2.2	0.322	0.001	0.0576	
60 minute summer	S-R13-41	10.004	S-R13-42	2.7	0.404	0.001	0.0561	
60 minute summer	S-R13-43	10.006	10.006:50%	2.7	0.480	0.001	0.0335	
60 minute summer	S-R13-43	10.006	S-R13-44	3.6	0.234	0.001	0.0981	
60 minute summer	S-R13-44	10.007	S-R13-45	3.6	0.689	0.172	0.0585	
60 minute summer	S-R13-45	10.008	S-R13-46	3.6	0.586	0.310	0.0567	
60 minute summer	S-R13-46	1.015	S-R13-HW1	196.8	1.458	0.146	4.3356	
60 minute summer	S-R13-HW1	Flow through Pond	S-R13-HW3	262.5	0.087	0.001	278.3955	
60 minute summer	S-R13-5	2.000	S-R13-6	3.3	0.576	0.082	0.0836	
60 minute summer	S-R13-6	2.001	S-R13-8	3.8	0.394	0.095	0.0897	
60 minute summer	S-R13-7	3.000	S-R13-8	7.1	0.771	0.083	0.1344	
60 minute summer	S-R13-8	2.002	S-R13-9	10.9	0.796	0.261	0.1276	
60 minute summer	S-R13-9	2.003	S-R13-10	10.8	1.098	0.271	0.1881	
60 minute summer	S-R13-10	2.004	S-R13-11	14.9	1.774	0.105	0.1875	
60 minute summer	S-R13-11	2.005	S-R13-12	16.6	1.634	0.192	0.1677	
60 minute summer	S-R13-12	1.004	S-R13-13	53.9	1.146	0.159	0.2798	
60 minute summer	S-R13-13	1.005	S-R13-14	57.9	1.271	0.231	1.3281	
60 minute summer	S-R13-47	11.000	S-R13-49	13.2	0.746	0.172	0.3679	

Results for 2 year Critical Storm Duration. Lowest mass balance: 99.53%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	S-R13-48	33	61.126	0.040	5.3	0.0448	0.0000	OK
60 minute summer	S-R13-49	33	60.693	0.093	20.3	0.1054	0.0000	OK
60 minute summer	S-R13-50	33	60.377	0.135	27.0	0.1524	0.0000	OK
60 minute summer	S-R13-51	34	60.227	0.117	26.7	0.1326	0.0000	OK
60 minute summer	S-R13-52	34	60.141	0.091	30.5	0.1300	0.0000	OK
60 minute summer	S-R13-53	34	59.835	0.085	33.5	0.1221	0.0000	OK
60 minute summer	S-R13-54	34	59.578	0.078	38.8	0.1117	0.0000	OK
60 minute summer	S-R13-55	34	59.024	0.124	40.3	0.1779	0.0000	OK
60 minute summer	S-R13-56	37	59.294	0.063	10.8	3.9820	0.0000	OK
60 minute summer	S-R13-57	34	59.064	0.044	9.3	0.0503	0.0000	OK
60 minute summer	S-R13-58	34	58.914	0.114	49.6	0.1632	0.0000	OK
60 minute summer	S-R13-59	34	58.667	0.117	53.5	0.1677	0.0000	OK
60 minute summer	S-R13-60	34	58.113	0.122	57.0	0.1752	0.0000	OK
60 minute summer	S-R13-61	34	57.318	0.118	66.2	0.1689	0.0000	OK
60 minute summer	S-R13-62	36	56.968	0.168	76.8	9.6549	0.0000	OK
60 minute summer	S-R13-HW2	36	56.874	0.224	69.7	0.0000	0.0000	OK
480 minute summer	S-R13-HW3	376	56.853	0.353	50.8	0.0000	0.0000	SURCHARGED
480 minute summer	S-R13-64	376	56.848	0.397	12.4	0.7013	0.0000	SURCHARGED
480 minute summer	S-R13-HW4	376	56.479	0.078	12.4	0.0000	0.0000	OK
60 minute summer	S-R13-4	33	59.070	0.080	33.5	0.1140	0.0000	OK
60 minute summer	S-R13-14	34	58.628	0.143	62.1	0.2053	0.0000	OK
60 minute summer	S-R13-42	34	58.207	0.011	2.7	0.0000	0.0000	OK
60 minute summer	S-R13-30A	33	58.353	0.040	5.4	0.0453	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)
60 minute summer	S-R13-48	12.000_1	S-R13-49	5.3	1.151	0.065	0.0765	
60 minute summer	S-R13-49	11.001	S-R13-50	20.2	0.824	0.213	1.2106	
60 minute summer	S-R13-50	11.002	S-R13-51	26.7	0.916	0.370	0.3900	
60 minute summer	S-R13-51	11.003	S-R13-52	26.8	1.077	0.202	0.3397	
60 minute summer	S-R13-52	11.004	S-R13-53	30.6	1.554	0.117	0.3466	
60 minute summer	S-R13-53	11.005	S-R13-54	33.5	1.897	0.093	0.1374	
60 minute summer	S-R13-54	11.006	S-R13-55	38.9	1.624	0.097	0.3654	
60 minute summer	S-R13-55	11.007	S-R13-58	40.3	1.341	0.194	0.2780	
60 minute summer	S-R13-56	12.000	S-R13-57	6.5	0.731	0.158	0.0856	
60 minute summer	S-R13-57	13.001	S-R13-58	9.3	0.688	0.030	0.1678	
60 minute summer	S-R13-58	11.008	S-R13-59	49.6	1.720	0.171	0.3464	
60 minute summer	S-R13-59	11.009	S-R13-60	53.4	1.765	0.202	0.9745	
60 minute summer	S-R13-60	11.010	S-R13-61	56.6	1.868	0.219	1.3030	
60 minute summer	S-R13-61	11.011	S-R13-62	66.2	1.610	0.144	0.8447	
60 minute summer	S-R13-62	11.012	S-R13-HW2	69.7	1.051	0.271	1.5626	
60 minute summer	S-R13-HW2	Flow through Pond	S-R13-HW3	262.5	0.087	0.001	278.3955	
480 minute summer	S-R13-HW3	14.000	S-R13-64	12.4	0.346	0.291	0.2876	
480 minute summer	S-R13-64	14.001	S-R13-HW4	12.4	0.984	0.261	0.0753	404.5
60 minute summer	S-R13-4	1.003	S-R13-12	33.5	1.054	0.066	0.3467	
60 minute summer	S-R13-14	1.006	S-R13-15	62.2	1.313	0.197	1.0478	
60 minute summer	S-R13-42	10.005	S-R13-43	2.6	0.483	0.001	0.0756	
60 minute summer	S-R13-30A	9.000	S-R13-30	5.4	0.988	0.037	0.0944	

Results for 30 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
60 minute summer	S-R13-1	33	60.024	0.067	7.8	0.0762	0.0000	OK
60 minute summer	S-R13-2	33	59.841	0.153	53.2	0.1732	0.0000	OK
60 minute summer	S-R13-3	33	59.503	0.153	76.1	0.1726	0.0000	OK
60 minute summer	S-R13-26	33	58.923	0.056	17.9	0.0807	0.0000	OK
60 minute summer	S-R13-27	33	58.975	0.085	26.6	0.0965	0.0000	OK
60 minute summer	S-R13-28	32	58.294	0.139	64.4	0.2456	0.0000	OK
60 minute summer	S-R13-20	33	59.053	0.103	19.1	0.1167	0.0000	OK
60 minute summer	S-R13-21	33	58.958	0.078	21.8	0.0878	0.0000	OK
60 minute summer	S-R13-22	32	59.238	0.103	39.4	0.1160	0.0000	OK
60 minute summer	S-R13-23	33	58.687	0.227	62.4	0.2569	0.0000	OK
60 minute summer	S-R13-24	33	58.496	0.245	78.9	0.3512	0.0000	OK
60 minute summer	S-R13-25	33	58.293	0.146	94.3	0.2096	0.0000	OK
60 minute summer	S-R13-29	34	58.082	0.366	176.4	0.6462	0.0000	OK
60 minute summer	S-R13-30	34	58.027	0.390	214.8	0.6889	0.0000	OK
60 minute summer	S-R13-31	35	57.982	0.360	210.5	0.6369	0.0000	OK
60 minute summer	S-R13-32	35	57.927	0.524	241.7	1.3343	0.0000	OK
60 minute summer	S-R13-15	34	58.606	0.332	187.1	0.3756	0.0000	OK
60 minute summer	S-R13-16	34	58.452	0.328	213.1	0.3711	0.0000	OK
60 minute summer	S-R13-17	34	58.300	0.451	238.5	0.5099	0.0000	SURCHARGED
60 minute summer	S-R13-18	32	59.402	0.079	24.5	0.0898	0.0000	OK
60 minute summer	S-R13-19	34	58.172	0.417	277.6	0.5965	0.0000	OK
60 minute summer	S-R13-33	35	57.905	0.605	549.8	1.5395	0.0000	OK
60 minute summer	S-R13-34	35	57.834	0.614	550.1	1.5615	0.0000	OK
60 minute summer	S-R13-35	35	57.723	0.553	550.0	1.4063	0.0000	OK
60 minute summer	S-R13-36	35	57.562	0.462	553.9	1.1755	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)
60 minute summer	S-R13-1	1.000	S-R13-2	7.8	0.735	0.196	0.3655	
60 minute summer	S-R13-2	1.001	S-R13-3	53.2	1.564	0.447	0.5582	
60 minute summer	S-R13-3	1.002	S-R13-4	76.1	1.611	0.231	1.6407	
60 minute summer	S-R13-26	7.000	S-R13-28	17.8	1.492	0.033	0.2948	
60 minute summer	S-R13-27	8.000	S-R13-28	26.6	2.034	0.266	0.1548	
60 minute summer	S-R13-28	7.001	S-R13-29	65.3	1.221	0.152	2.3320	
60 minute summer	S-R13-20	5.000	S-R13-21	19.1	1.282	0.369	0.1052	
60 minute summer	S-R13-21	5.001	S-R13-23	21.8	1.340	0.258	0.2683	
60 minute summer	S-R13-22	6.000	S-R13-23	39.4	1.878	0.424	0.4354	
60 minute summer	S-R13-23	5.002	S-R13-24	62.2	1.177	0.868	1.6845	
60 minute summer	S-R13-24	5.003	S-R13-25	78.8	1.140	0.736	0.6917	
60 minute summer	S-R13-25	5.004	S-R13-29	94.3	2.334	0.158	0.2607	
60 minute summer	S-R13-29	5.005	S-R13-30	172.1	0.856	0.485	11.1641	
60 minute summer	S-R13-30	5.006	S-R13-31	210.5	1.084	0.558	1.8569	
60 minute summer	S-R13-31	5.007	S-R13-32	206.5	1.086	0.458	13.7605	
60 minute summer	S-R13-32	5.008	S-R13-33	236.8	0.725	0.386	14.6739	
60 minute summer	S-R13-15	1.007	S-R13-16	187.7	1.518	0.739	3.0177	
60 minute summer	S-R13-16	1.008	S-R13-17	213.4	1.464	0.713	4.5178	
60 minute summer	S-R13-17	1.009	S-R13-19	238.6	1.611	1.360	0.9694	
60 minute summer	S-R13-18	4.000	S-R13-19	24.5	1.937	0.260	0.6319	
60 minute summer	S-R13-19	1.010	S-R13-33	277.3	1.601	0.916	10.2068	
60 minute summer	S-R13-33	1.011	S-R13-34	546.3	1.429	0.549	4.7148	
60 minute summer	S-R13-34	1.012	S-R13-35	550.0	1.498	0.868	6.9142	
60 minute summer	S-R13-35	1.013	S-R13-36	549.8	1.735	0.866	8.3167	
60 minute summer	S-R13-36	1.014	S-R13-46	553.7	2.154	0.506	2.3959	

Results for 30 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
60 minute summer	S-R13-37	1	59.005	0.000	0.0	0.0000	0.0000	OK
60 minute summer	10.000:50%	33	58.930	0.007	1.7	0.0000	0.0000	OK
60 minute summer	S-R13-38	34	58.852	0.012	1.7	0.0000	0.0000	OK
60 minute summer	S-R13-39	34	58.686	0.008	1.7	0.0000	0.0000	OK
60 minute summer	10.002:50%	33	58.616	0.017	6.2	0.0000	0.0000	OK
60 minute summer	S-R13-40	33	58.579	0.060	6.1	0.0000	0.0000	OK
60 minute summer	10.003:50%	33	58.474	0.066	6.6	0.0000	0.0000	OK
60 minute summer	S-R13-41	34	58.320	0.023	6.6	0.0000	0.0000	OK
60 minute summer	10.004:50%	34	58.272	0.025	8.0	0.0173	0.0000	OK
60 minute summer	S-R13-43	34	58.059	0.018	8.0	0.0000	0.0000	OK
60 minute summer	10.006:50%	34	57.952	0.022	11.0	0.0205	0.0000	OK
60 minute summer	S-R13-44	34	57.902	0.082	11.0	0.0924	0.0000	OK
60 minute summer	S-R13-45	35	57.787	0.120	11.1	0.1361	0.0000	OK
60 minute summer	S-R13-46	35	57.416	0.389	572.6	0.9902	0.0000	OK
60 minute summer	S-R13-HW1	36	57.316	0.666	572.7	0.0000	0.0000	OK
60 minute summer	S-R13-5	33	61.407	0.075	9.7	0.0846	0.0000	OK
60 minute summer	S-R13-6	33	61.366	0.121	11.3	0.1368	0.0000	OK
60 minute summer	S-R13-7	33	61.650	0.075	21.0	0.0852	0.0000	OK
60 minute summer	S-R13-8	33	61.361	0.170	32.2	0.1920	0.0000	OK
60 minute summer	S-R13-9	33	61.288	0.157	32.1	0.1773	0.0000	OK
60 minute summer	S-R13-10	33	61.106	0.086	43.9	0.0969	0.0000	OK
60 minute summer	S-R13-11	33	59.533	0.133	49.3	0.1503	0.0000	OK
60 minute summer	S-R13-12	33	59.034	0.309	160.2	0.3499	0.0000	OK
60 minute summer	S-R13-13	33	58.963	0.303	172.5	0.3429	0.0000	OK
60 minute summer	S-R13-47	33	60.863	0.163	38.9	0.1848	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)
60 minute summer	S-R13-37	10.000	10.000:50%	0.0	0.000	0.000	0.0098	
60 minute summer	S-R13-37	10.000	S-R13-38	1.7	0.343	0.000	0.0256	
60 minute summer	S-R13-38	10.001	S-R13-39	1.7	0.322	0.001	0.2060	
60 minute summer	S-R13-39	10.002	10.002:50%	1.7	0.257	0.000	0.0427	
60 minute summer	S-R13-39	10.002	S-R13-40	6.1	0.258	0.002	0.1564	
60 minute summer	S-R13-40	10.003	10.003:50%	6.1	0.672	0.158	0.1808	
60 minute summer	S-R13-40	10.003	S-R13-41	6.6	1.192	0.170	0.1171	
60 minute summer	S-R13-41	10.004	10.004:50%	6.6	0.481	0.002	0.1161	
60 minute summer	S-R13-41	10.004	S-R13-42	8.0	0.602	0.003	0.1130	
60 minute summer	S-R13-43	10.006	10.006:50%	8.0	0.713	0.002	0.0683	
60 minute summer	S-R13-43	10.006	S-R13-44	11.0	0.325	0.002	0.2218	
60 minute summer	S-R13-44	10.007	S-R13-45	11.1	0.877	0.528	0.1377	
60 minute summer	S-R13-45	10.008	S-R13-46	11.0	0.803	0.945	0.1255	
60 minute summer	S-R13-46	1.015	S-R13-HW1	572.7	1.738	0.425	10.2127	
60 minute summer	S-R13-HW1	Flow through Pond	S-R13-HW3	410.1	0.123	0.002	847.7718	
60 minute summer	S-R13-5	2.000	S-R13-6	9.7	0.646	0.242	0.2425	
60 minute summer	S-R13-6	2.001	S-R13-8	11.2	0.440	0.281	0.2468	
60 minute summer	S-R13-7	3.000	S-R13-8	21.0	0.977	0.244	0.3093	
60 minute summer	S-R13-8	2.002	S-R13-9	32.1	1.039	0.772	0.2884	
60 minute summer	S-R13-9	2.003	S-R13-10	31.9	1.471	0.802	0.4077	
60 minute summer	S-R13-10	2.004	S-R13-11	43.9	2.295	0.311	0.4253	
60 minute summer	S-R13-11	2.005	S-R13-12	49.0	2.128	0.570	0.3813	
60 minute summer	S-R13-12	1.004	S-R13-13	160.0	1.392	0.473	0.6839	
60 minute summer	S-R13-13	1.005	S-R13-14	172.1	1.548	0.688	3.2350	
60 minute summer	S-R13-47	11.000	S-R13-49	38.9	0.967	0.506	0.8350	

Results for 30 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
60 minute summer	S-R13-48	33	61.152	0.066	15.6	0.0748	0.0000	OK
60 minute summer	S-R13-49	33	60.770	0.170	59.8	0.1928	0.0000	OK
60 minute summer	S-R13-50	33	60.523	0.281	79.8	0.3174	0.0000	OK
60 minute summer	S-R13-51	33	60.323	0.213	79.1	0.2409	0.0000	OK
60 minute summer	S-R13-52	33	60.217	0.167	90.4	0.2383	0.0000	OK
60 minute summer	S-R13-53	33	59.910	0.160	99.2	0.2296	0.0000	OK
60 minute summer	S-R13-54	33	59.644	0.144	115.5	0.2059	0.0000	OK
60 minute summer	S-R13-55	34	59.146	0.246	119.5	0.3524	0.0000	OK
60 minute summer	S-R13-56	37	59.353	0.123	32.0	11.3059	0.0000	OK
60 minute summer	S-R13-57	35	59.097	0.077	29.2	0.0874	0.0000	OK
60 minute summer	S-R13-58	34	59.027	0.227	148.2	0.3245	0.0000	OK
60 minute summer	S-R13-59	34	58.776	0.226	160.0	0.3229	0.0000	OK
60 minute summer	S-R13-60	34	58.228	0.237	170.8	0.3388	0.0000	OK
60 minute summer	S-R13-61	34	57.440	0.240	199.1	0.3439	0.0000	OK
480 minute winter	S-R13-62	480	57.217	0.417	38.1	35.0583	0.0000	OK
480 minute winter	S-R13-HW2	480	57.232	0.582	36.1	0.0000	0.0000	OK
360 minute winter	S-R13-HW3	360	57.208	0.708	89.7	0.0000	0.0000	SURCHARGED
360 minute winter	S-R13-64	360	57.203	0.752	12.7	1.3282	0.0000	SURCHARGED
60 minute summer	S-R13-HW4	299	56.479	0.078	12.6	0.0000	0.0000	OK
60 minute summer	S-R13-4	33	59.142	0.152	99.3	0.2180	0.0000	OK
60 minute summer	S-R13-14	33	58.777	0.292	184.5	0.4174	0.0000	OK
60 minute summer	S-R13-42	34	58.217	0.021	8.0	0.0000	0.0000	OK
60 minute summer	S-R13-30A	33	58.382	0.069	16.0	0.0784	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)
60 minute summer	S-R13-48	12.000_1	S-R13-49	15.6	1.368	0.190	0.2138	
60 minute summer	S-R13-49	11.001	S-R13-50	59.7	1.057	0.630	2.6976	
60 minute summer	S-R13-50	11.002	S-R13-51	79.1	1.261	1.095	0.8275	
60 minute summer	S-R13-51	11.003	S-R13-52	78.9	1.418	0.596	0.7610	
60 minute summer	S-R13-52	11.004	S-R13-53	90.2	1.962	0.345	0.8122	
60 minute summer	S-R13-53	11.005	S-R13-54	98.9	2.370	0.275	0.3258	
60 minute summer	S-R13-54	11.006	S-R13-55	115.3	1.994	0.288	0.8708	
60 minute summer	S-R13-55	11.007	S-R13-58	119.3	1.636	0.573	0.6764	
60 minute summer	S-R13-56	12.000	S-R13-57	20.7	0.987	0.508	0.2034	
60 minute summer	S-R13-57	13.001	S-R13-58	29.2	0.911	0.095	0.4051	
60 minute summer	S-R13-58	11.008	S-R13-59	148.4	2.136	0.513	0.8348	
60 minute summer	S-R13-59	11.009	S-R13-60	160.2	2.248	0.607	2.2942	
60 minute summer	S-R13-60	11.010	S-R13-61	170.7	2.439	0.659	3.0033	
60 minute summer	S-R13-61	11.011	S-R13-62	198.8	1.923	0.431	2.2438	
480 minute winter	S-R13-62	11.012	S-R13-HW2	36.1	0.797	0.140	3.6685	
480 minute winter	S-R13-HW2	Flow through Pond	S-R13-HW3	70.9	0.059	0.000	1176.1976	
360 minute winter	S-R13-HW3	14.000	S-R13-64	12.7	0.365	0.298	0.2876	
360 minute winter	S-R13-64	14.001	S-R13-HW4	12.6	0.988	0.265	0.0761	379.2
60 minute summer	S-R13-4	1.003	S-R13-12	99.5	1.216	0.195	0.8713	
60 minute summer	S-R13-14	1.006	S-R13-15	183.6	1.574	0.581	2.5844	
60 minute summer	S-R13-42	10.005	S-R13-43	8.0	0.723	0.002	0.1532	
60 minute summer	S-R13-30A	9.000	S-R13-30	16.0	1.342	0.109	0.2057	

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
60 minute summer	S-R13-1	35	60.896	0.939	14.1	1.0615	0.0000	SURCHARGED
60 minute summer	S-R13-2	35	60.872	1.184	96.4	1.3393	0.0000	SURCHARGED
60 minute summer	S-R13-3	35	60.749	1.399	127.8	1.5821	0.0000	FLOOD RISK
60 minute summer	S-R13-26	33	58.941	0.074	32.5	0.1065	0.0000	OK
60 minute summer	S-R13-27	35	59.017	0.127	48.4	0.1437	0.0000	OK
60 minute summer	S-R13-28	35	58.897	0.742	118.3	1.3109	0.0000	SURCHARGED
60 minute summer	S-R13-20	35	59.382	0.432	34.8	0.4886	0.0000	SURCHARGED
60 minute summer	S-R13-21	35	59.345	0.465	39.1	0.5258	0.0000	SURCHARGED
60 minute summer	S-R13-22	35	59.605	0.470	71.6	0.5320	0.0000	SURCHARGED
60 minute summer	S-R13-23	35	59.270	0.810	111.2	0.9163	0.0000	SURCHARGED
60 minute summer	S-R13-24	35	58.975	0.724	140.8	1.0353	0.0000	SURCHARGED
60 minute summer	S-R13-25	35	58.907	0.760	169.3	1.0869	0.0000	SURCHARGED
60 minute summer	S-R13-29	35	58.873	1.157	311.0	2.0448	0.0000	SURCHARGED
60 minute summer	S-R13-30	35	58.812	1.175	336.9	2.0757	0.0000	SURCHARGED
60 minute summer	S-R13-31	35	58.778	1.156	334.2	2.0424	0.0000	SURCHARGED
60 minute summer	S-R13-32	35	58.678	1.275	390.7	3.2441	0.0000	SURCHARGED
60 minute summer	S-R13-15	35	60.066	1.792	279.5	2.0271	0.0000	SURCHARGED
60 minute summer	S-R13-16	35	59.803	1.679	320.1	1.8989	0.0000	SURCHARGED
60 minute summer	S-R13-17	35	59.380	1.531	360.5	1.7316	0.0000	SURCHARGED
60 minute summer	S-R13-18	35	59.447	0.124	44.5	0.1401	0.0000	OK
60 minute summer	S-R13-19	35	59.164	1.409	425.2	2.0158	0.0000	SURCHARGED
60 minute summer	S-R13-33	35	58.618	1.318	881.5	3.3532	0.0000	SURCHARGED
60 minute summer	S-R13-34	35	58.455	1.235	888.0	3.1425	0.0000	SURCHARGED
60 minute summer	S-R13-35	35	58.257	1.087	887.5	2.7661	0.0000	SURCHARGED
60 minute summer	S-R13-36	35	58.022	0.922	894.3	2.3455	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S-R13-1	1.000	S-R13-2	14.5	0.739	0.365	1.3095	
60 minute summer	S-R13-2	1.001	S-R13-3	88.4	1.733	0.743	1.1549	
60 minute summer	S-R13-3	1.002	S-R13-4	127.1	1.733	0.386	5.5005	
60 minute summer	S-R13-26	7.000	S-R13-28	32.5	1.450	0.061	2.0622	
60 minute summer	S-R13-27	8.000	S-R13-28	49.5	2.332	0.495	0.3721	
60 minute summer	S-R13-28	7.001	S-R13-29	115.6	1.223	0.270	7.9712	
60 minute summer	S-R13-20	5.000	S-R13-21	34.1	1.424	0.657	0.2800	
60 minute summer	S-R13-21	5.001	S-R13-23	37.4	1.335	0.444	0.5244	
60 minute summer	S-R13-22	6.000	S-R13-23	71.4	1.866	0.768	0.7513	
60 minute summer	S-R13-23	5.002	S-R13-24	110.4	1.568	1.540	2.2478	
60 minute summer	S-R13-24	5.003	S-R13-25	141.1	1.382	1.318	1.1045	
60 minute summer	S-R13-25	5.004	S-R13-29	164.9	2.321	0.276	0.9584	
60 minute summer	S-R13-29	5.005	S-R13-30	269.5	0.906	0.760	19.4021	
60 minute summer	S-R13-30	5.006	S-R13-31	334.2	1.130	0.886	3.2614	
60 minute summer	S-R13-31	5.007	S-R13-32	333.2	1.077	0.739	22.0234	
60 minute summer	S-R13-32	5.008	S-R13-33	390.0	0.886	0.635	18.2104	
60 minute summer	S-R13-15	1.007	S-R13-16	281.6	1.777	1.108	3.8361	
60 minute summer	S-R13-16	1.008	S-R13-17	319.5	2.017	1.067	5.0730	
60 minute summer	S-R13-17	1.009	S-R13-19	360.0	2.272	2.052	1.0651	
60 minute summer	S-R13-18	4.000	S-R13-19	44.2	2.011	0.468	1.2049	
60 minute summer	S-R13-19	1.010	S-R13-33	422.9	1.958	1.397	12.6634	
60 minute summer	S-R13-33	1.011	S-R13-34	881.1	2.002	0.885	5.4170	
60 minute summer	S-R13-34	1.012	S-R13-35	887.5	2.017	1.400	8.2989	
60 minute summer	S-R13-35	1.013	S-R13-36	886.9	2.015	1.397	11.5783	
60 minute summer	S-R13-36	1.014	S-R13-46	893.5	2.156	0.816	4.0940	

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
60 minute summer	S-R13-37	1	59.005	0.000	0.0	0.0000	0.0000	OK
60 minute summer	10.000:50%	33	58.933	0.011	3.2	0.0000	0.0000	OK
60 minute summer	S-R13-38	33	58.857	0.017	3.2	0.0000	0.0000	OK
60 minute summer	S-R13-39	34	58.690	0.012	3.2	0.0000	0.0000	OK
60 minute summer	10.002:50%	33	58.623	0.025	11.2	0.0000	0.0000	OK
60 minute summer	S-R13-40	33	58.601	0.082	11.2	0.0000	0.0000	OK
60 minute summer	10.003:50%	33	58.496	0.088	12.0	0.0000	0.0000	OK
60 minute summer	S-R13-41	34	58.329	0.032	12.0	0.0000	0.0000	OK
60 minute summer	10.004:50%	34	58.282	0.036	14.6	0.0345	0.0000	OK
60 minute summer	S-R13-43	34	58.067	0.026	14.7	0.0000	0.0000	OK
60 minute summer	10.006:50%	36	58.031	0.101	20.1	0.4323	0.0000	OK
60 minute summer	S-R13-44	38	58.069	0.249	95.6	0.2816	0.0000	FLOOD RISK
60 minute summer	S-R13-45	35	57.934	0.267	19.2	0.3024	0.0000	SURCHARGED
60 minute summer	S-R13-46	35	57.869	0.842	921.3	2.1426	0.0000	SURCHARGED
600 minute summer	S-R13-HW1	630	57.685	1.035	195.2	0.0000	0.0000	OK
60 minute summer	S-R13-5	36	61.749	0.417	17.6	0.4712	0.0000	SURCHARGED
60 minute summer	S-R13-6	36	61.736	0.491	19.6	0.5555	0.0000	SURCHARGED
60 minute summer	S-R13-7	36	61.774	0.199	38.2	0.2246	0.0000	OK
60 minute summer	S-R13-8	36	61.723	0.532	56.2	0.6018	0.0000	SURCHARGED
60 minute summer	S-R13-9	36	61.614	0.483	55.0	0.5460	0.0000	SURCHARGED
60 minute summer	S-R13-10	35	61.428	0.408	75.9	0.4610	0.0000	SURCHARGED
60 minute summer	S-R13-11	35	61.033	1.633	81.7	1.8471	0.0000	SURCHARGED
60 minute summer	S-R13-12	35	60.646	1.921	242.6	2.1722	0.0000	SURCHARGED
60 minute summer	S-R13-13	35	60.556	1.896	259.9	2.1444	0.0000	SURCHARGED
60 minute summer	S-R13-47	33	61.422	0.722	70.8	0.8168	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S-R13-37	10.000	10.000:50%	0.0	0.000	0.000	0.0145	
60 minute summer	S-R13-37	10.000	S-R13-38	3.2	0.426	0.001	0.0380	
60 minute summer	S-R13-38	10.001	S-R13-39	3.2	0.407	0.001	0.3044	
60 minute summer	S-R13-39	10.002	10.002:50%	3.2	0.318	0.001	0.0631	
60 minute summer	S-R13-39	10.002	S-R13-40	11.2	0.318	0.003	0.2344	
60 minute summer	S-R13-40	10.003	10.003:50%	11.1	0.810	0.288	0.2734	
60 minute summer	S-R13-40	10.003	S-R13-41	12.0	1.415	0.310	0.1775	
60 minute summer	S-R13-41	10.004	10.004:50%	12.0	0.590	0.004	0.1728	
60 minute summer	S-R13-41	10.004	S-R13-42	14.7	0.742	0.005	0.1677	
60 minute summer	S-R13-43	10.006	10.006:50%	14.7	0.844	0.003	0.2875	
60 minute summer	S-R13-43	10.006	S-R13-44	95.6	0.639	0.020	1.0694	
60 minute summer	S-R13-44	10.007	S-R13-45	19.2	1.088	0.915	0.1945	
60 minute summer	S-R13-45	10.008	S-R13-46	17.7	1.019	1.522	0.1625	
60 minute summer	S-R13-46	1.015	S-R13-HW1	920.6	2.092	0.684	14.0029	
600 minute summer	S-R13-HW1	Flow through Pond	S-R13-HW3	138.4	0.068	0.001	2208.9136	
60 minute summer	S-R13-5	2.000	S-R13-6	16.7	0.646	0.418	0.5801	
60 minute summer	S-R13-6	2.001	S-R13-8	19.3	0.497	0.484	0.3644	
60 minute summer	S-R13-7	3.000	S-R13-8	37.4	1.091	0.435	0.5431	
60 minute summer	S-R13-8	2.002	S-R13-9	55.0	1.383	1.324	0.3720	
60 minute summer	S-R13-9	2.003	S-R13-10	54.1	1.570	1.358	0.7474	
60 minute summer	S-R13-10	2.004	S-R13-11	72.0	2.444	0.510	0.8840	
60 minute summer	S-R13-11	2.005	S-R13-12	84.1	2.161	0.977	0.6578	
60 minute summer	S-R13-12	1.004	S-R13-13	238.3	1.504	0.705	0.9431	
60 minute summer	S-R13-13	1.005	S-R13-14	255.8	1.615	1.022	4.6115	
60 minute summer	S-R13-47	11.000	S-R13-49	69.5	1.028	0.904	1.4602	

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
60 minute summer	S-R13-48	34	61.374	0.288	28.4	0.3258	0.0000	SURCHARGED
60 minute summer	S-R13-49	34	61.312	0.712	106.2	0.8051	0.0000	SURCHARGED
60 minute summer	S-R13-50	33	60.791	0.549	141.4	0.6211	0.0000	SURCHARGED
60 minute summer	S-R13-51	34	60.429	0.319	141.2	0.3609	0.0000	OK
60 minute summer	S-R13-52	34	60.298	0.248	161.3	0.3545	0.0000	OK
60 minute summer	S-R13-53	34	60.018	0.268	177.3	0.3832	0.0000	OK
60 minute summer	S-R13-54	34	59.867	0.367	206.5	0.5248	0.0000	OK
60 minute summer	S-R13-55	36	59.644	0.744	211.7	1.0649	0.0000	SURCHARGED
60 minute summer	S-R13-56	37	59.502	0.272	65.6	29.6806	0.0000	SURCHARGED
60 minute summer	S-R13-57	36	59.483	0.463	58.8	0.5232	0.0000	SURCHARGED
60 minute summer	S-R13-58	36	59.480	0.680	240.1	0.9730	0.0000	SURCHARGED
60 minute summer	S-R13-59	36	59.271	0.721	257.2	1.0314	0.0000	SURCHARGED
60 minute summer	S-R13-60	36	58.779	0.788	271.7	1.1274	0.0000	SURCHARGED
60 minute summer	S-R13-61	36	58.066	0.866	309.0	1.2391	0.0000	SURCHARGED
60 minute summer	S-R13-62	36	57.846	1.046	371.1	65.3620	0.0000	SURCHARGED
600 minute summer	S-R13-HW2	630	57.671	1.022	66.9	0.0000	0.0000	OK
600 minute winter	S-R13-HW3	600	57.654	1.154	95.9	0.0000	0.0000	SURCHARGED
600 minute winter	S-R13-64	600	57.650	1.199	12.7	2.1185	0.0000	SURCHARGED
480 minute winter	S-R13-HW4	208	56.479	0.078	12.6	0.0000	0.0000	OK
60 minute summer	S-R13-4	35	60.692	1.702	167.0	2.4351	0.0000	SURCHARGED
60 minute summer	S-R13-14	35	60.304	1.819	276.9	2.6037	0.0000	SURCHARGED
60 minute summer	S-R13-42	34	58.226	0.030	14.7	0.0000	0.0000	OK
60 minute summer	S-R13-30A	35	58.821	0.508	29.1	0.5748	0.0000	SURCHARGED

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	S-R13-48	12.000_1	S-R13-49	28.5	1.373	0.347	0.6607	
60 minute summer	S-R13-49	11.001	S-R13-50	106.1	1.507	1.121	3.4592	
60 minute summer	S-R13-50	11.002	S-R13-51	141.2	2.005	1.954	0.9261	
60 minute summer	S-R13-51	11.003	S-R13-52	141.5	1.589	1.069	1.2057	
60 minute summer	S-R13-52	11.004	S-R13-53	161.7	2.123	0.618	1.4215	
60 minute summer	S-R13-53	11.005	S-R13-54	177.8	2.491	0.494	0.7528	
60 minute summer	S-R13-54	11.006	S-R13-55	204.4	2.036	0.510	1.6589	
60 minute summer	S-R13-55	11.007	S-R13-58	210.8	1.911	1.012	1.0194	
60 minute summer	S-R13-56	12.000	S-R13-57	49.9	1.269	1.222	0.3853	
60 minute summer	S-R13-57	13.001	S-R13-58	64.5	1.184	0.211	1.0401	
60 minute summer	S-R13-58	11.008	S-R13-59	235.0	2.194	0.812	1.3254	
60 minute summer	S-R13-59	11.009	S-R13-60	251.4	2.347	0.952	3.5497	
60 minute summer	S-R13-60	11.010	S-R13-61	256.2	2.549	0.990	4.7345	
60 minute summer	S-R13-61	11.011	S-R13-62	311.2	1.996	0.675	3.1312	
60 minute summer	S-R13-62	11.012	S-R13-HW2	325.6	2.055	1.263	3.7280	
600 minute summer	S-R13-HW2	Flow through Pond	S-R13-HW3	138.4	0.068	0.001	2208.9136	
600 minute winter	S-R13-HW3	14.000	S-R13-64	12.7	0.320	0.298	0.2876	
600 minute winter	S-R13-64	14.001	S-R13-HW4	12.6	0.987	0.265	0.0761	506.7
60 minute summer	S-R13-4	1.003	S-R13-12	152.5	1.253	0.299	1.6900	
60 minute summer	S-R13-14	1.006	S-R13-15	274.4	1.732	0.869	3.5032	
60 minute summer	S-R13-42	10.005	S-R13-43	14.7	0.892	0.004	0.2270	
60 minute summer	S-R13-30A	9.000	S-R13-30	31.8	1.490	0.216	1.2149	

Water Quality (TSS)

Node	Treatment	Effectiveness	SuDS Component	Mitigation TSS	Cumulative TSS
S-R13-56	Carpark	1.0	Permeable Surface	0.700	0.000
S-R13-62	Carpark	1.0	Permeable Surface	0.700	0.000
S-R13-HW4					0.000

Water Quality (Metals)

Node	Treatment	Effectiveness	SuDS Component	Mitigation Metals	Cumulative Metals
S-R13-56	Carpark	1.0	Permeable Surface	0.600	0.000
S-R13-62	Carpark	1.0	Permeable Surface	0.600	0.000
S-R13-HW4					0.000

Water Quality (Hydrocarbons)

Node	Treatment	Effectiveness	SuDS Component	Mitigation Hydrocarbons	Cumulative Hydrocarbons
S-R13-56	Carpark	1.0	Permeable Surface	0.700	0.000
S-R13-62	Carpark	1.0	Permeable Surface	0.700	0.000
S-R13-HW4					0.000