

Design Settings

Rainfall Methodology FSR
Return Period (years) 5
Additional Flow (%) 0
FSR Region England and Wales
M5-60 (mm) 19.000
Ratio-R 0.350
CV 1.000
Time of Entry (mins) 5.00
Maximum Time of Concentration (mins) 30.00
Maximum Rainfall (mm/hr) 50.0
Minimum Velocity (m/s) 1.00
Connection Type Level Soffits
Minimum Backdrop Height (m) 9.999
Preferred Cover Depth (m) 1.200
Include Intermediate Ground ✓
Enforce best practice design rules x

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
1	0.028	5.00	16.394	1200	507641.336	104723.993	2.444
2	0.040	5.00	16.136	1200	507631.708	104722.863	2.246
3	0.023	5.00	16.554	600	507621.042	104706.180	0.954
4	0.010	5.00	16.143	1200	507618.383	104712.694	2.354
5	0.030	5.00	16.106	600	507601.117	104712.260	1.956
6	0.023	5.00	15.674	1200	507607.826	104720.578	1.855
7	0.043	5.00	16.154	1200	507612.603	104710.334	2.478
8	0.021	5.00	16.597	600	507606.341	104702.119	1.447
9			16.476		507612.139	104701.894	2.836
10	0.026	5.00	17.463	600	507618.488	104673.857	1.613
11	0.030	5.00	17.322	600	507605.362	104674.717	1.772
12			17.271	1200	507610.622	104674.293	3.748
13			17.439	1200	507610.229	104667.156	3.946
14	0.021	5.00	18.778	600	507606.997	104609.263	1.578
15	0.024	5.00	18.706	1200	507612.993	104608.461	1.700
16	0.015	5.00	18.442	600	507609.456	104634.447	2.032
17			18.295	1200	507617.048	104638.785	2.473
18			18.138	1200	507615.079	104645.832	3.048
19	0.008	5.00	18.152	600	507615.304	104652.381	1.302
20	0.010	5.00	17.926	1200	507610.036	104652.569	3.677
21			17.716	1200	507603.830	104656.445	4.274
22	0.037	5.00	17.489	600	507593.727	104652.114	1.939
23	0.010	5.00	17.540	600	507593.818	104662.551	1.290
24	0.019	5.00	17.376	1200	507593.652	104657.914	3.976
25	0.009	5.00	17.420	600	507561.823	104605.338	1.170
26			17.258	1200	507558.115	104607.580	1.395
27	0.022	5.00	17.242	600	507553.083	104617.522	1.162
28	0.004	5.00	17.334	600	507563.811	104612.972	0.734
29	0.038	5.00	17.085	1200	507559.235	104616.772	1.392
30	0.010	5.00	17.120	600	507558.147	104625.492	1.270
31	0.015	5.00	17.018	600	507572.168	104625.966	1.018
32	0.029	5.00	16.765	1200	507568.345	104629.849	1.571
33	0.001	5.00	16.443	600	507562.215	104650.883	1.193
34		5.00	16.582	600	507573.196	104648.968	0.732
35			16.359	1200	507569.096	104651.224	2.349
36			16.393	1350	507568.800	104657.591	3.170
37	0.019	5.00	15.943	600	507552.988	104653.237	1.093
38	0.049	5.00	15.824	1350	507554.450	104657.960	2.646
39	0.002	5.00	15.299	1350	507542.989	104664.309	2.162
40	0.033	5.00	14.877	600	507527.372	104657.442	1.127
41	0.013	5.00	14.698	1350	507528.116	104663.714	1.607
42	0.013	5.00	14.512	600	507516.583	104659.538	1.062
43	0.016	5.00	14.296	1350	507517.351	104666.008	1.575
44			13.500	1350	507517.742	104686.139	1.384
47A	0.004	5.00	18.463	600	507592.907	104580.058	1.063
45	0.009	5.00	18.261	600	507579.819	104582.938	1.111
46	0.035	5.00	18.172	600	507578.259	104571.333	1.462
47	0.047	5.00	18.032	1200	507578.886	104576.022	1.425
48	0.009	5.00	17.917	600	507562.462	104584.225	1.217
49	0.014	5.00	17.630	600	507547.802	104585.894	1.230
50	0.019	5.00	17.718	600	507549.431	104575.429	1.218
51			17.521	1200	507548.711	104580.057	1.393
52	0.014	5.00	17.418	600	507533.400	104584.011	1.268

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
53	0.018	5.00	17.449	600	507534.975	104573.772	1.149
54	0.025	5.00	17.272	1200	507534.199	104577.798	1.500
55	0.019	5.00	17.244	600	507509.502	104567.351	1.044
56	0.017	5.00	16.839	1200	507508.538	104572.850	1.507
57	0.009	5.00	17.643	600	507512.929	104545.716	1.143
58	0.026	5.00	17.536	600	507498.659	104543.462	1.336
59	0.055	5.00	17.432	1200	507503.025	104544.151	1.557
60	0.020	5.00	17.251	600	507495.770	104561.751	1.151
61	0.019	5.00	16.868	1200	507498.735	104571.301	1.627
62	0.020	5.00	16.867	600	507507.385	104580.459	1.737
63	0.021	5.00	16.701	600	507493.753	104577.812	1.351
64	0.017	5.00	16.498	1200	507497.276	104580.534	1.638
65	0.020	5.00	15.762	600	507508.403	104605.000	1.162
66	0.028	5.00	15.647	600	507492.475	104604.134	0.917
67	0.038	5.00	15.518	1350	507497.623	104605.395	1.575
68	0.015	5.00	15.228	600	507504.832	104621.085	1.128
69	0.024	5.00	14.970	600	507489.055	104620.304	1.370
70			14.802	1350	507493.445	104622.452	1.604
71	0.020	5.00	14.781	600	507500.392	104633.289	2.402
72	0.032	5.00	14.309	1350	507487.730	104634.130	2.282
73	0.054	5.00	13.925	1350	507488.700	104651.793	1.953
74	0.077	5.00	13.879	1200	507476.020	104653.812	1.604
75	0.023	5.00	13.561	1350	507481.029	104662.790	1.706
76			13.600	1350	507487.121	104677.527	1.777
77	0.034	5.00	14.752	600	507560.910	104689.140	1.152
78	0.020	5.00	14.678	1200	507554.257	104691.140	1.425
79	0.031	5.00	14.599	600	507558.578	104703.380	1.149
80	0.023	5.00	14.399	1200	507551.152	104701.054	1.540
81			13.500	1200	507533.931	104695.660	1.384
82_IN	0.123	5.00	13.500		507491.700	104690.559	1.700
82			13.500	1350	507488.730	104694.011	1.862
82A			13.055	1200	507487.246	104695.735	1.621
82_OUT			12.000		507478.465	104706.267	1.800

Links

Name	US Node	DS Node	Length (m)	ks n	(mm) / (m)	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	1	2	9.694	0.600	13.950	13.890	0.060	161.6	225	5.16	50.0	
1.001	2	4	16.762	0.600	13.890	13.789	0.101	166.0	225	5.43	50.0	
2.000	3	4	7.036	0.600	15.600	13.864	1.736	4.1	150	5.02	50.0	
1.002	4	7	6.243	0.600	13.789	13.751	0.038	164.3	225	5.54	50.0	
3.000	5	7	11.646	0.600	14.150	13.826	0.324	35.9	150	5.12	50.0	
4.000	6	7	11.303	0.600	13.819	13.751	0.068	166.2	225	5.19	50.0	
1.003	7	9	8.453	0.600	13.676	13.640	0.036	234.8	300	5.67	50.0	
5.000	8	9	5.802	0.600	15.150	13.790	1.360	4.3	150	5.02	50.0	
1.004	9	12	27.643	0.600	13.640	13.523	0.117	236.3	300	6.13	50.0	
6.000	10	12	7.878	0.600	15.850	13.673	2.177	3.6	150	5.02	50.0	
7.000	11	12	5.277	0.600	15.550	13.673	1.877	2.8	150	5.01	50.0	
1.005	12	13	7.148	0.600	13.523	13.493	0.030	238.3	300	6.24	50.0	
1.006	13	21	12.477	0.600	13.523	13.472	0.051	244.6	300	6.45	50.0	
8.000	14	15	6.049	0.600	17.200	17.103	0.097	62.4	150	5.08	50.0	
8.001	15	17	30.594	0.600	17.006	15.822	1.184	25.8	225	5.28	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)
1.000	1.026	40.8	5.1	2.219	2.021	0.028	0.0
1.001	1.012	40.2	12.3	2.021	2.129	0.068	0.0
2.000	5.041	89.1	4.2	0.804	2.129	0.023	0.0
1.002	1.017	40.4	18.3	2.129	2.178	0.101	0.0
3.000	1.684	29.8	5.4	1.806	2.178	0.030	0.0
4.000	1.011	40.2	4.2	1.630	2.178	0.023	0.0
1.003	1.022	72.2	35.6	2.178	2.536	0.197	0.0
5.000	4.913	86.8	3.8	1.297	2.536	0.021	0.0
1.004	1.018	72.0	39.4	2.536	3.448	0.218	0.0
6.000	5.335	94.3	4.7	1.463	3.448	0.026	0.0
7.000	6.055	107.0	5.4	1.622	3.448	0.030	0.0
1.005	1.014	71.7	49.5	3.448	3.646	0.274	0.0
1.006	1.001	70.7	49.5	3.616	3.944	0.274	0.0
8.000	1.275	22.5	3.8	1.428	1.453	0.021	0.0
8.001	2.584	102.7	8.1	1.475	2.248	0.045	0.0

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)
9.000	16	17	8.744	0.600	16.410	15.897	0.513	17.0	150	5.06	50.0
8.002	17	18	7.317	0.600	15.822	15.090	0.732	10.0	225	5.31	50.0
8.003	18	20	8.415	0.600	15.090	14.249	0.841	10.0	225	5.34	50.0
10.000	19	20	5.271	0.600	16.850	14.324	2.526	2.1	150	5.01	50.0
8.004	20	21	7.317	0.600	14.249	13.517	0.732	10.0	225	5.37	50.0
1.007	21	24	10.283	0.600	13.442	13.400	0.042	244.8	300	6.62	50.0
11.000	22	24	5.800	0.600	15.550	13.550	2.000	2.9	150	5.02	50.0
12.000	23	24	4.640	0.600	16.250	13.550	2.700	1.7	150	5.01	50.0
1.008	24	36	24.854	0.600	13.400	13.297	0.103	241.3	300	7.03	50.0
13.000	25	26	4.333	0.600	16.250	15.938	0.312	13.9	150	5.03	50.0
13.001	26	29	9.260	0.600	15.863	15.693	0.170	54.5	225	5.11	50.0
14.000	27	29	6.198	0.600	16.080	15.768	0.312	19.9	150	5.05	50.0
15.000	28	29	5.948	0.600	16.600	15.768	0.832	7.1	150	5.03	50.0
13.002	29	32	15.937	0.600	15.693	15.194	0.499	31.9	225	5.23	50.0
16.000	30	32	11.090	0.600	15.850	15.269	0.581	19.1	150	5.08	50.0
17.000	31	32	5.449	0.600	16.000	15.269	0.731	7.5	150	5.02	50.0
13.003	32	35	21.388	0.600	15.194	14.010	1.184	18.1	225	5.34	50.0
18.000	33	35	6.889	0.600	15.250	14.085	1.165	5.9	150	5.03	50.0
19.000	34	35	4.680	0.600	15.850	14.085	1.765	2.7	150	5.01	50.0
13.004	35	36	6.374	0.600	14.010	13.373	0.637	10.0	225	5.37	50.0
1.009	36	38	14.355	0.600	13.223	13.178	0.045	319.0	375	7.27	50.0
20.000	37	38	4.944	0.600	14.850	13.403	1.447	3.4	150	5.02	50.0
1.010	38	39	13.102	0.600	13.178	13.137	0.041	319.6	375	7.49	50.0
1.011	39	41	14.885	0.600	13.137	13.091	0.046	323.6	375	7.74	50.0
21.000	40	41	6.316	0.600	13.750	13.316	0.434	14.6	150	5.04	50.0
1.012	41	43	11.007	0.600	13.091	12.722	0.369	29.8	375	7.79	50.0
22.000	42	43	6.515	0.600	13.450	12.946	0.504	12.9	150	5.04	50.0
116	43	44	20.135	0.600	12.721	12.116	0.605	33.3	375	7.90	50.0
23.000	47A	47	14.590	0.600	17.400	16.682	0.718	20.3	150	5.11	50.0
24.000	45	47	6.979	0.600	17.150	16.682	0.468	14.9	150	5.04	50.0
25.000	46	47	4.731	0.600	16.710	16.682	0.028	169.0	150	5.10	50.0
23.001	47	51	30.444	0.600	16.607	16.128	0.479	63.6	225	5.42	50.0
26.000	48	51	14.369	0.600	16.700	16.203	0.497	28.9	150	5.13	50.0
27.000	49	51	5.907	0.600	16.400	16.203	0.197	30.0	150	5.05	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)
9.000	2.451	43.3	2.7	1.882	2.248	0.015	0.0
8.002	4.162	165.5	10.8	2.248	2.823	0.060	0.0
8.003	4.160	165.4	10.8	2.823	3.452	0.060	0.0
10.000	7.030	124.2	1.4	1.152	3.452	0.008	0.0
8.004	4.162	165.5	14.1	3.452	3.974	0.078	0.0
1.007	1.000	70.7	63.6	3.974	3.676	0.352	0.0
11.000	5.961	105.3	6.7	1.789	3.676	0.037	0.0
12.000	7.748	136.9	1.8	1.140	3.676	0.010	0.0
1.008	1.008	71.2	75.5	3.676	2.796	0.418	0.0
13.000	2.717	48.0	1.6	1.020	1.170	0.009	0.0
13.001	1.776	70.6	1.6	1.170	1.167	0.009	0.0
14.000	2.270	40.1	4.0	1.012	1.167	0.022	0.0
15.000	3.792	67.0	0.7	0.584	1.167	0.004	0.0
13.002	2.323	92.4	13.2	1.167	1.346	0.073	0.0
16.000	2.316	40.9	1.8	1.120	1.346	0.010	0.0
17.000	3.713	65.6	2.7	0.868	1.346	0.015	0.0
13.003	3.093	123.0	22.9	1.346	2.124	0.127	0.0
18.000	4.171	73.7	0.2	1.043	2.124	0.001	0.0
19.000	6.236	110.2	0.0	0.582	2.124	0.000	0.0
13.004	4.160	165.4	23.1	2.124	2.795	0.128	0.0
1.009	1.009	111.4	98.7	2.795	2.271	0.546	0.0
20.000	5.491	97.0	3.4	0.943	2.271	0.019	0.0
1.010	1.008	111.3	110.9	2.271	1.787	0.614	0.0
1.011	1.002	110.6	111.3	1.787	1.232	0.616	0.0
21.000	2.654	46.9	6.0	0.977	1.232	0.033	0.0
1.012	3.328	367.5	119.6	1.232	1.199	0.662	0.0
22.000	2.817	49.8	2.3	0.912	1.200	0.013	0.0
116	3.150	347.9	124.9	1.200	1.009	0.691	0.0
23.000	2.244	39.7	0.7	0.913	1.200	0.004	0.0
24.000	2.622	46.3	1.6	0.961	1.200	0.009	0.0
25.000	0.770	13.6	6.3	1.312	1.200	0.035	0.0
23.001	1.643	65.3	17.2	1.200	1.168	0.095	0.0
26.000	1.879	33.2	1.6	1.067	1.168	0.009	0.0
27.000	1.845	32.6	2.5	1.080	1.168	0.014	0.0

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)
28.000	50	51	4.684	0.600	16.500	16.203	0.297	15.8	150	5.03	50.0
23.002	51	54	14.687	0.600	16.128	15.847	0.281	52.3	225	5.55	50.0
29.000	52	54	6.264	0.600	16.150	15.922	0.228	27.5	150	5.05	50.0
30.000	53	54	4.100	0.600	16.300	15.922	0.378	10.8	150	5.02	50.0
23.003	54	56	26.134	0.600	15.772	15.332	0.440	59.4	300	5.77	50.0
31.000	55	56	5.583	0.600	16.200	15.482	0.718	7.8	150	5.03	50.0
23.004	56	61	9.925	0.600	15.332	15.241	0.091	109.1	300	5.88	50.0
32.000	57	59	10.027	0.600	16.500	15.950	0.550	18.2	150	5.07	50.0
33.000	58	59	4.420	0.600	16.200	15.950	0.250	17.7	150	5.03	50.0
32.001	59	61	27.487	0.600	15.875	15.316	0.559	49.2	225	5.32	50.0
34.000	60	61	10.000	0.600	16.100	15.391	0.709	14.1	150	5.06	50.0
23.005	61	64	9.348	0.600	15.241	14.860	0.381	24.5	300	5.92	50.0
35.000	62	64	10.109	0.600	15.130	15.010	0.120	84.2	150	5.15	50.0
36.000	63	64	4.452	0.600	15.350	15.010	0.340	13.1	150	5.03	50.0
23.006	64	67	24.863	0.600	14.860	14.018	0.842	29.5	300	6.07	50.0
37.000	65	67	10.787	0.600	14.600	14.168	0.432	25.0	150	5.09	50.0
38.000	66	67	5.300	0.600	14.730	14.168	0.562	9.4	150	5.03	50.0
23.007	67	70	17.561	0.600	13.943	13.227	0.716	24.5	375	6.15	50.0
39.000	68	70	11.469	0.600	14.100	13.423	0.677	16.9	150	5.08	50.0
40.000	69	70	4.887	0.600	13.600	13.423	0.177	27.6	150	5.04	50.0
23.008	70	72	13.001	0.600	13.198	12.027	1.171	11.1	375	6.19	50.0
41.000	71	72	12.690	0.600	12.379	12.252	0.127	99.9	150	5.21	50.0
23.009	72	73	17.690	0.600	12.027	11.972	0.055	321.6	375	6.48	50.0
23.010	73	75	13.408	0.600	11.972	11.930	0.042	319.2	375	6.70	50.0
42.000	74	75	10.281	0.600	12.275	12.080	0.195	52.7	225	5.09	50.0
23.011	75	76	15.947	0.600	11.855	11.823	0.032	498.3	450	7.00	50.0
43.000	77	78	6.947	0.600	13.600	13.328	0.272	25.5	150	5.06	50.0
43.001	78	80	10.389	0.600	13.253	12.859	0.394	26.4	225	5.13	50.0
44.000	79	80	7.782	0.600	13.450	12.934	0.516	15.1	150	5.05	50.0
43.002	80	81	18.046	0.600	12.859	12.116	0.743	24.3	225	5.24	50.0
43.003	82_IN	82	4.554	0.600	11.800	11.638	0.162	28.1	450	8.12	50.0
1.016	82	82A	2.275	0.600	11.638	11.434	0.204	11.2	150	8.13	50.0
1.017	82A	82_OUT	13.712	0.600	11.434	10.200	1.234	11.1	150	8.21	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)
28.000	2.549	45.0	3.4	1.068	1.168	0.019	0.0
23.002	1.813	72.1	24.8	1.168	1.200	0.137	0.0
29.000	1.928	34.1	2.5	1.118	1.200	0.014	0.0
30.000	3.076	54.4	3.3	0.999	1.200	0.018	0.0
23.003	2.043	144.4	35.1	1.200	1.207	0.194	0.0
31.000	3.636	64.2	3.4	0.894	1.207	0.019	0.0
23.004	1.505	106.4	41.6	1.207	1.327	0.230	0.0
32.000	2.370	41.9	1.6	0.993	1.332	0.009	0.0
33.000	2.407	42.5	4.7	1.186	1.332	0.026	0.0
32.001	1.870	74.3	16.3	1.332	1.327	0.090	0.0
34.000	2.696	47.6	3.6	1.001	1.327	0.020	0.0
23.005	3.187	225.3	64.9	1.327	1.338	0.359	0.0
35.000	1.096	19.4	3.6	1.587	1.338	0.020	0.0
36.000	2.799	49.5	3.8	1.201	1.338	0.021	0.0
23.006	2.904	205.2	75.4	1.338	1.200	0.417	0.0
37.000	2.023	35.8	3.6	1.012	1.200	0.020	0.0
38.000	3.300	58.3	5.1	0.767	1.200	0.028	0.0
23.007	3.671	405.5	90.9	1.200	1.200	0.503	0.0
39.000	2.459	43.5	2.7	0.978	1.229	0.015	0.0
40.000	1.923	34.0	4.3	1.220	1.229	0.024	0.0
23.008	5.463	603.3	97.9	1.229	1.907	0.542	0.0
41.000	1.005	17.8	3.6	2.252	1.907	0.020	0.0
23.009	1.005	111.0	107.3	1.907	1.578	0.594	0.0
23.010	1.008	111.4	117.1	1.578	1.256	0.648	0.0
42.000	1.805	71.8	13.9	1.379	1.256	0.077	0.0
23.011	0.904	143.7	135.2	1.256	1.327	0.748	0.0
43.000	2.000	35.3	6.1	1.002	1.200	0.034	0.0
43.001	2.558	101.7	9.8	1.200	1.315	0.054	0.0
44.000	2.607	46.1	5.6	0.999	1.315	0.031	0.0
43.002	2.666	106.0	19.5	1.315	1.159	0.108	0.0
43.003	3.845	611.6	301.8	1.250	1.412	1.670	0.0
1.016	3.034	53.6	301.8	1.712	1.471	1.670	0.0
1.017	3.039	53.7	301.8	1.471	1.650	1.670	0.0

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)
23.012	76	82_IN	12.859	0.600	11.823	11.800	0.023	559.1	450	7.25	50.0
1.014	44	82_IN	24.678	0.600	12.116	11.800	0.316	78.1	375	8.10	50.0
43.003_1	81	82_IN	41.283	0.600	12.116	11.800	0.316	130.6	225	5.84	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	E Area (ha)	E Add Inflow (l/s)
23.012	0.853	135.6	135.2	1.327	1.250	0.748	0.0
1.014	2.052	226.6	124.9	1.009	1.325	0.691	0.0
43.003_1	1.142	45.4	19.5	1.159	1.475	0.108	0.0

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	9.694	161.6	225	PH1	16.394	13.950	2.219	16.136	13.890	2.021
1.001	16.762	166.0	225	PH1	16.136	13.890	2.021	16.143	13.789	2.129
2.000	7.036	4.1	150	PH1	16.554	15.600	0.804	16.143	13.864	2.129
1.002	6.243	164.3	225	PH1	16.143	13.789	2.129	16.154	13.751	2.178
3.000	11.646	35.9	150	PH1	16.106	14.150	1.806	16.154	13.826	2.178
4.000	11.303	166.2	225	PH1	15.674	13.819	1.630	16.154	13.751	2.178
1.003	8.453	234.8	300	PH1	16.154	13.676	2.178	16.476	13.640	2.536
5.000	5.802	4.3	150	PH1	16.597	15.150	1.297	16.476	13.790	2.536
1.004	27.643	236.3	300	PH1	16.476	13.640	2.536	17.271	13.523	3.448
6.000	7.878	3.6	150	PH1	17.463	15.850	1.463	17.271	13.673	3.448
7.000	5.277	2.8	150	PH1	17.322	15.550	1.622	17.271	13.673	3.448
1.005	7.148	238.3	300	PH1	17.271	13.523	3.448	17.439	13.493	3.646
1.006	12.477	244.6	300	PH1	17.439	13.523	3.616	17.716	13.472	3.944
8.000	6.049	62.4	150	PH1	18.778	17.200	1.428	18.706	17.103	1.453
8.001	30.594	25.8	225	PH1	18.706	17.006	1.475	18.295	15.822	2.248
9.000	8.744	17.0	150	PH1	18.442	16.410	1.882	18.295	15.897	2.248
8.002	7.317	10.0	225	PH1	18.295	15.822	2.248	18.138	15.090	2.823
8.003	8.415	10.0	225	PH1	18.138	15.090	2.823	17.926	14.249	3.452
10.000	5.271	2.1	150	PH1	18.152	16.850	1.152	17.926	14.324	3.452
8.004	7.317	10.0	225	PH1	17.926	14.249	3.452	17.716	13.517	3.974
1.007	10.283	244.8	300	PH1	17.716	13.442	3.974	17.376	13.400	3.676
11.000	5.800	2.9	150	PH1	17.489	15.550	1.789	17.376	13.550	3.676
12.000	4.640	1.7	150	PH1	17.540	16.250	1.140	17.376	13.550	3.676
1.008	24.854	241.3	300	PH1	17.376	13.400	3.676	16.393	13.297	2.796
13.000	4.333	13.9	150	PH1	17.420	16.250	1.020	17.258	15.938	1.170
13.001	9.260	54.5	225	PH1	17.258	15.863	1.170	17.085	15.693	1.167
14.000	6.198	19.9	150	PH1	17.242	16.080	1.012	17.085	15.768	1.167

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	1	1200	Manhole	Adoptable	2	1200	Manhole	Adoptable
1.001	2	1200	Manhole	Adoptable	4	1200	Manhole	Adoptable
2.000	3	600	Manhole	Adoptable	4	1200	Manhole	Adoptable
1.002	4	1200	Manhole	Adoptable	7	1200	Manhole	Adoptable
3.000	5	600	Manhole	Adoptable	7	1200	Manhole	Adoptable
4.000	6	1200	Manhole	Adoptable	7	1200	Manhole	Adoptable
1.003	7	1200	Manhole	Adoptable	9		Junction	
5.000	8	600	Manhole	Adoptable	9		Junction	
1.004	9		Junction		12	1200	Manhole	Adoptable
6.000	10	600	Manhole	Adoptable	12	1200	Manhole	Adoptable
7.000	11	600	Manhole	Adoptable	12	1200	Manhole	Adoptable
1.005	12	1200	Manhole	Adoptable	13	1200	Manhole	Adoptable
1.006	13	1200	Manhole	Adoptable	21	1200	Manhole	Adoptable
8.000	14	600	Manhole	Adoptable	15	1200	Manhole	Adoptable
8.001	15	1200	Manhole	Adoptable	17	1200	Manhole	Adoptable
9.000	16	600	Manhole	Adoptable	17	1200	Manhole	Adoptable
8.002	17	1200	Manhole	Adoptable	18	1200	Manhole	Adoptable
8.003	18	1200	Manhole	Adoptable	20	1200	Manhole	Adoptable
10.000	19	600	Manhole	Adoptable	20	1200	Manhole	Adoptable
8.004	20	1200	Manhole	Adoptable	21	1200	Manhole	Adoptable
1.007	21	1200	Manhole	Adoptable	24	1200	Manhole	Adoptable
11.000	22	600	Manhole	Adoptable	24	1200	Manhole	Adoptable
12.000	23	600	Manhole	Adoptable	24	1200	Manhole	Adoptable
1.008	24	1200	Manhole	Adoptable	36	1350	Manhole	Adoptable
13.000	25	600	Manhole	Adoptable	26	1200	Manhole	Adoptable
13.001	26	1200	Manhole	Adoptable	29	1200	Manhole	Adoptable
14.000	27	600	Manhole	Adoptable	29	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)
15.000	5.948	7.1	150	PH1	17.334	16.600	0.584	17.085	15.768	1.167
13.002	15.937	31.9	225	PH1	17.085	15.693	1.167	16.765	15.194	1.346
16.000	11.090	19.1	150	PH1	17.120	15.850	1.120	16.765	15.269	1.346
17.000	5.449	7.5	150	PH1	17.018	16.000	0.868	16.765	15.269	1.346
13.003	21.388	18.1	225	PH1	16.765	15.194	1.346	16.359	14.010	2.124
18.000	6.889	5.9	150	PH1	16.443	15.250	1.043	16.359	14.085	2.124
19.000	4.680	2.7	150	PH1	16.582	15.850	0.582	16.359	14.085	2.124
13.004	6.374	10.0	225	PH1	16.359	14.010	2.124	16.393	13.373	2.795
1.009	14.355	319.0	375	PH1	16.393	13.223	2.795	15.824	13.178	2.271
20.000	4.944	3.4	150	PH1	15.943	14.850	0.943	15.824	13.403	2.271
1.010	13.102	319.6	375	PH1	15.824	13.178	2.271	15.299	13.137	1.787
1.011	14.885	323.6	375	PH1	15.299	13.137	1.787	14.698	13.091	1.232
21.000	6.316	14.6	150	PH1	14.877	13.750	0.977	14.698	13.316	1.232
1.012	11.007	29.8	375	PH1	14.698	13.091	1.232	14.296	12.722	1.199
22.000	6.515	12.9	150	PH1	14.512	13.450	0.912	14.296	12.946	1.200
116	20.135	33.3	375	PH1	14.296	12.721	1.200	13.500	12.116	1.009
23.000	14.590	20.3	150	PH1	18.463	17.400	0.913	18.032	16.682	1.200
24.000	6.979	14.9	150	PH1	18.261	17.150	0.961	18.032	16.682	1.200
25.000	4.731	169.0	150	PH1	18.172	16.710	1.312	18.032	16.682	1.200
23.001	30.444	63.6	225	PH1	18.032	16.607	1.200	17.521	16.128	1.168
26.000	14.369	28.9	150	PH1	17.917	16.700	1.067	17.521	16.203	1.168
27.000	5.907	30.0	150	PH1	17.630	16.400	1.080	17.521	16.203	1.168
28.000	4.684	15.8	150	PH1	17.718	16.500	1.068	17.521	16.203	1.168
23.002	14.687	52.3	225	PH1	17.521	16.128	1.168	17.272	15.847	1.200
29.000	6.264	27.5	150	PH1	17.418	16.150	1.118	17.272	15.922	1.200
30.000	4.100	10.8	150	PH1	17.449	16.300	0.999	17.272	15.922	1.200
23.003	26.134	59.4	300	PH1	17.272	15.772	1.200	16.839	15.332	1.207
31.000	5.583	7.8	150	PH1	17.244	16.200	0.894	16.839	15.482	1.207
23.004	9.925	109.1	300	PH1	16.839	15.332	1.207	16.868	15.241	1.327
32.000	10.027	18.2	150	PH1	17.643	16.500	0.993	17.432	15.950	1.332
33.000	4.420	17.7	150	PH1	17.536	16.200	1.186	17.432	15.950	1.332
32.001	27.487	49.2	225	PH1	17.432	15.875	1.332	16.868	15.316	1.327
34.000	10.000	14.1	150	PH1	17.251	16.100	1.001	16.868	15.391	1.327
23.005	9.348	24.5	300	PH1	16.868	15.241	1.327	16.498	14.860	1.338
35.000	10.109	84.2	150	PH1	16.867	15.130	1.587	16.498	15.010	1.338

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
15.000	28	600	Manhole	Adoptable	29	1200	Manhole	Adoptable
13.002	29	1200	Manhole	Adoptable	32	1200	Manhole	Adoptable
16.000	30	600	Manhole	Adoptable	32	1200	Manhole	Adoptable
17.000	31	600	Manhole	Adoptable	32	1200	Manhole	Adoptable
13.003	32	1200	Manhole	Adoptable	35	1200	Manhole	Adoptable
18.000	33	600	Manhole	Adoptable	35	1200	Manhole	Adoptable
19.000	34	600	Manhole	Adoptable	35	1200	Manhole	Adoptable
13.004	35	1200	Manhole	Adoptable	36	1350	Manhole	Adoptable
1.009	36	1350	Manhole	Adoptable	38	1350	Manhole	Adoptable
20.000	37	600	Manhole	Adoptable	38	1350	Manhole	Adoptable
1.010	38	1350	Manhole	Adoptable	39	1350	Manhole	Adoptable
1.011	39	1350	Manhole	Adoptable	41	1350	Manhole	Adoptable
21.000	40	600	Manhole	Adoptable	41	1350	Manhole	Adoptable
1.012	41	1350	Manhole	Adoptable	43	1350	Manhole	Adoptable
22.000	42	600	Manhole	Adoptable	43	1350	Manhole	Adoptable
116	43	1350	Manhole	Adoptable	44	1350	Manhole	Adoptable
23.000	47A	600	Manhole	Adoptable	47	1200	Manhole	Adoptable
24.000	45	600	Manhole	Adoptable	47	1200	Manhole	Adoptable
25.000	46	600	Manhole	Adoptable	47	1200	Manhole	Adoptable
23.001	47	1200	Manhole	Adoptable	51	1200	Manhole	Adoptable
26.000	48	600	Manhole	Adoptable	51	1200	Manhole	Adoptable
27.000	49	600	Manhole	Adoptable	51	1200	Manhole	Adoptable
28.000	50	600	Manhole	Adoptable	51	1200	Manhole	Adoptable
23.002	51	1200	Manhole	Adoptable	54	1200	Manhole	Adoptable
29.000	52	600	Manhole	Adoptable	54	1200	Manhole	Adoptable
30.000	53	600	Manhole	Adoptable	54	1200	Manhole	Adoptable
23.003	54	1200	Manhole	Adoptable	56	1200	Manhole	Adoptable
31.000	55	600	Manhole	Adoptable	56	1200	Manhole	Adoptable
23.004	56	1200	Manhole	Adoptable	61	1200	Manhole	Adoptable
32.000	57	600	Manhole	Adoptable	59	1200	Manhole	Adoptable
33.000	58	600	Manhole	Adoptable	59	1200	Manhole	Adoptable
32.001	59	1200	Manhole	Adoptable	61	1200	Manhole	Adoptable
34.000	60	600	Manhole	Adoptable	61	1200	Manhole	Adoptable
23.005	61	1200	Manhole	Adoptable	64	1200	Manhole	Adoptable
35.000	62	600	Manhole	Adoptable	64	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)
36.000	4.452	13.1	150	PH1	16.701	15.350	1.201	16.498	15.010	1.338
23.006	24.863	29.5	300	PH1	16.498	14.860	1.338	15.518	14.018	1.200
37.000	10.787	25.0	150	PH1	15.762	14.600	1.012	15.518	14.168	1.200
38.000	5.300	9.4	150	PH1	15.647	14.730	0.767	15.518	14.168	1.200
23.007	17.561	24.5	375	PH1	15.518	13.943	1.200	14.802	13.227	1.200
39.000	11.469	16.9	150	PH1	15.228	14.100	0.978	14.802	13.423	1.229
40.000	4.887	27.6	150	PH1	14.970	13.600	1.220	14.802	13.423	1.229
23.008	13.001	11.1	375	PH1	14.802	13.198	1.229	14.309	12.027	1.907
41.000	12.690	99.9	150	PH1	14.781	12.379	2.252	14.309	12.252	1.907
23.009	17.690	321.6	375	PH1	14.309	12.027	1.907	13.925	11.972	1.578
23.010	13.408	319.2	375	PH1	13.925	11.972	1.578	13.561	11.930	1.256
42.000	10.281	52.7	225	PH1	13.879	12.275	1.379	13.561	12.080	1.256
23.011	15.947	498.3	450	PH1	13.561	11.855	1.256	13.600	11.823	1.327
43.000	6.947	25.5	150	PH1	14.752	13.600	1.002	14.678	13.328	1.200
43.001	10.389	26.4	225	PH1	14.678	13.253	1.200	14.399	12.859	1.315
44.000	7.782	15.1	150	PH1	14.599	13.450	0.999	14.399	12.934	1.315
43.002	18.046	24.3	225	PH1	14.399	12.859	1.315	13.500	12.116	1.159
43.003	4.554	28.1	450	PH1	13.500	11.800	1.250	13.500	11.638	1.412
1.016	2.275	11.2	150	PH1	13.500	11.638	1.712	13.055	11.434	1.471
1.017	13.712	11.1	150	PH1	13.055	11.434	1.471	12.000	10.200	1.650
23.012	12.859	559.1	450	PH1	13.600	11.823	1.327	13.500	11.800	1.250
1.014	24.678	78.1	375	PH1	13.500	12.116	1.009	13.500	11.800	1.325
43.003_1	41.283	130.6	225	PH1	13.500	12.116	1.159	13.500	11.800	1.475

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
36.000	63	600	Manhole	Adoptable	64	1200	Manhole	Adoptable
23.006	64	1200	Manhole	Adoptable	67	1350	Manhole	Adoptable
37.000	65	600	Manhole	Adoptable	67	1350	Manhole	Adoptable
38.000	66	600	Manhole	Adoptable	67	1350	Manhole	Adoptable
23.007	67	1350	Manhole	Adoptable	70	1350	Manhole	Adoptable
39.000	68	600	Manhole	Adoptable	70	1350	Manhole	Adoptable
40.000	69	600	Manhole	Adoptable	70	1350	Manhole	Adoptable
23.008	70	1350	Manhole	Adoptable	72	1350	Manhole	Adoptable
41.000	71	600	Manhole	Adoptable	72	1350	Manhole	Adoptable
23.009	72	1350	Manhole	Adoptable	73	1350	Manhole	Adoptable
23.010	73	1350	Manhole	Adoptable	75	1350	Manhole	Adoptable
42.000	74	1200	Manhole	Adoptable	75	1350	Manhole	Adoptable
23.011	75	1350	Manhole	Adoptable	76	1350	Manhole	Adoptable
43.000	77	600	Manhole	Adoptable	78	1200	Manhole	Adoptable
43.001	78	1200	Manhole	Adoptable	80	1200	Manhole	Adoptable
44.000	79	600	Manhole	Adoptable	80	1200	Manhole	Adoptable
43.002	80	1200	Manhole	Adoptable	81	1200	Manhole	Adoptable
43.003	82_IN		Junction		82	1350	Manhole	Adoptable
1.016	82	1350	Manhole	Adoptable	82A	1200	Manhole	Adoptable
1.017	82A	1200	Manhole	Adoptable	82_OUT		Manhole	Adoptable
23.012	76	1350	Manhole	Adoptable	82_IN		Junction	
1.014	44	1350	Manhole	Adoptable	82_IN		Junction	
43.003_1	81	1200	Manhole	Adoptable	82_IN		Junction	

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
1	507641.336	104723.993	16.394	2.444	1200		0	1.000	13.950	225
2	507631.708	104722.863	16.136	2.246	1200		1	1.000	13.890	225
							0	1.001	13.890	225
3	507621.042	104706.180	16.554	0.954	600		0	2.000	15.600	150
4	507618.383	104712.694	16.143	2.354	1200		1	2.000	13.864	150
							2	1.001	13.789	225
							0	1.002	13.789	225

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
5	507601.117	104712.260	16.106	1.956	600		0	3.000	14.150	150
6	507607.826	104720.578	15.674	1.855	1200		0	4.000	13.819	225
7	507612.603	104710.334	16.154	2.478	1200		1 2 3 0	4.000 3.000 1.002 1.003	13.751 13.826 13.751 13.676	225 150 225 300
8	507606.341	104702.119	16.597	1.447	600		0	5.000	15.150	150
9	507612.139	104701.894	16.476	2.836			1 2 0	5.000 1.003 1.004	13.790 13.640 13.640	150 300 300
10	507618.488	104673.857	17.463	1.613	600		0	6.000	15.850	150
11	507605.362	104674.717	17.322	1.772	600		0	7.000	15.550	150
12	507610.622	104674.293	17.271	3.748	1200		1 2 3 0	7.000 6.000 1.004 1.005	13.673 13.673 13.523 13.523	150 150 300 300
13	507610.229	104667.156	17.439	3.946	1200		1 0	1.005 1.006	13.493 13.523	300 300
14	507606.997	104609.263	18.778	1.578	600		0	8.000	17.200	150
15	507612.993	104608.461	18.706	1.700	1200		1 0	8.000 8.001	17.103 17.006	150 225
16	507609.456	104634.447	18.442	2.032	600		0	9.000	16.410	150
17	507617.048	104638.785	18.295	2.473	1200		1 2 0	9.000 8.001 8.002	15.897 15.822 15.822	150 225 225
18	507615.079	104645.832	18.138	3.048	1200		1 0	8.002 8.003	15.090 15.090	225 225
19	507615.304	104652.381	18.152	1.302	600		0	10.000	16.850	150
20	507610.036	104652.569	17.926	3.677	1200		1 2 0	10.000 8.003 8.004	14.324 14.249 14.249	150 225 225
21	507603.830	104656.445	17.716	4.274	1200		1 2 0	8.004 1.006 1.007	13.517 13.472 13.442	225 300 300
22	507593.727	104652.114	17.489	1.939	600		0	11.000	15.550	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
23	507593.818	104662.551	17.540	1.290	600	 0	12.000	16.250	150
24	507593.652	104657.914	17.376	3.976	1200	 1 2 3 0	12.000 11.000 1.007 1.008	13.550 13.550 13.400 13.400	150 150 300 300
25	507561.823	104605.338	17.420	1.170	600	 0	13.000	16.250	150
26	507558.115	104607.580	17.258	1.395	1200	 1 0	13.000 13.001	15.938 15.863	150 225
27	507553.083	104617.522	17.242	1.162	600	 0	14.000	16.080	150
28	507563.811	104612.972	17.334	0.734	600	 0	15.000	16.600	150
29	507559.235	104616.772	17.085	1.392	1200	 1 2 3 0	15.000 14.000 13.001 13.002	15.768 15.768 15.693 15.693	150 150 225 225
30	507558.147	104625.492	17.120	1.270	600	 0	16.000	15.850	150
31	507572.168	104625.966	17.018	1.018	600	 0	17.000	16.000	150
32	507568.345	104629.849	16.765	1.571	1200	 1 2 3 0	17.000 16.000 13.002 13.003	15.269 15.269 15.194 15.194	150 150 225 225
33	507562.215	104650.883	16.443	1.193	600	 0	18.000	15.250	150
34	507573.196	104648.968	16.582	0.732	600	 0	19.000	15.850	150
35	507569.096	104651.224	16.359	2.349	1200	 1 2 3 0	19.000 18.000 13.003 13.004	14.085 14.085 14.010 14.010	150 150 225 225
36	507568.800	104657.591	16.393	3.170	1350	 1 2 0	13.004 1.008 1.009	13.373 13.297 13.223	225 300 375
37	507552.988	104653.237	15.943	1.093	600	 0	20.000	14.850	150
38	507554.450	104657.960	15.824	2.646	1350	 1 2 0	20.000 1.009 1.010	13.403 13.178 13.178	150 375 375
39	507542.989	104664.309	15.299	2.162	1350	 1 0	1.010 1.011	13.137 13.137	375 375
40	507527.372	104657.442	14.877	1.127	600	 0	21.000	13.750	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections		Link	IL (m)	Dia (mm)
41	507528.116	104663.714	14.698	1.607	1350		1	21.000	13.316	150
							2	1.011	13.091	375
							0	1.012	13.091	375
42	507516.583	104659.538	14.512	1.062	600		0	22.000	13.450	150
43	507517.351	104666.008	14.296	1.575	1350			1	22.000	12.946
						2		1.012	12.722	375
							0	116	12.721	375
44	507517.742	104686.139	13.500	1.384	1350		1	116	12.116	375
							0	1.014	12.116	375
47A	507592.907	104580.058	18.463	1.063	600		0	23.000	17.400	150
45	507579.819	104582.938	18.261	1.111	600			0	24.000	17.150
46	507578.259	104571.333	18.172	1.462	600			0	25.000	16.710
47	507578.886	104576.022	18.032	1.425	1200			1	25.000	16.682
						2		24.000	16.682	150
						3		23.000	16.682	150
						0		23.001	16.607	225
48	507562.462	104584.225	17.917	1.217	600		0	26.000	16.700	150
49	507547.802	104585.894	17.630	1.230	600			0	27.000	16.400
50	507549.431	104575.429	17.718	1.218	600			0	28.000	16.500
51	507548.711	104580.057	17.521	1.393	1200			1	28.000	16.203
						2		27.000	16.203	150
						3		26.000	16.203	150
						4		23.001	16.128	225
						0		23.002	16.128	225
52	507533.400	104584.011	17.418	1.268	600		0	29.000	16.150	150
53	507534.975	104573.772	17.449	1.149	600			0	30.000	16.300
54	507534.199	104577.798	17.272	1.500	1200			1	30.000	15.922
							2	29.000	15.922	150
							3	23.002	15.847	225
							0	23.003	15.772	300
55	507509.502	104567.351	17.244	1.044	600		0	31.000	16.200	150
56	507508.538	104572.850	16.839	1.507	1200			1	31.000	15.482
						2		23.003	15.332	300
						0		23.004	15.332	300
57	507512.929	104545.716	17.643	1.143	600		0	32.000	16.500	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
58	507498.659	104543.462	17.536	1.336	600		0	33.000	16.200	150
59	507503.025	104544.151	17.432	1.557	1200		1	33.000	15.950	150
							2	32.000	15.950	150
							0	32.001	15.875	225
60	507495.770	104561.751	17.251	1.151	600		0	34.000	16.100	150
61	507498.735	104571.301	16.868	1.627	1200		1	34.000	15.391	150
							2	32.001	15.316	225
							3	23.004	15.241	300
							0	23.005	15.241	300
62	507507.385	104580.459	16.867	1.737	600		0	35.000	15.130	150
63	507493.753	104577.812	16.701	1.351	600		0	36.000	15.350	150
							1	36.000	15.010	150
64	507497.276	104580.534	16.498	1.638	1200		2	35.000	15.010	150
							3	23.005	14.860	300
							0	23.006	14.860	300
							0	23.006	14.860	300
65	507508.403	104605.000	15.762	1.162	600		0	37.000	14.600	150
66	507492.475	104604.134	15.647	0.917	600		0	38.000	14.730	150
67	507497.623	104605.395	15.518	1.575	1350		1	38.000	14.168	150
							2	37.000	14.168	150
							3	23.006	14.018	300
							0	23.007	13.943	375
68	507504.832	104621.085	15.228	1.128	600		0	39.000	14.100	150
							0	39.000	14.100	150
69	507489.055	104620.304	14.970	1.370	600		0	40.000	13.600	150
70	507493.445	104622.452	14.802	1.604	1350		1	40.000	13.423	150
							2	39.000	13.423	150
							3	23.007	13.227	375
							0	23.008	13.198	375
71	507500.392	104633.289	14.781	2.402	600		0	41.000	12.379	150
							1	41.000	12.252	150
72	507487.730	104634.130	14.309	2.282	1350		2	23.008	12.027	375
							0	23.009	12.027	375
							1	23.009	11.972	375
73	507488.700	104651.793	13.925	1.953	1350		0	23.010	11.972	375
							0	23.010	11.972	375
74	507476.020	104653.812	13.879	1.604	1200		0	42.000	12.275	225
75	507481.029	104662.790	13.561	1.706	1350		1	42.000	12.080	225
							2	23.010	11.930	375
							0	23.011	11.855	450

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
76	507487.121	104677.527	13.600	1.777	1350		1 23.011	11.823	450
77	507560.910	104689.140	14.752	1.152	600		0 23.012	11.823	450
78	507554.257	104691.140	14.678	1.425	1200		1 43.000	13.600	150
79	507558.578	104703.380	14.599	1.149	600		0 43.000	13.328	150
80	507551.152	104701.054	14.399	1.540	1200		1 43.001	13.253	225
81	507533.931	104695.660	13.500	1.384	1200		0 44.000	13.450	150
82_IN	507491.700	104690.559	13.500	1.700			1 44.000	12.934	150
82	507488.730	104694.011	13.500	1.862	1350		2 43.001	12.859	225
82A	507487.246	104695.735	13.055	1.621	1200		0 43.002	12.859	225
82_OUT	507478.465	104706.267	12.000	1.800			1 43.002	12.116	225

Simulation Settings

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

Storm Durations

60	180	360	600	960	2160	4320	7200	10080
120	240	480	720	1440	2880	5760	8640	

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
10	10	0	0
100	40	0	0

Node 82 Online StormBrake™ Control

Flap Valve	x	Design Flow (l/s)	5.8
Replaces Downstream Link	x	Product Code	FPM-SB1-01560-00580-1100
Invert Level (m)	11.638	Min Outlet Diameter (m)	0.150
Design Depth (m)	1.562	Min Node Diameter (mm)	1200

Node 1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	0.95
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	13.950
Safety Factor	5.0	Time to half empty (mins)	12

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	68.0	0.0	0.400	68.0	0.0	0.401	0.0	0.0

Node 82 IN Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Porosity	1.00
Side Inf Coefficient (m/hr)	0.00000	Invert Level (m)	11.800
Safety Factor	5.0	Time to half empty (mins)	

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)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	626.5	0.0	0.700	940.5	0.0	1.400	1290.7	0.0	2.100	0.0	0.0
0.100	669.1	0.0	0.800	988.3	0.0	1.500	1343.7	0.0	2.200	0.0	0.0
0.200	712.5	0.0	0.900	1036.9	0.0	1.600	1397.4	0.0	2.300	0.0	0.0
0.300	756.7	0.0	1.000	1086.2	0.0	1.700	1451.8	0.0	2.400	0.0	0.0
0.400	801.5	0.0	1.100	1136.2	0.0	1.701	0.0	0.0	2.500	0.0	0.0
0.500	847.1	0.0	1.200	1187.0	0.0	1.900	0.0	0.0			
0.600	893.5	0.0	1.300	1238.5	0.0	2.000	0.0	0.0			

Results for 10 year +10% CC Critical Storm Duration. Lowest mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	37	13.995	0.044	5.9	2.9351	0.0000	OK
60 minute summer	2	34	13.970	0.080	11.0	0.1185	0.0000	OK
60 minute summer	3	33	15.624	0.024	4.8	0.0180	0.0000	OK
60 minute summer	4	34	13.906	0.117	17.8	0.1417	0.0000	OK
60 minute summer	5	33	14.199	0.049	6.3	0.0288	0.0000	OK
60 minute summer	6	33	13.871	0.052	4.8	0.0719	0.0000	OK
60 minute summer	7	35	13.864	0.188	37.7	0.2784	0.0000	OK
60 minute summer	8	32	15.173	0.023	4.4	0.0135	0.0000	OK
60 minute summer	9	35	13.850	0.210	41.5	0.0000	0.0000	OK
60 minute summer	10	33	15.874	0.024	5.5	0.0148	0.0000	OK
60 minute summer	11	33	15.574	0.024	6.3	0.0152	0.0000	OK
60 minute summer	12	34	13.824	0.301	50.9	0.3405	0.0000	SURCHARGED
60 minute summer	13	34	13.798	0.305	50.1	0.3450	0.0000	OK
60 minute summer	14	33	17.248	0.048	4.4	0.0264	0.0000	OK
60 minute summer	15	33	17.053	0.047	9.4	0.0663	0.0000	OK
60 minute summer	16	33	16.439	0.028	3.2	0.0123	0.0000	OK
60 minute summer	17	33	15.866	0.044	12.6	0.0501	0.0000	OK
60 minute summer	18	33	15.133	0.043	12.6	0.0487	0.0000	OK
60 minute summer	19	33	16.863	0.013	1.7	0.0052	0.0000	OK
60 minute summer	20	33	14.297	0.048	16.4	0.0565	0.0000	OK
60 minute summer	21	34	13.767	0.325	65.0	0.3671	0.0000	SURCHARGED
60 minute summer	22	33	15.577	0.027	7.8	0.0181	0.0000	OK
60 minute summer	23	33	16.262	0.012	2.1	0.0055	0.0000	OK
60 minute summer	24	34	13.710	0.310	77.8	0.3800	0.0000	SURCHARGED
60 minute summer	25	33	16.271	0.021	1.9	0.0093	0.0000	OK
60 minute summer	26	33	15.888	0.025	1.9	0.0287	0.0000	OK
60 minute summer	27	33	16.116	0.036	4.6	0.0240	0.0000	OK
60 minute summer	28	33	16.612	0.012	0.8	0.0046	0.0000	OK
60 minute summer	29	33	15.755	0.062	15.3	0.1042	0.0000	OK
60 minute summer	30	33	15.874	0.024	2.1	0.0104	0.0000	OK
60 minute summer	31	33	16.023	0.023	3.2	0.0136	0.0000	OK
60 minute summer	32	33	15.270	0.076	26.7	0.1141	0.0000	OK
60 minute summer	33	34	15.256	0.006	0.2	0.0018	0.0000	OK
60 minute summer	34	1	15.850	0.000	0.0	0.0000	0.0000	OK
60 minute summer	35	33	14.071	0.061	26.9	0.0691	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	1	1.000	2	3.5	0.476	0.087	0.0848	
60 minute summer	2	1.001	4	11.0	0.667	0.273	0.2792	
60 minute summer	3	2.000	4	4.8	2.490	0.054	0.0200	
60 minute summer	4	1.002	7	17.6	0.931	0.436	0.1270	
60 minute summer	5	3.000	7	6.3	1.303	0.212	0.0563	
60 minute summer	6	4.000	7	4.8	0.553	0.119	0.1490	
60 minute summer	7	1.003	9	37.1	0.918	0.514	0.4198	
60 minute summer	8	5.000	9	4.4	2.548	0.051	0.0236	
60 minute summer	9	1.004	12	39.4	0.755	0.548	1.7019	
60 minute summer	10	6.000	12	5.5	2.486	0.058	0.0764	
60 minute summer	11	7.000	12	6.3	2.822	0.059	0.0512	
60 minute summer	12	1.005	13	50.1	0.752	0.699	0.5032	
60 minute summer	13	1.006	21	50.7	0.818	0.717	0.8595	
60 minute summer	14	8.000	15	4.4	0.949	0.195	0.0281	
60 minute summer	15	8.001	17	9.4	1.637	0.091	0.1758	
60 minute summer	16	9.000	17	3.2	1.407	0.074	0.0199	
60 minute summer	17	8.002	18	12.6	2.335	0.076	0.0395	
60 minute summer	18	8.003	20	12.6	2.212	0.076	0.0480	
60 minute summer	19	10.000	20	1.7	2.487	0.014	0.0036	
60 minute summer	20	8.004	21	16.4	1.663	0.099	0.1679	
60 minute summer	21	1.007	24	65.5	0.930	0.926	0.7241	
60 minute summer	22	11.000	24	7.8	2.947	0.074	0.0574	
60 minute summer	23	12.000	24	2.1	2.337	0.015	0.0424	
60 minute summer	24	1.008	36	77.7	1.152	1.092	1.7083	
60 minute summer	25	13.000	26	1.9	1.285	0.040	0.0064	
60 minute summer	26	13.001	29	1.9	0.351	0.027	0.0526	
60 minute summer	27	14.000	29	4.6	1.458	0.115	0.0196	
60 minute summer	28	15.000	29	0.8	1.269	0.012	0.0038	
60 minute summer	29	13.002	32	15.3	1.482	0.166	0.1649	
60 minute summer	30	16.000	32	2.1	1.204	0.051	0.0194	
60 minute summer	31	17.000	32	3.2	1.876	0.049	0.0093	
60 minute summer	32	13.003	35	26.7	2.612	0.217	0.2192	
60 minute summer	33	18.000	35	0.2	0.905	0.003	0.0015	
60 minute summer	34	19.000	35	0.0	0.000	0.000	0.0000	
60 minute summer	35	13.004	36	26.9	2.373	0.163	0.1439	

Results for 10 year +10% CC Critical Storm Duration. Lowest mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	36	34	13.568	0.345	103.8	0.4943	0.0000	OK
60 minute summer	37	33	14.871	0.021	4.0	0.0130	0.0000	OK
60 minute summer	38	34	13.508	0.330	117.5	0.5942	0.0000	OK
60 minute summer	39	34	13.410	0.273	118.0	0.3965	0.0000	OK
60 minute summer	40	33	13.791	0.041	6.9	0.0360	0.0000	OK
60 minute summer	41	34	13.268	0.177	127.3	0.2812	0.0000	OK
60 minute summer	42	33	13.475	0.025	2.7	0.0130	0.0000	OK
60 minute summer	43	34	12.892	0.171	133.1	0.2796	0.0000	OK
600 minute winter	44	585	12.507	0.391	21.3	0.5598	0.0000	SURCHARGED
60 minute summer	47A	34	17.415	0.015	0.8	0.0054	0.0000	OK
60 minute summer	45	33	17.171	0.021	1.9	0.0095	0.0000	OK
60 minute summer	46	33	16.797	0.087	7.4	0.0661	0.0000	OK
60 minute summer	47	33	16.692	0.085	20.0	0.1520	0.0000	OK
60 minute summer	48	33	16.724	0.024	1.9	0.0105	0.0000	OK
60 minute summer	49	32	16.432	0.032	2.9	0.0161	0.0000	OK
60 minute summer	50	32	16.532	0.032	4.0	0.0191	0.0000	OK
60 minute summer	51	33	16.234	0.106	28.8	0.1202	0.0000	OK
60 minute summer	52	33	16.181	0.031	2.9	0.0156	0.0000	OK
60 minute summer	53	33	16.329	0.029	3.8	0.0170	0.0000	OK
60 minute summer	54	33	15.881	0.109	40.8	0.1593	0.0000	OK
60 minute summer	55	33	16.227	0.027	4.0	0.0172	0.0000	OK
60 minute summer	56	33	15.490	0.158	48.4	0.2143	0.0000	OK
60 minute summer	57	33	16.522	0.022	1.9	0.0098	0.0000	OK
60 minute summer	58	33	16.239	0.039	5.5	0.0265	0.0000	OK
60 minute summer	59	33	15.955	0.080	19.0	0.1467	0.0000	OK
60 minute summer	60	33	16.131	0.031	4.2	0.0196	0.0000	OK
60 minute summer	61	33	15.376	0.135	75.5	0.1848	0.0000	OK
60 minute summer	62	33	15.180	0.050	4.2	0.0254	0.0000	OK
60 minute summer	63	33	15.382	0.032	4.4	0.0192	0.0000	OK
60 minute summer	64	33	15.006	0.146	87.6	0.1961	0.0000	OK
60 minute summer	65	33	14.636	0.036	4.2	0.0225	0.0000	OK
60 minute summer	66	33	14.764	0.034	5.9	0.0306	0.0000	OK
60 minute summer	67	33	14.086	0.143	105.6	0.2731	0.0000	OK
60 minute summer	68	33	14.128	0.028	3.2	0.0155	0.0000	OK
60 minute summer	69	33	13.642	0.042	5.0	0.0266	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	36	1.009	38	103.9	0.994	0.932	1.4995	
60 minute summer	37	20.000	38	4.0	2.402	0.041	0.0360	
60 minute summer	38	1.010	39	117.6	1.238	1.056	1.2368	
60 minute summer	39	1.011	41	118.0	1.711	1.067	1.0200	
60 minute summer	40	21.000	41	6.9	1.821	0.147	0.0239	
60 minute summer	41	1.012	43	127.3	2.560	0.346	0.5475	
60 minute summer	42	22.000	43	2.7	1.471	0.054	0.0120	
60 minute summer	43	116	44	133.1	2.316	0.383	1.1573	
600 minute winter	44	1.014	82_IN	21.1	1.099	0.093	2.7219	
60 minute summer	47A	23.000	47	0.8	0.886	0.020	0.0132	
60 minute summer	45	24.000	47	1.9	1.266	0.041	0.0105	
60 minute summer	46	25.000	47	7.4	0.745	0.544	0.0470	
60 minute summer	47	23.001	51	20.0	1.246	0.306	0.4892	
60 minute summer	48	26.000	51	1.9	0.964	0.057	0.0325	
60 minute summer	49	27.000	51	2.9	1.104	0.089	0.0158	
60 minute summer	50	28.000	51	4.0	1.508	0.089	0.0126	
60 minute summer	51	23.002	54	28.8	1.641	0.399	0.2576	
60 minute summer	52	29.000	54	2.9	1.144	0.085	0.0159	
60 minute summer	53	30.000	54	3.8	1.698	0.070	0.0092	
60 minute summer	54	23.003	56	40.8	1.348	0.282	0.7922	
60 minute summer	55	31.000	56	4.0	1.965	0.062	0.0114	
60 minute summer	56	23.004	61	48.3	1.415	0.454	0.3395	
60 minute summer	57	32.000	59	1.9	1.186	0.045	0.0161	
60 minute summer	58	33.000	59	5.5	1.571	0.129	0.0155	
60 minute summer	59	32.001	61	19.0	1.543	0.256	0.3384	
60 minute summer	60	34.000	61	4.2	1.631	0.088	0.0257	
60 minute summer	61	23.005	64	75.4	2.322	0.335	0.3038	
60 minute summer	62	35.000	64	4.2	0.854	0.217	0.0497	
60 minute summer	63	36.000	64	4.4	1.656	0.089	0.0118	
60 minute summer	64	23.006	67	87.5	2.691	0.426	0.8085	
60 minute summer	65	37.000	67	4.2	1.330	0.117	0.0341	
60 minute summer	66	38.000	67	5.9	2.035	0.101	0.0154	
60 minute summer	67	23.007	70	105.5	2.933	0.260	0.6317	
60 minute summer	68	39.000	70	3.2	1.417	0.074	0.0259	
60 minute summer	69	40.000	70	5.0	1.308	0.147	0.0187	

Results for 10 year +10% CC Critical Storm Duration. Lowest mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	70	33	13.307	0.109	113.7	0.1559	0.0000	OK
600 minute winter	71	585	12.507	0.128	0.6	0.0576	0.0000	OK
600 minute winter	72	585	12.507	0.480	18.5	0.8222	0.0000	SURCHARGED
600 minute winter	73	585	12.507	0.535	19.8	1.0619	0.0000	SURCHARGED
600 minute winter	74	585	12.507	0.232	2.4	0.4856	0.0000	SURCHARGED
600 minute winter	75	585	12.507	0.652	22.5	1.1094	0.0000	SURCHARGED
600 minute winter	76	600	12.507	0.684	22.1	0.9791	0.0000	SURCHARGED
60 minute summer	77	33	13.649	0.049	7.1	0.0426	0.0000	OK
60 minute summer	78	33	13.303	0.050	11.3	0.0713	0.0000	OK
60 minute summer	79	33	13.490	0.040	6.5	0.0329	0.0000	OK
60 minute summer	80	33	12.929	0.070	22.6	0.1005	0.0000	OK
600 minute winter	81	585	12.507	0.391	3.4	0.4425	0.0000	SURCHARGED
600 minute winter	82_IN	600	12.507	0.707	51.2	554.2214	0.0000	SURCHARGED
480 minute winter	82	472	12.513	0.875	51.6	1.2521	0.0000	SURCHARGED
8640 minute summer	82A	5280	11.468	0.034	5.8	0.0387	0.0000	OK
8640 minute summer	82_OUT	5280	10.233	0.033	5.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	70	23.008	72	113.6	1.498	0.188	0.8895	
600 minute winter	71	41.000	72	0.6	0.465	0.034	0.2135	
600 minute winter	72	23.009	73	18.1	0.629	0.163	1.9512	
600 minute winter	73	23.010	75	19.4	0.698	0.174	1.4789	
600 minute winter	74	42.000	75	2.4	0.794	0.033	0.4089	
600 minute winter	75	23.011	76	22.1	0.457	0.154	2.5267	
600 minute winter	76	23.012	82_IN	21.8	0.845	0.161	2.0374	
60 minute summer	77	43.000	78	7.1	1.497	0.201	0.0330	
60 minute summer	78	43.001	80	11.3	1.322	0.111	0.0894	
60 minute summer	79	44.000	80	6.5	1.783	0.141	0.0284	
60 minute summer	80	43.002	81	22.6	1.520	0.213	0.2713	
600 minute winter	81	43.003_1	82_IN	3.2	0.615	0.070	1.6419	
600 minute winter	82_IN	43.003	82	43.0	0.741	0.070	0.7216	
480 minute winter	82	1.016	82A	5.8	1.794	0.108	0.0074	
8640 minute summer	82A	1.017	82_OUT	5.8	1.957	0.108	0.0406	992.2

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	1	37	14.599	0.649	66.5	26.7545	0.0000	SURCHARGED
60 minute summer	2	37	14.582	0.692	55.0	1.0288	0.0000	SURCHARGED
60 minute summer	3	33	15.635	0.035	10.5	0.0265	0.0000	OK
60 minute summer	4	38	14.537	0.748	42.7	0.9100	0.0000	SURCHARGED
60 minute summer	5	34	14.574	0.424	13.7	0.2498	0.0000	SURCHARGED
60 minute summer	6	37	14.509	0.690	10.5	0.9516	0.0000	SURCHARGED
60 minute summer	7	38	14.504	0.828	53.8	1.2238	0.0000	SURCHARGED
60 minute summer	8	33	15.184	0.034	9.6	0.0192	0.0000	OK
60 minute summer	9	34	14.495	0.855	58.2	0.0000	0.0000	SURCHARGED
60 minute summer	10	33	15.886	0.036	11.9	0.0216	0.0000	OK
60 minute summer	11	33	15.586	0.036	13.7	0.0222	0.0000	OK
60 minute summer	12	34	14.475	0.952	72.0	1.0771	0.0000	SURCHARGED
60 minute summer	13	34	14.447	0.954	74.1	1.0790	0.0000	SURCHARGED
60 minute summer	14	33	17.276	0.076	9.6	0.0415	0.0000	OK
60 minute summer	15	33	17.076	0.070	20.6	0.0988	0.0000	OK
60 minute summer	16	33	16.453	0.043	6.9	0.0183	0.0000	OK
60 minute summer	17	33	15.890	0.068	27.5	0.0771	0.0000	OK
60 minute summer	18	33	15.152	0.062	27.5	0.0699	0.0000	OK
60 minute summer	19	31	16.868	0.018	3.7	0.0073	0.0000	OK
60 minute summer	20	34	14.447	0.198	35.8	0.2348	0.0000	OK
60 minute summer	21	34	14.408	0.966	94.4	1.0921	0.0000	SURCHARGED
60 minute summer	22	33	15.590	0.040	16.9	0.0266	0.0000	OK
60 minute summer	23	33	16.268	0.018	4.6	0.0079	0.0000	OK
60 minute summer	24	34	14.313	0.913	111.9	1.1201	0.0000	SURCHARGED
60 minute summer	25	33	16.282	0.032	4.1	0.0138	0.0000	OK
60 minute summer	26	33	15.900	0.037	4.1	0.0415	0.0000	OK
60 minute summer	27	33	16.136	0.056	10.1	0.0370	0.0000	OK
60 minute summer	28	33	16.617	0.017	1.8	0.0067	0.0000	OK
60 minute summer	29	33	15.791	0.098	33.4	0.1637	0.0000	OK
60 minute summer	30	33	15.885	0.035	4.6	0.0154	0.0000	OK
60 minute summer	31	33	16.035	0.035	6.9	0.0201	0.0000	OK
60 minute summer	32	32	15.304	0.110	58.2	0.1653	0.0000	OK
60 minute summer	33	33	15.259	0.009	0.5	0.0027	0.0000	OK
60 minute summer	34	1	15.850	0.000	0.0	0.0000	0.0000	OK
60 minute summer	35	33	14.161	0.151	58.8	0.1706	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	1	1.000	2	-53.7	-1.349	-1.316	0.3855	
60 minute summer	2	1.001	4	39.8	1.001	0.989	0.6666	
60 minute summer	3	2.000	4	10.5	2.465	0.118	0.0727	
60 minute summer	4	1.002	7	43.5	1.159	1.077	0.2483	
60 minute summer	5	3.000	7	12.6	1.336	0.424	0.2050	
60 minute summer	6	4.000	7	9.5	0.552	0.236	0.4495	
60 minute summer	7	1.003	9	55.5	0.936	0.768	0.5953	
60 minute summer	8	5.000	9	9.6	2.537	0.111	0.0596	
60 minute summer	9	1.004	12	60.1	0.853	0.835	1.9466	
60 minute summer	10	6.000	12	11.9	2.442	0.126	0.0820	
60 minute summer	11	7.000	12	13.7	2.778	0.128	0.0549	
60 minute summer	12	1.005	13	74.1	1.053	1.034	0.5034	
60 minute summer	13	1.006	21	75.9	1.078	1.073	0.8786	
60 minute summer	14	8.000	15	9.6	1.151	0.426	0.0505	
60 minute summer	15	8.001	17	20.6	1.998	0.201	0.3155	
60 minute summer	16	9.000	17	6.9	1.739	0.159	0.0347	
60 minute summer	17	8.002	18	27.5	2.902	0.166	0.0694	
60 minute summer	18	8.003	20	27.5	2.556	0.166	0.1921	
60 minute summer	19	10.000	20	3.7	3.064	0.030	0.0436	
60 minute summer	20	8.004	21	33.6	1.669	0.203	0.2811	
60 minute summer	21	1.007	24	96.0	1.363	1.357	0.7241	
60 minute summer	22	11.000	24	16.9	2.834	0.160	0.0620	
60 minute summer	23	12.000	24	4.6	2.276	0.034	0.0436	
60 minute summer	24	1.008	36	114.0	1.620	1.601	1.7502	
60 minute summer	25	13.000	26	4.1	1.588	0.085	0.0112	
60 minute summer	26	13.001	29	4.1	0.413	0.058	0.0958	
60 minute summer	27	14.000	29	10.1	1.786	0.252	0.0351	
60 minute summer	28	15.000	29	1.8	1.563	0.027	0.0082	
60 minute summer	29	13.002	32	33.4	1.882	0.361	0.2841	
60 minute summer	30	16.000	32	4.6	1.503	0.112	0.0345	
60 minute summer	31	17.000	32	6.9	2.284	0.105	0.0168	
60 minute summer	32	13.003	35	58.3	2.886	0.474	0.5056	
60 minute summer	33	18.000	35	0.5	1.012	0.007	0.0322	
60 minute summer	34	19.000	35	0.0	0.000	0.000	0.0209	
60 minute summer	35	13.004	36	58.3	2.306	0.352	0.2169	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	36	34	13.991	0.768	167.4	1.0993	0.0000	SURCHARGED
60 minute summer	37	33	14.880	0.030	8.7	0.0190	0.0000	OK
60 minute summer	38	34	13.829	0.651	196.9	1.1739	0.0000	SURCHARGED
60 minute summer	39	34	13.618	0.481	198.0	0.6978	0.0000	SURCHARGED
60 minute summer	40	33	13.815	0.065	15.1	0.0562	0.0000	OK
60 minute summer	41	34	13.353	0.262	218.0	0.4166	0.0000	OK
60 minute summer	42	32	13.487	0.037	5.9	0.0194	0.0000	OK
960 minute winter	43	945	13.143	0.422	28.7	0.6897	0.0000	SURCHARGED
960 minute winter	44	945	13.143	1.027	28.7	1.4693	0.0000	SURCHARGED
60 minute summer	47A	33	17.422	0.022	1.8	0.0078	0.0000	OK
60 minute summer	45	33	17.180	0.030	4.1	0.0134	0.0000	OK
60 minute summer	46	33	16.868	0.158	16.0	0.1207	0.0000	SURCHARGED
60 minute summer	47	33	16.744	0.137	43.4	0.2447	0.0000	OK
60 minute summer	48	33	16.736	0.036	4.1	0.0154	0.0000	OK
60 minute summer	49	33	16.445	0.045	6.4	0.0230	0.0000	OK
60 minute summer	50	33	16.545	0.045	8.7	0.0266	0.0000	OK
60 minute summer	51	33	16.313	0.185	62.6	0.2094	0.0000	OK
60 minute summer	52	33	16.197	0.047	6.4	0.0238	0.0000	OK
60 minute summer	53	33	16.343	0.043	8.2	0.0258	0.0000	OK
60 minute summer	54	32	15.951	0.179	88.4	0.2614	0.0000	OK
60 minute summer	55	33	16.237	0.037	8.7	0.0241	0.0000	OK
60 minute summer	56	33	15.646	0.314	105.2	0.4256	0.0000	SURCHARGED
60 minute summer	57	33	16.532	0.032	4.1	0.0140	0.0000	OK
60 minute summer	58	33	16.261	0.061	11.9	0.0413	0.0000	OK
60 minute summer	59	32	15.995	0.120	41.1	0.2207	0.0000	OK
60 minute summer	60	33	16.144	0.044	9.1	0.0280	0.0000	OK
60 minute summer	61	33	15.487	0.246	163.9	0.3357	0.0000	OK
60 minute summer	62	32	15.208	0.078	9.1	0.0398	0.0000	OK
60 minute summer	63	33	15.395	0.045	9.6	0.0266	0.0000	OK
60 minute summer	64	33	15.127	0.267	190.0	0.3572	0.0000	OK
60 minute summer	65	33	14.654	0.054	9.1	0.0341	0.0000	OK
60 minute summer	66	33	14.783	0.053	12.8	0.0469	0.0000	OK
60 minute summer	67	34	14.226	0.283	227.8	0.5425	0.0000	OK
60 minute summer	68	33	14.140	0.040	6.9	0.0222	0.0000	OK
60 minute summer	69	35	13.932	0.332	11.0	0.2104	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	36	1.009	38	167.5	1.519	1.504	1.5833	
60 minute summer	37	20.000	38	8.7	2.377	0.090	0.0497	
60 minute summer	38	1.010	39	197.1	1.787	1.771	1.4451	
60 minute summer	39	1.011	41	198.1	1.896	1.791	1.4316	
60 minute summer	40	21.000	41	15.1	2.215	0.322	0.0431	
60 minute summer	41	1.012	43	218.0	2.696	0.593	0.9643	
60 minute summer	42	22.000	43	5.9	1.824	0.119	0.0381	
960 minute winter	43	116	44	28.7	1.457	0.082	2.2208	
960 minute winter	44	1.014	82_IN	28.5	1.113	0.126	2.7219	
60 minute summer	47A	23.000	47	1.8	0.927	0.045	0.0612	
60 minute summer	45	24.000	47	4.1	1.364	0.088	0.0326	
60 minute summer	46	25.000	47	16.0	0.945	1.176	0.0766	
60 minute summer	47	23.001	51	43.4	1.435	0.665	0.9161	
60 minute summer	48	26.000	51	4.1	0.962	0.123	0.1225	
60 minute summer	49	27.000	51	6.4	1.100	0.196	0.0541	
60 minute summer	50	28.000	51	8.7	1.492	0.193	0.0428	
60 minute summer	51	23.002	54	62.4	1.911	0.866	0.4786	
60 minute summer	52	29.000	54	6.4	1.413	0.188	0.0284	
60 minute summer	53	30.000	54	8.2	2.076	0.151	0.0162	
60 minute summer	54	23.003	56	88.7	1.491	0.614	1.4719	
60 minute summer	55	31.000	56	8.7	2.081	0.135	0.0587	
60 minute summer	56	23.004	61	105.0	1.596	0.987	0.6562	
60 minute summer	57	32.000	59	4.1	1.363	0.098	0.0359	
60 minute summer	58	33.000	59	11.9	1.899	0.280	0.0277	
60 minute summer	59	32.001	61	41.2	1.693	0.554	0.7398	
60 minute summer	60	34.000	61	9.1	1.844	0.191	0.0813	
60 minute summer	61	23.005	64	163.5	2.556	0.726	0.5983	
60 minute summer	62	35.000	64	9.2	0.989	0.474	0.1188	
60 minute summer	63	36.000	64	9.6	1.860	0.194	0.0426	
60 minute summer	64	23.006	67	188.5	3.083	0.919	1.5214	
60 minute summer	65	37.000	67	9.1	1.637	0.255	0.0634	
60 minute summer	66	38.000	67	12.8	2.482	0.219	0.0300	
60 minute summer	67	23.007	70	224.7	3.280	0.554	1.7533	
60 minute summer	68	39.000	70	6.9	1.719	0.159	0.1229	
60 minute summer	69	40.000	70	11.5	1.561	0.337	0.0860	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 99.73%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute summer	70	34	13.906	0.708	240.5	1.0135	0.0000	SURCHARGED
60 minute summer	71	35	13.650	1.271	9.1	0.5706	0.0000	SURCHARGED
60 minute summer	72	35	13.613	1.586	258.9	2.7155	0.0000	SURCHARGED
60 minute summer	73	35	13.185	1.213	280.3	2.4069	0.0000	SURCHARGED
960 minute winter	74	945	13.143	0.868	3.2	1.8145	0.0000	SURCHARGED
960 minute winter	75	945	13.143	1.288	30.6	2.1905	0.0000	SURCHARGED
960 minute winter	76	945	13.143	1.320	30.5	1.8886	0.0000	SURCHARGED
60 minute summer	77	33	13.677	0.077	15.5	0.0675	0.0000	OK
60 minute summer	78	32	13.329	0.076	24.6	0.1076	0.0000	OK
60 minute summer	79	33	13.512	0.062	14.2	0.0510	0.0000	OK
960 minute winter	80	945	13.143	0.284	4.5	0.4058	0.0000	SURCHARGED
960 minute winter	81	945	13.143	1.027	4.5	1.1613	0.0000	SURCHARGED
960 minute winter	82_IN	945	13.143	1.343	74.2	1254.2020	0.0000	SURCHARGED
1440 minute winter	82	1410	13.149	1.511	52.0	2.1617	0.0000	SURCHARGED
10080 minute winter	82A	10140	11.468	0.034	5.8	0.0387	0.0000	OK
5760 minute winter	82_OUT	2400	10.233	0.033	5.8	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute summer	70	23.008	72	237.5	2.154	0.394	1.4340	
60 minute summer	71	41.000	72	9.2	0.718	0.518	0.2234	
60 minute summer	72	23.009	73	256.9	2.330	2.316	1.9512	
60 minute summer	73	23.010	75	278.3	2.524	2.499	1.4789	
960 minute winter	74	42.000	75	3.1	0.746	0.043	0.4089	
960 minute winter	75	23.011	76	30.5	0.434	0.212	2.5267	
960 minute winter	76	23.012	82_IN	30.4	0.854	0.224	2.0374	
60 minute summer	77	43.000	78	15.5	1.809	0.439	0.0595	
60 minute summer	78	43.001	80	24.6	1.583	0.242	0.1786	
60 minute summer	79	44.000	80	14.2	2.179	0.308	0.0507	
960 minute winter	80	43.002	81	4.5	0.826	0.042	0.7177	
960 minute winter	81	43.003_1	82_IN	4.4	0.625	0.096	1.6419	
960 minute winter	82_IN	43.003	82	67.0	0.764	0.110	0.7216	
1440 minute winter	82	1.016	82A	5.8	1.791	0.108	0.0074	
10080 minute winter	82A	1.017	82_OUT	5.8	1.957	0.108	0.0406	2438.5