

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	5	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	10	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.200	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
HD1	0.018	5.00	163.173	1200	270383.685	210777.826	1.425
HD2	0.019	5.00	162.000	1200	270362.059	210781.272	1.425
HD3	0.049	5.00	161.773	1200	270346.534	210772.588	1.408
HD4	0.050	5.00	161.208	1200	270337.342	210709.478	1.225
HW1	0.023	5.00	160.890	1	270329.969	210706.741	0.955
HW2	0.000		160.890	1	270325.723	210692.621	1.044
S4	0.000		161.000	1200	270322.099	210686.775	1.196
S5	0.000		161.063	1200	270319.251	210684.321	2.092
OUTFALL	0.000		160.060	1	270302.037	210687.157	1.250
ic1	0.017	5.00	162.100	500	270303.315	210417.903	0.910
ic2	0.005	5.00	161.963	500	270280.437	210421.095	1.013
ic3	0.041	5.00	161.872	500	270282.213	210433.821	1.052
out1	0.000		161.100	1	270283.055	210440.593	0.545
HP1	0.112	5.00	161.100	1200	270298.928	210527.505	1.199
S10	0.000		161.248	1200	270304.820	210532.422	1.500
S11	0.000		161.430	1200	270304.941	210551.232	1.759
S12	0.000		161.484	1200	270309.692	210585.283	1.954
S13	0.000		161.328	1200	270316.510	210606.401	1.889
S14	0.000		161.458	1200	270325.279	210669.279	2.354
S15	0.000		161.215	2100	270319.772	210672.515	2.137
HP2	0.074	5.00	161.100	225	270317.522	210657.396	0.470
ic4	0.039	5.00	162.009	1200	270297.703	210448.915	1.342
ic5	0.000		161.920	500	270302.080	210480.291	1.570
ic6	0.060	5.00	161.790	500	270306.560	210488.956	1.620
ic7	0.008	5.00	161.550	500	270312.472	210531.354	1.670
ic8		5.00	161.514	500	270319.914	210543.593	0.874
ic9	0.018	5.00	161.636	500	270314.289	210544.378	1.146
ic10	0.001	5.00	161.726	500	270310.584	210550.444	1.196
ic11	0.052	5.00	161.750	500	270314.327	210570.522	0.750
ic12	0.000		161.734	500	270316.384	210585.266	0.884
ic13	0.092	5.00	161.734	500	270319.929	210584.772	1.234
ic14	0.043	5.00	161.517	500	270323.883	210613.108	1.217
ic15	0.007	5.00	161.454	500	270326.845	210634.360	1.304
ic16			161.610	500	270328.867	210654.272	1.610
ic17			161.705	500	270330.852	210668.502	1.805

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	HD1	HD2	21.899	0.600	161.748	160.575	1.173	18.7	225	5.12	50.0
1.001	HD2	HD3	17.789	0.600	160.575	160.365	0.210	84.7	225	5.33	50.0
1.002	HD3	HD4	63.776	0.600	160.365	159.983	0.382	167.0	225	6.38	50.0
1.003	HD4	HW1	7.865	0.600	159.983	159.935	0.048	163.8	225	6.51	50.0
1.004	HW1	HW2	14.745	0.600	159.935	159.846	0.089	165.7	225	6.75	50.0
1.005	HW2	S4	6.878	0.600	159.846	159.804	0.042	163.8	225	6.87	50.0
1.006	S4	S5	3.759	0.600	159.804	159.646	0.158	23.8	225	6.89	50.0
1.007	S5	OUTFALL	17.446	0.600	158.971	158.810	0.161	108.4	900	9.76	49.9
2.000	ic1	ic2	23.100	0.600	161.190	160.950	0.240	96.2	150	5.38	50.0
2.001	ic2	ic3	12.849	0.600	160.950	160.820	0.130	98.8	150	5.59	50.0
2.002	ic3	out1	6.824	0.600	160.820	160.630	0.190	35.9	150	5.66	50.0
2.003	out1	HP1	88.350	0.600	160.555	159.901	0.654	135.1	225	6.97	50.0
2.004	HP1	S10	7.674	0.600	159.901	159.823	0.078	98.4	225	7.06	50.0
2.005	S10	S11	18.810	0.600	159.748	159.671	0.077	244.3	300	7.38	50.0
2.006	S11	S12	34.381	0.600	159.671	159.530	0.141	244.3	300	7.95	50.0
2.007	S12	S13	22.191	0.600	159.530	159.439	0.091	244.3	300	8.32	50.0
2.008	S13	S14	63.487	0.600	159.439	159.179	0.260	244.3	300	9.38	50.0
2.009	S14	S15	6.387	0.600	159.104	159.078	0.026	245.7	375	9.47	50.0
2.010	S15	S5	11.817	0.600	159.078	159.041	0.037	319.4	375	9.66	50.0
3.000	ic4	ic5	31.680	0.600	160.667	160.350	0.317	99.9	150	5.53	50.0
3.001	ic5	ic6	9.755	0.600	160.350	160.245	0.105	92.9	150	5.68	50.0
3.002	ic6	ic7	42.808	0.600	160.170	159.880	0.290	147.6	225	6.35	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	3.042	121.0	2.7	1.200	1.200	0.018	0.0	23	1.263
1.001	1.421	56.5	5.5	1.200	1.183	0.037	0.0	47	0.906
1.002	1.009	40.1	12.8	1.183	1.000	0.086	0.0	87	0.900
1.003	1.018	40.5	20.3	1.000	0.730	0.136	0.0	113	1.020
1.004	1.013	40.3	23.7	0.730	0.819	0.159	0.0	124	1.053
1.005	1.019	40.5	23.7	0.819	0.971	0.159	0.0	123	1.057
1.006	2.693	107.1	23.7	0.971	1.192	0.159	0.0	72	2.175
1.007	3.009	1914.4	108.4	1.192	0.350	0.728	0.0	143	1.672
2.000	1.024	18.1	2.5	0.760	0.863	0.017	0.0	38	0.723
2.001	1.011	17.9	3.3	0.863	0.902	0.022	0.0	44	0.773
2.002	1.685	29.8	9.4	0.902	0.320	0.063	0.0	58	1.494
2.003	1.123	44.6	9.4	0.320	0.974	0.063	0.0	70	0.893
2.004	1.318	52.4	26.1	0.974	1.200	0.175	0.0	112	1.316
2.005	1.001	70.8	44.7	1.200	1.459	0.300	0.0	173	1.057
2.006	1.001	70.8	44.9	1.459	1.654	0.301	0.0	174	1.058
2.007	1.001	70.8	44.9	1.654	1.589	0.301	0.0	174	1.058
2.008	1.001	70.8	44.9	1.589	1.979	0.301	0.0	174	1.058
2.009	1.151	127.1	73.8	1.979	1.762	0.495	0.0	205	1.193
2.010	1.008	111.3	84.8	1.762	1.647	0.569	0.0	246	1.106
3.000	1.005	17.8	5.8	1.192	1.420	0.039	0.0	59	0.900
3.001	1.043	18.4	5.8	1.420	1.395	0.039	0.0	58	0.924
3.002	1.074	42.7	14.8	1.395	1.445	0.099	0.0	91	0.976

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
3.003	ic7	S10	7.726	0.600	159.880	159.823	0.057	135.5	225	6.46	50.0
4.000	ic8	ic9	5.680	0.600	160.640	160.490	0.150	37.9	150	5.06	50.0
4.001	ic9	ic7	13.150	0.600	160.490	159.955	0.535	24.6	150	5.17	50.0
5.000	ic10	S11	5.698	0.600	160.530	159.821	0.709	8.0	150	5.03	50.0
6.000	ic11	ic12	14.887	0.600	161.000	160.850	0.150	99.2	150	5.25	50.0
6.001	ic12	ic13	3.579	0.600	160.850	160.520	0.330	10.8	150	5.27	50.0
6.002	ic13	ic14	28.611	0.600	160.500	160.300	0.200	143.1	225	5.70	50.0
6.003	ic14	ic15	21.457	0.600	160.300	160.150	0.150	143.0	225	6.03	50.0
6.004	ic15	ic16	20.014	0.600	160.150	160.000	0.150	133.4	225	6.33	50.0
6.005	ic16	ic17	14.368	0.600	160.000	159.900	0.100	143.7	225	6.55	50.0
6.006	ic17	S14	5.627	0.600	159.900	159.254	0.646	8.7	225	6.57	50.0
7.000	HP2	S15	15.286	0.600	160.630	159.228	1.402	10.9	225	5.06	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
3.003	1.121	44.6	18.6	1.445	1.200	0.125	0.0	102	1.073
4.000	1.640	29.0	0.0	0.724	0.996	0.000	0.0	0	0.000
4.001	2.039	36.0	2.7	0.996	1.445	0.018	0.0	28	1.205
5.000	3.576	63.2	0.1	1.046	1.459	0.001	0.0	6	0.724
6.000	1.008	17.8	7.8	0.600	0.734	0.052	0.0	69	0.975
6.001	3.076	54.4	7.8	0.734	1.064	0.052	0.0	38	2.197
6.002	1.091	43.4	21.5	1.009	0.992	0.144	0.0	112	1.089
6.003	1.091	43.4	27.9	0.992	1.079	0.187	0.0	131	1.157
6.004	1.130	44.9	28.9	1.079	1.385	0.194	0.0	131	1.198
6.005	1.088	43.3	28.9	1.385	1.580	0.194	0.0	135	1.164
6.006	4.460	177.3	28.9	1.580	1.979	0.194	0.0	61	3.308
7.000	3.985	158.4	11.0	0.245	1.762	0.074	0.0	40	2.316

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	20.000	Drain Down Time (mins)	240
Ratio-R	0.200	Additional Storage (m³/ha)	20.0
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

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

Node S4 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	159.804	Product Number	CTL-SHE-0104-5000-1086-5000
Design Depth (m)	1.086	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node S15 Online Hydro-Brake® Control

Flap Valve	x	Objective	(CU) Linear Discharge
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	159.078	Product Number	CTL-SCU-0119-2000-2022-2000
Design Depth (m)	2.022	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	20.0	Min Node Diameter (mm)	1200

Node HP1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	160.630
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	204

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	179.4	0.0	0.470	494.6	0.0

Node HP2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	160.630
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	196

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	179.4	0.0	0.470	494.6	0.0

Node HW1 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	159.930
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	216

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	31.5	0.0	0.960	155.2	0.0

Results for 1 year Critical Storm Duration. Lowest mass balance: 98.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HD1	10	161.768	0.020	2.0	0.0278	0.0000	OK
15 minute winter	HD2	11	160.615	0.040	4.1	0.0563	0.0000	OK
15 minute winter	HD3	11	160.438	0.073	9.5	0.1327	0.0000	OK
15 minute winter	HD4	11	160.082	0.099	14.5	0.1935	0.0000	OK
60 minute winter	HW1	44	160.071	0.136	11.5	5.6335	0.0000	OK
60 minute winter	HW2	45	160.071	0.225	7.9	0.0000	0.0000	OK
60 minute winter	S4	46	160.070	0.266	5.9	0.3009	0.0000	SURCHARGED
120 minute winter	S5	84	159.038	0.067	20.3	0.0756	0.0000	OK
120 minute winter	OUTFALL	84	158.874	0.064	20.3	0.0000	0.0000	OK
15 minute winter	ic1	10	161.223	0.032	1.9	0.0185	0.0000	OK
15 minute winter	ic2	11	160.987	0.037	2.5	0.0109	0.0000	OK
15 minute winter	ic3	10	160.873	0.053	6.9	0.0513	0.0000	OK
15 minute winter	out1	11	160.613	0.058	6.8	0.0000	0.0000	OK
120 minute winter	HP1	84	160.255	0.354	12.3	1.0602	0.0000	SURCHARGED
120 minute winter	S10	84	160.254	0.506	16.8	0.5719	0.0000	SURCHARGED
120 minute winter	S11	84	160.252	0.581	15.4	0.6576	0.0000	SURCHARGED
120 minute winter	S12	84	160.250	0.720	14.7	0.8148	0.0000	SURCHARGED
120 minute winter	S13	84	160.249	0.810	12.4	0.9161	0.0000	SURCHARGED
120 minute winter	S14	84	160.246	1.141	17.5	1.2910	0.0000	SURCHARGED
120 minute winter	S15	84	160.245	1.167	16.4	4.0421	0.0000	SURCHARGED
120 minute summer	HP2	70	160.653	0.022	5.1	4.2676	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HD1	1.000	HD2	2.0	0.626	0.016	0.0715	
15 minute winter	HD2	1.001	HD3	4.0	0.523	0.070	0.1411	
15 minute winter	HD3	1.002	HD4	9.2	0.661	0.229	0.8918	
15 minute winter	HD4	1.003	HW1	14.2	0.887	0.350	0.1256	
60 minute winter	HW1	1.004	HW2	7.9	0.611	0.195	0.4784	
60 minute winter	HW2	1.005	S4	5.9	0.345	0.145	0.2734	
60 minute winter	S4	Hydro-Brake®	S5	5.0				
120 minute winter	S5	1.007	OUTFALL	20.3	0.994	0.011	0.3568	111.3
15 minute winter	ic1	2.000	ic2	1.9	0.608	0.103	0.0708	
15 minute winter	ic2	2.001	ic3	2.4	0.545	0.133	0.0567	
15 minute winter	ic3	2.002	out1	6.8	1.304	0.229	0.0357	
15 minute winter	out1	2.003	HP1	6.7	0.531	0.149	1.1200	
120 minute winter	HP1	2.004	S10	9.6	0.947	0.183	0.3052	
120 minute winter	S10	2.005	S11	15.3	0.784	0.216	1.3246	
120 minute winter	S11	2.006	S12	14.7	0.766	0.208	2.4211	
120 minute winter	S12	2.007	S13	12.4	0.727	0.175	1.5627	
120 minute winter	S13	2.008	S14	10.3	0.556	0.145	4.4707	
120 minute winter	S14	2.009	S15	13.7	0.415	0.108	0.7045	
120 minute winter	S15	Hydro-Brake®	S5	15.4				
120 minute summer	HP2	7.000	S15	3.3	0.841	0.021	0.3196	

Results for 1 year Critical Storm Duration. Lowest mass balance: 98.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	ic4	10	160.718	0.051	4.4	0.0874	0.0000	OK
15 minute winter	ic5	11	160.401	0.051	4.3	0.0101	0.0000	OK
120 minute winter	ic6	84	160.255	0.085	5.3	0.0799	0.0000	OK
120 minute winter	ic7	84	160.254	0.374	6.7	0.1093	0.0000	SURCHARGED
15 minute summer	ic8	1	160.640	0.000	0.0	0.0000	0.0000	OK
15 minute winter	ic9	10	160.514	0.024	2.0	0.0124	0.0000	OK
30 minute winter	ic10	20	160.535	0.005	0.1	0.0010	0.0000	OK
15 minute winter	ic11	10	161.064	0.064	5.8	0.1020	0.0000	OK
15 minute winter	ic12	10	160.883	0.033	5.7	0.0064	0.0000	OK
15 minute winter	ic13	10	160.596	0.096	16.0	0.1617	0.0000	OK
15 minute winter	ic14	11	160.414	0.114	20.5	0.1026	0.0000	OK
15 minute winter	ic15	11	160.265	0.115	21.1	0.0349	0.0000	OK
120 minute winter	ic16	84	160.248	0.248	10.4	0.0486	0.0000	SURCHARGED
120 minute winter	ic17	84	160.246	0.346	10.4	0.0679	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)
15 minute winter	ic4	3.000	ic5	4.3	0.821	0.241	0.1662	
15 minute winter	ic5	3.001	ic6	4.3	0.828	0.232	0.0504	
120 minute winter	ic6	3.002	ic7	5.3	0.661	0.124	1.1461	
120 minute winter	ic7	3.003	S10	7.2	0.774	0.162	0.3073	
15 minute summer	ic8	4.000	ic9	0.0	0.000	0.000	0.0051	
15 minute winter	ic9	4.001	ic7	2.0	1.081	0.055	0.0240	
30 minute winter	ic10	5.000	S11	0.1	0.661	0.002	0.0506	
15 minute winter	ic11	6.000	ic12	5.7	1.158	0.321	0.0750	
15 minute winter	ic12	6.001	ic13	5.7	1.019	0.105	0.0211	
15 minute winter	ic13	6.002	ic14	15.7	0.874	0.363	0.5155	
15 minute winter	ic14	6.003	ic15	20.4	1.011	0.471	0.4338	
15 minute winter	ic15	6.004	ic16	21.3	1.017	0.473	0.4182	
120 minute winter	ic16	6.005	ic17	10.4	1.251	0.240	0.5714	
120 minute winter	ic17	6.006	S14	10.4	1.797	0.059	0.2238	

Results for 2 year Critical Storm Duration. Lowest mass balance: 98.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HD1	10	161.771	0.023	2.6	0.0315	0.0000	OK
15 minute winter	HD2	10	160.621	0.046	5.4	0.0644	0.0000	OK
15 minute winter	HD3	11	160.449	0.084	12.3	0.1527	0.0000	OK
60 minute winter	HD4	46	160.120	0.137	12.5	0.2660	0.0000	OK
60 minute winter	HW1	46	160.119	0.184	14.3	8.1786	0.0000	OK
60 minute winter	HW2	46	160.118	0.272	8.0	0.0000	0.0000	SURCHARGED
60 minute winter	S4	46	160.117	0.313	5.9	0.3536	0.0000	SURCHARGED
120 minute winter	S5	84	159.041	0.070	22.3	0.0790	0.0000	OK
120 minute winter	OUTFALL	84	158.877	0.067	22.3	0.0000	0.0000	OK
15 minute winter	ic1	10	161.227	0.037	2.5	0.0212	0.0000	OK
15 minute winter	ic2	11	160.992	0.042	3.1	0.0125	0.0000	OK
15 minute winter	ic3	10	160.881	0.061	9.0	0.0597	0.0000	OK
15 minute winter	out1	11	160.622	0.067	8.9	0.0000	0.0000	OK
120 minute winter	HP1	86	160.582	0.681	11.4	2.0432	0.0000	SURCHARGED
120 minute winter	S10	86	160.581	0.833	17.8	0.9423	0.0000	SURCHARGED
120 minute winter	S11	86	160.580	0.909	16.6	1.0277	0.0000	SURCHARGED
120 minute winter	S12	84	160.577	1.047	15.2	1.1844	0.0000	SURCHARGED
120 minute winter	S13	84	160.576	1.136	13.2	1.2853	0.0000	SURCHARGED
120 minute winter	S14	84	160.571	1.467	19.0	1.6595	0.0000	SURCHARGED
120 minute winter	S15	84	160.571	1.493	20.1	5.1701	0.0000	SURCHARGED
60 minute winter	HP2	40	160.656	0.026	6.9	4.9418	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HD1	1.000	HD2	2.6	0.674	0.021	0.0867	
15 minute winter	HD2	1.001	HD3	5.2	0.567	0.093	0.1708	
15 minute winter	HD3	1.002	HD4	12.0	0.706	0.299	1.0887	
60 minute winter	HD4	1.003	HW1	12.2	0.802	0.301	0.2360	
60 minute winter	HW1	1.004	HW2	8.0	0.606	0.199	0.5498	
60 minute winter	HW2	1.005	S4	5.9	0.368	0.147	0.2735	
60 minute winter	S4	Hydro-Brake®	S5	5.0				
120 minute winter	S5	1.007	OUTFALL	22.3	1.022	0.012	0.3808	137.4
15 minute winter	ic1	2.000	ic2	2.4	0.660	0.135	0.0853	
15 minute winter	ic2	2.001	ic3	3.1	0.582	0.174	0.0690	
15 minute winter	ic3	2.002	out1	8.9	1.393	0.299	0.0436	
15 minute winter	out1	2.003	HP1	8.7	0.566	0.195	1.9675	
120 minute winter	HP1	2.004	S10	10.7	0.980	0.204	0.3052	
120 minute winter	S10	2.005	S11	16.5	0.799	0.233	1.3246	
120 minute winter	S11	2.006	S12	15.2	0.777	0.215	2.4211	
120 minute winter	S12	2.007	S13	13.2	0.728	0.186	1.5627	
120 minute winter	S13	2.008	S14	10.1	0.561	0.143	4.4707	
120 minute winter	S14	2.009	S15	17.2	0.552	0.135	0.7045	
120 minute winter	S15	Hydro-Brake®	S5	17.3				
60 minute winter	HP2	7.000	S15	4.4	0.734	0.028	0.3232	

Results for 2 year Critical Storm Duration. Lowest mass balance: 98.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	ic4	10	160.726	0.059	5.7	0.1006	0.0000	OK
120 minute winter	ic5	86	160.584	0.234	3.1	0.0458	0.0000	SURCHARGED
120 minute winter	ic6	86	160.583	0.413	6.4	0.3870	0.0000	SURCHARGED
120 minute winter	ic7	84	160.582	0.702	11.3	0.2049	0.0000	SURCHARGED
15 minute summer	ic8	1	160.640	0.000	0.0	0.0000	0.0000	OK
120 minute winter	ic9	84	160.582	0.092	1.2	0.0468	0.0000	OK
120 minute winter	ic10	86	160.580	0.050	0.2	0.0106	0.0000	OK
15 minute winter	ic11	10	161.075	0.075	7.6	0.1185	0.0000	OK
15 minute winter	ic12	10	160.888	0.038	7.5	0.0074	0.0000	OK
15 minute winter	ic13	10	160.612	0.112	20.8	0.1886	0.0000	OK
120 minute winter	ic14	84	160.581	0.281	12.2	0.2534	0.0000	SURCHARGED
120 minute winter	ic15	84	160.578	0.428	12.7	0.1300	0.0000	SURCHARGED
120 minute winter	ic16	84	160.575	0.575	13.0	0.1126	0.0000	SURCHARGED
120 minute winter	ic17	84	160.572	0.672	12.5	0.1318	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)
15 minute winter	ic4	3.000	ic5	5.6	0.876	0.313	0.2012	
120 minute winter	ic5	3.001	ic6	2.5	0.716	0.138	0.1717	
120 minute winter	ic6	3.002	ic7	6.4	0.683	0.150	1.7025	
120 minute winter	ic7	3.003	S10	7.4	0.802	0.167	0.3073	
15 minute summer	ic8	4.000	ic9	0.0	0.000	0.000	0.0062	
120 minute winter	ic9	4.001	ic7	1.2	0.906	0.034	0.1901	
120 minute winter	ic10	5.000	S11	-0.2	0.661	-0.004	0.0647	
15 minute winter	ic11	6.000	ic12	7.5	1.241	0.419	0.0910	
15 minute winter	ic12	6.001	ic13	7.4	1.032	0.137	0.0264	
15 minute winter	ic13	6.002	ic14	20.5	0.926	0.473	0.6330	
120 minute winter	ic14	6.003	ic15	12.2	0.920	0.281	0.8534	
120 minute winter	ic15	6.004	ic16	13.0	0.940	0.288	0.7960	
120 minute winter	ic16	6.005	ic17	12.5	1.281	0.289	0.5714	
120 minute winter	ic17	6.006	S14	13.3	1.770	0.075	0.2238	

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HD1	10	161.779	0.031	4.9	0.0425	0.0000	OK
15 minute winter	HD2	10	160.638	0.063	10.1	0.0884	0.0000	OK
15 minute winter	HD3	11	160.485	0.120	23.3	0.2185	0.0000	OK
120 minute winter	HD4	94	160.352	0.369	16.5	0.7184	0.0000	SURCHARGED
120 minute winter	HW1	94	160.351	0.416	18.0	24.7261	0.0000	SURCHARGED
120 minute winter	HW2	94	160.350	0.504	6.8	0.0000	0.0000	SURCHARGED
120 minute winter	S4	94	160.349	0.545	5.5	0.6160	0.0000	SURCHARGED
30 minute summer	S5	20	159.042	0.071	23.1	0.0804	0.0000	OK
30 minute summer	OUTFALL	20	158.878	0.068	23.1	0.0000	0.0000	OK
15 minute winter	ic1	10	161.242	0.052	4.7	0.0296	0.0000	OK
15 minute winter	ic2	11	161.009	0.059	6.0	0.0174	0.0000	OK
15 minute winter	ic3	10	160.912	0.092	17.1	0.0894	0.0000	OK
120 minute winter	out1	88	160.779	0.224	7.7	0.0000	0.0000	OK
120 minute winter	HP1	90	160.777	0.876	35.8	36.3112	0.0000	SURCHARGED
120 minute winter	S10	90	160.775	1.027	19.1	1.1614	0.0000	SURCHARGED
120 minute winter	S11	90	160.772	1.101	16.9	1.2455	0.0000	SURCHARGED
120 minute winter	S12	92	160.768	1.238	16.1	1.4005	0.0000	SURCHARGED
120 minute winter	S13	92	160.766	1.327	14.2	1.5004	0.0000	SURCHARGED
120 minute winter	S14	94	160.759	1.655	27.5	1.8719	0.0000	SURCHARGED
120 minute winter	S15	94	160.758	1.680	27.5	5.8204	0.0000	SURCHARGED
120 minute winter	HP2	94	160.759	0.129	17.0	29.0314	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HD1	1.000	HD2	4.9	0.809	0.040	0.1355	
15 minute winter	HD2	1.001	HD3	9.9	0.661	0.174	0.2709	
15 minute winter	HD3	1.002	HD4	22.6	0.810	0.564	1.7876	
120 minute winter	HD4	1.003	HW1	15.2	0.730	0.377	0.3128	
120 minute winter	HW1	1.004	HW2	6.8	0.587	0.169	0.5864	
120 minute winter	HW2	1.005	S4	5.5	0.372	0.136	0.2735	
120 minute winter	S4	Hydro-Brake®	S5	5.0				
30 minute summer	S5	1.007	OUTFALL	23.1	1.033	0.012	0.3907	119.5
15 minute winter	ic1	2.000	ic2	4.6	0.781	0.256	0.1368	
15 minute winter	ic2	2.001	ic3	5.9	0.672	0.330	0.1137	
15 minute winter	ic3	2.002	out1	16.9	1.611	0.566	0.0714	
120 minute winter	out1	2.003	HP1	6.7	0.468	0.151	3.5115	
120 minute winter	HP1	2.004	S10	-15.5	0.997	-0.295	0.3052	
120 minute winter	S10	2.005	S11	16.8	0.811	0.237	1.3246	
120 minute winter	S11	2.006	S12	16.1	0.733	0.227	2.4211	
120 minute winter	S12	2.007	S13	14.2	0.676	0.200	1.5627	
120 minute winter	S13	2.008	S14	14.3	0.586	0.201	4.4707	
120 minute winter	S14	2.009	S15	27.5	0.424	0.216	0.7045	
120 minute winter	S15	Hydro-Brake®	S5	18.3				
120 minute winter	HP2	7.000	S15	-9.1	0.682	-0.058	0.4832	

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	ic4	21	160.849	0.182	9.2	0.3117	0.0000	SURCHARGED
60 minute summer	ic5	35	160.797	0.447	8.5	0.0876	0.0000	SURCHARGED
120 minute winter	ic6	84	160.780	0.610	11.3	0.5714	0.0000	SURCHARGED
120 minute winter	ic7	88	160.776	0.896	14.1	0.2616	0.0000	SURCHARGED
120 minute winter	ic8	88	160.776	0.136	0.5	0.0267	0.0000	OK
120 minute winter	ic9	86	160.776	0.286	2.2	0.1460	0.0000	SURCHARGED
120 minute winter	ic10	92	160.772	0.242	0.5	0.0516	0.0000	SURCHARGED
30 minute winter	ic11	21	161.207	0.207	12.2	0.3275	0.0000	SURCHARGED
30 minute winter	ic12	21	161.156	0.306	12.3	0.0600	0.0000	SURCHARGED
30 minute winter	ic13	21	161.137	0.637	33.7	1.0751	0.0000	SURCHARGED
30 minute winter	ic14	21	161.054	0.754	40.5	0.6810	0.0000	SURCHARGED
30 minute winter	ic15	21	160.946	0.796	40.2	0.2419	0.0000	SURCHARGED
30 minute summer	ic16	20	160.838	0.837	44.6	0.1641	0.0000	SURCHARGED
30 minute summer	ic17	20	160.766	0.866	35.1	0.1698	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)
30 minute winter	ic4	3.000	ic5	9.3	0.978	0.523	0.5577	
60 minute summer	ic5	3.001	ic6	7.3	0.912	0.398	0.1717	
120 minute winter	ic6	3.002	ic7	11.2	0.700	0.261	1.7025	
120 minute winter	ic7	3.003	S10	14.0	0.818	0.313	0.3073	
120 minute winter	ic8	4.000	ic9	-0.5	-0.048	-0.016	0.0978	
120 minute winter	ic9	4.001	ic7	2.1	0.931	0.060	0.2315	
120 minute winter	ic10	5.000	S11	1.2	0.660	0.019	0.1003	
30 minute winter	ic11	6.000	ic12	12.3	1.391	0.691	0.2621	
30 minute winter	ic12	6.001	ic13	12.0	1.087	0.221	0.0630	
30 minute winter	ic13	6.002	ic14	30.9	0.995	0.712	1.1379	
30 minute winter	ic14	6.003	ic15	38.6	1.131	0.890	0.8534	
30 minute winter	ic15	6.004	ic16	38.8	1.136	0.863	0.7960	
30 minute summer	ic16	6.005	ic17	35.1	1.642	0.811	0.5714	
30 minute summer	ic17	6.006	S14	33.2	2.194	0.187	0.2238	

Results for 100 year Critical Storm Duration. Lowest mass balance: 98.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HD1	10	161.783	0.035	6.3	0.0481	0.0000	OK
15 minute winter	HD2	10	160.647	0.072	12.9	0.1010	0.0000	OK
15 minute winter	HD3	11	160.506	0.141	30.0	0.2570	0.0000	OK
120 minute winter	HD4	114	160.495	0.511	21.6	0.9958	0.0000	SURCHARGED
120 minute winter	HW1	114	160.494	0.559	24.1	38.3407	0.0000	SURCHARGED
120 minute winter	HW2	114	160.493	0.647	6.3	0.0000	0.0000	SURCHARGED
120 minute winter	S4	114	160.492	0.688	5.4	0.7781	0.0000	SURCHARGED
60 minute summer	S5	36	159.042	0.071	23.3	0.0807	0.0000	OK
60 minute summer	OUTFALL	36	158.878	0.068	23.3	0.0000	0.0000	OK
15 minute winter	ic1	10	161.250	0.059	6.0	0.0339	0.0000	OK
15 minute winter	ic2	11	161.018	0.068	7.7	0.0200	0.0000	OK
15 minute winter	ic3	10	160.930	0.110	21.9	0.1077	0.0000	OK
120 minute winter	out1	88	160.862	0.307	10.1	0.0000	0.0000	FLOOD RISK
120 minute winter	HP1	92	160.859	0.958	42.3	61.7538	0.0000	FLOOD RISK
120 minute winter	S10	92	160.857	1.109	18.9	1.2542	0.0000	SURCHARGED
180 minute winter	S11	136	160.855	1.184	14.0	1.3386	0.0000	SURCHARGED
180 minute winter	S12	136	160.851	1.321	13.8	1.4938	0.0000	SURCHARGED
180 minute winter	S13	136	160.848	1.409	13.9	1.5937	0.0000	SURCHARGED
180 minute winter	S14	140	160.842	1.738	32.0	1.9653	0.0000	SURCHARGED
180 minute winter	S15	140	160.841	1.763	31.9	6.1059	0.0000	SURCHARGED
180 minute winter	HP2	140	160.841	0.211	21.8	53.5355	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HD1	1.000	HD2	6.3	0.868	0.052	0.1626	
15 minute winter	HD2	1.001	HD3	12.7	0.701	0.226	0.3285	
15 minute winter	HD3	1.002	HD4	29.2	0.843	0.728	2.1005	
120 minute winter	HD4	1.003	HW1	20.4	0.704	0.503	0.3128	
120 minute winter	HW1	1.004	HW2	6.3	0.597	0.157	0.5864	
120 minute winter	HW2	1.005	S4	5.4	0.366	0.132	0.2735	
120 minute winter	S4	Hydro-Brake®	S5	5.0				
60 minute summer	S5	1.007	OUTFALL	23.3	1.035	0.012	0.3932	221.1
15 minute winter	ic1	2.000	ic2	5.9	0.830	0.326	0.1643	
15 minute winter	ic2	2.001	ic3	7.5	0.700	0.422	0.1389	
15 minute winter	ic3	2.002	out1	21.6	1.688	0.727	0.0874	
120 minute winter	out1	2.003	HP1	9.9	0.469	0.221	3.5138	
120 minute winter	HP1	2.004	S10	-18.0	0.972	-0.344	0.3052	
120 minute winter	S10	2.005	S11	16.1	0.788	0.228	1.3246	
180 minute winter	S11	2.006	S12	13.8	0.675	0.195	2.4211	
180 minute winter	S12	2.007	S13	13.9	0.636	0.197	1.5627	
180 minute winter	S13	2.008	S14	14.0	0.562	0.197	4.4707	
180 minute winter	S14	2.009	S15	31.9	0.388	0.251	0.7045	
180 minute winter	S15	Hydro-Brake®	S5	18.7				
180 minute winter	HP2	7.000	S15	-13.2	0.672	-0.084	0.6000	

Results for 100 year Critical Storm Duration. Lowest mass balance: 98.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	ic4	20	161.088	0.420	12.0	0.7199	0.0000	SURCHARGED
30 minute winter	ic5	20	160.972	0.622	11.6	0.1218	0.0000	SURCHARGED
60 minute summer	ic6	35	160.931	0.761	25.7	0.7134	0.0000	SURCHARGED
120 minute winter	ic7	90	160.858	0.978	19.0	0.2857	0.0000	SURCHARGED
120 minute winter	ic8	90	160.859	0.219	0.5	0.0429	0.0000	SURCHARGED
120 minute winter	ic9	90	160.859	0.369	2.9	0.1881	0.0000	SURCHARGED
180 minute winter	ic10	136	160.855	0.325	0.1	0.0691	0.0000	SURCHARGED
30 minute winter	ic11	21	161.692	0.692	16.0	1.0951	0.0000	FLOOD RISK
30 minute winter	ic12	21	161.601	0.751	14.9	0.1472	0.0000	FLOOD RISK
30 minute summer	ic13	20	161.570	1.070	43.1	1.8051	0.0000	FLOOD RISK
30 minute winter	ic14	21	161.418	1.118	46.5	1.0094	0.0000	FLOOD RISK
30 minute winter	ic15	21	161.224	1.074	47.1	0.3264	0.0000	FLOOD RISK
30 minute winter	ic16	21	161.025	1.025	46.6	0.2008	0.0000	SURCHARGED
60 minute summer	ic17	36	160.874	0.973	45.5	0.1908	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)
30 minute winter	ic4	3.000	ic5	11.0	1.002	0.618	0.5577	
30 minute winter	ic5	3.001	ic6	10.1	0.992	0.549	0.1717	
60 minute summer	ic6	3.002	ic7	25.3	0.793	0.593	1.7025	
120 minute winter	ic7	3.003	S10	18.9	0.796	0.424	0.3073	
120 minute winter	ic8	4.000	ic9	-0.5	-0.042	-0.018	0.1000	
120 minute winter	ic9	4.001	ic7	2.6	0.950	0.072	0.2315	
180 minute winter	ic10	5.000	S11	0.3	0.016	0.004	0.1003	
30 minute winter	ic11	6.000	ic12	14.9	1.403	0.834	0.2621	
30 minute winter	ic12	6.001	ic13	13.6	1.078	0.250	0.0630	
30 minute summer	ic13	6.002	ic14	35.8	1.011	0.826	1.1379	
30 minute winter	ic14	6.003	ic15	45.3	1.139	1.045	0.8534	
30 minute winter	ic15	6.004	ic16	46.6	1.171	1.037	0.7960	
30 minute winter	ic16	6.005	ic17	46.2	1.608	1.068	0.5714	
60 minute summer	ic17	6.006	S14	45.3	2.025	0.255	0.2238	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	HD1	10	161.789	0.041	8.9	0.0569	0.0000	OK
30 minute summer	HD2	20	160.725	0.150	17.6	0.2093	0.0000	OK
240 minute winter	HD3	192	160.722	0.357	12.5	0.6528	0.0000	SURCHARGED
240 minute winter	HD4	192	160.721	0.738	19.3	1.4362	0.0000	SURCHARGED
240 minute winter	HW1	192	160.720	0.785	21.7	65.2827	0.0000	FLOOD RISK
240 minute winter	HW2	192	160.718	0.872	5.7	0.0000	0.0000	FLOOD RISK
240 minute winter	S4	192	160.717	0.913	5.2	1.0331	0.0000	FLOOD RISK
240 minute winter	S5	188	159.043	0.072	24.0	0.0819	0.0000	OK
240 minute winter	OUTFALL	188	158.879	0.069	24.0	0.0000	0.0000	OK
15 minute winter	ic1	10	161.262	0.072	8.4	0.0412	0.0000	OK
30 minute summer	ic2	19	161.193	0.243	10.5	0.0718	0.0000	SURCHARGED
30 minute summer	ic3	19	161.155	0.335	29.5	0.3267	0.0000	SURCHARGED
240 minute winter	out1	180	160.994	0.439	9.0	0.0000	0.0000	FLOOD RISK
240 minute winter	HP1	184	160.992	1.091	31.9	112.2310	0.0000	FLOOD RISK
240 minute winter	S10	184	160.990	1.242	17.4	1.4048	0.0000	FLOOD RISK
240 minute winter	S11	184	160.988	1.317	14.0	1.4890	0.0000	SURCHARGED
240 minute winter	S12	184	160.984	1.454	14.2	1.6440	0.0000	SURCHARGED
240 minute winter	S13	184	160.981	1.542	14.3	1.7438	0.0000	SURCHARGED
240 minute winter	S14	196	160.973	1.869	37.7	2.1143	0.0000	SURCHARGED
240 minute winter	S15	188	160.973	1.895	37.6	6.5637	0.0000	FLOOD RISK
240 minute winter	HP2	188	160.973	0.343	29.1	102.1361	0.0000	FLOOD RISK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute winter	HD1	1.000	HD2	8.8	0.956	0.073	0.2864	
30 minute summer	HD2	1.001	HD3	17.1	0.738	0.302	0.6032	
240 minute winter	HD3	1.002	HD4	12.2	0.552	0.304	2.5364	
240 minute winter	HD4	1.003	HW1	18.4	0.672	0.453	0.3128	
240 minute winter	HW1	1.004	HW2	5.7	0.581	0.143	0.5864	
240 minute winter	HW2	1.005	S4	5.2	0.330	0.128	0.2735	
240 minute winter	S4	Hydro-Brake®	S5	5.0				
240 minute winter	S5	1.007	OUTFALL	24.0	1.044	0.013	0.4011	593.3
15 minute winter	ic1	2.000	ic2	8.3	0.889	0.461	0.2847	
30 minute summer	ic2	2.001	ic3	10.1	0.689	0.563	0.2262	
30 minute summer	ic3	2.002	out1	27.1	1.711	0.910	0.1201	
240 minute winter	out1	2.003	HP1	8.8	0.410	0.198	3.5138	
240 minute winter	HP1	2.004	S10	13.1	0.851	0.249	0.3052	
240 minute winter	S10	2.005	S11	13.8	0.691	0.196	1.3246	
240 minute winter	S11	2.006	S12	14.2	0.662	0.201	2.4211	
240 minute winter	S12	2.007	S13	14.3	0.653	0.202	1.5627	
240 minute winter	S13	2.008	S14	14.4	0.573	0.204	4.4707	
240 minute winter	S14	2.009	S15	37.6	0.400	0.295	0.7045	
240 minute winter	S15	Hydro-Brake®	S5	19.4				
240 minute winter	HP2	7.000	S15	-18.5	-0.469	-0.117	0.6079	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.80%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute summer	ic4	20	161.559	0.892	18.5	1.5271	0.0000	SURCHARGED
30 minute summer	ic5	20	161.303	0.953	14.8	0.1868	0.0000	SURCHARGED
30 minute summer	ic6	19	161.225	1.055	39.2	0.9881	0.0000	SURCHARGED
240 minute winter	ic7	180	160.991	1.111	17.5	0.3244	0.0000	SURCHARGED
240 minute winter	ic8	184	160.991	0.351	0.2	0.0688	0.0000	SURCHARGED
240 minute winter	ic9	180	160.991	0.501	2.6	0.2557	0.0000	SURCHARGED
240 minute winter	ic10	184	160.988	0.457	0.6	0.0974	0.0000	SURCHARGED
30 minute winter	ic11	17	161.750	0.750	22.4	1.1873	4.4368	FLOOD
30 minute winter	ic12	17	161.734	0.884	15.5	0.1733	0.5044	FLOOD
30 minute summer	ic13	18	161.734	1.234	48.0	2.0818	0.2236	FLOOD
30 minute winter	ic14	17	161.517	1.217	59.8	1.0990	3.3030	FLOOD
60 minute winter	ic15	38	161.322	1.172	49.7	0.3563	0.0000	FLOOD RISK
60 minute winter	ic16	39	161.124	1.124	49.1	0.2203	0.0000	SURCHARGED
240 minute winter	ic17	184	160.976	1.076	27.1	0.2109	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)
30 minute summer	ic4	3.000	ic5	14.8	1.062	0.836	0.5577	
30 minute summer	ic5	3.001	ic6	16.1	0.988	0.875	0.1717	
30 minute summer	ic6	3.002	ic7	38.6	0.971	0.904	1.7025	
240 minute winter	ic7	3.003	S10	17.4	0.697	0.391	0.3073	
240 minute winter	ic8	4.000	ic9	-0.2	-0.012	-0.006	0.1000	
240 minute winter	ic9	4.001	ic7	2.4	0.796	0.067	0.2315	
240 minute winter	ic10	5.000	S11	-0.5	-0.030	-0.008	0.1003	
30 minute winter	ic11	6.000	ic12	15.5	1.396	0.872	0.2621	
30 minute winter	ic12	6.001	ic13	13.9	1.071	0.257	0.0630	
30 minute summer	ic13	6.002	ic14	41.3	1.039	0.953	1.1379	
30 minute winter	ic14	6.003	ic15	47.5	1.194	1.094	0.8534	
60 minute winter	ic15	6.004	ic16	49.1	1.235	1.093	0.7960	
60 minute winter	ic16	6.005	ic17	48.4	1.427	1.118	0.5714	
240 minute winter	ic17	6.006	S14	27.0	1.806	0.152	0.2238	