

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	17.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	x
Time of Entry (mins)	5.00	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)
RE01	0.008	5.00	260.850	300	6081251.926	5004591.705	0.500
S01	0.000	5.00	260.850	1200	6071648.217	5005807.555	0.566
S02 Paving	0.004	5.00	260.850	450	6068111.678	5016185.970	0.625
S03	0.020	5.00	260.300	1200	6064717.762	5023850.958	2.000
S04	0.011	5.00	260.263	1200	6066124.201	5035017.349	2.039
S05	0.000		259.983	1200	6068023.581	5052479.161	1.877
S06	0.028	5.00	259.803	1200	6069339.266	5064574.816	1.739
S07	0.000		259.615	1200	6070671.729	5076650.175	1.672
S08	0.000		259.454	1200	6065796.861	5085588.295	1.579
S09	0.028	5.00	259.283	1200	6058200.406	5088864.721	1.464
S10	0.000		259.126	1200	6045192.551	5090049.478	1.909
Storage	0.000	5.00	259.038	1200	6037853.776	5090448.181	1.806
S12	0.026	5.00	258.463	1200	6001832.321	5094611.152	0.522
RE02	0.009	5.00	260.850	300	6083726.940	5025391.974	0.500
S13 Paving	0.004	5.00	260.850	450	6069646.039	5027448.857	0.625
RE05	0.005	5.00	260.350	300	6046869.410	5043074.156	0.500
S14	0.000		260.350	450	6057016.488	5041766.760	0.569
RE03	0.008	5.00	260.350	300	6044588.703	5032061.096	0.500
S15	0.000		260.350	450	6055475.493	5030704.415	0.574
S16 Paving	0.004	5.00	260.400	450	6060105.212	5034877.565	0.725
RE06	0.006	5.00	260.475	300	6084714.619	5038133.649	0.500
S17	0.000		260.475	450	6074410.135	5039472.618	0.570
RE04	0.007	5.00	260.475	300	6084429.363	5026827.078	0.600
S18	0.000		260.475	450	6073376.886	5028373.371	0.678
S19b Paving	0.003	5.00	260.475	450	6070364.571	5033524.604	0.725
RE07	0.007	5.00	259.950	300	6045373.891	5044302.645	0.600
S19a	0.000		259.950	450	6057238.247	5042826.075	0.680
RE09	0.006	5.00	259.950	300	6047460.074	5055337.792	0.600
S19	0.000		259.950	450	6058835.896	5053852.933	0.677
S20 Paving	0.004	5.00	259.950	450	6062416.291	5052629.888	0.725
RE08	0.005	5.00	260.175	300	6085073.707	5039098.624	0.500
S21	0.000		260.175	450	6074983.205	5040399.851	0.568
RE10	0.009	5.00	260.175	300	6087412.130	5050157.923	0.500
S22	0.000		260.175	450	6076325.970	5051576.082	0.575
S23 Paving	0.003	5.00	260.175	450	6072667.165	5051308.647	0.625
RE13	0.005	5.00	259.650	300	6049328.525	5067333.629	0.500
S25a	0.000		259.650	450	6060211.801	5065956.647	0.574
RE11	0.008	5.00	259.650	300	6047588.283	5056156.654	0.500
S24 Paving	0.004	5.00	259.650	450	6063991.854	5064672.698	0.625
S25	0.000		259.650	450	6058964.105	5054671.795	0.577
RE12	0.009	5.00	259.950	300	6087255.397	5051021.701	0.500

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S26	0.000		259.950	450	6076372.870	5052515.583	0.574
RE14	0.004	5.00	259.950	300	6088190.553	5062231.435	0.500
S27	0.000		259.950	450	6077833.612	5063650.857	0.570
S28 Paving	0.004	5.00	259.950	450	6074224.920	5063371.776	0.625
RE17	0.007	5.00	259.600	300	6050851.815	5079406.391	0.500
S29	0.000		259.600	450	6061887.769	5077925.221	0.574
S30 Paving	0.004	5.00	259.600	450	6064857.157	5070960.009	0.625
RE15	0.006	5.00	259.600	300	6049624.937	5068144.254	0.500
S31	0.000		259.600	450	6060389.077	5066758.710	0.573
RE18	0.006	5.00	259.875	300	6090624.995	5074313.852	0.500
S32	0.000		259.875	450	6079446.787	5075695.441	0.576
S33 Paving	0.004	5.00	259.875	450	6075027.007	5069633.495	0.625
RE16	0.007	5.00	259.875	300	6088427.373	5063199.276	0.500
S34	0.000		259.875	450	6078055.722	5064440.569	0.570
RE20	0.008	5.00	259.775	450	6091426.072	5086349.904	0.500
S35	0.000		259.775	450	6080527.884	5087842.286	0.574
S36 Paving	0.008	5.00	259.775	450	6067935.345	5088661.534	0.625
RE19	0.006	5.00	259.775	300	6090740.839	5075045.063	0.500
S37	0.000		259.775	450	6079389.648	5076530.168	0.577
Flow Control	0.000		259.126	1200	6045011.292	5087257.272	1.928
Demarcation Chamber	0.000		260.600	1200	6036391.334	5023165.176	0.750
Outfall	0.000		260.500	1200	6029774.769	5012838.662	1.000

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	RE01	S01	9.680	0.600	260.350	260.284	0.066	146.7	100	5.26	45.7
1.001	S01	S02 Paving	10.964	0.600	260.284	260.225	0.059	185.8	100	5.58	44.4
1.002	S02 Paving	S03	8.382	0.600	260.225	258.300	1.925	4.4	100	5.62	44.3
4.000	RE02	S13 Paving	14.230	0.600	260.350	260.225	0.125	113.8	100	5.33	45.4
4.001	S13 Paving	S04	8.347	0.600	260.225	258.224	2.001	4.2	225	5.35	45.3
1.003	S03	S04	11.254	0.600	258.300	258.224	0.076	148.1	225	5.79	43.7
3.000	RE03	S15	10.970	0.600	259.850	259.776	0.074	148.2	225	5.17	46.0
3.001	S15	S16 Paving	6.232	0.600	259.776	259.675	0.101	61.7	225	5.23	45.7
2.002	S16 Paving	S04	6.020	0.600	259.675	258.224	1.451	4.1	225	5.34	45.3
2.000	RE05	S14	10.230	0.600	259.850	259.781	0.069	148.3	150	5.21	45.8

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)
1.000	0.633	5.0	1.0	0.400	0.466	0.008	0.0	30	0.490
1.001	0.561	4.4	1.0	0.466	0.525	0.008	0.0	32	0.447
1.002	3.732	29.3	1.4	0.525	1.900	0.012	0.0	15	1.937
4.000	0.720	5.7	1.1	0.400	0.525	0.009	0.0	30	0.558
4.001	6.450	256.5	1.6	0.400	1.814	0.013	0.0	13	1.809
1.003	1.072	42.6	3.8	1.775	1.814	0.032	0.0	45	0.667
3.000	1.071	42.6	1.0	0.275	0.349	0.008	0.0	23	0.440
3.001	1.668	66.3	1.0	0.349	0.500	0.008	0.0	19	0.601
2.002	6.468	257.2	2.1	0.500	1.814	0.017	0.0	15	1.978
2.000	0.823	14.5	0.6	0.350	0.419	0.005	0.0	21	0.410

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
2.001	S14	S16 Paving	7.549	0.600	259.781	259.700	0.081	93.2	150	5.33	45.4
6.000	RE04	S18	11.160	0.600	259.875	259.797	0.078	143.1	100	5.29	45.5
6.001	S18	S19b Paving	5.967	0.600	259.797	259.750	0.047	127.0	100	5.44	45.0
5.002	S19b Paving	S04	4.495	0.600	259.750	258.224	1.526	2.9	150	5.45	44.9
5.000	RE06	S17	10.391	0.600	259.975	259.905	0.070	148.4	150	5.21	45.8
5.001	S17	S19b Paving	7.193	0.600	259.905	259.775	0.130	55.3	150	5.30	45.5
1.004	S04	S05	17.564	0.600	258.224	258.106	0.118	148.8	225	6.07	42.8
7.000	RE07	S19a	11.955	0.600	259.350	259.270	0.080	149.4	150	5.24	45.7
7.001	S19a	S20 Paving	10.191	0.600	259.270	259.250	0.020	509.6	150	5.63	44.3
8.000	RE09	S19	11.472	0.600	259.350	259.273	0.077	149.0	150	5.23	45.7
8.001	S19	S20 Paving	10.085	0.600	259.273	259.225	0.048	210.1	150	5.48	44.8
7.002	S20 Paving	S05	10.099	0.600	259.225	258.106	1.119	9.0	150	5.68	44.1
9.000	RE08	S21	10.174	0.600	259.675	259.607	0.068	149.6	150	5.21	45.8
9.001	S21	S23 Paving	11.151	0.600	259.607	259.575	0.032	348.5	150	5.56	44.5
10.000	RE10	S22	11.176	0.600	259.675	259.600	0.075	149.0	150	5.23	45.8
10.001	S22	S23 Paving	3.668	0.600	259.600	259.550	0.050	73.4	150	5.28	45.6
9.002	S23 Paving	S05	4.778	0.600	259.550	258.106	1.444	3.3	150	5.57	44.5
1.005	S05	S06	12.167	0.600	258.106	258.064	0.042	289.7	225	6.33	41.9
11.000	RE11	S25	11.472	0.600	259.150	259.073	0.077	149.0	150	5.23	45.7
11.001	S25	S24 Paving	11.193	0.600	259.073	259.050	0.023	486.7	150	5.65	44.2
12.000	RE13	S25a	10.970	0.600	259.150	259.076	0.074	148.2	150	5.22	45.8
12.001	S25a	S24 Paving	3.992	0.600	259.076	259.025	0.051	78.3	150	5.28	45.6
11.002	S24 Paving	S06	5.348	0.600	259.025	258.064	0.961	5.6	150	5.67	44.1
13.000	RE12	S26	10.984	0.600	259.450	259.376	0.074	148.4	150	5.22	45.8

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)
2.001	1.041	18.4	0.6	0.419	0.550	0.005	0.0	19	0.482
6.000	0.641	5.0	0.9	0.500	0.578	0.007	0.0	28	0.474
6.001	0.681	5.3	0.9	0.578	0.625	0.007	0.0	27	0.496
5.002	5.915	104.5	1.9	0.575	1.889	0.016	0.0	14	2.308
5.000	0.822	14.5	0.7	0.350	0.420	0.006	0.0	23	0.430
5.001	1.355	23.9	0.7	0.420	0.550	0.006	0.0	18	0.604
1.004	1.069	42.5	10.3	1.814	1.652	0.089	0.0	75	0.884
7.000	0.820	14.5	0.9	0.450	0.530	0.007	0.0	25	0.449
7.001	0.438	7.7	0.8	0.530	0.550	0.007	0.0	34	0.287
8.000	0.821	14.5	0.7	0.450	0.527	0.006	0.0	23	0.430
8.001	0.689	12.2	0.7	0.527	0.575	0.006	0.0	25	0.377
7.002	3.374	59.6	2.0	0.575	1.727	0.017	0.0	19	1.577
9.000	0.819	14.5	0.6	0.350	0.418	0.005	0.0	21	0.408
9.001	0.533	9.4	0.6	0.418	0.450	0.005	0.0	26	0.299
10.000	0.821	14.5	1.1	0.350	0.425	0.009	0.0	28	0.488
10.001	1.175	20.8	1.1	0.425	0.475	0.009	0.0	24	0.627
9.002	5.580	98.6	2.0	0.475	1.727	0.017	0.0	15	2.235
1.005	0.763	30.3	14.0	1.652	1.514	0.123	0.0	107	0.746
11.000	0.821	14.5	1.0	0.350	0.427	0.008	0.0	27	0.469
11.001	0.449	7.9	1.0	0.427	0.450	0.008	0.0	35	0.303
12.000	0.823	14.5	0.6	0.350	0.424	0.005	0.0	21	0.410
12.001	1.137	20.1	0.6	0.424	0.475	0.005	0.0	18	0.506
11.002	4.300	76.0	2.0	0.475	1.589	0.017	0.0	17	1.849
13.000	0.822	14.5	1.1	0.350	0.424	0.009	0.0	28	0.489

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)
13.001	S26	S28 Paving	11.066	0.600	259.376	259.350	0.026	425.6	150	5.61	44.4
14.000	RE14	S27	10.453	0.600	259.450	259.380	0.070	149.3	150	5.21	45.8
14.001	S27	S28 Paving	3.619	0.600	259.380	259.325	0.055	65.8	150	5.26	45.6
13.002	S28 Paving	S06	5.031	0.600	259.325	258.064	1.261	4.0	150	5.62	44.3
1.006	S06	S07	12.148	0.600	258.064	257.943	0.121	100.4	225	6.49	41.4
18.000	RE15	S31	10.852	0.600	259.100	259.027	0.073	148.7	150	5.22	45.8
18.001	S31	S30 Paving	6.133	0.600	259.027	259.000	0.027	227.1	150	5.37	45.2
17.000	RE17	S29	11.134	0.600	259.100	259.026	0.074	150.5	150	5.23	45.8
17.001	S29	S30 Paving	7.571	0.600	259.026	258.975	0.051	148.5	150	5.38	45.2
17.002	S30 Paving	S07	8.135	0.600	258.975	257.943	1.032	7.9	150	5.42	45.0
16.000	RE16	S34	10.445	0.600	259.375	259.305	0.070	149.2	150	5.21	45.8
16.001	S34	S33 Paving	6.011	0.600	259.305	259.275	0.030	200.4	150	5.35	45.3
15.000	RE18	S32	11.263	0.600	259.375	259.299	0.076	148.2	150	5.23	45.8
15.001	S32	S33 Paving	7.502	0.600	259.299	259.250	0.049	153.1	150	5.38	45.2
15.002	S33 Paving	S07	8.258	0.600	259.250	257.943	1.307	6.3	150	5.42	45.0
19.000	RE19	S37	11.447	0.600	259.275	259.198	0.077	148.7	150	5.23	45.8
19.001	S37	S36 Paving	16.684	0.600	259.198	259.175	0.023	725.4	150	5.99	43.0
20.000	RE20	S35	10.990	0.600	259.275	259.201	0.074	148.5	150	5.22	45.8
20.001	S35	S36 Paving	12.619	0.600	259.201	259.150	0.051	247.4	150	5.55	44.5
19.002	S36 Paving	S09	9.737	0.600	259.150	257.819	1.331	7.3	150	6.04	42.9
1.007	S07	S08	10.181	0.600	257.943	257.875	0.068	149.7	225	6.65	40.9
1.008	S08	S09	8.272	0.600	257.875	257.819	0.056	147.7	225	6.78	40.5
1.009	S09	S10	13.061	0.600	257.819	257.731	0.088	148.4	225	6.98	40.0
21.000	S12	Storage	28.984	0.600	257.941	257.748	0.193	150.2	225	5.45	44.9

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)
13.001	0.481	8.5	1.1	0.424	0.450	0.009	0.0	36	0.328
14.000	0.820	14.5	0.5	0.350	0.420	0.004	0.0	19	0.379
14.001	1.241	21.9	0.5	0.420	0.475	0.004	0.0	16	0.504
13.002	5.081	89.8	2.0	0.475	1.589	0.017	0.0	16	2.086
1.006	1.305	51.9	20.8	1.514	1.447	0.185	0.0	99	1.234
18.000	0.822	14.5	0.7	0.350	0.423	0.006	0.0	23	0.430
18.001	0.662	11.7	0.7	0.423	0.450	0.006	0.0	25	0.368
17.000	0.817	14.4	0.9	0.350	0.424	0.007	0.0	25	0.448
17.001	0.822	14.5	0.9	0.424	0.475	0.007	0.0	25	0.451
17.002	3.611	63.8	2.1	0.475	1.522	0.017	0.0	18	1.655
16.000	0.820	14.5	0.9	0.350	0.420	0.007	0.0	25	0.450
16.001	0.706	12.5	0.9	0.420	0.450	0.007	0.0	27	0.403
15.000	0.823	14.5	0.7	0.350	0.426	0.006	0.0	23	0.431
15.001	0.810	14.3	0.7	0.426	0.475	0.006	0.0	23	0.424
15.002	4.035	71.3	2.1	0.475	1.522	0.017	0.0	17	1.774
19.000	0.822	14.5	0.7	0.350	0.427	0.006	0.0	23	0.430
19.001	0.366	6.5	0.7	0.427	0.450	0.006	0.0	34	0.239
20.000	0.822	14.5	1.0	0.350	0.424	0.008	0.0	27	0.470
20.001	0.634	11.2	1.0	0.424	0.475	0.008	0.0	30	0.386
19.002	3.749	66.2	2.6	0.475	1.314	0.022	0.0	20	1.821
1.007	1.066	42.4	24.3	1.447	1.354	0.219	0.0	123	1.103
1.008	1.073	42.7	24.1	1.354	1.239	0.219	0.0	121	1.104
1.009	1.071	42.6	29.1	1.239	1.170	0.269	0.0	137	1.150
21.000	1.064	42.3	3.2	0.297	1.065	0.026	0.0	42	0.631



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)
21.001	Storage	S10	7.349	0.600	257.232	257.217	0.015	489.9	225	5.66	44.1
1.010	S10	Flow Control	2.798	0.600	257.217	257.198	0.019	147.3	225	7.02	39.8
1.011	Flow Control	Demarcation Chamber	64.669	0.600	257.198	259.850	-2.652	-24.4	225	8.10	37.0
1.012	Demarcation Chamber	Outfall	12.264	0.600	259.850	259.500	0.350	35.0	225	8.19	36.8

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)
21.001	0.584	23.2	3.1	1.581	1.684	0.026	0.0	56	0.409
1.010	1.075	42.7	31.9	1.684	1.703	0.295	0.0	145	1.176
1.011	1.000	39.8	29.6	1.703	0.525	0.295	0.0	225	0.000
1.012	2.217	88.2	29.4	0.525	0.775	0.295	0.0	89	1.999

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	9.680	146.7	100	Circular	260.850	260.350	0.400	260.850	260.284	0.466
1.001	10.964	185.8	100	Circular	260.850	260.284	0.466	260.850	260.225	0.525
1.002	8.382	4.4	100	Circular	260.850	260.225	0.525	260.300	258.300	1.900
4.000	14.230	113.8	100	Circular	260.850	260.350	0.400	260.850	260.225	0.525
4.001	8.347	4.2	225	Circular	260.850	260.225	0.400	260.263	258.224	1.814
1.003	11.254	148.1	225	Circular	260.300	258.300	1.775	260.263	258.224	1.814
3.000	10.970	148.2	225	Circular	260.350	259.850	0.275	260.350	259.776	0.349
3.001	6.232	61.7	225	Circular	260.350	259.776	0.349	260.400	259.675	0.500
2.002	6.020	4.1	225	Circular	260.400	259.675	0.500	260.263	258.224	1.814
2.000	10.230	148.3	150	Circular	260.350	259.850	0.350	260.350	259.781	0.419
2.001	7.549	93.2	150	Circular	260.350	259.781	0.419	260.400	259.700	0.550
6.000	11.160	143.1	100	Circular	260.475	259.875	0.500	260.475	259.797	0.578
6.001	5.967	127.0	100	Circular	260.475	259.797	0.578	260.475	259.750	0.625
5.002	4.495	2.9	150	Circular	260.475	259.750	0.575	260.263	258.224	1.889
5.000	10.391	148.4	150	Circular	260.475	259.975	0.350	260.475	259.905	0.420
5.001	7.193	55.3	150	Circular	260.475	259.905	0.420	260.475	259.775	0.550

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	RE01	300	Manhole	Adoptable	S01	1200	Manhole	Adoptable
1.001	S01	1200	Manhole	Adoptable	S02 Paving	450	Manhole	Adoptable
1.002	S02 Paving	450	Manhole	Adoptable	S03	1200	Manhole	Adoptable
4.000	RE02	300	Manhole	Adoptable	S13 Paving	450	Manhole	Adoptable
4.001	S13 Paving	450	Manhole	Adoptable	S04	1200	Manhole	Adoptable
1.003	S03	1200	Manhole	Adoptable	S04	1200	Manhole	Adoptable
3.000	RE03	300	Manhole	Adoptable	S15	450	Manhole	Adoptable
3.001	S15	450	Manhole	Adoptable	S16 Paving	450	Manhole	Adoptable
2.002	S16 Paving	450	Manhole	Adoptable	S04	1200	Manhole	Adoptable
2.000	RE05	300	Manhole	Adoptable	S14	450	Manhole	Adoptable
2.001	S14	450	Manhole	Adoptable	S16 Paving	450	Manhole	Adoptable
6.000	RE04	300	Manhole	Adoptable	S18	450	Manhole	Adoptable
6.001	S18	450	Manhole	Adoptable	S19b Paving	450	Manhole	Adoptable
5.002	S19b Paving	450	Manhole	Adoptable	S04	1200	Manhole	Adoptable
5.000	RE06	300	Manhole	Adoptable	S17	450	Manhole	Adoptable
5.001	S17	450	Manhole	Adoptable	S19b Paving	450	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	17.564	148.8	225	Circular	260.263	258.224	1.814	259.983	258.106	1.652
7.000	11.955	149.4	150	Circular	259.950	259.350	0.450	259.950	259.270	0.530
7.001	10.191	509.6	150	Circular	259.950	259.270	0.530	259.950	259.250	0.550
8.000	11.472	149.0	150	Circular	259.950	259.350	0.450	259.950	259.273	0.527
8.001	10.085	210.1	150	Circular	259.950	259.273	0.527	259.950	259.225	0.575
7.002	10.099	9.0	150	Circular	259.950	259.225	0.575	259.983	258.106	1.727
9.000	10.174	149.6	150	Circular	260.175	259.675	0.350	260.175	259.607	0.418
9.001	11.151	348.5	150	Circular	260.175	259.607	0.418	260.175	259.575	0.450
10.000	11.176	149.0	150	Circular	260.175	259.675	0.350	260.175	259.600	0.425
10.001	3.668	73.4	150	Circular	260.175	259.600	0.425	260.175	259.550	0.475
9.002	4.778	3.3	150	Circular	260.175	259.550	0.475	259.983	258.106	1.727
1.005	12.167	289.7	225	Circular	259.983	258.106	1.652	259.803	258.064	1.514
11.000	11.472	149.0	150	Circular	259.650	259.150	0.350	259.650	259.073	0.427
11.001	11.193	486.7	150	Circular	259.650	259.073	0.427	259.650	259.050	0.450
12.000	10.970	148.2	150	Circular	259.650	259.150	0.350	259.650	259.076	0.424
12.001	3.992	78.3	150	Circular	259.650	259.076	0.424	259.650	259.025	0.475
11.002	5.348	5.6	150	Circular	259.650	259.025	0.475	259.803	258.064	1.589
13.000	10.984	148.4	150	Circular	259.950	259.450	0.350	259.950	259.376	0.424
13.001	11.066	425.6	150	Circular	259.950	259.376	0.424	259.950	259.350	0.450
14.000	10.453	149.3	150	Circular	259.950	259.450	0.350	259.950	259.380	0.420
14.001	3.619	65.8	150	Circular	259.950	259.380	0.420	259.950	259.325	0.475
13.002	5.031	4.0	150	Circular	259.950	259.325	0.475	259.803	258.064	1.589
1.006	12.148	100.4	225	Circular	259.803	258.064	1.514	259.615	257.943	1.447
18.000	10.852	148.7	150	Circular	259.600	259.100	0.350	259.600	259.027	0.423
18.001	6.133	227.1	150	Circular	259.600	259.027	0.423	259.600	259.000	0.450

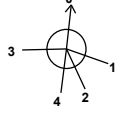
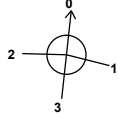
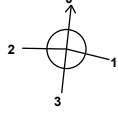
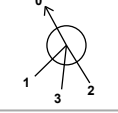
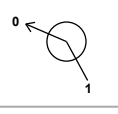
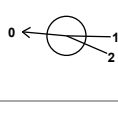
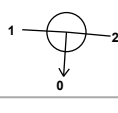
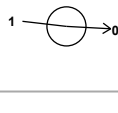
Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.004	S04	1200	Manhole	Adoptable	S05	1200	Manhole	Adoptable
7.000	RE07	300	Manhole	Adoptable	S19a	450	Manhole	Adoptable
7.001	S19a	450	Manhole	Adoptable	S20 Paving	450	Manhole	Adoptable
8.000	RE09	300	Manhole	Adoptable	S19	450	Manhole	Adoptable
8.001	S19	450	Manhole	Adoptable	S20 Paving	450	Manhole	Adoptable
7.002	S20 Paving	450	Manhole	Adoptable	S05	1200	Manhole	Adoptable
9.000	RE08	300	Manhole	Adoptable	S21	450	Manhole	Adoptable
9.001	S21	450	Manhole	Adoptable	S23 Paving	450	Manhole	Adoptable
10.000	RE10	300	Manhole	Adoptable	S22	450	Manhole	Adoptable
10.001	S22	450	Manhole	Adoptable	S23 Paving	450	Manhole	Adoptable
9.002	S23 Paving	450	Manhole	Adoptable	S05	1200	Manhole	Adoptable
1.005	S05	1200	Manhole	Adoptable	S06	1200	Manhole	Adoptable
11.000	RE11	300	Manhole	Adoptable	S25	450	Manhole	Adoptable
11.001	S25	450	Manhole	Adoptable	S24 Paving	450	Manhole	Adoptable
12.000	RE13	300	Manhole	Adoptable	S25a	450	Manhole	Adoptable
12.001	S25a	450	Manhole	Adoptable	S24 Paving	450	Manhole	Adoptable
11.002	S24 Paving	450	Manhole	Adoptable	S06	1200	Manhole	Adoptable
13.000	RE12	300	Manhole	Adoptable	S26	450	Manhole	Adoptable
13.001	S26	450	Manhole	Adoptable	S28 Paving	450	Manhole	Adoptable
14.000	RE14	300	Manhole	Adoptable	S27	450	Manhole	Adoptable
14.001	S27	450	Manhole	Adoptable	S28 Paving	450	Manhole	Adoptable
13.002	S28 Paving	450	Manhole	Adoptable	S06	1200	Manhole	Adoptable
1.006	S06	1200	Manhole	Adoptable	S07	1200	Manhole	Adoptable
18.000	RE15	300	Manhole	Adoptable	S31	450	Manhole	Adoptable
18.001	S31	450	Manhole	Adoptable	S30 Paving	450	Manhole	Adoptable

Pipeline Schedule

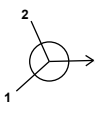
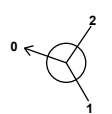
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
17.000	11.134	150.5	150	Circular	259.600	259.100	0.350	259.600	259.026	0.424
17.001	7.571	148.5	150	Circular	259.600	259.026	0.424	259.600	258.975	0.475
17.002	8.135	7.9	150	Circular	259.600	258.975	0.475	259.615	257.943	1.522
16.000	10.445	149.2	150	Circular	259.875	259.375	0.350	259.875	259.305	0.420
16.001	6.011	200.4	150	Circular	259.875	259.305	0.420	259.875	259.275	0.450
15.000	11.263	148.2	150	Circular	259.875	259.375	0.350	259.875	259.299	0.426
15.001	7.502	153.1	150	Circular	259.875	259.299	0.426	259.875	259.250	0.475
15.002	8.258	6.3	150	Circular	259.875	259.250	0.475	259.615	257.943	1.522
19.000	11.447	148.7	150	Circular	259.775	259.275	0.350	259.775	259.198	0.427
19.001	16.684	725.4	150	Circular	259.775	259.198	0.427	259.775	259.175	0.450
20.000	10.990	148.5	150	Circular	259.775	259.275	0.350	259.775	259.201	0.424
20.001	12.619	247.4	150	Circular	259.775	259.201	0.424	259.775	259.150	0.475
19.002	9.737	7.3	150	Circular	259.775	259.150	0.475	259.283	257.819	1.314
1.007	10.181	149.7	225	Circular	259.615	257.943	1.447	259.454	257.875	1.354
1.008	8.272	147.7	225	Circular	259.454	257.875	1.354	259.283	257.819	1.239
1.009	13.061	148.4	225	Circular	259.283	257.819	1.239	259.126	257.731	1.170
21.000	28.984	150.2	225	Circular	258.463	257.941	0.297	259.038	257.748	1.065
21.001	7.349	489.9	225	Circular	259.038	257.232	1.581	259.126	257.217	1.684
1.010	2.798	147.3	225	Circular	259.126	257.217	1.684	259.126	257.198	1.703
1.011	64.669	-24.4	225	Circular	259.126	257.198	1.703	260.600	259.850	0.525
1.012	12.264	35.0	225	Circular	260.600	259.850	0.525	260.500	259.500	0.775

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
17.000	RE17	300	Manhole	Adoptable	S29	450	Manhole	Adoptable
17.001	S29	450	Manhole	Adoptable	S30 Paving	450	Manhole	Adoptable
17.002	S30 Paving	450	Manhole	Adoptable	S07	1200	Manhole	Adoptable
16.000	RE16	300	Manhole	Adoptable	S34	450	Manhole	Adoptable
16.001	S34	450	Manhole	Adoptable	S33 Paving	450	Manhole	Adoptable
15.000	RE18	300	Manhole	Adoptable	S32	450	Manhole	Adoptable
15.001	S32	450	Manhole	Adoptable	S33 Paving	450	Manhole	Adoptable
15.002	S33 Paving	450	Manhole	Adoptable	S07	1200	Manhole	Adoptable
19.000	RE19	300	Manhole	Adoptable	S37	450	Manhole	Adoptable
19.001	S37	450	Manhole	Adoptable	S36 Paving	450	Manhole	Adoptable
20.000	RE20	450	Manhole	Adoptable	S35	450	Manhole	Adoptable
20.001	S35	450	Manhole	Adoptable	S36 Paving	450	Manhole	Adoptable
19.002	S36 Paving	450	Manhole	Adoptable	S09	1200	Manhole	Adoptable
1.007	S07	1200	Manhole	Adoptable	S08	1200	Manhole	Adoptable
1.008	S08	1200	Manhole	Adoptable	S09	1200	Manhole	Adoptable
1.009	S09	1200	Manhole	Adoptable	S10	1200	Manhole	Adoptable
21.000	S12	1200	Manhole	Adoptable	Storage	1200	Manhole	Adoptable
21.001	Storage	1200	Manhole	Adoptable	S10	1200	Manhole	Adoptable
1.010	S10	1200	Manhole	Adoptable	Flow Control	1200	Manhole	Adoptable
1.011	Flow Control	1200	Manhole	Adoptable	Demarcation Chamber	1200	Manhole	Adoptable
1.012	Demarcation Chamber	1200	Manhole	Adoptable	Outfall	1200	Manhole	Adoptable

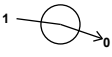
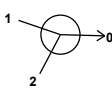
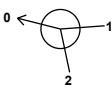
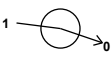
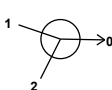
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
RE01	6081251.926	5004591.705	260.850	0.500	300		0	1.000	260.350	100
S01	6071648.217	5005807.555	260.850	0.566	1200		1	1.000	260.284	100
S02 Paving	6068111.678	5016185.970	260.850	0.625	450		0	1.001	260.284	100
S03	6064717.762	5023850.958	260.300	2.000	1200		1	1.001	260.225	100
S04	6066124.201	5035017.349	260.263	2.039	1200		0	1.002	260.225	100
S05	6068023.581	5052479.161	259.983	1.877	1200		1	1.002	258.300	100
S06	6069339.266	5064574.816	259.803	1.739	1200		0	1.003	258.300	225
S07	6070671.729	5076650.175	259.615	1.672	1200		1	5.002	258.224	150
S08	6065796.861	5085588.295	259.454	1.579	1200		2	4.001	258.224	225
S09	6058200.406	5088864.721	259.283	1.464	1200		3	2.002	258.224	225
S10	6045192.551	5090049.478	259.126	1.909	1200		4	1.003	258.224	225
Storage	6037853.776	5090448.181	259.038	1.806	1200		0	1.004	258.224	225
S12	6001832.321	5094611.152	258.463	0.522	1200		1	9.002	258.106	150
							2	7.002	258.106	150
							3	1.004	258.106	225
							0	1.005	258.106	225
							1	13.002	258.064	150
							2	11.002	258.064	150
							3	1.005	258.064	225
							0	1.006	258.064	225
							1	17.002	257.943	150
							2	15.002	257.943	150
							3	1.006	257.943	225
							0	1.007	257.943	225
							1	1.007	257.875	225
							0	1.008	257.875	225
							1	19.002	257.819	150
							2	1.008	257.819	225
							0	1.009	257.819	225
							1	21.001	257.217	225
							2	1.009	257.731	225
							0	1.010	257.217	225
							1	21.000	257.748	225
							0	21.001	257.232	225
							0	21.000	257.941	225

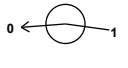
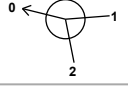
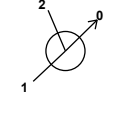
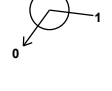
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
RE02	6083726.940	5025391.974	260.850	0.500	300		0	4.000	260.350	100
S13 Paving	6069646.039	5027448.857	260.850	0.625	450		1	4.000	260.225	100
							0	4.001	260.225	225
RE05	6046869.410	5043074.156	260.350	0.500	300		0	2.000	259.850	150
S14	6057016.488	5041766.760	260.350	0.569	450		1	2.000	259.781	150
							0	2.001	259.781	150
RE03	6044588.703	5032061.096	260.350	0.500	300		0	3.000	259.850	225
S15	6055475.493	5030704.415	260.350	0.574	450		1	3.000	259.776	225
							0	3.001	259.776	225
S16 Paving	6060105.212	5034877.565	260.400	0.725	450		1	3.001	259.675	225
							2	2.001	259.700	150
							0	2.002	259.675	225
RE06	6084714.619	5038133.649	260.475	0.500	300		0	5.000	259.975	150
S17	6074410.135	5039472.618	260.475	0.570	450		1	5.000	259.905	150
							0	5.001	259.905	150
RE04	6084429.363	5026827.078	260.475	0.600	300		0	6.000	259.875	100
S18	6073376.886	5028373.371	260.475	0.678	450		1	6.000	259.797	100
							0	6.001	259.797	100
S19b Paving	6070364.571	5033524.604	260.475	0.725	450		1	6.001	259.750	100
							2	5.001	259.775	150
							0	5.002	259.750	150
RE07	6045373.891	5044302.645	259.950	0.600	300		0	7.000	259.350	150

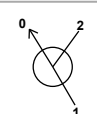
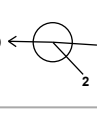
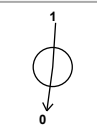
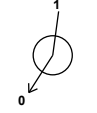
Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S19a	6057238.247	5042826.075	259.950	0.680	450		1 7.000	259.270	150
						0	7.001	259.270	150
RE09	6047460.074	5055337.792	259.950	0.600	300		0 8.000	259.350	150
S19	6058835.896	5053852.933	259.950	0.677	450		1 8.000	259.273	150
						0	8.001	259.273	150
S20 Paving	6062416.291	5052629.888	259.950	0.725	450		1 8.001	259.225	150
						2	7.001	259.250	150
						0	7.002	259.225	150
RE08	6085073.707	5039098.624	260.175	0.500	300		0 9.000	259.675	150
S21	6074983.205	5040399.851	260.175	0.568	450		1 9.000	259.607	150
						0	9.001	259.607	150
RE10	6087412.130	5050157.923	260.175	0.500	300		0 10.000	259.675	150
S22	6076325.970	5051576.082	260.175	0.575	450		1 10.000	259.600	150
						0	10.001	259.600	150
S23 Paving	6072667.165	5051308.647	260.175	0.625	450		1 10.001	259.550	150
						2	9.001	259.575	150
						0	9.002	259.550	150
RE13	6049328.525	5067333.629	259.650	0.500	300		0 12.000	259.150	150
S25a	6060211.801	5065956.647	259.650	0.574	450		1 12.000	259.076	150
						0	12.001	259.076	150
RE11	6047588.283	5056156.654	259.650	0.500	300		0 11.000	259.150	150
S24 Paving	6063991.854	5064672.698	259.650	0.625	450		1 12.001	259.025	150
						2	11.001	259.050	150
						0	11.002	259.025	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
S25	6058964.105	5054671.795	259.650	0.577	450		1 11.000	259.073	150
							0 11.001	259.073	150
RE12	6087255.397	5051021.701	259.950	0.500	300		0 13.000	259.450	150
							0 13.001	259.376	150
S26	6076372.870	5052515.583	259.950	0.574	450		1 13.000	259.376	150
							0 13.001	259.376	150
RE14	6088190.553	5062231.435	259.950	0.500	300		0 14.000	259.450	150
							0 14.001	259.380	150
S27	6077833.612	5063650.857	259.950	0.570	450		1 14.001	259.325	150
							2 13.001	259.350	150
S28 Paving	6074224.920	5063371.776	259.950	0.625	450		0 13.002	259.325	150
RE17	6050851.815	5079406.391	259.600	0.500	300		0 17.000	259.100	150
							1 17.000	259.026	150
S29	6061887.769	5077925.221	259.600	0.574	450		0 17.001	259.026	150
							1 18.001	259.000	150
S30 Paving	6064857.157	5070960.009	259.600	0.625	450		0 17.002	258.975	150
RE15	6049624.937	5068144.254	259.600	0.500	300		0 18.000	259.100	150
							1 18.000	259.027	150
S31	6060389.077	5066758.710	259.600	0.573	450		0 18.001	259.027	150
RE18	6090624.995	5074313.852	259.875	0.500	300		0 15.000	259.375	150
							1 15.000	259.299	150
S32	6079446.787	5075695.441	259.875	0.576	450		0 15.001	259.299	150

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S33 Paving	6075027.007	5069633.495	259.875	0.625	450		1	16.001	259.275	150
							2	15.001	259.250	150
							0	15.002	259.250	150
RE16	6088427.373	5063199.276	259.875	0.500	300		0	16.000	259.375	150
S34	6078055.722	5064440.569	259.875	0.570	450		1	16.000	259.305	150
RE20	6091426.072	5086349.904	259.775	0.500	450		0	16.001	259.305	150
							S35	6080527.884	5087842.286	259.775
S36 Paving	6067935.345	5088661.534	259.775	0.625	450		0	20.001	259.201	150
							1	20.001	259.150	150
RE19	6090740.839	5075045.063	259.775	0.500	300		2	19.001	259.175	150
							0	19.002	259.150	150
S37	6079389.648	5076530.168	259.775	0.577	450		0	19.000	259.275	150
Flow Control	6045011.292	5087257.272	259.126	1.928	1200			1	19.000	259.198
						0		19.001	259.198	150
Demarcation Chamber	6036391.334	5023165.176	260.600	0.750	1200		1	1.010	257.198	225
Outfall	6029774.769	5012838.662	260.500	1.000	1200			0	1.011	257.198
						1		1.011	259.850	225
							0	1.012	259.850	225
							1	1.012	259.500	225

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	17.000	Drain Down Time (mins)	240
Ratio-R	0.400	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						
30	0		0		0						
100	40		0		0						

Node Flow Control Online Pump Control

Flap Valve	x	Design Depth (m)	1.000	Switch off depth (m)	0.000
Replaces Downstream Link	✓	Design Flow (l/s)	3.3		
Invert Level (m)	257.198	Switch on depth (m)	0.001		
		Depth	Flow		
		(m)	(l/s)		
		1.000	3.300		

Node S02 Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.625	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	260.225	Diameter (m)	0.025		

Node S13 Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.625	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	260.225	Diameter (m)	0.025		

Node S19b Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.725	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	259.750	Diameter (m)	0.024		

Node S23 Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.625	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	259.550	Diameter (m)	0.025		

Node S28 Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.625	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	259.325	Diameter (m)	0.025		

Node S33 Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.625	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	259.250	Diameter (m)	0.025		

Node S36 Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.625	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	259.150	Diameter (m)	0.025		

Node S30 Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.625	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	258.975	Diameter (m)	0.025		

Node S24 Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.625	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	259.025	Diameter (m)	0.025		

Node S20 Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.725	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	259.225	Diameter (m)	0.024		

Node S16 Paving Online Orifice Control

Flap Valve	x	Design Depth (m)	0.725	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	0.5		
Invert Level (m)	259.675	Diameter (m)	0.024		

Node S02 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	260.225	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	57	Depth (m)	0.625
Safety Factor	2.0	Width (m)	4.810	Inf Depth (m)	
Porosity	0.30	Length (m)	4.832		

Node S13 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	260.225	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	64	Depth (m)	0.625
Safety Factor	2.0	Width (m)	4.814	Inf Depth (m)	
Porosity	0.30	Length (m)	4.800		

Node S16 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	259.675	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	90	Depth (m)	0.725
Safety Factor	2.0	Width (m)	4.900	Inf Depth (m)	
Porosity	0.30	Length (m)	4.800		

Node S19b Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	259.750	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	86	Depth (m)	0.725
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	4.800		

Node S23 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	259.550	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	98	Depth (m)	0.625
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	4.800		

Node S20 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	259.225	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	82	Depth (m)	0.725
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	4.800		

Node S24 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	259.025	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	96	Depth (m)	0.625
Safety Factor	2.0	Width (m)	4.831	Inf Depth (m)	
Porosity	0.30	Length (m)	4.800		

Node S28 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	259.325	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	96	Depth (m)	0.625
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	4.800		

Node S30 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	258.975	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	96	Depth (m)	0.625
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	4.800		

Node S33 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	259.250	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	96	Depth (m)	0.625
Safety Factor	2.0	Width (m)	4.800	Inf Depth (m)	
Porosity	0.30	Length (m)	4.800		

Node S36 Paving Carpark Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Invert Level (m)	259.150	Slope (1:X)	200.0
Side Inf Coefficient (m/hr)	0.00000	Time to half empty (mins)	118	Depth (m)	0.625
Safety Factor	2.0	Width (m)	16.400	Inf Depth (m)	
Porosity	0.30	Length (m)	3.750		

Node Storage Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	257.232
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	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)
0.000	110.0	0.0	1.200	110.0	0.0	1.201	0.0	0.0

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	RE01	10	260.381	0.031	1.0	0.0120	0.0000	OK
15 minute winter	S01	11	260.315	0.031	1.0	0.0355	0.0000	OK
30 minute winter	S02 Paving	26	260.300	0.075	1.1	0.4576	0.0000	OK
15 minute winter	S03	10	258.337	0.037	2.6	0.0494	0.0000	OK
15 minute winter	S04	11	258.273	0.049	4.5	0.0609	0.0000	OK
15 minute winter	S05	11	258.170	0.064	5.0	0.0727	0.0000	OK
15 minute winter	S06	11	258.129	0.064	8.6	0.0937	0.0000	OK
15 minute winter	S07	11	258.018	0.075	9.2	0.0852	0.0000	OK
15 minute winter	S08	12	257.952	0.077	9.1	0.0874	0.0000	OK
15 minute winter	S09	12	257.905	0.086	12.2	0.1307	0.0000	OK
480 minute winter	S10	360	257.506	0.289	3.8	0.3268	0.0000	SURCHARGED
480 minute winter	Storage	360	257.502	0.270	3.5	28.5639	0.0000	SURCHARGED
15 minute winter	S12	11	257.982	0.041	3.1	0.0864	0.0000	OK
15 minute winter	RE02	10	260.379	0.029	1.1	0.0126	0.0000	OK
30 minute winter	S13 Paving	25	260.308	0.083	1.2	0.5203	0.0000	OK
15 minute winter	RE05	10	259.871	0.021	0.6	0.0058	0.0000	OK
15 minute winter	S14	11	259.800	0.019	0.6	0.0030	0.0000	OK
15 minute winter	RE03	10	259.875	0.024	1.0	0.0096	0.0000	OK
15 minute winter	S15	11	259.795	0.019	1.0	0.0030	0.0000	OK
60 minute winter	S16 Paving	47	259.784	0.109	1.0	0.7133	0.0000	OK
15 minute winter	RE06	11	259.998	0.023	0.7	0.0073	0.0000	OK
15 minute winter	S17	10	259.923	0.018	0.7	0.0028	0.0000	OK
15 minute summer	RE04	10	259.903	0.028	0.8	0.0084	0.0000	OK
60 minute winter	S18	47	259.849	0.052	0.4	0.0083	0.0000	OK
60 minute winter	S19b Paving	46	259.849	0.099	1.0	0.6276	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	RE01	1.000	S01	1.0	0.479	0.193	0.0197	
15 minute winter	S01	1.001	S02 Paving	0.9	0.378	0.215	0.0379	
30 minute winter	S02 Paving	Orifice	S03	0.3				
15 minute winter	S03	1.003	S04	2.5	0.483	0.060	0.0595	
15 minute winter	S04	1.004	S05	4.5	0.585	0.106	0.1382	
15 minute winter	S05	1.005	S06	5.0	0.543	0.164	0.1138	
15 minute winter	S06	1.006	S07	8.6	0.819	0.166	0.1276	
15 minute winter	S07	1.007	S08	9.1	0.770	0.214	0.1205	
15 minute winter	S08	1.008	S09	9.2	0.703	0.214	0.1078	
15 minute winter	S09	1.009	S10	12.1	0.899	0.285	0.1762	
480 minute winter	S10	1.010	Flow Control	1.8	0.244	0.043	0.1113	
480 minute winter	Storage	21.001	S10	-3.1	-0.248	-0.134	0.2923	
15 minute winter	S12	21.000	Storage	3.0	0.615	0.070	0.1396	
15 minute winter	RE02	4.000	S13 Paving	1.1	0.442	0.187	0.0515	
30 minute winter	S13 Paving	Orifice	S04	0.3				
15 minute winter	RE05	2.000	S14	0.6	0.437	0.041	0.0142	
15 minute winter	S14	2.001	S16 Paving	0.6	0.433	0.033	0.0332	
15 minute winter	RE03	3.000	S15	1.0	0.501	0.023	0.0212	
15 minute winter	S15	3.001	S16 Paving	1.0	0.320	0.014	0.0526	
60 minute winter	S16 Paving	Orifice	S04	0.4				
15 minute winter	RE06	5.000	S17	0.7	0.485	0.048	0.0151	
15 minute winter	S17	5.001	S19b Paving	0.7	0.563	0.029	0.0269	
15 minute summer	RE04	6.000	S18	0.8	0.481	0.159	0.0188	
60 minute winter	S18	6.001	S19b Paving	0.4	0.262	0.075	0.0356	
60 minute winter	S19b Paving	Orifice	S04	0.4				

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	RE07	11	259.374	0.024	0.8	0.0073	0.0000	OK
60 minute winter	S19a	47	259.316	0.046	0.4	0.0073	0.0000	OK
15 minute winter	RE09	10	259.373	0.023	0.7	0.0061	0.0000	OK
60 minute winter	S19	46	259.316	0.043	0.4	0.0069	0.0000	OK
60 minute winter	S20 Paving	47	259.316	0.091	1.0	0.5724	0.0000	OK
15 minute winter	RE08	11	259.696	0.021	0.6	0.0056	0.0000	OK
60 minute winter	S21	46	259.647	0.040	0.3	0.0063	0.0000	OK
15 minute winter	RE10	10	259.704	0.029	1.1	0.0123	0.0000	OK
60 minute winter	S22	44	259.649	0.049	1.0	0.0078	0.0000	OK
60 minute winter	S23 Paving	47	259.647	0.097	1.0	0.6154	0.0000	OK
15 minute winter	RE13	10	259.172	0.021	0.6	0.0058	0.0000	OK
60 minute winter	S25a	48	259.118	0.042	0.4	0.0066	0.0000	OK
15 minute winter	RE11	10	259.176	0.026	1.0	0.0102	0.0000	OK
60 minute winter	S24 Paving	47	259.118	0.093	1.0	0.5919	0.0000	OK
60 minute winter	S25	47	259.118	0.045	0.5	0.0071	0.0000	OK
15 minute winter	RE12	10	259.478	0.027	1.1	0.0118	0.0000	OK
30 minute winter	S26	29	259.420	0.043	0.8	0.0069	0.0000	OK
15 minute summer	RE14	10	259.469	0.019	0.5	0.0044	0.0000	OK
30 minute winter	S27	27	259.421	0.041	0.5	0.0064	0.0000	OK
30 minute winter	S28 Paving	30	259.420	0.095	1.6	0.5995	0.0000	OK
15 minute summer	RE17	10	259.125	0.024	0.8	0.0086	0.0000	OK
30 minute winter	S29	28	259.068	0.042	0.6	0.0066	0.0000	OK
60 minute winter	S30 Paving	46	259.068	0.093	1.0	0.5859	0.0000	OK
15 minute winter	RE15	10	259.123	0.023	0.7	0.0070	0.0000	OK
30 minute winter	S31	27	259.068	0.041	0.5	0.0065	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	RE07	7.000	S19a	0.8	0.381	0.055	0.0281	
60 minute winter	S19a	7.001	S20 Paving	0.4	0.225	0.051	0.0614	
15 minute winter	RE09	8.000	S19	0.7	0.412	0.048	0.0228	
60 minute winter	S19	8.001	S20 Paving	0.4	0.257	0.030	0.0775	
60 minute winter	S20 Paving	Orifice	S05	0.3				
15 minute winter	RE08	9.000	S21	0.6	0.375	0.041	0.0176	
60 minute winter	S21	9.001	S23 Paving	0.3	0.224	0.032	0.0675	
15 minute winter	RE10	10.000	S22	1.1	0.532	0.073	0.0257	
60 minute winter	S22	10.001	S23 Paving	0.8	0.372	0.037	0.0308	
60 minute winter	S23 Paving	Orifice	S05	0.4				
15 minute winter	RE13	12.000	S25a	0.6	0.446	0.041	0.0211	
60 minute winter	S25a	12.001	S24 Paving	0.3	0.235	0.017	0.0309	
15 minute winter	RE11	11.000	S25	1.0	0.385	0.066	0.0299	
60 minute winter	S24 Paving	Orifice	S06	0.4				
60 minute winter	S25	11.001	S24 Paving	0.5	0.240	0.062	0.0683	
15 minute winter	RE12	13.000	S26	1.1	0.403	0.073	0.0300	
30 minute winter	S26	13.001	S28 Paving	0.8	0.318	0.096	0.0676	
15 minute summer	RE14	14.000	S27	0.5	0.423	0.031	0.0113	
30 minute winter	S27	14.001	S28 Paving	0.4	0.146	0.017	0.0279	
30 minute winter	S28 Paving	Orifice	S06	0.4				
15 minute summer	RE17	17.000	S29	0.8	0.444	0.056	0.0203	
30 minute winter	S29	17.001	S30 Paving	0.6	0.200	0.041	0.0581	
60 minute winter	S30 Paving	Orifice	S07	0.4				
15 minute winter	RE15	18.000	S31	0.7	0.401	0.048	0.0202	
30 minute winter	S31	18.001	S30 Paving	0.5	0.314	0.043	0.0354	

Results for 1 year Critical Storm Duration. Lowest mass balance: 99.86%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute winter	RE18	10	259.398	0.023	0.7	0.0071	0.0000	OK
60 minute winter	S32	46	259.343	0.044	0.4	0.0070	0.0000	OK
30 minute winter	S33 Paving	27	259.343	0.093	1.5	0.5868	0.0000	OK
15 minute summer	RE16	10	259.399	0.024	0.8	0.0085	0.0000	OK
60 minute winter	S34	47	259.343	0.038	0.4	0.0060	0.0000	OK
15 minute winter	RE20	10	259.302	0.026	1.0	0.0127	0.0000	OK
15 minute winter	S35	11	259.231	0.030	1.0	0.0047	0.0000	OK
60 minute winter	S36 Paving	49	259.222	0.072	1.4	1.1791	0.0000	OK
15 minute winter	RE19	11	259.297	0.022	0.7	0.0070	0.0000	OK
15 minute winter	S37	12	259.233	0.035	0.7	0.0055	0.0000	OK
480 minute winter	Flow Control	352	257.502	0.304	1.9	0.3442	0.0000	SURCHARGED
480 minute winter	Demarcation Chamber	360	259.867	0.017	1.0	0.0194	0.0000	OK
480 minute winter	Outfall	360	259.517	0.017	1.0	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)
15 minute winter	RE18	15.000	S32	0.7	0.428	0.048	0.0239	
60 minute winter	S32	15.001	S33 Paving	0.4	0.254	0.026	0.0592	
30 minute winter	S33 Paving	Orifice	S07	0.4				
15 minute summer	RE16	16.000	S34	0.8	0.425	0.055	0.0204	
60 minute winter	S34	16.001	S33 Paving	0.4	0.289	0.032	0.0337	
15 minute winter	RE20	20.000	S35	1.0	0.430	0.066	0.0247	
15 minute winter	S35	20.001	S36 Paving	1.0	0.376	0.087	0.0456	
60 minute winter	S36 Paving	Orifice	S09	0.3				
15 minute winter	RE19	19.000	S37	0.7	0.392	0.048	0.0263	
15 minute winter	S37	19.001	S36 Paving	0.6	0.275	0.098	0.0391	
480 minute winter	Flow Control	Pump	Demarcation Chamber	1.0				
480 minute winter	Demarcation Chamber	1.012	Outfall	1.0	0.737	0.011	0.0167	25.8

Results for 30 year 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 winter	RE01	46	260.405	0.055	1.2	0.0214	0.0000	OK
60 minute winter	S01	46	260.404	0.120	1.2	0.1361	0.0000	SURCHARGED
60 minute winter	S02 Paving	47	260.404	0.179	1.5	1.2101	0.0000	SURCHARGED
15 minute winter	S03	10	258.359	0.059	6.2	0.0783	0.0000	OK
15 minute winter	S04	10	258.301	0.076	10.4	0.0947	0.0000	OK
15 minute winter	S05	11	258.208	0.102	11.2	0.1158	0.0000	OK
15 minute winter	S06	11	258.170	0.106	19.8	0.1541	0.0000	OK
15 minute winter	S07	11	258.068	0.125	20.7	0.1409	0.0000	OK
15 minute winter	S08	11	258.005	0.130	20.6	0.1468	0.0000	OK
15 minute winter	S09	11	257.964	0.145	28.5	0.2197	0.0000	OK
360 minute winter	S10	352	257.898	0.681	8.1	0.7707	0.0000	SURCHARGED
360 minute winter	Storage	352	257.898	0.666	7.7	70.3813	0.0000	SURCHARGED
15 minute winter	S12	10	258.005	0.064	7.6	0.1367	0.0000	OK
60 minute winter	RE02	47	260.438	0.088	1.3	0.0378	0.0000	OK
60 minute winter	S13 Paving	47	260.437	0.212	1.9	1.4474	0.0000	OK
60 minute winter	RE05	47	259.897	0.047	0.7	0.0128	0.0000	OK
60 minute winter	S14	49	259.898	0.117	0.8	0.0186	0.0000	OK
60 minute winter	RE03	48	259.898	0.048	1.2	0.0186	0.0000	OK
60 minute winter	S15	49	259.898	0.122	1.9	0.0194	0.0000	OK
60 minute winter	S16 Paving	48	259.897	0.222	2.7	1.5453	0.0000	OK
15 minute summer	RE06	10	260.011	0.036	1.7	0.0112	0.0000	OK
60 minute winter	S17	49	259.984	0.078	0.9	0.0125	0.0000	OK
60 minute winter	RE04	48	259.984	0.109	1.0	0.0331	0.0000	SURCHARGED
60 minute winter	S18	48	259.983	0.186	1.0	0.0296	0.0000	SURCHARGED
60 minute winter	S19b Paving	49	259.983	0.233	2.0	1.5861	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 winter	RE01	1.000	S01	1.2	0.486	0.242	0.0591	
60 minute winter	S01	1.001	S02 Paving	1.0	0.271	0.227	0.0858	
60 minute winter	S02 Paving	Orifice	S03	0.5				
15 minute winter	S03	1.003	S04	6.1	0.606	0.143	0.1132	
15 minute winter	S04	1.004	S05	10.4	0.716	0.244	0.2577	
15 minute winter	S05	1.005	S06	11.2	0.633	0.370	0.2186	
15 minute winter	S06	1.006	S07	19.8	0.970	0.382	0.2486	
15 minute winter	S07	1.007	S08	20.6	0.891	0.486	0.2354	
15 minute winter	S08	1.008	S09	20.5	0.816	0.480	0.2101	
15 minute winter	S09	1.009	S10	28.3	1.100	0.664	0.3356	
360 minute winter	S10	1.010	Flow Control	3.6	0.244	0.084	0.1113	
360 minute winter	Storage	21.001	S10	-6.7	-0.272	-0.289	0.2923	
15 minute winter	S12	21.000	Storage	7.3	0.797	0.173	0.2663	
60 minute winter	RE02	4.000	S13 Paving	1.3	0.338	0.230	0.1074	
60 minute winter	S13 Paving	Orifice	S04	0.6				
60 minute winter	RE05	2.000	S14	0.7	0.449	0.049	0.0993	
60 minute winter	S14	2.001	S16 Paving	0.9	0.328	0.049	0.1220	
60 minute winter	RE03	3.000	S15	1.2	0.515	0.028	0.1530	
60 minute winter	S15	3.001	S16 Paving	2.0	0.264	0.031	0.1918	
60 minute winter	S16 Paving	Orifice	S04	0.6				
15 minute summer	RE06	5.000	S17	1.7	0.628	0.115	0.0278	
60 minute winter	S17	5.001	S19b Paving	0.9	0.409	0.038	0.0969	
60 minute winter	RE04	6.000	S18	1.0	0.423	0.199	0.0873	
60 minute winter	S18	6.001	S19b Paving	0.7	0.256	0.135	0.0467	
60 minute winter	S19b Paving	Orifice	S04	0.6				

Results for 30 year 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 winter	RE07	50	259.429	0.079	1.0	0.0239	0.0000	OK
60 minute winter	S19a	50	259.428	0.158	1.0	0.0252	0.0000	SURCHARGED
60 minute winter	RE09	51	259.428	0.078	0.9	0.0212	0.0000	OK
60 minute winter	S19	49	259.428	0.155	0.9	0.0247	0.0000	SURCHARGED
60 minute winter	S20 Paving	48	259.428	0.203	1.8	1.3760	0.0000	SURCHARGED
60 minute winter	RE08	49	259.756	0.081	0.7	0.0219	0.0000	OK
60 minute winter	S21	50	259.756	0.149	0.7	0.0237	0.0000	OK
60 minute winter	RE10	51	259.756	0.081	1.3	0.0348	0.0000	OK
60 minute winter	S22	51	259.756	0.156	1.4	0.0247	0.0000	SURCHARGED
60 minute winter	S23 Paving	50	259.756	0.206	3.7	1.3914	0.0000	SURCHARGED
60 minute winter	RE13	50	259.228	0.078	0.7	0.0211	0.0000	OK
60 minute winter	S25a	50	259.228	0.152	1.0	0.0242	0.0000	SURCHARGED
60 minute winter	RE11	49	259.228	0.078	1.2	0.0306	0.0000	OK
60 minute winter	S24 Paving	50	259.228	0.203	2.5	1.3880	0.0000	SURCHARGED
60 minute winter	S25	49	259.228	0.155	1.2	0.0246	0.0000	SURCHARGED
60 minute winter	RE12	48	259.532	0.081	1.3	0.0351	0.0000	OK
60 minute winter	S26	48	259.532	0.156	1.3	0.0247	0.0000	SURCHARGED
60 minute winter	RE14	48	259.531	0.081	0.6	0.0188	0.0000	OK
60 minute winter	S27	48	259.531	0.151	0.9	0.0241	0.0000	SURCHARGED
60 minute winter	S28 Paving	48	259.532	0.206	2.4	1.4045	0.0000	SURCHARGED
60 minute winter	RE17	48	259.183	0.083	1.0	0.0291	0.0000	OK
60 minute winter	S29	48	259.183	0.157	1.0	0.0249	0.0000	SURCHARGED
60 minute winter	S30 Paving	48	259.182	0.207	1.7	1.4109	0.0000	SURCHARGED
60 minute winter	RE15	49	259.183	0.083	0.9	0.0258	0.0000	OK
60 minute winter	S31	49	259.183	0.155	0.9	0.0247	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 winter	RE07	7.000	S19a	1.0	0.326	0.069	0.1611	
60 minute winter	S19a	7.001	S20 Paving	0.6	0.221	0.082	0.1794	
60 minute winter	RE09	8.000	S19	0.9	0.369	0.062	0.1544	
60 minute winter	S19	8.001	S20 Paving	0.6	0.188	0.047	0.1775	
60 minute winter	S20 Paving	Orifice	S05	0.5				
60 minute winter	RE08	9.000	S21	0.7	0.337	0.048	0.1385	
60 minute winter	S21	9.001	S23 Paving	0.5	0.219	0.050	0.1962	
60 minute winter	RE10	10.000	S22	1.3	0.483	0.090	0.1524	
60 minute winter	S22	10.001	S23 Paving	2.8	0.326	0.134	0.0646	
60 minute winter	S23 Paving	Orifice	S05	0.6				
60 minute winter	RE13	12.000	S25a	0.7	0.393	0.049	0.1473	
60 minute winter	S25a	12.001	S24 Paving	1.1	0.171	0.054	0.0703	
60 minute winter	RE11	11.000	S25	1.2	0.364	0.083	0.1542	
60 minute winter	S24 Paving	Orifice	S06	0.6				
60 minute winter	S25	11.001	S24 Paving	0.9	0.239	0.107	0.1971	
60 minute winter	RE12	13.000	S26	1.3	0.387	0.089	0.1503	
60 minute winter	S26	13.001	S28 Paving	1.0	0.265	0.115	0.1948	
60 minute winter	RE14	14.000	S27	0.6	0.371	0.041	0.1429	
60 minute winter	S27	14.001	S28 Paving	0.9	0.146	0.041	0.0637	
60 minute winter	S28 Paving	Orifice	S06	0.6				
60 minute winter	RE17	17.000	S29	1.0	0.401	0.069	0.1535	
60 minute winter	S29	17.001	S30 Paving	0.6	0.221	0.044	0.1333	
60 minute winter	S30 Paving	Orifice	S07	0.6				
60 minute winter	RE15	18.000	S31	0.9	0.364	0.062	0.1496	
60 minute winter	S31	18.001	S30 Paving	0.5	0.266	0.046	0.1080	

Results for 30 year 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 winter	RE18	49	259.458	0.083	0.9	0.0259	0.0000	OK
60 minute winter	S32	48	259.458	0.159	0.9	0.0253	0.0000	SURCHARGED
60 minute winter	S33 Paving	48	259.458	0.208	1.8	1.4155	0.0000	SURCHARGED
60 minute winter	RE16	48	259.458	0.083	1.0	0.0292	0.0000	OK
60 minute winter	S34	48	259.458	0.153	1.0	0.0243	0.0000	SURCHARGED
15 minute winter	RE20	10	259.316	0.041	2.3	0.0197	0.0000	OK
120 minute winter	S35	96	259.310	0.109	0.7	0.0173	0.0000	OK
120 minute winter	S36 Paving	96	259.310	0.160	1.6	2.8355	0.0000	SURCHARGED
120 minute winter	RE19	92	259.310	0.035	0.6	0.0108	0.0000	OK
120 minute winter	S37	92	259.310	0.112	0.6	0.0178	0.0000	OK
360 minute winter	Flow Control	352	257.899	0.701	3.6	0.7932	0.0000	SURCHARGED
360 minute winter	Demarcation Chamber	352	259.876	0.026	2.3	0.0289	0.0000	OK
360 minute winter	Outfall	352	259.525	0.025	2.3	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 winter	RE18	15.000	S32	0.9	0.378	0.062	0.1558	
60 minute winter	S32	15.001	S33 Paving	0.5	0.186	0.038	0.1321	
60 minute winter	S33 Paving	Orifice	S07	0.6				
60 minute winter	RE16	16.000	S34	1.0	0.404	0.069	0.1443	
60 minute winter	S34	16.001	S33 Paving	0.7	0.275	0.055	0.1058	
15 minute winter	RE20	20.000	S35	2.3	0.544	0.156	0.0491	
120 minute winter	S35	20.001	S36 Paving	0.6	0.197	0.053	0.1972	
120 minute winter	S36 Paving	Orifice	S09	0.5				
120 minute winter	RE19	19.000	S37	0.6	0.314	0.041	0.0981	
120 minute winter	S37	19.001	S36 Paving	0.4	0.187	0.064	0.2563	
360 minute winter	Flow Control	Pump	Demarcation Chamber	2.3				
360 minute winter	Demarcation Chamber	1.012	Outfall	2.3	0.947	0.026	0.0300	52.5

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 winter	RE01	49	260.579	0.229	2.2	0.0896	0.0000	FLOOD RISK
60 minute winter	S01	49	260.578	0.294	1.9	0.3327	0.0000	FLOOD RISK
60 minute winter	S02 Paving	48	260.577	0.352	2.7	2.4628	0.0000	FLOOD RISK
480 minute winter	S03	472	258.424	0.124	1.7	0.1649	0.0000	OK
480 minute winter	S04	472	258.424	0.200	4.0	0.2473	0.0000	OK
480 minute winter	S05	472	258.422	0.316	5.1	0.3576	0.0000	SURCHARGED
480 minute winter	S06	480	258.422	0.358	7.9	0.5197	0.0000	SURCHARGED
480 minute winter	S07	480	258.422	0.479	9.1	0.5413	0.0000	SURCHARGED
480 minute winter	S08	472	258.422	0.547	9.1	0.6181	0.0000	SURCHARGED
480 minute winter	S09	472	258.422	0.602	11.2	0.9116	0.0000	SURCHARGED
480 minute winter	S10	480	258.422	1.205	11.3	1.3630	0.0000	SURCHARGED
480 minute winter	Storage	480	258.421	1.189	10.3	125.5835	0.0000	SURCHARGED
480 minute winter	S12	480	258.421	0.480	1.5	1.0207	0.0000	FLOOD RISK
60 minute winter	RE02	49	260.654	0.304	2.5	0.1310	0.0000	FLOOD RISK
60 minute winter	S13 Paving	49	260.652	0.427	3.2	3.0013	0.0000	FLOOD RISK
120 minute winter	RE05	92	260.091	0.241	0.8	0.0653	0.0000	FLOOD RISK
120 minute winter	S14	92	260.091	0.310	0.7	0.0493	0.0000	FLOOD RISK
120 minute winter	RE03	92	260.091	0.241	1.4	0.0942	0.0000	FLOOD RISK
120 minute winter	S15	92	260.091	0.315	1.5	0.0501	0.0000	FLOOD RISK
120 minute winter	S16 Paving	92	260.091	0.416	3.2	2.9628	0.0000	SURCHARGED
120 minute winter	RE06	92	260.187	0.212	1.0	0.0658	0.0000	FLOOD RISK
120 minute winter	S17	92	260.187	0.282	1.0	0.0448	0.0000	FLOOD RISK
120 minute winter	RE04	90	260.187	0.312	1.2	0.0949	0.0000	FLOOD RISK
120 minute winter	S18	92	260.187	0.390	1.0	0.0620	0.0000	FLOOD RISK
120 minute winter	S19b Paving	92	260.187	0.437	2.0	3.0418	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)
60 minute winter	RE01	1.000	S01	1.9	0.486	0.385	0.0757	
60 minute winter	S01	1.001	S02 Paving	1.6	0.320	0.359	0.0858	
60 minute winter	S02 Paving	Orifice	S03	0.8				
480 minute winter	S03	1.003	S04	1.7	0.380	0.040	0.3357	
480 minute winter	S04	1.004	S05	4.0	0.526	0.094	0.6765	
480 minute winter	S05	1.005	S06	5.1	0.577	0.168	0.4839	
480 minute winter	S06	1.006	S07	7.9	0.784	0.152	0.4831	
480 minute winter	S07	1.007	S08	9.1	0.774	0.214	0.4049	
480 minute winter	S08	1.008	S09	9.0	0.751	0.212	0.3290	
480 minute winter	S09	1.009	S10	11.3	0.873	0.265	0.5194	
480 minute winter	S10	1.010	Flow Control	4.4	0.244	0.104	0.1113	
480 minute winter	Storage	21.001	S10	-8.8	-0.347	-0.378	0.2923	
480 minute winter	S12	21.000	Storage	1.5	0.502	0.035	1.1527	
60 minute winter	RE02	4.000	S13 Paving	2.1	0.377	0.379	0.1113	
60 minute winter	S13 Paving	Orifice	S04	0.8				
120 minute winter	RE05	2.000	S14	0.7	0.384	0.050	0.1801	
120 minute winter	S14	2.001	S16 Paving	0.8	0.333	0.045	0.1329	
120 minute winter	RE03	3.000	S15	1.5	0.428	0.034	0.4363	
120 minute winter	S15	3.001	S16 Paving	2.0	0.228	0.030	0.2479	
120 minute winter	S16 Paving	Orifice	S04	0.8				
120 minute winter	RE06	5.000	S17	1.0	0.502	0.069	0.1829	
120 minute winter	S17	5.001	S19b Paving	0.7	0.409	0.030	0.1266	
120 minute winter	RE04	6.000	S18	1.0	0.356	0.208	0.0873	
120 minute winter	S18	6.001	S19b Paving	0.9	0.229	0.164	0.0467	
120 minute winter	S19b Paving	Orifice	S04	0.8				

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
120 minute winter	RE07	94	259.655	0.305	1.2	0.0927	0.0000	FLOOD RISK
120 minute winter	S19a	94	259.655	0.385	1.0	0.0612	0.0000	FLOOD RISK
120 minute winter	RE09	92	259.655	0.305	1.0	0.0827	0.0000	FLOOD RISK
120 minute winter	S19	92	259.655	0.382	0.8	0.0608	0.0000	FLOOD RISK
120 minute winter	S20 Paving	92	259.655	0.430	2.1	3.0061	0.0000	FLOOD RISK
120 minute winter	RE08	90	259.980	0.305	0.8	0.0826	0.0000	FLOOD RISK
120 minute winter	S21	92	259.980	0.373	0.6	0.0593	0.0000	FLOOD RISK
120 minute winter	RE10	92	259.980	0.305	1.5	0.1315	0.0000	FLOOD RISK
120 minute winter	S22	92	259.980	0.380	1.4	0.0604	0.0000	FLOOD RISK
120 minute winter	S23 Paving	92	259.980	0.430	2.4	2.9996	0.0000	FLOOD RISK
120 minute winter	RE13	92	259.444	0.294	0.8	0.0796	0.0000	FLOOD RISK
120 minute winter	S25a	92	259.444	0.368	0.7	0.0585	0.0000	FLOOD RISK
120 minute winter	RE11	92	259.444	0.294	1.4	0.1150	0.0000	FLOOD RISK
120 minute winter	S24 Paving	92	259.444	0.419	2.1	2.9509	0.0000	FLOOD RISK
120 minute winter	S25	92	259.444	0.371	1.2	0.0590	0.0000	FLOOD RISK
120 minute winter	RE12	90	259.750	0.300	1.5	0.1293	0.0000	FLOOD RISK
120 minute winter	S26	92	259.750	0.374	1.3	0.0595	0.0000	FLOOD RISK
120 minute winter	RE14	92	259.750	0.300	0.7	0.0693	0.0000	FLOOD RISK
120 minute winter	S27	92	259.750	0.370	0.6	0.0588	0.0000	FLOOD RISK
120 minute winter	S28 Paving	92	259.750	0.425	2.1	2.9780	0.0000	FLOOD RISK
120 minute winter	RE17	92	259.400	0.300	1.2	0.1053	0.0000	FLOOD RISK
120 minute winter	S29	92	259.400	0.374	1.0	0.0595	0.0000	FLOOD RISK
120 minute winter	S30 Paving	92	259.400	0.425	2.1	2.9778	0.0000	FLOOD RISK
120 minute winter	RE15	92	259.400	0.300	1.0	0.0933	0.0000	FLOOD RISK
120 minute winter	S31	92	259.400	0.373	0.8	0.0593	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)
120 minute winter	RE07	7.000	S19a	1.0	0.306	0.068	0.2105	
120 minute winter	S19a	7.001	S20 Paving	0.8	0.213	0.101	0.1794	
120 minute winter	RE09	8.000	S19	0.8	0.309	0.057	0.2020	
120 minute winter	S19	8.001	S20 Paving	0.6	0.151	0.052	0.1775	
120 minute winter	S20 Paving	Orifice	S05	0.8				
120 minute winter	RE08	9.000	S21	0.6	0.306	0.043	0.1791	
120 minute winter	S21	9.001	S23 Paving	0.5	0.224	0.049	0.1963	
120 minute winter	RE10	10.000	S22	1.3	0.363	0.090	0.1968	
120 minute winter	S22	10.001	S23 Paving	1.8	0.325	0.087	0.0646	
120 minute winter	S23 Paving	Orifice	S05	0.8				
120 minute winter	RE13	12.000	S25a	0.6	0.320	0.044	0.1931	
120 minute winter	S25a	12.001	S24 Paving	0.6	0.147	0.030	0.0703	
120 minute winter	RE11	11.000	S25	1.2	0.307	0.081	0.2020	
120 minute winter	S24 Paving	Orifice	S06	0.8				
120 minute winter	S25	11.001	S24 Paving	1.0	0.215	0.123	0.1971	
120 minute winter	RE12	13.000	S26	1.3	0.307	0.090	0.1934	
120 minute winter	S26	13.001	S28 Paving	1.1	0.253	0.130	0.1948	
120 minute winter	RE14	14.000	S27	0.5	0.317	0.036	0.1840	
120 minute winter	S27	14.001	S28 Paving	0.5	0.149	0.022	0.0637	
120 minute winter	S28 Paving	Orifice	S06	0.8				
120 minute winter	RE17	17.000	S29	1.0	0.330	0.070	0.1960	
120 minute winter	S29	17.001	S30 Paving	0.8	0.191	0.056	0.1333	
120 minute winter	S30 Paving	Orifice	S07	0.8				
120 minute winter	RE15	18.000	S31	0.8	0.302	0.057	0.1910	
120 minute winter	S31	18.001	S30 Paving	0.7	0.265	0.056	0.1080	

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
120 minute winter	RE18	92	259.676	0.301	1.0	0.0935	0.0000	FLOOD RISK
120 minute winter	S32	92	259.676	0.377	0.8	0.0599	0.0000	FLOOD RISK
120 minute winter	S33 Paving	92	259.676	0.426	2.1	2.9823	0.0000	FLOOD RISK
120 minute winter	RE16	92	259.676	0.301	1.2	0.1055	0.0000	FLOOD RISK
120 minute winter	S34	92	259.676	0.371	1.0	0.0589	0.0000	FLOOD RISK
120 minute winter	RE20	100	259.467	0.192	1.4	0.0919	0.0000	SURCHARGED
120 minute winter	S35	100	259.467	0.266	1.3	0.0423	0.0000	SURCHARGED
120 minute winter	S36 Paving	100	259.467	0.317	2.9	5.7995	0.0000	SURCHARGED
120 minute winter	RE19	100	259.467	0.192	1.0	0.0596	0.0000	SURCHARGED
120 minute winter	S37	100	259.467	0.269	1.0	0.0427	0.0000	SURCHARGED
480 minute winter	Flow Control	472	258.421	1.223	4.4	1.3832	0.0000	SURCHARGED
480 minute summer	Demarcation Chamber	552	259.880	0.030	3.3	0.0344	0.0000	OK
240 minute winter	Outfall	424	259.530	0.030	3.3	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)
120 minute winter	RE18	15.000	S32	0.8	0.308	0.057	0.1983	
120 minute winter	S32	15.001	S33 Paving	0.6	0.150	0.045	0.1321	
120 minute winter	S33 Paving	Orifice	S07	0.8				
120 minute winter	RE16	16.000	S34	1.0	0.316	0.069	0.1839	
120 minute winter	S34	16.001	S33 Paving	0.8	0.273	0.065	0.1058	
120 minute winter	RE20	20.000	S35	1.3	0.375	0.088	0.1935	
120 minute winter	S35	20.001	S36 Paving	1.0	0.247	0.089	0.2222	
120 minute winter	S36 Paving	Orifice	S09	0.7				
120 minute winter	RE19	19.000	S37	1.0	0.314	0.067	0.2015	
120 minute winter	S37	19.001	S36 Paving	0.6	0.187	0.099	0.2937	
480 minute winter	Flow Control	Pump	Demarcation Chamber	3.3				
480 minute summer	Demarcation Chamber	1.012	Outfall	3.3	1.052	0.037	0.0385	95.0