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Client
BELLWAY HOMES

Job Title
HOYLAND BARNESLEY

Drawing Title
PROPOSED DRAINAGE CATCHMENT PLAN

Scale at A1
1:500

Drawing Status
PRELIMINARY

Job No
25035

Drawing No
124

Issue
P1

P1	30.06.25	Preliminary Issue	GW	PB	PB
Issue	Date	Description	By	Chkd	Appd

7 Silvertown Court, Northumberland Business Park, NE23 7RY
0191 5977879

Do not scale

Network Details

Manhole Schedule

Manhole	Catchment Area (ha)	Diameter (m)	Type	CL (m)	IL (m)	Depth To Soffit (m)	Easting (m)	Northing (m)
S1	0.171	1.800	Type B	136.335	134.460	1.575	437490.097	401738.424
S2	0.172	1.350	Type B	137.292	134.290	2.702	437455.123	401718.695
S3	0.085	1.200	Type B	139.008	136.500	2.358	437394.635	401687.640
S4	0.027	1.200	Type B	138.822	136.010	2.662	437407.894	401692.055
S5	0.065	1.500	Type A	138.332	133.840	3.892	437424.377	401701.353
S6	0.000	1.500	Type A	138.247	133.775	3.872	437409.299	401728.083
S7	0.063	1.500	Type A	138.447	133.720	4.127	437397.309	401750.904
S8	0.063	1.500	Type A	138.544	133.695	4.249	437385.257	401754.197
S9	0.114	1.500	Type A	138.559	133.595	4.364	437340.246	401735.669
S10	0.100	1.500	Type A	138.451	133.565	4.286	437326.680	401733.579
S11	0.095	1.500	Type A	138.212	133.510	4.102	437306.869	401750.834
S12	0.073	1.500	Type A	137.785	133.445	3.740	437275.311	401751.183
S13	0.025	1.500	Type A	137.367	133.420	3.347	437266.943	401743.290
S14	0.072	1.500	Type B	136.717	133.385	2.732	437259.911	401728.333
S15	0.194	1.500	Type B	135.776	133.965	1.511	437308.972	401656.431
S16	0.058	1.200	Type B	135.988	133.840	1.848	437293.883	401680.935
S17	0.053	1.500	Type B	136.279	133.540	2.289	437269.894	401705.891
S18	0.000	1.800	Type B	135.862	133.335	1.927	437250.105	401707.476
INLET	0.000	0.000	Unknown	134.351	132.970	0.781	437229.334	401680.535
OUTLET	0.000	0.000	Unknown	134.351	132.900	0.851	437250.981	401661.632
S19	0.000	2.100	Type B	135.895	132.750	2.995	437278.516	401662.691
S20	0.000	1.200	Type A	135.904	132.520	3.234	437299.945	401668.238
S21	0.000	1.200	Type A	135.620	132.175	3.295	437317.822	401639.204
S22	0.000	1.200	Type B	134.688	131.820	2.718	437290.836	401616.767
Ex.2512	0.000	1.200	Type B	132.467	130.652	1.665	437248.563	401568.706

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (m)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
1.000	S1	134.460	S2	134.290	Circ	0.3mØ	40.155	236.2	0.600	1.575	2.702
1.001	S2	134.290	S5	134.140	Circ	0.3mØ	35.300	235.3	0.600	2.702	3.892
2.000	S3	136.500	S4	136.010	Circ	0.15mØ	13.975	28.5	0.600	2.358	2.662
2.001	S4	136.010	S5	135.340	Circ	0.15mØ	18.924	28.2	0.600	2.662	2.842
1.002	S5	133.840	S6	133.775	Circ	0.6mØ	30.690	472.1	0.600	3.892	3.872
1.003	S6	133.775	S7	133.720	Circ	0.6mØ	25.779	468.7	0.600	3.872	4.127
1.004	S7	133.720	S8	133.695	Circ	0.6mØ	12.494	499.7	0.600	4.127	4.249
1.005	S8	133.695	S9	133.595	Circ	0.6mØ	48.675	486.7	0.600	4.249	4.364
1.006	S9	133.595	S10	133.565	Circ	0.6mØ	13.726	457.5	0.600	4.364	4.286
1.007	S10	133.565	S11	133.510	Circ	0.6mØ	26.272	477.7	0.600	4.286	4.102
1.008	S11	133.510	S12	133.445	Circ	0.6mØ	31.560	485.5	0.600	4.102	3.740
1.009	S12	133.445	S13	133.420	Circ	0.6mØ	11.503	460.1	0.600	3.740	3.347
1.010	S13	133.420	S14	133.385	Circ	0.6mØ	16.527	472.2	0.600	3.347	2.732
1.011	S14	133.385	S18	133.335	Circ	0.6mØ	23.047	460.9	0.600	2.732	1.927
3.000	S15	133.965	S16	133.840	Circ	0.3mØ	28.778	230.2	0.600	1.511	1.848
3.001	S16	133.840	S17	133.690	Circ	0.3mØ	34.616	230.8	0.600	1.848	2.289
3.002	S17	133.540	S18	133.485	Circ	0.45mØ	19.852	361.0	0.600	2.289	1.927
1.012	S18	133.335	INLET	133.270	Circ	0.6mØ	34.019	523.4	0.600	1.927	0.481
1.013	INLET	132.970	OUTLET	132.900	Circ	0.6mØ	28.739	410.6	0.600	0.781	0.851
1.014	OUTLET	132.900	S19	132.800	Circ	0.6mØ	27.555	275.6	0.600	0.851	2.495
1.015	S19	132.750	S20	132.520	Circ	0.15mØ	22.136	96.2	0.600	2.995	3.234
1.016	S20	132.520	S21	132.175	Circ	0.15mØ	34.097	98.8	0.600	3.234	3.295
1.017	S21	132.175	S22	131.820	Circ	0.15mØ	35.095	98.9	0.600	3.295	2.718
1.018	S22	131.820	Ex.2512	130.652	Circ	0.15mØ	64.007	54.8	0.600	2.718	1.665

Outfall Details

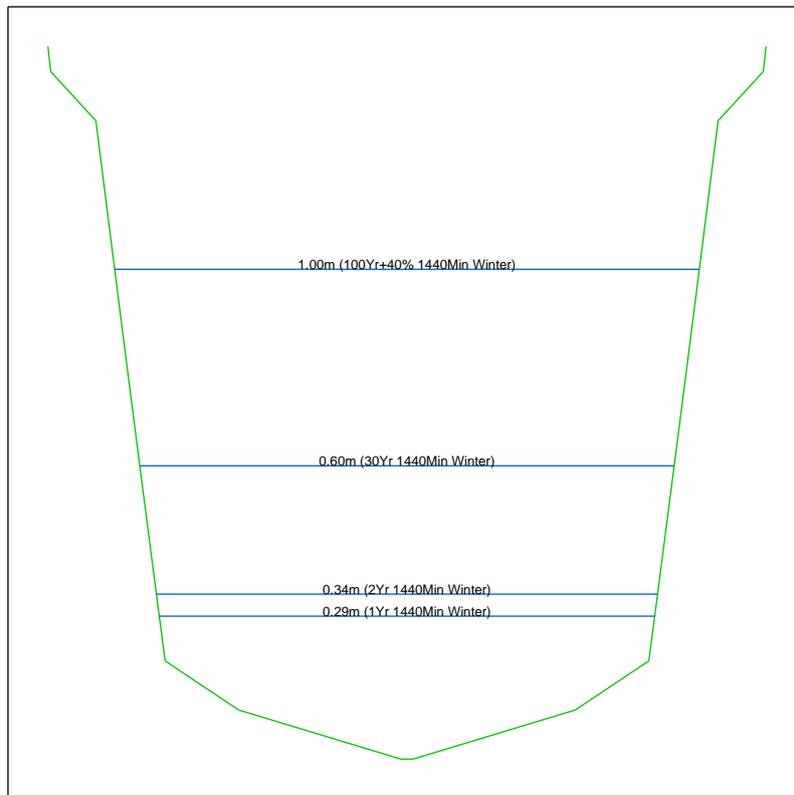
Outfall Manhole Ex.2512 : Free Discharge

Flow Control Details

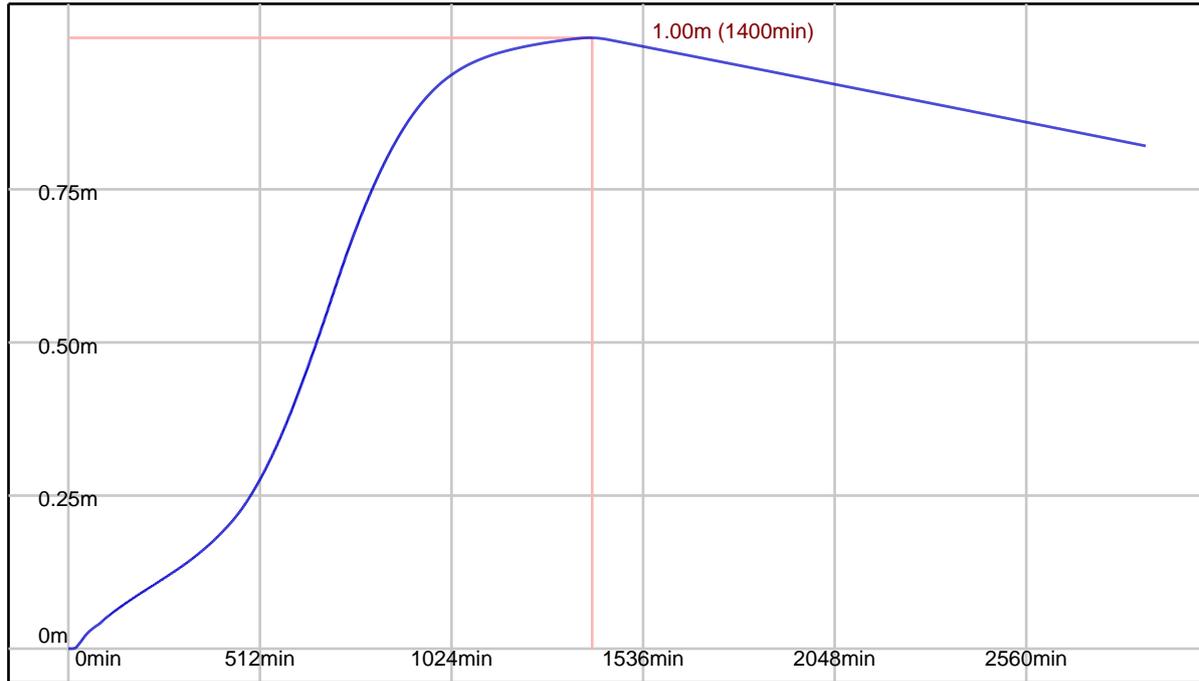
Pond Structure at Manhole OUTLET

Pond Invert (m)	Max Depth (m)	Volume To Water Level (m3)	Water Level (m)	Freeboard (m)	Infil Base (m/hr)	Infil Side (m/hr)	Safety Factor
132.900	1.451	1123.138	133.900	0.451	0.00000000	0.00000000	2.00

Pond Depth/Area Diagram at OUTLET



Pond at OUTLET (100Yr+40% 1440Min Winter)

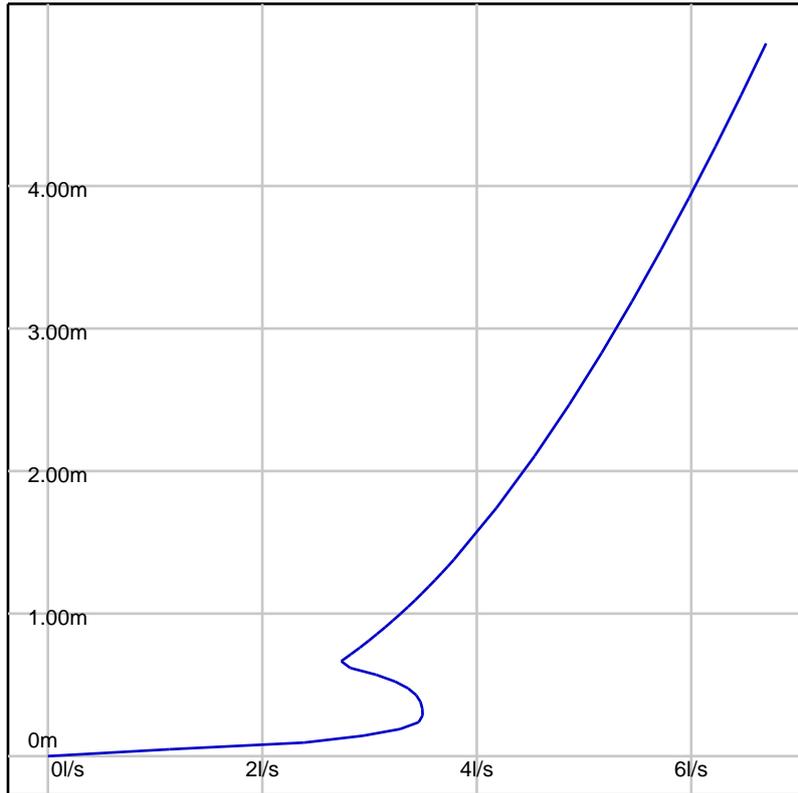


Controls within Manhole S19

StormBrake Control at Manhole S19

Model Ref	Design Depth (m)	Design Flow (l/s)	Depth Above Invert (m)	FF Head (m)	FF Flow (l/s)	KF Head (m)	KF Flow (l/s)
FPM-SB1-01150-00350-1100	1.150	3.500	0.000	0.274	3.495	0.640	2.686

StormBrake Control at S19



Simulation Settings

FSR: M5-60=17.00, R=0.30, Locale=England and Wales

Summer (Cv: 0.75), Winter (Cv: 0.84)

Global Time of Entry: 5.0 mins

Durations (mins): 15, 30, 60, 120, 180, 240, 360, 1440

Return Periods (yrs) + Climate Change: (1, +0%), (2, +0%), (30, +0%), (100, +40%)

Simulated Rainfall Events

Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %	Storm	Average Intensity (mm/hr)	Runoff Continuity %	Flow Continuity %
1Yr 15Min Winter	28.590	0.00	-0.29	30Yr 15Min Summer	58.028	0.00	-0.15
1Yr 15Min Summer	28.590	0.00	-0.32	30Yr 15Min Winter	58.028	0.00	-0.15
1Yr 30Min Winter	18.914	0.00	-0.18	30Yr 30Min Summer	39.669	0.00	-0.09
1Yr 30Min Summer	18.914	0.00	-0.16	30Yr 30Min Winter	39.669	0.00	-0.08
1Yr 60Min Winter	12.136	0.00	-0.12	30Yr 60Min Summer	26.061	0.00	-0.05
1Yr 60Min Summer	12.136	0.00	-0.14	30Yr 60Min Winter	26.061	0.00	-0.03
1Yr 120Min Winter	7.679	0.00	-0.09	30Yr 120Min Summer	16.659	0.00	-0.02
1Yr 120Min Summer	7.679	0.00	-0.09	30Yr 120Min Winter	16.659	0.00	-0.03
1Yr 180Min Summer	5.871	0.00	-0.14	30Yr 180Min Summer	12.683	0.00	-0.12
1Yr 180Min Winter	5.871	0.00	-0.09	30Yr 180Min Winter	12.683	0.00	-0.09
1Yr 240Min Winter	4.859	0.00	-0.10	30Yr 240Min Summer	10.398	0.00	-0.02
1Yr 240Min Summer	4.859	0.00	-0.08	30Yr 240Min Winter	10.398	0.00	-0.01
1Yr 360Min Winter	3.730	0.00	-0.06	30Yr 360Min Summer	7.808	0.00	-0.01
1Yr 360Min Summer	3.730	0.00	-0.07	30Yr 360Min Winter	7.808	0.00	-0.01
1Yr 1440Min Summer	1.504	0.00	-0.01	30Yr 1440Min Summer	2.904	0.00	-0.01
1Yr 1440Min Winter	1.504	0.00	-0.01	30Yr 1440Min Winter	2.904	0.00	-0.01
2Yr 15Min Summer	33.027	0.00	-0.28	100Yr+40% 15Min Summer	104.373	0.00	0.07
2Yr 15Min Winter	33.027	0.00	-0.25	100Yr+40% 15Min Winter	104.373	0.00	0.20
2Yr 30Min Summer	21.996	0.00	-0.17	100Yr+40% 30Min Summer	72.185	0.00	0.00
2Yr 30Min Winter	21.996	0.00	-0.13	100Yr+40% 30Min Winter	72.185	0.00	0.00
2Yr 60Min Winter	14.181	0.00	-0.10	100Yr+40% 60Min Summer	47.821	0.00	0.04
2Yr 60Min Summer	14.181	0.00	-0.12	100Yr+40% 60Min Winter	47.821	0.00	0.06
2Yr 120Min Summer	8.992	0.00	-0.07	100Yr+40% 120Min Summer	30.679	0.00	0.06
2Yr 120Min Winter	8.992	0.00	-0.07	100Yr+40% 120Min Winter	30.679	0.00	0.13
2Yr 180Min Summer	6.869	0.00	-0.14	100Yr+40% 180Min Summer	23.321	0.00	0.14
2Yr 180Min Winter	6.869	0.00	-0.08	100Yr+40% 180Min Winter	23.321	0.00	0.21
2Yr 240Min Summer	5.674	0.00	-0.06	100Yr+40% 240Min Summer	19.055	0.00	0.18
2Yr 240Min Winter	5.674	0.00	-0.08	100Yr+40% 240Min Winter	19.055	0.00	0.25
2Yr 360Min Summer	4.337	0.00	-0.05	100Yr+40% 360Min Summer	14.198	0.00	0.21
2Yr 360Min Winter	4.337	0.00	-0.05	100Yr+40% 360Min Winter	14.198	0.00	0.27
2Yr 1440Min Summer	1.720	0.00	-0.01	100Yr+40% 1440Min Winter	5.133	0.00	0.20
2Yr 1440Min Winter	1.720	0.00	-0.01	100Yr+40% 1440Min Summer	5.133	0.00	0.13

Simulation Results

Return Period Yrs: 1.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Winter	8	134.572	0.112	22.525		OK
S2	15 min Winter	9	134.456	0.166	43.213		OK
S3	15 min Winter	8	136.559	0.059	11.196		OK
S4	15 min Winter	8	136.079	0.069	14.686		OK
S5	15 min Winter	9	134.023	0.183	66.420		OK
S6	15 min Winter	9	133.961	0.186	66.836		OK
S7	15 min Winter	10	133.919	0.199	71.623		OK
S8	15 min Winter	10	133.899	0.204	79.493		OK
S9	15 min Winter	10	133.822	0.227	92.882		OK
S10	15 min Winter	10	133.802	0.237	103.546		OK
S11	15 min Winter	10	133.757	0.247	113.340		OK
S12	15 min Winter	10	133.701	0.256	119.799		OK
S13	15 min Winter	11	133.681	0.261	120.605		OK
S14	15 min Winter	11	133.655	0.270	127.549		OK
S15	15 min Winter	8	134.085	0.120	25.555		OK
S16	15 min Winter	9	133.978	0.138	31.807		OK
S17	15 min Winter	9	133.682	0.142	39.206		OK
S18	15 min Winter	11	133.621	0.286	159.864		OK
INLET	15 min Winter	11	133.244	0.274	162.377		OK
OUTLET	1440 min Winter	1080	133.191	0.291	3.194		OK
S19	1440 min Winter	1088	133.205	0.455	3.236		Surcharged
S20	360 min Summer	687	132.565	0.045	3.495		OK
S21	15 min Winter	12	132.221	0.046	3.435		OK
S22	1440 min Summer	1596	131.858	0.038	3.494		OK
Ex.2512	1440 min Summer	1596	130.690	0.038	3.494		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Winter	9	S1	S2	0.138	0.695	21.932	0.305	OK
1.001	15 min Winter	9	S2	S5	0.164	1.116	44.081	0.612	OK
2.000	15 min Winter	8	S3	S4	0.064	1.543	11.130	0.333	OK
2.001	15 min Winter	8	S4	S5	0.069	1.836	14.480	0.431	OK
1.002	15 min Winter	9	S5	S6	0.184	0.907	66.836	0.212	OK
1.003	15 min Winter	9	S6	S7	0.192	0.845	65.926	0.209	OK
1.004	15 min Winter	10	S7	S8	0.201	0.875	72.900	0.239	OK
1.005	15 min Winter	10	S8	S9	0.216	0.885	80.952	0.261	OK
1.006	15 min Winter	10	S9	S10	0.232	0.922	93.081	0.291	OK
1.007	15 min Winter	10	S10	S11	0.242	0.969	103.398	0.331	OK
1.008	15 min Winter	10	S11	S12	0.251	0.998	112.159	0.362	OK
1.009	15 min Winter	11	S12	S13	0.258	1.019	118.670	0.372	OK
1.010	15 min Winter	11	S13	S14	0.266	1.010	121.978	0.388	OK
1.011	15 min Winter	11	S14	S18	0.278	1.008	129.101	0.405	OK
3.000	15 min Winter	8	S15	S16	0.128	0.875	25.225	0.346	OK
3.001	15 min Winter	9	S16	S17	0.138	1.026	32.599	0.448	OK
3.002	15 min Winter	9	S17	S18	0.138	0.948	39.404	0.233	OK
1.012	15 min Winter	11	S18	INLET	0.272	1.302	162.377	0.544	OK
1.013	15 min Winter	11	INLET	OUTLET	0.267	1.340	162.641	0.482	OK
1.014	1440 min Winter	1088	OUTLET	S19	0.348	0.374	16.811	0.041	OK
1.015	360 min Summer	685	S19	S20	0.045	0.796	3.495	0.193	OK
1.016	1440 min Winter	1783	S20	S21	0.045	0.777	3.494	0.196	OK
1.017	1440 min Summer	1592	S21	S22	0.042	0.858	3.494	0.196	OK
1.018	1440 min Summer	1596	S22	Ex.2512	0.038	0.976	3.494	0.145	OK

Return Period Yrs: 2.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Winter	8	134.581	0.121	26.026		OK
S2	15 min Winter	9	134.471	0.181	49.896		OK
S3	15 min Winter	8	136.564	0.064	12.937		OK
S4	15 min Winter	8	136.085	0.075	16.972		OK
S5	15 min Winter	9	134.037	0.197	76.760		OK
S6	15 min Winter	9	133.976	0.201	77.251		OK
S7	15 min Winter	9	133.935	0.215	85.471		OK
S8	15 min Winter	10	133.916	0.221	91.741		OK
S9	15 min Winter	10	133.843	0.248	107.354		OK
S10	15 min Winter	10	133.823	0.258	119.940		OK
S11	15 min Winter	10	133.780	0.270	131.442		OK
S12	15 min Winter	10	133.725	0.280	139.346		OK
S13	15 min Winter	10	133.706	0.286	140.574		OK
S14	15 min Winter	11	133.679	0.294	147.580		OK
S15	15 min Winter	8	134.095	0.130	29.527		OK
S16	15 min Winter	9	133.990	0.150	36.733		OK
S17	15 min Winter	9	133.693	0.153	45.351		OK
S18	15 min Winter	11	133.644	0.309	184.849		OK
INLET	15 min Winter	11	133.268	0.298	189.152		OK
OUTLET	1440 min Winter	1113	133.236	0.336	2.980		OK
S19	1440 min Winter	1095	133.247	0.497	0.367		Surcharged
S20	1440 min Summer	1825	132.565	0.045	3.494		OK
S21	15 min Winter	12	132.221	0.046	3.392		OK
S22	1440 min Winter	2062	131.858	0.038	3.494		OK
Ex.2512	1440 min Winter	2064	130.690	0.038	3.494		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Winter	9	S1	S2	0.151	0.720	25.381	0.353	OK
1.001	15 min Winter	9	S2	S5	0.178	1.166	50.967	0.708	OK
2.000	15 min Winter	8	S3	S4	0.070	1.603	12.862	0.385	OK
2.001	15 min Winter	8	S4	S5	0.075	1.905	16.740	0.498	OK
1.002	15 min Winter	9	S5	S6	0.199	0.940	77.251	0.246	OK
1.003	15 min Winter	9	S6	S7	0.208	0.875	76.400	0.242	OK
1.004	15 min Winter	10	S7	S8	0.218	0.906	84.129	0.275	OK
1.005	15 min Winter	10	S8	S9	0.234	0.914	93.580	0.302	OK
1.006	15 min Winter	10	S9	S10	0.253	0.953	107.858	0.337	OK
1.007	15 min Winter	10	S10	S11	0.264	1.002	119.964	0.384	OK
1.008	15 min Winter	10	S11	S12	0.275	1.032	130.526	0.421	OK
1.009	15 min Winter	10	S12	S13	0.283	1.055	137.554	0.432	OK
1.010	15 min Winter	11	S13	S14	0.290	1.047	141.149	0.449	OK
1.011	15 min Winter	11	S14	S18	0.302	1.051	149.585	0.470	OK
3.000	15 min Winter	8	S15	S16	0.139	0.907	29.147	0.400	OK
3.001	15 min Winter	9	S16	S17	0.150	1.070	37.721	0.519	OK
3.002	15 min Winter	10	S17	S18	0.154	0.988	45.628	0.270	OK
1.012	15 min Winter	11	S18	INLET	0.295	1.367	189.152	0.634	OK
1.013	1440 min Winter	1111	INLET	OUTLET	0.301	0.428	14.661	0.043	OK
1.014	1440 min Winter	1103	OUTLET	S19	0.392	0.374	17.059	0.041	OK
1.015	1440 min Summer	1823	S19	S20	0.045	0.796	3.495	0.193	OK
1.016	1440 min Summer	1827	S20	S21	0.045	0.777	3.494	0.196	OK
1.017	1440 min Summer	1829	S21	S22	0.042	0.858	3.494	0.196	OK
1.018	1440 min Winter	2064	S22	Ex.2512	0.038	0.976	3.494	0.145	OK

Return Period Yrs: 30.0

Climate Change %: 0

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Winter	8	134.628	0.168	45.762		OK
S2	15 min Winter	9	134.582	0.292	87.514		OK
S3	15 min Winter	8	136.590	0.090	22.748		OK
S4	15 min Winter	8	136.119	0.109	29.852		OK
S5	15 min Winter	9	134.109	0.269	133.203		OK
S6	15 min Winter	9	134.055	0.280	133.585		OK
S7	15 min Winter	9	134.021	0.301	148.423		OK
S8	15 min Winter	10	134.005	0.310	158.307		OK
S9	15 min Winter	10	133.949	0.354	184.748		OK
S10	15 min Winter	10	133.934	0.369	207.356		OK
S11	15 min Winter	10	133.898	0.388	228.214		OK
S12	15 min Winter	10	133.850	0.405	243.657		OK
S13	15 min Winter	10	133.832	0.412	248.347		OK
S14	15 min Winter	10	133.806	0.421	263.055		OK
S15	15 min Winter	8	134.150	0.185	51.917		OK
S16	15 min Winter	9	134.055	0.215	64.532		OK
S17	15 min Winter	10	133.774	0.234	72.278		OK
S18	15 min Winter	10	133.766	0.431	334.652		OK
INLET	1440 min Winter	1380	133.497	0.527	2.688		OK
OUTLET	1440 min Winter	1377	133.497	0.597	2.891		OK
S19	1440 min Winter	1350	133.501	0.751	3.161		Surcharged
S20	15 min Winter	10	132.565	0.045	3.459		OK
S21	15 min Summer	11	132.222	0.047	3.428		OK
S22	1440 min Winter	559	131.858	0.038	3.494		OK
Ex.2512	1440 min Winter	559	130.690	0.038	3.494		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Winter	9	S1	S2	0.229	0.807	44.819	0.623	OK
1.001	15 min Winter	9	S2	S5	0.261	1.357	87.910	1.220	OK
2.000	15 min Winter	8	S3	S4	0.099	1.819	22.626	0.677	OK
2.001	15 min Winter	8	S4	S5	0.109	2.151	29.426	0.876	OK
1.002	15 min Winter	9	S5	S6	0.274	1.069	133.585	0.425	OK
1.003	15 min Winter	9	S6	S7	0.290	0.977	132.498	0.420	OK
1.004	15 min Winter	10	S7	S8	0.306	1.014	146.416	0.479	OK
1.005	15 min Winter	10	S8	S9	0.332	1.002	160.598	0.519	OK
1.006	15 min Winter	10	S9	S10	0.362	1.045	186.171	0.583	OK
1.007	15 min Winter	10	S10	S11	0.378	1.108	208.089	0.665	OK
1.008	15 min Winter	10	S11	S12	0.397	1.151	228.193	0.736	OK
1.009	15 min Winter	10	S12	S13	0.409	1.184	243.051	0.763	OK
1.010	15 min Winter	10	S13	S14	0.417	1.192	247.803	0.788	OK
1.011	15 min Winter	10	S14	S18	0.426	1.236	262.149	0.823	OK
3.000	15 min Winter	8	S15	S16	0.199	1.030	51.186	0.703	OK
3.001	15 min Winter	9	S16	S17	0.208	1.270	66.328	0.912	OK
3.002	15 min Winter	10	S17	S18	0.257	1.073	78.286	0.463	OK
1.012	15 min Winter	10	S18	INLET	0.403	1.655	332.131	1.112	OK
1.013	1440 min Winter	1372	INLET	OUTLET	0.562	0.429	24.769	0.073	OK
1.014	1440 min Winter	1377	OUTLET	S19	0.599	0.374	17.566	0.043	OK
1.015	15 min Summer	18	S19	S20	0.045	0.796	3.494	0.193	OK
1.016	15 min Winter	11	S20	S21	0.045	0.844	3.529	0.198	OK
1.017	1440 min Winter	557	S21	S22	0.042	0.858	3.494	0.196	OK
1.018	1440 min Winter	559	S22	Ex.2512	0.038	0.976	3.494	0.145	OK

Return Period Yrs: 100.0

Climate Change %: 40

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
S1	15 min Winter	9	135.164	0.704	77.649		Surcharged
S2	15 min Winter	9	134.993	0.703	152.192		Surcharged
S3	15 min Winter	10	137.169	0.669	32.371		Surcharged
S4	15 min Winter	10	136.660	0.650	44.707		Surcharged
S5	15 min Winter	11	134.312	0.472	195.075		OK
S6	15 min Winter	11	134.302	0.527	198.735		OK
S7	15 min Winter	11	134.286	0.566	226.368		OK
S8	15 min Winter	11	134.275	0.580	244.518		OK
S9	15 min Winter	11	134.213	0.618	277.690		Surcharged
S10	15 min Winter	10	134.192	0.627	289.647		Surcharged
S11	15 min Winter	10	134.146	0.636	324.026		Surcharged
S12	15 min Winter	10	134.084	0.639	351.840		Surcharged
S13	15 min Winter	10	134.057	0.637	362.792		Surcharged
S14	15 min Winter	10	134.016	0.631	391.640		Surcharged
S15	15 min Winter	9	134.462	0.497	88.093		Surcharged
S16	15 min Winter	9	134.292	0.452	114.568		Surcharged
S17	15 min Winter	10	133.967	0.427	129.280		OK
S18	15 min Winter	10	133.946	0.611	522.174		Surcharged
INLET	1440 min Winter	1394	133.897	0.927	3.425		Surcharged
OUTLET	1440 min Winter	1392	133.897	0.997	3.507		Surcharged
S19	1440 min Winter	1401	133.901	1.151	2.326		Surcharged
S20	15 min Summer	9	132.565	0.045	3.473		OK
S21	15 min Winter	10	132.222	0.047	3.482		OK
S22	1440 min Winter	426	131.858	0.038	3.494		OK
Ex.2512	1440 min Winter	426	130.690	0.038	3.494		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Winter	9	S1	S2	0.300	1.048	74.089	1.031	Surcharged
1.001	15 min Winter	9	S2	S5	0.290	2.100	146.847	2.039	OK
2.000	15 min Winter	9	S3	S4	0.150	2.031	35.898	1.074	Surcharged
2.001	15 min Winter	10	S4	S5	0.150	2.526	44.647	1.329	Surcharged
1.002	15 min Winter	11	S5	S6	0.499	1.138	215.383	0.685	OK
1.003	15 min Winter	11	S6	S7	0.546	0.992	208.773	0.661	OK
1.004	15 min Winter	11	S7	S8	0.573	1.032	226.923	0.743	OK
1.005	15 min Winter	12	S8	S9	0.590	1.009	250.114	0.808	OK
1.006	15 min Winter	12	S9	S10	0.600	1.085	286.639	0.897	Surcharged
1.007	15 min Winter	12	S10	S11	0.600	1.163	316.281	1.011	Surcharged
1.008	15 min Winter	12	S11	S12	0.600	1.254	346.042	1.116	Surcharged
1.009	15 min Winter	12	S12	S13	0.600	1.329	365.836	1.148	Surcharged
1.010	15 min Winter	12	S13	S14	0.600	1.371	375.262	1.193	Surcharged
1.011	15 min Winter	12	S14	S18	0.600	1.446	394.058	1.238	Surcharged
3.000	15 min Winter	9	S15	S16	0.300	1.248	88.231	1.211	Surcharged
3.001	15 min Winter	10	S16	S17	0.289	1.655	114.419	1.573	OK
3.002	15 min Winter	10	S17	S18	0.439	1.173	135.634	0.803	OK
1.012	1440 min Winter	1394	S18	INLET	0.581	0.847	42.684	0.143	OK
1.013	180 min Summer	161	INLET	OUTLET	0.600	1.336	259.150	0.768	Surcharged
1.014	120 min Winter	84	OUTLET	S19	0.600	0.464	36.425	0.088	Surcharged
1.015	15 min Winter	8	S19	S20	0.045	0.840	3.504	0.194	OK
1.016	15 min Winter	10	S20	S21	0.046	0.863	3.532	0.198	OK
1.017	15 min Summer	12	S21	S22	0.042	0.949	3.525	0.198	OK
1.018	1440 min Winter	426	S22	Ex.2512	0.038	0.976	3.494	0.145	OK



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