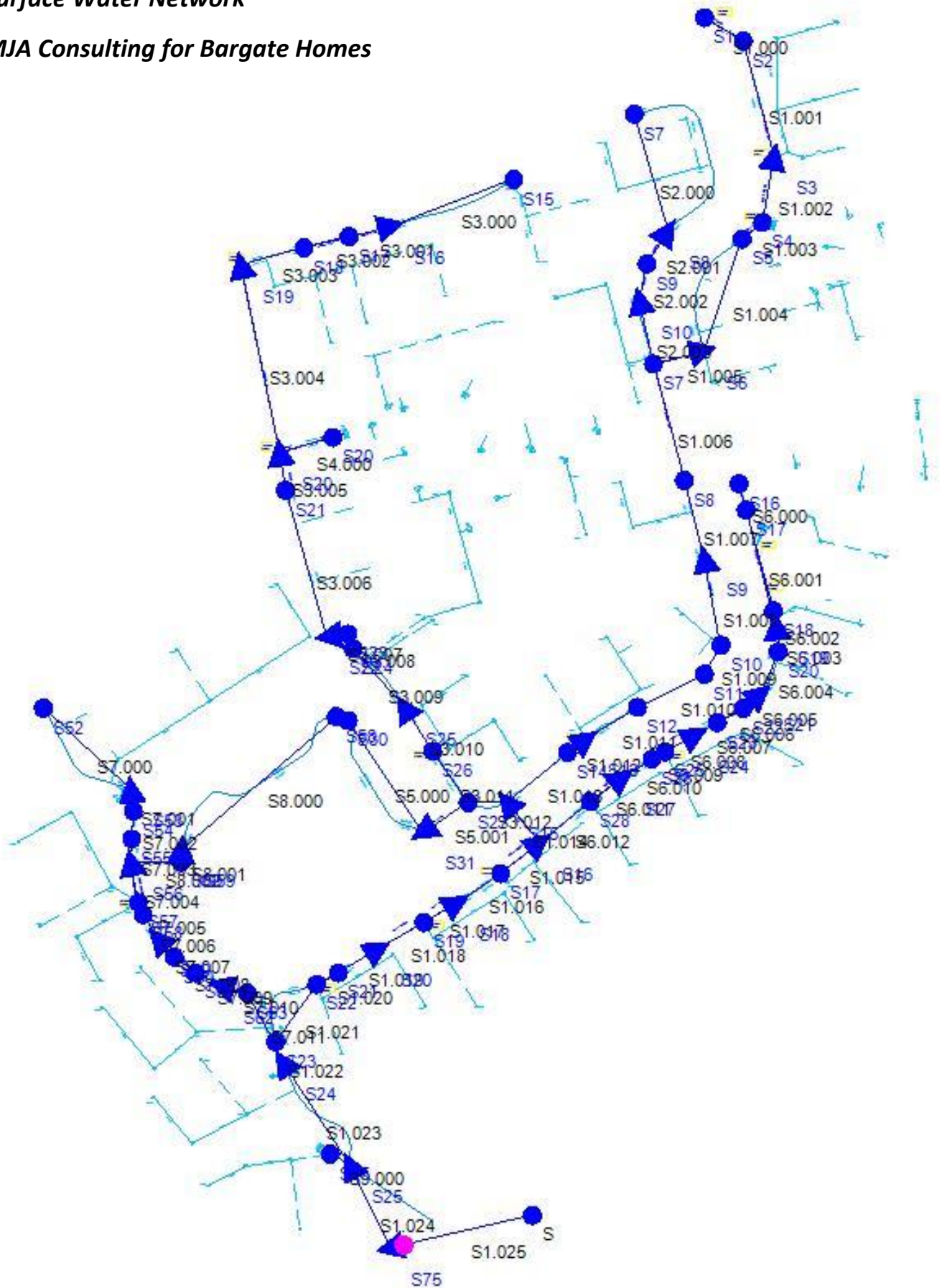


Manor Farm, Bedhampton

Surface Water Network

MJA Consulting for Bargate Homes



MJA Consulting		Page 1
Monarch House Barton Lane OX14 3NB	Surface Water Network Manor Farm, Bedhampton MJA for Bargate Homes	
Date 13/01/2019	Designed by S.Smith	
File MANOR FARM SURFACE WATER NETWORK.MDX	Checked by	
Innovyze	Network 2019.1	

Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type
S1.000	7.818	0.150	52.1	0.014	4.00	0.0	0.600	o	150	Pipe/Conduit
S1.001	20.570	0.120	171.4	0.009	0.00	0.0	0.600	o	150	Pipe/Conduit
S1.002	11.522	0.369	31.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.003	4.539	0.056	81.1	0.052	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.004	20.280	0.028	724.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.005	8.968	0.287	31.2	0.023	0.00	0.0	0.600	o	300	Pipe/Conduit
S2.000	20.898	0.574	36.4	0.047	4.00	0.0	0.600	o	300	Pipe/Conduit
S2.001	6.685	0.009	742.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S2.002	6.395	0.079	80.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S2.003	11.213	0.125	89.7	0.028	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.006	20.743	0.266	78.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.007	13.926	0.107	130.1	0.042	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.008	15.135	0.223	67.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.009	5.761	0.100	57.6	0.009	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.010	12.860	0.103	124.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.011	10.375	0.080	129.7	0.027	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.012	3.962	0.034	116.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.013	13.541	0.312	43.4	0.026	0.00	0.0	0.600	o	300	Pipe/Conduit
S3.000	22.543	0.106	212.7	0.054	4.00	0.0	0.600	o	300	Pipe/Conduit
S3.001	7.539	0.091	82.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S3.002	7.981	0.057	140.0	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S3.003	11.266	0.064	176.0	0.053	0.00	0.0	0.600	o	300	Pipe/Conduit
S3.004	32.943	0.729	45.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S4.000	9.463	0.095	99.6	0.045	4.00	0.0	0.600	o	300	Pipe/Conduit
S3.005	6.674	0.100	66.7	0.001	0.00	0.0	0.600	o	300	Pipe/Conduit
S3.006	26.216	0.250	104.9	0.002	0.00	0.0	0.600	o	300	Pipe/Conduit
S3.007	3.545	0.050	70.9	0.002	0.00	0.0	0.600	o	300	Pipe/Conduit
S3.008	2.667	0.051	52.3	0.075	0.00	0.0	0.600	o	300	Pipe/Conduit
S3.009	13.400	0.012	1116.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S3.010	9.007	0.137	65.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S3.011	10.759	0.168	64.0	0.032	0.00	0.0	0.600	o	300	Pipe/Conduit
S5.000	23.108	0.168	137.5	0.025	4.00	0.0	0.600	o	300	Pipe/Conduit
S5.001	9.312	0.057	163.4	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit

Network Results Table

PN	US/IL E (m)	I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
S1.000	8.350	0.014	0.0	1.40	24.7
S1.001	8.200	0.023	0.0	0.76	13.5
S1.002	8.080	0.023	0.0	2.82	199.6
S1.003	7.711	0.075	0.0	1.75	123.5
S1.004	7.655	0.075	0.0	0.58	40.8
S1.005	7.627	0.098	0.0	2.82	199.5
S2.000	8.083	0.047	0.0	2.61	184.8
S2.001	7.509	0.047	0.0	0.57	40.2
S2.002	7.500	0.047	0.0	1.75	123.6
S2.003	7.421	0.075	0.0	1.66	117.4
S1.006	7.296	0.173	0.0	1.78	126.0
S1.007	7.030	0.215	0.0	1.38	97.3
S1.008	6.923	0.215	0.0	1.91	135.1
S1.009	6.700	0.224	0.0	2.08	146.7
S1.010	6.600	0.224	0.0	1.41	99.4
S1.011	6.497	0.251	0.0	1.38	97.5
S1.012	6.417	0.251	0.0	1.46	102.9
S1.013	6.383	0.277	0.0	2.39	169.2
S3.000	7.947	0.054	0.0	1.07	75.9
S3.001	7.841	0.054	0.0	1.73	122.2
S3.002	7.750	0.054	0.0	1.33	93.8
S3.003	7.693	0.107	0.0	1.18	83.5
S3.004	7.629	0.107	0.0	2.35	165.8
S4.000	6.995	0.045	0.0	1.58	111.4
S3.005	6.900	0.153	0.0	1.93	136.2
S3.006	6.800	0.155	0.0	1.54	108.5
S3.007	6.550	0.157	0.0	1.87	132.2
S3.008	6.500	0.232	0.0	2.18	154.0
S3.009	6.449	0.232	0.0	0.46	32.7
S3.010	6.437	0.232	0.0	1.94	137.3
S3.011	6.300	0.264	0.0	1.97	139.1
S5.000	6.357	0.025	0.0	1.34	94.6
S5.001	6.189	0.025	0.0	1.23	86.8

MJA Consulting		Page 2
Monarch House Barton Lane OX14 3NB	Surface Water Network Manor Farm, Bedhampton MJA for Bargate Homes	
Date 13/01/2019	Designed by S.Smith	
File MANOR FARM SURFACE WATER NETWORK.MDX	Checked by	
Innovyze	Network 2019.1	

Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type
S3.012	6.672	0.061	109.4	0.000	0.00	0.0	0.600	[]	1	Pipe/Conduit
S1.014	8.996	0.057	157.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.000	4.704	0.130	36.2	0.070	4.00	0.0	0.600	o	300	Pipe/Conduit
S6.001	17.979	0.180	99.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.002	2.708	0.015	180.5	0.018	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.003	4.397	0.030	146.6	0.016	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.004	7.825	0.054	144.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.005	3.905	0.021	186.0	0.016	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.006	5.105	0.039	130.9	0.010	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.007	4.257	0.021	202.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.008	6.045	0.016	377.8	0.022	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.009	2.572	0.016	160.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.010	6.036	0.091	66.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.011	6.867	0.057	120.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S6.012	11.263	0.346	32.6	0.025	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.015	8.600	0.045	191.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.016	8.935	0.038	235.1	0.030	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.017	6.732	0.042	160.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.018	8.989	0.057	157.7	0.015	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.019	8.096	0.054	149.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.020	4.224	0.054	78.2	0.060	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.021	12.179	0.214	56.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S7.000	20.499	0.190	107.9	0.070	4.00	0.0	0.600	o	300	Pipe/Conduit
S7.001	3.864	0.150	25.8	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S7.002	4.790	0.124	38.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S7.003	3.969	0.037	107.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S8.000	34.940	0.424	82.4	0.058	4.00	0.0	0.600	o	300	Pipe/Conduit
S8.001	2.382	0.033	72.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S8.002	8.672	0.061	142.2	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S7.004	7.122	0.035	203.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S7.005	2.198	0.049	44.9	0.030	0.00	0.0	0.600	o	300	Pipe/Conduit
S7.006	4.901	0.045	108.9	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit

Network Results Table

PN	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
S3.012	6.132	0.289	0.0	2.86	1968.1
S1.014	6.071	0.566	0.0	1.25	88.3
S6.000	7.030	0.070	0.0	2.62	185.4
S6.001	6.900	0.070	0.0	1.57	111.2
S6.002	6.720	0.088	0.0	1.17	82.5
S6.003	6.705	0.104	0.0	1.30	91.6
S6.004	6.675	0.104	0.0	1.30	92.2
S6.005	6.621	0.120	0.0	1.15	81.3
S6.006	6.600	0.130	0.0	1.37	97.0
S6.007	6.561	0.130	0.0	1.10	77.8
S6.008	6.540	0.152	0.0	0.80	56.8
S6.009	6.524	0.152	0.0	1.24	87.5
S6.010	6.508	0.152	0.0	1.93	136.7
S6.011	6.417	0.152	0.0	1.43	101.2
S6.012	6.360	0.177	0.0	2.77	195.5
S1.015	6.014	0.743	0.0	1.13	80.1
S1.016	5.969	0.773	0.0	1.02	72.2
S1.017	5.931	0.773	0.0	1.24	87.6
S1.018	5.889	0.788	0.0	1.25	88.3
S1.019	5.832	0.788	0.0	1.28	90.6
S1.020	5.778	0.848	0.0	1.78	125.8
S1.021	5.724	0.848	0.0	2.09	147.6
S7.000	6.340	0.070	0.0	1.51	107.0
S7.001	6.150	0.070	0.0	3.11	219.9
S7.002	6.000	0.070	0.0	2.54	179.4
S7.003	5.876	0.070	0.0	1.52	107.3
S8.000	6.357	0.058	0.0	1.73	122.5
S8.001	5.933	0.058	0.0	1.85	131.0
S8.002	5.900	0.058	0.0	1.32	93.1
S7.004	5.839	0.128	0.0	1.10	77.6
S7.005	5.804	0.158	0.0	2.35	166.4
S7.006	5.755	0.158	0.0	1.51	106.5

Existing Network Details for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type
S7.007	4.233	0.030	141.1	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S7.008	4.506	0.029	155.4	0.015	0.00	0.0	0.600	o	300	Pipe/Conduit
S7.009	4.904	0.032	153.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S7.010	4.773	0.029	164.6	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S7.011	9.717	0.080	121.5	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.022	3.711	0.025	148.4	0.069	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.023	21.219	0.099	214.3	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S9.000	3.957	0.024	164.9	0.040	4.00	0.0	0.600	o	300	Pipe/Conduit
S1.024	15.797	0.086	183.7	0.000	0.00	0.0	0.600	o	300	Pipe/Conduit
S1.025	25.231	0.200	126.2	0.117	0.00	0.0	0.600	[]	1	Pipe/Conduit

Network Results Table

PN	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
S7.007	5.710	0.158	0.0	1.32	93.4
S7.008	5.680	0.173	0.0	1.26	89.0
S7.009	5.651	0.173	0.0	1.27	89.6
S7.010	5.619	0.173	0.0	1.22	86.4
S7.011	5.590	0.173	0.0	1.43	100.8
S1.022	5.510	1.090	0.0	1.29	91.1
S1.023	5.485	1.090	0.0	1.07	75.6
S9.000	5.410	0.040	0.0	1.22	86.4
S1.024	5.386	1.130	0.0	1.16	81.8
S1.025	5.200	1.247	0.0	2.66	1831.9

MJA Consulting		Page 4
Monarch House Barton Lane OX14 3NB	Surface Water Network Manor Farm, Bedhampton MJA for Bargate Homes	
Date 13/01/2019	Designed by S.Smith	
File MANOR FARM SURFACE WATER NETWORK.MDX	Checked by	
Innovyze	Network 2019.1	

PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	o	150	S1	8.950	8.350	0.450	Open Manhole	1200
S1.001	o	150	S2	8.900	8.200	0.550	Open Manhole	1
S1.002	o	300	S3	8.900	8.080	0.520	Open Manhole	1
S1.003	o	300	S4	8.500	7.711	0.489	Open Manhole	1200
S1.004	o	300	S5	8.200	7.655	0.245	Open Manhole	1
S1.005	o	300	S6	8.065	7.627	0.138	Open Manhole	1
S2.000	o	300	S7	8.740	8.083	0.357	Open Manhole	1
S2.001	o	300	S8	8.360	7.509	0.551	Open Manhole	1
S2.002	o	300	S9	8.300	7.500	0.500	Open Manhole	1200
S2.003	o	300	S10	8.300	7.421	0.579	Open Manhole	1
S1.006	o	300	S7	8.500	7.296	0.904	Open Manhole	1200
S1.007	o	300	S8	8.300	7.030	0.970	Open Manhole	1
S1.008	o	300	S9	8.250	6.923	1.027	Open Manhole	1200
S1.009	o	300	S10	7.900	6.700	0.900	Open Manhole	1200
S1.010	o	300	S11	7.500	6.600	0.600	Open Manhole	1200
S1.011	o	300	S12	7.500	6.497	0.703	Open Manhole	1
S1.012	o	300	S13	7.500	6.417	0.783	Open Manhole	1
S1.013	o	300	S14	7.340	6.383	0.657	Open Manhole	1200
S3.000	o	300	S15	8.870	7.947	0.623	Open Manhole	1
S3.001	o	300	S16	8.740	7.841	0.599	Open Manhole	1
S3.002	o	300	S17	8.340	7.750	0.290	Open Manhole	1200
S3.003	o	300	S18	8.670	7.693	0.677	Open Manhole	1
S3.004	o	300	S19	8.500	7.629	0.571	Open Manhole	1200
S4.000	o	300	S20	7.895	6.995	0.600	Open Manhole	1200
S3.005	o	300	S20	7.700	6.900	0.500	Open Manhole	1200
S3.006	o	300	S21	7.500	6.800	0.400	Open Manhole	1200
S3.007	o	300	S22	7.450	6.550	0.600	Open Manhole	1200
S3.008	o	300	S23	7.450	6.500	0.650	Open Manhole	1200
S3.009	o	300	S24	7.400	6.449	0.651	Open Manhole	1200
S3.010	o	300	S25	7.300	6.437	0.563	Open Manhole	1200
S3.011	o	300	S26	7.300	6.300	0.700	Open Manhole	1200
S5.000	o	300	S30	7.210	6.357	0.553	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S1.000	7.818	52.1	S2	8.900	8.200	0.550	Open Manhole	1
S1.001	20.570	171.4	S3	8.900	8.080	0.670	Open Manhole	1
S1.002	11.522	31.2	S4	8.500	7.711	0.489	Open Manhole	1200
S1.003	4.539	81.1	S5	8.200	7.655	0.245	Open Manhole	1
S1.004	20.280	724.3	S6	8.065	7.627	0.138	Open Manhole	1
S1.005	8.968	31.2	S7	8.500	7.340	0.860	Open Manhole	1200
S2.000	20.898	36.4	S8	8.360	7.509	0.551	Open Manhole	1
S2.001	6.685	742.8	S9	8.300	7.500	0.500	Open Manhole	1200
S2.002	6.395	80.9	S10	8.300	7.421	0.579	Open Manhole	1
S2.003	11.213	89.7	S7	8.500	7.296	0.904	Open Manhole	1200
S1.006	20.743	78.0	S8	8.300	7.030	0.970	Open Manhole	1
S1.007	13.926	130.1	S9	8.250	6.923	1.027	Open Manhole	1200
S1.008	15.135	67.9	S10	7.900	6.700	0.900	Open Manhole	1200
S1.009	5.761	57.6	S11	7.500	6.600	0.600	Open Manhole	1200
S1.010	12.860	124.9	S12	7.500	6.497	0.703	Open Manhole	1
S1.011	10.375	129.7	S13	7.500	6.417	0.783	Open Manhole	1
S1.012	3.962	116.5	S14	7.340	6.383	0.657	Open Manhole	1200
S1.013	13.541	43.4	S15	7.200	6.071	0.829	Open Manhole	1200
S3.000	22.543	212.7	S16	8.740	7.841	0.599	Open Manhole	1
S3.001	7.539	82.8	S17	8.340	7.750	0.290	Open Manhole	1200
S3.002	7.981	140.0	S18	8.670	7.693	0.677	Open Manhole	1
S3.003	11.266	176.0	S19	8.500	7.629	0.571	Open Manhole	1200
S3.004	32.943	45.2	S20	7.700	6.900	0.500	Open Manhole	1200
S4.000	9.463	99.6	S20	7.700	6.900	0.500	Open Manhole	1200
S3.005	6.674	66.7	S21	7.500	6.800	0.400	Open Manhole	1200
S3.006	26.216	104.9	S22	7.450	6.550	0.600	Open Manhole	1200
S3.007	3.545	70.9	S23	7.450	6.500	0.650	Open Manhole	1200
S3.008	2.667	52.3	S24	7.400	6.449	0.651	Open Manhole	1200
S3.009	13.400	1116.7	S25	7.300	6.437	0.563	Open Manhole	1200
S3.010	9.007	65.7	S26	7.300	6.300	0.700	Open Manhole	1200
S3.011	10.759	64.0	S27	7.175	6.132	0.743	Open Manhole	1200
S5.000	23.108	137.5	S31	7.150	6.189	0.661	Open Manhole	1200

MJA Consulting		Page 5
Monarch House Barton Lane OX14 3NB	Surface Water Network Manor Farm, Bedhampton MJA for Bargate Homes	
Date 13/01/2019	Designed by S.Smith	
File MANOR FARM SURFACE WATER NETWORK.MDX	Checked by	
Innovyze	Network 2019.1	

PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S5.001	o	300	S31	7.150	6.189	0.661	Open Manhole	1200
S3.012	[]	1	S27	7.175	6.132	0.443	Open Manhole	1200
S1.014	o	300	S15	7.200	6.071	0.829	Open Manhole	1200
S6.000	o	300	S16	7.800	7.030	0.470	Open Manhole	1
S6.001	o	300	S17	7.845	6.900	0.645	Open Manhole	1200
S6.002	o	300	S18	8.000	6.720	0.980	Open Manhole	1200
S6.003	o	300	S19	8.000	6.705	0.995	Open Manhole	1200
S6.004	o	300	S20	7.800	6.675	0.825	Open Manhole	1
S6.005	o	300	S21	7.666	6.621	0.745	Open Manhole	1200
S6.006	o	300	S22	7.472	6.600	0.572	Open Manhole	1200
S6.007	o	300	S23	7.470	6.561	0.609	Open Manhole	1
S6.008	o	300	S24	7.453	6.540	0.613	Open Manhole	1200
S6.009	o	300	S25	7.472	6.524	0.648	Open Manhole	1200
S6.010	o	300	S26	7.200	6.508	0.392	Open Manhole	1
S6.011	o	300	S27	7.300	6.417	0.583	Open Manhole	1200
S6.012	o	300	S28	7.300	6.360	0.640	Open Manhole	1200
S1.015	o	300	S16	7.200	6.014	0.886	Open Manhole	1200
S1.016	o	300	S17	7.099	5.969	0.830	Open Manhole	1
S1.017	o	300	S18	7.000	5.931	0.769	Open Manhole	1200
S1.018	o	300	S19	7.000	5.889	0.811	Open Manhole	1200
S1.019	o	300	S20	6.900	5.832	0.768	Open Manhole	1
S1.020	o	300	S21	6.900	5.778	0.822	Open Manhole	1200
S1.021	o	300	S22	6.800	5.724	0.776	Open Manhole	1200
S7.000	o	300	S52	7.100	6.340	0.460	Open Manhole	1
S7.001	o	300	S53	7.000	6.150	0.550	Open Manhole	1200
S7.002	o	300	S54	7.000	6.000	0.700	Open Manhole	1200
S7.003	o	300	S55	7.000	5.876	0.824	Open Manhole	1200
S8.000	o	300	S58	7.200	6.357	0.543	Open Manhole	1
S8.001	o	300	S59	6.783	5.933	0.550	Open Manhole	1200
S8.002	o	300	S60	7.000	5.900	0.800	Open Manhole	1200
S7.004	o	300	S56	6.694	5.839	0.555	Open Manhole	1200

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S5.001	9.312	163.4	S27	7.175	6.132	0.743	Open Manhole	1200
S3.012	6.672	109.4	S15	7.200	6.071	0.529	Open Manhole	1200
S1.014	8.996	157.8	S16	7.200	6.014	0.886	Open Manhole	1200
S6.000	4.704	36.2	S17	7.845	6.900	0.645	Open Manhole	1200
S6.001	17.979	99.9	S18	8.000	6.720	0.980	Open Manhole	1200
S6.002	2.708	180.5	S19	8.000	6.705	0.995	Open Manhole	1200
S6.003	4.397	146.6	S20	7.800	6.675	0.825	Open Manhole	1
S6.004	7.825	144.9	S21	7.666	6.621	0.745	Open Manhole	1200
S6.005	3.905	186.0	S22	7.472	6.600	0.572	Open Manhole	1200
S6.006	5.105	130.9	S23	7.470	6.561	0.609	Open Manhole	1
S6.007	4.257	202.7	S24	7.453	6.540	0.613	Open Manhole	1200
S6.008	6.045	377.8	S25	7.472	6.524	0.648	Open Manhole	1200
S6.009	2.572	160.8	S26	7.200	6.508	0.392	Open Manhole	1
S6.010	6.036	66.3	S27	7.300	6.417	0.583	Open Manhole	1200
S6.011	6.867	120.5	S28	7.300	6.360	0.640	Open Manhole	1200
S6.012	11.263	32.6	S16	7.200	6.014	0.886	Open Manhole	1200
S1.015	8.600	191.1	S17	7.099	5.969	0.830	Open Manhole	1
S1.016	8.935	235.1	S18	7.000	5.931	0.769	Open Manhole	1200
S1.017	6.732	160.3	S19	7.000	5.889	0.811	Open Manhole	1200
S1.018	8.989	157.7	S20	6.900	5.832	0.768	Open Manhole	1
S1.019	8.096	149.9	S21	6.900	5.778	0.822	Open Manhole	1200
S1.020	4.224	78.2	S22	6.800	5.724	0.776	Open Manhole	1200
S1.021	12.179	56.9	S23	7.000	5.510	1.190	Open Manhole	1
S7.000	20.499	107.9	S53	7.000	6.150	0.550	Open Manhole	1200
S7.001	3.864	25.8	S54	7.000	6.000	0.700	Open Manhole	1200
S7.002	4.790	38.6	S55	7.000	5.876	0.824	Open Manhole	1200
S7.003	3.969	107.3	S56	6.694	5.839	0.555	Open Manhole	1200
S8.000	34.940	82.4	S59	6.783	5.933	0.550	Open Manhole	1200
S8.001	2.382	72.2	S60	7.000	5.900	0.800	Open Manhole	1200
S8.002	8.672	142.2	S56	6.694	5.839	0.555	Open Manhole	1200
S7.004	7.122	203.5	S57	6.730	5.804	0.626	Open Manhole	1200

PIPELINE SCHEDULES for Storm

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S7.005	o	300	S57	6.730	5.804	0.626	Open Manhole	1200
S7.006	o	300	S58	6.660	5.755	0.605	Open Manhole	1
S7.007	o	300	S59	6.630	5.710	0.620	Open Manhole	1200
S7.008	o	300	S60	6.630	5.680	0.650	Open Manhole	1200
S7.009	o	300	S61	6.630	5.651	0.679	Open Manhole	1
S7.010	o	300	S62	6.623	5.619	0.704	Open Manhole	1200
S7.011	o	300	S63	6.650	5.590	0.760	Open Manhole	1200
S1.022	o	300	S23	7.000	5.510	1.190	Open Manhole	1
S1.023	o	300	S24	7.000	5.485	1.215	Open Manhole	1200
S9.000	o	300	S25	7.000	5.410	1.290	Open Manhole	1200
S1.024	o	300	S25	6.900	5.386	1.214	Open Manhole	1
S1.025	[]	1	S75	6.900	5.200	1.100	Open Manhole	1

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
S7.005	2.198	44.9	S58	6.660	5.755	0.605	Open Manhole	1
S7.006	4.901	108.9	S59	6.630	5.710	0.620	Open Manhole	1200
S7.007	4.233	141.1	S60	6.630	5.680	0.650	Open Manhole	1200
S7.008	4.506	155.4	S61	6.630	5.651	0.679	Open Manhole	1
S7.009	4.904	153.3	S62	6.623	5.619	0.704	Open Manhole	1200
S7.010	4.773	164.6	S63	6.650	5.590	0.760	Open Manhole	1200
S7.011	9.717	121.5	S23	7.000	5.510	1.190	Open Manhole	1
S1.022	3.711	148.4	S24	7.000	5.485	1.215	Open Manhole	1200
S1.023	21.219	214.3	S25	6.900	5.386	1.214	Open Manhole	1
S9.000	3.957	164.9	S25	6.900	5.386	1.214	Open Manhole	1
S1.024	15.797	183.7	S75	6.900	5.300	1.300	Open Manhole	1
S1.025	25.231	126.2	S	6.300	5.000	0.700	Open Manhole	0

Free Flowing Outfall Details for Storm

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
S1.025	S	6.300	5.000	0.000	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Manhole Headloss Coeff (Global)	0.500	Inlet Coeffiecient	0.800
Areal Reduction Factor	1.000	Foul Sewage per hectare (l/s)	0.000	Flow per Person per Day (l/per/day)	0.000
Hot Start (mins)	0	Additional Flow - % of Total Flow	0.000	Run Time (mins)	60
Hot Start Level (mm)	0	MADD Factor * 10m³/ha Storage	3.000	Output Interval (mins)	1

Number of Input Hydrographs	0	Number of Offline Controls	0	Number of Time/Area Diagrams	0
Number of Online Controls	1	Number of Storage Structures	28	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	M5-60 (mm)	19.400	Cv (Summer)	0.750
Return Period (years)	2	Ratio R	0.350	Cv (Winter)	0.840
Region	England and Wales	Profile Type	Summer Storm	Duration (mins)	30

MJA Consulting		Page 7
Monarch House Barton Lane OX14 3NB	Surface Water Network Manor Farm, Bedhampton MJA for Bargate Homes	
Date 13/01/2019	Designed by S.Smith	
File MANOR FARM SURFACE WATER NETWORK.MDX	Checked by	
Innovyze	Network 2019.1	

Online Controls for Storm

Hydro-Brake® Optimum Manhole: S75, DS/PN: S1.025, Volume (m³): 1.1

Unit Reference	MD-SHE-0052-1500-1500-1500	Sump Available	Yes
Design Head (m)	1.500	Diameter (mm)	52
Design Flow (l/s)	1.5	Invert Level (m)	5.300
Flush-Flo™	Calculated	Minimum Outlet Pipe Diameter (mm)	75
Objective	Minimise upstream storage	Suggested Manhole Diameter (mm)	1200
Application	Surface		

Control Points			Control Points		
	Head (m)	Flow (l/s)		Head (m)	Flow (l/s)
Design Point (Calculated)	1.500	1.5	Kick-Flo®	0.469	0.9
Flush-Flo™	0.233	1.1	Mean Flow over Head Range	-	1.1

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	1.0	0.600	1.0	1.600	1.5	2.600	1.9	5.000	2.6	7.500	3.1
0.200	1.1	0.800	1.1	1.800	1.6	3.000	2.1	5.500	2.7	8.000	3.2
0.300	1.1	1.000	1.2	2.000	1.7	3.500	2.2	6.000	2.8	8.500	3.3
0.400	1.0	1.200	1.4	2.200	1.8	4.000	2.3	6.500	2.9	9.000	3.4
0.500	0.9	1.400	1.4	2.400	1.9	4.500	2.5	7.000	3.0	9.500	3.5

MJA Consulting

Monarch House
Barton Lane
OX14 3NB

Date 13/01/2019
File MANOR FARM SURFACE WATER NETWORK.MDX

Innovyze

Surface Water Network
Manor Farm, Bedhampton
MJA for Bargate Homes

Designed by S.Smith
Checked by

Network 2019.1

Page 8



Storage Structures for Storm

Tank or Pond Manhole: S3, DS/PN: S1.002

Invert Level (m) 8.080

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	6.0	0.200	6.0	0.400	6.0	0.600	19.5	0.800	34.5
0.100	6.0	0.300	6.0	0.500	12.5	0.700	27.0		

Tank or Pond Manhole: S6, DS/PN: S1.005

Invert Level (m) 7.627

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	10.0	0.200	10.0	0.400	10.0	0.600	32.0	0.800	55.0
0.100	10.0	0.300	10.0	0.500	21.0	0.700	43.0		

Tank or Pond Manhole: S8, DS/PN: S2.001

Invert Level (m) 7.509

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	16.5	0.200	16.5	0.400	16.5	0.600	54.0	0.800	92.0
0.100	16.5	0.300	16.5	0.500	35.0	0.700	73.0		

Tank or Pond Manhole: S10, DS/PN: S2.003

Invert Level (m) 7.421

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	6.0	0.200	6.0	0.400	6.0	0.600	19.0	0.800	34.0
0.100	6.0	0.300	6.0	0.500	12.5	0.700	26.5		

Tank or Pond Manhole: S9, DS/PN: S1.008

Invert Level (m) 6.923

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	4.0	0.200	4.0	0.400	4.0	0.600	15.0	0.800	27.0
0.100	4.0	0.300	4.0	0.500	9.0	0.700	20.5		

Tank or Pond Manhole: S13, DS/PN: S1.012

Invert Level (m) 6.417

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	4.0	0.200	4.0	0.400	4.0	0.600	13.6	0.800	25.0
0.100	4.0	0.300	4.0	0.500	8.7	0.700	19.0		

Tank or Pond Manhole: S16, DS/PN: S3.001

Invert Level (m) 7.841

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	10.0	0.200	10.0	0.400	10.0	0.600	22.0	0.800	47.0
0.100	10.0	0.300	10.0	0.500	10.0	0.700	34.0	0.900	60.0

Tank or Pond Manhole: S19, DS/PN: S3.004

Invert Level (m) 7.629

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	4.7	0.200	4.7	0.400	4.7	0.600	10.0	0.800	21.0
0.100	4.7	0.300	4.7	0.500	4.7	0.700	15.0	0.900	28.0

Tank or Pond Manhole: S20, DS/PN: S3.005

Invert Level (m) 6.900

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	2.0	0.200	2.0	0.400	2.0	0.600	7.0	0.800	14.0
0.100	2.0	0.300	2.0	0.500	4.0	0.700	10.5		

©1982-2019 Innovyze

MJA Consulting

Monarch House
Barton Lane
OX14 3NB

Date 13/01/2019
File MANOR FARM SURFACE WATER NETWORK.MDX

Innovyze

Surface Water Network
Manor Farm, Bedhampton
MJA for Bargate Homes

Designed by S.Smith
Checked by

Network 2019.1

Page 9



Tank or Pond Manhole: S22, DS/PN: S3.007

Invert Level (m) 6.550

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	12.5	0.200	12.5	0.400	12.5	0.600	26.0	0.800	54.0
0.100	12.5	0.300	12.5	0.500	12.5	0.700	40.0	0.900	69.0

Tank or Pond Manhole: S25, DS/PN: S3.010

Invert Level (m) 6.437

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	6.0	0.200	6.0	0.400	6.0	0.600	21.0	0.800	37.0
0.100	6.0	0.300	6.0	0.500	13.5	0.700	29.0		

Tank or Pond Manhole: S31, DS/PN: S5.001

Invert Level (m) 6.189

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	10.5	0.200	10.5	0.400	10.5	0.600	21.5	0.800	45.0
0.100	10.5	0.300	10.5	0.500	10.5	0.700	33.0	0.900	57.0

Tank or Pond Manhole: S15, DS/PN: S1.014

Invert Level (m) 6.071

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	14.0	0.200	14.0	0.400	14.0	0.600	14.0	0.800	44.5	1.000	76.0
0.100	14.0	0.300	14.0	0.500	14.0	0.700	29.0	0.900	60.0		

Tank or Pond Manhole: S19, DS/PN: S6.003

Invert Level (m) 6.705

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	1.5	0.200	1.5	0.400	1.5	0.600	3.0	0.800	8.0
0.100	1.5	0.300	1.5	0.500	1.5	0.700	5.0	0.900	11.0

Tank or Pond Manhole: S21, DS/PN: S6.005

Invert Level (m) 6.621

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	4.0	0.200	4.0	0.400	4.0	0.600	8.0	0.800	18.0
0.100	4.0	0.300	4.0	0.500	4.0	0.700	13.0	0.900	23.0

Tank or Pond Manhole: S24, DS/PN: S6.008

Invert Level (m) 6.540

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	2.0	0.200	2.0	0.400	2.0	0.600	4.5	0.800	10.7
0.100	2.0	0.300	2.0	0.500	2.0	0.700	7.4	0.900	14.3

Tank or Pond Manhole: S27, DS/PN: S6.011

Invert Level (m) 6.417

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	3.0	0.200	3.0	0.400	3.0	0.600	6.5	0.800	14.5
0.100	3.0	0.300	3.0	0.500	3.0	0.700	10.0	0.900	19.1

Tank or Pond Manhole: S16, DS/PN: S1.015

Invert Level (m) 6.014

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	5.0	0.200	5.0	0.400	5.0	0.600	5.0	0.800	17.5	1.000	31.0
0.100	5.0	0.300	5.0	0.500	5.0	0.700	11.0	0.900	24.0		

Tank or Pond Manhole: S18, DS/PN: S1.017

Invert Level (m) 5.931

©1982-2019 Innovyze

MJA Consulting				Page 10																																																																																																																																																																																																																																																																																																															
Monarch House Barton Lane OX14 3NB		Surface Water Network Manor Farm, Bedhampton MJA for Bargate Homes																																																																																																																																																																																																																																																																																																																	
Date 13/01/2019		Designed by S.Smith																																																																																																																																																																																																																																																																																																																	
File MANOR FARM SURFACE WATER NETWORK.MDX		Checked by																																																																																																																																																																																																																																																																																																																	
Innovyze		Network 2019.1																																																																																																																																																																																																																																																																																																																	
Tank or Pond Manhole: S18, DS/PN: S1.017 <table><tr><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td></tr><tr><td>0.000</td><td>3.0</td><td>0.200</td><td>3.0</td><td>0.400</td><td>3.0</td><td>0.600</td><td>11.0</td><td>0.800</td><td>20.0</td></tr><tr><td>0.100</td><td>3.0</td><td>0.300</td><td>3.0</td><td>0.500</td><td>7.0</td><td>0.700</td><td>15.5</td><td></td><td></td></tr></table> Tank or Pond Manhole: S20, DS/PN: S1.019 Invert Level (m) 5.832 <table><tr><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td></tr><tr><td>0.000</td><td>4.5</td><td>0.200</td><td>4.5</td><td>0.400</td><td>4.5</td><td>0.600</td><td>14.0</td><td>0.800</td><td>24.0</td></tr><tr><td>0.100</td><td>4.5</td><td>0.300</td><td>4.5</td><td>0.500</td><td>9.0</td><td>0.700</td><td>19.0</td><td></td><td></td></tr></table> Tank or Pond Manhole: S53, DS/PN: S7.001 Invert Level (m) 6.150 <table><tr><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td></tr><tr><td>0.000</td><td>11.0</td><td>0.200</td><td>11.0</td><td>0.400</td><td>11.0</td><td>0.600</td><td>34.0</td><td>0.800</td><td>60.0</td></tr><tr><td>0.100</td><td>11.0</td><td>0.300</td><td>11.0</td><td>0.500</td><td>23.0</td><td>0.700</td><td>46.0</td><td></td><td></td></tr></table> Tank or Pond Manhole: S59, DS/PN: S8.001 Invert Level (m) 5.933 <table><tr><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td></tr><tr><td>0.000</td><td>20.0</td><td>0.200</td><td>20.0</td><td>0.400</td><td>20.0</td><td>0.600</td><td>61.0</td><td>0.800</td><td>104.5</td></tr><tr><td>0.100</td><td>20.0</td><td>0.300</td><td>20.0</td><td>0.500</td><td>40.0</td><td>0.700</td><td>83.0</td><td></td><td></td></tr></table> Tank or Pond Manhole: S56, DS/PN: S7.004 Invert Level (m) 5.839 <table><tr><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td></tr><tr><td>0.000</td><td>2.5</td><td>0.200</td><td>2.5</td><td>0.400</td><td>2.5</td><td>0.600</td><td>9.0</td><td>0.800</td><td>17.0</td></tr><tr><td>0.100</td><td>2.5</td><td>0.300</td><td>2.5</td><td>0.500</td><td>5.7</td><td>0.700</td><td>13.0</td><td></td><td></td></tr></table> Tank or Pond Manhole: S59, DS/PN: S7.007 Invert Level (m) 5.710 <table><tr><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td></tr><tr><td>0.000</td><td>2.5</td><td>0.200</td><td>2.5</td><td>0.400</td><td>2.5</td><td>0.600</td><td>9.0</td><td>0.800</td><td>16.5</td></tr><tr><td>0.100</td><td>2.5</td><td>0.300</td><td>2.5</td><td>0.500</td><td>5.5</td><td>0.700</td><td>12.5</td><td></td><td></td></tr></table> Tank or Pond Manhole: S62, DS/PN: S7.010 Invert Level (m) 5.619 <table><tr><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td></tr><tr><td>0.000</td><td>2.5</td><td>0.200</td><td>2.5</td><td>0.400</td><td>2.5</td><td>0.600</td><td>9.0</td><td>0.800</td><td>17.0</td></tr><tr><td>0.100</td><td>2.5</td><td>0.300</td><td>2.5</td><td>0.500</td><td>5.5</td><td>0.700</td><td>12.5</td><td></td><td></td></tr></table> Tank or Pond Manhole: S24, DS/PN: S1.023 Invert Level (m) 5.485 <table><tr><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td></tr><tr><td>0.000</td><td>6.5</td><td>0.200</td><td>6.5</td><td>0.400</td><td>6.5</td><td>0.600</td><td>6.5</td><td>0.800</td><td>20.0</td><td>1.000</td><td>36.0</td></tr><tr><td>0.100</td><td>6.5</td><td>0.300</td><td>6.5</td><td>0.500</td><td>6.5</td><td>0.700</td><td>13.0</td><td>0.900</td><td>28.0</td><td></td><td></td></tr></table> Tank or Pond Manhole: S25, DS/PN: S1.024 Invert Level (m) 5.386 <table><tr><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td></tr><tr><td>0.000</td><td>19.0</td><td>0.200</td><td>19.0</td><td>0.400</td><td>19.0</td><td>0.600</td><td>19.0</td><td>0.800</td><td>58.0</td><td>1.000</td><td>98.0</td></tr><tr><td>0.100</td><td>19.0</td><td>0.300</td><td>19.0</td><td>0.500</td><td>19.0</td><td>0.700</td><td>40.0</td><td>0.900</td><td>78.0</td><td></td><td></td></tr></table> Tank or Pond Manhole: S75, DS/PN: S1.025 Invert Level (m) 5.200 <table><tr><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td><td>Depth (m)</td><td>Area (m²)</td></tr><tr><td>0.000</td><td>771.0</td><td>0.100</td><td>816.0</td><td>0.200</td><td>863.0</td><td>0.250</td><td>911.0</td><td>0.300</td><td>960.0</td></tr></table>						Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	3.0	0.200	3.0	0.400	3.0	0.600	11.0	0.800	20.0	0.100	3.0	0.300	3.0	0.500	7.0	0.700	15.5			Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	4.5	0.200	4.5	0.400	4.5	0.600	14.0	0.800	24.0	0.100	4.5	0.300	4.5	0.500	9.0	0.700	19.0			Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	11.0	0.200	11.0	0.400	11.0	0.600	34.0	0.800	60.0	0.100	11.0	0.300	11.0	0.500	23.0	0.700	46.0			Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	20.0	0.200	20.0	0.400	20.0	0.600	61.0	0.800	104.5	0.100	20.0	0.300	20.0	0.500	40.0	0.700	83.0			Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	2.5	0.200	2.5	0.400	2.5	0.600	9.0	0.800	17.0	0.100	2.5	0.300	2.5	0.500	5.7	0.700	13.0			Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	2.5	0.200	2.5	0.400	2.5	0.600	9.0	0.800	16.5	0.100	2.5	0.300	2.5	0.500	5.5	0.700	12.5			Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	2.5	0.200	2.5	0.400	2.5	0.600	9.0	0.800	17.0	0.100	2.5	0.300	2.5	0.500	5.5	0.700	12.5			Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	6.5	0.200	6.5	0.400	6.5	0.600	6.5	0.800	20.0	1.000	36.0	0.100	6.5	0.300	6.5	0.500	6.5	0.700	13.0	0.900	28.0			Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	19.0	0.200	19.0	0.400	19.0	0.600	19.0	0.800	58.0	1.000	98.0	0.100	19.0	0.300	19.0	0.500	19.0	0.700	40.0	0.900	78.0			Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	0.000	771.0	0.100	816.0	0.200	863.0	0.250	911.0	0.300	960.0
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																																																																																																																																																																																																																																										
0.000	3.0	0.200	3.0	0.400	3.0	0.600	11.0	0.800	20.0																																																																																																																																																																																																																																																																																																										
0.100	3.0	0.300	3.0	0.500	7.0	0.700	15.5																																																																																																																																																																																																																																																																																																												
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																																																																																																																																																																																																																																										
0.000	4.5	0.200	4.5	0.400	4.5	0.600	14.0	0.800	24.0																																																																																																																																																																																																																																																																																																										
0.100	4.5	0.300	4.5	0.500	9.0	0.700	19.0																																																																																																																																																																																																																																																																																																												
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																																																																																																																																																																																																																																										
0.000	11.0	0.200	11.0	0.400	11.0	0.600	34.0	0.800	60.0																																																																																																																																																																																																																																																																																																										
0.100	11.0	0.300	11.0	0.500	23.0	0.700	46.0																																																																																																																																																																																																																																																																																																												
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																																																																																																																																																																																																																																										
0.000	20.0	0.200	20.0	0.400	20.0	0.600	61.0	0.800	104.5																																																																																																																																																																																																																																																																																																										
0.100	20.0	0.300	20.0	0.500	40.0	0.700	83.0																																																																																																																																																																																																																																																																																																												
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																																																																																																																																																																																																																																										
0.000	2.5	0.200	2.5	0.400	2.5	0.600	9.0	0.800	17.0																																																																																																																																																																																																																																																																																																										
0.100	2.5	0.300	2.5	0.500	5.7	0.700	13.0																																																																																																																																																																																																																																																																																																												
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																																																																																																																																																																																																																																										
0.000	2.5	0.200	2.5	0.400	2.5	0.600	9.0	0.800	16.5																																																																																																																																																																																																																																																																																																										
0.100	2.5	0.300	2.5	0.500	5.5	0.700	12.5																																																																																																																																																																																																																																																																																																												
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																																																																																																																																																																																																																																										
0.000	2.5	0.200	2.5	0.400	2.5	0.600	9.0	0.800	17.0																																																																																																																																																																																																																																																																																																										
0.100	2.5	0.300	2.5	0.500	5.5	0.700	12.5																																																																																																																																																																																																																																																																																																												
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																																																																																																																																																																																																																																								
0.000	6.5	0.200	6.5	0.400	6.5	0.600	6.5	0.800	20.0	1.000	36.0																																																																																																																																																																																																																																																																																																								
0.100	6.5	0.300	6.5	0.500	6.5	0.700	13.0	0.900	28.0																																																																																																																																																																																																																																																																																																										
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																																																																																																																																																																																																																																								
0.000	19.0	0.200	19.0	0.400	19.0	0.600	19.0	0.800	58.0	1.000	98.0																																																																																																																																																																																																																																																																																																								
0.100	19.0	0.300	19.0	0.500	19.0	0.700	40.0	0.900	78.0																																																																																																																																																																																																																																																																																																										
Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)																																																																																																																																																																																																																																																																																																										
0.000	771.0	0.100	816.0	0.200	863.0	0.250	911.0	0.300	960.0																																																																																																																																																																																																																																																																																																										
©1982-2019 Innovyze																																																																																																																																																																																																																																																																																																																			

Tank or Pond Manhole: S75, DS/PN: S1.025

Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.400	1010.0	0.700	1122.0	1.000	1303.0	1.300	1419.0	1.600	1601.0
0.500	1061.0	0.800	1222.0	1.100	1360.0	1.400	1479.0	1.700	1665.0
0.600	1114.0	0.900	1246.0	1.200	1419.0	1.500	1539.0		

MJA Consulting		Page 13																																																																																																																																																																																							
Monarch House Barton Lane OX14 3NB	Surface Water Network Manor Farm, Bedhampton MJA for Bargate Homes																																																																																																																																																																																								
Date 13/01/2019	Designed by S.Smith																																																																																																																																																																																								
File MANOR FARM SURFACE WATER NETWORK.MDX	Checked by																																																																																																																																																																																								
Innovyze	Network 2019.1																																																																																																																																																																																								
1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm																																																																																																																																																																																									
<table><thead><tr><th></th><th>US/MH</th><th>Level</th></tr><tr><th>PN</th><th>Name</th><th>Exceeded</th></tr></thead><tbody><tr><td>S1.000</td><td>S1</td><td></td></tr><tr><td>S1.001</td><td>S2</td><td></td></tr><tr><td>S1.002</td><td>S3</td><td></td></tr><tr><td>S1.003</td><td>S4</td><td></td></tr><tr><td>S1.004</td><td>S5</td><td></td></tr><tr><td>S1.005</td><td>S6</td><td></td></tr><tr><td>S2.000</td><td>S7</td><td></td></tr><tr><td>S2.001</td><td>S8</td><td></td></tr><tr><td>S2.002</td><td>S9</td><td></td></tr><tr><td>S2.003</td><td>S10</td><td></td></tr><tr><td>S1.006</td><td>S7</td><td></td></tr><tr><td>S1.007</td><td>S8</td><td></td></tr><tr><td>S1.008</td><td>S9</td><td></td></tr><tr><td>S1.009</td><td>S10</td><td></td></tr><tr><td>S1.010</td><td>S11</td><td></td></tr><tr><td>S1.011</td><td>S12</td><td></td></tr><tr><td>S1.012</td><td>S13</td><td></td></tr><tr><td>S1.013</td><td>S14</td><td></td></tr><tr><td>S3.000</td><td>S15</td><td></td></tr><tr><td>S3.001</td><td>S16</td><td></td></tr><tr><td>S3.002</td><td>S17</td><td></td></tr><tr><td>S3.003</td><td>S18</td><td></td></tr><tr><td>S3.004</td><td>S19</td><td></td></tr><tr><td>S4.000</td><td>S20</td><td></td></tr><tr><td>S3.005</td><td>S20</td><td></td></tr><tr><td>S3.006</td><td>S21</td><td></td></tr><tr><td>S3.007</td><td>S22</td><td></td></tr><tr><td>S3.008</td><td>S23</td><td></td></tr><tr><td>S3.009</td><td>S24</td><td></td></tr><tr><td>S3.010</td><td>S25</td><td></td></tr><tr><td>S3.011</td><td>S26</td><td></td></tr><tr><td>S5.000</td><td>S30</td><td></td></tr><tr><td>S5.001</td><td>S31</td><td></td></tr><tr><td>S3.012</td><td>S27</td><td></td></tr><tr><td>S1.014</td><td>S15</td><td></td></tr><tr><td>S6.000</td><td>S16</td><td></td></tr><tr><td>S6.001</td><td>S17</td><td></td></tr><tr><td>S6.002</td><td>S18</td><td></td></tr><tr><td>S6.003</td><td>S19</td><td></td></tr><tr><td>S6.004</td><td>S20</td><td></td></tr><tr><td>S6.005</td><td>S21</td><td></td></tr><tr><td>S6.006</td><td>S22</td><td></td></tr><tr><td>S6.007</td><td>S23</td><td></td></tr><tr><td>S6.008</td><td>S24</td><td></td></tr><tr><td>S6.009</td><td>S25</td><td></td></tr><tr><td>S6.010</td><td>S26</td><td></td></tr><tr><td>S6.011</td><td>S27</td><td></td></tr><tr><td>S6.012</td><td>S28</td><td></td></tr><tr><td>S1.015</td><td>S16</td><td></td></tr><tr><td>S1.016</td><td>S17</td><td></td></tr><tr><td>S1.017</td><td>S18</td><td></td></tr><tr><td>S1.018</td><td>S19</td><td></td></tr><tr><td>S1.019</td><td>S20</td><td></td></tr><tr><td>S1.020</td><td>S21</td><td></td></tr><tr><td>S1.021</td><td>S22</td><td></td></tr><tr><td>S7.000</td><td>S52</td><td></td></tr><tr><td>S7.001</td><td>S53</td><td></td></tr><tr><td>S7.002</td><td>S54</td><td></td></tr><tr><td>S7.003</td><td>S55</td><td></td></tr></tbody></table>				US/MH	Level	PN	Name	Exceeded	S1.000	S1		S1.001	S2		S1.002	S3		S1.003	S4		S1.004	S5		S1.005	S6		S2.000	S7		S2.001	S8		S2.002	S9		S2.003	S10		S1.006	S7		S1.007	S8		S1.008	S9		S1.009	S10		S1.010	S11		S1.011	S12		S1.012	S13		S1.013	S14		S3.000	S15		S3.001	S16		S3.002	S17		S3.003	S18		S3.004	S19		S4.000	S20		S3.005	S20		S3.006	S21		S3.007	S22		S3.008	S23		S3.009	S24		S3.010	S25		S3.011	S26		S5.000	S30		S5.001	S31		S3.012	S27		S1.014	S15		S6.000	S16		S6.001	S17		S6.002	S18		S6.003	S19		S6.004	S20		S6.005	S21		S6.006	S22		S6.007	S23		S6.008	S24		S6.009	S25		S6.010	S26		S6.011	S27		S6.012	S28		S1.015	S16		S1.016	S17		S1.017	S18		S1.018	S19		S1.019	S20		S1.020	S21		S1.021	S22		S7.000	S52		S7.001	S53		S7.002	S54		S7.003	S55	
	US/MH	Level																																																																																																																																																																																							
PN	Name	Exceeded																																																																																																																																																																																							
S1.000	S1																																																																																																																																																																																								
S1.001	S2																																																																																																																																																																																								
S1.002	S3																																																																																																																																																																																								
S1.003	S4																																																																																																																																																																																								
S1.004	S5																																																																																																																																																																																								
S1.005	S6																																																																																																																																																																																								
S2.000	S7																																																																																																																																																																																								
S2.001	S8																																																																																																																																																																																								
S2.002	S9																																																																																																																																																																																								
S2.003	S10																																																																																																																																																																																								
S1.006	S7																																																																																																																																																																																								
S1.007	S8																																																																																																																																																																																								
S1.008	S9																																																																																																																																																																																								
S1.009	S10																																																																																																																																																																																								
S1.010	S11																																																																																																																																																																																								
S1.011	S12																																																																																																																																																																																								
S1.012	S13																																																																																																																																																																																								
S1.013	S14																																																																																																																																																																																								
S3.000	S15																																																																																																																																																																																								
S3.001	S16																																																																																																																																																																																								
S3.002	S17																																																																																																																																																																																								
S3.003	S18																																																																																																																																																																																								
S3.004	S19																																																																																																																																																																																								
S4.000	S20																																																																																																																																																																																								
S3.005	S20																																																																																																																																																																																								
S3.006	S21																																																																																																																																																																																								
S3.007	S22																																																																																																																																																																																								
S3.008	S23																																																																																																																																																																																								
S3.009	S24																																																																																																																																																																																								
S3.010	S25																																																																																																																																																																																								
S3.011	S26																																																																																																																																																																																								
S5.000	S30																																																																																																																																																																																								
S5.001	S31																																																																																																																																																																																								
S3.012	S27																																																																																																																																																																																								
S1.014	S15																																																																																																																																																																																								
S6.000	S16																																																																																																																																																																																								
S6.001	S17																																																																																																																																																																																								
S6.002	S18																																																																																																																																																																																								
S6.003	S19																																																																																																																																																																																								
S6.004	S20																																																																																																																																																																																								
S6.005	S21																																																																																																																																																																																								
S6.006	S22																																																																																																																																																																																								
S6.007	S23																																																																																																																																																																																								
S6.008	S24																																																																																																																																																																																								
S6.009	S25																																																																																																																																																																																								
S6.010	S26																																																																																																																																																																																								
S6.011	S27																																																																																																																																																																																								
S6.012	S28																																																																																																																																																																																								
S1.015	S16																																																																																																																																																																																								
S1.016	S17																																																																																																																																																																																								
S1.017	S18																																																																																																																																																																																								
S1.018	S19																																																																																																																																																																																								
S1.019	S20																																																																																																																																																																																								
S1.020	S21																																																																																																																																																																																								
S1.021	S22																																																																																																																																																																																								
S7.000	S52																																																																																																																																																																																								
S7.001	S53																																																																																																																																																																																								
S7.002	S54																																																																																																																																																																																								
S7.003	S55																																																																																																																																																																																								
©1982-2019 Innovyze																																																																																																																																																																																									

1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

									Water	Surcharged	Flooded			Pipe
	US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level	Depth	Volume	Flow /	Overflow	Flow
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	(m)	(m)	(m³)	Cap.	(l/s)	(l/s)
S8.000	S58	15 Winter	1	+0%					6.409	-0.248	0.000	0.07		8.0
S8.001	S59	15 Winter	1	+0%	100/15 Summer				5.997	-0.236	0.000	0.10		6.3
S8.002	S60	15 Winter	1	+0%	100/15 Summer				5.967	-0.233	0.000	0.10		6.2
S7.004	S56	15 Winter	1	+0%	30/15 Winter				5.944	-0.195	0.000	0.27		15.0
S7.005	S57	30 Winter	1	+0%	30/15 Winter				5.915	-0.189	0.000	0.25		15.0
S7.006	S58	30 Winter	1	+0%	30/15 Summer				5.913	-0.142	0.000	0.24		15.0
S7.007	S59	30 Winter	1	+0%	30/15 Summer				5.909	-0.101	0.000	0.24		14.1
S7.008	S60	30 Winter	1	+0%	30/15 Summer				5.906	-0.074	0.000	0.26		15.0
S7.009	S61	30 Winter	1	+0%	30/15 Summer				5.903	-0.048	0.000	0.25		14.5
S7.010	S62	30 Winter	1	+0%	30/15 Summer				5.898	-0.021	0.000	0.28		15.8
S7.011	S63	30 Winter	1	+0%	30/15 Summer				5.890	0.000	0.000	0.26		18.3
S1.022	S23	30 Winter	1	+0%	1/15 Summer				5.870	0.060	0.000	1.33		73.5
S1.023	S24	30 Winter	1	+0%	1/15 Winter				5.789	0.004	0.000	1.08		71.8
S9.000	S25	30 Winter	1	+0%	30/15 Summer				5.651	-0.059	0.000	0.07		3.6
S1.024	S25	30 Winter	1	+0%	30/15 Summer				5.651	-0.035	0.000	1.00		69.1
S1.025	S75	4320 Winter	1	+0%	30/720 Winter				5.597	-0.203	0.000	0.00		1.1

US/MH		Level	
PN	Name	Status	Exceeded
S8.000	S58	OK	
S8.001	S59	OK	
S8.002	S60	OK	
S7.004	S56	OK	
S7.005	S57	OK	
S7.006	S58	OK	
S7.007	S59	OK	
S7.008	S60	OK	
S7.009	S61	OK	
S7.010	S62	OK	
S7.011	S63	OK	
S1.022	S23	SURCHARGED	
S1.023	S24	SURCHARGED	
S9.000	S25	OK	
S1.024	S25	OK	
S1.025	S75	OK	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

Simulation Criteria

Areal Reduction Factor	1.000	Manhole Headloss Coeff (Global)	0.500	MADD Factor * 10m³/ha Storage	3.000
Hot Start (mins)	0	Foul Sewage per hectare (l/s)	0.000	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Additional Flow - % of Total Flow	0.000	Flow per Person per Day (l/per/day)	0.000

Number of Input Hydrographs	0	Number of Offline Controls	0	Number of Time/Area Diagrams	0
Number of Online Controls	1	Number of Storage Structures	28	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR M5-60 (mm)	19.400	Cv (Summer)	0.750
Region	England and Wales	Ratio R	0.350	Cv (Winter)

Margin for Flood Risk Warning (mm)	300.0	DVD Status	ON
Analysis Timestep 2.5 Second Increment (Extended)		Inertia Status	ON
DTS Status			ON

Profile(s)	Summer and Winter														
Duration(s) (mins)	15,	30,	60,	120,	180,	240,	360,	480,	600,	720,	960,	1440,	2160,	2880,	4320
Return Period(s) (years)	1, 30, 100														
Climate Change (%)	0, 0, 40														

									Water	Surcharged	Flooded			Pipe	
US/MH			Return	Climate	First (X)		First (Y)	First (Z)	Overflow	Level	Depth	Volume	Flow /	Overflow	Flow
PN	Name	Storm	Period	Change	Surcharge		Flood	Overflow	Act.	(m)	(m)	(m³)	Cap.	(l/s)	(l/s)
S1.000	S1	15 Summer	30	+0%						8.398	-0.102	0.000	0.22		4.7
S1.001	S2	15 Summer	30	+0%	100/15	Summer				8.285	-0.065	0.000	0.61		7.7
S1.002	S3	15 Winter	30	+0%						8.123	-0.257	0.000	0.05		7.7
S1.003	S4	15 Winter	30	+0%	100/15	Summer				7.889	-0.122	0.000	0.39		23.8
S1.004	S5	15 Winter	30	+0%	100/15	Summer				7.880	-0.075	0.000	0.90		23.9
S1.005	S6	15 Winter	30	+0%						7.724	-0.203	0.000	0.23		30.6
S2.000	S7	15 Winter	30	+0%						8.146	-0.237	0.000	0.10		15.9
S2.001	S8	15 Winter	30	+0%	100/30	Winter				7.630	-0.179	0.000	0.34		14.1
S2.002	S9	15 Winter	30	+0%	100/30	Winter				7.591	-0.209	0.000	0.20		13.9
S2.003	S10	15 Winter	30	+0%	100/15	Winter				7.523	-0.198	0.000	0.25		21.9
S1.006	S7	15 Winter	30	+0%	100/15	Summer				7.442	-0.154	0.000	0.47		51.9
S1.007	S8	30 Winter	30	+0%	30/30	Winter				7.400	0.070	0.000	0.65		52.4
S1.008	S9	30 Winter	30	+0%	30/15	Winter				7.303	0.080	0.000	0.46		52.3
S1.009	S10	30 Winter	30	+0%	30/15	Summer				7.237	0.237	0.000	0.65		51.1
S1.010	S11	30 Winter	30	+0%	30/15	Summer				7.140	0.240	0.000	0.62		50.0
S1.011	S12	30 Winter	30	+0%	30/15	Summer				7.054	0.257	0.000	0.76		54.1
S1.012	S13	30 Winter	30	+0%	30/15	Summer				6.958	0.241	0.000	0.76		46.7
S1.013	S14	30 Winter	30	+0%	30/15	Summer				6.876	0.193	0.000	0.36		50.0
S3.000	S15	15 Winter	30	+0%						8.053	-0.194	0.000	0.27		18.2
S3.001	S16	15 Winter	30	+0%						7.940	-0.201	0.000	0.24		17.8
S3.002	S17	15 Winter	30	+0%						7.872	-0.178	0.000	0.29		18.1
S3.003	S18	15 Winter	30	+0%						7.853	-0.140	0.000	0.54		34.0
S3.004	S19	15 Winter	30	+0%						7.726	-0.203	0.000	0.23		34.3
S4.000	S20	15 Winter	30	+0%	100/15	Summer				7.092	-0.203	0.000	0.19		15.0
S3.005	S20	30 Winter	30	+0%	100/15	Summer				7.084	-0.116	0.000	0.48		38.2
S3.006	S21	30 Winter	30	+0%	100/15	Summer				7.075	-0.025	0.000	0.39		37.6
S3.007	S22	30 Winter	30	+0%	30/15	Summer				7.036	0.186	0.000	0.52		31.9
S3.008	S23	30 Winter	30	+0%	30/15	Summer				7.030	0.230	0.000	0.78		47.7
S3.009	S24	30 Winter	30	+0%	30/15	Summer				6.956	0.207	0.000	2.01		47.2
S3.010	S25	30 Winter	30	+0%	30/15	Summer				6.936	0.199	0.000	0.29		26.9
S3.011	S26	30 Winter	30	+0%	30/15	Summer				6.888	0.288	0.000	0.30		31.0
S5.000	S30	30 Winter	30	+0%	30/15	Summer				6.829	0.172	0.000	0.07		6.2
S5.001	S31	30 Winter	30	+0%	30/15	Summer				6.828	0.339	0.000	0.18		10.9
S3.012	S27	30 Winter	30	+0%	30/15	Winter				6.828	0.096	0.000	0.03		27.6
S1.014	S15	30 Winter	30	+0%	30/15	Summer				6.827	0.456	0.000	0.90		55.5
S6.000	S16	15 Winter	30	+0%	100/15	Summer				7.134	-0.196	0.000	0.26		23.7
S6.001	S17	15 Summer	30	+0%	100/15	Summer				7.001	-0.199	0.000	0.25		23.8
S6.002	S18	15 Winter	30	+0%	100/15	Summer				6.883	-0.137	0.000	0.57		29.7
S6.003	S19	15 Summer	30	+0%	100/15	Summer				6.874	-0.131	0.000	0.59		34.3
S6.004	S20	30 Winter	30	+0%	100/15	Summer				6.862	-0.113	0.000	0.43		26.7
S6.005	S21	15 Winter	30	+0%	100/15	Summer				6.859	-0.062	0.000	0.74		37.0
S6.006	S22	15 Winter	30	+0%	100/15	Summer				6.849	-0.051	0.000	0.64		39.5
S6.007	S23	15 Winter	30	+0%	100/15	Summer				6.845	-0.016	0.000	0.80		39.1
S6.008	S24	15 Winter	30	+0%	100/15	Summer				6.840	0.000	0.000	1.00		44.1
S6.009	S25	15 Winter	30	+0%	100/15	Summer				6.820	-0.004	0.000	0.84		44.2
S6.010	S26	30 Summer	30	+0%	100/15	Summer				6.784	-0.024	0.000	0.54		40.4
S6.011	S27	30 Winter	30	+0%	30/15	Summer				6.761	0.044	0.000	0.51		31.0
S6.012	S28	30 Winter	30	+0%	30/15	Summer				6.753	0.093	0.000	0.22		32.2
S1.015	S16	30 Winter	30	+0%	30/15	Summer				6.743	0.429	0.000	1.12		68.1
S1.016	S17	30 Winter	30	+0%	30/15	Summer				6.661	0.392	0.000	1.27		70.0
S1.017	S18	30 Winter	30	+0%	30/15	Summer				6.587	0.356	0.000	1.15		70.3
S1.018	S19	30 Winter	30	+0%	30/15	Summer				6.503	0.314	0.000	1.15		70.7
S1.019	S20	30 Winter	30	+0%	30/15	Summer				6.420	0.288	0.000	1.19		73.1
S1.020	S21	30 Winter	30	+0%	30/15	Summer				6.336	0.258	0.000	1.20		73.9
S1.021	S22	30 Winter	30	+0%	30/15	Summer				6.252	0.228	0.000	0.64		74.2
S7.000	S52	15 Winter	30	+0%						6.442	-0.198	0.000	0.25		23.7
S7.001	S53	15 Summer	30	+0%	100/15	Winter				6.250	-0.200	0.000	0.24		23.1
S7.002	S54	15 Winter	30	+0%	100/15	Summer				6.182	-0.118	0.000	0.26		22.9
S7.003	S55	30 Winter	30	+0%	100/15	Summer				6.176	0.000	0.000	0.27		16.3

MJA Consulting		Page 16
Monarch House Barton Lane OX14 3NB	Surface Water Network Manor Farm, Bedhampton MJA for Bargate Homes	
Date 13/01/2019	Designed by S.Smith	
File MANOR FARM SURFACE WATER NETWORK.MDX	Checked by	
Innovyze	Network 2019.1	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

US/MH		Level	
PN	Name	Status	Exceeded
S1.000	S1	OK	
S1.001	S2	OK	
S1.002	S3	OK	
S1.003	S4	OK	
S1.004	S5	OK	
S1.005	S6	OK	
S2.000	S7	OK	
S2.001	S8	OK	
S2.002	S9	OK	
S2.003	S10	OK	
S1.006	S7	OK	
S1.007	S8	SURCHARGED	
S1.008	S9	SURCHARGED	
S1.009	S10	SURCHARGED	
S1.010	S11	SURCHARGED	
S1.011	S12	SURCHARGED	
S1.012	S13	SURCHARGED	
S1.013	S14	SURCHARGED	
S3.000	S15	OK	
S3.001	S16	OK	
S3.002	S17	OK	
S3.003	S18	OK	
S3.004	S19	OK	
S4.000	S20	OK	
S3.005	S20	OK	
S3.006	S21	OK	
S3.007	S22	SURCHARGED	
S3.008	S23	SURCHARGED	
S3.009	S24	SURCHARGED	
S3.010	S25	SURCHARGED	
S3.011	S26	SURCHARGED	
S5.000	S30	SURCHARGED	
S5.001	S31	SURCHARGED	
S3.012	S27	SURCHARGED	
S1.014	S15	SURCHARGED	
S6.000	S16	OK	
S6.001	S17	OK	
S6.002	S18	OK	
S6.003	S19	OK	
S6.004	S20	OK	
S6.005	S21	OK	
S6.006	S22	OK	
S6.007	S23	OK	
S6.008	S24	OK	
S6.009	S25	OK	
S6.010	S26	OK	
S6.011	S27	SURCHARGED	
S6.012	S28	SURCHARGED	
S1.015	S16	SURCHARGED	
S1.016	S17	SURCHARGED	
S1.017	S18	SURCHARGED	
S1.018	S19	SURCHARGED	
S1.019	S20	SURCHARGED	
S1.020	S21	SURCHARGED	
S1.021	S22	SURCHARGED	
S7.000	S52	OK	
S7.001	S53	OK	
S7.002	S54	OK	
S7.003	S55	OK	

30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

									Water	Surcharged	Flooded			Pipe
	US/MH		Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Level	Depth	Volume	Flow /	Overflow	Flow
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	(m)	(m)	(m³)	Cap.	(l/s)	(l/s)
S8.000	S58	15 Winter	30	+0%					6.441	-0.216	0.000	0.17		19.6
S8.001	S59	30 Winter	30	+0%	100/15 Summer				6.178	-0.055	0.000	0.15		8.9
S8.002	S60	30 Winter	30	+0%	100/15 Summer				6.177	-0.023	0.000	0.14		8.8
S7.004	S56	30 Winter	30	+0%	30/15 Winter				6.171	0.032	0.000	0.32		18.3
S7.005	S57	30 Winter	30	+0%	30/15 Winter				6.166	0.062	0.000	0.37		22.9
S7.006	S58	30 Winter	30	+0%	30/15 Summer				6.162	0.107	0.000	0.36		22.0
S7.007	S59	30 Winter	30	+0%	30/15 Summer				6.156	0.146	0.000	0.33		19.6
S7.008	S60	30 Winter	30	+0%	30/15 Summer				6.150	0.170	0.000	0.37		20.9
S7.009	S61	30 Winter	30	+0%	30/15 Summer				6.120	0.169	0.000	0.35		20.8
S7.010	S62	30 Winter	30	+0%	30/15 Summer				6.113	0.194	0.000	0.36		20.6
S7.011	S63	30 Winter	30	+0%	30/15 Summer				6.106	0.216	0.000	0.29		20.5
S1.022	S23	30 Winter	30	+0%	1/15 Summer				6.093	0.283	0.000	1.72		94.7
S1.023	S24	4320 Winter	30	+0%	1/15 Winter				5.958	0.173	0.000	0.12		8.2
S9.000	S25	4320 Winter	30	+0%	30/15 Summer				5.957	0.247	0.000	0.01		0.3
S1.024	S25	4320 Winter	30	+0%	30/15 Summer				5.956	0.270	0.000	0.13		8.9
S1.025	S75	4320 Winter	30	+0%	30/720 Winter				5.955	0.155	0.000	0.00		1.1

		US/MH				Level	
PN	Name	Status	Exceeded				
S8.000	S58	OK					
S8.001	S59	OK					
S8.002	S60	OK					
S7.004	S56	SURCHARGED					
S7.005	S57	SURCHARGED					
S7.006	S58	SURCHARGED					
S7.007	S59	SURCHARGED					
S7.008	S60	SURCHARGED					
S7.009	S61	SURCHARGED					
S7.010	S62	SURCHARGED					
S7.011	S63	SURCHARGED					
S1.022	S23	SURCHARGED					
S1.023	S24	SURCHARGED					
S9.000	S25	SURCHARGED					
S1.024	S25	SURCHARGED					
S1.025	S75	SURCHARGED					

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

US/MH		Level	
PN	Name	Status	Exceeded
S1.000	S1	OK	
S1.001	S2	SURCHARGED	
S1.002	S3	OK	
S1.003	S4	SURCHARGED	
S1.004	S5	FLOOD RISK	
S1.005	S6	FLOOD RISK	
S2.000	S7	OK	
S2.001	S8	SURCHARGED	
S2.002	S9	SURCHARGED	
S2.003	S10	SURCHARGED	
S1.006	S7	SURCHARGED	
S1.007	S8	SURCHARGED	
S1.008	S9	SURCHARGED	
S1.009	S10	SURCHARGED	
S1.010	S11	FLOOD RISK	
S1.011	S12	FLOOD RISK	
S1.012	S13	FLOOD RISK	
S1.013	S14	FLOOD RISK	
S3.000	S15	OK	
S3.001	S16	OK	
S3.002	S17	OK	
S3.003	S18	OK	
S3.004	S19	OK	
S4.000	S20	SURCHARGED	
S3.005	S20	FLOOD RISK	
S3.006	S21	FLOOD RISK	
S3.007	S22	FLOOD RISK	
S3.008	S23	FLOOD RISK	
S3.009	S24	FLOOD RISK	
S3.010	S25	FLOOD RISK	
S3.011	S26	FLOOD RISK	
S5.000	S30	FLOOD RISK	
S5.001	S31	FLOOD RISK	
S3.012	S27	FLOOD RISK	
S1.014	S15	FLOOD RISK	
S6.000	S16	FLOOD RISK	
S6.001	S17	SURCHARGED	
S6.002	S18	SURCHARGED	
S6.003	S19	SURCHARGED	
S6.004	S20	SURCHARGED	
S6.005	S21	FLOOD RISK	
S6.006	S22	FLOOD RISK	
S6.007	S23	FLOOD RISK	
S6.008	S24	FLOOD RISK	
S6.009	S25	FLOOD RISK	
S6.010	S26	FLOOD RISK	
S6.011	S27	FLOOD RISK	
S6.012	S28	FLOOD RISK	
S1.015	S16	FLOOD RISK	
S1.016	S17	FLOOD RISK	
S1.017	S18	FLOOD RISK	
S1.018	S19	FLOOD RISK	
S1.019	S20	FLOOD RISK	
S1.020	S21	SURCHARGED	
S1.021	S22	SURCHARGED	
S7.000	S52	OK	
S7.001	S53	SURCHARGED	
S7.002	S54	SURCHARGED	
S7.003	S55	SURCHARGED	

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm

		US/MH	Return	Climate	First (X)	First (Y)	First (Z)	Overflow	Water	Surcharged	Flooded			Pipe		
PN	Name	Storm	Period	Change	Surcharge	Flood	Overflow	Act.	Level	Depth	Volume	Flow /	Overflow	Flow		
									(m)	(m)	(m³)	Cap.	(l/s)	(l/s)		
S8.000	S58	30 Winter	100	+40%					6.488	-0.169	0.000	0.24		27.2		
S8.001	S59	30 Winter	100	+40%	100/15 Summer				6.478	0.245	0.000	0.18		10.9		
S8.002	S60	30 Winter	100	+40%	100/15 Summer				6.477	0.277	0.000	0.18		10.9		
S7.004	S56	30 Winter	100	+40%	30/15 Winter				6.474	0.335	0.000	0.34		19.2		
S7.005	S57	30 Winter	100	+40%	30/15 Winter				6.467	0.363	0.000	0.36		22.3		
S7.006	S58	30 Winter	100	+40%	30/15 Summer				6.437	0.382	0.000	0.35		21.5		
S7.007	S59	60 Winter	100	+40%	30/15 Summer				6.420	0.410	0.000	0.35		20.5		
S7.008	S60	60 Winter	100	+40%	30/15 Summer				6.413	0.433	0.000	0.38		21.8		
S7.009	S61	60 Winter	100	+40%	30/15 Summer				6.403	0.452	0.000	0.37		21.8		
S7.010	S62	4320 Winter	100	+40%	30/15 Summer				6.385	0.466	0.000	0.04		2.5		
S7.011	S63	4320 Winter	100	+40%	30/15 Summer				6.386	0.496	0.000	0.04		2.6		
S1.022	S23	4320 Winter	100	+40%	1/15 Summer				6.386	0.576	0.000	0.25		13.6		
S1.023	S24	4320 Winter	100	+40%	1/15 Winter				6.385	0.600	0.000	0.20		13.5		
S9.000	S25	4320 Winter	100	+40%	30/15 Summer				6.383	0.673	0.000	0.01		0.5		
S1.024	S25	4320 Winter	100	+40%	30/15 Summer				6.383	0.697	0.000	0.20		13.7		
S1.025	S75	4320 Winter	100	+40%	30/720 Winter				6.382	0.582	0.000	0.00		1.3		

		US/MH	Level
PN	Name	Status	Exceeded
S8.000	S58	OK	
S8.001	S59	SURCHARGED	
S8.002	S60	SURCHARGED	
S7.004	S56	FLOOD RISK	
S7.005	S57	FLOOD RISK	
S7.006	S58	FLOOD RISK	
S7.007	S59	FLOOD RISK	
S7.008	S60	FLOOD RISK	
S7.009	S61	FLOOD RISK	
S7.010	S62	FLOOD RISK	
S7.011	S63	FLOOD RISK	
S1.022	S23	SURCHARGED	
S1.023	S24	SURCHARGED	
S9.000	S25	SURCHARGED	
S1.024	S25	SURCHARGED	
S1.025	S75	SURCHARGED	