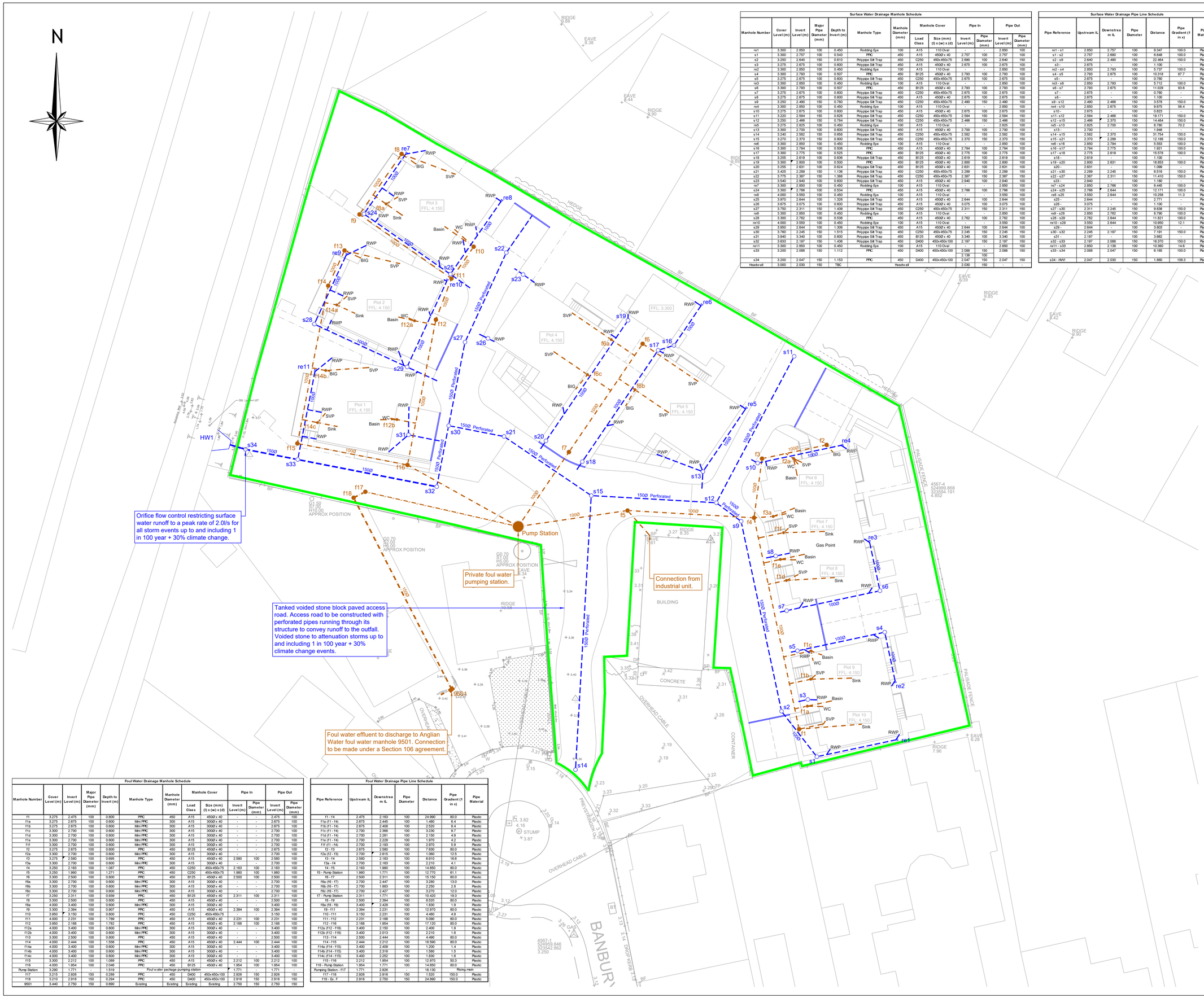


Surface Water Drainage Manhole Schedule

Manhole Number	Cover Level (m)	Invert Level (m)	Major Pipe Diameter (mm)	Depth to Invert (m)	Manhole Type	Manhole Diameter (mm)	Manhole Cover		Pipe In		Pipe Out	
							Load Class	Size (mm) (l) x (w) x (d)	Invert Level (m)	Pipe Diameter (mm)	Invert Level (m)	Pipe Diameter (mm)
re1	3.300	2.850	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	2.850	100
s1	3.300	2.757	100	0.543	PPIC	450	A15	450Ø x 40	2.757	100	2.757	100
s2	3.250	2.640	150	0.610	Polypipe Silt Trap	450	C250	450x450x75	2.690	100	2.640	150
s3	3.275	2.675	100	0.600	Polypipe Silt Trap	450	A15	450Ø x 40	2.675	100	2.675	100
re2	3.300	2.850	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	2.850	100
s4	3.300	2.793	100	0.507	PPIC	450	B125	450Ø x 40	2.793	100	2.793	100
s5	3.275	2.675	100	0.600	Polypipe Silt Trap	450	C250	450x450x75	2.675	100	2.675	100
re3	3.300	2.850	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	2.850	100
s6	3.300	2.793	100	0.507	PPIC	450	B125	450Ø x 40	2.793	100	2.793	100
s7	3.275	2.675	100	0.600	Polypipe Silt Trap	450	C250	450x450x75	2.675	100	2.675	100
s8	3.275	2.675	100	0.600	Polypipe Silt Trap	450	A15	450Ø x 40	2.675	100	2.675	100
s9	3.250	2.490	150	0.760	Polypipe Silt Trap	450	C250	450x450x75	2.490	150	2.490	150
re4	3.300	2.850	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	2.850	100
s10	3.275	2.675	100	0.600	Polypipe Silt Trap	450	A15	450Ø x 40	2.675	100	2.675	100
s11	3.220	2.594	150	0.626	Polypipe Silt Trap	450	C250	450x450x75	2.594	150	2.594	150
s12	3.250	2.466	150	0.784	Polypipe Silt Trap	450	C250	450x450x75	2.466	150	2.466	150
re5	3.275	2.825	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	2.825	100
s13	3.300	2.700	100	0.600	Polypipe Silt Trap	450	A15	450Ø x 40	2.700	100	2.700	100
s14	3.240	2.582	150	0.658	Polypipe Silt Trap	450	C250	450x450x75	2.582	150	2.582	150
s15	3.270	2.370	150	0.900	Polypipe Silt Trap	450	C250	450x450x75	2.370	150	2.370	150
re6	3.300	2.850	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	2.850	100
s16	3.300	2.794	100	0.506	PPIC	450	A15	450Ø x 40	2.794	100	2.794	100
s17	3.300	2.775	100	0.525	PPIC	450	B125	450Ø x 40	2.775	100	2.775	100
s18	3.255	2.619	100	0.636	Polypipe Silt Trap	450	B125	450Ø x 40	2.619	100	2.619	100
s19	3.300	2.800	100	0.500	PPIC	450	B125	450Ø x 40	2.800	100	2.800	100
s20	3.255	2.631	100	0.624	Polypipe Silt Trap	450	B125	450Ø x 40	2.631	100	2.631	100
s21	3.425	2.289	150	1.136	Polypipe Silt Trap	450	C250	450x450x75	2.289	150	2.289	150
s22	3.775	2.387	150	1.388	Polypipe Silt Trap	450	C250	450x450x75	2.387	150	2.387	150
s23	3.540	2.940	100	0.600	Polypipe Silt Trap	450	A15	450Ø x 40	2.940	100	2.940	100
re7	3.300	2.850	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	2.850	100
s24	3.300	2.766	100	0.534	PPIC	450	A15	450Ø x 40	2.766	100	2.766	100
re8	4.000	3.550	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	3.550	100
s25	3.970	2.644	100	1.326	Polypipe Silt Trap	450	A15	450Ø x 40	2.644	100	2.644	100
s26	3.675	3.075	100	0.600	Polypipe Silt Trap	450	A15	450Ø x 40	3.075	100	3.075	100
s27	3.750	2.311	150	1.439	Polypipe Silt Trap	450	C250	450x450x75	2.311	150	2.311	150
re9	3.300	2.850	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	2.850	100
s28	3.300	2.762	100	0.538	PPIC	450	A15	450Ø x 40	2.762	100	2.762	100
re10	4.000	3.550	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	3.550	100
s29	3.950	2.644	100	1.306	Polypipe Silt Trap	450	A15	450Ø x 40	2.644	100	2.644	100
s30	3.760	2.245	150	1.515	Polypipe Silt Trap	450	C250	450x450x75	2.245	150	2.245	150
s31	3.940	3.340	100	0.600	Polypipe Silt Trap	450	B125	450Ø x 40	3.340	100	3.340	100
s32	3.633	2.197	150	1.436	Polypipe Silt Trap	450	D400	450x450x100	2.197	150	2.197	150
re11	3.300	2.850	100	0.450	Rodding Eye	100	A15	110 Oval	-	-	2.850	100
s33	3.200	2.088	150	1.112	PPIC	450	D400	450x450x100	2.088	150	2.088	150
									2.136	100		
s34	3.200	2.047	150	1.153	PPIC	450	D400	450x450x100	2.047	150	2.047	150
Headwall	3.000	2.030	150	TBC		Headwall			2.030	150	-	-

Surface Water Drainage Pipe Line Schedule

Pipe Reference	Upstream IL	Downstream IL	Pipe Diameter	Distance	Pipe Gradient (1 in x)	Pipe Material
re1 - s1	2.850	2.757	100	9.347	100.0	Plastic
s1 - s2	2.757	2.690	100	6.648	100.0	Plastic
s2 - s9	2.640	2.490	150	22.464	150.0	Plastic
s3 -	2.675	-	100	1.100	-	Plastic
re2 - s4	2.850	2.793	100	5.737	100.0	Plastic
s4 - s5	2.793	2.675	100	10.318	87.7	Plastic
s5 -	2.675	-	100	0.760	-	Plastic
re3 - s6	2.850	2.793	100	5.712	100.0	Plastic
s6 - s7	2.793	2.675	100	11.029	93.6	Plastic
s7 -	2.675	-	100	0.760	-	Plastic
s8 -	2.675	-	100	1.100	-	Plastic
s9 - s12	2.490	2.466	150	3.579	150.0	Plastic
re4 - s10	2.850	2.675	100	9.875	56.4	Plastic
s10 -	2.675	-	100	0.823	-	Plastic
s11- s12	2.594	2.466	150	19.171	150.0	Plastic
s12 - s15	2.466	2.370	150	14.484	150.0	Plastic
re5 - s13	2.825	2.700	100	8.780	70.2	Plastic
s13 -	2.700	-	100	1.948	-	Plastic
s14 - s15	2.582	2.370	150	31.754	150.0	Plastic
s15 - s21	2.370	2.289	150	12.188	150.0	Plastic
re6 - s16	2.850	2.794	100	5.553	100.0	Plastic
s16 - s17	2.794	2.775	100	1.921	100.0	Plastic
s17 - s18	2.775	2.619	100	15.578	100.0	Plastic
s18 -	2.619	-	100	1.100	-	Plastic
s19 - s20	2.800	2.631	100	16.853	100.0	Plastic
s20 -	2.631	-	100	1.099	-	Plastic
s21 - s30	2.289	2.245	150	6.516	150.0	Plastic
s22 - s27	2.387	2.311	150	11.410	150.0	Plastic
s23 -	2.940	-	100	1.160	-	Plastic
re7 - s24	2.850	2.766	100	8.445	100.0	Plastic
s24 - s25	2.766	2.644	100	12.171	100.0	Plastic
re8 -s25	3.550	2.644	100	10.258	11.3	Plastic
s25 -	2.644	-	100	2.771	-	Plastic
s26 -	3.075	-	100	1.100	-	Plastic
s27 - s30	2.311	2.245	150	9.838	150.0	Plastic
re9 - s28	2.850	2.762	100	8.790	100.0	Plastic
s28 - s29	2.762	2.644	100	11.821	100.0	Plastic
re10 - s29	3.550	2.644	100	10.950	12.1	Plastic
s29 -	2.644	-	100	3.803	-	Plastic
s30 - s32	2.245	2.197	150	7.191	150.0	Plastic
s31 -	2.197	-	100	3.662	-	Plastic
s32 - s33	2.197	2.088	150	16.370	150.0	Plastic
re11 - s33	2.850	2.138	100	10.360	14.8	Plastic
s33 - s34	2.088	2.047	150	6.165	150.0	Plastic
s34 - HW1	2.047	2.030	150	1.860	109.3	Plastic

Foul Water Drainage Manhole Schedule

Manhole Number	Cover Level (m)	Invert Level (m)	Major Pipe Diameter (mm)	Depth to Invert (m)	Manhole Type	Manhole Diameter (mm)	Manhole Cover		Pipe In		Pipe Out	
							Load Class	Size (mm) (l) x (w) x (d)	Invert Level (m)	Pipe Diameter (mm)	Invert Level (m)	Pipe Diameter (mm)
f1	3.275	2.475	100	0.800	PPIC	450	A15	450Ø x 40	-	-	2.475	100
f1a	3.275	2.675	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.675	100
f1b	3.275	2.675	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.675	100
f1c	3.300	2.700	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.700	100
f1d	3.300	2.700	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.700	100
f1e	3.300	2.700	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.700	100
f1f	3.300	2.700	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.700	100
f2	3.275	2.675	100	0.600	PPIC	450	B125	450Ø x 40	-	-	2.675	100
f2a	3.300	2.700	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.700	100
f3	3.275	2.580	100	0.695	PPIC	450	A15	450Ø x 40	2.580	100	2.580	100
f3a	3.300	2.700	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.700	100
f4	3.250	2.163	100	1.087	PPIC	450	C250	450x450x75	2.163	100	2.163	100
f5	3.350	1.880	100	1.271	PPIC	450	C250	450x450x75	1.880	100	1.880	100
f8	3.300	2.500	100	0.800	PPIC	450	B125	450Ø x 40	2.500	100	2.500	100
f8a	3.300	2.700	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.700	100
f8b	3.300	2.700	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.700	100
f8c	3.300	2.700	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	2.700	100
f7	3.250	2.311	100	0.939	PPIC	450	B125	450Ø x 40	2.311	100	2.311	100
f8	3.300	2.500	100	0.800	PPIC	450	A15	450Ø x 40	-	-	2.500	100
f8a	4.000	3.400	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	3.400	100
f9	3.300	2.394	100	0.907	PPIC	450	A15	450Ø x 40	2.394	100	2.394	100
f10	3.950	3.150	100	0.800	PPIC	450	C250	450x450x75	-	-	3.150	100
f11	4.000	2.231	100	1.769	PPIC	450	A15	450Ø x 40	2.231	100	2.231	100
f12	3.950	2.168	100	1.782	PPIC	450	A15	450Ø x 40	2.168	100	2.168	100
f12a	4.000	3.400	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	3.400	100
f12b	4.000	3.400	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	3.400	100
f13	3.300	2.500	100	0.800	PPIC	450	A15	450Ø x 40	-	-	2.500	100
f14	4.000	2.444	100	1.556	PPIC	450	A15	450Ø x 40	2.444	100	2.444	100
f14a	4.000	3.400	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	3.400	100
f14b	4.000	3.400	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	3.400	100
f14c	4.000	3.400	100	0.600	Mini PPIC	300	A15	300Ø x 40	-	-	3.400	100
f15	3.300	2.212	100	1.088	PPIC	450	A15	450Ø x 40	2.212	100	2.212	100
f16	4.000	1.954	100	2.046	PPIC	450	B125	450Ø x 40	1.954	100	1.954	100
Pump Station	3.290	1.771	-	1.519	Foul water package pumping station				1.771	-	1.771	
f17	3.215	2.926	150	0.289	PPIC	450	D400	450x450x100	2.926	150	2.926	150
f18	3.210	2.916	150	0.294	PPIC	450	D400	450x450x100	2.916	150	2.916	150
9501	3.440	2.750	150	0.690	Existing	Existing	Existing	Existing	2.750	150	2.750	150

Foul Water Drainage Pipe Line Schedule

Pipe Reference	Upstream IL	Downstream IL	Pipe Diameter	Distance	Pipe Gradient (1 in x)	Pipe Material
f1 - f4	2.475	2.163	100	24.990	80.0	Plastic
f1a (f1 - f4)	2.675	2.445	100	1.480	6.4	Plastic
f1b (f1 - f4)	2.675	2.408	100	2.520	9.4	Plastic
f1c (f1 - f4)	2.700	2.368	100	3.230	9.7	Plastic
f1d (f1 - f4)	2.700	2.261	100	2.150	4.9	Plastic
f1e (f1 - f4)	2.700	2.229	100	1.970	4.2	Plastic
f1f (f1 - f4)	2.700	2.193	100	2.970	5.9	Plastic
f2 - f3	2.675	2.580	100	7.630	60.0	Plastic
f2a (f2 - f3)	2.700	2.615	100	1.060	12.5	Plastic
f3 - f4	2.580	2.163	100	6.910	16.6	Plastic
f3a - f4	2.700	2.163	100	2.210	4.1	Plastic
f4 - f5	2.163	1.980	100	14.650	80.0	Plastic
f5 - Pump Station	1.980	1.771	100	12.770	61.1	Plastic
f6 - f7	2.500	2.311	100	15.150	80.0	Plastic
f6a (f6 - f7)	2.700	2.447	100	3.280	13.0	Plastic
f6b (f6 - f7)	2.700	1.883	100	2.250	2.8	Plastic
f6c (f6 - f7)	2.700	2.427	100	3.270	12.0	Plastic
f7 - Pump Station	2.311	1.771	100	10.420	19.3	Plastic
f8 - f9	2.500	2.394	100	8.520	80.0	Plastic
f8a (f8 - f9)	3.400	2.428	100	1.830	1.9	Plastic
f9 - f11	2.394	2.231	100	12.970	80.0	Plastic
f10 - f11	3.150	2.231	100	4.480	4.9	Plastic
f11 - f12	2.231	2.168	100	5.090	80.0	Plastic
f12 - f16	2.168	1.954	100	17.120	80.0	Plastic
f12a (f12 - f16)	3.400	2.150	100	2.400	1.9	Plastic
f12b (f12 - f16)	3.400	2.013	100	2.210	1.6	Plastic
f13 - f14	2.500	2.444	100	4.490	80.0	Plastic
f14 - f15	2.444	2.212	100	18.590	80.0	Plastic
f14a (f14 - f15)	3.400	2.409	100	1.200	1.4	Plastic
f14b (f14 - f15)	3.400	2.316	100	1.580	1.5	Plastic
f14c (f14 - f15)	3.400	2.252	100	1.830	1.6	Plastic
f15 - f16	2.212	1.954	100	12.870	50.3	Plastic
f16 - Pump Station	1.954	1.771	100	14.650	80.0	Plastic
Pumping Station - f17	1.771	2.926	-	18.130	Rising main	
f17 - f18	2.926	2.916	150	1.520	150.0	Plastic
f18 - Ex. F	2.916	2.750	150	24.890	150.0	Plastic

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General Notes

1. Do not scale this drawing.
2. All dimensions are in millimeters unless stated otherwise.
3. This drawing is to be read in conjunction with all other relevant drawings & specifications.
4. All proprietary items to be installed in strict compliance with manufacturers instructions and recommendations.
5. No works shall commence on site until approval has been obtained from all relevant Agencies / Authorities.
6. All dimensions referred to in this drawing must be verified.

Key

Site boundary
Foul water drainage - existing
Foul water manhole - existing
Foul water drainage - proposed
Foul water drainage - soil and vent pipes
Foul water drainage - 300mm dia. Mini PPIC
Foul water drainage - 450mm dia. PPIC
Surface water drainage - proposed
Surface water drainage - rainwater downpipe
Surface water drainage - rodding eye
Surface water drainage - 450mm dia. PPIC
Surface water drainage - channel drain

Revision	Description	Date
P3	Site layout revised. Foul and surface water drainage revised.	12.09.2018
P2	Foul and surface water drainage revised. FFL revised.	09.08.2018
P1	First Issue	04.06.2018

PRELIMINARY

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Project
Proposed Residential Development, Banbury Close, Spalding, Lincolnshire

Title
Proposed Foul and Surface Water Drainage Layout Plan

Drawn by	Checked by	Paper Size
CB	SG	A1

Drawing Number	Revision	Scale
06-0083-002	P3	1:200

Date 04.06.2018