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4, Ironstone Way Brixworth Northampton, NN3 9UD	Surfleet Road Pinchbeck	
Date 05/09/2023 File 26043 - SW and FW.MDX	Designed by SH Checked by LC	
Innovyze	Network 2017.1.2	

FOUL SEWERAGE DESIGN

Design Criteria for Foul - Main

Pipe Sizes STANDARD Manhole Sizes STANDARD

Industrial Flow (l/s/ha)	0.00	Add Flow / Climate Change (%)	10
Industrial Peak Flow Factor	0.00	Minimum Backdrop Height (m)	0.200
Flow Per Person (l/per/day)	225.00	Maximum Backdrop Height (m)	1.500
Persons per House	3.00	Min Design Depth for Optimisation (m)	1.200
Domestic (l/s/ha)	0.00	Min Vel for Auto Design only (m/s)	0.75
Domestic Peak Flow Factor	6.00	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Network Design Table for Foul - Main

PN	Length (m)	Fall (m)	Slope (1:X)	Area (ha)	Houses	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type	Auto Design
F1.000	59.011	0.393	150.2	0.000	11	0.0	1.500	o	150	Pipe/Conduit	
F1.001	50.745	0.338	150.1	0.000	8	0.0	1.500	o	150	Pipe/Conduit	
F1.002	25.297	0.169	150.0	0.000	18	0.0	1.500	o	150	Pipe/Conduit	
F1.003	85.289	0.569	149.9	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
F1.004	80.970	1.575	51.4	0.000	0	0.0	1.500	o	150	Pipe/Conduit	
F1.005	9.249	0.925	10.0	0.000	0	0.0	1.500	o	150	Pipe/Conduit	

Network Results Table

PN	US/IL (m)	Σ Area (ha)	Σ Base Flow (l/s)	Σ Hse (l/s)	Add Flow (l/s)	P.Dep (mm)	P.Vel (m/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
F1.000	2.650	0.000	0.0	11	0.1	22	0.35	0.71	12.6	0.6
F1.001	2.257	0.000	0.0	19	0.1	29	0.42	0.71	12.6	1.0
F1.002	1.919	0.000	0.0	37	0.2	40	0.51	0.71	12.6	1.9
F1.003	1.750	0.000	0.0	37	0.2	40	0.51	0.71	12.6	1.9
F1.004	1.181	0.000	0.0	37	0.2	30	0.75	1.22	21.6	1.9
F1.005	-0.394	0.000	0.0	37	0.2	20	1.32	2.78	49.1	1.9

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Manhole Schedules for Foul - Main

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
F1	4.311	1.661	Open Manhole	1200	F1.000	2.650	150				
F2	4.071	1.814	Open Manhole	1200	F1.001	2.257	150	F1.000	2.257	150	
F3	3.850	1.931	Open Manhole	1200	F1.002	1.919	150	F1.001	1.919	150	
F4	3.940	2.190	Open Manhole	1200	F1.003	1.750	150	F1.002	1.750	150	
F5	3.940	2.759	Open Manhole	1200	F1.004	1.181	150	F1.003	1.181	150	
F6	3.830	4.224	Open Manhole	1200	F1.005	-0.394	150	F1.004	-0.394	150	
F7	3.760	5.079	Open Manhole	0		OUTFALL		F1.005	-1.319	150	

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PIPELINE SCHEDULES for Foul - Main

Upstream Manhole

PN	Hyd	Diam	MH	C.Level	I.Level	D.Depth	MH	MH DIAM., L*W
	Sect	(mm)	Name	(m)	(m)	(m)	Connection	(mm)
F1.000	o	150	F1	4.311	2.650	1.511	Open Manhole	1200
F1.001	o	150	F2	4.071	2.257	1.664	Open Manhole	1200
F1.002	o	150	F3	3.850	1.919	1.781	Open Manhole	1200
F1.003	o	150	F4	3.940	1.750	2.040	Open Manhole	1200
F1.004	o	150	F5	3.940	1.181	2.609	Open Manhole	1200
F1.005	o	150	F6	3.830	-0.394	4.074	Open Manhole	1200

Downstream Manhole

PN	Length	Slope	MH	C.Level	I.Level	D.Depth	MH	MH DIAM., L*W
	(m)	(1:X)	Name	(m)	(m)	(m)	Connection	(mm)
F1.000	59.011	150.2	F2	4.071	2.257	1.664	Open Manhole	1200
F1.001	50.745	150.1	F3	3.850	1.919	1.781	Open Manhole	1200
F1.002	25.297	150.0	F4	3.940	1.750	2.040	Open Manhole	1200
F1.003	85.289	149.9	F5	3.940	1.181	2.609	Open Manhole	1200
F1.004	80.970	51.4	F6	3.830	-0.394	4.074	Open Manhole	1200
F1.005	9.249	10.0	F7	3.760	-1.319	4.929	Open Manhole	0

Free Flowing Outfall Details for Foul - Main

Outfall	Outfall	C. Level	I. Level	Min	D,L	W
Pipe Number	Name	(m)	(m)	I. Level (m)	(mm)	(mm)
F1.005	F7	3.760	-1.319	0.000	0	0