

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	1	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.300	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	x
Time of Entry (mins)	5.00	Enforce best practice design rules	x

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S01	0.010	5.00	99.850	450	-1918.424	-1452.893	0.500
S02			99.850	450	-1936.822	-1447.320	0.693
Flow Control			99.850	450	-1936.073	-1444.066	0.727
Combined 01			99.850	450	-1934.712	-1439.775	0.773
Outfall			99.850	450	-1923.434	-1404.014	1.148

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	S01	S02	19.224	0.600	99.350	99.157	0.193	99.6	225	5.24	46.4
1.001	S02	Flow Control	3.339	0.600	99.157	99.123	0.034	98.2	225	5.29	46.3
1.002	Flow Control	Combined 01	4.502	0.600	99.123	99.077	0.046	97.9	225	5.34	46.1
1.003	Combined 01	Outfall	37.497	0.600	99.077	98.702	0.375	100.0	225	5.82	44.5

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.310	52.1	1.3	0.275	0.468	0.010	0.0	24	0.553
1.001	1.319	52.5	1.3	0.468	0.502	0.010	0.0	24	0.557
1.002	1.321	52.5	1.2	0.502	0.548	0.010	0.0	24	0.558
1.003	1.307	52.0	1.2	0.548	0.923	0.010	0.0	23	0.539

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	19.224	99.6	225	Circular	99.850	99.350	0.275	99.850	99.157	0.468
1.001	3.339	98.2	225	Circular	99.850	99.157	0.468	99.850	99.123	0.502
1.002	4.502	97.9	225	Circular	99.850	99.123	0.502	99.850	99.077	0.548
1.003	37.497	100.0	225	Circular	99.850	99.077	0.548	99.850	98.702	0.923

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S01	450	Manhole	Adoptable	S02	450	Manhole	Adoptable
1.001	S02	450	Manhole	Adoptable	Flow Control	450	Manhole	Adoptable
1.002	Flow Control	450	Manhole	Adoptable	Combined 01	450	Manhole	Adoptable
1.003	Combined 01	450	Manhole	Adoptable	Outfall	450	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S01	-1918.424	-1452.893	99.850	0.500	450		0	1.000	99.350	225
S02	-1936.822	-1447.320	99.850	0.693	450		1	1.000	99.157	225
Flow Control	-1936.073	-1444.066	99.850	0.727	450		0	1.001	99.157	225
						1	1.001	99.123	225	
Combined 01	-1934.712	-1439.775	99.850	0.773	450		0	1.002	99.123	225
						1	1.002	99.077	225	
Outfall	-1923.434	-1404.014	99.850	1.148	450		0	1.003	99.077	225
						1	1.003	98.702	225	

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	20.000	Drain Down Time (mins)	240
Ratio-R	0.300	Additional Storage (m³/ha)	20.0
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	40	0	0

Node Flow Control Online Orifice Control

Flap Valve	x	Design Depth (m)	0.700	Discharge Coefficient	0.600
Replaces Downstream Link	✓	Design Flow (l/s)	1.0		
Invert Level (m)	99.123	Diameter (m)	0.024		