



Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	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	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
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)	Width (mm)	Easting (m)	Northing (m)	Depth (m)
EX SW REF 0350			48.140	600	600	502.780	142.780	1.640
SW MH 01.00			48.500	1200		516.420	139.610	1.375
SW MH 02.00			48.500	475		524.540	130.810	1.255
SA 01.00	0.053	5.00	47.675	50		526.510	128.610	0.400

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)
1.002	SW MH 01.00	EX SW REF 0350	14.004	0.600	47.125	46.500	0.625	22.4	150	5.43	50.0
1.001	SW MH 02.00	SW MH 01.00	11.974	0.600	47.245	47.125	0.120	99.8	100	5.32	50.0
1.000	SA 01.00	SW MH 02.00	2.953	0.600	47.275	47.245	0.030	98.4	100	5.06	50.0

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)
1.002	2.136	37.8	7.2	1.225	1.490	0.053	0.0	44	1.650
1.001	0.770	6.0	7.2	1.155	1.275	0.053	0.0	100	0.790
1.000	0.775	6.1	7.2	0.300	1.155	0.053	0.0	100	0.796

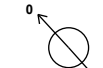
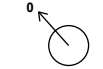
Pipeline Schedule

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)
1.002	14.004	22.4	150	Circular	48.500	47.125	1.225	48.140	46.500	1.490
1.001	11.974	99.8	100	Circular	48.500	47.245	1.155	48.500	47.125	1.275
1.000	2.953	98.4	100	Circular	47.675	47.275	0.300	48.500	47.245	1.155

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Width (mm)	Node Type	MH Type
1.002	SW MH 01.00	1200	Manhole	Adoptable	EX SW REF 0350	600	600	Manhole	Adoptable
1.001	SW MH 02.00	475	Manhole	Adoptable	SW MH 01.00	1200		Manhole	Adoptable
1.000	SA 01.00	50	Manhole	Adoptable	SW MH 02.00	475		Manhole	Adoptable



Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Width (mm)	Connections	Link	IL (m)	Dia (mm)	
EX SW REF 0350	502.780	142.780	48.140	1.640	600	600		1	1.002	46.500	150
SW MH 01.00	516.420	139.610	48.500	1.375	1200			1	1.001	47.125	100
								0	1.002	47.125	150
SW MH 02.00	524.540	130.810	48.500	1.255	475			1	1.000	47.245	100
								0	1.001	47.245	100
SA 01.00	526.510	128.610	47.675	0.400	50						
								0	1.000	47.275	100

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	0.400	Additional Storage (m ³ /ha)	20.0
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15	60	180	360	600	960	2160	4320	7200	10080
30	120	240	480	720	1440	2880	5760	8640	

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 SW MH 01.00 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	✓	Sump Available	✓
Invert Level (m)	47.125	Product Number	CTL-SHE-0104-4200-0540-4200
Design Depth (m)	0.540	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	4.2	Min Node Diameter (mm)	1200

Node SA 01.00 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	1.5	Invert Level (m)	47.275
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.95	Time to half empty (mins)	



Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	38.5	0.0	0.400	38.5	0.0	0.401	0.0	0.0