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)	0.350
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	✓

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S2	0.013	5.00	9.850	500	181.479	66.422	0.819
SA1			9.850	150	181.226	71.334	0.902
S8	0.025	5.00	9.850	500	221.039	49.894	1.165
SA2	0.000		9.850	150	224.009	49.894	1.215

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	S2	SA1	4.919	0.600	9.031	8.948	0.083	59.3	150	5.06	50.0
1.001	S8	SA2	2.970	0.600	8.685	8.635	0.050	59.4	150	5.04	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)
1.000	1.309	23.1	1.8	0.669	0.752	0.013	0.0	28	0.771
1.001	1.307	23.1	3.4	1.015	1.065	0.025	0.0	39	0.939

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	4.919	59.3	150	Circular	9.850	9.031	0.669	9.850	8.948	0.752
1.001	2.970	59.4	150	Circular	9.850	8.685	1.015	9.850	8.635	1.065

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S2	500	Manhole	Adoptable	SA1	150	Manhole	Adoptable
1.001	S8	500	Manhole	Adoptable	SA2	150	Manhole	Adoptable

Node SA1 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.47520	Invert Level (m)	8.723	Depth (m)	0.800
Side Inf Coefficient (m/hr)	0.47520	Time to half empty (mins)	57	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	1.500	Number Required	1
Porosity	0.95	Pit Length (m)	5.000		

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Node SA2 Soakaway Storage Structure

Base Inf Coefficient (m/hr)	0.47520	Invert Level (m)	8.450	Depth (m)	0.400
Side Inf Coefficient (m/hr)	0.47520	Time to half empty (mins)	40	Inf Depth (m)	
Safety Factor	2.0	Pit Width (m)	3.500	Number Required	1
Porosity	0.95	Pit Length (m)	5.000		

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Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	S2	49	9.262	0.231	4.4	0.1185	0.0000	SURCHARGED
60 minute winter	SA1	49	9.261	0.313	4.6	3.8414	0.0000	OK
60 minute winter	S8	51	9.431	0.746	8.4	0.4668	0.0000	SURCHARGED
60 minute winter	SA2	51	9.430	0.795	8.3	6.6726	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)
60 minute winter	S2	1.000	SA1	4.6	0.938	0.198	0.0866
60 minute winter	SA1	Infiltration		1.0			
60 minute winter	S8	1.001	SA2	8.3	1.084	0.360	0.0523
60 minute winter	SA2	Infiltration		1.6			

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