

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)	0.600
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	✓

Nodes

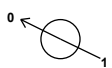
Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
S1	0.001	5.00	13.760	450	747.568	119.701	0.600
S2	0.008	5.00	13.760	450	735.438	125.559	0.750
S3	0.009	5.00	13.760	450	734.638	101.974	0.562
S4	0.006	5.00	13.760	450	721.024	109.120	0.750
S5	0.007	5.00	13.600	500	730.455	128.025	1.100
S6			13.400	450	717.285	133.062	1.137
RE1	0.000	5.00	13.760	300	739.861	111.924	0.450
HW1	0.000		12.850	100	708.793	138.981	0.761

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	13.470	89.8	100	Circular	13.760	13.160	0.500	13.760	13.010	0.650
1.001	5.560	10.9	100	Circular	13.760	13.010	0.650	13.600	12.500	1.000
2.000	11.238	100.3	100	Circular	13.760	13.310	0.350	13.760	13.198	0.462
2.001	15.376	81.8	100	Circular	13.760	13.198	0.462	13.760	13.010	0.650
2.002	21.127	41.4	100	Circular	13.760	13.010	0.650	13.600	12.500	1.000
2.003	14.100	59.5	100	Circular	13.600	12.500	1.000	13.400	12.263	1.037
2.004	10.351	59.5	100	Circular	13.400	12.263	1.037	12.850	12.089	0.661

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	S1	450	Manhole	Adoptable	S2	450	Manhole	Adoptable
1.001	S2	450	Manhole	Adoptable	S5	500	Manhole	Adoptable
2.000	RE1	300	Manhole	Adoptable	S3	450	Manhole	Adoptable
2.001	S3	450	Manhole	Adoptable	S4	450	Manhole	Adoptable
2.002	S4	450	Manhole	Adoptable	S5	500	Manhole	Adoptable
2.003	S5	500	Manhole	Adoptable	S6	450	Manhole	Adoptable
2.004	S6	450	Manhole	Adoptable	HW1	100	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
S1	747.568	119.701	13.760	0.600	450		0	1.000	13.160	100
S2	735.438	125.559	13.760	0.750	450		1	1.000	13.010	100
S3	734.638	101.974	13.760	0.562	450		1	1.001	13.010	100
S4	721.024	109.120	13.760	0.750	450		1	2.001	13.198	100
S5	730.455	128.025	13.600	1.100	500		1	2.002	13.010	100
S6	717.285	133.062	13.400	1.137	450		2	1.001	12.500	100
RE1	739.861	111.924	13.760	0.450	300		0	2.003	12.500	100
HW1	708.793	138.981	12.850	0.761	100		1	2.003	12.263	100
							0	2.004	12.263	100
							0	2.000	13.310	100
							1	2.004	12.089	100

Results for 30 year Critical Storm Duration. Lowest mass balance: 98.85%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	S1	12	13.175	0.015	0.3	0.0028	0.0000	OK
15 minute winter	S2	10	13.038	0.028	3.1	0.0103	0.0000	OK
15 minute winter	S3	10	13.246	0.048	3.1	0.0231	0.0000	OK
15 minute winter	S4	10	13.062	0.052	5.1	0.0166	0.0000	OK
60 minute winter	S5	57	12.779	0.279	5.5	5.3223	0.0000	SURCHARGED
60 minute winter	S6	57	12.287	0.024	1.0	0.0038	0.0000	OK
15 minute summer	RE1	1	13.310	0.000	0.0	0.0000	0.0000	OK
60 minute winter	HW1	57	12.113	0.024	1.0	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	S1	1.000	S2	0.3	0.286	0.047	0.0162	
15 minute winter	S2	1.001	S5	3.1	0.536	0.166	0.0267	
15 minute winter	S3	2.001	S4	3.0	0.772	0.453	0.0603	
15 minute winter	S4	2.002	S5	5.0	0.741	0.534	0.1262	
60 minute winter	S5	Orifice	S6	1.0				
60 minute winter	S6	2.004	HW1	1.0	0.672	0.123	0.0149	8.0
15 minute summer	RE1	2.000	S3	0.0	0.000	0.000	0.0204	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 98.85%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	S1	92	13.317	0.157	0.6	0.0302	0.0000	SURCHARGED
120 minute winter	S2	92	13.317	0.307	1.8	0.1143	0.0000	SURCHARGED
120 minute winter	S3	92	13.322	0.124	1.8	0.0595	0.0000	SURCHARGED
120 minute winter	S4	92	13.321	0.311	3.0	0.0992	0.0000	SURCHARGED
120 minute winter	S5	92	13.317	0.817	6.2	9.4074	0.0000	FLOOD RISK
120 minute winter	S6	92	12.295	0.032	1.7	0.0051	0.0000	OK
120 minute winter	RE1	92	13.322	0.012	0.1	0.0009	0.0000	OK
120 minute winter	HW1	92	12.120	0.031	1.7	0.0000	0.0000	OK
Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	S1	1.000	S2	-0.5	0.261	-0.079	0.1054	
120 minute winter	S2	1.001	S5	1.8	0.383	0.097	0.0435	
120 minute winter	S3	2.001	S4	1.8	0.678	0.269	0.1203	
120 minute winter	S4	2.002	S5	3.0	0.480	0.318	0.1653	
120 minute winter	S5	Orifice	S6	1.7				
120 minute winter	S6	2.004	HW1	1.7	0.783	0.214	0.0222	17.8
120 minute winter	RE1	2.000	S3	-0.1	-0.019	-0.014	0.0470	