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The Stables Woodbury Lane, Norton Worcester WR5 2PT	MANOR FARM STORM NETWORK 17-055 / 601	
Date 29/01/2021 09:11 File Storm network.MDX	Designed by SCH Checked by	
Micro Drainage	Network 2018.1	

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	2	PIMP (%)	100
M5-60 (mm)	19.000	Add Flow / Climate Change (%)	40
Ratio R	0.365	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	0	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	0.750	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.114	4-8	0.065

Total Area Contributing (ha) = 0.179


Total Pipe Volume (m<sup>3</sup>) = 2.840

Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type
S1.000	18.553	0.185	100.3	0.107	5.00	0.0	0.600	o	150	Pipe/Conduit
S1.001	27.169	0.510	53.3	0.047	0.00	0.0	0.600	o	225	Pipe/Conduit
S1.002	15.552	0.437	35.6	0.008	0.00	0.0	0.600	o	225	Pipe/Conduit
S1.003	12.684	0.195	65.0	0.017	0.00	0.0	0.600	o	150	Pipe/Conduit
S1.004	33.334	0.513	65.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S1.000	0.00	5.31	128.415	0.107	0.0	0.0	0.0	1.00	17.7	0.0
S1.001	0.00	5.56	128.155	0.154	0.0	0.0	0.0	1.80	71.4	0.0
S1.002	0.00	5.68	127.645	0.162	0.0	0.0	0.0	2.20	87.5	0.0
S1.003	0.00	5.85	127.208	0.179	0.0	0.0	0.0	1.25	22.1	0.0
S1.004	0.00	6.29	127.013	0.179	0.0	0.0	0.0	1.25	22.1	0.0

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Area Summary for Storm

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.107	0.107	0.107
1.001	-	-	100	0.047	0.047	0.047
1.002	-	-	100	0.008	0.008	0.008
1.003	-	-	100	0.017	0.017	0.017
1.004	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.179	0.179	0.179

Free Flowing Outfall Details for Storm


Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
S1.004	SMH	127.700	126.500	126.500	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	0.750	Foul Sewage per hectare (l/s)	0.000
Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m <sup>3</sup> /ha Storage	2.000
Hot Start Level (mm)	0	Run Time (mins)	60
Manhole Headloss Coeff (Global)	0.500	Output Interval (mins)	1
Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0		

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Storm Duration (mins)	15
Ratio R	0.365		

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Online Controls for Storm

Hydro-Brake® Optimum Manhole: S4, DS/PN: S1.002, Volume (m³): 2.3

Unit Reference	MD-SHE-0176-1500-0900-1500
Design Head (m)	0.900
Design Flow (l/s)	15.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	176
Invert Level (m)	127.645
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.900	15.0
Flush-Flo™	0.303	15.0
Kick-Flo®	0.648	12.8
Mean Flow over Head Range	-	12.6

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	6.2	1.200	17.2	3.000	26.6	7.000	40.1
0.200	14.6	1.400	18.5	3.500	28.7	7.500	41.4
0.300	15.0	1.600	19.7	4.000	30.6	8.000	42.8
0.400	14.8	1.800	20.9	4.500	32.4	8.500	44.0
0.500	14.4	2.000	21.9	5.000	34.1	9.000	45.3
0.600	13.6	2.200	23.0	5.500	35.7	9.500	46.3
0.800	14.2	2.400	23.9	6.000	37.2		
1.000	15.8	2.600	24.9	6.500	38.7		

The Stables  
Woodbury Lane, Norton  
Worcester WR5 2PT

MANOR FARM  
STORM NETWORK  
17-055 / 601



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Network 2018.1

Storage Structures for Storm

Tank or Pond Manhole: S4, DS/PN: S1.002

Invert Level (m) 128.170


Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )
0.000	20.4	0.600	83.1

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Summary of Results for 15 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON


PN	US/MH Name	Water	Surcharged	Flooded	Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	
S1.000	S1	129.376	0.811	0.000	2.00	33.2	SURCHARGED
S1.001	S2	128.637	0.257	0.000	0.70	46.3	SURCHARGED
S1.002	S4	128.511	0.641	0.000	0.19	14.7	SURCHARGED
S1.003	S5	127.363	0.005	0.000	1.03	20.7	SURCHARGED
S1.004	S6	127.131	-0.032	0.000	0.97	20.5	OK

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Summary of Results for 30 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON


PN	US/MH Name	Water	Surcharged	Flooded	Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	
S1.000	S1	129.309	0.744	0.000	1.88	31.3	SURCHARGED
S1.001	S2	128.641	0.261	0.000	0.66	43.8	SURCHARGED
S1.002	S4	128.535	0.665	0.000	0.19	14.9	SURCHARGED
S1.003	S5	127.328	-0.030	0.000	0.99	20.0	OK
S1.004	S6	127.128	-0.035	0.000	0.94	19.9	OK

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Micro Drainage	Network 2018.1	

Summary of Results for 60 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON

PN	US/MH Name	Water	Surcharged	Flooded	Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	
S1.000	S1	128.978	0.413	0.000	1.50	24.9	SURCHARGED
S1.001	S2	128.576	0.196	0.000	0.53	34.8	SURCHARGED
S1.002	S4	128.516	0.646	0.000	0.19	14.8	SURCHARGED
S1.003	S5	127.319	-0.039	0.000	0.90	18.0	OK
S1.004	S6	127.119	-0.044	0.000	0.84	18.0	OK


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Summary of Results for 180 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Pipe	Status
							Flow (l/s)	
S1.000	S1	128.525	-0.040	0.000	0.88	14.6		OK
S1.001	S2	128.368	-0.012	0.000	0.31	20.2		OK
S1.002	S4	128.336	0.466	0.000	0.19	14.3		SURCHARGED
S1.003	S5	127.311	-0.047	0.000	0.82	16.6		OK
S1.004	S6	127.112	-0.051	0.000	0.78	16.5		OK




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Summary of Results for 360 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON


PN	US/MH Name	Water	Surcharged	Flooded	Pipe			
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status
S1.000	S1	128.492	-0.073	0.000	0.52		8.7	OK
S1.001	S2	128.221	-0.159	0.000	0.19		12.5	OK
S1.002	S4	127.814	-0.056	0.000	0.17		13.2	OK
S1.003	S5	127.303	-0.055	0.000	0.73		14.6	OK
S1.004	S6	127.104	-0.059	0.000	0.68		14.5	OK

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Summary of Results for 480 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON


PN	US/MH Name	Water	Surcharged	Flooded	Pipe			
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status
S1.000	S1	128.483	-0.082	0.000	0.42		7.0	OK
S1.001	S2	128.213	-0.167	0.000	0.15		10.1	OK
S1.002	S4	127.786	-0.084	0.000	0.14		10.6	OK
S1.003	S5	127.290	-0.068	0.000	0.58		11.7	OK
S1.004	S6	127.092	-0.071	0.000	0.55		11.7	OK

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Summary of Results for 600 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON

PN	US/MH Name	Water	Surcharged	Flooded	Pipe			
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status
S1.000	S1	128.477	-0.088	0.000	0.35		5.9	OK
S1.001	S2	128.208	-0.172	0.000	0.13		8.5	OK
S1.002	S4	127.770	-0.100	0.000	0.12		8.9	OK
S1.003	S5	127.282	-0.076	0.000	0.49		9.8	OK
S1.004	S6	127.085	-0.078	0.000	0.46		9.8	OK

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STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	2	PIMP (%)	100
M5-60 (mm)	19.000	Add Flow / Climate Change (%)	40
Ratio R	0.365	Minimum Backdrop Height (m)	0.200
Maximum Rainfall (mm/hr)	0	Maximum Backdrop Height (m)	1.500
Maximum Time of Concentration (mins)	30	Min Design Depth for Optimisation (m)	1.200
Foul Sewage (l/s/ha)	0.000	Min Vel for Auto Design only (m/s)	1.00
Volumetric Runoff Coeff.	0.750	Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.114	4-8	0.065

Total Area Contributing (ha) = 0.179


Total Pipe Volume (m<sup>3</sup>) = 2.840

Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)	Section Type
S1.000	18.553	0.185	100.3	0.107	5.00	0.0	0.600	o	150	Pipe/Conduit
S1.001	27.169	0.510	53.3	0.047	0.00	0.0	0.600	o	225	Pipe/Conduit
S1.002	15.552	0.437	35.6	0.008	0.00	0.0	0.600	o	225	Pipe/Conduit
S1.003	12.684	0.195	65.0	0.017	0.00	0.0	0.600	o	150	Pipe/Conduit
S1.004	33.334	0.513	65.0	0.000	0.00	0.0	0.600	o	150	Pipe/Conduit

Network Results Table

PN	Rain (mm/hr)	T.C. (mins)	US/IL (m)	Σ I.Area (ha)	Σ Base Flow (l/s)	Foul (l/s)	Add Flow (l/s)	Vel (m/s)	Cap (l/s)	Flow (l/s)
S1.000	0.00	5.31	128.415	0.107	0.0	0.0	0.0	1.00	17.7	0.0
S1.001	0.00	5.56	128.155	0.154	0.0	0.0	0.0	1.80	71.4	0.0
S1.002	0.00	5.68	127.645	0.162	0.0	0.0	0.0	2.20	87.5	0.0
S1.003	0.00	5.85	127.208	0.179	0.0	0.0	0.0	1.25	22.1	0.0
S1.004	0.00	6.29	127.013	0.179	0.0	0.0	0.0	1.25	22.1	0.0

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Area Summary for Storm

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.107	0.107	0.107
1.001	-	-	100	0.047	0.047	0.047
1.002	-	-	100	0.008	0.008	0.008
1.003	-	-	100	0.017	0.017	0.017
1.004	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.179	0.179	0.179

Free Flowing Outfall Details for Storm


Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
S1.004	SMH	127.700	126.500	126.500	0	0

Simulation Criteria for Storm

Volumetric Runoff Coeff	0.840	Foul Sewage per hectare (l/s)	0.000
Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m <sup>3</sup> /ha Storage	2.000
Hot Start Level (mm)	0	Run Time (mins)	60
Manhole Headloss Coeff (Global)	0.500	Output Interval (mins)	1
Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0		

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Winter
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Storm Duration (mins)	15
Ratio R	0.365		

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Online Controls for Storm

Hydro-Brake® Optimum Manhole: S4, DS/PN: S1.002, Volume (m³): 2.3

Unit Reference	MD-SHE-0176-1500-0900-1500
Design Head (m)	0.900
Design Flow (l/s)	15.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	176
Invert Level (m)	127.645
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.900	15.0
Flush-Flo™	0.303	15.0
Kick-Flo®	0.648	12.8
Mean Flow over Head Range	-	12.6

The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake® Optimum as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	6.2	1.200	17.2	3.000	26.6	7.000	40.1
0.200	14.6	1.400	18.5	3.500	28.7	7.500	41.4
0.300	15.0	1.600	19.7	4.000	30.6	8.000	42.8
0.400	14.8	1.800	20.9	4.500	32.4	8.500	44.0
0.500	14.4	2.000	21.9	5.000	34.1	9.000	45.3
0.600	13.6	2.200	23.0	5.500	35.7	9.500	46.3
0.800	14.2	2.400	23.9	6.000	37.2		
1.000	15.8	2.600	24.9	6.500	38.7		

The Stables  
Woodbury Lane, Norton  
Worcester WR5 2PT

MANOR FARM  
STORM NETWORK  
17-055 / 601



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Storage Structures for Storm

Tank or Pond Manhole: S4, DS/PN: S1.002

Invert Level (m) 128.170

Depth (m)	Area (m <sup>2</sup> )	Depth (m)	Area (m <sup>2</sup> )
0.000	20.4	0.600	83.1


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Summary of Results for 15 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON

PN	US/MH Name	Water	Surcharged	Flooded	Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	
S1.000	S1	129.482	0.917	0.000	2.07	34.3	SURCHARGED
S1.001	S2	128.698	0.318	0.000	0.72	48.0	SURCHARGED
S1.002	S4	128.556	0.686	0.000	0.20	15.1	SURCHARGED
S1.003	S5	127.359	0.001	0.000	1.01	20.4	SURCHARGED
S1.004	S6	127.130	-0.033	0.000	0.96	20.3	OK




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Summary of Results for 30 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON


PN	US/MH Name	Water	Surcharged	Flooded	Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	
S1.000	S1	129.242	0.677	0.000	1.78	29.6	SURCHARGED
S1.001	S2	128.674	0.294	0.000	0.63	41.7	SURCHARGED
S1.002	S4	128.580	0.710	0.000	0.20	15.3	SURCHARGED
S1.003	S5	127.324	-0.034	0.000	0.95	19.0	OK
S1.004	S6	127.124	-0.039	0.000	0.89	19.0	OK

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Micro Drainage		Network 2018.1

Summary of Results for 60 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON


PN	US/MH Name	Water	Surcharged	Flooded	Pipe		Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	
S1.000	S1	128.848	0.283	0.000	1.28	21.3	SURCHARGED
S1.001	S2	128.584	0.204	0.000	0.45	30.0	SURCHARGED
S1.002	S4	128.543	0.673	0.000	0.19	15.0	SURCHARGED
S1.003	S5	127.317	-0.041	0.000	0.87	17.4	OK
S1.004	S6	127.117	-0.046	0.000	0.82	17.4	OK

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Micro Drainage	Network 2018.1	

Summary of Results for 180 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep Fine Inertia Status OFF  
 DTS Status ON


PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Pipe	Status
							Flow (l/s)	
S1.000	S1	128.504	-0.061	0.000	0.66		11.0	OK
S1.001	S2	128.241	-0.139	0.000	0.24		15.8	OK
S1.002	S4	128.209	0.339	0.000	0.19		14.5	SURCHARGED
S1.003	S5	127.311	-0.047	0.000	0.81		16.2	OK
S1.004	S6	127.111	-0.052	0.000	0.76		16.2	OK

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Summary of Results for 360 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON


PN	US/MH Name	Water	Surcharged	Flooded	Pipe			Status
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)	
S1.000	S1	128.480	-0.085	0.000	0.39		6.5	OK
S1.001	S2	128.211	-0.169	0.000	0.14		9.3	OK
S1.002	S4	127.778	-0.092	0.000	0.13		9.8	OK
S1.003	S5	127.287	-0.071	0.000	0.54		10.9	OK
S1.004	S6	127.089	-0.074	0.000	0.51		10.9	OK

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Micro Drainage	Network 2018.1	

Summary of Results for 480 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON

PN	US/MH Name	Water	Surcharged	Flooded	Pipe			
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status
S1.000	S1	128.472	-0.093	0.000	0.31		5.2	OK
S1.001	S2	128.205	-0.175	0.000	0.11		7.5	OK
S1.002	S4	127.760	-0.110	0.000	0.10		7.9	OK
S1.003	S5	127.277	-0.081	0.000	0.43		8.7	OK
S1.004	S6	127.080	-0.083	0.000	0.41		8.7	OK

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Micro Drainage	Network 2018.1	

Summary of Results for 600 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 100.0      DVD Status OFF  
 Analysis Timestep      Fine Inertia Status OFF  
 DTS Status      ON

PN	US/MH Name	Water	Surcharged	Flooded	Pipe			
		Level (m)	Depth (m)	Volume (m <sup>3</sup> )	Flow / Cap.	Overflow (l/s)	Flow (l/s)	Status
S1.000	S1	128.467	-0.098	0.000	0.26		4.4	OK
S1.001	S2	128.201	-0.179	0.000	0.10		6.3	OK
S1.002	S4	127.749	-0.121	0.000	0.09		6.6	OK
S1.003	S5	127.270	-0.088	0.000	0.36		7.3	OK
S1.004	S6	127.074	-0.089	0.000	0.34		7.3	OK