



STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm_RevA

Pipe Sizes STANDARD Manhole Sizes STANDARD

FEH Rainfall Model			
Return Period (years)	10	Volumetric Runoff Coeff.	0.750
		PIMP (%)	100
FEH Rainfall Version	2013	Add Flow / Climate Change (%)	0
Site Location	GB 497682 103581 SU 97682 03581	Minimum Backdrop Height (m)	0.400
Data Type	Point	Maximum Backdrop Height (m)	1.500
Maximum Rainfall (mm/hr)	250	Min Design Depth for Optimisation (m)	0.250
Maximum Time of Concentration (mins)	30	Min Vel for Auto Design only (m/s)	1.00
Foul Sewage (l/s/ha)	0.000	Min Slope for Optimisation (1:X)	200

Designed with Level Soffits

Time Area Diagram for Storm_RevA

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.078	4-8	0.062

Total Area Contributing (ha) = 0.140

Total Pipe Volume (m³) = 6.662

Network Design Table for Storm_RevA

PN	Length	Fall	Slope	I.Area	T.E.	Base	k	HYD	DIA	Section Type	Auto
	(m)	(m)	(1:X)	(ha)	(mins)	Flow (l/s)	(mm)	SECT	(mm)		Design

Network Results Table

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Tuscany House White Hart Lane Baskingstoke RG21 4AF	NORTH END ROAD YAPTON 38 UNITS_RevA	
Date 23/09/2020 File 19-156 38 Units Drainage Strategy.MDX	Designed by AK Checked by	
XP Solutions	Network 2020.1	

Network Design Table for Storm_RevA

PN Rain T.C. US/IL Σ I.Area Σ Base Foul Add Flow Vel Cap Flow
 (mm/hr) (mins) (m) (ha) Flow (l/s) (l/s) (l/s) (m/s) (l/s) (l/s)

Network Design Table for Storm_RevA

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	Auto Design
1.000	19.600	0.194	101.0	0.027	5.00	0.0	0.600	o	150	Pipe/Conduit	
2.000	13.997	0.139	100.7	0.019	5.00	0.0	0.600	o	150	Pipe/Conduit	
1.001	13.452	0.133	101.0	0.000	0.00	0.0	0.600	oo	150	Double Pipe	
3.000	10.337	0.102	101.3	0.021	5.00	0.0	0.600	o	150	Pipe/Conduit	
1.002	29.217	0.173	169.0	0.008	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.003	29.269	0.176	166.3	0.020	0.00	0.0	0.600	o	225	Pipe/Conduit	
4.000	14.817	0.147	100.8	0.020	5.00	0.0	0.600	o	150	Pipe/Conduit	
5.000	15.113	0.257	58.8	0.017	5.00	0.0	0.600	o	100	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)
1.000	104.26	5.33	7.060	0.027	0.0	0.0	0.0	1.00	17.7	7.6
2.000	105.00	5.23	7.005	0.019	0.0	0.0	0.0	1.00	17.7	5.4
1.001	102.54	5.55	6.866	0.046	0.0	0.0	0.0	1.00	35.3	12.8
3.000	105.48	5.17	6.835	0.021	0.0	0.0	0.0	1.00	17.6	6.0
1.002	99.02	6.04	6.658	0.075	0.0	0.0	0.0	1.00	39.9	20.1
1.003	95.78	6.52	6.485	0.095	0.0	0.0	0.0	1.01	40.2	24.7
4.000	104.89	5.25	6.609	0.020	0.0	0.0	0.0	1.00	17.7	5.7
5.000	104.86	5.25	6.769	0.017	0.0	0.0	0.0	1.01	7.9	4.8

Network Design Table for Storm_RevA

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	Auto Design
4.001	13.187	0.078	169.1	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.004	21.473	0.127	169.1	0.000	0.00	0.0	0.600	oo	225	Double Pipe	
6.000	34.037	0.588	57.9	0.008	5.00	0.0	0.600	o	100	Pipe/Conduit	
1.005	5.167	0.031	166.7	0.000	0.00	0.0	0.600	o	225	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)
4.001	103.15	5.47	6.387	0.037	0.0	0.0	0.0	1.00	39.9	10.3
1.004	93.53	6.88	6.309	0.132	0.0	0.0	0.0	1.00	79.7	33.5
6.000	102.47	5.56	6.770	0.008	0.0	0.0	0.0	1.01	8.0	2.2
1.005	93.01	6.96	6.020	0.140	0.0	0.0	0.0	1.01	40.2	35.3

Manhole Schedules for Storm_RevA											
MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam.,L*W (mm)	PN	Pipe Out Invert Level (m)	Diameter (mm)	PN	Pipes In Invert Level (m)	Diameter (mm)	Backdrop (mm)
1	7.679	0.619	Open Manhole	750 x 600	1.000	7.060	150				
2	7.555	0.550	Open Manhole	750 x 600	2.000	7.005	150				
3	7.541	0.675	Open Manhole	750 x 600	1.001	6.866	150	1.000	6.866	150	
								2.000	6.866	150	
4	7.555	0.720	Open Manhole	750 x 600	3.000	6.835	150				
5	7.783	1.125	Open Manhole	750 x 600	1.002	6.658	225	1.001	6.733	150	
								3.000	6.733	150	
6	7.235	0.750	Open Manhole	750 x 600	1.003	6.485	225	1.002	6.485	225	
7	7.059	0.450	Open Manhole	750 x 600	4.000	6.609	150				
8	7.519	0.750	Open Manhole	750 x 600	5.000	6.769	100				
9	7.272	0.885	Open Manhole	750 x 600	4.001	6.387	225	4.000	6.462	150	
								5.000	6.512	100	
10	7.279	0.970	Open Manhole	1350	1.004	6.309	225	1.003	6.309	225	
								4.001	6.309	225	
11	7.220	0.450	Open Manhole	750 x 600	6.000	6.770	100				
basin	6.600	0.580	Open Manhole	750 x 600	1.005	6.020	225	1.004	6.182	225	162
								6.000	6.182	100	37
	6.600	0.611	Open Manhole	0		OUTFALL		1.005	5.989	225	

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
1	497786.922	103774.799	497786.922	103774.799	Required	

Manhole Schedules for Storm_RevA						
MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
2	497817.836	103761.685	497817.836	103761.685	Required	
3	497804.754	103766.662	497804.754	103766.662	Required	
4	497809.631	103750.414	497809.631	103750.414	Required	
5	497799.970	103754.089	497799.970	103754.089	Required	
6	497772.663	103764.479	497772.663	103764.479	Required	
7	497741.329	103798.477	497741.329	103798.477	Required	
8	497767.649	103784.318	497767.649	103784.318	Required	
9	497753.975	103790.755	497753.975	103790.755	Required	
10	497747.429	103779.309	497747.429	103779.309	Required	
11	497762.936	103752.991	497762.936	103752.991	Required	
basin	497731.187	103765.261	497731.187	103765.261	Required	

Manhole Schedules for Storm_RevA

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
	497726.061	103764.613			No Entry	



Area Summary for Storm_RevA

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.027	0.027	0.027
2.000	-	-	100	0.019	0.019	0.019
1.001	-	-	100	0.000	0.000	0.000
3.000	-	-	100	0.021	0.021	0.021
1.002	User	-	100	0.008	0.008	0.008
1.003	User	-	100	0.008	0.008	0.008
	User	-	100	0.002	0.002	0.010
	User	-	100	0.004	0.004	0.014
	User	-	100	0.006	0.006	0.020
4.000	User	-	100	0.012	0.012	0.012
	User	-	100	0.002	0.002	0.014
	User	-	100	0.006	0.006	0.020
5.000	User	-	100	0.009	0.009	0.009
	User	-	100	0.002	0.002	0.011
	User	-	100	0.006	0.006	0.017
4.001	-	-	100	0.000	0.000	0.000
1.004	-	-	100	0.000	0.000	0.000
6.000	User	-	100	0.008	0.008	0.008
1.005	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.140	0.140	0.140

Free Flowing Outfall Details for Storm_RevA

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,I (mm)	W (mm)
1.005		6.600	5.989	0.000	0	0

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Tuscany House White Hart Lane Basingstoke RG21 4AF	NORTH END ROAD YAPTON 38 UNITS_RevA	
Date 23/09/2020 File 19-156 38 Units Drainage Strategy.MDX	Designed by AK Checked by	
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Online Controls for Storm_RevA

Pump Manhole: basin, DS/PN: 1.005, Volume (m³): 2.1

Invert Level (m) 6.020

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Storage Structures for Storm_RevA

Infiltration Blanket Manhole: basin, DS/PN: 1.005

Infiltration Coefficient Base (m/hr)	0.00648	Invert Level (m)	6.020	Cap Volume	Depth (m)	0.300
Safety Factor	2.0	Diameter/Width (m)	21.5			
Porosity	0.95	Length (m)	21.0			

10 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm_RevA

Simulation Criteria

Areal Reduction Factor 1.000 Manhole Headloss Coeff (Global) 0.500 MADD Factor * 10m³/ha Storage 2.000
Hot Start (mins) 0 Foul Sewage per hectare (l/s) 0.000 Inlet Coeffiecient 0.800
Hot Start Level (mm) 0 Additional Flow - % of Total Flow 0.000 Flow per Person per Day (l/per/day) 0.000

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 1 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FEH Site Location GB 497682 103581 SU 97682 03581 Cv (Summer) 0.750
FEH Rainfall Version 2013 Data Type Point Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 210.0 DVD Status OFF
Analysis Timestep 2.5 Second Increment (Extended) Inertia Status OFF
DTS Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
Return Period(s) (years) 10, 100
Climate Change (%) 40, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

US/MH		Event	Duration (mins)	US/CL (m)	Water Flooded		Flow / Cap.	Infil. Flow (l/s)	Total Infil.		Maximum Velocity (m/s)	Half Drain Time (mins)	Pipe Flow	
PN	Name				Level (m)	Volume (m³)			Vol (m³)	Vol (m³)			(l/s)	Status
1.000	1	15 minute 10 year Winter I+40%	15	7.679	7.148	0.000	0.63			0.037	1.0		10.5	OK
2.000	2	15 minute 10 year Winter I+40%	15	7.555	7.077	0.000	0.46			0.030	0.9		7.5	OK
1.001	3	15 minute 10 year Winter I+40%	15	7.541	6.947	0.000	0.55			0.115	0.9		17.9	OK
3.000	4	15 minute 10 year Winter I+40%	15	7.555	6.913	0.000	0.52			0.033	0.9		8.2	OK
1.002	5	15 minute 10 year Winter I+40%	15	7.783	6.811	0.000	0.78			0.193	1.0		29.1	OK
1.003	6	15 minute 10 year Winter I+40%	15	7.235	6.661	0.000	0.95			0.517	1.1		35.5	OK
4.000	7	15 minute 10 year Winter I+40%	15	7.059	6.683	0.000	0.48			0.031	0.9		7.9	OK

10 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm_RevA

				Water Flooded			Total		Maximum		Half Drain	Pipe		
PN	US/MH Name	Event	Duration (mins)	US/CL (m)	Level (m)	Volume (m³)	Flow / Cap.	Infil. Flow (l/s)	Infil. Vol (m³)	Maximum Vol (m³)	Velocity (m/s)	Time (mins)	Flow (l/s)	Status
5.000	8	15 minute 10 year Winter I+40%	15	7.519	6.843	0.000	0.88			0.031	1.1		6.6	OK
4.001	9	15 minute 10 year Winter I+40%	15	7.272	6.490	0.000	0.42			0.046	0.8		14.3	OK
1.004	10	15 minute 10 year Winter I+40%	15	7.279	6.447	0.000	0.69			0.650	1.0		49.8	OK
6.000	11	15 minute 10 year Winter I+40%	15	7.220	6.814	0.000	0.40			0.018	0.9		3.1	OK
1.005	basin	960 minute 10 year Winter I+40%	960	6.600	6.180	0.000	0.00	0.4	4950.487	68.864	0.0		0.0	OK

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm_RevA

Simulation Criteria

Areal Reduction Factor 1.000	Manhole Headloss Coeff (Global) 0.500	MADD Factor * 10m³/ha Storage 2.000
Hot Start (mins) 0	Foul Sewage per hectare (l/s) 0.000	Inlet Coeffiecient 0.800
Hot Start Level (mm) 0	Additional Flow - % of Total Flow 0.000 Flow per Person per Day (l/per/day) 0.000	

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 1 Number of Real Time Controls 0

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Margin for Flood Risk Warning (mm) 210.0 DVD Status OFF
Analysis Timestep 2.5 Second Increment (Extended) Inertia Status OFF
DTS Status ON

Profile(s) Summer and Winter
Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
Return Period(s) (years) 10, 100
Climate Change (%) 40, 40

WARNING: Half Drain Time has not been calculated as the structure is too full.

US/MH		Event	Duration (mins)	US/CL (m)	Water Flooded		Flow / Cap.	Infil. Flow (l/s)	Total Infil.		Maximum Velocity (m/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
PN	Name				Level (m)	Volume (m³)			Infil. Vol (m³)	Vol (m³)				
1.000	1	15 minute 100 year Winter I+40%	15	7.679	7.286	0.000	0.96			0.100	1.1		15.9	SURCHARGED
2.000	2	15 minute 100 year Winter I+40%	15	7.555	7.183	0.000	0.72			0.078	1.0		11.6	SURCHARGED
1.001	3	15 minute 100 year Winter I+40%	15	7.541	7.123	0.000	0.80			0.600	1.0		25.7	SURCHARGED
3.000	4	15 minute 100 year Winter I+40%	15	7.555	7.106	0.000	0.76			0.120	1.0		11.9	SURCHARGED
1.002	5	15 minute 100 year Winter I+40%	15	7.783	7.046	0.000	1.08			0.786	1.0		40.2	SURCHARGED
1.003	6	15 minute 100 year Winter I+40%	15	7.235	6.842	0.000	1.32			1.236	1.2		49.6	SURCHARGED
4.000	7	15 minute 100 year Winter I+40%	15	7.059	6.710	0.000	0.78			0.043	1.0		12.7	OK

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for Storm_RevA

PN	US/MH Name	Event	Duration (mins)	US/CL (m)	Water Flooded		Flow / Cap.	Infil. Flow (l/s)	Total		Maximum Velocity (m/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
					Level (m)	Volume (m³)			Infil. Vol (m³)	Maximum Vol (m³)				
5.000	8	15 minute 100 year Winter I+40%	15	7.519	7.075	0.000	1.34			0.136	1.3		10.1	SURCHARGED
4.001	9	15 minute 100 year Winter I+40%	15	7.272	6.531	0.000	0.65			0.102	0.9		22.3	OK
1.004	10	15 minute 100 year Winter I+40%	15	7.279	6.493	0.000	0.97			1.039	1.0		70.6	OK
6.000	11	15 minute 100 year Winter I+40%	15	7.220	6.829	0.000	0.65			0.024	1.1		5.0	OK
1.005	basin	1440 minute 100 year Winter I+40%	1440	6.600	6.274	0.000	0.00	0.4	4950.487	109.341	0.0		0.0	SURCHARGED

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10 year Return Period Summary of Critical Results by Maximum Velocity (Rank 1) for Storm_RevA

Simulation Criteria

Areal Reduction Factor 1.000 Manhole Headloss Coeff (Global) 0.500 MADD Factor * 10m³/ha Storage 2.000
Hot Start (mins) 0 Foul Sewage per hectare (l/s) 0.000 Inlet Coefficient 0.800
Hot Start Level (mm) 0 Additional Flow - % of Total Flow 0.000 Flow per Person per Day (l/per/day) 0.000

Number of Input Hydrographs 0 Number of Offline Controls 0 Number of Time/Area Diagrams 0
Number of Online Controls 1 Number of Storage Structures 1 Number of Real Time Controls 0

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Analysis Timestep 2.5 Second Increment (Extended) Inertia Status OFF
DTS Status ON

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Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
Return Period(s) (years) 10, 100
Climate Change (%) 40, 40

PN	US/MH Name	Event	Duration (mins)	US/CL (m)	Water Flooded			Infil. Flow (l/s)	Total Infil. Vol (m³)	Maximum Vol (m³)	Maximum Velocity (m/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
					Level (m)	Volume (m³)	Flow / Cap.							
1.000	1	15 minute 10 year Winter I+40%	15	7.679	7.148	0.000	0.63			0.037	1.0		10.5	OK
2.000	2	15 minute 10 year Winter I+40%	15	7.555	7.077	0.000	0.46			0.030	0.9		7.5	OK
1.001	3	15 minute 10 year Winter I+40%	15	7.541	6.947	0.000	0.55			0.115	0.9		17.9	OK
3.000	4	15 minute 10 year Winter I+40%	15	7.555	6.913	0.000	0.52			0.033	0.9		8.2	OK
1.002	5	15 minute 10 year Winter I+40%	15	7.783	6.811	0.000	0.78			0.193	1.0		29.1	OK
1.003	6	15 minute 10 year Winter I+40%	15	7.235	6.661	0.000	0.95			0.517	1.1		35.5	OK
4.000	7	15 minute 10 year Winter I+40%	15	7.059	6.683	0.000	0.48			0.031	0.9		7.9	OK
5.000	8	15 minute 10 year Winter I+40%	15	7.519	6.843	0.000	0.88			0.031	1.1		6.6	OK
4.001	9	15 minute 10 year Winter I+40%	15	7.272	6.490	0.000	0.42			0.046	0.8		14.3	OK
1.004	10	15 minute 10 year Winter I+40%	15	7.279	6.447	0.000	0.69			0.650	1.0		49.8	OK

10 year Return Period Summary of Critical Results by Maximum Velocity (Rank 1) for Storm_RevA

					Water	Flooded	Total				Maximum	Half Drain	Pipe		
	US/MH			Duration	US/CL	Level	Volume	Flow /	Infil.	Infil.	Maximum	Velocity	Time	Flow	
PN	Name		Event	(mins)	(m)	(m)	(m³)	Cap.	Flow (l/s)	Vol (m³)	Vol (m³)	(m/s)	(mins)	(l/s)	Status
6.000	11	15 minute	10 year Winter I+40%	15	7.220	6.814	0.000	0.40			0.018	0.9		3.1	OK
1.005	basin	7200 minute	10 year Winter I+40%	7200	6.600	6.142	0.000	0.00	0.4	4950.487	52.180	0.0	2111	0.0	OK

100 year Return Period Summary of Critical Results by Maximum Velocity (Rank 1) for Storm_RevA

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Areal Reduction Factor 1.000	Manhole Headloss Coeff (Global) 0.500	MADD Factor * 10m³/ha Storage 2.000
Hot Start (mins) 0	Foul Sewage per hectare (l/s) 0.000	Inlet Coefficient 0.800
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 DTS Status ON

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440, 2160, 2880, 4320, 5760, 7200, 8640, 10080
 Return Period(s) (years) 10, 100
 Climate Change (%) 40, 40

PN	US/MH Name	Event	Duration (mins)	US/CL (m)	Water Flooded		Flow / Cap.	Infil. Flow (l/s)	Total Infil.		Maximum Velocity (m/s)	Half Drain Time (mins)	Pipe Flow (l/s)	Status
					Level (m)	Volume (m³)			Vol (m³)	Vol (m³)				
1.000	1	15 minute 100 year Winter I+40%	15	7.679	7.286	0.000	0.96			0.100	1.1		15.9	SURCHARGED
2.000	2	15 minute 100 year Winter I+40%	15	7.555	7.183	0.000	0.72			0.078	1.0		11.6	SURCHARGED
1.001	3	30 minute 100 year Winter I+40%	30	7.541	6.991	0.000	0.70			0.222	1.0		22.6	OK
3.000	4	30 minute 100 year Summer I+40%	30	7.555	7.018	0.000	0.70			0.080	1.0		11.0	SURCHARGED
1.002	5	15 minute 100 year Winter I+40%	15	7.783	7.046	0.000	1.08			0.786	1.0		40.2	SURCHARGED
1.003	6	15 minute 100 year Winter I+40%	15	7.235	6.842	0.000	1.32			1.236	1.2		49.6	SURCHARGED
4.000	7	15 minute 100 year Winter I+40%	15	7.059	6.710	0.000	0.78			0.043	1.0		12.7	OK
5.000	8	15 minute 100 year Winter I+40%	15	7.519	7.075	0.000	1.34			0.136	1.3		10.1	SURCHARGED
4.001	9	15 minute 100 year Winter I+40%	15	7.272	6.531	0.000	0.65			0.102	0.9		22.3	OK
1.004	10	15 minute 100 year Summer I+40%	15	7.279	6.487	0.000	0.94			0.987	1.0		68.5	OK

100 year Return Period Summary of Critical Results by Maximum Velocity (Rank 1) for Storm_RevA

				Water Flooded				Total		Maximum		Half Drain	Pipe		
PN	US/MH			Duration	US/CL	Level	Volume	Flow /	Infil.	Infil.	Maximum	Velocity	Time	Flow	
	Name	Event		(mins)	(m)	(m)	(m³)	Cap.	Flow (l/s)	Vol (m³)	Vol (m³)	(m/s)	(mins)	(l/s)	Status
6.000	11	15 minute	100 year Winter I+40%	15	7.220	6.829	0.000	0.65			0.024	1.1		5.0	OK
1.005	basin	5760 minute	100 year Winter I+40%	5760	6.600	6.239	0.000	0.00	0.4	4950.487	93.956	0.0	2864	0.0	OK