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Park House Sandpiper Court Chester CH4 9QU		
Date 01/01/0001 File 7588 SW06.MDX	Designed by lworthington Checked by	
Micro Drainage Network 2020.1.3		

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for 7588 SW01.SWS

Pipe Sizes 7588 SW01 Manhole Sizes 7588 SW01

FSR Rainfall Model - England and Wales					
Return Period (years)	2	PIMP (%)	100		
M5-60 (mm)	18.000	Add Flow / Climate Change (%)	0		
Ratio R	0.314	Minimum Backdrop Height (m)	0.200		
Maximum Rainfall (mm/hr)	50	Maximum Backdrop Height (m)	0.000		
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)	0.75		
Volumetric Runoff Coeff.	0.750	Min Slope for Optimisation (1:X)	500		

Designed with Level Soffits

Network Design Table for 7588 SW01.SWS

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	17.909	0.045	398.0	0.049	5.00	0.0	0.600	o	600	Pipe/Conduit	
2.000	42.206	0.420	100.5	0.038	5.00	0.0	0.600	o	100	Pipe/Conduit	
2.001	5.678	0.055	103.2	0.000	0.00	0.0	0.600	o	100	Pipe/Conduit	
2.002	14.472	0.096	150.0	0.015	0.00	0.0	0.600	o	150	Pipe/Conduit	
3.000	8.073	0.571	14.1	0.011	5.00	0.0	0.600	o	100	Pipe/Conduit	
2.003	10.548	0.070	150.7	0.000	0.00	0.0	0.600	o	225	Pipe/Conduit	
2.004	10.007	0.025	400.3	0.031	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.001	10.000	0.025	400.0	0.007	0.00	0.0	0.600	o	600	Pipe/Conduit	
1.002	8.990	0.022	408.6	0.011	0.00	0.0	0.600	o	600	Pipe/Conduit	
4.000	16.082	0.161	99.9	0.013	5.00	0.0	0.600	o	100	Pipe/Conduit	
4.001	4.771	1.193	4.0	0.016	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)
1.000	50.00	5.25	60.875	0.049	0.0	0.0	0.0	1.21	343.4	6.6
2.000	50.00	5.92	62.800	0.038	0.0	0.0	0.0	0.77	6.0	5.1
2.001	50.00	6.04	62.380	0.038	0.0	0.0	0.0	0.76	5.9	5.1
2.002	50.00	6.34	62.275	0.053	0.0	0.0	0.0	0.82	14.5	7.2
3.000	50.00	5.07	62.800	0.011	0.0	0.0	0.0	2.07	16.2	1.5
2.003	50.00	6.50	62.104	0.064	0.0	0.0	0.0	1.06	42.3	8.7
2.004	49.67	6.64	60.855	0.095	0.0	0.0	0.0	1.21	342.4	12.8
1.001	49.23	6.78	60.830	0.151	0.0	0.0	0.0	1.21	342.5	20.1
1.002	48.83	6.90	60.805	0.162	0.0	0.0	0.0	1.20	338.8	21.4
4.000	50.00	5.35	62.550	0.013	0.0	0.0	0.0	0.77	6.0	1.8
4.001	50.00	5.36	62.339	0.029	0.0	0.0	0.0	5.08	89.7	3.9

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Network Design Table for 7588 SW01.SWS

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
1.003	6.709	0.039	172.0	0.000	0.00	0.0	0.600	o	600	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)
1.003	48.65	6.96	60.783	0.191	0.0	0.0	0.0	1.85	524.1	25.2

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Manhole Schedules for 7588 SW01.SWS

MH Name	MH CL (m)	MH Depth (m)	MH Connection	MH Diam., L*W (mm)	Pipe Out PN	Pipe Out Invert Level (m)	Pipe Out Diameter (mm)	Pipes In PN	Pipes In Invert Level (m)	Pipes In Diameter (mm)	Backdrop (mm)
1	63.075	2.200	Open Manhole	1500	1.000	60.875	600				
2	63.250	0.450	Junction		2.000	62.800	100				
3	63.250	0.870	Open Manhole	450	2.001	62.380	100	2.000	62.380	100	
4	63.250	0.975	Open Manhole	450	2.002	62.275	150	2.001	62.325	100	
5	63.250	0.450	Junction		3.000	62.800	100				
6	63.120	1.016	Open Manhole	450	2.003	62.104	225	2.002	62.179	150	
								3.000	62.229	100	
7	63.150	2.295	Open Manhole	1500	2.004	60.855	600	2.003	62.034	225	804
8	63.075	2.245	Open Manhole	1500	1.001	60.830	600	1.000	60.830	600	
								2.004	60.830	600	
9	63.075	2.270	Open Manhole	1500	1.002	60.805	600	1.001	60.805	600	
10	63.250	0.700	Junction		4.000	62.550	100				
11	63.250	0.911	Open Manhole	450	4.001	62.339	150	4.000	62.389	100	
12	63.075	2.292	Open Manhole	1500	1.003	60.783	600	1.002	60.783	600	
								4.001	61.146	150	
C1	63.075	2.331	Open Manhole	0		OUTFALL		1.003	60.744	600	

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
1	388217.596	396136.411	388217.596	396136.411	Required	
2	388187.346	396070.663			No Entry	
3	388175.207	396111.085	388175.207	396111.085	Required	
4	388178.697	396115.564	388178.697	396115.564	Required	
5	388194.973	396111.991			No Entry	
6	388192.566	396119.697	388192.566	396119.697	Required	
7	388202.817	396122.181	388202.817	396122.181	Required	
8	388212.392	396119.274	388212.392	396119.274	Required	
9	388209.481	396109.707	388209.481	396109.707	Required	



Manhole Schedules for 7588 SW01.SWS

MH Name	Manhole Easting (m)	Manhole Northing (m)	Intersection Easting (m)	Intersection Northing (m)	Manhole Access	Layout (North)
10	388208.500	396080.694			No Entry	
11	388205.586	396096.510	388205.586	396096.510	Required	
12	388206.869	396101.105	388206.869	396101.105	Required	
C1	388213.297	396099.184			No Entry	

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PIPELINE SCHEDULES for 7588 SW01.SWS

Upstream Manhole

PN	Hyd Sect	Diam (mm)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	o	600	1	63.075	60.875	1.600	Open Manhole	1500
2.000	o	100	2	63.250	62.800	0.350	Junction	
2.001	o	100	3	63.250	62.380	0.770	Open Manhole	450
2.002	o	150	4	63.250	62.275	0.825	Open Manhole	450
3.000	o	100	5	63.250	62.800	0.350	Junction	
2.003	o	225	6	63.120	62.104	0.791	Open Manhole	450
2.004	o	600	7	63.150	60.855	1.695	Open Manhole	1500
1.001	o	600	8	63.075	60.830	1.645	Open Manhole	1500
1.002	o	600	9	63.075	60.805	1.670	Open Manhole	1500
4.000	o	100	10	63.250	62.550	0.600	Junction	
4.001	o	150	11	63.250	62.339	0.761	Open Manhole	450
1.003	o	600	12	63.075	60.783	1.692	Open Manhole	1500

Downstream Manhole

PN	Length (m)	Slope (1:X)	MH Name	C.Level (m)	I.Level (m)	D.Depth (m)	MH Connection	MH DIAM., L*W (mm)
1.000	17.909	398.0	8	63.075	60.830	1.645	Open Manhole	1500
2.000	42.206	100.5	3	63.250	62.380	0.770	Open Manhole	450
2.001	5.678	103.2	4	63.250	62.325	0.825	Open Manhole	450
2.002	14.472	150.0	6	63.120	62.179	0.791	Open Manhole	450
3.000	8.073	14.1	6	63.120	62.229	0.791	Open Manhole	450
2.003	10.548	150.7	7	63.150	62.034	0.891	Open Manhole	1500
2.004	10.007	400.3	8	63.075	60.830	1.645	Open Manhole	1500
1.001	10.000	400.0	9	63.075	60.805	1.670	Open Manhole	1500
1.002	8.990	408.6	12	63.075	60.783	1.692	Open Manhole	1500
4.000	16.082	99.9	11	63.250	62.389	0.761	Open Manhole	450
4.001	4.771	4.0	12	63.075	61.146	1.779	Open Manhole	1500
1.003	6.709	172.0	C1	63.075	60.744	1.731	Open Manhole	0

Free Flowing Outfall Details for 7588 SW01.SWS

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.003	C1	63.075	60.744	0.000	0	0

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Simulation Criteria for 7588 SW01.SWS

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start (mins)	0	Inlet Coefficient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1
Number of Input Hydrographs	0	Number of Offline Controls	0
Number of Online Controls	1	Number of Storage Structures	2
		Number of Time/Area Diagrams	0
		Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	2	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	18.000	Storm Duration (mins)	30
Ratio R	0.314		

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Online Controls for 7588 SW01.SWS

Hydro-Brake® Optimum Manhole: 12, DS/PN: 1.003, Volume (m³): 6.2

Unit Reference	MD-SHE-0089-5000-2300-5000
Design Head (m)	2.300
Design Flow (l/s)	5.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Application	Surface
Sump Available	Yes
Diameter (mm)	89
Invert Level (m)	60.783
Minimum Outlet Pipe Diameter (mm)	150
Suggested Manhole Diameter (mm)	1200

Control Points			Head (m)	Flow (l/s)	Control Points			Head (m)	Flow (l/s)
Design Point (Calculated)			2.300	5.0	Kick-Flo®			0.790	3.1
Flush-Flo™			0.384	3.8	Mean Flow over Head Range			-	3.8

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)	Depth (m)	Flow (l/s)
0.100	2.7	0.800	3.1	2.000	4.7	4.000	6.5	7.000	8.4
0.200	3.6	1.000	3.4	2.200	4.9	4.500	6.8	7.500	8.7
0.300	3.8	1.200	3.7	2.400	5.1	5.000	7.2	8.000	9.0
0.400	3.8	1.400	4.0	2.600	5.3	5.500	7.5	8.500	9.3
0.500	3.8	1.600	4.2	3.000	5.7	6.000	7.8	9.000	9.5
0.600	3.7	1.800	4.5	3.500	6.1	6.500	8.1	9.500	9.8

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Storage Structures for 7588 SW01.SWS

Porous Car Park Manhole: 8, DS/PN: 1.001

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	4.7
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	13.1	Slope (1:X)	0.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	62.640	Membrane Depth (mm)	0

Complex Manhole: 12, DS/PN: 1.003

Porous Car Park

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	17.0
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	47.2	Slope (1:X)	0.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	62.540	Membrane Depth (mm)	0

Porous Car Park

Infiltration Coefficient Base (m/hr)	0.00000	Width (m)	8.2
Membrane Percolation (mm/hr)	1000	Length (m)	10.0
Max Percolation (l/s)	22.8	Slope (1:X)	0.0
Safety Factor	2.0	Depression Storage (mm)	5
Porosity	0.30	Evaporation (mm/day)	3
Invert Level (m)	62.640	Membrane Depth (mm)	0

Volume Summary (Static)

Length Calculations based on Centre-Centre

Pipe Number	USMH Name	Manhole Volume (m³)	Pipe Volume (m³)	Storage Structure Volume (m³)	Total Volume (m³)
1.000	1	3.888	5.064	0.000	8.951
2.000	2	0.000	0.331	0.000	0.331
2.001	3	0.138	0.045	0.000	0.183
2.002	4	0.155	0.256	0.000	0.411
3.000	5	0.000	0.063	0.000	0.063
2.003	6	0.162	0.419	0.000	0.581
2.004	7	4.056	2.829	0.000	6.885
1.001	8	3.967	2.827	6.134	12.928
1.002	9	4.011	2.542	0.000	6.553
4.000	10	0.000	0.126	0.000	0.126
4.001	11	0.145	0.084	0.000	0.229
1.003	12	4.050	1.897	37.986	43.933
Total		20.572	16.485	44.120	81.176

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1 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for 7588 SW01.SWS

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
 Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
 Hot Start Level (mm) 0 Inlet Coefficient 0.800
 Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
 Foul Sewage per hectare (l/s) 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 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR M5-60 (mm) 18.000 Cv (Summer) 0.750
 Region England and Wales Ratio R 0.356 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status ON
 DTS Status OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH		Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level	Surcharged Depth	Flooded Volume
	Name	Storm							(m)	(m)	(m ³)
1.000	1 60	Winter	1	+0%	30/15	Summer			61.182	-0.293	0.000
2.000	2 15	Winter	1	+0%					62.865	-0.035	0.000
2.001	3 15	Winter	1	+0%	30/15	Summer			62.450	-0.030	0.000
2.002	4 15	Winter	1	+0%	30/30	Winter			62.344	-0.081	0.000
3.000	5 15	Winter	1	+0%					62.819	-0.081	0.000
2.003	6 15	Winter	1	+0%	30/30	Winter			62.171	-0.157	0.000
2.004	7 60	Winter	1	+0%	30/15	Summer			61.182	-0.273	0.000
1.001	8 60	Winter	1	+0%	30/15	Summer			61.182	-0.248	0.000
1.002	9 60	Winter	1	+0%	30/15	Summer			61.181	-0.224	0.000
4.000	10 15	Winter	1	+0%					62.585	-0.065	0.000
4.001	11 15	Winter	1	+0%	30/60	Winter			62.360	-0.129	0.000
1.003	12 60	Winter	1	+0%	30/15	Summer			61.181	-0.202	0.000

PN	US/MH		Flow / Cap.	Overflow (l/s)	Half Drain Pipe		Level Exceeded
	Name				Time (mins)	Flow (l/s)	
1.000	1	0.01				2.5	OK
2.000	2	0.72				4.3	OK*
2.001	3	0.82				4.3	OK
2.002	4	0.43				5.7	OK
3.000	5	0.08				1.3	OK*
2.003	6	0.20				6.9	OK
2.004	7	0.03				5.5	OK
1.001	8	0.02			32	4.4	OK
1.002	9	0.02				3.5	OK
4.000	10	0.25				1.5	OK*
4.001	11	0.05				3.2	OK
1.003	12	0.01			36	3.8	OK

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30 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for 7588 SW01.SWS

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
 Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
 Hot Start Level (mm) 0 Inlet Coefficient 0.800
 Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
 Foul Sewage per hectare (l/s) 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 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR M5-60 (mm) 18.000 Cv (Summer) 0.750
 Region England and Wales Ratio R 0.356 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status ON
 DTS Status OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 40

									Water	Surcharged	Flooded
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Level (m)	Depth (m)	Volume (m³)
1.000	1	120 Winter	30	+0%	30/15 Summer				62.576	1.101	0.000
2.000	2	15 Summer	30	+0%					62.900	0.000	0.000
2.001	3	120 Winter	30	+0%	30/15 Summer				62.591	0.111	0.000
2.002	4	120 Winter	30	+0%	30/30 Winter				62.584	0.159	0.000
3.000	5	15 Winter	30	+0%					62.830	-0.070	0.000
2.003	6	120 Winter	30	+0%	30/30 Winter				62.578	0.250	0.000
2.004	7	120 Winter	30	+0%	30/15 Summer				62.576	1.121	0.000
1.001	8	120 Winter	30	+0%	30/15 Summer				62.576	1.146	0.000
1.002	9	120 Winter	30	+0%	30/15 Summer				62.575	1.170	0.000
4.000	10	15 Winter	30	+0%					62.608	-0.042	0.000
4.001	11	120 Winter	30	+0%	30/60 Winter				62.576	0.087	0.000
1.003	12	120 Winter	30	+0%	30/15 Summer				62.575	1.192	0.000

				Half Drain Pipe				Level	
PN	US/MH Name	Flow / Cap.	Overflow (l/s)	Time (mins)	Flow (l/s)	Status	Level Exceeded		
1.000	1	0.01			3.6	SURCHARGED			
2.000	2	1.20			7.2	SURCHARGED*			
2.001	3	0.71			3.7	SURCHARGED			
2.002	4	0.39			5.2	SURCHARGED			
3.000	5	0.20			3.2	OK*			
2.003	6	0.18			6.3	SURCHARGED			
2.004	7	0.04			7.9	SURCHARGED			
1.001	8	0.03		116	6.5	SURCHARGED			
1.002	9	0.04			7.0	SURCHARGED			
4.000	10	0.62			3.8	OK*			
4.001	11	0.04			2.9	SURCHARGED			
1.003	12	0.02		84	4.4	SURCHARGED			

Coopers		Page 10
Park House Sandpiper Court Chester CH4 9QU		
Date 01/01/0001	Designed by lworthington	
File 7588 SW06.MDX	Checked by	
Micro Drainage		Network 2020.1.3

100 year Return Period Summary of Critical Results by Maximum Level (Rank 1) for 7588 SW01.SWS

Simulation Criteria

Areal Reduction Factor 1.000 Additional Flow - % of Total Flow 0.000
 Hot Start (mins) 0 MADD Factor * 10m³/ha Storage 2.000
 Hot Start Level (mm) 0 Inlet Coefficient 0.800
 Manhole Headloss Coeff (Global) 0.500 Flow per Person per Day (l/per/day) 0.000
 Foul Sewage per hectare (l/s) 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 2 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR M5-60 (mm) 18.000 Cv (Summer) 0.750
 Region England and Wales Ratio R 0.356 Cv (Winter) 0.840

Margin for Flood Risk Warning (mm) 300.0 DVD Status ON
 Analysis Timestep Fine Inertia Status ON
 DTS Status OFF

Profile(s) Summer and Winter
 Duration(s) (mins) 15, 30, 60, 120, 180, 240, 360, 480, 600, 720, 960, 1440
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 0, 0, 40

PN	US/MH		Return Period	Climate Change	First (X) Surge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Water Level	Surcharged Depth	Flooded Volume
	Name	Storm							(m)	(m)	(m ³)
1.000	1	120 Winter	100	+40%	30/15 Summer				62.985	1.510	0.000
2.000	2	15 Summer	100	+40%					62.900	0.000	0.000
2.001	3	120 Winter	100	+40%	30/15 Summer				63.001	0.521	0.000
2.002	4	120 Winter	100	+40%	30/30 Winter				62.994	0.569	0.000
3.000	5	360 Winter	100	+40%					62.900	0.000	0.000
2.003	6	120 Winter	100	+40%	30/30 Winter				62.988	0.659	0.000
2.004	7	120 Winter	100	+40%	30/15 Summer				62.985	1.530	0.000
1.001	8	120 Winter	100	+40%	30/15 Summer				62.985	1.555	0.000
1.002	9	120 Winter	100	+40%	30/15 Summer				62.984	1.579	0.000
4.000	10	15 Summer	100	+40%					62.650	0.000	0.000
4.001	11	120 Winter	100	+40%	30/60 Winter				62.985	0.496	0.000
1.003	12	120 Winter	100	+40%	30/15 Summer				62.984	1.601	0.000

PN	US/MH		Flow / Cap.	Overflow (l/s)	Half Drain Pipe		Status	Level Exceeded
	Name				Time (mins)	Flow (l/s)		
1.000	1	0.03				8.2	FLOOD RISK	
2.000	2	1.62				9.8	SURCHARGED*	
2.001	3	1.03				5.4	FLOOD RISK	
2.002	4	0.58				7.7	FLOOD RISK	
3.000	5	0.06				0.9	SURCHARGED*	
2.003	6	0.27				9.5	FLOOD RISK	
2.004	7	0.08				14.4	FLOOD RISK	
1.001	8	0.11				19.7	FLOOD RISK	
1.002	9	0.12				21.4	FLOOD RISK	
4.000	10	1.04				6.3	SURCHARGED*	
4.001	11	0.07				4.6	FLOOD RISK	
1.003	12	0.02			100	4.9	FLOOD RISK	