

Hampshire County Council		Page 1
DataCentre, Room 348, QE11 Court The Castle, Winchester Hampshire, SO23 8UJ		
Date 03/11/2025 10:46	Designed by GF	
File EXISTING RUNOFF CALCS.MDX	Checked by DR	
Innovyze	Network 2020.1.3	

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm Network 2

Pipe Sizes STANDARD Manhole Sizes STANDARD

FEH Rainfall Model

Return Period (years)	100
FEH Rainfall Version	2013
Site Location GB 471702 106641 SU 71702 06641	
Data Type	Point
Maximum Rainfall (mm/hr)	50
Maximum Time of Concentration (mins)	30
Foul Sewage (l/s/ha)	0.000
Volumetric Runoff Coeff.	0.750
PIMP (%)	100
Add Flow / Climate Change (%)	0
Minimum Backdrop Height (m)	0.200
Maximum Backdrop Height (m)	1.500
Min Design Depth for Optimisation (m)	1.200
Min Vel for Auto Design only (m/s)	1.00
Min Slope for Optimisation (1:X)	500

Designed with Level Soffits

Time Area Diagram for Storm Network 2

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.011	4-8	0.003

Total Area Contributing (ha) = 0.014

Total Pipe Volume (m³) = 0.122

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<u>1 year Return Period Summary of Critical Results by Maximum Outflow (Rank 1) for Storm Network 2</u>																																											
<u>Simulation Criteria</u>																																											
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 Storage Structures		0																																					
Number of Online Controls		0		Number of Time/Area Diagrams		0																																					
Number of Offline Controls		0		Number of Real Time Controls		0																																					
<u>Synthetic Rainfall Details</u>																																											
Rainfall Model		FSR		Ratio R		0.350																																					
Region England and Wales Cv (Summer)		0.750																																									
M5-60 (mm)		19.500		Cv (Winter)		0.840																																					
Margin for Flood Risk Warning (mm)		300.0		DVD Status		OFF																																					
Analysis Timestep		Fine 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)		1, 30, 100																																									
Climate Change (%)		0, 0, 0																																									
<table><tr><th colspan="8"></th><th>Water</th></tr><tr><th>US/MH</th><th>Return Climate</th><th>First (X)</th><th>First (Y)</th><th>First (Z)</th><th>Overflow</th><th>Level</th></tr><tr><th>PN</th><th>Name</th><th>Storm</th><th>Period</th><th>Change</th><th>Surcharge</th><th>Flood</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th>Overflow</th><th>Act.</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th></th><th>(m)</th></tr></table>															Water	US/MH	Return Climate	First (X)	First (Y)	First (Z)	Overflow	Level	PN	Name	Storm	Period	Change	Surcharge	Flood						Overflow	Act.							(m)
								Water																																			
US/MH	Return Climate	First (X)	First (Y)	First (Z)	Overflow	Level																																					
PN	Name	Storm	Period	Change	Surcharge	Flood																																					
					Overflow	Act.																																					
						(m)																																					
S1.000	S1	15 Winter	1	+0%		10.186																																					
S1.001	S2	15 Winter	1	+0%		10.141																																					
<table><tr><th colspan="5">Surcharged Flooded</th><th>Half Drain</th><th>Pipe</th></tr><tr><th>US/MH</th><th>Depth</th><th>Volume</th><th>Flow /</th><th>Overflow</th><th>Time</th><th>Flow</th></tr><tr><th>PN</th><th>Name</th><th>(m)</th><th>(m³)</th><th>Cap.</th><th>(l/s)</th><th>(mins)</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th></th><th>Status</th></tr><tr><th></th><th></th><th></th><th></th><th></th><th></th><th>Exceeded</th></tr></table>							Surcharged Flooded					Half Drain	Pipe	US/MH	Depth	Volume	Flow /	Overflow	Time	Flow	PN	Name	(m)	(m³)	Cap.	(l/s)	(mins)							Status							Exceeded		
Surcharged Flooded					Half Drain	Pipe																																					
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						Status																																					
						Exceeded																																					
S1.000	S1	-0.114	0.000	0.13		1.8	OK																																				
S1.001	S2	-0.109	0.000	0.17		1.8	OK																																				

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