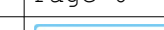


PJS Consulting Engineers Limited		Page 0
Unit 4 Winking Hill Farm Kingston-on-Soar, Nottingham Nottinghamshire NG11 0DP		
Date 19/08/2024 15:15 File Phase 2 Storm 15.05.24.mdx	Designed by thomas.nunn Checked by	
Innovyze	Network 2019.1	

STORM SEWER DESIGN by the Modified Rational Method

Pipe Sizes STANDARD Manhole Sizes STANDARD

Designed with Level Soffits

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	63.704	0.630	101.1	0.129	5.00	0.0	0.600	o	225	Pipe/Conduit	
1.001	31.978	0.480	66.6	0.118	0.00	0.0	0.600	o	225	Pipe/Conduit	
1.002	25.340	1.035	24.5	0.096	0.00	0.0	0.600	o	300	Pipe/Conduit	

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	5.82	115.520	0.129	0.0	0.0	0.0	1.30	51.7	17.5
1.001	48.82	6.15	114.890	0.247	0.0	0.0	0.0	1.60	63.8	32.7
1.002	48.32	6.28	114.335	0.343	0.0	0.0	0.0	3.19	225.5	44.9

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.002	S1	115.055	113.300	0.000	1500	0

PJS Consulting Engineers Limited		Page 1
Unit 4 Winking Hill Farm Kingston-on-Soar, Nottingham Nottinghamshire NG11 0DP		
Date 19/08/2024 15:15 File Phase 2 Storm 15.05.24.mdx	Designed by thomas.nunn Checked by	
Innovyze Network 2019.1		

Simulation Criteria for Surface Network 3

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	0.000
Areal Reduction Factor	1.000	MADD Factor * 10m³/ha Storage	0.000
Hot Start (mins)	0	Inlet Coeffiecient	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 Time/Area Diagrams 0
 Number of Online Controls 0 Number of Storage Structures 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	1	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.600	Storm Duration (mins)	30
Ratio R	0.400		

©1982-2019 Innovyze

PJS Consulting Engineers Limited							Page 2		
Unit 4 Winking Hill Farm Kingston-on-Soar, Nottingham Nottinghamshire NG11 ODP									
Date 19/08/2024 15:15									
File Phase 2 Storm 15.05.24.mdx									
Innovyze					Network 2019.1				
Summary of Critical Results by Maximum Level (Rank 1) for Surface Network 3									
Simulation Criteria									
Areal Reduction Factor			1.000		Additional Flow - % of Total Flow		0.000		
Hot Start (mins)			0		MADD Factor * 10m³/ha Storage		0.000		
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 Online Controls			0		Number of Time/Area Diagrams		0		
Number of Storage Structures			0		Number of Real Time Controls		0		
Synthetic Rainfall Details									
Rainfall Model			FSR		Ratio R		0.400		
Region			England and Wales		Cv (Summer)		0.750		
M5-60 (mm)			19.700		Cv (Winter)		0.840		
Margin for Flood Risk Warning (mm)							450.0		
Analysis Timestep			2.5 Second Increment (Extended)						
DTS Status							ON		
DVD Status							OFF		
Inertia Status							OFF		
Profile(s)							Summer and Winter		
Duration(s) (mins)			15, 30, 60, 120, 240, 360, 480, 960, 1440						
Return Period(s) (years)							30		
Climate Change (%)							0		
Water									
PN	US/MH Name	Storm	Return Period	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Level (m)
1.000	S46	15 Winter	30	+0%	30/15 Winter				115.796
1.001	S47	15 Winter	30	+0%	30/15 Summer				115.378
1.002	S48	15 Winter	30	+0%					114.490
Surcharged Flooded									
PN	US/MH Name	Depth (m)	Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status	Level Exceeded	
1.000	S46	0.051	0.000	0.81		40.3	SURCHARGED		
1.001	S47	0.263	0.000	1.24		74.0	SURCHARGED		
1.002	S48	-0.145	0.000	0.51		103.4	OK		
©1982-2019 Innovyze									