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Surface water Drainage Calculations

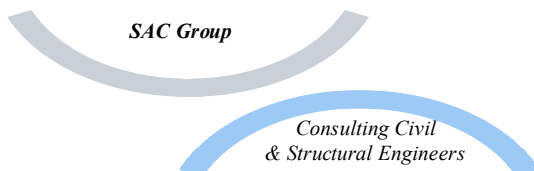
David Mcphearson

**New Development
Abbots Bromley**

Road

Job No. F-088

Feb 16



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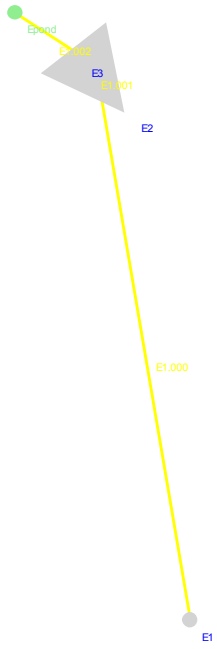
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GENERAL NOTES

The drainage has been modeled using Microdrainage computer software for a 1 in 1 year, 1 in 30 year and a 1 in 100 year storm return period. A 20% climate increase has been included in the calculations.

The design has been undertaken on the principle that water can back up manholes for the 1 in 30 year storm but flooding is not permitted whilst flooding is permitted for a 1 in 100 year storm providing buildings are not affected. In this instance the computer model indicated flooding occurred for any rainfall event.

Soakaways have been adopted on the site. Five soakaway tests were undertaken and the tests results determined a very low infiltration rate in the impermeable clay strata. The soakaways adopted in the design have therefore been used as retention tanks to slow the outflow into the on site pond



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Micro Drainage		Network 2014.1.1

Existing Network Details for Existing

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)
E1.000	33.031	1.000	33.0	0.010	4.00	0.0	0.600	o	150
E1.001	1.866	0.050	37.3	0.000	0.00	0.0	0.600	o	150
E1.002	4.712	1.000	4.7	0.000	0.00	0.0	0.600	o	150

Network Results Table

PN	US/IL E (m)	I.Area (ha)	Σ Base Flow (l/s)	Vel (m/s)	Cap (l/s)
E1.000	8.250	0.010	0.0	1.76	31.1
E1.001	7.250	0.010	0.0	1.65	29.2
E1.002	7.200	0.010	0.0	4.67	82.6

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Manhole Schedules for Existing

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)
E1	8.700	0.450	Open Manhole	450	E1.000	8.250	150				
E2	7.650	0.400	Open Manhole	450	E1.001	7.250	150	E1.000	7.250	150	
E3	7.600	0.400	Open Manhole	450	E1.002	7.200	150	E1.001	7.200	150	
Epond	6.600	0.400	Open Manhole	0		OUTFALL		E1.002	6.200	150	

Stroud Associates Ltd		Page 3
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Micro Drainage		Network 2014.1.1


PIPELINE SCHEDULES for Existing

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)
E1.000	o	150	E1	8.700	8.250	0.300	Open Manhole	450
E1.001	o	150	E2	7.650	7.250	0.250	Open Manhole	450
E1.002	o	150	E3	7.600	7.200	0.250	Open Manhole	450

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)
E1.000	33.031	33.0	E2	7.650	7.250	0.250	Open Manhole	450
E1.001	1.866	37.3	E3	7.600	7.200	0.250	Open Manhole	450
E1.002	4.712	4.7	Epond	6.600	6.200	0.250	Open Manhole	0


Stroud Associates Ltd		Page 4
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Date 08/02/2016 22:18 File road.mdx	Designed by user Checked by	
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Area Summary for Existing

Pipe Number	PIMP Type	PIMP Name	PIMP (%)	Gross Area (ha)	Imp. Area (ha)	Pipe Total (ha)
1.000	-	-	100	0.010	0.010	0.010
1.001	-	-	100	0.000	0.000	0.000
1.002	-	-	100	0.000	0.000	0.000
				Total	Total	Total
				0.010	0.010	0.010

Free Flowing Outfall Details for Existing

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
E1.002	Epond	6.600	6.200	0.000	0	0


Stroud Associates Ltd		Page 5
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File road.mdx	Checked by	
Micro Drainage	Network 2014.1.1	

Storage Structures for Existing

Cellular Storage Manhole: E2, DS/PN: E1.001

Invert Level (m) 5.600 Safety Factor 2.0
 Infiltration Coefficient Base (m/hr) 0.00001 Porosity 0.95
 Infiltration Coefficient Side (m/hr) 0.00001

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	4.0	4.0	2.100	0.0	20.0
2.000	4.0	20.0			

Stroud Associates Ltd		Page 7
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Summary Wizard of 30 minute 1 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	19	8.271	-0.129	0.000	0.05	0.0	1.5	OK	
E1.001	E2	70	5.820	-1.580	0.000	0.00	0.0	0.0	OK	
E1.002	E3	27	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 10
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Summary Wizard of 180 minute 1 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	41	8.263	-0.137	0.000	0.02	0.0	0.5	OK	
E1.001	E2	64	5.990	-1.410	0.000	0.00	0.0	0.0	OK	
E1.002	E3	63	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 14
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Micro Drainage		Network 2014.1.1

Summary Wizard of 600 minute 1 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	63	8.255	-0.145	0.000	0.01	0.0	0.2	OK	
E1.001	E2	53	6.148	-1.252	0.000	0.00	0.0	0.0	OK	
E1.002	E3	49	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 15
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
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Micro Drainage		Network 2014.1.1

Summary Wizard of 720 minute 1 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	65	8.255	-0.145	0.000	0.01	0.0	0.2	OK	
E1.001	E2	52	6.176	-1.224	0.000	0.00	0.0	0.0	OK	
E1.002	E3	54	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 16
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Summary Wizard of 960 minute 1 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	68	8.254	-0.146	0.000	0.01	0.0	0.2	OK	
E1.001	E2	47	6.222	-1.178	0.000	0.00	0.0	0.0	OK	
E1.002	E3	55	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 17
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Micro Drainage		Network 2014.1.1

Summary Wizard of 1440 minute 1 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	71	8.253	-0.147	0.000	0.00	0.0	0.1	OK	
E1.001	E2	44	6.295	-1.105	0.000	0.00	0.0	0.0	OK	
E1.002	E3	52	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 18
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Micro Drainage		Network 2014.1.1

Summary Wizard of 15 minute 30 year Summer I+20% for Existing

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 Coeffiecient 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 1
Number of Online Controls 0 Number of Time/Area Diagrams 0
Number of Offline Controls 0 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	5	8.287	-0.113	0.000	0.14	0.0	4.2	OK	
E1.001	E2	63	6.013	-1.387	0.000	0.00	0.0	0.0	OK	
E1.002	E3	53	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 19
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
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Summary Wizard of 30 minute 30 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	7	8.285	-0.115	0.000	0.12	0.0	3.6	OK	
E1.001	E2	54	6.138	-1.262	0.000	0.00	0.0	0.0	OK	
E1.002	E3	42	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 22
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 180 minute 30 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	22	8.270	-0.130	0.000	0.04	0.0	1.2	OK	
E1.001	E2	36	6.502	-0.898	0.000	0.00	0.0	0.0	OK	
E1.002	E3	41	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 23
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
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Summary Wizard of 240 minute 30 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	26	8.268	-0.132	0.000	0.03	0.0	1.0	OK	
E1.001	E2	34	6.565	-0.835	0.000	0.00	0.0	0.0	OK	
E1.002	E3	46	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 26
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 600 minute 30 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	43	8.262	-0.138	0.000	0.02	0.0	0.5	OK	
E1.001	E2	25	6.787	-0.613	0.000	0.00	0.0	0.0	OK	
E1.002	E3	45	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 27
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 720 minute 30 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	48	8.260	-0.140	0.000	0.01	0.0	0.4	OK	
E1.001	E2	23	6.836	-0.564	0.000	0.00	0.0	0.0	OK	
E1.002	E3	56	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 28
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 960 minute 30 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded		Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / O'flow Cap. (l/s)	Flow (l/s)		
E1.000	E1	52	8.258	-0.142	0.000	0.01	0.0	0.3	OK
E1.001	E2	20	6.917	-0.483	0.000	0.00	0.0	0.0	OK
E1.002	E3	67	7.200	-0.150	0.000	0.00	0.0	0.0	OK

Stroud Associates Ltd		Page 32
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 60 minute 100 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	8	8.284	-0.116	0.000	0.11	0.0	3.4	OK	
E1.001	E2	37	6.483	-0.917	0.000	0.00	0.0	0.0	OK	
E1.002	E3	71	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 35
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 240 minute 100 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	20	8.270	-0.130	0.000	0.04	0.0	1.3	OK	
E1.001	E2	22	6.862	-0.538	0.000	0.00	0.0	0.0	OK	
E1.002	E3	70	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 36
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 360 minute 100 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	28	8.267	-0.133	0.000	0.03	0.0	1.0	OK	
E1.001	E2	17	6.975	-0.425	0.000	0.00	0.0	0.0	OK	
E1.002	E3	59	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 38
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 600 minute 100 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	36	8.265	-0.135	0.000	0.02	0.0	0.6	OK	
E1.001	E2	11	7.132	-0.268	0.000	0.00	0.0	0.0	OK	
E1.002	E3	57	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 40
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 960 minute 100 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	46	8.260	-0.140	0.000	0.01	0.0	0.4	OK	
E1.001	E2	6	7.252	-0.148	0.000	0.00	0.0	0.0	OK	
E1.002	E3	6	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 41
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 1440 minute 100 year Summer I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	57	8.258	-0.142	0.000	0.01	0.0	0.3	OK	
E1.001	E2	5	7.252	-0.148	0.000	0.00	0.0	0.0	OK	
E1.002	E3	5	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 43
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 30 minute 1 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	21	8.270	-0.130	0.000	0.04	0.0	1.3	OK	
E1.001	E2	69	5.847	-1.553	0.000	0.00	0.0	0.0	OK	
E1.002	E3	61	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 44
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 60 minute 1 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded		Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / O'flow Cap. (l/s)	Flow (l/s)		
E1.000	E1	30	8.267	-0.133	0.000	0.03	0.0	0.8	OK
E1.001	E2	67	5.912	-1.488	0.000	0.00	0.0	0.0	OK
E1.002	E3	62	7.200	-0.150	0.000	0.00	0.0	0.0	OK

Stroud Associates Ltd		Page 46
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 180 minute 1 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	50	8.260	-0.140	0.000	0.01	0.0	0.4	OK	
E1.001	E2	61	6.037	-1.363	0.000	0.00	0.0	0.0	OK	
E1.002	E3	18	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 48
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 360 minute 1 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	61	8.256	-0.144	0.000	0.01	0.0	0.2	OK	
E1.001	E2	56	6.134	-1.266	0.000	0.00	0.0	0.0	OK	
E1.002	E3	16	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 49
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 480 minute 1 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	64	8.255	-0.145	0.000	0.01	0.0	0.2	OK	
E1.001	E2	51	6.178	-1.222	0.000	0.00	0.0	0.0	OK	
E1.002	E3	21	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 50
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 600 minute 1 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	67	8.254	-0.146	0.000	0.01	0.0	0.2	OK	
E1.001	E2	48	6.214	-1.186	0.000	0.00	0.0	0.0	OK	
E1.002	E3	22	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 51
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 720 minute 1 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	69	8.254	-0.146	0.000	0.00	0.0	0.1	OK	
E1.001	E2	46	6.245	-1.155	0.000	0.00	0.0	0.0	OK	
E1.002	E3	19	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 53
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 1440 minute 1 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	72	8.252	-0.148	0.000	0.00	0.0	0.1	OK	
E1.001	E2	40	6.377	-1.023	0.000	0.00	0.0	0.0	OK	
E1.002	E3	9	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 54
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 15 minute 30 year Winter I+20% for Existing

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

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	4	8.287	-0.113	0.000	0.14	0.0	4.2	OK	
E1.001	E2	60	6.063	-1.337	0.000	0.00	0.0	0.0	OK	
E1.002	E3	10	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

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Summary Wizard of 30 minute 30 year Winter I+20% for Existing

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 Coeffiecient 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 1
 Number of Online Controls 0 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.200 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
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap. (l/s)	O'flow (l/s)	Flow (l/s)		
E1.000	E1	9	8.282	-0.118	0.000	0.10	0.0	3.1	OK	
E1.001	E2	49	6.204	-1.196	0.000	0.00	0.0	0.0	OK	
E1.002	E3	7	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

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Suffolk IP9 1DB



Date 08/02/2016 22:18
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Summary Wizard of 60 minute 30 year Winter I+20% for Existing

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000	
Hot Start (mins)	0	MADD Factor * 10m ³ /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	1	
Number of Online Controls	0	Number of Time/Area Diagrams	0	
Number of Offline Controls	0	Number of Real Time Controls	0	

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.398	
Region England and Wales	Cv (Summer)	0.750		
M5-60 (mm)	19.200	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
Return Period(s) (years)			1, 30, 100
Climate Change (%)			20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap. (l/s)	O'flow (l/s)	Flow (l/s)		
E1.000	E1	13	8.276	-0.124	0.000	0.07	0.0	2.0	OK	
E1.001	E2	41	6.353	-1.047	0.000	0.00	0.0	0.0	OK	
E1.002	E3	8	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

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Date 08/02/2016 22:18
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Summary Wizard of 120 minute 30 year Winter I+20% for Existing

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start Level (mm)	0	Inlet Coeffiecient	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	1
Number of Online Controls	0	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.398
Region England and Wales	Cv (Summer)	0.750	
M5-60 (mm)	19.200 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	
Return Period(s) (years)		1, 30, 100	
Climate Change (%)		20, 20, 20	

PN	US/MH		Water		Flooded		Pipe		Status
	Name	Rank	Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / O'flow Cap. (l/s)	Flow (l/s)		
E1.000	E1	23	8.270	-0.130	0.000	0.04	0.0	1.2	OK
E1.001	E2	35	6.512	-0.888	0.000	0.00	0.0	0.0	OK
E1.002	E3	14	7.200	-0.150	0.000	0.00	0.0	0.0	OK

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Date 08/02/2016 22:18
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Summary Wizard of 180 minute 30 year Winter I+20% for Existing

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m ³ /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	1
Number of Online Controls	0	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0


Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.398
Region England and Wales Cv (Summer)			0.750
M5-60 (mm)	19.200	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
Return Period(s) (years)		1, 30, 100
Climate Change (%)		20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap. (l/s)	O'flow (l/s)	Flow (l/s)		
E1.000	E1	29	8.267	-0.133	0.000	0.03	0.0	0.9	OK	
E1.001	E2	32	6.611	-0.789	0.000	0.00	0.0	0.0	OK	
E1.002	E3	11	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 59
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 240 minute 30 year Winter I+20% for Existing

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m ³ /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	1
Number of Online Controls	0	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0


Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.398
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.200	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
Return Period(s) (years)		1, 30, 100
Climate Change (%)		20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap. (l/s)	O'flow (l/s)	Flow (l/s)		
E1.000	E1	32	8.266	-0.134	0.000	0.03	0.0	0.7	OK	
E1.001	E2	29	6.681	-0.719	0.000	0.00	0.0	0.0	OK	
E1.002	E3	12	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 60
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 360 minute 30 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	40	8.263	-0.137	0.000	0.02	0.0	0.5	OK	
E1.001	E2	26	6.785	-0.615	0.000	0.00	0.0	0.0	OK	
E1.002	E3	13	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 61
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 480 minute 30 year Winter I+20% for Existing

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

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	47	8.260	-0.140	0.000	0.01	0.0	0.4	OK	
E1.001	E2	21	6.865	-0.535	0.000	0.00	0.0	0.0	OK	
E1.002	E3	34	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

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Date 08/02/2016 22:18
File road.mdx

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Micro Drainage Network 2014.1.1

Summary Wizard of 600 minute 30 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap. (l/s)	O'flow (l/s)	Flow (l/s)		
E1.000	E1	51	8.259	-0.141	0.000	0.01	0.0	0.4	OK	
E1.001	E2	18	6.930	-0.470	0.000	0.00	0.0	0.0	OK	
E1.002	E3	35	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 63
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 720 minute 30 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	56	8.258	-0.142	0.000	0.01	0.0	0.3	OK	
E1.001	E2	16	6.985	-0.415	0.000	0.00	0.0	0.0	OK	
E1.002	E3	32	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 64
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 960 minute 30 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	59	8.256	-0.144	0.000	0.01	0.0	0.3	OK	
E1.001	E2	12	7.075	-0.325	0.000	0.00	0.0	0.0	OK	
E1.002	E3	33	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 65
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 1440 minute 30 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	66	8.254	-0.146	0.000	0.01	0.0	0.2	OK	
E1.001	E2	8	7.210	-0.190	0.000	0.00	0.0	0.0	OK	
E1.002	E3	38	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 66
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 15 minute 100 year Winter I+20% for Existing

Simulation Criteria


Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m ³ /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	1
Number of Online Controls	0	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.398
Region England and Wales Cv (Summer)			0.750
M5-60 (mm)	19.200	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
Return Period(s) (years)		1, 30, 100
Climate Change (%)		20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap. (l/s)	O'flow (l/s)	Flow (l/s)		
E1.000	E1	1	8.293	-0.107	0.000	0.18	0.0	5.4	OK	
E1.001	E2	50	6.200	-1.200	0.000	0.00	0.0	0.0	OK	
E1.002	E3	39	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 67
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 30 minute 100 year Winter I+20% for Existing

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

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	6	8.287	-0.113	0.000	0.14	0.0	4.1	OK	
E1.001	E2	39	6.389	-1.011	0.000	0.00	0.0	0.0	OK	
E1.002	E3	36	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

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Summary Wizard of 60 minute 100 year Winter I+20% for Existing

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m ³ /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 1
 Number of Online Controls 0 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.398
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.200	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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	20, 20, 20

PN	US/MH		Water		Flooded		Pipe		Status
	Name	Rank	Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap. (l/s)	O'flow (l/s)	Flow (l/s)	
E1.000	E1	10	8.280	-0.120	0.000	0.09	0.0	2.7	OK
E1.001	E2	33	6.589	-0.811	0.000	0.00	0.0	0.0	OK
E1.002	E3	37	7.200	-0.150	0.000	0.00	0.0	0.0	OK

Stroud Associates Ltd		Page 69
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 120 minute 100 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.200 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
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	17	8.272	-0.128	0.000	0.05	0.0	1.6	OK	
E1.001	E2	24	6.799	-0.601	0.000	0.00	0.0	0.0	OK	
E1.002	E3	31	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 70
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 180 minute 100 year Winter I+20% for Existing

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 Coeffiecient 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 1
 Number of Online Controls 0 Number of Time/Area Diagrams 0
 Number of Offline Controls 0 Number of Real Time Controls 0


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
 Region England and Wales Cv (Summer) 0.750
 M5-60 (mm) 19.200 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
 Return Period(s) (years) 1, 30, 100
 Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded		Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m³)	Flow / O'flow Cap. (l/s)	Flow (l/s)		
E1.000	E1	24	8.269	-0.131	0.000	0.04	0.0	1.2	OK
E1.001	E2	19	6.925	-0.475	0.000	0.00	0.0	0.0	OK
E1.002	E3	25	7.200	-0.150	0.000	0.00	0.0	0.0	OK

Stroud Associates Ltd		Page 71
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 240 minute 100 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	27	8.268	-0.132	0.000	0.03	0.0	1.0	OK	
E1.001	E2	15	7.014	-0.386	0.000	0.00	0.0	0.0	OK	
E1.002	E3	26	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 72
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 360 minute 100 year Winter I+20% for Existing

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

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	34	8.266	-0.134	0.000	0.02	0.0	0.7	OK	
E1.001	E2	10	7.140	-0.260	0.000	0.00	0.0	0.0	OK	
E1.002	E3	23	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 73
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 480 minute 100 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	38	8.263	-0.137	0.000	0.02	0.0	0.6	OK	
E1.001	E2	7	7.235	-0.165	0.000	0.00	0.0	0.0	OK	
E1.002	E3	24	7.200	-0.150	0.000	0.00	0.0	0.0	OK	

Stroud Associates Ltd		Page 74
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 600 minute 100 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	44	8.261	-0.139	0.000	0.02	0.0	0.5	OK	
E1.001	E2	3	7.254	-0.146	0.000	0.01	0.0	0.1	OK	
E1.002	E3	3	7.201	-0.149	0.000	0.00	0.0	0.1	OK	

Stroud Associates Ltd		Page 75
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 720 minute 100 year Winter I+20% for Existing

Simulation Criteria

Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	0.000
Hot Start (mins)	0	MADD Factor * 10m ³ /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	1
Number of Online Controls	0	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0


Synthetic Rainfall Details

Rainfall Model	FSR	Ratio R	0.398
Region	England and Wales	Cv (Summer)	0.750
M5-60 (mm)	19.200	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
Return Period(s) (years)	1, 30, 100
Climate Change (%)	20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'd Depth (m)	Volume (m ³)	Flow / Cap. (l/s)	O'flow (l/s)	Flow (l/s)		
E1.000	E1	49	8.260	-0.140	0.000	0.01	0.0	0.4	OK	
E1.001	E2	4	7.254	-0.146	0.000	0.01	0.0	0.1	OK	
E1.002	E3	4	7.201	-0.149	0.000	0.00	0.0	0.1	OK	

Stroud Associates Ltd		Page 76
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage		Network 2014.1.1

Summary Wizard of 960 minute 100 year Winter I+20% for Existing

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


Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	55	8.258	-0.142	0.000	0.01	0.0	0.3	OK	
E1.001	E2	2	7.255	-0.145	0.000	0.01	0.0	0.1	OK	
E1.002	E3	2	7.201	-0.149	0.000	0.00	0.0	0.1	OK	

Stroud Associates Ltd		Page 77
Suite F, Harkstead Hall Barns Harkstead, Ipswich Suffolk IP9 1DB		
Date 08/02/2016 22:18	Designed by user	
File road.mdx	Checked by	
Micro Drainage	Network 2014.1.1	

Summary Wizard of 1440 minute 100 year Winter I+20% for Existing

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

Synthetic Rainfall Details

Rainfall Model FSR Ratio R 0.398
Region England and Wales Cv (Summer) 0.750
M5-60 (mm) 19.200 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
Return Period(s) (years) 1, 30, 100
Climate Change (%) 20, 20, 20

PN	US/MH Name	Rank	Water		Flooded			Pipe		Status
			Level (m)	Surch'ed Depth (m)	Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)		
E1.000	E1	62	8.256	-0.144	0.000	0.01	0.0	0.2	OK	
E1.001	E2	1	7.256	-0.144	0.000	0.01	0.0	0.1	OK	
E1.002	E3	1	7.201	-0.149	0.000	0.00	0.0	0.1	OK	