

Surface Water Drainage Calculation

**For
Twinham,
34 Hurst Road,
Hassocks,
East Sussex,
BN6 9NL**

**Date: December 2025
Project No: 63770 Rev06**

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 15 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.425	-0.085	0.000	0.12	0.0	3.1	OK
1.001	S1	63.695	0.091	0.000	0.85	0.0	6.4	SURCHARGED
2.000	RE2	65.428	-0.082	0.000	0.15	0.0	3.1	OK
2.001	S2	65.034	-0.076	0.000	0.20	0.0	6.6	OK
1.002	S3	63.657	0.103	0.000	1.80	0.0	12.8	SURCHARGED
1.003	S4	63.422	0.062	0.000	0.05	0.0	0.2	SURCHARGED
1.004	RAIN GARDEN	63.210	0.000	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 15 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.424	-0.086	0.000	0.11	0.0	2.9	OK
1.001	S1	63.664	0.059	0.000	0.78	0.0	5.9	SURCHARGED
2.000	RE2	65.427	-0.083	0.000	0.14	0.0	2.9	OK
2.001	S2	65.032	-0.078	0.000	0.19	0.0	6.0	OK
1.002	S3	63.631	0.077	0.000	1.64	0.0	11.7	SURCHARGED
1.003	S4	63.422	0.062	0.000	0.05	0.0	0.2	SURCHARGED
1.004	RAIN GARDEN	63.211	0.001	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 60 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.421	-0.089	0.000	0.08	0.0	2.2	OK
1.001	S1	63.592	-0.013	0.000	0.57	0.0	4.3	OK
2.000	RE2	65.424	-0.086	0.000	0.10	0.0	2.2	OK
2.001	S2	65.027	-0.083	0.000	0.14	0.0	4.4	OK
1.002	S3	63.575	0.021	0.000	1.20	0.0	8.6	SURCHARGED
1.003	S4	63.530	0.170	0.000	0.06	0.0	0.3	SURCHARGED
1.004	RAIN GARDEN	63.338	0.128	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 60 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.417	-0.093	0.000	0.06	0.0	1.6	OK
1.001	S1	63.544	-0.060	0.000	0.42	0.0	3.2	OK
2.000	RE2	65.420	-0.090	0.000	0.08	0.0	1.6	OK
2.001	S2	65.023	-0.087	0.000	0.10	0.0	3.2	OK
1.002	S3	63.532	-0.022	0.000	0.89	0.0	6.3	OK
1.003	S4	63.530	0.170	0.000	0.06	0.0	0.3	SURCHARGED
1.004	RAIN GARDEN	63.338	0.128	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 360 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.412	-0.098	0.000	0.02	0.0	0.7	OK
1.001	S1	63.629	0.025	0.000	0.18	0.0	1.3	SURCHARGED
2.000	RE2	65.413	-0.097	0.000	0.03	0.0	0.7	OK
2.001	S2	65.014	-0.096	0.000	0.04	0.0	1.3	OK
1.002	S3	63.629	0.075	0.000	0.38	0.0	2.7	SURCHARGED
1.003	S4	63.628	0.268	0.000	0.06	0.0	0.3	SURCHARGED
1.004	RAIN GARDEN	63.557	0.347	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 360 minute 100 year winter (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.409	-0.101	0.000	0.02	0.0	0.4	OK
1.001	S1	63.631	0.027	0.000	0.12	0.0	0.9	SURCHARGED
2.000	RE2	65.411	-0.099	0.000	0.02	0.0	0.4	OK
2.001	S2	65.012	-0.098	0.000	0.03	0.0	0.9	OK
1.002	S3	63.630	0.076	0.000	0.25	0.0	1.8	SURCHARGED
1.003	S4	63.630	0.270	0.000	0.06	0.0	0.3	SURCHARGED
1.004	RAIN GARDEN	63.558	0.348	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 480 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.410	-0.100	0.000	0.02	0.0	0.5	OK
1.001	S1	63.642	0.038	0.000	0.14	0.0	1.1	SURCHARGED
2.000	RE2	65.412	-0.098	0.000	0.03	0.0	0.5	OK
2.001	S2	65.013	-0.097	0.000	0.03	0.0	1.1	OK
1.002	S3	63.642	0.088	0.000	0.30	0.0	2.2	SURCHARGED
1.003	S4	63.642	0.282	0.000	0.06	0.0	0.3	SURCHARGED
1.004	RAIN GARDEN	63.576	0.366	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 480 minute 100 year winter (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.407	-0.103	0.000	0.01	0.0	0.4	OK
1.001	S1	63.644	0.040	0.000	0.10	0.0	0.7	SURCHARGED
2.000	RE2	65.409	-0.101	0.000	0.02	0.0	0.4	OK
2.001	S2	65.011	-0.099	0.000	0.02	0.0	0.7	OK
1.002	S3	63.644	0.090	0.000	0.20	0.0	1.4	SURCHARGED
1.003	S4	63.644	0.284	0.000	0.05	0.0	0.3	SURCHARGED
1.004	RAIN GARDEN	63.577	0.367	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 960 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.406	-0.104	0.000	0.01	0.0	0.3	OK
1.001	S1	63.658	0.054	0.000	0.08	0.0	0.6	SURCHARGED
2.000	RE2	65.408	-0.102	0.000	0.02	0.0	0.3	OK
2.001	S2	65.010	-0.100	0.000	0.02	0.0	0.6	OK
1.002	S3	63.658	0.104	0.000	0.18	0.0	1.3	SURCHARGED
1.003	S4	63.658	0.298	0.000	0.05	0.0	0.3	SURCHARGED
1.004	RAIN GARDEN	63.598	0.388	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 960 minute 100 year Winter (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.404	-0.106	0.000	0.01	0.0	0.2	OK
1.001	S1	63.662	0.058	0.000	0.06	0.0	0.4	SURCHARGED
2.000	RE2	65.405	-0.105	0.000	0.01	0.0	0.2	OK
2.001	S2	65.007	-0.103	0.000	0.01	0.0	0.4	OK
1.002	S3	63.662	0.108	0.000	0.12	0.0	0.8	SURCHARGED
1.003	S4	63.662	0.302	0.000	0.04	0.0	0.2	SURCHARGED
1.004	RAIN GARDEN	63.601	0.391	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 1440 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.404	-0.106	0.000	0.01	0.0	0.2	OK
1.001	S1	63.649	0.045	0.000	0.06	0.0	0.5	SURCHARGED
2.000	RE2	65.406	-0.104	0.000	0.01	0.0	0.2	OK
2.001	S2	65.008	-0.102	0.000	0.01	0.0	0.5	OK
1.002	S3	63.649	0.095	0.000	0.13	0.0	0.9	SURCHARGED
1.003	S4	63.648	0.288	0.000	0.05	0.0	0.2	SURCHARGED
1.004	RAIN GARDEN	63.589	0.379	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 1440 minute 100 year winter (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.403	-0.107	0.000	0.01	0.0	0.2	OK
1.001	S1	63.653	0.049	0.000	0.04	0.0	0.3	SURCHARGED
2.000	RE2	65.404	-0.106	0.000	0.01	0.0	0.2	OK
2.001	S2	65.005	-0.105	0.000	0.01	0.0	0.3	OK
1.002	S3	63.653	0.099	0.000	0.09	0.0	0.6	SURCHARGED
1.003	S4	63.653	0.293	0.000	0.04	0.0	0.2	SURCHARGED
1.004	RAIN GARDEN	63.594	0.384	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION...	Checked by	
Elstree Computing Ltd	Network W.12.6	

STORM SEWER DESIGN by the Modified Rational Method

Design Criteria for Storm

Pipe Sizes STANDARD Manhole Sizes STANDARD

FSR Rainfall Model - England and Wales

Return Period (years)	2	Add Flow / Climate Change (%)	45
M5-60 (mm)	20.000	Minimum Backdrop Height (m)	0.000
Ratio R	0.343	Maximum Backdrop Height (m)	0.000
Maximum Rainfall (mm/hr)	50	Min Design Depth for Optimisation (m)	0.000
Foul Sewage (l/s/ha)	0.00	Min Vel for Auto Design only (m/s)	0.76
Volumetric Runoff Coeff.	1.000	Min Slope for Optimisation (1:X)	500
PIMP (%)	100		

Designed with Level Soffits

Time Area Diagram for Storm

Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.014	4-8	0.002

Total Area Contributing (ha) = 0.016

Total Pipe Volume (m³) = 0.381

Network Design Table for Storm

PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	Base Flow (l/s)	k (mm)	HYD SECT	DIA (mm)
1.000	16.200	1.906	8.5	0.004	5.00	0.0	0.600	o	110
1.001	5.000	0.050	100.0	0.004	0.00	0.0	0.600	o	110
2.000	3.600	0.379	9.5	0.004	5.00	0.0	0.600	o	110
2.001	9.200	1.533	6.0	0.004	0.00	0.0	0.600	o	110
1.002	3.600	0.045	80.0	0.000	0.00	0.0	0.600	o	110
1.003	1.000	0.010	100.0	0.000	0.00	0.0	0.600	o	110
1.004	1.500	0.015	100.0	0.000	0.00	0.0	0.600	o	110

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	5.10	65.400	0.004	0.0	0.0	0.3	2.84	27.0	1.0
1.001	50.00	5.20	63.494	0.008	0.0	0.0	0.6	0.82	7.8	2.1
2.000	50.00	5.02	65.400	0.004	0.0	0.0	0.3	2.69	25.5	1.0
2.001	50.00	5.07	65.000	0.008	0.0	0.0	0.6	3.38	32.2	2.1
1.002	50.00	5.26	63.444	0.016	0.0	0.0	1.3	0.92	8.7	4.2
1.003	50.00	5.28	63.250	0.016	0.0	0.0	1.3	0.82	7.8	4.2
1.004	50.00	5.31	63.100	0.016	0.0	0.0	1.3	0.82	7.8	4.2

Dixon Hurst Kemp		Page 2
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Manhole Schedules for Storm

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)	Back (m)
RE1	66.000	0.600	Open Manhole	110	1.000	65.400	110				
S1	64.100	0.606	Open Manhole	600	1.001	63.494	110	1.000	63.494	110	
RE2	66.000	0.600	Open Manhole	110	2.000	65.400	110				
S2	65.650	0.650	Open Manhole	600	2.001	65.000	110	2.000	65.021	110	
S3	64.100	0.656	Open Manhole	600	1.002	63.444	110	1.001	63.444	110	
								2.001	63.467	110	
S4	64.000	0.750	Open Manhole	600	1.003	63.250	110	1.002	63.399	110	
RAIN GARDEN	63.850	0.750	Open Manhole	600	1.004	63.100	110	1.003	63.240	110	
Dummy	63.800	0.715	Open Manhole	600		OUTFALL		1.004	63.085	110	

Dixon Hurst Kemp		Page 3						
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04							
Date Dec 25	Designed by JS							
File COMBINED ATTENUATION...	Checked by							
Elstree Computing Ltd	Network W.12.6							
PIPELINE SCHEDULES for Storm								
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	110	RE1	66.000	65.400	0.490	Open Manhole	110
1.001	o	110	S1	64.100	63.494	0.496	Open Manhole	600
2.000	o	110	RE2	66.000	65.400	0.490	Open Manhole	110
2.001	o	110	S2	65.650	65.000	0.540	Open Manhole	600
1.002	o	110	S3	64.100	63.444	0.546	Open Manhole	600
1.003	o	110	S4	64.000	63.250	0.640	Open Manhole	600
1.004	o	110	RAIN GARDEN	63.850	63.100	0.640	Open Manhole	600
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	16.200	8.5	S1	64.100	63.494	0.496	Open Manhole	600
1.001	5.000	100.0	S3	64.100	63.444	0.546	Open Manhole	600
2.000	3.600	9.5	S2	65.650	65.021	0.519	Open Manhole	600
2.001	9.200	6.0	S3	64.100	63.467	0.523	Open Manhole	600
1.002	3.600	80.0	S4	64.000	63.399	0.491	Open Manhole	600
1.003	1.000	100.0	RAIN GARDEN	63.850	63.240	0.500	Open Manhole	600
1.004	1.500	100.0	Dummy	63.800	63.085	0.605	Open Manhole	600
Free Flowing Outfall Details for Storm								
Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)		
1.004	Dummy	63.800	63.085	63.100	600	0		
Simulation Criteria for Storm								
Volumetric Runoff Coeff	1.000	Foul Sewage per hectare (l/s)	0.000					
Areal Reduction Factor	1.000	Additional Flow - % of Total Flow	45.000					
Hot Start (mins)	0	MADD Factor * 10m³/ha Storage	2.000					
Hot Start Level (mm)	0	Run Time (mins)	2880					
Manhole Headloss Coeff (Global)	0.000	Output Interval (mins)	24					
Number of Input Hydrographs	0	Number of Storage Structures	2					
Number of Online Controls	2	Number of Time/Area Diagrams	0					
Number of Offline Controls	0							
Synthetic Rainfall Details								
Rainfall Model	FSR	Profile Type	Winter					
Return Period (years)	100	Cv (Summer)	1.000					
Region	England and Wales	Cv (Winter)	1.000					
M5-60 (mm)	20.000	Storm Duration (mins)	1440					
Ratio R	0.343							
©1982-2011 Micro Drainage Ltd								

Dixon Hurst Kemp		Page 4
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Online Controls for Storm

Orifice Manhole: S4, DS/PN: 1.003, Volume (m³): 0.2

Diameter (m) 0.017 Discharge Coefficient 0.600 Invert Level (m) 63.250

Depth/Flow Relationship Manhole: RAIN GARDEN, DS/PN: 1.004, Volume (m³): 0.2

Invert Level (m) 63.100

Depth (m) Flow (l/s)

0.750 0.0000

Dixon Hurst Kemp		Page 5
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Storage Structures for Storm

cellular Storage Manhole: S4, DS/PN: 1.003

Invert Level (m) 63.250 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	32.0	32.0	0.500	0.0	46.4
0.400	32.0	46.4			

Infiltration Blanket Manhole: RAIN GARDEN, DS/PN: 1.004

Infiltration Coefficient Base (m/hr) 0.04461 Diameter/Width (m) 1.5
Safety Factor 2.0 Length (m) 9.5
Porosity 0.30 Cap Volume Depth (m) 0.000
Invert Level (m) 63.100

Manhole Headloss for Storm

PN	US/MH Name	US/MH Headloss
1.000	RE1	0.000
1.001	S1	0.000
2.000	RE2	0.000
2.001	S2	0.000
1.002	S3	0.000
1.003	S4	0.000
1.004	RAIN GARDEN	0.000

Dixon Hurst Kemp		Page 6
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 1440 minute 100 year winter (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
 Analysis Timestep Fine Inertia Status OFF
 DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.403	-0.107	0.000	0.01	0.0	0.2	OK
1.001	S1	63.653	0.049	0.000	0.04	0.0	0.3	SURCHARGED
2.000	RE2	65.404	-0.106	0.000	0.01	0.0	0.2	OK
2.001	S2	65.005	-0.105	0.000	0.01	0.0	0.3	OK
1.002	S3	63.653	0.099	0.000	0.09	0.0	0.6	SURCHARGED
1.003	S4	63.653	0.293	0.000	0.04	0.0	0.2	SURCHARGED
1.004	RAIN GARDEN	63.594	0.384	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp			Page 7		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25		Designed by JS			
File COMBINED ATTENUATION...		Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 1.000 US/MH RE1 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
24	65.400	63.494	-0.110	0.0	0.0
48	65.400	63.496	-0.110	0.0	0.0
72	65.400	63.497	-0.110	0.0	0.0
96	65.400	63.497	-0.110	0.0	0.0
120	65.400	63.498	-0.110	0.0	0.0
144	65.401	63.498	-0.109	0.0	0.0
168	65.401	63.498	-0.109	0.0	0.0
192	65.401	63.498	-0.109	0.0	0.0
216	65.401	63.498	-0.109	0.0	0.0
240	65.401	63.498	-0.109	0.0	0.0
264	65.401	63.498	-0.109	0.0	0.0
288	65.401	63.498	-0.109	0.0	0.0
312	65.401	63.498	-0.109	0.0	0.0
336	65.401	63.499	-0.109	0.0	0.0
360	65.401	63.499	-0.109	0.0	0.0
384	65.401	63.500	-0.109	0.0	0.0
408	65.401	63.501	-0.109	0.0	0.0
432	65.401	63.500	-0.109	0.0	0.1
456	65.401	63.502	-0.109	0.0	0.1
480	65.401	63.504	-0.109	0.0	0.1
504	65.402	63.505	-0.108	0.0	0.1
528	65.402	63.505	-0.108	0.0	0.1
552	65.402	63.506	-0.108	0.0	0.1
576	65.402	63.506	-0.108	0.0	0.1
600	65.402	63.507	-0.108	0.0	0.1
624	65.402	63.507	-0.108	0.0	0.1
648	65.403	63.508	-0.107	0.0	0.1
672	65.403	63.508	-0.107	0.0	0.1
696	65.403	63.508	-0.107	0.0	0.2
720	65.403	63.508	-0.107	0.0	0.2
744	65.403	63.508	-0.107	0.0	0.2
768	65.403	63.514	-0.107	0.0	0.2
792	65.403	63.529	-0.107	0.0	0.1
816	65.403	63.546	-0.107	0.0	0.1
840	65.402	63.561	-0.108	0.0	0.1
864	65.402	63.576	-0.108	0.0	0.1
888	65.402	63.589	-0.108	0.0	0.1
912	65.402	63.600	-0.108	0.0	0.1
936	65.402	63.610	-0.108	0.0	0.1
960	65.401	63.618	-0.109	0.0	0.1
984	65.401	63.625	-0.109	0.0	0.1
1008	65.401	63.631	-0.109	0.0	0.1
1032	65.401	63.635	-0.109	0.0	0.1
1056	65.401	63.639	-0.109	0.0	0.0
1080	65.401	63.642	-0.109	0.0	0.0
1104	65.401	63.644	-0.109	0.0	0.0
1128	65.401	63.645	-0.109	0.0	0.0
1152	65.401	63.646	-0.109	0.0	0.0
1176	65.401	63.647	-0.109	0.0	0.0
1200	65.401	63.648	-0.109	0.0	0.0
1224	65.401	63.649	-0.109	0.0	0.0
1248	65.401	63.650	-0.109	0.0	0.0
1272	65.401	63.651	-0.109	0.0	0.0
1296	65.401	63.652	-0.109	0.0	0.0
1320	65.401	63.652	-0.109	0.0	0.0
1344	65.400	63.653	-0.110	0.0	0.0
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp		Page 8			
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04				
Date Dec 25	Designed by JS				
File COMBINED ATTENUATION...	Checked by				
Elstree Computing Ltd	Network W.12.6				
<u>Flows and Levels for Pipe 1.000 US/MH RE1 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
1368	65.400	63.653	-0.110	0.0	0.0
1392	65.400	63.653	-0.110	0.0	0.0
1416	65.400	63.651	-0.110	0.0	0.0
1440	65.400	63.649	-0.110	0.0	0.0
1464	65.400	63.645	-0.110	0.0	0.0
1488	65.400	63.641	-0.110	0.0	0.0
1512	65.400	63.637	-0.110	0.0	0.0
1536	65.400	63.634	-0.110	0.0	0.0
1560	65.400	63.630	-0.110	0.0	0.0
1584	65.400	63.627	-0.110	0.0	0.0
1608	65.400	63.623	-0.110	0.0	0.0
1632	65.400	63.620	-0.110	0.0	0.0
1656	65.400	63.616	-0.110	0.0	0.0
1680	65.400	63.613	-0.110	0.0	0.0
1704	65.400	63.609	-0.110	0.0	0.0
1728	65.400	63.606	-0.110	0.0	0.0
1752	65.400	63.602	-0.110	0.0	0.0
1776	65.400	63.599	-0.110	0.0	0.0
1800	65.400	63.595	-0.110	0.0	0.0
1824	65.400	63.592	-0.110	0.0	0.0
1848	65.400	63.588	-0.110	0.0	0.0
1872	65.400	63.585	-0.110	0.0	0.0
1896	65.400	63.581	-0.110	0.0	0.0
1920	65.400	63.577	-0.110	0.0	0.0
1944	65.400	63.574	-0.110	0.0	0.0
1968	65.400	63.570	-0.110	0.0	0.0
1992	65.400	63.567	-0.110	0.0	0.0
2016	65.400	63.564	-0.110	0.0	0.0
2040	65.400	63.560	-0.110	0.0	0.0
2064	65.400	63.557	-0.110	0.0	0.0
2088	65.400	63.553	-0.110	0.0	0.0
2112	65.400	63.549	-0.110	0.0	0.0
2136	65.400	63.546	-0.110	0.0	0.0
2160	65.400	63.543	-0.110	0.0	0.0
2184	65.400	63.539	-0.110	0.0	0.0
2208	65.400	63.536	-0.110	0.0	0.0
2232	65.400	63.532	-0.110	0.0	0.0
2256	65.400	63.529	-0.110	0.0	0.0
2280	65.400	63.525	-0.110	0.0	0.0
2304	65.400	63.522	-0.110	0.0	0.0
2328	65.400	63.518	-0.110	0.0	0.0
2352	65.400	63.515	-0.110	0.0	0.0
2376	65.400	63.511	-0.110	0.0	0.0
2400	65.400	63.508	-0.110	0.0	0.0
2424	65.400	63.504	-0.110	0.0	0.0
2448	65.400	63.500	-0.110	0.0	0.0
2472	65.400	63.498	-0.110	0.0	0.0
2496	65.400	63.494	-0.110	0.0	0.0
2520	65.400	63.494	-0.110	0.0	0.0
2544	65.400	63.494	-0.110	0.0	0.0
2568	65.400	63.494	-0.110	0.0	0.0
2592	65.400	63.494	-0.110	0.0	0.0
2616	65.400	63.494	-0.110	0.0	0.0
2640	65.400	63.494	-0.110	0.0	0.0
2664	65.400	63.494	-0.110	0.0	0.0
2688	65.400	63.494	-0.110	0.0	0.0
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp		Page 9
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Flows and Levels for Pipe 1.000 US/MH RE1 (Storm)
1440 minute 100 year Winter
Average Rainfall Intensity 3.824 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
2712	65.400	63.494	-0.110	0.0	0.0
2736	65.400	63.494	-0.110	0.0	0.0
2760	65.400	63.494	-0.110	0.0	0.0
2784	65.400	63.494	-0.110	0.0	0.0
2808	65.400	63.494	-0.110	0.0	0.0
2832	65.400	63.494	-0.110	0.0	0.0
2856	65.400	63.494	-0.110	0.0	0.0
2880	65.400	63.494	-0.110	0.0	0.0

Dixon Hurst Kemp			Page 10		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25 File COMBINED ATTENUATION...		Designed by JS Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 1.001 US/MH S1 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
24	63.494	63.445	-0.110	0.0	0.0
48	63.496	63.448	-0.108	0.0	0.0
72	63.497	63.450	-0.107	0.0	0.0
96	63.497	63.451	-0.107	0.0	0.0
120	63.498	63.452	-0.106	0.0	0.1
144	63.498	63.452	-0.106	0.0	0.1
168	63.498	63.452	-0.106	0.0	0.1
192	63.498	63.452	-0.106	0.0	0.1
216	63.498	63.452	-0.106	0.0	0.1
240	63.498	63.452	-0.106	0.0	0.1
264	63.498	63.452	-0.106	0.0	0.1
288	63.498	63.453	-0.106	0.0	0.1
312	63.498	63.453	-0.106	0.0	0.1
336	63.499	63.454	-0.105	0.0	0.1
360	63.499	63.454	-0.105	0.0	0.1
384	63.500	63.455	-0.104	0.0	0.1
408	63.501	63.456	-0.104	0.0	0.1
432	63.500	63.456	-0.104	0.0	0.1
456	63.502	63.457	-0.102	0.0	0.1
480	63.504	63.458	-0.101	0.0	0.1
504	63.505	63.459	-0.099	0.0	0.2
528	63.505	63.460	-0.099	0.0	0.2
552	63.506	63.461	-0.098	0.0	0.2
576	63.506	63.461	-0.098	0.0	0.2
600	63.507	63.462	-0.097	0.0	0.2
624	63.507	63.463	-0.097	0.0	0.3
648	63.508	63.464	-0.097	0.0	0.3
672	63.508	63.465	-0.096	0.0	0.3
696	63.508	63.465	-0.096	0.0	0.3
720	63.508	63.473	-0.096	0.0	0.3
744	63.508	63.491	-0.096	0.0	0.3
768	63.514	63.510	-0.090	0.0	0.3
792	63.529	63.528	-0.075	0.0	0.3
816	63.546	63.545	-0.058	0.0	0.3
840	63.561	63.560	-0.043	0.0	0.2
864	63.576	63.575	-0.028	0.0	0.2
888	63.589	63.588	-0.015	0.0	0.2
912	63.600	63.600	-0.004	0.0	0.2
936	63.610	63.610	0.006	0.0	0.2
960	63.618	63.618	0.014	0.0	0.2
984	63.625	63.625	0.021	0.0	0.1
1008	63.631	63.630	0.027	0.0	0.1
1032	63.635	63.635	0.031	0.0	0.1
1056	63.639	63.639	0.035	0.0	0.1
1080	63.642	63.641	0.037	0.0	0.1
1104	63.644	63.643	0.040	0.0	0.1
1128	63.645	63.645	0.041	0.0	0.1
1152	63.646	63.646	0.042	0.0	0.1
1176	63.647	63.647	0.043	0.0	0.1
1200	63.648	63.648	0.044	0.0	0.1
1224	63.649	63.649	0.045	0.0	0.1
1248	63.650	63.650	0.046	0.0	0.1
1272	63.651	63.651	0.047	0.0	0.1
1296	63.652	63.652	0.048	0.0	0.1
1320	63.652	63.652	0.048	0.0	0.1
1344	63.653	63.653	0.049	0.0	0.1
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp			Page 11		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25		Designed by JS			
File COMBINED ATTENUATION...		Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 1.001 US/MH S1 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
1368	63.653	63.653	0.049	0.0	0.0
1392	63.653	63.653	0.049	0.0	0.0
1416	63.651	63.651	0.047	0.0	0.0
1440	63.649	63.649	0.045	0.0	0.0
1464	63.645	63.645	0.041	0.0	0.0
1488	63.641	63.642	0.037	0.0	0.0
1512	63.637	63.638	0.033	0.0	0.0
1536	63.634	63.634	0.030	0.0	0.0
1560	63.630	63.630	0.026	0.0	0.0
1584	63.627	63.627	0.023	0.0	0.0
1608	63.623	63.623	0.019	0.0	0.0
1632	63.620	63.620	0.016	0.0	0.0
1656	63.616	63.616	0.012	0.0	0.0
1680	63.613	63.613	0.009	0.0	0.0
1704	63.609	63.609	0.005	0.0	0.0
1728	63.606	63.606	0.002	0.0	0.0
1752	63.602	63.602	-0.002	0.0	0.0
1776	63.599	63.599	-0.005	0.0	0.0
1800	63.595	63.595	-0.009	0.0	0.0
1824	63.592	63.592	-0.012	0.0	0.0
1848	63.588	63.588	-0.016	0.0	0.0
1872	63.585	63.585	-0.019	0.0	0.0
1896	63.581	63.581	-0.023	0.0	0.0
1920	63.577	63.578	-0.027	0.0	0.0
1944	63.574	63.574	-0.030	0.0	0.0
1968	63.570	63.571	-0.034	0.0	0.0
1992	63.567	63.567	-0.037	0.0	0.0
2016	63.564	63.564	-0.041	0.0	0.0
2040	63.560	63.560	-0.044	0.0	0.0
2064	63.557	63.557	-0.048	0.0	0.0
2088	63.553	63.553	-0.051	0.0	0.0
2112	63.549	63.550	-0.055	0.0	0.0
2136	63.546	63.546	-0.058	0.0	0.0
2160	63.543	63.543	-0.061	0.0	0.0
2184	63.539	63.539	-0.065	0.0	0.0
2208	63.536	63.536	-0.068	0.0	0.0
2232	63.532	63.532	-0.072	0.0	0.0
2256	63.529	63.529	-0.075	0.0	0.0
2280	63.525	63.525	-0.079	0.0	0.0
2304	63.522	63.522	-0.082	0.0	0.0
2328	63.518	63.518	-0.086	0.0	0.0
2352	63.515	63.515	-0.089	0.0	0.0
2376	63.511	63.511	-0.093	0.0	0.0
2400	63.508	63.508	-0.096	0.0	0.0
2424	63.504	63.504	-0.100	0.0	0.0
2448	63.500	63.501	-0.104	0.0	0.0
2472	63.498	63.497	-0.106	0.0	0.0
2496	63.494	63.494	-0.110	0.0	0.0
2520	63.494	63.490	-0.110	0.0	0.0
2544	63.494	63.487	-0.110	0.0	0.0
2568	63.494	63.483	-0.110	0.0	0.0
2592	63.494	63.480	-0.110	0.0	0.0
2616	63.494	63.476	-0.110	0.0	0.0
2640	63.494	63.473	-0.110	0.0	0.0
2664	63.494	63.469	-0.110	0.0	0.0
2688	63.494	63.466	-0.110	0.0	0.0
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp		Page 12
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Flows and Levels for Pipe 1.001 US/MH S1 (Storm)
1440 minute 100 year Winter
Average Rainfall Intensity 3.824 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
2712	63.494	63.462	-0.110	0.0	0.0
2736	63.494	63.459	-0.110	0.0	0.0
2760	63.494	63.455	-0.110	0.0	0.0
2784	63.494	63.452	-0.110	0.0	0.0
2808	63.494	63.449	-0.110	0.0	0.0
2832	63.494	63.445	-0.110	0.0	0.0
2856	63.494	63.444	-0.110	0.0	0.0
2880	63.494	63.444	-0.110	0.0	0.0

Dixon Hurst Kemp			Page 13		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25		Designed by JS			
File COMBINED ATTENUATION...		Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 2.000 US/MH RE2 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
24	65.400	65.000	-0.110	0.0	0.0
48	65.400	65.000	-0.110	0.0	0.0
72	65.400	65.001	-0.110	0.0	0.0
96	65.401	65.001	-0.109	0.0	0.0
120	65.401	65.001	-0.109	0.0	0.0
144	65.401	65.001	-0.109	0.0	0.0
168	65.401	65.001	-0.109	0.0	0.0
192	65.401	65.001	-0.109	0.0	0.0
216	65.401	65.001	-0.109	0.0	0.0
240	65.401	65.001	-0.109	0.0	0.0
264	65.401	65.001	-0.109	0.0	0.0
288	65.401	65.001	-0.109	0.0	0.0
312	65.401	65.001	-0.109	0.0	0.0
336	65.401	65.001	-0.109	0.0	0.0
360	65.401	65.001	-0.109	0.0	0.0
384	65.401	65.001	-0.109	0.0	0.0
408	65.401	65.002	-0.109	0.0	0.0
432	65.401	65.002	-0.109	0.0	0.1
456	65.402	65.002	-0.108	0.0	0.1
480	65.402	65.002	-0.108	0.0	0.1
504	65.402	65.003	-0.108	0.0	0.1
528	65.402	65.003	-0.108	0.0	0.1
552	65.402	65.003	-0.108	0.0	0.1
576	65.403	65.003	-0.107	0.0	0.1
600	65.403	65.004	-0.107	0.0	0.1
624	65.403	65.004	-0.107	0.0	0.1
648	65.403	65.004	-0.107	0.0	0.1
672	65.404	65.005	-0.106	0.0	0.1
696	65.404	65.005	-0.106	0.0	0.2
720	65.404	65.005	-0.106	0.0	0.2
744	65.404	65.005	-0.106	0.0	0.2
768	65.404	65.005	-0.106	0.0	0.2
792	65.404	65.005	-0.106	0.0	0.1
816	65.403	65.004	-0.107	0.0	0.1
840	65.403	65.004	-0.107	0.0	0.1
864	65.403	65.004	-0.107	0.0	0.1
888	65.403	65.003	-0.107	0.0	0.1
912	65.402	65.003	-0.108	0.0	0.1
936	65.402	65.003	-0.108	0.0	0.1
960	65.402	65.003	-0.108	0.0	0.1
984	65.402	65.002	-0.108	0.0	0.1
1008	65.402	65.002	-0.108	0.0	0.1
1032	65.401	65.002	-0.109	0.0	0.1
1056	65.401	65.002	-0.109	0.0	0.0
1080	65.401	65.001	-0.109	0.0	0.0
1104	65.401	65.001	-0.109	0.0	0.0
1128	65.401	65.001	-0.109	0.0	0.0
1152	65.401	65.001	-0.109	0.0	0.0
1176	65.401	65.001	-0.109	0.0	0.0
1200	65.401	65.001	-0.109	0.0	0.0
1224	65.401	65.001	-0.109	0.0	0.0
1248	65.401	65.001	-0.109	0.0	0.0
1272	65.401	65.001	-0.109	0.0	0.0
1296	65.401	65.001	-0.109	0.0	0.0
1320	65.401	65.001	-0.109	0.0	0.0
1344	65.401	65.001	-0.109	0.0	0.0
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp			Page 14		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25 File COMBINED ATTENUATION...		Designed by JS Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 2.000 US/MH RE2 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
1368	65.401	65.001	-0.109	0.0	0.0
1392	65.400	65.001	-0.110	0.0	0.0
1416	65.400	65.000	-0.110	0.0	0.0
1440	65.400	65.000	-0.110	0.0	0.0
1464	65.400	65.000	-0.110	0.0	0.0
1488	65.400	65.000	-0.110	0.0	0.0
1512	65.400	65.000	-0.110	0.0	0.0
1536	65.400	65.000	-0.110	0.0	0.0
1560	65.400	65.000	-0.110	0.0	0.0
1584	65.400	65.000	-0.110	0.0	0.0
1608	65.400	65.000	-0.110	0.0	0.0
1632	65.400	65.000	-0.110	0.0	0.0
1656	65.400	65.000	-0.110	0.0	0.0
1680	65.400	65.000	-0.110	0.0	0.0
1704	65.400	65.000	-0.110	0.0	0.0
1728	65.400	65.000	-0.110	0.0	0.0
1752	65.400	65.000	-0.110	0.0	0.0
1776	65.400	65.000	-0.110	0.0	0.0
1800	65.400	65.000	-0.110	0.0	0.0
1824	65.400	65.000	-0.110	0.0	0.0
1848	65.400	65.000	-0.110	0.0	0.0
1872	65.400	65.000	-0.110	0.0	0.0
1896	65.400	65.000	-0.110	0.0	0.0
1920	65.400	65.000	-0.110	0.0	0.0
1944	65.400	65.000	-0.110	0.0	0.0
1968	65.400	65.000	-0.110	0.0	0.0
1992	65.400	65.000	-0.110	0.0	0.0
2016	65.400	65.000	-0.110	0.0	0.0
2040	65.400	65.000	-0.110	0.0	0.0
2064	65.400	65.000	-0.110	0.0	0.0
2088	65.400	65.000	-0.110	0.0	0.0
2112	65.400	65.000	-0.110	0.0	0.0
2136	65.400	65.000	-0.110	0.0	0.0
2160	65.400	65.000	-0.110	0.0	0.0
2184	65.400	65.000	-0.110	0.0	0.0
2208	65.400	65.000	-0.110	0.0	0.0
2232	65.400	65.000	-0.110	0.0	0.0
2256	65.400	65.000	-0.110	0.0	0.0
2280	65.400	65.000	-0.110	0.0	0.0
2304	65.400	65.000	-0.110	0.0	0.0
2328	65.400	65.000	-0.110	0.0	0.0
2352	65.400	65.000	-0.110	0.0	0.0
2376	65.400	65.000	-0.110	0.0	0.0
2400	65.400	65.000	-0.110	0.0	0.0
2424	65.400	65.000	-0.110	0.0	0.0
2448	65.400	65.000	-0.110	0.0	0.0
2472	65.400	65.000	-0.110	0.0	0.0
2496	65.400	65.000	-0.110	0.0	0.0
2520	65.400	65.000	-0.110	0.0	0.0
2544	65.400	65.000	-0.110	0.0	0.0
2568	65.400	65.000	-0.110	0.0	0.0
2592	65.400	65.000	-0.110	0.0	0.0
2616	65.400	65.000	-0.110	0.0	0.0
2640	65.400	65.000	-0.110	0.0	0.0
2664	65.400	65.000	-0.110	0.0	0.0
2688	65.400	65.000	-0.110	0.0	0.0
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp		Page 15
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Flows and Levels for Pipe 2.000 US/MH RE2 (Storm)
1440 minute 100 year Winter
Average Rainfall Intensity 3.824 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
2712	65.400	65.000	-0.110	0.0	0.0
2736	65.400	65.000	-0.110	0.0	0.0
2760	65.400	65.000	-0.110	0.0	0.0
2784	65.400	65.000	-0.110	0.0	0.0
2808	65.400	65.000	-0.110	0.0	0.0
2832	65.400	65.000	-0.110	0.0	0.0
2856	65.400	65.000	-0.110	0.0	0.0
2880	65.400	65.000	-0.110	0.0	0.0

Dixon Hurst Kemp			Page 16		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25		Designed by JS			
File COMBINED ATTENUATION...		Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 2.001 US/MH S2 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
24	65.000	63.445	-0.110	0.0	0.0
48	65.000	63.448	-0.110	0.0	0.0
72	65.001	63.450	-0.109	0.0	0.0
96	65.001	63.451	-0.109	0.0	0.0
120	65.001	63.452	-0.109	0.0	0.1
144	65.001	63.452	-0.109	0.0	0.1
168	65.001	63.452	-0.109	0.0	0.1
192	65.001	63.452	-0.109	0.0	0.1
216	65.001	63.452	-0.109	0.0	0.1
240	65.001	63.452	-0.109	0.0	0.1
264	65.001	63.452	-0.109	0.0	0.1
288	65.001	63.453	-0.109	0.0	0.1
312	65.001	63.453	-0.109	0.0	0.1
336	65.001	63.454	-0.109	0.0	0.1
360	65.001	63.454	-0.109	0.0	0.1
384	65.001	63.455	-0.109	0.0	0.1
408	65.002	63.456	-0.108	0.0	0.1
432	65.002	63.456	-0.108	0.0	0.1
456	65.002	63.457	-0.108	0.0	0.1
480	65.002	63.458	-0.108	0.0	0.1
504	65.003	63.459	-0.107	0.0	0.2
528	65.003	63.460	-0.107	0.0	0.2
552	65.003	63.461	-0.107	0.0	0.2
576	65.003	63.461	-0.107	0.0	0.2
600	65.004	63.462	-0.106	0.0	0.2
624	65.004	63.463	-0.106	0.0	0.3
648	65.004	63.464	-0.106	0.0	0.3
672	65.005	63.465	-0.105	0.0	0.3
696	65.005	63.465	-0.105	0.0	0.3
720	65.005	63.473	-0.105	0.0	0.3
744	65.005	63.491	-0.105	0.0	0.3
768	65.005	63.510	-0.105	0.0	0.3
792	65.005	63.528	-0.105	0.0	0.3
816	65.004	63.545	-0.106	0.0	0.3
840	65.004	63.560	-0.106	0.0	0.3
864	65.004	63.575	-0.106	0.0	0.2
888	65.003	63.588	-0.107	0.0	0.2
912	65.003	63.600	-0.107	0.0	0.2
936	65.003	63.610	-0.107	0.0	0.2
960	65.003	63.618	-0.107	0.0	0.2
984	65.002	63.625	-0.108	0.0	0.1
1008	65.002	63.630	-0.108	0.0	0.1
1032	65.002	63.635	-0.108	0.0	0.1
1056	65.002	63.639	-0.108	0.0	0.1
1080	65.001	63.641	-0.109	0.0	0.1
1104	65.001	63.643	-0.109	0.0	0.1
1128	65.001	63.645	-0.109	0.0	0.1
1152	65.001	63.646	-0.109	0.0	0.1
1176	65.001	63.647	-0.109	0.0	0.1
1200	65.001	63.648	-0.109	0.0	0.1
1224	65.001	63.649	-0.109	0.0	0.1
1248	65.001	63.650	-0.109	0.0	0.1
1272	65.001	63.651	-0.109	0.0	0.1
1296	65.001	63.652	-0.109	0.0	0.1
1320	65.001	63.652	-0.109	0.0	0.1
1344	65.001	63.653	-0.109	0.0	0.1
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp		Page 17			
Victoria Court	34 Hurst Road. Hassocks				
22 St Pancras	Surface Water Drainage				
West Sussex PO19 7GD	Design Simulation Rev04				
Date Dec 25	Designed by JS				
File COMBINED ATTENUATION...	Checked by				
Elstree Computing Ltd	Network W.12.6				
<u>Flows and Levels for Pipe 2.001 US/MH S2 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
1368	65.001	63.653	-0.109	0.0	0.0
1392	65.001	63.653	-0.109	0.0	0.0
1416	65.000	63.651	-0.110	0.0	0.0
1440	65.000	63.649	-0.110	0.0	0.0
1464	65.000	63.645	-0.110	0.0	0.0
1488	65.000	63.642	-0.110	0.0	0.0
1512	65.000	63.638	-0.110	0.0	0.0
1536	65.000	63.634	-0.110	0.0	0.0
1560	65.000	63.630	-0.110	0.0	0.0
1584	65.000	63.627	-0.110	0.0	0.0
1608	65.000	63.623	-0.110	0.0	0.0
1632	65.000	63.620	-0.110	0.0	0.0
1656	65.000	63.616	-0.110	0.0	0.0
1680	65.000	63.613	-0.110	0.0	0.0
1704	65.000	63.609	-0.110	0.0	0.0
1728	65.000	63.606	-0.110	0.0	0.0
1752	65.000	63.602	-0.110	0.0	0.0
1776	65.000	63.599	-0.110	0.0	0.0
1800	65.000	63.595	-0.110	0.0	0.0
1824	65.000	63.592	-0.110	0.0	0.0
1848	65.000	63.588	-0.110	0.0	0.0
1872	65.000	63.585	-0.110	0.0	0.0
1896	65.000	63.581	-0.110	0.0	0.0
1920	65.000	63.578	-0.110	0.0	0.0
1944	65.000	63.574	-0.110	0.0	0.0
1968	65.000	63.571	-0.110	0.0	0.0
1992	65.000	63.567	-0.110	0.0	0.0
2016	65.000	63.564	-0.110	0.0	0.0
2040	65.000	63.560	-0.110	0.0	0.0
2064	65.000	63.557	-0.110	0.0	0.0
2088	65.000	63.553	-0.110	0.0	0.0
2112	65.000	63.550	-0.110	0.0	0.0
2136	65.000	63.546	-0.110	0.0	0.0
2160	65.000	63.543	-0.110	0.0	0.0
2184	65.000	63.539	-0.110	0.0	0.0
2208	65.000	63.536	-0.110	0.0	0.0
2232	65.000	63.532	-0.110	0.0	0.0
2256	65.000	63.529	-0.110	0.0	0.0
2280	65.000	63.525	-0.110	0.0	0.0
2304	65.000	63.522	-0.110	0.0	0.0
2328	65.000	63.518	-0.110	0.0	0.0
2352	65.000	63.515	-0.110	0.0	0.0
2376	65.000	63.511	-0.110	0.0	0.0
2400	65.000	63.508	-0.110	0.0	0.0
2424	65.000	63.504	-0.110	0.0	0.0
2448	65.000	63.501	-0.110	0.0	0.0
2472	65.000	63.497	-0.110	0.0	0.0
2496	65.000	63.494	-0.110	0.0	0.0
2520	65.000	63.490	-0.110	0.0	0.0
2544	65.000	63.487	-0.110	0.0	0.0
2568	65.000	63.483	-0.110	0.0	0.0
2592	65.000	63.480	-0.110	0.0	0.0
2616	65.000	63.476	-0.110	0.0	0.0
2640	65.000	63.473	-0.110	0.0	0.0
2664	65.000	63.469	-0.110	0.0	0.0
2688	65.000	63.466	-0.110	0.0	0.0
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp		Page 18
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Flows and Levels for Pipe 2.001 US/MH S2 (Storm)
1440 minute 100 year Winter
Average Rainfall Intensity 3.824 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
2712	65.000	63.462	-0.110	0.0	0.0
2736	65.000	63.459	-0.110	0.0	0.0
2760	65.000	63.455	-0.110	0.0	0.0
2784	65.000	63.452	-0.110	0.0	0.0
2808	65.000	63.449	-0.110	0.0	0.0
2832	65.000	63.445	-0.110	0.0	0.0
2856	65.000	63.444	-0.110	0.0	0.0
2880	65.000	63.444	-0.110	0.0	0.0

Dixon Hurst Kemp			Page 19		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25		Designed by JS			
File COMBINED ATTENUATION...		Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 1.002 US/MH S3 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
24	63.445	63.251	-0.109	0.0	0.0
48	63.448	63.253	-0.106	0.0	0.0
72	63.450	63.255	-0.105	0.0	0.1
96	63.451	63.258	-0.103	0.0	0.1
120	63.452	63.262	-0.103	0.0	0.1
144	63.452	63.265	-0.102	0.0	0.1
168	63.452	63.268	-0.102	0.0	0.1
192	63.452	63.271	-0.102	0.0	0.1
216	63.452	63.273	-0.102	0.0	0.1
240	63.452	63.275	-0.102	0.0	0.1
264	63.452	63.276	-0.102	0.0	0.1
288	63.453	63.278	-0.102	0.0	0.1
312	63.453	63.279	-0.101	0.0	0.1
336	63.454	63.281	-0.100	0.0	0.1
360	63.454	63.283	-0.100	0.0	0.1
384	63.455	63.286	-0.099	0.0	0.2
408	63.456	63.289	-0.098	0.0	0.2
432	63.456	63.293	-0.098	0.0	0.2
456	63.457	63.299	-0.097	0.0	0.2
480	63.458	63.306	-0.096	0.0	0.3
504	63.459	63.314	-0.095	0.0	0.3
528	63.460	63.323	-0.094	0.0	0.3
552	63.461	63.334	-0.094	0.0	0.4
576	63.461	63.348	-0.093	0.0	0.4
600	63.462	63.366	-0.092	0.0	0.5
624	63.463	63.386	-0.091	0.0	0.5
648	63.464	63.407	-0.090	0.0	0.5
672	63.465	63.428	-0.089	0.0	0.6
696	63.465	63.449	-0.089	0.0	0.6
720	63.473	63.470	-0.081	0.0	0.6
744	63.491	63.490	-0.063	0.0	0.6
768	63.510	63.508	-0.044	0.0	0.6
792	63.528	63.526	-0.026	0.0	0.6
816	63.545	63.543	-0.009	0.0	0.5
840	63.560	63.559	0.006	0.0	0.5
864	63.575	63.574	0.021	0.0	0.5
888	63.588	63.587	0.034	0.0	0.4
912	63.600	63.599	0.045	0.0	0.4
936	63.610	63.609	0.055	0.0	0.3
960	63.618	63.617	0.064	0.0	0.3
984	63.625	63.624	0.071	0.0	0.3
1008	63.630	63.630	0.076	0.0	0.2
1032	63.635	63.635	0.081	0.0	0.2
1056	63.639	63.638	0.085	0.0	0.2
1080	63.641	63.641	0.087	0.0	0.2
1104	63.643	63.643	0.089	0.0	0.1
1128	63.645	63.645	0.091	0.0	0.1
1152	63.646	63.646	0.092	0.0	0.1
1176	63.647	63.647	0.093	0.0	0.1
1200	63.648	63.648	0.094	0.0	0.1
1224	63.649	63.649	0.095	0.0	0.1
1248	63.650	63.650	0.096	0.0	0.1
1272	63.651	63.650	0.097	0.0	0.1
1296	63.652	63.651	0.097	0.0	0.1
1320	63.652	63.652	0.098	0.0	0.1
1344	63.653	63.653	0.099	0.0	0.1
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp			Page 20		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25		Designed by JS			
File COMBINED ATTENUATION...		Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 1.002 US/MH S3 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
1368	63.653	63.653	0.099	0.0	0.1
1392	63.653	63.653	0.099	0.0	0.1
1416	63.651	63.651	0.097	0.0	0.1
1440	63.649	63.649	0.095	0.0	0.0
1464	63.645	63.645	0.091	0.0	0.0
1488	63.642	63.641	0.088	0.0	0.0
1512	63.638	63.638	0.083	0.0	0.0
1536	63.634	63.634	0.080	0.0	0.0
1560	63.630	63.630	0.076	0.0	0.0
1584	63.627	63.627	0.073	0.0	0.0
1608	63.623	63.623	0.069	0.0	0.0
1632	63.620	63.620	0.066	0.0	0.0
1656	63.616	63.616	0.062	0.0	0.0
1680	63.613	63.613	0.059	0.0	0.0
1704	63.609	63.609	0.055	0.0	0.0
1728	63.606	63.606	0.052	0.0	0.0
1752	63.602	63.602	0.048	0.0	0.0
1776	63.599	63.599	0.045	0.0	0.0
1800	63.595	63.595	0.041	0.0	0.0
1824	63.592	63.592	0.038	0.0	0.0
1848	63.588	63.588	0.034	0.0	0.0
1872	63.585	63.585	0.031	0.0	0.0
1896	63.581	63.581	0.027	0.0	0.0
1920	63.578	63.578	0.024	0.0	0.0
1944	63.574	63.574	0.020	0.0	0.0
1968	63.571	63.571	0.017	0.0	0.0
1992	63.567	63.567	0.013	0.0	0.0
2016	63.564	63.564	0.010	0.0	0.0
2040	63.560	63.560	0.006	0.0	0.0
2064	63.557	63.557	0.002	0.0	0.0
2088	63.553	63.553	-0.001	0.0	0.0
2112	63.550	63.550	-0.004	0.0	0.0
2136	63.546	63.546	-0.008	0.0	0.0
2160	63.543	63.543	-0.011	0.0	0.0
2184	63.539	63.539	-0.015	0.0	0.0
2208	63.536	63.536	-0.018	0.0	0.0
2232	63.532	63.532	-0.022	0.0	0.0
2256	63.529	63.529	-0.025	0.0	0.0
2280	63.525	63.525	-0.029	0.0	0.0
2304	63.522	63.522	-0.032	0.0	0.0
2328	63.518	63.518	-0.036	0.0	0.0
2352	63.515	63.515	-0.039	0.0	0.0
2376	63.511	63.511	-0.043	0.0	0.0
2400	63.508	63.508	-0.046	0.0	0.0
2424	63.504	63.504	-0.050	0.0	0.0
2448	63.501	63.501	-0.053	0.0	0.0
2472	63.497	63.497	-0.057	0.0	0.0
2496	63.494	63.494	-0.060	0.0	0.0
2520	63.490	63.490	-0.064	0.0	0.0
2544	63.487	63.487	-0.067	0.0	0.0
2568	63.483	63.483	-0.071	0.0	0.0
2592	63.480	63.480	-0.074	0.0	0.0
2616	63.476	63.476	-0.078	0.0	0.0
2640	63.473	63.473	-0.081	0.0	0.0
2664	63.469	63.469	-0.085	0.0	0.0
2688	63.466	63.466	-0.088	0.0	0.0
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp		Page 21
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Flows and Levels for Pipe 1.002 US/MH S3 (Storm)
1440 minute 100 year Winter
Average Rainfall Intensity 3.824 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
2712	63.462	63.462	-0.092	0.0	0.0
2736	63.459	63.459	-0.095	0.0	0.0
2760	63.455	63.455	-0.099	0.0	0.0
2784	63.452	63.452	-0.102	0.0	0.0
2808	63.449	63.448	-0.105	0.0	0.0
2832	63.445	63.444	-0.110	0.0	0.0
2856	63.444	63.441	-0.110	0.0	0.0
2880	63.444	63.437	-0.110	0.0	0.0

Dixon Hurst Kemp			Page 22		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25		Designed by JS			
File COMBINED ATTENUATION...		Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 1.003 US/MH S4 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
24	63.251	63.100	-0.109	0.0	0.0
48	63.253	63.100	-0.107	0.0	0.0
72	63.255	63.101	-0.105	0.0	0.0
96	63.258	63.102	-0.102	0.0	0.0
120	63.262	63.106	-0.098	0.0	0.0
144	63.265	63.111	-0.095	0.0	0.0
168	63.268	63.117	-0.092	0.0	0.0
192	63.271	63.123	-0.089	0.0	0.1
216	63.273	63.129	-0.087	0.0	0.1
240	63.275	63.134	-0.085	0.0	0.1
264	63.276	63.138	-0.084	0.0	0.1
288	63.278	63.142	-0.082	0.0	0.1
312	63.279	63.144	-0.081	0.0	0.1
336	63.281	63.147	-0.079	0.0	0.1
360	63.283	63.149	-0.077	0.0	0.1
384	63.286	63.152	-0.074	0.0	0.1
408	63.289	63.156	-0.071	0.0	0.1
432	63.293	63.162	-0.067	0.0	0.1
456	63.299	63.171	-0.061	0.0	0.1
480	63.306	63.184	-0.054	0.0	0.1
504	63.314	63.199	-0.046	0.0	0.1
528	63.323	63.217	-0.037	0.0	0.1
552	63.334	63.241	-0.026	0.0	0.2
576	63.348	63.253	-0.012	0.0	0.1
600	63.366	63.253	0.006	0.0	0.1
624	63.386	63.251	0.026	0.0	0.1
648	63.407	63.251	0.047	0.0	0.1
672	63.428	63.260	0.068	0.0	0.1
696	63.449	63.279	0.089	0.0	0.2
720	63.470	63.306	0.110	0.0	0.2
744	63.490	63.342	0.130	0.0	0.2
768	63.508	63.376	0.148	0.0	0.2
792	63.526	63.406	0.166	0.0	0.2
816	63.543	63.432	0.183	0.0	0.2
840	63.559	63.454	0.199	0.0	0.2
864	63.574	63.475	0.214	0.0	0.2
888	63.587	63.493	0.227	0.0	0.1
912	63.599	63.509	0.239	0.0	0.1
936	63.609	63.523	0.249	0.0	0.1
960	63.617	63.535	0.257	0.0	0.1
984	63.624	63.545	0.264	0.0	0.1
1008	63.630	63.554	0.270	0.0	0.1
1032	63.635	63.562	0.275	0.0	0.1
1056	63.638	63.568	0.278	0.0	0.1
1080	63.641	63.573	0.281	0.0	0.1
1104	63.643	63.577	0.283	0.0	0.1
1128	63.645	63.580	0.285	0.0	0.1
1152	63.646	63.582	0.286	0.0	0.1
1176	63.647	63.585	0.287	0.0	0.1
1200	63.648	63.586	0.288	0.0	0.1
1224	63.649	63.588	0.289	0.0	0.1
1248	63.650	63.589	0.290	0.0	0.1
1272	63.650	63.590	0.290	0.0	0.1
1296	63.651	63.591	0.291	0.0	0.1
1320	63.652	63.592	0.292	0.0	0.1
1344	63.653	63.593	0.293	0.0	0.1
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp			Page 23		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25		Designed by JS			
File COMBINED ATTENUATION...		Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 1.003 US/MH S4 (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
1368	63.653	63.593	0.293	0.0	0.1
1392	63.653	63.594	0.293	0.0	0.1
1416	63.651	63.594	0.291	0.0	0.1
1440	63.649	63.593	0.289	0.0	0.1
1464	63.645	63.591	0.285	0.0	0.1
1488	63.641	63.589	0.281	0.0	0.1
1512	63.638	63.586	0.278	0.0	0.1
1536	63.634	63.582	0.274	0.0	0.1
1560	63.630	63.579	0.270	0.0	0.1
1584	63.627	63.576	0.267	0.0	0.1
1608	63.623	63.572	0.263	0.0	0.1
1632	63.620	63.569	0.260	0.0	0.1
1656	63.616	63.565	0.256	0.0	0.1
1680	63.613	63.562	0.253	0.0	0.1
1704	63.609	63.558	0.249	0.0	0.1
1728	63.606	63.555	0.246	0.0	0.1
1752	63.602	63.551	0.242	0.0	0.1
1776	63.599	63.548	0.239	0.0	0.1
1800	63.595	63.544	0.235	0.0	0.1
1824	63.592	63.541	0.232	0.0	0.1
1848	63.588	63.537	0.228	0.0	0.1
1872	63.585	63.534	0.225	0.0	0.1
1896	63.581	63.530	0.221	0.0	0.1
1920	63.578	63.527	0.218	0.0	0.1
1944	63.574	63.523	0.214	0.0	0.1
1968	63.571	63.520	0.211	0.0	0.1
1992	63.567	63.516	0.207	0.0	0.1
2016	63.564	63.513	0.204	0.0	0.1
2040	63.560	63.509	0.200	0.0	0.1
2064	63.557	63.506	0.197	0.0	0.1
2088	63.553	63.502	0.193	0.0	0.1
2112	63.550	63.499	0.190	0.0	0.1
2136	63.546	63.495	0.186	0.0	0.1
2160	63.543	63.492	0.183	0.0	0.1
2184	63.539	63.488	0.179	0.0	0.1
2208	63.536	63.485	0.176	0.0	0.1
2232	63.532	63.481	0.172	0.0	0.1
2256	63.529	63.478	0.169	0.0	0.1
2280	63.525	63.474	0.165	0.0	0.1
2304	63.522	63.471	0.162	0.0	0.1
2328	63.518	63.467	0.158	0.0	0.1
2352	63.515	63.464	0.155	0.0	0.1
2376	63.511	63.460	0.151	0.0	0.1
2400	63.508	63.457	0.148	0.0	0.1
2424	63.504	63.453	0.144	0.0	0.1
2448	63.501	63.450	0.141	0.0	0.1
2472	63.497	63.446	0.137	0.0	0.1
2496	63.494	63.443	0.134	0.0	0.1
2520	63.490	63.439	0.130	0.0	0.1
2544	63.487	63.436	0.127	0.0	0.1
2568	63.483	63.432	0.123	0.0	0.1
2592	63.480	63.429	0.120	0.0	0.1
2616	63.476	63.425	0.116	0.0	0.1
2640	63.473	63.422	0.113	0.0	0.1
2664	63.469	63.418	0.109	0.0	0.1
2688	63.466	63.415	0.106	0.0	0.1
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp		Page 24
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Flows and Levels for Pipe 1.003 US/MH S4 (Storm)
1440 minute 100 year Winter
Average Rainfall Intensity 3.824 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
2712	63.462	63.411	0.102	0.0	0.1
2736	63.459	63.408	0.099	0.0	0.1
2760	63.455	63.404	0.095	0.0	0.1
2784	63.452	63.401	0.092	0.0	0.1
2808	63.448	63.397	0.088	0.0	0.1
2832	63.444	63.393	0.084	0.0	0.1
2856	63.441	63.390	0.081	0.0	0.1
2880	63.437	63.386	0.077	0.0	0.1

Dixon Hurst Kemp			Page 25		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25 File COMBINED ATTENUATION...		Designed by JS Checked by			
Elstree Computing Ltd		Network W.12.6			
Flows and Levels for Pipe 1.004 US/MH RAIN GARDEN (Storm) 1440 minute 100 year winter Average Rainfall Intensity 3.824 mm/hr					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
24	63.100	63.096	-0.110	0.0	0.0
48	63.100	63.096	-0.110	0.0	0.0
72	63.101	63.096	-0.109	0.0	0.0
96	63.102	63.096	-0.108	0.0	0.0
120	63.106	63.096	-0.104	0.0	0.0
144	63.111	63.096	-0.099	0.0	0.0
168	63.117	63.096	-0.093	0.0	0.0
192	63.123	63.096	-0.087	0.0	0.0
216	63.129	63.096	-0.081	0.0	0.0
240	63.134	63.096	-0.076	0.0	0.0
264	63.138	63.096	-0.072	0.0	0.0
288	63.142	63.096	-0.068	0.0	0.0
312	63.144	63.096	-0.066	0.0	0.0
336	63.147	63.096	-0.063	0.0	0.0
360	63.149	63.096	-0.061	0.0	0.0
384	63.152	63.096	-0.058	0.0	0.0
408	63.156	63.096	-0.054	0.0	0.0
432	63.162	63.096	-0.048	0.0	0.0
456	63.171	63.096	-0.039	0.0	0.0
480	63.184	63.096	-0.026	0.0	0.0
504	63.199	63.096	-0.011	0.0	0.0
528	63.217	63.096	0.007	0.0	0.0
552	63.241	63.096	0.031	0.0	0.0
576	63.253	63.096	0.043	0.0	0.0
600	63.253	63.096	0.043	0.0	0.0
624	63.251	63.096	0.041	0.0	0.0
648	63.251	63.096	0.041	0.0	0.0
672	63.260	63.096	0.050	0.0	0.0
696	63.279	63.096	0.069	0.0	0.0
720	63.306	63.096	0.096	0.0	0.0
744	63.342	63.096	0.132	0.0	0.0
768	63.376	63.096	0.166	0.0	0.0
792	63.406	63.096	0.196	0.0	0.0
816	63.432	63.096	0.222	0.0	0.0
840	63.454	63.096	0.244	0.0	0.0
864	63.475	63.096	0.265	0.0	0.0
888	63.493	63.096	0.283	0.0	0.0
912	63.509	63.096	0.299	0.0	0.0
936	63.523	63.096	0.313	0.0	0.0
960	63.535	63.096	0.325	0.0	0.0
984	63.545	63.096	0.335	0.0	0.0
1008	63.554	63.096	0.344	0.0	0.0
1032	63.562	63.096	0.352	0.0	0.0
1056	63.568	63.096	0.358	0.0	0.0
1080	63.573	63.096	0.363	0.0	0.0
1104	63.577	63.096	0.367	0.0	0.0
1128	63.580	63.096	0.370	0.0	0.0
1152	63.582	63.096	0.372	0.0	0.0
1176	63.585	63.096	0.375	0.0	0.0
1200	63.586	63.096	0.376	0.0	0.0
1224	63.588	63.096	0.378	0.0	0.0
1248	63.589	63.096	0.379	0.0	0.0
1272	63.590	63.096	0.380	0.0	0.0
1296	63.591	63.096	0.381	0.0	0.0
1320	63.592	63.096	0.382	0.0	0.0
1344	63.593	63.096	0.383	0.0	0.0
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp			Page 26		
Victoria Court 22 St Pancras West Sussex PO19 7GD		34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04			
Date Dec 25 File COMBINED ATTENUATION...		Designed by JS Checked by			
Elstree Computing Ltd		Network W.12.6			
<u>Flows and Levels for Pipe 1.004 US/MH RAIN GARDEN (Storm)</u> <u>1440 minute 100 year winter</u> <u>Average Rainfall Intensity 3.824 mm/hr</u>					
Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
1368	63.593	63.096	0.383	0.0	0.0
1392	63.594	63.096	0.384	0.0	0.0
1416	63.594	63.096	0.384	0.0	0.0
1440	63.593	63.096	0.383	0.0	0.0
1464	63.591	63.096	0.381	0.0	0.0
1488	63.589	63.096	0.379	0.0	0.0
1512	63.586	63.096	0.376	0.0	0.0
1536	63.582	63.096	0.372	0.0	0.0
1560	63.579	63.096	0.369	0.0	0.0
1584	63.576	63.096	0.366	0.0	0.0
1608	63.572	63.096	0.362	0.0	0.0
1632	63.569	63.096	0.359	0.0	0.0
1656	63.565	63.096	0.355	0.0	0.0
1680	63.562	63.096	0.352	0.0	0.0
1704	63.558	63.096	0.348	0.0	0.0
1728	63.555	63.096	0.345	0.0	0.0
1752	63.551	63.096	0.341	0.0	0.0
1776	63.548	63.096	0.338	0.0	0.0
1800	63.544	63.096	0.334	0.0	0.0
1824	63.541	63.096	0.331	0.0	0.0
1848	63.537	63.096	0.327	0.0	0.0
1872	63.534	63.096	0.324	0.0	0.0
1896	63.530	63.096	0.320	0.0	0.0
1920	63.527	63.096	0.317	0.0	0.0
1944	63.523	63.096	0.313	0.0	0.0
1968	63.520	63.096	0.310	0.0	0.0
1992	63.516	63.096	0.306	0.0	0.0
2016	63.513	63.096	0.303	0.0	0.0
2040	63.509	63.096	0.299	0.0	0.0
2064	63.506	63.096	0.296	0.0	0.0
2088	63.502	63.096	0.292	0.0	0.0
2112	63.499	63.096	0.289	0.0	0.0
2136	63.495	63.096	0.285	0.0	0.0
2160	63.492	63.096	0.282	0.0	0.0
2184	63.488	63.096	0.278	0.0	0.0
2208	63.485	63.096	0.275	0.0	0.0
2232	63.481	63.096	0.271	0.0	0.0
2256	63.478	63.096	0.268	0.0	0.0
2280	63.474	63.096	0.264	0.0	0.0
2304	63.471	63.096	0.261	0.0	0.0
2328	63.467	63.096	0.257	0.0	0.0
2352	63.464	63.096	0.254	0.0	0.0
2376	63.460	63.096	0.250	0.0	0.0
2400	63.457	63.096	0.247	0.0	0.0
2424	63.453	63.096	0.243	0.0	0.0
2448	63.450	63.096	0.240	0.0	0.0
2472	63.446	63.096	0.236	0.0	0.0
2496	63.443	63.096	0.233	0.0	0.0
2520	63.439	63.096	0.229	0.0	0.0
2544	63.436	63.096	0.226	0.0	0.0
2568	63.432	63.096	0.222	0.0	0.0
2592	63.429	63.096	0.219	0.0	0.0
2616	63.425	63.096	0.215	0.0	0.0
2640	63.422	63.096	0.212	0.0	0.0
2664	63.418	63.096	0.208	0.0	0.0
2688	63.415	63.096	0.205	0.0	0.0
©1982-2011 Micro Drainage Ltd					

Dixon Hurst Kemp		Page 27
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25 File COMBINED ATTENUATION...	Designed by JS Checked by	
Elstree Computing Ltd	Network W.12.6	

Flows and Levels for Pipe 1.004 US/MH RAIN GARDEN (Storm)
1440 minute 100 year Winter
Average Rainfall Intensity 3.824 mm/hr

Time (mins)	Upstream Level (m)	Downstream Level (m)	Surcharged Depth (m)	Total O/F (l/s)	Pipe Flow (l/s)
2712	63.411	63.096	0.201	0.0	0.0
2736	63.408	63.096	0.198	0.0	0.0
2760	63.404	63.096	0.194	0.0	0.0
2784	63.401	63.096	0.191	0.0	0.0
2808	63.397	63.096	0.187	0.0	0.0
2832	63.393	63.096	0.183	0.0	0.0
2856	63.390	63.096	0.180	0.0	0.0
2880	63.386	63.096	0.176	0.0	0.0

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 2160 minute 100 year Summer (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.403	-0.107	0.000	0.01	0.0	0.2	OK
1.001	S1	63.629	0.025	0.000	0.05	0.0	0.3	SURCHARGED
2.000	RE2	65.404	-0.106	0.000	0.01	0.0	0.2	OK
2.001	S2	65.006	-0.104	0.000	0.01	0.0	0.3	OK
1.002	S3	63.629	0.075	0.000	0.10	0.0	0.7	SURCHARGED
1.003	S4	63.629	0.269	0.000	0.04	0.0	0.2	SURCHARGED
1.004	RAIN GARDEN	63.570	0.360	0.000	0.00	0.0	0.0	SURCHARGED

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road. Hassocks Surface Water Drainage Design Simulation Rev04	
Date Dec 25	Designed by JS	
File COMBINED ATTENUATION ...	Checked by	
Elstree Computing Ltd	Network W.12.6	

Summary of Results for 2160 minute 100 year winter (Storm)

Margin for Flood Risk Warning (mm) 0.0 DVD Status OFF
Analysis Timestep Fine Inertia Status OFF
DTS Status ON

PN	US/MH Name	Water Level (m)	Surcharged Depth (m)	Flooded Volume (m³)	Flow / Cap.	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	RE1	65.402	-0.108	0.000	0.00	0.0	0.1	OK
1.001	S1	63.629	0.025	0.000	0.03	0.0	0.2	SURCHARGED
2.000	RE2	65.403	-0.107	0.000	0.01	0.0	0.1	OK
2.001	S2	65.004	-0.106	0.000	0.01	0.0	0.2	OK
1.002	S3	63.628	0.074	0.000	0.06	0.0	0.5	SURCHARGED
1.003	S4	63.628	0.268	0.000	0.04	0.0	0.2	SURCHARGED
1.004	RAIN GARDEN	63.569	0.359	0.000	0.00	0.0	0.0	SURCHARGED

EXISTING 0.6m x 2.0m DEEP FOUL
SEWER
SILVERD
PIL: 61.20
BSL: 62.00(TBC)
DEPTH: 2.00m

NEW FW CONNECTION INTO
THE EXISTING FW MANHOLE
LEVEL: 63.32
DEPTH: 2.00m

ASSUMED ROUTE OF THE EXISTING FW
RISING MAIN TO BE CONFIRMED ON
SITE BY THE CONTRACTOR PRIOR TO
CONSTRUCTION

THE EXISTING FW RISING MAIN TO
BE MAINTAINED PROTECTED BY THE
CONTRACTOR DURING CONSTRUCTION

RAIN GARDEN
FILLED WITH MAXIMUM 600mm TYPE 3X
IN GEOTEXTILE MEMBRANE WITH 150
COMPOST/SAND AND NATIVE SOIL.

100mm PERFORATED
DISTRIBUTION DRAIN

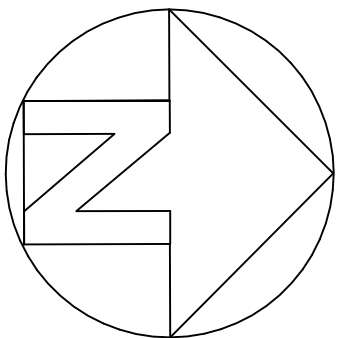
PRIVATE TANK CONTROLLED
DISCHARGE ORAR 0.4 L/S

DUMMY MANHOLE SS NOT TO BE CONSTRUCTED.
THE MANHOLE IS FITTED WITH DEPTH/FLOW
CONTROL IN THE DRAINAGE SIMULATION TO ENSURE
NO WATER ESCAPES THE MANHOLE OUTLET WITH
THE VOLUME OF THE RAIN GARDEN.

ATTENUATION STORAGE TANK
Eas Versa Void Cellular Structure Modules
(600x500x200mm units)
CL 64.10 (TBC)
BOT: 63.25 (TBC)
TONK SIZE 16.0x2.0x0.40m dp
Storage = 12.20 cum

Note: Greater strength units may be required
depending on the design and soil conditions during the
construction period – Contractor to liaise with
manufacturer.

EXISTING FW RISING MAIN TO PRIVATE
DRAINAGE SYSTEM OF THE HW SITE
PROPERTY TO BE MAINTAINED



KEY

- Soil Vent Pipe with Rodding Access
- RWP Rain Water Pipe with Rodding Access
- SS Stub Stack with Air Admission valve
- RE Rodding Eye
- CD Channel Drain
- FW -Existing Private Surface Water Sewer
- SW -Proposed Private Surface Water Sewer
- SW -Proposed Private Perforate Drain
- SW -Existing Public Surface Water Sewer
- FW -Existing Private Foul Water Sewer
- FW -Proposed Private Foul Water Sewer
- FW -Existing Public Foul Water Sewer
- FW -Existing Private Foul Water Pumping Main
- F6 Foul Manhole
- S6 Surface Water Manhole
- EX.FLIC Existing Private Foul Water Manhole
- Existing Private Foul Water Pumping Station
- SW Attenuation Tank
- SW Rain Garden

FOUL WATER MANHOLE SCHEDULE						
M/H REF	APPROX. COVER LEVEL	INVERT LEVEL	DEPTH (M)	M/H TYPE	COVER TYPE	COMMENTS
F1	65.46	64.86	0.60	3	B125	
F2	64.85	64.20	0.65	3	B125	
F3	64.43	63.83	0.60	3	B125	TO EXISTING FW MH IL:63.26
SURFACE WATER MANHOLE SCHEDULE						
M/H REF	APPROX. COVER LEVEL	INVERT LEVEL	DEPTH (M)	M/H TYPE	COVER TYPE	COMMENTS
RE1	66.00	65.40	0.60	RODDING EYE	-	
S1	64.10	63.494	0.606	3	B125	TO ATTENUATION TANK
RE2	66.00	65.40	0.60	RODDING EYE	-	
S2	65.65	65.00	0.65	3	B125	
S3	64.10	63.444	0.656	3A SILT TRAP	B125	TO ATTENUATION TANK
S4	64.00	63.25	0.75	3B 600ø FLOW CONTROL MH	B125	TO RAIN GARDEN

ALL DIMENSIONS AND LEVELS
TO BE CHECKED AND
CONFIRMED BY THE ARCHITECT
PRIOR TO CONSTRUCTION.

In addition to these notes, reference shall be made to the specification of
works and the relevant Architect's and Specialist's drawings and specifications.
The Contractor is responsible for verifying all site dimensions before
commencing works.
All dimensions are in millimetres unless noted otherwise.
This drawing has been produced electronically and may have been photo
reduced or enlarged when printed or copied. Dimensions on this drawing shall
not be used for construction purposes. Any discrepancy between dimensions
errors or omissions are to be reported to the engineer immediately.
Levels are in metres unless noted otherwise to Ordnance Survey datum.
The Contractor is responsible for the stability of the building whilst the works
are in progress.

NOTES

- THIS DRAWING IS BASED ON DRAWING NO. B04.3.24 BY
BELMONT DESIGNS ARCHITECTURE PRACTICE LIMITED.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH
THE FOLLOWING DRAWING:
63770/11 DRAINAGE DETAILS SHEET 1 OF 2
63770/12 DRAINAGE DETAILS SHEET 2 OF 2
- CONTRACTOR IS TO TAKE NECESSARY PRECAUTIONS TO
ENSURE THAT TRENCHES ARE KEPT CLEAR OF GROUND
WATER DURING CONSTRUCTION.
- ALL DRAINAGE WORKS TO BE CARRIED OUT IN
ACCORDANCE WITH 'SEWERS FOR ADOPTION' 7TH
EDITION.
- ALL ADOPTED PIPEWORK TO BE 100% VITRIFIED CLAY
UNLESS NOTED OTHERWISE.
- ALL PIPEWORK THROUGH WALLS TO BE IN
ACCORDANCE WITH THE BUILDING REGULATIONS.
- ALL PIPEWORK UNDER ROADS WITH LESS THAN 900MM
COVER TO HAVE 150MM CONCRETE SURROUND.
- MINIMUM GRADIENT TO DRAINS TO BE 1:40 FOR
110Ø OR 110Ø FW AND 1:100 FOR 110Ø SW.
- ALL ADOPTED PIPEWORK, DRAINAGE LATERALS OR
PIPE CONNECTION TO THE PUBLIC SHALL BE VITRIFIED
CLAY (VC) PIPE MATERIAL TO SOUTHERN WATER
APPROVAL.
- POSITIONS OF MANHOLES SHOWN ON THIS DRAWING
ARE INDICATIVE ONLY. ACTUAL LOCATIONS TO BE
FINALIZED ON SITE.
- PROVIDE CONCRETE LINTELS OVER OPENINGS WHERE
PIPES PASS THROUGH WALLS. ALLOW FOR 150MM
CLEARANCE ALL ROUND PIPE.

REV	DESCRIPTION	DATE	BY
G	ADDED RAIN GARDEN DETAIL	04/12/25JS	
F	ADDED DUMMY MH IN RAIN GARDEN	20/11/25JS	
E	ATTN. TANK /RAIN GRADEN SIZE AND DRAINAGE LEVELS	10/11/25JS	
D	MENDED RAIN GARDEN DEPTH	29/10/25JS	
C	MENDED SW DRAINAGE LAYOUT	04/09/25JS	
B	MENDED SW DRAINAGE LAYOUT	07/08/25JS	
A	MENDED DRAINAGE LAYOUT	05/06/25JS	
O	ORIGINAL ISSUE	30/04/25JS	

DIXON HURST

CONSULTING CIVIL & STRUCTURAL ENGINEERS

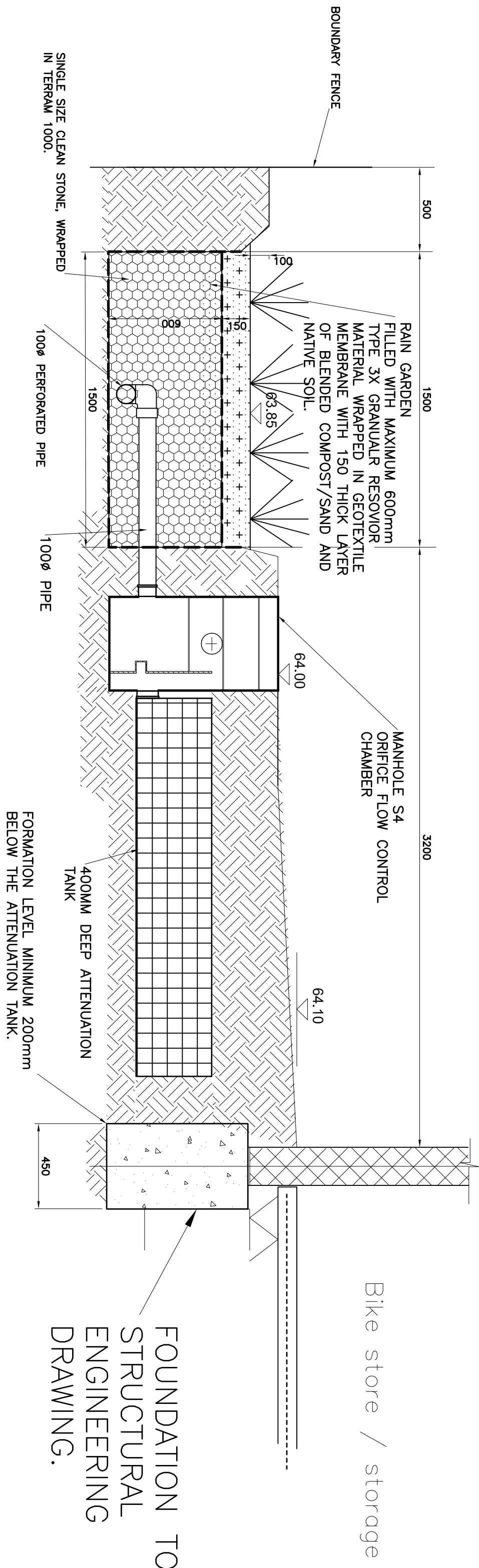
HEDERSHAM HOUSE, 18-22 BOUNDARY ROAD, HOVE, BN3 4EF
T: (01273) 421444 F: (01273) 420008 E: hove@dix.co.uk
www.dix.co.uk

Registered in England No. 348720 - Registered Office 4 Franchise, Totton, Brighton BN1 1AX

CONTRACT
LAND ADJACENT TO TWINHAM
34 HURST ROAD,
HASOCKS, BN6 9NL

DRAWING			DRAWING	
DRAWING NO.	REV	CHECKED	DRAWN	APPROVED
63770 / 10	G			
SCALE 1:125@ A1	DATE JULY 25			
AutoCAD Ref: 63770-10.dwg	JS			

This drawing is produced using AutoCAD. Only written dimensions are to be respected.



SECTION THROUGH ATTENUATION TANK,
FLOW CONTROL AND RAIN GARDEN

SCALE 1:20

ALL DIMENSIONS AND LEVELS
TO BE CHECKED AND
CONFIRMED BY THE ARCHITECT
PRIOR TO CONSTRUCTION.

C	RAIN GARDEN SIZE /DETAIL	04/12/25JS
B	RAIN GARDEN SIZE	10/11/25JS
A	RAIN GARDEN LEVELS	03/11/25JS
0	ORIGINAL ISSUE	04/09/25JS
REV	DESCRIPTION	DATE BY

DIXON HURST

CONSULTING CIVIL & STRUCTURAL ENGINEERS

HEGESHAM HOUSE, 18-22 BOUNDARY ROAD, HOVE, BN3 4EF
T: (01273) 421444 F: (01273) 420008 E: hove@dihk.co.uk
www.dihk.co.uk

Registered in England No. 3438720 – Registered Office 4 Frederick Terrace, Brighton BN1 1XK

CONTRACT
LAND ADJACENT TO TWINHAM
34 HURST ROAD,
HASSOCKS, BN6 9NL

DRAWING			
DRAINAGE DETAILS			
SHEET 2 OF 2			
DRAWING NO.	REV	CHECKED	
63770 / 12	C		
SCALE	DATE	DRAWN	APPROVED
1:200 A1	SEPT 25 JS		
AutoCAD Ref: 63770-10.dwg			

This drawing is produced using AutoCAD. Only written dimensions are to be respected.

In addition to these notes, reference shall be made to the specification of works and the relevant Architect's and Specialist's drawings and specifications. The Contractor is responsible for verifying all site dimensions before commencing work.

All dimensions are in millimetres unless noted otherwise.

This drawing has been produced electronically and may have been photo reduced. Dimensions of work items shall be checked on site. Dimensions shall not be scaled. Work only to be reported to the engineer immediately. Levels are in metres unless noted otherwise to Ordnance Survey datum. The Contractor is responsible for the stability of the building whilst the works are in progress.

NOTES

- THIS DRAWING IS BASED ON DRAWING NO. B04.3.24 BY BELMONT DESIGNS ARCHITECTURE PRACTICE LIMITED.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE FOLLOWING DRAWING:
63770/10 DRAINAGE LAYOUT
63770/11 DRAINAGE DETAIL SHEET 1 OF 2
- CONTRACTOR IS TO TAKE NECESSARY PRECAUTIONS TO ENSURE THAT TRENCHES ARE KEPT CLEAR OF GROUND WATER DURING CONSTRUCTION.
- ALL DRAINAGE WORKS TO BE CARRIED OUT IN ACCORDANCE WITH "SEWERS FOR ADOPTION" 7TH EDITION.
- ALL ADOPTED PIPEWORK TO BE 100% VITRIFIED CLAY UNLESS NOTED OTHERWISE.
- ALL PIPEWORK THROUGH WALLS TO BE IN ACCORDANCE WITH THE BUILDING REGULATIONS.
- ALL PIPEWORK UNDER ROADS WITH LESS THAN 900MM COVER TO HAVE 150MM CONCRETE SURROUND.
- MINIMUM GRADIENT TO DRAINS TO BE 1:40 FOR 1100 OR 1100 FW AND 1:100 FOR 1100 SW.
- ALL ADOPTED PIPEWORK, DRAINAGE LATERALS OR PIPE CONNECTION TO THE PUBLIC SHALL BE VITRIFIED CLAY (VC) PIPE MATERIAL TO SOUTHERN WATER APPROVAL.
- POSITIONS OF MANHOLES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY. ACTUAL LOCATIONS TO BE FINALIZED ON SITE.
- PROVIDE CONCRETE LINTELS OVER OPENINGS WHERE PIPES PASS THROUGH WALLS. ALLOW FOR 150MM CLEARANCE ALL ROUND PIPE.

Dixon Hurst Kemp		Page 1
Victoria Court 22 St Pancras West Sussex PO19 7GD	34 Hurst Road, Hassocks Surface Water Drainage Greenfield Runoff Assessment	
Date Sept 25	Designed by JS	
File TRENCH DESIGN 1 IN 10...	Checked by	
Elstree Computing Ltd	Source Control w.12.6	

ICP SUDS Mean Annual Flood

Input

Return Period (years)	2	Soil	0.450
Area (ha)	0.087	Urban	0.000
SAAR (mm)	800	Region Number	Region 7

Results 1/s

QBAR Rural 0.4
QBAR Urban 0.4

Q2 years 0.4

Q1 year 0.4
Q30 years 1.0
Q100 years 1.4

DIXON HURST CONSULTING CIVIL & STRUCTURAL ENGINEERS	Project:	Twinham, 34 Hurst Road, Lindfield			By:
	Calculation:	Soakaway Design			JS
	Infiltration Rate - Test				Approved:
	Sheet Number:	1	Date:	Oct-25	JS

Infiltration Test (BRE 365)

Weather : Raining

Start Time: 8:00 am (Mon 20th)

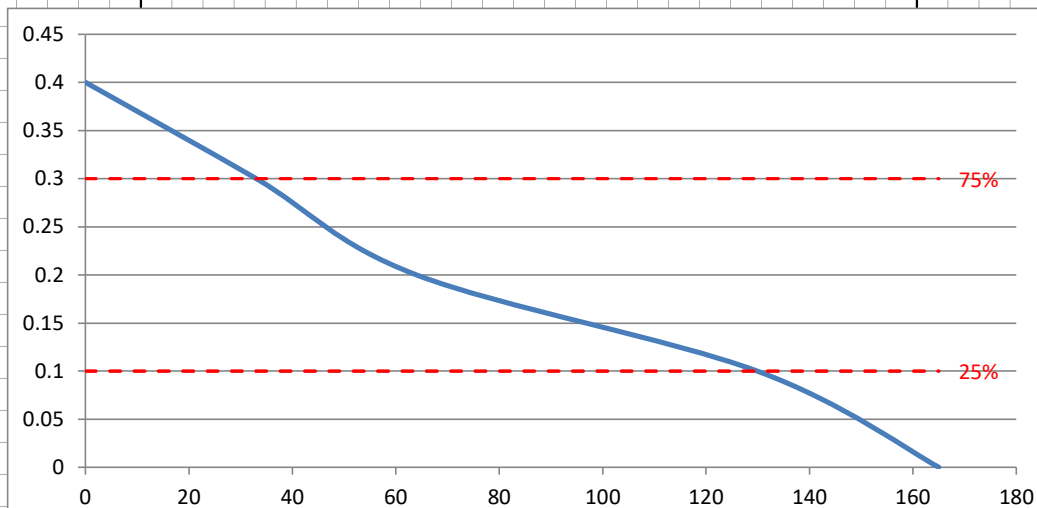
End Time :10:45 am

Trial Pit Details : 0.9 Lx 0.8W x 0.6D

Total Water Depth	0.4	m
Total Pit Length	0.9	m
Total Pit Width	0.8	m

Test Results

	Time (Mins)	Water Level (From Base)
1	0	0.40
2	33	0.30
3	64	0.20
4	130	0.10
5	165	0.00
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		





Project:	Twinham, 34 Hurst Road, Lindfield			By:
Calculation:	Soakaway Design			JS
Infiltration Rate - Test 1				Approved:
Sheet Number:	2	Date:	Oct-25	JS

Results

Time to reach 75% depth: 33.0 mins
Time to reach 25% depth: 130.0 mins

Soil Infiltration Rate: **1.7673E-05** m/s

0.063622975 m/hr

Project:	Twinham, 34 Hurst Road, Lindfield			By:
Calculation:	Soakaway Design			JS
Infiltration Rate - Test 2				Approved:
Sheet Number:	1	Date:	Oct-25	JS

Infiltration Test (BRE 365)

Weather : Raining

Start Time: 10:55 (Mon 20th)

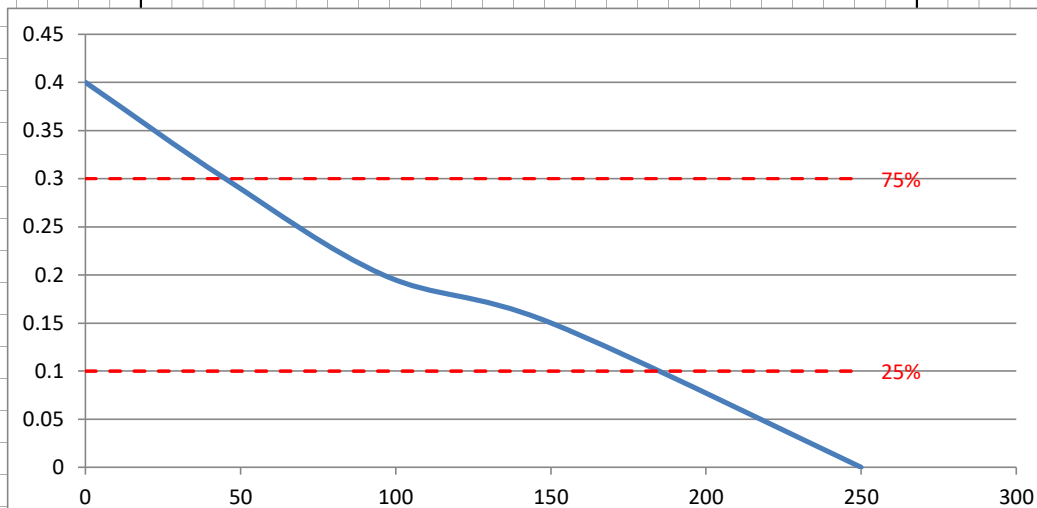
End Time :15:05 am

Trial Pit Details : 0.9 Lx 0.8W x 0.6D

Total Water Depth	0.4	m
Total Pit Length	0.9	m
Total Pit Width	0.8	m

Test Results

	Time (Mins)	Water Level (From Base)
1	0	0.40
2	45	0.30
3	96	0.20
4	150	0.15
5	250	0.00
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		





Project:	Twinham, 34 Hurst Road, Lindfield			By:
Calculation:	Soakaway Design			JS
Infiltration Rate - Test 2				Approved:
Sheet Number:	2	Date:	Oct-25	JS

Results

Time to reach 75% depth: 45.0 mins
Time to reach 25% depth: 183.3 mins

Soil Infiltration Rate: **1.23924E-05** m/s

0.044612737 m/hr

 CONSULTING CIVIL & STRUCTURAL ENGINEERS	Project:	Land Next to Lansdowne Road, Worthing	By:
	Calculation:	Soakaway Design	JS
	Infiltration Rate - Test 3		Approved:
Sheet Number:	1	Date:	Oct-25 JS

Infiltration Test (BRE 365)

Weather : Light Drizzle

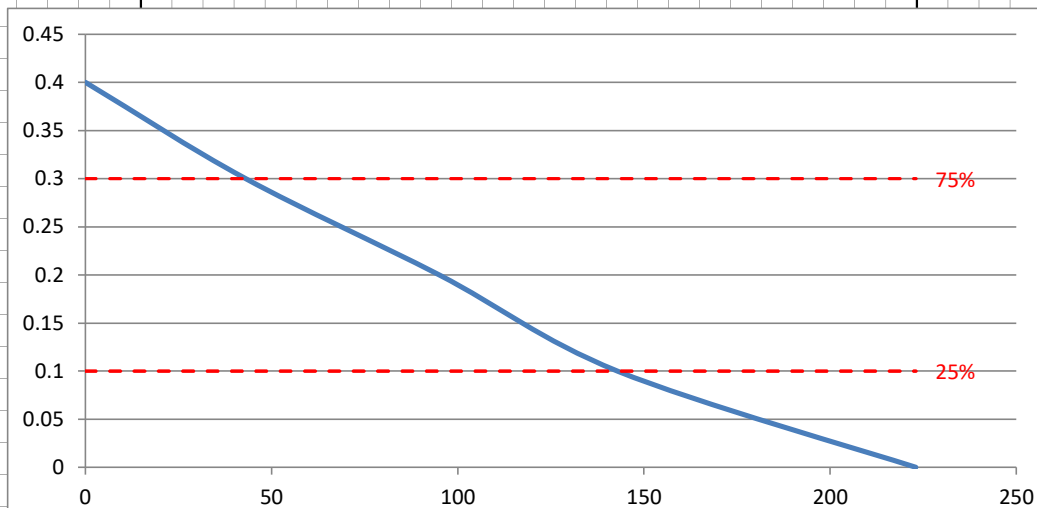
Start Time : 9:15 (Tue 21st)

End Time : 12:58 am

Trial Pit Details : 0.9 Lx 0.8W x 0.6D

Total Water Depth	0.4	m
Total Pit Length	0.9	m
Total Pit Width	0.8	m

Test Results		
	Time (Mins)	Water Level (From Base)
1	0	0.40
2	43	0.30
3	95	0.20
4	143	0.10
5	223	0.00
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		



DIXON HURST CONSULTING CIVIL & STRUCTURAL ENGINEERS	Project:	Land Next to Lansdowne Road, Worthing		By:	
	Calculation:	Soakaway Design			JS
	Infiltration Rate - Test 3				Approved:
	Sheet Number:	2	Date:	21/10/2025	JS
Results Time to reach 75% depth: 43.0 mins Time to reach 25% depth: 143.0 mins Soil Infiltration Rate: 1.71429E-05 m/s 0.061714286 m/hr					

**LAND ADJACENT TO TWINHAM 34 HURST ROAD, HASSOCKS,
EAST SUSSEX, BN6 9NL.
PROPOSED MAINTENANCE & INSPECTION SCHEDULE FOR BELOW GROUND DRAINAGE
(FOUL WATER AND SURFACE WATER) INCLUDING SUSTAINABLE DRAINAGE SYSTEMS (SuDS)**

Item	Required Maintenance/Monitoring	Suggested Frequency	Responsibility
Foul Water Drainage	Check inspection chambers and manholes for damage, condition and function.	Every six months	Property Owner
	Undertake a CCTV drainage survey of the drainage network to establish condition.	Every ten years	Specialist
	Replace or repair malfunctioning parts or structures	As required	Specialist
Surface Water Drainage	Check inspection chambers and manholes for damage, condition and function	Every six months	Property Owner
	Undertake a CCTV drainage survey of the drainage network to establish condition.	Every ten years	Property Owner
	Replace or repair malfunctioning parts or structures.	As required	Specialist
Gullies and Channel Drains	Check gullies and channel drains for damage, condition and function.	Every six months	Property Owner
	Remove sediment, oil/grease, litter and debris.	As necessary	Property Owner
	Replace or repair malfunctioning parts or structures.	As required	Specialist
Surface Water Soakaway	Check silt traps and inspection chambers, and note the rate of sediment accumulation.	Every month for the first year and then annually, or as conditions require	Property Owner
	Undertake a CCTV drainage survey of tanks and soakaway chambers. Note sediment build up and remove sediment/debris if present.	Every five years, or as conditions require	Specialist
Petrol Interceptor	Inspection in accordance with manufacturer's requirements.	Every six months	Specialist
	Full service and general inspection with separator system emptied.	Every 5 years	
Permeable Block Paving	Sweep clean of debris and inspect integrity of bedding grit. Replace bedding grit locally if required.	Every six months	Property Owner
	Lift blocks and remove bedding grit and replace and re-bed paving.	Full bedding replacement currently recommended by manufacturers every 20 years	Specialist
Bioretention areas	Inspect infiltration surfaces for silting and ponding, record drain down time to monitor performance.	Quarterly	Property Owner

**LAND ADJACENT TO TWINHAM 34 HURST ROAD, HASSOCKS,
EAST SUSSEX, BN6 9NL.
PROPOSED MAINTENANCE & INSPECTION SCHEDULE FOR BELOW GROUND DRAINAGE
(FOUL WATER AND SURFACE WATER) INCLUDING SUSTAINABLE DRAINAGE SYSTEMS (SuDS)**

General	Check underdrains are free flowing and inlets/outlets are blockage free.	Quarterly	Property Owner
	Assess plants for health and invasive weed growth replace/remove as necessary.	Quarterly	Property Owner
	Remove litter and general detritus.	Quarterly and after heavy storms	Property Owner
	Remove and replace filter medium and vegetation	As required – SuDS Manual recommends every 20 years	Specialist
	Remove sediment, litter, debris and vegetation from the surface of pathways areas	As necessary and after heavy rainfall	Property Owner
Flood Flow Routes	Ensure flood flow routes are not obstructed (i.e. lower lying portions of the land that will direct surface water runoff away from vulnerable assets in the event of drainage failure).	Every six months and during periods of heavy rainfall	Property Owner

NOTES

The property owners will be responsible for the implementation of the maintenance schedule for below ground drainage or appoint appropriate persons and/or sub-consultants that are qualified to undertake these operations.

Maintenance is to be carried out by the property owners or by a specialist contractor, as noted in Responsibility column above.

This maintenance schedule has been produced with reference to the guidelines outlined in 'The SuDS Manual' (CIRIA C753: 2015). The suggested frequency of maintenance is considered a guide, and should not replace the guidance from manufacturers of proprietary systems.

Refer to Engineering drawings for location and details of below ground drainage assets and SuDS features.