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Cedar Barn White Lodge Walgrave Northampton NN6 9PY	Highover Farm, Walsworth Surface Water 1 in 100 Year + 40% CC FEH	
Date 31/07/2026 16:40 File Drainage Network1.MDX	Designed by SWF Checked by	
XP Solutions Network 2020.1.3		

Simulation Criteria for Storm

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

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

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	2	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	20.000	Storm Duration (mins)	30
Ratio R	0.450		

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Summary of Critical Results by Maximum Level (Rank 1) for Storm

PN	US/MH Name	Flooded		Half Drain		Pipe		Level Exceeded
		Volume (m³)	Flow / Cap.	Overflow (l/s)	Time (mins)	Flow (l/s)	Status	
S1.000	SA1	0.000	0.01			0.7	OK	
S1.001	SA2	0.000	0.01			1.5	OK	
S1.002	SA3	0.000	0.01			2.2	OK	
S1.003	SA4	0.000	0.02			3.0	OK	
S1.004	SA5	0.000	0.02			3.7	OK	
S2.000	SA6	0.000	0.01			0.7	OK	
S2.001	SA7	0.000	0.02			1.5	OK	
S3.000	SA8	0.000	0.01			0.7	OK	
S2.002	SA9	0.000	0.03			2.9	OK	
S2.003	SA10	0.000	0.01			3.6	OK	
S4.000	SA11	0.000	0.02			0.7	OK	

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Summary of Critical Results by Maximum Level (Rank 1) for Storm

										Water	Surcharged
PN	US/MH Name	Storm	Climate Change	First (X) Surcharge	First (Y) Flood	First (Z) Overflow	Overflow Act.	Level (m)	Depth (m)		
S1.005	SA12	60 Summer	+40%					67.138	-0.392		
S1.006	SA13	60 Summer	+40%					66.977	-0.403		
S5.000	SA14	60 Summer	+40%					70.490	-0.210		
S6.000	SA15	60 Summer	+40%					69.568	-0.132		
S5.001	SA16	60 Summer	+40%					69.280	-0.270		
S7.000	SA17	60 Summer	+40%					70.110	-0.215		
S7.001	SA18	60 Summer	+40%					68.404	-0.271		
S7.002	SA19	60 Summer	+40%					68.177	-0.278		
S7.003	SA20	60 Summer	+40%					67.011	-0.264		
S7.004	SA21	60 Summer	+40%					66.704	-0.346		
S8.000	SA22	60 Summer	+40%					66.374	-0.201		
S7.005	SA23	60 Summer	+40%					66.094	-0.321		
S9.000	SA25	60 Summer	+40%					69.664	-0.211		
S9.001	SA26	60 Summer	+40%					69.394	-0.206		
S10.000	SA27	60 Summer	+40%					72.244	-0.131		
S10.001	SA28	60 Summer	+40%					71.937	-0.213		
S10.002	SA29	60 Summer	+40%					70.092	-0.208		
S10.003	SA30	60 Summer	+40%					69.145	-0.205		
S10.004	SA31	60 Summer	+40%					67.404	-0.194		
S11.000	SA32	60 Summer	+40%					72.164	-0.136		
S11.001	SA33	60 Summer	+40%					69.640	-0.210		
S12.000	SA34	60 Summer	+40%					67.962	-0.138		
S12.001	SA35	60 Summer	+40%					67.109	-0.216		
S12.002	SA36	60 Summer	+40%					64.196	-0.197		
S13.000	SA37	60 Summer	+40%					65.310	-0.140		
S13.001	SA38	60 Summer	+40%					64.129	-0.196		
S14.000	SA39	60 Summer	+40%					66.009	-0.141		
S14.001	SA40	60 Summer	+40%					64.300	-0.200		
S12.003	SA41	60 Summer	+40%					64.029	-0.271		

		Flooded		Half Drain		Pipe			
PN	US/MH Name	Volume (m³)	Flow / Cap.	Overflow (l/s)	Time (mins)	Flow (l/s)	Status	Level Exceeded	
S1.005	SA12	0.000	0.04			8.8	OK		
S1.006	SA13	0.000	0.02			8.8	OK		
S5.000	SA14	0.000	0.01			1.0	OK		
S6.000	SA15	0.000	0.03			0.5	OK		
S5.001	SA16	0.000	0.02			1.5	OK		
S7.000	SA17	0.000	0.01			0.8	OK		
S7.001	SA18	0.000	0.02			1.6	OK		
S7.002	SA19	0.000	0.01			2.6	OK		
S7.003	SA20	0.000	0.03			3.5	OK		
S7.004	SA21	0.000	0.02			4.4	OK		
S8.000	SA22	0.000	0.03			1.0	OK		
S7.005	SA23	0.000	0.05			6.3	OK		
S9.000	SA25	0.000	0.01			0.8	OK		
S9.001	SA26	0.000	0.02			1.6	OK		

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		Volume (m³)	Flow / Cap.	Overflow (l/s)	Time (mins)	Flow (l/s)	Status	
S10.000	SA27	0.000	0.04			0.6	OK	
S10.001	SA28	0.000	0.01			1.1	OK	
S10.002	SA29	0.000	0.02			1.7	OK	
S10.003	SA30	0.000	0.02			2.3	OK	
S10.004	SA31	0.000	0.05			2.8	OK	
S11.000	SA32	0.000	0.02			0.7	OK	
S11.001	SA33	0.000	0.01			1.4	OK	
S12.000	SA34	0.000	0.02			0.5	OK	
S12.001	SA35	0.000	0.01			1.1	OK	
S12.002	SA36	0.000	0.04			1.6	OK	
S13.000	SA37	0.000	0.01			0.5	OK	
S13.001	SA38	0.000	0.04			1.1	OK	
S14.000	SA39	0.000	0.01			0.5	OK	
S14.001	SA40	0.000	0.03			1.1	OK	
S12.003	SA41	0.000	0.02			3.7	OK	