



Surface Water Network:: Site: Graven Hill, Bicester Project: 24-0303 Client: LNT Construction Ltd		Date: 13/02/2025			
Report Details: Type: Junctions Storm Phase: Phase		Designed by: FE	Checked by: MG		Approved By: TG
		BSP Consulting Ltd.: Title: Surface Water Calculations Purpose: Preliminary GHBO-BSP-ZZ-XX-CA-C-0001-P05			


Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
S11	Manhole	458864.051	221218.658	67.700	0.873	66.827	Circular	0.600
S04	Manhole	458904.456	221275.926	68.000	0.815	67.185	Circular	0.600
S02	Manhole	458908.549	221269.301	68.000	0.662	67.338	Circular	0.600
S05	Manhole	458894.095	221292.704	68.000	0.932	67.068	Circular	0.450
S06	Manhole	458845.314	221262.559	68.000	1.123	66.877	Circular	0.600
S12	Manhole	458872.695	221246.557	68.000	0.500	67.500	Circular	0.600
S03	Manhole	458890.542	221267.328	68.000	0.500	67.500	Circular	0.600
S01	Manhole	458894.734	221260.763	68.000	0.500	67.500	Circular	0.600
S17	Manhole	458825.239	221247.457	67.500	0.810	66.690	Circular	0.450
S14	Manhole	458868.223	221254.123	68.000	0.500	67.500	Circular	0.600
S15	Manhole	458854.000	221245.334	68.000	0.611	67.389	Circular	0.600
S13	Manhole	458858.474	221237.769	68.000	0.611	67.389	Circular	0.600
S16	Manhole	458834.599	221252.347	67.600	1.585	66.015	Circular	1.050
S08	Manhole	458900.307	221217.187	67.900	0.770	67.130	Circular	0.600
S07	Manhole	458910.978	221223.893	67.900	0.685	67.215	Circular	0.600
S09	Manhole	458893.743	221213.128	68.105	1.026	67.079	Circular	0.600
S10	Manhole	458871.674	221206.184	68.000	1.076	66.924	Circular	0.600

Name	Lock
S11	None
S04	None
S02	None
S05	None
S06	None
S12	None
S03	None
S01	None
S17	None
S14	None
S15	None
S13	None
S16	None
S08	None
S07	None
S09	None
S10	None

Surface Water Network:: Site: Graven Hill, Bicester Project: 24-0303 Client: LNT Construction Ltd	Date: 13/02/2025			
Report Details: Type: Junctions Storm Phase: Phase	Designed by: FE		Checked by: MG	Approved By: TG
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Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
S11	Outlet	PN 3.004	Free Discharge
S04	Outlet	PN 1.002	Free Discharge
S02	Outlet	PN 1.001	Free Discharge
S05	Outlet	LINK 1.1	Free Discharge
S06	Outlet	PN 1.003	Free Discharge
S12	Outlet	PN 4.000	Free Discharge
S03	Outlet	PN 2.000	Free Discharge
S01	Outlet	PN 1.000	Free Discharge
S14	Outlet	PN 5.000	Free Discharge
S15	Outlet	PN 5.001	Free Discharge
S13	Outlet	PN 4.001	Free Discharge
S16	Outlet	PN 1.005	Pump
	Invert Level (m)	66.015	
	Depth (m)	Outflow (L/s)	
	0.200	1.3	
	0.400	1.3	
	0.600	1.3	
	0.800	1.3	
	0.855	1.3	
0.856	1.3		
1.000	1.3		
1.200	1.3		
S08	Outlet	PN 3.001	Free Discharge
S07	Outlet	PN 3.000	Free Discharge
S09	Outlet	PN 3.002	Free Discharge
S10	Outlet	PN 3.003	Free Discharge

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Report Details: Type: Stormwater Controls Storm Phase: Phase	BSP Consulting Ltd.: Title: Surface Water Calculations Purpose: Preliminary GHBO-BSP-ZZ-XX-CA-C-0001-P05		



Tank

Type : Tank


Dimensions

Exceedance Level (m)	67.740
Depth (m)	1.700
Base Level (m)	66.040
Freeboard (mm)	500
Initial Depth (m)	0.000
Porosity (%)	95
Average Slope (1:X)	0.00
Total Volume (m³)	176.719

Depth (m)	Area (m²)	Volume (m³)
0.000	155.017	71.999
1.200	155.017	71.999

Advanced

Perimeter	Circular
Length (m)	31.401

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Porous Paving 1

Type : Porous Paving

Dimensions

Exceedance Level (m)	67.835
Depth (m)	0.600
Base Level (m)	67.235
Paving Layer Depth (mm)	60
Membrane Percolation (m/hr)	250.0
Porosity (%)	30
Length (m)	5.000
Long. Slope (1:X)	60.00
Width (m)	49.500
Total Volume (m³)	40.098

Advanced

Conductivity (m/hr)	250.0
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Porous Paving 2


Type : Porous Paving

Dimensions

Exceedance Level (m)	67.780
Depth (m)	0.550
Base Level (m)	67.230
Paving Layer Depth (mm)	60
Membrane Percolation (m/hr)	250.0
Porosity (%)	30
Length (m)	5.000
Long. Slope (1:X)	60.00
Width (m)	25.000
Total Volume (m³)	18.375

Advanced

Conductivity (m/hr)	250.0
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Filter Trench 1

Type : Infiltration Trench

Dimensions


Exceedance Level (m)	68.000
Depth (m)	1.123
Base Level (m)	66.877
Freeboard (mm)	400
Porosity (%)	30
Length (m)	54.974
Long. Slope (1:X)	300.00
Width (m)	0.600
Total Volume (m³)	8.684

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	225
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	250.0
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Surface Water Network: Site: Graven Hill, Bicester Project: 24-0303 Client: LNT Construction Ltd	Date: 13/02/2025		
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Filter Trench 2

Type : Infiltration Trench

Dimensions


Exceedance Level (m)	68.000
Depth (m)	1.038
Base Level (m)	66.962
Freeboard (mm)	300
Porosity (%)	30
Length (m)	56.561
Long. Slope (1:X)	300.00
Width (m)	0.600
Total Volume (m³)	8.213

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	250.0
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Surface Water Network: Site: Graven Hill, Bicester Project: 24-0303 Client: LNT Construction Ltd	Date: 13/02/2025		
Report Details: Type: Stormwater Controls Storm Phase: Phase	Designed by: FE		
BSP Consulting Ltd.: Title: Surface Water Calculations Purpose: Preliminary GHBO-BSP-ZZ-XX-CA-C-0001-P05			



Filter Trench 3

Type : Infiltration Trench

Dimensions

Exceedance Level (m)	68.105
Depth (m)	1.005
Base Level (m)	67.100
Freeboard (mm)	300
Porosity (%)	30
Length (m)	10.575
Long. Slope (1:X)	300.00
Width (m)	0.600
Total Volume (m³)	1.473

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	150
No. of Barrels	1
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Advanced

Conductivity (m/hr)	250.0
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Surface Water Network: Site: Graven Hill, Bicester Project: 24-0303 Client: LNT Construction Ltd		Date: 13/02/2025		
Report Details: Type: Inflow Summary Storm Phase: Phase		Designed by: FE	Checked by: MG	Approved By: TG
		BSP Consulting Ltd.: Title: Surface Water Calculations Purpose: Preliminary GHBO-BSP-ZZ-XX-CA-C-0001-P05		




Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	S10		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (1)	S10		Time of Concentration	0.001	100	0	100	0.001
Catchment Area (2)	S10		Time of Concentration	0.002	100	0	100	0.002
Catchment Area (3)	Filter Trench 3		Time of Concentration	0.019	100	0	100	0.019
Catchment Area (4)	S14		Time of Concentration	0.024	100	0	100	0.024
Catchment Area (5)	Filter Trench 1		Time of Concentration	0.039	100	0	100	0.039
Catchment Area (6)	S04		Time of Concentration	0.006	100	0	100	0.006
Catchment Area (7)	S03		Time of Concentration	0.021	100	0	100	0.021
Catchment Area (9)	S12		Time of Concentration	0.025	100	0	100	0.025
Catchment Area (10)	Filter Trench 2		Time of Concentration	0.041	100	0	100	0.041
Catchment Area (11)	S01		Time of Concentration	0.025	100	0	100	0.025
Catchment Area (12)	Porous Paving 1		Time of Concentration	0.078	100	0	100	0.078
Catchment Area (13)	Porous Paving 2		Time of Concentration	0.013	100	0	100	0.013
TOTAL		0.0		0.296				0.296

Surface Water Network: Site: Graven Hill, Bicester Project: 24-0303 Client: LNT Construction Ltd	Date: 13/02/2025		
	Designed by: FE	Checked by: MG	Approved By: TG
Report Details: Type: Outfall Details Storm Phase: Phase	BSP Consulting Ltd.: Title: Surface Water Calculations Purpose: Preliminary GHBO-BSP-ZZ-XX-CA-C-0001-P05		



Outfalls

Outfall	Outfall Type	Fixed Surcharged Level (m)	Level Curve
S17	Free Discharge		

Surface Water Network: Site: Graven Hill, Bicester Project: 24-0303 Client: LNT Construction Ltd	Date: 13/02/2025			
Report Title: Rainfall Analysis Criteria	Designed by: FE		Checked by: MG	Approved By: TG
	BSP Consulting Ltd.: Title: Surface Water Calculations Purpose: Preliminary GHBO-BSP-ZZ-XX-CA-C-0001-P05			

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Shortest
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	<input type="checkbox"/>

Rainfall


FEH	Type: FEH
Site Location	GB 458844 221216 SP 58844 21216
Rainfall Version	2022
Summer	<input checked="" type="checkbox"/>
Winter	<input checked="" type="checkbox"/>

Return Period

Return Period (years)	Increase Rainfall (%)
2.0	0.000
30.0	35.000
100.0	40.000

Storm Durations


Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
180	360
240	480
360	720
480	960
600	1200
720	1440
960	1920
1440	2880

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FEH: 2 years: Increase Rainfall (%): +0 %: Critical Storm Per Item: Rank By: Max. Depth


Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S11	FEH: 2 years: +0 %: 15 mins: Winter	67.70 0	66.82 7	66.929	0.102	10.3	0.029	0.000	10.9	8.105	OK
S04	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	67.18 5	67.251	0.066	7.7	0.019	0.000	7.5	3.723	OK
S02	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	67.33 8	67.386	0.048	3.8	0.014	0.000	3.6	1.780	OK
S05	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	67.06 8	67.162	0.094	7.5	0.015	0.000	7.1	3.712	OK
S06	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	66.87 7	66.960	0.083	10.7	0.023	0.000	10.4	6.330	OK
S12	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	67.50 0	67.556	0.056	3.9	0.016	0.000	3.8	1.795	OK
S03	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	67.50 0	67.540	0.040	3.3	0.011	0.000	3.2	1.526	OK
S01	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	67.50 0	67.549	0.049	3.9	0.014	0.000	3.8	1.783	OK
S17	FEH: 2 years: +0 %: 15 mins: Summer	67.50 0	66.69 0	66.690	0.000	0.8	0.000	0.000	0.8	0.847	OK
S14	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	67.50 0	67.555	0.055	3.8	0.016	0.000	3.7	1.744	OK
S15	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	67.38 9	67.416	0.027	3.7	0.008	0.000	3.6	1.743	OK
S13	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	67.38 9	67.416	0.027	3.8	0.008	0.000	3.7	1.794	OK
S16	FEH: 2 years: +0 %: 480 mins: Winter	67.60 0	66.01 5	66.345	0.330	1.3	0.286	0.000	1.3	57.432	Surcharged
S08	FEH: 2 years: +0 %: 15 mins: Winter	67.90 0	67.13 0	67.152	0.022	0.6	0.006	0.000	0.7	0.492	OK
S07	FEH: 2 years: +0 %: 15 mins: Winter	67.90 0	67.21 5	67.226	0.012	0.2	0.003	0.000	0.2	0.132	OK
S09	FEH: 2 years: +0 %: 15 mins: Winter	68.10 5	67.07 9	67.125	0.046	3.1	0.013	0.000	2.8	1.860	OK
S10	FEH: 2 years: +0 %: 15 mins: Winter	68.00 0	66.92 4	66.973	0.048	3.6	0.014	0.000	3.3	2.192	OK

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FEH: 30 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Depth


Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S11	FEH: 30 years: +35 %: 15 mins: Winter	67.70 0	66.82 7	67.136	0.310	21.0	0.088	0.000	21.2	22.943	Surcharged
S04	FEH: 30 years: +35 %: 15 mins: Winter	68.00 0	67.18 5	67.358	0.173	24.2	0.049	0.000	20.2	11.627	OK
S02	FEH: 30 years: +35 %: 15 mins: Winter	68.00 0	67.33 8	67.435	0.097	11.8	0.027	0.000	11.2	5.539	OK
S05	FEH: 30 years: +35 %: 15 mins: Winter	68.00 0	67.06 8	67.333	0.265	20.2	0.042	0.000	19.0	11.612	Surcharged
S06	FEH: 30 years: +35 %: 960 mins: Winter	68.00 0	66.87 7	67.104	0.227	2.8	0.064	0.000	3.1	141.352	Surcharged
S12	FEH: 30 years: +35 %: 15 mins: Winter	68.00 0	67.50 0	67.608	0.108	12.1	0.030	0.000	11.9	5.601	OK
S03	FEH: 30 years: +35 %: 15 mins: Winter	68.00 0	67.50 0	67.576	0.076	10.3	0.021	0.000	10.2	4.717	OK
S01	FEH: 30 years: +35 %: 15 mins: Winter	68.00 0	67.50 0	67.596	0.096	12.1	0.027	0.000	11.8	5.568	OK
S17	FEH: 30 years: +35 %: 15 mins: Summer	67.50 0	66.69 0	66.690	0.000	1.3	0.000	0.000	1.3	1.589	OK
S14	FEH: 30 years: +35 %: 15 mins: Winter	68.00 0	67.50 0	67.605	0.105	11.8	0.030	0.000	11.5	5.433	OK
S15	FEH: 30 years: +35 %: 15 mins: Winter	68.00 0	67.38 9	67.439	0.050	11.5	0.014	0.000	11.4	5.431	OK
S13	FEH: 30 years: +35 %: 15 mins: Winter	68.00 0	67.38 9	67.440	0.051	11.9	0.014	0.000	11.7	5.599	OK
S16	FEH: 30 years: +35 %: 960 mins: Winter	67.60 0	66.01 5	67.100	1.084	1.4	0.939	0.000	1.3	134.264	Surcharged
S08	FEH: 30 years: +35 %: 15 mins: Winter	67.90 0	67.13 0	67.232	0.102	2.5	0.029	0.000	3.4	1.758	OK
S07	FEH: 30 years: +35 %: 15 mins: Winter	67.90 0	67.21 5	67.237	0.022	0.6	0.006	0.000	0.7	0.399	OK
S09	FEH: 30 years: +35 %: 15 mins: Winter	68.10 5	67.07 9	67.227	0.149	8.9	0.042	0.000	7.9	6.050	OK
S10	FEH: 30 years: +35 %: 15 mins: Winter	68.00 0	66.92 4	67.180	0.255	10.0	0.072	0.000	9.2	7.108	Surcharged

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FEH: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S11	FEH: 100 years: +40 %: 1440 mins: Winter	67.70 0	66.82 7	67.559	0.732	4.4	0.207	0.000	4.5	165.222	Flood Risk
S04	FEH: 100 years: +40 %: 960 mins: Winter	68.00 0	67.18 5	67.561	0.376	2.1	0.106	0.000	2.1	66.992	Surcharged
S02	FEH: 100 years: +40 %: 15 mins: Winter	68.00 0	67.33 8	67.568	0.230	12.9	0.065	0.000	11.0	7.375	Surcharged
S05	FEH: 100 years: +40 %: 1440 mins: Winter	68.00 0	67.06 8	67.561	0.493	1.5	0.078	0.000	1.5	70.881	Surcharged
S06	FEH: 100 years: +40 %: 1440 mins: Winter	68.00 0	66.87 7	67.559	0.682	2.7	0.193	0.000	2.7	177.911	Surcharged
S12	FEH: 100 years: +40 %: 15 mins: Winter	68.00 0	67.50 0	67.635	0.135	16.2	0.038	0.000	15.7	7.472	OK
S03	FEH: 100 years: +40 %: 15 mins: Winter	68.00 0	67.50 0	67.600	0.100	13.7	0.028	0.000	12.1	6.289	OK
S01	FEH: 100 years: +40 %: 15 mins: Winter	68.00 0	67.50 0	67.667	0.167	16.1	0.047	0.000	12.9	7.411	Surcharged
S17	FEH: 100 years: +40 %: 15 mins: Summer	67.50 0	66.69 0	66.690	0.000	1.3	0.000	0.000	1.3	1.656	OK
S14	FEH: 100 years: +40 %: 15 mins: Winter	68.00 0	67.50 0	67.631	0.131	15.7	0.037	0.000	15.3	7.250	OK
S15	FEH: 100 years: +40 %: 960 mins: Winter	68.00 0	67.38 9	67.559	0.170	1.0	0.048	0.000	1.0	28.403	Surcharged
S13	FEH: 100 years: +40 %: 960 mins: Winter	68.00 0	67.38 9	67.559	0.170	1.0	0.048	0.000	1.0	29.092	Surcharged
S16	FEH: 100 years: +40 %: 1440 mins: Winter	67.60 0	66.01 5	67.560	1.544	1.8	1.337	0.000	1.3	205.309	Flood Risk
S08	FEH: 100 years: +40 %: 960 mins: Winter	67.90 0	67.13 0	67.559	0.429	1.4	0.121	0.000	0.7	30.489	Surcharged
S07	FEH: 100 years: +40 %: 1440 mins: Winter	67.90 0	67.21 5	67.558	0.344	0.2	0.097	0.000	0.1	7.818	Surcharged
S09	FEH: 100 years: +40 %: 1440 mins: Winter	68.10 5	67.07 9	67.560	0.481	1.0	0.136	0.000	0.9	68.369	Surcharged
S10	FEH: 100 years: +40 %: 1440 mins: Winter	68.00 0	66.92 4	67.560	0.636	1.1	0.180	0.000	1.1	55.061	Surcharged

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FEH: 2 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Avg. Depth


Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
Tank	FEH: 2 years: +0 %: 480 mins: Winter	66.345	66.345	0.305	0.305	5.9	44.939	0.000	0.000	1.3	57.564	74.570
Filter Trench 1	FEH: 2 years: +0 %: 15 mins: Winter	67.153	67.012	0.092	0.135	13.0	1.067	0.000	0.000	10.9	6.362	87.711
Filter Trench 2	FEH: 2 years: +0 %: 30 mins: Winter	67.240	67.083	0.090	0.121	8.4	1.098	0.000	0.000	8.0	9.019	86.629
Porous Paving 1	FEH: 2 years: +0 %: 30 mins: Winter	67.386	67.265	0.067	0.030	7.8	3.466	0.000	0.000	4.4	5.578	91.356
Porous Paving 2	FEH: 2 years: +0 %: 120 mins: Winter	67.337	67.239	0.024	0.009	0.7	0.604	0.000	0.000	0.4	1.841	96.713
Filter Trench 3	FEH: 2 years: +0 %: 15 mins: Winter	67.200	67.166	0.065	0.066	3.0	0.124	0.000	0.000	2.8	1.385	91.589

Surface Water Network: Site: Graven Hill, Bicester Project: 24-0303 Client: LNT Construction Ltd		Date: 13/02/2025		
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase		Designed by: FE	Checked by: MG	Approved By: TG
		BSP Consulting Ltd.: Title: Surface Water Calculations Purpose: Preliminary GHBO-BSP-ZZ-XX-CA-C-0001-P05		



FEH: 30 years: Increase Rainfall (%): +35: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
Tank	FEH: 30 years: +35 %: 960 mins: Winter	67.099	67.099	1.059	1.059	8.9	155.997	0.000	0.000	1.4	139.406	11.726
Filter Trench 1	FEH: 30 years: +35 %: 15 mins: Winter	67.325	67.135	0.265	0.258	37.6	2.655	0.000	0.000	28.7	20.096	69.430
Filter Trench 2	FEH: 30 years: +35 %: 15 mins: Winter	67.437	67.230	0.287	0.268	19.8	3.010	0.000	0.000	12.0	16.274	63.355
Porous Paving 1	FEH: 30 years: +35 %: 30 mins: Winter	67.531	67.460	0.213	0.225	24.5	16.235	0.000	0.000	9.3	18.825	59.512
Porous Paving 2	FEH: 30 years: +35 %: 60 mins: Winter	67.383	67.248	0.069	0.018	2.9	1.589	0.000	0.000	1.8	4.073	91.353
Filter Trench 3	FEH: 30 years: +35 %: 15 mins: Winter	67.285	67.242	0.149	0.142	9.4	0.276	0.000	0.000	8.5	4.327	81.233

Surface Water Network: Site: Graven Hill, Bicester Project: 24-0303 Client: LNT Construction Ltd	Date: 13/02/2025			
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Designed by: FE		Checked by: MG	Approved By: TG
BSP Consulting Ltd.: Title: Surface Water Calculations Purpose: Preliminary GHBO-BSP-ZZ-XX-CA-C-0001-P05				



FEH: 100 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Avg. Depth

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Residual Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)
Tank	FEH: 100 years: +40 %: 1440 mins: Winter	67.559	67.559	1.519	1.519	8.5	177.075	0.000	0.000	1.8	222.158	-0.201
Filter Trench 1	FEH: 100 years: +40 %: 1440 mins: Winter	67.561	67.559	0.501	0.682	2.6	5.846	0.000	0.000	3.5	217.131	32.686
Filter Trench 2	FEH: 100 years: +40 %: 1440 mins: Winter	67.559	67.559	0.408	0.597	3.4	5.123	0.000	0.000	3.4	128.431	37.628
Porous Paving 1	FEH: 100 years: +40 %: 30 mins: Winter	67.630	67.579	0.312	0.344	33.0	24.351	0.000	0.000	10.5	22.177	39.270
Porous Paving 2	FEH: 100 years: +40 %: 1440 mins: Winter	67.559	67.559	0.245	0.329	1.0	10.761	0.000	0.000	0.7	21.709	41.438
Filter Trench 3	FEH: 100 years: +40 %: 1440 mins: Winter	67.561	67.561	0.425	0.461	1.0	0.843	0.000	0.000	1.2	47.729	42.752