IH 124 Mean Annual Flood

Input

Return Period (years)	100	Soil	0.450
Area (ha)	50.000	Urban	0.000
SAAR (mm)	971	Region Number	Region 10

Results	**l/s**
QBAR Rural	322.1
QBAR Urban	322.1
Q100 years	670.0
Q1 year	280.2
Q2 years	300.0
Q5 years	383.3
Q10 years	444.5
Q20 years	506.4
Q25 years	528.3
Q30 years	546.1
Q50 years	595.9
Q100 years	670.0
Q200 years	760.2
Q250 years	789.2
Q1000 years	979.3

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Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 1 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	56.537	0.537	5.5	0.6	O K
30 min Summer	56.485	0.485	5.2	0.5	O K
60 min Summer	56.335	0.335	4.1	0.4	O K
120 min Summer	56.169	0.169	2.9	0.2	O K
180 min Summer	56.083	0.083	2.3	0.1	O K
240 min Summer	56.047	0.047	1.9	0.1	O K
360 min Summer	56.035	0.035	1.4	0.0	O K
480 min Summer	56.028	0.028	1.1	0.0	O K
600 min Summer	56.024	0.024	1.0	0.0	O K
720 min Summer	56.021	0.021	0.8	0.0	O K
960 min Summer	56.017	0.017	0.7	0.0	O K
1440 min Summer	56.013	0.013	0.5	0.0	O K
2160 min Summer	56.009	0.009	0.4	0.0	O K
2880 min Summer	56.008	0.008	0.3	0.0	O K
4320 min Summer	56.006	0.006	0.2	0.0	O K
5760 min Summer	56.005	0.005	0.2	0.0	O K
7200 min Summer	56.004	0.004	0.2	0.0	O K
8640 min Summer	56.004	0.004	0.1	0.0	O K
10080 min Summer	56.003	0.003	0.1	0.0	O K
15 min Winter	56.561	0.561	5.7	0.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	121.036	0.0	11
30 min Summer	81.399	0.0	19
60 min Summer	52.299	0.0	34
120 min Summer	32.485	0.0	64
180 min Summer	24.241	0.0	94
240 min Summer	19.562	0.0	122
360 min Summer	14.373	0.0	184
480 min Summer	11.553	0.0	244
600 min Summer	9.745	0.0	298
720 min Summer	8.475	0.0	366
960 min Summer	6.792	0.0	480
1440 min Summer	4.963	0.0	716
2160 min Summer	3.619	0.0	1100
2880 min Summer	2.889	0.0	1400
4320 min Summer	2.099	0.0	2084
5760 min Summer	1.671	0.0	2808
7200 min Summer	1.399	0.0	3576
8640 min Summer	1.210	0.0	4000
10080 min Summer	1.071	0.0	4360
15 min Winter	121.036	0.0	11

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Summary of Results for 100 year Return Period (+40%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	56.439	0.439	4.8	0.5	O K
60 min Winter	56.249	0.249	3.5	0.3	O K
120 min Winter	56.082	0.082	2.2	0.1	O K
180 min Winter	56.043	0.043	1.7	0.0	O K
240 min Winter	56.035	0.035	1.4	0.0	O K
360 min Winter	56.025	0.025	1.0	0.0	O K
480 min Winter	56.021	0.021	0.8	0.0	O K
600 min Winter	56.018	0.018	0.7	0.0	O K
720 min Winter	56.015	0.015	0.6	0.0	O K
960 min Winter	56.012	0.012	0.5	0.0	O K
1440 min Winter	56.009	0.009	0.4	0.0	O K
2160 min Winter	56.007	0.007	0.3	0.0	O K
2880 min Winter	56.006	0.006	0.2	0.0	O K
4320 min Winter	56.004	0.004	0.2	0.0	O K
5760 min Winter	56.004	0.004	0.2	0.0	O K
7200 min Winter	56.004	0.004	0.1	0.0	O K
8640 min Winter	56.003	0.003	0.1	0.0	O K
10080 min Winter	56.003	0.003	0.1	0.0	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
30 min Winter	81.399	0.0	19
60 min Winter	52.299	0.0	34
120 min Winter	32.485	0.0	64
180 min Winter	24.241	0.0	92
240 min Winter	19.562	0.0	122
360 min Winter	14.373	0.0	184
480 min Winter	11.553	0.0	240
600 min Winter	9.745	0.0	310
720 min Winter	8.475	0.0	358
960 min Winter	6.792	0.0	486
1440 min Winter	4.963	0.0	700
2160 min Winter	3.619	0.0	1144
2880 min Winter	2.889	0.0	1524
4320 min Winter	2.099	0.0	2180
5760 min Winter	1.671	0.0	3168
7200 min Winter	1.399	0.0	3944
8640 min Winter	1.210	0.0	3544
10080 min Winter	1.071	0.0	4968

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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	18.500	Shortest Storm (mins)	15
Ratio R	0.350	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+40

Time Area Diagram

Total Area (ha) 0.012

Time (mins) From:	To:	Area (ha)
0	4	0.012

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Model Details

Storage is Online Cover Level (m) 57.000

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	10.00000
Infiltration Coefficient Side (m/hr)	10.00000
Safety Factor	2.0
Porosity	0.90
Invert Level (m)	56.000
Trench Width (m)	0.6
Trench Length (m)	2.0
Slope (1:X)	1000.0
Cap Volume Depth (m)	1.000
Cap Infiltration Depth (m)	1.000

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