

Client:

Project:Uxbridge High Street

Location:Uxbridge, UB8 1JY

Roof Location: Bakers Road Upper (STORMcell)

Roof Details:

BlueRoof569 m²x 100 %

Additional Catchment17 m²x 100 %

Effective Area586 m²

Storage Details:

Area569 m²

Depth100 mm

Porosity95 %

Slopenone

Rainfall Details - FEH Method:

Return Period100 years

Climate Change Factor40 %

Summer Storm Profile

Duration	Intensity	Required storage(m³)
	mm	mm/h
5 min	22.8	274.1
10 min	33.0	197.8
15 min	40.9	163.4
30 min	53.5	107.0
45 min	61.1	81.4
60 min	66.6	66.6
2 hours	83.5	41.8
6 hours	111.4	18.6
24 hours	135.3	5.6
48 hours	144.0	3.0

Outflow Details:

Attenuation ControlBlueRoof Outlet

ControlTwist Std. Position 1

Sump DepthNone

Discharge rate0.82 l/s

Outlet\*1 No

\*\* For emergency overflow requirements, refer to the bottom of the page \*\*

Result:

OutcomePass

Critical Storm Duration6 hrs

Hmax99 mm

Required Volume53.7 m³

Time to half empty9.1 hrs

Roof Loading\*94.38 Kg/m²

Industry best practices recommend the provision of a minimum of two outlets per roof area. Where a single blue roof outlet is specified a second overflow only outlet should be installed.

All results based on input data. Please check that input data has been correctly interpreted.

The Bauder Blue Flat Roof Rainwater Calculation Software will perform calculations in accordance with industry best practice for blue roof design based upon provided data relating to a specific building's dimensions geographical location and the flow rate performance of the selected Bauder rainwater outlet product. Whilst the information contained herein is to the best of our knowledge true and accurate we specifically exclude any liability for errors omissions or otherwise arising therefrom.

NOTE: These calculations are valid for a zero fall roof with minimal variation in levels. Any significant variation will affect the volume of water stored and the roofs ability to attenuate extreme rain events. Typically variations in roof level should be less than 0 to +30mm with no back falls. The H-Max is measured from the mean roof level. Please ensure roof is sealed to a minimum level of H-Max + 35mm plus the required waterproofing upstand. Calculations meet the requirements of CIRIA guide RP1099

\*The roof loading refers only to the weight of the water on the roof.

Overflow discharge requirement in accordance with BSEN12056-3:2000 for a category 1 storm event:

Total overflow discharge rate: 586m2x0.021l/s/m2 = 12.31l/s.

NOTE: To determine the total loading of the blue roof and overflows then the maximum head height (Hmax) plus an additional 35mm should be included in the assessment.

Client:

Project:Uxbridge High Street

Location:Uxbridge, UB8 1JY

Roof Location:Bakers Road Lower (STORMsub)

Roof Details:

BlueRoof115 m²x 100 %

Additional Catchment0 m²x 100 %

Effective Area115 m²

Storage Details:

Area115 m²

Depth100 mm

Porosity46 %

Slopenone

Rainfall Details - FEH Method:

Return Period100 years

Climate Change Factor40 %

Summer Storm Profile

Duration	Intensity	Required storage(m³)	
	mm	mm/h	
5 min	22.8	274.1	2.5
10 min	33.0	197.8	3.4
15 min	40.9	163.4	4.0
30 min	53.5	107.0	4.7
45 min	61.1	81.4	4.9
60 min	66.6	66.6	5.0
2 hours	83.5	41.8	5.0
6 hours	111.4	18.6	3.7
24 hours	135.3	5.6	0.7
48 hours	144.0	3.0	0.4

Outflow Details:

Attenuation ControlBlueRoof Outlet

ControlTwist Std. Position 1.5

Sump DepthNone

Discharge rate1.21 l/s

Outlet\*1 No

\*\* For emergency overflow requirements, refer to the bottom of the page \*\*

Result:

OutcomePass

Critical Storm Duration1.55 hrs

Hmax96 mm

Required Volume5.1 m³

Time to half empty34.7 min

Roof Loading\*44.35 Kg/m²

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\*The roof loading refers only to the weight of the water on the roof.

Overflow discharge requirement in accordance with BSEN12056-3:2000 for a category 1 storm event.

Total overflow discharge rate: 115m2x0.021l/s/m2 = 2.42l/s.

NOTE: To determine the total loading of the blue roof and overflows then the maximum head height (Hmax) plus an additional 35mm should be included in the assesment.

Client:

Project:Uxbridge High Street

Location:Uxbridge, UB8 1JY

Roof Location:Belmont Road Amenity (STORMcell)

Roof Details:

BlueRoof564 m²x 100 %

Additional Catchment10 m²x 100 %

Effective Area574 m²

Storage Details:

Area564 m²

Depth100 mm

Porosity95 %

Slopenone

Rainfall Details - FEH Method:

Return Period100 years

Climate Change Factor40 %

Summer Storm Profile

Duration	Intensity	Required storage(m³)
	mm	mm/h
5 min	22.8	274.1
10 min	33.0	197.8
15 min	40.9	163.4
30 min	53.5	107.0
45 min	61.1	81.4
60 min	66.6	66.6
2 hours	83.5	41.8
6 hours	111.4	18.6
24 hours	135.3	5.6
48 hours	144.0	3.0

Outflow Details:

Attenuation ControlBlueRoof Outlet

ControlTwist Std. Position 1

Sump DepthNone

Discharge rate0.81 l/s

Outlet\*1 No

\*\* For emergency overflow requirements, refer to the bottom of the page \*\*

Result:

OutcomePass

Critical Storm Duration6 hrs

Hmax98 mm

Required Volume52.4 m³

Time to half empty8.9 hrs

Roof Loading\*92.91 Kg/m²

Industry best practices recommend the provision of a minimum of two outlets per roof area. Where a single blue roof outlet is specified a second overflow only outlet should be installed.

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\*The roof loading refers only to the weight of the water on the roof.

Overflow discharge requirement in the accordance with BSEN12056-3:2000 for a category 1 storm event:

Total overflow discharge rate: 574m2x0.021l/s/m2 = 12.05l/s.

NOTE: To determine the total loading of the blue roof and overflows then the maximum head height (Hmax) plus an additional 35mm should be included in the assessment.

Client:

Project:Uxbridge High Street

Location:Uxbridge, UB8 1JY

Roof Location:High Street Upper Roof (STORMsub)

Roof Details:

BlueRoof501 m²x 100 %

Additional Catchment16 m²x 100 %

Effective Area517 m²

Storage Details:

Area501 m²

Depth100 mm

Porosity46 %

Slopenone

Rainfall Details - FEH Method:

Return Period100 years

Climate Change Factor40 %

Summer Storm Profile

Duration	Intensity	Required storage(m³)
	mmmm/h	
5 min	22.8	274.1
10 min	33.0	197.8
15 min	40.9	163.4
30 min	53.5	107.0
45 min	61.1	81.4
60 min	66.6	66.6
2 hours	83.5	41.8
6 hours	111.4	18.6
24 hours	135.3	5.6
48 hours	144.0	3.0

Outflow Details:

Attenuation ControlBlueRoof Outlet

ControlTwist Std. Position 3.5

Sump DepthNone

Discharge rate5.63 l/s

Outlet\*2 No

Flow Per Outlet2.82 l/s

\*\* For emergency overflow requirements, refer to the bottom of the page \*\*

Result:

OutcomePass

Critical Storm Duration1.47 hrs

Hmax97 mm

Required Volume22.5 m³

Time to half empty33.2 min

Roof Loading\*44.91 Kg/m²

Industry best practices recommend the provision of a minimum of two outlets per roof area. Where a single blue roof outlet is specified a second overflow only outlet should be installed.

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\*The roof loading refers only to the weight of the water on the roof.

Overflow discharge requirement in accordance with BSEN12056-3:2000 for a category 1 storm event.

Total overflow discharge rate: 517m2x0.021l/s/m2 = 10.9l/s.

NOTE: To determine the total loading of the blue roof and overflows then the maximum head height (Hmax) plus an additional 35mm should be included in the assesment.