BLUE ROOF STORAGE AND OUTFLOW ESTIMATE



Project Name:	150 Holborn, EC1N 2NS - Terrace 6th Floor - FSR Data
Prepared for:	CNM, London
Date:	29/01/2018
ABG Project ID:	12854
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Notes/description:	Pedestrian only amenity/terrace area. Pavers on pedestals. *FOR DISCUSSION ONLY*

Input Parameters - Rainfall Information (Flood Studies Report 1975)				
Return period:	100 years	As supplied by Client		
Allowance for Climate Change:	40 %	As supplied by Client		
Rainfall ratio, R:	0.43	From statistics based on location (FSR)		
M5-60 expected rainfall:	20.6 mm/h	From statistics based on location (FSR)		
Location selected for FSR data:	London (Central)			
Input Parameters - Roof Information				
Catchment area:	312 m ²	As supplied by Client		

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Storage area:	228 m ²	As supplied by Client
Maximum allowable runoff:	3.0 l/s	As supplied by Client

Output - Rainfall Calculation

Duration	Rainfall (l/s/m ²)	Storage Required (I/m ²)	Time to Empty	Restricted Outflow (I/s)
15 mins	0.0416	50	1 hour and 30 minutes	2.7
30 mins	0.0268	57	1 hour and 40 minutes	2.9
1 hour	0.0163	56	1 hour and 40 minutes	2.9
2 hours	0.0095	42	1 hour and 20 minutes	2.5
4 hours	0.0055	19	0 hours and 40 minutes	1.5
6 hours	0.0039	8	0 hours and 10 minutes	0.6
10 hours	0.0026	5	0 hours and 0 minutes	0.2
24 hours	0.0013	5	0 hours and 0 minutes	0.1
48 hours	0.0007	5	0 hours and 0 minutes	0.1

Total storage required: 13 m³ Half empty time: 0 hours and 40 minutes.

Output - Recommended Blue Roof System		
System Name:	ABG blueroof VF HD 50mm + Pedestal Void Space of 15mm	
Description:	No. of drainage positions & drainage paths TBC with design team. Utilising additional 5 l/m2 in paver spacing and build-up,	

Total storage capacity:	14.3 m ³	
Number of Blue Roof outlets:	3	

Notes:

1. This document contains an estimate which has been prepared by ABG Ltd and is illustrative only and not a detailed design.

2. Further details on the theories used in this estimate are available upon request from ABG. The values given are indicative and correspond to nominal results obtained in our laboratories and testing institutes. In line with our policy of continuous improvement the right is reserved to make changes without notice at any time.

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