

Briefing Note

Our ref 13853/IR/BK Date December 2014

Subject The Hill Bar & Brasserie, Haverstock Hill, London, NW3 4RN: Daylight and Sunlight Appraisal

1.0 Introduction

This briefing note sets out the results of our daylight and sunlight appraisal for the proposed mansard roof extension at The Hill Bar & Brasserie, Haverstock Hill, London. The appraisal focuses on the effects of the development on the daylight and sunlight levels experienced by neighbouring properties. It is accompanied by four appendices containing images of the assessment model and the neighbouring windows assessed and the daylight and sunlight results tables.

2.0 Scope of Assessment: Daylight and Sunlight Analysis

- The appraisal has considered the effects of the development on windows serving neighbouring residential properties immediately opposite and adjacent to the site. This comprises, the Studio House and The Cottage on Hay Mews, Nos. 2-3 Hay Mews and 81 Haverstock Hill.
- The windows and rooms selected for analysis represented the windows serving the neighbouring residential properties that are most likely to be affected by the proposed development. Other buildings in the area are non-residential in use or are situated a sufficient distance from the site to be unaffected by the development in daylight and sunlight terms.
- The analysis of this accommodation enables inferences to be drawn regarding the wider effects of the development on other less sensitive neighbouring properties.
- 2.4 The following properties have been assessed:

Address	Flaare	No. windows assessed			
Address	Floors	Daylight	Sunlight*		
The Studio House, Hay Mews	G	1	1		
The Cottage, Hay Mews	G	4	4		
2-3 Hay Mews	1	5	0		
81 Haverstock Hill	1	2	0		
Total	<u>. </u>	12	5		

Table 2.1: Neighbouring Properties Assessed [*windows orientated within 90 degrees of due south]

The assessment model is illustrated at Appendix 1 and the windows and rooms assessed are shown at Appendix 2.

Methodology

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- The aforementioned windows have been assessed in terms of Vertical Sky Component (VSC). The south facing windows have also been considered in terms of Annual and Winter Probable Sunlight Hours (APSH/WPSH). The analysis has been carried out under the 2011 BRE guidance (Building Research Establishment: 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice'; October 2011).
- The assessment has been based on three dimensional AutoCAD models constructed for the site and surroundings as existing and with the proposed development in place. The daylight (VSC) and sunlight (APSH/WPSH) levels at each window/room assessed has been quantified using Waldram Tools daylight and sunlight software (MBS Software Ltd).
- The following summarises these methods of assessment.

Vertical Sky Component (VSC)

- VSC is a measure of the level of ambient daylight received by a window. It represents the amount of vertical skylight falling on a vertical window.
 - The maximum VSC level that can be achieved is 40% and the BRE guide outlines flexible guidelines for new developments in relation to the VSC at nearby reference points. The document states that:
 - "If the vertical sky component, with the new development in place, is **both** less than 27% **and** less than 0.8 times its former value, then the loss of light is likely to be noticeable." (our emphasis)
- The guidelines therefore require that either the VSC target or the degree of change in daylighting are met (i.e. if the 27% target is adhered to, there is no requirement under the BRE guidelines for the resultant VSC level to remain at 0.8 times the former VSC level).

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Sunlight

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Windows that are orientated within 90 degrees of due south also require assessment in terms of annual sunlight availability (APSH) and sunlight availability received during the winter months (WPSH). The following outlines the sunlight methodology used for the assessing the neighbouring properties and proposed windows assessed.

The BRE good practice guide states that the sunlighting of an existing dwelling may be adversely affected by a development "...if the centre of the window:

- receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21
 March and
- receives less than 0.8 times its former sunlight hours during either period and
- has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours"

As with daylighting, the guidelines require that **either** the sunlight availability targets **or** the degree of change in sunlighting **or** a reduction less than 4% of APSH are achieved (i.e. if the 25%/5% targets are adhered to, there is no requirement under the BRE guidelines for the resultant sunlight levels to remain at 0.8 times the former levels).

4.0 Daylight Results

The results of the daylight analysis for existing neighbouring properties and emerging developments are summarised in Table 4.1 below. The results are provided in full at Appendix 3.

	Assessed	Above	% Compliant	Below	% Non compliant
The Studio House, Hay Mews	1	1	100%	0	0%
The Cottage, Hay Mews	4	4	100%	0	0%
2-3 Hay Mews	5	5	100%	0	0%
81 Haverstock Hill	2	2	100%	0	0%
Total	12	12	100%	0	0%

Table 4.1: Summary of VSC results for neighbouring properties [*Marginal: within 20% of guide levels]

The results of the daylight analysis show that all of the windows assessed will comply fully with the BRE guide levels for VSC with the proposed roof level addition in place.

The proposed development will not cause any materially noticeable effects on existing neighbouring properties' ambient daylight levels. The effects of the development on the daylight levels experienced by existing neighbouring

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properties are therefore acceptable in the context of the BRE guidance and relevant policy.

Sunlight Results

The results of the sunlight analysis are summarised in Table 5.1 below. The results are again provided in full at Appendix 4.

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	Assessed	Above	% Compliant	Below	% Non compliant
The Studio House, Hay Mews	1	1	100%	0	0%
The Cottage, Hay Mews	4	4	100%	0	0%
2-3 Hay Mews	0	-	-	-	-
81 Haverstock Hill	0	-	-	-	-
Total	5	5	100%	0	0%

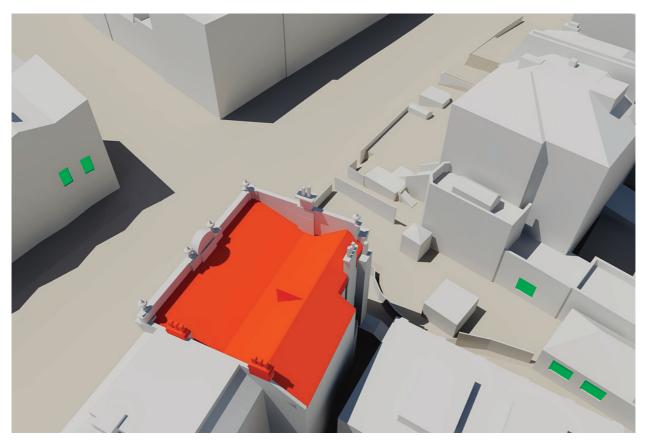
Table 5.1: Summary of Sunlight results for neighbouring properties [*Marginal: within 40% of guide levels]

- In common with the position on daylight, the results of the sunlight analysis are very good. All south facing windows serving existing neighbouring properties that could potentially be affected by the development in terms of sunlight availability will all comply fully with the BRE guide levels for annual and winter sunlighting with the roof level addition in place.
- The proposed development, therefore, does not give rise to any materially noticeable reductions in annual or winter sunlight in the context of the BRE guidance.

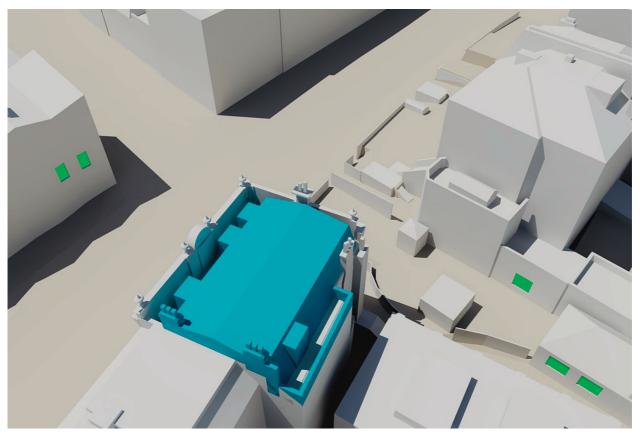
6.0 **Summary and Conclusions**

- The daylight and sunlight appraisal shows that all existing neighbouring residential properties will comply fully with the BRE guidance for ambient daylighting with the development in place.
- 6.2 Similarly all of the south facing windows serving existing neighbouring properties will comply fully with the BRE guide levels for annual and winter sunlighting.
- 6.3 We therefore conclude that the proposed extension will not result in any material concerns regarding the daylight and sunlight levels experienced by neighbouring properties and areas of open space.

Assessment Model

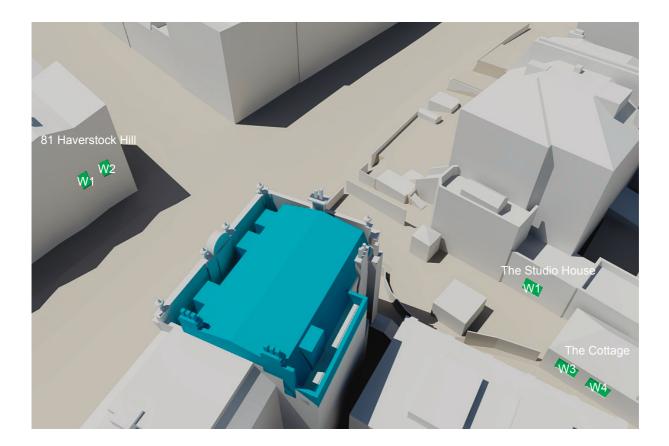


Model as Existing

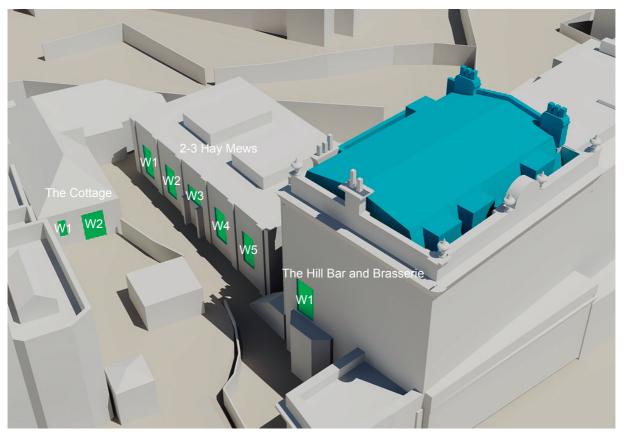


Model as Proposed

Window Layouts



Window Layouts



Window Layouts

VSC Results

Floor Ref.	Window Ref.	Scenario	VSC	Difference	Pass / Fail		
The Studio	House						
Ground	W1	Existing Proposed	27.52 27.16	0.99	PASS		
The Cottag	ge						
Ground	W1	Existing Proposed	19.96 19.71	0.99	PASS		
Ground	W2	Existing Proposed	21.47 21.17	0.99	PASS		
Ground	W3	Existing Proposed	19.92 19.69	0.99	PASS		
Ground	W4	Existing Proposed	19.75 19.6	0.99	PASS		
2-3 Hay M	ews						
First	W1	Existing Proposed	20.38 20.38	1.00	PASS		
First	W2	Existing Proposed	22.22 22.22	1.00	PASS		
First	W3	Existing Proposed	25.38 25.38	1.00	PASS		
First	W4	Existing Proposed	24.25 24.25	1.00	PASS		
First	W5	Existing Proposed	24.32 24.32	1.00	PASS		
The Hill Bar and Brasserie							
First	W1	Existing Proposed	30.18 30.18	1.00	PASS		
81 Haverst	81 Haverstock Hill						
First	W1	Existing Proposed	31.98 31.97	1.00	PASS		
First	W2	Existing Proposed	32.09 32.08	1.00	PASS		

VSC Results

Sunlight Results

			Available Sunlight Hours					
Floor Ref.	Window Ref.	Scenario	Annual %	Diff %	Pass / Fail	Winter %	Diff %	Pass / Fail
The Studio	House							
Ground	W1	Existing Proposed	54 54	1.00	PASS	13 13	1.00	PASS
The Cottag	ge							
Ground	W1	Existing Proposed	45 45	1.00	PASS	13 13	1.00	PASS
Ground	W2	Existing Proposed	47 46	0.98	PASS	14 13	0.93	PASS
Ground	W3	Existing Proposed	37 36	0.97	PASS	9 8	0.89	PASS
Ground	W4	Existing Proposed	35 35	1.00	PASS	7 7	1.00	PASS
2-3 Hay M	ews							
First	W1	Existing Proposed			*North	Facing		
First	W2	Existing Proposed			*North	Facing		
First	W3	Existing Proposed			*North	Facing		
First	W4	Existing Proposed		*North Facing				
First	W5	Existing Proposed			*North	Facing		
The Hill Ba	r and Bra	sserie						
First	W1	Existing Proposed			*North	Facing		
81 Haverstock Hill								
First	W1	Existing Proposed			*North	Facing		
First	W2	Existing Proposed			*North	Facing		

Sunlight Results