
Daylight and Sunlight Report
for the Proposed Extension at
25 Old Gloucester Street, London, WC1N 4AF

Prepared for: Staniforth Architects Ltd
Prepared by: Jonathan Nash LLB (Hons)
Date: 13 July 2012
Job Reference: 1176/JN

Daylight and Sunlight (UK) Limited
2nd Floor, 145 – 157 St. John Street, London, EC1V 4PY
T 0845 052 1146 W daylightandsunlight.co.uk

Daylight and Sunlight (UK) Limited, a Limited Company. Registered in England and Wales number 6956811
Registered office: 2nd Floor, 145 – 157 St. John Street, London, EC1V 4PY
VAT number 978498532.



Contents	Page
1. Executive Summary	3
1.1 Scope of Service	3
1.2 BRE Assessment Criteria	3
1.3 Daylight and Sunlight	3
1.4 Generally.....	3
2. Introduction	4
2.1 Scope of Service	4
2.2 Planning Policy	4
2.3 Assessment	5
2.4 Limitations.....	6
3. Results and Consideration.....	7
3.1 Daylight.....	7
3.2 Sunlight	9
4. Conclusion.....	10
4.1 Daylight and Sunlight	10
4.2 Generally.....	10
Appendix A BRE Assessments	
Appendix B Context Drawings	
Appendix C Daylight Results	
Appendix D Annual Probable Sunlight Hours Results	



1. Executive Summary

1.1 Scope of Service

- 1.1.1 We have been instructed by Staniforth Architects Ltd to consider the potential impact upon the amenity of the surrounding properties, which may arise from the proposed extension at 25 Gloucester Street, London, WC1N 3AF.

1.2 BRE Assessment Criteria

- 1.2.1 To ensure that this assessment has been appropriately considered, daylight and sunlight assessments have been undertaken in accordance with the Building Research Establishment Report 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice' 2011 (the "BRE guide") and also on British Standard 8206 – 2: 2008 – 'Lighting for Buildings – Part 2: Code of Practice for Daylighting', to which the BRE report refers.
- 1.2.2 The standards and tests applied within this assessment are briefly described in Appendix A.

1.3 Daylight and Sunlight

- 1.3.1 For daylight, the buildings assessed meet the BRE guidelines for daylight. This is because the small number of transgressions noted to the VSC assessments are considered acceptable due to the fact that the rooms, where the transgressions occur, are served by additional windows, which either meet the BRE guidelines, or remain unaffected.
- 1.3.2 For sunlight, only one of the three windows assessed falls below the BRE criteria during the annual period, and loses a small amount during the winter months. However, the Saint Georges building is non-domestic, located 3.6m to the boundary and still attains half of the equivalent sunlight recommended for a principle room within a dwelling.

1.4 Generally

- 1.4.1 When considering the numerical results, it is important to approach and interpret the BRE guidelines flexibly along with the following material mitigating factors:
- Some properties are located close to the common boundary and so a reduction in natural light may be unavoidable;
 - Kitchens and bedrooms are given less weighting than that of a living room;
 - Non-domestic buildings are given less weighting than domestic buildings; and
 - the BRE guidelines are not intended to be mandatory, or applied in strict calculation terms.
- 1.4.2 Overall, it is considered that the impact upon the surrounding buildings arising from the proposed extension is acceptable.



2. Introduction

2.1 Scope of Service

- 2.1.1 We have been instructed by Staniforth Architects Ltd to consider the potential impact upon the amenity of the surrounding properties, which may arise from the proposed extension at 25 Gloucester Street, London, WC1N 3AF.

2.2 Planning Policy

- 2.2.1 The London Borough of Camden's Plan

- 2.2.2 The London Borough of Camden's Local Development Framework adopted on 8 November 2010, discusses the need to ensure the consideration of site layout when undertaking development. In particular Development Policy DP26 Managing the impact of development on occupiers and neighbours, states that: -

"The Council will protect the quality of life of occupiers and neighbours by only granting permission for development that does not cause harm to amenity. The factors we will consider include:

c) sunlight, daylight and artificial light levels;"

- 2.2.3 It goes on to state at paragraphs 26.2 and 26.3: -

"Development should avoid harmful effects on the amenity of existing and future occupiers and to nearby properties. When assessing proposals the Council will take account the considerations set out in policy DP26. The Council's Camden Planning Guidance supplementary document contains detailed guidance on the elements of amenity."

"Visual privacy, overlooking, overshadowing, outlook, sunlight and daylight

A development's impact on visual privacy, overlooking, overshadowing, outlook, access to daylight and sunlight and disturbance from artificial light can be influenced by its design and layout, the distance between properties, the vertical levels of onlookers or occupiers and the angle of views. These issues will also affect the amenity of the new occupiers. We will expect that these elements are considered at the design stage of a scheme to prevent potential negative impacts of the development on occupiers and neighbours. To assess whether acceptable levels of daylight and sunlight are available to habitable spaces, the Council will take into account the standards recommended in the British Research Establishment Report 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice'"



2.3 Assessment

- 2.3.1 To ensure that this assessment has been appropriately considered, daylight and sunlight assessments have been undertaken in accordance with the Building Research Establishment Report 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice' 2011 (the "BRE guide") and with the British Standard 8206 – 2: 2008 – 'Lighting for Buildings – Part 2: Code of Practice for Daylighting', to which the BRE report refers.
- 2.3.2 The standards and tests applied within this assessment are briefly described in Appendix A.
- 2.3.3 The existing buildings adjacent to the site are shown on the Site Location Plan below.

Site Location Plan



- 2.3.4 The existing buildings adjacent to the site considered for this report are listed in the following table. Some of these buildings may not require a comprehensive assessment with the reasons for these findings given later in this report under section 3: Results and Consideration.



Adjacent Building Summary Table		
Name/Address of Building	Assumed Use of Building	Position in Relation to the Proposed Development
Saint Georges	Community	North
Bloomsbury Park Hotel	Commercial	Northwest
26 Old Gloucester Road	Residential/Commercial	South

2.4 Limitations

- 2.4.1 Our assessment is based on the proposed development drawings by Staniforth Architecture Ltd.
- 2.4.2 A site inspection was undertaken to record the location of windows of the surrounding properties. Our site inspection included an external inspection of the existing site and surrounding buildings.
- 2.4.3 Topographical survey information was not provided with relation to the existing buildings on site and ground levels across the site. Accordingly, the locations and heights were derived from photographs taken during the site inspection and oblique aerial photography.
- 2.4.4 We refer you to the drawings which accompany this report for a list of the third party information relied upon which our 3D computer model and resultant analyses are based.
- 2.4.5 Evergreen trees, hedges and shrubs have been represented in our 3D model where appropriate, but deciduous trees have not.



3. Results and Consideration

3.1 Daylight

- 3.1.1 The table below shows a summary of the results for the buildings tested for daylight availability in accordance with the BRE recommendations. Detailed test results are shown in Appendix C.

Daylight Assessment Summary Table						
Building Reference	Vertical Sky Component Assessment			Daylight Distribution Assessment		
	No. of windows assessed	No. that meet the BRE Guidelines	No. that do not meet the BRE Guidelines	No. of rooms assessed	No. that meet the BRE Guidelines	No. that do not meet the BRE Guidelines
Saint Georges	1	0	1	-	-	-
Bloomsbury Park Hotel	10	8	2	6	6	0
26 Gloucester Street	9	8	1	3	3	0
Total	20	18	4	9	9	0

Existing Baseline Condition

- 3.1.2 The existing baseline condition is at present a dilapidated 5-storey period building fronting Old Gloucester Street, with a smaller 3-storey rear projection to the rear, see accompanying drawing no. 1176/DSO/01.

The Proposed Scheme

- 3.1.3 The proposed extension will comprise an additional storey to the rear projection of the building, some 3.7m higher than the existing flat roof, see accompanying drawing 117/DSO/01.

Saint Georges

- 3.1.4 This building is a community (religious) building located immediately north of the Site, see accompanying drawing 117/DSO/01.
- 3.1.5 There is one window located to the south elevation of this building, some 3.6m from the boundary, that faces directly over the Site. This window (W1, Ground), serves the rear portion of the nave/sanctuary, which is also served by several lofty windows to the east and west elevations.
- 3.1.6 Turning now to the assessment results, regarding VSC, this window did not meet the BRE criteria, losing approximately half of the available light over the Site with the extension in place. The nave/sanctuary, however, as mentioned above, is served by additional windows from the east and west elevations, accordingly, we consider that the nave/sanctuary will remain largely unaffected in terms of BRE daylighting thresholds. It is also for this reason we did not undertake a DD assessment.



Bloomsbury Park Hotel

- 3.1.7 This buildings is a commercial building located immediately north and northeast of the Site, see accompanying drawing 117/DSO/01. This building comprises single rooms/suites arranged over several stories. Some windows to the rear elevations face over the Site.
- 3.1.8 With reference to accompanying drawing 117/DSO/01, taking each window in turn, W1 serves a bedroom. W2 and W3 serve what appears to be a main living room area. Moving eastwards, W4 and W5 serve either dual aspect living quarters, or auxiliary rooms and are located some 2m from the Site boundary; for the avoidance of doubt we have considered these rooms as habitable. And finally, W6 serves what appears to be a toilet or bathroom area. In accordance with the BRE guidelines, circulation space, hallways, storerooms, toilets and bathrooms, need not be assessed. We have, therefore, only assessed the habitable windows and rooms of this building that are most likely to be affected by the proposed development.
- 3.1.9 Regarding VSC, W5 to the first and second floors fall only just below the BRE criteria. However, the room it serves is dual aspect, and because W4 meets the BRE guidelines at both floor levels, it may be concluded that this room meets the BRE guidelines.
- 3.1.10 Regarding DD, all rooms assessed meet the BRE guidelines.

26 Old Gloucester Street

- 3.1.11 This building is a commercial/residential property located immediately south of the Site, see accompanying drawing 117/DSO/01.
- 3.1.12 The windows to the rear elevation of the main portion of this building appear to serve circulation space and toilet areas. They have therefore not been assessed. In the rear garden area there is a 3-storey Mews type property, which may be habitable. For the avoidance of doubt it has been included in our assessments.
- 3.1.13 Regarding VSC, only one window to the second floor level falls fractionally below the BRE guidelines. However, similarly to 3.1.10 above, the second floor room is served by 2 additional windows both of which meet the guidelines. In accordance with the BRE guide the higher of the values may be used. Regarding DD, all rooms assessed meet the BRE guidelines. Accordingly, it may be concluded that this building meets the BRE guidelines.
- 3.1.14 As with all development sites, it would be helpful at this stage to outline material mitigating factors. The BRE guidelines recognises that buildings located close to the site boundary, as is the case here, may be considered as “bad” neighbours, taking more than their fair share of light. Accordingly, a greater reduction in daylight or sunlight may be unavoidable and so the local authority may wish to apply different target values. Further, kitchens and bedrooms are generally given less weighting than that of a principle room such as a living room, and non-domestic buildings are given less weighting than domestic buildings.



- 3.1.15 In summary, the transgressions noted are considered acceptable due to the fact that the rooms are served by additional windows, which either meet the BRE guidelines, or remain unaffected.

3.2 Sunlight

- 3.2.1 In accordance with the BRE report, the buildings outlined below have been assessed for annual probable sunlight hours (APSH), where the windows face within 90 degrees of due south. Detailed test results are shown in Appendix D.

Sunlight (APSH) Assessment Summary Table						
Building Reference	Annual APSH			Winter APSH		
	No. of windows assessed	No. that meet the BRE Guidelines	No. that do not meet the BRE Guidelines	No. of windows assessed	No. that meet the BRE Guidelines	No. that do not meet the BRE Guidelines
Bloomsbury Park Hotel	2	2	0	2	2	0
Saint Georges	1	0	1	1	0	1
Total	3	2	1	3	2	1

Bloomsbury Park Hotel

- 3.2.2 Only one window (W4) serving habitable rooms to the first and second floor levels face within 90 degrees of due south. They both meet the BRE guidelines over both the annual period and during the winter months.

Saint Georges

- 3.2.3 One window, which serves the nave/sanctuary, faces within 90 degrees of due south.
- 3.2.4 Although, it would be reasonable to say that this building has a particular requirement for sunlight, it would be unreasonable, in our view, to treat this building as a dwelling for the purposes of our assessments. Notwithstanding the fact that it falls below the BRE criteria during the annual period, and loses a small amount during the winter months, it still attains approximately half of the BRE criteria for sunlight for a principle room within a dwelling. Given that this is a community building i.e. a non-domestic building, located some 3.6m from the boundary, the residual sunlight is considered reasonable.
- 3.2.5 In summary, only one of the three windows assessed falls below the BRE criteria during the annual period, and loses a small amount during the winter months. However, this building is non-domestic, located 3.6m to the boundary and still attains half of the equivalent sunlight recommended for a principle room within a dwelling. On balance, therefore, the effect of the proposed scheme is considered acceptable.



4. Conclusion

4.1 Daylight and Sunlight

- 4.1.1 For daylight, the buildings assessed meet the BRE guidelines for daylight. This is because the small number of transgressions noted to the VSC assessments are considered acceptable due to the fact that the rooms, where the transgressions occur, are served by additional windows, which either meet the BRE guidelines, or remain unaffected.
- 4.1.2 For sunlight, only one of the three windows assessed falls below the BRE criteria during the annual period, and loses a small amount during the winter months. However, the Saint Georges building is non-domestic, located 3.6m to the boundary and still attains half of the equivalent sunlight recommended for a principle room within a dwelling.

4.2 Generally

- 4.2.1 When considering the numerical results, it is important to approach and interpret the BRE guidelines flexibly along with the following material mitigating factors:
- Some properties are located close to the common boundary and so a reduction in natural light may be unavoidable;
 - Kitchens and bedrooms are given less weighting than that of a living room;
 - Non-domestic buildings are given less weighting than domestic buildings; and
 - the BRE guidelines are not intended to be mandatory, or applied in strict calculation terms.
- 4.2.2 Overall, it is considered that the impact upon the surrounding buildings arising from the proposed extension is acceptable.

Appendix A

BRE Assessments

BRE Assessments

Introduction

The Building Research Establishment Report “Site Layout Planning for Daylight and Sunlight – a guide to good practice 1991” (“the BRE Guidelines”) provides advice to building designers on site layout planning in order to achieve good daylight and sunlight amenity, not only to the proposed development and the open spaces between the proposed blocks, but also to the existing surrounding properties.

As part of this advice, the Building Research Establishment (BRE) have developed a series of assessments along with numerical guidelines so that the potential for good daylight and sunlight amenity can be achieved.

In general, the application of the BRE Guidelines are more appropriate for low density suburban development sites where there is a greater flexibility for site layout planning. In dense urban areas, however, development sites are usually constrained to a greater degree, often by immediately adjacent buildings etc. Accordingly, when dealing with dense urban areas the guidelines should be applied flexibly. This point is expressly recognised by the BRE Guidelines, which states in the introduction at page 1:

‘The Guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design... .. In special circumstances the developer or Planning Authority may wish to use different target values. For example, in a historic city centre a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings... ..’

Daylight

The criteria for assessing daylight to existing surrounding buildings are outlined at pages 4 to 8 of the BRE Guidelines. Generally, daylight assessments should be undertaken to habitable rooms within dwellings and to principal rooms in non-domestic buildings such as schools, hospitals and offices where the occupants have a reasonable expectation of daylight.

Whilst the BRE Guidelines contain a number of rules of thumb that inform site layout design some relate to specific situations, such as domestic extensions to the rear of a property, which although useful may not be considered appropriate for general site layout design.

The principal assessments used to assess daylight to existing surrounding buildings are outlined in more detail below along with a further daylight assessment, usually applied to proposed dwellings, which is admissible provided it is agreed with the local authority, or there are past precedents.

25° section line assessment

The first assessment is known as the [modified] 25° section line test. It is a simple rule of thumb that determines whether an existing building should still receive adequate daylight with the proposed development in place.

The BRE guide states at page 11:

“If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of a lowest window, subtends an angle of more than 25° to the horizontal may be affected.”

This assessment is most appropriate for well spaced, low-density or low-rise, uniform proposed developments. It is not an appropriate assessment for dense urban environments, where the existing building on the development site already subtends at an angle greater than 25° to the horizontal from the subject window. It is for this reason this 25° assessment is generally dispensed with and the more detailed assessments outlined below are entered into at the outset.

The Vertical Sky Component (“VSC”) Assessment

The Vertical Sky Component (“VSC”) assessment represents the amount of available daylight received directly from the sky at a particular window. The reference point for this assessment is the centre of the window, on the plane of the outer window wall.

A VSC is expressed as a percentage, being a ratio of that part of illuminance on a vertical plane (a window) that is received from a Standard Overcast Sky (CIE Sky), to the illuminance received on a horizontal plane on an unobstructed hemisphere of Standard Overcast Sky. To put it another way it is simply the amount of direct sky visibility a window receives, howsoever obstructed, expressed as a percentage of the amount of direct sky a horizontal unobstructed roof-light would receive.

The maximum percentage of direct skylight a vertical window can receive from a Standard Overcast Sky is 39.62%, or 40% when rounded. The BRE have determined that where a VSC value of 27% is achieved, then enough skylight (direct daylight) should reach the window of an existing building. This value is roughly equivalent to a uniform obstruction of 25°, with reference to the above assessment. The Guidelines go on to state:

“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, (a 20% reduction), then the occupants of the existing building will notice the difference.”

Consequently, the daylight to an existing building, as a result of a proposed development, may be reduced by 20% before that loss becomes noticeable.

The Daylight Distribution (“DD”) Assessment

The Daylight Distribution Assessment is undertaken at working plane level from within a subject room and represents the change in skyline when viewed through a subject window. The working plane level is set at 0.85m above floor level in dwellings and 0.70m in offices, however, in practice this distinction in height is not normally made, and so the working plane is generally set at 0.85m.

If significant areas beyond the no-sky line i.e. the point beyond the line where no sky can be seen at working plane level, the room will usually appear gloomy and supplementary electric lighting will be required. The BRE Guidance states:

“If, following construction of a new development, the no-sky line moves so that the area of the existing room which does not receive direct skylight is reduced to less than 0.8 times its former value, (a 20% reduction), then this will be noticeable to the occupants, and more of the room will be poorly lit.”

Consequently, the daylight to an existing building, as a result of a proposed development, may be reduced by 20% before that loss becomes noticeable.

The VSC and DD are the 2 principal assessments that are required to be undertaken in order to assess daylight to existing surrounding buildings.

The Average Daylight Factor (“ADF”) Assessment

A further daylight assessment, which may be undertaken, provided it is accepted by the local authority, is known as the Average Daylight Factor (ADF). Strictly speaking ADF assessments are used to determine the daylight availability to units within a proposed development, however, in more recent times the ADF assessment has been accepted by local authorities as a valid assessment for existing surrounding buildings.

An ADF assessment takes into account the amount of direct sky visibility incident on a window serving a subject room, the transmittance of the light through the glass, and the reflectance of that resultant light from the entire surface area of the room, which is then expressed as a percentage.

The ADF values recommended in the British Standard BS8206 Part 2 to which the BRE refers are: 2% for kitchens or open plan living areas, 1.5% for living rooms and 1% for bedrooms, if supplementary electric lighting is provided.

Nb. The guidelines outlined in the latest edition of BS8206 Part 2: 2008 are now applied.

Sunlight

Sunlight is valued in both residential and commercial buildings. It is seen as providing warmth and cheerfulness to a room, whilst also giving the occupants a therapeutic effect and a sense of wellbeing.

In residential properties the main requirement for sunlight is in the living room or conservatories, which should be assessed if they have a main window facing within 90° of due south. Sunlight is considered less important in kitchens and bedroom, although care should be taken not to block out too much.

In commercial or non-domestic buildings, the requirement for sunlight varies according to the use of the building. The BRE recommends that for a commercial building any space that has a particular or special requirement for sunlight should be assessed.

Annual Probable Sunlight Hours (APSH) Assessment

The APSH assessment is undertaken to the main window of residential and commercial buildings, where the window faces within 90° of due south. “Probable Sunlight Hours” may be defined as the total number of hours in the year that the sun is expected to shine on unobstructed ground, allowing for average levels of cloudiness.

At page 17 of the BRE guidelines the criteria for the APSH assessment are as follows: -

'If a living room of an existing dwelling has a main window facing within 90° of due south, and any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely effected. This will be the case if a point at the centre of the window, in the plane of the inner window wall, received in the year less than one quarter (25%) of annual probable sunlight hours including at least 5% of annual probable sunlight hours between 21 September and 21 March, and less than 0.8 times its former sunlight hours during either period.'

Consequently, the sunlight to an existing building, as a result of a proposed development, may be reduced by 20% in either the annual or winter periods before that loss becomes noticeable.

Overshadowing

The BRE guidance also offers advice on how to preserve sunlight to both existing and proposed open amenity spaces. Areas such as main back gardens of dwellings, parks, playing fields, playgrounds, waterways and public spaces such should be assessed. Small front gardens to dwellings and parking areas need not be assessed.

The permanent overshadowing assessment

The permanent overshadowing assessment is undertaken on 21 March, the spring equinox. This assessment shows areas of a subject amenity area where no sunlight will be available during the winter period, however, the subject area may still receive some sunlight during the summer.

The BRE states at page 20:

"for it to appear adequately sunlight throughout the year, at least half of a garden or amenity area should receive at least 2 hours of sunlight on 21 March. If, as a result of new development, an existing garden or amenity area does not meet these guidelines, and the area which can receive 2 hours of sun on 21 March is less than 0.8 times its former value (a 20% reduction), then the loss of sunlight is likely to be noticeable".

Consequently, if an open amenity area, is more than 50% in shade for more than 2 hours in either existing or proposed situations, and is reduced by more than 20% of its existing value as a result of new development, then that loss is likely to be noticeable.

The transient overshadowing assessment

A further overshadowing assessment, sometimes requested by the local authority for larger schemes, is the temporary, or transient overshadowing assessment. This assessment usually comprises hourly overshadowing images of the existing and proposed situations undertaken on key dates during the year such as 21 March, the spring equinox; 21 June, the summer solstice; and 21 December, the winter solstice.

The BRE guidance offers no express numerical values for this type of assessment, consequently it is purely subjective.

Appendix B

Context Drawings

Appendix C

Daylight Results

Building/Floor/ Reference	Window Reference	Existing v. Proposed	VSC Values %	% of Existing	Does it meet the BRE Guidelines?
------------------------------	---------------------	-------------------------	-----------------	---------------	-------------------------------------

Saint Georges

Ground	W1	Existing	11.00	48%	x
		Proposed	5.24		

26 Old Gloucester Street

Ground	W1	Existing	7.43	84%	✓
		Proposed	6.28		
Ground	W2	Existing	7.20	85%	✓
		Proposed	6.14		
Ground	W3	Existing	6.33	88%	✓
		Proposed	5.60		
First	W1	Existing	11.33	83%	✓
		Proposed	9.46		
First	W2	Existing	10.80	82%	✓
		Proposed	8.89		
First	W3	Existing	9.39	84%	✓
		Proposed	7.92		
Second	W1	Existing	17.02	84%	✓
		Proposed	14.31		
Second	W2	Existing	16.93	80%	✓
		Proposed	13.52		
Second	W3	Existing	15.31	78%	x
		Proposed	11.92		

Bloomsbury Park Hotel

First	W1	Existing	13.62	88%	✓
		Proposed	11.97		
First	W2	Existing	10.87	94%	✓
		Proposed	10.19		
First	W3	Existing	9.03	97%	✓
		Proposed	8.72		
First	W4	Existing	24.81	90%	✓
		Proposed	22.21		
First	W5	Existing	12.06	73%	x
		Proposed	8.84		
Second	W1	Existing	19.35	95%	✓
		Proposed	18.48		
Second	W2	Existing	15.95	97%	✓
		Proposed	15.44		
Second	W3	Existing	13.08	97%	✓
		Proposed	12.75		
Second	W4	Existing	32.91	86%	✓
		Proposed	28.38		
Second	W5	Existing	21.31	73%	x
		Proposed	15.52		

Building/Floor/ Reference	Room Reference	Whole Room sq m	Existing Area sq m	Proposed Area sq m	% of Existing Area	Does it meet the BRE Guidelines?
------------------------------	-------------------	--------------------	-----------------------	-----------------------	-----------------------	-------------------------------------

26 Old Gloucester Street

Ground	R1	31.66	6.16 19%	5.94 19%	0.96	✓
First	R1	31.66	8.09 26%	7.46 24%	0.92	✓
Second	R1	28.85	8.52 30%	7.55 26%	0.89	✓

Bloomsbury Park Hotel

First	R1	16.55	7.87 48%	6.61 40%	0.84	✓
First	R2	20.04	10.19 51%	8.48 42%	0.83	✓
First	R3	12.72	12.69 100%	12.55 99%	0.99	✓
Second	R1	16.55	12.69 77%	12.69 77%	1.00	✓
Second	R2	20.04	16.06 80%	16.03 80%	1.00	✓
Second	R3	12.72	12.71 100%	12.71 100%	1.00	✓

Appendix D

Sunlight Results

Building/Floor/ Room Reference	Window Reference	ANNUAL			Does it meet the BRE Guidelines?	WINTER			Does it meet the BRE Guidelines?
		Existing	Proposed	Reduction		Existing	Proposed	Reduction	

Saint Georges

Ground	W1	28	14	14	50.00%	x	3	2	1	66.67%	x
--------	----	----	----	----	--------	---	---	---	---	--------	---

Bloomsbury Park Hotel

First	W4	54	51	3	94.44%	✓	17	17	0	100.00%	✓
-------	----	----	----	---	--------	---	----	----	---	---------	---

Second	W4	74	60	14	81.08%	✓	24	23	1	95.83%	✓
--------	----	----	----	----	--------	---	----	----	---	--------	---