



RIGHT OF LIGHT
CONSULTING
Chartered Surveyors

Right of Light Consulting

Burley House
15-17 High Street
Rayleigh
Essex
SS6 7EW

TEL 0800 197 4836

E-MAIL enquiries@right-of-light.co.uk

WEBSITE www.right-of-light.co.uk

Daylight and Sunlight Study 24 Churchill Road, London NW5 1AN

23 January 2018



RICS

The mark of
property professionalism worldwide

Right of Light Consulting

Burley House
15-17 High Street
Rayleigh
Essex SS6 7EW

Tel: 0800 197 4836

DAYLIGHT AND SUNLIGHT STUDY
24 Churchill Road, London NW5 1AN

CONTENTS

1 EXECUTIVE SUMMARY	2
1.1 Overview	2
2 INFORMATION SOURCES	3
2.1 Documents Considered	3
3 METHODOLOGY OF THE STUDY	4
3.1 BRE Guide : Site Layout Planning for Daylight and Sunlight.....	4
3.2 Daylight to Windows	4
3.3 Sunlight availability to Windows	5
3.4 Overshadowing to Gardens and Open Spaces	5
4 RESULTS OF THE STUDY	7
4.1 Windows & Amenity Areas Considered.....	7
4.2 Numerical Results.....	7
4.3 Daylight to Windows	7
4.4 Sunlight to Windows	7
4.5 Overshadowing to Gardens and Open Spaces	7
4.6 Conclusion.....	7
5 CLARIFICATIONS	9
5.1 General.....	9
5.2 Project Specific.....	9

APPENDICES

APPENDIX 1	WINDOW & GARDEN KEY
APPENDIX 2	DAYLIGHT AND SUNLIGHT RESULTS
APPENDIX 3	OVERSHADOWING TO GARDENS AND OPEN SPACES

1 EXECUTIVE SUMMARY

1.1 Overview

- 1.1.1 Right of Light Consulting has been commissioned by Mr & Mrs Benedict to undertake a daylight and sunlight study of the proposed development at 24 Churchill Road, London NW5 1AN.
- 1.1.2 The aim of the study is to assess the impact of the development on the light receivable by the neighbouring properties at 23 and 25 Churchill Road. The study is based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice' by P J Littlefair 2011.
- 1.1.3 The window key in Appendix 1 identifies the windows analysed in this study. Appendix 2 gives the numerical results of the various daylight and sunlight tests. The results confirm that all neighbouring windows pass the BRE diffuse daylight and direct sunlight tests. The development also satisfies the BRE overshadowing to gardens and open spaces requirements.
- 1.1.4 In summary, the proposed development will have a low impact on the light receivable by its neighbouring properties. Right of Light Consulting confirms that the development design satisfies all of the requirements set out in the BRE guide 'Site Layout Planning for Daylight and Sunlight'.

2 INFORMATION SOURCES

2.1 Documents Considered

2.1.1 This report is based on drawings:

Andrew Dust Structural Engineers

01	Existing Ground Storey Plan	Rev –
02	Existing First Storey Plan	Rev –
03	Existing Second Storey Plan	Rev –
04	Existing Third Storey/ Roof Plan	Rev –
05	Existing Roof Plan	Rev –
06	Existing Front and Rear Elevations	Rev –
07	Existing Sections 1-1 and 2-2	Rev –
08	Existing Sections 3-3 and 4-4	Rev –
09	Existing Sections 5-5 and 6-6	Rev –
01	Proposed Site and Ground Storey Plan	Rev –
02	Proposed Lower, Ground, Ground, Upper Plans	Rev –
03	Proposed First & Second Storey and Roof Plans	Rev –
04	Proposed Front and Rear Elevations	Rev –
05	Proposed Sections 2-2 and 5-5	Rev –
06	Proposed Sections 7-7 and 4-4	Rev –

3 METHODOLOGY OF THE STUDY

3.1 BRE Guide : Site Layout Planning for Daylight and Sunlight

- 3.1.1 The study is based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice' by P J Littlefair 2011. In general, the BRE tests are based on the requirements of the British Standard, BS 8206 Part 2.
- 3.1.2 The standards set out in the BRE guide are intended to be used flexibly. The following statement is quoted directly from the BRE guide:
- 3.1.3 "The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide 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, since natural lighting is only one of many factors in site layout design."

3.2 Daylight to Windows

- 3.2.1 Diffuse daylight is the light received from the sun which has been diffused through the sky. Even on a cloudy day, when the sun is not visible, a room will continue to be lit with light from the sky. This is diffuse daylight.

Diffuse daylight calculations should be undertaken to all rooms where daylight is required, including living rooms, kitchens and bedrooms. Usually, if a kitchen is less than 13m², it is considered to be a non-habitable room and the daylight tests need not be applied. The BRE guide states that windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed.

- 3.2.2 The BRE guide contains two tests which measure diffuse daylight:

3.2.3 Test 1 Vertical Sky Component

The percentage of the sky visible from the centre of a window is known as the Vertical Sky Component. Diffuse daylight may be adversely affected if after a development the Vertical Sky Component is both less than 27% and less than 0.8 times its former value.

3.2.4 Test 2 Daylight Distribution

The BRE guide states that where room layouts are known, the impact on the daylighting distribution can be found by plotting the 'no sky line' in each of the main rooms. The no sky line is a line which separates areas of the working plane that do and do not have a direct view of the sky. Daylight may be adversely affected if, after the development, the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.

3.3 Sunlight availability to Windows

3.3.1 The BRE sunlight tests should be applied to all main living rooms and conservatories which have a window which faces within 90 degrees of due south. The guide states that kitchens and bedrooms are less important, although care should be taken not to block too much sunlight.

3.3.2 The BRE guide states that sunlight availability may be adversely affected 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.

3.4 Overshadowing to Gardens and Open Spaces

3.4.1 The availability of sunlight should be checked for all open spaces where sunlight is required. This would normally include:

- Gardens, usually the main back garden of a house
- Parks and playing fields
- Children's playgrounds
- Outdoor swimming pools and paddling pools
- Sitting out areas, such as those between non-domestic buildings and in public squares
- Focal points for views such as a group of monuments or fountains.

3.4.2 The BRE guide recommends that at least 50% of the area of each amenity space listed above should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sunlight on 21 March is less than 0.8 times its former value, then the loss of light is likely to be noticeable.

4 RESULTS OF THE STUDY

4.1 Windows & Amenity Areas Considered

- 4.1.1 Appendix 1 provides a plan and photographs to indicate the positions of the windows and gardens analysed in this study.

4.2 Numerical Results

- 4.2.1 Appendix 2 lists the detailed numerical daylight and sunlight test results. The results are interpreted below.

4.3 Daylight to Windows

- 4.3.1 All main habitable room windows pass the Vertical Sky Component test. The proposed development therefore satisfies the BRE daylight requirements.
- 4.3.2 All habitable rooms pass the Daylight Distribution test. The proposed development therefore satisfies the BRE daylight requirements.

4.4 Sunlight to Windows

- 4.4.1 All windows which face within 90 degrees of due south have been tested for direct sunlight. All habitable room windows pass both the total annual sunlight hours test and the winter sunlight hours test (annual probable sunlight hours between 21 September and 21 March). The proposed development therefore satisfies the BRE direct sunlight to windows requirements.

4.5 Overshadowing to Gardens and Open Spaces

- 4.5.1 The proposed development will not create any new areas which receive less than two hours of sunlight on 21 March. The before/after ratios are 1 (no loss) and the proposed development therefore passes the BRE overshadowing to gardens and open spaces test.

4.6 Conclusion

- 4.6.1 The proposed development will have a low impact on the light receivable by its neighbouring properties. Right of Light Consulting confirms that the development

design satisfies all of the requirements set out in the BRE guide 'Site Layout Planning for Daylight and Sunlight'.

5 CLARIFICATIONS

5.1 General

- 5.1.1 The report provided is solely for the use of the client and no liability to anyone else is accepted.
- 5.1.2 We have undertaken the survey following the guidelines of the RICS publication “Surveying Safely”.
- 5.1.3 We have used our best endeavours to ensure all relevant windows within the neighbouring properties have been identified.
- 5.1.4 Where limited access is available, assumptions will have been made.
- 5.1.5 We have adopted the conventional approach of assessing all habitable rooms within domestic properties.
- 5.1.6 This report is based upon and subject to the scope of work set out in Right of Light Consulting’s quotation and standard terms and conditions.
- 5.1.7 Right of Light Consulting have endeavoured to include in the report those matters, which they have knowledge of or of which they have been made aware, that might adversely affect the validity of the opinion given.

5.2 Project Specific

- 5.2.1 None.

APPENDICES

APPENDIX 1

WINDOW & GARDEN KEY

Window & Garden Key

Key

- Window 1 ● Window reference
- Development site
- Neighbouring Properties
- Neighbouring Gardens and Amenity Areas



Project Name: 24 Churchill Road, London N15 1AN

Drawing Title: Appendix 1 - Neighbouring Windows

Scale: Do not scale

Drawing No: 1 of 1

Rev: -

Right of Light Consulting
Chartered Surveyors

Burley House
15 - 17 High Street
Rayleigh
Essex SS6 7EW
Tel: 0800 197 4836
enquiries@right-of-light.co.uk
www.right-of-light-consulting.com

Neighbouring Windows



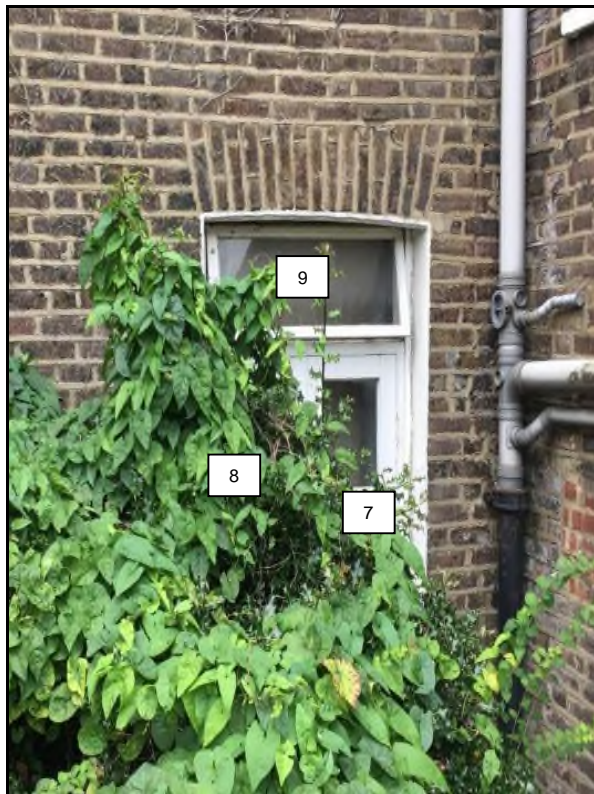
25 Churchill Road



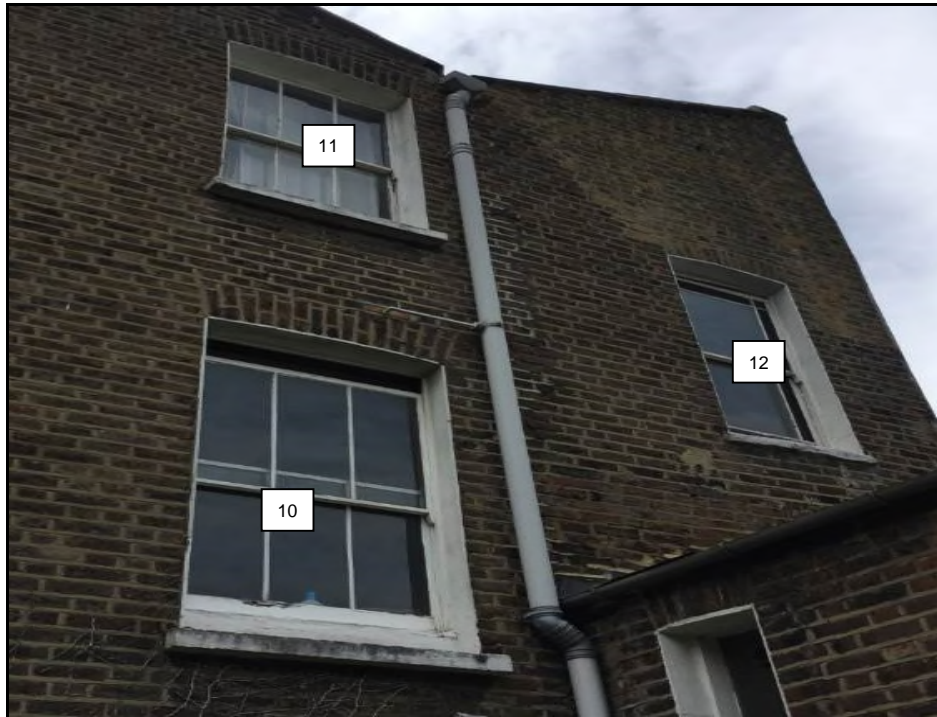
25 Churchill Road



25 Churchill Road



25 Churchill Road



25 Churchill Road



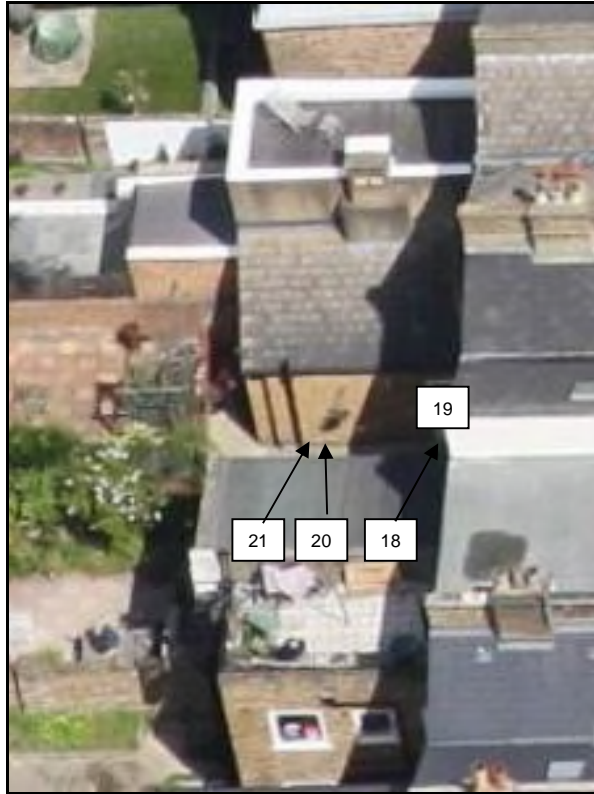
25 Churchill Road



23 Churchill Road



23 Churchill Road



23 Churchill Road



23 Churchill Road

APPENDIX 2

DAYLIGHT AND SUNLIGHT RESULTS

Appendix 2 - Vertical Sky Component

24 Churchill Road, London NW5 1AN

Reference	Use Class	Vertical Sky Component			
		Before	After	Loss	Ratio
<u>25 Churchill Road</u>					
Window 1	WC	27.8%	27.6%	0.2%	0.99
Window 2	WC	28.1%	27.8%	0.3%	0.99
Window 3	Bathroom	31.3%	31.1%	0.2%	0.99
Window 4	Bathroom	20.4%	15.6%	4.8%	0.76
Window 5	Utility	17.0%	11.3%	5.7%	0.66
Window 6	WC	16.6%	13.0%	3.6%	0.78
Windows 7, 8, 9	Bedroom	16.9%	14.0%	2.9%	0.83
Window 10	Kitchen	31.2%	29.5%	1.7%	0.95
Window 11	Bedroom	36.5%	36.3%	0.2%	0.99
Window 12	Stairs	32.7%	32.3%	0.4%	0.99
Window 13	Habitable	36.7%	36.7%	0.0%	1.0
<u>23 Churchill Road</u>					
Window 14	Bedroom	6.3%	5.2%	1.1%	0.83
Window 15	Kitchen	16.8%	15.0%	1.8%	0.89
Window 16	Bedroom	31.2%	29.5%	1.7%	0.95
Window 17	Bedroom	36.8%	37.0%	-0.2%	1.01
Window 18	Bathroom	1.2%	0.7%	0.5%	0.58
Window 19	Bathroom	4.0%	2.5%	1.5%	0.63
Window 20	Kitchen	3.8%	2.2%	1.6%	0.58
Window 21	Kitchen	6.6%	3.5%	3.1%	0.53
Window 22	Bedroom	29.8%	28.8%	1.0%	0.97
Window 23	Bedroom	29.2%	28.7%	0.5%	0.98
Window 24	Stairs	29.6%	27.6%	2.0%	0.93
Window 25	Stairs	35.2%	35.2%	0.0%	1.0
Window 26	Stairs	93.0%	93.0%	0.0%	1.0

Appendix 2 - Daylight Distribution
24 Churchill Road, London NW5 1AN

Reference	Use Class	Daylight Distribution			
		Before	After	Loss	Ratio
<u>25 Churchill Road</u>					
Window 1	WC	86%	86%	0.0%	1.0
Window 2	WC	86%	86%	0.0%	1.0
Window 3	Bathroom	97%	87%	10.0%	0.9
Window 4	Bathroom	97%	87%	10.0%	0.9
Window 5	Utility	67%	41%	26.0%	0.61
Window 6	WC	1%	1%	0.0%	1.0
Window 7	Bedroom	84%	83%	1.0%	0.99
Window 8	Bedroom	84%	83%	1.0%	0.99
Window 9	Bedroom	84%	83%	1.0%	0.99
Window 10	Kitchen	97%	97%	0.0%	1.0
Window 11	Bedroom	97%	97%	0.0%	1.0
Window 12	Stairs	85%	85%	0.0%	1.0
Window 13	Habitable	98%	98%	0.0%	1.0
<u>23 Churchill Road</u>					
Window 14	Bedroom	58%	56%	2.0%	0.97
Window 15	Kitchen	91%	86%	5.0%	0.95
Window 16	Bedroom	94%	94%	0.0%	1.0
Window 17	Bedroom	96%	97%	-1.0%	1.01
Window 18	Bathroom	7%	2%	5.0%	0.29
Window 19	Bathroom	27%	13%	14.0%	0.48
Window 20	Kitchen	40%	33%	7.0%	0.83
Window 21	Kitchen	40%	33%	7.0%	0.83
Window 22	Bedroom	96%	96%	0.0%	1.0
Window 23	Bedroom	96%	96%	0.0%	1.0
Window 24	Stairs	45%	45%	0.0%	1.0
Window 25	Stairs	54%	54%	0.0%	1.0
Window 26	Stairs	65%	65%	0.0%	1.0

Appendix 2 - Sunlight to Windows
24 Churchill Road, London NW5 1AN

Reference	Use Class	Sunlight to Windows							
		Total Sunlight Hours				Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
<u>25 Churchill Road</u>									
Window 13	Habitable	19%	19%	0%	1.0	11%	11%	0%	1.0
<u>23 Churchill Road</u>									
Window 18	Bathroom	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 19	Bathroom	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 20	Kitchen	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 21	Kitchen	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 26	Stairs	89%	89%	0%	1.0	23%	23%	0%	1.0

Appendix 2 - Overshadowing to Gardens and Open Spaces
24 Churchill Road, London NW5 1AN

Reference	Total Area	Area receiving at least two hours of sunlight on 21st March						
		Before		After		Loss		Ratio
<u>25 Churchill Road</u>								
Garden 1	71.03 m2	15.3 m2	22%	15.3 m2	22%	0.0 m2	0%	1.0
<u>23 Churchill Road</u>								
Garden 2	51.47 m2	1.82 m2	4%	1.82 m2	4%	0.0 m2	0%	1.0

APPENDIX 3

OVERSHADOWING TO GARDENS AND OPEN SPACES

Appendix 3 : Overshadowing to Gardens and Open Spaces

Key



Receives under two hours sunlight on 21st March before and after the development.



Receives under two hours sunlight on 21st March before the development; but will receive at least two hours sunlight on 21st March after the development (light improved).



Receives at least two hours sunlight on 21st March before the development; but will receive under two hours sunlight after the development (light loss).



Receives at least two hours sunlight on 21st March before and after the development.

Notes:

- 1. Contours derived in accordance with BRE Guide : Site Layout Planning for Daylight and Sunlight

Project Name: 24 Churchill Road, London NW5 1AN

Drawing Title: Appendix 3 - Overshadowing to Gardens and Open Spaces

Scale: Do not scale

Drawing No: 1 of 1

Rev: -

Drawn: []


Date: []

Checked: []

Date: []

Created: []

Date: []



RIGHT OF LIGHT

CONSULTING

Chartered Surveyors

Burley House

15 - 17 High Street

Rayleigh

Essex SS6 7EW

Tel: 0800 197 4836

enquiries@right-of-light.co.uk

www.right-of-light.co.uk

