

REPORT

**30a THURLOW ROAD,
HAMPSTEAD,
LONDON,
NW3 5PP.**

**DAYLIGHT & SUNLIGHT
NEIGHBOURING &
PROPOSED ACCOMMODATION**

NOVEMBER 2015

BVP
BROOKE VINCENT + PARTNERS



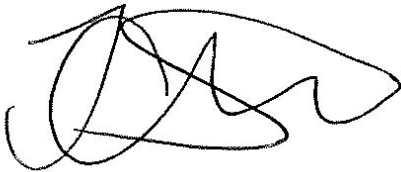
CONTENTS OF REPORT

	<u>Page</u>
1. SUMMARY	1
2. PLANNING POLICY	2
3. METHOD OF CALCULATION	5
4. DAYLIGHT RESULTS	9
5. SUNLIGHT RESULTS	11

Appendices: 1. Location Plan, CAD Model

2. Daylight and Sunlight Results – Proposed Accommodation

Drafted by:



Joe Chavrimootoo BArch
For Brooke Vincent + Partners

email: joe.chavrimootoo@brooke-vincent.co.uk

Checked by:



John Carter FRICS
For Brooke Vincent + Partners

email: john.carter@brooke-vincent.co.uk

12th Nov 2015

30a Thurlow Road, London, NW3 5PP

Daylight & Sunlight

We are instructed to report upon the two proposed bedrooms at basement level and the immediate neighbouring properties in regards to the daylight and sunlight aspects of this Planning Application.

Our report is based upon the scheme drawings prepared by Square Feet Architects, survey information photographs and online images, plus daylight and sunlight studies.

1.0 SUMMARY

- 1.1 This report has been drafted by reference to the Building Research Establishment (BRE) publication (2011), "*Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice*" and local planning policy.
- 1.2 The closest neighbouring buildings from the proposed development have been tested with all windows achieving BRE criteria. There would be no adverse effect.
- 1.3 Our studies have confirmed that the levels of daylight & sunlight within the proposed bedrooms at basement level, as recommended by BRE and the London Plan, would be satisfied. There is no criteria for sunlight availability to bedrooms.
- 1.4 In summary, BRE's recommendations and criteria have been satisfied for the two bedrooms at basement level and neighbouring properties therefore, the relevant policies of Camden's Development Plan and London Plan have been satisfied.



2.0 **PLANNING POLICY**

2.1 **London Borough of Camden**

Core Strategy (2010)

- 2.1.1 Camden's *Local Development Framework (LDF)*, November 2010, sets out the key elements of the Council's vision for the Borough through its Core Strategy. The relevant policies are listed below.

POLICY CS5 – Managing the impact of growth and development

The second part of this Policy confirms:

“The Council will protect the amenity of Camden’s residents and those working in and visiting the Borough by:

- (e) *“Making sure that the impact of developments on their occupiers and neighbours is fully considered.”*

In the explanatory notes following this Policy item 5.8 confirms: *“We will expect development to avoid harmful effects on the amenity of existing and future occupiers and nearby properties or, where this is not possible, to take appropriate measures to minimise potential negative impacts.”*

Development Policies (2010)

POLICY DP26 – Managing the impact of development on occupiers and neighbours

“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.”*

2.1.2 Camden also makes reference to the good practice guide detailed in item 3, 'Method of Calculation', which is used to compare the compatibility of the application to the stated Policies.

2.2 The London Plan (2011) and Revised Minor Alterations to the London Plan (2015)

2.2.1 The London Plan (2011) will form part of the proposed Development Plan. Within the "*Housing Supplementary Planning Guidance, 2012*," reference is made to the following:

2.2.2 **Baseline Standards** are those endorsed by the Mayor as addressing issues of particular strategic concern.

2.2.3 **Good Practice Standards** are those put forward by the Mayor as representing general good practice.

2.3 The standards that are relevant to daylight and sunlight are detailed below:

2.3.1 Baseline

Standard 5.2.1 - developments should avoid single aspect dwellings that are north facing, exposed to noise exposure Categories C or D, or contain three or more bedrooms.

Note: "north facing is usually defined as an orientation less than 45° either side of due north".

2.3.2 Good Practice

Standard 5.5.1 - glazing to all habitable rooms should be not less than 20% of the internal floor area of the room.

Standard 5.5.2 - all homes should provide for direct sunlight to enter at least one habitable room for part of the day. Living areas and kitchen dining spaces should preferably receive direct sunlight.

3.0 **METHOD OF CALCULATION**

Building Research Establishment

- 3.1 The calculations and considerations within this report are based upon the Building Research Establishment (BRE) publication 2011 "Site Layout Planning to Daylight and Sunlight. A Guide To Good Practice". BRE confirm that the Guide does not contain mandatory requirements and in the Introduction provides a full explanation of its purpose:-

"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."

"It aims 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."

"In special circumstances the developer or planning authority may wish to use different target levels. For example, in an historic city centre, or in an area with high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings."

3.2 **Modelling and Results**

- 3.2.1 Our analysis and subsequent results are produced by the application of our specialist software on our three-dimensional model, images of which are included in **Appendix 1**. This is based upon survey information, supplemented by a site visit, photographs, and the architect's planning drawings also included in **Appendix 1**.

3.2.2 In this model, the neighbouring buildings are defined in green, the existing site buildings in blue and the proposed scheme in magenta.

3.3 Daylight

3.3.1 Daylight is not specific to a particular direction, as it is received from the dome of the sky.

3.3.2 Reference is made in the BRE report to various methods of assessing the effect a development will have on diffused daylight.

3.3.3 The simplest methods are not appropriate in an urban environment, where the built form is invariably complex. Vertical Sky Component (VSC) is the calculation most readily adopted, as the principles of calculation can be established by relating the location of any particular window to the existing and proposed, built environment.

3.3.4 The BRE Guide states *"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 the lowest window, subtends an angle of more than 25° to the horizontal, then the diffused daylighting of the existing building may be adversely affected.*

This will be the case if the Vertical Sky Component measured at the centre of an existing main window is less than 27% and less than 0.8 times its former value".

3.3.5 Where the VSC calculation has been used, BRE also seeks to consider daylight distribution (DD) within neighbouring rooms, once again defining an adverse effect as a result that is less than 0.8 the former value. DD measures the portion of a room that has a sight of the sky from a reference plane set 0.85m above floor level. Access is rarely available and we have therefore taken a reasoned approach.

3.3.6 The method of calculation for proposed accommodation is known as Average Daylight Factor (ADF). This is the most comprehensive of daylight calculations defined by BRE and is appropriate to proposed accommodation, because all relevant information is available.

3.3.7 The initial calculation is Vertical Sky Component which measures the value of daylight received at the centre of the window face. The area of glazing through which the light is transmitted and the transmission value of the glazing is then considered. Within the room the total surface area is calculated and a degree of reflection applied. The outcome is then compared to the values recommended by BRE. Assuming that the rooms are used in conjunction with artificial lighting the minimum recommended ADF levels are:-

2%	Kitchen or combined kitchen and living space
1.5%	Living room and study
1%	Bedroom

Where kitchens have been sited at the rear of the room these are to be served by task lighting in the modern mode.

3.3.8 Where a room is served by more than one window, ADF calculations are made in relation to each window and the individual results added together to provide the true ADF for that room. It should also be noted that full height glazing requires individual ADF calculations for those parts above and below the reference plane of 850mm above floor level. Hence the designation 'L' and 'U' against the result shown for a Living room; the lower reading being reduced in accordance with BRE guidance to satisfy the reduced effect this portion of daylight has on daylight received at the reference plane.

3.3.9 With regard to the ADF calculations for proposed accommodation daylight, the following assumptions have been made with regard to the various elements that together are computed to produce the ADF value;

- Glazing transmittance – 0.68 for the double glazing (BRE default reading);
- Net glazed area of the window – 0.8 (BRE default reading)
- Interior surface reflectance – Living / Kitchen / Dining– 0.5 (BRE default 0.5)
– Bedroom 0.5 (BRE default 0.5)
- Reflectance beneath reference plane – 0.15 (BRE default reading)

3.4 Sunlight

The BRE *Guide to Good Practice* confirms:

3.4.1 Proposed accommodation “*will appear reasonably sunlit provided*”:-

- *at least one main window wall faces within 90° of due south; and*
- *the centre of at least one window to a main living room can receive 25% of annual probable sunlight hours, including at least 5% of annual probable sunlight hours in the winter months between 21 September and 21 March.*
- *In housing, the main requirement for the sunlight is living rooms... It is viewed as less important in bedrooms and in kitchens.*

3.4.2 BRE acknowledges that a simple layout strategy can be an issue for a block of flats:-

“Sensitive layout design of flats will attempt to ensure that each individual dwelling has at least one main living room which can receive a reasonable amount of sunlight. In both flats and houses, a sensible approach is to try to match internal room layout with window/wall orientation. Where possible, living rooms should face the southern or western parts of the sky and kitchens towards the north or east.

The overall sunlighting potential of a large residential development may be initially assessed by counting how many dwellings have a window to a main living room facing south, east or west. The aim should be to minimise the number of dwellings whose living rooms face solely north, north east or north west, unless there is some compensating factor such as an appealing view to the north.”

4.0 DAYLIGHT RESULTS

Neighbouring Properties

- 4.1.1 The proposed development is located in between two residential properties. The immediate neighbouring windows serving habitable rooms at the lowest levels have been analysed. The images can be seen in **Appendix 1** and the results of the neighbouring analysis can be found in **Appendix 2**. The results for the proposed accommodation can be found in **Appendix 3**.

North

4.2 41 Rosslyn Hill

- 4.2.1 The windows on the rear elevation of this house have a view of the proposed development. The results show there is very little change in daylight values between the existing and the proposed condition. All three windows tested would achieve above 27% fully satisfying BRE criteria. There would be no adverse effect.

East

4.3 Rosslyn Hill

- 4.3.1 The neighbouring properties located along Rosslyn Hill are too distant to be affected by the proposal and therefore have been omitted from the analysis.

South

4.4 30 Thurlow Road

- 4.4.1 A semi-detached property is located south of the site. There are two windows at lower ground floor serving a bedroom, in addition to, a window at upper ground floor also serving habitable rooms which have all been analysed. The remaining windows on the flank elevation serve non-habitable rooms and have been excluded from the analysis.

4.4.2 It can be seen from the results, all windows receive below 27% VSC in the existing condition. In such instances BRE states an adverse effect would only occur if the proposed VSC is less than 27% and 0.8 times the former value, which is reiterated in **item 3.3.4**. There is no change of daylight in three out of four windows. The difference between the existing and proposed value for window W2 at lower ground floor, is only 0.83. This figure is above the recommended value of 0.8 and therefore, BRE criteria is satisfied and there would be no adverse effect.

West

4.5 Thurlow Road

The proposal would not cause an adverse effect to the neighbouring properties along Thurlow road which face the site, as they are located at a generous distance.

5.0 Proposed Accommodation

5.1.1 Within the basement level, two bedrooms are each served by a skylight and floor to ceiling windows to provide maximum glazing and allow sufficient daylight into each bedroom. As a result, both bedrooms achieve above the recommended ADF values.

5.2 Daylight Summary

5.2.1 All windows which serve habitable rooms which are likely to be affected by the proposal have achieved BRE criteria and there would be no adverse effect.

5.2.2 Within the proposed accommodation, the two bedrooms tested achieve BRE criteria and there would be no adverse effect.

5.0 SUNLIGHT RESULTS

5.1 Neighbouring Properties

5.1.1 The windows within 30 Thurlow Road facing the site are all within 90 degrees of north and therefore, labelled North-Facing.

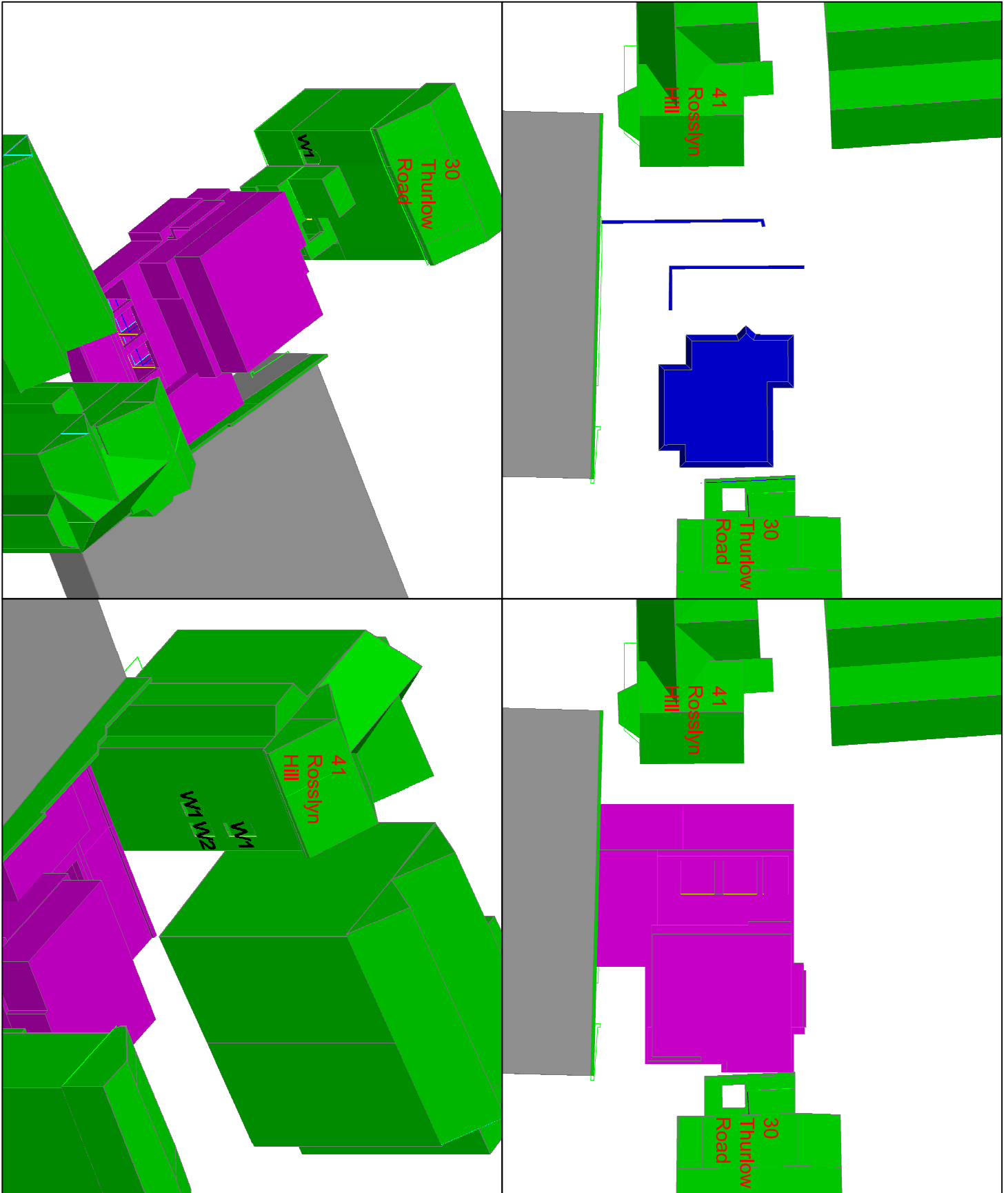
5.1.2 In regards to 41 Rosslyn Hill, there is no change in sunlight values from the existing to proposed conditions. As a result, all windows achieve BRE criteria and there would be no adverse effect.

5.2 Proposed Accommodation

5.2.1 BRE does not contain a requirement for sunlight availability to bedrooms.

APPENDIX 1

**LOCATION PLAN
CAD MODEL**



- Existing Buildings
- Demolished
- Proposal

SOURCES OF DATA

Rev.	Date	Description

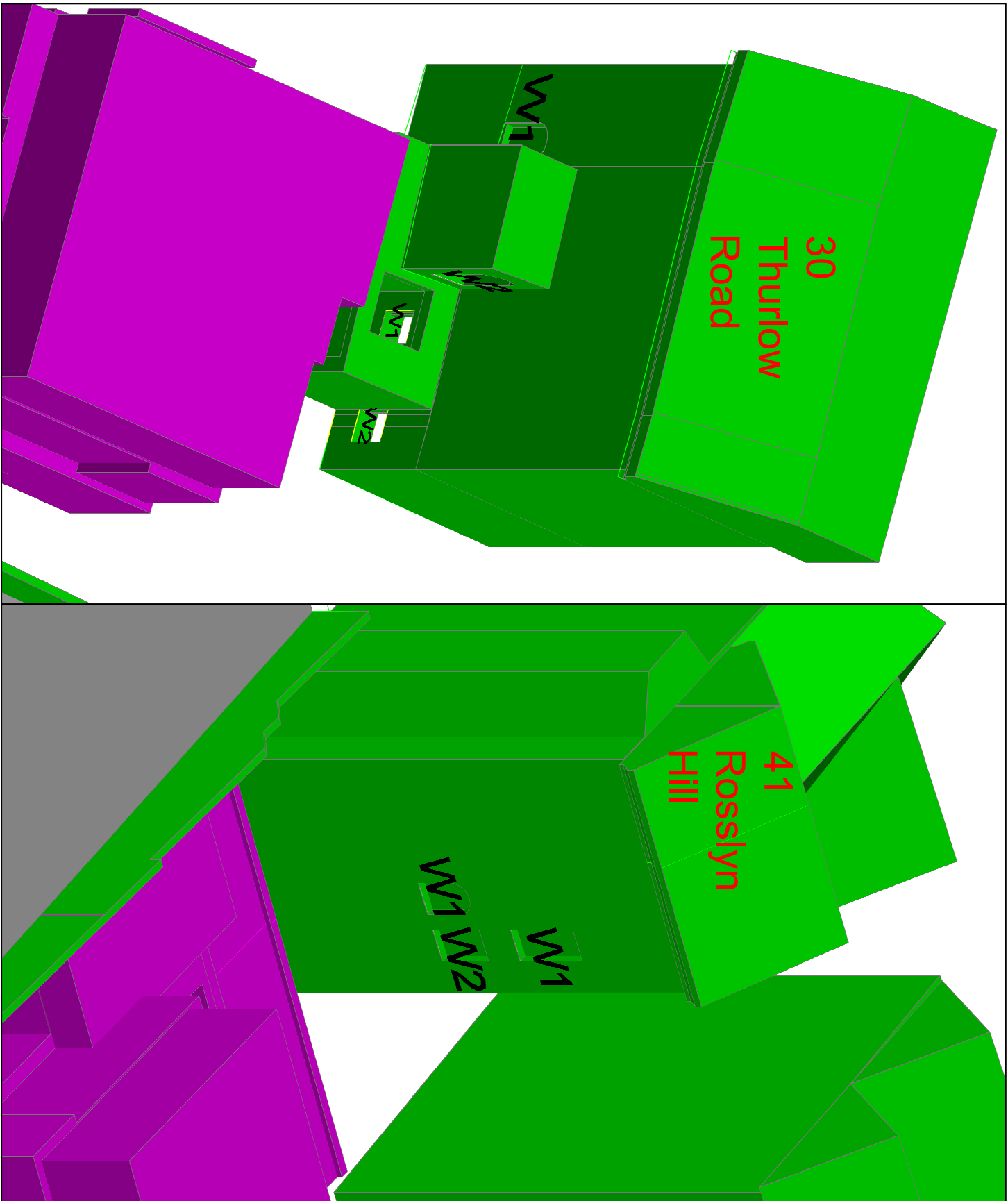
Brooke Vincent & Partners
 Chartered Building Surveyors
 Enterprise House The Crest London NW4 2HW
 Tel: 020 8202 1013 Fax: 020 8202 9488
 Email: info@brooke-ventures.co.uk

CLIENT / ARCHITECT:
Square Feet Architects

PROJECT: 30a Thurlow Rd
 NWS 57P

DRAWING:
 Plan/Perspective
 Existing/Proposed

DRAWN: JC	PROJECT NO: 10793	REV: A
SCALE: NTS		
DATE: 06.11.2015		
DRAWING NO: 10793-01		



- Existing Buildings
- Demolished
- Proposal

SOURCES OF DATA

Rev.	Date	Description

Brooke Vincent & Partners

Chartered Building Surveyors
 Enterprise House The Crest London NW4 2HW
 Tel: 020 8202 1013 Fax: 020 8202 2488
 Email: info@brookevincent.co.uk

CLIENT / ARCHITECT:
 Square Feet Architects

PROJECT: 30a Thurlow Rd
 NW3 5EP

DRAWINGS:

Perspective
 Existing/Proposed

DRAWN: JC **PROJECT NO.:**

SCALE: NTS **10793**

DATE: 06.11.2015

DRAWING NO.: 10793-02 **REV.:** A

APPENDIX 2

DAYLIGHT AND SUNLIGHT RESULTS

Neighbouring Buildings

Project Name: 2015-11-10 Analysis Correct Orientation													
Project No:													
Report Title:													
Architect:													
Scheme Iteration No:													
Floor Ref.	Room Ref.	Room Use.	Window Ref.	Scenario	VSC	Difference	Pass / Fail	Available Sunlight Hours					
								Annual %	Diff	Pass / Fail	Winter %	Diff	Pass / Fail

30 Thurlow Road

Lower Ground	R1	Living Room	W1	Existing	4.46	1.00	PASS	*North Facing
				Proposed	4.46			
Lower Ground	R1	Living Room	W2	Existing	19.16	0.83	PASS	*North Facing
				Proposed	15.96			
Upper Ground	RoomAttach	-	W1	Existing	24.88	1.00	PASS	*North Facing
				Proposed	24.88			
Upper Ground	RoomAttach	-	W2	Existing	22.66	1.00	PASS	*North Facing
				Proposed	22.66			

Project Name: 2015-11-10 Analysis Correct Orientation													
Project No:													
Report Title:													
Architect:													
Scheme Iteration No:													
Floor	Room	Room Use.	Window	Scenario	VSC	Difference	Pass / Fail	Available Sunlight Hours					
Ref.	Ref.		Ref.					Annual %	Diff	Pass / Fail	Winter %	Diff	Pass / Fail
41 Rosslyn Gardens													
Ground	RoomAttach	-	W1	Existing	35.66	0.99	PASS	68	1.00	PASS	21	1.00	PASS
				Proposed	35.17			68			21		
Ground	RoomAttach	-	W2	Existing	35.63	0.99	PASS	68	1	PASS	21	1	PASS
				Proposed	35.14			68			21		
First	RoomAttach	-	W1	Existing	36.42	1	PASS	69	1	PASS	22	1	PASS
				Proposed	36.42			69			22		

APPENDIX 3

DAYLIGHT AND SUNLIGHT RESULTS

Proposed Accommodation

Project Name: 2015-08-06 Analysis												
Project No:												
Report Title:												
Architect:												
Scheme Iteration No:												
Iteration Description:												
Date of Analysis: 13/08/2015												
Floor	Room	Room Use.	Window	Glass Transmittance	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Req'd Value	Pass/Fail

Proposal

Basement	R1	Bedroom	W1-L	0.68	2.06	33.18	70.48	0.50	0.15	0.13	1	PASS
			W1-U	0.68	4.08	40.68	70.48	0.50	1.00	2.13		
Basement	R2	Bedroom	W2-L	0.68	1.81	30.10	64.94	0.50	0.15	0.11	1	PASS
			W2-U	0.68	3.59	39.99	64.94	0.50	1.00	2.00		