REPORT

Rochester Square London NW1 9RY

DAYLIGHT, SUNLIGHT & OVERSHADOWING TO

NEIGHBOURING PROPERTIES &
PROPOSED ACCOMODATION

December 2017



CONTENTS OF REPORT

		<u>Page</u>
1.	SUMMARY	1
2.	PLANNING POLICY	2
3.	METHOD OF CALCULATION	6
4.	DAYLIGHT RESULTS	11
5.	SUNLIGHT RESULTS	14
6.	OVERSHADOWING RESULTS	15

- Appendices: 1. Location Plan, CAD Model
 - 2. Daylight and Sunlight Results Neighbouring Properties
 - 3. Daylight and Sunlight Results Proposed Accommodation
 - 4. Overshadowing Results Neighbouring Properties

Drafted by:

Roberta Mancini MArch For Brooke Vincent + Partners

email: roberta.mancini@brooke-vincent.co.uk

Checked by:

For Brooke Vincent + Partners

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



11th December 2017

Rochester Square, London NW1

Daylight & Sunlight

We are instructed to report upon the daylight and sunlight aspects of this Planning Application in relation to neighbouring residential properties and proposed accommodation.

Our report is based upon the scheme drawings prepared by Spacelab, survey information and photographs, 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 Our studies have confirmed that the amenity values of daylight and sunlight to neighbouring residential properties would be retained to a level that satisfies BRE criteria.
- Our studies have confirmed that in all but two locations, daylight within the proposed accommodation would satisfy BRE criteria within all habitable rooms. Sunlight availability would vary in response to aspect but the architect has ensured the living rooms would receive an acceptable level of annual probable sunlight hours. The recommendations of the London Plan are also satisfied.
- 1.4 The proposed development would not be the cause of any additional overshadowing of neighbouring gardens and BRE criterion is satisfied.
- 1.5 In summary, the scheme has been designed to respect BRE's criteria and therefore the relevant policy within Camden's Local Plan.



2.0 PLANNING POLICY

London Borough of Camden

2.1.1 The Camden Local Plan replaced the Council's Core Strategy and Development Policies in July 2017. The relevant policy is listed below:

Policy A1 Managing the impact of development

The Council will seek to protect the quality of life of occupiers and neighbours. We will grant permission for development unless this causes unacceptable harm to amenity.

We will:

a. seek to ensure that the amenity of communities, occupiers and neighbours is protected;

. . .

d. require mitigation measures where necessary.

The factors we will consider include:

. . .

e. visual privacy, outlook; f. sunlight, daylight and overshadowing;

• • •

Camden's Local Plan also refer to supplementary planning document Camden Planning Guidance CPG: Amenity which is currently under revision and update to support the delivery of the recently adopted Camden Local Plan.

- 2.2 The London Plan 2016 (Including Housing Standards minor alterations March 2016)
- 2.2.1 The London Plan forms part of Camden's planning policy. The Housing Supplementary Planning Guidance (HSPG) 2016, defines in greater detail the London Plan's approach to Housing requirements and standards. Those aspects of the HSPG

that are relevant to this report are mostly relevant to the London Plan **Policy 3.5** – **Quality and Design of Housing Development**, and as detailed below.

Housing Supplementary Planning Guidance – March 2016

2.2.2 **Daylight and Sunlight**

Standard 32 – 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.

The explanatory notes that follow Standard 32 include the following comments:

2.3.45 "... In addition to the above standards, BRE good practice guidelines and methodology can be used to assess the levels of daylight and sunlight achieved within new developments, taking into account guidance below and in Section 1.3".

Section 1.3 is entitled 'Optimising Housing Potential' and confirms that "... 'optimisation' can be defined as 'developing land to the fullest amount consistent with all relevant planning objectives'...".

2.3.46 "Where direct sunlight cannot be achieved in line with Standard 32, developers should demonstrate how the daylight standards proposed within a scheme and individual units would achieve good amenity for residents...".

2.3.47 "BRE guidelines on assessing daylight and sunlight should be applied sensitively to higher density development in London, particularly in central and urban settings, recognising the London Plan strategic approach to optimising housing output (Policy 3.4) and the need to accommodate additional housing supply in locations with good accessibility suitable for higher density development (Policy 3.3). Quantitative standards on daylight and sunlight should not be applied rigidly without carefully considering the location and context and standards experienced in broadly comparable housing typologies in London".

2.2.3 **Dual Aspect**

Standard 29 – Developments should minimise the number of single aspect dwellings. Single aspect dwellings that are north facing, or exposed to noise levels above which significant adverse effects on health and quality of life occur, or which contain three or more bedrooms should be avoided.

The explanatory notes that follow Standard 29 include the following comments:

2.3.37 "Dual aspect dwellings with opening windows on at least two sides have many inherent benefits. These include better daylight, a greater chance of direct sunlight for longer periods...".

2.3.39 "... The design of single aspect flats will need to demonstrate that all habitable rooms and the kitchen are provided with adequate ventilation, privacy and daylight and the orientation enhances amenity, including views. North facing single aspect dwellings should be avoided wherever possible. However, in applying this standard consideration should also be given to other planning and design objectives for a site, for example the aim to maximise active frontages and minimise inactive frontages".

2.3.41 "In single aspect dwellings with more than two bedrooms it is difficult to achieve adequate natural ventilation and daylight to all rooms in an efficient plan layout which avoids long internal corridors. Single aspect dwellings containing three or more bedrooms should therefore be avoided. The design of single aspect ground floor dwellings will require particular consideration to maintain privacy and adequate levels of daylight".

2.2.4 Policy 7.6 Architecture –

"...B. Buildings and structures should:

d. not cause unacceptable harm to the amenity of surrounding land and buildings, particularly residential buildings, in relation to privacy, overshadowing, wind and microclimate. This is particularly important for tall buildings.

The explanatory notes that follow Policy 7.6 include the following comments:

- 1.3.45 "Policy 7.6Bd requires new development to avoid causing 'unacceptable harm' to the amenity of surrounding land and buildings, particularly in relation to privacy and overshadowing and where tall buildings are proposed. An appropriate degree of flexibility needs to be applied when using BRE guidelines100 to assess the daylight and sunlight impacts of new development on surrounding properties, as well as within new developments themselves. Guidelines should be applied sensitively to higher density development, especially in opportunity areas, town centres, large sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time".
- 1.3.46 "The degree of harm on adjacent properties and the daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London. Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from those presently experienced but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm".
- 2.2.5 The London Plan does not provide numerical values for daylight or sunlight. Those given in this report are based upon the BRE guidance referred to above, in explanatory note 2.3.47 and more fully detailed in the item that follows this.

3. 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". This is referred to by Local Authorities as a means of articulating their policy. 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 photographs, plus the architect's planning drawings also included in Appendix 3.
- 3.2.2 In this model, the existing site building is defined in blue, the neighbouring buildings in green and the proposed building 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 within neighbouring rooms, once again defining an adverse effect as a result that is less than 0.8 the former value. 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; 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 0.6 (BRE default reading 0.5)
 - Reflectance beneath reference plane 0.2 (BRE default reading 0.15)

The variation in Living Room and Bedroom reflectance would be produced by the permanent floor finish of light coloured timber with lacquered finish. BRE have assumed a carpeted finish, which has a lower reflectance value than the permanent floor finish.

3.4 Sunlight

3.4.1 The BRE Guide to Good Practice confirms:

- (i) Sunlight is only relevant to neighbouring residential windows which have a view of the proposed development and face within 90° of south, i.e. south of the eastwest axis.
- (ii) If any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the main living room window, a vertical section perpendicular to the window, then the sunlighting in the existing dwelling may be adversely affected.
- (iii) Similarly, the sunlight availability to an existing dwelling may be adversely affected if the APSH, when measured at the centre of the window is reduced by more than 4%.
- (iv) Should the loss be greater than 4%, then sunlight availability may be adversely affected if the centre of the window receives less than 25% of the annual probable sunlight hours, of which 5% of the annual total should be received between 21 September and 21 March (winter) and less than 0.8 times its former sunlight hours during either period.
- (v) Kitchens and bedrooms are less important, although care should be taken not to block too much sun.

3.4.2 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 probably 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.

3.4.3 BRE acknowledges that a simple layout strategy can be an issue for 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."

3.4.4 BRE then provides an example of "careful layout design" in which "four out of the five flats shown have a south-facing living room". This example is provided without having to consider the site constraints that impact upon most urban locations.

3.5 Permanent Overshadowing

3.5.1 BRE explains that sunlight in the spaces between buildings has an important impact and is important for a number of reasons. It therefore recommends that:-

"The availability of sunlight should be checked for all open spaces where it will be required. This would normally include:-

- gardens, usually the main back garden of a house;
- parks and playing fields;
- 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.
- 3.5.2 BRE recognises that each of these spaces will have different sunlight requirements and suggests the Equinox (21 March) is chosen as a date for assessment:-

"It is recommended that at least half of the amenity areas listed above should receive at least two hours of sunlight on 21 March. If a detailed calculation cannot be carried out and the area is a simple shape, it is suggested that the centre of the area should receive at least two hours of sunlight on 21 March."

4.0 DAYLIGHT RESULTS

4.1 **Neighbouring Buildings**

NORTH

4.1 Julian Court

- 4.1.1 To the north west of the site, there is a block of residential flats known as Julian Court. We have obtained the internal layout from the online real estate portal known as Rightmove to consider daylight within the rooms. However we have assumed the window on the flank elevation is serving a bathroom, due to the frosted glass, and BRE confirms there is no criterion to meet in these circumstances.
- 4.1.2 The VSC results in Appendix 2 show that in many locations, the existing VSC is below the BRE's benchmark figure of 27% and the proposed value follows suit. Wherever proposed VSC values are less than 27%, reference needs to be made to the guidance and this is reiterated in item 3.3.4 of this report. This clearly states that an adverse effect may only occur if proposed VSC is not only less than 27% but also less than 0.8 its former (existing) value. In all locations, the windows would remain well above 0.8 the existing value, and there would be no adverse effect.
- 4.1.3 We have given consideration to room sizes and Daylight Distribution within and the results can be referred to in Appendix 2. The results confirm that the daylight within the rooms would remain unchanged in the proposed condition and there would be no adverse effect. BRE criterion has been satisfied.

EAST

- 4.2 28 Rochester Square
- 4.2.1 To the east of the site, there is a row of terraced properties. We have analysed the closest property known as No.28 Rochester Square. The results confirm VSC values well above the requirements and BRE criterion has been fully satisfied. No purpose is served in considering daylight distribution.

SOUTH

- 4.3 29-36 Rochester Square
- 4.3.1 To the south of the site, a row of terraced properties stands opposite the site. We have tested windows at the lower ground, upper ground floor and first floor with a view of the proposed development. Windows above the first floor level have not been included as they are above the roof level of the proposal and therefore their daylight cannot be impacted upon.
- 4.3.2 The results confirm the great majority of windows would retained VSC above 27% and, where this does not occur, the proposed reading would in any case be at or above 0.92 the former reading.
- 4.3.3 We have not sought access to these properties because it was not considered necessary. It can be seen that the proposed value for daylight at the face of all the windows is very similar to the existing value. There can be no expectation of a significant reduction in Daylight Distribution within these rooms.

SOUTH AND WEST

- 4.4 144-146 Camden Road rear
- 4.4.1 Adjacent to the south west to the Rochester Square Spiritualist Temple is a recently built house and the windows to the rear with a view of the development site have been tested.

- 4.4.2 The VSC results confirm the daylight at the face of the windows would remain unchanged in the proposed condition with figures that are at or above 0.96 the former (existing) value.
- 4.4.3 We have given consideration to room sizes and Daylight Distribution within and the results can be referred to in Appendix 2. The results confirm that the daylight within the rooms would remain unchanged in the proposed condition and there would be no adverse effect. BRE criterion has been satisfied.
- 4.5 Other properties to the south and west would not have a view or only a very restrictive view of the proposal and, as the results show, their daylight would remain unchanged.

4.6 Proposed Accommodation

- 4.6.1 We have analysed ADF (which is fully explained in item 3.3.6 to 3.3.9) to all habitable rooms and the results are detailed within Appendix 3.
- 4.6.2 The results confirm ADF in all but two locations would be above to the BRE's recommended values. The exceptions are bedroom R3a and R4a at lower ground floor level where the proposed ADF values would be respectively 0.91 and 0.80. These are slightly below the BRE recommended value of 1% for bedrooms and in both locations this is what an Environmental Statement Chapter would identify as a negligible impact. BRE also recognises the daylight to bedrooms is not as important as other habitable spaces.

4.7 **Daylight Summary**

- 4.7.1 Our analysis has confirmed that all relevant neighbouring buildings would retain daylight at levels that satisfy BRE criteria.
- 4.7.2 Within the proposed accommodation, we have worked with the architect to ensure that habitable rooms receive the benefit of good daylight. In only two locations at lower ground floor level the results would be slightly lower and should not negate a good set of results.

5.0 SUNLIGHT RESULTS

5.1 **Neighbouring Residential Buildings**

- 5.1.1 The sunlight results are defined by the two right hand columns in Appendix 2 and adjacent to the VSC results.
- 5.1.2 Windows that do not face within 90 degrees of south are classified as 'north facing'. In these circumstances there is no criterion to meet.
- 5.1.3 The results for windows that face within 90 degrees of south demonstrate that when consideration is given to BRE's recommended values, there would be no adverse effect.

5.2 **Proposed Accommodation**

- 5.2.1 Site constraints in the urban environment often make sunlight availability recommendations difficult to achieve. This has been fully considered by the architect and the design is in accordance with BRE example of 80% of living rooms with a southerly aspect.
- 5.2.2 Furthermore, by reference to item 2.3 of this report, the London Plan HSPG Standard 32, confirms that where direct sunlight cannot be achieved a good standard of daylight should be provided. The daylight (ADF) values would be in excess of BRE recommended levels in all the proposed living rooms and by a significant amount. This confirms that a good amenity would be retained to the single living room that is not south facing.

5.3 **Sunlight Summary**

- 5.3.1 Sunlight availability to neighbouring residential properties that face within 90° of south would demonstrate that BRE's recommended values have been fully satisfied.
- 5.3.2 The proposed accommodation has a layout which has been well-considered and accords with both recommendations of the London Plan (2016) and BRE guidelines.

6.0 OVERSHADOWING RESULTS

6.1 For the purposes of this report, we have analysed the neighbouring amenity areas named below, as the only areas likely to notice any significant impact. We refer to the Permanent overshadowing contours within Appendix 4, which represent conditions on 21 March.

29-36 Rochester Square

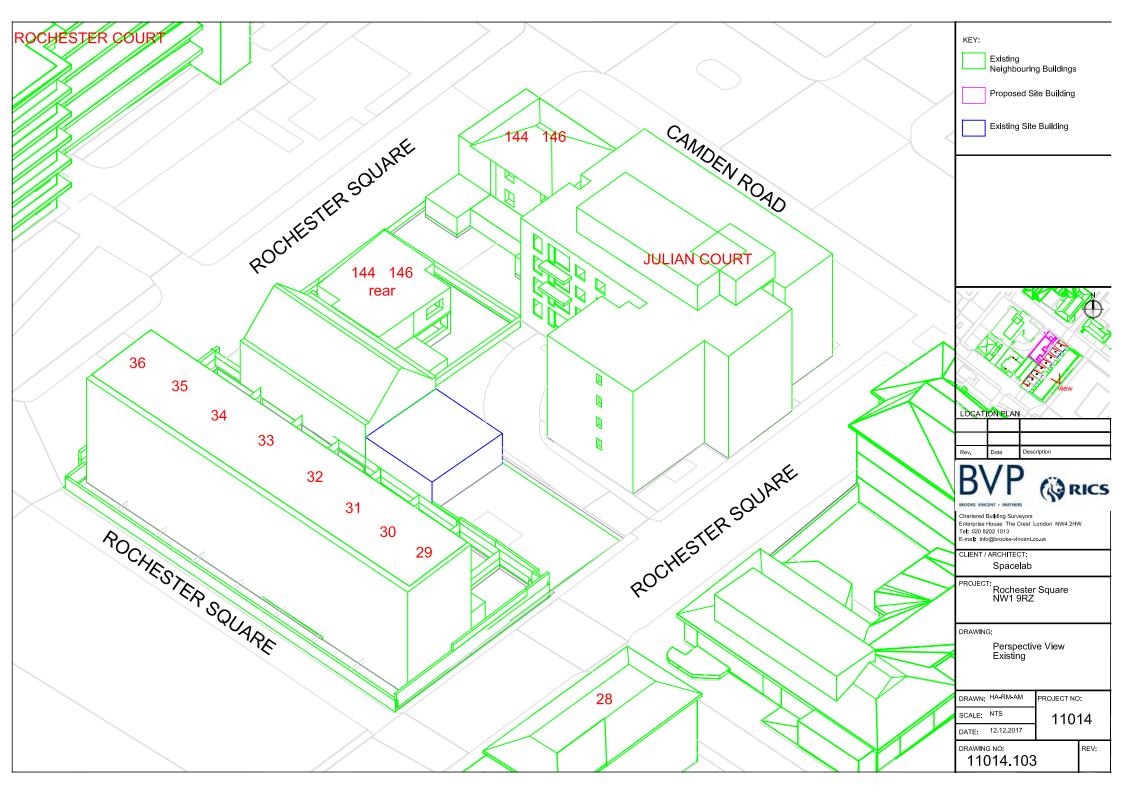
6.2 The values would remain above 0.8 the respective existing amenity values and the proposed development would not be the cause of any adverse effect. BRE criterion has been satisfied.

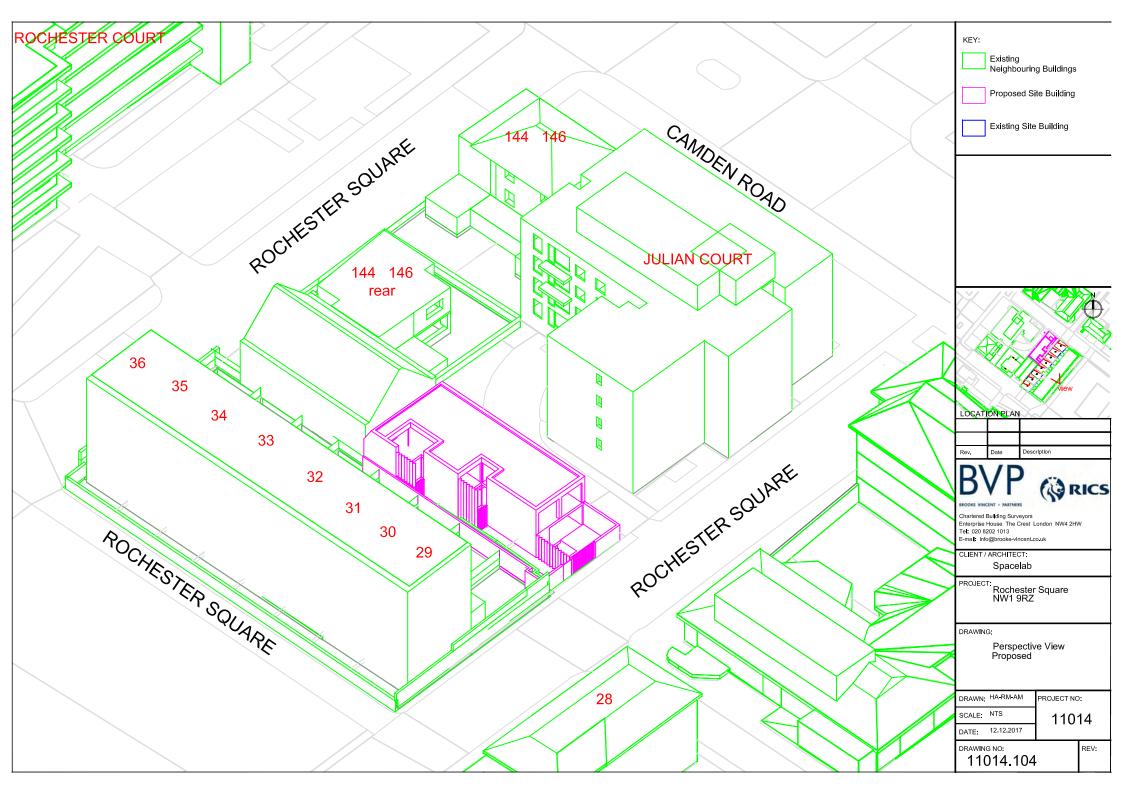
APPENDIX 1

LOCATION PLAN
CAD MODEL









APPENDIX 2

DAYLIGHT AND SUNLIGHT RESULTS TO NEIGHBOURING PROPERTIES

Project Name: Rochester Square
Project No.: 11014
Report Title: Daylight & Sunlight - Neighbour Analysis Test
Date of Analysis: 12/12/17

Floor Ref.	Room Ref.	Room Use.	Window Ref.		vsc	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
						Julia	n Court							
Ground	R1	Livingroom	W1	Existing Proposed	27.88 27.83	0.99	YES	130°	58 58	1.00	YES	15 15	1.00	YES
			W2	Existing Proposed	26.72 26.65	0.99	YES	130°	59 59	1.00	YES	17 17	1.00	YES
			W3	Existing Proposed	25.78 25.71	0.99	YES	130°	59 59	1.00	YES	18 18	1.00	YES
	R2	Kitchen	W4	Existing Proposed	23.79 23.79	1.00	YES	130°	49 49	1.00	YES	18 18	1.00	YES
	R3a	Bedroom	W5	Existing Proposed	19.96 19.96	1.00	YES	130°	45 45	1.00	YES	18 18	1.00	YES
	R3	Bedroom	W6	Existing Proposed	7.55 7.55	1.00	YES	130°	28 28	1.00	YES	13 13	1.00	YES
	R4	Bedroom	W7	Existing Proposed	20.85 20.85	1.00	YES	219°	52 52	1.00	YES	20 20	1.00	YES
	R5	Bathroom	W8	Existing Proposed	31.95 30.86	0.96	YES	129°	59 58	0.98	YES	14 14	1.00	YES
First	R1	Livingroom	W1	Existing Proposed	30.35 30.35	1.00	YES	130°	63 63	1.00	YES	20 20	1.00	YES
			W2	Existing Proposed	21.25 21.25	1.00	YES	130°	54 54	1.00	YES	20 20	1.00	YES
			W3	Existing Proposed	15.68 15.68	1.00	YES	130°	33 33	1.00	YES	16	1.00	YES
	R2	Kitchen	W4	Existing Proposed	25.48 25.48	1.00	YES	130°	43	1.00	YES	15 15	1.00	YES
	R3a	Bedroom	W5	Existing Proposed	22.88 22.88	1.00	YES	130°	48 48	1.00	YES	20 20	1.00	YES
	R3	Bedroom	W6	Existing Proposed	8.48 8.48	1.00	YES	130°	29 29	1.00	YES	13 13	1.00	YES
	R4	Bedroom	W7	Existing Proposed	23.56 23.56	1.00	YES	219°	55 55	1.00	YES	23 23	1.00	YES
	R5	Livingroom	W8	Existing Proposed	28.72 28.72	1.00	YES	219°	62	1.00	YES	24 24	1.00	YES
	R6	Bathroom	W9	Existing Proposed	34.67 34.67	1.00	YES	129°	67	1.00	YES	21 21	1.00	YES
Second	R1	Livingroom	W1	Existing Proposed	33.38 33.38	1.00	YES	130°	66	1.00	YES	22 22	1.00	YES
			W2	Existing Proposed	24.81 24.81	1.00	YES	130°	58	1.00	YES	22 22	1.00	YES
			W3	Existing Proposed	19.95 19.95	1.00	YES	130°	37 37	1.00	YES	18 18	1.00	YES
	R2	Kitchen	W4	Existing Proposed	29.78 29.78	1.00	YES	130°	52 52	1.00	YES	19 19	1.00	YES
	R3a	Bedroom	W5	Existing Proposed	27.01	1.00	YES	130°	56	1.00	YES	21	1.00	YES
	R3	Bedroom	W6	Existing	27.01 10.37	1.00	YES	130°	56 30	1.00	YES	21 14	1.00	YES
	R4	Bedroom	W7	Proposed Existing	10.37 27.41	1.00	YES	219°	30 61	1.00	YES	14 24	1.00	YES
	R5	Livingroom	W8	Proposed Existing	27.41 31.88	1.00	YES	219°	61 66	1.00	YES	24 24	1.00	YES
	R6	Bathroom	W9	Proposed Existing	31.88 37.09	1.00	YES	129°	66 69	1.00	YES	24 23	1.00	YES
Third	R1	Livingroom	W1	Proposed Existing	37.09 37.76	1.00	YES	130°	70	1.00	YES	23 24	1.00	YES
			W2	Proposed Existing	37.76 37.43	1.00	YES	130°	70 70	1.00	YES	24 24	1.00	YES
			W3	Proposed Existing	37.43 37.37	1.00	YES	130°	70 70	1.00	YES	24 24	1.00	YES
	R2	Kitchen	W4	Proposed Existing	37.37 36.07	1.00	YES	130°	70 66	1.00	YES	24 24	1.00	YES
	R3a	Bedroom	W5	Proposed Existing	36.07 33.54	1.00	YES	130°	66 63	1.00	YES	24 23	1.00	YES
	R4	Bedroom	W7	Proposed Existing	33.54 32.19	1.00	YES	219°	63 64	1.00	YES	23 24	1.00	YES
	R5	Livingroom	W8	Proposed Existing	32.19 35.11	1.00	YES	219°	64 68	1.00	YES	24 25	1.00	YES
	R6	Bathroom	W9	Proposed Existing	35.11 39.03	1.00	YES	129°	68 70	1.00	YES	25 24	1.00	YES
				Proposed	39.03				70			24		

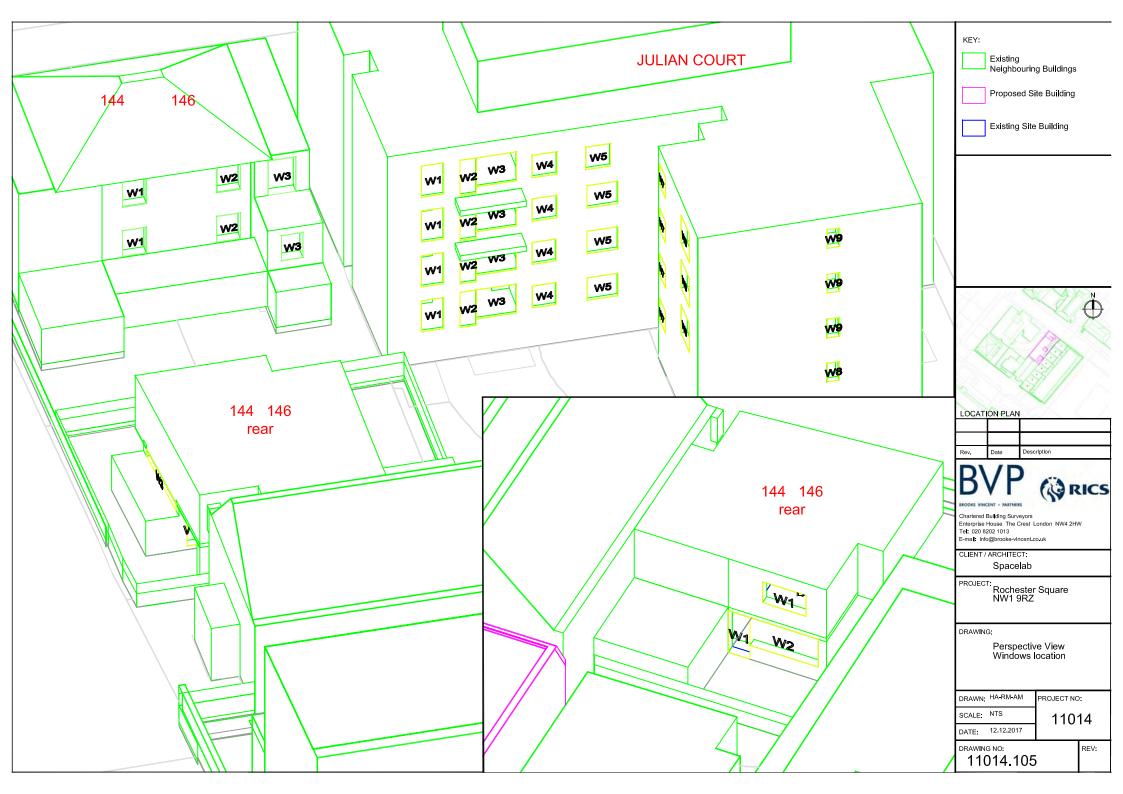
Project Name: Rochester Square
Project No.: 11014
Report Title: Daylight & Sunlight - Neighbour Analysis Test
Date of Analysis: 12/12/17

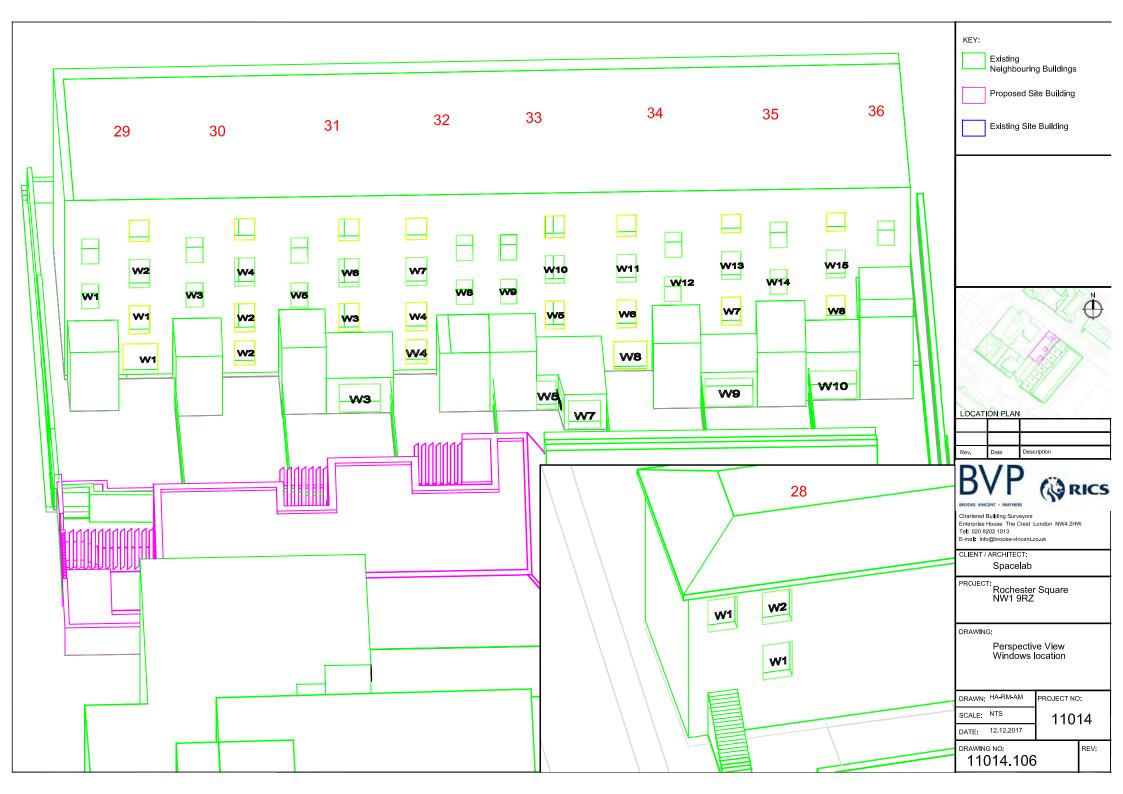
Floor Ref.	Room Ref.	Room Use.	Window Ref.		vsc	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
						28 Roche	ster Squar	e						
Ground	No-Room	Residential	W1	Existing Proposed	33.75 33.71	0.99	YES	218°	67 67	1.00	YES	22 22	1.00	YES
First	No-Room	Residential	W1	Existing	34.38	1.00	YES	218°	67	1.00	YES	24	1.00	YES
	No-Room	Residential	W2	Proposed Existing	34.38 34.44	1.00	YES	218°	67 67	1.00	YES	24 24	1.00	YES
				Proposed	34.44				67			24		
					;	29-36 Roch	ester Squa	ire						
ower Ground	No-Room	Residential	W1	Existing	16.54	0.99	YES	310°N		*North*			*North*	
	No-Room	Residential	W2	Proposed Existing	16.51 16.07	0.95	YES	310°N		*North*			*North*	
	No-Room	Residential	W3	Proposed Existing	15.33 23.77	0.92	YES	310°N		*North*			*North*	
	No-Room	Residential	W4	Proposed Existing	22.06 16.07	0.97	YES	310°N		*North*			*North*	
	No-Room	Residential	W5	Proposed Existing	15.70 17.00	0.92	YES	310°N		*North*			*North*	
	No-Room	Residential	W6	Proposed Existing	15.76 19.98	0.95	YES	29°N		*North*			*North*	
	No-Room	Residential	W7	Proposed Existing	19.04 16.95	0.93	YES	310°N		*North*			*North*	
	No-Room	Residential	W8	Proposed Existing	15.80 12.88	1.00	YES	310°N		*North*			*North*	
				Proposed	12.88									
	No-Room	Residential	W9	Existing Proposed	17.49 17.49	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W10	Existing Proposed	19.85 19.85	1.00	YES	310°N		*North*			*North*	
Ground	No-Room	Residential	W1	Existing Proposed	32.98 32.86	0.99	YES	310°N		*North*			*North*	
	No-Room	Residential	W2	Existing Proposed	32.00 31.69	0.99	YES	310°N		*North*			*North*	
	No-Room	Residential	W3	Existing Proposed	28.46 28.38	0.99	YES	310°N		*North*			*North*	
	No-Room	Residential	W4	Existing Proposed	30.37 30.29	0.99	YES	310°N		*North*			*North*	
	No-Room	Residential	W5	Existing	28.83	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W6	Proposed Existing	28.83	0.99	YES	310°N		*North*			*North*	
	No-Room	Residential	W7	Proposed Existing	27.97 27.69	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W8	Proposed Existing	27.69 23.21	1.00	YES	310°N		*North*			*North*	
First	No-Room	Residential	W1	Proposed Existing	23.21 34.75	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W2	Proposed Existing	34.75 35.79	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W3	Proposed Existing	35.79 34.19	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W4	Proposed Existing	34.19 35.31	1.00	YES	310°N		*North*			*North*	
				Proposed	35.31									
	No-Room	Residential	W5	Existing Proposed	33.41 33.38	0.99	YES	310°N		*North*			*North*	
	No-Room	Residential	W6	Existing Proposed	34.57 34.57	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W7	Existing Proposed	34.22 34.22	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W8	Existing Proposed	32.07 32.07	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W9	Existing Proposed	31.79 31.79	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W10	Existing Proposed	33.66 33.66	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W11	Existing	33.53	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W12	Proposed Existing	33.53 31.21	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W13	Proposed Existing	31.21 33.81	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W14	Proposed Existing	33.81 32.44	1.00	YES	310°N		*North*			*North*	
	No-Room	Residential	W15	Proposed Existing	32.44 34.39	1.00	YES	310°N		*North*			*North*	
	140-NOOIII	Nesidelitial	AATO	Proposed	34.39	1.00	ILJ	210 14		INOLLII			NOITH	

Project Name: Rochester Square Project No.: 11014 Report Title: Daylight & Sunlight - Neighbour Analysis Test Date of Analysis: 12/12/17 Meets Meets Meets Window Window Floor Ref. Room Ref. Room Use. vsc Pr/Ex BRE Annual Pr/Ex BRE Winter Pr/Ex BRE Orientation Ref. Criteria Criteria Criteria 144-146 Camden Rd 1.00 YES Ground Residential W1 Existing 27.73 1.00 YES 130° 1.00 YES 13 No-Room 50 27.73 50 Proposed YES W2 Existing YES 130° 48 YES 17 1.00 No-Room Residential 21.81 1.00 1.00 48 Proposed 21.81 No-Room Residential W3 Existing 24.78 1.00 YES 129° 55 1.00 YES 18 1.00 YES 24 78 Proposed First W1 YES 130° YES 1.00 YES No-Room Residential Existing 23.80 1.00 45 1.00 16 Proposed 23.80 45 16 No-Room Residential W2 Existing 21.00 1.00 YES 130° 43 1.00 YES 19 1.00 YES Proposed 21.00 43 No-Room Residential W3 Existing 25.01 1.00 YES 130° 51 1.00 YES 21 1.00 YES 25.01 144-146 Camden Road rear Ground R1 LD W1 Existing 13.19 1.00 YES 40°N *North* *North* Proposed 13.19 W2 Existing 21.41 0.96 YES 40°N *North* *North* Proposed 20.67 W3 Existing 26.88 1.00 YES 215° 61 1.00 YES 13 1.00 YES Proposed 26.88 61 13 W4 7.48 YES 130° 24 1.00 YES 10 1.00 YES Existing 1.00 Proposed First R1 Bedroom W1 Existing 25.49 0.99 YES 40°N *North* *North* 25.39 Proposed **Rochester Court** Ground No-Room Residential W1 Existing 14.85 1.00 YES 38°N *North* *North* Proposed 14.85 W2 Existing 2.82 40°N *North* *North* No-Room Residential 1.00 YES Proposed First W1 1.00 YFS 38°N *North* *North* No-Room Residential Existing 17 82 Proposed 17.82 No-Room Residential W2 Existing 10.19 1.00 YES 38°N *North* *North* Proposed 10.19 No-Room Residential W3 Existing 4.90 1.00 YES 40°N *North* *North*

Proposed

4.90

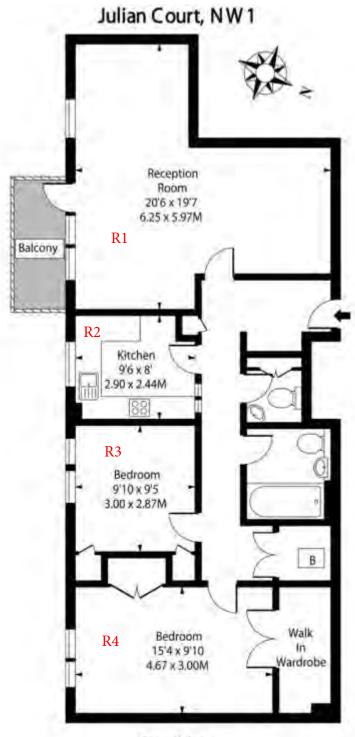




Project Name: Rochester Square
Project No.: 11014
Report Title: Daylight Distribution Analysis - Neighbour Test
Date of Analysis: 12/12/17

Floor Ref.	Room Ref.	Room Use.		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	Mee BRI Crite
			Julian Cour	t				
Ground	R1	Livingroom	Area m2	27.35	27.15	27.15		
			% of room		99%	99%	1.00	YES
	R2	Kitchen	Area m2	6.63	6.52	6.52		
			% of room		98%	98%	1.00	YES
	R3a	Bedroom	Area m2	8.50	8.37	8.37	4.00	\/F(
	D2	Dadaaaa	% of room	14.25	98%	98%	1.00	YES
	R3	Bedroom	Area m2 % of room	14.25	9.29	9.29	1.00	VE
	R4	Bedroom	% or room Area m2	11.35	65% 6.13	65% 6.13	1.00	YE:
	K4	Beuroom	% of room	11.33	54%	54%	1.00	YES
	R5	Bathroom	Area m2	3.00	2.79	2.79	1.00	11.
	11.5	Datinooni	% of room	3.00	93%	93%	1.00	YES
First	R1	Livingroom	Area m2	27.35	27.15	27.15	1.00	120
		2.4	% of room	27.00	99%	99%	1.00	YES
	R2	Kitchen	Area m2	6.63	6.55	6.55		
			% of room		99%	99%	1.00	YES
	R3a	Bedroom	Area m2	8.50	8.38	8.38		
			% of room		99%	99%	1.00	YES
	R3	Bedroom	Area m2	14.25	9.49	9.49		
			% of room		67%	67%	1.00	YES
	R4	Bedroom	Area m2	11.35	6.48	6.48		
			% of room		57%	57%	1.00	YES
	R5	Livingroom	Area m2	13.20	12.72	12.72		
			% of room		96%	96%	1.00	YES
	R6	Bathroom	Area m2	3.00	2.83	2.83		
			% of room		94%	94%	1.00	YES
Second	R1	Livingroom	Area m2	27.35	27.22	27.22	4.00	
	D 2	Mikali	% of room	6.63	100%	100%	1.00	YES
	R2	Kitchen	Area m2	6.63	6.57	6.57	1.00	VE
	R3a	Bedroom	% of room Area m2	8.50	99%	99% 8.38	1.00	YES
	nod	Deuroom	% of room	6.50	8.38 99%	8.38 99 %	1.00	YES
	R3	Bedroom	Area m2	14.25	9.61	9.61	1.00	163
	5	Dearoom	% of room	1-7.23	67%	67%	1.00	YES
	R4	Bedroom	Area m2	11.35	7.72	7.72	2.00	
			% of room		68%	68%	1.00	YES
	R5	Livingroom	Area m2	13.20	12.92	12.92		
		J	% of room		98%	98%	1.00	YES
	R6	Bathroom	Area m2	3.00	2.85	2.85		
			% of room		95%	95%	1.00	YES
Third	R1	Livingroom	Area m2	27.35	27.24	27.24		
			% of room		100%	100%	1.00	YES
	R2	Kitchen	Area m2	6.63	6.57	6.57		
			% of room		99%	99%	1.00	YES
	R3a	Bedroom	Area m2	8.50	8.34	8.34		
			% of room		98%	98%	1.00	YES
	R4	Bedroom	Area m2	11.35	9.74	9.74		
			% of room		86%	86%	1.00	YES
	R5	Livingroom	Area m2	13.20	12.98	12.98		
			% of room		98%	98%	1.00	YES
	R6	Bathroom	Area m2	3.00	2.88	2.88		
			% of room		96%	96%	1.00	YES
		144	I-146 Camden R	oad rear				
Ground	R1	LD	Area m2	44.17	43.72	43.72		
			% of room		99%	99%	1.00	YES
First	R1	Bedroom	Area m2	10.76	10.23	10.23		
			% of room	Ì	95%	95%	1.00	YES

ROOM LAYOUTS - NEIGHBOURING PROPERTY: Julian Court



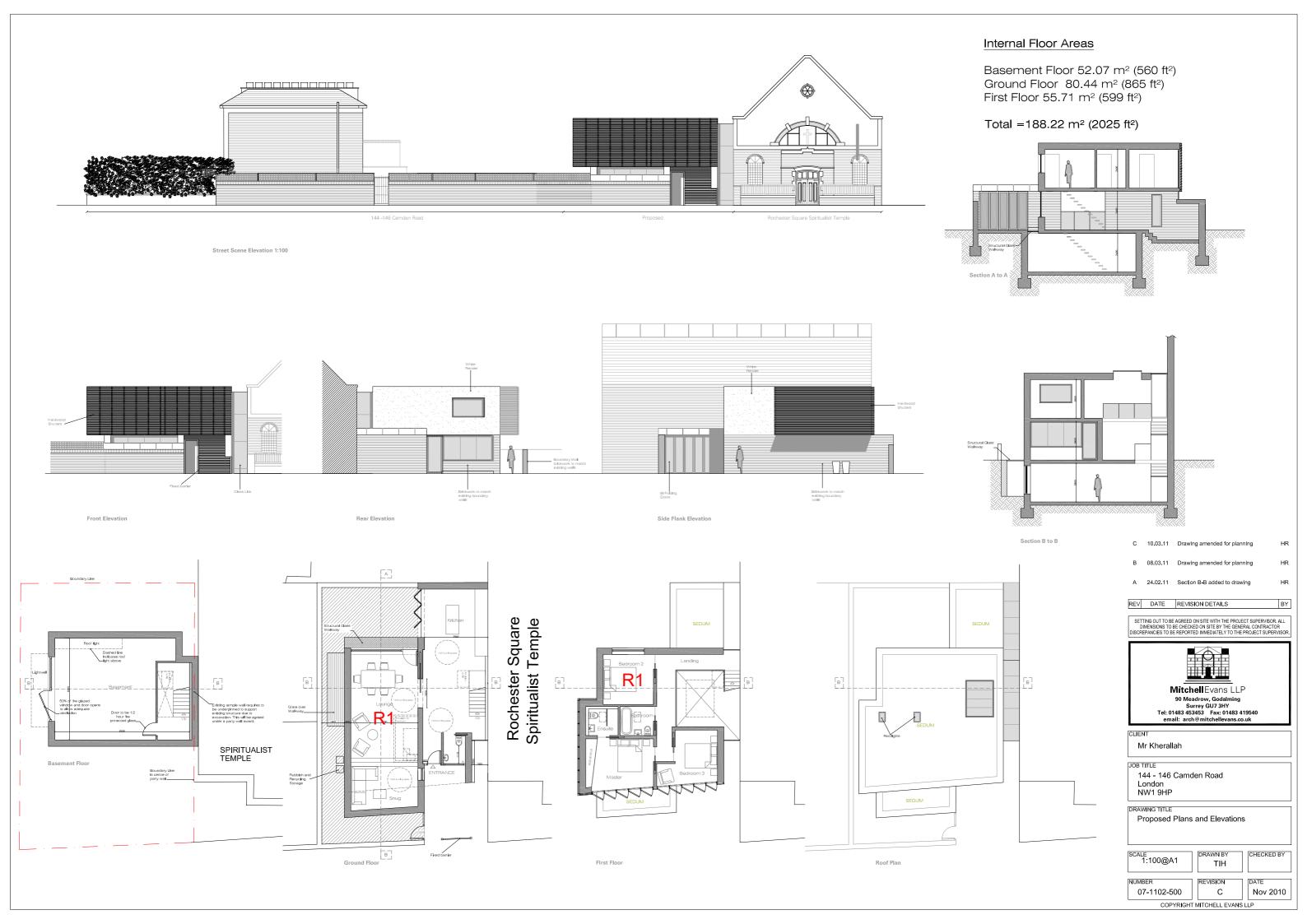
Second Floor

Approx Gross Internal Area

917 Sq Ft - 85.19 Sq M

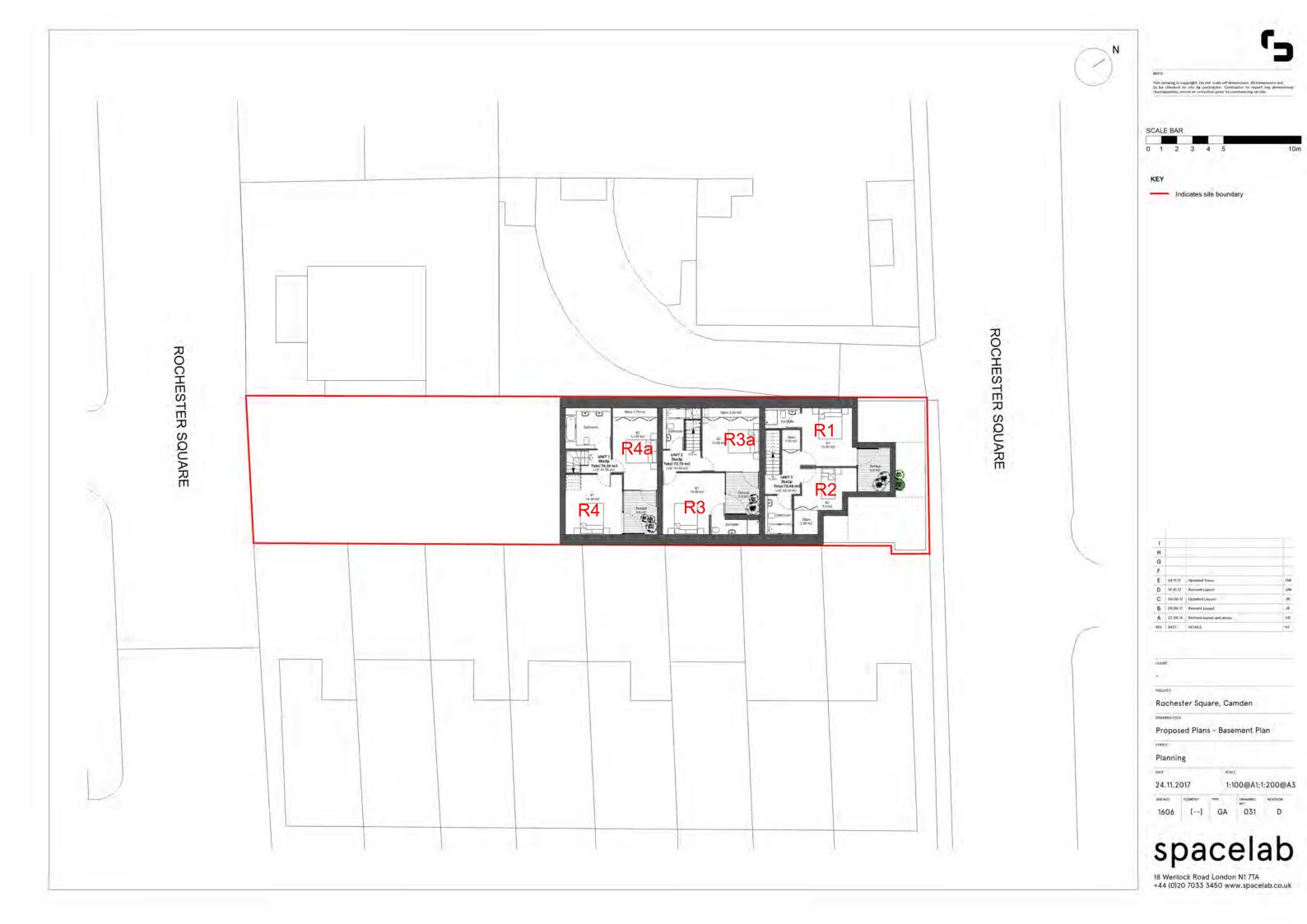
Illustration Purposes Only

Whilst every attempt has been made to ensure the accuracy of the floor plan contained here, measurements of doors, windows, rooms and any other items are approximate and no responsibility is taken for any errors, omissions or mis-statements. The plan is for illustrative purposes only, is not to scale and should be used as such by any prospective purchaser.



APPENDIX 3

DAYLIGHT
TO
PROPOSED ACCOMODATION





Indicates site boundary

D 19.10.17 Revised Layout A 22.06.16 Revised byout and a

Proposed Plans - Ground Floor Plan

Planning

24.11.2017 1:100@A1;1:200@A3

JORDANO ELEMENT TYPE DRAWING REVISION NO. 1606 [---] GA 032 E

spacelab

18 Wenlock Road London N1 7TA +44 (0)20 7033 3450 www.spacejab.co.uk



spacelab

18 Wenlock Road London N1 7TA +44 (0)20 7033 3450 www.spacelab.co.uk

Project Name: Rochester Square Project No.: 11014

Report Title: Average Daylight Analysis - Proposed Accommodation

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Req'o
				Р	ROPOSED	•					
Lower Ground	R1	Bedroom	W1-L	0.68	0.81	25.39	61.47	0.60	0.20	0.07	
			W1-U	0.68	1.58	37.94	61.47	0.60	1.00	1.04	
										1.11	1.00
Lower Ground	R2	Bedroom	W2-L	0.68	1.04	27.74	51.89	0.60	0.20	0.12	
			W2-U	0.68	2.02	38.29	51.89	0.60	1.00	1.59	
										1.71	1.00
Lower Ground	R3a	Bedroom	W3-L	0.68	1.48	14.49	61.45	0.60	0.20	0.07	
			W3-U	0.68	2.87	16.87	61.45	0.60	1.00	0.84	
										0.91	1.00
Lower Ground	R3	Bedroom	W4-L	0.68	1.83	13.18	68.80	0.60	0.20	0.07	
			W4-U	0.68	3.55	19.25	68.80	0.60	1.00	1.05	1.00
Lower Ground	R4a	Bedroom	W5-L	0.68	1.46	12.88	69.39	0.60	0.20	0.06	1.00
LOWEI GIOUIIU	1\ 4 a	DEGLOCITI	W5-L W5-U	0.68	2.84	17.09	69.39	0.60	1.00	0.74	
			VV J-U	0.00	2.04	17.03	05.55	0.00	1.00	0.74	1.00
Lower Ground	R4	Bedroom	W6-L	0.68	1.91	11.60	65.41	0.60	0.20	0.07	1.00
			W6-U	0.68	3.71	15.81	65.41	0.60	1.00	0.95	
										1.02	1.00
Ground	R1	LD	W1-L	0.68	2.91	55.57	78.77	0.60	0.20	0.44	
			W1-U	0.68	5.66	70.22	78.77	0.60	1.00	5.36	
										5.80	1.50
Ground	R2	LD	W2-L	0.68	1.48	22.03	79.37	0.60	0.20	0.09	
			W2-U	0.68	2.87	26.69	79.37	0.60	1.00	1.03	
			W3-L	0.68	1.86	26.06	79.37	0.60	0.20	0.13	
			W3-U	0.68	3.60	33.47	79.37	0.60	1.00	1.62	
										2.86	1.50
Ground	R3a	LD	W4-L	0.68	0.68	22.32	95.88	0.60	0.20	0.03	
			W4-U	0.68	1.31	29.24	95.88	0.60	1.00	0.43	
			W5-L	0.68	2.02	23.73	95.88	0.60	0.20	0.11	
			W5-U	0.68	3.91	31.20	95.88	0.60	1.00	1.35 1.92	1.50
First	R1	LKD	W1-L	0.68	0.34	30.26	109.56	0.60	0.20	0.02	1.50
11130	KI	LKD	W1-U	0.68	0.66	32.00	109.56	0.60	1.00	0.20	
			W2-L	0.68	1.80	77.11	109.56	0.60	0.20	0.27	
			W2-U	0.68	3.50	79.30	109.56	0.60	1.00	2.69	
			W3-L	0.68	1.20	30.22	109.56	0.60	0.20	0.07	
			W3-U	0.68	2.32	19.92	109.56	0.60	1.00	0.45	
			W4-L	0.68	1.92	42.38	109.56	0.60	0.20	0.16	
			W4-U	0.68	3.73	24.63	109.56	0.60	1.00	0.89	
										4.75	2.00
First	R2	Bedroom	W5-L	0.68	1.44	36.04	43.97	0.60	0.20	0.25	
			W5-U	0.68	2.80	46.04	43.97	0.60	1.00	3.12	
										3.37	1.00
First	R3a	Bedroom	W6-L	0.68	1.84	42.98	55.20	0.60	0.20	0.30	
			W6-U	0.68	3.57	57.50	55.20	0.60	1.00	3.95	,
F:*	D2	C: 1:	1417 .	0.60	2.50	40.22	124.50	0.66	0.22	4.25	1.00
First	R3	Studio	W7-L	0.68	2.59	40.33	124.69	0.60	0.20	0.18	
			W7-U	0.68	5.03	51.18	124.69	0.60	1.00	2.19	
			W8-L	0.68	2.01	43.46	124.69	0.60	0.20	0.15	
			W8-U	0.68	3.91	53.12	124.69	0.60	1.00	1.77	

APPENDIX 4

OVERSHADOWING RESULTS

