



RIGHT OF LIGHT  
CONSULTING  
Chartered Surveyors

# Daylight and Sunlight Report

(Within Development)

**23 March 2022**

81 Belsize Park Gardens  
London  
NW3 4NJ

---

Right of Light Consulting Ltd

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

Tel: 0800 197 4836

[www.right-of-light.co.uk](http://www.right-of-light.co.uk)

---

## CONTENTS

<b>1 EXECUTIVE SUMMARY .....</b>	<b>2</b>
1.1 Overview .....	2
<b>2 INFORMATION SOURCES .....</b>	<b>3</b>
2.1 Documents Considered .....	3
<b>3 METHODOLOGY OF THE ASSESSMENT .....</b>	<b>4</b>
3.1 General Permitted Development (England) Order 2015.....	4
3.2 BRE Guidance.....	4
3.3 National Planning Policy Framework.....	4
3.4 Interior Daylighting.....	5
3.5 Sunlight to Windows .....	7
<b>4 RESULTS OF THE ASSESSMENT .....</b>	<b>8</b>
4.1 Window Reference Points and No Sky Line Contours .....	8
4.2 Daylight & Sunlight Data.....	8
4.3 Interior Daylighting.....	8
4.4 Sunlight to Windows .....	8
4.5 Conclusion.....	8
<b>5 CLARIFICATIONS .....</b>	<b>9</b>
5.1 General.....	9
<b>APPENDICES</b>	
<b>APPENDIX 1</b>	<b>WINDOW KEY &amp; NO SKY LINE CONTOURS</b>
<b>APPENDIX 2</b>	<b>DAYLIGHT &amp; SUNLIGHT DATA</b>

---

# **1 EXECUTIVE SUMMARY**

## **1.1 Overview**

- 1.1.1 Right of Light Consulting has been commissioned by Land & Site Acquisitions to undertake a daylight and sunlight assessment of the proposed development at 81 Belsize Park Gardens, London NW3 4NJ. The assessment is in connection with the application for prior approval of the change of use from a vacant health and leisure club (Use Class E) to dwellings. The aim of the assessment is to check whether the proposed accommodation will provide its future occupiers with adequate levels of natural light.
- 1.1.2 The assessment is based on the numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a good practice guide, 2<sup>nd</sup> Edition' by P J Littlefair 2011.
- 1.1.3 Appendix 1 identifies the windows analysed in this assessment. The no skyline contours for the habitable rooms are also presented in Appendix 1. The numerical results of the BRE daylight and sunlight tests are provided in Appendix 2.
- 1.1.4 The numerical results demonstrate that the proposed development design achieves a very high level of compliance with the BRE recommendations. In our professional opinion, the proposed design will provide the development's future occupiers with adequate levels of natural light. We consider the proposed development to be consistent with the NPPF, which requires developments to provide acceptable living standards whilst making efficient use of land.

---

## 2 INFORMATION SOURCES

### 2.1 Documents Considered

2.1.1 This report is based on the following drawings:

Tasou Associates Architects + Structural Engineers

PD.01	Proposed Ground Floor	Rev B
PD.02	Proposed First Floor	Rev B
PD.03	Proposed Second Floor	Rev A
PD.04	Proposed Third Floor	Rev A
PD.05	Proposed Roof Plan	Rev A
PD.06	Section A	Rev A
PD.07	Section B	Rev B
PD.08	Section C	Rev A
PD.09	Section D	Rev A
PD.10	Belsize Park Elevation	Rev -
PD.11	East Elevation	Rev A

---

### **3 METHODOLOGY OF THE ASSESSMENT**

#### **3.1 General Permitted Development (England) Order 2015**

- 3.1.1 Attainment of adequate natural light in habitable rooms, is a condition of the change of use from commercial, business and service uses to dwellings under Class MA of the General Permitted Development (England) Order 2015 (GPDO 2015).
- 3.1.2 The GPDO 2015 defines habitable rooms as any rooms used or intended to be used for sleeping or living which are not solely used for cooking purposes, but does not include bath or toilet facilities, service rooms, corridors, laundry rooms, hallways or utility rooms.

#### **3.2 BRE Guidance**

- 3.2.1 We understand that the Local Authority takes the conventional approach of considering daylight and sunlight amenity with reference to 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, 2<sup>nd</sup> Edition' by P J Littlefair 2011. A new European standard BS EN 17037 'Daylight in Buildings' was published in May 2019. An update to the BRE guide to take into account the European standard is expected sometime in 2022. It is not yet clear how, and to what extent, the European recommendations will be adopted by the BRE and Local Authorities.
- 3.2.2 The standards set out in the BRE guide are intended to be used flexibly. The BRE guide states:
- "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."

#### **3.3 National Planning Policy Framework**

- 3.3.1 The BRE numerical guidelines should be considered in the context of the National Planning Policy Framework (NPPF), which stipulates that local planning authorities should take a flexible approach to daylight and sunlight to ensure the efficient use of land. Paragraph 125c of the NPPF states:

---

“Local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards).”

### **3.4 Interior Daylighting**

- 3.4.1 The interior daylighting recommendations set out in the BRE guide are based on British Standard BS 8206 Part 2 and the Chartered Institute of Building Services Engineers Applications Manual on window design. Collectively, the guides set out three main criteria for interior daylighting. These are summarised as follows:

#### **Test 1 - Average Daylight Factor**

- 3.4.2 The Average Daylight Factor (ADF) can be calculated using the following formula:

$$df = \frac{T A_w \theta}{A (1-R^2)} \%$$

where

T is the diffuse visible transmittance of the glazing  
A<sub>w</sub> is the net glazed area of the window (m<sup>2</sup>)  
A is the total area of the room surfaces (m<sup>2</sup>)  
R is their average reflectance  
θ is the angle of visible sky in degrees

- 3.4.3 For the purpose of this assessment, we have assumed BRE internal reflectance coefficients pertaining to medium wooden floors (0.4), light painted walls (0.8) and matt white painted ceilings (0.85).
- 3.4.4 We have assumed that each window is double-glazed and has a glazed area that equates to 80% of the structural opening size. A glazing transmittance value, inclusive of a maintenance to allow for the effect of dirt and grime on the glazing, of 0.68 has been used.
- 3.4.5 The BRE guide gives minimum ADF recommendations for dwellings of 2% for kitchens, 1.5% for living rooms and 1% for bedrooms which have been applied in this

---

assessment. In the case of permitted development, the 2% target is only applied to habitable kitchens - i.e. kitchens that are not used solely for cooking purposes.

- 3.4.6 The BRE guide does not give guidance on how to apply the ADF test to spaces which contain a mix of room uses e.g. open plan living, dining and kitchen areas. For this assessment we have set a target of 2%.
- 3.4.7 A special procedure is required for floor to ceiling windows such as patio doors. If part of a window is below the height of the working plane (a horizontal plane 0.85m above the floor in housing), this portion should be treated as a separate window. The ADF for this window has an extra factor applied to it, to take account of the reduced effectiveness of low-level glazing in lighting the room. A value equal to the floor reflectance may be taken for this factor. The ADF for the portion of the window above the working plane is calculated in the normal way without this additional factor, and the ADFs for the two portions are added together.
- 3.4.8 Reflected light can be factored into the ADF calculation. For example, where a window has a large obstruction in front of it, the angle of visible sky can be increased by around 6°, assuming the obstruction is painted a light colour.

### **Test 2 - Room Depth**

- 3.4.9 If a daylit room is lit by windows in one wall only, the depth of the room L should not exceed the limiting value given by:

$$\frac{L}{W} + \frac{L}{H} \leq \frac{2}{1-R_b}$$

where

W is the room width  
H is the window-head height above floor level  
R<sub>b</sub> is the average reflectance of the surfaces in the rear half of the room

### **Test 3 - Position of the no skyline (Daylight Distribution)**

- 3.4.10 If a significant area of the working plane lies beyond the no skyline (i.e. it receives no direct skylight), then the distribution of daylight in the room will look poor and supplementary electric lighting will be required.



---

3.4.11 The no skyline assessment is not applicable where a room derives its daylight solely from a light well or atrium. In these situations, the room relies on borrowed light instead of direct skylight.

### **3.5 Sunlight to Windows**

3.5.1 The BRE guide states that, in general, a dwelling will appear reasonably sunlit if:

- at least one main window wall faces within 90 degrees 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 the annual probable sunlight hours during the winter months between 21st September and 21st March.

3.5.2 The guide states that, where groups of dwellings are planned, site layout design should aim to maximise the number of dwellings with a main living room that meets the above recommendations.

3.5.3 The guide states that sunlight is viewed as less important in kitchens and bedrooms.

---

## **4 RESULTS OF THE ASSESSMENT**

### **4.1 Window Reference Points and No Skyline Contours**

- 4.1.1 Appendix 1 identifies the positions of the windows analysed in this assessment. The no skyline contours for the habitable rooms are also presented in Appendix 1.
- 4.1.2 In accordance with the General Permitted Development (England) Order 2015 we have tested all habitable rooms.

### **4.2 Daylight & Sunlight Data**

- 4.2.1 The numerical results of the BRE daylight and sunlight tests are provided in Appendix 2.

### **4.3 Interior Daylighting**

- 4.3.1 All habitable rooms surpass the BRE minimum Average Daylight Factor (ADF) recommendations.
- 4.3.2 All rooms pass the room depth test.
- 4.3.3 The BRE guide does not give fixed numerical pass/fail criteria for the No Skyline test when applied to new dwellings. However, for completeness, we have illustrated the no skyline contours in Appendix 1.

### **4.4 Sunlight to Windows**

- 4.4.1 All dwellings have a main window which faces within 90 degrees of due south. All living rooms also have a main window which meets the annual and winter sunlight hours numerical targets. The proposed development therefore satisfies the BRE direct sunlight to windows requirements.

### **4.5 Conclusion**

- 4.5.1 The numerical results demonstrate that the proposed development design achieves a very high level of compliance with the BRE recommendations. In our professional opinion, the proposed design will provide the development's future occupiers with adequate levels of natural light. We consider the proposed development to be consistent with the NPPF, which requires developments to provide acceptable living standards whilst making efficient use of land.

---

## **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 The assessment is limited to assessing daylight, sunlight of the proposed development as set out in section 2.1 and 3.1 of the BRE Guide.
- 5.1.3 The study is based on the information listed in section 2 of this report. The study has been undertaken without access to the proposed development site or neighbouring properties.
- 5.1.4 We have undertaken the survey following the guidelines of the RICS publication "Surveying Safely". Where limited access is available, assumptions will have been made.
- 5.1.5 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.

---

## **APPENDICES**

---

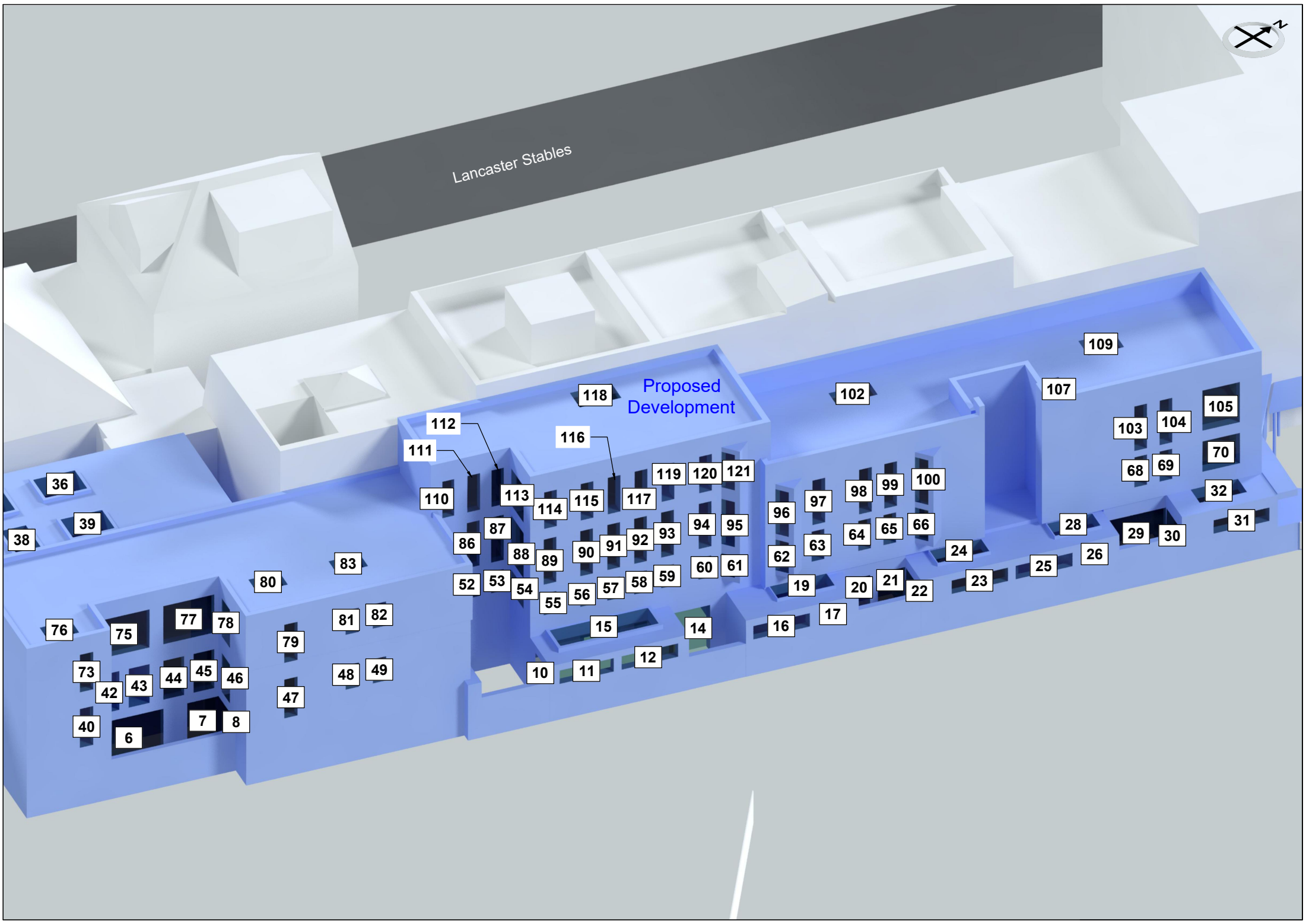
## **APPENDIX 1**

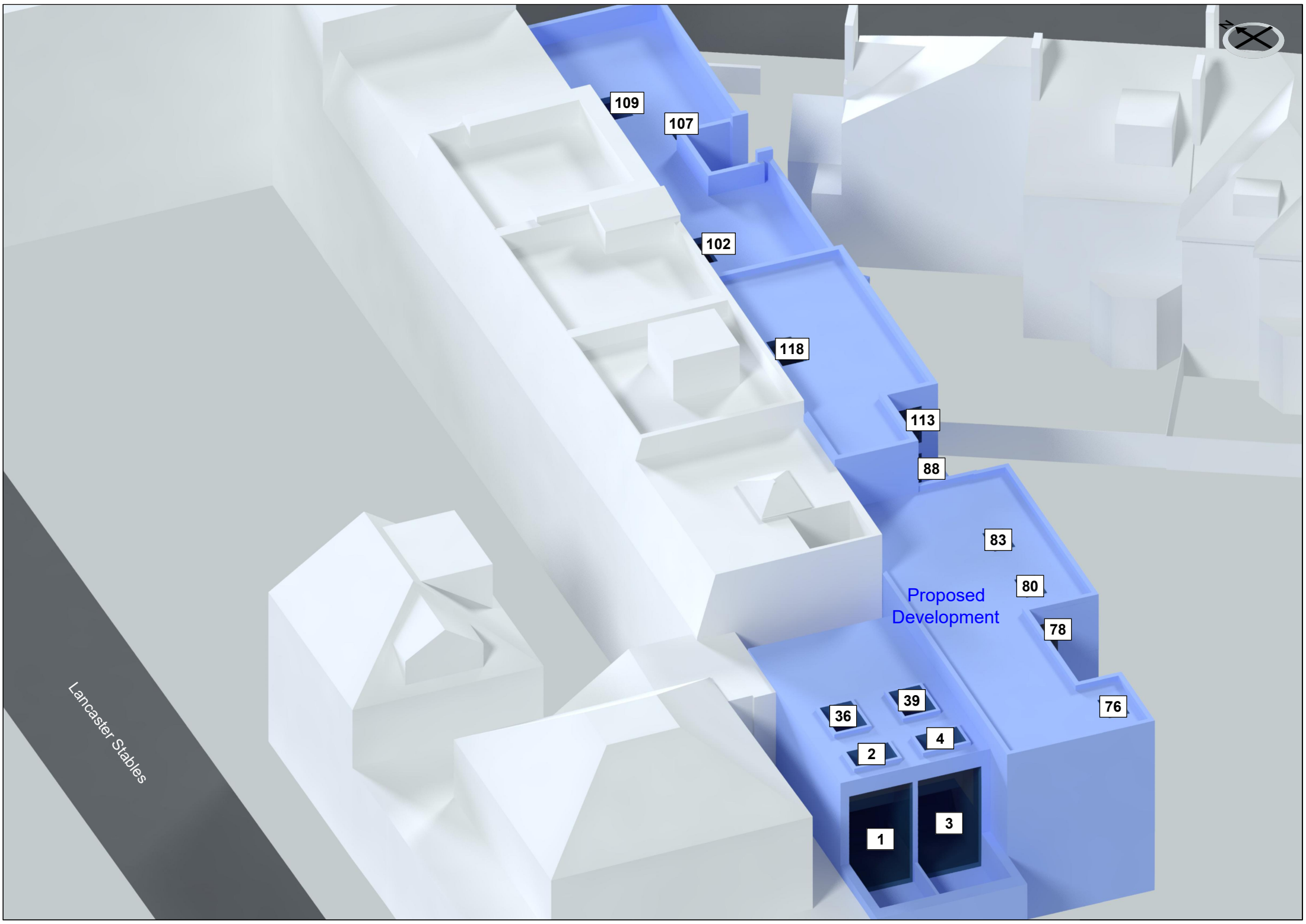
### **WINDOW KEY & NO SKYLINE CONTOURS**



Lancaster Stables

Proposed Development





Lancaster Stables

Proposed  
Development

109

107

102

118

113

88

83

80

78

76

36

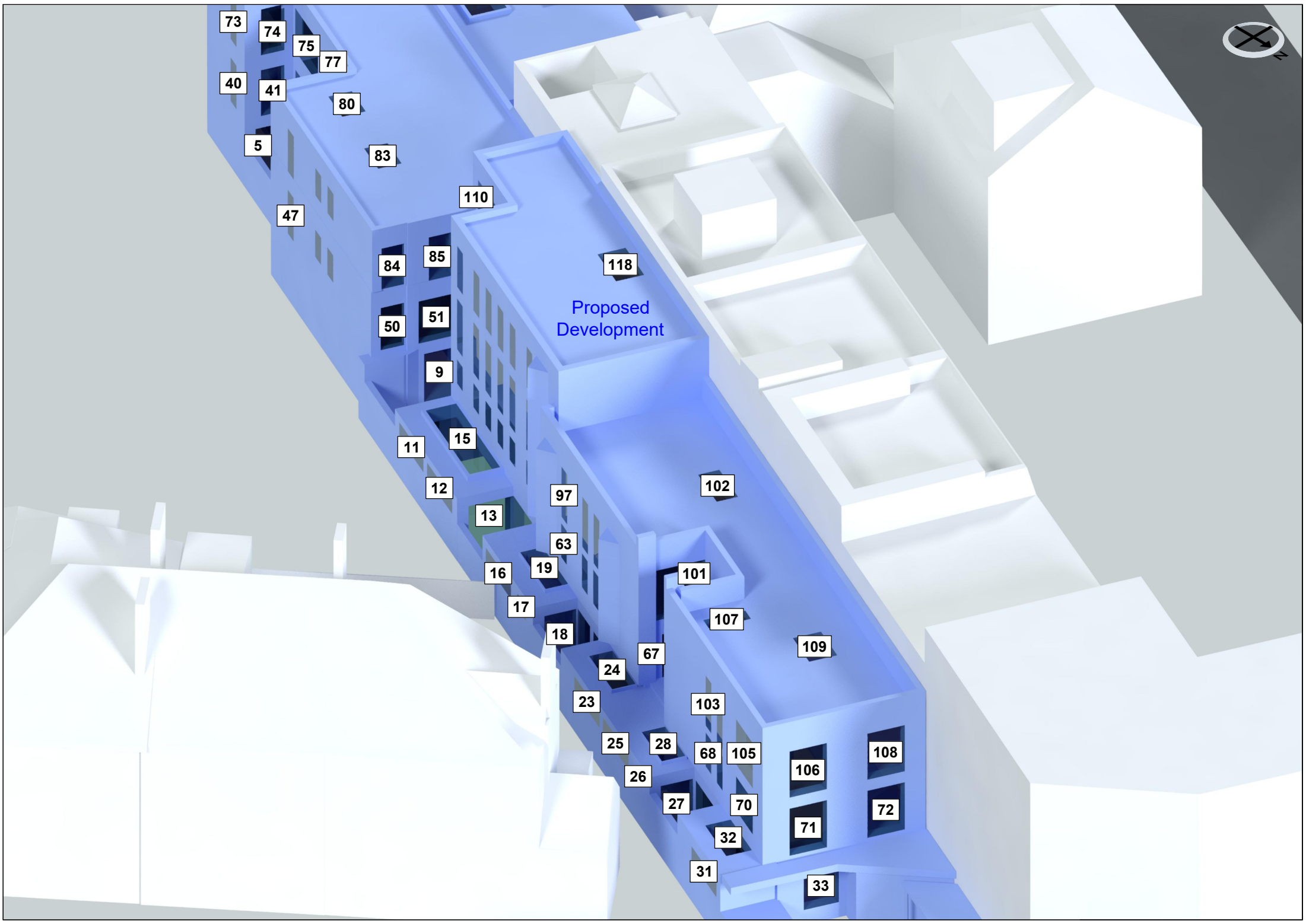
39

2

4

1

3



73

74

75

77

40

41

80

5

83

47

110

84

85

118

Proposed  
Development

50

51

9

11

15

12

13

97

102

63

16

19

101

17

107

18

109

24

67

23

103

25

28

68

105

26

27

70

32

106

108

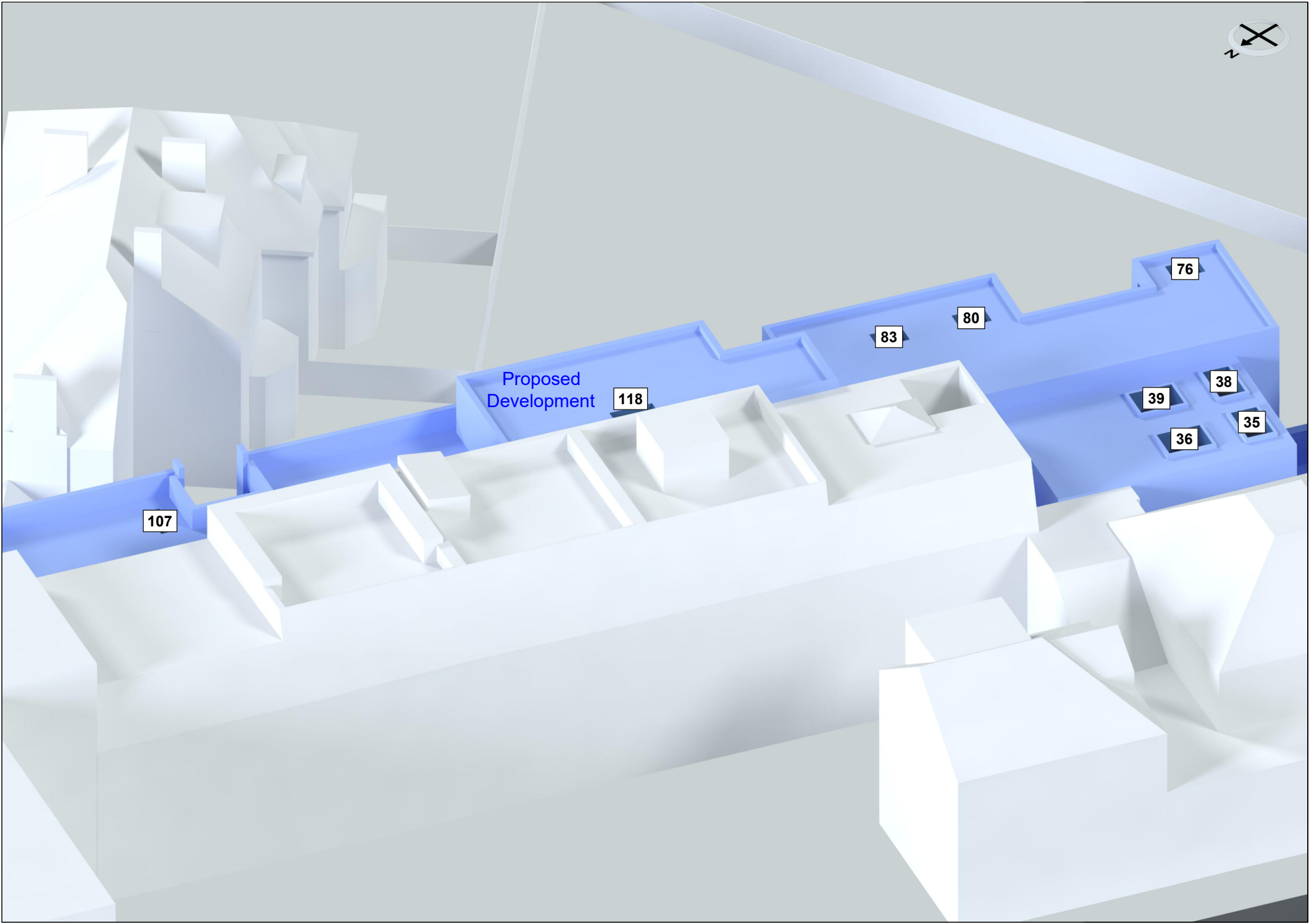
71

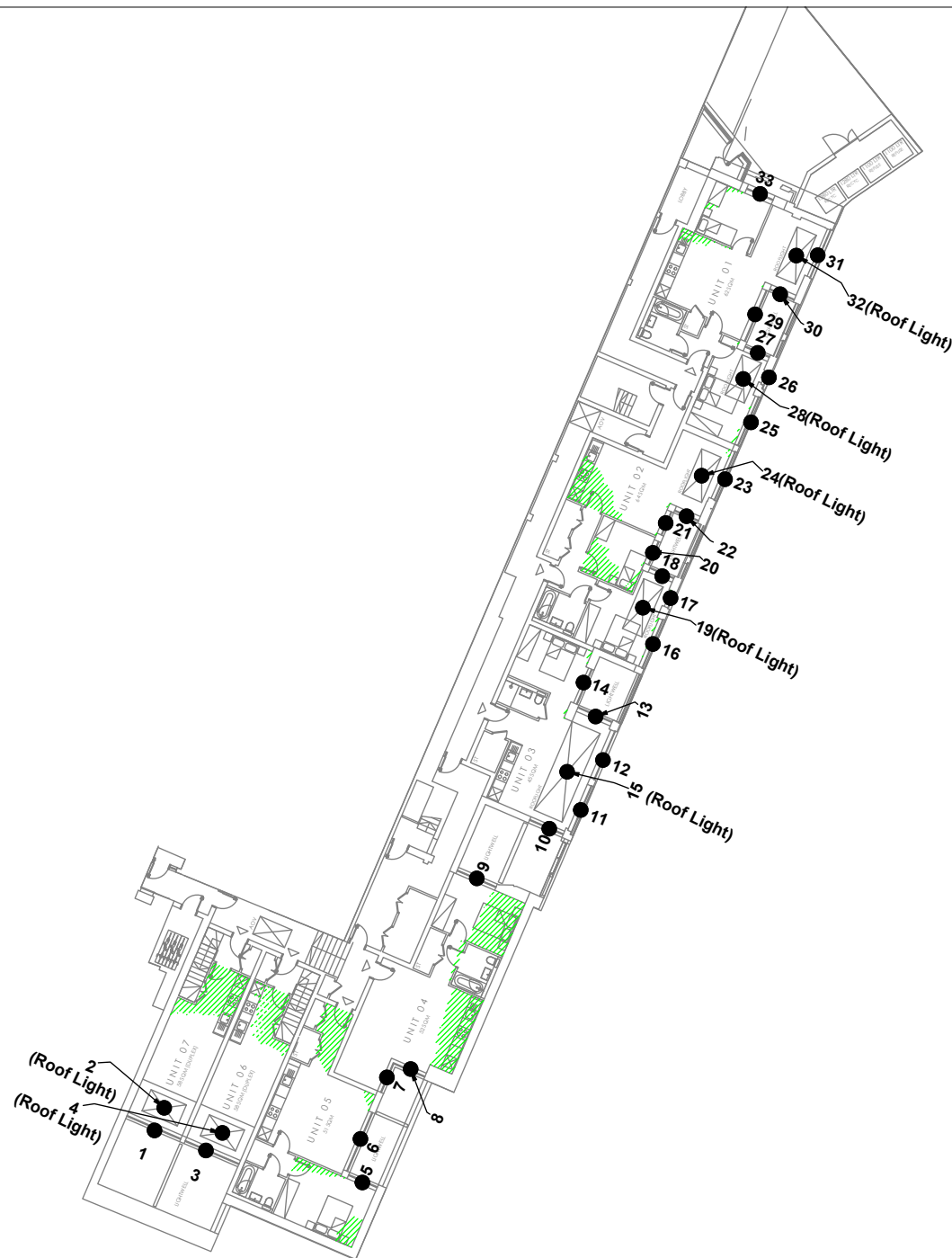
72

31

33







Key:

- Window reference
- G1 Gardens and Amenity Areas
- Area receives no direct sky light (applied to habitable rooms)
- Area does receive direct sky light.
- Light aperture.

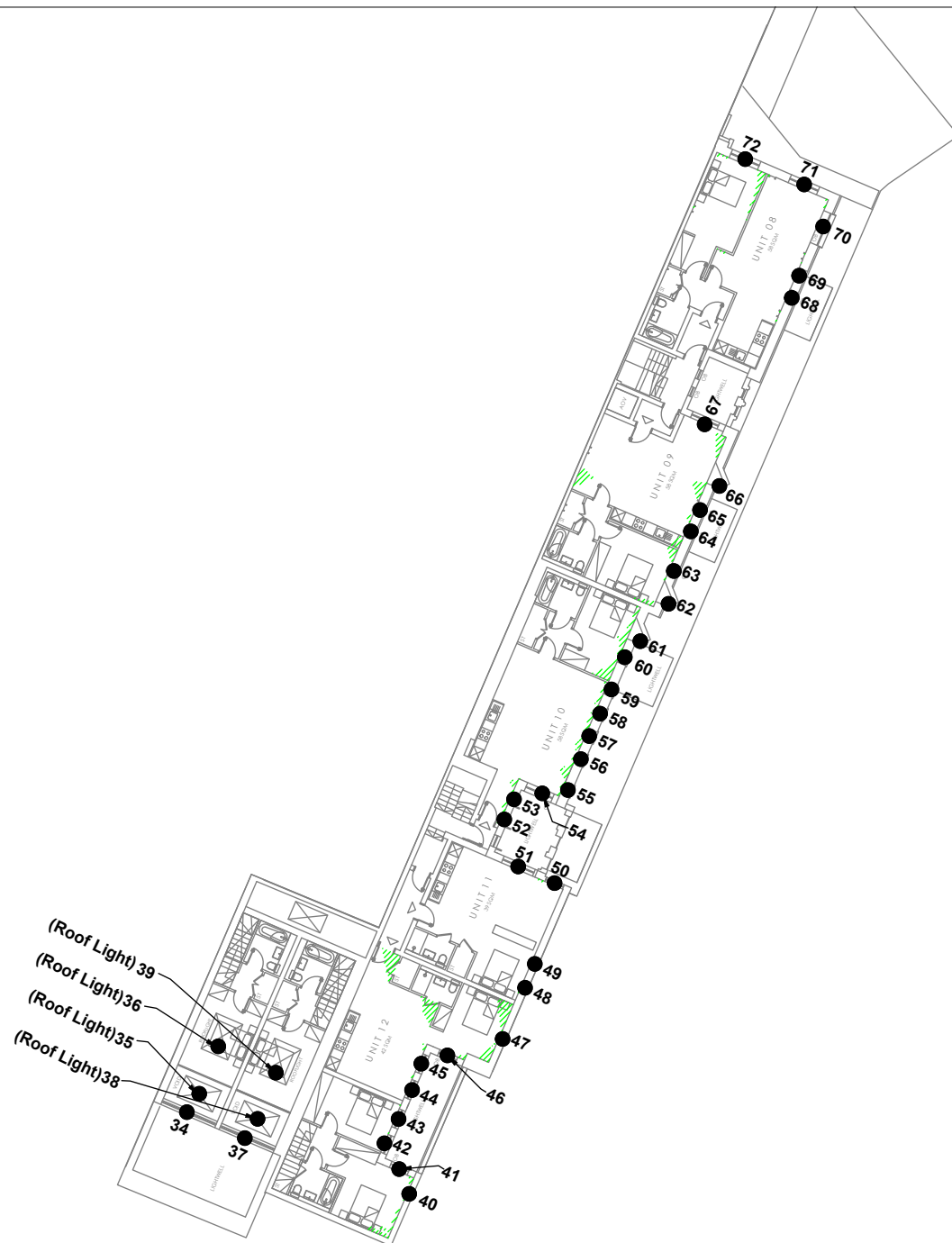
Drawing Title: Window Key and No Sky Line Contours

Scale: Do not scale

Drawing No: 1 of 4

Rev. .

Rev	Date	Details of revision



Key:

- Window reference
- G1 Gardens and Amenity Areas
- Area receives no direct sky light (applied to habitable rooms)
- Area does receive direct sky light.
- Light aperture.

Drawing Title: Window Key and No Sky Line Contours

Scale: Do not scale

Drawing No: 2 of 4

Rev. .

Rev	Date	Details of revision



Key:

- Window reference
- G1 Gardens and Amenity Areas
- Area receives no direct sky light (applied to habitable rooms)
- Area does receive direct sky light.
- Light aperture.

Drawing Title: Window Key and No Sky Line Contours

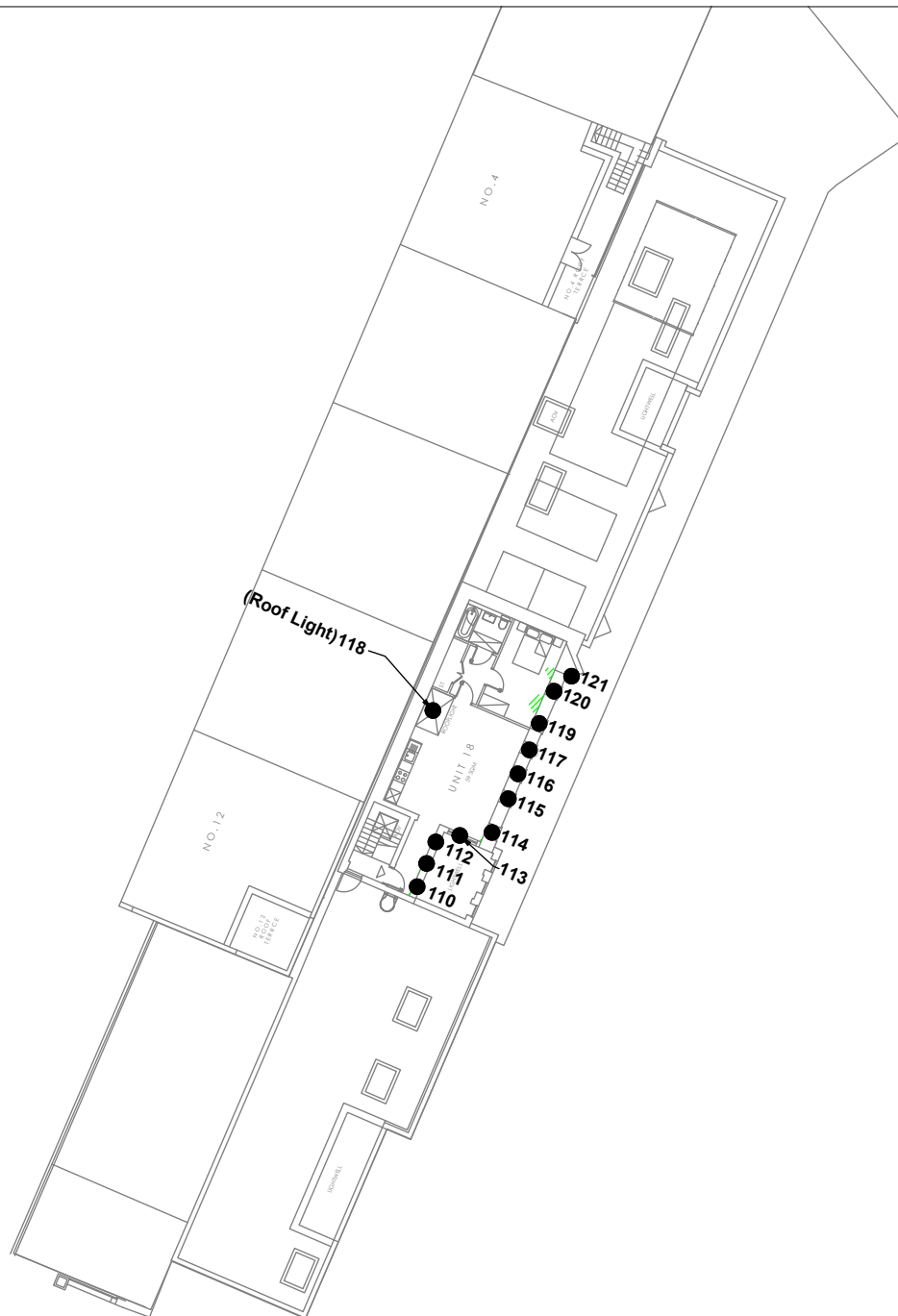
Scale: Do not scale

Drawing No: 3 of 4


Rev. .


Rev	Date	Details of revision


### Window Key and No Sky Line Contours




● Window reference

 Gardens and Amenity Areas

 Area receives no direct sky light  
(applied to habitable rooms)

 Area does receive direct sky light.

 Light aperture.

Rev.

Rev	Date	Details of revision



**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](mailto:enquiries@right-of-light.co.uk)  
WEBSITE [www.right-of-light.co.uk](http://www.right-of-light.co.uk)

---

## **APPENDIX 2**

### **DAYLIGHT & SUNLIGHT DATA**

## Appendix 2 - Average Daylight Factor (ADF)

### 81 Belsize Park Gardens, London NW3 4JN

Reference	Target ADF based on room use		Average Daylight Factor Coefficients					ADF		
	Primary room use	ADF	T	Aw	A	R	θ			
<u>81 Belsize Park Gardens</u>										
<u>Ground Floor</u>										
Window 1	Living/Dining/Kitchen	2.0%	0.68	1.92	118.04	0.66	160.5	3.1%		
Window 1 (lower)			0.68	2.07	118.04	0.66	36.9	0.3%		
Window 2 (upper)			0.68	11.25	118.04	0.66	54.6	6.3%		
<b>Total ADF for room</b>									<b>9.7%</b>	
Window 3	Living/Dining/Kitchen	2.0%	0.68	1.92	118.04	0.66	151.9	3.0%		
Window 3 (lower)			0.68	2.07	118.04	0.66	34.9	0.3%		
Window 4 (upper)			0.68	11.25	118.04	0.66	50.3	5.8%		
<b>Total ADF for room</b>									<b>9.1%</b>	
Window 5 (lower)	Bedroom	1.0%	0.68	1.11	61.31	0.72	26.2	0.3%		
Window 5 (upper)			0.68	1.91	61.31	0.72	40.2	1.8%		
<b>Total ADF for room</b>									<b>2.1%</b>	
Window 6 (lower)	Living/Dining/Kitchen	2.0%	0.68	2.26	113.08	0.71	41.1	0.4%		
Window 6 (upper)			0.68	3.91	113.08	0.71	63.1	3.0%		
<b>Total ADF for room</b>									<b>3.4%</b>	
Window 7 (lower)	Living/Dining/Kitchen	2.0%	0.68	1.02	133.48	0.71	37.6	0.2%		
Window 7 (upper)			0.68	1.76	133.48	0.71	55.0	1.0%		
Window 8 (lower)			0.68	1.11	133.48	0.71	30.4	0.1%		
Window 8 (upper)			0.68	1.91	133.48	0.71	46.0	0.9%		
<b>Total ADF for room</b>									<b>2.2%</b>	
Window 9 (lower)	Bedroom	1.0%	0.68	1.5	54.54	0.7	31.3	0.5%		
Window 9 (upper)			0.68	2.59	54.54	0.7	35.0	2.2%		
<b>Total ADF for room</b>									<b>2.7%</b>	
Window 10 (lower)	Studio	2.0%	0.68	1.31	159.33	0.66	27.9	0.1%		
Window 11 (upper)			0.68	2.6	159.33	0.66	37.9	0.8%		
Window 12			0.68	1.58	159.33	0.66	74.5	0.9%		
Window 13			0.68	1.52	159.33	0.66	77.3	0.9%		
Window 13			0.68	1.41	159.33	0.66	43.5	0.5%		
Window 14 (lower)			0.68	1.34	159.33	0.66	40.8	0.2%		
Window 14 (upper)			0.68	2.67	159.33	0.66	57.3	1.2%		
Window 15			0.68	4.9	159.33	0.66	92.6	3.5%		
<b>Total ADF for room</b>									<b>8.1%</b>	
Window 16			Bedroom	1.0%	0.68	2.18	64.18	0.68	85.5	3.7%
Window 17					0.68	1.58	64.18	0.68	67.2	2.1%
Window 18					0.68	0.53	64.18	0.68	63.7	0.7%
Window 18 (lower)	0.68	0.92			64.18	0.68	28.4	0.2%		
Window 19 (upper)	0.68	1.35			64.18	0.68	36.8	1.0%		
<b>Total ADF for room</b>									<b>7.7%</b>	
Window 20 (lower)	Bedroom	1.0%			0.68	0.89	43.37	0.73	36.4	0.4%
Window 20 (upper)			0.68	1.31	43.37	0.73	46.9	2.0%		
<b>Total ADF for room</b>									<b>2.4%</b>	
Window 21			0.68	1.97	108.49	0.69	86.6	2.0%		

## Appendix 2 - Average Daylight Factor (ADF)

### 81 Belsize Park Gardens, London NW3 4JN

Reference	Target ADF based on room use		Average Daylight Factor Coefficients					ADF
	Primary room use	ADF	T	Aw	A	R	θ	
Window 21	Living/Dining/Kitchen	2.0%	0.68	1.58	108.49	0.69	52.2	1.0%
Window 22 (lower)			0.68	0.92	108.49	0.69	29.0	0.1%
Window 22 (upper)			0.68	1.35	108.49	0.69	44.9	0.7%
Window 23 (lower)			0.68	0.89	108.49	0.69	37.4	0.2%
Window 24 (upper)			0.68	1.31	108.49	0.69	52.1	0.8%
Total ADF for room								
Window 25	Bedroom	1.0%	0.68	1.73	59.22	0.68	87.2	3.3%
Window 26			0.68	0.39	59.22	0.68	44.7	0.4%
Window 27			0.68	1.59	59.22	0.68	47.2	1.6%
Window 27 (lower)			0.68	0.93	59.22	0.68	30.7	0.2%
Window 28 (upper)			0.68	1.34	59.22	0.68	43.0	1.2%
Total ADF for room								
Window 29	Living/Dining/Kitchen	2.0%	0.68	2.43	123.24	0.67	91.4	2.2%
Window 29 (lower)			0.68	1.96	123.24	0.67	34.5	0.3%
Window 30 (upper)			0.68	2.81	123.24	0.67	45.5	1.3%
Window 30			0.68	1.57	123.24	0.67	66.4	1.0%
Window 31 (lower)			0.68	0.94	123.24	0.67	29.4	0.1%
Window 32 (upper)			0.68	1.35	123.24	0.67	39.1	0.5%
Total ADF for room							5.4%	
Window 33 (lower)	Bedroom	1.0%	0.68	0.66	42.64	0.72	57.1	0.5%
Window 33 (upper)			0.68	1.67	42.64	0.72	48.4	2.7%
Total ADF for room								
First Floor								
Window 34	Bedroom	1.0%	0.68	2.4	61.92	0.54	157.6	5.9%
Window 34 (lower)			0.68	4.95	61.92	0.54	57.6	1.8%
Window 35 (upper)			0.68	8.37	61.92	0.54	66.2	8.6%
Window 36			0.68	1.92	61.92	0.54	160.5	4.8%
Total ADF for room								
Window 37	Bedroom	1.0%	0.68	2.4	61.92	0.54	151.1	5.6%
Window 37 (lower)			0.68	4.95	61.92	0.54	53.0	1.6%
Window 38 (upper)			0.68	8.37	61.92	0.54	61.2	7.9%
Window 39			0.68	1.92	61.92	0.54	151.9	4.5%
Total ADF for room								
Window 40 (lower)	Bedroom	1.0%	0.68	0.62	60.24	0.72	44.8	0.3%
Window 40 (upper)			0.68	1.16	60.24	0.72	47.4	1.3%
Window 41 (lower)			0.68	0.44	60.24	0.72	87.1	0.4%
Window 41 (upper)			0.68	0.65	60.24	0.72	87.2	1.3%
Total ADF for room								
Window 42 (lower)	Bedroom	1.0%	0.68	0.68	49.48	0.71	69.6	0.5%
Window 42 (upper)			0.68	1.02	49.48	0.71	70.5	2.0%
Window 43 (lower)			0.68	0.66	49.48	0.71	59.7	0.4%
Window 43 (upper)			0.68	0.99	49.48	0.71	59.6	1.6%
Total ADF for room								



## Appendix 2 - Average Daylight Factor (ADF)

### 81 Belsize Park Gardens, London NW3 4JN

Reference	Target ADF based on room use		Average Daylight Factor Coefficients					ADF
	Primary room use	ADF	T	Aw	A	R	θ	
Window 44 (lower)			0.68	0.44	151.26	0.71	85.8	0.1%
Window 44 (upper)			0.68	0.65	151.26	0.71	86.1	0.5%
Window 45 (lower)			0.68	0.68	151.26	0.71	50.4	0.1%
Window 45 (upper)			0.68	1.02	151.26	0.71	51.9	0.5%
Window 46 (lower)			0.68	0.68	151.26	0.71	57.9	0.1%
Window 46 (upper)			0.68	1.02	151.26	0.71	58.0	0.5%
Window 47 (lower)			0.68	0.68	151.26	0.71	67.8	0.2%
Window 47 (upper)			0.68	1.02	151.26	0.71	68.6	0.6%
<b>Total ADF for room</b>	Studio	2.0%						<b>2.6%</b>
Window 48 (lower)			0.68	1.18	126.12	0.69	40.0	0.2%
Window 48 (upper)			0.68	1.92	126.12	0.69	41.2	0.8%
Window 49 (lower)			0.68	0.03	126.12	0.69	84.8	0.0%
Window 49 (upper)			0.68	0.65	126.12	0.69	85.0	0.6%
Window 50 (lower)			0.68	0.03	126.12	0.69	85.2	0.0%
Window 50 (upper)			0.68	0.65	126.12	0.69	85.4	0.6%
Window 51 (lower)			0.68	0.62	126.12	0.69	50.9	0.1%
Window 51 (upper)			0.68	1.02	126.12	0.69	52.7	0.6%
<b>Total ADF for room</b>	Studio	2.0%						<b>2.9%</b>
Window 52			0.68	0.57	140.52	0.7	77.2	0.4%
Window 53			0.68	0.57	140.52	0.7	79.3	0.4%
Window 54			0.68	0.57	140.52	0.7	78.9	0.4%
Window 55			0.68	1.39	140.52	0.7	34.5	0.5%
Window 56			0.68	0.57	140.52	0.7	48.4	0.3%
Window 57			0.68	0.57	140.52	0.7	51.8	0.3%
Window 58			0.68	0.57	140.52	0.7	79.0	0.4%
Window 59			0.68	0.57	140.52	0.7	78.3	0.4%
<b>Total ADF for room</b>	Living/Dining/Kitchen	2.0%						<b>3.1%</b>
Window 60			0.68	0.6	53.87	0.75	72.4	1.2%
Window 61			0.68	0.57	53.87	0.75	73.6	1.2%
<b>Total ADF for room</b>	Bedroom	1.0%						<b>2.4%</b>
Window 62 (lower)			0.68	0.01	57.59	0.74	67.4	0.0%
Window 62 (upper)			0.68	0.79	57.59	0.74	69.2	1.4%
Window 63 (lower)			0.68	0.01	57.59	0.74	72.1	0.0%
Window 63 (upper)			0.68	0.86	57.59	0.74	72.9	1.6%
<b>Total ADF for room</b>	Bedroom	1.0%						<b>3.0%</b>
Window 64 (lower)			0.68	1.02	128.01	0.71	29.8	0.1%
Window 64 (upper)			0.68	1.49	128.01	0.71	32.7	0.5%
Window 65 (lower)			0.68	0.01	128.01	0.71	66.1	0.0%
Window 65 (upper)			0.68	0.86	128.01	0.71	67.4	0.6%
Window 66 (lower)			0.68	0.01	128.01	0.71	65.6	0.0%
Window 66 (upper)			0.68	0.79	128.01	0.71	67.8	0.6%
Window 67 (lower)			0.68	0.01	128.01	0.71	68.0	0.0%
Window 67 (upper)			0.68	0.79	128.01	0.71	70.0	0.6%
<b>Total ADF for room</b>	Living/Dining/Kitchen	2.0%						<b>2.4%</b>
Window 68 (lower)			0.68	0.86	132.85	0.71	69.8	0.2%

## Appendix 2 - Average Daylight Factor (ADF)

### 81 Belsize Park Gardens, London NW3 4JN

Reference	Target ADF based on room use		Average Daylight Factor Coefficients					ADF
	Primary room use	ADF	T	Aw	A	R	θ	
Window 68 (upper)	Living/Dining/Kitchen	2.0%	0.68	2.07	132.85	0.71	70.7	1.5%
Window 69 (lower)			0.68	0.03	132.85	0.71	74.8	0.0%
Window 69 (upper)			0.68	2.35	132.85	0.71	76.6	1.8%
Window 70 (lower)			0.68	0.01	132.85	0.71	66.9	0.0%
Window 70 (upper)			0.68	0.79	132.85	0.71	69.7	0.6%
Window 71 (lower)			0.68	0.01	132.85	0.71	64.4	0.0%
Window 71 (upper)			0.68	0.79	132.85	0.71	67.4	0.5%
Total ADF for room	Living/Dining/Kitchen	2.0%						4.6%
Window 72 (lower)	Bedroom	1.0%	0.68	0.86	75.14	0.73	58.8	0.4%
Window 72 (upper)			0.68	2.07	75.14	0.73	59.2	2.4%
Total ADF for room			Bedroom	1.0%				
Second Floor								
Window 73	Living/Dining/Kitchen	2.0%	0.68	1.2	97.95	0.68	157.7	2.5%
Window 73 (lower)			0.68	0.68	97.95	0.68	54.6	0.2%
Window 74 (upper)			0.68	0.96	97.95	0.68	61.5	0.8%
Window 74 (lower)			0.68	0.44	97.95	0.68	87.8	0.2%
Window 75 (upper)			0.68	0.61	97.95	0.68	87.8	0.7%
Window 75 (lower)			0.68	1.67	97.95	0.68	70.6	0.6%
Window 76 (upper)			0.68	2.41	97.95	0.68	74.5	2.3%
Total ADF for room	Living/Dining/Kitchen	2.0%						7.3%
Window 77	Living/Dining/Kitchen	2.0%	0.68	1.2	127.9	0.69	160.3	1.9%
Window 77 (lower)			0.68	0.68	127.9	0.69	57.5	0.2%
Window 78 (upper)			0.68	0.98	127.9	0.69	63.4	0.6%
Window 78 (lower)			0.68	1.67	127.9	0.69	67.8	0.5%
Window 79 (upper)			0.68	2.41	127.9	0.69	72.6	1.8%
Window 79 (lower)			0.68	0.44	127.9	0.69	87.1	0.2%
Window 80 (upper)			0.68	0.63	127.9	0.69	87.3	0.6%
Total ADF for room	Living/Dining/Kitchen	2.0%						5.8%
Window 81	Bedroom	1.0%	0.68	1.2	61.6	0.73	154.5	4.4%
Window 81 (lower)			0.68	0.05	61.6	0.73	86.7	0.0%
Window 82 (upper)			0.68	0.63	61.6	0.73	86.9	1.3%
Window 82 (lower)			0.68	0.05	61.6	0.73	86.5	0.0%
Window 83 (upper)			0.68	0.63	61.6	0.73	86.7	1.3%
Total ADF for room	Bedroom	1.0%						7.0%
Window 84 (lower)	Bedroom	1.0%	0.68	0.68	59.19	0.72	44.9	0.3%
Window 84 (upper)			0.68	1.01	59.19	0.72	47.8	1.1%
Window 85 (lower)			0.68	0.68	59.19	0.72	56.3	0.4%
Window 85 (upper)			0.68	0.96	59.19	0.72	58.3	1.3%
Total ADF for room			Bedroom	1.0%				
Window 86 (lower)			0.68	0.41	144.77	0.68	81.3	0.1%
Window 86 (upper)			0.68	0.79	144.77	0.68	83.0	0.6%
Window 87 (lower)			0.68	0.41	144.77	0.68	81.6	0.1%
Window 87 (upper)			0.68	0.79	144.77	0.68	83.3	0.6%
Window 88 (lower)			0.68	0.41	144.77	0.68	81.3	0.1%

## Appendix 2 - Average Daylight Factor (ADF)

### 81 Belsize Park Gardens, London NW3 4JN

Reference	Target ADF based on room use		Average Daylight Factor Coefficients					ADF
	Primary room use	ADF	T	Aw	A	R	θ	
Window 88 (upper)	Living/Dining/Kitchen	2.0%	0.68	0.79	144.77	0.68	83.2	0.6%
Window 89 (lower)			0.68	1.02	144.77	0.68	40.6	0.1%
Window 89 (upper)			0.68	1.93	144.77	0.68	48.3	0.8%
Window 90 (lower)			0.68	0.41	144.77	0.68	51.8	0.1%
Window 90 (upper)			0.68	0.79	144.77	0.68	54.3	0.4%
Window 91 (lower)			0.68	0.41	144.77	0.68	54.7	0.1%
Window 91 (upper)			0.68	0.79	144.77	0.68	59.5	0.4%
Window 92 (lower)			0.68	0.41	144.77	0.68	79.9	0.1%
Window 92 (upper)			0.68	0.79	144.77	0.68	81.8	0.6%
Window 93 (lower)			0.68	0.41	144.77	0.68	80.8	0.1%
Window 93 (upper)			0.68	0.79	144.77	0.68	82.6	0.6%
<b>Total ADF for room</b>								<b>5.4%</b>
Window 94 (lower)	Bedroom	1.0%	0.68	0.44	55.23	0.73	73.9	0.3%
Window 94 (upper)			0.68	0.84	55.23	0.73	75.1	1.7%
Window 95 (lower)			0.68	0.41	55.23	0.73	76.2	0.3%
Window 95 (upper)			0.68	0.79	55.23	0.73	78.1	1.6%
<b>Total ADF for room</b>								<b>3.9%</b>
Window 96 (lower)	Bedroom	1.0%	0.68	0.41	56.91	0.73	73.2	0.3%
Window 96 (upper)			0.68	0.77	56.91	0.73	76.8	1.5%
Window 97 (lower)			0.68	0.44	56.91	0.73	74.6	0.3%
Window 97 (upper)			0.68	0.82	56.91	0.73	75.9	1.6%
<b>Total ADF for room</b>								<b>3.7%</b>
Window 98	Living/Dining/Kitchen	2.0%	0.68	1.46	117.36	0.68	112.0	1.7%
Window 98 (lower)			0.68	0.44	117.36	0.68	70.2	0.1%
Window 99 (upper)			0.68	0.82	117.36	0.68	72.7	0.6%
Window 99 (lower)			0.68	0.41	117.36	0.68	72.4	0.1%
Window 100 (upper)			0.68	0.77	117.36	0.68	76.3	0.6%
Window 100 (lower)			0.68	0.41	117.36	0.68	74.4	0.1%
Window 101 (upper)			0.68	0.77	117.36	0.68	77.8	0.6%
Window 101 (lower)			0.68	1.42	117.36	0.68	39.7	0.2%
Window 102 (upper)			0.68	2.65	117.36	0.68	48.3	1.4%
<b>Total ADF for room</b>								<b>5.4%</b>
Window 103	Living/Dining/Kitchen	2.0%	0.68	0.89	123.84	0.69	121.0	1.1%
Window 103 (lower)			0.68	0.86	123.84	0.69	80.7	0.3%
Window 104 (upper)			0.68	2.3	123.84	0.69	83.3	2.0%
Window 104 (lower)			0.68	0.41	123.84	0.69	74.7	0.1%
Window 105 (upper)			0.68	0.77	123.84	0.69	78.5	0.6%
Window 105 (lower)			0.68	0.41	123.84	0.69	72.9	0.1%
Window 106 (upper)			0.68	0.77	123.84	0.69	76.9	0.6%
Window 106 (lower)			0.68	0.85	123.84	0.69	72.9	0.3%
Window 107 (upper)			0.68	2.02	123.84	0.69	74.7	1.6%
<b>Total ADF for room</b>								<b>6.7%</b>
Window 108	Living/Dining/Kitchen	2.0%	0.68	1.68	74.67	0.71	129.9	4.1%
Window 108 (lower)			0.68	0.85	74.67	0.71	60.4	0.4%
Window 109 (upper)			0.68	2.02	74.67	0.71	61.6	2.3%

## Appendix 2 - Average Daylight Factor (ADF)

### 81 Belsize Park Gardens, London NW3 4JN

Reference	Target ADF based on room use		Average Daylight Factor Coefficients					ADF
	Primary room use	ADF	T	Aw	A	R	θ	
<b>Total ADF for room</b>	Bedroom	1.0%						<b>6.8%</b>
<u>Third Floor</u>								
Window 110 (lower)			0.68	0.41	141.81	0.68	85.9	0.1%
Window 110 (upper)			0.68	0.56	141.81	0.68	86.7	0.4%
Window 111 (lower)			0.68	0.41	141.81	0.68	86.3	0.1%
Window 111 (upper)			0.68	0.56	141.81	0.68	87.0	0.4%
Window 112 (lower)			0.68	1.02	141.81	0.68	63.1	0.2%
Window 112 (upper)			0.68	1.37	141.81	0.68	66.9	0.8%
Window 113 (lower)			0.68	0.4	141.81	0.68	61.2	0.1%
Window 113 (upper)			0.68	0.54	141.81	0.68	63.1	0.3%
Window 114 (lower)			0.68	0.41	141.81	0.68	73.9	0.1%
Window 114 (upper)			0.68	0.56	141.81	0.68	77.5	0.4%
Window 115 (lower)			0.68	0.41	141.81	0.68	85.7	0.1%
Window 115 (upper)			0.68	0.56	141.81	0.68	86.6	0.4%
Window 116			0.68	1.92	141.81	0.68	137.4	2.4%
Window 116 (lower)			0.68	0.39	141.81	0.68	79.9	0.1%
Window 117 (upper)			0.68	0.52	141.81	0.68	83.5	0.4%
Window 117 (lower)			0.68	0.41	141.81	0.68	85.4	0.1%
Window 118 (upper)			0.68	0.56	141.81	0.68	86.4	0.4%
<b>Total ADF for room</b>	Living/Dining/Kitchen	2.0%						<b>6.8%</b>
Window 119 (lower)			0.68	0.42	58.4	0.72	81.2	0.3%
Window 119 (upper)			0.68	0.56	58.4	0.72	83.5	1.1%
Window 120 (lower)			0.68	0.41	58.4	0.72	77.1	0.3%
Window 120 (upper)			0.68	0.59	58.4	0.72	78.2	1.1%
Window 121 (lower)			0.68	0.41	58.4	0.72	84.8	0.3%
Window 121 (upper)			0.68	0.56	58.4	0.72	86.1	1.2%
<b>Total ADF for room</b>	Bedroom	1.0%						<b>4.3%</b>

## Appendix 2 - Room Depth Calculation

### 81 Belsize Park Gardens, London NW3 4JN

Reference	Room Depth Coefficients				Room Depth Calculation		
	L	W	H	Rb	L/W + L/H	<=	2/1-Rb
<u>81 Belsize Park Gardens</u>							
<u>Ground Floor</u>							
Window 5	3.2	4.4	2.3	0.72	2.12	<=	7.1
Window 6	4.9	7.9	2.3	0.71	2.75	<=	6.8
Window 7	2.5	6.5	2.3	0.71	1.47	<=	6.81
Window 8	7.0	5.7	2.3	0.71	4.27	<=	6.81
Window 9	3.0	4.0	2.3	0.7	2.05	<=	6.75
Window 20	2.9	3.1	2.1	0.73	2.32	<=	7.31
Window 33	2.8	3.1	2.2	0.72	2.18	<=	7.26
<u>First Floor</u>							
Window 40	4.4	3.4	2.1	0.72	3.39	<=	7.21
Window 41	3.4	4.4	2.3	0.72	2.25	<=	7.21
Window 60	2.8	4.2	2.4	0.75	1.83	<=	7.85
Window 61	3.1	3.9	2.4	0.75	2.09	<=	7.85
Window 62	4.5	4.5	2.5	0.74	2.8	<=	7.71
Window 63	3.9	3.2	2.5	0.74	2.78	<=	7.71
Window 72	6.3	2.8	2.5	0.73	4.77	<=	7.48
<u>Second Floor</u>							
Window 94	2.8	4.2	2.5	0.73	1.79	<=	7.41
Window 95	3.1	3.9	2.5	0.73	2.03	<=	7.41
Window 96	4.5	4.5	2.4	0.73	2.88	<=	7.4
Window 97	3.9	3.2	2.4	0.73	2.84	<=	7.4

## Appendix 2 - Sunlight to Windows

### 81 Belsize Park Gardens, London NW3 4JN

Reference	Room Use	APSH	
		Total	Winter
<u>81 Belsize Park Gardens</u>			
<u>Ground Floor</u>			
Window 1	Living/Dining/Kitchen	42%	5%
Window 2	Living/Dining/Kitchen	10%	0%
Window 3	Living/Dining/Kitchen	35%	5%
Window 4	Living/Dining/Kitchen	10%	0%
Window 6	Living/Dining/Kitchen	33%	6%
Window 7	Living/Dining/Kitchen	37%	15%
Window 8	Living/Dining/Kitchen	29%	14%
Window 10	Studio	22%	12%
Window 11	Studio	30%	13%
Window 12	Studio	29%	13%
Window 13	Studio	1%	0%
Window 14	Studio	22%	2%
Window 15	Studio	25%	5%
Window 21	Living/Dining/Kitchen	26%	9%
Window 22	Living/Dining/Kitchen	21%	14%
Window 23	Living/Dining/Kitchen	12%	7%
Window 24	Living/Dining/Kitchen	19%	4%
Window 29	Living/Dining/Kitchen	14%	4%
Window 30	Living/Dining/Kitchen	14%	9%
Window 31	Living/Dining/Kitchen	18%	2%
Window 32	Living/Dining/Kitchen	38%	8%
<u>First Floor</u>			
Window 44	Studio	35%	11%
Window 45	Studio	29%	11%
Window 46	Studio	22%	12%
Window 47	Studio	33%	7%
Window 48	Studio	34%	7%
Window 49	Studio	34%	7%
Window 50	Studio	4%	0%
Window 51	Studio	4%	0%
Window 52	Living/Dining/Kitchen	24%	4%
Window 53	Living/Dining/Kitchen	22%	6%
Window 54	Living/Dining/Kitchen	4%	4%
Window 55	Living/Dining/Kitchen	26%	6%
Window 56	Living/Dining/Kitchen	26%	6%
Window 57	Living/Dining/Kitchen	25%	6%
Window 58	Living/Dining/Kitchen	25%	6%
Window 59	Living/Dining/Kitchen	25%	6%
Window 64	Living/Dining/Kitchen	22%	3%

## Appendix 2 - Sunlight to Windows

### 81 Belsize Park Gardens, London NW3 4JN

Reference	Room Use	APSH	
		Total	Winter
Window 65	Living/Dining/Kitchen	20%	3%
Window 66	Living/Dining/Kitchen	48%	17%
Window 67	Living/Dining/Kitchen	1%	0%
Window 68	Living/Dining/Kitchen	20%	0%
Window 69	Living/Dining/Kitchen	22%	0%
Window 70	Living/Dining/Kitchen	37%	8%
Window 71	Living/Dining/Kitchen	5%	0%
<u>Second Floor</u>			
Window 73	Living/Dining/Kitchen	37%	9%
Window 74	Living/Dining/Kitchen	3%	0%
Window 75	Living/Dining/Kitchen	34%	7%
Window 76	Living/Dining/Kitchen	49%	8%
Window 77	Living/Dining/Kitchen	38%	15%
Window 78	Living/Dining/Kitchen	30%	17%
Window 79	Living/Dining/Kitchen	33%	7%
Window 80	Living/Dining/Kitchen	44%	5%
Window 86	Living/Dining/Kitchen	29%	4%
Window 87	Living/Dining/Kitchen	26%	7%
Window 88	Living/Dining/Kitchen	27%	11%
Window 89	Living/Dining/Kitchen	31%	6%
Window 90	Living/Dining/Kitchen	31%	6%
Window 91	Living/Dining/Kitchen	30%	6%
Window 92	Living/Dining/Kitchen	31%	6%
Window 93	Living/Dining/Kitchen	31%	6%
Window 98	Living/Dining/Kitchen	25%	3%
Window 99	Living/Dining/Kitchen	26%	3%
Window 100	Living/Dining/Kitchen	51%	19%
Window 101	Living/Dining/Kitchen	5%	0%
Window 102	Living/Dining/Kitchen	40%	7%
Window 103	Living/Dining/Kitchen	25%	2%
Window 104	Living/Dining/Kitchen	28%	4%
Window 105	Living/Dining/Kitchen	48%	14%
Window 106	Living/Dining/Kitchen	5%	0%
Window 107	Living/Dining/Kitchen	22%	0%
<u>Third Floor</u>			
Window 110	Living/Dining/Kitchen	31%	7%
Window 111	Living/Dining/Kitchen	29%	8%
Window 112	Living/Dining/Kitchen	22%	7%
Window 113	Living/Dining/Kitchen	35%	19%
Window 114	Living/Dining/Kitchen	11%	5%
Window 115	Living/Dining/Kitchen	11%	5%

**Appendix 2 - Sunlight to Windows**  
**81 Belsize Park Gardens, London NW3 4JN**

Reference	Room Use	APSH	
		Total	Winter
Window 116	Living/Dining/Kitchen	11%	5%
Window 117	Living/Dining/Kitchen	11%	5%
Window 118	Living/Dining/Kitchen	60%	12%