SMITH MARSTON

Building Surveyors

Neighbouring Daylight and Sunlight Study - Revision A

175 Arlington Road, London, NW1 7EY

16 April 2025

RICS

Regulated by RICS

CONTENTS

APPENDICES

1 EXECUTIVE SUMMARY

1.1 Overview

1.1.1 Smith Marston Building Surveyors have been commissioned by F Khan to undertake a daylight and sunlight study of the proposed development at 175 Arlington Road, London, NW1 7EY.

1.1.2 The study is based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice, 3rd Edition' 2022.

1.1.3 The aim of the study is to assess the impact of the development on the light receivable by the neighbouring residential property at 177 Arlington Road, London, NW1 7EY.

1.1.4 The images in Appendix 1 identify the windows we have assessed. Appendix 2 gives the numerical results of the various daylight and sunlight tests. Appendix 3 provides No Sky Line contours illustrating daylight distribution. Appendix 4 includes alternative results if we consider the impact the neighbours own projecting wing has on their own light (as permitted by the BRE).

1.1.5 2 out 3 relevant windows assessed pass the BRE Vertical Sky Component (VSC) test for daylight. One window (Window 5) we believe may serve a home office/study – this does not pass the BRE standard VSC test. Window 5 will experience a reduction in its VSC of 39%, more than the 20% threshold in the BRE Guide. However, migration can be applied as set out in 1.1.10 below.

1.1.6 Both bedrooms served by Windows 1 and 3 pass the VSC test. Window 2 is secondary window and can be disregarded from analysis, as can Window 4 serving a non-habitable area.

1.1.7 All relevant rooms pass the No Sky Line test regarding daylight distribution.

1.1.8 The BRE sunlight tests should be applied to all main living rooms and conservatories which have a window which faces within 90 degrees of due south. The BRE guide states that kitchens and bedrooms are less important, although care should be taken not to block too much sunlight. In this scheme, we have no neighbouring main living

rooms or conservatories to consider, only bedrooms and what appears to be a home office. All 3 bedrooms all pass the sunlight tests, despite them being of less importance. The assumed home office is a room we consider does not have a requirement for sunlight based upon the BRE criteria, but, in any event, this window does pass if considering mitigation including in the BRE Guide – see paragraph 1.1.11 below.

1.1.9 As set out above, all of the windows tested meet or surpass the BRE numerical recommendations when considering mitigation accepted in the BRE Guide (that is, when considering the impact that the neighbouring properties own projecting wing has on its own light),

1.1.10 The only window which does not pass the BRE numerical VSC test is situated adjacent to a projecting wing. The BRE guide explains that one way to demonstrate that the projecting wings are a contributing factor in loss of light is to carry out an additional calculation without such existing obstructions in place. In this instance, Window 5 would achieve a VSC after the development of 27.9%, more than the required 27%, when using the additional calculation with the existing obstruction removed. This does show that the neighbours own extension/wing does limit the amount of light to Window 5.

1.1.11 Furthermore, if we omit the mass of the neighbours own projecting wing, then Window 5 would also pass the Total Annual Sunlight Hours test. These alternative results are included in Appendix 4 for information, but, as this window does not serve a main living room or conservatory, we consider this window can be omitted from analysis regarding sunlight.

1.1.12 The BRE guide explains that the numerical guidelines should be interpreted flexibly, since natural lighting is only one of many factors in site layout design. The local authority should therefore balance daylight and sunlight considerations against all other material planning considerations when deciding whether to grant planning permission.

2 INFORMATION SOURCES

2.1 Drawings

2.1.1 This report is based on the following drawings:

Studio Becoming

	Location Plan	Rev -
ARL_SB_EX_AL_100	Existing Plans	Rev P2
ARL_SB_PR_AL_100A	Proposed Plans: Basement to First Floors	Rev P13
ARL_SB_PR_AL_100B	Proposed Plans: Third Floor & Roof Plan	Rev P14
ARL_SB_PR_AL_200	Existing & Proposed Section A-A	Rev P4
ARL_SB_PR_AL_300	Existing & Proposed Front Elevations	Rev P4
ARL_SB_PR_AL_310	Existing & Proposed Rear Elevations	Rev P6

2.2 Daylight Distribution Room Layout Information

2.2.1 The daylight distribution test has been applied based on the following room layout information:

Online Local Authority planning records

177 Arlington Road:

026.300A	Plans at Top Levels	Rev A
026.40A	Levels 2 & 3	Rev A

Zoopla:

Photos and sales plans

3 METHODOLOGY OF THE STUDY

3.1 Local Planning Policy

3.1.1 We understand that the Local Authority take 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, by P J Littlefair 2011. This report is based on the 3rd edition of the BRE guide which was published on 8 June 2022.

3.1.2 The standards set out in the BRE guide are intended to be used flexibly. The BRE guide states:

3.1.3 "The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly, since natural lighting is only one of many factors in site layout design."

3.1.4 In reference to applying different numerical target values in different locations, the BRE guide states:

3.1.5 "These values are purely advisory and different targets may be used based on the special requirements of the proposed development or its location."

3.2 National Planning Policy Framework

3.2.1 The BRE numerical guidelines should be considered in the context of the revised 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. The NPPF states:

3.2.2 "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)."

3.3 National Planning Practice Guidance

3.3.1 The BRE numerical guidelines should also be considered in the context of the National Planning Practice Guidance (NPPG). The NPPG states that developments should maintain acceptable living standards. It goes on to explain that what this means in practice is that appropriate levels of sunlight and daylight, will depend to some extent on the context for the development. This is consistent with the BRE guide which as noted in paragraphs 3.1.4 to 3.1.5 above, states that site location is a relevant factor when setting sunlight and daylight targets.

3.4 Daylight to Windows

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

3.4.2 Diffuse daylight calculations should be undertaken to all rooms within domestic properties, where daylight is required, including living rooms, kitchens and bedrooms. The BRE guide states that windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed. These room types are non-habitable and do not have a requirement for daylight.

3.4.3 The BRE guide contains two tests which measure diffuse daylight:

Test 1 Vertical Sky Component

3.4.4 The Vertical Sky Component is a measure of available skylight at a given point on a vertical plane. Diffuse daylight may be adversely affected if after a development the Vertical Sky Component is both less than 27% and less than 0.8 times its former value.

3.4.5 The BRE guide states that the total amount of skylight can be calculated by finding the Vertical Sky Component at the centre of each main window. However, the guide states that if there would be a significant loss of light to the main window but the room also has one or more smaller windows, an overall Vertical Sky Component may be

derived by weighting each Vertical Sky Component element in accordance with the proportion of the total glazing area represented by its window.

Test 2 Daylight Distribution

3.4.6 The distribution of daylight within a room can be calculated by plotting the 'no sky line'. The no sky line is a line which separates areas of the working plane that do and do not have a direct view of the sky. Daylight may be adversely affected if, after the development, the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value.

3.4.7 The BRE guide states that both the total amount of skylight (Vertical Sky Component) and its distribution within the building (Daylight Distribution) are important. The BRE guide states that the daylight distribution calculation can only be carried out where room layouts are known. It states that using estimated room layouts is likely to give inaccurate results and is not recommended. Therefore, we don't endorse the practice of applying the test based on assumed room layouts. However, we can provide additional daylight distribution data upon request by the local authority, if neighbouring room layout information is confirmed.

3.5 Sunlight Availability to Windows

3.5.1 The BRE sunlight tests should be applied to all main living rooms and conservatories which have a window which faces within 90 degrees of due south. The BRE guide states that kitchens and bedrooms are less important, although care should be taken not to block too much sunlight. It also states that normally loss of sunlight need not be analysed to kitchens and bedrooms, except for bedrooms which also comprise a living space. The tests should also be applied to non-domestic buildings where there is a particular requirement for sunlight.

3.5.2 The test is intended to be applied to main windows which face within 90 degrees of due south. However, the BRE guide explains that if the main window faces within 90 degrees due north, but a secondary window faces within 90 degrees due south, sunlight to the secondary window should be checked. For completeness, we have tested all windows which face within 90 degrees of due south. The BRE guide states that sunlight availability may be adversely affected if the centre of the window:

- receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March and
- receives less than 0.8 times its former sunlight hours during either period and
- has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.

4 RESULTS OF THE STUDY

4.1 Windows Considered

4.1.1 The aim of the study is to assess the impact of the development on the light receivable by the neighbouring residential property at 177 Arlington Road, London, NW1 7EY.

4.1.2 Appendix 1 provides a plan and photographs to indicate the positions of the windows analysed in this study. Appendix 2 lists the detailed numerical daylight and sunlight test results. Appendix 3 provides No Sky Line contours illustrating daylight distribution. Appendix 4 includes alternative results if we consider the impact the neighbours own projecting wing has on their own light (as permitted by the BRE).

4.2 Daylight to Windows

Vertical Sky Component

4.2.1 2 out 3 relevant windows assessed pass the BRE Vertical Sky Component (VSC) test for daylight. One window (Window 5) we believe may serve a home office/study – this does not pass the BRE standard VSC test. Window 5 will experience a reduction in its VSC of 39%, more than the 20% threshold in the BRE Guide.

4.2.2 Both bedrooms served by Windows 1 and 3 pass the VSC test. Window 2 is secondary window and can be disregarded from analysis, as can Window 4 serving a non-habitable area.

4.2.3 As set out above, all of the windows tested meet or surpass the BRE numerical recommendations when considering mitigation accepted in the BRE Guide (that is, when considering the impact that the neighbouring properties own projecting wing has on its own light),

4.2.4 The only window which does not pass the BRE numerical VSC test is situated adjacent to a projecting wing. The BRE guide explains that one way to demonstrate that the projecting wings are a contributing factor in loss of light is to carry out an additional calculation without such existing obstructions in place. In this instance, Window 5 would achieve a VSC after the development of 27.9%, more than the required 27%, when using the additional calculation with the existing obstruction

removed. This does show that the neighbours own extension/wing does limit the amount of light to Window 5.

Daylight Distribution

4.2.5 All relevant rooms pass the No Sky Line test regarding daylight distribution.

4.3 Sunlight to Windows

4.3.1 The BRE sunlight tests should be applied to all main living rooms and conservatories which have a window which faces within 90 degrees of due south. The BRE guide states that kitchens and bedrooms are less important, although care should be taken not to block too much sunlight. In this scheme, we have no neighbouring main living rooms or conservatories to consider, only bedrooms and what appears to be a home office. All 3 bedrooms all pass the sunlight tests, despite them being of less importance.

4.3.2 The assumed home office is a room we consider does not have a requirement for sunlight based upon the BRE criteria, but, in any event, this window does pass if again we consider the impact of the neighbours own projecting wing, as permitted by the BRE, and we omit the mass of the neighbours own projecting wing, then Window 5 would pass the Total Annual Sunlight Hours test. These alternative results are included in Appendix 4 for information.

4.4 Conclusion

4.4.1 2 out 3 relevant windows assessed pass the BRE Vertical Sky Component (VSC) test for daylight. One window (Window 5) we believe may serve a home office/study – this does not pass the BRE standard VSC test. Window 5 will experience a reduction in its VSC of 39%, more than the 20% threshold in the BRE Guide.

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4.4.7 Furthermore, if we omit the mass of the neighbours own projecting wing, then Window 5 would also pass the Total Annual Sunlight Hours test. These alternative results are included in Appendix 4 for information, but, as this window does not serve a main living room or conservatory, we consider this window can be omitted from analysis regarding sunlight.

4.4.8 The BRE guide explains that the numerical guidelines should be interpreted flexibly, since natural lighting is only one of many factors in site layout design. The local authority should therefore balance daylight and sunlight considerations against all other material planning considerations when deciding whether to grant planning permission.

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 and overshadowing to neighbouring windows, gardens and open spaces as set out in section 2.2 and 3.2 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 This assessment does not calculate the effects of trees and hedges on daylight, sunlight and overshadowing to gardens. The BRE guide states that it is usual to ignore the effect of existing trees.

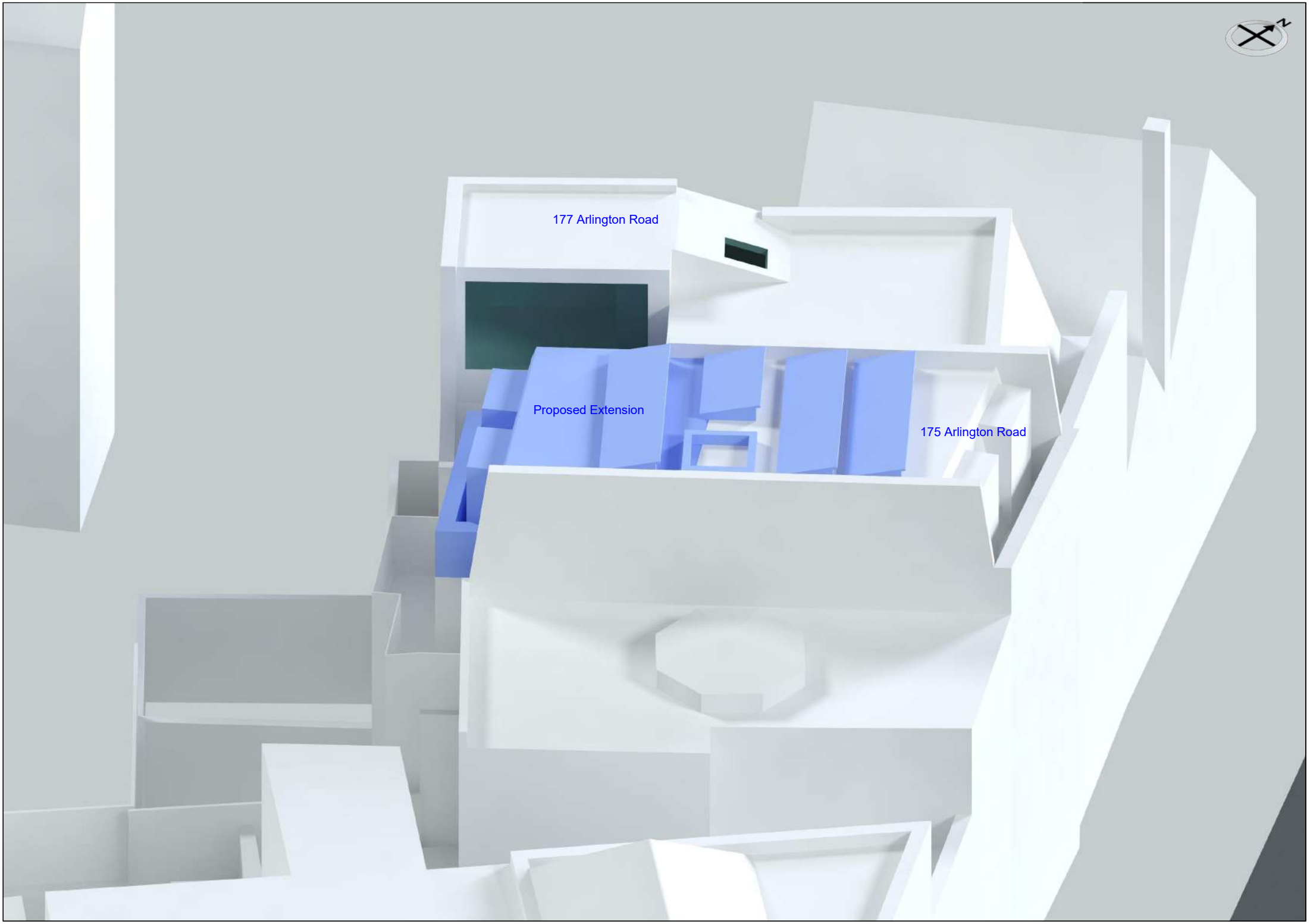
5.1.5 We have undertaken the study following the guidelines of the RICS publication "Surveying Safely". Where limited access or information is available, assumptions will have been made which may affect the conclusions reached in this report. For example, where neighbouring room uses are not known, we will either make an assumption regarding the use, or take the prudent approach of treating the use of the room as being used for domestic purposes. Therefore, the report may need to be updated if room uses are confirmed by the local authority or by the consultation responses.

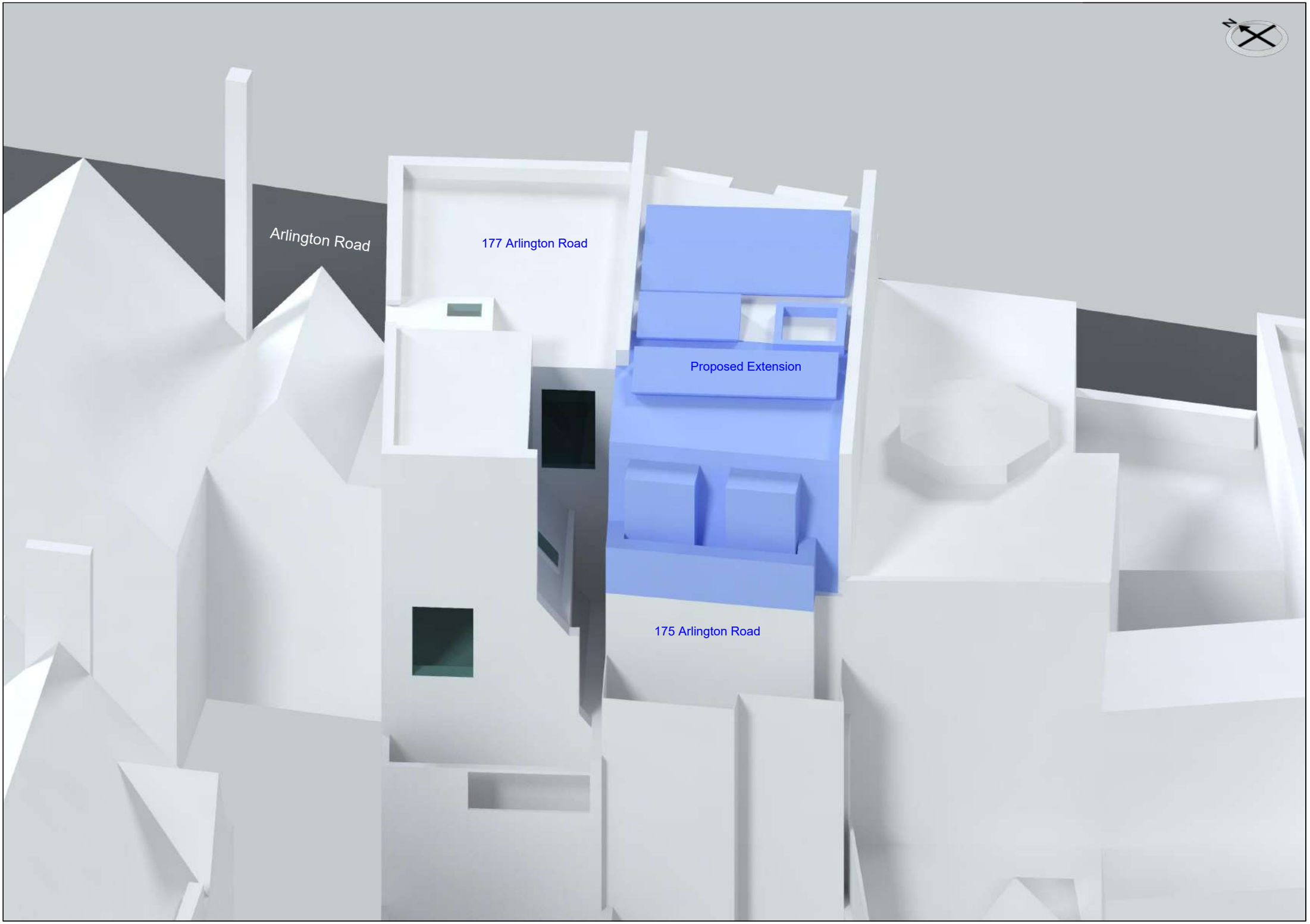
5.1.6 This report is based upon and subject to the scope of work set out in Smith Marston Building Surveyor's quotation and standard terms and conditions.

APPENDICES

APPENDIX 1
WINDOW KEY & GARDEN KEY


N
177 Arlington Road
175 Arlington Road
Proposed Extension


177 Arlington Road
Proposed Extension
175 Arlington Road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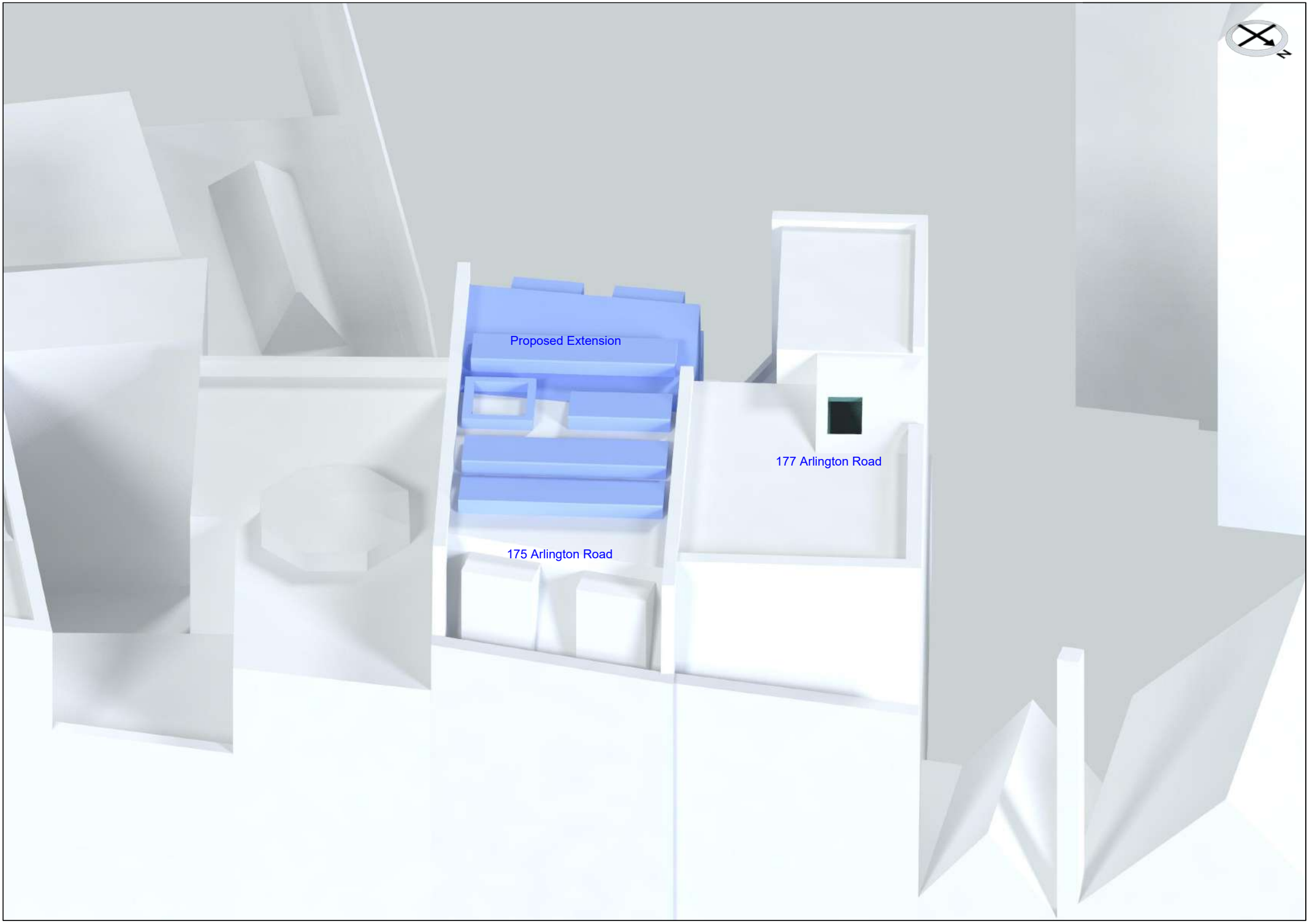
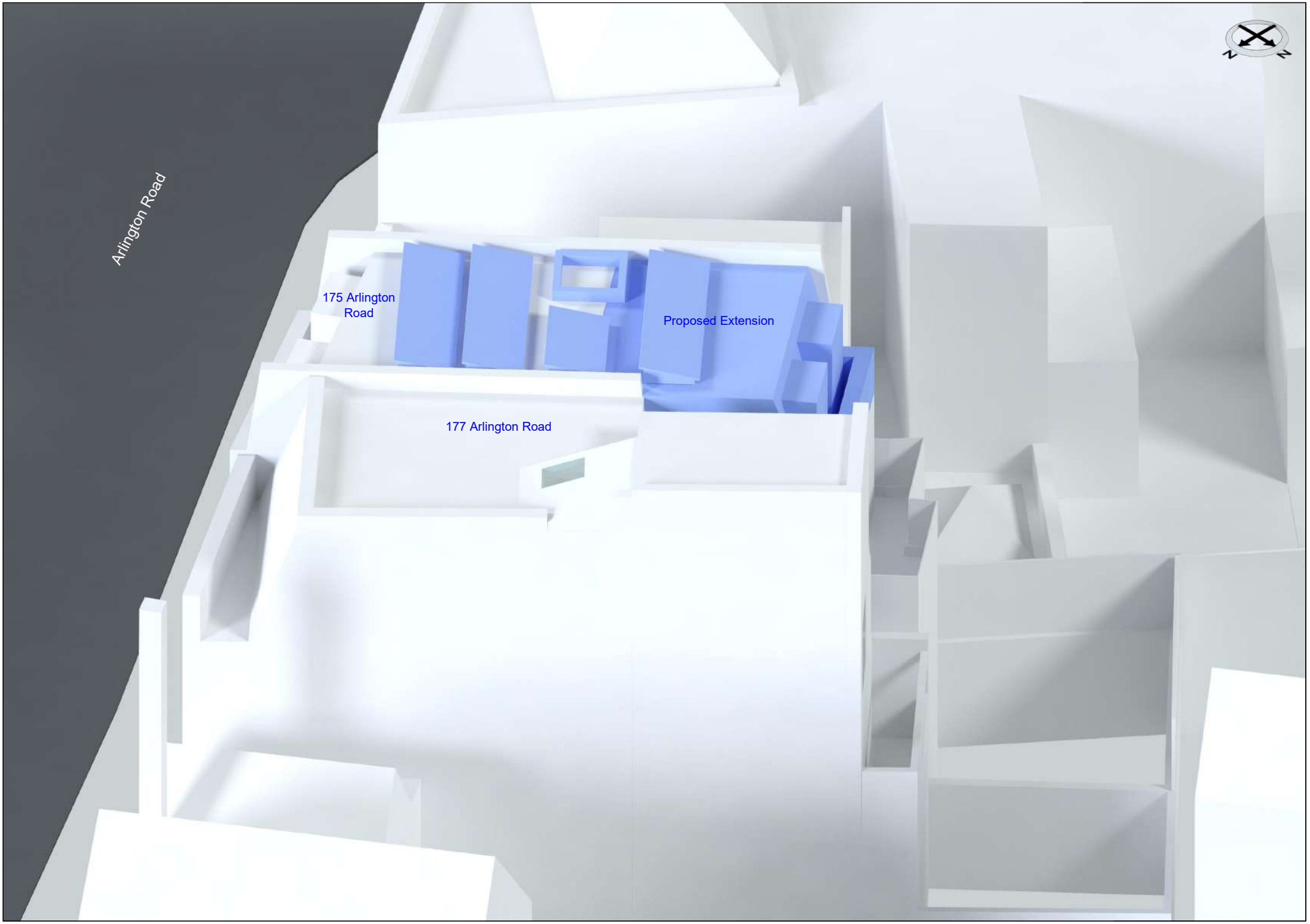
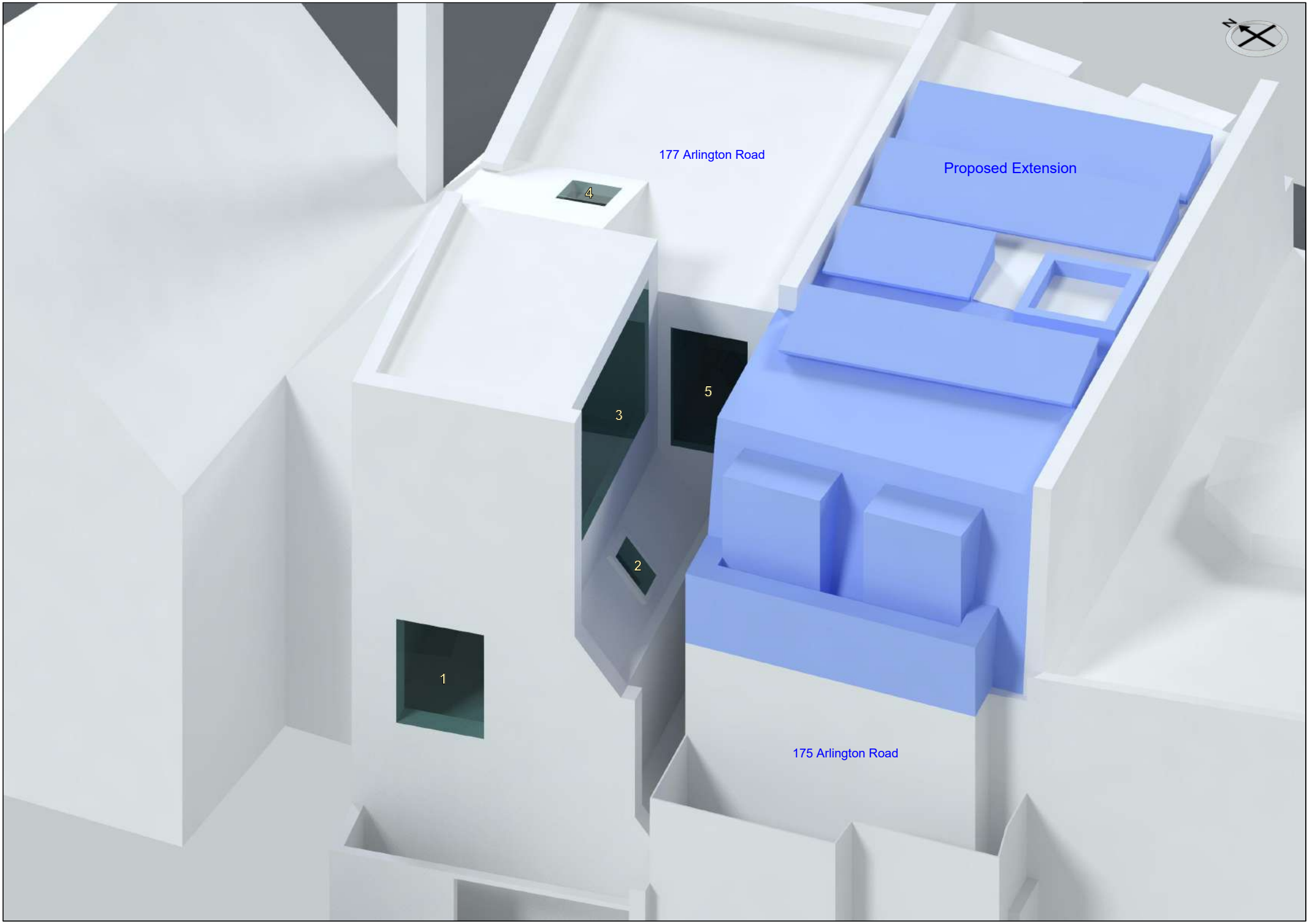
177 Arlington Road
Proposed Extension
175 Arlington Road


Proposed Extension
177 Arlington Road
175 Arlington Road


Arlington Road
175 Arlington Road
Proposed Extension
177 Arlington Road


177 Arlington Road
Proposed Extension
4
3
5
2
1
175 Arlington Road

APPENDIX 2
DAYLIGHT AND SUNLIGHT CALCULATIONS

Appendix 2 - Vertical Sky Component
175 Arlington Road, London, NW1 7EY

Reference	Room Use	Vertical Sky Component			
		Before	After	Loss	Ratio
177 Arlington Road					
Second Floor					
Window 1	Bedroom - main	34.8%	34.8%	0.0%	1.0
Window 2	Bedroom - secondary - n/a	37.7%	20.8%	16.9%	0.55
Third Floor					
Window 3	Bedroom	37.2%	34.8%	2.4%	0.94
Window 4	Store - n/a	95.5%	95.5%	0.0%	1.0
Window 5	Assumed Home Office	23.4%	14.3%	9.1%	0.61

Appendix 2 - Daylight Distribution
175 Arlington Road, London, NW1 7EY

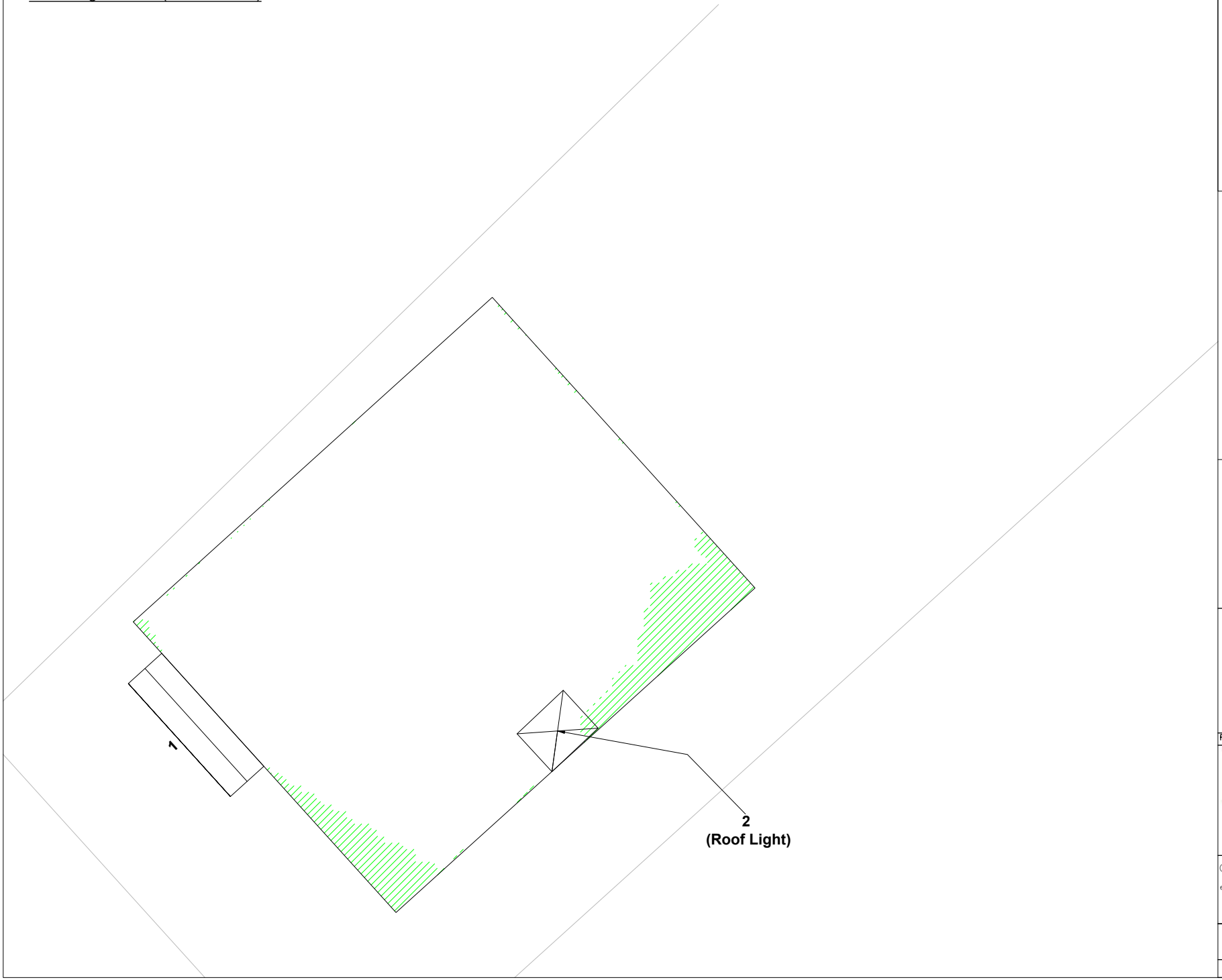
Reference	Room Use	Daylight Distribution			
		Before	After	Loss	Ratio
177 Arlington Road					
Second Floor					
Windows 1 & 2	Bedroom	91%	91%	0.0%	1.0
Third Floor					
Window 3	Bedroom	100%	100%	0.0%	1.0
Window 4	Store - n/a	99%	99%	0.0%	1.0
Window 5	Assumed Home Office	98%	98%	0.0%	1.0

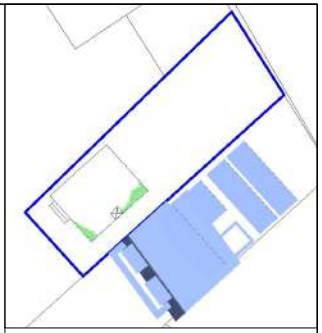
Appendix 2 - Sunlight to Windows
175 Arlington Road, London, NW1 7EY

Reference	Room Use	Sunlight to Windows							
		Total Sunlight Hours				Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
177 Arlington Road									
Second Floor									
Window 1	Bedroom	62%	62%	0%	1.0	23%	23%	0%	1.0
Window 2	Bedroom	57%	27%	30%	0.47	18%	10%	8%	0.56
Third Floor									
Window 3	Bedroom	70%	69%	1%	0.99	23%	22%	1%	0.96
Window 5	Assumed Home Office	47%	24%	23%	0.51	20%	6%	14%	0.3

APPENDIX 3
NO SKY LINE CONTOURS

177 Arlington Road (Second Floor)





Area that does not receive visible sky both before and after the development.

Area that can receive visible sky as a result of the development.

Area that cannot receive visible sky as a result of the development.

Area that can recieve visible sky both before and after the development.

Rev	Date	Description

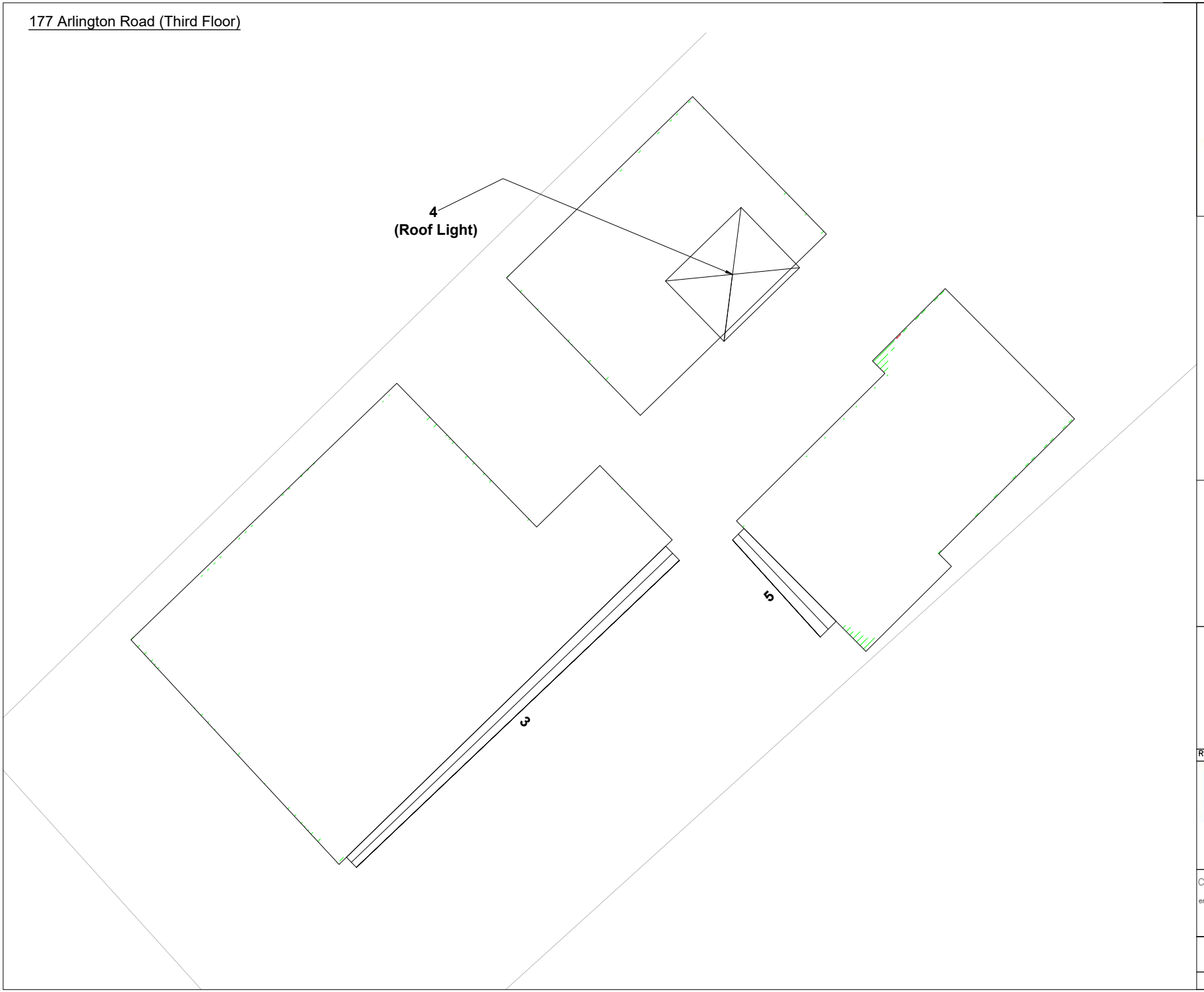
SMITH MARSTON
Building Surveyors

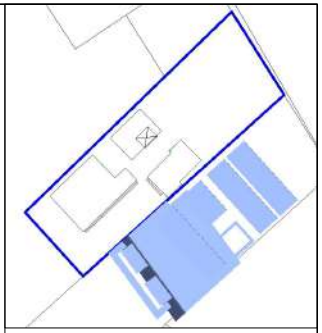
CHARTERED BUILDING SURVEYORS
email: info@smithmarston.co.uk
RICS

Drawing Title: No Sky Line Contours

Scale: Do not scale

177 Arlington Road (Third Floor)





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Rev	Date	Description

SMITH MARSTON
Building Surveyors

CHARTERED BUILDING SURVEYORS
email: info@smithmarston.co.uk
RICS

Drawing Title: No Sky Line Contours

Scale: Do not scale

Appendix 2 - Vertical Sky Component - Alternative Result Without Wing
175 Arlington Road, London, NW1 7EY

Reference	Room Use	Vertical Sky Component			
		Before	After	Loss	Ratio
177 Arlington Road					
Third Floor					
Window 5	Home Office	37.0%	27.9%	9.1%	0.75

Appendix 2 - Sunlight to Windows - Alternative Result Without Wing
175 Arlington Road, London, NW1 7EY

Reference	Room Use	Sunlight to Windows							
		Total Sunlight Hours				Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
177 Arlington Road									
Third Floor									
Window 5	Assumed Home Office	65%	42%	23%	0.65	21%	7%	14%	0.33