RIGHT OF LIGHT CONSULTING
Chartered Surveyors

Daylight and Sunlight Report

(Within Development)

12 December 2024

22 Holmes Road
London
NW5 3AB

Regulated by RICS

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APPENDICES

1 EXECUTIVE SUMMARY

1.1 Overview

1.1.1 Right of Light Consulting has been commissioned by Judith Leeb to undertake a daylight and sunlight assessment in connection with the development at 22 Holmes Road, London NW5 3AB. 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, 3rd Edition' by P J Littlefair 2022.

1.1.3 Appendix 1 identifies the windows and amenity areas analysed in this assessment. Daylight provision data and contours for the habitable rooms are presented in Appendix 2. Exposure to sunlight data is provided in Appendix 3. Overshadowing to gardens and opens spaces data and contour drawings are provided in Appendix 4.

1.1.4 Right of Light Consulting confirms that the proposed design satisfies all of the requirements set out in the BRE guide 'Site Layout Planning for Daylight and Sunlight'. In our professional opinion, the proposed design will provide the development's future occupiers with adequate levels of natural light.

2 INFORMATION SOURCES

2.1 Documents Considered

2.1.1 This report is based on the following drawings:

Bryant + Moore Architects

PL01	Proposed Development Proposed Site Plan	Rev -
PL02	Proposed Development Proposed Ground Floor Plan	Rev -
PL03	Proposed Development Proposed Basement Floor Plan	Rev -
PL04	Proposed Development Proposed First Floor Plan	Rev -
PL05	Proposed Development Proposed Second Floor Plan	Rev -
PL06	Proposed Development Proposed Roof Plan	Rev -
PL07	Proposed Development Proposed Elevations	Rev -
PL08	Proposed Development Proposed Elevations	Rev -
PL09	Proposed Development Proposed Elevations	Rev -
PL10	Proposed Development Proposed Sections	Rev -
PL11	Proposed Development Proposed Sections	Rev -
PL12	Proposed Development Proposed Elevations	Rev -
PL13	Proposed Development Proposed Sections	Rev -
PL14	Proposed Development Proposed Sections	Rev -
PL15	Proposed Development Proposed Sections	Rev -
PL16	Proposed Development 3d View - Street View - Holmes Road 2	Rev -
PL17	Proposed Development 3d View - Street View - Holmes Road 1	Rev -
PL18	Proposed Development 3d View - Aerial Front and Rear	Rev -
PL19	Proposed Development 3d View - Top and Street	Rev -
PL20	Proposed Development 3d View - Internal Courtyard 1	Rev -
PL21	Proposed Development 3d View - Rooftops	Rev -

3 METHODOLOGY OF THE ASSESSMENT

3.1 Local Planning Policy

3.1.1 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, 3rd Edition' by P J Littlefair 2022. The BRE guide is based on European standard BS EN 17037 'Daylight in Buildings', 2019 (BS EN 17037).

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 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:

"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 Interior Daylighting

3.4.1 The BRE guide recommends that interior daylighting is checked using the daylight provision test set out in BS EN 17037. The test measures both the amount of daylight, as well as the distribution of daylight within a room. The test is applied to habitable rooms such as living rooms and bedrooms. A kitchen is generally deemed to be a habitable room if it is large enough to accommodate a dining area. If the kitchen is small and is solely used for cooking purposes, then the accepted practice is to treat the kitchen as a non-habitable room. The BRE guide recommends that if the layout means that a small internal kitchen is inevitable, it should be directly linked to a well daylit room.

3.4.2 The assessment is carried out using a grid of points on a horizontal reference plane in each room. In accordance with the BRE recommendations, we have set the reference plane at 850mm above the floor and have excluded assessment points from a 0.3m wide band around the perimeter of each room.

3.4.3 The UK National Annex to BS EN 17037 gives UK specific minimum illuminance recommendations which we have set as the targets for this project. The targets comprise of 100 lux in bedrooms, 150 lux in living rooms and 200 lux in kitchens to be exceeded over at least 50% of the reference plane.

3.4.4 Where a room has a shared use, the highest target should apply. However, the BRE guide explains that local authorities could use discretion here. The guide gives the example where the target for a living room could be used for a combined living/dining/kitchen area if the kitchens are not treated as habitable spaces, as it may avoid small separate kitchens in a design.

3.4.5 In the case of the proposed development, it has not been possible to achieve the 200 lux target for all living/dining/kitchen areas. One solution to this issue would have been to subdivide off the kitchens to make non-habitable non-daylit kitchens, which would not have a requirement for daylight. However, in our opinion this would result in a lower quality of accommodation. Therefore, we have instead applied a 150 lux target to the living/dining/kitchen areas as per the example given in the BRE guide. In our opinion, the 150 lux target is justified as it avoids separate small non-daylit kitchens and results in an overall better standard of accommodation.

3.4.6 The data in Appendix 2 includes the lux target we have assigned to each room, together with the percentage of the reference plane that meets the target. The median illuminance (lux) achieved for each room is also presented. Where the median illuminance exceeds the lux target, this means the lux target has been achieved over at least 50% of the assessment grid.

3.4.7 The daylight provision test may be carried out using either the daylight factor method, or the interior illuminance method. For the purpose of this assessment, we have adopted the daylight factor method. Using the conversion table set out in the BRE guide, we have expressed the results in terms of lux.

3.4.8 Since the assessment is based on a computer simulation, it is necessary to set various surface reflectance values. For example, a 0.6 reflectance means that 60% of the light hitting the surface will be reflected. The BRE guide states that it is necessary to make an allowance for the deterioration of surface finishes. Furniture within the rooms will also have an impact on daylight provision. Since the computer model used in the simulation does not include furniture, the BRE guide recommends that an allowance for this is also made within the reflectance values. For this reason, we have set out below, both the manufacturer's reflectance values, and the values used in the simulation. The simulation values include allowances for furniture and the deterioration of the surfaces. Should product substitutions be required, products with equal reflectance values should be chosen to ensure the daylight results presented in this report are achieved.

Surface	**Product**	**Product Reflectance**	**Simulation Reflectance**
Interior walls	Dulux Light & Space Absolute White	0.93	0.8
Ceilings	Dulux Light & Space Absolute White	0.93	0.8
Floors	Kahrs engineered wood (Ash Coral)	0.62	0.4
Development cladding	BRE default value	n/a	0.2

Balcony floors	Portland stone	0.6	0.5
Balcony soffits	Dulux Weathershield Brilliant White	0.92	0.6
Neighbouring buildings	BRE default value	n/a	0.2
Mirror	Generic value	n/a	0.95
Glass	Generic value	n/a	0.1
Exterior ground	BRE default value	n/a	0.2

3.4.9 The simulation is based on double-glazed windows with a glazed area that equates to 80% of the structural opening size. The glazing consists of a Pilkington 4mm Optifloat Clear outer pane and a Pilkington 6.4mm OptiLam K Glass S inner pane, which has an overall manufacturer's direct transmittance of 0.82. In accordance with the BRE guide, the simulation includes maintenance factors to allow for the effect of dirt on the glazing.

3.5 Exposure to Sunlight

3.5.1 The BRE guide states that the main requirement for sunlight is in living rooms, where it is valued at any time of day but especially in the afternoon. Sunlight is also required in conservatories. It is viewed as less important in bedrooms and in kitchens, where people prefer it in the morning rather than the afternoon.

3.5.2 The BRE guide states that, in general, a dwelling will appear reasonably sunlit provided:

- at least one main window wall faces within 90 degrees of due south, and
- a habitable room, preferably a main living room, can receive a total of at least 1.5 hours of sunlight on 21 March.

3.5.3 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.

3.6 Overshadowing to Gardens and Open Spaces

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

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

3.6.2 The BRE guide recommends that, for an open space to appear adequately lit throughout the year, at least 50% of its area should receive two hours of sunlight on 21 March.

4 RESULTS OF THE ASSESSMENT

4.1 Windows and Amenity Areas Analysed

4.1.1 Appendix 1 identifies the windows serving habitable rooms analysed in this assessment.

4.1.2 We have also identified the outdoor amenity areas that have been assessed.

4.2 Interior Daylighting

4.2.1 Daylight provision data and contours for the habitable rooms are presented in Appendix 2.

4.2.2 All habitable rooms surpass the BRE minimum illuminance recommendations.

4.3 Exposure to Sunlight

4.3.1 Exposure to sunlight data is provided in Appendix 3.

4.3.2 All dwellings have at least one habitable room window which faces within 90 degrees of due south. All dwellings also have a habitable room which receives a total of at least 1.5 hours of sunlight on 21 March. The proposed development therefore satisfies the BRE exposure to sunlight requirements.

4.4 Overshadowing to Gardens and Open Spaces

4.4.1 Overshadowing to gardens and opens spaces data and contour drawings are provided in Appendix 4.

4.4.2 The results show that for gardens 2, 4 & 5 59% or more of the area of each amenity space will receive at least two hours of sunlight on 21 March. This is significantly better than the BRE recommendation which states that at least 50% of any garden or amenity area should receive at least two hours of sunlight on 21 March. Whilst gardens 1, 3 & 6 do not meet the recommendations, the residents will have access to well sunlit amenity areas at the roof levels. We are therefore of the opinion that the proposal provides a good level of amenity for future occupants.

4.5 Conclusion

4.5.1 Right of Light Consulting confirms that the proposed design satisfies all of the requirements set out in the BRE guide ‘Site Layout Planning for Daylight and Sunlight’. In our professional opinion, the proposed design will provide the development’s future occupiers with adequate levels of natural light.

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 of the proposed development as set out in section 2.1 and 3.1 and 3.3 of the BRE guide.

5.1.3 The assessment is based on the information listed in section 2 of this report and a site visit undertaken on 14 February 2019.

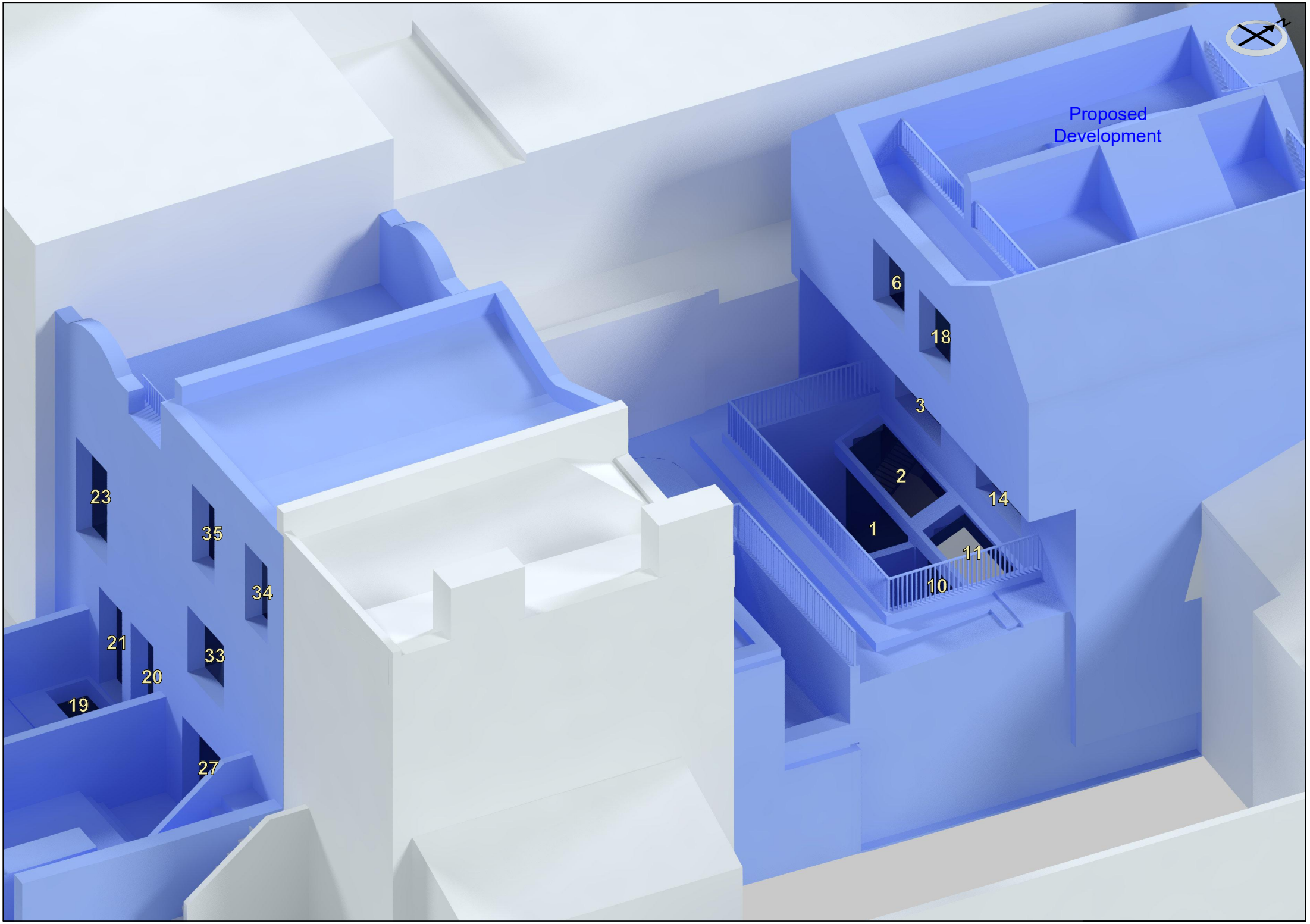
5.1.4 We have undertaken the survey following the guidelines of the RICS publication “Surveying Safely”. Where limited access is available, assumptions will have been made.

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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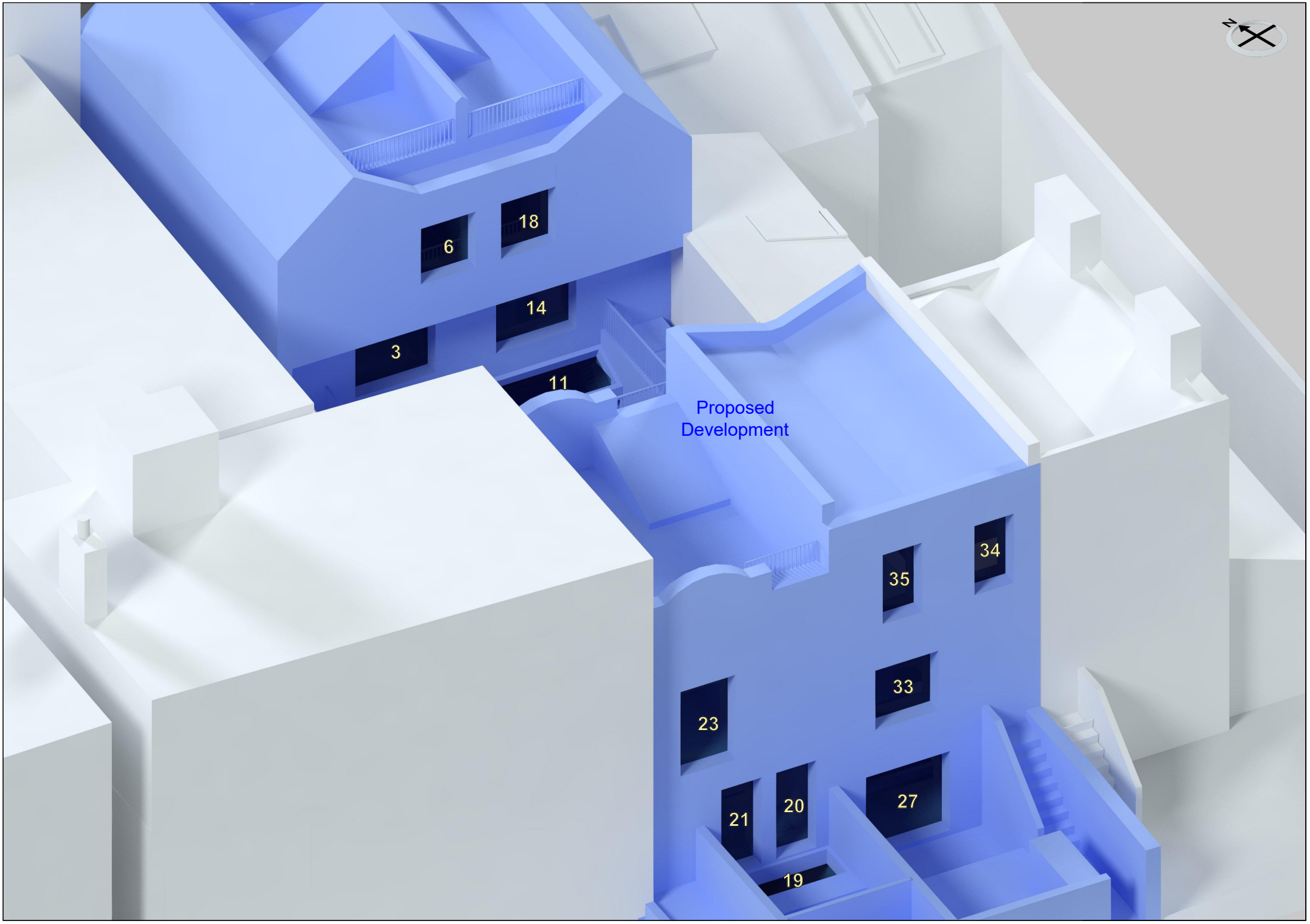
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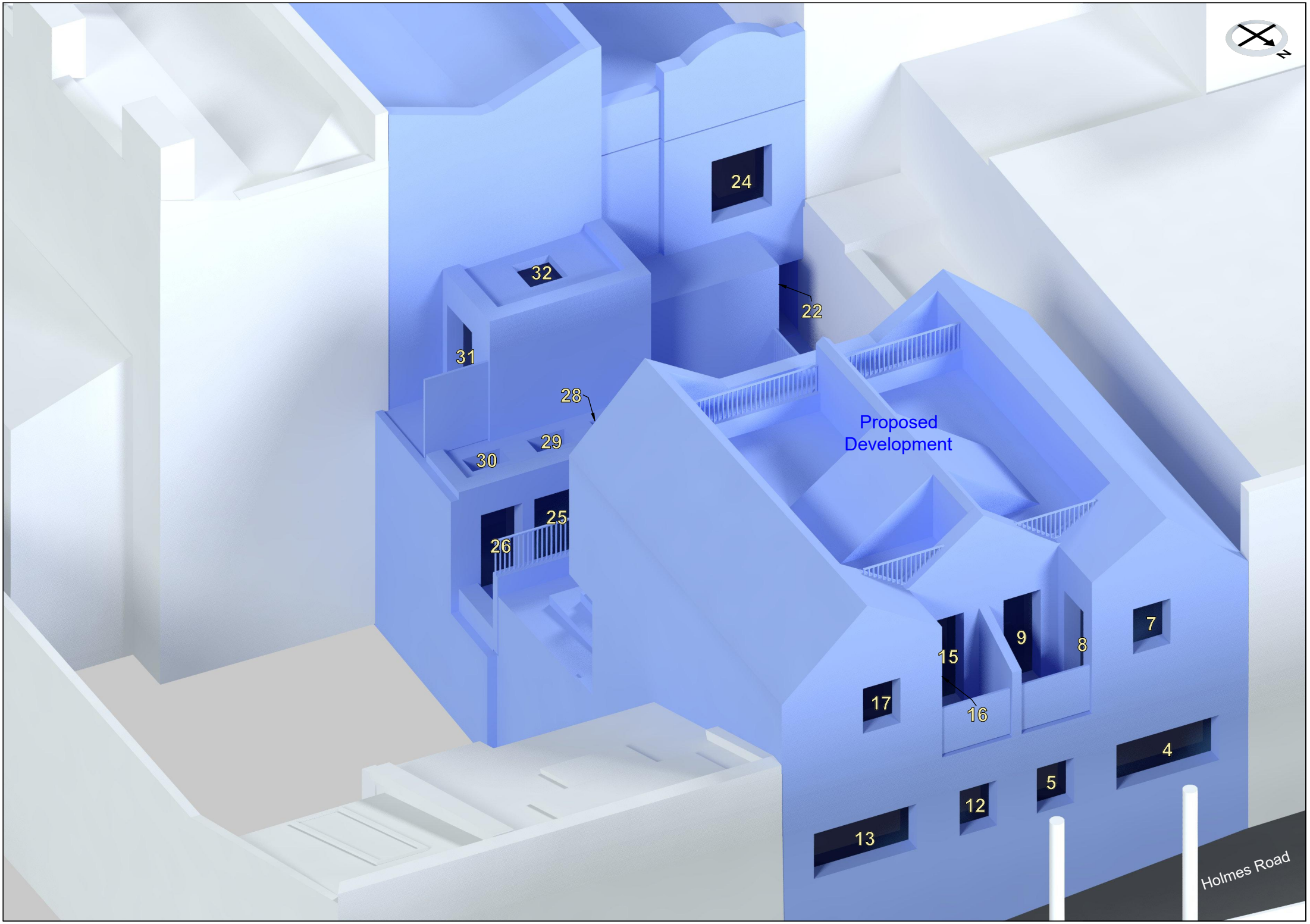
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Proposed
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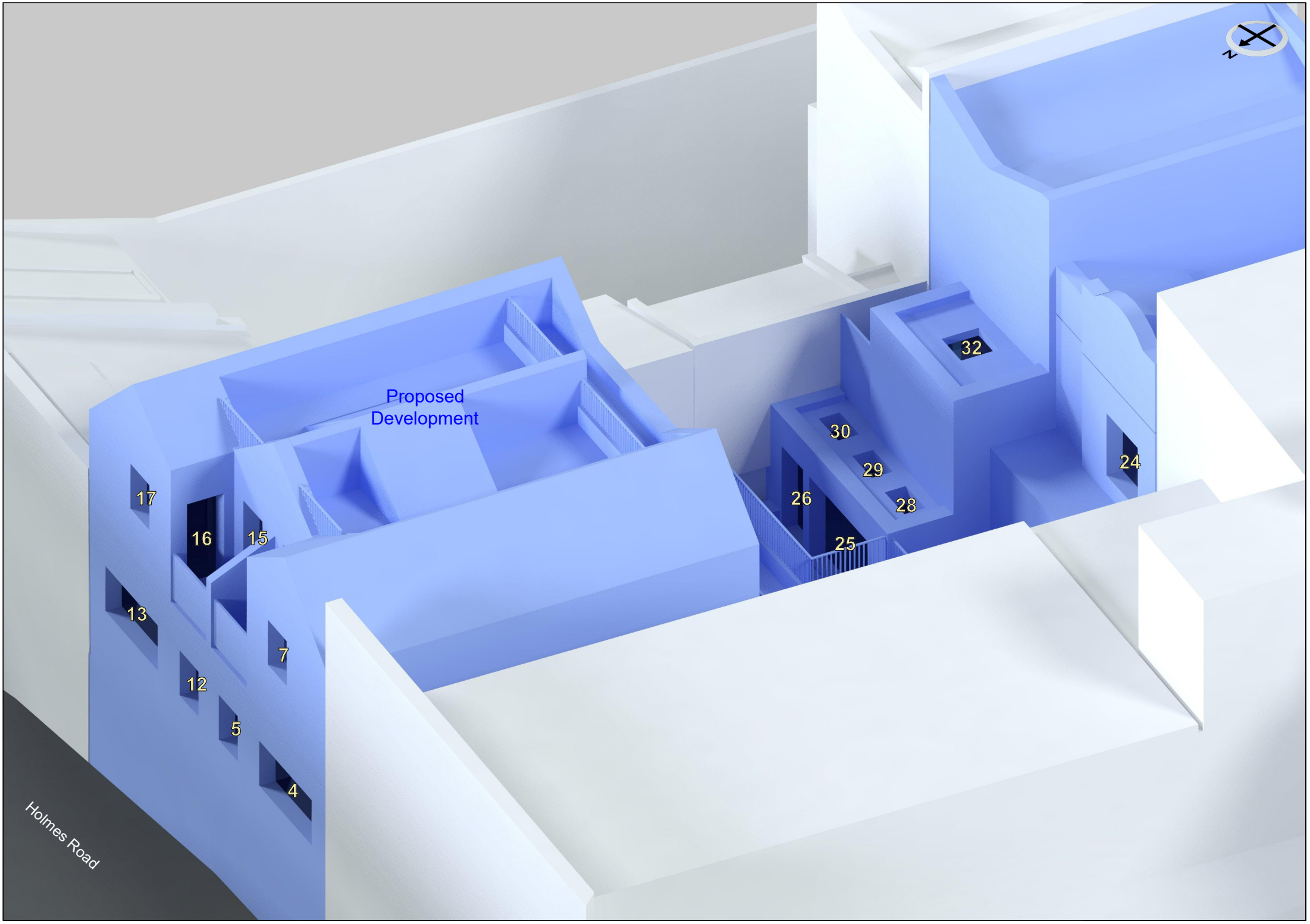
Holmes Road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Holmes Road

APPENDIX 2

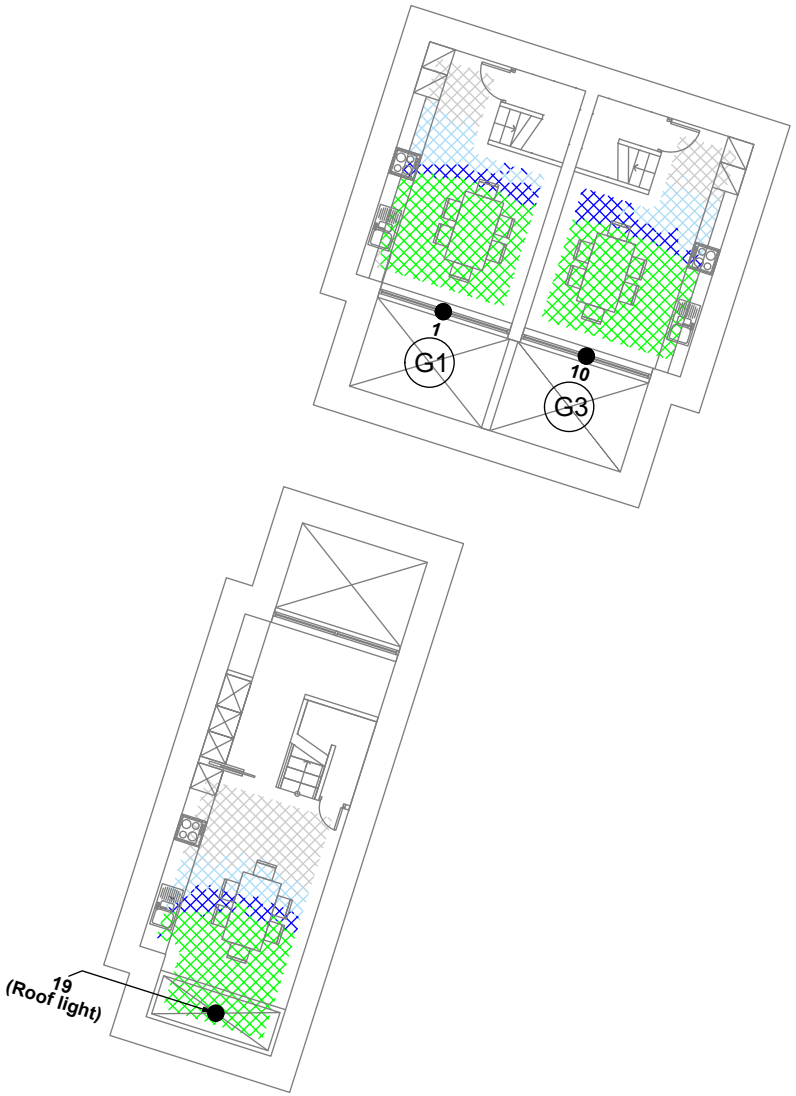
DAYLIGHT PROVISION DATA & CONTOURS

Appendix 2 - Daylight Provision
22 Holmes Road, London NW5 3AB

Reference	Room Use	Target Illuminance (Lux)	Target % of Reference Plane	% of Reference Plane Achieved	Target % Achieved	Median Illuminance (Lux)
22 Holmes Road (Unit 1)						
Basement Floor						
Windows 1 & 2	Dining/Kitchen	150	50%	68%	Yes	283
Ground Floor						
Window 3	Home Office	150	50%	54%	Yes	163
Windows 4 & 5	Living Room	150	50%	86%	Yes	275
First Floor						
Window 6	Bedroom	100	50%	100%	Yes	205
Windows 7 to 9	Bedroom	100	50%	100%	Yes	247
22 Holmes Road (Unit 2)						
Basement Floor						
Windows 10 & 11	Dining/Kitchen	150	50%	72%	Yes	312
Ground Floor						
Windows 12 & 13	Living Room	150	50%	92%	Yes	294
Window 14	Home Office	150	50%	51%	Yes	156
First Floor						
Windows 15 to 17	Bedroom	100	50%	100%	Yes	239
Window 18	Bedroom	100	50%	99%	Yes	197
22 Holmes Road (Unit 3)						
Basement Floor						
Window 19	Dining/Kitchen	150	50%	52%	Yes	160
Ground Floor						
Windows 20 to 22	Living Room	150	50%	64%	Yes	208
First Floor						
Window 23	Bedroom	100	50%	100%	Yes	431
Window 24	Bedroom	100	50%	100%	Yes	362
22 Holmes Road (Unit 4)						
Ground Floor						
Windows 25 to 30	Living/Dining/Kitchen	150	50%	56%	Yes	167
First Floor						
Windows 31 & 32	Bedroom	100	50%	100%	Yes	324
Window 33	Bedroom	100	50%	100%	Yes	376
Second Floor						
Windows 34 & 35	Bedroom	100	50%	100%	Yes	433

Proposed Basement Floor

Daylight Provision Contours



Key:

- 200 lux and above
- 150 lux to 199 lux
- 100 lux to 149 lux
- Below 100 lux
- Window reference
- G1 Gardens and Amenity Areas

Drawing Title:	Daylight Provision Contours
Scale:	Do not scale
Drawing No:	1 of 4
Rev.	-

Rev	Date	Details of revision

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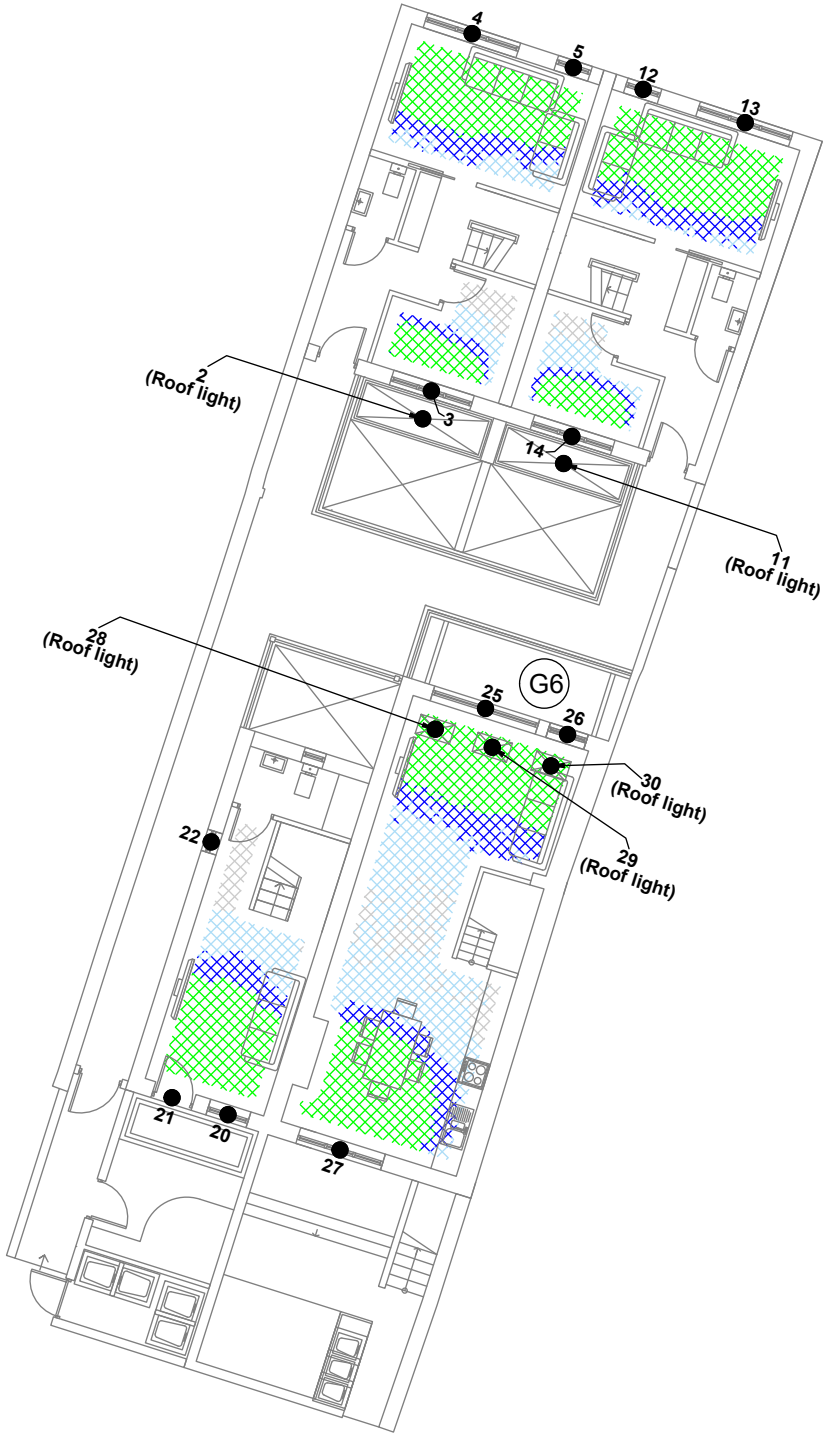
Proposed Ground Floor

Daylight Provision Contours



Key:

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- 150 lux to 199 lux
- 100 lux to 149 lux
- Below 100 lux
- Window reference
- G1 — Gardens and Amenity Areas

Drawing Title:	Daylight Provision Contours
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Drawing No:	2 of 4
Rev.	-

Rev	Date	Details of revision

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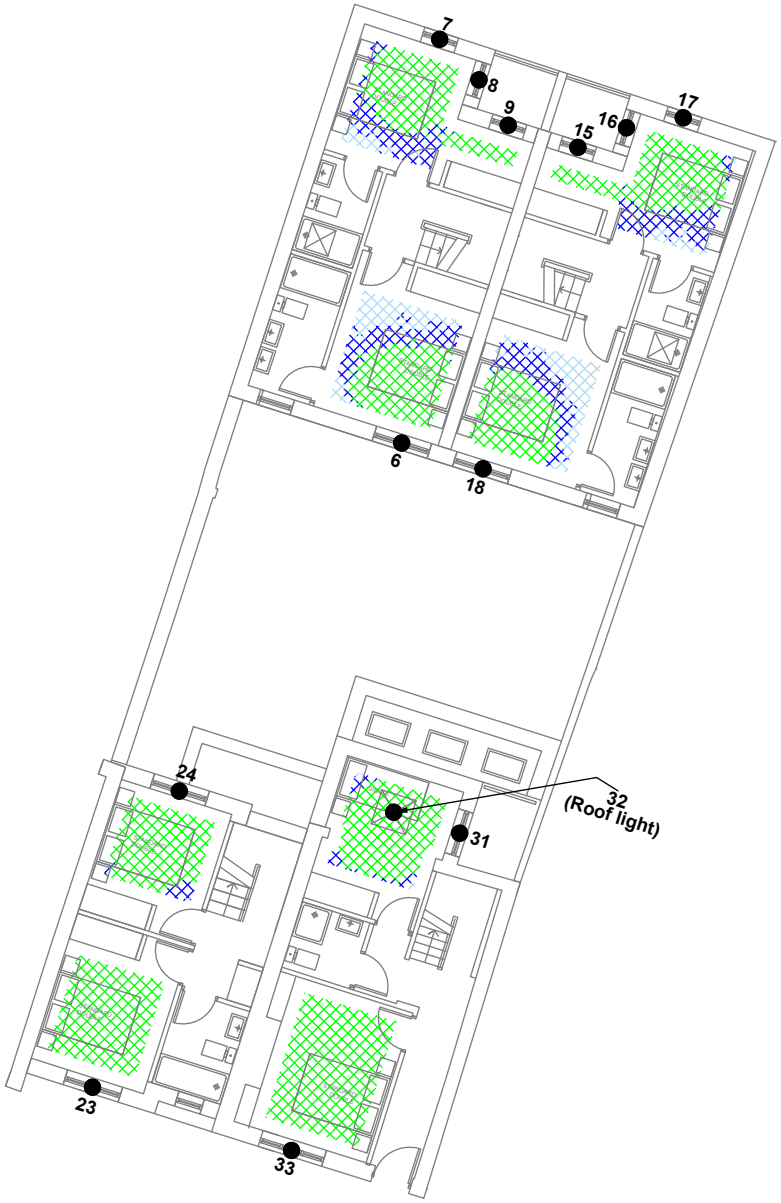
Proposed First Floor

Daylight Provision Contours



Key:

- 200 lux and above
- 150 lux to 199 lux
- 100 lux to 149 lux
- Below 100 lux
- Window reference

Drawing Title:	Daylight Provision Contours
Scale:	Do not scale
Drawing No:	3 of 4
Rev.	-

Rev	Date	Details of revision

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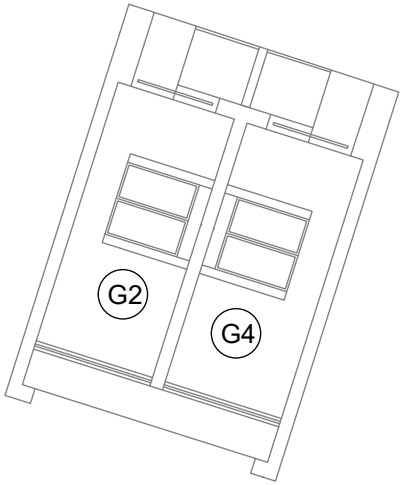
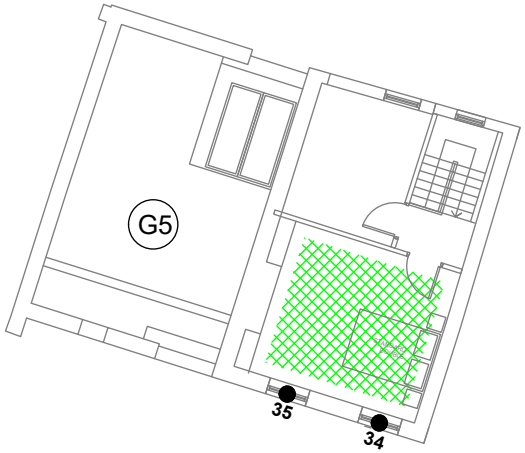
Proposed Second Floor

Daylight Provision Contours





Key:

- 200 lux and above
- 150 lux to 199 lux
- 100 lux to 149 lux
- Below 100 lux
- Window reference
- G1 Gardens and Amenity Areas

Drawing Title: Daylight Provision Contours

Scale: Do not scale

Drawing No: 4 of 4 | Rev. -

Rev	Date	Details of revision

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APPENDIX 3

EXPOSURE TO SUNLIGHT DATA

Appendix 3 - Sunlight Exposure
22 Holmes Road, London NW5 3AB

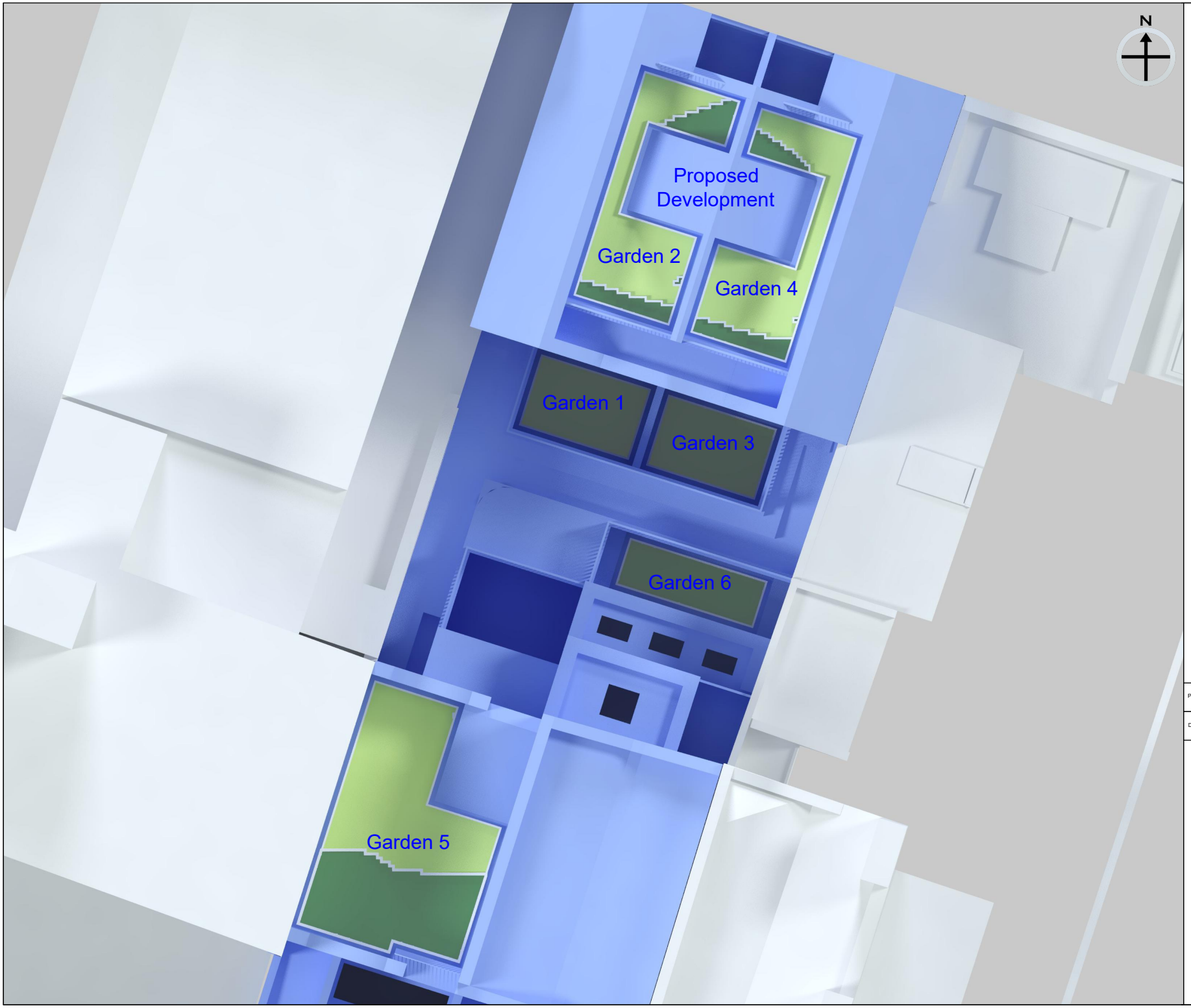
Reference	Room Use	Target Sunlight Exposure	Sunlight Exposure Achieved	At least one room meets Sunlight Exposure Target
22 Holmes Road (Unit 1)				
Basement Floor				
Windows 1 & 2	Dining/Kitchen	1.5 hours	0.2 hours	
Ground Floor				
Window 3	Home Office	1.5 hours	3.2 hours	
Windows 4 & 5	Living Room	1.5 hours	0 hours	Yes
First Floor				
Window 6	Bedroom	1.5 hours	6.3 hours	
Windows 7 to 9	Bedroom	1.5 hours	0 hours	
22 Holmes Road (Unit 2)				
Basement Floor				
Windows 10 & 11	Dining/Kitchen	1.5 hours	0.9 hours	
Ground Floor				
Windows 12 & 13	Living Room	1.5 hours	0 hours	
Window 14	Home Office	1.5 hours	3.9 hours	Yes
First Floor				
Windows 15 to 17	Bedroom	1.5 hours	0 hours	
Window 18	Bedroom	1.5 hours	6.6 hours	
22 Holmes Road (Unit 3)				
Basement Floor				
Window 19	Dining/Kitchen	1.5 hours	0 hours	
Ground Floor				
Windows 20 to 22	Living Room	1.5 hours	6.2 hours	Yes
First Floor				
Window 23	Bedroom	1.5 hours	7.2 hours	
Window 24	Bedroom	1.5 hours	0 hours	
22 Holmes Road (Unit 4)				
Ground Floor				
Windows 25 to 30	Living/Dining/Kitchen	1.5 hours	5.3 hours	
First Floor				
Windows 31 & 32	Bedroom	1.5 hours	0.4 hours	Yes
Window 33	Bedroom	1.5 hours	7.3 hours	
Second Floor				
Windows 34 & 35	Bedroom	1.5 hours	6 hours	

APPENDIX 4

OVERSHADOWING TO GARDENS & OPEN SPACES

Appendix 4 - Overshadowing to Gardens and Open Spaces
22 Holmes Road, London NW5 3AB

Reference	Total Area	Area receiving at least 2 hours of sunlight on 21 March	
22 Holmes Road (Unit 1)			
Basement Floor			
Garden 1	5.07 m2	0.0 m2	0%
Second Floor			
Garden 2	9.43 m2	7.21 m2	76%
22 Holmes Road (Unit 2)			
Basement Floor			
Garden 3	5.02 m2	0.0 m2	0%
Second Floor			
Garden 4	9.44 m2	7.65 m2	81%
22 Holmes Road (Unit 3)			
Second Floor			
Garden 5	20.3 m2	11.95 m2	59%
22 Holmes Road (Unit 4)			
Ground Floor			
Garden 6	4.16 m2	0.0 m2	0%



Key

Receives under two hours sunlight on 21st March.

Receives at least two hours sunlight on 21st March.

Project Name: 22 Holmes Road, London NW5 3AB

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

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