Daylight Report

1 Wadham Gardens,

London, NW3

18th June, 2024

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1.0 Instructions

1.1 CHP Surveyors Limited have been instructed by Marcus Cooper Group to consider the level of daylight the proposed accommodation will enjoy by undertaking an analysis using the criteria set out the Building Research Establishment's publication "*Site layout planning for daylight and sunlight. A guide to good practice*" (2022) (BRE guidelines).

1.2 The assessment has considered the level of daylight of the habitable rooms within the proposed accommodation located at lower ground floor.

1.3 In relation to the access to daylight within the proposed accommodation, the results of the analysis demonstrates that all of the seven rooms analysed will achieve or exceed the numerical targets referenced in BS EN 17037.

1.5 The results of the analysis demonstrate that the proposed accommodation will have good access to daylight and therefore achieve the BRE guidelines.

2.0 Policies and Guidance

2.1 To ensure that this assessment has correctly considered the daylight and sunlight enjoyed by the neighbouring residential properties, consideration has also been given to national, regional, and local planning policies and guidance.

- National Planning Policy Framework (NPPF) – December 2023
- Ministry of Housing, Communities & Local Government Guidance "Effective Use of Land" (July 2019)
- GLA "The London Plan" – March 2021
- The Mayor of London's Housing Supplementary Planning Guidance (SPG) – March 2016
- Building Research Establishment's publication "*Site layout planning for daylight and sunlight. A guide to good practice.*" (2022) (BRE guidelines)

2.2 National Planning Policy Framework – December 2023

2.2.1 Set out within the National Planning Policy Framework (December 2023), under paragraph 129 (c) it states with regard to daylight and sunlight, that consideration should be given as to whether efficient use of the land is being made:

"...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 adequate living standards."

2.3 Ministry of Housing, Communities & Local Government Guidance "Effective use of Land" (July 2019)

2.3.1 Set out within this policy, it states:

"All developments should maintain acceptable living standards.

What this means in practice, in relation to assessing appropriate levels of sunlight and daylight, will depend to some extent on the context for the development as well as its detailed design.

For example, in areas of high-density historical buildings, or city centre locations where tall modern buildings predominate, lower daylight and daylight and sunlight levels at some windows may be unavoidable if new developments are to be in keeping with the general form of their surroundings."

2.4 GLA "The London Plan" – March 2021

2.4.1 Set out under Policy D6 – "Housing quality and standards", it states:

"D - The design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space."

2.5 Mayor of London – Housing Supplementary Planning Guidance (SPG) – March 2016

2.5.1 The Mayor of London's Housing SPG acknowledges that the BRE guidelines should be applied sensitively and makes reference to the use of alternative targets, as set out in the BRE guidelines. It states under paragraph 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 recognize that fully optimising housing potential on larger sites may necessitate standards which depart from those presently experienced, but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm.

Paragraph 2.3.47 of the Housing SPG relates to the necessity for more living and working space and thus greater density. It states:

BRE guidelines on assessing daylight and sunlight should be applied sensitively to higher density development in London, particularly in central and urban settings, recognizing the London Plan's strategic approach to optimize housing output (Policy 3.4) and the need to accommodate additional housing supply in locations with good accessibility suitable for high 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.

2.6 Building Research Establishment (BRE guidelines)

2.6.1 The Building Research Establishment published a comprehensive revision in 2022 to their guidance on daylight within the built environment, titled "*Site layout planning for daylight and sunlight. A guide to good practice*". The BRE guidelines which reflects the BS EN 17037 National Annex is considered as the recognised document referenced by local authorities when considering daylight.

2.6.2 The BRE guidelines acknowledge that their purpose is not to provide strict criteria to which a development must adhere to, but to provide guidance. This is affirmed within the introduction of the BRE guidelines, where it states under paragraph 1.6:

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 interpreted flexibly since natural lighting is only one of many factors in site layout design.

2.6.3 The guidelines contain methodology on how to calculate the level of daylight within the proposed units of scheme.

2.6.4 The technical analysis has been undertaken using the standards and tests recommended within the BRE guidelines. A summary of the recommendations made by the BRE are set out in the Principles of Daylight and Sunlight, attached at Appendix A of this report.

3.0 Information

3.1 During the process of undertaking the analysis and producing this report, reference has been made to the following information:

Hub Architects

Drawing Numbers 1179-00 Existing, 01 Existing, 02 Existing, 03 Existing, 04 Existing, 05 Existing, 06 Existing, 07 Existing, 01C Proposed, 02C Proposed, 03C Proposed, 04C Proposed

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Site Visit and online research

4.0 Site and Proposals

4.1 The site is located within the London Borough of Camden, with the proposal being to provide residential accommodation at lower ground floor level.

5.0 Limitations

5.1 To undertake the detailed daylight and sunlight analysis required to produce this report a three-dimensional computer model has been produced using the information provided and sourced by us, as set out in paragraph 3.1.

5.2 The daylight analysis has been undertaken using a specialist software programme by MBS and from this the resultant data has been produced.

6.0 Methodology

6.1 Using the information provided and online research, a 3D computer model of the properties surrounding the site has been produced. This is to ensure that any surrounding properties that may impact on the daylight to the proposed accommodation are factored into the assessment.

We then produced a 3D computer model of the proposals for the site, including the internal configuration and associated fenestration.

6.2 Using the specialist computer programme, we have undertaken an analysis in accordance with the criteria recommended within the BRE guidelines.

6.3 As stated in paragraph 1.6 of the BRE guidelines, the intention of the guide is to provide recommendations to assist with site layout design. The criteria should be applied flexibly in line with the context of the site and its environment.

6.4 Therefore, when assessing the results of the daylight analysis undertaken, we have considered the location of the site and its surroundings when applying the BRE criteria.

6.5 Daylight

6.6 When considering the level of daylight that will be enjoyed by the proposed accommodation, Section 2.1 and Appendix C of the BRE guidelines sets out the recommended methodology for calculating the appropriate level. This methodology is based on the criteria set out in BS EN17037 and the National Annex.

6.7 The analysis is based on Climate Based Daylight Modelling and sets out recommended minimum levels of Lux, depending on the room use, that should be exceeded for 50% of daylight hours across half of the room area. The analysis takes into account the location of the site within the country by using the relevant meteorological data. The target levels of Lux are:

- Kitchen – 200 Lux
- Living Room – 150 Lux
- Bedroom – 100 Lux

6.8 For the purposes of the analysis, we have used the following parameters, which it is considered appropriately reflect the types of finishes that will be used.

- Glazing transmittance value of 0.68
- Frame correction factor of 0.7
- Maintenance factor of 0.92
- Reflectance for the floors 0.4
- Reflectance value for the walls of 0.7
- Reflectance value for the ceilings of 0.85

6.9 It should be noted that whilst under paragraph C17 of the BRE guidelines it states that where a room has shared use, the highest target should apply. It continues to advise that the target for a Living Room can be used for a combined Living/Kitchen/Dining Room, if the kitchens are not treated as habitable spaces, to avoid small separate kitchens.

7.0 Daylight Assessment

7.1 When assessing the level of daylight the proposed accommodation will enjoy, reference has been made to the criteria set out in Appendix C of the BRE guidelines. The analysis has considered the accommodation on the lower ground floor of the proposals.

7.2 Attached at Appendix C of this report are the results of the daylight analysis undertaken. These demonstrate that all of the seven rooms assessed will achieve or exceed the recommended targets with the BRE guidelines.

7.3 The analysis therefore demonstrates that the proposals will provide accommodation with good access to daylight.

8.0 Conclusion

8.1 The assessment has calculated the levels of daylight the proposed accommodation will enjoy.

8.2 The results of the analysis have been considered with reference to the recommendations set out in Appendix C of the Building Research Establishment's publication "*Site layout planning for*

daylight and sunlight. A guide to good practice." (2022) (BRE guidelines) that references BS EN 17037.

8.3 The analysis demonstrates that when applying the recommended methodologies set out in the BRE guidelines, the proposed accommodation will enjoy good levels of daylight.

Appendix A

Principles of Daylight and Sunlight

In 2022 the Building Research Establishment (BRE) published a revision to their 2011 handbook titled "*Site Layout Planning for Daylight and Sunlight. A guide to good practice.*" The handbook provides advice on how to achieve good daylight and sunlight both within buildings and to open spaces during site layout planning.

The BRE guidelines are used by most local planning authorities when considering the impact on daylight and sunlight. The guidelines are purely advisory and should be applied flexibly to the individual circumstances of each site. The guidelines are more suited to low density suburban development sites where there is greater flexibility for site layout planning. Where sites are located in dense urban locations, there are often constraints from adjacent buildings and in these instances, the guidelines state that the criteria should be applied more flexibly. In paragraph 1.6 of the introduction of the BRE guidelines, it 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. In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high-rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings.

Assessing Proposed Accommodation

Daylight

When considering the level of daylight that will be enjoyed by the proposed residential accommodation within a development, the BRE guidelines makes reference to the recommendations within the British Standard BS EN17037 "Daylight in Buildings" National Annex.

BS EN 17037 advises that a room should receive at least 50% of the recommended lux level for at least half of the annual daylight hours. Below are the ideal lux levels, depending on room use.

- Bedroom 100
- Living Room 150
- Kitchen 200

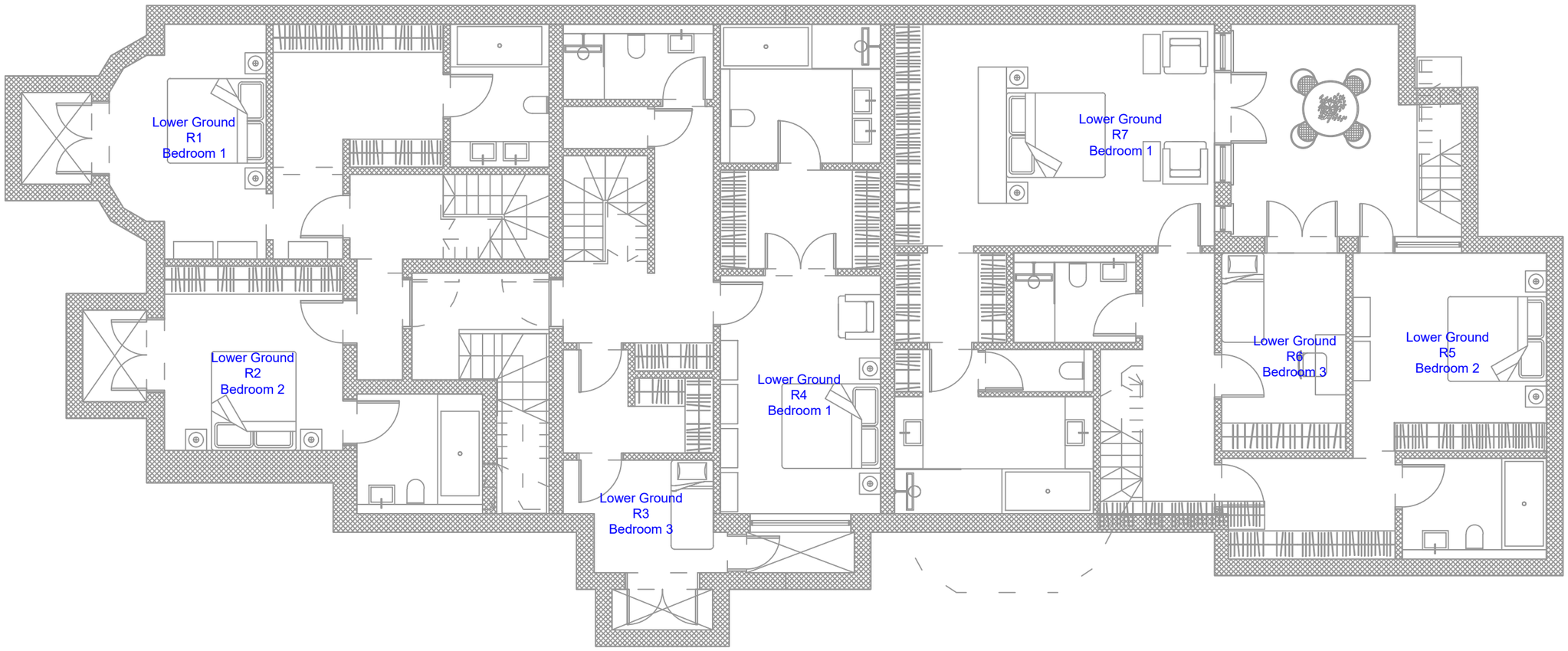
Sunlight

As with the daylight assessment, the BRE guidelines make reference to BS EN17037. It advises that whilst all habitable rooms although for this with windows facing more than 90^0 of due south access will be restricted and the guidelines difficult to achieve. The criteria advises that at least one habitable room per property should enjoy at least 1.5 hours of sunlight on the 21st March.

Appendix B

A3 SHEET

DO NOT SCALE FROM THIS DRAWING. ALL DIMENSIONS TO BE VERIFIED ON SITE



CAD SOURCES

REV	DESCRIPTION	DATE	INIT	CHKD
A	Room map updated as per architect's latest drawing issue	17.06.2024	CO	JC

N

Project
1 Wadham Gardens, London, NW3
Title
Proposed Lower Ground Floor - Room Map

Scale	Date	Drawn By	Checked By	Project No:	Drawing No:	Revision
1:100	20.05.2024	CO	JC	2055 -	001	A

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Appendix C

1 Wadham Gardens June 2024

Daylight Results for Proposed Accommodation

LEVEL	ROOM	ROOM USE	REQUIRED LUX	AREA OF ROOM ACHIEVING TARGET LUX
Lower Ground	R1	Bedroom	100	71%
	R2	Bedroom	100	100%
	R3	Bedroom	100	60%
	R4	Bedroom	100	53%
	R5	Bedroom	100	52%
	R6	Bedroom	100	50%
	R7	Bedroom	100	60%