



23 Prince Albert Road

Daylight and Sunlight Assessment

Prepared for: Mr and Mrs Leslau

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Document History and Status

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Final	30/10/2023	1 and 6	Explanation provided as to why it is asserted the impact of the proposed minor reconfigurations on the daylight and sunlight of the habitable rooms of the ground floor to 5 th floor of the building would be negligible.

Contents

1	INTRODUCTION	1
1.1	INTRODUCTION	1
1.2	DEVELOPMENT DESCRIPTION	1
1.3	3D MODEL	2
2	ASSESSMENT	3
2.1	DAYLIGHT	3
2.2	SUNLIGHT	5
3	CONCLUSIONS.....	6
4	APPENDIX A: FLOOR LAYOUTS.....	7

1 Introduction

1.1 Introduction

- 1.1.1 Erban Consulting Limited was instructed by Mr and Mrs Leslau to prepare a daylight and sunlight assessment for the proposed development at 23 Prince Albert Road, Primrose Hill, London.
- 1.1.2 The purpose of this report is to assess the daylight and sunlight levels of the proposed/existing habitable rooms on the 6th and 7th floor of the building with the proposed minor reconfigurations in place, in accordance with guidance set out in *BRE Report 209, Site Layout Planning for Daylight and Sunlight: A guide to good practice, Third Edition, 2022* (BR 209).
- 1.1.3 It is asserted that the impact of the proposed minor reconfigurations on the daylight and sunlight of the habitable rooms of the ground floor to 5th floor of the building would be negligible. The only windows that may be affected to some extent are three windows on each floor located directly below the proposed balcony. It is understood that the floor layouts of the ground to 5th floor are the same as the floor layout to the 6th floor, which is provided in appendix A of this report. The three windows that may be affected to some extent are circled in blue in appendix A. The central window serves a corridor, a non-habitable room that has no particular requirement for daylight or sunlight. The window to the right of the central window as you look at it serves a bathroom, a non-habitable room that has no particular requirement for daylight and sunlight. The window to the left of the central window as you look at it serves a dressing room, which is served by much larger main windows to the front which would be unaffected by the proposed development. It is clear and obvious from the plans and elevations that the impact on the skylight and sunlight of this window would be considered acceptable when the larger main windows to the front are considered. This includes the impact of the proposed development on the VSC of the window in question, whereby the area weighted VSC of the window and the larger main windows to the front would be calculated as per the following guidance from BR 209 paragraph 2.2.8.

2.2.8 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 VSC may be derived by weighting each VSC element in accordance with the proportion of the total glazing area represented by its window. For example, a room has a main window of area 2m² whose VSC would drop from 24% to 18%, 0.75 times the value before. However, it also has a smaller window, area 1m², for which the VSC would be unchanged at 30%. The area weighted VSC 'before' would be $(24 \times 2 + 30) / 3 = 26\%$. 'After' it would be $(18 \times 2 + 30) / 3 = 22\%$, 0.85 times the value 'before'. Thus, the loss of VSC to the room as a whole would meet the guideline.

1.2 Development Description

- 1.2.1 Minor reconfiguration to 23 Prince Albert Road to comprise:
- Improved access to the roof terrace with a small extension to the existing glass-enclosed landing.
 - A new, small balcony to slot centrally between the existing building massing at Level 07.
 - The two existing, inner-most balconies at Level 07 are to be enclosed with sympathetically designed glazing, in order to create a more usable interior space.

- The two existing, outer-most balconies at Level 07 are proposed to have their solid brick balustrades replaced with metal railings to allow more light and space into the interior spaces, along with a better environment for planting.
- The two existing balconies on Level 06 are proposed to have their brick balustrades replaced with metal railings to allow for planting and greater visibility / access to daylight.

1.3 3D Model

- 1.3.1 A 3D model of the proposed development has been provided by Alistair Downie as shown in Figure 1. Surrounding buildings have not been modelled because they are lower than the rooms being assessed and do not affect their daylight and sunlight.
- 1.3.2 MBS Daylight for SketchUp and Velux Daylight Visualizer, programs specifically developed to assess 3D models in accordance with guidance provided in BR 209, have been used.

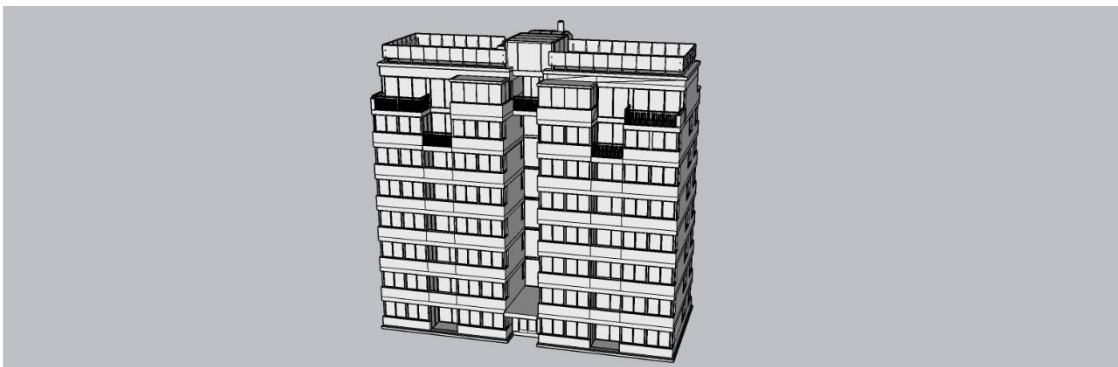


Figure 1: Proposed development

2 Assessment

2.1 Daylight

2.1.1 BR 209 paragraphs C16 to C19 state:

C16 The UK National Annex [of BS EN 17037:2018] gives illuminance recommendations of 100 lux in bedrooms, 150 lux in living rooms and 200 lux in kitchens. These are the median illuminances, to be exceeded over at least 50% of the assessment points in the room for at least half of the daylight hours. The recommended levels over 95% of a reference plane need not apply to dwellings in the UK.

C17 Where a room has a shared use, the highest target should apply. For example in a bed sitting room in student accommodation, the value for a living room should be used if students would often spend time in their rooms during the day. Local authorities could use discretion here. For example, the target for a living room could be used for a combined living/dining/kitchen area if the kitchens are not to be treated as habitable spaces, as it may avoid small separate kitchens in a design. The kitchen space would still need to be included in the assessment area. Alternatively, in rooms with a particular requirement for daylight, such as bed sitting rooms in homes for the elderly, higher values such as those in tables C1 and C2 may be taken.

C18 The UK National Annex gives the latitude, median external diffuse and global illuminances for various UK locations, as well as the daylight factor targets corresponding to the target illuminances as shown in Table C3. The targets for the latitude nearest to the assessment site should be used.

C19 Table C3 shows the daylight factor targets to be achieved over at least 50% of the assessment grid in domestic habitable rooms with vertical and/or inclined daylight apertures. The UK National Annex gives alternative target values for rooms with diffusing horizontal rooflights.

Table C3 – Target daylight factors (D_T) to achieve over at least 50% of the assessment grid in UK domestic habitable rooms with vertical and/or inclined daylight apertures			
Location	D_T for 100 lx (Bedroom)	D_T for 150 lx (Living room)	D_T for 200 lx (Kitchen)
St Peter (Jersey)	0.6%	0.9%	1.2%
London (Gatwick Airport)	0.7%	1.1%	1.4%
Birmingham	0.6%	0.9%	1.2%
Hemsby (Norfolk)	0.6%	0.9%	1.3%
Finningley (Yorkshire)	0.7%	1.0%	1.3%
Aughton (Lancashire)	0.7%	1.1%	1.4%
Belfast	0.7%	1.0%	1.4%
Leuchars (Fife)	0.7%	1.1%	1.4%
Oban	0.8%	1.1%	1.5%
Aberdeen	0.7%	1.1%	1.4%

2.1.2 Table 1 provides a record of the assessment of the daylight factors of the existing/proposed habitable rooms on the 6th and 7th floor of the building, with the proposed minor reconfigurations in place.

2.1.3 The following inputs have been used in the daylight factor calculations:

- The reflectance of interior walls and ceilings has been taken as 0.80 (white painted).
- The reflectance of interior floors has been taken as 0.40 (light wood floor/cream carpet).
- The reflectance of exterior walls, obstructions and exterior ground has been taken as 0.20.
- The normal incidence transmittance, accounting for maintenance factors, has been assumed as 0.69 for vertical glazing not sheltered from rain.
- The targets from London (Gatwick Airport) have been used as this is the BR 209 location with the latitude nearest to the assessment site.

2.1.4 Floor layouts showing the location of the habitable rooms assessed, and clarification of the extent of the rooms assessed, are provided in appendix A.

Table 1: Daylight factors

Habitable room	Target daylight factor (D_T)	Daylight factor achieved (D)	Complies with BR 209 recommendations
6 th floor_Master Suite	0.7%	4.2%	✓
6 th floor_Study	1.1%	5.0%	✓
6 th floor_Bedroom 2	0.7%	6.6%	✓
6 th floor_TV/spare room	1.1%	6.2%	✓
6 th floor_Gym	1.1%	7.7%	✓
7 th floor_Drawing room	1.1%	18.9%	✓
7 th floor_Dining room	1.1%	11.2%	✓
7 th floor_Kitchen/living room	1.4%	14.7%	✓
7 th floor_Study	1.1%	10.7%	✓

2.1.5 All proposed/existing habitable rooms would achieve daylight factors far in exceedance of those recommended in BR 209 with the proposed minor reconfigurations in place.

2.2 Sunlight

2.2.1 BR 209 paragraph 3.1.15 states:

In general a dwelling, or non-domestic building, which has a particular requirement for sunlight, will appear reasonably sunlit provided:

- At least one main window wall faces within 90° 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. This is assessed at the inside centre of the window(s); sunlight received by different windows can be added provided they occur at different times and sunlight hours are not double counted.

2.2.2 All proposed/existing habitable rooms, with the exception of the gym, have south facing windows and receive excellent sunlight levels. The main living room area on the 7th floor has a window that receives 535 minutes of sunlight on 21 March with the proposed minor reconfigurations in place, far in exceedance of the 90 minutes recommended in BR 209.

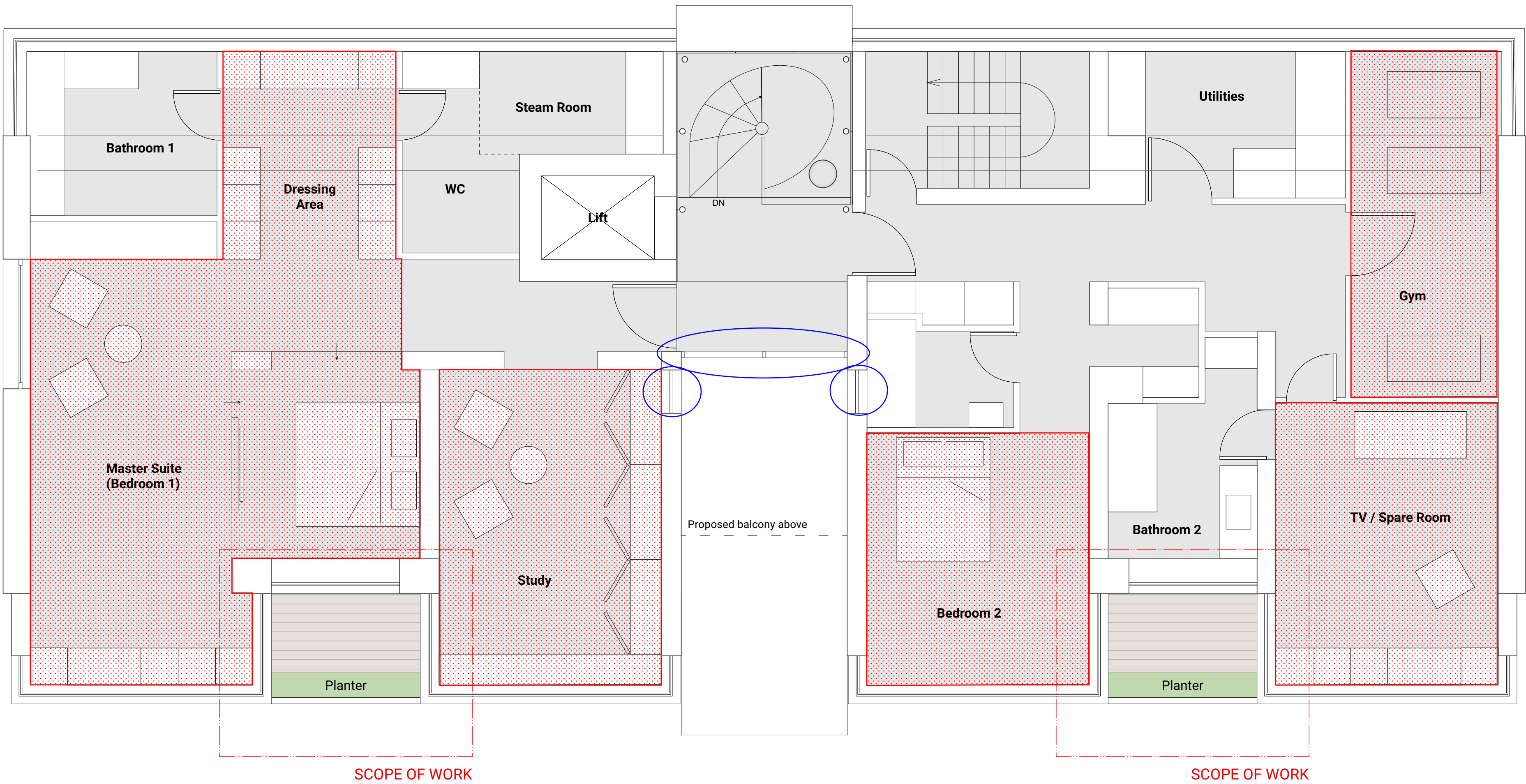
3 Conclusions

- 3.1.1 An assessment of the daylight and sunlight levels of the proposed/existing habitable rooms on the 6th and 7th floor of 23 Prince Albert Road with the proposed minor reconfigurations in place, has been undertaken in accordance with guidance set out in *BRE report 209, Site Layout Planning for Daylight and Sunlight: A guide to good practice, Third Edition, 2022* (BR 209).
- 3.1.2 All proposed/existing habitable rooms would achieve daylight factors far in exceedance of those recommended in BR 209 with the proposed minor reconfigurations in place.
- 3.1.3 The main living room area on the 7th floor has a window that receives 535 minutes of sunlight on 21 March with the proposed minor reconfigurations in place, far in exceedance of the 90 minutes recommended in BR 209.
- 3.1.4 It is asserted that the impact of the proposed minor reconfigurations on the daylight and sunlight of the habitable rooms of the ground floor to 5th floor of the building would be negligible. An explanation of this assertion is provided in paragraph 1.1.3 of this report.

4 Appendix A: Floor layouts

KEY

Extent of habitable room assessed for daylight



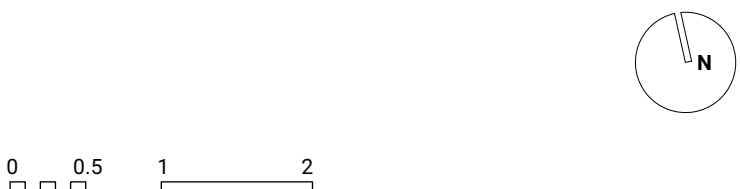
Rev.	Date	Description
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Prince Albert Road
London, NW1 7ST.

PROJECT NO.	DWG NO.	REV.
21245	DR_0200	-

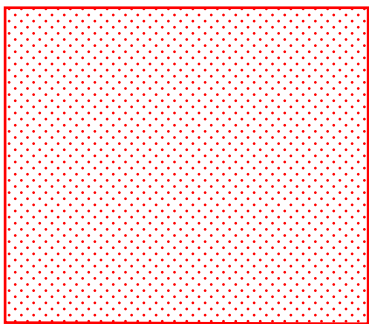
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Proposed 6th Floor Plan

DATE	SCALE
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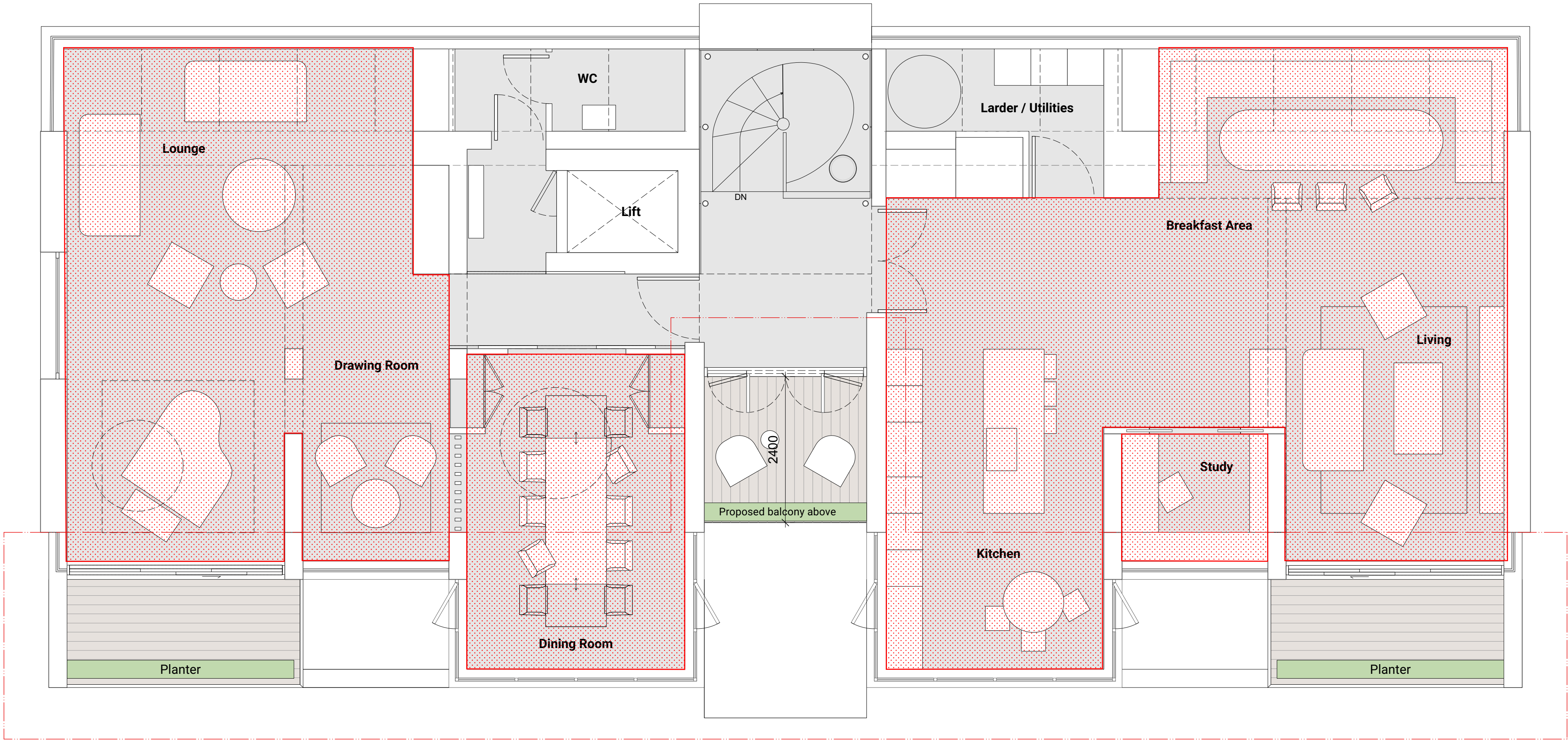


- 1. Do not scale from this drawing. Use figured dimensions only.
- 2. This drawing may not be based on survey drawings and areas are therefore subject to change as part of the general design process and/or the obtention of a survey drawing study.

KEY



Extent of habitable room assessed for daylight



SCOPE OF WORK

Rev.	Date	Description
-	-/-/-	-

Planning Application



Prince Albert Road
London, NW1 7ST.

PROJECT NO.	DWG NO.	REV.
21245	DR_0201	-

TITLE
Proposed 7th Floor Plan

DATE	SCALE
16/03/2023	1:50 @ A1 / 1:100 @ A3

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