96 – 98 Shoot Up Hill, NW2

Internal Daylight Assessment for Planning

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Issue: 1

Contents

Document Control

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Date	Date
10.08.21	10.08.21
Signature	Signature
	

1.0 Introduction

1.1 This daylight assessment has been prepared to support a planning application for the proposed development at 96 – 98 Shoot Up Hill, NW2.

1.2 The report assesses the proposals in respect of daylight matters within habitable rooms in the proposed dwellings having regard to industry standard guidance. The report concludes that the proposal is acceptable and in accordance with planning policy requirements in relation to daylight for those rooms assessed.

1.3 There is no existing specific National Planning Policy relating to the prospective impacts of developments on daylight and sunlight on their surrounding environment.

1.4 However, the BRE Report 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' is the established National guidance to aid the developer to prevent and/or minimise the impact of a new development on the availability of daylight within new proposals. It has been developed in conjunction with daylight and sunlight recommendations in BS 8206: Part 2: 'Lighting for Buildings - Code of Practice for Daylighting'

1.5 This reference document is accepted as the authoritative work in the field on daylight, sunlight and overshadowing and is specifically referred to in many Local Authorities' planning policy guidance for daylighting. The methodology therein has been used in numerous lighting analyses and the standards of natural light are accepted as the industry standards.

2.0 Project Summary

Site Location

2.1 The site is at 96 – 98 Shoot Up Hill and is currently occupied by an adult day centre.

2.2 The proposal is to refurbish the existing dwellings to provide 9 new flats.

2.3 The design team wish to ensure that habitable rooms will receive sufficient daylight for their intended uses, in excess of the minimum values prescribed by BS8206:2

2.4 2D CAD drawings have been provided to us by the project Architect. These have been used to construct a 3D analysis model in order to assess the internal daylight levels within each room.

2.5 Computer simulation modelling has been used to produce the results, presented below.

3.0 Methodology

3.1 This report looks at the internal daylight that the new dwellings will receive using the standard methodology as prescribed by BRE and British Standard guidance:

- Average Daylight Factor (ADF) - Daylight availability

3.2 The ADF is derived from British Standard BS 8206 and is a complex and representative calculation to determine natural internal luminance (daylight).

3.3 It takes into account such factors as window size, number of windows available to the room, room size and layout, room surface reflectance, and the angle of visible sky reaching the window.

3.4 Due to the complexity of the daylight entering the proposed rooms, ADF is the most suitable calculation to give a realistic indication of the internal illuminance that will be experienced.

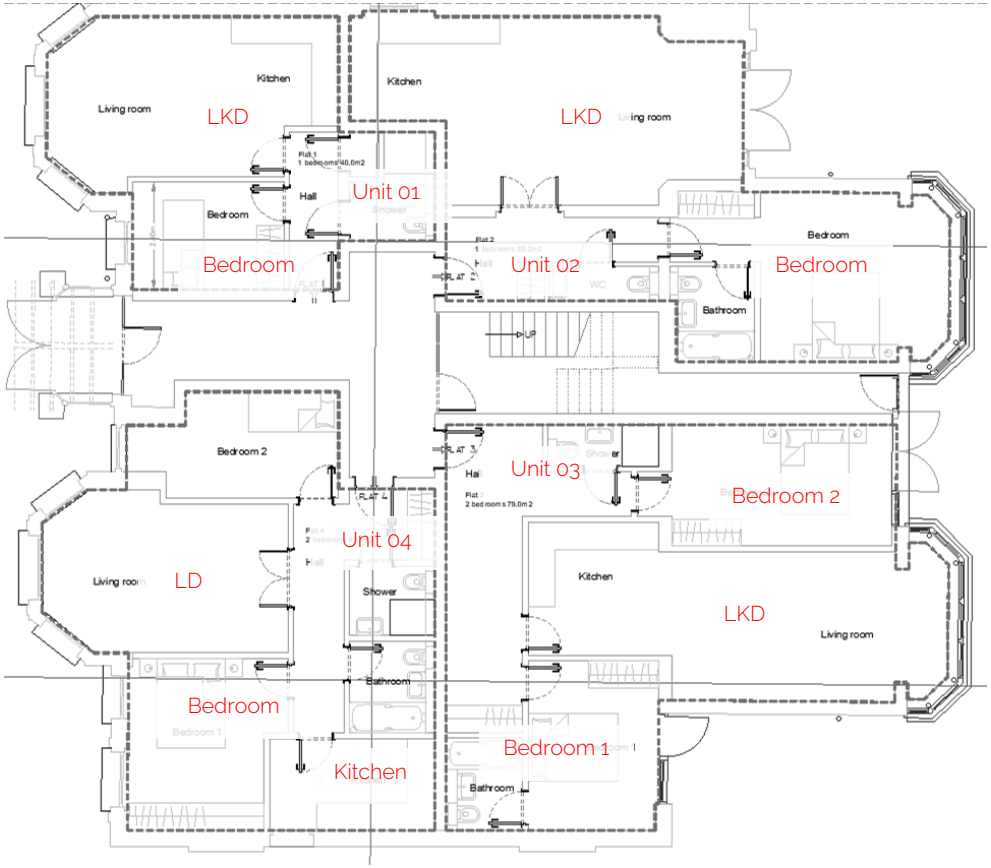
3.5 Calculations have been undertaken in accordance with BRE methodology, using a CIE overcast sky at an illuminance value of 8500 lux.

3.6 The internal finishes of the rooms were modelled as:

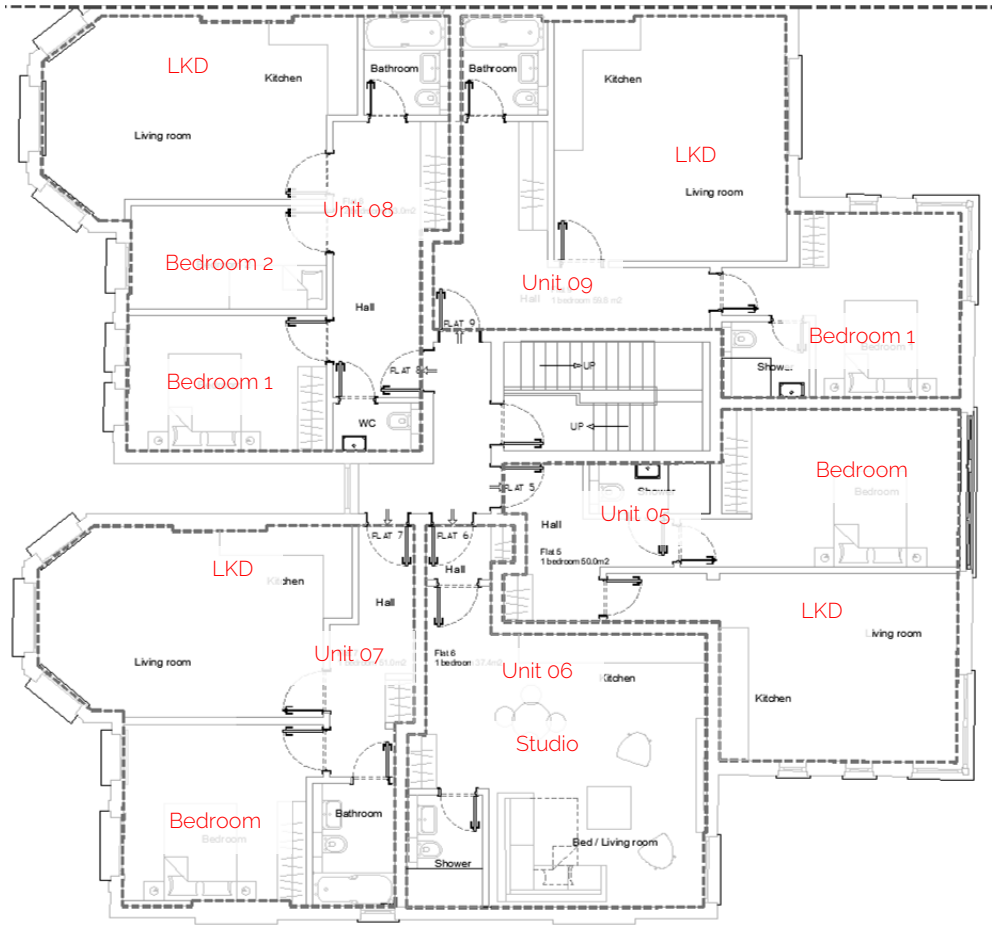
- Walls - plaster - Reflectance 0.561
- Floor - mid grey finish - Reflectance 0.592
- Ceiling - white finish - Reflectance 0.702

3.7 Daylight levels are then calculated at nodal points across a nodal grid set 850mm above the finished floor level. The rooms to be assessed are shown below along with the numerical results and distribution diagrams for a selection of habitable rooms have been provided.

4.0 Room Schedules



Ground Floor as Proposed

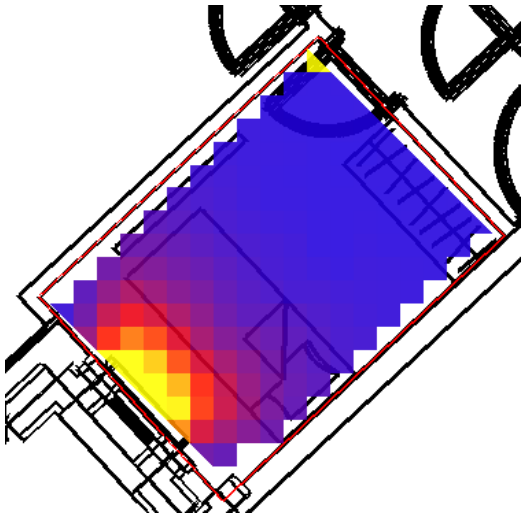


First Floor as Proposed

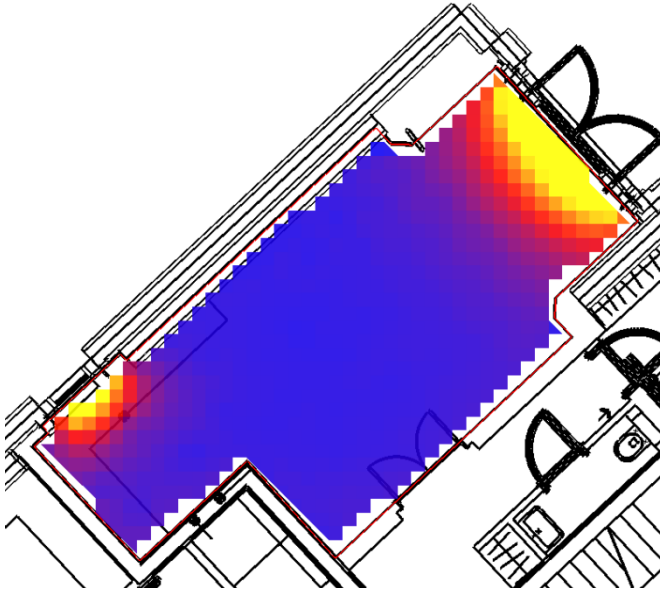
5.0 Daylight Results

Average Daylight Factor Results				
Floor	Unit	Room	Target ADF	Actual ADF
Ground	01	Living Room/Kitchen/Dining	2.00%	4.42%
Ground	01	Bedroom	1.00%	4.47%
Ground	02	Living Room/Kitchen/Dining	2.00%	5.69%
Ground	02	Bedroom	1.00%	6.12%
Ground	03	Living Room/Kitchen/Dining	2.00%	5.02%
Ground	03	Bedroom 1	1.00%	6.87%
Ground	03	Bedroom 2	1.00%	6.64%
Ground	04	Kitchen	2.00%	3.67%
Ground	04	Living Room/Dining	1.50%	5.17%
Ground	04	Bedroom	1.00%	4.76%
First	05	Living Room/Kitchen/Dining	2.00%	5.55%
First	05	Bedroom	1.00%	5.17%
First	06	Studio	2.00%	3.48%
First	07	Living Room/Kitchen/Dining	2.00%	5.93%
First	07	Bedroom	1.00%	5.48%
First	08	Living Room/Kitchen/Dining	2.00%	6.94%
First	08	Bedroom 1	1.00%	6.01%
First	08	Bedroom 2	1.00%	5.67%
First	09	Living Room/Kitchen/Dining	2.00%	4.82%
First	09	Bedroom	1.00%	5.28%

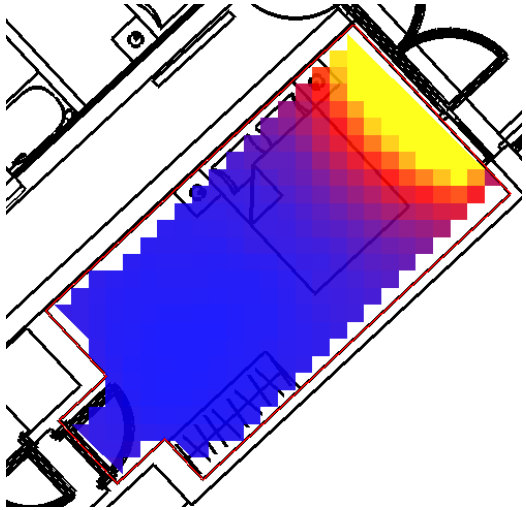
6.0 Daylight Results



Flat 1 – Bedroom



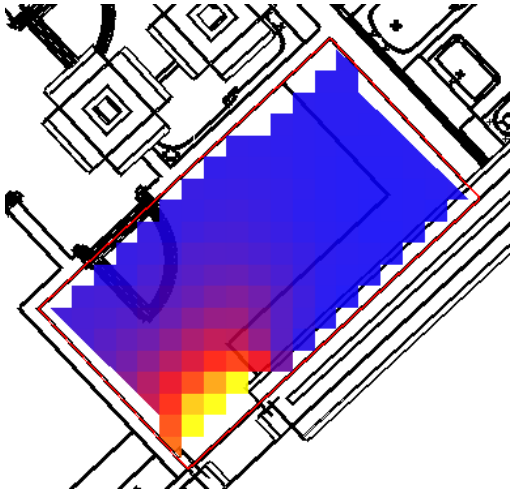
Unit 2 – LKD



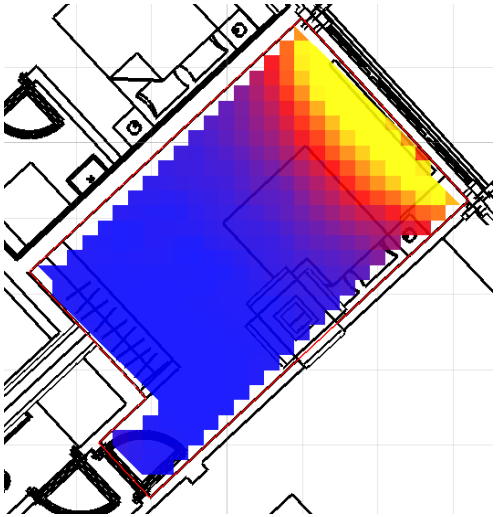
Unit 3 – Bedroom 2

Not to Scale

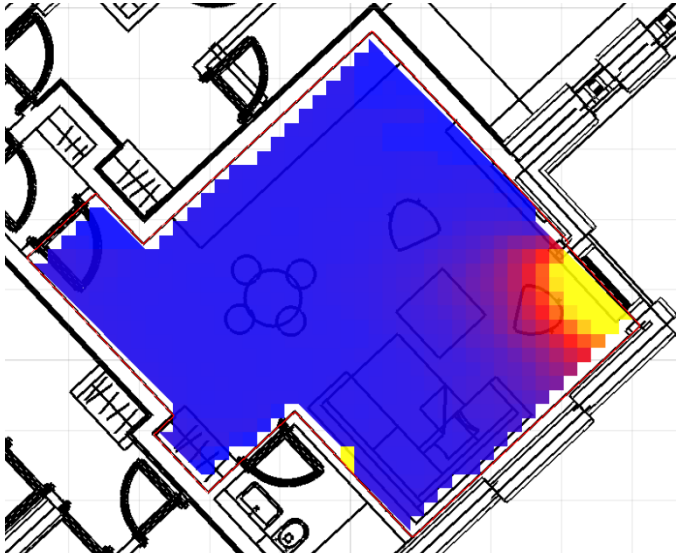
5.0 Daylight Results



Unit 4 – Kitchen

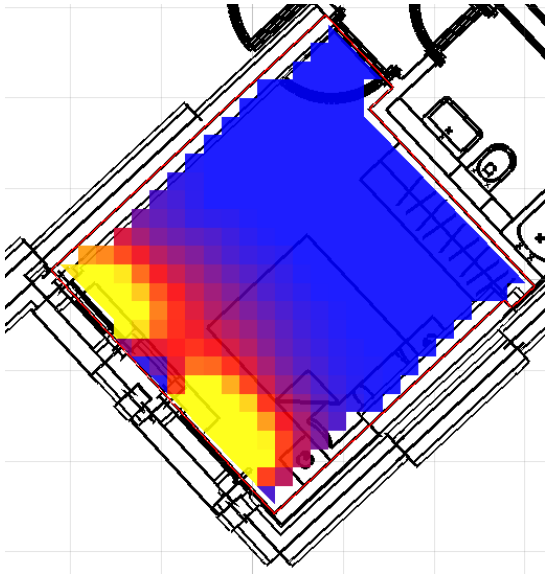


Unit 5 – Bedroom

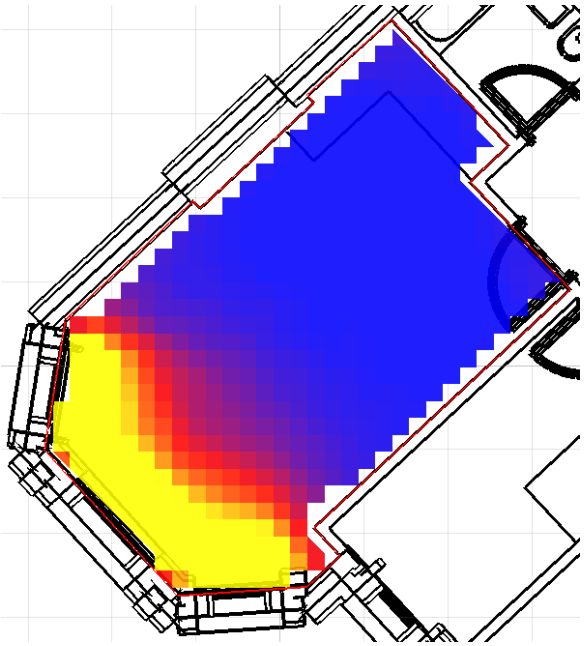


Unit 6 – Studio

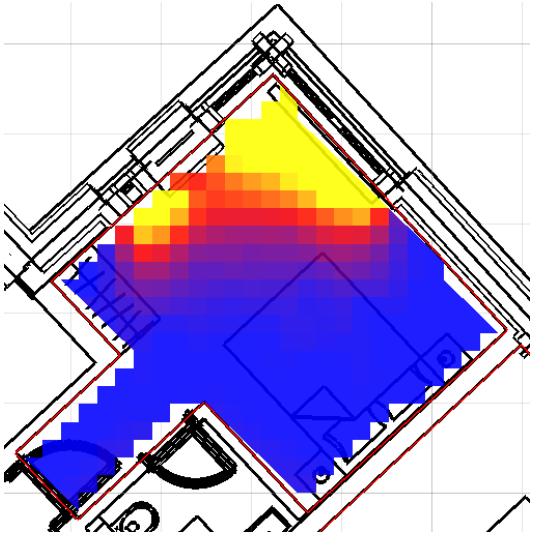
5.0 Daylight Results



Flat 7 – Bedroom



Flat 8 – LKD



Flat 9 – Bedroom

6.0 Conclusions

6.1 The proposed development 96 – 98 Shoot Up Hill, NW2 has been assessed for internal daylight levels using the Average Daylight Factor (ADF) test as prescribed by the BRE guidance and BS8206:2.

6.2 The design team has endeavoured to ensure that the proposed habitable rooms have plenty of natural light, well in excess of the minimum standards prescribed by BS8206:2.

6.3 This has been successfully achieved, as demonstrated by the positive results presented within this report.

6.4 The assessed rooms meet and exceed the recommendations using the ADF test.

6.5 This means the future occupants will enjoy a well lit environment, with reduced reliance on artificial lighting.

6.6 It is therefore the conclusion of this report that the assessed rooms meet the guidance levels for daylight and are therefore acceptable in planning terms.

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