Lidlington Place, NW1

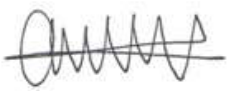
Internal Daylight Assessment for Planning

Job No: 3289
Issued: January, 2020
Issue: 2

Prepared For: Mr Minh Quach

Contents

Document Control

Originator	Checker
Ollie Westover *(BSc Hons.)*	Bernice Waterman
Date	Date
28.01.20	28.01.20
Signature	Signature
	

1.0 Introduction

1.1 This daylight assessment has been prepared to support a planning application for the proposed redevelopment of Lidlington Place, Mornington Crescent.

1.2 The report assesses the proposals in respect of daylight matters within habitable rooms in the proposed dwelling, 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 on Lidlington Place, to the rear of the terraces on Harrington Square and Eversholt Street. The site is currently vacant.

2.2 The proposal is to build a two-storey dwelling, over basement and ground floor levels.

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

2.4 The rooms in the proposed basement will be lit with glazed ceiling panels, providing light from above.

2.5 The design has been formulated with the bedrooms at basement level as these have the lowest expectation of natural light according to the guidance in BS8206:2 – 2008.

2.6 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.

2.7 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.

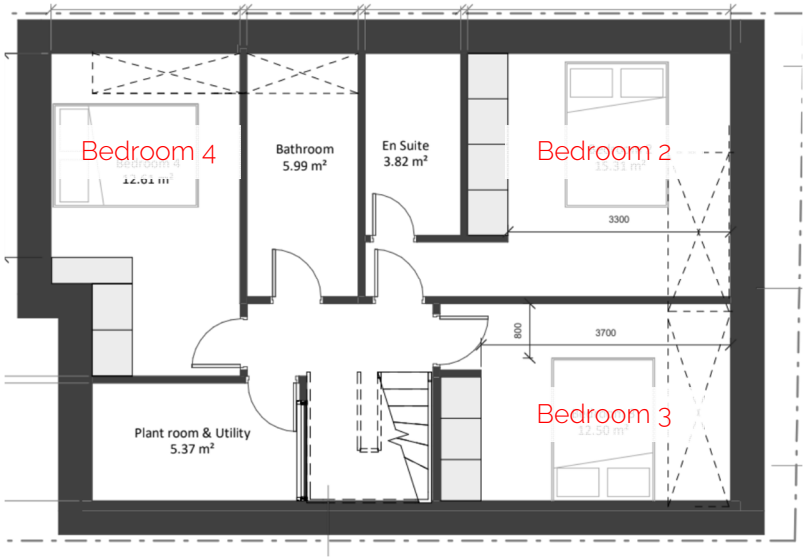
3.5 Calculations have been undertaken in accordance with BRE methodology, using a CIE overcast sky at an illuminance value of 8500 lux.

3.6 The internal finishes of the rooms were modelled as:

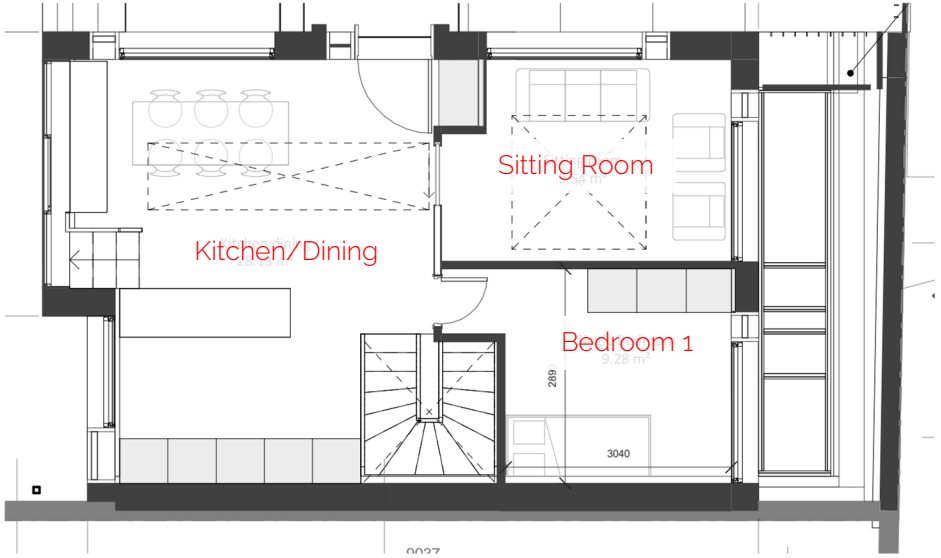
- Walls - plaster - Reflectance 0.561
- Floor - mid grey finish - Reflectance 0.592
- Ceiling - white finish - Reflectance 0.702

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 have for all rooms been provided.

4.0 Room Schedules



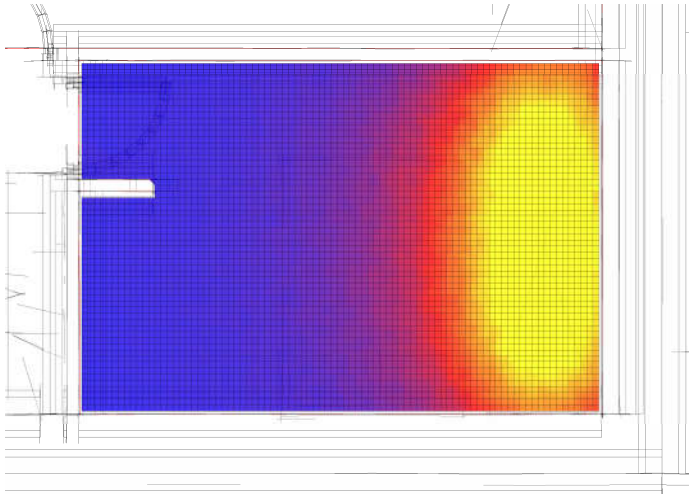
Basement Floor as Proposed



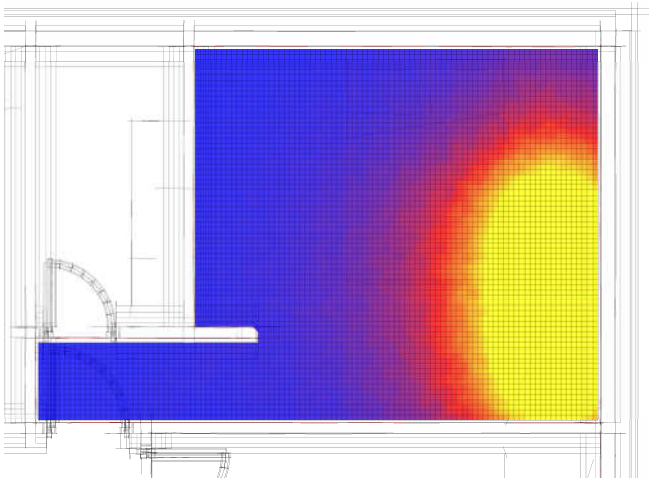
Ground Floor as Proposed

5.0 Daylight Results

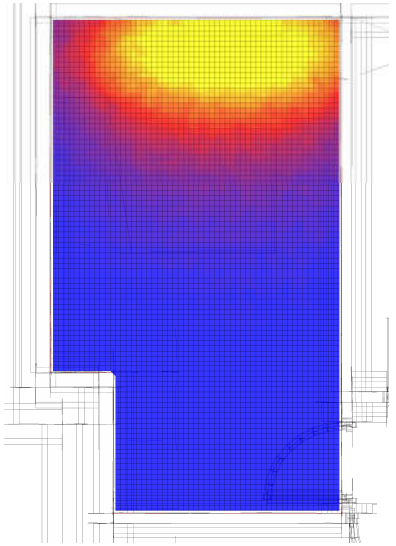
Average Daylight Factor				
Unit	Floor	Room	Target ADF	Actual ADF
1	Basement	Bedroom 2	1.00%	4.44%
1	Basement	Bedroom 3	1.00%	5.59%
1	Basement	Bedroom 4	1.00%	3.18%
1	Ground	Bedroom 1	1.00%	7.71%
1	Ground	Kitchen/Dining	2.00%	16.98%
1	Ground	Sitting Room	1.50%	18.61%



Bedroom 3



Bedroom 2

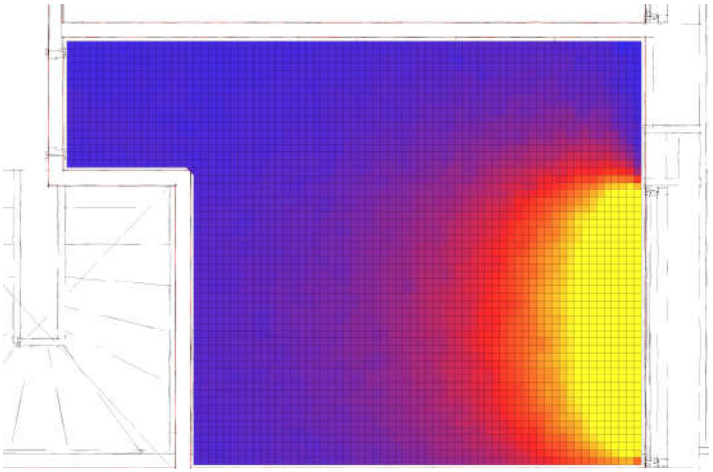


Bedroom 4

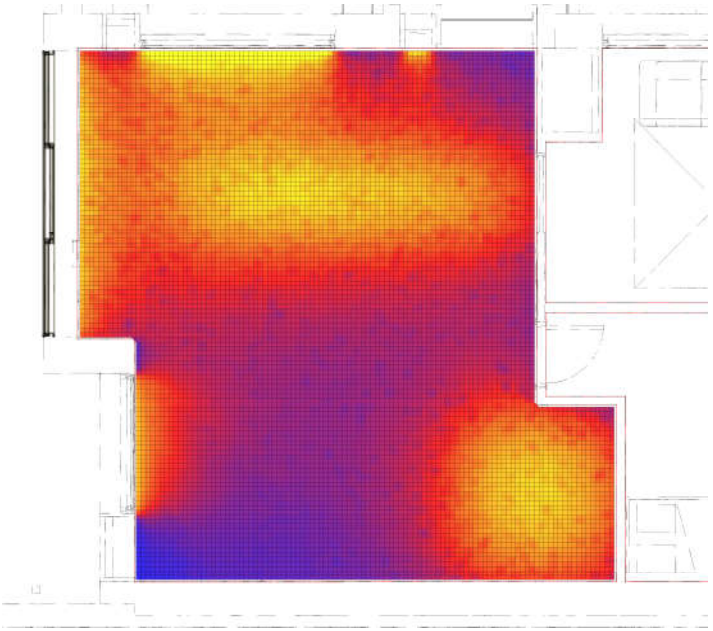
Daylight Distribution Diagrams

Not to Scale

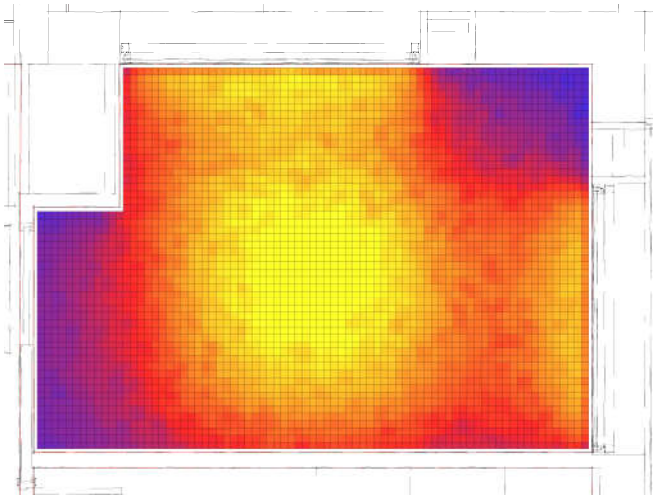
5.0 Daylight Results



Bedroom 1



Kitchen/Dining



Sitting Room

Daylight Distribution Diagrams

Not to Scale

6.0 Conclusions

6.1 The proposed development at Lidlington Place, NW1 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 provide a solution to lighting the rooms within the constraints of the site.

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 of BS8206 and the BRE guidance 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.

T16 Design Ltd.
Studio 105,
37 Queen Street
Colchester
CO1 2PQ

01206 572452
info@t16design.com
www.t16design.com