



25 Church Road,
Teddington, TW11
Internal Daylight Assessment

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1.0 Introduction

- 1.1 This internal daylight assessment has been prepared to support a planning application for the development at 25 Church Road, Teddington, TW11.
- 1.2 The report assesses the proposals in respect of daylight matters within habitable rooms in the proposed dwellings at ground floor level.
- 1.3 The report concludes that the proposal is acceptable and in accordance with planning policy requirements in relation to daylight for those rooms assessed.
- 1.4 There is no existing specific National Planning Policy relating to the prospective impacts of developments on daylight and sunlight on their surrounding environment.
- 1.5 However, the BRE Report 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' (3rd edition, 2022) 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 EN 17037: 2018+A1:2021 (with UK Annex): 'Daylight in Buildings'
- 1.6 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 permissible reduction in light are accepted as the industry standards.

2.0 Project Summary

- 2.1 The proposal site is at the rear of 25 Church Road, Teddington, TW11 and is currently occupied by a three storey commercial building.
- 2.2 The proposal is for the extension and internal refurbishment of the site to provide three mews homes.
- 2.3 The design team wish to ensure that habitable rooms will receive sufficient daylight.
- 2.4 2D CAD drawings have been provided to us by the design team. 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.



Site Location

3.0 Methodology

3.1 This BRE and BS EN 17037 guidance allows for two alternative methods to assess daylight within new dwellings. This report uses the following method:

- Target Daylight Factor (DF_T)

3.2 The DF_T method is a complex and representative calculation to determine natural internal luminance.

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, the Target Daylight Factor approach is the most suitable calculation to give a realistic indication of the internal illuminance that will be experienced.

3.5 The calculations have assumed a white ceiling, cream walls and mid-grey carpet or wooden floor using reflectance values taken from the BS EN 170437 Guidance.

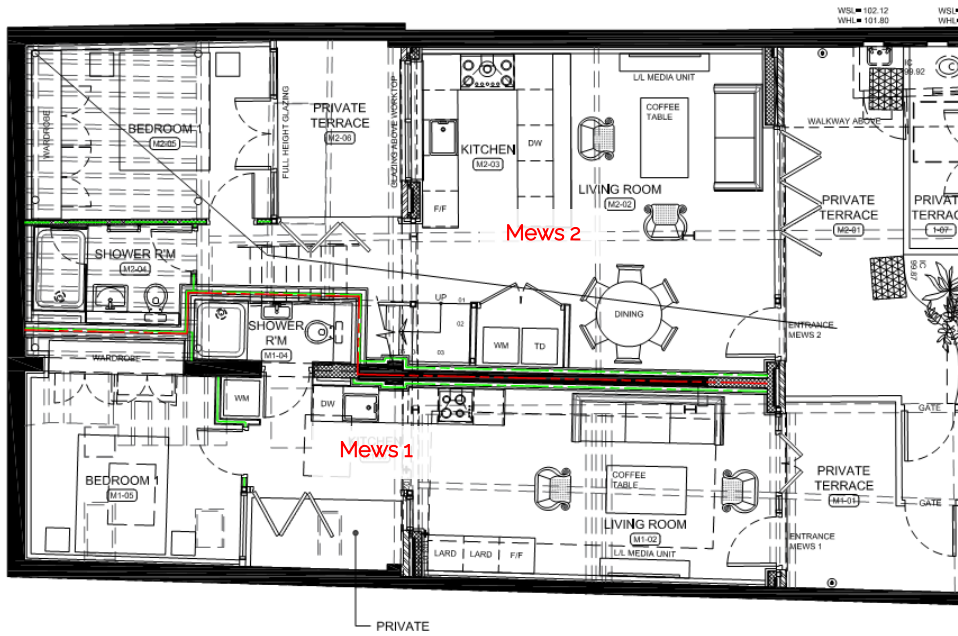
3.6 The benchmark values for all habitable rooms which are recommended by the BRE guidance and BS:EN 17037:2018 are:

Table C2 – Target daylight factors (D) for London

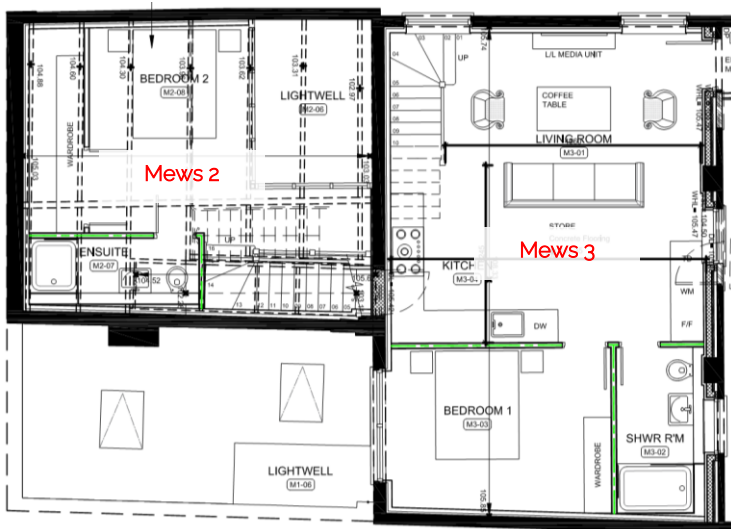
Level of recommendation	Target daylight factor D for half of assessment grid	Target daylight factor D for 95% of assessment grid
Minimum	2.1%	0.7%
Medium	3.5%	2.1%
High	5.3%	3.5%

3.7 It is deemed by the guidance that if the minimum DF criteria are met, then the occupiers of the dwelling will have sufficient daylight. As can be seen from the results below that all assessed habitable rooms meet and exceed the minimum levels of internal daylight.

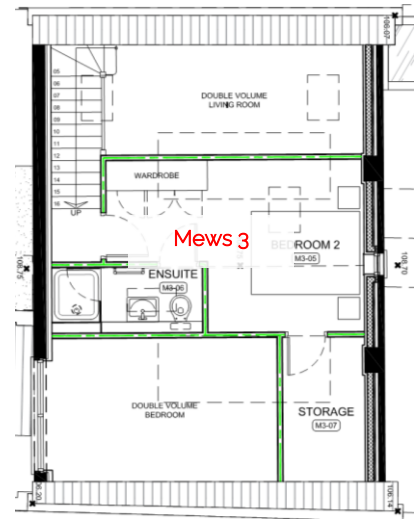
4.0 Room Schedules



Ground Floor



First Floor



Second Floor

5.0 Daylight Results

Minimum Target Daylight Factor						
Flat	Room	0.7% DF Target Area	Area Receiving 0.7% DF	2.1% DF Target Area	Area Receiving 2.1% DF	Meets Standards?
Mews 1	LKD	95%	99.50%	50%	93.20%	Yes
Mews 1	Bedroom 1	95%	100.00%	50%	100.00%	Yes
Mews 2	LKD	95%	98.70%	50%	92.40%	Yes
Mews 2	Bedroom 1	95%	95.60%	50%	68.30%	Yes
Mews 2	Bedroom 2	95%	100.00%	50%	100.00%	Yes
Mews 3	LKD	95%	98.10%	50%	87.20%	Yes
Mews 3	Bedroom 1	95%	99.40%	50%	93.80%	Yes
Mews 3	Bedroom 2	95%	99.00%	50%	92.30%	Yes

6.0 Conclusions

- 6.1 The proposed development at the 25 Church Road, Teddington, TW11 has been assessed for internal daylight levels using the Target Daylight Factor (DF_T) test as prescribed by the BRE guidance and BS EN 17037:2018.
- 6.2 The design team has endeavoured to ensure that the proposed habitable rooms have levels of natural light in excess of the minimum standards prescribed by the standards.
- 6.3 This has been successfully achieved, as demonstrated by the positive results presented within this report.
- 6.4 The assessed rooms meets the recommendations using the DF_T 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 proposals meet the guidance levels for daylight and are therefore acceptable in planning terms.



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