

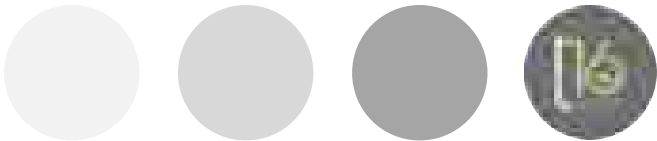
45 New Compton Street

Internal Daylight Assessment for Planning

Job No: 2694

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Issue: 2



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Document Control

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1.0 Executive Summary

1.1 This assessment has been prepared to support a full planning application for the construction of a development of new apartments at 45 New Compton Street.

1.2 The proposal is for the conversion of the ground floor car park area into 6 self-contained dwellings.

1.3 The report assesses the proposals in respect of daylight matters in the proposed apartments, having regard to industry standard guidance. The report concludes that the proposals are acceptable and in accordance with planning policy requirements in relation to daylight.

1.4 There is no existing specific National Planning Policy relating to levels of daylight and sunlight in proposed dwellings. However, the BRE Report 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' is the established national guidance to aid the designer to ensure sufficient levels of daylight availability in a development.

1.5 It has been developed in conjunction with daylight and sunlight recommendations in BS 8206: Part 2: 'Lighting for Buildings - Code of Practice for Daylighting'

1.6 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.

1.7 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 Methodology

2.1 This report looks at the internal daylight and external sunlight levels that the new units at ground floor level will receive using the standard methodology as prescribed by BRE and British Standard guidance:

- Average Daylight Factor (ADF) - Daylight availability

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

2.3 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.

2.4 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.

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

2.6 It is understood that only the proposed habitable rooms need to be assessed for daylight. Due to the nature of the design, assessment of sunlight availability is not appropriate.



2.0 Methodology

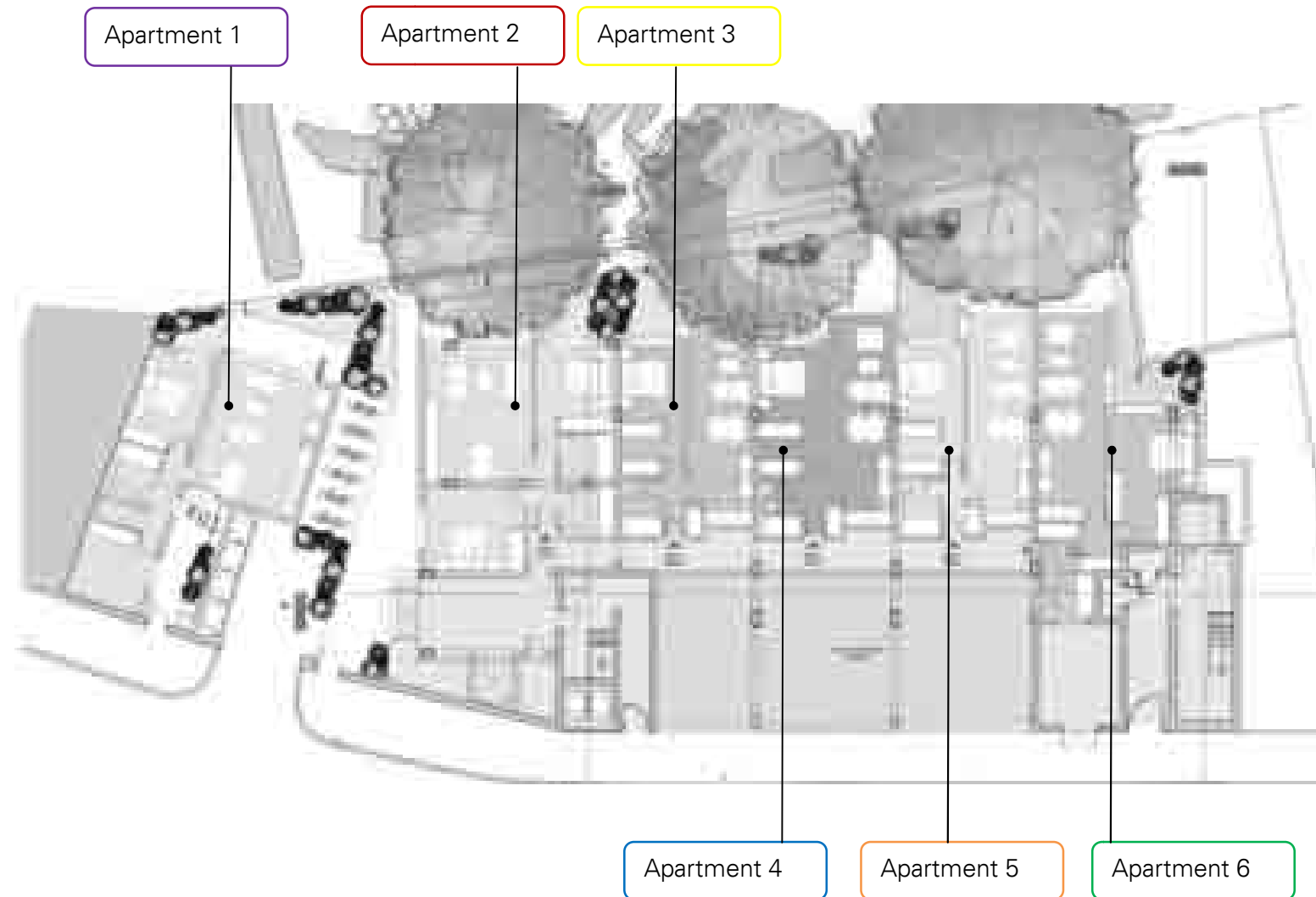
2.7 The internal finishes of the rooms were modelled as:

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

2.8 Daylight levels are then calculated at nodal points across a nodal grid of 75mm squares set 850mm above the finished floor level. The rooms to be assessed are shown below:



2.0 Methodology





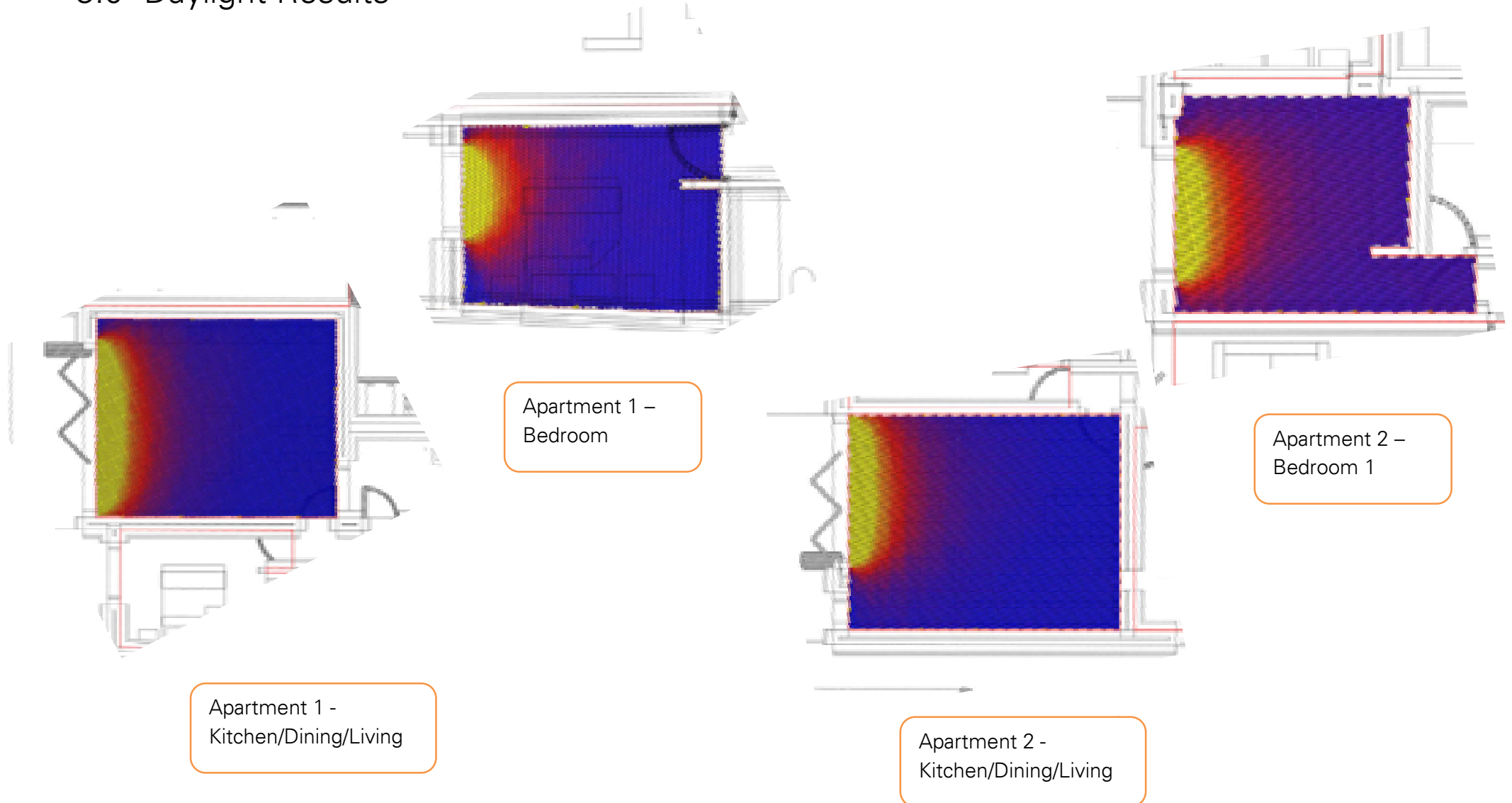
3.0 Daylight Results

- 3.1 The results of the ADF test are given below. It can be seen from the results below that the assessed rooms meet the recommended levels of internal daylight as defined by BS 8206-2:2008 and the BRE guidance. The guidance level is given in the table below under the "Target ADF" column.
- 3.2 Daylight distribution diagrams (not to scale) are also given below for selected rooms to show the spread of daylight.

Flat	Floor	Room	Target ADF	Actual ADF
1	Ground	Kitchen/Dining/Living	2.0%	7.23%
1	Ground	Bedroom 1	1.0%	5.25%
1	Ground	Bedroom 2	1.0%	4.23%
2	Ground	Kitchen/Dining/Living	2.0%	6.02%
2	Ground	Bedroom 1	1.0%	6.11%
2	Ground	Bedroom 2	1.0%	3.99%
3	Ground	Kitchen/Dining/Living	2.0%	12.27%
3	Ground	Bedroom	1.0%	6.62%
4	Ground	Kitchen/Dining/Living	2.0%	12.31%
4	Ground	Bedroom	1.0%	6.67%
5	Ground	Kitchen/Dining/Living	2.0%	12.29%
5	Ground	Bedroom	1.0%	6.69%
6	Ground	Kitchen/Dining/Living	2.0%	12.20%
6	Ground	Bedroom	1.0%	5.27%

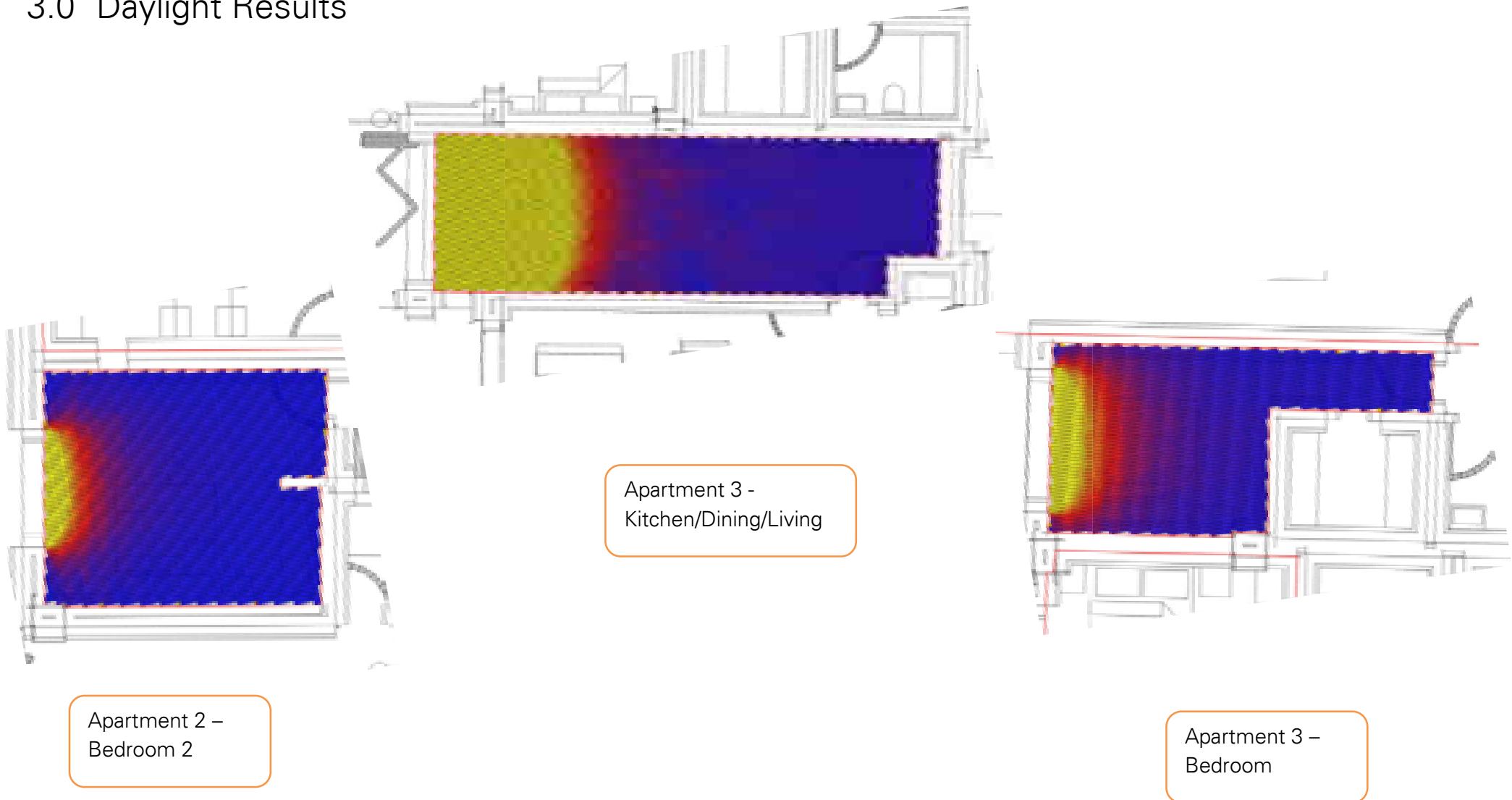


3.0 Daylight Results





3.0 Daylight Results





4.0 Conclusions

4.1 The proposal for the apartments at 45 Lower Compton Street has been assessed for internal daylight levels for the units proposed at ground floor level.

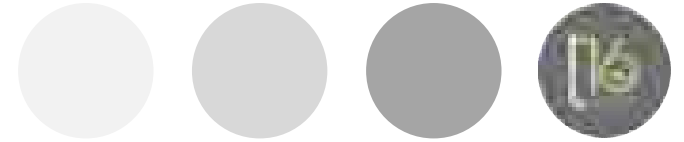
4.2 The design team has endeavoured to provide a solution to lighting the rooms within the constraints of the site.

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

4.4 The assessed rooms meet and exceed the recommendations of BS8206 and the BRE guidance using the ADF test.

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

4.6 It is therefore the conclusion of this report that the scheme meets guidance levels for daylight and is acceptable in planning terms.



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