



REPORT

on

**DAYLIGHT & SUNLIGHT WITHIN
THE
PROPOSED DWELLINGS
& SUNLIGHT TO PROPOSED
AMENITY SPACES**

At

THE BARN HOTEL

WEST END ROAD

RUSLIP

REF: MG/GI/ROLO1027

REV: -

10 March 2023

expertise
applied

TABLE OF CONTENTS

SECTION	PAGE NO.
1. INTRODUCTION	1
2. PLANNING POLICY AND GUIDANCE	3
3. METHOD OF ASSESSMENT AND NUMERICAL GUIDELINES.....	8
4. APPLICATION OF THE BRE GUIDELINES	12
5. INFORMATION USED IN THE TECHNICAL STUDY	13
6. RESULTS OF TECHNICAL STUDY	14
7. SUMMARY AND CONCLUSION.....	17

APPENDICES

APPENDIX A - PLAN AND 3D VIEWS OF THE COMPUTER MODEL

APPENDIX B - DAYLIGHT ILLUMINANCE TABLE

APPENDIX C - SUNLIGHT EXPOSURE TABLE

APPENDIX D - LAYOUT PLANS WITH DAYLIGHT ILLUMINANCE RESULTS

APPENDIX E - TWO-HOURS SUN CONTOUR PLAN



Figure 1: Oblique aerial photograph of the site looking south



Figure 2: 3D view of computer model looking south

1. INTRODUCTION

- 1.1 Chase New Homes Limited is proposing a development at The Barn Hotel, West End Road, Ruislip, HA4 6JB. The site, which is shown in Figure 1 at page ii, is located to the south of Ruislip Station.
- 1.2 The proposed development is designed by Chase New Homes Architects and comprises the redevelopment of the site to provide 88 new flats and 7 3-bedroom terraced houses.
- 1.3 Anstey Horne has been commissioned to undertake a formal technical assessment of the daylight and sunlight levels within the proposed accommodation and sunlight to proposed amenity spaces. We have used 3D computer modelling and our specialist computer software to calculate the levels of daylight and sunlight that will be available in the proposed habitable rooms. Our 3D model of the proposed scheme is illustrated in Figure 2 at page ii and in our drawings at Appendix A.
- 1.4 There are no mandatory standards for daylight or sunlight to dwellings, but the following publications offer guidance:
 - BS EN 17037:2018 Daylight in Buildings (2018)
 - BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022)
 - CIBSE Lighting Guide 10, *Daylighting - A Guide for Designers: Lighting for the Built Environment* (SLL LG10, 2014)
- 1.5 The assessments have been undertaken based on BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022) which supersedes the second edition of the guide. The 2022 BRE Guidelines introduces more sophisticated tested methodologies that take into account external reflectance and climate-based daylight modelling (CBDM) whereby an assessment can be based on weather data for various locations across the United Kingdom.
- 1.6 The BRE Guidelines give advice on minimum recommended Target Illuminance (TI) and Daylight Factor (DF) in habitable rooms in dwellings. They also make recommendations for minimum levels of sunlight availability to interiors, based on hours of direct sunlight. The previously used Average Daylight Factor (ADF) and Annual Probable Sunlight Hours (APSH) methodology is no longer recommended for testing the proposed levels of light within new developments.

1.7 This report summarises the relevant planning policy, the basic principles of daylighting, the methods used to assess the potential levels that will be achieved in the new accommodation, the information used in compiling our 3D computer model and the results of our technical assessment. Drawings and full tables of results of our assessment are attached in the appendices.

2. PLANNING POLICY AND GUIDANCE

National Planning Policy and Guidance

2.1 The Revised National Planning Policy Framework (July 2021) sets out the Government's planning policies and how these are expected to be applied. It provides a framework within which councils can produce their own local plans that reflect the needs and priorities of their communities.

2.2 Chapter 11 'Making effective use of land' states in paragraph 125 (c) that:

"local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards)."

2.3 The Building Research Establishment, whose aims include achieving a higher quality built environment, published the BRE guidelines 209, Site Layout Planning for Daylight and Sunlight: A guide to good practice (third edition, 2022) by PJ Littlefair in June 2022. This guide gives advice on site layout planning to retain good daylighting and sunlighting in existing surrounding buildings and achieve to it in new buildings. The guide is intended for use by designers, consultants and planning officials and notes that:

"The advice given here is not mandatory and this document should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer."

Regional Planning Policy and Guidance

Mayor's London Plan

2.4 The Mayor of London's London Plan March 2021 sets out the spatial development strategy for London. It forms part of the development plan for Greater London, along with local plans of the London boroughs.

2.5 Policy D6 'Housing quality and standards' states the following:

"... C. Housing development should maximise the provision of dual aspect dwellings and normally avoid the provision of single aspect dwellings. A single aspect dwelling should only be provided where it is considered a more appropriate design solution to meet the requirements of Part B in Policy D3 Optimising site capacity through the design-led

approach than a dual aspect dwelling, and it can be demonstrated that it will have adequate passive ventilation, daylight and privacy, and avoid overheating.

D. The design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space..."

Mayor's Housing Supplementary Planning Guidance

- 2.6 The Mayor of London's '*Housing Supplementary Planning Guidance*' (March 2016) provides guidance on how to implement the housing policies in the London Plan. It replaces the 2012 Housing Supplementary Planning Guidance.
- 2.7 Part 1 of the SPG covers housing supply and sets out the Plan's approach to optimising housing output. In relation to daylight and sunlight within new housing developments it advises:

"An appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight ... within new developments. Guidelines should be applied sensitively to higher density development, especially in opportunity areas, town centres, large sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time."

"The daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London. Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from those presently experienced but which still achieve satisfactory levels of residential amenity."

- 2.8 Part 2 of the SPG covers quality and design of housing developments. It contains standards that set out the minimum level of quality and design that new homes should meet. The standards and corresponding guidance that relate to daylight and sunlight in new housing are as follows:

Communal and public open space

"Standard 4 - Where communal open space is provided, development proposals should demonstrate that the space ... is designed to take advantage of direct sunlight."

Home as a place of retreat

“... Natural light is also vital to a sense of wellbeing in the home, and this may be restricted in densely developed parts of the city. The Mayor seeks to encourage the kind of housing that provides comfortable and enjoyable places of retreat and privacy. Factors to be considered include privacy, the importance of dual aspect development, noise mitigation, floor to ceiling heights, daylight and sunlight.”

Dual aspect

“Standard 29 - Developments should minimise the number of single aspect dwellings. Single aspect dwellings that are north facing, or exposed to noise levels above which significant adverse effects on health and quality of life occur, or which contain three or more bedrooms should be avoided.”

“Dual aspect dwellings with opening windows on at least two sides have many inherent benefits. These include better daylight, a greater chance of direct sunlight for longer periods, natural cross ventilation and a greater capacity to address overheating, mitigating pollution, offering a choice of views, access to a quiet side of the building, greater flexibility in the use of rooms, and more potential for future adaptability by altering the use of rooms. Where possible the provision of dual aspect dwellings should be maximised in a development proposal.”

“The design of single aspect flats will need to demonstrate that all habitable rooms and the kitchen are provided with adequate ventilation, privacy and daylight and the orientation enhances amenity, including views. North facing single aspect dwellings should be avoided wherever possible. However, in applying this standard consideration should also be given to other planning and design objectives for a site, for example the aim to maximise active frontages and minimise inactive frontages.”

“Good single aspect one and two bedroom homes are possible where limited numbers of rooms are required, the frontage is generous, the plan is shallow, the orientation and or outlook is favourable, and care is taken to mitigate the potential for overheating without the need for mechanical cooling. Single aspect dwellings may also be appropriate when being used to wrap podium level car parks or large retail units with active frontages.”

“In single aspect dwellings with more than two bedrooms it is difficult to achieve adequate natural ventilation and daylight to all rooms in an efficient plan layout which avoids long internal corridors. Single aspect dwellings containing three or more bedrooms should therefore be avoided. The design of single aspect ground floor dwellings will require particular consideration to maintain privacy and adequate levels of daylight.”

Daylight and sunlight

“Standard 32 - All homes should provide for direct sunlight to enter at least one habitable room for part of the day. Living areas and kitchen dining spaces should preferably receive direct sunlight.”

“Daylight enhances residents’ enjoyment of an interior and reduces the energy needed to provide light for everyday activities, while controlled sunlight can help to meet part of the winter heating requirement. Sunlight is particularly desirable in living areas and kitchen dining spaces. The risk of overheating should be taken into account when designing for sunlight alongside the need to ensure appropriate levels of privacy. In addition to the above standards, BRE good practice guidelines and methodology can be used to assess the levels of daylight and sunlight achieved within new developments, taking into account guidance below and in Section 1.3.”

“Where direct sunlight cannot be achieved in line with Standard 32, developers should demonstrate how the daylight standards proposed within a scheme and individual units will achieve good amenity for residents. They should also demonstrate how the design has sought to optimise the amount of daylight and amenity available to residents, for example, through the design, colour and landscaping of surrounding buildings and spaces within a development.”

“BRE guidelines on assessing daylight and sunlight should be applied sensitively to higher density development in London, particularly in central and urban settings, recognising the London Plan’s strategic approach to optimise housing output (Policy 3.4) and the need to accommodate additional housing supply in locations with good accessibility suitable for higher density development (Policy 3.3). Quantitative standards on daylight and sunlight should not be applied rigidly, without carefully considering the location and context and standards experienced in broadly comparable housing typologies in London.”

Local Planning Policy and Guidance

2.9 The development site is located within the London Borough of Hillingdon.

Hillingdon Local Plan Part 2 - Development Management Policies

2.10 Hillingdon's Local Plan was adopted in January 2020. Paragraph 5.4.1 under 'Design of New Development' states the following:

"The Council will aim to minimise the impact of the loss of daylight and sunlight and unacceptable overshadowing caused by new development on habitable rooms, amenity space and public open space. The Council will also seek to ensure that the design of new development optimises the levels of London Borough of Hillingdon Local Plan Part 2 - Development Management Policies 49 daylight and sunlight. The Council will expect the impact of the development to be assessed following the methodology set out in the most recent version of the Building Research Establishments (BRE) "Site layout planning for daylight and sunlight: A guide to good practice".

2.11 Policy DMHB 11: Design of New Development states that:

"... B) Development proposals should not adversely impact on the amenity, daylight and sunlight of adjacent properties and open space..."

2.12 We confirm that we have undertaken our daylight and sunlight study in accordance with BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022).

3. METHOD OF ASSESSMENT AND NUMERICAL GUIDELINES

Daylight within new development

- 3.1 Section 2.1 of the BRE guide makes recommendations concerning daylight in new buildings. At the site layout stage of the design process, when window positions and sizes are unknown, the potential for daylight may be checked at a series of reference points on each main face of the building. At each of these reference points the amount of available skylight falling on the vertical wall can be quantified as the vertical sky component (VSC).
- 3.2 Where window positions and sizes are known, it is more informative to calculate the interior daylighting inside the building. The guidelines recommend two methodologies and state that either of these can be used to check daylight provision in new rooms within a development. The two methodologies are as follows:

Illuminance Method

- 3.3 The illuminance method involves using climatic data for the location of the site to calculate the illuminance from daylight at each point on an assessment grid on the reference plane at a minimum hourly interval for a typical year.
- 3.4 The UK National Annex provides minimum illuminance recommendations for daylight provision within UK dwellings as follows:
 - Bedrooms: 100 lux
 - Living rooms: 150 lux
 - Kitchens: 200 lux
- 3.5 The above recommendations are based upon the median illuminances that should be achieved over at least 50% of the assessment grid for at least 50% of the daylight hours over the course of the calendar year.
- 3.6 The BRE Guidelines note that "*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 treated as habitable spaces, as it may avoid small separate kitchens in a design*".

Daylight Factor Method

3.7 As an alternative to the illuminance method, the BRE Guidelines 2022 recommend calculating daylight factors at each calculation point on the assessment grid. The daylight factor assessment uses an overcast sky model rather than climate-based data and does not take account of the potential for sunlight or the orientation of a particular room.

3.8 The BRE Guidelines provide equivalent daylight factor values to the lux values set out above for different locations. As the site is located in London, the equivalent target daylight factors for the nearest specified location (London Gatwick Airport) as follows:

- Bedrooms: 0.7%
- Living rooms: 1.1%
- Kitchens: 1.4%

3.9 The above recommendations are based upon the median daylight factors that should be achieved over at least 50% of the assessment grid.

Sunlight within new development

3.10 Section 3.1 of the BRE Guidelines make recommendations concerning sunlight in new buildings. It advises that *“In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day but especially in the afternoon. Sunlight is also required in conservatories. It is viewed as less important in bedrooms and in kitchens, where people prefer it in the mornings rather than the afternoon.”*

3.11 The BRE Guidelines advise that site layout can be used to affect the duration of sunlight in buildings. It notes that *“A dwelling with no main window wall within 90° of due south is likely to be perceived as insufficiently sunlit. This is usually an issue only for flats. Sensitive layout design of flats will attempt to ensure that each individual dwelling has at least one main living room which can receive a reasonable amount of sunlight.”*

3.12 The BRE Guidelines note that *“The aim should be to minimise the number of dwellings whose living rooms face solely north, northeast or northwest, unless there is some corresponding factor such as an appealing view to the north.”* It also acknowledges that *“for larger developments of flats, especially those with constraints, it may not be possible to have every living room facing within 90° of due south”*.

3.13 The BRE Guidelines recommend an approach to measuring sunlight exposure (SE) setting out that internal spaces should be able to receive a minimum of 1.5 hours of direct sunlight on a selected date between 1st February and 21st March with cloudless conditions. The BRE recommend that the test date should be 21st March and that at least one habitable

room, preferably a main living room, should achieve at least the minimum criterion. It further notes that the criterion applies to rooms of all orientations, although if a room faces significantly north of due east or west, it is unlikely to be met.

3.14 The presence of balconies to provide private amenity within new developments does create challenges in relation to maximising sunlight potential as it limits the sky visibility from the centre point of the window. A flexible approach is therefore needed (particularly on large-scale developments where building heights tend to be greater and separation distances smaller) to strike a balance between the provision of balconies and achieving adequate levels of sunlight.

3.15 Whilst the BRE Guidelines intend to give good access to sunlight in a range of situations, it is noted that in some circumstances *“the designer or planning authority may wish to choose a different target value for hours of sunlight.”*

3.16 In summary the BRE Guidelines state that a dwelling 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”*. Where groups of dwellings are planned, *“site layout design should aim to maximise the number of dwellings with a main living room that meets the above recommendations”*.

Sunlight to proposed amenity spaces within new development

3.17 Section 3.3 of the BRE guide makes recommendations concerning sunlight to open spaces between buildings. It notes that sunlight into these open spaces *“is valuable for a number of reasons, to:*

- *provide attractive sunlit views (all year)*
- *make outdoor activities like sitting out and children’s play more pleasant (mainly warmer months)*
- *encourage plant growth (mainly spring and summer)*
- *dry out the ground, reducing moss and slime (mainly in colder months).*
- *melt frost, ice and snow (in winter)*
- *dry clothes (all year).”*

3.18 The BRE guide recognises that different types of amenity space can have different sunlighting requirements and that it is difficult to suggest a hard and fast rule. The equinox (21 March) can be chosen as a date for assessment. The guide recommends that *“at least half of the amenity areas ... should receive at least two hours of sunlight on 21 March*

. It is instructive to draw the 'two hours sun contour', which marks this area on plan, because the use of specific parts of a site can be planned with sunlight in mind".

4. APPLICATION OF THE BRE GUIDELINES

- 4.1 In its introduction BRE Report 209 states its "*main aim is ... to help ensure good conditions in the local environment considered broadly, with enough sunlight and daylight on or between the buildings for good interior and exterior conditions*".
- 4.2 The guide notes that it "*is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design.*"
- 4.3 Clearly, the BRE guide is an advisory document, not a rigid set of rules. Care must therefore be taken when applying its recommendations.
- 4.4 In theory the BRE report's numerical guidelines may be applied to any setting, whether that is a city centre, suburban area or rural village. However, it notes, "*In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings.*"
- 4.5 Furthermore, as noted at paragraph 2.8 above, the Mayor of London's *Housing Supplementary Planning Guidance* emphasises that fully optimising housing potential on large sites may necessitate departure from conventional guidelines and the adoption of alternative target values.
- 4.6 Clearly, rigid application of the BRE Report's standard numerical guidelines may be inappropriate in a built-up urban environment where higher density affordable development may be desirable and where there simply cannot be the same expectation of light as in a suburban or rural context.

5. INFORMATION USED IN THE TECHNICAL STUDY

5.1 We undertook our technical study using a 3D computer model of the proposed scheme and its surrounding buildings, which we built from the following information:

- Proposed scheme:
 - Chase New Homes 3D model of the proposed scheme received 8 March 2023
- Surrounding buildings:
 - Anstey Horne's drone survey data collected 17 January 2023
 - Site visit, photographs and measurements

5.2 The computer model is illustrated on the drawings at Appendix A.

5.3 In calculating the daylight availability to the proposed habitable rooms, the following values were applied:

- Diffuse glass transmission: 0.68 for clear double glazing with a low emissivity coating;
- Maintenance factor for dirt on glass: 0.92 (i.e. 8% loss) for vertical glazing;
- Window aperture area: measured from 3D computer model multiplied by 0.7 for the frame correction factor;
- Surface reflectance's of each room based on the following surface finishes and reflectances:
 - Ceilings: white 0.80
 - Walls: pale cream 0.80
 - Floors: light wood flooring 0.4

6. RESULTS OF TECHNICAL STUDY

6.1 We tested a representative selection of habitable rooms with a reasonable horizontal and vertical spread throughout the proposed development, including rooms at ground, third and fifth floors within Building 1 and Building 2, and all rooms within the terrace houses.

6.2 In all we tested 148 rooms, of which 58 are living rooms, dining rooms and kitchens (or a combination thereof) and 90 are bedrooms. Where windows are set back beneath balconies serving the floor above, we have included the obstructing effect of the balcony within our model.

6.3 The rooms tested are shown outlined on our drawing nos. ROL01027_R02_V01_601-01 to 604-01 at Appendix D. The drawings give the use of each room and the room and window references used in our detailed tables of results.

Daylight within new development

6.4 The daylight availability within the proposed habitable rooms has been calculated in accordance with the illuminance method. The results for the proposed habitable rooms tested are shown in the table at Appendix B (along with the relevant target for the room use concerned) and on the room layout drawings at Appendix D.

6.5 The results confirm that 140 (95%) of the 148 rooms assessed meet or exceed the guideline values. The results can be broken down on a room type basis as follows:

- 23 (96%) of the 24 living/kitchen/diners (LKDs) assessed meet the guideline of 200 lux
- 3 (43%) of the 7 kitchen diners (KDs) assessed meet the guideline of 200 lux
- 18 (100%) of the 18 living diners (LDs) assessed meet the guideline of 150 lux
- 9 (100%) of the 9 living rooms assessed meet the guideline of 150 lux
- 87 (100%) of the 90 bedrooms assessed meet the guideline of 100 lux

6.6 When considering the results above in further detail, it is worth noting that 6 of the 8 rooms which fall short of the guidelines, including all 4 of the LDs, achieve the guideline lux value to over 40% of their areas against the BRE's guideline of 50%. These rooms therefore fall only marginally below the guideline values. For the LDs, it is also worth noting that these are located within the terraced houses and these dwellings all contain a separate living room which exceeds the guideline values.

Sunlight within new development

6.7 The focus of the BRE sunlight guidelines is on main living rooms, rather than bedrooms and kitchens, which the guide views as less important. The guide recommends that *"Sensitive layout design of flats will attempt to ensure that each individual dwelling has at least one main living room which can receive a reasonable amount of sunlight ... Where possible, living rooms should face the southern or western parts of the sky and kitchens towards the north or east."*

6.8 The guidelines acknowledge that *"if a room faces significantly north of due east or west [the sunlight criterion] is unlikely to be met"*. Despite this tested all the rooms in our model regardless of orientation.

6.9 We tested a total of 58 main living rooms (including rooms containing the main living area, such as a living/kitchen/dining room). Although we have tested various types of habitable room, the guidelines focus on main living rooms and conservatories and the results should be considered in this context.

6.10 The sunlight results for the rooms tested are given in the table at Appendix C. As advised by the BRE Guidelines, these are room-based aggregate figures taking account of sunlight available to all windows, where they are served by more than one.

6.11 The SE results confirm that 100 (68%) of the 148 rooms assessed would meet or exceed the guideline values. Of these rooms, 15 are shown to meet the BRE's medium criteria and 54 meet the BREs high criteria. When considering these results, it is worth bearing in mind that within a proposed scheme it is usually only possible to orientate circa half the rooms to face within 90 degrees of due south. Therefore, a 68% adherence rate across the scheme is positive.

6.12 Of the 52 rooms served by at least one window which faces within 90 degrees of due south, all 52 (100%) achieve the BRE's high criteria for sunlight availability.

Sunlight to proposed amenity spaces

6.13 The results for sunlight to the amenity spaces within the proposed development are shown on our drawings at Appendix E. Areas that will be able to receive at least two hours of sunlight on 21 March are shown cross-hatched yellow and areas that will receive sunlight for a shorter duration are cross-hatched grey. The proportion of each space achieving the two-hour guideline on 21 March is expressed as a percentage on the drawing and in the second column of Table 2 below. The BRE target is 50% of a space.

Table 1 - Percentage of each amenity area receiving at least two hours of sunlight on 21 March

Amenity Area	Percentage of area in sunlight on 21 March for ≥ 2 hrs
A1	83.00%
A2	62.00%
A3	55.00%
A4	56.00%
A5	54.00%
A6	71.00%
A7	99.00%
A8	70.00%
A9	39.00%
A10	30.00%
A11	92.00%
A12	45.00%

6.14 The two-hour sun contour results show that the majority of the proposed amenity spaces will meet or exceed the BRE's guideline values. The three amenity spaces which fall short of the guideline values serve Building 1 and two of the northernmost terraced houses. It is worth noting that the future occupants of these dwellings will have access to the shared amenity space at A7 which achieves very high levels of sunlight availability, achieving the BRE guideline of 2 hours of sunlight to 99% of its area on 21 March.

7. SUMMARY AND CONCLUSION

7.1 There are no mandatory standards for daylight or sunlight provision within dwellings. Hillingdon's planning policy seeks to provide good living conditions for residents of new housing developments, including the provision of adequate daylight and sunlight within dwellings and sunlight to amenity spaces.

7.2 BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (third edition, 2022) provides useful guidance on the subject.

7.3 We assessed daylight and sunlight to 148 habitable rooms from ground to fourth levels in the proposed development. The tests were undertaken in accordance with the BRE methodology. We also assessed sunlight to the main amenity spaces within the scheme.

7.4 The daylight results confirm that 140 (95%) of the 148 rooms assessed achieve or exceed the BRE's guideline values. It is worth noting that the majority of the rooms which fall short of the guidelines all only marginally below the recommended lux level. In terms of sunlight availability, the results confirm that 100 (68%) of the 148 rooms assessed would meet the guideline values. Of these rooms, 15 are shown to meet the BRE's medium criteria and 54 meet the BREs high criteria. Considering the south facing rooms in isolation, of the 52 rooms served by at least one window which faces within 90 degrees of due south, all 52 (100%) achieve the BRE's high criteria for sunlight availability.

7.5 In terms of sunlight availability to amenity spaces, the results show that the majority of the proposed amenity spaces will meet or exceed the BRE's guideline values. It is worth noting that all future occupants will have access to the shared amenity space at A7 which achieves very high levels of sunlight availability.

7.6 Although the BRE guide gives numerical guidelines, these are intended to be applied flexibly since natural lighting is only one of many factors in site layout design. Where higher density development is desirable there simply cannot be the same expectation of light as in a suburban or rural context. Furthermore, the Mayor of London's *Draft Interim Housing Supplementary Planning Guidance* emphasises that fully optimising housing potential may necessitate departure from conventional guidelines whilst still achieving satisfactory levels of residential amenity.

7.7 In conclusion, the layout of the proposed development follows the BRE guidelines and will provide good daylight and sunlight conditions within the proposed accommodation. In our opinion Hillingdon's planning policy on daylight and sunlight to new dwellings will be satisfied.



.....
ANSTEY HORNE

10 March 2023

APPENDIX A

PLAN AND 3D VIEWS OF THE COMPUTER MODEL

DRAWING NOS. ROL01027_R02_V01_004 TO 006

LEGEND:

■	Existing
■	Proposed
■	Cutback
▼	AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
LAND SURVEYOR
Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS
CHASE NEW HOMES
Received on 08/03/23



0m 7.5m 15m 22.5m 30m 37.5m

PROJECT INFORMATION
© Copyright Anstey Horne & Co. Ltd.
This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
This drawing should not be reproduced without permission.
Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

PROJECT: THE BARN HOTEL
TITLE: RUISLIP, HA4 6JB

SCHEME REF: SCHEME RECEIVED: 08/03/23

DRAWING TITLE: SITE PLAN VIEW
TITLE: PROPOSED SCHEME

MODELED BY / DRAWN BY DATE: 09/03/23 SCALE: 1:750 A3

PROJECT No: RELEASE No: VERSION No: DRAWING No:

ROL01027_R02_V01_004

Site Plan

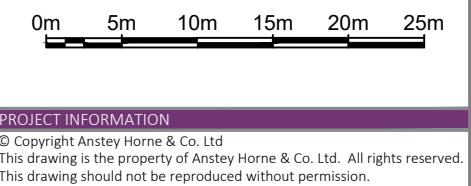


LEGEND:

	Existing		Consented
	Proposed		Cutback
	12120	AOD Height (mm)	

SOURCES OF INFORMATION:
EXISTING, SURROUNDING & ANALYSED BUILDINGS
 LAND SURVEYOR
 Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS
 CHASE NEW HOMES
 Received on 08/03/23

PROJECT INFORMATION

 © Copyright Anstey Horne & Co. Ltd
 This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
 This drawing should not be reproduced without permission.
 Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

PROJECT: THE BARN HOTEL
TITLE: RUISLIP, HA4 6JB

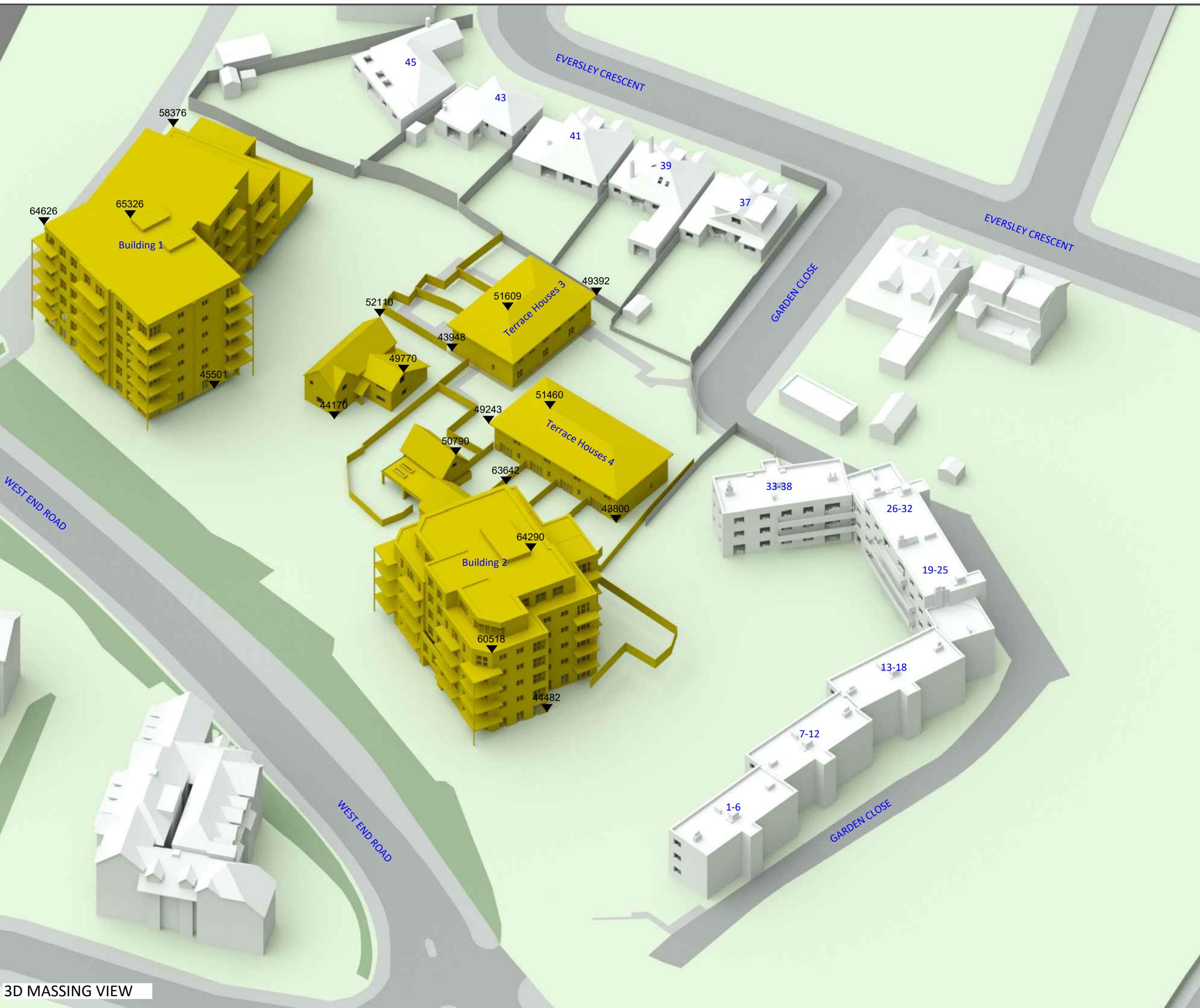
SCHEME REF: SCHEME RECEIVED: 08/03/23

DRAWING: 3D MASSING MODEL VIEW
TITLE: PROPOSED SCHEME

MODELED BY / DRAWN BY DATE: 09/03/23 SCALE: 1:500 A3

PROJECT No: RELEASE No: VERSION No: DRAWING No:

ROL01027_R02_V01_005

3D Massing Model


LEGEND:

- Existing
- Consented
- Proposed
- Cutback
- ▼ AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
 LAND SURVEYOR
 Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS
 CHASE NEW HOMES
 Received on 08/03/23

PROJECT INFORMATION
 © Copyright Anstey Horne & Co. Ltd.
 This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
 This drawing should not be reproduced without permission.
 Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

PROJECT: THE BARN HOTEL
TITLE: RUISLIP, HA4 6JB

SCHEME REF: SCHEME RECEIVED: 08/03/23

DRAWING: 3D MASSING MODEL VIEW
TITLE: PROPOSED SCHEME

MODELED BY / DRAWN BY DATE: 09/03/23 SCALE: 1:500 A3

PROJECT No: RELEASE No: VERSION No: DRAWING No:

ROL01027_R02_V01_006

3D Massing Model


APPENDIX B

DAYLIGHT ILLUMINANCE TABLE

Project Name: THE BARN HOTEL
 Project No.: ROL01027_R02_V01
 Report Title: TI BS En17037 Analysis - Proposed Scheme
 Date of Analysis: 09/03/2023

Floor Ref	Room Ref	Property Type	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux
Building 1								
Gnd Floor	R1	Residential	Bedroom	9.19	5.65	343	5.65	100%
	R2	Residential	LKD	24.67	18.71	495	18.70	100%
	R3	Residential	Bedroom	8.06	4.68	429	4.68	100%
	R4	Residential	Bedroom	8.06	4.68	445	4.68	100%
	R5	Residential	LKD	22.98	17.18	614	17.18	100%
	R6	Residential	Bedroom	10.74	6.95	365	6.95	100%
	R7	Residential	LD	17.30	12.36	246	12.36	100%
	R8	Residential	Bedroom	11.75	7.90	279	7.90	100%
	R9	Residential	Bedroom	12.16	8.27	332	8.27	100%
	R10	Residential	LKD	22.38	16.66	558	16.66	100%
	R11	Residential	Bedroom	8.04	4.59	445	4.59	100%
	R12	Residential	Bedroom	11.68	7.95	314	7.95	100%
	R13	Residential	LD	16.06	11.46	238	10.98	96%
	R14	Residential	LKD	26.61	19.89	159	6.74	34%
	R15	Residential	Bedroom	10.60	6.81	251	6.81	100%
	R16	Residential	Bedroom	12.97	8.44	269	8.44	100%
	R17	Residential	LD	16.51	11.99	250	11.99	100%
	R18	Residential	Bedroom	11.53	7.75	324	7.75	100%
	R19	Residential	Bedroom	11.49	7.25	270	7.25	100%
	R20	Residential	Bedroom	11.14	7.15	260	7.15	100%
	R21	Residential	LKD	24.57	18.18	288	12.70	70%
	R22	Residential	Bedroom	13.56	9.27	366	9.27	100%
	R23	Residential	LD	15.93	11.50	318	11.50	100%
2nd Floor	R1	Residential	Bedroom	8.67	5.50	374	5.50	100%
	R2	Residential	LKD	24.91	18.85	554	18.85	100%
	R3	Residential	Bedroom	8.79	5.41	288	5.41	100%
	R4	Residential	Bedroom	8.06	4.68	289	4.68	100%
	R5	Residential	LKD	23.11	17.26	613	17.26	100%
	R6	Residential	Bedroom	10.94	7.04	369	7.04	100%
	R7	Residential	LD	17.40	12.45	244	12.45	100%
	R8	Residential	Bedroom	11.79	7.92	278	7.92	100%
	R9	Residential	Bedroom	12.16	8.27	345	8.27	100%
	R10	Residential	LKD	22.38	16.66	555	16.66	100%
	R11	Residential	Bedroom	8.03	4.58	447	4.58	100%
	R12	Residential	Bedroom	11.69	7.95	318	7.95	100%
	R13	Residential	LD	16.06	11.46	235	10.98	96%
	R14	Residential	LKD	21.30	15.77	197	8.15	52%
	R15	Residential	Bedroom	12.04	8.14	227	8.14	100%
	R16	Residential	Bedroom	14.49	9.87	251	9.87	100%
	R17	Residential	LD	16.51	11.99	249	11.99	100%
	R18	Residential	Bedroom	11.53	7.75	529	7.75	100%
	R19	Residential	Bedroom	13.84	9.49	566	9.49	100%
	R20	Residential	LD	15.58	11.20	330	11.20	100%
	R21	Residential	LD	19.45	14.52	243	14.36	99%
	R22	Residential	Bedroom	11.37	7.22	368	7.22	100%
4th Floor	R1	Residential	Bedroom	8.67	5.50	396	5.50	100%
	R2	Residential	LKD	24.91	18.85	587	18.85	100%
	R3	Residential	Bedroom	8.06	4.68	307	4.68	100%
	R4	Residential	Bedroom	8.06	4.68	304	4.68	100%
	R5	Residential	LKD	23.11	17.26	644	17.26	100%
	R6	Residential	Bedroom	10.94	7.04	391	7.04	100%
	R7	Residential	LD	17.40	12.45	253	12.45	100%
	R8	Residential	Bedroom	11.86	7.98	287	7.98	100%
	R9	Residential	Bedroom	12.10	8.22	364	8.22	100%
	R10	Residential	LKD	22.38	16.66	573	16.66	100%
	R11	Residential	Bedroom	8.04	4.59	464	4.59	100%
	R12	Residential	Bedroom	11.68	7.95	331	7.95	100%
	R13	Residential	LD	16.32	11.69	240	11.20	96%
	R14	Residential	LKD	21.13	15.64	205	8.91	57%
	R15	Residential	Bedroom	12.04	8.14	233	8.14	100%
	R16	Residential	Bedroom	14.39	9.79	472	9.79	100%

Project Name: THE BARN HOTEL
 Project No.: ROL01027_R02_V01
 Report Title: TI BS En17037 Analysis - Proposed Scheme
 Date of Analysis: 09/03/2023

Floor Ref	Room Ref	Property Type	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux
	R17	Residential	LD	19.61	14.65	257	14.65	100%
	R18	Residential	Bedroom	11.37	7.22	394	7.22	100%

Building 2

Gnd Floor	R1	Residential	LKD	19.87	14.75	205	9.68	66%
	R2	Residential	Bedroom	7.68	4.53	129	3.98	88%
	R3	Residential	Bedroom	11.60	7.75	246	7.75	100%
	R4	Residential	Bedroom	14.69	9.88	144	6.92	70%
	R5	Residential	Bedroom	10.69	6.81	77	2.08	31%
	R6	Residential	LD	16.06	11.37	251	11.37	100%
	R7	Residential	Bedroom	12.54	8.47	341	8.47	100%
	R8	Residential	LD	19.60	13.40	181	9.20	69%
	R9	Residential	LKD	21.53	15.95	374	12.49	78%
	R10	Residential	Bedroom	10.75	6.91	297	6.91	100%
	R11	Residential	Bedroom	10.59	6.90	236	6.90	100%
	R12	Residential	Bedroom	10.27	6.46	758	6.46	100%
	R13	Residential	Bedroom	8.03	4.79	325	4.79	100%
	R14	Residential	LKD	20.78	15.68	343	15.68	100%
2nd Floor	R1	Residential	LKD	19.96	14.82	243	13.95	94%
	R2	Residential	Bedroom	7.68	4.53	169	4.53	100%
	R3	Residential	Bedroom	11.48	7.65	322	7.65	100%
	R4	Residential	Bedroom	14.86	10.01	216	10.01	100%
	R5	Residential	Bedroom	10.69	6.81	120	4.86	71%
	R6	Residential	Living Room	16.04	11.35	360	11.35	100%
	R7	Residential	Bedroom	13.43	9.27	413	9.27	100%
	R8	Residential	LKD	27.18	20.50	222	12.04	59%
	R9	Residential	LKD	21.81	16.17	458	16.09	100%
	R10	Residential	Bedroom	10.75	6.91	227	6.91	100%
	R11	Residential	Bedroom	10.58	6.89	193	6.89	100%
	R12	Residential	Bedroom	10.35	6.48	889	6.48	100%
	R13	Residential	Bedroom	8.43	5.28	291	5.28	100%
	R14	Residential	LKD	21.13	16.03	442	16.03	100%
	R15	Residential	LD	20.96	14.99	268	13.22	88%
	R16	Residential	Bedroom	9.42	6.07	382	6.07	100%
	R17	Residential	Bedroom	9.42	6.07	384	6.07	100%
	R18	Residential	LD	21.01	15.03	273	13.33	89%
4th Floor	R1	Residential	LKD	19.96	14.82	361	14.82	100%
	R2	Residential	Bedroom	7.68	4.53	179	4.53	100%
	R3	Residential	Bedroom	11.60	7.75	347	7.75	100%
	R4	Residential	Bedroom	14.69	9.88	237	9.88	100%
	R5	Residential	Bedroom	10.69	6.81	133	6.55	96%
	R6	Residential	Living Room	16.04	11.35	470	11.35	100%
	R7	Residential	Bedroom	13.43	9.27	456	9.27	100%
	R8	Residential	LKD	27.18	20.50	306	15.30	75%
	R9	Residential	LKD	21.81	16.17	591	16.17	100%
	R10	Residential	Bedroom	10.75	6.91	238	6.91	100%
	R11	Residential	Bedroom	10.58	6.89	208	6.89	100%
	R12	Residential	Bedroom	10.35	6.48	940	6.48	100%
	R13	Residential	Bedroom	8.49	5.32	294	5.32	100%
	R14	Residential	LKD	21.08	15.98	615	15.98	100%
	R15	Residential	LD	20.99	15.02	405	15.02	100%
	R16	Residential	Bedroom	9.43	6.08	437	6.08	100%
	R17	Residential	Bedroom	9.42	6.07	441	6.07	100%
	R18	Residential	LD	20.96	14.99	407	14.99	100%

Terrace Houses 3

Gnd Floor	R1	Residential	Living Room	16.48	11.84	228	9.95	84%
	R2	Residential	Living Room	16.48	11.84	191	7.81	66%
	R3	Residential	Living Room	16.48	11.84	208	8.72	74%
	R4	Residential	KD	20.10	14.97	329	14.97	100%
	R5	Residential	KD	20.10	14.97	309	14.97	100%
	R6	Residential	KD	20.12	14.99	295	14.99	100%

Project Name: THE BARN HOTEL
 Project No.: ROL01027_R02_V01
 Report Title: TI BS En17037 Analysis - Proposed Scheme
 Date of Analysis: 09/03/2023

Floor Ref	Room Ref	Property Type	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux
1st Floor	R1	Residential	Bedroom	11.58	7.54	182	7.18	95%
	R2	Residential	Bedroom	8.00	4.94	304	4.94	100%
	R3	Residential	Bedroom	11.58	7.54	201	7.54	100%
	R4	Residential	Bedroom	7.99	4.94	319	4.94	100%
	R5	Residential	Bedroom	11.58	7.54	209	7.54	100%
	R6	Residential	Bedroom	7.98	4.93	325	4.93	100%
	R7	Residential	Bedroom	13.22	8.98	131	6.39	71%
	R8	Residential	Bedroom	13.22	8.98	120	5.88	66%
	R9	Residential	Bedroom	13.24	8.99	118	5.46	61%

Terrace Houses 4

Gnd Floor	R1	Residential	Living Room	16.52	11.88	264	10.64	90%
	R2	Residential	Living Room	16.48	11.84	181	7.40	63%
	R3	Residential	Living Room	16.48	11.84	183	7.40	63%
	R4	Residential	Living Room	16.48	11.84	180	7.40	62%
	R5	Residential	KD	20.10	14.97	170	6.20	41%
	R6	Residential	KD	20.10	14.97	183	6.76	45%
	R7	Residential	KD	20.10	14.97	192	7.08	47%
	R8	Residential	KD	20.12	14.99	197	7.41	49%
1st Floor	R1	Residential	Bedroom	11.58	7.54	191	7.54	100%
	R2	Residential	Bedroom	8.00	4.94	282	4.94	100%
	R3	Residential	Bedroom	11.58	7.54	194	7.54	100%
	R4	Residential	Bedroom	7.98	4.93	286	4.93	100%
	R5	Residential	Bedroom	11.56	7.52	190	7.52	100%
	R6	Residential	Bedroom	7.98	4.93	284	4.93	100%
	R7	Residential	Bedroom	11.58	7.54	191	7.54	100%
	R8	Residential	Bedroom	7.98	4.93	267	4.93	100%
	R9	Residential	Bedroom	13.22	8.98	106	5.14	57%
	R10	Residential	Bedroom	13.22	8.98	94	4.59	51%
	R11	Residential	Bedroom	13.22	8.98	90	4.09	46%
	R12	Residential	Bedroom	13.24	8.99	87	3.95	44%

APPENDIX C

SUNLIGHT EXPOSURE TABLE

Project Name: THE BARN HOTEL
 Project No.: ROL01027_R02_V01
 Report Title: Sunlight Exposure Analysis - Proposed Scheme
 Date: 09/03/2023

Floor Ref	Room Ref	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
Building 1						
Gnd Floor	R1	Residential	Bedroom	W1	103°	4.1
						4.1
Gnd Floor	R2	Residential	LKD	W2	103°	3.1
				W3	103°	3.1
				W4	193°	6.7
						8.8
Gnd Floor	R3	Residential	Bedroom	W5	193°	7.1
						7.1
Gnd Floor	R4	Residential	Bedroom	W6	193°	7.4
						7.4
Gnd Floor	R5	Residential	LKD	W7	193°	7.3
				W8	283°N	2.1
				W9	283°N	2.2
						7.6
Gnd Floor	R6	Residential	Bedroom	W10	283°N	2.8
						2.8
Gnd Floor	R7	Residential	LD	W11	283°N	3
						3
Gnd Floor	R8	Residential	Bedroom	W12	283°N	2
						2
Gnd Floor	R9	Residential	Bedroom	W13	283°N	1.7
						1.7
Gnd Floor	R10	Residential	LKD	W14	283°N	2.9
				W15	283°N	3.2
				W16	13°N	0
						3.2
Gnd Floor	R11	Residential	Bedroom	W17	13°N	0
						0
Gnd Floor	R12	Residential	Bedroom	W18	349°N	0
						0
Gnd Floor	R13	Residential	LD	W19	349°N	0
						0
Gnd Floor	R14	Residential	LKD	W20	349°N	0
						0
Gnd Floor	R15	Residential	Bedroom	W21	349°N	0
						0
Gnd Floor	R16	Residential	Bedroom	W22	349°N	0
						0
Gnd Floor	R17	Residential	LD	W23	349°N	0
						0
Gnd Floor	R18	Residential	Bedroom	W24	349°N	0
						0
Gnd Floor	R19	Residential	Bedroom	W25	349°N	0
						0
Gnd Floor	R20	Residential	Bedroom	W26	349°N	0
						0

Project Name: THE BARN HOTEL
 Project No.: ROL01027_R02_V01
 Report Title: Sunlight Exposure Analysis - Proposed Scheme
 Date: 09/03/2023

Floor Ref	Room Ref	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
Gnd Floor	R21	Residential	LKD	W27 W28	349°N 79°N	0 2.1 2.1
Gnd Floor	R22	Residential	Bedroom	W29	169°	6 6
Gnd Floor	R23	Residential	LD	W30	169°	6.9 6.9
2nd Floor	R1	Residential	Bedroom	W1	103°	4.1 4.1
2nd Floor	R2	Residential	LKD	W2 W3 W4	103° 103° 193°	3.1 3.1 6.7 8.8
2nd Floor	R3	Residential	Bedroom	W5	193°	6.9 6.9
2nd Floor	R4	Residential	Bedroom	W6	193°	6.9 6.9
2nd Floor	R5	Residential	LKD	W7 W8 W9	193° 283°N 283°N	7.1 2.2 2.2 7.3
2nd Floor	R6	Residential	Bedroom	W10	283°N	2.6 2.6
2nd Floor	R7	Residential	LD	W11	283°N	3 3
2nd Floor	R8	Residential	Bedroom	W12	283°N	2 2
2nd Floor	R9	Residential	Bedroom	W13	283°N	1.6 1.6
2nd Floor	R10	Residential	LKD	W14 W15 W16	283°N 283°N 13°N	2.6 3 0 3
2nd Floor	R11	Residential	Bedroom	W17	13°N	0 0
2nd Floor	R12	Residential	Bedroom	W18	349°N	0 0
2nd Floor	R13	Residential	LD	W19	349°N	0 0
2nd Floor	R14	Residential	LKD	W20	349°N	0 0
2nd Floor	R15	Residential	Bedroom	W21	349°N	0 0
2nd Floor	R16	Residential	Bedroom	W22	349°N	0 0
2nd Floor	R17	Residential	LD	W23	349°N	0 0
2nd Floor	R18	Residential	Bedroom	W24 W25	349°N 79°N	0 1.6

Project Name: THE BARN HOTEL
 Project No.: ROL01027_R02_V01
 Report Title: Sunlight Exposure Analysis - Proposed Scheme
 Date: 09/03/2023

Floor Ref	Room Ref	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
						1.6
2nd Floor	R19	Residential	Bedroom	W26	79°N	1.6
				W27	169°	6
						6
2nd Floor	R20	Residential	LD	W28	169°	7.2
						7.2
2nd Floor	R21	Residential	LD	W29	169°	6
						6
2nd Floor	R22	Residential	Bedroom	W30	169°	6.3
						6.3
4th Floor	R1	Residential	Bedroom	W1	103°	4.1
						4.1
4th Floor	R2	Residential	LKD	W2	103°	3.1
				W3	103°	3.1
				W4	193°	6.7
						8.8
4th Floor	R3	Residential	Bedroom	W5	193°	6.9
						6.9
4th Floor	R4	Residential	Bedroom	W6	193°	6.9
						6.9
4th Floor	R5	Residential	LKD	W7	193°	7.1
				W8	283°N	2.2
				W9	283°N	2.2
						7.3
4th Floor	R6	Residential	Bedroom	W10	283°N	2.6
						2.6
4th Floor	R7	Residential	LD	W11	283°N	3
						3
4th Floor	R8	Residential	Bedroom	W12	283°N	2
						2
4th Floor	R9	Residential	Bedroom	W13	283°N	1.6
						1.6
4th Floor	R10	Residential	LKD	W14	283°N	2.6
				W15	283°N	3
				W16	13°N	0
						3
4th Floor	R11	Residential	Bedroom	W17	13°N	0
						0
4th Floor	R12	Residential	Bedroom	W18	349°N	0
						0
4th Floor	R13	Residential	LD	W19	349°N	0
						0
4th Floor	R14	Residential	LKD	W20	349°N	0
						0
4th Floor	R15	Residential	Bedroom	W21	349°N	0
				W22	349°N	0
				W23	79°N	1.6
						1.6

Project Name: THE BARN HOTEL
 Project No.: ROL01027_R02_V01
 Report Title: Sunlight Exposure Analysis - Proposed Scheme
 Date: 09/03/2023

Floor Ref	Room Ref	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
4th Floor	R17	Residential	LD	W24	169°	7
4th Floor	R18	Residential	Bedroom	W25	169°	7.1

Building 2

Gnd Floor	R1	Residential	LKD	W1 W22	337°N 292°N	0 0.6 0.6
Gnd Floor	R2	Residential	Bedroom	W2	22°N	0 0
Gnd Floor	R3	Residential	Bedroom	W3	22°N	0 0
Gnd Floor	R4	Residential	Bedroom	W4	22°N	0 0
Gnd Floor	R5	Residential	Bedroom	W5	22°N	0 0
Gnd Floor	R6	Residential	LD	W6 W7	22°N 112°	0 3.1 3.1
Gnd Floor	R7	Residential	Bedroom	W8 W9	22°N 112°	0 3.1 3.1
Gnd Floor	R8	Residential	LD	W10 W11	112° 202°	3.4 3.4 5.9
Gnd Floor	R9	Residential	LKD	W12 W13	112° 202°	3.5 6.1 8.5
Gnd Floor	R10	Residential	Bedroom	W14	202°	4.8 4.8
Gnd Floor	R11	Residential	Bedroom	W15	202°	4.5 4.5
Gnd Floor	R12	Residential	Bedroom	W16 W17	112° 202°	4.6 8 9.5
Gnd Floor	R13	Residential	Bedroom	W18	202°	6.7 6.7
Gnd Floor	R14	Residential	LKD	W19 W20 W21	202° 247° 292°N	6.7 2.2 0.7 6.7
2nd Floor	R1	Residential	LKD	W1 W28	337°N 292°N	0 0.8 0.8
2nd Floor	R2	Residential	Bedroom	W2	22°N	0 0
2nd Floor	R3	Residential	Bedroom	W3	22°N	0

Project Name: THE BARN HOTEL
 Project No.: ROL01027_R02_V01
 Report Title: Sunlight Exposure Analysis - Proposed Scheme
 Date: 09/03/2023

Floor Ref	Room Ref	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
						0
2nd Floor	R4	Residential	Bedroom	W4	22°N	0
						0
2nd Floor	R5	Residential	Bedroom	W5	22°N	0
						0
2nd Floor	R6	Residential	Living Room	W6	22°N	0
				W7	112°	3.1
						3.1
2nd Floor	R7	Residential	Bedroom	W8	22°N	0
				W9	112°	3.6
						3.6
2nd Floor	R8	Residential	LKD	W10	112°	3.6
				W11	202°	3
						5.7
2nd Floor	R9	Residential	LKD	W12	112°	3.6
				W13	202°	6.1
						8.6
2nd Floor	R10	Residential	Bedroom	W14	202°	4.8
						4.8
2nd Floor	R11	Residential	Bedroom	W15	202°	4.6
						4.6
2nd Floor	R12	Residential	Bedroom	W16	112°	4.7
				W17	202°	8
						9.5
2nd Floor	R13	Residential	Bedroom	W18	202°	6.7
						6.7
2nd Floor	R14	Residential	LKD	W19	202°	6.7
				W20	247°	2.2
				W21	292°N	0.8
						6.7
2nd Floor	R15	Residential	LD	W22	292°N	2.4
				W23	292°N	0.8
						2.4
2nd Floor	R16	Residential	Bedroom	W24	292°N	1.5
						1.5
2nd Floor	R17	Residential	Bedroom	W25	292°N	2.1
						2.1
2nd Floor	R18	Residential	LD	W26	292°N	0.8
				W27	292°N	1.8
						1.8
4th Floor	R1	Residential	LKD	W1	337°N	0
				W28	292°N	0.8
						0.8
4th Floor	R2	Residential	Bedroom	W2	22°N	0
						0
4th Floor	R3	Residential	Bedroom	W3	22°N	0
						0
4th Floor	R4	Residential	Bedroom	W4	22°N	0
						0

Project Name: THE BARN HOTEL
 Project No.: ROL01027_R02_V01
 Report Title: Sunlight Exposure Analysis - Proposed Scheme
 Date: 09/03/2023

Floor Ref	Room Ref	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
4th Floor	R5	Residential	Bedroom	W5	22°N	0
						0
4th Floor	R6	Residential	Living Room	W6	22°N	0
				W7	112°	3.6
						3.6
4th Floor	R7	Residential	Bedroom	W8	22°N	0
				W9	112°	3.6
						3.6
4th Floor	R8	Residential	LKD	W10	112°	3.6
				W11	202°	5.4
						7.5
4th Floor	R9	Residential	LKD	W12	112°	3.6
				W13	202°	7.4
						9.5
4th Floor	R10	Residential	Bedroom	W14	202°	6.3
						6.3
4th Floor	R11	Residential	Bedroom	W15	202°	4.7
						4.7
4th Floor	R12	Residential	Bedroom	W16	112°	4.7
				W17	202°	8
						9.5
4th Floor	R13	Residential	Bedroom	W18	202°	6.7
						6.7
4th Floor	R14	Residential	LKD	W19	202°	6.7
				W20	247°	4.8
				W21	292°N	0.8
						6.7
4th Floor	R15	Residential	LD	W22	292°N	2.4
				W23	292°N	0.8
						2.4
4th Floor	R16	Residential	Bedroom	W24	292°N	2.1
						2.1
4th Floor	R17	Residential	Bedroom	W25	292°N	2.1
						2.1
4th Floor	R18	Residential	LD	W26	292°N	0.8
				W27	292°N	2.4
						2.4

Terrace Houses 3

Gnd Floor	R1	Residential	Living Room	W1	180°	7.1
				W10	270°N	1.5
						8
Gnd Floor	R2	Residential	Living Room	W2	180°	7.1
						7.1
Gnd Floor	R3	Residential	Living Room	W3	180°	7.1
						7.1
Gnd Floor	R4	Residential	KD	W4	360°N	0
				W5	360°N	0

Project Name: THE BARN HOTEL
 Project No.: ROL01027_R02_V01
 Report Title: Sunlight Exposure Analysis - Proposed Scheme
 Date: 09/03/2023

Floor Ref	Room Ref	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
						0
Gnd Floor	R5	Residential	KD	W6	360°N	0
				W7	360°N	0
						0
Gnd Floor	R6	Residential	KD	W8	360°N	0
				W9	360°N	0
						0
1st Floor	R1	Residential	Bedroom	W1	180°	7.1
						7.1
1st Floor	R2	Residential	Bedroom	W2	180°	7.1
						7.1
1st Floor	R3	Residential	Bedroom	W3	180°	7.1
						7.1
1st Floor	R4	Residential	Bedroom	W4	180°	7.1
						7.1
1st Floor	R5	Residential	Bedroom	W5	180°	7.1
						7.1
1st Floor	R6	Residential	Bedroom	W6	180°	7.1
						7.1
1st Floor	R7	Residential	Bedroom	W7	0°N	0
						0
1st Floor	R8	Residential	Bedroom	W8	0°N	0
						0
1st Floor	R9	Residential	Bedroom	W9	0°N	0
						0

Terrace Houses 4

Gnd Floor	R1	Residential	Living Room	W1	90°N	3.2
				W13	180°	4.1
						6.8
Gnd Floor	R2	Residential	Living Room	W2	90°N	3.2
						3.2
Gnd Floor	R3	Residential	Living Room	W3	90°N	3.2
						3.2
Gnd Floor	R4	Residential	Living Room	W4	90°N	3.2
						3.2
Gnd Floor	R5	Residential	KD	W5	270°N	1.5
				W6	270°N	0
						1.5
Gnd Floor	R6	Residential	KD	W7	270°N	1.4
				W8	270°N	0
						1.4
Gnd Floor	R7	Residential	KD	W9	270°N	1.5
				W10	270°N	0
						1.5
Gnd Floor	R8	Residential	KD	W11	270°N	1.9
				W12	270°N	0
						1.9

Project Name: THE BARN HOTEL

Project No.: ROL01027_R02_V01

Report Title: Sunlight Exposure Analysis - Proposed Scheme

Date: 09/03/2023

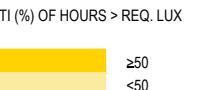
Floor Ref	Room Ref	Property Type	Room Use	Window Ref	Window Orientation	Proposed Sunlight Exposure (Hours)
1st Floor	R1	Residential	Bedroom	W1	90°N	2.9
1st Floor	R2	Residential	Bedroom	W2	90°N	2.9
1st Floor	R3	Residential	Bedroom	W3	90°N	2.9
1st Floor	R4	Residential	Bedroom	W4	90°N	2.9
1st Floor	R5	Residential	Bedroom	W5	90°N	2.9
1st Floor	R6	Residential	Bedroom	W6	90°N	2.9
1st Floor	R7	Residential	Bedroom	W7	90°N	2.9
1st Floor	R8	Residential	Bedroom	W8	90°N	2.9
1st Floor	R9	Residential	Bedroom	W9	270°N	0.9
1st Floor	R10	Residential	Bedroom	W10	270°N	1.1
1st Floor	R11	Residential	Bedroom	W11	270°N	0.9
1st Floor	R12	Residential	Bedroom	W12	270°N	1.2

APPENDIX D

LAYOUT PLANS WITH DAYLIGHT ILLUMINANCE RESULTS

DRAWING NOS. ROL01027_R02_V01_601-01 TO 604-01

LEGEND:



SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
 LAND SURVEYOR
 Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS
 CHASE NEW HOMES
 Received on 08/03/23



0m 1.5m 3m 4.5m 6m 7.5m

PROJECT INFORMATION
 © Copyright Anstey Horne & Co. Ltd
 This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
 This drawing should not be reproduced without permission.
 Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

PROJECT: THE BARN HOTEL
 TITLE: RUISLIP, HA4 6JB

SCHEME REF: SCHEME RECEIVED: 08/03/23

DRAWING: TARGET ILLUMINANCE
 TITLE: INTERNAL FLOOR LAYOUTS
 BUILDING 1

MODELED BY / DRAWN BY DATE: 09/03/23 SCALE: 1:150 A3

PROJECT No: RELEASE No: VERSION No: DRAWING No:

ROL01027_R02_V01_601-01

Daylight & Sunlight



LEGEND:

TI (%) OF HOURS > REQ. LUX



SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
 LAND SURVEYOR
 Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS
 CHASE NEW HOMES
 Received on 08/03/23



PROJECT INFORMATION

© Copyright Anstey Horne & Co. Ltd.
 This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
 This drawing should not be reproduced without permission.
 Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

PROJECT: THE BARN HOTEL
 TITLE: RUISLIP, HA4 6JB

SCHEME REF: SCHEME RECEIVED: 08/03/23

DRAWING: TARGET ILLUMINANCE
 TITLE: INTERNAL FLOOR LAYOUTS
 BUILDING 1

MODELED BY / DRAWN BY DATE: 09/03/23 SCALE: 1:150 A3

PROJECT No: RELEASE No: VERSION No: DRAWING No:

ROL01027_R02_V01_601-02

Daylight & Sunlight

LEGEND:

TI (%) OF HOURS > REQ. LUX


SOURCES OF INFORMATION:
EXISTING, SURROUNDING & ANALYSED BUILDINGS
 LAND SURVEYOR
 Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS
 CHASE NEW HOMES
 Received on 08/03/23

PROJECT INFORMATION

 © Copyright Anstey Horne & Co. Ltd.
 This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
 This drawing should not be reproduced without permission.
 Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

PROJECT: THE BARN HOTEL
TITLE: RUISLIP, HA4 6JB

SCHEME REF: SCHEME RECEIVED: 08/03/23

DRAWING: TARGET ILLUMINANCE
TITLE: INTERNAL FLOOR LAYOUTS
 BUILDING 1

MODELED BY / DRAWN BY: AKAH DATE: 09/03/23 SCALE: 1:150 A3

 PROJECT No: RELEASE No: VERSION No: DRAWING No:
ROL01027_R02_V01_601-03
Daylight & Sunlight


LEGEND:

TI (%) OF HOURS > REQ. LUX



SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

LAND SURVEYOR
Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS

CHASE NEW HOMES
Received on 08/03/23

0m 1.25m 2.5m 3.75m 5m 6.25m

PROJECT INFORMATION

 © Copyright Anstey Horne & Co. Ltd.
 This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
 This drawing should not be reproduced without permission.
 Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

 PROJECT: THE BARN HOTEL
 TITLE: RUISLIP, HA4 6JB

SCHEME REF: SCHEME RECEIVED: 08/03/23

 DRAWING: TARGET ILLUMINANCE
 TITLE: INTERNAL FLOOR LAYOUTS
 BUILDING 2

MODELED BY: DRAWN BY: DATE: 09/03/23 SCALE: 1:125 A3

PROJECT No: RELEASE No: VERSION No: DRAWING No:

ROL01027_R02_V01_602-01

Daylight & Sunlight



LEGEND:



SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
LAND SURVEYOR
Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS
CHASE NEW HOMES
Received on 08/03/23



0m 1.25m 2.5m 3.75m 5m 6.25m

PROJECT INFORMATION

© Copyright Anstey Horne & Co. Ltd.
This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
This drawing should not be reproduced without permission.
Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

PROJECT: THE BARN HOTEL
TITLE: RUISLIP, HA4 6JB

SCHEME
REF: SCHEME RECEIVED: 08/03/23

DRAWING
TITLE: TARGET ILLUMINANCE
INTERNAL FLOOR LAYOUTS
BUILDING 2

MODELED BY / DRAWN BY DATE: 09/03/23 SCALE: 1:125 A3

PROJECT No: RELEASE No: VERSION No: DRAWING No:

ROL01027_R02_V01_602-02

Daylight & Sunlight



LEGEND:

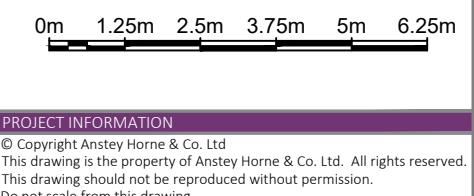
TI (%) OF HOURS > REQ. LUX



SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
 LAND SURVEYOR
 Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS
 CHASE NEW HOMES
 Received on 08/03/23


CLIENT: CHASE NEW HOMES

 PROJECT: THE BARN HOTEL
 TITLE: RUISLIP, HA4 6JB

SCHEME REF: SCHEME RECEIVED: 08/03/23

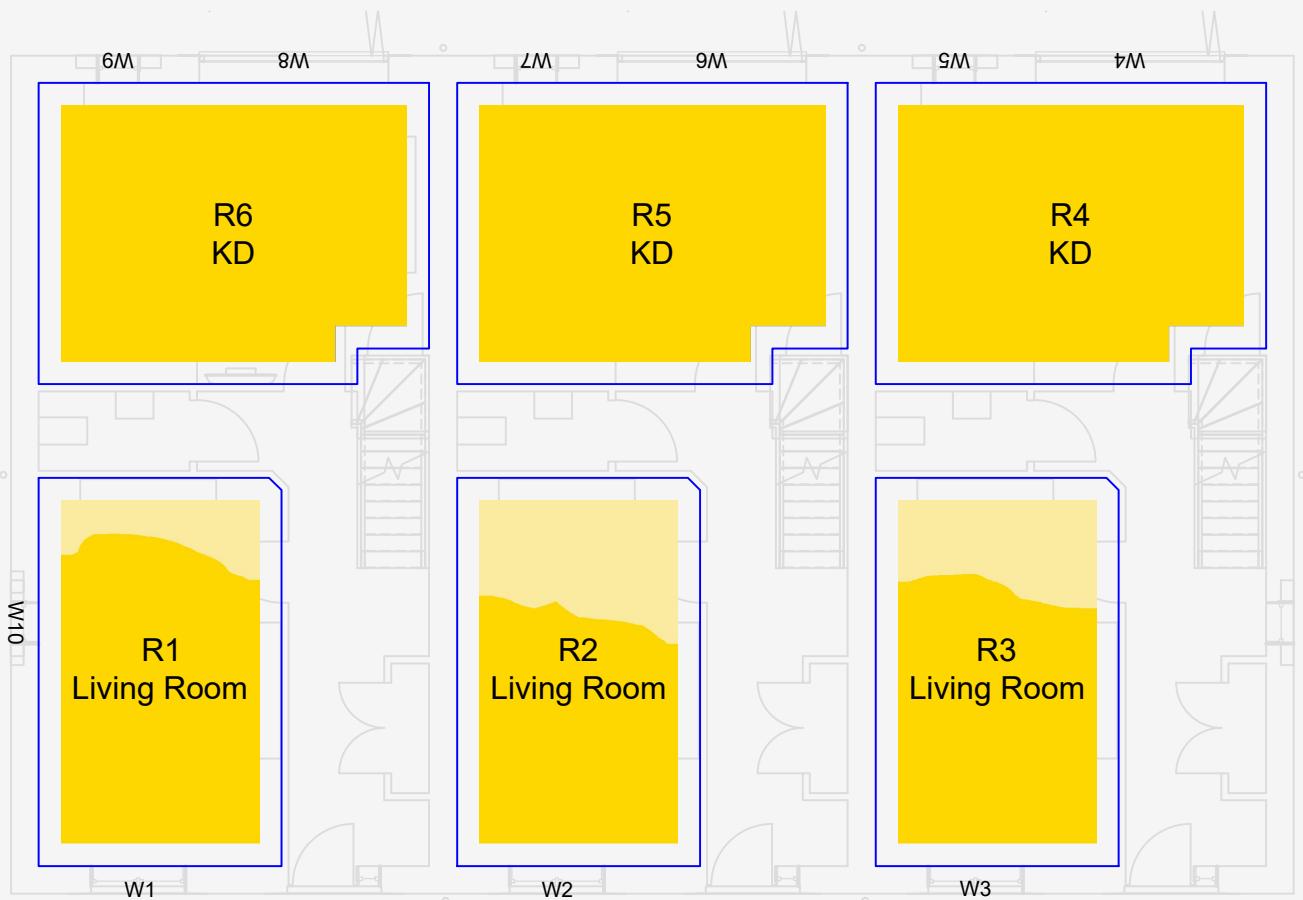
 DRAWING: TARGET ILLUMINANCE
 TITLE: INTERNAL FLOOR LAYOUTS
 BUILDING 2

MODELED BY: DRAWN BY: DATE: 09/03/23 SCALE: 1:125 A3

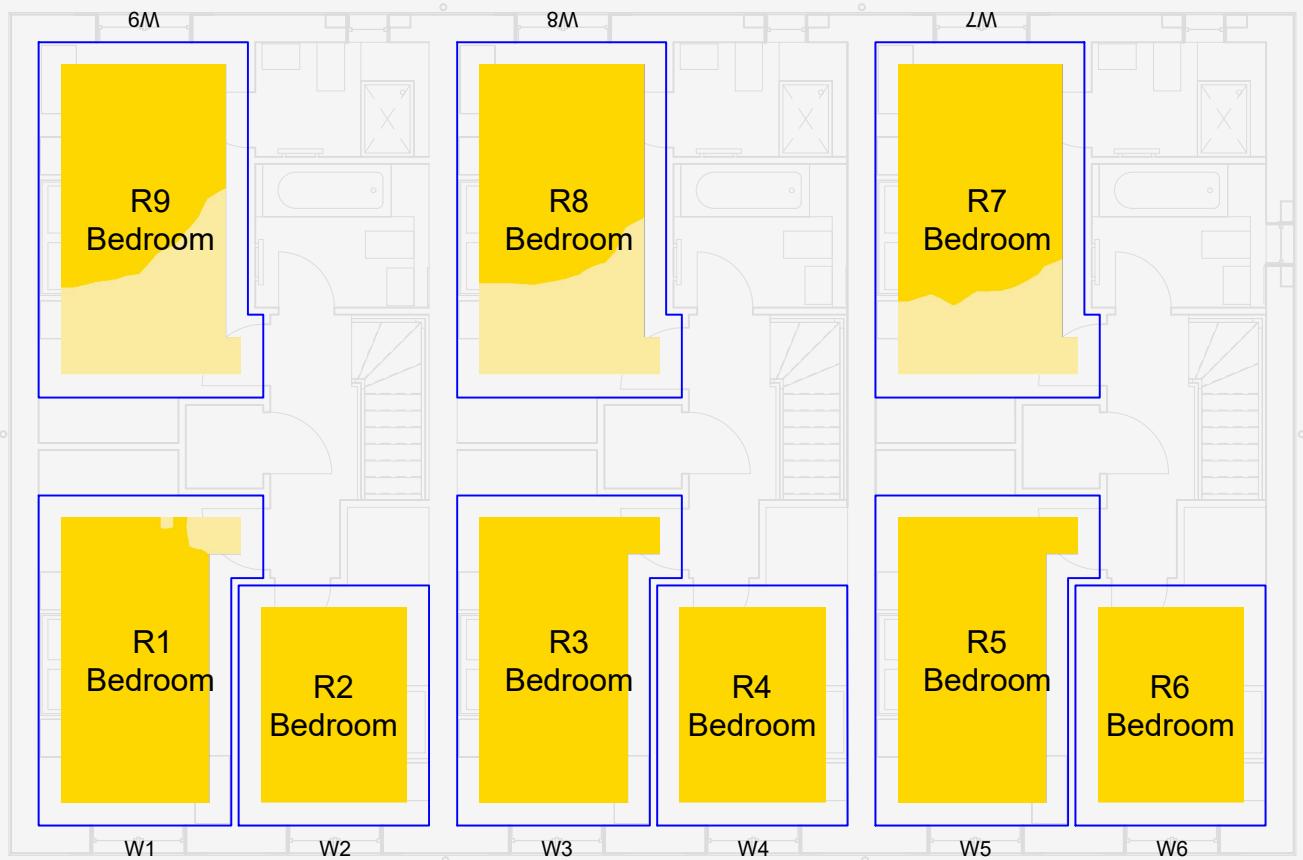
 PROJECT No: RELEASE No: VERSION No: DRAWING No:
ROL01027_R02_V01_602-03

Daylight & Sunlight





GROUND



1ST FLOOR

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS

LAND SURVEYOR
Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS
CHASE NEW HOMES
Received on 08/03/23



0m 1m 2m 3m 4m 5m

PROJECT INFORMATION
© Copyright Anstey Horne & Co. Ltd.
This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
This drawing should not be reproduced without permission.
Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

PROJECT: THE BARN HOTEL
TITLE: RUISLIP, HA4 6JB

SCHEME REF: SCHEME RECEIVED: 08/03/23

DRAWING TITLE: TARGET ILLUMINANCE
TITLE: INTERNAL FLOOR LAYOUTS
TERRACE HOUSES 3

MODELED BY / DRAWN BY: AKAH DATE: 09/03/23 SCALE: 1:100 A3

PROJECT No: RELEASE No: VERSION No: DRAWING No:

ROL01027_R02_V01_603-01

Daylight & Sunlight

TI (%) OF HOURS > REQ. LUX



SOURCES OF INFORMATION:

 EXISTING, SURROUNDING & ANALYSED BUILDINGS
 LAND SURVEYOR
 Received on 17/01/23

Site and aerial photos.

 PROPOSED BUILDINGS
 CHASE NEW HOMES
 Received on 08/03/23


PROJECT INFORMATION

 © Copyright Anstey Horne & Co. Ltd
 This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
 This drawing should not be reproduced without permission.
 Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

 PROJECT: THE BARN HOTEL
 TITLE: RUISLIP, HA4 6JB

SCHEME REF: SCHEME RECEIVED: 08/03/23

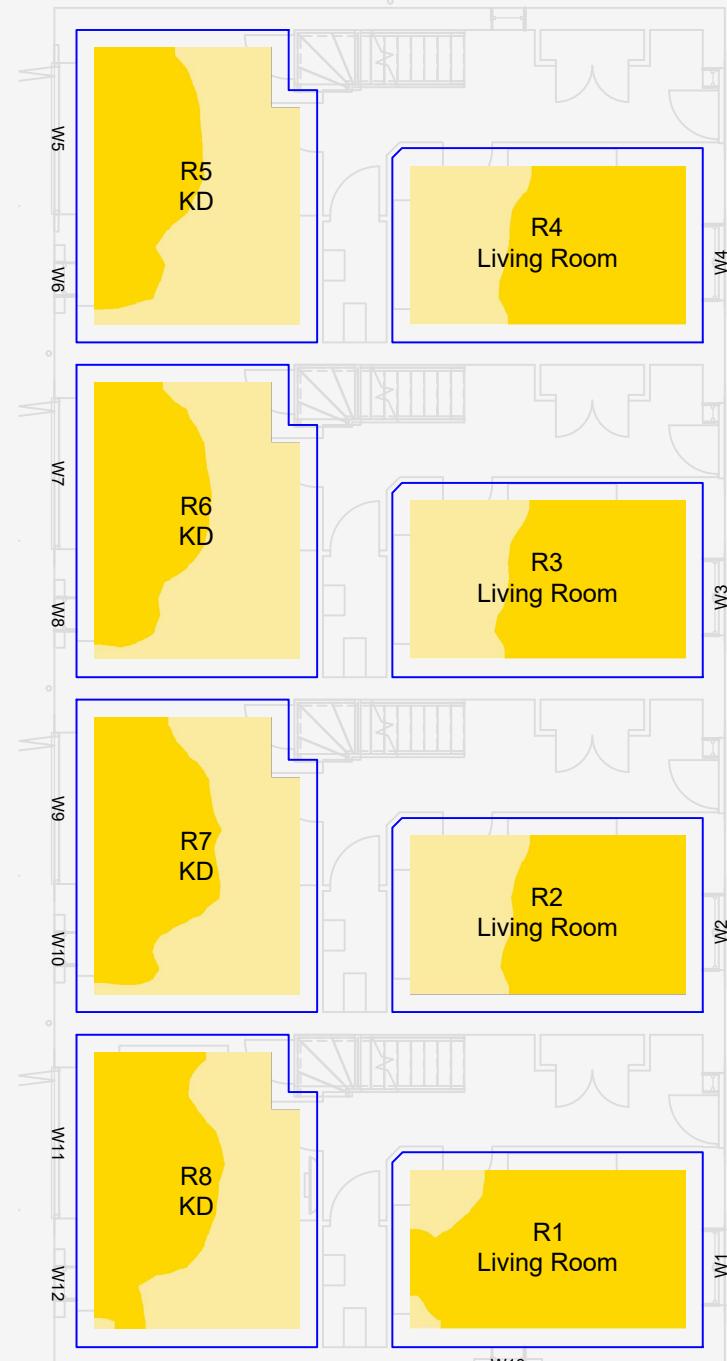
 DRAWING: TARGET ILLUMINANCE
 TITLE: INTERNAL FLOOR LAYOUTS
 TERRACE HOUSES 4

MODELED BY / DRAWN BY DATE: 09/03/23 SCALE: 1:75 A3

PROJECT No: RELEASE No: VERSION No: DRAWING No:

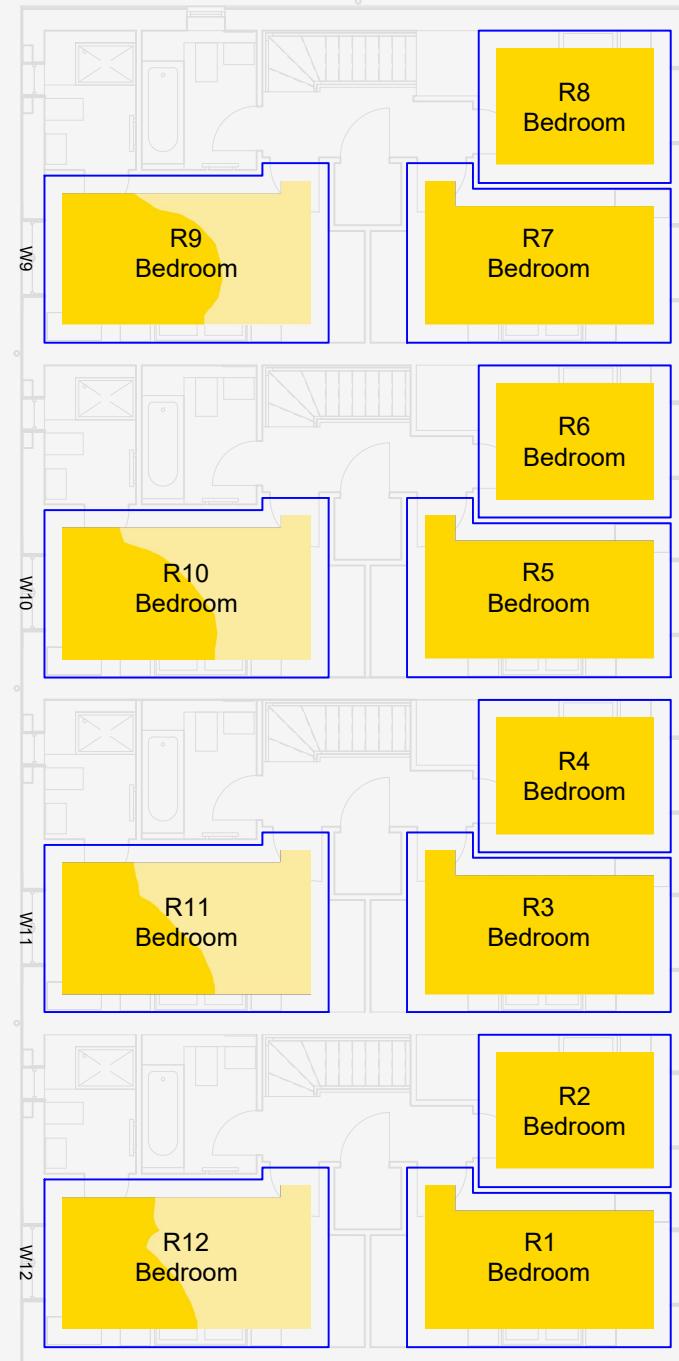
ROL01027_R02_V01_604-01

Daylight & Sunlight



GROUND

1ST FLOOR



APPENDIX E

TWO-HOURS SUN CONTOUR PLAN

DRAWING NOS. ROL01027_R02_V01_302-01

LEGEND:

- Area receiving ≥ 2 hr Sunlight on 21st March (PROPOSED)
- Area receiving < 2 hr Sunlight on 21st March
- X% - Percentage of Amenity Space receiving ≥ 2 hr Sunlight on 21st March

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
 LAND SURVEYOR
 Received on 17/01/23

Site and aerial photos.

PROPOSED BUILDINGS
 CHASE NEW HOMES
 Received on 08/03/23



0m 5m 10m 15m 20m 25m

PROJECT INFORMATION
 © Copyright Anstey Horne & Co. Ltd.
 This drawing is the property of Anstey Horne & Co. Ltd. All rights reserved.
 This drawing should not be reproduced without permission.
 Do not scale from this drawing.

CLIENT: CHASE NEW HOMES

PROJECT: THE BARN HOTEL
TITLE: RUISLIP, HA4 6JB

SCHEME REF: SCHEME RECEIVED: 08/03/23

DRAWING: TWO-HOUR SUNLIGHT TEST
TITLE: PROPOSED SCHEME

MODELED BY / DRAWN BY DATE: 09/03/23 SCALE: 1:500 A3
 AKIAH

PROJECT No: RELEASE No: VERSION No: DRAWING No:
 ROL01027_R02_V01_302-01

2Hr Sun-On-Ground





ansteyhorne.co.uk

Regulated by RICS

Chartered Surveyors

Rights of Light | Party Walls | Building Consultancy | Fire Consultancy

LONDON BIRMINGHAM MANCHESTER BRISTOL PLYMOUTH NORWICH

expertise
applied