

# **DAYLIGHT & SUNLIGHT**

INTERNAL DAYLIGHT, SUNLIGHT AND OVERSHADOWING ASSESSMENT

**New Henry Street, Bristol** 

Dominus Bristol Limited



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Client Dominus Bristol Limited

Architect Allford Hall Monaghan Morris

Project Title New Henry Street, Bristol

Project Number 19167

REPORT DATA:

Report Title Internal Daylight, Sunlight and Overshadowing Assessment

GIA Department

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## 1 EXECUTIVE SUMMARY

The purpose of this report is to ascertain whether the proposed development will provide student accommodation considered acceptable in terms of daylight, sunlight and overshadowing. GIA has worked alongside the design team to amend the design in order to ensure the scheme performs as well as possible in terms of daylight and sunlight amenity.

This report contains the final assessments undertaken for all proposed rooms within New Henry Street. Bristol.

Since the submission of the application in March 2023 under planning application 23/01469/F, the design team has sought to further maximise daylight and sunlight within the proposed development leading to a additional positive design enhancements to improve the performance. The report is submitted in support of a new planning application which captures these amendments.

Overall, the proposed development is considered to offer very well daylit accommodation with 97% of all student rooms proposed meeting or exceeding the sDA levels recommended by BRE and the UK National Annex of the BS EN 17037. The few student rooms that do not meet the recommended level for student bedsits would achieve the recommendation for bedrooms and have been designed sensitively to locate the tasks with the highest illumination requirements in the areas with the best daylight levels. Whilst share LKDs, living rooms and kitchens are considered less important in student

accommodation, they too perform very well with 83% of all share LKDs, living rooms and kitchens meeting or exceeding their respective targets.

In terms of sunlight, the proposed development is considered to offer adequately sunlit accommodation with 443 (63%) of the student rooms achieving levels of sunlight that either meet the recommended level or are marginally below and thus still considered to offer good sunlight access throughout the year. Again, whilst share LKDs, living rooms and kitchens are considered less important in student accommodation, 65% of the proposed shared spaces meet the recommended level. Where shortfalls occur, these are predominantly due to the orientation of the rooms being either north-easterly or northwesterly, where rooms would not have a reasonable expectation of sunlight and it is to be expected for there to be a significant quantum of northerly facing rooms within a student accommodation scheme.

The proposed communal open spaces provided will offer future residents a variety of well sunlit outdoor amenity to use throughout the year.

Overall, the proposed development is considered to offer good daylight and sunlight amenity for further occupants.

## **2 INTRODUCTION**

GIA has been instructed to provide a report upon the potential availability of Daylight and Sunlight to the proposed accommodation within the student accommodation scheme prepared by Allford Hall Monaghan Morris. GIA was specifically instructed to carry out the following:

- To create a 3D computer model of the proposal based upon drawings prepared by Allford Hall Monaghan Morris.
- Carry out a daylight assessment using the methodologies set out in the BRE guidance for Illuminance (spatial Daylight Autonomy/sDA).
- Carry out a sunlight assessment using the methodologies set out in the BRE guidance for sun exposure.
- Carry out an overshadowing assessment using the methodology set out in the BRE guidance for Sun Hours On Ground (SHOG) for all relevant amenity areas.
- Prepare a report setting out the analysis and our findings.



## 3 BRE GUIDELINES

The Building Research Establishment (BRE) have set out in their handbook 'Site Layout Planning for Daylight and Sunlight a Guide to Good Practice (BR 209 2022)', guidelines and methodology for the measurement and assessment of daylight and sunlight within proposed buildings.

## 31 INTRODUCTION

The BRE published the new edition of 'Site layout planning for daylight and sunlight: a guide to good practice' in June 2022 (BR 209), This is to be read in conjunction with BS EN 17037:2018 "Daylight in buildings", the UK National Annex of the British Standard and the CIBSE publication LG 10 'Daylighting – a guide for designers'.

The BR 209 new edition contains amended methodologies for appraising the daylight and sunlight quality within new developments. Nonetheless, the main aim of the guidance is maintained: "to help rather than constrain the designer" as stated in Paragraph 1.5 of the new quidance.

The report provides advice, but also clearly states that it "is not mandatory and the guide should not be seen as an instrument of planning policy." The guidance also acknowledges in its introduction that "Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design (see Section 5). 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." (Paragraph 1.6)

# 3.2 BS EN 17037:2018 AND THE UK ANNEX

The British Standard BS8206-2:2008 was superseded by the new European Standard on daylight BS EN 17037:2018 "Daylight in buildings".

Following on from the review of the European Standard by a dedicated commission of UK experts, the British Standard Institution appended to BS EN 17037:2018 a UK National Annex which brings the recommended light levels in line with those of the former BS8206-2:2008.

The BS EN 17037 includes four criteria: daylighting, views, sunlight access and glare. However, daylighting and sunlight access are the only criteria considered relevant for residential buildings and therefore discussed within this report.

View out and Glare are mostly relevant in offices and schools, where occupants are more fixed to a certain location within a room. In residential habitable rooms, occupants tend to move more freely and therefore view out and glare are not assessed within residential buildings.

In relation to sunlight access, the assessment considers the hours of sunlight reaching a window on the 21st March.

## 3.3 DAYLIGHT

The BRE set out the methods for assessing daylight within a proposed building within section 2.1 and Appendix C of the handbook. This is based on the methods detailed in the BS EN 17037.

BS EN 17037 suggests two possible methodologies for appraising daylight:

- Illuminance Method
- · Daylight Factor Method

These methodologies are discussed in more detail below.

Whilst Vertical Sky Component (VSC) is no longer directly used to calculate the levels of daylight indoors, this is still referenced within the BRE guidance as a metric to appraise the level of obstruction faced by a building and the potential for good daylight indoors.

This method of assessment may also be used to appraise the daylight quality in the early stages of the design, when room layouts or window locations are still undecided.

## Vertical Sky Component (VSC)

This method of assessment can be undertaken using a skylight indicator or a Waldram diagram. It measures from a single point, at the centre of the window (if known at the early design stage), the quantum of sky visible taking into account all external obstructions. Whilst these obstructions can be either other buildings or the general landscape, trees are usually ignored unless they form a continuous or dense belt of obstruction.

The VSC method is a useful 'rule of thumb' but has some significant limitations in determining the true quality of daylight within a proposed building. It does not take into account the size of the window, any reflected light off external obstructions, any reflected light within the room, or the use to which that room is put.

#### Illuminance method

Climate Based Daylight Modelling (CBDM) is used to predict daylight illuminance using sun and sky conditions derived from standard meteorological data (often referred to as climate or weather data). This analytical method allows the prediction of absolute daylight illuminance based on the location and building orientation, in addition to the building's daylight systems (shading systems, for example). Annex A within the BS EN 17037 proposes values of target illuminances and minimum target illuminances to exceed 50 % of daylight hours.

This is considered to be the most accurate approach when using climate data, however, it provides a very large amount of data for each assessed room, which then needs to be interrogated. One of the methodologies that can be used to interrogate this data is Spatial Daylight Autonomy (sDA).

## Spatial Daylight Autonomy (sDA)

The sDA assessment is designed to understand how often each point of the room's task area sees illuminance levels at or above a specific threshold.

BS EN 17037 sets out minimum illuminance levels (300lx) that should be exceeded over 50% of the space for more than half of the daylight hours in the year. It also includes recommendations for medium and high daylighting levels within a space (500lx and 700lx respectively). It should be noted here, however, that these targets are specified irrespective of a space's use or design.

The National Annex suggests that these targets can be challenging to achieve within residential settings, particularly in areas of higher density and so suggests lower targets can be considered in this situation. It should be noted here that the reduced targets suggested within the BS EN 17037:2018 National Annex are provided so as to be comparable with the previous BR209's recommendations for ADF. These targets are:

- 100 lux for bedrooms
- 150 lux for living rooms
- 200 lux for living/kitchen/diners, kitchens, and studios.



It is however stated in paragraph C17 of the BRE 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**

This method involves calculating the median daylight factor on a reference plane (assessment grid).

"The daylight factor is the illuminance at a point on the reference plane in a space, divided by the illuminance on an unobstructed horizontal surface outdoors. The CIE standard overcast sky is used, and the ratio is usually expressed as a percentage."

This method of assessments considers an overcast sky, and therefore the orientation and location of buildings is not relevant. In order to account for different climatic conditions, Annex A within the BS EN 17037 sets equivalent daylight factor targets (D) for various locations in Europe.

The median daylight factor (MDF) should meet or exceed the target daylight factor relative to a given illuminance for more than half of daylight hours, over 50% of the reference plane.

## 34 **SUNLIGHT**

The BRE provide guidance in respect of sunlight quality for new developments within section 3.1 of the handbook. It is generally acknowledged that the presence of sunlight is more significant in residential accommodation than it is in commercial properties, and this is reflected in the BRE document.

It states, "in housing, the main requirement for sunlight is in living rooms, where it is valued at any time of the 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 morning rather than the afternoon."

The BRE guide considers the critical aspects of orientation and overshadowing in determining the availability of sunlight at a proposed development site.

The guide proposes minimising the number of dwellings whose living room face solely north unless there is some compensating factor such as an appealing view to the north, and it suggests a number of techniques to do so. Furthermore, it discusses massing solutions with a sensitive approach to overshadowing, so as to maximize access to sunlight.

At the same time, it acknowledges that the site's existing urban environment may impose orientation or overshadowing constraints which may not be possible to overcome.

To quantify sunlight access for interiors where sunlight is expected, it refers to the BS EN 17037 criterion that the minimum duration of sunlight exposure in at least one habitable room of a dwelling should be 1.5 h on March 21st. Table A.5 also establishes medium and high sunlight targets (3 and 4 hours).

This is to be checked at a reference point located centrally to the window's width and at the inner surface of the aperture (façade and/or roof). For multiple apertures in different façades it is possible to cumulate the time of sunlight availability if not occurring at the same time. The reference point is minimum 1.2 m above the floor and 0.3 m above the window sill if present.

The summary of section 3.1 of the guide states as follows:

"In general, a dwelling or non-domestic building which has a particular requirement for sunlight, will appear reasonably sunlit provided that:

- At least one main window faces within 90 degrees 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. This is assessed at the inside centre of the window(s); sunlight received by different windows can be added provided they occur at different times and sunlight hours are not double counted.."

3.5 **OVERSHADOWING** 

The BRE guidance in respect of overshadowing of amenity spaces is set out in section 3.3 of the handbook. Here it states as follows:

"Sunlight in the spaces between and around buildings has an important impact on the overall appearance and ambience of a development. It 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).

Again, it must be acknowledged that in urban areas the availability of sunlight on the ground is a factor which is significantly controlled by the existing urban fabric around the site in question and so may have very little to do with the form of the development itself. Likewise, there may be many other urban design, planning and site constraints which determine and run contrary to the best form, siting and location of a proposed development in terms of availability of sun on the ground.

The summary of section 3.3 of the guide states as follows:

"3. 3.17 It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 March. If as a result of new development an existing garden or amenity area does not meet the above, and the area that can receive two hours of sun on 21 March is less than 0.80 times its former value, then the loss of sunlight is likely to be noticeable. If a detailed calculation cannot be carried out, it is recommended that the centre of the area should receive at least two hours of sunlight on 21 March."

# 3.6 FURTHER RELEVANT INFORMATION

CIBSE LG 10 'Daylighting – a guide for designers'.

This guide details the process of designing for daylighting. It outlines considerations of form, orientation, and other aspects involved in designing the building envelope to optimise natural light.

The guidance in this document is written primarily for buildings located within the UK, and will be most applicable to projects in northern hemisphere. However, the principles are universal, and can be applied to other locations if the appropriate weather data is used and local standards and regulations are respected



## **4 SIMULATION ASSUMPTIONS**

In order to undertake the daylight and sunlight assessments set out in the previous pages, we have prepared a three dimensional computer model and used specialist lighting simulation software.

#### Calculation model

The three dimensional representation of the proposed development has been modelled using the drawings prepared by Allford Hall Monaghan Morris, received by GIA in November 2023. These have been placed in the context of their surrounding buildings which have been modelled from survey information, photogrammetry, OS and site photographs. This allows for a precise model, which in turn ensures that analysis accurately represents the amount of daylight and sunlight available to the building façades, internal and external spaces, considering all of the surrounding obstructions and orientation.

The weather file recorded at Gatwick Airport was considered the most relevant for this assessment.

#### Surfaces reflectance

In general, the reflectance value to be applied to surfaces in the computational modelling follows the BR 209 Annex C, unless specified by the design team.

The following assumptions have been confirmed as appropriate by the client:

- Interior walls White Paint Finish 0.7
- Ceilings White Paint Finish 0.8
- Floors Light Timber Veneer (or similar) 0.4

The following surface reflectance assumptions as per BR 209 have been used:

• Exterior ground and external obstructions -0.2

#### **Assessment Grids**

For the daylight assessments, an analysis 'grid' is located within each room at working plane height (850 mm from FFL) and offset by 0.3m from the walls as recommended by BR 209.

Grid points are spaced by 0.2m.

## **Assessment Resolution**

The climate-based daylight assessments have been undertaken on an hourly basis whilst the sunlight exposure assessment has been undertaken for every minute on the relevant days.

#### Glazing transmittance

A glazing visible light transmittance (VLT) of 70% has been assigned to the windows as in agreement with the wider design team. A framing factor of 85% has been taken from the elevations supplied. Maintenance factors have been applied as per BR209 with 0.92 for windows not beneath an overhang.

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## 5 DISCUSSION & CONCLUSIONS

# 5.1 SCHEME AMENDMENTS & DESIGN EVOLUTION

The March 2023 Daylight and Sunlight Report prepared by Rapleys reported on the daylight and sunlight amenity within the proposed student accommodation and overshadowing of the proposed public and communal open spaces for the March 2023 submission scheme (application ref: 23/01469/FUL). Subsequent to the March 2023 submission, design revisions have been incorporated to address informal comments raised by Planning Officers. The purpose of this report is to comment upon the daylight and sunlight performance of the November 2023 Amended Scheme which is submitted pursuant to a new planning application.

The following amendments have been made to the scheme that have the potential to impact the daylight and sunlight levels within the proposed development:

- Relocating height and bulk from the corners of the site to a more central location, either side of New Henry Street;
- Minor amendments to layouts and fenestration;
- Introduction of additional rooftop amenity.

The refined proposal has been designed following GIA input in order to maximise the ingress of daylight and sunlight whilst seeking to address Planning Officer feedback.

In order to maximise the daylight and sunlight performance of the scheme, the design (as revised within the November 2023 proposals) includes:

- amendments to the massing to improve sunlight into the courtyard open spaces; and
- Increased fenestration to balance the impact of the addition massing along New Henry Street.

Additionally, the student rooms have been designed with a clear spatial hierarchy in mind to ensure that the areas with the greatest illumination requirements, desks/workshop, are located in front of the window, whilst bedrooms have less of a requirement so are within the mid zone and then utility spaces such as bathrooms and storage have been located furtherest from the window as they do not require daylighting.

The proposed development has therefore been well optimised for good daylight and sunlight amenity whilst also seeking to deliver a development that responds to other policy considerations.

## 52 SUMMARY OF CONCLUSIONS

All habitable rooms within the proposed development have been assessed for spatial Daylight Autonomy (sDA) according to the targets set out in the UK National Annex of the BS EN 17037, which sets illuminance targets (measured in lux) to be achieved for over 50% of the space for more than half of the daylight hours in the year. For sunlight, all rooms have been assessed for sun exposure, for which the recommendation is for each student room to receive a total of at least 1.5 hours of sunlight on 21st March.

Finally, the proposed open spaces have been assessed for overshadowing through the Sun Hours on Ground metric as well as for sun exposure on the equinox and summer solstice.

The internal daylight and sunlight assessments can be found in Section 7 of this report.

More detailed information on each of the assessments can be found in the following paragraphs.

## 53 CONCLUSIONS ON DAYLIGHT

The results given on pages 16-47 have shown that:

- 685 of the 705 (97%) of the proposed student rooms would meet the recommendation of 150lux within half the room for half the daylight hours a year;
- 61 of the 68 (90%) of the shared living/kitchen/ dining rooms (LKDs) and kitchens would meet the recommendation of 200lux within half the room for half the daylight hours a year; and
- 10 of the 18 (56%) shared living rooms meet the recommendation of 150lux within half the room for half the daylight hours a year.

The few (20) student rooms falling short of guidance are located on the lowest two floors either facing into the courtyard or New Henry Street, where slightly lower daylight availability is to be expected. The rooms would all exceed the level recommended for bedrooms of 100lux within half the rooms area for half the daylight hours a year, they have had their fenestration maximised and have been designed to have the desk located at the front of the rooms, where the best daylight would be received.

It is also worth noting that many (598) of the student rooms far exceed the levels recommended by BRE, offering very well daylight levels throughout the year. As such, all student rooms are considered to offer adequate daylight amenity and many offer exemplary levels of daylight.

Turning to the shared living spaces, 15 fall short of the recommended levels of sDA, however three of these are combined living/kitchen/dining spaces where they fall short of the 200lux target for rooms with a kitchen but would exceed the target illuminance of 150lux for living rooms and so are considered to be adequately daylit for their primary function as living spaces. Shared living spaces are considered less important in student accommodation as residents would spend the majority of time during daylight hours in their rooms.



Eight of the 15 are ground floor living/dining spaces located on first floor facing into the courtyard of the townhouses, where their fenestration is limited due to privacy concerns. Residents of the townhouses have well daylit shared kitchens adjacent to these spaces as well as an additional shared living space on the top floor with very good daylight amenity and all student rooms within the townhouses meet the BRE recommendation, therefore residents within the townhouses are considered to have numerous well daylit spaces to enjoy.

The final four shared LKDs are located at levels 02 and 03, facing into New Henry Street where lower levels of daylight are to be expected. These four LKDs achieve 150lux for half the daylight a year within 33.8-49.8% of their area which is only slightly below the recommendation of 50% are considered to be well daylit in the front portion of the room living/dining zone are located.

Overall, the proposed development is considered to offer very well daylit accommodation.

## **5.4 CONCLUSIONS ON SUNLIGHT**

The results given on pages 16-47 have shown that:

- 382 of the 705 (54%) of the proposed student rooms would meet the sun exposure recommendation of 1.5hrs of sunlight on 21<sup>st</sup> March; and
- 56 of the 86 (65%) of the shared LKDs, living rooms and kitchens would meet the sun exposure recommendation of 1.5hrs of sunlight on 21<sup>st</sup> March.

Of the 323 student rooms falling short of the recommended sunlight level, seven would meet the criteria on one of the alternative dates proposed by EN17037, 1st February or 25th February so are considered to be acceptably sunlit. A further 54 are only slightly below the BRE recommendation of 1.5 hours with 1 hours or more of direct sunlight. Of the remaining 262:

- 27 are south-westerly facing, into New Henry Street, at levels 01 and 02, where lower sunlight access is to be expected due to the massing opposite shading the lowest floor when the sun is lower in the sky on the 21st March.
- Three are south-westerly facing, located within an internal corner of the courtyard, with the

townhouse massing located directly to the south, shading them.

232 are either north-easterly or north-westerly facing and so do not have a reasonable expectation of sunlight. The design has sought to minimise northerly aspect rooms as much as practicable but it is inevitable that within a large-scale student accommodation scheme there would be a significant portion of student rooms that do not have a southerly orientation. This makes up just 33% of the overall number of student rooms within the proposed development that, taken as a whole, present a choice of dwellings.

Turning to the shared living and kitchen spaces, 30 fall short of the recommended level of sunlight on 21st March. These 30 shared spaces are:

- One is south-westerly facing, into New Henry Street, at levels 02, where lower sunlight access is to be expected due to the massing opposite shading the lowest floor when the sun is lower in the sky on the 21st March.
- 12 are north-westerly facing, located within a townhouse where alternative sunlit shared spaces are provided.
- 17 are either north-easterly or north-westerly facing and so do not have a reasonable expectation of sunlight. The design has sought to minimise northerly aspect rooms as much as practicable but it is inevitable that within a large-scale student accommodation scheme there would be some rooms that do not have a southerly orientation.

Overall, the proposed development is considered to offer adequately sunlit accommodation.

# 5.5 CONCLUSIONS ON OVERSHADOWING

Sun Hours on Ground assessments have been undertaken for the areas of open space provided for future occupants and visitors to the proposed development. The results from these assessments are shown on pages 48–53 of this report.

A variety of public and communal open spaces have been provided within the scheme which offers future residents and visitors different sunlit spaces to enjoy throughout the year.

The technical assessment have shown that 58% of all proposed open space provided meets the BRE criteria of two or more hours of direct sunlight within half of its area on  $21^{\rm st}$  March and so is adequately sunlit throughout the year. In terms of each space individually, two of the three open spaces meet or exceed the BRE criteria:

- Street-level Public Realm 63%: and
- Block C Roof Terrace 95%.

The final open space is the central courtyard which sees 39% of its area with two or more hours of direct sunlight on 21st March. Whilst this space falls short of the recommend level on 21st March, it meets the recommendation just 2 weeks later on 5th April. Furthermore, the sun exposure images provided on pages 50 - 53 show how the sunlight access within the courtyard gradually improves over the spring and summer months, to have over four hours of sunlight within a large proportion of the space during, May, June and July, thus providing well sunlit open space at the times of the year when it would be in most frequent use.

Overall, it is considered that the proposed communal open spaces provided will offer future residents a variety of well sunlit outdoor amenity to use throughout the year.

## **56 OVERALL CONCLUSION**

The design team has sought to maximise daylight and sunlight within the proposed development leading to positive design enhancements which have seen an improved performance.

Overall, the proposed development is considered to offer very well daylit accommodation with 97% of all student rooms proposed meeting or exceeding the sDA levels recommended by BRE and the UK National Annex of the BS EN 17037. The few student rooms that do not meet the recommended level for student bedsits would achieve the recommendation for bedrooms and have been designed sensitively to locate the tasks with the highest illumination requirements in the areas with the best daylight levels. Whilst share LKDs, living rooms and kitchens are considered less important in student accommodation, they too perform very well with 83% of all share LKDs, living rooms and kitchens meeting or exceeding their respective targets.

In terms of sunlight, the proposed development is considered to offer adequately sunlit accommodation with 443 (63%) of the student rooms achieving levels of sunlight that either meet the recommended level or are marginally below and thus still considered to offer good sunlight access throughout the year. Again, whilst share LKDs, living rooms and kitchens are considered less important in student accommodation, 65% of the proposed shared spaces meet the recommended level. Where shortfalls occur, these are predominantly due to the orientation of the rooms being either north-easterly or north-westerly, where rooms would not have a reasonable expectation of sunlight and it is to be expected for there to be a significant quantum of northerly facing rooms within a student accommodation scheme.

The proposed communal open spaces provided will offer future residents a variety of well sunlit outdoor amenity to use throughout the year.

Overall, the proposed development is considered to offer good daylight and sunlight amenity for further occupants.



## **6 SITE OVERVIEW**



Fig. 01: Top view

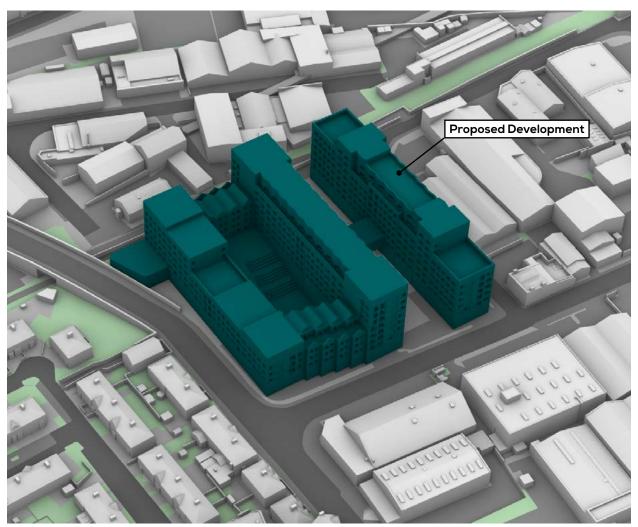


Fig. 02: Perspective view

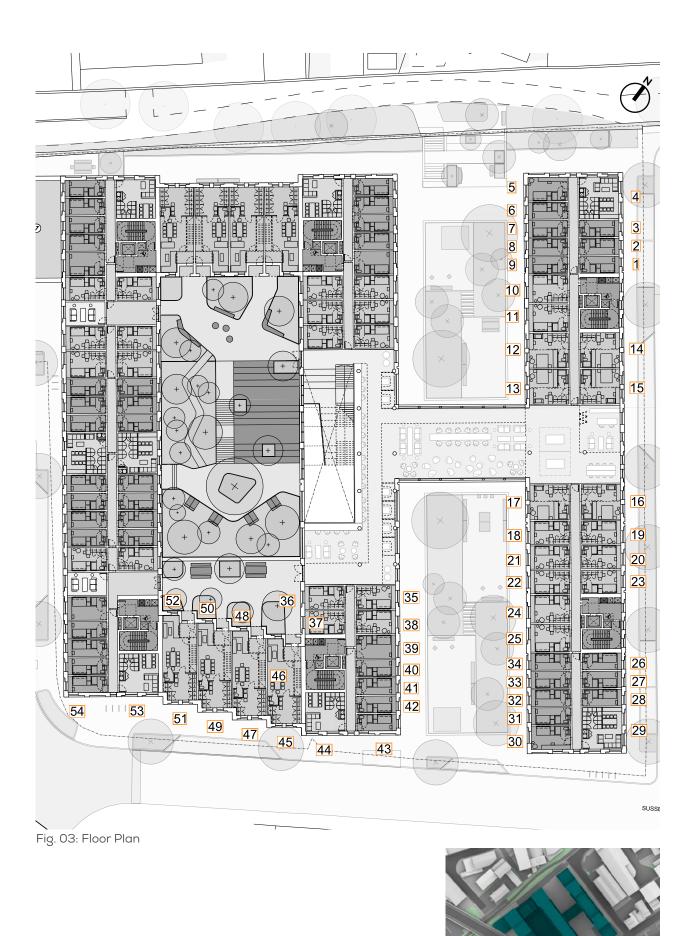


# 7 INTERNAL DAYLIGHT AND SUNLIGHT ASSESSMENTS

New Henry Street - Level 01 - Part 1 out of 2

	in y Street	Level		DAYLIGHT	SUNLIGHT					
			EN SDATIA	L DAYLIGHT A	VIITONOMY					
		porcontag	e of room ach			or 2190 brs				
		percentag				01 5190 HIS	HOURS:MIN			
				% of daylit ho						
ROOM REF.	ROOM USE		weath	er File: GBR_0	satwick					
		100	150	200	TARGET	RELEVANT	1 FEB	25 FEB	21 MAR	
		100	150	200	IAROLI	ENSDA	11120	LOFEB	LIFIAR	
								•		
<b>NEW HENRY</b>	ST - LEVEL 01									
1	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:26	01:42	
2	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:26	01:42	
3	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:25	01:43	
4	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:50	02:48	
5	STUDY	100.0	100.0	100.0	150	100.0	00:08	01:32	02:55	
6	STUDY	100.0	98.3	72.4	150	98.3	00:00	00:44	02:25	
7	STUDY	100.0	89.7	64.7	150	89.7	00:00	00:09	01:48	
8	STUDY	100.0	78.4	56.0	150	78.4	00:00	00:08	01:21	
9	STUDY	99.1	75.4	52.6	150	75.4	00:00	00:11	00:49	
10	STUDY	64.8	38.5	25.2	150	38.5	00:00	00:00	00:32	
11	STUDY	62.0	38.8	24.9	150	38.8	00:00	00:19	00:34	
12	STUDY	71.1	42.6	28.6	150	42.6	00:00	00:19	00:34	
13	STUDY	55.5	32.7	21.1	150	32.7	00:00	00:00	00:34	
14	STUDY	100.0	100.0	98.9	150	100.0	00:00	00:00	01:35	
15	STUDY	100.0	100.0	99.0	150	100.0	00:00	00:36	01:35	
16	STUDY	100.0	100.0	98.2	150	100.0	00:00	00:35	01:52	
17	STUDY	61.3	35.5	22.9	150	35.5	00:09	00:08	00:20	
18	STUDY	67.4	42.3	27.3	150	42.3	00:00	00:00	00:19	
19	STUDY	100.0	100.0	79.5	150	100.0	00:00	00:11	01:28	
20	STUDY	100.0	98.4	79.5	150	98.4	00:00	00:11	01:28	
21	STUDY	69.2	46.2	31.2	150	46.2	00:06	00:05	00:19	
22	STUDY	70.4	47.8	30.4	150	47.8	00:20	00:18	00:19	
23	STUDY	100.0	97.6	79.8	150	97.6	00:00	00:11	01:28	
24	STUDY	67.0	44.5	30.6	150	44.5	00:44	00:40	00:33	
25	STUDY	70.2	44.7	28.9	150	44.7	01:46	01:36	00:53	
26	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
27	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:43	
28	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:42	
29	L/K/D	100.0	100.0	100.0	200	100.0	06:04	06:48	07:28	
30	STUDY	100.0	100.0	100.0	150	100.0	07:39	08:34	09:01	
31	STUDY	100.0	100.0	94.8	150	100.0	02:43	02:29	02:13	
32	STUDY	100.0	98.3	85.3	150	98.3	02:09	01:58	01:45	
33	STUDY	100.0	97.4	72.0	150	97.4	01:39	01:30	01:20	
34	STUDY	100.0	95.7	70.7	150	95.7	01:12	01:06	00:58	
35	STUDY	71.5	52.6	35.2	150	52.6	00:00	00:48	01:07	
36	STUDY	68.4	49.0	37.2	150	49.0	00:00	00:00	00:06	
37	STUDY	58.5	36.6	26.5	150	36.6	00:00	00:00	00:00	
38	STUDY	74.0	58.7	41.3	150	58.7	00:00	00:57	01:42	
39	STUDY	100.0	89.2	66.5	150	89.2	00:00	00:00	01:22	
40	STUDY	100.0	89.7	65.5	150	89.7	00:00	00:00	00:43	
41	STUDY	100.0	96.6	74.1	150	96.6	00:00	00:00	00:42	
42	STUDY	100.0	100.0	81.0	150	100.0	00:00	00:00	00:35	
43	STUDY	100.0	100.0	100.0	150	100.0	04:17	05:09	06:03	
44	L/K/D	100.0	100.0	100.0	200	100.0	05:00	05:38	06:31	
45	KITCHEN	100.0	100.0	100.0	200	100.0	04:39	05:29	05:59	
46	LIVING ROOM	21.7	15.5	11.5	150	15.5	00:00	00:00	00:00	
46	KITCHEN	100.0	100.0	100.0	200	100.0	04:40	05:39	05:59	
48	LIVING ROOM	23.2	17.0	12.8	150	17.0	00:00	00:00	00:00	
49	KITCHEN	100.0	100.0	100.0	200	100.0	04:41	05:30	05:59	
50	LIVING ROOM	23.0	17.3	13.1	150	17.3	00:00	00:00	00:00	
51	KITCHEN	100.0	100.0	100.0	200	100.0	04:42	05:31	05:59	
52	LIVING ROOM	21.7	15.7	11.4	150	15.7	00:00	00:00	00:00	
53	L/K/D	100.0	100.0	100.0	200	100.0	05:29	06:14	07:05	
54	STUDY	100.0	100.0	100.0	150	100.0	08:09	09:42	11:29	

Table 01: Assessment Data

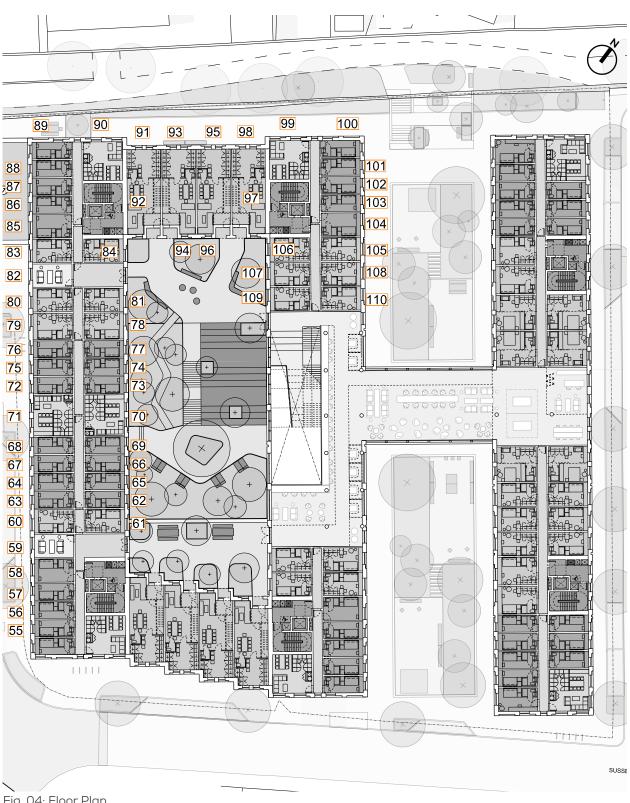




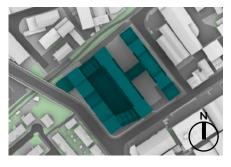
## New Henry Street - Level 01 - Part 2 out of 2

ием не	nry Street	- Level	ot - Far	T Z OUT ( Daylight	טו ב			SUNLIGHT			
			EN SDATIA	L DAYLIGHT	ALITONOMY			JONLIGHT			
		percentag	EN SPATIA e of room ach			or 2190 hrs	HOUDS MIN				
		,		% of daylit ho			HOURS:MIN				
ROOM REF.	ROOM USE		Weath	er File: GBR_	Gatwick						
ROOFFREE	ROOFFOSE										
		100	150	200	TARGET	RELEVANT	1 FEB	25 FEB	21 MAR		
						ENSDA					
55	STUDY	100.0	100.0	100.0	150	100.0	04:03	04:36	05:21		
56	STUDY	100.0	100.0	100.0	150	100.0	03:51	04:40	05:41		
57	STUDY	100.0	100.0	100.0	150	100.0	03:43	04:40	05:41		
58	STUDY	100.0	100.0	100.0	150	100.0	04:25	04:56	06:07		
59	LIVING ROOM	100.0	100.0	100.0	150	100.0	04:56	05:55	06:34		
60	STUDY	100.0	100.0	91.7	150	100.0	04:12	05:19	06:05		
61 62	STUDY	70.9 98.3	48.4 73.7	31.9 51.7	150 150	48.4 73.7	00:00 00:00	00:00 00:00	00:00		
63	STUDY STUDY	100.0	100.0	100.0	150	100.0	05:02	05:42	00:00 06:07		
64	STUDY	100.0	100.0	100.0	150	100.0	03:02	05:42	06:07		
65	STUDY	100.0	75.7	53.9	150	75.7	00:00	00:00	00:00		
66	STUDY	100.0	77.6	54.3	150	77.6	00:00	00:00	00:00		
67	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:37	06:07		
68	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:37	06:07		
69	STUDY	99.1	79.6	53.9	150	79.6	00:00	00:00	00:00		
70	L/K/D	93.9	52.4	35.4	200	35.4	00:00	00:00	00:00		
71	L/K/D	100.0	100.0	100.0	200	100.0	05:00	05:38	06:24		
72	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:45	05:38		
73	STUDY	100.0	84.5	57.8	150	84.5	00:00	00:00	00:00		
74	STUDY	100.0	84.3	59.6	150	84.3	00:00	00:00	00:00		
75	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:42	05:36		
76	STUDY	100.0	100.0	100.0	150	100.0	04:02	04:51	05:36		
77	STUDY	100.0	87.1	60.3	150	87.1	00:00	00:00	00:00		
78 79	STUDY STUDY	73.4 100.0	46.8 100.0	29.9 99.7	150 150	46.8 100.0	00:00 05:17	00:00	00:00 06:01		
80	STUDY	100.0	100.0	100.0	150	100.0	04:38	05:57 05:21	05:59		
81	STUDY	74.6	61.0	41.7	150	61.0	00:00	00:00	00:00		
82	LIVING ROOM	100.0	100.0	100.0	150	100.0	05:16	05:57	06:29		
83	STUDY	100.0	100.0	100.0	150	100.0	04:37	05:21	06:06		
84	STUDY	70.5	49.6	33.1	150	49.6	00:00	00:00	00:00		
85	STUDY	100.0	100.0	100.0	150	100.0	05:24	05:57	06:07		
86	STUDY	100.0	100.0	100.0	150	100.0	04:52	05:36	06:07		
87	STUDY	100.0	100.0	100.0	150	100.0	04:49	05:34	06:07		
88	STUDY	100.0	100.0	100.0	150	100.0	04:46	05:32	06:07		
89	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:31	06:07		
90	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:00	00:56		
91	KITCHEN	100.0	100.0	100.0	200	100.0	00:00	00:00	00:00		
92 93	LIVING ROOM	25.0 100.0	18.8 100.0	14.7 100.0	150 200	18.8 100.0	00:13 00:00	01:25 00:00	01:48 00:13		
93	KITCHEN LIVING ROOM	26.6	20.8	16.3	150	20.8	01:34	02:28	02:39		
95	KITCHEN	100.0	100.0	100.0	200	100.0	00:00	00:00	00:13		
96	LIVING ROOM	26.9	20.5	16.3	150	20.5	02:16	02:49	02:56		
97	LIVING ROOM	25.0	19.0	15.2	150	19.0	02:41	02:43	02:17		
98	KITCHEN	100.0	100.0	100.0	200	100.0	00:00	00:00	00:13		
99	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:00	00:00		
100	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00		
101	STUDY	100.0	99.1	75.9	150	99.1	00:00	00:00	00:00		
102	STUDY	100.0	93.5	70.7	150	93.5	00:00	00:00	00:00		
103	STUDY	100.0	84.5	61.2	150	84.5	00:00	00:00	00:00		
104	STUDY	100.0	86.4	61.4	150	86.4	00:00	00:00	00:00		
105	STUDY	72.0	53.5	37.8	150	53.5	00:00	00:00	00:00		
106	STUDY	70.8	48.6	30.8	150	48.6	01:18	01:19	01:48		
107	STUDY	73.1	54.5	35.2	150	54.5	01:18	01:47	01:48		
108	STUDY	68.4	47.2	33.0	150	47.2	00:00	00:00	00:00		
109 110	STUDY STUDY	76.3 66.9	60.5 44.5	41.5 31.1	150 150	60.5 44.5	01:57 00:00	02:52 00:00	02:01 00:00		
110	31001	6.00	44.5	31.1	130	44.3	00:00	00:00	00:00		

Table 02: Assessment Data





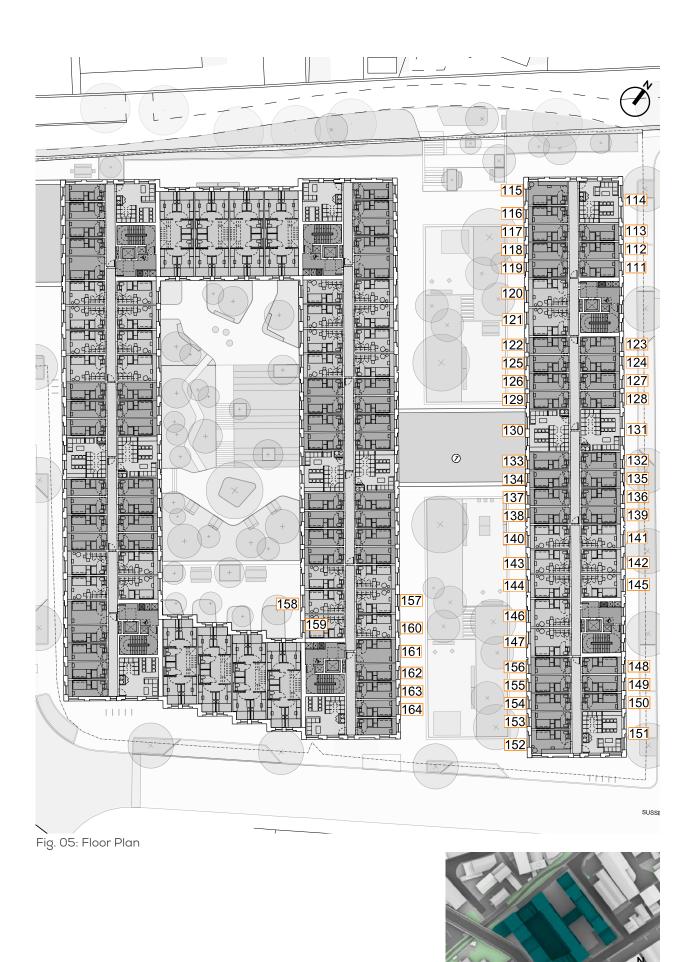




New Henry Street - Level 02 - Part 1 out of 3

	ii y Street	Level		DAYLIGHT	SUNLIGHT					
			EN CDATIA		ALITONOMY					
				L DAYLIGHT		0100 h				
		percentag		ieving target		or 2190 hrs		HOURS:MIN		
				% of daylit ho						
ROOM REF.	ROOM USE		Weath	er File: GBR_0	Gatwick					
ROOFFIRET.	ROOFFOSE									
		100	100			RELEVANT				
		100	150	200	TARGET	ENSDA	1 FEB	25 FEB	21 MAR	
NEW HENDY	ST - LEVEL 02									
INCAA LICIAKT	31 - LL VLL OL									
111	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52	
112	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:36	01:52	
113	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:36	01:51	
114	L/K/D	100.0	100.0	100.0	200	100.0	00:00	01:02	03:10	
115	STUDY	100.0	90.4	78.7	150	90.4	00:09	01:55	03:23	
116	STUDY	100.0	100.0	81.9	150	100.0	00:00	00:55	02:49	
117	STUDY	100.0	95.7	75.0	150	95.7	00:00	00:22	02:13	
118	STUDY	100.0	94.0	65.5	150	94.0	00:00	00:19	01:45	
119	STUDY	100.0	87.9	62.1	150	87.9	00:00	00:24	01:14	
120	STUDY	71.8	47.6	31.5	150	47.6	00:00	00:04	00:56	
121	STUDY	69.0	47.3	32.1	150	47.3	00:00	00:38	00:59	
122	STUDY	98.2	71.1	49.1	150	71.1	00:00	00:00	00:30	
123	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:43	
124	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:51	
								00:20		
125	STUDY	98.3	67.7	47.4	150	67.7	00:00		00:58	
126	STUDY	96.6	64.7	43.5	150	64.7	00:00	00:00	00:31	
127	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:43	
128	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:51	
129	STUDY	98.3	66.4	47.4	150	66.4	00:00	00:23	00:57	
130	L/K/D	67.7	41.7	28.1	200	28.1	00:00	00:12	00:59	
131	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:34	01:45	
132	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
133	STUDY	98.3	66.8	45.7	150	66.8	00:00	00:00	00:33	
134	STUDY	98.3	69.0	47.8	150	69.0	00:00	00:08	00:55	
135	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:51	
136	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
137	STUDY	96.6	64.7	45.7	150	64.7	00:00	00:00	00:33	
138	STUDY	98.3	66.4	46.6	150	66.4	00:09	00:08	00:55	
139	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52	
140	STUDY	73.5	52.2	35.2	150	52.2	00:00	00:00	00:42	
141	STUDY	100.0	100.0	86.2	150	100.0	00:00	00:13	01:28	
142	STUDY	100.0	100.0	85.0	150	100.0	00:00	00:13	01:28	
143	STUDY	73.7	56.5	37.9	150	56.5	00:06	00:05	00:42	
144	STUDY	75.7	57.3	38.7	150	57.3	00:20	00:18	00:42	
145	STUDY	100.0	100.0	84.6	150	100.0	00:00	00:13	01:28	
146	STUDY	72.7	53.0	37.3	150	53.0	00:44	00:40	00:39	
147	STUDY	76.0	53.8	35.3	150	53.8	01:46	01:36	00:53	
148	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
149	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
150	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
151	L/K/D	100.0	100.0	100.0	200	100.0	06:18	06:52	07:28	
152	STUDY	100.0	100.0	93.0	150	100.0	08:16	08:40	09:05	
153	STUDY	100.0	100.0	99.1	150	100.0	02:43	02:29	02:13	
154	STUDY	100.0	99.1	90.5	150	99.1	02:09	01:58	01:45	
155	STUDY	100.0	100.0	81.9	150	100.0	01:39	01:30	01:20	
156	STUDY	100.0	98.3	81.9	150	98.3	01:12	01:06	00:58	
157	STUDY	76.3	61.7	44.3	150	61.7	00:00	01:03	01:07	
158	STUDY	81.4	69.6	53.8	150	69.6	00:00	00:00	02:02	
159	STUDY	70.0	54.5	38.7	150	54.5	00:00	00:00	00:22	
160	STUDY	70.0	66.1	50.6	150	66.1	00:00	01:13	01:42	
	STUDY	100.0	98.3	77.3		98.3	00:10	00:13	01:42	
161					150					
162	STUDY	100.0	98.3	77.6	150	98.3	00:00	00:00	00:45	
163	STUDY	100.0	99.1	86.2	150	99.1	00:00	00:00	00:45	
164	STUDY	100.0	100.0	92.2	150	100.0	00:00	00:00	00:45	

Table 03: Assessment Data

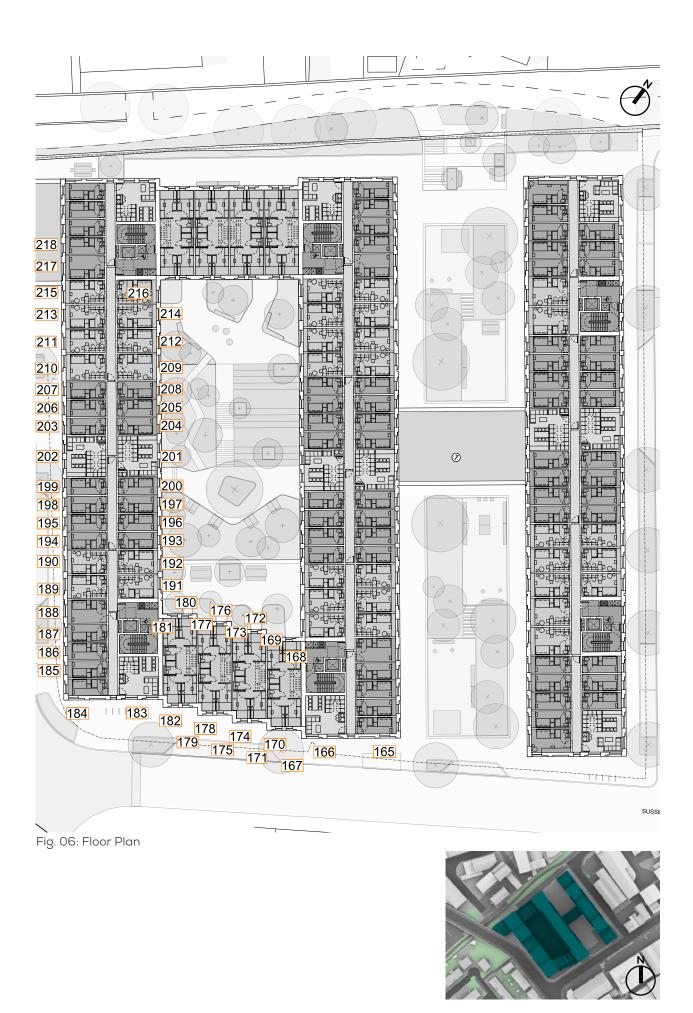




New Henry Street - Level 02 - Part 2 out of 3

New He	nry Street	- Level	02 - Pai	rt 2 out	of 3					
				DAYLIGHT				SUNLIGHT		
ROOM REF.	ROOM USE	percentag	e of room ach (50	L DAYLIGHT , ieving target % of daylit ho er File: GBR_(	illuminance f ours)	or 2190 hrs	HOURS:MIN			
		100	150	200	TARGET	RELEVANT ENSDA	1 FEB	25 FEB	21 MAR	
165	CTUDV	100.0	100.0	100.0	150	100.0	0E 12	05.53	06.35	
165 166	STUDY L/K/D	100.0 100.0	100.0 100.0	100.0 100.0	150 200	100.0 100.0	05:12 05:37	05:52 06:15	06:35 06:55	
167	STUDY	100.0	100.0	100.0	150	100.0	04:24	05:16	05:19	
168	STUDY	100.0	83.2	60.2	150	83.2	00:00	00:00	00:00	
169	STUDY	99.1	77.3	57.3	150	77.3	00:00	00:00	00:00	
170	STUDY	100.0	100.0	100.0	150	100.0	05:18	05:58	05:27	
171	STUDY	100.0	100.0	100.0	150	100.0	04:24	05:04	05:19	
172	STUDY	100.0	85.1	64.9	150	85.1	00:00	00:00	00:00	
173	STUDY	100.0	82.7	64.5	150	82.7	00:00	00:00	00:00	
174	STUDY	100.0	100.0	100.0	150	100.0	05:19	05:55	05:27	
175	STUDY	100.0	100.0	100.0	150	100.0	04:24	05:07	05:19	
176 177	STUDY STUDY	100.0 100.0	81.6 83.6	64.0 65.5	150 150	81.6 83.6	00:00	00:00	00:00 00:00	
178	STUDY	100.0	100.0	100.0	150	100.0	05:19	06:00	05:27	
179	STUDY	100.0	100.0	100.0	150	100.0	04:24	05:10	05:19	
180	STUDY	93.9	68.4	54.4	150	68.4	00:00	00:00	00:00	
181	STUDY	100.0	79.1	58.2	150	79.1	00:00	00:00	00:00	
182	STUDY	100.0	100.0	100.0	150	100.0	05:19	05:59	05:27	
183	L/K/D	100.0	100.0	100.0	200	100.0	06:06	06:43	07:28	
184	STUDY	100.0	100.0	100.0	150	100.0	08:52	10:22	11:54	
185	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41	
186	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41	
187	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41	
188	STUDY	100.0	100.0	100.0	150	100.0	04:38	05:21	06:07	
189	STUDY	100.0	100.0	100.0	150	100.0	05:17	05:57	06:07	
190 191	STUDY STUDY	100.0 75.1	100.0 61.7	99.6 41.1	150 150	100.0 61.7	04:38 00:00	05:21 00:00	06:07 00:00	
192	STUDY	78.7	63.0	43.3	150	63.0	00:00	00:00	00:00	
193	STUDY	100.0	93.1	63.8	150	93.1	00:00	00:00	00:00	
194	STUDY	100.0	100.0	100.0	150	100.0	05:02	05:42	06:07	
195	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:38	06:07	
196	STUDY	100.0	94.8	65.2	150	94.8	00:00	00:00	00:00	
197	STUDY	100.0	95.7	67.2	150	95.7	00:00	00:00	00:00	
198	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:38	06:07	
199	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:38	06:07	
200	STUDY	100.0	93.9	66.1	150	93.9	00:00	00:00	00:00	
201	L/K/D	100.0	67.8	44.5	200	44.5	00:00	00:00	00:07	
202	L/K/D	100.0	100.0	100.0	200	100.0	05:00	05:41	06:26	
203	STUDY	100.0	100.0	100.0	150 150	100.0	04:04	04:51	05:41	
204 205	STUDY STUDY	100.0 100.0	96.6 97.4	70.7 73.0	150 150	96.6 97.4	00:00 00:00	00:00 00:00	00:00 00:00	
206	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41	
207	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41	
208	STUDY	100.0	97.4	72.0	150	97.4	00:00	00:00	00:00	
209	STUDY	75.3	58.9	40.8	150	58.9	00:00	00:00	00:00	
210	STUDY	100.0	100.0	99.3	150	100.0	05:17	05:57	06:07	
211	STUDY	100.0	100.0	100.0	150	100.0	04:38	05:21	06:07	
212	STUDY	80.7	67.7	53.3	150	67.7	00:00	00:00	00:00	
213	STUDY	100.0	100.0	100.0	150	100.0	05:17	05:57	06:07	
214	STUDY	80.4	66.4	49.4	150	66.4	00:00	00:00	00:00	
215	STUDY	100.0	100.0	100.0	150	100.0	04:37	05:21	06:07	
216	STUDY	78.3	64.4	44.5	150	64.4	00:00	00:00	00:00	
217	STUDY	100.0	100.0	100.0	150	100.0	05:25	05:57	06:07	
218	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:38	06:07	

Table 04: Assessment Data

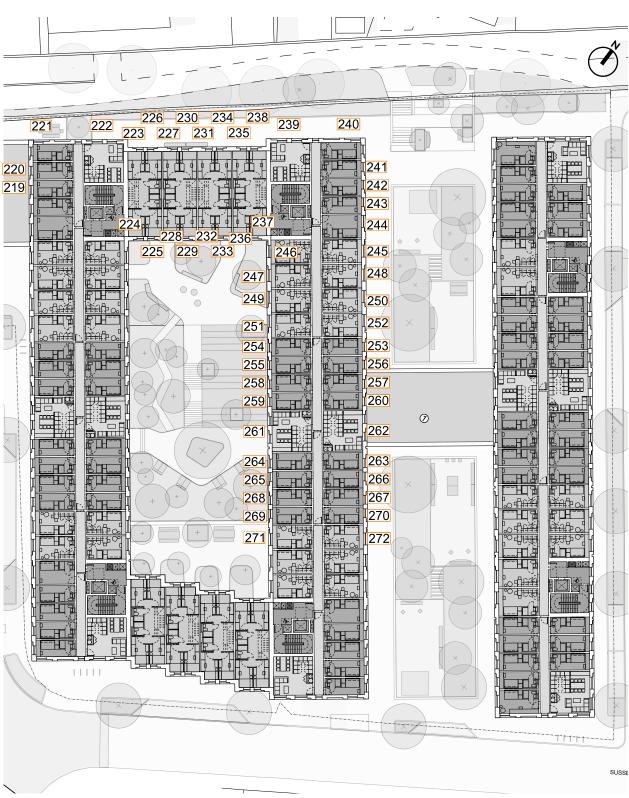




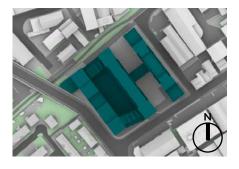
New Henry Street - Level 02 - Part 3 out of 3

New Hei	nry Street	- Level	02 - Pai	TES OUT	SUNLIGHT				
			EN SPATIAL	L DAYLIGHT	YMONOTU			JONLIOITI	
ROOM REF.	ROOM USE	percentag	e of room ach (50		or 2190 hrs	HOURS:MIN			
		100	150	200	TARGET	RELEVANT ENSDA	1 FEB	25 FEB	21 MAR
210	STUDY	100.0	100.0	100.0	150	100.0	04 57	0E 20	06.07
219 220	STUDY STUDY	100.0 100.0	100.0 100.0	100.0 100.0	150 150	100.0 100.0	04:57 04:57	05:38 05:38	06:07 06:07
221	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:38	06:07
222	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:00	00:56
223	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00
224	STUDY	100.0	90.2	71.7	150	90.2	01:06	01:31	01:58
225	STUDY	100.0	85.8	69.2	150	85.8	01:23	01:47	02:11
226	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00
227	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:13
228	STUDY	100.0	96.6	77.1	150	96.6	02:24	02:20	02:45
229	STUDY	100.0	97.6	79.7	150	97.6	02:38	02:32	03:02
230	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00
231	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:13
232	STUDY	100.0	95.9	77.0	150	95.9	03:04	02:53	03:36
233	STUDY	100.0	97.5	80.0	150	97.5	03:00	02:49	02:55
234	STUDY	100.0	100.0 100.0	100.0	150	100.0	00:00	00:00	00:00
235 236	STUDY STUDY	100.0 100.0	89.8	100.0 71.2	150 150	100.0 89.8	00:00 03:24	00:00 03:20	00:13 03:12
237	STUDY	100.0	95.1	75.6	150	95.1	02:41	02:31	02:12
238	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00
239	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:00	00:37
240	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:37
241	STUDY	100.0	100.0	86.2	150	100.0	00:00	00:00	00:00
242	STUDY	100.0	97.4	81.0	150	97.4	00:00	00:00	00:00
243	STUDY	100.0	96.6	71.6	150	96.6	00:00	00:00	00:00
244	STUDY	100.0	94.3	73.9	150	94.3	00:00	00:00	00:00
245	STUDY	77.6	62.2	45.7	150	62.2	00:00	00:00	00:00
246	STUDY	78.3	63.2	44.7	150	63.2	01:28	01:28	02:33
247	STUDY	80.6	66.0	50.2	150	66.0	01:58	01:47	02:33
248	STUDY	74.7	57.3	40.3	150	57.3	00:00	00:00	00:00
249	STUDY	85.0	71.1	53.8	150	71.1	03:02	02:52	02:33
250 251	STUDY STUDY	73.2 83.8	56.1 70.4	39.8	150 150	56.1 70.4	00:00 03:03	00:00 03:31	00:00
252	STUDY	72.7	52.6	60.5 37.5	150	52.6	00:00	00:00	02:35 00:08
253	STUDY	97.4	69.0	50.9	150	69.0	00:00	00:00	00:00
254	STUDY	100.0	99.1	90.5	150	99.1	01:49	02:53	02:49
255	STUDY	100.0	100.0	95.7	150	100.0	01:49	02:53	03:10
256	STUDY	97.4	68.1	50.0	150	68.1	00:00	00:00	00:00
257	STUDY	98.3	71.6	51.7	150	71.6	00:00	00:00	00:00
258	STUDY	100.0	100.0	97.4	150	100.0	01:38	02:53	03:28
259	STUDY	100.0	100.0	98.3	150	100.0	01:38	02:53	03:43
260	STUDY	98.3	69.8	50.9	150	69.8	00:00	00:00	00:00
261	L/K/D	100.0	86.8	63.3	200	63.3	01:29	02:45	03:51
262	L/K/D	58.7	33.8	23.7	200	23.7	00:00	00:00	00:00
263	STUDY	97.4	70.7	50.0	150	70.7	00:00	00:00	00:00
264	STUDY	100.0	100.0	96.6	150	100.0	01:26	02:43	03:59
265	STUDY	100.0	100.0	95.7	150	100.0	00:51	03:30	04:22
266	STUDY	98.3	70.7	50.9	150	70.7	00:00	00:08	00:11
267 268	STUDY STUDY	98.3 100.0	72.4 100.0	53.4 92.2	150 150	72.4 100.0	00:00 00:00	00:00 02:43	00:00 03:49
269	STUDY	100.0	100.0	91.4	150	100.0	00:00	02:43	03:49
270	STUDY	99.1	75.0	55.2	150	75.0	00:00	00:11	00:11
271	STUDY	77.7	57.2	45.9	150	57.2	00:00	00:19	03:37
272	STUDY	74.4	59.1	42.1	150	59.1	00:00	00:03	00:03

Table 05: Assessment Data





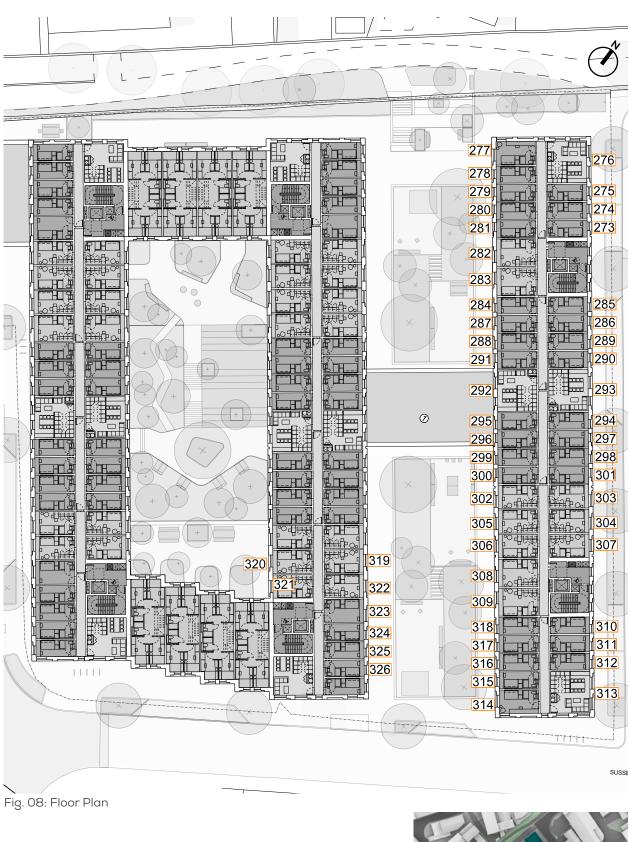


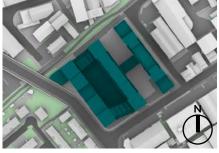


New Henry Street - Level 03 - Part 1 out of 3

new nei	nry Street	- Level	03 - Pai	DAYLIGHT	ט וע			SUNLIGHT	
ROOM REF.	ROOM USE	percentag	e of room ach (50	L DAYLIGHT A	or 2190 hrs	HOURS:MIN			
		100	150	200	TARGET	RELEVANT ENSDA	1 FEB	25 FEB	21 MAR
NEW HENRY	ST - LEVEL 03								
273	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52
274	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52
275	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52
276	L/K/D	100.0	100.0	100.0	200	100.0	00:00	01:03	03:11
277	STUDY	100.0	95.8	81.6	150	95.8	00:23	02:21	03:38
278	STUDY	100.0	100.0	94.8	150	100.0	00:06	01:22	03:19
279	STUDY	100.0	99.1	86.2	150	99.1	00:09	00:49	02:45
280	STUDY	100.0	99.1	79.3	150	99.1	00:06	00:46	02:16
281	STUDY	100.0	97.4	74.1	150	97.4	00:12	00:50	01:46
282	STUDY	78.2	59.7	39.7	150	59.7	00:00	00:29	01:27
283	STUDY	75.4	57.8	38.8	150	57.8	00:11	01:06	01:30
284	STUDY	100.0	87.7	60.5	150	87.7	00:00	00:00	01:02
285	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:44
286	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52
287	STUDY	100.0	86.2	59.5	150	86.2	00:07	00:45	01:28
288	STUDY	100.0	81.0 100.0	54.3	150	81.0	00:00	00:00	01:03
289 290	STUDY STUDY	100.0 100.0	100.0	100.0 100.0	150 150	100.0 100.0	00:00 00:00	00:00 00:37	00:44
291	STUDY	100.0	86.2	56.9	150	86.2	00:00	00:37	01:52 01:28
292	L/K/D	82.9	49.8	34.4	200	34.4	00:00	00:48	01:28
293	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:34	01:48
294	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45
295	STUDY	100.0	81.9	56.0	150	81.9	00:00	00:00	01:03
296	STUDY	100.0	82.8	56.9	150	82.8	00:00	00:47	01:27
297	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:51
298	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45
299	STUDY	100.0	82.8	56.9	150	82.8	00:00	00:00	01:04
300	STUDY	100.0	81.9	57.8	150	81.9	00:09	00:32	01:27
301	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52
302	STUDY	78.7	64.6	43.9	150	64.6	00:00	00:15	01:28
303	STUDY	100.0	100.0	90.2	150	100.0	00:00	00:13	01:28
304	STUDY	100.0	100.0	88.6	150	100.0	00:00	00:13	01:28
305 306	STUDY STUDY	79.4 81.4	66.2 66.8	47.8 48.2	150 150	66.2 66.8	00:06 00:20	00:15 00:18	01:15 01:11
307	STUDY	100.0	100.0	89.1	150	100.0	00:20	00:13	01:11
308	STUDY	79.7	62.7	44.5	150	62.7	00:44	00:40	01:08
309	STUDY	84.5	65.3	42.6	150	65.3	01:46	01:36	01:11
310	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45
311	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45
312	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45
313	L/K/D	100.0	100.0	100.0	200	100.0	06:18	06:52	07:28
314	STUDY	100.0	100.0	98.1	150	100.0	08:16	08:40	09:05
315	STUDY	100.0	100.0	100.0	150	100.0	02:43	02:29	02:13
316	STUDY	100.0	100.0	95.7	150	100.0	02:09	01:58	01:45
317	STUDY	100.0	100.0	94.8	150	100.0	01:39	01:30	01:20
318	STUDY	100.0	100.0	94.0	150	100.0	01:12	01:06	00:58
319	STUDY	82.8	68.8	55.3	150	68.8	00:00	01:03	01:07
320	STUDY	99.2	82.2	72.7	150	82.2	00:00	01:39	05:11
321	STUDY	79.4	66.0 71.7	55.3 61.4	150	66.0 71.7	00:00	00:00	01:58
322 323	STUDY STUDY	84.6 100.0	71.7 100.0	61.4 93.2	150 150	71.7 100.0	00:10 00:00	01:13 00:13	01:42 01:22
323	STUDY	100.0	100.0	92.2	150	100.0	00:00	00:13	00:45
325	STUDY	100.0	100.0	96.6	150	100.0	00:00	00:00	00:45
326	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45

Table 06: Assessment Data



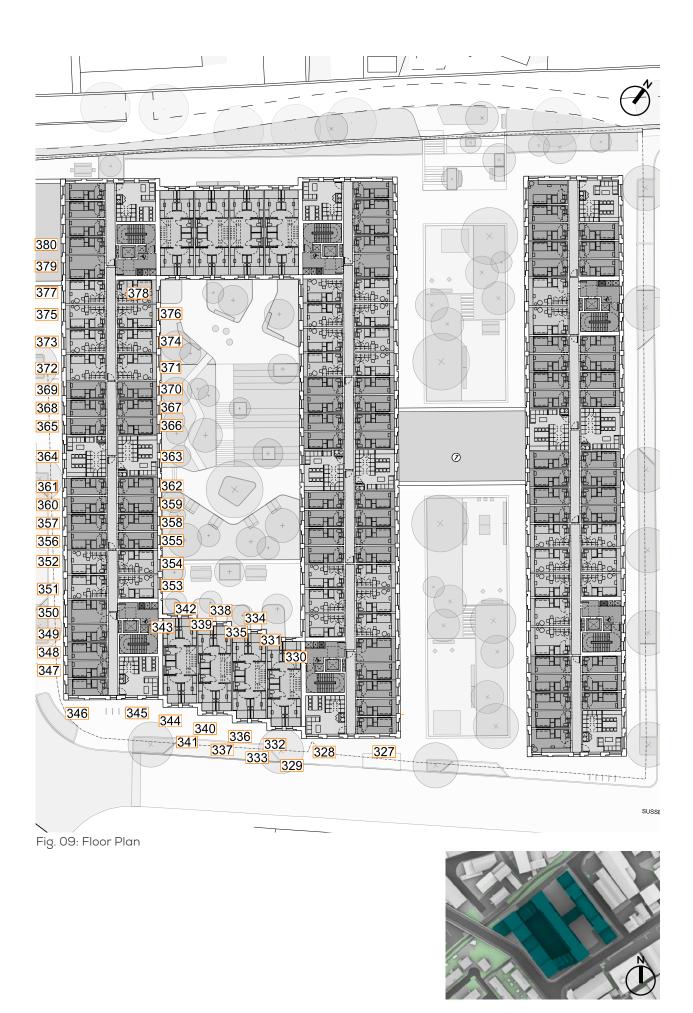




New Henry Street - Level 0.3 - Part 2 out of 3

New Hei	nry Street	- Level	03 - Pai	rt 2 out	SUNLIGHT					
			EN CDATIA	DAYLIGHT L DAYLIGHT	ALITONOMY			SUNLIGHT		
ROOM REF.	ROOM USE	percentag	e of room ach (50		illuminance f urs)	or 2190 hrs	HOURS:MIN			
		100	150	200	TARGET	RELEVANT ENSDA	1 FEB	25 FEB	21 MAR	
327	STUDY	100.0	100.0	100.0	150	100.0	05:12	05:52	06:35	
328	L/K/D	100.0	100.0	100.0	200	100.0	05:37	06:15	06:55	
329	STUDY	100.0	100.0	100.0	150	100.0	04:32	05:16	05:19	
330	STUDY	100.0	96.1	73.8	150	96.1	00:00	00:00	00:00	
331	STUDY	100.0	90.0	69.1	150	90.0	00:00	00:00	00:00	
332 333	STUDY	100.0	100.0 100.0	100.0	150 150	100.0	05:27	06:05 05:16	05:27 05:10	
334	STUDY STUDY	100.0 100.0	97.4	100.0 75.4	150	100.0 97.4	04:32 00:00	00:00	05:19 00:00	
335	STUDY	100.0	95.5	74.5	150	95.5	00:00	00:00	00:00	
336	STUDY	100.0	100.0	100.0	150	100.0	05:27	06:06	05:27	
337	STUDY	100.0	100.0	100.0	150	100.0	04:32	05:16	05:19	
338	STUDY	100.0	94.7	75.4	150	94.7	00:00	00:00	00:00	
339	STUDY STUDY	100.0	97.3	75.5	150	97.3 100.0	00:00	00:00	00:00	
340 341	STUDY	100.0 100.0	100.0 100.0	100.0 100.0	150 150	100.0	05:27 04:32	06:05 05:16	05:27 05:19	
342	STUDY	100.0	85.1	65.8	150	85.1	00:00	00:00	00:00	
343	STUDY	100.0	90.9	68.2	150	90.9	00:00	00:00	00:00	
344	STUDY	100.0	100.0	100.0	150	100.0	05:27	06:05	05:27	
345	L/K/D	100.0	100.0	100.0	200	100.0	06:18	06:52	07:28	
346	STUDY	100.0	100.0	100.0	150	100.0	09:00	10:28	12:02	
347	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41 05:41	
348 349	STUDY STUDY	100.0 100.0	100.0 100.0	100.0 100.0	150 150	100.0 100.0	04:04 04:04	04:51 04:51	05:41 05:41	
350	STUDY	100.0	100.0	100.0	150	100.0	04:38	05:21	06:07	
351	STUDY	100.0	100.0	100.0	150	100.0	05:17	05:57	06:07	
352	STUDY	100.0	100.0	100.0	150	100.0	04:38	05:21	06:07	
353	STUDY	84.6	68.8	54.5	150	68.8	00:00	00:00	00:00	
354	STUDY	87.8	71.7	55.9	150	71.7	00:00	00:00	00:00	
355 356	STUDY STUDY	100.0 100.0	100.0 100.0	82.8 100.0	150 150	100.0 100.0	00:00 05:02	00:00 05:42	00:00 06:07	
357	STUDY	100.0	100.0	100.0	150	100.0	03.62	05:38	06:07	
358	STUDY	100.0	99.1	83.5	150	99.1	00:00	00:00	00:00	
359	STUDY	100.0	99.1	85.3	150	99.1	00:00	00:00	00:11	
360	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:38	06:07	
361	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:38	06:07	
362 363	STUDY L/K/D	100.0 100.0	99.1 92.7	85.2 55.3	150 200	99.1 55.3	00:00 00:00	00:00 00:00	00:10 00:09	
364	L/K/D	100.0	100.0	100.0	200	100.0	05:00	05:41	06:26	
365	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41	
366	STUDY	100.0	100.0	87.5	150	100.0	00:00	00:00	00:00	
367	STUDY	100.0	100.0	87.8	150	100.0	00:00	00:00	00:00	
368	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41	
369	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41	
370 371	STUDY STUDY	100.0 84.2	100.0 66.6	89.7 52.6	150 150	100.0 66.6	00:00	00:00	00:00 00:04	
372	STUDY	100.0	100.0	100.0	150	100.0	05:17	05:57	06:04	
373	STUDY	100.0	100.0	100.0	150	100.0	04:38	05:21	06:07	
374	STUDY	89.2	73.2	64.2	150	73.2	00:00	00:00	00:00	
375	STUDY	100.0	100.0	100.0	150	100.0	05:17	05:57	06:07	
376	STUDY	88.1	72.7	61.7	150	72.7	00:00	00:00	00:09	
377	STUDY	100.0	100.0	100.0	150	100.0	04:37	05:21	06:07	
378 379	STUDY STUDY	86.6 100.0	70.9 100.0	57.5 100.0	150 150	70.9 100.0	00:00 05:25	00:00 05:57	00:00 06:07	
380	STUDY	100.0	100.0	100.0	150	100.0	05:25	05:38	06:07	
300	31001	100.0	100.0	100.0	100	100.0	5 1.57	55.56	30.07	

Table 07: Assessment Data

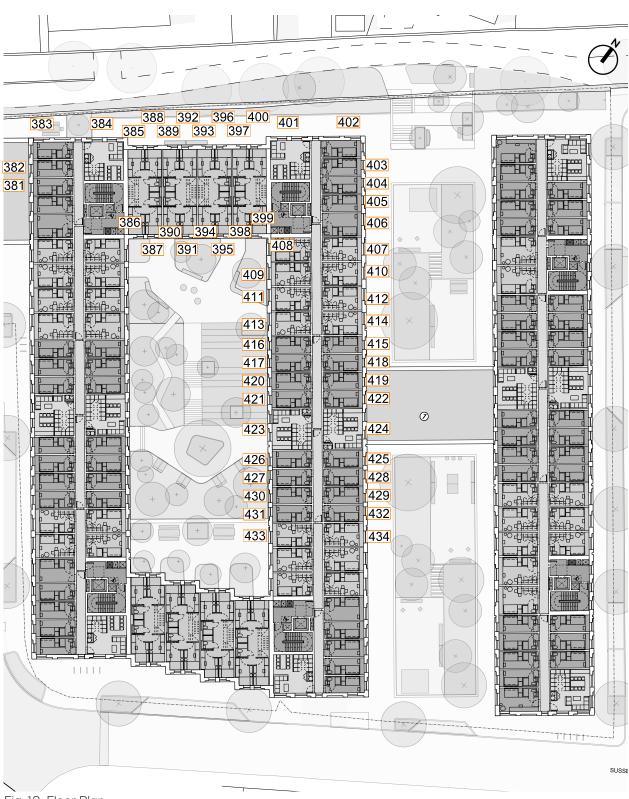




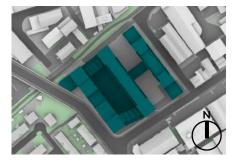
New Henry Street - Level 03 - Part 3 out of 3

ivew Hei	nry Street	- Level	U3 - Pai	DAYLIGHT	OT 3			SUNLIGHT		
			EN SPATIA	L DAYLIGHT	AUTONOMY			SONLIGHT		
ROOM REF.	ROOM USE	percentag	e of room ach (50		illuminance fo urs)	or 2190 hrs	HOURS:MIN			
		100	150	200	TARGET	RELEVANT ENSDA	1 FEB	25 FEB	21 MAR	
201	CTUDY	100.0	100.0	100.0	150	100.0	0457	05.00	00.07	
381 382	STUDY STUDY	100.0 100.0	100.0 100.0	100.0 100.0	150 150	100.0 100.0	04:57	05:38 05:38	06:07 06:07	
383	STUDY	100.0	100.0	100.0	150	100.0	04:57 04:57	05:38	06:07	
384	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:00	00:56	
385	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00	
386	STUDY	100.0	99.2	80.3	150	99.2	01:37	01:37	02:12	
387	STUDY	100.0	97.5	78.3	150	97.5	01:56	01:55	02:33	
388	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00	
389	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:13	
390	STUDY	100.0	100.0	86.4	150	100.0	02:30	02:28	03:27	
391	STUDY	100.0	100.0	90.2	150	100.0	02:43	02:47	03:26	
392	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00	
393	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:13	
394	STUDY	100.0	100.0	86.9	150	100.0	03:04	03:36	03:49	
395	STUDY	100.0	100.0	90.8	150	100.0	03:00	03:00	03:02	
396	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00	
397	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:13	
398	STUDY	100.0	99.2	81.4	150	99.2	03:24	03:33	03:18	
399	STUDY	100.0	100.0	83.7	150	100.0	02:41	02:33	02:23	
400 401	STUDY L/K/D	100.0 100.0	100.0 100.0	100.0 100.0	150 200	100.0 100.0	00:00 00:00	00:00	00:00 00:37	
401	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:37	
403	STUDY	100.0	100.0	97.4	150	100.0	00:00	00:00	00:04	
404	STUDY	100.0	100.0	90.5	150	100.0	00:00	00:00	00:04	
405	STUDY	100.0	100.0	84.5	150	100.0	00:00	00:00	00:00	
406	STUDY	100.0	99.4	86.9	150	99.4	00:00	00:00	00:04	
407	STUDY	83.9	69.7	55.5	150	69.7	00:00	00:00	00:00	
408	STUDY	85.8	71.1	60.9	150	71.1	01:28	02:21	03:24	
409	STUDY	88.1	73.5	65.2	150	73.5	01:58	02:21	03:27	
410	STUDY	81.0	67.2	51.0	150	67.2	00:00	00:00	00:00	
411	STUDY	96.8	77.7	70.4	150	77.7	03:10	02:57	03:27	
412	STUDY	79.9	66.1	50.0	150	66.1	00:00	00:00	00:00	
413	STUDY	95.1	77.5	69.2	150	77.5	03:52	03:31	03:27	
414	STUDY	79.4	66.0	48.6	150	66.0	00:00	00:09	00:08	
415	STUDY	100.0	88.8	62.9	150	88.8	00:00	00:00	00:00	
416	STUDY	100.0	100.0	99.1	150	100.0	03:00	03:06	03:01	
417	STUDY	100.0	100.0 87.9	61.2	150 150	100.0 87.9	00:00	03:25	00:00	
419	STUDY	100.0	87.1	62.5	150	87.1	00:00	00:00	00:00	
420	STUDY	100.0	100.0	100.0	150	100.0	03:00	03:47	03:39	
421	STUDY	100.0	100.0	100.0	150	100.0	03:00	03:56	03:54	
422	STUDY	100.0	87.1	63.8	150	87.1	00:00	00:00	00:00	
423	L/K/D	100.0	100.0	95.9	200	95.9	02:39	03:48	04:20	
424	L/K/D	71.7	42.8	30.1	200	30.1	00:00	00:00	00:00	
425	STUDY	100.0	87.1	62.9	150	87.1	00:00	00:00	00:00	
426	STUDY	100.0	100.0	100.0	150	100.0	02:48	03:51	04:44	
427	STUDY	100.0	100.0	100.0	150	100.0	03:41	04:33	05:21	
428	STUDY	100.0	89.2	62.9	150	89.2	00:00	00:08	00:12	
429	STUDY	100.0	92.2	65.5	150	92.2	00:00	00:00	00:00	
430	STUDY	100.0	100.0	100.0	150	100.0	02:48	03:46	04:55	
431	STUDY	100.0	100.0	100.0	150	100.0	02:40	04:33	05:13	
432	STUDY	100.0	94.0	66.4	150	94.0	00:00	00:11	00:12	
433	STUDY	100.0	80.1	62.2	150	80.1	00:00	03:55	05:12	
434	STUDY	80.7	68.5	53.5	150	68.5	00:00	00:03	00:03	

Table 08: Assessment Data





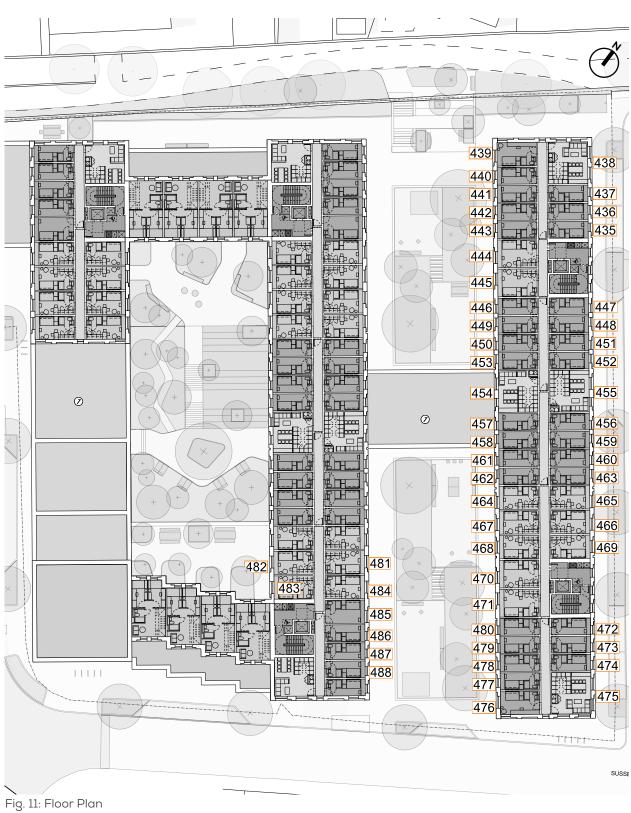




New Henry Street - Level 04 - Part 1 out of 3

	ii y Street	Level	0 1 1 0	DAYLIGHT	SUNLIGHT					
			EN CDATIA	L DAYLIGHT	ALITONOMY					
						a = 2100 has				
		percentag		nieving target		or 2190 nrs	HOURS:MIN			
				)% of daylit ho er File: GBR_(						
ROOM REF.	ROOM USE		weath	er File: GBR_C	Jatwick					
		100	150	200	TARGET	RELEVANT	1 FEB	25 FEB	21 MAR	
						ENSDA				
NEW HENRY	ST - LEVEL 04									
435	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:36	01:50	
436	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52	
437	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52	
438	L/K/D	100.0	100.0	100.0	200	100.0	00:00	01:03	03:11	
439	STUDY	100.0	99.2	85.4	150	99.2	00:55	02:55	04:18	
440	STUDY	100.0	100.0	100.0	150	100.0	00:23	02:01	03:41	
441	STUDY	100.0	100.0	95.7	150	100.0	00:26	01:23	03:09	
442	STUDY	100.0	100.0	94.0	150	100.0	00:22	01:25	02:55	
443	STUDY	100.0	100.0	90.1	150	100.0	00:29	01:24	02:27	
444	STUDY	88.5	68.2	47.6	150	68.2	00:06	01:04	02:07	
445	STUDY	86.6	66.6	46.2	150	66.6	00:42	01:44	02:10	
446	STUDY	100.0	97.4	72.8	150	97.4	00:00	00:35	01:43	
447	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:44	
448	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52	
449	STUDY	100.0	98.3	69.8	150	98.3	00:23	01:23	02:07	
450	STUDY	100.0	97.4	69.0	150	97.4	00:00	00:36	01:44	
451	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:44	
452	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52	
453	STUDY	100.0	97.4	69.0	150	97.4	00:27	01:26	02:07	
454	L/K/D	100.0	84.8	54.6	200	54.6	00:11	01:17	02:16	
455	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:34	01:48	
456	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
457	STUDY	100.0	96.6	66.4	150	96.6	00:00	00:38	01:43	
458	STUDY	100.0	96.1	66.4	150	96.1	00:09	01:21	02:08	
459	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:51	
460	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
461	STUDY	100.0	96.6	68.5	150	96.6	00:00	00:38	01:43	
462	STUDY	100.0	97.4	69.0	150	97.4	00:09	01:21	02:08	
463	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52	
464	STUDY	85.0	71.1	52.8	150	71.1	00:00	00:49	02:07	
465	STUDY	100.0	100.0	94.5	150	100.0	00:00	00:13	01:28	
466	STUDY	100.0	100.0	92.9	150	100.0	00:00	00:13	01:28	
467	STUDY	87.0	71.5	58.1	150	71.5	00:06	00:49	02:11	
468	STUDY	88.5	71.9	57.3	150	71.9	00:20	00:49	02:08	
469	STUDY	100.0	100.0	92.5	150	100.0	00:00	00:13	01:28	
470	STUDY	89.4	68.5	51.4	150	68.5	00:44	00:48	01:48	
471	STUDY	93.8	70.7	50.8	150	70.7	01:46	01:36	01:51	
472	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
473	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
474	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
475	L/K/D	100.0	100.0	100.0	200	100.0	06:18	06:52	07:28	
476	STUDY	100.0	100.0	100.0	150	100.0	08:16	08:40	09:06	
477	STUDY	100.0	100.0	100.0	150	100.0	02:43	02:29	02:13	
478	STUDY	100.0	100.0	99.1	150	100.0	02:09	01:58	01:45	
479	STUDY	100.0	100.0	99.1	150	100.0	01:39	01:30	01:25	
480	STUDY	100.0	100.0	98.3	150	100.0	01:12	01:06	01:25	
481	STUDY	92.9	77.1	67.6	150	77.1	00:00	01:07	01:12	
482	STUDY	100.0	100.0	85.4	150	100.0	03:13	05:47	06:01	
483	STUDY	92.5	76.7	67.8	150	76.7	00:00	02:22	04:47	
484	STUDY	94.1	77.6	68.1	150	77.6	00:10	01:13	01:42	
485	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:13	01:22	
486	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
487	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	
488	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45	

Table 09: Assessment Data



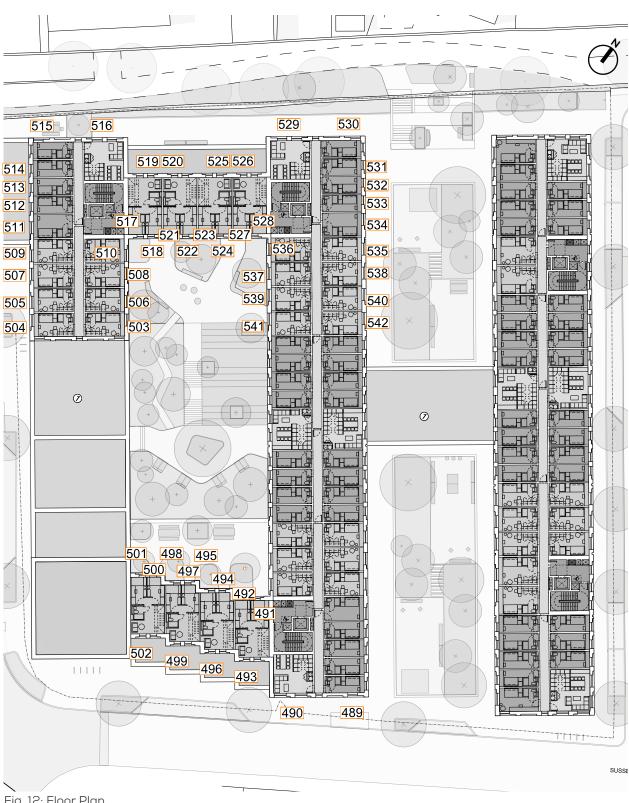




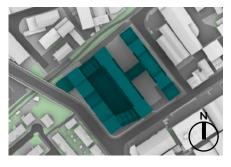
New Henry Street - Level 04 - Part 2 out of 3

ROOM REF.   ROOM USE     ROOM USE   ROOM U	New He	nry Street	- Level	04 - Par	TE OUT	of 3			SUNLIGHT	
ROOM REF.   ROOM USE     100				EN SPATIAL		YMONOTU			JONLIOITI	
AB9	ROOM REF.	ROOM USE	percentage of room achieving target illuminance for 2190 hrs (50% of daylit hours)					HOURS:MIN		
A90			100	150	200	TARGET		1 FEB	25 FEB	21 MAR
A90	190	STLIDV	100.0	100.0	100.0	150	100.0	05.12	05.52	06.25
A91										
A92										00:00
A93										00:00
495										04:48
A96	494	STUDY	100.0	100.0	86.0	150	100.0	00:00	00:00	00:00
STUDY   100.0   100.0   86.0   150   100.0   00.00   00.00   00.4498   STUDY   100.0   100.0   100.0   150   100.0   00.00   00.00   00.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00   06.65   06.00		STUDY			84.5			00:00		00:00
A98										06:00
A99										00:00
SOO										00:00
501         STUDY         100.0         100.0         79.5         150         100.0         00:00         00:00           502         LIVING ROOM         100.0         100.0         150.0         100.0         04:32         05:11         05:5           503         STUDY         100.0         100.0         150.100.0         08:30         09:58         10:5           504         STUDY         100.0         100.0         150.100.0         08:30         09:58         10:5           505         STUDY         100.0         100.0         150.100.0         04:38         05:21         06:5           506         STUDY         99.2         80.3         69.7         150         80.3         00:00         00:00           507         STUDY         100.0         100.0         150.0         100.0         05:17         05:57         06:6           508         STUDY         100.0         100.0         150.0         79.8         00:00         00:00         00:00           509         STUDY         100.0         100.0         150.0         100.0         04:37         05:21         06:4           510         STUDY         100.0         100.0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>06:02</td>										06:02
SO2										
S03										05:31
504         STUDY         100.0         100.0         100.0         150         100.0         08:30         09:58         10:55           505         STUDY         100.0         100.0         100.0         150         100.0         04:38         05:21         06:65           506         STUDY         99.2         80.3         69:7         150         80.3         00:00         00:00         00:05           507         STUDY         100.0         100.0         150         100.0         05:17         05:57         06:0           508         STUDY         99.6         79.8         69.2         150         79.8         00:00         00:00         00:2           509         STUDY         100.0         100.0         100.0         150         100.0         04:37         05:21         06:3           510         STUDY         100.0         100.0         100.0         150         100.0         04:37         05:38         06:4           512         STUDY         100.0         100.0         150         100.0         04:57         05:38         06:4           513         STUDY         100.0         100.0         150         100.0										05:08
506         STUDY         99.2         80.3         69.7         150         80.3         00:00         00:00         00:00           507         STUDY         100.0         100.0         100.0         150         100.0         05:17         05:57         06:6           508         STUDY         99.6         79.8         69.2         150         79.8         00:00         00:00         00:00           509         STUDY         100.0         100.0         100.0         150         100.0         04:37         05:21         06:6           510         STUDY         100.0         100.0         100.0         150         100.0         04:37         05:21         06:6           511         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:6           512         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:6           513         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:6           514         STUDY         100.0         100.0										10:34
507         STUDY         100.0         100.0         150         100.0         05:17         05:57         06:6           508         STUDY         99.6         79.8         69.2         150         79.8         00:00	505	STUDY	100.0	100.0	100.0	150	100.0	04:38	05:21	06:07
508         STUDY         99.6         79.8         69.2         150         79.8         00:00         00:00         00:20           509         STUDY         100.0         100.0         150         100.0         04:37         05:21         06:0           510         STUDY         95.3         77.2         66.9         150         77.2         00:00         00:00         00:0           511         STUDY         100.0         100.0         100.0         150         100.0         05:25         05:57         06:6           512         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:0           513         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:0           514         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:0           515         STUDY         100.0         100.0         100.0         100.0         04:57         05:38         06:0           516         L/K/D         100.0         100.0         100.0         100.0 <td>506</td> <td>STUDY</td> <td>99.2</td> <td>80.3</td> <td>69.7</td> <td>150</td> <td>80.3</td> <td>00:00</td> <td>00:00</td> <td>00:00</td>	506	STUDY	99.2	80.3	69.7	150	80.3	00:00	00:00	00:00
509         STUDY         100.0         100.0         100.0         150         100.0         04:37         05:21         06:61           510         STUDY         95.3         77.2         66.9         150         77.2         00:00         00:00         00:05           511         STUDY         100.0         100.0         100.0         150         100.0         05:25         05:57         06:6           512         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:6           513         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:6           514         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:6           515         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:6           516         L/K/D         100.0         100.0         100.0         100.0         00:0         00:0         00:0         00:0         00:0         00:0         00:0         00:0         00:0<		STUDY			100.0	150		05:17	05:57	06:07
510         STUDY         95.3         77.2         66.9         150         77.2         00:00         00:00         00:00           511         STUDY         100.0         100.0         100.0         150         100.0         05:25         05:57         06:6           512         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:0           513         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:0           514         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:0           515         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:0           516         L/k/D         100.0         100.0         100.0         100.0         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00         00:00										00:22
511         STUDY         100.0         100.0         150         100.0         05:25         05:57         06:6           512         STUDY         100.0         100.0         150         100.0         04:57         05:38         06:6           513         STUDY         100.0         100.0         150         100.0         04:57         05:38         06:6           514         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:6           515         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:6           516         L/K/D         100.0         100.0         100.0         200         100.0         06:00         00:00         00:00           516         L/K/D         100.0         100.0         100.0         200         100.0         00:00										06:07
512         STUDY         100.0         100.0         150         100.0         04:57         05:38         06:05           513         STUDY         100.0         100.0         150         100.0         04:57         05:38         06:05           514         STUDY         100.0         100.0         150         100.0         04:57         05:38         06:05           515         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:05           516         L/K/D         100.0         100.0         100.0         200         100.0         00:00										00:00
513         STUDY         100.0         100.0         150         100.0         04:57         05:38         06:0           514         STUDY         100.0         100.0         150         100.0         04:57         05:38         06:0           515         STUDY         100.0         100.0         150         100.0         04:57         05:38         06:0           516         L/K/D         100.0         100.0         100.0         200         100.0         00:00         00:00         00:00           517         STUDY         100.0         100.0         90.2         150         100.0         01:39         01:51         02:5           518         STUDY         100.0         100.0         89.2         150         100.0         01:56         02:19         03:1           518         STUDY         100.0         100.0         150         100.0         01:56         02:19         03:1           519         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00           520         LIVING ROOM         100.0         100.0         150         100.0         02:35         03:35         04:2 <td></td>										
514         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:65           515         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:65           516         L/K/D         100.0         100.0         100.0         200         100.0         00:00         00:00         00:00         00:51         02:51         03:51         02:51         03:51         02:51         03:51         02:51         03:51         02:51         03:51         02:51         03:51         02:51         03:51         02:51         03:51         02:51         03:51         02:51         03:51         02:51         03:51         02:51         03:51         02:51         03:51         03:51         03:51         03:51         03:51         03:51         03:51         03:51         03:51										06:07
515         STUDY         100.0         100.0         100.0         150         100.0         04:57         05:38         06:65           516         L/K/D         100.0         100.0         100.0         200         100.0         00:00         00:00         00:05           517         STUDY         100.0         100.0         90.2         150         100.0         01:39         01:51         02:51         02:51         03:31         03:31         03:31         03:31         03:32         <										06:07
516         L/K/D         100.0         100.0         100.0         200         100.0         00:00         00:00         00:00           517         STUDY         100.0         100.0         90.2         150         100.0         01:39         01:51         02:51           518         STUDY         100.0         100.0         89.2         150         100.0         01:56         02:19         03:1           519         LIVING ROOM         100.0         100.0         100.0         100.0         00:00 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>06:07</td></td<>										06:07
518         STUDY         100.0         100.0         89.2         150         100.0         01:56         02:19         03:151           519         LIVING ROOM         100.0         100.0         100.0         150         100.0         00:00	516	L/K/D								00:56
519         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00           520         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00           521         STUDY         100.0         100.0         97.5         150         100.0         02:35         03:35         04:2           522         STUDY         100.0         100.0         150         100.0         02:59         03:27         03:3           523         STUDY         100.0         100.0         97.5         150         100.0         03:46         04:03         03:5           524         STUDY         100.0         100.0         150         100.0         03:00         03:09         03:           525         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00           526         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00           527         STUDY         100.0         100.0         94.1         150         100.0         03:43         03:40         03:4           528         STUDY	517	STUDY	100.0	100.0	90.2	150	100.0	01:39	01:51	02:41
520         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00         00:00           521         STUDY         100.0         100.0         97.5         150         100.0         02:35         03:35         04:2           522         STUDY         100.0         100.0         150         100.0         02:59         03:27         03:3           523         STUDY         100.0         100.0         97.5         150         100.0         03:46         04:03         03:5           524         STUDY         100.0         100.0         150         100.0         03:00         03:09         03:09           525         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00           526         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00           527         STUDY         100.0         100.0         94.1         150         100.0         03:43         03:40         03:4           528         STUDY         100.0         100.0         96.7         150         100.0         02:42         02:38         02:2					89.2					03:18
521         STUDY         100.0         100.0         97.5         150         100.0         02:35         03:35         04:2           522         STUDY         100.0         100.0         150         100.0         02:59         03:27         03:3           523         STUDY         100.0         100.0         97.5         150         100.0         03:46         04:03         03:5           524         STUDY         100.0         100.0         150         100.0         03:00         03:09         03:           525         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00           526         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00           527         STUDY         100.0         100.0         94.1         150         100.0         03:43         03:40         03:6           528         STUDY         100.0         100.0         96.7         150         100.0         02:42         02:38         02:2           529         L/K/D         100.0         100.0         100.0         100.0         00:00         00:00         00:00 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>00:00</td>										00:00
522         STUDY         100.0         100.0         150         100.0         02:59         03:27         03:3           523         STUDY         100.0         100.0         97.5         150         100.0         03:46         04:03         03:5           524         STUDY         100.0         100.0         150         100.0         03:00         03:09         03:09           525         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00         00:00           526         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00         00:00           527         STUDY         100.0         100.0         94.1         150         100.0         03:43         03:40         03:2           528         STUDY         100.0         100.0         96.7         150         100.0         02:42         02:38         02:2           529         L/K/D         100.0         100.0         100.0         200         100.0         00:00         00:00           530         STUDY         100.0         100.0         100.0         150         100.0         00:00										00:00
523         STUDY         100.0         100.0         97.5         150         100.0         03:46         04:03         03:5           524         STUDY         100.0         100.0         150         100.0         03:00         03:09         03:           525         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00         00:5           526         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00         00:0           527         STUDY         100.0         100.0         94.1         150         100.0         03:43         03:40         03:6           528         STUDY         100.0         100.0         96.7         150         100.0         02:42         02:38         02:2           529         L/K/D         100.0         100.0         100.0         200         100.0         00:00         00:00           530         STUDY         100.0         100.0         100.0         150         100.0         00:00         00:00										04:25
524         STUDY         100.0         100.0         150         100.0         03:00         03:09         03:           525         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00         00:5           526         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00         00:0           527         STUDY         100.0         100.0         94.1         150         100.0         03:43         03:40         03:2           528         STUDY         100.0         100.0         96.7         150         100.0         02:42         02:38         02:2           529         L/K/D         100.0         100.0         100.0         200         100.0         00:00         00:00           530         STUDY         100.0         100.0         100.0         150         100.0         00:00         00:00         00:00										
525         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00         00:00           526         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00         00:05           527         STUDY         100.0         100.0         94.1         150         100.0         03:43         03:40         03:3           528         STUDY         100.0         100.0         96.7         150         100.0         02:42         02:38         02:2           529         L/k/D         100.0         100.0         200         100.0         00:00         00:00           530         STUDY         100.0         100.0         100.0         150         100.0         00:00         00:00										03:39
526         LIVING ROOM         100.0         100.0         150         100.0         00:00         00:00         00:05           527         STUDY         100.0         100.0         94.1         150         100.0         03:43         03:40         03:3           528         STUDY         100.0         100.0         96.7         150         100.0         02:42         02:38         02:2           529         L/k/D         100.0         100.0         200         100.0         00:00         00:00           530         STUDY         100.0         100.0         150         100.0         00:00         00:00			4000	1000		450	4000			00:13
527         STUDY         100.0         100.0         94.1         150         100.0         03:43         03:40         03:5           528         STUDY         100.0         100.0         96.7         150         100.0         02:42         02:38         02:6           529         L/k/D         100.0         100.0         200         100.0         00:00         00:00           530         STUDY         100.0         100.0         150         100.0         00:00         00:00         00:00										00:13
529         L/K/D         100.0         100.0         100.0         200         100.0         00:00         00:00         00:00           530         STUDY         100.0         100.0         150         100.0         00:00         00:00         00:00										03:27
530 STUDY 100.0 100.0 100.0 150 100.0 00:00 00:00 00:4	528	STUDY	100.0	100.0	96.7	150	100.0	02:42	02:38	02:29
	529	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:00	00:37
										00:48
										00:11
										00:11
										00:11
										00:21
										00:00 03:54
										03:54
										00:00
										04:25
										00:18
										04:25
	542	STUDY			60.5	150		00:00	00:10	00:20

Table 10: Assessment Data







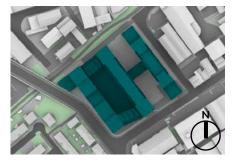


### New Henry Street - Level 04 - Part 3 out of 3

New Hei	ny Street	- Level	0 <del>4</del> - Pui	DAYLIGHT	SUNLIGHT				
ROOM REF.	ROOM USE	percentag	e of room ach (50	L DAYLIGHT A ieving target % of daylit ho er File: GBR_(	HOURS:MIN				
		100	150	200	TARGET	RELEVANT ENSDA	1 FEB	25 FEB	21 MAR
543	STUDY	100.0	98.3	77.6	150	98.3	00:00	00:00	00:00
544	STUDY	100.0	100.0	100.0	150	100.0	03:23	03:09	03:59
545	STUDY	100.0	100.0	100.0	150	100.0	03:44	03:30	03:59
546	STUDY	100.0	97.4	75.0	150	97.4	00:00	00:00	00:00
547	STUDY	100.0	97.4	74.6	150	97.4	00:00	00:00	00:00
548	STUDY	100.0	100.0	100.0	150	100.0	04:04	03:47	03:59
549	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:06	04:13
550	STUDY	100.0	97.4	73.3	150	97.4	00:00	00:00	00:00
551	L/K/D	100.0	100.0	100.0	200	100.0	03:57	04:46	04:32
552	L/K/D	100.0	72.4	46.8	200	46.8	00:00	00:00	00:00
553	STUDY	100.0	98.3	75.9	150	98.3	00:00	00:00	00:00
554	STUDY	100.0	100.0	100.0	150	100.0	03:55	04:51	04:45
555	STUDY	100.0	100.0	100.0	150	100.0	04:48	05:38	05:23
556	STUDY	100.0	99.1	74.6	150	99.1	00:00	00:08	00:35
557	STUDY	100.0	99.1	78.4	150	99.1	00:00	00:00	00:00
558	STUDY	100.0	100.0	100.0	150	100.0	03:55	04:44	05:17
559	STUDY	100.0	100.0	100.0	150	100.0	04:48	05:31	05:55
560	STUDY	100.0	99.1	81.0	150	99.1	00:00	00:11	00:35
561	STUDY	100.0	100.0	84.2	150	100.0	04:29	05:14	06:07
562	STUDY	89.8	74.4	64.4	150	74.4	00:00	00:03	00:11





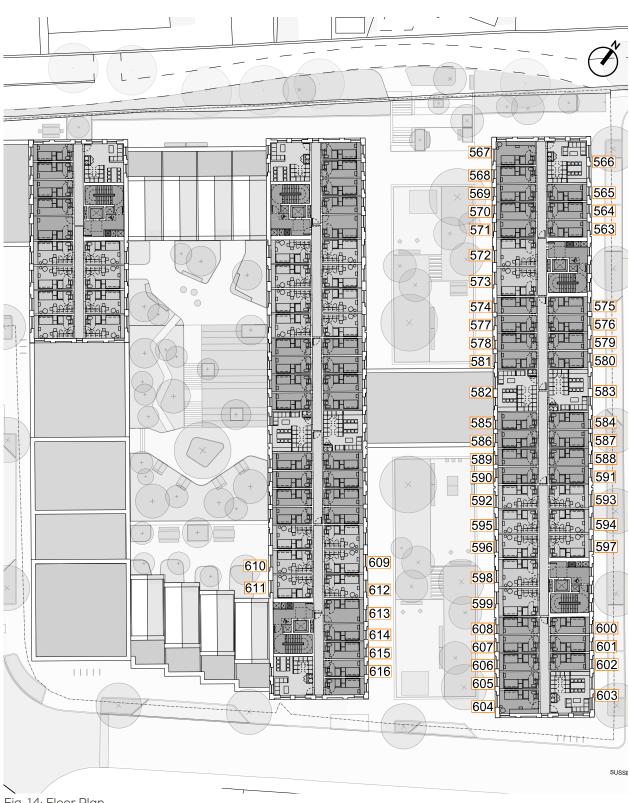




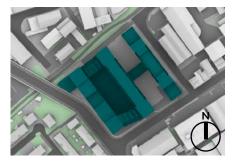
New Henry Street - Level 05 - Part 1 out of 2

New Henry Street - Level U5 - Part Lout of 2								SUNLIGHT				
ROOM REF.	ROOM USE	percentag	e of room ach (50	L DAYLIGHT A	HOURS:MIN							
		100	150	200	TARGET	RELEVANT ENSDA	1 FEB	25 FEB	21 MAR			
NEW HENRY	ST - LEVEL 05											
563	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:36	01:50			
564	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52			
565	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52			
566	L/K/D	100.0	100.0	100.0	200	100.0	00:00	01:03	03:11			
567	STUDY	100.0	100.0	90.0	150	100.0	01:37	03:27	05:08			
568	STUDY	100.0	100.0	100.0	150	100.0	01:09	02:35	04:31			
569	STUDY	100.0	100.0	99.1	150	100.0	01:08	02:10	03:58			
570	STUDY	100.0	100.0	98.3	150	100.0	01:09	02:11	03:27			
571	STUDY	100.0	100.0	97.4	150	100.0	01:11	02:12	03:04			
572	STUDY	99.4	73.6	59.7	150	73.6	00:51	01:54	02:58			
573	STUDY	99.2	72.6	59.0	150	72.6	01:28	02:30	02:58			
574	STUDY	100.0	100.0	92.1	150	100.0	00:13	01:20	02:32			
575	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:44			
576	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52			
577	STUDY	100.0	100.0	91.4	150	100.0	01:10	02:12	02:56			
578	STUDY	100.0	100.0	89.7	150	100.0	00:13	01:22	02:33			
579	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:44			
580	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52			
581 582	STUDY L/K/D	100.0 100.0	100.0 99.8	90.5 70.5	150 200	100.0 70.5	01:13 01:00	02:15 02:02	02:56 03:05			
583	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:34	01:48			
584	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45			
585	STUDY	100.0	99.1	87.1	150	99.1	00:16	01:24	02:31			
586	STUDY	100.0	100.0	87.9	150	100.0	01:09	02:10	02:58			
587	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:51			
588	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45			
589	STUDY	100.0	100.0	90.5	150	100.0	00:16	01:24	02:32			
590	STUDY	100.0	100.0	87.9	150	100.0	00:52	02:10	02:58			
591	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52			
592	STUDY	95.7	76.3	65.6	150	76.3	00:33	01:55	02:56			
593	STUDY	100.0	100.0	98.0	150	100.0	00:00	00:13	01:28			
594 595	STUDY	100.0	100.0	96.9	150	100.0	00:00	00:13	01:28			
595 596	STUDY STUDY	96.4 98.4	76.3 77.1	66.0 66.4	150 150	76.3 77.1	00:33 00:33	01:53 01:36	03:00 02:58			
597	STUDY	100.0	100.0	95.7	150	100.0	00:00	00:30	01:28			
598	STUDY	99.4	73.6	60.5	150	73.6	00:44	01:35	02:54			
599	STUDY	100.0	75.7	61.4	150	75.7	01:46	02:12	02:41			
600	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45			
601	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45			
602	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45			
603	L/K/D	100.0	100.0	100.0	200	100.0	06:12	06:46	07:22			
604	STUDY	100.0	100.0	100.0	150	100.0	08:16	08:40	09:07			
605	STUDY	100.0	100.0	100.0	150	100.0	02:43	02:29	02:15			
606	STUDY	100.0	100.0	100.0	150	100.0	02:09	01:58	02:15			
607	STUDY	100.0	100.0	100.0	150	100.0	01:39	01:30	02:15			
608	STUDY	100.0	100.0	100.0	150	100.0	01:12	01:06	02:15			
609	STUDY	100.0	83.4	71.9	150	83.4	00:00	01:07	01:33			
610	STUDY	100.0	100.0	100.0	150	100.0	05:17	05:57	06:07			
611	STUDY	100.0	100.0	88.5	150	100.0	05:25	05:57	06:07			
612	STUDY	100.0	83.5	72.4	150	83.5	00:10	01:13	01:42			
613 614	STUDY STUDY	100.0 100.0	100.0 100.0	100.0 100.0	150 150	100.0 100.0	00:00 00:00	00:13 00:00	01:22 00:45			
615	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45			
616	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45			
310	31001	100.0	100.0	100.0	100	100.0	00.00	00.00	00.40			

Table 12: Assessment Data



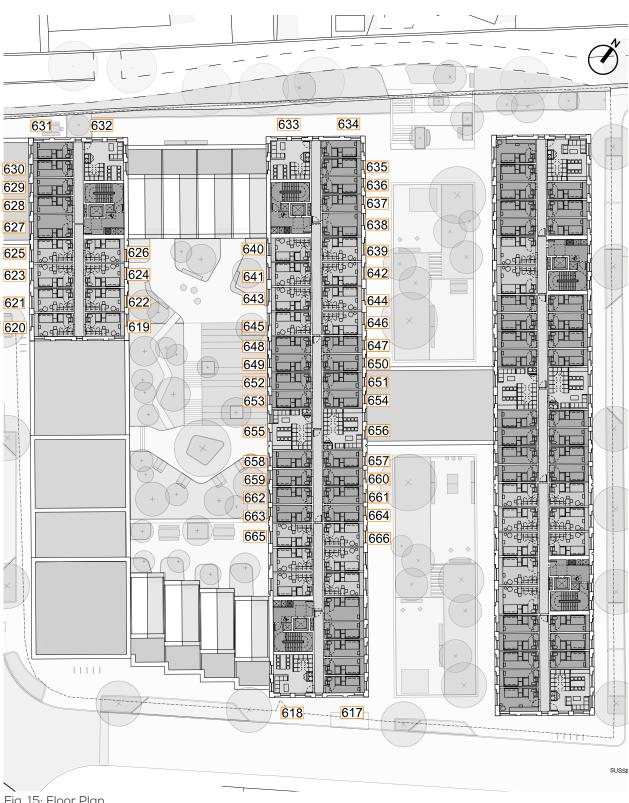




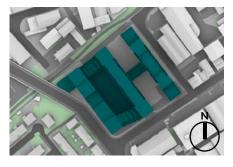


New Henry Street - Level 05 - Part 2 out of 2

New Her	nry Street	- Level	05 - Par	t2 out	SUNLIGHT				
				DAYLIGHT /	HOURS:MIN				
		percentag		ieving target % of daylit ho er File: GBR_(					
ROOM REF.	ROOM USE		weath						
		100	150	200	TARGET	RELEVANT ENSDA	1 FEB	25 FEB	21 MAR
617	STUDY	100.0	100.0	100.0	150	100.0	05:56	06:32	07:01
618	L/K/D	100.0	100.0	100.0	200	100.0	09:00	10:26	11:40
619	STUDY	100.0	100.0	97.2	150	100.0	05:44	05:16	05:27
620	STUDY	100.0	100.0	100.0	150	100.0	08:52	09:59	10:49
621	STUDY	100.0	100.0	100.0	150	100.0	04:38	05:21	06:07
622	STUDY	100.0	86.6	73.2	150	86.6	00:00	00:00	00:00
623	STUDY	100.0	100.0	100.0	150	100.0	05:17	05:57	06:07
624	STUDY	100.0	86.6	73.1	150	86.6	00:00	00:00	00:38
625	STUDY	100.0	100.0	100.0	150	100.0	04:37	05:21	06:07
626	STUDY	100.0	85.0	72.8	150	85.0	00:00	00:00	00:00
627	STUDY	100.0	100.0	100.0	150	100.0	05:25	05:57	06:07
628 629	STUDY	100.0 100.0	100.0 100.0	100.0	150 150	100.0 100.0	04:57	05:38 05:38	06:07
630	STUDY STUDY	100.0	100.0	100.0 100.0	150	100.0	04:57 04:57	05:38	06:07 06:07
631	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:38	06:07
632	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:00	01:14
633	L/K/D	100.0	100.0	100.0	200	100.0	03:41	05:38	06:23
634	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:23
635	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:40
636	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:19
637	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:20
638	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:42
639	STUDY	99.6	82.7	72.4	150	82.7	00:00	00:00	00:00
640	STUDY	100.0	99.6	85.8	150	99.6	03:34	03:54	04:52
641	STUDY	100.0	99.2	85.4	150	99.2	03:34	04:18	04:52
642	STUDY	98.8	79.1	68.0	150	79.1	00:00	00:00	00:00
643	STUDY	100.0	100.0	91.3	150	100.0	04:13	05:02	04:52
644	STUDY	97.0	77.2	67.3	150	77.2	00:00	00:00	00:34
645	STUDY	100.0	100.0	87.4	150	100.0	04:14	05:03	05:05
646	STUDY	98.8	77.7	67.2	150	77.7	00:00	00:10	00:42
647	STUDY	100.0	100.0	94.0	150	100.0	00:00	00:00	00:00
648	STUDY	100.0	100.0	100.0	150	100.0	03:24	03:56	04:51
649	STUDY	100.0	100.0	100.0	150	100.0	03:44	03:56	04:55
650	STUDY	100.0	100.0	93.1	150	100.0	00:00	00:00	00:00
651	STUDY	100.0	100.0	94.0	150	100.0	00:00	00:00	00:00
652	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:06	04:55
653	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:15	04:55
654	STUDY	100.0	100.0	94.0	150	100.0	00:00	00:00	00:00
655	L/K/D	100.0	100.0	100.0	200	100.0	04:04	04:46	04:58
656	L/K/D	100.0	95.7	59.1	200	59.1	00:00	00:00	00:00
657 659	STUDY	100.0	100.0	93.5	150 150	100.0 100.0	00:00	00:00	00:00
658 650	STUDY	100.0 100.0	100.0	100.0	150		04:04	04:51	05:09 05:38
659 660	STUDY	100.0	100.0 100.0	100.0	150 150	100.0	04:57 00:00	05:38 00:11	05:38
661	STUDY STUDY	100.0	100.0	94.0 95.7	150 150	100.0 100.0	00:00	00:00	00:00
662	STUDY	100.0			150		00:00		05:17
663	STUDY	100.0	100.0 100.0	100.0 100.0	150	100.0 100.0		04:51	05:55
664	STUDY	100.0	100.0	95.7	150	100.0	04:57 00:00	05:38 00:11	05:55
665	STUDY	100.0	100.0	100.0	150	100.0	04:38	05:21	01:06
666	STUDY	99.6	79.1	68.5	150	79.1	00:00	00:03	00:42
300	31001	55.0	7.3.1	00.0	100	7 3.1	00:00	00:03	00:4E





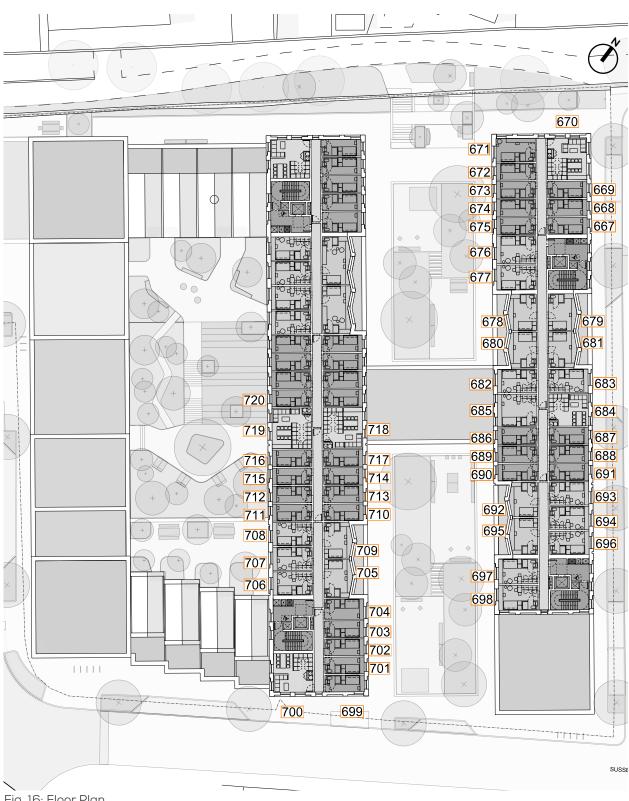




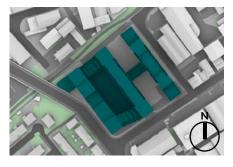
New Henry Street - Level 06 - Part 1 out of 2

INEW HE	nry Street	Level	oo Fai	DAYLIGHT	л <u>С</u>			SUNLIGHT	
			EN SPATIAI	L DAYLIGHT A	HOURS:MIN				
		percentag	e of room ach						
		J		% of daylit ho					
B0014 BEE	D0014110E			er File: GBR_C					
ROOM REF.	ROOM USE								
		100	450	000	TABSET	RELEVANT	4 ===	05 550	01.144.5
		100	150	200	TARGET	ENSDA	1 FEB	25 FEB	21 MAR
NEW HENRY	ST - LEVEL 06								
667	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52
668	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52
669	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52
670	L/K/D	100.0	100.0	100.0	200	100.0	00:00	01:03	03:11
671	STUDY	100.0	100.0	95.8	150	100.0	02:21	04:27	06:07
672	STUDY	100.0	100.0	100.0	150	100.0	02:07	03:29	05:31
673	STUDY	100.0	100.0	100.0	150	100.0	02:08	02:54	04:58
674	STUDY	100.0	100.0	100.0	150	100.0	02:08	02:53	04:27
675	STUDY	100.0	100.0	100.0	150	100.0	02:10	03:11	03:59
676	STUDY	100.0	82.1	71.8	150	82.1	01:47	02:52	03:41
677	STUDY	100.0	84.3	75.0	150	84.3	02:28	03:27	03:54
678	STUDY	100.0	98.9	93.3	150	98.9	03:26	04:22	04:43
679	STUDY	100.0	97.6	93.1	150	97.6	00:18	01:24	03:05
680	STUDY	100.0	98.9	93.2	150	98.9	01:43	02:44	03:35
681	STUDY	100.0	97.8	92.8	150	97.8	00:00	00:00	01:03
682	STUDY	100.0	92.1	79.8	150	92.1	01:40	02:43	03:46
683	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:12	01:28
684	L/K/D	100.0	100.0	100.0	200	100.0	00:00	00:34	01:48
685	STUDY	100.0	100.0	82.3	150	100.0	02:06	03:06	04:07
686 687	STUDY STUDY	100.0 100.0	100.0 100.0	100.0 100.0	150 150	100.0 100.0	02:06 00:00	03:09 00:37	03:55 01:51
688	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45
689	STUDY	100.0	100.0	100.0	150	100.0	01:15	02:21	03:28
690	STUDY	100.0	100.0	100.0	150	100.0	02:06	03:09	03:55
691	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:37	01:52
692	STUDY	100.0	100.0	95.6	150	100.0	03:02	04:02	04:43
693	STUDY	100.0	100.0	99.6	150	100.0	00:00	00:13	01:28
694	STUDY	100.0	100.0	98.8	150	100.0	00:00	00:13	01:28
695	STUDY	100.0	97.6	91.0	150	97.6	01:29	02:44	03:35
696	STUDY	100.0	100.0	98.0	150	100.0	00:00	00:13	01:28
697	STUDY	100.0	83.3	74.1	150	83.3	01:32	02:36	03:51
698	STUDY	100.0	100.0	100.0	150	100.0	05:44	07:35	09:41
699	STUDY	100.0	100.0	100.0	150	100.0	05:56	06:32	07:01
700	L/K/D	100.0	100.0	100.0 100.0	200	100.0	09:00	10:28	12:02
701 702	STUDY STUDY	100.0 100.0	100.0 100.0	100.0	150 150	100.0 100.0	00:00 00:00	00:00 00:00	00:45 00:45
703	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45
704	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	01:22
705	STUDY	98.0	92.1	72.8	150	92.1	00:00	00:00	00:48
706	STUDY	100.0	100.0	100.0	150	100.0	05:25	05:57	06:07
707	STUDY	100.0	100.0	100.0	150	100.0	05:17	05:57	06:07
708	STUDY	100.0	100.0	100.0	150	100.0	04:38	05:21	06:07
709	STUDY	100.0	96.1	89.1	150	96.1	00:21	01:27	02:32
710	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:33	01:43
711	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:38	06:07
712	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41
713	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:19
714	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:33	01:00
715	STUDY	100.0	100.0	100.0	150	100.0	04:57	05:38	06:07
716	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:41
717	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00
718 719	L/K/D L/K/D	100.0 100.0	100.0 100.0	80.7 100.0	200 200	80.7 100.0	00:00 04:04	00:00 04:48	00:00 05:37
720	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:48	05:37
, 20	31001	100.0	100.0	100.0	100	100.0	04.04	J <del>4</del> .J1	00.LO

Table 14: Assessment Data







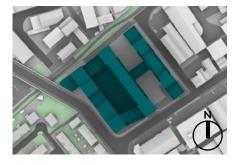


### New Henry Street - Level 06 - Part 2 out of 2

New Henry Street - Level U6 - Part 2 out of 2											
					SUNCIGHT						
ROOM REF.	ROOM USE	percentag	e of room ach (50	L DAYLIGHT A ieving target % of daylit ho er File: GBR_0	HOURS:MIN						
		100	150	200	TARGET	RELEVANT ENSDA	1 FEB	25 FEB	21 MAR		
721	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00		
722	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00		
723	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:26		
724	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:24		
725	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:00		
726	STUDY	100.0	100.0	99.1	150	100.0	00:00	00:00	00:00		
727	STUDY	100.0	100.0	100.0	150	100.0	04:04	04:51	05:21		
728	STUDY	100.0	100.0	99.2	150	100.0	05:18	05:42	05:45		
729	STUDY	80.2	63.6	49.6	150	63.6	00:00	00:00	01:00		
730	STUDY	100.0	100.0	100.0	150	100.0	05:17	05:35	05:45		
731	STUDY	100.0	100.0	98.4	150	100.0	04:32	04:54	05:45		
732	STUDY	97.5	85.7	62.5	150	85.7	00:41	00:56	01:55		
733	STUDY	100.0	100.0	100.0	150	100.0	04:10	04:54	05:45		
734	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:02	01:06		
735	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:43		
736	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:35		
737	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:31		
738	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:02	01:09		
739	L/K/D	100.0	100.0	100.0	200	100.0	04:50	05:38	06:23		





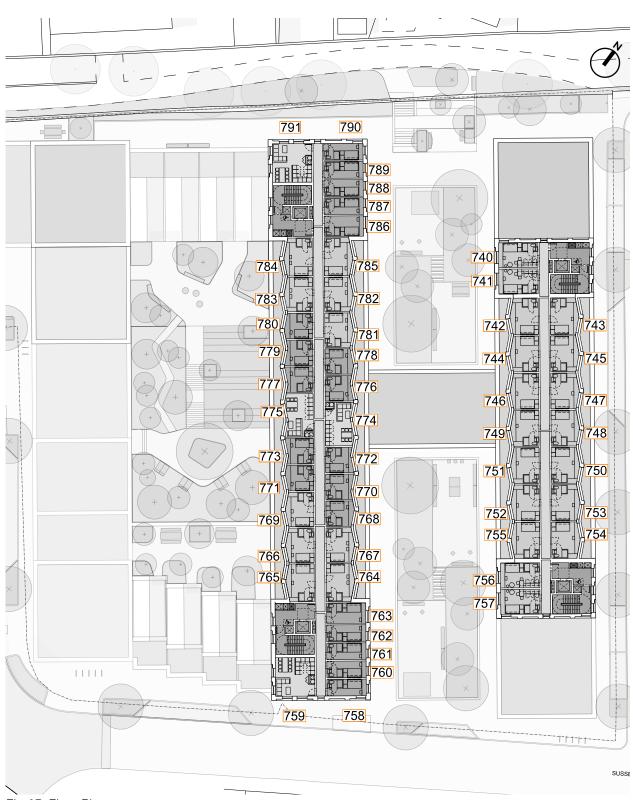




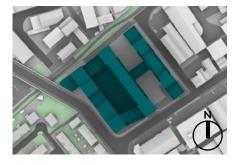
New Henry Street - Level 07

ivew Hel	nry Street	- Level	U/	DAYLIGHT	SUNLIGHT				
			EN SPATIA	L DAYLIGHT	AUTONOMY			00	
ROOM REF.	ROOM USE	percentag	e of room ach (50		HOURS:MIN				
		100	150	200	TARGET	RELEVANT ENSDA	1 FEB	25 FEB	21 MAR
NEW HENRY	ST - LEVEL 07								
740	STUDY	100.0	100.0	100.0	150	100.0	02:57	03:55	04:45
741	STUDY	100.0	99.3	86.4	150	99.3	03:37	04:30	04:45
742	STUDY	100.0	100.0	100.0	150	100.0	04:37	05:20	05:36
743	STUDY	100.0	100.0	99.7	150	100.0	01:02	02:02	03:05
744	STUDY	100.0	100.0	100.0	150	100.0	04:37	05:20	05:36
745	STUDY	100.0	100.0	100.0	150	100.0	01:02	02:02	03:05
746	STUDY	100.0	100.0	100.0	150	100.0	04:36	05:20	05:36
747	STUDY	100.0	100.0	100.0	150	100.0	01:02	02:02	03:05
748	STUDY	100.0	100.0	99.6	150	100.0	01:02	02:02	03:05
749	STUDY	100.0	100.0	99.6	150	100.0	04:36	05:20	05:36
750	STUDY	100.0	100.0	98.2	150	100.0	00:48	01:43	02:47
751	STUDY	100.0	100.0	100.0	150	100.0	04:36	05:20	05:36
752 753	STUDY	100.0	100.0	100.0	150	100.0	04:08	04:59	05:36
753 754	STUDY STUDY	100.0 100.0	96.8 96.1	92.1 91.9	150 150	96.8 96.1	00:11 00:00	01:11 00:00	02:17 00:38
754 755	STUDY	100.0	100.0	98.3	150	100.0	00:00	03:43	00:38
756	STUDY	100.0	98.9	85.5	150	98.9	02:47	03:43	04:50
757	STUDY	100.0	100.0	100.0	150	100.0	07:09	09:01	10:47
758	STUDY	100.0	100.0	100.0	150	100.0	05:56	06:32	07:01
759	L/K/D	100.0	100.0	100.0	200	100.0	09:00	10:28	12:02
760	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45
761	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45
762	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:45
763	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:13	01:28
764	STUDY	100.0	98.0	93.0	150	98.0	00:00	00:00	00:53
765	STUDY	100.0	99.2	94.3	150	99.2	04:12	04:58	05:33
766	STUDY	100.0	100.0	98.9	150	100.0	05:37	06:15	06:45
767	STUDY	100.0	100.0	98.5	150	100.0	00:22	01:27	02:38
768	STUDY	100.0	100.0	100.0	150	100.0	01:00	02:00	03:03
769	STUDY	100.0	100.0	100.0	150	100.0	06:06	06:37	06:45
770	STUDY	100.0	100.0	97.4	150	100.0	01:00	02:00	02:28
771	STUDY	100.0	100.0	100.0	150	100.0	06:06	06:37	06:45
772 773	STUDY STUDY	100.0 100.0	100.0 100.0	96.4 100.0	150 150	100.0 100.0	00:00 06:06	00:00 06:37	00:03 06:45
		4000	4000	4000		4000		04.40	00.00
774 775	L/K/D L/K/D	100.0	100.0	100.0	200	100.0	01:00	01:42 06:37	02:09 06:46
776	STUDY	100.0	100.0	96.8	150	100.0	00:00	00:00	00:04
777	STUDY	100.0	100.0	100.0	150	100.0	06:06	06:37	06:45
778	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:00	00:05
779	STUDY	100.0	100.0	100.0	150	100.0	04:12	04:58	05:33
780	STUDY	100.0	100.0	100.0	150	100.0	04:12	04:58	05:33
781	STUDY	100.0	99.2	77.7	150	99.2	00:59	01:18	02:12
782	STUDY	100.0	100.0	95.5	150	100.0	00:58	01:19	02:18
783	STUDY	100.0	100.0	100.0	150	100.0	06:06	06:37	06:45
784	STUDY	100.0	100.0	97.0	150	100.0	06:06	06:37	06:45
785	STUDY	100.0	99.7	94.6	150	99.7	00:46	01:21	02:26
786	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:23	01:29
787	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:11	00:58
788	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:11	00:58
789	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:11	00:58
790	STUDY	100.0	100.0	100.0	150	100.0	00:00	00:11	01:31
791	L/K/D	100.0	100.0	100.0	200	100.0	04:57	05:38	06:23

Table 16: Assessment Data









### 8 OVERSHADOWING ASSESSMENTS

## OVERSHADOWING ASSESSMENT - OPEN SPACE **SUN HOURS ON GROUND - BRE TEST**

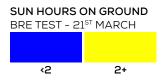


(BRE RECOMMENDS 2+ HOURS OF SUNLIGHT ON 21ST MARCH FOR AT LEAST 50% OF THE OPEN SPACE)

**COMBINED AREAS: 58%** 

PUBLIC REALM: 63% COURTYARD: 39%

**ROOFTOP AMENITY: 95%** 

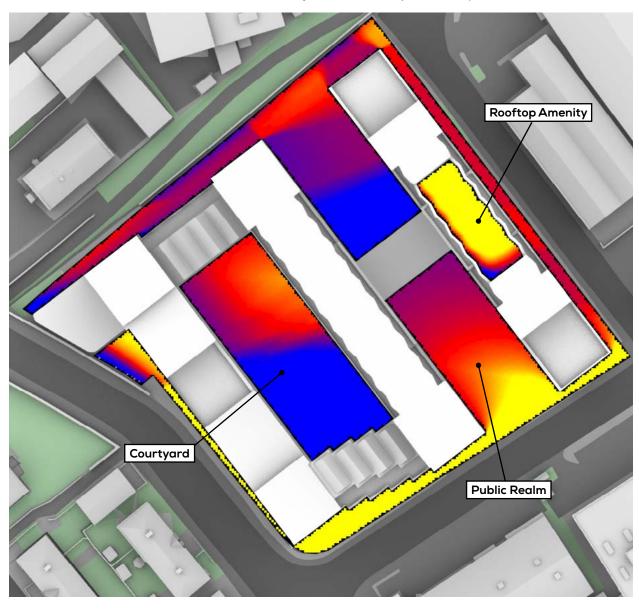


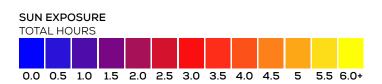
100 Percent area receiving 2 hours of sunlight 90 80 70 60 50 05 Apr 40 30 21 Mar 20 10 0 Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan

19167 - Sun Hours on the Ground - Area Courtyard



## OVERSHADOWING ASSESSMENT - OPEN SPACE SUN EXPOSURE ON GROUND - 21<sup>ST</sup> MARCH/SEPTEMBER (EQUINOX)





21st MARCH/SEPTEMBER (EQUINOX)

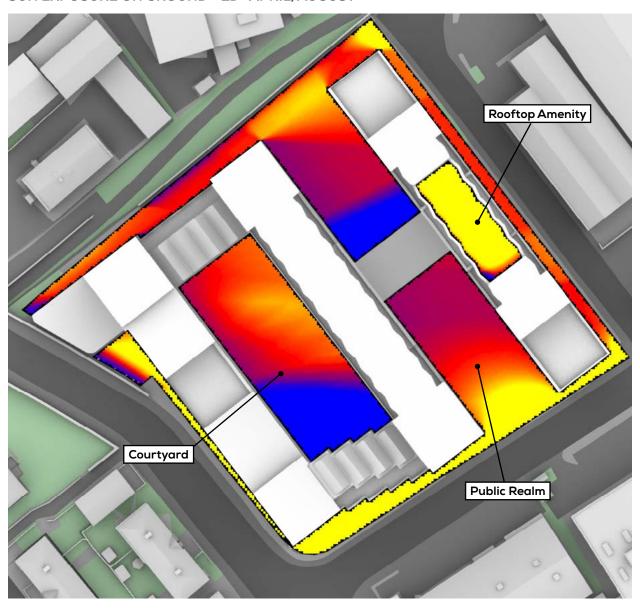
### **BRISTOL**

Latitude: 51.5 Longitude: 0.0 Sunrise: 06:02 GMT Sunset: 18:14 GMT

### **Total Available Sunlight:**

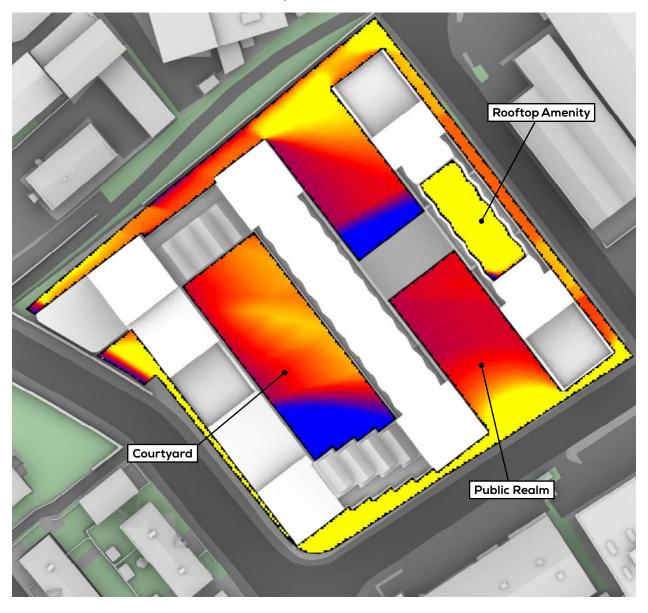
12hrs 12mins

# OVERSHADOWING ASSESSMENT - OPEN SPACE SUN EXPOSURE ON GROUND - 21<sup>ST</sup> APRIL/AUGUST

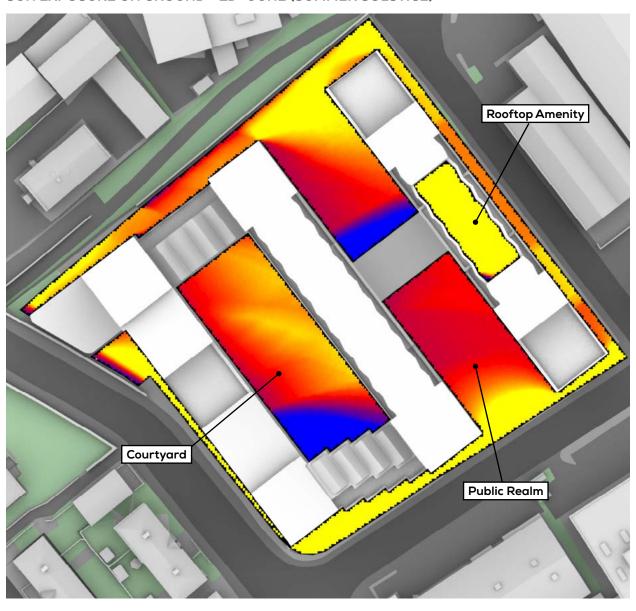


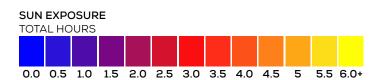


# OVERSHADOWING ASSESSMENT - OPEN SPACE SUN EXPOSURE ON GROUND - 21<sup>ST</sup> MAY/JULY



## OVERSHADOWING ASSESSMENT - OPEN SPACE SUN EXPOSURE ON GROUND - 21<sup>ST</sup> JUNE (SUMMER SOLSTICE)





21st JUNE (SUMMER SOLSTICE)

### **BRISTOL**

Latitude: 51.5 Longitude: 0.0 Sunrise: 04:43 GMT

Sunset: 21:21 GMT

### **Total Available Sunlight:**

16hrs 38mins





For further details please contact us on:

### LONDON

- ⊤ 020 7202 1400
- E mail@gia.uk.com

The Whitehouse Belvedere Road London SE1 8GA

### **MANCHESTER**

- ⊤ 0161 672 5100
- E manchester@gia.uk.com

2 Commercial Street Manchester M15 4RQ

#### **BELFAST**

- ⊤ 02892 449 674
- E belfast@gia.uk.com

River House 48-60 High Street Belfast BT1 2BE

#### **BRISTOL**

- **⊤ 0117 374 1504**
- E bristol@gia.uk.com

33 Bristol Colston Avenue Bristol BS1 4UA

### **DUBLIN**

- ⊤ 020 7202 1400
- E hello@giasurveyors.ie

77 Lower Camden Street Dublin Ireland D02 XE80

GIA SURVEYORS LIMITED incorporated and registered in England and Wales with company number 14032506 whose registered office is at The Whitehouse, Belvedere Road, London SE1 8GA