January 2025

Corrib Causeway Phase 1, Dyke Road, Galway

Daylight and Sunlight Assessment Report

Applicant: Galway City Council

“The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design.” - BR 209

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Report Contents

The following report has been prepared by 3D Design Bureau (3DDB). 3DDB have over 7 years experience in producing daylight and sunlight assessments for large scale planning applications and are recognised as experts in the field. This report has been reviewed and overseen by Nicholas Polley and Richard Dalton. Nicholas is CEO of 3D Design Bureau and is a qualified Building Services Engineer (B.Sc.(Eng) Dip Eng) with over 25 years experience in the industry. Richard is Associate Director of 3DDB and has a bachelors degree in Building Information Modelling (BIM) with over 20 years experience in the industry.

1.0 Executive Summary

1.1 Summary of Assessment

3D Design Bureau (3DDB) were commissioned to carry out a comprehensive daylight and sunlight assessment, along with an accompanying shadow study for the proposed Corrib Causeway Phase 1 development at Dyke Road, Galway.

This Phase 1 development, located within one of the sites identified as an opportunity for regeneration in the Galway City Development Plan 2023-2029, is part of a development framework. Phase 1 comprises the construction of a residential development featuring 219 no. apartment units and a childcare facility. The design includes a single residential block ranging from 5 to 9 storeys above a lower ground floor level, along with associated public and communal open spaces.

As this application focuses on Phase 1 only, Phases 2 and 3 (Figure 1.1 below) were not considered in this study as their details have not yet been finalised and will be subject to separate planning applications.

It should be noted that an existing planning permission for a student accommodation development (ref: 20/184 as amended by 22259), located to the southeast of the subject site, was considered in the assessments as built. This inclusion aimed to assess the proposed Phase 1 development in a cumulative scenario and to evaluate its potential impact on the granted scheme.

Assessments have been broken down into the following two main categories, 'Impact Assessment' and 'Scheme Performance', of which there are subcategories as summarised below:

Impact Assessment

Following advice within the BRE Guidelines, the surrounding context was carefully considered to ensure all properties and amenity spaces that may potentially experience a level of effect have been included in the study. Both the existing buildings and the granted student accommodation scheme were evaluated. However, only the commercial premises within the existing buildings were assessed, as the residential units within the granted student accommodation were deemed not to require assessment under the BRE criteria. A more detailed explanation of the criterion applied can be found in section "4.1 Impact Assessment, Window Selection Criteria" on page 13.

The impact assessment that was carried out for the purpose of this report is in accordance with the BRE Guidelines. The potential levels of effect that the proposed development would have on the surrounding properties has been assessed. The assessed properties in the impact assessment are the commercial premises in the existing buildings to the north and north-east of the subject site (indicated in blue in Figure 1.1 below).

The effects were assessed in the baseline state versus the proposed state. For definition of model states, including a visual representation of the model states, please refer to the 'Methodology' section on Page 14.

This impact assessment covers the following metrics:

- Effect on daylight to surrounding properties. The effect to the Vertical Sky Component (VSC) of the windows of the following neighbouring properties was assessed:
  - The Black Box , Dyke Road (1)
  - Units 2, 4, 5 and Gray Office Park, Galway Retail Park, Headford Road (2)
- Effect on sunlight to surrounding properties. The effect to the annual and winter probable sunlight hours (APSH/WPSH) of the windows of the following neighbouring properties was assessed:
  - The Black Box, Dyke Road (1)
  - Units 2, 4, 5 and Gray Office Park, Galway Retail Park, Headford Road (2)

No quantitative SOG impact assessment has been carried out on the areas surrounding the subject site as the proposed development is not located significantly south of any garden or amenity area.

The results of the impact assessments can be found in section A.0 on page 28. These results are summarised in section 1.2 and explained in section "5.1 Analysis of Impact Assessment Results" on page 21.

Figure 1.1: Scope of surrounding properties and environment assessed.

Scheme Performance

Daylight access for the habitable rooms of the proposed development has been assessed through a Spatial Daylight Autonomy (SDA) study. Sunlight access for the same rooms has been quantified through a Sunlight Exposure (SE) assessment. A Sun On Ground (SOG) study has also been carried out to indicate the level of sunlight on March 21st in the proposed external amenity spaces. The results of these scheme performance assessments, which are in accordance with the BRE Guidelines, can be found in section C.0 on page 43. These results are summarised in section 1.3 and explained in section “5.2 Analysis of Scheme Performance Results” on page 22.

A supplementary SDA assessment under the I.S. EN 17037 criterion within proposed habitable rooms has also been carried out. The results of this supplementary scheme performance assessment can be found in section D.0 on page 94.

Qualitative Assessment

In addition to the quantitative assessments detailed in the ‘Impact Assessment’ and ‘Scheme Performance’ sections, this report includes a qualitative assessment. This is provided through the false colour plans of the proposed SOG assessment (section C.4 on page 92) and the hourly renderings of the shadow study (section B.0 on page 34).

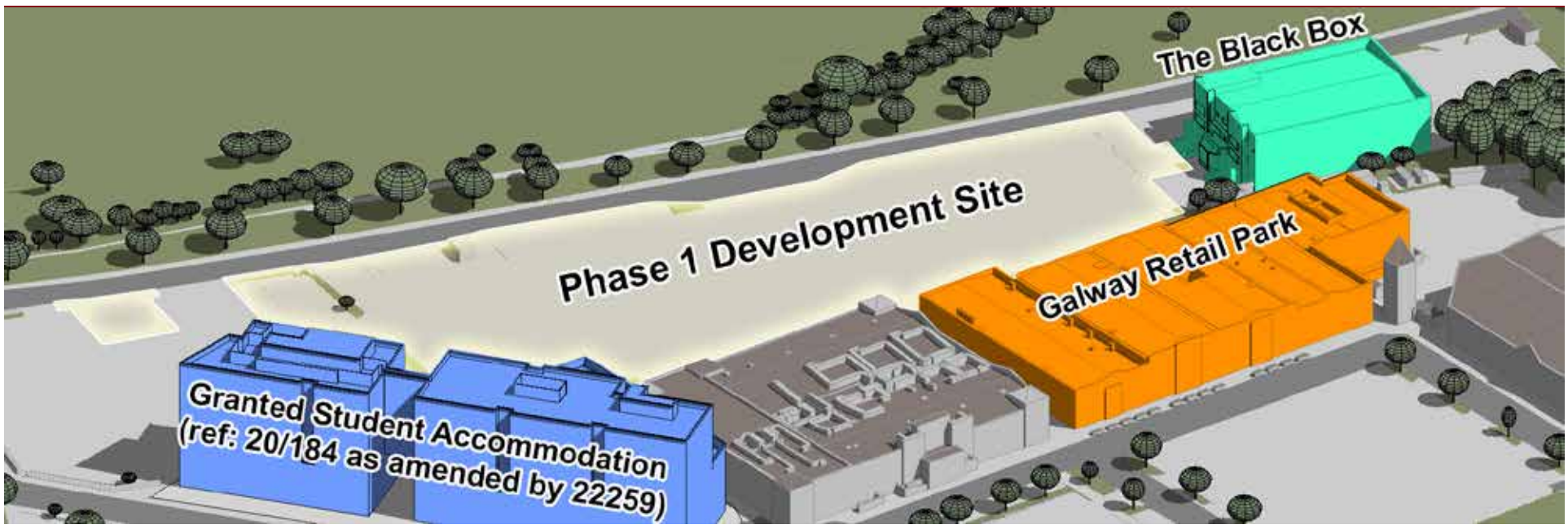

Figure 1.1: Model view of Phase 1 development site in its baseline state.

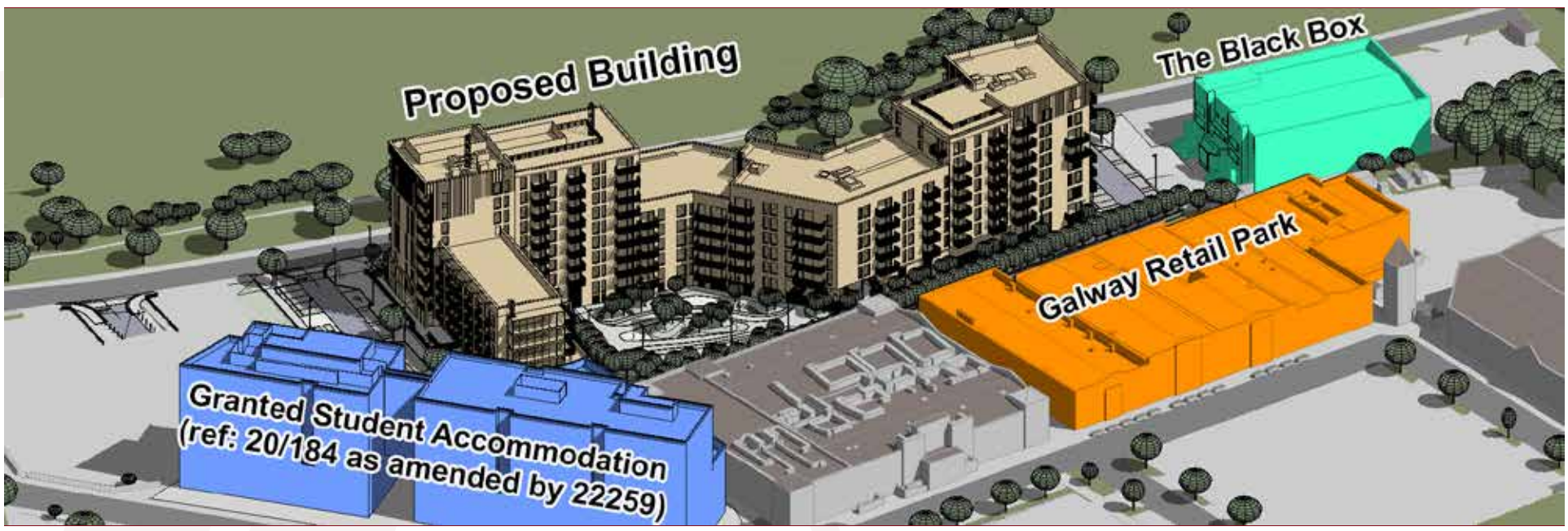

Figure 1.2: Model view of Phase 1 development in its proposed state.

1.2 Impact Assessment Results Overview - Neighbouring Properties:

Effect to Daylight - Vertical Sky Component (VSC):

Effect to Vertical Sky Component (VSC)	
Windows/Rooms Assessed	17
Negligible	11
Minor Adverse	4
Moderate Adverse	2
Major Adverse	0

Effect to Sunlight - Annual Probable Sunlight Hours (APSH):

Effect to Annual Probable Sunlight Hours (APSH)	
Windows/Rooms Assessed	17
Negligible	15
Minor Adverse	2
Moderate Adverse	0
Major Adverse	0

Effect to Sunlight - Winter Probable Sunlight Hours (WPSH):

Effect to Winter Probable Sunlight Hours (WPSH)	
Windows/Rooms Assessed	17
Negligible	17
Minor Adverse	0
Moderate Adverse	0
Major Adverse	0

1.3 Scheme Performance Results Overview:

Spatial Daylight Autonomy (SDA):

Spatial Daylight Autonomy (SDA) BRE 209 Criteria	
Unit Count	219
Rooms Assessed	558
Without Trees	
Compliant	557
Non-compliant	1
Compliance Rate	> 99%
With Trees (Proposed and Existing Trees)	
Compliant	555
Non-compliant	3
Compliance Rate	c. 99%
Note: It is the expert opinion of 3DDB that the appropriate criteria for SDA assessments are that of the BRE Guidelines (BRE 209)	

Sunlight Exposure (SE):

Sunlight Exposure (SE)	
Units Assessed	219
SE with trees as opaque objects	
Non-Compliant	13
Minimum	70
Medium	29
High	107
Compliance Rate	c. 94%
SE without deciduous trees	
Non-Compliant	13
Minimum	69
Medium	29
High	108
Compliance Rate	c. 94%

Sun On Ground (SOG) in proposed amenity areas:

Sun On Ground (SOG) in proposed amenity areas	
Areas Assessed	2
Areas meeting the guidelines	2
Areas not meeting the guidelines	0
Compliance Rate*	100%

* Compliance rates stated for the SOG assessment are based on the public and communal open space only.

1.4 Supplementary Assessment Results Overview

Spatial Daylight Autonomy (SDA) under I.S. EN 17037 Criterion:

Spatial Daylight Autonomy (SDA) under I.S. EN 17037 Criterion	
Unit Count	219
Rooms Assessed	558
Without Trees	
Compliant	486
Non-compliant	72
Compliance Rate	c. 87%
With Trees (Proposed and Existing Trees)	
Compliant	470
Non-compliant	88
Compliance Rate	c. 84%
Note: The study under the I.S. EN 17037 criterion should be considered a supplementary assessment. It is the expert opinion of 3DDB that the appropriate criteria are that of the BRE Guidelines (BRE 209)	

2.0 Guidelines / Standards

Overview

Neither the British Standard, European Standard, British Annex to the European Standard nor the BRE Guidelines (BR 209) set out rigid standards or limits. They are all considered advisory documents. The BRE Guide is preceded by the following very clear statement as to how the design advice contained therein should be used:

"*The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design.*"

That the recommendations of the BRE Guidelines are not suitable for rigid application to all developments in all contexts, is of particular importance in the context of national and local policies for the consolidation and densification of urban areas or when assessing applications for highly constrained sites (e.g. lands in close proximity or immediately to the south of residential lands). A compromise may have to be made concerning daylight and sunlight compliance to achieve national or local planning objectives.

It is the expert opinion of 3D Design Bureau, that the BRE Guidelines (*BR 209*) are the most appropriate guiding document for daylight and sunlight assessment. For daylight within proposed developments, a supplementary study has also been carried out under the criteria of *I.S. EN 17037*. The rationale for this opinion is outlined below.

Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities. (2023)

In July 2023, the Department of Housing, Planning and Local Government published an updated guidance document for new apartments, *Sustainable Urban Housing: Design Standards for New Apartments*. This document makes reference to, *EN 17037:2018: Daylight in Buildings* (the European Standard), *BS EN 17037:2018: Daylight in Buildings* (the UK National Annex to the European Standard) and to the 3rd edition of Building Research Establishment's *Site Layout Planning for Daylight and Sunlight: a Guide to Good Practice* (BR 209 2022).

Paragraph 6.7 of the 2023 apartment guidelines states:

"Where an applicant cannot fully meet all of the requirements of the daylight provisions above, this must be clearly identified and a rationale for any alternative, compensatory design solutions must be set out, which planning authorities should apply their discretion in accepting taking account of its assessment of specific. This may arise due to a design constraints [sic] associated with the site or location and the balancing of that assessment against the desirability of achieving wider planning objectives. Such objectives might include securing comprehensive urban regeneration and or an effective urban design and streetscape solution."

As such, this report identifies where daylight and sunlight recommendations have and have not been achieved. Rationale and compensatory design solutions are the remits of the planning consultant and/or the project architect, these will also be included in this report where applicable.

Note: Section 3.2 of the Urban Development and Building Height Guidelines 2020, provides similar guidance as above. However, it should be noted that at the time of publication of the *Urban Development and Building Height Guidelines (2020),* BR 209 was in the 2nd edition, first published in 2011. Since then, a 3rd edition of BR 209 has been published (June 2022) and the 2nd edition has been withdrawn. BR 209 no longer references *BS 8206-2:2008*, which has also been withdrawn. The standard used as reference in BR 209 edition 3 is *BS EN 17037*.

BR 209 - Site Layout Planning for Daylight and Sunlight: a Guide to Good Practice (2022)

This document will be referred to as the *BRE Guidelines*, the *BRE Guide* or *BR 209* in this report.

At the time of writing this report, the BRE Guidelines are in the third edition (BR 209). The BRE Guidelines set out recommendations for appropriate levels of daylight and sunlight within a proposed development, as well as providing guidance on impacts arising from a proposed development to surrounding properties and amenity areas.

Upon publication of the 3rd Edition of the BR 209 (2022), the 2nd edition (2011) has been withdrawn. Among the updates from the 2nd to the 3rd edition are some changes in the recommended metrics to use for carrying out scheme performance assessments.

Daylight within proposed developments was previously assessed under the 2011 guidelines using an 'Average Daylight Factor' assessment (ADF). This has been replaced with a 'target illuminance assessment', also known as a 'Spatial Daylight Autonomy' assessment (SDA).

Sunlight within proposed developments was previously assessed under the 2011 guidelines using an 'Annual / Winter Probable Sunlight Hours' assessment (APSH/WPSH). This has been replaced with a 'Sunlight Exposure' assessment (SE). However, APSH/WPSH is still recommended for sunlight impact assessments.

As such, no ADF or APSH/WPSH assessment will be included as part of a scheme performance assessment under the updated guidelines.

Details of the criteria for new metrics, and all other relevant metrics, can be found in the methodology section on Page 13 of this report.

It is the expert opinion of 3D Design Bureau that the BRE Guidelines are the most appropriate guiding document for assessing daylight potential within a proposed development. The rationale for this opinion is outlined in section 11.3.1(e) of the Galway City Council Development Plan (2023-2029), which states:

"[...] development shall be guided by the quantitative performance approaches and recommendations under the 'Site Layout Planning for Daylight and Sunlight' (2nd edition): A Guideline to Good Practice (BRE 2011) and BS 8206-2: 2008 – 'Lighting for Buildings – Part 2: Code of Practice for Daylighting' or any updated guidance."

Additionally, the Dublin City Council Development Plan (2022-2028) is referenced to demonstrate how other Irish planning authorities have considered BR 209 as the primary standard for daylight assessment in planning applications:

"*Prior to 2018, Ireland had no standard for daylight. In 2018, the National Standards Authority of Ireland adopted EN 17037 to directly become IS EN 17037. It is important to note that no amendments were made to this document and unlike BS EN 317037, it does not contain a national annex. It offers only a single target for new buildings (there are no space by space targets – e.g. a kitchen would have the same target as a warehouse or office). It does not offer guidance on how new developments will impact on surrounding existing environments. These limitations make it unsuitable for use in planning policy or during planning applications. BR 209 must still be used for this purpose.*"

Whilst BRE Guidelines draws reference from BS EN 17037, there are some subtle differences between BR 209 and BS EN 17037. For the purposes of this report, the BRE Guidelines (BR 209) is considered the appropriate reference document.

A detailed description of the various recommendations for impact assessment and scheme performance is contained in section "4.3 Quantitative Impact Assessment Overview" on page 15 of this report.

EN 17037:2018: Daylight in Buildings (2018)

*EN 17037 i*s a European Standard that provides recommendations for daylight within spaces. (Emphasis added)

EN 17037:2018 recommends that 300 lux should be received across 50% of a hypothetical reference plane of any room for half of the daylight hours of the year, with no less than 100 lux received across 95% of the reference plane. No distinction is made for the function of the room for target lux levels within this standard.

It is the opinion of 3D Design Bureau that these target values are less appropriate for proposed residential developments than the recommendations made in the BRE Guidelines, which apply room-specific target values for appropriate LUX levels.

Recommendations made in EN 17037 regarding Sunlight Exposure for proposed developments have been incorporated into the BRE Guidelines. As such, Sunlight Exposure is deemed the appropriate assessment for sunlight within habitable rooms of the proposed development.

EN 17037 also makes recommendations related to glare and quality of view out. These aspects are not addressed in this report as these assessments have less relevance in a residential context where occupants have the freedom to move about in order to improve level of glare or alter the view out.

I.S. EN 17037:2018 Daylight in Buildings (2018)

*I.S. EN 17037 i*s a direct adoption of the European Standard *EN 17037:2018* that provides recommendations for daylight within spaces.

The target values given within *I.S. EN 17037* are directly adopted from *EN 17037.* As such, there are no room-specific recommendations for daylight. Because of these limitations, it is the expert opinion of 3D Design Bureau, that the recommendations made in the *BRE Guidelines* are more appropriate to use than those within *I.S. EN 17037*.

Regardless, a supplementary SDA study has been carried out on the proposed development using the criterion of *I.S. EN 17037*, with compliance rates stated. However, this should be considered a supplementary study.

BS EN 17037:2018: Daylight in Buildings (2018)

BS EN 17037 is the British Annex to the European Standard (see above). The British Annex acknowledges that a rigid application of the European Standard "may not be achievable". It states "*... it is the opinion of the UK committee that the recommendations for daylight provision in a space [...] may not be achievable for some buildings, particularly dwellings.*"

In BS EN 17037, daylight recommendations differ depending on the function of a room. Target lux levels are applied across 50% of the reference plane of a room for half of the daylight hours. The target lux levels are:

- 200 Lux for kitchens
- 150 Lux for living rooms
- 100 Lux for bedrooms

No minimum is stated to be achieved across 95% of the working plane. If a space has dual purposes it is advised that the higher target value should be applied.

Summary

According to the aforementioned guiding documents, the following assessments are typically conducted for a daylight and sunlight study, depending on the specific requirements of the project.

Performance of the Proposed Development

Annual Probable Sunlight Hours (APSH) and Winter Probable Sunlight Hours (WPSH) on all relevant windows: APSH and WPSH are no longer recommended for scheme performance assessments under BR 209. They have been replaced with Sunlight Exposure (SE). When conducting a scheme performance assessment for sunlight in the habitable rooms of the proposed development, Sunlight Exposure is the relevant metric. An APSH/WPSH assessment will not be carried out in the scheme performance assessment of the proposed development.

Sunlight on Ground (SOG) in all amenity spaces: A SOG assessment will be carried out, where appropriate, for the amenity spaces of the proposed development.

Average Daylight Factor (ADF) in all habitable rooms: BR 209 (2022) states that ADF is no longer recommended as a relevant method of assessment. ADF has been replaced with a target illuminance assessment. (See below). As such, no ADF assessment will be carried out on the proposed development.

Target Illuminance in all habitable rooms: A target illuminance assessment, also known as a Spatial Daylight Autonomy (SDA) assessment, has replaced ADF as the relevant metric for assessing daylight within proposed habitable spaces. The two recommended methodologies for this assessment are detailed in section 4.5.1 on page 18. In a scheme performance assessment, the SDA will be calculated for the habitable rooms of the proposed development.

Impact on the Surrounding Properties

Vertical Sky Component (VSC) on all relevant surrounding windows: A VSC impact assessment will be conducted, where appropriate, on the relevant surrounding windows determined by the BRE decision chart as illustrated in Figure 4.2 on page 13.

Annual Probable Sunlight Hours (APSH) and Winter Probable Sunlight Hours (WPSH) on all relevant surrounding windows: An APSH/WPSH impact assessment will be conducted, where appropriate, on the relevant surrounding windows/rooms that have an orientation within 90° of due south.

Sunlight on Ground (SOG) in all surrounding amenity spaces: A SOG impact assessment will be carried out, where appropriate, on the neighbouring gardens/ amenity spaces located within close proximity and to the north of the subject site.

3.0 Glossary

3.1 Terms and Definitions

Below is a list of daylight and sunlight terminology that may be used in this report depending on the assessments carried out.

Skylight
Non directional ambient light cast from the sky and environment.

Sunlight
Direct parallel rays of light emitted from the sun.

Daylight
Combined skylight and sunlight.

Overcast sky model
A completely overcast sky model, used for daylight calculation.

Cloudless sky model
A completely cloudless sky model, used for sunlight exposure calculation.

Model State
The model state is a term used to describe the configuration of the digital model used to run analysis. Model states will typically reflect a baseline state and a proposed or cumulative state. For a definition of the model states used in the analysis carried out in this report, please refer to “Preparing the analytical model” on page 14.

Vertical Sky Component (VSC)
Ratio of that part of illuminance, at a point on a given vertical plane, that is received directly from an overcast sky model, to illuminance on a horizontal plane due to an unobstructed hemisphere of this sky. Usually the ‘given vertical plane’ is the outside of a window wall. The VSC does not include reflected light, either from the ground or from other buildings.

Annual Probable Sunlight Hours (APSH) / Winter Probable Sunlight Hours (WPSH)
Annual Probable Sunlight Hours (APSH) and Winter Probable Sunlight Hours (WPSH) are a measure of sunlight that a given window may expect over a year period (1 Jan - 31 Dec), or the winter period (21 Sep - 21 Mar) respectively.

North facing windows may receive sunlight on only a handful of occasions in a year, and windows facing eastwards or westwards will receive sunlight only at certain times of the day. Taking this into account, the BRE Guidelines suggest that windows with an orientation within 90 degrees of due south should be assessed.

Sun On Ground (SOG)
Assessment of what portion of a garden or amenity space is capable of receiving 2 hours or more of direct sunlight on March 21st.

Sunlight Exposure (SE)
The number of hours of direct sunlight a room can expect to receive on a given date between February 1st and March 21st at a determined point on the windows.

Spatial Daylight Autonomy (SDA)
Spatial Daylight Autonomy assesses whether a space receives sufficient daylight on a working plane during standard operating hours on an annual basis. For compliance, the target value is achieved across 50% of the working plane for half of the occupied period.

No Sky Line (NSL)
The no sky line divides points on the working plane which can and cannot see the sky.

Working plane
Horizontal, vertical or inclined plane in which a visual task lies. Normally the working plane may be taken to be horizontal, 850 mm above the floor in houses and factories, 700 mm above the floor in offices. The plane is offset 300mm from the room boundaries under BR 209 criteria, and 500mm from the room boundaries under I.S. EN 17037 criteria.

LKD
Living / Kitchen / Dining room.

BRE Target Value
When assessing the effect a proposed development would have on a neighbouring property, a target value will be applied. This applied target value is generated as per the criteria set out for each study in the BRE Guidelines.

Alternative Target Value
It could be appropriate to use alternative target values when conducting assessment of effect on existing properties. If such instances occur the rationale will be clearly explained and the instances where the alternative target values have been applied will be clearly identified.

Level of BRE Compliance
Each table in the study that has a column identified as “Level of BRE Compliance”, identifies how an assessed instance performs in relation to the appropriate target value. If the instance is in compliance with the recommendations as made in the BRE Guidelines the value will be expressed as “BRE Compliant”. If the instance does not meet the criteria as set out in the BRE Guidelines a percentage will be expressed to determine the level of compliance with the recommendation. This value determines the definition of effect.

LUX
Lux is a standardised unit of measurement of light level intensity. A measurement of 1 lux is equal to the illumination of a one metre square surface that is one metre away from a single candle.

3.2 Definition of Effects

The BRE Guidelines state that:

"Adverse impacts occur when there is a significant decrease in the amount of skylight and sunlight reaching an existing building where it is required, or in the amount of sunlight reaching an open space. The assessment of impact will depend on a combination of factors, and there is no simple rule of thumb that can be applied."

As such, planning authorities should consider a range of localised factors when making decisions. The terminology suggested in the BRE Guidelines is as listed below, whilst the assessment of impact should depend on a combination of factors. The BRE Guidelines also state:

"Where a new development affects a number of existing buildings or open spaces, the clearest approach is usually to assess the impact on each one separately. It is also clearer to assess skylight and sunlight impacts separately."

Taking this advice, 3DDB have categorised the level of effect on each window/room/open space on an individual basis. In quantifying the levels of effect, 3DDB have assigned numerical values to the levels of compliance with the BRE recommendations. By applying a numerical logic to the terminology used in defining the levels of effect there is no ambiguity regarding how the levels of effect have been categorised within this report.

The list of definitions given below is taken from '*Appendix H: Environmental impact assessment*' of the BR 209 with a clear indication of how they have been applied in the context of this report.

Negligible
For the purposes of this Sunlight and Daylight Assessment Report a '*Negligible*' level of effect will be stated if the level of effect is within the criteria as recommended in the BRE Guidelines and the applied target value has been achieved.

Minor Adverse
For the purposes of this Sunlight and Daylight Assessment Report, a '*Minor Adverse*' level of effect will be stated if the level of effect is marginally outside of the criteria as stated in the BRE Guidelines. Typically a '*Minor Adverse*' level of effect will be applied if the level of daylight or sunlight is reduced to equal or greater than 80% and less than 100% of the applied target value.

Moderate Adverse
For the purposes of this Sunlight and Daylight Assessment Report, a 'Moderate Adverse' level of effect will be stated if the level of daylight or sunlight is reduced to equal or greater than 50% and less than 80% of the applied target value. '*Moderate Adverse*' levels of effect are quite typical in instances where a proposed development is planned on an under-developed plot of land.

Major Adverse
An effect which, by its character, magnitude, duration or intensity alters a sensitive aspect of the environment. For the purposes of this Sunlight and Daylight Assessment Report a '*Major Adverse*' level of effect will be stated if the proposed development reduces the availability of daylight or sunlight of a neighbouring property to significantly below a baseline level. A '*Major Adverse*' level of effect will be stated if the level of daylight or sunlight is reduced to less than 50% of the applied target value.

Beneficial Impact
In relation to sunlight or daylight access, it is conceivable that a proposed development could yield positive effects on the neighbouring properties. In such circumstances the development would typically involve a reduction to the size or scale of built form (e.g. such as the demolition of a building or the removal of a large belt of evergreen trees, which might result in an increase in light access). Where such improvements occur, a '*Beneficial Impact*' will only be stated if the ratio of change is greater than 1.20 (an improvement of 20%). Should less perceptible improvements occur a '*Negligible*' level of effect will be stated.

Not Applicable (n.a.)
In instances where a baseline value is particularly low, levels of effects can appear exaggerated. To mitigate such occurrences, if the baseline value in the VSC, APSH/WPSH or SOG studies is below 1%, 3DDB have categorised the level of effect as n.a. (not applicable).

Averaged Windows (-)
If it can be determined or reasonably assumed that multiple windows are servicing the same room, each window will be assessed and a weighted average will be calculated. In such instances the level of effect for the room will be stated, but the level of effect for the individual windows contributing towards the average will be left blank in the table. This will be indicated in the tables with the dash symbol. (-)

3.3 Definition of Levels of Sunlight Exposure

For interiors, access to sunlight can be quantified. BR 209 recommends that a space should receive a minimum of 1.5 hours of direct sunlight on a selected date between 1 February and 21 March with cloudless conditions. It is suggested that 21 March (equinox) be used. The medium level of recommendation is three hours and the high level of recommendation four hours. For dwellings, at least one habitable room, preferably a main living room, should meet at least the minimum criterion.

Level of Sunlight Exposure:

The level of sunlight exposure will be stated for each assessed room in the tables under section "C.3 Sunlight Exposure (SE) in Proposed Units" on page 76. Below is a list of the terms used to categorise the levels of sunlight exposure:

Below Minimum
Sunlight exposure will be categorised as 'below minimum' if the potential sunlight for the assessed room is less than 1.5 hours on March 21st. Note: the recommendation is that a room within a proposed unit is capable of receiving 1.5 hours of direct sunlight on March 21st. If an individual room does not achieve this recommendation, it does not mean that the unit is non compliant.

Minimum
A 'minimum' level of sunlight exposure will be stated if the potential sunlight for the assessed room is between 1.5 hours and 3 hours on March 21st.

Medium
A 'medium' level of sunlight exposure will be stated if the potential sunlight for the assessed room is between 3 hours and 4 hours on March 21st.

High
A 'high' level of sunlight exposure will be stated if the potential sunlight for the assessed room is greater than 4 hours on March 21st.

Unit Compliance:

In addition to the level of sunlight exposure expressed for each room, compliance will be stated on a unit-by-unit basis. A proposed unit is considered to be compliant if any habitable room within the unit is capable of receiving at least 1.5 hours of sunlight on the assessment date.

Non-Compliant
If no habitable rooms within a proposed unit can receive 1.5 hours of sunlight on the assessment date, the unit will be categorised as 'Non-Compliant'.

Compliant
If at least one habitable room within a proposed unit can receive 1.5 hours or more of sunlight on the assessment date, the unit will be categorised as 'Compliant'.

Typically unit compliance will be stated for the best performing room per unit only, with lesser performing rooms indicated with a dash (-). However, if more than one room in a given unit is considered to be the best performing room (i.e. they have the same number of SE hours on March 21st), then the unit compliance column will be populated in the first instance only.

4.0 Methodology

4.1 Impact Assessment, Window Selection Criteria

To determine the properties to be included in the impact assessment, the decision chart taken from the BRE Guidelines has been followed, as shown in Figure 4.2.

Accordingly, all properties within a distance of three times the height of the Proposed Development, as illustrated in Figure 4.1, have been considered for impact assessment.

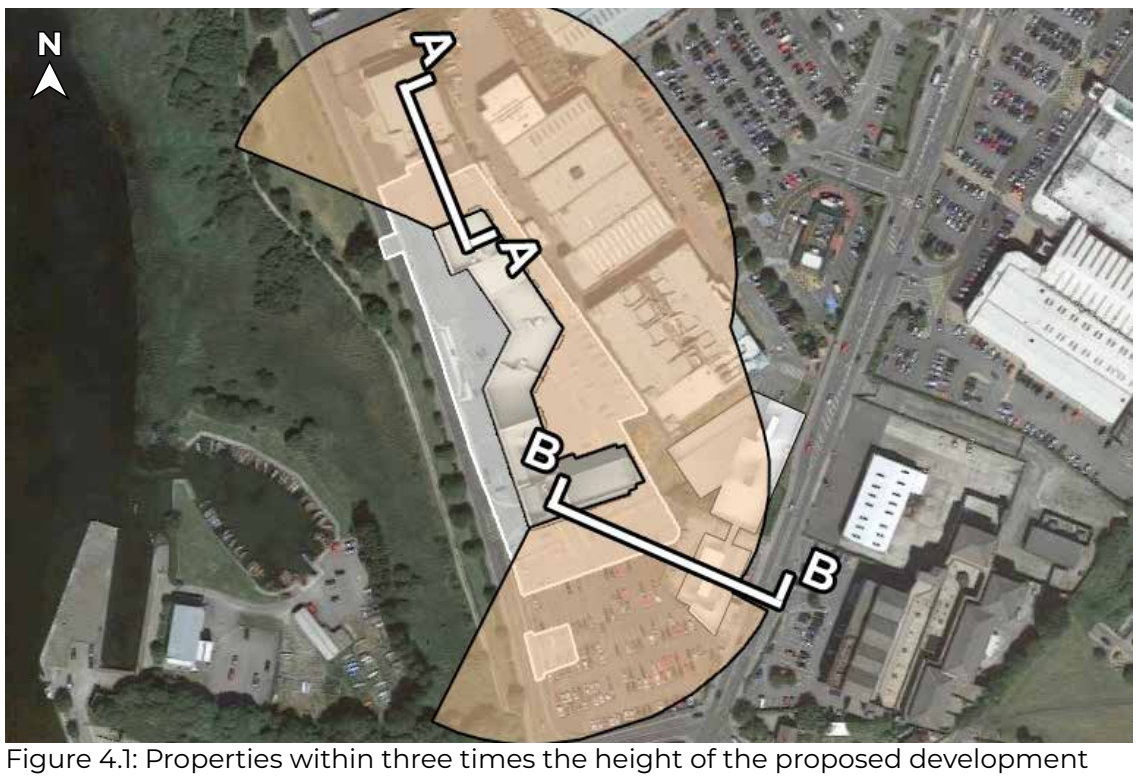

Figure 4.1: Properties within three times the height of the proposed development

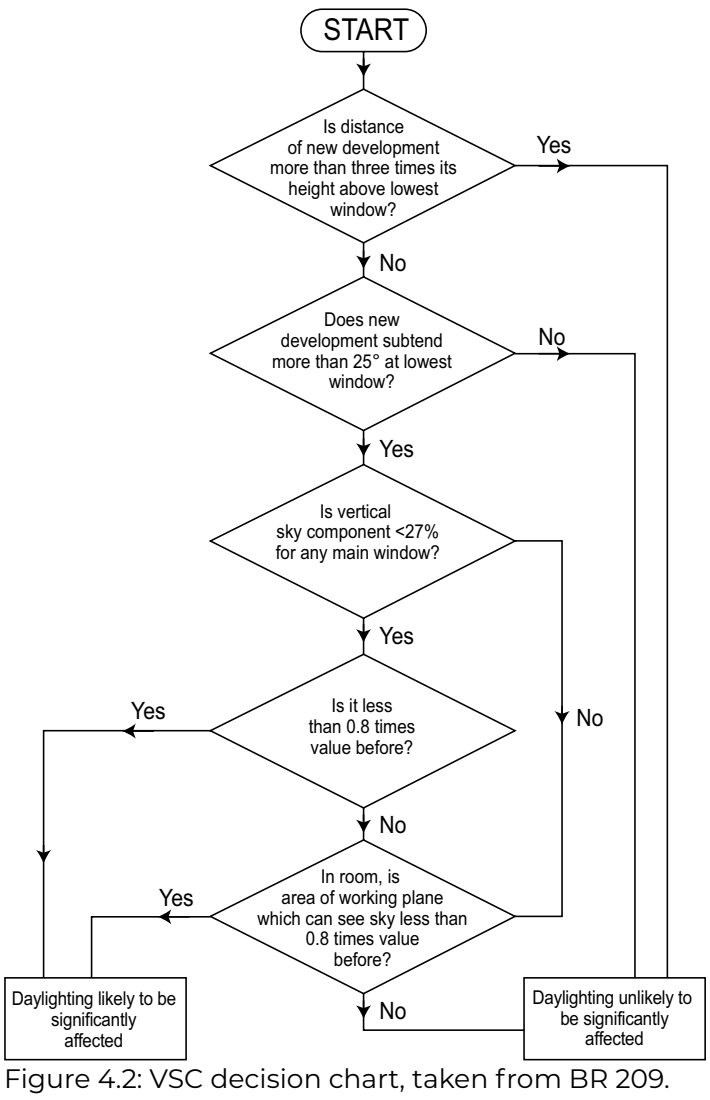

Figure 4.2: VSC decision chart, taken from BR 209.

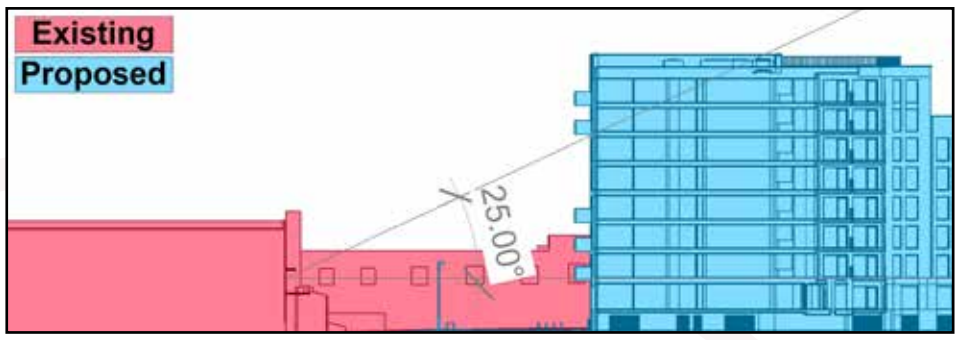

Figure 4.3: Section A-A taken through The Black Box, Dyke Road

Figure 4.4: Section B-B taken through the granted scheme

As per the BRE Guidelines, a perpendicular section has been drawn from the main window wall of the potentially affected properties to determine if the Proposed Development subtends an angle of more than 25° at the lowest window.

If the Proposed Development subtends 25° in this section, then a VSC assessment should be conducted. Figure 4.3 shows a perpendicular section taken through The Black Box, Dyke Road, which provides an example of where the Proposed Development subtends 25° when measured in a perpendicular section through an existing window.

However, if the Proposed Development does not subtend 25° in a perpendicular section, daylight is unlikely to be significantly affected and no further assessment will be carried out. Figure 4.4 shows a perpendicular section taken through the granted student accommodation scheme (ref: 20/184 as amended by 22259) which provides an example of where a window is within 3 times the height of the Proposed Development but the Proposed Development does not subtend 25° when measured in a perpendicular section.

A detailed description regarding the methodology of the VSC assessment can be found in 4.3.1 on page 15.

It is advisable that if a window/room does not meet the BRE criteria in the VSC impact assessment that a no sky line (NSL) assessment should then be carried out. However, a NSL assessment requires accurate dimensions and layouts of the existing rooms and windows. Due to common lack of availability regarding the required information, it is not common practice to carry out a no sky line study when assessing impact on existing properties.

The BRE Guidelines also apply the 25° rule to determine the need for an impact assessment for loss of sunlight (APSH/WPSH). They also advise that only windows with an orientation within 90° of due south should be assessed. It is recommended to assess the main living rooms of dwellings and conservatories, while APSH/WPSH assessments are typically not required for kitchens and bedrooms.

In practice, 3DDB include all windows meeting the proximity criteria in an APSH/WPSH assessment if they are reasonably assumed to serve habitable spaces. This approach avoids distinguishing whether the windows serve bedrooms or living areas, thereby eliminating the need to make assumptions about the specific functions of rooms in existing dwellings.

While the BRE Guidelines recommend conducting an impact assessment on the lowest window where daylight/sunlight is needed, if a property is found to have a window potentially affected by the Proposed Development, based on the previously explained criteria, all windows facing the Proposed Development on that property will be assessed. This approach provides a more comprehensive understanding of the overall impact on the property.

4.2 Preparing the analytical model

4.2.1 Building the Model States

The design lead, MOLA Architecture, supplied 3DDB with AutoCAD drawings of the Proposed Development from which a 3D analytical model was created. Landscape drawings were issued by Murray & Associates Landscape Architects. A combination of survey information, aerial photography, available online photography and/or ordnance survey information were used to model the surrounding context and assessed buildings. **Note:** as the information gathered from online sources is not as accurate as surveyed information, a reasonable tolerance should be allowed to the placement of windows, boundary treatments and the results generated.

Baseline model state

As illustrated in Figure 4.5, the baseline model state reflects the existing environment. It includes the surrounding context and the subject site in their current standing. This includes any structures that are to be demolished as part of this application. Additionally, the granted student accommodation scheme (ref: 20/184 as amended by 22259), located southeast of the subject site, was included in the surrounding context as built, using the drawings provided by the project architect. Existing trees were placed using photogrammetry information, with assumptions made regarding exact size, position and species.

As explained in section 4.1, the BRE Guidelines recommend that impact assessments should be carried out if any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25° to the horizontal. This criteria has been used to ensure all windows that could possibly sustain an adverse level of effect have been included in the model when running VSC and APSH/WPSH assessments.

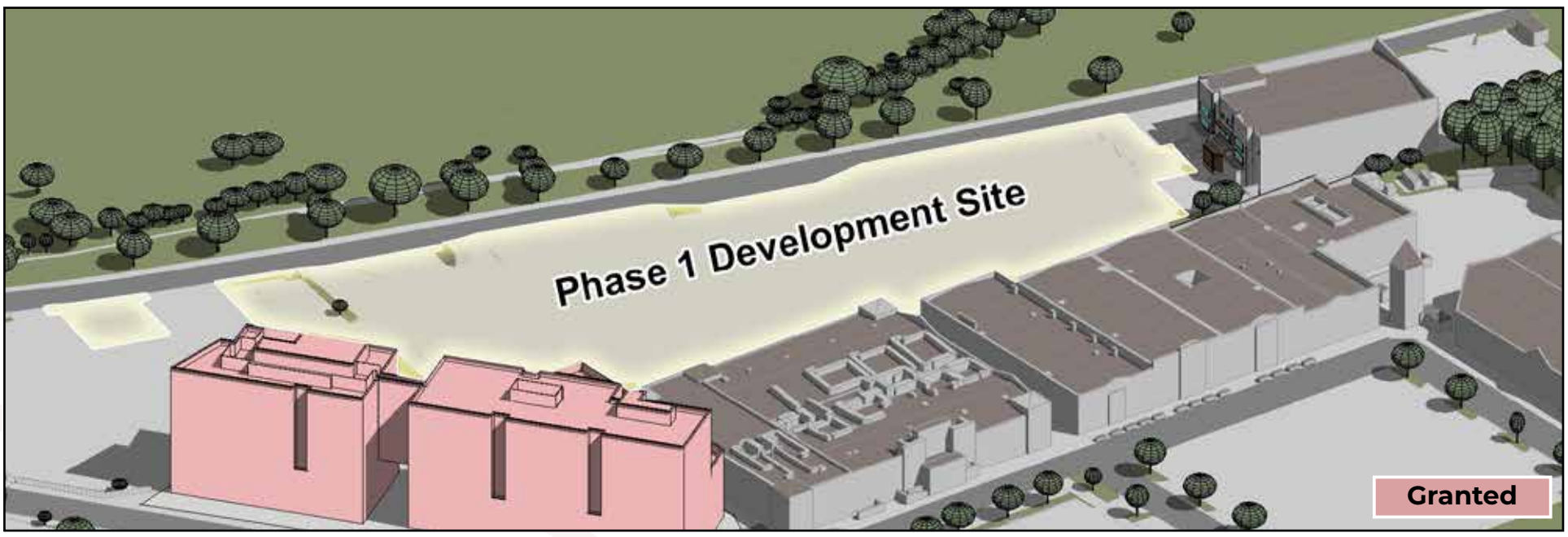

Figure 4.5: Model view of the baseline model state

Proposed model state

As illustrated in Figure 4.6, the proposed model state reflects the subject site if the development is built as proposed. This includes proposed landscaping on the subject site and the demolition of existing structures, etc. Proposed buildings have been positioned in their location on the subject site with relevant surrounding context included. Proposed trees have been included according to the information provided by the landscape architect.

All of the above information was subsequently used to prepare a digital analytical model in software specifically designed for daylight and sunlight analysis.

Relevant weather and climatic data has been obtained for this report using a localised EnergyPlus Weather File (IRL_NW_Galway.039640_TMYx.epw).

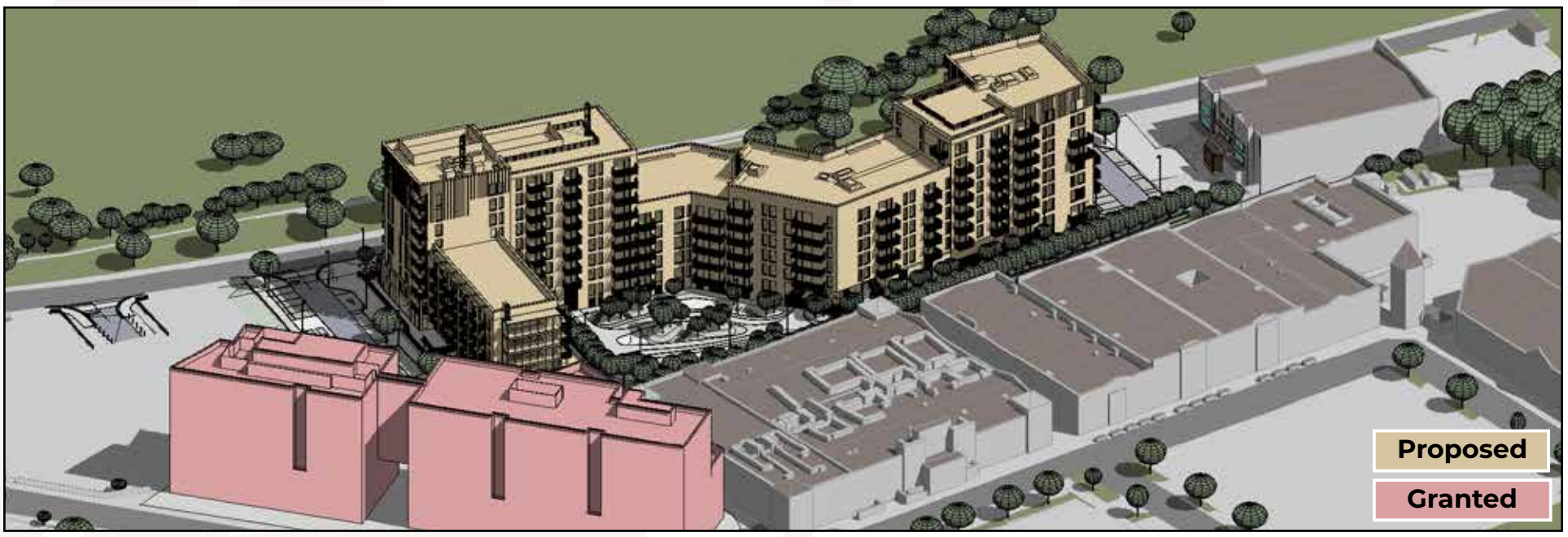

Figure 4.6: Model view of the proposed model state

4.2.2 Trees

It is generally not possible to accurately represent trees in a digital 3D model as the size and shape will differ greatly from tree to tree. When modelling trees for this assessment assumptions have been made and tree geometry has been simplified.

For the purpose of the analysis carried out in this report, the position and size of existing trees have been estimated using photogrammetry information. The shape of the trees have been simplified and the species of each tree has been assumed. Simplified models of proposed trees within the development have also been included according to the information provided by the landscape architect.

BR 209 provides guidance on how trees should be treated depending on the study being carried out, as summarised below:

Impact to Vertical Sky Component (VSC) and Annual / Winter Probable Sunlight Hours (APSH / WPSH)

The BRE Guidelines state that when assessing the effect a new development would have on existing buildings, it is usual to ignore the effect of deciduous trees. This is because daylight is at its scarcest and most valuable in winter when most trees will not be in leaf. Evergreen trees should be included, particularly where a dense belt or group of evergreens is specifically planned as a windbreak or for privacy purposes.

Sun On Ground (SOG)

Regarding SOG assessments, the BRE Guidelines states:

"...trees and shrubs are not normally included in the calculation unless a dense belt or group of evergreens is specifically planned as a windbreak or for privacy purposes. This is partly because the dappled shade of a tree is more pleasant than the deep shadow of a building (this applies especially to deciduous trees)."

As such, deciduous trees have not been included in the calculation of SOG, unless there is a dense belt present or a group of trees specifically planned as a windbreak or for privacy purposes. Evergreen trees are included in the SOG assessment.

Sunlight Exposure (SE)

The BRE Guidelines state that as deciduous trees would not be in full leaf on the recommended assessment date (March 21st), sunlight would be expected to penetrate deciduous trees. However, as trees have so many variables, it is impossible to accurately represent how they would affect sunlight at a given time. The suggested methodology (BR 209) to allow for this is to run the sunlight exposure study in two states. Once with trees as opaque objects and secondly without deciduous trees in the assessment model. This gives a range of potential sunlight hours.

Spatial Daylight Autonomy (SDA)

BR 209 recommends when assessing daylight in a proposed building, it is appropriate to run the assessment with trees represented over the course of the whole year. Light transmittance values for the modelled trees are varied to account for summer and winter foliage.

Taking average values from *BRE Digest 350*, a light transmittance value of 60% has been applied to deciduous trees during the portion of year where a bare branch tree condition is most likely (from the 6th of October to the 24th of April). Representative of summer months, a light transmittance value of 20% has been applied to deciduous trees during the portion of year where a full leaf tree condition is most likely (from the 24th of April to the 6th of October).

A light transmittance value of 20% has been applied to evergreen trees throughout the year.

Units have also been assessed without trees to give an understanding of how the architecture performs should trees not be factored into the calculation.

I.S. EN 17037 does not give any guidance on how trees should be represented. For the purpose of this report, the SDA calculation under the I.S. EN 17037 criteria has been carried out with trees represented in the same manner as the BR 209 assessment. Units have also been assessed without trees to give an understanding of how the architecture performs should trees not be factored into the calculation.

Shadow Study

The hourly renderings of the shadow study have been generated with evergreen trees represented as opaque objects, where applicable, and without deciduous trees. This method best represents the methodology used for the impact assessment and allows for a better understanding of potential shadows cast by the proposed development through the tree canopy.

4.3 Quantitative Impact Assessment Overview

4.3.1 Effect on Vertical Sky Component (VSC)

A proposed development could potentially have a negative effect on the level of daylight that a neighbouring property receives, if the obstructing building is large in relation to their distance from the existing dwelling.

Section 4.1 outlines the decision process which was used to determine the appropriate properties to be included in the VSC impact assessment.

For the proposed development, all properties within a radius of three times the height of the proposed development have been considered for impact assessment. Should the angle from the windows to the proposed development subtend 25° in a perpendicular section, then VSC is calculated in both the baseline and proposed model states, and a comparison made.

A no skyline assessment requires accurate dimensions and layouts of both rooms and windows. However, the required information is rarely available for existing dwellings. As such, it is not common practice to carry out a no sky line (NSL) impact assessment.

VSC can be defined as the amount of skylight that falls on a vertical wall or window.

This report assesses the percentage of direct sky illuminance that falls on the assessment point of neighbouring windows that could be affected by the proposed development.

The BRE Guidelines state that if the VSC is:

- At least 27%, then conventional window design will usually give reasonable results;
- Between 15% and 27%, then special measures (larger windows, changes to room layout) are usually needed to provide adequate daylight;
- Between 5% and 15%, then it is very difficult to provide adequate daylight unless very large windows are used;
- Less than 5%, then it is often impossible to achieve reasonable daylight, even if the whole window wall is glazed.

The VSC for each window/room will be calculated in the relevant model states, as outlined in section 4.2 on page 14. A comparison between the results generated with these model states will determine the level of effect.

A proposed development could possibly have a noticeable effect on the daylight received by an existing window, if the following occurs:

- The VSC value drops below the guideline value of 27%; **and**
- The VSC value is less than 0.8 times the existing value.

In instances where a baseline value is less than 1%, the impact will be considered '*non-applicable*' (n.a.)

Under BRE Guidelines, only habitable rooms need to be assessed for effect to VSC. In the absence of design layouts or floor plans, or information pertaining to the internal 'as-built' layouts, assumptions have been made regarding the function of the windows of the existing surrounding properties (i.e. what room type is served by the window being assessed).

Typically, the effect on ground floor windows is greater than the effect on windows of subsequent floors. However, floors above ground floor level have been included in this study to give a more comprehensive assessment.

Assessment Points

The VSC impact assessment has been carried out on the windows/rooms of the neighbouring properties that could be affected by the proposed development as highlighted in Figure 1.1 on page 3.

The assessment points for measuring VSC are taken from the centre point of a standard window. If the window being assessed is a full height window, the assessment point is taken at 1600 mm above the finished floor level.

Weighted Averages

If it can be determined or reasonably assumed that multiple windows are servicing the same room, each window has been assessed and a room VSC has been calculated by applying a weighted average calculation to the results.

When calculating weighted averages the proportion of the total glazing area represented for each window is taken into account. It should be noted that assumptions typically need to be made regarding window sizes, so a tolerance should be applied regarding calculated weighted averages.

In instances where weighted averages have been calculated, the VSC figures will be stated for each window on an individual basis as well as the calculated figure to be applied to the room, but the level of effect will only be stated for the room.

Project Assessment

Following the BRE decision chart, as illustrated in Figure 4.2 on page 13, a VSC impact assessment has been carried out on the windows/rooms of the neighbouring properties that could be affected by the proposed development as indicated in Figure 1.1 on page 3.

The results for the VSC assessment can be found in the appendix results section A.1 on page 28, with analysis of the results in section 5.1.1 on page 21.

4.3.2 Effect on Annual/Winter Probable Sunlight Hours (APSH/WPSH)

Annual/Winter Probable Sunlight Hours (APSH/WPSH) is a measure of sunlight that a given window may expect to receive over the period of a year. The percentage of APSH/WPSH that windows in existing properties receive might be affected by a proposed development.

A proposed development could potentially have a negative effect on the level of sunlight that a neighbouring property receives, if the obstructing building is located to the south and is large in relation to their distance from the existing dwelling. This can be determined if the distance of a proposed development is less than three times its height from an existing dwelling, or if the angle from an existing window to the proposed development subtends 25° to the horizontal when measured in a perpendicular section.

Whether a window is considered for APSH/WPSH impact assessment is based on its orientation. A south-facing window will, in general, receive the most sunlight. North facing windows may receive sunlight on only a handful of occasions in a year, and windows facing eastwards or westwards will receive sunlight only at certain times of the day. Taking this into account, the BRE Guidelines suggest that windows with an orientation within 90 degrees of due south should be assessed.

Section 4.1 outlines the decision process which was used to determine the appropriate properties to be included in the APSH/WPSH impact assessment.

The APSH/WPSH for each of the assessed windows will be calculated in the relevant model states, as outlined in section 4.2 on page 14. A comparison between the results generated with these model states will determine the level of effect.

If it can be determined or reasonably assumed that multiple windows are servicing the same room, the APSH/WPSH has

been assessed for the room as opposed to each individual window. When APSH/WPSH is assessed for a room it considers sunlight coming from all windows, but does not double count if sunlight is reaching multiple windows at the same time.

If a room can receive more than 25% of APSH, including at least 5% of the WPSH, then the room should receive enough sunlight.

A proposed development could possibly have a noticeable effect on the sunlight received by an existing window/room, if the following occurs:

- The APSH value drops below the annual (25%) or winter (5%) guidelines; **and**
- The APSH value is less than 0.8 times the baseline value; **and**
- There is a reduction of more than 4% to the annual APSH.

In some circumstances, the available sunlight during the winter period (WPSH) may both drop below the recommended minimum of 5% with a proposed value of less than 0.8 times the baseline value, but the reduction to annual probable sunlight (APSH) is less than 4%. Such occurrences are considered compliant with the BRE Guidelines, and the impact to WPSH will be stated as '*n.a.*' on that basis.

Additionally, where a baseline value is less than 1%, the impact will be considered '*non-applicable*' (n.a.)

Under BRE Guidelines, only main living-rooms need to be assessed for effect on sunlight. In the absence of design layouts or floor plans, or information pertaining to the internal 'as-built' layouts, all windows assumed to be servicing habitable rooms have been included in the APSH/WPSH assessment provided they are orientated within 90° of due south and are in relative close proximity to the proposed development.

Typically, the effect on ground floor windows is greater than the effect on windows of subsequent floors. However, floors above ground floor level have been included in this study to give a more comprehensive assessment.

Assessment Points

The assessment points for measuring APSH/WPSH are taken from the centre point of a standard window. If the window being assessed is a full height window, the assessment point is taken at 1600 mm above the finished floor level.

Project Assessment

The APSH/WPSH impact assessment has been carried out on the windows/rooms of the neighbouring properties that could be affected by the proposed development as indicated in Figure 1.1 on page 3, with an orientation within 90 degrees of due south.

The results for the APSH/WPSH assessment can be found in the appendix results section A.2 on page 31, with analysis of the results in section 5.1.2 on page 22.

4.3.3 Effect on Sun On Ground in Existing Gardens/Amenity Areas (SOG)

The BRE Guidelines recommend that for a garden or amenity area to appear adequately sunlit throughout the year, at least half the area should receive at least two hours of sunlight on March 21st. As the BRE Guidelines does not provide a clear criteria on which neighbouring properties should be included in an impact on SOG study, 3DDB have carefully considered the neighbouring properties that may be affected when running the impact assessment. Gardens or amenity areas included in this study are typically located within close proximity, to the north of the proposed development.

Where a quantitative assessment has not been carried out it is on the basis that the omitted areas are unlikely to be adversely affected. Such instances may be because the areas are not deemed to be in close proximity to the proposed development or because they are located to the south. Should there be any concerns over the potential impact on any areas that have not been included in the quantitative assessment, a qualitative assessment may be carried out using the shadow study and false colour plans included in the report.

March 21st, also known as the spring equinox, is chosen as the assessment date as daytime and night-time are of approximately equal duration on this date.

The analytical model for SOG impact assessment includes evergreen trees, where applicable, in accordance with the BRE Guidelines. Typically deciduous trees will not be included unless there is a particularly dense belt.

The percentage of assessed areas which can receive two hours or more of direct sunlight on March 21st will be calculated in the relevant model states, as outlined in section 4.2 on page 14. A comparison between the results generated with these model states will determine the level of effect.

A proposed development could possibly have a noticeable effect on the sunlight received by an existing garden and/or amenity area, if the following occurs:

- Half the area of the space does not receive at least two hours of sunlight during the spring equinox; **and**
- The area that receives more than two hours of sun on the spring equinox is less than 0.8 times its former value.

In instances where a baseline value is less than 1%, the impact will be considered '*non-applicable*' (n.a.)

Effect on sunlight to existing neighbouring gardens and/or amenity areas has been assessed to the north of the proposed development, as areas located to the south are unlikely to be affected due to sun direction. Overshadowing is highly unlikely to occur in areas that are due south of any proposed development.

Project Assessment

No quantitative SOG impact assessment has been carried out on the areas surrounding the subject site as the proposed development is not located primarily south of any garden or amenity area.

The false colour plans of the proposed SOG assessment in section C.4 on page 92 and the hourly renderings of the shadow study in section B.0 on page 34, allow for a qualitative sunlight assessment of the surrounding areas.

4.4 Qualitative Assessment - Shadow Study

A shadow study has been carried out to allow a qualitative comparison between the relevant model states, as outlined in section 4.2 on page 14. This visual representation of the shadows cast by the proposed development can be found in the hourly shadow diagrams in the appendix results section B.0 on page 34.

Hourly renderings have been shown from sunrise to sunset on the following dates in 2025:

- Spring equinox: March 21st Sunrise 6:42 | Sunset 18:45. (GMT)
- Summer solstice: June 21st. Sunrise 5:16 | Sunset 22:00. (BST)
- Winter solstice: December 21st Sunrise 8:56 | Sunset 16:12. (GMT)

The shadow study has been generated using the same model states as described in section 4.2.1. In certain cases, assumptions or estimations may have been made when modelling elements of the surrounding context and/or proposed site details when creating the various model states. Therefore, it is advisable for a reasonable tolerance to be applied when interpreting shadows in the qualitative assessment.

The hourly renderings of the shadow study will be generated without deciduous trees and with evergreen trees, where applicable, represented as opaque objects when present in the model states.

Note: The spring equinox (March 21st) and autumn equinox (21st September) yield similar shadows, albeit with a one hour difference as daylight saving time (BST) would be in effect. Only the spring equinox was included in the shadow study images in accordance with the BRE Guidelines.

4.5 Quantitative Scheme Performance Assessment Overview

4.5.1 Spatial Daylight Autonomy in Proposed Habitable Rooms (SDA)

Since the publication of the 3rd edition of the BRE Guidelines (BR 209 - 2022), Spatial Daylight Autonomy (SDA) is the recommended metric for assessing daylight access within a proposed development. Spatial Daylight Autonomy replaces Average Daylight Factor (ADF) in this regard, which was the recommended metric under the 2nd edition of the BRE Guidelines (BR 209 - 2011).

Spatial Daylight Autonomy assesses whether a room receives sufficient daylight on a working plane during standard operating hours on an annual basis. A given target value should be achieved across 50% of the working plane for half of the daylight hours.

There are two methods for calculating SDA:

- **Calculation method using illuminance level:** This requires the use of a detailed daylight calculation method where hourly (or sub-hourly) internal daylight illuminance values for a typical year are computed using hourly (or sub-hourly) sky and sun conditions derived from climate data appropriate to the site. This calculation method determines daylight provision directly from simulated illuminance values on the reference plane. The illuminance value of at least half the required area of the space should equal or exceed the target values.
- **Calculation method using daylight factor:** The daylight factor method assumes a constant ratio between internal and external illuminance. The daylight factors in the space shall be calculated by any reliable method that is based on the ISO 15469:2004 standard overcast sky (TYPE 1 or TYPE 16). Daylight factors are to be predicted across grid of points on a plane 0.85m above the floor of the space. The daylight factor of at least half the required area of the space should equal or exceed the target values.

It is the opinion of 3DDB that the calculation method using illuminance level better represents a real-world scenario as it accounts for the quality of daylight based on orientation. As such, the illuminance methodology has been adopted for all SDA assessments in this report using a localised EnergyPlus Weather File (IRL_NW_Galway.039640_TMYx.epw) to apply the relevant climate information.

In terms of housing, *BR 209* provides target SDA values to be received across at least 50% of the working plane for at least half the daylight hours. The target values differ based on the function of the room assessed:

- 200 Lux for kitchens
- 150 Lux for living rooms
- 100 Lux for bedrooms

Where rooms serve more than one function, the higher SDA target value should been taken.

The proposed development also includes a childcare facility on the ground floor. However, there are not predefined target value in BR 209 for such spaces. Therefore, 3DDB applied an SDA target value of 150 Lux to these rooms. This target was chosen because the classrooms are designed for group use, and the value typically assigned to living rooms was deemed appropriate. These rooms have not been included in the calculated compliance rates.

Under I.S. EN 17037 at least 50% of the working plane should receive above 300 lux for at least half the daylight hours, with 95% of the working plane receiving above 100 Lux for all rooms. The target SDA values do not vary depending on the room function under this criteria.

This study has assessed the Spatial Daylight Autonomy (SDA) received in the habitable rooms of the proposed development under the BR 209 criterion. The SDA of the proposed development has been calculated under the I.S. EN 17037 criterion as part of a supplementary assessment.

Defining Rooms

Definition of rooms has been taken directly from the architectural drawings supplied by the project architect.

In accordance with the BRE Guidelines circulation spaces, corridors, bathrooms etc. have not been assessed.

Indication of the assessed space in each room is provided in the floor plans that correspond to the SDA results in the appendix section “Proposed Floor Plans” on page 43.

Working Plane

The calculation of SDA is carried out on a hypothetical working plane which lies 850 mm from the finished floor level in residential units and 700 mm in academic and office spaces.

In the BR 209 study the working plane is offset 300 mm from the room boundaries. Under the I.S. EN 17037 criteria the working plane is offset 500 mm from the room boundaries. The working plane has a grid density of c. 300 mm.

Material Palette

Following consultation with the design team, material values used for SDA calculations are as per the table below:

Table No. 4.5.1 - Material Palette for SDA Calculations

Object	Material	Reflectance	Object	Material	Reflectance / Transmittance
Exterior walls	Standard Brick	0.3	Interior Walls	Pastel paint	0.70
	Light Brick	0.4	Interior Ceiling	White paint	0.8
	Dark Brick	0.15	Interior Floor	Light timber	0.4
	Render	0.6	Miscellaneous	Miscellaneous	0.5
	Concrete	0.4	Glass	Double glazing	0.68
Ground cover	Paving	0.4		Maintenance factor	0.91
	Tarmac	0.2		Glass adjusted for maintenance	0.62
	Grass	0.2		Frosted glass	0.5

Project Assessment

The results for the study on SDA can be found in the appendix results section C.2 on page 60.

Analysis of the results can be found in section 5.2.1 on page 22.

The results of the supplementary SDA study under the I.S. EN 17037 criterion can be found in section D.0 on page 94.

4.5.2 Sunlight Exposure in Proposed Habitable Rooms (SE)

Since the publication of the 3rd edition of the BRE Guidelines (BR 209 - 2022), Sunlight Exposure (SE) is the recommended metric for assessing sunlight access within a proposed development. Sunlight Exposure replaces APSH/WPSH in this regard, which was the recommended metric under the 2nd edition of the BRE Guidelines (BR 209 - 2011).

Sunlight exposure (SE) is a measure of sunlight that a given window may expect to receive on a given date between the 1st of February and the 21st of March. The BRE guidelines suggest that March 21st (equinox) is used as the assessment date.

In the presence of trees, SE results have been generated, both with deciduous trees as opaque objects and without the inclusion of deciduous trees, in accordance with the BRE Guidelines. Evergreen trees have been included as opaque objects, where applicable, in both states.

The level of sunlight exposure is categorised as follows:

- 1.5 Hours - Minimum
- 3 Hours - Medium
- 4 Hours - High

The recommendation for dwellings is that at least one habitable room, preferably a main living room, should receive at least the minimum criterion. Should no room within a given unit meet the recommended minimum level of sunlight exposure, it will be stated as non-compliant.

Sunlight exposure is carried out on habitable rooms within a proposed development. The assessment point for windows is 1.2m above the finished floor level, or 0.3m above the sill level (which ever is higher). If a room has multiple windows, the amount of sunlight received by each can be added together provided they occur at different times and sunlight hours are not double counted.

The criterion applies to rooms of all orientations, although if a room faces significantly north of due east or west it is unlikely to be met. As such, it is not always possible to achieve full compliance, especially in developments that contain single aspect units.

The sunlight exposure assessment focuses on habitable residential rooms. Unless sunlight access is deemed important for the functionality of a non-residential room in a proposed development, it will not be included in the study, which remains limited to residential rooms. In this case the childcare facility was assessed as sunlight is considered an important aspect for its use. The findings are outlined in section 5.2 but were not included in the calculated compliance rates, which remain limited to the residential spaces.

Project Assessment

The results for the study on sunlight exposure can be found in the appendix results section C.3 on page 76, with analysis of the results in section 5.2.2 on page 23.

4.5.3 Sun On Ground in Proposed Outdoor Amenity Areas (SOG)

The BRE Guidelines recommend that for a garden or amenity area to appear adequately sunlit throughout the year, at least half of it should receive at least two hours of sunlight on March 21st.

March 21st, also known as the spring equinox, is chosen as the assessment date as daytime and night-time are of approximately equal duration on this date.

The analytical model for SOG assessment in proposed amenity areas includes evergreen trees, where applicable, as per the BRE Guidelines. Typically deciduous trees will not be included unless there is a particularly dense belt.

A quantitative SOG assessment has been carried out on the areas as indicated by the project architect. The shadow study and false colour plans allow for a qualitative assessment for all other areas.

The portion of each assessed space capable of receiving 2 hours of direct sunlight on March 21st has been calculated individually. These areas can be combined to give the development average where appropriate.

Project Assessment

The levels of sunlighting to proposed amenity areas, as indicated by the architect, have been assessed. However, it should be noted that the numbering of these spaces in the Daylight and Sunlight Assessment Report has been assigned by 3DDB specifically for the purposes of this report. If other consultants are referencing these spaces in their own reports, it is unlikely they will be numbered the same.

The results for the study on sun on ground in the proposed outdoor amenity areas (including a visual representation in the form of 2-hour false colour plans) can be found in the appendix results section C.4 on page 92, with analysis of the results in section 5.2.3 on page 24.

5.0 Analysis of Results

5.1 Analysis of Impact Assessment Results

5.1.1 Effect on Vertical Sky Component (VSC)

The effect on VSC has been assessed for 17 no. windows/rooms within the surrounding commercial buildings, including Units 2,4,5 and Gray Office Park within Galway Retail Park on Headford Road, and The Black Box on Dyke Road. As noted earlier in the report, no windows within the granted student accommodation scheme were assessed, as they do not warrant assessment per the criteria outlined in Section 4.1.

Using the rationale explained in section 3.2 on page 11, the effect to VSC on 11 no. of these windows (or rooms if an average of multiple windows has been taken) would be considered *'negligible'*, 4 no. '*minor adverse'*, and 2 no. '*moderate adverse'*.

The available information from planning permissions (ref: 99551 and 04497) for the properties at Galway Retail Park allowed identification of specific windows serving the same room, enabling weighted average calculations for these rooms (Figure 5.1 below). Only spaces serving office functions (e.g., office, admin, training) were included in the assessment, while spaces labelled as 'store' and 'canteen' were excluded, as these are assumed to primarily serve storage or secondary purposes. Across these properties, 4 no. windows/rooms would experience an adverse impact. Specifically, windows U2a and U4b were categorised as experiencing a '*moderate adverse'*, while room U4a# and window U5c were categorised as experiencing a '*minor adverse'*. It should be noted that window U5c marginally falls below the minimum requirement of 27%, with a proposed VSC value of 26.08%.

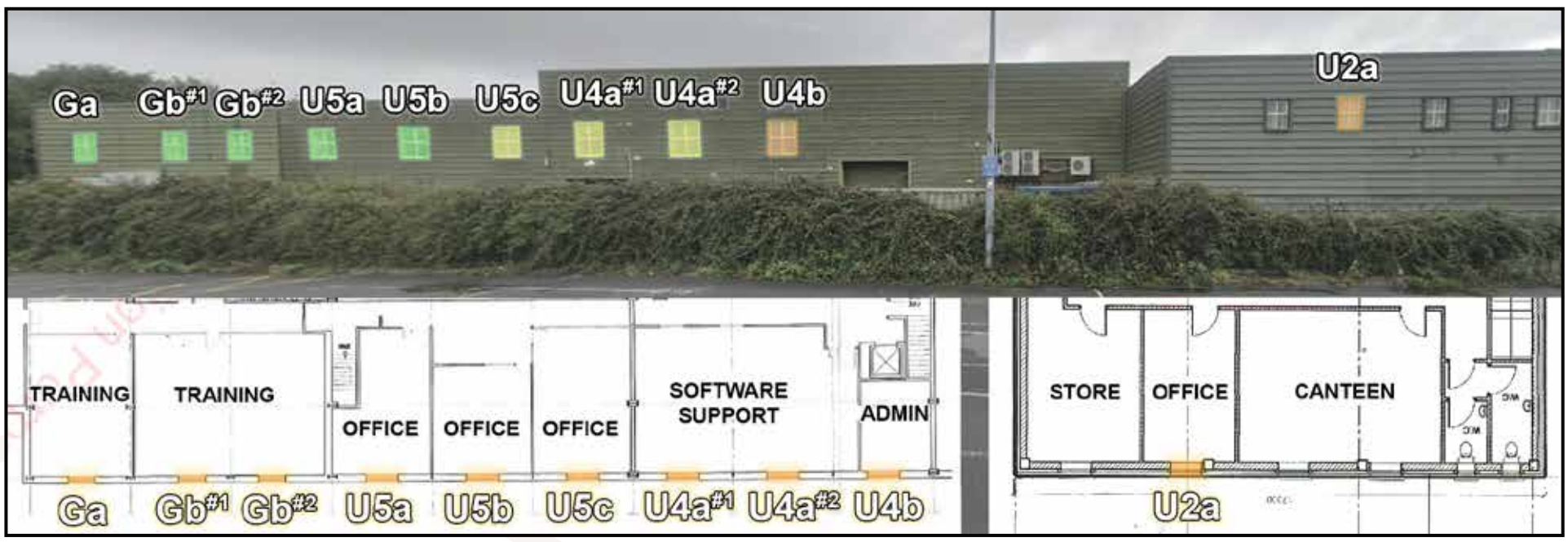

Figure 5.1: Galway Retail Park. Windows/rooms categorised as *'negligible'* In green, *'minor adverse'* In yellow, *'moderate adverse'* in orange.

At The Black Box (Figure 5.2 below) 2 no. windows would be impacted, with a level of effect categorised as '*minor adverse*' for both. As no interior layout information was available for this property, windows were assessed individually. It should be noted that the two affected windows, Bb and Bc, already had baseline VSC values below the recommended minimum of 27%, at 19.82% and 19.87%, respectively. This is due to the existing metal structure overhead, which limits the amount of daylight reaching these windows. Consequently, the Proposed Development is likely to cause a relatively greater reduction in daylight due to the already low baseline values.

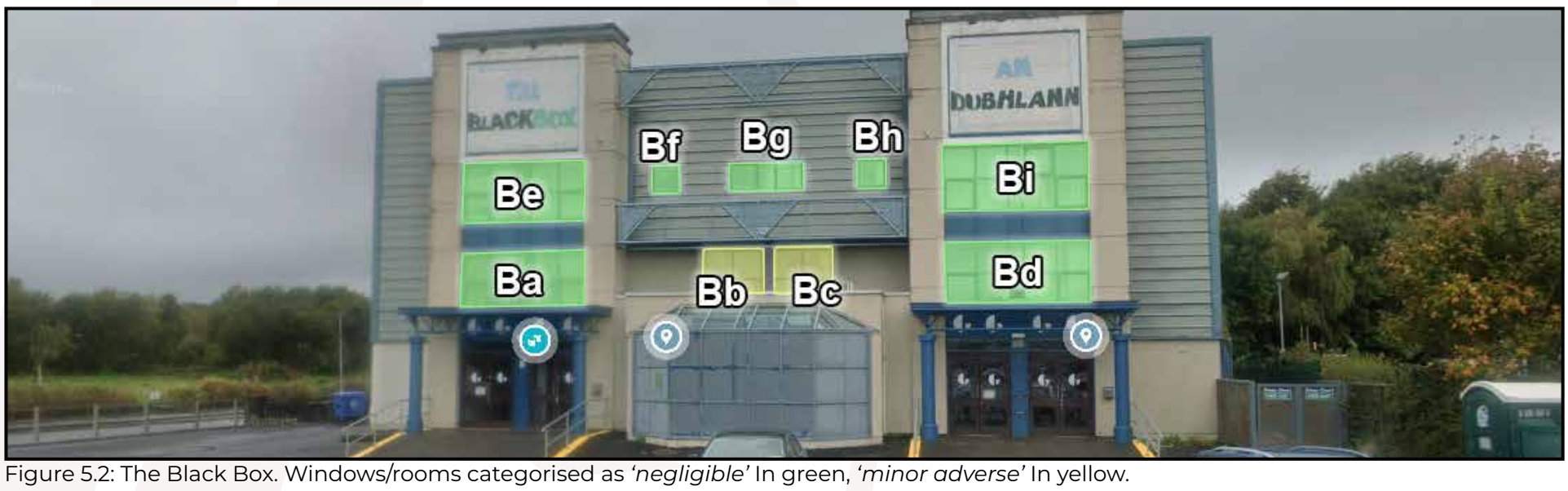

Figure 5.2: The Black Box. Windows/rooms categorised as *'negligible'* In green, *'minor adverse'* In yellow.

In conclusion, while the Proposed Development would affect some windows/rooms across the surrounding existing properties, all affected spaces are non-residential. The only nearby residential spaces are located within the granted student accommodation scheme, which was excluded from the assessment as it is unlikely to be affected by the Proposed Development, as per the BRE Guidelines (see section 4.1 for full explanation as to why).

The results of the study on VSC can be found in section A.1 on page 28.

5.1.2 Effect on Annual/Winter Probable Sunlight Hours (APSH/WPSH)

The effect on APSH/WPSH has been assessed for the same 17 no. windows/rooms within the surrounding commercial buildings, including Units 2-5 and Gray Office Park within Galway Retail Park on Headford Road, and The Black Box on Dyke Road.

Using the rationale explained in section 3.2 on page 11, the effect on the APSH of 15 no. of these windows or rooms would be considered *'negligible'*, and 2 no. *'minor adverse'*.

The 2 no. affected windows, Bb and Bc at The Black Box, are also identified as affected in the VSC assessment. It is worth to note that they are just shy of meeting the recommended minimum of 25%, with proposed APSH values of 24.49% and 23.70%, respectively.

Regarding the winter calculation, the effect on the WPSH for all of these windows or rooms would be considered *'negligible'*.

In conclusion, the Proposed Development would not considerably affect the current levels of sunlight in the existing properties. Only 2 no. windows at The Black Box fall slightly below the recommendations for annual sunlight hours.

The results of the study on APSH/WPSH can be found in Section A.2 on page 31.

5.2 Analysis of Scheme Performance Results

5.2.1 Spatial Daylight Autonomy (SDA)

This study has assessed the Spatial Daylight Autonomy (SDA) received in all habitable rooms within the Proposed Development both with and without trees. This has ensured that a clear understanding has been obtained regarding the daylight performance of the Proposed Development.

This Proposed Development consists of 219 no. units, which makes up approximately 558 no. habitable rooms.

Under the criteria as set out in the BR 209 considering trees, the SDA value in 555 no. habitable rooms meets or exceeds the appropriate target values. This gives a circa compliance rate of 99%. For a scheme of this size, this is an excellent level of compliance.

The additional SDA assessment that does not include trees has shown a compliance rate of over 99%, with only one room, LKD of unit A-0-08, presenting an SDA value of 46%, not too far from the recommended minimum target value.

While the proposed trees affect the compliance of 2 no. rooms, LKD of unit C-0-04 and LKD of unit A-1-08 (Figure 5.3 below), they show SDA values of 47% and 48%, respectively, which are just below the recommended minimum of 50%.

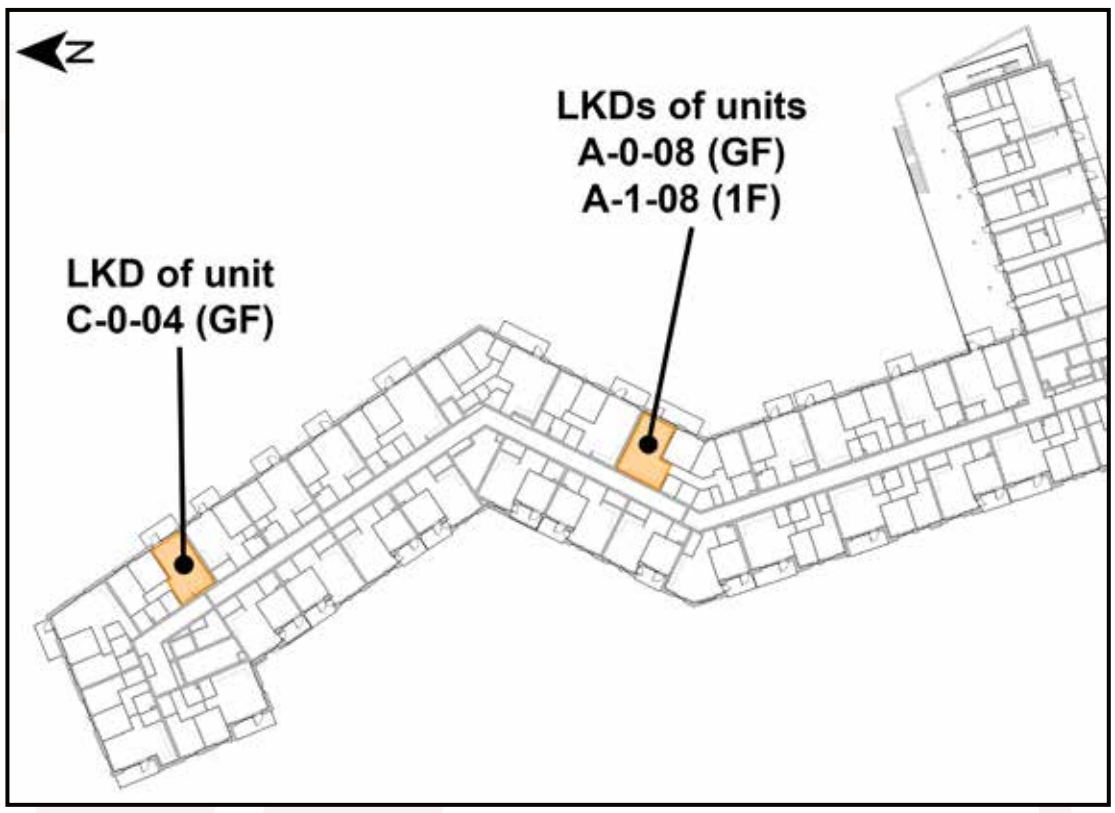

Figure 5.3: Rooms below the minimum recommendations for SDA in the tree state.

Additionally, the classrooms within the childcare facility on the ground floor, which are not included in the compliance rates just presented, show very favourable levels of daylight, with SDA values ranging from 91% to 100%.

I.S. EN 17037 sets out more onerous recommendations for SDA. As such, the number of habitable rooms achieving compliance under this standard is 470 in the assessment that includes trees. This gives a reduced circa compliance rate of c. 84%. The additional SDA assessment, under this standard, that does not include trees has shown a compliance rate of c. 87%.

In cases where rooms comply with the criteria of BR 209 but do not meet the criteria of I.S. EN 17037, it is the recommendation of 3D Design Bureau that these rooms will appear adequately daylit. This recommendation is based on the fact that BR 209 provides room-specific criteria, unlike I.S. EN 17037. BR 209 considers the varying daylight requirements for different room types, which I.S. EN 17037 does not account for.

With regards to internal daylighting, Section 6.7 of the Sustainable Urban Housing: Design Standards for New Apartments July 2023, states the following:

"Where an applicant cannot fully meet all of the requirements of the daylight provisions above, this must be clearly identified and a rationale for any alternative, compensatory design solutions must be set out, which planning authorities should apply their discretion in accepting taking account of its assessment of specific. This may arise due to a design constraints [sic] associated with the site or location and the balancing of that assessment against the desirability of achieving wider planning objectives. Such objectives might include securing comprehensive urban regeneration and or an effective urban design and streetscape solution."

Based on the above statements, compensatory design solutions have been provided by the project architect where rooms do not achieve the daylight provision targets as set out in the BRE Guidelines.

The following list indicates all units that do not achieve the recommended level of daylight with regards to BR 209 and the compensatory design solution for each:

- A-0-08 & A-1-08: Unit oversized by 8sqm, LKD oversized by 1sqm, overlook the communal amenity area.
- C-0-04: Fully compliant with SDA BRE 209 guidelines in the 'no-tree' state, overlooks the private amenity area, planting minimized in lower-level areas to reduce the impact on internal daylight.

The rationale for all instances of non-compliance with the BR 209 criteria that can be attributed to the effect that trees have on daylight, is that the provision of trees is an important aspect of the proposed site layout. Where trees affect daylight potential, a conscious decision has been made by the design team in balancing daylight provision with an appropriate level of foliage.

In conclusion, It is the opinion of 3DDB that the achieved circa compliance rate of 99% demonstrates a thoughtful design approach to daylight considerations. Given the size of the development, and the inclusion of the granted student accommodation in the surrounding context, these results reflect an excellent level of daylight performance.

The results for the study on SDA can be seen in section C.2 on page 60.

5.2.2 Sunlight Exposure (SE)

A sunlight exposure assessment has been carried out on all habitable rooms within the Proposed Development. For these assessments, trees have been included in the analytical model as opaque objects. The assessments have been carried out in two states:

- All trees included in assessment model.
- Only evergreen trees included in the assessment model.

This approach is in accordance with the BRE Guidelines.

In total, 219 no. units have been assessed. Using the rationale explained in section 3.3 on page 12, the level of sunlight exposure for the assessed units is as follows:

In the assessment carried out with all trees considered as opaque objects, 107 no. units are considered *high*, 29 no. *medium*, 70 no. have reached the *minimum* recommendation with 13 units below the *minimum* recommendation.

When deciduous trees are not factored into the assessment model, 108 no. units are considered *high*, 29 no. *medium*, 69 no. have reached the *minimum* recommendation with 13 units below the *minimum* recommendation.

The SE assessment has shown that, depending on effect of trees, the circa compliance rate for the assessed units, in accordance with the BRE Guidelines, is 94%.

These results show that the inclusion of trees in the calculations does not affect the compliance of the units, which is to be attributed exclusively to the design and orientation of the building.

Note: For a unit to be compliant under BR 209, only one habitable room within the unit needs to meet the guideline values.

Whilst the criterion applies to rooms of all orientations, it should be noted that if a room faces significantly north of due east or west it is unlikely to be met. As such, it is not always possible to achieve full compliance, especially in developments that contain single aspect units such as this one.

Of the 13 no. units not meeting the required sunlight levels, 8 no. are northeast-facing, single-aspect units located across the ground to third floors (shown in Figure 5.4). For these units, the southern wing of the building, which extends perpendicular to this facade, obstructs the limited direct sunlight available from the east. This is further evidenced by the fact that these units meet the minimum requirements at upper levels. Additionally, the double-aspect corner unit located at the northeastern part of the building fails to meet the minimum sunlight requirements on the first to third and sixth to seventh floors. However, this unit achieves the minimum sunlight levels on the ground, fourth, and fifth floors, due to variations in the facade design at these levels.

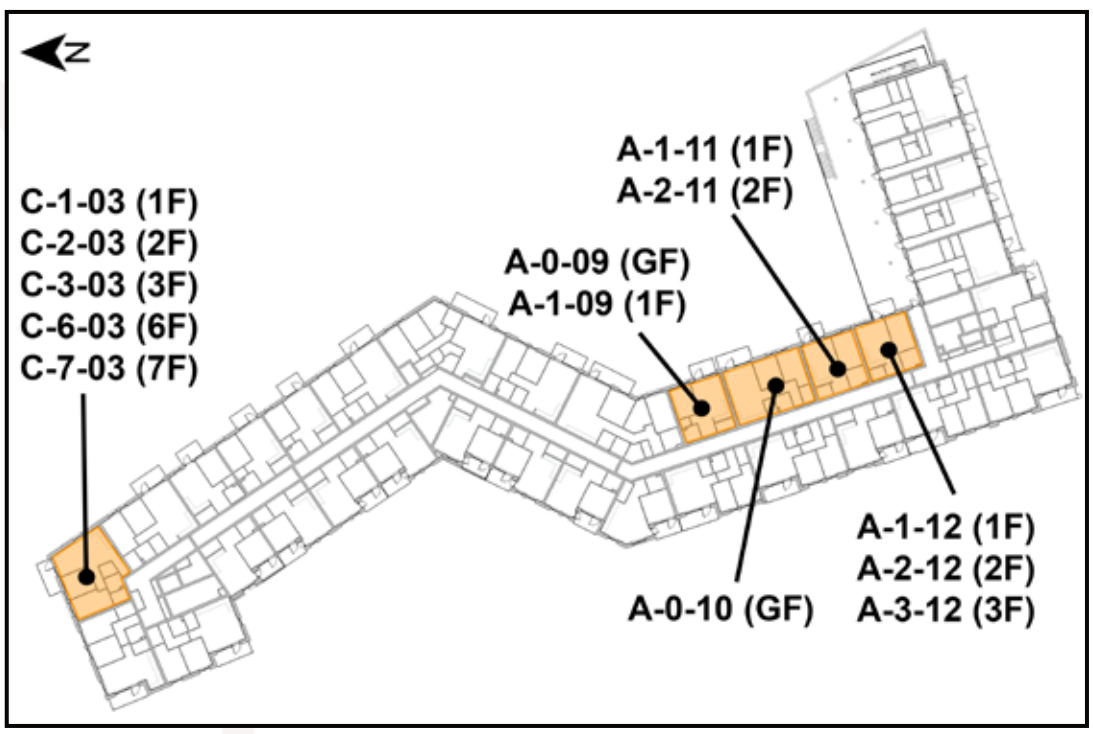

Figure 5.4: Units below the minimum recommendations for Sunlight Exposure.

Finally, in addition to the residential units, the childcare facility was also assessed. Whilst it was not included in the compliance rates just presented, all 3 no. classrooms present favourable levels of sunlight exposure, categorised as *medium*.

No recommendation is made regarding the performance of a development as a whole for SE performance within the BRE Guidelines. However, it is the opinion of 3DDB that the Proposed Development performs very favourably in this regard. The compliance rate of 94% is well above the expected compliance rate for apartment buildings of similar size and scale.

The results for the study on SE in the habitable rooms of the proposed units can be seen in section C.3 on page 76.

5.2.3 Sun On Ground in Proposed Outdoor Amenity Areas

This study has assessed the level of sunlight on March 21st 2025 within the proposed amenity areas.

In total 2 no. spaces have been assessed, the public open space and the communal open space (Figure 5.6 below). Both spaces would meet the criteria as set out in the BRE Guidelines.

The public open space, which runs parallel to Dyke Road and faces the green area along Lough Corrib, benefits from abundant levels of sunlight due to its unobstructed exposure to the southwest. While the direct sunlight to the communal open space is partially obstructed by the southern wing of the building, the majority of this area will receive more than 2 hours of sunlight on March 21st.

The results for the study on sunlighting in the proposed outdoor amenity spaces can be found in section C.4 on page 92.

A visual representation of these readings can be seen in the false colour plan in section C.4 and in the hourly shadow diagrams for March 21st 2025 in section B.1 on page 34 of the appendix section of this report.

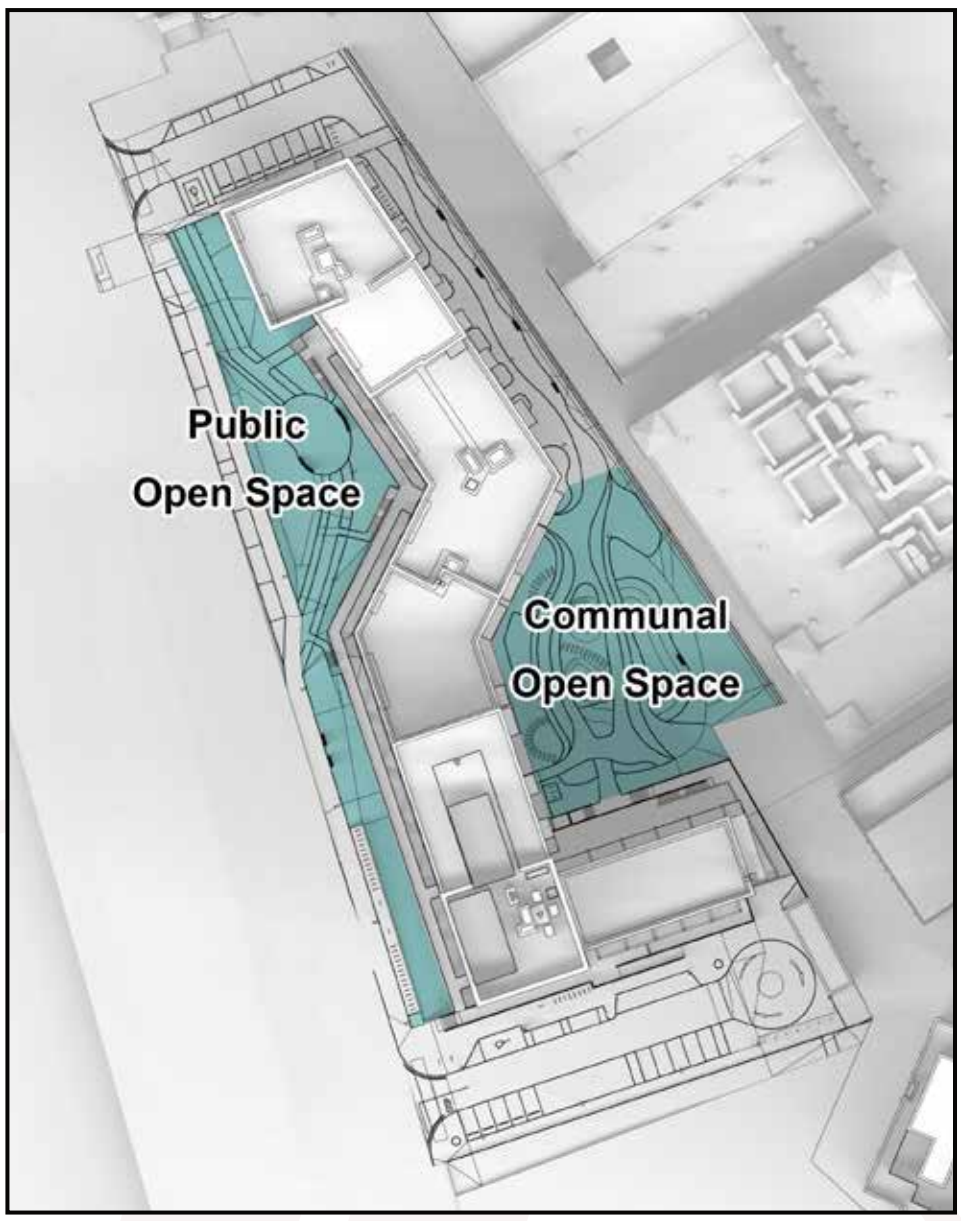

Figure 5.5: Public and communal open spaces assessed.

6.0 Conclusion

3D Design Bureau (3DDB) were commissioned to carry out a daylight assessment, sunlight assessment and shadow study for the proposed Corrib Causeway Phase 1 development at Dyke Road, Galway.

This development is part of a development framework, with only Phase 1 being the subject of this application.

The impact assessment for this report has quantified the effect the Proposed Development would have on the level of daylight and sunlight received by neighbouring properties/environment that fall under the criteria outlined in section "4.1 Impact Assessment, Window Selection Criteria" on page 13. These include Units 2, 4, 5 and Gray Office Park within Galway Retail Park on Headford Road, and The Black Box on Dyke Road (as shown in Figure 6.1 below). The granted student accommodation development (ref: 20/184 as amended by 22259), which was considered as built in the current context, was evaluated for potential impact but was not included in the assessment, as it did not warrant assessment per the criteria outlined in Section 4.1.

The findings for the impact to daylight (VSC) have shown that 6 no. windows/rooms in the assessed commercial buildings would be affected. With the exception of 2 no. windows, which experience a *'moderate adverse'* level of effect, the remaining affected windows were categorised as *'minor adverse'*.

Regarding the sunlight levels (APSH/WPSH), 2 no. windows were categorised as *'minor adverse'* in the annual APSH calculation, while no windows were adversely affected in the winter WSPH calculation.

The scheme performance assessment for this report has quantified the level of daylight and sunlight within the Proposed Development, demonstrating excellent results across all the studies carried out.

For the SDA assessment, only one room falls slightly below the recommended minimum in the 'no-tree' scenario, with an additional 2 no. rooms falling short of the 50% minimum when trees are factored in. You might please note the proposed compensatory design solutions provided for these rooms in "5.2.1 Spatial Daylight Autonomy (SDA)" on page 22. Given the size of the scheme, these results are, in the opinion of 3DDB, excellent.

In terms of Sunlight Exposure (SE), only 13 no. out of the 219 units would fail to meet the minimum recommended sunlight levels. Considering the orientation-based nature of this study, and the inclusion of single-aspect units in the Proposed Development, the 94% compliance rate is well above the expected compliance rate for apartment buildings of similar size and scale.

Finally, both the public and communal open space would receive compliant levels of sunlight, with the public open space performing particularly well.

Figure 6.1: Scope of surrounding properties and environment assessed.

It can be concluded that the scheme is performing very favourably from a daylight and sunlight perspective. While some impacts were recorded, none of the affected windows serve residential spaces. Given the comprehensive redevelopment strategy for the area, as outlined by Galway City Council (GCC) in the Galway City Development Plan 2023-2029, 3DDB believes these impacts can be considered acceptable when balanced with the broader objectives for the area.

Appendix - Results

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Appendix Contents

Assessment criteria and detailed analysis of results can be found in the accompanying report.

A.0 Impact Assessment Results

A.1 Effect on Vertical Sky Component (VSC)

Below is an example of the table used to describe the effect on VSC.

Table Example. A.1 - VSC Impact Assessment						
Window Number	Baseline VSC Value	Proposed VSC Value	Ratio of Proposed VSC to Baseline VSC	Recommended Minimum VSC	Level of Compliance with BRE Guidelines	Effect of Proposed Development
A	**B**	**C**	**D**	**E**	**F**	**G**

A: Window Number

The number in this column will identify the assessed window. All windows are represented visually in the corresponding figure.

B: Baseline VSC Value

The *Baseline VSC Value* represents the VSC value of the assessed window which is calculated in the existing baseline model state (as explained in the "Building the Model States" on page 14).

C: Proposed VSC Value

The *Proposed VSC Value* represents the VSC value of the assessed window which is calculated in the proposed model state (as explained in the "Building the Model States" on page 14).

D: Ratio of Proposed VSC to Baseline VSC

This column expresses the ratio of change between the baseline VSC value and the proposed VSC value. The BRE Guidelines recommend that if the proposed value is less than 0.8 times the baseline value, then the reduction in daylight is more likely to be perceptible.

E: Recommended minimum VSC

The *BRE Target Value* for each window has been set according to the BRE Guidelines. The Guidelines state that a proposed development could possibly have a noticeable effect on the daylight received by an existing window, if the VSC value **both** drops below the guideline value of 27% **and** the VSC value is less than 0.8 times the baseline value.

Therefore, to determine the *recommended minimum Value*, 80% of the *Baseline VSC value* has been calculated. If this value is above the 27% threshold, a target value of 27% will be applied. If 80% of the baseline value is below 27%, then 80% of the baseline value is the appropriate target value.

F: Level of Compliance with the BRE Guidelines

This column states the compliance of the *Proposed VSC Value* with the *recommended minimum VSC* as per the BRE Guidelines. In essence, it shows whether or not the assessed window would experience a perceptible level of impact. If the window complies with the BRE Guidelines this cell will state "*BRE Compliant"*. If the window does not meet the criteria as set out in the BRE Guidelines, a percentage of compliance with the *recommended minimum* will be stated.

G: Effect of Proposed Development

The levels of effect in this column describe the effect an assessed window will experience, based on its compliance with the *BRE Target Value*. A full list of definitions and a numerical rationale for each can be found in the section *"Definition of Effects"* on page 11.

It should be noted that the figures displayed in the table of results have been rounded off. A manual calculation of these figures may yield a negligible difference and should not be considered an error.

A.1.1 The Black Box, Dyke Road

Table No. A.1.1 - VSC Results: The Black Box, Dyke Road						
Window Number	Baseline VSC Value	Proposed VSC Value	Ratio of Proposed VSC to Baseline VSC	Recommended minimum VSC*	Level of Compliance with BRE Guidelines	Effect of Proposed Development**
Ba	37.94%	31.07%	0.82	27.00%	BRE Compliant	Negligible
Bb	19.82%	13.07%	0.66	15.86%	82%	Minor Adverse
Bc	19.87%	13.04%	0.66	15.90%	82%	Minor Adverse
Bd	37.53%	29.87%	0.80	27.00%	BRE Compliant	Negligible
Be	38.49%	32.23%	0.84	27.00%	BRE Compliant	Negligible
Bf	30.13%	24.06%	0.80	24.10%	>99%	Negligible
Bg	36.88%	30.65%	0.83	27.00%	BRE Compliant	Negligible
Bh	31.68%	25.39%	0.80	25.34%	BRE Compliant	Negligible
Bi	38.38%	31.38%	0.82	27.00%	BRE Compliant	Negligible

* The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the VSC of an existing window, the value needs to both drop below the stated target value of 27% **and** be less than 0.8 times the baseline value.

** For the interpretation of level of effects please refer to"3.2 Definition of Effects" on page 11.

Figure A.1: Highlighted areas indicate the position of assessed windows.

Figure A.2: Aerial view of assessed location

A.1.2 Units 2, 4, 5 and Gray Office Park, Galway Retail Park, Headford Road

Table No. A.1.2 - VSC Results: Units 2, 4, 5 and Gray Office Park, Galway Retail Park, Headford Road						
Window Number	Baseline VSC Value	Proposed VSC Value	Ratio of Proposed VSC to Baseline VSC	Recommended minimum VSC*	Level of Compliance with BRE Guidelines	Effect of Proposed Development**
U2a	38.81%	15.15%	0.39	27.00%	56%	Moderate Adverse
U4a#1	38.38%	24.34%	0.63	27.00%	90%	-
U4a#2	38.52%	21.85%	0.57	27.00%	81%	-
U4a#	38.45%	23.04%	0.60	27.00%	85%	Minor Adverse
U4b	38.58%	20.18%	0.52	27.00%	75%	Moderate Adverse
U5a	37.27%	29.37%	0.79	27.00%	BRE Compliant	Negligible
U5b	37.85%	27.94%	0.74	27.00%	BRE Compliant	Negligible
U5c	38.17%	26.08%	0.68	27.00%	97%	Minor Adverse
Ga	32.48%	28.66%	0.88	25.98%	BRE Compliant	Negligible
Gb#1	35.30%	30.19%	0.86	27.00%	BRE Compliant	-
Gb#2	36.41%	30.16%	0.83	27.00%	BRE Compliant	-
Gb#	35.86%	30.18%	0.84	27.00%	BRE Compliant	Negligible

* The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the VSC of an existing window, the value needs to both drop below the stated target value of 27% **and** be less than 0.8 times the baseline value.

** For the interpretation of level of effects please refer to"3.2 Definition of Effects" on page 11.

If it can be determined or reasonably assumed that multiple windows serve the same room, each individual window is labelled with a hash-tag and a serial number (e.g. Xa#1, Xa#2). Each window is assessed, and a weighted average is calculated to determine the level of effect on the room. Rooms are identified with a hash-tag at the end (e.g. Xa#). In such cases, the 'effect of proposed development' column will display a dash (-) for the individual windows, with the overall level of effect indicated in the row corresponding to the room.

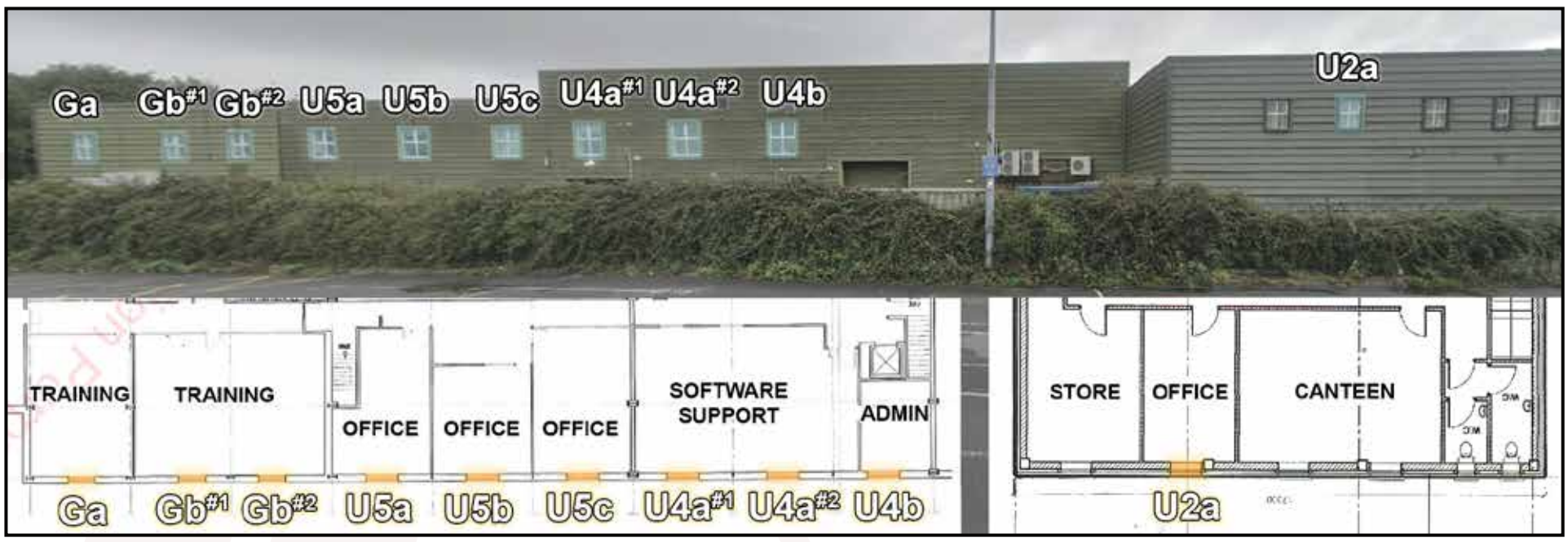


Figure A.3: Highlighted areas indicate the position of assessed windows. Floorplans show the interior layout of the assessed properties.

Figure A.4: Aerial view of assessed location

A.2 Effect on Annual/Winter Probable Sunlight Hours (APSH/WPSH)

Below is an example of the table used to describe the effect to the APSH/WPSH of existing windows / rooms.

Table Example. A.2 - APSH/WPSH Impact Assessment						
Window / Room Number	Baseline APSH/WPSH	Proposed APSH/WPSH	Ratio of Proposed to Baseline APSH/ WPSH	Recommended Minimum APSH/WPSH	Level of Compliance with BRE Guidelines	Effect of Proposed Development
A	**B**	**C**	**D**	**E**	**F**	**G**

A: Window / Room Number

The number in this column will identify the assessed window / room. All windows / rooms are represented visually in the corresponding figure.

B: Baseline APSH/WPSH

The *Baseline APSH/WPSH Value* represents the percentage of the probable sunlight hours that the assessed window / room can receive, calculated in the existing baseline model state (as explained in the "Building the Model States" on page 14). The annual and winter assessments will be represented in separate tables.

C: Proposed APSH/WPSH

The *Proposed APSH/WPSH Value* represents the percentage of probable sunlight hours that the assessed window / room can receive, calculated in the proposed model state (as explained in the "Building the Model States" on page 14).

D: Ratio of Proposed to Baseline APSH/WPSH

This column expresses the ratio of change between the baseline APSH/WPSH value and the proposed APSH/WPSH value. The BRE Guidelines recommend that if the proposed value is less than 0.8 times the baseline value, then the reduction to sunlight is more likely to be perceptible.

E: Recommended Minimum APSH/WPSH

The *BRE Target Value* for each window / room has been set according to the BRE Guidelines. The Guidelines state that a proposed development could possibly have a noticeable effect on the sunlight received by an existing window / room, if the APSH value drops below the annual (25%) or WPSH value below the winter (5%) guidelines; **and** the APSH/WPSH value is less than 0.8 times the baseline value; **and** there is a reduction of more than 4% to the APSH.

Therefore, to determine the *recommended minimum APSH Value* for the annual study, 80% of the *Baseline APSH value* has been calculated. If this value is above the 25% threshold, a target value of 25% will be applied. If 80% of the baseline value is below 25%, then 80% of the baseline value is the appropriate target value.

To determine the *recommended minimum WPSH Value* for the winter study, 80% of the *Baseline winter APSH value* has been calculated. If this value is above the 5% threshold, a target value of 5% will be applied. If 80% of the baseline value is below 5%, then 80% of the baseline value is the appropriate target value.

F: Level of Compliance with BRE Guidelines

This column states the compliance of the *Proposed APSH/WPSH Value* with the *recommended minimum APSH/WPSH* as per the BRE Guidelines. In essence, it shows whether or not the assessed window / room would experience a perceptible level of impact. If the window / room complies with the BRE Guidelines this cell will state "*BRE Compliant*". If the window / room does not meet the criteria as set out in the BRE Guidelines, a percentage of compliance with the *recommended minimum* will be stated.

G: Effect of Proposed Development

The levels of effect in this column describe the effect an assessed window /room will experience, based on its compliance with the *BRE Target Value*. A full list of definitions and a numerical rationale for each can be found in the section *"Definition of Effects"* on page 11.

It should be noted that the figures displayed in the table of results have been rounded off. A manual calculation of these figures may yield a negligible difference and should not be considered an error.

A.2.1 The Black Box, Dyke Road

Annual Probable Sunlight Hours

Table No. A.2.1 - APSH Results: The Black Box, Dyke Road						
Window / Room Number	Baseline APSH	Proposed APSH	Ratio of Proposed APSH to Baseline APSH	Recommended minimum APSH*	Level of Compliance with BRE Guidelines**	Effect of Proposed Development
Ba	78.58%	67.51%	0.86	25.00%	BRE Compliant	Negligible
Bb	35.73%	24.49%	0.69	25.00%	98%	Minor Adverse
Bc	34.51%	23.70%	0.69	25.00%	95%	Minor Adverse
Bd	76.64%	65.15%	0.85	25.00%	BRE Compliant	Negligible
Be	80.35%	69.82%	0.87	25.00%	BRE Compliant	Negligible
Bf	55.60%	45.54%	0.82	25.00%	BRE Compliant	Negligible
Bg	70.24%	59.22%	0.84	25.00%	BRE Compliant	Negligible
Bh	60.31%	50.00%	0.83	25.00%	BRE Compliant	Negligible
Bi	80.39%	69.70%	0.87	25.00%	BRE Compliant	Negligible

Winter Probable Sunlight Hours

Table No. A.2.1 - WPSH Results: The Black Box, Dyke Road						
Window / Room Number	Baseline WPSH	Proposed WPSH	Ratio of Proposed WPSH to Baseline WPSH	Recommended minimum WPSH*	Level of Compliance with BRE Guidelines**	Effect of Proposed Development
Ba	29.08%	20.03%	0.69	5.00%	BRE Compliant	Negligible
Bb	26.39%	15.57%	0.59	5.00%	BRE Compliant	Negligible
Bc	26.68%	16.29%	0.61	5.00%	BRE Compliant	Negligible
Bd	28.70%	17.51%	0.61	5.00%	BRE Compliant	Negligible
Be	30.05%	20.50%	0.68	5.00%	BRE Compliant	Negligible
Bf	21.55%	11.53%	0.54	5.00%	BRE Compliant	Negligible
Bg	29.12%	18.14%	0.62	5.00%	BRE Compliant	Negligible
Bh	28.28%	18.01%	0.64	5.00%	BRE Compliant	Negligible
Bi	30.18%	19.49%	0.65	5.00%	BRE Compliant	Negligible

* The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH/WPSH of an existing window / room, the value needs to drop below the stated target value of 25% (annual) / 5% (winter) **and** be less than 0.8 times the baseline value **and** it has to have a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.

** For the interpretation of level of effects please refer to “3.2 Definition of Effects” on page 11.

Figure A.5: Highlighted areas indicate the position of assessed windows.

A.2.2 Units 2, 4, 5 and Gray Office Park, Galway Retail Park, Headford Road

Annual Probable Sunlight Hours

Table No. A.2.2 - APSH Results: Units 2, 4, 5 and Gray Office Park, Galway Retail Park, Headford Road						
Window / Room Number	Baseline APSH	Proposed APSH	Ratio of Proposed APSH to Baseline APSH	Recommended minimum APSH*	Level of Compliance with BRE Guidelines**	Effect of Proposed Development
U2a	57.41%	28.66%	0.50	25.00%	BRE Compliant	Negligible
U4a#	57.79%	38.97%	0.67	25.00%	BRE Compliant	Negligible
U4b	57.79%	32.20%	0.56	25.00%	BRE Compliant	Negligible
U5a	57.32%	43.22%	0.75	25.00%	BRE Compliant	Negligible
U5b	57.62%	42.63%	0.74	25.00%	BRE Compliant	Negligible
U5c	57.79%	40.19%	0.70	25.00%	BRE Compliant	Negligible
Ga	52.65%	43.98%	0.84	25.00%	BRE Compliant	Negligible
Gb#	55.56%	45.83%	0.82	25.00%	BRE Compliant	Negligible

Winter Probable Sunlight Hours

Table No. A.2.2 - WPSH Results: Units 2, 4, 5 and Gray Office Park, Galway Retail Park, Headford Road						
Window / Room Number	Baseline WPSH	Proposed WPSH	Ratio of Proposed WPSH to Baseline WPSH	Recommended minimum WPSH*	Level of Compliance with BRE Guidelines**	Effect of Proposed Development
U2a	21.93%	10.23%	0.47	5.00%	BRE Compliant	Negligible
U4a#	22.31%	9.26%	0.42	5.00%	BRE Compliant	Negligible
U4b	22.31%	9.89%	0.44	5.00%	BRE Compliant	Negligible
U5a	22.31%	9.22%	0.41	5.00%	BRE Compliant	Negligible
U5b	22.31%	9.13%	0.41	5.00%	BRE Compliant	Negligible
U5c	22.31%	8.54%	0.38	5.00%	BRE Compliant	Negligible
Ga	21.51%	12.84%	0.60	5.00%	BRE Compliant	Negligible
Gb#	22.31%	12.58%	0.56	5.00%	BRE Compliant	Negligible

* The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH/WPSH of an existing window / room, the value needs to drop below the stated target value of 25% (annual) / 5% (winter) **and** be less than 0.8 times the baseline value **and** it has to have a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.

** For the interpretation of level of effects please refer to “3.2 Definition of Effects” on page 11.

If it can be determined or reasonably assumed that multiple windows are servicing the same room, APSH/WPSH has been calculated for the room rather than the individual windows.

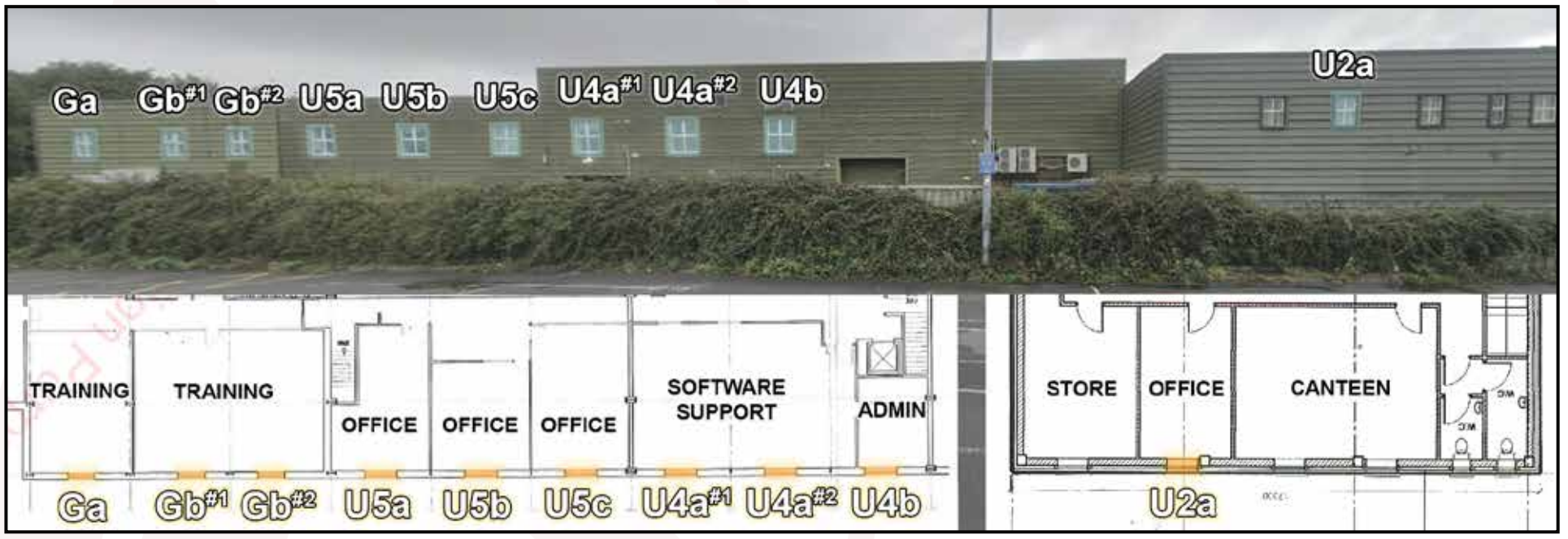


Figure A.6: Highlighted areas indicate the position of assessed windows. Floorplans show the interior layout of the assessed properties.

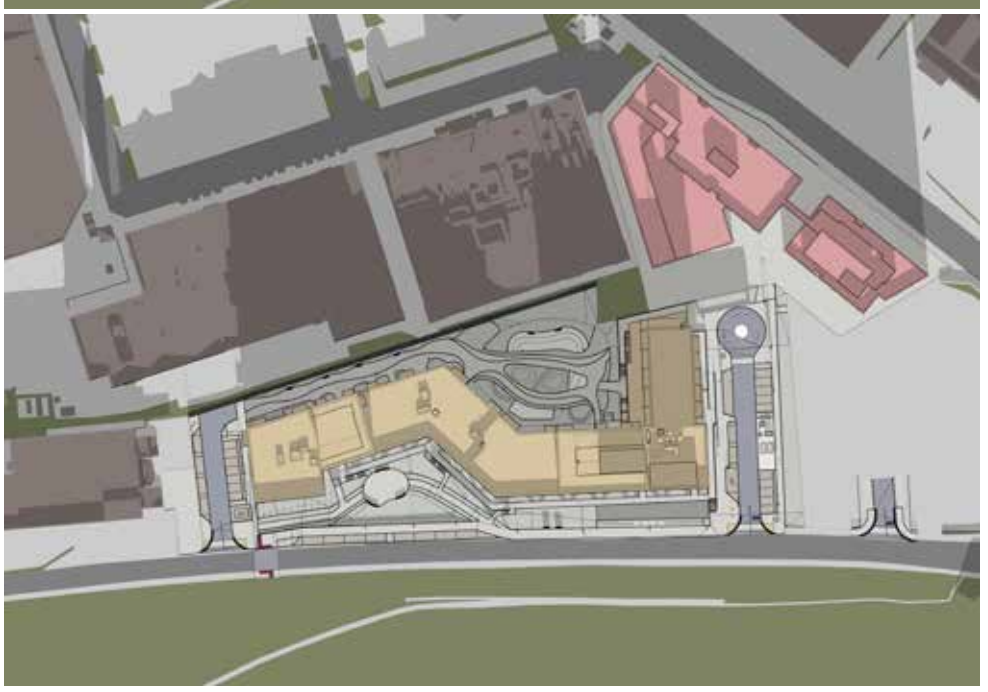
	Baseline	Proposed
March 21st 7:00		
March 21st 8:00		
March 21st 9:00		
March 21st 10:00		

B.0 B.1	Shadow Studies Shadow Study 21 March	Project: Corrib Causeway Phase 1, Dyke Road, Galway	Granted	Proposed
	March 21st Sunrise 6:42 | Sunset 18:45	Applicant: Galway City Council	3D DESIGN BUREAU	

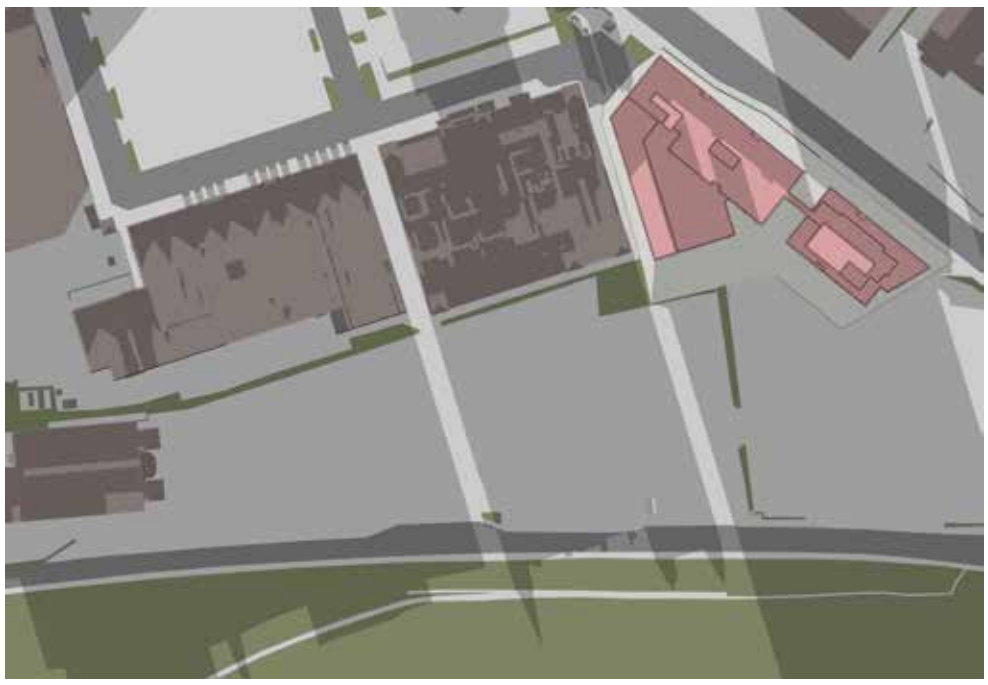
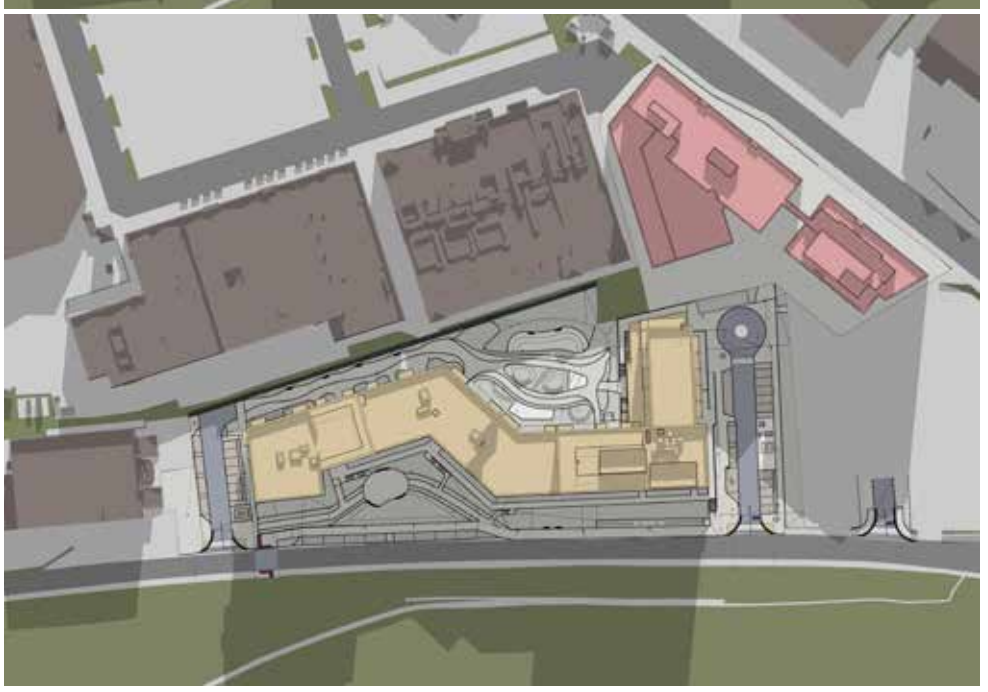
N

Baseline	Proposed
March 21st 11:00	
March 21st 12:00	
March 21st 13:00	
March 21st 14:00	

	Project: Corrib Causeway Phase 1, Dyke Road, Galway	Granted	Proposed
March 21st Sunrise 6:42 | Sunset 18:45	Applicant: Galway City Council	3D DESIGN BUREAU	

	Baseline	Proposed
March 21st 15:00		
March 21st 16:00		
March 21st 17:00		
March 21st 18:00		

	Project: Corrib Causeway Phase 1, Dyke Road, Galway	**Granted**	**Proposed**
March 21st Sunrise 6:42 | Sunset 18:45	**Applicant: Galway City Council**	3D DESIGN BUREAU	

	Baseline	Proposed
June 21st 6:00		
June 21st 7:00		
June 21st 8:00		
June 21st 9:00		

B.2	**Shadow Study 21 June**	**Project: Corrib Causeway Phase 1, Dyke Road, Galway**	**Granted**	**Proposed**
	June 21st Sunrise 5:16 | Sunset 22:00	**Applicant: Galway City Council**		3D DESIGN BUREAU

	Baseline	Proposed
June 21st 10:00		
June 21st 11:00		
June 21st 12:00		
June 21st 13:00		

	Project: Corrib Causeway Phase 1, Dyke Road, Galway	**Granted**	**Proposed**
June 21st Sunrise 5:16 | Sunset 22:00	**Applicant: Galway City Council**		3D DESIGN BUREAU

	Baseline	Proposed
June 21st 14:00		
June 21st 15:00		
June 21st 16:00		
June 21st 17:00		

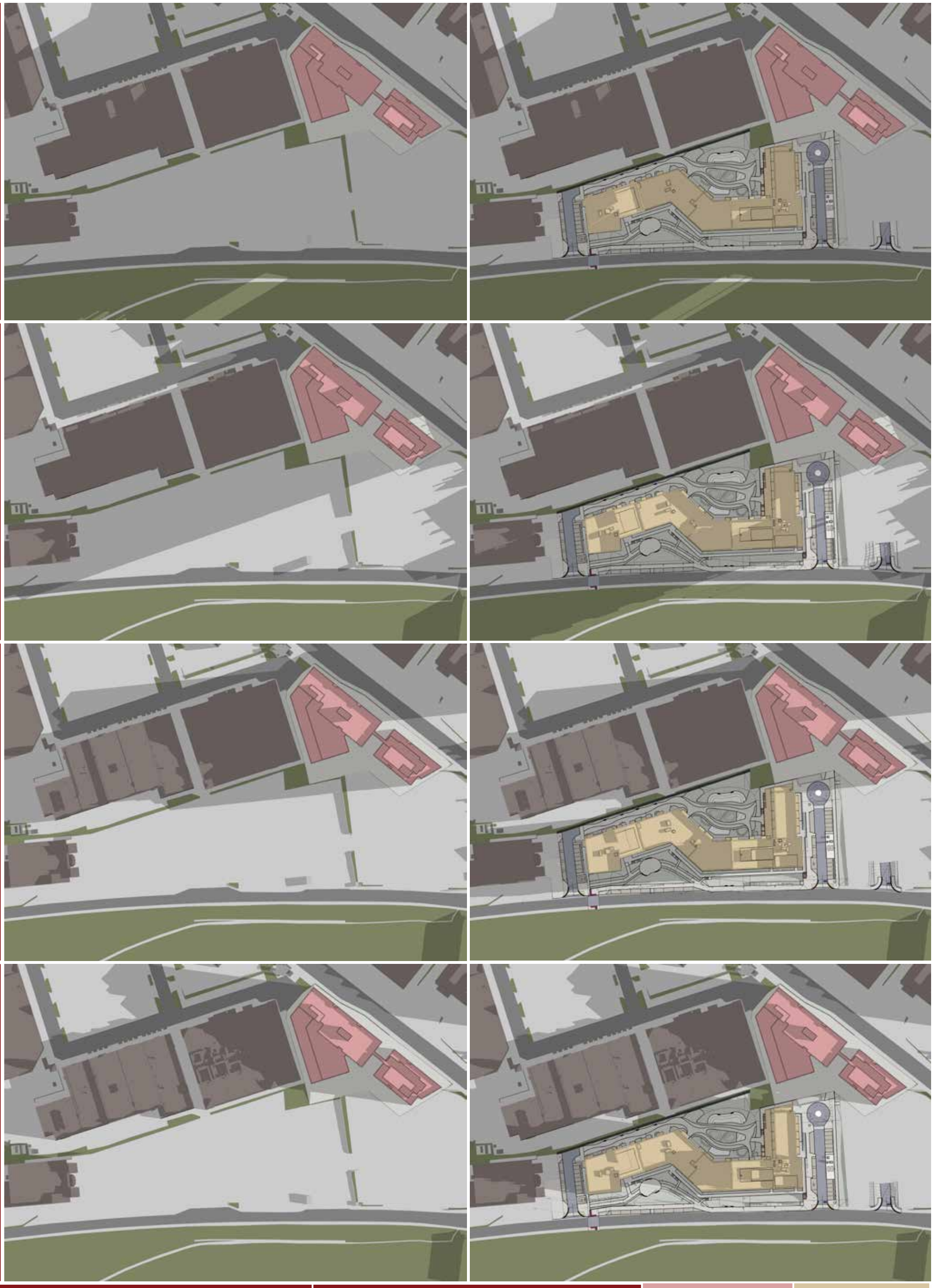
	Project: Corrib Causeway Phase 1, Dyke Road, Galway	**Granted**	**Proposed**
June 21st Sunrise 5:16 | Sunset 22:00	**Applicant: Galway City Council**		3D DESIGN BUREAU

	Baseline	Proposed
June 21st 18:00		
June 21st 19:00		
June 21st 20:00		
June 21st 21:00		

	Project: Corrib Causeway Phase 1, Dyke Road, Galway	**Granted**	**Proposed**
June 21st Sunrise 5:16 | Sunset 22:00	**Applicant: Galway City Council**	3D DESIGN BUREAU	

N

Baseline	Proposed
December 21st 9:00	
December 21st 10:00	
December 21st 11:00	
December 21st 12:00	



B.3 **Shadow Study 21 December**	**Project: Corrib Causeway Phase 1, Dyke Road, Galway**	**Granted**	**Proposed**
December 21st Sunrise 8:56 | Sunset 16:12	**Applicant: Galway City Council**	3D DESIGN BUREAU	

	Baseline	Proposed
December 21st 13:00		
December 21st 14:00		
December 21st 15:00		
December 21st 16:00		

	Project: Corrib Causeway Phase 1, Dyke Road, Galway	**Granted**	**Proposed**
December 21st Sunrise 8:56 | Sunset 16:12	**Applicant: Galway City Council**	3D DESIGN BUREAU	

C.0 Scheme Performance

C.1 Proposed Floor Plans

C.1.1 Ground Floor - Block A

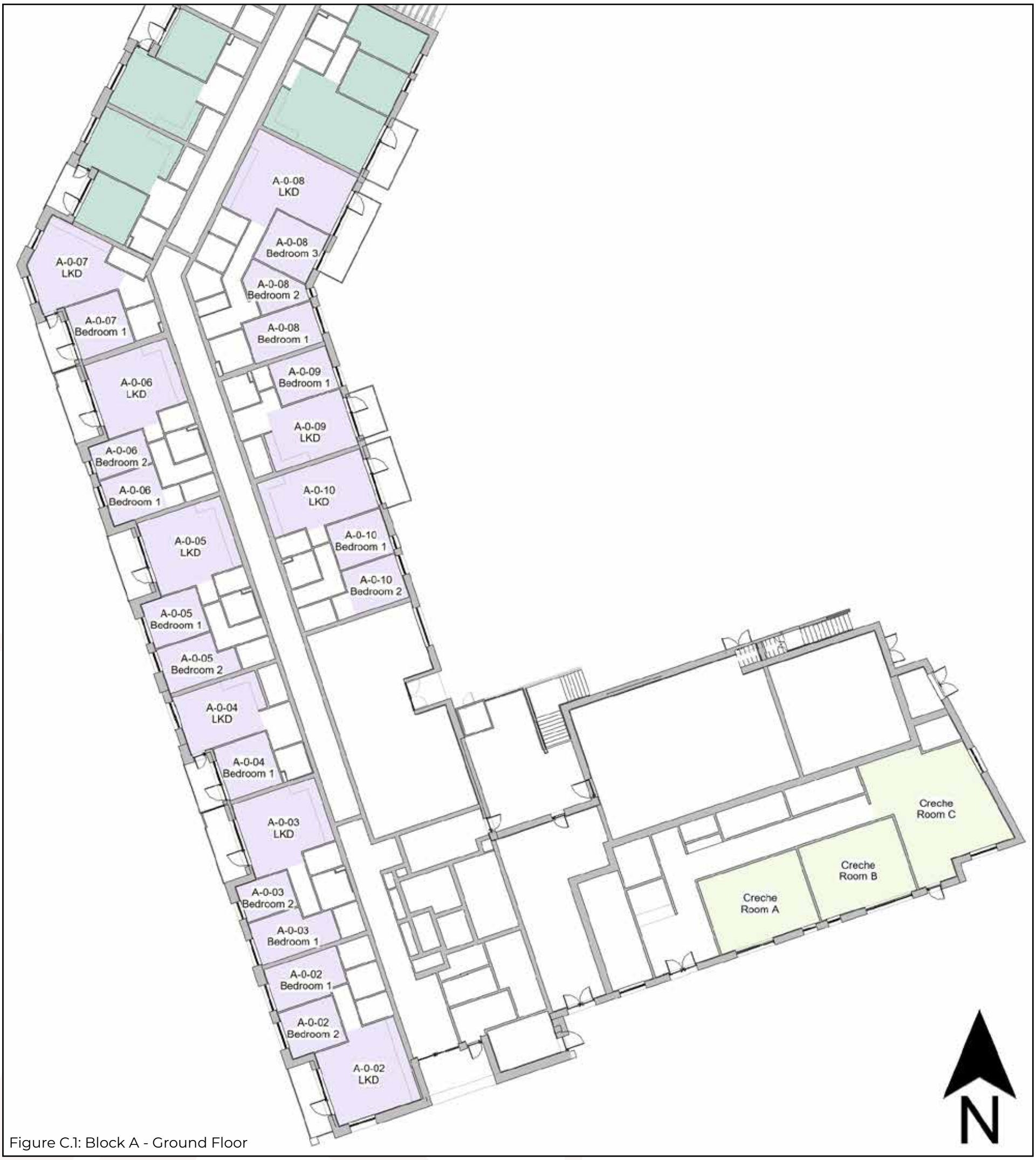


Figure C.1: Block A - Ground Floor

C.1.2 Ground Floor - Blocks B & C

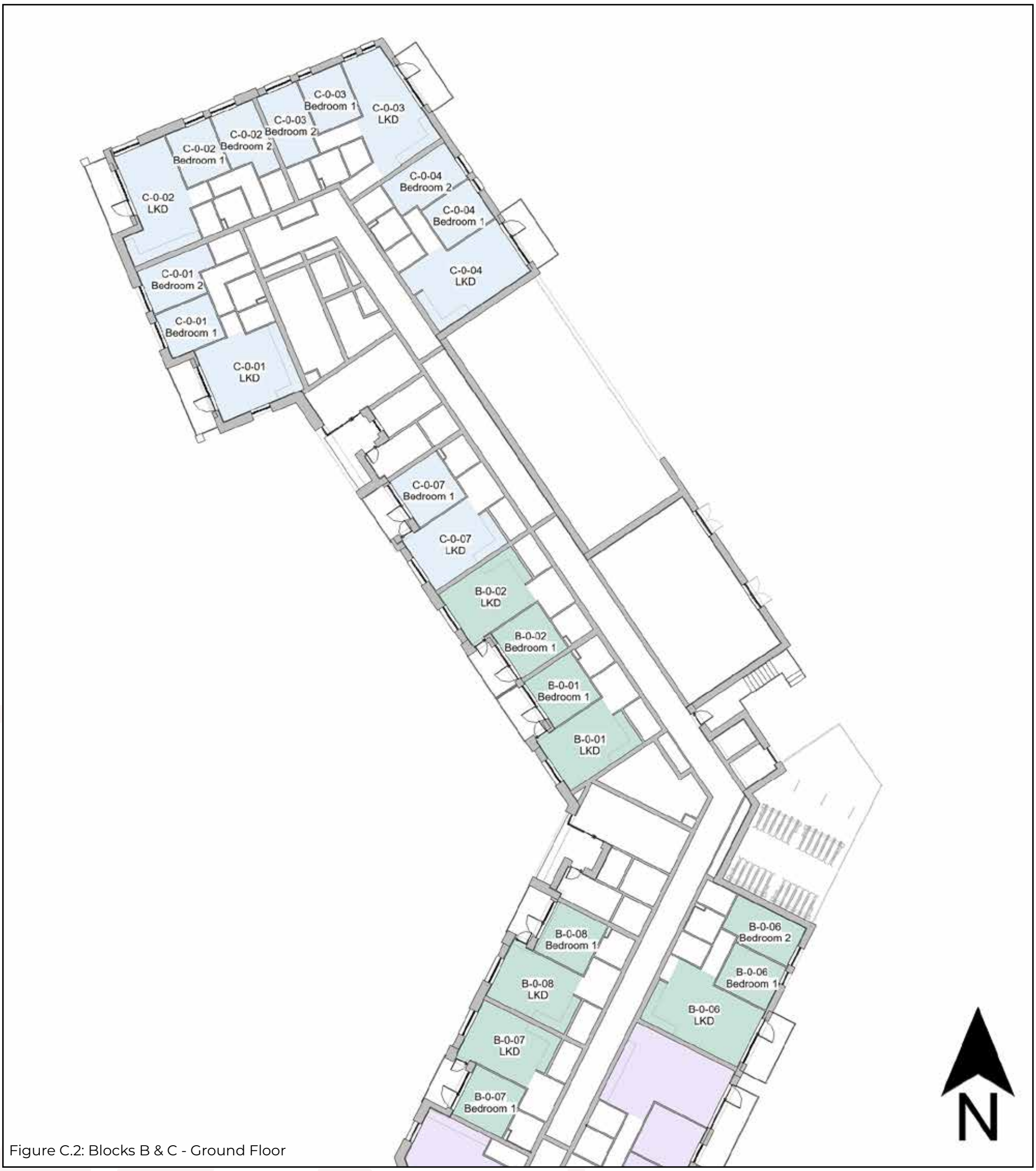


Figure C.2: Blocks B & C - Ground Floor

C.1.3 First Floor - Block A

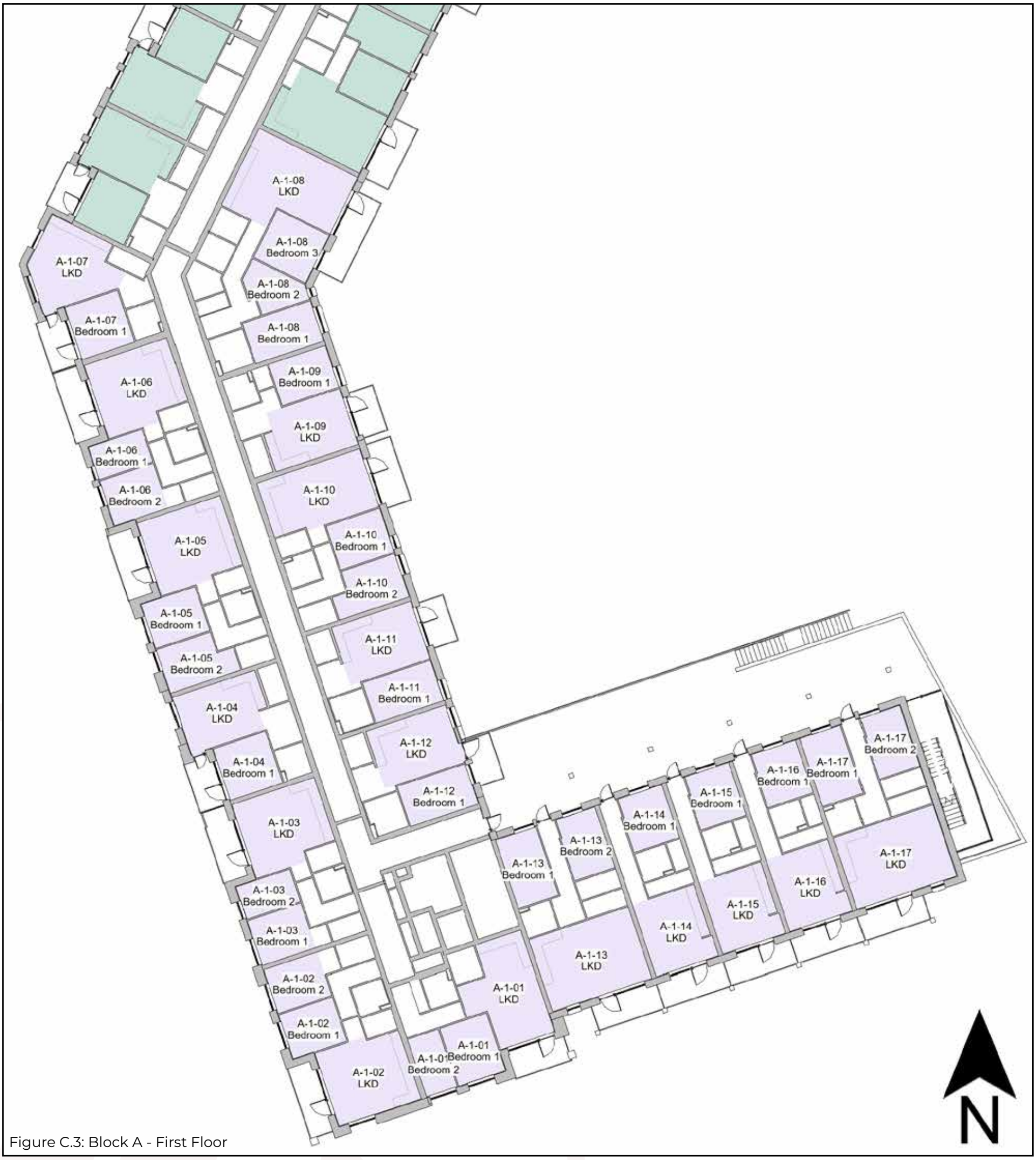


Figure C.3: Block A - First Floor

C.1.4 First Floor - Blocks B & C

Figure C.4: Blocks B & C - First Floor

C.1.5 Second Floor - Block A

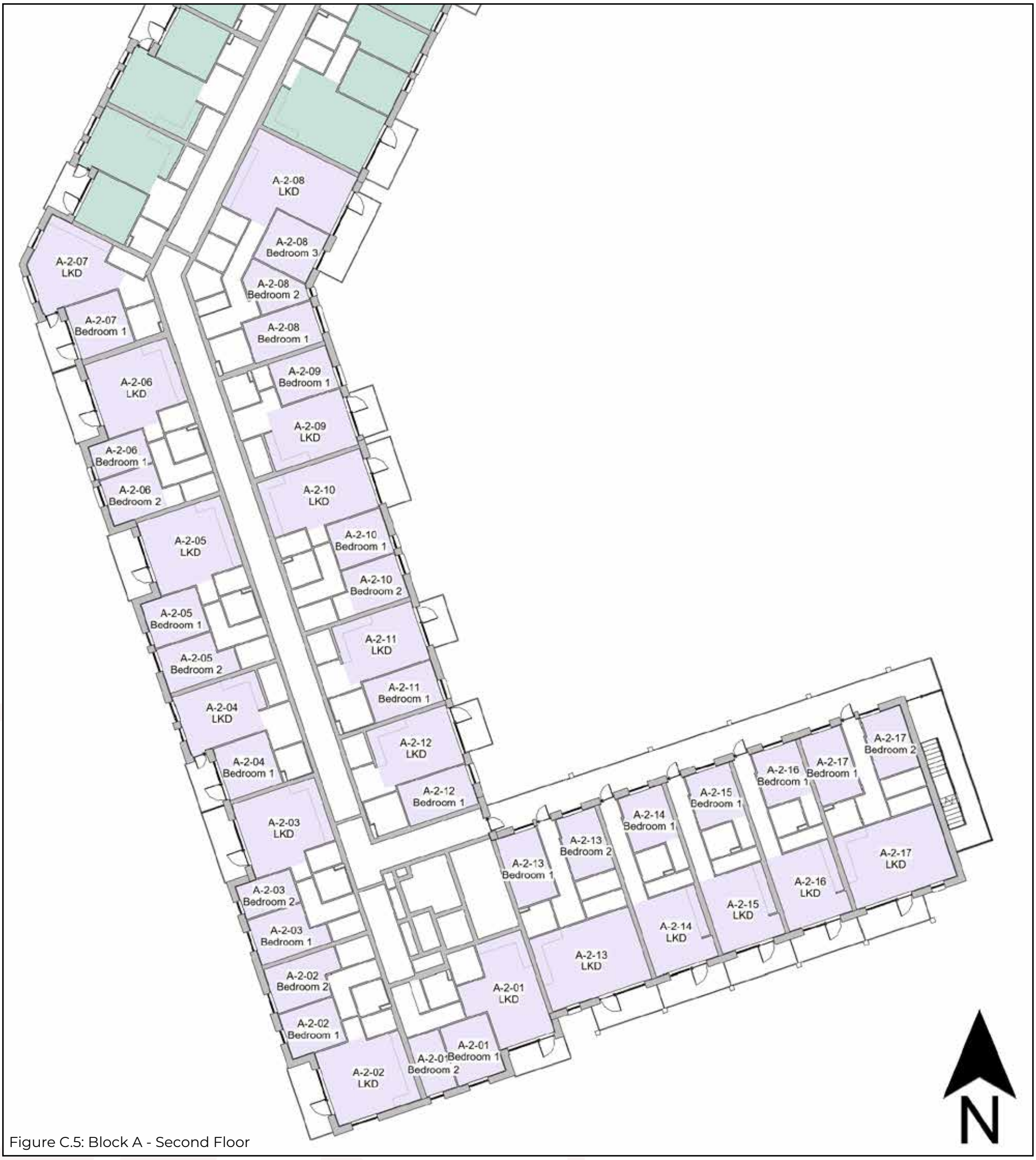


Figure C.5: Block A - Second Floor

C.1.6 Second Floor - Blocks B & C

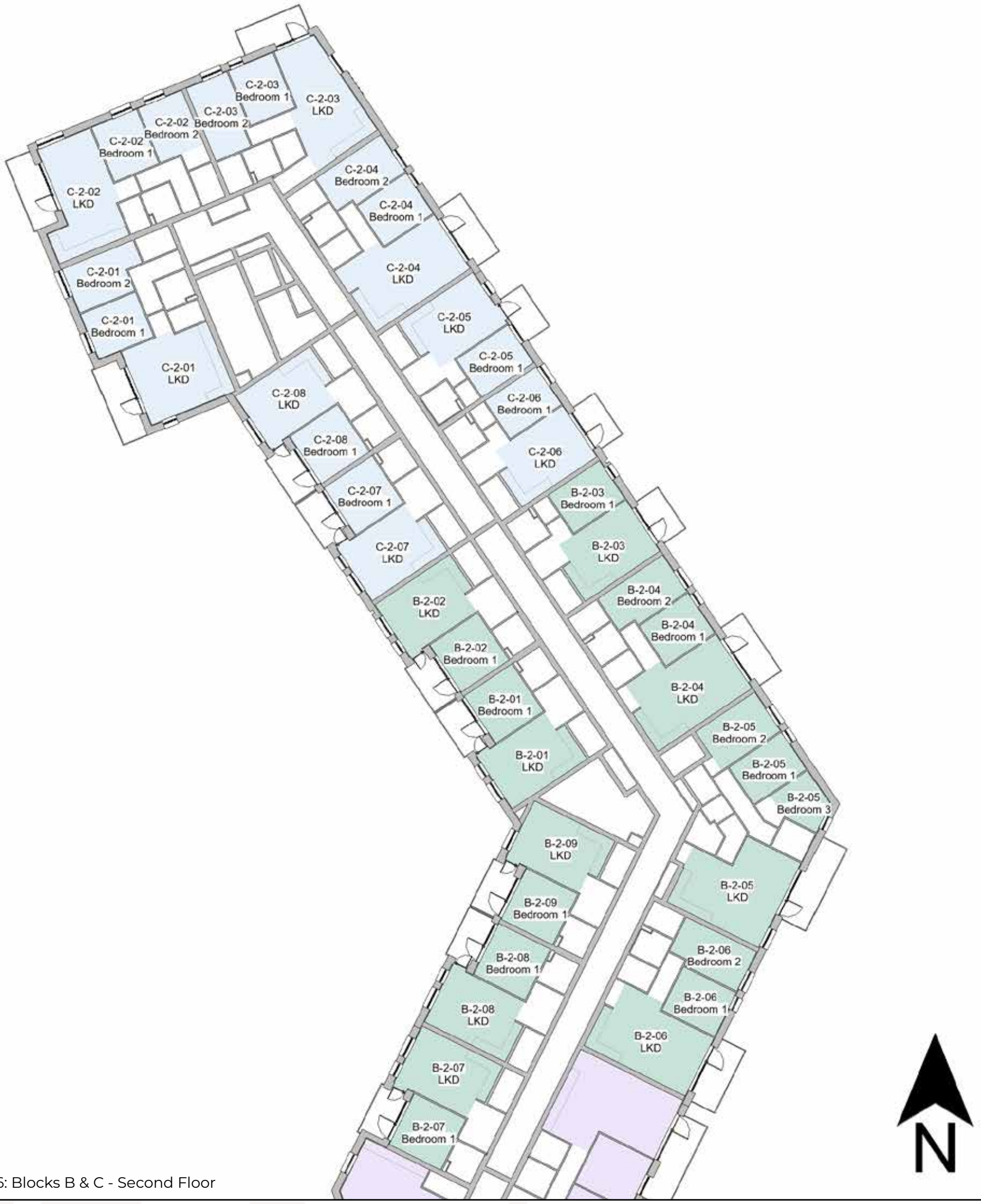


Figure C.6: Blocks B & C - Second Floor

C.1.7 Third Floor - Block A

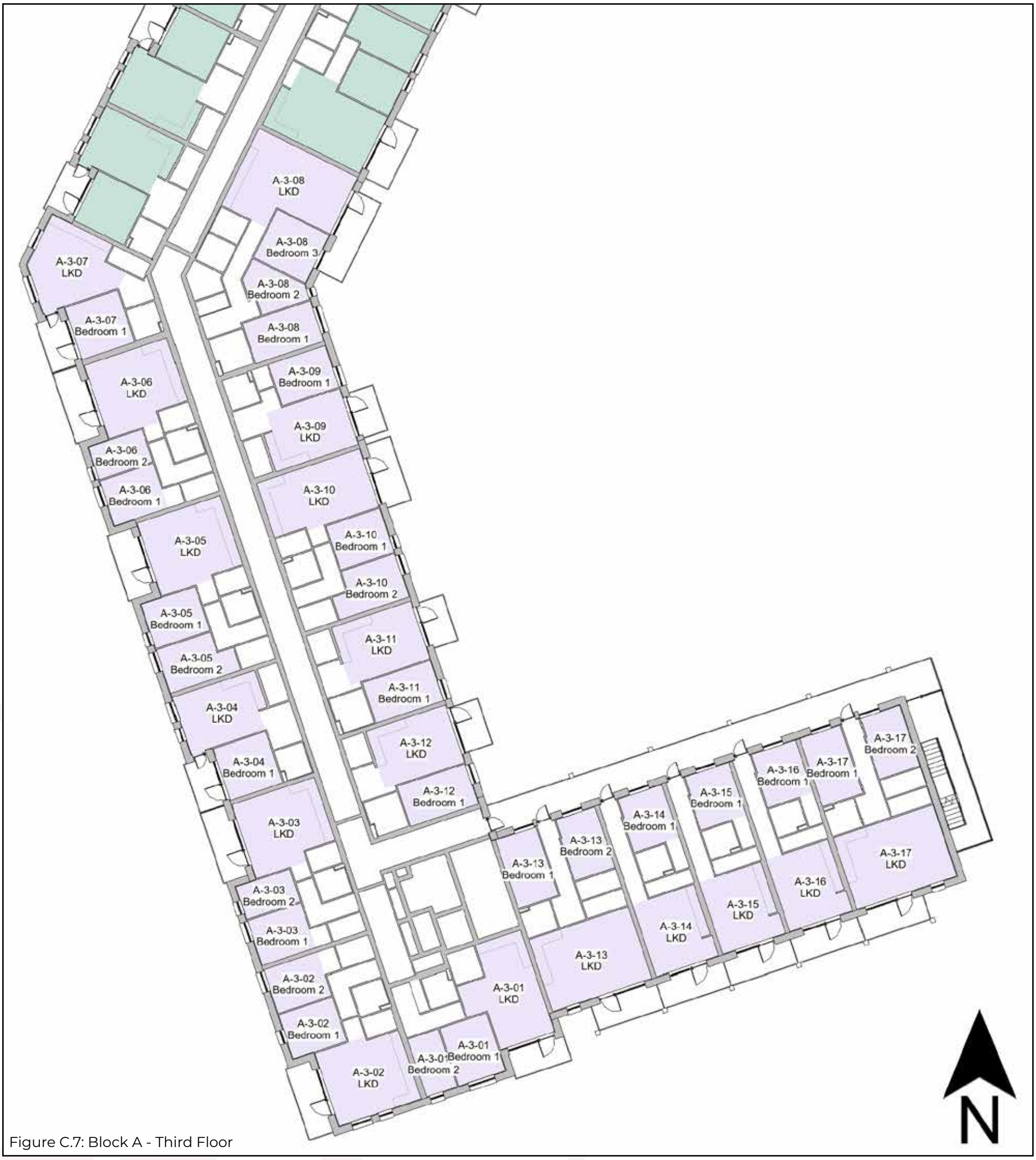


Figure C.7: Block A - Third Floor

C.1.8 Third Floor - Blocks B & C

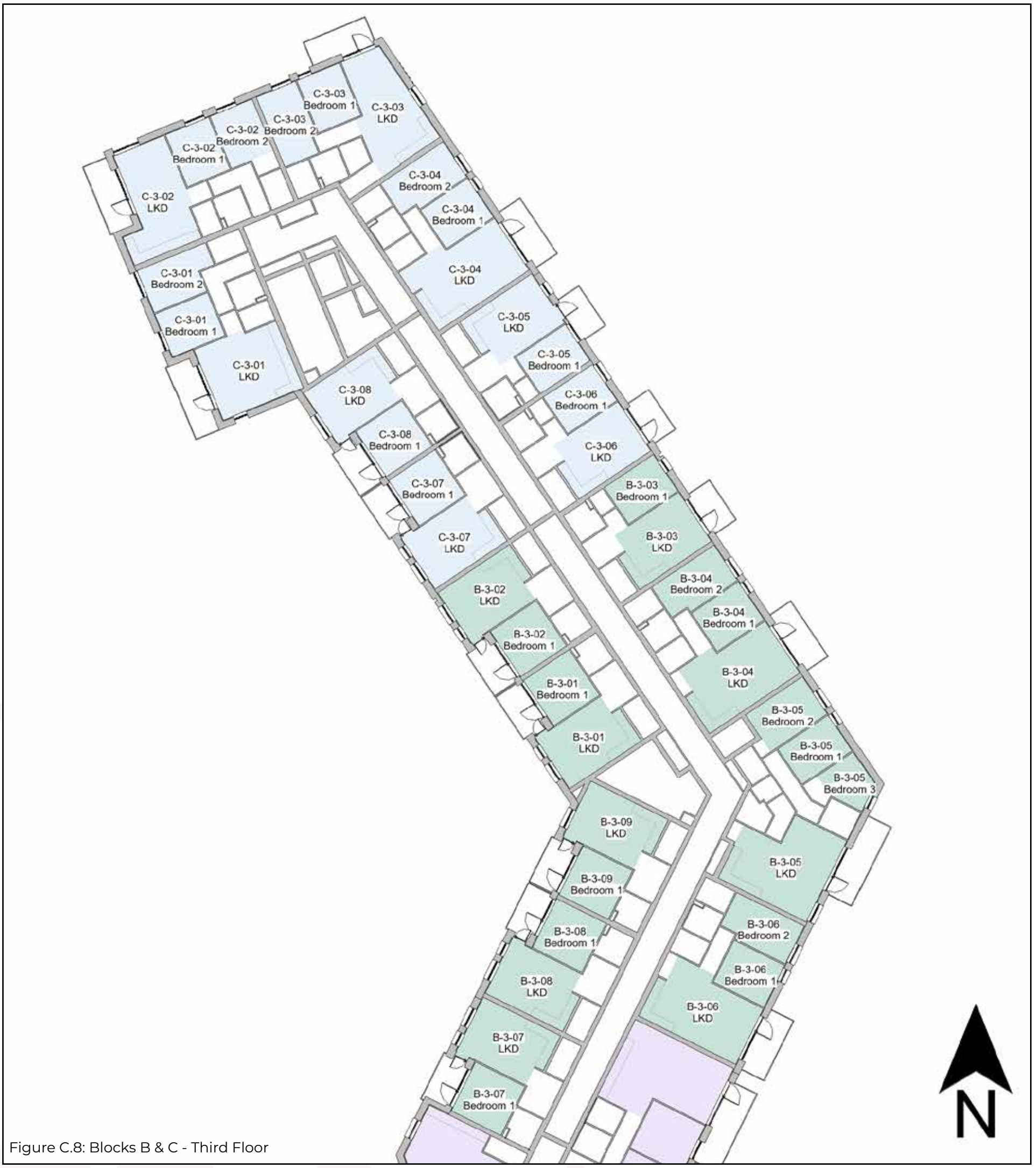


Figure C.8: Blocks B & C - Third Floor

C.1.9 Fourth Floor - Block A

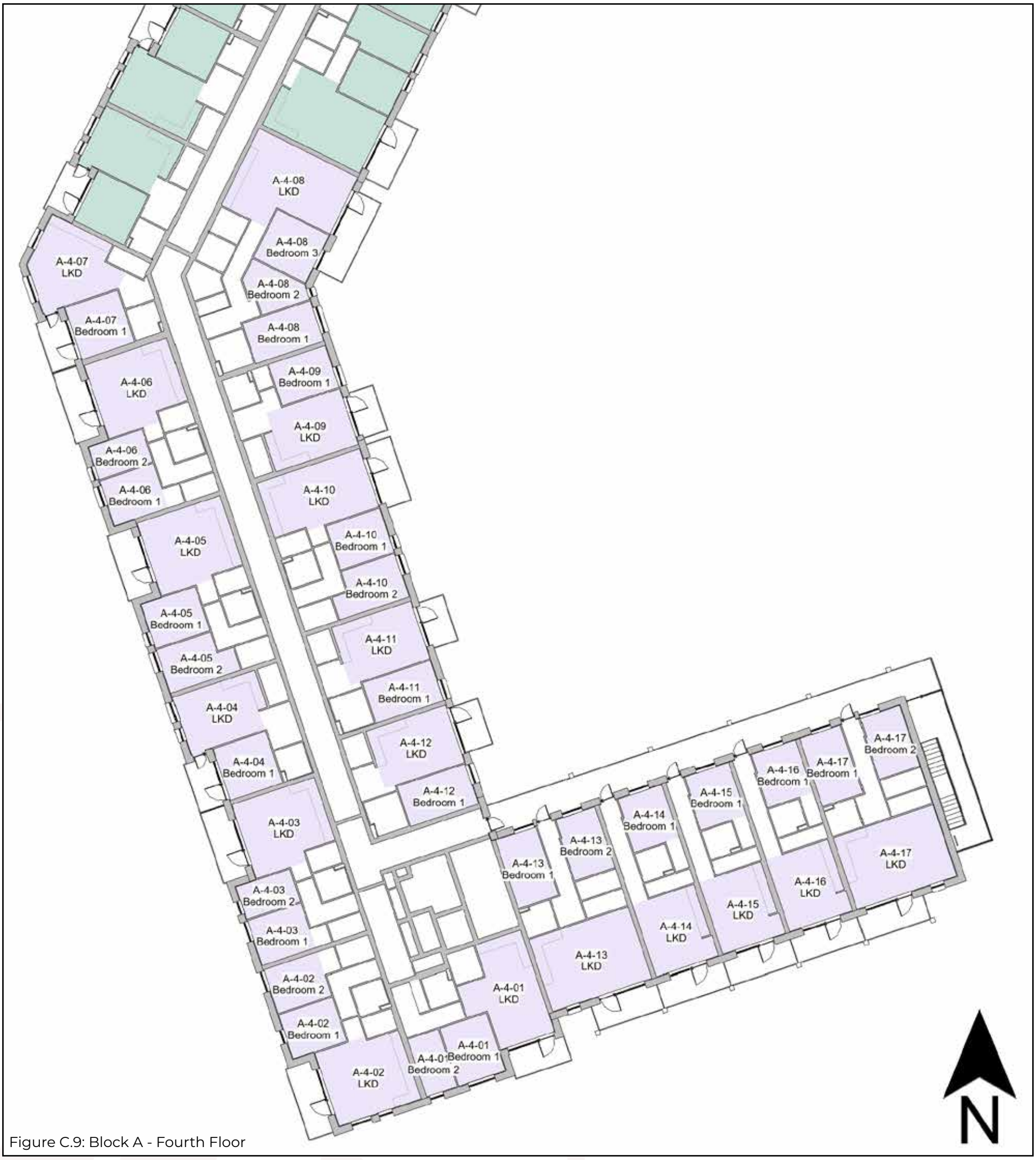


Figure C.9: Block A - Fourth Floor

C.1.10 Fourth Floor - Blocks B & C

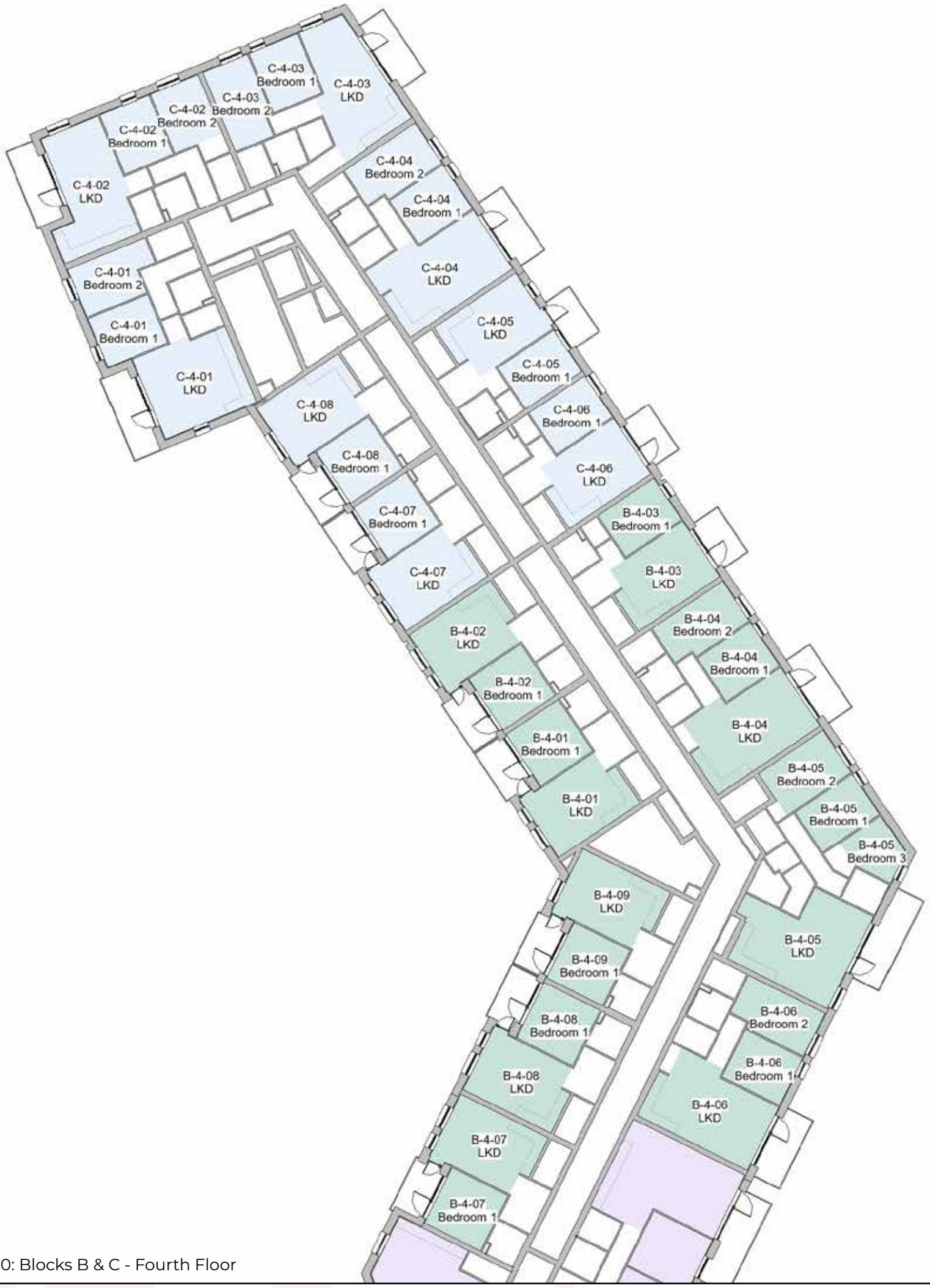


Figure C.10: Blocks B & C - Fourth Floor

C.1.11 Fifth Floor - Block A

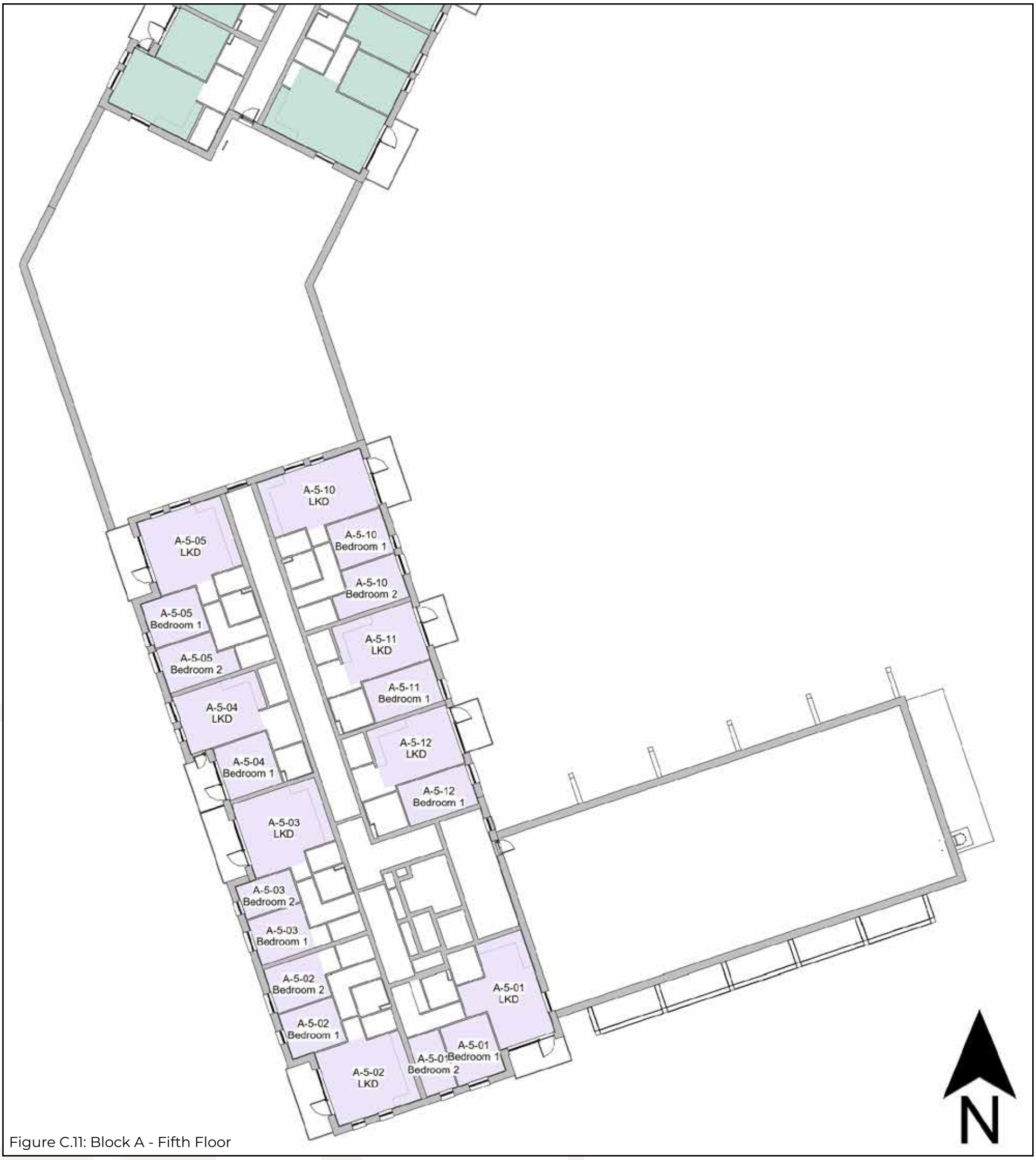


Figure C.11: Block A - Fifth Floor

C.1.12 Fifth Floor - Blocks B & C

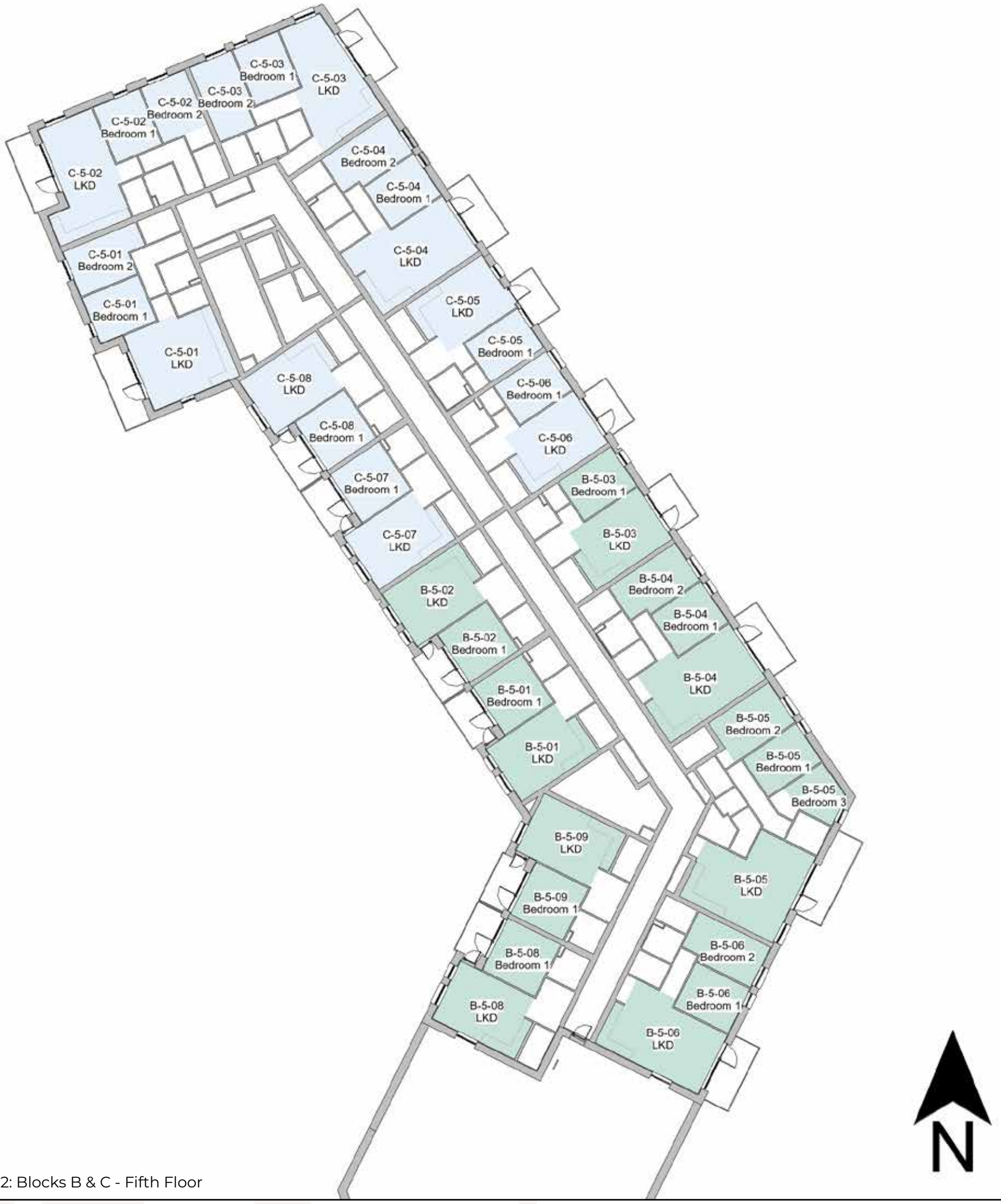


Figure C.12: Blocks B & C - Fifth Floor

C.1.13 Sixth Floor - Block A

Figure C.13: Block A - Sixth Floor

C.1.14 Sixth Floor - Block C

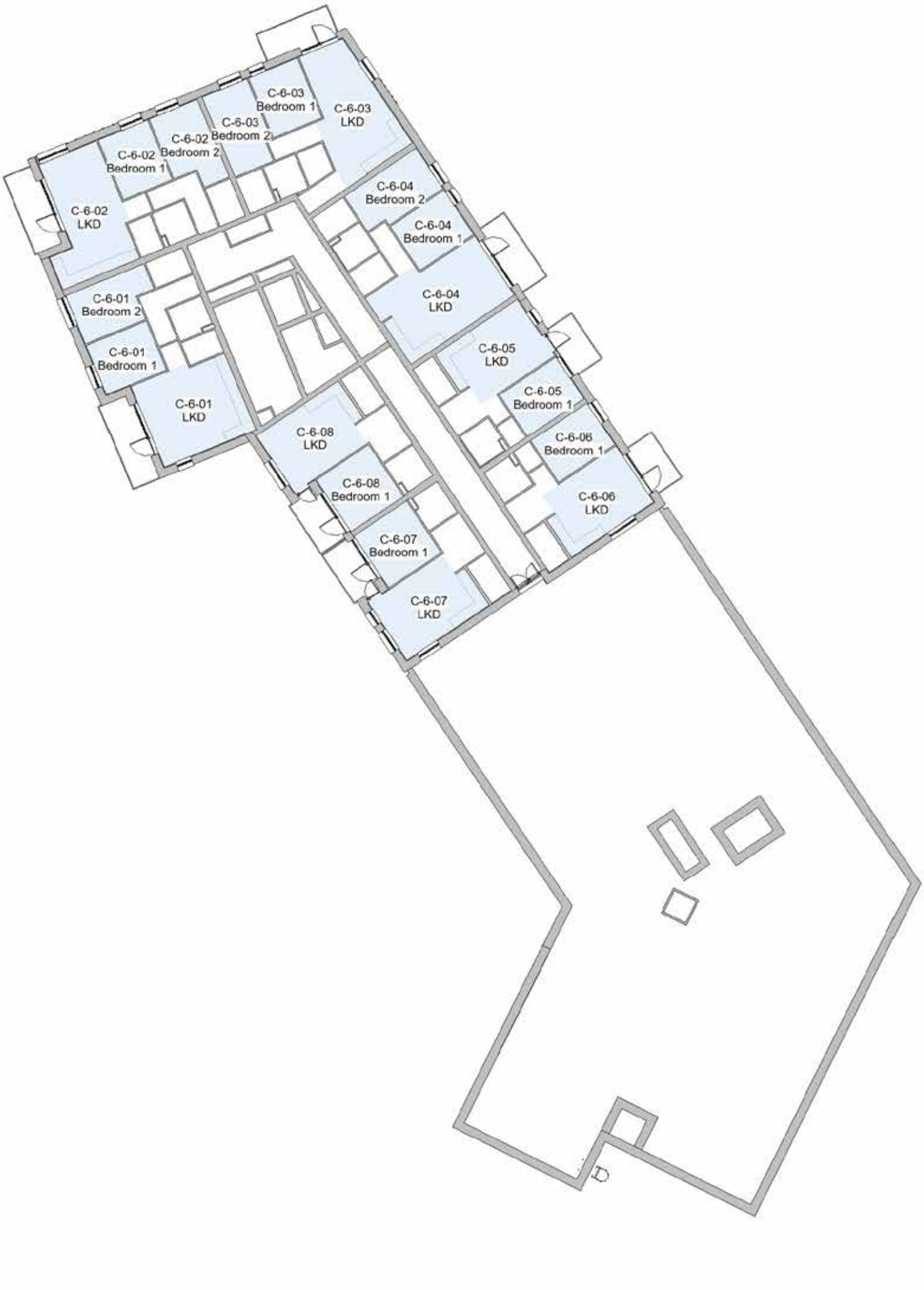


Figure C.14: Block C - Sixth Floor

C.1.15 Seventh Floor - Block A

Figure C.15: Block A - Seventh Floor

C.1.16 Sixth Floor - Block C

Figure C.16: Block C - Seventh Floor

C.1.17 Seventh Floor - Block A

Figure C.17: Block A - Seventh Floor

C.2 Spatial Daylight Autonomy (SDA) in Proposed Units

Below is an example of the table used to describe the spatial daylight autonomy results in proposed units.

Table Example. C.2 - Scheme Performance SDA					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria
			Without Trees	With Trees	
A	**B**	**C**	**D**	**E**	**F**

A: Unit Number

This column identifies the assessed unit. All unit numbers are determined by the architect's drawings, unless otherwise stated.

B: Room Description

Room Description details which room in the unit has been assessed, e.g. bedroom, LKD, etc.

C: Target Lux

Under BR 209 the appropriate target lux levels to be achieved across 50% of the working plane of a room differ depending on the room type. Kitchens have a target lux of 200, living rooms have a target lux of 150 and bedrooms have a target lux of 100. In a room providing more than one function, such as an LKD, the higher target value should be taken i.e. 200 Lux.

D: % of area above target Lux (Without Trees)

BR 209 recommends target lux levels to be achieved across at least 50% of the working plane for at least half the daylight hours. The target values differ depending on the room function, 200 lux for Kitchens, 150 lux for Living Rooms or 100 lux for Bedrooms.

This column states percentage of the working plane of the assessed room that is capable of receiving more than the appropriate target lux for at least half the daylight hours with trees excluded from the analytical model. The figures shown in this column should be considered part of a supplementary study that helps identify if trees are having an effect on daylight within the proposed units.

E: % of area above target Lux (With Trees)

BR 209 recommends target lux levels to be achieved across at least 50% of the working plane for at least half the daylight hours. The target values differ depending on the room function, 200 lux for Kitchens, 150 lux for Living Rooms or 100 lux for Bedrooms.

This column states percentage of the working plane of the assessed room that is capable of receiving more than the appropriate target lux for at least half the daylight hours with the foliage of deciduous trees varied to account for summer and winter conditions, i.e. full leaf and bare branch.

F: Compliance with BR 209 Criteria

This column states if the assessed room achieves the recommended level of daylight as per BR 209 with consideration to the various tree states.

If the target lux level is achieved across more than 50% of the working plane, for half the daylight hours, both with and without trees, this column will state: *'Compliant'*.

If the target lux level is not achieved across more than 50% of the working plane, for half the daylight hours, both with and without trees, this column will state: *'Non-compliant'*.

If the target lux level is achieved across more than 50% of the working plane, for half the daylight hours, without trees but is not achieved with trees, this column will state: *'Trees affecting compliance'*.

Compliance rates will be stated for SDA, both with and without trees.

It should be noted that the figures displayed in the table of results have been rounded off. A manual calculation of these figures may yield a negligible difference and should not be considered an error.

C.2.1 SDA Results: Ground Floor

Table No. C.2.1 - SDA Results: Ground Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
Creche	Room A	150	100%	100%	Compliant
Creche	Room B	150	100%	100%	Compliant
Creche	Room C	150	91%	91%	Compliant
A-0-02	LKD	200	100%	100%	Compliant
A-0-02	Bedroom 1	100	100%	100%	Compliant
A-0-02	Bedroom 2	100	100%	100%	Compliant
A-0-03	LKD	200	100%	96%	Compliant
A-0-03	Bedroom 1	100	100%	100%	Compliant
A-0-03	Bedroom 2	100	100%	100%	Compliant
A-0-04	LKD	200	100%	75%	Compliant
A-0-04	Bedroom 1	100	100%	100%	Compliant
A-0-05	LKD	200	100%	78%	Compliant
A-0-05	Bedroom 1	100	100%	100%	Compliant
A-0-05	Bedroom 2	100	100%	100%	Compliant
A-0-06	LKD	200	100%	100%	Compliant
A-0-06	Bedroom 1	100	100%	100%	Compliant
A-0-06	Bedroom 2	100	100%	100%	Compliant
A-0-07	LKD	200	100%	100%	Compliant
A-0-07	Bedroom 1	100	100%	100%	Compliant
A-0-08	LKD	200	46%	42%	Non-compliant
A-0-08	Bedroom 1	100	100%	100%	Compliant
A-0-08	Bedroom 2	100	56%	51%	Compliant
A-0-08	Bedroom 3	100	100%	100%	Compliant
A-0-09	LKD	200	83%	69%	Compliant
A-0-09	Bedroom 1	100	100%	100%	Compliant
A-0-10	LKD	200	66%	54%	Compliant
A-0-10	Bedroom 1	100	99%	81%	Compliant
A-0-10	Bedroom 2	100	100%	100%	Compliant
B-0-01	LKD	200	99%	88%	Compliant
B-0-01	Bedroom 1	100	100%	100%	Compliant
B-0-02	LKD	200	100%	94%	Compliant
B-0-02	Bedroom 1	100	100%	100%	Compliant
B-0-06	LKD	200	59%	54%	Compliant
B-0-06	Bedroom 1	100	100%	96%	Compliant
B-0-06	Bedroom 2	100	100%	100%	Compliant
B-0-07	LKD	200	97%	72%	Compliant
B-0-07	Bedroom 1	100	100%	100%	Compliant
B-0-08	LKD	200	93%	71%	Compliant
B-0-08	Bedroom 1	100	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.
*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.
The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.1 - SDA Results: Ground Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
C-0-01	LKD	200	100%	100%	Compliant
C-0-01	Bedroom 1	100	100%	100%	Compliant
C-0-01	Bedroom 2	100	100%	100%	Compliant
C-0-02	LKD	200	94%	82%	Compliant
C-0-02	Bedroom 1	100	100%	100%	Compliant
C-0-02	Bedroom 2	100	100%	100%	Compliant
C-0-03	LKD	200	100%	98%	Compliant
C-0-03	Bedroom 1	100	100%	100%	Compliant
C-0-03	Bedroom 2	100	100%	100%	Compliant
C-0-04	LKD	200	56%	47%	Trees affecting compliance
C-0-04	Bedroom 1	100	100%	86%	Compliant
C-0-04	Bedroom 2	100	100%	100%	Compliant
C-0-07	LKD	200	100%	98%	Compliant
C-0-07	Bedroom 1	100	100%	100%	Compliant

C.2.2 SDA Results: First Floor

Table No. C.2.2 - SDA Results: First Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-1-01	LKD	200	98%	96%	Compliant
A-1-01	Bedroom 1	100	100%	100%	Compliant
A-1-01	Bedroom 2	100	100%	100%	Compliant
A-1-02	LKD	200	100%	100%	Compliant
A-1-02	Bedroom 1	100	100%	100%	Compliant
A-1-02	Bedroom 2	100	100%	100%	Compliant
A-1-03	LKD	200	100%	100%	Compliant
A-1-03	Bedroom 1	100	100%	100%	Compliant
A-1-03	Bedroom 2	100	100%	100%	Compliant
A-1-04	LKD	200	100%	100%	Compliant
A-1-04	Bedroom 1	100	100%	100%	Compliant
A-1-05	LKD	200	100%	100%	Compliant
A-1-05	Bedroom 1	100	100%	100%	Compliant
A-1-05	Bedroom 2	100	100%	100%	Compliant
A-1-06	LKD	200	100%	100%	Compliant
A-1-06	Bedroom 1	100	100%	100%	Compliant
A-1-06	Bedroom 2	100	100%	100%	Compliant
A-1-07	LKD	200	100%	100%	Compliant
A-1-07	Bedroom 1	100	100%	100%	Compliant
A-1-08	LKD	200	51%	48%	Trees affecting compliance
A-1-08	Bedroom 1	100	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.2 - SDA Results: First Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-1-08	Bedroom 2	100	59%	54%	Compliant
A-1-08	Bedroom 3	100	100%	100%	Compliant
A-1-09	LKD	200	96%	94%	Compliant
A-1-09	Bedroom 1	100	100%	100%	Compliant
A-1-10	LKD	200	74%	68%	Compliant
A-1-10	Bedroom 1	100	100%	100%	Compliant
A-1-10	Bedroom 2	100	100%	100%	Compliant
A-1-11	LKD	200	88%	77%	Compliant
A-1-11	Bedroom 1	100	100%	100%	Compliant
A-1-12	LKD	200	55%	50%	Compliant
A-1-12	Bedroom 1	100	100%	100%	Compliant
A-1-13	LKD	200	100%	100%	Compliant
A-1-13	Bedroom 1	100	66%	65%	Compliant
A-1-13	Bedroom 2	100	79%	74%	Compliant
A-1-14	LKD	200	100%	100%	Compliant
A-1-14	Bedroom 1	100	100%	100%	Compliant
A-1-15	LKD	200	100%	100%	Compliant
A-1-15	Bedroom 1	100	100%	100%	Compliant
A-1-16	LKD	200	100%	99%	Compliant
A-1-16	Bedroom 1	100	100%	100%	Compliant
A-1-17	LKD	200	100%	100%	Compliant
A-1-17	Bedroom 1	100	98%	97%	Compliant
A-1-17	Bedroom 2	100	100%	100%	Compliant
B-1-01	LKD	200	100%	100%	Compliant
B-1-01	Bedroom 1	100	100%	100%	Compliant
B-1-02	LKD	200	100%	100%	Compliant
B-1-02	Bedroom 1	100	100%	100%	Compliant
B-1-03	LKD	200	93%	85%	Compliant
B-1-03	Bedroom 1	100	100%	100%	Compliant
B-1-04	LKD	200	67%	64%	Compliant
B-1-04	Bedroom 1	100	100%	100%	Compliant
B-1-04	Bedroom 2	100	100%	100%	Compliant
B-1-05	LKD	200	100%	100%	Compliant
B-1-05	Bedroom 1	100	100%	100%	Compliant
B-1-05	Bedroom 2	100	100%	100%	Compliant
B-1-05	Bedroom 3	100	100%	100%	Compliant
B-1-06	LKD	200	68%	64%	Compliant
B-1-06	Bedroom 1	100	100%	100%	Compliant
B-1-06	Bedroom 2	100	100%	100%	Compliant
B-1-07	LKD	200	100%	100%	Compliant
B-1-07	Bedroom 1	100	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.2 - SDA Results: First Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
B-1-08	LKD	200	100%	100%	Compliant
B-1-08	Bedroom 1	100	100%	100%	Compliant
B-1-09	LKD	200	61%	55%	Compliant
B-1-09	Bedroom 1	100	100%	100%	Compliant
C-1-01	LKD	200	100%	100%	Compliant
C-1-01	Bedroom 1	100	100%	100%	Compliant
C-1-01	Bedroom 2	100	100%	100%	Compliant
C-1-02	LKD	200	95%	94%	Compliant
C-1-02	Bedroom 1	100	100%	100%	Compliant
C-1-02	Bedroom 2	100	100%	100%	Compliant
C-1-03	LKD	200	100%	99%	Compliant
C-1-03	Bedroom 1	100	100%	100%	Compliant
C-1-03	Bedroom 2	100	100%	100%	Compliant
C-1-04	LKD	200	69%	63%	Compliant
C-1-04	Bedroom 1	100	100%	100%	Compliant
C-1-04	Bedroom 2	100	100%	100%	Compliant
C-1-05	LKD	200	63%	55%	Compliant
C-1-05	Bedroom 1	100	100%	100%	Compliant
C-1-06	LKD	200	93%	83%	Compliant
C-1-06	Bedroom 1	100	100%	100%	Compliant
C-1-07	LKD	200	100%	100%	Compliant
C-1-07	Bedroom 1	100	100%	100%	Compliant
C-1-08	LKD	200	99%	99%	Compliant
C-1-08	Bedroom 1	100	100%	100%	Compliant

C.2.3 SDA Results: Second Floor

Table No. C.2.3 - SDA Results: Second Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-2-01	LKD	200	100%	100%	Compliant
A-2-01	Bedroom 1	100	100%	100%	Compliant
A-2-01	Bedroom 2	100	100%	100%	Compliant
A-2-02	LKD	200	100%	100%	Compliant
A-2-02	Bedroom 1	100	100%	100%	Compliant
A-2-02	Bedroom 2	100	100%	100%	Compliant
A-2-03	LKD	200	100%	100%	Compliant
A-2-03	Bedroom 1	100	100%	100%	Compliant
A-2-03	Bedroom 2	100	100%	100%	Compliant
A-2-04	LKD	200	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.3 - SDA Results: Second Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-2-04	Bedroom 1	100	100%	100%	Compliant
A-2-05	LKD	200	100%	100%	Compliant
A-2-05	Bedroom 1	100	100%	100%	Compliant
A-2-05	Bedroom 2	100	100%	100%	Compliant
A-2-06	LKD	200	100%	100%	Compliant
A-2-06	Bedroom 1	100	100%	100%	Compliant
A-2-06	Bedroom 2	100	100%	100%	Compliant
A-2-07	LKD	200	100%	100%	Compliant
A-2-07	Bedroom 1	100	100%	100%	Compliant
A-2-08	LKD	200	59%	57%	Compliant
A-2-08	Bedroom 1	100	100%	100%	Compliant
A-2-08	Bedroom 2	100	70%	63%	Compliant
A-2-08	Bedroom 3	100	100%	100%	Compliant
A-2-09	LKD	200	98%	98%	Compliant
A-2-09	Bedroom 1	100	100%	100%	Compliant
A-2-10	LKD	200	94%	90%	Compliant
A-2-10	Bedroom 1	100	100%	100%	Compliant
A-2-10	Bedroom 2	100	100%	100%	Compliant
A-2-11	LKD	200	98%	96%	Compliant
A-2-11	Bedroom 1	100	100%	100%	Compliant
A-2-12	LKD	200	94%	90%	Compliant
A-2-12	Bedroom 1	100	100%	100%	Compliant
A-2-13	LKD	200	100%	100%	Compliant
A-2-13	Bedroom 1	100	72%	70%	Compliant
A-2-13	Bedroom 2	100	88%	85%	Compliant
A-2-14	LKD	200	100%	100%	Compliant
A-2-14	Bedroom 1	100	100%	99%	Compliant
A-2-15	LKD	200	100%	100%	Compliant
A-2-15	Bedroom 1	100	100%	100%	Compliant
A-2-16	LKD	200	100%	100%	Compliant
A-2-16	Bedroom 1	100	100%	100%	Compliant
A-2-17	LKD	200	100%	100%	Compliant
A-2-17	Bedroom 1	100	100%	100%	Compliant
A-2-17	Bedroom 2	100	100%	100%	Compliant
B-2-01	LKD	200	100%	100%	Compliant
B-2-01	Bedroom 1	100	100%	100%	Compliant
B-2-02	LKD	200	100%	100%	Compliant
B-2-02	Bedroom 1	100	100%	100%	Compliant
B-2-03	LKD	200	100%	100%	Compliant
B-2-03	Bedroom 1	100	100%	100%	Compliant
B-2-04	LKD	200	97%	96%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.3 - SDA Results: Second Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
B-2-04	Bedroom 1	100	100%	100%	Compliant
B-2-04	Bedroom 2	100	100%	100%	Compliant
B-2-05	LKD	200	100%	100%	Compliant
B-2-05	Bedroom 1	100	100%	100%	Compliant
B-2-05	Bedroom 2	100	100%	100%	Compliant
B-2-05	Bedroom 3	100	100%	100%	Compliant
B-2-06	LKD	200	81%	74%	Compliant
B-2-06	Bedroom 1	100	100%	100%	Compliant
B-2-06	Bedroom 2	100	100%	100%	Compliant
B-2-07	LKD	200	100%	100%	Compliant
B-2-07	Bedroom 1	100	100%	100%	Compliant
B-2-08	LKD	200	100%	100%	Compliant
B-2-08	Bedroom 1	100	100%	100%	Compliant
B-2-09	LKD	200	96%	84%	Compliant
B-2-09	Bedroom 1	100	100%	100%	Compliant
C-2-01	LKD	200	100%	100%	Compliant
C-2-01	Bedroom 1	100	100%	100%	Compliant
C-2-01	Bedroom 2	100	100%	100%	Compliant
C-2-02	LKD	200	95%	95%	Compliant
C-2-02	Bedroom 1	100	100%	100%	Compliant
C-2-02	Bedroom 2	100	100%	100%	Compliant
C-2-03	LKD	200	95%	89%	Compliant
C-2-03	Bedroom 1	100	100%	100%	Compliant
C-2-03	Bedroom 2	100	100%	100%	Compliant
C-2-04	LKD	200	97%	94%	Compliant
C-2-04	Bedroom 1	100	100%	100%	Compliant
C-2-04	Bedroom 2	100	100%	100%	Compliant
C-2-05	LKD	200	76%	73%	Compliant
C-2-05	Bedroom 1	100	100%	100%	Compliant
C-2-06	LKD	200	99%	99%	Compliant
C-2-06	Bedroom 1	100	100%	100%	Compliant
C-2-07	LKD	200	100%	100%	Compliant
C-2-07	Bedroom 1	100	100%	100%	Compliant
C-2-08	LKD	200	100%	100%	Compliant
C-2-08	Bedroom 1	100	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

C.2.4 SDA Results: Third Floor

Table No. C.2.4 - SDA Results: Third Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-3-01	LKD	200	100%	100%	Compliant
A-3-01	Bedroom 1	100	100%	100%	Compliant
A-3-01	Bedroom 2	100	100%	100%	Compliant
A-3-02	LKD	200	100%	100%	Compliant
A-3-02	Bedroom 1	100	100%	100%	Compliant
A-3-02	Bedroom 2	100	100%	100%	Compliant
A-3-03	LKD	200	100%	100%	Compliant
A-3-03	Bedroom 1	100	100%	100%	Compliant
A-3-03	Bedroom 2	100	100%	100%	Compliant
A-3-04	LKD	200	100%	100%	Compliant
A-3-04	Bedroom 1	100	100%	100%	Compliant
A-3-05	LKD	200	100%	100%	Compliant
A-3-05	Bedroom 1	100	100%	100%	Compliant
A-3-05	Bedroom 2	100	100%	100%	Compliant
A-3-06	LKD	200	100%	100%	Compliant
A-3-06	Bedroom 1	100	100%	100%	Compliant
A-3-06	Bedroom 2	100	100%	100%	Compliant
A-3-07	LKD	200	100%	100%	Compliant
A-3-07	Bedroom 1	100	100%	100%	Compliant
A-3-08	LKD	200	68%	66%	Compliant
A-3-08	Bedroom 1	100	100%	100%	Compliant
A-3-08	Bedroom 2	100	76%	73%	Compliant
A-3-08	Bedroom 3	100	100%	100%	Compliant
A-3-09	LKD	200	99%	99%	Compliant
A-3-09	Bedroom 1	100	100%	100%	Compliant
A-3-10	LKD	200	100%	99%	Compliant
A-3-10	Bedroom 1	100	100%	100%	Compliant
A-3-10	Bedroom 2	100	100%	100%	Compliant
A-3-11	LKD	200	100%	99%	Compliant
A-3-11	Bedroom 1	100	100%	100%	Compliant
A-3-12	LKD	200	100%	99%	Compliant
A-3-12	Bedroom 1	100	100%	100%	Compliant
A-3-13	LKD	200	100%	100%	Compliant
A-3-13	Bedroom 1	100	86%	86%	Compliant
A-3-13	Bedroom 2	100	98%	98%	Compliant
A-3-14	LKD	200	100%	100%	Compliant
A-3-14	Bedroom 1	100	100%	100%	Compliant
A-3-15	LKD	200	100%	100%	Compliant
A-3-15	Bedroom 1	100	100%	100%	Compliant
A-3-16	LKD	200	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.4 - SDA Results: Third Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-3-16	Bedroom 1	100	100%	100%	Compliant
A-3-17	LKD	200	100%	100%	Compliant
A-3-17	Bedroom 1	100	100%	100%	Compliant
A-3-17	Bedroom 2	100	100%	100%	Compliant
B-3-01	LKD	200	100%	100%	Compliant
B-3-01	Bedroom 1	100	100%	100%	Compliant
B-3-02	LKD	200	100%	100%	Compliant
B-3-02	Bedroom 1	100	100%	100%	Compliant
B-3-03	LKD	200	100%	100%	Compliant
B-3-03	Bedroom 1	100	100%	100%	Compliant
B-3-04	LKD	200	99%	99%	Compliant
B-3-04	Bedroom 1	100	100%	100%	Compliant
B-3-04	Bedroom 2	100	100%	100%	Compliant
B-3-05	LKD	200	100%	100%	Compliant
B-3-05	Bedroom 1	100	100%	100%	Compliant
B-3-05	Bedroom 2	100	100%	100%	Compliant
B-3-05	Bedroom 3	100	100%	100%	Compliant
B-3-06	LKD	200	95%	93%	Compliant
B-3-06	Bedroom 1	100	100%	100%	Compliant
B-3-06	Bedroom 2	100	100%	100%	Compliant
B-3-07	LKD	200	100%	100%	Compliant
B-3-07	Bedroom 1	100	100%	100%	Compliant
B-3-08	LKD	200	100%	100%	Compliant
B-3-08	Bedroom 1	100	100%	100%	Compliant
B-3-09	LKD	200	98%	96%	Compliant
B-3-09	Bedroom 1	100	100%	100%	Compliant
C-3-01	LKD	200	100%	100%	Compliant
C-3-01	Bedroom 1	100	100%	100%	Compliant
C-3-01	Bedroom 2	100	100%	100%	Compliant
C-3-02	LKD	200	97%	96%	Compliant
C-3-02	Bedroom 1	100	100%	100%	Compliant
C-3-02	Bedroom 2	100	100%	100%	Compliant
C-3-03	LKD	200	100%	100%	Compliant
C-3-03	Bedroom 1	100	100%	100%	Compliant
C-3-03	Bedroom 2	100	100%	100%	Compliant
C-3-04	LKD	200	99%	99%	Compliant
C-3-04	Bedroom 1	100	100%	100%	Compliant
C-3-04	Bedroom 2	100	100%	100%	Compliant
C-3-05	LKD	200	95%	94%	Compliant
C-3-05	Bedroom 1	100	100%	100%	Compliant
C-3-06	LKD	200	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.4 - SDA Results: Third Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
C-3-06	Bedroom 1	100	100%	100%	Compliant
C-3-07	LKD	200	100%	100%	Compliant
C-3-07	Bedroom 1	100	100%	100%	Compliant
C-3-08	LKD	200	100%	100%	Compliant
C-3-08	Bedroom 1	100	100%	100%	Compliant

C.2.5 SDA Results: Fourth Floor

Table No. C.2.5 - SDA Results: Fourth Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-4-01	LKD	200	100%	100%	Compliant
A-4-01	Bedroom 1	100	100%	100%	Compliant
A-4-01	Bedroom 2	100	100%	100%	Compliant
A-4-02	LKD	200	100%	100%	Compliant
A-4-02	Bedroom 1	100	100%	100%	Compliant
A-4-02	Bedroom 2	100	100%	100%	Compliant
A-4-03	LKD	200	100%	100%	Compliant
A-4-03	Bedroom 1	100	100%	100%	Compliant
A-4-03	Bedroom 2	100	100%	100%	Compliant
A-4-04	LKD	200	100%	100%	Compliant
A-4-04	Bedroom 1	100	100%	100%	Compliant
A-4-05	LKD	200	100%	100%	Compliant
A-4-05	Bedroom 1	100	100%	100%	Compliant
A-4-05	Bedroom 2	100	100%	100%	Compliant
A-4-06	LKD	200	100%	100%	Compliant
A-4-06	Bedroom 1	100	100%	100%	Compliant
A-4-06	Bedroom 2	100	100%	100%	Compliant
A-4-07	LKD	200	100%	100%	Compliant
A-4-07	Bedroom 1	100	100%	100%	Compliant
A-4-08	LKD	200	90%	90%	Compliant
A-4-08	Bedroom 1	100	100%	100%	Compliant
A-4-08	Bedroom 2	100	89%	86%	Compliant
A-4-08	Bedroom 3	100	100%	100%	Compliant
A-4-09	LKD	200	100%	100%	Compliant
A-4-09	Bedroom 1	100	100%	100%	Compliant
A-4-10	LKD	200	100%	100%	Compliant
A-4-10	Bedroom 1	100	100%	100%	Compliant
A-4-10	Bedroom 2	100	100%	100%	Compliant
A-4-11	LKD	200	100%	100%	Compliant
A-4-11	Bedroom 1	100	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.
*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.
The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.5 - SDA Results: Fourth Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-4-12	LKD	200	100%	100%	Compliant
A-4-12	Bedroom 1	100	100%	100%	Compliant
A-4-13	LKD	200	100%	100%	Compliant
A-4-13	Bedroom 1	100	100%	100%	Compliant
A-4-13	Bedroom 2	100	100%	100%	Compliant
A-4-14	LKD	200	100%	100%	Compliant
A-4-14	Bedroom 1	100	100%	100%	Compliant
A-4-15	LKD	200	100%	100%	Compliant
A-4-15	Bedroom 1	100	100%	100%	Compliant
A-4-16	LKD	200	100%	100%	Compliant
A-4-16	Bedroom 1	100	100%	100%	Compliant
A-4-17	LKD	200	100%	100%	Compliant
A-4-17	Bedroom 1	100	100%	100%	Compliant
A-4-17	Bedroom 2	100	100%	100%	Compliant
B-4-01	LKD	200	100%	100%	Compliant
B-4-01	Bedroom 1	100	100%	100%	Compliant
B-4-02	LKD	200	100%	100%	Compliant
B-4-02	Bedroom 1	100	100%	100%	Compliant
B-4-03	LKD	200	100%	100%	Compliant
B-4-03	Bedroom 1	100	100%	100%	Compliant
B-4-04	LKD	200	100%	100%	Compliant
B-4-04	Bedroom 1	100	100%	100%	Compliant
B-4-04	Bedroom 2	100	100%	100%	Compliant
B-4-05	LKD	200	100%	100%	Compliant
B-4-05	Bedroom 1	100	100%	100%	Compliant
B-4-05	Bedroom 2	100	100%	100%	Compliant
B-4-05	Bedroom 3	100	100%	100%	Compliant
B-4-06	LKD	200	100%	99%	Compliant
B-4-06	Bedroom 1	100	100%	100%	Compliant
B-4-06	Bedroom 2	100	100%	100%	Compliant
B-4-07	LKD	200	100%	100%	Compliant
B-4-07	Bedroom 1	100	100%	100%	Compliant
B-4-08	LKD	200	100%	100%	Compliant
B-4-08	Bedroom 1	100	100%	100%	Compliant
B-4-09	LKD	200	98%	97%	Compliant
B-4-09	Bedroom 1	100	100%	100%	Compliant
C-4-01	LKD	200	100%	100%	Compliant
C-4-01	Bedroom 1	100	100%	100%	Compliant
C-4-01	Bedroom 2	100	100%	100%	Compliant
C-4-02	LKD	200	95%	95%	Compliant
C-4-02	Bedroom 1	100	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.5 - SDA Results: Fourth Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
C-4-02	Bedroom 2	100	100%	100%	Compliant
C-4-03	LKD	200	100%	100%	Compliant
C-4-03	Bedroom 1	100	100%	100%	Compliant
C-4-03	Bedroom 2	100	100%	100%	Compliant
C-4-04	LKD	200	100%	100%	Compliant
C-4-04	Bedroom 1	100	100%	100%	Compliant
C-4-04	Bedroom 2	100	100%	100%	Compliant
C-4-05	LKD	200	97%	97%	Compliant
C-4-05	Bedroom 1	100	100%	100%	Compliant
C-4-06	LKD	200	100%	100%	Compliant
C-4-06	Bedroom 1	100	100%	100%	Compliant
C-4-07	LKD	200	100%	100%	Compliant
C-4-07	Bedroom 1	100	100%	100%	Compliant
C-4-08	LKD	200	100%	100%	Compliant
C-4-08	Bedroom 1	100	100%	100%	Compliant

C.2.6 SDA Results: Fifth Floor

Table No. C.2.6 - SDA Results: Fifth Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-5-01	LKD	200	100%	100%	Compliant
A-5-01	Bedroom 1	100	100%	100%	Compliant
A-5-01	Bedroom 2	100	100%	100%	Compliant
A-5-02	LKD	200	100%	100%	Compliant
A-5-02	Bedroom 1	100	100%	100%	Compliant
A-5-02	Bedroom 2	100	100%	100%	Compliant
A-5-03	LKD	200	100%	100%	Compliant
A-5-03	Bedroom 1	100	100%	100%	Compliant
A-5-03	Bedroom 2	100	100%	100%	Compliant
A-5-04	LKD	200	100%	100%	Compliant
A-5-04	Bedroom 1	100	100%	100%	Compliant
A-5-05	LKD	200	100%	100%	Compliant
A-5-05	Bedroom 1	100	100%	100%	Compliant
A-5-05	Bedroom 2	100	100%	100%	Compliant
A-5-10	LKD	200	100%	100%	Compliant
A-5-10	Bedroom 1	100	100%	100%	Compliant
A-5-10	Bedroom 2	100	100%	100%	Compliant
A-5-11	LKD	200	100%	100%	Compliant
A-5-11	Bedroom 1	100	100%	100%	Compliant
A-5-12	LKD	200	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.
*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.
The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.6 - SDA Results: Fifth Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-5-12	Bedroom 1	100	100%	100%	Compliant
B-5-01	LKD	200	100%	100%	Compliant
B-5-01	Bedroom 1	100	100%	100%	Compliant
B-5-02	LKD	200	100%	100%	Compliant
B-5-02	Bedroom 1	100	100%	100%	Compliant
B-5-03	LKD	200	100%	100%	Compliant
B-5-03	Bedroom 1	100	100%	100%	Compliant
B-5-04	LKD	200	100%	100%	Compliant
B-5-04	Bedroom 1	100	100%	100%	Compliant
B-5-04	Bedroom 2	100	100%	100%	Compliant
B-5-05	LKD	200	100%	100%	Compliant
B-5-05	Bedroom 1	100	100%	100%	Compliant
B-5-05	Bedroom 2	100	100%	100%	Compliant
B-5-05	Bedroom 3	100	100%	100%	Compliant
B-5-06	LKD	200	100%	100%	Compliant
B-5-06	Bedroom 1	100	100%	100%	Compliant
B-5-06	Bedroom 2	100	100%	100%	Compliant
B-5-08	LKD	200	100%	100%	Compliant
B-5-08	Bedroom 1	100	100%	100%	Compliant
B-5-09	LKD	200	99%	99%	Compliant
B-5-09	Bedroom 1	100	100%	100%	Compliant
C-5-01	LKD	200	100%	100%	Compliant
C-5-01	Bedroom 1	100	100%	100%	Compliant
C-5-01	Bedroom 2	100	100%	100%	Compliant
C-5-02	LKD	200	95%	95%	Compliant
C-5-02	Bedroom 1	100	100%	100%	Compliant
C-5-02	Bedroom 2	100	100%	100%	Compliant
C-5-03	LKD	200	100%	100%	Compliant
C-5-03	Bedroom 1	100	100%	100%	Compliant
C-5-03	Bedroom 2	100	100%	100%	Compliant
C-5-04	LKD	200	100%	100%	Compliant
C-5-04	Bedroom 1	100	100%	100%	Compliant
C-5-04	Bedroom 2	100	100%	100%	Compliant
C-5-05	LKD	200	98%	97%	Compliant
C-5-05	Bedroom 1	100	100%	100%	Compliant
C-5-06	LKD	200	100%	100%	Compliant
C-5-06	Bedroom 1	100	100%	100%	Compliant
C-5-07	LKD	200	100%	100%	Compliant
C-5-07	Bedroom 1	100	100%	100%	Compliant
C-5-08	LKD	200	100%	100%	Compliant
C-5-08	Bedroom 1	100	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

C.2.7 SDA Results: Sixth Floor

Table No. C.2.7 - SDA Results: Sixth Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-6-01	LKD	200	100%	100%	Compliant
A-6-01	Bedroom 1	100	100%	100%	Compliant
A-6-01	Bedroom 2	100	100%	100%	Compliant
A-6-02	LKD	200	100%	100%	Compliant
A-6-02	Bedroom 1	100	100%	100%	Compliant
A-6-02	Bedroom 2	100	100%	100%	Compliant
A-6-03	LKD	200	100%	100%	Compliant
A-6-03	Bedroom 1	100	100%	100%	Compliant
A-6-03	Bedroom 2	100	100%	100%	Compliant
A-6-04	LKD	200	100%	100%	Compliant
A-6-04	Bedroom 1	100	100%	100%	Compliant
A-6-05	LKD	200	100%	100%	Compliant
A-6-05	Bedroom 1	100	100%	100%	Compliant
A-6-05	Bedroom 2	100	100%	100%	Compliant
A-6-10	LKD	200	100%	100%	Compliant
A-6-10	Bedroom 1	100	100%	100%	Compliant
A-6-10	Bedroom 2	100	100%	100%	Compliant
A-6-11	LKD	200	100%	100%	Compliant
A-6-11	Bedroom 1	100	100%	100%	Compliant
A-6-12	LKD	200	100%	100%	Compliant
A-6-12	Bedroom 1	100	100%	100%	Compliant
C-6-01	LKD	200	100%	100%	Compliant
C-6-01	Bedroom 1	100	100%	100%	Compliant
C-6-01	Bedroom 2	100	100%	100%	Compliant
C-6-02	LKD	200	97%	97%	Compliant
C-6-02	Bedroom 1	100	100%	100%	Compliant
C-6-02	Bedroom 2	100	100%	100%	Compliant
C-6-03	LKD	200	100%	100%	Compliant
C-6-03	Bedroom 1	100	100%	100%	Compliant
C-6-03	Bedroom 2	100	100%	100%	Compliant
C-6-04	LKD	200	100%	100%	Compliant
C-6-04	Bedroom 1	100	100%	100%	Compliant
C-6-04	Bedroom 2	100	100%	100%	Compliant
C-6-05	LKD	200	98%	98%	Compliant
C-6-05	Bedroom 1	100	100%	100%	Compliant
C-6-06	LKD	200	100%	100%	Compliant
C-6-06	Bedroom 1	100	100%	100%	Compliant
C-6-07	LKD	200	100%	100%	Compliant
C-6-07	Bedroom 1	100	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.7 - SDA Results: Sixth Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
C-6-08	LKD	200	100%	100%	Compliant
C-6-08	Bedroom 1	100	100%	100%	Compliant

C.2.8 SDA Results: Seventh Floor

Table No. C.2.8 - SDA Results: Seventh Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-7-01	LKD	200	100%	100%	Compliant
A-7-01	Bedroom 1	100	100%	100%	Compliant
A-7-01	Bedroom 2	100	100%	100%	Compliant
A-7-02	LKD	200	100%	100%	Compliant
A-7-02	Bedroom 1	100	100%	100%	Compliant
A-7-02	Bedroom 2	100	100%	100%	Compliant
A-7-03	LKD	200	100%	100%	Compliant
A-7-03	Bedroom 1	100	100%	100%	Compliant
A-7-03	Bedroom 2	100	100%	100%	Compliant
A-7-04	LKD	200	100%	100%	Compliant
A-7-04	Bedroom 1	100	100%	100%	Compliant
A-7-05	LKD	200	100%	100%	Compliant
A-7-05	Bedroom 1	100	100%	100%	Compliant
A-7-05	Bedroom 2	100	100%	100%	Compliant
A-7-10	LKD	200	100%	100%	Compliant
A-7-10	Bedroom 1	100	100%	100%	Compliant
A-7-10	Bedroom 2	100	100%	100%	Compliant
A-7-11	LKD	200	100%	100%	Compliant
A-7-11	Bedroom 1	100	100%	100%	Compliant
A-7-12	LKD	200	100%	100%	Compliant
A-7-12	Bedroom 1	100	100%	100%	Compliant
C-7-01	LKD	200	100%	100%	Compliant
C-7-01	Bedroom 1	100	100%	100%	Compliant
C-7-01	Bedroom 2	100	100%	100%	Compliant
C-7-02	LKD	200	96%	96%	Compliant
C-7-02	Bedroom 1	100	100%	100%	Compliant
C-7-02	Bedroom 2	100	100%	100%	Compliant
C-7-03	LKD	200	100%	100%	Compliant
C-7-03	Bedroom 1	100	100%	100%	Compliant
C-7-03	Bedroom 2	100	100%	100%	Compliant
C-7-04	LKD	200	100%	100%	Compliant
C-7-04	Bedroom 1	100	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.
*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.
The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.2.8 - SDA Results: Seventh Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
C-7-04	Bedroom 2	100	100%	100%	Compliant
C-7-05	LKD	200	99%	98%	Compliant
C-7-05	Bedroom 1	100	100%	100%	Compliant
C-7-06	LKD	200	100%	100%	Compliant
C-7-06	Bedroom 1	100	100%	100%	Compliant
C-7-07	LKD	200	100%	100%	Compliant
C-7-07	Bedroom 1	100	100%	100%	Compliant
C-7-08	LKD	200	100%	100%	Compliant
C-7-08	Bedroom 1	100	100%	100%	Compliant

C.2.9 SDA Results: Eighth Floor

Table No. C.2.9 - SDA Results: Eighth Floor					
Unit Number	Room Description	Target Lux*	% of area above target Lux* (recommendation >50%)		Compliance with BR 209 Criteria*
			Without Trees***	With Trees**	
A-8-01	LKD	200	100%	100%	Compliant
A-8-01	Bedroom 1	100	100%	100%	Compliant
A-8-01	Bedroom 2	100	100%	100%	Compliant
A-8-02	LKD	200	100%	100%	Compliant
A-8-02	Bedroom 1	100	100%	100%	Compliant
A-8-02	Bedroom 2	100	100%	100%	Compliant
A-8-03	LKD	200	100%	100%	Compliant
A-8-03	Bedroom 1	100	100%	100%	Compliant
A-8-03	Bedroom 2	100	100%	100%	Compliant
A-8-04	LKD	200	100%	100%	Compliant
A-8-04	Bedroom 1	100	100%	100%	Compliant
A-8-05	LKD	200	100%	100%	Compliant
A-8-05	Bedroom 1	100	100%	100%	Compliant
A-8-05	Bedroom 2	100	100%	100%	Compliant
A-8-10	LKD	200	100%	100%	Compliant
A-8-10	Bedroom 1	100	100%	100%	Compliant
A-8-10	Bedroom 2	100	100%	100%	Compliant
A-8-11	LKD	200	100%	100%	Compliant
A-8-11	Bedroom 1	100	100%	100%	Compliant
A-8-12	LKD	200	100%	100%	Compliant
A-8-12	Bedroom 1	100	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.

** Under the BR 209 study the SDA has been calculated with indicative trees represented accounting for annual foliage.

*** The SDA assessment without trees indicates the level of daylight within the proposed development when trees are not included in the analytical model. This study provides an understanding of how trees affect daylight within the proposed development.

The SDA circa compliance rates across the entire scheme can be found in section 5.2.1 on page 22.

For floor plans of the assessed units please refer to section C.1 on page 43.

C.3 Sunlight Exposure (SE) in Proposed Units

Below is an example of the table used to describe the SE performance of proposed habitable rooms.

Table Example. C.3 - Scheme Performance Sunlight Exposure							
Unit Number	Room Description	Deciduous Trees as Opaque Objects			Without Deciduous Trees		
		SE Hours on March 21st	Level of SE on March 21st	Unit compliance based on highest performing room	SE Hours on March 21st	Level of SE on March 21st	Unit compliance based on highest performing room
A	**B**	**C**	**D**	**E**	**F**	**G**	**H**

A: Unit Number

This column identifies the assessed unit. All unit numbers are determined by the architect's drawings, unless otherwise stated.

B: Room Description

Room Description details which room of the unit has been assessed, e.g. bedroom, living room, etc.

C: SE Hours on March 21st (Deciduous Trees as Opaque Objects)

This column will state the number of hours the assessed room can expect to receive on March 21st with the assessment carried out with deciduous trees as opaque objects.

D: Level of SE on March 21st (Deciduous Trees as Opaque Objects)

BR 209 recommends a minimum sunlight exposure of 1.5 hours for a proposed unit with preference given to main living rooms. BR 209 categorise sunlight exposure as minimum, medium and high, this column will categorise the level of sunlight exposure with deciduous trees as opaque objects based on the following:

- Less than 1.5 hours: *Below minimum,*
- Between 1.5 hours and 3 hours: *Minimum*
- Between 3 hours and 4 hours: *Medium*
- More than 4 hours: *High*

E: Unit compliance based on highest performing room (Deciduous Trees as Opaque Objects)

A proposed unit is considered to be compliant provided any habitable room within the unit is capable of receiving at least 1.5 hours of sunlight on the assessment date. This column will identify the highest performing room within a unit and state compliance for the associated unit based on that room with the assessment carried out with deciduous trees as opaque objects.

Typically unit compliance will be stated for the best performing room per unit only, with lesser performing rooms indicated with a dash (-).

F: SE Hours on March 21st (Without Deciduous Trees)

This column will state the number of hours the assessed room can expect to receive on March 21st with the assessment carried out without deciduous trees.

G: Level of SE on March 21st (Without Deciduous Trees)

BR 209 recommends a minimum sunlight exposure of 1.5 hours for a proposed unit with preference given to main living rooms. BR 209 categorise sunlight exposure as minimum, medium and high, this column will categorise the level of sunlight exposure without deciduous trees using the same criteria as the study with deciduous trees as opaque objects.

H: Unit compliance based on highest performing room (Without Deciduous Trees)

A proposed unit is considered to be compliant provided any habitable room within the unit is capable of receiving at least 1.5 hours of sunlight on March 21st. This column will identify the highest performing room within a unit and state compliance for the associated unit based on that room with the assessment carried out without deciduous trees. Typically only one room per unit will be populated in this column, with lesser performing rooms indicated with a dash (-).

It should be noted that the figures displayed in the table of results have been rounded off. A manual calculation of these figures may yield a negligible difference and should not be considered an error.

C.3.1 SE Results: Ground Floor

Table No. C.3.1 - Sunlight Exposure Results: Ground Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
Creche	Room A	2.40	Minimum	-	3.20	Medium	-
Creche	Room B	3.70	Medium	-	3.70	Medium	-
Creche	Room C	3.80	Medium	Compliant	3.80	Medium	Compliant
A-0-02	LKD	8.30	High	Compliant	8.30	High	Compliant
A-0-02	Bedroom 1	3.10	Medium	-	4.70	High	-
A-0-02	Bedroom 2	4.20	High	-	4.20	High	-
A-0-03	LKD	3.20	Medium	-	3.20	Medium	-
A-0-03	Bedroom 1	1.20	Below Minimum	-	4.20	High	Compliant
A-0-03	Bedroom 2	3.60	Medium	Compliant	4.20	High	-
A-0-04	LKD	2.10	Minimum	-	4.70	High	Compliant
A-0-04	Bedroom 1	2.90	Minimum	Compliant	3.10	Medium	-
A-0-05	LKD	2.30	Minimum	-	3.20	Medium	-
A-0-05	Bedroom 1	4.70	High	Compliant	4.70	High	Compliant
A-0-05	Bedroom 2	2.30	Minimum	-	3.90	Medium	-
A-0-06	LKD	2.70	Minimum	-	2.70	Minimum	-
A-0-06	Bedroom 1	1.50	Minimum	-	3.90	Medium	Compliant
A-0-06	Bedroom 2	3.80	Medium	Compliant	3.80	Medium	-
A-0-07	LKD	4.30	High	Compliant	4.30	High	Compliant
A-0-07	Bedroom 1	2.60	Minimum	-	2.60	Minimum	-
A-0-08	LKD	3.00	Medium	-	3.00	Medium	-
A-0-08	Bedroom 1	2.10	Minimum	-	2.10	Minimum	-
A-0-08	Bedroom 2	0.30	Below Minimum	-	0.30	Below Minimum	-
A-0-08	Bedroom 3	3.10	Medium	Compliant	3.10	Medium	Compliant
A-0-09	LKD	0.30	Below Minimum	-	0.30	Below Minimum	-
A-0-09	Bedroom 1	1.30	Below Minimum	Non-Compliant	1.30	Below Minimum	Non-Compliant
A-0-10	LKD	0.10	Below Minimum	Non-Compliant	0.10	Below Minimum	Non-Compliant
A-0-10	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-0-10	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
B-0-01	LKD	3.60	Medium	Compliant	3.60	Medium	Compliant
B-0-01	Bedroom 1	3.10	Medium	-	3.10	Medium	-
B-0-02	LKD	4.90	High	Compliant	4.90	High	Compliant
B-0-02	Bedroom 1	3.10	Medium	-	3.10	Medium	-
B-0-06	LKD	3.00	Medium	-	3.00	Medium	-
B-0-06	Bedroom 1	3.70	Medium	-	3.70	Medium	-
B-0-06	Bedroom 2	4.30	High	Compliant	4.30	High	Compliant
B-0-07	LKD	2.10	Minimum	Compliant	2.10	Minimum	Compliant
B-0-07	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
B-0-08	LKD	1.50	Minimum	Compliant	1.50	Minimum	Compliant
B-0-08	Bedroom 1	0.10	Below Minimum	-	0.10	Below Minimum	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.

** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.

*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.1 - Sunlight Exposure Results: Ground Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
C-0-01	LKD	6.70	High	Compliant	6.70	High	Compliant
C-0-01	Bedroom 1	4.50	High	-	4.50	High	-
C-0-01	Bedroom 2	4.50	High	-	4.90	High	-
C-0-02	LKD	2.50	Minimum	Compliant	2.80	Minimum	Compliant
C-0-02	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-0-02	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-0-03	LKD	2.10	Minimum	Compliant	2.10	Minimum	Compliant
C-0-03	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-0-03	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-0-04	LKD	1.80	Minimum	Compliant	1.80	Minimum	Compliant
C-0-04	Bedroom 1	0.00	Below Minimum	-	0.50	Below Minimum	-
C-0-04	Bedroom 2	1.00	Below Minimum	-	1.00	Below Minimum	-
C-0-07	LKD	5.10	High	Compliant	5.10	High	Compliant
C-0-07	Bedroom 1	3.80	Medium	-	3.80	Medium	-

C.3.2 SE Results: First Floor

Table No. C.3.2 - Sunlight Exposure Results: First Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-1-01	LKD	1.50	Minimum	-	1.50	Minimum	-
A-1-01	Bedroom 1	6.70	High	Compliant	6.70	High	Compliant
A-1-01	Bedroom 2	6.30	High	-	6.30	High	-
A-1-02	LKD	8.70	High	Compliant	8.70	High	Compliant
A-1-02	Bedroom 1	4.20	High	-	4.20	High	-
A-1-02	Bedroom 2	4.70	High	-	4.70	High	-
A-1-03	LKD	2.20	Minimum	-	2.20	Minimum	-
A-1-03	Bedroom 1	4.20	High	Compliant	4.20	High	Compliant
A-1-03	Bedroom 2	4.20	High	-	4.20	High	-
A-1-04	LKD	4.70	High	Compliant	4.70	High	Compliant
A-1-04	Bedroom 1	2.20	Minimum	-	2.20	Minimum	-
A-1-05	LKD	2.20	Minimum	-	2.20	Minimum	-
A-1-05	Bedroom 1	4.70	High	Compliant	4.70	High	Compliant
A-1-05	Bedroom 2	3.90	Medium	-	3.90	Medium	-
A-1-06	LKD	2.90	Minimum	-	2.90	Minimum	-
A-1-06	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-1-06	Bedroom 2	4.40	High	Compliant	4.40	High	Compliant
A-1-07	LKD	4.70	High	Compliant	4.70	High	Compliant
A-1-07	Bedroom 1	2.90	Minimum	-	2.90	Minimum	-
A-1-08	LKD	2.90	Minimum	-	2.90	Minimum	-
A-1-08	Bedroom 1	2.40	Minimum	-	2.40	Minimum	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.

** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.

*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.2 - Sunlight Exposure Results: First Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-1-08	Bedroom 2	0.50	Below Minimum	-	0.50	Below Minimum	-
A-1-08	Bedroom 3	3.30	Medium	Compliant	3.30	Medium	Compliant
A-1-09	LKD	1.30	Below Minimum	-	1.30	Below Minimum	-
A-1-09	Bedroom 1	1.40	Below Minimum	Non-Compliant	1.40	Below Minimum	Non-Compliant
A-1-10	LKD	1.80	Minimum	Compliant	1.80	Minimum	Compliant
A-1-10	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-1-10	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
A-1-11	LKD	0.00	Below Minimum	Non-Compliant	0.00	Below Minimum	Non-Compliant
A-1-11	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-1-12	LKD	0.00	Below Minimum	Non-Compliant	0.00	Below Minimum	Non-Compliant
A-1-12	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-1-13	LKD	4.20	High	Compliant	4.20	High	Compliant
A-1-13	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-1-13	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
A-1-14	LKD	3.30	Medium	Compliant	3.30	Medium	Compliant
A-1-14	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-1-15	LKD	3.10	Medium	Compliant	3.10	Medium	Compliant
A-1-15	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-1-16	LKD	2.90	Minimum	Compliant	2.90	Minimum	Compliant
A-1-16	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-1-17	LKD	2.80	Minimum	Compliant	2.80	Minimum	Compliant
A-1-17	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-1-17	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
B-1-01	LKD	3.90	Medium	Compliant	3.90	Medium	Compliant
B-1-01	Bedroom 1	3.40	Medium	-	3.40	Medium	-
B-1-02	LKD	5.20	High	Compliant	5.20	High	Compliant
B-1-02	Bedroom 1	3.40	Medium	-	3.40	Medium	-
B-1-03	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
B-1-03	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-1-04	LKD	2.10	Minimum	Compliant	2.10	Minimum	Compliant
B-1-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-1-04	Bedroom 2	1.10	Below Minimum	-	1.10	Below Minimum	-
B-1-05	LKD	5.10	High	Compliant	5.10	High	Compliant
B-1-05	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-1-05	Bedroom 2	1.20	Below Minimum	-	1.20	Below Minimum	-
B-1-05	Bedroom 3	3.10	Medium	-	3.10	Medium	-
B-1-06	LKD	3.00	Medium	-	3.00	Medium	-
B-1-06	Bedroom 1	3.90	Medium	-	3.90	Medium	-
B-1-06	Bedroom 2	4.60	High	Compliant	4.60	High	Compliant
B-1-07	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
B-1-07	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
B-1-08	LKD	1.70	Minimum	Compliant	1.70	Minimum	Compliant

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.
** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.
*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.2 - Sunlight Exposure Results: First Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
B-1-08	Bedroom 1	0.30	Below Minimum	-	0.30	Below Minimum	-
B-1-09	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
B-1-09	Bedroom 1	1.30	Below Minimum	-	1.30	Below Minimum	-
C-1-01	LKD	6.90	High	Compliant	6.90	High	Compliant
C-1-01	Bedroom 1	4.60	High	-	4.60	High	-
C-1-01	Bedroom 2	4.60	High	-	4.60	High	-
C-1-02	LKD	2.90	Minimum	Compliant	2.90	Minimum	Compliant
C-1-02	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-1-02	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-1-03	LKD	1.20	Below Minimum	Non-Compliant	1.20	Below Minimum	Non-Compliant
C-1-03	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-1-03	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-1-04	LKD	1.80	Minimum	Compliant	1.80	Minimum	Compliant
C-1-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
C-1-04	Bedroom 2	1.10	Below Minimum	-	1.10	Below Minimum	-
C-1-05	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
C-1-05	Bedroom 1	1.20	Below Minimum	-	1.20	Below Minimum	-
C-1-06	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
C-1-06	Bedroom 1	1.00	Below Minimum	-	1.00	Below Minimum	-
C-1-07	LKD	5.20	High	Compliant	5.20	High	Compliant
C-1-07	Bedroom 1	3.40	Medium	-	3.40	Medium	-
C-1-08	LKD	5.50	High	Compliant	5.50	High	Compliant
C-1-08	Bedroom 1	3.40	Medium	-	3.40	Medium	-

C.3.3 SE Results: Second Floor

Table No. C.3.3 - Sunlight Exposure Results: Second Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-2-01	LKD	4.00	High	-	4.00	High	-
A-2-01	Bedroom 1	6.60	High	Compliant	6.60	High	Compliant
A-2-01	Bedroom 2	6.10	High	-	6.10	High	-
A-2-02	LKD	8.90	High	Compliant	8.90	High	Compliant
A-2-02	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-2-02	Bedroom 2	4.40	High	-	4.40	High	-
A-2-03	LKD	2.90	Minimum	-	2.90	Minimum	-
A-2-03	Bedroom 1	4.40	High	Compliant	4.40	High	Compliant
A-2-03	Bedroom 2	3.80	Medium	-	3.80	Medium	-
A-2-04	LKD	4.40	High	Compliant	4.40	High	Compliant
A-2-04	Bedroom 1	2.90	Minimum	-	2.90	Minimum	-
A-2-05	LKD	2.90	Minimum	-	2.90	Minimum	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.
** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.
*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.3 - Sunlight Exposure Results: Second Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-2-05	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-2-05	Bedroom 2	4.40	High	Compliant	4.40	High	Compliant
A-2-06	LKD	2.90	Minimum	-	2.90	Minimum	-
A-2-06	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-2-06	Bedroom 2	4.40	High	Compliant	4.40	High	Compliant
A-2-07	LKD	4.70	High	Compliant	4.70	High	Compliant
A-2-07	Bedroom 1	2.90	Minimum	-	2.90	Minimum	-
A-2-08	LKD	3.10	Medium	-	3.10	Medium	-
A-2-08	Bedroom 1	2.60	Minimum	-	2.60	Minimum	-
A-2-08	Bedroom 2	0.70	Below Minimum	-	0.70	Below Minimum	-
A-2-08	Bedroom 3	3.50	Medium	Compliant	3.50	Medium	Compliant
A-2-09	LKD	1.60	Minimum	Compliant	1.60	Minimum	Compliant
A-2-09	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-2-10	LKD	2.90	Minimum	Compliant	2.90	Minimum	Compliant
A-2-10	Bedroom 1	0.80	Below Minimum	-	0.80	Below Minimum	-
A-2-10	Bedroom 2	0.40	Below Minimum	-	0.40	Below Minimum	-
A-2-11	LKD	0.00	Below Minimum	Non-Compliant	0.00	Below Minimum	Non-Compliant
A-2-11	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-2-12	LKD	0.00	Below Minimum	Non-Compliant	0.00	Below Minimum	Non-Compliant
A-2-12	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-2-13	LKD	4.70	High	Compliant	4.70	High	Compliant
A-2-13	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-2-13	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
A-2-14	LKD	3.70	Medium	Compliant	3.70	Medium	Compliant
A-2-14	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-2-15	LKD	3.50	Medium	Compliant	3.50	Medium	Compliant
A-2-15	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-2-16	LKD	3.30	Medium	Compliant	3.30	Medium	Compliant
A-2-16	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-2-17	LKD	3.20	Medium	Compliant	3.20	Medium	Compliant
A-2-17	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-2-17	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
B-2-01	LKD	3.90	Medium	Compliant	3.90	Medium	Compliant
B-2-01	Bedroom 1	3.40	Medium	-	3.40	Medium	-
B-2-02	LKD	5.20	High	Compliant	5.20	High	Compliant
B-2-02	Bedroom 1	3.40	Medium	-	3.40	Medium	-
B-2-03	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
B-2-03	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-2-04	LKD	2.10	Minimum	Compliant	2.10	Minimum	Compliant
B-2-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-2-04	Bedroom 2	1.10	Below Minimum	-	1.10	Below Minimum	-
B-2-05	LKD	5.50	High	Compliant	5.50	High	Compliant

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.
** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.
*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.3 - Sunlight Exposure Results: Second Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
B-2-05	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-2-05	Bedroom 2	1.20	Below Minimum	-	1.20	Below Minimum	-
B-2-05	Bedroom 3	3.10	Medium	-	3.10	Medium	-
B-2-06	LKD	3.10	Medium	-	3.10	Medium	-
B-2-06	Bedroom 1	4.10	High	-	4.10	High	-
B-2-06	Bedroom 2	4.80	High	Compliant	4.80	High	Compliant
B-2-07	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
B-2-07	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
B-2-08	LKD	1.70	Minimum	Compliant	1.70	Minimum	Compliant
B-2-08	Bedroom 1	0.30	Below Minimum	-	0.30	Below Minimum	-
B-2-09	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
B-2-09	Bedroom 1	1.30	Below Minimum	-	1.30	Below Minimum	-
C-2-01	LKD	7.20	High	Compliant	7.20	High	Compliant
C-2-01	Bedroom 1	4.60	High	-	4.60	High	-
C-2-01	Bedroom 2	4.90	High	-	4.90	High	-
C-2-02	LKD	2.90	Minimum	Compliant	2.90	Minimum	Compliant
C-2-02	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-2-02	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-2-03	LKD	1.20	Below Minimum	Non-Compliant	1.10	Check Trees	Non-Compliant
C-2-03	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-2-03	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-2-04	LKD	1.80	Minimum	Compliant	1.80	Minimum	Compliant
C-2-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
C-2-04	Bedroom 2	1.10	Below Minimum	-	1.10	Below Minimum	-
C-2-05	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
C-2-05	Bedroom 1	1.20	Below Minimum	-	1.20	Below Minimum	-
C-2-06	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
C-2-06	Bedroom 1	1.00	Below Minimum	-	1.00	Below Minimum	-
C-2-07	LKD	5.20	High	Compliant	5.20	High	Compliant
C-2-07	Bedroom 1	3.40	Medium	-	3.40	Medium	-
C-2-08	LKD	5.50	High	Compliant	5.50	High	Compliant
C-2-08	Bedroom 1	3.40	Medium	-	3.40	Medium	-

C.3.4 SE Results: Third Floor

Table No. C.3.4 - Sunlight Exposure Results: Third Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-3-01	LKD	4.30	High	-	4.30	High	-
A-3-01	Bedroom 1	7.30	High	Compliant	7.30	High	Compliant
A-3-01	Bedroom 2	6.40	High	-	6.40	High	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.
** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.
*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.4 - Sunlight Exposure Results: Third Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-3-02	LKD	9.20	High	Compliant	9.20	High	Compliant
A-3-02	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-3-02	Bedroom 2	4.40	High	-	4.40	High	-
A-3-03	LKD	2.90	Minimum	-	2.90	Minimum	-
A-3-03	Bedroom 1	4.40	High	Compliant	4.40	High	Compliant
A-3-03	Bedroom 2	3.80	Medium	-	3.80	Medium	-
A-3-04	LKD	4.40	High	Compliant	4.40	High	Compliant
A-3-04	Bedroom 1	2.90	Minimum	-	2.90	Minimum	-
A-3-05	LKD	2.90	Minimum	-	2.90	Minimum	-
A-3-05	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-3-05	Bedroom 2	4.40	High	Compliant	4.40	High	Compliant
A-3-06	LKD	2.90	Minimum	-	2.90	Minimum	-
A-3-06	Bedroom 1	4.40	High	Compliant	4.40	High	Compliant
A-3-06	Bedroom 2	3.80	Medium	-	3.80	Medium	-
A-3-07	LKD	4.70	High	Compliant	4.70	High	Compliant
A-3-07	Bedroom 1	2.90	Minimum	-	2.90	Minimum	-
A-3-08	LKD	3.10	Medium	-	3.10	Medium	-
A-3-08	Bedroom 1	2.60	Minimum	-	2.60	Minimum	-
A-3-08	Bedroom 2	0.70	Below Minimum	-	0.70	Below Minimum	-
A-3-08	Bedroom 3	3.50	Medium	Compliant	3.50	Medium	Compliant
A-3-09	LKD	1.60	Minimum	Compliant	1.60	Minimum	Compliant
A-3-09	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-3-10	LKD	3.00	Medium	Compliant	3.00	Medium	Compliant
A-3-10	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-3-10	Bedroom 2	1.60	Minimum	-	1.60	Minimum	-
A-3-11	LKD	2.20	Minimum	Compliant	2.20	Minimum	Compliant
A-3-11	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-3-12	LKD	0.00	Below Minimum	Non-Compliant	0.00	Below Minimum	Non-Compliant
A-3-12	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-3-13	LKD	5.00	High	Compliant	5.00	High	Compliant
A-3-13	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-3-13	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
A-3-14	LKD	3.90	Medium	Compliant	3.90	Medium	Compliant
A-3-14	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-3-15	LKD	3.90	Medium	Compliant	3.90	Medium	Compliant
A-3-15	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-3-16	LKD	3.80	Medium	Compliant	3.80	Medium	Compliant
A-3-16	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-3-17	LKD	4.10	High	Compliant	4.10	High	Compliant
A-3-17	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-3-17	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.

** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.

*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.4 - Sunlight Exposure Results: Third Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
B-3-01	LKD	4.10	High	Compliant	4.10	High	Compliant
B-3-01	Bedroom 1	3.40	Medium	-	3.40	Medium	-
B-3-02	LKD	5.20	High	Compliant	5.20	High	Compliant
B-3-02	Bedroom 1	3.40	Medium	-	3.40	Medium	-
B-3-03	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
B-3-03	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-3-04	LKD	2.10	Minimum	Compliant	2.10	Minimum	Compliant
B-3-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-3-04	Bedroom 2	1.10	Below Minimum	-	1.10	Below Minimum	-
B-3-05	LKD	5.50	High	Compliant	5.50	High	Compliant
B-3-05	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-3-05	Bedroom 2	1.20	Below Minimum	-	1.20	Below Minimum	-
B-3-05	Bedroom 3	3.10	Medium	-	3.10	Medium	-
B-3-06	LKD	3.10	Medium	-	3.10	Medium	-
B-3-06	Bedroom 1	4.10	High	-	4.10	High	-
B-3-06	Bedroom 2	4.80	High	Compliant	4.80	High	Compliant
B-3-07	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
B-3-07	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
B-3-08	LKD	1.70	Minimum	Compliant	1.70	Minimum	Compliant
B-3-08	Bedroom 1	0.30	Below Minimum	-	0.30	Below Minimum	-
B-3-09	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
B-3-09	Bedroom 1	1.30	Below Minimum	-	1.30	Below Minimum	-
C-3-01	LKD	7.30	High	Compliant	7.30	High	Compliant
C-3-01	Bedroom 1	4.60	High	-	4.60	High	-
C-3-01	Bedroom 2	4.90	High	-	4.90	High	-
C-3-02	LKD	2.90	Minimum	Compliant	2.90	Minimum	Compliant
C-3-02	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-3-02	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-3-03	LKD	1.20	Below Minimum	Non-Compliant	1.20	Below Minimum	Non-Compliant
C-3-03	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-3-03	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-3-04	LKD	1.80	Minimum	Compliant	1.80	Minimum	Compliant
C-3-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
C-3-04	Bedroom 2	1.10	Below Minimum	-	1.10	Below Minimum	-
C-3-05	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
C-3-05	Bedroom 1	1.20	Below Minimum	-	1.20	Below Minimum	-
C-3-06	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
C-3-06	Bedroom 1	1.00	Below Minimum	-	1.00	Below Minimum	-
C-3-07	LKD	5.20	High	Compliant	5.20	High	Compliant
C-3-07	Bedroom 1	3.40	Medium	-	3.40	Medium	-
C-3-08	LKD	5.50	High	Compliant	5.50	High	Compliant
C-3-08	Bedroom 1	3.40	Medium	-	3.40	Medium	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.
** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.
*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.
For floor plans of the assessed units please refer to section C.1 on page 43.

C.3.5 SE Results: Fourth Floor

Table No. C.3.5 - Sunlight Exposure Results: Fourth Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-4-01	LKD	4.70	High	-	4.70	High	-
A-4-01	Bedroom 1	7.70	High	Compliant	7.70	High	Compliant
A-4-01	Bedroom 2	6.70	High	-	6.70	High	-
A-4-02	LKD	9.40	High	Compliant	9.40	High	Compliant
A-4-02	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-4-02	Bedroom 2	4.40	High	-	4.40	High	-
A-4-03	LKD	2.90	Minimum	-	2.90	Minimum	-
A-4-03	Bedroom 1	4.40	High	Compliant	4.40	High	Compliant
A-4-03	Bedroom 2	3.80	Medium	-	3.80	Medium	-
A-4-04	LKD	4.40	High	Compliant	4.40	High	Compliant
A-4-04	Bedroom 1	2.90	Minimum	-	2.90	Minimum	-
A-4-05	LKD	2.90	Minimum	-	2.90	Minimum	-
A-4-05	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-4-05	Bedroom 2	4.40	High	Compliant	4.40	High	Compliant
A-4-06	LKD	3.00	Medium	-	3.00	Medium	-
A-4-06	Bedroom 1	4.40	High	Compliant	4.40	High	Compliant
A-4-06	Bedroom 2	3.80	Medium	-	3.80	Medium	-
A-4-07	LKD	4.70	High	Compliant	4.70	High	Compliant
A-4-07	Bedroom 1	3.00	Medium	-	3.00	Medium	-
A-4-08	LKD	4.20	High	Compliant	4.20	High	Compliant
A-4-08	Bedroom 1	2.60	Minimum	-	2.60	Minimum	-
A-4-08	Bedroom 2	0.70	Below Minimum	-	0.70	Below Minimum	-
A-4-08	Bedroom 3	3.50	Medium	-	3.50	Medium	-
A-4-09	LKD	1.60	Minimum	-	1.60	Minimum	-
A-4-09	Bedroom 1	2.20	Minimum	Compliant	2.20	Minimum	Compliant
A-4-10	LKD	3.00	Medium	Compliant	3.00	Medium	Compliant
A-4-10	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-4-10	Bedroom 2	1.60	Minimum	-	1.60	Minimum	-
A-4-11	LKD	2.80	Minimum	Compliant	2.80	Minimum	Compliant
A-4-11	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-4-12	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
A-4-12	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-4-13	LKD	7.00	High	Compliant	7.00	High	Compliant
A-4-13	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-4-13	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
A-4-14	LKD	6.50	High	Compliant	6.50	High	Compliant
A-4-14	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-4-15	LKD	6.60	High	Compliant	6.60	High	Compliant
A-4-15	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-4-16	LKD	6.60	High	Compliant	6.60	High	Compliant

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.
** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.
*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.5 - Sunlight Exposure Results: Fourth Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-4-16	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-4-17	LKD	7.50	High	Compliant	7.50	High	Compliant
A-4-17	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
A-4-17	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
B-4-01	LKD	4.50	High	Compliant	4.50	High	Compliant
B-4-01	Bedroom 1	3.40	Medium	-	3.40	Medium	-
B-4-02	LKD	5.20	High	Compliant	5.20	High	Compliant
B-4-02	Bedroom 1	3.40	Medium	-	3.40	Medium	-
B-4-03	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
B-4-03	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-4-04	LKD	2.10	Minimum	Compliant	2.10	Minimum	Compliant
B-4-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-4-04	Bedroom 2	1.10	Below Minimum	-	1.10	Below Minimum	-
B-4-05	LKD	5.50	High	Compliant	5.50	High	Compliant
B-4-05	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-4-05	Bedroom 2	1.20	Below Minimum	-	1.20	Below Minimum	-
B-4-05	Bedroom 3	3.10	Medium	-	3.10	Medium	-
B-4-06	LKD	3.20	Medium	-	3.20	Medium	-
B-4-06	Bedroom 1	4.10	High	-	4.10	High	-
B-4-06	Bedroom 2	4.80	High	Compliant	4.80	High	Compliant
B-4-07	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
B-4-07	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
B-4-08	LKD	1.70	Minimum	Compliant	1.70	Minimum	Compliant
B-4-08	Bedroom 1	0.30	Below Minimum	-	0.30	Below Minimum	-
B-4-09	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
B-4-09	Bedroom 1	1.30	Below Minimum	-	1.30	Below Minimum	-
C-4-01	LKD	7.20	High	Compliant	7.20	High	Compliant
C-4-01	Bedroom 1	4.10	High	-	4.10	High	-
C-4-01	Bedroom 2	4.60	High	-	4.60	High	-
C-4-02	LKD	2.90	Minimum	Compliant	2.90	Minimum	Compliant
C-4-02	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-4-02	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-4-03	LKD	2.10	Minimum	Compliant	2.10	Minimum	Compliant
C-4-03	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-4-03	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-4-04	LKD	1.80	Minimum	Compliant	1.80	Minimum	Compliant
C-4-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
C-4-04	Bedroom 2	1.10	Below Minimum	-	1.10	Below Minimum	-
C-4-05	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
C-4-05	Bedroom 1	1.20	Below Minimum	-	1.20	Below Minimum	-
C-4-06	LKD	1.90	Minimum	Compliant	1.90	Minimum	Compliant
C-4-06	Bedroom 1	1.00	Below Minimum	-	1.00	Below Minimum	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.
** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.
*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.5 - Sunlight Exposure Results: Fourth Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
C-4-07	LKD	5.20	High	Compliant	5.20	High	Compliant
C-4-07	Bedroom 1	3.40	Medium	-	3.40	Medium	-
C-4-08	LKD	5.50	High	Compliant	5.50	High	Compliant
C-4-08	Bedroom 1	3.40	Medium	-	3.40	Medium	-

C.3.6 SE Results: Fifth Floor

Table No. C.3.6 - Sunlight Exposure Results: Fifth Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-5-01	LKD	4.80	High	-	4.80	High	-
A-5-01	Bedroom 1	7.30	High	Compliant	7.30	High	Compliant
A-5-01	Bedroom 2	6.70	High	-	6.70	High	-
A-5-02	LKD	9.40	High	Compliant	9.40	High	Compliant
A-5-02	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-5-02	Bedroom 2	4.40	High	-	4.40	High	-
A-5-03	LKD	2.90	Minimum	-	2.90	Minimum	-
A-5-03	Bedroom 1	4.40	High	Compliant	4.40	High	Compliant
A-5-03	Bedroom 2	3.80	Medium	-	3.80	Medium	-
A-5-04	LKD	4.40	High	Compliant	4.40	High	Compliant
A-5-04	Bedroom 1	2.90	Minimum	-	2.90	Minimum	-
A-5-05	LKD	2.80	Minimum	-	2.80	Minimum	-
A-5-05	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-5-05	Bedroom 2	4.40	High	Compliant	4.40	High	Compliant
A-5-10	LKD	3.00	Medium	Compliant	3.00	Medium	Compliant
A-5-10	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-5-10	Bedroom 2	1.60	Minimum	-	1.60	Minimum	-
A-5-11	LKD	2.80	Minimum	Compliant	2.80	Minimum	Compliant
A-5-11	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-5-12	LKD	3.10	Medium	Compliant	3.10	Medium	Compliant
A-5-12	Bedroom 1	2.20	Minimum	-	2.20	Minimum	-
B-5-01	LKD	4.70	High	Compliant	4.70	High	Compliant
B-5-01	Bedroom 1	3.50	Medium	-	3.50	Medium	-
B-5-02	LKD	5.20	High	Compliant	5.20	High	Compliant
B-5-02	Bedroom 1	3.50	Medium	-	3.50	Medium	-
B-5-03	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
B-5-03	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-5-04	LKD	2.10	Minimum	Compliant	2.10	Minimum	Compliant
B-5-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-5-04	Bedroom 2	1.20	Below Minimum	-	1.20	Below Minimum	-
B-5-05	LKD	5.50	High	Compliant	5.50	High	Compliant

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.

** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.

*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.6 - Sunlight Exposure Results: Fifth Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
B-5-05	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
B-5-05	Bedroom 2	1.20	Below Minimum	-	1.20	Below Minimum	-
B-5-05	Bedroom 3	4.30	High	-	4.30	High	-
B-5-06	LKD	9.40	High	Compliant	9.40	High	Compliant
B-5-06	Bedroom 1	4.30	High	-	4.30	High	-
B-5-06	Bedroom 2	4.80	High	-	4.80	High	-
B-5-08	LKD	6.90	High	Compliant	6.90	High	Compliant
B-5-08	Bedroom 1	0.30	Below Minimum	-	0.30	Below Minimum	-
B-5-09	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
B-5-09	Bedroom 1	1.40	Below Minimum	-	1.40	Below Minimum	-
C-5-01	LKD	7.20	High	Compliant	7.20	High	Compliant
C-5-01	Bedroom 1	4.10	High	-	4.10	High	-
C-5-01	Bedroom 2	4.60	High	-	4.60	High	-
C-5-02	LKD	2.90	Minimum	Compliant	2.90	Minimum	Compliant
C-5-02	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-5-02	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-5-03	LKD	2.10	Minimum	Compliant	2.10	Minimum	Compliant
C-5-03	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-5-03	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-5-04	LKD	1.80	Minimum	Compliant	1.80	Minimum	Compliant
C-5-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
C-5-04	Bedroom 2	1.10	Below Minimum	-	1.10	Below Minimum	-
C-5-05	LKD	2.20	Minimum	Compliant	2.20	Minimum	Compliant
C-5-05	Bedroom 1	1.20	Below Minimum	-	1.20	Below Minimum	-
C-5-06	LKD	2.00	Minimum	Compliant	2.00	Minimum	Compliant
C-5-06	Bedroom 1	1.00	Below Minimum	-	1.00	Below Minimum	-
C-5-07	LKD	5.20	High	Compliant	5.20	High	Compliant
C-5-07	Bedroom 1	3.40	Medium	-	3.40	Medium	-
C-5-08	LKD	5.50	High	Compliant	5.50	High	Compliant
C-5-08	Bedroom 1	3.40	Medium	-	3.40	Medium	-

C.3.7 SE Results: Sixth Floor

Table No. C.3.7 - Sunlight Exposure Results: Sixth Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-6-01	LKD	4.80	High	-	4.80	High	-
A-6-01	Bedroom 1	7.30	High	Compliant	7.30	High	Compliant
A-6-01	Bedroom 2	6.70	High	-	6.70	High	-
A-6-02	LKD	9.40	High	Compliant	9.40	High	Compliant
A-6-02	Bedroom 1	3.80	Medium	-	3.80	Medium	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.

** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.

*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.

For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. C.3.7 - Sunlight Exposure Results: Sixth Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-6-02	Bedroom 2	4.40	High	-	4.40	High	-
A-6-03	LKD	2.90	Minimum	-	2.90	Minimum	-
A-6-03	Bedroom 1	4.40	High	Compliant	4.40	High	Compliant
A-6-03	Bedroom 2	3.80	Medium	-	3.80	Medium	-
A-6-04	LKD	4.40	High	Compliant	4.40	High	Compliant
A-6-04	Bedroom 1	2.90	Minimum	-	2.90	Minimum	-
A-6-05	LKD	2.80	Minimum	-	2.80	Minimum	-
A-6-05	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-6-05	Bedroom 2	4.40	High	Compliant	4.40	High	Compliant
A-6-10	LKD	3.00	Medium	Compliant	3.00	Medium	Compliant
A-6-10	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-6-10	Bedroom 2	1.60	Minimum	-	1.60	Minimum	-
A-6-11	LKD	2.80	Minimum	Compliant	2.80	Minimum	Compliant
A-6-11	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-6-12	LKD	3.10	Medium	Compliant	3.10	Medium	Compliant
A-6-12	Bedroom 1	2.20	Minimum	-	2.20	Minimum	-
C-6-01	LKD	7.70	High	Compliant	7.70	High	Compliant
C-6-01	Bedroom 1	4.60	High	-	4.60	High	-
C-6-01	Bedroom 2	4.90	High	-	4.90	High	-
C-6-02	LKD	2.90	Minimum	Compliant	2.90	Minimum	Compliant
C-6-02	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-6-02	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-6-03	LKD	1.20	Below Minimum	Non-Compliant	1.10	Check Trees	Non-Compliant
C-6-03	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-6-03	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-6-04	LKD	1.80	Minimum	Compliant	1.80	Minimum	Compliant
C-6-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
C-6-04	Bedroom 2	1.10	Below Minimum	-	1.10	Below Minimum	-
C-6-05	LKD	2.20	Minimum	Compliant	2.20	Minimum	Compliant
C-6-05	Bedroom 1	1.20	Below Minimum	-	1.20	Below Minimum	-
C-6-06	LKD	6.00	High	Compliant	6.00	High	Compliant
C-6-06	Bedroom 1	1.20	Below Minimum	-	1.20	Below Minimum	-
C-6-07	LKD	9.40	High	Compliant	9.40	High	Compliant
C-6-07	Bedroom 1	3.40	Medium	-	3.40	Medium	-
C-6-08	LKD	5.50	High	Compliant	5.50	High	Compliant
C-6-08	Bedroom 1	3.40	Medium	-	3.40	Medium	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.
** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.
*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.
For floor plans of the assessed units please refer to section C.1 on page 43.

C.3.8 SE Results: Seventh Floor

Table No. C.3.8 - Sunlight Exposure Results: Seventh Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-7-01	LKD	4.80	High	-	4.80	High	-
A-7-01	Bedroom 1	7.70	High	Compliant	7.60	Check Trees	Compliant
A-7-01	Bedroom 2	6.70	High	-	6.70	High	-
A-7-02	LKD	9.40	High	Compliant	9.40	High	Compliant
A-7-02	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-7-02	Bedroom 2	4.40	High	-	4.10	Check Trees	-
A-7-03	LKD	2.90	Minimum	-	2.90	Minimum	-
A-7-03	Bedroom 1	4.40	High	Compliant	4.40	High	Compliant
A-7-03	Bedroom 2	3.80	Medium	-	3.80	Medium	-
A-7-04	LKD	4.40	High	Compliant	4.40	High	Compliant
A-7-04	Bedroom 1	2.90	Minimum	-	2.90	Minimum	-
A-7-05	LKD	2.80	Minimum	-	2.80	Minimum	-
A-7-05	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-7-05	Bedroom 2	4.40	High	Compliant	4.40	High	Compliant
A-7-10	LKD	3.10	Medium	Compliant	3.10	Medium	Compliant
A-7-10	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-7-10	Bedroom 2	1.60	Minimum	-	1.60	Minimum	-
A-7-11	LKD	2.90	Minimum	Compliant	2.90	Minimum	Compliant
A-7-11	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-7-12	LKD	3.10	Medium	Compliant	3.10	Medium	Compliant
A-7-12	Bedroom 1	2.20	Minimum	-	2.20	Minimum	-
C-7-01	LKD	8.50	High	Compliant	8.50	High	Compliant
C-7-01	Bedroom 1	4.30	High	-	4.00	Check Trees	-
C-7-01	Bedroom 2	4.90	High	-	4.80	Check Trees	-
C-7-02	LKD	3.10	Medium	Compliant	3.10	Medium	Compliant
C-7-02	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-7-02	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-7-03	LKD	1.20	Below Minimum	Non-Compliant	1.20	Below Minimum	Non-Compliant
C-7-03	Bedroom 1	0.00	Below Minimum	-	0.00	Below Minimum	-
C-7-03	Bedroom 2	0.00	Below Minimum	-	0.00	Below Minimum	-
C-7-04	LKD	2.10	Minimum	Compliant	2.10	Minimum	Compliant
C-7-04	Bedroom 1	0.50	Below Minimum	-	0.50	Below Minimum	-
C-7-04	Bedroom 2	1.20	Below Minimum	-	0.80	Check Trees	-
C-7-05	LKD	2.20	Minimum	Compliant	2.20	Minimum	Compliant
C-7-05	Bedroom 1	1.20	Below Minimum	-	1.20	Below Minimum	-
C-7-06	LKD	7.20	High	Compliant	7.20	High	Compliant
C-7-06	Bedroom 1	1.20	Below Minimum	-	1.20	Below Minimum	-
C-7-07	LKD	9.40	High	Compliant	9.40	High	Compliant
C-7-07	Bedroom 1	3.50	Medium	-	3.50	Medium	-
C-7-08	LKD	5.50	High	Compliant	5.50	High	Compliant
C-7-08	Bedroom 1	3.50	Medium	-	3.50	Medium	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.

** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.

*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.

For floor plans of the assessed units please refer to section C.1 on page 43.

C.3.9 SE Results: Eighth Floor

Table No. C.3.9 - Sunlight Exposure Results: Eighth Floor							
Unit Number	Room Description	Deciduous Trees as Opaque Objects*			Without Deciduous Trees*		
		SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**	SE Hours on March 21st	Level of SE on March 21st***	Unit compliance based on highest performing room**
A-8-01	LKD	5.40	High	-	5.30	Check Trees	-
A-8-01	Bedroom 1	7.70	High	Compliant	7.60	Check Trees	Compliant
A-8-01	Bedroom 2	6.70	High	-	6.70	High	-
A-8-02	LKD	9.40	High	Compliant	9.40	High	Compliant
A-8-02	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-8-02	Bedroom 2	4.40	High	-	4.10	Check Trees	-
A-8-03	LKD	3.00	Medium	-	3.00	Medium	-
A-8-03	Bedroom 1	4.40	High	Compliant	4.20	Check Trees	Compliant
A-8-03	Bedroom 2	3.80	Medium	-	3.80	Medium	-
A-8-04	LKD	4.40	High	Compliant	4.40	High	Compliant
A-8-04	Bedroom 1	3.00	Medium	-	3.00	Medium	-
A-8-05	LKD	3.00	Medium	-	3.00	Medium	-
A-8-05	Bedroom 1	3.80	Medium	-	3.80	Medium	-
A-8-05	Bedroom 2	4.40	High	Compliant	4.40	High	Compliant
A-8-10	LKD	3.10	Medium	Compliant	3.10	Medium	Compliant
A-8-10	Bedroom 1	1.60	Minimum	-	1.60	Minimum	-
A-8-10	Bedroom 2	2.20	Minimum	-	2.20	Minimum	-
A-8-11	LKD	2.90	Minimum	Compliant	2.90	Minimum	Compliant
A-8-11	Bedroom 1	2.20	Minimum	-	2.20	Minimum	-
A-8-12	LKD	3.10	Medium	Compliant	3.10	Medium	Compliant
A-8-12	Bedroom 1	2.20	Minimum	-	2.20	Minimum	-

* Rooms are tested with deciduous trees as opaque objects and without deciduous trees to account for the range of possible sunlight hours.

** The BRE Guidelines recommend that for a unit to be compliant any room within the unit should receive a minimum of 1.5 hours of direct sunlight on March 21st, preferably a main living room. The SE circa compliance rates can be found in section 5.2.2 on page 23.

*** For the interpretation of levels of Sunlight Exposure please refer to “3.3 Definition of Levels of Sunlight Exposure” on page 12.

For floor plans of the assessed units please refer to section C.1 on page 43.

C.4 Sun On Ground (SOG) in Proposed Outdoor Amenity Areas

Below is an example of the table used to describe SOG in proposed gardens and amenity spaces.

	Table Example. C.4 - Scheme Performance SOG				
Assigned Area Number	Assessed Area	Area Capable of Receiving 2 Hours of Sunlight on March 21st	Recommended Minimum	Level of Compliance with BRE Guidelines	Meets BR 209 Criteria
A	**B**	**C**	**D**	**E**	**F**

A: Assigned Area Number

This column indicates the number that 3DDB have assigned to the assessed areas, which is included for the sole purpose of aiding in the identification of the corresponding space shown in the corresponding figure.

B: Assessed Area

This column identifies the assessed garden/amenity area.

C: Area Capable of Receiving 2 Hours of Sunlight on March 21st

The percentage of the proposed area that can receive more than 2 hours of sunlight on March 21st.

D: Recommended Minimum

The BRE Guidelines state that the percentage of a garden/amenity area that can receive more than 2 hours of sunlight on March 21st should be 50%. The target value for all spaces is set to 50%.

E: Level of Compliance with BRE Guidelines

This column states the compliance of the assessed space with the *BRE Target Value*. If the assessed garden or amenity area complies with the BRE Guidelines this cell will state "*BRE Compliant*". If the garden or amenity area does not meet the criteria as set out in the BRE Guidelines, a percentage of compliance with the *recommended minimum* will be stated.

F: Meets BR 209 Criteria

This column states if the assessed area achieves the recommended level of sunlight on March 21st as per BR 209.

It should be noted that the figures displayed in the table of results have been rounded off. A manual calculation of these figures may yield a negligible difference and should not be considered an error.

C.4.1 Sun On Ground in Proposed Outdoor Amenity Areas

Table No. C.4.1 - SOG in Proposed Outdoor Amenity Areas Results:					
Assigned Area Number	Assessed Area	Area Capable of Receiving 2 Hours of Sunlight on March 21st	Recommended minimum	Level of Compliance with BRE Guidelines*	Meets BR 209 Criteria*
1	Public Open Space	98.94%	50.00%	BRE Compliant	Yes
2	Communal Open Space	59.71%	50.00%	BRE Compliant	Yes
* The BRE Guidelines recommend that for a garden or amenity 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 March 21st.					

Figure C.18: Indication of the amenity areas that have been analysed (L), Area capable of receiving 2 hours of sunlight on March 21st shown in white (R)

D.0 Supplementary Study Results

D.1 SDA study, under the I.S. EN 17037 criteria

Below is an example of the table used to describe the supplementary study results for proposed units in the assessment of SDA under the I.S. EN 17037 criteria.

Table Example. D.1 - Supplementary SDA Results (I.S. EN 17037 criteria)						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria
		Area above 300 Lux	Area above 100 Lux	Area above 300 Lux	Area above 100 Lux	
A	**B**	**C**	**D**	**E**	**F**	**G**

A: Unit Number

This column identifies the assessed unit. All unit numbers are determined by the architect's drawings, unless otherwise stated.

B: Room Description

Room Description details which room in the unit has been assessed, e.g. bedroom, LKD, etc.

C: % of area above 300 Lux (No Trees)

I.S. EN 17037 recommends at least 50% of the working plane receives above 300 lux for at least half the daylight hours.

This column states percentage of the working plane of the assessed room that is capable of receiving more than 300 lux for at least half the daylight hours when the assessment is carried out without trees in the analytical model.

D: % of area above 100 Lux (No Trees)

I.S. EN 17037 recommends at least 95% of the working plane receives above 100 lux for at least half the daylight hours.

This column states percentage of the working plane of the assessed room that is capable of receiving more than 100 lux for at least half the daylight hours when the assessment is carried out without trees in the analytical model.

E: % of area above 300 Lux (Winter Trees)

I.S. EN 17037 recommends at least 50% of the working plane receives above 300 lux for at least half the daylight hours.

This column states percentage of the working plane of the assessed room that is capable of receiving more than 300 lux for at least half the daylight hours with the foliage of deciduous trees varied to account for summer and winter conditions, i.e. full leaf and bare branch.

F: % of area above 100 Lux (Winter Trees)

I.S. EN 17037 recommends at least 95% of the working plane receives above 100 lux for at least half the daylight hours.

This column states percentage of the working plane of the assessed room that is capable of receiving more than 100 lux for at least half the daylight hours with the foliage of deciduous trees varied to account for summer and winter conditions.

G: Compliance with I.S. EN 17037 Criteria

This column states if the assessed room achieves the recommended level of daylight as per I.S. EN 17037 with consideration to the various tree states.

If the recommended lux levels are achieved on the working plane, for half the daylight hours, both with and without trees, this column will state: *'Compliant'*.

If the recommended lux levels are not achieved on the working plane, for half the daylight hours, both with and without trees, this column will state: *'Non-compliant'*.

If the recommended lux levels are achieved on the working plane, for half the daylight hours, without trees but are not achieved with trees, this column will state: *'Trees affecting compliance'*.

Compliance rates will be stated for SDA compliance with trees in all of the above states.

It should be noted that the figures displayed in the table of results have been rounded off. A manual calculation of these figures may yield a negligible difference and should not be considered an error.

D.1.1 Supplementary SDA Results (I.S. EN 17037 criteria): Ground Floor

Table No. D.1.1 - Supplementary SDA Results (I.S. EN 17037 criteria): Ground Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
Creche	Room A	100%	100%	100%	100%	Compliant
Creche	Room B	100%	100%	96%	100%	Compliant
Creche	Room C	62%	100%	55%	100%	Compliant
A-0-02	LKD	100%	100%	100%	100%	Compliant
A-0-02	Bedroom 1	100%	100%	78%	100%	Compliant
A-0-02	Bedroom 2	100%	100%	100%	100%	Compliant
A-0-03	LKD	100%	100%	60%	100%	Compliant
A-0-03	Bedroom 1	100%	100%	75%	100%	Compliant
A-0-03	Bedroom 2	100%	100%	100%	100%	Compliant
A-0-04	LKD	93%	100%	49%	100%	Trees affecting compliance
A-0-04	Bedroom 1	100%	100%	100%	100%	Compliant
A-0-05	LKD	100%	100%	43%	100%	Trees affecting compliance
A-0-05	Bedroom 1	100%	100%	100%	100%	Compliant
A-0-05	Bedroom 2	93%	100%	75%	100%	Compliant
A-0-06	LKD	84%	100%	56%	100%	Compliant
A-0-06	Bedroom 1	100%	100%	73%	100%	Compliant
A-0-06	Bedroom 2	100%	100%	61%	100%	Compliant
A-0-07	LKD	100%	100%	99%	100%	Compliant
A-0-07	Bedroom 1	100%	100%	100%	100%	Compliant
A-0-08	LKD	32%	90%	30%	73%	Non-compliant
A-0-08	Bedroom 1	85%	100%	74%	100%	Compliant
A-0-08	Bedroom 2	4%	63%	4%	57%	Non-compliant
A-0-08	Bedroom 3	44%	100%	38%	100%	Non-compliant
A-0-09	LKD	55%	100%	45%	100%	Trees affecting compliance
A-0-09	Bedroom 1	60%	100%	43%	100%	Trees affecting compliance
A-0-10	LKD	46%	100%	35%	96%	Non-compliant
A-0-10	Bedroom 1	17%	98%	14%	84%	Non-compliant
A-0-10	Bedroom 2	59%	100%	46%	100%	Trees affecting compliance
B-0-01	LKD	67%	100%	57%	100%	Compliant
B-0-01	Bedroom 1	100%	100%	100%	100%	Compliant
B-0-02	LKD	73%	100%	61%	100%	Compliant
B-0-02	Bedroom 1	100%	100%	100%	100%	Compliant
B-0-06	LKD	44%	100%	40%	94%	Non-compliant
B-0-06	Bedroom 1	27%	100%	19%	98%	Non-compliant
B-0-06	Bedroom 2	58%	100%	45%	100%	Trees affecting compliance
B-0-07	LKD	60%	100%	49%	100%	Trees affecting compliance
B-0-07	Bedroom 1	100%	100%	93%	100%	Compliant
B-0-08	LKD	55%	100%	47%	100%	Trees affecting compliance
B-0-08	Bedroom 1	100%	100%	96%	100%	Compliant
C-0-01	LKD	100%	100%	100%	100%	Compliant
C-0-01	Bedroom 1	100%	100%	100%	100%	Compliant
C-0-01	Bedroom 2	100%	100%	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.2 - Supplementary SDA Results (I.S. EN 17037 criteria): Ground Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
C-0-02	LKD	88%	100%	65%	97%	Compliant
C-0-02	Bedroom 1	100%	100%	90%	100%	Compliant
C-0-02	Bedroom 2	99%	100%	96%	100%	Compliant
C-0-03	LKD	95%	100%	82%	100%	Compliant
C-0-03	Bedroom 1	24%	100%	22%	100%	Non-compliant
C-0-03	Bedroom 2	97%	100%	89%	100%	Compliant
C-0-04	LKD	41%	99%	32%	78%	Non-compliant
C-0-04	Bedroom 1	16%	100%	13%	92%	Non-compliant
C-0-04	Bedroom 2	47%	100%	35%	100%	Non-compliant
C-0-07	LKD	80%	100%	65%	100%	Compliant
C-0-07	Bedroom 1	100%	100%	100%	100%	Compliant

D.1.2 Supplementary SDA Results (I.S. EN 17037 criteria): First Floor

Table No. D.1.2 - Supplementary SDA Results (I.S. EN 17037 criteria): First Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-1-01	LKD	69%	100%	62%	100%	Compliant
A-1-01	Bedroom 1	100%	100%	100%	100%	Compliant
A-1-01	Bedroom 2	100%	100%	100%	100%	Compliant
A-1-02	LKD	100%	100%	100%	100%	Compliant
A-1-02	Bedroom 1	100%	100%	100%	100%	Compliant
A-1-02	Bedroom 2	100%	100%	100%	100%	Compliant
A-1-03	LKD	100%	100%	88%	100%	Compliant
A-1-03	Bedroom 1	100%	100%	100%	100%	Compliant
A-1-03	Bedroom 2	100%	100%	100%	100%	Compliant
A-1-04	LKD	99%	100%	85%	100%	Compliant
A-1-04	Bedroom 1	100%	100%	100%	100%	Compliant
A-1-05	LKD	100%	100%	77%	100%	Compliant
A-1-05	Bedroom 1	100%	100%	100%	100%	Compliant
A-1-05	Bedroom 2	100%	100%	96%	100%	Compliant
A-1-06	LKD	100%	100%	100%	100%	Compliant
A-1-06	Bedroom 1	100%	100%	100%	100%	Compliant
A-1-06	Bedroom 2	100%	100%	100%	100%	Compliant
A-1-07	LKD	100%	100%	100%	100%	Compliant
A-1-07	Bedroom 1	100%	100%	100%	100%	Compliant
A-1-08	LKD	36%	95%	33%	92%	Non-compliant
A-1-08	Bedroom 1	100%	100%	100%	100%	Compliant
A-1-08	Bedroom 2	4%	70%	4%	61%	Non-compliant
A-1-08	Bedroom 3	56%	100%	49%	100%	Trees affecting compliance
A-1-09	LKD	60%	100%	56%	100%	Compliant
A-1-09	Bedroom 1	92%	100%	75%	100%	Compliant
A-1-10	LKD	49%	100%	46%	100%	Non-compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.2 - Supplementary SDA Results (I.S. EN 17037 criteria): First Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-1-10	Bedroom 1	24%	100%	19%	100%	Non-compliant
A-1-10	Bedroom 2	75%	100%	62%	100%	Compliant
A-1-11	LKD	51%	100%	47%	100%	Trees affecting compliance
A-1-11	Bedroom 1	31%	100%	28%	100%	Non-compliant
A-1-12	LKD	22%	100%	20%	100%	Non-compliant
A-1-12	Bedroom 1	31%	100%	29%	100%	Non-compliant
A-1-13	LKD	100%	100%	100%	100%	Compliant
A-1-13	Bedroom 1	4%	69%	4%	68%	Non-compliant
A-1-13	Bedroom 2	5%	82%	5%	71%	Non-compliant
A-1-14	LKD	100%	100%	100%	100%	Compliant
A-1-14	Bedroom 1	11%	100%	11%	100%	Non-compliant
A-1-15	LKD	99%	100%	99%	100%	Compliant
A-1-15	Bedroom 1	19%	100%	19%	100%	Non-compliant
A-1-16	LKD	99%	100%	93%	100%	Compliant
A-1-16	Bedroom 1	22%	100%	22%	100%	Non-compliant
A-1-17	LKD	100%	100%	100%	100%	Compliant
A-1-17	Bedroom 1	15%	100%	14%	100%	Non-compliant
A-1-17	Bedroom 2	18%	100%	18%	100%	Non-compliant
B-1-01	LKD	100%	100%	99%	100%	Compliant
B-1-01	Bedroom 1	100%	100%	100%	100%	Compliant
B-1-02	LKD	100%	100%	99%	100%	Compliant
B-1-02	Bedroom 1	100%	100%	100%	100%	Compliant
B-1-03	LKD	61%	100%	57%	100%	Compliant
B-1-03	Bedroom 1	30%	100%	25%	100%	Non-compliant
B-1-04	LKD	49%	100%	46%	100%	Non-compliant
B-1-04	Bedroom 1	25%	100%	21%	100%	Non-compliant
B-1-04	Bedroom 2	62%	100%	55%	100%	Compliant
B-1-05	LKD	89%	100%	82%	100%	Compliant
B-1-05	Bedroom 1	20%	100%	18%	100%	Non-compliant
B-1-05	Bedroom 2	68%	100%	60%	100%	Compliant
B-1-05	Bedroom 3	68%	100%	58%	100%	Compliant
B-1-06	LKD	50%	100%	46%	100%	Trees affecting compliance
B-1-06	Bedroom 1	33%	100%	30%	100%	Non-compliant
B-1-06	Bedroom 2	73%	100%	65%	100%	Compliant
B-1-07	LKD	99%	100%	93%	100%	Compliant
B-1-07	Bedroom 1	100%	100%	100%	100%	Compliant
B-1-08	LKD	96%	100%	77%	100%	Compliant
B-1-08	Bedroom 1	100%	100%	100%	100%	Compliant
B-1-09	LKD	33%	100%	28%	100%	Non-compliant
B-1-09	Bedroom 1	100%	100%	100%	100%	Compliant
C-1-01	LKD	100%	100%	100%	100%	Compliant
C-1-01	Bedroom 1	100%	100%	100%	100%	Compliant
C-1-01	Bedroom 2	100%	100%	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.2 - Supplementary SDA Results (I.S. EN 17037 criteria): First Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
C-1-02	LKD	91%	100%	88%	100%	Compliant
C-1-02	Bedroom 1	100%	100%	100%	100%	Compliant
C-1-02	Bedroom 2	100%	100%	100%	100%	Compliant
C-1-03	LKD	84%	100%	77%	100%	Compliant
C-1-03	Bedroom 1	100%	100%	100%	100%	Compliant
C-1-03	Bedroom 2	32%	100%	30%	100%	Non-compliant
C-1-04	LKD	51%	100%	45%	100%	Trees affecting compliance
C-1-04	Bedroom 1	30%	100%	25%	100%	Non-compliant
C-1-04	Bedroom 2	70%	100%	61%	100%	Compliant
C-1-05	LKD	38%	100%	33%	100%	Non-compliant
C-1-05	Bedroom 1	62%	100%	47%	100%	Trees affecting compliance
C-1-06	LKD	62%	100%	58%	100%	Compliant
C-1-06	Bedroom 1	90%	100%	68%	100%	Compliant
C-1-07	LKD	100%	100%	100%	100%	Compliant
C-1-07	Bedroom 1	100%	100%	100%	100%	Compliant
C-1-08	LKD	95%	96%	83%	96%	Compliant
C-1-08	Bedroom 1	100%	100%	100%	100%	Compliant

D.1.3 Supplementary SDA Results (I.S. EN 17037 criteria): Second Floor

Table No. D.1.3 - Supplementary SDA Results (I.S. EN 17037 criteria): Second Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-2-01	LKD	98%	100%	97%	100%	Compliant
A-2-01	Bedroom 1	100%	100%	100%	100%	Compliant
A-2-01	Bedroom 2	100%	100%	100%	100%	Compliant
A-2-02	LKD	100%	100%	100%	100%	Compliant
A-2-02	Bedroom 1	100%	100%	100%	100%	Compliant
A-2-02	Bedroom 2	100%	100%	100%	100%	Compliant
A-2-03	LKD	100%	100%	100%	100%	Compliant
A-2-03	Bedroom 1	100%	100%	100%	100%	Compliant
A-2-03	Bedroom 2	100%	100%	100%	100%	Compliant
A-2-04	LKD	100%	100%	100%	100%	Compliant
A-2-04	Bedroom 1	100%	100%	100%	100%	Compliant
A-2-05	LKD	100%	100%	100%	100%	Compliant
A-2-05	Bedroom 1	98%	100%	97%	100%	Compliant
A-2-05	Bedroom 2	100%	100%	100%	100%	Compliant
A-2-06	LKD	100%	100%	100%	100%	Compliant
A-2-06	Bedroom 1	100%	100%	100%	100%	Compliant
A-2-06	Bedroom 2	100%	100%	100%	100%	Compliant
A-2-07	LKD	100%	100%	100%	100%	Compliant
A-2-07	Bedroom 1	100%	100%	100%	100%	Compliant
A-2-08	LKD	42%	98%	41%	97%	Non-compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.3 - Supplementary SDA Results (I.S. EN 17037 criteria): Second Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-2-08	Bedroom 1	100%	100%	100%	100%	Compliant
A-2-08	Bedroom 2	7%	76%	4%	70%	Non-compliant
A-2-08	Bedroom 3	75%	100%	68%	100%	Compliant
A-2-09	LKD	70%	100%	65%	100%	Compliant
A-2-09	Bedroom 1	98%	100%	97%	100%	Compliant
A-2-10	LKD	56%	100%	53%	100%	Compliant
A-2-10	Bedroom 1	32%	100%	25%	100%	Non-compliant
A-2-10	Bedroom 2	95%	100%	90%	100%	Compliant
A-2-11	LKD	60%	100%	55%	100%	Compliant
A-2-11	Bedroom 1	36%	100%	35%	100%	Non-compliant
A-2-12	LKD	57%	100%	54%	100%	Compliant
A-2-12	Bedroom 1	38%	100%	38%	100%	Non-compliant
A-2-13	LKD	100%	100%	100%	100%	Compliant
A-2-13	Bedroom 1	4%	76%	4%	74%	Non-compliant
A-2-13	Bedroom 2	8%	94%	6%	86%	Non-compliant
A-2-14	LKD	100%	100%	100%	100%	Compliant
A-2-14	Bedroom 1	13%	100%	13%	100%	Non-compliant
A-2-15	LKD	100%	100%	99%	100%	Compliant
A-2-15	Bedroom 1	21%	100%	19%	100%	Non-compliant
A-2-16	LKD	99%	100%	99%	100%	Compliant
A-2-16	Bedroom 1	29%	100%	24%	100%	Non-compliant
A-2-17	LKD	100%	100%	100%	100%	Compliant
A-2-17	Bedroom 1	21%	100%	21%	100%	Non-compliant
A-2-17	Bedroom 2	23%	100%	23%	100%	Non-compliant
B-2-01	LKD	100%	100%	100%	100%	Compliant
B-2-01	Bedroom 1	100%	100%	100%	100%	Compliant
B-2-02	LKD	100%	100%	100%	100%	Compliant
B-2-02	Bedroom 1	100%	100%	100%	100%	Compliant
B-2-03	LKD	78%	100%	76%	100%	Compliant
B-2-03	Bedroom 1	43%	100%	38%	100%	Non-compliant
B-2-04	LKD	59%	100%	58%	100%	Compliant
B-2-04	Bedroom 1	33%	100%	32%	100%	Non-compliant
B-2-04	Bedroom 2	77%	100%	76%	100%	Compliant
B-2-05	LKD	99%	100%	98%	100%	Compliant
B-2-05	Bedroom 1	28%	100%	23%	100%	Non-compliant
B-2-05	Bedroom 2	93%	100%	83%	100%	Compliant
B-2-05	Bedroom 3	88%	100%	78%	100%	Compliant
B-2-06	LKD	58%	100%	54%	100%	Compliant
B-2-06	Bedroom 1	46%	100%	40%	100%	Non-compliant
B-2-06	Bedroom 2	85%	100%	78%	100%	Compliant
B-2-07	LKD	99%	100%	99%	100%	Compliant
B-2-07	Bedroom 1	100%	100%	100%	100%	Compliant
B-2-08	LKD	100%	100%	96%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.3 - Supplementary SDA Results (I.S. EN 17037 criteria): Second Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
B-2-08	Bedroom 1	100%	100%	100%	100%	Compliant
B-2-09	LKD	51%	100%	45%	100%	Trees affecting compliance
B-2-09	Bedroom 1	100%	100%	100%	100%	Compliant
C-2-01	LKD	100%	100%	100%	100%	Compliant
C-2-01	Bedroom 1	100%	100%	100%	100%	Compliant
C-2-01	Bedroom 2	100%	100%	100%	100%	Compliant
C-2-02	LKD	92%	100%	92%	100%	Compliant
C-2-02	Bedroom 1	100%	100%	100%	100%	Compliant
C-2-02	Bedroom 2	100%	100%	100%	100%	Compliant
C-2-03	LKD	61%	100%	58%	100%	Compliant
C-2-03	Bedroom 1	44%	100%	41%	100%	Non-compliant
C-2-03	Bedroom 2	89%	100%	85%	100%	Compliant
C-2-04	LKD	58%	100%	58%	100%	Compliant
C-2-04	Bedroom 1	43%	100%	33%	100%	Non-compliant
C-2-04	Bedroom 2	93%	100%	81%	100%	Compliant
C-2-05	LKD	48%	100%	45%	100%	Non-compliant
C-2-05	Bedroom 1	100%	100%	98%	100%	Compliant
C-2-06	LKD	78%	100%	75%	100%	Compliant
C-2-06	Bedroom 1	100%	100%	100%	100%	Compliant
C-2-07	LKD	100%	100%	100%	100%	Compliant
C-2-07	Bedroom 1	100%	100%	100%	100%	Compliant
C-2-08	LKD	100%	100%	99%	100%	Compliant
C-2-08	Bedroom 1	100%	100%	100%	100%	Compliant

D.1.4 Supplementary SDA Results (I.S. EN 17037 criteria): Third Floor

Table No. D.1.4 - Supplementary SDA Results (I.S. EN 17037 criteria): Third Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-3-01	LKD	99%	100%	99%	100%	Compliant
A-3-01	Bedroom 1	100%	100%	100%	100%	Compliant
A-3-01	Bedroom 2	100%	100%	100%	100%	Compliant
A-3-02	LKD	100%	100%	100%	100%	Compliant
A-3-02	Bedroom 1	100%	100%	100%	100%	Compliant
A-3-02	Bedroom 2	100%	100%	100%	100%	Compliant
A-3-03	LKD	100%	100%	100%	100%	Compliant
A-3-03	Bedroom 1	100%	100%	100%	100%	Compliant
A-3-03	Bedroom 2	100%	100%	100%	100%	Compliant
A-3-04	LKD	100%	100%	100%	100%	Compliant
A-3-04	Bedroom 1	100%	100%	100%	100%	Compliant
A-3-05	LKD	100%	100%	100%	100%	Compliant
A-3-05	Bedroom 1	98%	100%	98%	100%	Compliant
A-3-05	Bedroom 2	100%	100%	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.4 - Supplementary SDA Results (I.S. EN 17037 criteria): Third Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-3-06	LKD	100%	100%	100%	100%	Compliant
A-3-06	Bedroom 1	100%	100%	100%	100%	Compliant
A-3-06	Bedroom 2	100%	100%	100%	100%	Compliant
A-3-07	LKD	100%	100%	100%	100%	Compliant
A-3-07	Bedroom 1	100%	100%	100%	100%	Compliant
A-3-08	LKD	48%	98%	47%	98%	Non-compliant
A-3-08	Bedroom 1	100%	100%	100%	100%	Compliant
A-3-08	Bedroom 2	9%	85%	7%	78%	Non-compliant
A-3-08	Bedroom 3	99%	100%	96%	100%	Compliant
A-3-09	LKD	85%	100%	77%	100%	Compliant
A-3-09	Bedroom 1	100%	100%	100%	100%	Compliant
A-3-10	LKD	63%	100%	61%	100%	Compliant
A-3-10	Bedroom 1	35%	100%	33%	100%	Non-compliant
A-3-10	Bedroom 2	92%	100%	87%	100%	Compliant
A-3-11	LKD	69%	100%	67%	100%	Compliant
A-3-11	Bedroom 1	50%	100%	47%	100%	Trees affecting compliance
A-3-12	LKD	67%	100%	66%	100%	Compliant
A-3-12	Bedroom 1	44%	100%	42%	100%	Non-compliant
A-3-13	LKD	100%	100%	100%	100%	Compliant
A-3-13	Bedroom 1	5%	92%	4%	90%	Non-compliant
A-3-13	Bedroom 2	8%	98%	8%	98%	Non-compliant
A-3-14	LKD	100%	100%	100%	100%	Compliant
A-3-14	Bedroom 1	17%	100%	16%	100%	Non-compliant
A-3-15	LKD	100%	100%	100%	100%	Compliant
A-3-15	Bedroom 1	27%	100%	24%	100%	Non-compliant
A-3-16	LKD	100%	100%	99%	100%	Compliant
A-3-16	Bedroom 1	35%	100%	35%	100%	Non-compliant
A-3-17	LKD	100%	100%	100%	100%	Compliant
A-3-17	Bedroom 1	24%	100%	23%	100%	Non-compliant
A-3-17	Bedroom 2	27%	100%	27%	100%	Non-compliant
B-3-01	LKD	100%	100%	100%	100%	Compliant
B-3-01	Bedroom 1	100%	100%	100%	100%	Compliant
B-3-02	LKD	100%	100%	100%	100%	Compliant
B-3-02	Bedroom 1	100%	100%	100%	100%	Compliant
B-3-03	LKD	97%	100%	95%	100%	Compliant
B-3-03	Bedroom 1	55%	100%	53%	100%	Compliant
B-3-04	LKD	67%	100%	66%	100%	Compliant
B-3-04	Bedroom 1	49%	100%	41%	100%	Non-compliant
B-3-04	Bedroom 2	99%	100%	95%	100%	Compliant
B-3-05	LKD	100%	100%	100%	100%	Compliant
B-3-05	Bedroom 1	38%	100%	35%	100%	Non-compliant
B-3-05	Bedroom 2	100%	100%	100%	100%	Compliant
B-3-05	Bedroom 3	100%	100%	93%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.4 - Supplementary SDA Results (I.S. EN 17037 criteria): Third Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
B-3-06	LKD	63%	100%	62%	100%	Compliant
B-3-06	Bedroom 1	59%	100%	51%	100%	Compliant
B-3-06	Bedroom 2	95%	100%	91%	100%	Compliant
B-3-07	LKD	100%	100%	99%	100%	Compliant
B-3-07	Bedroom 1	100%	100%	100%	100%	Compliant
B-3-08	LKD	100%	100%	99%	100%	Compliant
B-3-08	Bedroom 1	100%	100%	100%	100%	Compliant
B-3-09	LKD	55%	100%	52%	100%	Compliant
B-3-09	Bedroom 1	100%	100%	100%	100%	Compliant
C-3-01	LKD	100%	100%	100%	100%	Compliant
C-3-01	Bedroom 1	100%	100%	100%	100%	Compliant
C-3-01	Bedroom 2	100%	100%	100%	100%	Compliant
C-3-02	LKD	93%	100%	92%	100%	Compliant
C-3-02	Bedroom 1	100%	100%	100%	100%	Compliant
C-3-02	Bedroom 2	100%	100%	100%	100%	Compliant
C-3-03	LKD	97%	100%	93%	100%	Compliant
C-3-03	Bedroom 1	49%	100%	46%	100%	Non-compliant
C-3-03	Bedroom 2	99%	100%	92%	100%	Compliant
C-3-04	LKD	65%	100%	64%	100%	Compliant
C-3-04	Bedroom 1	57%	100%	51%	100%	Compliant
C-3-04	Bedroom 2	100%	100%	100%	100%	Compliant
C-3-05	LKD	53%	100%	51%	100%	Compliant
C-3-05	Bedroom 1	100%	100%	100%	100%	Compliant
C-3-06	LKD	95%	100%	95%	100%	Compliant
C-3-06	Bedroom 1	100%	100%	100%	100%	Compliant
C-3-07	LKD	100%	100%	100%	100%	Compliant
C-3-07	Bedroom 1	100%	100%	100%	100%	Compliant
C-3-08	LKD	100%	100%	100%	100%	Compliant
C-3-08	Bedroom 1	100%	100%	100%	100%	Compliant

D.1.5 Supplementary SDA Results (I.S. EN 17037 criteria): Fourth Floor

Table No. D.1.5 - Supplementary SDA Results (I.S. EN 17037 criteria): Fourth Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-4-01	LKD	99%	100%	99%	100%	Compliant
A-4-01	Bedroom 1	100%	100%	100%	100%	Compliant
A-4-01	Bedroom 2	100%	100%	100%	100%	Compliant
A-4-02	LKD	100%	100%	100%	100%	Compliant
A-4-02	Bedroom 1	100%	100%	100%	100%	Compliant
A-4-02	Bedroom 2	100%	100%	100%	100%	Compliant
A-4-03	LKD	100%	100%	100%	100%	Compliant
A-4-03	Bedroom 1	100%	100%	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.5 - Supplementary SDA Results (I.S. EN 17037 criteria): Fourth Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-4-03	Bedroom 2	100%	100%	100%	100%	Compliant
A-4-04	LKD	100%	100%	100%	100%	Compliant
A-4-04	Bedroom 1	100%	100%	100%	100%	Compliant
A-4-05	LKD	100%	100%	100%	100%	Compliant
A-4-05	Bedroom 1	98%	100%	98%	100%	Compliant
A-4-05	Bedroom 2	100%	100%	100%	100%	Compliant
A-4-06	LKD	100%	100%	100%	100%	Compliant
A-4-06	Bedroom 1	100%	100%	100%	100%	Compliant
A-4-06	Bedroom 2	100%	100%	100%	100%	Compliant
A-4-07	LKD	100%	100%	100%	100%	Compliant
A-4-07	Bedroom 1	100%	100%	100%	100%	Compliant
A-4-08	LKD	59%	100%	59%	100%	Compliant
A-4-08	Bedroom 1	100%	100%	100%	100%	Compliant
A-4-08	Bedroom 2	11%	96%	11%	93%	Non-compliant
A-4-08	Bedroom 3	100%	100%	100%	100%	Compliant
A-4-09	LKD	97%	100%	97%	100%	Compliant
A-4-09	Bedroom 1	100%	100%	100%	100%	Compliant
A-4-10	LKD	71%	100%	70%	100%	Compliant
A-4-10	Bedroom 1	41%	100%	37%	100%	Non-compliant
A-4-10	Bedroom 2	92%	100%	92%	100%	Compliant
A-4-11	LKD	85%	100%	78%	100%	Compliant
A-4-11	Bedroom 1	69%	100%	63%	100%	Compliant
A-4-12	LKD	87%	100%	84%	100%	Compliant
A-4-12	Bedroom 1	63%	100%	63%	100%	Compliant
A-4-13	LKD	100%	100%	100%	100%	Compliant
A-4-13	Bedroom 1	27%	100%	26%	100%	Non-compliant
A-4-13	Bedroom 2	32%	100%	32%	100%	Non-compliant
A-4-14	LKD	100%	100%	100%	100%	Compliant
A-4-14	Bedroom 1	59%	100%	59%	100%	Compliant
A-4-15	LKD	100%	100%	100%	100%	Compliant
A-4-15	Bedroom 1	78%	100%	76%	100%	Compliant
A-4-16	LKD	100%	100%	100%	100%	Compliant
A-4-16	Bedroom 1	92%	100%	92%	100%	Compliant
A-4-17	LKD	100%	100%	100%	100%	Compliant
A-4-17	Bedroom 1	51%	100%	51%	100%	Compliant
A-4-17	Bedroom 2	70%	100%	68%	100%	Compliant
B-4-01	LKD	100%	100%	100%	100%	Compliant
B-4-01	Bedroom 1	100%	100%	100%	100%	Compliant
B-4-02	LKD	100%	100%	100%	100%	Compliant
B-4-02	Bedroom 1	100%	100%	100%	100%	Compliant
B-4-03	LKD	97%	100%	97%	100%	Compliant
B-4-03	Bedroom 1	75%	100%	68%	100%	Compliant
B-4-04	LKD	70%	100%	70%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.5 - Supplementary SDA Results (I.S. EN 17037 criteria): Fourth Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
B-4-04	Bedroom 1	59%	100%	57%	100%	Compliant
B-4-04	Bedroom 2	100%	100%	100%	100%	Compliant
B-4-05	LKD	100%	100%	100%	100%	Compliant
B-4-05	Bedroom 1	43%	100%	42%	100%	Non-compliant
B-4-05	Bedroom 2	100%	100%	100%	100%	Compliant
B-4-05	Bedroom 3	100%	100%	100%	100%	Compliant
B-4-06	LKD	70%	100%	67%	100%	Compliant
B-4-06	Bedroom 1	83%	100%	70%	100%	Compliant
B-4-06	Bedroom 2	100%	100%	100%	100%	Compliant
B-4-07	LKD	100%	100%	100%	100%	Compliant
B-4-07	Bedroom 1	100%	100%	100%	100%	Compliant
B-4-08	LKD	100%	100%	100%	100%	Compliant
B-4-08	Bedroom 1	100%	100%	100%	100%	Compliant
B-4-09	LKD	61%	100%	57%	100%	Compliant
B-4-09	Bedroom 1	100%	100%	100%	100%	Compliant
C-4-01	LKD	100%	100%	100%	100%	Compliant
C-4-01	Bedroom 1	100%	100%	100%	100%	Compliant
C-4-01	Bedroom 2	100%	100%	100%	100%	Compliant
C-4-02	LKD	91%	100%	90%	100%	Compliant
C-4-02	Bedroom 1	95%	100%	87%	100%	Compliant
C-4-02	Bedroom 2	100%	100%	100%	100%	Compliant
C-4-03	LKD	100%	100%	100%	100%	Compliant
C-4-03	Bedroom 1	68%	100%	57%	100%	Compliant
C-4-03	Bedroom 2	100%	100%	99%	100%	Compliant
C-4-04	LKD	69%	100%	69%	100%	Compliant
C-4-04	Bedroom 1	68%	100%	63%	100%	Compliant
C-4-04	Bedroom 2	100%	100%	100%	100%	Compliant
C-4-05	LKD	57%	100%	57%	100%	Compliant
C-4-05	Bedroom 1	100%	100%	100%	100%	Compliant
C-4-06	LKD	97%	100%	97%	100%	Compliant
C-4-06	Bedroom 1	100%	100%	100%	100%	Compliant
C-4-07	LKD	100%	100%	100%	100%	Compliant
C-4-07	Bedroom 1	100%	100%	100%	100%	Compliant
C-4-08	LKD	100%	100%	100%	100%	Compliant
C-4-08	Bedroom 1	100%	100%	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

D.1.6 Supplementary SDA Results (I.S. EN 17037 criteria): Fifth Floor

Table No. D.1.6 - Supplementary SDA Results (I.S. EN 17037 criteria): Fifth Floor

Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-5-01	LKD	100%	100%	100%	100%	Compliant
A-5-01	Bedroom 1	100%	100%	100%	100%	Compliant
A-5-01	Bedroom 2	100%	100%	100%	100%	Compliant
A-5-02	LKD	100%	100%	100%	100%	Compliant
A-5-02	Bedroom 1	100%	100%	100%	100%	Compliant
A-5-02	Bedroom 2	100%	100%	100%	100%	Compliant
A-5-03	LKD	100%	100%	100%	100%	Compliant
A-5-03	Bedroom 1	100%	100%	100%	100%	Compliant
A-5-03	Bedroom 2	100%	100%	100%	100%	Compliant
A-5-04	LKD	100%	100%	100%	100%	Compliant
A-5-04	Bedroom 1	100%	100%	100%	100%	Compliant
A-5-05	LKD	100%	100%	100%	100%	Compliant
A-5-05	Bedroom 1	98%	100%	98%	100%	Compliant
A-5-05	Bedroom 2	100%	100%	100%	100%	Compliant
A-5-10	LKD	100%	100%	100%	100%	Compliant
A-5-10	Bedroom 1	51%	100%	44%	100%	Trees affecting compliance
A-5-10	Bedroom 2	93%	100%	93%	100%	Compliant
A-5-11	LKD	95%	100%	95%	100%	Compliant
A-5-11	Bedroom 1	90%	100%	89%	100%	Compliant
A-5-12	LKD	99%	100%	99%	100%	Compliant
A-5-12	Bedroom 1	96%	100%	92%	100%	Compliant
B-5-01	LKD	100%	100%	100%	100%	Compliant
B-5-01	Bedroom 1	100%	100%	100%	100%	Compliant
B-5-02	LKD	100%	100%	100%	100%	Compliant
B-5-02	Bedroom 1	100%	100%	100%	100%	Compliant
B-5-03	LKD	99%	100%	99%	100%	Compliant
B-5-03	Bedroom 1	88%	100%	87%	100%	Compliant
B-5-04	LKD	86%	100%	86%	100%	Compliant
B-5-04	Bedroom 1	70%	100%	67%	100%	Compliant
B-5-04	Bedroom 2	100%	100%	100%	100%	Compliant
B-5-05	LKD	100%	100%	100%	100%	Compliant
B-5-05	Bedroom 1	55%	100%	52%	100%	Compliant
B-5-05	Bedroom 2	100%	100%	100%	100%	Compliant
B-5-05	Bedroom 3	100%	100%	100%	100%	Compliant
B-5-06	LKD	100%	100%	100%	100%	Compliant
B-5-06	Bedroom 1	92%	100%	87%	100%	Compliant
B-5-06	Bedroom 2	100%	100%	100%	100%	Compliant
B-5-08	LKD	100%	100%	100%	100%	Compliant
B-5-08	Bedroom 1	100%	100%	100%	100%	Compliant
B-5-09	LKD	64%	100%	61%	100%	Compliant
B-5-09	Bedroom 1	100%	100%	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.6 - Supplementary SDA Results (I.S. EN 17037 criteria): Fifth Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
C-5-01	LKD	100%	100%	100%	100%	Compliant
C-5-01	Bedroom 1	100%	100%	100%	100%	Compliant
C-5-01	Bedroom 2	100%	100%	100%	100%	Compliant
C-5-02	LKD	91%	100%	90%	100%	Compliant
C-5-02	Bedroom 1	95%	100%	87%	100%	Compliant
C-5-02	Bedroom 2	100%	100%	100%	100%	Compliant
C-5-03	LKD	100%	100%	100%	100%	Compliant
C-5-03	Bedroom 1	63%	100%	54%	100%	Compliant
C-5-03	Bedroom 2	100%	100%	99%	100%	Compliant
C-5-04	LKD	72%	100%	72%	100%	Compliant
C-5-04	Bedroom 1	75%	100%	68%	100%	Compliant
C-5-04	Bedroom 2	100%	100%	100%	100%	Compliant
C-5-05	LKD	62%	100%	61%	100%	Compliant
C-5-05	Bedroom 1	100%	100%	100%	100%	Compliant
C-5-06	LKD	99%	100%	99%	100%	Compliant
C-5-06	Bedroom 1	100%	100%	100%	100%	Compliant
C-5-07	LKD	100%	100%	100%	100%	Compliant
C-5-07	Bedroom 1	100%	100%	100%	100%	Compliant
C-5-08	LKD	100%	100%	100%	100%	Compliant
C-5-08	Bedroom 1	100%	100%	100%	100%	Compliant

D.1.7 Supplementary SDA Results (I.S. EN 17037 criteria): Sixth Floor

Table No. D.1.7 - Supplementary SDA Results (I.S. EN 17037 criteria): Sixth Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-6-01	LKD	100%	100%	100%	100%	Compliant
A-6-01	Bedroom 1	100%	100%	100%	100%	Compliant
A-6-01	Bedroom 2	100%	100%	100%	100%	Compliant
A-6-02	LKD	100%	100%	100%	100%	Compliant
A-6-02	Bedroom 1	100%	100%	100%	100%	Compliant
A-6-02	Bedroom 2	100%	100%	100%	100%	Compliant
A-6-03	LKD	100%	100%	100%	100%	Compliant
A-6-03	Bedroom 1	100%	100%	100%	100%	Compliant
A-6-03	Bedroom 2	100%	100%	100%	100%	Compliant
A-6-04	LKD	100%	100%	100%	100%	Compliant
A-6-04	Bedroom 1	100%	100%	100%	100%	Compliant
A-6-05	LKD	100%	100%	100%	100%	Compliant
A-6-05	Bedroom 1	100%	100%	98%	100%	Compliant
A-6-05	Bedroom 2	100%	100%	100%	100%	Compliant
A-6-10	LKD	100%	100%	100%	100%	Compliant
A-6-10	Bedroom 1	60%	100%	56%	100%	Compliant
A-6-10	Bedroom 2	100%	100%	99%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.7 - Supplementary SDA Results (I.S. EN 17037 criteria): Sixth Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-6-11	LKD	97%	100%	97%	100%	Compliant
A-6-11	Bedroom 1	97%	100%	97%	100%	Compliant
A-6-12	LKD	100%	100%	100%	100%	Compliant
A-6-12	Bedroom 1	100%	100%	100%	100%	Compliant
C-6-01	LKD	100%	100%	100%	100%	Compliant
C-6-01	Bedroom 1	100%	100%	100%	100%	Compliant
C-6-01	Bedroom 2	100%	100%	100%	100%	Compliant
C-6-02	LKD	93%	100%	93%	100%	Compliant
C-6-02	Bedroom 1	100%	100%	100%	100%	Compliant
C-6-02	Bedroom 2	100%	100%	100%	100%	Compliant
C-6-03	LKD	69%	100%	67%	100%	Compliant
C-6-03	Bedroom 1	62%	100%	59%	100%	Compliant
C-6-03	Bedroom 2	100%	100%	99%	100%	Compliant
C-6-04	LKD	74%	100%	73%	100%	Compliant
C-6-04	Bedroom 1	79%	100%	78%	100%	Compliant
C-6-04	Bedroom 2	100%	100%	100%	100%	Compliant
C-6-05	LKD	64%	100%	64%	100%	Compliant
C-6-05	Bedroom 1	100%	100%	100%	100%	Compliant
C-6-06	LKD	100%	100%	100%	100%	Compliant
C-6-06	Bedroom 1	100%	100%	100%	100%	Compliant
C-6-07	LKD	100%	100%	100%	100%	Compliant
C-6-07	Bedroom 1	100%	100%	100%	100%	Compliant
C-6-08	LKD	100%	100%	100%	100%	Compliant
C-6-08	Bedroom 1	100%	100%	100%	100%	Compliant

D.1.8 Supplementary SDA Results (I.S. EN 17037 criteria): Seventh Floor

Table No. D.1.8 - Supplementary SDA Results (I.S. EN 17037 criteria): Seventh Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-7-01	LKD	100%	100%	100%	100%	Compliant
A-7-01	Bedroom 1	100%	100%	100%	100%	Compliant
A-7-01	Bedroom 2	100%	100%	100%	100%	Compliant
A-7-02	LKD	100%	100%	100%	100%	Compliant
A-7-02	Bedroom 1	100%	100%	100%	100%	Compliant
A-7-02	Bedroom 2	100%	100%	100%	100%	Compliant
A-7-03	LKD	100%	100%	100%	100%	Compliant
A-7-03	Bedroom 1	100%	100%	100%	100%	Compliant
A-7-03	Bedroom 2	100%	100%	100%	100%	Compliant
A-7-04	LKD	100%	100%	100%	100%	Compliant
A-7-04	Bedroom 1	100%	100%	100%	100%	Compliant
A-7-05	LKD	100%	100%	100%	100%	Compliant
A-7-05	Bedroom 1	100%	100%	98%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.8 - Supplementary SDA Results (I.S. EN 17037 criteria): Seventh Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-7-05	Bedroom 2	100%	100%	100%	100%	Compliant
A-7-10	LKD	100%	100%	100%	100%	Compliant
A-7-10	Bedroom 1	67%	100%	65%	100%	Compliant
A-7-10	Bedroom 2	100%	100%	100%	100%	Compliant
A-7-11	LKD	99%	100%	99%	100%	Compliant
A-7-11	Bedroom 1	100%	100%	100%	100%	Compliant
A-7-12	LKD	100%	100%	100%	100%	Compliant
A-7-12	Bedroom 1	100%	100%	100%	100%	Compliant
C-7-01	LKD	100%	100%	100%	100%	Compliant
C-7-01	Bedroom 1	100%	100%	100%	100%	Compliant
C-7-01	Bedroom 2	100%	100%	100%	100%	Compliant
C-7-02	LKD	93%	100%	93%	100%	Compliant
C-7-02	Bedroom 1	100%	100%	100%	100%	Compliant
C-7-02	Bedroom 2	100%	100%	100%	100%	Compliant
C-7-03	LKD	100%	100%	99%	100%	Compliant
C-7-03	Bedroom 1	63%	100%	56%	100%	Compliant
C-7-03	Bedroom 2	100%	100%	99%	100%	Compliant
C-7-04	LKD	89%	100%	86%	100%	Compliant
C-7-04	Bedroom 1	81%	100%	81%	100%	Compliant
C-7-04	Bedroom 2	100%	100%	100%	100%	Compliant
C-7-05	LKD	72%	100%	72%	100%	Compliant
C-7-05	Bedroom 1	100%	100%	100%	100%	Compliant
C-7-06	LKD	100%	100%	100%	100%	Compliant
C-7-06	Bedroom 1	100%	100%	100%	100%	Compliant
C-7-07	LKD	100%	100%	100%	100%	Compliant
C-7-07	Bedroom 1	100%	100%	100%	100%	Compliant
C-7-08	LKD	100%	100%	100%	100%	Compliant
C-7-08	Bedroom 1	100%	100%	100%	100%	Compliant

D.1.9 Supplementary SDA Results (I.S. EN 17037 criteria): Seventh Floor

Table No. D.1.9 - Supplementary SDA Results (I.S. EN 17037 criteria): Seventh Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-8-01	LKD	100%	100%	100%	100%	Compliant
A-8-01	Bedroom 1	100%	100%	100%	100%	Compliant
A-8-01	Bedroom 2	100%	100%	100%	100%	Compliant
A-8-02	LKD	100%	100%	100%	100%	Compliant
A-8-02	Bedroom 1	100%	100%	100%	100%	Compliant
A-8-02	Bedroom 2	100%	100%	100%	100%	Compliant
A-8-03	LKD	100%	100%	100%	100%	Compliant
A-8-03	Bedroom 1	100%	100%	100%	100%	Compliant
A-8-03	Bedroom 2	100%	100%	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.

Table No. D.1.9 - Supplementary SDA Results (I.S. EN 17037 criteria): Seventh Floor						
Unit Number	Room Description	No Trees		With Trees		Compliance with I.S. EN 17037 Criteria*
		Area above 300 Lux*	Area above 100 Lux*	Area above 300 Lux*	Area above 100 Lux*	
A-8-04	LKD	100%	100%	100%	100%	Compliant
A-8-04	Bedroom 1	100%	100%	100%	100%	Compliant
A-8-05	LKD	100%	100%	100%	100%	Compliant
A-8-05	Bedroom 1	100%	100%	100%	100%	Compliant
A-8-05	Bedroom 2	100%	100%	100%	100%	Compliant
A-8-10	LKD	100%	100%	100%	100%	Compliant
A-8-10	Bedroom 1	79%	100%	75%	100%	Compliant
A-8-10	Bedroom 2	100%	100%	100%	100%	Compliant
A-8-11	LKD	100%	100%	100%	100%	Compliant
A-8-11	Bedroom 1	100%	100%	100%	100%	Compliant
A-8-12	LKD	100%	100%	100%	100%	Compliant
A-8-12	Bedroom 1	100%	100%	100%	100%	Compliant

* For information regarding the criteria under the various guidelines including target Lux please refer to section 4.5.1 on page 18.
For floor plans of the assessed units please refer to section C.1 on page 43.