# Sandford Road SHD, Milltown Park, Sandford Road, **Dublin 6**

**Daylight and Sunlight Assessment Report Applicant: Sandford Living Ltd.** 



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# 1.0 Executive Summary

# 1.1 Summary of Assessment

3D Design Bureau were commissioned to carry out a comprehensive BRE daylight and sunlight assessment, along with an accompanying shadow study for the proposed development in Milltown Park, Sandford Road, Dublin 6.

The assessment has been broken down into the following two main categories, of which there are sub categories summarized further below:

- Impact assessment on the surrounding environment and properties, which includes VSC, APSH and sunlighting analysis. The effects were assessed in the baseline state versus the proposed state.
- Daylight and sunlight assessment of the proposed development, which includes sunlighting to the proposed amenity spaces, internal daylighting (ADF) to the habitable rooms and an APSH assessment for windows of the proposed living spaces.

The impact assessment that was carried out for the purpose of this report has studied the potential levels of effect the surrounding existing properties would sustain should the proposed development be built as proposed.

This impact assessment covered the following categories:

- Effect on daylight (VSC) to surrounding properties. The effect to the VSC of the windows of the following neighbouring properties was assessed:
  - Rowan Hall / Cedar Hall
  - Mount Sandford
  - 1 St. James Terrace
  - Loyola House, 87 Eglinton Road
  - 132-138 Sandford Road
  - 1-11 Norwood Park
  - 28-35 Cherryfield Avenue Lower
  - 1-20 Cherryfield Ave Upper
- Effect on sunlight (APSH) to surrounding properties with windows facing within 90° of due south. The effect to the APSH (annual and winter) of the windows of the following neighbouring properties was assessed:
  - Loyola House, 87 Eglinton Road
  - 132-138 Sandford Road
  - 1-11 Norwood Park
  - 28-35 Cherryfield Avenue Lower
  - 1-20 Cherryfield Ave Upper
- Effect on sunlight to surrounding external amenity spaces such as gardens and public parks. The effect to sunlight in the rear gardens of the following neighbouring properties was assessed:
  - 1-11 Norwood Park
  - 8-35 Cherryfield Avenue Lower
  - 1-20 Cherryfield Ave Upper

The surrounding context was carefully considered to ensure all properties and amenity spaces that may potentially experience a level of effect were included in the study.

The BRE daylight and sunlight assessment of the proposed development included a study of the levels of sunlight to the proposed amenity spaces as well as access to daylight (ADF) in the habitable rooms of the proposed units within the development. Furthermore, an assessment of the APSH to the living room windows of the proposed units was also carried out.

All proposed external amenity spaces as identified by the landscape architect were assessed for sunlight.

ADF assessment has been carried out for all habitable residential rooms on the ground and 1st floors across the proposed development. Note: Typically, ADF values increase in rooms located on higher floor levels, due to an improved relationship with adjacent obstructions. Where a room achieves the target value applied for ADF, it was assumed that similar rooms on subsequent floors will also be compliant. Where rooms do not meet the recommended minimum, the equivalent room on the subsequent floor has been assessed to determine at which level the target ADF value has been achieved. A combination of the calculated ADF values and the assumed improvement on upper floors was used to calculate a circa compliance rate for the development. ADF assessment has also been carried out on the proposed childcare rooms and shared communal spaces, neither of which have been included in the calculation of the circa compliance rates.

Finally, Annual and Winter APSH performance was calculated for all main living room windows within the proposed development. The results of this study will be stated as an average.

Please see section 1.2 on page 4 for a detailed breakdown of results.



Figure 1.1: Colour coded indication of surrounding properties assessed.



### 1.2 Results Overview

Should the development be built as proposed, the following effects will be experienced.

#### **Effect to Vertical Sky Component (VSC) on neighbouring properties:**

- Windows Assessed: 315
  - · Imperceptible: 256
  - Not Significant: 33
  - · Slight: 16
  - Moderate: 10

#### **Effect to Annual Probable Sunlight Hours (APSH) Annual Study on neighbouring properties:**

- Windows Assessed: 192
  - Imperceptible: 175
  - Not Significant: 2
  - Slight: 5
  - Moderate: 5
  - Significant: 5

### Effect to Annual Probable Sunlight Hours (APSH) Winter Study on neighbouring properties:

- Windows Assessed: 192
  - · Imperceptible: 176
  - Moderate: 1
  - · Significant: 2
  - Very Significant: 3
  - Profound: 10

#### **Proposed Living Room Windows (APSH) Annual Study:**

- · Rooms Assessed: 671
  - Above recommended minimum: 354
  - Below Recommended minimum: 317
  - Compliance rate: ~52%

#### **Proposed Living Room Windows (APSH) Winter Study:**

- Rooms Assessed: 671
  - · Above recommended minimum: 581
  - Below Recommended minimum: 90
  - Compliance rate: ~87%

#### **Sunlighting to existing neighbouring gardens:**

- Gardens Assessed: 39
  - · Imperceptible: 30
  - Not Significant: 7
  - · Slight: 1
  - Moderate: 1

# Sunlighting to proposed amenity area:

- Areas Assessed: 20
  - Meeting the guidelines: 20

### Average Daylight Factor (ADF) of internal residential spaces within the proposed development:

Rooms assessed: 746 (Total No. across the development is ~1585)

#### With ADF target value of 2.0% applied to LKDs:

- Rooms meeting the guidelines: 605
- · Rooms not meeting the guidelines: 141
- Rooms assumed to meet the guidelines: 839
- Compliance rate: ~91%

#### With ADF target value of 1.5% applied to LKDs:

- Rooms meeting the guidelines: 685
- · Rooms not meeting the guidelines: 61
- Rooms assumed to meet the guidelines: 839
- Compliance rate: ~96%



# 2.0 Glossary

### 2.1 Terms and Definitions

### **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 with full cloud coverage, used for daylight calculation.

#### **Clear sky model**

A completely clear sky model with no cloud coverage, used for sunlight calculation.

### **Existing Baseline Model State**

The development site in its existing state. The proposed development has not been included. This model state has been used when generating the baseline results for all the existing neighbouring properties.

#### **Proposed Development Model State**

The proposed development has been modelled into the existing environment. This model state has been used when assessing the effect of the proposed development on the existing neighbouring properties, as well as assessments carried out within the proposed development.

#### 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)**

Annual Probable Sunlight Hours (APSH) is a measure of sunlight that a given window may expect over a year period. It can be defined as the ratio between the annual sunlight hours in a specific location, and the hours of sunlight an assessment point on a window actually receives.

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.

### **Average Sun-hours**

In order to provide a more detailed understanding of the level of sunlight in the gardens of the surrounding properties and the proposed external amenity areas, an additional study has been carried out to assess the average sun-hours that these spaces may receive. This study is carried out using a clear sky model and assesses the maximum potential average sun-hours each space may receive on March 21st, June 21st (the summer solstice) and December 21st (the winter solstice).

#### **Average Daylight Factor (ADF)**

Ratio of total daylight flux incident on the working plane to the area of the working plane, expressed as a percentage of the outdoor illuminance on a horizontal plane due to an unobstructed overcast sky model.

Thus a 1% ADF would mean that the average indoor illuminance would be one hundredth the outdoor unobstructed illuminance.

#### **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 500 mm from the room boundaries.

#### **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 will have a column identified as "Level of BRE Compliance". This column 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.



# 2.2 Definition of Effects

In order to categorise the varying degrees of compliance with the BRE Guidelines when assessing the effect a proposed development would have on the daylight and sunlight of an existing property, 3DDB have assigned numerical values to the levels of effect as listed in 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' prepared by the Environmental Protection Agency (Draft of 2017), and to Directive 2011/92/EU (as amended by Directive 2014/52/EU).

The list of definitions given below is taken from Table 3.3: Descriptions of Effects contained in the draft 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' prepared by the Environmental Protection Agency. Some comment is also given below on what these definitions might imply in the case of sunlight access.

**Note:** There are many factors to be taken into consideration when determining levels of effect. We have included typical numerical values that we have used when assigning levels of effect. These values should not be applied rigidly, but rather as a guide. Circumstances may occur that lead to flexibility being sought in our interpretation of these definitions. Such cases are always explained in the Analysis of Results section, if and when they occur.

#### **Imperceptible**

An effect capable of measurement but without significant consequences. For the purposes of this Sunlight and Daylight Assessment Report an "imperceptible" 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.

#### **Not Significant**

An effect which causes noticeable changes in the character of the environment but without significant consequences. For the purposes of this Sunlight and Daylight Assessment Report, a "not significant" 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 "not significant" level of effect will be applied if the level of daylight or sunlight is reduced to between 90-99% of the applied target value.

#### Slight

An effect which causes noticeable changes in the character of the environment without affecting its sensitivities. For the purposes of this Sunlight and Daylight Assessment Report, a "slight" level of effect will be stated if the level of daylight or sunlight is reduced to between 75-90% of the applied target value.

#### **Moderate**

An effect that alters the character of the environment in a manner that is consistent with existing and emerging trends. For the purposes of this Sunlight and Daylight Assessment Report, a "moderate" level of effect will be stated if the level of daylight or sunlight is reduced to between 50-75% of the applied target value. A "moderate" level of effect would be quite typical in instances where a proposed development is planned on an under-developed plot of land. The level of daylight and/or sunlight of an assessed property is reduced in a manner that is consistent with similar properties in the immediate surrounding area.

#### Significant

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 "significant" level of effect will be stated if the proposed development reduces the availability of daylight or sunlight of a neighbouring property to a low level. Typically a "significant" level of effect will be stated if the level of daylight or sunlight is reduced to between 30-50% of the applied target value.

#### **Very Significant**

An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment. For the purposes of this Sunlight and Daylight Assessment Report a "very significant" level of effect will be stated if the proposed development reduces the availability of daylight or sunlight of a neighbouring property to a very low level. Typically a "very significant" level of effect will be stated if the level of daylight or sunlight is reduced to between 10-30% of the applied target value.

#### **Profound**

An effect which obliterates sensitive characteristics. For the purposes of this Sunlight and Daylight Assessment Report, a "profound" level of effect will only be stated if the proposed development reduces the availability of daylight or sunlight of a neighbouring property to a level that is less than 10% of the applied target value.

#### **Positive Effect**

In relation to sunlight or daylight access, it is conceivable that there could be positive effects, but this implies that a development would involve a reduction of the size or scale of built form (e.g. such as the demolition of a building, which might result in an increase in sunlight access). Though that is possible, it is usually unlikely as most development involves the construction of new obstructions to sunlight access.



# 2.3 Index of Tables

# 2.3.1 Vertical Sky Component

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

|                    | Table No. 2.1: Example of VSC Table |                       |   |                            |  |                                      |  |  |  |  |
|--------------------|-------------------------------------|-----------------------|---|----------------------------|--|--------------------------------------|--|--|--|--|
| Window<br>Number   | Baseline<br>VSC Value               | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>Minimum VSC | Level of<br>Compliance<br>with BRE<br>Guidelines | Effect of<br>Proposed<br>Development |  |  |  |  |
| House Number/Floor |                                     |                       |   |                            |  |                                      |  |  |  |  |
| Α                  | В                                   | С                     | 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 is calculated in the existing baseline model state (as explained in the "Glossary" on page 5).

#### **C: Proposed VSC Value**

The *Proposed VSC Value* represents the VSC value of the assessed window calculated in the proposed model state (as explained in the "Glossary" on page 5).

#### D: Ratio of Proposed VSC to Baseline VSC

This column expressed 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. The levels of effect used in this report have regard to the 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' prepared by the Environmental Protection Agency (Draft of 2017), and to Directive 2011/92/EU (as amended by Directive 2014/52/EU) and a full list can be found in "Definition of Effects" on page 6.



# 2.3.2 Annual Probable Sunlight Hours

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

|                  | Table No. 2.2: Example of APSH Table  |                                       |  |                             |   |                                      |  |  |  |
|------------------|---------------------------------------|---------------------------------------|--|-----------------------------|---|--------------------------------------|--|--|--|
| Window<br>Number | Baseline<br>Annual/<br>Winter<br>APSH | Proposed<br>Annual/<br>Winter<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline<br>APSH | Recommended<br>Minimum APSH | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |
|                  | House Number/Floor                    |                                       |  |                             |   |                                      |  |  |  |
| Α                | В                                     | С                                     | 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 Annual/Winter APSH**

The Baseline Annual/Winter APSH Value represents percentage of the probable sunlight hours that the assessed window can receive, calculated in the existing baseline model state (as explained in the "Glossary" on page 5). The <u>annual</u> and <u>winter</u> assessments will be represented in separate tables.

#### **C: Proposed Annual APSH**

The Proposed Annual APSH Value represents the percentage of probable sunlight hours that the assessed window can receive, calculated in the proposed model state (as explained in the "Glossary" on page 5).

#### D: Ratio of Proposed APSH to Baseline APSH

This column expressed the ratio of change between the baseline APSH 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 to sunlight is more likely to be perceptible.

#### **E: Recommended Minimum APSH**

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 sunlight received by an existing window, if the APSH value **both** 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.

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 APSH 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 Annual APSH Value* with the *recommended minimum APSH* 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. The levels of effect used in this report have regard to the 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' prepared by the Environmental Protection Agency (Draft of 2017), and to Directive 2011/92/EU (as amended by Directive 2014/52/EU) and a full list can be found in "Definition of Effects" on page 6.



#### **Sunlighting** 2.3.3

#### 2.3.3.1 **Existing Gardens and Amenity Spaces**

Below is an example of the table used to describe the effect on existing gardens and amenity spaces.

|         | Table No. 2.3: Example of Sunlighting Table for Existing Gardens/Amenity Spaces |                    |                   |                      |          |           |  |  |  |  |  |
|---------|---|--------------------|-------------------|----------------------|----------|-----------|--|--|--|--|--|
|         | % of Area to Rece   | eive Above 2 Hours | Sunlight on March | n 21st (Target >50%) | Level of | Effect of |  |  |  |  |  |
| Address | Compliance  |                    |                   |                      |          |           |  |  |  |  |  |
| Α       | В   | С                  | D                 | E                    | F        | G         |  |  |  |  |  |

#### A: Address

This column contains the address of the assessed garden/amenity space. The locations of the gardens and amenity spaces assessed are visually represented in a corresponding figure.

#### **B**: Baseline

Baseline represents percentage of the assessed space's area that can receive more than 2 hours of sunlight on March 21st, calculated in the existing baseline model state (as explained in the "Glossary" on page 5).

#### C: Proposed

Proposed represents percentage of the assessed space's area that can receive more than 2 hours of sunlight on March 21st, calculated in the proposed model state (as explained in the "Glossary" on page 5).

#### D: Ratio of Proposed to Baseline

This column expressed the ratio of change between the baseline and the proposed values. 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 as per the BRE Guidelines

The BRE Guidelines indicate that a proposed development could possibly have a noticeable effect on the sunlight received by an existing garden and/or amenity area, if 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.

To determine the recommended minimum, 80% of the Baseline value has been calculated. If this value is above the 50% threshold, a target value of 50% will be applied. If 80% of the baseline value is below 50%, then 80% of the baseline value is the appropriate target value.

### F: Level of BRE Compliance

This column states the compliance of the Proposed sunlight value with the recommended minimum as per the BRE Guidelines. In essence, it shows whether or not the assessed garden or amenity area would experience a perceptible level of impact. If the 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.

#### **G: Effect of Proposed Development**

The levels of effect in this column describe the effect an assessed garden or amenity space will experience, based on its compliance with the BRE Target Value. The levels of effect used in this report have regard to the 'Guidelines on the Information to be Contained in Environmental Impact Assessment Reports' prepared by the Environmental Protection Agency (Draft of 2017), and to Directive 2011/92/EU (as amended by Directive 2014/52/EU) and a full list can be found in "Definition of Effects" on page 6.



### 2.3.3.2 Proposed Gardens and Amenity Spaces

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

| Table No. 2.4: Example of Sunlighting Table for Proposed Gardens/Amenity Spaces |   |   |   |  |  |  |  |  |  |
|---|---|---|---|--|--|--|--|--|--|
| Assessed Area   | Assessed Area  Area Capable of Receiving 2 Hours of Sunlight on March 21st  Recommended Minimum  Compliance with BRE Guidelines |   |   |  |  |  |  |  |  |
| Α   | В   | С | D |  |  |  |  |  |  |

#### **A: Assessed Area**

This column identifies the assessed garden/amenity area.

#### B: 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.

#### **C: 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%.

### **D: 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.

# 2.3.4 Average Daylight Factor

Below is an example of the table used to describe the daylight factor in proposed units.

| Table No. 2.5: Example of ADF Results Table |                  |                     |  |  |  |  |  |
|---|------------------|---------------------|--|--|--|--|--|
| Unit Number                                 | Room Description | Predicted ADF Value |  |  |  |  |  |
| A   | В                | С                   |  |  |  |  |  |

### 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: Predicted ADF Value**

The average daylight factor calculated for an assessed room.



# 3.0 Assessment Overview

# 3.1 Development Description

Sandford Living Limited intend to apply to An Bord Pleanála for permission for a strategic housing development at this c. 4.26 hectare site at Milltown Park, Sandford Road, Dublin 6, D06 V9K7. Works are also proposed on Milltown Road and Sandford Road to facilitate access to the development including improvements to pedestrian facilities on an area of c. 0.16 hectares. The development's surface water drainage network shall discharge from the site via a proposed 300mm diameter pipe along Milltown Road through the junction of Milltown Road / Sandford Road prior to outfalling to the existing drainage network on Eglinton Road (approximately 200 metres from the Sandford Road / Eglinton Road junction), with these works incorporating an area of c. 0.32 hectares. The development site area, road works and drainage works areas will provide a total application site area of c. 4.74 hectares.

The development will principally consist of: the demolition of c. 4,883.9 sq m of existing structures on site including Milltown Park House (880 sq m); Milltown Park House Rear Extension (2,031 sq m); the Finlay Wing (622 sq m); the Archive (1,240 sq m); the link building between Tabor House and Milltown Park House rear extension to the front of the Chapel (74.5 sq m); and 36.4 sq m of the 'red brick link building' (single storey over basement) towards the south-western boundary; the refurbishment and reuse of Tabor House (1,575 sq m) and the Chapel (768 sq m), and the provision of a single storey glass entrance lobby to the front and side of the Chapel; and the provision of a 671 No. unit residential development comprising 604 No. Build-to-Rent apartment and duplex units (88 No. studios, 262 No. one bed units, 242 No. two bed units and 12 No. three bed units) and 67 No. Build-to Sell apartment and duplex units (11 No. studios, 9 No. one bed units, 32 No. two bed units and 15 No. three bed units).

Block A1 will range in height from part 5 No. storeys to part 10 No. storeys and will comprise 94 No. Build-to-Rent apartments; Block A2 will range in height from part 6 No. storeys to part 8 No. storeys (including part double height at ground floor level) and will comprise 140 No. Build to-Rent apartments and duplex units; Block B will range in height from part 3 No. to part 7 No. storeys and will comprise 91 No. Build-to-Rent apartments; Block C will range in height from part 2 No. storeys to part 8 No. storeys (including part double height at ground floor level) and will comprise 163 No. Build-to-Rent apartments; Block D will range in height from 3 No. storeys to 5 No. storeys and will comprise 39 No. Build-to-Sell apartments; Block E will be 3 No. storeys in height and will comprise 28 No. Build-to-Sell duplex units and apartments; Block F will range in height from 5 No. storeys to part 7 No. storeys and will comprise 92 No. Build-to-Rent apartments; and the refurbished Tabor House (4 No. storeys including lower ground floor level) will comprise 24 No. Build-to-Rent apartments.

The development also includes a creche within Block F (400 sq m) with outdoor play area; and the provision of communal internal amenities (c. 1,248.8 sq m) and facilities (c. 158.3 sq m) throughout the residential blocks, Tabor House and the converted Chapel building including co-working space, gym, lounges, reading rooms, games room, multi-purpose space, concierge, mail rooms and staff facilities.

The proposed works also include a new 2.4 metre high boundary wall across the site from east to west (towards the southern boundary) requiring the demolition of a portion of the red brick link building that lies within the subject site towards the south-western boundary (36.4 sq m) and the making good of the façade at the boundary. The existing Link Building is the subject of a separate application for permission (DCC Reg. Ref. No. 3866/20) that includes a request for permission to demolish that Link Building, including the part of the building on the lands the subject of this application for SHD permission. If that application is granted and first implemented, no demolition works to the Link Building will be required under this application for SHD permission. If that application is refused permission or not first implemented, permission is here sought to demolish only that part of the Link Building now existing on the lands the subject of this application for permission and to make good the balance at the red line with a blank wall.

The development also provides a new access from Milltown Road (which will be the principal vehicular entrance to the site) in addition to utilising and upgrading the existing access from Sandford Road as a secondary access principally for deliveries, emergencies and taxis; new pedestrian access points; pedestrian/bicycle connections through the site; 344 No. car parking spaces (295 No. at basement level and 49 No. at surface level) which includes 18 No. mobility impaired spaces, 10 No. car share spaces, 4 No. collection/drop-off spaces and 2 No. taxi spaces; bicycle parking; 14 No. motorcycle spaces; bin storage; boundary treatments; private balconies and terraces facing all directions; external gantry access in sections of Blocks A1, A2 and C; hard and soft landscaping including public open space and communal open space (including upper level communal terraces in Block A1, Block B and Block C which will face all directions); sedum roofs; PV panels; substations; lighting; plant; lift cores; and all other associated site works above and below ground. The proposed development has a gross floor space of c. 54,871 sq m above ground level over a partial basement (under part of Block A1 and under Blocks A2, B and C) measuring c. 10,607 sq m, which includes parking spaces, bin storage, bike storage and plant.



# 3.2 Guidelines

In December of 2020 the Department of Housing, Planning and Local Government published a guidance document for new apartments, Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities. This document makes reference to the British Standard, BS 8206-2:2008: Lighting for Buildings - Part 2: Code of Practice for Daylighting (the British Standard) and to the Building Research Establishment's Site Layout Planning for Daylight and Sunlight: a Guide to Good Practice (the BRE Guidelines).

Prior to the publication of the apartment guidelines in December 2020 a European Standard had been published EN 17037 Daylight in Buildings. EN 17037 is not referenced in the 2020 apartment guidelines and to the best of our knowledge is not referenced in any planning guidance document issued by Irish planning authorities. The BRE Guidelines have not been withdrawn. Until official guidance or instruction is published by a relevant authority on this matter, 3DDB will continue to reference the BRE Guidelines in our daylight and sunlight assessments.

Neither the European Standard, British Standard nor the BRE Guide set out rigid standards or limits. The BRE Guide is preceded by the following very clear warning 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 Guide 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).

# 3.3 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.

To ensure a neighbouring property is not adversely affected, the Vertical Sky Component (also referred to as VSC) is calculated and assessed. 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 centre 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.

In this assessment, the VSC of the centre point on each of the assessed windows will be calculated, both in the 'baseline state' and in the 'proposed state'. The baseline state reflects the current VSC of the window, the proposed state will determine what the VSC of the window would be if the proposed development is built as planned.

A comparison between these values 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.

The results for the study on the effect on VSC caused by the proposed development can be seen in section 5.1 on page 18.



# 3.4 Effect on Annual Probable Sunlight Hours (APSH)

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

Whether a window is considered for APSH 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.

If the assessment point of a window can receive more than 25% of APSH, including at least 5% of the winter probable sunlight hours, then the room should receive enough sunlight.

As with the VSC study, the APSH will be calculated in the baseline state and the proposed state. A comparison of the results will determine the level of effect.

A proposed development could possibly have a noticeable effect on the sunlight received by an existing window, 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.

The results of the study on APSH can be found in Section 5.2 on page 38.

# 3.5 Annual Probable Sunlight Hours (APSH) in Proposed Development

Annual Probable Sunlight Hours (APSH) is a measure of sunlight that a given window may expect to receive over the period of a year.

If the assessment point of a window can receive more than 25% of APSH, including at least 5% of the winter probable sunlight hours, then the room should receive enough sunlight. The BRE Guidelines that while this criteria applies to rooms of all orientations, "if a room faces significantly north of due east or west it is unlikely to be met." The main requirement for sunlighting is in living rooms with less importance given to bedroom and kitchen windows. As such, an assessment has been carried out on the APSH of the main living room windows of the proposed development.

The results of this study will be expressed as a percentage of compliance for the development as a whole. However the BRE Guidelines do not state an appropriate level of compliance for APSH across a proposed development, but it should be expected that a portion of windows will not meet the criteria as it is rarely possible to orientate all living room windows towards south.

# 3.6 Effect on Sunlighting in Existing Gardens

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 nighttime are of approximately equal duration on this date.

The percentage of assessed areas which can receive two hours or more of direct sunlight on March 21st will be calculated in both the baseline and proposed states. A comparison between these values 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.

#### **Average Sun-hours**

In order to provide a more detailed understanding of the level of sunlight in the adjacent gardens, an additional study has been carried out to assess the average sun-hours that these gardens may receive. The average sun-hours assessment compares the average sun in the baseline and proposed states of each garden on March 21st, June 21st (the summer solstice) and December 21st (the winter solstice).

The results of the study on effect on sunlight the neighbouring gardens (including a visual representation in the form of 2-hour and 12-hour false colour plans) can be found in Section 5.4 on page 63.



# 3.7 Sunlighting in Proposed Outdoor Amenity Areas

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 nighttime are of approximately equal duration on this date.

#### **Average Sun-hours**

In order to provide a more detailed understanding of the level of sunlight in the proposed external amenity areas, an additional study has been carried out to assess the average sun-hours that these spaces may receive. This study assesses the average sun-hours each proposed external amenity space may receive on March 21st, June 21st (the summer solstice) and December 21st (the winter solstice).

The results of the study on effect on sunlight the neighbouring gardens (including a visual representation in the form of 2-hour and 12-hour false colour plans) can be found in Section 5.4 on page 63.

The results for the study on sunlighting in the proposed outdoor amenity areas (including a visual representation in the form of 2-hour and 12-hour false colour plans) can be found in section 5.5 on page 71.

# 3.8 Shadow Study

A shadow study has been carried out on the baseline existing model state and the proposed model state. This visual representation of the shadows cast by the proposed development can be found in the hourly shadow diagrams in section 5.6 on page 76.

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

Spring equinox: March 21st Sunrise 6:25 | Sunset 18:40.
 Summer solstice: June 21st. Sunrise 4:57 | Sunset 21:57.
 Winter solstice: December 21st Sunrise 8:38 | Sunset 16:08.

**Note:** Considering the spring equinox (March 21st) and autumn equinox (22nd September) yield similar results, only the spring equinox was generated.

# 3.9 Average Daylight Factor (ADF)

The BRE Guidelines define the Average Daylight Factor as the average illuminance on the working plane in a room, divided by the illuminance on an unobstructed horizontal surface outdoors.

In housing, the working plane is considered to be 850 mm above the finished floor level and is offset 500 mm from the room boundaries.

BS 8206-2:2008 Code of Practice for Daylighting recommends an ADF of 5% for a well day lit space where no additional electric lighting is available, and 2% for a partly daylight space with supplementary electric lighting.

In terms of housing, BS 8206-2:2008 also gives minimum values of ADF. These recommendations are considered to be the minimum value of ADF required for the following habitable spaces:

- 2% for kitchens;
- 1.5% for living rooms;
- 1% for bedrooms.

Typically, ADF values increase in rooms located on higher floor levels, due to an improved relationship with adjacent obstructions. Where a room meets the guidelines for ADF, it can be reasonably assumed that similar rooms on subsequent floors will also meet the guidelines.

In an instance where a room does not achieve the recommended level of ADF, and is repeated on subsequent floors, calculations will be run on the upper floors to determine at what level that room type meets the guidelines.

A combination of the calculated results and reasonable inference made from these results will be used to give an approximate compliance rate for the ADF for the proposed development as a whole. Where ADF compliance rates are stated both target values for LKDs (2% and 1.5%) have been considered. The appropriate ADF target value for LKDs is at the discretion of the planning authority.

ADF assessment has also been carried out on the proposed childcare rooms and shared communal spaces, neither of which have been included in the calculation of the circa compliance rates.

**Note:** non-habitable rooms and circulation spaces (e.g. bathrooms and corridors) do not require ADF assessment according to the BRE Guidelines.

For definition of spaces and target values applied, please see the methodology section of this report in section 4.0 on page 15.

The results for the study on ADF can be seen in section 6.5 on page 161.



# 4.0 Methodology

# 4.1 **Building the Baseline and Proposed Models**

In order to obtain the results of this assessments, 3D Design Bureau (3DDB) used a series of architectural 3D digital models using Revit 2021, a BIM software application made available by Autodesk.

The project architect, O'Mahony Pike Architects (OMP) supplied 3DDB with 3D models of the proposed development (buildings only), which were subsequently prepared for daylight and sunlight analysis. 3DDB digitally modelled the proposed landscaping/site layout along with the internal layouts of the units. The fully prepared digital model was a detailed representation of the future scheme to ensure an accurate assessment was achieved.

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, some tolerance should be allowed to the results generated.

Normally trees and shrubs do not need to be included in the studies carried out in this report, partly because their shapes are almost impossible to predict, and partly because the dappled shade of a tree is more pleasant than the deep shadow of a building (this applies especially to deciduous trees). Where a dense belt or group of evergreens is specifically planned as a windbreak or for privacy purposes, it is better to include their shadow in the calculation of shaded area. In the case of this study there are a number of evergreen trees both on the existing site and as part of the proposed development. These evergreen trees have been included in all assessments that have been carried out as part of the daylight and sunlight study. Information regarding the position size and position of existing trees has been provided by CMK Horticulture & Arboriculture Ltd. Information regarding the proposed trees has been provided by the landscape architects, Cameo & Partners.

The mature tree line along the north and west boundaries of the proposed site, also includes a number of deciduous trees which have not been included in the analytical model. The level of impact that the proposed development would have on the neighbouring properties would be less perceptible in the summer time when these trees are in full foliage as they would form a natural barrier between the assessed properties and the proposed development. The omission of these trees is for the reasons stated above and to account for the winter months, when the trees will be bare and the proposed development would impose a greater level of impact.

#### Baseline

The baseline 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. The baseline state also includes the existing evergreen trees as stated in the section above.

#### **Proposed**

The proposed state reflects the subject site if the development is built as proposed. This includes the demolishing of structures, landscaping, the removal of existing evergreen trees and the inclusion of new evergreen trees.

### 4.2 Generating Results

The 3D models as stated above were brought into specialist software packages using state of the art daylight and sunlight analysis methods developed by 3DDB.

The results are generated and analysed considering the BRE Guidelines, as expanded on below.

### 4.2.1 **VSC**

### **Assessment Criteria**

The effect on Vertical Sky Component (VSC) has been calculated on the windows that face the proposed development on the following properties:

Rowan Hall / Cedar Hall | Mount Sandford | 1 St. James Terrace | 87 Eglinton Road | 132-138 Sandford Road | 1-11 Norwood Park | 28-35 Cherryfield Avenue Lower | 1-20 Cherryfield Ave Upper.

Under BRE Guidelines, only habitable rooms need to be assessed for effect on daylight and sunlight. 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 assessment points for measuring VSC or APSH 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.

If it can be determined that multiple windows are servicing the same room, each window will be assessed and the average value will be taken.



#### 4.2.2 **APSH**

#### **Impact assessment**

Effect on Annual Probable Sunlight Hours (APSH) has been calculated on the windows assessed in the VSC study. The BRE Guidelines recommend that windows with an orientation within 90 degrees of due south should be assessed. Therefore, the APSH of windows that do not have an orientation within 90° of due south have not been assessed for the purposes of this report.

The APSH has been assessed for the windows that face within 90° of due south on the following properties:

87 Eglinton Road | 132-138 Sandford Road | 1-11 Norwood Park | 28-35 Cherryfield Avenue Lower | 1-20 Cherryfield Ave Upper.

No APSH assessment has been carried out on the windows of Rowan Hall / Cedar Hall, Mount Sandford or 1 St. James Terrace as the windows of these properties that fact the proposed development do not face within 90° of due south.

The assessment points for APSH are equivalent to the VSC study.

#### **Proposed development**

The APSH has been calculated for all main living room windows in the proposed development. If a living room has more than one window on the same wall or on adjacent walls, the highest value of APSH will be taken. If a room has two windows on opposite walls, the APSH received by each will be combined.

The results of the APSH study on the living rooms windows of the proposed development will be expressed as a percentage of compliance across the entire development for both the annual study and winter assessments. Note: No recommendation is made in the BRE Guidelines regarding the performance of a development as a whole for APSH performance.

# 4.2.3 Sunlighting

#### **Assessment Criteria**

Effect on sunlight to existing neighbouring gardens 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.

The levels of sunlighting to proposed amenity areas, as indicated by the architect, have also 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.

#### 4.2.4 ADF

#### **Recommended Minimum ADF**

The recommended minimum for Average Daylight Factor (ADF) is based on the function of the room being assessed.

The recommendations as per the BS 8206-2:2008 are as follows: 2% for kitchens; 1.5% for living rooms; and 1% for bedrooms. BS 8206-2:2008 also recommends that where a room serves more than one purpose, such as the modern day apartment design of the living/kitchen/dining (LKD) space, the minimum average daylight factor should be taken for the room with the highest value.

Notwithstanding this advice, an ADF target value of 1.5% could be considered appropriate for LKDs within this assessment. The rationale for this suggested departure from the recommended minimum ADF of 2%, is in recognition that the primary function of LKDs within apartment developments is typically that of a living space. Should full compliance for the higher target value be sought, design changes could be needed, such as the removal of balconies or a reduction of unit sizes. Such mitigation measures could reduce the quality of living within the proposed units to a greater degree than the improvements that would be gained with increased ADF values. It is difficult to achieve full compliance with the ADF target value of 2% while at the same time providing for compliance with other development management standards that contribute to residential amenity, including the provision of balconies to meet private open space requirements. It is relevant in this context to note that the primary living space in the context of LKDs is, in a high proportion of cases, is the living/dining area, rather than the kitchen areas. In recognition of the fact that the ADF target value of 2% has not been achieved in respect of ~15% of apartments, appropriate regard should be had to a number of compensatory design measures that have been provided, which are outlined in the Statement of Consistency and the Material Contravention Statement prepared by Thornton O'Connor Town Planning.

The appropriate ADF target value for LKDs is at the discretion of the planning authority / An Bord Pleanala, for which there is precedent in applying the 1.5%. However, full assessment of compliance against figure of 2% also provided

ADF assessment has also been carried out on the proposed childcare rooms and shared communal spaces. These spaces are of a nature that does not have a predefined target value as per BS 8206-2:2008. It is 3DDB's recommendation that an ADF value of 1.5% be considered appropriate for these spaces.

#### **Defining Areas**

It is standard practice in apartment designs for LKDs to contain kitchens that are completely internal and not



serviced by window on the external facade. These internal kitchens will often rely on supplementary electric lighting for periods of the day and can contribute to perceived lower ADF values in otherwise well-lit spaces. To better quantify the performance of the living areas of LKDs with this common configuration, an additional calculation has been carried out, in which the kitchens are omitted and the Living/Dining areas are assessed as a standalone space. This has been carried out on LKDs that are have shown an ADF lower than 1.5%. This supplementary assessment will not be counted towards a percentage compliance rate for the proposed development.

Circulation spaces, corridors, bathrooms etc. have not been assessed.

#### **Work Plane**

The calculation of ADF is carried out on a hypothetical work plane which lies 850 mm from the finished floor level in residential units and 700 mm in academic and office spaces. The work plane is offset 500 mm from the room boundaries. Room boundaries are taken from the inside face of the interior walls and the centre line of any main external windows.

The Daylight Factor (DF) percentage has been calculated on the work plane across a series of points on a grid of approximately 100 mm.

The average of these figures determines the Average Daylight Factor (ADF).

#### **Material Palette**

The following values will be assumed for ADF calculations.

| Table No. 4.1: Material Palette for ADF Calculations |                |             |                  |                                |                           |  |  |  |  |
|--|----------------|-------------|------------------|--------------------------------|---------------------------|--|--|--|--|
| Object Material                                      |                | Reflectance | Object           | Material                       | Reflectance Transmittance |  |  |  |  |
|  | Standard Brick | 0.3         | Interior Walls   | Off white paint                | 0.8                       |  |  |  |  |
|  | Light Brick    | 0.4         | Interior Ceiling | White paint                    | 0.8                       |  |  |  |  |
| Exterior walls                                       | Dark Brick     | 0.15        | Interior Floor   | Light timber                   | 0.4                       |  |  |  |  |
|  | Render         | 0.6         | Miscellaneous    | Miscellaneous                  | 0.5                       |  |  |  |  |
|  | Concrete       | 0.4         |                  | Double glazing                 | 0.8                       |  |  |  |  |
|  | Paving         | 0.4         |                  | Maintenance Factor             | 0.91                      |  |  |  |  |
| Ground cover   | Tarmac         | 0.2         | Glass            | Glass adjusted for maintenance | 0.73                      |  |  |  |  |
|  | Grass          | 0.2         |                  | Frosted glass                  | 0.5                       |  |  |  |  |

### **Assumed Values**

Typically, ADF values increase in rooms located on higher floor levels, due to an improved relationship with adjacent obstructions. Where a room meets the guidelines for ADF, it can be reasonably assumed that similar rooms on subsequent floors will also meet the guidelines.

In an instance where a room does not achieve the recommended level of ADF, and is repeated on subsequent floors, calculations will be run on the upper floors to determine at what level that room type meets the guidelines.

A combination of the calculated results and reasonable inference made from these results will be used to give an approximate compliance rate for the ADF for the proposed development as a whole. Where ADF compliance rates are stated both target values for LKDs (2% and 1.5%) have been considered. The appropriate ADF target value for LKDs is at the discretion of the planning authority.

### 4.2.5 Shadow Study

The shadow study renderings have been carried out in order to give a visual representation to the results set out in the sunlight assessment section of this report.

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

Spring equinox: March 21st Sunrise 6:25 | Sunset 18:40.
 Summer solstice: June 21st. Sunrise 4:57 | Sunset 21:57.
 Winter solstice: December 21st Sunrise 8:38 | Sunset 16:08.

**Note:** Considering the spring equinox (March 21st) and autumn equinox (22nd September) yield similar results, only the spring equinox was generated.



# 5.0 Results

# **5.1** Effect on Vertical Sky Component

# 5.1.1 Rowan Hall / Cedar Hall

|                  | Table No. 5.1: VSC Results Rowan Hall / Cedar Hall - Ground Floor |                       |   |                             |   |  |  |  |  |  |
|------------------|---|-----------------------|---|-----------------------------|---|--|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value   | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |  |
|                  |   |                       | Ground                                      | l Floor                     |   |  |  |  |  |  |
| Ga               | 36.54%  | 31.57%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| Gb               | 9.99%   | 5.93%                 | 0.59  | 8.00%                       | 74.15%  | Moderate                               |  |  |  |  |
| Gc               | 10.25%  | 6.12%                 | 0.60  | 8.20%                       | 74.59%  | Moderate                               |  |  |  |  |
| Gd               | 36.74%  | 31.83%                | 0.87  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| Ge               | 18.25%  | 16.19%                | 0.89  | 14.60%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| Gf               | 18.78%  | 16.44%                | 0.88  | 15.02%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| Gg               | 36.86%  | 31.74%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| Gh               | 9.92%   | 5.36%                 | 0.54  | 7.94%                       | 67.46%  | Moderate                               |  |  |  |  |
| Gi               | 10.08%  | 5.26%                 | 0.52  | 8.06%                       | 65.23%  | Moderate                               |  |  |  |  |
| Gj               | 36.77%  | 31.26%                | 0.85  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| Gk               | 16.94%  | 14.23%                | 0.84  | 13.55%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| GI               | 17.63%  | 15.16%                | 0.86  | 14.10%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| Gm               | 36.50%  | 30.94%                | 0.85  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| Gn               | 9.46%   | 4.48%                 | 0.47  | 7.57%                       | 59.20%  | Moderate                               |  |  |  |  |
| Go               | 9.64%   | 4.75%                 | 0.49  | 7.71%                       | 61.60%  | Moderate                               |  |  |  |  |
| Ср               | 36.43%  | 31.06%                | 0.85  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

<sup>\*\*</sup> For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.

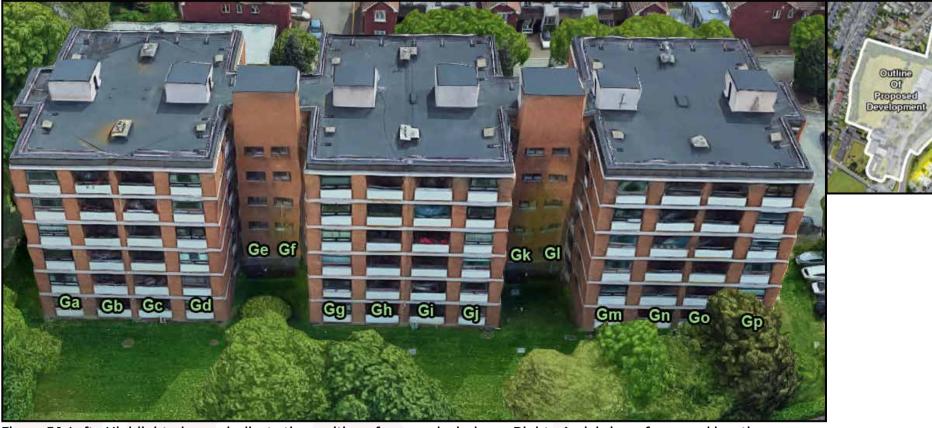


Figure 5.1: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.1.2 Rowan Hall / Cedar Hall

|                  | Table No. 5.2: VSC Results Rowan Hall / Cedar Hall - 1st Floor |                       |   |                             |   |  |  |  |  |
|------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value  | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |
|                  |  |                       | 1st F                                       | loor                        |   |  |  |  |  |
| 1a               | 37.44%   | 32.83%                | 0.88  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1b               | 10.59%   | 6.83%                 | 0.65  | 8.47%                       | 80.65%  | Slight                                 |  |  |  |
| 1c               | 10.85%   | 7.04%                 | 0.65  | 8.68%                       | 81.09%  | Slight                                 |  |  |  |
| 1d               | 37.66%   | 33.08%                | 0.88  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1e               | 19.11%   | 17.16%                | 0.90  | 15.29%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1f               | 19.58%   | 17.43%                | 0.89  | 15.66%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1g               | 37.83%   | 33.01%                | 0.87  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1h               | 10.66%   | 6.34%                 | 0.60  | 8.52%                       | 74.42%  | Moderate                               |  |  |  |
| 1i               | 10.82%   | 6.27%                 | 0.58  | 8.66%                       | 72.45%  | Moderate                               |  |  |  |
| 1j               | 37.79%   | 32.59%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1k               | 17.85%   | 15.29%                | 0.86  | 14.28%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 11               | 18.51%   | 16.19%                | 0.87  | 14.81%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1m               | 37.61%   | 32.31%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1n               | 10.31%   | 5.55%                 | 0.54  | 8.25%                       | 67.30%  | Moderate                               |  |  |  |
| 10               | 10.50%   | 5.84%                 | 0.56  | 8.40%                       | 69.59%  | Moderate                               |  |  |  |
| 1p               | 37.58%   | 32.46%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

 $<sup>^{**}</sup>$  For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.



Figure 5.2: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.1.3 Rowan Hall / Cedar Hall

|                  | Table No. 5.3: VSC Results Rowan Hall / Cedar Hall - 2nd Floor |                       |   |                             |   |  |  |  |  |
|------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value  | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |
|                  |  |                       | 2nd F                                       | loor                        |   |  |  |  |  |
| 2a               | 38.24%   | 34.07%                | 0.89  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2b               | 11.11%   | 7.73%                 | 0.70  | 8.89%                       | 86.91%  | Slight                                 |  |  |  |
| 2c               | 11.38%   | 7.95%                 | 0.70  | 9.10%                       | 87.29%  | Slight                                 |  |  |  |
| 2d               | 38.45%   | 34.28%                | 0.89  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2e               | 20.17%   | 18.40%                | 0.91  | 16.13%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2f               | 20.62%   | 18.70%                | 0.91  | 16.50%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2g               | 38.61%   | 34.22%                | 0.89  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2h               | 11.23%   | 7.32%                 | 0.65  | 8.99%                       | 81.43%  | Slight                                 |  |  |  |
| 2i               | 11.44%   | 7.29%                 | 0.64  | 9.15%                       | 79.69%  | Slight                                 |  |  |  |
| 2j               | 38.54%   | 33.83%                | 0.88  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2k               | 19.01%   | 16.65%                | 0.88  | 15.21%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 21               | 19.64%   | 17.50%                | 0.89  | 15.71%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2m               | 38.41%   | 33.54%                | 0.87  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2n               | 10.95%   | 6.59%                 | 0.60  | 8.76%                       | 75.26%  | Slight                                 |  |  |  |
| 20               | 11.11%   | 6.86%                 | 0.62  | 8.89%                       | 77.18%  | Slight                                 |  |  |  |
| 2p               | 38.34%   | 33.66%                | 0.88  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

 $<sup>^{**}</sup>$  For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.



Figure 5.3: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.1.4 Rowan Hall / Cedar Hall

|                  | Table No. 5.4: VSC Results Rowan Hall / Cedar Hall - 3rd Floor |                       |   |                             |   |  |  |  |  |  |
|------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value  | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |  |
|                  |  |                       | 3rd F                                       | loor                        |   |  |  |  |  |  |
| 3a               | 38.83%   | 35.27%                | 0.91  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 3b               | 11.47%   | 8.62%                 | 0.75  | 9.18%                       | 93.95%  | Not Significant                        |  |  |  |  |
| 3c               | 11.75%   | 8.86%                 | 0.75  | 9.40%                       | 94.22%  | Not Significant                        |  |  |  |  |
| 3d               | 39.01%   | 35.47%                | 0.91  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 3e               | 21.64%   | 20.19%                | 0.93  | 17.31%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 3f               | 22.11%   | 20.55%                | 0.93  | 17.69%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| <b>3</b> g       | 39.16%   | 35.43%                | 0.90  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 3h               | 11.63%   | 8.30%                 | 0.71  | 9.30%                       | 89.21%  | Slight                                 |  |  |  |  |
| 3i               | 11.84%   | 8.30%                 | 0.70  | 9.48%                       | 87.57%  | Slight                                 |  |  |  |  |
| 3j               | 39.11%   | 35.06%                | 0.90  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 3k               | 20.63%   | 18.57%                | 0.90  | 16.50%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 31               | 21.25%   | 19.40%                | 0.91  | 17.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 3m               | 39.03%   | 34.80%                | 0.89  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 3n               | 11.42%   | 7.63%                 | 0.67  | 9.14%                       | 83.56%  | Slight                                 |  |  |  |  |
| 30               | 11.61%   | 7.90%                 | 0.68  | 9.29%                       | 85.04%  | Slight                                 |  |  |  |  |
| 3p               | 38.98%   | 34.88%                | 0.89  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

 $<sup>^{**}</sup>$  For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.



Figure 5.4: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.1.5 Rowan Hall / Cedar Hall

|                  | Table No. 55 VCC Deculte Devices Hell / Codes Hell / the Floor |                       |   |                             |   |  |  |  |  |  |
|------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|--|
|                  | Table No. 5.5: VSC Results Rowan Hall / Cedar Hall - 4th Floor |                       |   |                             |   |  |  |  |  |  |
| Window<br>Number | Baseline<br>VSC Value  | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |  |
|                  |  |                       | 4th F                                       | loor                        |   |  |  |  |  |  |
| 4a               | 39.29%   | 36.44%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 4b               | 11.77%   | 9.51%                 | 0.81  | 9.42%                       | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 4c               | 12.03%   | 9.75%                 | 0.81  | 9.63%                       | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 4d               | 39.41%   | 36.62%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 4e               | 24.38%   | 23.28%                | 0.96  | 19.50%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 4f               | 24.93%   | 23.74%                | 0.95  | 19.94%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 4g               | 39.54%   | 36.59%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 4h               | 11.90%   | 9.26%                 | 0.78  | 9.52%                       | 97.29%  | Not Significant                        |  |  |  |  |
| 4i               | 12.14%   | 9.33%                 | 0.77  | 9.71%                       | 96.06%  | Not Significant                        |  |  |  |  |
| 4j               | 39.52%   | 36.30%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 4k               | 23.53%   | 21.83%                | 0.93  | 18.82%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 41               | 24.21%   | 22.72%                | 0.94  | 19.37%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 4m               | 39.52%   | 36.07%                | 0.91  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 4n               | 11.80%   | 8.71%                 | 0.74  | 9.44%                       | 92.25%  | Not Significant                        |  |  |  |  |
| 40               | 12.01%   | 8.95%                 | 0.75  | 9.61%                       | 93.17%  | Not Significant                        |  |  |  |  |
| 4p               | 39.51%   | 36.10%                | 0.91  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

 $<sup>^{**}</sup>$  For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.



Figure 5.5: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



#### **Rowan Hall / Cedar Hall** 5.1.6

|                  | Table No. 5.6: VSC Results Rowan Hall / Cedar Hall - 5th Floor |                       |   |                             |   |  |  |  |  |  |
|------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value  | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |  |
| 5th Floor        |  |                       |   |                             |   |  |  |  |  |  |
| 5a               | 39.68%   | 37.59%                | 0.95  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 5b               | 12.04%   | 10.38%                | 0.86  | 9.63%                       | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 5c               | 12.27%   | 10.60%                | 0.86  | 9.82%                       | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 5d               | 39.75%   | 37.72%                | 0.95  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 5e               | 39.81%   | 37.71%                | 0.95  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 5f               | 12.08%   | 10.19%                | 0.84  | 9.67%                       | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| <b>5</b> g       | 12.33%   | 10.33%                | 0.84  | 9.86%                       | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 5h               | 39.83%   | 37.54%                | 0.94  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 5i               | 39.86%   | 37.36%                | 0.94  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 5 <u>j</u>       | 12.03%   | 9.80%                 | 0.81  | 9.62%                       | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 5k               | 12.24%   | 10.02%                | 0.82  | 9.79%                       | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| <b>5</b> l       | 39.87%   | 37.33%                | 0.94  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |

<sup>\*</sup> 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"2.2 Definition of Effects" on page 6.





Figure 5.6: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.1.7 Mount Sandford

|                  |                       | Та                    | ble No. 5.7: VSC Res                        | sults Mount Sandfor         | d   |  |  |  |
|------------------|-----------------------|-----------------------|---|-----------------------------|---|--|--|--|
| Window<br>Number | Baseline<br>VSC Value | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |
| Mount Sandford   |                       |                       |   |                             |   |  |  |  |
| 1a               | 30.01%                | 26.27%                | 0.88  | 24.01%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 2a               | 37.87%                | 32.69%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 2b               | 38.27%                | 33.33%                | 0.87  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 3a               | 29.62%                | 25.19%                | 0.85  | 23.69%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 4a               | 37.78%                | 32.60%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 4b               | 38.25%                | 33.31%                | 0.87  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 5a               | 30.70%                | 26.82%                | 0.87  | 24.56%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 6a               | 37.68%                | 32.32%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 6b               | 38.17%                | 33.05%                | 0.87  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| <b>7</b> a       | 30.53%                | 25.64%                | 0.84  | 24.42%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8a               | 37.65%                | 32.22%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8b               | 38.15%                | 32.94%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 9a               | 30.85%                | 26.33%                | 0.85  | 24.68%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 10a              | 37.59%                | 31.86%                | 0.85  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 10b              | 38.10%                | 32.63%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 11a              | 29.95%                | 24.62%                | 0.82  | 23.96%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 12a              | 37.58%                | 31.77%                | 0.85  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 12b              | 38.08%                | 32.54%                | 0.85  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| <b>1</b> 3a      | 31.04%                | 25.63%                | 0.83  | 24.83%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 14a              | 37.54%                | 31.62%                | 0.84  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 14b              | 38.02%                | 32.41%                | 0.85  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 15a              | 26.38%                | 22.38%                | 0.85  | 21.10%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 16a              | 37.44%                | 31.50%                | 0.84  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 16b              | 37.90%                | 32.29%                | 0.85  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

\*\* For the interpretation of level of effects please refer to 2.2 Definition of Effects on page 6.



Figure 5.7: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.1.8 1 Saint James Terrace

|                       | Table No. 5.8: VSC Results 1 Saint James Terrace |                       |   |                             |   |  |  |  |  |  |
|-----------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|--|
| Window<br>Number      | Baseline<br>VSC Value                            | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |  |
| 1 Saint James Terrace |  |                       |   |                             |   |  |  |  |  |  |
| 1a                    | 32.49%   | 30.17%                | 0.93  | 25.99%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 1b                    | 27.75%   | 25.99%                | 0.94  | 22.20%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 1c                    | 37.70%   | 34.08%                | 0.90  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 1d                    | 36.55%   | 33.35%                | 0.91  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 1e                    | 32.06%   | 29.82%                | 0.93  | 25.65%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 1f                    | 39.27%   | 35.89%                | 0.91  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 1g                    | 39.25%   | 35.76%                | 0.91  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

<sup>\*\*</sup> For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.



Figure 5.8: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.1.9 87 Eglinton Road

| Table No. 5.9: VSC Results 87 Eglinton Road |                       |                       |                                       |                             |   |  |  |  |
|---|-----------------------|-----------------------|---------------------------------------|-----------------------------|---|--|--|--|
| Window<br>Number                            | Baseline<br>VSC Value | Proposed<br>VSC Value | Ratio of Proposed VSC to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |
|   |                       |                       | 87 Eglinton Road                      | l - side elevation          |   |  |  |  |
| 87a   | 35.92%                | 34.12%                | 0.95                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 87b   | 34.66%                | 32.77%                | 0.95                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 87c   | 34.05%                | 32.16%                | 0.94                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> d                                | 36.15%                | 33.92%                | 0.94                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> g                                | 36.70%                | 34.91%                | 0.95                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 87h   | 37.43%                | 35.42%                | 0.95                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> i                                | 37.49%                | 35.41%                | 0.94                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> j                                | 37.46%                | 35.12%                | 0.94                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 87k   | 37.64%                | 35.15%                | 0.93                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> o                                | 38.62%                | 36.76%                | 0.95                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> p                                | 38.65%                | 36.71%                | 0.95                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 87q   | 38.57%                | 36.37%                | 0.94                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> r                                | 38.63%                | 36.28%                | 0.94                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
|   |                       |                       | 87 Eglinton Road                      | - front elevation           |   |  |  |  |
| 87e   | 34.44%                | 33.41%                | 0.97                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> f                                | 34.03%                | 33.08%                | 0.97                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> l                                | 36.35%                | 34.85%                | 0.96                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 87m   | 24.93%                | 24.92%                | 1.00                                  | 19.95%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 87n   | 35.51%                | 34.45%                | 0.97                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 87s   | 37.61%                | 36.20%                | 0.96                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> t                                | 37.59%                | 36.30%                | 0.97                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 87u   | 29.12%                | 29.10%                | 1.00                                  | 23.29%                      | BRE Compliant                                 | Imperceptible                          |  |  |
| 8 <b>7</b> v                                | 37.00%                | 36.25%                | 0.98                                  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

\*\* For the interpretation of level of effects please refer to 2.2 Definition of Effects on page 6.



Figure 5.9: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



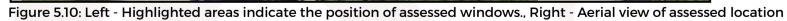
# 5.1.10 132-134 Sandford Road

|                  | Table No. 5.10: VSC Results 132-134 Sandford Road |                       |   |                             |   |  |  |  |  |  |
|------------------|---|-----------------------|---|-----------------------------|---|--|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value                             | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |  |
|                  | 132 Sandford Road                                 |                       |   |                             |   |  |  |  |  |  |
| 132a             | 31.13%  | 30.26%                | 0.97  | 24.90%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 132b             | 36.66%  | 34.00%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 132c             | 38.63%  | 36.01%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 132d             | 38.63%  | 35.95%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 132e             | 38.65%  | 35.88%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 132f             | 38.64%  | 35.82%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
|                  | 134 Sandford Road                                 |                       |   |                             |   |  |  |  |  |  |
| 134a             | 26.64%  | 24.86%                | 0.93  | 21.31%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 134b             | 35.43%  | 32.81%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 134c             | 38.64%  | 35.76%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 134d             | 38.64%  | 35.72%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 134e             | 38.63%  | 35.66%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 134f             | 38.63%  | 35.64%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 134g             | 25.15%  | 22.84%                | 0.91  | 20.12%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 134h             | 30.41%  | 28.03%                | 0.92  | 24.33%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 134i             | 27.80%  | 24.88%                | 0.89  | 22.24%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 134j             | 34.46%  | 31.53%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.









### 5.1.11 136-138 Sandford Road

|                   | Table No. 5.11: VSC Results 136-138 Sandford Road |                       |   |                             |   |  |  |  |  |
|-------------------|---|-----------------------|---|-----------------------------|---|--|--|--|--|
| Window<br>Number  | Baseline<br>VSC Value                             | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |
| 136 Sandford Road |   |                       |   |                             |   |  |  |  |  |
| 136a              | 35.97%  | 32.10%                | 0.89  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 136b              | 37.84%  | 34.14%                | 0.90  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 136c              | 38.64%  | 35.42%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 136d              | 38.64%  | 35.40%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 136e              | 38.64%  | 35.39%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 136f              | 38.64%  | 35.44%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 136g              | 28.80%  | 25.94%                | 0.90  | 23.04%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 136h              | 24.15%  | 22.43%                | 0.93  | 19.32%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                   |   |                       | 138 Sandf                                   | ord Road                    |   |  |  |  |  |
| 138a              | 36.14%  | 32.48%                | 0.90  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 138b              | 37.89%  | 34.34%                | 0.91  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 138c              | 38.65%  | 35.51%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 138d              | 38.65%  | 35.53%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 138e              | 38.65%  | 35.53%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 138f              | 38.63%  | 35.55%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                   | 138A Sandford Road                                |                       |   |                             |   |  |  |  |  |
| 138Aa             | 26.29%  | 23.68%                | 0.90  | 21.03%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 138Ab             | 28.29%  | 25.81%                | 0.91  | 22.63%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 138Ac             | 30.97%  | 28.63%                | 0.92  | 24.77%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 138Ad             | 34.93%  | 32.67%                | 0.94  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

<sup>\*\*</sup> For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.

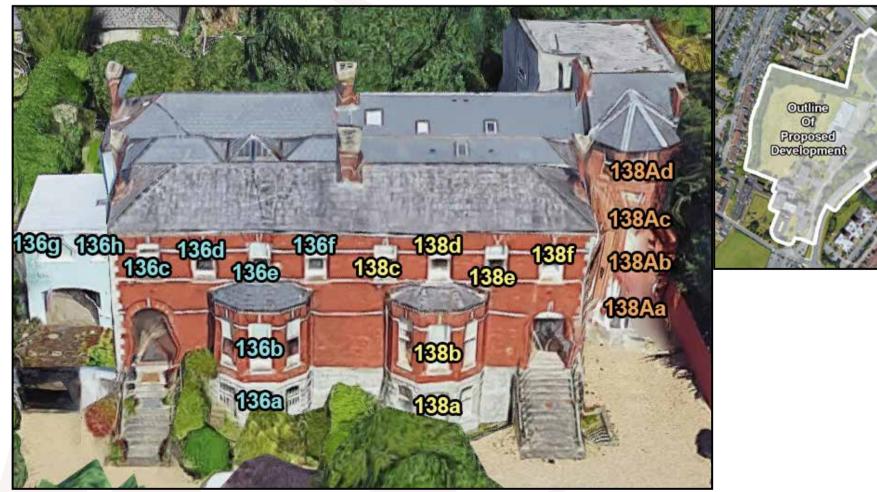


Figure 5.11: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



## **5.1.12 1-4 Norwood Park**

|                  | Table No. 5.12: VSC Results 1-4 Norwood Park |                       |   |                             |   |  |  |  |  |
|------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value                        | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |
|                  | 1 Norwood Park                               |                       |   |                             |   |  |  |  |  |
| 1a               | 36.53%                                       | 33.36%                | 0.91  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1b               | 36.46%                                       | 33.56%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1c               | 36.41%                                       | 34.24%                | 0.94  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1d               | 37.52%                                       | 35.06%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  | 2 Norwood Park                               |                       |   |                             |   |  |  |  |  |
| 2a               | 35.48%                                       | 32.84%                | 0.93  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2b               | 37.97%                                       | 34.28%                | 0.90  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2c               | 25.02%                                       | 25.19%                | 1.01  | 20.02%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2d               | 38.88%                                       | 35.51%                | 0.91  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |  |                       | 3 Norwo                                     | od Park                     |   |  |  |  |  |
| 3a               | 36.33%                                       | 30.83%                | 0.85  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 3b               | 36.63%                                       | 30.78%                | 0.84  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 3c               | 36.12%                                       | 30.33%                | 0.84  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 3d               | 34.75%                                       | 30.04%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 3e               | 31.68%                                       | 26.40%                | 0.83  | 25.35%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 3f               | 38.12%                                       | 32.67%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  | 4 Norwood Park                               |                       |   |                             |   |  |  |  |  |
| 4a               | 36.44%                                       | 29.59%                | 0.81  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 4b               | 36.53%                                       | 29.82%                | 0.82  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 4c               | 31.15%                                       | 24.90%                | 0.80  | 24.92%                      | 99.92%  | Not Significant                        |  |  |  |
| 4d               | 37.95%                                       | 31.08%                | 0.82  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 4e               | 37.98%                                       | 31.44%                | 0.83  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 4f               | 37.86%                                       | 31.74%                | 0.84  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

\*\* For the interpretation of level of effects please refer to 2.2 Definition of Effects on page 6.





Figure 5.12: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



### **5.1.13 5-6 Norwood Park**

|                  | Table No. 5.13: VSC Results 5-6 Norwood Park |                       |   |                             |   |  |  |  |  |  |
|------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value                        | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |  |
|                  | 5 Norwood Park                               |                       |   |                             |   |  |  |  |  |  |
| 5a               | 32.31%                                       | 24.83%                | 0.77  | 25.85%                      | 96.07%  | Not Significant                        |  |  |  |  |
| 5b               | 34.81%                                       | 25.58%                | 0.73  | 27.00%                      | 94.76%  | Not Significant                        |  |  |  |  |
| 5c               | 37.41%                                       | 27.69%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
|                  | 6 Norwood Park                               |                       |   |                             |   |  |  |  |  |  |
| 6a               | 29.68%                                       | 22.47%                | 0.76  | 23.74%                      | 94.65%  | Not Significant                        |  |  |  |  |
| 6b               | 32.11%                                       | 23.58%                | 0.73  | 25.69%                      | 91.79%  | Not Significant                        |  |  |  |  |
| 6c               | 37.44%                                       | 27.80%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |

 $<sup>^{*}</sup>$  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% <u>and</u> be less than 0.8 times the baseline value.

<sup>\*\*</sup> For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.





Figure 5.13: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



### 5.1.14 **7-11 Norwood Park**

|                  | Table No. 5.14: VSC Results 7-11 Norwood Park |                       |   |                             |   |  |  |  |  |
|------------------|---|-----------------------|---|-----------------------------|---|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value                         | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |
| 7 Norwood Park   |   |                       |   |                             |   |  |  |  |  |
| 7a               | 33.15%  | 24.13%                | 0.73  | 26.52%                      | 90.99%  | Not Significant                        |  |  |  |
| <b>7</b> b       | 35.86%  | 25.89%                | 0.72  | 27.00%                      | 95.88%  | Not Significant                        |  |  |  |
| <b>7</b> c       | 37.44%  | 28.41%                | 0.76  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  | 8 Norwood Park                                |                       |   |                             |   |  |  |  |  |
| 8a               | 33.06%  | 26.60%                | 0.80  | 26.45%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 8b               | 36.45%  | 26.20%                | 0.72  | 27.00%                      | 97.03%  | Not Significant                        |  |  |  |
| 8c               | 37.54%  | 29.53%                | 0.79  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 8d               | 37.52%  | 28.73%                | 0.77  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |   |                       | 9 Norwo                                     | od Park                     |   |  |  |  |  |
| 9a               | 30.89%  | 25.82%                | 0.84  | 24.71%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 9b               | 34.38%  | 28.09%                | 0.82  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 9c               | 37.46%  | 30.74%                | 0.82  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |   | ·                     | 10 Norwo                                    | ood Park                    |   |  |  |  |  |
| 10a              | 35.44%  | 28.53%                | 0.80  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 10b              | 34.61%  | 28.44%                | 0.82  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 10c              | 37.41%  | 31.02%                | 0.83  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |   |                       | 11 Norwo                                    | od Park                     |   |  |  |  |  |
| 11a              | 33.63%  | 30.15%                | 0.90  | 26.90%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 11b              | 33.68%  | 30.64%                | 0.91  | 26.94%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 11c              | 36.37%  | 32.75%                | 0.90  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

<sup>\*\*</sup> For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.



Figure 5.14: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.1.15 28-33 Cherryfield Avenue Lower

| 28 Cherryfield Avenue Lower           28a         28.81%         21.19%         0.74         23.05%         91.96%         Not Significant           28b         24.43%         19.68%         0.81         19.55%         BRE Compliant         Imperceptible           28c         38.25%         29.77%         0.78         27.00%         BRE Compliant         Imperceptible           28d         35.19%         30.41%         0.86         27.00%         BRE Compliant         Imperceptible           29 Cherryfield Avenue Lower           29a         34.80%         25.60%         0.74         27.00%         94.80%         Not Significant           29b         19.14%         14.46%         0.76         15.31%         94.47%         Not Significant           29c         38.16%         29.86%         0.78         27.00%         BRE Compliant         Imperceptible           29d         34.44%         30.28%         0.88         27.00%         BRE Compliant         Imperceptible           30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significant           30b^         27.37%         18.60%         0.68         21.89%         84.96% | Table No. 5.15: VSC Results 28-33 Cherryfield Avenue Lower |        |        |                |              |                 |                 |  |  |  |
|---|--|--------|--------|----------------|--------------|-----------------|-----------------|--|--|--|
| 28a         28.81%         21.19%         0.74         23.05%         91.96%         Not Significant           28b         24.43%         19.68%         0.81         19.55%         BRE Compliant         Imperceptible           28c         38.25%         29.77%         0.78         27.00%         BRE Compliant         Imperceptible           28d         35.19%         30.41%         0.86         27.00%         BRE Compliant         Imperceptible           29 Cherryfield Avenue Lower           29a         34.80%         25.60%         0.74         27.00%         94.80%         Not Significant           29b         19.14%         14.46%         0.76         15.31%         94.47%         Not Significant           29c         38.16%         29.86%         0.78         27.00%         BRE Compliant         Imperceptible           29d         34.44%         30.28%         0.88         27.00%         BRE Compliant         Imperceptible           30 Cherryfield Avenue Lower           30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significant           30b^         27.37%         18.60%         0.68         21.89%         84.96% |  |        |        | Proposed VSC   |              | Compliance with |                 |  |  |  |
| 28b         24.43%         19.68%         0.81         19.55%         BRE Compliant         Imperceptible           28c         38.25%         29.77%         0.78         27.00%         BRE Compliant         Imperceptible           28d         35.19%         30.41%         0.86         27.00%         BRE Compliant         Imperceptible           29 Cherryfield Avenue Lower           29a         34.80%         25.60%         0.74         27.00%         94.80%         Not Significan           29b         19.14%         14.46%         0.76         15.31%         94.47%         Not Significan           29c         38.16%         29.86%         0.78         27.00%         BRE Compliant         Imperceptible           29d         34.44%         30.28%         0.88         27.00%         BRE Compliant         Imperceptible           30 Cherryfield Avenue Lower           30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significan           30b^         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Complia        | 28 Cherryfield Avenue Lower                                |        |        |                |              |                 |                 |  |  |  |
| 28c         38.25%         29.77%         0.78         27.00%         BRE Compliant         Imperceptible           28d         35.19%         30.41%         0.86         27.00%         BRE Compliant         Imperceptible           29 Cherryfield Avenue Lower           29a         34.80%         25.60%         0.74         27.00%         94.80%         Not Significan           29b         19.14%         14.46%         0.76         15.31%         94.47%         Not Significan           29c         38.16%         29.86%         0.78         27.00%         BRE Compliant         Imperceptible           29d         34.44%         30.28%         0.88         27.00%         BRE Compliant         Imperceptible           30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significan           30b         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible   | 28a  | 28.81% | 21.19% | 0.74           | 23.05%       | 91.96%          | Not Significant |  |  |  |
| 28d         35.19%         30.41%         0.86         27.00%         BRE Compliant         Imperceptible           29 Cherryfield Avenue Lower           29a         34.80%         25.60%         0.74         27.00%         94.80%         Not Significant           29b         19.14%         14.46%         0.76         15.31%         94.47%         Not Significant           29c         38.16%         29.86%         0.78         27.00%         BRE Compliant         Imperceptible           29d         34.44%         30.28%         0.88         27.00%         BRE Compliant         Imperceptible           30 Cherryfield Avenue Lower           30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significant           30b^         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible   | 28b  | 24.43% | 19.68% | 0.81           | 19.55%       | BRE Compliant   | Imperceptible   |  |  |  |
| 29 Cherryfield Avenue Lower           29a         34.80%         25.60%         0.74         27.00%         94.80%         Not Significant           29b         19.14%         14.46%         0.76         15.31%         94.47%         Not Significant           29c         38.16%         29.86%         0.78         27.00%         BRE Compliant         Imperceptible           29d         34.44%         30.28%         0.88         27.00%         BRE Compliant         Imperceptible           30 Cherryfield Avenue Lower         30 Cherryfield Avenue Lower         94.58%         Not Significant           30b^         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible   | 28c  | 38.25% | 29.77% | 0.78           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |
| 29a         34.80%         25.60%         0.74         27.00%         94.80%         Not Significant           29b         19.14%         14.46%         0.76         15.31%         94.47%         Not Significant           29c         38.16%         29.86%         0.78         27.00%         BRE Compliant         Imperceptible           29d         34.44%         30.28%         0.88         27.00%         BRE Compliant         Imperceptible           30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significant           30b^         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible   | 28d  | 35.19% | 30.41% | 0.86           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |
| 29b         19.14%         14.46%         0.76         15.31%         94.47%         Not Significant           29c         38.16%         29.86%         0.78         27.00%         BRE Compliant         Imperceptible           29d         34.44%         30.28%         0.88         27.00%         BRE Compliant         Imperceptible           30 Cherryfield Avenue Lower           30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significant           30b^         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible  |  |        |        |                |              |                 |                 |  |  |  |
| 29c         38.16%         29.86%         0.78         27.00%         BRE Compliant         Imperceptible           30.28%         0.88         27.00%         BRE Compliant         Imperceptible           30 Cherryfield Avenue Lower           30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significant           30b^         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible  | 29a  | 34.80% | 25.60% | 0.74           | 27.00%       | 94.80%          | Not Significant |  |  |  |
| 29d         34.44%         30.28%         0.88         27.00%         BRE Compliant         Imperceptible           30 Cherryfield Avenue Lower           30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significant           30b^         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible   | 29b  | 19.14% | 14.46% | 0.76           | 15.31%       | 94.47%          | Not Significant |  |  |  |
| 30 Cherryfield Avenue Lower           30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significant           30b^         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible   | 29c  | 38.16% | 29.86% | 0.78           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |
| 30a         19.60%         14.83%         0.76         15.68%         94.58%         Not Significant           30b^         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible   | 29d  | 34.44% | 30.28% | 0.88           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |
| 30b^         27.37%         18.60%         0.68         21.89%         84.96%         Slight           30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible  | 30 Cherryfield Avenue Lower                                |        |        |                |              |                 |                 |  |  |  |
| 30c         34.23%         30.04%         0.88         27.00%         BRE Compliant         Imperceptible   | 30a  | 19.60% | 14.83% | 0.76           | 15.68%       | 94.58%          | Not Significant |  |  |  |
|   | 30b^   | 27.37% | 18.60% | 0.68           | 21.89%       | 84.96%          | Slight          |  |  |  |
| 30ds 30.61% 23.73% 0.78 24.49% 96.91% Not Significan  | 30c  | 34.23% | 30.04% | 0.88           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |
| 30.0170   25.7370   0.70   24.4370   90.9170   Not Significan   | 30d^   | 30.61% | 23.73% | 0.78           | 24.49%       | 96.91%          | Not Significant |  |  |  |
| 31 Cherryfield Avenue Lower   |  |        |        | 31 Cherryfield | Avenue Lower |                 |                 |  |  |  |
| 31a^ 35.50% 25.47% 0.72 27.00% 94.35% Not Significan  | 31a^   | 35.50% | 25.47% | 0.72           | 27.00%       | 94.35%          | Not Significant |  |  |  |
| 31b         19.15%         16.55%         0.86         15.32%         BRE Compliant         Imperceptible   | 31b  | 19.15% | 16.55% | 0.86           | 15.32%       | BRE Compliant   | Imperceptible   |  |  |  |
| 31c^         38.42%         29.81%         0.78         27.00%         BRE Compliant         Imperceptible  | 31c^   | 38.42% | 29.81% | 0.78           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |
| 31d         33.87%         31.92%         0.94         27.00%         BRE Compliant         Imperceptible   | 31d  | 33.87% | 31.92% | 0.94           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |
| 32 Cherryfield Avenue Lower   |  |        |        | 32 Cherryfield | Avenue Lower |                 |                 |  |  |  |
| 32a         16.89%         13.53%         0.80         13.51%         BRE Compliant         Imperceptible   | 32a  | 16.89% | 13.53% | 0.80           | 13.51%       | BRE Compliant   | Imperceptible   |  |  |  |
| 32b         34.56%         27.26%         0.79         27.00%         BRE Compliant         Imperceptible   | 32b  | 34.56% | 27.26% | 0.79           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |
| 32c         32.31%         29.61%         0.92         25.84%         BRE Compliant         Imperceptible   | 32c  | 32.31% | 29.61% | 0.92           | 25.84%       | BRE Compliant   | Imperceptible   |  |  |  |
| 32d         37.50%         32.44%         0.87         27.00%         BRE Compliant         Imperceptible   | 32d  | 37.50% | 32.44% | 0.87           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |
| 33 Cherryfield Avenue Lower   |  |        |        | 33 Cherryfield | Avenue Lower |                 |                 |  |  |  |
| 33a 31.58% 27.41% 0.87 25.27% BRE Compliant Imperceptible   | 33a  | 31.58% | 27.41% | 0.87           | 25.27%       | BRE Compliant   | Imperceptible   |  |  |  |
| 33b 15.96% 15.02% 0.94 12.77% BRE Compliant Imperceptible   | 33b  | 15.96% | 15.02% | 0.94           | 12.77%       | BRE Compliant   | Imperceptible   |  |  |  |
| 33c 37.92% 33.14% 0.87 27.00% BRE Compliant Imperceptible   | 33c  | 37.92% | 33.14% | 0.87           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |
| 33d 34.53% 32.41% 0.94 27.00% BRE Compliant Imperceptible   | 33d  | 34.53% | 32.41% | 0.94           | 27.00%       | BRE Compliant   | Imperceptible   |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

<sup>^</sup>Window position and size has been assumed.



Figure 5.15: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location

<sup>\*\*</sup> For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.



# 5.1.16 34-35 Cherryfield Avenue Lower

|                             | Table No. 5.16: VSC Results 34-35 Cherryfield Avenue Lower |                       |   |                             |   |  |  |  |  |  |
|-----------------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|--|
| Window<br>Number            | Baseline<br>VSC Value                                      | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |  |
| 34 Cherryfield Avenue Lower |  |                       |   |                             |   |  |  |  |  |  |
| 34a                         | 33.53%   | 29.09%                | 0.87  | 26.83%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 34b                         | 35.01%   | 32.06%                | 0.92  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 34c                         | 38.09%   | 34.00%                | 0.89  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
|                             | 35 Cherryfield Avenue Lower                                |                       |   |                             |   |  |  |  |  |  |
| 35a                         | 38.08%   | 34.23%                | 0.90  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 35b                         | 35.32%   | 33.39%                | 0.95  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |

<sup>\*</sup> 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% <u>and</u> be less than 0.8 times the baseline value.

<sup>\*\*</sup> For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.

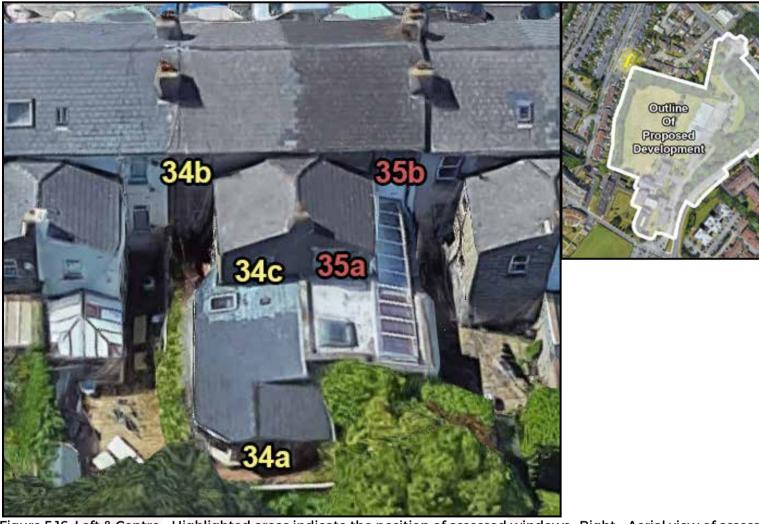


Figure 5.16: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.1.17 1-6 Cherryfield Avenue Upper

|                  | Table No. 5.17: VSC Results 1-6 Cherryfield Avenue Upper |                       |   |                             |   |  |  |  |  |
|------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value                                    | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |
|                  |  |                       | 1 Cherryfield A                             | Avenue Upper                |   |  |  |  |  |
| 1a               | 32.79%   | 24.56%                | 0.75  | 26.23%                      | 93.61%  | Not Significant                        |  |  |  |
| 1b               | 38.41%   | 28.95%                | 0.75  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 1c               | 34.63%   | 29.70%                | 0.86  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |  |                       | 2 Cherryfield                               | Avenue Upper                |   |  |  |  |  |
| 2a               | 25.10%   | 19.54%                | 0.78  | 20.08%                      | 97.33%  | Not Significant                        |  |  |  |
| 2b               | 34.00%   | 28.73%                | 0.84  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 2c               | 38.44%   | 28.73%                | 0.75  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  | 3 Cherryfield Avenue Upper                               |                       |   |                             |   |  |  |  |  |
| 3a               | 32.83%   | 23.62%                | 0.72  | 26.26%                      | 89.95%  | Slight                                 |  |  |  |
| 3b               | 22.88%   | 17.72%                | 0.77  | 18.30%                      | 96.82%  | Not Significant                        |  |  |  |
| 3c               | 38.59%   | 28.99%                | 0.75  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 3d               | 35.46%   | 29.95%                | 0.84  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |  |                       | 4 Cherryfield                               | Avenue Upper                |   |  |  |  |  |
| 4a               | 36.75%   | 23.62%                | 0.64  | 27.00%                      | 87.49%  | Slight                                 |  |  |  |
| 4b               | 35.06%   | 29.40%                | 0.84  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 4c               | 38.58%   | 28.88%                | 0.75  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |  |                       | 5 Cherryfield                               | Avenue Upper                |   |  |  |  |  |
| 5a               | 19.40%   | 16.51%                | 0.85  | 15.52%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 5b               | 38.57%   | 28.61%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 5c               | 35.09%   | 29.19%                | 0.83  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |  |                       | 6 Cherryfield                               | Avenue Upper                |   |  |  |  |  |
| 6a               | 35.67%   | 24.64%                | 0.69  | 27.00%                      | 91.24%  | Not Significant                        |  |  |  |
| 6b               | 34.92%   | 28.90%                | 0.83  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 6c               | 38.56%   | 28.51%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |  |                       |   |                             |   |  |  |  |  |

<sup>\*</sup> 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 2.2 Definition of Effects on page 6.







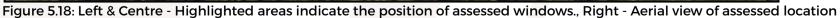
# 5.1.18 7-12 Cherryfield Avenue Upper

| Table No. 5.18: VSC Results 7-12 Cherryfield Avenue Upper |                             |                       |   |                             |   |  |  |  |  |  |
|---|-----------------------------|-----------------------|---|-----------------------------|---|--|--|--|--|--|
| Window<br>Number  | Baseline<br>VSC Value       | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |  |
| 7 Cherryfield Avenue Upper                                |                             |                       |   |                             |   |  |  |  |  |  |
| 7a  | 24.59%                      | 18.62%                | 0.76  | 19.67%                      | 94.64%  | Not Significant                        |  |  |  |  |
| <b>7</b> b  | 38.47%                      | 28.52%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| <b>7</b> c  | 35.19%                      | 29.10%                | 0.83  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 8 Cherryfield Avenue Upper                                |                             |                       |   |                             |   |  |  |  |  |  |
| 8a  | 19.67%                      | 14.73%                | 0.75  | 15.74%                      | 93.61%  | Not Significant                        |  |  |  |  |
| 8b  | 32.79%                      | 27.93%                | 0.85  | 26.23%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 8c  | 38.45%                      | 28.50%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
|   |                             |                       | 9 Cherryfield A                             | Avenue Upper                |   |  |  |  |  |  |
| 9a  | 37.00%                      | 24.82%                | 0.67  | 27.00%                      | 91.92%  | Not Significant                        |  |  |  |  |
| 9b  | 19.49%                      | 14.61%                | 0.75  | 15.59%                      | 93.71%  | Not Significant                        |  |  |  |  |
| 9с  | 38.35%                      | 28.32%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 9d  | 33.18%                      | 27.93%                | 0.84  | 26.55%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 10 Cherryfield Avenue Upper                               |                             |                       |   |                             |   |  |  |  |  |  |
| 10a   | 37.29%                      | 24.95%                | 0.67  | 27.00%                      | 92.40%  | Not Significant                        |  |  |  |  |
| 10b   | 32.38%                      | 27.54%                | 0.85  | 25.91%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 10c   | 38.32%                      | 28.33%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
|   | 11 Cherryfield Avenue Upper |                       |   |                             |   |  |  |  |  |  |
| 11a   | 16.13%                      | 13.18%                | 0.82  | 12.90%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 11b   | 38.17%                      | 28.15%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 11c   | 33.39%                      | 28.07%                | 0.84  | 26.71%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 12 Cherryfield Avenue Upper                               |                             |                       |   |                             |   |  |  |  |  |  |
| 12a   | 25.13%                      | 20.12%                | 0.80  | 20.11%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 12b   | 37.36%                      | 25.08%                | 0.67  | 27.00%                      | 92.89%  | Not Significant                        |  |  |  |  |
| 12c   | 34.00%                      | 29.06%                | 0.85  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 12d   | 38.16%                      | 28.30%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
|   |                             |                       |   |                             |   |  |  |  |  |  |

<sup>\*</sup> 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.

<sup>\*\*</sup> For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.







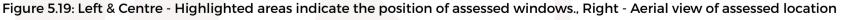
# 5.1.19 13-16 Cherryfield Avenue Upper

| Table No. 5.19: VSC Results 13-16 Cherryfield Avenue Upper |                             |                       |   |                             |   |  |  |  |  |  |
|--|-----------------------------|-----------------------|---|-----------------------------|---|--|--|--|--|--|
| Window<br>Number   | Baseline<br>VSC Value       | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |  |
| 13 Cherryfield Avenue Upper                                |                             |                       |   |                             |   |  |  |  |  |  |
| 13a  | 36.76%                      | 23.76%                | 0.65  | 27.00%                      | 87.99%  | Slight                                 |  |  |  |  |
| 13b  | 24.00%                      | 19.39%                | 0.81  | 19.20%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 13c  | 38.05%                      | 29.44%                | 0.77  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 13d  | 35.66%                      | 29.40%                | 0.82  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
|  | 14 Cherryfield Avenue Upper |                       |   |                             |   |  |  |  |  |  |
| 14a  | 20.95%                      | 17.56%                | 0.84  | 16.76%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 14b  | 33.11%                      | 28.56%                | 0.86  | 26.49%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 14c  | 38.00%                      | 29.57%                | 0.78  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 15 Cherryfield Avenue Upper                                |                             |                       |   |                             |   |  |  |  |  |  |
| 15a  | 36.22%                      | 25.45%                | 0.70  | 27.00%                      | 94.27%  | Not Significant                        |  |  |  |  |
| 15b  | 37.80%                      | 30.55%                | 0.81  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 15c  | 21.04%                      | 17.44%                | 0.83  | 16.83%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 15d  | 33.67%                      | 28.68%                | 0.85  | 26.94%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 16 Cherryfield Avenue Upper                                |                             |                       |   |                             |   |  |  |  |  |  |
| 16a  | 35.25%                      | 25.07%                | 0.71  | 27.00%                      | 92.85%  | Not Significant                        |  |  |  |  |
| 16b  | 37.06%                      | 27.38%                | 0.74  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |
| 16c  | 37.85%                      | 31.28%                | 0.83  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |  |

<sup>\*</sup> 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.

<sup>\*\*</sup> For the interpretation of level of effects please refer to"2.2 Definition of Effects" on page 6.







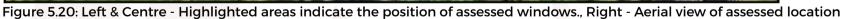
# 5.1.20 17-20 Cherryfield Avenue Upper

|                  | Table No. 5.20: VSC Results 17-20 Cherryfield Avenue Upper |                       |   |                             |   |  |  |  |  |
|------------------|--|-----------------------|---|-----------------------------|---|--|--|--|--|
| Window<br>Number | Baseline<br>VSC Value                                      | Proposed<br>VSC Value | Ratio of<br>Proposed VSC<br>to Baseline VSC | Recommended<br>minimum VSC* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development** |  |  |  |
|                  |  |                       | 13 Cherryfield                              | Avenue Upper                |   |  |  |  |  |
| 17a              | 34.20%   | 26.86%                | 0.79  | 27.00%                      | 99.50%  | Not Significant                        |  |  |  |
| 17b              | 37.56%   | 30.72%                | 0.82  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |  |                       | 14 Cherryfield                              | Avenue Upper                |   |  |  |  |  |
| 18a              | 28.27%   | 24.00%                | 0.85  | 22.61%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 18b              | 33.23%   | 27.66%                | 0.83  | 26.58%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 18c              | 32.02%   | 29.69%                | 0.93  | 25.62%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 18d              | 30.78%   | 26.82%                | 0.87  | 24.62%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |  |                       | 15 Cherryfield                              | Avenue Upper                |   |  |  |  |  |
| 19a              | 30.59%   | 26.68%                | 0.87  | 24.47%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 19b              | 37.07%   | 32.13%                | 0.87  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 19c              | 32.28%   | 28.66%                | 0.89  | 25.82%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
|                  |  |                       | 16 Cherryfield                              | Avenue Upper                |   |  |  |  |  |
| 20a              | 27.38%   | 25.89%                | 0.95  | 21.91%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 20b              | 31.55%   | 30.01%                | 0.95  | 25.24%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |
| 20c              | 36.97%   | 32.17%                | 0.87  | 27.00%                      | BRE Compliant                                 | Imperceptible                          |  |  |  |

<sup>\*</sup> 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 2.2 Definition of Effects on page 6.







|                  |                            | Table N                    | lo. 5.21: Annual APSH                         | Results 87 Eglinton                    | Road  |                                      |
|------------------|----------------------------|----------------------------|---|--|---|--------------------------------------|
| Window<br>Number | Baseline<br>Annual<br>APSH | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |
|                  |                            |                            | 87 Eglinton Road                              | - side elevation                       |   |                                      |
| 87a              | 23.5%                      | 19.1%                      | 0.81  | 18.8%                                  | BRE Compliant                                 | Imperceptible                        |
| 87b              | 17.2%                      | 12.6%                      | 0.74  | 13.8%                                  | 91.9%   | Not Significant                      |
| 87c              | 16.2%                      | 11.9%                      | 0.73  | 13.0%                                  | 91.7%   | Not Significant                      |
| 87d              | 28.3%                      | 23.4%                      | 0.83  | 22.6%                                  | BRE Compliant                                 | Imperceptible                        |
| 8 <b>7</b> g     | 22.6%                      | 18.2%                      | 0.81  | 18.1%                                  | BRE Compliant                                 | Imperceptible                        |
| 87h              | 30.2%                      | 25.4%                      | 0.84  | 24.2%                                  | BRE Compliant                                 | Imperceptible                        |
| 87i              | 30.2%                      | 25.3%                      | 0.84  | 24.2%                                  | BRE Compliant                                 | Imperceptible                        |
| 8 <b>7</b> j     | 30.2%                      | 24.9%                      | 0.82  | 24.2%                                  | BRE Compliant                                 | Imperceptible                        |
| 87k              | 30.3%                      | 24.7%                      | 0.82  | 24.2%                                  | BRE Compliant                                 | Imperceptible                        |
| 8 <b>7</b> o     | 30.9%                      | 26.6%                      | 0.86  | 24.7%                                  | BRE Compliant                                 | Imperceptible                        |
| 87p              | 30.9%                      | 26.4%                      | 0.85  | 24.7%                                  | BRE Compliant                                 | Imperceptible                        |
| 87q              | 30.9%                      | 26.0%                      | 0.84  | 24.8%                                  | BRE Compliant                                 | Imperceptible                        |
| 87r              | 30.9%                      | 25.8%                      | 0.83  | 24.8%                                  | BRE Compliant                                 | Imperceptible                        |
|                  |                            |                            | 87 Eglinton Road                              | - front elevation                      |   |                                      |
| 8 <b>7</b> e     | 72.5%                      | 68.5%                      | 0.95  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 8 <b>7</b> f     | 71.5%                      | 68.0%                      | 0.95  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 871              | 76.4%                      | 70.8%                      | 0.93  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 87m              | 53.9%                      | 53.9%                      | 1.00  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 87n              | 73.8%                      | 70.1%                      | 0.95  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 8 <b>7</b> s     | 77.9%                      | 72.8%                      | 0.93  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 8 <b>7</b> t     | 77.8%                      | 73.0%                      | 0.94  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 87u              | 59.2%                      | 59.2%                      | 1.00  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 8 <b>7</b> v     | 74.3%                      | 72.1%                      | 0.97  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |

<sup>\*</sup> The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH of an existing window, 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.

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.21: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.2.2 87 Eglinton Road - Winter APSH

|                  | Table No. 5.22: Winter APSH Results 87 Eglinton Road |                         |   |  |   |                                      |  |  |  |
|------------------|--|-------------------------|---|--|---|--------------------------------------|--|--|--|
| Window<br>Number | Baseline<br>Winter APSH                              | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |
|                  |  |                         | 87 Eglinton Road                              | - side elevation                       |   |                                      |  |  |  |
| 87a              | 16.8%  | 12.6%                   | 0.75  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 87b              | 9.3%   | 5.3%                    | 0.57  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 87c              | 2.4%   | 0.2%                    | 0.10  | 1.9%                                   | 12.8%   | Very Significant                     |  |  |  |
| 87d              | 23.1%  | 21.1%                   | 0.91  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 87g              | 16.3%  | 12.0%                   | 0.73  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 87h              | 26.3%  | 22.1%                   | 0.84  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 8 <b>7</b> i     | 26.3%  | 22.2%                   | 0.84  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 8 <b>7</b> j     | 26.2%  | 22.4%                   | 0.85  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 87k              | 26.1%  | 22.4%                   | 0.86  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 8 <b>7</b> o     | 27.2%  | 23.0%                   | 0.84  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 87p              | 27.2%  | 23.1%                   | 0.85  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 87q              | 27.1%  | 23.3%                   | 0.86  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 8 <b>7</b> r     | 27.0%  | 23.3%                   | 0.86  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |  |                         | 87 Eglinton Road                              | - front elevation                      |   |                                      |  |  |  |
| 87e              | 77.2%  | 76.2%                   | 0.99  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 8 <b>7</b> f     | 77.5%  | 75.4%                   | 0.97  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 8 <b>7</b> l     | 84.4%  | 80.8%                   | 0.96  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 87m              | 66.6%  | 66.5%                   | 1.00  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 87n              | 83.1%  | 80.1%                   | 0.96  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 8 <b>7</b> s     | 87.6%  | 84.0%                   | 0.96  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 8 <b>7</b> t     | 87.7%  | 84.2%                   | 0.96  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 87u              | 74.9%  | 74.9%                   | 1.00  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 8 <b>7</b> v     | 87.7%  | 84.6%                   | 0.96  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.22: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



#### 5.2.3 132-134 Sandford Road - Annual APSH

|                  | Table No. 5.23: Annual APSH Results 132-134 Sandford Road |                            |   |  |   |                                      |  |  |  |
|------------------|---|----------------------------|---|--|---|--------------------------------------|--|--|--|
| Window<br>Number | Baseline<br>Annual<br>APSH                                | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |
|                  |   |                            | 132 Sandfo                                    | ord Road                               |   |                                      |  |  |  |
| 132a             | 51.4%   | 49.6%                      | 0.97  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 132b             | 67.4%   | 63.5%                      | 0.94  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 132c             | 70.1%   | 67.4%                      | 0.96  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 132d             | 70.1%   | 67.2%                      | 0.96  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 132e             | 70.1%   | 66.9%                      | 0.95  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 132f             | 70.1%   | 66.7%                      | 0.95  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |   |                            | 134 Sandfo                                    | ord Road                               |   |                                      |  |  |  |
| 134a             | 47.6%   | 44.5%                      | 0.93  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 134b             | 63.6%   | 59.7%                      | 0.94  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 134c             | 70.0%   | 66.4%                      | 0.95  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 134d             | 70.0%   | 66.2%                      | 0.95  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 134e             | 70.0%   | 66.0%                      | 0.94  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 134f             | 69.9%   | 65.7%                      | 0.94  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 134g             | 52.5%   | 48.2%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 134h             | 54.7%   | 50.2%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 134i             | 57.0%   | 52.0%                      | 0.91  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 134j             | 62.4%   | 57.5%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.23: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



#### 5.2.4 132-134 Sandford Road - Winter APSH

|                  | Table No. 5.24: Winter APSH Results 132-134 Sandford Road |                         |   |  |   |                                      |  |  |
|------------------|---|-------------------------|---|--|---|--------------------------------------|--|--|
| Window<br>Number | Baseline<br>Winter APSH                                   | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |
|                  |   |                         | 132 Sandfo                                    | ord Road                               |   |                                      |  |  |
| 132a             | 38.2%   | 32.7%                   | 0.86  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 132b             | 74.7%   | 63.4%                   | 0.85  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 132c             | 79.3%   | 71.4%                   | 0.90  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 132d             | 79.3%   | 70.9%                   | 0.89  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 132e             | 79.2%   | 70.3%                   | 0.89  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 132f             | 79.1%   | 69.7%                   | 0.88  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |   |                         | 134 Sandfo                                    | ord Road                               |   |                                      |  |  |
| 134a             | 50.2%   | 41.8%                   | 0.83  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 134b             | 72.2%   | 61.2%                   | 0.85  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 134c             | 78.9%   | 69.0%                   | 0.87  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 134d             | 78.9%   | 68.5%                   | 0.87  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 134e             | 79.0%   | 68.0%                   | 0.86  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 134f             | 78.9%   | 67.4%                   | 0.85  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 134g             | 59.1%   | 47.6%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 134h             | 55.3%   | 43.0%                   | 0.78  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 134i             | 68.5%   | 55.1%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 134j             | 66.5%   | 53.2%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.24: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



### 5.2.5 136-138 Sandford Road - Annual APSH

|                  |                            | Table No.                  | 5.25: Annual APSH R                           | esults 136-138 Sandfo                  | ord Road                                      |                                      |
|------------------|----------------------------|----------------------------|---|--|---|--------------------------------------|
| Window<br>Number | Baseline<br>Annual<br>APSH | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |
|                  |                            |                            | 136 Sandfo                                    | ord Road                               |   |                                      |
| 136a             | 64.8%                      | 57.2%                      | 0.88  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 136b             | 68.3%                      | 61.3%                      | 0.90  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 136c             | 69.8%                      | 64.2%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 136d             | 69.8%                      | 64.0%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 136e             | 69.7%                      | 63.9%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 136f             | 69.7%                      | 63.8%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 136g             | 37.5%                      | 32.5%                      | 0.86  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 136h             | 27.6%                      | 24.3%                      | 0.88  | 22.0%                                  | BRE Compliant                                 | Imperceptible                        |
|                  |                            |                            | 138 Sandfo                                    | ord Road                               |   |                                      |
| 138a             | 64.8%                      | 57.5%                      | 0.89  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 138b             | 68.3%                      | 61.2%                      | 0.90  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 138c             | 69.6%                      | 63.7%                      | 0.91  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 138d             | 69.5%                      | 63.6%                      | 0.91  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 138e             | 69.5%                      | 63.5%                      | 0.91  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 138f             | 69.4%                      | 63.5%                      | 0.91  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
|                  |                            |                            | 138A Sandf                                    | ord Road                               |   |                                      |
| 138Aa            | 55.0%                      | 49.8%                      | 0.91  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 138Ab            | 56.5%                      | 51.6%                      | 0.91  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 138Ac            | 58.2%                      | 53.7%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |
| 138Ad            | 61.5%                      | 57.2%                      | 0.93  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.25: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



### 5.2.6 136-138 Sandford Road - Winter APSH

|                  |                         | Table No.               | 5.26: Winter APSH Re                          | esults 136-138 Sandfo                  | ord Road                                      |                                      |
|------------------|-------------------------|-------------------------|---|--|---|--------------------------------------|
| Window<br>Number | Baseline<br>Winter APSH | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |
|                  |                         |                         | 136 Sandfo                                    | ord Road                               |   |                                      |
| 136a             | 71.3%                   | 50.8%                   | 0.71  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 136b             | 77.4%                   | 58.5%                   | 0.76  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 136c             | 79.1%                   | 64.0%                   | 0.81  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 136d             | 79.1%                   | 63.6%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 136e             | 79.0%                   | 63.3%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 136f             | 78.9%                   | 63.1%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 136g             | 32.5%                   | 18.7%                   | 0.58  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 136h             | 22.4%                   | 13.3%                   | 0.59  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
|                  |                         |                         | 138 Sandfo                                    | ord Road                               |   |                                      |
| 138a             | 73.5%                   | 55.2%                   | 0.75  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 138b             | 77.0%                   | 58.4%                   | 0.76  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 138c             | 78.9%                   | 62.9%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 138d             | 78.8%                   | 62.8%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 138e             | 78.7%                   | 62.7%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 138f             | 78.6%                   | 62.7%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
|                  |                         |                         | 138A Sandf                                    | ord Road                               |   |                                      |
| 138Aa            | 67.9%                   | 55.1%                   | 0.81  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 138Ab            | 72.0%                   | 59.4%                   | 0.83  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 138Ac            | 73.6%                   | 61.7%                   | 0.84  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 138Ad            | 76.1%                   | 64.6%                   | 0.85  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.26: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



#### 5.2.7 1-4 Norwood Park - Annual APSH

|                  | Table No. 5.27: Annual APSH Results 1-4 Norwood Park |                            |   |  |   |                                      |  |  |  |
|------------------|--|----------------------------|---|--|---|--------------------------------------|--|--|--|
| Window<br>Number | Baseline<br>Annual<br>APSH                           | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |
|                  |  |                            | 1 Norwoo                                      | od Park                                |   |                                      |  |  |  |
| 1a               | 60.1%  | 53.2%                      | 0.89  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 1b               | 60.5%  | 54.3%                      | 0.90  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 1c               | <b>57.8</b> %  | 54.5%                      | 0.94  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 1d               | 62.1%  | 58.2%                      | 0.94  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |  |                            | 2 Norwoo                                      | od Park                                |   |                                      |  |  |  |
| 2a               | 56.9%  | 50.4%                      | 0.89  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 2b               | 61.7%  | 55.5%                      | 0.90  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 2c               | 23.7%  | 24.3%                      | 1.03  | 19.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 2d               | 64.4%  | 59.2%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |  |                            | 3 Norwoo                                      | od Park                                |   |                                      |  |  |  |
| 3a               | 66.1%  | 53.4%                      | 0.81  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 3b               | 66.6%  | 53.5%                      | 0.80  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 3c               | 64.7%  | 52.3%                      | 0.81  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 3d               | 55.5%  | 48.0%                      | 0.86  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 3e               | 56.6%  | 47.4%                      | 0.84  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 3f               | 69.0%  | 58.7%                      | 0.85  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |  |                            | 4 Norwoo                                      | od Park                                |   |                                      |  |  |  |
| 4a               | 66.6%  | 50.3%                      | 0.76  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 4b               | 67.3%  | 51.6%                      | 0.77  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 4c               | 60.4%  | 46.0%                      | 0.76  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 4d               | 69.2%  | 54.2%                      | 0.78  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 4e               | 69.1%  | 55.3%                      | 0.80  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 4f               | 69.0%  | 56.3%                      | 0.82  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.27: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



#### 1-4 Norwood Park - Winter APSH **5.2.8**

|                  |                         | Table N                 | o. 5.28: Winter APSH                          | Results 1-4 Norwood                    | d Park  |                                      |
|------------------|-------------------------|-------------------------|---|--|---|--------------------------------------|
| Window<br>Number | Baseline<br>Winter APSH | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |
|                  |                         |                         | 1 Norwoo                                      | od Park                                |   |                                      |
| 1a               | 63.7%                   | 45.0%                   | 0.71  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 1b               | 64.3%                   | 47.0%                   | 0.73  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 1c               | 54.8%                   | 44.7%                   | 0.82  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 1d               | 66.1%                   | 54.4%                   | 0.82  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
|                  |                         |                         | 2 Norwoo                                      | od Park                                |   |                                      |
| 2a               | 58.1%                   | 40.7%                   | 0.70  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 2b               | 64.2%                   | 47.1%                   | 0.73  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 2c               | 10.4%                   | 10.9%                   | 1.05  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 2d               | 69.4%                   | 55.3%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
|                  |                         |                         | 3 Norwoo                                      | od Park                                |   |                                      |
| 3a               | 70.5%                   | 38.4%                   | 0.55  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 3b               | 73.2%                   | 40.0%                   | 0.55  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 3c               | 72.6%                   | 41.0%                   | 0.57  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 3d               | 53.0%                   | 33.8%                   | 0.64  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 3e               | 65.7%                   | 41.9%                   | 0.64  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 3f               | 75.7%                   | 48.4%                   | 0.64  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
|                  |                         |                         | 4 Norwoo                                      | od Park                                |   |                                      |
| 4a               | 70.9%                   | 32.3%                   | 0.46  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 4b               | 73.2%                   | 34.9%                   | 0.48  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 4c               | 71.3%                   | 35.7%                   | 0.50  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 4d               | 75.5%                   | 38.8%                   | 0.51  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 4e               | 75.6%                   | 41.0%                   | 0.54  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |
| 4f               | 75.7%                   | 43.5%                   | 0.57  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |

<sup>\*</sup> The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH of an existing window, 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.

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.28: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



### 5.2.9 5-6 Norwood Park - Annual APSH

|                  | Table No. 5.29: Annual APSH Results 5-6 Norwood Park |                            |   |  |   |                                      |  |  |  |
|------------------|--|----------------------------|---|--|---|--------------------------------------|--|--|--|
| Window<br>Number | Baseline<br>Annual<br>APSH                           | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |
|                  | 5 Norwood Park                                       |                            |   |  |   |                                      |  |  |  |
| 5a               | 66.9%  | 50.3%                      | 0.75  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 5b               | 75.5%  | 54.5%                      | 0.72  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 5c               | 83.9%  | 62.8%                      | 0.75  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |  |                            | 6 Norwoo                                      | od Park                                |   |                                      |  |  |  |
| 6a               | 57.1%  | 42.7%                      | 0.75  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 6b               | 66.9%  | 48.0%                      | 0.72  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 6c               | 83.9%  | 63.3%                      | 0.75  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.





Figure 5.29: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



### 5.2.10 5-6 Norwood Park - Winter APSH

|                  | Table No. 5.30: Winter APSH Results 5-6 Norwood Park |                         |   |  |   |                                      |  |  |  |
|------------------|--|-------------------------|---|--|---|--------------------------------------|--|--|--|
| Window<br>Number | Baseline<br>Winter APSH                              | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |
|                  | 5 Norwood Park                                       |                         |   |  |   |                                      |  |  |  |
| 5a               | 65.5%  | 27.2%                   | 0.41  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 5b               | 75.8%  | 28.1%                   | 0.37  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 5c               | 88.5%  | 37.9%                   | 0.43  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |  |                         | 6 Norwoo                                      | od Park                                |   |                                      |  |  |  |
| 6a               | 52.0%  | 17.8%                   | 0.34  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 6b               | 61.3%  | 18.5%                   | 0.30  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 6c               | 88.7%  | 38.7%                   | 0.44  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.





Figure 5.30: Left - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



#### 5.2.11 7-11 Norwood Park - Annual APSH

|                  | Table No. 5.31: Annual APSH Results 7-11 \Norwood Park |                            |   |  |   |                                      |  |  |
|------------------|--|----------------------------|---|--|---|--------------------------------------|--|--|
| Window<br>Number | Baseline<br>Annual<br>APSH                             | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |
|                  |  |                            | 7 Norwoo                                      | od Park                                |   |                                      |  |  |
| <b>7</b> a       | 66.6%  | 48.0%                      | 0.72  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 7b               | 75.1%  | 53.9%                      | 0.72  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| <b>7</b> c       | 81.1%  | 62.6%                      | 0.77  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 8 Norwoo                                      | od Park                                |   |                                      |  |  |
| 8a               | 64.0%  | 52.6%                      | 0.82  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 8b               | 77.8%  | 56.4%                      | 0.73  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 8c               | 80.8%  | 64.9%                      | 0.80  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 8d               | 80.9%  | 63.4%                      | 0.78  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 9 Norwoo                                      | od Park                                |   |                                      |  |  |
| 9a               | 61.5%  | 51.0%                      | 0.83  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 9b               | 73.0%  | 59.3%                      | 0.81  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 9c               | 80.1%  | 66.6%                      | 0.83  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 10 Norwo                                      | od Park                                |   |                                      |  |  |
| 10a              | 74.3%  | 60.1%                      | 0.81  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 10b              | 71.5%  | 59.3%                      | 0.83  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 10c              | 79.9%  | 67.1%                      | 0.84  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 11 Norwo                                      | od Park                                |   |                                      |  |  |
| 11a              | 62.8%  | 57.5%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 11b              | 66.6%  | 61.3%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 11c              | 73.2%  | 68.4%                      | 0.93  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.31: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



### 5.2.12 7-11 Norwood Park - Winter APSH

|                  | Table No. 5.32: Winter APSH Results 7-11 Norwood Park |                         |   |  |   |                                      |  |  |
|------------------|---|-------------------------|---|--|---|--------------------------------------|--|--|
| Window<br>Number | Baseline<br>Winter APSH                               | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |
|                  |   |                         | 7 Norwoo                                      | od Park                                |   |                                      |  |  |
| 7a               | 76.5%   | 29.1%                   | 0.38  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 7b               | 81.4%   | 29.1%                   | 0.36  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 7c               | 87.6%   | 40.1%                   | 0.46  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |   |                         | 8 Norwoo                                      | od Park                                |   |                                      |  |  |
| 8a               | 56.5%   | 27.1%                   | 0.48  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 8b               | 81.7%   | 28.9%                   | 0.35  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 8c               | 87.3%   | 45.7%                   | 0.52  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 8d               | 87.4%   | 41.9%                   | 0.48  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |   |                         | 9 Norwoo                                      | od Park                                |   |                                      |  |  |
| 9a               | 62.7%   | 35.3%                   | 0.56  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 9b               | 72.8%   | 37.1%                   | 0.51  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 9с               | 86.3%   | 51.1%                   | 0.59  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |   |                         | 10 Norwo                                      | od Park                                |   |                                      |  |  |
| 10a              | 78.2%   | 41.0%                   | 0.52  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 10b              | 69.3%   | 37.3%                   | 0.54  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 10c              | 86.3%   | 52.7%                   | 0.61  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |   |                         | 11 Norwo                                      | od Park                                |   |                                      |  |  |
| 11a              | 66.8%   | 52.9%                   | 0.79  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 11b              | 66.1%   | 52.1%                   | 0.79  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 11c              | 76.2%   | 63.5%                   | 0.83  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.32: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.2.13 28-33 Cherryfield Avenue Lower - Annual APSH

| Table No. 5.33: Annual APSH Results 28-33 Cherryfield Avenue Lower |                            |                            |   |  |   |                                      |  |  |
|--|----------------------------|----------------------------|---|--|---|--------------------------------------|--|--|
| Window<br>Number   | Baseline<br>Annual<br>APSH | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |
|  |                            |                            | 28 Cherryfield A                              | Avenue Lower                           |   |                                      |  |  |
| 28a  | 25.1%                      | 10.8%                      | 0.43  | 20.1%                                  | 53.7%   | Moderate                             |  |  |
| 28b  | 43.7%                      | 34.6%                      | 0.79  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 28c  | 56.8%                      | 41.0%                      | 0.72  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 28d  | 54.8%                      | 46.2%                      | 0.84  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|  |                            |                            | 29 Cherryfield                                | Avenue Lower                           |   |                                      |  |  |
| 29a  | 51.7%                      | 33.3%                      | 0.64  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 29b  | 15.5%                      | 6.1%                       | 0.39  | 12.4%                                  | 49.2%   | Significant                          |  |  |
| 29c  | 57.0%                      | 41.5%                      | 0.73  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 29d  | 49.1%                      | 40.8%                      | 0.83  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|  |                            |                            | 30 Cherryfield                                | Avenue Lower                           |   |                                      |  |  |
| 30a  | 27.2%                      | 17.6%                      | 0.65  | 21.7%                                  | 81.0%   | Slight                               |  |  |
| 30b^   | 53.0%                      | 35.0%                      | 0.66  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 30c  | 52.0%                      | 44.1%                      | 0.85  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 30d^   | 54.0%                      | 41.4%                      | 0.77  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|  |                            |                            | 31 Cherryfield A                              | venue Lower                            |   |                                      |  |  |
| 31a^   | 53.5%                      | 32.1%                      | 0.60  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 31b^   | 14.0%                      | 8.9%                       | 0.64  | 11.2%                                  | 79.6%   | Slight                               |  |  |
| 31c^   | 57.3%                      | 41.0%                      | 0.72  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 31d  | 48.4%                      | 44.7%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|  |                            |                            | 32 Cherryfield A                              | Avenue Lower                           |   |                                      |  |  |
| 32a  | 19.9%                      | 13.3%                      | 0.67  | 15.9%                                  | 83.2%   | Slight                               |  |  |
| 32b  | 50.3%                      | 34.6%                      | 0.69  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 32c  | 48.1%                      | 42.7%                      | 0.89  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 32d  | 53.6%                      | 44.3%                      | 0.83  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|  |                            |                            | 33 Cherryfield A                              | Avenue Lower                           |   |                                      |  |  |
| 33a  | 47.2%                      | 37.5%                      | 0.80  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 33b  | 10.5%                      | 8.6%                       | 0.82  | 8.4%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 33c  | 55.6%                      | 47.2%                      | 0.85  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 33d  | 48.7%                      | 44.5%                      | 0.91  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |

<sup>\*</sup> The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH of an existing window, 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.

<sup>^</sup>Window position and size has been assumed.



Figure 5.33: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



# 5.2.14 28-33 Cherryfield Avenue Lower - Winter APSH

|                  | Table No. 5.34: Winter APSH Results 28-33 Cherryfield Avenue Lower |                         |   |  |   |                                      |  |  |  |  |
|------------------|--|-------------------------|---|--|---|--------------------------------------|--|--|--|--|
| Window<br>Number | Baseline<br>Winter APSH  | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |  |
|                  | 28 Cherryfield Avenue Lower  |                         |   |  |   |                                      |  |  |  |  |
| 28a              | 15.5%  | 1.8%                    | 0.12  | 5.0%                                   | 36.8%   | Significant                          |  |  |  |  |
| 28b              | 45.7%  | 25.7%                   | 0.56  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 28c              | 59.9%  | 37.3%                   | 0.62  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 28d              | 60.6%  | 45.0%                   | 0.74  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
|                  |  |                         | 29 Cherryfield A                              | Avenue Lower                           |   |                                      |  |  |  |  |
| 29a              | 48.4%  | 26.3%                   | 0.54  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 29b              | 8.0%   | 0.0%                    | 0.00  | 5.0%                                   | 0.0%  | Profound                             |  |  |  |  |
| 29c              | 60.6%  | 38.0%                   | 0.63  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 29d              | 41.2%  | 28.6%                   | 0.69  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
|                  |  |                         | 30 Cherryfield A                              | Avenue Lower                           |   |                                      |  |  |  |  |
| 30a              | 22.6%  | 3.7%                    | 0.16  | 5.0%                                   | 74.0%   | Moderate                             |  |  |  |  |
| 30b^             | 59.4%  | 30.6%                   | 0.52  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 30c              | 54.8%  | 39.0%                   | 0.71  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 30d^             | 61.5%  | 38.8%                   | 0.63  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
|                  |  |                         | 31 Cherryfield A                              | venue Lower                            |   |                                      |  |  |  |  |
| 31a^             | 54.6%  | 25.0%                   | 0.46  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 31b^             | 6.5%   | 0.0%                    | 0.00  | 5.0%                                   | 0.0%  | Profound                             |  |  |  |  |
| 31c^             | 61.5%  | 35.0%                   | 0.57  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 31d              | 38.1%  | 30.7%                   | 0.81  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
|                  |  |                         | 32 Cherryfield A                              | Avenue Lower                           |   |                                      |  |  |  |  |
| 32a              | 13.2%  | 0.5%                    | 0.04  | 5.0%                                   | 10.4%   | Very Significant                     |  |  |  |  |
| 32b              | 52.7%  | 21.7%                   | 0.41  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 32c              | 44.5%  | 32.3%                   | 0.73  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 32d              | 52.2%  | 30.2%                   | 0.58  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
|                  |  |                         | 33 Cherryfield A                              | Avenue Lower                           |   |                                      |  |  |  |  |
| 33a              | 40.3%  | 21.7%                   | 0.54  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 33b              | 6.2%   | 1.8%                    | 0.28  | 5.0%                                   | 35.4%   | Significant                          |  |  |  |  |
| 33c              | 57.6%  | 36.6%                   | 0.64  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
| 33d              | 40.3%  | 29.7%                   | 0.74  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |

<sup>\*</sup> The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH of an existing window, 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.

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Figure 5.34: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.

<sup>^</sup>Window position and size has been assumed.



# 5.2.15 34-35 Cherryfield Avenue Lower - Annual APSH

|                  | Table No. 5.35: Annual APSH Results 34-35 Cherryfield Avenue Lower |                            |   |  |   |                                      |  |  |  |
|------------------|--|----------------------------|---|--|---|--------------------------------------|--|--|--|
| Window<br>Number | Baseline<br>Annual<br>APSH   | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |
|                  | 34 Cherryfield Avenue Lower  |                            |   |  |   |                                      |  |  |  |
| 34a              | 49.5%  | 38.8%                      | 0.78  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 34b              | 53.1%  | 47.5%                      | 0.89  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 34c              | 56.7%  | 49.7%                      | 0.88  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  | 35 Cherryfield Avenue Lower  |                            |   |  |   |                                      |  |  |  |
| 35a              | 56.7%  | 50.2%                      | 0.89  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 35b              | 52.6%  | 48.6%                      | 0.92  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.

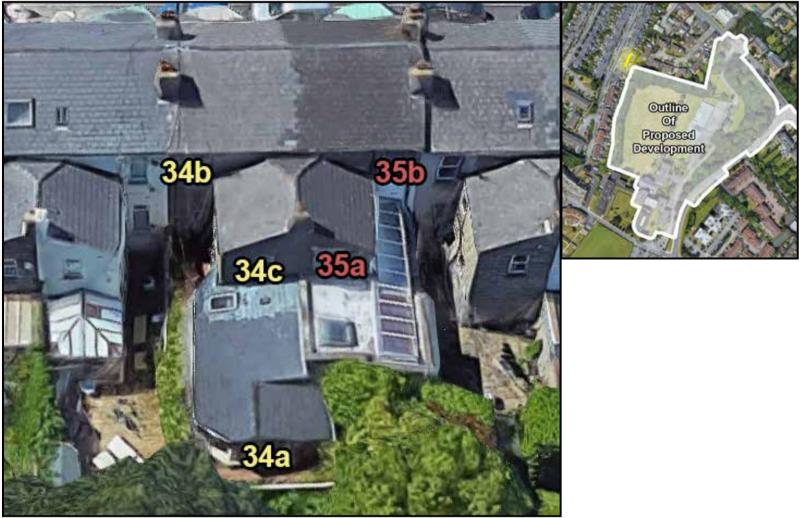


Figure 5.35: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



# 5.2.16 34-35 Cherryfield Avenue Lower - Winter APSH

|                  | Table No. 5.36: Winter APSH Results 34-35 Cherryfield Avenue Lower |                         |   |  |   |                                      |  |  |  |
|------------------|--|-------------------------|---|--|---|--------------------------------------|--|--|--|
| Window<br>Number | Baseline<br>Winter APSH  | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |
|                  | 34 Cherryfield Avenue Lower  |                         |   |  |   |                                      |  |  |  |
| 34a              | 50.1%  | 23.0%                   | 0.46  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 34b              | 55.7%  | 41.3%                   | 0.74  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 34c              | 61.4%  | 43.4%                   | 0.71  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  | 35 Cherryfield Avenue Lower  |                         |   |  |   |                                      |  |  |  |
| 35a              | 61.5%  | 44.7%                   | 0.73  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 35b              | 50.6%  | 40.2%                   | 0.80  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Figure 5.36: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



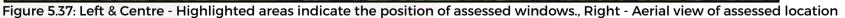
# 5.2.17 1-6 Cherryfield Avenue Upper - Annual APSH

|                  | Table No. 5.37: Annual APSH Results 1-6 Cherryfield Avenue Upper |                            |   |  |   |                                      |  |  |
|------------------|--|----------------------------|---|--|---|--------------------------------------|--|--|
| Window<br>Number | Baseline<br>Annual<br>APSH                                       | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |
|                  |  |                            | 1 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 1a               | 36.4%  | 20.7%                      | 0.57  | 25.0%                                  | 82.9%   | Slight                               |  |  |
| 1b               | 52.1%  | 35.1%                      | 0.67  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 1c               | 42.7%  | 33.2%                      | 0.78  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 2 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 2a               | 37.9%  | 26.8%                      | 0.71  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 2b               | 50.2%  | 39.9%                      | 0.79  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 2c               | 52.1%  | 34.9%                      | 0.67  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 3 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 3a               | 32.9%  | 18.4%                      | 0.56  | 25.0%                                  | 73.5%   | Moderate                             |  |  |
| 3b               | 12.8%  | 3.8%                       | 0.30  | 10.3%                                  | 37.3%   | Significant                          |  |  |
| 3c               | 52.1%  | 35.8%                      | 0.69  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 3d               | 46.2%  | 35.9%                      | 0.78  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 4 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 4a               | 50.6%  | 29.0%                      | 0.57  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 4b               | 49.5%  | 38.6%                      | 0.78  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 4c               | 52.1%  | 35.8%                      | 0.69  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 5 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 5a               | 10.3%  | 4.8%                       | 0.47  | 8.2%                                   | 58.6%   | Moderate                             |  |  |
| 5b               | 52.1%  | 35.8%                      | 0.69  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 5c               | 44.7%  | 34.0%                      | 0.76  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 6 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 6a               | 50.2%  | 31.1%                      | 0.62  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 6b               | 50.3%  | 39.3%                      | 0.78  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 6c               | 52.1%  | 35.6%                      | 0.68  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.







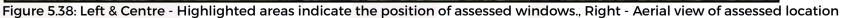
# 5.2.18 1-6 Cherryfield Avenue Upper - Winter APSH

|                  | Table No. 5.38: Winter APSH Results 1-6 Cherryfield Avenue Upper |                         |   |  |   |                                      |  |  |
|------------------|--|-------------------------|---|--|---|--------------------------------------|--|--|
| Window<br>Number | Baseline<br>Winter APSH  | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |
|                  |  |                         | 1 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 1a               | 29.3%  | 9.0%                    | 0.31  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 1b               | 54.2%  | 31.3%                   | 0.58  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 1c               | 29.3%  | 18.6%                   | 0.64  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                         | 2 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 2a               | 26.3%  | 9.8%                    | 0.37  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 2b               | 53.5%  | 37.0%                   | 0.69  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 2c               | 54.1%  | 31.4%                   | 0.58  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                         | 3 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 3a               | 11.6%  | 0.0%                    | 0.00  | 5.0%                                   | 0.7%  | Profound                             |  |  |
| 3b               | 4.0%   | 0.0%                    | 0.00  | 3.2%                                   | 0.0%  | Profound                             |  |  |
| 3c               | 53.9%  | 32.6%                   | 0.60  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 3d               | 38.3%  | 27.0%                   | 0.71  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                         | 4 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 4a               | 51.7%  | 24.4%                   | 0.47  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 4b               | 51.1%  | 34.4%                   | 0.67  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 4c               | 53.8%  | 32.6%                   | 0.61  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                         | 5 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 5a               | 3.6%   | 0.0%                    | 0.00  | 2.8%                                   | 0.0%  | Profound                             |  |  |
| 5b               | 53.6%  | 33.0%                   | 0.61  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 5c               | 34.6%  | 22.6%                   | 0.65  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                         | 6 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 6a               | 52.2%  | 27.9%                   | 0.53  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 6b               | 53.3%  | 36.8%                   | 0.69  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 6c               | 53.5%  | 33.0%                   | 0.62  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.







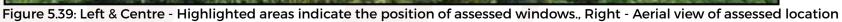
# 5.2.19 7-12 Cherryfield Avenue Upper - Annual APSH

|                  | Table No. 5.39: Annual APSH Results 7-12 Cherryfield Avenue Upper |                            |   |  |   |                                      |  |  |  |
|------------------|---|----------------------------|---|--|---|--------------------------------------|--|--|--|
| Window<br>Number | Baseline<br>Annual<br>APSH  | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |
|                  | 7 Cherryfield Avenue Upper  |                            |   |  |   |                                      |  |  |  |
| 7a               | 13.3%   | 3.8%                       | 0.28  | 10.7%                                  | 35.2%   | Significant                          |  |  |  |
| 7b               | 52.0%   | 36.2%                      | 0.70  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 7c               | 43.1%   | 32.9%                      | 0.76  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |   |                            | 8 Cherryfield A                               | venue Upper                            |   |                                      |  |  |  |
| 8a               | 26.2%   | 16.6%                      | 0.64  | 20.9%                                  | 79.4%   | Slight                               |  |  |  |
| 8b               | 46.6%   | 37.1%                      | 0.80  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 8c               | 52.0%   | 36.2%                      | 0.70  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |   |                            | 9 Cherryfield A                               | venue Upper                            |   |                                      |  |  |  |
| 9a               | 50.8%   | 31.5%                      | 0.62  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 9b               | 11.6%   | 3.1%                       | 0.27  | 9.3%                                   | 33.5%   | Significant                          |  |  |  |
| 9с               | 51.8%   | 36.1%                      | 0.70  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 9d               | 41.4%   | 32.0%                      | 0.77  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |   |                            | 10 Cherryfield A                              | venue Upper                            |   |                                      |  |  |  |
| 10a              | 50.9%   | 31.8%                      | 0.63  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 10b              | 46.9%   | 37.6%                      | 0.80  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 10c              | 51.8%   | 36.1%                      | 0.70  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |   |                            | 11 Cherryfield A                              | venue Upper                            |   |                                      |  |  |  |
| 11a              | 8.7%  | 3.1%                       | 0.36  | 6.9%                                   | 45.4%   | Significant                          |  |  |  |
| 11b              | 51.6%   | 36.1%                      | 0.70  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 11c              | 42.0%   | 32.6%                      | 0.78  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |   |                            | 12 Cherryfield A                              | venue Upper                            |   |                                      |  |  |  |
| 12a              | 41.1%   | 31.5%                      | 0.77  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 12b              | 50.8%   | 32.6%                      | 0.64  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 12c              | 49.2%   | 40.2%                      | 0.82  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 12d              | 51.6%   | 36.5%                      | 0.71  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |  |

<sup>\*</sup> The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH of an existing window, 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.

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.







# 5.2.20 7-12 Cherryfield Avenue Upper - Winter APSH

|                  | Table No. 5.40: Winter APSH Results 7-12 Cherryfield Avenue Upper |                         |   |  |   |                                      |  |  |
|------------------|---|-------------------------|---|--|---|--------------------------------------|--|--|
| Window<br>Number | Baseline<br>Winter APSH   | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |
|                  |   |                         | 7 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| <b>7</b> a       | 3.2%  | 0.0%                    | 0.00  | 2.5%                                   | 0.0%  | Profound                             |  |  |
| 7b               | 53.2%   | 33.7%                   | 0.63  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 7c               | 30.1%   | 19.8%                   | 0.66  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |   |                         | 8 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 8a               | 14.9%   | 1.3%                    | 0.09  | 5.0%                                   | 25.4%   | Very Significant                     |  |  |
| 8b               | 46.1%   | 31.0%                   | 0.67  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 8c               | 53.1%   | 33.8%                   | 0.64  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |   |                         | 9 Cherryfield A                               | venue Upper                            |   |                                      |  |  |
| 9a               | 52.0%   | 28.6%                   | 0.55  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 9b               | 3.9%  | 0.0%                    | 0.00  | 3.1%                                   | 0.0%  | Profound                             |  |  |
| 9c               | 52.9%   | 33.8%                   | 0.64  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 9d               | 26.7%   | 17.8%                   | 0.67  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |   |                         | 10 Cherryfield A                              | venue Upper                            |   |                                      |  |  |
| 10a              | 51.5%   | 29.0%                   | 0.56  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 10b              | 47.1%   | 32.7%                   | 0.70  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 10c              | 52.8%   | 33.9%                   | 0.64  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |   |                         | 11 Cherryfield A                              | venue Upper                            |   |                                      |  |  |
| 11a              | 4.0%  | 0.0%                    | 0.00  | 3.2%                                   | 0.0%  | Profound                             |  |  |
| 11b              | 52.5%   | 34.1%                   | 0.65  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 11c              | 28.4%   | 19.9%                   | 0.70  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |   |                         | 12 Cherryfield A                              | venue Upper                            |   |                                      |  |  |
| 12a              | 37.0%   | 22.8%                   | 0.62  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 12b              | 51.5%   | 30.2%                   | 0.59  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 12c              | 52.6%   | 40.0%                   | 0.76  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |
| 12d              | 52.5%   | 34.6%                   | 0.66  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |

<sup>\*</sup> The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH of an existing window, 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.

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.





Figure 5.40: Left & Centre - Highlighted areas indicate the position of assessed windows., Right - Aerial view of assessed location



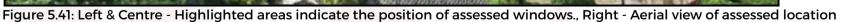
### 5.2.21 13-16 Cherryfield Avenue Upper - Annual APSH

|                  | Table No. 5.41: Annual APSH Results 13-16 Cherryfield Avenue Upper |                            |   |  |   |                                      |  |  |
|------------------|--|----------------------------|---|--|---|--------------------------------------|--|--|
| Window<br>Number | Baseline<br>Annual<br>APSH   | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |
|                  |  |                            | 13 Cherryfield A                              | venue Upper                            |   |                                      |  |  |
| 13a              | 49.3%  | 31.1%                      | 0.63  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 13b              | 11.7%  | 5.0%                       | 0.43  | 9.4%                                   | 53.7%   | Moderate                             |  |  |
| 13c              | 51.1%  | 37.9%                      | 0.74  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 13d              | 44.1%  | 33.8%                      | 0.77  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 14 Cherryfield A                              | venue Upper                            |   |                                      |  |  |
| 14a              | 31.6%  | 25.4%                      | 0.80  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 14b              | 47.0%  | 38.6%                      | 0.82  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 14c              | 50.9%  | 38.1%                      | 0.75  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 15 Cherryfield A                              | venue Upper                            |   |                                      |  |  |
| 15a              | 48.8%  | 34.5%                      | 0.71  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 15b              | 50.8%  | 40.0%                      | 0.79  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 15c              | 10.7%  | 5.0%                       | 0.47  | 8.5%                                   | 59.1%   | Moderate                             |  |  |
| 15d              | 41.0%  | 32.6%                      | 0.79  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
|                  |  |                            | 16 Cherryfield A                              | venue Upper                            |   |                                      |  |  |
| 16a              | 44.8%  | 30.8%                      | 0.69  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 16b              | 49.9%  | 36.5%                      | 0.73  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |
| 16c              | 50.7%  | 40.8%                      | 0.80  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |  |

<sup>\*</sup> The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH of an existing window, 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.

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.







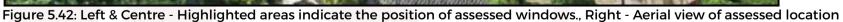
### 5.2.22 13-16 Cherryfield Avenue Upper - Winter APSH

| Table No. 5.42: Winter APSH Results 13-16 Cherryfield Avenue Upper |                         |                         |   |  |   |                                      |  |
|--|-------------------------|-------------------------|---|--|---|--------------------------------------|--|
| Window<br>Number   | Baseline<br>Winter APSH | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |
|  |                         |                         | 13 Cherryfield A                              | venue Upper                            |   |                                      |  |
| 13a  | 49.4%                   | 29.7%                   | 0.60  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
| 13b  | 0.2%                    | 0.0%                    | 0.01  | 0.1%                                   | 0.8%  | Profound                             |  |
| 13c  | 51.7%                   | 36.8%                   | 0.71  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
| 13d  | 33.6%                   | 23.3%                   | 0.69  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
|  |                         |                         | 14 Cherryfield A                              | venue Upper                            |   |                                      |  |
| 14a  | 15.6%                   | 7.6%                    | 0.49  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
| 14b  | 46.1%                   | 35.6%                   | 0.77  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
| 14c  | 51.4%                   | 37.3%                   | 0.73  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
|  |                         |                         | 15 Cherryfield A                              | venue Upper                            |   |                                      |  |
| 15a  | 49.5%                   | 31.0%                   | 0.63  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
| 15b  | 51.2%                   | 38.8%                   | 0.76  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
| 15c  | 0.3%                    | 0.0%                    | 0.00  | 0.3%                                   | 0.4%  | Profound                             |  |
| 15d  | 26.0%                   | 19.4%                   | 0.75  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
|  |                         |                         | 16 Cherryfield A                              | venue Upper                            |   |                                      |  |
| 16a  | 39.1%                   | 21.0%                   | 0.54  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
| 16b  | 49.1%                   | 32.9%                   | 0.67  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |
| 16c  | 50.8%                   | 39.6%                   | 0.78  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |

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

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.







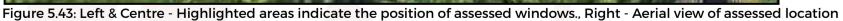
### 5.2.23 20-17 Cherryfield Avenue Upper - Annual APSH

| Table No. 5.43: Annual APSH Results 20-17 Cherryfield Avenue Upper |                            |                            |   |  |   |                                      |  |
|--|----------------------------|----------------------------|---|--|---|--------------------------------------|--|
| Window<br>Number   | Baseline<br>Annual<br>APSH | Proposed<br>Annual<br>APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Annual APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |
|  |                            |                            | 13 Cherryfield A                              | venue Upper                            |   |                                      |  |
| 17a  | 48.5%                      | 36.6%                      | 0.75  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |
| 17b  | 50.4%                      | 40.8%                      | 0.81  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |
|  |                            |                            | 14 Cherryfield A                              | venue Upper                            |   |                                      |  |
| 18a  | 42.0%                      | 34.5%                      | 0.82  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |
| 18b  | 47.2%                      | 37.7%                      | 0.80  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |
| 18c  | 45.2%                      | 41.1%                      | 0.91  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |
| 18d  | 49.4%                      | 42.4%                      | 0.86  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |
|  |                            |                            | 15 Cherryfield A                              | venue Upper                            |   |                                      |  |
| 19a  | 31.1%                      | 25.0%                      | 0.80  | 24.9%                                  | BRE Compliant                                 | Imperceptible                        |  |
| 19b  | 49.6%                      | 42.8%                      | 0.86  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |
| 19c  | 38.2%                      | 32.4%                      | 0.85  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |
|  |                            |                            | 16 Cherryfield A                              | venue Upper                            |   |                                      |  |
| 20a  | 41.1%                      | 38.6%                      | 0.94  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |
| 20b  | 46.1%                      | 43.4%                      | 0.94  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |
| 20c  | 49.3%                      | 42.8%                      | 0.87  | 25.0%                                  | BRE Compliant                                 | Imperceptible                        |  |

<sup>\*</sup> The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH of an existing window, 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.

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.







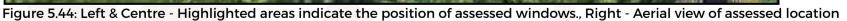
### 5.2.24 20-17 Cherryfield Avenue Upper - Winter APSH

|                  | Table No. 5.44: Winter APSH Results 20-17 Cherryfield Avenue Upper |                         |   |  |   |                                      |  |  |  |
|------------------|--|-------------------------|---|--|---|--------------------------------------|--|--|--|
| Window<br>Number | Baseline<br>Winter APSH  | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |
|                  |  |                         | 13 Cherryfield A                              | venue Upper                            |   |                                      |  |  |  |
| 17a              | 48.1%  | 35.7%                   | 0.74  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 17b              | 50.4%  | 40.7%                   | 0.81  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |  |                         | 14 Cherryfield A                              | Avenue Upper                           |   |                                      |  |  |  |
| 18a              | 35.4%  | 31.4%                   | 0.89  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 18b              | 45.9%  | 39.0%                   | 0.85  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 18c              | 43.8%  | 38.7%                   | 0.88  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 18d              | 50.4%  | 43.5%                   | 0.86  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  |  |                         | 15 Cherryfield A                              | Avenue Upper                           |   |                                      |  |  |  |
| 19a              | 25.5%  | 21.8%                   | 0.85  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 19b              | 48.3%  | 44.2%                   | 0.91  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 19c              | 20.2%  | 16.9%                   | 0.84  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
|                  | 16 Cherryfield Avenue Upper  |                         |   |  |   |                                      |  |  |  |
| 20a              | 37.9%  | 37.1%                   | 0.98  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 20b              | 47.5%  | 44.1%                   | 0.93  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |
| 20c              | 47.7%  | 43.9%                   | 0.92  | 5.0%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |

<sup>\*</sup> The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH of an existing window, 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.

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.







#### **5.3** Hypothetical study on profound winter APSH impacts without Block E

An additional hypothetical study was carried out to test if a reduction in density of the proposed development would yield more favourable results in the instances where a profound level of effect was indicated to the winter sun. To test this, Block E was omitted from the analytical model as it is the closest block to the shared boundary of the subject site and Cherryfield Avenue. The results of the winter APSH of the assessed windows are very similar with or without Block E of the proposed development. This demonstrates that the high level of impact to these windows is not a result of the density which is proposed as part of the proposed development, but rather due to localised factors of the affected windows such as orientation and localised obstructions to the south as expanded on in section 6.2 on page 159.

Window 13b on number 13 Cherryfield Avenue Upper shows an imperceptible level of effect in this hypothetical study. However, it should be noted that the baseline figure is very low, with only 0.2% of the available sunlight during the winter period possibly reaching this window. By contrast, the effect to window 15c on 15 Cherryfield Avenue Upper is considered to be profound despite the available light in the baseline study is so low. When baseline figures are so low, any reduction will be exaggerated.

|                  | Table No. 5.45: Annual APSH Results 87 Eglinton Road |                         |   |  |   |                                      |  |  |  |  |
|------------------|--|-------------------------|---|--|---|--------------------------------------|--|--|--|--|
| Window<br>Number | Baseline<br>Winter APSH                              | Proposed<br>Winter APSH | Ratio of<br>Proposed APSH<br>to Baseline APSH | Recommended<br>minimum<br>Winter APSH* | Level of<br>Compliance with<br>BRE Guidelines | Effect of<br>Proposed<br>Development |  |  |  |  |
|                  | 29 Cherryfield Avenue Lower                          |                         |   |  |   |                                      |  |  |  |  |
| 29b              | 8.0%   | 0.2%                    | 0.03  | 5.0%                                   | 4.7%  | Profound                             |  |  |  |  |
|                  |  |                         | 31 Cherryfield A                              | venue Lower                            |   |                                      |  |  |  |  |
| 31b              | 6.5%   | 0.6%                    | 0.09  | 5.0%                                   | 11.3%   | Very Significant                     |  |  |  |  |
|                  |  |                         | 3 Cherryfield A                               | venue Upper                            |   |                                      |  |  |  |  |
| 3a               | 11.6%  | 2.1%                    | 0.18  | 5.0%                                   | 41.2%   | Significant                          |  |  |  |  |
| 3b               | 4.0%   | 0.0%                    | 0.00  | 3.2%                                   | 0.0%  | Profound                             |  |  |  |  |
|                  |  |                         | 5 Cherryfield A                               | venue Upper                            |   |                                      |  |  |  |  |
| 5a               | 3.6%   | 0.1%                    | 0.02  | 2.8%                                   | 2.4%  | Profound                             |  |  |  |  |
|                  |  |                         | 7 Cherryfield A                               | venue Upper                            |   |                                      |  |  |  |  |
| 7a               | 3.2%   | 0.0%                    | 0.00  | 2.5%                                   | 0.2%  | Profound                             |  |  |  |  |
|                  |  |                         | 9 Cherryfield A                               | venue Upper                            |   |                                      |  |  |  |  |
| 9b               | 3.9%   | 0.0%                    | 0.00  | 3.1%                                   | 0.0%  | Profound                             |  |  |  |  |
|                  |  |                         | 11 Cherryfield A                              | venue Upper                            |   |                                      |  |  |  |  |
| 11a              | 4.0%   | 0.0%                    | 0.00  | 3.2%                                   | 0.0%  | Profound                             |  |  |  |  |
|                  | 13 Cherryfield Avenue Upper                          |                         |   |  |   |                                      |  |  |  |  |
| 13b              | 0.2%   | 0.2%                    | 0.87  | 0.1%                                   | BRE Compliant                                 | Imperceptible                        |  |  |  |  |
|                  | 15 Cherryfield Avenue Upper                          |                         |   |  |   |                                      |  |  |  |  |
| 15c              | 0.3%   | 0.0%                    | 0.00  | 0.3%                                   | 0.4%  | Profound                             |  |  |  |  |
|                  |  |                         |   |  |   |                                      |  |  |  |  |

 $<sup>^</sup>st$  The BRE Guidelines state that in order for a proposed development to have a noticeable effect on the APSH of an existing window, 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.

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



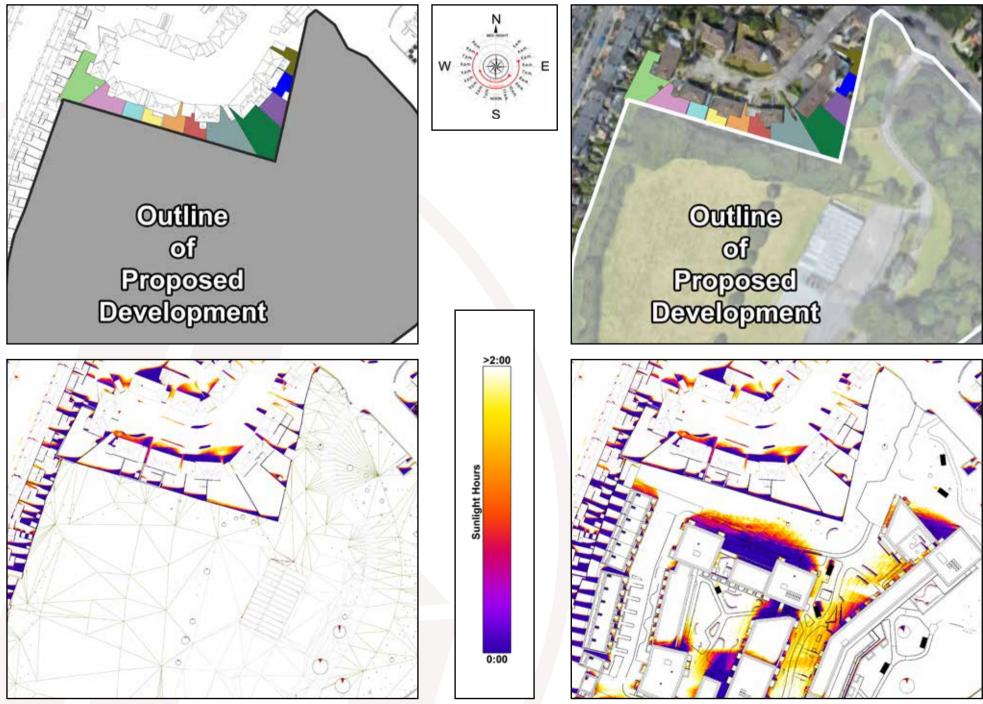
# **5.4 Effect on Sunlighting in Existing Gardens**

#### **5.4.1 1-11 Norwood Park**

| Table No. 5.46: Sunlighting Results 1-9 Cherryfield Avenue Upper |             |          |                                     |                        |                                      |                        |  |
|--|-------------|----------|-------------------------------------|------------------------|--------------------------------------|------------------------|--|
|  | % of Area t |          | ove 2 Hours Sun<br>arget >50%)      | Level of               | Effect of                            |                        |  |
| Address  | Baseline    | Proposed | Ratio of<br>Proposed<br>to Baseline | Recommended<br>minimum | Compliance<br>with BRE<br>Guidelines | Proposed Development** |  |
| 1 Norwood Park   | 90.8%       | 90.8%    | 1.00                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 2 Norwood Park   | 68.5%       | 68.3%    | 1.00                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 3 Norwood Park   | 87.1%       | 83.6%    | 0.96                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 4 Norwood Park   | 95.2%       | 93.8%    | 0.99                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 5 Norwood Park   | 85.5%       | 83.1%    | 0.97                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 6 Norwood Park   | 73.6%       | 73.5%    | 1.00                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 7 Norwood Park   | 73.6%       | 71.0%    | 0.97                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 8 Norwood Park   | 74.2%       | 70.7%    | 0.95                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 9 Norwood Park   | 70.8%       | 67.6%    | 0.96                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 10 Norwood Park  | 81.5%       | 78.8%    | 0.97                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 11 Norwood Park  | 86.8%       | 86.8%    | 1.00                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |

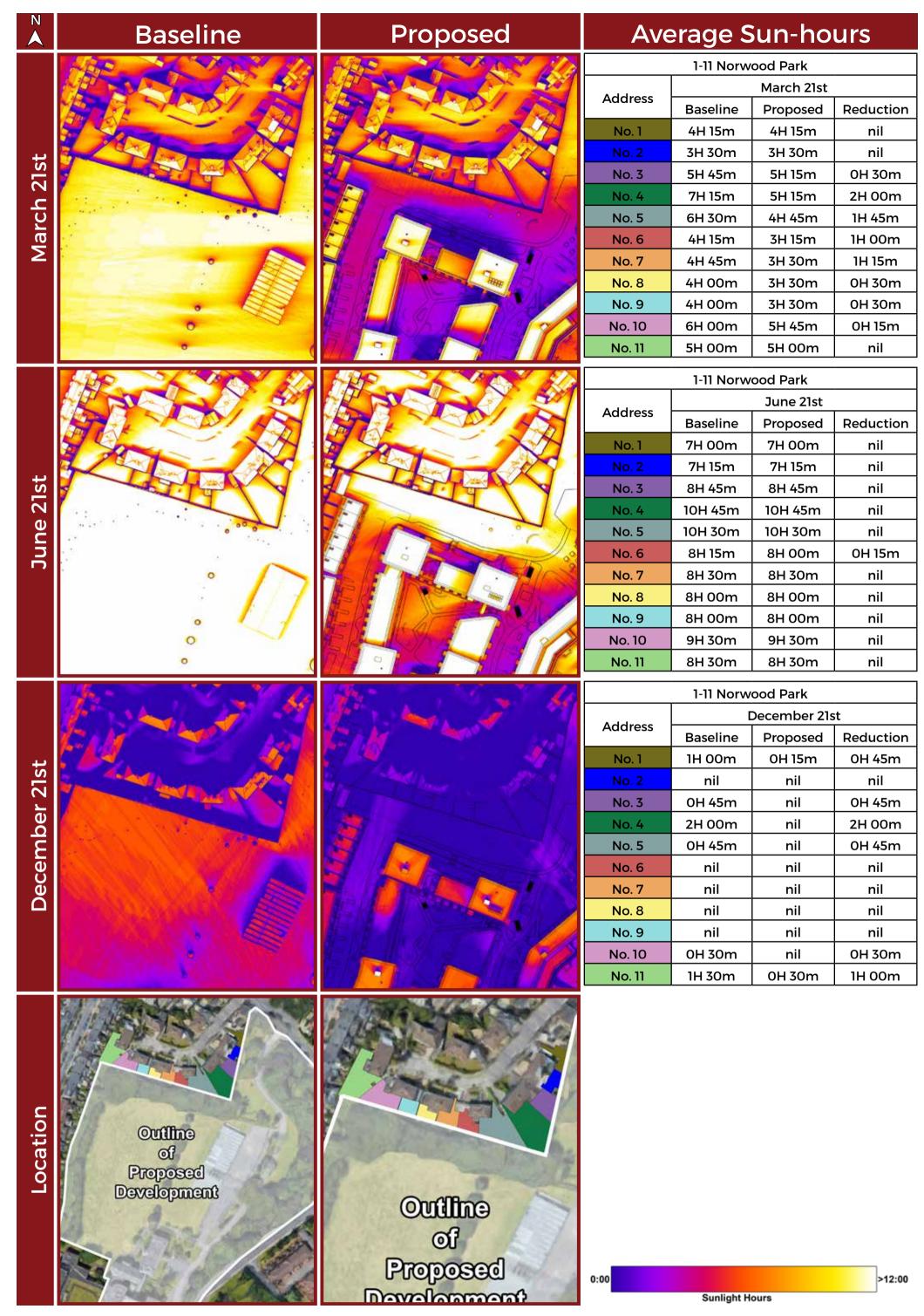
<sup>\*</sup> The BRE guidelines state that in order for a proposed development to have a noticeable effect on the amount of sunlight received in an existing garden or amenity area, the value needs to both drop below the stated target value of 50% <u>and</u> be reduced by more than 20% of the existing value.

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.



Baseline Figure 5.45: False colour plans. White area indicates the area capable of receiving 2 hours of sunlight on March 21st.

Proposed





# 5.4.2 28-35 Cherryfield Avenue Lower

| Table No. 5.47: Sunlighting Results 1-9 Cherryfield Avenue Upper |             |          |                                     |                        |                                      |                        |  |
|--|-------------|----------|-------------------------------------|------------------------|--------------------------------------|------------------------|--|
|  | % of Area t |          | ove 2 Hours Sun<br>arget >50%)      | Level of               | Effect of                            |                        |  |
| Address  | Baseline    | Proposed | Ratio of<br>Proposed<br>to Baseline | Recommended<br>minimum | Compliance<br>with BRE<br>Guidelines | Proposed Development** |  |
| 28 Cherryfield Avenue Lower                                      | 23.8%       | 19.6%    | 0.82                                | 19.0%                  | BRE Compliant                        | Imperceptible          |  |
| 29 Cherryfield Avenue Lower                                      | 48.0%       | 41.3%    | 0.86                                | 38.4%                  | BRE Compliant                        | Imperceptible          |  |
| 30 Cherryfield Avenue Lower                                      | 64.5%       | 48.4%    | 0.75                                | 50.0%                  | 96.9%                                | Not Significant        |  |
| 31 Cherryfield Avenue Lower                                      | 41.7%       | 32.7%    | 0.78                                | 33.4%                  | 98.0%                                | Not Significant        |  |
| 32 Cherryfield Avenue Lower                                      | 50.4%       | 34.7%    | 0.69                                | 40.3%                  | 86.2%                                | Slight                 |  |
| 33 Cherryfield Avenue Lower                                      | 35.3%       | 27.3%    | 0.77                                | 28.2%                  | 96.7%                                | Not Significant        |  |
| 34 Cherryfield Avenue Lower                                      | 97.0%       | 93.3%    | 0.96                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 35 Cherryfield Avenue Lower                                      | 14.4%       | 13.4%    | 0.93                                | 11.5%                  | BRE Compliant                        | Imperceptible          |  |

<sup>\*</sup> The BRE guidelines state that in order for a proposed development to have a noticeable effect on the amount of sunlight received in an existing garden or amenity area, the value needs to both drop below the stated target value of 50% <u>and</u> be reduced by more than 20% of the existing value.

<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.

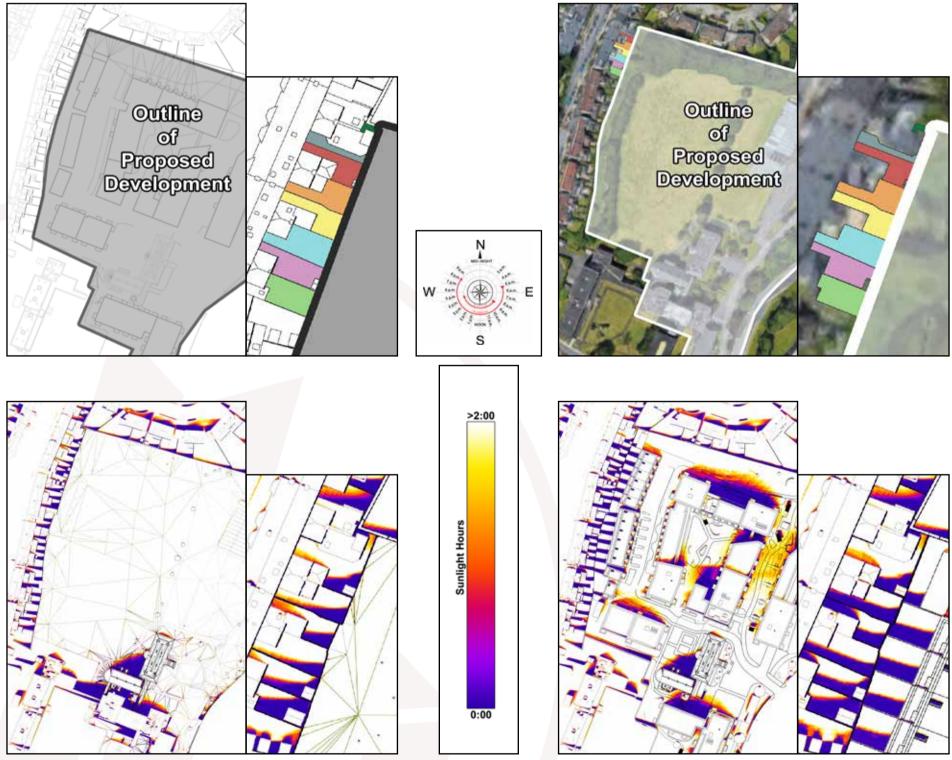
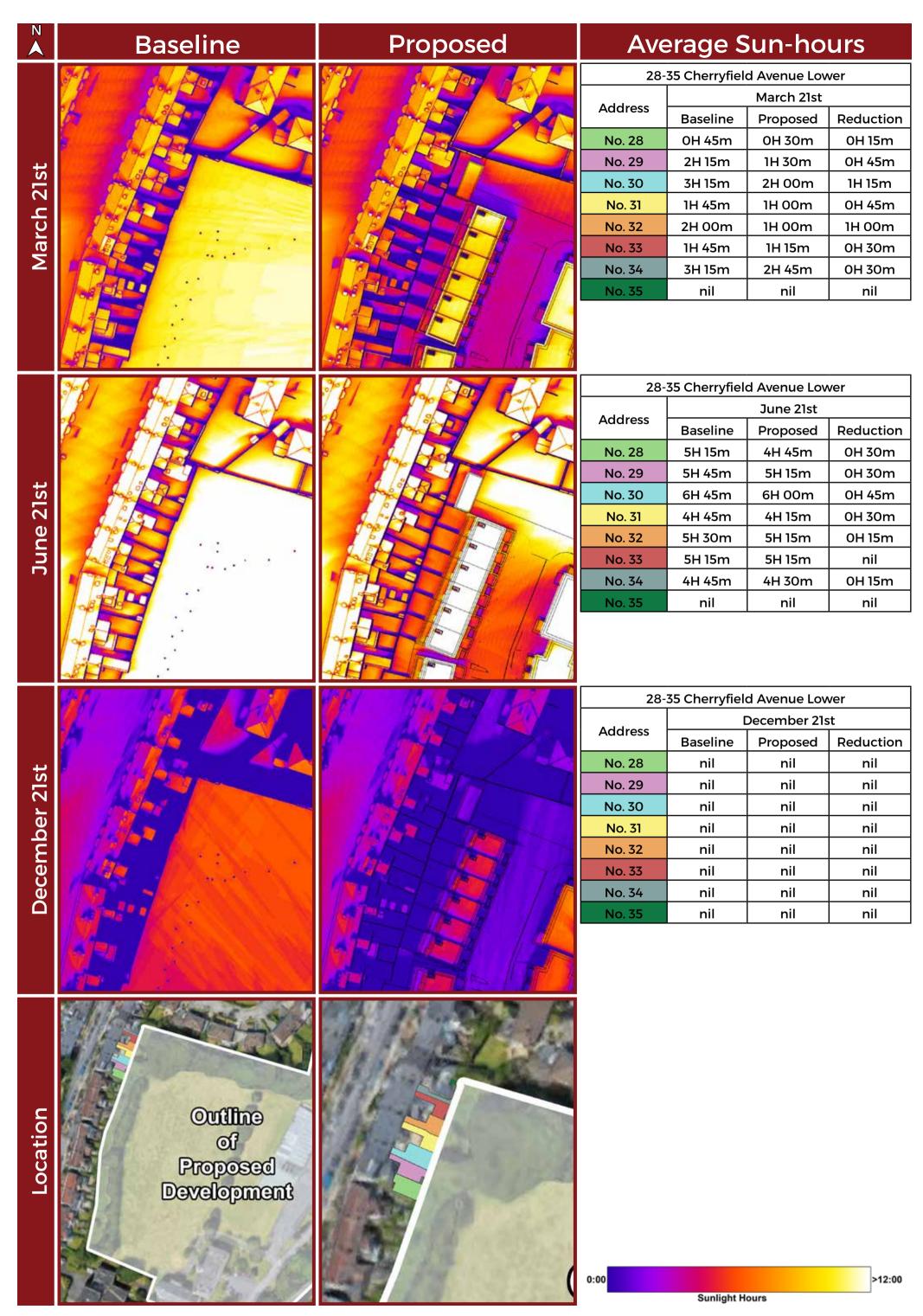


Figure 5.46: False colour plans. White area indicates the area capable of receiving 2 hours of sunlight on March 21st.

**Baseline** 





# 5.4.3 1-9 Cherryfield Avenue Upper

| Table No. 5.48: Sunlighting Results 1-9 Cherryfield Avenue Upper |             |          |                                     |                        |                                      |                        |  |
|--|-------------|----------|-------------------------------------|------------------------|--------------------------------------|------------------------|--|
|  | % of Area t |          | ve 2 Hours Sun<br>arget >50%)       | Level of               | Effect of                            |                        |  |
| Address  | Baseline    | Proposed | Ratio of<br>Proposed<br>to Baseline | Recommended<br>minimum | Compliance<br>with BRE<br>Guidelines | Proposed Development** |  |
| 1 Cherryfield Avenue Upper                                       | 54.1%       | 41.6%    | 0.77                                | 43.3%                  | 96.1%                                | Not Significant        |  |
| 2 Cherryfield Avenue Upper                                       | 34.0%       | 30.8%    | 0.91                                | 27.2%                  | BRE Compliant                        | Imperceptible          |  |
| 3 Cherryfield Avenue Upper                                       | 59.7%       | 45.4%    | 0.76                                | 47.8%                  | 95.1%                                | Not Significant        |  |
| 4 Cherryfield Avenue Upper                                       | 49.7%       | 47.0%    | 0.95                                | 39.7%                  | BRE Compliant                        | Imperceptible          |  |
| 5 Cherryfield Avenue Upper                                       | 0.0%        | 0.0%     | 1.00                                | 0.0%                   | BRE Compliant                        | Imperceptible          |  |
| 6 Cherryfield Avenue Upper                                       | 64.9%       | 63.5%    | 0.98                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 7 Cherryfield Avenue Upper                                       | 40.8%       | 24.5%    | 0.60                                | 32.6%                  | 75.0%                                | Moderate               |  |
| 8 Cherryfield Avenue Upper                                       | 21.2%       | 19.9%    | 0.94                                | 17.0%                  | BRE Compliant                        | Imperceptible          |  |
| 9 Cherryfield Avenue Upper                                       | 47.8%       | 41.4%    | 0.86                                | 38.3%                  | BRE Compliant                        | Imperceptible          |  |

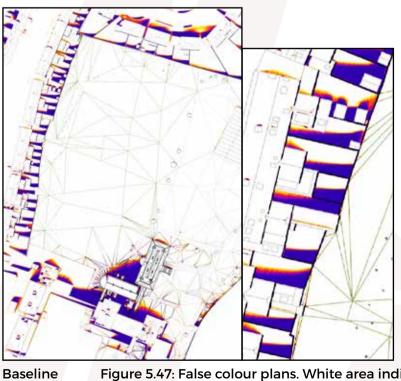
<sup>\*</sup> The BRE guidelines state that in order for a proposed development to have a noticeable effect on the amount of sunlight received in an existing garden or amenity area, the value needs to both drop below the stated target value of 50% <u>and</u> be reduced by more than 20% of the existing value.

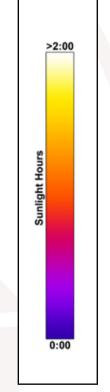
<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.











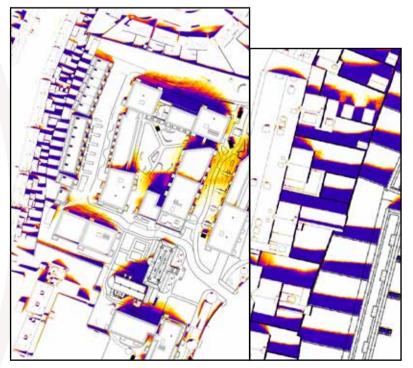
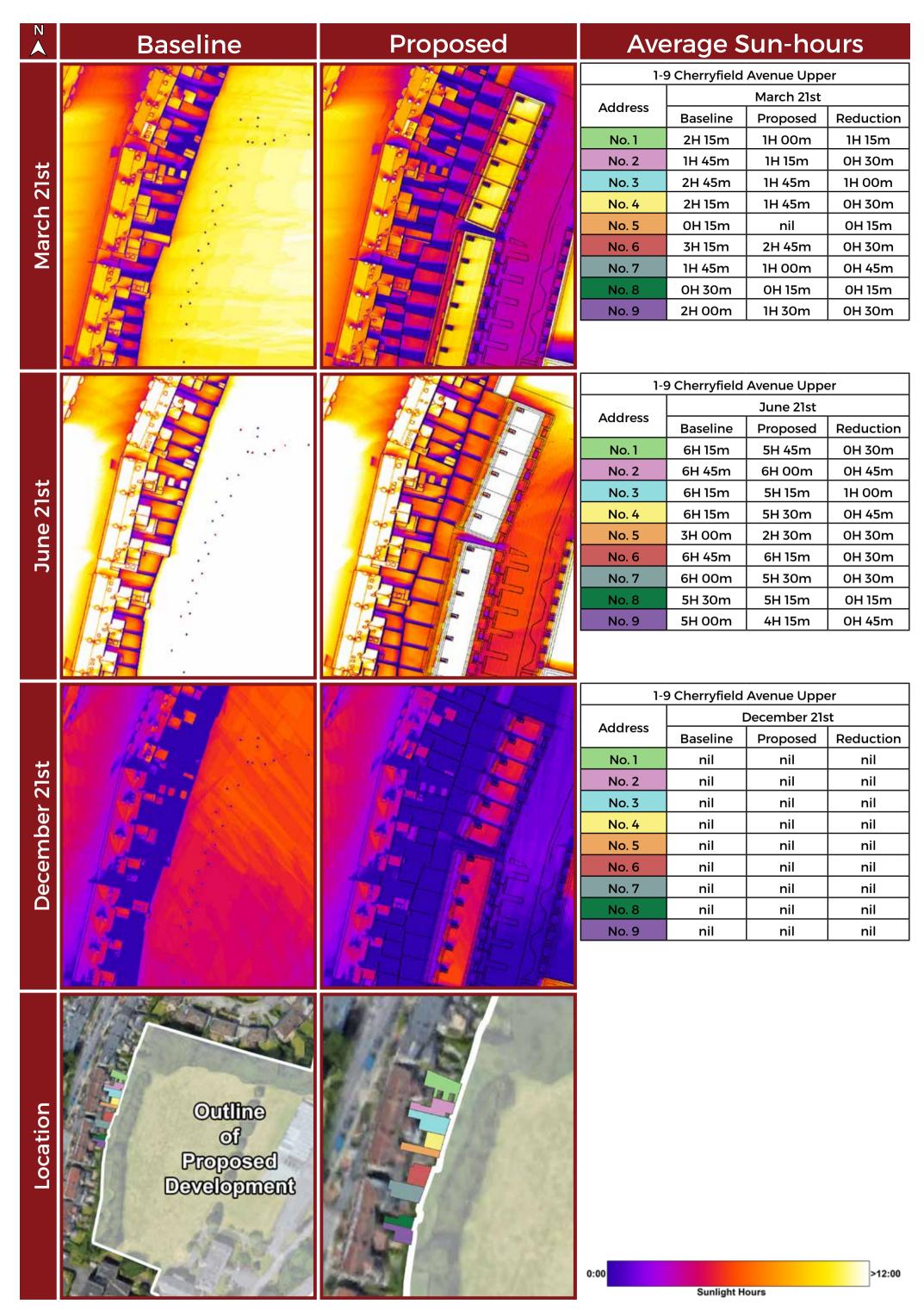


Figure 5.47: False colour plans. White area indicates the area capable of receiving 2 hours of sunlight on March 21st.

Proposed



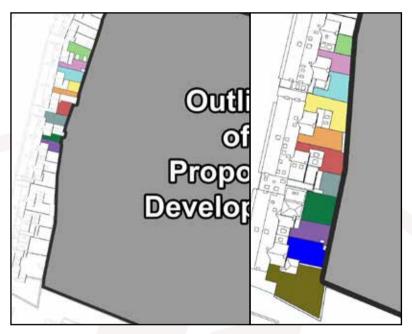


# 5.4.4 10-20 Cherryfield Avenue Upper Avenue Upper

| Table No. 5.49: Sunlighting Results 10-20 Cherryfield Avenue Upper |             |          |                                     |                        |                                      |                        |  |
|--|-------------|----------|-------------------------------------|------------------------|--------------------------------------|------------------------|--|
|  | % of Area t |          | ve 2 Hours Sun<br>arget >50%)       | Level of               | Effect of                            |                        |  |
| Address  | Baseline    | Proposed | Ratio of<br>Proposed<br>to Baseline | Recommended<br>minimum | Compliance<br>with BRE<br>Guidelines | Proposed Development** |  |
| 10 Cherryfield Avenue Upper  | 56.2%       | 53.8%    | 0.96                                | 45.0%                  | BRE Compliant                        | Imperceptible          |  |
| 11 Cherryfield Avenue Upper  | 50.8%       | 38.9%    | 0.77                                | 40.6%                  | 95.7%                                | Not Significant        |  |
| 12 Cherryfield Avenue Upper  | 58.3%       | 56.3%    | 0.97                                | 46.7%                  | BRE Compliant                        | Imperceptible          |  |
| 13 Cherryfield Avenue Upper  | 51.3%       | 39.8%    | 0.78                                | 41.0%                  | 97.0%                                | Not Significant        |  |
| 14 Cherryfield Avenue Upper  | 45.8%       | 44.2%    | 0.97                                | 36.7%                  | BRE Compliant                        | Imperceptible          |  |
| 15 Cherryfield Avenue Upper  | 46.2%       | 44.2%    | 0.96                                | 37.0%                  | BRE Compliant                        | Imperceptible          |  |
| 16 Cherryfield Avenue Upper  | 59.0%       | 56.2%    | 0.95                                | 47.2%                  | BRE Compliant                        | Imperceptible          |  |
| 17 Cherryfield Avenue Upper  | 71.0%       | 67.2%    | 0.95                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |
| 18 Cherryfield Avenue Upper  | 40.0%       | 38.6%    | 0.96                                | 32.0%                  | BRE Compliant                        | Imperceptible          |  |
| 19 Cherryfield Avenue Upper  | 48.0%       | 47.2%    | 0.98                                | 38.4%                  | BRE Compliant                        | Imperceptible          |  |
| 20 Cherryfield Avenue Upper  | 73.6%       | 73.5%    | 1.00                                | 50.0%                  | BRE Compliant                        | Imperceptible          |  |

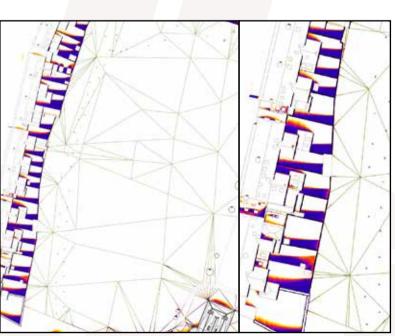
<sup>\*</sup> The BRE guidelines state that in order for a proposed development to have a noticeable effect on the amount of sunlight received in an existing garden or amenity area, the value needs to both drop below the stated target value of 50% <u>and</u> be reduced by more than 20% of the existing value.

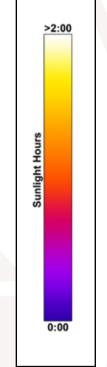
<sup>\*\*</sup> For the interpretation of level of effects please refer to "2.2 Definition of Effects" on page 6.

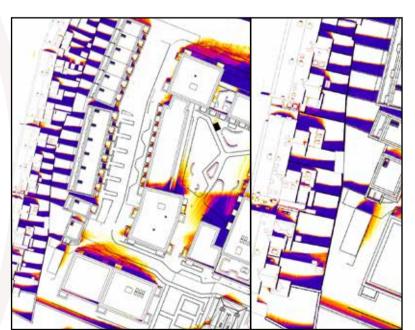






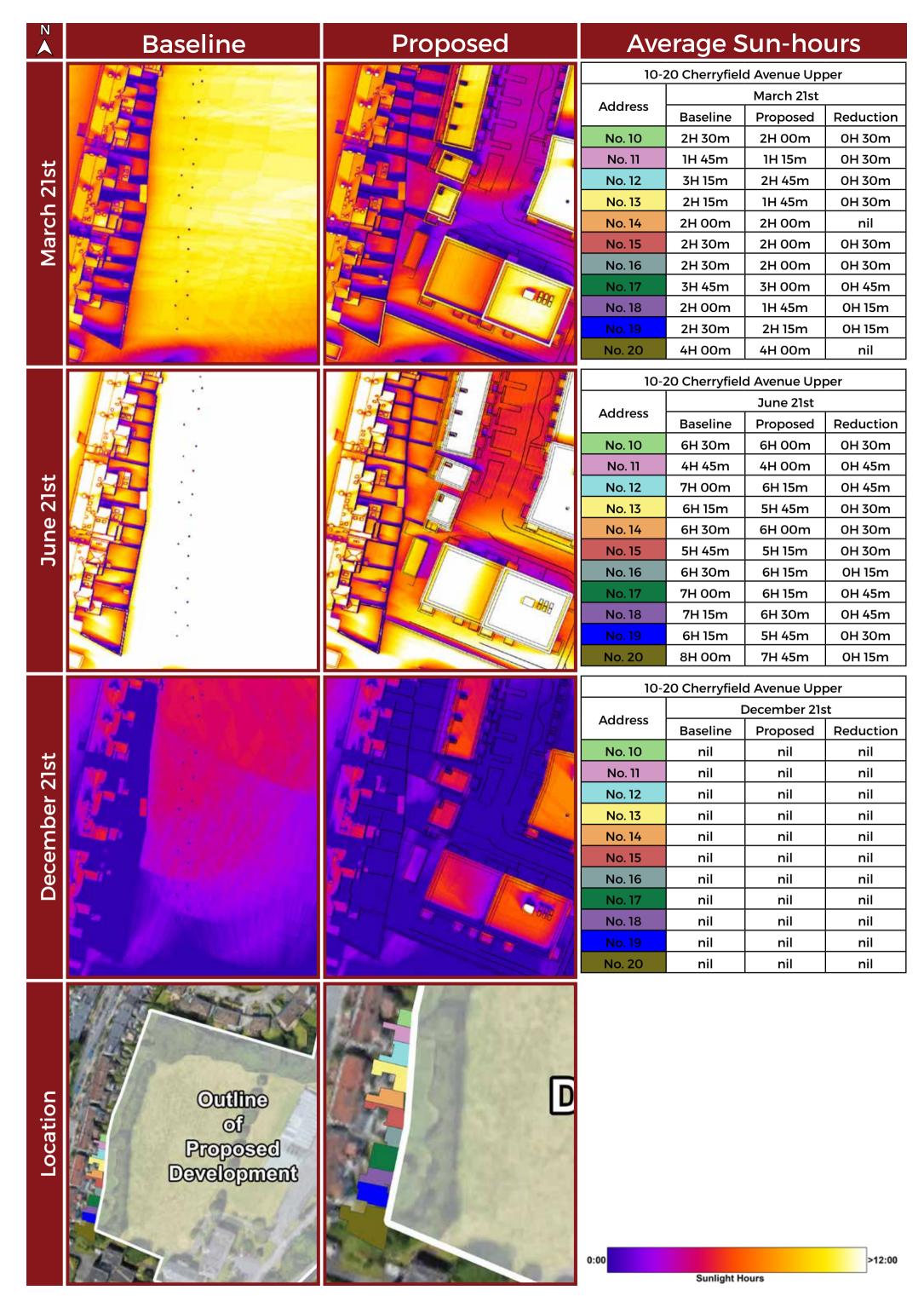






Baseline

Figure 5.48: False colour plans. White area indicates the area capable of receiving 2 hours of sunlight on March 21st.





| Table No. 5.50: Sunlight in Proposed Shared Amenity Areas Results |  |                        |   |  |  |  |  |
|---|--|------------------------|---|--|--|--|--|
| Assessed Area   | Area Capable of Receiving 2 Hours<br>of Sunlight on March 21st | Recommended<br>minimum | Level of<br>Compliance with<br>BRE Guidelines |  |  |  |  |
| Public Open Space   | 87.3%  | 50.0%                  | BRE Compliant                                 |  |  |  |  |
| Communal Open Space   | 67.4%  | 50.0%                  | BRE Compliant                                 |  |  |  |  |

<sup>\*</sup> The BRE Guidelines recommend that for a garden or amenity 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.



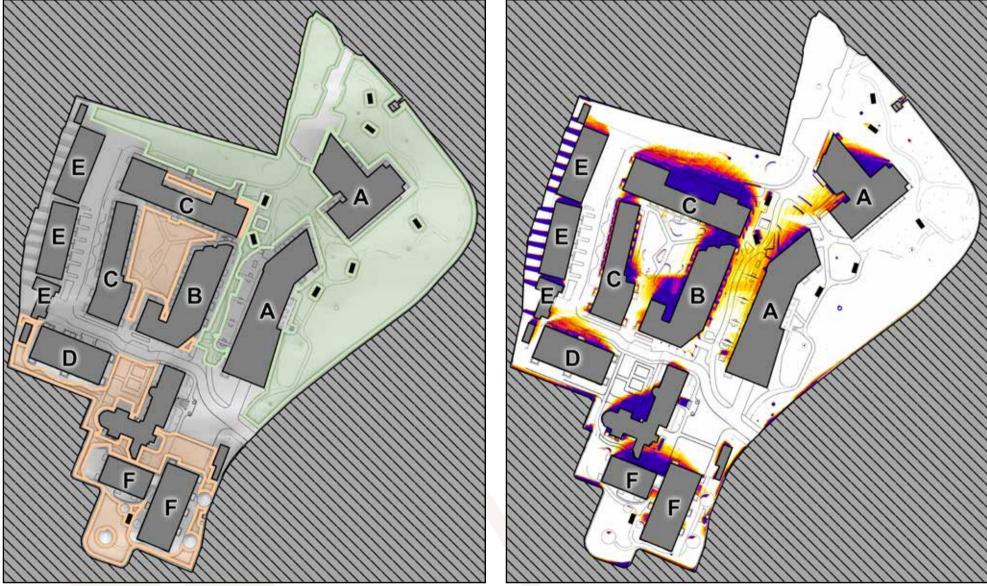


Figure 5.49: Indication of the amenity areas that have been analysed (L) Area capable of receiving 2 hours of sunlight on March 21st shown in white (R).



### 5.5.2 Roof Gardens

| Table No. 5.51: Sunlight in Proposed Roof Gardens Results   |       |       |               |  |  |  |  |
|---|-------|-------|---------------|--|--|--|--|
| Assessed Area  Area Capable of Receiving 2 Hours of Sunlight on March 21st  Recommended Compliance BRE Guidel |       |       |               |  |  |  |  |
| Block A - Roof Garden - East  | 98.7% | 50.0% | BRE Compliant |  |  |  |  |
| Block A - Roof Garden - West  | 91.2% | 50.0% | BRE Compliant |  |  |  |  |
| Block B - Roof Garden   | 95.7% | 50.0% | BRE Compliant |  |  |  |  |
| Block C - Roof Garden   | 86.6% | 50.0% | BRE Compliant |  |  |  |  |

<sup>\*</sup> The BRE Guidelines recommend that for a garden or amenity 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.



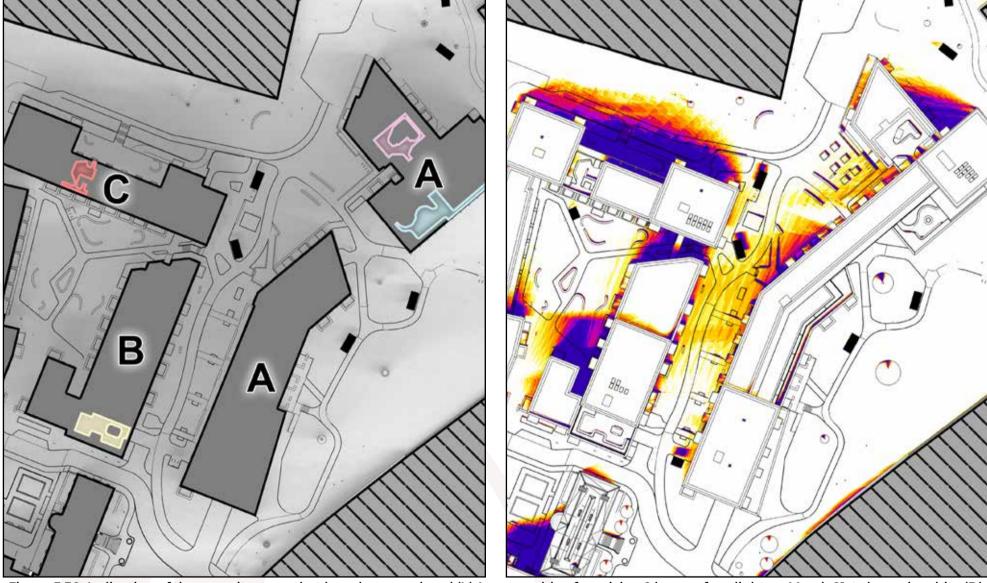
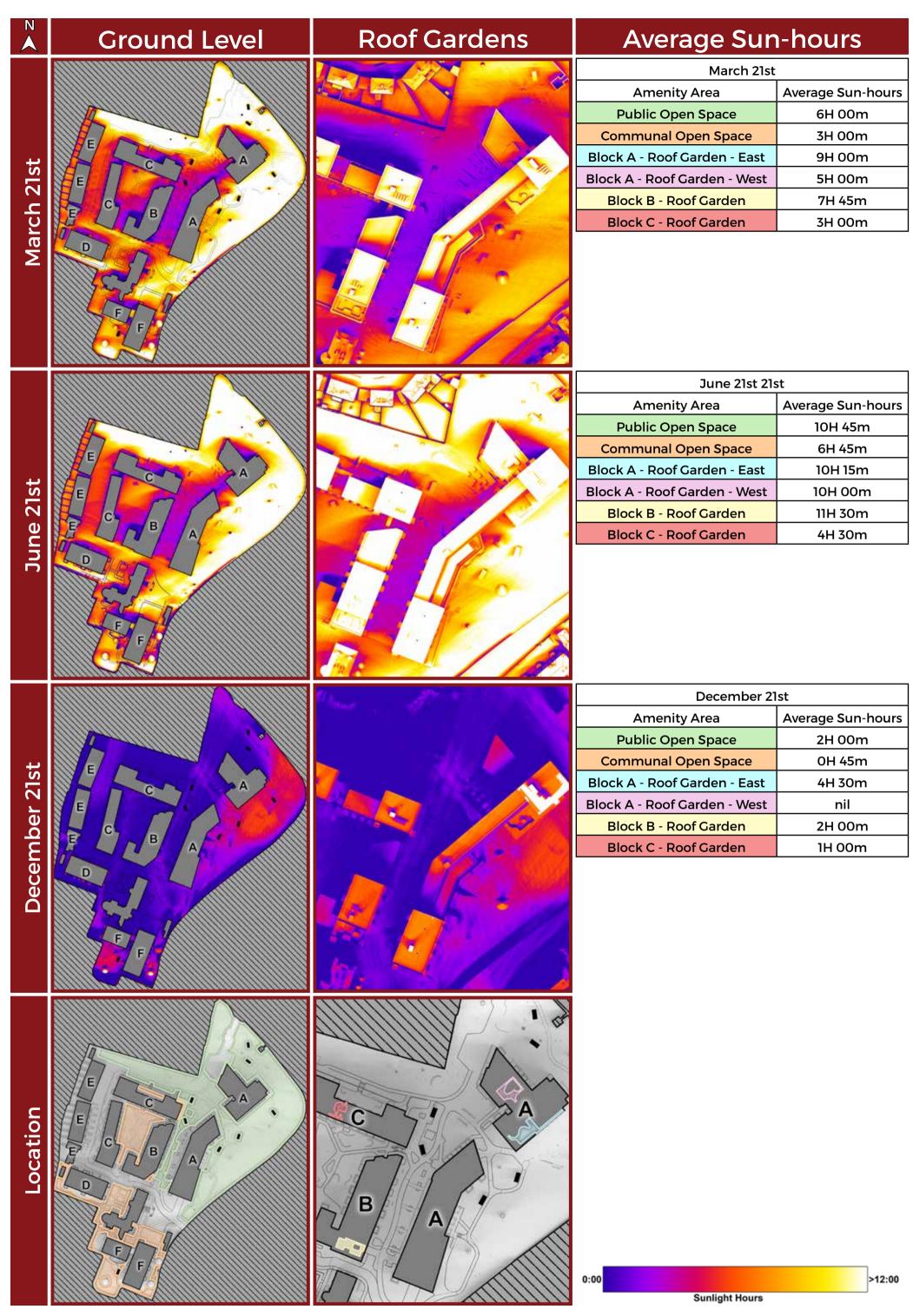


Figure 5.50: Indication of the amenity areas that have been analysed (L) Area capable of receiving 2 hours of sunlight on March 21st shown in white (R).





# 5.5.3 Rear Gardens

| Table No. 5.52: Sunlight in Proposed Rear Gardens Results |  |                        |   |
|---|--|------------------------|---|
| Assessed Area   | Area Capable of Receiving 2 Hours<br>of Sunlight on March 21st | Recommended<br>minimum | Level of<br>Compliance with<br>BRE Guidelines |
| Garden E-1  | 88.9%  | 50.0%                  | BRE Compliant                                 |
| Garden E-2  | 65.4%  | 50.0%                  | BRE Compliant                                 |
| Garden E-3  | 57.8%  | 50.0%                  | BRE Compliant                                 |
| Garden E-4  | 58.2%  | 50.0%                  | BRE Compliant                                 |
| Garden E-5  | 54.3%  | 50.0%                  | BRE Compliant                                 |
| Garden E-6  | 56.5%  | 50.0%                  | BRE Compliant                                 |
| Garden E-7  | 60.6%  | 50.0%                  | BRE Compliant                                 |
| Garden E-8  | 75.9%  | 50.0%                  | BRE Compliant                                 |
| Garden E-9  | 53.7%  | 50.0%                  | BRE Compliant                                 |
| Garden E-10   | 54.4%  | 50.0%                  | BRE Compliant                                 |
| Garden E-11   | 51.7%  | 50.0%                  | BRE Compliant                                 |
| Garden E-12   | 53.5%  | 50.0%                  | BRE Compliant                                 |
| Garden E-13   | 53.8%  | 50.0%                  | BRE Compliant                                 |
| Garden E-14   | 50.2%  | 50.0%                  | BRE Compliant                                 |

<sup>\*</sup> The BRE Guidelines recommend that for a garden or amenity 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.



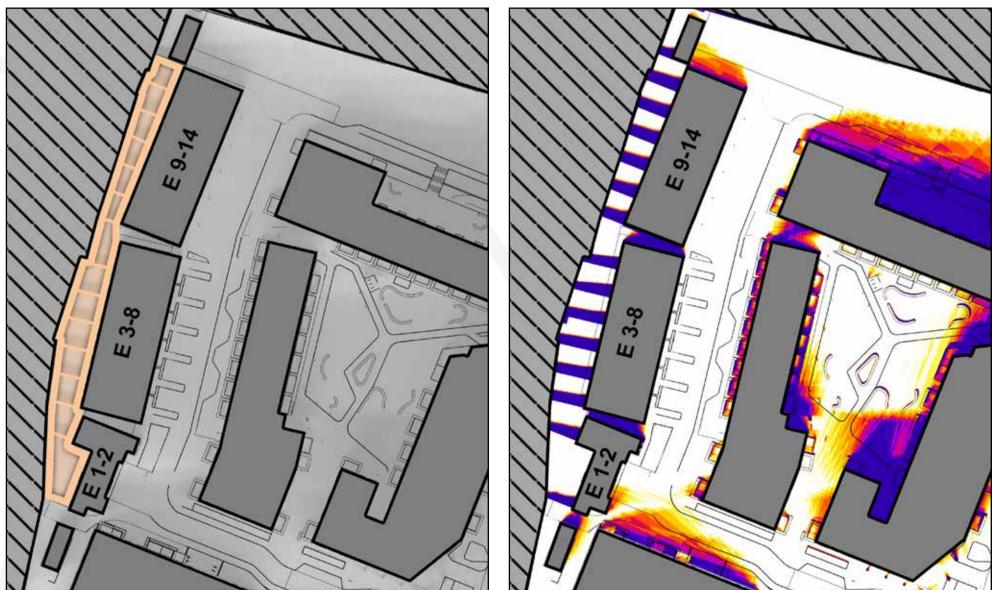
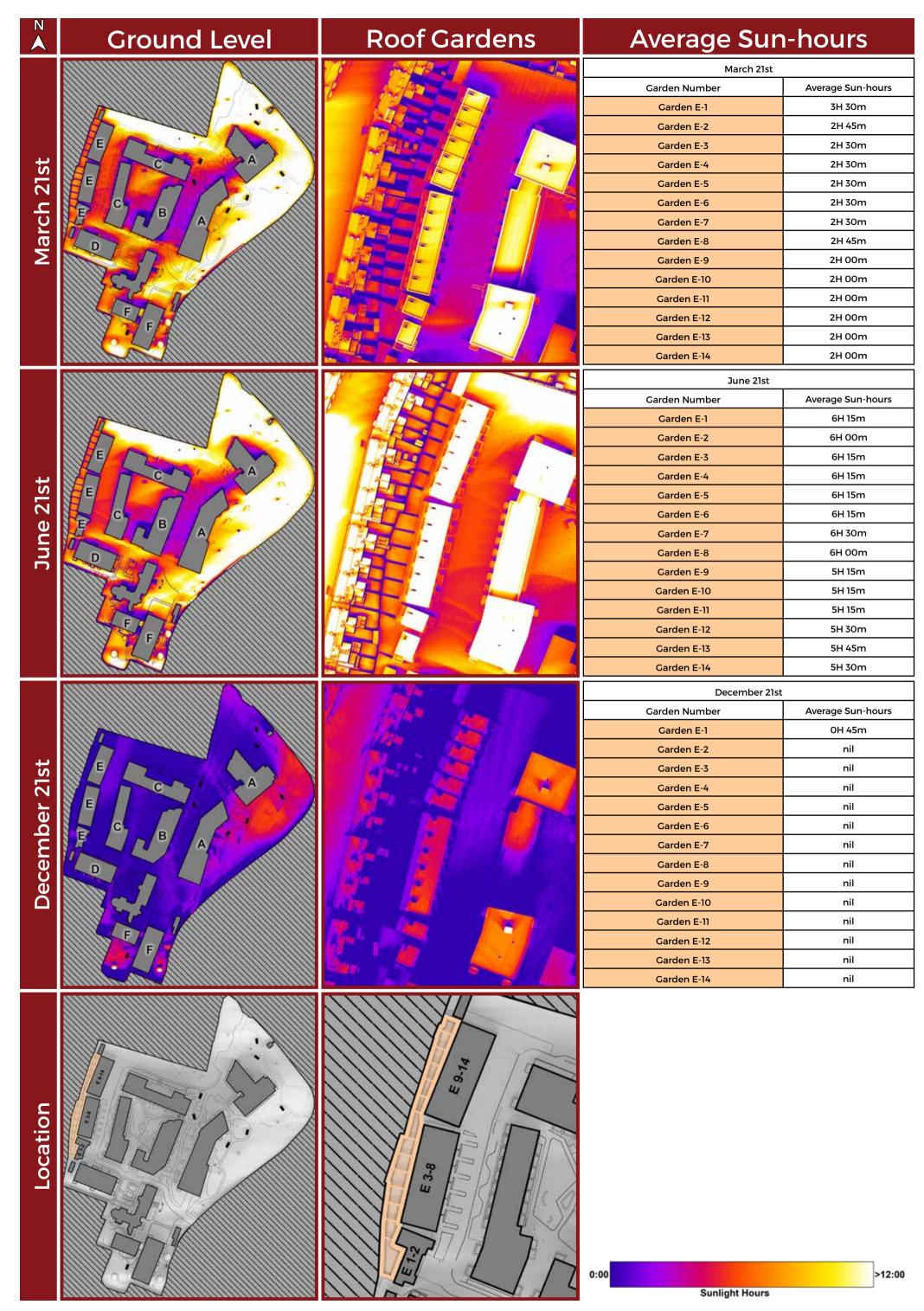
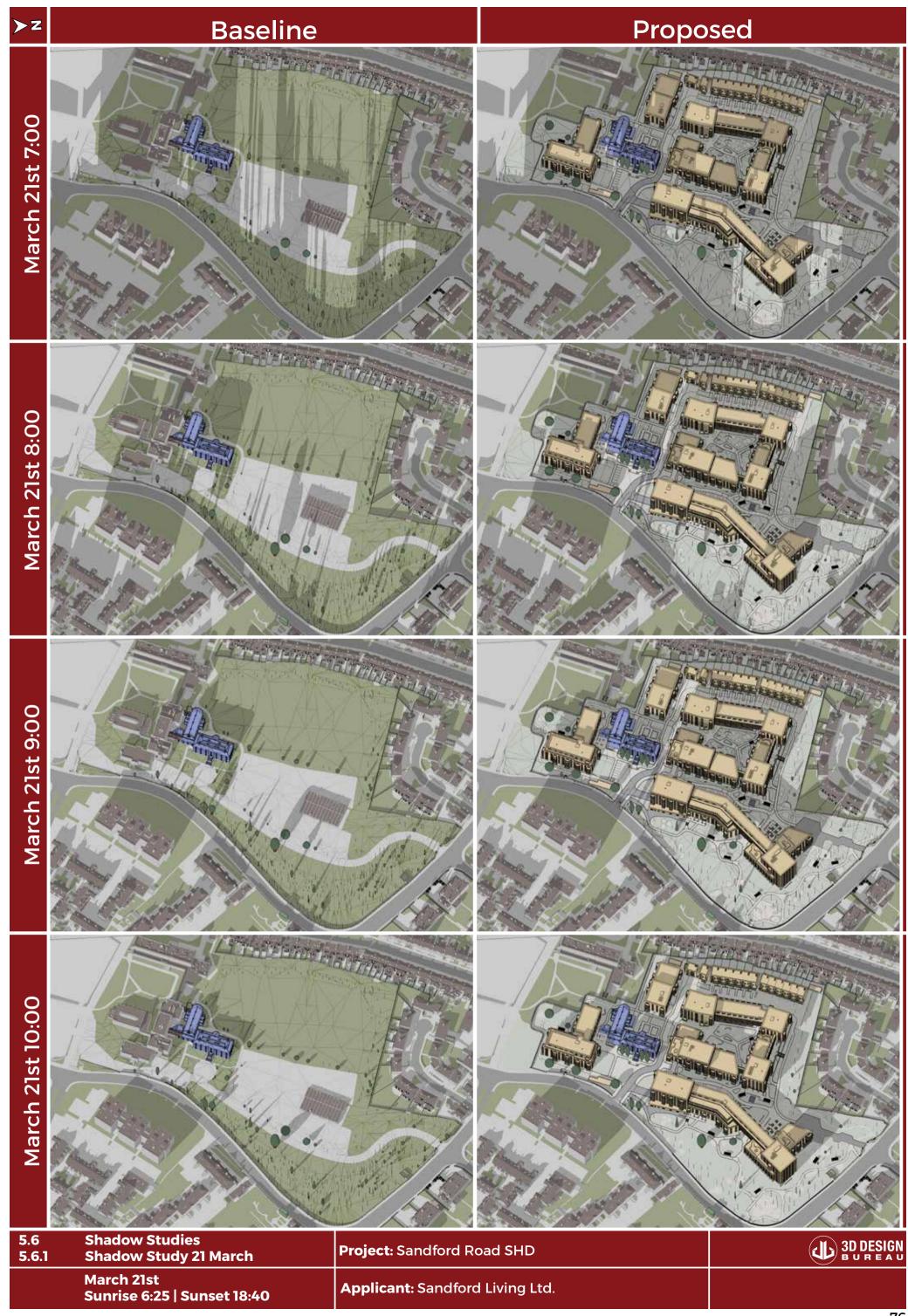
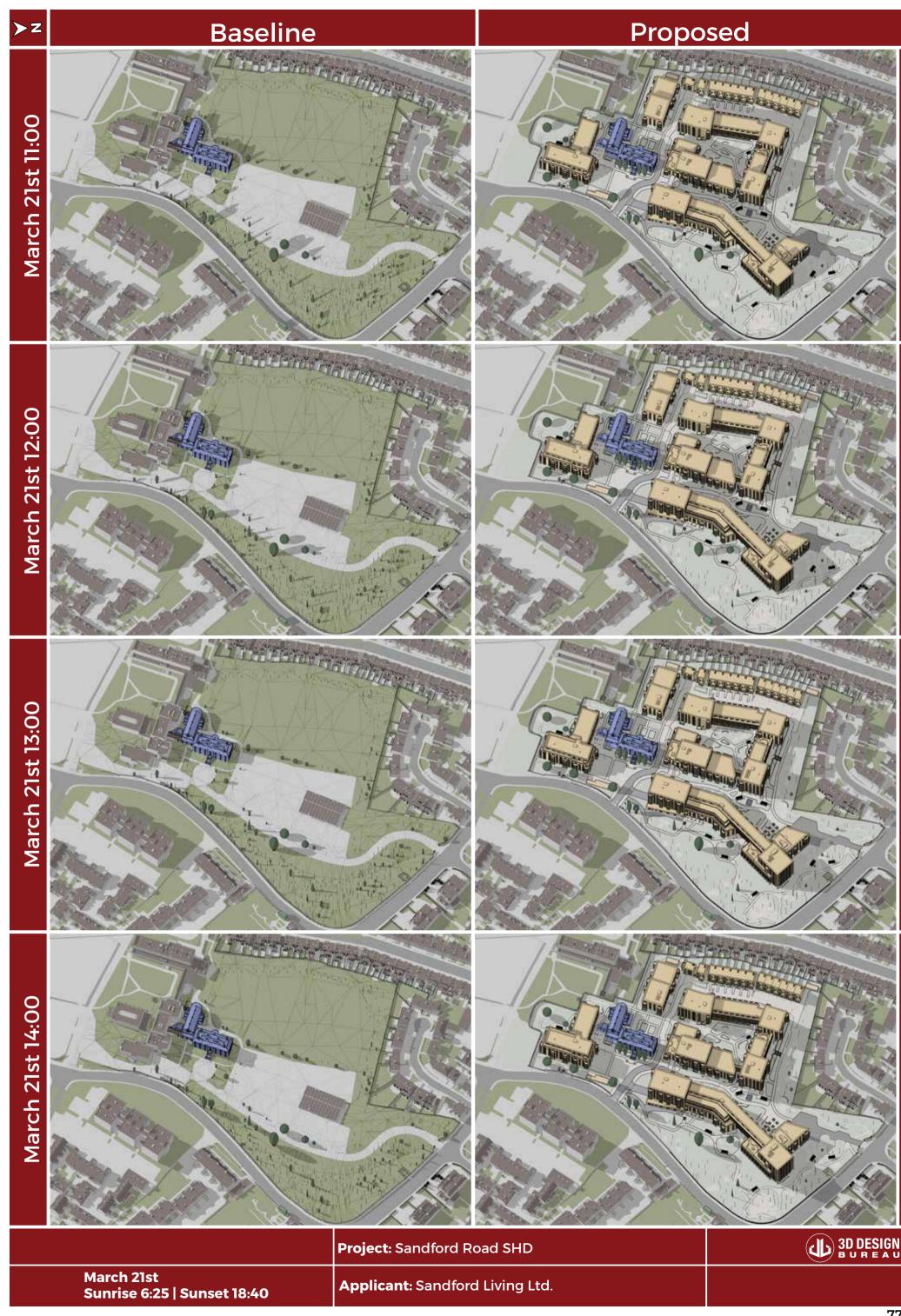
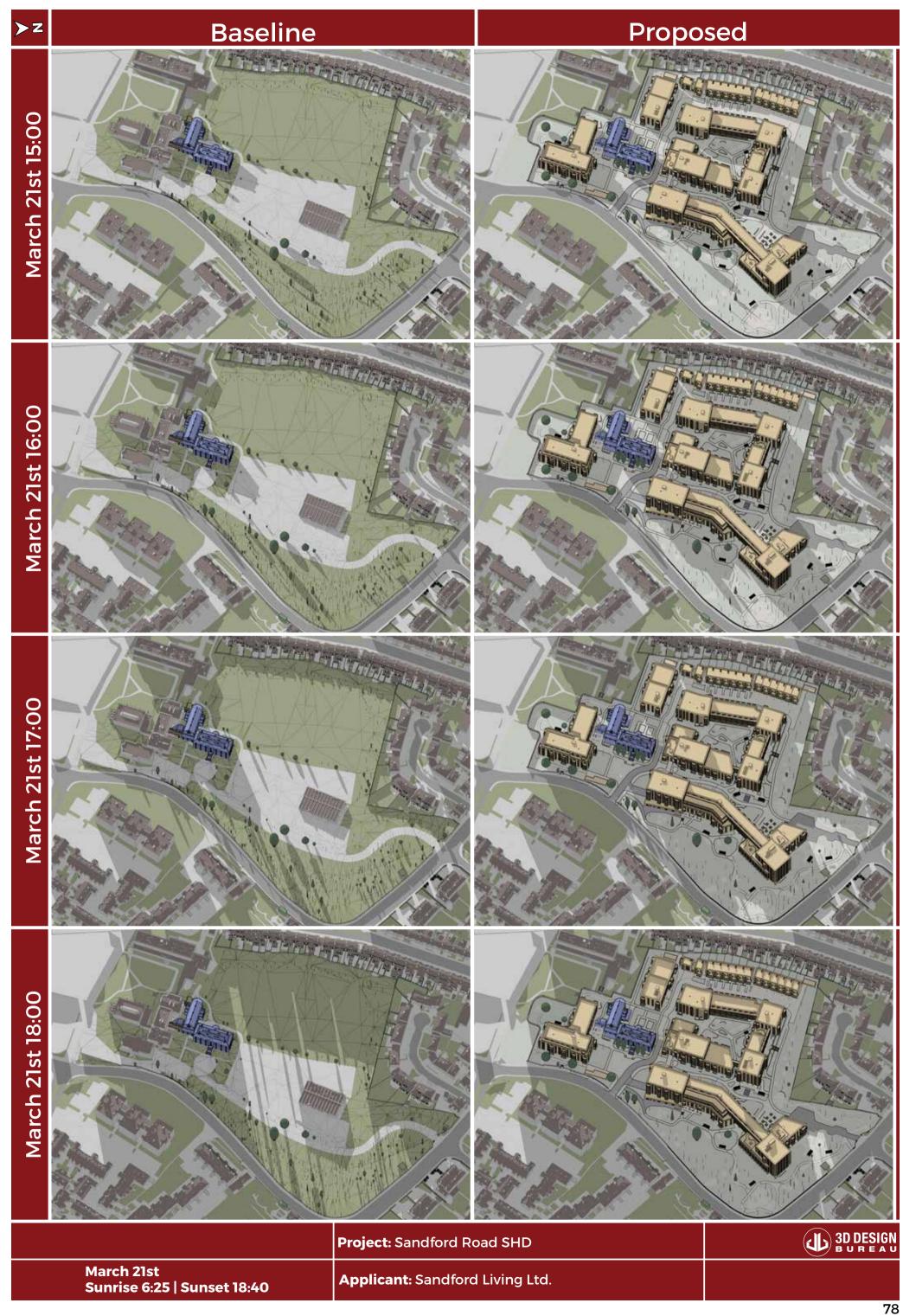


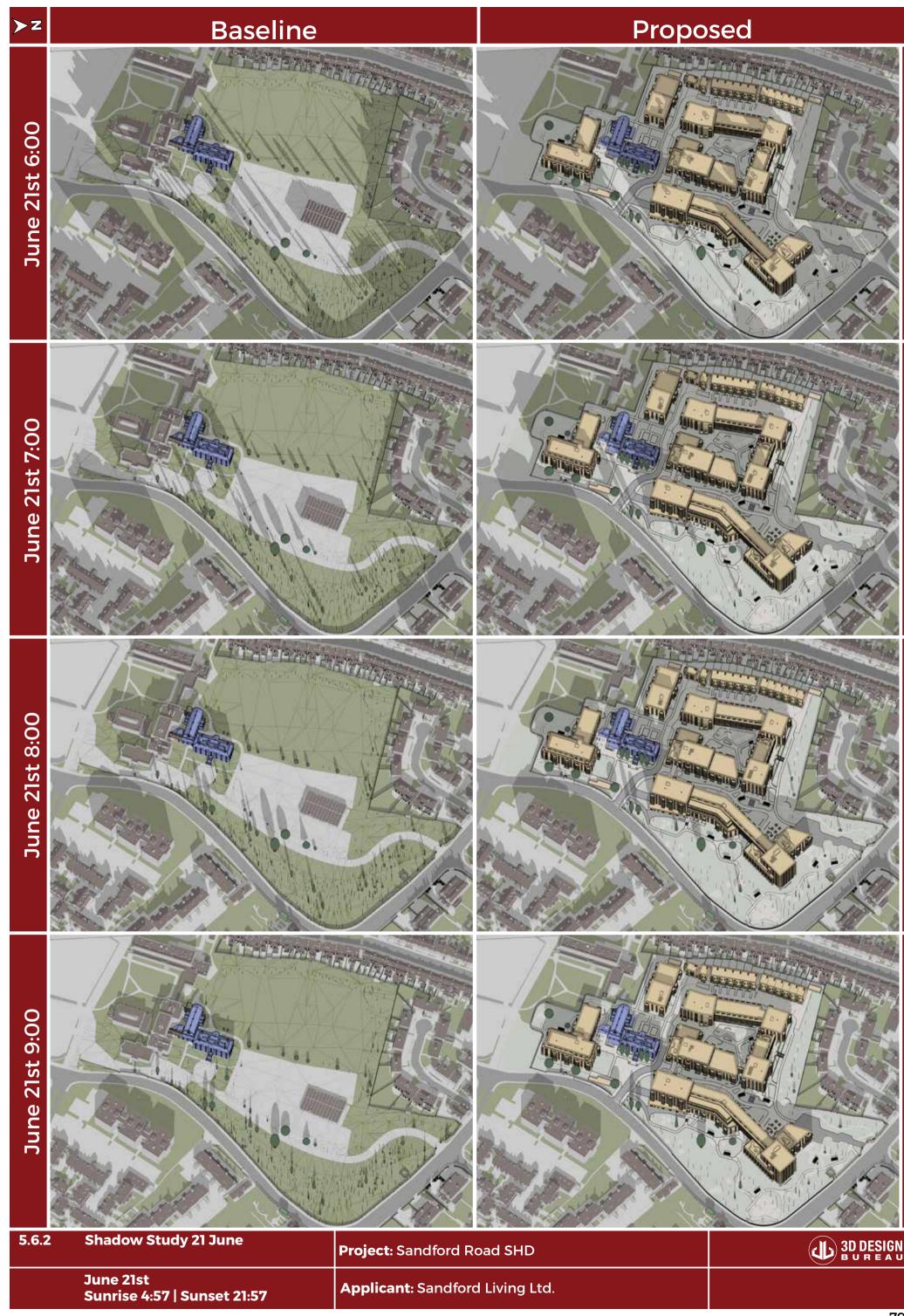
Figure 5.51: Indication of the amenity areas that have been analysed (L) Area capable of receiving 2 hours of sunlight on March 21st shown in white (R).

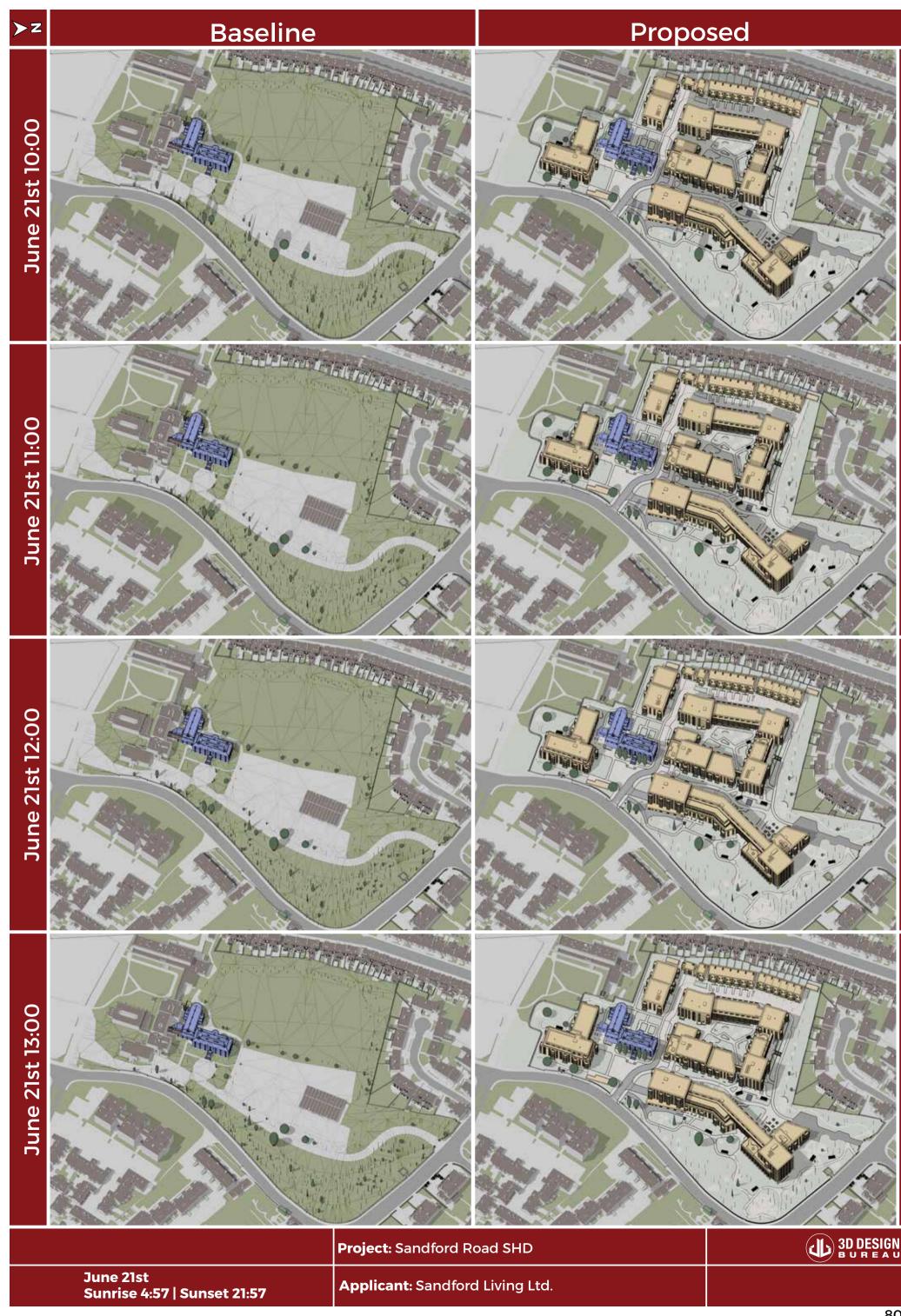


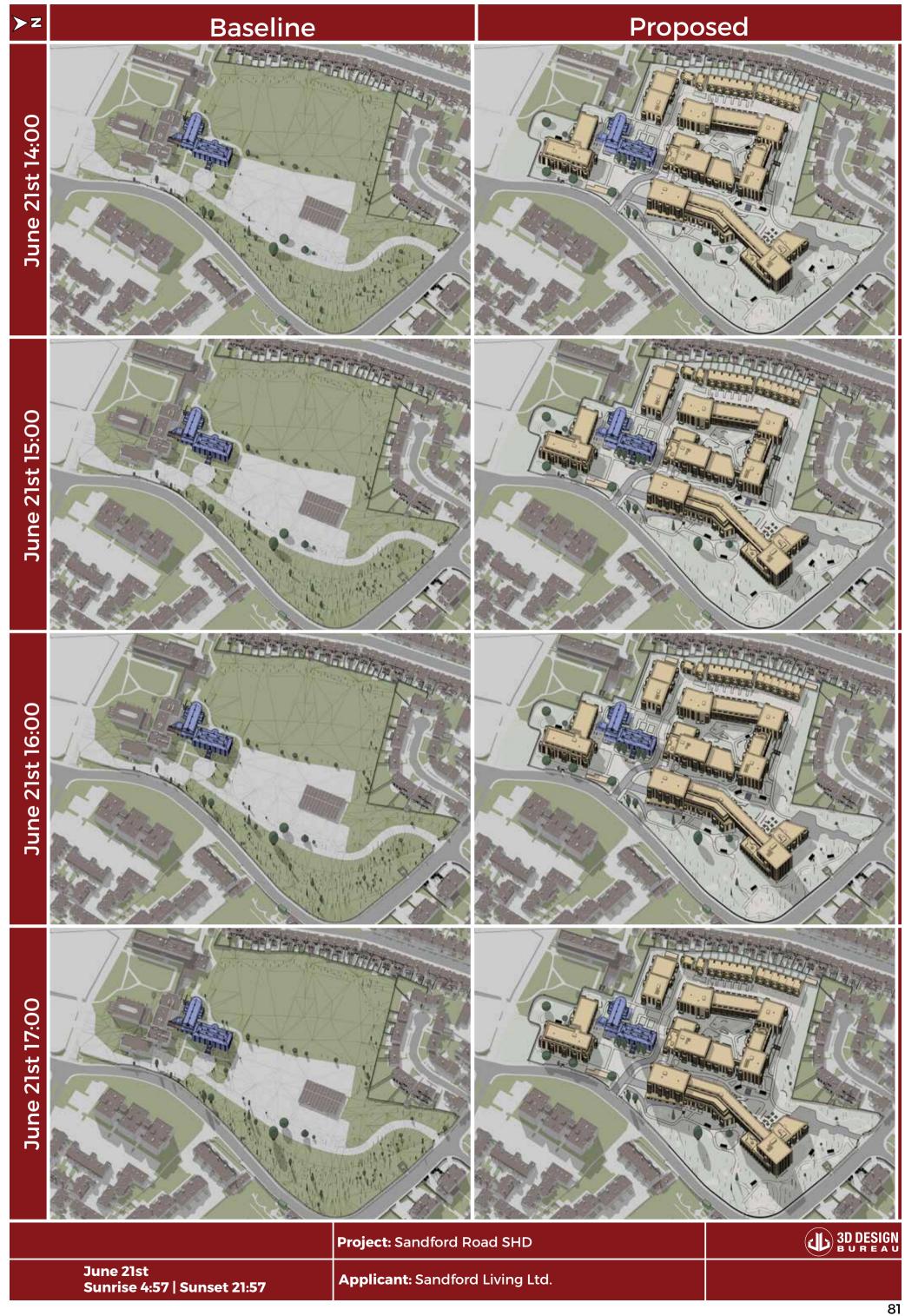


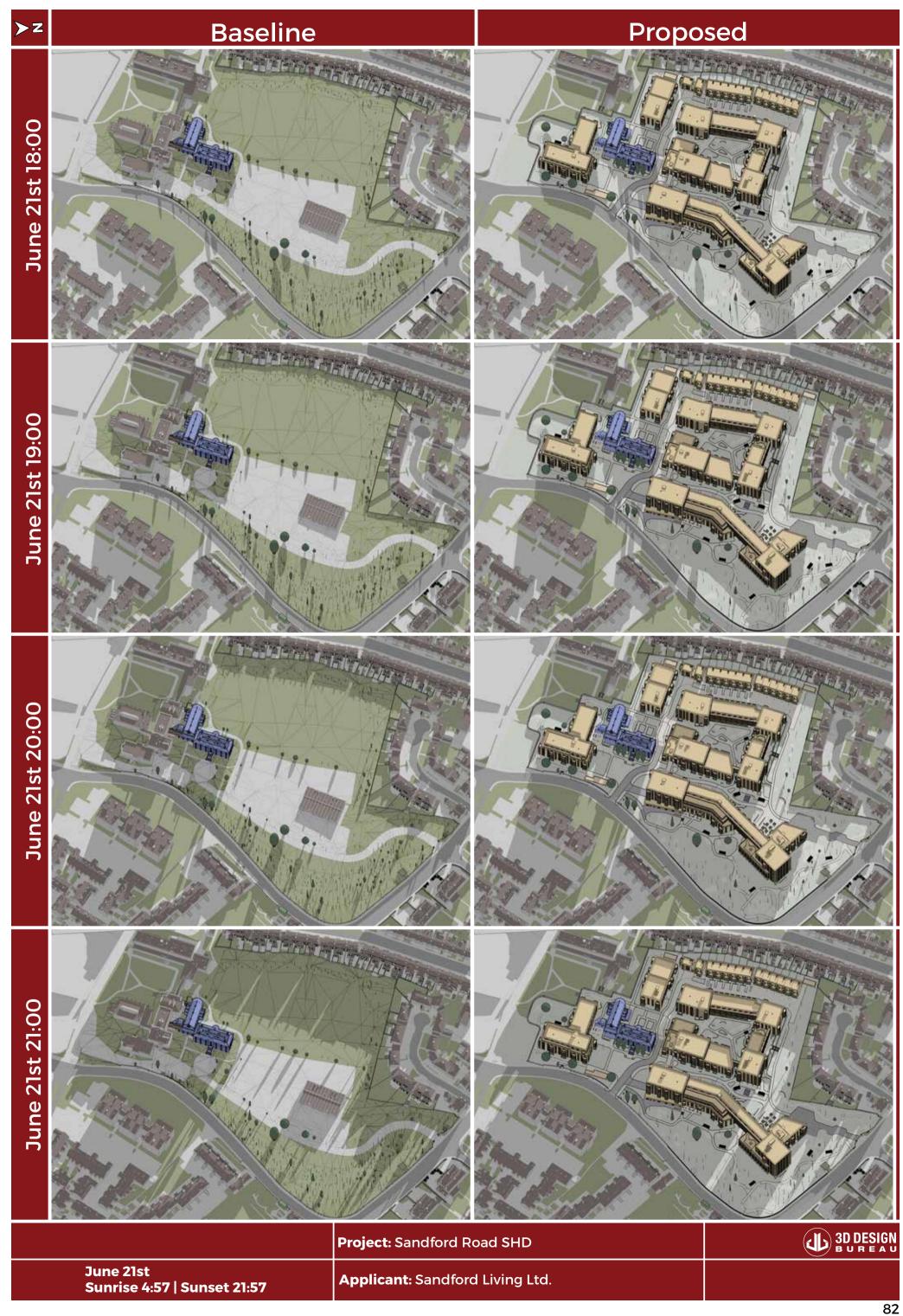


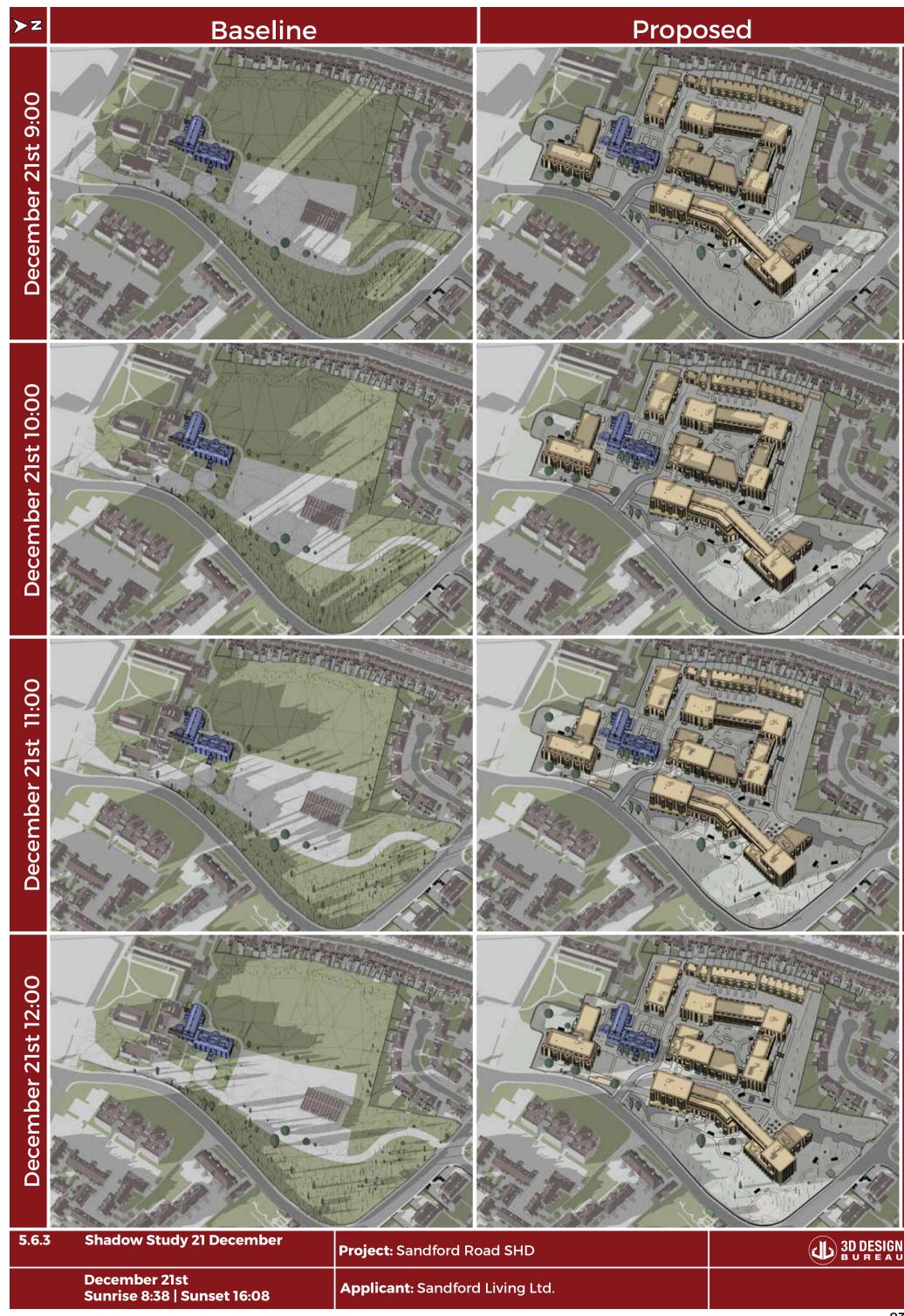


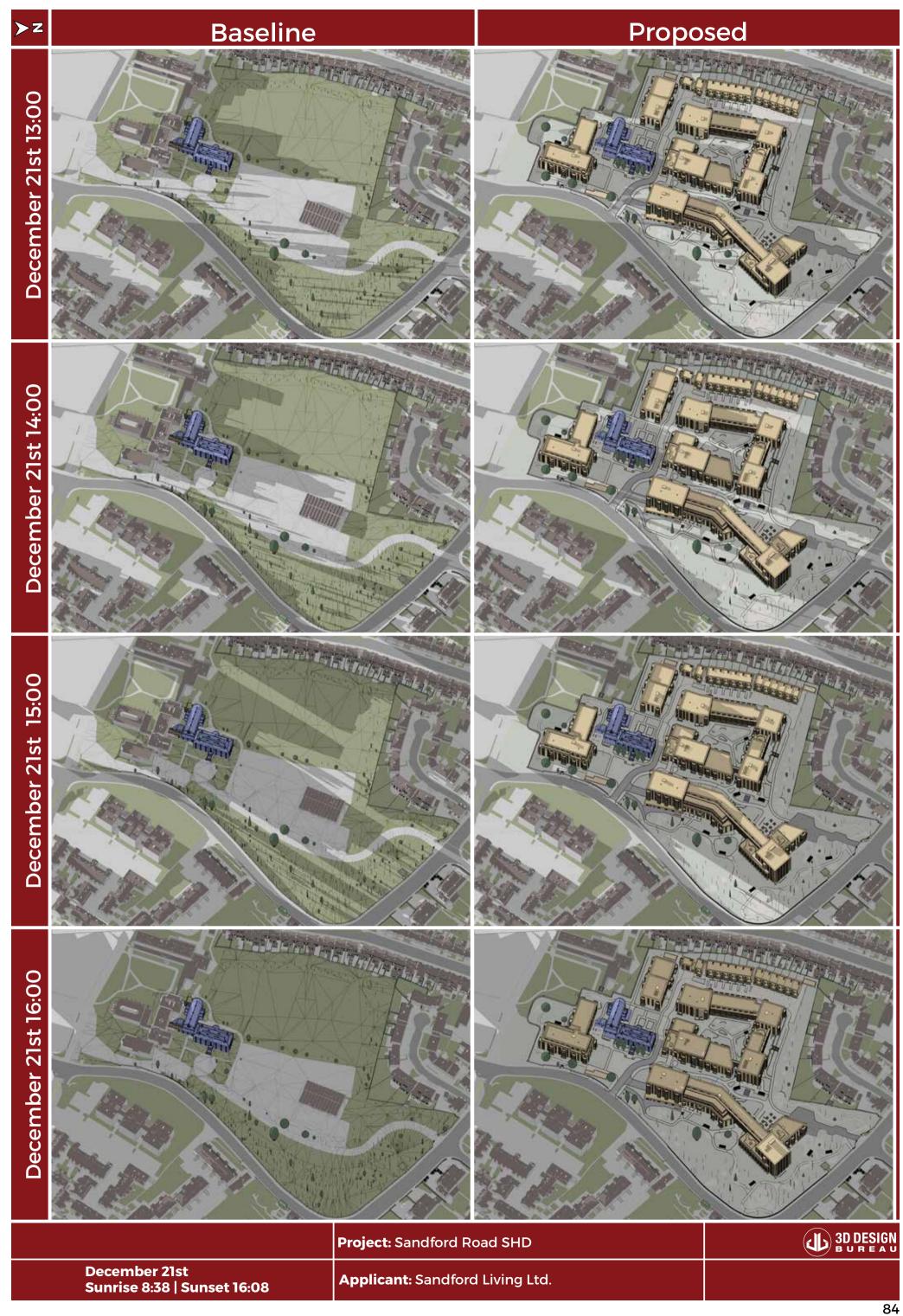














# 5.7 Average Daylight Factor - Residential Units 5.7.1 Block A1 - Level B1

| Table No. 5.53: ADF Results - Block A1 - Level B1 |                  |                     |
|---|------------------|---------------------|
| Unit Number                                       | Room Description | Predicted ADF Value |
| BA1.B101  | Studio           | 1.80%               |
| BA1.B101  | Studio LKD^      | 2.03%               |
| BA1.B102  | LKD              | 5.56%               |
| BA1.B102  | Bedroom 1        | 7.37%               |
| BA1.B102  | Bedroom 2        | 4.37%               |
| BA1.B103  | LKD              | 5.57%               |
| BA1.B103  | Bedroom 1        | 8.50%               |
| BA1.B103  | Bedroom 2        | 2.80%               |
| BA1.B104  | Studio           | 2.84%               |
| BA1.B105  | LKD              | 1.95%               |
| BA1.B105  | Bedroom 1        | 2.19%               |
| BA1.B105  | Bedroom 2        | 1.92%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.

^ In instances where an Studio has recorded an ADF value lower than 2.0%, with the bedroom area behind a partition, an additional study has been carried out, in which the living area has been assessed as a standalone space with the bedroom area omitted from the assessment. This supplementary study does not contribute to the circa compliance rates.

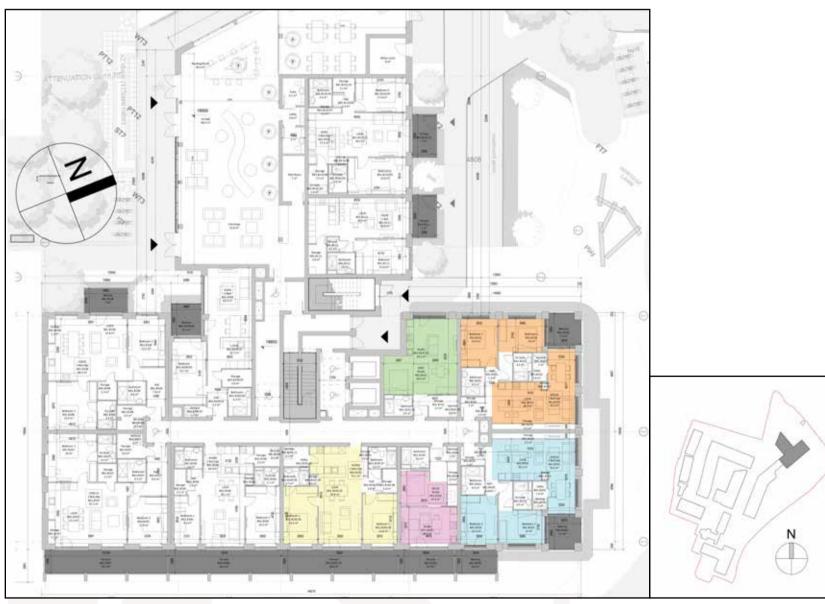


Figure 5.52: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



# **5.7.2** Block A1 - Level B1

| Table No. 5.54: ADF Results - Block A1 - Level B1 |                  |                     |
|---|------------------|---------------------|
| Unit Number                                       | Room Description | Predicted ADF Value |
| BA1.B106  | LKD              | 2.17%               |
| BA1.B106  | Bedroom 1        | 2.30%               |
| BA1.B106  | Bedroom 2        | 1.83%               |
| BA1.B107  | LKD              | 3.36%               |
| BA1.B107  | Bedroom 1        | 2.02%               |
| BA1.B107  | Bedroom 2        | 2.09%               |
| BA1.B108  | LKD              | 2.69%               |
| BA1.B108  | Bedroom 1        | 1.14%               |
| BA1.B108  | Bedroom 2        | 2.38%               |
| BA1.B109  | LKD              | 1.44%               |
| BA1.B109  | Living Space^    | 1.90%               |
| BA1.B109  | Bedroom          | 0.37%               |
| BA1.B110  | LKD              | 2.07%               |
| BA1.B110  | Bedroom 1        | 3.64%               |
| BA1.B110  | Bedroom 2        | 3.97%               |
| BA1.B111  | LKD              | 2.33%               |
| BA1.B111  | Bedroom          | 3.22%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Figure 5.53: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



# 5.7.3 Block A1 - Level 00

| Table No. 5.55: ADF Results - Block A1 - Level 00 |                  |                     |
|---|------------------|---------------------|
| Unit Number                                       | Room Description | Predicted ADF Value |
| BA1.G201  | LKD              | 1.24%               |
| BA1.G201  | Living Space^    | 1.64%               |
| BA1.G201  | Bedroom          | 1.16%               |
| BA1.G202  | LKD              | 5.56%               |
| BA1.G202  | Bedroom 1        | 7.40%               |
| BA1.G202  | Bedroom 2        | 4.63%               |
| BA1.G203  | LKD              | 5.56%               |
| BA1.G203  | Bedroom 1        | 8.38%               |
| BA1.G203  | Bedroom 2        | 2.26%               |
| BA1.G204  | Studio           | 2.10%               |
| BA1.G205  | LKD              | 1.47%               |
| BA1.G205  | Living Space^    | 1.97%               |
| BA1.G205  | Bedroom 1        | 1.63%               |
| BA1.G205  | Bedroom 2        | 1.49%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.







# 5.7.4 Block A1 - Level 00

| Table No. 5.56: ADF Results - Block A1 - Level G2 |                  |                     |
|---|------------------|---------------------|
| Unit Number                                       | Room Description | Predicted ADF Value |
| BA1.C206  | LKD              | 1.65%               |
| BA1.G206  | Bedroom 1        | 1.79%               |
| BA1.G206  | Bedroom 2        | 1.41%               |
| BA1.G207  | LKD              | 2.95%               |
| BA1.G207  | Bedroom 1        | 2.26%               |
| BA1.G207  | Bedroom 2        | 1.59%               |
| BA1.G208  | LKD              | 2.95%               |
| BA1.G208  | Bedroom 1        | 1.06%               |
| BA1.G208  | Bedroom 2        | 2.73%               |
| BA1.G209  | LKD              | 1.62%               |
| BA1.G209  | Bedroom          | 0.53%               |
| BA1.G210  | LKD              | 1.31%               |
| BA1.G210  | Living Space^    | 1.97%               |
| BA1.G210  | Bedroom 1        | 2.65%               |
| BA1.G210  | Bedroom 2        | 2.69%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Figure 5.55: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



# 5.7.5 Block A1 - Level 00

| Table No. 5.57: ADF Results - Block A1 - Level G2 |                  |                     |
|---|------------------|---------------------|
| Unit Number                                       | Room Description | Predicted ADF Value |
| BA1.G211  | LKD              | 3.89%               |
| BA1.G211  | Bedroom 1        | 4.56%               |
| BA1.G211  | Bedroom 2        | 5.23%               |
| BA1.G212  | LKD              | 5.52%               |
| BA1.G212  | Bedroom 1        | 4.18%               |
| BA1.G212  | Bedroom 2        | 3.88%               |
| BA1.G212  | Bedroom 3        | 5.12%               |
| BA1.G213  | LKD              | 2.06%               |
| BA1.G213  | Bedroom 1        | 3.66%               |
| BA1.G213  | Bedroom 2        | 4.01%               |
| BA1.G214  | LKD              | 1.96%               |
| BA1.G214  | Bedroom          | 3.37%               |



Figure 5.56: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



### 5.7.6 **Block A1 - Level 01**

| Table No. 5.58: ADF Results - Block A1 - Level 01 |                  |                     |
|---|------------------|---------------------|
| Unit Number                                       | Room Description | Predicted ADF Value |
| BA1-0101  | LKD              | 1.44%               |
| BA1-0105  | LKD              | 1.75%               |
| BA1-0106  | LKD              | 1.98%               |
| BA1-0109  | Bedroom          | 0.66%               |
| BA1-0109  | LKD              | 1.72%               |
| BA1-0110  | LKD              | 1.50%               |
| BA1-0114  | LKD              | 2.34%               |



Figure 5.57: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



### 5.7.7 **Block A1 - Level 02**

| Table No. 5.59: ADF Results - Block A1 - Level 02 |                  |                     |
|---|------------------|---------------------|
| Unit Number                                       | Room Description | Predicted ADF Value |
| BA1-0201  | LKD              | 1.61%               |
| BA1-0205  | LKD              | 2.18%               |
| BA1-0206  | LKD              | 2.50%               |
| BA1-0209  | Bedroom          | 0.80%               |
| BA1-0209  | LKD              | 1.93%               |
| BA1-0210  | LKD              | 1.72%               |



Figure 5.58: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



### **5.7.8 Block A1 - Level 03**

| Table No. 5.60: ADF Results - Block A1 - Level 03 |         |       |
|---|---------|-------|
| Unit Number Room Description Predicted ADF Value  |         |       |
| BA1-0301  | LKD     | 1.85% |
| BA1-0309  | Bedroom | 1.40% |
| BA1-0309  | LKD     | 2.21% |
| BA1-0310  | LKD     | 3.44% |



Figure 5.59: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



### **Block A1 - Level 04** 5.7.9

| Table No. 5.61: ADF Results - Block A1 - Level 04 |  |  |
|---|--|--|
| Unit Number Room Description Predicted ADF Value  |  |  |
| BA1-0401 LKD 2.76%                                |  |  |



Figure 5.60: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



# 5.7.10 Block A2 - Level B1

| Table No. 5.62: ADF Results - Block A2 - Level B1 |                  |                     |
|---|------------------|---------------------|
| Unit Number                                       | Room Description | Predicted ADF Value |
| BA2.B101  | LKD              | 2.37%               |
| BA2.B101  | Bedroom          | 3.35%               |
| BA2.B102  | LKD              | 2.36%               |
| BA2.B102  | Bedroom          | 3.64%               |
| BA2.B103  | LKD              | 3.67%               |
| BA2.B103  | Bedroom          | 5.32%               |
| BA2.B104  | LKD              | 3.92%               |
| BA2.B104  | Bedroom 1        | 3.17%               |
| BA2.B104  | Bedroom 2        | 5.51%               |
| BA2.B105  | LKD              | 2.30%               |
| BA2.B105  | Bedroom 1        | 4.21%               |
| BA2.B105  | Bedroom 2        | 3.95%               |
| BA2.B106  | Studio           | 2.61%               |
| BA2.B107  | Studio           | 3.13%               |



Figure 5.61: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



# 5.7.11 Block A2 - Level 00

| Table No. 5.63: ADF Results - Block A2 - Level 00 |                  |                     |
|---|------------------|---------------------|
| Unit Number                                       | Room Description | Predicted ADF Value |
| BA2.G201  | LKD              | 1.88%               |
| BA2.G201  | Bedroom          | 3.51%               |
| BA2.G202  | LKD              | 1.92%               |
| BA2.G202  | Bedroom          | 3.65%               |
| BA2.G203  | LKD              | 2.27%               |
| BA2.G203  | Bedroom          | 4.26%               |
| BA2.G204  | LKD              | 3.72%               |
| BA2.G204  | Bedroom 1        | 3.47%               |
| BA2.G204  | Bedroom 2        | 5.77%               |
| BA2.G205  | LKD              | 1.95%               |
| BA2.G205  | Bedroom 1        | 4.36%               |
| BA2.G205  | Bedroom 3        | 4.03%               |
| BA2.G206  | Studio           | 2.36%               |
| BA2.G207  | Studio           | 3.50%               |



Figure 5.62: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



# 5.7.12 Block A2 - Level 00

| Table No. 5.64: ADF Results - Block A2 - Level 00 |                  |                     |
|---|------------------|---------------------|
| Unit Number                                       | Room Description | Predicted ADF Value |
| BA2.G101  | LKD              | 4.69%               |
| BA2.G101  | Bedroom 1        | 5.69%               |
| BA2.G101  | Bedroom 2        | 7.90%               |
| BA2.G102  | Studio           | 6.97%               |
| BA2.G103  | LKD              | 3.02%               |
| BA2.G103  | Bedroom          | 5.22%               |
| BA2.G104  | LKD              | 4.69%               |
| BA2.G104  | Bedroom 1        | 2.92%               |
| BA2.G104  | Bedroom 2        | 4.90%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Figure 5.63: Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.

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# 5.7.13 Block A2 - Duplex Units

| Unit Number | Room Description | Predicted ADF Value |
|-------------|------------------|---------------------|
| BA2.G105    | LKD              | 2.23%               |
| BA2.G105    | Bedroom 1        | 1.36%               |
| BA2.G105    | Bedroom 2        | 1.59%               |
| BA2.G106    | LKD              | 2.33%               |
| BA2.C106    | Bedroom 1        | 0.94%               |
| BA2.C106    | Bedroom 2        | 1.80%               |
| BA2.G107    | LKD              | 2.31%               |
| BA2.G107    | Bedroom 1        | 0.92%               |
| BA2.C107    | Bedroom 2        | 1.59%               |
| BA2.C108    | LKD              | 2.33%               |
| BA2.G108    | Bedroom 1        | 0.96%               |
| BA2.G108    | Bedroom 2        | 1.78%               |
| BA2.G109    | LKD              | 2.98%               |
| BA2.G109    | Bedroom 1        | 1.26%               |
| BA2.G109    | Bedroom 2        | 1.63%               |
| BA2.G110    | LKD              | 3.42%               |
| BA2.G110    | Bedroom 1        | 1.03%               |
| BA2.G110    | Bedroom 2        | 2.22%               |
| BA2.G111    | LKD              | 3.56%               |
| BA2.G111    | Bedroom 1        | 1.47%               |
| BA2.G111    | Bedroom 2        | 1.69%               |



Figure 5.64: Top - Floor plans of assessed ground floor of Duplex, Bottom - Floor plans of assessed 1st floor of Duplex, Right - Keyplan highlighting the assessed building.



| ADF Results - Block A2 - Level 01 |                  |                     |
|-----------------------------------|------------------|---------------------|
| Unit Number                       | Room Description | Predicted ADF Value |
| BA2.0101                          | LKD              | 2.15%               |
| BA2.0101                          | Bedroom          | 3.67%               |
| BA2.0102                          | LKD              | 2.23%               |
| BA2.0102                          | Bedroom          | 3.81%               |
| BA2.0103                          | LKD              | 2.29%               |
| BA2.0103                          | Bedroom          | 4.18%               |
| BA2.0104                          | LKD              | 4.11%               |
| BA2.0104                          | Bedroom 1        | 3.64%               |
| BA2.0104                          | Bedroom 2        | 5.87%               |
| BA2.0105                          | LKD              | 2.27%               |
| BA2.0105                          | Bedroom 1        | 4.46%               |
| BA2.0105                          | Bedroom 2        | 4.14%               |
| BA2.0106                          | Studio           | 2.44%               |
| BA2.0115                          | Studio           | 3.81%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block A2 - Level 01 |                  |                     |
|-----------------------------------|------------------|---------------------|
| Unit Number                       | Room Description | Predicted ADF Value |
| BA2.0107                          | LKD              | 2.30%               |
| BA2.0107                          | Bedroom 1        | 4.08%               |
| BA2.0107                          | Bedroom 2        | 5.02%               |
| BA2.0108                          | Studio           | 3.93%               |
| BA2.0109                          | LKD              | 2.53%               |
| BA2.0109                          | Bedroom          | 5.04%               |
| BA2.0110                          | LKD              | 2.27%               |
| BA2.0110                          | Bedroom 1        | 3.68%               |
| BA2.0110                          | Bedroom 2        | 4.75%               |
| BA2.0111                          | LKD              | 2.60%               |
| BA2.0111                          | Bedroom          | 4.30%               |
| BA2.0112                          | LKD              | 2.52%               |
| BA2.0112                          | Bedroom          | 4.38%               |
| BA2.0113                          | LKD              | 6.08%               |
| BA2.0113                          | Bedroom 1        | 3.79%               |
| BA2.0113                          | Bedroom 2        | 4.88%               |
| BA2.0114                          | LKD              | 3.84%               |
| BA2.0114                          | Bedroom 1        | 2.76%               |
| BA2.0114                          | Bedroom 2        | 4.26%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



|             | ADF Results - Block A2 - Level 02 |                     |
|-------------|-----------------------------------|---------------------|
| Unit Number | Room Description                  | Predicted ADF Value |
| BA.0217     | LKD                               | 1.25%               |
| BA.0217     | Living Space^                     | 1.75%               |
| BA.0217     | Bedroom                           | 2.49%               |
| BA.0218     | LKD                               | 1.04%               |
| BA.0218     | Living Space^                     | 1.41%               |
| BA.0218     | Bedroom                           | 2.41%               |
| BA.0219     | LKD                               | 1.01%               |
| BA.0219     | Living Space^                     | 1.50%               |
| BA.0219     | Bedroom                           | 2.23%               |
| BA.0220     | LKD                               | 1.20%               |
| BA.0220     | Living Space^                     | 1.73%               |
| BA.0220     | Bedroom                           | 2.78%               |
| BA.0221     | LKD                               | 1.30%               |
| BA.0221     | Living Space^                     | 1.84%               |
| BA.0221     | Bedroom                           | 3.01%               |
| BA.0222     | LKD                               | 1.23%               |
| BA.0222     | Living Space^                     | 1.68%               |
| BA.0222     | Bedroom                           | 2.67%               |
| BA.0223     | LKD                               | 1.38%               |
| BA.0223     | Living Space^                     | 1.90%               |
| BA.0223     | Bedroom                           | 3.08%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block A2 - Level 03 |                  |                     |
|-----------------------------------|------------------|---------------------|
| Unit Number                       | Room Description | Predicted ADF Value |
| BA2-0315                          | LKD              | 1.52%               |
| BA2-0316                          | LKD              | 1.28%               |
| BA2-0317                          | LKD              | 1.24%               |
| BA2-0318                          | LKD              | 1.51%               |
| BA2-0319                          | LKD              | 1.66%               |
| BA2-0320                          | LKD              | 1.61%               |
| BA2-0321                          | LKD              | 1.80%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



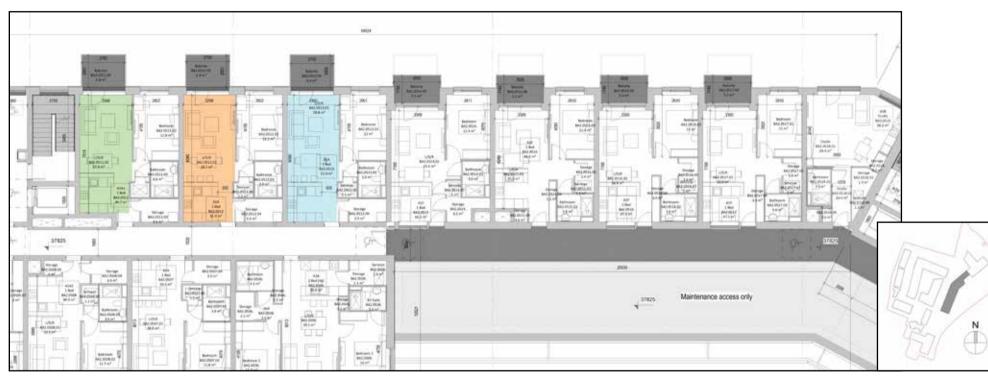
| ADF Results - Block A2 - Level 04 |                  |                     |
|-----------------------------------|------------------|---------------------|
| Unit Number                       | Room Description | Predicted ADF Value |
| BA2-0415                          | LKD              | 1.88%               |
| BA2-0416                          | LKD              | 1.61%               |
| BA2-0417                          | LKD              | 1.62%               |
| BA2-0418                          | LKD              | 3.25%               |
| BA2-0419                          | LKD              | 3.38%               |
| BA2-0420                          | LKD              | 3.20%               |
| BA2-0421                          | LKD              | 3.52%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



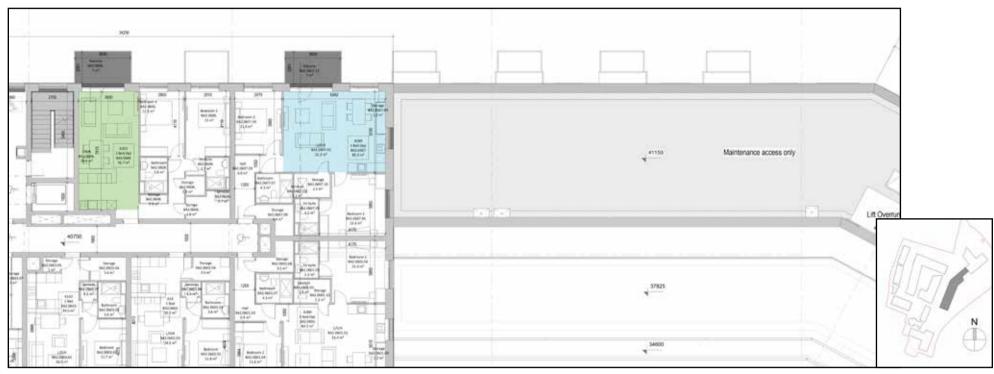
| ADF Results - Block A2 - Level 05 |                  |                     |
|-----------------------------------|------------------|---------------------|
| Unit Number                       | Room Description | Predicted ADF Value |
| BA2-0511                          | LKD              | 1.76%               |
| BA2-0512                          | LKD              | 3.32%               |
| BA2-0513                          | LKD              | 1.55%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block A2 - Level 06 |                  |                     |
|-----------------------------------|------------------|---------------------|
| Unit Number                       | Room Description | Predicted ADF Value |
| BA2-0606                          | LKD              | 2.22%               |
| BA2-0607                          | LKD              | 5.19%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block B - Level 00 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB.G101                          | LKD              | 3.96%               |
| BB.G101                          | Bedroom 1        | 3.88%               |
| BB.G101                          | Bedroom 2        | 1.50%               |
| BB.G102                          | LKD              | 5.77%               |
| BB.G102                          | Bedroom 1        | 1.60%               |
| BB.G102                          | Bedroom 2        | 5.50%               |
| BB.G103                          | Studio           | 2.67%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block B - Level 00 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB.G104                          | LKD              | 1.25%               |
| BB.C104                          | Living Space^    | 1.68%               |
| BB.G104                          | Bedroom 1        | 2.31%               |
| BB.G104                          | Bedroom 2        | 1.73%               |
| BB.G105                          | LKD              | 1.34%               |
| BB.G105                          | Living Space^    | 1.90%               |
| BB.G105                          | Bedroom          | 2.47%               |
| BB.G106                          | LKD              | 1.36%               |
| BB.G106                          | Living Space^    | 1.89%               |
| BB.G106                          | Bedroom          | 2.37%               |
| BB.G107                          | LKD              | 1.45%               |
| BB.G107                          | Living Space^    | 1.87%               |
| BB.G107                          | Bedroom          | 2.79%               |
| BB.G108                          | LKD              | 1.63%               |
| BB.G108                          | Bedroom 1        | 2.54%               |
| BB.G108                          | Bedroom 2        | 2.95%               |
| BB.G109                          | LKD              | 2.55%               |
| BB.G109                          | Bedroom 1        | 3.23%               |
| BB.G109                          | Bedroom 2        | 3.06%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block B - Level 00 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB.C110                          | LKD              | 2.48%               |
| BB.G110                          | Bedroom          | 3.75%               |
| BB.G111                          | LKD              | 2.13%               |
| BB.G111                          | Bedroom          | 4.10%               |
| BB.C112                          | LKD              | 2.19%               |
| BB.G112                          | Bedroom          | 3.95%               |
| BB.C113                          | LKD              | 2.45%               |
| BB.G113                          | Bedroom          | 3.22%               |
| BB.C114                          | LKD              | 1.91%               |
| BB.C114                          | Bedroom          | 2.53%               |
| BB.C115                          | LKD              | 1.68%               |
| BB.G115                          | Bedroom          | 1.97%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.

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| ADF Results - Block B - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB.0101                          | LKD              | 2.99%               |
| BB.0101                          | Bedroom 1        | 3.40%               |
| BB.0101                          | Bedroom 2        | 1.41%               |
| BB.0102                          | LKD              | 4.44%               |
| BB.0102                          | Bedroom 1        | 5.05%               |
| BB.0102                          | Bedroom 2        | 1.57%               |
| BB.0103                          | LKD              | 2.96%               |
| BB.0103                          | Bedroom 1        | 1.31%               |
| BB.0103                          | Bedroom 2        | 1.85%               |
| BB.0104                          | LKD              | 1.51%               |
| BB.0104                          | Bedroom          | 1.07%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.

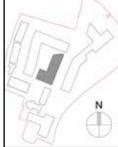


| ADF Results - Block B - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB.0105                          | LKD              | 1.02%               |
| BB.0105                          | Living Space^    | 1.45%               |
| BB.0105                          | Bedroom 1        | 0.84%               |
| BB.0105                          | Bedroom 2        | 2.21%               |
| BB.0105                          | Bedroom 3        | 2.82%               |
| BB.0106                          | LKD              | 0.95%               |
| BB.0106                          | Living Space^    | 1.42%               |
| BB.0106                          | Bedroom          | 2.36%               |
| BB.0107                          | LKD              | 1.04%               |
| BB.0107                          | Living Space^    | 1.61%               |
| BB.0107                          | Bedroom          | 2.27%               |
| BB.0108                          | LKD              | 0.99%               |
| BB.0108                          | Living Space^    | 1.36%               |
| BB.0108                          | Bedroom          | 2.66%               |
| BB.0109                          | LKD              | 1.15%               |
| BB.0109                          | Living Space^    | 1.49%               |
| BB.0109                          | Bedroom 1        | 2.37%               |
| BB.0109                          | Bedroom 2        | 2.78%               |
| BB.0110                          | LKD              | 1.94%               |
| BB.0110                          | Living Space^    | 2.25%               |
| BB.0110                          | Bedroom 1        | 3.00%               |
| BB.0110                          | Bedroom 2        | 2.89%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.





| ADF Results - Block B - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB.0111                          | LKD              | 1.65%               |
| BB.0111                          | Bedroom          | 2.76%               |
| BB.0112                          | LKD              | 1.36%               |
| BB.0112                          | Living Space^    | 1.86%               |
| BB.0112                          | Bedroom          | 3.66%               |
| BB.0113                          | LKD              | 1.44%               |
| BB.0113                          | Living Space^    | 1.81%               |
| BB.0113                          | Bedroom          | 3.59%               |
| BB.0114                          | LKD              | 1.63%               |
| BB.0114                          | Bedroom          | 2.93%               |
| BB.0115                          | LKD              | 1.33%               |
| BB.0115                          | Living Space^    | 2.02%               |
| BB.0115                          | Bedroom          | 2.37%               |
| BB.0116                          | LKD              | 1.11%               |
| BB.0116                          | Living Space^    | 1.49%               |
| BB.0116                          | Bedroom 1        | 1.16%               |
| BB.0116                          | Bedroom 2        | 1.55%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block B - Level 02 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB-0206                          | Studio           | 1.94%               |
| BB-0207                          | LKD              | 1.12%               |
| BB-0207                          | Living Space^    | 1.60%               |
| BB-0208                          | LKD              | 1.06%               |
| BB-0208                          | Living Space^    | 1.58%               |
| BB-0209                          | LKD              | 1.17%               |
| BB-0209                          | Living Space^    | 1.83%               |
| BB-0210                          | LKD              | 1.13%               |
| BB-0210                          | Living Space^    | 1.55%               |
| BB-0211                          | LKD              | 1.30%               |
| BB-0211                          | Living Space^    | 1.66%               |
| BB-0212                          | LKD              | 2.09%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.





Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block B - Level 02 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB-0204                          | LKD              | 1.58%               |
| BB-0213                          | LKD              | 1.95%               |
| BB-0214                          | LKD              | 1.59%               |
| BB-0215                          | LKD              | 1.67%               |
| BB-0216                          | LKD              | 1.88%               |
| BB-0217                          | LKD              | 1.54%               |
| BB-0218                          | LKD              | 1.41%               |
| BB-0218                          | Living Space^    | 2.09%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block B - Level 03 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB-0303                          | Studio           | 2.16%               |
| BB-0304                          | LKD              | 1.26%               |
| BB-0304                          | Living Space^    | 1.78%               |
| BB-0305                          | LKD              | 1.23%               |
| BB-0305                          | Living Space^    | 1.86%               |
| BB-0306                          | LKD              | 1.57%               |
| BB-0307                          | LKD              | 1.50%               |
| BB-0308                          | LKD              | 1.56%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.





Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block B - Level 03 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB-0301                          | LKD              | 4.70%               |
| BB-0310                          | LKD              | 2.37%               |
| BB-0311                          | LKD              | 1.84%               |
| BB-0312                          | LKD              | 1.91%               |
| BB-0313                          | LKD              | 2.17%               |
| BB-0314                          | LKD              | 1.76%               |
| BB-0315                          | LKD              | 1.75%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block B - Level 04 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB-0404                          | LKD              | 3.40%               |
| BB-0405                          | LKD              | 1.77%               |
| BB-0406                          | LKD              | 2.33%               |
| BB-0407                          | LKD              | 4.42%               |
| BB-0408                          | LKD              | 4.35%               |
| BB-0411                          | LKD              | 4.67%               |
| BB-0412                          | LKD              | 3.99%               |
| BB-0414                          | LKD              | 2.30%               |
| BB-0415                          | LKD              | 2.49%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block B - Level 05 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BB-0501                          | LKD              | 2.20%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 00 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC.G201                          | LKD              | 6.93%               |
| BC.G201                          | Bedroom          | 6.56%               |
| BC.G202                          | LKD              | 1.26%               |
| BC.G202                          | Living Space^    | 1.67%               |
| BC.G202                          | Bedroom 1        | 1.69%               |
| BC.G202                          | Bedroom 2        | 1.56%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 00 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC.G203                          | LKD              | 2.05%               |
| BC.G203                          | Bedroom          | 2.90%               |
| BC.G204                          | LKD              | 2.35%               |
| BC.G204                          | Bedroom          | 3.89%               |
| BC.G205                          | LKD              | 2.59%               |
| BC.G205                          | Bedroom          | 4.61%               |
| BC.G206                          | LKD              | 2.77%               |
| BC.G206                          | Bedroom          | 4.08%               |
| BC.G207                          | LKD              | 2.60%               |
| BC.G207                          | Bedroom          | 4.48%               |
| BC.G208                          | LKD              | 2.92%               |
| BC.G208                          | Bedroom          | 3.39%               |
| BC.G209                          | LKD              | 1.75%               |
| BC.G209                          | Bedroom          | 1.95%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 00 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC.G210                          | LKD              | 5.77%               |
| BC.G210                          | Bedroom          | 5.91%               |
| BC.G211                          | LKD              | 7.89%               |
| BC.G211                          | Bedroom 1        | 5.20%               |
| BC.G211                          | Bedroom 2        | 5.04%               |
| BC.G212                          | LKD              | 2.85%               |
| BC.G212                          | Bedroom 1        | 4.65%               |
| BC.G212                          | Bedroom 2        | 4.85%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 00 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC.G213                          | LKD              | 3.30%               |
| BC.G213                          | Bedroom          | 1.70%               |
| BC.G214                          | LKD              | 3.25%               |
| BC.G214                          | Bedroom          | 2.02%               |
| BC.G215                          | LKD              | 3.33%               |
| BC.G215                          | Bedroom          | 2.14%               |
| BC.G216                          | LKD              | 3.28%               |
| BC.G216                          | Bedroom          | 2.22%               |
| BC.G217                          | LKD              | 3.26%               |
| BC.G217                          | Bedroom          | 2.03%               |
| BC.G218                          | LKD              | 3.14%               |
| BC.G218                          | Bedroom          | 2.15%               |
| BC.G219                          | LKD              | 3.06%               |
| BC.G219                          | Bedroom          | 2.02%               |
| BC.G220                          | LKD              | 3.12%               |
| BC.G220                          | Bedroom          | 1.73%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 00 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC.G221                          | Studio           | 3.44%               |
| BC.G222                          | LKD              | 5.88%               |
| BC.G222                          | Bedroom 1        | 4.60%               |
| BC.G222                          | Bedroom 2        | 2.71%               |
| BC.G223                          | LKD              | 4.87%               |
| BC.G223                          | Bedroom 1        | 2.80%               |
| BC.G223                          | Bedroom 2        | 2.95%               |
| BC.G224                          | Studio           | 2.49%               |
| BC.G225                          | Studio           | 3.50%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC.0101                          | LKD              | 6.65%               |
| BC.0101                          | Bedroom          | 6.13%               |
| BC.0102                          | LKD              | 5.58%               |
| BC.0102                          | Bedroom 1        | 4.83%               |
| BC.0102                          | Bedroom 2        | 3.69%               |
| BC.0102                          | Bedroom 3        | 7.36%               |
| BC.0103                          | LKD              | 2.44%               |
| BC.0103                          | Bedroom 1        | 3.23%               |
| BC.0103                          | Bedroom 2        | 1.07%               |
| BC.0104                          | LKD              | 1.01%               |
| BC.0104                          | Living Space^    | 1.39%               |
| BC.0104                          | Bedroom          | 1.86%               |
| BC.0104                          | Bedroom          | 2.12%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC.0105                          | LKD              | 1.61%               |
| BC.0105                          | Bedroom          | 2.14%               |
| BC.0106                          | LKD              | 1.87%               |
| BC.0106                          | Bedroom          | 2.68%               |
| BC.0107                          | LKD              | 2.03%               |
| BC.0107                          | Bedroom          | 3.15%               |
| BC.0108                          | LKD              | 2.21%               |
| BC.0108                          | Bedroom          | 2.80%               |
| BC.0109                          | LKD              | 3.90%               |
| BC.0109                          | Bedroom          | 2.36%               |
| BC.0110                          | LKD              | 4.35%               |
| BC.0110                          | Bedroom          | 1.73%               |
| BC.0111                          | LKD              | 1.42%               |
| BC.0111                          | Living Space^    | 1.71%               |
| BC.0111                          | Bedroom          | 2.07%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC.0112                          | LKD              | 4.99%               |
| BC.0112                          | Bedroom          | 5.65%               |
| BC.0113                          | LKD              | 6.98%               |
| BC.0113                          | Bedroom 1        | 4.86%               |
| BC.0113                          | Bedroom 2        | 5.16%               |
| BC.0114                          | LKD              | 2.51%               |
| BC.0114                          | Bedroom 1        | 5.17%               |
| BC.0114                          | Bedroom 2        | 4.91%               |
| BC.0115                          | Studio           | 3.03%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC.0116                          | LKD              | 2.88%               |
| BC.0116                          | Bedroom          | 1.22%               |
| BC.0117                          | LKD              | 2.75%               |
| BC.0117                          | Bedroom          | 1.47%               |
| BC.0118                          | LKD              | 2.73%               |
| BC.0118                          | Bedroom          | 1.56%               |
| BC.0119                          | LKD              | 2.71%               |
| BC.0119                          | Bedroom          | 1.59%               |
| BC.0120                          | LKD              | 2.70%               |
| BC.0120                          | Bedroom          | 1.44%               |
| BC.0121                          | LKD              | 2.68%               |
| BC.0121                          | Bedroom          | 1.54%               |
| BC.0122                          | LKD              | 2.67%               |
| BC.0122                          | Bedroom          | 1.45%               |
| BC.0123                          | LKD              | 2.61%               |
| BC.0123                          | Bedroom          | 1.22%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC.0124                          | LKD              | 1.58%               |
| BC.0124                          | Bedroom 1        | 4.25%               |
| BC.0124                          | Bedroom 2        | 4.80%               |
| BC.0125                          | Studio           | 3.33%               |
| BC.0126                          | LKD              | 5.44%               |
| BC.0126                          | Bedroom          | 4.85%               |
| BC.0126                          | Bedroom          | 2.80%               |
| BC.0127                          | LKD              | 4.46%               |
| BC.0127                          | Bedroom          | 3.29%               |
| BC.0127                          | Bedroom          | 3.06%               |
| BC.0128                          | Studio           | 2.69%               |
| BC.0129                          | LKD              | 2.62%               |
| BC.0129                          | Bedroom          | 3.50%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 02 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC-0204                          | LKD              | 1.03%               |
| BC-0204                          | Living Space^    | 1.39%               |
| BC-0205                          | LKD              | 1.81%               |
| BC.0206                          | LKD              | 2.12%               |
| BC-0209                          | LKD              | 5.39%               |
| BC-0222                          | LKD              | 1.79%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 03 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC-0304                          | LKD              | 1.34%               |
| BC-0304                          | Living Space^    | 1.82%               |
| BC-0305                          | LKD              | 2.17%               |
| BC-0322                          | LKD              | 2.08%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 04 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC-0404                          | LKD              | 1.94%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block C - Level 05 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BC-0504                          | LKD              | 7.50%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



|             | ADF Results - Block D - Level 00 | D II : 14557/1      |
|-------------|----------------------------------|---------------------|
| Unit Number | Room Description                 | Predicted ADF Value |
| BD.0001     | LKD                              | 5.55%               |
| BD.0001     | Bedroom 1                        | 4.75%               |
| BD.0001     | Bedroom 2                        | 2.99%               |
| BD.0002     | LKD                              | 7.16%               |
| BD.0002     | Bedroom 1                        | 4.39%               |
| BD.0002     | Bedroom 2                        | 5.89%               |
| BD.0003     | Studio                           | 3.43%               |
| BD.0004     | LKD                              | 2.65%               |
| BD.0004     | Bedroom                          | 5.07%               |
| BD.0005     | Studio                           | 2.74%               |
| BD.0006     | Studio                           | 2.94%               |
| BD.0007     | LKD                              | 7.38%               |
| BD.0007     | Bedroom 1                        | 5.06%               |
| BD.0007     | Bedroom 2                        | 4.58%               |
| BD.0008     | LKD                              | 6.35%               |
| BD.0008     | Bedroom 1                        | 4.61%               |
| BD.0008     | Bedroom 2                        | 4.44%               |
| BD.0009     | LKD                              | 2.85%               |
| BD.0009     | Bedroom 1                        | 2.23%               |
| BD.0009     | Bedroom 2                        | 3.78%               |
| BD.0009     | Bedroom 3                        | 4.09%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block D - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BD.0101                          | LKD              | 4.31%               |
| BD.0101                          | Bedroom 1        | 4.47%               |
| BD.0101                          | Bedroom 2        | 2.86%               |
| BD.0102                          | LKD              | 5.74%               |
| BD.0102                          | Bedroom 1        | 4.14%               |
| BD.0102                          | Bedroom 2        | 5.40%               |
| BD.0103                          | Studio           | 2.55%               |
| BD.0104                          | LKD              | 1.80%               |
| BD.0104                          | Bedroom          | 4.65%               |
| BD.0105                          | Studio           | 1.97%               |
| BD.0106                          | Studio           | 2.15%               |
| BD.0107                          | LKD              | 6.00%               |
| BD.0107                          | Bedroom 1        | 4.70%               |
| BD.0107                          | Bedroom 2        | 4.92%               |
| BD.0108                          | LKD              | 5.57%               |
| BD.0108                          | Bedroom 1        | 4.33%               |
| BD.0108                          | Bedroom 2        | 4.53%               |
| BD.0109                          | LKD              | 1.70%               |
| BD.0109                          | Bedroom 1        | 3.65%               |
| BD.0109                          | Bedroom 2        | 3.46%               |
| BD.0110                          | LKD              | 1.64%               |
| BD.0110                          | Bedroom          | 2.65%               |



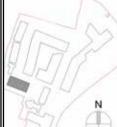
Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block D - Level 02 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BD-0204                          | LKD              | 2.15%               |
| BD-0205                          | Studio           | 3.43%               |
| BD-0209                          | LKD              | 2.89%               |
| BD-0210                          | LKD              | 1.74%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The





Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block D - Level 03                 |     |       |  |
|--|-----|-------|--|
| Unit Number Room Description Predicted ADF Value |     |       |  |
| BD-0305  | LKD | 6.14% |  |





Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



#### **Block E- Level 00**

| ADF Results - Block E- Level 00 |                  |                     |
|---------------------------------|------------------|---------------------|
| Unit Number                     | Room Description | Predicted ADF Value |
| BE.0001                         | LKD              | 4.94%               |
| BE.0001                         | Bedroom 1        | 6.78%               |
| BE.0001                         | Bedroom 2        | 4.58%               |
| BE.0002                         | LKD              | 3.05%               |
| BE.0002                         | Bedroom 1        | 7.52%               |
| BE.0002                         | Bedroom 2        | 7.94%               |

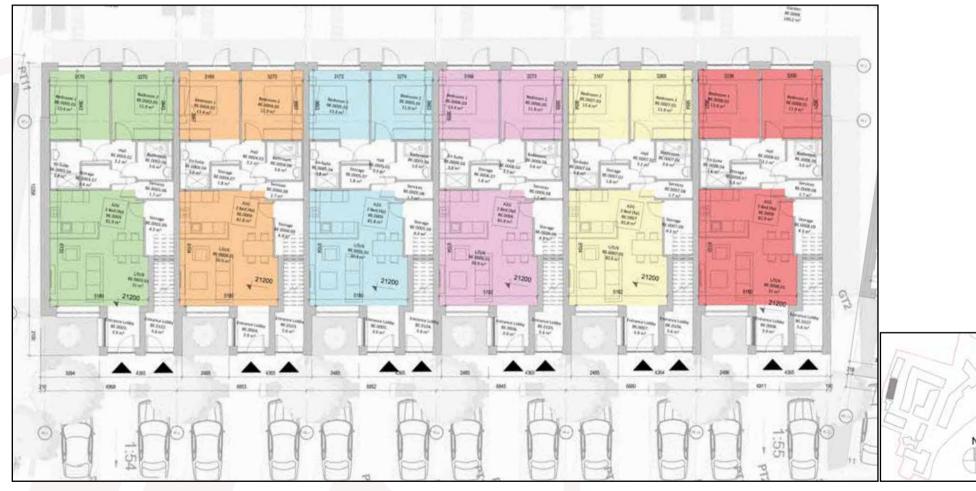


Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



#### **Block E- Level 00**

| ADF Results - Block E- Level 00 |                  |                     |
|---------------------------------|------------------|---------------------|
| Unit Number                     | Room Description | Predicted ADF Value |
| BE.0003                         | LKD              | 1.80%               |
| BE.0003                         | Bedroom 1        | 8.24%               |
| BE.0003                         | Bedroom 2        | 8.44%               |
| BE.0004                         | LKD              | 1.50%               |
| BE.0004                         | Bedroom 1        | 8.25%               |
| BE.0004                         | Bedroom 2        | 8.45%               |
| BE.0005                         | LKD              | 1.64%               |
| BE.0005                         | Bedroom 1        | 8.30%               |
| BE.0005                         | Bedroom 2        | 8.48%               |
| BE.0006                         | LKD              | 1.73%               |
| BE.0006                         | Bedroom 1        | 8.41%               |
| BE.0006                         | Bedroom 2        | 8.63%               |
| BE.0007                         | LKD              | 1.79%               |
| BE.0007                         | Bedroom 1        | 8.46%               |
| BE.0007                         | Bedroom 2        | 8.62%               |
| BE.0008                         | LKD              | 1.76%               |
| BE.0008                         | Bedroom 1        | 8.35%               |
| BE.0008                         | Bedroom 2        | 8.86%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



#### **Block E- Level 00**

| ADF Results - Block E- Level 00 |                  |                     |
|---------------------------------|------------------|---------------------|
| Unit Number                     | Room Description | Predicted ADF Value |
| BE.0009                         | LKD              | 2.24%               |
| BE.0009                         | Bedroom 1        | 7.98%               |
| BE.0009                         | Bedroom 2        | 8.00%               |
| BE.0010                         | LKD              | 1.83%               |
| BE.0010                         | Bedroom 1        | 7.90%               |
| BE.0010                         | Bedroom 2        | 7.95%               |
| BE.0011                         | LKD              | 1.75%               |
| BE.0011                         | Bedroom 1        | 7.84%               |
| BE.0011                         | Bedroom 2        | 7.90%               |
| BE.0012                         | LKD              | 1.72%               |
| BE.0012                         | Bedroom 1        | 7.77%               |
| BE.0012                         | Bedroom 2        | 7.88%               |
| BE.0013                         | LKD              | 1.81%               |
| BE.0013                         | Bedroom 1        | 7.66%               |
| BE.0013                         | Bedroom 2        | 7.80%               |
| BE.0014                         | LKD              | 2.18%               |
| BE.0014                         | Bedroom 1        | 7.67%               |
| BE.0014                         | Bedroom 2        | 7.78%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block E Duplex Units |                  |                     |
|------------------------------------|------------------|---------------------|
| Unit Number                        | Room Description | Predicted ADF Value |
| BE.0201                            | Kitchen          | 3.41%               |
| BE.0201                            | Lounge           | 4.52%               |
| BE.0201                            | Bedroom 1        | 9.13%               |
| BE.0201                            | Bedroom 2        | 2.01%               |
| BE.0201                            | Bedroom 3        | 7.15%               |
| BE.0101                            | Kitchen          | 3.38%               |
| BE.0101                            | Lounge           | 3.21%               |
| BE.0101                            | Bedroom 1        | 4.64%               |
| BE.0101                            | Bedroom 2        | 1.61%               |
| BE.0101                            | Bedroom 3        | 3.70%               |



Top - Floor plans of assessed 1st floor of Duplex, Bottom - Floor plans of assessed 2nd floor of Duplex, Right - Keyplan highlighting the assessed building.



| ADF Results - Block E- Duplex Units |                  |                     |
|-------------------------------------|------------------|---------------------|
| Unit Number                         | Room Description | Predicted ADF Value |
| BE.0102                             | Kitchen          | 2.88%               |
| BE.0102                             | Lounge           | 3.55%               |
| BE.0102                             | Bedroom 1        | 4.68%               |
| BE.0102                             | Bedroom 2        | 1.74%               |
| BE.0102                             | Bedroom 3        | 3.72%               |
| BE.0103                             | Kitchen          | 2.88%               |
| BE.0103                             | Lounge           | 3.76%               |
| BE.0103                             | Bedroom 1        | 4.89%               |
| BE.0103                             | Bedroom 2        | 1.69%               |
| BE.0103                             | Bedroom 3        | 3.70%               |
| BE.0104                             | Kitchen          | 2.90%               |
| BE.0104                             | Lounge           | 3.94%               |
| BE.0104                             | Bedroom 1        | 5.15%               |
| BE.0104                             | Bedroom 2        | 1.73%               |
| BE.0104                             | Bedroom 3        | 3.71%               |



Top - Floor plans of assessed 1st floor of Duplex, Bottom - Floor plans of assessed 2nd floor of Duplex, Right - Keyplan highlighting the assessed building.



| ADF Results - Block E- Duplex Units |                  |                     |
|-------------------------------------|------------------|---------------------|
| Unit Number                         | Room Description | Predicted ADF Value |
| BE.0105                             | Kitchen          | 2.94%               |
| BE.0105                             | Lounge           | 4.11%               |
| BE.0105                             | Bedroom 1        | 5.36%               |
| BE.0105                             | Bedroom 2        | 1.95%               |
| BE.0105                             | Bedroom 3        | 3.71%               |
| BE.0106                             | Kitchen          | 2.97%               |
| BE.0106                             | Lounge           | 4.19%               |
| BE.0106                             | Bedroom 1        | 5.50%               |
| BE.0106                             | Bedroom 2        | 1.79%               |
| BE.0106                             | Bedroom 3        | 3.72%               |
| BE.0107                             | Kitchen          | 2.96%               |
| BE.0107                             | Lounge           | 4.25%               |
| BE.0107                             | Bedroom 1        | 5.58%               |
| BE.0107                             | Bedroom 2        | 1.67%               |
| BE.0107                             | Bedroom 3        | 3.69%               |



Top - Floor plans of assessed 1st floor of Duplex, Bottom - Floor plans of assessed 2nd floor of Duplex, Right - Keyplan highlighting the assessed building.



| ADF Results - Block E- Duplex Units |                  |                     |
|-------------------------------------|------------------|---------------------|
| Unit Number                         | Room Description | Predicted ADF Value |
| BE.0108                             | Kitchen          | 2.95%               |
| BE.0108                             | Lounge           | 4.19%               |
| BE.0108                             | Bedroom 1        | 5.52%               |
| BE.0108                             | Bedroom 2        | 1.78%               |
| BE.0108                             | Bedroom 3        | 3.75%               |
| BE.0109                             | Kitchen          | 2.97%               |
| BE.0109                             | Lounge           | 4.13%               |
| BE.0109                             | Bedroom 1        | 5.50%               |
| BE.0109                             | Bedroom 2        | 1.75%               |
| BE.0109                             | Bedroom 3        | 3.73%               |
| BE.0110                             | Kitchen          | 3.30%               |
| BE.0110                             | Lounge           | 4.07%               |
| BE.0110                             | Bedroom 1        | 5.42%               |
| BE.0110                             | Bedroom 2        | 1.73%               |
| BE.0110                             | Bedroom 3        | 3.81%               |



Top - Floor plans of assessed 1st floor of Duplex, Bottom - Floor plans of assessed 2nd floor of Duplex, Right - Keyplan highlighting the assessed building.



| ADF Results - Block E- Duplex Units |                  |                     |
|-------------------------------------|------------------|---------------------|
| Unit Number                         | Room Description | Predicted ADF Value |
| BE.0111                             | Kitchen          | 2.94%               |
| BE.0111                             | Lounge           | 4.12%               |
| BE.0111                             | Bedroom 1        | 5.37%               |
| BE.0111                             | Bedroom 2        | 1.80%               |
| BE.0111                             | Bedroom 3        | 3.71%               |
| BE.0112                             | Kitchen          | 2.93%               |
| BE.0112                             | Lounge           | 4.40%               |
| BE.0112                             | Bedroom 1        | 5.53%               |
| BE.0112                             | Bedroom 2        | 1.95%               |
| BE.0112                             | Bedroom 3        | 3.71%               |
| BE.0113                             | Kitchen          | 2.97%               |
| BE.0113                             | Lounge           | 4.88%               |
| BE.0113                             | Bedroom 1        | 5.85%               |
| BE.0113                             | Bedroom 2        | 2.00%               |
| BE.0113                             | Bedroom 3        | 3.76%               |



Top - Floor plans of assessed 1st floor of Duplex, Bottom - Floor plans of assessed 2nd floor of Duplex, Right - Keyplan highlighting the assessed building.



| ADF Results - Block F - Level 00 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BF.0001                          | LKD              | 4.94%               |
| BF.0001                          | Bedroom 1        | 2.92%               |
| BF.0001                          | Bedroom 2        | 4.86%               |
| BF.0002                          | LKD              | 7.17%               |
| BF.0002                          | Bedroom 1        | 4.85%               |
| BF.0002                          | Bedroom 2        | 3.62%               |
| BF.0003                          | LKD              | 1.91%               |
| BF.0003                          | Bedroom          | 3.47%               |
| BF.0004                          | LKD              | 2.42%               |
| BF.0004                          | Bedroom          | 3.68%               |
| BF.0005                          | Studio           | 3.99%               |
| BF.0006                          | LKD              | 2.38%               |
| BF.0006                          | Bedroom          | 3.88%               |
| BF.0007                          | LKD              | 7.14%               |
| BF.0007                          | Bedroom 1        | 2.96%               |
| BF.0007                          | Bedroom 2        | 5.78%               |
| BF.0008                          | LKD              | 6.24%               |
| BF.0008                          | Bedroom 1        | 4.82%               |
| BF.0008                          | Bedroom 2        | 4.23%               |
| BF.0009                          | Studio           | 3.78%               |
| BF.0010                          | LKD              | 1.67%               |
| BF.0010                          | Bedroom 1        | 0.80%               |
| BF.0010                          | Bedroom 2        | 1.39%               |





Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block F - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BF.0101                          | LKD              | 4.01%               |
| BF.0101                          | Bedroom 1        | 2.64%               |
| BF.0101                          | Bedroom 2        | 4.33%               |
| BF.0102                          | LKD              | 6.12%               |
| BF.0102                          | Bedroom 1        | 4.28%               |
| BF.0102                          | Bedroom 2        | 3.56%               |
| BF.0103                          | LKD              | 1.35%               |
| BF.0103                          | Living Space^    | 1.81%               |
| BF.0103                          | Bedroom          | 3.36%               |
| BF.0104                          | LKD              | 1.87%               |
| BF.0104                          | Bedroom          | 3.52%               |
| BF.0105                          | LKD              | 3.99%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.





Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building



| ADF Results - Block F - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BF.0106                          | LKD              | 1.63%               |
| BF.0106                          | Bedroom 1        | 3.55%               |
| BF.0107                          | LKD              | 6.60%               |
| BF.0107                          | Bedroom 1        | 2.85%               |
| BF.0107                          | Bedroom 2        | 6.04%               |
| BF.0108                          | LKD              | 6.25%               |
| BF.0108                          | Bedroom 1        | 5.00%               |
| BF.0108                          | Bedroom 2        | 4.82%               |
| BF.0109                          | Studio           | 3.43%               |
| BF.0110                          | LKD              | 1.33%               |
| BF.0110                          | Living Space^    | 1.73%               |
| BF.0110                          | Bedroom 1        | 0.77%               |
| BF.0110                          | Bedroom 2        | 1.27%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results. The circa compliance rates across the entire scheme can be found in section 6.5 on page 161.

^ In instances where an LKD has recorded an ADF value lower than 1.5%, an additional study has been carried out, in which the living area has been assessed as a standalone space with the kitchen area omitted from the assessment. This supplementary study does not contribute to the circa compliance rates.





Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block F - Level 01 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BF.0111                          | LKD              | 1.74%               |
| BF.0111                          | Bedroom 1        | 2.93%               |
| BF.0111                          | Bedroom 2        | 4.49%               |
| BF.0112                          | LKD              | 2.43%               |
| BF.0112                          | Bedroom          | 4.78%               |
| BF.0113                          | LKD              | 7.01%               |
| BF.0113                          | Bedroom 1        | 4.42%               |
| BF.0113                          | Bedroom 2        | 5.23%               |
| BF.0114                          | LKD              | 5.67%               |
| BF.0114                          | Bedroom 1        | 5.16%               |
| BF.0114                          | Bedroom 2        | 4.69%               |
| BF.0115                          | Studio LKD       | 4.61%               |
| BF.0115                          | Studio Bedroom   | 4.44%               |
| BF.0116                          | Studio LKD       | 4.65%               |
| BF.0116                          | Studio Bedroom   | 5.65%               |
| BF.0117                          | Studio           | 2.57%               |





Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block F - Level 02 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BF-0203                          | LKD              | 1.56%               |
| BF-0204                          | LKD              | 2.27%               |
| BF-0206                          | LKD              | 1.92%               |
| BF-0210                          | LKD              | 1.48%               |
| BF-0210                          | Bedroom 1        | 1.04%               |
| BF-0211                          | LKD              | 1.98%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Block F - Level 03 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BF-0303                          | LKD              | 2.34%               |
| BF-0306                          | LKD              | 2.48%               |
| BF-0310                          | LKD              | 1.72%               |
| BF-0311                          | LKD              | 2.20%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building



| ADF Results - Block F - Level 04 |                  |                     |
|----------------------------------|------------------|---------------------|
| Unit Number                      | Room Description | Predicted ADF Value |
| BF-0410                          | LKD              | 2.49%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Tabor House - Level 00 |                  |                     |
|--------------------------------------|------------------|---------------------|
| Unit Number                          | Room Description | Predicted ADF Value |
| BT.0001                              | LKD              | 1.34%               |
| BT.0001                              | Bedroom          | 1.28%               |
| BT.0002                              | LKD              | 2.04%               |
| BT.0002                              | Bedroom          | 2.17%               |
| BT.0003                              | LKD              | 2.24%               |
| BT.0003                              | Bedroom          | 2.17%               |
| BT.0004                              | LKD              | 1.63%               |
| BT.0004                              | Bedroom          | 1.60%               |
| BT.0005                              | LKD              | 2.47%               |
| BT.0005                              | Bedroom          | 2.55%               |
| BT.0006                              | LKD              | 2.32%               |
| BT.0006                              | Bedroom          | 1.27%               |



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Tabor House - Level 01 |                  |                     |
|--------------------------------------|------------------|---------------------|
| Unit Number                          | Room Description | Predicted ADF Value |
| BT.0101                              | LKD              | 1.51%               |
| BT.0101                              | Bedroom          | 2.00%               |
| BT.0102                              | LKD              | 2.89%               |
| BT.0102                              | Bedroom          | 3.13%               |
| BT.0103                              | LKD              | 2.98%               |
| BT.0103                              | Bedroom          | 3.16%               |
| BT.0104                              | LKD              | 1.22%               |
| BT.0104                              | Bedroom          | 1.43%               |
| BT.0105                              | LKD              | 1.94%               |
| BT.0105                              | Bedroom          | 2.07%               |
| BT.0106                              | LKD              | 3.51%               |
| BT.0106                              | Bedroom          | 3.38%               |

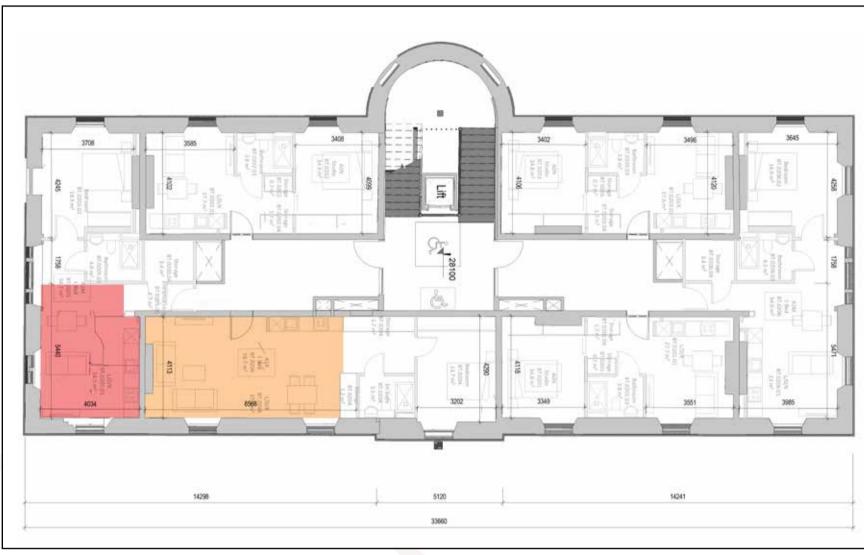




Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Tabor House - Level 02 |                  |                     |
|--------------------------------------|------------------|---------------------|
| Unit Number                          | Room Description | Predicted ADF Value |
| BT-0204                              | LKD              | 1.47%               |
| BT-0205                              | LKD              | 2.78%               |

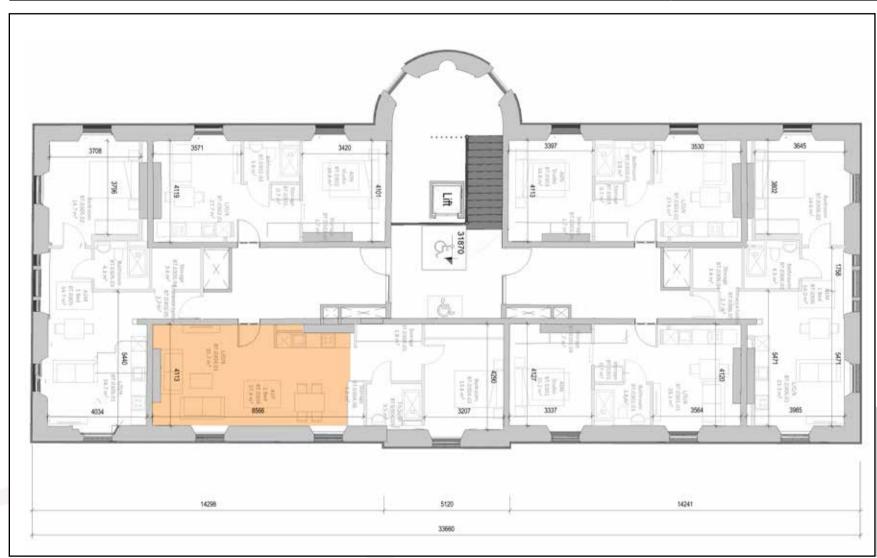




Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



| ADF Results - Tabor House - Level 03 |                  |                     |
|--------------------------------------|------------------|---------------------|
| Unit Number                          | Room Description | Predicted ADF Value |
| BT-0304                              | LKD              | 1.29%               |





Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



# **Average Daylight Factor - Communal Spaces Block F - Level 00 - Childcare Facility**

| ADF Results - Block F - Level 00 - Childcare Facility |                  |                     |
|---|------------------|---------------------|
| Unit Number   | Room Description | Predicted ADF Value |
| Home Base 1   | Childcare*       | 3.69%               |
| Home Base 2   | Childcare*       | 3.40%               |
| Home Base 3   | Childcare*       | 4.33%               |
| Home Base 4   | Childcare*       | 5.58%               |
| Home Base 5   | Childcare*       | 6.55%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results.

\*In new developments, some internal spaces are of a nature that does not have a predefined target value as per BS 8206-2:2008. In such instances, 3DDB recommend that a target value of 1.5% be applied.



Left - Floor plan of assessed building, Right - Keyplan highlighting the assessed building.



# **Communal Amenity Spaces - Level B1 & 00**

| ADF Results - Communal Amenity Spaces - Level B1 & 00 |                  |                     |
|---|------------------|---------------------|
| Block   | Room Description | Predicted ADF Value |
| Level B1  |                  |                     |
| Block Al  | Lounge 1         | 1.96%               |
| Block Al  | Library          | 4.59%               |
| Block Al  | Lounge 2         | 6.82%               |
| Level 00  |                  |                     |
| Block B   | Lounge           | 3.02%               |
| Block C   | Lounge           | 6.90%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results.

\*In new developments, some internal spaces are of a nature that does not have a predefined target value as per BS 8206-2:2008. In such instances, 3DDB recommend that a target value of 1.5% be applied.



Siteplan indicating the location of the assessed amenity area.

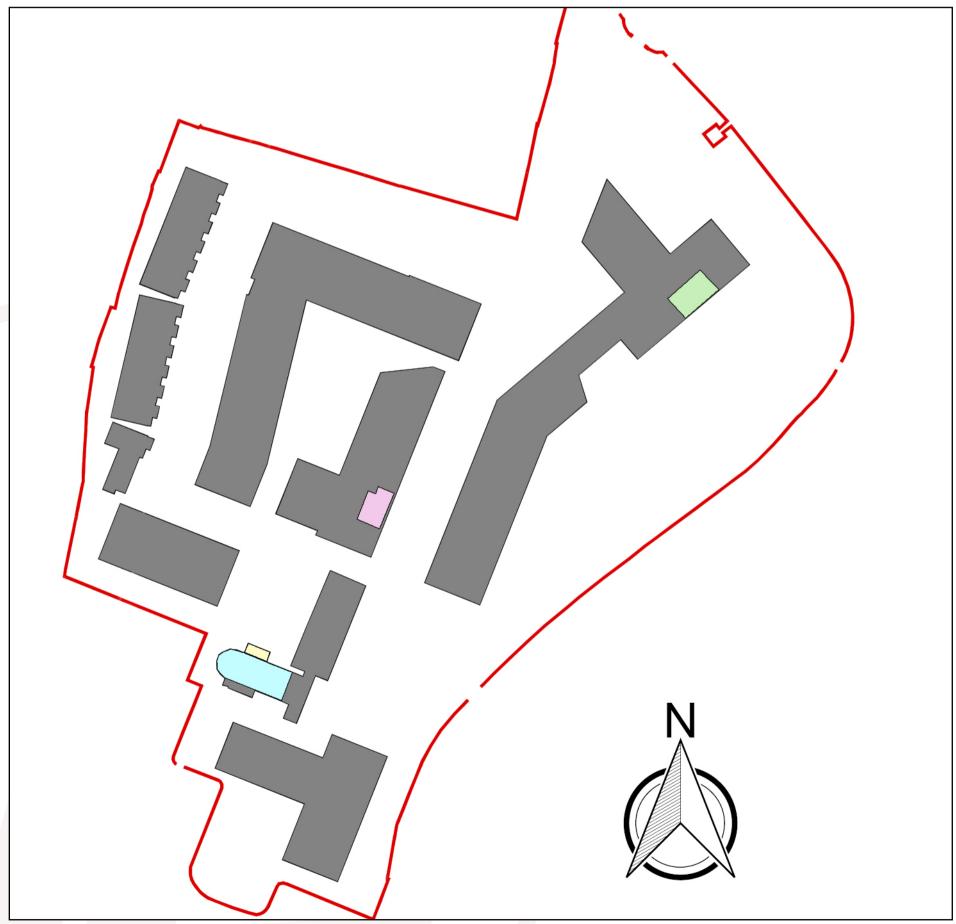


# **Communal Amenity Spaces - Level 01-05**

| ADF Results - Communal Amenity Spaces - Level 01-05 |                    |                     |
|---|--------------------|---------------------|
| Block   | Room Description   | Predicted ADF Value |
| Level 01  |                    |                     |
| Chapel Building                                     | Multi-Purpose Hall | 2.92%               |
| Chapel Building                                     | Co-Working         | 2.07%               |
| Level 04  |                    |                     |
| Block A1  | Amenities          | 4.80%               |
| Level 05  |                    |                     |
| Block B   | Amenities          | 6.83%               |

The following ADF target values should be considered when reading the above table of results: 2% for kitchens, 1.5% for living rooms and 1% for bedrooms. For LKDs a target value of 2% or 1.5% can be appropriate. Consideration should be given to the methodology section of this report, specifically "Recommended Minimum ADF" on page 16, when reviewing these results.

\*In new developments, some internal spaces are of a nature that does not have a predefined target value as per BS 8206-2:2008. In such instances, 3DDB recommend that a target value of 1.5% be applied.



Siteplan indicating the location of the assessed amenity area.



## **Average Daylight Factor - Hypothetical study Without Balconies Block B - Level 00 & 01**

As part of the design evolution, the possibility of removing balconies was considered as a way to improve ADF values in some of the lower performing LKDs. Below is a table containing ADF results on rooms that were assessed without the balconies which indicates that removal of the balconies would provide sufficient improvement to daylight levels to achieve full compliance with the recommended minimum values. Notwithstanding the results of this hypothetical study, it was the opinion of the design team that removing balconies would reduce the quality of living within the proposed units to a greater degree than the improvements that would be gained with increased ADF values.

| ADF Results - Block B - Level 00 & 01 - Assessment without balconies |                  |                     |                                 |
|--|------------------|---------------------|---------------------------------|
| Unit Number  | Room Description | Predicted ADF Value | Predicted ADF without Balconies |
| Level 00   |                  |                     |                                 |
| BB.0003  | LKD              | 1.25%               | 2.83%                           |
| BB.0004  | LKD              | 1.34%               | 2.93%                           |
| BB.0005  | LKD              | 1.36%               | 2.84%                           |
| BB.0006  | LKD              | 1.45%               | 3.02%                           |
| BB.0007  | LKD              | 1.63%               | 3.19%                           |
| Level 01   |                  |                     |                                 |
| BB.0106  | LKD              | 1.02%               | 2.20%                           |
| BB.0107  | LKD              | 0.95%               | 2.37%                           |
| BB.0108  | LKD              | 1.04%               | 2.82%                           |
| BB.0109  | LKD              | 0.99%               | 2.66%                           |
| BB.0110  | LKD              | 1.15%               | 2.82%                           |



Left - Level 00 Floor plan of assessed LKDs without balconies, Right - Keyplan highlighting the assessed building.



Left - Level 01 Floor plan of assessed LKDs without balconies, Right - Keyplan highlighting the assessed building.



# **Analysis of Results**

Results were generated and analysed for the following studies:

- Vertical Sky Component
  - Rowan Hall / Cedar Hall
  - Mount Sandford
  - · 1 St. James Terrace
  - · Loyola House, 87 Eglinton Road
  - · 132-138 Sandford Road
  - 1-11 Norwood Park
  - 28-35 Cherryfield Avenue Lower
  - 1-20 Cherryfield Ave Upper
- · Annual Probable Sunlight Hours
  - Loyola House, 87 Eglinton Road
  - · 132-138 Sandford Road
  - 1-11 Norwood Park
  - 28-35 Cherryfield Avenue Lower
  - 1-20 Cherryfield Ave Upper
  - 671 No. Living room windows within the proposed development
- Sunlighting in Existing Gardens
  - 1-11 Norwood Park
  - 28-35 Cherryfield Avenue Lower
  - 1-20 Cherryfield Ave Upper
- Sunlighting in Proposed Gardens/Amenity Spaces
  - Communal Open Space
  - Public Open Space
  - 4 No. Roof Gardens
  - 14 No. Private Gardens
- Average Daylight Factor
  - 746 No. rooms in the proposed development.

## **Effect on Vertical Sky Component (VSC)**

The effect on VSC has been assessed for 315 No. windows across the surrounding properties. Using the rationale as outlined on Page 6; 256 No. of these windows would be considered *imperceptible*, 33 No. not significant, 16 No. slight and 10 No. Moderate.

This shows that 81.3% of the assessed windows comply with the criteria as set out in the BRE guidelines for impact to VSC and thus, the level of effect can be considered imperceptible, using the rationale as outlined on Page 6.

All 10 no. windows that have shown a *moderate* level of effect to VSC are located on the Rowan Hall / Cedar Hall apartments. In each instance, the assessed window is located beneath a recessed balcony. This is an important point as the BRE guidelines state:

"Existing windows with balconies above them typically receive less daylight. Because the balcony cuts out light from the top part of the sky, even a modest obstruction opposite may result in a large relative impact on the VSC"

The fact that all recessed windows along the elevation of Rowan Hall / Cedar Hall have shown an *imperceptible* level of impact demonstrates that the balconies are causing the level of effect to appear exaggerated.

Given the massing and density of the proposed development the results of the VSC study can be considered very favourable. Furthermore, it should be noted that there is a mature tree line along the north and west boundaries of the proposed site, of which a significant portion is made up of deciduous trees. These deciduous trees have not been included in the analytical model, as per the advice in the BRE Guidelines. This practice is to ensure the impacts that are calculated reflect the winter months, when deciduous trees will be bare and provide less of a natural barrier. During the summer months, when the existing trees are in full foliage, impacts caused by the proposed development will be less perceptible.

A slight improvement has been recorded on one of the windows within this study, Window 2c on 2 Norwood Park. This improvement, however minor, is as a result of the planned removal of some evergreen trees on the subject site and the fact that the buildings of the proposed development would not be visible from this window.

The complete results for the study on the effect on VSC caused by the proposed development can be found in Section 5.1 on page 18.



## **Annual Probable Sunlight Hours (APSH)**

#### **Effect on neighbouring properties**

The APSH assessment has been carried out on the relevant windows of the surrounding properties that have an orientation within 90 degrees of due south.

The effect on APSH has been assessed for 192 No. of windows of the surrounding existing properties on number 87 Eglinton Road, 132-138 Sandford Road, 1-11 Norwood Park, 28-35 Cherryfield Avenue Lower and 1-20 Cherryfield Ave Upper.

The APSH study is broken into two parts, annual assessment and winter assessment.

In the annual assessment, using the rationale as outlined on Page 6; the effect on the APSH of 175 No. of these windows would be considered imperceptible, 2 No. not significant, 5 No. slight, 5 No. Moderate and 5 No. Significant.

In the winter assessment, using the rationale as outlined on Page 6; the effect on the APSH of 176 No. of these windows would be considered imperceptible, 1 No. Moderate, 2 No. Significant, 3 No. very significant and 10 No. Profound.

Despite the high level of compliance with the BRE Guidelines in both the annual and winter assessments, concerns could be raised by the number of impacts to winter sunlight that have been categorised as significant, very significant and profound, leading to closer inspection.

The vast majority of the affected windows are located along Cherryfield Avenue. The design of the rear of these

houses includes a deep recess to each property which is a large contributing factor to the high levels of impact.

Figure 6.1 demonstrates the localized factors that are resulting in such high levels of impact to sunlight along Cherryfield Avenue. The window marked in this diagram as "3b" is situated in a deep recess. This window has an orientation that is predominately east-facing. Sunlight availability to predominately east facing windows is restricted to the early portion of the day. The available sunlight that window 3b on Number 3 Cherryfield Avenue Upper can expect is restricted further by the outcropped element of its own property as indicated by "3a" in Figure 6.1. During the winter months, the sun position in the sky is low. The combination of these factors means the only time window 3b will receive sunlight in the baseline state during wintertime is in the Aerial views of No. 3 Cherryfield Avenue Upper early hours of the morning. The proposed development



would result in this window receiving no sunlight in the winter months, but this is due to the low angle of available sunlight during this period.

An additional hypothetical study was carried out to test if a reduction in density of the proposed development would yield more favourable results in this regard. To test this, Block E was omitted from the analytical model as it is the closest block to the shared boundary of the subject site and Cherryfield Avenue. The results to the winter APSH of window 3b were the same with Block E of the proposed development omitted which demonstrates that the high level of impact to this window is not a result of the density which is proposed as part of the proposed development. The results of this hypothetical study can be found in section 5.3 on page 62.

The vast majority of the affected windows along Cherryfield Avenue are located in a similar configuration as that of 3b. Window 3a as illustrated in Figure 6.1 is one of a few affected windows that is not located in this configuration. However, a similar circumstance has occurred due to the extension of the neighbouring property that is situated directly to the south of window 4a. All windows that have a perceptible level of impact to APSH along Cherryfield Avenue have a strong easterly aspect and all have close obstruction directly to the south.

Further demonstration of how the localized factors are playing a significant role in the high level of impact to sunlight of these windows can be found in the assessment of window 4a as highlighted in the figure above. Given that this window is situated closer to the proposed development than 3a, one would expect the level of effect to be greater in this instance. Window 4a does in fact meet the criteria as set out in the BRE Guidelines for impact to APSH. In fact all the houses along Cherryfield Avenue that do not have an obstruction directly to the south meet the BRE recommendations for APSH impact, which is proof that the impact caused by the proposed development is exaggerated by localized factors.

The only windows outside of Cherryfield Avenue that would experience a perceptible level of effect to APSH are windows 87b and 87c of Number 87 Eglinton Road. The impact on these windows is due to a similar situation to that of Cherryfield Avenue. In the case of 87 Eglinton Road, the windows are predominately West facing and therefore, would only expect any sun in the late evening. These windows also have an obstruction directly to the south, so the justification for not meeting the BRE guidelines is similar to that as demonstrated along Cherryfield Avenue.

Similar to the VSC study, a slight improvement has been recorded on one of the windows within this study, Window 2c on 2 Norwood Park. This improvement is due to the planned removal of some evergreen trees on the subject site.

Notwithstanding the high level of effect to some of the assessed windows, it is the opinion of 3DDB that the results of the APSH study can been considered to be favourable.

The results of the study on APSH can be found in Section 5.2 on page 38.



#### **APSH** of the proposed development

An APSH assessment has been carried out on the main living room windows of all units of the proposed development. The annual assessment has shown that circa 52% of the proposed units meet the criteria for sunlight as set out in the BRE Guidelines. This figure increases to circa 87% in the winter study.

The high compliance rate in the winter study is evidence of a high percentage of proposed living rooms windows having a southerly aspect. The notable difference between the annual study when compared with the winter study is indicative of balconies causing an obstruction to sunlight. The Apt Guidelines require balconies to be accessed of the living room, this can result in a reduction to sunlight availability, particularly in the summer months when the sun position is higher in the sky.

No recommendation is made regarding the performance of a development as a whole for APSH performance, but we consider the proposed development to preform adequately in this regard.

# **Effect on Sunlighting in Existing Gardens**

This study has assessed the impact the proposed development would have on the levels of sunlight received in the rear gardens of 1-11 Norwood Park, 28-35 Cherryfield Avenue Lower and 1-20 Cherryfield Avenue Upper which all share a boundary with the proposed site.

In total 39 No. spaces have been assessed. Using the rationale as outlined on Page 6; 30 No. of which would experience an *imperceptible* level of effect, with a further 7 No. recording a *not* significant level of effect, 1 No. garden has shown a *slight* level of effect and 1 No. a *moderate* level of effect.

76.9% of the assessed gardens have met the criteria for effect on sunlighting as set out in the BRE Guidelines.

The most significant level of effect recorded would occur in the read garden of number 7 Cherryfield Avenue Upper, the level of impact to this garden has been categorised as *moderate*. The hourly renderings in the shadow study provided indicate that the proposed development will not cast any shadows into this garden after 11 o'clock at both the equinox and the summer solstice.

Given that the majority of assessed gardens comply with the BRE recommendations, it can be considered that the proposed development would not result in an undue level of overshadowing to the neighbouring properties.

The complete results of the study on effect on sunlight the neighbouring gardens can be found in Section 5.4 on page 63.

A visual representation of these readings can be seen in the 2 hour false colour plans in Section 5.4 and in the hourly shadow diagrams for March 21st In Section 5.6.1 on page 76.

## **Sunlighting in Proposed Outdoor Amenity Areas**

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

In total 20 No. spaces have been assessed, all of which would meet the criteria as set out in the BRE Guidelines.

The assessed spaces are comprised of the proposed communal and public open space at ground level within the proposed development; the 4 No. roof gardens, two of which are located on Block A with the others on Blocks B & C; 14 No. private gardens, all of which are located to the rear of Block E.

All areas assessed have been defined by the landscape architect. The proposed communal and public open space is located throughout the site, some areas will receive better level of sunlight than others, but overall the development can be considered to have good potential for sunlight access.

The complete results for the study on sunlighting in the proposed outdoor amenity spaces can be found in Section 5.5 on page 71.

A visual representation of these readings can be seen in the false colour plan in Section 5.5 and in the hourly shadow diagrams for March 21st in Section 5.6.1 on page 76.



## **Average Daylight Factor (ADF)**

3D Design Bureau worked closely with the project architects, OMP, to ensure a favourable outcome was achieved regarding the daylight (ADF) performance of the proposed development. Multiple design iterations were assessed in the lead up to this full application. With each iteration, mitigation measures were implemented to improve levels of daylight. Such design interventions included the re-configuration of units, increased levels of glazing and alterations to balcony layouts.

This study has assessed the Average Daylight Factor (ADF) received in all residential rooms across the lowest habitable floor of the proposed development. The rooms at ground level were studied across all blocks as the lowest floor is deemed to be the worst case scenario. All units were also studied at 1st floor level due to a difference in the floor to ceiling height which could result in a reduced level of daylight. Additional studies were also carried out on the 2nd floor on part of Block A due to there being no equivalent rooms on the 1st floor, with the 2nd floor of the Block E duplexes also assessed.

This proposed development consists of 671 no. units, which makes up approximately 1585 no. habitable rooms. The ADF has been calculated for 599 no. rooms on the lowest habitable floors as stated above, the results of which can be found in the section titled "Average Daylight Factor" on page 71.

Where individual rooms have fallen short of the recommended minimum target value, the equivalent room on the floor above has been assessed. This study has been carried out up to the floor where room meets the minimum recommended value in addition to spot checks been carried out to verify that assumptions made were correct. This further assessment tested another 147 no. rooms bringing the total number of assessed rooms up to 746 no. with a reasonable assumptions being made that the remaining 839 no. rooms will achieve the recommended level of daylight. Our methodology in conjunction with this reasonable assumption gives us our circa compliance rate/s for the entire scheme.

If the appropriate target value for LKDs is considered to be 2%, the ADF value in 605 no. of the 746 no. habitable rooms that have been assessed meet or exceed their target values. The combination of these rooms plus the 839 no. rooms that have been inferred as meeting the ADF recommendations, give a compliance rate of circa 91%.

If the appropriate target value for LKDs is considered to be 1.5%, the ADF value in 685 no. of the 746 no. habitable rooms that have been assessed meet or exceed their target values. The combination of these rooms plus the 839 no. rooms that have been inferred as meeting the ADF recommendations, give a compliance rate of circa 96%

A secondary study was carried out on the LKDs that recorded an ADF value less than 1.5%, all of which are configured to have a kitchen that is completely internal with no window on the external facade. This additional study assessed the level of daylight within the living space of the LKD as defined by the architect. The vast majority of assessed living spaces recorded an ADF above the recommended minimum of 1.5%. The kitchen area of these units may require additional electric lighting for parts of the day, but the future residents will have access to adequate levels of daylight in the main living space of the apartment. Note: This secondary study does not contribute to the overall ADF compliance rate figures stated in the report.

The most notable area of noncompliance with the ADF recommendations in the proposed development is the elevation of Block B that faces on to Block A. A secondary study was carried out on this area to establish how much of a reduction was being caused by the balconies that are present on this elevation. The units that did not achieve positive results were re-assessed without balconies, which yielded very positive daylight values as can be seen in the hypothetical study in section 5.11 on page 157. This indicates that the inclusion of balconies is playing a big part in the under-performing units. It was the decision of the design team that the inclusion of balconies is sufficiently important to warrant a reduction to daylight.

Section 6.7 in the planning guidelines on Design Standards for New Apartments as published by the Department of Housing, Planning and Local Government in December 2020 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 alternate, compensatory design solutions must be set out, which planning authorities should apply their discretion in accepting taking account of its assessment of specif. This may arise due to a design constraints 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."

Living rooms are prioritised by positioning adjacent to the external facade to avail of good daylight, views and ease of access to external private balcony amenity space. This benefits the usability and functionality of the space with the kitchen area located deeper in the plan which are considered 'non-habitable' spaces and not frequently used or enjoyed for comfort and relaxation.

As part of a compensatory design solution for the rooms that do not meet the recommended minimum average daylight factor, the proposed development includes communal amenity areas, all of which have been assessed and will have adequate levels of daylight. Furthermore, the scheme has incorporated a number of localised compensatory design measures. The rooms that do not meet the ADF target have been provided with either some or all of the following compensatory measures:

- Balcony space, some of which exceed the minimum requirement
- Windows that face public open space in the development
- Larger Apartment floor areas, some of which are 10% larger (or more) of the minimum required standards.

For full details on the compensatory measures provided for each room, please see the Statement of Consistency and Material Contravention Statement prepared by Thornton O'Connor Town Planning. In addition, residents will have access to the internal communal amenity spaces which will all receive good levels of daylight.

Given the compensatory design measures, the level of ADF compliance for the development as a whole could be considered acceptable regardless of whether 2.0% or 1.5% target is deemed to be applicable for the LKDs.

The complete results for the study on ADF can be seen in "Average Daylight Factor - Residential Units" on page 85.



# **Conclusion**

3D Design Bureau (3DDB) were commissioned to carry out a comprehensive daylight assessment and shadow study for the proposed SHD development.

This impact assessment has studied the effect the proposed development would have on the level of daylight and sunlight received by the neighbouring residential properties that are in close proximity to the proposed development.

The level of effect on daylight to the neighbouring windows and sunlight to the surrounding existing gardens can be considered very favourable. Whilst some of the levels of impact to the sunlight of the neighbouring properties seems to be high, we feel that this has been rationalised and is largely due to localised factors at the affected dwellings. It has been demonstrated that such impacts would be inevitable should the subject site be developed to an appropriate level of density.

The internal assessment on the proposed development has studied access to daylight (ADF) within rooms of the proposed units, APSH on the living room windows and sunlighting to open spaces within the scheme. From this study, it can be concluded that future occupants will enjoy good levels of daylight within the vast majority of the proposed units and will have access to amenity areas that are capable of receiving excellent levels of sunlight.

The results of this daylight and sunlight assessment for the proposed SHD could be considered to be favourable. The positive outcome in this regard is a direct result of considered design and corresponding design interventions by the design team. Every effort has been made to achieve the highest compliance rate possible, in terms of minimizing impact to neighbouring properties, maximising daylight and sunlight within the proposed development (not of the proposed development) whilst aiming to achieve a high level of density in accordance with the current housing policy.