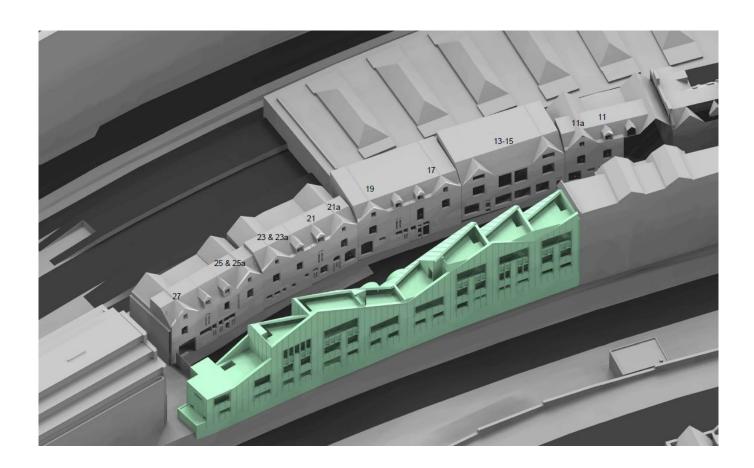
# AVISON YOUNG



# Daylight and Sunlight Report Canfield Place, London

February 2021

#### Contents

1.	Introduction and Scope of Report	. 1
2.	Sources of Information and Assumptions	. 2
3.	Policy Context & Guidance	. 3
4.	Existing Site & Proposed Development	. 9
5.	Neighbouring Daylight/Sunlight Assessment	.12
6.	Summary and Conclusion	.17

### **Appendices**

Appendix I Daylight & Sunlight Principles

Appendix II Existing & Proposed Drawings

Appendix III Neighbouring Daylight/Sunlight Results & NSL Contour Drawings

Appendix IV Site Visit Photographs

Prepared By: Avison Young Draft Date: February 2021

For and on behalf of Avison Young (UK) Limited

Date: February 2021

# 1. Introduction and Scope of Report

1.1 Avison Young ('AY') has been instructed by Imperial Land Resources (Switzerland) Ltd to advise on daylight and sunlight matters in relation to the proposed development at Canfield Place, London (the 'Proposed Development').

Report Title: Canfield Place, London

- 1.2 Further to AY's (formerly 'GVA') previous Daylight/Sunlight report dated March 2017, a site visit was undertaken in January 2021 and revised Daylight/Sunlight technical analysis has been carried out. This report therefore supersedes our previous March 2017 report.
- 1.3 This report considers the potential impact of the Proposed Development upon the daylight and sunlight amenity within sensitive neighbouring residential properties.
- 1.4 Analysis has been undertaken by reference to the Building Research Establishment (BRE) Guidelines 'Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice' (2011) (the 'BRE Guidelines').
- 1.5 Policy context is also important in establishing acceptable levels of amenity. The appropriateness of the Proposed Development in daylight and sunlight terms, should therefore be considered against key documents including the National Planning Policy Framework, published February 2019 ('NPPF'). The NPPF gives guidance at government level and states that Councils should take a 'flexible approach' when applying daylight and sunlight guidance to planning applications for new housing. It aims to ensure that daylight and sunlight matters are not limited to an overly simplistic technical exercise against the default BRE Guidelines recommendations without due regard for the current and future physical and planning context.

Page: 1

## 2. Sources of Information and Assumptions

- 2.1 In order to undertake the Daylight and Sunlight assessments, a three dimensional computer analysis model of the existing site, Proposed Development, and surrounding context was created by AY based upon the following sources of information:
  - Existing survey data provided by Green Hatch Group;
  - Site visit and photographs provided by Nicholas Taylor and Associates (received 29th January 2021);

Report Title: Canfield Place, London

- Proposed scheme drawings provided by CZWG Architects LLP (received February 2017);
- Google Map and Bing Map aerial and street view imagery; and
- Floor plans for a number of neighbouring properties (see point 3.4 below) obtained from online/public records.
- 2.2 The scope of buildings considered has been determined as a reasonable zone which considers both the scale of the proposed development and the proximity of those buildings which surround and face the site.
- 2.3 Best estimates have been made as to the uses which are carried out legally within the adjoining properties in terms of commercial and residential usage. These have been estimated from Valuation Office Agency (VOA) council tax band searches, external observation from aerial/street view imagery and online planning records where available.
- As is standard practice when assessing daylight and sunlight to adjoining properties, AY have not sought access to any of the adjoining properties. However, full/partial floor plans and internal photos (see Appendix IV) were obtained from online/public records for the following properties and these have been incorporated into our 3D model prior to the assessment:
  - 21a Canfield Place;
  - 25 & 25a Canfield Place; and
  - 27 Canfield Place.
- 2.5 Where internal layouts have not been acquired, reasonable assumptions as to the internal layouts of the rooms behind the fenestration have been made. Unless the building form dictates otherwise, we have assumed a standard 4.2m deep room for residential properties. Internal layouts are only relevant for the NSL (daylight distribution) assessment. The primary daylight (VSC) and sunlight (APSH) assessments are calculated at the window face and therefore do not require floor plans.
- 2.6 Where neighbouring elevations are not visible but where it is likely that apertures may be present we have inserted 'test' windows or estimated the position of apertures. The actual position may differ if closer access becomes possible and therefore the technical analysis may differ from that confirmed herein.
- 2.7 Floor levels have been assumed for those adjoining properties where drawing information was not obtained.

  This dictates the level of the working plane which is relevant for the No Sky Line assessment.
- 2.8 In relation to sunlight (APSH) analysis, only windows which are oriented within 90 degrees of due south have been considered, as they have a reasonable expectation for sunlight. Where a room is served by multiple windows, if one or more windows is oriented within 90 degrees of due south the remaining windows serving the room will be considered regardless of orientation.

## 3. Policy Context & Guidance

3.1 Policy and guidance context in relation to daylight and sunlight is important in establishing acceptable levels of amenity.

Report Title: Canfield Place, London

- 3.2 The appropriateness of a proposed development, in daylight and sunlight terms, should therefore be considered against the following key documents:
  - National Planning Policy Framework, February 2019 ('NPPF');
  - GLA's Housing Supplementary Planning Guidance, March 2016 ('Housing SPG');
  - Publication London Plan (December 2020);
  - London Borough of Camden Local Plan (2017); and
  - BRE Guidelines (2011).
- 3.3 AY understands that guidance at government level seeks to ensure that the planning system encourages more efficient use of land and avoid building low density homes in accessible urban locations. It promotes a flexible approach in adopting and applying policy and guidance that could inhibit these objectives, which specifically includes reference to daylight and sunlight.
- 3.4 The Housing SPG predicates the need to move away from applying the same daylight and sunlight values in all locations and promotes a contextual analysis as a pertinent way of assessing acceptable levels of amenity.
- 3.5 In other words, recent policy aims to ensure that daylight and sunlight matters are not limited to an overly simplistic technical exercise against the default BRE Guidelines recommendations without due regard for the current and future physical and planning context.

#### **National**

#### National Planning Policy Framework (NPPF) (February 2019)

3.6 The NPPF gives guidance at government level. It seeks to ensure that the planning system encourages more efficient use of land and avoids building low density homes in accessible urban locations. It promotes a flexible approach in adopting and applying policy and guidance that could inhibit these objectives, which specifically includes reference to daylight and sunlight:

'Where there is an existing or anticipated shortage of land for meeting identified housing needs, it is especially important that planning policies and decisions avoid homes being built at low densities, and ensure that developments make optimal use of the potential of each site.'

'Local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards)' (Paragraph 123).

3.7 The Housing SPG predicates the need to move away from applying the same daylight and sunlight values in all locations and promotes a contextual analysis as a pertinent way of assessing acceptable levels of amenity. This aims to ensure that light matters are not limited to an overly simplistic technical exercise against the default BRE Guidelines recommendations without due regard for the current and future physical and planning context.

Report Title: Canfield Place, London

3.8 The Housing SPG moves away from the rigid application of the national numerical values provided in the BRE Guidelines and sets out the following:

'(1.3.45) an appropriate degree of flexibility needs to be applied when using BRE Guidelines to assess the daylight and sunlight impacts of new development on surrounding properties, as well as within new developments themselves. Guidelines should be applied sensitively against higher density development, especially in opportunity areas, town centres, larger sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time.'

'Policy 7.6Bd requires new development to avoid causing 'unacceptable harm' to the amenity of surrounding land and buildings, particularly in relation to privacy and overshadowing and where tall buildings are proposed.'

3.9 The document goes on to state:

'Whilst taking into account other policy objectives, boroughs should ensure that all opportunities to secure sustainable housing capacity should be fully realised in order to meet London's strategic housing requirements and help close the gap between need and supply across London as a whole' (1.1.7).

3.10 Importantly the Housing SPG acknowledges that effects from proposals should not be assessed via a strict application of national criteria but also with reference to broadly comparable residential typologies:

'The degree of harm on adjacent properties and the daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London. Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from those presently experienced but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm' (1.3.46).

'BRE guidelines on assessing daylight and sunlight should be applied sensitively to higher density development in London, particularly in central and urban settings, recognising the London Plan's strategic approach to optimise housing output (Policy 3.4) and the need to accommodate additional housing supply in locations with good accessibility suitable for higher density development (Policy 2.2). Quantitative standards on daylight and sunlight should not be applied rigidly, without carefully considering the location and context and standards experienced in broadly comparable housing typologies in London' (2.3.47).

3.11 The Mayor has approved a new London Plan, the 'Publication London Plan'. A formal response from the Secretary of State is expected in February 2021 before the final London Plan is published. Policies within the document that are relevant to this assessment include:

Report Title: Canfield Place, London

- 3.12 Policy D6 (Housing Quality and Standards) mirrors that of Policy D4 in the 2016 London Plan which states that the design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space.
- 3.13 Table 4.1 sets out 10 year targets for net housing completion for 2019/20-2028-29. For the London Borough of Camden the 10 year housing target is 10,380. Policy H1 Increasing Housing Supply sets outs methods boroughs should use to achieve the targets such as mixed use redevelopment and intensification.
- 3.14 Policy D9 (Tall Buildings) states at 3a; 'Wind, daylight, sunlight penetration and temperature conditions around the building(s) and neighbourhood must be carefully considered and not compromise comfort and the enjoyment of open spaces, including water spaces, around the building.'

#### Local

#### London Borough of Camden – Camden Local Plan (2017)

- 3.15 Standards of amenity are addressed in Policy A1 'Managing the impact of development', which states: 'the Council will seek to protect the quality of life of occupiers and neighbours. We will grant permission for development unless this causes unacceptable harm to amenity'. This policy continues to list 'the factors we will consider include ....sunlight, daylight and overshadowing'.
- 3.16 It goes on to state: '...developments must not result in an unacceptable material deterioration of the sunlight and daylight conditions of surrounding development and not resulting in an unacceptable level of overshadowing to surrounding open space and private outdoor space'.
- 3.17 Policy A1 also details that:

'...to assess whether acceptable levels of daylight and sunlight are available to habitable, outdoor amenity and open spaces, the Council will take into account the most recent guidance published by the Building Research Establishment (currently the Building Research Establishment's Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2011).

3.18 The daylight and sunlight assessments undertaken in support of this report are based upon the methodologies set out in the 2011 BRE Guidelines.

Report Title: Canfield Place, London

- 3.19 The Guidelines are not fixed standards but should be applied flexibly to take account of the specific circumstances of each case.
- 3.20 The Introduction of the Guidelines states:

'The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the developer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design.'

3.21 The 'flexibility' should reflect the specific characteristics of each case being considered. For example, as the numerical targets within the Guidelines have been derived on the basis of a low density suburban housing model, it is entirely appropriate to apply a more flexible approach when dealing with higher rise developments in a denser urban environment where the general scale of development is greater. The Guidelines go on to state:

'Although it gives numerical guidelines, these should be interpreted flexibly... in certain circumstances the developer or planning authority may wish to use different target values...'

'Note that numerical values given here are purely advisory. Different criteria may be used based upon the requirements for daylighting in an area viewed against other site constraints'. '

- 3.22 This does not mean that the recommendations and targets within the Guidelines can be disregarded but, instead, the 'flexibility' that should be applied should be founded on sound scientific principles that can be supported and justified. This requires a certain level of professional judgement and experience. The 'flexibility' recommended in the Guidelines should reflect the specific characteristics of each site being considered.
- 3.23 It is important that the Guidelines are not incorrectly interpreted at face value when assessing development in urban locations. On occasion reviewers incorrectly apply a rigid interpretation of the baseline targets set out in the Guidelines as being the target criteria, regardless of the context. This is not a correct or appropriate interpretation of the Guidelines.
- 3.24 It is also important to consider the alterations of daylight and sunlight in terms of the quantum of light retained, and not purely on percentage alterations, as the percentage value may be misleading.

#### **BRE Daylight/Sunlight Methodology**

3.25 The BRE Guidelines refer to two methods for assessing daylight within neighbouring properties which are; Vertical Sky Component (VSC) and No Sky Line (NSL) and one method for sunlight; Annual Probable Sunlight Hours (APSH).

3.26 The Vertical Sky Component (VSC) method of assessment is defined in the BRE Guidelines as the "ratio of that part of illuminance at a point on a given vertical plane that is received directly from a CIE standard overcast sky, to illuminate on a horizontal plane due to an unobstructed hemisphere of this sky".

Report Title: Canfield Place, London

- 3.27 This ratio is the percentage of the total unobstructed view that is available, once obstructions (e.g. the Proposed Development), are placed in front of the point of view.
- 3.28 The assessment is calculated from the centre of a window on the outward face and measures the amount of light available on a vertical wall or window following the introduction of visible barriers, such as buildings.
- 3.29 The VSC has been calculated by using a 'Waldram Diagram'. The Waldram Diagram is effectively a snapshot that is taken from that point of the sky in front of the window, together with all relevant obstructions to it, i.e. the buildings.
- 3.30 The maximum VSC value is almost 40% for a completely unobstructed vertical wall or window. In terms of assessment criteria, the BRE Guidelines state that:

"if the VSC, with the development in place, is both less than 27% and less than 0.8 times its former value, occupants of the existing building will notice the reduction in the amount of skylight. The area lit by the window may appear more gloomy and electric lighting will be needed more of the time."

#### Daylight - NSL

- 3.31 The BRE Guidelines advise that where room layouts are known, the effect on the daylight distribution can be calculated by plotting the No Sky Line (NSL).
- 3.32 The NSL is a measure of the distribution of daylight at the 'working plane' within a room. The 'working plane' means a horizontal 'desktop' plane 0.85m in height for residential properties. The NSL divides those areas of the working plane which can receive direct sky light from those which cannot. If a significant area of the working plane (normally more than 20%) lies beyond the NSL (i.e. it receives no direct sky light), then the distribution of daylight in the room will look poor and supplementary electric lighting may be required.
- 3.33 The potential effects of daylighting distribution in an existing building can be identified by plotting the NSL in each of the main rooms. For residential dwellings, this will include living rooms, dining rooms and kitchens. Bedrooms should also be analysed, although they are less important. The BRE Guidelines identify that if the area of a room that does receive direct sky light is reduced to less than 0.8 times its former value, then this would be noticeable to its occupants.

#### Sunlight - APSH

3.34 With regard to sunlight, the same skylight indicator is used as the VSC assessment using the same reference point to calculate Annual Probable Sunlight Hours (APSH), which is expressed as a percentage. The BRE guidelines state:

"Access to sunlight should be checked for the main window of each room which faces within 90 degrees (°) of due south."

- 3.35 The BRE Guidelines state in Section 3.2.3 that:
  - "[...] kitchens and bedrooms are less important, although care should be taken not to block too much sun."
- 3.36 The maximum number of APSH for the London orientation is 1,486 hours. The BRE Guidelines propose that the appropriate date for undertaking a sunlight assessment is on 21st March, being the spring equinox. Calculations of both summer and winter availability are made with the winter analysis covering the period from the 21st September to 21st March.
- 3.37 The BRE Guidelines identify that a window may be adversely affected if a point at the centre of the window receives in the year less than 25% of the annual probable sunlight hours, including at least 5% of the annual probable sunlight hours (APSH) during the winter months (21st September to 21st March) and less than 0.8 times its former sunlight hours during either period.
- 3.38 Further information on the daylight and sunlight principles outlined in the BRE Guidelines can be found in Appendix I.

Page: 8

# 4. Existing Site & Proposed Development

#### **Existing Site**

4.1 The existing site is located at Canfield Place, London in the London Borough of Camden (the 'Site') and comprises a row of single storey, brick-built garages.

Report Title: Canfield Place, London

4.2 A massing model of the existing Site is illustrated in red on Figure 1 below and drawings BRE/01-02, located in Appendix II.

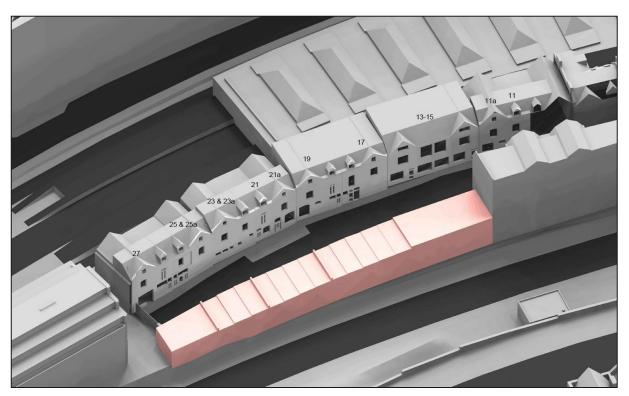


Figure 1 – 3D view of the existing Site, illustrated in red

- 4.3 In accordance with the 2011 BRE Guidelines, only neighbouring residential properties have been considered for the daylight and sunlight technical assessment as they are recognised as having a greater requirement for daylight and sunlight than commercial properties (BRE Guidelines Site Layout Planning for Daylight and Sunlight, A guide to good practice Page 7, Section 2.2.2).
- 4.4 Non-habitable rooms such as bathrooms, WCs, store rooms and circulation spaces (such as hallways) have been discounted from our analysis where identified in accordance with the Guidelines (*Page 7, Section 2.2.2*) which state:

'The guidelines given here are intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed.'

- 4.5 The following neighbouring properties have been identified to contain residential usage based upon a VOA tax band search, online aerial/street-view imagery, and a site visit/photography (highlighted red and orange on Figure 2):
  - 27 Canfield Place;
  - 25 & 25a Canfield Place:
  - 23 & 23a Canfield Place;
  - 21 Canfield Place;
  - 21a Canfield Place;
  - 19 Canfield Place;
  - 17 Canfield Place;
  - 11a Canfield Place; and
  - 11 Canfield Place.
- 4.6 From an online Business Rates Valuation search, in addition to observations from a site visit, no. 13-15 Canfield Place is understood to be commercial in use, and therefore in accordance with the BRE Guidelines (Section 2.2.2) this property has been scoped out of the daylight/sunlight assessment.

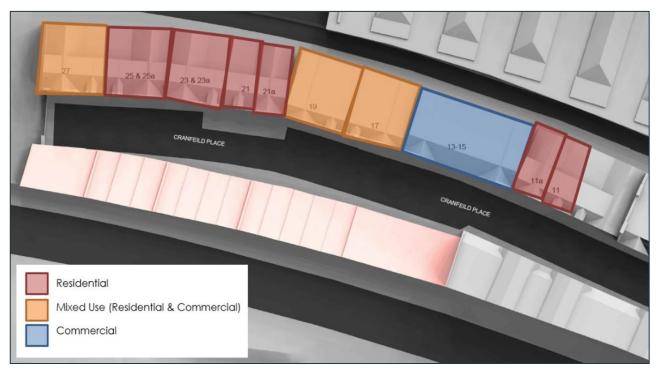


Figure 2 – Neighbouring Property Use Map

#### **Proposed Development**

- 4.7 The Proposed Development comprises the demolition of 16 single storey garages and redevelopment of the site to provide 8 mews type residential dwellings comprising of 3 no. two storey properties and 5 no. three storey properties with associated roof terraces.
- 4.8 A massing model of the Proposed Development is illustrated in green on Figure 3 below and drawings BRE/03-04, located in Appendix II.

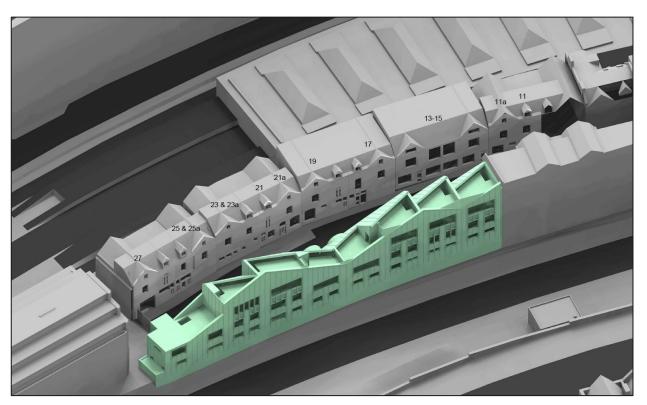


Figure 3 – 3D view of the Proposed Development, illustrated in green

5.1 Please refer to Appendix III for the Daylight and Sunlight analysis tables and associated No Sky Line contour drawings (BRE/05-06), upon which this report is based.

Report Title: Canfield Place, London

- 5.2 Please note, that in relation to the daylight results in Appendix III, where '>27' is noted in the VSC % loss column, this means that the window retains in excess of the BRE's recommended 27% VSC target and therefore fully complies with the BRE Guidelines.
- 5.3 Technical analysis has determined that the following properties will comply with the BRE criterion for daylight (VSC and NSL) and sunlight (APSH), and thus will experience a negligible impact as a result of the Proposed Development:
  - 27 Canfield Place;
  - 23 & 23a Canfield Place:
  - 19 Canfield Place; and
  - 11 Canfield Place.
- 5.4 The remaining properties that experience technical breaches of the recommended BRE Guidelines are discussed in further detail below:

#### 25 & 25a Canfield Place



- 5.5 This three storey residential property is located to the north of the Site.
- 5.6 Partial floor plans were obtained from online sources and integrated into our analysis model prior to the technical assessment.

#### **Daylight**

5.7 Seven windows serving four rooms located on the ground, first and second floors have been considered for assessment.

- 5.8 Technical analysis found that two of the windows assessed and all four rooms will comply with the recommended BRE Guidelines for daylight (VSC and NSL) and thus will experience a negligible impact as a result of the Proposed Development.
- 5.9 Five windows fall below the recommended BRE Guidelines for VSC. However, three of these windows serving a ground floor space, which we understand was previously a garage that has been converted, will retain VSC between 17% and 20% which could be considered commensurate with the urban context. In addition, the ground floor space served by these windows fully complies with the recommended BRE criteria for NSL and will retain in excess of 92% daylight distribution, which should ensure it remains sufficiently lit.
- 5.10 The remaining two windows located on the first floor will both retain VSC of 26%, which is just below the BRE's recommended target of 27% VSC. Furthermore, these two windows serve an LKD which fully complies with the recommended BRE criteria for NSL and will retain in excess of 93% daylight distribution, which should ensure it remains sufficiently lit.

#### Sunlight

- 5.11 Of the six windows relevant for assessment, all six windows will meet the recommended criteria for total sunlight and three windows will meet the criteria for winter sunlight and thus will experience a negligible impact as a result of the Proposed Development.
- 5.12 Three windows serving a ground floor converted garage space, will fall below the recommended BRE criteria for winter sunlight. These windows retain 2% and 3% winter sunlight in the proposed context, which although below the BRE's recommended target of 5% could be considered commensurate with the urban context.
- 5.13 Furthermore, all three windows will comply with the recommended criteria for total sunlight and will retain well in excess of the 25% APSH target. As such the windows and room as a whole should retain sufficient sunlight amenity over the course of the year.

#### 21 Canfield Place



- 5.14 This three storey residential property is located to the north of the Site.
- 5.15 No floor plans were available, therefore reasonable assumed layouts have been used.

#### Daylight

- 5.16 Five windows serving three rooms located on the ground, first and second floors have been considered for assessment
- 5.17 Technical analysis found that two of the windows assessed and all three rooms will comply with the recommended BRE Guidelines for daylight (VSC and NSL) and thus will experience a negligible impact as a result of the Proposed Development.
- 5.18 Three windows serving a ground floor space fall below the recommended BRE Guidelines for VSC. However, these three windows will retain VSC between 22% and 24%, which could be considered commensurate with the urban context. Furthermore, the room served by these windows will experience no alteration in NSL and thus fully complies with the recommended BRE Guidelines for NSL, and in addition the room will retain in excess of 98% daylight distribution which should ensure it remains sufficiently lit.

#### Sunlight

5.19 All windows relevant for assessment will comply with the BRE Guidelines for winter and total sunlight, retaining in excess of the recommended 5% winter sunlight and 25% total sunlight, and thus will experience a negligible sunlight impact as a result of the Proposed Development.

#### 21a Canfield Place



- 5.20 This three storey residential property is located to the north of the Site.
- 5.21 Partial floor plans were obtained from online sources and integrated into our analysis model prior to the technical assessment.

#### Daylight

- 5.22 Three windows serving three rooms located on the ground, first and second floors have been considered for assessment.
- 5.23 Technical analysis found that two of the windows assessed and all three rooms will comply with the recommended BRE Guidelines for daylight (VSC and NSL) and thus will experience a negligible impact as a result of the Proposed Development.

5.24 One window serving a ground floor space, which we understand was previously a garage that has been converted to a living room, will fall below the recommended BRE Guidelines for VSC. However, this window will retain 24% VSC, which is just below the recommended target of 27% and could be considered commensurate with the urban context. Furthermore, the living room will experience no alteration in NSL and thus fully complies with the recommended BRE Guidelines for NSL, and in addition will retain in excess of 98% daylight distribution which should ensure it remains sufficiently lit.

#### Sunlight

5.25 All windows relevant for assessment will comply with the BRE Guidelines for winter and total sunlight, retaining in excess of the recommended 5% winter sunlight and 25% total sunlight, and thus will experience a negligible sunlight impact as a result of the Proposed Development.

#### 17 Canfield Place



- 5.26 This three storey mixed use property is located to the north of the Site and is understood to be commercial in use on the ground floor with residential usage above.
- 5.27 No floor plans were available, therefore reasonable assumed layouts have been used.

#### Daylight

- 5.28 Four windows serving four rooms located on the first and second floors have been considered for assessment.
- 5.29 Technical analysis found that three of the windows assessed and all four rooms will comply with the recommended BRE Guidelines for daylight (VSC and NSL) and thus will experience a negligible impact as a result of the Proposed Development.
- 5.30 One first floor windows will fall below the recommended BRE Guidelines for VSC. However, this window will retain just shy of the recommended 27% VSC target. In addition, the room served by this window fully complies with the recommended BRE Guidelines for NSL and will retain in excess of 91% daylight distribution, which should ensure it remains sufficiently lit.

#### Sunlight

5.31 All windows relevant for assessment will comply with the BRE Guidelines for winter and total sunlight, retaining in excess of the recommended 5% winter sunlight and 25% total sunlight, and thus will experience a negligible sunlight impact as a result of the Proposed Development.

#### 11a Canfield Place



- 5.32 This three storey residential property is located to the north east of the Site.
- 5.33 No floor plans were available, therefore reasonable assumed layouts have been used.

#### **Daylight**

5.34 All windows and rooms assessed will meet the recommended BRE Guidelines for VSC and NSL and thus will experience a negligible daylight impact as a result of the Proposed Development.

#### Sunlight

- 5.35 Of the three windows relevant for assessment, all three windows will meet the recommended criteria for total sunlight and one of the windows will meet the criteria for winter sunlight and thus will experience a negligible impact as a result of the Proposed Development.
- 5.36 Two windows on the ground and first floors will fall below the recommended BRE criteria for winter sunlight. The ground floor window will fall from 3% winter sunlight in the existing context, which is already below the BRE's recommended 5%, to 1% in the proposed context. The remaining first floor window will fall from 6% winter sunlight to 4% winter sunlight, which is just below the BRE's recommended target of 5% for winter sunlight and could be considered commensurate with the urban context.
- 5.37 Furthermore, both windows will comply with the recommended criteria for total sunlight and will retain well in excess of the BRE's recommended 25% target. As such the windows and rooms as a whole should retain sufficient sunlight amenity over the course of the year.

# 6. Summary and Conclusion

6.1 Avison Young have undertaken daylight and sunlight technical analysis for the Proposed Development at Canfield Place, in accordance with the 2011 BRE Guidelines.

Report Title: Canfield Place, London

- 6.2 Technical analysis has determined that the following properties will comply with the BRE criterion for daylight (VSC and NSL) and sunlight (APSH), and thus will experience a negligible impact as a result of the Proposed Development:
  - 27 Canfield Place;
  - 23 & 23a Canfield Place;
  - 19 Canfield Place; and
  - 11 Canfield Place.
- 6.3 Technical analysis indicates that there will be isolated alterations in daylight and sunlight amenity to windows within the following properties that breach of the recommended BRE Guidelines. However, the retained levels of daylight and sunlight are considered commensurate with those typically found in urban environments across London; and furthermore the rooms served by these windows should retain sufficient levels of daylight and sunlight amenity:
  - 25 & 25a Canfield Place;
  - 21 Canfield Place;
  - 21a Canfield Place;
  - 17 Canfield Place; and
  - 11a Canfield Place.
- 6.4 It should be noted that the BRE Guidelines are not fixed standards and they should be applied flexibly to take account of the specific circumstances of each case. It is therefore important that the Guidelines are not incorrectly interpreted at face value, by applying a rigid interpretation of the baseline targets in the Guidelines as being the set target criteria regardless of context. This is not a correct or appropriate interpretation of the Guidelines, which state in the introduction, Paragraph 1.6:
  - 'The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the developer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design.'
- 6.5 Alterations of daylight and sunlight should also be considered in terms of the quantum of light retained, and not purely on percentage alterations, as the percentage value may be misleading.
- 6.6 Policy context is also important in establishing acceptable levels of amenity. The appropriateness of a proposed development, in daylight and sunlight terms, has therefore been considered against key documents including the NPPF which encourages more efficient use of land and promotes a flexible approach in adopting and applying policy and guidance that could inhibit these objectives, which specifically includes reference to daylight and sunlight.
- 6.7 In consideration of the above, it is AY's professional opinion that the Proposed Development is acceptable in relation to daylight and sunlight, despite some isolated transgressions which are not unusual when developing in an urban environment such as this.

# Appendix I Daylight & Sunlight Principles

#### **Daylight & Sunlight Principles**

The BRE Guidelines – Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice are well established and are adopted by most Local Authorities as the appropriate scientific and empirical methods of measuring daylight and sunlight in order to provide objective data upon which to apply their planning policies. The Guidelines are not fixed standards but should be applied flexibly to take account of the specific circumstances of each case.

The Introduction of the Guidelines states:

"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy. Its aim is to help rather than constrain the developer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design."

The 'flexibility' recommended in the Guidelines should reflect the specific characteristics of each case being considered. For example, as the numerical targets within the Guidelines have been derived on the basis of a low density suburban housing model, it is entirely appropriate to apply a more flexible approach when dealing with higher rise developments in a denser urban environment where the general scale of development is greater. In addition, where existing and proposed buildings have specific design features such as projecting balconies, deep recesses, bay windows etc., it is also equally valid to apply a degree of flexibility to take account of the effect of these particular design features. This does not mean that the recommendations and targets within the Guidelines can be disregarded but, instead, the 'flexibility' that should be applied should be founded on sound scientific principles that can be supported and justified. This requires a certain level of professional value judgement and experience.

#### Daylighting

In respect of daylighting, the BRE Guidelines adopt different methods of measurement depending on whether the assessment is for the impact on existing neighbouring premises or for measuring the adequacy of proposed new dwellings. For safeguarding the daylight received by existing neighbouring residential buildings around a proposed development, the relevant recommendations are set out in Section 2.2 of the Guidelines.

The adequacy of daylight received by existing neighbouring dwellings is measured using two methods of measurement. First, it is necessary to measure the Vertical Sky Component (VSC) followed by the measurement of internal Daylight Distribution by plotting the position of the 'existing' and 'proposed' no sky line contour.

VSC is measured at the mid-point on the external face of the window serving a habitable room. For the purpose of the Guidelines, a "habitable" room is defined as a Kitchen, Living Room or Bedroom. Bathrooms, hallways and circulation space are excluded from this definition. In addition, many Local Authorities make a further distinction in respect of small kitchens. Where the internal area of a small kitchen limits the use to food preparation and is not of sufficient size to accommodate some other form of "habitable" use such as dining, the kitchen need not be classed as a "habitable" room in its own right.

VSC is a 'spot' measurement taken on the face of the window and is a measure of the availability of light from the sky from over the "existing" and "proposed" obstruction caused by buildings or structures in front of the window. As it is measured on the outside face of the window, one of the inevitable shortcomings is that it does not take account of the size of the window or the size or use of the room served by the window. For this reason, the BRE Guidelines require internal Daylight Distribution to be measured in addition to VSC.

The 'No Sky Line' contour plotted for the purpose of measuring internal Daylight Distribution identifies those areas within the room usually measured on a horizontal working plane set at table top level, where there is direct sky visibility. This therefore represents those parts within the room where the sky can be seen through the window. This second measure therefore takes account of the size of the window and the size of the room but is only more reliable than VSC when the actual room uses, layouts and dimensions are known. When interpreted in conjunction with the VSC value, the likely internal lighting conditions, and hence the quality of lighting within the room, can be assessed.

For VSC, the Guidelines states that:

"If this Vertical Sky Component is greater than 27% then enough skylight should still be reaching the window of the existing building. Any reduction below this level should be kept to a minimum. If the Vertical Sky Component with the new development in place is both less than 27% and less than 0.8 times its former value, then the occupants of the existing building will notice the reduction in the amount of skylight."

To put this in context, the maximum VSC value that can be received for a totally unobstructed vertical window is 40%. There are however circumstances where the VSC value is already below 27%. In such circumstances, it is permissible to reduce the existing VSC value by a factor of 0.2 (i.e. 20%) so that the value on the 'proposed' conditions remains more than 0.8 times its former value. The scientific reasoning for this permissible margin of reduction is that existing daylight (and sunlight) levels can be reduced by a factor of 20% before the loss becomes materially noticeable. This factor of reduction applies to VSC, daylight distribution, sunlight and overshadowing.

By contrast, the adequacy of daylight for proposed 'New-Build' dwellings is measured using the standards in the British Standard Code of Practice for Daylighting, BS8206 Part 2.

The British Standard relies upon the use of Average Daylight Factors (ADF) rather than VSC and Daylight Distribution. The use of ADF is referred to in the BRE Guidelines (Appendix C) but its use is usually limited as a supplementary 'check' of internal lighting conditions once the VSC and Daylight Distribution tests have been completed.

ADF is sometimes seen as a more accurate and representative measure of internal lighting conditions as it comprises a greater number of design factors and input variables/coefficients. That is, the value of ADF is derived from:

- The actual amount of daylight received by the window(s) serving the room expressed as the "angle of visible sky" which is derived from the VSC value and therefore represents the amount of light striking the face of the window.
- The loss of transmittance through the glazing.
- The size of the window (net area of glazing).
- The size of the room served by the window(s) (net internal surface area of the room).
- The internal reflectance values of the internal finishes within the room.
- The specific use of the room.

One of the main reasons why ADF is more appropriate for New-Build dwellings is that any of the above input variables can be changed during the course of the design process in order to achieve the required internal lighting values. The ability to make such changes is not usually available when dealing with existing neighbouring buildings.

Unlike the application of VSC and daylight distribution, the British Standard differentiates between different room uses. It places the highest ADF standard on Family Kitchens where the minimum target value is 2% df. Living Rooms should achieve 1.5% df, and Bedrooms 1.0% df.

#### Sunlighting

The requirements for protecting sunlight to existing residential buildings are set out in section 3.2 of the BRE Guidelines.

The availability of sunlight varies throughout the year with the maximum amount of sunlight being available on the summer solstice and the minimum on the winter solstice. In view of this, the internationally accepted test date for measuring sunlight is the spring equinox (21 March), on which day the United Kingdom has equal periods of daylight and darkness and sunlight is available from approximately 08:30hrs to 17:30hrs. In addition, on that date, sunlight received perpendicular to the face of a window would only be received where that window faces within 90° of due south. The BRE Guidelines therefore limit the extent of testing for sunlight where a window faces within 90° of due south.

The sunlight standards are normally applied to the principal Living Room within each dwelling rather than to kitchens and bedrooms.

The recommendation for sunlight is:

"If this window reference point can receive more than one quarter of annual probable sunlight hours, including at least 5% of annual probable sunlight hours during the winter months of 21 September and 21 March, then the room should still receive enough sunlight.

Any reduction in sunlight access below this level should be kept to a minimum. If the availability of sunlight hours are both less than the amounts given and less than 0.8 times their former value, either over the whole year or just during the winter months, then the occupants of the existing building will notice the loss of sunlight."

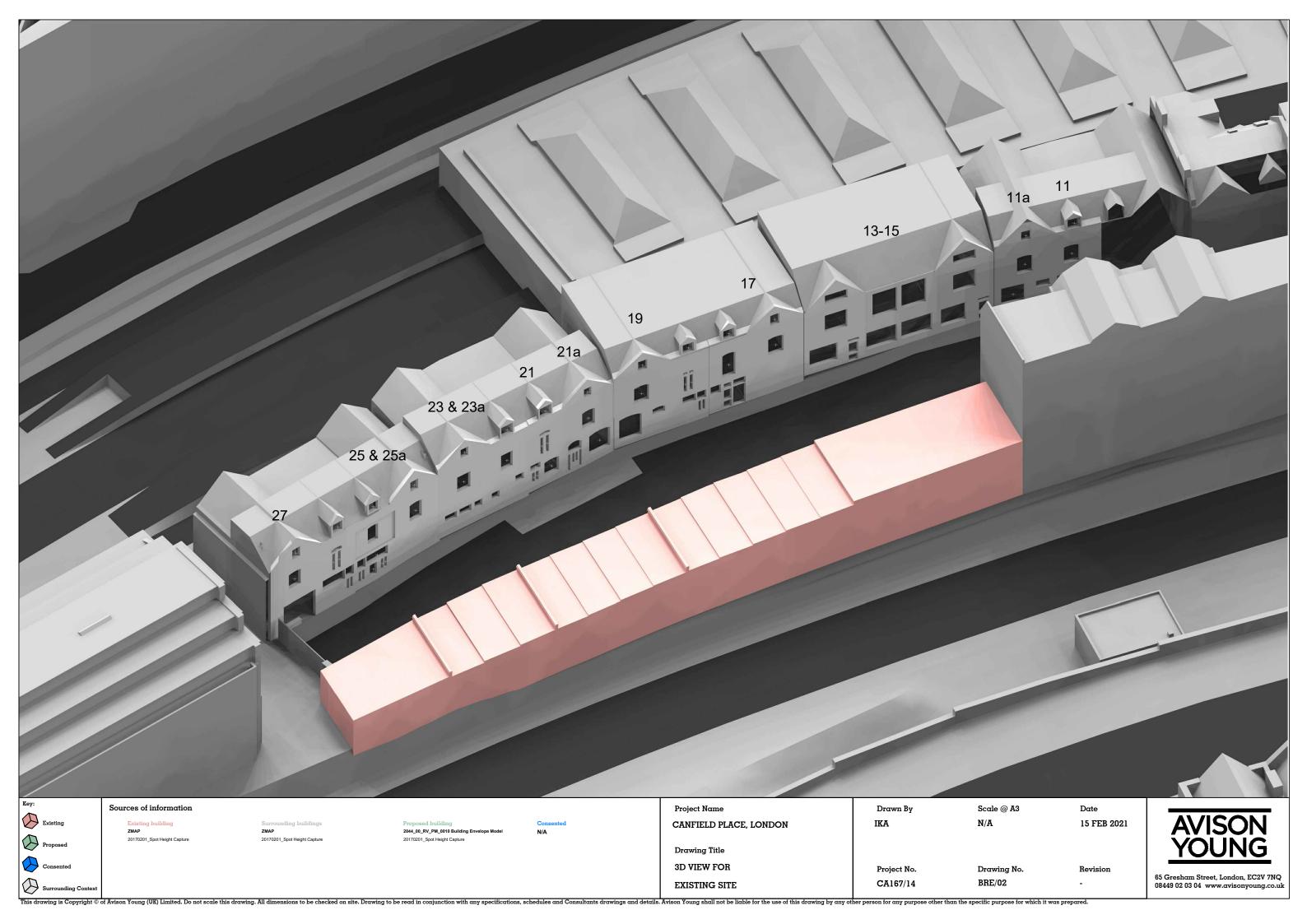
A good level of sunlight will therefore be achieved where a window achieves more than 25% APSH, of which 5% should be in the winter months. Where sunlight levels fall below this suggested recommendation, a comparison with the existing condition should be undertaken and if the reduction ratio is less than 0.2, i.e. the window continues to receive more than 0.8 times its existing sunlight levels, the impact on sunlight will be acceptable.

# Appendix II

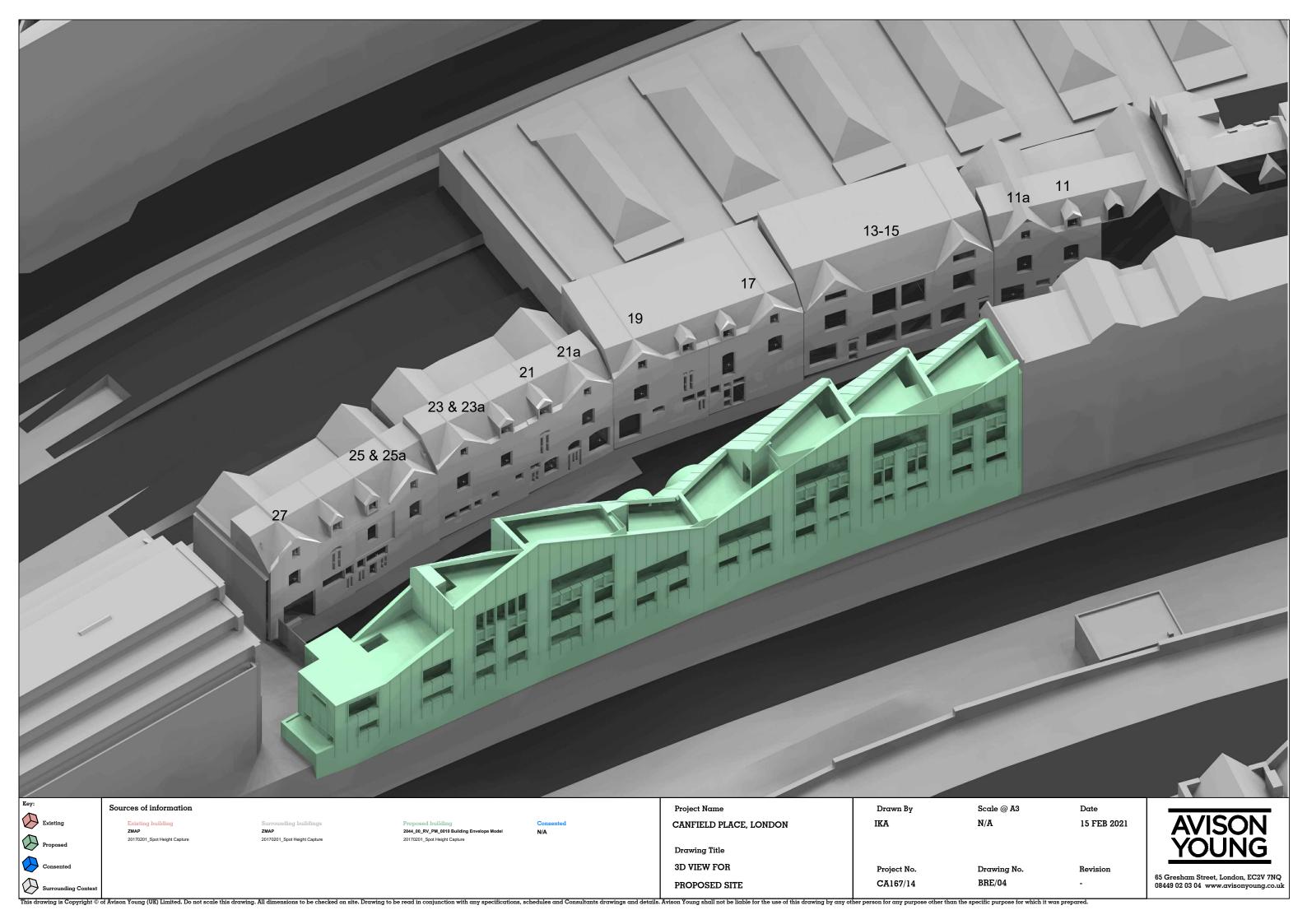
Existing & Proposed Drawings



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# Appendix III

Neighbouring Daylight/Sunlight Results & NSL Contour Drawings



### CANFIELD PLACE 22-Feb-21 JOB 14 - DAYLIGHT RESULTS

			%VSC		% Da	ayligh	t Factor	<b>Proposed No Sky</b>		
									% of Room	% Loss of
Room/Floor		Window	Exist	Prop	% Loss	<b>Exist</b>	Prop	% Loss	Area	Existing
27 Canfield Place										
1st Floor										_
R1/11	RECEPTION	W1/11	34.23	30.03		1.14	1.02	10.04%		
R2/11	KITCHEN	W2/11	35.44	27.61	>27	1.61	1.33	17.49%	91.77%	0.00%
2nd Floor										_
R1/12	LIVINGROOM	W1/12	36.00			0.48	0.46	3.93%	89.88%	0.00%
R2/12	KD	W2/12	37.09	34.48	>27	0.58	0.54	6.75%	94.19%	0.00%
25 & 25a Ca	nfield Place									
Gnd Floor					_			_		
		W4/20	34.75	20.34	41.47%	4 1 1				
R1/20	UNKNOWN	W5/20	32.02		45.47%		1.35	39.66%	92.17%	6.98%
		W6/20	32.48	17.68	45.57%					
1st Floor										
R1/21	LKD	W1/21	35.73	26.52	25.78%	<b>1.54</b> 1.19	1 10	22.60%	93.25%	2.28%
K1/Z1		W2/21	36.26	26.00	28.30%		22.0070	73.2370	2.20/0	
2nd Floor										
R1/22	BEDROOM	W1/22	37.36	33.57	>27	0.78	0.70	9.64%	92.85%	0.00%
R2/22	BEDROOM	W2/22	37.43	32.69	>27	0.42	0.37	12.03%	90.00%	0.85%
23 & 23a Ca	nfield Place									
1st Floor										
R1/31	UNKNOWN	W1/31	36.50	27.19	>27	1.22	0.96	21.46%	87.14%	9.19%
R2/31	UNKNOWN	W2/31	36.53	28.21	>27	1.23	0.99	19.46%	92.02%	4.79%
2nd Floor										
R1/32	UNKNOWN	W1/32	37.77	34.22	>27	0.39	0.35	9.04%	89.94%	3.25%
R2/32	UNKNOWN	W2/32	37.83	34.99	>27	0.82	0.76	7.11%	81.03%	0.00%
21 Canfield	Place									
Gnd Floor										
		W1/40	34.73	21.79	37.26%			30.87%	98.97%	0.00%
R1/40	UNKNOWN	W3/40	35.53	23.96	32.56%	2.22	1.53			
		W4/40	34.95	22.76	34.88%					
1st Floor	•	-	-	-	-			-	-	•
R1/41	UNKNOWN	W1/41	36.50	29.21	>27	1.10	0.93	15.35%	95.94%	0.00%
2nd Floor										
R1/42	UNKNOWN	W1/42	37.82	35.44	>27	0.93	0.88	5.90%	86.37%	0.00%

 $\underline{\text{N.B.}}$  Where '>27' is noted in the VSC % loss column, this means that the window retains in excess of the BRE's recommended 27% VSC target and therefore fully complies with the BRE Guidelines



			%VSC			% D:	avliah	t Factor	Proposed No Sky	
					70 00					
									Room	% Loss of
Room/Floor	Room Use	Window	Exist	Prop	% Loss	Exist	Prop	% Loss	Area	Existing
21a Canfield Place										
Gnd Floor		_		_	_					
R2/40	LIVINGROOM	W6/40	34.86	23.77	31.81%	2.90	2.16	25.48%	98.93%	0.00%
1st Floor								•		
R2/41	UNKNOWN	W4/41	36.47	30.21	>27	1.19	1.02	14.39%	96.32%	0.00%
2nd Floor										
R2/42	UNKNOWN	W2/42	37.69	35.44	>27	0.36	0.35	4.70%	92.43%	0.00%
19 Canfield	Place		•	•						
1st Floor										
R1/51	UNKNOWN	W1/51	36.49	30.32	>27	1.24	1.06	14.63%	95.67%	0.76%
R2/51	UNKNOWN	W2/51	36.05	27.97	>27	0.98	0.80	18.12%	85.53%	11.05%
2nd Floor										
R1/52	UNKNOWN	W1/52	37.83	35.79	>27	0.49	0.47	4.91%	93.19%	0.00%
R2/52	UNKNOWN	W2/52	37.75	35.29	>27	0.71	0.67	6.06%	89.71%	0.00%
17 Canfield	Place	•		•	•			•		
1st Floor										
R1/61	UNKNOWN	W1/61	35.82	27.04	>27	1.59	1.28	19.55%	90.92%	6.20%
R2/61	UNKNOWN	W2/61	35.42	26.69	24.65%	1.45	1.16	20.01%	91.75%	6.01%
2nd Floor		<u>.</u>								
R1/62	UNKNOWN	W1/62	37.56	34.56	>27	0.66	0.61	7.53%	89.13%	0.00%
R2/62	UNKNOWN	W2/62	37.13	33.42	>27	0.55	0.50	8.89%	93.78%	0.00%
11a Canfield	d Place	<u>.</u>								
Gnd Floor										
R1/80	UNKNOWN	W1/80	17.34	14.63	15.63%	1.52	1.35	11.32%	51.37%	10.49%
1st Floor		<u>.</u>								
R1/81	UNKNOWN	W1/81	21.86	20.60	5.76%	0.87	0.83	4.48%	60.15%	0.00%
2nd Floor					*					!
R1/82	UNKNOWN	W1/82	29.94	29.51	>27	0.33	0.32	0.92%	79.64%	0.00%
11 Canfield				•		•				
<b>Gnd Floor</b>										
R3/80	UNKNOWN	W3/80	14.13	13.25	6.23%	1.51	1.43	5.03%	41.76%	0.00%
1st Floor	•		•	•		•				
R2/81	UNKNOWN	W2/81	19.93	19.39	2.71%	0.88	0.86	1.82%	58.93%	0.00%
2nd Floor		•								
R2/82	UNKNOWN	W2/82	29.11	28.95	>27	0.58	0.58	0.34%	83.31%	0.00%
F		-	<u> </u>		-					

 $\underline{\text{N.B.}}$  Where '>27' is noted in the VSC % loss column, this means that the window retains in excess of the BRE's recommended 27% VSC target and therefore fully complies with the BRE Guidelines



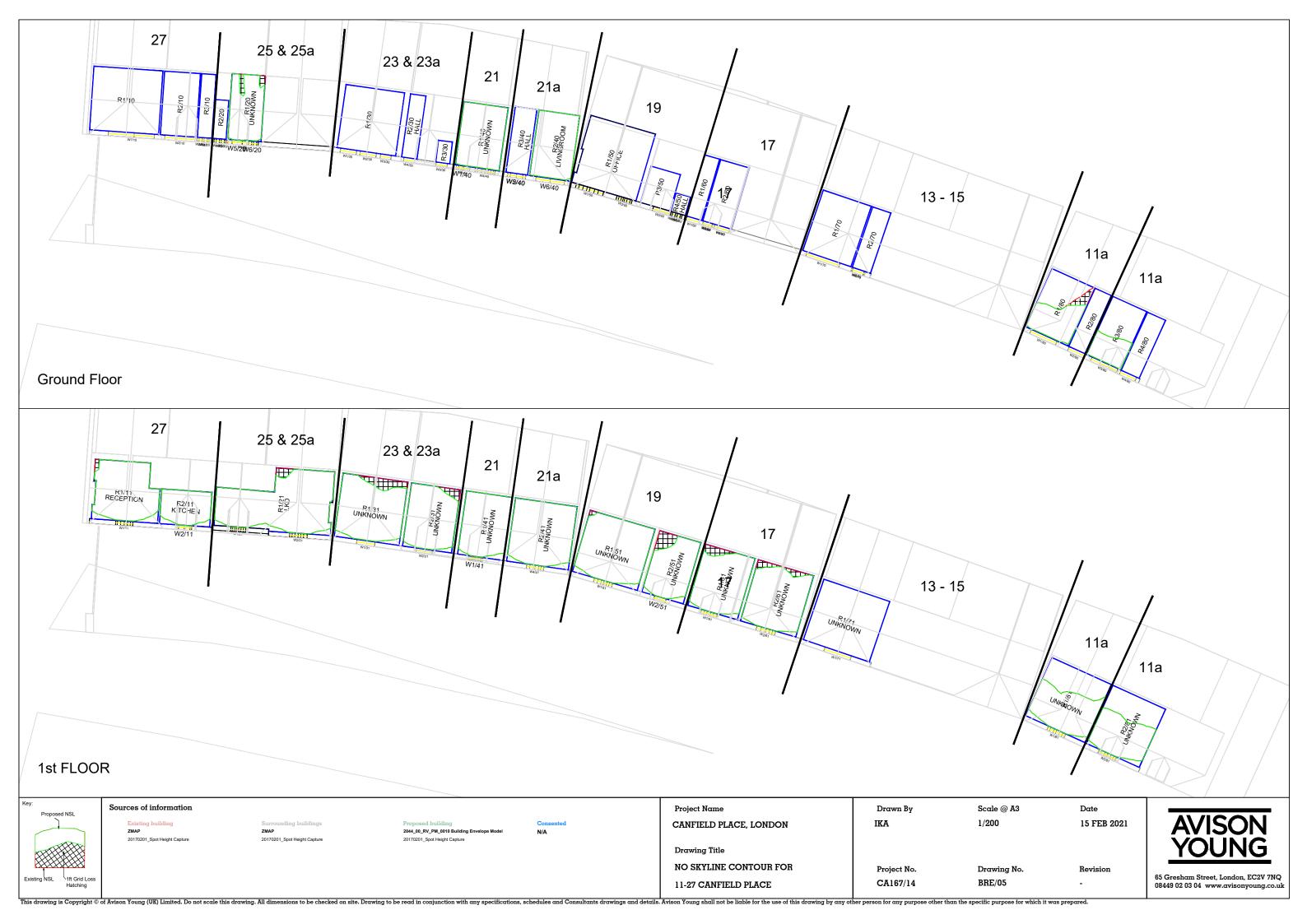
### CANFIELD PLACE 22-Feb-21 JOB 14 - SUNLIGHT RESULTS

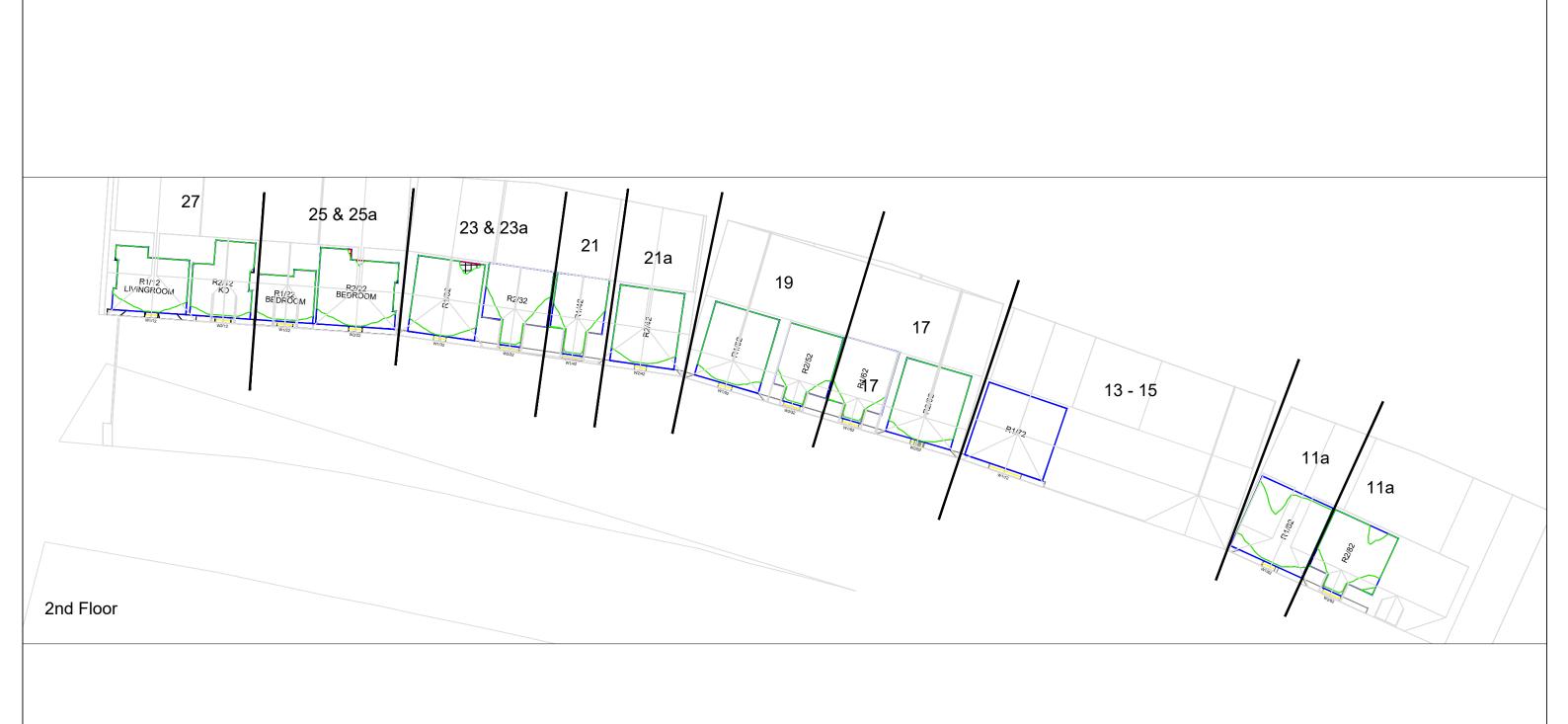
Available sunlight as a percentage of annual unobstructed total (1486.0 Hrs)

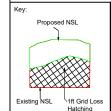
armaar arrobstr		`	1486.0 Hrs)				,			
	Window	EXI	sting %	1	Proposed %			% Loss of	% Loss of	% Loss of
Room use	Ref	Summer	Winter	Total	Cummor	Winter	Total		Winter	Total
			winter	iolai	Summer	winter	iolai	Sammer	WIIICI	Total
27 Canfield Place -ROL/05,06 1st Floor										
	111111111111111111111111111111111111111	F4 00	07.00	70.00	F4 00	00.00	70.00	0.000/	10.500/	
RECEPTION	W1/11	51.00	27.00		51.00		73.00	0.00%		
KITCHEN	W2/11	53.00	26.00	79.00	53.00	15.00	68.00	0.00%	42.31%	13.92%
2nd Floor	<u> </u>		1		1	1			T	1
LIVINGROOM	W1/12	53.00		80.00			80.00	0.00%		
KD	W2/12	58.00		85.00	58.00	25.00	83.00	0.00%	7.41%	2.35%
25 & 25a Canf	ield Place ·	-ROL/05,0	6							
Gnd Floor										
UNKNOWN	W4/20	52.00	26.00	78.00	51.00		54.00	1.92%		30.77%
UNKNOWN	W5/20	52.00	24.00	76.00	50.00	2.00	52.00	3.85%	91.67%	31.58%
UNKNOWN	W6/20	52.00	24.00	76.00	48.00	3.00	51.00	7.69%	87.50%	32.89%
1st Floor										
UNKNOWN	W2/21	56.00	28.00	84.00	56.00	15.00	71.00	0.00%	46.43%	15.48%
2nd Floor	-	-							-	-
BEDROOM	W1/22	58.00	28.00	86.00	58.00	25.00	83.00	0.00%	10.71%	3.49%
BEDROOM	W2/22	58.00	29.00	87.00	58.00	25.00	83.00	0.00%	13.79%	4.60%
23 & 23a Canf	ield Place ·	-ROL/05,0	6		•		•		•	
1st Floor										
UNKNOWN	W1/31	56.00	29.00	85.00	56.00	17.00	73.00	0.00%	41.38%	14.12%
UNKNOWN	W2/31	56.00	29.00	85.00	56.00	20.00	76.00	0.00%	31.03%	10.59%
2nd Floor	!			<u> </u>			<u></u>			1
UNKNOWN	W1/32	58.00	29.00	87.00	58.00	25.00	83.00	0.00%	13.79%	4.60%
UNKNOWN	W2/32	58.00		87.00	58.00		85.00	0.00%		
21 Canfield Pl										
Gnd Floor		-1								
UNKNOWN	W1/40	53.00	27.00	80.00	50.00	9.00	59.00	5.66%	66.67%	26.25%
UNKNOWN	W3/40	53.00		81.00			60.00	3.77%		25.93%
UNKNOWN	W4/40	53.00		80.00			61.00	3.77%		
1st Floor	1	30.00	27.00	00.00	31.00	. 5.50	31.00	3.7770	32.7070	20.7070
UNKNOWN	W1/41	55.00	29 00	84.00	55.00	19 00	74.00	0.00%	34.48%	11.90%
2nd Floor		33.00	27.00	04.00	33.00	17.00	74.00	0.0070	34.4070	11.7070
UNKNOWN	W1/42	58.00	20 00	87.00	58.00	27.00	85.00	0.00%	6.90%	2.30%
OINKINONIN	VV 1/4Z	56.00	27.00	07.00	36.00	27.00	00.00	0.00%	0.90%	2.30%



		Exi	sting %		Proposed %					
	Window							% Loss of	% Loss of	% Loss of
Room use	Ref	Summer	Winter	Total	Summer	Winter	Total	Summer	Winter	Total
21a Canfield Place -ROL/05,06										
Gnd Floor										
LIVINGROOM	W6/40	53.00	28.00	81.00	52.00	11.00	63.00	1.89%	60.71%	22.22%
1st Floor										
UNKNOWN	W4/41	55.00	29.00	84.00	55.00	20.00	75.00	0.00%	31.03%	10.71%
2nd Floor										
UNKNOWN	W2/42	58.00	29.00	87.00	58.00	28.00	86.00	0.00%	3.45%	1.15%
19 Canfield Pl	ace -ROL/0	5,06								
1st Floor										
UNKNOWN	W1/51	54.00	29.00	83.00	54.00	21.00	75.00	0.00%	27.59%	9.64%
UNKNOWN	W2/51	55.00	29.00	84.00	55.00	15.00	70.00	0.00%	48.28%	16.67%
2nd Floor					•				•	
UNKNOWN	W1/52	56.00	29.00	85.00	56.00	28.00	84.00	0.00%	3.45%	1.18%
UNKNOWN	W2/52	56.00	29.00	85.00	56.00	28.00	84.00	0.00%	3.45%	1.18%
17 Canfield Pl	ace -ROL/0	5,06								
1st Floor										
UNKNOWN	W1/61	55.00	28.00	83.00	55.00	15.00	70.00	0.00%	46.43%	15.66%
UNKNOWN	W2/61	55.00	27.00	82.00	55.00	15.00	70.00	0.00%	44.44%	14.63%
2nd Floor	•								•	
UNKNOWN	W1/62	56.00	29.00	85.00	56.00	28.00	84.00	0.00%	3.45%	1.18%
UNKNOWN	W2/62	56.00	29.00	85.00	56.00	28.00	84.00	0.00%	3.45%	1.18%
11a Canfield I	Place -ROL	05,06			-	-	-		-	
Gnd Floor										
UNKNOWN	W1/80	41.00	3.00	44.00	39.00	1.00	40.00	4.88%	66.67%	9.09%
1st Floor										
UNKNOWN	W1/81	51.00	6.00	57.00	51.00	4.00	55.00	0.00%	33.33%	3.51%
2nd Floor										
UNKNOWN	W1/82	53.00	16.00	69.00	53.00	15.00	68.00	0.00%	6.25%	1.45%
11 Canfield Pl	ace -ROL/0	5,06								
Gnd Floor										
UNKNOWN	W3/80	37.00	2.00	39.00	37.00	2.00	39.00	0.00%	0.00%	0.00%
1st Floor										
UNKNOWN	W2/81	48.00	4.00	52.00	48.00	4.00	52.00	0.00%	0.00%	0.00%
2nd Floor										
UNKNOWN	W2/82	53.00	14.00	67.00	53.00	14.00	67.00	0.00%	0.00%	0.00%







Sources of information

2044\_00\_RV\_PM\_0010 Building Envelope Model 20170201\_Spot Height Capture

Project Name CANFIELD PLACE, LONDON

Drawing Title NO SKYLINE CONTOUR FOR

11-27 CANFIELD PLACE

Drawn By IKA

Scale @ A3 1/200

Date 15 FEB 2021

Project No. Drawing No. Revision CA167/14 BRE/06

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# Appendix IV Site Visit Photographs



























