



Daylight and Sunlight

Fortess Grove, London, NW5

Prepared by: Katie Bone

Reference: 12073

Date: 21/06/2018



By Email

bryan@uk-developments.com

Bryan Kohn
UK-Developments
Fortess 2016 Ltd
1069 Finchley Road
London
NW11 OPU

DATE / REF

21/06/2018
KB/12073

ADDRESS

THE WHITEHOUSE
BELVEDERE ROAD
LONDON SE1 8GA

CONTACT

TEL 020 7202 1400
FAX 020 7202 1401
MAIL@GIA.UK.COM
WWW.GIA.UK.COM

Dear Bryan,

Re: Planning Application ref: 2017/6788/P - Fortess Grove, London, NW5 2HB ("the Site") – Daylight and Sunlight Addendum

GIA have been instructed to undertake a review of three matters in respect of the potential affect on the daylight and sunlight amenity of neighbouring properties as a result of the proposed development at the above site. This addendum report should be read in conjunction with GIA's daylight and sunlight report dated 30 November 2017. The full assumptions and methodologies set out within that full report are applied to the additional considerations within this addendum.

The three matters addressed in this addendum report are as follows and are discussed in turn below.

1. A reduction in height to the proposed scheme of 600mm and the change in impacts to neighbouring properties when compared to the previously analysed scheme within GIA report dated 30 November 2017;
2. Addition of a first floor window within the southern elevation of neighbouring property 1 Railey Mews; and,
3. Further commentary with regards potential daylight impacts to properties located on Leverton Street to the east of the Site.

1. Reduction in Scheme Height

GIA have been provided with updated scheme information since the aforementioned report and have updated their technical analyses accordingly. The scheme has been reduced in height by 600mm and the affect upon daylight and sunlight amenity to neighbouring properties has been assessed by comparing light levels experienced in the existing and proposed scenarios. The existing and proposed Site conditions tested are shown below in Figure 01:

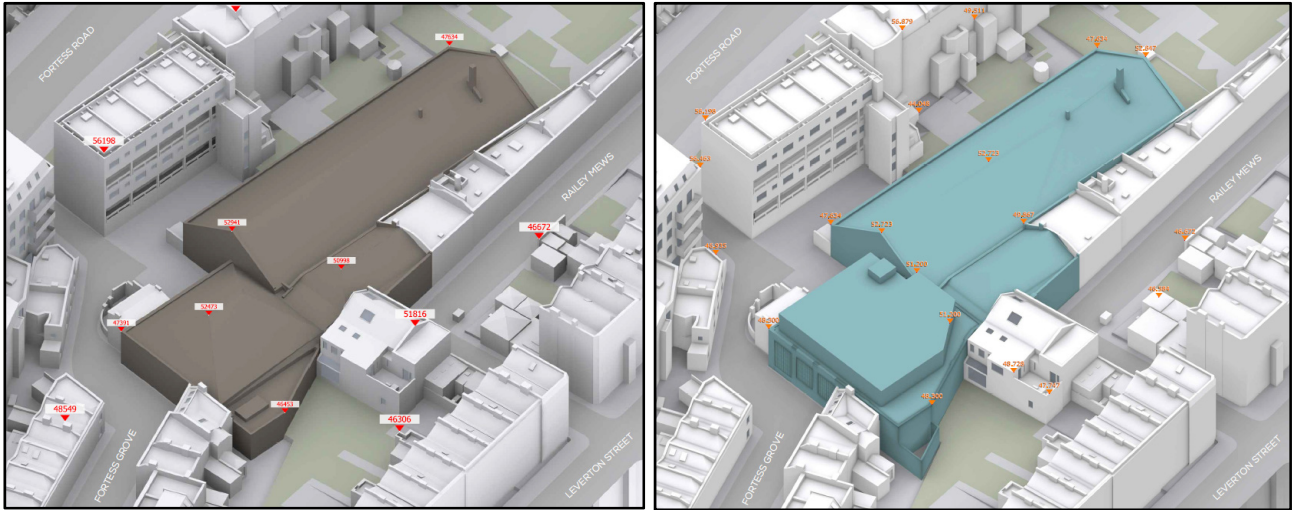


Figure 01 - Existing Site condition shown in brown and Proposed Scheme shown in green

Table 01 below summarises the change in daylight and sunlight impacts to neighbours as a result of the previous and updated schemes. The BRE recommended assessment criteria tested are as follows:

- Vertical Sky Component (“VSC”);
- No Sky Line (“NSL”); and,
- Annual probable Sunlight Hours (“APSH”)

A copy of the daylight and sunlight principles is located within Appendix 01 of this letter which elaborates on the mechanics of each of the assessment criteria applied, explains the appropriateness of their use and the parameters of each specific recommendation.

| Property | VSC Compliance (daylight) | | NSL Compliance (daylight) | | APSH Compliance (sunlight) | |
|-----------------------|---------------------------|----------------|---------------------------|----------------|----------------------------|----------------|
| | Previous Scheme | Updated Scheme | Previous Scheme | Updated Scheme | Previous Scheme | Updated Scheme |
| 1 Fortess Grove | 100% | 100% | 100% | 100% | - | - |
| 19 Fortess Grove | 100% | 100% | 100% | 100% | 100% | 100% |
| 21 Fortess Grove | 100% | 100% | 0% | 0% | - | - |
| 22 Fortess Grove | 100% | 100% | 100% | 100% | - | - |
| 1-12 Eleanor House | 100% | 100% | 100% | 100% | 100% | 100% |
| 28-34 Piano Works | 100% | 100% | 100% | 100% | 100% | 100% |
| 1 Railey Mews | 89% | 96% | 100% | 100% | 100% | 100% |
| 41-49 Leverton Street | 100% | 100% | 60% | 60% | - | 100% |
| Total | 96% | 99% | 90% | 90% | 100% | 100% |

Table 01 – Summary of results

The results show that the following properties do not experience a material loss of daylight and sunlight amenity as a result of implementing either the previous or updated proposed scheme as all windows and rooms tested meet the BRE recommended target values:

- 1 Fortess Grove;
- 19 Fortess Grove;
- 22 Fortess Grove;
- 1-12 Eleanor House; and,
- Piano Works, 28-34 Fortess Grove.

Where there is no value included in Table 01 for APSH criteria for nos. 1, 21 & 22 Fortess Grove, this is due to these properties having no windows facing within 90 degrees of due south and therefore they are not relevant for sunlight assessment, as per the BRE guidelines.

Both the previous and updated proposed schemes result in breaches of the BRE guidelines to 21 Fortress Grove and 1 Railey Mews. However, the reduction in height to the proposed scheme has reduced the alterations in both cases.

21 Fortress Grove

All windows tested within this property meet the target values for VSC and APSH recommended in the BRE. The four rooms tested for NSL experience minor breaches of the 20% overall reduction threshold, of between 23.1% and 27.6%. For each room, the results are improved as result of the reduced scheme and retain NSL values in the proposed scenario of at least 63.2% which is widely considered to ensure adequate amenity, especially considering the high retained levels of VSC.

1 Railey Mews

All windows and rooms tested within this property meet the target values for NSL and APSH recommended in the BRE. Of the 23 windows tested for VSC, 22 meet the recommended target value. The one remaining window experiences a moderate breach of 30% reduction. However, it should be noted that this window retains 24.5% VSC in the proposed scenario which is widely considered to be a good level of amenity within an urban environment such as this, and is just short of the 27% which the BRE consider to be the suburban target value. These results show a significant improvement in the BRE compliance rate where previously four windows experienced breaches.

2. Additional Window within 1 Railey Mews

It has been noted that a window at first floor level in the southern elevation of neighbouring property 1 Railey Mews was omitted from the GIA report dated 30 November 2017. The analysis model has been amended to include this window and the results reviewed. The additional window is included in Figure 02 below (F01/W5):

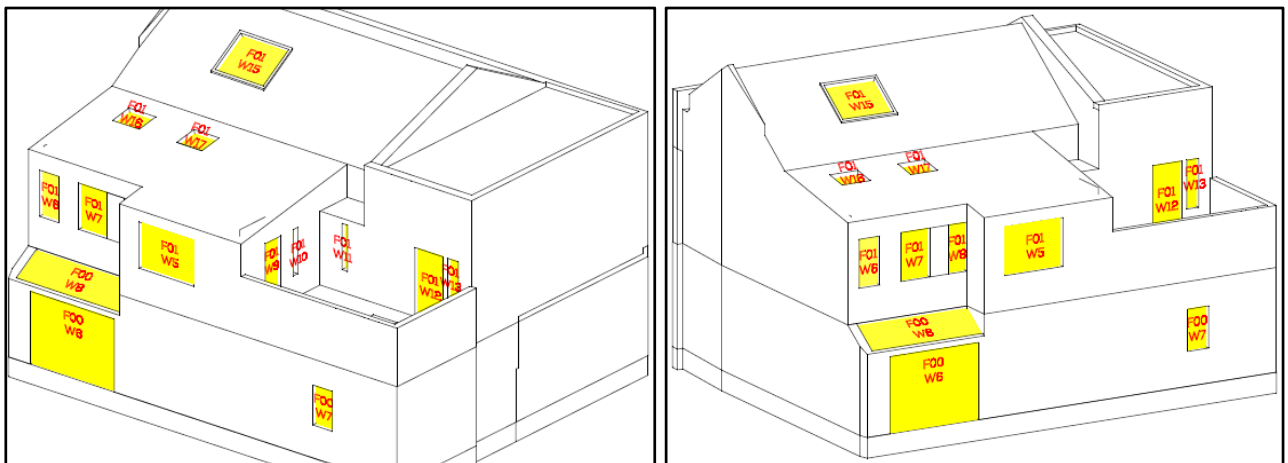


Figure 02 – Additional window highlighted in red

The results for this property are discussed in detail above. The additional window and room behind meet the BRE recommended target values for VSC, NSL and APSH.

3. Properties Located on Leverton Street to the East of the Site

Near windows located on the ground floor rear elevation of nos. 41-49 Leverton Street were considered within GIA report dated 30 November 2017. The associated development angles in respect of these windows fall below the BRE recommended threshold of 25 degrees, meaning that they will receive adequate daylight amenity once the proposed scheme is built. The development angles are shown within GIA drawing located in Appendix 04.

Notwithstanding this, the windows have been included within the analysis for completeness. Whilst the results showed full VSC compliance they experienced breaches of the target NSL value in the previous report. GIA have since been able to access more detailed layout information for these properties which shows that there are additional mitigating windows serving these areas. As such, the analysis model has been updated to reflect this and the results show full VSC and NSL compliance, as expected.

Two windows have been assessed against the APSPH criteria for sunlight and both windows meet the BRE recommendations.

A full copy of the updated results is located in Appendix 03 of this letter report.

We trust that the above information is clear, however please let us know should there be any further queries and we will be happy to assist.

Yours sincerely
For and on behalf of GIA



Katie Bone
Senior Surveyor
katie.bone@gia.uk.com

cc. Daniel Maddox - GIA

Encl. Appendices

Appendix 01

Principles of Daylight and Sunlight

Principles of Daylight and Sunlight

Background

The quality of amenity and open spaces is often stipulated within planning policy for protection or enhancement and is often a concern for adjoining properties and other interested parties.

Historically the department of environment provided guidance with the issues, and in this country, this role has now been taken on by the Building Research Establishment (BRE), the British Standards Institutions (BSI) and the Chartered Institute of Building Services Engineers (CIBSE). Fortunately they have collaborated in many areas, to provide as much unified advice as possible in the form of industry best practice.

Many local planning authorities consider daylight and sunlight an important factor for determining planning applications. Policies refer to both the protection of daylight and sunlight amenity within existing properties as well as the creation of proposed dwellings with high levels of daylight and sunlight amenities.

In terms of considering what is material, local authorities typically refer to the BRE guidelines and apply their criteria set out within. The guidelines were originally produced in 1991, but superseded by the BRE guidelines (2011) *site layout planning for daylight and sunlight*.

Where developers are seeking to maximise their development value, it is often in the area of daylight and sunlight issues that they may seek to push the boundaries. Particularly in London, there is a priority on the creation of more housing thus resulting in the densification of urban areas. Local authorities vary in their attitude of how flexible they can be with the degree of impact on the daylight and sunlight amenity enjoyed by neighbouring owners and it is one factor among many planning aspects considered when determining an application. In city centres where high density is common, the protection of amenity is more challenging and there are many factors that need to be taken into account: each case has to be considered on its own merits.

The BRE Guidelines

The guidelines are typically referred to for daylight and sunlight amenity issues, however they were not intended to be used as an instrument of planning policy. In the introduction of 'Site Layout Planning for Daylight and Sunlight (2011)', section 1.6 (page 1), states that:-

"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 designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of many factors in site layout design (see Section 5). In special circumstances the developer or Planning Authority may wish to use different target values. For example, in an historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings".

Again, the paragraph 2.2.3 (page 7) of the document states:-

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

Principles of Daylight and Sunlight

The numerical criteria suggested by the BRE are therefore designed to provide industry advice/guidance to plan/design with daylight in mind. Alternative values may be appropriate in certain circumstances such as highly dense urban areas around London, for e.g. the approach to creating alternative criteria is detailed within Appendix F of the BRE.

Measurement and Criteria for Daylight and Sunlight as set out in the BRE Guidelines

The BRE guidelines state that they are;

"intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedroom. Windows to bathrooms, toilets, garages need not be analysed."

They are therefore primarily designed to be used for residential properties however, the BRE guidelines continue to state that they may be applied to any existing non-residential buildings where there may be a reasonable expectation of daylight including; schools, hospitals, hostels, small workshop and some offices.

Daylight

In the first instance, if a proposed development falls beneath a 25 degree angle taken from the centre point of the lowest window, then the BRE suggests that no further analysis is required as there will be adequate sky light (i.e. sky visibility). This rule is applied when considering the scope of any assessments.

The BRE guidelines provide two methods for calculating daylight to existing surrounding properties:

- Vertical Sky Component (VSC)
- No Sky Line (NSL) also referred to as daylight distribution

A further method, the Average Daylight Factor (ADF) is provided for calculating daylight within proposed properties. However, it is sometimes applied as a supplementary assessment for existing surrounding properties.

Each method is described below:

Vertical Sky Component

Methodology

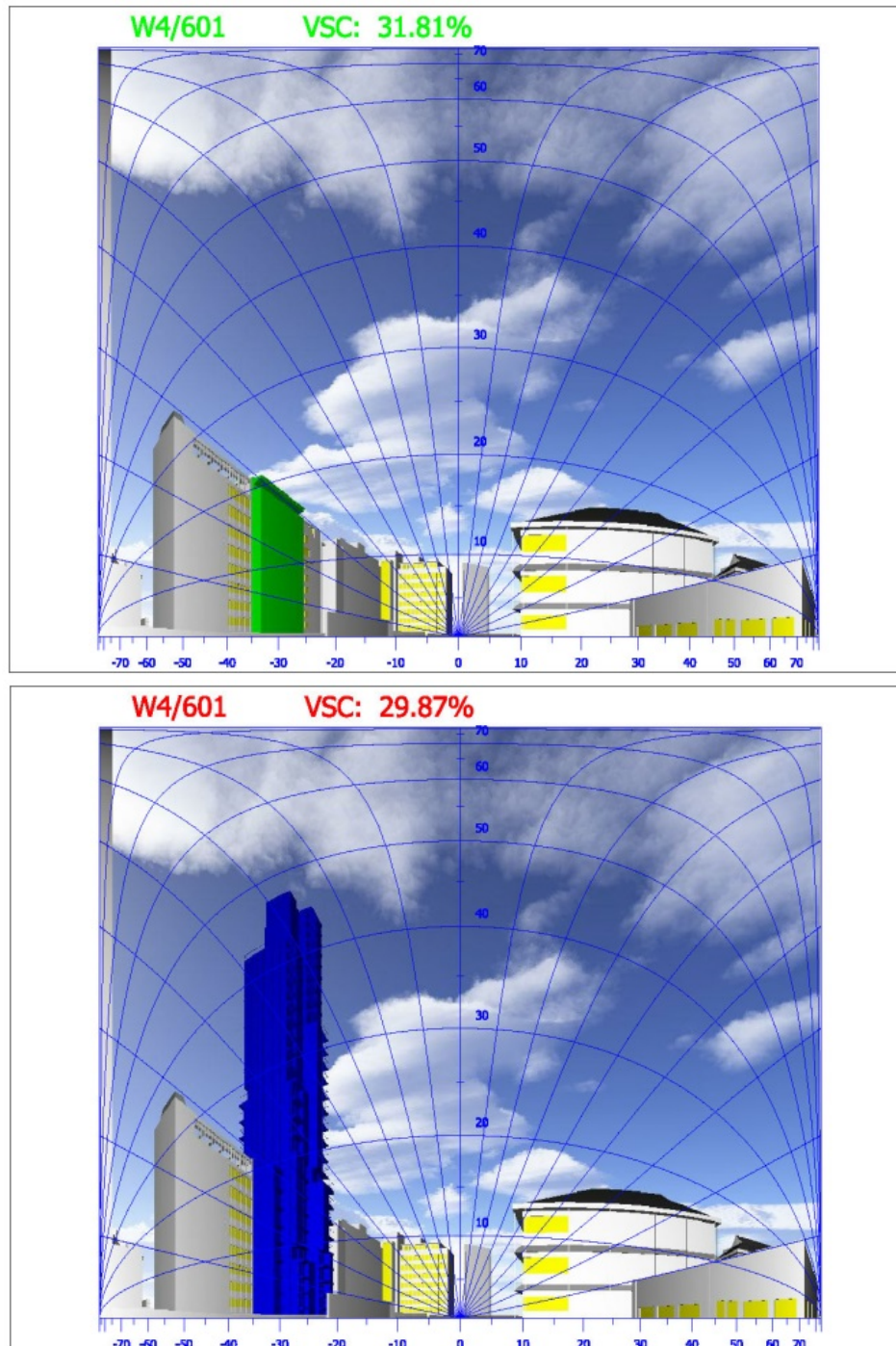
This is defined in the BRE as:-

"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 illuminance on a horizontal plane due to an unobstructed hemisphere of this sky."

This statement means, in practice that if one had a totally unobstructed view of the sky, looking in a single direction, then just under 40% of the complete hemisphere would be visible. The measurement of this vertical sky component is undertaken using two indicators, namely a skylight indicator and a transparent direction finder.

Principles of Daylight and Sunlight

Alternatively a further method of measuring the VSC, which is easier to understand both in concept and analysis, is often more precise and can deal with more complex instructions, is that of the Waldram diagram.



The point of reference is the same as for the skylight indicator, at the centre of the outward window face. Effectively a snap shot is taken from that point of the sky in front of the window, before and after the obstruction is put in place together with all the relevant obstructions to it, i.e. the buildings.

Principles of Daylight and Sunlight

An unobstructed sky from that point of reference would give a vertical sky component of 39.6%, corresponding to 50% of the hemisphere, and therefore the purpose of the diagram is to discover how much sky remains once obstructions exist in front of that point.

Criteria

The BRE Handbook provides criteria for:

- (a) New Development
- (b) Existing Buildings
- (c) Adjoining Development Land

- (a) New Development

Paragraph 2.1.21 of the BRE states that:

“Obstructions can limit access to light from the sky. This can be checked by measuring or calculating the angle of visible sky ‘theta’, angle of obstruction or Vertical Sky Component (VSC) at the centre of the lowest window where daylight is required. If VSC is:

- at least 27% (‘theta’ is greater than 65 degrees, obstruction angle less than 25 degrees) conventional window design will usually give reasonable results.
- between 15% and 27% (‘theta’ is between 45 degrees and 65 degrees, obstruction angle between 25 degrees and 45 degrees) special measures (larger windows, changes to room layout) are usually needed to provide adequate daylight.
- between 5% and 15% (‘theta’ is between 25 degrees and 45 degrees, obstruction angle between 45 degrees and 65 degrees) it is very difficult to provide adequate daylight unless very large windows are used.
- less than 5% (‘theta’ less than 25 degrees, obstruction angle more than 65 degrees) it is often impossible to achieve reasonable daylight, even if the whole window wall is glazed.”

- (b) Existing Buildings

Para 2.2.21 (page 11) of the BRE states:

“If any part of a new building or extension measured in a vertical section perpendicular to a main window wall of an existing building, from the centre of the lowest window, subtends an angle of more than 25 degree to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if the vertical sky component measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value”.

The VSC provides a quick and simple test which looks to give an early indication of the potential for light at the window face. However considered in isolation, it does not, in any fashion, indicate the quality of actual light within a space. It does not take into account the window size, the room size or room use. It helps by indicating that if there is an appreciable amount of sky visible from a given point there will be a reasonable potential for daylighting.

Principles of Daylight and Sunlight

(c) Adjoining Development Land

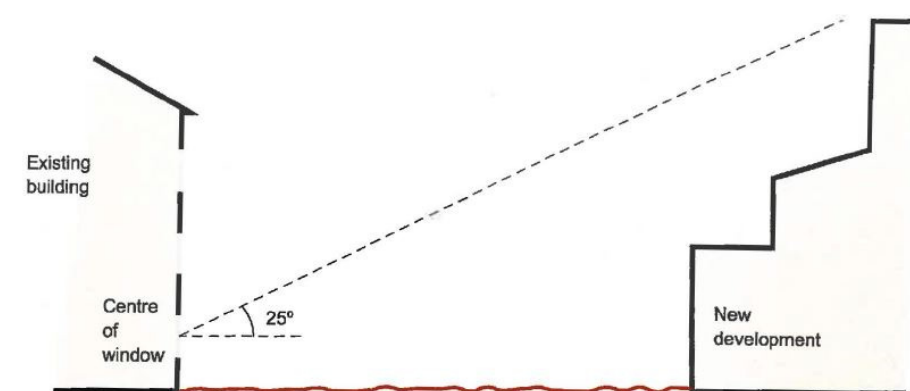
Paragraph 2.3.10 of the BRE guidelines states:

"in broad general terms, a development site next to a proposed new building will retain the potential for good diffuse daylighting provided that on each common boundary:

- (a) no new building, measured in a vertical section perpendicular to the boundary, from a point 1.6m above ground level, subtends an angle of more than 43 degrees to the horizontal;*
- (b) or, if (a) is not satisfied, then all points 1.6m above the boundary line are within 4m (measured along the boundary) of a point which has a VSC (looking towards the new building(s)) of 17% or more 2m above ground level are within 4m (measured sideways) of a point which has a vertical sky component of 27% or more.*

Alternative VSC criteria as per Appendix F of the BRE guidelines

The 27% VSC target criteria is based upon a sub-urban type environment whereby a 25 degree line was taken from the centre point on a ground floor window as shown below:



However, in city centre locations and urban areas where density levels are increasing, these values may not be considered appropriate. The BRE guidelines provide that *"different targets may be used based on the special requirements of the proposed development or its location"* (paragraph F1).

Appendix F of the BRE suggests several approaches as to how alternative targets may be considered including:

- Consented scheme - use of an extant planning permission to establish alternative benchmark criteria for VSC and APSH. It is not appropriate to treat a permitted scheme in the same manner as an existing building and allow a 20% reduction beyond this. If the levels of daylight and sunlight retained are similar to a previously consented scheme then it follows that these levels should be considered acceptable again, notwithstanding other planning considerations.
- Mirror massing - to ensure a development matches the height and proportions of existing buildings, the VSC and APSH targets could be set to those of a mirror image of the same height and size, an equal distance away from the boundary (paragraph F5).
- Consider surrounding context and existing obstruction angles as well as spacing to height ratios.

Principles of Daylight and Sunlight

In addition, due to the requirements for external amenity space within local planning policies, many residential buildings are served by balconies. Balconies can restrict the view of the sky dome whereby even the modest obstruction may result in a large relative impact on the VSC. The BRE guidelines therefore provide that an assessment can be carried out comparing the levels of VSC with and without the balconies in place for both the existing and proposed scenarios, to establish whether it is the presence of the balcony or the size of the new obstruction that is the main factor in the loss of light (paragraph 2.2.11).

No Sky Line

Methodology

The NSL method 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 lies beyond the NSL (i.e. it receives no direct sky light), then the distribution of daylight in the room will be poor and supplementary electric lighting may be required.

It is similar to the VSC approach in that a reduction of 0.8 times in the area of sky visibility at the working plane may be deemed to be noticeable. It is however, very dependent upon knowing the actual room layouts or having a reasonable understanding of the likely layouts.

It is assessed by plotting the area of a room which can see the sky and which cannot, referred to as the NSL contour or daylight distribution contour. The contours assist in helping to understand the way the daylight is distributed within a room and the comparisons of existing and limitations of proposed circumstances within neighbouring properties. Like the VSC method, it relates to the amount of visible sky but does not consider the room use in its criteria, it is simply a test to assess the change in position of the No Sky Line, between the existing and proposed situation. It does take into account the number and size of windows to a room, but does not give any quantitative or qualitative assessment of the light in the rooms, only where sky can or cannot be seen.

Criteria

BS 8206 Part 2 (para 5.7) that the:

"uniformity of daylight is considered to be unsatisfactory if a significant part of the working plane (normally more than 20%) lies behind the no-sky line".

Therefore, it is implied that an NSL of at least 80% would be considered satisfactory in regards to deep rooms which are lit by windows on one side, the BRE Guidelines state (para, 2.2.10):

In regards to the alteration as a result of a proposed development or obstruction the BRE provide that the daylight may be adversely affected if *"the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value."*

Principles of Daylight and Sunlight

Average Daylight Factor

Methodology

The Average Daylight Factor (ADF) is defined within the 2011 BRE Guidelines as:

'a ratio of total daylight flux incident on a reference area to the total area of the reference area, expressed as a percentage of outdoor luminance on a horizontal plane, due to an unobstructed sky of assumed or known luminance distribution.'

Whilst the BRE guidelines provide this measure as a tool to understand daylight within proposed dwellings not existing dwellings, if room layouts are known it can provide a useful supplementary measure of daylight and is often requested by many local authorities.

The ADF method of assessment considers:

- The diffuse visible transmittance of the glazing to the room in question (i.e. how much light gets through the window glass). A transmittance value of 0.8% is assumed for single glazing and 0.65% for double glazed windows;
- The net glazed area of the window in question;
- The total area of the room surfaces (ceiling, walls, floor and windows); and
- The angle of visible sky reaching the window(s) in question

In addition, the ADF method makes allowance for the average reflectance of the internal surfaces of the room and of external obstruction (assumed to be 0.5 unless otherwise stated).

Criteria

The criteria for ADF is taken from the British Standard 8206 part II which gives the following criteria based on the room use:

- Bedroom – 1% ADF
- Living room – 1.5% ADF
- Kitchen – 2% ADF

Where a room has multiple uses such as a living kitchen diner (LKD) or a studio apartment, the highest value is taken so in these cases the required ADF is 2%.

Sunlight

Methodology

The BS 8206 part 2 (section 5.2) states that:

"Provided that the entry of sunlight is properly controlled, it is generally welcome in most buildings in the UK. Dissatisfaction can arise as much from the permanent exclusion of sunlight as from its excess. The provision of sunlight is important in dwellings, particularly during winter months. Sunlight is especially valued in habitable rooms used for long periods during the day."

Principles of Daylight and Sunlight

Sunlight is measured using a sun indicator which contains 100 spots, each representing 1% of Annual Probable Sunlight Hours (APSH). Where no obstruction exists the total APSH would amount to 1486 hours and therefore each spot equates to 14.86 hours of the total annual sunlight hours.

The number of spots is calculated for both the whole year and also during the winter period (21st September to 21st March) prior to an obstruction and after the obstruction is put in place. This provides a percentage of APSH for each of the time periods for each window assessed. The 2011 BRE Guidelines note that:

- *"In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day, but especially in the afternoon."*
- *"all main living rooms of dwellings...should be checked if they have a window facing within 90° of due south. Kitchens and bedrooms are less important, although care should be taken not to block too much sun";*
- *"If the main living room to a dwelling has a main window facing within 90° of due north, but a secondary window facing within 90° of due south, sunlight to the secondary window should be checked."*
- *"...a south facing window will, in general, receive most sunlight, while a north facing one will receive it only on a handful of occasions. East and west facing windows will receive sunlight only at certain times of day".*

When a room has multiple windows, not all may have a southerly orientation however, these windows may contribute to the levels of sunlight within a given room even if by 1-2% APSH. As well as the assessment on a window basis the BRE guidelines provide that an assessment can be undertaken on a room basis.

Whilst the emphasis of the BRE guidelines is in regards to living rooms, it is not always possible to determine the room uses within all of the properties assessed and therefore typically all windows or all rooms with windows facing within 90 degrees of due south and facing the site are assessed.

Criteria

The BRE provide that for existing buildings a window maybe adversely affected if a point at the centre of a window receives:

- Less than 25% of the APSH during the whole year, of which 5% APSH must be in the winter period; and
- Receives less than 0.8 times its former sunlight hours in either time period; and
- Has a reduction in sunlight for the whole year more than 4% APSH.

In terms of the assessment on a room basis the criteria applied is the same.

For proposed buildings the BRE provide (paragraph 3.1.15) that a dwelling or building which has a particular requirement for sunlight will appear reasonably sunlit provided:

- At least one main window faces within 90 degrees of due south; and

Principles of Daylight and Sunlight

- Centre of one main living room window can receive 25% of APSH including 5% APSH in the winter months.

It continues that where groups of dwellings are planned the layout should aim to maximise the number of living rooms that meet the above recommendations.

Overshadowing

As well as daylight and sunlight amenity to neighbouring dwellings, planning policy often refers to the levels of overshadowing to amenity areas such as parks, public squares, playgrounds etc. The BRE guidelines provide two methods of calculation in regards to overshadowing which are as follows:

Sun Hours on Ground

Methodology

This method of overshadowing assessment uses the sun on ground indicator to determine the areas which receive direct sunlight and those which do not. This method applies to both new and existing areas of amenity space. The BRE Guidelines suggest that the Spring Equinox (21st March) is a suitable date for the assessment as this is the midpoint of the sun's position throughout the year. Using specialist software, the path of the sun is tracked to determine where the sun would reach the ground and where it would not.

Criteria

The BRE guidelines recommend that at least half of an amenity space should receive at least two hours of direct sunlight on March 21st. In regards to existing spaces where the existing sunlit area is less than half of the area, the area which receives two hours of sunlight should not be reduced by more than 20% (it should retain 0.8 times its former value).

Transient Overshadowing

The BRE guidelines suggest that where large buildings are proposed which may affect a number of gardens or open spaces, it is useful to plot a shadow plan to illustrate the location of shadows at different times of the day and year. For the purpose of this assessment, shadow has been mapped at the following times of the year:

- 21st March (Spring equinox)
- 21st June (Summer solstice)
- 21st December (Winter solstice)

The September equinox is not assessed as this would provide the same results as those for March 21st.

For each of these dates the overshadowing is calculated at hourly intervals throughout the day however some images may not be present given the early sunset during the Winter period.

The BRE guidelines do not provide any criteria for transient overshadowing. Therefore the analysis provides a description of where additional shadow is cast as a result of a development with professional judgement to determine the effect comparing the shadow resulting from the proposed development against that of the existing site.

Principles of Daylight and Sunlight

Light pollution and Solar Glare

Light pollution is defined as any light emitting from artificial sources into spaces where it is not wanted for example from offices into neighbouring residential properties where it could cause a nuisance. The ILP Guidance notes provide details of how to measure light pollution and criteria based on the urban density of the respective area to determine the acceptability of the light levels.

Solar glare is particularly important at pedestrian and road junctions as well as along railway lines where the glare can cause a temporary blinding to drivers or pedestrians. Glare can occur from reflective materials such as glazed areas or metal cladding on the facades. This assessment is therefore undertaken from viewpoints surrounding the site at junctions and positioned at the driver's eye level. Focal points are dictated by the location of signals or oncoming traffic.

Other Amenity Considerations

Daylight and sunlight is one factor among many under the heading of residential amenity considerations for any given development design or planning application; others include:

- outlook
- sense of enclosure
- privacy
- access to outdoor space e.g. balconies or communal garden/courtyard

Appendix 02

Drawings

Existing



PLAN VIEW
SCALE 1:500

SOURCES OF INFORMATION

IR06-12073-VERTEX

IR16-17-1102-BGY

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES:
EXISTING SCENARIO SHOWN IN GREY

N.B. DO NOT SCALE OFF THIS DRAWING

PROJECT:
FORTESS GROVE
KENTISH TOWN, NW5 2HD

DRAWING NAME:
PLAN VIEW

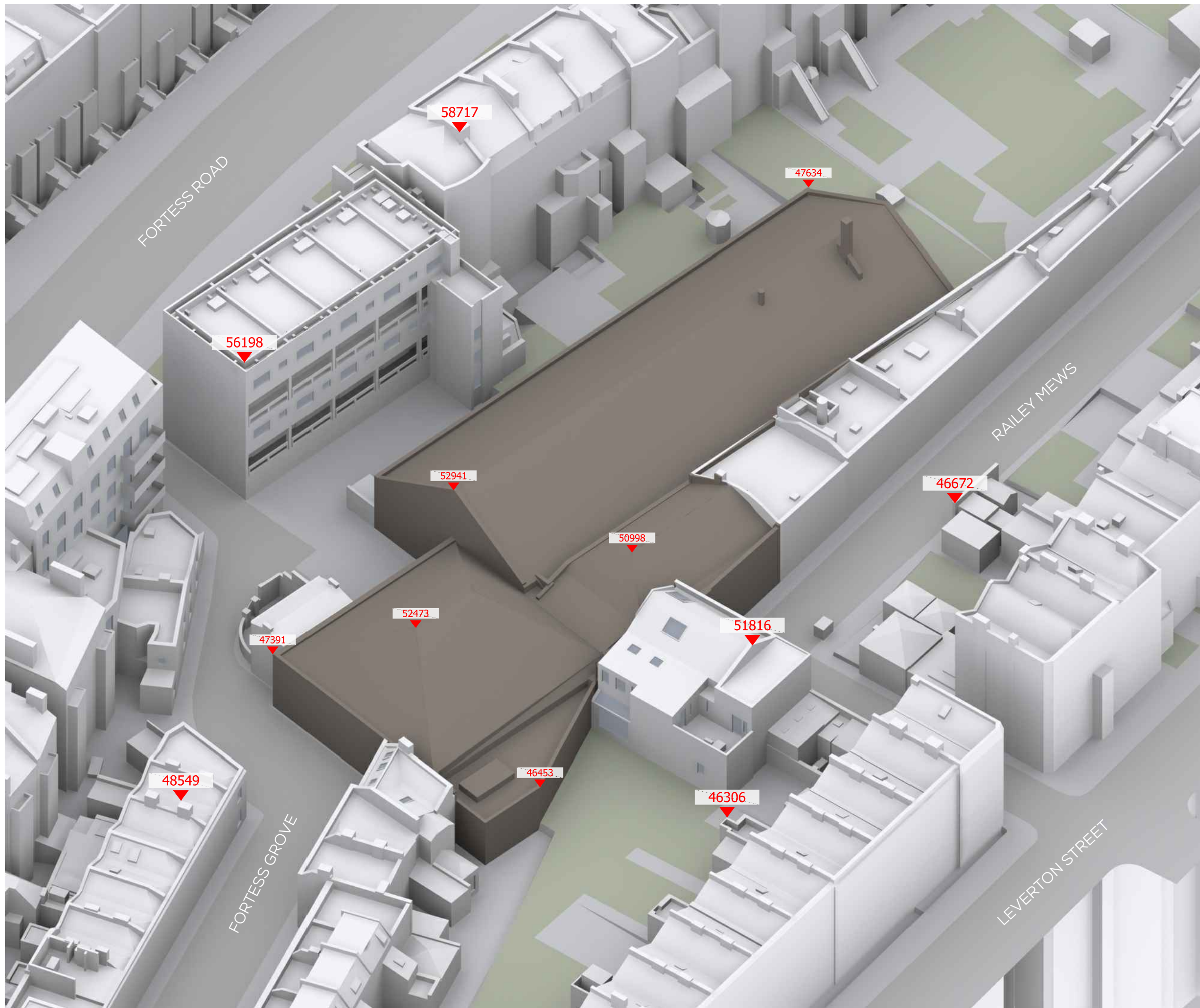
EXISTING SCENARIO

| DWN BY | SCALE | CHK BY | STATUS | DATE |
|----------|----------|--------|---------|---------|
| BG | 1:500@A3 | AH | - | NOV 17 |
| PROJ No. | REL No. | IS No. | DWG No. | REV No. |
| 12073 | 02 | 01 | 01 | - |



The Whitehouse
Belvedere Road
London SE1 8GA
t 020 7202 1400
f 020 7202 1401
mail@gia.uk.com
www.gia.uk.com

LONDON • MANCHESTER



SOURCES OF INFORMATION

IR06-12073-VERTEX

IR16-17-1102-BGY

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES:
EXISTING SCENARIO SHOWN IN GREY

N.B. DO NOT SCALE OFF THIS DRAWING

PROJECT:
FORTESS GROVE
KENTISH TOWN, NW5 2HD

DRAWING NAME:
3D VIEW

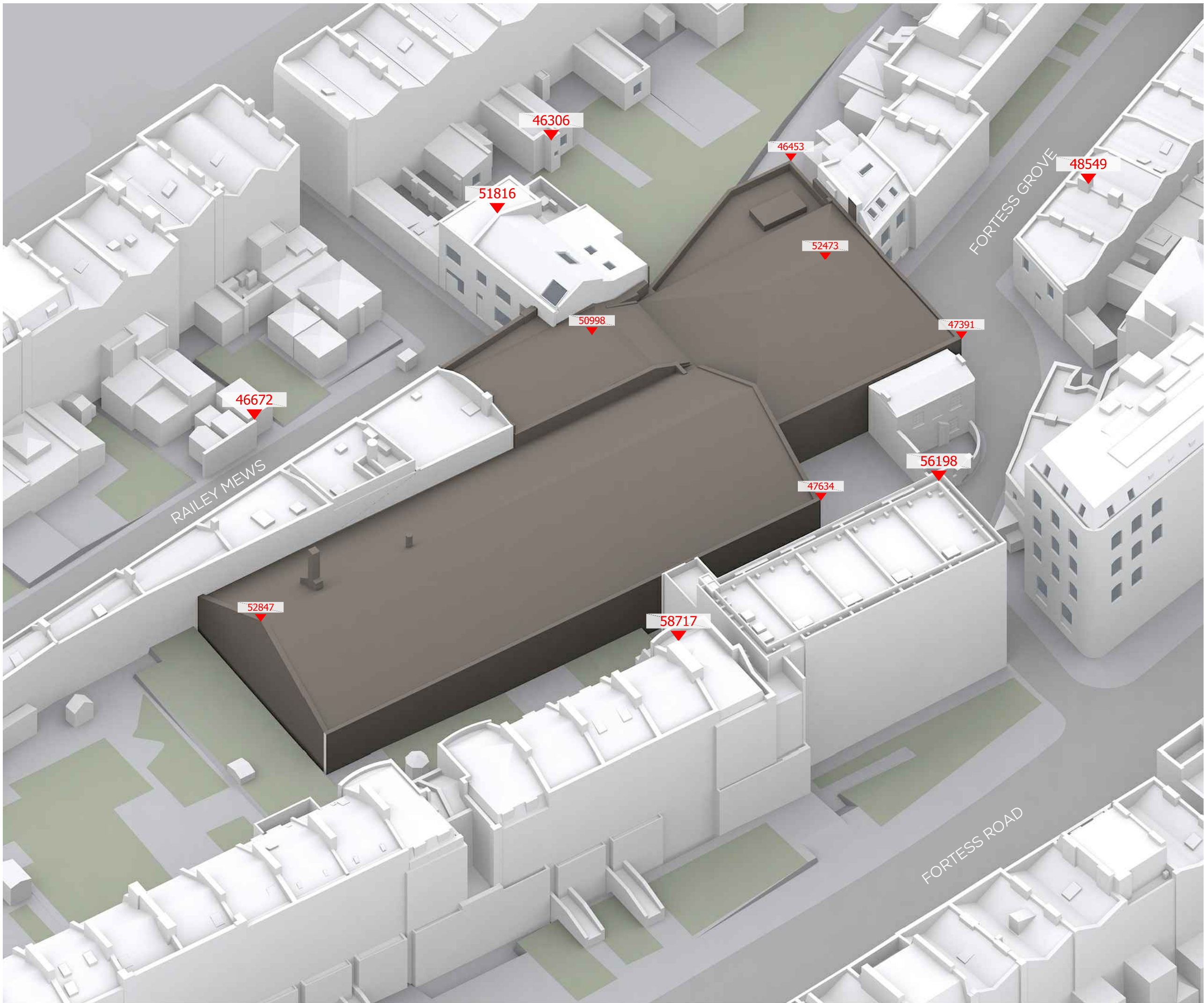
EXISTING SCENARIO

| DWN BY | SCALE | CHK BY | STATUS | DATE |
|----------|---------|--------|---------|---------|
| BG | NTS | AH | - | NOV 17 |
| PROJ No. | REL No. | IS No. | DWG No. | REV No. |
| 12073 | 02 | 01 | 02 | - |

gia

The Whitehouse
Belvedere Road
London SE1 8GA
t 020 7202 1400
f 020 7202 1401
mail@gia.uk.com
www.gia.uk.com

LONDON • MANCHESTER



SOURCES OF INFORMATION

IR06-12073-VERTEX

IR16-17-1102-BGY

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES:
EXISTING SCENARIO SHOWN IN GREY

N.B. DO NOT SCALE OFF THIS DRAWING

PROJECT:
FORTRESS GROVE
KENTISH TOWN, NW5 2HD

DRAWING NAME:
3D VIEW

EXISTING SCENARIO

| DWN BY | SCALE | CHK BY | STATUS | DATE |
|----------|---------|--------|---------|---------|
| BG | NTS | AH | - | NOV 17 |
| PROJ No. | REL No. | IS No. | DWG No. | REV No. |
| 12073 | 02 | 01 | 03 | - |



The Whitehouse
Belvedere Road
London SE1 8GA
t 020 7202 1400
f 020 7202 1401
mail@gia.uk.com
www.gia.uk.com

LONDON • MANCHESTER

Proposed




PLAN VIEW
 SCALE 1:500

SOURCES OF INFORMATION

IR06-12073-VERTEX

IR18-12073-BGY

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES:
 PROPOSED SCHEME SHOWN IN TEAL

N.B. DO NOT SCALE OFF THIS DRAWING

PROJECT:
FORTESS GROVE
KENTISH TOWN, NW5 2HD

DRAWING NAME:
 PLAN VIEW

PROPOSED SCHEME IR-18

| DWN BY | SCALE | CHK BY | STATUS | DATE |
|----------|----------|--------|---------|---------|
| AH | 1:500@A3 | AH | - | JUN 18 |
| PROJ No. | REL No. | IS No. | DWG No. | REV No. |
| 12073 | 03 | 01 | 01 | - |



The Whitehouse
 Belvedere Road
 London SE1 8GA
 t 020 7202 1400
 f 020 7202 1401
 mail@gia.uk.com
 www.gia.uk.com

LONDON • MANCHESTER



SOURCES OF INFORMATION

IR06-12073-VERTEX

IR18-12073-BGY

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES:
PROPOSED SCHEME SHOWN IN TEAL

N.B. DO NOT SCALE OFF THIS DRAWING

PROJECT:
FORTESS GROVE
KENTISH TOWN, NW5 2HD

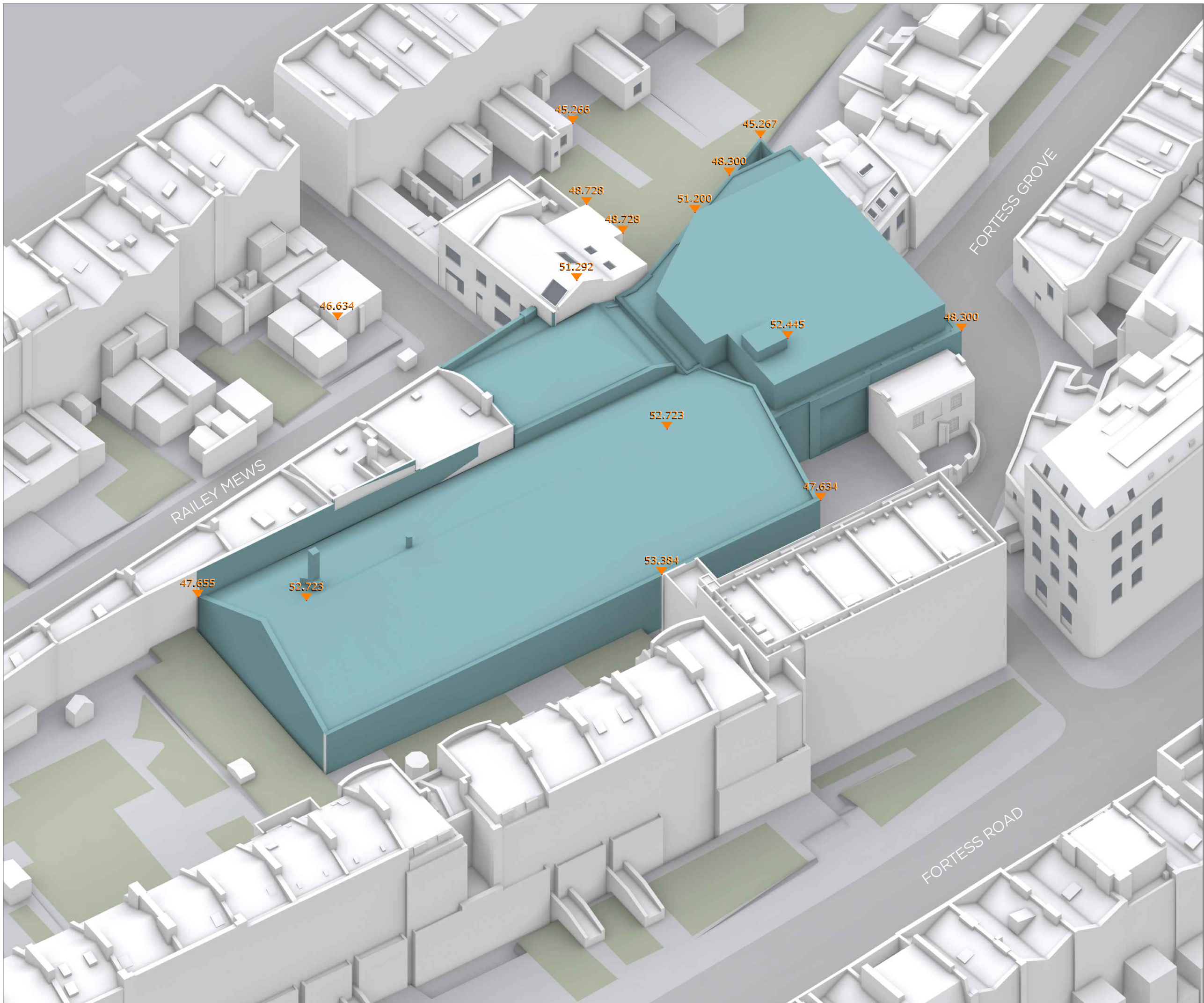
DRAWING NAME:
3D VIEW
PROPOSED SCHEME IR-18

| DWN BY | SCALE | CHK BY | STATUS | DATE |
|----------|---------|--------|---------|---------|
| AH | NTS | AH | - | JUN 18 |
| PROJ No. | REL No. | IS No. | DWG No. | REV No. |
| 12073 | 03 | 01 | 02 | - |



The Whitehouse
Belvedere Road
London SE1 8GA
t 020 7202 1400
f 020 7202 1401
mail@gia.uk.com
www.gia.uk.com

LONDON • MANCHESTER



SOURCES OF INFORMATION

IR06-12073-VERTEX

IR18-12073-BGY

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES:
PROPOSED SCHEME SHOWN IN TEAL

N.B. DO NOT SCALE OFF THIS DRAWING

PROJECT:
FORTRESS GROVE
KENTISH TOWN, NW5 2HD

DRAWING NAME:
3D VIEW

PROPOSED SCHEME IR-18

| DWN BY | SCALE | CHK BY | STATUS | DATE |
|----------|---------|--------|---------|---------|
| AH | NTS | AH | - | JUN 18 |
| PROJ No. | REL No. | IS No. | DWG No. | REV No. |
| 12073 | 03 | 01 | 03 | - |



The Whitehouse
Belvedere Road
London SE1 8GA
t 020 7202 1400
f 020 7202 1401
mail@gia.uk.com
www.gia.uk.com

LONDON • MANCHESTER

Appendix 03

Daylight and Sunlight Results

*Vertical Sky Component (VSC)
No Skyline (NSL)
Annual Probable Sunlight Hours (APSH)*

| FLOOR | ROOM | PROPERTY TYPE | ROOM USE | WINDOW | VERTICAL SKY COMPONENT | | | | NO SKY LINE | | | | ANNUAL PROBABLE SUNLIGHT HOURS | | | | | | |
|---------------------------|------|---------------|-------------|------------------|------------------------|------------|------|--------|-------------|------------|----------|--------|--------------------------------|--------|----------|--------|--------|--------|--|
| | | | | | EXISTING % | PROPOSED % | LOSS | LOSS % | EXISTING % | PROPOSED % | LOSS SQM | LOSS % | EXISTING | | PROPOSED | | LOSS % | | |
| | | | | | | | | | | | | | TOTAL | WINTER | TOTAL | WINTER | TOTAL | WINTER | |
| 1 FORTRESS GROVE | | | | | | | | | | | | | | | | | | | |
| F00 | R1 | RESIDENTIAL | UNKNOWN | W1/F00 | 23.4 | 22 | 1.4 | 6.0% | 91.8 | 91.3 | 0.1 | 0.5% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | | | UNKNOWN | W2/F00 | 25.1 | 21.3 | 3.8 | 15.1% | | | | | N/A | N/A | N/A | N/A | N/A | N/A | |
| F01 | R1 | RESIDENTIAL | UNKNOWN | W1/F01 | 30.6 | 29.1 | 1.5 | 4.9% | 99.1 | 99.1 | 0.0 | 0.0% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | | | UNKNOWN | W2/F01 | 29.5 | 25.5 | 4 | 13.6% | | | | | N/A | N/A | N/A | N/A | N/A | N/A | |
| | R2 | RESIDENTIAL | UNKNOWN | W3/F01 | 29.9 | 26.7 | 3.2 | 10.7% | 98 | 89.9 | 1.1 | 8.3% | N/A | N/A | N/A | N/A | N/A | N/A | |
| 19 FORTRESS GROVE | | | | | | | | | | | | | | | | | | | |
| F00 | R1 | RESIDENTIAL | UNKNOWN | W1/F00 | 23.7 | 23.1 | 0.6 | 2.5% | 50.3 | 47.8 | 0.5 | 4.9% | 39 | 10 | 39 | 10 | 0.0% | 0.0% | |
| F01 | R1 | RESIDENTIAL | UNKNOWN | W1/F01 | 29.2 | 26.9 | 2.3 | 7.9% | 98.8 | 98.1 | 0.1 | 0.7% | 44 | 13 | 44 | 13 | 0.0% | 0.0% | |
| | | | UNKNOWN | W3/F01 / Inc (2) | 79.3 | 72.1 | 7.2 | 9.1% | | | | | 47 | 15 | 47 | 15 | 0.0% | 0.0% | |
| | | | UNKNOWN | W2/F01 / Inc (2) | 80.3 | 76.6 | 3.7 | 4.6% | | | | | 47 | 15 | 47 | 15 | 0.0% | 0.0% | |
| | R2 | RESIDENTIAL | UNKNOWN | W4/F01 | 29 | 27.5 | 1.5 | 5.2% | 99.1 | 98.9 | 0.0 | 0.2% | 34 | 7 | 34 | 7 | 0.0% | 0.0% | |
| | | | UNKNOWN | W5/F01 / Inc (2) | 79 | 77.2 | 1.8 | 2.3% | | | | | 45 | 12 | 45 | 12 | 0.0% | 0.0% | |
| 21 FORTRESS GROVE | | | | | | | | | | | | | | | | | | | |
| F00 | R1 | RESIDENTIAL | UNKNOWN | W1/F00 | 26.4 | 24.9 | 1.5 | 5.7% | 85.7 | 65 | 2.9 | 24.1% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | R2 | RESIDENTIAL | UNKNOWN | W2/F00 | 27.3 | 25.3 | 2 | 7.3% | 86.8 | 64.6 | 4.9 | 25.6% | N/A | N/A | N/A | N/A | N/A | N/A | |
| F01 | R1 | RESIDENTIAL | UNKNOWN | W1/F01 | 31.6 | 29.1 | 2.5 | 7.9% | 90.7 | 65.7 | 3.5 | 27.6% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | R2 | RESIDENTIAL | UNKNOWN | W2/F01 | 31.3 | 29.3 | 2 | 6.4% | 82.2 | 63.2 | 4.2 | 23.1% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | | | UNKNOWN | W3/F01 | 24.8 | 24.4 | 0.4 | 1.6% | | | | | N/A | N/A | N/A | N/A | N/A | N/A | |
| 22 FORTRESS GROVE | | | | | | | | | | | | | | | | | | | |
| F00 | R1 | RESIDENTIAL | KITCHEN (1) | W1/F00 | 26 | 23.4 | 2.6 | 10.0% | 93.6 | 88.4 | 0.3 | 5.5% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | R2 | RESIDENTIAL | LIVING ROOM | W2/F00 | 25.7 | 24.8 | 0.9 | 3.5% | 75.6 | 67 | 1.5 | 11.5% | N/A | N/A | N/A | N/A | N/A | N/A | |
| 1-12 ELEANOR HOUSE | | | | | | | | | | | | | | | | | | | |
| F01 | R2 | RESIDENTIAL | KITCHEN (1) | W2/F01 (dup.) | 0.6 | 0.6 | 0 | 0.0% | 30.2 | 30.2 | 0.0 | 0.0% | 1 | 1 | 1 | 1 | 0.0% | 0.0% | |
| | R3 | RESIDENTIAL | KITCHEN (1) | W3/F01 | 4.9 | 4.8 | 0.1 | 2.0% | 86.3 | 86.3 | 0.0 | 0.0% | 11 | 6 | 11 | 6 | 0.0% | 0.0% | |
| | R5 | RESIDENTIAL | KITCHEN (1) | W5/F01 | 6.5 | 6.2 | 0.3 | 4.6% | 89.6 | 89.6 | 0.0 | 0.0% | 13 | 6 | 13 | 6 | 0.0% | 0.0% | |
| | R7 | RESIDENTIAL | KITCHEN (1) | W7/F01 | 7.3 | 6.8 | 0.5 | 6.8% | 90.2 | 90.2 | 0.0 | 0.0% | 13 | 6 | 13 | 6 | 0.0% | 0.0% | |
| | R9 | RESIDENTIAL | KITCHEN (1) | W9/F01 | 8.4 | 7.5 | 0.9 | 10.7% | 90.1 | 90.1 | 0.0 | 0.0% | 14 | 7 | 13 | 6 | 7.1% | 14.3% | |
| F02 | R3 | RESIDENTIAL | BEDROOM | W2/F01 | 17.9 | 17.9 | 0 | 0.0% | 93.5 | 93.5 | 0.0 | 0.0% | 46 | 18 | 46 | 18 | 0.0% | 0.0% | |
| | R5 | RESIDENTIAL | BEDROOM | W4/F01 | 29.2 | 29.1 | 0.1 | 0.3% | 99 | 99 | 0.0 | 0.0% | 57 | 18 | 57 | 18 | 0.0% | 0.0% | |
| | R7 | RESIDENTIAL | BEDROOM | W6/F01 | 33.4 | 33.2 | 0.2 | 0.6% | 99.6 | 99.6 | 0.0 | 0.0% | 57 | 18 | 57 | 18 | 0.0% | 0.0% | |
| | R9 | RESIDENTIAL | BEDROOM | W8/F01 | 34.7 | 34.3 | 0.4 | 1.2% | 99.6 | 99.6 | 0.0 | 0.0% | 58 | 19 | 58 | 19 | 0.0% | 0.0% | |
| | R11 | RESIDENTIAL | BEDROOM | W10/F01 | 35.5 | 34.9 | 0.6 | 1.7% | 99.6 | 99.6 | 0.0 | 0.0% | 58 | 19 | 58 | 19 | 0.0% | 0.0% | |
| F03 | R1 | RESIDENTIAL | KITCHEN (1) | W2/F02 | 1.2 | 1.2 | 0 | 0.0% | 34.4 | 34.4 | 0.0 | 0.0% | 1 | 1 | 1 | 1 | 0.0% | 0.0% | |
| | R2 | RESIDENTIAL | KITCHEN (1) | W3/F02 | 10.1 | 10.1 | 0 | 0.0% | 88.6 | 88.6 | 0.0 | 0.0% | 15 | 9 | 15 | 9 | 0.0% | 0.0% | |
| | R5 | RESIDENTIAL | KITCHEN (1) | W5/F02 | 12.2 | 12.2 | 0 | 0.0% | 90.1 | 90.1 | 0.0 | 0.0% | 19 | 9 | 19 | 9 | 0.0% | 0.0% | |
| | R7 | RESIDENTIAL | KITCHEN (1) | W7/F02 | 12.7 | 12.7 | 0 | 0.0% | 90.3 | 90.3 | 0.0 | 0.0% | 19 | 9 | 19 | 9 | 0.0% | 0.0% | |
| | R9 | RESIDENTIAL | KITCHEN (1) | W9/F02 | 13 | 13 | 0 | 0.0% | 90.1 | 90.1 | 0.0 | 0.0% | 19 | 9 | 19 | 9 | 0.0% | 0.0% | |
| F04 | R1 | RESIDENTIAL | BEDROOM | W1/F03 | 33.5 | 33.5 | 0 | 0.0% | 98.7 | 98.7 | 0.0 | 0.0% | 59 | 20 | 59 | 20 | 0.0% | 0.0% | |
| | R3 | RESIDENTIAL | BEDROOM | W3/F03 | 39 | 39 | 0 | 0.0% | 99.4 | 99.4 | 0.0 | 0.0% | 60 | 20 | 60 | 20 | 0.0% | 0.0% | |

(1) Kitchen smaller than 13m2

(2)Inc\Hz = Sky Component (inclined\horizontal window)

| FLOOR | ROOM | PROPERTY TYPE | ROOM USE | WINDOW | VERTICAL SKY COMPONENT | | | NO SKY LINE | | | | ANNUAL PROBABLE SUNLIGHT HOURS | | | | | | |
|--------------------------------------|------|---------------|----------|-------------------|------------------------|------------|------|-------------|------------|------------|----------|--------------------------------|----------|--------|----------|--------|--------|--------|
| | | | | | EXISTING % | PROPOSED % | LOSS | LOSS % | EXISTING % | PROPOSED % | LOSS SQM | LOSS % | EXISTING | | PROPOSED | | LOSS % | |
| | | | | | | | | | | | | | TOTAL | WINTER | TOTAL | WINTER | TOTAL | WINTER |
| | R5 | RESIDENTIAL | BEDROOM | W5/F03 | 39.1 | 39.1 | 0 | 0.0% | 99.6 | 99.6 | 0.0 | 0.0% | 60 | 20 | 60 | 20 | 0.0% | 0.0% |
| | R7 | RESIDENTIAL | BEDROOM | W7/F03 | 39.2 | 39.2 | 0 | 0.0% | 99.6 | 99.6 | 0.0 | 0.0% | 60 | 20 | 60 | 20 | 0.0% | 0.0% |
| | R9 | RESIDENTIAL | BEDROOM | W9/F03 | 39.2 | 39.2 | 0 | 0.0% | 99.6 | 99.6 | 0.0 | 0.0% | 60 | 20 | 60 | 20 | 0.0% | 0.0% |
| 28-34 PIANO WORKS | | | | | | | | | | | | | | | | | | |
| F00 | R1 | RESIDENTIAL | UNKNOWN | W2/F00 | 17 | 16.3 | 0.7 | 4.1% | 93.2 | 93.2 | 0.0 | 0.0% | 16 | 0 | 14 | 0 | 12.5% | - |
| | | | UNKNOWN | W1/F00 | 13.8 | 13.7 | 0.1 | 0.7% | | | | | 11 | 0 | 11 | 0 | 0.0% | - |
| | R3 | RESIDENTIAL | UNKNOWN | W3/F00 | 5.9 | 5.9 | 0 | 0.0% | 63 | 63 | 0.0 | 0.0% | 6 | 0 | 6 | 0 | 0.0% | - |
| | R5 | RESIDENTIAL | UNKNOWN | W5/F00 | 19.5 | 19.3 | 0.2 | 1.0% | 72.2 | 72.1 | 0.1 | 0.2% | 26 | 5 | 26 | 5 | 0.0% | 0.0% |
| 28-34 PIANO WORKS (Continued) | | | | | | | | | | | | | | | | | | |
| | | | UNKNOWN | W4/F00 | 2.8 | 2.8 | 0 | 0.0% | | | | | 0 | 0 | 0 | 0 | - | - |
| F01 | R1 | RESIDENTIAL | BEDROOM | W1/F01 | 16.7 | 16.7 | 0 | 0.0% | 99.1 | 99.1 | 0.0 | 0.0% | 13 | 0 | 13 | 0 | 0.0% | - |
| | | | BEDROOM | W2/F01 | 24 | 23.5 | 0.5 | 2.1% | | | | | 34 | 11 | 33 | 10 | 2.9% | 9.1% |
| | R6 | RESIDENTIAL | LKD | W5/F01 | 17.7 | 17.6 | 0.1 | 0.6% | 54.8 | 54.8 | 0.0 | 0.0% | N/A | N/A | N/A | N/A | N/A | N/A |
| | R7 | RESIDENTIAL | BEDROOM | W6/F01 | 33.1 | 32.4 | 0.7 | 2.1% | 96.1 | 96.1 | 0.0 | 0.0% | 33 | 6 | 33 | 6 | 0.0% | 0.0% |
| | R9 | RESIDENTIAL | LKD | W7/F01 | 34.4 | 34.4 | 0 | 0.0% | 99.9 | 99.9 | 0.0 | 0.0% | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | LKD | W8/F01 | 33.8 | 33.8 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | LKD | W9/F01 | 24.1 | 24.1 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | LKD | W10/F01 | 19.6 | 19.5 | 0.1 | 0.5% | | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| F02 | R1 | RESIDENTIAL | BEDROOM | W2/F02 | 26.7 | 26.7 | 0 | 0.0% | 99.5 | 99.5 | 0.0 | 0.0% | 36 | 12 | 36 | 12 | 0.0% | 0.0% |
| | | | BEDROOM | W1/F02 | 22 | 22 | 0 | 0.0% | | | | | 13 | 0 | 13 | 0 | 0.0% | - |
| | R6 | RESIDENTIAL | BEDROOM | W7/F02 | 34.7 | 34.7 | 0 | 0.0% | 98.4 | 98.4 | 0.0 | 0.0% | 41 | 7 | 41 | 7 | 0.0% | 0.0% |
| | | | BEDROOM | W8/F02 | 30.2 | 30.2 | 0 | 0.0% | | | | | 27 | 1 | 27 | 1 | 0.0% | 0.0% |
| | R7 | RESIDENTIAL | LKD | W9/F02 | 37.1 | 37.1 | 0 | 0.0% | 99.9 | 99.9 | 0.0 | 0.0% | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | LKD | W10/F02 | 36.9 | 36.9 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | LKD | W11/F02 | 36.7 | 36.7 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | LKD | W12/F02 | 28.3 | 28.3 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | LKD | W13/F02 | 24.3 | 24.3 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| F03 | R1 | RESIDENTIAL | BEDROOM | W1/F03 | 31.4 | 31.4 | 0 | 0.0% | 99.5 | 99.5 | 0.0 | 0.0% | 13 | 0 | 13 | 0 | 0.0% | - |
| | | | BEDROOM | W2/F03 | 38.4 | 38.4 | 0 | 0.0% | | | | | 52 | 15 | 52 | 15 | 0.0% | 0.0% |
| | R6 | RESIDENTIAL | BEDROOM | W7/F03 | 38.1 | 38.1 | 0 | 0.0% | 98.8 | 98.8 | 0.0 | 0.0% | 52 | 15 | 52 | 15 | 0.0% | 0.0% |
| | | | BEDROOM | W8/F03 | 35.7 | 35.7 | 0 | 0.0% | | | | | 40 | 7 | 40 | 7 | 0.0% | 0.0% |
| | R7 | RESIDENTIAL | LKD | W10/F03 | 38.6 | 38.6 | 0 | 0.0% | 100 | 100 | 0.0 | 0.0% | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | LKD | W11/F03 | 38.6 | 38.6 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | LKD | W12/F03 | 34.6 | 34.6 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| | | | LKD | W13/F03 | 32.5 | 32.5 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A |
| F04 | R8 | RESIDENTIAL | LKD | W1/F04 / Inc (2) | 54.6 | 54.6 | 0 | 0.0% | 99.1 | 99.1 | 0.0 | 0.0% | 49 | 15 | 49 | 15 | 0.0% | 0.0% |
| | | | LKD | W2/F04 / Inc (2) | 54.6 | 54.6 | 0 | 0.0% | | | | | 49 | 15 | 49 | 15 | 0.0% | 0.0% |
| | | | LKD | W3/F04 / Inc (2) | 56.1 | 56.1 | 0 | 0.0% | | | | | 14 | 0 | 14 | 0 | 0.0% | - |
| | | | LKD | W4/F04 / Inc (2) | 56.1 | 56.1 | 0 | 0.0% | | | | | 14 | 0 | 14 | 0 | 0.0% | - |
| | | | LKD | W5/F04 / Inc (2) | 56.1 | 56.1 | 0 | 0.0% | | | | | 14 | 0 | 14 | 0 | 0.0% | - |
| | | | LKD | W6/F04 / Inc (2) | 56.9 | 56.9 | 0 | 0.0% | | | | | 51 | 15 | 51 | 15 | 0.0% | 0.0% |
| | R11 | RESIDENTIAL | BEDROOM | W10/F04 / Inc (2) | 55.1 | 55.1 | 0 | 0.0% | 97.2 | 97.2 | 0.0 | 0.0% | 51 | 15 | 51 | 15 | 0.0% | 0.0% |
| | | | BEDROOM | W11/F04 / Inc (2) | 56.5 | 56.5 | 0 | 0.0% | | | | | 51 | 15 | 51 | 15 | 0.0% | 0.0% |

(1) Kitchen smaller than 13m2

(2)Inc\Hz = Sky Component (inclined\horizontal window)

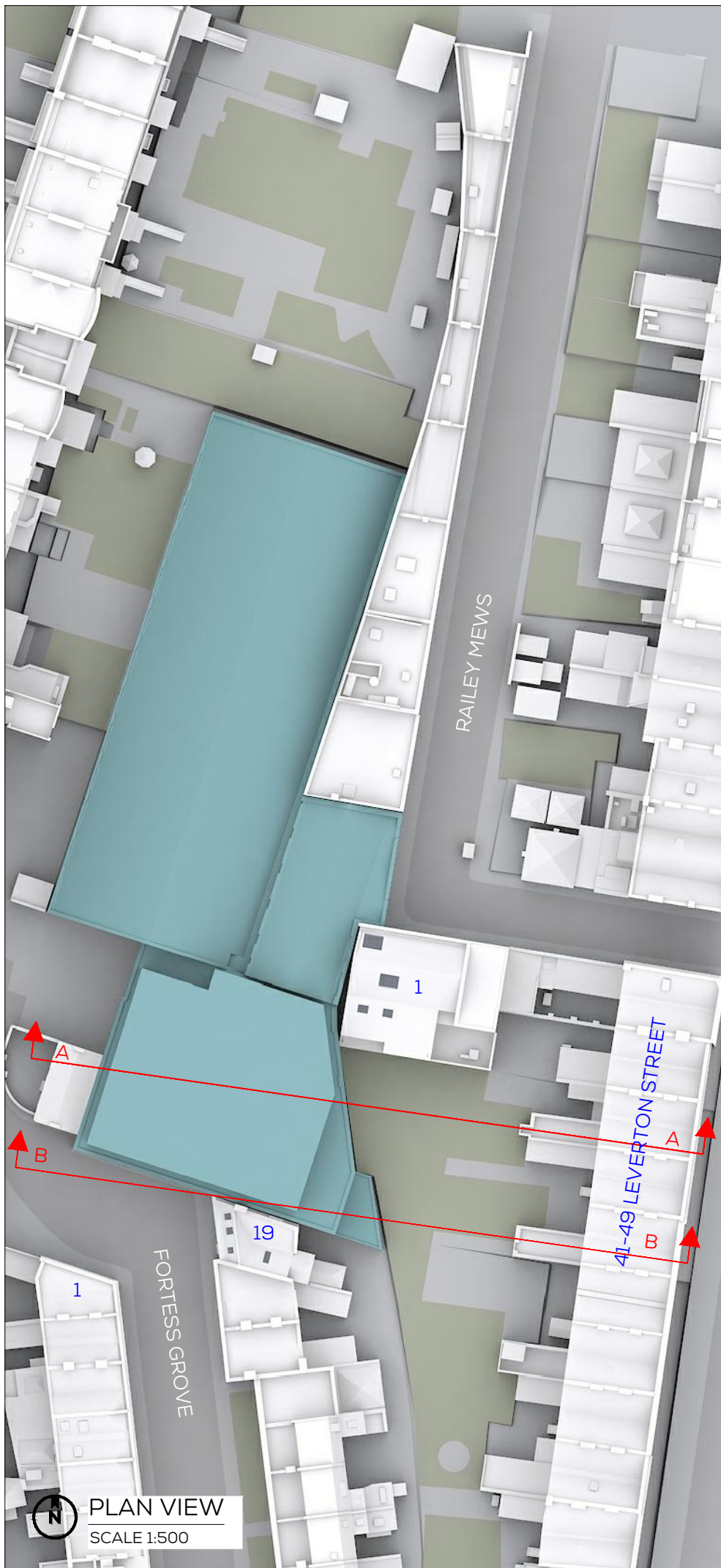
| FLOOR | ROOM | PROPERTY TYPE | ROOM USE | WINDOW | VERTICAL SKY COMPONENT | | | | NO SKY LINE | | | | ANNUAL PROBABLE SUNLIGHT HOURS | | | | | | |
|----------------------------------|------|---------------|-------------|-------------------|------------------------|------------|------|--------|-------------|------------|----------|--------|--------------------------------|--------|----------|--------|--------|--------|--|
| | | | | | EXISTING % | PROPOSED % | LOSS | LOSS % | EXISTING % | PROPOSED % | LOSS SQM | LOSS % | EXISTING | | PROPOSED | | LOSS % | | |
| | | | | | | | | | | | | | TOTAL | WINTER | TOTAL | WINTER | TOTAL | WINTER | |
| 1 RAILEY MEWS | | | | | | | | | | | | | | | | | | | |
| F00 | R2 | RESIDENTIAL | BEDROOM | W1/F00 | 27.6 | 27.6 | 0 | 0.0% | 99.3 | 99.3 | 0.0 | 0.0% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | | | BEDROOM | W2/F00 | 28.9 | 28.9 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A | |
| | R3 | RESIDENTIAL | BEDROOM | W4/F00 | 25 | 25 | 0 | 0.0% | 99.4 | 99.4 | 0.0 | 0.0% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | | | BEDROOM | W5/F00 | 19.3 | 19.3 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A | |
| | R4 | RESIDENTIAL | BEDROOM | W6/F00 | 24 | 19.5 | 4.5 | 18.8% | 99.2 | 98.5 | 0.1 | 0.7% | 54 | 15 | 45 | 13 | 16.7% | 13.3% | |
| | | | BEDROOM | W8/F00 / Inc (2) | 60.6 | 46.8 | 13.8 | 22.8% | | | | | 69 | 23 | 46 | 15 | 33.3% | 34.8% | |
| | R5 | RESIDENTIAL | BEDROOM | W7/F00 | 31.6 | 29.9 | 1.7 | 5.4% | 90.4 | 88.6 | 0.2 | 1.9% | 70 | 19 | 67 | 19 | 4.3% | 0.0% | |
| F01 | R1 | RESIDENTIAL | BEDROOM | W1/F01 | 32.2 | 32.2 | 0 | 0.0% | 96.7 | 96.7 | 0.0 | 0.0% | 5 | 0 | 5 | 0 | 0.0% | - | |
| | | | BEDROOM | W12/F01 | 32.5 | 32.3 | 0.2 | 0.6% | | | | | 76 | 24 | 75 | 23 | 1.3% | 4.2% | |
| | | | BEDROOM | W13/F01 | 34 | 33.8 | 0.2 | 0.6% | | | | | 76 | 23 | 75 | 22 | 1.3% | 4.3% | |
| | R2 | RESIDENTIAL | LIVING ROOM | W2/F01 | 32.6 | 32.6 | 0 | 0.0% | 100 | 100 | 0.0 | 0.0% | 5 | 0 | 5 | 0 | 0.0% | - | |
| | | | LIVING ROOM | W3/F01 | 31.8 | 31.8 | 0 | 0.0% | | | | | 4 | 0 | 4 | 0 | 0.0% | - | |
| | | | LIVING ROOM | W4/F01 | 25.2 | 25.2 | 0 | 0.0% | | | | | 5 | 0 | 5 | 0 | 0.0% | - | |
| | | | LIVING ROOM | W14/F01 / Inc (2) | 84.5 | 84.5 | 0 | 0.0% | | | | | 10 | 0 | 10 | 0 | 0.0% | - | |
| | | | LIVING ROOM | W15/F01 / Inc (2) | 87.5 | 87.4 | 0.1 | 0.1% | | | | | 86 | 28 | 86 | 28 | 0.0% | 0.0% | |
| | R3 | RESIDENTIAL | LKD | W6/F01 | 35 | 24.5 | 10.5 | 30.0% | 99.8 | 99.8 | 0.0 | 0.0% | 78 | 24 | 53 | 17 | 32.1% | 29.2% | |
| 1 RAILEY MEWS (Continued) | | | | | | | | | | | | | | | | | | | |
| | | | LKD | W7/F01 | 34.6 | 28.1 | 6.5 | 18.8% | | | | | 75 | 24 | 59 | 20 | 21.3% | 16.7% | |
| | | | LKD | W8/F01 | 24.5 | 20.2 | 4.3 | 17.6% | | | | | 46 | 14 | 34 | 10 | 26.1% | 28.6% | |
| | | | LKD | W9/F01 | 23.8 | 23.8 | 0 | 0.0% | | | | | 45 | 12 | 45 | 12 | 0.0% | 0.0% | |
| | | | LKD | W10/F01 | 22.5 | 22.5 | 0 | 0.0% | | | | | 49 | 15 | 49 | 15 | 0.0% | 0.0% | |
| | | | LKD | W17/F01 / Inc (2) | 96.1 | 95.4 | 0.7 | 0.7% | | | | | 84 | 27 | 82 | 25 | 2.4% | 7.4% | |
| | | | LKD | W16/F01 / Inc (2) | 96.3 | 94.7 | 1.6 | 1.7% | | | | | 84 | 27 | 79 | 24 | 6.0% | 11.1% | |
| | | | LKD | W5/F01 | 35.6 | 33 | 2.6 | 7.3% | | | | | 81 | 25 | 76 | 23 | 6.2% | 8.0% | |
| 41-49 LEVERTON STREET | | | | | | | | | | | | | | | | | | | |
| F00 | R1 | RESIDENTIAL | UNKNOWN | W3/F00 | 32.2 | 30.9 | 1.3 | 4.0% | 91.7 | 79.6 | 1.5 | 13.2% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | R2 | RESIDENTIAL | UNKNOWN | W4/F00 | 28.2 | 26.4 | 1.8 | 6.4% | 97.9 | 97.6 | 0.0 | 0.4% | 40 | 11 | 37 | 10 | 7.5% | 3.1% | |
| | | | UNKNOWN | W12/F00 | 22.2 | 22.1 | 0.1 | 0.5% | | | | | 48 | 12 | 46 | 12 | 4.2% | 0.0% | |
| | | | UNKNOWN | W13/F00 | 19.1 | 19 | 0.1 | 0.5% | | | | | 43 | 11 | 42 | 11 | 2.3% | 0.0% | |
| | R3 | RESIDENTIAL | UNKNOWN | W5/F00 | 29.8 | 27.8 | 2 | 6.7% | 94.7 | 87.9 | 0.7 | 7.2% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | | | UNKNOWN | W11/F00 | 19.5 | 19.5 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A | |
| | | | UNKNOWN | W10/F00 | 18.3 | 18.3 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A | |
| | | | UNKNOWN | W9/F00 | 12.5 | 12.5 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A | |
| | | | UNKNOWN | W8/F00 | 12.2 | 12.2 | 0 | 0.0% | | | | | N/A | N/A | N/A | N/A | N/A | N/A | |
| | R4 | RESIDENTIAL | UNKNOWN | W6/F00 | 18.9 | 18 | 0.9 | 4.8% | 88.2 | 88.1 | 0.0 | 0.1% | N/A | N/A | N/A | N/A | N/A | N/A | |
| | R5 | RESIDENTIAL | UNKNOWN | W7/F00 | 22.8 | 22 | 0.8 | 3.5% | 59.2 | 52 | 0.8 | 12.2% | N/A | N/A | N/A | N/A | N/A | N/A | |

(1) Kitchen smaller than 13m2

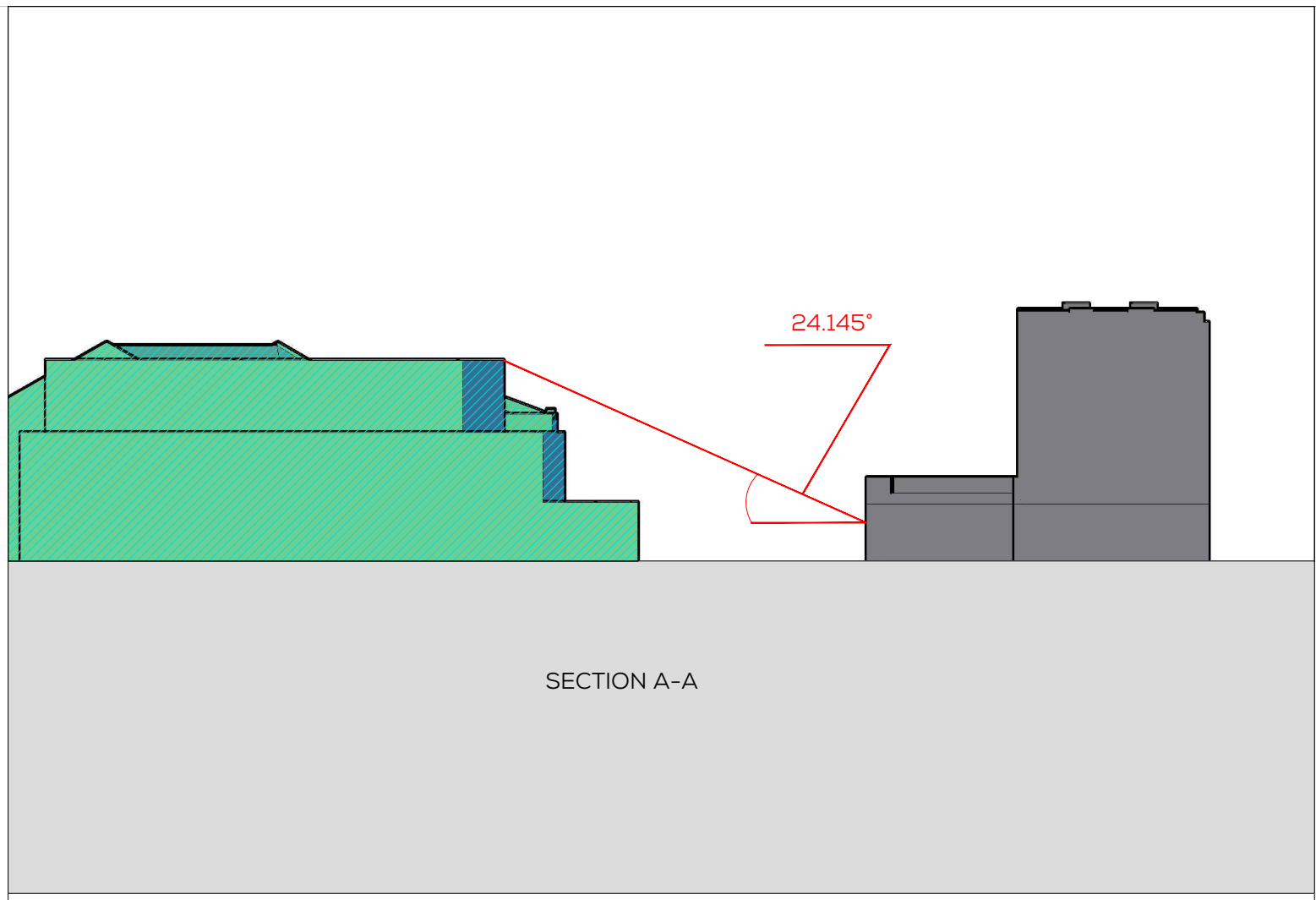
(2)Inc\Hz = Sky Component (inclined\horizontal window)

Appendix 04

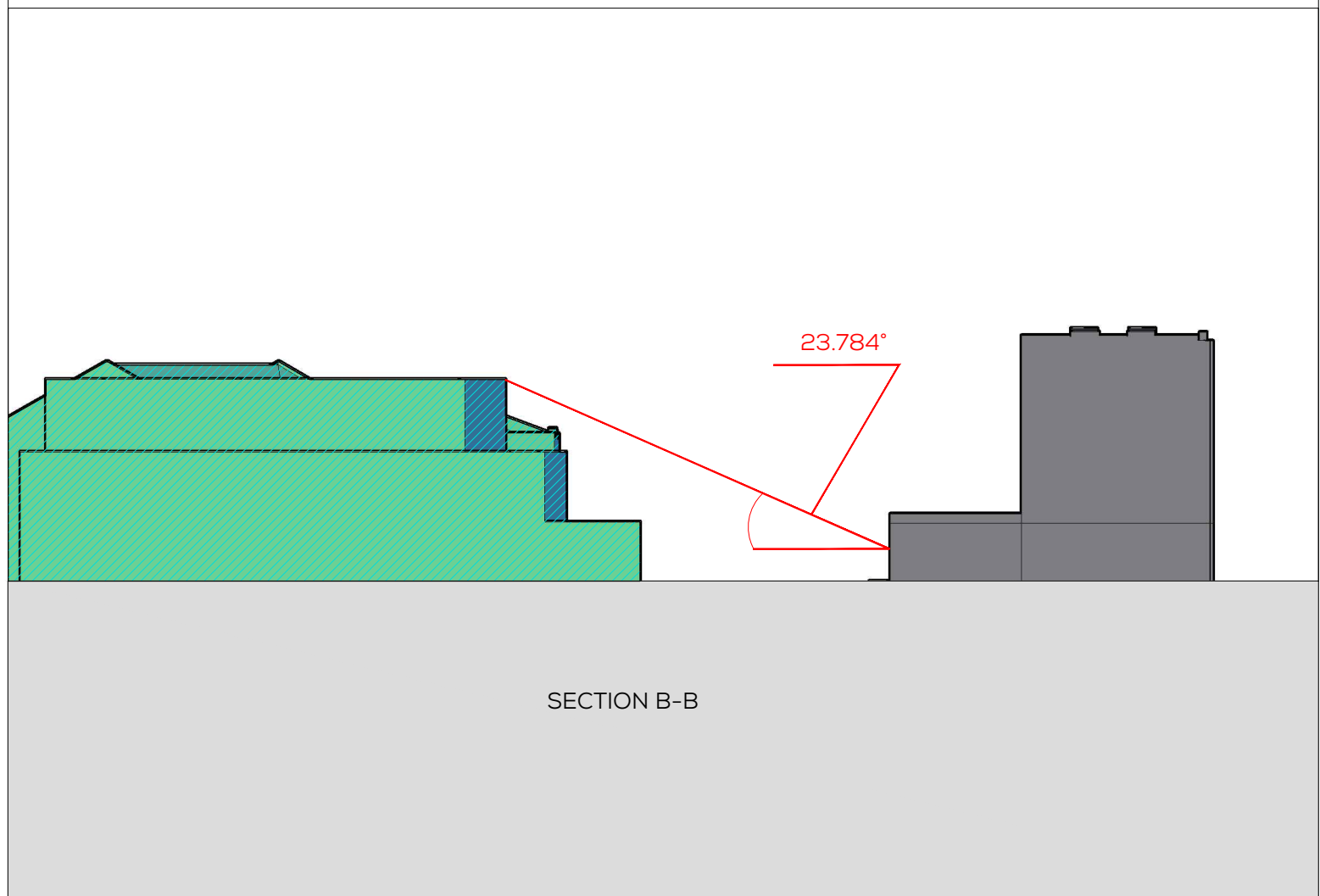
Development Angle Section



PLAN VIEW
SCALE 1:500



SECTION A-A



SECTION B-B

SOURCES OF INFORMATION
IR06-12073-VERTEX
IR16-17-1102-BGY

ALL INFORMATION DISPLAYED IS SUBJECT TO A COMPLETE VERIFIABLE SITE SURVEY BEING UNDERTAKEN. GIA TAKES NO RESPONSIBILITY ON THE ACCURACY OR RELIABILITY OF THE DISPLAYED DATA SINCE A VERIFIED SITE SURVEY WAS NOT MADE AVAILABLE PRIOR TO THE GENERATION OF SUCH INFORMATION.

NOTES:
PROPOSED SCHEME SHOWN IN TEAL

N.B. DO NOT SCALE OFF THIS DRAWING
PROJECT:
FORTRESS GROVE
KENTISH TOWN, NW5 2HD

DRAWING NAME:
PLAN VIEW & SECTIONS

PROPOSED SCHEME IR-16
RECEIVED 02/11/17

| DWN BY | SCALE | CHK BY | STATUS | DATE |
|----------|----------|--------|---------|---------|
| AH | 1:500@A3 | AH | - | JUN 18 |
| PROJ No. | REL No. | IS No. | DWG No. | REV No. |
| 12073 | 02 | 01 | 07 | - |

gia
LONDON • MANCHESTER

The Whitehouse
Belvedere Road
London SE1 8GA
t 020 7202 1400
f 020 7202 1401
mail@gia.uk.com
www.gia.uk.com

ADDRESS

THE WHITEHOUSE
BELVEDERE ROAD
LONDON SE1 8GA

CONTACT

TEL 020 7202 1400
FAX 020 7202 1401
MAIL@GIA.UK.COM

WWW.GIA.UK.COM