Daylight and Sunlight Report

Garages at Parsifal House, 521 Finchley Road

London NW3 7BT

Granit Architects

1st August 2019

Contents

Appendices

Prepared By: Avison Young
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Date: 1 August 2019
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For and on behalf of GVA Grimley Limited t/a Avison Young

1. Introduction

1.1 We are instructed by Granit Architects to consider potential daylight/sunlight effects upon neighbouring residential properties associated with the proposed development for the site at Garages at Parsifal House, 521 Finchley Road, London NW3 7BT ("Site").

1.2 In addition, we are instructed to consider potential daylight and sunlight within the proposed development which would be provided for future occupants.

1.3 Attached drawings labelled BRE/01 and BRE/02 in Appendix 1 and Figure 1 below illustrate a 3D model of the existing Site conditions and surrounding context. Drawings labelled BRE/03 and BRE/04 in Appendix 1 and Figure 2 below illustrate the same 3D model but this time incorporating the proposed development by Granit Architects ("Proposed Development").

1.4 The daylight/sunlight assessments have been undertaken utilising the abovementioned 3D model and with reference to the BRE guidelines document *'Site Layout Planning for Daylight and Sunlight – A guide to good practice' (2011)* ("BRE Guidelines").

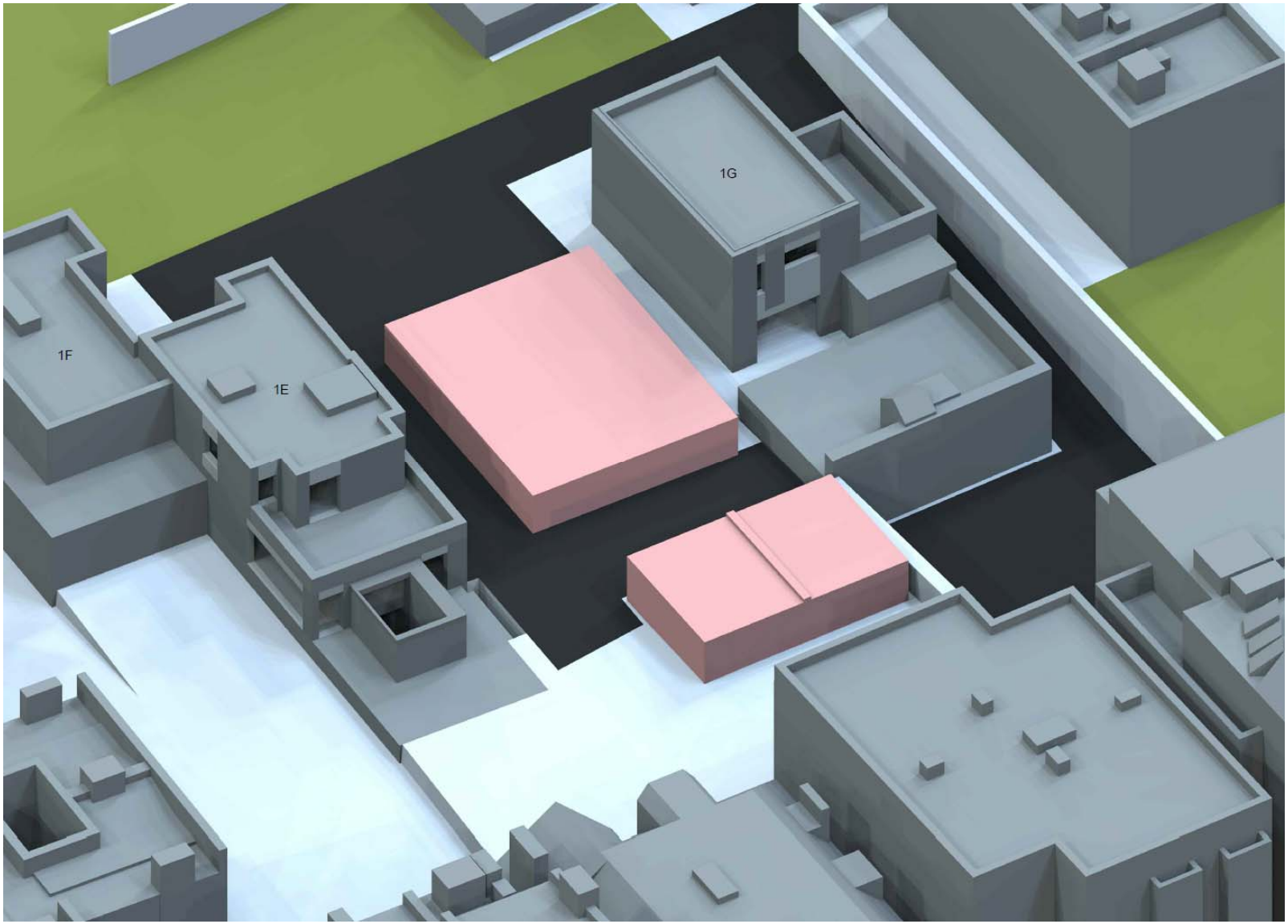

Figure 1: Our 3D model showing the Site and existing buildings in red (drawing ref BRE/02)

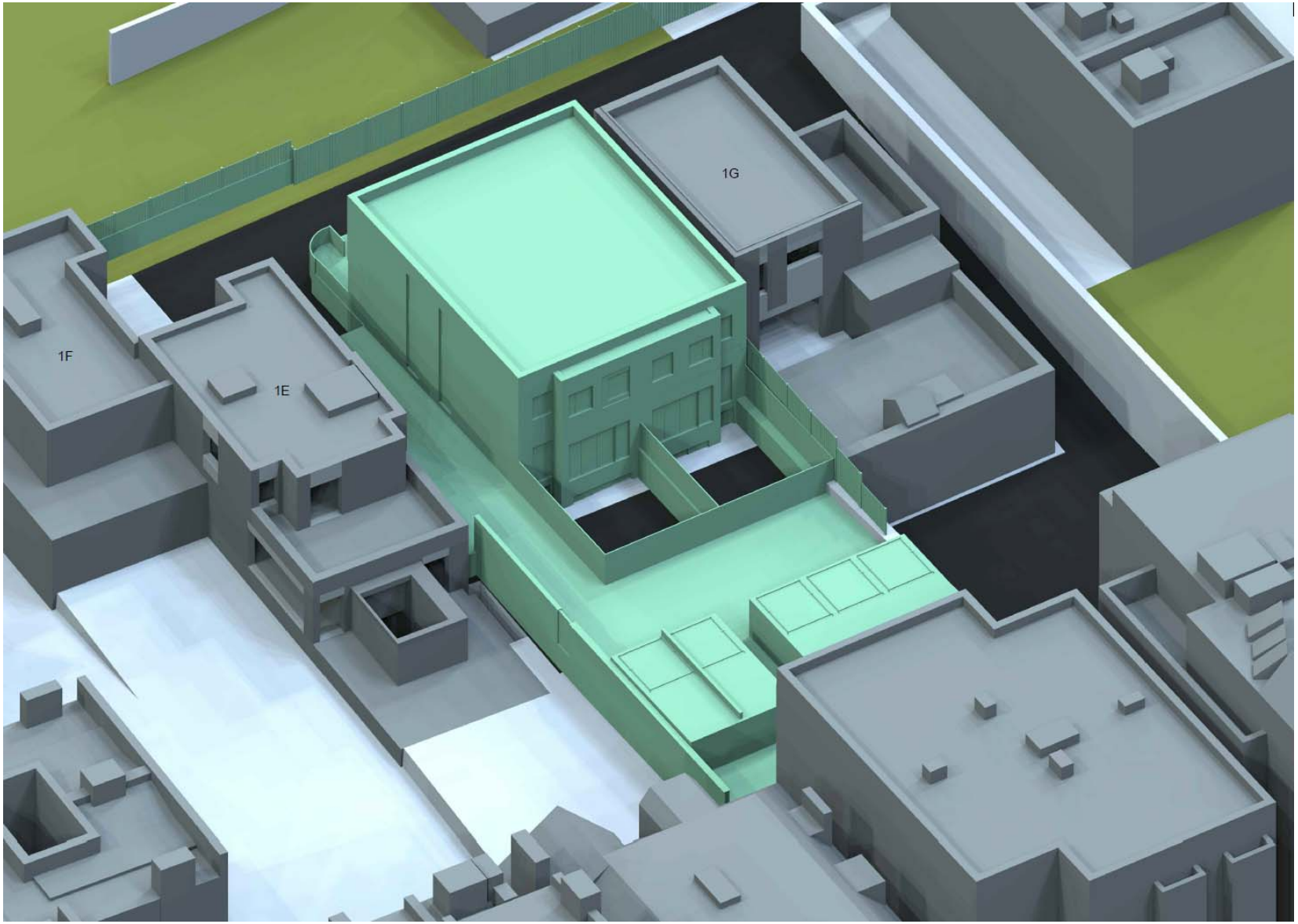

Figure 2: Our 3D model showing the Proposed Development in green (BRE/04)

2. Information Relied Upon

2.1 Our 3D model and assessment is based on the following information:-

- 3D model received on 4th July 2019 from Granit Architects.
- 3D model received on 22 July 2019 from AccuCities.
- Avison Young site photographs taken 15th July 2019.
- Ordinance Survey data.
- Land Registry data.
- Valuation Office Agency data.
- Google aerial imagery.
- Bing aerial imagery.
- Rightmove.
- London Borough of Camden.

3. Policy and Guidance

3.1 Policy and guidance context in relation to daylight and sunlight is important in establishing acceptable levels of amenity. The appropriateness of a proposed development, in daylight and sunlight terms, should therefore be considered against the following:

- National Planning Policy Framework published July 2018 ("NPPF");
- The London Plan – Spatial Development Strategy for Greater London (March 2016);
- Draft London Plan July 2019;
- GLA's Housing Supplementary Planning Guidance March 2016 ("Housing SPG"); and
- London Borough of Camden advice (https://www.camden.gov.uk/daylight-and-sunlight-assessment) which states that daylight and sunlight reports accompanying planning applications need to be prepared in line with the methods described in the BRE Guidelines.

NPPF

3.2 There are no national planning policies directly relating to daylight, sunlight, and overshadowing.

3.3 However, the NPPF incorporates policy proposals previously consulted on in the Housing White Paper and the Planning for the right homes in right places consultation.

3.4 The NPPF states that Councils should take a 'flexible approach' when applying daylight and sunlight guidance to planning applications for new housing.

3.5 The relevant paragraph 123c states that local planning authorities "should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework".

3.6 It goes on to say: "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.)"

3.7 This aims to ensure that daylight and sunlight matters are not limited to an overly simplistic technical exercise against the BRE Guidelines recommendations without due regard for the current and future physical and planning context.

The London Plan

3.8 Policy 7.6, Architecture, states:

"Buildings and structures should:

A) be of the highest architectural quality

B) be of a proportion, composition, scale and orientation that enhances, activates and appropriately defines the public realm

C) comprise details and materials that complement, not necessarily replicate, the local architectural character

D) not cause unacceptable harm to the amenity of surrounding land and buildings, particularly residential buildings, in relation to privacy, overshadowing, wind and microclimate. This is particularly important for tall buildings.

E) incorporate best practice in resource management and climate change mitigation and adaptation

F) provide high quality indoor and outdoor spaces and integrate well with the surrounding streets and open spaces

G) be adaptable to different activities and land uses, particularly at ground level

H) meet the principles of inclusive design

I) optimise the potential of sites".

3.9 Policy 7.7, Location and Design of Tall and Large Buildings, notes that large buildings should not adversely affect their surroundings in terms of overshadowing:

"...should not affect their surroundings adversely in terms of microclimate, wind turbulence, overshadowing, noise, reflected glare, aviation, navigation and telecommunication interference."

Draft New London Plan

3.10 Policy D8, Tall Buildings, states:

"...daylight, sunlight penetration...around the building(s) and neighbourhood must be carefully considered and not compromise comfort and the enjoyment of open spaces."

And

"The middle of a tall building has an important effect on how much sky is visible from surrounding streets and buildings...and the amount of sunlight and shadowing there is in the public realm and by surrounding properties."

Housing SPG

3.11 Paragraph 1.3.45 of The Housing SPG states:

"...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 to higher density development, especially in opportunity areas, town centres, large 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."

3.12 In addition, paragraph (1.3.46) states:

"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."

3.13 The Housing SPG, therefore predicates the need to move away from applying the same daylight and sunlight values in all locations and promotes contextual analysis as a pertinent way of assessing acceptable levels of amenity.

The BRE Guidelines

3.14 The BRE Guidelines 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.

3.15 The Introduction of the BRE 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."

3.16 The 'flexibility' should reflect the specific characteristics of each case being considered. For example, as the numerical targets within the BRE 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.

3.17 In addition, where existing and proposed buildings have specific design features such as projecting balconies, deep recesses, bay windows etc., it is valid to apply a degree of flexibility to take account of the effect of these particular design features.

3.18 This does not mean that the recommendations and targets within the BRE 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.

<u>Daylight</u>

3.19 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.

3.20 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 No Sky Line ("NSL") by plotting the position of the 'existing' no sky line contour.

3.21 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.

3.22 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.

3.23 The NSL 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 considered.

3.24 For VSC, the BRE 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."

3.25 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, NSL, sunlight and overshadowing.

3.26 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, BS 8206 Part 2.

3.27 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 NSL tests have been completed.

3.28 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.

3.29 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.

3.30 Unlike the application of VSC and NSL, the British Standard differentiates between different room uses. It places the highest ADF standard on kitchens where the minimum target value is 2%, living rooms 1.5% and bedrooms 1.0%.

3.31 Note that BS 8206 part 2 has recently been withdrawn by BSi and superseded by the new European Standard BS EN 17037: 2018 Daylight in buildings. However, the BRE Guidelines currently refer to BS 8206 part 2 and as the two standards are quite different, for the time being, until the BRE Guidelines are rewritten, we are using BS 8206 part 2 in assessing the daylight and sunlight available in new buildings.

Sunlight

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

3.33 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 90º of due south. The BRE Guidelines therefore limit the extent of testing for sunlight where a window faces within 90º of due south.

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

3.35 The recommendation for sunlight is:

3.36 "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 .

3.37 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."

3.38 A good level of sunlight will therefore be achieved where a window achieves more than 25% Annual Probable Sunlight Hours ("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.

3.39 In Part 3.1 of the BRE Guidelines it is stated that the BS 8206 Part 2 criterion applies to rooms of all orientations, although if a room faces significantly north of due east or west it is unlikely to be met. This report however considers proposed windows within the Proposed Development which face within 90 degrees of due south only.

3.40 Further information can be found in Avison Young's Principles of Daylight and Sunlight in Appendix 2.

4. Assessment Results for Neighbouring Properties

4.1 Only habitable rooms within neighbouring residential properties are relevant for daylight and sunlight assessment. Non-habitable rooms within residential properties and commercial and educational neighbouring properties have been scoped out.

4.2 Best estimates have been made as to the uses of the neighbouring properties. Room types, such as habitable or non-habitable, have been estimated from external observation and where possible from online research.

4.3 The neighbouring properties which have been assessed are:

- 1E Parsifal Road;
- 1G Parsifal Road; and
- Parsifal House, 521 Finchley Road.

4.4 We have not accessed any of the neighbouring properties and where window locations, room layouts and dimensions are not known reasonable assumptions have been made, unless stated otherwise in this report.

4.5 With reference to the BRE Guidelines the daylight and sunlight assessments include VSC, NSL and APSH.

4.6 A detailed critique of the potential effects for each of the neighbouring properties follows.

1E Parsifal Road

4.7 Daylight and sunlight has been assessed on the basis of a floor plan obtained from Rightmove (copy in Appendix 3).

4.8 Referring to the technical spreadsheets in Appendix 4 and NSL drawings in Appendix 5, the Proposed Development is compliant with the BRE Guidelines.

1G Parsifal Road

4.9 Referring to technical spreadsheets in Appendix 4 and NSL drawings in Appendix 5, the Proposed Development is compliant with the BRE Guidelines.

Parsifal House, 521 Finchley Road

4.10 Referring to the drawing in Appendix 6, the whole of the Proposed Development sits beneath a 25 degree line struck from the centre point of the lowest window and, therefore, is unlikely to have a substantial effect upon the existing building. No further detailed checks are necessary.

5. Assessment Results for Light within the Proposed Development

5.1 We have worked alongside Granit Architects throughout the design process in order to maximise levels of light within the Proposed Development as far as reasonably possible.

5.2 The drawing in Appendix 7 show the two units assessed, whilst the daylight and sunlight analysis spreadsheets are also included.

5.3 Critically, the Proposed Development has been optimised for daylight, and this is demonstrated by the 100% pass rate in terms of ADF. In addition, sky can be seen across 80% or more of the room area for half of the rooms, whilst the remaining rooms will enjoy an NSL area between 34% and 71%.

5.4 In terms of sunlight, the BRE Guidelines acknowledge that a site's existing layout and other design constraints may impose orientation or sunlight constraints which may not be possible to overcome.

5.5 In this context, it has not been possible to fully meet the BRE Guidelines in relation to the two basement bedrooms. Nonetheless, bedrooms are considered by the BRE Guidelines as less sensitive and the circa. 10% APSH is reasonable in our professional opinion.

5.6 The remaining rooms assessed (two bedrooms and two study rooms) achieve BRE Guidelines compliant sunlight.

5.7 Overall, the two units will be reasonably sunlit.

6. Summary and Conclusions

6.1 The appropriateness of the Proposed Development has been considered against the BRE Guidelines and key policy documents.

6.2 There is compliance with the BRE Guidelines in terms of daylight and sunlight and the neighbouring properties.

6.3 In terms light within the Proposed Development, this has been optimised for daylight which is demonstrated by the ADF pass rate (100% of room meeting the minimum recommended standards). It has not been possible to fully meet the BRE Guidelines in relation to sunlight nonetheless the two units will be reasonably sunlit.

6.4 Overall, it is our professional opinion that the Proposed Development is acceptable in daylight and sunlight terms.

Appendix 1

3D Model Drawings

BRE01/ BRE02/ BRE03/ BRE04

Sources of Information

EXISTING BUILDING
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SURROUNDING BUILDINGS
GRANIT ARCHITECTS 3D MODEL 4 JULY 2019
1850_Parsifal_House_CURRENT_20190603.dwg

PROPOSED BUILDING
GRANIT ARCHITECTS 3D MODEL 4 JULY 2019
1850_Parsifal_House_CURRENT_20190603.dwg

AVISON YOUNG
08449 02 03 04
65 Gresham Street, London, EC2V 7NQ
www.gva.co.uk

Project Name
PARSIFAL HOUSE

Client
BTO Limited

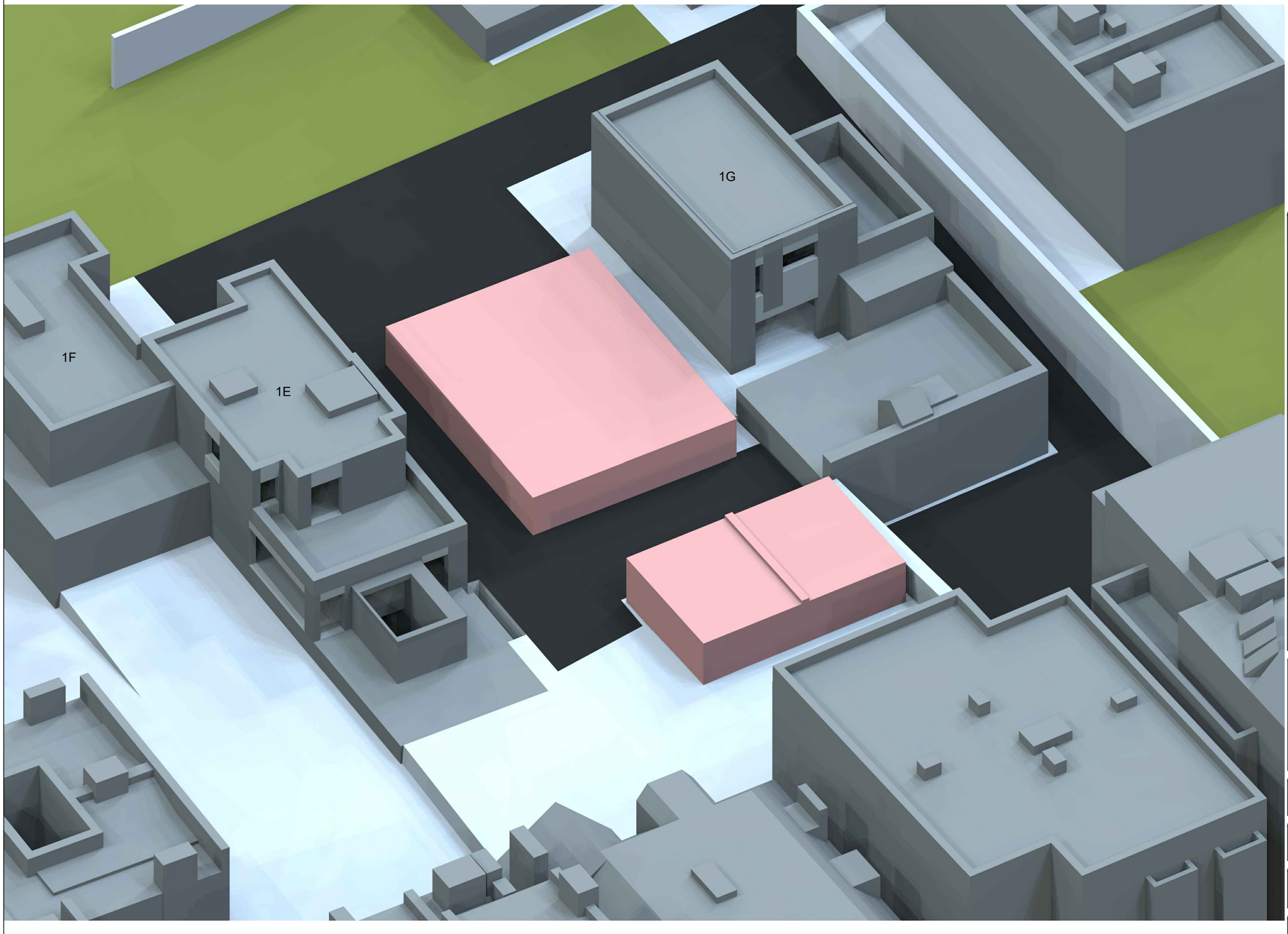
Drawing Title
EXISTING SITE
PLAN VIEW

Drawn By	Chk'd By	Scale @ A3	Date
AH		N/A	31 JULY 2019

Project No.	Drawing No.	Revision
PA105/01	BRE_01	

Daylight

A3



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AH		N/A	31 JULY 2019

Project No.	Drawing No.	Revision
PA105/01	BRE_02	

Daylight

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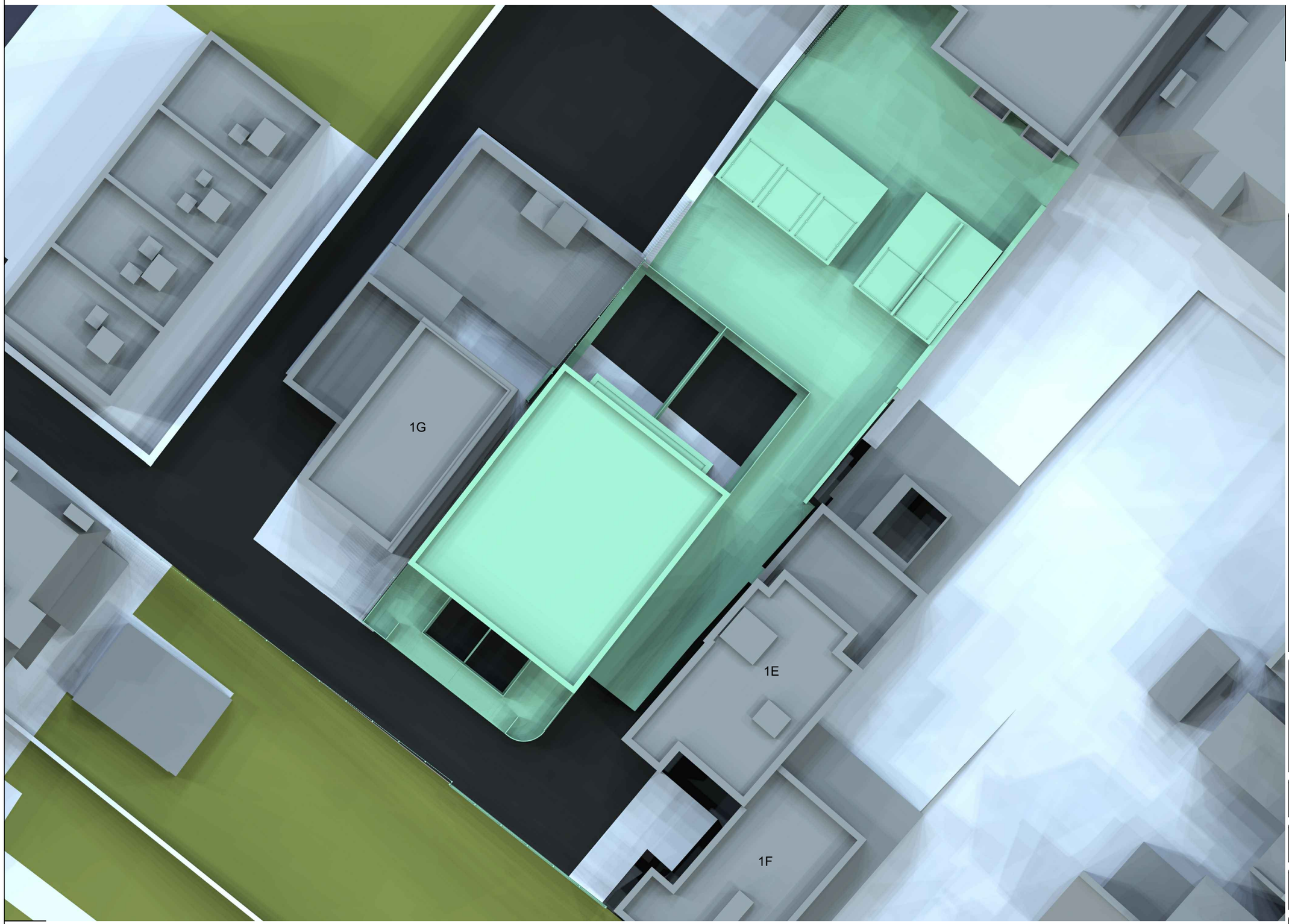

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Project Name
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Client
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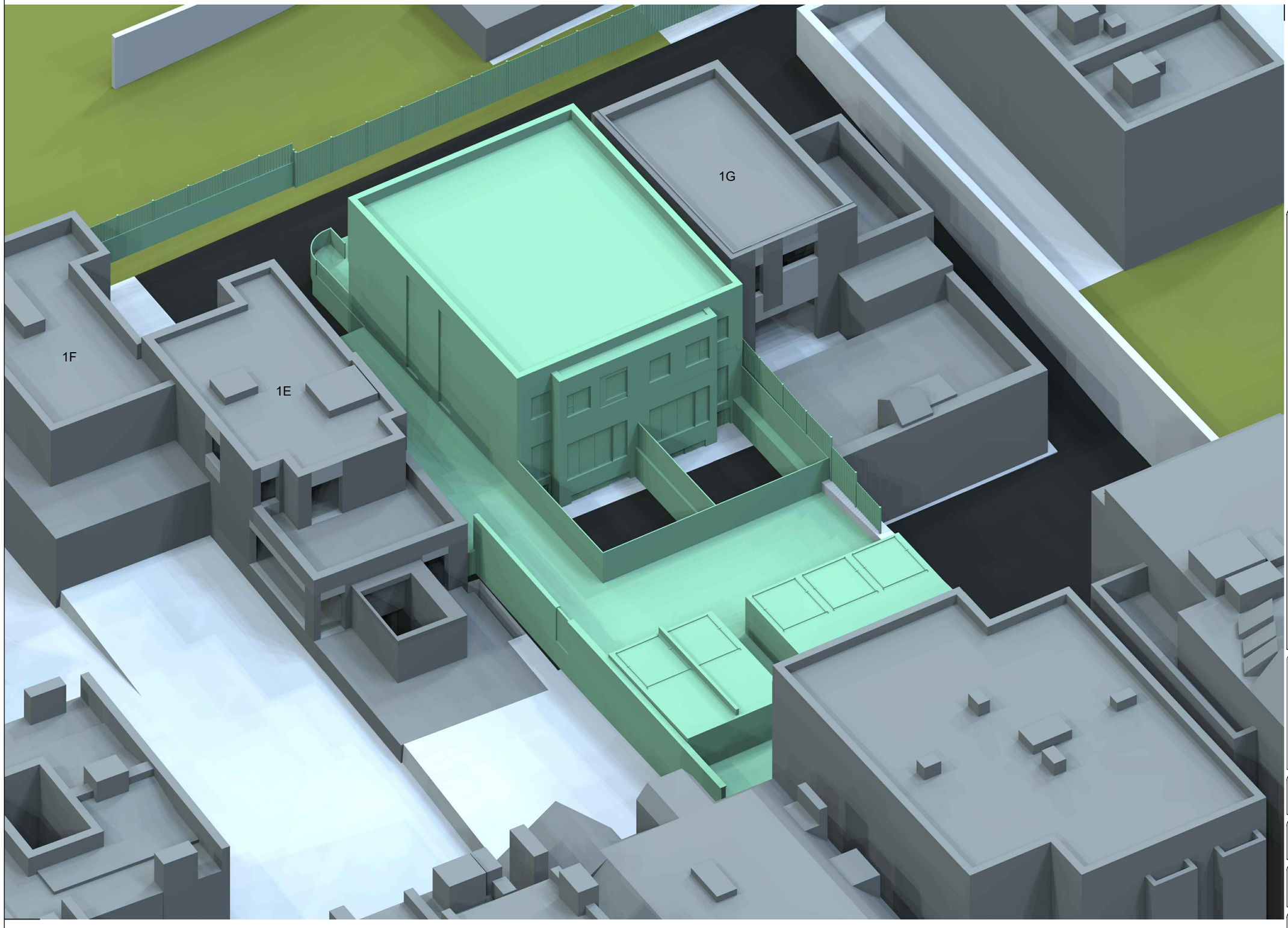
Drawing Title
PROPOSED SITE
PLAN VIEW

Drawn By	Chk'd By	Scale @ A3	Date
AH		N/A	31 JULY 2019

Project No.	Drawing No.	Revision
PA105/01	BRE_03	

Daylight

A3



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3D VIEW

Drawn By	Chk'd By	Scale @ A3	Date
AH		N/A	31 JULY 2019

Project No.	Drawing No.	Revision
PA105/01	BRE_04	

Daylight

A3

Appendix 2
Principles of Daylight & Sunlight

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 90º of due south. The BRE Guidelines therefore limit the extent of testing for sunlight where a window faces within 90º 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 3
Floor Plan

Floorplan for **6 bedroom semi-detached house for sale**

Approximate Square Footage Within Red Line **3348 Sq Ft - 311.03 Sq M**

(Excluding Void)

For Illustration Purposes Only - Not To Scale Floor Plan by www.ncgaphotostudio.com Ref: No 35469

Dexters

To view this property or request more details, contact Dexters, West Hampstead

349 West End Lane London NW6 1LT

Appendix 4
Technical Spreadsheets

AVISON YOUNG

Parsifal House

Daylight analysis results
Job 01
31-Jul-19

Room/Floor	Room Use	Window	%VSC			% Daylight Factor			Proposed No Sky	
			Exist	Prop	% Loss	Exist	Prop	% Loss	% of Room Area	% Loss of Existing
1g PARSIFAL ROAD										
Gnd Floor										
R1/21	UNKNOWN	W1/21	26.84	22.82	14.98%	2.88	2.60	9.56%	97.07%	2.14%
1st Floor										
R1/22	UNKNOWN	W1/22	31.95	28.19	>27	0.88	0.87	1.37%	92.87%	0.00%
		W2/22	32.23	31.34	>27					
1e PARSIFAL ROAD										
Base Floor										
R1/9	KD	W1/9	92.84	92.10	>27	7.46	7.38	1.01%	74.18%	0.00%
Gnd Floor										
R1/10	LOUNGE	W1/10	27.84	27.84	>27	2.70	2.68	0.78%	78.20%	0.00%
		W2/10	20.94	20.94	0.00%					
		W3/10	20.45	17.68	13.55%					
1st Floor										
R1/11	BEDROOM	W1/11	31.52	31.52	>27	2.19	2.19	0.00%	99.87%	0.00%
		W2/11	23.24	23.24	0.00%					
		W3/11	30.85	30.78	>27					

Parsifal House

Sunlight analysis results
Job 01
31-Jul-19

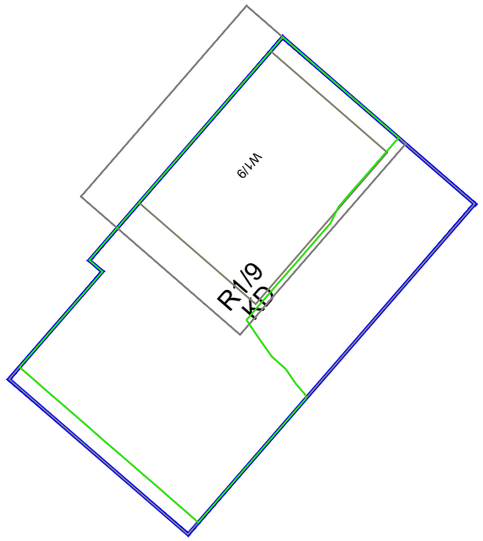
Available sunlight as a percentage of annual unobstructed total (1486.0 Hrs)

		Existing %			Proposed %					
Room use	Window Ref	Summer	Winter	Total	Summer	Winter	Total	% Loss of Summer	% Loss of Winter	% Loss of Total
1e PARSIFAL ROAD										
Base Floor										
KD	W1/9	61.00	15.00	76.00	58.00	15.00	73.00	4.92%	0.00%	3.95%
Gnd Floor										
LOUNGE	W1/10	38.00	16.00	54.00	38.00	16.00	54.00	0.00%	0.00%	0.00%
LOUNGE	W2/10	13.00	0.00	13.00	13.00	0.00	13.00	0.00%	0.00%	0.00%
LOUNGE	W3/10	0.00	0.00	0.00	0.00	0.00	0.00	0.00%	0.00%	0.00%
1st Floor										
BEDROOM	W1/11	43.00	18.00	61.00	43.00	18.00	61.00	0.00%	0.00%	0.00%
BEDROOM	W2/11	17.00	1.00	18.00	17.00	1.00	18.00	0.00%	0.00%	0.00%
BEDROOM	W3/11	18.00	1.00	19.00	18.00	1.00	19.00	0.00%	0.00%	0.00%

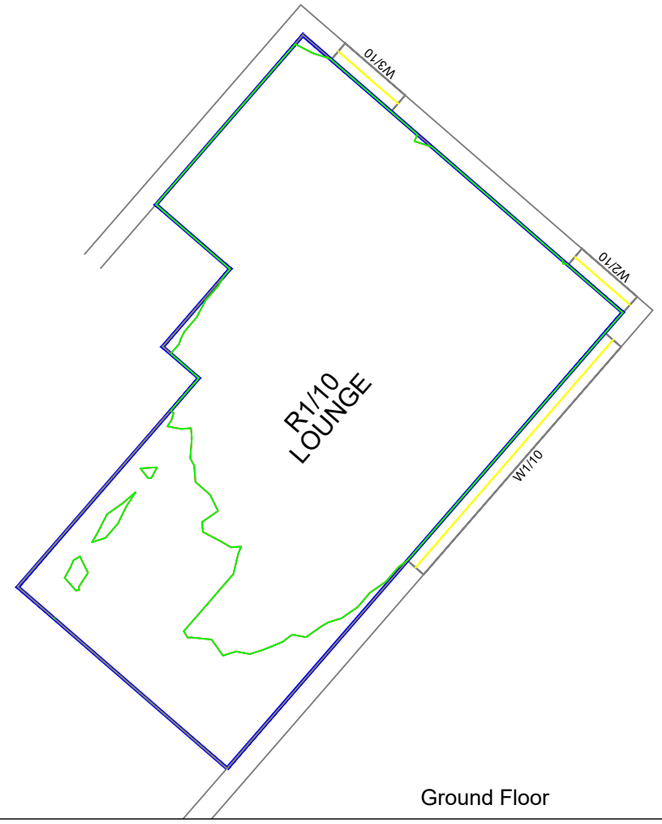
Appendix 5

No Skyline Contour Drawings

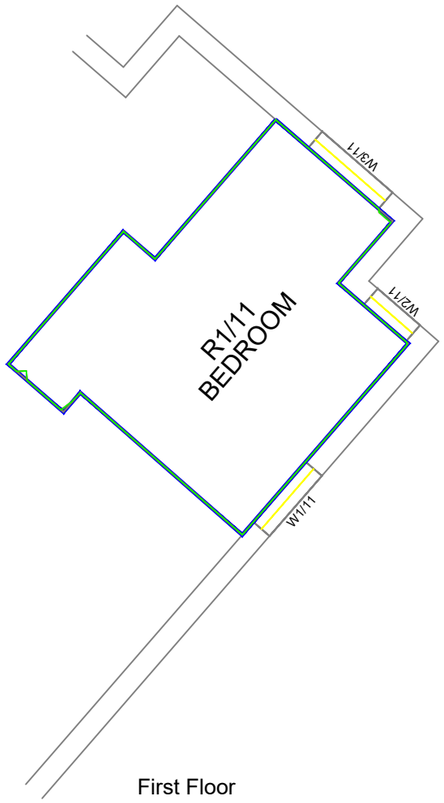
BRE/05 & BRE/06



Basement



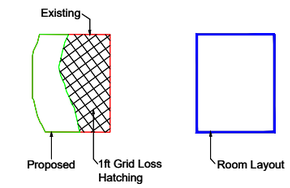
Ground Floor



First Floor

Legend

Daylight



Existing No-Sky Line Contour

Proposed No-Sky Line Contour

Sources of Information

EXISTING BUILDING
-
-

SURROUNDING BUILDINGS
GRANIT ARCHITECTS 3D MODEL 4 JULY 2019
1850_Parsifal_House_CURRENT_20190603.dwg

PROPOSED BUILDING
GRANIT ARCHITECTS 3D MODEL 4 JULY 2019
1850_Parsifal_House_CURRENT_20190603.dwg

AVISON YOUNG
08449 02 03 04
65 Gresham Street, London, EC2V 7NQ
www.gva.co.uk

Project Name
PARSIFAL HOUSE

Client
BTO Limited

Drawing Title
NO SKY-LINE CONTOURS FOR
1e PARSIFAL ROAD

Drawn By	Chk'd By	Scale @ A3	Date
AH		1:100	31 JULY 2019

Project No.	Drawing No.	Revision
PA105/01	BRE_05	

Daylight

A3

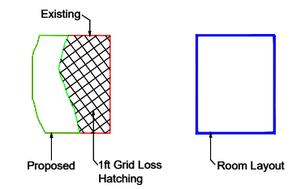
Do not scale this drawing.
All dimensions to be checked on site. Drawing to be read in conjunction with any specifications, schedules and Consultants drawings and details.

Ground Floor

First Floor

Legend

Daylight



Existing No-Sky Line Contour
Proposed No-Sky Line Contour

Sources of Information

EXISTING BUILDING
-
-

SURROUNDING BUILDINGS
GRANIT ARCHITECTS 3D MODEL 4 JULY 2019
1850_Parsifal_House_CURRENT_20190603.dwg

PROPOSED BUILDING
GRANIT ARCHITECTS 3D MODEL 4 JULY 2019
1850_Parsifal_House_CURRENT_20190603.dwg

AVISON YOUNG
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www.gva.co.uk

Project Name
PARSIFAL HOUSE

Client
BTO Limited

Drawing Title
NO SKY-LINE CONTOURS FOR
1g PARSIFAL ROAD

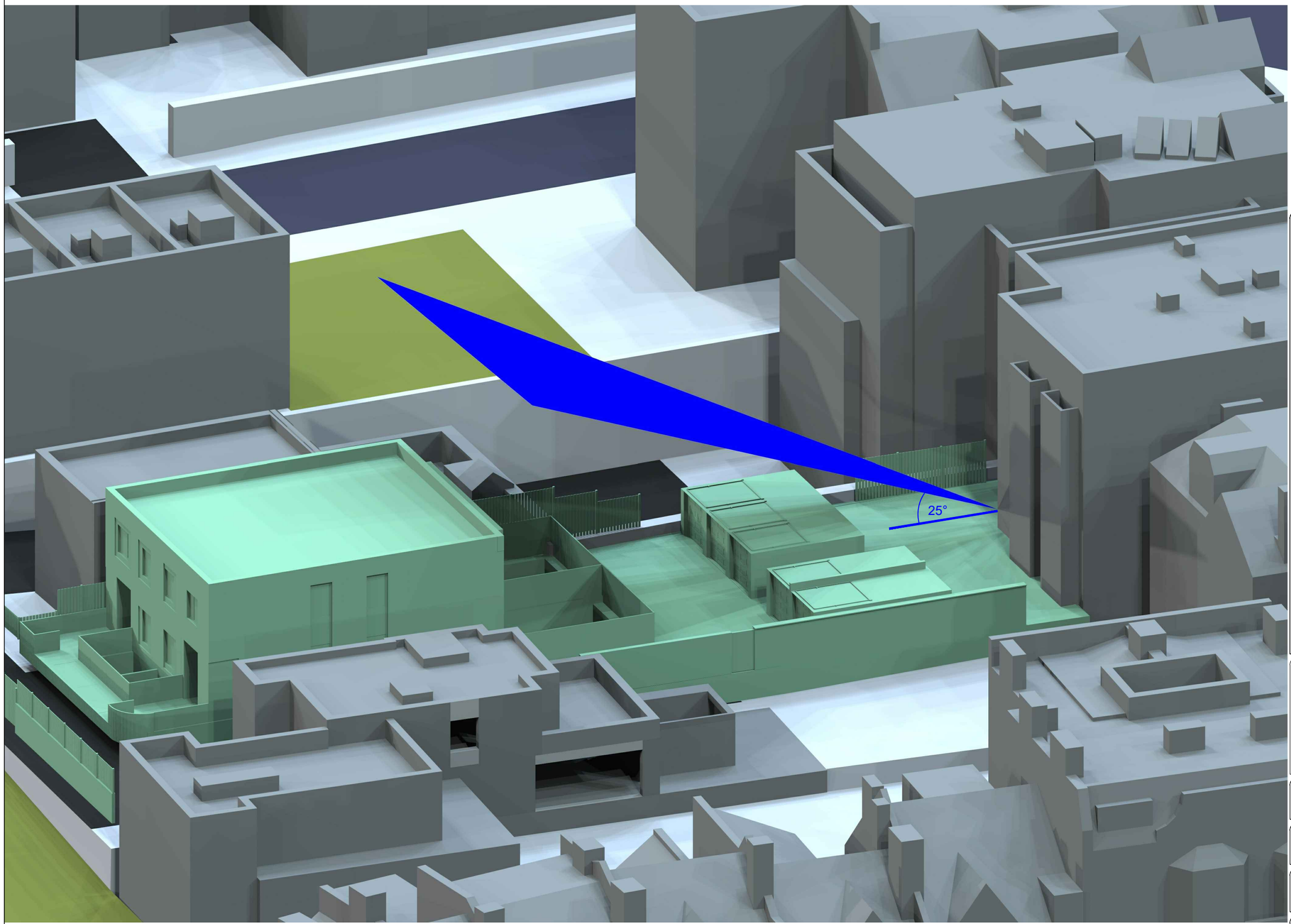
Drawn By	Chk'd By	Scale @ A3	Date
AH		1:100	31 JULY 2019

Project No.	Drawing No.	Revision
PA105/01	BRE_06	

Daylight

A3

Appendix 6
25 Degree Line Drawing BRE/07



Sources of Information

EXISTING BUILDING
-
-

SURROUNDING BUILDINGS
GRANIT ARCHITECTS 3D MODEL 4 JULY 2019
1850_Parsifal_House_CURRENT_20190603.dwg

PROPOSED BUILDING
GRANIT ARCHITECTS 3D MODEL 4 JULY 2019
1850_Parsifal_House_CURRENT_20190603.dwg

AVISON YOUNG

08449 02 03 04
65 Gresham Street, London, EC2V 7NQ
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Project Name
PARSIFAL HOUSE

Client
BTO Limited

Drawing Title
25 DEGREE LINE
3D VIEW

Drawn By	Chk'd By	Scale @ A3	Date
AH		N/A	31 JULY 2019

Project No.	Drawing No.	Revision
PA105/01	BRE_07	

Daylight

A3

Appendix 7

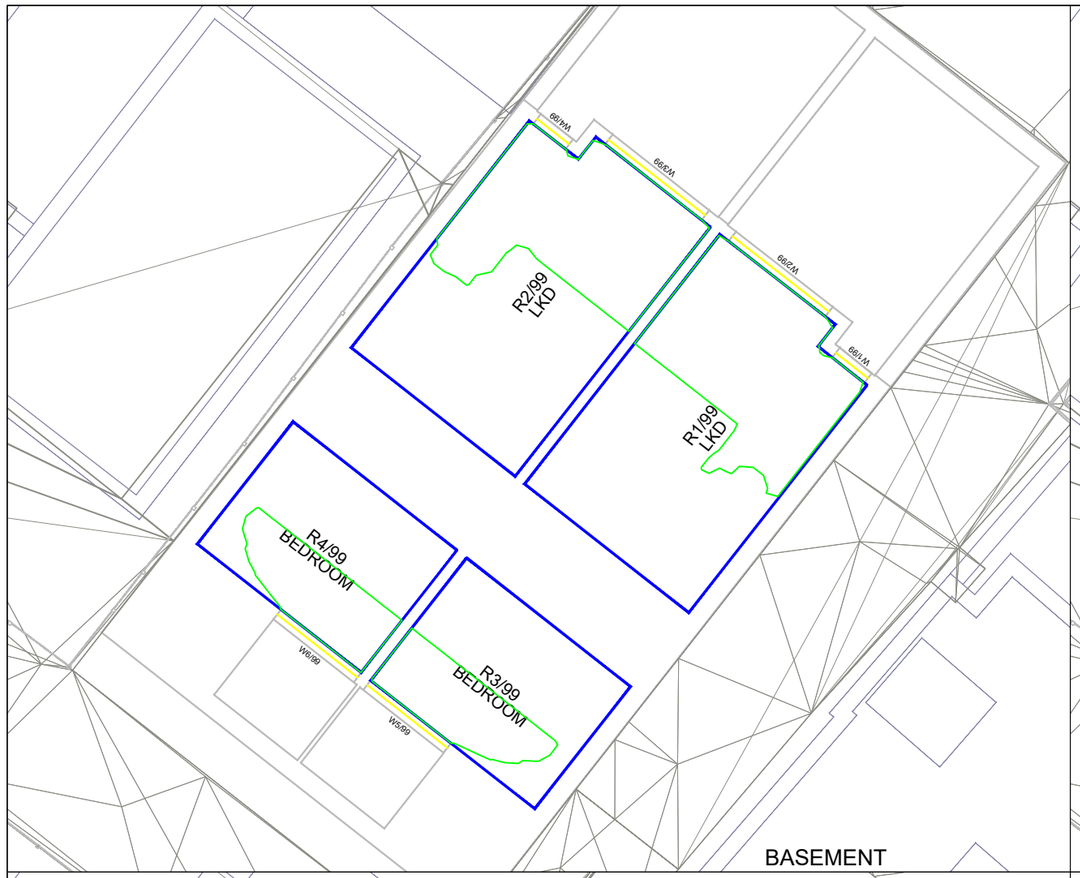
Technical Spreadsheet & No Skyline Drawing BRE/08

AVISON YOUNG

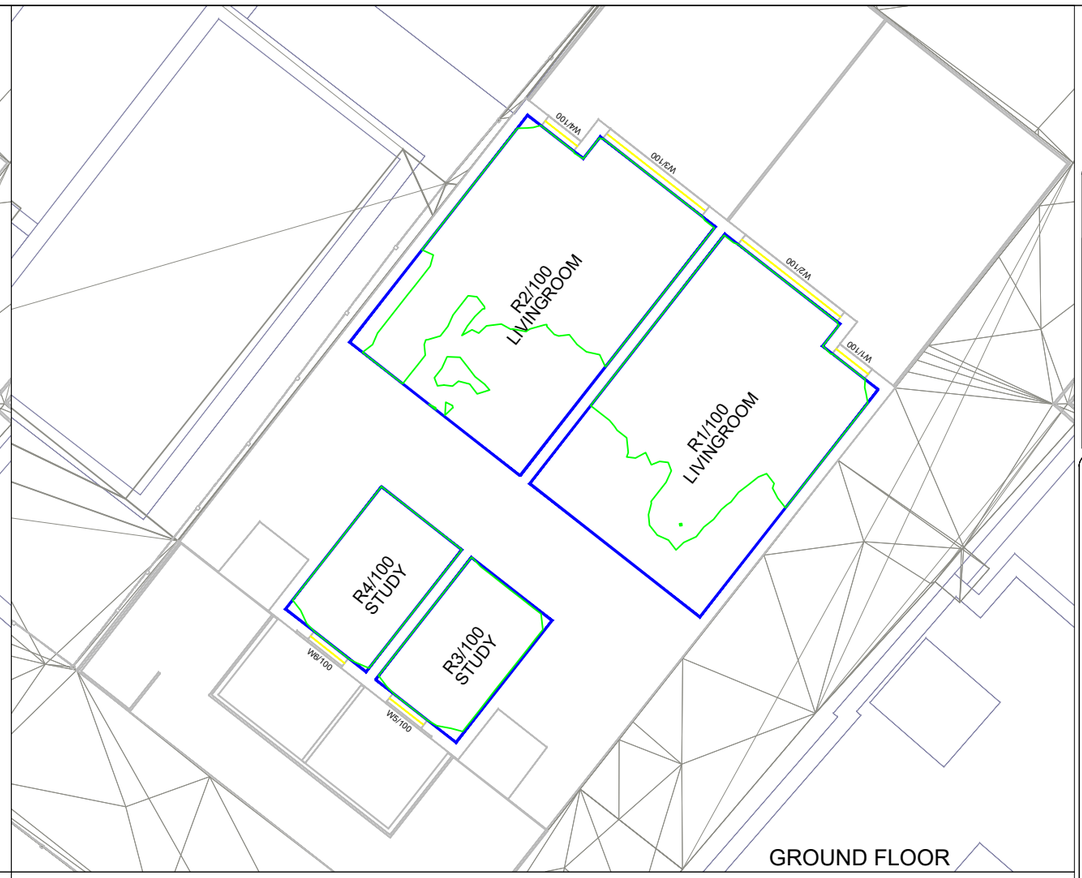
PARSIFAL HOUSE

Daylight and sunlight analysis results
Job 02
31-Jul-19

Room/Floor	Room Use	Window	%VSC	%ADF	No Sky % of Room	%Sun Summer	%Sun Winter	%Sun Total
PARSIFAL HOUSE								
Base Floor								
R1/99	LKD	W1/99	11.16	2.41	46.06%	N/A	N/A	N/A
		W2/99	14.50			N/A	N/A	N/A
R2/99	LKD	W3/99	13.46	2.25	46.09%	N/A	N/A	N/A
		W4/99	10.63			N/A	N/A	N/A
R3/99	BEDROOM	W5/99	6.09	1.81	33.89%	9.00	0.00	9.00
R4/99	BEDROOM	W6/99	6.11	1.82	33.89%	10.00	0.00	10.00
Gnd Floor								
R1/100	LIVINGROOM	W1/100	21.91	2.76	69.83%	N/A	N/A	N/A
		W2/100	28.71			N/A	N/A	N/A
R2/100	LIVINGROOM	W3/100	27.78	2.64	70.51%	N/A	N/A	N/A
		W4/100	17.13			N/A	N/A	N/A
R3/100	STUDY	W5/100	35.80	2.66	95.60%	33.00	22.00	55.00
R4/100	STUDY	W6/100	35.57	2.62	98.43%	32.00	20.00	52.00
1st Floor								
R1/101	BEDROOM	W1/101	26.19	2.55	99.30%	N/A	N/A	N/A
		W2/101	32.36			N/A	N/A	N/A
		W3/101	32.28			N/A	N/A	N/A
R2/101	BEDROOM	W4/101	32.24	1.84	96.34%	N/A	N/A	N/A
		W5/101	32.20			N/A	N/A	N/A
R3/101	BEDROOM	W6/101	38.18	3.37	98.13%	35.00	21.00	56.00
		W7/101	37.98			35.00	22.00	57.00
R4/101	BEDROOM	W8/101	37.72	3.40	97.86%	35.00	22.00	57.00
		W9/101	37.39			36.00	23.00	59.00



BASEMENT

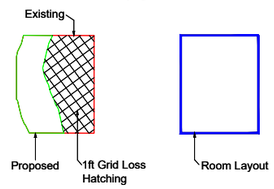


GROUND FLOOR

FIRST FLOOR

Legend

Daylight



Existing No-Sky Line Contour

Proposed No-Sky Line Contour

Sources of Information

EXISTING BUILDING
-
-

SURROUNDING BUILDINGS
GRANIT ARCHITECTS 3D MODEL 4 JULY 2019
1850_Parsifal_House_CURRENT_20190603.dwg

PROPOSED BUILDING
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Project Name
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Client
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Drawing Title
NO SKY-LINE CONTOURS FOR PARSIFAL HOUSE

Drawn By	Chk'd By	Scale @ A3	Date
AH		1:150	31 JULY 2019

Project No.	Drawing No.	Revision
PA105/02	BRE_08	

Daylight

A3

Contact Details

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Visit us online
avisonyoung.co.uk