

**REPORT**

**11A PARKHILL ROAD  
CAMDEN  
LONDON  
NW3 2YH**

**DAYLIGHT**

**TO**

**Proposed Accommodation**

**AUGUST 2018**

**BVP**  
BROOKE VINCENT + PARTNERS

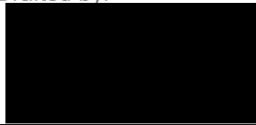


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06 August 2018

**11a Parkhill Road, Camden, NW3 2YH.**

**Daylight**

We are instructed to report upon the daylight aspects of this Planning Application in relation to the two bedrooms at lower ground level within the existing site building and the proposed accommodation.

Our report is based upon the existing and proposed 3D models prepared by Novel Architecture which has been extended by BVP to include neighbouring buildings.

**1.0 SUMMARY**

- 1.1 This report has been drafted by reference to the Building Research Establishment (BRE) publication (2011), "*Site Layout Planning for Daylight and Sunlight. A Guide to Good Practice*" and local planning policy.
- 1.2 Our studies have also confirmed that daylight received by the two bedrooms at lower ground level within the proposed accommodation, would achieve an improvement from the existing condition and would fully satisfy BRE criteria.
- 1.3 In summary, the architect has ensured the layout at lower ground level satisfies BRE's criteria, the London Plan and the relevant policy within Camden's Local Plan.

## **2.0 PLANNING POLICY**

### **2.1 London Borough of Camden**

#### Core Strategy (2010)

- 2.1.1 Camden's *Local Development Framework (LDF)*, November 2010, sets out the key elements of the Council's vision for the Borough through its Core Strategy. The relevant policies are listed below.

#### **POLICY CS5 – Managing the impact of growth and development**

The second part of this Policy confirms:

*"The Council will protect the amenity of Camden's residents and those working in and visiting the Borough by:*

- (e) Making sure that the impact of developments on their occupiers and neighbours is fully considered."*

In the explanatory notes following this Policy item 5.8 confirms: *"We will expect development to avoid harmful effects on the amenity of existing and future occupiers and nearby properties or, where this is not possible, to take appropriate measures to minimise potential negative impacts."*

#### Development Policies (2010)

#### **POLICY DP26 – Managing the impact of development on occupiers and neighbours**

*"The Council will protect the quality of life of occupiers and neighbours by only granting permission for development that does not cause harm to amenity. The factors we will consider include;*

- (c) Sunlight, daylight and artificial light levels."*

- 2.1.2 Camden also makes reference to the good practice guide detailed in item 3, 'Method of Calculation', which is used to compare the compatibility of the application to the stated Policies.

**The London Plan 2016 (Including Housing Standards minor alterations - March 2016)**

- 2.2 The London Plan forms part of Camden's Development Plan. The Housing Supplementary Planning Guidance (HSPG) 2016, defines in greater detail the London Plan's approach to Housing requirements and standards. Those aspects of the HSPG that are relevant to this report are mostly relevant to the London Plan **Policy 3.5 – Quality and Design of Housing Development**, and as detailed below.

**Housing Supplementary Planning Guidance – March 2016**

2.3 **Daylight and Sunlight**

**Standard 32** – *All homes should provide for direct sunlight to enter at least one habitable room for part of the day. Living areas and kitchen/dining spaces should preferably receive direct sunlight.*

The explanatory notes that follow Standard 32 include the following comments:

2.3.45 “... In addition to the above standards, BRE good practice guidelines and methodology can be used to assess the levels of daylight and sunlight achieved within new developments, taking into account guidance below and in Section 1.3”.

Section 1.3 is entitled ‘Optimising Housing Potential’ and confirms that “... ‘optimisation’ can be defined as ‘developing land to the fullest amount consistent with all relevant planning objectives’...”.

2.3.46 “Where direct sunlight cannot be achieved in line with Standard 32, developers should demonstrate how the daylight standards proposed within a scheme and individual units would achieve good amenity for residents...”.

2.3.47 *"BRE guidelines on assessing daylight and sunlight should be applied sensitively to higher density development in London, particularly in central and urban settings, recognising the London Plan strategic approach to optimising housing output (Policy 3.4) and the need to accommodate additional housing supply in locations with good accessibility suitable for higher density development (Policy 3.3). Quantitative standards on daylight and sunlight should not be applied rigidly without carefully considering the location and context and standards experienced in broadly comparable housing typologies in London".*

## 2.4 Dual Aspect

**Standard 29** – *Developments should minimise the number of single aspect dwellings. Single aspect dwellings that are north facing, or exposed to noise levels above which significant adverse effects on health and quality of life occur, or which contain three or more bedrooms should be avoided.*

The explanatory notes that follow Standard 29 include the following comments:

2.4.37 *"Dual aspect dwellings with opening windows on at least two sides have many inherent benefits. These include better daylight, a greater chance of direct sunlight for longer periods..."*

2.4.39 *"... The design of single aspect flats will need to demonstrate that all habitable rooms and the kitchen are provided with adequate ventilation, privacy and daylight and the orientation enhances amenity, including views. North facing single aspect dwellings should be avoided wherever possible. However, in applying this standard consideration should also be given to other planning and design objectives for a site, for example the aim to maximise active frontages and minimise inactive frontages".*

2.4.41 *"In single aspect dwellings with more than two bedrooms it is difficult to achieve adequate natural ventilation and daylight to all rooms in an efficient plan layout which avoids long internal corridors. Single aspect dwellings containing three or more bedrooms should therefore be avoided. The design of single aspect ground floor dwellings will require particular consideration to maintain privacy and adequate levels of daylight".*

## 2.5 Policy 7.6 Architecture –

*“...B. Buildings and structures should:*

*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.*

The explanatory notes that follow Policy 7.6 include the following comments:

*1.3.45 “Policy 7.6Bd requires new development to avoid causing ‘unacceptable harm’ to the amenity of surrounding land and buildings, particularly in relation to privacy and overshadowing and where tall buildings are proposed. An appropriate degree of flexibility needs to be applied when using BRE guidelines<sup>100</sup> 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”.*

*1.3.46 “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”.*

- 2.6 The London Plan and HSPG do not provide numerical values for daylight or sunlight. Those given in this report are based upon the BRE guidance referred to above, in explanatory note 2.3.47 and more fully detailed in the item that follows this.



### 3.0 **METHOD OF CALCULATION**

#### **Building Research Establishment**

- 3.1 The calculations and considerations within this report are based upon the Building Research Establishment (BRE) publication 2011 "Site Layout Planning to Daylight and Sunlight. A Guide To Good Practice" as a means of articulating their policy. BRE confirm that the Guide does not contain mandatory requirements and in the **Introduction** provides a full explanation of its purpose:-

*"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."*

*"It aims to help rather than constrain the designer."*

*"Although it gives numerical guidelines these should be interpreted flexibly since natural lighting is only one of many factors in site layout design."*

*"In special circumstances the developer or planning authority may wish to use different target levels. For example, in an historic city centre, or in an area with high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings."*

### 3.2 **Modelling and Results**

- 3.2.1 Our analysis and subsequent results are produced by the application of our specialist software on our three-dimensional model, images which are included in **Appendix 1**. This is based upon survey information, supplemented by photographs, plus the architect's planning drawings.
- 3.2.2 In this model, the neighbouring buildings are defined in green, the existing site building in blue and the proposed development in magenta.

- 3.2.3 Within **Appendix 1** we also include window references that can again be cross-referenced to the body of our report and the results sheets.

### 3.3 Daylight

- 3.3.1 Daylight is not specific to a particular direction, as it is received from the dome of the sky.
- 3.3.2 Reference is made in the BRE report to various methods of assessing the effect a development will have on diffused daylight.
- 3.3.3 The simplest methods are not appropriate in an urban environment, where the built form is invariably complex. Vertical Sky Component (VSC) is the calculation most readily adopted, as the principles of calculation can be established by relating the location of any particular window to the existing and proposed, built environment.
- 3.3.4 The BRE Guide 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° to the horizontal, then the diffused 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".*

- 3.3.5 Where the VSC calculation has been used, BRE also seeks to consider daylight distribution within neighbouring rooms, once again defining an adverse effect as a result that is less than 0.8 the former value. Access is rarely available and, in this instance, it was difficult to gain information of internal rooms.
- 3.3.6 The method of calculation for proposed accommodation is known as Average Daylight Factor (ADF). This is the most comprehensive of daylight calculations defined by BRE and is appropriate to proposed accommodation, because all relevant information is available.

3.3.7 The initial calculation is Vertical Sky Component which measures the value of daylight received at the centre of the window face. The area of glazing through which the light is transmitted, and the transmission value of the glazing is then considered. Within the room the total surface area is calculated, and a degree of reflection applied. The outcome is then compared to the values recommended by BRE. Assuming that the rooms are used in conjunction with artificial lighting the minimum recommended ADF levels are:-

2%	Kitchen or combined kitchen and living space
1.5%	Living room and study
1%	Bedroom

Where kitchens have been sited at the rear of the room these are to be served by task lighting in the modern mode.

3.3.8 Where a room is served by more than one window, ADF calculations are made in relation to each window and the individual results added together to provide the true ADF for that room. It should also be noted that full height glazing requires individual ADF calculations for those parts above and below the reference plane of 850mm above floor level. Hence the designation 'L' and 'U' against the result shown for a Living room; the lower reading being reduced in accordance with BRE guidance to satisfy the reduced effect this portion of daylight has on daylight received at the reference plane.

3.3.9 With regard to the ADF calculations for proposed accommodation, the following assumptions have been made with regard to the various elements that together are computed to produce the ADF value;

- Glazing transmittance – 0.68 for the double glazing (BRE default reading);
- Net glazed area of the window – 0.8 (BRE default reading)
- Interior surface reflectance – Bedroom 0.5 (BRE default 0.5)
- Reflectance beneath reference plane – Bedroom 0.15 (BRE default 0.15)

#### **4.0 DAYLIGHT RESULTS**

The proposal consists of a lower ground extension which includes two bedrooms and a cinema room at lower ground level. For the purpose of this report, we have been instructed to analyse the two bedrooms at lower ground level within the existing site building and the proposed accommodation. We have not tested the neighbouring buildings since the proposed additional mass is located at lower ground level and therefore, has no impact on the neighbouring buildings.

##### **4.1 Proposed Accommodation**

- 4.1.1 The images of the 3D model are in Appendix 1. The existing and proposed plans, as well as the ADF results (which is fully explained in item 3.3.6 to 3.3.9) for the two bedrooms, are in Appendix 2.
- 4.1.2 In the existing condition at lower ground level, Bedroom 2 is served by one window on the front elevation and Bedroom 3 is served by glazed patio doors on the rear elevation plus a small window. The ADF results confirm, Bedroom 2 achieves 0.25% and Bedroom 3 achieves 1.9%.
- 4.1.3 In the proposed condition, the Guest Bedroom is served by a window on the front elevation and a window within the new lightwell. Also, the existing metal staircase located on the front elevation is intended to be removed and therefore, has been modelled as such. Following the removal of the staircase, the Guest Bedroom achieves 1.16%. To the rear of the property, Bedroom 3 has been designed with larger glazed patio doors whilst preserving the small window. This bedroom now achieves 4.67%. The results confirm, the proposed layout would deliver an improvement in daylight values when compared to the existing layout. As a result, BRE criteria have been fully satisfied and there would be no adverse effect.

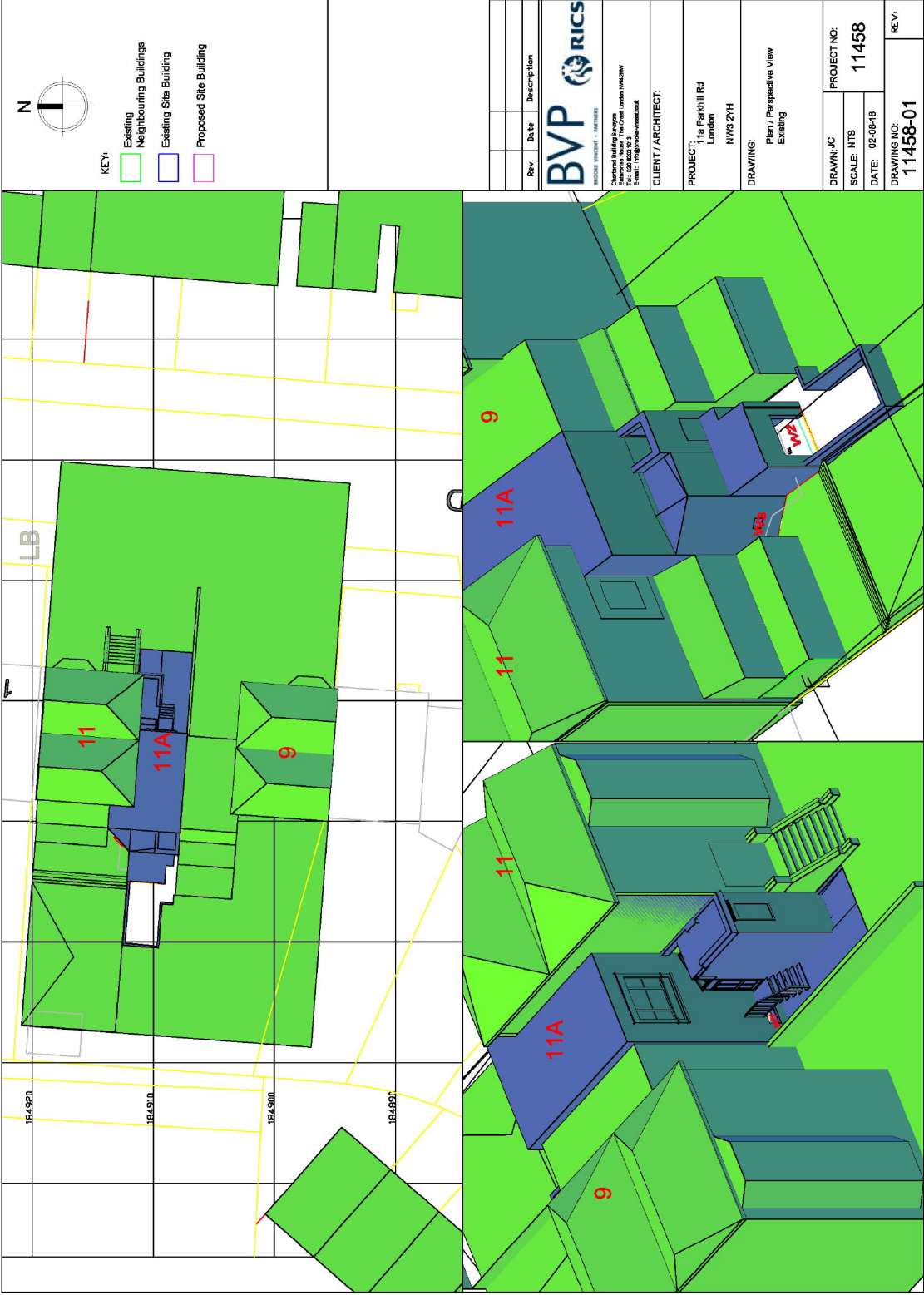
##### **4.2 Daylight Summary**

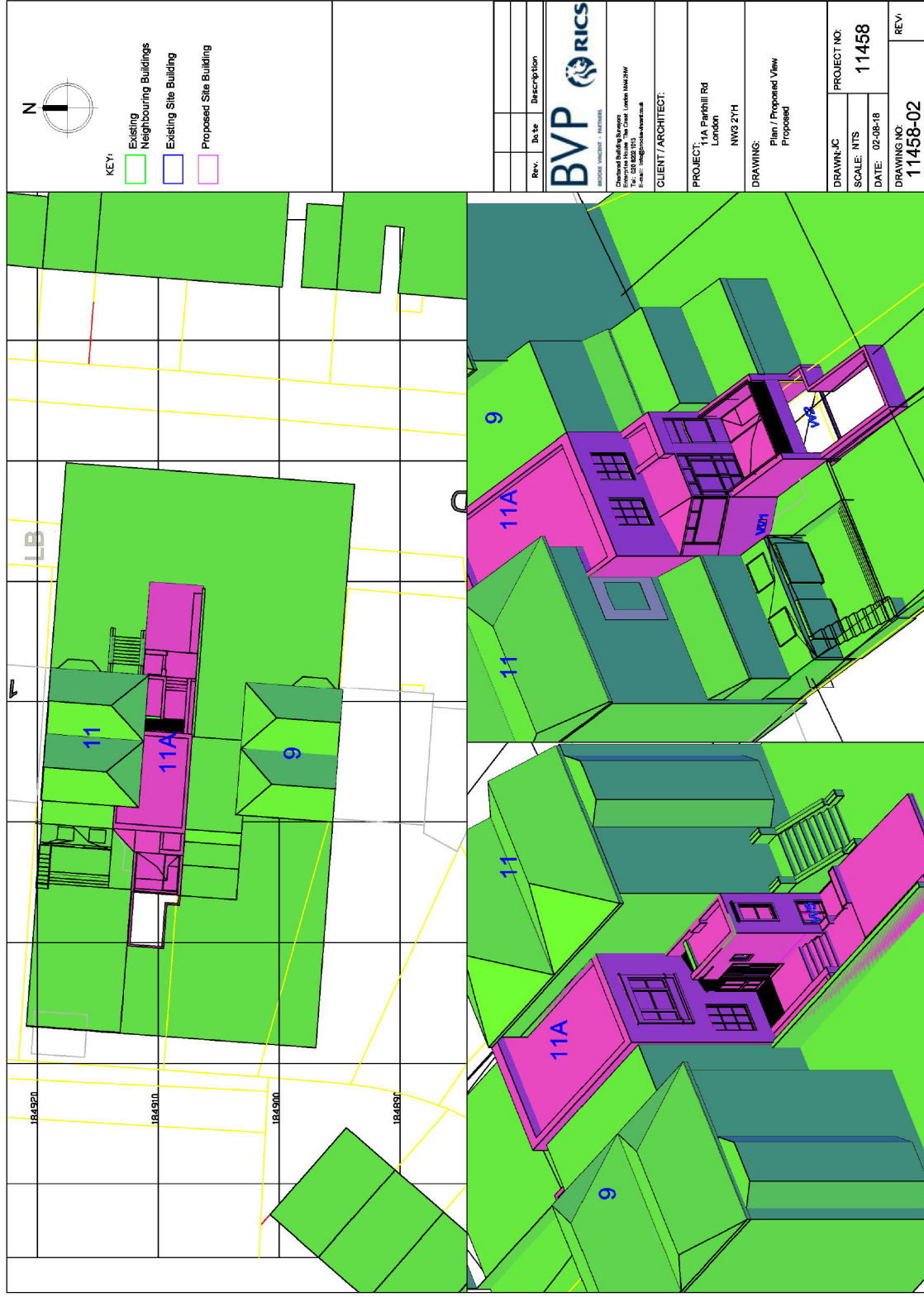
- 4.2.1 The proposed layout has been designed to ensure both bedrooms would achieve sufficient daylight which is confirmed by the satisfactory outcome. The ADF results exceed BRE criteria and show an improvement from the existing layout and therefore,

there would be no adverse effect. Furthermore, the local planning policy and the London Plan have also been satisfied.

## **APPENDIX 1**

### **LOCATION PLAN CAD MODEL**

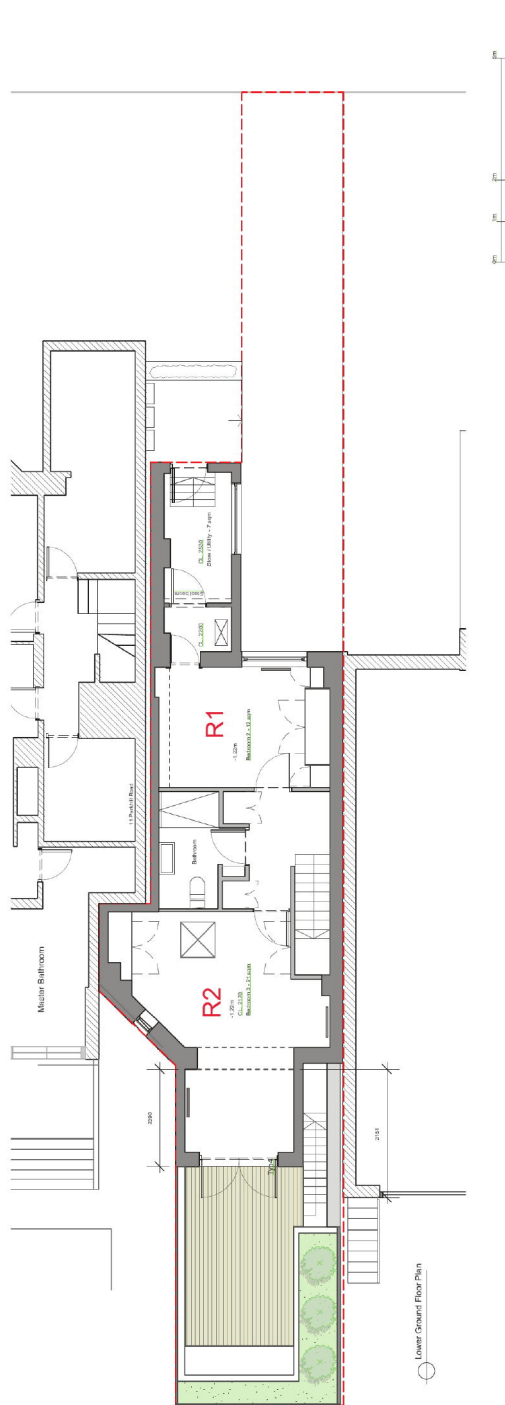
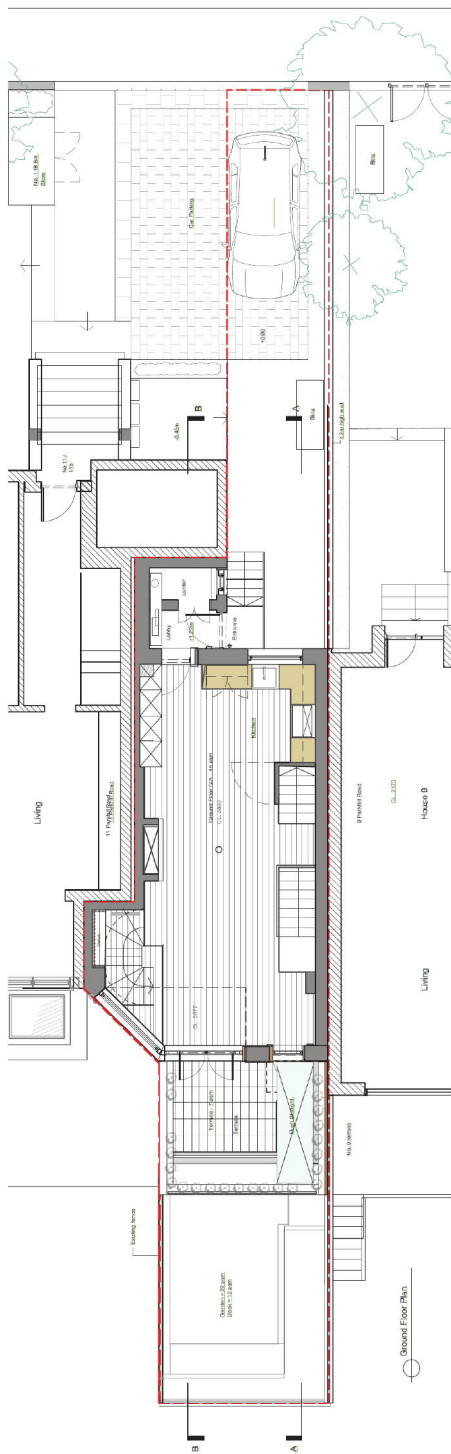






**APPENDIX 2**

**DAYLIGHT RESULTS  
TO  
PROPOSED ACCOMMODATION**



P1 Issued for Planning 13/07/18



**PROJECT**  
11a Parkhill Road

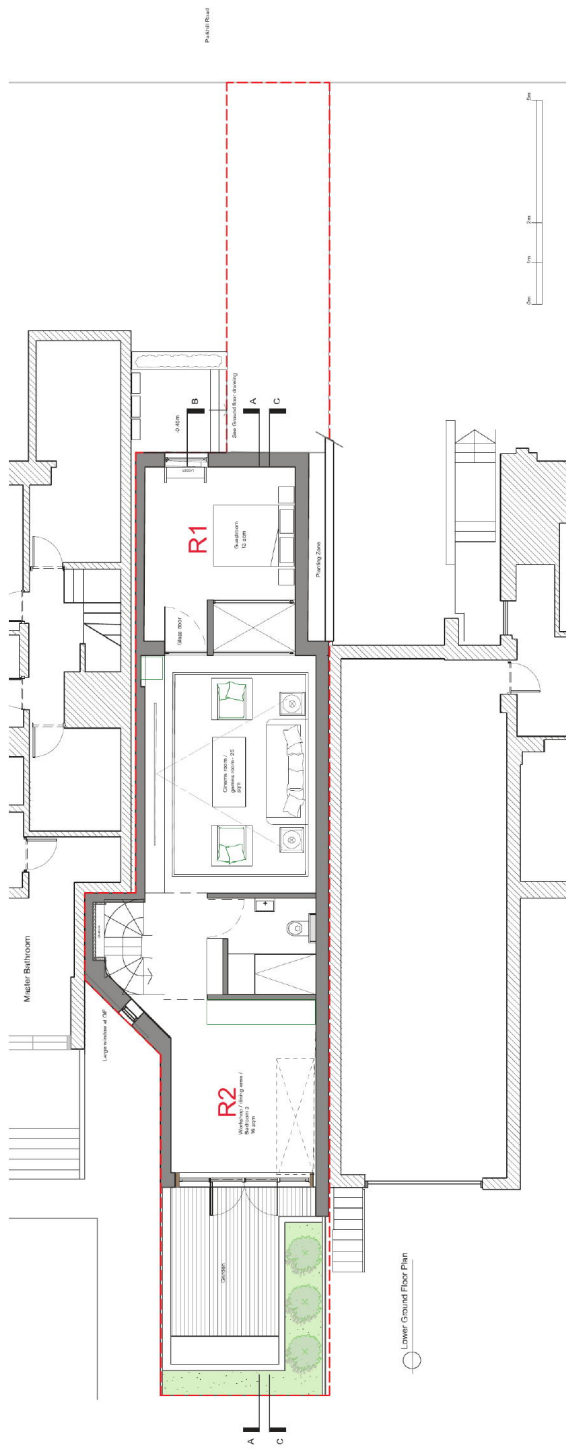
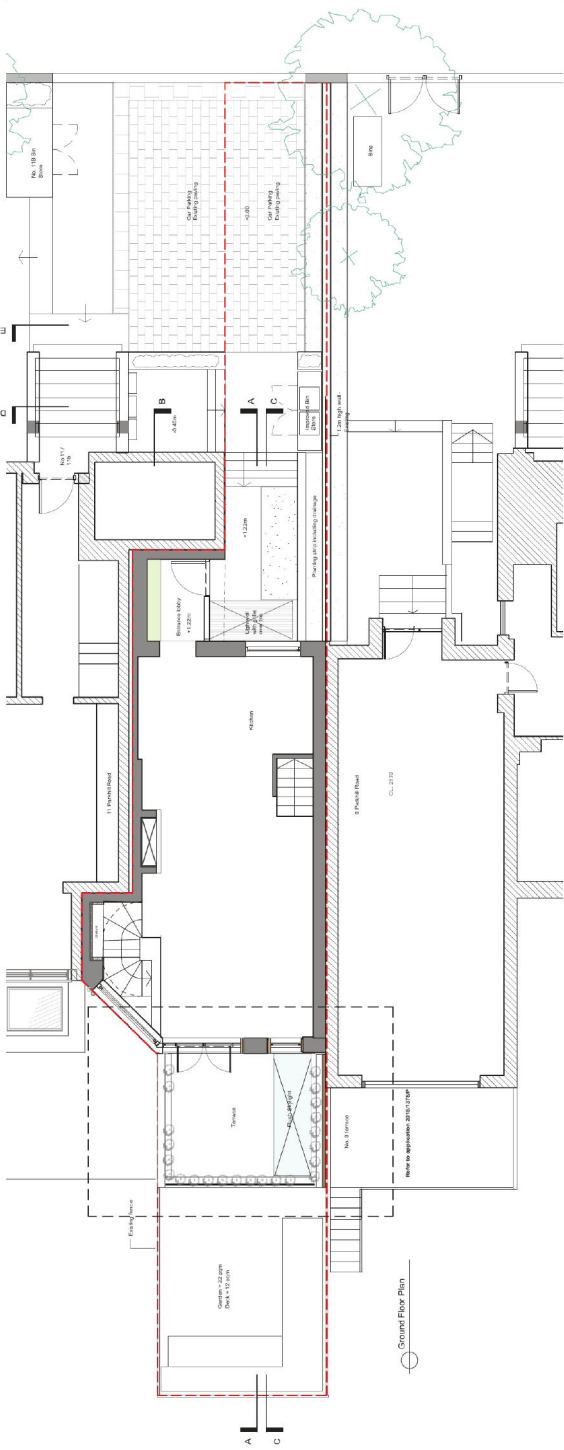
## Novel

Tel: 07830 165230  
Email: [info@studioovel.co.uk](mailto:info@studioovel.co.uk)

Existing Ground and Lower  
Ground Plan

DATE 20/05/18  
SCALE 1:100 @ A3

PL\_001



P1 Issued for Planning 13/07/18



**PROJECT**  
11a Parkhill Road

**Novel**

Tel: 07830 165200  
Email: info@novel.co.uk

Proposed Ground and Lower  
Ground Plan

DATE 30/06/18

SCALE 1:100 @ A3

PL\_004B

Project Name: Example Project No.: 1 Report Title: Average Daylight Analysis - Neighbour Test Date: 02/08/2018														
Floor Ref.	Room Ref.	Property Type	Room Use	Window Ref.	Glass Transmittance	Maintenance Factor	Glazed Area	Clear Sky Angle Existing	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Existing	Req'd Value	Meets BRE Criteria
11a Parkhill Road - Existing Layout														
Lower Ground	R1	Residential	Bedroom 2	W1	0.68	1.00	0.82	18.59	55.37	0.50	1.00	0.25	1.00	NO
Lower Ground	R2	Residential	Bedroom 3	W2-L	0.68	1.00	1.32	68.20	86.79	0.50	0.15	0.14	1.00	YES
				W2-U	0.68	1.00	1.94	82.22	86.79	0.50	1.00	1.66		
				W3	0.68	1.00	0.18	49.80	86.79	0.50	1.00	0.09		
												1.90	1.00	YES

Project Name: Example Project No.: 1 Report Title: Average Daylight Analysis - Neighbour Test Date: 02/08/2018														
Floor Ref.	Room Ref.	Property Type	Room Use.	Window Ref.	Glass Transmittance	Maintenance Factor	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Req'd Value	Meets BRE Criteria
11a Parkhill Road - Option 4B														
Lower Ground	R1	Residential	Guest Bedroom	W4-L	0.68	1.00	1.07	1.11	68.38	0.50	0.15	0.00	1.00	YES
				W4-U	0.68	1.00	2.12	1.06	68.38	0.50	1.00	0.03		
				W5	0.68	1.00	1.49	57.30	68.38	0.50	1.00	1.13		
Lower Ground	R2	Residential	Bedroom 3	W1	0.68	1.00	0.18	52.16	72.77	0.50	1.00	0.12	1.00	YES
				W2-L	0.68	1.00	2.06	56.73	72.77	0.50	0.15	0.22		
				W2-U	0.68	1.00	4.42	78.73	72.77	0.50	1.00	4.33		
												1.16	1.00	
												4.67	1.00	