REPORT

328e-h Kilburn High Road NW6 2QN London

DAYLIGHT & SUNLIGHT TO NEIGHBOURING PROPERTIES & PROPOSED ACCOMODATION

June 2017



CONTENTS OF REPORT

		<u>Page</u>
1.	SUMMARY	1
2.	PLANNING POLICY	2
3.	METHOD OF CALCULATION	5
4.	DAYLIGHT RESULTS	10
5.	SUNLIGHT RESULTS	13
6.	OVERSHADOWING RESULTS	14

Appendices: 1. Location Plan, CAD Model

- 2. Daylight and Sunlight Results Neighbouring Properties
- 3. Daylight and Sunlight Results Proposed Accommodation
- 4. Overshadowing Results Neighbouring Properties

Drafted by:

Checked by:

Roberta Mancini MArch For Brooke Vincent + Partners

email: roberta.mancini@brooke-vincent.co.uk

John Carter FRICS For Brooke Vincent + Partners

email: john.carter@brooke-vincent.co.uk



CHARTERED BUILDING SURVEYORS, ENTERPRISE HOUSE, THE CREST, LONDON NW4 2HN www.brooke-vincent.co.uk Tel 020 8202 1013

29th June 2017

328e-h Kilburn High Road, London NW6 2QN

Daylight & Sunlight

We are instructed to report upon the daylight and sunlight aspects of this Planning Application in relation to neighbouring residential properties and proposed accommodation.

Our report is based upon the scheme drawings prepared by B+R Architects, survey information and photographs, plus daylight and sunlight studies.

1.0 <u>SUMMARY</u>

- 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 confirmed that in all locations the amenity values of daylight to neighbouring residential properties would be retained to a level that satisfies BRE criteria. Sunlight availability to neighbouring residential properties would also be satisfied, except for a single value in winter months. A good set of results which should not be negated by a simple value, especially when the annual sunlight availability would remain greatly in excess of BRE guidelines.
- 1.3 Our studies have confirmed daylight within the proposed accommodation would satisfy BRE criteria within all habitable rooms. Sunlight availability would vary in response to aspect. The architect has ensured that any living room which does not benefit from a southerly aspect would receive significantly high levels of daylight in accordance with the recommendations of the London Plan.
- 1.4 In summary, the scheme has been designed to respect BRE's criteria and therefore the relevant policy within Camden's Local Plan.



Directors: David Sirman MRICS Andrew Cornick BSc(Hons) MRICS Consultant: John Carter FRICS Brooke Vincent + Partners is the trading name of Brooke Vincent Limited, a company Registered in England and Wales No.6009355. Registered address as above.

2.0 PLANNING POLICY

London Borough of Camden

2.1.1 Camden's current policy information is included within the Core Strategy (2010) However we have also included the relevant policy information from the Draft Local Plan document which was issued in June 2016.

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 (2010-2025)

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."

Draft Local Plan:

Policy A1 Managing the impact of development

The Council will seek to protect the quality of life of occupiers and neighbours by only granting permission for development that does not cause harm to amenity. We will protect the amenity of Camden's residents and those working in and visiting the borough by:...

e. sunlight and daylight;

- 2.2 The London Plan 2016 (Including Housing Standards minor alterations March 2016)
- 2.2.1 The London Plan forms part of Camden's planning policy. 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

2.2.2 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".

2.2.3 **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:

2.3.37 "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...".

2.3.39 "... 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".

2.3.41 "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".

2.2.4 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". This is referred to by Local Authorities 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 of which are included in Appendix 1. This is based upon survey information, supplemented by photographs, plus the architect's planning drawings also included in Appendix 1.
- 3.2.2 In this model, the existing site building is defined in blue, the neighbouring buildings in green and the proposed building in magenta.

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 we have therefore taken a reasoned approach.

- 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; 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 daylight, 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 Living Room 0.6 (BRE default 0.5)

- Bedroom - 0.5 (BRE default reading)

• Reflectance beneath reference plane – 0.15 (BRE default reading)

3.4 Sunlight

- 3.4.1 The BRE *Guide to Good Practice* confirms:
 - (i) Sunlight is only relevant to neighbouring residential windows which have a view of the proposed development and face within 90° of south, i.e. south of the eastwest axis.
 - (ii) If any part of a new development subtends an angle of more than 25° to the horizontal measured from the centre of the main living room window, a vertical section perpendicular to the window, then the sunlighting in the existing dwelling may be adversely affected.
 - (iii) Similarly, the sunlight availability to an existing dwelling may be adversely affected if the APSH, when measured at the centre of the window is reduced by more than 4%.
 - (iv) Should the loss be greater than 4%, then sunlight availability may be adversely affected if the centre of the window receives less than 25% of the annual probable sunlight hours, of which 5% of the annual total should be received between 21 September and 21 March (winter) and less than 0.8 times its former sunlight hours during either period.
 - (v) Kitchens and bedrooms are less important, although care should be taken not to block too much sun.
- 3.4.2 Proposed accommodation "will appear reasonably sunlit provided":-
 - at least one main window wall faces within 90° of due south; and
 - the centre of at least one window to a main living room can receive 25% of annual probably sunlight hours, including at least 5% of annual probable sunlight hours in the winter months between 21 September and 21 March.

 In housing, the main requirement for the sunlight is living rooms... It is viewed as less important in bedrooms and in kitchens.

3.5 Permanent Overshadowing

3.5.1 BRE explains that sunlight in the spaces between buildings has an important impact and is important for a number of reasons. It therefore recommends that:-

"The availability of sunlight should be checked for all open spaces where it will be required. This would normally include:-

- gardens, usually the main back garden of a house;
- parks and playing fields;
- outdoor swimming pools and paddling pools;
- sitting out areas, such as those between non-domestic buildings and in public squares;
- focal points for views, such as a group of monuments or fountains.
- 3.5.2 BRE recognises that each of these spaces will have different sunlight requirements and suggests the Equinox (21 March) is chosen as a date for assessment:-

"It is recommended that at least half of the amenity areas listed above should receive at least two hours of sunlight on 21 March. If a detailed calculation cannot be carried out and the area is a simple shape, it is suggested that the centre of the area should receive at least two hours of sunlight on 21 March."

4.0 DAYLIGHT RESULTS

Neighbouring Buildings

North, North-East

- 4.1 330-336 Kilburn High Road
- 4.1.1 Adjacent to the north of the development site stands this terrace of buildings. Windows on the rear elevation and extensions have a view of the proposed building and have been tested.
- 4.1.2 The VSC results in Appendix 2 show that in most locations, the proposed VSC would retain the BRE's benchmark figure of 27%. Wherever proposed VSC values are less than 27%, reference needs to be made to the guidance and this is reiterated in item 3.3.4 of this report. This clearly states that an adverse effect may only occur if proposed VSC is not only less than 27% but also less than 0.8 its former (existing) value. In all locations, the windows would remain well above 0.8 the existing value, and there would be no adverse effect.
- 4.1.3 We have given consideration to the room size and Daylight Distribution within the only location where the proposed VSC would be below 27%. The result is again referred to in Appendix 2. The results confirm that the room would remain above 0.8 the existing value and there would be no adverse effect. BRE criterion has been satisfied.
- 4.2 338 Kilburn High Road 2a Iverson Road
- 4.2.1 Further north at the junction between Kilburn High Road and Iverson Road stands this building recently converted into residential accommodation. The few windows on the rear elevation serve non-habitable space and therefore, there is no daylight criteria to satisfy.

4.3 2-6 Iverson Road

- 4.3.1 This terrace stands to the north east of the development site. The windows on the rear elevation would remain above 27% VSC in the great majority of locations. Where this would not happen, the proposed values would be retained above 0.95 the existing value. BRE criterion would be fully satisfied.
- 4.3.2 Again we have tested Daylight Distribution in the locations where the VSC would be below the 27% BRE benchmark. The results in Appendix 2 confirm the daylight levels within the rooms would remain unchanged in the proposed condition and therefore, there would be no adverse effect.
- 4.3.3 No further consideration has been given to windows W2 first floor at 6 Iverson Road as it is sited on the flank elevation of the rear extension and it is likely to serve a bathroom.

South

4.4 To the south of the development site is the railway line and embankment. Residential accommodation to this side of the site are either to distant or have no view of the proposed building and therefore, no further consideration is made in this report.

West

- 4.5 361 Kilburn High Road Globe Mansions
- 4.5.1 To the west and on the other side of Kilburn High Road stands this recently built block of flats with commercial units at ground floor. Windows at first floor level directly facing the proposal have been tested. The values, as stated below, confirmed that no purpose would be served by testing windows at higher levels.
- 4.5.2 All first floor windows would retain VSC readings above 27% in all but one location. The exception would be window W6, which serves the same room as W5, where the proposed value would remain well above 0.8 the existing value. There would be no adverse effect.

4.5.3 The daylight distribution results confirm the daylight within these rooms in the proposed condition would be BRE complaint, either remaining unchanged or in any case above 0.8 the former value.

4.6 Proposed Accommodation

- 4.6.1 We have analysed ADF (which is fully explained in item 3.3.6 to 3.3.9) to all habitable rooms and the results are detailed within Appendix 3.
- 4.6.2 The results confirm ADF would be above to the BRE's recommended values in all locations and therefore, the relevant criterion has been fully satisfied.

4.7 Daylight Summary

- 4.7.1 The VSC and Daylight Distribution results of neighbouring residential properties confirm the proposed development would not cause any adverse effect to neighbouring buildings.
- 4.7.2 Within the proposed accommodation, the architect has ensured that all the habitable rooms would receive the benefit of good daylight.

5.0 SUNLIGHT RESULTS

5.1 Neighbouring Residential Buildings

- 5.1.1 The sunlight results are defined by the two right hand columns in Appendix 2 and adjacent to the VSC results.
- 5.1.2 Windows that do not face within 90° degrees of south are classified as 'north facing'. In these circumstances there is no criterion to meet.
- 5.1.3 The results for windows that face within 90° degrees of south demonstrate that when consideration is given to BRE's recommended values, there would be no adverse effect. Only one location, window W1 first floor at 332 Kilburn High Road, would have the winter sunlight reduced from 9% to 3%. A result that is slightly below the BRE benchmark of 5%. The annual sunlight would be 35%, significantly above BRE recommendation and the overall outcome would be more than acceptable.

5.2 Proposed Accommodation

- 5.2.1 Site constraints in the urban environment often make sunlight availability recommendations difficult to achieve. This has been fully considered by the architect and the design has ensured that all the living rooms have windows facing close to east or west.
- 5.2.2 Furthermore, by reference to item 2.3 of this report, the London Plan HSPG Standard32, suggests where direct sunlight cannot be achieved a good standard of daylight should be provided.
- 5.2.3 The daylight ADF would be above BRE recommendation in all the proposed living rooms and in most cases, by a significant amount. This confirms that a good amenity would be retained to the living room windows that are not south facing.

5.3 Summary

5.3.1 Sunlight availability to neighbouring residential properties that face within 90° of south would demonstrate that BRE's recommended values have been satisfied with a single,

winter period exception. In our experience, this is a very good outcome in a central urban environment.

5.3.2 The proposed accommodation has a layout which has been well-considered and accords with the latest recommendations of the London Plan (2016).

6.0 OVERSHADOWING RESULTS

6.1 For the purposes of this report, we have analysed the closest neighbouring amenity areas named below. We refer to the Permanent overshadowing contours within Appendix 4, which represent conditions on 21 March.

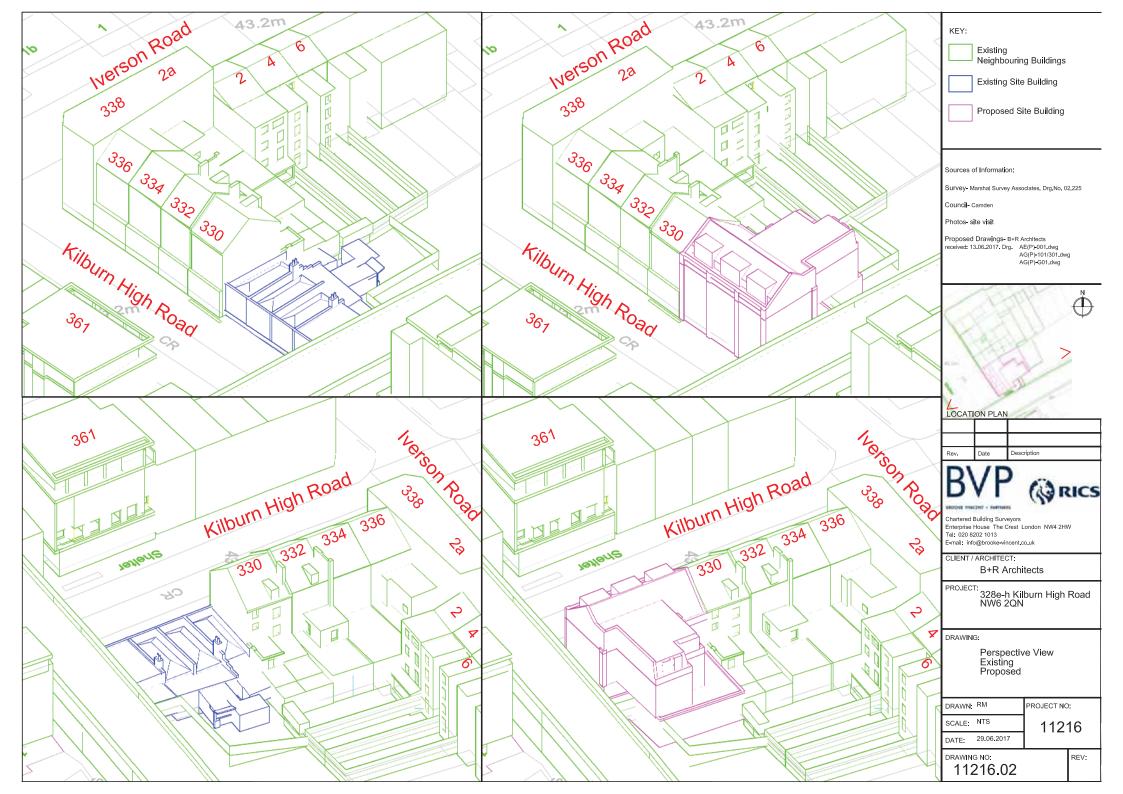
2 Iverson Road 4 Iverson Road

6.2 In all locations the value would remain above 0.8 the existing amenity value and the proposed development would not be the cause of any adverse effect. BRE criterion has been satisfied.

APPENDIX 1

LOCATION PLAN CAD MODEL





APPENDIX 2

DAYLIGHT AND SUNLIGHT RESULTS TO NEIGHBOURING PROPERTIES

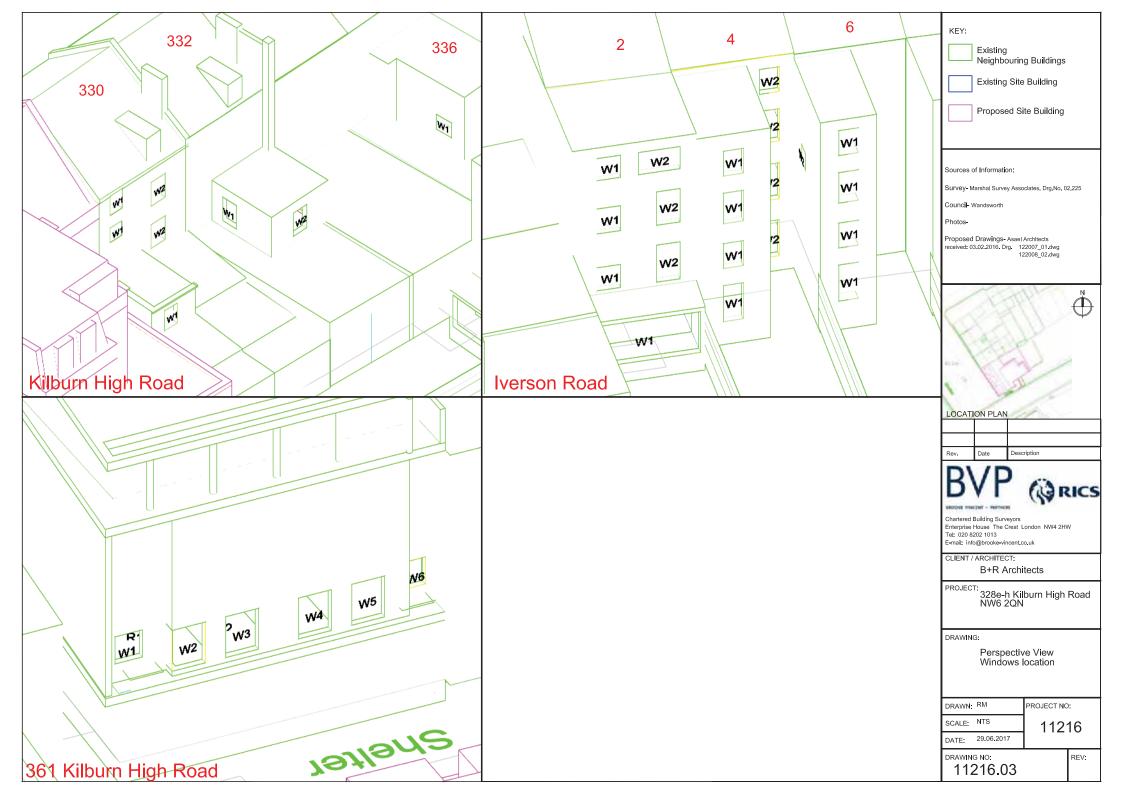
Project Name:328e-h Kilburn Hgigh Road Project No.: 11216 Report Title: Daylight & Sunlight - Neighbour Analysis Test Date of Analysis: 29/06/2017

Floor Ref.	alysis: 29/06 Room Ref.	Window Ref.		vsc	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
					3		High Road			Criteria			Criteria
-:+	No Doom	14/1	Frietland	25.00			-		* 1			* N I a utila *	
First	No-Room	W1	Existing Proposed	35.86 34.22	0.95	YES	59°N		*North*			*North*	
	No-Room	W2	Existing	36.84	0.95	YES	57°N		*North*			*North*	
C	N. D	14/4	Proposed	34.94	0.01	N/50	E 7951		¥N1			****	
Second	No-Room	W1	Existing Proposed	38.40 34.90	0.91	YES	57°N		*North*			*North*	
	No-Room	W2	Existing	38.42	0.97	YES	57°N		*North*			*North*	
			Proposed	37.33	0107	. 20	57 11						
Third	No-Room	W1	Existing	39.01	0.95	YES	57°N		*North*			*North*	
			Proposed	37.11									
					3	32 Kilburn	High Road						
First	R1	W1	Existing	23.18	0.84	YES	147°	41	0.85	YES	9	0.33	NO
			Proposed	19.53				35			3		
		W2	Existing	34.43	1.00	YES	57°N		*North*			*North*	
			Proposed	34.26									
					3	36 Kilburn	High Road						
First	No-Room	W1	Existing	28.26	0.97	YES	145°	53	1.00	YES	12	1.00	YES
			Proposed	27.51				53			12		
						2 Iverso	n Road						
Lower Grou	in: R1	W1	Existing	25.10	0.97	YES	150°	46	0.98	YES	10	0.90	YES
Cround	No Doom	14/1	Proposed	24.44	0.09	VEC	1500	45	1.00	VEC	9 12	1.00	VEC
Ground	No-Room	W1	Existing Proposed	30.52 29.79	0.98	YES	150°	61 61	1.00	YES	12	1.00	YES
	No-Room	W2	Existing	33.77	0.96	YES	150°	73	0.97	YES	19	0.89	YES
			Proposed	32.31				71			17		
First	No-Room	W1	Existing	35.40	0.96	YES	150°	76	0.97	YES	22	0.91	YES
			Proposed	34.11				74			20		
	No-Room	W2	Existing	36.40	0.97	YES	150°	76	0.99	YES	22	0.95	YES
Second	No-Room	W1	Proposed Existing	35.19 37.17	0.98	YES	150°	75 78	1.00	YES	21 24	1.00	YES
Second	NO NOOM	**1	Proposed	36.40	0.50	TLJ	150	78	1.00	TLJ	24	1.00	TL3
	No-Room	W2	Existing	37.61	0.98	YES	150°	79	1.00	YES	25	1.00	YES
			Proposed	36.85				79			25		
						4 Iverso	n Road						
Lower Grou	In No-Room	W1	Existing	30.36	0.97	YES	150°	65	0.98	YES	16	0.94	YES
			Proposed	29.34				64			15		
	R1	W2	Existing	7.89	1.00	YES	150°	13	1.00	YES	5	1.00	YES
<u> </u>			Proposed	7.89	0.55		45.55	13			5	0.55	
Ground	No-Room	W1	Existing	34.57	0.96	YES	150°	75 72	0.96	YES	21	0.86	YES
	R1	W2	Proposed Existing	33.09 9.09	1.00	YES	150°	72 13	1.00	YES	18 5	1.00	YES
	111	vv∠	Proposed	9.09	1.00	1LJ	100	13	1.00	1 23	5	1.00	113
First	No-Room	W1	Existing	36.61	0.97	YES	150°	78	0.99	YES	24	0.96	YES
			Proposed	35.38				77			23		
	R1	W2	Existing	12.11	1.00	YES	150°	16	1.00	YES	5	1.00	YES
			Proposed	12.11				16			5		
				27.07	0.00	VEC	150°	00	1.00	YES	26	1 00	YES
Second	No-Room	W1	Existing	37.87	0.98	YES	150	80	1.00	TES		1.00	TLJ
Second	No-Room R1	W1 W2	Existing Proposed Existing	37.87 37.01 25.46	1.00	YES	150°	80 80 49	1.00	YES	26 11	1.00	YES

Project Name:328e-h Kilburn Hgigh Road Project No.: 11216 Report Title: Daylight & Sunlight - Neighbour Analysis Test Date of Analysis: 29/06/2017

Proposed 18.94

Date of An	aiysis: 29/06	/201/											
Floor Ref.	Room Ref.	Window Ref.		VSC	Pr/Ex	Meets BRE Criteria	Window Orientation	Annual	Pr/Ex	Meets BRE Criteria	Winter	Pr/Ex	Meets BRE Criteria
						6 Iverso	n Road						
Lower Grou	In No-Room	W1	Existing	32.35	0.98	YES	150°	51	0.96	YES	17	0.88	YES
			Proposed	31.69				49			15		
Ground	No-Room	W1	Existing	35.60	0.96	YES	150°	51	0.96	YES	20	0.90	YES
			Proposed	34.33				49			18		
First	No-Room	W1	Existing	37.41	0.97	YES	150°	53	1.00	YES	20	1.00	YES
			Proposed	36.35				53			20		
	No-Room	W2	Existing	7.13	0.95	YES	240°	18	1.00	YES	8	1.00	YES
			Proposed	6.79				18			8		
Second	No-Room	W1	Existing	38.33	0.98	YES	150°	51	1.00	YES	20	1.00	YES
			Proposed	37.60				51			20		
					3	361 Kilburn	High Road						
First	R1	W1	Existing Proposed	30.83 28.06	0.91	YES	55°N		*North*			*North*	
		W2	Existing Proposed	34.70 31.67	0.91	YES	55°N		*North*			*North*	
	R2	W3	Existing Proposed	34.56 31.60	0.91	YES	55°N		*North*			*North*	
	R3	W4	Existing Proposed	34.21 31.46	0.92	YES	55°N		*North*			*North*	
	R4	W5	Existing Proposed	33.65 31.15	0.93	YES	55°N		*North*			*North*	
		W6	Existing	20.94	0.90	YES	55°N		*North*			*North*	



ate of Analysis.	29/06/2017							Meets
Floor Ref.	Room Ref.	Room Use.		Room Area	Lit Area Existing	Lit Area Proposed	Pr/Ex	BRE Criteria
		:	332 Kilburn High	Road				
First	R1	LKD	Area m2	25.81	24.71	24.71		
			% of room		96%	96%	1.00	YES
			2 Iverson Ro	ad				
Lower Ground	R1	Residential	Area m2	32.47	32.47	32.47		
			% of room		100%	100%	1.00	YES
			4 Iverson Ro	ad				
Lower Ground	R1	Residential	Area m2	16.72	7.21	7.21		
			% of room		43%	43%	1.00	YES
Ground	R1	Residential	Area m2	16.72	7.26	7.26		
_			% of room		43%	43%	1.00	YES
First	R1	Residential	Area m2	16.72	7.67	7.67	1.00	
Cocond	D1	Decidential	% of room Area m2	16 72	46% 11.05	46%	1.00	YES
Second	R1	Residential	% of room	16.72	66%	11.05 66%	1.00	YES
			70 01 100III	1	0070	0070	1.00	113
		:	361 Kilburn High	Road				
First	R1	LKD	Area m2	28.54	28.21	25.92		
			% of room		99%	91%	0.92	YES
	R2	Bedroom	Area m2	11.41	11.32	11.32		
			% of room		99%	99%	1.00	YES
		Bedroom	Area m2	10.29	10.22	10.22		
	R3	Beuroonn		10.25				
	R3	LKD	% of room Area m2	26.49	99% 24.16	99% 21.58	1.00	YES

APPENDIX 3

DAYLIGHT TO PROPOSED ACCOMODATION







Project Name: 328e-h Kilburn High Road Project No.: 11216 Report Title: Average Daylight Analysis - Proposed Accommodation Date: 29/06/2017

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Req'd Value	Meets BRE Criteria
					Р	roposed						
First	R1	LKD	W1-L	0.68	0.42	64.44	94.80	0.60	0.15	0.05		
			W1-U	0.68	1.31	65.89	94.80	0.60	1.00	0.97		
			W2-L	0.68	0.42	66.47	94.80	0.60	0.15	0.05		
			W2-U	0.68	1.31	67.88	94.80	0.60	1.00	1.00		
			W3-L	0.68	0.42	65.04	94.80	0.60	0.15	0.05		
			W3-U	0.68	1.31	66.52	94.80	0.60	1.00	0.98	2.00	VEC
First	R2	Bedroom	W4-L	0.68	0.52	68.25	59.75	0.50	0.15	3.08 0.08	2.00	YES
TH SC	ΠZ	bedroom	W4-U	0.68	1.60	69.94	59.75	0.50	1.00	1.70		
			W5-L	0.68	0.52	68.49	59.75	0.50	0.15	0.08		
			W5-U	0.68	1.60	70.49	59.75	0.50	1.00	1.71		
										3.57	2.00	YES
First	R3	LKD	W6-L	0.68	0.42	65.56	95.40	0.60	0.15	0.05		
			W6-U	0.68	1.31	68.55	95.40	0.60	1.00	1.00		
			W7-L	0.68	0.42	65.70	95.40	0.60	0.15	0.05		
			W7-U	0.68	1.31	69.65	95.40	0.60	1.00	1.01		
			W8-L	0.68	0.42	61.31	95.40	0.60	0.15	0.04		
			W8-U	0.68	1.31	66.34	95.40	0.60	1.00	0.97		
			W9-L	0.68	0.42	36.62	95.40	0.60	0.15	0.03		
			W9-U	0.68	1.30	53.72	95.40	0.60	1.00	0.78	2.00	VEC
First	D4	C+udu	W/10 I	0.69	0.42	41 CE	42.75	0.50	0.15	3.92	2.00	YES
First	R4	Study	W10-L W10-U	0.68 0.68	0.42 1.30	41.65 56.30	42.75 42.75	0.50 0.50	0.15 1.00	0.06 1.55		
			VV10-0	0.08	1.50	50.50	42.75	0.50	1.00	1.61	1.50	YES
First	R5	LKD	W11-L	0.68	0.42	78.04	100.81	0.60	0.15	0.05	1.50	125
			W11-U	0.68	1.30	79.19	100.81	0.60	1.00	1.09		
			W12-L	0.68	0.42	78.68	100.81	0.60	0.15	0.05		
			W12-U	0.68	1.30	79.42	100.81	0.60	1.00	1.09		
			W13-L	0.68	0.42	79.03	100.81	0.60	0.15	0.05		
			W13-U	0.68	1.30	79.52	100.81	0.60	1.00	1.09		
			W14-L	0.68	0.30	54.41	100.81	0.60	0.15	0.03		
			W14-U	0.68	0.93	55.22	100.81	0.60	1.00	0.54		
			W15-L	0.68	0.54	50.90	100.81	0.60	0.15	0.04		
			W15-U	0.68	1.17	51.55	100.81	0.60	1.00	0.64	2.00	VEC
First	R6	Bedroom	W16-L	0.68	0.21	54.13	58.43	0.50	0.15	4.67 0.03	2.00	YES
THSC	NO	Bedroom	W10-L W16-U	0.68	0.65	54.11	58.43	0.50	1.00	0.54		
			W10-0 W17-L	0.68	0.51	69.23	58.43	0.50	0.15	0.08		
			W17-U	0.68	1.59	69.24	58.43	0.50	1.00	1.71		
										2.37	2.00	YES
First	R7	Bedroom	W18-L	0.68	0.42	47.39	47.22	0.50	0.15	0.06		
			W18-U	0.68	1.30	48.44	47.22	0.50	1.00	1.21		
										1.27	1.00	YES
First	R8	Bedroom	W19-L	0.68	0.51	59.47	61.30	0.50	0.15	0.07		
			W19-U	0.68	1.59	64.33	61.30	0.50	1.00	1.52		
C		11/2	1	0.55		74.05	04.00	0.00	4.00	1.58	1.00	YES
Second	R1	LKD	W1	0.68	1.44	71.65	94.80	0.60	1.00	1.16		
			W2 W3	0.68 0.68	1.44 1.45	73.76	94.80 94.80	0.60 0.60	1.00 1.00	1.19		
			VV 5	0.08	1.45	72.14	94.80	0.60	1.00	1.17 3.52	2.00	YES
Second	R2	Bedroom	W4	0.68	1.77	76.04	59.75	0.50	1.00	2.04	2.00	1 123
		20070011	W5	0.68	1.77	76.72	59.75	0.50	1.00	2.04		
			-				-			4.10	1.00	YES
Second	R3	LKD	W6	0.68	1.44	74.81	95.21	0.60	1.00	1.20		· ·
			W7	0.68	1.44	76.83	95.21	0.60	1.00	1.24		
			W8	0.68	1.44	74.22	95.21	0.60	1.00	1.20		
			W9	0.68	1.44	74.63	95.21	0.60	1.00	1.20		
										4.84	2.00	YES
Second	R4	Study	W10	0.68	1.44	73.34	42.75	0.50	1.00	2.24		
										2.24	1.50	YES

Project Name: 328e-h Kilburn High Road Project No.: 11216 Report Title: Average Daylight Analysis - Proposed Accommodation Date: 29/06/2017

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Glazed Area	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Proposed	Req'd Value	Meets BRE Criteria
Second	R5	LKD	W11-L	0.68	0.14	82.83	111.70	0.60	0.15	0.02		
			W11-U	0.68	1.30	81.80	111.70	0.60	1.00	1.01		
			W12-L	0.68	0.14	82.75	111.70	0.60	0.15	0.02		
			W12-U	0.68	1.30	81.74	111.70	0.60	1.00	1.01		
			W13-L	0.68	0.14	82.66	111.70	0.60	0.15	0.02		
			W13-U	0.68	1.30	81.68	111.70	0.60	1.00	1.01		
			W14-L	0.68	0.10	59.09	111.70	0.60	0.15	0.01		
			W14-U	0.68	0.93	60.30	111.70	0.60	1.00	0.53		
			W15-L	0.68	0.55	54.12	111.70	0.60	0.15	0.04		
			W15-U	0.68	1.17	55.20	111.70	0.60	1.00	0.62		
										4.28	2.00	YES
Second	R6	Bedroom	W16	0.68	0.72	57.51	58.43	0.50	1.00	0.64		
			W17	0.68	1.76	73.72	58.43	0.50	1.00	2.01		
										2.65	1.00	YES
Second	R7	Bedroom	W18	0.68	1.44	56.48	47.22	0.50	1.00	1.56		
										1.56	1.00	YES
Second	R8	Bedroom	W19	0.68	1.76	70.25	61.30	0.50	1.00	1.83		
										1.83	1.00	YES
Third	R1	Bedroom	W1	0.68	1.44	80.55	74.67	0.50	1.00	1.41		•
			W2	0.68	1.44	80.61	74.67	0.50	1.00	1.41		
										2.83	1.00	YES
Third	R2	Bedroom	W3	0.68	1.44	80.92	61.60	0.50	1.00	1.72		•
										1.72	1.00	YES
Third	R3	Bedroom	W4	0.68	1.44	81.09	44.72	0.50	1.00	2.37		
										2.37	1.00	YES
Third	R4	LKD	W5	0.68	1.44	81.48	109.07	0.60	1.00	1.15		
			W6	0.68	1.44	81.62	109.07	0.60	1.00	1.15		
			W7	0.68	1.44	76.98	109.07	0.60	1.00	1.08		
			W8	0.68	1.44	76.76	109.07	0.60	1.00	1.07		
										4.44	2.00	YES
Third	R5	LKD	W9	0.68	1.31	83.49	98.64	0.60	1.00	1.18		·
			W10	0.68	1.31	83.91	98.64	0.60	1.00	1.19		
										2.36	2.00	YES
Third	R6	Bedroom	W11-L	0.68	1.74	77.27	58.33	0.50	0.15	0.31		
			W11-U	0.68	3.27	81.10	58.33	0.50	1.00	4.12		
										4.43	1.00	YES
Third	R7	Bedroom	W12	0.68	1.31	74.08	46.88	0.50	1.00	1.87		•
										1.87	1.00	YES

APPENDIX 4

OVERSHADOWING RESULTS TO NEIGHBOURING PROPERTIES

