MORGAN HOUSE, 1 LILY PLACE LONDON, EC1N 8YJ DAYLIGHT & SUNLIGHT STUDY DECEMBER 2017



DELVA PATMAN REDLER Chartered Surveyors

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### 1.0 INTRODUCTION

Delva Patman Redler LLP have been instructed by H Company 3 Ltd to prepare a daylight & sunlight study to assess the likely impact of the proposed redevelopment of Morgan House, 1 Lily Place by Kyson Architects on the neighbouring residential amenity adjacent to the site.

This study has been carried out in accordance with the recommendations of the Building Research Establishment Report "Site Layout Planning for Daylight & Sunlight 2011" (BRE209).

The template drawings, which are attached, illustrate the results for the daylight & sunlight assessments and identify the drawings used in these studies.

#### 2.0 THE PROPOSAL

The development proposals include the construction of 3 additional residential units within a part one, part two storey roof extension at 1 Lily Place/39 Saffron Hill. The proposal retains the existing 8 Nos. residential units at Ground, First, Second, and Third floors and the existing B1 office space at Basement. The proposal includes facade improvements and the remodelling of 4no existing units with the creation of 3 additional residential units, consisting of 2 Nos. 1 bedroom (2 person) units and 1 No. 2 bedroom (4 person) unit.

# 3.0 POLICY / GUIDELINES

This study has been carried out in accordance with the recommendations of the Building Research Establishment report "Site Layout Planning for Daylight & Sunlight 2011". This is the recognised standard against which daylight and sunlight should be assessed.

The BRE guide is intended for building designers and their clients, consultants and planning officials. The advice given is not mandatory and the report should not be seen as a part of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design. In certain circumstances, the developer or planning authority may wish to use alternative target values.

Whilst technical analysis can be carried out in accordance with numerical guidelines and reported factually by comparison with those guidelines, the final assessment as to whether affected dwellings are left with acceptable amounts of daylight and sunlight in an inner-city context where the findings are to be interpreted in a flexible manner is a matter of subjective opinion.

#### 4.0 METHODOLOGY

The daylight and sunlight assessments have been undertaken in accordance with the Building Research Establishment (BRE) guidelines "Site Layout Planning for Daylight & Sunlight. A Guide to Good Practice".

The BRE Report advises that daylight levels should be assessed for the main habitable rooms of neighbouring residential properties. Habitable rooms in residential properties are defined as kitchens, living rooms and dining rooms. Bedrooms are less important as they are mainly occupied at night time.



# DAYLIGHT

The BRE Guide states that:

"If, for any part of the new development, the angle from the centre of the lowest affected window to the head of the new development is more than 25°, then a more detailed check is needed to find the loss of skylight to the existing buildings."

The BRE guidelines propose several methods for calculating daylight. The two main methods predominantly used are those involving the measurement of the total amount of skylight available (the vertical sky component (VSC)) and its distribution within the building (the No-Sky line or daylight distribution).

The VSC calculation is a general test of potential for daylight to a building, measuring the light available on the outside plane of windows.

The "No-Sky" Line divides those areas of the working plane which can receive direct skylight, from those which cannot. It provides an indication of how good the daylight distribution is within a room.

The third recognised method of assessment for daylight is the Average Daylight Factor (ADF) calculation which assesses the quality and distribution of light within a room served by a window and considers the VSC value, the size and number of the windows and room and the use to which the room is put. ADF assesses actual light distribution within a defined room area whereas the VSC considers potential light. British Standard 8206, Code of Practice for Daylighting recommends ADF values of 1% in bedrooms, 1.5% in living rooms and 2% in kitchens. For other uses, where it is expected that supplementary electric lighting will be used throughout the daytime, such as in offices, the ADF value should be 2%. There is no general requirement within the BRE guidelines to assess ADF values, other than for neighbouring residential buildings.

For the purposes of this report all three methods of assessment have been considered.

## SUNLIGHT

The BRE have produced sunlight templates for London, Manchester and Edinburgh indicating the Annual Probable Sunlight Hours (APSH) for these regions. The London template has been selected for this study as the London indicator template is the closest of the three available from BRE in terms of latitude.

Sunlight analysis is undertaken by measuring annual probable sunlight hours (APSH) for the main windows of rooms which face within 90° of due south. The maximum number of annual probable sunlight hours for the London orientation is 1,486 hours. The BRE guidelines propose that the appropriate date for undertaking a sunlight assessment is on 21<sup>st</sup> March, being the spring equinox. Calculations of both summer and winter availability are made with the winter analysis covering the period from the 21<sup>st</sup> September to 21<sup>st</sup> March. For residential accommodation, the main requirement for sunlight is in living rooms and it is regarded as less important in bedrooms and kitchens.

Due to orientation and room use not all windows assessed for daylight qualify for sunlight assessment in accordance with BRE Guidance.

All relevant neighbouring residential buildings within the vicinity of the site have been included as part of these assessments. These buildings are illustrated on site plan dwg no: 17374/LOC/DS/800 and the window location drawings dwg no's: 17374/LOC/800-802.



# 5.0 ASSUMPTIONS MADE

• Access has not been sought into any of the neighbouring properties and we have made reasonable assumptions as to the room configurations and layouts of neighbouring properties. Where floor plans have been obtained these have been adopted for analysis purposes, and where they exist in part they have been utilised for the whole property. Properties where layouts have been obtained include:

Site	Address	Information Obtained
1	41-43 Saffron Hill	Floor Plan From Online Planning Archives
2	106-109 Saffron Hill	Floor Plan From Online Planning Archives
3	Da Vinci House, 44 Saffron Hill	Floor Plan From Online Planning Archives

- All layouts adopted are subject to confirmation following access.
- Floor levels for the neighbouring properties have been made using reasonable assumptions.
- All windows have been built into the model from a 3D survey model and site photographs.

# 6.0 SOURCE DATA

The studies have been undertaken by calculating the daylight & sunlight based on the template drawings provided within the BRE Guide. The study was undertaken with plan drawings derived from:

- Existing and surround buildings: Maltby Surveys: 3D survey model received 26<sup>th</sup> September 2017 3D Zmapping model Site photography
- Proposed Scheme: Kyson Architects
   3D model received 27<sup>th</sup> December 2017 Dwg No: 426-14\_Lily\_Place\_Proposed\_RevB[massing only].dwg

# 7.0 SIGNIFICANCE CRITERIA

The guidance given by BRE has been used as a basis for the criteria to assess the Development's potential effects.

In describing the significance criteria as set out below, it should be noted that they have been developed to protect residential properties, which are the most sensitive receptors.

TABLE 1: BRE DAYLIGHT GUIDANCE USED IN THE ASSESSM	IENT
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Issue	Criteria
	A window may be affected if the vertical sky component <b>(VSC)</b> measured at the centre of the window is less than 27% and less than 0.8 times its former value.
Daylight	A room may be adversely affected if a significant area of the room is beyond the <b>No-Sky Line</b> and is less than 0.8 times its former value.
	A room may be adversely affected if the average daylight factor <b>(ADF)</b> is less than 1% for a bedroom, 1.5% for a living room or 2% for a kitchen.



#### 8.0 BASELINE CONDITIONS

An analysis of the impact of the existing buildings (the baseline conditions) against which to compare any potential impact arising from the development has been undertaken based on Drawing 17374/SPT/800 in Appendix A.

The site is in an urban location with a mixture of residential and commercial properties in close proximity to the site. Saffron Hill runs to the west of the site with Lily Place located to the north of the site.

The neighbouring buildings generally receive good levels of light over and above the existing buildings.

The findings from the technical assessments can be seen from the results, both in graphical and tabular form, in the Technical Appendices.

An analysis of the existing daylight and sunlight levels enjoyed by the neighbouring residential amenity has been undertaken to provide a baseline against which the impacts arising from the proposed development can be assessed.

## 9.0 RESULTS – COMPLETED DEVELOPMENT

#### NEIGHBOURING DAYLIGHT – VSC

The full results of the daylight analysis are presented in Appendix B in tabular form. A summary of the results of the Vertical Sky Component (VSC) analysis on the relevant overlooking windows are presented in the Table 2 below. This identifies where habitable rooms are left with adequate light.

TABLE 2:	NUMBER OF ROOMS E	PERIENCING DAYLIGHT	MPACTS AS A RESULT	OF THE DEVELOPMENT	(VSC METHOD)
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Address	Total Number of Rooms Tested	Rooms Meeting BRE Guidelines For VSC	Number	of Rooms Experiencing	Adverse Impacts
			20-29.9% reduction (minor adverse impact)	30-39.9% reduction (moderate adverse impact	>40% reduction (substantial adverse impact)
41-43 Saffron Hill	9	7	1	1	0
106-109 Saffron Hill	9	9	0	0	0
Da Vinci House, 44 Saffron Hill	23	23	0	0	0
Total	41	39	1	1	0

Table 2 shows that 39 of the 41 (95.1%) rooms assessed will fully comply with the BRE Guidelines in Vertical Sky Component terms.

The 2 rooms falling shy of the guidance are situated within 41-43 Saffron Hill immediately on the opposite site of Lily Place. Both rooms are kitchens.

As mentioned in 8.0, the buildings are in very close proximity to the site in particular 41-43 Saffron Hill. As a result, existing daylight levels are relatively low, and any percentage reduction is artificially magnified.



Overall, the VSC analysis illustrates that despite some isolated infringements, the majority of neighbouring rooms will remain fully BRE compliant.

## **NEIGHBOURING DAYLIGHT – NO SKY LINE (NSL)**

The full results of the daylight analysis are presented in Appendix B in tabular form. A summary of the results of the No Sky Line (NSL) analysis on the relevant overlooking windows are presented in the Table 3 below. This identifies where habitable rooms/windows are left with adequate light.

TABLE 3: NUMBER OF ROOMS EXPERIENCING DAYLIGHT IMPACTS AS A RESULT OF THE DEVELOPMENT (NSL METHOD)

Address	Total Number of Rooms Tested	Rooms Meeting BRE Guidelines For NSL	Number	of Rooms Experiencing	Adverse Impacts
			20-29.9% reduction (minor adverse impact)	30-39.9% reduction (moderate adverse impact	>40% reduction (substantial adverse impact)
41-43 Saffron Hill	9	8	0	1	0
106-109 Saffron Hill	9	9	0	0	0
Da Vinci House, 44 Saffron Hill	23	19	2	1	1
Total	41	36	2	2	1

Table 3 shows that 36 of the 41 (87.8%) rooms assessed will fully comply with the BRE Guidelines in Daylight Distribution terms.

It is noted that 3 of the 5 rooms which fall below the guidance serve bedrooms. The reliance on naturally daylight is considered minor as these rooms are predominately occupied at night times. In addition, 4 of the 5 rooms comfortably comply with the primary VSC assessment.

Overall, the NSL analysis illustrates that despite some isolated infringements, the majority of neighbouring rooms will remain fully BRE compliant.

## NEIGHBOURING DAYLIGHT - AVERAGE DAYLIGHT FACTOR (ADF)

The full results of the daylight analysis are presented in Appendix B in tabular form. A summary of the results of the Average Daylight Factor (ADF) analysis on the relevant overlooking windows are presented in the Table 4 below. This identifies where habitable rooms/windows are left with adequate light.

TABLE 4: NUMBER OF ROOMS EXPERIENCING DAYLIGHT IMPACTS AS A RESULT OF THE DEVELOPMENT (ADF METHOD)

Address	Total Number of Rooms Tested	Rooms Meeting BRE Guidelines For ADF	Number o	f Rooms Experiencing A	Adverse Impacts
			20-29.9% reduction (minor adverse impact)	30-39.9% reduction (moderate adverse impact	>40% reduction (substantial adverse impact)
41-43 Saffron Hill	9	9	0	0	0
106-109 Saffron Hill	9	9	0	0	0
Da Vinci House, 44 Saffron Hill	23	23	0	0	0
Total	41	41	0	0	0

Table 4 shows that all 41 (100%) rooms assessed will fully comply with the BRE Guidelines in ADF terms.



Overall the daylight analysis demonstrates that generally the quality, quantity and distribution of light within the neighbouring rooms will remain adequate for an urban location such as this.

## **NEIGHBOURING SUNLIGHT – APSH**

The full results of the sunlight analysis are presented in Appendix B in tabular form. A summary of the results of the Annual Probable Sunlight Hours (APSH) analysis on the relevant overlooking windows are presented in the Table 5 below. This identifies where habitable rooms are left with adequate light.

TABLE 5: NUMBER OF WINDOWS EXPERIENCING SUNLIGHT IMPACTS AS A RESULT OF THE DEVELOPMENT (APSH METHOD)

Address	Total Number of Windows Tested	Windows Meeting BRE Guidelines for APSH	Number of Windows Experiencing Impacts beyond BRE Guidance
41-43 Saffron Hill	8	6	2
106-109 Saffron Hill	2	2	0
Da Vinci House, 44 Saffron Hill	5	5	0
Total	15	13	2

Table 5 shows that all 13 of the 15 (86.6%) windows considered will fully comply with the BRE Guidelines in APSH terms.

The 2 living rooms which contain a window falling below the guidance are each served by 2 other windows giving these rooms a triple aspect view.

Overall the sunlight analysis demonstrates despite some isolated infringements the majority of the neighbouring windows will remain fully BRE compliant in APSH terms.

#### **10.0 CONCLUSIONS**

The site is in an urban location with a mixture of residential and commercial properties in close proximity to the site. Saffron Hill runs to the west of the site with Lily Place located to the north of the site.

The neighbouring buildings generally receive good levels of light over and above the existing buildings. To assess the potential impact of the Development on daylight and sunlight on neighbouring properties a baseline assessment was undertaken.

The methods of assessment used were the Vertical Sky Component (VSC), No Sky Line (NSL) and Average Daylight Factor (ADF) for daylight and Annual Probable Sunlight Hours (APSH) for sunlight.

Overall the neighbouring daylight analysis illustrates that despite some isolated infringements in the VSC and NSL methods of assessment, the ADF results fully comply and so generally the quality, quantity and distribution of light within the majority of neighbouring rooms will remain fully BRE compliant.

The sunlight analysis demonstrates that despite 2 minor infringements to 2 triple aspect living rooms that the majority of neighbouring windows will continue to receive adequate levels of sunlight post development.

Therefore, the scheme proposals by Kyson Architects recognises and observes the intentions of the London Borough of Camden and BRE Guidance 209 in daylight and sunlight terms.

## Delva Patman Redler LLP



**APPENDIX A** 

LOCATION DRAWINGS

17374/LOC/DS/800 & 17374/LOC/800 - 802

17374/SPT/800





4 <u>3 Saffron Hill</u> No: 17374/LOC/800	NO DIMENSIONS TO BE SCALED FROM THIS DRAWING:
6 <mark>-109 Saffron Hill</mark> No: 17374/LOC/801	Site Boundary
<u>Vinci House, 44 Saffron Hill</u> Jo: 17374/LOC/802	SOURCE DATA Drawings Used: OS Tile
	All neighbouring properties considered for analysis.
	REV Description Drawn Ch'kd Date
	DELVA PATMAN REDLER Chartered Surveyors Thavies Inn House 3-4 Holborn Circus London EC1N 2HA Userpool L3 90J 20 7393 6368
	www.delvapatmanredier.co.uk info@delvapatmanredier.co.uk TITLE: MORGAN HOUSE, 1 LILY PLACE LONDON EC1N 8YJ
	DRAWING: 1 Lily Place - Property Location Plan Daylight and Sunlight Analysis Existing & Proposed Schemes - -
	DRAWN:         EJ         JOB NO:           SCALE:         1:250@A3         17374           DATE:         14/08/2017         17374
	LOC/DS/800 -









**APPENDIX B** 

DAYLIGHT & SUNLIGHT ANALYSIS SUMMARY TABLES



				VSC				Daylight Distribution			ADF			APSH							
Address	Floor Level	Room Name	Window ID	Existing	Proposed	Window %age Diff	Room %age Diff	Existing	Proposed	%age Diff	Existing	Proposed	%age Diff	APSH Existing	APSH Proposed	%age Diff	Winter Existing	Winter Proposed	&age Diff		
					W1	12.85	12.93	0.60%								16	16	0.00%	5	5	0.00%
		Living Room/R1	W2	15.14	8.89	-41.28%	-19.59%	72.05%	69.25%	-3.89%	1.72%	1.56%	-9.34%	21	9	-57.14%	3	3	0.00%		
	First		W3	15.47	12.67	-18.10%								N/A	N/A	N/A	N/A	N/A	N/A		
		Kitchen/R2	W4	10.60	7.22	-31.86%	-31.86%	71.37%	44.34%	-37.87%	0.63%	0.51%	-19.78%	N/A	N/A	N/A	N/A	N/A	N/A		
			W1	17.78	17.85	0.40%								24	24	0.00%	6	6	0.00%		
	Facond	Living Room/R1	W2	21.82	14.11	-35.30%	-17.60%	85.55%	82.63%	-3.41%	2.10%	1.93%	-8.39%	37	21	-43.24%	9	5	-44.44%		
	Second		W3	19.39	15.91	-17.91%								N/A	N/A	N/A	N/A	N/A	N/A		
		Kitchen/R2	W4	13.43	10.52	-21.64%	-21.64%	79.90%	76.45%	-4.31%	0.73%	0.63%	-13.51%	N/A	N/A	N/A	N/A	N/A	N/A		
			W1	24.43	24.51	0.33%								35	35	0.00%	10	10	0.00%		
41-43 Saffron Hill	Third	Living Room/R1	W2	27.75	22.46	-19.08%	-9.89%	96.72%	90.87%	-6.05%	2.51%	2.39%	-4.65%	49	40	-18.37%	14	8	-42.86%		
	mid		W3	22.96	20.45	-10.94%								N/A	N/A	N/A	N/A	N/A	N/A		
		Kitchen/R2	W4	16.43	14.57	-11.35%	-11.35%	80.14%	80.13%	-0.01%	0.82%	0.76%	-7.12%	N/A	N/A	N/A	N/A	N/A	N/A		
			W1	29.51	29.53	0.10%								39	39	0.00%	12	12	0.00%		
	Fourth	Living Room/R1	W2	28.11	26.91	-4.25%	-1.77%	97.06%	97.06%	0.00%	3.84%	3.79%	-1.35%	53	52	-1.89%	25	24	-4.00%		
			W3	27.04	26.73	-1.15%								N/A	N/A	N/A	N/A	N/A	N/A		
	Bedro		Bedroom/P1	W1	33.74	33.74	0.00%	0.10%	99.07%	99.07%	0.00%	2 23%	2 23%	0.05%	N/A	N/A	N/A	N/A	N/A	N/A	
	Eifth	Decroonivit	W2	33.33	33.39	0.19%	0.1078	33.0776	33.01 /8	0.00 %	2.2370	2.2370	0.00 /8	N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/R2	W3	33.58	33.64	0.18%	0.41%	95 22%	95.22%	0.00%	1 41%	1 41%	0.23%	N/A	N/A	N/A	N/A	N/A	N/A		
		bourounte	W4	19.86	19.99	0.64%	0.4170	00.2270	00.22 /0	0.00 %			0.2070	N/A	N/A	N/A	N/A	N/A	N/A		
		LKD/R1	W1	26.47	24.18	-8.66%	-8.66%	92.83%	76.41%	-17.69%	0.75%	0.71%	-5.60%	N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/R2	W2	25.15	24.05	-4.37%	-4.37%	97.51%	96.61%	-0.93%	1.28%	1.25%	-2.72%	N/A	N/A	N/A	N/A	N/A	N/A		
	Third	LKD/R3	W3	22.88	22.36	-2.26%	-2.26%	58.47%	57.09%	-2.36%	0.76%	0.75%	-1.30%	N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/R4	W4	20.17	20.03	-0.69%	-0.69%	76.17%	76.17%	0.00%	1.45%	1.45%	-0.42%	N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/R5	W5	18.20	18.26	0.33%	0.33%	67.15%	67.15%	0.00%	0.95%	0.95%	0.14%	N/A	N/A	N/A	N/A	N/A	N/A		
106-109 Saffron Hill		LKD/R1	W1	30.41	30.00	-1.34%			99.93% 99.93%					N/A	N/A	N/A	N/A	N/A	N/A		
			W6	28.81	28.80	-0.03%	-0.39%	99.93%		0.00%	2.11%	2.11%	-0.30%	50	50	0.00%	21	21	0.00%		
	Fourth		W7	27.60	27.65	0.21%								47	48	2.13%	20	20	0.00%		
		Bedroom/R2	W2	29.40	29.29	-0.35%	-0.35%	98.21%	98.21%	0.00%	2.04%	2.04%	-0.11%	N/A	N/A	N/A	N/A	N/A	N/A		
		LKD/R3	W3	27.92	27.99	0.23%	0.23%	79.57%	79.57%	0.00%	1.15%	1.16%	0.26%	N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/R4	W4	26.01	26.12	0.40%	0.40%	98.81%	98.81%	0.00%	2.14%	2.14%	0.26%	N/A	N/A	N/A	N/A	N/A	N/A		
		Kitchen/R1	W1	6.36	5.73	-9.84%	-9.84%	69.94%	66.47%	-4.96%	1.05%	0.87%	-17.25%	N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/R2	W1	6.36	5.73	-9.84%	-9.84%	94.19%	64.87%	-31.13%	1.12%	0.93%	-17.25%	N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/R3	W2	9.39	8.72	-7.11%	-7.11%	96.74%	56.17%	-41.94%	0.80%	0.73%	-9.07%	N/A	N/A	N/A	N/A	N/A	N/A		
	First	Bedroom/R4	W3	8.77	8.45	-3.62%	-3.62%	51.85%	38.07%	-26.58%	0.87%	0.80%	-7.41%	N/A	N/A	N/A	N/A	N/A	N/A		
		Kitchen/R5	W3	8.77	8.45	-3.62%	-3.62%	98.37%	86.46%	-12.10%	1.48%	1.37%	-7.41%	N/A	N/A	N/A	N/A	N/A	N/A		
		Living Room/R6	W4	21.93	21.56	-1.68%	-0.77%	93.66%	73.79%	-21.22%	3.16%	3.15%	-0.54%	38	37	-2.63%	12	11	-8.33%		
			W5	16.44	16.47	0.14%								N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/R1	W1	24.18	24.00	-0.74%	-0.74%	99.90%	99.90%	0.00%	2.57%	2.56%	-0.29%	N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/R2	W2	28.66	28.45	-0.74%	-0.74%	99.82%	99.82%	0.00%	2.57%	2.56%	-0.36%	N/A	N/A	N/A	N/A	N/A	N/A		
44 Saffron Hill	Second	Bedroom/R3	W3	29.59	29.43	-0.56%	-0.56%	96.82%	96.82%	0.00%	3.23%	3.22%	-0.28%	N/A	N/A	N/A	N/A	N/A	N/A		
		Kitchen/R4	W3	29.59	29.43	-0.56%	-0.56%	99.78%	99.78%	0.00%	5.15%	5.13%	-0.28%	N/A	N/A	N/A	N/A	N/A	N/A		
		Living Room/R5	W4	27.19	27.19	0.02%	0.11%	99.94%	99.94%	0.00%	5.21%	5.21%	0.09%	54	54	0.00%	18	18	0.00%		
		Kitabaa (Dr	VV5	22.98	23.02	0.19%	0.40%	04.00%	04.00%	0.000/	0.500/	0.500/	0.40%	N/A	N/A	N/A	N/A	N/A	N/A		
		Kitchen/R1	W1	9.82	9.86	0.46%	0.46%	91.32%	91.32%	0.00%	0.59%	0.59%	0.19%	N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/K2	W2	19.95	19.98	0.15%	0.15%	99.34%	99.34%	0.00%	0.81%	0.81%	0.10%	N/A	N/A	N/A	N/A	N/A	N/A		
	Third	Bodes (D.1	W3	17.07	17.12	0.28%	0.17%	97.90%	97.90%	0.00%	2.29%	2.29%	0.14%	N/A	N/A	N/A	N/A	N/A	N/A		
		Bedroom/R4	VV4	23.09	23.73	0.17%	0.1/%	98.82%	98.82%	0.00%	0.70%	0.77%	0.10%	IN/A	N/A	N/A	N/A	N/A	N/A		
		Bearoom/R5	CVV	18.40	18.40	0.24%	0.24%	99.34%	39.34%	0.00%	1.04%	1.04%	0.11%	IN/A	N/A	N/A	N/A	N/A	N/A		
		Kitchen/K6	44.0	24.32	24.39	0.28%	0.28%	99.03%	99.03%	0.00%	1.00%	1.00%	0.16%	N/A	N/A	N/A	N/A	N/A	N/A		

				vsc				Daylight Distribution			ADF			APSH					
Address	Floor Level	Room Name	Window ID	Existing	Proposed	Window %age Diff	Room %age Diff	Existing	Proposed	%age Diff	Existing	Proposed	%age Diff	APSH Existing	APSH Proposed	%age Diff	Winter Existing	Winter Proposed	&age Diff
44 Saffron Hill	Third	Living Room/R7	W7	18.48	18.53	0.30%	0.27%	99.97%	99.97%	0.00%	2.42%	2.43%	0.19%	21	21	0.00%	16	16	0.00%
			W8	18.29	18.35	0.29%								N/A	N/A	N/A	0	N/A	N/A
			W9	15.71	15.76	0.28%								N/A	N/A	N/A	N/A	N/A	N/A
			W10	15.13	15.16	0.21%								N/A	N/A	N/A	N/A	N/A	N/A
	Fourth	LKD/R1	W1	23.17	23.25	0.37%	0.28%	97.09%	97.09%	0.00%	4.67%	4.68%	0.34%	41	41	0.00%	9	9	0.00%
			W2	24.80	24.84	0.18%								43	43	0.00%	14	14	0.00%
		Bedroom/R2	W2	24.80	24.84	0.18%	0.18%	99.48%	99.48%	0.00%	3.90%	3.91%	0.22%	N/A	N/A	N/A	N/A	N/A	N/A
		Bedroom/R3	W3	34.73	34.79	0.16%	0.01%	99.95%	99.95%	0.00%	6.21%	6.22%	0.19%	N/A	N/A	N/A	N/A	N/A	N/A
			W4	24.86	24.82	-0.13%								N/A	N/A	N/A	N/A	N/A	N/A
	Fourth	Bedroom/R4	W5	20.90	20.92	0.08%	0.08%	89.11%	89.11%	0.00%	1.03%	1.03%	0.15%	N/A	N/A	N/A	N/A	N/A	N/A
		Bedroom/R5	W6	30.11	30.13	0.07%	0.07%	97.81%	97.81%	0.00%	2.67%	2.67%	0.13%	N/A	N/A	N/A	N/A	N/A	N/A