**GVA** Schatunowski Brooks

Detailed Daylight & Sunlight Report



# Drummond Street, London, NW1

Canfield Freehold Ltd

November 2016

65 Gresham Street London EC2V 7NQ

Gregory Francis MBA For and on behalf of GVA GRIMLEY LTD Canfield Freehold Ltd Contents

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#### **Appendices**

Appendix I: Drawings DR12/BRE167 to BRE176 plus Associated Results Tables

Canfield Freehold Ltd Introduction

### 1. Introduction

1.1 GVA Schatunowski Brooks has been instructed by Canfield Freehold Ltd to advise on Daylight and Sunlight matters in relation to their proposed development of student accommodation at Drummond Street, London, NW1.

- 1.2 The following report considers potential effects to existing Daylight and Sunlight amenity enjoyed by neighbours adjacent the proposed development.
- 1.3 The assessment has been based upon site inspection, 3D measured land survey of the existing site buildings and those adjacent, together with detailed drawings of the "107 student bedrooms" proposal received from CZWG Architects in October 2016.

Canfield Freehold Ltd Executive Summary

# 2. Executive Summary

2.1 The detailed assessments confirm that the proposed development would have no adverse effects to existing Daylight and Sunlight amenity enjoyed by adjacent neighbours to the proposed development.

2.2 Given the above, we are of the opinion that the proposed development is fully compliant with London Borough of Camden planning policy on Daylight and Sunlight.

## 3. Daylight/Sunlight Planning Principles

- 3.1 The Building Research Establishment (BRE) guidelines Site Layout Planning for Daylight and Sunlight: a guide to good practice (2011) (the guidelines) is the document referred to by most local authorities.
- 3.2 The guidelines cover amenity requirements for sunlight, daylight and overshadowing to buildings and amenity areas neighbouring a proposed development site, as well as the quality of daylight within the proposed habitable rooms and amenity areas. The guidelines are intended to read in conjunction with the British Standard, BS 8206-2:2008 Lighting for Buildings Part 2: Code of Practice for Daylighting as they both refer to each other.
- 3.3 The introduction to 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."

### **Daylighting**

- 3.4 The requirements governing daylighting to existing residential buildings around a development site are set out in Part 2.2 of the guidelines, whereas Part 2.1 deals with the quality and quantity of daylight to residential habitable rooms within new development.
- 3.5 The amount of light available to any window depends upon the amount of unobstructed sky that can be seen from the centre of the window under consideration. The amount of visible sky and consequently the amount of available skylight is assessed by calculating the Vertical Sky Component (VSC) at the centre of the window. The guidelines advise that bathrooms, toilets, storerooms, circulation areas and garages need not be analysed.

- 3.6 The guidelines also suggest that distribution of daylight within rooms is reviewed where layouts are known, although bedrooms are considered to be less important.
- 3.7 The VSC can be calculated by using the skylight indicator provided as part of the guidelines, by mathematical methods using what is known as a waldram diagram or by 3D CAD modelling.
- 3.8 Paragraph 2.2.7 of the guidelines states the following:-
  - "If this VSC 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 VSC with the new development in place, is both less than 27% and less than 0.8 times its former value, then occupants of the existing building will notice the reduction in the amount of skylight."
- 3.9 It must be interpreted from this criterion that a 27% VSC constitutes adequacy, but where this value cannot be achieved, a reduction of up to 0.8 times its former value (in other words less than 20% reduction of existing VSC) would not be noticeable and would not therefore be considered material.
- 3.10 The VSC calculation only measures light reaching the outside plane of the window under consideration, so this is potential light rather than actual. Depending upon the room and window size, the room may still be adequately lit with a lesser VSC value than the target values referred to above.
- 3.11 The NSL (sometimes referred to as Daylight Distribution) contour shows the extent of light penetration into the room at working plane level, 850mm above floor level. If a substantial part of the room falls behind the no sky-line contour, the distribution of light within the room may look poor.

## **Sunlighting**

- 3.12 Recommendations for consideration of sunlight amenity to existing residential buildings neighbouring a development site are set out in Part 3.2 of the guidelines.
- 3.13 There is a requirement to assess windows of surrounding properties where the main windows face within 90 degrees of due south. The calculations are taken at the window

reference point at the centre of each window on the plane of the inside surface of the wall.

- 3.14 The guidelines further state that kitchens and bedrooms are less important in the context of considering sunlight, although care should be taken not to block too much sun.
- 3.15 Paragraphs 3.2.5 and 3.2.6 of the guidelines sets the following recommendation:-

"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 21st September and 21st March, then the room should still receive enough sunlight. The sunlight availability indicator in Appendix A can be used to check this.

Any reduction in sunlight access below this level should be kept to a minimum. If the available sunlight hours are both less than the amount 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; if the overall annual loss is greater than 4% of APSH, the room may appear colder and less cheerful and pleasant."

- 3.16 To summarize the above, a good level of sunlight to a window is 25% annual probable sunlight hours, of which 5% should be in winter months. Where sunlight levels fall below the suggested level, a comparison with the existing condition is reviewed and if the ratio reduction is within 0.8 of its former value (in other words less than 20% reduction of existing APSH) then the sunlight loss will not be noticeable. Sunlight reductions that fall below a ratio of 0.8 ((in other words a greater than 20% reduction of existing APSH) will be noticed by the occupants. If the overall annual loss is greater than 4% APSH the guidelines state the dwelling may be adversely affected.
- 3.17 The guide further recommends that where window positions are known, the centre of each main living window can be used for the calculation.

Canfield Freehold Ltd Report

## 4. Report: Effect to Existing Neighbours

4.1 Please refer to Appendix I for the detailed assessment drawings upon which the following report is based. Drawings BRE/167 to BRE/170 are 3D views of the site and surrounding properties in the existing and proposed conditions.

- 4.2 Site inspection and desktop research indicated the following neighbouring residential properties were potentially affected and therefore analysed:
  - 59 to 69 Cobourg Street (assessment drawings BRE/171 and BRE/172),
  - 54 to 64 Euston Street (assessment drawings BRE/173 to BRE/175), and
  - 14 & 15 Melton Street (assessment drawing BRE/176).

### 59 to 69 Cobourg Street



Canfield Freehold Ltd Report

4.3 As is apparent from the attached 3D drawings and above site photograph, the rear of these properties feature windows in very close proximity to the site boundary and derive their light from across the proposed development site.

- 4.4 Furthermore, given the Central London location, this is a situation which the BRE recognises as one in which it may not be possible to adhere to the typical, standard guidance set out in the document.
- 4.5 Notwithstanding this constrained baseline, the VSC assessments indicated that post development, the retained values would generally be consistent with those expected in a dense urban environment. In the vast majority of cases the differences in VSC would be considered unnoticeable to occupants.
- 4.6 The vast majority of post development results are therefore considered as fully adherent with the standard BRE guidance, notwithstanding the dense urban location and proximity of these adjoining properties.
- In a small number of locations the post-development VSC values would register as greater than 20% reductions of existing VSC values. In typical circumstances the BRE considers differences of 20% may be noticeable. However, given the specific circumstances present in this situation (i.e. low baseline values) this guidance is considered less applicable to these results.
- 4.8 For example, window location W1/40 registers 7.80%VSC, in the existing scenario. Post-development this would be reduced to 4.89%VSC, a loss of 2.91%VSC which in itself is small. In terms of differences to occupants, this would be considered a 'no-worsening', as it is evident from the VSC values that artificial lighting is currently required.
- 4.9 This loss would however be expressed as a reduction of 37.31%. In typical circumstances a difference greater than 20% would be considered potentially noticeable, however for the reasons above this is considered not to apply here.
- 4.10 An attempt was made to research the internal layouts of these properties, to enable consideration of potential effects to the Daylight Distribution. This indicated several non-habitable spaces, such as hallways and small food preparation areas.
- 4.11 Similar to the VSC results, in the vast majority of cases the results would be BRE compliant, with higher reductions where baseline values are low.

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4.12 Assessment of the effect to sunlight amenity is not required as these windows are northerly orientated and therefore occupants would not be considered as having a reasonable expectation of sunlight amenity.

4.13 Overall, the daylight assessments are considered to demonstrate adequate retained conditions, consistent with a dense urban environment and proximity of adjacent properties to the site boundary.

#### 54 to 64 Euston Street

- 4.14 The results show that in all instances for the rear elevation of this street the reduction in light is less than 20% or rooms are left with a retained level of VSC greater than 27%.
- 4.15 These rooms are all fully BRE compliant.

#### 14 & 15 Melton Street

- 4.16 All window locations would be considered BRE compliant, either retaining 27%VSC or less than 20% reduction of existing VSC. At one assessment point a small difference in VSC would be expressed as a 26.84% reduction, again due to the low existing VSC.
- 4.17 Daylight Distribution results followed a similar pattern, with most fully BRE compliant. For a small number of rooms where existing values are lower, there would be greater than 20% reductions.
- 4.18 As these windows are southerly orientated, occupants would have a reasonable expectation of sunlight amenity and effects to this were considered.
- 4.19 Similar to the VSC and Daylight Distribution results, the APSH sunlight results were mainly BRE compliant, with a handful of reductions greater than 20%. These again coincide with assessment points where baseline values are low.
- 4.20 The overall effect is again considered acceptable in the round.

Canfield Freehold Ltd Conclusion

### 5. Conclusion

5.1 The detailed Daylight and Sunlight assessments are considered to demonstrate the proposed development is consistent with the guidance set out by the BRE, having regard for the dense urban context and proximity of adjoining properties.

5.2 The proposed development is therefore concluded as compliant with London Borough of Camden planning policy on Daylight and Sunlight.

Yours faithfully

**GVA Schatunowski Brooks** 

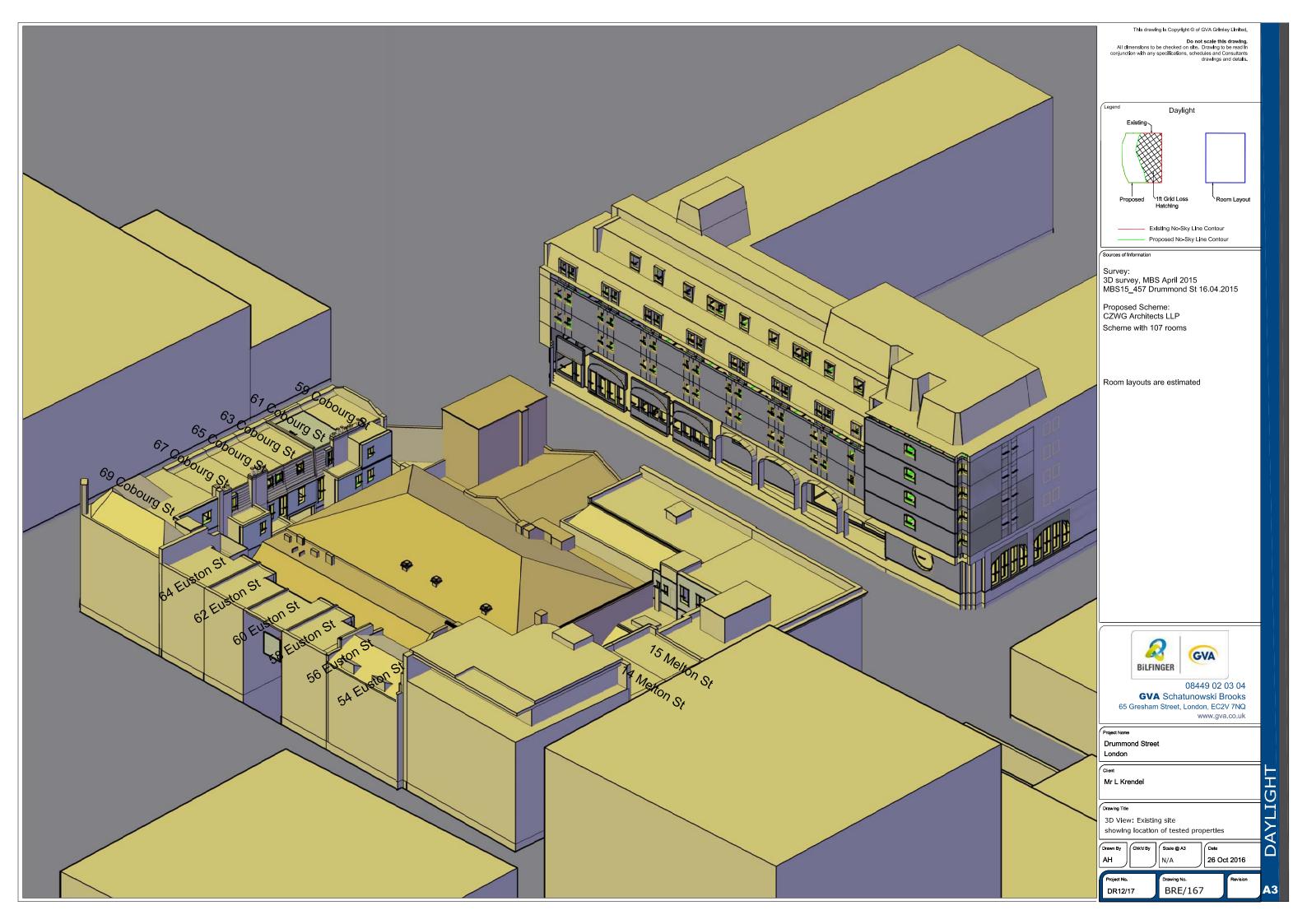
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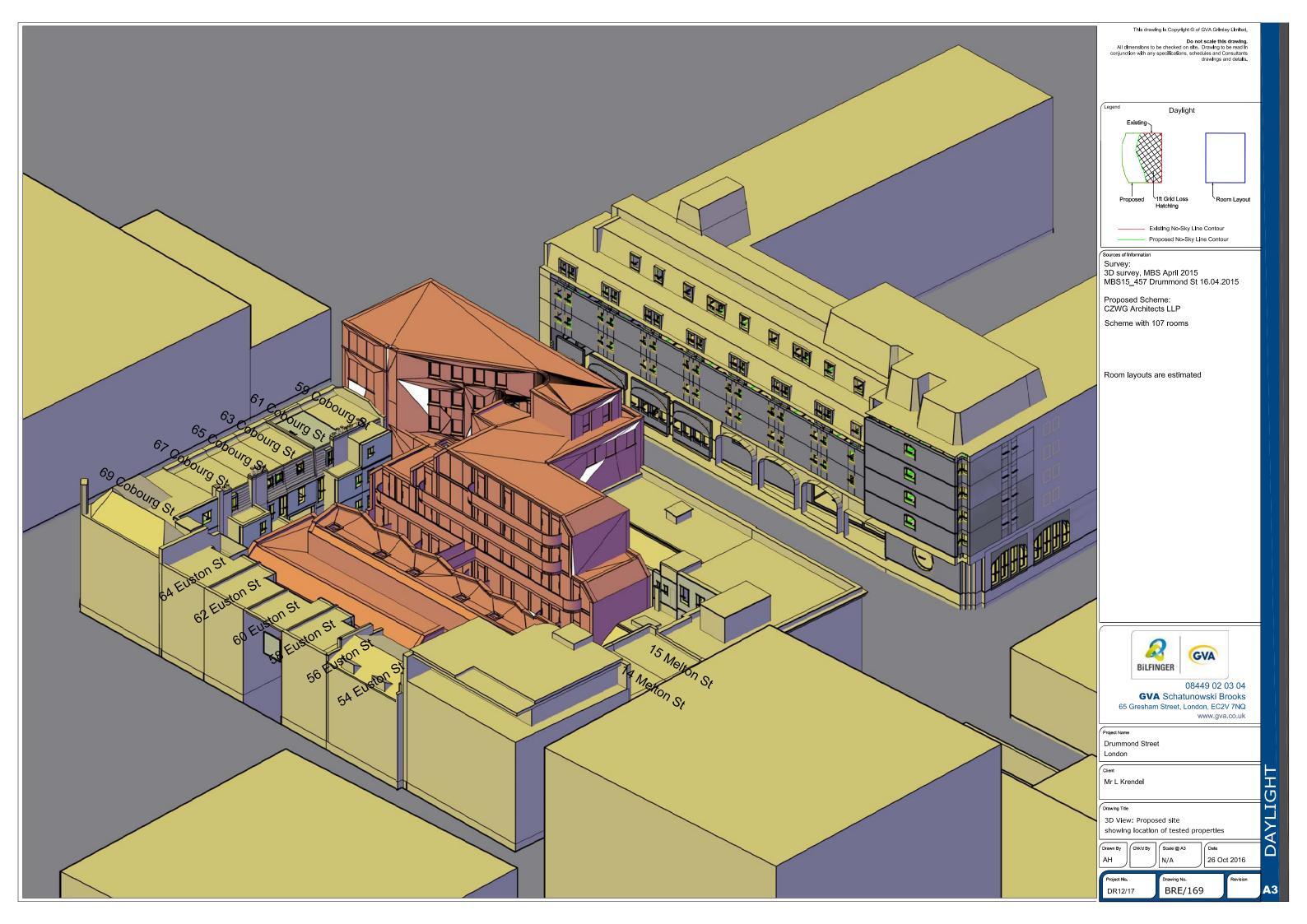


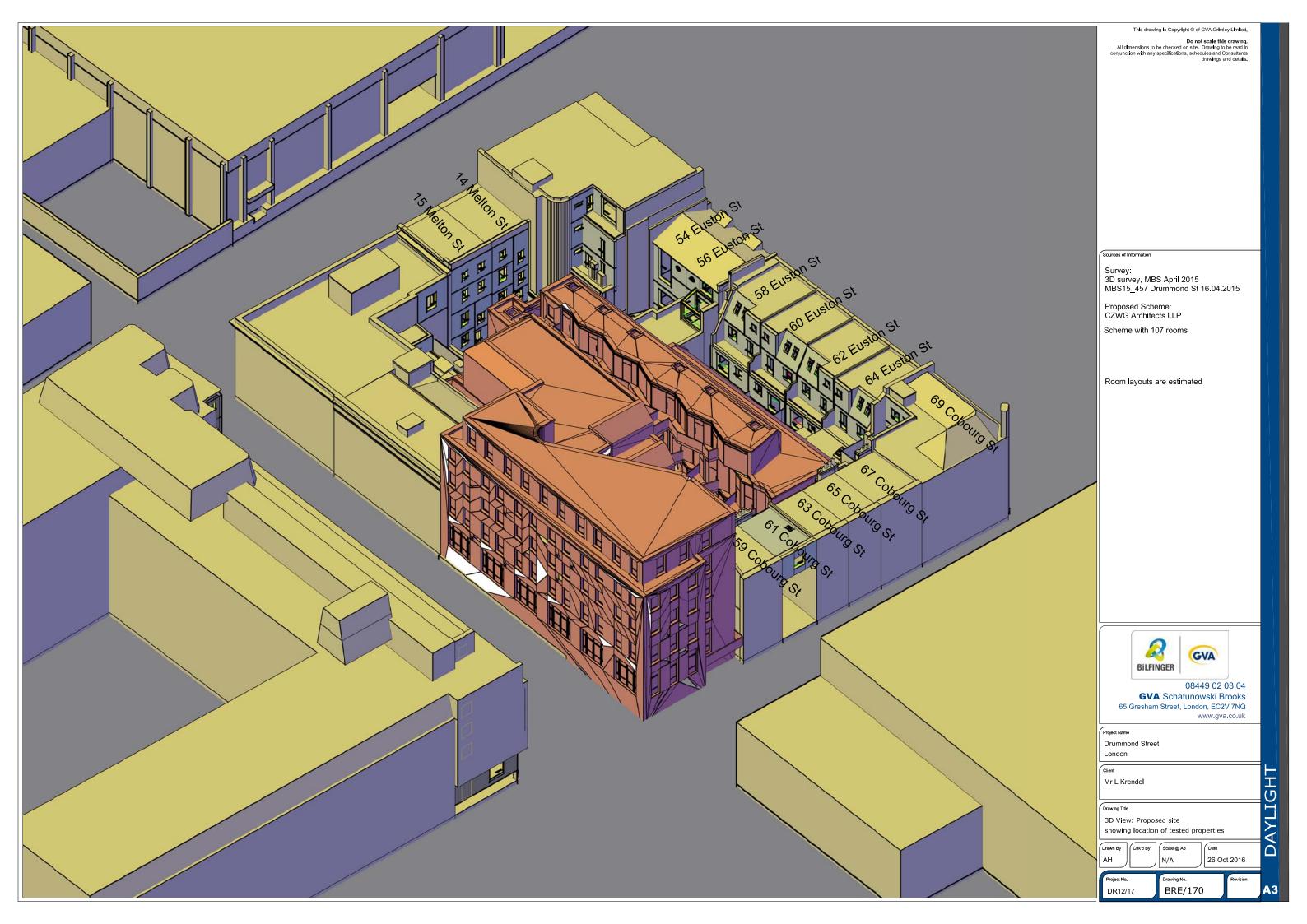
Appendix I -

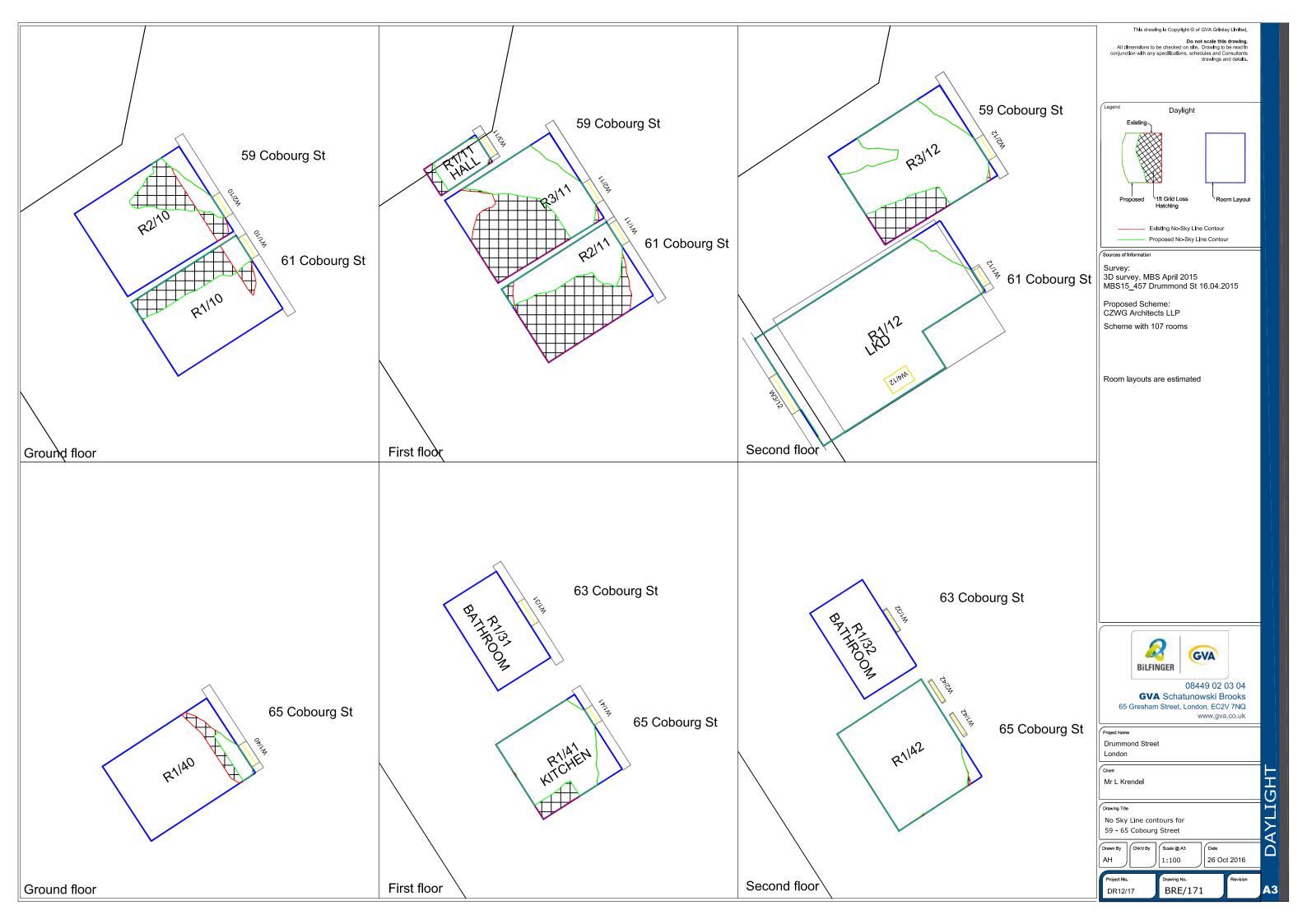
Drawings
DR12/BRE167 to
BRE176 plus
Associated Results
Tables

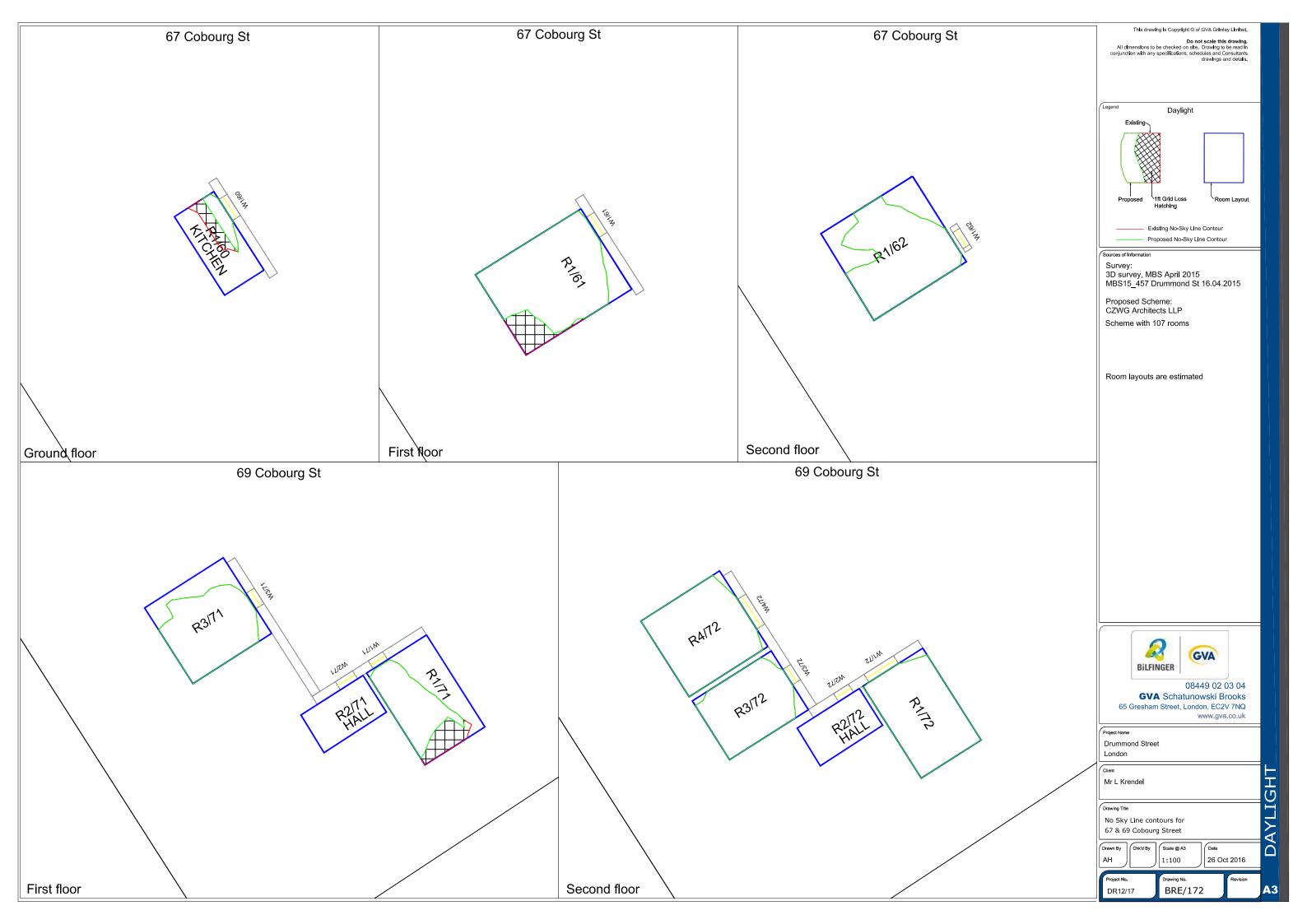


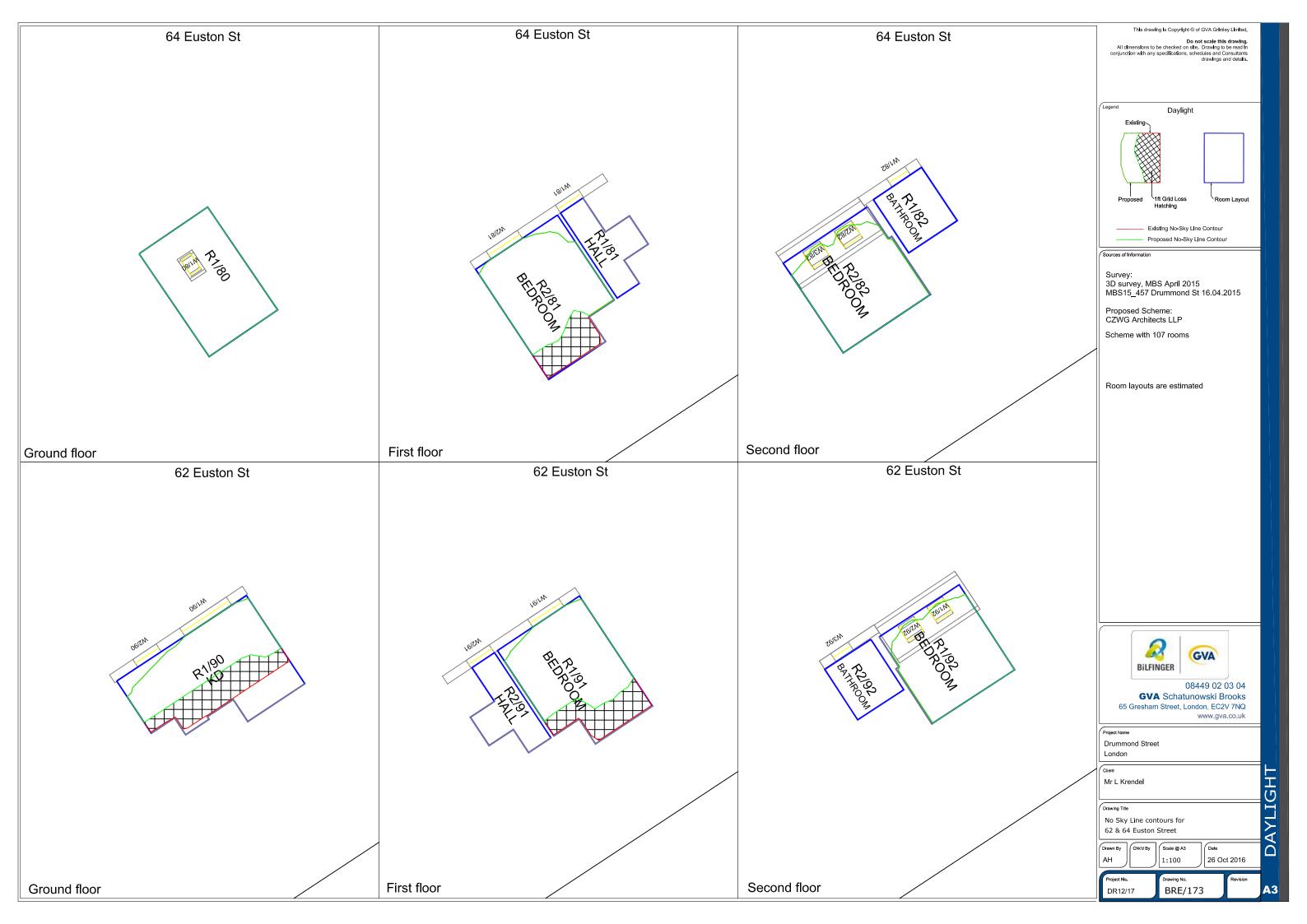


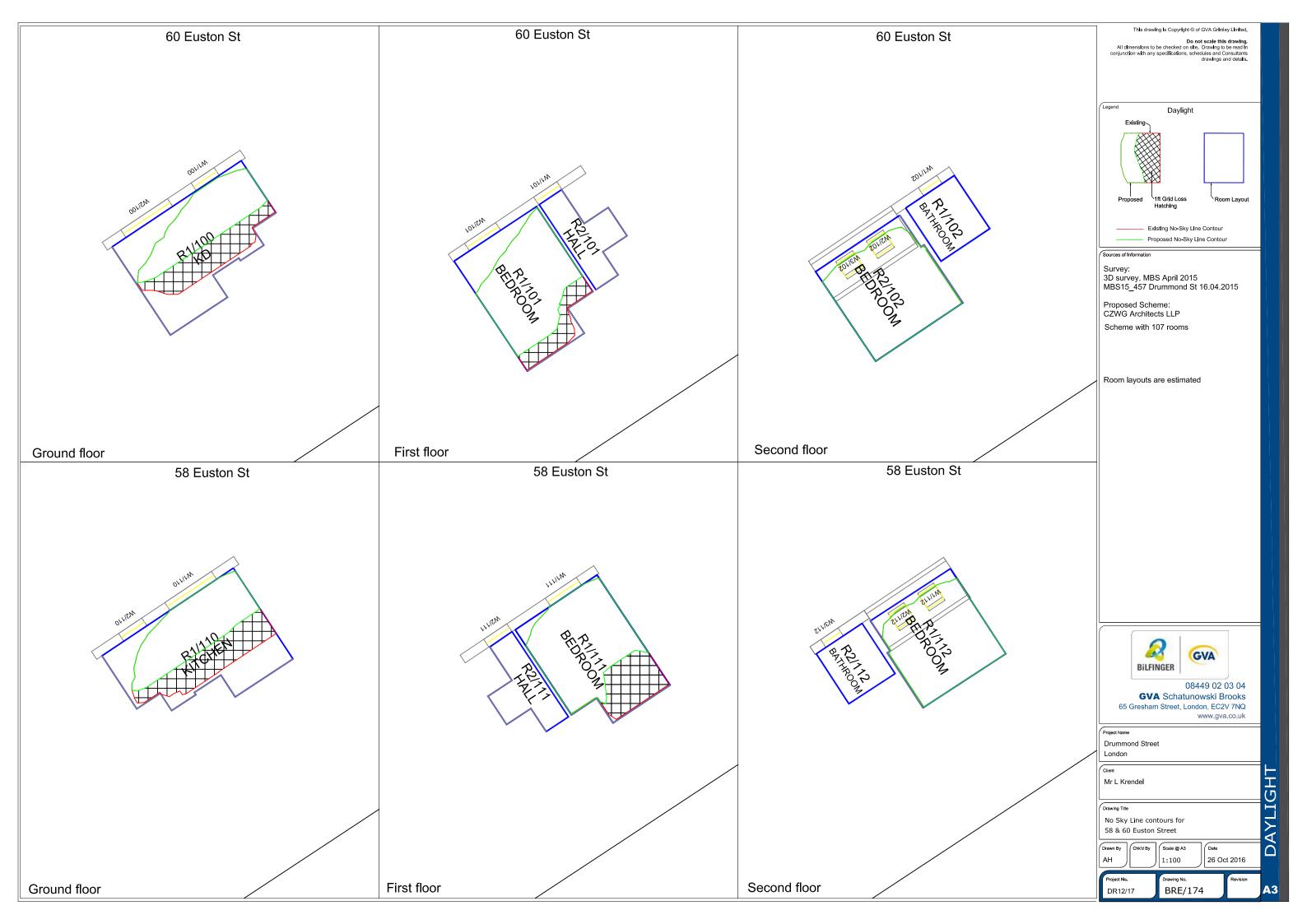


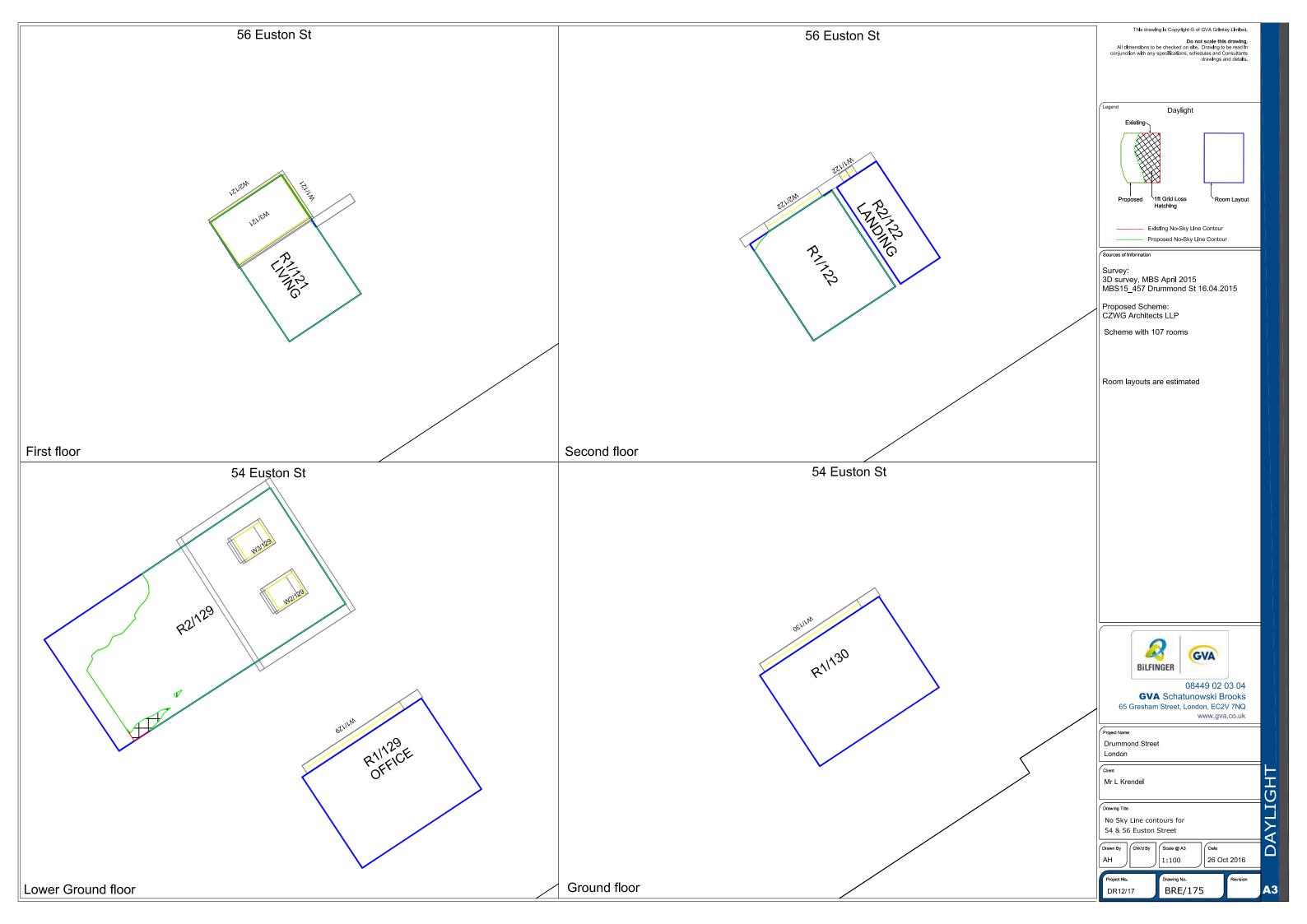


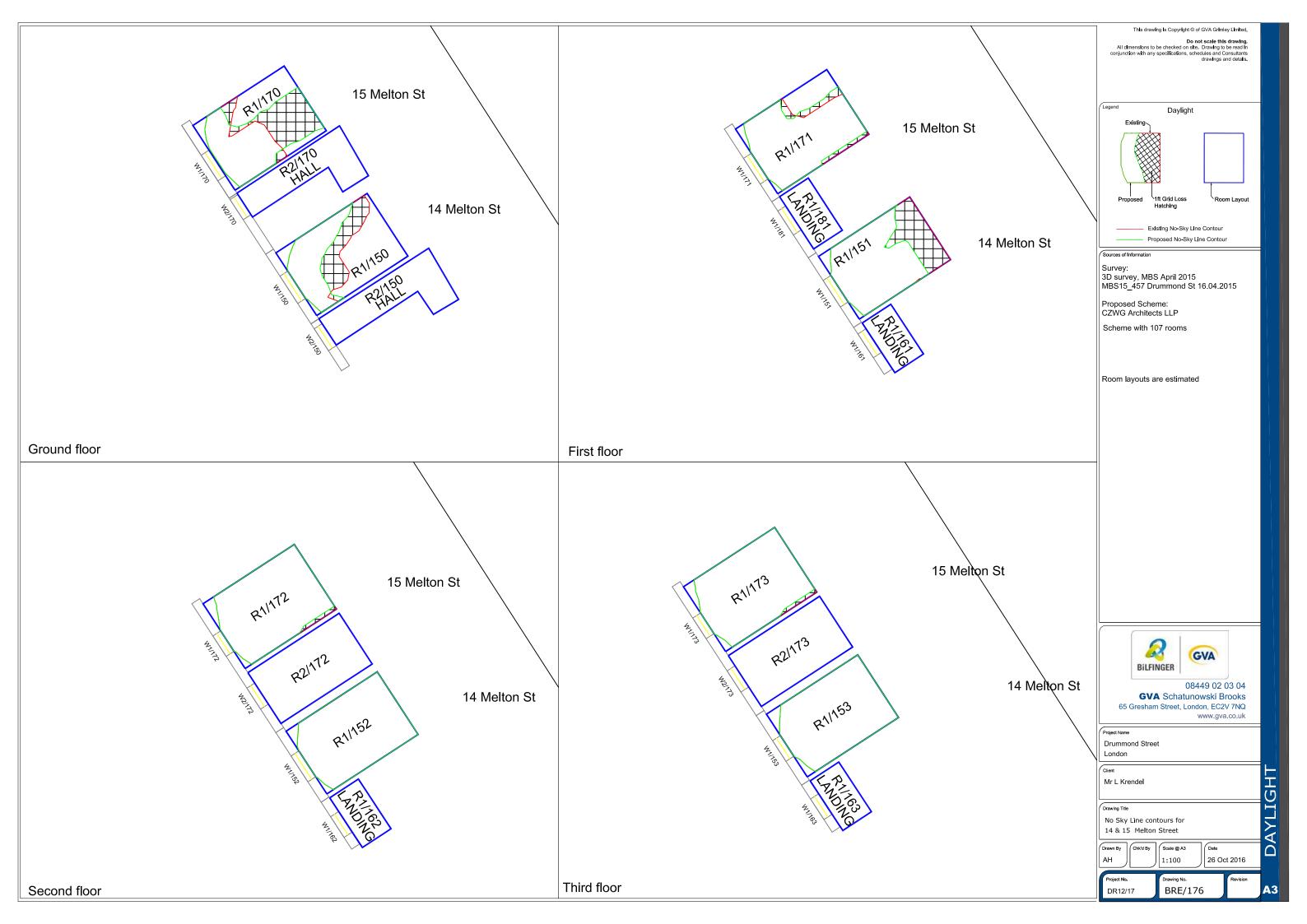














#### **Drummond Street**

#### Daylight analysis results for 107 room scheme Job 17 26-Oct-16

				%VS	С	% Do	aylight	Factor	Proposed No Sky	
Room/Floor	Room Use	Window	Exist	Prop	% Loss	Exist	Prop	% Loss	% of Room Area	% Loss of Existing
59 Cobourg										
Gnd Floor										
R2/10		W2/10	6.50	4.87	25.08%	0.31	0.24	22.19%	20.96%	-117.29%
1st Floor		1		1000			35.10			
R1/11	HALL	W3/11	15.42	5.32	65.50%	2.29	1.24	45.77%	83.41%	15.81%
R3/11		W2/11	27.43	12.56		0.99	0.64	35.56%		53.22%
R3/12		W2/12	34.16			0.78	0.61	22.12%		
61 Cobourg	Street - BRI									
Gnd Floor										
R1/10		W1/10	6.75	11.64	-72.44%	0.35	0.59	-69.57%	28.88%	-244.55%
1st Floor					A					
R2/11		W1/11	27.63	19.71	28.66%	1.08	0.89	16.91%	38.76%	57.85%
		W1/12	31.44	27.12						
R1/12	LKD	W3/12	33.54	33.54	>27	1.45	1.39	3.87%	95.72%	0.00%
- Canada (Molavo)	Q. 900 (4:30-1	W4/12	87.71	81.96	>27	11000000	1 15 Dag-577	BIESHROWS	10 CHARLE 1860	
65 Cobourg	Street - BRI	E171		<u>t</u>			3			A.S.
<b>Gnd Floor</b>										
R1/40		W1/40	7.80	4.89	37.31%	0.43	0.26	38.59%	6.08%	54.82%
R1/41	KITCHEN	W1/41	26.65	22.41	15.91%	0.64	0.58	9.18%	81.07%	9.92%
R1/42	10	W1/42	32.70	29.86	>27	1.87	1 7/	5.98%	97.17%	0.24%
K1/42		W2/42	33.99	30.87	>27	1.0/	1.76	3.90%	97.17%	0.24%
67 Cobourg	Street - BRI	E172			(%		20			
<b>Gnd Floor</b>										
R1/60	KITCHEN	W1/60	8.42	4.84	42.52%	0.57	0.30	46.94%	15.08%	51.33%
R1/61		W1/61	30.74	25.91	15.71%	1.01	0.90	11.20%	82.13%	11.84%
R1/62		W1/62	32.01	30.19	>27	0.90	0.88	3.10%	76.26%	0.00%
69 Cobourg	Street - BRI	E172		107			12	00.1		10
1st Floor		(Kud		D'					41	
R1/71		W1/71	14.19	11.27	20.58%	0.45	0.38	16.67%		23.12%
R3/71		W3/71	25.95	Description of the Control of the Co	4.86%	0.64	0.63	2.49%	74.79%	0.00%
R1/72		W1/72	28.81		Will Frankling	1.88	1.76	6.17%	98.37%	0.00%
R3/72		W3/72	26.51	25.64	3.28%	0.97	0.96	1.24%	93.63%	0.00%
R4/72		W4/72	31.66	30.57	>27	1.95	1.90	2.36%	97.75%	0.00%
64 Euston St	reet - BRE17	73		7-	STATE OF THE STATE			A.V.		V/I
Gnd Floor		,								
R1/80		W1/80		65.24		0.30	0.29	3.97%		0.00%
R2/81	BEDROOM	W2/81	28.51	24.21	15.08%	1.15	1.01	11.85%	77.03%	18.62%
R2/82	BEDROOM	W2/82	49.80			1.55	1.47	5.42%	90.84%	0.00%
12/02	DLDKOOM	W3/82	50.77	47.38	>27	1.00	1.4/	0.42/0	70.04/6	0.00%



				%VSC % Daylight Factor			Factor	Propose	d No Sky		
									% of	07 1	
es mess				10	~ .	200	-	~ .	Room	% Loss of	
Room/Floor			EXIST	Prop	% LOSS	EXIST	Prop	% Loss	Area	Existing	
62 Euston St	reet - BREI	/3									
Gnd Floor	Ivo	Tura 100	10 (1	15.00	17 /00	1 /7	1 //	10.000	FO 1/07	00.000	
R1/90	KD	W1/90	19.41	15.99	17.62%	1.67	1.44	13.80%	53.46%	33.09%	
R1/91	BEDROOM	W1/91	31.39		14.69%	1.25	1.10	12.12%	74.18%	23.08%	
R1/92	BEDROOM	W1/92	57.87	54.05		1.59	1.49	6.12%	91.57%	0.00%	
10 F	DDE1	W2/92	53.33	49.54	>2/	F.000	2000	1000000	24 30.5296826	154,160,000.0	
60 Euston Street - BRE174 Gnd Floor											
	IVD	IW1 /100	00.05	17//	10.010	0.50	0.41	17 /00	10 110	27.400	
R1/100	KD	W1/100	22.05 30.81	17.66	19.91%	0.50	0.41	17.69%	40.44%	37.69%	
R1/101	BEDROOM	W1/101	53.67	25.85 49.85		1.08	0.94	13.19%	67.61%	17.54%	
R2/102	BEDROOM	W2/102				1.68	1.57	6.14%	91.48%	0.00%	
FO Fuelos C	POST DOC1	W3/102	58.30	54.48	>2/						
58 Euston St Gnd Floor	ieei - DKEI/	-									
	KITCHEN	W1/110	17.88	15.09	15.60%	1.57	1.37	12.64%	45 200	36.79%	
R1/110 R1/111	BEDROOM	W1/110	30.27	25.35	16.25%	1.23	1.07	12.84%	45.20% 72.96%	23.93%	
KI/III	BEDROOM		57.05		>27	1.20	1.07	12.70%	/2.70%	23.73/0	
R1/112	BEDROOM	W1/112 W2/112	52.83			1.78	1.69	5.17%	90.84%	0.00%	
56 Euston St	root DDE1	-	32.03	47.43	-21			0.0			
1st Floor	ieei - bkci/	3									
131 11001		W1/121	11.96	11.37	4.93%		1			-	
R1/121	LIVING	W2/121		25.23	18.06%	14.85	12.02	6.16%	99.93%	0.00%	
K1/121	LIVING	W3/121		69.97		14.00	13.73	0.10/8	77.73/0	0.00%	
R1/122		W2/122	33.29	30.49		3.75	3.48	7.09%	99.11%	0.00%	
54 Euston St	reet - RRE17		33.27	30.47	-21	0.70	3,40	7.07/6	77.1170	0,0076	
Base Floor	ICCI - DILLI	-									
		W2/129	37 68	31.93	>27	MATERIAL		410000000000000000000000000000000000000	steed paternations	27 (00/05/05	
R2/129		W3/129	36.31	27.79		0.43	0.38	10.35%	82.89%	1.45%	
14 Melton S	treet - BRF1		00.01	21.11	- 2/						
Gnd Floor	HEET - DKLT	,,,									
R1/150		W1/150	12.37	9.05	26.84%	0.85	0.67	21.13%	36.09%	36.01%	
1st Floor		1111/100	12.07	7.00	2010 170	0.00	0.07	2111070	0010770	00.0170	
R1/151		W1/151	18.74	15.47	17.45%	1.34	1.18	11.96%	71.41%	26.48%	
2nd Floor		1				1.55.0					
R1/152		W1/152	28.59	24.26	15.15%	1.88	1.66	11.50%	97.24%	0.00%	
3rd Floor		1						1.1.1.2.2.7.1			
R1/153		W1/153	33.14	30.56	>27	1.05	0.98	6.69%	96.03%	0.00%	
15 Melton S	treet - BRE1										
<b>Gnd Floor</b>											
R1/170		W1/170	11.18	10.98	1.79%	0.84	0.81	3.59%	67.95%	-55.50%	
1st Floor										N.	
R1/171		W1/171	18.06	16.78	7.09%	1.18	1.10	6.30%	80.02%	0.53%	
2nd Floor	529										
R1/172		W1/172	30.96	27.01	>27	1.24	1.10	10.77%	94.76%	1.77%	
11/1/2											
3rd Floor											



				%VS	С	% D	ayligh	Factor	Proposed No Sky	
Mark to		Exemple: No	enterova roda	200					% of Room	% Loss of
		Window	Exist	Prop	% Loss	Exist	Prop	% Loss	Area	Existing
Ibis Hotel -	- BRE177									
1st Floor				,						
R1/211	BEDROOM	W1/211	35.53	27.92	>27	0.99	0.80	19.22%	52.60%	44.80%
R2/211	BEDROOM	W2/211	35.41	27.15		0.97	0.77	21.01%	75.50%	20.76%
R3/211	BEDROOM	W3/211	34.80	25.24	27.47%	0.80	0.60	25.44%	39.73%	57.85%
R4/211	BEDROOM	W4/211	34.77	-	28.44%	0.79	0.58	26.42%	48.35%	48.37%
R5/211	BEDROOM	W5/211	34.75	24.20	30.36%	0.79	0.57	28.34%	42.24%	54.94%
R6/211	BEDROOM	W6/211	34.73	24.11	30.58%	0.79	0.57	28.54%	40.65%	56.61%
R7/211	BEDROOM	W7/211	34.98		29.73%	0.79	0.58	27.49%	52.36%	44.18%
R8/211	BEDROOM	W8/211		24.71	29.30%	0.80	0.58	26.82%	39.61%	57.77%
R9/211	BEDROOM	W9/211	35.00		25.69%	0.80	0.61	22.89%	77.87%	16.95%
R10/211	BEDROOM	W10/211	34.93	26.47	24.22%	0.80	0.63	21.28%	52.57%	44.20%
R11/211	BEDROOM	W11/211	34.72	28.23	>27	0.78	0.66	16.13%	94.25%	0.00%
R12/211	BEDROOM	W12/211	34.66	28.72	>27	0.78	0.67	14.69%	70.47%	24.87%
R13/211	BEDROOM	W13/211	34.26	30.00	>27	0.77	0.69	10.34%	93.42%	0.00%
R14/211	BEDROOM	W14/211	34.09	30.21	>27	0.85	0.77	9.34%	94.31%	1.00%
R15/211	BEDROOM	W15/211	32.82	29.90	>27	0.83	0.77	6.77%	94.88%	0.00%
R16/211	BEDROOM	W16/211	14.45	13.84	4.22%	0.57	0.56	1.93%	75.31%	0.10%
R17/211	BEDROOM	W17/211	20.41	17.84	12.59%	0.76	0.70	8.66%	90.10%	0.00%
R18/211	CORRIDOR	W18/211	33.69	32.35	>27	2.08	2.01	3.17%	100.00%	0.00%
R19/211	BEDBOOM	W19/211	23.47	23.47	0.00%	0.71	0.71	0.00%	96.91%	0.00%
K19/211	BEDROOM	W20/211	20.50	20.50	0.00%	0.71	0.71	0.00%	70.71%	0.00%
2nd Floor	- BRE177	5%	05					200	···	XX
R1/212	BEDROOM	W1/212	37.26	31.29	>27	1.04	0.88	14.67%	72.25%	24.19%
R2/212	BEDROOM	W2/212	37.23	30.68	>27	1.01	0.85	16.17%	86.01%	9.73%
R3/212	BEDROOM	W3/212	37.05	29.08	>27	0.85	0.68	20.07%	60.95%	35.34%
R4/212	BEDROOM	W4/212	37.07	28.77	>27	0.83	0.66	20.74%	66.61%	28.86%
R5/212	BEDROOM	W5/212	37.10	28.10	>27	0.84	0.65	22.65%	60.93%	35.00%
R6/212	BEDROOM	W6/212	37.07	28.05	>27	0.84	0.65	22.82%	60.10%	35.85%
R7/212	BEDROOM	W7/212	37.10	28.32	>27	0.83	0.65	21.97%	70.89%	24.43%
R8/212	BEDROOM	W8/212	36.99	28.38	>27	0.84	0.66	21.51%	60.72%	35.27%
R9/212	BEDROOM	W9/212	36.98	29.39	>27	0.83	0.68	18.51%	87.60%	6.57%
R10/212	BEDROOM	W10/212	36.92	29.76	>27	0.84	0.69	17.20%	72.75%	22.77%
R11/212	BEDROOM	W11/212	36.78	31.17	>27	0.82	0.71	13.54%	94.25%	0.00%
R12/212	BEDROOM	W12/212	36.76	31.55	>27	0.82	0.72	12.39%	83.46%	11.02%
R13/212	BEDROOM	W13/212	36.43	32.56	>27	0.81	0.74	9.09%	93.59%	0.00%
R14/212	BEDROOM	W14/212	36.26	32.72	>27	0.89	0.82	8.10%	95.26%	0.00%
R15/212	BEDROOM	W15/212				0.87	0.82	6.10%	94.88%	0.00%
R16/212	BEDROOM	W16/212		15.23		0.60	0.59	2.01%	75.82%	0.00%
R17/212	BEDROOM		22.67				0.76			0.00%
R18/212	CORRIDOR		35.85			2.19				0.00%
		W19/212				133333		0.50000	4195A 10 1010	
R19/212	BEDROOM	W20/212					0.72	0.00%	97.24%	0.00%



				%VS	С	% D	ayligh	Factor	Proposed No Sky	
Room/Floor	Poom Use	Window	Exist	Prop	% Loss	7001170 00		% Loss	% of Room Area	% Loss of
3rd Floor - E	NAME OF TAXABLE PARTY.	Williadw	EXIST	1100	70 2033	EXIST	iiop	70 2033		
R1/213	BEDROOM	W1/213	38,17	34.80	>27	0.73	0.67	8.53%	93.17%	0.00%
R2/213	BEDROOM	W2/213	38.12	34.46	1000	0.71	0.65	9.27%	92.80%	0.00%
R3/213	BEDROOM	W3/213	38.04	33.29		0.72	0.63	11.96%	92.81%	0.00%
R4/213	BEDROOM	W4/213	38.02	33.07	>27	0.71	0.62	12.55%	93.22%	0.00%
R5/213	BEDROOM	W5/213	37.89	32.51	>27	0.71	0.61	13.66%	92.40%	0.00%
R6/213	BEDROOM	W6/213	37.83	32.43	777.0	0.71	0.61	13.72%	93.18%	0.00%
R7/213	BEDROOM	W7/213	37.78	32.37	>27	0.70	0.61	13.66%	92.80%	0.00%
R8/213	BEDROOM	W8/213	37.65	32.35	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	0.71	0.61	13.46%	93.05%	0.00%
R9/213	BEDROOM	W9/213	37.59	33.06		0.70	0.62	11.13%	92.51%	0.00%
R10/213	BEDROOM	W10/213	37.52	33.26		0.71	0.63	10.35%	93.69%	0.00%
R11/213	BEDROOM	W11/213	37.35	34.15		0.69	0.64	7.68%	92.69%	0.00%
R12/213	BEDROOM	W12/213	37.33	34.34	>27	0.69	0.64	7.07%	93.30%	0.00%
R13/213	BEDROOM	W13/213	36.96	34.79		0.69	0.65	4.82%	92.02%	0.00%
R14/213	BEDROOM	W14/213	36.85	34.86		0.75	0.72	4.41%	95.07%	0.00%
R15/213	BEDROOM	W15/213	34.73	33.22	>27	0.60	0.58	3.00%	93.58%	0.00%
R16/213	BEDROOM	W16/213	21.01	20.14	4.14%	0.69	0.68	1.46%	85.48%	0.00%
R17/213	BEDROOM	W17/213	27.25	25.79	5.36%	0.92	0.88	3.93%	97.72%	0.00%
R18/213	CORRIDOR	W18/213	36.53			2.23	2.19	1.70%	100.00%	0.00%
The second second second		W19/213	23.96	23,96	0.00%	750000000000000000000000000000000000000			ACCOUNTS OF STATE OF	
R19/213	BEDROOM	W20/213	21.82	21.82	0.00%	0.73	0.73	0.00%	97.83%	0.00%
4th Floor - B	RE178							115		ro
R1/214	BEDROOM	W1/214	38.18	36.60	>27	1.14	1.10	3.85%	96.91%	0.00%
R2/214	BEDROOM	W2/214	38.06	36.37	>27	1.14	1.09	4.21%	96.77%	0.00%
R3/214	BEDROOM	W3/214	37.99	36.20	>27	1.28	1.23	4.44%	97.70%	0.00%
R4/214	BEDROOM	W4/214	37.93	36.10	>27	1.34	1.28	4.47%	96.02%	0.00%
R5/214	BEDROOM	W5/214	37.92	36.16	>27	1.23	1.18	4.39%	94.43%	0.00%
R6/214	BEDROOM	W6/214	37.78	36.23	>27	1.29	1.24	3.80%	95.90%	0.00%
R7/214	BEDROOM	W7/214	37.68	36.46	>27	1.32	1.28	2.97%	97.06%	0.00%
R8/214	BEDROOM	W8/214	37.52	36.51	>27	1.30	1.27	2.53%	95.72%	0.00%
R10/214	BEDROOM	W9/214	37.53	36.60	>27	1.27	1.24	2.36%	90.47%	0.00%
R11/214	BEDROOM	W10/214	37.20	36.44	>27	1.27	1.25	1.89%	82.98%	0.00%
R12/214	BEDROOM	W11/214	36.06	35.51	>27	1.30	1.28	1.39%	82.80%	0.00%
R16/214	BEDROOM	W16/214	26.20	25.85	1.34%	0.80	0.80	0.75%	92.16%	0.00%
R17/214	BEDROOM	W17/214	31.20	30.67	>27	1.01	0.99	1.39%	98.57%	0.00%
R18/214	CORRIDOR	W18/214	36.91	36.71	>27	2.25	2.24	0.44%	100.00%	0.00%
D10/014	BEDBOOT!	W19/214	24.52	24.52	0.00%	0.74	0.74	0.000	00 /00	0.000
R19/214	BEDROOM	W20/214	22.53	22.53	0.00%	0.74	0.74	0.00%	98.62%	0.00%



#### **Drummond Street**

#### Sunlight analysis results for 107 room scheme Job 17 26-Oct-16

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

		Ex	isting %		Pro	posed %	6	Over the second second		
Room use	Window Ref	Summer	Winter	Total	Summer	Winter	Total	% Loss of Summer	% Loss of Winter	% Loss of Total
61 Cobour	g Street - BR	E171	22		2)	b) A		20	38 6	224
LKD	W3/12	42.00	20.00	62.00	42.00	20.00	62.00	0.00%	0.00%	0.00%
LKD	W4/12	49.00	6.00	55.00	49.00	6.00	55.00	0.00%	0.00%	0.00%
14 Melton	Street - BRE1	76								
Gnd Floor						-		p)	<u> </u>	W.
	W1/150	15.00	2.00	17.00	7.00	0.00	7.00	53.33%	100.00%	58.82%
1st Floor	377									
	W1/151	20.00	4.00	24.00	15.00	2.00	17.00	25.00%	50.00%	29.17%
2nd Floor										
	W1/152	30.00	8.00	38.00	27.00	4.00	31.00	10.00%	50.00%	18.42%
3rd Floor		-								gui.
week to the second seco	W1/153	35.00	13.00	48.00	31.00	12.00	43.00	11.43%	7.69%	10.42%
	Street - BRE1	76	4.0	0.9				*5	55	· /:
<b>Gnd Floor</b>										
	W1/170	12.00	2.00	14.00	11.00	0.00	11.00	8.33%	100.00%	21.43%
1st Floor	11.									
	W1/171	27.00	2.00	29.00	21.00	2.00	23.00	22.22%	0.00%	20.69%
2nd Floor	-		p.	-						
	W1/172	41.00	10.00	51.00	34.00	10.00	44.00	17.07%	0.00%	13.73%
3rd Floor										
	W1/173	42.00	18.00	60.00	39.00	16.00	55.00	7.14%	11.11%	8.33%
Ibis Hotel										
1st Floor -				ř				70		
BEDROOM	W1/211	36.00		55.00			46.00	- Committee	31.58%	16.36%
BEDROOM	W2/211	36.00	19.00		33.00		44.00	8.33%	42.11%	20.00%
BEDROOM	W3/211	33.00	18.00		30.00	15. 15. 15.	37.00	9.09%	61.11%	27.45%
BEDROOM	W4/211	32.00	18.00		30,00		36.00	6.25%	66.67%	28.00%
BEDROOM	W5/211	32.00	19.00		30.00		35.00	6.25%	73.68%	31.37%
BEDROOM	W6/211	32.00	19.00		30.00		34.00	6.25%	78.95%	33.33%
BEDROOM	W7/211	32.00	19.00		31.00	_	36.00	3.13%	73.68%	29.41%
BEDROOM	W8/211	31.00	18.00		31.00		36.00	0.00%	72.22%	26.53%
BEDROOM	W9/211	31.00	18.00		31.00		37.00	0.00%	66.67%	24.49%
BEDROOM	W10/211	31.00	18.00		31.00		38.00	0.00%	61.11%	22.45%
BEDROOM	W11/211	31.00	18.00		31.00		42.00	0.00%	38.89%	14.29%
BEDROOM	W12/211	31.00	18.00		31.00		43.00	0.00%	33.33%	12.24%
BEDROOM	W13/211	31.00			31.00		45.00	0.00%	22.22%	8.16%
BEDROOM	W14/211	31.00	18.00		31.00	14.00		0.00%	22.22%	8.16%
BEDROOM	W15/211	34.00	20.00		34.00		51.00	0.00%	15.00%	5.56%
BEDROOM	W16/211	13.00	9.00	Co. S (2) (2) (2)	13.00		22.00	0.00%	0.00%	0.00%
BEDROOM	W17/211	19.00	14.00		19.00		30.00	0.00%	21.43%	9.09%
CORRIDOR		36.00	20.00		36.00	19.00	55.00	0.00%	5.00%	1.79%
BEDROOM	W20/211	19.00	5.00	24.00	19.00	5.00	24.00	0.00%	0.00%	0.00%



		Ex	isting %		Pro	posed %	0	Ŷ.		
		1						% Loss of	% Loss of	% Loss of
Room use	Window Ref	Summer	Winter	Total	Summer	Winter	Total	Summer	Winter	Total
2nd Floor -	BRE177									3
BEDROOM	W1/212	36.00	20.00	56.00	35.00	15.00	50.00	2.78%	25.00%	10.71%
BEDROOM	W2/212	36.00	20.00	56.00	35.00	14.00	49.00	2.78%	30.00%	12.50%
BEDROOM	W3/212	33.00	19.00	52.00	32.00	11.00	43.00	3.03%	42.11%	17.31%
BEDROOM	W4/212	33.00	19.00	52.00	32.00	11.00	43.00	3.03%	42.11%	17.31%
BEDROOM	W5/212	33.00	19.00	52.00	33.00	9.00	42.00	0.00%	52.63%	19.23%
BEDROOM	W6/212	32.00	19.00	51.00	32.00	9.00	41.00	0.00%	52.63%	19.61%
BEDROOM	W7/212	32.00	19.00	51.00	32.00	10.00	42.00	0.00%	47.37%	17.65%
BEDROOM	W8/212	31.00	19.00	50.00	31.00	10.00	41.00	0.00%	47.37%	18.00%
BEDROOM	W9/212	31.00	18.00	49.00	31.00	11.00	42.00	0.00%	38.89%	14.29%
BEDROOM	W10/212	31.00	18.00	49.00	31.00	11.00	42.00	0.00%	38.89%	14.29%
BEDROOM	W11/212	31.00	18.00	49.00	31.00	13.00	44.00	0.00%	27.78%	10.20%
BEDROOM	W12/212	31.00	18.00	49.00	31.00	13.00	44.00	0.00%	27.78%	10.20%
BEDROOM	W13/212	31.00	18.00	49.00	31.00	15.00	46.00	0.00%	16.67%	6.12%
BEDROOM	W14/212	31.00	18.00	49.00	31.00	16.00	47.00	0.00%	11.11%	4.08%
BEDROOM	W15/212	34.00	20.00	54.00	34.00	18.00	52.00	0.00%	10.00%	3.70%
BEDROOM	W16/212	14.00	9.00	23.00	14.00	9.00	23.00	0.00%	0.00%	0.00%
BEDROOM	W17/212	20.00	14.00	34.00	20.00	12.00	32.00	0.00%	14.29%	5.88%
CORRIDOR	W18/212	36.00	20.00	56.00	36.00	20.00	56.00	0.00%	0.00%	0.00%
BEDROOM	W20/212	19.00	5.00	24.00	19.00	5.00	24.00	0.00%	0.00%	0.00%
3rd Floor -	BRE178	92	50	28 2		K 20		70	26	2007
BEDROOM	W1/213	32.00	19.00	51.00	32.00	18.00	50.00	0.00%	5.26%	1.96%
BEDROOM	W2/213	32.00	19.00	51.00	32.00	18.00	50.00	0.00%	5.26%	1.96%
BEDROOM	W3/213	32.00	19.00	51.00	32.00	16.00	48.00	0.00%	15.79%	5.88%
BEDROOM	W4/213	32.00	19.00	51.00	32.00	16.00	48.00	0.00%	15.79%	5.88%
BEDROOM	W5/213	32.00	19.00	51.00	32.00	16.00	48.00	0.00%	15.79%	
BEDROOM	W6/213	32.00	19.00	51.00	32.00	16.00	48.00	0.00%	15.79%	5.88%
BEDROOM	W7/213	31.00	19.00	50.00	31.00	16.00	47.00	0.00%	15.79%	6.00%
BEDROOM	W8/213	30.00	19.00	49.00	30.00	16.00	46.00	0.00%	15.79%	6.12%
BEDROOM	W9/213	30.00	18.00	48.00	30.00	16.00	46,00	0.00%	11.11%	4.17%
BEDROOM	W10/213	30.00	18.00	48.00	30.00	16.00	46.00	0.00%	11.11%	4.17%
BEDROOM	W11/213	30,00	18.00	48.00	30.00	16.00	46.00	0.00%	11.11%	4.17%
BEDROOM	W12/213	30.00	18.00	48.00	30.00	17.00	47.00	0.00%	5.56%	2.08%
BEDROOM	W13/213	30.00	18.00	48.00	30.00	18.00	48.00	0.00%	0.00%	0.00%
BEDROOM	W14/213	30.00	18.00	48.00	30.00	18.00	48.00	0.00%	0.00%	0.00%
BEDROOM	W15/213	30.00	19.00	49.00	30.00	19.00	49.00	0.00%	0.00%	0.00%
BEDROOM	W16/213	16.00	12.00	28.00	16.00	12.00	28.00	0.00%	0.00%	0.00%
BEDROOM	W17/213	24.00	14.00	38.00	24.00	14.00	38.00	0.00%	0.00%	0.00%
CORRIDOR	W18/213	36.00	20.00	56.00	36.00	20.00	56.00	0.00%	0.00%	0.00%
BEDROOM	W20/213	19.00	5.00		19.00	5.00		0.00%	0.00%	0.00%



	Window Ref	Existing %			Pro	posed %	6			
Room use		Summer	Winter	Total	Summer	Winter	Total	% Loss of Summer	% Loss of Winter	% Loss of Total
4th Floor -	BRE178									
BEDROOM	W1/214	38.00	22.00	60.00	38.00	21.00	59.00	0.00%	4.55%	1.67%
BEDROOM	W2/214	38.00	22.00	60.00	38.00	21.00	59.00	0.00%	4.55%	1.67%
BEDROOM	W3/214	38.00	22.00	60.00	38.00	21.00	59.00	0.00%	4.55%	1.67%
BEDROOM	W4/214	38.00	22.00	60.00	38.00	21.00	59.00	0.00%	4.55%	1.67%
BEDROOM	W5/214	37.00	22.00	59.00	37.00	22.00	59.00	0.00%	0.00%	0.00%
BEDROOM	W6/214	37.00	21.00	58.00	37.00	21.00	58.00	0.00%	0.00%	0.00%
BEDROOM	W7/214	36.00	21.00	57.00	36.00	21.00	57.00	0.00%	0.00%	0.00%
BEDROOM	W8/214	36.00	21.00	57.00	36.00	21.00	57.00	0.00%	0.00%	0.00%
BEDROOM	W9/214	36.00	21.00	57.00	36.00	21.00	57.00	0.00%	0.00%	0.00%
BEDROOM	W10/214	36.00	21.00	57.00	36.00	21.00	57.00	0.00%	0.00%	0.00%
BEDROOM	W11/214	36.00	22.00	58.00	36.00	22.00	58.00	0.00%	0.00%	0.00%
BEDROOM	W16/214	19.00	17.00	36.00	19.00	17.00	36.00	0.00%	0.00%	0.00%
BEDROOM	W17/214	27.00	15.00	42.00	27.00	15.00	42.00	0.00%	0.00%	0.00%
CORRIDOR	W18/214	36.00	20.00	56.00	36.00	20.00	56.00	0.00%	0.00%	0.00%
BEDROOM	W20/214	19.00	5.00	24.00	19.00	5.00	24.00	0.00%	0.00%	0.00%