



Proposed Development of 93-103 (odd) Drummond Street and 63 Cobourg Street, London NW1 (10 Storey Tower)

Canfield Freehold Ltd

January 2018

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For and on behalf of GVA Grimley Limited

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 at 93-103 (odd) Drummond Street and 63 Cobourg Street, London.
- 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 drawings of the proposal received from CZWG Architects in November 2017, reference "2049_Tower 10 storey_20171113".

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, by reference to the Building Research Establishments flexible guidance.
- 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)' is the document referred to by most Local Planning Authorities (LPAs) when considering Daylight and Sunlight amenity matters.
- 3.2 The BRE guidelines are intended to be used in conjunction with the interior daylight recommendations in the British Standard *Code of Practice for Daylighting*, BS 8206-2:2008.
- 3.3 Certain LPAs produce their own planning guidance for Daylight and Sunlight matters; however these are invariably based on the recommendations and methodologies set out in the BRE document.
- 3.4 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."

3.5 The default numerical targets set out in the guidelines are purely advisory and may be varied to meet the needs of the development and its location. For example, appropriate targets in a dense urban environment should reflect realistic expectations in such a context.

Daylighting: Existing Neighbours

- 3.6 The recommendations for retaining daylight amenity in existing residential buildings neighbouring a proposed development are set out in Part 2.2 of the guidelines.
- 3.7 This section of the guidelines provides a sequential process for identifying which properties should be considered, based on their distance from the proposed development.
- 3.8 It is then recommended that properties which fall within the assessment radius should be checked by application of the 25°test. If the new development subtends more than 25° at the lowest level of windows serving a habitable room in an existing dwelling, it is recommended that more detailed checks are then undertaken.
- 3.9 These more detailed checks are set out below.

Vertical Sky Component (VSC)

- 3.10 The amount of light available to a window depends upon the amount of unobstructed sky that can be seen from the centre of the window under consideration.
- 3.11 The amount of visible sky and consequently the amount of skylight entering a room is assessed by calculating the VSC at the centre of the window. The guidelines advise that bathrooms, toilets, storerooms, circulation areas and garages need not be analysed.
- 3.12 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.
- 3.13 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."

- 3.14 The above default recommendation is that greater than 27% VSC should constitute adequate skylight. In circumstances whereby 27%VSC is not achieved post development, a reduction of up to 0.8 times the former value (in other words less than 20% reduction of existing VSC) would not be noticeable.
- 3.15 The VSC calculation only measures light reaching the outside plane of the window under consideration, so is measuring potential for adequate daylight, rather than actual daylight conditions. Depending upon the room layout and window size it may still be adequately lit with less than 27%VSC.
- 3.16 As such, it has significant limitations and does not necessarily represent the availability and quality of daylight that will be received within the room itself.
 - Daylight Distribution (or No-Sky Line)
- 3.17 The guidelines also suggest that the distribution of daylight within rooms is reviewed "where layouts are known", although bedrooms are considered "less important".
- 3.18 Although it is nearly always the case that internal layouts and uses of potentially affected rooms in neighbouring properties are unknown, it is possible to make a reasonable assumption to give a fair indication of how the distribution of daylight may be affected, especially given the shortcomings of the VSC method.

- 3.19 The DD or NSL contour shows the extent of light penetration into the room at working plane level, i.e. 850mm above floor level. It divides the room between the portion within which a direct view of sky is possible and not.
- 3.20 The default recommendation is that if a substantial part of the room falls beyond the no skyline contour (normally more than 20%) the distribution of light within the room will look poor.

Sunlighting

3.21 Recommendations for adequate sunlight amenity are set out in Parts 3.1 (new development) and 3.2 (existing residential neighbours) of the BRE guidelines. This makes reference to the recommendations set out in BS 8206-2 in respect of the Annual Probable Sunlight Hours (APSH) methodology.

APSH

- 3.22 For new development, APSH calculations are taken at the centre of each window being assessed, on the plane of the inside face of the window wall. For existing neighbours, the outside face of the window wall is used.
- 3.23 The APSH method is based on the long term average of the total number of hours during the year in which direct sunlight reaches the unobstructed ground allowing for average levels of cloudiness.
- 3.24 APSH therefore varies with location; however for reference in London a figure of 1,486 hours is used for the annual unobstructed total. The correct sunlight availability indicator for the location is then used to plot what percentage of the annual unobstructed total will reach the window reference point when obstructions and orientation are taken into account.
- 3.25 The BRE guidelines state:

"In housing, the main requirement for sunlight is in living rooms, where it is valued at any time of day but especially in the afternoon. Sunlight is also required in conservatories. It is viewed as less important in bedrooms and in kitchens, where people prefer it in the morning rather than the afternoon."

3.26 Paragraphs 3.2.5 and 3.2.6 of the guidelines sets the following recommendations:-

"If this window reference point can receive more than one quarter of APSH, including at least 5% of APSH in the winter months of 21 September and 21 March, then the room should still receive enough sunlight."

"Any reduction in sunlight access below this level should be kept to a minimum. If the 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."

- 3.27 To summarise the above, the default recommendation to retain meet occupants sunlight expectations is 25% APSH, of which 5% should be in winter months.
- 3.28 Where this recommendation is not met a comparison with the existing condition is reviewed. 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 by the occupants.
- 3.29 The BRE guidelines add a further check of the overall annual loss, stating that when this is greater than 4% APSH the dwelling may be adversely affected. There is a clear emphasis on the primary requirement for sunlight amenity being in living rooms and conservatories.
- 3.30 The BRE guidance identifies the main influencing factors affecting access to available sunlight are site orientation and degree of obstruction.
- 3.31 When considering existing neighbours these factors are clearly outside the control of the designer. In new development the BRE suggest that the aim should be to minimise the number of northerly facing dwellings, however in larger developments it is accepted this may not be possible.

4. Report

- 4.1 Please refer to Appendix I for the detailed assessment drawings upon which the following report is based. Drawings BRE/372 to BRE/375 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/376 and BRE/377),
 - 54 to 64 Euston Street (assessment drawings BRE/378 to BRE/380), and
 - 14 & 15 Melton Street (assessment drawing BRE/381).

59 to 69 Cobourg Street



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.

VSC Assessments

- The existing VSC values were consistent with the constrained baseline, with several below the BRE recommended target of at least 27%.
- 4.6 Unusually for this type of development, there would be beneficial improvements of existing VSC values in several locations, as the proposed development would not occupy the full footprint of the current massing on site.
- 4.7 Where the existing windows currently achieve 27%VSC, they would generally either retain in excess of this post-development or slightly below.
- 4.8 The assessment indicated some differences may be noticeable; however in all cases the retained values would be consistent with reasonable VSC expectations in a dense urban environment.

No-Sky Line Assessments

- 4.9 An attempt was made to research the internal layouts of these properties, to enable consideration of potential effects to the Daylight Distribution.
- 4.10 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 compliant with the default BRE recommendations, retaining over or close to 80% of their room area with a direct view of sky. Several would again experience beneficial improvements post-development.
- 4.12 One room assessed indicated potentially noticeable differences, but would also retain values consistent with reasonable expectations for the context, albeit below the BRE default recommendation.

APSH Assessments

4.13 As set out in the BREE guidance, these types of assessment are not required as these windows are northerly orientated.

4.14 Overall, the assessments are considered to demonstrate adequate retained conditions, consistent with the dense urban context and proximity of adjacent properties to the site boundary.

54 to 64 Euston Street

VSC Assessments

- 4.15 The majority of windows assessed would either retain in excess of the BRE recommendation of at least 27%VSC post-development, or experience slight, unnoticeable differences.
- 4.16 The remaining windows would be characterised as retaining VSC values commensurate with the dense urban context. The change from the baseline VSC may be noticeable in some areas given the associated percentage differences.

No-Sky Line Assessments

- 4.17 An attempt was made to research the internal layouts of these properties, to enable consideration of potential effects to the Daylight Distribution.
- 4.18 This indicated several non-habitable spaces, such as hallways and small food preparation areas.
- 4.19 Similar to the VSC results, in the vast majority of cases the results would be compliant with the default BRE recommendations, retaining over or close to 80% of their room area with a direct view of sky or slight, unnoticeable reductions of existing values.
- 4.20 Four ground floor rooms assessed (thought to be three bedrooms and a kitchen) indicated potentially noticeable differences given the percentage differences when compared to the baseline are greater than 20%.
- 4.21 These reductions are all between 23.47% and 28.15%, which would not indicate material/significant differences. In addition, all retained values for these four rooms are consistent with reasonable expectations for the context, albeit below the BRE default recommendation.

APSH Assessments

- 4.22 As set out in the BREE guidance, these types of assessment are not required as these windows are northerly orientated.
- 4.23 Overall, the assessments are considered to demonstrate adequate retained conditions, consistent with the dense urban context and proximity of adjacent properties to the site boundary.

14 & 15 Melton Street

VSC Assessments

4.24 All windows assessed would either retain in excess of the BRE recommendation of at least 27%VSC post-development, or experience slight, unnoticeable differences.

No-Sky Line Assessments

- 4.25 An attempt was made to research the internal layouts of these properties, to enable consideration of potential effects to the Daylight Distribution.
- 4.26 This indicated several non-habitable spaces, such as hallways and small food preparation areas.
- 4.27 In the vast majority of cases the results would be compliant with the default BRE recommendations, retaining over or close to 80% of their room area with a direct view of sky or slight, unnoticeable reductions of existing values. One room would experience a beneficial improvement post-development.
- 4.28 Two rooms assessed indicated slightly noticeable, non material differences. Both would also retain values consistent with contextual expectations.

APSH Assessments

- 4.29 All but two ground floor windows assessed would either retain in excess of the BRE default target recommendations or experience slight, unnoticeable differences.
- 4.30 One window assessment point at 14 Melton St (ref: W1/150) and a second at 15 Melton St (ref: W1/170) would experience a differences which may be slightly noticeable, given the percentage change.
- 4.31 On closer review it can be seen that both windows are self-obstructed, evidenced by their significantly lower existing values compared to other windows in the same area.
- 4.32 Therefore, despite small actual difference of 4% and 8% Total APSH, these would register as differences of 47.06% and 28.57%.
- 4.33 The differences are on balance considered to represent a "no-worsening" of the baseline situation, with the retained values entirely commensurate with the dense urban context and proximity of adjacent properties to the site boundary.

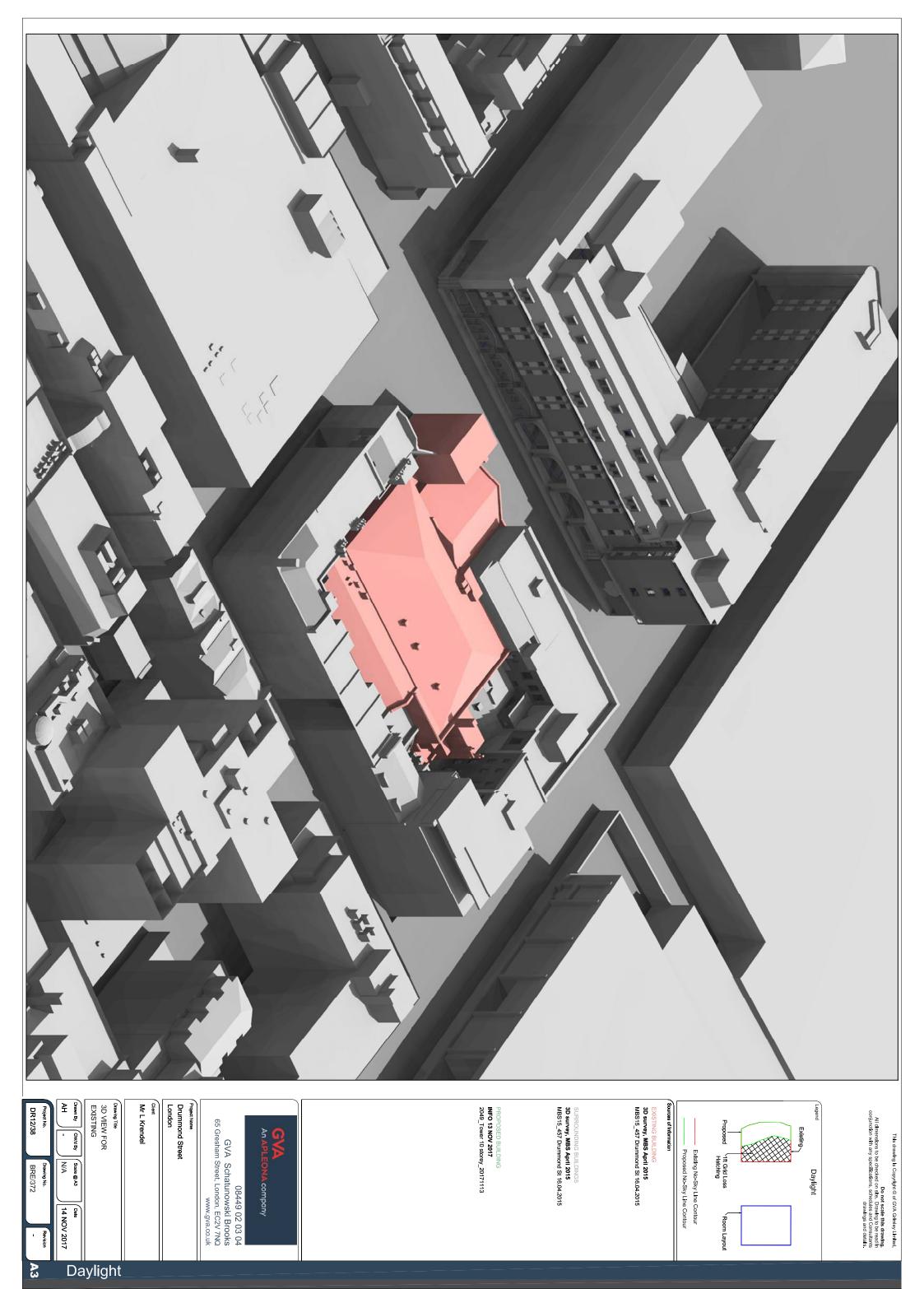
The overall effect is again considered acceptable in the round.

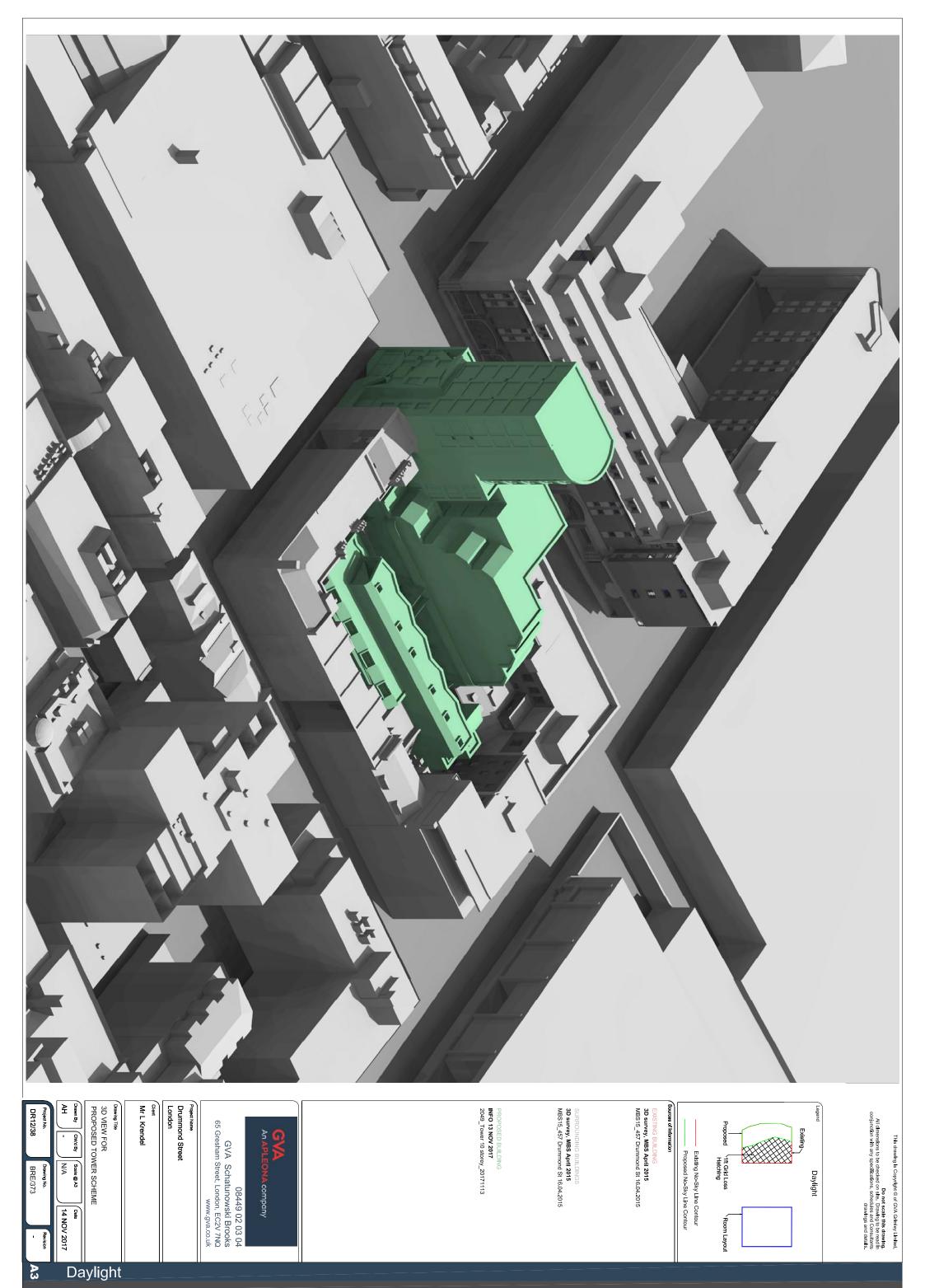
5. Conclusion

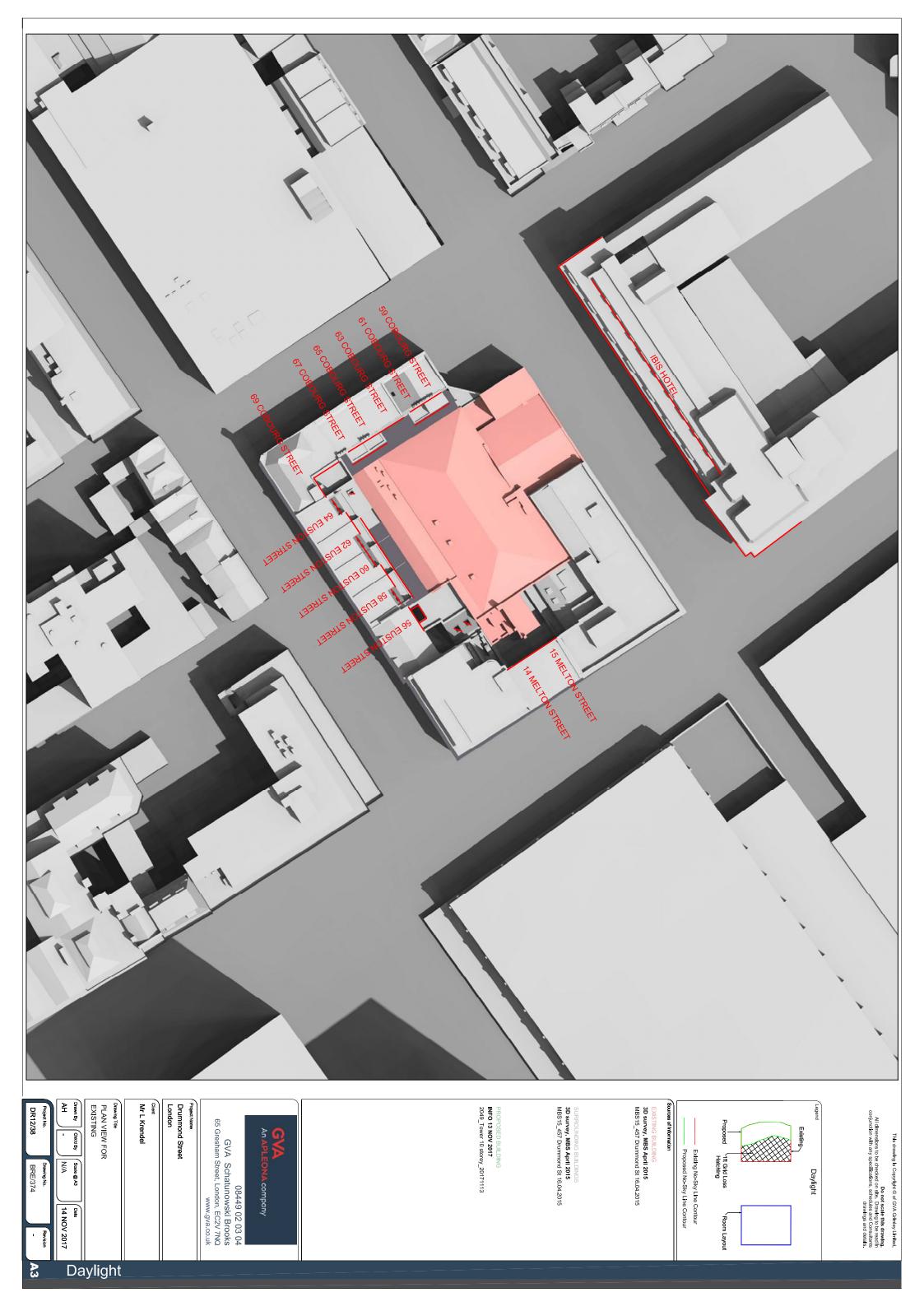
- 5.1 The detailed Daylight and Sunlight assessments are considered to demonstrate the proposed development is consistent with the flexible guidance set out by the BRE, having regard for the dense urban context and proximity of adjoining properties.
- 5.2 The proposed development is therefore concluded as compliant with London Borough of Camden planning policy on Daylight and Sunlight.

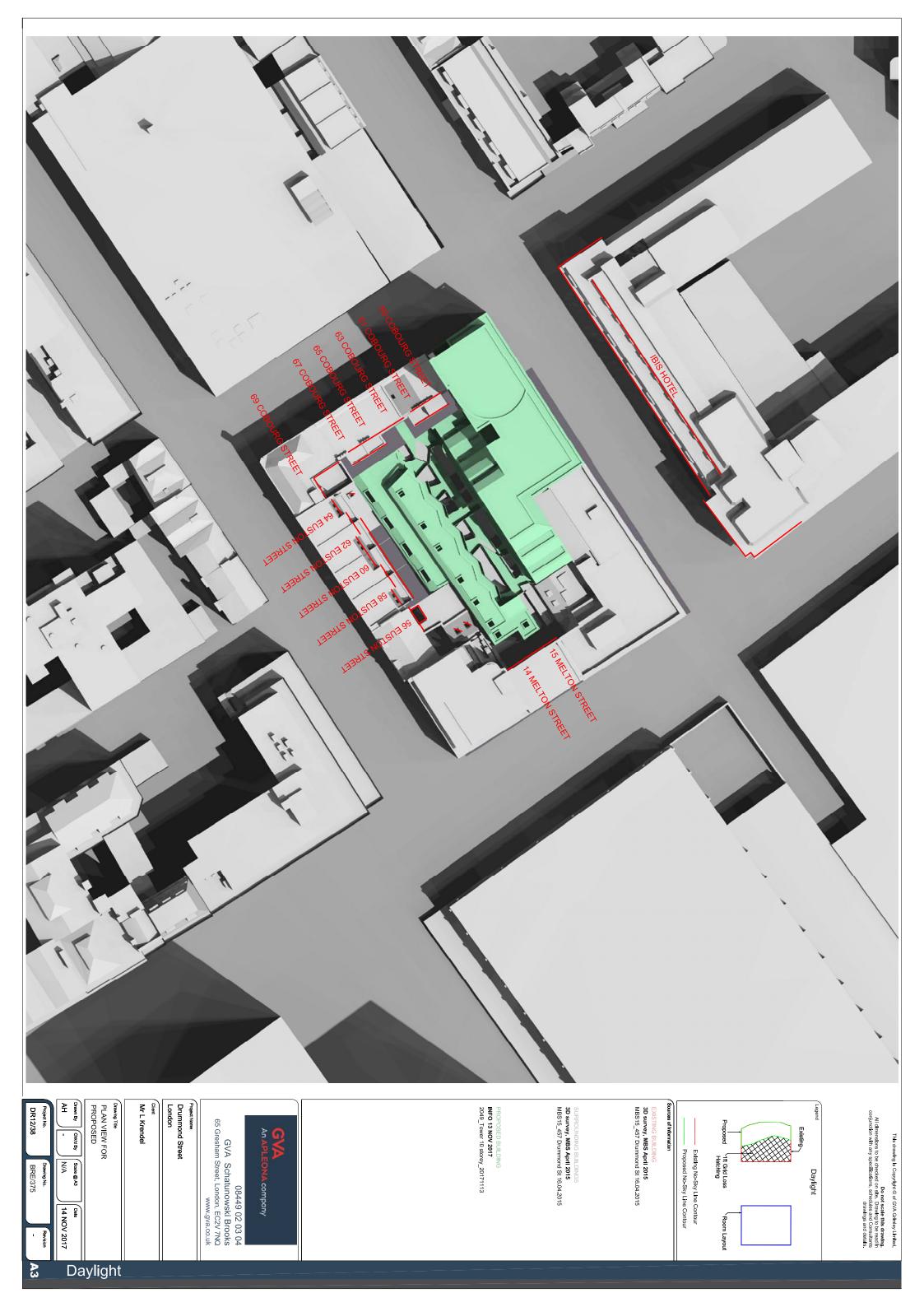


Appendix I



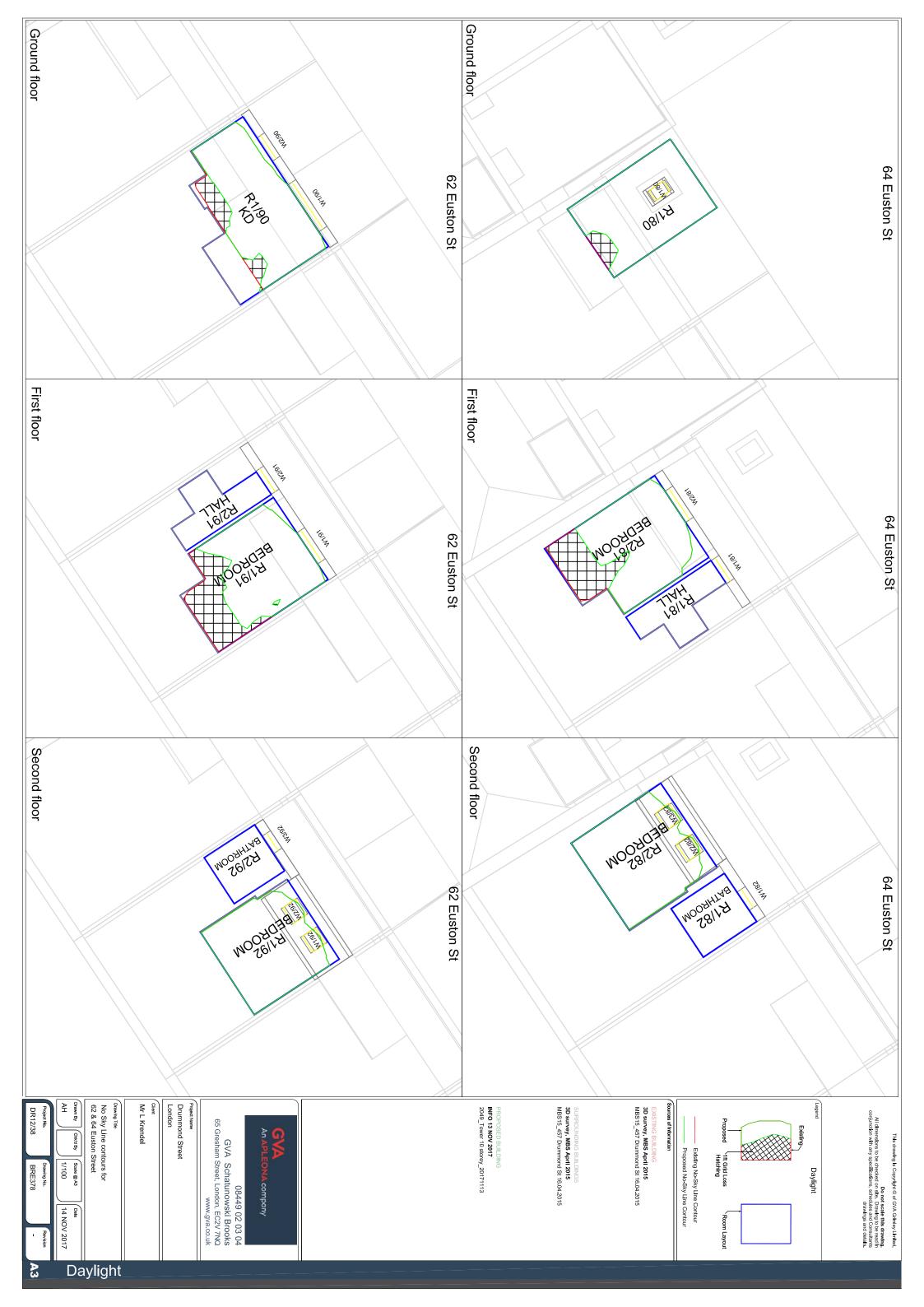


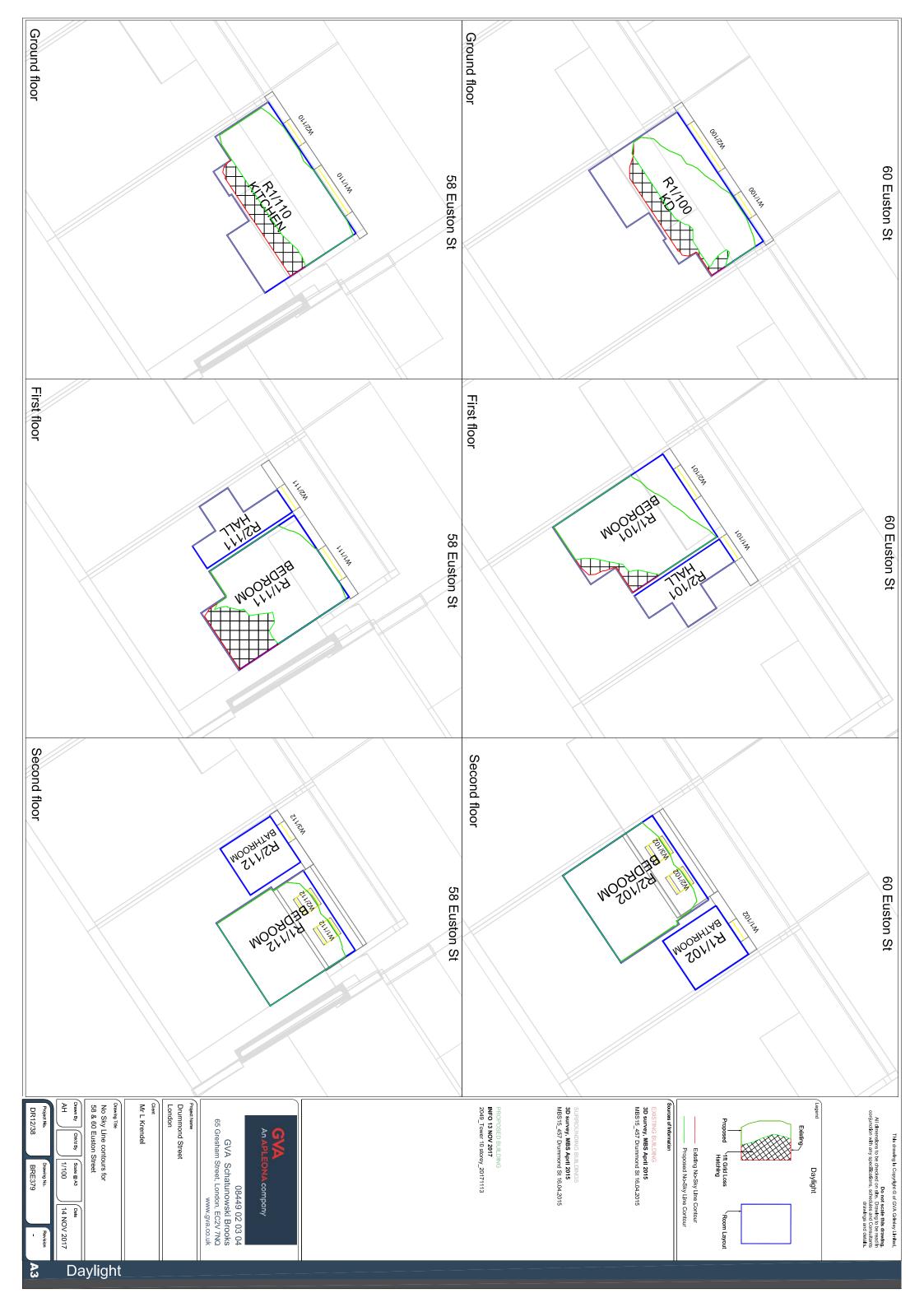




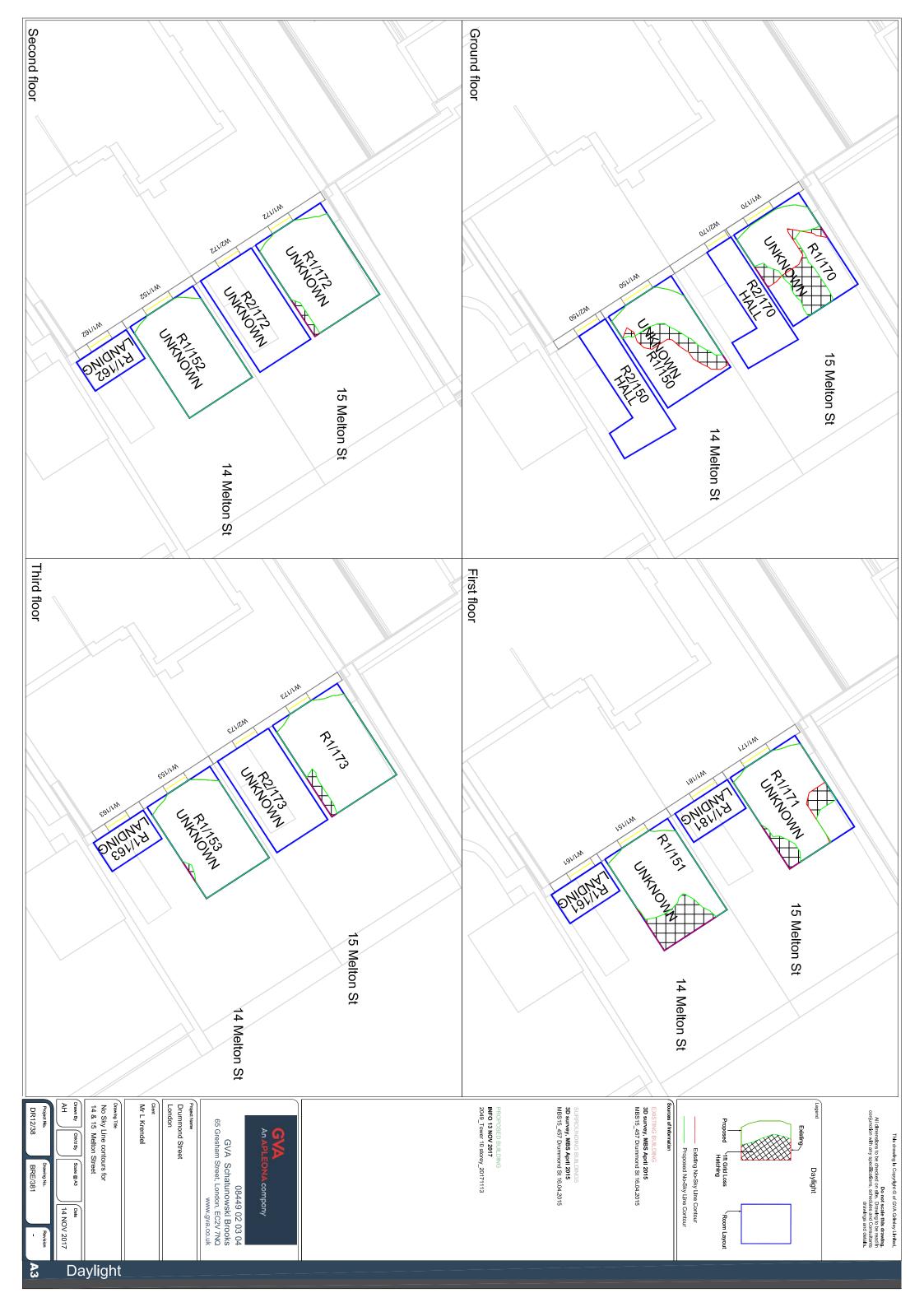














Drummond Street

Daylight analysis results for 10 storey scheme Job 38 14-Nov-17

			%VSC		0/ Daylight Factor			Proposed No Sky		
			%VSC		% Daylight Factor			Proposed No Sky		
									Room	% Loss of
Room/Floor	Room Use	Window	Exist	Prop	% Loss	Exist	Prop	% Loss	Area	Existing
59 Cobourg		· · · · · · · · · · · · · · · · · · ·								
Gnd Floor										
R2/10	UNKNOWN	W2/10	6.50	6.68	-2.77%	0.31	0.35	-13.83%	21.39%	-121.80%
1st Floor	OTTRITO VITE	VV2/ 10	0.00	0.00	2.7770	0.01	0.00	10.0070	21.0770	121.0070
R1/11	HALL	W3/11	15.42	3.27	78.79%	2.29	0.94	59.21%	75.58%	23.72%
R3/11	UNKNOWN	W2/11	27.43	17.81	35.07%	0.99	0.75	24.21%	70.34%	16.60%
R3/12	UNKNOWN	W2/12	34.16	20.67	39.49%	0.78	0.56	27.88%	67.66%	19.36%
61 Cobourg		1	1							
Gnd Floor										
R1/10	UNKNOWN	W1/10	6.75	12.46	-84.59%	0.35	0.63	-81.45%	31.95%	-281.19%
1st Floor										
R2/11	UNKNOWN	W1/11	27.63	20.79	24.76%	1.08	0.91	15.15%	40.08%	56.41%
		W1/12	31.44	24.40	22.39%					
R1/12	LKD	W3/12	33.54	32.64	>27	1.45	1.34	7.26%	95.72%	0.00%
		W4/12	87.71	73.66	>27					
65 Cobourg	Street	I			ı	ı	ı		I	ı
Gnd Floor										
R1/40	UNKNOWN	W1/40	7.80	11.55	-48.08%	0.43	0.65	-52.47%	26.85%	-99.40%
R1/41	KITCHEN	W1/41	26.65	22.48	15.65%	0.64	0.60	6.22%	75.08%	16.57%
D1 /40		W1/42	32.70	28.19	>27	1.07	1 70	7.750/	00.770/	4.7/0/
R1/42	UNKNOWN	W2/42	33.99	28.95	>27	1.87	1.73	7.75%	92.77%	4.76%
67 Cobourg	Street									
Gnd Floor										
R1/60	KITCHEN	W1/60	8.42	11.50	-36.58%	0.57	0.79	-38.35%	59.50%	-92.00%
R1/61	UNKNOWN	W1/61	30.74	26.64	13.34%	1.01	0.93	7.73%	87.38%	6.20%
R1/62	UNKNOWN	W1/62	32.01	29.31	>27	0.90	0.87	3.76%	76.26%	0.00%
69 Cobourg	Street									
1st Floor										
R1/71	UNKNOWN	W1/71	14.19	7.44	47.57%	0.45	0.26	41.56%	31.66%	48.87%
R3/71	UNKNOWN	W3/71	25.95	24.30	6.36%	0.64	0.63	2.49%	74.79%	0.00%
R1/72	UNKNOWN	W1/72	28.81	22.13	23.19%	1.88	1.53	18.40%	91.62%	6.86%
R3/72	UNKNOWN	W3/72	26.51	25.05	5.51%	0.97	0.95	1.55%	93.63%	0.00%
R4/72	UNKNOWN	W4/72	31.66	29.99	>27	1.95	1.89	3.23%	97.75%	0.00%
64 Euston St	reet									
Gnd Floor										
R1/80		W1/80	69.35	62.54	>27	0.30	0.28	6.62%	94.08%	5.92%
R2/81	BEDROOM	W2/81	28.51	20.30	28.80%	1.15	0.88	23.17%	72.12%	23.80%
R2/82	BEDROOM	W2/82	49.80	41.27	>27	1.55	1.34	13.49%	90.84%	0.00%
112/02	DEDINOCIVI	W3/82	50.77	42.34	>27	1.00	1.54	.54 15.49%	70.0470	0.0070



			%VSC		% Daylight Factor			Proposed No Sky			
								% of Room	% Loss of		
Room/Floor	Room Use	Window	Exist	Prop	% Loss	Exist	Prop	% Loss	Area	Existing	
62 Euston Street											
Gnd Floor											
R1/90	KD	W1/90 W2/90	19.41 21.82	16.62 17.35	14.37% 20.49%	2.06	1.75	14.74%	72.78%	11.08%	
R1/91	BEDROOM	W1/91	31.39		26.12%	1.25	0.98	21.93%	69.29%	28.15%	
R1/92	BEDROOM	W1/92	57.87	49.31	>27	1.59		13.50%	91.57%		
40 Fueton St		W2/92	53.33	44.75	>27						
60 Euston Street Gnd Floor											
R1/100	KD	W1/100	22.05	18.21	17.41%	0.50	0.42	17.50%	49.58%	23.62%	
R1/101	BEDROOM	W1/101	30.81	23.02	25.28%	1.08		21.31%	74.28%		
		W2/102	53.67			1.00	0.03				
R2/102	BEDROOM	W3/102	58.30	49.91	>27	1.68	1.46	13.06%	91.48%	0.00%	
58 Euston St	reet										
Gnd Floor											
R1/110	KITCHEN	W1/110	17.88		10.51%	2.06 1.	1.82	11.89%	65.54%	18.69%	
R1/111	BEDROOM	W2/110 W1/111	21.78 30.27	18.26 23.22	16.16% 23.29%	1.23	0.99	18.99%	73.40%	23.47%	
K I/ I I I	BEDROOM	W1/111	57.05			1.23	0.99	10.99/0	73.40%	23.47/0	
R1/112	R1/112 BEDROOM		52.83	45.90		1.78	1.60	10.12%	90.84%	0.00%	
56 Euston St	reet			•	•		•	•	•		
1st Floor											
		W1/121	11.96	11.79		14.85	13.66	8.02%	99.93%	0.00%	
R1/121	LIVING	W2/121	30.79	24.10	21.73%						
		W3/121	72.36								
R1/122	L	W2/122	33.29	27.98	>27	3.75	3.25	13.36%	99.11%	0.00%	
54 Euston St	reet										
Base Floor	ı	VA/O /100	27.40	24.70	27	l	1	I			
R2/129	UNKNOWN	W2/129 W3/129	37.68 36.31	34.68		0.43	0.40	5.18%	84.10%	0.00%	
14 Melton S	troot	VV3/129	30.31	31.09	>21						
Gnd Floor	ucel										
R1/150	UNKNOWN	W1/150	12.37	10.24	17.22%	0.85	0.73	13.85%	39.51%	29.94%	
1st Floor	314111101111	, 100	12.07	10.27	17.22/0	0.00	0.70	10.0070	07.0170	27.7470	
R1/151	UNKNOWN	W1/151	18.74	17.63	5.92%	1.34	1.27	5.01%	74.17%	23.64%	
2nd Floor		+ · · · · · · ·								•	
R1/152	UNKNOWN	W1/152	28.59	24.49	14.34%	1.88	1.67	11.08%	97.24%	0.00%	
3rd Floor											
R1/153	UNKNOWN	W1/153	33.14	29.86	>27	1.05	0.95	8.80%	95.03%	1.03%	
15 Melton S	treet										
Gnd Floor	LINIUALO	1444		40.0:	7.000	0.0:	0 ==	7 105	E7 (00)	00.000	
R1/170	UNKNOWN	W1/170	11.18	10.36	7.33%	0.84	0.77	7.43%	57.69%	-32.03%	
1st Floor R1/171	UNKNOWN	W1/171	10 04	17.50	3.10%	1.18	1.14	3.23%	80.24%	0.27%	
2nd Floor	OINKINOVIN	VV 1/ 1/ 1	10.00	17.50	3.10%	1.10	1.14	3.23%	00.24%	U.Z170	
R1/172	UNKNOWN	W1/172	30.96	26.68	13.82%	1.24	1.09	11.66%	93.59%	2.99%	
3rd Floor											
R1/173		W1/173	35.48	31.22	>27	0.90	0.80	11.18%	91.45%	5.10%	



Drummond Street

Sunlight analysis results for 10 storey tower scheme Job 38 14-Nov-17

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

	Existing % Proposed %										
		EXI	sung %	1	Pro	osed %	0	% Loss of	% Loss of	1% LOSS Of	
Room use	Window Ref	Summor	Winter	Total	Summor	Winter	Total		Winter	Total	
		Summer	winter	iolai	Summer	winter	iolai	Julililei	Wille	iotai	
61 Cobourg		1									
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											
Gnd Floor											
UNKNOWN	W1/150	15.00	2.00	17.00	8.00	1.00	9.00	46.67%	50.00%	47.06%	
1st Floor											
UNKNOWN	W1/151	20.00	4.00	24.00	17.00	3.00	20.00	15.00%	25.00%	16.67%	
2nd Floor											
UNKNOWN	W1/152	30.00	8.00	38.00	26.00	4.00	30.00	13.33%	50.00%	21.05%	
3rd Floor											
UNKNOWN	W1/153	35.00	13.00	48.00	30.00	13.00	43.00	14.29%	0.00%	10.42%	
15 Melton S	Street										
Gnd Floor											
UNKNOWN	W1/170	12.00	2.00	14.00	10.00	0.00	10.00	16.67%	100.00%	28.57%	
1st Floor											
UNKNOWN	W1/171	27.00	2.00	29.00	24.00	2.00	26.00	11.11%	0.00%	10.34%	
2nd Floor											
UNKNOWN	W1/172	41.00	9.00	50.00	33.00	10.00	43.00	19.51%	-11.11%	14.00%	
3rd Floor									<u> </u>		
W1/173		42.00	18.00	60.00	37.00	16.00	53.00	11.90%	11.11%	11.67%	