GVA Schatunowski Brooks

Planning Daylight & Sunlight Report

GVA
65 Gresham Street,
London
EC2V 7NQ

Redevelopment of 20-21 Kings Mews, Holborn, London WC1

City & Provincial Properties PLC

September 2016

CONTENTS

1. Introduction

1.1 GVA Schatunowski Brooks has been instructed by City & Provincial Properties PLC to undertake a detailed technical assessment of the daylight and sunlight to the neighbouring residential properties and the internal daylight and sunlight amenity (planning) matters associated with the redevelopment of 20-21 Kings Mews, Holborn.

1.2 Demolition of the existing two-storey garage building and redevelopment of the site to provide a four-storey residential property, arranged over lower ground, ground, first and mansard levels.

1.3 This report is based upon the following information:

- MAREK WOJCIECHOWSKI Architect's drawings 15055 P_01 to P12 issued 25 August 2016, in respect of internal daylight & sunlight amenity and Site Model (Proposed) – Rev B .skp, respect of the neighbouring properties.
- Promap Z-mapping model issued October 2015

1.3 Research was also undertaken using Bing aerial photography and the London Borough of Camden's planning database.

2. Executive Summary

2.1 For Planning Daylight and Sunlight to neighbouring residential receptors, the results of our technical study confirm that the effect of the proposals will be very limited. All window/rooms will retain good levels of daylight and sunlight or will not suffer noticeable reductions and therefore the BRE guidelines will be satisfied.

2.2 For Planning Daylight and Sunlight amenity within the proposal, the majority of rooms will be well lit for their particular use. This is demonstrated by the Average Daylight Factor (ADF) test results which indicate that a large percentage of rooms will exceed the target values, by virtue of the large areas of glazing.

3. Daylight and Sunlight Principles (Planning)

3.1 The Building Research Establishment (BRE) Guidelines – Site Layout Planning for Daylight and Sunlight: a guide to good practice is the document referred to by most local authorities. The BRE Guide gives advice on site layout planning to achieve good daylighting and sunlighting, within buildings and in the open spaces between them.

3.2 The introduction to the Guidelines state: -

"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

3.3 The requirements governing daylighting to existing residential buildings around a development site are set out in Part 2.2 of the guidelines. 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. The guidelines also suggest that distribution of daylight within rooms is reviewed although bedrooms are considered to be less important.

3.4 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.

3.5 The guidelines state the following:-

"If this vertical sky component 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 vertical sky component 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."

3.6 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 the former value (this is the same as saying a 20% reduction when compared against the existing condition) would not be noticeable and would not therefore be considered material.

3.7 The VSC calculation only measures light reaching the outside plane of the window under consideration, so this is considered more a measure of the potential for good daylight within a given room. 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.

3.8 The no sky-line or daylight distribution (DD) 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.

3.9 Appendix C of the BRE Guidelines sets out various more detailed tests that assess the interior daylight conditions of proposed habitable rooms. These include the calculation of the average daylight factors (ADF) and no sky-lines.

3.10 The ADF value determines the level of interior illumination that can be compared with the British Standard, BS 8206: Part 2. This recommends a minimum of 2% for kitchens, 1.5% for living rooms and 1% for bedrooms.

3.11 BS8206-2: 2008 notes that "Where one room serves more than one purpose, the minimum average daylight factor should be that for the room type with the highest value. For example, in a space which combines a living room and a kitchen the minimum average daylight factor should be 2%".

Sunlighting

3.12 Requirements for protection of sunlighting to existing residential buildings around a development site are set out in Part 3.2 of the BRE guidelines. 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.

3.13 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. The guidelines sets the following standard:-

"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."

3.14 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 (the same as saying a 20% reduction) its former value or the reduction in sunlight received over the whole year is 4% or less, then the sunlight loss will not be noticeable.

3.15 Where sunlight reductions fall below a ratio of 0.8 (the same as saying greater than 20%) then the sunlight losses may be noticeable to occupants.

4. Report

Daylight and Sunlight Amenity to the Neighbouring Residential Properties

57 Grays Inn Road – BRE10, 11 &12

4.1 This property is to the north-east of the development proposals, with rear windows in the main building facing south-west and windows within a rear addition facing south-east over four-stories. We have assumed that all of these windows serve habitable spaces and have been tested.

4.2 We have undertaken the three daylight tests VSC, ADF and No Sky-line and the sunlight test APSH, in accordance with the BRE Guidelines. The results indicate that all windows and rooms will satisfy all the tests for daylight and sunlight by virtue of either retaining their absolute value, 0.8 of their former value or a reduction of no greater than 4%.

55 Grays Inn Road – BRE10 &11

4.3 This property is to the north-east (rear) of the development proposals, with rear windows in the main building facing south-west over two-stories. We have assumed that all of these windows serve habitable spaces and have been tested.

4.4 We have undertaken the three daylight tests VSC, ADF and No Sky-line and the sunlight test APSH, in accordance with the BRE Guidelines.

4.5 The results indicate that all windows and rooms will satisfy all the tests for daylight, with the exception of VSC to two ground floor rooms. However, these are only notionally in excess of the 20% guidance, with figures of 24.10% and 23.29% and unlikely to be noticeable. These are supported by ADF and No-Sky-line results that demonstrate less than 20% reductions and therefore the daylight within the room will remain satisfactory.

4.6 For sunlight, once again all windows will satisfy the annual and winter sunlight APSH test by virtue of either retaining 25% annual or 5% winter, 0.8 of their former value or a reduction of no greater than 4%.

51 & 53 Grays Inn Road – BRE10, 11 &12

4.7 This property is to the east (rear) of the development proposals, with rear windows in the main building facing south-west and windows within a rear addition facing three aspects, over four-stories. We have assumed that all these windows serve habitable spaces and have been tested.

4.8 We have undertaken the three daylight tests VSC, ADF and No Sky-line and the sunlight test APSH, in accordance with the BRE Guidelines.

4.9 The results indicate that all windows and rooms will satisfy all the tests for daylight, with the exception of VSC to one ground floor room. However, this window is only one minor window to a room that is served by six windows in total and therefore will have little consequence to the daylight entering the room. This is supported by an exceptionally high ADF level and No-Sky-line result that demonstrates the room will be totally daylit.

4.10 For sunlight, all windows will satisfy the annual and winter sunlight APSH test by virtue of either retaining 25% annual or 5% winter, 0.8 of their former value or a reduction of no greater than 4%. The exception being window W1/80, which will retain 24% annual sunlight, just 1% below the guideline and therefore should be deemed acceptable in an inner-city location.

49 Grays Inn Road – BRE10 &11

4.11 This property is to the east of the development proposals, with rear windows in the main building facing north-west over two-stories. We have assumed that all these windows serve habitable spaces and have been tested.

4.12 We have undertaken the three daylight tests VSC, ADF and No Sky-line and the sunlight test APSH, in accordance with the BRE Guidelines. The results indicate that all windows and rooms will satisfy all the tests for daylight and sunlight by virtue of either retaining their absolute value, 0.8 of their former value or a reduction of no greater than 4%.

13 Kings Mews – BRE10 & 11

4.13 This property is to the west of the development proposals on the opposite side of Kings Mews, with the windows within the front elevation facing north-east over two-stories. We have assumed that all these windows serve habitable spaces and have been tested.

4.14 We have undertaken the three daylight tests VSC, ADF and No Sky-line and the sunlight test APSH, in accordance with the BRE Guidelines.

4.15 The results indicate that all windows and rooms will satisfy all the tests for daylight, with the exception of two reductions to the No Sky-line at first floor level. However, these rooms are exceptionally well lit in the existing situation and therefore still retain daylight to 68% and 70% of the room, which should be considered acceptable. These are supported by only small reductions to both the VSC and ADF.

4.16 For sunlight, this property does not contain any windows that face within 90° of due south and therefore does not have a reasonable expectation of direct sunlight. Therefore sunlight to this property has not been given further consideration.

14 Kings Mews – BRE10 &11

4.17 This property is to the west of the development proposals on the opposite side of Kings Mews, with the windows within the front elevation facing north-east over two-stories. We have assumed that all these windows serve habitable spaces and have been tested.

4.18 We have undertaken the three daylight tests VSC, ADF and No Sky-line and the sunlight test APSH, in accordance with the BRE Guidelines.

4.19 The results indicate that all windows and rooms will satisfy all the tests for daylight, with the exception of one reduction of 26.17% to the No Sky-line at ground floor level, compared to the 20% guideline. However, this room remains adequately lit with over 50% receiving daylight, which should be considered acceptable. Once again, these are supported by only small reductions to both the VSC and ADF.

4.20 For sunlight, this property does not contain any windows that face within 90° of due south and therefore does not have a reasonable expectation of direct sunlight. Therefore sunlight to this property has not been given further consideration.

Daylight and Sunlight Amenity within the Proposal

4.21 We have undertaken a 3D computer study of the proposal in respect of internal daylight and sunlight amenity in accordance with BS 8206: Part 2, as described in section 3.10 and 3.11 above. We have tested all rooms to accurately assess the daylight and sunlight levels within the building as a whole.

4.22 The BRE Guidelines also suggest that for dwellings, kitchens should obtain 2.0% ADF, living/dining rooms 1.5% and bedrooms 1.0%. For this development, the dwelling configuration requirements dictate that the majority apartments contain small galley kitchens to the rear that are located away from the main glazing.

4.23 In respect of these kitchens, the guidelines infer in paragraph 2.1.14 that they do not require direct access to daylight and sunlight, but they should be directly connected to a well-lit living room. As can be seen at the first floor level, this scenario occurs where the kitchens are at the rear of the units; however these directly connected to well-lit living dining areas at the front of the property, served by the main windows.

4.24 For daylight, ADF test (within the room) indicate that of 13 bedrooms tested, 8 will meet the 1% criteria for bedrooms, with many achieve far in excess of this figure. The remaining rooms still achieve reasonable daylight levels given the inner-city location. Also the BRE states that light to bedrooms is '*less important*' and therefore other considerations such as privacy should take precedence, which may limit daylight availability.

4.25 Of the Living/Dining areas of the 5 tested, 4 are in excess 1.5% value, with the remaining room achieving 0.38%. The daylight to this room is limited by the physical constraints of the site and therefore any further design changes will have a limited effect on the values achievable. One must note that these are Average daylight factors for the rooms as whole, therefore the daylight factor closer to the windows, where the occupant is likely to spend the majority of their time, will be far in excess of the average figure. It should be noted that the same dwelling contains a kitchen that provides good levels of daylight and is directly connected the living rooms in question.

4.26 At second floor, the two Living/Kitchen/Dining rooms far exceed the 2% ADF value, with values of 3.88% and 3.77%. One Kitchen at ground achieves just below the target value at 1.93%, however this still very good when considering the location. Therefore the results indicate a high percentage of adherences to the BRE target values, with the majority satisfying guideline figures and the remainder falling just short.

4.27 Given the existing constraints of a mews location, in order to utilise this site for residential accommodation and provide the necessary number of dwellings, it is almost inevitable that at least one room will fall short of guideline target values. That said, with considerate design, a large percentage of adherence to the guidelines is achieved.

4.28 For Sunlight, we have applied the ASPH test to the rooms that face within 90° of due south. It should be noted that the existing building constraints determine that the majority of windows face in predominantly easterly or westerly direction and therefore can only receive sunlight for half of the day. Even so, when taking the aggregate figure from multiple windows serving a single room, the majority of rooms will satisfy annual guideline of 25% and the winter guideline of 5%. These sunlight values should be considered excellent in an inner-city environment.

4.29 The above findings suggest that the proposals, when considering the existing constraints, will be adequately lit and satisfies the BRE Guidelines and the BS 8206: Part 2.

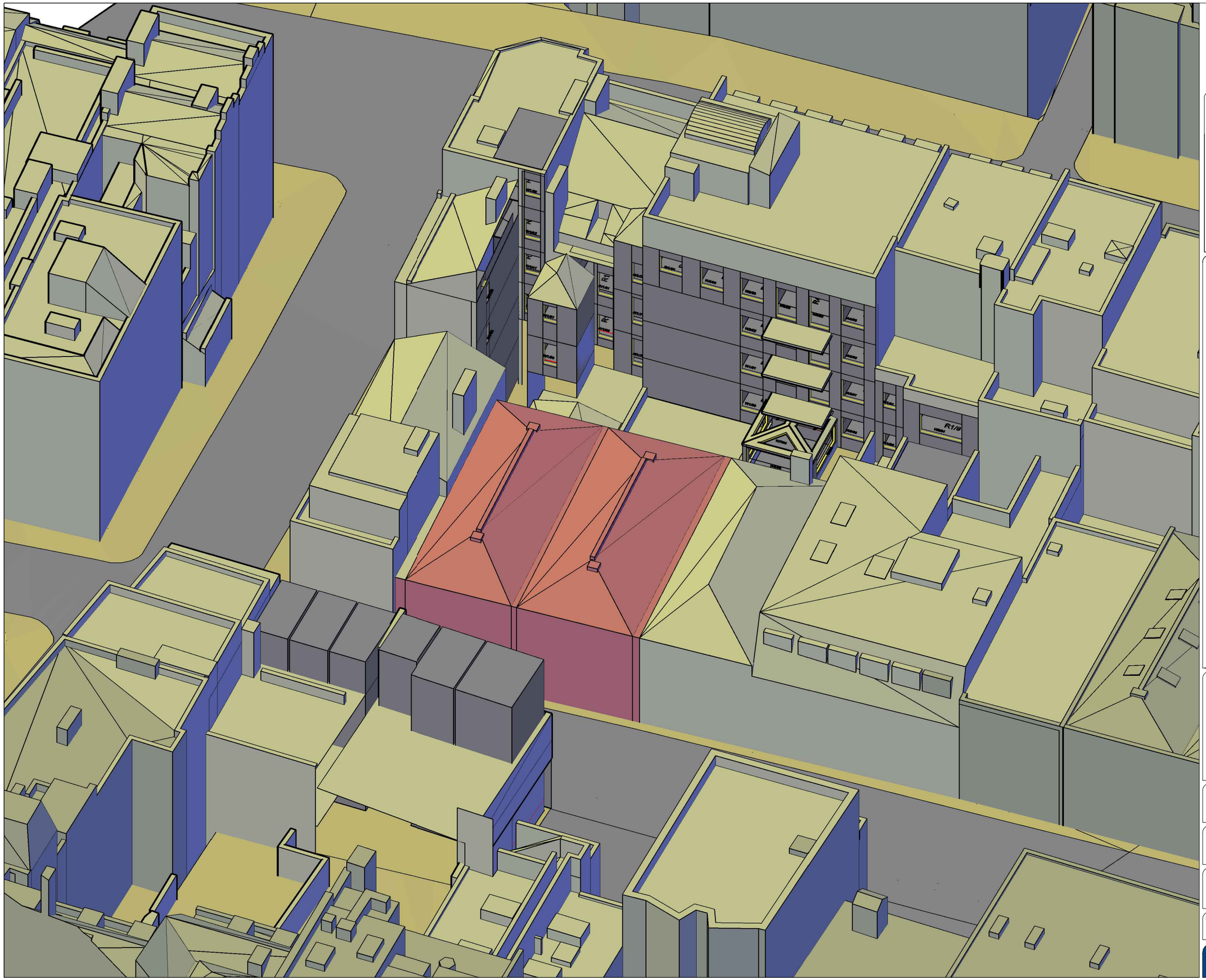
5. Conclusions

5.1 The London Borough of Camden's planning policy seeks to safeguard daylight and sunlight to existing buildings and promote adequate standards for new developments points to the guidance published in BRE Report 209 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice'.

5.2 For daylight and sunlight to the neighbouring properties, the technical results indicate that all windows and rooms will retain good daylight and sunlight values or no noticeable change to the existing values. Therefore the BRE guidelines will be satisfied.

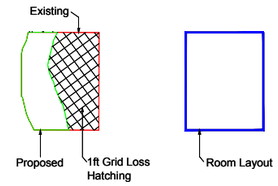
5.3 For daylight and sunlight amenity within the proposal, a large proportion of habitable rooms tested will achieve the target values for their use in respect of daylight. In respect of sunlight, the majority of rooms will contain at least one window orientated within 90° that will achieve the guideline values for annual sunlight. Where they do not, the values should still be considered good despite the existing design constraints limiting sunlight availability due to their orientation.

5.4 In conclusion, when applied flexibly as intended and considering the mitigating factors, the proposal adheres to the BRE guidelines. We therefore consider the London Borough of Camden's planning policy on daylight and sunlight will be satisfied.



Legend

Daylight



Existing No-Sky Line Contour

Proposed No-Sky Line Contour

Sources of Information

Marek Wojciechowski Architects drawings
INFO 8 MARCH 2016
Site Model □Proposed□- Rev B.skp

BILFINGER GVA

08449 02 03 04
GVA Schatunowski Brooks
65 Gresham Street, London, EC2V 7NQ
www.gva.co.uk

Project Name
20-21 Kings Mews, Holborn
London

Client
-
-

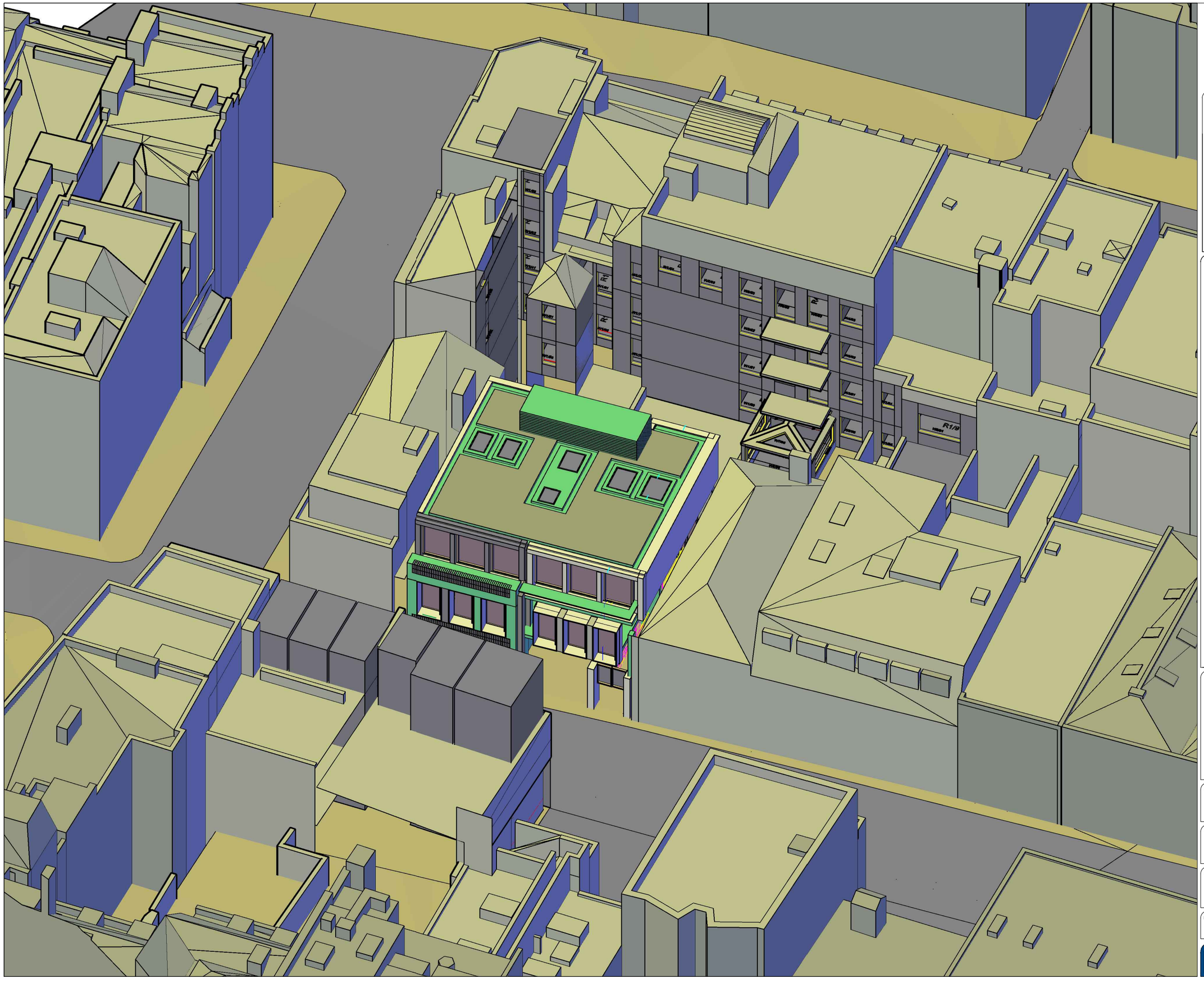
Drawing Title
3D VIEW FOR
E□ISTING SITE

Drawn By	Chk'd By	Scale @ A3	Date
RT	-	N/A	14 MARCH 2016

Project No.	Drawing No.	Revision
KI99/08	BRE/07	

DAYLIGHT

A3



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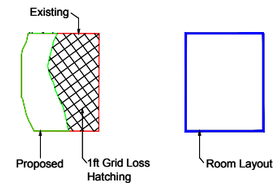
Daylight



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Proposed No-Sky Line Contour

Sources of Information

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INFO 8 MARCH 2016
Site Model 'Proposed' - Rev B.skp

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08449 02 03 04
GVA Schatunowski Brooks
65 Gresham Street, London, EC2V 7NQ
www.gva.co.uk

Project Name
20-21 Kings Mews, Holborn
London

Client
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Drawing Title
3D VIEW FOR
PROPOSED SITE

Drawn By	Chk'd By	Scale @ A3	Date
RT	-	N/A	14 MARCH 2016

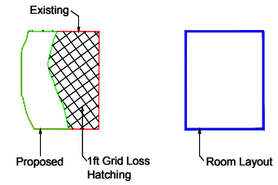
Project No.	Drawing No.	Revision
KI99/08	BRE/08	

DAYLIGHT

A3

Legend

Daylight



Existing No-Sky Line Contour

Proposed No-Sky Line Contour

Sources of Information

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65 Gresham Street, London, EC2V 7NQ
www.gva.co.uk

Project Name
20-21 Kings Mews, Holborn
London

Client
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Drawing Title
PLAN VIEW FOR
PROPOSED SITE

Drawn By	Chk'd By	Scale @ A3	Date
RT	-	N/A	14 MARCH 2016

Project No.	Drawing No.	Revision
KI99/08	BRE/09	

DAYLIGHT

A3

57 GRAYS INN ROAD

55 GRAYS INN ROAD

51 □ 53 GRAYS INN ROAD

49 GRAYS INN ROAD

14 KINGS MEWS

13 KINGS MEWS

R1/40 W1/40

R1/50 W1/50

R1/60 W1/60

R3/30 W3/30

R2/30 W2/30

R1/30 W1/30

R2/20 W2/20

R1/20 W1/20

R3/80 W1/80

R1/80 W6/80 W7/80 W5/80 W8/80 W4/80 W2/80

R5/80 W2/80

R2/90 W1/90

R1/90 W2/90

GRO□ND FLOOR

Legend

Daylight

Existing

Proposed

1ft Grid Loss Hatching

Room Layout

Existing No-Sky Line Contour

Proposed No-Sky Line Contour

Sources of Information

Marek Wojciechowski Architects drawings
INFO 8 MARCH 2016
Site Model □Proposed□- Rev B.skp

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08449 02 03 04
GVA Schatunowski Brooks
65 Gresham Street, London, EC2V 7NQ
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Project Name
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London

Client
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Drawing Title
NO DAYLIGHT CONTO□R
S□RRO□NDINGS

Drawn By	Chk'd By	Scale @ A3	Date
RT	-	N/A	14 MARCH 2016

Project No.	Drawing No.	Revision
KI99/08	BRE/10	

DAYLIGHT

A3

Do not scale this drawing.
All dimensions to be checked on site. Drawing to be read in conjunction with any specifications, schedules and Consultants drawings and details.

57 GRAYS INN ROAD

55 GRAYS INN ROAD

51 □ 53 GRAYS INN ROAD

49 GRAYS INN ROAD

14 KINGS MEWS

13 KINGS MEWS

R1/101
W1/101
R1/41
W1/41
R1/51
W1/51
R1/61
W1/61
R1/71
W1/71
R3/31
W3/31
R2/31
W2/31
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W1/31
R2/21
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W1/21
R3/81
W1/81
R4/81
W2/81
R5/81
W3/81
R2/91
W1/91
R1/91
W2/81

1ST FLOOR

Legend

Daylight

Existing

Proposed

1ft Grid Loss Hatching

Room Layout

Existing No-Sky Line Contour

Proposed No-Sky Line Contour

Sources of Information

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Client
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S□RRO□NDINGS

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RT	-	N/A	14 MARCH 2016

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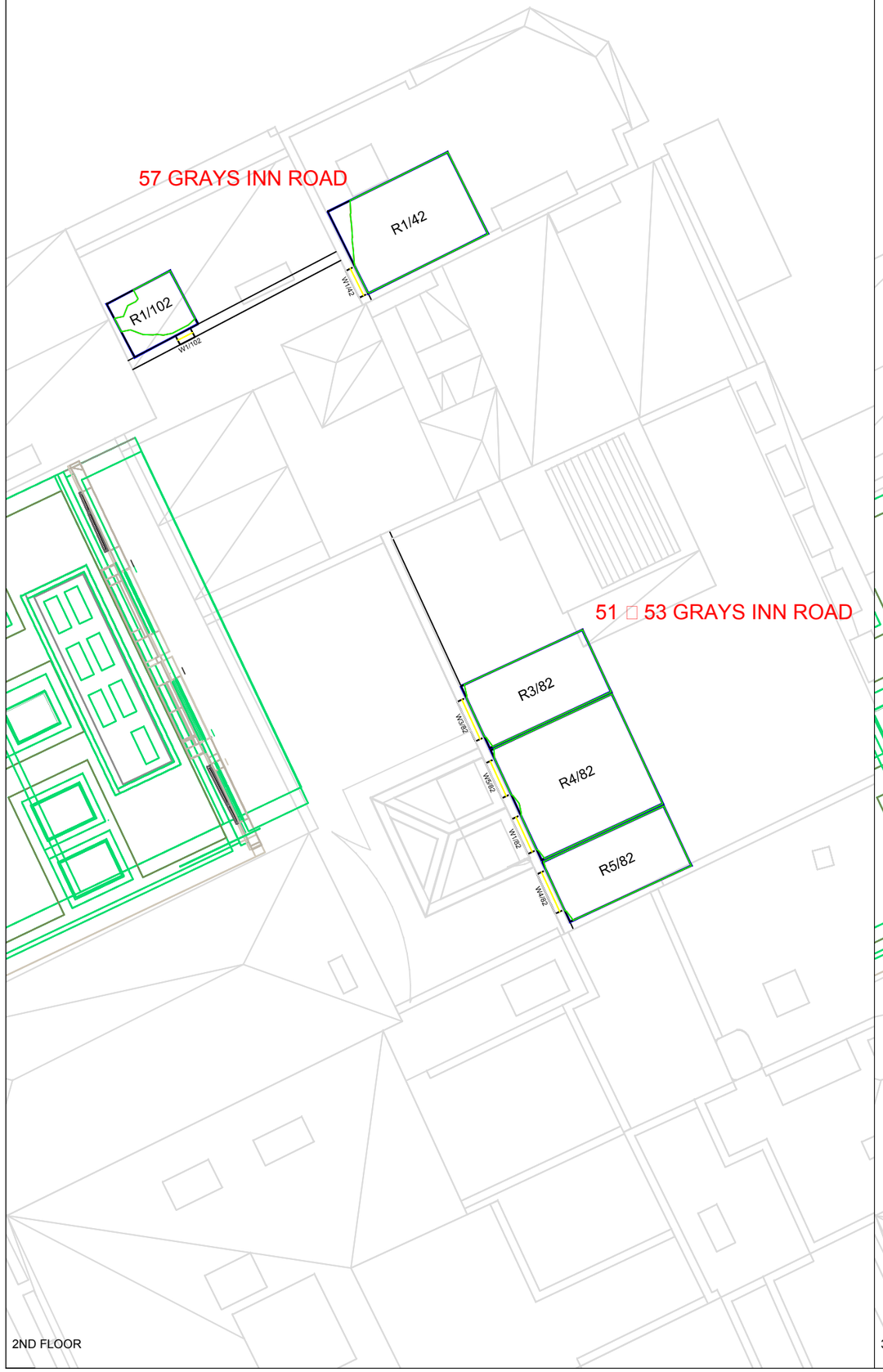
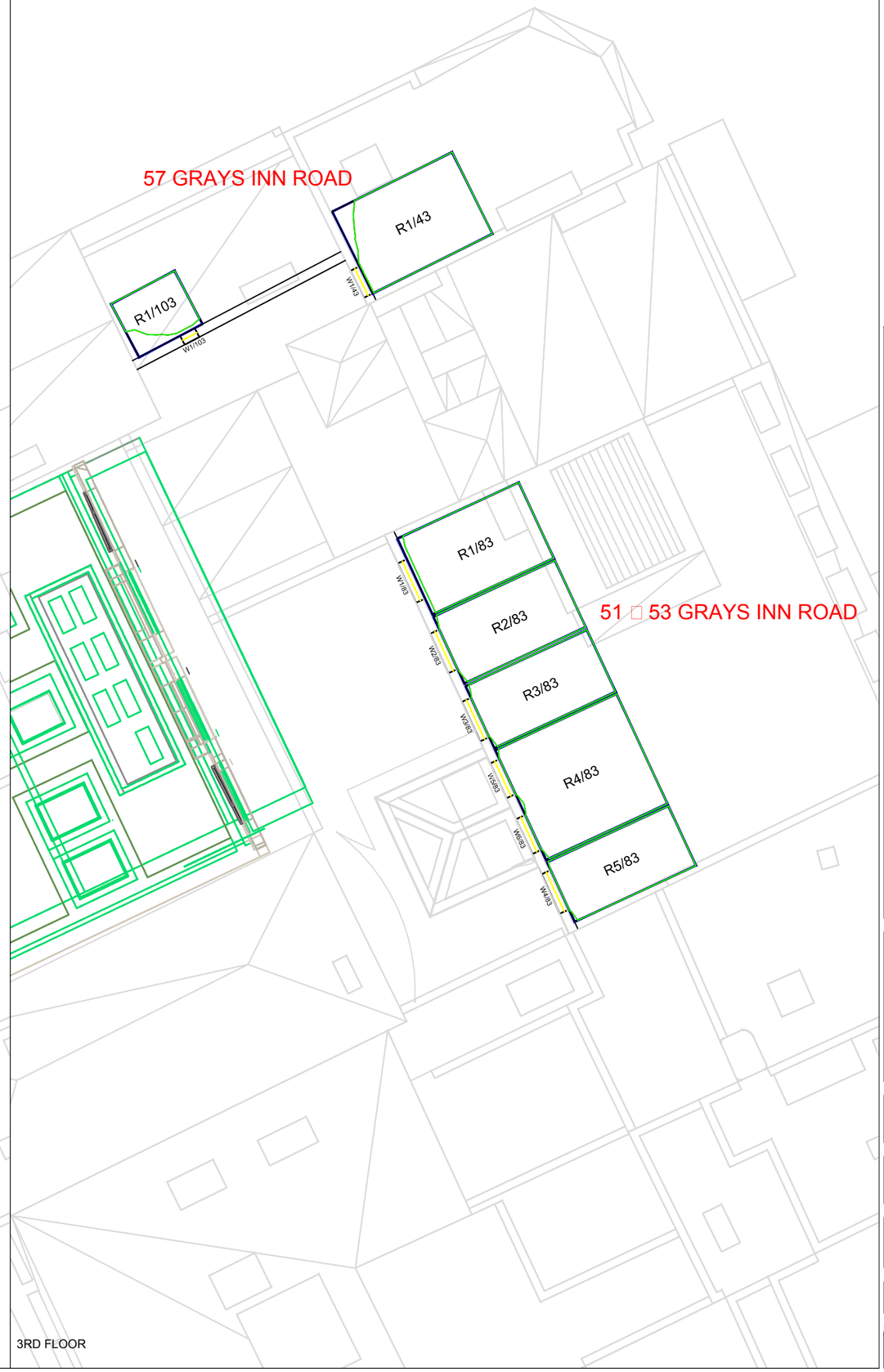
KI99/08	BRE/11	

DAYLIGHT

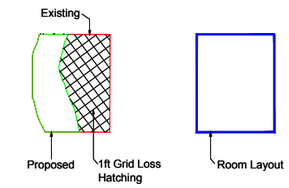
A3





Legend

Daylight



Existing No-Sky Line Contour

Proposed No-Sky Line Contour

Sources of Information

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Drawing Title
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S□RRO□NDINGS

Drawn By	Chk'd By	Scale @ A3	Date
RT	-	N/A	14 MARCH 2016

Project No.	Drawing No.	Revision
KI99/08	BRE/12	

DAYLIGHT

A3

KINGS MEWS, LONDON
14-Mar-16
JOB 08 - DAYLIGHT RESULTS

Room/Floor	Room Use	Window	%VSC			% Daylight Factor			Proposed No Sky	
			Exist	Prop	% Loss	Exist	Prop	% Loss	% of Room Area	% Loss of Existing
55 GRAYS INN ROAD										
GROUND FLOOR										
R1/50		W1/50	20.66	15.68	24.10%	1.18	0.97	17.91%	88.35%	0.56%
R1/60		W1/60	16.53	12.68	23.29%	0.74	0.63	14.92%	73.32%	18.10%
1ST FLOOR										
R1/51		W1/51	26.99	24.84	7.97%	1.08	1.01	6.05%	88.35%	0.00%
R1/61		W1/61	25.02	24.25	3.08%	1.00	0.98	2.01%	89.60%	0.00%
51 & 53 GRAYS INN ROAD										
GROUND FLOOR										
R1/80		W3/80	15.48	13.04	15.76%	8.55	7.91	7.43%	100.00%	0.00%
		W4/80	13.28	13.28	0.00%					
		W5/80	15.87	13.64	14.05%					
		W6/80	2.46	1.53	37.80%					
		W7/80	18.30	14.79	19.18%					
		W8/80	2.27	2.27	0.00%					
R3/80		W1/80	24.77	20.13	18.73%	1.60	1.39	13.37%	89.08%	10.31%
R5/80		W2/80	20.08	20.00	0.40%	1.43	1.43	0.14%	99.29%	0.00%
1ST FLOOR										
R3/81		W1/81	31.30	29.52	>27	1.86	1.78	4.29%	99.43%	0.00%
R4/81		W3/81	17.05	15.71	7.86%	1.73	1.65	4.63%	99.49%	0.00%
		W4/81	21.59	20.39	5.56%					
R5/81		W2/81	30.86	30.32	>27	1.89	1.87	1.37%	99.65%	0.00%
2ND FLOOR										
R3/82		W3/82	34.61	34.61	>27	1.98	1.98	0.00%	99.43%	0.00%
R4/82		W1/82	24.74	24.74	0.00%	1.89	1.89	0.05%	99.49%	0.00%
		W5/82	19.47	19.47	0.00%					
R5/82		W4/82	34.75	34.75	>27	2.03	2.03	0.00%	99.65%	0.00%
3RD FLOOR										
R1/83		W1/83	38.27	38.27	>27	1.36	1.36	0.00%	97.21%	0.00%
R2/83		W2/83	38.26	38.26	>27	2.05	2.05	0.00%	99.47%	0.00%
R3/83		W3/83	38.31	38.31	>27	2.14	2.14	0.00%	99.43%	0.00%
R4/83		W5/83	38.17	38.17	>27	3.28	3.28	0.00%	99.49%	0.00%
		W6/83	38.22	38.22	>27					
R5/83		W4/83	38.34	38.34	>27	2.19	2.19	0.00%	99.65%	0.00%

Room/Floor	Room Use	Window	%VSC			% Daylight Factor			Proposed No Sky	
			Exist	Prop	% Loss	Exist	Prop	% Loss	% of Room Area	% Loss of Existing
49 GRAYS INN ROAD										
GROUND FLOOR										
R1/90		W2/90	15.32	14.50	5.35%	1.33	1.28	3.84%	73.78%	0.00%
R2/90		W1/90	17.88	17.66	1.23%	0.45	0.45	1.10%	81.59%	0.00%
1ST FLOOR										
R1/91		W2/91	33.35	33.29	>27	2.40	2.39	0.17%	99.03%	0.00%
R2/91		W1/91	30.68	30.46	>27	0.63	0.63	0.47%	95.70%	0.00%
13 KINGS MEWS										
GROUND FLOOR										
R1/20		W1/20	22.93	19.16	16.44%	3.76	3.34	11.12%	95.15%	3.98%
1ST FLOOR										
R1/21		W1/21	29.25	27.38	>27	0.58	0.56	4.63%	70.48%	23.41%
R2/21		W3/21	28.09	25.74	8.37%	0.84	0.79	6.18%	87.78%	11.85%
R3/21		W2/21	28.83	26.66	7.53%	0.67	0.63	5.56%	68.62%	26.25%
14 KINGS MEWS										
GROUND FLOOR										
R1/30		W1/30	17.94	15.38	14.27%	1.06	0.93	12.13%	51.30%	26.17%
R2/30		W2/30	17.52	15.46	11.76%	1.03	0.93	9.82%	59.83%	15.41%
1ST FLOOR										
R1/31		W1/31	26.53	24.02	9.46%	0.50	0.46	7.27%	84.09%	7.06%
R2/31		W2/31	25.70	23.80	7.39%	0.48	0.45	5.61%	90.28%	2.31%
R3/31		W3/31	23.97	22.75	5.09%	1.15	1.11	3.38%	88.02%	3.90%
57 GRAYS INN ROAD										
GROUND FLOOR										
R1/40		W1/40	5.75	5.36	6.78%	0.33	0.32	3.65%	49.53%	15.65%
1ST FLOOR										
R1/41		W1/41	15.70	15.68	0.13%	0.67	0.67	0.00%	93.87%	0.00%
R1/101		W1/101	17.42	15.52	10.91%	0.63	0.59	5.58%	53.49%	0.00%
2ND FLOOR										
R1/42		W1/42	21.47	21.47	0.00%	0.71	0.71	0.00%	93.96%	0.00%
R1/102		W1/102	25.68	23.53	8.37%	0.70	0.68	2.99%	71.57%	0.00%
3RD FLOOR										
R1/43		W1/43	30.54	30.54	>27	0.81	0.81	0.00%	94.21%	0.00%
R1/103		W1/103	29.97	29.97	>27	0.77	0.77	0.00%	81.45%	0.00%

KINGS MEWS, LONDON
14-Mar-16
JOB 08 - SUNLIGHT RESULTS

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

		Existing %			Proposed %					
Room use	Window Ref	Summer	Winter	Total	Summer	Winter	Total	% Loss of Summer	% Loss of Winter	% Loss of Total
55 GRAYS INN ROAD										
GROUND FLOOR										
W1/50		30.00	17.00	47.00	28.00	11.00	39.00	6.67%	35.29%	17.02%
W1/60		20.00	7.00	27.00	19.00	3.00	22.00	5.00%	57.14%	18.52%
1ST FLOOR										
W1/51		36.00	20.00	56.00	36.00	18.00	54.00	0.00%	10.00%	3.57%
W1/61		24.00	9.00	33.00	24.00	8.00	32.00	0.00%	11.11%	3.03%
51 & 53 GRAYS INN ROAD										
GROUND FLOOR										
W4/80		24.00	7.00	31.00	24.00	7.00	31.00	0.00%	0.00%	0.00%
W5/80		21.00	4.00	25.00	21.00	4.00	25.00	0.00%	0.00%	0.00%
W7/80		23.00	4.00	27.00	18.00	4.00	22.00	21.74%	0.00%	18.52%
W8/80		0.00	7.00	7.00	0.00	7.00	7.00	0.00%	0.00%	0.00%
W1/80		29.00	3.00	32.00	21.00	3.00	24.00	27.59%	0.00%	25.00%
W2/80		29.00	5.00	34.00	29.00	5.00	34.00	0.00%	0.00%	0.00%
1ST FLOOR										
W1/81		32.00	10.00	42.00	29.00	9.00	38.00	9.38%	10.00%	9.52%
W3/81		11.00	9.00	20.00	8.00	9.00	17.00	27.27%	0.00%	15.00%
W4/81		34.00	17.00	51.00	32.00	17.00	49.00	5.88%	0.00%	3.92%
W2/81		39.00	14.00	53.00	37.00	14.00	51.00	5.13%	0.00%	3.77%
2ND FLOOR										
W3/82		39.00	10.00	49.00	39.00	10.00	49.00	0.00%	0.00%	0.00%
W1/82		35.00	20.00	55.00	35.00	20.00	55.00	0.00%	0.00%	0.00%
W5/82		12.00	11.00	23.00	12.00	11.00	23.00	0.00%	0.00%	0.00%
W4/82		41.00	20.00	61.00	41.00	20.00	61.00	0.00%	0.00%	0.00%
3RD FLOOR										
W1/83		41.00	22.00	63.00	41.00	22.00	63.00	0.00%	0.00%	0.00%
W2/83		41.00	22.00	63.00	41.00	22.00	63.00	0.00%	0.00%	0.00%
W3/83		41.00	22.00	63.00	41.00	22.00	63.00	0.00%	0.00%	0.00%
W5/83		41.00	21.00	62.00	41.00	21.00	62.00	0.00%	0.00%	0.00%
W6/83		41.00	21.00	62.00	41.00	21.00	62.00	0.00%	0.00%	0.00%
W4/83		41.00	21.00	62.00	41.00	21.00	62.00	0.00%	0.00%	0.00%
49 GRAYS INN ROAD										
GROUND FLOOR										
W1/90		22.00	0.00	22.00	20.00	0.00	20.00	9.09%	0.00%	9.09%
1ST FLOOR										
W2/91		40.00	19.00	59.00	40.00	19.00	59.00	0.00%	0.00%	0.00%
W1/91		30.00	9.00	39.00	29.00	9.00	38.00	3.33%	0.00%	2.56%

		Existing %			Proposed %					
Room use	Window Ref	Summer	Winter	Total	Summer	Winter	Total	% Loss of Summer	% Loss of Winter	% Loss of Total
57 GRAYS INN ROAD										
GROUND FLOOR										
W1/40		7.00	0.00	7.00	7.00	0.00	7.00	0.00%	0.00%	0.00%
1ST FLOOR										
W1/41		26.00	6.00	32.00	26.00	6.00	32.00	0.00%	0.00%	0.00%
W1/101		17.00	13.00	30.00	17.00	9.00	26.00	0.00%	30.77%	13.33%
2ND FLOOR										
W1/42		29.00	13.00	42.00	29.00	13.00	42.00	0.00%	0.00%	0.00%
W1/102		35.00	21.00	56.00	35.00	17.00	52.00	0.00%	19.05%	7.14%
3RD FLOOR										
W1/43		32.00	20.00	52.00	32.00	20.00	52.00	0.00%	0.00%	0.00%
W1/103		44.00	21.00	65.00	44.00	21.00	65.00	0.00%	0.00%	0.00%

Basement Floor

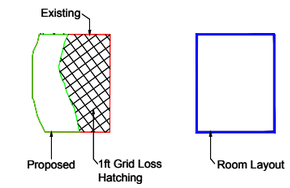
Ground Floor

First Floor

Second Floor

Legend

Daylight



Existing No-Sky Line Contour

Proposed No-Sky Line Contour

Sources of Information

Marek Wojciechowski Architects drawings
1408 P01-P12 received 11 August 2016

Marek Wojciechowski Architects
amended drawing received 19 August 2016
P09_Proposed Section AA.dwg
reduced rear wall height

BiLFINGER GVA

08449 02 03 04
GVA Schatunowski Brooks
65 Gresham Street, London, EC2V 7NQ
www.gva.co.uk

Project Name
20-21 Kings Mews, Holborn
London

Client
-
-

Drawing Title
No-Sky Line Contours for
20-21 Kings Mews

Drawn By	Chk'd By	Scale @ A3	Date
AC	-	1:150	31 Aug 2016

Project No.	Drawing No.	Revision
KI99/12	BRE/19	

DAYLIGHT

A3

20-21 Kings Mews, London
Internal Sunlight & Daylight results amended in relation to existing rear boundary wall
31 August 2016

Room/Floor	Room Use	Window	%VSC	%ADF	No Sky % of Room	%Sun Summer	%Sun Winter	%Sun Total
20-21 Kings Mews, Holborn, London KI99_12_BRE_19								
Basement Floor								
R1/10	BEDROOM	W1/10	1.17	0.14	4.28%	#N/A	#N/A	#N/A
R2/10	BEDROOM	W2/10	1.38	0.16	5.96%	#N/A	#N/A	#N/A
R3/10	BEDROOM	W3/10	1.41	0.19	7.26%	#N/A	#N/A	#N/A
R4/10	BEDROOM	W4/10	1.20	0.17	7.97%	#N/A	#N/A	#N/A
Ground Floor								
R1/11	BEDROOM	W1/11	3.76	0.41	6.17%	#N/A	#N/A	#N/A
R2/11	LIVINGROOM	W2/11	3.26	0.38	7.06%	#N/A	#N/A	#N/A
R3/11	KITCHEN	W3/11	12.28	1.93	56.68%	16.00	5.00	21.00
R4/11	LIVINGROOM	W4/11	10.44	2.29	40.72%	11.00	10.00	21.00
R5/11	LIVINGROOM	W5/11	9.24	2.68	14.36%	7.00	4.00	11.00
First Floor								
R1/12	BEDROOM	W1/12	8.36	1.44	36.98%	#N/A	#N/A	#N/A
R2/12	BEDROOM	W2/12	10.06	2.48	61.81%	#N/A	#N/A	#N/A
R3/12	BEDROOM	W3/12	9.44	2.42	51.22%	#N/A	#N/A	#N/A
R4/12	BEDROOM	W4/12	7.44	1.19	24.52%	#N/A	#N/A	#N/A
R5/12	LD	W5/12	18.04	1.98	83.07%	22.00	15.00	37.00
		W6/12	15.90			18.00	13.00	31.00
		W7/12	14.59			16.00	13.00	29.00
R6/12	LD	W8/12	14.16	1.76	74.25%	16.00	11.00	27.00
		W9/12	14.89			16.00	10.00	26.00
		W10/12	15.47			18.00	8.00	26.00
Second Floor								
R1/13	BEDROOM	W1/13	14.56	2.04	57.13%	#N/A	#N/A	#N/A
R2/13	BEDROOM	W2/13	15.12	3.32	96.27%	#N/A	#N/A	#N/A
R3/13	BEDROOM	W3/13	14.04	3.05	71.78%	#N/A	#N/A	#N/A
R4/13	BEDROOM	W4/13	13.03	1.81	34.93%	#N/A	#N/A	#N/A
R5/13	LKD	W5/13	25.78	3.88	94.69%	29.00	18.00	47.00
		W6/13	24.33			28.00	15.00	43.00
		W7/13	23.23			28.00	15.00	43.00

Room/Floor	Room Use	Window	%VSC	%ADF	No Sky % of Room	%Sun Summer	%Sun Winter	%Sun Total
R6/13	LKD	W8/13	23.03	3.77	98.61%	27.00	13.00	40.00
		W9/13	23.74			30.00	11.00	41.00
		W10/13	23.54			32.00	11.00	43.00