



Daylight and Sunlight

**Highgate Centre
(19-37 Highgate Road)
&
A&A Self-Storage
(19 Greenwood Place)**

Prepared by: Daniel Maddox

Reference: 7554

Date: 13/01/2017



By Email

Jonathan McClue
Principal Planning Officer
Croydon Council
Bernard Weatherill House
8 Mint Walk
Croydon
CR0 1EA

DATE / REF

13/01/2017
DM/7554

ADDRESS

**THE WHITEHOUSE
BELVEDERE ROAD
LONDON SE1 8GA**

CONTACT

**TEL 020 7202 1400
FAX 020 7202 1401
MAIL@GIA.UK.COM
WWW.GIA.UK.COM**

Dear Jonathan,

Re: Highgate Centre and A&A Self Storage, Camden – Daylight and Sunlight Addendum

Following a request from yourself, GIA have been asked to update our technical daylight and sunlight analysis in regards to Linton House located to the north west of the development site. This letter is designed to be an addendum to the full Daylight and Sunlight report, 7554-dm-16-0923(DaySun Report), which has been already been provided to accompany the planning submission, 2016/5372/P.

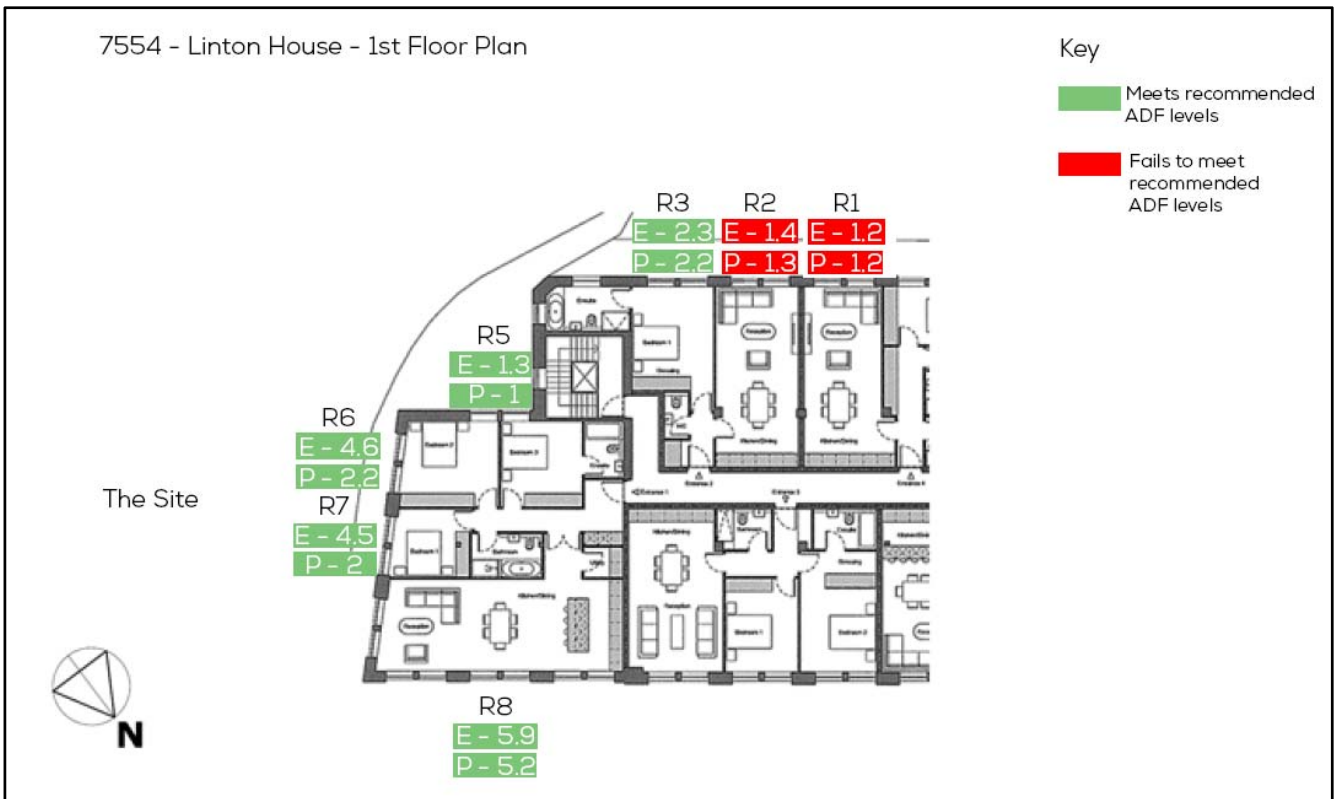
There are a number of separate planning applications for Linton House and GIA did not have the most current consents modelled which is the reason for the discrepancies in the proposed residential layouts. These have now been corrected.

Given the consents for Linton House have not been fully implemented and there are currently no occupants, rather than looking at what theoretical reductions the proposed building has on the consent we feel it would be more appropriate to look at the absolute daylight levels in the proposed residential units following the implementation of the proposed scheme.

For this reason we have undertaken an Average Daylight Factor (ADF) analysis on Linton House. This is an accurate indication of the daylight amenity within the room, to demonstrate whether the habitable spaces receives sufficient daylight for the specific room use. Room uses are therefore weighted dependent on their requirement for daylight, bedrooms are considered to have the least importance for natural light and therefore require only 1% ADF, living rooms are required to achieve 1.5% and kitchens requiring the highest level of daylight require 2%. These levels are not only accepted by the BRE guidelines but also by British Standard BS8206 Part II.

This assessment is only possible because we have accurate room dimensions and uses that we have been able to acquire from the Camden Planning Portal. If assumed rooms layouts and uses were used then generally we would not consider it to be an appropriate form of assessment.

Our assessment shows that of the 30 rooms that we have assessed for ADF, six rooms do not meet the recommended British Standard. These are shown on the floor plan below in red. The sample floor plan below is of the 1st floor, being the lowest residential floor this will have the lowest potential ADF values. Contained within Appendix O1 is full floor by floor annotated plans.



As can be seen from the above, the only rooms that do not meet the recommended British Standard are the Living/Kitchen/Diners on the south west elevation of Linton House, these rooms only have windows that face the development at a very oblique angle and are therefore largely unaffected. These windows fail to meet the recommended ADF levels in the existing situation.

Of the rooms that face the site, all will achieve the recommended British Standard for ADF. Clearly if a room which is being designed for a new development is deemed to have sufficient light against the British Standards, then it should equally follow for a room assessed in a neighbouring existing building, especially one which has yet to be fully completed.

We have undertaken a traditional Annual Probable Sunlight Hours (APSH) assessment to look at the impact of the proposed scheme on the Sunlight within the rooms of the consented residential units within Linton House.

This assessment demonstrates that all rooms will receive the BRE recommended 25% annual APSH. There are three rooms that would experience reductions in their winter APSH below the BRE recommended 5%. These rooms however, only see reductions to between 3% and 4%, and given their use as bedrooms the BRE considers them to be less important when it comes to sunlight.

Appended to this report are the floor by floor internal layouts with the existing and proposed ADF levels overlaid. Also attached is the tabulated ADF and APSH results.

Hopefully this sufficiently demonstrates that the Daylight and Sunlight amenity within Linton House will not be unduly affected by the current proposals for the site. If you have any further questions then please feel free to contact me.

Kind regards,

Yours sincerely
For and on behalf of GIA

A handwritten signature in black ink, appearing to read 'Daniel Maddox', with a stylized flourish at the end.

Daniel Maddox
Senior Surveyor
daniel.maddox@gia.uk.com


Encl. Appendix 01 - Floor Plans
Appendix 02 - Results

Appendix 01

Floor Plans

7554 - Linton House - 1st Floor Plan

Key

 Meets recommended ADF levels

 Fails to meet recommended ADF levels

The Site



7554 - Linton House - Second Floor

Key

- Meets recommended ADF levels
- Fails to meet recommended ADF levels

The Site



7554 - Linton House - Third Floor

Key

- Meets recommended ADF levels
- Fails to meet recommended ADF levels

The Site



7554 - Linton House - Fourth Floor

Key

- Meets recommended ADF levels
- Fails to meet recommended ADF levels

The Site



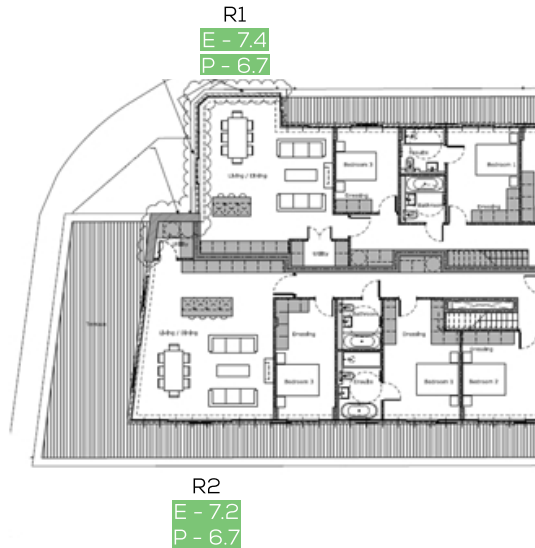
7554 - Linton House - Fifth Floor

Key

Meets recommended ADF levels

Fails to meet recommended ADF levels

The Site



Appendix 02

Results

Average Daylight Factor (ADF)

DAYLIGHT ANALYSIS

Room	Room	Window	Room Use	Flat Number	Glazed Area	Average Daylight Factor				Loss	%
						Existing ADF	Total	Proposed ADF	Total		
39-51 HIGGATE ROAD- LINTON HOUSE											
R1/F01	R1/F01	W1/F01	LKD		2.3	0.6		0.6	0		
R1/F01	R1/F01	W2/F01	LKD		2.3	0.6	1.2	0.6	1.2	0.1	8.333333333
R2/F01	R2/F01	W4/F01	LKD		2.2	0.7		0.7	0		
R2/F01	R2/F01	W3/F01	LKD		2.4	0.7	1.4	0.7	1.3	0.1	7.142857143
R3/F01	R3/F01	W6/F01	Bedroom		2.2	1.1		1.1	0		
R3/F01	R3/F01	W5/F01	Bedroom		2.4	1.2	2.3	1.1	2.2	0.2	8.695652174
R4/F01	R4/F01	W8/F01	Bathroom		1.5	1.4		0.6	0		
R4/F01	R4/F01	W7/F01	Bathroom		1.7	1.6	3	1.5	2.1	0.9	30
R5/F01	R5/F01	W9/F01	Bedroom		2.3	1.3	1.3	1	1	0.3	23.07692308
R6/F01	R6/F01	W12/F01	Bedroom		2.3	1.6		0.6	0		
R6/F01	R6/F01	W11/F01	Bedroom		2.3	1.6		0.6	0		
R6/F01	R6/F01	W10/F01	Bedroom		2.3	1.3	4.6	1	2.2	2.3	50
R7/F01	R7/F01	W14/F01	Bedroom		2.3	2.3		1	0		
R7/F01	R7/F01	W13/F01	Bedroom		2.3	2.3	4.5	1	2	2.5	55.55555556
R8/F01	R8/F01	W22/F01	LKD		2.0	0.7		0.7	0		
R8/F01	R8/F01	W21/F01	LKD		2.0	0.7		0.7	0		
R8/F01	R8/F01	W20/F01	LKD		2.3	0.7		0.7	0		
R8/F01	R8/F01	W19/F01	LKD		2.3	0.7		0.7	0		
R8/F01	R8/F01	W18/F01	LKD		2.3	0.7		0.7	0		
R8/F01	R8/F01	W17/F01	LKD		2.3	0.7		0.7	0		
R8/F01	R8/F01	W16/F01	LKD		2.3	0.8		0.5	0		
R8/F01	R8/F01	W15/F01	LKD		2.3	0.8	5.9	0.4	5.2	0.6	10.16949153
R1/F02	R1/F02	W1/F02	LKD		2.1	0.7		0.7	0		
R1/F02	R1/F02	W2/F02	LKD		2.1	0.7	1.4	0.7	1.3	0.1	7.142857143
R2/F02	R2/F02	W3/F02	LKD		2.2	0.8		0.7	0		
R2/F02	R2/F02	W4/F02	LKD		2.1	0.8	1.6	0.7	1.5	0.1	6.25
R3/F02	R3/F02	W5/F02	Bedroom		2.2	1.5		1.4	0		
R3/F02	R3/F02	W6/F02	Bedroom		2.0	1.4	3	1.3	2.7	0.3	10
R4/F02	R4/F02	W8/F02	Bathroom		1.3	1.5		0.8	0		
R4/F02	R4/F02	W7/F02	Bathroom		1.6	1.7	3.2	1.5	2.3	0.9	28.125
R5/F02	R5/F02	W9/F02	Bedroom		2.1	1.6	1.6	1.2	1.2	0.4	25
R6/F02	R6/F02	W10/F02	Bedroom		2.1	1.5		1.2	0		
R6/F02	R6/F02	W11/F02	Bedroom		2.1	2		0.9	0		
R6/F02	R6/F02	W12/F02	Bedroom		2.1	2	5.6	0.9	3	2.5	44.64285714
R7/F02	R7/F02	W13/F02	Bedroom		2.1	2.8		1.4	0		
R7/F02	R7/F02	W14/F02	Bedroom		2.1	2.8	5.6	1.5	2.9	2.8	50
R8/F02	R8/F02	W22/F02	LKD		1.9	0.7		0.7	0		
R8/F02	R8/F02	W21/F02	LKD		1.9	0.7		0.7	0		
R8/F02	R8/F02	W20/F02	LKD		1.9	0.7		0.7	0		
R8/F02	R8/F02	W19/F02	LKD		2.1	0.8		0.8	0		
R8/F02	R8/F02	W18/F02	LKD		2.1	0.8		0.8	0		
R8/F02	R8/F02	W17/F02	LKD		2.1	0.8		0.8	0		
R8/F02	R8/F02	W16/F02	LKD		2.1	0.8		0.5	0		
R8/F02	R8/F02	W15/F02	LKD		2.1	0.8	6.1	0.5	5.5	0.6	9.836065574
R1/F03	R1/F03	W2/F03	LKD		1.9	0.7		0.7	0		
R1/F03	R1/F03	W1/F03	LKD		1.9	0.7	1.3	0.6	1.3	0	0
R2/F03	R2/F03	W4/F03	LKD		1.9	0.7		0.7	0		
R2/F03	R2/F03	W3/F03	LKD		2.0	0.7	1.4	0.7	1.4	0.1	7.142857143
R3/F03	R3/F03	W6/F03	Bedroom		1.8	1		1	0		
R3/F03	R3/F03	W5/F03	Bedroom		2.0	1.2	2.2	1.1	2.1	0.1	4.545454545
R4/F03	R4/F03	W8/F03	Bathroom		1.2	1.2		0.7	0		
R4/F03	R4/F03	W7/F03	Bathroom		1.4	1.4	2.7	1.4	2.1	0.6	22.22222222
R5/F03	R5/F03	W9/F03	Bedroom		1.9	1.2	1.2	1	1	0.2	16.66666667
R6/F03	R6/F03	W12/F03	Bedroom		1.9	1.5		0.7	0		
R6/F03	R6/F03	W11/F03	Bedroom		2.0	1.5		0.7	0		
R6/F03	R6/F03	W10/F03	Bedroom		1.9	1.1	4	0.9	2.4	1.7	42.5
R7/F03	R7/F03	W14/F03	Bedroom		2.0	2		1.1	0		
R7/F03	R7/F03	W13/F03	Bedroom		2.0	2	4	1.1	2.2	1.8	45
R8/F03	R8/F03	W22/F03	LKD		1.7	0.7		0.7	0		
R8/F03	R8/F03	W20/F03	LKD		1.7	0.7		0.7	0		
R8/F03	R8/F03	W21/F03	LKD		1.7	0.7		0.7	0		
R8/F03	R8/F03	W19/F03	LKD		2.0	0.7		0.7	0		
R8/F03	R8/F03	W18/F03	LKD		2.0	0.7		0.7	0		
R8/F03	R8/F03	W17/F03	LKD		2.0	0.7		0.7	0		
R8/F03	R8/F03	W16/F03	LKD		2.0	0.7		0.4	0		
R8/F03	R8/F03	W15/F03	LKD		2.0	0.7	5.4	0.4	4.9	0.5	9.259259259
R1/F04	R1/F04	W1/F04	LKD		1.8	0.7		0.7	0		
R1/F04	R1/F04	W2/F04	LKD		1.8	0.7	1.4	0.7	1.4	0	0
R2/F04	R2/F04	W3/F04	LKD		1.9	0.8		0.8	0		
R2/F04	R2/F04	W4/F04	LKD		1.8	0.7	1.5	0.7	1.5	0	0
R3/F04	R3/F04	W5/F04	Bedroom		1.9	1.2		1.2	0		
R3/F04	R3/F04	W6/F04	Bedroom		1.7	1.1	2.3	1	2.2	0.1	4.347826087
R4/F04	R4/F04	W8/F04	Bathroom		1.1	1.1		0.8	0		
R4/F04	R4/F04	W7/F04	Bathroom		1.4	1.4	2.5	1.4	2.1	0.4	16
R5/F04	R5/F04	W9/F04	Bedroom		1.8	1.3	1.3	1.1	1.1	0.2	15.38461538
R6/F04	R6/F04	W10/F04	Bedroom		1.8	1.2		1.1	0		
R6/F04	R6/F04	W11/F04	Bedroom		1.8	1.6		0.9	0		
R6/F04	R6/F04	W12/F04	Bedroom		1.8	1.6	4.3	0.9	2.9	1.4	32.55813953

DAYLIGHT ANALYSIS

Room	Room	Window	Room Use	Flat Number	Glazed Area	Average Daylight Factor				Loss	%
						Existing		Proposed			
						ADF	Total	ADF	Total		
R7/F04	R7/F04	W13/F04	Bedroom		1.8	2.2		1.4	0		
R7/F04	R7/F04	W14/F04	Bedroom		1.8	2.2	4.3	1.4	2.8	1.6	37.20930233
R8/F04	R8/F04	W15/F04	LKD		1.8	0.7		0.5	0		
R8/F04	R8/F04	W16/F04	LKD		1.8	0.7		0.5	0		
R8/F04	R8/F04	W17/F04	LKD		1.8	0.7		0.7	0		
R8/F04	R8/F04	W18/F04	LKD		1.8	0.7		0.7	0		
R8/F04	R8/F04	W19/F04	LKD		1.8	0.7		0.7	0		
R8/F04	R8/F04	W20/F04	LKD		1.6	0.7	4.3	0.7	3.9	0.4	9.302325581
R1/F05	R1/F05	W1/F05	Living/Dining		9.9	2.9		2.4	0		
R1/F05	R1/F05	W4/F05	Living/Dining		1.5	0.5		0.4	0		
R1/F05	R1/F05	W5/F05	Living/Dining		6.5	2.2		2.1	0		
R1/F05	R1/F05	W7/F05	Living/Dining		5.3	1.2		1.2	0		
R1/F05	R1/F05	W6/F05	Living/Dining		3.2	0.6	7.4	0.6	6.7	0.7	9.459459459
R2/F05	R2/F05	W2/F05	Living/Dining		13.8	3.6		3.1	0		
R2/F05	R2/F05	W3/F05	Living/Dining		12.5	3.7	7.2	3.7	6.7	0.5	6.944444444
R1/F06	R1/F06	W1/F06	Unknown-Resi		19.1	7.5		7.5	0		
R1/F06	R1/F06	W2/F06	Unknown-Resi		9.5	3.7	11.3	3.6	11.1	0.2	1.769911504
R2/F06	R2/F06	W3/F06	Unknown-Resi		5.1	5.5	5.5	5.4	5.4	0.1	1.818181818

Annual Probable Sunlight Hours (APSH)

SUNLIGHT ANALYSIS

Room	Window	Room Use	Flat Number	Room		Winter APSH	Annual APSH	Winter APSH	Annual APSH	Winter %Loss	Annual %Loss
				Existing	Proposed						
				Winter APSH	Annual APSH						
39-51 HIGHGATE ROAD- LINTON HOUSE											
R1/F01	W1/F01	LKD									
R1/F01	W2/F01	LKD			14	36	7	29	50.00	19.44	
R2/F01	W3/F01	LKD									
R2/F01	W4/F01	LKD			19	42	10	32	47.37	23.81	
R3/F01	W5/F01	Bedroom									
R3/F01	W6/F01	Bedroom			20	47	9	33	55.00	29.79	
R4/F01	W7/F01	Bathroom									
R4/F01	W8/F01	Bathroom			27	73	11	37	59.26	49.32	
R5/F01	W9/F01	Bedroom									
R5/F01	W9/F01	Bedroom			22	49	6	26	72.73	46.94	
R6/F01	W10/F01	Bedroom									
R6/F01	W11/F01	Bedroom									
R6/F01	W12/F01	Bedroom			27	82	6	36	77.78	56.10	
R7/F01	W13/F01	Bedroom									
R7/F01	W14/F01	Bedroom			25	72	3	25	88.00	65.28	
R8/F01	W15/F01	LKD									
R8/F01	W16/F01	LKD									
R8/F01	W17/F01	LKD									
R8/F01	W18/F01	LKD									
R8/F01	W19/F01	LKD									
R8/F01	W20/F01	LKD									
R8/F01	W21/F01	LKD									
R8/F01	W22/F01	LKD			25	72	6	38	76.00	47.22	
R1/F02	W1/F02	LKD									
R1/F02	W2/F02	LKD			14	45	8	39	42.86	13.33	
R2/F02	W3/F02	LKD									
R2/F02	W4/F02	LKD			19	49	12	42	36.84	14.29	
R3/F02	W5/F02	Bedroom									
R3/F02	W6/F02	Bedroom			21	54	12	44	42.86	18.52	
R4/F02	W7/F02	Bathroom									
R4/F02	W8/F02	Bathroom			27	77	11	44	59.26	42.86	
R5/F02	W9/F02	Bedroom									
R5/F02	W9/F02	Bedroom			22	49	7	31	68.18	36.73	
R6/F02	W10/F02	Bedroom									
R6/F02	W11/F02	Bedroom									
R6/F02	W12/F02	Bedroom			27	82	6	36	77.78	56.10	
R7/F02	W13/F02	Bedroom									
R7/F02	W14/F02	Bedroom			25	72	4	28	84.00	61.11	

SUNLIGHT ANALYSIS

Room	Window	Room Use	Flat Number	Room		Winter APSH	Annual APSH	Winter APSH	Annual APSH	Winter %Loss	Annual %Loss
				Existing	Proposed						
				Winter APSH	Annual APSH						
R8/F02	W15/F02	LKD									
R8/F02	W16/F02	LKD									
R8/F02	W17/F02	LKD									
R8/F02	W18/F02	LKD									
R8/F02	W19/F02	LKD									
R8/F02	W20/F02	LKD									
R8/F02	W21/F02	LKD									
R8/F02	W22/F02	LKD			25	72	6	39	76.00	45.83	
R1/F03	W1/F03	LKD									
R1/F03	W2/F03	LKD			14	57	9	52	35.71	8.77	
R2/F03	W3/F03	LKD									
R2/F03	W4/F03	LKD			19	60	14	55	26.32	8.33	
R3/F03	W5/F03	Bedroom									
R3/F03	W6/F03	Bedroom			21	63	14	56	33.33	11.11	
R4/F03	W7/F03	Bathroom									
R4/F03	W8/F03	Bathroom			28	84	15	63	46.43	25.00	
R5/F03	W9/F03	Bedroom			22	48	10	33	54.55	31.25	
R6/F03	W10/F03	Bedroom									
R6/F03	W11/F03	Bedroom									
R6/F03	W12/F03	Bedroom			28	83	10	44	64.29	46.99	
R7/F03	W13/F03	Bedroom									
R7/F03	W14/F03	Bedroom			25	72	4	35	84.00	51.39	
R8/F03	W15/F03	LKD									
R8/F03	W16/F03	LKD									
R8/F03	W17/F03	LKD									
R8/F03	W18/F03	LKD									
R8/F03	W19/F03	LKD									
R8/F03	W20/F03	LKD									
R8/F03	W21/F03	LKD									
R8/F03	W22/F03	LKD			25	72	6	46	76.00	36.11	
R1/F04	W1/F04	LKD									
R1/F04	W2/F04	LKD			19	65	17	63	10.53	3.08	
R2/F04	W3/F04	LKD									
R2/F04	W4/F04	LKD			20	66	16	62	20.00	6.06	
R3/F04	W5/F04	Bedroom									
R3/F04	W6/F04	Bedroom			23	69	18	64	21.74	7.25	
R4/F04	W7/F04	Bathroom									
R4/F04	W8/F04	Bathroom			28	89	18	77	35.71	13.48	
R5/F04	W9/F04	Bedroom			22	47	12	37	45.45	21.28	

SUNLIGHT ANALYSIS

Room	Window	Room Use	Flat Number	Room		Winter APSH	Annual APSH	Winter APSH	Annual APSH	Winter %Loss	Annual %Loss
				Existing	Proposed						
R6/F04	W10/F04	Bedroom									
R6/F04	W11/F04	Bedroom									
R6/F04	W12/F04	Bedroom		28	83	13	60	53.57	27.71		
R7/F04	W13/F04	Bedroom									
R7/F04	W14/F04	Bedroom		25	70	6	46	76.00	34.29		
R8/F04	W15/F04	LKD									
R8/F04	W16/F04	LKD									
R8/F04	W17/F04	LKD									
R8/F04	W18/F04	LKD									
R8/F04	W19/F04	LKD									
R8/F04	W20/F04	LKD		25	70	8	52	68.00	25.71		
R1/F05	W1/F05	Living/Dining									
R1/F05	W4/F05	Living/Dining									
R1/F05	W5/F05	Living/Dining									
R1/F05	W6/F05	Living/Dining									
R1/F05	W7/F05	Living/Dining		30	99	24	92	20.00	7.07		
R2/F05	W2/F05	Living/Dining									
R2/F05	W3/F05	Living/Dining		25	70	20	65	20.00	7.14		

ADDRESS

THE WHITEHOUSE
BELVEDERE ROAD
LONDON SE1 8GA

CONTACT

TEL 020 7202 1400
FAX 020 7202 1401
MAIL@GIA.UK.COM

WWW.GIA.UK.COM