GVA Schatunowski Brooks

GVA

Detailed BRE
Daylight/Sunlight
Report

GVA 10 Stratton Street London W1J 8JR

44-46 Whitfield Street, London, W1

DTZ Investment Management

April 2014

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1. Executive Summary

- 1.1 The detailed assessment results demonstrate that with the proposal implemented, all of the neighbouring residential dwellings will satisfy all of the BRE daylight tests, Vertical Sky Component, Average Daylight Factor and Daylight Distribution and the BRE sunlight test, Annual Probable Sunlight Hours, both annually and in the winter, with exception of one small winter loss to a bedroom.
- 1.2 Therefore any loss of light will not noticeable and be proposal should be considered to adhere to the BRE Report 209 in the context of an inner-city environment.

2. Introduction

- 2.1 GVA Schatunowski Brooks has been instructed by DTZ Investment Management to provide a detailed assessment of the impact to daylight and sunlight amenity of existing neighbours' lighting conditions as a result of the proposed works at 44-46 Whitfield Street.
- 2.2 The current proposals consist of the erection of an additional floor at fifth floor level and extensions to the stepped additions at the rear with replacement façade to office building. These blocks have been designed to step away from the rear of the Tottenham Street properties to help safe guard their existing daylight and sunlight levels.
- 2.3 The detailed assessment model was based upon the following information:
 - Site inspection and photographs taken April 2014.
 - Land survey AutoCAD drawings provided by DTZ ref: 584/FE, RE, Sections, G, 1, 2, 3 & 4.
 - Brimelow McSweeney Architect's 3D AutoCAD model ref: 122644-46WhitfieldStreet-3DView-{3D}.dwg received 17 March 2014.
 - Research on the London Borough of Camden's planning database to review historic application, in order to reasonably estimate the neighbouring properties internal layouts.

The above drawings have allowed us to model the proposed development for the purposes of this assessment.

3. Daylight Planning Principles

- 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.

Sunlighting

- 3.11 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.
- 3.12 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."

- 3.13 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.
- 3.14 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

- 4.1 Attached drawings BRE12 & 13 illustrate graphically the proposal in context with the neighbouring properties. These can be found with the daylight and sunlight tables by reference to Appendix 1.
- 4.2 All properties test comprise of commercial/retail at ground floor with residential accommodation above and we have tested the residential elements only. From our planning research it would appear the majority of the rooms to the rear are bathrooms and bedrooms that have no expectation of daylight or are considered 'less important'. The commentary below deals with each of these properties in-turn, running clockwise.

50 & 48 Whitfield Street - WH27/02/BRE/11

- 4.3 This property is directly adjacent to the north of the proposals, with windows facing in an easterly direction.
- 4.4 For daylight, the VSC test (at the window) and the ADF & NSL tests (within the room) indicate that they will either attain their absolute guideline value or retain 0.8 of their former value. Therefore the BRE Guidelines in respect of daylight are satisfied.
- 4.5 For sunlight, the windows to this property that have a view of the proposals are not oriented within 90° of due south and therefore do not have a reasonable expectation of sunlight and consequently have not been tested.

13 Tottenham Street - WH27/02/BRE/10

- 4.6 This property is to the north of the proposals, with windows facing in a southerly direction.
- 4.7 For daylight, the VSC test (at the window) and the ADF & NSL tests (within the room) indicate that they will either attain their absolute guideline value or retain 0.8 of their former value. Therefore the BRE Guidelines in respect of daylight are satisfied.
- 4.8 For sunlight, when applying the Annual Probable Sunlight Hours (APSH) test the results confirm that, in accordance with the BRE Guidelines, there will be no noticeable

adverse loss of sunlight by virtue of retaining 0.8 of the former value i.e. no greater than 20% loss.

11 Tottenham Street WH27/02/BRE/10

- 4.9 This property is to the north of the proposals, with windows facing in a southerly direction.
- 4.10 For daylight, the VSC test (at the window) and the ADF & NSL tests (within the room) indicate that they will attain their absolute guideline values or retain 0.8 of their former value. Therefore the BRE Guidelines in respect of daylight are satisfied.
- 4.11 For sunlight, when applying the Annual Probable Sunlight Hours (APSH) test the results confirm that, in accordance with the BRE Guidelines, there will be no noticeable adverse loss of sunlight by virtue of retaining 0.8 of the former value i.e. no greater than 20% loss or no greater than 4% loss of the annual probable sunlight hours.

9 Tottenham Street - WH27/02/BRE/10

- 4.12 This property is to the north of the proposals, with windows facing in a southerly direction.
- 4.13 For daylight, the VSC test (at the window) and the ADF & NSL tests (within the room) indicate that they will either attain their absolute guideline value or retain 0.8 of their former value. Therefore the BRE Guidelines in respect of daylight are satisfied.
- 4.14 For sunlight, when applying the Annual Probable Sunlight Hours (APSH) test at the results confirm that, with the exception of one winter sunlight transgression, there will be no noticeable adverse loss of sunlight by virtue of retaining 0.8 of the former value i.e. no greater than 20% loss or no greater than 4% loss annually.
- 4.15 From site inspection, we believe that the one window with the winter reduction serves a bedroom only, which are considered 'less important'. Also, this window will retain annual sunlight value of 45%, compared with guideline value of 25%, therefore excellent annual sunlight will be retained.

7 Tottenham Street - WH27/02/BRE/10

- 4.16 This property is to the north-east of the proposals, with windows facing both south and west. It is unclear from our inspection whether this property is in residential or commercial occupation, so it has been tested nevertheless.
- 4.17 For daylight, the VSC test (at the window) and the ADF & NSL tests (within the room) indicate that they will either attain their absolute guideline value or retain 0.8 of their former value. Therefore the BRE Guidelines in respect of daylight are satisfied.
- 4.18 For sunlight, when applying the Annual Probable Sunlight Hours (APSH) test the results confirm that, in accordance with the BRE Guidelines, there will be no noticeable adverse loss of sunlight by virtue of retaining 0.8 of the former value i.e. no greater than 20% loss or no greater than 4% loss of the annual probable sunlight hours.

5 Tottenham Street - WH27/02/BRE/10

- 4.19 This property is to the north-east of the proposals, with windows facing in a southerly direction. Once again, it is unclear from our inspection whether this property is in residential or commercial occupation, so it has been tested nevertheless.
- 4.20 For daylight, the VSC test (at the window) and the ADF & NSL tests (within the room) indicate that they will either attain their absolute guideline value or retain 0.8 of their former value. Therefore the BRE Guidelines in respect of daylight are satisfied.
- 4.21 For sunlight, when applying the Annual Probable Sunlight Hours (APSH) test the results confirm that, in accordance with the BRE Guidelines, there will be no noticeable adverse loss of sunlight by virtue of retaining 0.8 of the former value i.e. no greater than 20% loss or no greater than 4% loss of the annual probable sunlight hours.

72 Tottenham Court Road - WH27/02/BRE/08,09

- 4.22 This property is to the east of the proposals and comprise of six-storeys of flats above Goodge Street Station, with the rear containing windows facing in a westerly direction.
- 4.23 For daylight, the VSC test (at the window) and the ADF & NSL tests (within the room) indicate that they will either attain their absolute guideline value or retain 0.8 of their former value. Therefore the BRE Guidelines in respect of daylight are satisfied.

4.24 For sunlight, when applying the Annual Probable Sunlight Hours (APSH) test the results confirm that, in accordance with the BRE Guidelines, there will be no noticeable adverse loss of sunlight by virtue of the windows retaining either 25% annual and 5% winter sunlight values or retaining 0.8 of the former value i.e. no greater than 20% loss.

5. Conclusions

- 5.1 The London Borough of Camden's planning policy seeks to safeguard daylight and sunlight to existing buildings and points to the guidance published in BRE Report 209 'Site Layout Planning for Daylight and Sunlight A Guide to Good Practice'.
- 5.2 We have undertaken a comprehensive study of the impact of the proposed development on the relevant rooms in all of the surrounding dwellings. The tests were undertaken in accordance with the BRE Report 209 'Site Layout Planning for Daylight and Sunlight A Guide to Good Practice' (second edition, 2011).
- 5.3 The results of our detailed study indicate that the all windows and rooms will retain daylight values in excess of the BRE Guidelines or will retain at least 0.8 of their former value, so any loss will not to be noticeable.
- 5.4 With regard to sunlight, once again, all windows will satisfy the BRE Guideline test for both annual and winter sunlight, with one exception, a small winter loss to a bedroom.
- 5.5 Therefore, when considering the daylight and sunlight results, it is clear that the design of the proposal is sympathetic to the daylight and sunlight requirements of the neighbouring properties.
- In conclusion, the proposal adheres to the BRE guidelines and does not significantly reduce sunlight or daylight to existing surrounding properties. In my opinion the London Borough of Camden's planning policy on daylight and sunlight will be satisfied.



Report

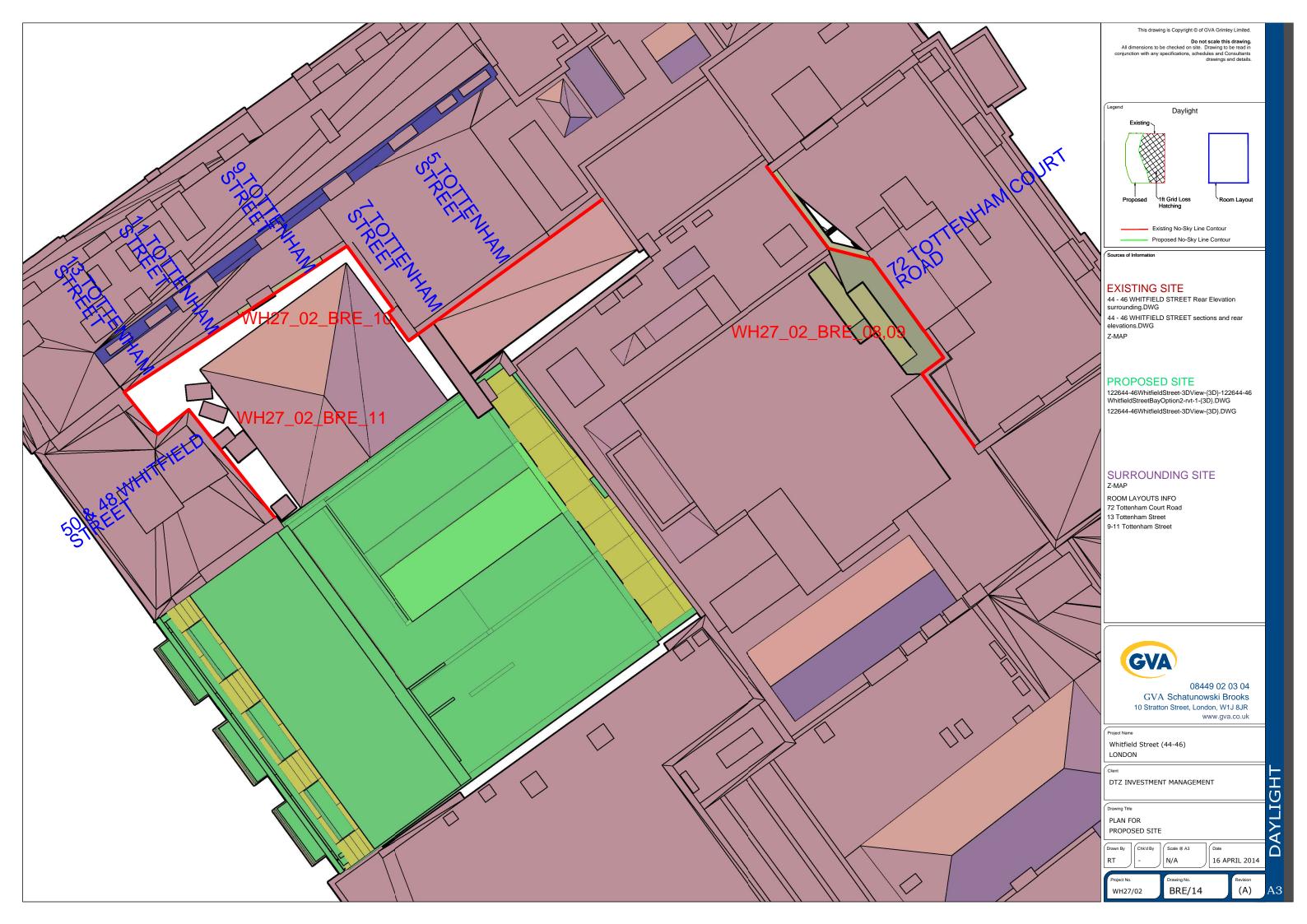
Appendices

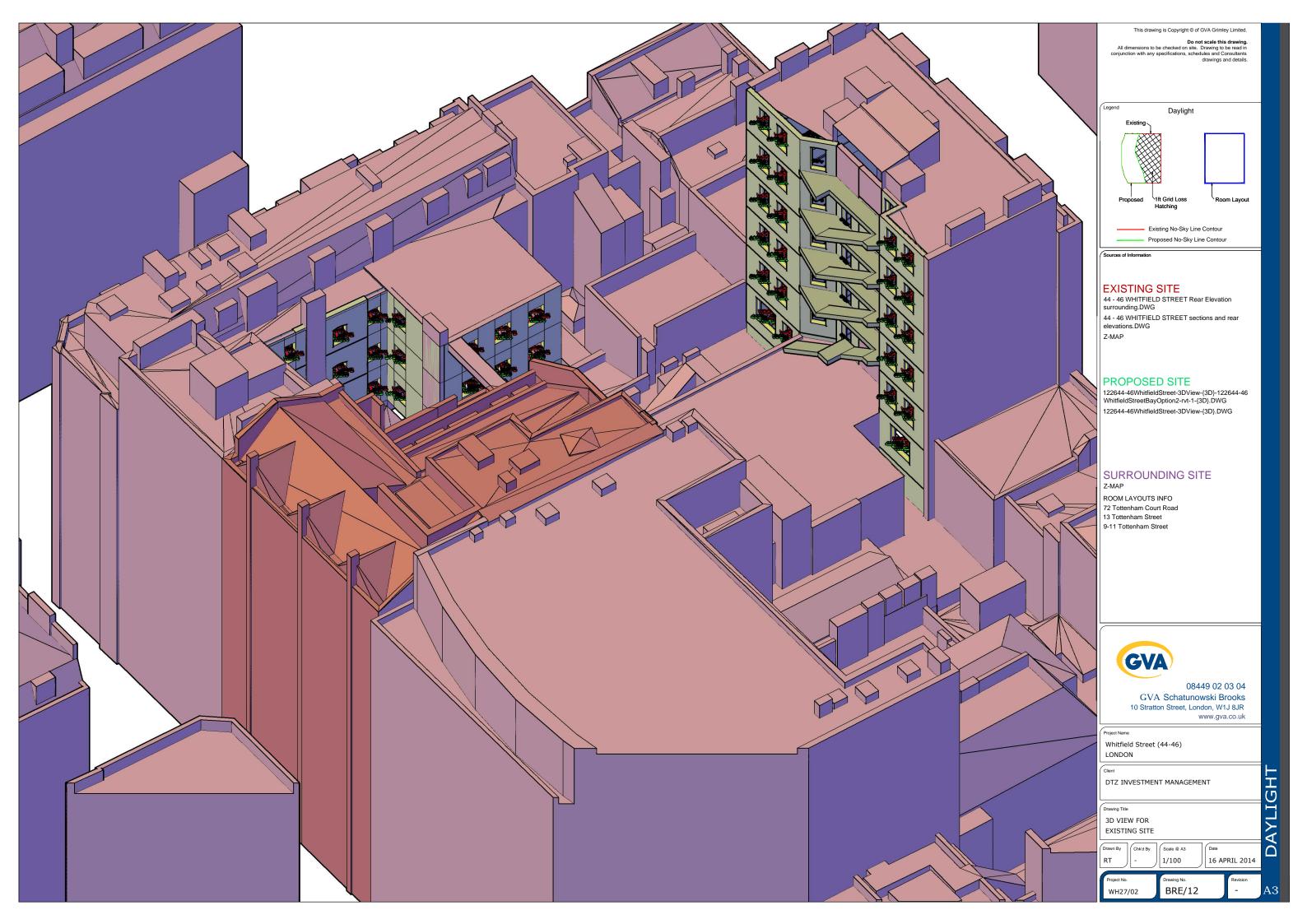


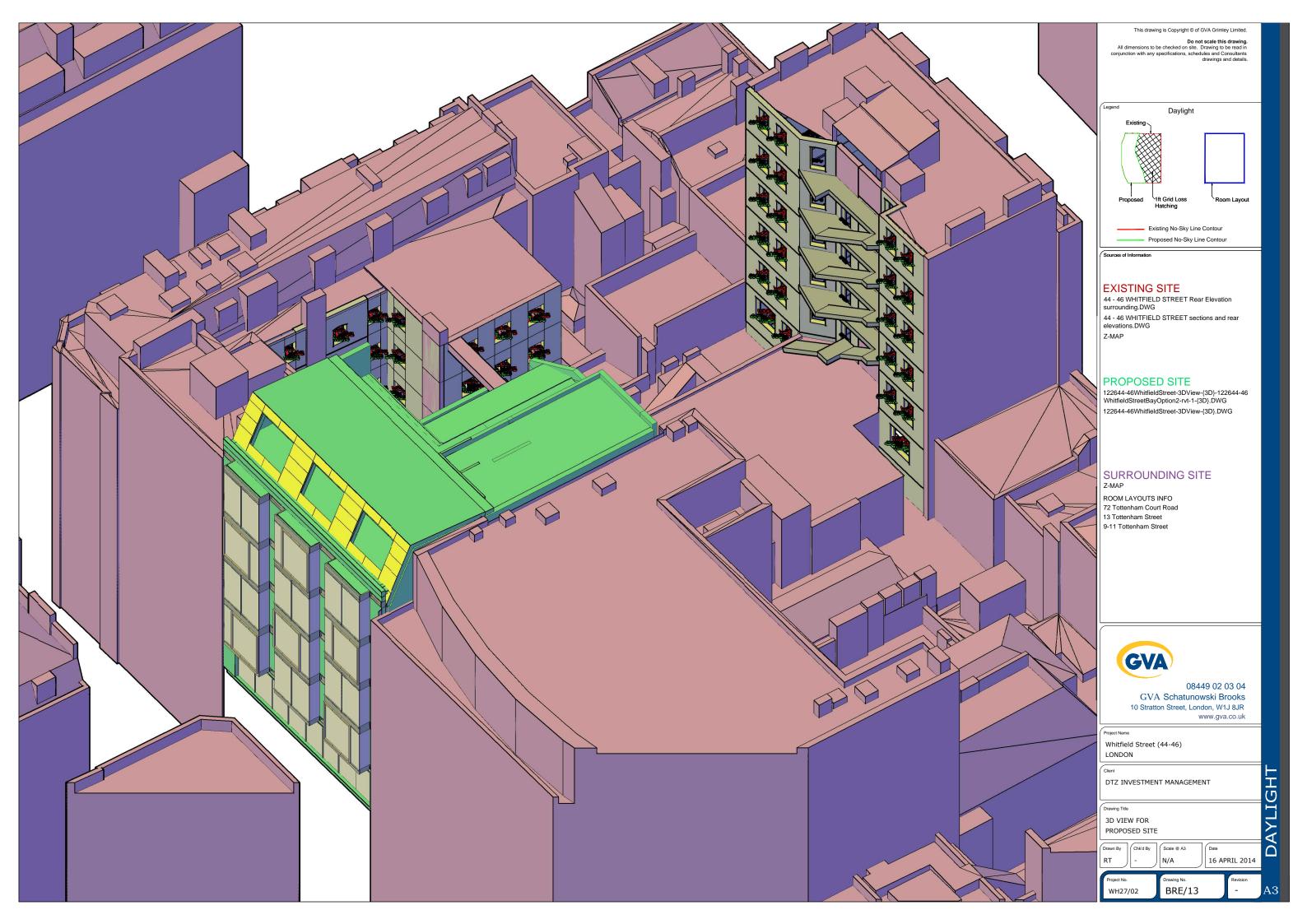
Report

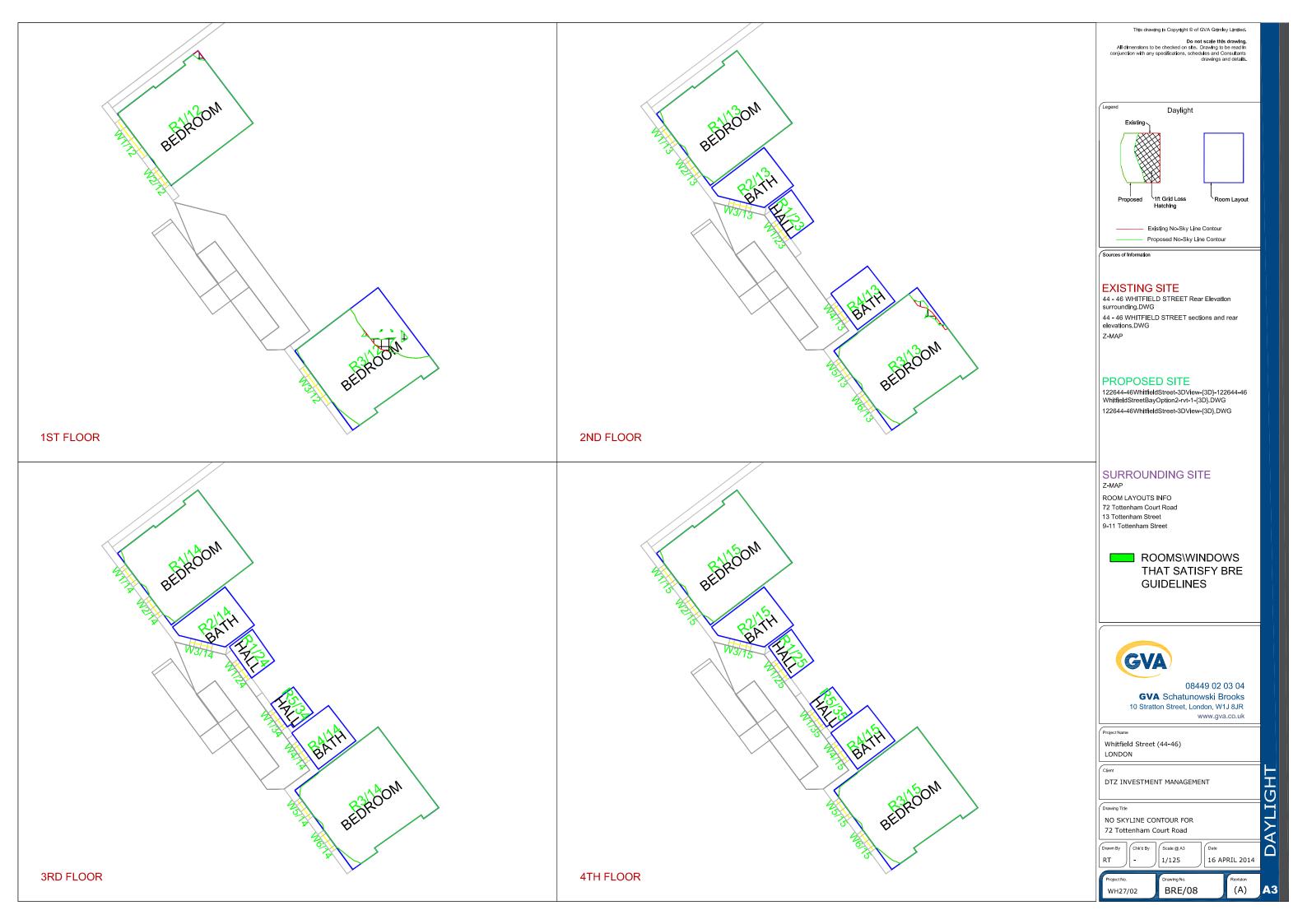
Appendix I

Drawings BRE08 to 14 plus Associated Technical Results Data

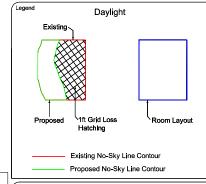








Do not scale this drawing. All dimensions to be checked on site. Drawing to be read in conjunction with any specifications, schedules and Consultants drawings and details.



EXISTING SITE

44 - 46 WHITFIELD STREET Rear Elevation surrounding.DWG

44 - 46 WHITFIELD STREET sections and rear elevations.DWG

Z-MAP

PROPOSED SITE

122644-46WhitfieldStreet-3DView-{3D}-122644-46 WhitfieldStreetBayOption2-rvt-1-{3D}.DWG

122644-46WhitfieldStreet-3DView-{3D}.DWG

SURROUNDING SITE

ROOM LAYOUTS INFO

72 Tottenham Court Road

13 Tottenham Street 9-11 Tottenham Street

> ROOMS\WINDOWS THAT SATISFY BRE **GUIDELINES**



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Whitfield Street (44-46) LONDON

DTZ INVESTMENT MANAGEMENT

Drawing Title

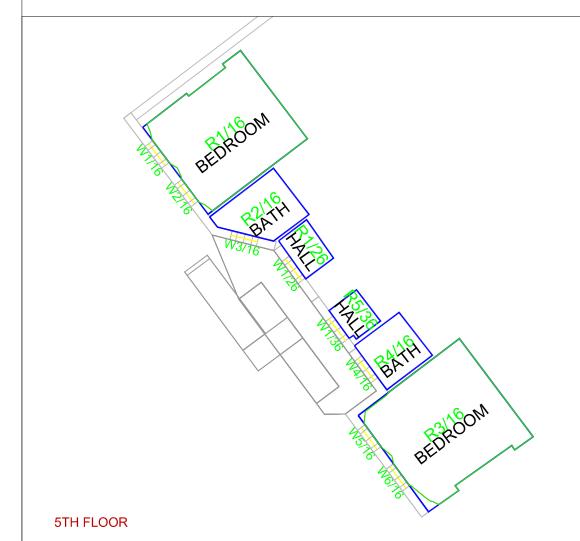
NO SKYLINE CONTOUR FOR 72 Tottenham Court Road

> Scale @ A3 1/125 16 APRIL 2014

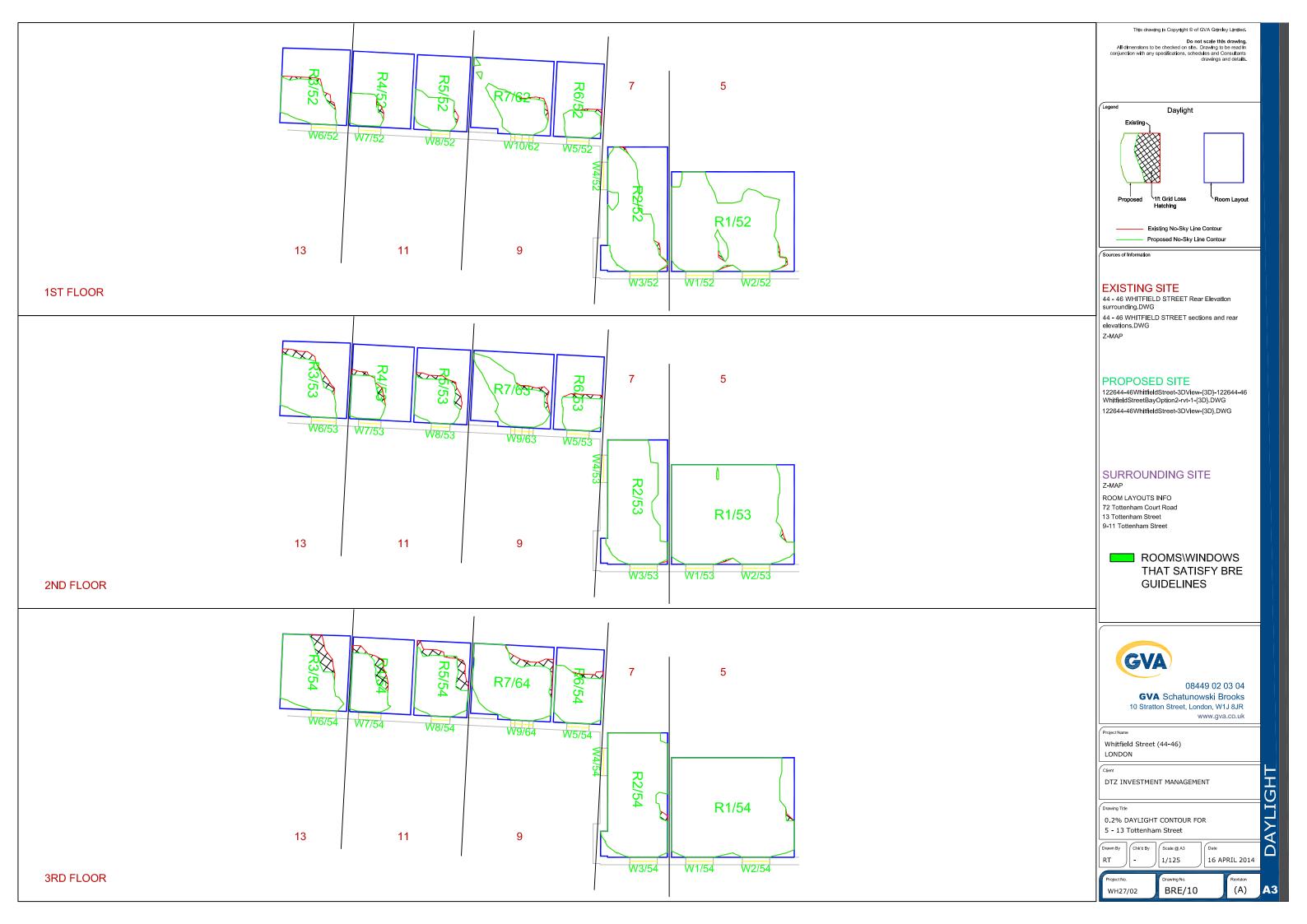
WH27/02

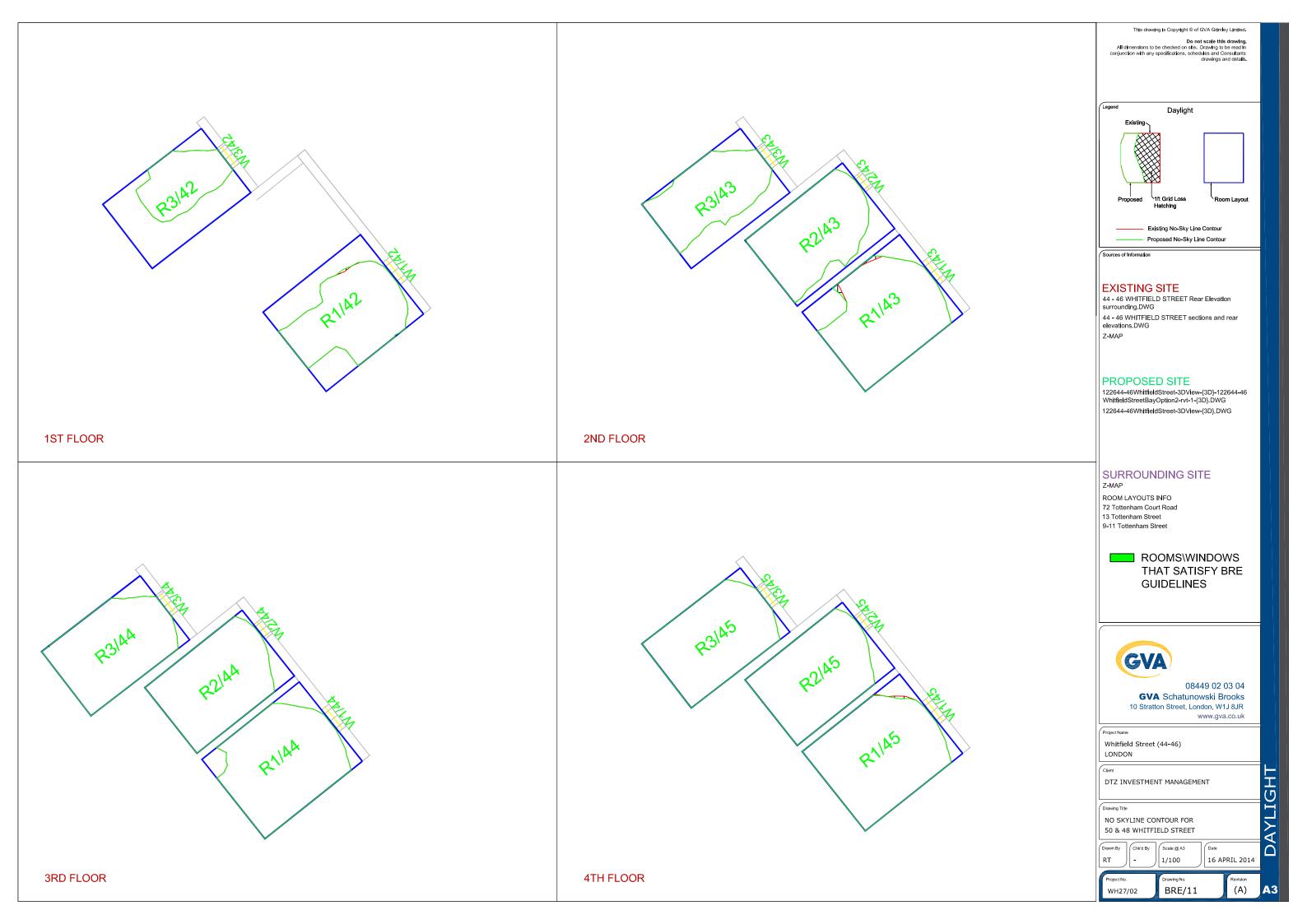
(A)

BRE/09



6TH FLOOR







Whitfield Street (44-46), London 16-Apr-14 JOB 02 - DAYLIGHT RESULTS

				%VSC		% Da	% Daylight Factor		Propos	ed No Sky
									% of	
									Room	% Loss of
Room/Floor	Room Use	Window	Exist	Prop	% Loss	Exist	Prop	% Loss	Area	Existing
72 Tottenhai	m Court Roa	ad SPEC	/02/BF	RE/08,	09					
1ST FLOOR	_									
R1/12	BEDROOM	W1/12	24.82	24.47	1.41%	3.02	2.99	1.06%	99.37%	0.57%
•		W2/12	22.87	22.55	1.40%					
R3/12	BEDROOM	W3/12	21.57	21.40	0.79%	1.74	1.73	0.46%	75.58%	-2.91%
2ND FLOOR	Ī	1				T	T	T		•
R1/13	BEDROOM	W1/13	30.36	29.99		2.18	2.16	0.96%	99.05%	0.00%
	BEBROOM	W2/13	30.00	29.65			2.10	0.90%	33.0370	0.0070
R3/13	BEDROOM	W5/13	27.19			1.84	1.83	0.49%	95.22%	-0.06%
•		W6/13	27.30	27.13	>27			01.070		0.0070
3RD FLOOR			•			1	1			_
R1/14	BEDROOM	W1/14	34.64	34.22		2.41	2.39	1.12%	99.05%	0.00%
	BEBROOM	W2/14	34.28	33.87	>27		2.00	111270	33.0370	0.0070
R3/14	BEDROOM	W5/14	31.67	31.48		2.07	2.06	0.53%	98.03%	0.00%
•	BEBROOM	W6/14	31.81	31.61	>27	2.07	2.00	0.5570	30.0370	0.0070
4TH FLOOR			•			1	1			_
R1/15	BEDROOM	W1/15	37.65	37.32		2.59	2.57	0.85%	99.05%	0.00%
		W2/15	37.43	37.07			,	0.0075		0.0070
R3/15	BEDROOM	W5/15	35.71	35.44		2.29	2.28	0.70%	98.03%	0.00%
		W6/15	35.94	35.67	>27			0.70%		
5TH FLOOR	T	1		1	1	ı	ı	T	T	•
R1/16	BEDROOM	W1/16	39.34	39.23		2.70	2.69	0.26%	99.05%	0.00%
	BEBROOM	W2/16	39.28	39.16		2., 0	2.03	0.2070	33.0370	0.0070
R3/16	BEDROOM	W5/16	38.65	38.56		2.47	2.46	0.24%	98.03%	0.00%
•		W6/16	38.99	38.90	>27			0.2 .,	30.0070	0.0070
6TH FLOOR	T	T .	_		ı			1	ı	
R1/17	BEDROOM	W1/17	39.62	39.62		2.84	2.84	0.00%	99.05%	0.00%
,,		W2/17	39.62	39.62					33.03/6	0.007
R3/17	BEDROOM	W5/17	39.61	39.61		2.60	2.60	0.00%	98.03%	0.00%
,	22200141	W6/17	39.57	39.57	>27	2.00	2.00	0.0070	30.0370	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
50 & 48 WHI	TFIELD STRE	ET SPE	C/02/E	RE/11						
1ST FLOOR										
R1/42		W1/42	13.64	13.68	-0.29%	0.70	0.70	-0.14%	65.07%	-0.33%
R3/42		W3/42	7.75	7.75	0.00%	0.50	0.50	0.00%	42.78%	0.00%
2ND FLOOR		-	_		₹			-		
R1/43		W1/43	19.50	19.97	-2.41%	0.86	0.88	-1.51%	84.46%	-1.02%
R2/43		W2/43	20.53	20.32	1.02%	0.63	0.63	0.00%	84.85%	0.00%
R3/43		W3/43	11.22	11.22	0.00%	0.61	0.61	0.00%	70.68%	0.00%
3RD FLOOR										
R1/44		W1/44	25.99	25.76	0.88%	1.02	1.02	0.00%	89.17%	0.00%
R2/44		W2/44	27.87	27.46	>27	0.74	0.74	0.00%	93.12%	0.00%
R3/44		W3/44	19.53	19.53	0.00%	0.83	0.83	0.00%	93.23%	0.00%
4TH FLOOR										
R1/45		W1/45	30.31	30.00	>27	1.11	1.11	0.00%	93.01%	0.46%
R2/45		W2/45	34.41	33.83	>27	0.82	0.82	0.00%	93.12%	0.00%
R3/45		W3/45	28.54	28.54	>27	1.02	1.02	0.00%	96.08%	0.00%
13 TOTTENH	AM STREET	SPEC/0	2/BRE	/10						
1ST FLOOR										
R3/52		W6/52	6.48	6.20	4.32%	0.75	0.73	3.46%	38.77%	7.86%
2ND FLOOR										
R3/53		W6/53	8.46	7.96	5.91%	0.87	0.83	4.58%	50.51%	11.93%
3RD FLOOR										
R3/54		W6/54	10.86	10.20	6.08%	1.02	0.97	4.61%	64.31%	11.88%
11TOTTENHA	AM STREET	SPEC/0	2/BRE/	10						
1ST FLOOR										
R4/52		W7/52	8.16	7.71	5.51%	0.56	0.53	4.50%	19.97%	3.66%
R5/52		W8/52	9.87	9.38	4.96%	0.68	0.66	3.95%	31.98%	2.64%
2ND FLOOR										
R4/53		W7/53	11.41	10.59	7.19%	0.68	0.65	5.70%	27.05%	10.83%
R5/53		W8/53	14.62	13.75	5.95%	0.85	0.81	4.94%	43.27%	13.08%
3RD FLOOR		·			· · · · · · · · · · · · · · · · · · ·					•
R4/54		W7/54	15.48	14.24	8.01%	0.82	0.77	6.56%	36.92%	18.89%
R5/54		W8/54	20.20	18.71	7.38%	1.03	0.97	5.91%	68.16%	13.26%



			%VSC			% Daylight Factor			Proposed No Sky	
									% of	
									Room	% Loss of
Room/Floor	Room Use	Window	Exist	Prop	% Loss	Exist	Prop	% Loss	Area	Existing
9 TOTTENHA	M STREET	SPEC/02	/BRE/:	10						
1ST FLOOR										
R6/52		W5/52	7.48	6.80	9.09%	0.62	0.58	7.56%	26.10%	6.43%
R7/62		W10/62	8.98	8.47	5.68%	0.67	0.64	4.17%	32.32%	4.08%
2ND FLOOR		-	-	-	-	-	-	-	-	-
R6/53		W5/53	10.91	9.98	8.52%	0.70	0.65	7.11%	34.75%	10.13%
R7/63		W9/63	13.98	13.05	6.65%	0.52	0.49	5.97%	44.99%	5.95%
3RD FLOOR										
R6/54		W5/54	18.16	16.97	6.55%	0.96	0.91	5.32%	63.95%	5.31%
R7/64		W9/64	21.70	20.34	6.27%	0.97	0.92	4.87%	78.00%	6.70%
7 TOTTENHA	M STREET	SPEC/02	/BRE/	10						
1ST FLOOR										
R2/52		W3/52	11.17	11.04	1.16%	0.92	0.90	2.50%	57.25%	1.17%
N2/32		W4/52	7.18	6.71	6.55%	0.92	0.90	2.50%	37.23%	1.17%
2ND FLOOR										
R2/53		W3/53	16.65	16.32	1.98%	1.24	1.20	2.83%	79.61%	0.09%
N2/33		W4/53	11.13	10.41	6.47%	1.24	4 1.20	2.83%	79.61%	0.037
3RD FLOOR		-	•	-	-	-	-	-	-	•
R2/54		W3/54	19.05	18.87	0.94%	1.55	1.51	2.33%	92.82%	0.73%
112/34		W4/54	19.77	18.77	5.06%	1.55	1.51	2.33/0	92.02/0	0.73/0
5 TOTTENHA	M STREET	SPEC/02	/BRE/	10						
1ST FLOOR										
R1/52		W1/52	13.89	13.78	0.79%	0.93	0.93	0.21%	68.41%	0.21%
N1/32		W2/52	14.53	14.37	1.10%	0.93	0.93	0.21/0	00.41/0	0.21/0
2ND FLOOR										
R1/53		W1/53	18.69	18.30	2.09%	1.14	1.13	0.70%	88.18%	0.37%
V1/33		W2/53	19.63	19.53	0.51%	1.14	1.13	1.15 0.70%	88.18%	0.37%
3RD FLOOR										
D1 /E /		W1/54	24.37	23.65	2.95%	1 22	1.32	1 200/	02.000/	0.340/
R1/54		W2/54	24.32	23.79	2.18%	1.33	1.32	1.20%	92.09%	0.31%



Whitfield Street (44-46), London 16-Apr-14 JOB 02 - SUNLIGHT RESULTS

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

annual unobstructed total (1486.0 Hrs) Existing %					Pro	posed %					
	Window					pood 70		% Loss of	% Loss of	% Loss of	
Room use	Ref	Summer	Winter	Total	Summer	Winter	Total	Summer	Winter	Total	
						· · · · · · · · · · · · · · · · · · ·	. otal				
72 Tottenham Court Road SPEC/02/BRE/08,09 1ST FLOOR											
	W1/12	36.00	9.00	45.00	36.00	8.00	44.00	0.00%	11.11%	2.22%	
BEDROOM	W2/12	36.00	0.00	36.00	36.00	0.00		0.00%			
								+	+	+	
2ND FLOOR	BEDROOM W3/12 31.00 10.00 41.00 32.00 10.00 42.00 -3.23% 0.00% -2.44%										
	W1/13	40.00	16.00	56.00	40.00	16.00	56.00	0.00%	0.00%	0.00%	
BEDROOM	W2/13	40.00	15.00	55.00	40.00	15.00		0.00%	0.00%	0.00%	
BEDROOM	W5/13	41.00	14.00	55.00	41.00	14.00		0.00%		+	
BEDROOM	W6/13	40.00	14.00	54.00	39.00	14.00		2.50%			
3RD FLOOR			_								
BEDROOM	W1/14	42.00	19.00	61.00	42.00	19.00	61.00	0.00%	0.00%	0.00%	
BEDROOM	W2/14	42.00	19.00	61.00	42.00	19.00	61.00	0.00%	0.00%	0.00%	
BEDROOM	W5/14	43.00	18.00	61.00	43.00	18.00	61.00	0.00%	0.00%	0.00%	
BEDROOM	W6/14	42.00	18.00	60.00	42.00	18.00	60.00	0.00%	0.00%	0.00%	
4TH FLOOR											
BEDROOM	W1/15	43.00	24.00	67.00	43.00	23.00	66.00	0.00%	4.17%	1.49%	
BEDROOM	W2/15	42.00	24.00	66.00	42.00	23.00	65.00	0.00%	4.17%	1.52%	
BEDROOM	W5/15	43.00	22.00	65.00	43.00	21.00	64.00	0.00%	4.55%	1.54%	
BEDROOM	W6/15	42.00	22.00	64.00	42.00	21.00	63.00	0.00%	4.55%	1.56%	
5TH FLOOR											
BEDROOM	W1/16	44.00	24.00	68.00	44.00	24.00	68.00	0.00%	0.00%	0.00%	
BEDROOM	W2/16	43.00	24.00	67.00	43.00	24.00	67.00	0.00%	0.00%	0.00%	
BEDROOM	W5/16	43.00	24.00	67.00	43.00	24.00	67.00	0.00%	0.00%	0.00%	
BEDROOM	W6/16	42.00	24.00	66.00	42.00	24.00	66.00	0.00%	0.00%	0.00%	
6TH FLOOR											
BEDROOM	W1/17	44.00	24.00	68.00	44.00	24.00	68.00	0.00%	0.00%	0.00%	
BEDROOM	W2/17	44.00	24.00	68.00	44.00	24.00	68.00	0.00%	0.00%	0.00%	
BEDROOM	W5/17	43.00	24.00	67.00	43.00	24.00	67.00	0.00%	0.00%	0.00%	
BEDROOM	W6/17	43.00	24.00	67.00	43.00	24.00	67.00	0.00%	0.00%	0.00%	
13 TOTTENHAM STREET SPEC/02/BRE/11											
1ST FLOOR				1	Ť		r		T		
	W6/52	9.00	0.00	9.00	9.00	0.00	9.00	0.00%	0.00%	0.00%	
2ND FLOOF	2ND FLOOR										
	W6/53	14.00	0.00	14.00	13.00	0.00	13.00	7.14%	0.00%	7.14%	
3RD FLOOR			1		Т		1	1	1	ı	
	W6/54	16.00	0.00	16.00	15.00	0.00	15.00	6.25%	0.00%	6.25%	



Ref Summer Winter Total Strict St			Ex	isting %		Proposed %					
11TOTTENHAM STREET SPEC/02/BRE/10 10.00 10.00 10.00 16.67% 0.00% 16 0.00% 16 0.00% 15.00 15.00 14.00 0.00 14.00 6.67% 0.00% 16 0.00% 16 0.00% 16.00% 0.00% 16 0.00% 0.00% 16 0.00%		Window							% Loss of	% Loss of	% Loss of
STFLOOR	Room use	Ref	Summer	Winter	Total	Summer	Winter	Total	Summer	Winter	Total
W7/52 12.00 0.00 12.00 10.00 10.00 16.67% 0.00% 16 W8/52 15.00 0.00 15.00 14.00 0.00 14.00 6.67% 0.00% 6 6 6 6 6 6 6 6 6	11TOTTENI	HAM STREE	T SPEC/	02/BRE/	1 0						
W8/52 15.00 0.00 15.00 14.00 0.00 14.00 6.67% 0.00% 6 2ND FLOOR	1ST FLOOR										
No.		W7/52	12.00	0.00	12.00	10.00	0.00	10.00	16.67%	0.00%	16.67%
W7/53		W8/52	15.00	0.00	15.00	14.00	0.00	14.00	6.67%	0.00%	6.67%
W8/53 25.00 0.00 25.00 21.00 0.00 21.00 16.00% 0.00% 16 3RD FLOOR	2ND FLOOF	₹									
Name		W7/53	19.00	0.00	19.00	17.00	0.00	17.00	10.53%	0.00%	10.53%
W7/54 25.00 0.00 25.00 23.00 0.00 23.00 8.00% 0.00% 8 W8/54 39.00 2.00 41.00 37.00 1.00 38.00 5.13% 50.00% 7		W8/53	25.00	0.00	25.00	21.00	0.00	21.00	16.00%	0.00%	16.00%
W8/54 39.00 2.00 41.00 37.00 1.00 38.00 5.13% 50.00% 7	3RD FLOOR		.		1			ı	•	•	•
9 TOTTENHAM STREET SPEC/02/BRE/10 1ST FLOOR W5/52				0.00							8.00%
ST FLOOR						37.00	1.00	38.00	5.13%	50.00%	7.32%
W5/52	9 TOTTENH	AM STREET	SPEC/	02/BRE/:	10						
W10/62	1ST FLOOR		T .						ī	ī	T.
NS/53		-									10.53%
W5/53		· ·	18.00	0.00	18.00	17.00	0.00	17.00	5.56%	0.00%	5.56%
W9/63	2ND FLOOF		T .	1		1	1		1	1	1
SRD FLOOR											
W5/54 35.00 6.00 41.00 35.00 5.00 40.00 0.00% 16.67% 2 W9/64 43.00 7.00 50.00 43.00 2.00 45.00 0.00% 71.43% 10 7 TOTTENHAM STREET SPEC/02/BRE/10 SP			28.00	0.00	28.00	25.00	0.00	25.00	10.71%	0.00%	10.71%
W9/64	3RD FLOOR	•	ı					1	T		
7 TOTTENHAM STREET SPEC/02/BRE/10 IST FLOOR W3/52 21.00 0.00 21.00 19.00 0.00 19.00 9.52% 0.00% 9 W4/52 16.00 0.00 16.00 14.00 0.00 14.00 12.50% 0.00% 12 2ND FLOOR W3/53 31.00 2.00 33.00 31.00 2.00 33.00 0.00% 0.00% 0 W4/53 24.00 1.00 25.00 23.00 1.00 24.00 4.17% 0.00% 4 3RD FLOOR W3/54 26.00 2.00 28.00 26.00 2.00 28.00 0.00% 0.00% 0 W4/54 32.00 8.00 40.00 32.00 6.00 38.00 0.00% 25.00% 5 5 TOTTENHAM STREET SPEC/02/BRE/10 IST FLOOR W1/52 25.00 1.00 26.00 24.00 1.00 25.00 4.00% 0.00% 3		-									1
ST FLOOR						43.00	2.00	45.00	0.00%	71.43%	10.00%
W3/52 21.00 0.00 21.00 19.00 0.00 19.00 9.52% 0.00% 9 W4/52 16.00 0.00 16.00 14.00 0.00 14.00 12.50% 0.00% 12 2ND FLOOR W3/53 31.00 2.00 33.00 31.00 2.00 33.00 0.00% 0.00% 0 W4/53 24.00 1.00 25.00 23.00 1.00 24.00 4.17% 0.00% 4 3RD FLOOR W3/54 26.00 2.00 28.00 26.00 2.00 28.00 0.00% 0.00% 0 W4/54 32.00 8.00 40.00 32.00 6.00 38.00 0.00% 25.00% 5 5 TOTTENHAM STREET SPEC/02/BRE/10 STEPLOOR W1/52 25.00 1.00 26.00 24.00 1.00 25.00 4.00% 0.00% 3 3 3 3 3 3 3 3 3		AM STREET	SPEC/0	02/BRE/	10						
W4/52 16.00 0.00 16.00 14.00 0.00 14.00 12.50% 0.00% 12.50M 12	1ST FLOOR	/=-									
2ND FLOOR W3/53 31.00 2.00 33.00 2.00 33.00 0.00% 0.00% 0 W4/53 24.00 1.00 25.00 23.00 1.00 24.00 4.17% 0.00% 4 3RD FLOOR W3/54 26.00 2.00 28.00 26.00 2.00 28.00 0.00% 0.00% 0 W4/54 32.00 8.00 40.00 32.00 6.00 38.00 0.00% 25.00% 5 5 TOTTENHAM STREET SPEC/02/BRE/10 1ST FLOOR W1/52 25.00 1.00 26.00 24.00 1.00 25.00 4.00% 0.00% 3											
W3/53 31.00 2.00 33.00 2.00 33.00 0.00% 0.00% 0 0 0 0 0 0 0 0 0	2ND FLOOR		16.00	0.00	16.00	14.00	0.00	14.00	12.50%	0.00%	12.50%
W4/53 24.00 1.00 25.00 23.00 1.00 24.00 4.17% 0.00% 4	ZND FLOOF		24.00	2.00	22.00	24.00	2.00	22.00	0.000/	0.000/	0.000/
3RD FLOOR W3/54 26.00 2.00 28.00 26.00 2.00 28.00 0.00% 0.00% 0 W4/54 32.00 8.00 40.00 32.00 6.00 38.00 0.00% 25.00% 5 5 TOTTENHAM STREET SPEC/02/BRE/10 ST FLOOR W1/52 25.00 1.00 26.00 24.00 1.00 25.00 4.00% 0.00% 3											0.00% 4.00%
W3/54 26.00 2.00 28.00 26.00 2.00 28.00 0.00% 0.00% 0 0 0 0 0 0 0 0 0	SBD EI OOB	· ·	24.00	1.00	25.00	23.00	1.00	24.00	4.17%	0.00%	4.00%
W4/54 32.00 8.00 40.00 32.00 6.00 38.00 0.00% 25.00% 5 5 TOTTENHAM STREET SPEC/02/BRE/10 1ST FLOOR W1/52 25.00 1.00 26.00 24.00 1.00 25.00 4.00% 0.00% 3	SVD LFOOK		26.00	2.00	28 00	26.00	2.00	28 00	0.00%	0 00%	0.00%
5 TOTTENHAM STREET SPEC/02/BRE/10 1ST FLOOR W1/52 25.00 1.00 26.00 24.00 1.00 25.00 4.00% 0.00% 3											
1ST FLOOR W1/52 25.00 1.00 26.00 24.00 1.00 25.00 4.00% 0.00% 3	5 TOTTENH					32.00	0.00	30.00	0.0070	25.0070	3.00%
W1/52 25.00 1.00 26.00 24.00 1.00 25.00 4.00% 0.00% 3		AIVI STREET	JFLC/(JZ/ DILL/	10						
	131 1 LOOK	\\/1/52	25.00	1.00	26.00	24.00	1.00	25.00	4.00%	0.00%	3.85%
1.1.7.52 20.00 1.00 25.00 1.00 25.00 0.00% 0.00% 0		-									
2ND FLOOR	2ND FLOOR		20.00	1.00	25.00	20.00	1.00	23.00	0.0070	0.0070	0.0070
			31.00	4.00	35.00	31.00	3.00	34.00	0.00%	25.00%	2.86%
3RD FLOOR	3RD FLOOR		30.00	3.50		35.50	5.50	1 2 2.00	3.5370	2.2370	2.2370
			40.00	11.00	51.00	40.00	9.00	49.00	0.00%	18.18%	3.92%

