



Report

Camden Town Hall Annex **Daylight/Sunlight Report** December 2014

Ian Absolon
For and on behalf of GVA Schatunowski Brooks

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1. Introduction

- 1.1 GVA Schatunowski Brooks has been instructed by Crosstree Real Estate Management Limited to assess the daylight/sunlight effects with regard to the redevelopment of the Camden Town Hall Annexe. We have been provided with the proposed scheme from ORMS Architects 1996_ORMS_XX_ZZ_3D_A.dwg.
- 1.2 We have also been provided with a set of site photographs and have used satellite imagery. This information has enabled us to carry out a 3D computer modelling exercise.

2. Executive Summary

2.1 The proposed development will potentially affect the following neighbouring residential properties and these are the subject of the analysis.

- 47 Tonbridge Street
- 23-27 Euston Road
- 1 Belgrove Street

2.2 The site currently consists of an existing tall building on Euston Road which it is proposed to raise by two storeys.

2.3 The analysis will show that there is no significant impact on the neighbouring windows.

2.5 The analysis will also show that daylighting amenity and the amenity of the school playground passes the relevant guidance.

2.5 An Indicative 3-D view and drawing references are shown on drawing CA149/05/BRE25 and overshadowing on drawing number CA149/05/BRE208-17 .

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 is the document referred to by most local authorities. The BRE guidelines cover amenity requirements for sunlight and daylight to buildings around any development site as well as the quality of daylight within a proposed habitable development. The BRE guidelines should also be read in conjunction with the British Standard, BS 8206-2:2008 Lighting for Buildings Part 2: Code of Practice for Daylighting as they both refer to each other.

3.2 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 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 vertical sky component 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 states 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% vertical sky component (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 potential light rather than actual. Depending upon the room a window size, the room may still be adequately lit with a lesser VSC value than the target values referred to above.
- 3.8 Appendix C of the BRE guidelines sets out various more detailed tests that assess the interior daylight conditions of rooms. These include the calculation of the average daylight factors (ADF) and no sky-lines. 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.
- 3.9 The no sky-line, or daylight distribution contour shows the extent of light penetration into the room at working plane level, 850mm above floor level. If a substantial part of the room falls behind the no sky-line contour, the distribution of light within the room may look poor.

Sunlighting

- 3.10 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. 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."

- 3.11 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 then the sunlight loss will not be noticeable. Sunlight reductions that fall below 0.8, i.e. 0.7 (the same as saying greater than 20%) then the sunlight losses will be noticed by the occupants.

Overshadowing

- 3.12 Overshadowing to gardens and open spaces can be a material planning consideration. Part 3.3 of the BRE guidelines deals with overshadowing considerations, identifying areas such as gardens, allotments, parks, playing fields, playgrounds, swimming pools, paddling pools, sitting out areas and public open spaces.

- 3.13 The amount of sunlight being available to an amenity space is measured on 21st March, with the BRE guidelines suggesting that at least half the area should be able to receive two hours of sunlight on March 21st.

4. Assessment Results

- 4.1 We set out below our commentary on the assessments for the daylight/sunlight tests. All results are shown graphically on the attached plans and in tabular format. Internal layouts are not known however the analysis shows that the scheme will be compliant regardless of use the tested rooms are BRE compliant.

47 Tonbridge Street

- 4.2 Drawing number CA149/05/BRE23 shows the results on plan of the properties' windows.
- 4.3 All rooms either retain in excess of 27% VSC or see small reductions of single figures.
- 4.4 There is no requirement for sunlight testing due to orientation of the façade.
- 4.5 This building is fully BRE compliant.

23-27 Euston Road

- 4.6 Drawing number CA149/05/BRE21 shows the results on plan of the properties' windows.
- 4.7 The majority of rooms see single figure reductions with some upper floors retaining light in excess of 27%.
- 4.8 Sunlight assessments show either small losses or retention in excess of BRE guide levels.
- 4.9 This building is fully BRE compliant.

1 Belgrove Street

- 4.10 Drawing number CA149/05/BRE22 shows the results for this property.
- 4.11 To ground floor there are no losses of light whilst to upper floors there are minor losses . The same applies to the sunlight analysis.

4.12 The building is fully BRE compliant.

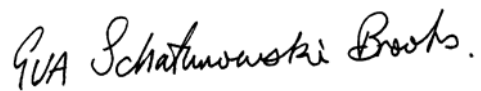
Overshadowing

4.13 Drawing CA149/05/BRE208-17 shows a fully compliant scheme in that permanent shadow on March 21st allows at least 50% of the amenity space to receive 2 hrs of sunlight. Indeed these transient plots show no impact of any note to the neighbouring School playground.

5. Conclusions

- 5.1 The proposed development will not affect any of the neighbouring buildings to any noticeable degree either in terms of sunlight or daylight.
- 5.2 The scheme is fully BRE compliant.

Yours faithfully

A handwritten signature in black ink that reads "GVA Schatunowski Brooks." The signature is written in a cursive, flowing style.

GVA Schatunowski Brooks



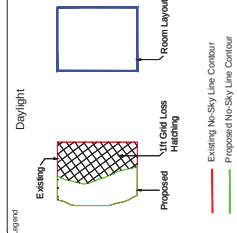
CAMDEN TOWN HALL ANEXE
02-Dec-14
JOB 05 - DAYLIGHT RESULTS - NEW PROPOSED

Room/Floor	Room Use	Window	%VSC			% Daylight Factor			Proposed No Sky	
			Exist	Prop	% Loss	Exist	Prop	% Loss	% of Room Area	% Loss of Existing
47 TONBRIDGE STREET CA149/05/BRE/23										
1ST FLOOR										
R1/71		W1/71	18.10	17.07	5.69%	0.94	0.90	3.73%	52.54%	16.03%
R2/71		W2/71	18.68	17.59	5.84%	0.70	0.67	4.17%	71.37%	0.00%
R3/71		W3/71	18.74	17.61	6.03%	0.72	0.68	4.61%	71.19%	0.00%
R4/71		W4/71	18.33	17.19	6.22%	0.94	0.89	4.39%	55.82%	0.00%
R5/71		W5/71	18.42	17.16	6.84%	0.67	0.64	4.75%	36.29%	7.53%
R6/71		W7/71	30.40	29.52	>27	1.10	1.09	1.45%	96.93%	1.08%
R7/71		W6/71	18.40	17.07	7.23%	1.49	1.45	2.95%	97.45%	0.07%
		W8/71	30.39	29.52	>27					
2ND FLOOR										
R1/72		W1/72	22.03	20.99	4.72%	1.08	1.05	2.95%	68.36%	13.88%
R2/72		W2/72	22.18	21.08	4.96%	0.98	0.95	2.67%	89.84%	1.29%
R3/72		W3/72	22.30	21.13	5.25%	1.08	1.04	3.52%	82.03%	0.00%
R4/72		W4/72	22.42	21.11	5.84%	0.78	0.75	3.98%	56.72%	5.10%
R5/72		W6/72	32.30	31.30	>27	1.15	1.14	1.56%	97.22%	0.88%
R6/72		W5/72	22.39	20.98	6.30%	1.62	1.58	2.77%	99.06%	0.07%
		W7/72	32.26	31.25	>27					
3RD FLOOR										
R1/73		W1/73	26.08	25.13	3.64%	1.17	1.14	2.32%	72.03%	15.98%
R2/73		W2/73	26.22	25.20	3.89%	1.05	1.03	1.90%	93.55%	0.21%
R3/73		W3/73	26.35	25.26	4.14%	1.16	1.13	2.76%	96.32%	0.00%
R4/73		W4/73	26.46	25.21	4.72%	0.83	0.81	3.24%	87.99%	-1.55%
R5/73		W6/73	34.23	33.13	>27	1.15	1.13	1.65%	97.79%	0.49%
R6/73		W5/73	26.33	24.95	5.24%	1.67	1.62	2.70%	99.66%	0.00%
		W7/73	34.14	33.00	>27					



Room/Floor	Room Use	Window	%VSC			% Daylight Factor			Proposed No Sky	
			Exist	Prop	% Loss	Exist	Prop	% Loss	% of Room Area	% Loss of Existing
23-27 Euston Road CA149/05/BRE/21										
GROUND FLOOR										
R1/20		W1/20	15.70	15.70	0.00%	1.15	1.15	0.00%	81.62%	0.00%
R2/20		W2/20	12.46	12.38	0.64%	0.31	0.31	0.00%	39.98%	0.00%
R3/20		W3/20	9.18	8.62	6.10%	0.41	0.39	5.10%	25.15%	13.90%
R4/20		W4/20	14.47	13.58	6.15%	0.24	0.21	10.08%	25.35%	16.49%
1ST FLOOR										
R1/21		W1/21	20.17	20.07	0.50%	1.34	1.34	0.07%	96.63%	0.52%
R2/21		W2/21	15.25	15.06	1.25%	0.34	0.34	0.00%	39.98%	0.00%
R3/21		W3/21	12.32	11.30	8.28%	0.49	0.46	6.73%	35.04%	13.70%
R4/21		W4/21	20.65	18.72	9.35%	0.34	0.31	10.23%	47.71%	8.57%
2ND FLOOR										
R1/22		W1/22	25.78	25.57	0.81%	1.58	1.58	0.19%	96.84%	0.59%
R2/22		W2/22	18.22	18.00	1.21%	0.37	0.37	0.00%	40.63%	0.00%
R3/22		W3/22	15.60	14.07	9.81%	0.56	0.52	7.86%	41.39%	17.86%
R4/22		W4/22	27.51	25.34	7.89%	0.43	0.40	7.60%	70.82%	8.02%
3RD FLOOR										
R1/23		W1/23	30.06	29.76	>27	1.99	1.98	0.15%	97.85%	0.87%
R2/23		W2/23	20.36	20.12	1.18%	0.38	0.38	0.00%	42.03%	0.00%
R3/23		W3/23	17.94	16.29	9.20%	0.61	0.57	7.36%	45.90%	23.08%
R4/23		W4/23	30.06	27.75	>27	2.02	1.91	5.83%	90.90%	2.46%
4TH FLOOR										
R1/24		W1/24	34.57	34.25	>27	2.88	2.87	0.17%	99.89%	0.00%
R2/24		W2/24	31.11	30.81	>27	2.65	2.64	0.08%	99.78%	0.00%
R3/24		W3/24	20.54	18.64	9.25%	0.67	0.62	7.44%	55.60%	30.85%
R4/24		W4/24	32.34	29.86	>27	2.14	2.01	6.08%	91.20%	5.32%
1 Belgrove Street CA149/05/BRE/22										
1ST FLOOR										
R1/30		W1/30	10.20	10.20	0.00%	0.63	0.63	0.00%	25.68%	0.00%
2ND FLOOR										
R1/31		W1/31	13.08	13.08	0.00%	0.67	0.67	0.00%	34.59%	0.00%
R1/33		W1/33	13.89	13.34	3.96%	0.78	0.75	3.34%	48.24%	12.76%
3RD FLOOR										
R1/32		W1/32	21.13	19.64	7.05%	0.58	0.54	5.90%	73.49%	7.58%
R1/34		W1/34	16.51	15.58	5.63%	0.87	0.83	4.36%	61.92%	11.13%
4TH FLOOR										
R1/35		W1/35	25.98	24.34	6.31%	0.25	0.24	7.48%	72.67%	2.97%
		W2/35	22.43	21.39	4.64%					
		W3/35	29.13	27.40	>27					

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Source of Information
Zmap
Orms Architects
1996_ORMS_XX_ZZ_3D_A.dwg



08449 02 03 04
GVA Schatunowski Brooks
10 Station Street, London, W1J 8JR
www.gva.co.uk

Project Name
Camden Town Hall Annex
London

Client

Drawing Title
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23-27 Easton Road

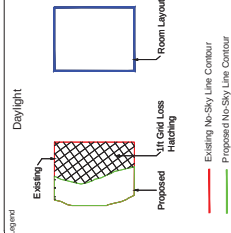
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RT

Checked By
BRE20

Date
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Revision
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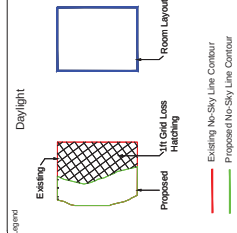
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23-27 Easton Road

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Project No.	Drawing No.	Revision
CA149/05	BRE21	-

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Project Name
Camden Town Hall Annex
London

Client

Drawing Title
NO SKYLINE CONTOUR FOR
1 Belgrave Street

Drawn By
RT

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Check By

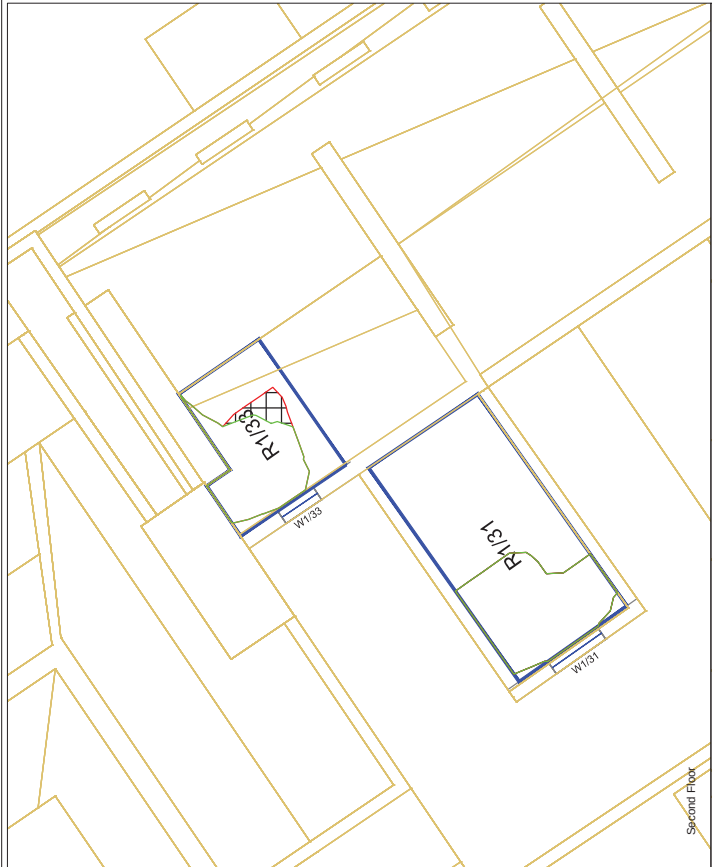
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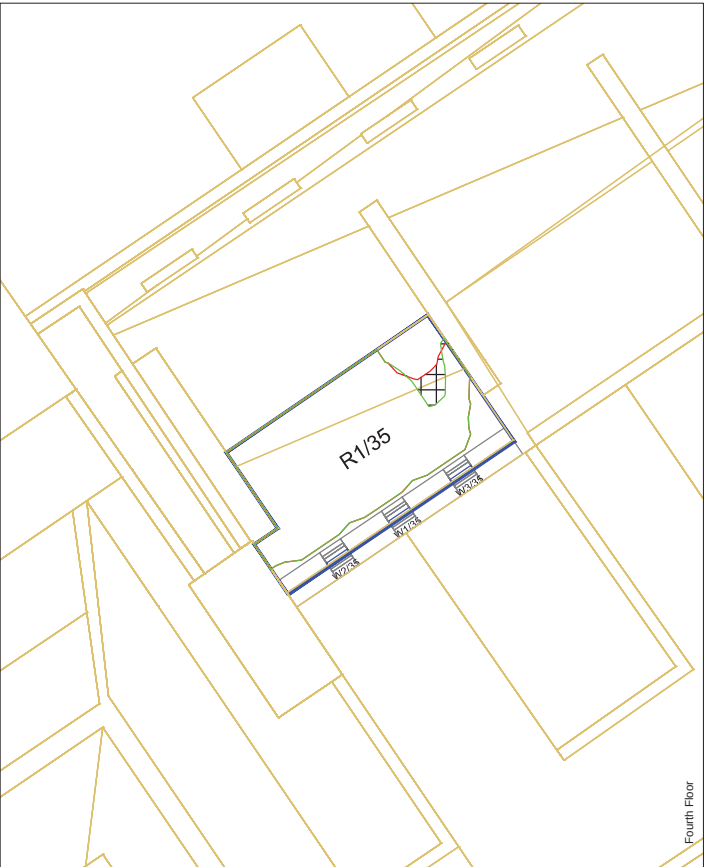
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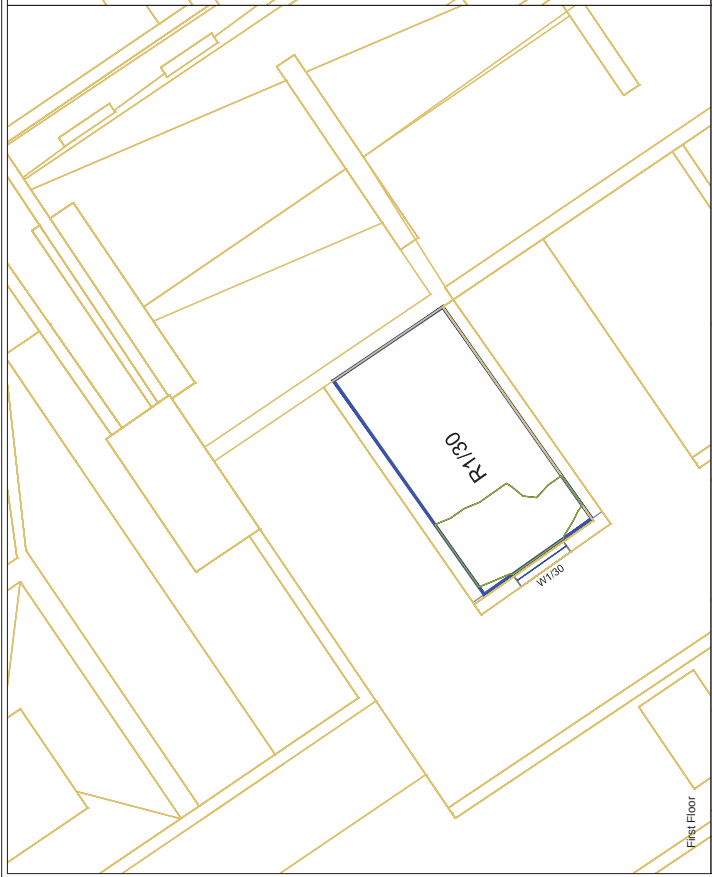
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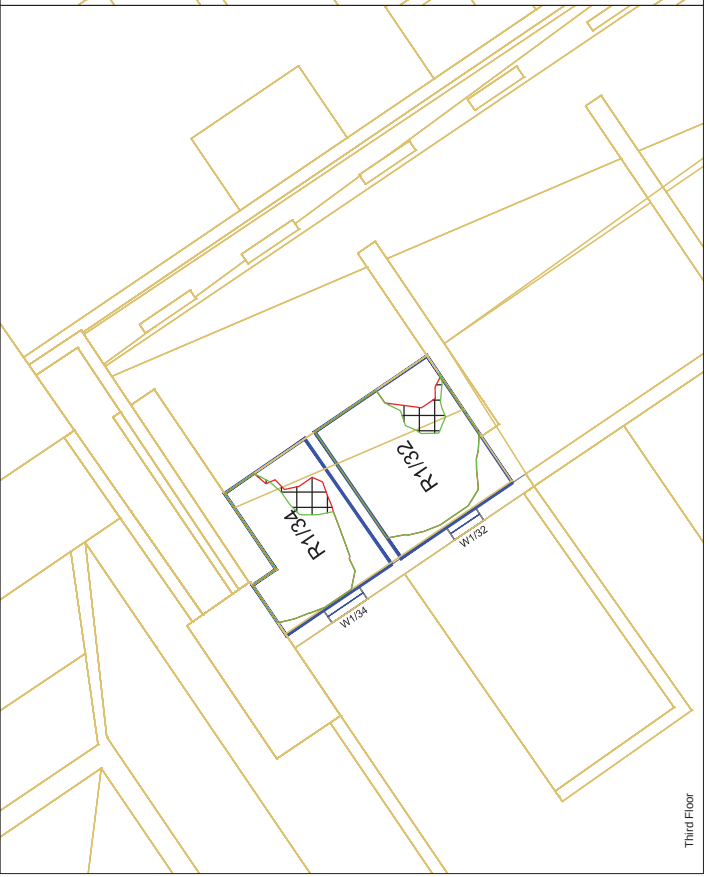
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Fourth Floor

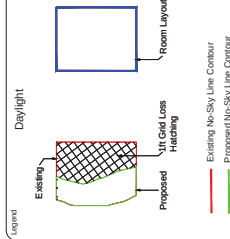


First Floor



Third Floor

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Project Name
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London

Client

Drawing Title
NO SKYLINE CONTOUR FOR
Argyle Primary School

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RT

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Scale of AS

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Date

1 DEC 2014

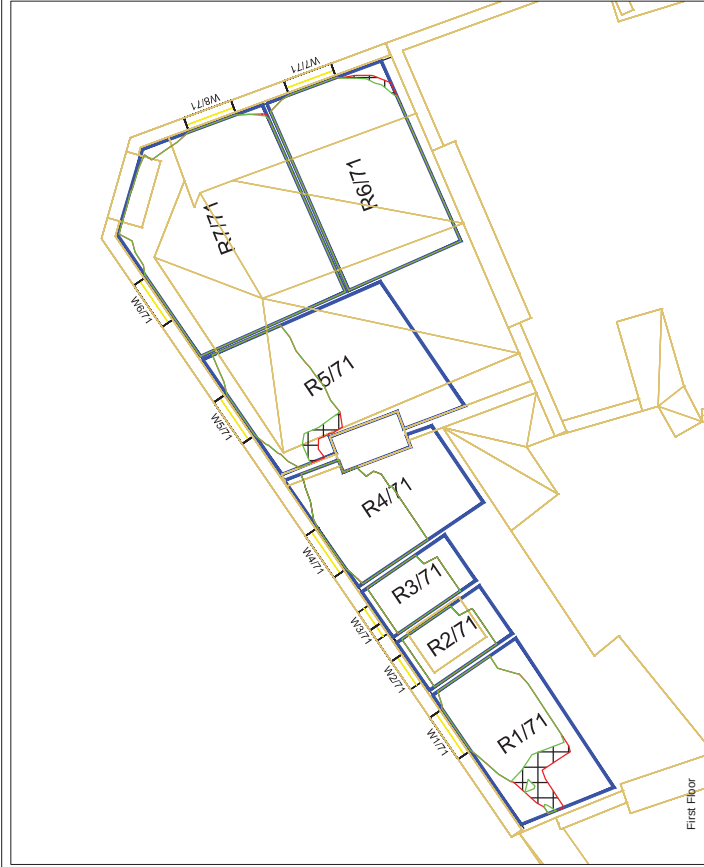
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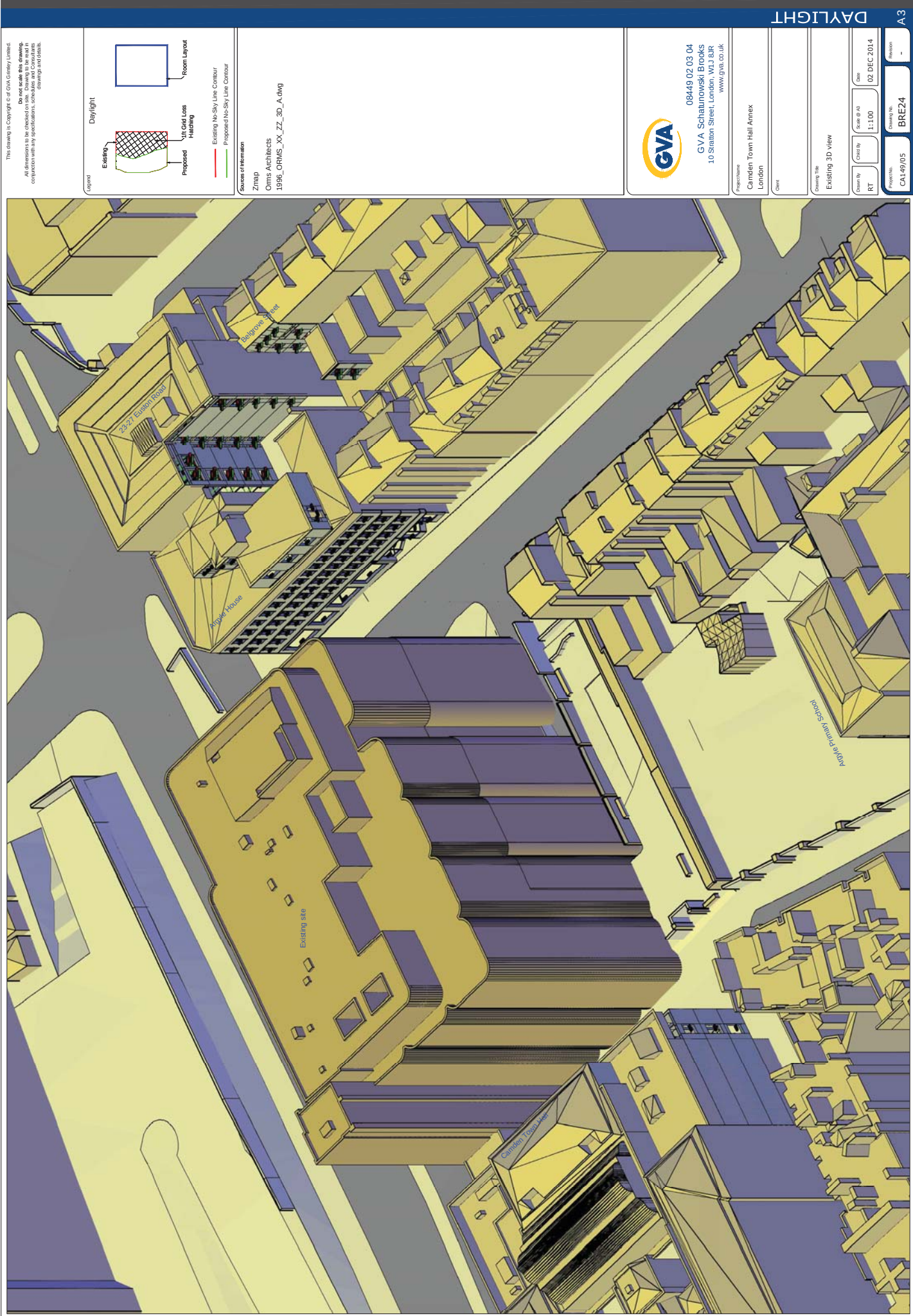
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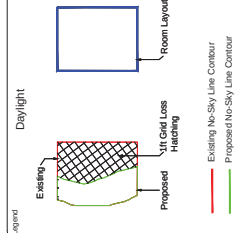
A3



Third Floor



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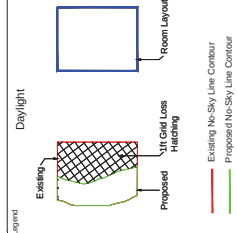
Project Name
Camden Town Hall Annex
London

Client

Drawing Title
Existing 3D view

Client Ref	Scale of A3	Date
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Project No.	Drawing No.	Revision
CA149/05	BRE24	-

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London

Client

Drawing Title
Proposed 3D view

Client Ref
RT

Scale of AS
1:100

Date
02 DEC 2014

Revision
BRE25

Project No
CA149/05

Revision
-

Revision
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