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**86 Mill Lane
West Hampstead**

Daylight and Sunlight Report

December 2012

1.0 Introduction

We have been instructed to provide a report on daylight and sunlight assessing the impact of the proposed extension at 86 Mill Lane on the four windows in the neighbouring property, 88 Mill Lane, that could potentially be impacted. It is usual to assess daylight and sunlight in relation to the guidelines set out in the 2011 Building Research Establishment (BRE) Report 'Site layout planning for daylight and sunlight - A guide to good practice' by Paul Littlefair.

The BRE guidelines provide two principal measures of daylight for assessing the impact of a proposal on neighbouring properties – namely Vertical Sky Component (VSC), and No-Sky Line (NSL). In terms of Sunlight, we examine the BRE Annual Probable Sunlight Hours (APSH). These are discussed in the following paragraphs.

Vertical Sky Component (VSC)

VSC is a measure of the skylight reaching a point from an overcast sky. For Existing buildings, the BRE guideline is based on the loss of VSC at a point at the centre of a window, on the outer plane of the wall. The BRE guidelines state that if the VSC at the centre of a window is less than 27%, and it is less than 0.8 times its former value, then the diffuse daylighting of the existing building may be adversely affected.

No-Sky Line (NSL)

No-Sky Line (NSL) is a measure of the distribution of daylight within a room. As it maps out the region within a room where light can penetrate directly from the sky, it therefore accounts for the size of and number of windows by simple geometry. The BRE suggest the area of the working plane within a room that can receive direct skylight should not be reduced to less than 0.8 times its former value.

Annual Probable Sunlight Hours (APSH)

In relation to sunlight, the BRE recommends that the Annual Probable Sunlight Hours (APSH) received at a given window in the proposed case should be at least 25% of the total available including at least 5% in winter. Where the proposed values fall short of these, and the absolute loss is greater than 4%, then the proposed values should not be less than 0.8 times their previous value in each period. We also note that the BRE guidelines state that '...all main living rooms of dwellings .. should be checked if they have a window facing within 90 degrees of due south. Kitchens and bedrooms are less important, although care should be taken not to block out too much sun'.

2.0 Sources of Information

PROUN
SK-01 GF Plans.dwg
SK-02 Mezzanine.dwg
SK-03 Roof Plan.dwg
SK-04 Sections & Elevations.dwg
Site Photographs

3.0 Drawings attached

Drawing Number	Title
802/PL1/01	- Site Plan & 3D View, Existing & Proposed
802/PL1/02	- Daylight & Sunlight Analysis, 88 Mill Lane

4.0 Assumptions made in the 3D model

The massing of the existing building, the proposed extension, and the massing and fenestration of 88 Mill Lane were all modeled using the Proun drawings. We have had no information regarding the internal arrangements within 88 Mill Lane and have therefore made reasonable assumptions.

The 3D model was created so as to reproduce the massing of the buildings, both on and surrounding the site, at a level of detail appropriate to the calculations performed. All heights in the model are in mm above basement level in 86 Mill Lane.

5.0 Daylight and Sunlight Analysis

Initially, a detailed 3-dimensional computer model of the existing site, proposed development, and the surrounding buildings was created. The model was analysed using proprietary software to calculate the various measures of daylight and sunlight. Existing light levels were then compared with the corresponding levels with the proposed extension in place. The resulting levels and their reductions were then compared to the relevant BRE Report guideline.

6.0 Results and Discussion

We have calculated the daylight and sunlight figures as set out in the BRE Report.

Each window and assumed room in 88 Mill Lane has been assigned a unique label; these are shown in drawing 802/PL1/02, along with the associated figures and no-sky line contours.

Daylight –

All the windows achieve VSC values in excess of 27% after the extension is implemented. They all therefore comply with the BRE guidelines. We note that the third floor windows will not experience any reduction in daylight.

Likewise, the assumed rooms all very comfortably comply with the BRE NSL criteria.

Sunlight -

All the windows very comfortably achieve the BRE APSH criteria. The third floor windows will not experience any reduction in sunlight. Second floor window W2/12 will receive nearly three times the recommended 25% of total APSH after development, W1/12 will receive nearly double.

7.0 Summary and Conclusion

We have considered the impact that the proposed extension will have on the daylight and sunlight amenity to 88 Mill Lane.

We find that reductions in both daylight and sunlight will be small, and that resultant levels will remain very good. All the windows will continue to receive in excess of the BRE recommended levels of daylight and sunlight after the extension is implemented. Therefore, in relation to 88 Mill Lane the proposed extension fully accords with the BRE guideline on daylight and sunlight, and the impact should be regarded as acceptable.

Waterslade Ltd.

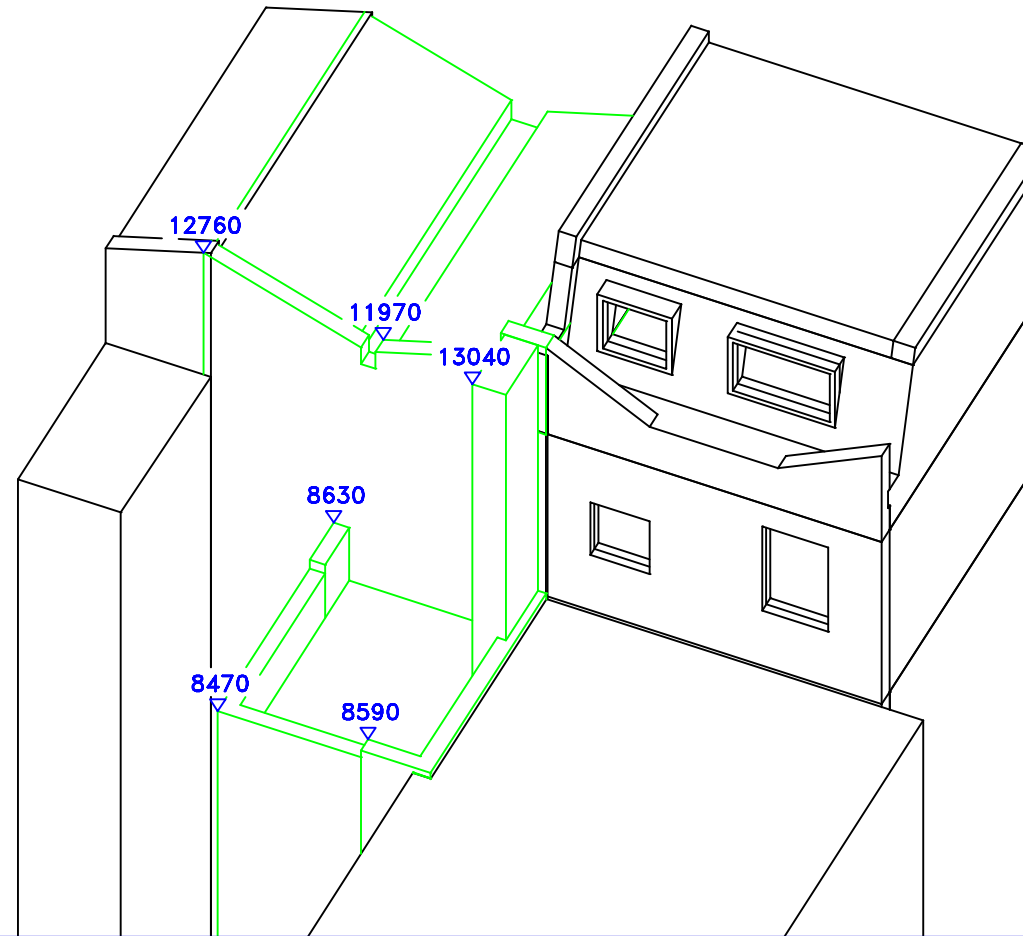
STEVENAGE ROAD

Sources: PROUN
2617 - SK - 01-08 Existing Plans, Sections &
Elevations.dwg
2617 - SK - 09-15 Proposed Plans, Sections &
Elevations.dwg

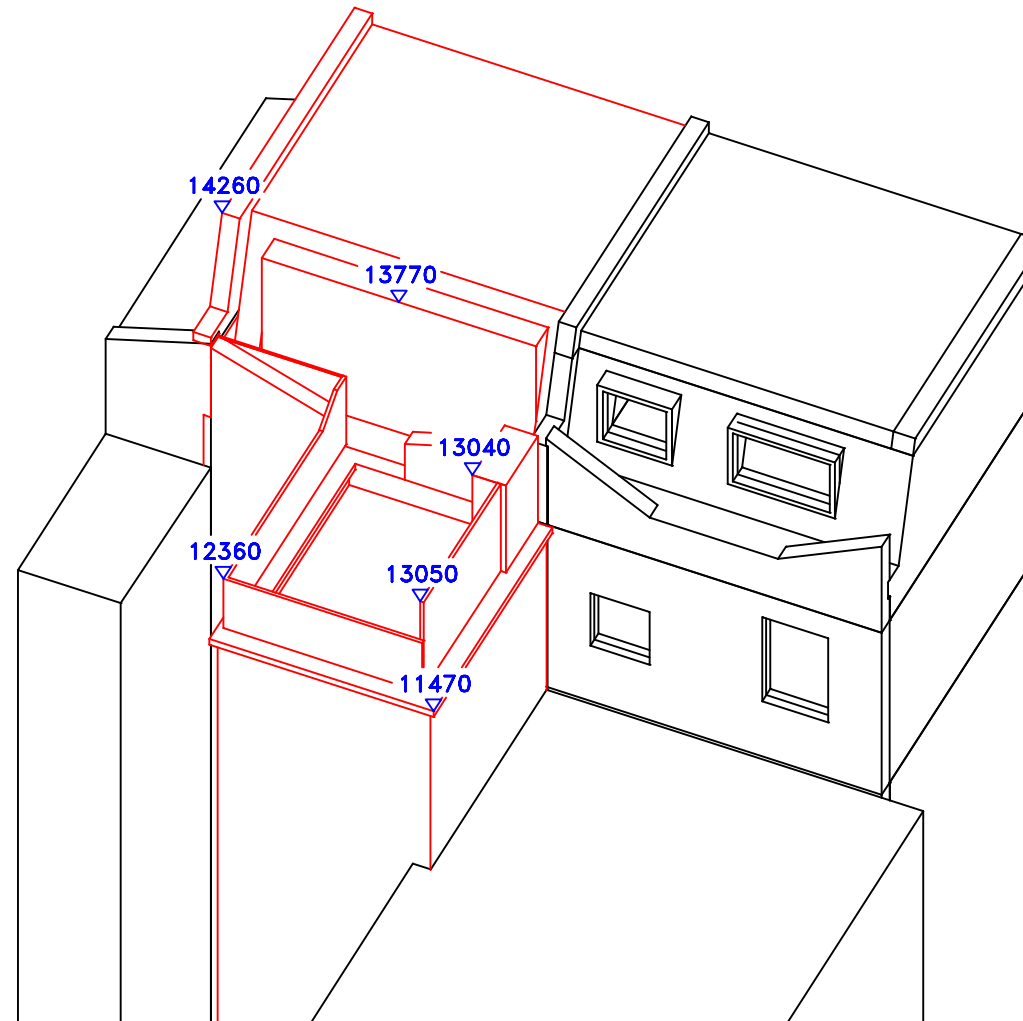
ALL HEIGHTS IN mm ABOVE
BASEMENT LEVEL IN 86 MILL LANE



EXISTING



PROPOSED



Project Title: 86 MILL LANE
WEST HAMPSTEAD

Drawing Title: SITE PLAN & 3D VIEW
EXISTING & PROPOSED

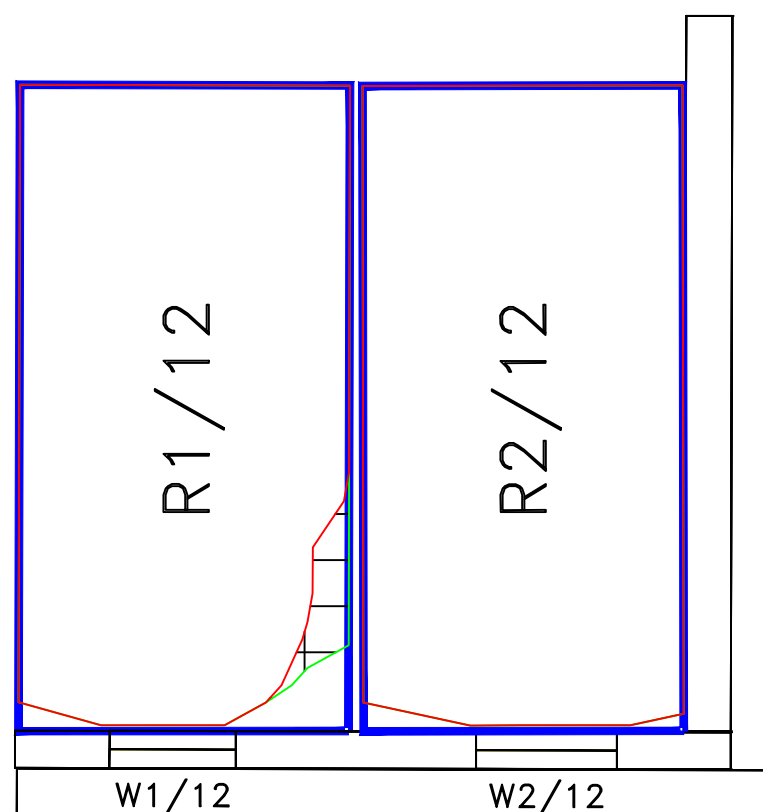
Date: DEC 2012

Drawing No. 802/PL1/01 Scale: 1:100/NTS

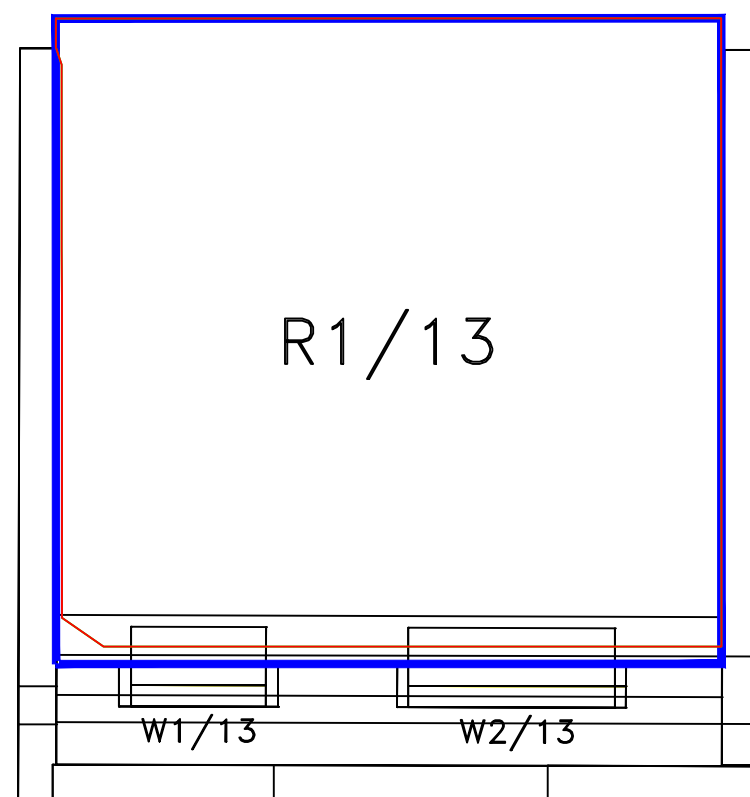
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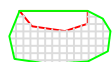
Sources: PROUN
2617 - SK - 01-08 Existing Plans, Sections & Elevations.dwg
2617 - SK - 09-15 Proposed Plans, Sections & Elevations.dwg

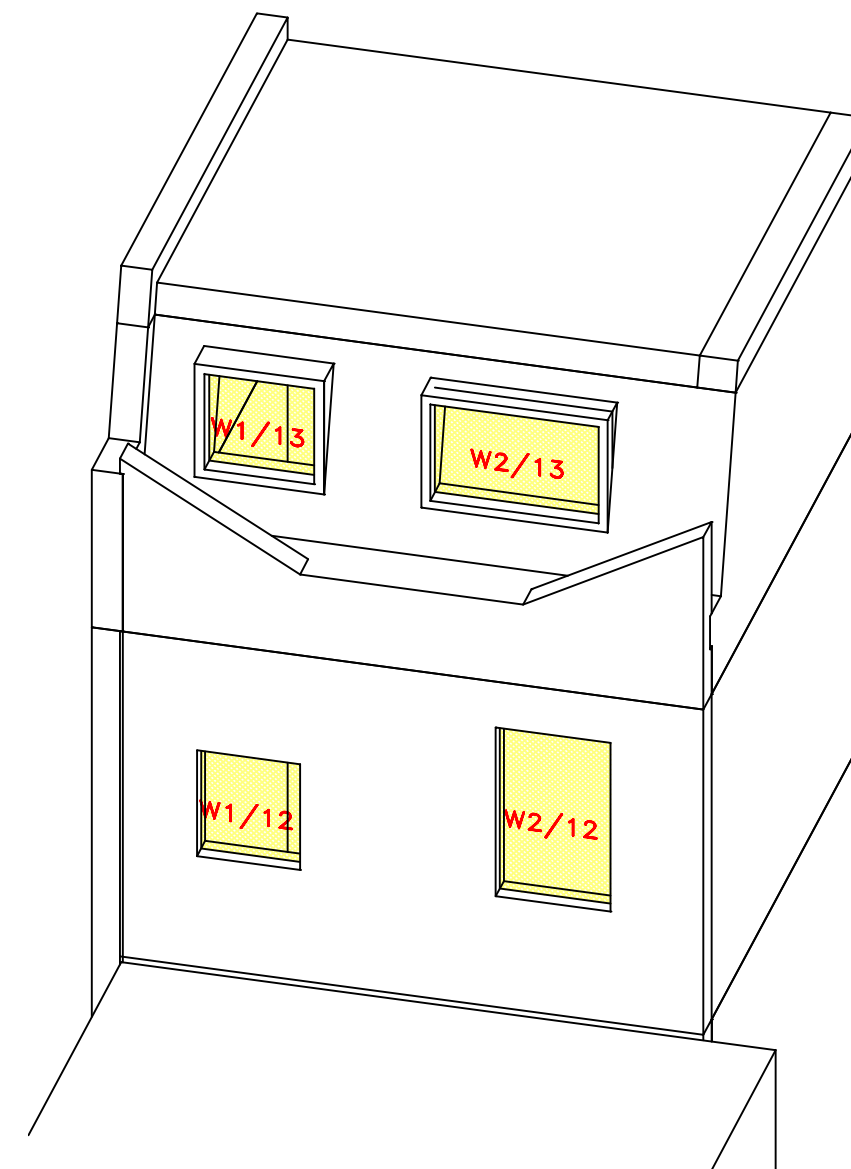


2ND FLOOR



3RD FLOOR

-  EXISTING No-Sky Line Contour
-  PROPOSED No-Sky Line Contour
-  REGION OF LOSS / GAIN



Location		Vertical Sky Component (VSC)			No-Sky Line (NSL)				Annual Probable Sunlight Hours (APSH)				
Room	Window	EXISTING VSC	PROPOSED VSC	Reduction Factor	Whole Room	EXISTING sq ft	PROPOSED sq ft	Reduction Factor	EXISTING Winter %	EXISTING Annual %	PROPOSED Winter %	PROPOSED Annual %	Reduction Factor
R1/12	W1/12	35.1	27.7	0.79	100.3	96.7	93.9	0.97	20	60	10	44	0.73
R2/12	W2/12	39.2	36.7	0.93	97.3	95.7	95.7	1.00	25	77	19	70	0.91
R1/13	W1/13	39.6	39.6	1.00	202.1	194.8	194.8	1.00	28	82	28	82	1.00
R1/13	W2/13	39.6	39.6	1.00					28	82	28	82	1.00

Project Title: 86 MILL LANE
WEST HAMPSTEAD
Drawing Title: DAYLIGHT & SUNLIGHT ANALYSIS
88 MILL LANE
Date: DEC 2012
Drawing No. 802/PL1/02 Scale: 1:100/NTS

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