



43 West Hill, Hitchin

SG5 2HY, Hertfordshire

DAYLIGHT AND SUNLIGHT STUDY REPORT

1. Executive summary

The aim of this study is to assess the impact of side and rear extensions at 43 West Hill on the light received by N's 41 and 45 of West Hill.

The proposal comprises ground floor and first floor extensions.

The study is based on the indicators and methodology used for the assessment of daylight and sunlight provided by the Building Research Establishment guidance 'SITE LAYOUT PLANNING FOR DAYLIGHT AND SUNLIGHT: A guide to good practice' (BRE 2011)

The results of this study should be taken as an indication of the impact of the development, but these conditions cannot be guaranteed.

This study report is provided solely for the use of the Client and no liability to anyone else is accepted.

2. Methodology

Daylight

The guidelines given by the BRE guide “are intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analyzed.

The reduction of the total amount of skylight can be calculated by finding the VSC (Vertical Sky Component) at the center of each main window. The VSC can be found by using the skylight indicator.

Where room layouts are known, the impact on the daylight distribution in the existing building can be found by plotting the ‘no sky line’ in each of the main rooms

The diffuse daylight of the analyzed existing building may be adversely affected if either:

The VSC measured at the center of an existing main window is less than 27%, and less than 0.8 times its former value.

Sunlight

The BRE guide recommends that in designing a new extension to a building, care should be taken to safeguard the access to sunlight both for existing dwellings and for any non-domestic buildings where there is a particular requirement for sunlight.

Obstruction to sunlight may become an issue if:

Some part of a new development is situated within 90° of due south of a main window wall of an existing building receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March, and receives less than 0.8 times its former sunlight hours during either period and has a reduction in sunlight received over the whole year greater than 4% annual probable sunlight hours.

3. Windows considered



4. Results of the study

Daylight results

WINDOW	DAYLIGHT-VSC			RATIO PROPOSED/ EXISTING	BRE COMPLIANCE
	EXISTING	PROPOSED	REQUIRED		
Nº 41 W1	37,50%	36,00%	27%	0,96	YES
Nº 41 W2	40,00%	38,00%	27%	0,95	YES
Nº 45 W1	40,00%	39,50%	27%	0,99	YES
Nº 45 W2	40,00%	32,50%	27%	0,81	YES

Sunlight results

WINDOW	SUNLIGHT-APSH FULL YEAR			RATIO PROPOSED/ EXISTING	BRE COMPLIANCE
	EXISTING	PROPOSED	REQUIRED		
Nº 41 W1	79,00%	69,00%	25%	0,87	YES
Nº 41 W2	89,00%	85,00%	25%	0,95	YES
Nº 45 W1	88,00%	85,00%	25%	0,97	YES
Nº 45 W2	88,00%	65,00%	25%	0,74	YES

WINDOW	SUNLIGHT-APSH WINTER MONTHS			RATIO PROPOSED/ EXISTING	BRE COMPLIANCE
	EXISTING	PROPOSED	REQUIRED		
Nº 41 W1	30,00%	26,00%	5%	0,87	YES
Nº 41 W2	27,00%	26,00%	5%	0,96	YES
Nº 45 W1	30,00%	30,00%	5%	1	YES
Nº 45 W2	30,00%	25,00%	5%	0,83	YES

Overshadowing to gardens and open spaces

The half of the area of the adjoining properties gardens receives at least two hours of sunlight on 21 March.

Shadow plots

EXISTING



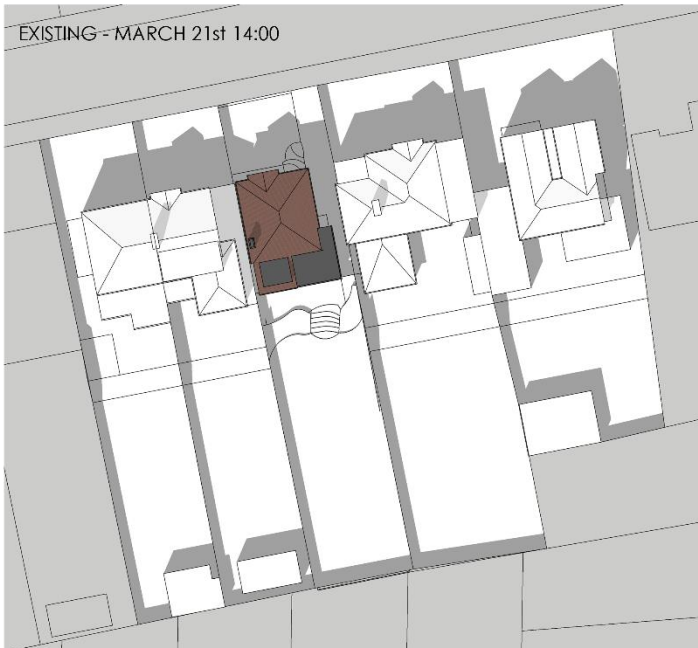
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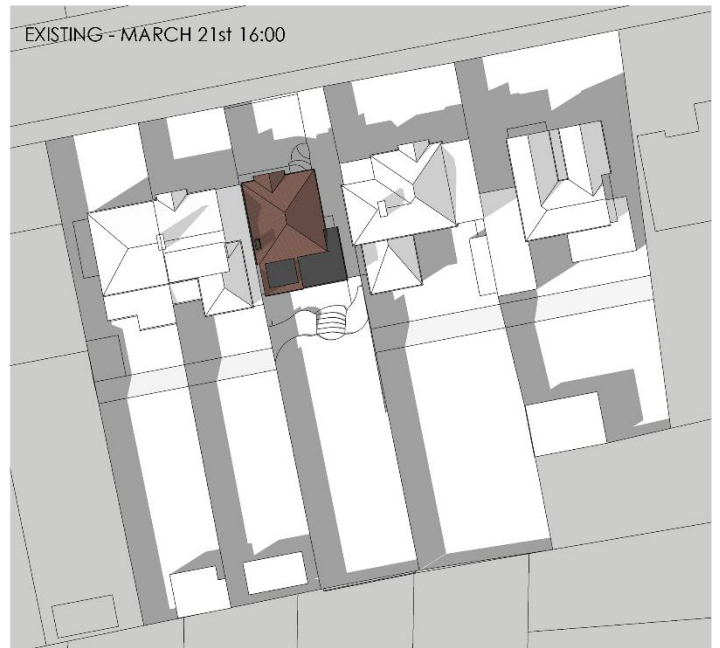
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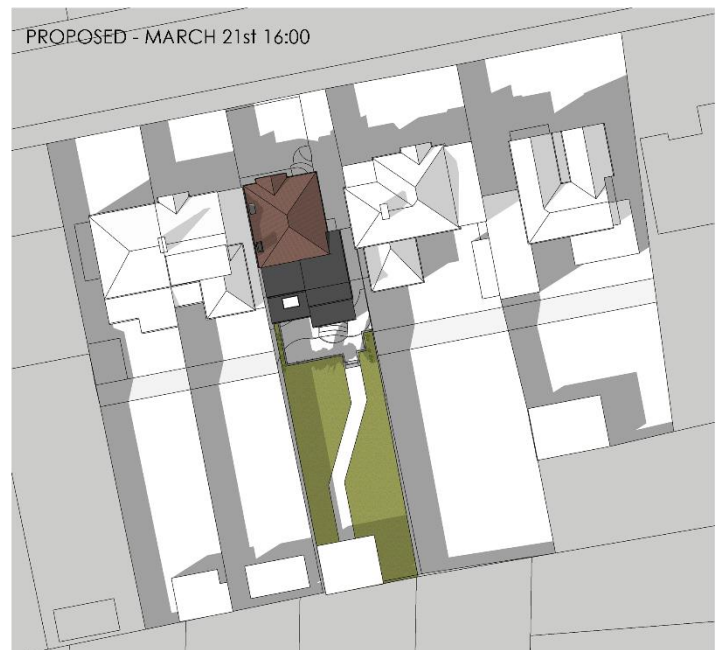
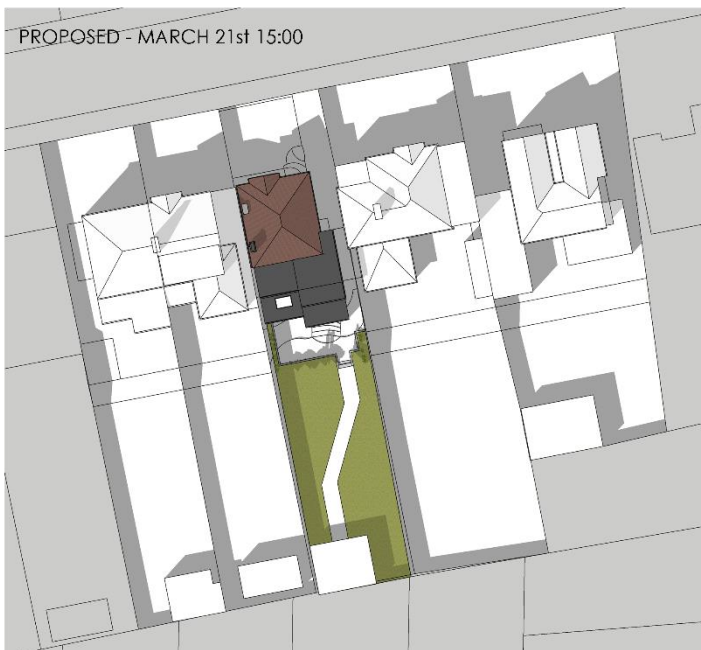
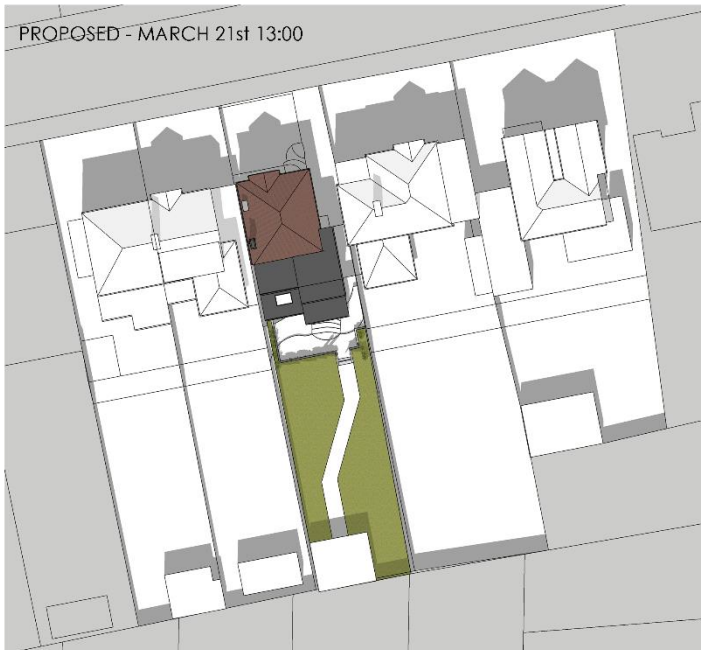


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PROPOSED





Conclusions

The proposal complies with the required by the BRE guide.

The impact to the neighboring dwellings is assessed to be negligible.