

DAYLIGHT STUDY

LAND TO REAR OF 84-86 FORTUNE GREEN ROAD
LONDON, NW6 1DS

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SITE

The proposed development on the land to the rear of 84-86 Fortune Green Road and is accessed via Rose Joan Mews. Until the recent addition of a two storey ten unit residential development, 3-10 Rose Joan Mews, the mews was predominantly for garages and commercial uses serving the properties along Fortune Green Road. Now, with planning permission granted for several more of these rear lot buildings to be rebuilt as dwellings, the mews is becoming residential.

This study examines how the proposed development would affect its surroundings in terms of daylight. House 10 Rose Joan Mews and 84 Fortune Green Road have been chosen as the test cases for this means.

CALCULATIONS

The Council has requested that a daylight study be carried out to evaluate the acceptability of the proposed development.

Accordingly, a Vertical Sky Component (VSC) calculation was done as per BRE's "Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice" by P J Littlefair.

(The VSC is the fraction (conveyed as percentage) of light that will fall on a wall (or window) compared to the available light from an unobstructed sky (e.g. the sky in an open field). This maximum VSC is 40 percent. The BRE's VSC graph calculator ("Skylight Indicator") has 80 crosses each marking an area valued at 0.5 percent. A VSC of 27 percent is deemed sufficient to adequately light a table high surface throughout an average size room.)

Properties most likely to be affected by the proposed development

The ground floor properties of 84 Fortune Green Road and 86 Fortune Green Road have been discounted as they are commercial and have been excused from analysis by letter from the Council (See attached letter.....). The closest windows to the front of the development (Rose Joan Mews) are the ground floor windows of House 10 Rose Joan Mews. The closest window to the rear of the proposal is the first floor bedroom window to no 84 Fortune Green Road.

VSC calculation for House 10 Gr. Fl. 'Bedroom 3' window - Existing built condition

It is calculated that it is House 10's own courtyard walls and not the existing distant buildings that limit the daylight reaching the bedroom. From the center of the window at 2.0m above the floor for the sliding door / window, the length/height values from the surrounding courtyard walls are calculated and plotted on the VSC graph. A total of fifty crosses are obstructed by the courtyard's side and front walls. Subtracting 50 from 80 and dividing by 2, the resultant VSC is 15.0 %

VSC calculation for House 10 Gr. Fl. 'Bedroom 3' window - Proposed development

It is calculated that it is House 10's own courtyard walls and not the existing distant buildings that limit the daylight reaching the bedroom. From the center of the window at 2.0m above the floor for the sliding door / window, the length/height from the surrounding courtyard walls and the proposed development are calculated and plotted onto the VSC graph. A total of fifty-five crosses are now obstructed. 55 from 80, divided by 2, gives a resultant VSC of 12.5%

80% of existing VSC value for House 10 Gr. Fl. 'Bedroom 3' window

Eighty percent of the existing VSC, 15.0, is 12.0

VSC calculation for House 10 Gr. Fl. 'Bedroom 2' window - Existing built condition

It is calculated that it is House 10's own courtyard walls and not the existing distant buildings that limit the daylight reaching the bedroom. From the center of the window at 2.0m above the floor for the sliding door / window, the length/height values from the surrounding courtyard walls are calculated and plotted on the VSC graph. A total of forty-nine crosses are obstructed by the courtyard's side and front walls. Subtracting 49 from 80 and dividing by 2, the resultant VSC is 15.5 %

VSC calculation for House 10 Gr. Fl. 'Bedroom 2' window - Proposed development

It is calculated that it is House 10's own courtyard walls and not the existing distant buildings that limit the daylight reaching the bedroom. From the center of the window at 2.0m above the floor for the sliding door / window, the length/height from the surrounding courtyard walls and the proposed development are calculated and plotted onto the VSC graph. A total of fifty-five crosses are now obstructed. 55 from 80, divided by 2, gives a resultant VSC of 12.5%

80% of existing VSC value for House 10 Gr. Fl. 'Bedroom 2' window

Eighty percent of the existing VSC, 15.5, is 12.4

VSC calculation for 84 Fortune Green Road, First. Fl. bedroom window – Existing plus proposed development

From the center of the window the length/height values from the surrounding existing buildings and proposed development are calculated and plotted on the VSC graph. A total of seventeen crosses are obstructed. Subtracting 49 from 80 and dividing by 2, the resultant VSC is 15.5 %

CONCLUSIONS

The rooms most affected by the proposed development are two ground floor bedroom windows in the enclosed courtyard of House 10 Rose Joan Mews. Although, the layout of the 3-12 Rose Joan Mews development itself gives day lighting preference to the living room / dining room / kitchen areas by placing them on the first floor, and although, according to BRE guidance, bedrooms are considered less important, the bedrooms still need to be evaluated. With the proposed development in place the bedroom VSCs would both be 12.5%. When VSC to rooms are less than 27.0%, it is recommended that the VSC values with the new development in place should not be less than 80% of the existing value. Otherwise, it is considered, the occupants will notice the reduction in daylight. Existing 'Bedroom 3' and existing 'Bedroom 2' have a VSC of 15.0% and 15.5% respectively. For 'Bedroom 3' the ratio of New VSC to Existing VSC is 83.3% (12.5 / 15.0) For 'Bedroom 2' the ratio of New VSC to Existing VSC is 80.6% (12.5 / 15.5) Both bedrooms meet the minimum guidance. Bedroom occupants should not notice a reduction in daylight.

The first floor rear bedroom to 84 Fortune Green Road has also been evaluated. The VSC with the proposed development in place is 31.5%. The maximum VSC, in an open field, is 40% and the minimum recommended VSC is 27%. This indicates a high amount of interior diffuse daylight will be available to the existing bedroom.