



Lucy Thatcher
Strategic Applications Manager (Richmond)
London Borough of Richmond upon Thames
Civic Centre
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10th June 2019

Dear Lucy,

RE: Homebase site, 84 Manor Road, Richmond TW9 1YB
Independent review of daylight, sunlight and overshadowing report

We have been asked to comment on the independent Delva Patman Redler (DPR) review (letter dated 31st May 2019). As you are aware, Point 2 have been actively involved in assembling a comprehensive amenity report ("the Assessment") to accompany the planning application for the Homebase, Richmond site (84 Manor Road). Aiden Cosgrave of DPR has been instructed by the London Borough of Richmond upon Thames ("the Council") to review the submission for which a number of considerations were given including:

1. Planning policy and guidance;
2. Relevant guidelines for daylight, sunlight and overshadowing;
3. Scope of the assessment;
4. Site context and proposed development;
5. Assessment methodology and application of the guidelines;
6. Effects of proposed development on existing surroundings; and
7. Internal daylight to proposed dwellings and sunlight to proposed amenity spaces.

A review of the above considerations is provided as follows:

1. Planning policy and guidance

DPR note that the Council seeks to ensure that the design and layout of development enables good standards of daylight and sunlight and regard will be given to the Building Research Establishment Report, 2011 ("the BRE Guidelines").

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2. Relevant guidelines for daylight, sunlight and overshadowing

DPR confirm the use and application of the BRE Guidelines.

3. Scope of assessment

The scope of the neighbouring residential properties is considered appropriate by DPR although it is correctly identified that a solar glare study was not undertaken as part of the Assessment.

The facades of the proposed development are conventional brick with residential scale window-in-brick apertures. The extensive use of non-reflective brick limits the expanse of reflective material that may cause solar glare. As a result, the pattern of any solar reflections from the windows will be similar to other conventional buildings located within an urban landscape in the vicinity of railway lines. DPR agree with this conclusion.

The DPR review raised a question about sunlight within the proposed units. In an urban environment the availability of sunlight is largely dependent on the orientation of a window and very often the size and shape of a site (which cannot be changed), as well as the bulk and massing of the existing surrounding properties. The daylight calculations are not dependent on the orientation of a window and, therefore, the design of the proposals, as well as the bulk and massing of the existing surrounding properties, will dictate whether good levels of daylight can be enjoyed.

The above view does not mean that sunlight availability is not considered during the design stages, as, where possible, flats should be designed to be dual aspect with main habitable room windows facing south. As such, the proposal has been designed carefully to minimise single aspect North-facing apartments. The DPR review concludes that by and large the proposed design minimises the number of north facing single aspect dwellings, and where they do exist they are influenced by the orientation of the site and its relationship to the railway.

4. Site context and proposed development

DPR confirm that the proposed development is denser and taller than the existing surrounding context and that the GLA's stage 1 referral report (GLA/4795/01 dated 15th April 2019) categorises the site as 'urban' in character.

5. Assessment methodology and application of the guidelines

DPR are satisfied with the information that has been used to build the 3D computer model and the methods of assessment for daylight, sunlight and overshadowing.

DPR have raised a query as to which neighbouring properties have been assessed using floor plans obtained through research and which have been assessed by reference to assumed layouts. We can confirm that the understanding of room uses and layouts as set out in the DPR review is correct.

In relation to the light within the proposed units, the DPR review asserts that there are some minor differences between the plans used in the Assessment and the submitted plans. Whilst slight design changes were made to the internal configuration of the proposed units, these are



not considered to be of material significance and would not alter the conclusions reached within the Assessment.

Further questions were raised about the ADF methodology. The ADF calculation is designed to quantify the amount of daylight in a room as a whole and does not therefore indicate the likely levels of daylight in the different areas of a large multi-use room. For example, in living room / kitchen / diners (LKDs), the living room element is often situated at the front of the space, followed by the dining area and then the kitchen at the rear (which is the case for many of the rooms within the proposed development). In such a situation, the living room area may actually receive good levels of daylight which meet the suggested BRE thresholds whilst the kitchen at the rear may not (due to their distance from the window). In these large spaces the kitchen dining areas are designed to use supplementary electric lighting, and therefore it unnecessary to consider the daylight levels within the kitchen area.

The BRE Guidelines state that small galley-type kitchens should be linked to well daylit living rooms. Therefore, where galley type kitchens are located at the rear of LKDs or kitchen / diners (KDs), analysis has been undertaken which notionally subdivides the kitchen area from the rest of the room. By taking this approach, the analysis focuses on the daylight amenity that will be achieved in the main habitable areas of the rooms, as per the intentions of the BRE. This approach is further supported by the GLA's representation hearing report D&P/3067/03 – Appendix 1 (18 November 2013) where it states:

“...the principal use of rooms designed as a ‘living room/kitchen/dining room’ is as a living room. Accordingly, it would be reasonable to apply a target of 1.5% to such rooms.”

In performing the ADF assessments the following parameters have been applied. Other factors such as the size of the room, angle of visible sky and amount of glazing has been taken from, or calculated from, the architect's drawings:

Window Transmittance (Typical Double Glazed Unit) – 0.68

Maintenance Factor – 0.8

Glazing Bar Factor – 0.9

Wall Reflectance (Pale Cream Paint)– 0.81

Ceiling Reflectance (White Paint) – 0.85

Floor Reflectance (Wood Light Veneer or Cream Carpet) – 0.40

On this basis, the assessment shows that the proposed development will have very good daylight levels.

6. Effects of proposed development on existing surroundings

The DPR review notes that there will be noticeable daylight losses to a number of properties. Given the low-rise and largely undeveloped nature of the existing site, it is inevitable that any viable scheme would create noticeable reductions in daylight. However, it has been held on



Appeal that 'noticeable', however, is not to be equated with 'unacceptable' and that 'VSCs very much lower than 27% do not seem to diminish the attraction of some popular residential areas'.

The nationwide default 27% BRE VSC target is based on a 25 degree development angle which is unusually low for an urban area (which the site has been described as in the GLA report). In many desirable residential urban streets development angles of 40 to 45 degrees are common, which equates to VSC targets of 15% to 18%. These daylight levels have been typical in many popular areas of London for well over a century. We have undertaken wide area daylight mapping studies which show that VSCs of 27% are unusual and VSCs in the range of 10-20% are more common.

The report shows that the retained daylight levels for the neighbouring properties after development will be good or very good, with all windows having retained VSCs of at least 17% and, more typically, well over 20%. Therefore, the impact of the scheme on the daylight to neighbouring properties should be regarded as acceptable, without the need to consider further contextual VSC façade studies. This is largely because the retained levels of daylight are considered either good or every good.

The DPR review highlights the absence of a 'without balconies' assessment with regards to 1-8 Victoria Villas. It is widely understood and accepted that overhanging features such as balconies can lead to disproportionate changes (in percentage terms). This additional assessment is not considered necessary as the retained levels of daylight, both in terms of VSC and NSL, are considered good for an urban environment.

7. Internal daylight to proposed dwellings and sunlight to proposed amenity spaces

As mentioned above, DPR have questioned the absence of sunlight results for the proposed units. Given that sunlight availability is largely dependent on the orientation of a room, the proposed development has sought to maximise the number of south-facing units. DPR agree that the proposed design minimises the number of north-facing, single aspect dwellings, and where they do exist, they are influenced by the orientation of the site and its relationship to the railway. Of the 779 rooms tested, 726 (93%) will either meet or exceed the ADF targets of the BRE Guidelines. Of the 53 rooms that are not able to achieve strict BRE compliance, 16 are bedrooms, 34 are living rooms and 3 are open-plan living kitchen diners.

DRP agree that the proposed amenity spaces will be afforded acceptable levels of sunlight.

Yours Sincerely



Justin Bolton
Senior Director
For Point 2 Surveyors Ltd

