

Chartered Surveyors

Our ref: MC/KW/ROL7550

Mr D Glasgow  
London Borough of Camden  
5 Pancras Square  
London N1C 4AG

28 November 2016

Dear Mr Glasgow,

**Re: (ROL7550) Proposed Redevelopment at 156 West End Lane, West Hampstead – Daylight, Sunlight and Overshadowing**

Anstey Horne has been instructed to review the daylight, sunlight and overshadowing effects from the above proposed development on the neighbouring properties and gardens. We have been provided with the revised BRE daylight and sunlight (neighbouring properties) report dated June 2016 and reviewed the results. There have been further data issues in relation to 10 Lymington Road, as well as the AutoCAD technical assessment model being issued for our review.

We have reviewed the planning drawings to cross check the technical assessment model against the existing and proposed drawings. The cross check shows that on balance the technical assessment model is a reasonable representation of the existing site conditions and has modelled the proposed correctly. We note that for most neighbouring properties the survey data shown on drawing PL (EL) P003 rev PA correlates with the 3D model. There are some variances to window cill and head heights to 18-28 Lymington Road that range between 300-400mm. These variances should not fundamentally affect the results. We note that many of the properties on Lymington Road are obscured at the lower floor levels by foliage in their gardens, as well as the high boundary wall. Therefore it is inevitable that some estimation to window sizes and position have occurred.

**Executive Summary**

Having reviewed the results and considered the effects on the neighbouring properties and amenity areas, we are of the opinion that the overall effects are acceptable and flexibility should be applied to the BRE guidelines where there are reductions beyond the target criteria. This site is under-developed and therefore many of the adjoining owners enjoy higher levels of daylight and sunlight than would be expected in an inner-city context. We consider that the overall level of adherence is good and where there are reductions beyond the BRE guidelines, the retained levels of daylight and sunlight are in-keeping for an urban setting.

### Effects on the neighbouring properties

We set out below our views on the results for each of the properties in turn, starting to the west of the site and then going through the assessment data from the north and then to the east. We have provided our view based on the technical results appended in the June 2016 daylight and sunlight report provided by Rights of Light Consulting.

Before giving our view on each of the neighbouring properties we set out our thoughts on the context for the development site:

- The eastern side of the development site is cleared and allows for a much higher level of daylight and sunlight to the neighbouring properties than one would expect for an inner-city context. Therefore the starting point for any comparison between the existing and proposed conditions will inevitably lead to reductions in light greater than the BRE guideline recommendations.
- The design has sought to match a similar height/bulk to the neighbouring properties on the western side of the site, and therefore there is reasoned argument that on the western side a higher degree of flexibility should be applied, as stated in the introduction of the BRE guidelines.
- On the eastern side of the site, the argument in relation to buildings matching a similar height to the neighbouring properties is less pertinent.
- Whilst the guidelines set a good level of daylight (when dealing with the vertical sky component test) at 27%, from our experience we find that Vertical Sky Component (VSC) levels of 20% or more are good levels of light for an urban setting. This is particularly relevant when we come onto looking at the reductions in daylight to the neighbouring properties, because in the majority of cases where there are reductions in daylight beyond the BRE guidelines recommends the residual Vertical Sky Component levels to the windows are 20% or more. This demonstrates that whilst there are reductions in daylight, the proposed design still maintains good levels of light to the neighbouring occupants.

### 217-229 West End Lane

The effects on these properties are limited, with very little noticeable impact in the proposed condition. The results show the following:-

- All of the VSC assessments adhere to the BRE guidelines.
- The daylight distribution assessment shows minimal reductions, with only two rooms where the 0.8 ratio reduction is breached (with these levels being only just below the 0.8 target) with levels of 0.78 and 0.79.

- Of the rooms that fall below the daylight distribution assessment the Average Daylight Factor (ADF) test shows both rooms exceed the targets for a living room, with levels of 3.3% and 3.4%.
- Sunlight is not a material consideration for these properties as they face 90° of due north. The only windows that require testing face away from the development site and show no change in light between the existing and proposed conditions.

We are therefore of the view that the reductions in light to these properties are acceptable.

#### 166-174 West End Lane

This mansion block is located adjacent to the main existing building on the development site and has a number of windows facing the rear of the development site.

The results of the report show the following:-

- Of all the windows tested, only 5 fall below the 0.8 ratio reduction target with relatively minor reductions ranging between 0.71-0.76. Of the 5 windows it is clear that 3 of the windows are the side panes of a bay window. Therefore one does have to consider the cumulative effect of light to the occupants, rather than just looking at the individual VSC assessments. It is clear that of the bay windows affected there will be high levels of daylight achieved within the room because of the unfettered view that is obtained over the rear gardens of the Lymington Road properties. Of the 2 remaining windows, these are tucked away such that the daylight levels are already quite low. Notwithstanding this the ratio reductions are quite minor, with ratio reduction levels of 0.74.
- There are no daylight distribution assessments to this property to comment on.
- The ADF assessment demonstrates a high level of adherence to the target criteria, with ADF levels ranging between 1.7%-4.5%. Of the 2 windows that are tucked away with VSC reductions lower than 0.8, these windows obtain ADF values of 1.7%-2.6%, which are acceptable daylight levels.
- With regard to the Annual Probable Sunlight Hours (APSH) test, there are 7 windows that fall below the BRE guideline criteria, including receiving sunlight reductions greater than 4%. Of the 7 windows, 5 serve four projecting bays, of which one bay has all the windows with sunlight levels below the guidelines. The other three bays having additional windows supplementing sunlight to the rooms which will ensure occupants has access to good levels of light. There are two rooms which will have reductions greater than 0.8, but these are limited to winter sunlight reductions only and the actual reductions are of 1-2% off the suggested 5% APSH level.
- There are no amenity areas to consider for this property.

## 2 Lymington Road

- All the windows adhere to the VSC test for this property.
- There are no daylight distribution assessments to consider.
- The ADF assessment shows good levels of daylight are achieved in the proposed condition, with very little movement on the ADF levels, with most of the ADF levels staying the same. The only small differences are between 1%-2% ADF.
- The APSH tests fully adhere to the BRE guidelines.
- The overshadowing assessment to the garden demonstrates adherence to the BRE guidelines using the two-hour time in sun test.

## 4 Lymington Road

- All the windows adhere to the VSC tests for this property.
- There are no daylight distribution assessments to review for this property.
- The ADF assessment shows high levels of daylight are achieved, with only minor reductions to 2 rooms. One kitchen has a reduction from 2.1% ADF to 1.9% in the proposed, with another room having a reduction in ADF from 1.1% in the existing, reducing to 1.0% in the proposed. We consider these reductions and residual daylight levels to be acceptable.
- The APSH test shows a high level of adherence is achieved to this property, with one side window having a minimal effect. However there are other rooms that the occupants will have access to which exceed the BRE guidelines recommendations for sunlight.
- The overshadowing assessment shows adherence to the BRE guidelines, with only a minor difference between the existing condition.

## 6 Lymington Road

We note that this property has a larger evergreen tree between 4 and 6 Lymington Road. The reference to trees applies for further properties along Lymington Road where we assume that the trees have not been included as part of the technical assessment. It is clear from the aerial photography and from site inspection that some of these trees are deciduous and therefore, as stated by the BRE guidelines, they do not have to be considered as an obstruction. A dense band of evergreen trees can be considered as an obstruction if the height and width of the trees are known.

The results (assuming without trees included) show the following:-

- The VSC test shows a good level of adherence to this property, with only one window falling below the 0.8 target criteria, with window 230 achieving a ratio reduction of 0.76. The lower ground floor windows 230a, 230b and 230c show no reductions in light when comparing the existing and proposed, which is likely to be by virtue of the retaining wall/handrail being the primary point of obstruction.
- Daylight distribution assessments have been undertaken for this property, of which all the rooms adhere to the BRE guideline tests, with one showing a light gain.
- The average daylight factor levels show a good level of adherence with only two rooms below 2.0% ADF in the proposed condition. The room that is served by window 230 sees a reduction from 1.7% ADF to 1.4%. If the affected room is a living room, then the residual ADF level is below the BRE guideline target but close to the suggested 1.5% (that said the latest drawings for the lower ground floor shows window 230 as now being a larger patio door style, which is likely to increase the ADF level to above 1.5%). The other room within this property obtains an ADF level of 1.7% in the proposed condition, which is a good level of daylight in the proposed condition.
- The APSH test shows adherence to the BRE guidelines to all windows.
- The overshadowing assessment shows adherence to the BRE guidelines, with over 50% of the area receiving two hours of sun in March.

### 8 Lymington Road

- The VSC assessment shows a good level of adherence with only one minor transgression to window 212. The ratio reduction is 0.77, which is just below the target of 0.8, and it should be noted that the proposed VSC level is over 20%, which demonstrates good levels of daylight for an urban area.
- There is no daylight distribution assessment undertaken for this property, but it can be seen that with such high head heights to the windows that a good level of daylight distribution will be maintained in the proposed condition.
- The ADF levels are good for the rooms to this property and it should be noted that window 212, which fell below the target level for the VSC test, serves a room that has a very high ADF level of 6.1%.
- The APSH test demonstrates full adherence to the BRE guidelines.
- The overshadowing assessment shows adherence to the BRE guidelines, with over 50% of the area receiving two hours of sun in March.

### 10 Lymington Road

We note that this property has been heavily extended to the rear, pushing closer to the southern boundary adjacent to the development site. Further assessments of the lower ground floor windows have been provided which supersede the results for window 230. The results for windows 230a, 230b and 230c were considered for this report, rather than the results for window 230.

The results are as follows:-

- The VSC test shows a good level of adherence to this property, with all windows adhering to the BRE guidelines.
- Daylight distribution results were only available for the lower ground floor rooms, which show adherence to the BRE guidelines.
- The average daylight factor results show a good level of adherence with only one room where the layouts are not known that has a value below 2.0% ADF. The room obtains an ADF level of 1.7%, which is a good level of daylight in the proposed condition, exceeding the value for a living room.
- The APSH test shows adherence to the BRE guidelines to all the windows tested.
- The overshadowing assessment shows adherence to the BRE guidelines, with over 50% of the area receiving two hours of sun in March.

### 12 Lymington Road

- The VSC assessment generally shows a good level of adherence. There are five windows that fall below the BRE guidelines target level of 0.8. The ratio reductions range between 0.72-0.76, which are marginally below and it should be noted further that four out of the five windows have VSC levels of over 20% in the proposed condition, which we consider to be a good level of daylight for an urban setting.
- There is no daylight distribution assessment for this property.
- The ADF test shows a high level of adherence, with those windows which fell below the VSC tests having levels of over 2.0% ADF in the proposed condition. There are some reductions in the ADF values but these are small and reasonable.
- The APSH test shows all windows adhere to the BRE guidelines barring one window on the flank elevation, with minor winter sunlight transgressions. It is clear that there is access to good levels of sunlight to other rooms within this property and therefore the APSH levels are acceptable.

- The overshadowing assessment shows adherence to the BRE guidelines, with over 50% of the area receiving two hours of sun in March.

#### 14 Lymington Road

- The results of the VSC assessment shows a good level of adherence, although there are four windows that fall below the 0.8 ratio reduction test. Of these four windows, the ratio reductions only range between 0.73-0.77, which is just below the 0.8 target and furthermore, three of these windows obtain over 20% VSC in the proposed condition. The remaining one window obtains a VSC level of 19.7%, which we consider to be a good level of residual daylight in the proposed condition.
- There is no daylight distribution assessment for this property.
- The ADF assessment shows a high level of adherence is achieved, even to those rooms with VSC reductions greater than the BRE guidelines.
- The APSH assessment shows full adherence to the BRE guidelines.
- The overshadowing assessment shows adherence to the BRE guidelines, with over 50% of the area receiving two hours of sun in March.

#### 16 Lymington Road

- The VSC assessment shows a good level of adherence, but there are three windows that fall below the guidelines with reductions ranging between 0.7-0.77. All three windows obtain VSC levels in excess of 20% in the proposed condition.
- The daylight distribution assessment was undertaken for this property, with the results showing no change in the proposed condition. This appears to be primarily because there are roof lights to the rooms within this property, which means there is almost total light within the rooms in the existing and proposed conditions.
- The ADF assessment shows a high level of adherence is achieved, even to those rooms with VSC levels below the BRE guideline recommendations.
- The APSH assessment shows all windows adhere to the BRE guidelines.
- The overshadowing assessment shows the amenity space will adhere to the BRE guidelines with a ratio reduction of 0.8 times its former value.

#### 18 Lymington Road

- The VSC assessment shows a good level of adherence is achieved, with only two windows falling below the BRE guideline recommendations, with ratio reductions of 0.75-0.78. In

both instances these windows achieve VSC levels in excess of 20% in the proposed condition.

- The daylight distribution assessment was undertaken for this property. The results show that the two windows with VSC reductions below the BRE guidelines adhere to the daylight distribution test. We note that there is a further kitchen/dining room that passed the VSC test, but has daylight distribution below the BRE guidelines recommendations.
- Notwithstanding the above, the ADF assessment shows the kitchen/dining room exceeds the BRE guidelines recommendations of 2.0%, with a level of 2.2%. Furthermore, the ADF results show a high level of adherence to the other rooms.
- The APSH assessment shows full adherence to the BRE guidelines.
- The overshadowing assessment shows the gardens being split into three target areas. Area G9 adheres to the BRE guidelines, this being placed to the northern area of the garden. There are two further amenity areas separated off, these being G10 and G11 which obtain ratio reductions of 0.37 and 0.71 respectively. It is clear that there will be a much greater level of sunlight reduction to the northern area of the garden and it is primarily due to the sub-division of the amenity area that causes the greater reduction in sunlight. We are of the opinion that although there are much greater reductions in sunlight, the effects are acceptable, especially given that in any of the gardens along Lymington Road are already overshadowed because of the high boundary wall condition.

#### 20 Lymington Road

- The VSC assessment shows full adherence to the BRE guidelines to this property.
- There are no daylight distribution assessments undertaken for this property.
- The ADF assessment shows high levels of daylight are achieved in the proposed condition, adhering to the BRE guidelines.
- The APSH assessment shows all the windows adhere to the BRE guidelines when considering the annual sunlight reduction is not below 4% APSH.
- The overshadowing assessment shows adherence to the BRE guidelines.

#### 22 Lymington Road

- The VSC assessment shows all but five windows adhere to the ratio reduction test, with those windows falling below obtaining levels between 0.75 and 0.79, which is just below the BRE guideline levels. The five windows all obtain VSC levels in excess of 20% in the proposed condition, which is a good level of daylight for an inner city context.



- The daylight distribution assessment has been undertaken, although we cannot see the rooms that are served by windows 310, 311 and 317. The remaining results show four rooms adhering to the daylight distribution assessment, whilst one kitchen falls below the daylight distribution test with a level of 0.5.
- The ADF assessment shows good levels of ADF are achieved, with only two rooms falling below the suggested values. The kitchen, which is lit by window W316 (this also did not adhere to the VSC test) obtains an ADF value of 1.7% in the proposed condition, with the kitchen achieving the 2.0% value in the existing. There is also another room referenced “unknown” which achieves an ADF value of 2.2% in the existing, reducing to 1.9% in the proposed.
- The APSH assessment shows full adherence to the BRE guidelines.
- The overshadowing assessment shows the amenity area falls below the BRE guidelines with a ratio reduction of 0.69. We note that the amenity area is not taken right up to the house, and the aerial photography is too grainy to understand why this would be. If the amenity area was taken up to the house then we would expect much better results, closer to the 0.8 ratio reduction target.

There are greater reductions in daylight to this property, but we consider that on balance good levels of daylight and sunlight are retained in the proposed condition. The lower ground floor kitchen would appear to be a narrow galley style, with a dining area immediately adjacent. The dining room exceeds the daylight distribution and ADF assessments, ensuring the occupants have access to good levels of light. The overshadowing condition to the garden shows a higher level of reduction, greater than the BRE guideline recommendations, but again we consider that the residual levels are acceptable given the much higher starting levels of daylight and sunlight availability in the existing condition.

#### 24 Lymington Road

- The VSC assessment shows a good level of adherence is achieved to all but three windows, with these windows just falling below the BRE guideline target level with results ranging between 0.76 and 0.79. The three windows all obtain VSC levels in excess of 20% in the proposed condition, which is a good level of daylight for an inner city context.
- No daylight distribution assessment was undertaken to this property.
- The ADF assessment shows a high level of adherence is achieved, and that two of three windows that fell below the VSC test obtained high levels of ADF in the proposed condition, in excess of the BRE guidelines. The remaining window that falls below the VSC test has no use value attributed to it, but the ADF test shows a minor reduction in daylight is obtained with the existing condition obtaining a value of 0.9%, reducing to 0.8% in the proposed.
- The APSH assessment shows full adherence to the BRE guidelines.

- The overshadowing assessment shows that the garden will fall below the BRE guideline recommendations with a ratio reduction of 0.68.

The daylight and sunlight assessment to this property show a good level of adherence is achieved in the proposed condition. The overshadowing assessment shows the gardens will have a greater reduction in sunlight than recommended in the BRE guidelines, but we consider that the overall effect to this property is acceptable. The proposed percentage area lit for this amenity area is 48%, and the BRE guidelines suggest that if 50% of the amenity area receives at least two hours of sunlight, then the sunlight levels will be acceptable. The proposed scheme is very close to the adherence rate, and the borderline nature is more about the fact that the reduction in light is compared against little or no obstruction to the development site opposite.

### 26 Lymington Road

- The VSC assessment shows full adherence to the BRE guidelines.
- No daylight distribution assessment was undertaken for this property.
- The ADF assessment shows a good level of adherence, with only some minor ADF reductions, but these are not considered to be of concern.
- The APSH assessment shows adherence to the BRE guidelines.
- The overshadowing assessment shows adherence to the BRE guidelines, with over 50% of the area receiving two hours of sun in March.

### 28 Lymington Road

- The VSC assessment shows full adherence to the BRE guidelines.
- There is no daylight distribution assessment for this property.
- The ADF assessment shows a high level of adherence is achieved, exceeding the BRE guidelines.
- The APSH assessment shows full adherence to the BRE guidelines.
- The overshadowing assessment shows adherence to the BRE guidelines, with over 50% of the area receiving two hours of sun in March.

### 30 Lymington Road

- The VSC test shows full adherence to the BRE guidelines.

- There is no daylight distribution assessment for this property.
- The ADF test shows a good level of adherence is achieved, with only some minor ADF reductions, but these are considered acceptable.
- The APSH assessment shows full adherence to the BRE guidelines.
- The overshadowing assessment shows adherence to the BRE guidelines, with over 50% of the area receiving two hours of sun in March.

#### 1-15 Crown Close, 16-21 Crown Close

- These properties show full adherence to the BRE guidelines for both the daylight and sunlight assessments.
- There is no daylight distribution assessment for these properties.
- The ADF assessment shows full adherence to the BRE guidelines.
- No overshadowing assessment was undertaken as it is clear that the amenity areas will greatly exceed the BRE guidelines, with unfettered sunlight from the south.

#### MUGA

This is the amenity area identified to the east of the development site. The two hours in sun test has been undertaken and the results show full adherence to the BRE guidelines. The two hours in sun test is the quantitative assessment criteria and therefore we consider that the overshadowing effects are acceptable.

We also note there are further transient overshadowing assessments that have been undertaken, which are useful in seeing how the sunlight levels are affected by the proposed works, but they have no quantitative assessment criteria to them. We note the concerns about the overshadowing in the late afternoon caused by the proposed development. Whilst the BRE guideline suggests it is always more preferable to have an amenity area in sunlight, it also recognises that it is inevitably that there will be some overshadowing, especially in an urban environment. Whilst there might be some overshadowing in the late afternoon when children are likely to be using the space after school, the amenity area will have had the benefit of high levels of sunlight throughout the day, which will mean the avoidance of having dark damp mossy areas which are uninviting.

As a point of reference, another aspect to consider is the existing trees to the east of MUGA. These trees will also have an overshadowing effect in the summer months to the children's play area (Crown Close Open Space) further east, similar to that of the proposal on the MUGA. We are confident that the overshadowing effects caused by the trees are not unacceptable and are likely to offer up some relief in the summer months to an already well sunlit space. Crown Close Open Space will receive sunlight levels in excess of the BRE guidelines in the proposed condition.

We therefore conclude that although there is some overshadowing in the afternoon by the proposed development, the MUGA and Crown Close Open Space areas will meet/exceed the BRE guideline recommendations for sunlight availability.

Summary and conclusion

We have seen that there are areas of daylight, sunlight and overshadowing which breach the BRE guidelines to some of the adjacent properties. However, we can also see a high level of adherence is achieved to the majority of the neighbouring properties, even though the starting point for any comparison is much higher than one would necessarily see in an urban context. It is considered that the retained daylight and sunlight levels in the proposed condition are acceptable.

We consider flexibility should be applied to the BRE guidelines as the target criteria are set for a suburban setting and it is inevitable there will be some reduction in daylight and sunlight when comparing such high daylight and sunlight levels to this existing condition.

We trust the above is clear, and gives our opinion on the results of this scheme. Should you have any questions regarding this report please do not hesitate in contacting us.

Yours sincerely,



Matthew Craske