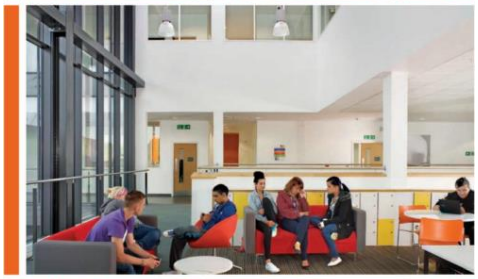


aaprojects

Ref: AC/7/B

Former B&Q Site
Great Stone Road
Stretford
M32 0YP

Appeal by Accrue (Forum) 1 LLP

LPA Ref:
100400/OUT/20
Appeal Ref:
APP/ Q4245/W/20/3258552

Proof of Evidence by David Radcliffe BSc (Hons) MRICS

Daylight Sunlight Viability

On behalf of

Accrue (Forum) 1 LLP

December 2021

vision into reality

CONTENTS

1.0 Introduction 1
2.0 Original Daylight Sunlight Report 2
3.0 Comments on Planning Officer Initial Observations 5
4.0 Approach of the Planning Inspectorate 5
5.0 Comments on Local Planning Authority Statement of Case (LPA SOC) 9
6.0 Summary and Conclusions 16
7.0 Endorsement 16

1.0 Introduction

1.1 My name is David Radcliffe and I am the Appellant's expert witness in relation to Daylight Sunlight viability matters.

1.2 I have worked in Private Practice as a Building Surveyor since June 1989 and am now a Director at AA Projects Ltd, Chartered Building Surveyors of Prescot, Liverpool.

1.3 I was elected a Member (MRICS) of the Royal Institution of Chartered Surveyors (RICS) in 1990 and have therefore been professionally qualified for approximately 30 years.

1.4 During the 30 years of my career as a Chartered Building Surveyor, I have extensively been involved in the assessment of light within proposed developments or the impact of proposed developments on surrounding buildings (using both planning Daylight Sunlight criteria and common law Rights of Light calculations) and in the preparation of associated expert reports.

1.5 AA Projects Ltd prepared a Daylight Sunlight study in connection with the proposed development at Former B&Q Site, Great Stone Road, Stretford and associated planning application. The report was titled Daylight Sunlight Report Rev 2 and dated February 2020 (the Original Report) (CD-A19). This has recently been updated to Rev 3 as attached at Appendix F (the Updated Report), to correct a slight discrepancy in total room numbers within the development (noted in the Average Daylight Factor (ADF) within the development section).

1.6 The proposed development staggers in height; the lowest part of the proposed development will be four storeys including ground floor level, the tallest part of the proposed will be nine storeys including ground floor level. There is also a basement parking area which is not taken into account in number of storeys described above.

1.7 Following the Trafford Council planning committee meeting on 15 October 2020, I understand that the planning committee endorsed officers' recommended putative reasons for refusal and some of those reasons relate to daylight and sunlight both in terms of impact on surrounding adjacent properties and also the levels that will be experienced by occupiers of the new development.

1.8 The putative reasons for refusal associated with daylight and sunlight are set out below:

1.8.1 Reason for Refusal 5 - the proposed development by virtue of its height, massing, scale and layout would result in a poor level of amenity and unacceptable living standards for future occupiers of the development, by virtue of inadequate daylight and outlook in both apartments and amenity areas. The proposed development is therefore contrary to Policies SL3 and L7 of the adopted Core Strategy and the NPPF.

1.8.2 Reason for Refusal 6 - the proposed development by virtue of its height, massing, scale and layout would result in harm to the amenity of existing residential properties on Great Stone Road and Trent Bridge Walk by virtue of noticeable reductions in the amount of daylight and sunlight that they receive and would also have an overbearing impact on these properties and other residential properties in the wider 'Gorses' area. The proposed development is therefore contrary to Policies SL3, L3 and L7 and the NPPF.

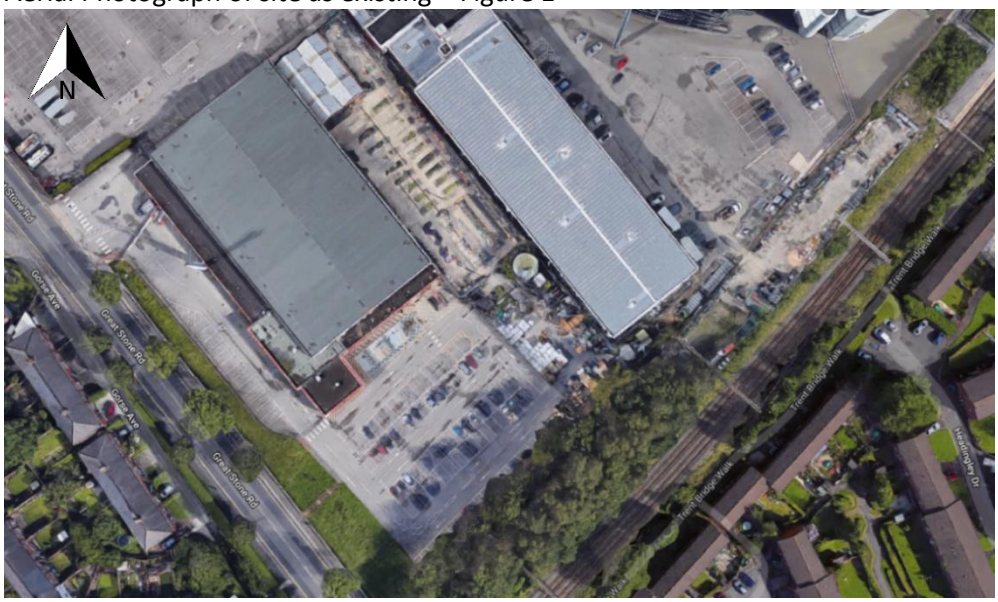
1.9 I was involved in preparation of the Original Report (Rev 2) and have prepared the Updated Report (Rev 3). I am now instructed to prepare a Proof of Evidence to expand upon my findings and provide additional substantiation to address the above concerns.

2.0 Original Daylight Sunlight Report

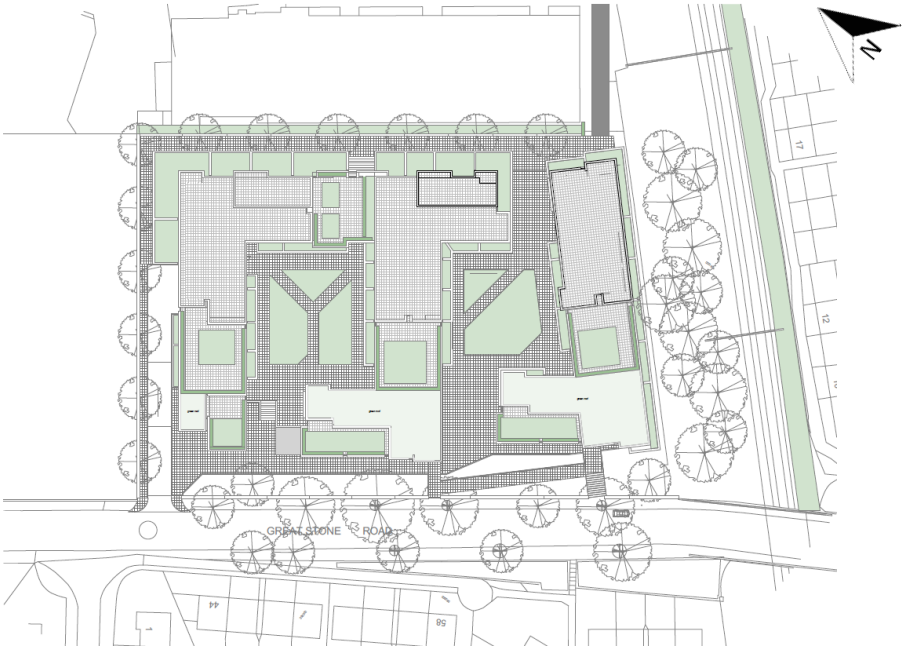
2.1 Site Images and Plans

2.1.1 To assist, an aerial photograph, site plan and building number plan of the development site are included below for information.

2.1.2 Aerial Photograph of site as existing – Figure 1



2.1.3 Site Plan of the proposed development – Figure 2



2.1.4 Building Identification Plan for the proposed development – Figure 3

2.2 Light Levels in Adjacent Properties

2.2.1 I have considered the impact of the proposed development on adjacent properties. The properties I have analysed in this respect are:
21 Trent Bridge Walk (B1)
20 Trent Bridge Walk (B2)
19 Trent Bridge Walk (B3)
9, 10, 12, 14, 17, 18 & 22, Trent Bridge Walk (B4, B5, B8, B10, B12, B13)
16 Trent Bridge Walk (B6)
15 Trent Bridge Walk (B7)
13 Trent Bridge Walk (B9)
11 Trent Bridge Walk (B11)
61 Gorse Crescent (B14)
47, 49, 55-59 Gorse Crescent (B15-B17 & B20-21)
53 Gorse Crescent (B18)
51 Gorse Crescent (B19)
58 Great Stone Road (B22)
44, 48, 50, 54 & 56 Great Stone Road (B23, B24, B26, B27 & B29)
55 Great Stone Road (B25)
46 Great Stone Road (B28)
1 Gorse Avenue (B30)
3 & 2-8 Gorse Avenue (B31 & B32-B34)
8 Gorse Avenue (B35)

2.2.2 The Original Report assessed changes to daylight and sunlight to adjacent properties in the event that the development was to be constructed as proposed.

2.2.3 All adjacent properties would pass the BRE criteria for Vertical Sky Component (VSC), which is the measure of light reaching a particular window, and thus the development would have a negligible effect on light enjoyed by adjacent windows.

2.2.4 The Original Report also concluded that the development would have a negligible effect on the distribution (Daylight Distribution or No Sky Line) of light within rooms in adjacent properties once that light (negligibly affected as noted above) passes through the windows. Of the 92 rooms tested, 82 fully passed the BRE criteria, meaning the impact of the development would again be negligible. Whilst there were 10 rooms that didn't fully pass the BRE criteria, these were all bedrooms, which the BRE guide recommends should be treated as less significant and some fell outside the BRE criteria by only a very small amount. Also, the overall majority of bedrooms would have good absolute levels of Daylight Distribution remaining after the development at 70%, 77%, 49%, 77%, 46%, 59%, 55%, 66%, 62%, 38%, which in my opinion would be acceptable for a bedroom (although the BRE guide wouldn't be fully satisfied due to there being a greater than 20% reduction in distribution). In practice, this means that the majority of bedrooms would have a very good level of light distribution across the room despite the reductions being in excess of 20%.

2.2.5 In summary, the actual light levels to the adjacent properties' windows fully pass the BRE criteria and the distribution of that light within adjacent rooms is again mainly negligibly affected or involves bedrooms (to be treated less significantly) that on the whole retain good levels of distribution in any event (as they have very high levels of existing distribution).

2.3 Light Levels Within the Development

2.3.1 The BRE guide notes that ADF is the most appropriate measure of light that will be enjoyed within the rooms of a proposed development because (unlike the other BRE measures) it takes account of light reaching a window (VSC), size of window, internal surface reflectance etc.

2.3.2 The Updated Report summarised that 319 out of 428 rooms assessed in detail via the 3D computer model fully satisfy the BRE Average Daylight Factor (ADF) criteria. In addition, there are a further 489 rooms not assessed in detail via the 3D model as these pass the BRE guide ADF requirements based on the BRE guide 25 degree rule of thumb. Thus, 88% of rooms (808 out of 917 - the total number of rooms) fully satisfy the BRE ADF criteria. A further 57 are negligibly and 21 a minor amount below the required values. Thus, a very good level of the rooms, 886 out of 917 (96%) either meet or are a negligible/minor amount below the target ADF values. Of the remaining 4%, approximately half are bedrooms.

2.3.3 The above results were established using the BRE guide's uppermost target value of 2% (kitchen) for mixed use rooms (e.g. mixed living/dining/kitchen). The required value for a living or dining room is 1.5% and thus the values achieved in many cases far exceed the required value. Please note that it is generally accepted that 1.5% is a reasonable figure to use in mixed use rooms, having regard to recent Planning Inspectorate decisions (see below).

2.4 Summary

2.4.1 Thus, in my opinion, the overall Daylight Sunlight results are good and better than other similar developments that have received planning permission (which I address later in this Proof of Evidence).

3.0 Comments on Planning Officer Initial Observations

3.1 Prior to the appeal, the Appellant has received previous specific comments and feedback from Council Officers on the results, which were received via e-mail from Debra Harrison (Major Planning Projects Officer) on 20 August 2020. These comments are copied in below:

3.2 "*The proposed development will detrimentally impact on the level of daylight serving a number of existing dwellings, particularly on Great Stone Road. Whilst the impacts on NSL (daylight distribution) affects bedrooms which are noted in the BRE guidance as being of less importance, it is considered that the dwellings largely affected through the impact on reduced NSL are already likely to suffer from compromised daylight and sunlight levels at ground floor levels by virtue of their location in front of the rising gradient of Great Stone Road and the associated retaining wall structure. Therefore, although the BRE guidance states that bedrooms are 'less important' they are in this instance considered to be of importance as they are important to overall daylight levels serving No's 54, 55, 56 and 58 Great Stone Road".*

3.3 I consider that these observations are misconceived and run contrary to the recommendations in the BRE guide, for the following reasons.

3.4 The VSC results (measure of daylight) to the ground floor windows of 54 (B24), 55 (B25), 56 (B23) and 58 (B22) Great Stone Road (the properties highlighted in the specific comment) are all significantly above the BRE required absolute value of VSC 27% both before and after the development (after development B24 - 30.05%, B25 – 30.09%, B23 – 29.95% and B22 – 29.90%). The VSC results are therefore excellent regardless of the existing environment.

3.5 The BRE guide also states that new development should not be prejudiced by a poor existing arrangements or design in adjacent properties and the feedback comments regarding the existing sloping site etc appear to contradict this guidance. The fact that the ground floor windows and rooms pass the BRE criteria against the backdrop of the existing environment/sloping site/retaining wall indicates a highly positive result for the development.

4.0 Approach of the Planning Inspectorate

4.1 Recent Planning Inspectorate appeal decisions provide useful illustrations of how analysis of Daylight Sunlight results should be undertaken. The principles that the BRE guide should be interpreted flexibly and in context are set out in great detail in the Whitechapel Estate appeal decision ref APP/E5900/W/17/3171437 included in Appendix D and summarised below:

4.1.1 It was agreed that the starting point in the assessment of the effect on residents' living conditions arising from daylight and sunlight should be the Building Research Establishment 2011 publication Site layout planning for daylight and sunlight: A guide to good practice, (the BRE guide) (paragraph 107).

4.1.2 It was confirmed that the BRE document offers guidance on generally acceptable standards of daylight and sunlight but advises that numerical values are not to be rigidly applied and recognises the importance of the specific circumstances of each case (paragraph 108).

4.1.3 It was agreed that daylight impact on adjacent properties should be assessed drawing on broadly comparable residential typologies within the area (paragraph 109).

4.2 The specific outcomes of the Planning Inspectorate decision making process against the above backdrop were:

4.2.1 Residual vertical sky component (VSC) values in the mid-teens (as opposed to the BRE target value of 27%) are appropriate and have been accepted on many schemes (note, we haven't utilised this guidance as all adjacent properties fully pass the BRE VSC criteria and residual values are excellent – see section 3.0 above) (paragraph 112).

4.2.2 It was acknowledged that light to bedrooms is less important (paragraph 116).

4.2.3 That using a target value of 1.5% for mixed use living/dining/kitchens within a proposed development is reasonable (where the BRE targets are 2% for kitchens and 1.5% for living rooms) (paragraph 128).

4.2.4 Comparing the daylight sunlight results for impact on adjacent properties or within the proposed development by reference to other approved similar schemes either by looking at an approved schemes daylight sunlight report or undertaking calculations where that report is missing (or was not requested) was reasonable (paragraph 111).

4.2.5 The expanded summary of my findings in respect of the proposed development using the above specifics are as follows.

4.3 <u>Adjacent Properties</u>

4.3.1 The daylight sunlight results for adjacent properties are very good but I have compared the results against other similar schemes in the area, either by checking the daylight sunlight report submitted or creating a 3D model and running calculations where those results were either not requested or missing on the portal. The comparable schemes identified are:

4.3.1.1 Sale Square ref 94986/FUL/18, approved subject to legal agreement.

4.3.1.2 MKM House/Warwick Road ref 84703/FUL/15, approved (note, there is a later application ref 88279/FUL/16 which was also approved but this only dealt with minor internal alterations to the proposal).

4.3.1.3 Wharf Road ref 93153/FUL/17, originally refused by notice dated 13 July 2018 but approved on appeal (Planning Inspectorate decision ref APP/Q4245/W/19/3220262 – see Appendix E).

4.3.2 The schemes have been selected as they involve a multi storey block (Sale Square 5, 6, 12 and 15 storeys, Wharf Rd 3,4,5,6 and 7 storeys, MKM House 12 storeys) near to residential 2 storey traditional residential houses.

4.3.3 A daylight sunlight report exists on the planning portal for Sale Square but not for Wharf Road or MKM House, Warwick Rd. As the daylight sunlight studies were not on file for Wharf Road or MKM House, the planning department was contacted for confirmation of whether they exist. I have verbally been advised that no daylight sunlight reports exist for either the Wharf Rd 93153/FUL/17 and Warwick Road approved scheme 84703/FUL/15.

4.3.4 For the Wharf Road and MKM House, Warwick Rd schemes I have therefore had to create a 3D model and run daylight sunlight results to draw comparables set out in detail below.

4.3.5 I should note in this regard that I was advised that a Daylight Sunlight report does exist for a new 13 storey application on the Warwick Rd site ref 101651/FUL/20 and was directed to a copy on the planning portal. The report is prepared by GIA dated 13 August 2020 but as the report only deals with the change in daylight and sunlight experienced as a result of the change from the 12 storey extant approval to 13 storeys (i.e. the extra over impact of adding one more storey) and the scheme was refused, the report is of very limited relevance. It also does not deal with light within the proposed development at all.

4.4 Sale Square

4.4.1 The daylight sunlight report for Sale Square has been prepared by BDP rev P5 dated 2 March 2018 (attached at Appendix A) and the main findings for the 2 storey residential houses (noted as houses 1 to 10) are noted below.

4.4.2 Only VSC daylight calculations were run (plus APSH for sunlight). There are no daylight distribution calculations of the light within rooms which is not in compliance with the BRE guide. I can't therefore draw comparison on daylight distribution results.

4.4.3 On VSC, 10 of the 30 windows assessed fail the BRE criteria, some by a considerable margin (32% reduction in VSC caused by the development where only 20% is permitted in the BRE guide).

4.4.4 The VSC results for the impact of the development on Acre House (an existing residential apartment block) are significantly worse than for the proposed development in this appeal, with only one window (out of 33 assessed) on the South and East elevations (main elevations facing the proposed development) satisfying the BRE criteria.

4.4.5 The results above fall significantly outside the BRE criteria and demonstrate that the local authority have accepted inferior values previously when electing to approve a similar development.

4.5 MKM House/Warwick Road

4.5.1 As no daylight sunlight study exists for this development, a daylight sunlight 3D model has been prepared and results generated for the impact of the development on the adjacent 2 storey residential properties 8, 10, 12, 14 and 16 Warwick Road (directly facing the development) and the results are summarised below (see Appendix B for full calculations).

4.5.2 The vertical sky component results (VSC) show that none of the windows of nos. 10 and 12 Warwick Road (14no) would have satisfied the BRE criteria. Also, only 5 out of 9 windows of no 16 and 4 out of 11 windows of no 8 would have passed. Some of the non-compliance is by a significant margin classed as moderately adverse and involves living rooms.

4.5.3 The daylight distribution results are equally as poor with only 12 out of 20 rooms assessed as satisfying the BRE criteria, with many failing by a significant margin (5 rooms either moderately or majorly adverse) and involve living rooms.

4.5.4 The results above fall significantly outside the BRE criteria and demonstrate that the local authority have accepted inferior values when approving a similar development.

4.6 Wharf Road

4.6.1 As no daylight sunlight study exists for this development, a daylight sunlight model has been prepared and results generated for the impact of this development on the adjacent 2 storey residential properties, 3 – 15 Wharf Road and 3 – 19 Navigation Road and these results are summarised below (see Appendix C for full calculations).

4.6.2 The daylight distribution results for 5 – 15 Navigation Road are poor with only 8 out of 17 rooms assessed satisfying the BRE criteria. Many fail by a significant major (4no) or moderate (3no) margin and involve a large proportion of living/dining rooms. In addition, the remaining light distribution in those rooms is also very poor at, for example, 23%, 25% and 26%.

4.6.3 The above results above fall significantly outside the BRE criteria and demonstrate that the local authority have accepted inferior values when electing to approve a similar development.

4.7 Light Within the Development

4.7.1 In my revised study (Rev 3) results using 1.5% as the ADF target value for mixed use rooms within the proposed development have now been generated and 360 out of 428 (84%) of rooms assessed in detail fully satisfy the BRE Average Daylight Factor (ADF) criteria (note 4 class as passes as extremely close to 1.5% highlighted yellow on the detailed spreadsheet attached at Appendix G). In addition, there were a further 489 rooms not assessed in detail as these pass the BRE guide ADF requirements based on the 25 degree rule of thumb. Thus, 93% of rooms (849 out of 917 - the total number of rooms) fully pass the BRE ADF criteria. A further 40 were negligibly and 14 a minor amount below the required values. Thus, a very

good level of the rooms, 903 out of 917 (98%) either meet or are a negligible/minor amount below the target ADF values. Of the remaining 2%, all but one are bedrooms.

4.7.2 I have looked at the daylight sunlight report for a Sale Square ref 94986/FUL/18 which has been approved subject to legal agreement. The report was prepared by BDP and was noted as rev P5 dated 2 March 2018. This report only looks at a very small proportion of rooms in the proposed development (based on apartment type) and not many from the lower floor levels (where you would expect the worst results) have been assessed. Having said this, the results indicate greater adverse impacts than the appeal proposals, as follows:

4.7.3 Of the 40 kitchens assessed (the room requiring most light based on the BRE guide) only 10 satisfy the BRE ADF criteria. Of the 30 that don't pass, most (29) would be classed as a major non-compliance and most of the results are extremely bad (e.g. 0.06% to 0.76% ADF where 2% is needed).

4.7.4 Of the 40 dining rooms assessed only 12 satisfy the BRE ADF criteria. Of the 28 that don't pass, most (25) would be classed as a major non-compliance and most of the results are extremely bad (e.g. 0.12% to 0.93% ADF where 1.5% is needed).

4.7.5 The report itself acknowledges these issues and that electric lighting will be needed to achieve the required levels of light.

4.7.6 The results above fall significantly below the BRE criteria and demonstrate that the local authority have accepted inferior values when electing to approve a similar development.

4.7.7 I have obtained a copy of the Officer's report for Sale Square which deals with light levels within the development at paragraph 210 and 211. The conclusions on the above results are copied in below:

4.7.8 '….it is considered worthwhile to draw some interim amenity conclusions in relation to the standards offered within the development on these matters…'

4.7.9 'This is in the context of the commentary on these topics individually reporting shortfalls relative to various guidelines (and with this guidance being of varying levels of applicability, as has been reported).'

4.7.10 *'Moreover, paragraph 123 of the NPPF, as part of it urging local planning authorities to achieve appropriate densities, advises that a flexible approach should be taken in applying policies or guidance (relating specifically to daylight and sunlight) where they would otherwise inhibit making efficient use of a site.' 'Furthermore, for the proposal itself, there would be an opportunity for prospective occupiers to decline the development as a new residence if it was felt that overall amenity levels were not in line with personal expectations.'*

5.0 Comments on Local Planning Authority Statement of Case (LPA SOC)

5.1 The comments made below relate to Reasons for Refusal 5 – Amenity for Future Occupiers and 6 – Amenity of Existing Properties in the LPA SOC.

5.2 Reason for Refusal 5 – Amenity of Future Occupiers (LPA SOC, para 4.166-4.167, page 53)

5.3 *"The fifth putative reason for refusal states: The proposed development by virtue of its height, massing, scale and layout would result in a poor level of amenity and unacceptable living standards for future occupiers of the development, by virtue of inadequate daylight and outlook in both apartments and amenity areas. The proposed development is therefore contrary to Policies SL3 and L7 of the adopted Core Strategy and the National Planning Policy Framework.*

5.4 The LPA SOC states that: *"The Council's concerns arise as a direct result of what it considers to be an inappropriate form of development on the site, a building that is excessive in height, and which spans the width and depth of the site with insufficient room around its edges to allow for an appropriate outlook for its residents, and one that sits too close to existing constraints outside its site boundaries to allow adequate daylight and sunlight levels to be achieved within a considerable number of the proposed apartments. With renewed emphasis on the importance of adequate daylight, sunlight and outlook for wellbeing, the level of amenity and living conditions proposed for many prospective residents is considered to be unacceptable and adds to the list of harms the Council has identified that flow from the excessive scale of the proposed development".*

5.5 The response below deals with the Daylight and Sunlight (within the proposed development) comments in the LPA SOC at paragraphs 4.179 – 4.185 and 4.193 – 4.195 and the opening part of the conclusion 4.196.

5.6 The 'Outlook' comments at 4.172 – 4.178 are dealt with in the Planning Proof of Evidence by Doug Hann of WSP Planning (witness reference number 11).

5.7 The 'Amenity Space' comments at 4.186 – 4.192 are dealt with in the Planning Proof of Evidence by Doug Hann of WSP Planning (witness reference number 11).

VSC to Windows in the Proposed Development (LPA SOC, para 4.180 to 4.181 and 4.194)

5.8 My understanding of the VSC summary table at para 4.180 of the LPA SOC is that it seeks to identify windows that satisfy the BRE criteria in the left hand column and those that would be acceptable based on approach of the Inspectorate at section 4.0 above (VSC in the mid-teens being acceptable) in the middle column.

5.9 The VSC summary table is in my opinion incorrect as VSC values of 16% would be classed as being in the mid-teens and should fall in the middle column.

5.10 As noted at section 4.0 above, VSC values in the mid-teens are appropriate (as opposed to the BRE guide figure of 27%) and therefore the table demonstrates (based on the current unadjusted LPA values) that the percentages that exceed these figures are:

5.10.1 Ground – 57%
5.10.2 First – 78%
5.10.3 Second – 92%
5.10.4 Third – 95%
5.10.5 Forth – 99%
5.10.6 Fifth – 100%
5.10.7 Sixth – 100%

5.10.8 Eighth – 100%

5.11 Whilst there are a number of windows at the lower levels that do not meet the mid teen VSC criteria, this is not unusual for any substantial development as maintaining sky visibility (the measure of VSC) is difficult where there are surrounding obstructions.

5.12 In addition, VSC is a relatively basic measure of light reaching a window. VSC is a measure of the light (based on sky visibility) reaching a point at the centre of a window, and the BRE guideline is based on the loss of VSC at a single window. It is therefore not a fully appropriate measure in cases where rooms are served by multiple windows and in particular when a room is dual or multi-aspect. If one window fails the criterion, in reality the daylight to the room may not necessarily be seriously impacted, and the daylight within the room can remain good. In addition, VSC takes no account of the size of a window. The VSC at the centre of a very small window is identical to VSC at the centre of a large window.

5.13 Due to this, when assessing light within the room of a proposed development, it is important (and more helpful) to look at Average Daylight Factor (ADF). ADF is a measure of the daylight within a room and accounts for factors such as the number of windows and their size in relation to the size of the room. Clearly a small room with a large window will be better illuminated by daylight than a large room with a small window. It also accounts for the window transmittance and internal reflectance.

5.14 The general idea with ADF is that one calculates the daylight which reaches each of the windows (which is the VSC noted above), and allowing for the window size, the light which then enters the room through all of the windows. The light is then imagined to bounce around within the room, controlled by the reflectance of the internal surfaces.

5.15 Thus, in calculating ADF the VSC figure is actually used in the ADF calculation to determine whether the overall light in the room behind that window is acceptable. ADF should therefore in my opinion be the overriding criteria that is considered. This is recognised at paragraph 2.1.22 of the BRE guide which states:

5.16 *'To check that adequate daylight is provided in new rooms, the ADF may be calculated and compared with the recommendation in BS 8206-2 Code of practice for daylighting.'*

<u>ADF Levels Within the Rooms of the Proposed Development (LPA SOC, para 4.182 – 4.185 and 4.193)</u>

5.17 In respect of para 4.182 of the LPA SOC, it is incorrect to state that 'only *'109 rooms out of 428 were assessed'*. In fact, I fully assessed 428 rooms in detail via a 3D computer model as set out in the report and a further 489 rooms (917 in total) using the BRE guide rule of thumb.

5.18 All the statements that then follow in the LPA SOC are partly incorrect due that initial error in interpretation of the report.

5.19 At para 4.193 of the LPA SOC, the Council does not dispute that a revised ADF target figure of 1.5% for mixed use rooms (living / kitchen / diner) should be used and that the revised calculations set out in this Proof of Evidence are the correct ones to consider. The revised ADF calculations for the proposed development based on 1.5% ADF are attached at Appendix G.

5.20 At para 4.193 the LPA SOC, the Council notes a discrepancy in total rooms which are recorded in the report as having been evaluated. The total number of rooms assessed by detailed calculation via our 3D model has always been consistent at 428 (and this in not disputed by the LPA). The ADF summary for these 428 rooms (using the 1.5% target figure for a mixed use room) is:

5.20.1 360 (84%) out of 428 fully pass
5.20.2 A further 40 (9%) are a negligible amount below the required value
5.20.3 A further 14 (4%) are a minor amount below the required value

5.21 This means that 97% of the rooms assessed either meet or are a negligible/minor amount below the target ADF value (at 1.5%), which is a very good result.

5.22 These ADF figures have not been disputed in para 4.193 of the LPA SOC. In para 4.194 the LPA SOC does draw attention back to the VSC results but as noted above, VSC is a basic tool to measure sky visibility at the face / centre of a window of any size and is not a detailed calculation of how much light is enjoyed in a room, which is achieved by ADF.

5.23 In respect of the total room number discrepancy, whilst 428 rooms were fully tested by the 3D model, all the other habitable rooms of the development were deemed to pass the BRE guidelines, as they achieved the 25 degree rule where detailed assessment is not required. I have now re-verified the number of habitable rooms (over and above those fully tested by way of the 3D model) and can confirm the number of such rooms is 489.

5.24 Adding these additional rooms that satisfy the BRE criteria to the above, results in the following:

5.24.1 849 (93%) out of 917 fully pass
5.24.2 A further 40 (4%) are a negligible amount below the required value
5.24.3 A further 14 (1%) are a minor amount below the required value

5.25 This means that 98% of the whole of the rooms in the development either meet or are a negligible/minor amount below the target ADF value (at 1.5%), a very good result.

Suitability of Comparables (LPA SOC, para 4.195)

5.26 In 4.195, the LPA SOC asserts that the comparables that have been cited are not directly comparable to the appeal scheme. I disagree with this. For each of the comparables I have cited, I have created a table below setting out the similarities of each:

5.27 Sale Square (ref : 94986/FUL/18)

5.27.1 Demolition of existing buildings and structures, and construction of a new mixed-use development to provide 202 residential units (Use Class C3) including two residential buildings of 12 and 15 storeys, a cinema (Use Class D2), retail units (Use Classes A1, A2 and A3), a multi-storey car park, new public realm and landscaping, new and modified access points, and associated works and improvements.

	Sale Square	**Great Stone Road**
No. of Buildings	2	2
Storeys	Highrise (5, 6, 12 and 15)	Highrise (ranging 4 to 9)
Surrounding Buildings	2 storey residential houses (across Sibson Road), Residential tower (Acre House) and commercial / retail units (around Town Square)	2 storey residential houses (across Great Stone Road) + cricket ground
Distance from Residential	Across Sibson Street (circa 26m)	Across Great Stone Road (circa 33m)
Vertical Sky Component (VSC) (2 Storey Residential)	10/30 windows (33%) fail with reductions ranging between 21% and 32%	All pass
VSC (Residential Tower)	42/54 windows (78%) fail with reductions ranging between 21% to 78%	N/A
Daylight Distribution (DD)	Not assessed – Note this is often done to avoid poor results	82/92 rooms pass the BRE criteria
APSH (2 Storey Residential)	All windows face North and are therefore not assessed further	All pass
APSH (Residential Tower)	11/54 windows (20%) fail summer criteria and 33/54 windows (61%) fail winter criteria	N/A

5.28 MKM House/Warwick Road (ref : 84703/FUL/15)

5.28.1 Erection of 12 storey building with three basement levels to provide 89 apartments, basement car parking, cycle parking facilities, associated landscaping and vehicular access from Warwick Road. M K M House Warwick Road Stretford M16 0XX.

	MKM House	**Great Stone Road**
No. of Buildings	1	2
Storeys	Highrise (12)	Highrise (Ranging 4 to 9)
Surrounding Buildings	2 storey residential houses (across Warwick Road), residential flats (Montague Road) and residential tower (adjacent)	2 storey residential houses (across Great Stone Road) + cricket ground
Distance from Residential	Across Warwick Road (circa 31m)	Across Great Stone Road (circa 33m)
VSC (2 Storey Residential)	23/30 windows (77%) fail with reductions ranging between 21% and 37%	All pass

DD	8/20 rooms (40%) fail to meet the BRE criteria	82/92 rooms satisfy the BRE criteria
APSH (2 Storey Residential)	All pass	All pass

5.29 Wharf Road (ref : 93153/FUL/17)

5.29.1 The demolition of all structures on site, followed by the erection of a part 3, 4, 5, 6 and 7 storey building to form 99 dwellings, with associated access, car parking and associated works. Land On Wharf Road Altrincham WA14 1ND.

	Wharf Road	**Great Stone Road**
No. of Buildings	1	2
Storeys	Highrise (6/7)	Highrise (Ranging 4 to 9)
Surrounding Buildings	2 storey residential houses (across adjacent carpark), residential flats and commercial units to the North East	2 storey residential houses (across Great Stone Road) + cricket ground
Distance from Residential	Across Warwick Road (circa 4 - 18m)	Across Great Stone Road (circa 33m)
VSC (2 Storey Residential)	1/55 windows (2%) fail with reductions up to 37%	All pass
DD	11/44 rooms (25%) fail to meet the BRE criteria	82/92 rooms pass the BRE criteria
APSH (2 Storey Residential)	All pass	All pass

5.30 As can clearly be seen, in each case there are many two storey residential properties immediately adjacent to a tall development.

5.31 Thus, on the basis of the above analysis, I am of the opinion that the schemes cited as comparables are very much relevant in terms of the Daylight Sunlight effects of the development that is the subject of this appeal. The results for the appeal development show significantly greater compliance with the BRE guide requirements than has been accepted on other similar schemes in the area.

5.32 Reason for Refusal 6 – Amenity of Existing Properties (LPA SOC, para 4.197-4.198)

5.33 *"The sixth putative reason for refusal states: The proposed development by virtue of its height, massing, scale and layout would result in harm to the amenity of existing residential properties on Great Stone Road and Trent Bridge Walk by virtue of noticeable reductions in the amount of daylight and sunlight that they receive and would also have an overbearing impact on these properties and other residential properties in the wider 'Gorses' area. The proposed development is therefore contrary to Policies SL3, L3 and L7 and the National Planning Policy Framework.*

5.34 The LPA SOC states that *"The Council's concerns arise as a direct result of what it considers to be an inappropriate form of development on the site, a building that does not respond sensitively to its context or local character in terms of its form, layout, height and massing, and one that sits too close to existing neighbours. Consequently the development will have an overbearing impact on these properties and result in noticeable reductions in the amount of daylight and sunlight that some existing residents will receive. With renewed emphasis on the importance of adequate daylight, sunlight and outlook for wellbeing, the impact on the level of amenity and living conditions of several existing residents is considered to be unacceptable and adds to the list of harms the Council has identified that flow from the excessive scale of the proposed development".*

5.35 Overbearing Impact 4.200 – 4.207 is dealt with in the Overbearing Proof of Evidence prepared by Matthew Hard of WSP Planning (witness ref number 11) and the Design Proof of Evidence by Paul O'Connell of O'Connell East Architects (witness number 3).

5.36 The response below deals with comments made under Daylight Sunlight in the LPA SOC at paragraphs 4.208 to 4.211 and part of the conclusion at para 4.212.

5.37 Firstly, the LPA SOC does not make any comment regarding all of the adjacent properties fully meeting the VSC (daylight) and APSH (sunlight) criteria and thus fully comply with the BRE criteria for those measures. Note ADF (discussed above for the development) is not used for adjacent properties as insufficient detail is usually known about the windows, room layouts and internal surface reflectance. Thus, the only recommended measure of daylight reaching the room / window of an adjacent property (VSC) is fully passed.

5.38 At para 4.208 the LPA SOC looks in detail at NSL, which is measure of how the very good levels of light noted in VSC are then distributed around a room.

5.39 It should be noted that the table at 4.208 of the LPA SOC, the percentages in the 'reduction' column are all incorrect. For example, for B8 - 14 Trent Bridge Walk, the NSL changes from 98% to 70% which is a % reduction of 29% (not 72%) and for B22 the NSL changes from 98% to 77%, % reduction of 22% (not 78%).

5.40 The NSL BRE calculation and assessment does not have any identified percentage level of daylight distribution that should be achieved, it solely looks at whether there has been a reduction of greater or lesser than 20%.

5.41 This is the weakness of NSL calculations. To quote from Appendix B of the BRE guide, *'in principle a point lies within the no-sky line no matter how small a patch of sky it can see—even if for instance there is only a keyhole allowing light in to the room. Clearly the method is intended to map out areas within a room which receive a significant amount of direct daylight from the sky, so that it would be better if a small but finite amount of direct daylight were used to divide the two regions. This would also reduce the tendency for the no-sky line position to vary wildly at the rear of a room, rather like when small variations in tidal height cause the tide line to move by large distances on a virtually level beach'*.

5.42 The position of the no-sky line can therefore be very sensitive to very small changes in light levels. In addition, NSL does not account for other factors that determine the daylight level in a room. Double glazing has a transmittance of say 64%. In comparing an unglazed window

with a double glazed window, the position of the no-Sky line doesn't change at all, even though the light level has been reduced by nearly half.

5.43 Having said the above, in the Daylight Sunlight report it was concluded that 82 out of 92 rooms fully passed the BRE criteria for NSL. An additional 3 rooms fell outside the BRE criteria by only a very small minor amount.

5.44 Whilst there were 10 rooms that didn't fully satisfy the BRE criteria (3 of which only experienced minor effects), these were all bedrooms, which the BRE guide recommends should be treated as less significant. This is not disputed at 4.211 of the LPA SOC.

5.45 Also, the overall majority of bedrooms would have good absolute levels of Daylight Distribution remaining after the development at 70%, 77%, 49%, 77%, 46%, 59%, 55%, 66%, 62%, 38%, which in my opinion would be acceptable for a bedroom (although the BRE guide wouldn't be fully satisfied due to there being a greater than 20% reduction in distribution). In practice, this means that the majority of bedrooms would have a very good level of light distribution across the room despite the reductions being in excess of 20%.

5.46 Due to the weaknesses of the BRE NSL calculations noted above, I feel it is very important to consider absolute levels of NSL remaining when reviewing NSL calculations. A simple example would be that a room that has an 80% NSL falling to 61% NSL would not pass the criteria whereas a room with 60% NSL falling to 48% would.

6.0 Summary and Conclusions

6.1 In summary, the daylight sunlight impact results for this proposed development on adjacent properties has been shown to be compliant with the BRE guide to a very substantial level (100% in terms of VSC – daylight and APSH – sunlight) and to a much greater overall level than has already been accepted on several other similar schemes in the area.

6.2 In addition, a large proportion of the rooms within the proposed development will either be fully compliant (93%) or within a negligible (4%) / minor (1%) amount of the required BRE ADF target figures. These results show significantly greater compliance with the BRE guide requirements than has been accepted on other similar schemes in the area.

6.3 On sunlight within the development (APSH), the BRE guide isn't concerned with windows that aren't within 90 degrees of due South (i.e. face North) as they will never see the sun. They are therefore discounted from any calculations. Of those that will see the sun, all pass except 2 in summer and 12 in winter. These are extremely good APSH summer results. In winter, sunlight isn't really expected or a priority as it is always short lived in any event.

6.4 The new NPPF (2021) does state in paragraph 125 (c) that *''a flexible approach should be taken in applying policies relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site''*. In my opinion, the development sits comfortably within the parameters of the flexible approach that is advocated in this policy.

7.0 Endorsement

7.1 The evidence which I have prepared and provide for this appeal reference APP/ Q4245/W/20/3258552 in this proof of evidence is true and has been prepared and is given

in accordance with the guidance of my professional institution and I confirm that the opinions expressed are my true and professional opinions.