Expansion of Kingsgate Primary School and Redevelopment of Liddell Road

Daylight, Sunlight and Overshadowing Report

Submitted in support of
Application 02 for Phase 02
December 2014

Camden

London Borough of Camden
Kingsgate Primary School

POINT 2 surveyors

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403 Liddell Road/Kingsgate School, Camden, London

Daylight, Sunlight & Overshadowing Report

Director:	Barry Hood
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Contents

1 Executive Summary 3
2 Planning Overview 3
3 Methodology 4
4 Sources of Information 6
5 The Site 6
6 The Scheme 7
7 The Neighbours 7
8 Effects of the Scheme 7
9 Conclusion 18

Appendices

Appendix A – Drawings
Appendix B - Results

1 Executive Summary

1.1 This reports relates to the proposed Maccreanor Lavington scheme for 403 Liddell Road/Kingsgate School insofar as it effects the daylight and sunlight amenity to the surrounding residential properties and areas of amenity space.

1.2 There is full technical analysis contained in this report, however, in summary, the effect of the construction of the proposed scheme upon 92% of the surrounding residential rooms is considered to be negligible in nature on the basis that the daylight amenity alterations, if any, to all of the rooms and windows are fully compliant with BRE guidance. This means that the occupants of these rooms are unlikely to notice any alteration to their levels of daylight amenity.

1.3 The effect upon 21 (8%) rooms, when considering the retained daylight amenity values as well as the VSC and NSL alteration levels, is considered to be minor in nature and acceptable given the dense sub-urban nature of the surrounding context.

1.4 All sunlight alterations to all properties, where applicable, are fully compliant with the relevant BRE guidance, which means that the occupants of the rooms are unlikely to notice any alteration to their levels of sunlight amenity.

1.5 With regard to overshadowing, the gardens serving the surrounding residential properties and the park area to the west of the development site will not, as a consequence of the construction of the proposed scheme, experience anything greater than a minor increase in overshadowing.

1.6 With regard to the daylight amenity levels of the residential units within the proposed scheme, these are generally better than the minimum levels recommended by the BRE & British Standards, even on the lowest floors which have formed the focus of our analysis. Where there are very small deviations from guidance, these occur within lounge/dining rooms served by private amenity space balconies, which restrict the extent of sky visibility to the windows and there is, therefore, a trade-off between providing private amenity space and delivering light into the rooms behind.

2 Planning Overview

2.1 Through the planning process the local authority will wish to be reassured that the construction of the new scheme will not materially harm the neighbours daylight and sunlight beyond BRE and British Standard Guidance.

2.2 The Local Authority will be informed in this by the BRE document entitled *Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2011* (the BRE Guidelines). This document is the principal guidance in this area and sets out the methodology for measuring light and recommends what it considers to be permitted or unobtrusive levels of change.

2.3 The BRE guidelines are not mandatory, though local planning authorities and planning inspectors will consider the suitability of a proposed scheme for a site within the context of BRE Guidance. Consideration will be given to the urban context within which a scheme is located and the daylight and sunlight will be one of a number of planning considerations which the local authority will weigh.

3 Methodology

3.1 To quantify the effect of developing 403 Liddell Road/Kingsgate School insofar as it effects the daylight and sunlight amenity to the surrounding residential properties and areas of amenity space, we have constructed a three dimensional computer model of the site and relevant neighbouring properties and open spaces.

3.2 We have then undertaken technical analysis to measure the light received by neighbouring properties and open spaces both before and after the proposed scheme is constructed.

Daylight

3.3 In accordance with the BRE Guidelines, only residential properties are considered for daylight levels. Living rooms, kitchens and bedrooms are the primary focus of the guideline recommendations.

3.4 The initial test proposed by the BRE Guidelines is to establish if the proposed massing subtends above a 25° section line drawn from the centre of the window/room in question. If the angle is breached it is necessary to undertake more detailed technical calculations such as Vertical Sky Component (VSC) and No Sky Line (NSL).

3.5 The Vertical Sky Component (VSC) analysis assesses the amount of sky visibility at the centre of the outside of a window face. The No Sky Line (NSL) analysis assesses the extent of the area of a room which can benefit from sky visibility at working plane height (850mm). These measurements are taken both before and after the construction of the proposed development.

3.6 The BRE Guidelines permit a reduction of up to 20% of the existing VSC values in situations where the retained VSC value falls below 27%, which is the BRE recommended VSC level for adequate daylight amenity in a suburban environment. The 20% maximum recommended reduction is based upon the BRE stating that a change up to this extent would remain unnoticeable. The 20% reduction recommendation is also applicable to the NSL values.

Sunlight

3.7 The BRE Guidelines use Annual Probable Sunlight Hours (APSH) as the methodology for calculating sunlight levels when a 25° section line, as per daylight assessments, is breached.

3.8 The BRE recommends that the APSH in the proposed situation should be at least 25% of the annual total of which 5% should be from the winter months. When the proposed value falls short of this standard the reduction should be within 0.8 times its former value.

3.9 Only residential properties that face within 90º of due south are taken into account for sunlight analysis, the BRE Guidelines considers that sunlight to main living room windows as the most important.

3.10 For existing residential properties, the BRE Guidelines state in Section 3.2.3 that: “all main living rooms of dwellings…should be checked if they have a window facing within 90° of due south, kitchens and bedrooms are less important, although care should be taken not to block too much sun.”

Overshadowing

3.11 The 2011 BRE Guidelines acknowledge that sunlight in the space between buildings has an important effect on the overall appearance and ambience of a development. It states:

3.12 *"…good site layout planning for daylight and sunlight should not limit itself to providing good natural light inside buildings. Sunlight in the space between buildings has an important effect on the overall appearance and ambience of a development."*

3.13 The BRE Guidelines suggest that where large buildings are proposed which may affect a number of gardens or open spaces, it is useful to plot a shadow plan to illustrate the location of shadows at different times of the day and year. For the purpose of this assessment the overshadowing was mapped for the following three key dates in the year:

- 21st March (Spring Equinox);
- 21st June (Summer Solstice);
- 21st December (Winter Solstice).

3.14 September 21st (Autumn Equinox) provides the same overshadowing images as March 21st (Spring Equinox) as the sun follows the same path at these corresponding times of year.

3.15 For each of these dates, the overshadowing is calculated at hourly intervals throughout the day from 08:00 to 19:00. Some images are not included within Appendix B because the sun would not be present during these times (e.g. from approximately 16:00 onwards on 21st December) and thus no shadow can be cast.

3.16 The indicators are calculated for different latitudes, London being at 51.5° north. Southern orientation is critically important, as are the heights of the existing and proposed buildings.

3.17 The table below shows the sunset and sunrise times for 21st March, 21st June and 21st December. It also shows the maximum altitude of the sun and the time at which the sun reaches the altitude of 10° which is the altitude at which the BRE Guidelines specifies overshadowing should be assessed. Receipt of sunlight can be disregarded when it is lower than this altitude.

London, UK - Greenwich Mean Time (Accurate to Nearest 10 minutes)					
Date	Sunrise Time	Time at 10° Altitude Rising	Maximum (degrees) Altitude	Time at 10° Altitude Setting	Sunset Time
21 Mar	06:10	07:10	39.4	17:10	18:10
21 June	03:50	05:10	62.4	19:00	20:10
21 Dec	08:10	09:50	15.6	14:10	16:00

3.18 The BRE Guidelines state: *"Adverse effects occur when there is a significant decrease in the amount of skylight and sunlight reaching an existing building where it is required, or in the amount of sunlight reaching an open space… The assessment of effect will depend on a combination of factors, and there is no simple rule of thumb that can be applied."*

3.19 The assessment criteria specified within the BRE Guidelines only suggests where a change in daylight may be noticeable to the occupants. It does not further define effects beyond this. As such, for the purposes of this assessment, effects beyond the levels suggested by the BRE Guidelines have been defined as minor, moderate or major using professional judgement, and by reference to the criteria summarised within the table below.

Significance	Description
Negligible	No alteration or a small alteration from the existing scenario which is within the numerical levels suggested in the BRE Guidelines.
Minor	Marginal infringements (20-29.9%) of the numerical values suggested in the BRE Guidelines, which should be viewed in context.
Moderate	Moderate infringements (30-39.9%) of the numerical values suggested in the BRE Guidelines, which should be viewed in context.
Major	Major infringements (40%+) of the numerical values suggested within the BRE Guidelines, which should be viewed in context.

4 Sources of Information

Site Photographs	-	Point 2 Surveyors
Site Survey	-	APR Services (914153)
Proposed Scheme 3D CAD Model	-	Maccreanor Lavington Architects
		140910_Masterplan.skp

5 The Site

5.1 The site is located in Central London in the London Borough of Camden.

Drawing Number: P297/10 – 3D View - Existing Buildings

5.2 The site is currently populated with a series of commercial units which form a dense continuous ribbon on the north side of Maygrove Road. Our understanding of the site location and the existing buildings which occupy the site can be seen within drawings P297/08, 09 & 10 which can be found within Appendix A.

6 The Scheme

Drawing Number: P297/16 – 3D View – Proposed Scheme

6.1 Our understanding of the proposed scheme is illustrated in drawings P297/14, 15 & 16 located in Appendix A.

7 The Neighbours

7.1 The following neighbouring properties contain residential accommodation and, due to their proximity to the development site, have been assessed in terms of the effects of the proposed development upon their daylight and sunlight amenity:

137-145 IVERSON RD
176 MAYGROVE RD
174 MAYGROVE RD
172 MAYGROVE RD
166-170 MAYGROVE RD
152-164 MAYGROVE RD
150 MAYGROVE RD
148 MAYGROVE RD
146 MAYGROVE RD
120-144 MAYGROVE RD
31 ARIEL ROAD
73 MAYGROVE ROAD
73A MAYGROVE ROAD (INTERLINK HOUSE)
BROOMSLEIGH RD FLATS
95-115 SUMATRA RD

8 Effects of the Scheme

8.1 The proposed scheme can be found illustrated within Appendix A. Results for each window/room/garden can be found in Appendix B.

137-145 Iverson Road

A row of three storey terraced houses located to the south east of the development site, whose rear elevations and garden areas are site facing.

Daylight

8.2 There are 38 windows serving 34 site facing residential rooms within these properties, all of which have been assessed.

8.3 All windows and rooms are fully BRE compliant in terms of both VSC and NSL alterations.

8.4 Overall, therefore, the effect of the proposed development upon the daylight amenity of these properties is considered to be negligible in nature.

Sunlight

8.5 There are no rooms within these buildings which has windows which are orientated to within 90^{o} of due south.

Overshadowing

8.6 The only time that the rear gardens of these properties will, as a consequence of the construction of the proposed scheme, experience any increase in the level of shadowing is between 8pm and 9pm in the height of summer. This is considered to be a very minor alteration and, in all likelihood, unlikely to be noticed by the occupants.

176 Maygrove Road

A three storey terraced house located to the south of the development site, whose front elevation is site facing.

Daylight

8.7 There are 11 windows serving 7 site facing residential rooms within this property, all of which have been assessed.

8.8 All windows and rooms are fully BRE compliant in terms of both VSC and NSL alterations.

8.9 Overall, therefore, the effect of the proposed development upon the daylight amenity of these properties is considered to be negligible in nature.

Sunlight

8.10 There are no rooms within these buildings which has windows which are orientated to within 90^{o} of due south.

Overshadowing

8.11 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

174 Maygrove Road

A three storey terraced house located to the south of the development site, whose front elevation is site facing.

Daylight

8.12 There are six windows serving four site facing residential rooms within this property, all of which have been assessed.

8.13 All six windows are fully BRE compliant in terms of VSC alterations. There is a minor NSL breach of guidance to one first floor room, which is assumed to be a bedroom. The affected room will, however, still benefit from direct skylight, at working plane height, to 74% of the room area, which is very good considering the dense sub-urban location of the building.

Sunlight

8.14 There are no rooms within this building which has windows which are orientated to within 90^{o} of due south.

Overshadowing

8.15 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

172 Maygrove Road

A three storey terraced house located to the south of the development site, whose front elevation is site facing.

Daylight

8.16 There are six windows serving four site facing residential rooms within this property, all of which have been assessed.

8.17 All six windows are fully BRE compliant in terms of VSC alterations. There are minor NSL breaches of guidance to the ground and first floor rooms. The affected rooms will, however, still benefit from direct skylight, at working plane height, to in excess of 70% of the room areas. This is very good considering the dense sub-urban location of the building and the fact that two of the rooms are likely to be bedrooms.

Sunlight

8.18 There are no rooms within this building which has windows which are orientated to within 90^{o} of due south.

Overshadowing

8.19 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

166-170 Maygrove Road

A row of three storey terraced houses located to the south of the development site, whose front elevations are site facing.

Daylight

8.20 There are 27 windows serving 15 site facing residential rooms within these properties, all of which have been assessed.

8.21 All windows and rooms are fully BRE compliant in terms of both VSC and NSL alterations with the exception of one of the three window panes in each of the ground floor bay windows experiencing very minor breaches of BRE guidance in VSC terms.

8.22 The BRE suggests that no window should experience a reduction of more than 20%. Each of the bay windows has a single pane (being 1 of 3 panes of glass which serve the same room) which experiences a change of less than 21.5%. This is considered minor.

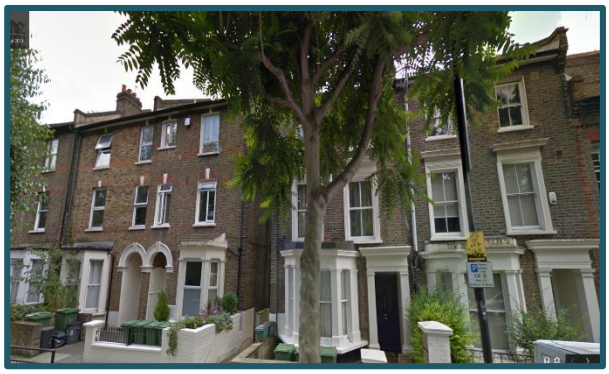
Sunlight

8.23 There are no rooms within this building which has windows which are orientated to within 90^{o} of due south.

Overshadowing

8.24 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

152-164 Maygrove Road



A row of three storey terraced houses located to the south of the development site, whose front elevations are site facing.

Daylight

8.25 There are 53 windows serving 31 site facing residential rooms within these properties, all of which have been assessed.

8.26 24 of the 31 rooms are fully BRE compliant in terms of both VSC and NSL alterations. One of the three window panes in each of the ground floor bay windows will experience up to a 21% reduction in VSC daylight against a suggested maximum of 20%. In each case this is just one glass pane of 3 glass panes which forms a bay window and permits light into the room.

8.27 This very small alteration will, however, also result in a minor breach of BRE guidance in NSL daylight terms. That said, each of the ground floor rooms served by the bay windows will continue to experience sky visibility to between 65% and 79% of their room areas. This penetration of light is very good considering the dense sub-urban location of these buildings and the retained levels at the window face are also very good.

Sunlight

8.28 There are no rooms within this building which has windows which are orientated to within 90^{o} of due south.

Overshadowing

8.29 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

146-150 Maygrove Road

A row of three storey terraced houses located to the south of the development site, whose front elevations are site facing.

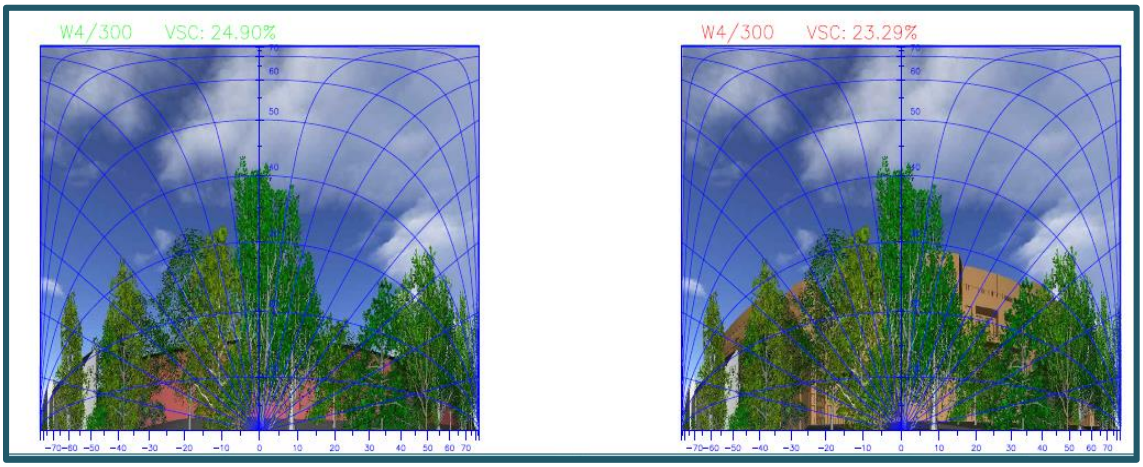
Daylight

8.30 There are 36 windows serving 12 site facing residential rooms within these properties, all of which have been assessed.

8.31 All of the windows are fully BRE compliant in terms of VSC alterations with the exception three of the window panes which form part of the bay windows in 148 & 150 Maygrove Road which are statistically in excess of the suggested 20% change but only to a trivial extent and all experience less than a 21% change.

8.32 There are minor to moderate NSL breaches of guidance to six of the rooms. This is caused by the increase in height of the proposed scheme compared to the existing buildings. The affected rooms will, however, still benefit from direct skylight, at working plane height to between 62% and 78% of their room areas. This is very good considering the dense sub-urban location of these buildings.

8.33 It is also worth noting, however, that whilst the increased massing of the proposed scheme will affect these six rooms in the manner described above, the dense continuous belt of trees between these properties and the development site will, in fact mask the majority of it from view. This can be seen below in the window face diagram illustrated from the centre of the window of the ground floor room in 146 Maygrove Road.



Sunlight

8.34 All of the rooms within this building are all fully compliant with the BRE guidelines relating to sunlight amenity.

8.35 Overall, therefore, the effect of the proposed development upon the sunlight amenity of this property is considered to be negligible in nature.

Overshadowing

8.36 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

120-144 Maygrove Road

A row of two storey terraced houses located to the south east of the development site, whose front elevations are site facing.

Daylight

8.37 There are 100 windows serving 44 site facing residential rooms within these properties, all of which have been assessed.

8.38 All windows and rooms are fully BRE compliant in terms of both VSC and NSL alterations.

8.39 Overall, therefore, the effect of the proposed development upon the daylight amenity of these properties is considered to be negligible in nature.

Sunlight

8.40 There are no rooms within these buildings which has windows which are orientated to within 90^{o} of due south.

Overshadowing

8.41 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

31 Ariel Road

A three storey terraced house located to the south west of the development site, whose front and side elevations are site facing.

Daylight

8.42 There are 11 windows serving 7 site facing residential rooms within this property, all of which have been assessed.

8.43 All windows and rooms are fully BRE compliant in terms of both VSC and NSL alterations.

8.44 Overall, therefore, the effect of the proposed development upon the daylight amenity of these properties is considered to be negligible in nature.

Sunlight

8.45 All of the rooms within this building are all fully compliant with the BRE guidelines relating to sunlight amenity.

8.46 Overall, therefore, the effect of the proposed development upon the sunlight amenity of this property is considered to be negligible in nature.

Overshadowing

8.47 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

73 Maygrove Road

A four storey residential block located to the west of the development site, whose side and rear elevations are site facing.

Daylight

8.48 There are five windows serving four site facing residential rooms within this property, all of which have been assessed.

8.49 All windows and rooms are fully BRE compliant in terms of both VSC and NSL alterations with the exception of one bedroom window which will experience a minor breach of BRE guidance in terms of VSC.

8.50 Overall, therefore, the effect of the proposed development upon the daylight amenity of these properties is considered to be negligible in nature.

Sunlight

8.51 There are no rooms within these buildings which has windows which are orientated to within 90^{o} of due south.

Overshadowing

8.52 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

73a Maygrove Road – Interlink House

A three storey block located to the west of the development site, which has been granted planning consent for conversion to residential usage.

Daylight

8.53 There are 64 windows serving 42 site facing residential rooms within this property, all of which have been assessed.

8.54 All windows and rooms are fully BRE compliant in terms of both VSC and NSL alterations.

8.55 Overall, therefore, the effect of the proposed development upon the daylight amenity of this property is considered to be negligible in nature.

Sunlight

8.56 All of the rooms within this building are all fully compliant with the BRE guidelines relating to sunlight amenity.

8.57 Overall, therefore, the effect of the proposed development upon the sunlight amenity of this property is considered to be negligible in nature.

Overshadowing

8.58 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

Broomsleigh Road Flats

A three storey residential block located to the north west of the development site.

Daylight

8.59 There are 6 windows serving 4 site facing residential rooms within this property, all of which have been assessed.

8.60 All windows and rooms are fully BRE compliant in terms of both VSC and NSL alterations.

8.61 Overall, therefore, the effect of the proposed development upon the daylight amenity of this property is considered to be negligible in nature.

Sunlight

8.62 All of the rooms within this building are all fully compliant with the BRE guidelines relating to sunlight amenity.

8.63 Overall, therefore, the effect of the proposed development upon the sunlight amenity of this property is considered to be negligible in nature.

Overshadowing

8.64 There are no areas of amenity space serving this building which are material for sun on the ground assessment.

95-115 Sumatra Road

A row of two and three storey terraced houses located to the north of the development site, whose rear elevations and gardens are site facing.

Daylight

8.65 There are 42 windows serving 40 site facing residential rooms within these properties, all of which have been assessed.

8.66 All windows and rooms are fully BRE compliant in terms of both VSC and NSL alterations.

8.67 Overall, therefore, the effect of the proposed development upon the daylight amenity of these properties is considered to be negligible in nature.

Sunlight

8.68 All of the rooms within this building are all fully compliant with the BRE guidelines relating to sunlight amenity.

8.69 Overall, therefore, the effect of the proposed development upon the sunlight amenity of this property is considered to be negligible in nature.

Overshadowing

8.70 The gardens of these properties will, as a consequence of the construction of the proposed scheme, experience some additional overshadowing in the spring and autumn months between 3pm and 5pm and during the winter months between 12pm and 2pm. The additional shadow is caused by the proposed Block B which, due to its height compared to the existing buildings, will cast longer shadows. Block B is, however, a slender building and, therefore, the shadow moves quickly which means that no individual garden will experience additional overshadowing for more than 1 hour. This is considered to be a minor alteration.

9 Proposed Accommodation

9.1 The assessment of the quality of daylight within the proposed residential accommodation has been undertaken using detailed Radiance daylight studies. This provides the most accurate way of measuring daylight within buildings and enables the reader to understand the intensity of light and its distribution across the room.

9.2 The drawings referred to below indicate the intensity of light at any given point, with the areas in red being very intense bright light and the areas in blue/mauve being less bright. In accordance with BRE Guidance and British Standard Guidance only key habitable rooms have formed the basis of technical analysis.

9.3 Each room is identified with an average daylight factor (ADF) which is a ratio or percentage of daylight which can be experienced outside the room under an unobstructed sky.

9.4 The BRE and British Standard provide for minimum levels of average daylight factor (ADF) being:

- Bedroom - 1%
- Living room - 1.5%
- Kitchen 2%

9.5 Proposed residential accommodation is to be located within Blocks B & C of the scheme. The lowest three residential floors of each block have been modelled and analysed as these lower floors have more limited levels of sky visibility and, therefore, describe the worst case within the proposed building. Daylight amenity will generally improve the higher within the building a residential room is located since the windows serving the rooms will, generally, have a greater view of the sky.

9.6 154 rooms in total have been modelled and analysed, of which 135 (88%) fully meet or exceed BRE and British Standard internal daylight amenity guidelines.

9.7 The results show that Block B will be fully BRE and British Standards compliant in terms of internal daylight amenity, with many of the rooms, even at the lowest three residential floors, exceeding the minimum recommended standards.

9.8 With regard to Block C, there are 16 south facing lounge/dining rooms, two lounge/kitchen/dining rooms and one kitchen in the lowest three residential floors which fall, mostly only marginally, short of the required ADF levels. The reason for this is due to the fact that the sky visibility to all of the windows serving these rooms is restricted by the balconies which provide amenity space to the rooms above them. All other rooms (96) will meet or exceed the daylight minima.

9.9 Overall, therefore, because the majority of the rooms will meet guidance, and the fact that the few rooms which fall short are, in the main, very close to target values but also have the benefit of private amenity space in the form of a large balcony, the internal daylight amenity within the Proposed Development is considered to be acceptable.

10 Conclusion

10.1 Detailed technical analysis has been undertaken to quantify the effect of the construction of the proposed 403 Liddell Road and Kingsland School scheme upon the daylight amenity of the neighbouring residential properties. This is summarised in the table below.

Property	Rooms experiencing fully BRE compliant daylight amenity alterations	Rooms experiencing daylight amenity alterations which are beyond BRE guidance and minor in nature	Rooms experiencing daylight amenity alterations which are beyond BRE guidance and moderate in nature	Total Number of rooms
137 - 145 IVERSON ROAD	34	0	0	34

Property	Rooms experiencing fully BRE compliant daylight amenity alterations	Rooms experiencing daylight amenity alterations which are beyond BRE guidance and minor in nature	Rooms experiencing daylight amenity alterations which are beyond BRE guidance and moderate in nature	Total Number of rooms
176 MAYGROVE ROAD	7	0	0	7
174 MAYGROVE ROAD	3	1	0	4
172 MAYGROVE ROAD	1	3	0	4
166-170 MAYGROVE RD	12	3	0	15
152-164 MAYGROVE RD	24	7	0	31
146-150 MAYGROVE RD	6	6	0	12
120-144 MAYGROVE RD	44	0	0	44
31 ARIEL ROAD	7	0	0	7
73 MAYGROVE ROAD	3	1	0	4
73A MAYGROVE ROAD INTERLINK HSE	42	0	0	42
BROOMSLEIGH ROAD FLATS	4	0	0	4
95-115 SUMATRA ROAD	40	0	0	40
Total	**227**	**21**	**0**	**248**

10.2 The effect of the construction of the proposed scheme upon 227 of the 248 surrounding residential rooms is considered to be negligible in nature on the basis that the NSL and VSC alterations, if any, to all of the rooms and windows are fully compliant with BRE guidance. This means that the occupants of these rooms are unlikely to notice any alteration to their levels of daylight amenity.

10.3 There are 21 rooms surrounding the site which will experience VSC and/or NSL alterations which are beyond BRE guidance. When considering the dense sub-urban location of these rooms, the retained daylight amenity values as well as the VSC and NSL alteration levels, the effect of the construction of the proposed scheme upon them is considered to be minor in nature.

10.4 All sunlight alterations to all properties, where applicable, are fully compliant with the relevant BRE guidance. This means that the occupants of the rooms are unlikely to notice any alteration to their levels of sunlight amenity.

10.5 With regard to overshadowing, the gardens serving the surrounding residential properties will not, as a consequence of the construction of the proposed scheme, experience anything greater than a minor increase in overshadowing. Any additional shadow is caused by Block B which, because the building is tall and slender, moves quickly. This means that no garden will experience additional shadow for longer than one hour.

10.6 The park area to the west of the development site will experience a small increase in shadow during the early morning hours. Once again, this moves quickly due to the slender nature of the westernmost blocks.

10.7 With regard to the daylight amenity levels of the residential units within the proposed scheme, these are generally better than the minimum levels recommended by the BRE & British Standards, even at the lowest levels which have been analysed. Where there are very small deviations from guidance, these occur within lounge/dining rooms served by private amenity space balconies, which restrict the extent of sky visibility to the windows. That, said, the daylight amenity levels are very close to guidance and the affected rooms have the benefit of a private outdoor area.

10.8 Overall, the proposed 403 Liddell Road and Kingsland School scheme will relate well to the neighbouring residential properties and gardens. Where there are deviations from BRE guidance in terms of VSC and NSL alterations these are considered to be minor in nature and acceptable in light of the retained VSC and/or NSL values which are commensurate with those in similarly dense sub-urban environments. The daylight amenity levels within the residential units of the scheme are considered to be good. We, therefore, fully support this application with regards to daylight, sunlight and overshadowing.

Appendix A – Drawings

Sources: MACCREANOR LAVINGTON
Proposed 3D CAD model of scheme (140910_Masterplan.skp)
Received 16/10/14

APR SERVICES
Site Survey (Job 914153)

POINT 2 SURVEYORS
Site Photos

Key:

Project: 403 LIDDELL ROAD / KINGSGATE SCHOOL
WEST HAMPSTEAD
CAMDEN
LONDON

Title: PLAN VIEW
EXISTING BUILDINGS

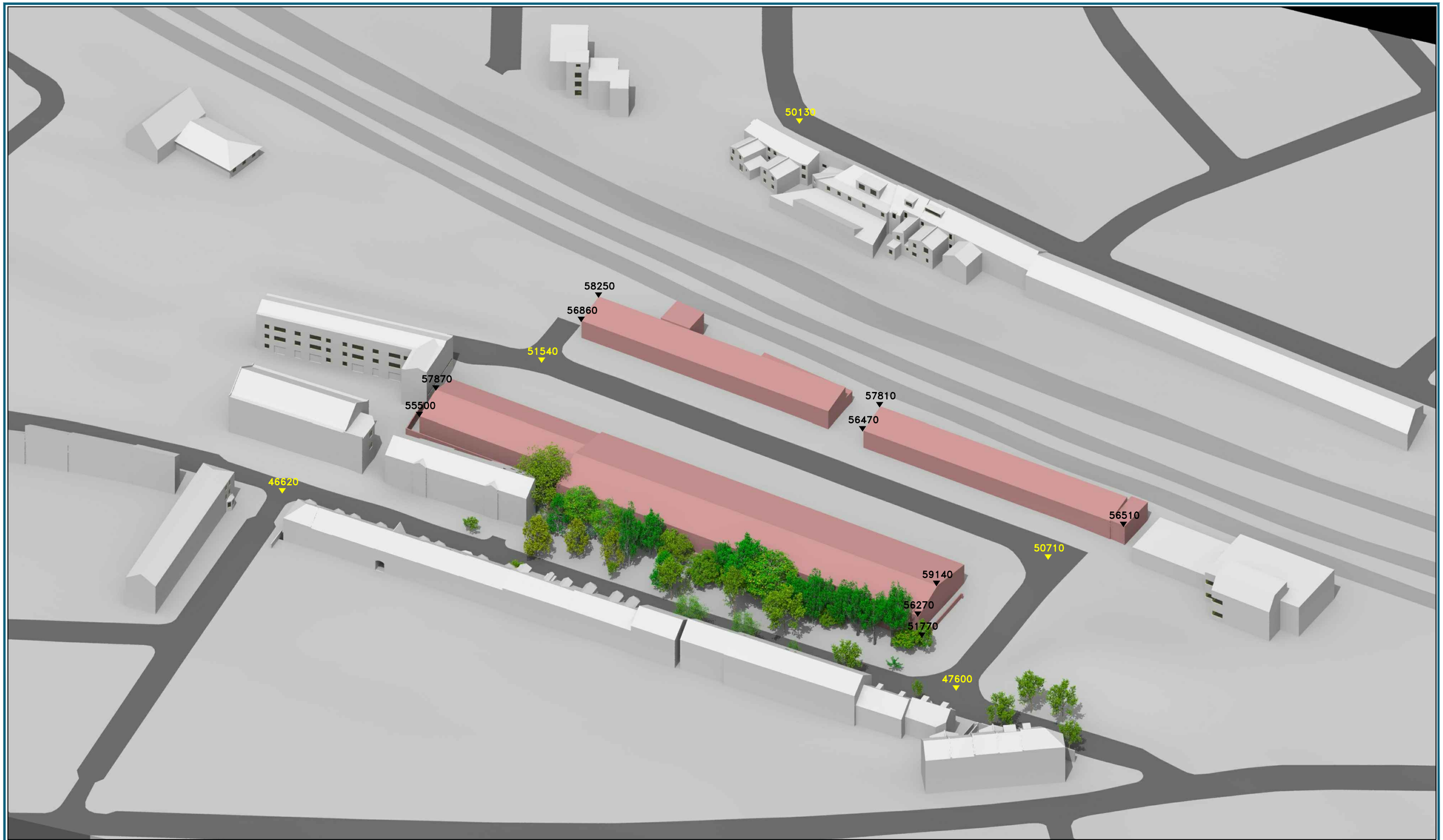
Point 2 Surveyors Ltd,
Centric House,
390 Strand,
London WC2R 0LT,
0207 836 5828
www.point2surveyors.com

Drawn By: JH

Scale: 1:1000

Date: OCT 14

Dwg No: **P297/08**



Sources: MACCREANOR LAVINGTON
Proposed 3D CAD model of scheme (140910_Masterplan.skp)
Received 16/10/14

APR SERVICES
Site Survey (Job 914153)

POINT 2 SURVEYORS
Site Photos

Key:

ALL HEIGHTS IN mm AOD

Project: 403 LIDDELL ROAD / KINGSGATE SCHOOL
WEST HAMPSTEAD
CAMDEN
LONDON

Title: 3D VIEW
EXISTING BUILDINGS

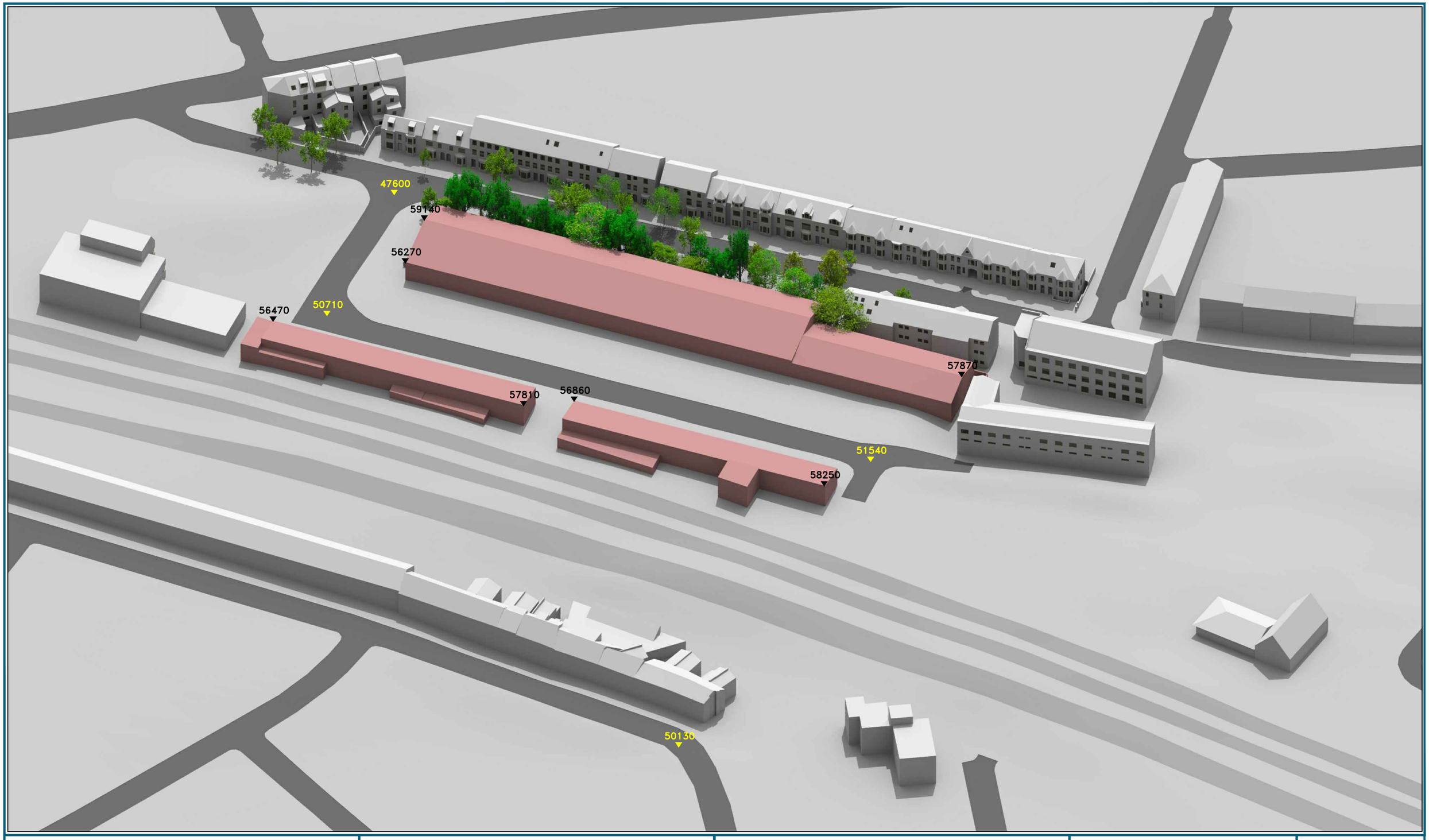
Point 2 Surveyors Ltd,
Centric House,
390 Strand,
London WC2R 0LT,
0207 836 5828
www.point2surveyors.com

Drawn By: JH

Scale: NTS

Date: OCT 14

Dwg No: **P297/09**



Sources: MACCREANOR LAVINGTON
Proposed 3D CAD model of scheme (140910_Masterplan.skp)
Received 16/10/14

APR SERVICES
Site Survey (Job 914153)

POINT 2 SURVEYORS
Site Photos

Key:

ALL HEIGHTS IN mm AOD

Project: 403 LIDDELL ROAD / KINGSGATE SCHOOL
WEST HAMPSTEAD
CAMDEN
LONDON

Title: 3D VIEW
EXISTING BUILDINGS

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Scale: NTS

Date: OCT 14

Dwg No: **P297/10**

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APR SERVICES
Site Survey (Job 914153)

POINT 2 SURVEYORS
Site Photos

Key:

Project: 403 LIDDELL ROAD / KINGSGATE SCHOOL
WEST HAMPSTEAD
CAMDEN
LONDON

Title: PLAN VIEW
PROPOSED SCHEME 11/11/14

Drawn By: JH

Scale: 1:1000

Date: NOV 14

Dwg No: **P297/14**

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