AnsteyHorne

expertise applied

DAYLIGHT & SUNLIGHT REPORT

for

PROPOSED DEVELOPMENT

at

106 SOUTH HILL PARK

LONDON NW3 2SN

REF: CR/JC/ROL00415
REV: -
6 APRIL 2020

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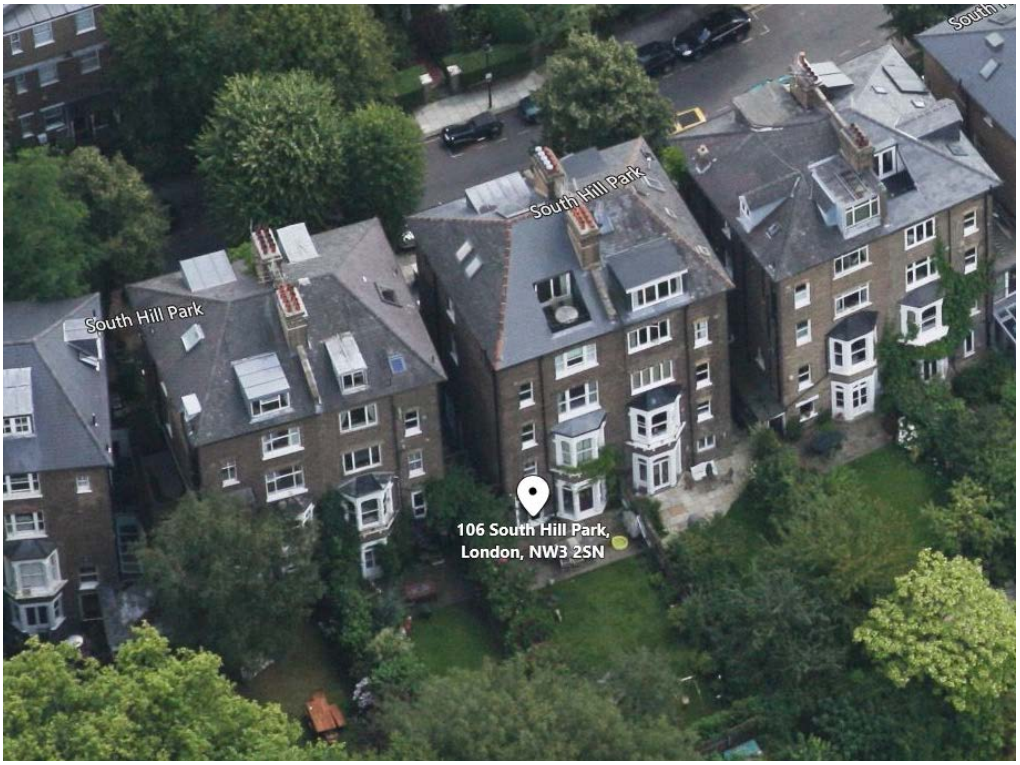


Figure 1: Oblique aerial photograph of the site looking south-east (Source: Microsoft Bing)

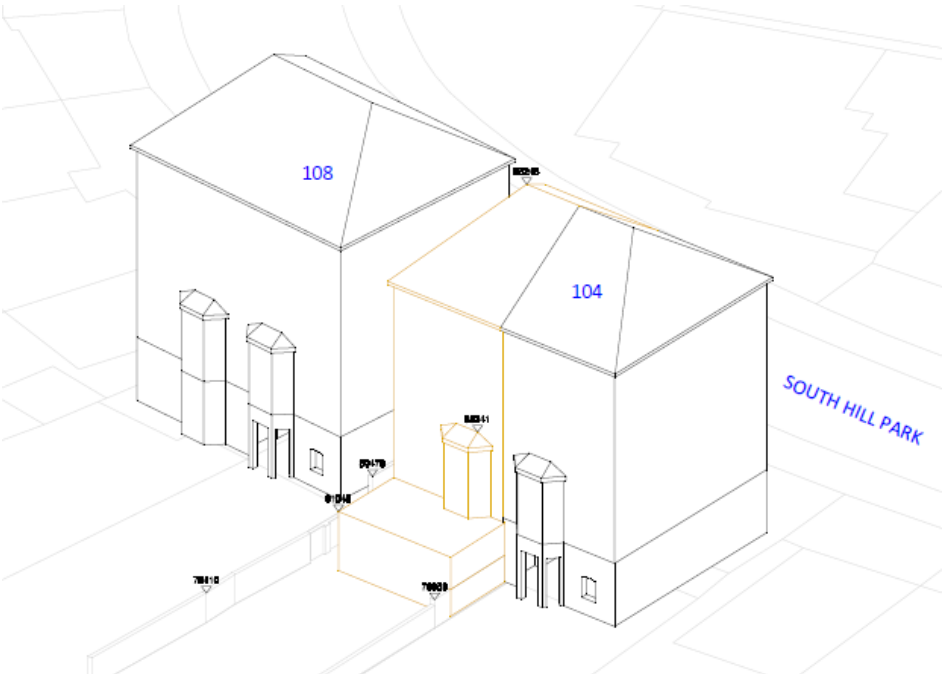


Figure 2: 3D view of computer model in the proposed condition

1. INTRODUCTION

1.1 Mr Lloyd Amsdon is proposing a development at 106 South Hill Park, London NW3 2SN.

1.2 The application site is a semi-detached 5-storey house situated toward the southern end of Hampstead Heath and adjoins 104 South Hill Park to the south and bounds 108 South Hill Park to the north.

1.3 Mr Amsdon is conscious of the need to minimise impact on the light to neighbouring residential properties and therefore instructed Anstey Horne to work with the project architect, Charlton Brown Architects, so that the effects of the proposed development could be properly understood and, wherever possible, minimised.

1.4 Anstey Horne has been commissioned to undertake a formal technical assessment of the effect of the proposed development upon the existing surrounding properties, having regard to the recommendations in BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (second edition, 2011).

1.5 Our study has been carried out using 3D computer modelling and our specialist computer simulation software. Our 3D model is shown in Figure 2 on page 1.

1.6 This report summarises the relevant planning policy, the basic principles of daylighting and sunlighting, the methods used to assess the potential impact of the development, the information used in compiling our 3D computer model and the results of our technical assessment. Drawings and full tables of results of our technical assessment are attached in the appendices.

2. QUALIFICATIONS AND EXPERIENCE

2.1 Anstey Horne is a firm of Chartered Surveyors regulated by the Royal Institution of Chartered Surveyors. We have a long-standing history of advising developers, neighbours and local planning authorities on the effects of proposed development on daylight and sunlight amenity to existing surrounding buildings and on the interior daylight and sunlight conditions within proposed development.

2.2 Anstey Horne's daylighting studies are undertaken using 3D computer modelling and specialist computer software, specifically written for the purposes of carrying out the tests described in BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice*. Our software has been in use for many years and the technical results have been utilised and accepted by the courts, local planning authorities and other consultants in hundreds of assessments for both common law and town planning purposes.

3. PLANNING POLICY AND GUIDANCE

National Planning Policy and Guidance

3.1 The Revised National Planning Policy Framework (February 2019) sets out the Government's planning policies and how these are expected to be applied. It provides a framework within which councils can produce their own local plans that reflect the needs and priorities of their communities.

3.2 Chapter 11 'Making effective use of land' states in paragraph 123(c) that:

"local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards)."

3.3 The Building Research Establishment, whose aims include achieving a higher quality built environment, publish BRE guidelines 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (second edition, 2011) by PJ Littlefair. This guide gives advice on site layout planning to retain good daylighting and sunlighting in existing surrounding buildings and achieve to it in new buildings. The guide is intended for use by designers, consultants and planning officials and notes that:

"The advice given here is not mandatory and this document should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer."

Regional Planning Policy and Guidance

<u>Mayor's London Plan</u>

3.4 The Mayor of London's '*London Plan – The Spatial Strategy for London Consolidated with Alterations since 2011*' (March 2016) sets out the spatial development strategy for London. It forms part of the development plan for Greater London, along with local plans of the London boroughs. *'Minor Alterations to the London Plan'* were published in 2015 and 2016.

3.5 Policy 7.6 (Architecture) states that:

"buildings and structures should … not cause unacceptable harm to the amenity of surrounding land and buildings, particularly residential buildings, in relation to privacy, overshadowing, wind and microclimate".

Local Planning Policy and Guidance

3.6 The development site is located within the London Borough of Camden.

3.7 Camden's Local Plan provides details about their planning policies (Adopted 2017). The Local Plan is valid from 2016 to 2031 and the policies relating to daylight, sunlight and overshadowing are as follows:

3.8 Section 6 of the Local Plan deals with the protection of amenity. In relation to managing the impact of development, section 6.2, Policy A1 states the following:

"The Council will seek to protect the quality of life of occupiers and neighbours. We will grant permission for development unless this causes unacceptable harm to amenity."

It goes on to state that daylight, sunlight and overshadowing are factors that will be considered, and more specifically explains the following:

"6.5. Loss of daylight and sunlight can be caused if spaces are overshadowed by development. To assess whether acceptable levels of daylight and sunlight are available to habitable, outdoor amenity and open spaces, the Council will take into account the most recent guidance published by the Building Research Establishment (currently the Building Research Establishment's Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice 2011). Further detail can be found within our supplementary planning document Camden Planning Guidance on amenity."

3.9 Under the heading 'Protection of public and private open spaces and land on housing estates', the effects of overshadowing are mentioned as follows:

"6.34. The success and viability of open spaces is closely linked to the scale, character and quality of the adjacent townscape and development. We will resist proposals which would affect the use and enjoyment of an open space through detrimental changes to its setting. This includes changes to the space's appearance or character, effects on the microclimate, levels of external light or noise pollution and overshadowing, overlooking or disruption to views in or out of the space."

3.10 We confirm that we have undertaken our daylight and sunlight study in accordance with BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (second edition, 2011).

4. BRE METHOD OF ASSESSMENT AND NUMERICAL GUIDELINES

Daylight to existing surrounding buildings

4.1 Section 2.2 of the BRE Report makes recommendations concerning the impact on daylight to existing buildings. In summary, the BRE report states that:

"If any part of a new building or extension, measured in a vertical section perpendicular to a main window wall of an existing building from the centre of the lowest window, subtends an angle of more than 25° to the horizontal, then the diffuse daylighting of the existing building may be adversely affected. This will be the case if either:

- *the VSC [vertical sky component] measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value; [or]*
- *the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value."*

4.2 So, where the angle to the horizontal subtended by the new development measured at the centre of the lowest window in an existing surrounding building (the angle of obstruction) is less than 25° (see Figure 3 below), the diffuse daylight to that building is unlikely to be significantly affected and need not be tested.

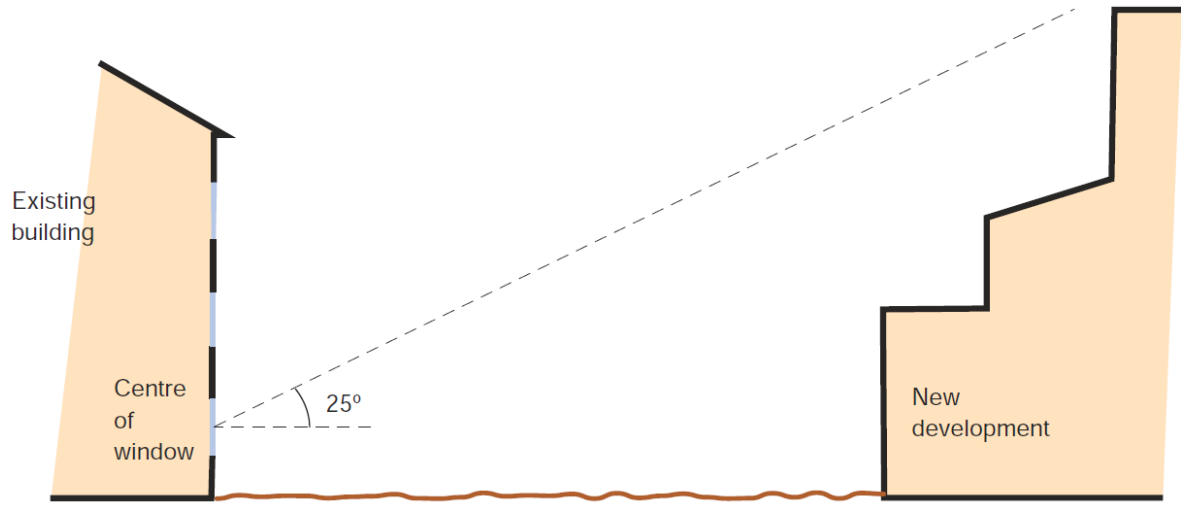


Figure 3 - Section perpendicular to a main window wall of an existing building showing a new development subtending an angle of less than 25° to the horizontal from the centre of the lowest window. (© BRE Report 209)

4.3 Where the obstruction angle is greater than 25°, both of the more detailed daylight tests should be undertaken, namely vertical sky component ('VSC') at the window and daylight distribution on the working plane. For each test the guidelines operate on the general principle that if the amount of daylight is reduced to less than 0.8 times its former value (i.e. there will be more than a 20% loss) the reduction will be noticeable to the building's occupants.

4.4 'Noticeable' does not necessarily equate to 'unacceptable' and the BRE's standard target values should not be considered as pass/fail criteria. Ultimately the local planning authority will need to make a judgement as to whether any impacts are acceptable when weighed against the many other planning considerations.

4.5 The VSC test measures the amount of skylight available at the centre of a window on the external plane of the window wall. It has a maximum value of almost 40% for a completely unobstructed vertical window wall. If a room has two or more windows of equal size, the mean of their VSCs may be taken. As the VSC calculation takes no account of the size of the window being tested, the size of the room it lights or multiple windows of unequal size, it does not measure light inside the room. It merely measures the potential conditions in the room. The VSC results can therefore be potentially misleading if considered in isolation and should be read in conjunction with those of the second test - daylight distribution.

4.6 The daylight distribution test calculates the area of the working plane inside a room that will have a direct view of the sky. This is done by plotting the no-sky line, i.e. the line on the working plane that divides those areas that receive direct skylight from those that do not, as shown in Figure 4 below.

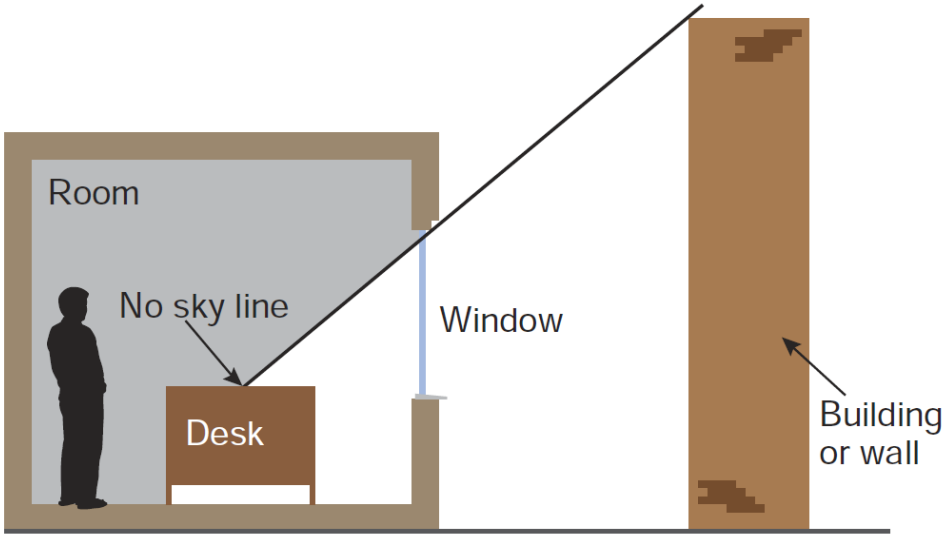


Figure 4 - The no-sky line divides areas of the working plan which can and cannot receive direct skylight.
(© BRE Report 209)

4.7 One benefit of the daylight distribution test is that the resulting contour plans show where the light falls within a room, both in the existing and proposed conditions, and a judgement may be made as to whether the room will retain light to a reasonable depth.

4.8 The BRE guidelines are intended for use for rooms in adjoining dwellings. They may also be applied to any existing non-domestic buildings where the occupants have a reasonable expectation of daylight, which could include schools, hospitals, hotels and offices. For dwellings it states that living rooms, dining rooms and kitchens should be assessed. Bedrooms should also be checked, although it states that they are less important. Other rooms, such as bathrooms, toilets, storerooms, circulation areas and garages need not be assessed.

4.9 Where rooms will not satisfy the standard numerical guidelines for VSC and/or daylight distribution it can be helpful to calculate the average daylight factor (ADF) for the room with the proposed development in place, so that a comparison may be made with the recommendations in BS8206-2:2008 *Lighting for buildings - Part 2: Code of practice for daylighting*. Appendix C of the BRE Report summarises BS8206, which recommends the following minimum ADFs in dwellings: 1% in bedrooms, 1.5% in living rooms and 2% in kitchens. The ADF test is intended for use in designing new buildings for satisfactory daylight, not for impact assessments. Nevertheless, the results can be of assistance to a local planning authority when judging whether an impact on daylight that is noticeable is nonetheless acceptable when considered in the broader town planning context.

Sunlight to existing surrounding buildings

4.10 Section 3.2 of the BRE Report makes recommendations concerning the impact on sunlight to existing dwellings or non-domestic buildings where there is a particular requirement for sunlight. The guide notes at paragraph 3.2.1 that:

"obstruction to sunlight may become an issue if:

- *some part of a new development is situated within 90° of due south of a main window wall of an existing building; and*
- *in the section drawn perpendicular to the existing window wall, the new development subtends an angle greater than 25° to the horizontal measured from the centre of the lowest window to a main living room."*

4.11 If these angle criteria are not met, the guide recommends a more detailed check to calculate the impact of the proposed development on the available sunlight.

4.12 The guide suggests:

"all main living rooms of dwellings, and conservatories, 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. In non-domestic buildings any spaces which are deemed to have a special requirement for sunlight should be checked; they will normally face within 90° of due south anyway." (BRE paragraph 3.2.3)

4.13 The available sunlight is measured in terms of the percentage of annual probable sunlight hours ('APSH') at the centre point of the window. 'Probable sunlight hours' is defined as:

"the long-term average of the total number of hours during a year in which direct sunlight reaches the unobstructed ground (when clouds are taken into account)."

4.14 Paragraph 3.2.11 of the BRE Report summarises its sunlight guidance as follows:

"If a living room of an existing dwelling has a main window facing within 90º of due south, and any part of a new development subtends an angle of more than 25º to the horizontal measured from the centre of the window in a vertical section perpendicular to the window, then the sunlighting of the existing dwelling may be adversely affected. This will be the case if the centre of the window:

- *receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March and*
- *receives less than 0.8 times its former sunlight hours during either period and*
- *has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours".*

Sunlight to existing surrounding gardens and open spaces

4.15 Section 3.3 of the BRE Report makes recommendations concerning the impact of proposed development on sunlight to open spaces between buildings, such as main back gardens of houses, allotments, parks and playing fields, children's playgrounds, outdoor swimming pools, sitting-out areas, such as in public squares and focal points for views, such as a group of monuments or fountains. The guide recommends that the level of overshadowing on such areas should be checked on the equinox (21 March).

4.16 The BRE Report recognises that each of these spaces has different sunlighting requirements and that it is difficult to suggest a hard and fast rule. It recommends that at least half of the amenity area should receive at least two hours of sunlight on the equinox on 21 March.

4.17 When assessing the impact of a proposed development on the level of overshadowing of an existing open amenity, the BRE guide recommends that:

"if, as a result of new development the area which can receive two hours of direct sunlight on 21 March is reduced to less than 0.8 times its former size, this further loss of sunlight is significant. The garden or amenity area will tend to look more heavily overshadowed".

4.18 Sunlight at an altitude of 10° or less does not count, because it is likely to be blocked by planting anyway. Driveways and hard standing for cars is usually left out of the area calculation. Around housing, front gardens which are relatively small and visible from public footpaths can be omitted with only main back gardens needing to be analysed.

4.19 Fences or walls less than 1.5 metres high can be ignored. The guide notes that:

"normally, trees and shrubs need not be included, partly because their shapes are almost impossible to predict, and partly because the dappled shade of a tree is more pleasant than a deep shadow of a building".

This is especially the case for deciduous trees, which provide welcome shade in the summer whilst allowing sunlight to penetrate during the winter months.

4.20 Paragraph 3.3.13 of the BRE guide notes that:

"where a large building is proposed which may affect a number of gardens or open spaces, it is often illustrative to plot a shadow plan showing the location of shadows at different times of day and year".

Computer simulation

4.21 Appendix A of the BRE guide describes a method for calculating VSC and APSH using various indicator templates and Appendix D shows how the no-sky line may be plotted inside a room. Where the obstructions on the skyline are complex these manual methods can be difficult to apply and the results can be crude. We therefore prefer to use computer simulation and our specialist software, which is based on the more accurate Waldram method, which is described in Appendix B of the BRE guide.

4.22 The information upon which our computer model was based is explained in the section 6 of this report.

5. APPLICATION OF BRE GUIDELINES

Flexible application of the guidelines

5.1 In its introduction the BRE Report 209 (second edition, 2011) states:

- *(Its) "main aim is … to help to ensure good conditions in the local environment, considered broadly, with enough sunlight and daylight on or between buildings for good interior and exterior conditions."* (BRE paragraph 1.5)

- *"The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and this document should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer."* (BRE paragraph 1.6)

- *"Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design."* (BRE paragraph 1.6)

5.2 Clearly, the BRE guide is an advisory document, not a rigid set of rules. Care must therefore be taken to apply its recommendations in a manner fitting to the location of the proposed development.

Alternative target values

5.3 In theory the BRE report's numerical guidelines may be applied to any setting, whether that is a city centre, suburban area or rural village. However, it notes:

"In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings… The calculation methods … are entirely flexible in this respect." (BRE paragraph 1.6)

5.4 At paragraph 2.2.3 the guide states:

"Note that numerical values given here are purely advisory. Different criteria may be used, based upon the requirements for daylighting in an area viewed against other site layout constraints."

5.5 Appendix F of the BRE Guide gives advice on setting alternative target values for skylight access. At page 62 it states:

"different targets may be used, based on the special requirements of the proposed development or its location".

5.6 Clearly, rigid application of the numerical guidelines could well give rise to an inappropriate answer and form of development for city centre sites, in which case it may be appropriate to adopt lower target values that are more appropriate to the location concerned.

Proximity of neighbouring building to the boundary

5.7 The BRE guide permits the reasonableness or otherwise of the distance of the neighbouring building from the boundary to be taken into account. At paragraph 2.2.3 it states:

"Another important issue is whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and taking no more than its fair share of light".

Interpretation of relative impacts

5.8 Except where the BRE guide's specified minimum values will be retained in the proposed condition (see paragraphs 4.1, 4.14 and 4.16 above), guide advises that a loss of light will be noticeable if the amount retained will be less than 0.8 times its former value. (We refer to this as the 'BRE 0.8 guideline'.) Care must be taken when interpreting the 'relative impact' figures (in the columns marked "factor of former value" in the tables of results), because where an existing value is low even a small reduction in real terms can manifest itself as a large relative impact. For example a reduction from 6% VSC to 3% VSC will appear as a reduction to 0.5 times its former value, and is therefore a transgression of the guidelines in theory, but in reality a loss of 3% VSC is very small and would be barely perceptible.

5.9 When the BRE launched the second edition of their guidelines in 2011, they cited the above logic as the reason for introducing the third tier to their sunlight criteria, as referred to in paragraph 4.14 above, namely that sunlight will be adversely affected where it is reduced below 25% APSH annually or 5% APSH in winter and to less than 0.8 times its former value and where the reduction annually is greater than 4% APSH.

Balconies, projecting wings and other self-obstructing projections

5.10 The BRE guide acknowledges that balconies and projecting wings to existing neighbouring buildings artificially limit the available daylight and sunlight and, as a consequence, larger relative reductions in light may be unavoidable. More specifically it states:

"Existing windows with balconies above them typically receive less daylight. Because the balcony cuts out light from the top part of the sky, even a modest obstruction opposite may result in a large relative impact on the VSC, and on the area receiving direct skylight. One way to demonstrate this would be to carry out an additional calculation of the VSC and area receiving direct skylight, for both the existing and proposed situations, without the balcony in place. For example, if the proposed VSC with the balcony was under 0.8 times the existing value with the balcony, but the same ratio for the values without the balcony was well over 0.8, this would show that the presence of the balcony, rather than the size of the new obstruction, was the main factor in the relative loss of light." (BRE paragraph 2.2.11)

"A larger relative reduction in VSC may also be unavoidable if the existing window has projecting wings on one or both sides of it, or is recessed into the building so that it is obstructed on both sides as well as above." (BRE paragraph 2.2.12)

"Balconies and overhangs above an existing window tend to block sunlight, especially in summer. Even a modest obstruction opposite may result in a large relative impact on the sunlight received. One way to demonstrate this would be to carry out an additional calculation of the APSH, for both the existing and proposed situations, without the balcony in place. For example, if the proposed APSH with the balcony was under 0.8 times the existing value with the balcony, but the same ratio for the values without the balcony was well over 0.8, this would show that the presence of the balcony, rather than the size of the new obstruction, was the main factor in the relative loss of sunlight." (BRE paragraph 3.2.9)

5.11 Clearly, where windows are inset or self-obstructed by balconies or other projections they will be unusually sensitive to changes in massing opposite and transgressions of the BRE's default numerical guidelines are more likely to arise. In such circumstances flexible application of the guidelines is very important.

Deep rooms

5.12 The BRE guide advises that light penetration into deep rooms lit from one side only may be unavoidably affected. At paragraph 2.2.10 it states

"The guidelines … need to be applied sensibly and flexibly. There is little point in designing tiny gaps in the roof lines of new development in order to safeguard no sky lines in existing buildings. If an existing building contains rooms lit from one side only and greater than 5 m deep, then a greater movement of the no sky line may be unavoidable."

6. INFORMATION USED IN THE TECHNICAL STUDY

6.1 In order to carry out the tests recommended in the BRE Report, we commenced by building a 3D computer model of the existing buildings on the site, the existing surrounding buildings to be studied, other relevant background massing and the proposed scheme. The computer model is illustrated on the drawings at Appendix A and is based on the information listed below.

Proposed scheme:

- Charlton Brown's drawings of the proposed scheme: Drawings received on 16 March 2020.

Existing building on the site and existing surrounding buildings:

- On Centre Surveys Ltd measured survey drawing nos. 25928A-1 to 25928A-8
- OS map
- Aerial photography from Microsoft Bing
- Site photographs

Internal arrangements within existing surrounding buildings:

Property	Drawings with planning application ref.
104 South Hill Park	2012/2766/P
108 South Hill Park	Internal layouts assumed

6.2 Where plans of the existing surrounding buildings were not available, we estimated the internal arrangements and room uses based on an external inspection. Where we have had to estimate internal arrangements and room uses, this has no bearing upon the tests for VSC or APSH because the reference point is at the centre of the window. It is relevant to the daylight distribution assessment, but in the absence of suitable plans, estimation is a conventional approach.

7. SCOPE OF TECHNICAL STUDY

7.1 In our experience local planning authorities are usually only concerned with the impact on dwellings and, perhaps, schools, hospitals and nursing homes. This is the basis on which we have scoped our technical study.

7.2 Having regard to the preliminary 25°-line test and orientation test recommended in the BRE Report, as explained above in paragraphs 4.1 to 4.3 and 4.10, we have calculated the impact of the proposed development on the daylight and sunlight levels to relevant rooms in the following existing surrounding buildings:

Table 1 - Scope of assessments

Properties	Daylight	Sunlight	Sunlight to gardens
104 South Hill Park	Yes	Yes	Yes
108 South Hill Park	Yes	Yes	Yes

7.3 We have only tested the impact on the main rooms with the potential to be impacted in each property, as advised in the BRE guidelines. It is not necessary to test staircases, hallways, bathrooms, toilets etc.

7.4 Each of the existing surrounding buildings tested is shown labelled on the plan views of the computer model on our drawings at Appendix A of this report.

7.5 The daylight distribution contour plans at Appendix F show the window positions and room layouts that have been tested in each of the buildings concerned.

7.6 We have calculated the impact of the proposed development on sunlight on 21 March to the gardens at 104 and 108 South Hill Park. The locations of these spaces and the proportion of each that receives at least two hours of sunlight on 21 March in the existing and proposed conditions are shown on our drawings at Appendix G.

8. IMPACT UPON SURROUNDING PROPERTIES

8.1 In this section of the report we set out our analysis of the results of our impact study under the headings of daylight and sunlight. For each element we will provide commentary on the results taking each property, or groups of properties, in turn.

8.2 To re-cap briefly on the assessment criteria explained in section 5, each of the tests is run in the existing and proposed condition so that the daylight and sunlight levels before and after development are quantified and the relative change is determined. Except where the BRE guide's specified minimum values will be retained in the proposed condition, it advises that a loss of light will be noticeable if the amount retained will be less than 0.8 times its former value (the "BRE 0.8 guideline").

Daylight to existing surrounding buildings

8.3 The numerical results of the vertical sky component ('VSC') test are tabulated at Appendix B. For the daylight distribution test, numerical results are tabulated at Appendix C and no-sky contour plans are shown on our drawings at Appendix F. On the plans, the area of the room with a view of sky in the proposed condition is enclosed by the red contour and in the existing condition by the green contour. Where there will be no effect on the no-sky contour the red contour sits on top of the green one and only the red contour is visible. Where there will be a change, the areas of the room that will either lose or gain a view of sky are cross-hatched black.

<u>104 South Hill Park</u>

8.4 This semi-detached house is divided in to flats and adjoins the proposed site to the south. Windows in the rear, north west elevation are in view of the proposed extension; the potential for the lower ground floor flat to experience changes in the levels of daylight received has been identified and forms part of this assessment. Our modelling of the assessed room within this property is based on plans obtained from Camden's online planning application database and contained within the planning application reference number 2012/2766/P. The layouts used in the analysis and resulting daylight distribution contours are shown on drawing no. ROL00415_R01_V01_101-01.

8.5 The results using the VSC test show that 2 of the 3 windows in the bay at lower ground floor would continue to adhere with the BRE guidelines following introduction of the proposed extension. The exception is a secondary window closest to the development that retains 0.45 of the value in the current conditions. It is important to note here that the BRE emphasises the effect on the main window serving a bay and, in this instance, the main window (reference W2 on the appended drawings and results spreadsheet) adheres to the BRE guidelines, retaining 0.87 of the current value.

8.6 As mentioned above at paragraph 4.9, the ADF test for daylight is generally intended for use in new building design however, it can also be useful to consider the results alongside those of the VSC and daylight distribution tests. Our results show that the combined use lounge, kitchen and dining room would maintain 1.85% ADF, and 0.88 of the existing value. Although this test method is not recommended for impact assessments, in our view the reduction does not amount to a significant change in absolute daylight level. Furthermore, the results of the daylight distribution test show that the room would be virtually unaffected and would maintain access to almost the same level of sky visibility as that currently experienced.

8.7 Our results show that the windows and rooms assessed for daylight would adhere to the BRE guidelines using the VSC and NSL test methods. The ADF test results show a slight deviation to a level below the BRE recommendation for that specific room use (2% ADF) however, the absolute change in daylight equates to 0.26% ADF and in our view is unlikely to cause a noticeable effect.

<u>108 South Hill Park</u>

8.8 This semi-detached house neighbours the proposed site to the north, but there is separation distance of approximately 2 metres between the properties. Windows in the rear, north west elevation are in view of the proposed extension at an angle and as with 104 South Hill Park mentioned above, the lower ground floor is the only part of the property at risk of experiencing changes to the levels of daylight received. We were not able to obtain plans for this property, therefore we have assumed the internal arrangements based on those obtained for an adjacent property that appear likely, using our professional judgement, to contain similar layouts. The layouts used in the analysis and resulting daylight distribution contours are shown on drawing no. ROL00415_R01_V01_102-01.

8.9 The results using the VSC test show that all the assessed windows would continue to adhere with the BRE guidelines following the introduction of the proposed extension. The same is true when reviewing the results of the NSL test and the ADF test results show that the assessed room would be virtually unaffected by retaining 0.99 of the current value.

Sunlight to existing surrounding buildings

8.10 In terms of sunlight, the BRE Report states that neighbouring windows orientated within 90 degrees of due south require testing. The windows within view of the proposed extension do not qualify on this basis, and therefore in line with the BRE recommendations these windows have not been assessed.

104 South Hill Park

8.11 One of the windows in the bay window is orientated within 90 degrees of due south. Our results show full adherence to the BRE guidelines.

108 South Hill Park

8.12 As with 104 South Hill Park mentioned above, one of the windows is orientated within 90 degrees of due south and our results show full adherence to the BRE guidelines.

Sunlight to surrounding gardens and open spaces

8.13 In accordance with the BRE guide we have calculated the effect on the gardens at 104 and 108 South Hill Park by plotting the two-hour sun contour on 21 March in the existing and proposed condition as shown on our drawings at Appendix G. The parts of each garden receiving at least two hours of sunlight are shaded yellow and expressed as a percentage on the drawings. The figures are also set out in Table 2 below, along with the factor by w the existing sunlit area will change as a consequence of the proposed development.

Table 2 - Summary of two-hour sun-on-ground results

Address	Area ref.	Proportion in sun for ≥ 2 hrs on 21 March		Factor of former value
		Existing	Proposed	
104 South Park Hill	A1	99.51%	99.51%	1.00
108 South Park Hill	A2	94.79%	93.86%	1.00

8.14 The results of the two-hour sun contour test confirm that the neighbouring gardens would adhere to the BRE guidelines.

9. SUMMARY AND CONCLUSION

9.1 Camden's planning policy seeks to safeguard daylight and sunlight to existing buildings and points to the guidance published in BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice*.

9.2 We have undertaken a study of the impact of the proposed development on the relevant rooms in the surrounding houses. The tests were undertaken in accordance with the BRE Report 209, *Site Layout Planning for Daylight and Sunlight: A guide to good practice* (second edition, 2011). The BRE guide gives useful advice and recommends various numerical guidelines by which to assess the impact of development on daylight and sunlight to existing surrounding properties.

9.3 Using the BRE recommended test methods for daylight and sunlight to existing neighbouring dwellings, our results show that the neighbouring dwellings would remain BRE adherent following introduction of the proposed extension.

9.4 Camden often request an additional daylight test for existing dwellings – our results using the ADF test show that the assessed room at 104 South Hill Park would deviate slightly below the BRE recommended level for that specific room use. However, it is useful to understand the context of this reduction in that it is relatively small in absolute terms, and in our view unlikely to materially alter the use and enjoyment of the room.

9.5 The results of our analysis demonstrate that the assessed neighbouring properties would continue to receive similar levels of daylight and sunlight amenity, using all the test methods, following introduction of the proposed extension. Therefore, we consider the potential effects of the proposed extension to be in line with BRE guidelines and more importantly the policies contained with Camden's adopted Local Plan.

……..

ANSTEY HORNE

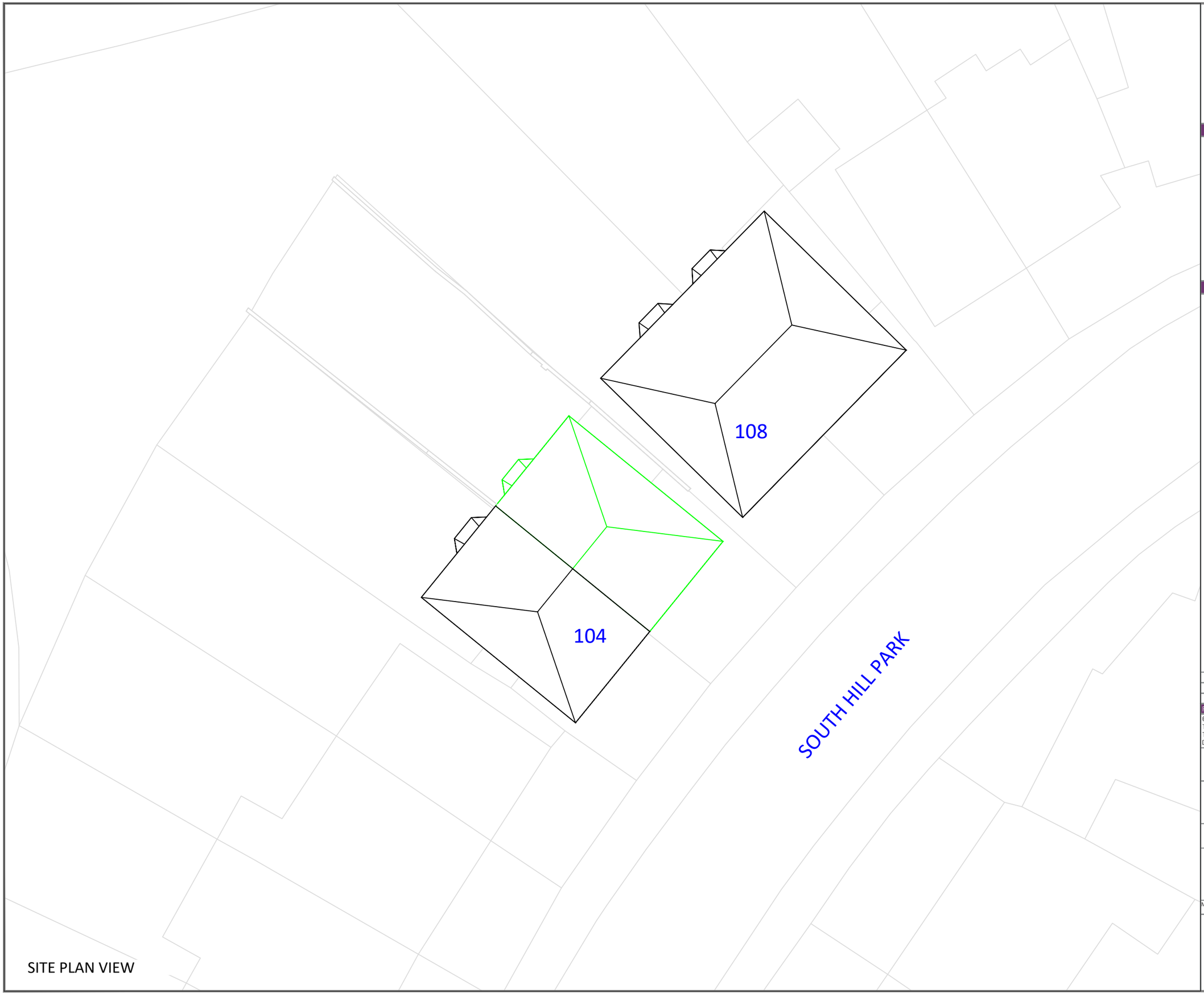
06 April 2020

APPENDIX A

-

PLAN AND 3D VIEWS OF THE COMPUTER MODEL

DRAWING NOS. ROL00415_R01_V01_001 TO 006



SITE PLAN VIEW

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Existing
- Proposed
- AOD Height (mm) 12120
- Consented
- Cutback

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
ON CENTRE SURVEYS LTD
Received on 30/09/19

Site and aerial photos.

PROPOSED BUILDINGS
CHARLTON BROWN ARCHITECTS LTD
Received on 16/03/19

0m 2m 4m 6m 8m 10m

REV	DESCRIPTION	DATE

CLIENT: MR LLOYD AMSDON

PROJECT TITLE: 106 SOUTH HILL PARK
LONDON
NW3 2SP

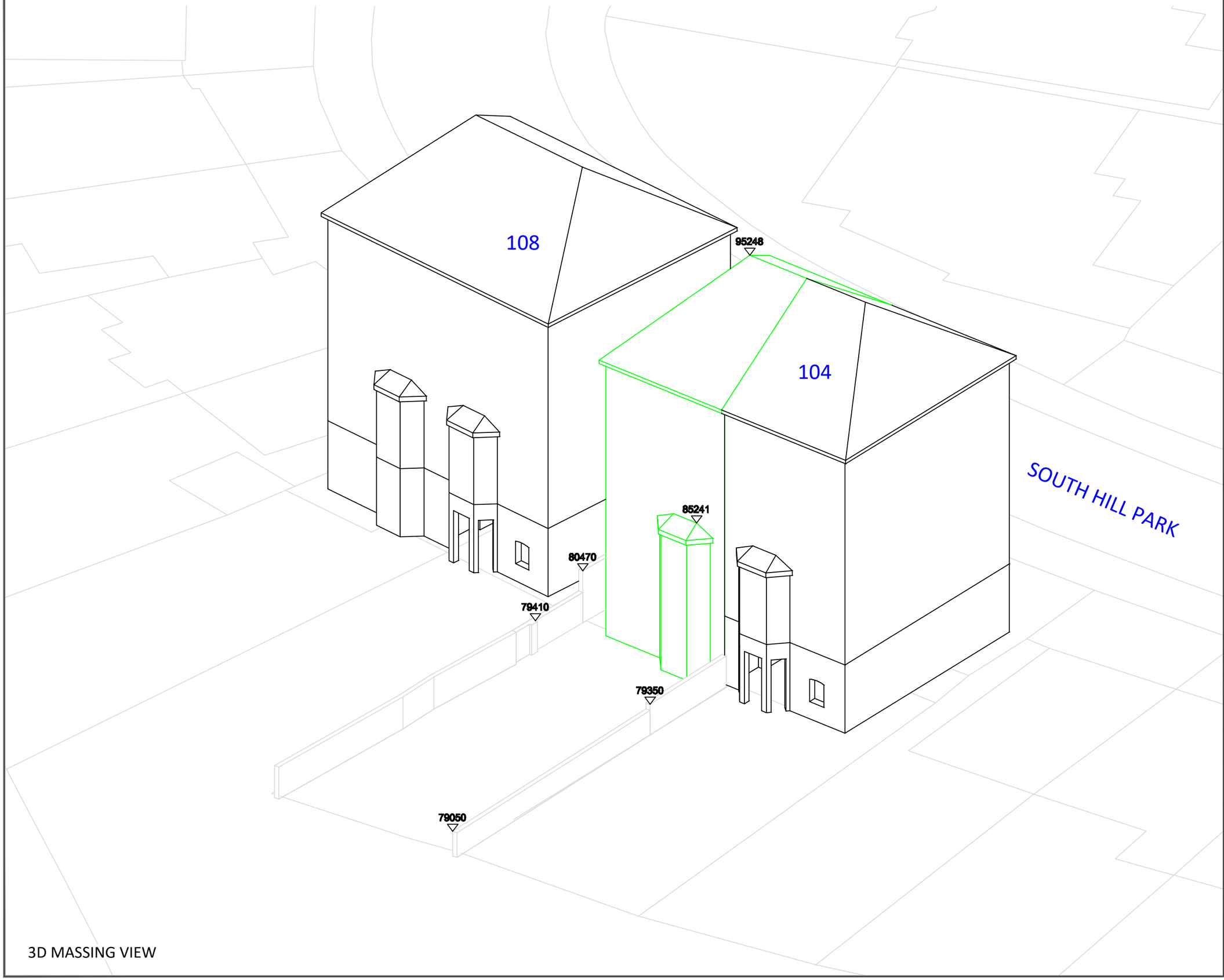
SCHEME REF: SCHEME RECEIVED: 16/03/19

DRAWING TITLE: SITE PLAN VIEW
EXISTING CONDITION

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
BS	02/04/19	1:200	A3

PROJECT No:__RELEASE No:__VERSION No:	DRAWING No:
ROL00415_R01_V01_	001

Site Plan



3D MASSING VIEW

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Existing
- Consented
- Proposed
- Cutback
- 12120 AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
ON CENTRE SURVEYS LTD
Received on 30/09/19

Site and aerial photos.

PROPOSED BUILDINGS
CHARLTON BROWN ARCHITECTS LTD
Received on 16/03/19

REV	DESCRIPTION	DATE

CLIENT: MR LLOYD AMSDON

PROJECT TITLE: 106 SOUTH HILL PARK
LONDON
NW3 2SP

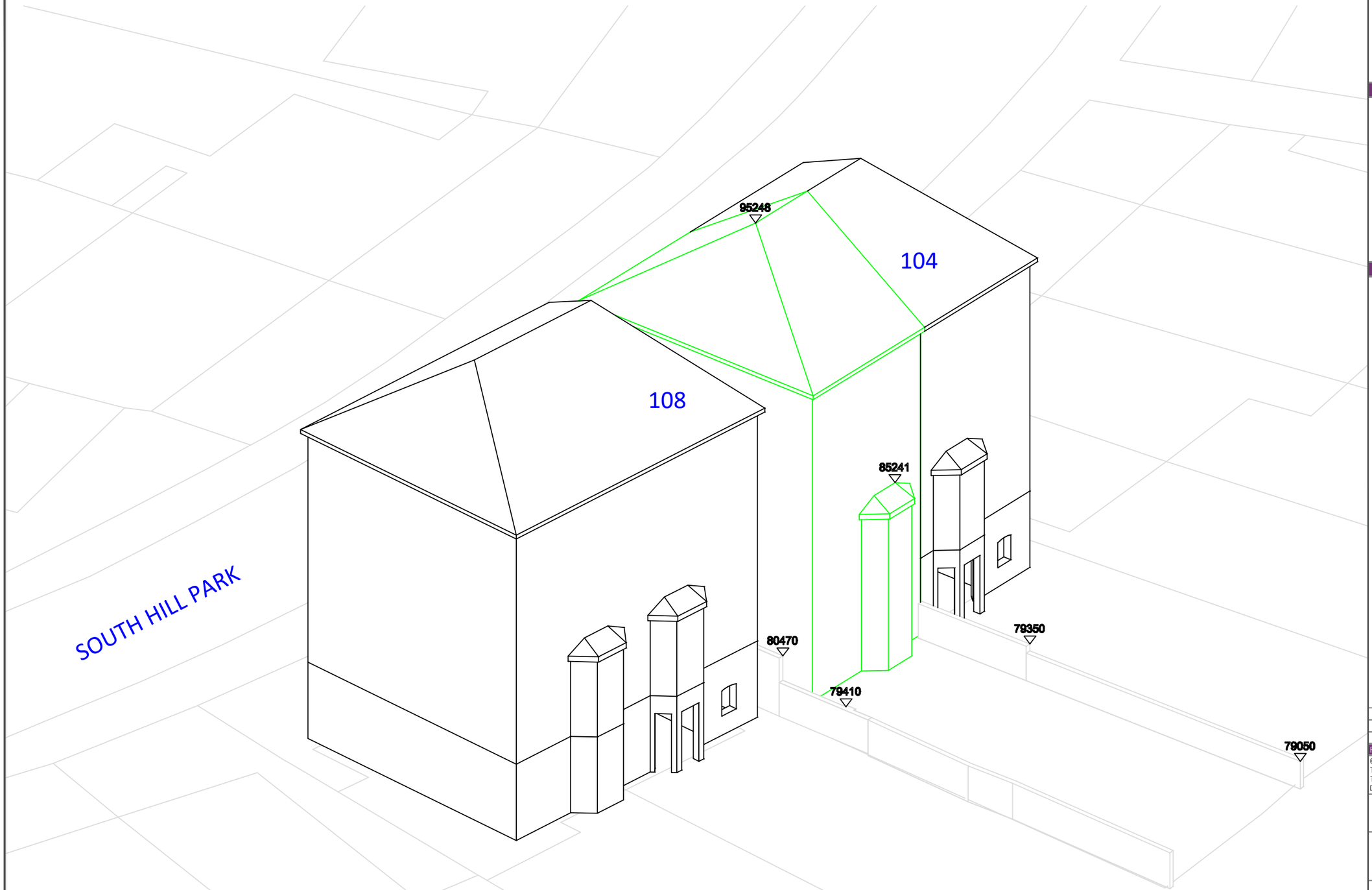
SCHEME REF: SCHEME RECEIVED: 16/03/19

DRAWING TITLE: 3D MASSING MODEL VIEW
EXISTING CONDITION

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
BS	02/04/19	N.T.S.	A3

PROJECT No:__RELEASE No:__VERSION No:	DRAWING No:
ROL00415_R01_V01_	002

3D Massing Model



3D MASSING VIEW

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Existing
- Consented
- Proposed
- Cutback
- 12120 AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
ON CENTRE SURVEYS LTD
Received on 30/09/19

Site and aerial photos.

PROPOSED BUILDINGS
CHARLTON BROWN ARCHITECTS LTD
Received on 16/03/19

REV	DESCRIPTION	DATE

CLIENT: MR LLOYD AMSDON

PROJECT TITLE: 106 SOUTH HILL PARK
LONDON
NW3 2SP

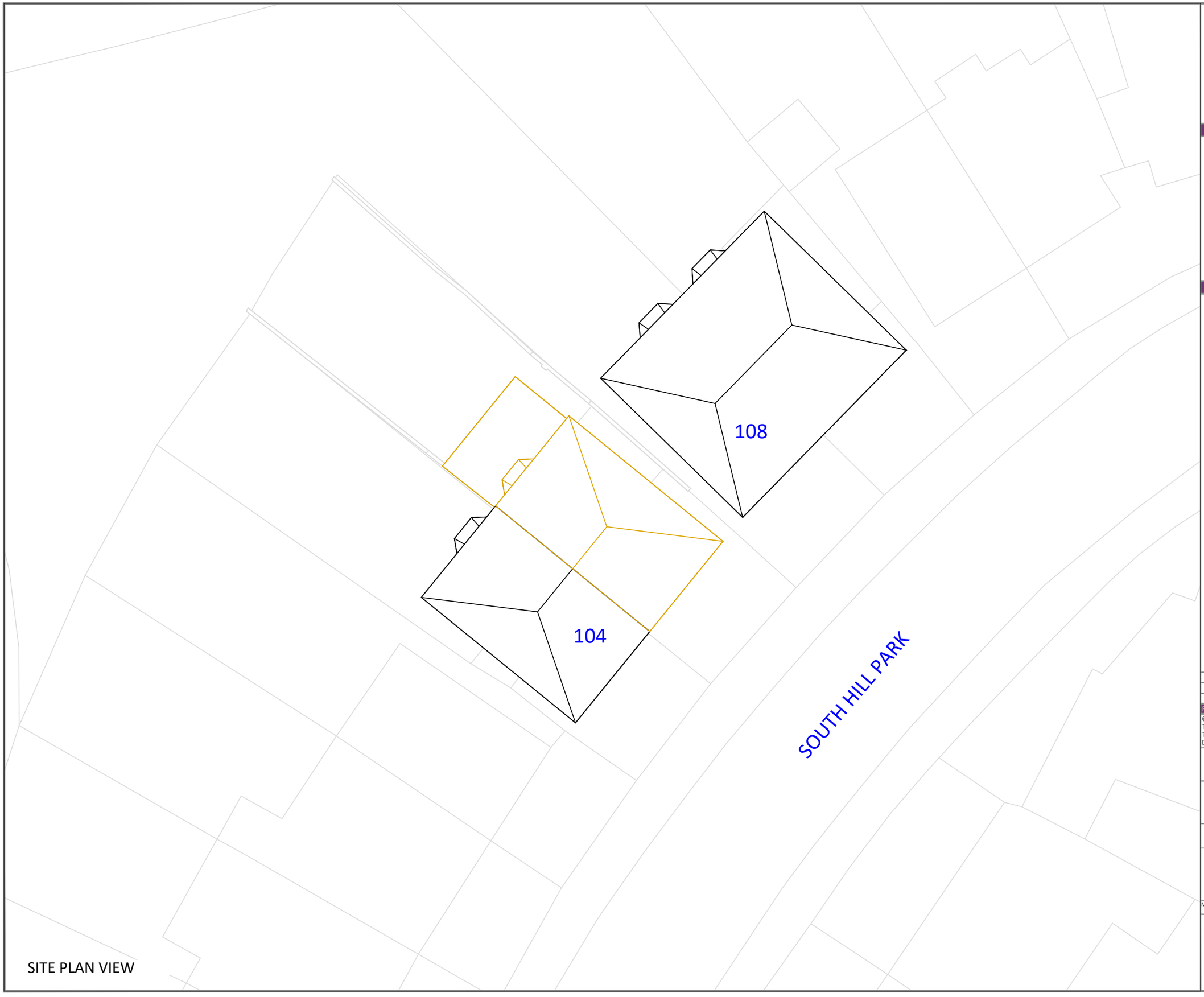
SCHEME REF: SCHEME RECEIVED: 16/03/19

DRAWING TITLE: 3D MASSING MODEL VIEW
EXISTING CONDITION

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
BS	02/04/19	N.T.S.	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00415_R01_V01_			003

3D Massing Model



SITE PLAN VIEW

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Existing
- Proposed
- AOD Height (mm) 12120
- Consented
- Cutback

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
ON CENTRE SURVEYS LTD
Received on 30/09/19

Site and aerial photos.

PROPOSED BUILDINGS
CHARLTON BROWN ARCHITECTS LTD
Received on 16/03/19

N W E S

0m 2m 4m 6m 8m 10m

REV	DESCRIPTION	DATE

CLIENT: MR LLOYD AMSDON

PROJECT TITLE: 106 SOUTH HILL PARK
LONDON
NW3 2SP

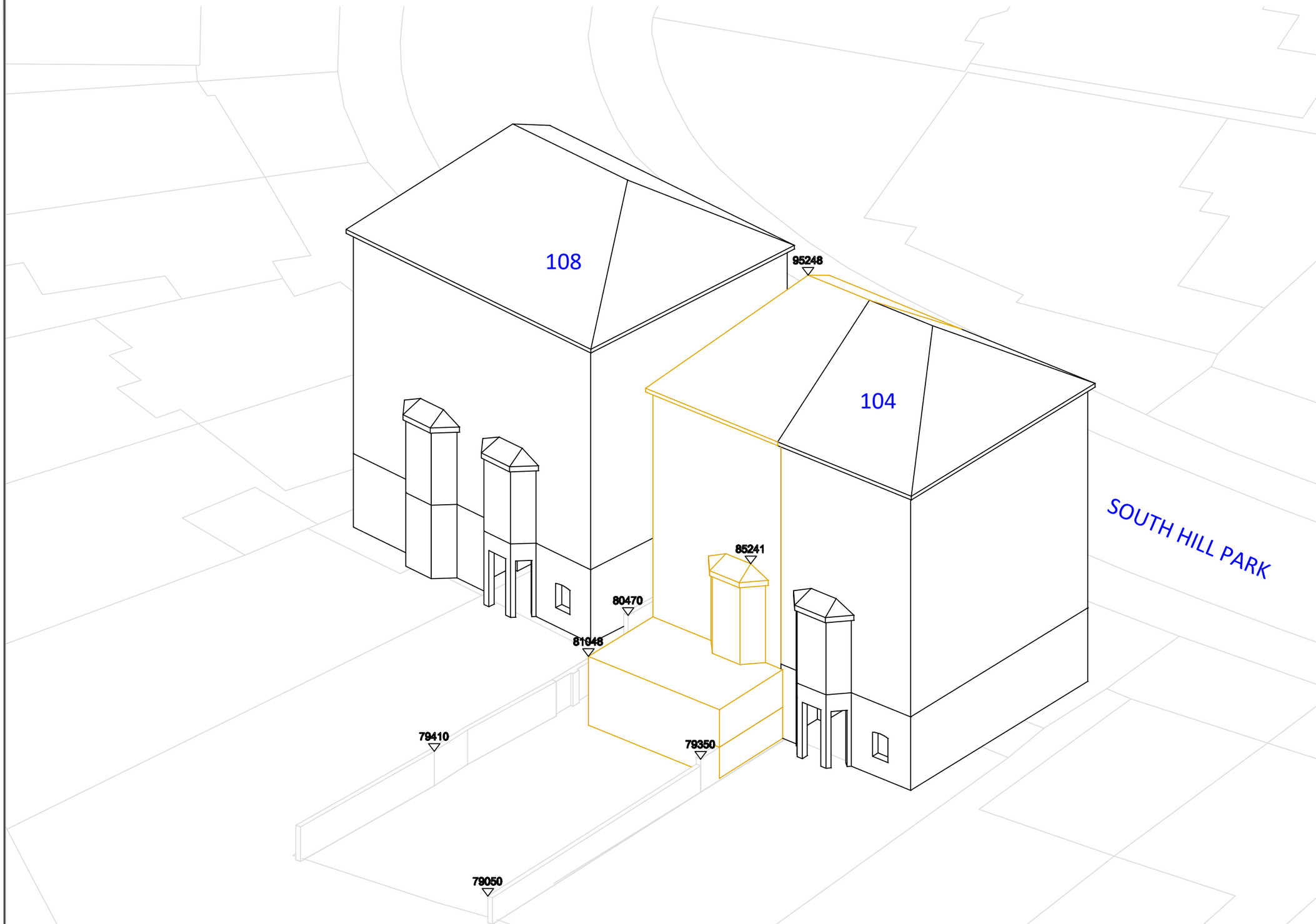
SCHEME REF: SCHEME RECEIVED: 16/03/19

DRAWING TITLE: SITE PLAN VIEW
PROPOSED SCHEME

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
BS	02/04/19	1:200	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00415_R01_V01_			004

Site Plan



3D MASSING VIEW

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Existing
- Consented
- Proposed
- Cutback
- 12120 AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
ON CENTRE SURVEYS LTD
Received on 30/09/19

Site and aerial photos.

PROPOSED BUILDINGS
CHARLTON BROWN ARCHITECTS LTD
Received on 16/03/19

REV	DESCRIPTION	DATE

CLIENT: MR LLOYD AMSDON

PROJECT TITLE: 106 SOUTH HILL PARK
LONDON
NW3 2SP

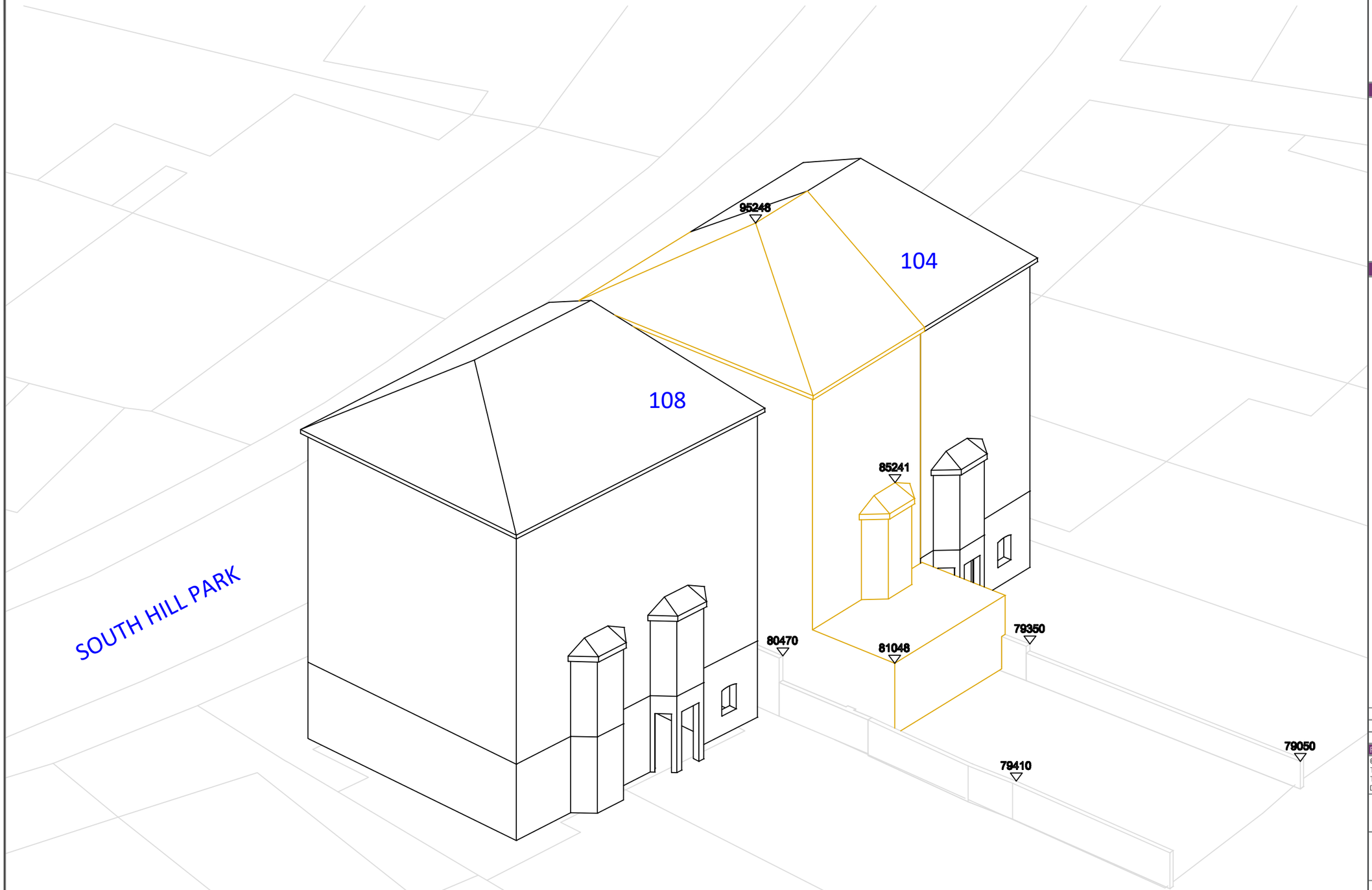
SCHEME REF: SCHEME RECEIVED: 16/03/19

DRAWING TITLE: 3D MASSING MODEL VIEW
PROPOSED SCHEME

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
BS	02/04/19	N.T.S.	A3

PROJECT No:__RELEASE No:__VERSION No:	DRAWING No:
ROL00415_R01_V01_	005

3D Massing Model



3D MASSING VIEW

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Existing
- Consented
- Proposed
- Cutback
- 12120 AOD Height (mm)

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
ON CENTRE SURVEYS LTD
Received on 30/09/19

Site and aerial photos.

PROPOSED BUILDINGS
CHARLTON BROWN ARCHITECTS LTD
Received on 16/03/19

REV	DESCRIPTION	DATE

CLIENT: MR LLOYD AMSDON

PROJECT TITLE: 106 SOUTH HILL PARK
LONDON
NW3 2SP

SCHEME REF: SCHEME RECEIVED: 16/03/19

DRAWING TITLE: 3D MASSING MODEL VIEW
PROPOSED SCHEME

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
BS	02/04/19	N.T.S.	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00415_R01_V01_			006

3D Massing Model

APPENDIX B

-

VERTICAL SKY COMPONENT ('VSC') TABLE

TABLE P1
VERTICAL SKY COMPONENT (VSC)
SURROUNDING BUILDINGS

AnsteyHorne

Property/ room ref.	Property type	Room usage	Window ref.	Existing VSC(%)	Proposed VSC(%)	*Factor of former value
104 South Hill Park						
Lower ground						
R1	RESIDENTIAL	LKD	W1	28.86	13.02	0.45
R1	RESIDENTIAL	LKD	W2	39.12	34.19	N/A
R1	RESIDENTIAL	LKD	W3	34.35	34.34	N/A
108 South Hill Park						
Lower ground						
R1	RESIDENTIAL	LKD	W1	30.45	30.45	N/A
R1	RESIDENTIAL	LKD	W2	39.51	39.37	N/A
R1	RESIDENTIAL	LKD	W3	33.58	32.55	N/A

*NOTES: 'Factor of former value' = Proposed VSC / Existing VSC. A factor greater than 1 indicates an increase in daylight.A proposed VSC of 27% or more satisfies the BRE criteria and the ratio is N/A.

APPENDIX C
-
DAYLIGHT DISTRIBUTION TABLE

TABLE P2
DAYLIGHT DISTRIBUTION (DD)
SURROUNDING BUILDINGS

AnsteyHorne

Property / room ref.	Property type	Room Usage	Room area (m²)	Existing lit area (m²)	Proposed lit area (m²)	*Factor of former value
104 South Hill Park						
Lower ground R1	RESIDENTIAL	LKD	21.51	21.37	21.34	1.00
108 South Hill Park						
Lower ground R1	RESIDENTIAL	LKD	21.51	21.38	21.37	1.00

*NOTES: 'Factor of former value' = Proposed lit area / Existing lit area. A factor greater than 1 indicates an increase in daylight.

APPENDIX D

-

AVERAGE DAYLIGHT FACTOR ('ADF') TABLE

ROL00415 - R01 - V01
106 South Hill Park
02/04/2020

TABLE P1
AVERAGE DAYLIGHT FACTOR (ADF)
SURROUNDING BUILDINGS

Floor Ref.	Room Ref.	Room Use.	Window Ref.	Glass Transmittance	Maintenance Factor	Glazed Area	Clear Sky Angle Existing	Clear Sky Angle Proposed	Room Surface Area	Average Surface Reflectance	Below Working Plane Factor	ADF Existing	ADF Proposed	Pr/Ex
104 South Hill Park														
Lower ground	R1	LKD	W1-L	0.68	0.92	0.43	44.07	29.61	99.51	0.50	0.50	0.08	0.05	
			W1-U	0.68	0.92	0.86	60.23	38.19	99.51	0.50	1.00	0.43	0.27	
			W2-L	0.68	0.92	0.63	72.52	67.07	99.51	0.50	0.50	0.19	0.18	
			W2-U	0.68	0.92	1.26	75.96	70.33	99.51	0.50	1.00	0.80	0.74	
			W3-L	0.68	0.92	0.43	67.90	67.90	99.51	0.50	0.50	0.12	0.12	
			W3-U	0.68	0.92	0.86	66.75	66.75	99.51	0.50	1.00	0.48	0.48	
												2.11	1.85	0.88
108 South Hill Park														
Lower ground	R1	LKD	W1-L	0.68	0.92	0.43	61.19	61.19	99.51	0.50	0.50	0.11	0.11	
			W1-U	0.68	0.92	0.86	60.23	60.23	99.51	0.50	1.00	0.43	0.43	
			W2-L	0.68	0.92	0.63	77.50	77.50	99.51	0.50	0.50	0.21	0.21	
			W2-U	0.68	0.92	1.26	75.96	75.96	99.51	0.50	1.00	0.80	0.80	
			W3-L	0.68	0.92	0.43	65.79	63.27	99.51	0.50	0.50	0.12	0.11	
			W3-U	0.68	0.92	0.86	66.17	65.16	99.51	0.50	1.00	0.48	0.47	
												2.15	2.14	0.99

APPENDIX E

-

ANNUAL PROBABALE SUNLIGHT HOURS ('APSH') TABLE

ROL00415 - R01 - V01
106 South Hill Park
02/04/2020

TABLE P3
ANNUAL PROBABLE SUNLIGHT HOURS (APSH)
SURROUNDING BUILDINGS

PROPERTY			WINDOW						ROOM					
			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH IN WINTER)			ANNUAL SUNLIGHT (%APSH)			WINTER SUNLIGHT (% APSH IN WINTER)		
Room ref.	Window ref.	Room use	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value	Existing (%)	Proposed (%)	*Factor of former value
104 South Hill Park														
Lower ground														
R1	W1	LKD	8	8	1.00	0	0	-						
R1	W2	LKD	30	30	N/A	6	6	N/A						
R1	W3	LKD	32	32	N/A	7	7	N/A	32	32	N/A	7	7	N/A
108 South Hill Park														
Lower ground														
R1	W1	LKD	6	6	1.00	0	0	-						
R1	W2	LKD	26	25	N/A	5	4	0.80						
R1	W3	LKD	28	26	N/A	5	3	0.60	28	27	N/A	5	4	0.80

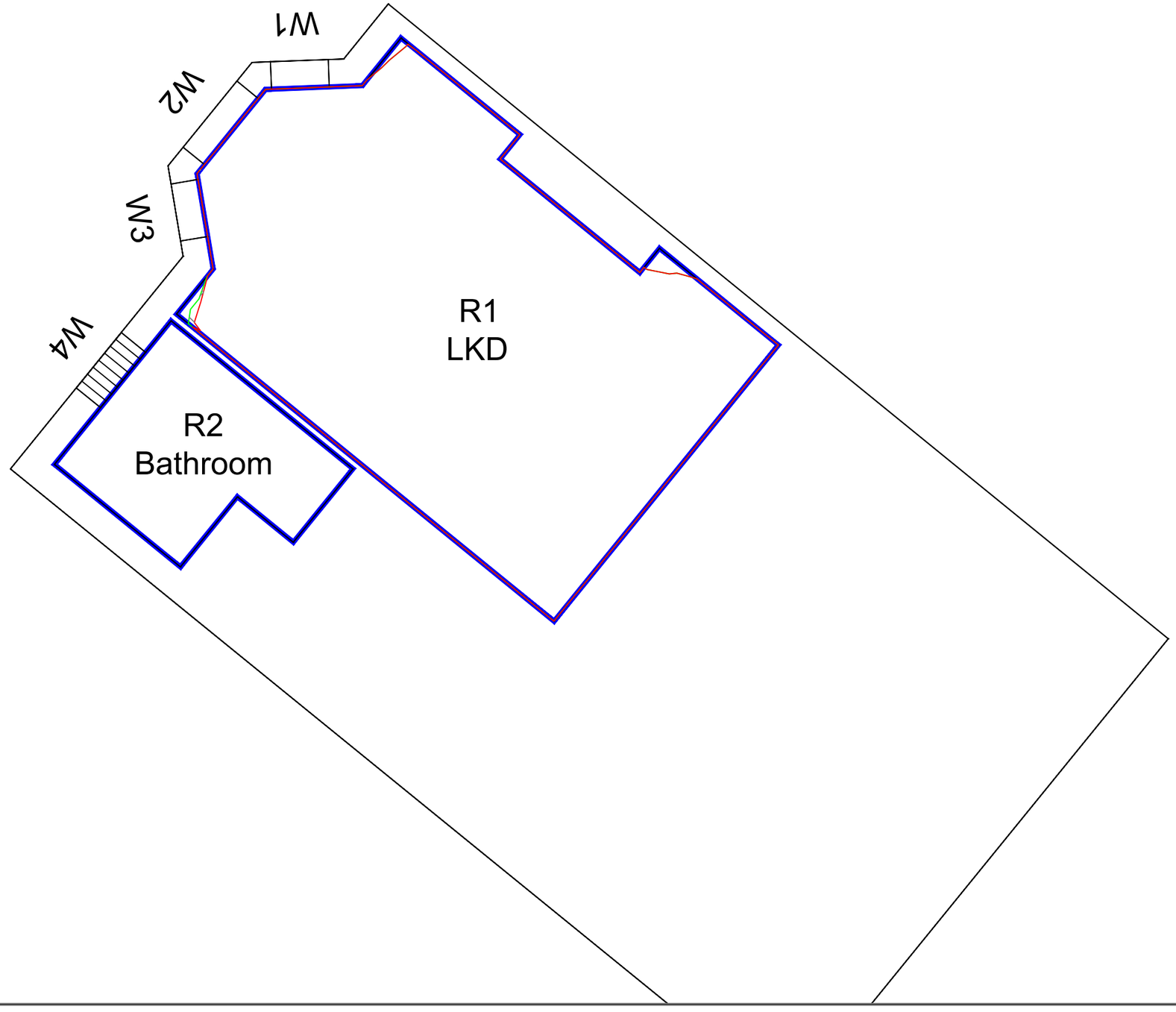
*NOTES:'Factor of former value' = Proposed/Existing. A factor >1 indicates an increase in sunlight.An APSH > 25%/5% satisfies BRE criteria and ratio is N/A.Total annual sunlight (100% APSH) in London is 1486 hours.

APPENDIX F

-

DAYLIGHT DISTRIBUTION CONTOUR PLANS

DRAWING NOS. ROL00415_R01_V01_101 TO 102



LOWER GROUND

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
ON CENTRE SURVEYS LTD
Received on 30/09/19

Site and aerial photos.

PROPOSED BUILDINGS
CHARLTON BROWN ARCHITECTS LTD
Received on 16/03/19

0m 0.5m 1m 1.5m 2m 2.5m

REV	DESCRIPTION	DATE

CLIENT: MR LLOYD AMSDON

PROJECT TITLE: 106 SOUTH HILL PARK
LONDON
NW3 2SP

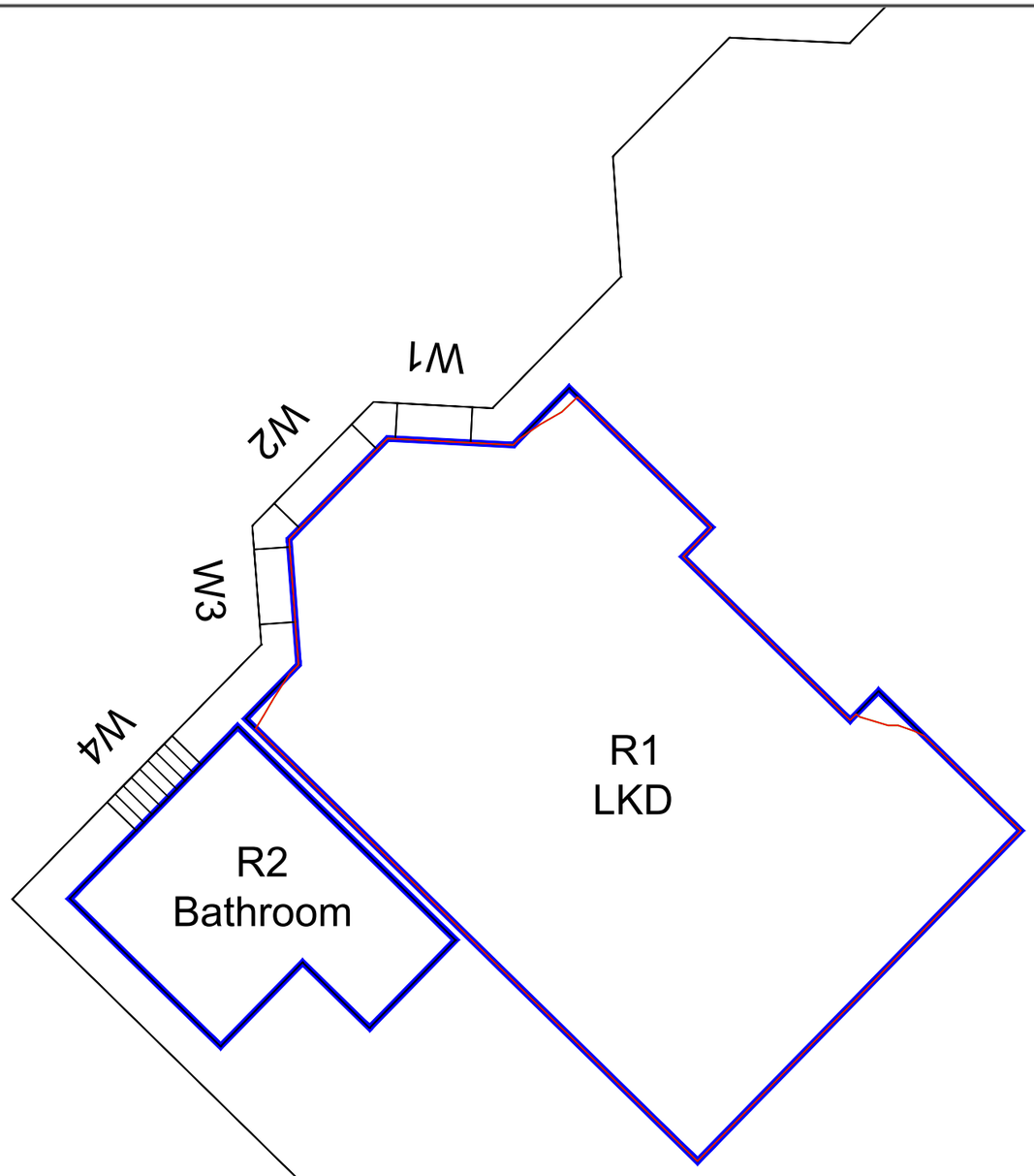
SCHEME REF: SCHEME RECEIVED: 16/03/19

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
104 SOUTH HILL PARK

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
BS	02/04/19	1:50	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00415_R01_V01_			101-01

Daylight & Sunlight



LOWER GROUND

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Room Layout - Plan/ Inspection
- Room Layout - Notional/ Cellular
- Room Layout - Assumed
- Proposed Contour
- Existing Contour
- Square Ft. Grid

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
ON CENTRE SURVEYS LTD
Received on 30/09/19

Site and aerial photos.

PROPOSED BUILDINGS
CHARLTON BROWN ARCHITECTS LTD
Received on 16/03/19

0m 0.5m 1m 1.5m 2m 2.5m

REV	DESCRIPTION	DATE

CLIENT: MR LLOYD AMSDON

PROJECT TITLE: 106 SOUTH HILL PARK
LONDON
NW3 2SP

SCHEME REF: SCHEME RECEIVED: 16/03/19

DRAWING TITLE: DAYLIGHT DISTRIBUTION CONTOURS
108 SOUTH HILL PARK

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
BS	02/04/19	1:50	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00415_R01_V01_			102-01

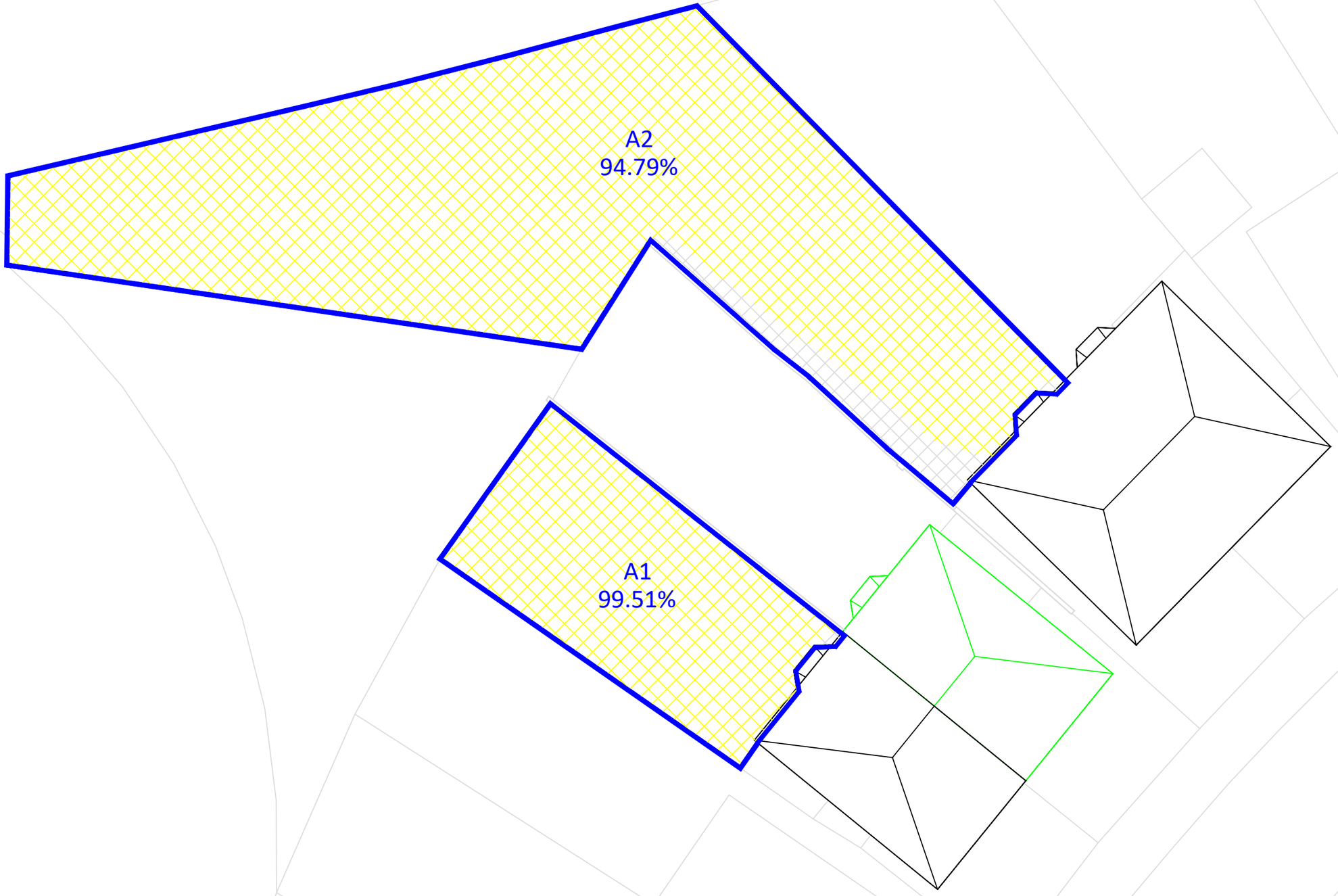
Daylight & Sunlight

APPENDIX G

-

TWO-HOUR SUN CONTOUR ON 21 MARCH DRAWINGS

DRAWING NOS. ROL00415_R01_V01_301-01 TO 301-02



EXISTING

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Area receiving ≥ 2hr Sunlight on 21st March
- Area receiving < 2hr Sunlight on 21st March
- X% - Percentage of Amenity Space receiving ≥ 2hr Sunlight on 21st March

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
ON CENTRE SURVEYS LTD
Received on 30/09/19

Site and aerial photos.

PROPOSED BUILDINGS
CHARLTON BROWN ARCHITECTS LTD
Received on 16/03/19

N W E S

0m 2m 4m 6m 8m 10m

REV	DESCRIPTION	DATE

CLIENT: MR LLOYD AMSDON

PROJECT TITLE: 106 SOUTH HILL PARK
LONDON
NW3 2SP

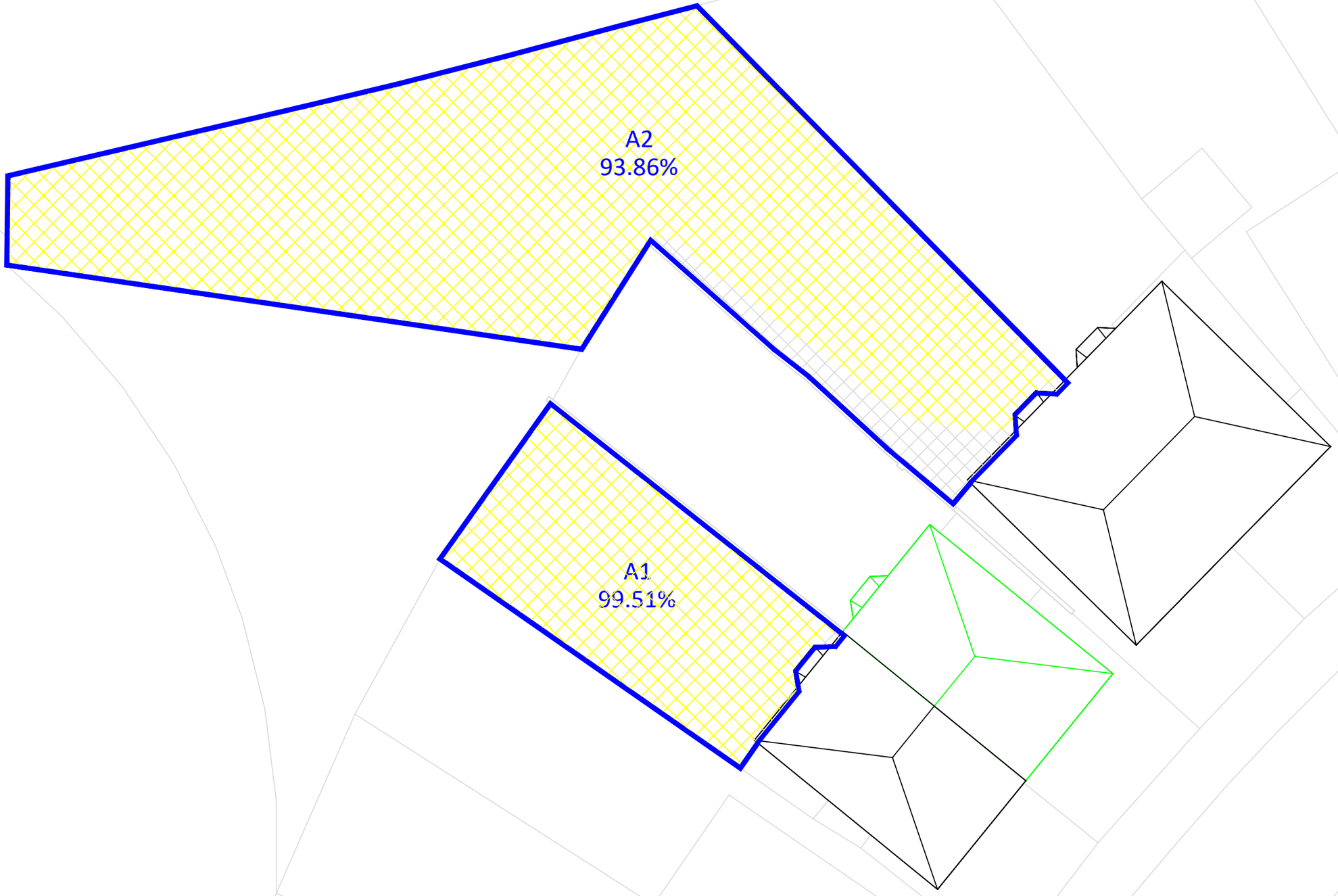
SCHEME REF: SCHEME RECEIVED: 16/03/19

DRAWING TITLE: TWO-HOUR SUNLIGHT TEST
EXISTING CONDITION

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
BS	02/04/19	1:200	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00415_R01_V01_			301-01

2Hr Sun-On-Ground



PROPOSED

AnsteyHorne
CHARTERED SURVEYORS
London 020 7065 2770
Bristol 0117 911 3061
Birmingham 0121 667 9902
www.ansteyhorne.co.uk

LEGEND:

- Area receiving ≥ 2hr Sunlight on 21st March
- Area receiving < 2hr Sunlight on 21st March
- X% - Percentage of Amenity Space receiving ≥ 2hr Sunlight on 21st March

SOURCES OF INFORMATION:

EXISTING, SURROUNDING & ANALYSED BUILDINGS
ON CENTRE SURVEYS LTD
Received on 30/09/19

Site and aerial photos.

PROPOSED BUILDINGS
CHARLTON BROWN ARCHITECTS LTD
Received on 16/03/19

N W E S

0m 2m 4m 6m 8m 10m

REV	DESCRIPTION	DATE

CLIENT: MR LLOYD AMSDON

PROJECT TITLE: 106 SOUTH HILL PARK
LONDON
NW3 2SP

SCHEME REF: SCHEME RECEIVED: 16/03/19

DRAWING TITLE: TWO-HOUR SUNLIGHT TEST
PROPOSED SCHEME

MODELLED BY:/ DRAWN BY	DATE:	SCALE:	
BS	02/04/19	1:200	A3

PROJECT No:	RELEASE No:	VERSION No:	DRAWING No:
ROL00415	R01	V01	301-02

2Hr Sun-On-Ground

AnsteyHorne

4 Chiswell Street, London EC1Y 4UP T: 020 7065 2770
3 Temple Row West, Birmingham B2 5NY T: 0121 667 9902
ansteyhorne.co.uk
Regulated by RICS

Chartered Surveyors
Rights of Light | Party Walls | Building Surveying | Neighbourly Liaison

expertise *applied*