Hawkins environmental

Daylight/Sunlight Assessment: The Village, South Manchester

Wythenshawe Community Housing Group

18th November 2013

Report Details:

Report Title	Daylight/Sunlight Assessment: The Village, South Manchester
Client	Wythenshawe Community Housing Group
Client Address	307 Greenwood Road Wythenshawe Manchester M22 9HD
Project Number	H1834

Version History:

Version No.	Date Issued	Comments	Author	Checked
V01	18th November 2013	Original Issue	Nick Hawkins MIOA MIAQM	Nick Hawkins MIOA MIAQM

This report has been prepared by Hawkins Environmental Limited with all reasonable skill, care and diligence, and taking account of the manpower and resources devoted to it by agreement with the client. Information reported herein is based on the interpretation of data collected and has been accepted in good faith as being accurate and valid.

This report is for the exclusive use by the client named on the report; no warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from Hawkins Environmental Limited. Any such party relies upon the report at their own risk.

Hawkins Environmental Limited does not accept any liability in negligence for any matters arising outside of the agreed scope of works.

Unless otherwise agreed, the copyright of this document and all other Intellectual Property Rights remain the property of Hawkins Environmental Limited at all times.

Table of Contents

1. INTRODUCTION 5
1.1. Overview 5
1.2. Site Description 5
2. POLICY & ASSESSMENT CRITERIA 6
2.1. Daylight and Sunlight 6
2.2. National Policy 6
2.3. The BRE Report 6
2.4. Daylight Impact Assessment Criteria 7
2.5. Sunlight Impact Assessment Criteria 9
2.6. Overshadowing of Gardens and Open Spaces Impact Assessment Criteria 9
2.7. The Impacts of Vegetation 10
2.8. Determining Significance 10
3. DAYLIGHT/SUNLIGHT IMPACT ASSESSMENT 12
3.1. Identification of Receptors 12
3.2. Methodology 12
3.3. Daylight Assessment 17
3.4. Sunlight Assessment 18
4. OVERSHADOWING IMPACT ASSESSMENT 28
5. CONCLUSIONS 41

List of Appendices

Appendix 1 Site Plan 42
Appendix 2 Window Schedules 44
Appendix 3 VSC Analysis 49

List of Tables

Table 2.1: Impact Magnitude Criteria (adapted from Appendix I of the BRE Report 2011) 11
Table 3.1: Daylight and Sunlight Impact Assessment 21

List of Figures

Figure 2.1: Decision Chart – Diffuse Daylight in Existing Buildings (taken from the BRE Report) 8
Figure 3.1: 3D model without new development from the North 13
Figure 3.2: 3D model with new development from the North 13
Figure 3.3: 3D model without new development from the East 14
Figure 3.4: 3D model with new development from the East 14
Figure 3.5: 3D model without new development from the South 15
Figure 3.6: 3D model with new development from the South 15
Figure 3.7: 3D model without new development from the West 16
Figure 3.8: 3D model with new development from the West 16
Figure 4.1: Overshadowing Assessment Existing Site Layout – 21st March – 0700 hrs 28
Figure 4.2: Overshadowing Assessment Proposed Site Layout – 21st March – 0700 hrs 30
Figure 4.3: Overshadowing Assessment Existing Site Layout – 21st March – 0800 hrs 31
Figure 4.4: Overshadowing Assessment Proposed Site Layout – 21st March – 0800 hrs 31
Figure 4.5: Overshadowing Assessment Existing Site Layout – 21st March – 0900 hrs 32
Figure 4.6: Overshadowing Assessment Proposed Site Layout – 21st March – 0900 hrs 32
Figure 4.7: Overshadowing Assessment Existing Site Layout – 21st March – 1000 hrs 33
Figure 4.8: Overshadowing Assessment Proposed Site Layout – 21st March – 1000 hrs 33
Figure 4.9: Overshadowing Assessment Existing Site Layout – 21st March – 1100 hrs 34
Figure 4.10: Overshadowing Assessment Proposed Site Layout – 21st March – 1100 hrs 34
Figure 4.11: Overshadowing Assessment Existing Site Layout – 21st March – 1200 hrs 35
Figure 4.12: Overshadowing Assessment Proposed Site Layout – 21st March – 1200 hrs 35
Figure 4.13: Overshadowing Assessment Existing Site Layout – 21st March – 1300 hrs 36
Figure 4.14: Overshadowing Assessment Proposed Site Layout – 21st March – 1300 hrs 36
Figure 4.15: Overshadowing Assessment Existing Site Layout – 21st March – 1400 hrs 37
Figure 4.16: Overshadowing Assessment Proposed Site Layout – 21st March – 1400 hrs 37
Figure 4.17: Overshadowing Assessment Existing Site Layout – 21st March – 1500 hrs 38
Figure 4.18: Overshadowing Assessment Proposed Site Layout – 21st March – 1500 hrs 38
Figure 4.19: Overshadowing Assessment Existing Site Layout – 21st March – 1600 hrs 39
Figure 4.20: Overshadowing Assessment Proposed Site Layout – 21st March – 1600 hrs 39
Figure 4.21: Overshadowing Assessment Existing Site Layout – 21st March – 1700 hrs 40
Figure 4.22: Overshadowing Assessment Proposed Site Layout – 21st March – 1700 hrs 40

1. INTRODUCTION

1.1. Overview

Hawkins Environmental Limited has been instructed by Wythenshawe Community Housing Group to undertake a daylight/sunlight impact assessment for the proposed development of The Village, situated on Hollyhedge Road, South Manchester.

During the planning process, it has been identified that the site may require a daylight/sunlight assessment to determine whether the proposed development may have an adverse impact on the levels of daylight and sunlight falling on the windows of adjacent buildings. As a consequence, a daylight/sunlight assessment has been carried out in accordance with The Building Research Establishment (BRE) report, "Site layout planning for daylight and sunlight" by PJ Littlefair. This report summarises an assessment of the impacts of the proposed development on the surrounding properties potential to receive daylight and sunlight.

This report fully incorporates the changes in methodology as a consequence of the publication of the Second Edition of the BRE Report in 2011.

It should be noted that this assessment does not take into account Rights to Light. A Right to Light is a legal right which one property may acquire over another. If a building is erected which reduces the light available to the adjoining property below sufficient levels, Rights to Light may be infringed, which may attract compensation and/or an injunction to stop the development. However, Rights to Light should not be a material planning consideration and therefore, this issue has not been assessed as part of this report. However, in most circumstances, if the development passes the tests contained within the BRE Report, Rights to Light should not be infringed.

1.2. Site Description

The proposed development site straddles Hollyhedge Road, on the western side of the Hollyhedge Road/Brownley Road junction. The development site itself is currently vacant. A location plan of the proposed site can be see in **Appendix 1**.

To the north of the development site is a church; to the east is houses and flats, with a small row of shops on Hollyhedge Road; to the south is a health centre and to the west is more houses and flats, as well as Bownley Road and Manchester College on the other side of Brownley Road.

The proposed development will see two large blocks of flats, one either side of Hollyhedge Road, linked by a footbridge. The northern block will consist of approximately 77 apartments in two wings, joined together by a community hub. The southern block will consist of approximately 58 apartments.

2. POLICY & ASSESSMENT CRITERIA

2.1. Daylight and Sunlight

The provision of daylight is as important as ensuring low levels of noise, or low levels of odour, in maintaining the enjoyment of one's property. Adequate levels of daylight are important not only to light and heat the home, but also for an occupant's emotional well being. Daylight is widely accepted to have a positive psychological effect on human beings and there is a great deal of evidence to suggest that people who are deprived of daylight are more susceptible to depression and mood swings. This is common in northern countries, such as Norway, Iceland and Canada where daylight is scarce during the winter months.

When assessing the effects of proposed building projects on the potential to cause issues relating to light, it is important to recognise the distinction between daylight and sunlight. Daylight is the combination of all direct and indirect sunlight during the daytime, whereas sunlight (for the purposes of this report) comprises only the direct elements of sunlight. On a cloudy or overcast day diffused daylight still shines through windows, even when sunlight is absent.

2.2. National Policy

The Department for Communities and Local Government (DCLG) sets national planning policy. Their document 'The Planning System: General Principles (2005), published in conjunction with Planning Policy Statement 1: Delivering Sustainable Development, now replaced by the National Planning Policy Framework (NPPF), discusses the need to protect amenities in the public's interest, of which the need for daylight/sunlight could be considered one such amenity. However, the government does not have an adopted policy on daylight, sunlight and the effects of overshadowing, and does not have targets, criteria or relevant planning guidance, in the way it has for other environmental impacts such as noise, landscape or air quality.

However, the **Building Research Establishment (BRE) report, *"Site layout planning for daylight and sunlight"* Second Edition 2011 by PJ Littlefair** (referred to as the BRE Report) is almost universally used as the official method in the UK and Ireland for determining the minimum standards of daylight and sunlight and for determining the impact of a development on daylight and sunlight availability; In addition, the **British Standard BS 8206:2008 Lighting for buildings – Part 2: Code of practice for daylighting** contains guidance on the minimum recommended levels of interior daylighting and introduces some of the calculation procedures used in the BRE Report.

2.3. The BRE Report

The BRE Report contains guidance on how to design developments, whilst minimising the impacts on existing buildings from overshadowing and reduced levels of daylight and sunlight. In addition, the BRE Report provides advice on how to design buildings to ensure that they retain good levels of daylight and sunlight. As well as advice, the report contains a methodology to assess levels of daylight, sunlight and overshadowing, and contains criteria to determine the potential impacts of a new development on surrounding buildings and to determine whether new developments are well lit internally. However, the report does state that the guidelines are not mandatory, but should be considered a guide to help rather than constrain the designer.

The BRE Report looks at three separate areas when considering the impacts on lighting:

- **Daylight** – i.e. the combined impacts of all direct sunlight and indirect skylight during the daytime;
- **Sunlight** – i.e. the impacts of only the direct sunlight; and
- **Overshadowing of Gardens and Open spaces**.

It is important to note that the BRE Report "Site Layout Planning for Daylight and Sunlight" is not a test to determine whether a development "Passes" or "Fails", rather "*A Guide to Good Practice*". Therefore, whilst one should try to achieve the numerical guidance within the report (e.g. ADF, VSC, APSH etc.), the failure to do so does not indicate that the development is unsuitable, nor is it an indication that planning permission should be refused.

2.4. Daylight Impact Assessment Criteria

The assessment of daylight is required for windows serving rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, store rooms, circulation areas and garages need not be assessed. The guidelines also apply to any room that may have a reasonable expectation of daylight, including schools, hospitals, hotels and some offices.

When assessing daylight, the numerical criteria must be viewed flexibly and should be considered against other site layout constraints. In addition, it is important to consider whether the existing building is itself a good neighbour, standing a reasonable distance from the boundary and not taking more than its fair share of light.

Figure 2.1 shows the decision chart, showing the processes involved in determining daylight impact. The assessment takes on several specific stages:

1) **The Distance Test**: loss of light to windows need not be analysed if the distance from the existing window to the development is three of more times its height above the centre of the existing window;

2) **The 25° Rule**: loss of light to windows need not be analysed if the angle to the horizontal subtended by the new development from the centre of the existing window is less than 25°;

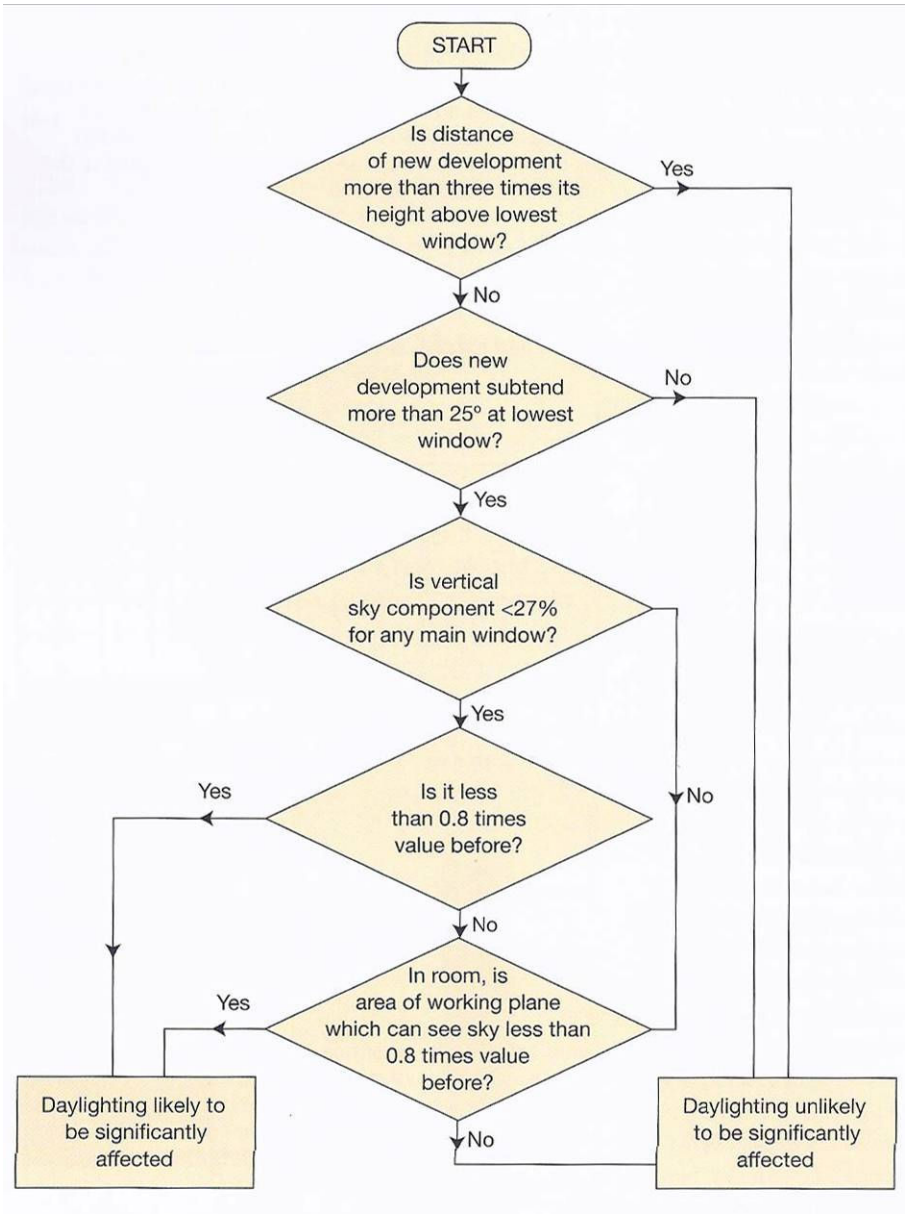
3) **Daylight Assessment**: diffuse daylight of an existing may be adversely affected by a proposed development if either:

   a. the Vertical Sky Component (VSC) measured at the centre of an existing main window is less than 27%, **and** less than 0.8 times its former value; or

   b. the area of the working plane which can receive direct skylight is reduced to less than 0.8 times its former value.

It should be noted at determining the area of the working plane with can receive direct light from the sky (which is often referred to as the No-Sky Line or NSL) is seen as an additional assessment, rather than as an alternative to VSC. However, since plotting the NSL requires knowledge of the room geometry, which is not usually available during an impact assessment, it is not always possible to calculate the NSL since the use of too many assumptions would make the results meaningless and unreliable.

Figure 2.1: Decision Chart – Diffuse Daylight in Existing Buildings (taken from the BRE Report)



2.5. Sunlight Impact Assessment Criteria

The assessment of sunlight is required for rooms in adjoining dwellings where sunlight is required. Generally, all main living rooms and conservatories should have access to direct sunlight. Kitchens and bedrooms are less important, although care should be taken not to block too much sun.

As with daylight, the numerical criteria for sunlight should be viewed flexibly and should be considered against other site layout constraints. It is important to understand that people like and appreciate sunlight and may resent the loss of sunlight, although is not an essential requirement of a dwelling, unlike daylight availability or access to a quiet noise environment. Therefore, larger reductions in sunlight may be acceptable, for example if new development is to match the height and proportion of existing buildings nearby.

The assessment of sunlight takes on several specific stages:

1. **Facing South**: loss of sunlight to windows only needs to be assessed if the window faces within 90° of due south;
2. **The Distance Test**: loss of sunlight to windows need not be analysed if the distance from the existing window to the development is three of more times its height above the centre of the existing window;
3. **The 25° Rule**: loss of sunlight to windows need not be analysed if the angle to the horizontal subtended by the new development from the centre of the existing window is less than 25°;
4. **Sunlight Assessment**: direct sunlight of an existing windows may be adversely effected by a proposed development if at the centre of a window:
    a. receives less than 25% of Annual Probable Sunlight Hours (APSH), or less than 5% APSH between 21st September and 21st March; **and**
    b. receives less lean 0.8 times its former APSH during either period; **and**
    c. has a reduction in sunlight over the whole year of greater than 4% APSH.

2.6. Overshadowing of Gardens and Open Spaces Impact Assessment Criteria

The effects of overshadowing and the loss of sunlight on open spaces and gardens is another important element of any sunlight or daylight assessment. Assessments should not restrict themselves to looking at just the effects on providing good natural lighting within buildings as sunlight in the spaces between buildings has an important impact on the overall appearance and ambience of a development.

The Second Edition of the BRE Report, published in 2011, has significantly revised the assessment procedure for the overshadowing of gardens and outdoor amenity space, changing the emphasis from ensuring that as much area as possible receive direct sunlight to ensuring that the garden receives significant amounts of sunlight, albeit over a smaller area. Under the 1991 version of the report, ideally not more than a quarter, and certainly no more than two-fifths of a garden or outdoor amenity space should be prevented from receiving any sun at all on the 21st March. This means that providing at least 60% of a garden receives some direct sunlight, even for just a few minutes, the garden is adequately sunlit. However, the 2011 version requires at least 50% of the garden must receive at least two hours of direct sunlight on the 21st March. If this cannot be achieved,

providing that the area overshadowed was greater than 0.8 times its former value, no impact would have occurred.

2.7. The Impacts of Vegetation

It is important to note that according to the BRE Report, calculations normally do not take into account vegetation. The exception is when evergreen vegetation exists that forms a continuous barrier.

2.8. Determining Significance

The previous edition of the BRE Report has often been significantly misapplied when determining whether an impact to a development is significant and whether a development should be refused planning permission. Page 1 of the BRE Report states:

> *"The advice given (in the report) is not mandatory and guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in layout design."*

Often, Local Planning Authorities interpret the failure of a development to meet the guideline criteria as an indicator as to whether a development is acceptable. However, this is not the case and the BRE report suggests that the numerical values are purely advisory and there are times where alternative targets may be used, as described in Appendix F of the 2011 Edition of the BRE Report. For example:

- where the site already has an extant planning permission that the developer wants to vary, the VSC and APSH of the permitted scheme may be used as alternative benchmarks;
- in historic city centre environments, it is often not possible to achieve 27% VSC, therefore it is sensible to use a target value consistent with levels of daylight typically experienced in the street. For example, if the obstruction angle from ground floor level at other properties in the street is typically 40°, which corresponds to a VSC of 18%, this level could be used as a target value for development in that street, if new development is to match the scale and size of the existing development;
- where an existing building has windows that are unusually close to the site boundary and taking more than their fair share of light, to ensure that new development matches the height and proportions of existing buildings, the VSC and APSH targets for these windows could be set to those for a "mirror-image" building of the same height and size, an equal distance away on the other side of the boundary.

In addition, Appendix I of the 2011 Edition of the BRE Report provides new guidance on how to assess impact, which suggests that a semantic scale can be used to describe the impact, which can then be used help place the impact in context. **Table 2.1** summarises the impact magnitude criteria as described in the BRE Report.

Table 2.1: Impact Magnitude Criteria (adapted from Appendix I of the BRE Report 2011)

Criteria	Impact Magnitude
Where the decrease in daylight or sunlight fails to meets the guidelines, and one or more of the following scenarios applies: • a large number of windows or large area of open space is affected; • the loss of light is substantially outside the guidelines; • all windows in a particular property are affected; • the affected building or outdoor space has a particularly strong requirement for light, e.g. a living room in a dwelling or a children's playground.	Major Adverse
Where the decrease in daylight or sunlight fully meets the guidelines and a larger number of windows or open space are affected; or Where the decrease in daylight or sunlight fails to meets the guidelines, but one or more of the following scenarios applies: • only a small number of windows or limited area of open space is affected; • the loss of light is only just outside the guidelines; • an affected room has other sources of light; • the affected building or outdoor space has a low level requirement for light.	Minor Adverse
Where the increase/decrease in daylight or sunlight fully meets the guidelines and only a small number of windows are affected; and If there is an increase in daylight or sunlight, the increase is "tiny".	Negligible
Where the increase in daylight or sunlight is small and/or the number of affected windows or area of open space affected is small.	Minor Beneficial
Where the increase in daylight or sunlight is large and/or the number of affected windows or area of open space affected is large.	Major Beneficial

Note: Appendix I of the BRE report also suggests the use of "moderate adverse" and "moderate beneficial" impacts. However, there is no guidance on how to designate moderate impacts, although the guidance suggests that judgement should be used when classifying impact magnitude.

3. DAYLIGHT/SUNLIGHT IMPACT ASSESSMENT

This section summarises the impact of the proposed development on levels of daylight and sunlight on surrounding windows.

3.1. Identification of Receptors

Based on a site visit on the 6th November 2013, and also based on the plans of the development, a number of windows have been identified as of being of concern. The properties of concern can be seen in the site plan in **Appendix 1**. The windows under consideration can be seen in **Appendix 2**.

The main properties of interest are:

- Brownley Court;
- 100/98 Brownley Road;
- The Rectory, Brownley Road;
- Hollyhedge Court;
- Hollyhedge View;
- 18/17 Lenton Gardens; and
- Benchill Court.

3.2. Methodology

This section summarises the daylight and sunlight impacts of the proposed development on surrounding properties. To determine these impacts, the IES Virtual Environment software (VE-Pro Suite) has been utilised to calculate the changes in levels of daylight and sunlight as a consequence of the proposed development. The VE-Pro software has been accredited by CIBSE and acknowledged by the BRE as a suitable software tool for undertaking daylight, sunlight and overshadowing assessments in accordance with the Building Research Establishment (BRE) report, *"Site layout planning for daylight and sunlight"* Second Edition 2011 by PJ Littlefair BRE Good Practice guidelines. Three separate modules of the VE-Pro suite have been utilised for this assessment:

- ModelIT: enables the creation of three dimensional "Virtual Environment" models without CAD data, or alternatively allows you to create a 3D model from 2D CAD data. ModelIT interfaces with ACAD Revit and Google SketchUp, allowing the import of models created within this packages;
- RadianceIES: is a detailed 3D simulation tool designed to predict daylight and electric light levels, and the appearance of a space prior to construction. Vertical Sky Components and Average Daylight Factors can be calculated for with and without the proposed development using RadianceIES;
- SunCast: is a 3D simulation tool used to calculate solar shading and sunlight availability. SunCast can be used to calculate the Annual Probable Sunlight Hours for with and without the proposed development.

Figures 3.1 to **Figure 3.8** show the three dimensional model of the development, with and without the proposed development.

Figure 3.1: 3D model without new development from the North

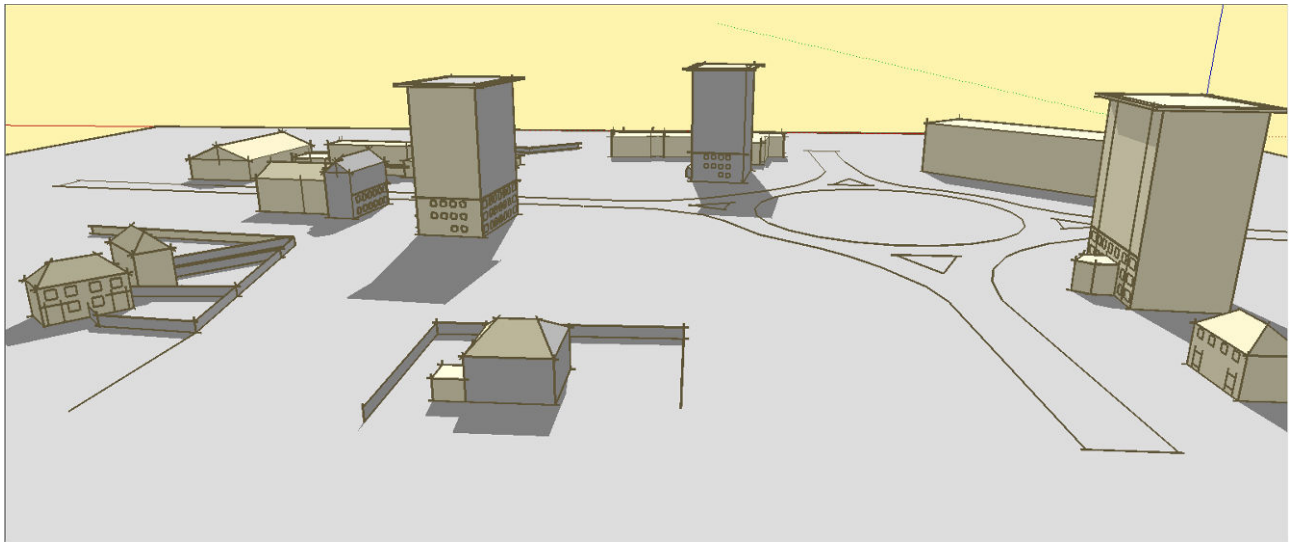


Figure 3.2: 3D model with new development from the North

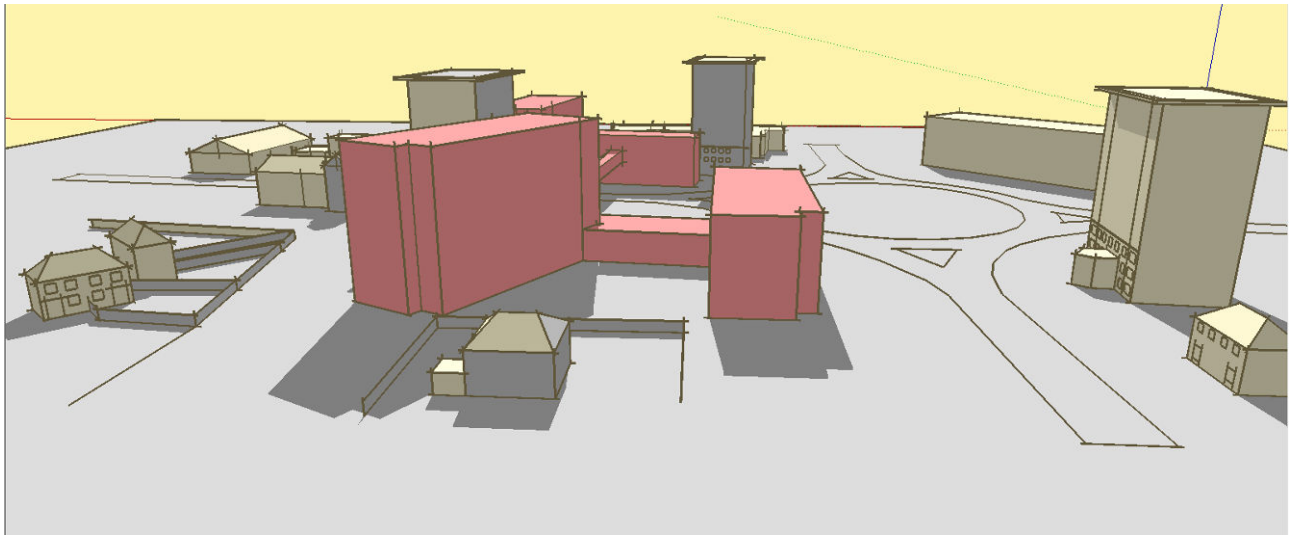


Figure 3.3: 3D model without new development from the East

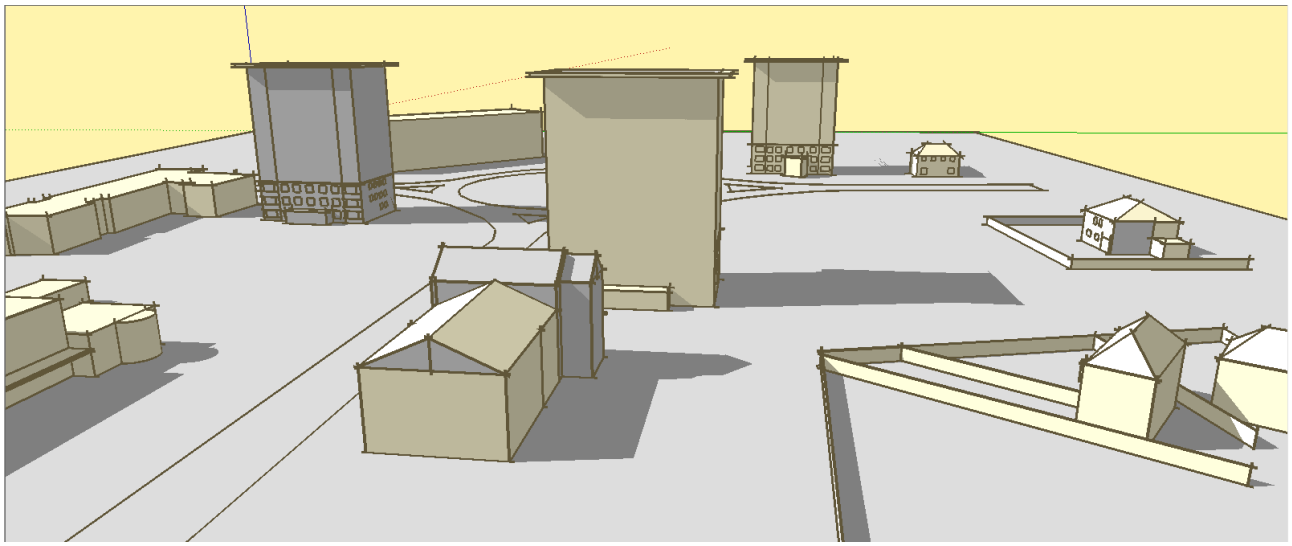


Figure 3.4: 3D model with new development from the East

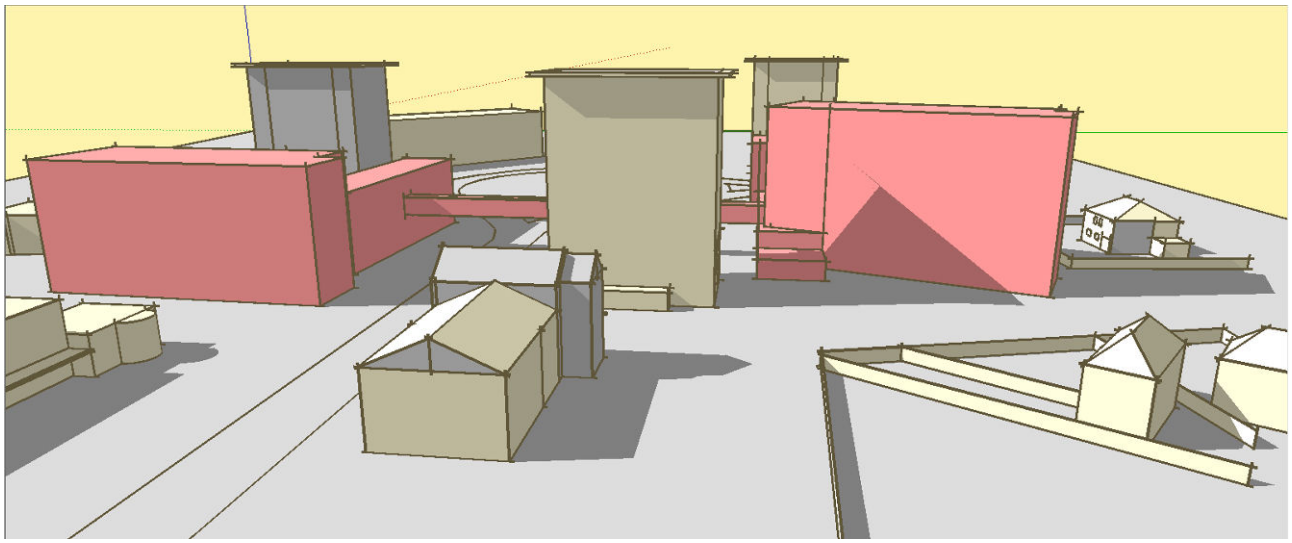


Figure 3.5: 3D model without new development from the South

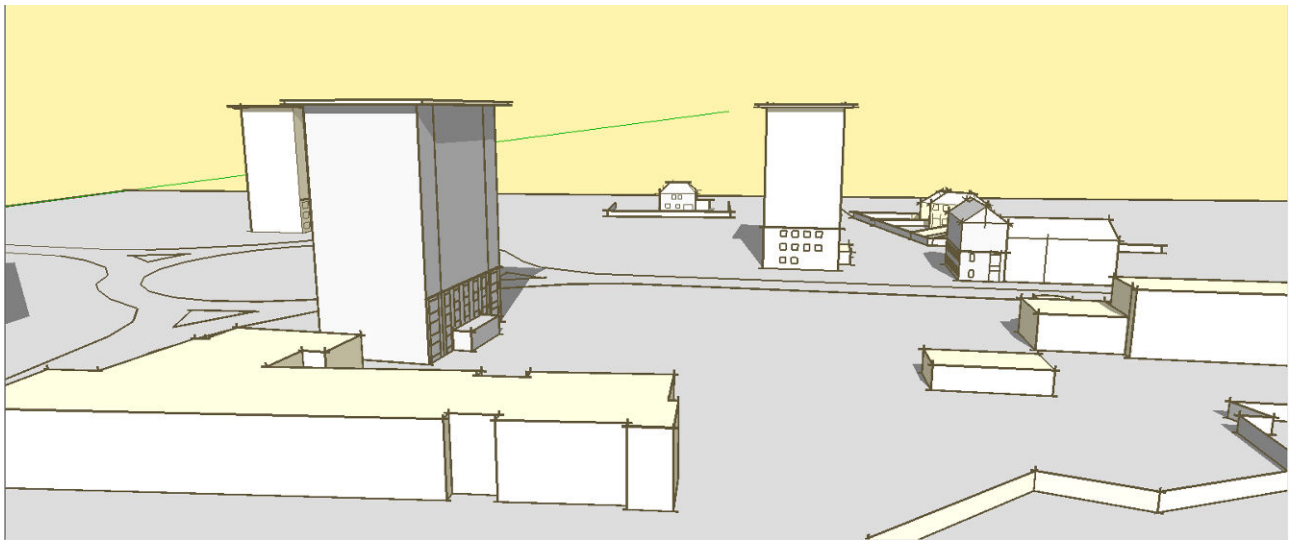


Figure 3.6: 3D model with new development from the South

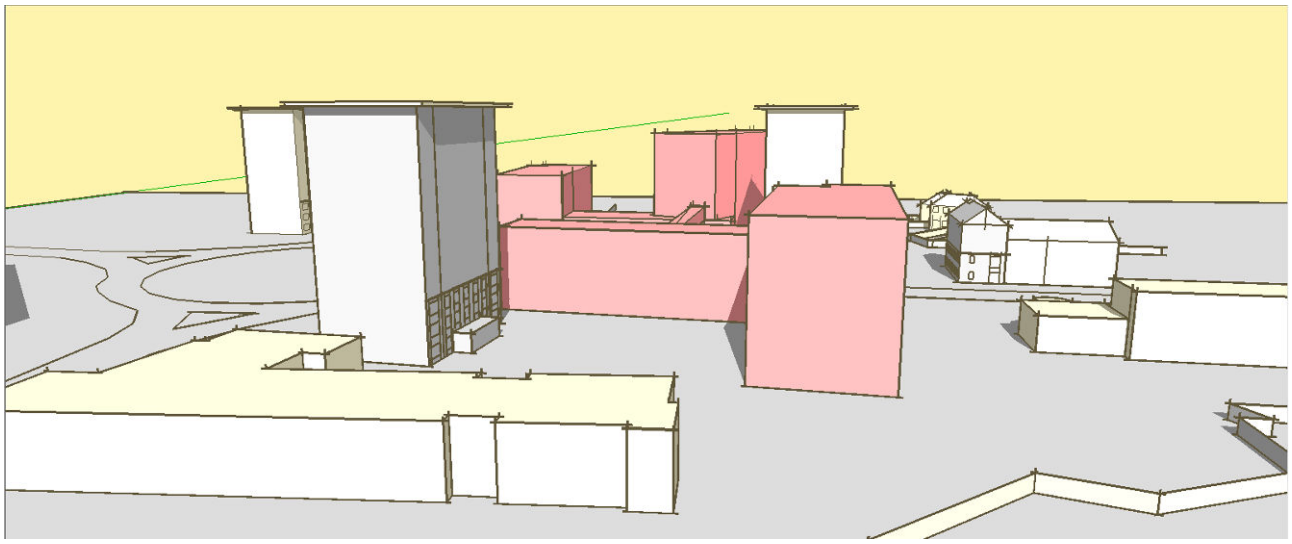


Figure 3.7: 3D model without new development from the West

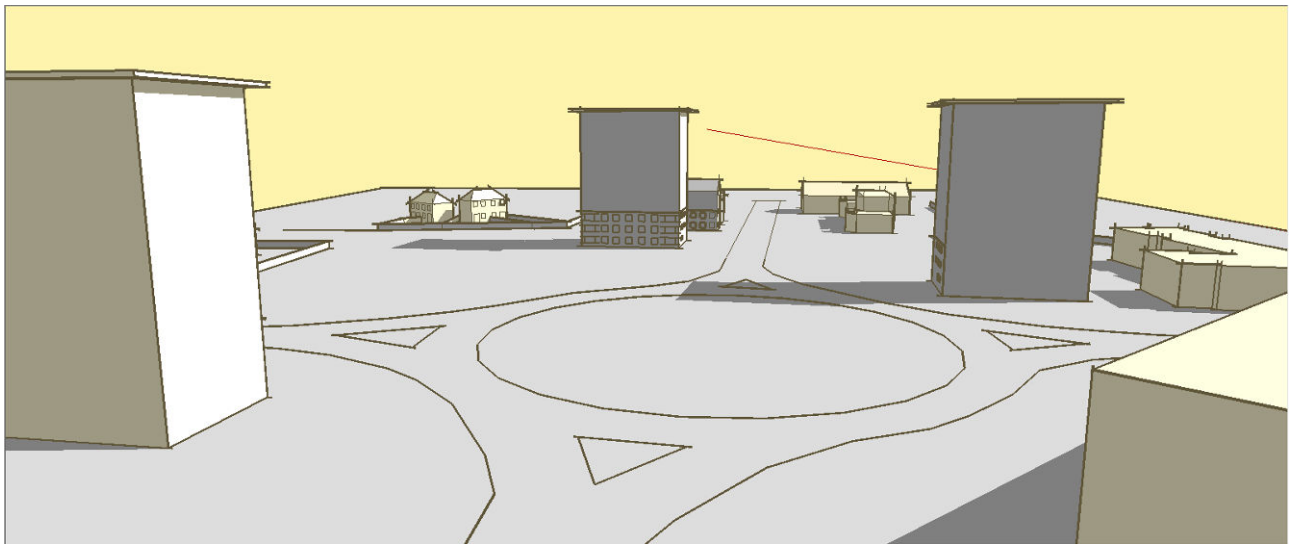
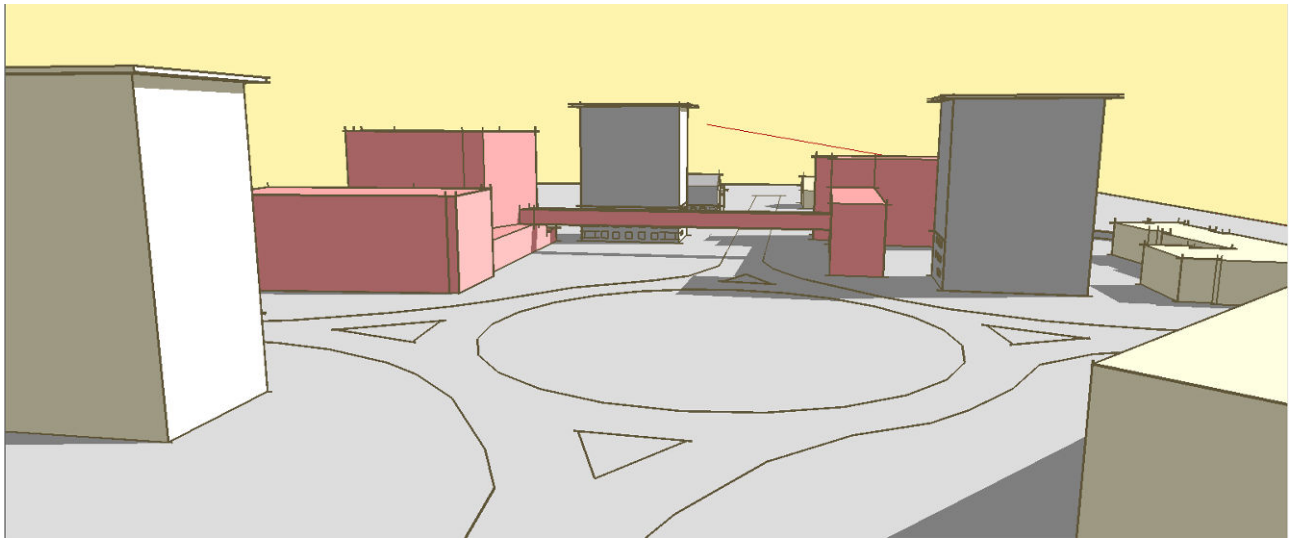


Figure 3.8: 3D model with new development from the West



3.3. Daylight Assessment

When undertaking a daylight assessment, the BRE Report suggests a VSC of 27% or more should be achieved if a room is to be adequately daylit. It also suggests that when existing levels of daylight are below 27% VSC, a reduction of more than 20% from the existing level will be noticeable to the inhabitants, i.e. an impact will occur.

Based on the plans of the site and the positions of the closest buildings, it is possible to calculate the vertical sky component for the residential buildings, for both with and without the proposed development. The results of the daylight assessment can be seen in **Appendix 3** and summarised in **Table 3.1**.

3.3.1. Brownley Court

It can be seen from **Table 3.1** that all windows will continue to receive the minimum recommended 27% VSC and the proposed level of daylight would be greater than 0.8 times the former. Therefore at these windows, under the guidance contained within Appendix I of the BRE Report and replicated in **Table 2.1** of this report, the impact on these windows is considered to be *"negligible"*.

3.3.2. 100/98 Brownley Road

It can be seen from **Table 3.1** that all windows will continue to receive the minimum recommended 27% VSC and the proposed level of daylight would be greater than 0.8 times the former. Therefore at these windows, under the guidance contained within Appendix I of the BRE Report and replicated in **Table 2.1** of this report, the impact on these windows is considered to be *"negligible"*.

3.3.3. The Rectory, Brownley Road

It can be seen from **Table 3.1** that at all five windows assessed, the proposed level of daylight will be both less than 0.8 times the existing and the absolute level of daylight will be less than 27%; therefore a reduction in daylight may be noticeable. Whilst all five windows serve the same dwelling, it has been observed that the dwelling has a number of other windows to other facades that are unaffected by the proposed development; furthermore, it is estimated that at least some of the affected windows serve rooms that have secondary windows on other facades that are unaffected by the proposed development. As a consequence, under the guidance contained within Appendix I of the BRE Report and replicated in **Table 2.1** of this report, it is expect that this dwelling will experience a *"minor adverse"* impact.

3.3.4. Hollyhedge Court

It can be seen from **Table 3.1** that with the exception of windows W20, W21, W23, W34, W45, W46, W47, W48, W49 and W50, all other windows will continue to receive the minimum recommended 27% VSC and the proposed level of daylight would be greater than 0.8 times the former. At window W20, W21, W23, W34, W45, W46, W47, W48 and W49, the proposed level of daylight will be both less than 0.8 times the existing and the absolute level of daylight will be less than 27%; therefore a slight reduction in daylight may be noticeable. Based on the limited knowledge of the floor layout of Hollyhedge Court, it is estimated that these nine windows serve four separate dwellings. It should be noted that at all nine windows, the absolute level of daylight is only marginally below the minimum recommended 27% VSC; therefore the loss of light is only just outside the guidelines. As a consequence, under the guidance contained within Appendix I of the BRE Report and

replicated in **Table 2.1** of this report, it is expect that these four dwellings will experience a *"minor adverse"* impact, with the remainder of Hollyhedge Court experiencing a *"negligible"* impact.

3.3.5. Hollyhedge View

It can be seen from **Table 3.1** that whilst some windows will receive less than the recommended 27% VSC, since the proposed level of daylight would be greater than 0.8 times the former; any reduction in daylight is not likely to be noticeable. Therefore at these windows, under the guidance contained within Appendix I of the BRE Report and replicated in **Table 2.1** of this report, the impact on these windows is considered to be *"negligible"*.

3.3.6. 18/17 Lenton Gardens

It can be seen from **Table 3.1** that all windows will continue to receive the minimum recommended 27% VSC and the proposed level of daylight would be greater than 0.8 times the former. Therefore at these windows, under the guidance contained within Appendix I of the BRE Report and replicated in **Table 2.1** of this report, the impact on these windows is considered to be *"negligible"*.

3.3.7. Benchill Court

It can be seen from **Table 3.1** that with the exception of windows W78, W100 and W101, all other windows will continue to receive the minimum recommended 27% VSC and the proposed level of daylight would be greater than 0.8 times the former. At window W78, W100 and W101, the proposed level of daylight will be both less than 0.8 times the existing and the absolute level of daylight will be less than 27%; therefore a slight reduction in daylight may be noticeable. Based on the limited knowledge of the floor layout of Benchill Court, it is estimated that these three windows serve two separate dwellings. It should be noted that at all three windows, the absolute level of daylight is only marginally below the minimum recommended 27% VSC; therefore the loss of light is only just outside the guidelines. As a consequence, under the guidance contained within Appendix I of the BRE Report and replicated in **Table 2.1** of this report, it is expect that these two dwellings will experience a *"minor adverse"* impact, with the remainder of Benchill Court experiencing a *"negligible"* impact.

3.4. Sunlight Assessment

In order to assess the impact of a development on the levels of sunlight, the APSH has been calculated for windows to Brownley Court, 100/98 Brownley Road, The Rectory, 17/18 Lenton Gardens, Hollyhedge Court, Hollyhedge View and Benchill Court, which face within 90° of due south.

According to the BRE Report, direct sunlight on an existing window may be adversely effected by the proposed development if the centre of a window receives less than 25% of Annual Probable Sunlight Hours (APSH), or less than 5% APSH between 21st September and 21st March; **and** receives less lean 0.8 times its former APSH during either period; **and** has a reduction in sunlight over the whole year of greater than 4% APSH.

Table 3.1 details the results of the Annual Probable Sunlight Hours (APSH) calculations for the windows under consideration.

3.4.1. Brownley Court

It can be seen from **Table 3.1** that whilst a number of windows will experience a reduction in the amount of sunlight that they receive, with the exception of window W4, all windows will continue to receive the recommended percentage of annual sunlight hours, including a minimum of 5% of hours during the winter months, even with the construction of the proposed development. At W4, the reduction in sunlight is likely to be great enough such that it may be noticeable. However, the BRE report suggest that providing that each dwelling has access to direct sunlight, the impact to one window in isolation may not be significant. Based on the estimated layout of the Brownley Court, we know that other windows serving the same dwelling (W5 for example) are adequately sunlit. Consequently, whilst there will be a reduction in sunlight to some windows, any impact on sunlight at any of the windows with the development in place will be considered *"negligible"* under Appendix I of the BRE Report.

3.4.2. 100/98 Brownley Road

It can be seen from **Table 3.1** that whilst a number of windows will experience a reduction in the amount of sunlight that they receive all windows will continue to receive the recommended percentage of annual sunlight hours, including a minimum of 5% of hours during the winter months, even with the construction of the proposed development. Consequently, whilst there will be a reduction in sunlight to some windows, any impact on sunlight at any of the windows with the development in place will be considered *"negligible"* under Appendix I of the BRE Report.

3.4.3. The Rectory, Brownley Road

It can be seen from **Table 3.1** that whilst a number of windows will experience a reduction in the amount of sunlight that they receive all windows will continue to receive the recommended percentage of annual sunlight hours, including a minimum of 5% of hours during the winter months, even with the construction of the proposed development. Consequently, whilst there will be a reduction in sunlight to some windows, any impact on sunlight at any of the windows with the development in place will be considered *"negligible"* under Appendix I of the BRE Report.

3.4.4. Hollyhedge Court

It can be seen from **Table 3.1** that whilst a number of windows will experience a reduction in the amount of sunlight that they receive all windows will continue to receive the recommended percentage of annual sunlight hours, including a minimum of 5% of hours during the winter months, even with the construction of the proposed development. Consequently, whilst there will be a reduction in sunlight to some windows, any impact on sunlight at any of the windows with the development in place will be considered *"negligible"* under Appendix I of the BRE Report.

3.4.5. Hollyhedge View

It can be seen from **Table 3.1** that whilst a number of windows will experience a reduction in the amount of sunlight that they receive all windows will continue to receive the recommended percentage of annual sunlight hours, including a minimum of 5% of hours during the winter months, even with the construction of the proposed development. Consequently, whilst there will be a reduction in sunlight to some windows, any impact

on sunlight at any of the windows with the development in place will be considered *"negligible"* under Appendix I of the BRE Report.

3.4.6. 18/17 Lenton Gardens

It can be seen from **Table 3.1** that whilst a number of windows will experience a reduction in the amount of sunlight that they receive all windows will continue to receive the recommended percentage of annual sunlight hours, including a minimum of 5% of hours during the winter months, even with the construction of the proposed development. Consequently, whilst there will be a reduction in sunlight to some windows, any impact on sunlight at any of the windows with the development in place will be considered *"negligible"* under Appendix I of the BRE Report.

3.4.7. Benchill Court

It can be seen from **Table 3.1** that whilst a number of windows will experience a reduction in the amount of sunlight that they receive, with the exception of window W4, all windows will continue to receive the recommended percentage of annual sunlight hours, including a minimum of 5% of hours during the winter months, even with the construction of the proposed development. At W100, the reduction in sunlight is likely to be great enough such that it may be noticeable. However, the BRE report suggest that providing that each dwelling has access to direct sunlight, the impact to one window in isolation may not be significant. Based on the estimated layout of the Benchill Court, we know that other windows serving the same dwelling (W101 for example) are adequately sunlit. Consequently, whilst there will be a reduction in sunlight to some windows, any impact on sunlight at any of the windows with the development in place will be considered *"negligible"* under Appendix I of the BRE Report.

Table 3.1: Daylight and Sunlight Impact Assessment

Address	Window Identifier	Floor	Sky Component			Annual Probable Sunlight Hours					
			Existing	Proposed	Ratio*	Existing		Proposed		Ratio*	
						Full Year	Winter Only	Full Year	Winter Only	Full Year	Winter Only
Brownley Court	W1	Ground	36.3%	33.7%	0.93	49%	18%	41%	16%	0.84	0.89
Brownley Court	W2	Ground	35.5%	32.6%	0.92	49%	17%	40%	15%	0.82	0.88
Brownley Court	W3	Ground	31.1%	27.6%	0.89	46%	18%	38%	14%	0.83	0.78
Brownley Court	W4	Ground	30.4%	28.0%	0.92	22%	2%	17%	1%	0.77	0.50
Brownley Court	W5	Ground	35.5%	33.0%	0.93	37%	7%	32%	5%	0.86	0.71
100 Brownley Road	W6	Ground	38.4%	36.0%	0.94	49%	17%	45%	13%	0.92	0.76
98 Brownley Road	W7	Ground	38.6%	36.8%	0.95	47%	16%	43%	12%	0.91	0.75
The Rectory	W8	First	36.3%	26.6%	0.73	68%	30%	55%	15%	0.81	0.50
The Rectory	W9	First	36.5%	26.4%	0.72	69%	30%	54%	13%	0.78	0.43
The Rectory	W10	Ground	36.3%	25.0%	0.69	68%	29%	51%	11%	0.75	0.38
The Rectory	W11	Ground	36.0%	24.6%	0.68	72%	30%	50%	11%	0.69	0.37
The Rectory	W12	Ground	36.3%	24.2%	0.67	71%	28%	47%	9%	0.66	0.32
Hollyhedge Court	W13	Second	38.4%	30.8%	0.80	Sunlight Assessment Not Required					
Hollyhedge Court	W14	Second	38.7%	29.9%	0.77	Sunlight Assessment Not Required					

Address	Window Identifier	Floor	Sky Component			Annual Probable Sunlight Hours					
						Existing		Proposed		Ratio*	
			Existing	Proposed	Ratio*	Full Year	Winter Only	Full Year	Winter Only	Full Year	Winter Only
Hollyhedge Court	W15	Second	38.7%	28.8%	0.74	Sunlight Assessment Not Required					
Hollyhedge Court	W16	Second	38.7%	27.7%	0.72	Sunlight Assessment Not Required					
Hollyhedge Court	W17	First	38.7%	29.9%	0.77	Sunlight Assessment Not Required					
Hollyhedge Court	W18	First	38.4%	29.0%	0.76	Sunlight Assessment Not Required					
Hollyhedge Court	W19	First	38.4%	27.7%	0.72	Sunlight Assessment Not Required					
Hollyhedge Court	W20	First	38.4%	26.8%	0.70	Sunlight Assessment Not Required					
Hollyhedge Court	W21	Ground	38.4%	26.6%	0.69	Sunlight Assessment Not Required					
Hollyhedge Court	W22	Ground	38.4%	25.3%	0.66	Sunlight Assessment Not Required					
Hollyhedge Court	W23	Second	37.7%	28.8%	0.76	Sunlight Assessment Not Required					
Hollyhedge Court	W24	Second	37.7%	30.3%	0.80	Sunlight Assessment Not Required					
Hollyhedge Court	W25	Second	37.4%	31.1%	0.83	Sunlight Assessment Not Required					
Hollyhedge Court	W26	Second	37.3%	31.9%	0.86	Sunlight Assessment Not Required					
Hollyhedge Court	W27	Second	37.3%	32.1%	0.86	Sunlight Assessment Not Required					
Hollyhedge Court	W28	Second	37.0%	32.4%	0.88	Sunlight Assessment Not Required					
Hollyhedge Court	W29	Second	37.0%	32.9%	0.89	Sunlight Assessment Not Required					

Address	Window Identifier	Floor	Sky Component			Annual Probable Sunlight Hours					
						Existing		Proposed		Ratio*	
			Existing	Proposed	Ratio*	Full Year	Winter Only	Full Year	Winter Only	Full Year	Winter Only
Hollyhedge Court	W30	Second	37.3%	32.4%	0.87	72%	31%	66%	26%	0.92	0.84
Hollyhedge Court	W31	Second	37.3%	32.9%	0.88	70%	30%	65%	25%	0.93	0.83
Hollyhedge Court	W32	Second	37.7%	33.4%	0.89	72%	31%	68%	26%	0.94	0.84
Hollyhedge Court	W33	Second	37.5%	33.1%	0.88	72%	31%	68%	26%	0.94	0.84
Hollyhedge Court	W34	First	37.5%	25.4%	0.68	Sunlight Assessment Not Required					
Hollyhedge Court	W35	First	37.3%	27.0%	0.72	Sunlight Assessment Not Required					
Hollyhedge Court	W36	First	37.2%	28.0%	0.75	Sunlight Assessment Not Required					
Hollyhedge Court	W37	First	37.0%	29.0%	0.78	Sunlight Assessment Not Required					
Hollyhedge Court	W38	First	36.8%	29.1%	0.79	Sunlight Assessment Not Required					
Hollyhedge Court	W39	First	36.8%	29.5%	0.80	Sunlight Assessment Not Required					
Hollyhedge Court	W40	First	36.5%	29.3%	0.80	Sunlight Assessment Not Required					
Hollyhedge Court	W41	First	36.5%	30.3%	0.83	73%	30%	60%	20%	0.82	0.67
Hollyhedge Court	W42	First	36.5%	30.8%	0.84	72%	29%	61%	20%	0.85	0.69
Hollyhedge Court	W43	First	36.8%	31.3%	0.85	71%	30%	62%	20%	0.87	0.67
Hollyhedge Court	W44	First	37.0%	31.4%	0.85	71%	30%	63%	21%	0.89	0.70

Address	Window Identifier	Floor	Sky Component			Annual Probable Sunlight Hours					
						Existing		Proposed		Ratio*	
			Existing	Proposed	Ratio*	Full Year	Winter Only	Full Year	Winter Only	Full Year	Winter Only
Hollyhedge Court	W45	Ground	37.0%	23.3%	0.63	Sunlight Assessment Not Required					
Hollyhedge Court	W46	Ground	37.0%	24.4%	0.66	Sunlight Assessment Not Required					
Hollyhedge Court	W47	Ground	36.8%	24.7%	0.67	Sunlight Assessment Not Required					
Hollyhedge Court	W48	Ground	36.5%	25.7%	0.70	Sunlight Assessment Not Required					
Hollyhedge Court	W49	Ground	36.3%	26.1%	0.72	Sunlight Assessment Not Required					
Hollyhedge Court	W50	Ground	36.3%	27.1%	0.75	Sunlight Assessment Not Required					
Hollyhedge Court	W51	Ground	36.5%	26.8%	0.73	Sunlight Assessment Not Required					
Hollyhedge Court	W52	Ground	36.3%	28.8%	0.79	73%	29%	58%	17%	0.79	0.59
Hollyhedge Court	W53	Ground	36.3%	29.2%	0.80	71%	29%	58%	16%	0.82	0.55
Hollyhedge View	W54	First	22.1%	19.6%	0.89	Sunlight Assessment Not Required					
Hollyhedge View	W55	First	23.2%	20.6%	0.89	Sunlight Assessment Not Required					
Hollyhedge View	W56	First	24.3%	21.8%	0.90	Sunlight Assessment Not Required					
Hollyhedge View	W57	First	25.4%	22.8%	0.90	Sunlight Assessment Not Required					
Hollyhedge View	W58	First	26.2%	23.7%	0.90	Sunlight Assessment Not Required					
Hollyhedge View	W59	First	26.8%	24.3%	0.91	Sunlight Assessment Not Required					

Address	Window Identifier	Floor	Sky Component			Annual Probable Sunlight Hours					
						Existing		Proposed		Ratio*	
			Existing	Proposed	Ratio*	Full Year	Winter Only	Full Year	Winter Only	Full Year	Winter Only
Hollyhedge View	W60	First	37.1%	33.9%	0.91	77%	34%	69%	26%	0.90	0.76
Hollyhedge View	W61	First	37.1%	34.6%	0.93	75%	32%	69%	26%	0.92	0.81
Hollyhedge View	W62	Ground	21.6%	18.4%	0.85	Sunlight Assessment Not Required					
Hollyhedge View	W63	Ground	22.4%	19.6%	0.88	Sunlight Assessment Not Required					
Hollyhedge View	W64	Ground	23.6%	20.4%	0.86	Sunlight Assessment Not Required					
Hollyhedge View	W65	Ground	24.8%	21.6%	0.87	Sunlight Assessment Not Required					
Hollyhedge View	W66	Ground	25.6%	22.8%	0.89	Sunlight Assessment Not Required					
Hollyhedge View	W67	Ground	26.2%	23.0%	0.88	Sunlight Assessment Not Required					
Hollyhedge View	W68	Ground	36.3%	32.7%	0.90	74%	31%	66%	23%	0.89	0.74
Hollyhedge View	W69	Ground	36.3%	33.2%	0.91	73%	31%	64%	23%	0.88	0.74
18 Lenton Gardens	W70	Ground	34.3%	29.7%	0.87	64%	24%	54%	24%	0.84	1.00
18 Lenton Gardens	W71	Ground	34.0%	29.7%	0.87	64%	25%	55%	24%	0.86	0.96
17 Lenton Gardens	W72	Ground	34.3%	30.3%	0.88	61%	24%	54%	24%	0.89	1.00
17 Lenton Gardens	W73	Ground	33.6%	30.1%	0.90	58%	24%	52%	23%	0.90	0.96
Benchill Court	W74	Second	37.0%	29.0%	0.78	Sunlight Assessment Not Required					

Address	Window Identifier	Floor	Sky Component			Annual Probable Sunlight Hours					
						Existing		Proposed		Ratio*	
			Existing	Proposed	Ratio*	Full Year	Winter Only	Full Year	Winter Only	Full Year	Winter Only
Benchill Court	W75	Second	37.0%	31.3%	0.85	Sunlight Assessment Not Required					
Benchill Court	W76	Second	37.0%	32.2%	0.87	Sunlight Assessment Not Required					
Benchill Court	W77	Second	37.0%	33.6%	0.91	Sunlight Assessment Not Required					
Benchill Court	W78	First	36.5%	25.9%	0.71	Sunlight Assessment Not Required					
Benchill Court	W79	First	36.5%	28.5%	0.78	Sunlight Assessment Not Required					
Benchill Court	W80	First	36.5%	30.3%	0.83	Sunlight Assessment Not Required					
Benchill Court	W81	First	36.5%	31.5%	0.86	Sunlight Assessment Not Required					
Benchill Court	W82	Ground	36.3%	28.7%	0.79	Sunlight Assessment Not Required					
Benchill Court	W83	Ground	36.3%	29.9%	0.82	Sunlight Assessment Not Required					
Benchill Court	W84	Second	38.4%	34.5%	0.90	47%	17%	44%	20%	0.94	1.18
Benchill Court	W85	Second	38.2%	34.3%	0.90	51%	21%	43%	20%	0.84	0.95
Benchill Court	W86	Second	38.2%	33.4%	0.87	51%	21%	43%	20%	0.84	0.95
Benchill Court	W87	Second	38.2%	33.2%	0.87	51%	21%	42%	19%	0.82	0.90
Benchill Court	W88	Second	38.2%	32.6%	0.85	51%	21%	42%	18%	0.82	0.86
Benchill Court	W89	Second	38.1%	31.8%	0.83	52%	21%	41%	18%	0.79	0.86

Address	Window Identifier	Floor	Sky Component			Annual Probable Sunlight Hours					
						Existing		Proposed		Ratio*	
			Existing	Proposed	Ratio*	Full Year	Winter Only	Full Year	Winter Only	Full Year	Winter Only
Benchill Court	W90	Second	38.0%	31.3%	0.82	51%	21%	40%	17%	0.78	0.81
Benchill Court	W91	First	37.5%	33.0%	0.88	49%	19%	42%	19%	0.86	1.00
Benchill Court	W92	First	37.5%	32.3%	0.86	50%	20%	42%	19%	0.84	0.95
Benchill Court	W93	First	37.3%	31.9%	0.86	50%	20%	42%	19%	0.84	0.95
Benchill Court	W94	First	37.7%	31.1%	0.82	51%	20%	42%	19%	0.82	0.95
Benchill Court	W95	First	37.5%	30.7%	0.82	51%	20%	40%	18%	0.78	0.90
Benchill Court	W96	First	37.3%	28.8%	0.77	51%	20%	40%	18%	0.78	0.90
Benchill Court	W97	First	37.5%	28.1%	0.75	51%	20%	39%	17%	0.76	0.85
Benchill Court	W98	Ground	36.8%	31.1%	0.85	47%	17%	39%	17%	0.83	1.00
Benchill Court	W99	Ground	35.7%	30.5%	0.85	47%	18%	39%	18%	0.83	1.00
Benchill Court	W100	Ground	35.3%	25.6%	0.73	33%	4%	19%	1%	0.58	0.25
Benchill Court	W101	Ground	36.8%	25.6%	0.70	51%	20%	37%	17%	0.73	0.85

*= Ratio of proposed levels compared to existing levels

4. OVERSHADOWING IMPACT ASSESSMENT

This section summarises the overshadowing impacts of the proposed development on gardens and outdoor amenity space. In order to assess the effects of overshadowing on gardens and outdoor amenity space, a three dimensional model of the development and surrounding buildings has been constructed and the shadows caused by the building on the 21st March has been assessed. The 21st March is utilised because the day and night-time periods are of equal length. Furthermore, the 21st March has been chosen as it is the Spring Equinox and is considered to be the first day of the year when the ability to enjoy ones garden or amenity space is important. The 21st of March represents a worst-case scenario as after the 21st March, the shadows will become shorter until the 21st of June, when the shadows begin to lengthen again.

Figures 4.1 to 4.22 show the results of the overshadowing assessment at hourly intervals from 0700 hrs to 1700 hrs on the 21st March for the existing and proposed site layout.

The Second Edition of the BRE Report, published in 2011, has significantly revised the assessment procedure for the overshadowing of gardens and outdoor amenity space, changing the emphasis from ensuring that as much area as possible receive direct sunlight to ensuring that the garden receives significant amounts of sunlight, albeit over a smaller area. Under the 1991 version of the report, ideally not more than a quarter, and certainly no more than two-fifths of a garden or outdoor amenity space should be prevented from receiving any sun at all on the 21st March. This means that providing at least 60% of a garden receives some direct sunlight, even for just a few minutes, the garden is adequately sunlit. However, the 2011 version requires at least 50% of the garden must receive at least two full hours of direct sunlight on the 21st March. If this cannot be achieved, providing that the area overshadowed was greater than 0.8 times its former value, no impact would have occurred.

The gardens of greatest concern are those to the rear of the properties at the western end of Lenton Gardens, as well as the garden of the Rectory.

At the gardens to the western end of Lenton Gardens, primarily at numbers 17 and 18, the outdoor amenity space receives direct sunlight for large parts of the day, specifically between 10am and 2pm, after which, Hollyhedge Court begins to overshadow the gardens. The proposed development will overshadow the gardens at Lenton Gardens from around 2pm onwards (i.e. around the same time that they are already overshadowed), although not all gardens will be overshadowed at all times after 2pm. However, approximately 100% of the garden will continue to receive some direct sunlight for at least two hours on the 21st March, even with the introduction of the proposed development; therefore any changes in overshadowing are considered insignificant.

At the Rectory, the garden currently receives direct sunlight throughout the day until around 4pm, when shadows begin to encroach the garden. With the proposed development in place, the proposed development will begin overshadowing the garden around 8am, with the southern part of the garden being in shade. The proportion of the garden overshadowed increases at 9am and by 10am the garden is totally in shade. However, by 11am, the western part of the garden receives direct sun and continues to do so until past 1pm, when the western part of the garden becomes shaded again, although at all times throughout the rest of the afternoon, the western part of the garden will always receive at least some direct sunlight. The eastern part of the garden remains in shade until around 1pm, when it receives full sun again and remains in full sun until after 3pm when

the eastern part of the garden becomes shaded once more. Overall, whilst the amount of shade in the garden increases and at most times of the day at least part of the garden is in shade, all of the garden will continue to receive direct sunlight for at least two hours on the 21st March, even with the introduction of the proposed development; therefore any changes in overshadowing are considered insignificant.

Figure 4.1: Overshadowing Assessment Existing Site Layout – 21st March – 0700 hrs

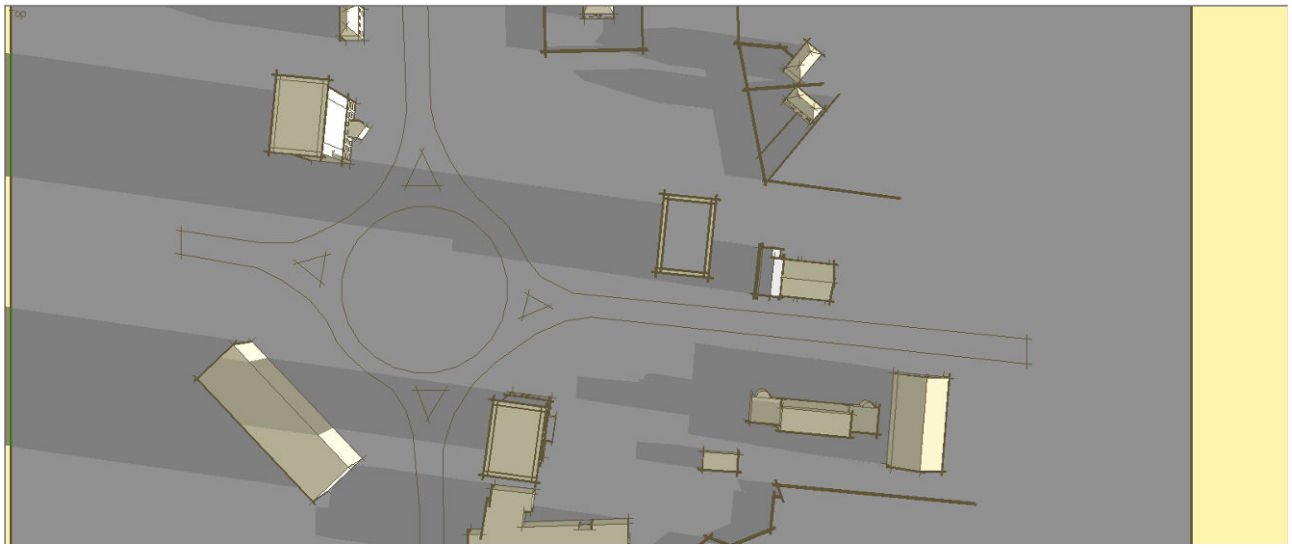


Figure 4.2: Overshadowing Assessment Proposed Site Layout – 21st March – 0700 hrs

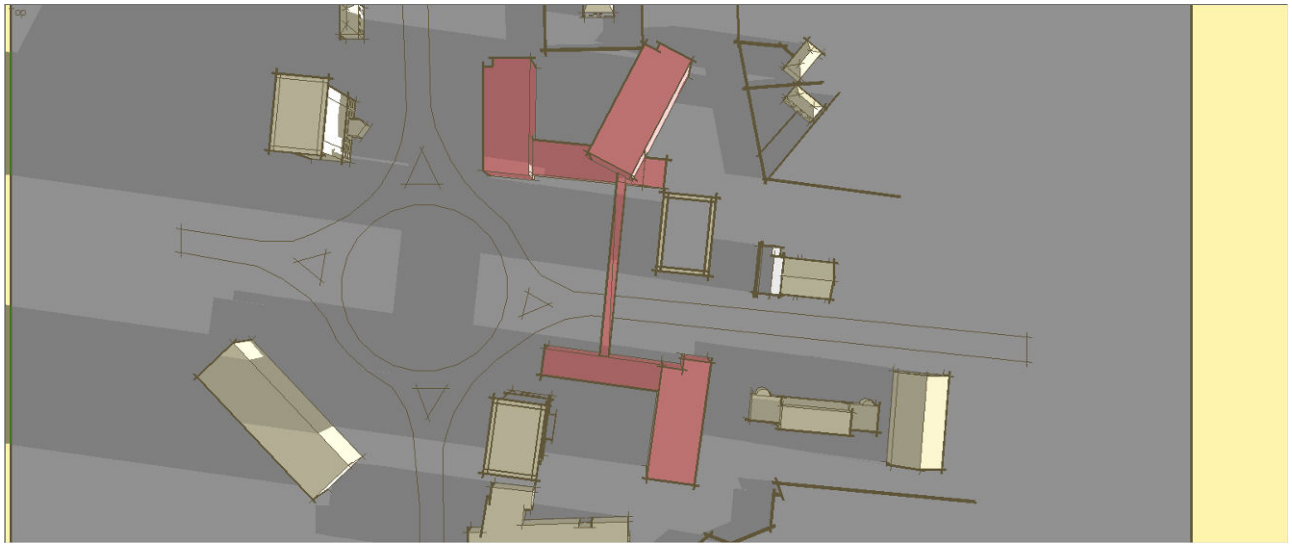


Figure 4.3: Overshadowing Assessment Existing Site Layout – 21st March – 0800 hrs

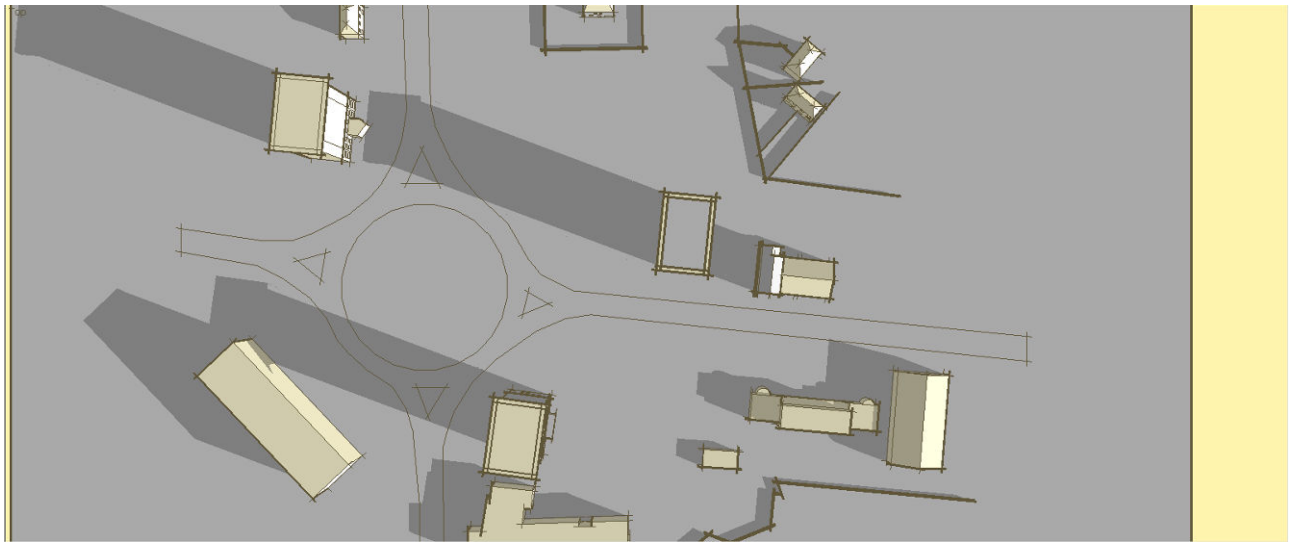


Figure 4.4: Overshadowing Assessment Proposed Site Layout – 21st March – 0800 hrs

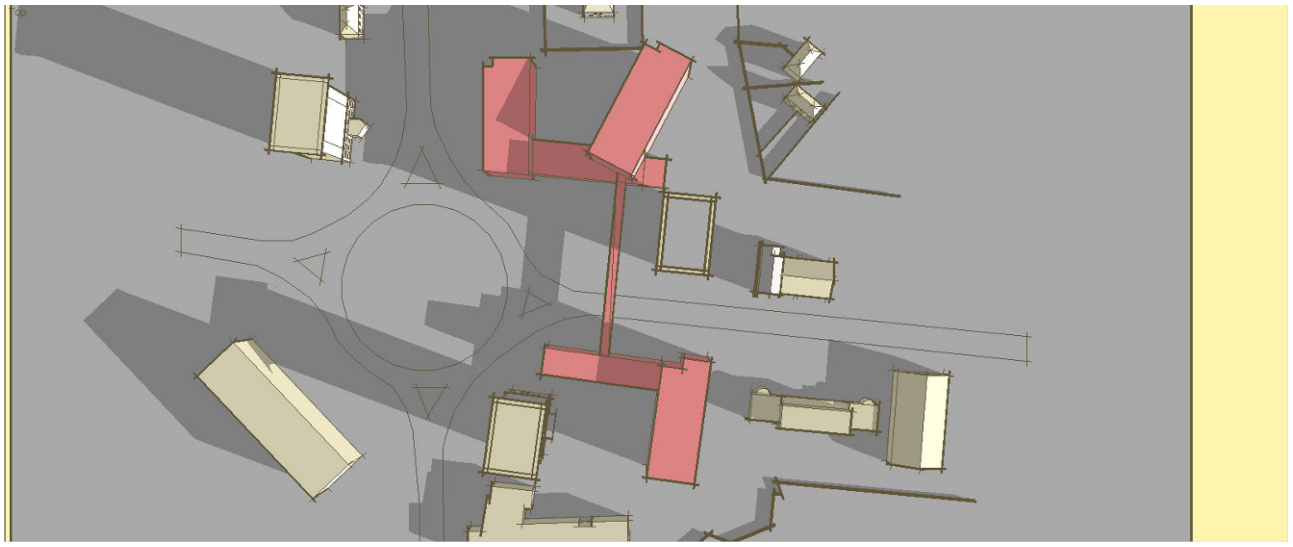


Figure 4.5: Overshadowing Assessment Existing Site Layout – 21st March – 0900 hrs

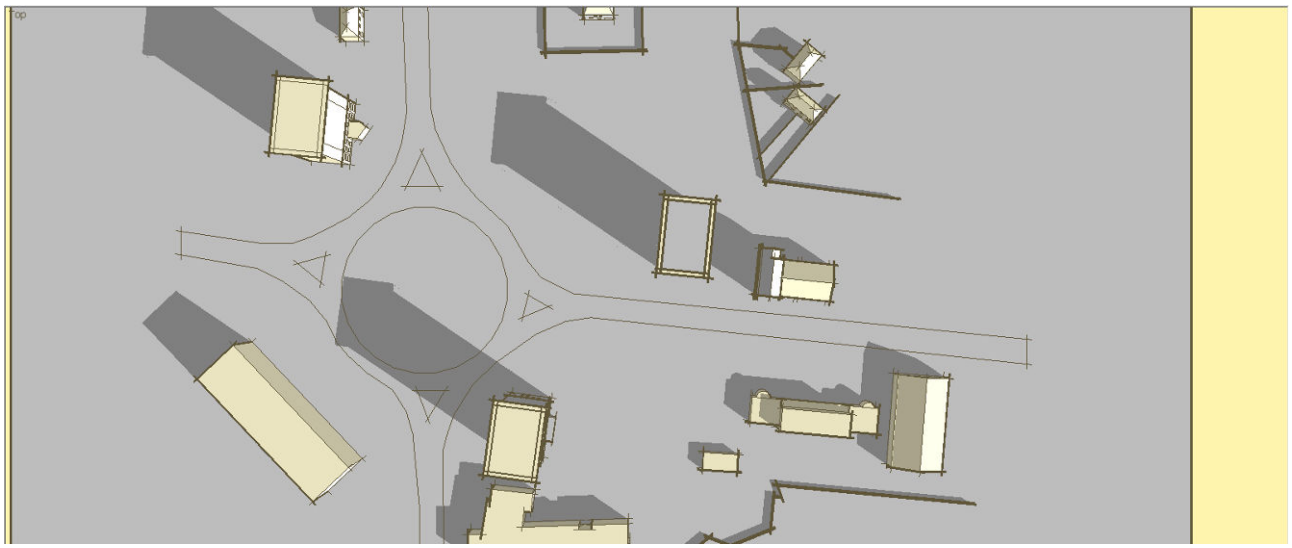


Figure 4.6: Overshadowing Assessment Proposed Site Layout – 21st March – 0900 hrs

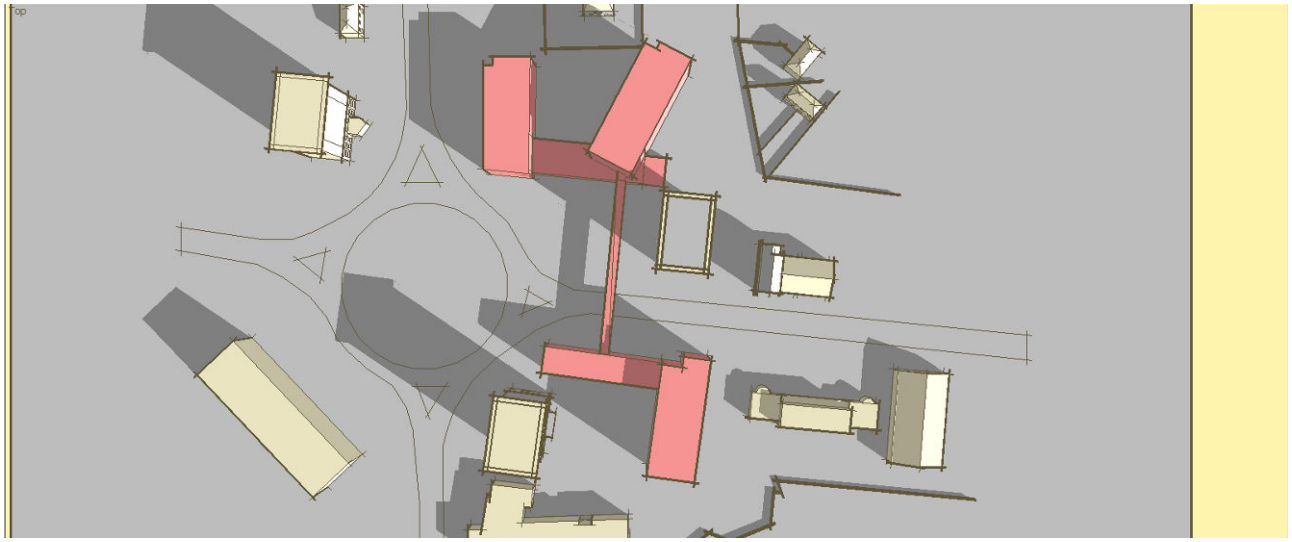


Figure 4.7: Overshadowing Assessment Existing Site Layout – 21st March – 1000 hrs

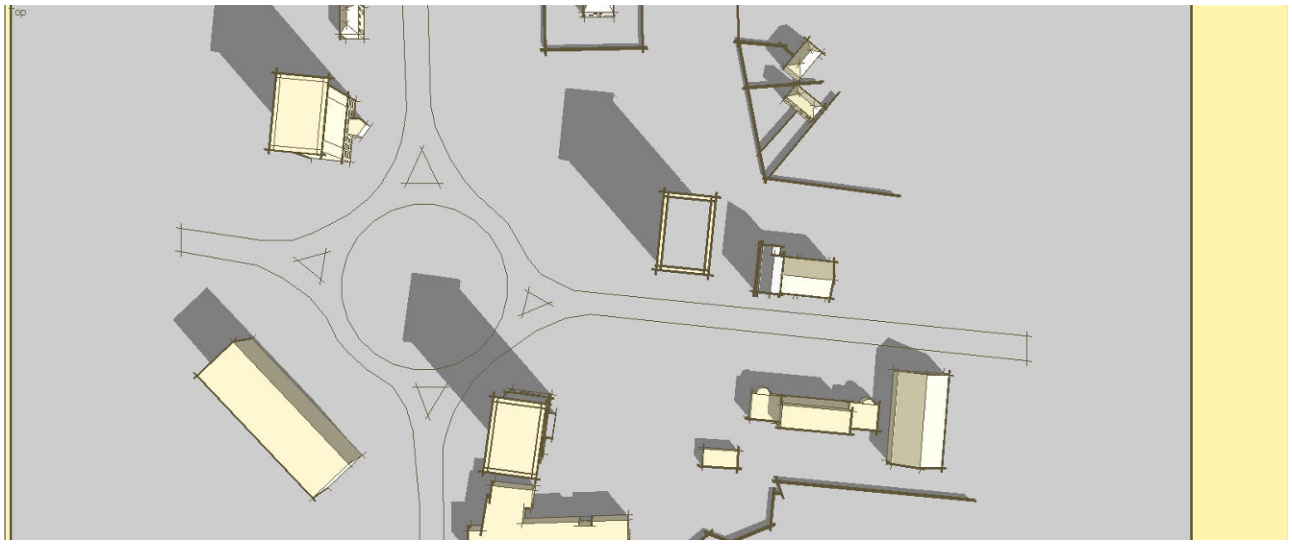


Figure 4.8: Overshadowing Assessment Proposed Site Layout – 21st March – 1000 hrs



Figure 4.9: Overshadowing Assessment Existing Site Layout – 21st March – 1100 hrs

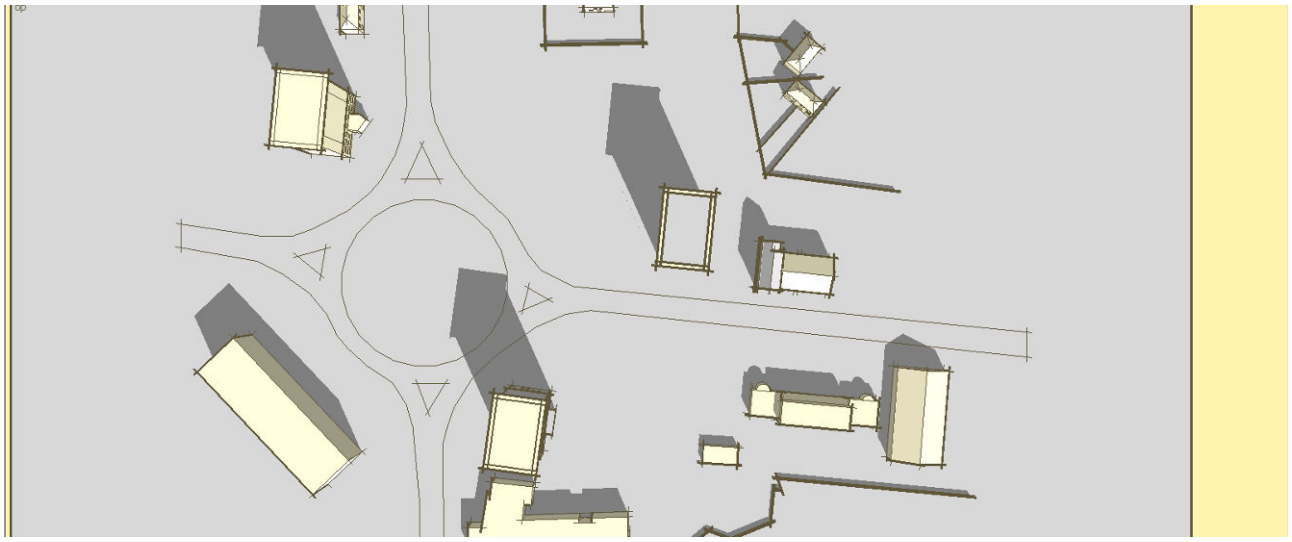


Figure 4.10: Overshadowing Assessment Proposed Site Layout – 21st March – 1100 hrs



Figure 4.11: Overshadowing Assessment Existing Site Layout – 21st March – 1200 hrs



Figure 4.12: Overshadowing Assessment Proposed Site Layout – 21st March – 1200 hrs



Figure 4.13: Overshadowing Assessment Existing Site Layout – 21st March – 1300 hrs



Figure 4.14: Overshadowing Assessment Proposed Site Layout – 21st March – 1300 hrs

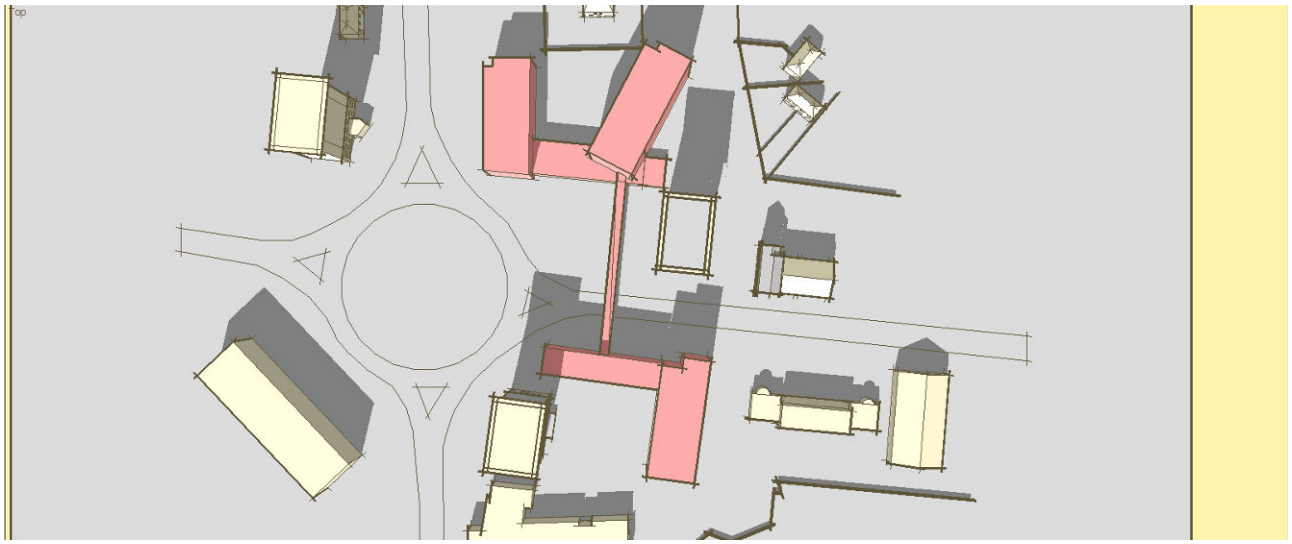


Figure 4.15: Overshadowing Assessment Existing Site Layout – 21st March – 1400 hrs

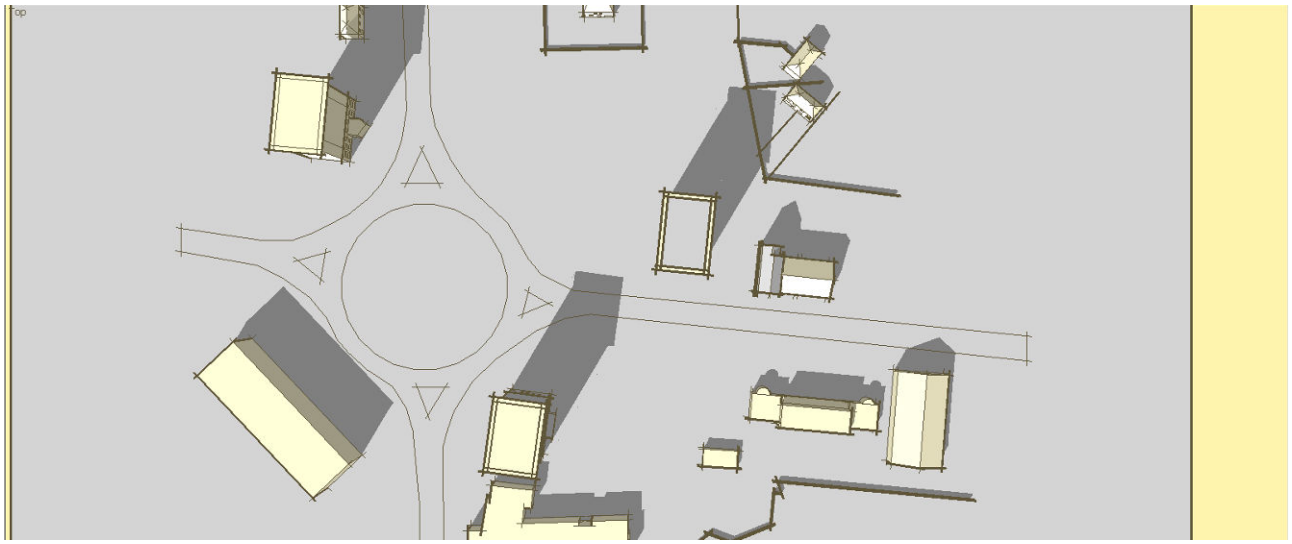


Figure 4.16: Overshadowing Assessment Proposed Site Layout – 21st March – 1400 hrs

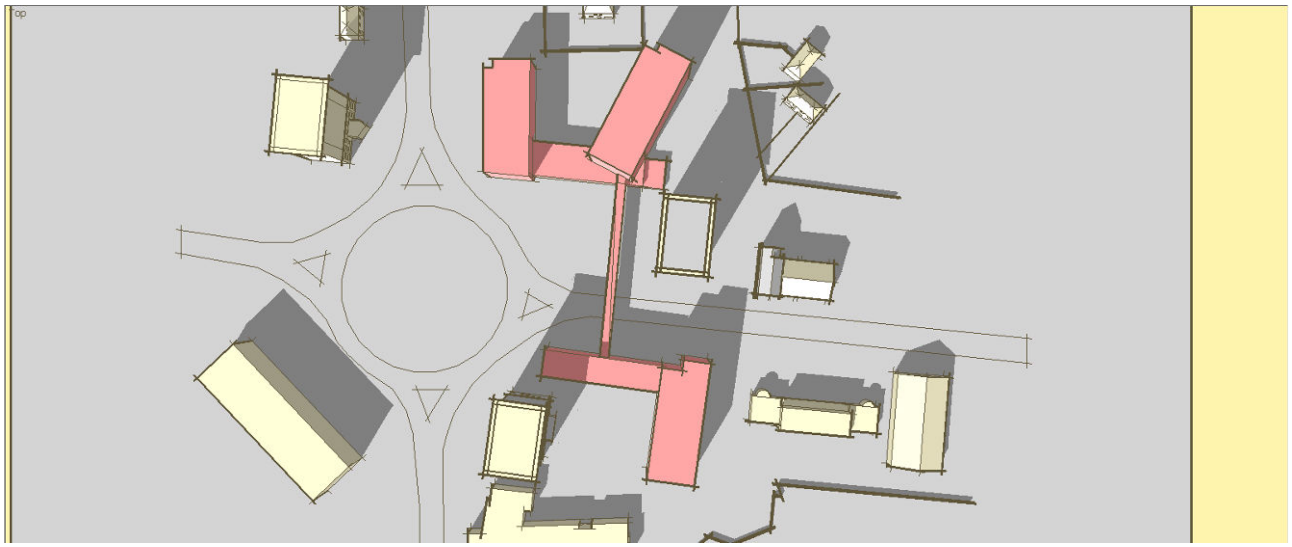


Figure 4.17: Overshadowing Assessment Existing Site Layout – 21st March – 1500 hrs

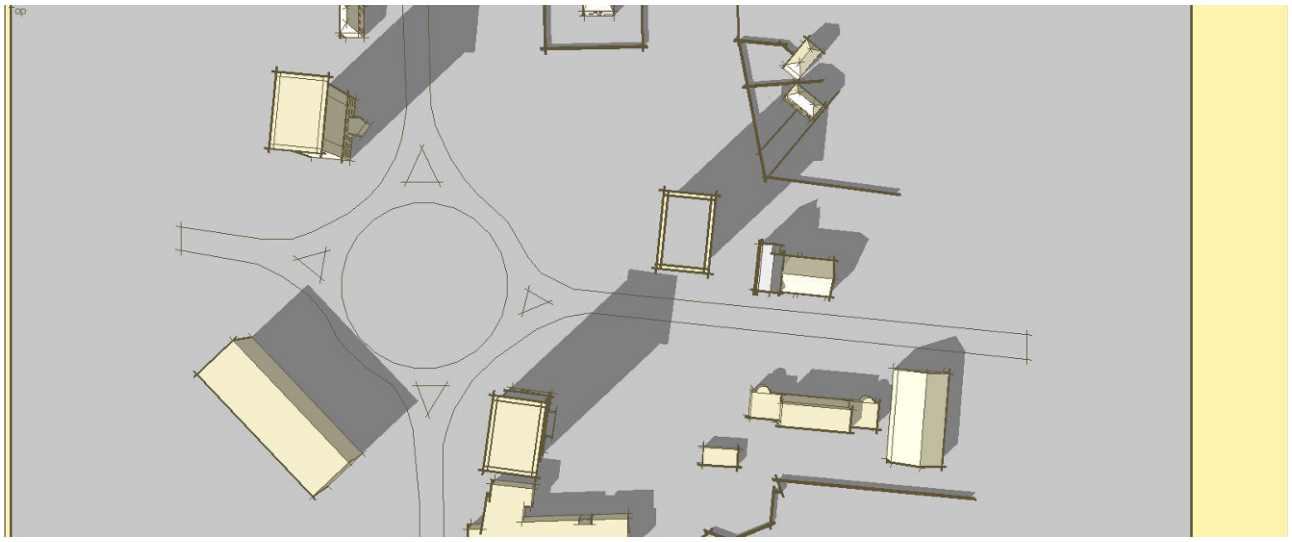


Figure 4.18: Overshadowing Assessment Proposed Site Layout – 21st March – 1500 hrs

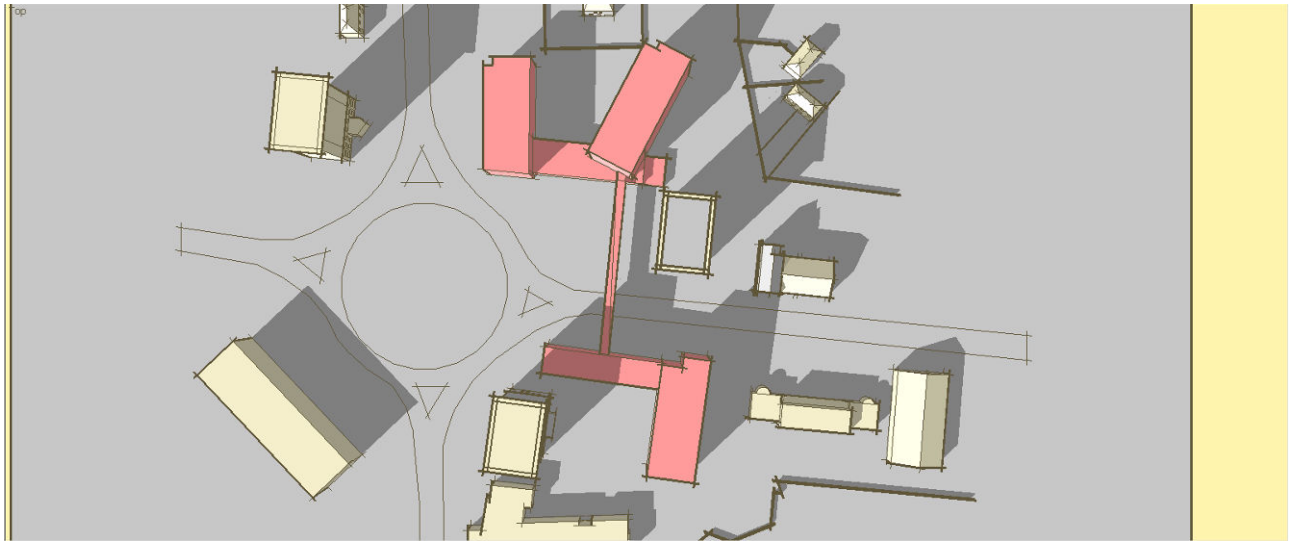


Figure 4.19: Overshadowing Assessment Existing Site Layout – 21st March – 1600 hrs

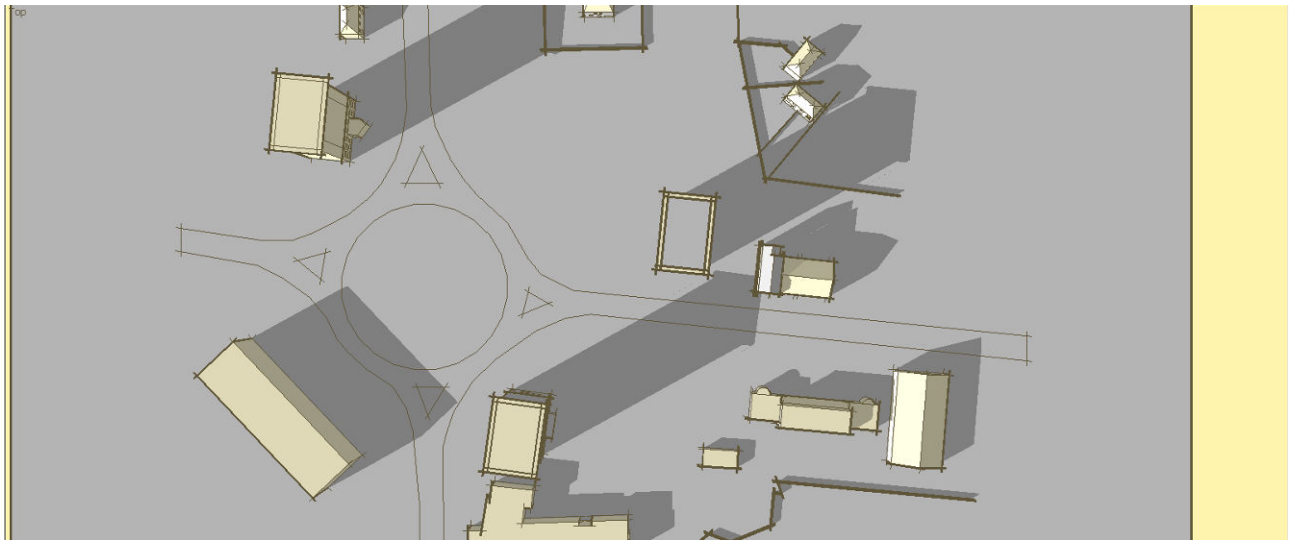


Figure 4.20: Overshadowing Assessment Proposed Site Layout – 21st March – 1600 hrs

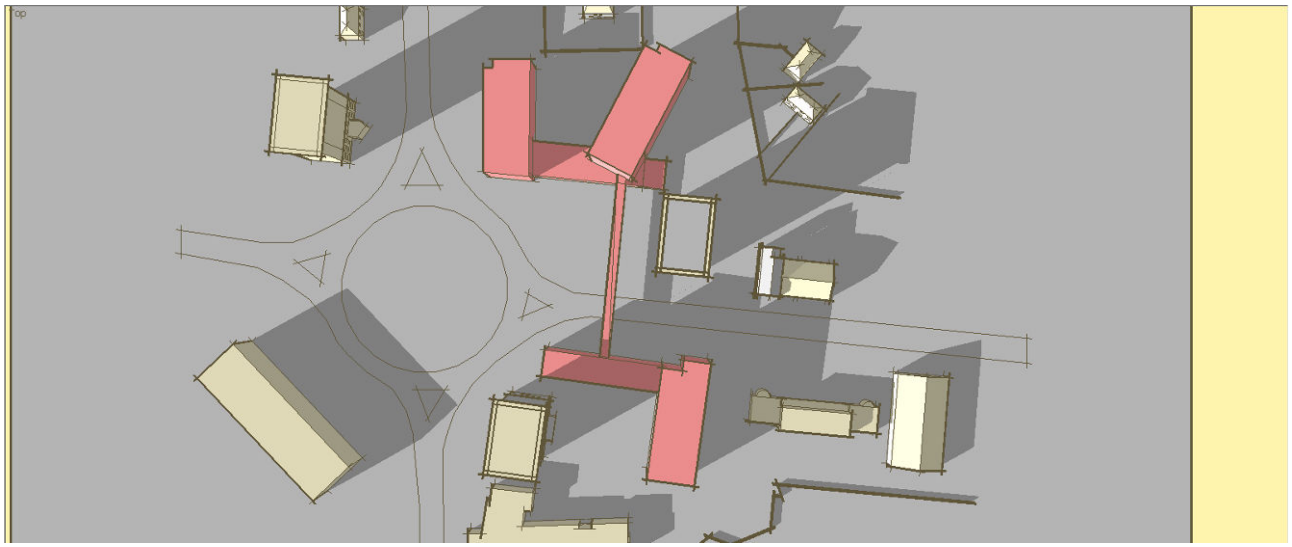


Figure 4.21: Overshadowing Assessment Existing Site Layout – 21st March – 1700 hrs

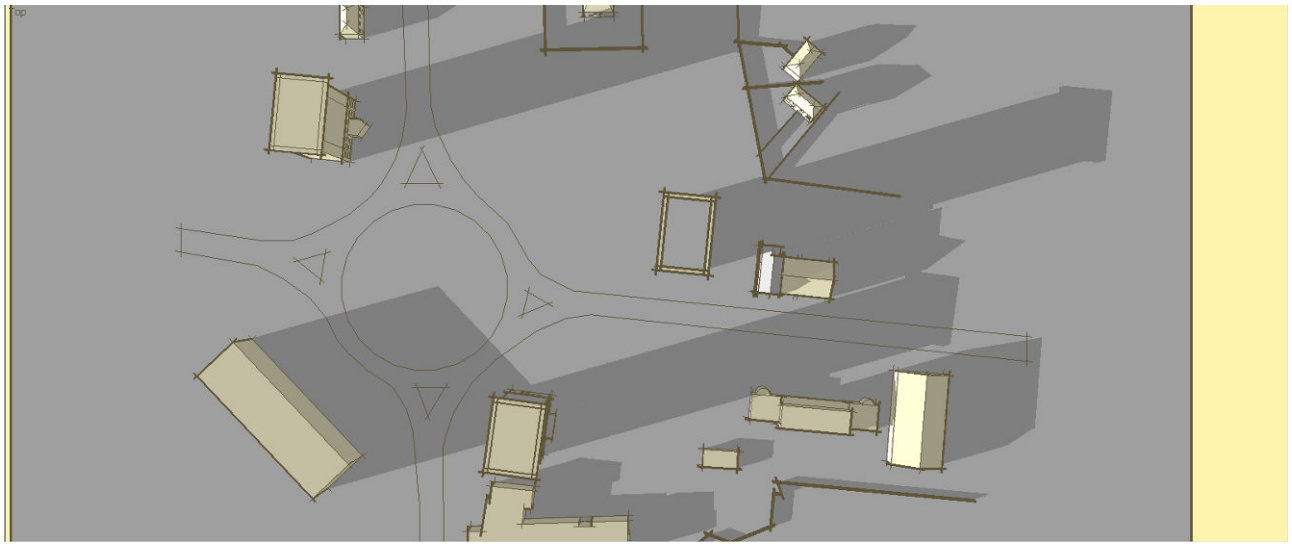
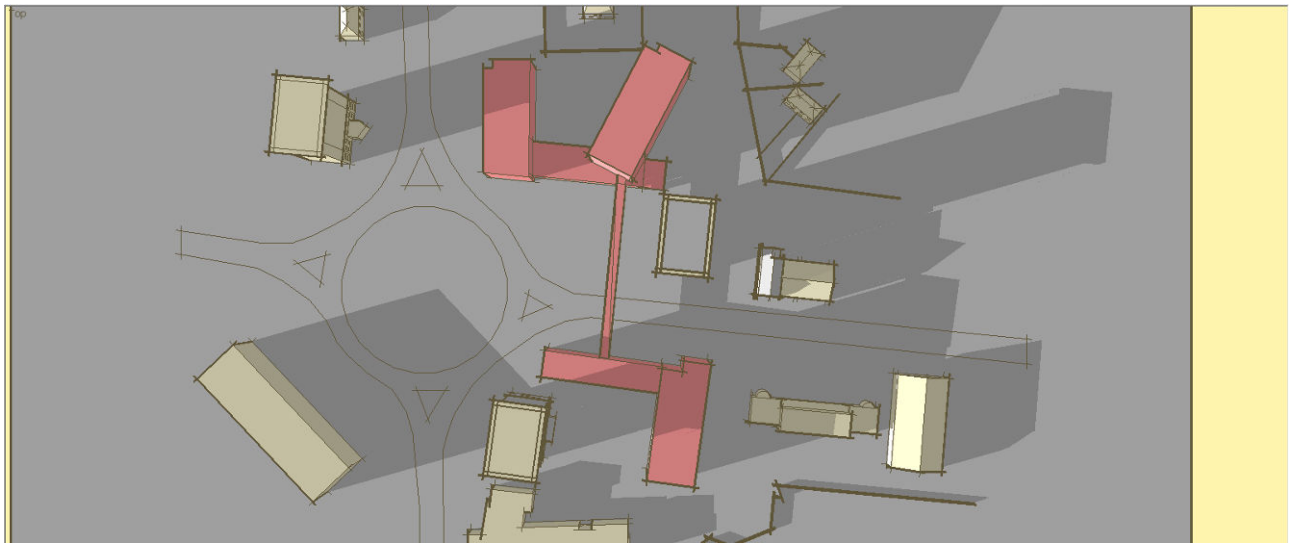


Figure 4.22: Overshadowing Assessment Proposed Site Layout – 21st March – 1700 hrs



5. CONCLUSIONS

Calculations were conducted in accordance with the BRE Report in order to determine the extent to which the proposed redevelopment of The Village will affect the levels of daylight and sunlight at adjacent properties.

The calculations have shown that at surrounding properties, there will be a reduction in both daylight and sunlight to a number of windows. However, to most properties the reductions in both daylight and sunlight will be fairly small and as such, under the BRE Guidance, the impacts are considered to be *"negligible"*. However, it is predicted that there will be *"minor adverse"* impacts the level of daylight serving seventeen windows, at approximately seven dwellings.

Calculations have shown that there will not be a significant impact on sunlight to any windows, nor to the levels of sunlight to gardens.

It is important to note that the BRE Guidance only contains guidance and recommendations on daylight and sunlight impact assessment. The numerical values given within the report are not minimum standards, but rather aspirational best practice design criteria. Whilst it may be desirable to meet the recommendations within the BRE Guidance, failure to meet these recommendations does not mean that the development should be refused planning permission on this basis. The BRE report states that *"The advice given (in the report) is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in layout design."* Therefore, since the design of the development has been crafted to minimise the impact on surrounding dwellings, overall, it is recommended that daylight should not be a constraint upon the development of the site.

Appendix 1
Site Plan

Appendix 1: Site Plan

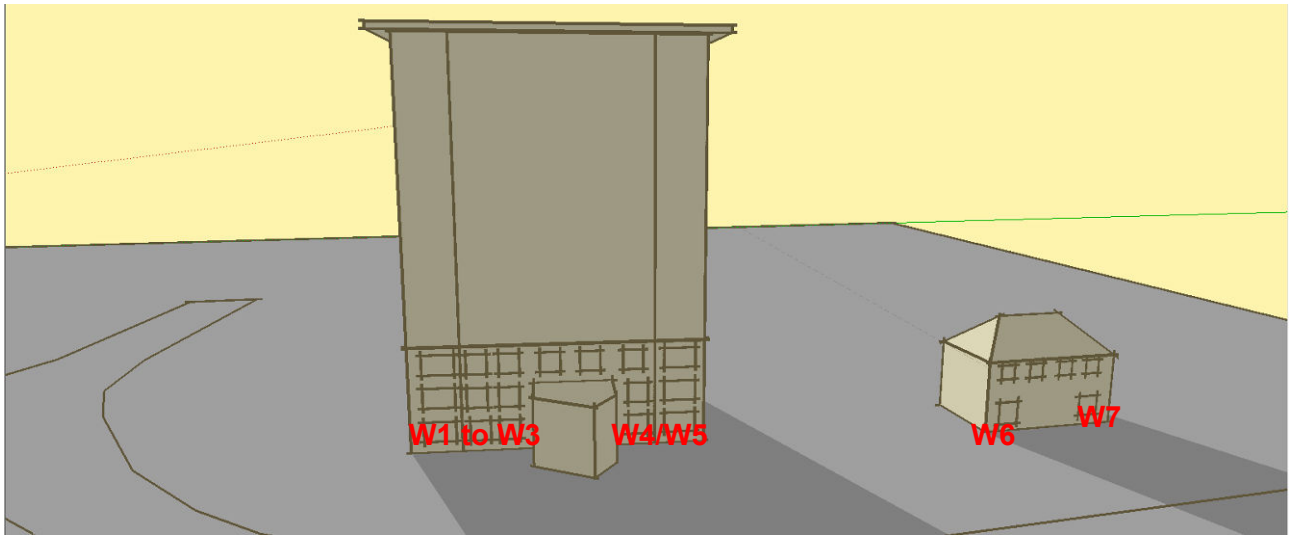


Development Site

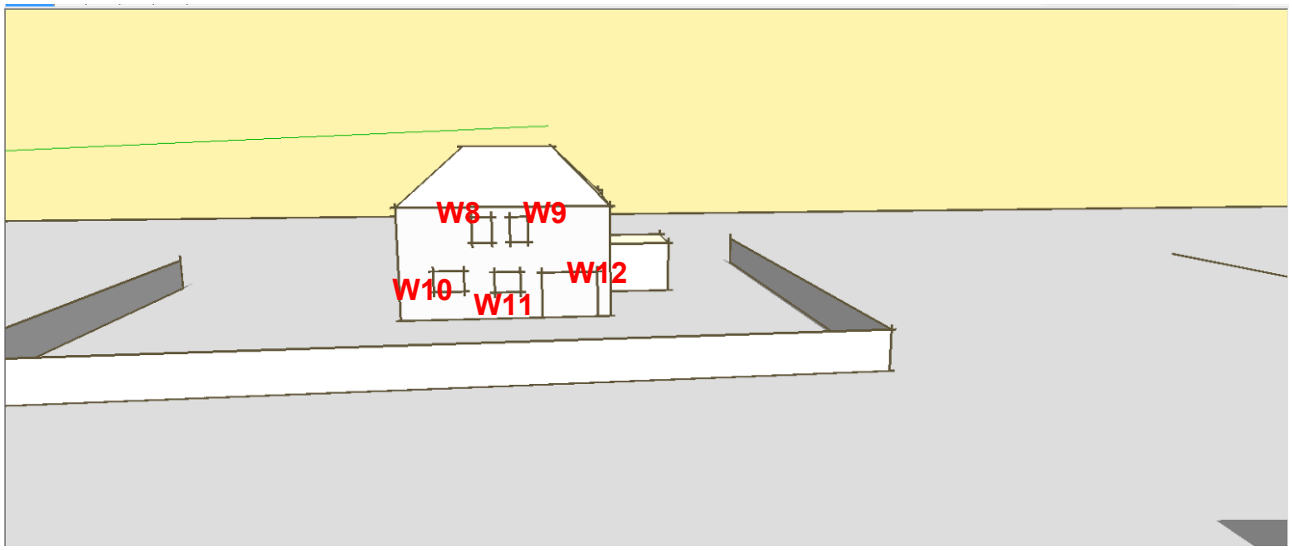
Appendix 2
Window Schedules

Appendix 2: Window Schedules

Brownley Court and 100/98 Brownley Road



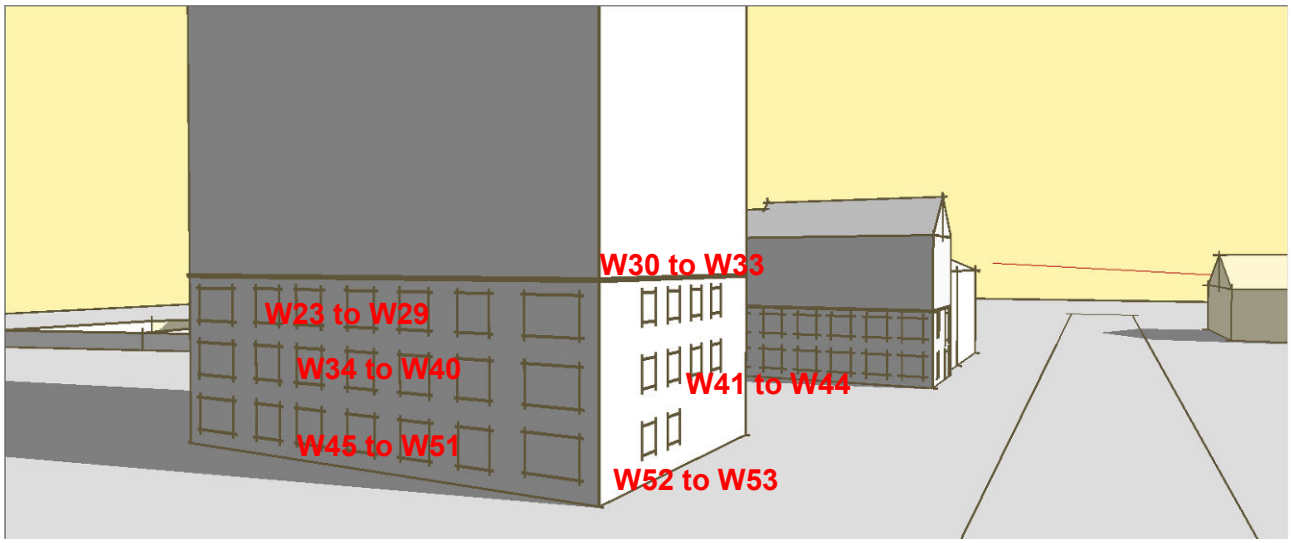
The Rectory



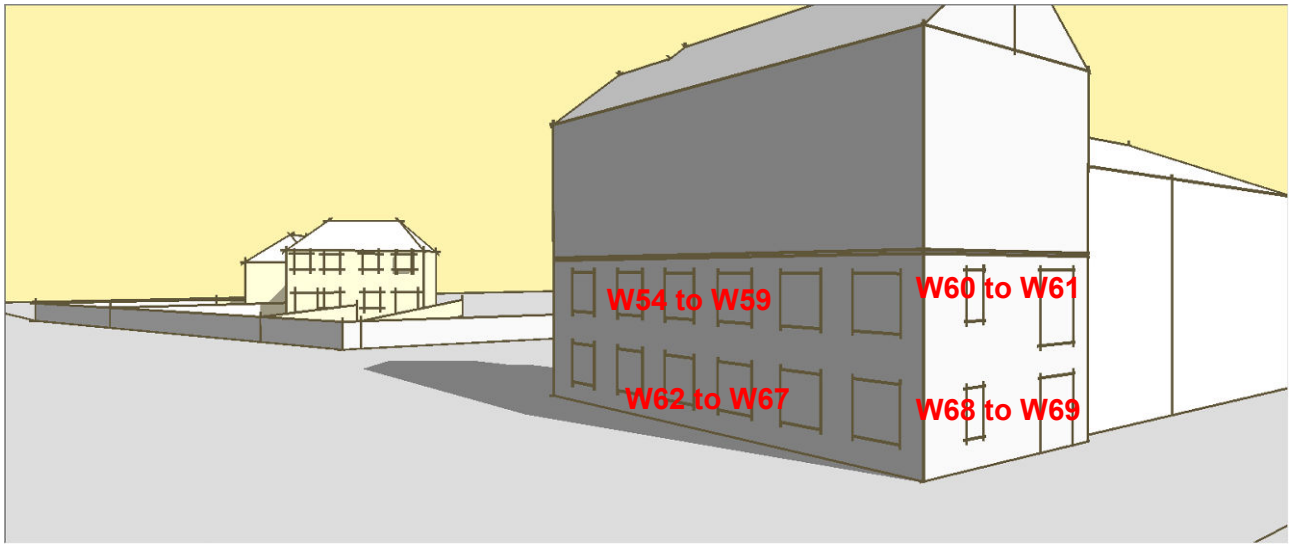
Hollyhedge Court (North)



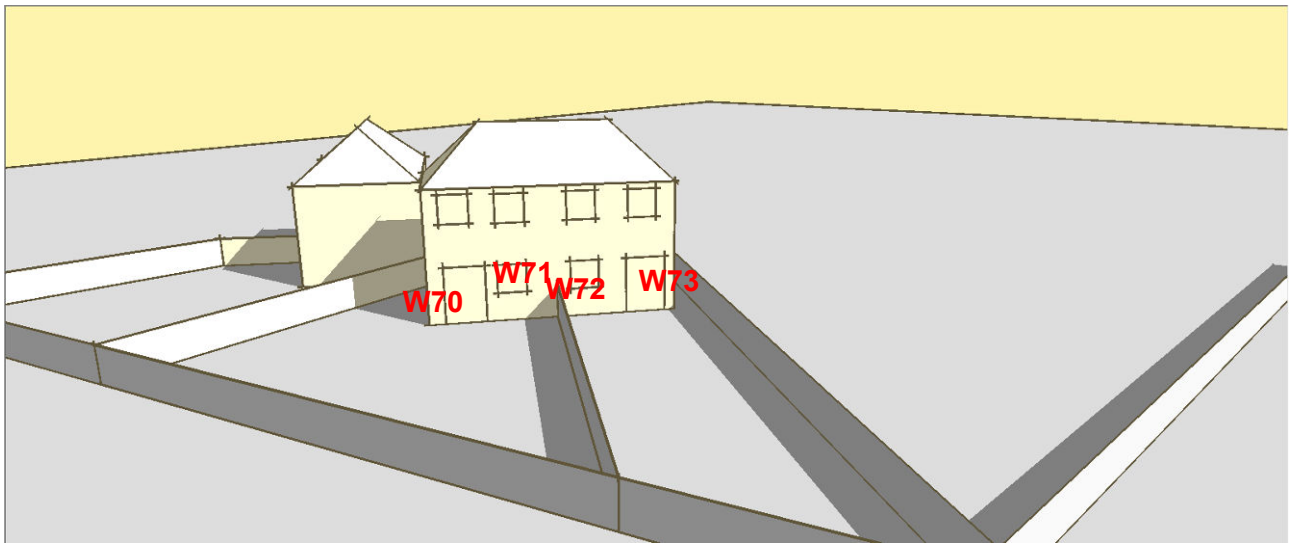
Hollyhedge Court (West/South)



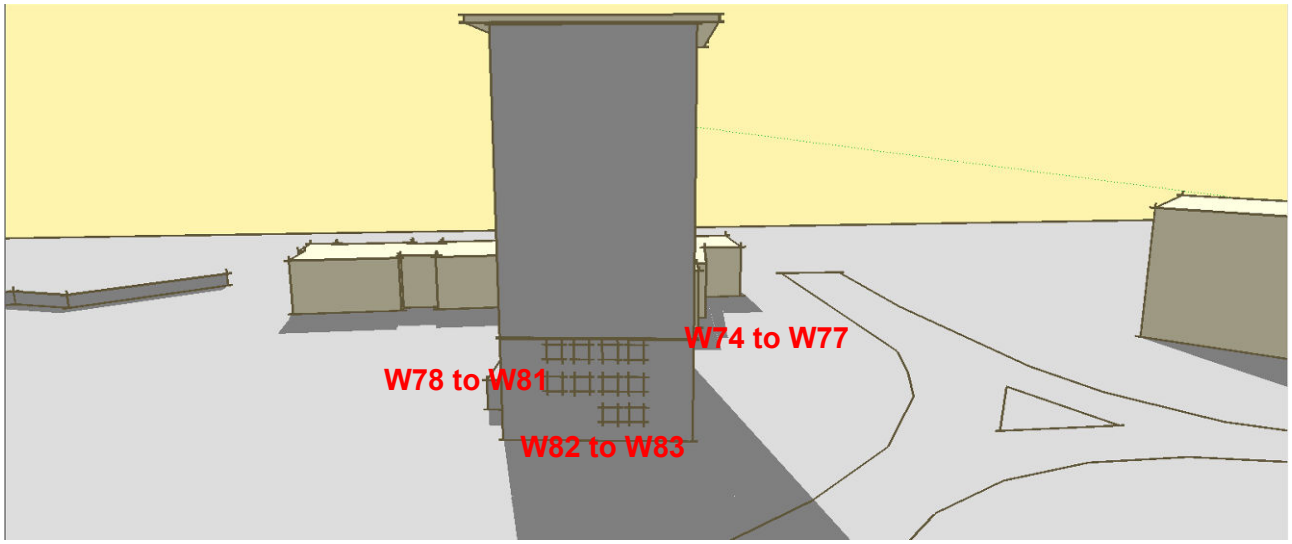
Hollyhedge View



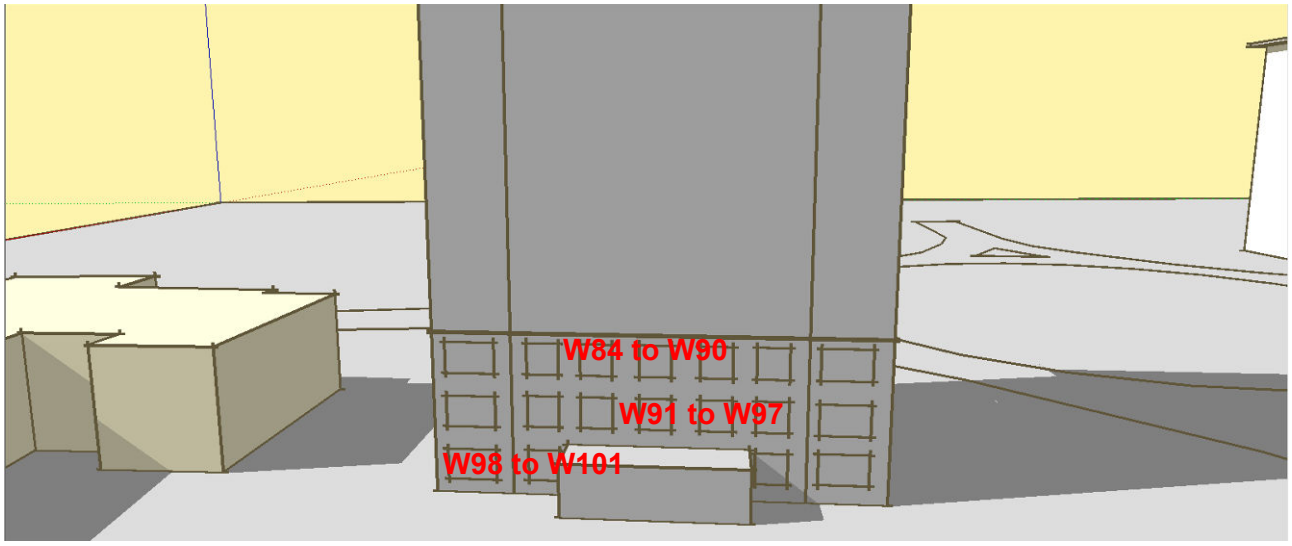
17/18 Lenton Gardens



Benchill Court (north)



Benchill Court (East)

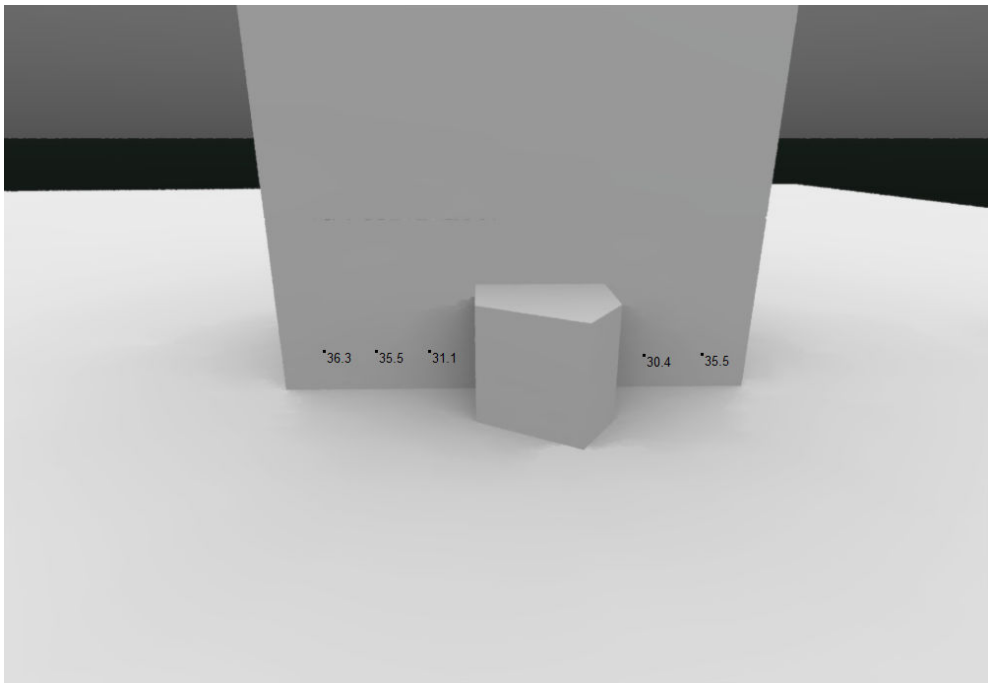


Appendix 3
VSC Analysis

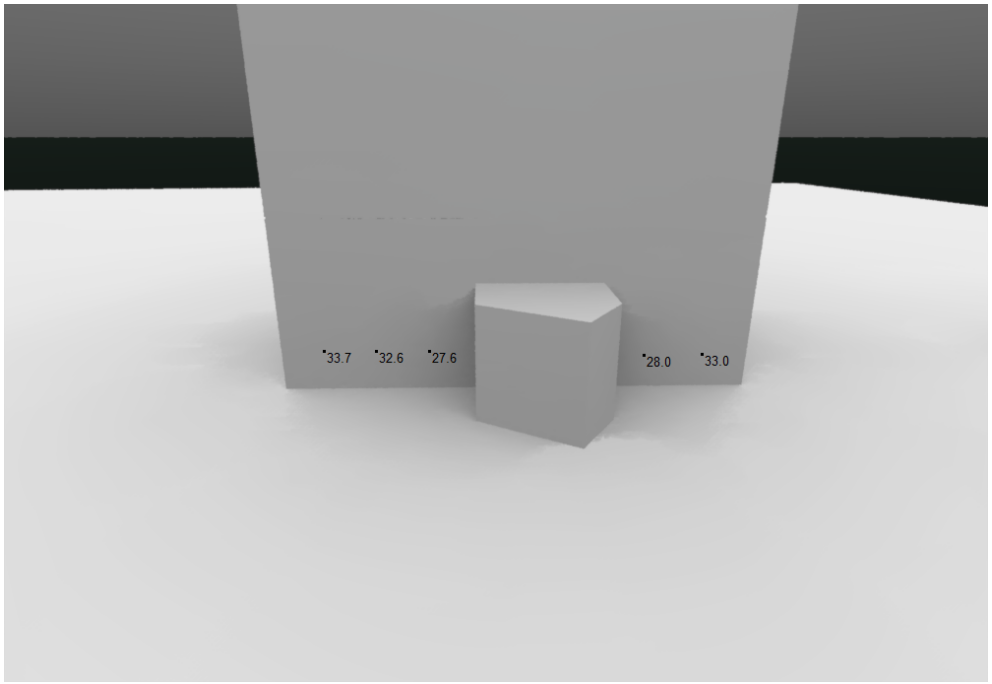
Appendix 3: VSC Analysis

Brownley Court

Existing:

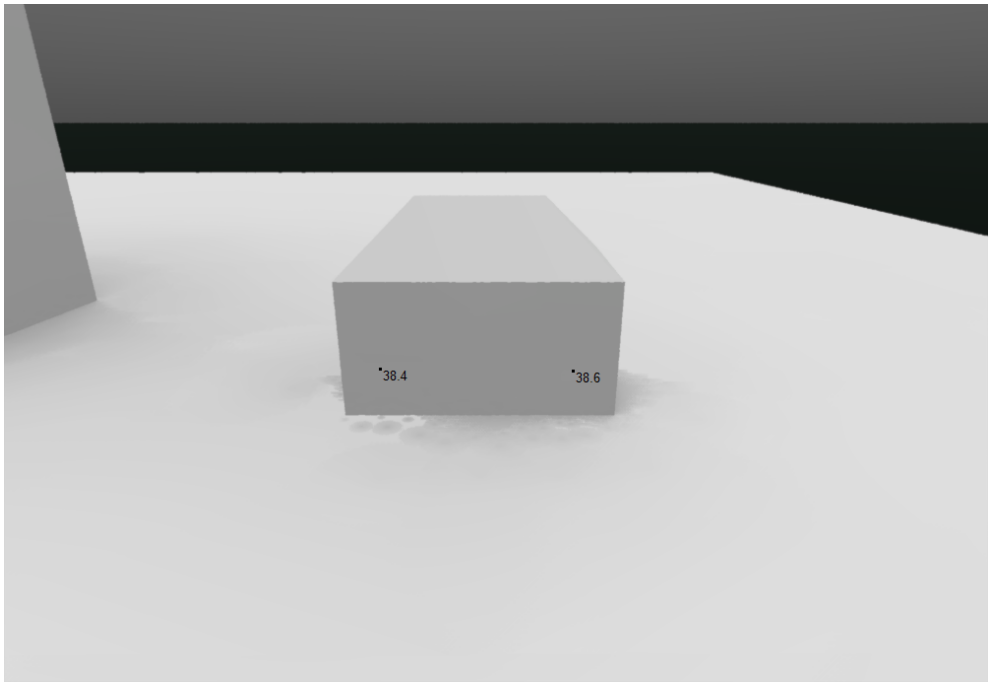


Proposed:

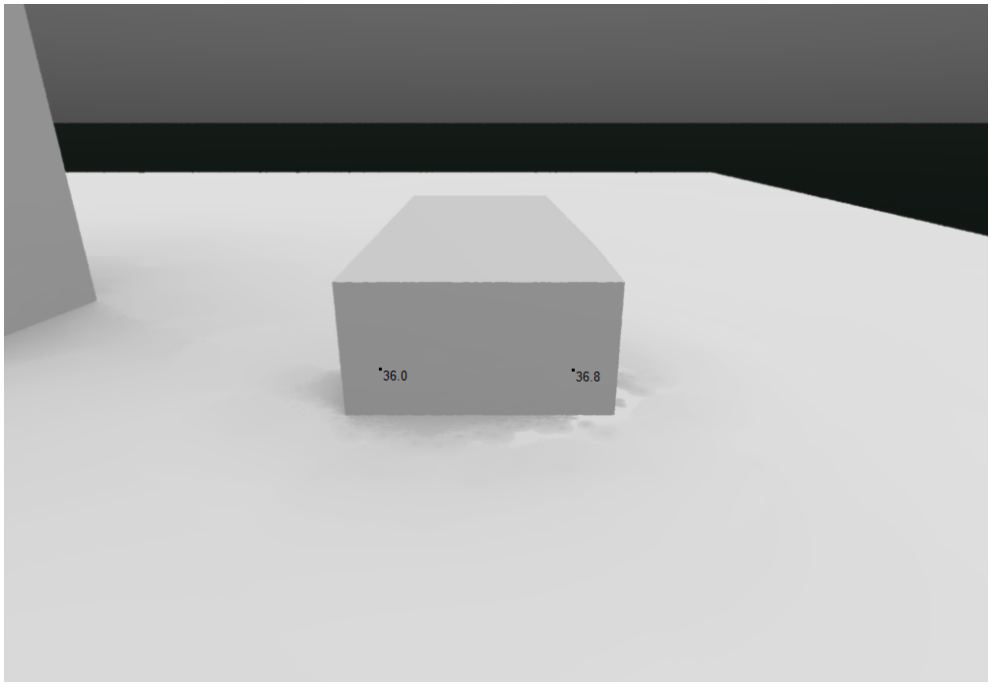


100/98 Brownley Road

Existing:

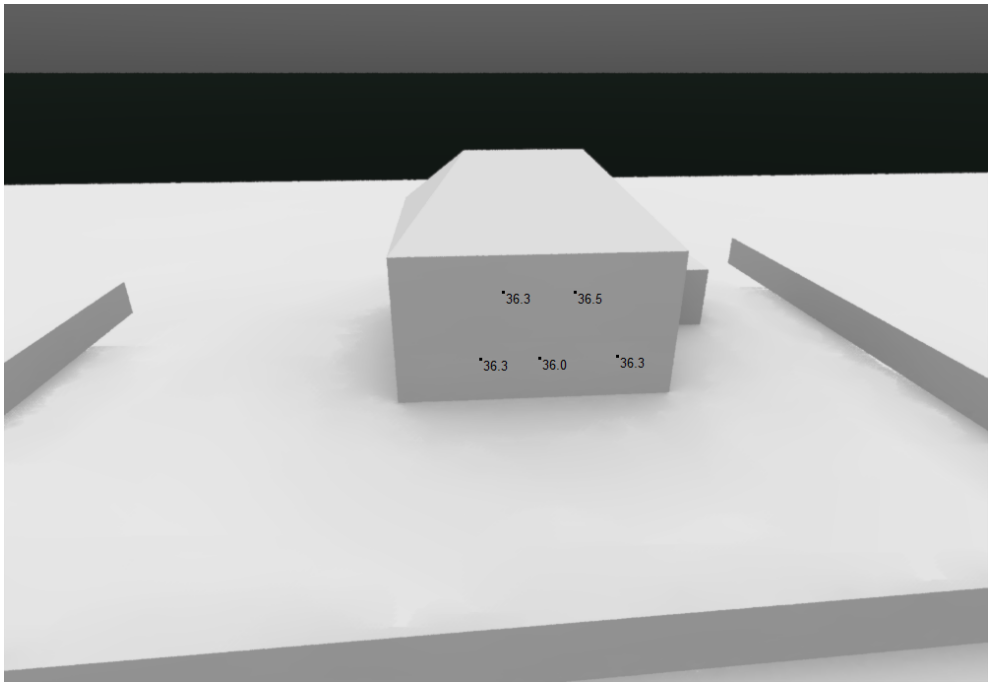


Proposed:

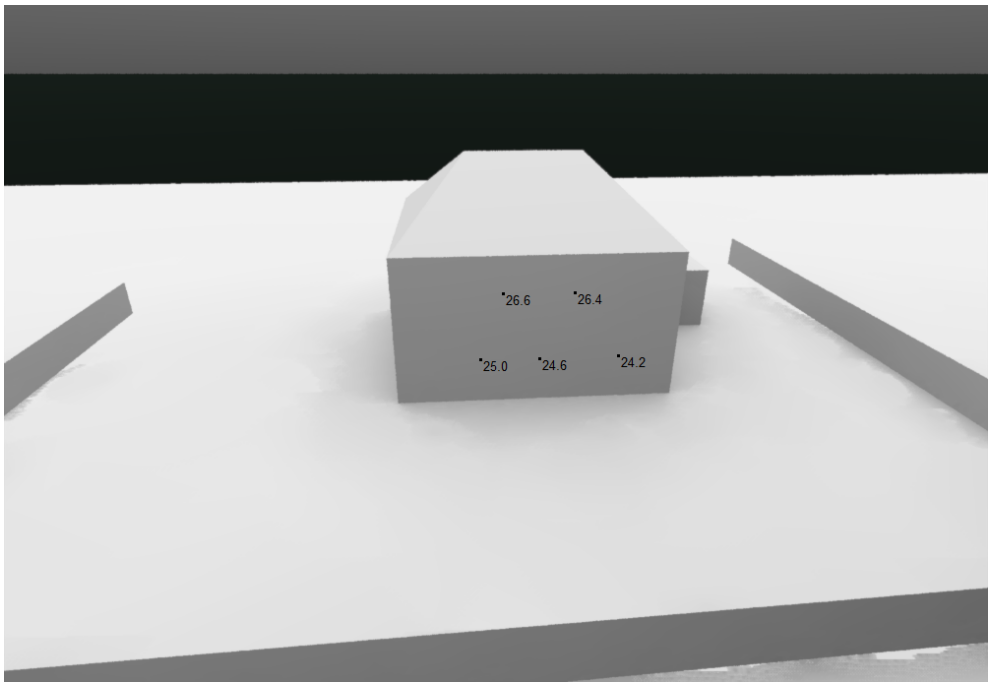


The Rectory

Existing:

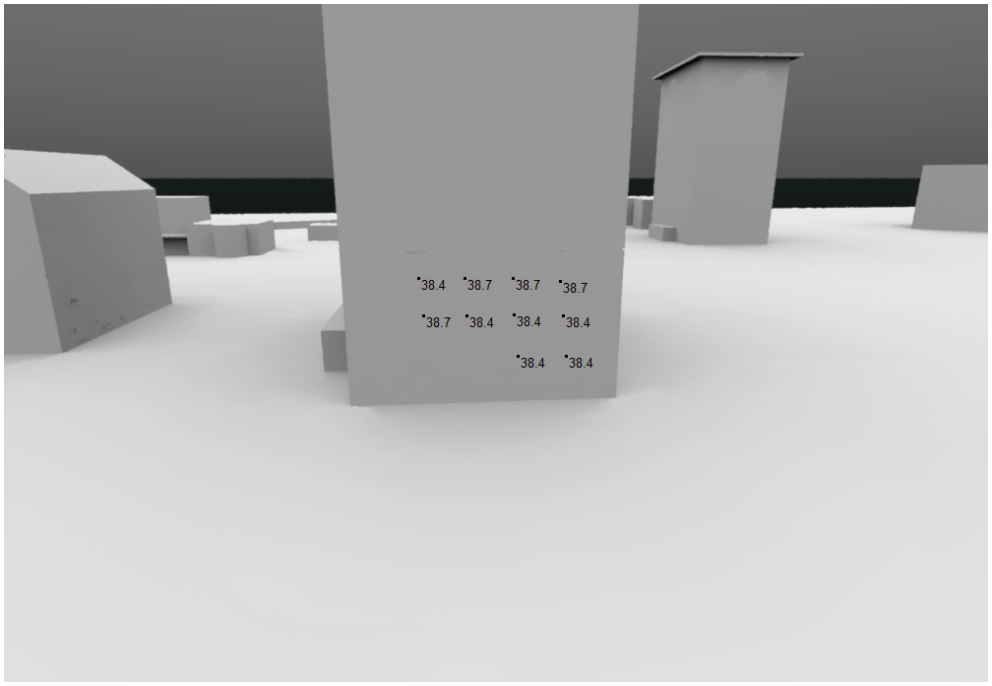


Proposed:

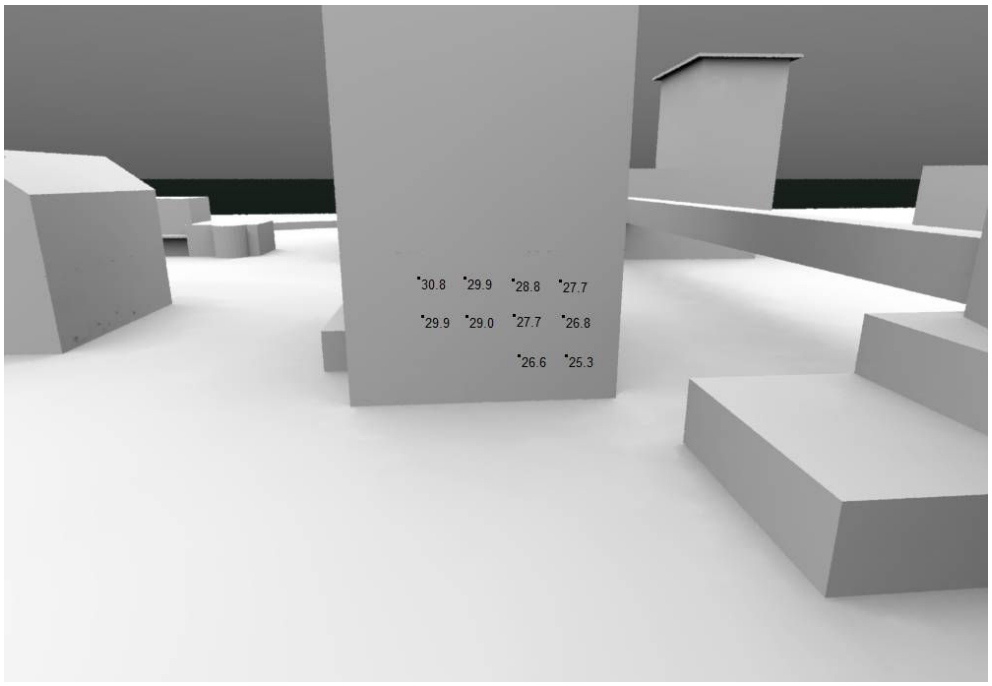


Hollyhedge Court (North)

Existing:

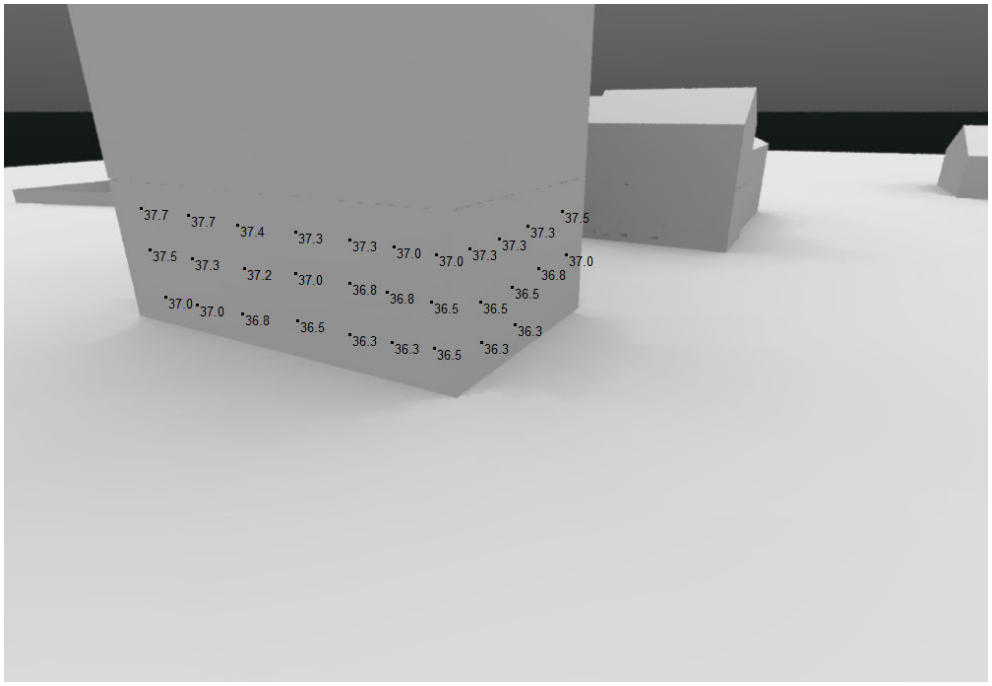


Proposed:

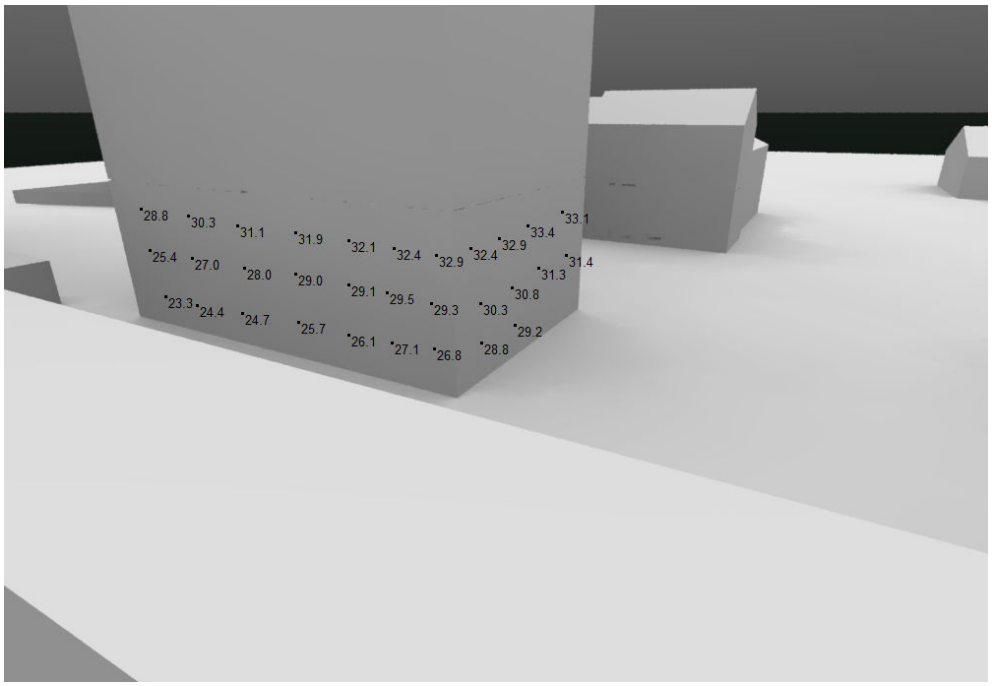


Hollyhedge Court (West/South)

Existing:

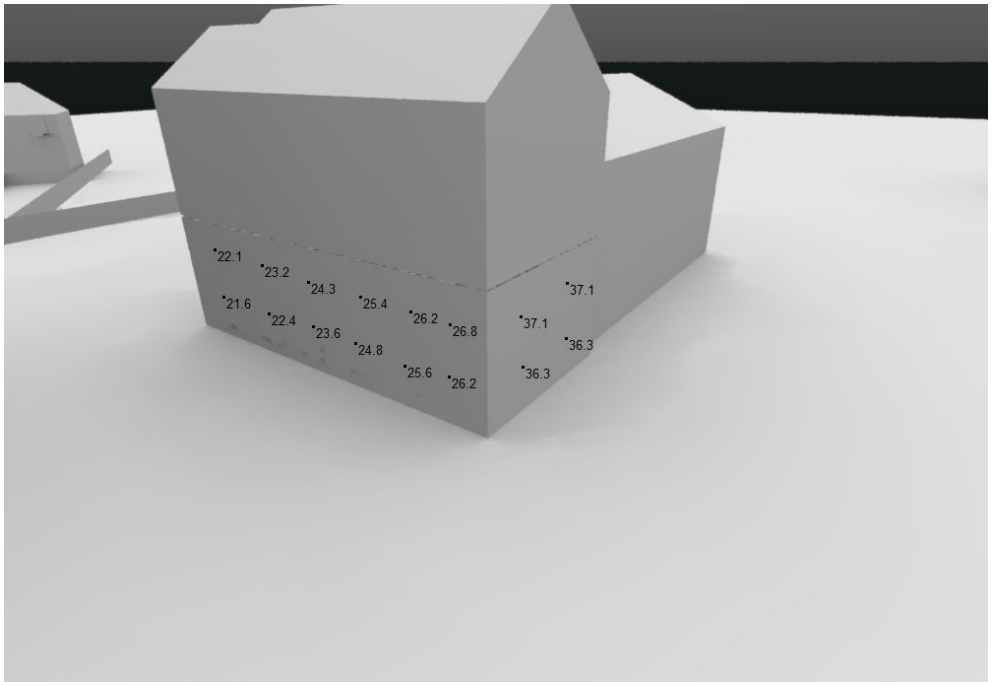


Proposed:

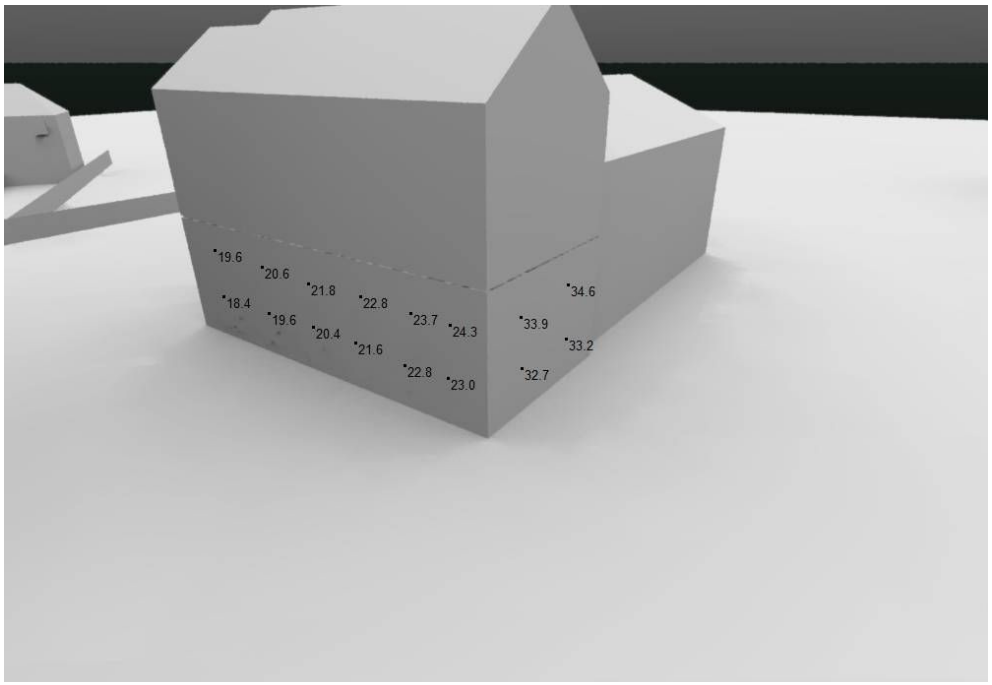


Hollyhedge View

Existing:

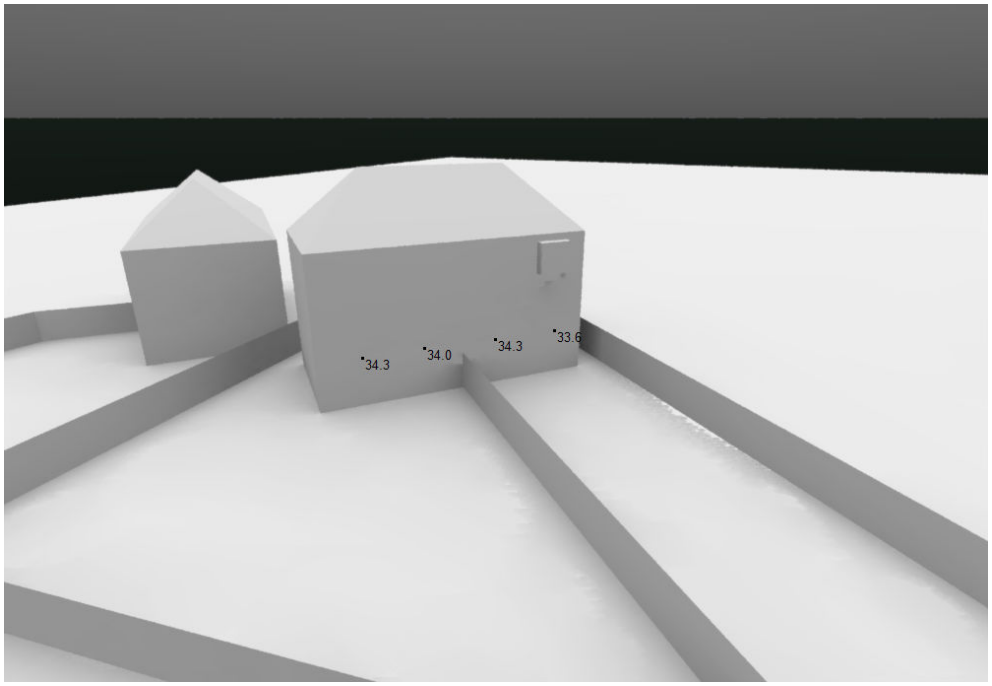


Proposed:

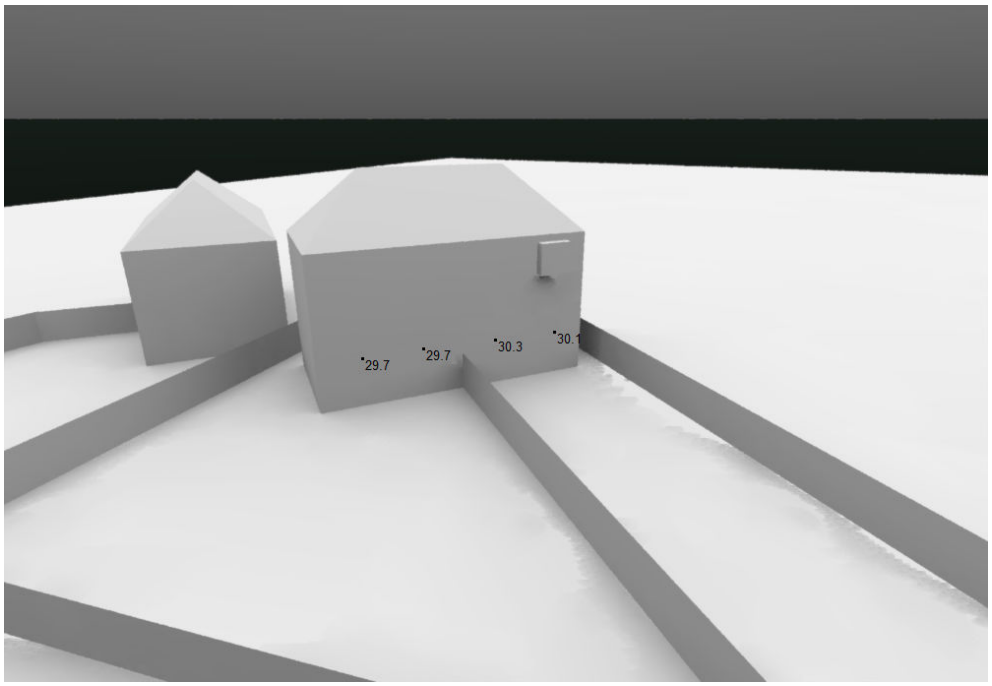


17/18 Lenton Gardens

Existing:

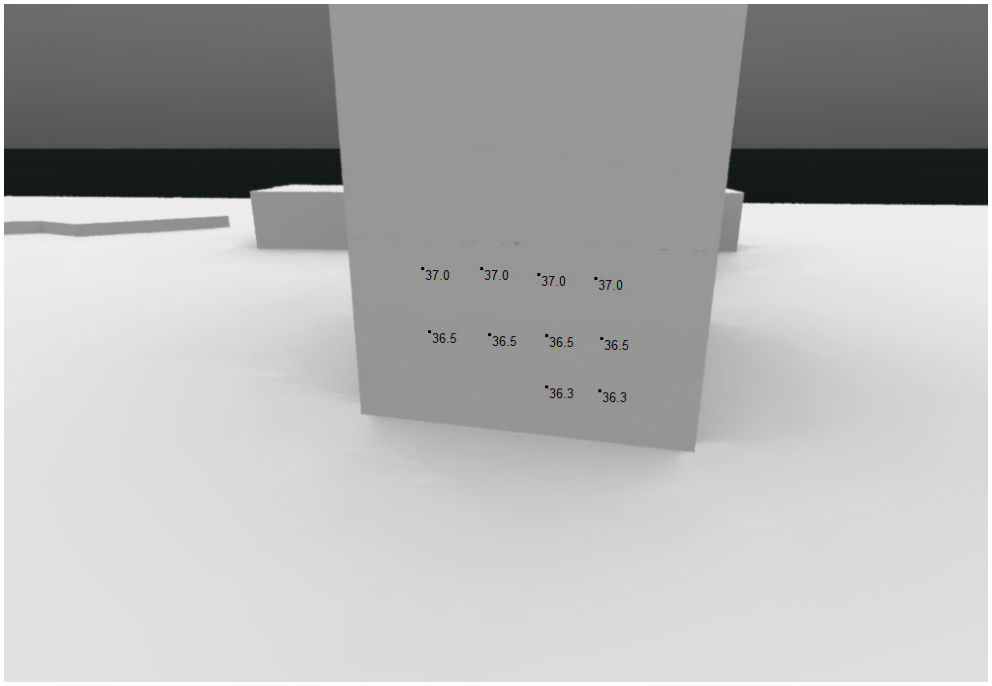


Proposed:

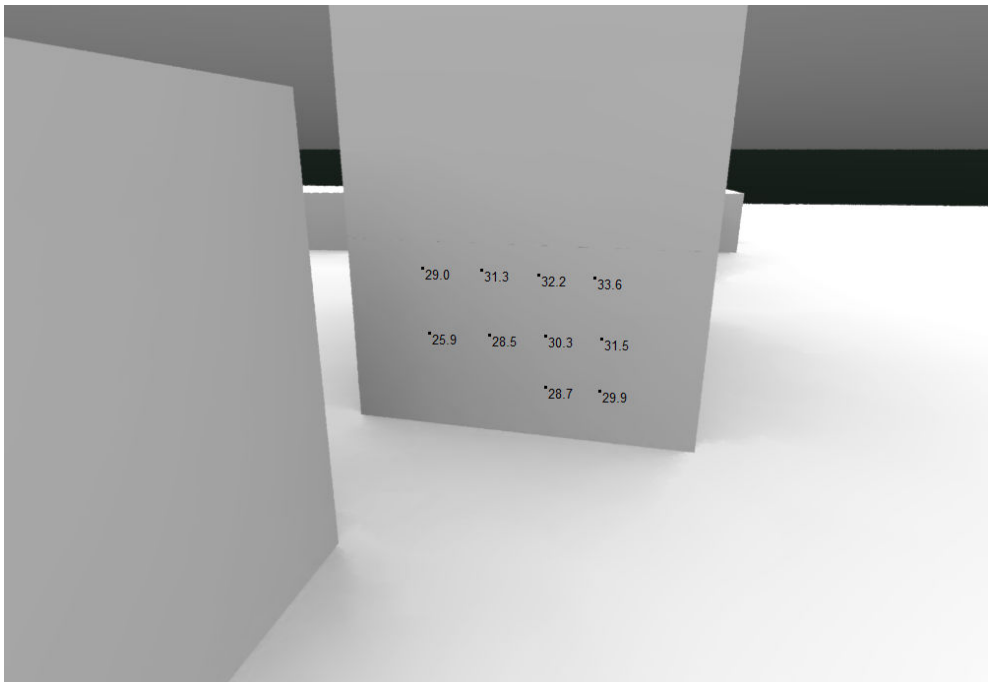


Benchill Court (North)

Existing:

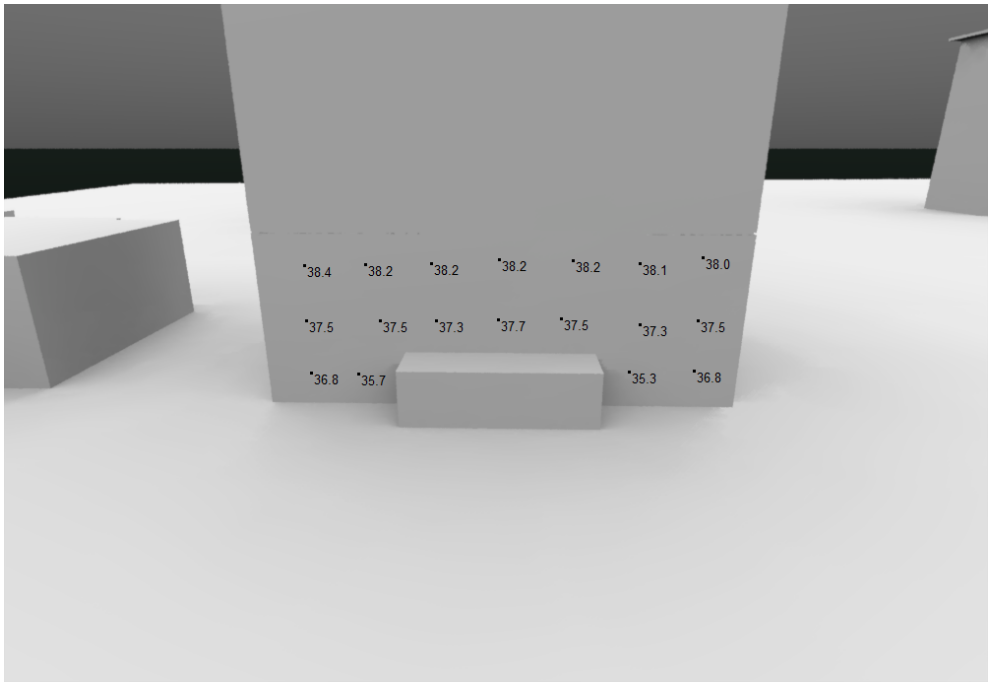


Proposed:



Benchill Court (East)

Existing:



Proposed:

