

# Cherry Orchard Point

Daylight, Sunlight and Overshadowing Assessment



2020

CIBSE BUILDING  
PERFORMANCE  
CONSULTANCY



2020

EXCELLENCE IN  
ENERGY AWARD



2019

ICE PROJECT OF  
THE YEAR



2017

EUROPEAN  
ENERGY AWARDS

**LAWLER**  
SUSTAINABILITY

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Current Revision			
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	Kiran Tati	Kevin Fitzgerald	Moved list of Figures and Tables to Appendix. Addressed comments from client.
<b>Role:</b>	Sustainability Engineer	Senior Sustainability Engineer	

Previous Revisions				
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R1	23/08/2023	Kiran Tati	Kevin Fitzgerald	For Review
R2	27/09/2023	Kiran Tati	Kevin Fitzgerald	Combined a studio and one bed apartment into a 3-bed apartment in Building 2A as per Architect's request

## Glossary

<b>Daylight</b>	Combined skylight and sunlight
<b>Sunlight</b>	Direct rays of light emitted from the sun
<b>Skylight</b>	Indirect rays of light emitted from the sun and environment
<b>Vertical Sky Component (VSC)</b>	VSC is a measure of the amount of light reaching a window. It is the ratio of that part of illuminance, at a point on a given vertical plane, that is received directly from a CIE standard overcast sky, to illuminance on a horizontal plane due to an unobstructed hemisphere of this sky. Usually the 'given vertical plane' is the outside of a window wall. The VSC does not include reflected light, either from the ground or from other buildings.
<b>Annual/Winter Probable Sunlight Hours (APSH/WPSH)</b>	The long-term average of the total number of hours during a year (or winter months) in which direct sunlight reaches the unobstructed ground (when clouds are taken into account).
<b>Sun on Ground (SoG)</b>	The analysis of potential sunlight (>2 hours) received over an area belonging to either a garden or amenity area.
<b>Sunlight Exposure (SE)</b>	The assessment of the potential hours of sunlight a room can expect to receive between the 1 <sup>st</sup> of February and the 21 <sup>st</sup> of March at a determined point on the assessed windows.
<b>Spatial Daylight Autonomy (sDA)</b>	sDA is a metric which measures daylight illuminance sufficiency for a given area, reporting a percentage of floor area that exceeds a specified amount illuminance level (target illuminance level) for a specified number of annual hours (50% of the daylight hours).
<b>No Sky Line (NSL)</b>	The outline on the working plane of the area from which no sky can be seen.
<b>Working/Reference Plane</b>	Horizontal, vertical, or inclined plane in which a visual task lies. Normally the working plane may be taken to be horizontal, 0.85 m above the floor in houses and factories, 0.7 m above the floor in offices.
<b>L/K/D</b>	Living/Kitchen/Dining Room
<b>Lux</b>	Lux is a standardised unit of measurement of the intensity level of light.
<b>CIE Standard Overcast Sky</b>	A completely overcast sky for which the ratio of its luminance $L_y$ at an angle of elevation $y$ above the horizontal to the luminance $L_z$ at the zenith is given by: $L_y = L_z \frac{(1 + 2 \sin y)}{3}$ A CIE standard overcast sky is darkest at the horizon and brightest at the zenith (vertically overhead).
<b>Target Illuminance</b>	Illuminance from daylight that should be achieved for at least half of annual daylight hours across a specified fraction of the reference plane in a daylight space
<b>Obstruction Angle</b>	The angular altitude of the top of an obstruction above the horizontal, measured from a reference point in a vertical plane in a section perpendicular to the vertical plane.

## Definition of Effects

BR 209:2022 states the following:

*“Adverse impacts occur when there is a significant decrease in the amount of skylight and sunlight reaching an existing building where it is required, or in the amount of sunlight reaching an open space. The assessment of impact will depend on a combination of factors, and there is no simple rule of thumb that can be applied.”*

*“Where a new development affects a number of existing buildings or open spaces, the clearest approach is usually to assess the impact on each one separately. It is also clearer to assess skylight and sunlight impacts separately.”*

Considering the above, Lawler Sustainability have defined the level of effects a proposed development may have on the surrounding properties. Numerical values have been assigned to the levels of compliance as per BR 209:2022. The reason behind quantifying the levels of effect is to reduce the ambiguity a daylight/sunlight result may pose. Below is a list of definitions taken from Appendix H: Environmental Impact Assessment of BR 209:2022 with an indication of their application in this report:

### Negligible

A ‘Negligible’ level of effect is stated if the effect meets the criteria as recommended by BR 209:2022 and the relevant compliance target is achieved.

### Minor Adverse

A ‘Minor Adverse’ level of effect is stated if the effect is slightly outside the criteria as recommended by BR 209:2022. Lawler Sustainability have applied this definition to the level of effect if the level of daylight or sunlight is reduced to between 80-99% of the compliance target.

### Moderate Adverse

A ‘Moderate Adverse’ level of effect is stated if the effect is modestly outside the criteria as recommended by BR 209:2022. Lawler Sustainability have applied this definition to the level of effect if the level of daylight or sunlight is reduced to between 50-79% of the compliance target.

### Major Adverse

A ‘Major Adverse’ level of effect is stated if the effect is substantially outside the criteria as recommended by BR 209:2022. Lawler Sustainability have applied this definition to the level of effect if the level of daylight or sunlight is reduced to less than 50% of the compliance target.

### Beneficial Impact

It is plausible that a proposed development could produce a positive effect in relation to access to daylight and/or sunlight on the surrounding properties. Typically, this would involve the size or scale of the proposed development to be reduced (e.g., a knock and rebuild of a development whereby the proposed building will be smaller than the demolished). Lawler Sustainability have applied this definition to the level of effect if the level of daylight or sunlight is increased to more than 1.20 times that of the compliance target. Where the levels of effect are less perceptible, a ‘negligible’ level of effect will be indicated.

## Definition of Levels of Sunlight Exposure

BR 209:2022 states the following:

*“A space should receive a minimum of 1.5 hours of direct sunlight on a selected date between 1 February and 21 March with cloudless conditions. It is suggested that 21 March (equinox) be used. The medium level of recommendation is three hours and the high level of recommendation four hours. For dwellings, at least one habitable room, preferably a main living room, should meet at least the minimum criterion.”*

Lawler Sustainability have assessed this criterion using the 21<sup>st</sup> of March as suggested by BR 209:2022. Below is a list of definitions used to categorise the levels of sunlight exposure:

### Non-compliant

Lawler Sustainability have applied this definition if the level of sunlight exposure is below the compliance target of 1.5 hours. Please note that the BR 209:2022 recommendations state that at least one habitable room should meet the minimum criterion. It may not necessarily mean that a unit fails the sunlight exposure assessment if an individual room does not meet the minimum criterion.

### Minimum

Lawler Sustainability have applied this definition if the level of sunlight exposure is between 1.5 hours and 3 hours on the 21<sup>st</sup> of March.

### Medium

Lawler Sustainability have applied this definition if the level of sunlight exposure is between 3 hours and 4 hours on the 21<sup>st</sup> of March.

### High

Lawler Sustainability have applied this definition if the level of sunlight exposure is above 4 hours on the 21<sup>st</sup> of March.

## Executive Summary

Lawler Sustainability were appointed to conduct a Daylight and Sunlight assessment on the proposed development: Cherry Orchard Point, and the impact it may have on the surrounding properties.

This report deals specifically with the assessment requirements as described in the *BR 209:2022 – Site layout planning for daylight and sunlight: a guide to good practice* and *Dublin City Council Development Plan 2022-2028*. Both documents refer to the BS EN17037 and IS EN17037 standards which were followed accordingly when performing these daylight and sunlight assessments. The Dublin City Council Development Plan 2022-2028 sets out daylight and sunlight requirements as follows:

- **Surrounding Properties (Impact Assessment)**
  - Vertical Sky Component (VSC)
  - Annual Probable Sunlight Hours (APSH)
  - Winter Probable Sunlight Hours (WPSH)
  - Sunlight on Ground in all amenity spaces
- **Proposed Development (Scheme Assessment)**
  - APSH
  - WPSH
  - No Sky Line
  - Sunlight on Ground in all amenity areas
  - Target Illuminance in all habitable rooms

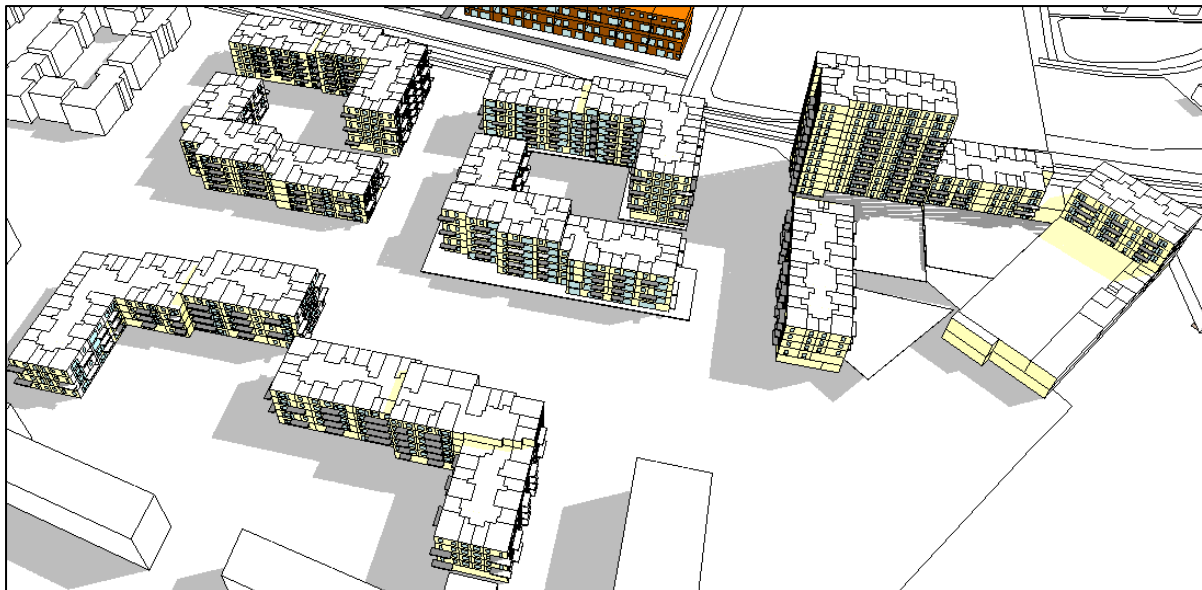


Figure 1. Cherry Orchard Point (modelling software)

Since its inception, the proposed Cherry Orchard Point project has undergone multiple design iterations to improve upon both the daylight and sunlight levels within the development while also ensuring that any reduction of access to sunlight for the surrounding properties, and respective amenity areas and gardens, is kept to a minimum. The sunlight assessments were initially undertaken using the BR 209 second edition. The initial assessment created a baseline upon which improvements were made using multiple design solutions to further improve the access to daylight and sunlight.

The following sections provide a summary of each daylight and sunlight assessment.



## Vertical Sky Component

In relation to the effect of Vertical Sky Component (VSC) on the surrounding properties, the results achieved a compliance rate of 100.00%, concurring that the proposed development will have a negligible impact on access to sunlight for the surrounding properties.

Table 1. Summary of VSC results for Surrounding Properties

Surrounding Properties	No. of Windows Assessed	No. of Windows Achieving VSC Criteria	Compliance Rate (%)
01-42 Cedar Brook Apartment	74	74	100.00%
43-90 Cedar Brook Apartment	86	86	100.00%
91-138 Cedar Brook Apartment	86	86	100.00%
The Concert Building	38	38	100.00%
The Crescent Building	86	86	100.00%
The Academy Building	100	100	100.00%
<b>Total</b>	<b>470</b>	<b>470</b>	<b>100.00%</b>

## Annual/Winter Probable Sunlight Hours

Regarding the effect of Annual and Winter Probable Sunlight Hours (APSH/WPSH) on the surrounding properties, the results achieved a compliance rate of 100.00%, concurring that the proposed development will have a negligible impact on the surrounding properties.

Table 2. Summary of APSH/WPSH results for the surrounding properties

Surrounding Properties	No. of Windows Assessed	No. of Windows Achieving APSH/WPSH Criteria	Compliance Rate (%)
01-42 Cedar Brook Apartment	86	86	100.00%
43-90 Cedar Brook Apartment	86	86	100.00%
91-138 Cedar Brook Apartment	74	74	100.00%
The Concert Building	38	38	100.00%
The Crescent Building	86	86	100.00%
The Academy Building	100	100	100.00%
<b>Total</b>	<b>470</b>	<b>470</b>	<b>100.00%</b>

Regarding the effect of Annual and Winter Probable Sunlight Hours (APSH/WPSH) on the proposed development, the results achieved a compliance rate of 56.00% and 59.70% respectively.

Table 3. Summary of APSH results for the proposed development

Building	No. of Windows Assessed	No. of Windows Achieving APSH Criteria (proposed)	Compliance Rate (%)
Building 01	70	54	77.14%
Building 02A	86	49	56.98%
Building 02B	344	176	51.16%
Building 03	107	65	60.75%
Building 05	211	112	53.08%
Building 06	236	115	48.73%
Building 07	300	182	60.67%
Building 08	259	148	57.14%
Building 09	180	94	52.22%
Building 10	182	111	60.99%
<b>Total</b>	<b>1,975</b>	<b>1,106</b>	<b>56.00%</b>

Table 4. Summary of WPSH results for the proposed development

Building	No. of Windows Assessed	No. of Windows Achieving WPSH Criteria (proposed)	Compliance Rate (%)
Building 01	70	54	77.14%
Building 02A	86	48	55.81%
Building 02B	344	215	62.50%
Building 03	107	64	59.81%
Building 05	211	115	54.50%
Building 06	236	121	51.27%
Building 07	300	198	66.00%
Building 08	259	143	55.21%
Building 09	180	99	55.00%
Building 10	182	122	67.03%
<b>Total</b>	<b>1,975</b>	<b>1,179</b>	<b>59.70%</b>

## Sunlight Exposure

Regarding the effect of Solar Exposure on the proposed windows, the results achieved a compliance rate of 83.90%. The windows which are not meeting this compliance are facing north and are expected to receive little sunlight throughout a year.

Table 5. Summary of Sunlight Exposure results for the proposed development

Building	No. of Windows Assessed	No. of Windows Achieving Sunlight Exposure Criteria	Compliance Rate (%)
Building 01	70	54	77.14%
Building 02A	86	78	90.70%
Building 02B	344	335	97.38%
Building 03	107	81	75.70%
Building 05	211	176	83.41%
Building 06	236	149	63.14%
Building 07	300	290	96.67%
Building 08	259	215	83.01%
Building 09	180	133	73.89%
Building 10	182	146	80.22%
<b>Total</b>	<b>1,975</b>	<b>1,657</b>	<b>83.90%</b>

## Sunlight on Ground

In relation to the amenity areas and gardens belonging to the surrounding properties, the results achieved a compliance rate of 100.00% for the Sunlight on Ground evaluation, concurring that the proposed development will have a no impact on access to sunlight for the surrounding properties' amenity areas and gardens. This is due to the surrounding amenity areas and gardens being situated either behind the existing properties (Cedar Brook Apartments) or at a great distance from the proposed development (Park West Amenity Areas).

## No Sky Line

It should be noted that BR 209:2022 provides target values for No Sky Line (NSL) specifically for Impact Assessments (i.e., surrounding properties), it does not provide advice on target values for proposed rooms in relation to NSL assessments. For Impact Assessments, the guidelines state that supplementary electric lighting will be needed if a significant part of the reference plane (20% or more) lies beyond the NSL. Therefore, Lawler Sustainability have not performed this assessment as there is no recommended target value to achieve for proposed developments.

However, a study was made on the surrounding properties to the northeast of the development (Cedar Brook Apartments) as per the BR 209:2022 exemption guideline which concluded that the proposed development will not have a negative effect on the NSL for these apartments (please see figure below).

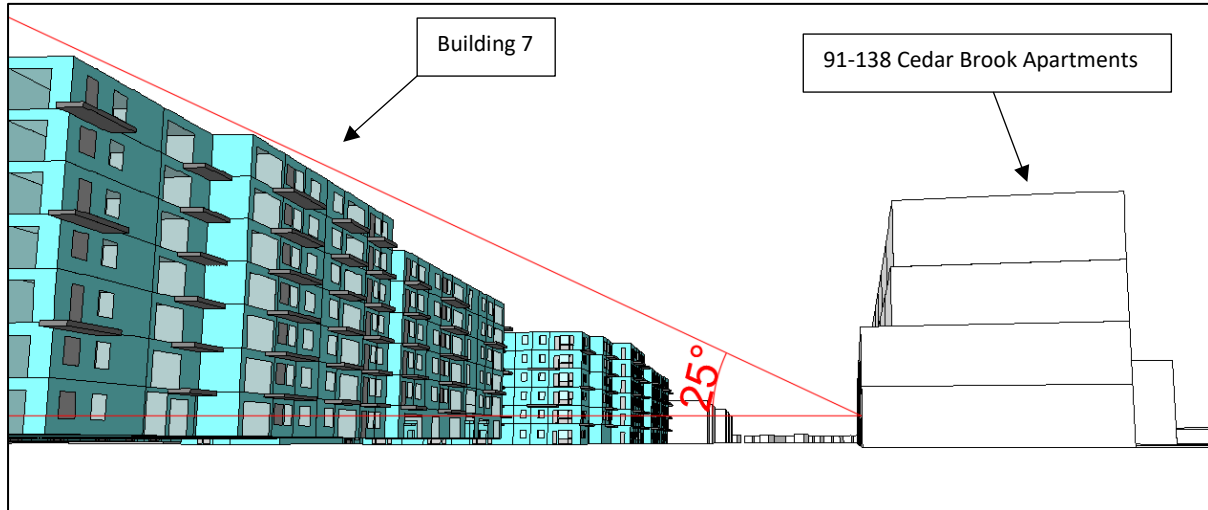


Figure 2. BR 209:2022 exemption method for proposed developments (BR 209:2022)

## Target Illuminance Method

The concurring result for the Spatial Daylight Autonomy (sDA) – Target Illuminance Method achieved an overall compliance rate of 97.09%.

Table 6. Summary of sDA results for the proposed development

Building No.	Quantity of Habitable Rooms	Compliant Habitable Rooms Passing	Compliance Rate (%)
Building 01	59	58	98.31%
Building 02A and 02B	364	336	92.31%
Building 03	93	93	100.00%
Building 05	208	206	99.04%
Building 06	228	228	100.00%
Building 07	281	277	98.58%
Building 08	247	232	93.93%
Building 09	179	177	98.88%
Building 10	196	194	98.98%
<b>Overall Total</b>	<b>1,855</b>	<b>1,801</b>	<b>97.09%</b>

A description of the Compensatory Design Measures (CDM) for any window/room/amenity area which did not meet compliance as per BR 209:2022, is also given in section 2.1 of the report – *COP\_Daylight\_&\_Sunlight\_Daylight\_&\_Sunlight\_01\_sDA\_Target\_Illuminance.pdf*.

**It is the opinion of Lawler Sustainability that when taking into consideration the wider planning policies and goals, the compliance rates for scheme performance should be considered very favourable.**

## 1. Guidance, Standards, and National Policy

### 1.1. BR 209:2022 Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice

This guide gives advice on site layout planning to achieve good sunlighting and daylighting, both within buildings and in the open spaces between them. It is referenced in local and national planning policy and is intended to be used in conjunction with the interior daylight recommendations for new buildings in the British Standard Daylight in buildings, BS EN 17037. It contains guidance on site layout to provide good natural lighting within a new development; safeguarding of daylight and sunlight within existing buildings nearby; and the protection of daylighting of adjoining land for future development.

### 1.2. BS EN 17037:2018 Daylight in Buildings

This British Standard is an adaption on the European wide standard for daylight (EN 17037:2018) but contains a national annex. This annex attempts to bridge the now superseded BS 8206-2 with the new European Standard. It does not offer any guidance on the impact on existing surrounding properties but instead acknowledges that the European Standards can prove difficult in achieving full compliance with Daylight requirements. The daylight recommendations in this British Standard differ depending on the type of room being assessed. Target lux levels are given for different room types to achieve across 50% of the reference plane for 50% of the daylight hours in a year. No minimum target lux level is required across 95% of the reference plane.

### 1.3. IS EN 17037:2018 Daylight in Buildings

This Irish Standard is a direct adoption of the European Standard for Daylight in Buildings (EN 17037) and unlike the British Standard, it contains no national annex. It recommends a single target for daylight in new buildings (for all room types: kitchens, living rooms, warehouses, etc.) and does not offer guidance on how new developments may impact on existing surrounding properties. It also specifies a minimum daylight target across 95% of the reference plane.

It must be noted that the National Policies mentioned below (Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities, 2023, and Urban Development and Building Guidelines for Planning Authorities, 2018) do not reference IS EN 17037:2018 but instead recommends that the BR 209:2022 document be applied to Daylight and Sunlight assessments (at the time of writing). Nonetheless, a supplementary Spatial Daylight Autonomy (sDA) assessment has been performed using the same rooms as studied using the BR 209:2022 guideline.

It is the opinion of Lawler Sustainability that the assessments carried out in this Daylight and Sunlight Assessment under the BR 209:2022 guideline be taken into primary consideration before IS EN 17037 as the recommendations made in BR 209:2022 are more appropriate. However, it must be noted that all standards mentioned above are all considered advisory documents with BR 209:2022 specifically stating *“The advice given here 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 site layout design.”*

## 1.4. Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities (2023)

The document *Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities* was published in July of 2023 and is an update to the previously issued in December 2020, originally issued in 2018, as an update to the precedent in 2015. The purpose of this document is to reiterate ministerial guidance, set out standards for apartment development, mainly in response to circumstances that had arisen whereby some local authority standards were at odds with national guidance. This document refers to *BS 8206-2:2008: Lighting for Buildings – Part 2: Code of Practice for Daylighting* (which has recently been withdrawn).

Paragraph 6.7 of the 2020 apartment guidelines states the following:

*“Where an applicant cannot fully meet all of the requirements of the daylight provisions above, this must be clearly identified and a rationale for any alternative, compensatory design solutions must be set out, which planning authorities should apply their discretion in accepting taking account of its assessment of specific [sic]. This may arise due to design constraints associated with the site or location and the balancing of that assessment against the desirability of achieving wider planning objectives. Such objectives might include securing comprehensive urban regeneration and or an effective urban design and streetscape solution.”*

Therefore, this report describes where rooms are achieving and not achieving the daylight and sunlight recommendations. Compensatory Design Measures (CDM) will be included in this report when possible.

## 1.5. Urban Development and Building Heights Guidelines for Planning Authorities (2018)

In December of 2018, the Department of Housing, Planning and Local Government published the *Urban Development and Building Heights Guidelines for Planning Authorities*. This document sets out national planning policy guidelines on building heights in relation to urban areas.

Similar to *Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities*, section 3.2 of the *Urban Development and Building Heights Guidelines for Planning Authorities* provides similar guidance as above.

It should be noted that during the time of publication of both National Policy documents described above, the BR 209 guideline was in its 2<sup>nd</sup> edition only recently being superseded by its 3<sup>rd</sup> edition in 2022 (BR 209:2022). The BR 209 no longer makes reference to BS 8206-2:2008, which has also been withdrawn. The primary standard made reference to in BR 209:2022 is BS EN 17037.

## 1.6. Dublin City Development Plan 2022-2028

The Dublin City Development Plan (2022-2028) came into effect on the 14<sup>th</sup> of December 2022 which sets out how the city will develop to meet the needs of all citizens and visitors. The aim of the plan is to improve the quality of life for its citizens, and make sure that Dublin City is an attractive place to live, work and visit.

Appendix 16 provides direction to applicants and consultants carrying out daylight and sunlight assessments with the purpose of clarifying a technical approach, such that a standardised methodology and set of metrics are used for completing daylight and sunlight assessments. It makes reference to four key documents: BR 209:2011, BS 8206-2:2008, BS EN17037:2018, and IS EN17037:2018. However, it also states that precedence will be given to a newer/revised version of BR 209, if one is to be issued. Since the release of the Dublin City Development Plan (2022-2028), there has been a revised version of BR 209 (2022) which no longer makes reference to BS 8206-2:2008.

## 2. Daylight & Sunlight Requirements

The Dublin City Council Development Plan 2022-2028 sets out daylight and sunlight requirements as follows:

- **Surrounding Properties (Impact Assessment)**
  - Vertical Sky Component (VSC)
  - Annual Probable Sunlight Hours (APSH)
  - Winter Probable Sunlight Hours (WPSH)
  - Sunlight on Ground in all amenity spaces
- **Proposed Development (Scheme Assessment)**
  - APSH
  - WPSH
  - No Sky Line
  - Sunlight on Ground in all amenity areas
  - Target Illuminance in all habitable rooms

During the time of publication of the DCC Development Plan 2022-2028, there was a transitioning period whereby BS 8206-2 had been superseded, but the relevant guidance within BR 209 had not been updated. However, shortly after publication of the Development Plan, BR 209 had been revised to its third edition (2022) and no longer made reference to 8206-2 but instead BS EN 17037:2018. The requirement as set out in the Development Plan stated the following:

*“If, over the coming years, a revised version of BR 209 is to be issued, the guidance within this new version will take precedence.”*

Hence, BR 209:2022 is the primary source of guidance for this daylight and sunlight assessment. Please note that the Average Daylight Factor is no longer referred to in BR 209:2022 as it was an assessment described in BS 8206-2 (now superseded).



### 3. Methodologies

#### 3.1. Spatial Daylight Autonomy – Target Illuminance Method

Spatial Daylight Autonomy (sDA) is a metric which measures daylight illuminance sufficiency for a given area, reporting a percentage of floor area that exceeds a specified amount illuminance level (target illuminance level) for a specified number of annual hours (50% of the daylight hours). There are two methods for calculating sDA:

- 1) Daylight Factor Method: This method uses a constant ratio between internal and external illuminance. The daylight factors in the space shall be calculated by any reliable method that is based on the ISO 15469:2004 standard overcast sky. The daylight factors are to be predicted across a grid of points on a plane located 0.85m above the floor level of the space. The daylight factor of at least half of the required area of the space should equal or exceed the target values.
- 2) Illuminance Method: This method uses hourly (or sub-hourly) internal daylight illuminance values for a typical year given from a local climate or weather file appropriate for the site. This calculation method determines the daylight provision directly from simulated illuminance values on the reference plane. The illuminance value of at least 50% of the required area of the space must equal or exceed the target values.

BR 209:2022 states that only one method should be chosen to assess the Daylight levels within a space of the site. Combinations of each method is to be avoided. The illuminance method is the adopted approach used by Lawler Sustainability as it offers a more realistic scenario for daylight distribution within a space based on local climate and weather files, and orientation of the site.

IS EN 17037:2018 requires the below two illuminance targets to be satisfied for an occupied space to have adequate levels of daylight:

1. A target illuminance ( $E_T$ ) of 300 lux must be achieved on over 50% of the floor area for over 50% of the available daylight hours, And
2. A minimum target illuminance ( $E_{TM}$ ) of 100 lux must be achieved on over 95% of the floor area for over 50% of the available daylight hours.

Table 7. Recommendations of daylight provision by daylight openings in vertical and inclined surface (IS EN 17037:2018)

Level of recommendation	Target illuminance $E_T$ (lux)	Fraction of space for target level $F_{plane}$ (%)	Minimum Target illuminance $E_{TM}$ (lux)	Fraction of space for minimum target level $F_{plane}$ (%)	Fraction of daylight hours $F_{time}$ (%)
Minimum	300	50 %	100	95 %	50 %
Medium	500	50 %	300	95 %	50 %
High	750	50 %	500	95 %	50 %

#### $E_T$

Illuminance (lux values) from daylight that should be achieved for at least half of annual daylight hours across 50% of the reference plane in a daylit space.

**E<sub>TM</sub>**

Illuminance (lux values) from daylight that should be achieved for at least half of annual daylight hours across 95% of the reference plane in spaces with vertical and/or inclined daylight apertures.

**BS EN 17037:2018 National Annex** requires the below illuminance targets to be satisfied for an occupied space to have adequate levels of daylight:

Table 8. Internal Daylight Levels (BS EN 17037:2018)

Room Type	BS EN 17037 Target Illuminance (Lux)
Bedroom	100
Living Room	150
Kitchen	200
Kitchen, Living & Dining	200

In the UK, EN 17037:2018 was adopted to form BS EN 17037:2018. However, a National Annex was included which states:

“The UK committee supports the recommendations for daylight in buildings given in BS EN 17037:2018; however, it is the opinion of the UK committee that the recommendations for daylight provision in a space may not be achievable for some buildings, particularly dwellings. This National Annex therefore provides the UK committee’s guidance on minimum daylight provision in all UK dwellings.”

Whereas IS EN 17037:2018 does not provide different illuminance targets for different space types, the BS EN 17037:2018 National Annex provides target illuminance values for bedrooms, living rooms and kitchens within residential developments as per Table 5 above. It is also important to note that as the climate in Ireland is similar to the UK, the targets outlined in the BS EN National Annex could also be applied to dwellings in Ireland.

BS EN 17037 gives target illuminance values for residential settings, being 200 lux for Kitchens, 150 lux for Living Rooms and 100 lux for Bedrooms. In the proposed development, Living, Kitchen and Dining spaces are combined therefore the target illuminance is 200 lux.

**3.2. Vertical Sky Component**

When designing a new development, consideration should be given to the safeguarding of daylight for both existing dwellings and for any nearby non-domestic buildings where there is a requirement for daylight. To assess if there will be a loss of daylight to an existing building, BR 209:2022 advises that all main habitable rooms of dwellings (living rooms, kitchens, and bedrooms) should be analysed. Determining the Vertical Sky Component (VSC) at the centre of each window can be used to calculate any reduction in the total amount of skylight a given window can receive. VSC is a measure of the amount of sky visible from a given point and is expressed as the percentage. VSC is the ratio of illuminance at the centre point of a window due to the light received directly from an overcast sky to the illuminance on an unobstructed outside plane under the same sky.

BR 209:2022 suggests that the VSC should be measured at the external centre point of each window. In the case of a floor-to-ceiling window, as point of 1.6m above the finished floor level on the centre line of the window can be used. If a room has two or more windows of equal size, the mean of their VSCs may be taken. If the VSC is greater than 27% then it is deemed that adequate skylight will reach

the window in question. Any reduction below this level should be kept to a minimum. If the VSC, with the proposed development in place, is both less than 27% and less than 0.80 times its former value, the existing occupants will likely notice a reduction in the amount of skylight.

An indicator to determine if a proposed development could obstruct sunlight access on nearby existing buildings is if the proposed building is located to the south and is at a distance of less than three times its height from an existing dwelling, or if the angle from the existing window to the proposed development subtends 25° to the horizontal when measured in a perpendicular section.

The above criteria were used to assess all relevant windows within proximity of the proposed development for reduction of skylight. If multiple windows are servicing the same room, the VSC can be derived by weighting each VSC element in accordance with the proportion of the total glazing area represented by its window. If it could not be determined which room is a main habitable room belonging to an existing dwelling (living room, kitchen, or bedroom), then all windows on the façade will be assessed to provide a more comprehensive assessment.

### 3.3. No Sky Line

BR 209:2022 describes the No Sky Line (NSL) as “The outline on the working plane of the area from which no sky can be seen”. Furthermore, Appendix C of BR 209:2022 states: “If a significant area of the working plane (normally no more than 20%) lies beyond the no sky line (i.e., it receives no direct skylight), then the distribution of daylight in the room will look poor and supplementary electric lighting will be required.”.

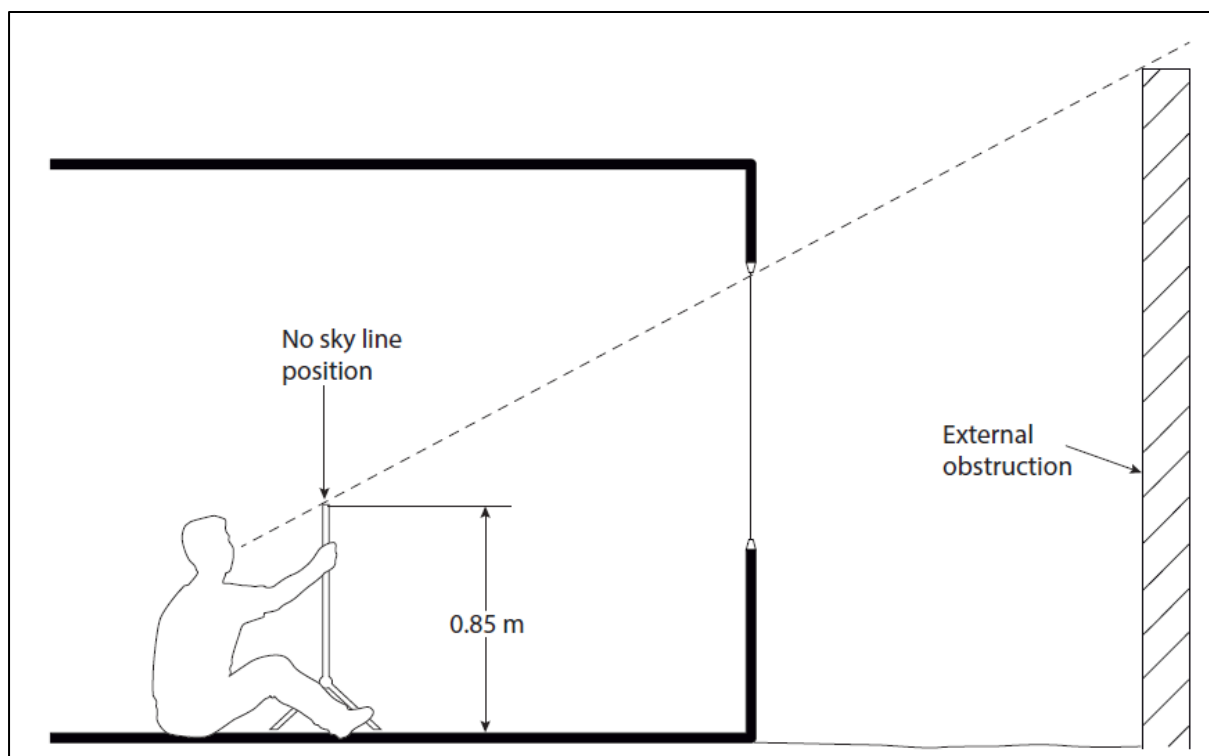


Figure 3. At the no skyline, the last visible patch of sky above the obstruction will just disappear when the window head is sighted through a point at working plane height.

BR 209:2022 also details situations where the NSL assessment need not be analysed if the new distance of the new development from the existing window is three or more times its height above

the centre of the existing window. In addition, if the proposed development is taller or closer than the condition described previously, a modified form of the procedure adopted for new buildings can be used to determine whether an existing building will receive adequate levels of skylight. A section is drawn in a plane perpendicular to each affected main window wall of the existing building. The angle to the horizontal subtended by the new development at the level of the centre of the lowest window is measured. If this angle is less than 25° for the whole of the development than it is unlikely to have a substantial effect on the diffuse skylight received by the existing building.

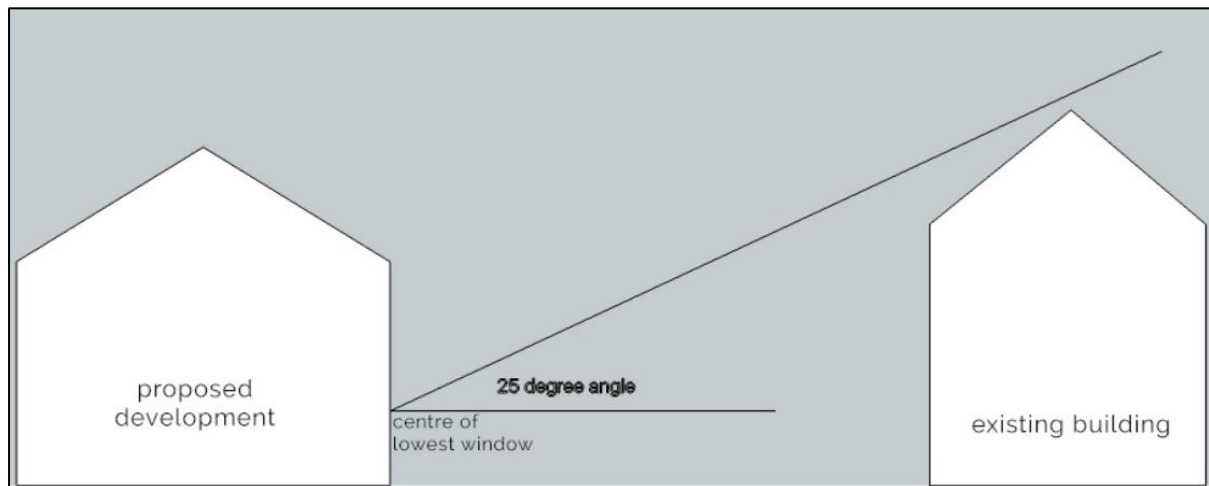


Figure 4. Section in plane perpendicular to the affected window wall

### 3.4. Annual/Winter Probable Sunlight Hours for Surrounding Properties

When designing a new development, consideration should be given to the safeguarding of access to sunlight for both existing dwellings and for any nearby non-domestic buildings where there is a requirement for sunlight. To assess if there will be a loss of sunlight to an existing building, BR 209:2022 advises that all main living rooms of dwellings should be checked if they have a window facing within 90° of due south. To calculate this assessment, the Annual and Winter Probable Sunlight Hours (APSH/WPSH) is used. APSH/WPSH represents the sunlight that a given window may expect to receive over a year. The probable sunlight hours are expressed as the percentage of direct sunlight hours divided by the number of hours that the sun is expected to shine on unobstructed ground. The APSH uses a full year as the time period, whereas WPSH uses a period from the 21<sup>st</sup> of September to the 21<sup>st</sup> of March.

BR 209:2022 suggests that the APSH/WPSH should be measured at the centre point of the outside face of the window. It also states that if a room can receive more than 25% of APSH, including at least 5% of WPSH, then it should still receive enough sunlight. Also, if the overall annual loss of APSH is 4% or less, the loss of sunlight is small. Any reductions of sunlight access below the above values, should be kept to a minimum. Loss in sunlight will be noticeable by the occupants if the available sunlight hours are both less than the amount above and less than 0.80 times their former value, either over the full year or just in the winter months, and the overall annual loss is greater than 4% of APSH. These criteria can be broken down as follows; noticeable reductions of sunlight access can occur if the following occurs:

- The APSH/WPSH drops below 25% for annual or 5% for winter guidelines, **and**
- The APSH value is less than 0.80 times the baseline value, **and**
- There is a reduction of more than 4% of the annual APSH.

An indicator to determine if a proposed development could obstruct sunlight access on nearby existing buildings is provided in BR 209:2022 whereby if the proposed building is located to the south and is at a distance of less than three times its height from an existing dwelling, or if the angle from the existing window to the proposed development subtends 25° to the horizontal when measured in a perpendicular section. BR 209:2022 also suggests that windows orientated within 90° of due south should be assessed as windows located to the north generally receive sunlight on very few occasions in a year.

The above criteria were used to assess all relevant windows within proximity of the proposed development for reduction of access to sunlight. If multiple windows are servicing the same room, the APSH/WPSH will be calculated for the centre-most window. If it could not be determined which room is a main living room belonging to an existing dwelling, then all windows on the façade will be assessed to provide a more comprehensive assessment.

### 3.5. Sunlight Exposure on Habitable Rooms for Scheme Assessment

BR 209:2022 and BS EN 17037 recommends that a habitable room within the proposed development should receive a minimum of 1.5 hours of direct sunlight on a selected date between the 1<sup>st</sup> of February and the 21<sup>st</sup> of March with cloudless conditions. It is advised that the 21<sup>st</sup> of March (equinox) be used. The levels of recommend sunlight exposure are:

- 1.5 hours = minimum
- 3 hours = medium
- 4 hours = high

Dwellings should have at least one room (preferably the main living room) meeting the minimum criterion. If no room within a given unit meets the minimum recommendation of sunlight exposure, the unit will be defined as non-compliant.

The assessment point for habitable rooms will be on the inside face of the window aperture at the centre of the opening width and at least 1.2m above the finished floor level and 0.3m above the sill (whichever is the higher). If multiple windows are servicing the same room, the APSH/WPSH will be calculated for the centre-most window. Sunlight blocked by window reveals and balconies or overhangs above the window will not be included as per the BR 209:2022 guidelines. It should be noted that if a window is orientated significantly north of due east or west, this criterion is unlikely to be met. As such, full compliance will not always be achievable, especially in single aspect units.

### 3.6. Shadow Analysis

A shadow analysis illustrates different shadows being casted by the proposed development and surrounding properties at three distinct times of the year (March 21<sup>st</sup>, June 21<sup>st</sup> and December 21<sup>st</sup>). Statistics from Met Eireann, the Irish Meteorological Service, show that the sunniest months in Ireland are May and June, based on averages taken from 1981 to present. (<https://www.met.ie/climate/30-year-averages>).

Some key points to note:

- During December, a mean daily duration of 1.7 hours of sunlight out of a potential 7.3 hours of sunlight can be received each day (i.e., only 23% of potential sunlight hours).
- During June, a mean daily duration of 5.8 hours of sunlight out of a potential 15.9 hours of sunlight is received each day (i.e., only 36% of potential sunlight hours).

Therefore, the impacts caused by overshadowing are generally most noticeable during the summer months and least noticeable during the winter months.

Appendix F: Shadow Analysis, illustrates the shadows casted by the proposed development on the following dates:

- March 21<sup>st</sup> (Equinox)
- June 21<sup>st</sup> (Summer Solstice)
- December 21<sup>st</sup> (Winter Solstice)

The resulting images show shadows cast for ‘perfect sunny’ conditions with no clouds and assumes that the sun is shining for every hour shown. Given the discussion above it is important to remember that this is not always going to be the case.

### 3.7. Sunlight on Ground

BR 209:2022 recommends that gardens and/or amenity areas should appear adequately sunlit throughout a year. At least half of the garden or amenity area should receive at least two hours of sunlight on the 21<sup>st</sup> of March. In the case of existing amenity spaces, if they are already below the 50% threshold then BR 209:2022 recommends the results are to be kept to within 0.80 times of its former value.

### 3.8. Model Inputs and Assumptions

The following inputs were used in the study:

Table 9. Model inputs

Element	Input
Sky Condition	Standard CIE Overcast Sky
Sky Condition – Sunlight Exposure	Sunny clear sky
Date – Sunlight Exposure	21 <sup>st</sup> of March
Weather File	IRL_Dublin.039690_IWEC.epw
Glazing Light Transmittance	0.68
Working Plane Height	0.850 m

The following surface reflectance values were used in the study:

Table 10. Light Reflectance Values

Material Surface	Light Reflectance Value
External Wall (internal surface)	0.95
Internal Partition	0.95
Floor	0.50
Ceiling	0.95
External Ground	0.20

The above reflectance values have been defined and agreed with the Architect’s recommendations.

## 4. Analysis of Results

### 4.1. Spatial Daylight Autonomy – Target Illuminance Method

This assessment has analysed the sDA received in all habitable rooms in order to provide a clear understanding of the daylight performance within the residential portion of the proposed development. The proposed development consists of 708 units of which contain a total of 1,855 habitable rooms.

As per the criteria set out in BR 209:2022/BS EN 17037:2018, the sDA value in 1,852 habitable rooms meet or exceed their target values in the summer and winter time calculations.

As per the criteria set out in IS EN 17037:2018, 1,801 habitable rooms are achieving compliance under this standard. Thus, indicating a compliance rate of **97.09%**.

BR209:2022 and BS EN 17037:2018 consider different room types (bedroom, LKD, etc.) whereas IS EN 17037 does not. For this reason, Lawler Sustainability regards the rooms that are compliant with the criteria of BR 209:2022 but non-compliant with the IS EN 17037 criteria, to have adequate levels of daylight within their respective space.

It is the opinion of Lawler Sustainability that the performance of the proposed scheme could be considered very favourable. The probability of such a sizable scheme to achieve full compliance would be unrealistic while also considering that it has undergone multiple design iterations to substantially improve its performance with regard to daylight.

Incorporated design strategies to improve daylight performance:

- Re-designing of internal layouts to reduce room depths.
- Window widths increased where possible in habitable spaces to maximise daylight.
- Balcony positions were assessed to optimise daylight penetration to spaces below.
- Incorporating dual aspect features where possible.
- Further adjustments to window sizes.

### 4.2. Vertical Sky Component

This assessment has analysed the VSC on 470 relevant windows/rooms of the surrounding properties.

The effect of VSC on 470 windows would be considered negligible. Of these assessed windows, 100.00% have met the criteria as set out in BR 209:2022.

Considering the size of the scheme, it is the opinion of Lawler Sustainability that the proposed development performs very favourably regarding VSC on all existing habitable rooms for the surrounding properties.

Incorporated design strategies to improve access to sunlight performance:

- Optimising the distance between the proposed development and surrounding properties.



### 4.3. No Sky Line

It should be noted that BR 209:2022 provides target values for No Sky Line (NSL) specifically for Impact Assessments (i.e., surrounding properties), it does not provide advice on target values for proposed rooms in relation to NSL assessments. For Impact Assessments, the guidelines state that supplementary electric lighting will be needed if a significant part of the reference plane (20% or more) lies beyond the NSL. Therefore, Lawler Sustainability have not performed this assessment as there is no recommended target value to achieve for proposed developments.

However, a study was made on the surrounding properties to the northeast of the development (Cedar Brook Apartments) as per the BR 209:2022 exemption guideline which concluded that the proposed development will not have a negative effect on the NSL for these apartments (see figures below).

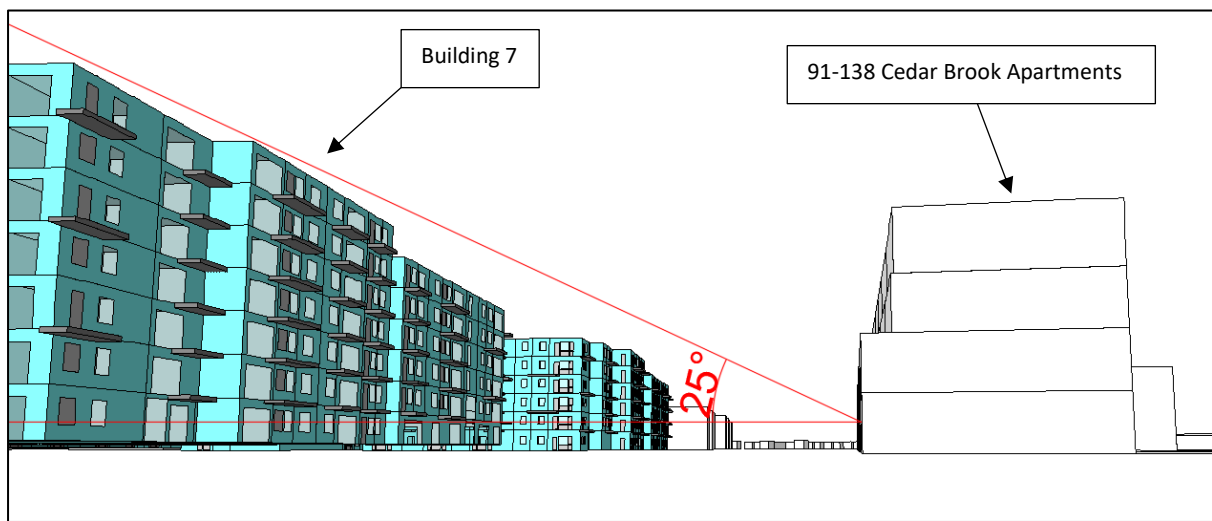


Figure 5. Section in plane perpendicular to the affected window wall of Cedar Brook Avenue (91-138) facing northwest

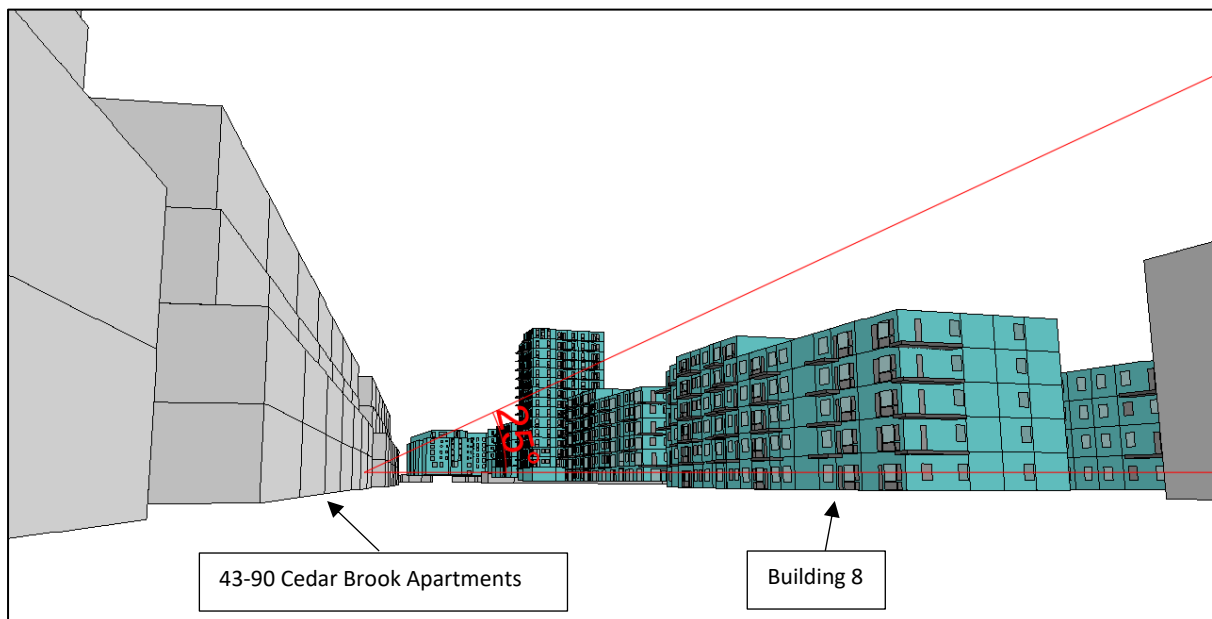


Figure 6. Section in plane perpendicular to the affected window wall of Cedar Brook Avenue (43-90) facing southeast



#### 4.4. Annual/Winter Probable Sunlight Hours

This assessment has analysed the APSH/WPSH on 470 relevant windows/rooms of the surrounding properties.

The effect of APSH on 470 windows would be considered negligible. Of these assessed windows, 100.00% have met the criteria for APSH as set out in BR 209:2022.

The effect of WPSH on 470 windows would be considered negligible. Of these assessed windows, 100.00% have met the criteria for WPSH as set out in BR 209:2022.

The compliance rates for APSH and WPSH should be considered very favourable.

#### 4.5. Sunlight Exposure on Habitable Rooms for Scheme Assessment

A sunlight exposure assessment was undertaken on all habitable rooms within the proposed development in accordance with BR 209:2022.

The level of direct sunlight exposure for 709 units (1,974 assessed windows) would be considered high. The assessment concludes that 83.89% of the proposed units meet the criteria for sunlight exposure as set out in BR 209:2022.

Considering the size of the scheme, it is the opinion of Lawler Sustainability that the proposed development performs very favourably regarding sunlight exposure on all proposed habitable rooms. The scheme also includes a high number of dual aspect units which represent an effort to improve the performance of the scheme in relation to sunlight exposure. The probability of such a sizable scheme to achieve full compliance would be unrealistic while also considering that it has undergone multiple design iterations to substantially improve its performance with regard to sunlight.

Incorporated design strategies to improve access to sunlight performance:

- Optimising the distance between the proposed development and surrounding properties.
- Balcony positions were assessed to optimise daylight penetration to spaces below.

#### 4.6. Shadow Analysis

The Shadow study showed the following percentage of hours whereby the proposed development will cast a shadow across the surrounding properties. For more details, please see Appendix F: Shadow Analysis.

Table 11. Shadow Analysis Results

Day	Total number of hours of daylight*	Percentage of hours where shadows are cast upon surrounding properties
March 21 <sup>st</sup>	12:13	16.67%
June 21 <sup>st</sup>	17:00	6.25%
December 21 <sup>st</sup>	7:30	57.14%

\*Source: [www.timeanddate.com](http://www.timeanddate.com)

## 4.7. Sunlight on Ground

This assessment has studied the potential effect the proposed development would have on the level of sunlight provision to the gardens and amenity areas of surrounding properties. In total, 5 areas have been assessed.

As per the BR 209:2022 guidelines, 100.00% of these outdoor areas have met the criteria for sunlight on ground.

In addition to the surrounding properties, this assessment has analysed the level of sunlight on the proposed amenity areas for the 21<sup>st</sup> of March. In total, 27 areas have been assessed.

As per the BR 209:2022 guidelines, 100.00% of these outdoor areas have met the criteria for sunlight on ground.

## 4.8. Compensatory Design Measures

Section 6.7 of the Sustainable Urban Housing: Design Standards for New Apartments December 2020, states the following:

*“Where an applicant cannot fully meet all of the requirements of the daylight provisions above, this must be clearly identified and a rationale for any alternative, compensatory design solutions must be set out, which planning authorities should apply their discretion in accepting taking account of its assessment of specific (sic). This may arise due to design constraints associated with the site or location and the balancing of that assessment against the desirability of achieving wider planning objectives. Such objectives might include securing comprehensive urban regeneration and or an effective urban design and streetscape solution.”*

Compensatory Design Measures have been implemented into the design of the proposed development where rooms are not achieving the daylight provision targets. The following table identifies all rooms which do not achieve the recommended level of daylight provision with regards to BR 209:2022 and its corresponding compensatory design measure:

Table 12. List of Compensatory Design Measures

Building	Level	Room No.	Room Type	Compensatory Design Measure
01	Podium	5	Bedroom	Apartment has larger floor area than minimum required.
02A&B	02	4	L/K/D	L/K/D is 600mm wider than minimum width. Balcony is larger than minimum.
		5	Bedroom	Bedroom area is larger than minimum required.
		6	Bedroom	Bedroom area is larger than minimum required.
		7	L/K/D	Apartment has larger floor area than minimum required.
		8	Bedroom	Bedroom area is larger than minimum required.

Building	Level	Room No.	Room Type	Compensatory Design Measure
		13	L/K/D	Apartment has larger floor area than minimum required.
		14	Bedroom	Bedroom window is larger than minimum required.
		15	Bedroom	Bedroom window is larger than minimum required.
		18	L/K/D	LKD has dual aspect windows with larger glazing area than minimum required.
	03	5	Bedroom	Bedroom area is larger than minimum required.
		6	Bedroom	Bedroom area is larger than minimum required.
		8	Bedroom	Bedroom area is larger than minimum required.
		9	Bedroom	Bedroom area is larger than minimum required.
		10	Bedroom	Bedroom area is larger than minimum required.
		15	L/K/D	L/K/D is 600mm wider than minimum width. Balcony is larger than minimum.
		16	Bedroom	Bedroom area is larger than minimum required.
		17	Bedroom	Bedroom area is larger than minimum required.
		19	Bedroom	Bedroom area is larger than minimum required.
		33	L/K/D	L/K/D is 600mm wider than minimum width. Balcony is larger than minimum.
	04	4	L/K/D	L/K/D is 600mm wider than minimum width. Balcony is larger than minimum.
		5	Bedroom	Bedroom area is larger than minimum required.
		6	Bedroom	Bedroom area is larger than minimum required.
		7	L/K/D	Apartment has larger floor area than minimum required.
		9	Bedroom	Bedroom area is larger than minimum required.
		10	Bedroom	Bedroom area is larger than minimum required.
		11	Bedroom	Bedroom area is larger than minimum required.

Building	Level	Room No.	Room Type	Compensatory Design Measure
		16	Bedroom	Bedroom area is larger than minimum required.
		19	Bedroom	Bedroom area is larger than minimum required.
05	01	8	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to Balcony and view out to larger amenity areas.
		11	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to Balcony and view out to larger amenity areas.
07	01	32	Bedroom	Bedroom has larger floor area than minimum required. Bedroom has view out to a secluded splendid amenity area.
	02	32	Bedroom	Bedroom has larger floor area than minimum required.
	03	32	Bedroom	Bedroom has view out to a secluded splendid amenity area.
	04	32	Bedroom	Bedroom has larger floor area than minimum required.
08	00	6	L/K/D	L/K/D has access to balcony. Balcony is larger than minimum. Glazing area is larger than minimum required.
		8	Bedroom	Bedroom floor area is larger than minimum required. Glazing area is larger than minimum required.
		9	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to larger balcony.
		13	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to larger balcony and dual aspect glazing features.
		23	Bedroom	Bedroom has larger floor area than minimum required. Glazing area is larger than minimum required.
		24	L/K/D	L/K/D has access to balcony. Balcony is larger than minimum. Glazing area is larger than minimum required.

Building	Level	Room No.	Room Type	Compensatory Design Measure
	01	29	Bedroom	Bedroom has larger floor area than minimum required.
		8	Bedroom	Bedroom floor area is larger than minimum required. Glazing area is larger than minimum required.
		9	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to larger balcony.
		13	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to larger balcony and dual aspect glazing features.
		14	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to larger balcony. Glazing area is larger than minimum required.
	02	9	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to larger balcony.
		13	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to larger balcony and dual aspect glazing features.
		14	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to larger balcony. Glazing area is larger than minimum required.
		32	L/K/D	L/K/D has access to balcony. Glazing area is larger than minimum required.
	09	00	26	L/K/D
01		18	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to larger balcony. Glazing area is larger than minimum required.
10	00	5	L/K/D	L/K/D has larger floor area than minimum required.

Building	Level	Room No.	Room Type	Compensatory Design Measure
				L/K/D has access to balcony. Glazing area is larger than minimum required.
	01	9	L/K/D	L/K/D has larger floor area than minimum required. L/K/D has access to balcony. Glazing area is larger than minimum required.



## Appendix A: sDA – Target Illuminance Method

### High-Density Buildings

The high-density buildings consist of the following:

- Building 01
- Building 2A & 2B
- Building 03



Figure 7. Extract from Site Development Plan (Van Dijk Architects & Conroy Crowe Kelly & Urban Designers)

## Building 01

### Podium Level

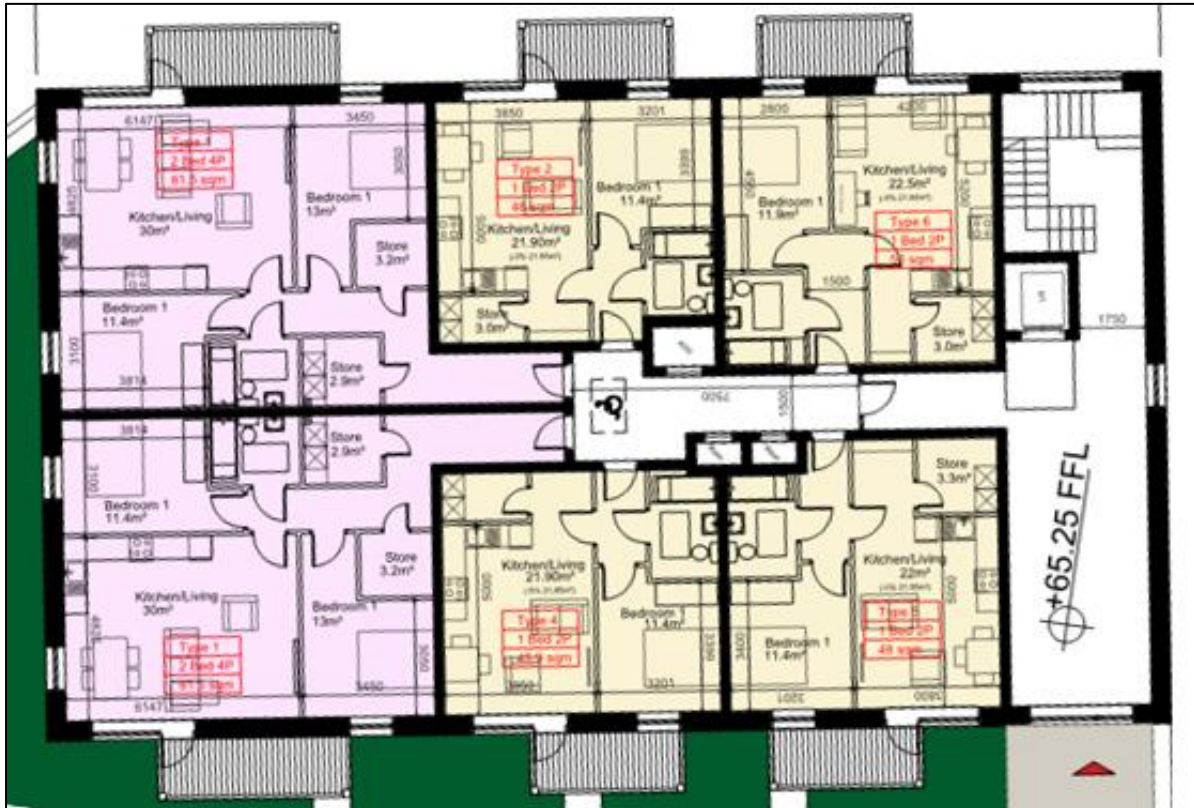


Figure 8. Building 01 - Podium Level (VDA & CCK)

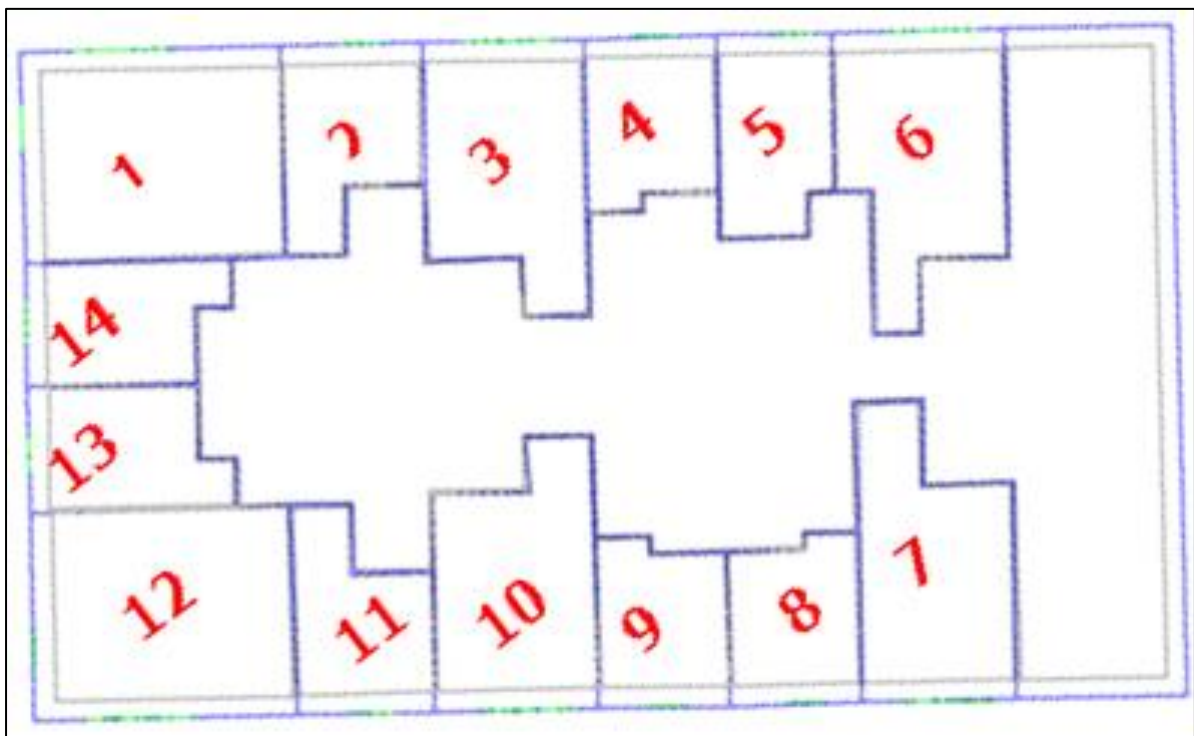


Figure 9. Building 01 - Podium Level (modelling software)



Table 13. sDA results for Building 01 - Podium Level

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	61	100	Pass	100	Pass
3	L/K/D	73	100	Pass	100	Pass
4	Bed	92	100	Pass	100	Pass
5	Bed	36	100	Fail	95	Pass
6	L/K/D	61	100	Pass	100	Pass
7	L/K/D	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass
10	L/K/D	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	L/K/D	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass

Level 03

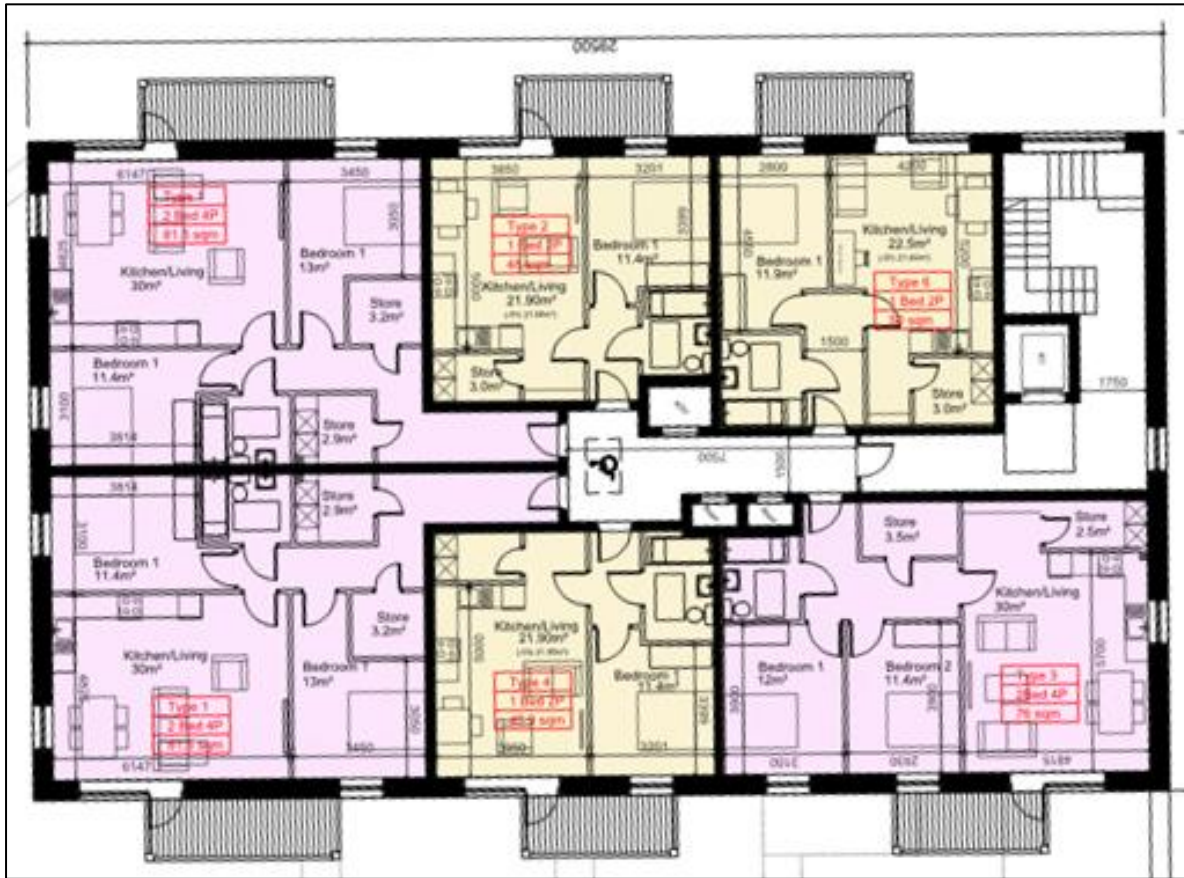


Figure 10. Building 01 - Level 03-05 (VDA & CCK)

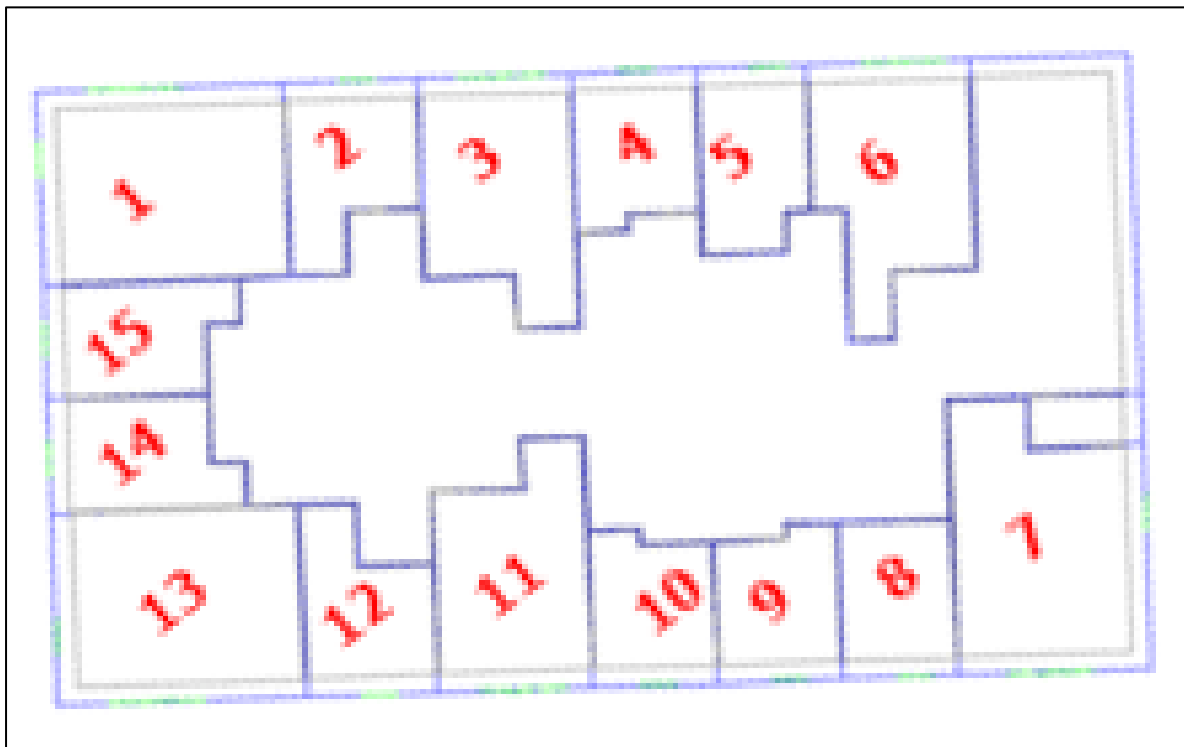


Figure 11. Building 01 – Level 03 (modelling software)

Table 14. sDA results for Building 01 – Level 03

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	71	100	Pass	94	Pass
3	L/K/D	85	100	Pass	100	Pass
4	Bed	86	100	Pass	100	Pass
5	Bed	60	100	Pass	100	Pass
6	L/K/D	81	100	Pass	100	Pass
7	L/K/D	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass

Level 04

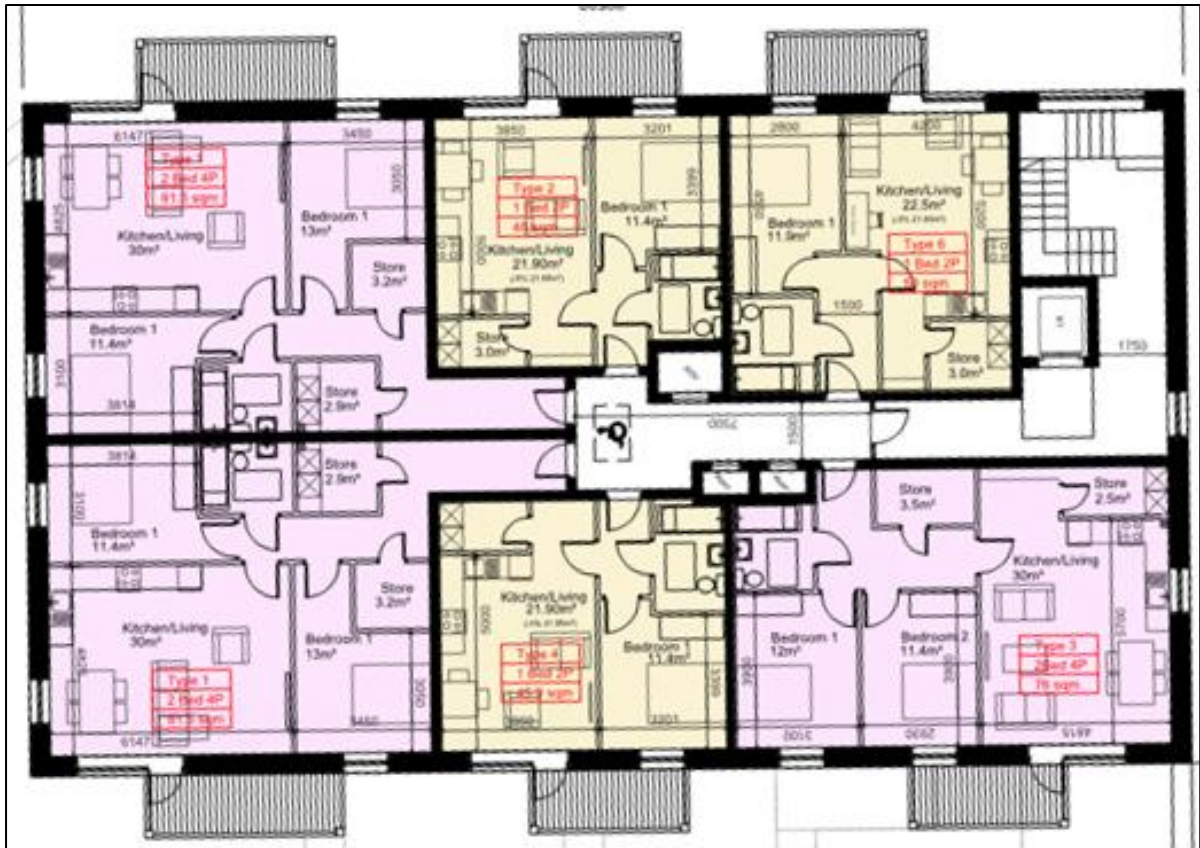


Figure 12. Building 01 - Level 03-05 (VDA & CCK)

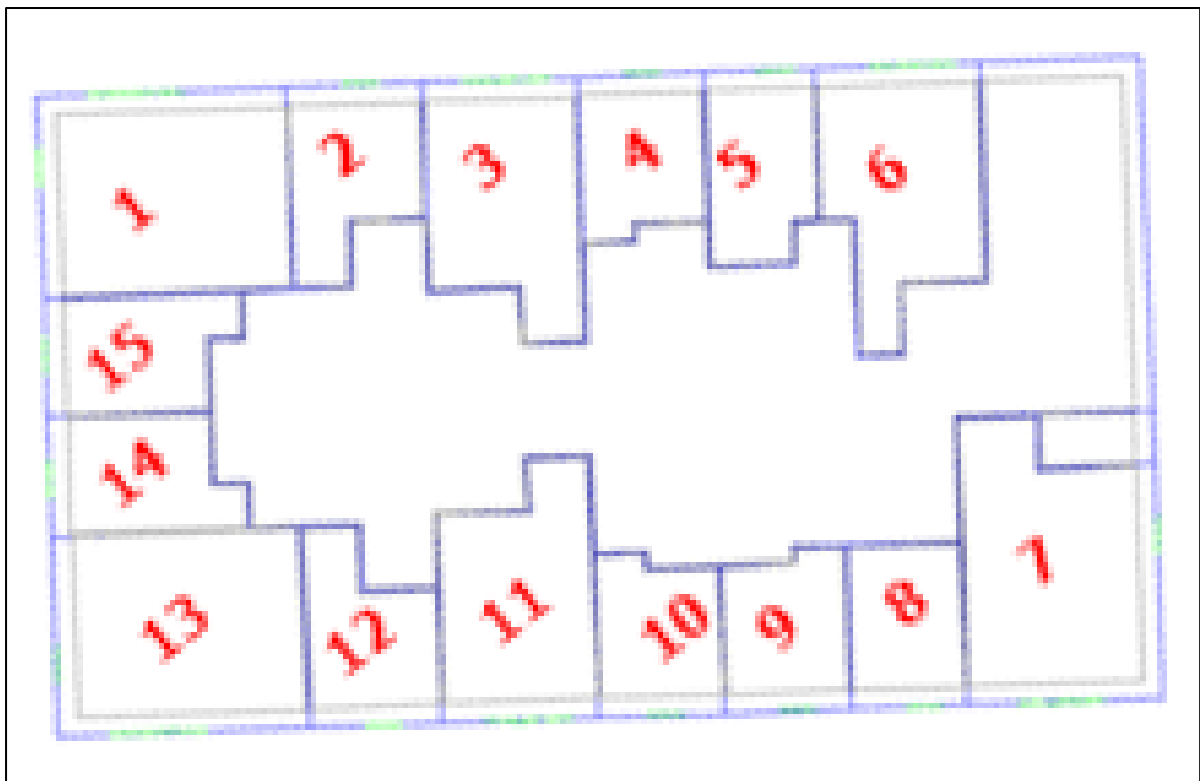


Figure 13. Building 01 – Level 04 (modelling software)

Table 15. sDA results for Building 01 – Level 04

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	74	100	Pass	98	Pass
3	L/K/D	92	100	Pass	100	Pass
4	Bed	91	100	Pass	100	Pass
5	Bed	62	100	Pass	100	Pass
6	L/K/D	84	100	Pass	95	Pass
7	L/K/D	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass



Level 05

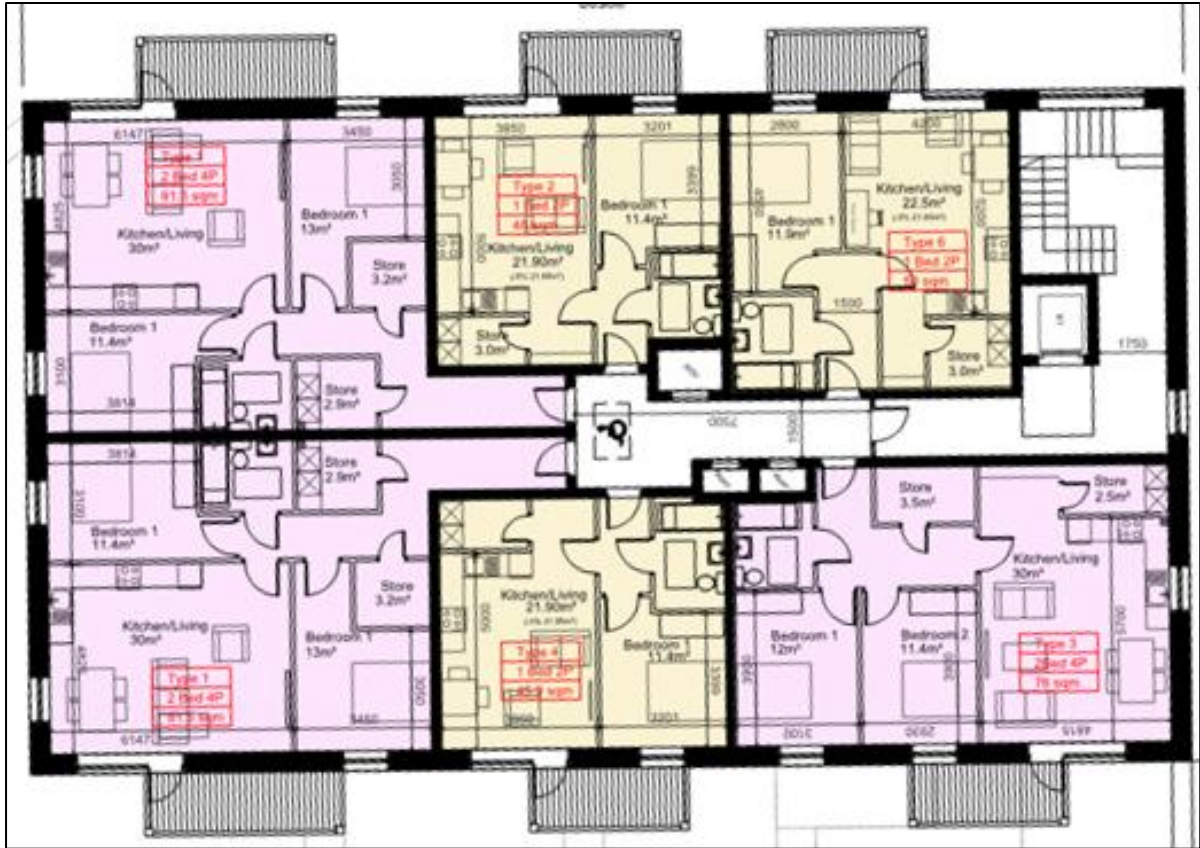


Figure 14. Building 01 - Level 03-05 (VDA & CCK)

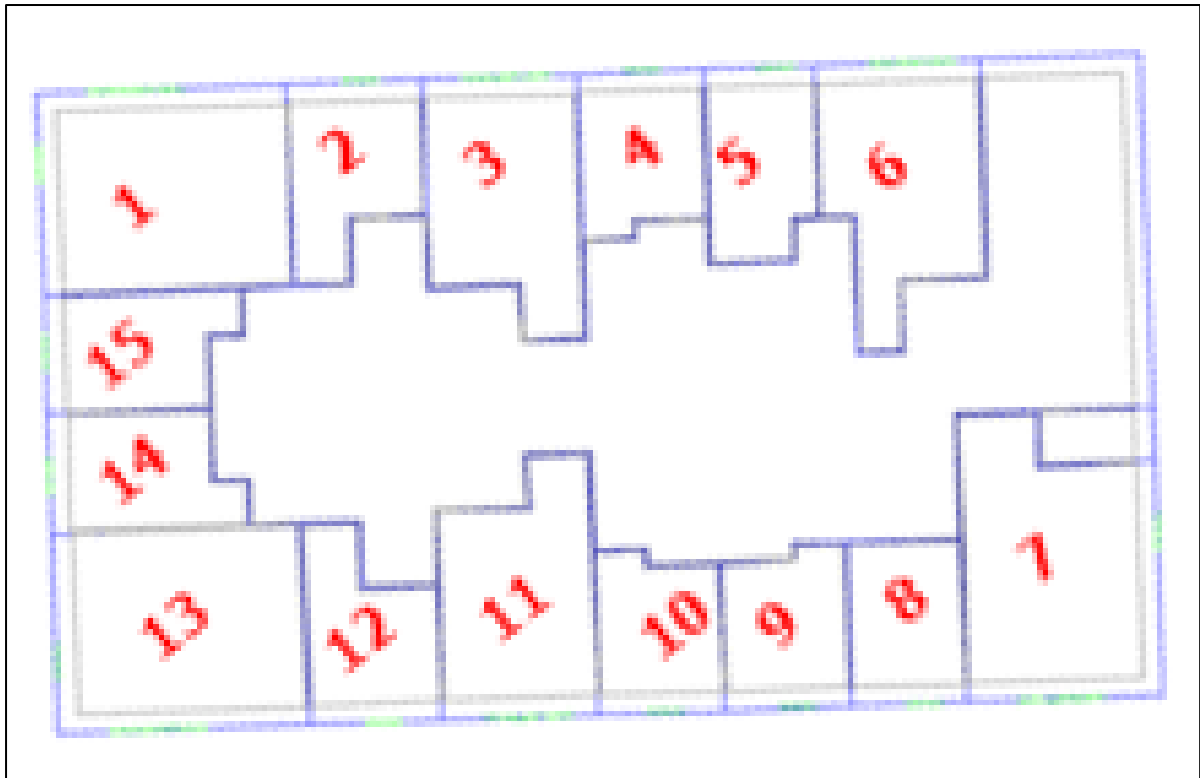


Figure 15. Building 01 – Level 05 (modelling software)

Table 16. sDA results for Building 01 – Level 05

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	78	100	Pass	99	Pass
3	L/K/D	100	100	Pass	100	Pass
4	Bed	98	100	Pass	100	Pass
5	Bed	77	100	Pass	100	Pass
6	L/K/D	93	100	Pass	97	Pass
7	L/K/D	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass



## Building 2A & 2B

### Level 02

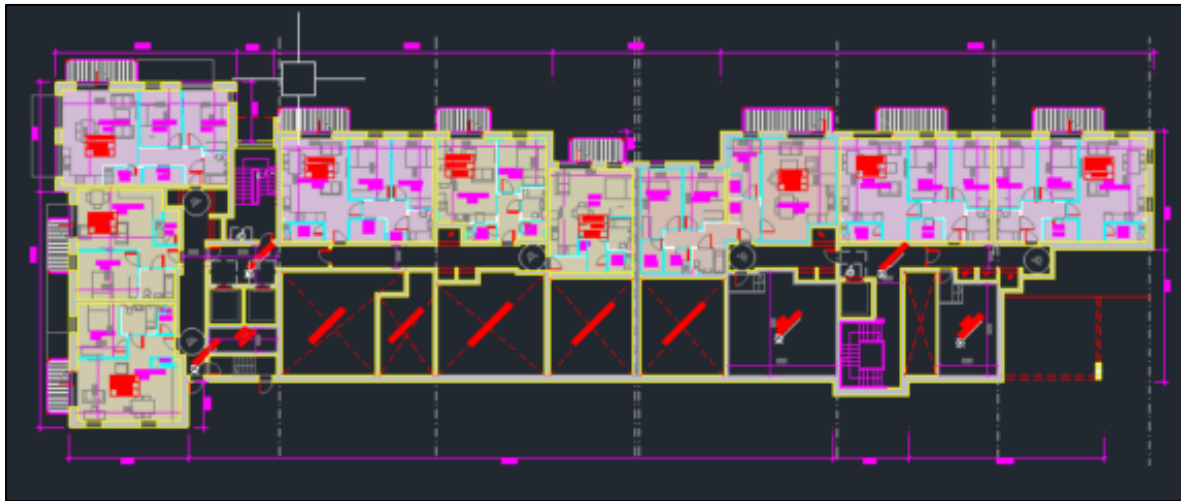


Figure 16. Building 2 - Level 02 (VDA & CCK)

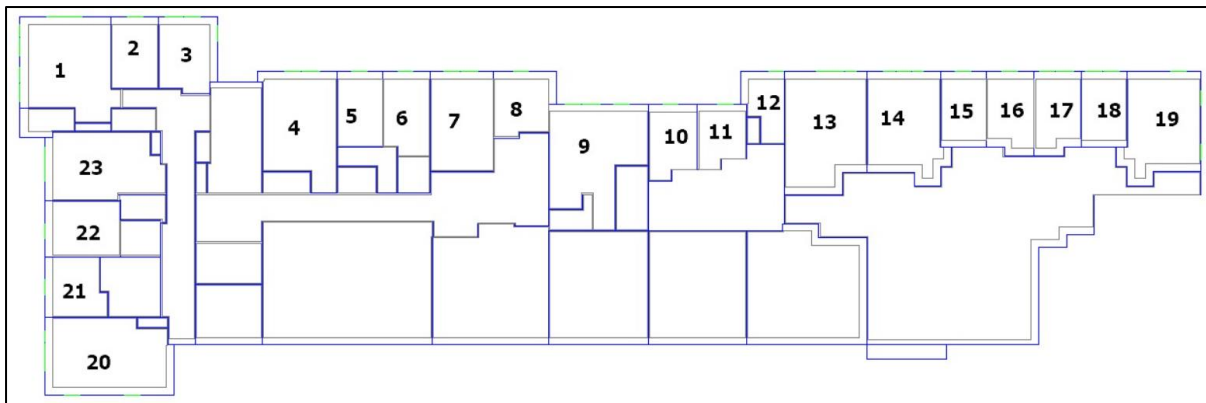


Figure 17. Building 2 - Level 02 (modelling software)

Table 17. sDA results for Building 02 – Level 02

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	28	100	Fail	90	Pass
5	Bed	38	100	Fail	82	Pass
6	Bed	41	87	Fail	50	Pass
7	L/K/D	46	100	Fail	83	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
8	Bed	26	100	Fail	99	Pass
9	Studio	72	100	Pass	94	Pass
10	Bed	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	L/K/D	33	100	Fail	100	Pass
15	Bed	21	100	Fail	63	Pass
16	Bed	34	100	Fail	100	Pass
17	Bed	100	100	Pass	77	pass
18	Bed	100	100	Pass	94	Pass
19	L/K/D	41	100	Fail	75	Pass
20	L/K/D	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	L/K/D	57	100	Pass	100	Pass

**Level 03**

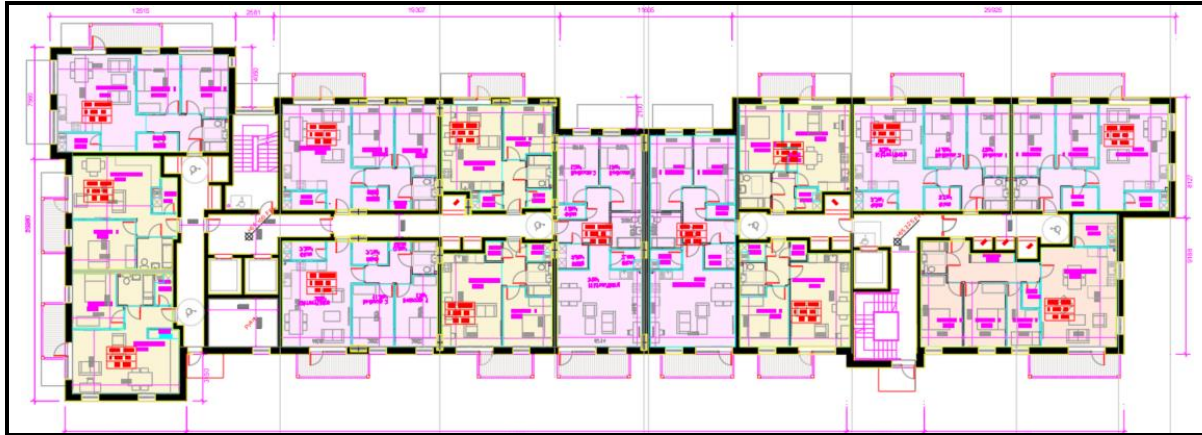


Figure 18. Building 2 - Level 03 (VDA & CCK)

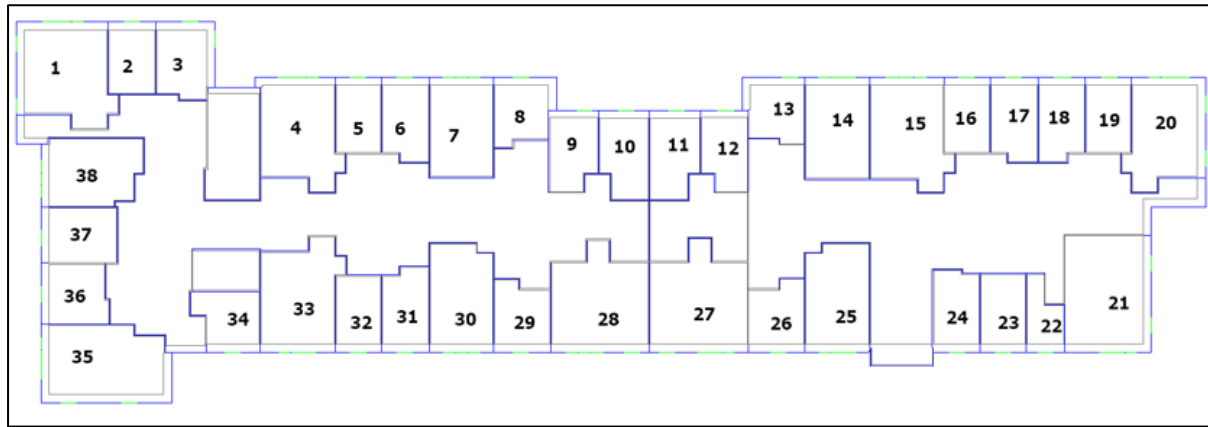


Figure 19. Building 2 - Level 03 (modelling software)

Table 18. sDA results for Building 02 – Level 03

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	86	100	Pass	89	Pass
5	Bed	47	100	Fail	76	Pass
6	Bed	34	100	Fail	91	Pass
7	L/K/D	51	100	Pass	100	Pass
8	Bed	33	100	Fail	100	Pass
9	Bed	39	100	Fail	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
10	Bed	32	100	Fail	73	Pass
11	Bed	62	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	L/K/D	44	100	Fail	100	Pass
16	Bed	33	100	Fail	100	Pass
17	Bed	45	100	Fail	100	Pass
18	Bed	76	100	Pass	100	Pass
19	Bed	36	100	Fail	100	Pass
20	L/K/D	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	L/K/D	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	L/K/D	40	100	Fail	100	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass

Level 04



Figure 20. Building 2 - Level 04 (VDA & CCK)

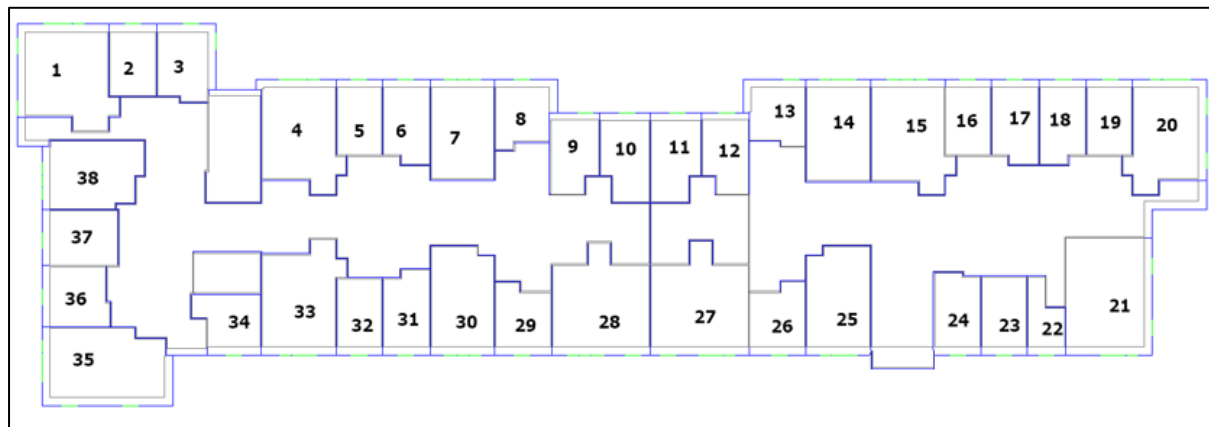


Figure 21. Building 2 - Level 04 (modelling software)

Table 19. sDA results for Building 02 – Level 04

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	37	100	Fail	100	Pass
5	Bed	40	100	Fail	100	Pass
6	Bed	39	100	Fail	100	Pass
7	L/K/D	47	100	Fail	100	Pass
8	Bed	52	100	Pass	99	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
9	Bed	36	100	Fail	100	Pass
10	Bed	39	100	Fail	75	Pass
11	Bed	34	100	Fail	98	Pass
12	Bed	98	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	L/K/D	100	100	Pass	100	Pass
16	Bed	44	100	Fail	100	Pass
17	Bed	100	100	Pass	100	Pass
18	Bed	51	100	Pass	100	Pass
19	Bed	47	100	Fail	100	Pass
20	L/K/D	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	L/K/D	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	L/K/D	87	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass



Level 05



Figure 22. Building 2 - Level 05 (VDA & CCK)

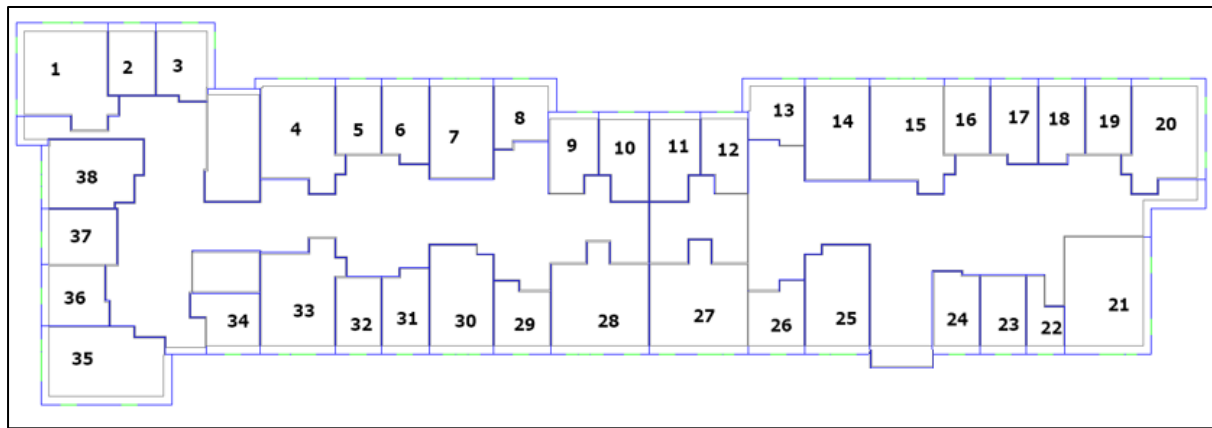


Figure 23. Building 2 - Level 05 (modelling software)

Table 20. sDA results for Building 02 – Level 05

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	63	100	Pass	100	Pass
5	Bed	50	100	Pass	100	Pass
6	Bed	51	100	Pass	100	Pass
7	L/K/D	58	100	Pass	100	Pass
8	Bed	60	100	Pass	100	Pass
9	Bed	79	100	Pass	100	Pass



Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
10	Bed	54	100	Pass	100	Pass
11	Bed	55	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	L/K/D	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	Bed	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	L/K/D	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	L/K/D	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	L/K/D	86	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass

Level 06



Figure 24. Building 2 - Level 06 (VDA & CCK)

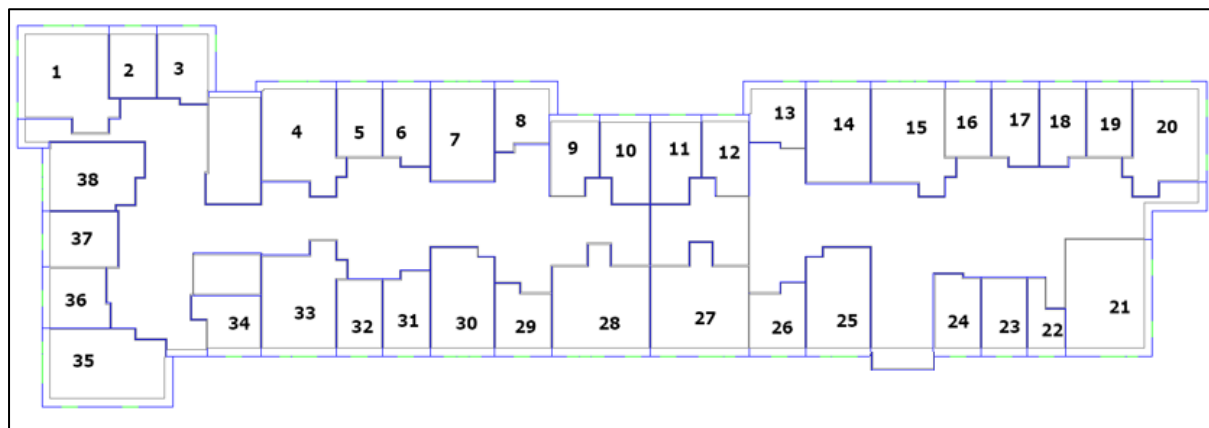


Figure 25. Building 2 - Level 06 (modelling software)

Table 21. sDA results for Building 02 – Level 06

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	74	100	Pass	100	Pass
5	Bed	73	100	Pass	100	Pass
6	Bed	64	100	Pass	100	Pass
7	L/K/D	67	100	Pass	100	Pass
8	Bed	85	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
10	Bed	86	100	Pass	100	Pass
11	Bed	64	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	L/K/D	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	Bed	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	L/K/D	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	L/K/D	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	L/K/D	100	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass

Level 07-15

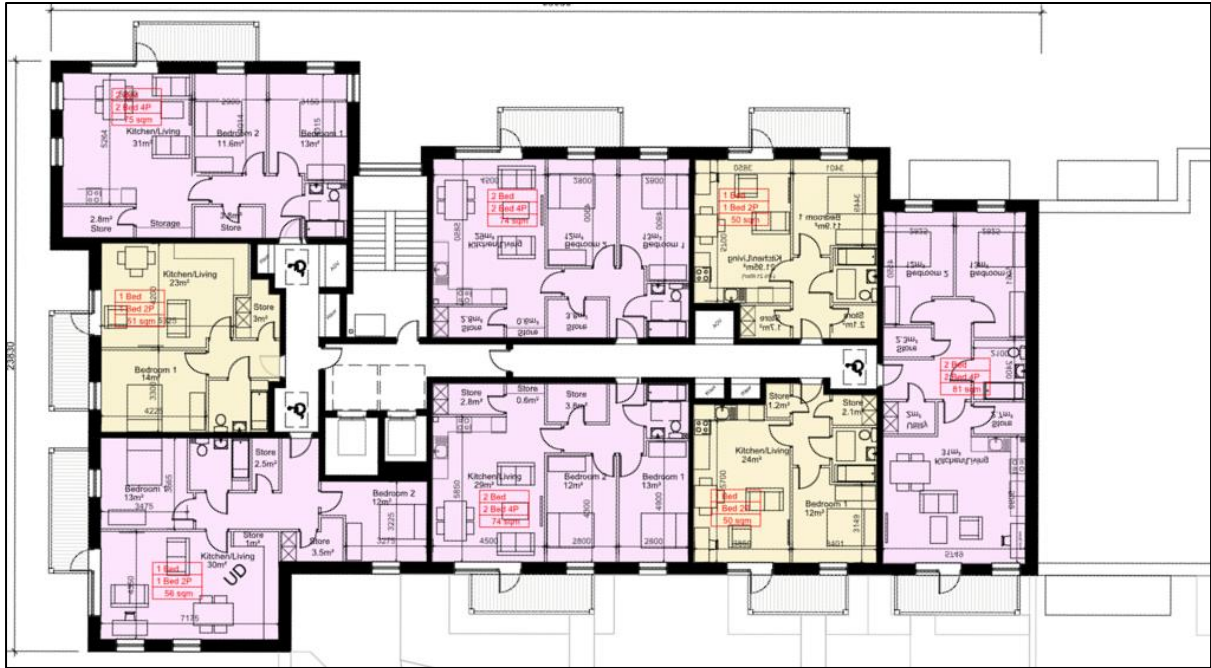


Figure 26. Building 2 - Level 07-15 (VDA & CCK)

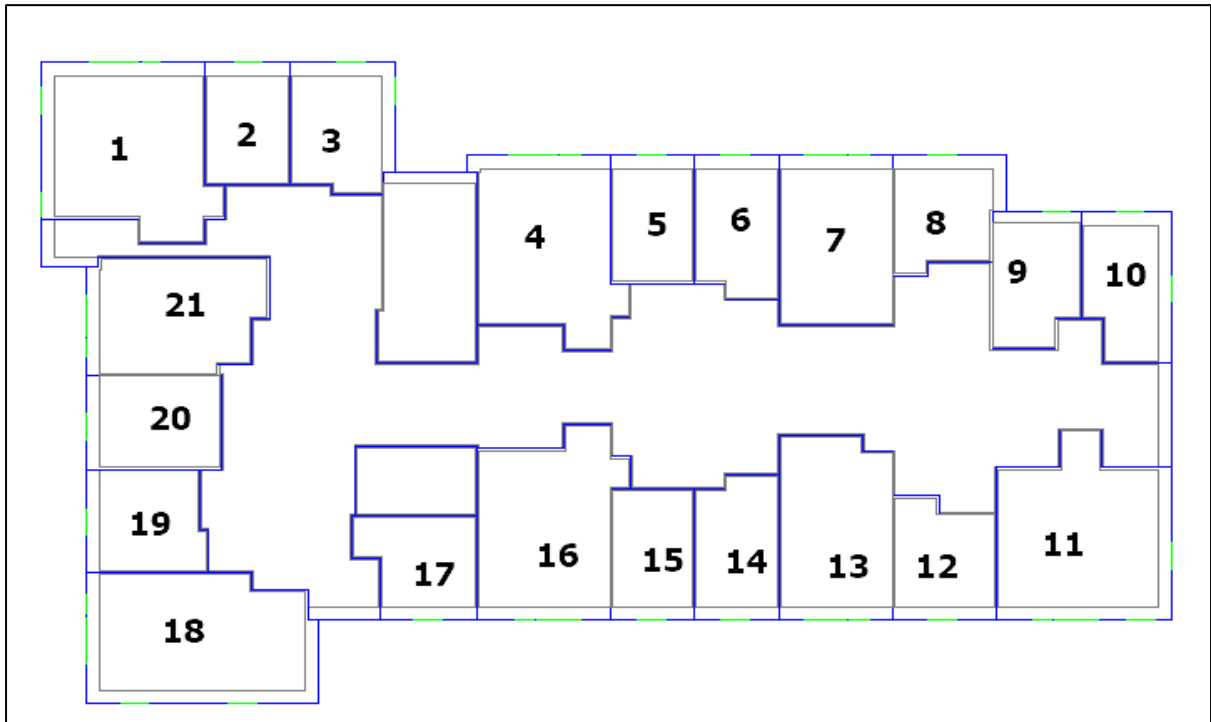


Figure 27. Building 2 - Level 07-15 (modelling software)

Table 22. sDA results for Building 02 – Level 07-15

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	74	100	Pass	100	Pass
5	Bed	59	100	Pass	100	Pass
6	Bed	71	100	Pass	100	Pass
7	L/K/D	92	100	Pass	100	Pass
8	Bed	89	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass
10	Bed	64	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	L/K/D	100	100	Pass	100	Pass
17	Bed	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass

Please note that the floor levels from 07 to 15 of Building 2A experienced the same results. Hence the Table above represents the results for each floor level from 07-15.

## Building 03

### Level 01

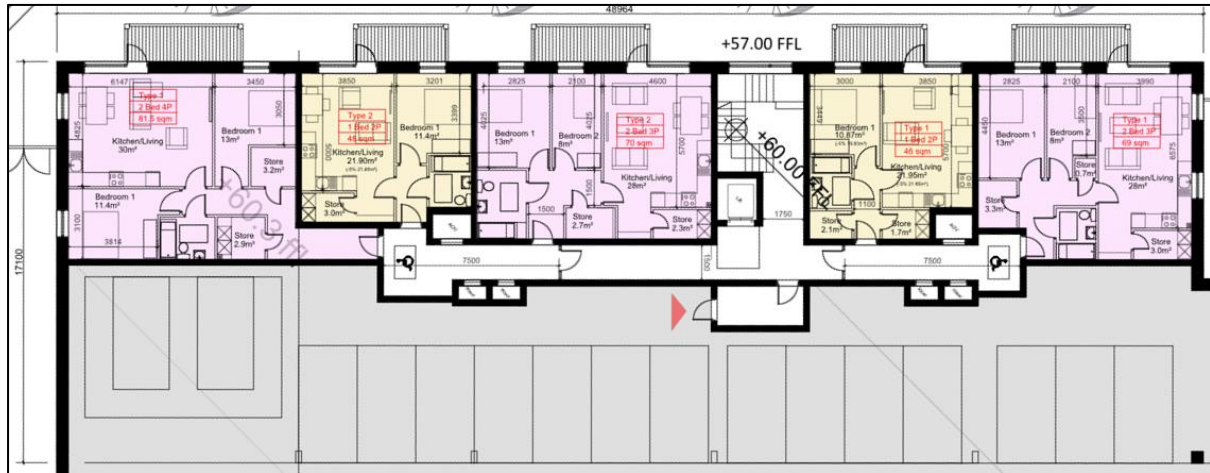


Figure 28. Building 03 - Level 01 (VDA & CCK)

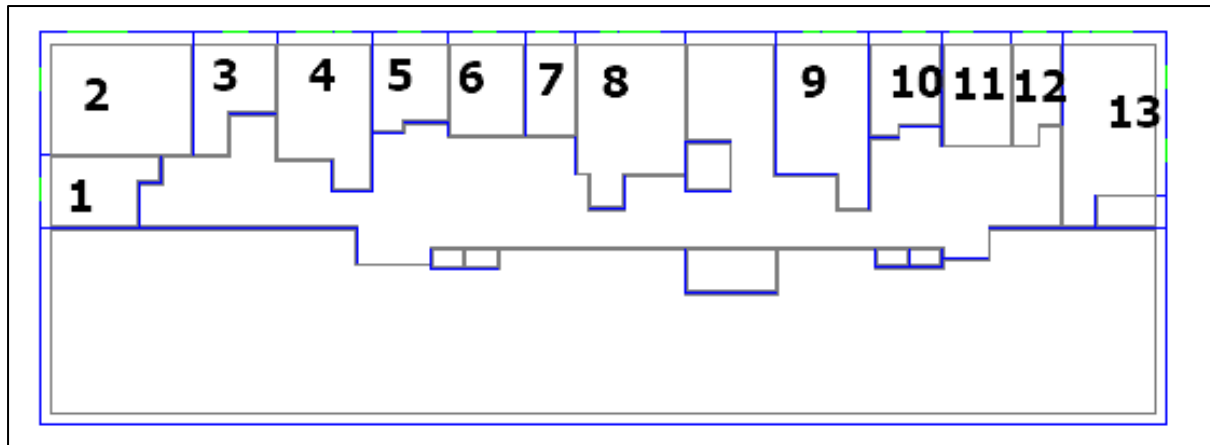


Figure 29. Building 03 - Level 01 (modelling software)

Table 23. sDA results for Building 03 – Level 01

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	Bed	97	100	Pass	100	Pass
2	L/K/D	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	99	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	Bed	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
8	L/K/D	100	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass
10	L/K/D	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass



Level 02

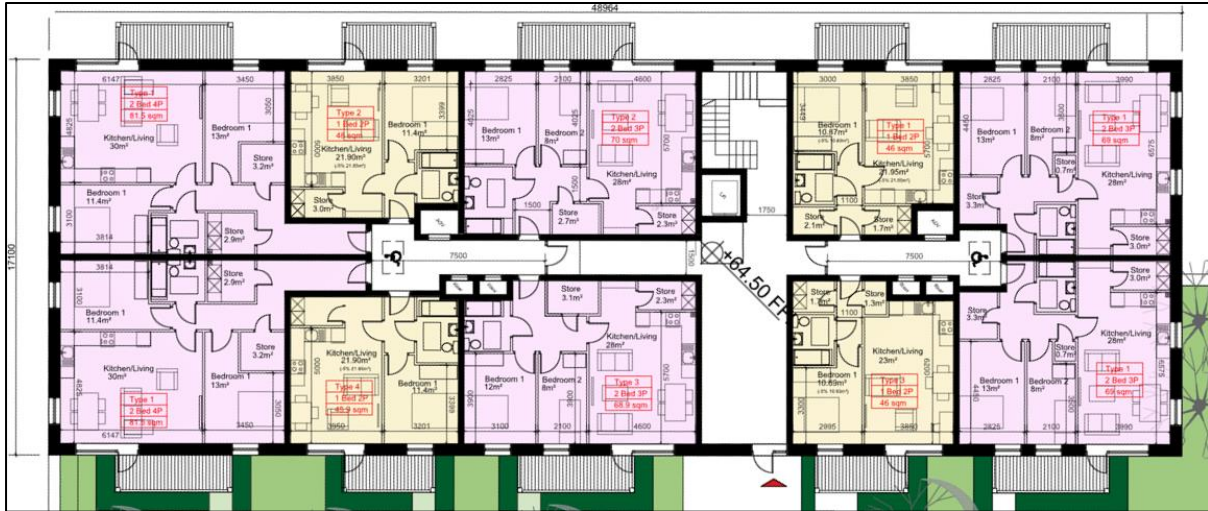


Figure 30. Building 03 - Level 02 (VDA & CCK)

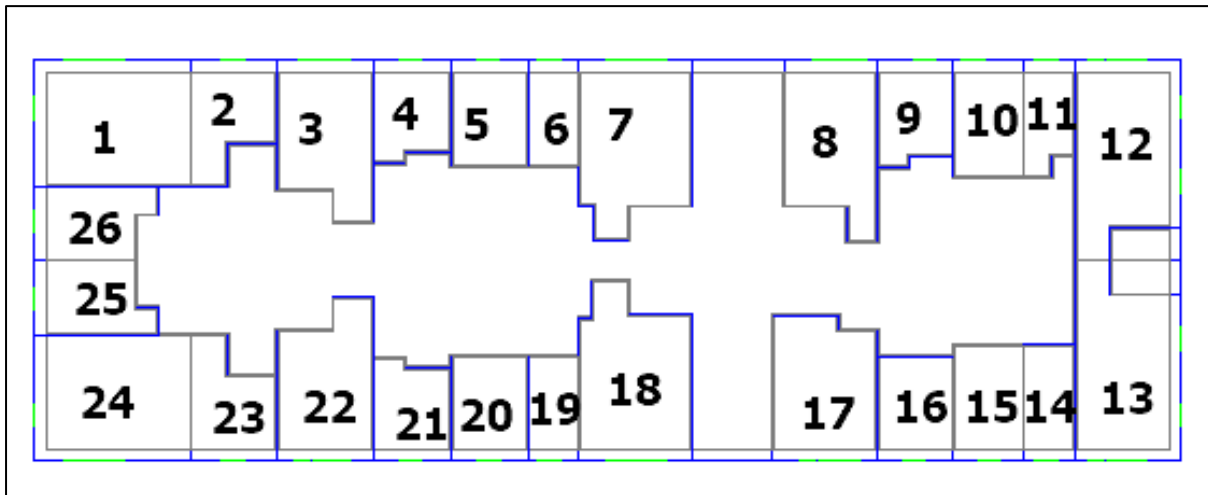


Figure 31. Building 03 - Level 02 (energy modelling)

Table 24. sDA results for Building 03 – Level 02

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	L/K/D	100	100	Pass	100	Pass
4	Bed	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
5	Bed	100	100	Pass	100	Pass
6	Bed	100	100	Pass	100	Pass
7	L/K/D	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	L/K/D	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	L/K/D	100	100	Pass	100	Pass
17	Bed	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	L/K/D	100	100	Pass	100	Pass
25	Bed	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass

**Level 03-04**

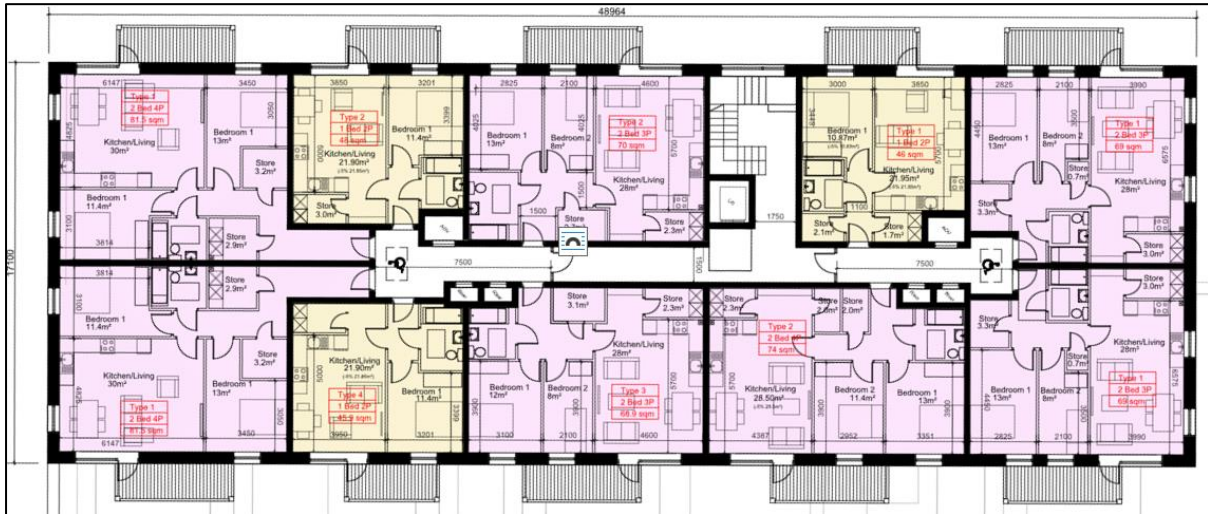


Figure 32. Building 03 - Level 03-04 (VDA & CCK)

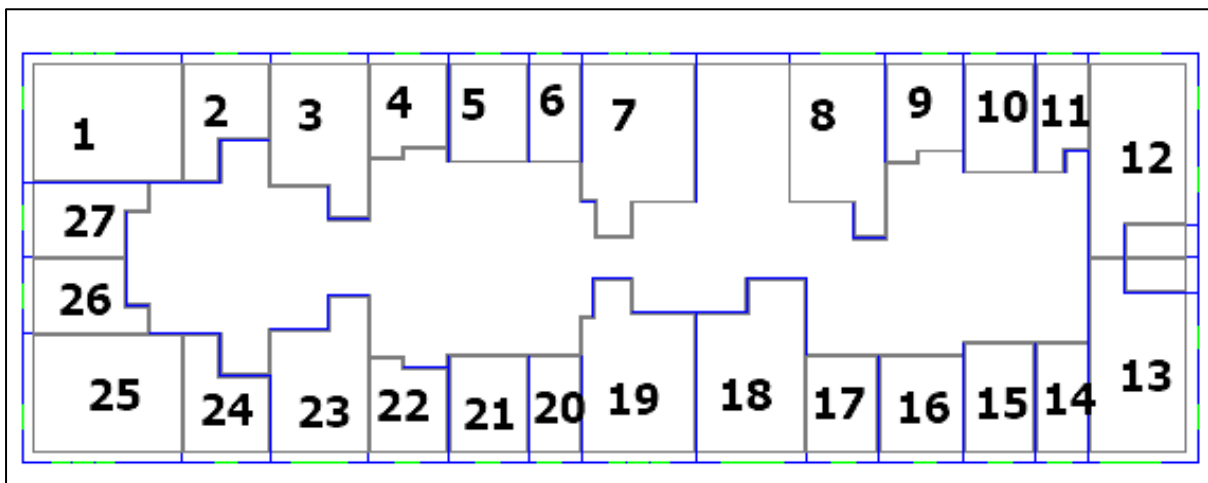


Figure 33. Building 03 - Level 03-04 (modelling software)

Table 25. sDA results for Building 03 – Level 03-04

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	L/K/D	99	100	Pass	100	Pass
4	Bed	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
5	Bed	100	100	Pass	100	Pass
6	Bed	100	100	Pass	100	Pass
7	L/K/D	99	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	L/K/D	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	Bed	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	L/K/D	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	L/K/D	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	Bed	100	100	Pass	100	Pass

Please note that the floor levels from 03 to 04 of Building 03 experienced the same results. Hence the Table above represents the results for each floor level from 03-04.



## Medium-Density Buildings

The medium-density buildings consist of the following:

- Building 05
- Building 06
- Building 07
- Building 08
- Building 09
- Building 10



Figure 34. Extract from Site Development Plan (Van Dijk Architects & Conroy Crowe Kelly & Urban Designers)

## Building 05

### Level 00



Figure 35. Building 05 - Level 00 (VDA & CCK)

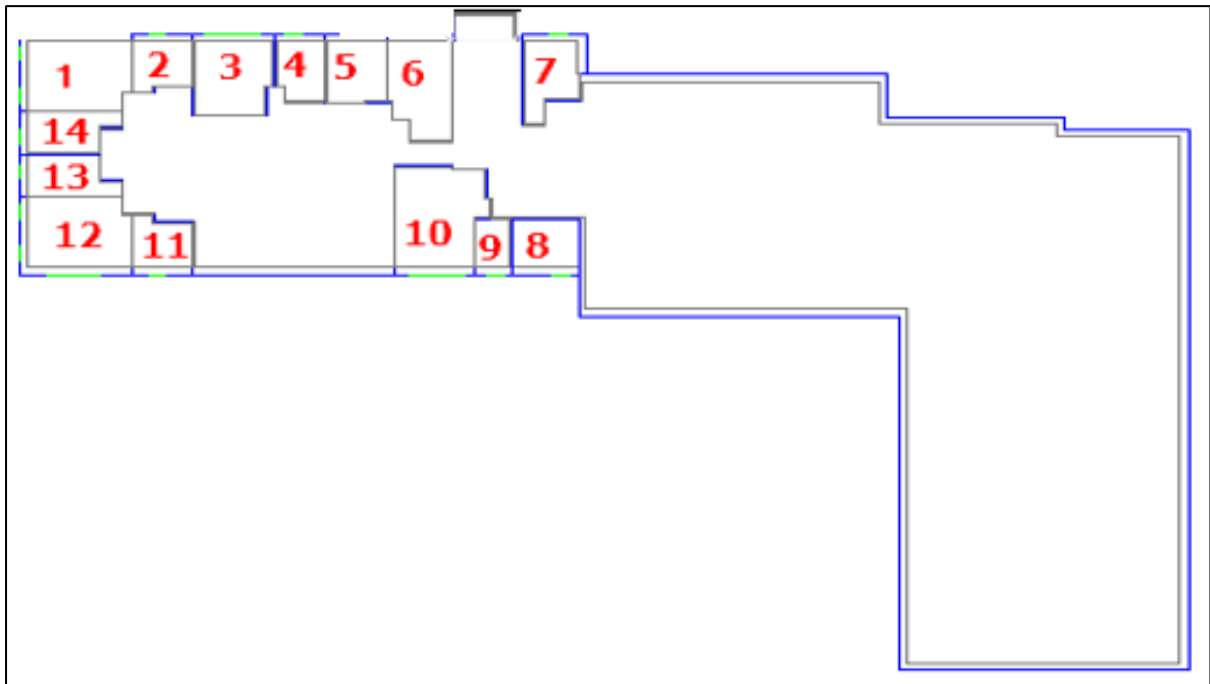


Figure 36. Building 05 - Level 00 (modelling software)

Table 26. sDA results for Building 05 – Level 00

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	67	Pass
3	L/K/D	100	100	Pass	100	Pass
4	Bed	100	100	Pass	100	Pass
5	Bed	97	100	Pass	100	Pass
6	L/K/D	85	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass
10	L/K/D	100	100	Pass	100	Pass
11	Bed	70	100	Pass	100	Pass
12	L/K/D	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass



Level 01



Figure 37. Building 05 - Level 01 (VDA & CCK)

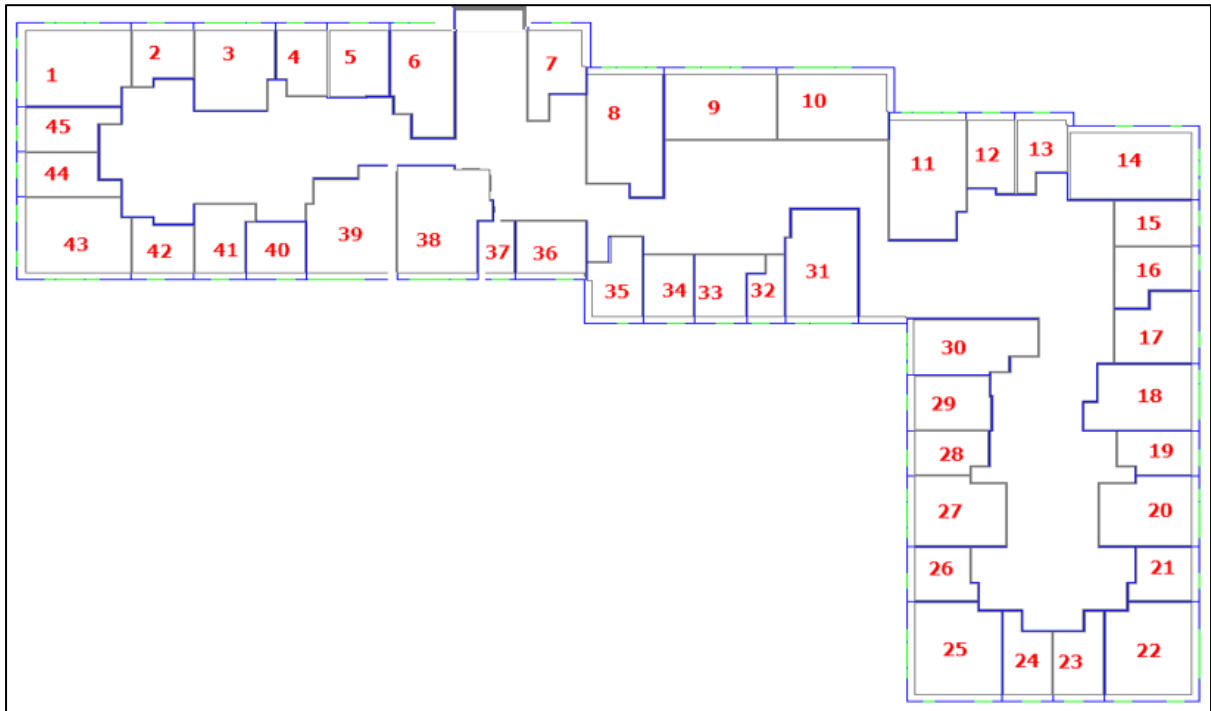


Figure 38. Building 05 - Level 01 (modelling software)

Table 27. sDA results for Building 05 – Level 01

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	L/K/D	100	100	Pass	100	Pass
4	Bed	100	100	Pass	100	Pass
5	Bed	87	100	Pass	100	Pass
6	L/K/D	98	100	Pass	100	Pass
7	Bed	84	100	Pass	100	Pass
8	L/K/D	45	100	Fail	80	Pass
9	Studio	94	100	Pass	100	Pass
10	Studio	90	100	Pass	100	Pass
11	L/K/D	48	100	Fail	81	Pass
12	Bed	56	100	Pass	100	Pass
13	Bed	70	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	Bed	64	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	L/K/D	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	73	100	Pass	95	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	66	100	Pass	100	Pass
29	Bed	80	100	Pass	89	Pass
30	L/K/D	79	100	Pass	100	Pass
31	L/K/D	100	100	Pass	100	Pass
32	Bed	82	100	Pass	100	Pass
33	Bed	70	100	Pass	100	Pass
34	Bed	100	100	Pass	89	Pass
35	Bed	55	100	Pass	81	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	L/K/D	55	100	Pass	100	Pass
40	Bed	100	100	Pass	100	Pass
41	Bed	100	100	Pass	100	Pass
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass

Level 02



Figure 39. Building 05 - Level 02 (VDA & CCK)

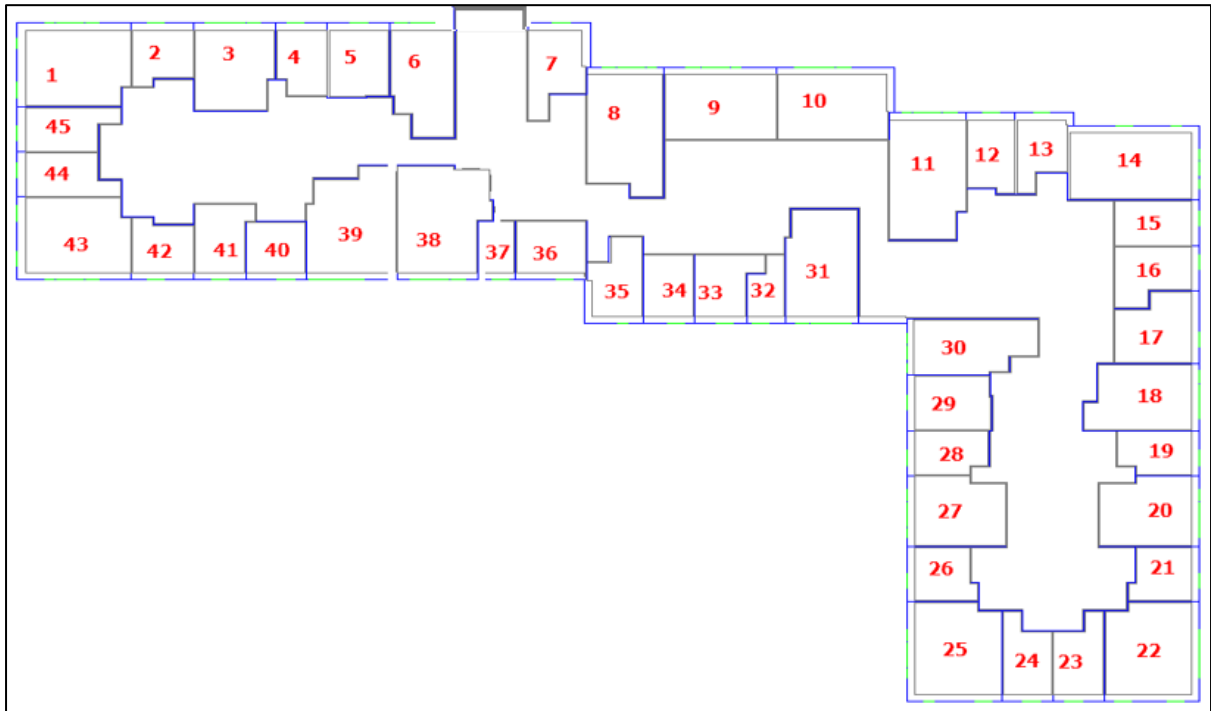


Figure 40. Building 05 - Level 02 (modelling software)

Table 28. sDA results for Building 05 – Level 02

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	L/K/D	100	100	Pass	100	Pass
4	Bed	99	100	Pass	100	Pass
5	Bed	90	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	89	100	Pass	100	Pass
8	L/K/D	50	100	Pass	100	Pass
9	Studio	100	100	Pass	100	Pass
10	Studio	99	100	Pass	100	Pass
11	L/K/D	52	100	Pass	90	Pass
12	Bed	55	98	Pass	90	Pass
13	Bed	99	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	Bed	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	L/K/D	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	88	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	77	100	Pass	100	Pass
29	Bed	90	95	Pass	100	Pass
30	L/K/D	82	100	Pass	100	Pass
31	L/K/D	100	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	Bed	76	100	Pass	88	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	96	100	Pass	100	Pass
38	L/K/D	63	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	65	100	Pass	100	Pass
41	Bed	66	100	Pass	100	Pass
42	Bed	79	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass



Level 03



Figure 41. Building 05 - Level 03 (VDA & CCK)

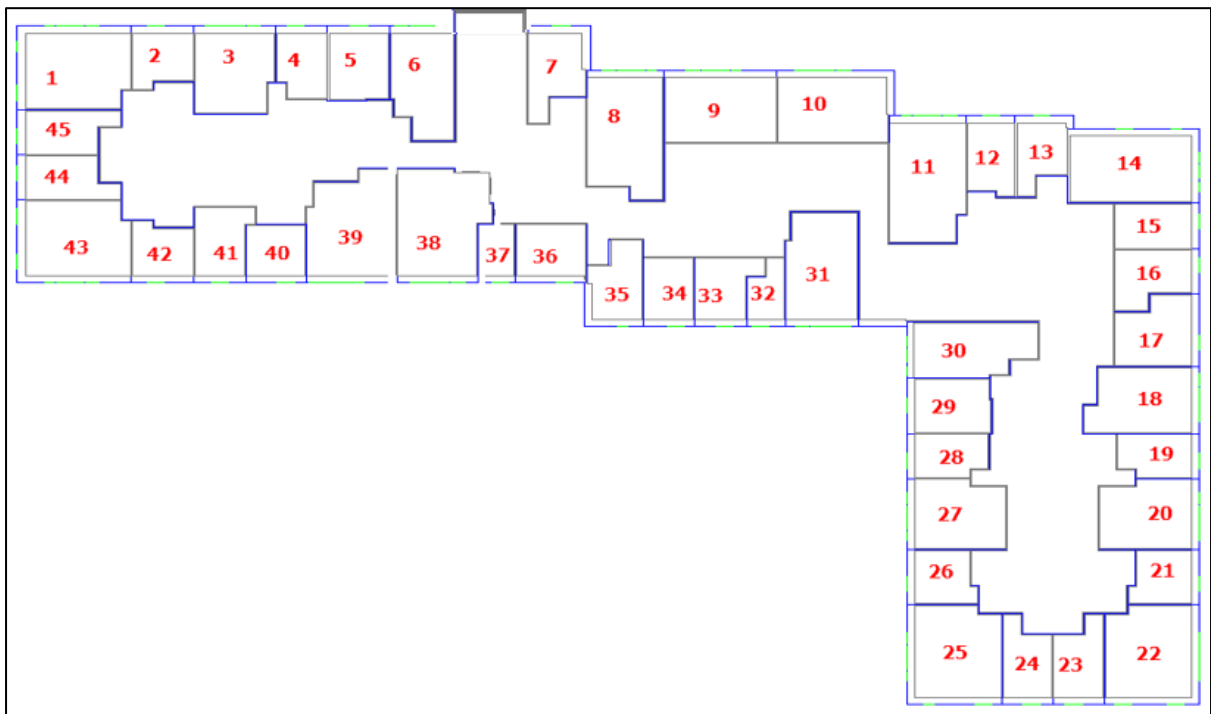


Figure 42. Building 05 - Level 03 (modelling software)

Table 29. sDA results for Building 05 – Level 03

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	L/K/D	100	100	Pass	100	Pass
4	Bed	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	88	100	Pass	100	Pass
7	Bed	78	95	Pass	100	Pass
8	L/K/D	55	100	Pass	100	Pass
9	Studio	100	100	Pass	100	Pass
10	Studio	99	100	Pass	100	Pass
11	L/K/D	56	100	Pass	100	Pass
12	Bed	91	98	Pass	95	Pass
13	Bed	97	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	Bed	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	L/K/D	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	95	100	Pass	100	Pass
24	Bed	94	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	95	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	Bed	97	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	L/K/D	100	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	Bed	97	100	Pass	100	Pass
35	Bed	100	100	Pass	100	Pass
36	Bed	80	100	Pass	100	Pass
37	Bed	98	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	89	100	Pass	100	Pass
41	Bed	60	100	Pass	100	Pass
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass

Level 04



Figure 43. Building 05 - Level 04 (VDA & CCK)

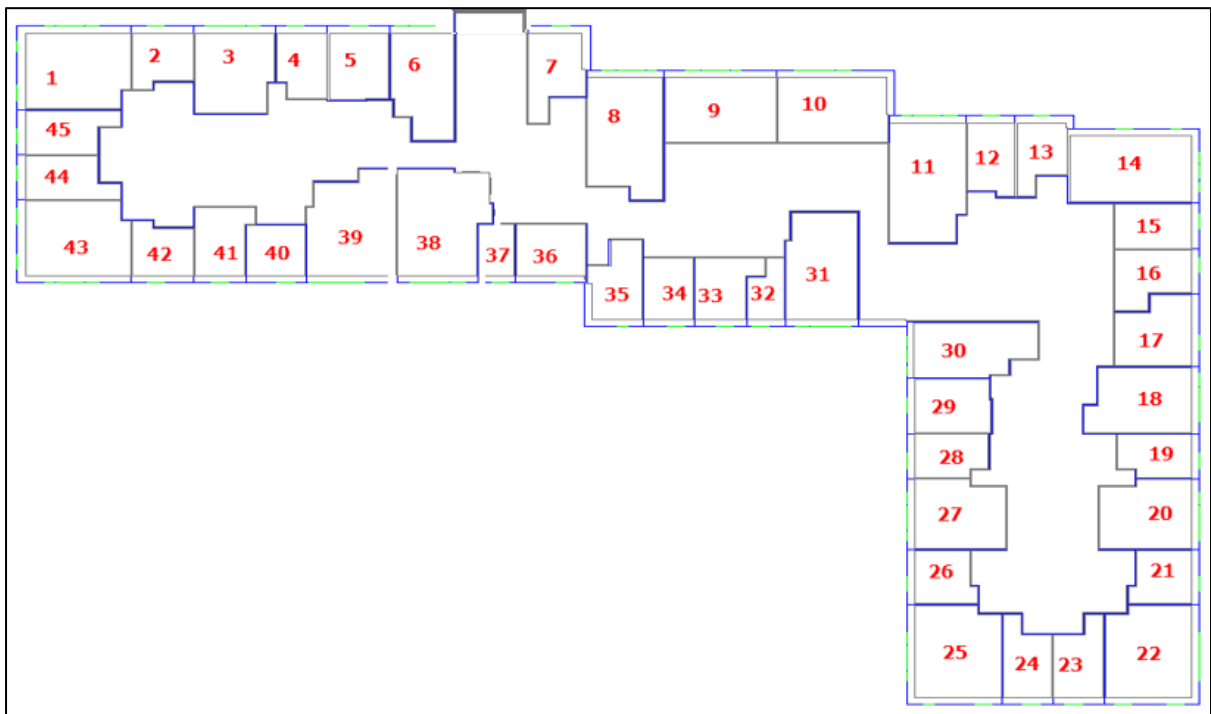


Figure 44. Building 05 - Level 04 (modelling software)



Table 30. sDA results for Building 05 – Level 04

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	L/K/D	100	100	Pass	100	Pass
4	Bed	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	86	100	Pass	100	Pass
8	L/K/D	60	100	Pass	100	Pass
9	Studio	100	100	Pass	100	Pass
10	Studio	100	100	Pass	100	Pass
11	L/K/D	92	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	Bed	97	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	Bed	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	L/K/D	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	67	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	L/K/D	100	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	Bed	88	100	Pass	100	Pass
35	Bed	65	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	92	100	Pass	100	Pass
41	Bed	96	100	Pass	100	Pass
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass

Level 05



Figure 45. Building 05 - Level 05 (VDA & CCK)

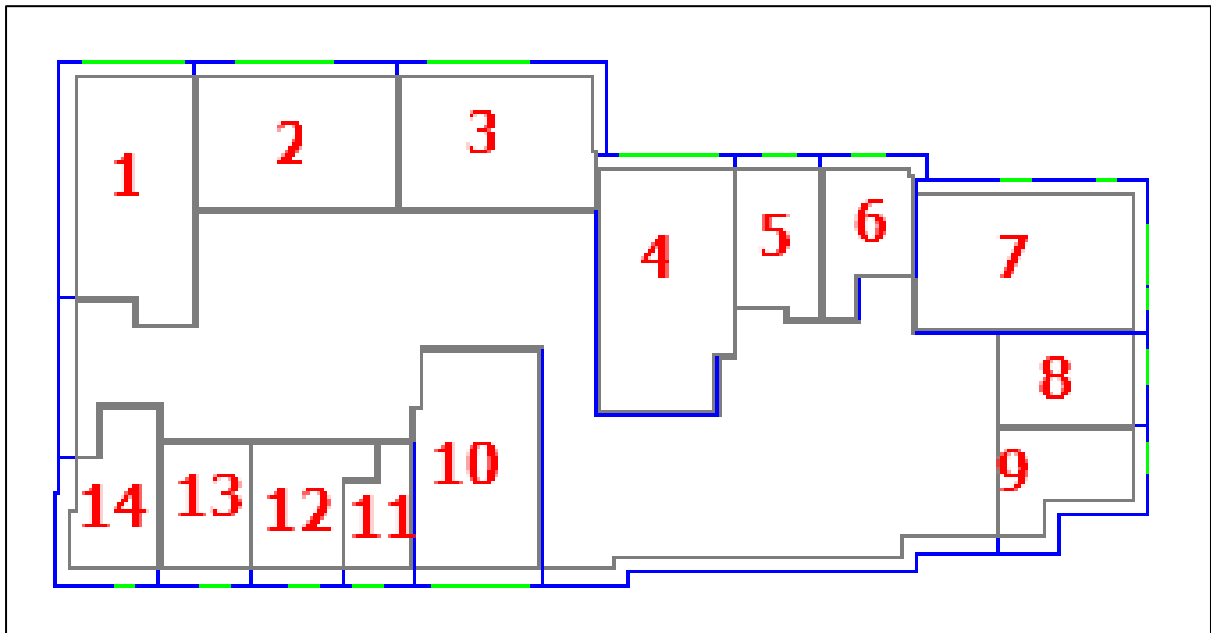


Figure 46. Building 05 - Level 05 (modelling software)

Table 31. sDA results for Building 05 – Level 05

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Studio	100	100	Pass	100	Pass
3	Studio	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	85	100	Pass	100	Pass
6	Bed	97	100	Pass	100	Pass
7	L/K/D	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass
10	L/K/D	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	Bed	82	100	Pass	100	Pass

## Building 06

### Level 00



Figure 47. Building 06 - Level 00 (VDA & CCK)

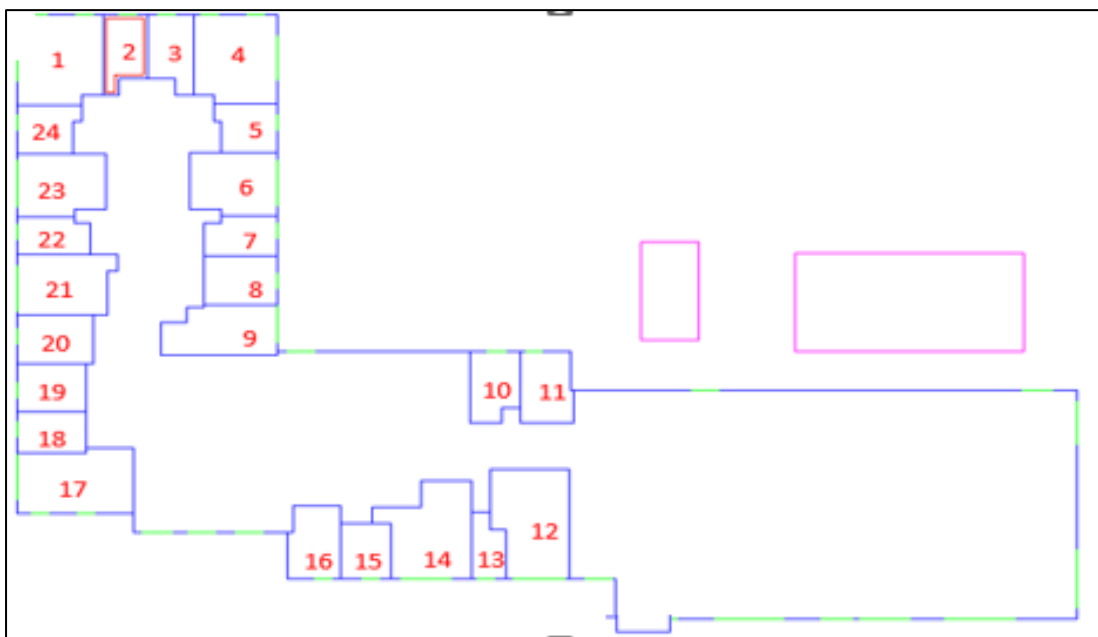


Figure 48. Building 06 - Level 00 (modelling software)

Table 32. sDA results for Building 06 – Level 00

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	LKD	100	100	Pass	100	Pass
2	Bedroom	91	100	Pass	100	Pass
3	Bedroom	100	100	Pass	100	Pass
4	LKD	100	100	Pass	100	Pass
5	Bedroom	90	100	Pass	100	Pass
6	LKD	100	100	Pass	100	Pass
7	Bedroom	100	100	Pass	100	Pass
8	Bedroom	97	100	Pass	100	Pass
9	LKD	50	100	Pass	100	Pass
10	Bedroom	100	100	Pass	100	Pass
11	Bedroom	100	100	Pass	100	Pass
12	LKD	100	100	Pass	100	Pass
13	Bedroom	100	100	Pass	100	Pass
14	LKD	100	100	Pass	100	Pass
15	Bedroom	100	100	Pass	100	Pass
16	Bedroom	100	100	Pass	100	Pass
17	LKD	100	100	Pass	100	Pass
18	Bedroom	100	100	Pass	100	Pass
19	Bedroom	100	100	Pass	100	Pass
20	Bedroom	100	100	Pass	100	Pass
21	LKD	100	100	Pass	100	Pass
22	Bedroom	100	100	Pass	100	Pass
23	LKD	100	100	Pass	100	Pass
24	Bedroom	100	100	Pass	100	Pass

Level 01



Figure 49. Building 06 - Level 01 (VDA & CCK)

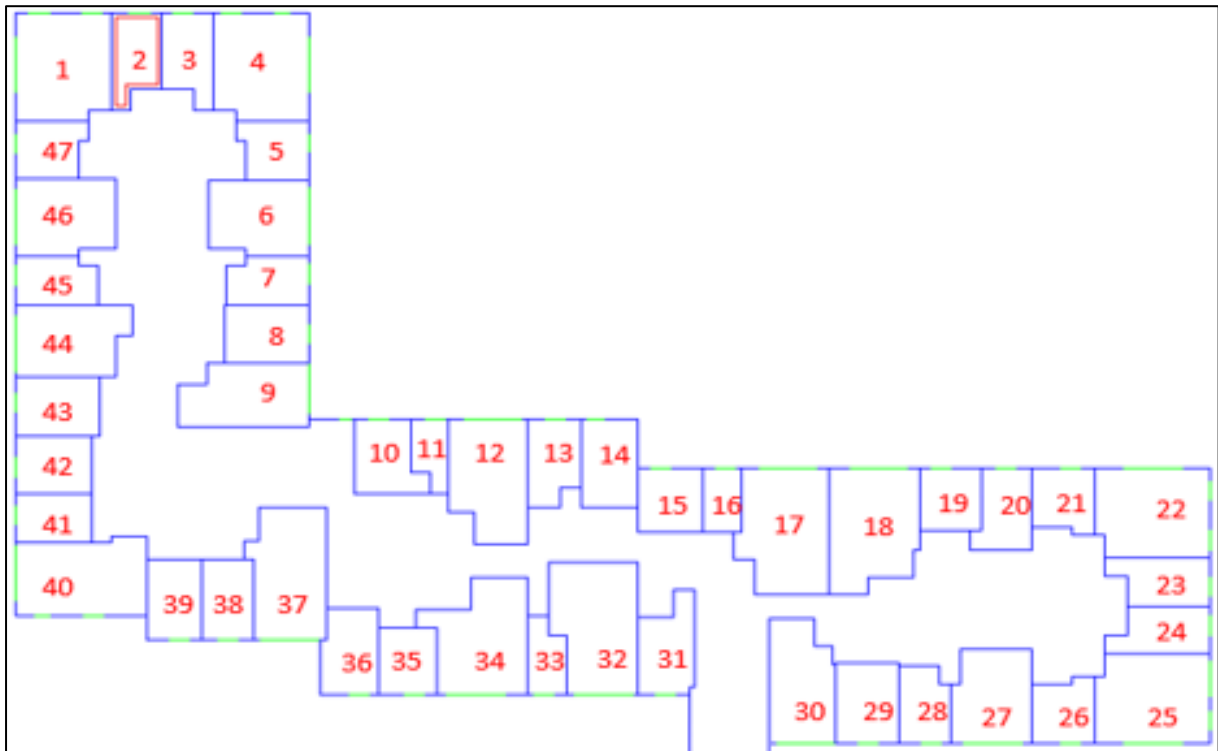


Figure 50. Building 06 - Level 01 (modelling software)



Table 33. sDA results for Building 06 – Level 01

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	Bed	93	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	L/K/D	80	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	65	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	Bed	63	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	89	100	Pass	95	Pass
32	L/K/D	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	L/K/D	100	100	Pass	100	Pass
35	Bed	100	100	Pass	100	Pass
36	Bed	80	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	Bed	100	100	Pass	100	Pass
39	Bed	100	100	Pass	100	Pass
40	L/K/D	100	100	Pass	100	Pass
41	Bed	100	100	Pass	100	Pass



Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	Bed	100	100	Pass	100	Pass
44	L/K/D	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	L/K/D	100	100	Pass	100	Pass
47	Bed	100	100	Pass	100	Pass

Level 02



Figure 51. Building 06 - Level 02 (VDA & CCK)

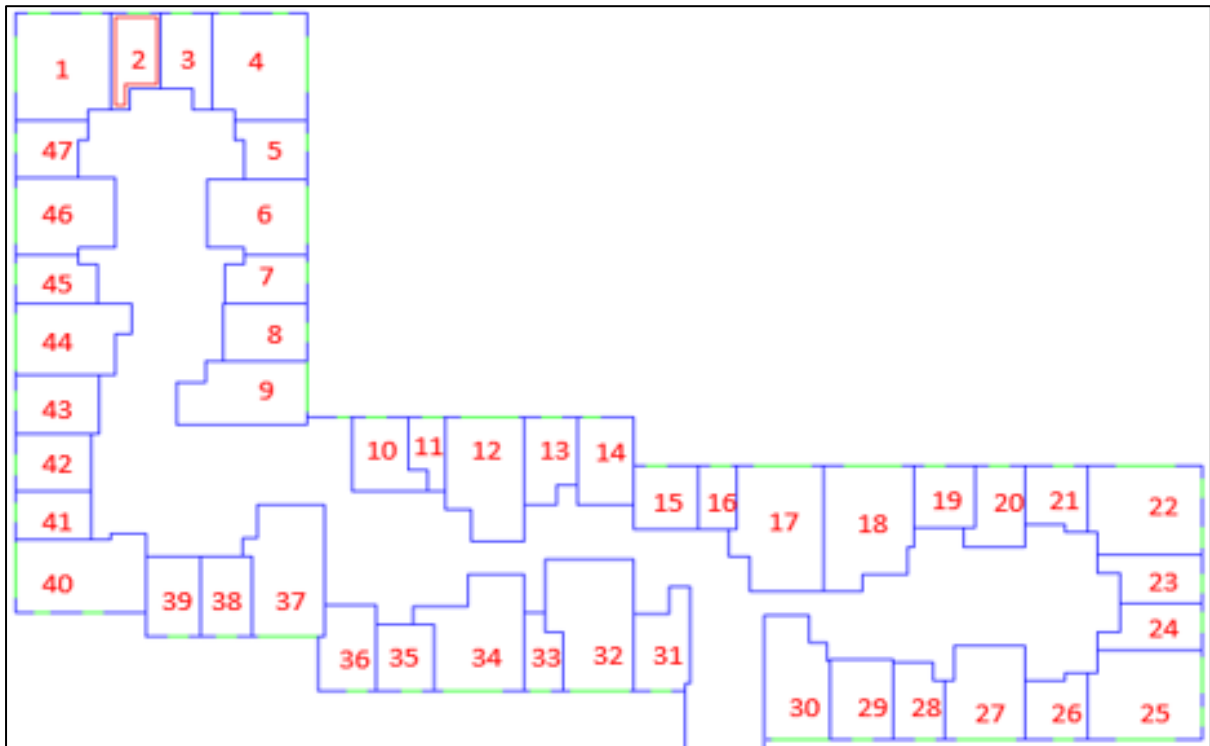


Figure 52. Building 06 - Level 02 (modelling software)

Table 34. sDA results for Building 06 – Level 02

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	Bed	55	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	L/K/D	100	100	Pass	100	Pass
13	Bed	94	100	Pass	100	Pass
14	Bed	62	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	64	100	Pass	100	Pass
29	Bed	78	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	79	100	Pass	93	Pass
32	L/K/D	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	L/K/D	100	100	Pass	100	Pass
35	Bed	100	100	Pass	100	Pass
36	Bed	70	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	Bed	95	100	Pass	100	Pass
39	Bed	100	100	Pass	100	Pass
40	L/K/D	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
41	Bed	100	100	Pass	100	Pass
42	Bed	100	100	Pass	100	Pass
43	Bed	100	100	Pass	100	Pass
44	L/K/D	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	L/K/D	100	100	Pass	100	Pass
47	Bed	100	100	Pass	100	Pass

Level 03



Figure 53. Building 06 - Level 03 (VDA & CCK)

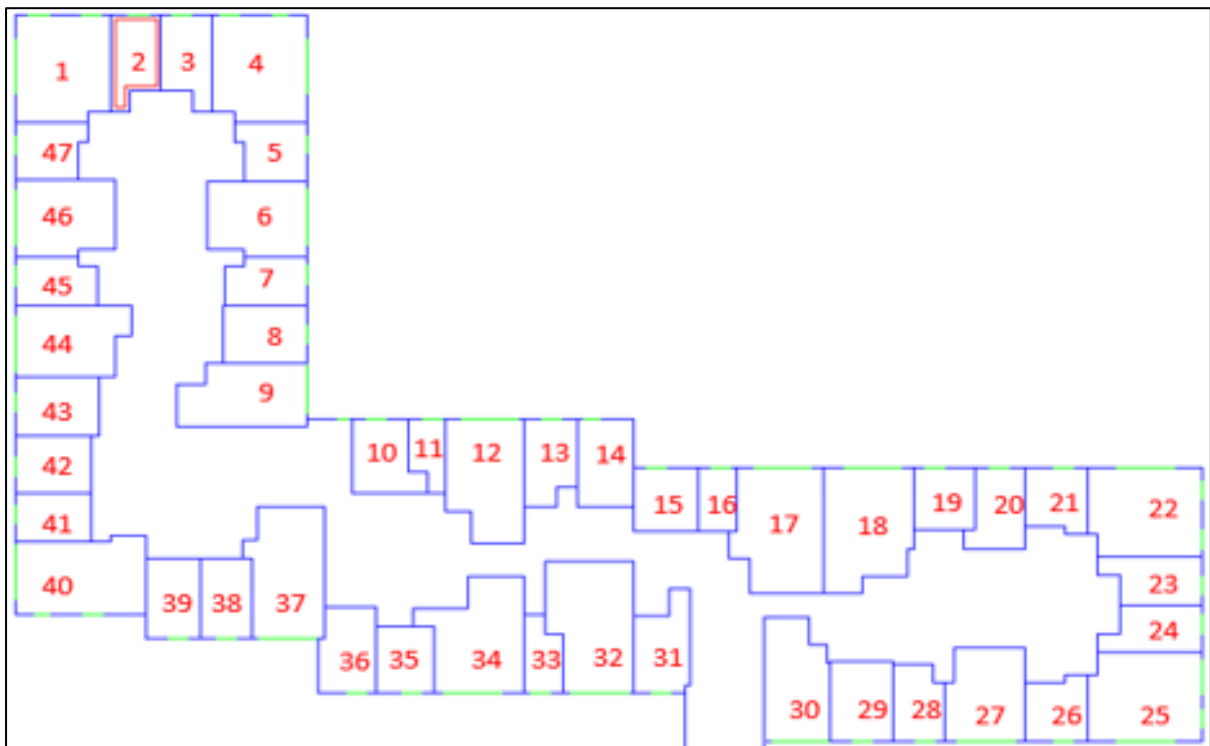


Figure 54. Building 06 - Level 03 (modelling software)

Table 35. sDA results for Building 06 – Level 03

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	72	100	Pass	94	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	63	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	Bed	88	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	L/K/D	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	83	100	Pass	100	Pass
29	Bed	53	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	90	100	Pass	100	Pass
32	L/K/D	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	L/K/D	100	100	Pass	100	Pass
35	Bed	94	100	Pass	100	Pass
36	Bed	64	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	Bed	100	100	Pass	100	Pass
39	Bed	100	100	Pass	100	Pass
40	L/K/D	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
41	Bed	100	100	Pass	100	Pass
42	Bed	100	100	Pass	100	Pass
43	Bed	100	100	Pass	100	Pass
44	L/K/D	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	L/K/D	100	100	Pass	100	Pass
47	Bed	100	100	Pass	100	Pass



Level 04



Figure 55. Building 06 - Level 04 (VDA & CCK)

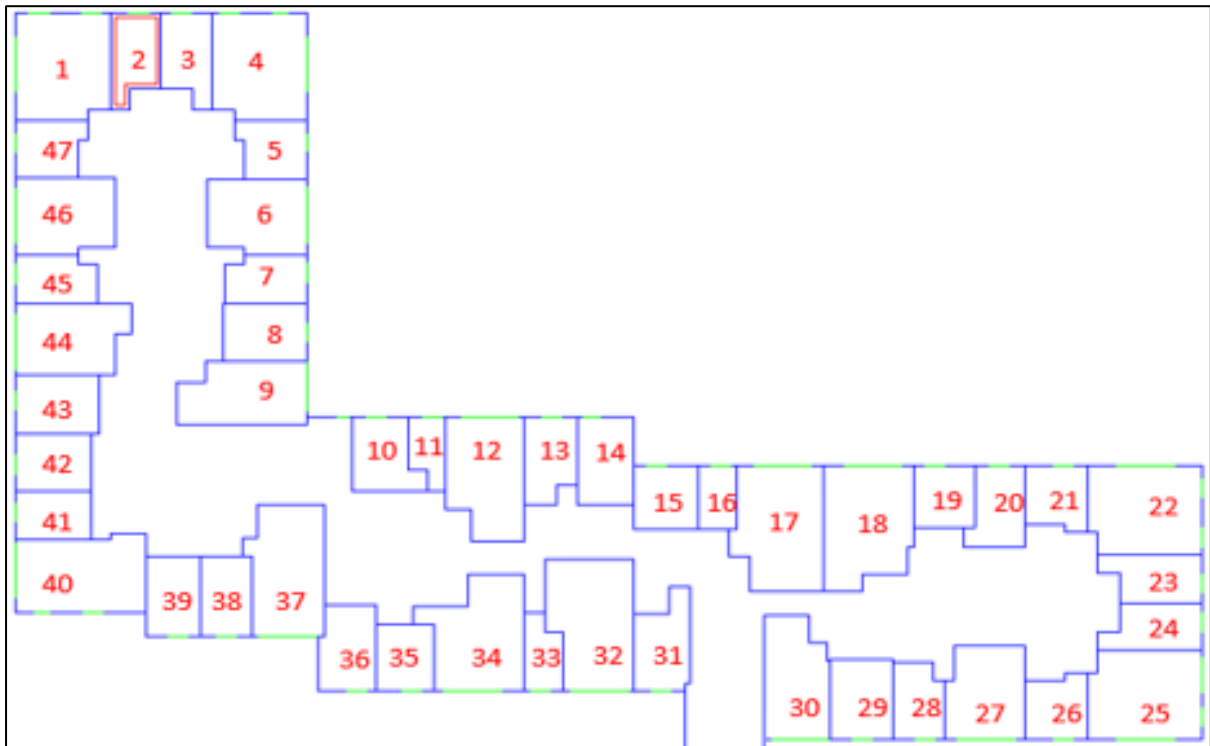


Figure 56. Building 06 - Level 04 (modelling software)

Table 36. sDA results for Building 06 – Level 04

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	Bed	98	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	L/K/D	100	100	Pass	100	Pass
13	Bed	98	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	98	100	Pass	100	Pass
29	Bed	97	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	91	100	Pass	100	Pass
32	L/K/D	100	100	Pass	100	Pass
33	Bed	95	100	Pass	100	Pass
34	L/K/D	100	100	Pass	100	Pass
35	Bed	96	100	Pass	100	Pass
36	Bed	67	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	Bed	100	100	Pass	100	Pass
39	Bed	100	100	Pass	100	Pass
40	L/K/D	100	100	Pass	100	Pass
41	Bed	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	Bed	100	100	Pass	100	Pass
44	L/K/D	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	L/K/D	100	100	Pass	100	Pass
47	Bed	100	100	Pass	100	Pass

Level 05



Figure 57. Building 06 - Level 05 (VDA & CCK)

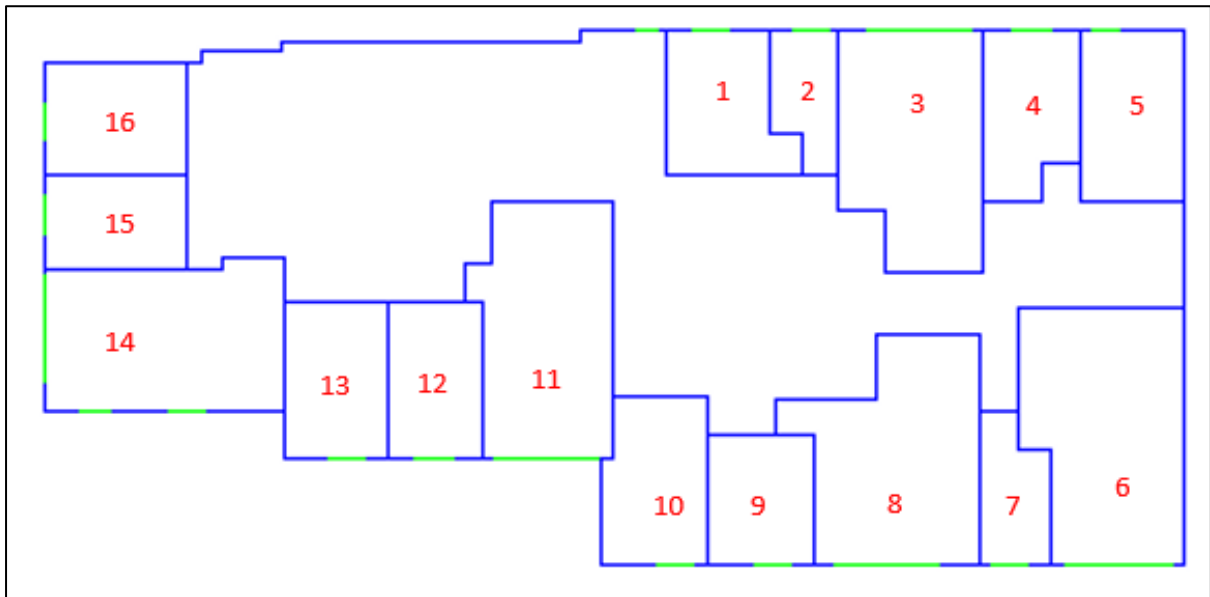


Figure 58. Building 06 - Level 05 (modelling software)

Table 37. sDA results for Building 06 – Level 05

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	Bed	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	L/K/D	100	100	Pass	100	Pass
4	Bed	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	L/K/D	100	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass
10	Bed	86	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	Bed	99	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass

## Building 07

### Level 00

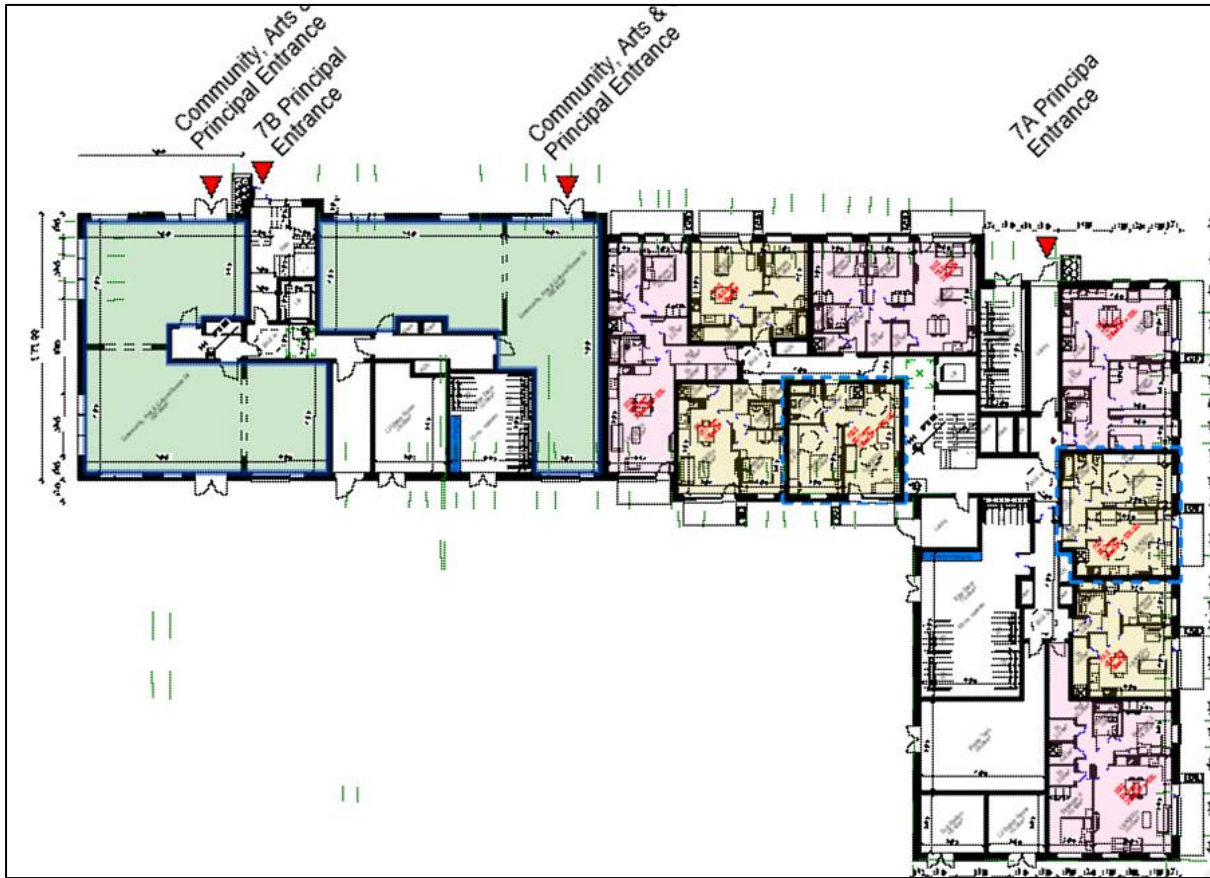


Figure 59. Building 07 - Level 00 (VDA & CCK)

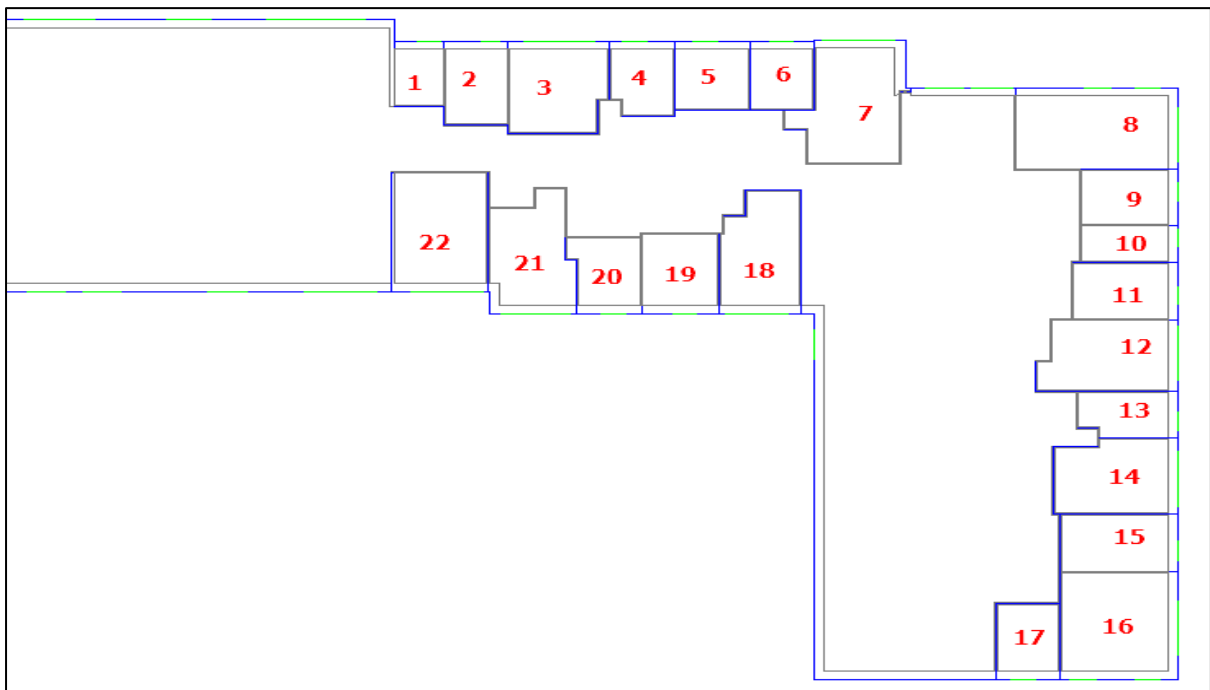


Figure 60. Building 07 - Level 00 (modelling software)



Table 38. sDA results for Building 07 – Level 00

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	Bed	90	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	L/K/D	100	100	Pass	100	Pass
4	Bed	53	100	Pass	100	Pass
5	Bed	50	100	Pass	97	Pass
6	Bed	100	100	Pass	100	Pass
7	L/K/D	96	100	Pass	100	Pass
8	L/K/D	100	100	Pass	100	Pass
9	Bed	66	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	L/K/D	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	L/K/D	100	100	Pass	100	Pass
17	Bed	54	100	Pass	100	Pass
18	L/K/D	51	100	Pass	90	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	86	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass

Level 01



Figure 61. Building 07 - Level 01 (VDA & CCK)

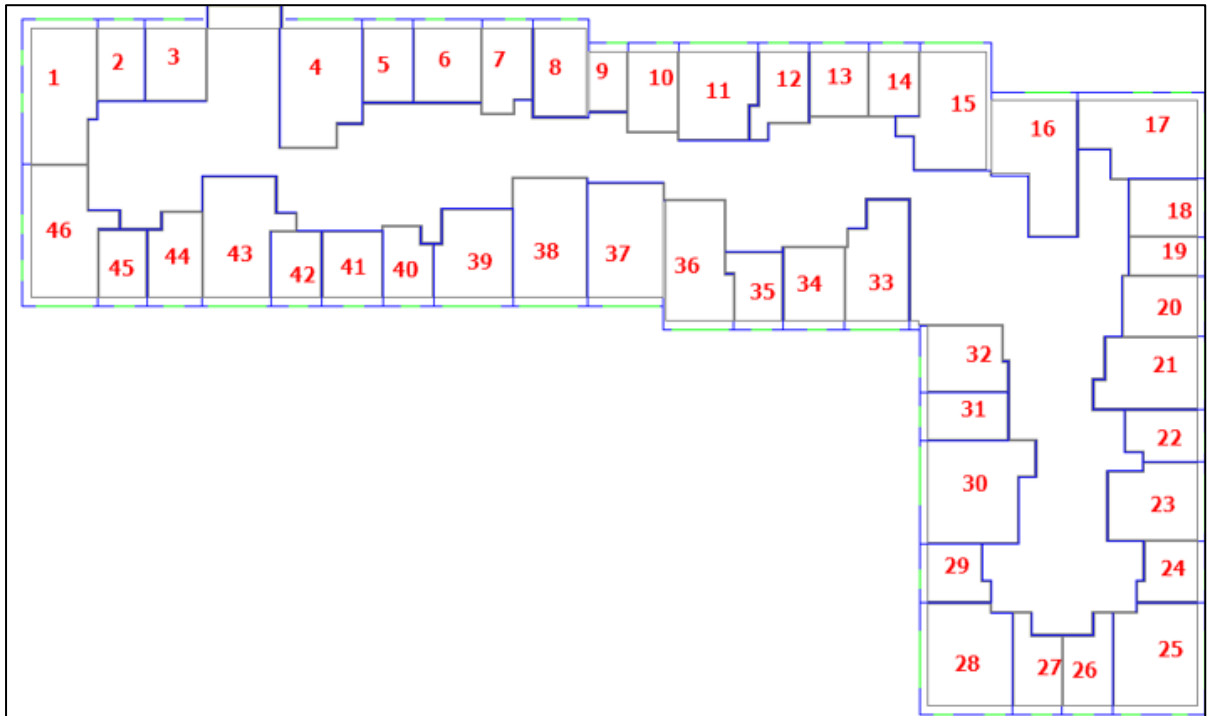


Figure 62. Building 07 - Level 01 (modelling software)

Table 39. sDA results for Building 07 – Level 01

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	93	100	Pass	100	Pass
6	Bed	53	100	Pass	96	Pass
7	Bed	69	100	Pass	100	Pass
8	Bed	54	97	Pass	94	Pass
9	Bed	90	100	Pass	100	Pass
10	Bed	90	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	79	91	Pass	85	Pass
13	Bed	95	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	L/K/D	97	100	Pass	100	Pass
16	Bed	76	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	L/K/D	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	83	100	Pass	93	Pass
27	Bed	91	100	Pass	100	Pass
28	L/K/D	100	100	Pass	100	Pass
29	Bed	61	100	Pass	92	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	98	100	Pass	100	Pass
32	Bed	23	100	Fail	37	Fail
33	L/K/D	62	100	Pass	90	Pass
34	Bed	98	100	Pass	100	Pass
35	Bed	51	100	Pass	91	Pass
36	L/K/D	100	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	100	100	Pass	100	Pass
41	Bed	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	L/K/D	97	100	Pass	100	Pass
44	Bed	76	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	L/K/D	100	100	Pass	100	Pass

Level 02

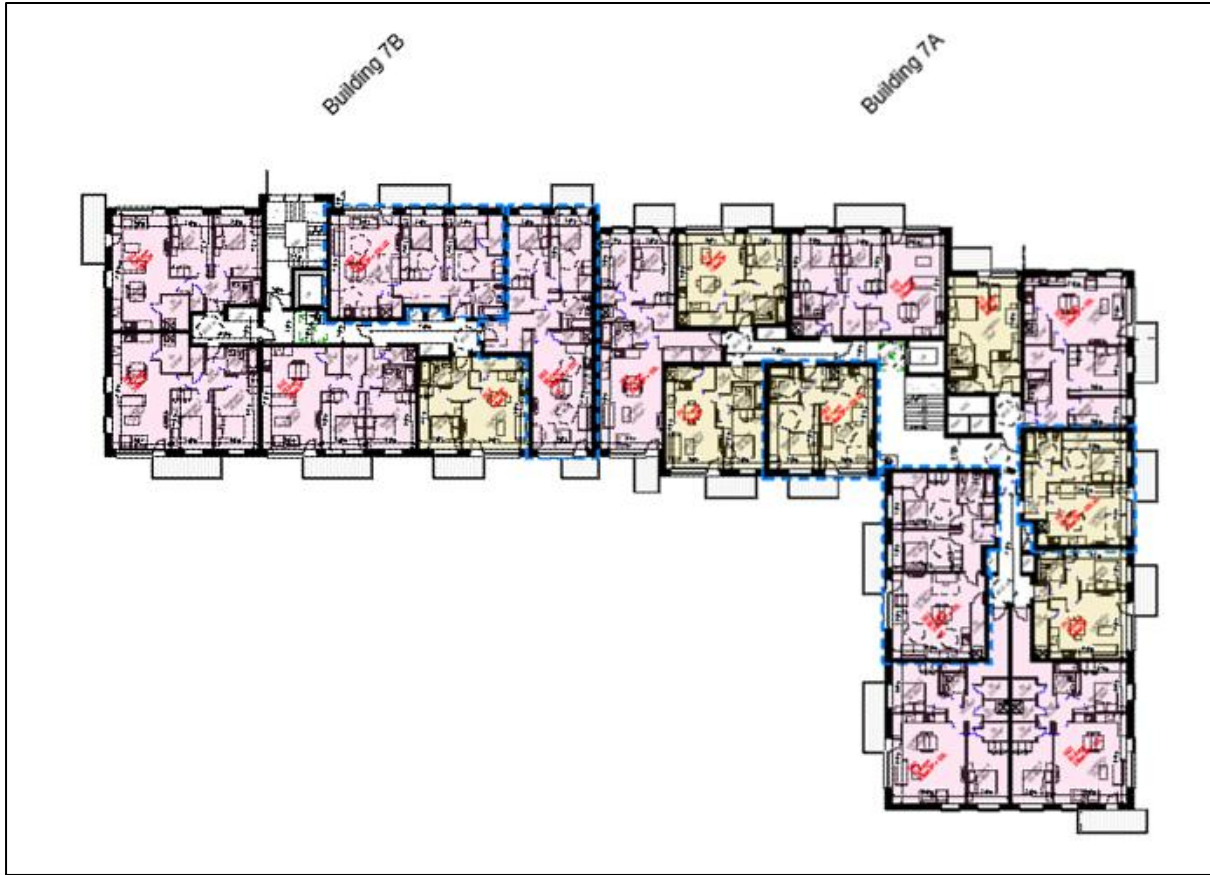


Figure 63. Building 07 - Level 02 (VDA & CCK)

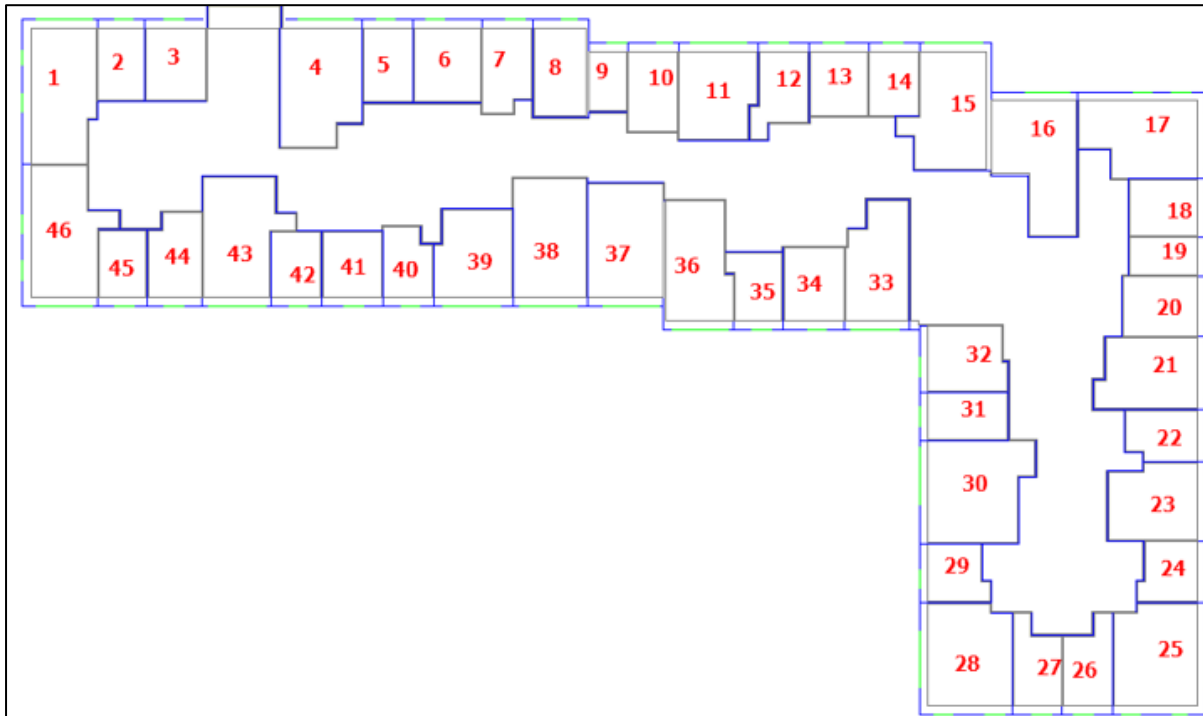


Figure 64. Building 07 - Level 02 (modelling software)

Table 40. sDA results for Building 07 – Level 02

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	65	100	Pass	99	Pass
3	Bed	90	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	Bed	65	100	Pass	70	Pass
7	Bed	80	100	Pass	86	Pass
8	Bed	64	100	Pass	100	Pass
9	Bed	92	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	97	100	Pass	100	Pass
13	Bed	62	100	Pass	93	Pass
14	Bed	100	100	Pass	100	Pass
15	L/K/D	96	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	L/K/D	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	95	100	Pass	100	Pass
27	Bed	91	100	Pass	100	Pass
28	L/K/D	100	100	Pass	100	Pass
29	Bed	95	100	Pass	100	Pass
30	L/K/D	95	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	Bed	24	100	Fail	38	Fail
33	L/K/D	100	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	Bed	96	100	Pass	100	Pass
36	L/K/D	100	100	Pass	100	Pass
37	L/K/D	73	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	55	100	Pass	100	Pass



Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
41	Bed	99	100	Pass	100	Pass
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	L/K/D	100	100	Pass	100	Pass

Level 03



Figure 65. Building 07 - Level 03 (VDA & CCK)

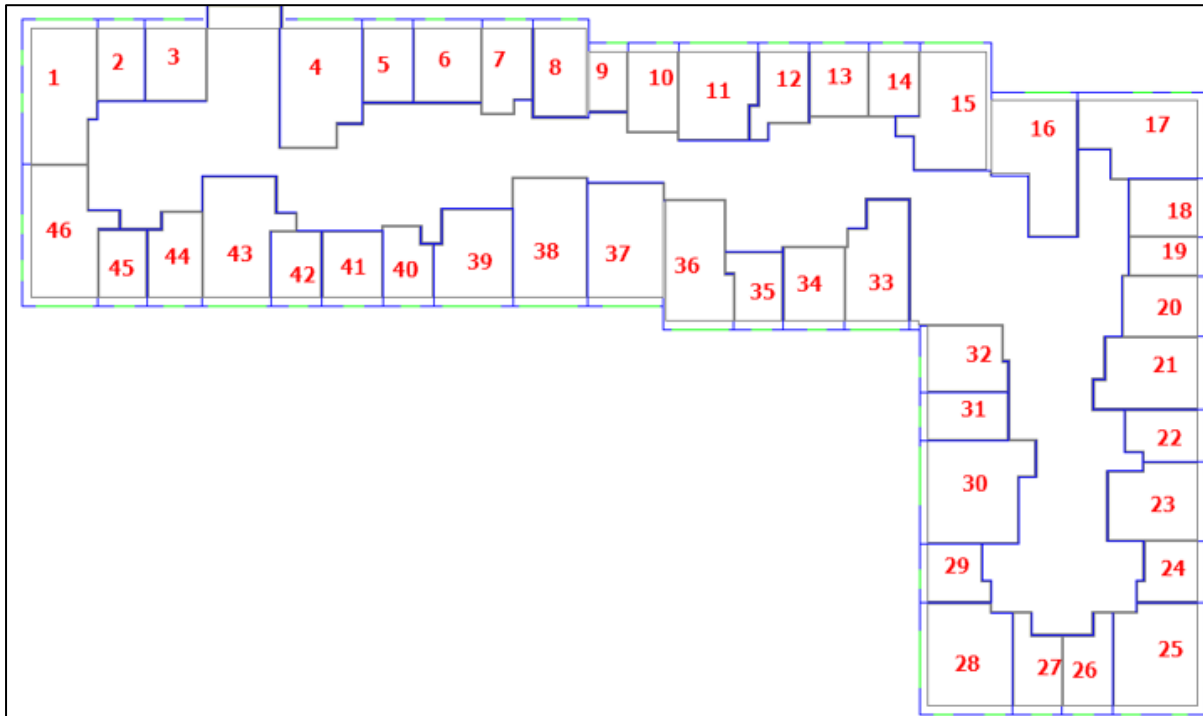


Figure 66. Building 07 - Level 03 (modelling software)

Table 41. sDA results for Building 07 – Level 03

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	96	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	Bed	68	100	Pass	89	Pass
7	Bed	95	100	Pass	100	Pass
8	Bed	79	100	Pass	100	Pass
9	Bed	97	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	97	100	Pass	100	Pass
13	Bed	78	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	L/K/D	96	100	Pass	100	Pass
16	Bed	83	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	L/K/D	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	78	100	Pass	91	Pass
27	Bed	100	100	Pass	100	Pass
28	L/K/D	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	Bed	26	100	Fail	51	Pass
33	L/K/D	100	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	Bed	85	100	Pass	96	Pass
36	L/K/D	100	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	100	100	Pass	100	Pass
41	Bed	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	L/K/D	100	100	Pass	100	Pass

Level 04



Figure 67. Building 07 - Level 04 (VDA & CCK)

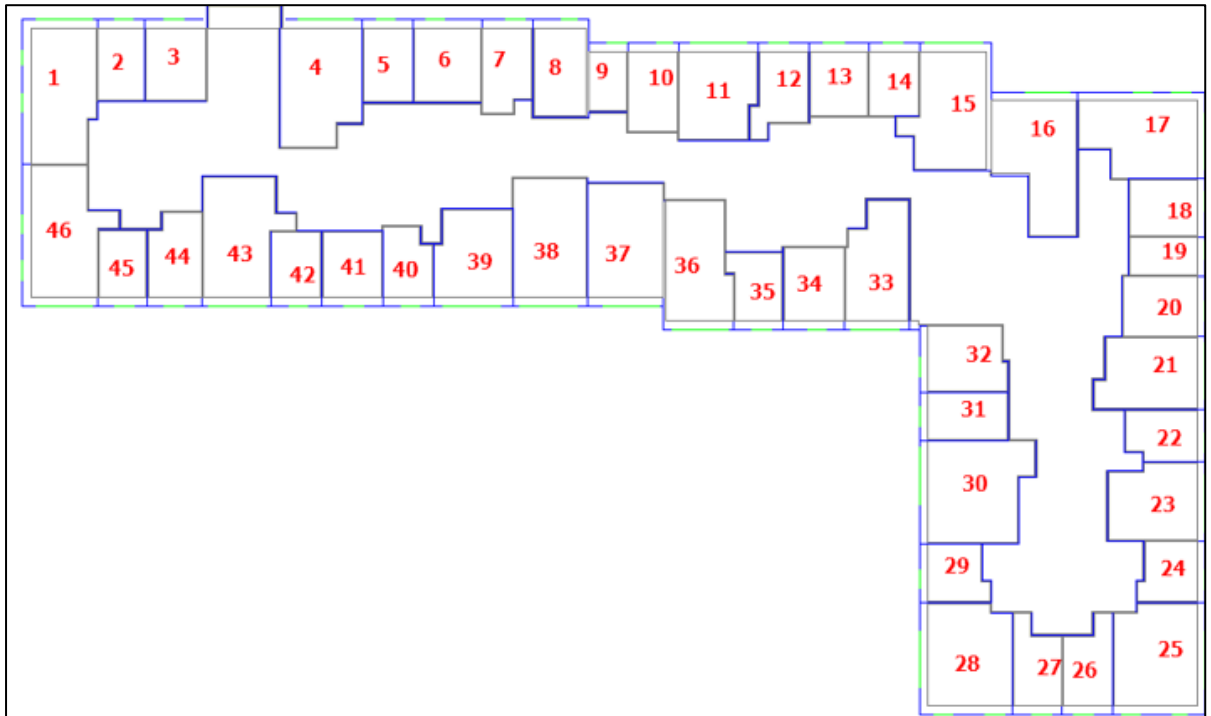


Figure 68. Building 07 - Level 04 (modelling software)

Table 42. sDA results for Building 07 – Level 04

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	95	100	Pass	100	Pass
3	Bed	62	100	Pass	97	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	Bed	98	100	Pass	100	Pass
7	Bed	50	100	Pass	97	Pass
8	Bed	100	100	Pass	100	Pass
9	Bed	100	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	97	100	Pass	100	Pass
13	Bed	83	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	L/K/D	96	100	Pass	100	Pass
16	Bed	87	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	L/K/D	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	91	100	Pass	100	Pass
27	Bed	100	100	Pass	100	Pass
28	L/K/D	100	100	Pass	100	Pass
29	Bed	91	100	Pass	93	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	Bed	31	100	Fail	93	Pass
33	L/K/D	100	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	Bed	63	100	Pass	100	Pass
36	L/K/D	100	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	60	100	Pass	100	Pass
41	Bed	100	100	Pass	100	Pass



Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	L/K/D	100	100	Pass	100	Pass

Level 05



Figure 69. Building 07 - Level 05 (VDA & CCK)

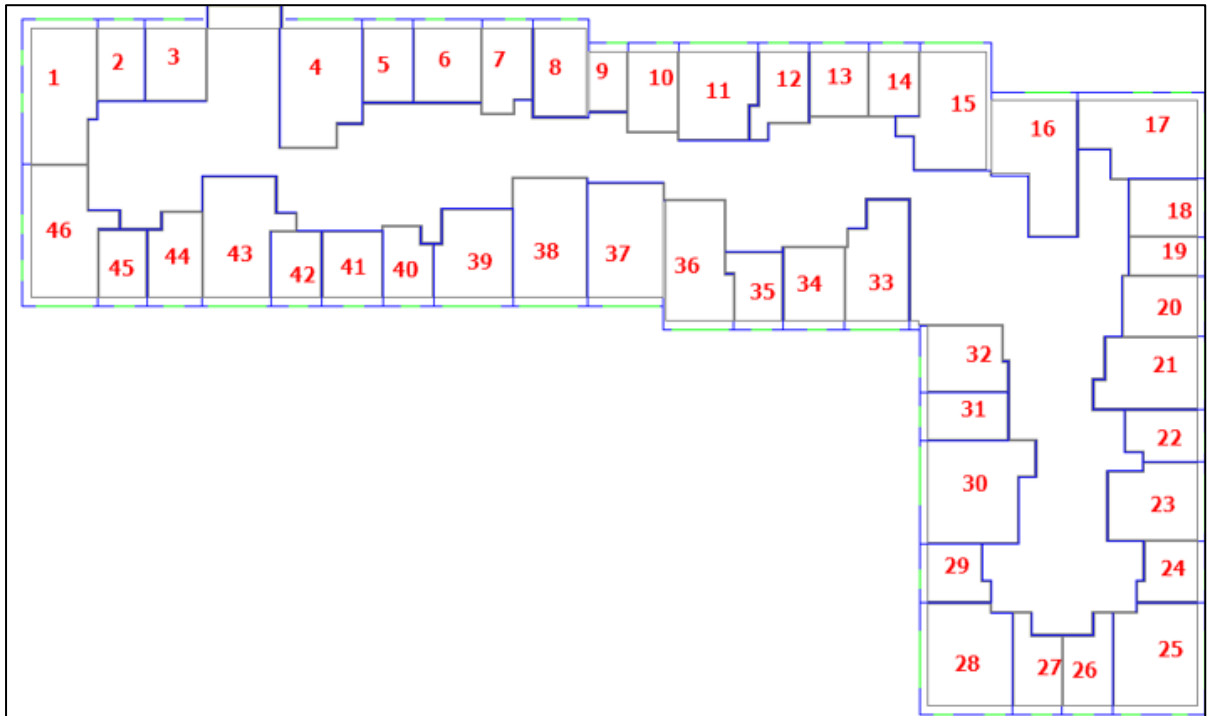


Figure 70. Building 07 - Level 05 (modelling software)

Table 43. sDA results for Building 07 – Level 05

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	87	100	Pass	100	Pass
3	Bed	68	100	Pass	99	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	94	100	Pass	100	Pass
6	Bed	73	100	Pass	100	Pass
7	Bed	62	100	Pass	99	Pass
8	Bed	74	100	Pass	100	Pass
9	Bed	98	100	Pass	100	Pass
10	Bed	100	100	Pass	99	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	97	100	Pass	76	Pass
13	Bed	88	100	Pass	100	Pass
14	Bed	100	100	Pass	83	Pass
15	L/K/D	97	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	L/K/D	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	Bed	100	100	Pass	100	Pass
28	L/K/D	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	Bed	50	100	Pass	94	Pass
33	L/K/D	100	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	Bed	100	100	Pass	100	Pass
36	L/K/D	100	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	100	100	Pass	100	Pass
41	Bed	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	L/K/D	100	100	Pass	100	Pass

Level 06



Figure 71. Building 07 - Level 06 (VDA & CCK)

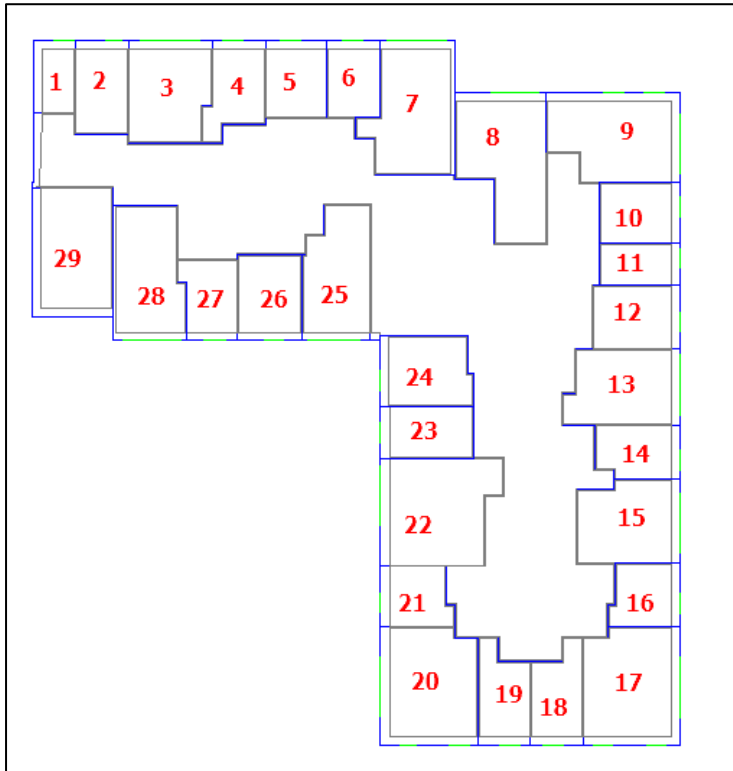


Figure 72. Building 07 - Level 06 (modelling software)

Table 44. sDA results for Building 07 – Level 06

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	Bed	100	100	Pass	100	Pass
2	Bed	99	100	Pass	100	Pass
3	L/K/D	100	100	Pass	100	Pass
4	Bed	80	100	Pass	100	Pass
5	Bed	83	100	Pass	100	Pass
6	Bed	97	100	Pass	100	Pass
7	L/K/D	100	100	Pass	100	Pass
8	Bed	99	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	L/K/D	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	L/K/D	100	100	Pass	100	Pass
21	Bed	91	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	Bed	100	100	Pass	100	Pass
28	L/K/D	100	100	Pass	100	Pass
29	L/K/D	100	100	Pass	100	Pass



## Building 08

### Level 00

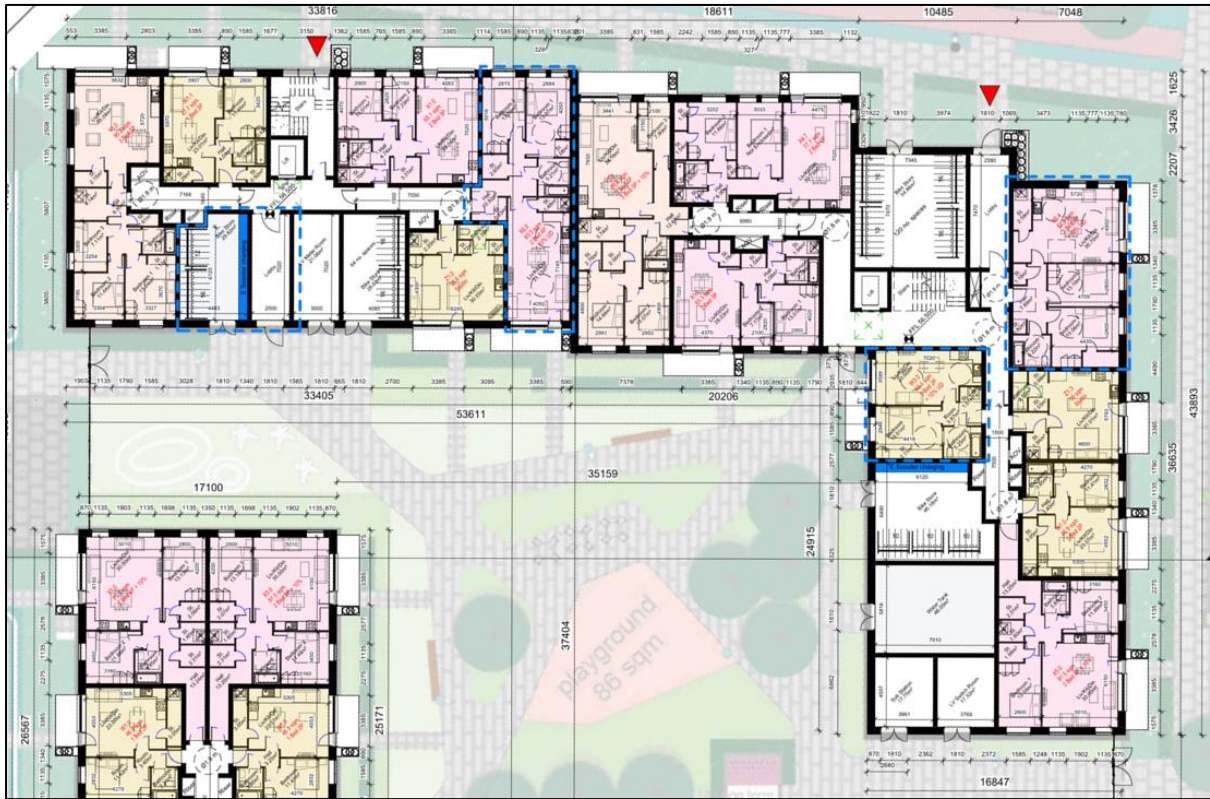


Figure 73. Building 08 - Level 00 (VDA & CCK)

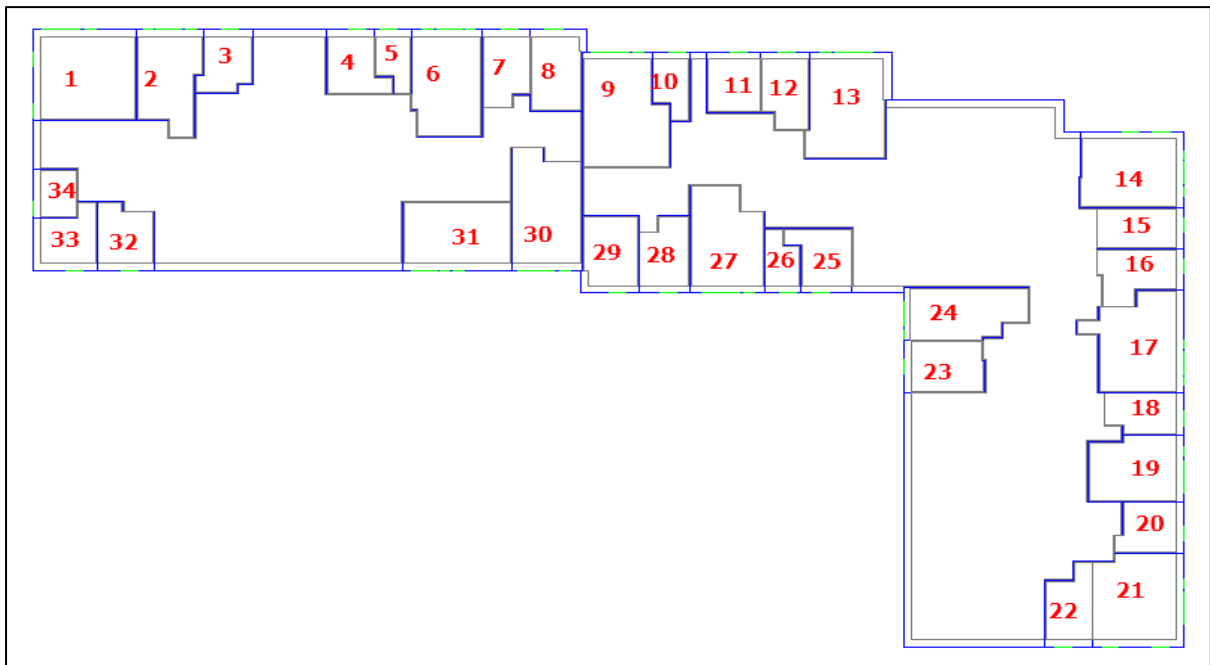


Figure 74. Building 08 - Level 00 (modelling software)

Table 45. sDA results for Building 08 – Level 00

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	L/K/D	57	100	Pass	91	Pass
3	Bed	59	100	Pass	94	Pass
4	Bed	64	100	Pass	94	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	40	100	Fail	73	Pass
7	Bed	62	100	Pass	97	Pass
8	Bed	36	52	Fail	50	Pass
9	L/K/D	35	100	Fail	51	Pass
10	Bed	91	100	Pass	100	Pass
11	Bed	90	100	Pass	100	Pass
12	Bed	86	100	Pass	100	Pass
13	L/K/D	38	100	Fail	93	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	Studio	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	L/K/D	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	Bed	35	100	Fail	100	Pass
24	L/K/D	40	100	Fail	100	Pass
25	Bed	95	100	Pass	99	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	Bed	44	100	Fail	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Studio	100	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	Bed	81	100	Pass	98	Pass
34	Bed	100	100	Pass	100	Pass

Level 01



Figure 75. Building 08 - Level 01 (VDA & CCK)

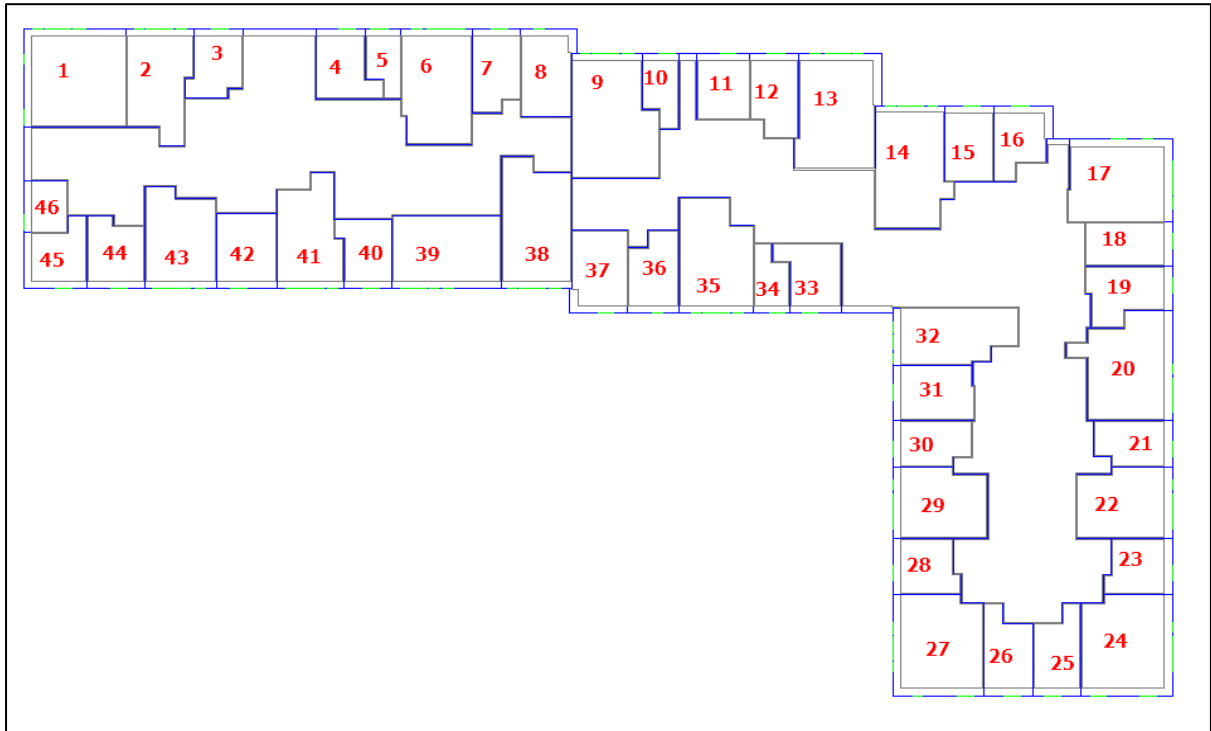


Figure 76. Building 08 - Level 01 (modelling software)

Table 46. sDA results for Building 08 – Level 01

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	L/K/D	100	100	Pass	100	Pass
3	Bed	78	97	Pass	100	Pass
4	Bed	89	100	Pass	97	Pass
5	Bed	98	100	Pass	100	Pass
6	L/K/D	53	100	Pass	100	Pass
7	Bed	83	100	Pass	100	Pass
8	Bed	44	100	Fail	97	Pass
9	L/K/D	37	100	Fail	56	Pass
10	Bed	97	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	96	90	Pass	100	Pass
13	L/K/D	40	100	Fail	100	Pass
14	L/K/D	42	100	Fail	71	Pass
15	Bed	55	100	Pass	65	Pass
16	Bed	99	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	88	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Studio	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	L/K/D	100	100	Pass	100	Pass
25	Bed	56	100	Pass	94	Pass
26	Bed	55	100	Pass	92	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	90	100	Pass	100	Pass
29	L/K/D	100	100	Pass	100	Pass
30	Bed	94	100	Pass	100	Pass
31	Bed	98	100	Pass	100	Pass
32	L/K/D	52	100	Pass	100	Pass
33	Bed	84	100	Pass	96	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	76	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	Studio	100	100	Pass	100	Pass
40	Bed	100	100	Pass	100	Pass
41	L/K/D	85	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	51	100	Pass	100	Pass
43	L/K/D	94	100	Pass	100	Pass
44	Bed	93	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	Bed	100	100	Pass	100	Pass



Level 02



Figure 77. Building 08 - Level 02 (VDA & CCK)

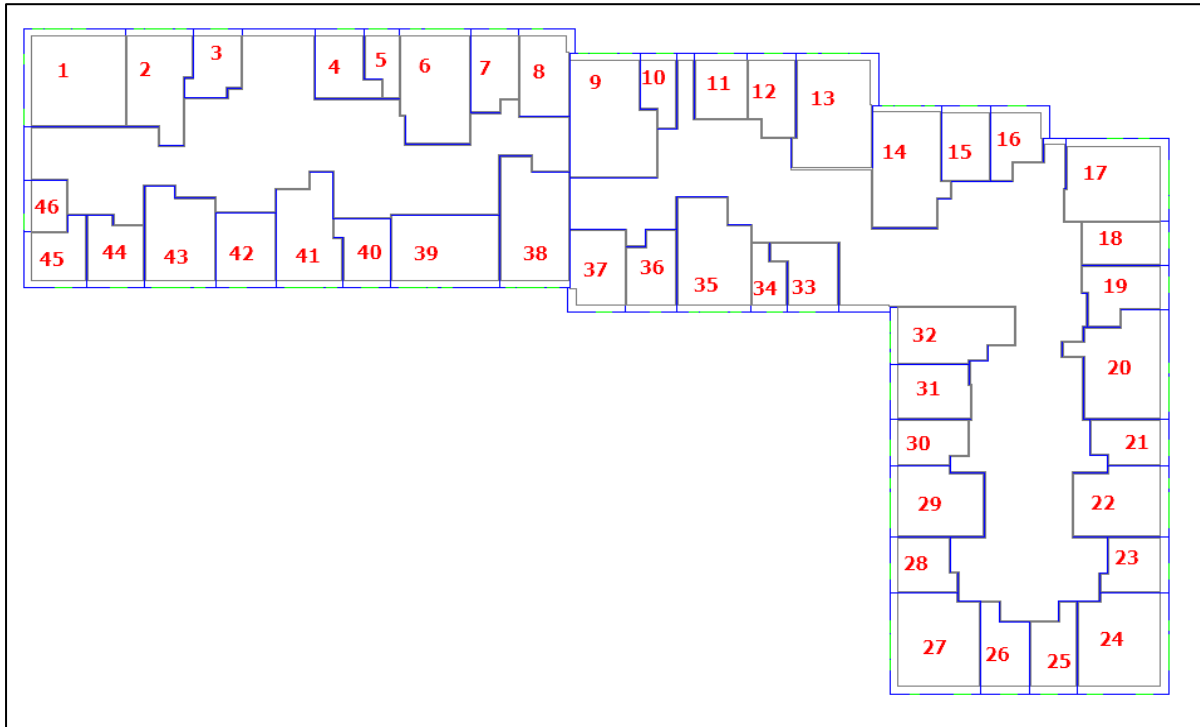


Figure 78. Building 08 - Level 02 (modelling software)



Table 47. sDA results for Building 08 – Level 02

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	L/K/D	100	100	Pass	100	Pass
3	Bed	83	100	Pass	100	Pass
4	Bed	91	100	Pass	97	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	55	100	Pass	100	Pass
7	Bed	85	100	Pass	100	Pass
8	Bed	52	100	Pass	100	Pass
9	L/K/D	46	100	Fail	77	Pass
10	Bed	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	44	100	Fail	76	Pass
14	L/K/D	47	100	Fail	93	Pass
15	Bed	69	100	Pass	100	Pass
16	Bed	95	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	86	100	Pass	100	Pass
19	Bed	94	100	Pass	100	Pass
20	Studio	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	L/K/D	100	100	Pass	100	Pass
25	Bed	99	100	Pass	100	Pass
26	Bed	96	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	86	100	Pass	100	Pass
29	L/K/D	100	100	Pass	100	Pass
30	Bed	79	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	L/K/D	44	100	Fail	86	Pass
33	Bed	92	100	Pass	99	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	72	100	Pass	100	Pass
39	Studio	100	100	Pass	100	Pass
40	Bed	100	100	Pass	100	Pass
41	L/K/D	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	Bed	100	100	Pass	100	Pass

Level 03



Figure 79. Building 08 - Level 03 (VDA & CCK)

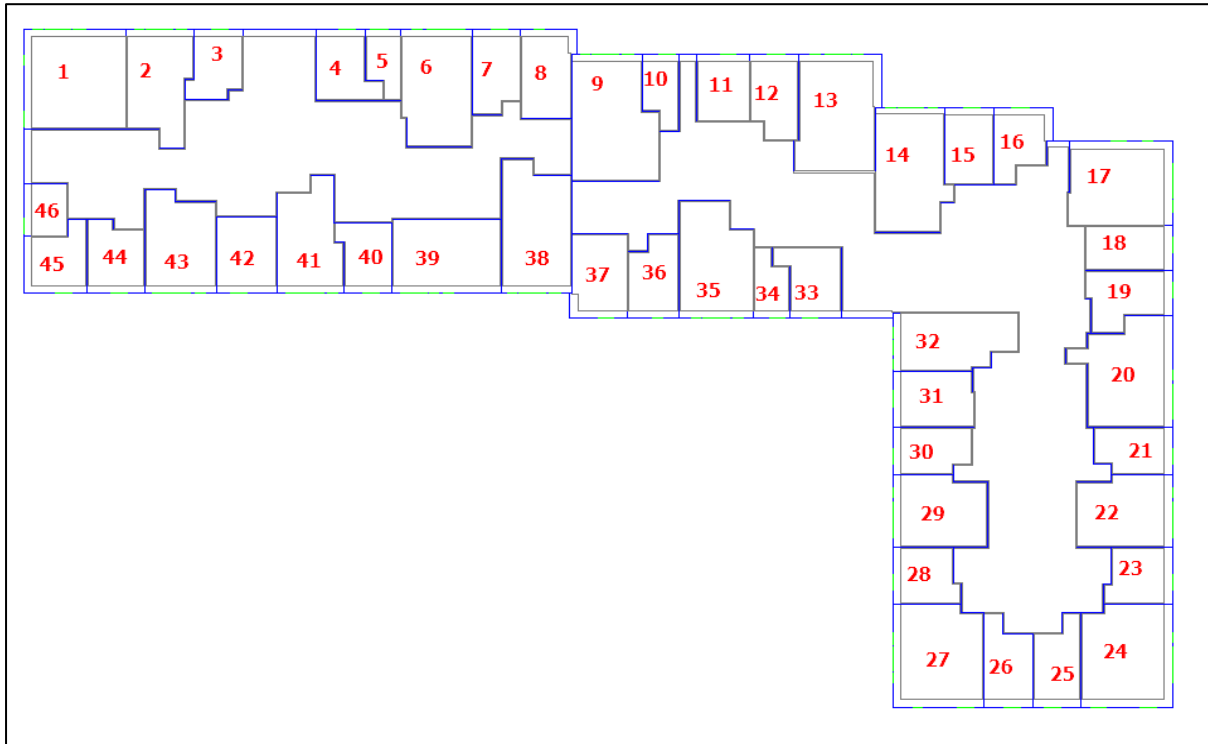


Figure 80. Building 08 - Level 03 (modelling software)

Table 48. sDA results for Building 08 – Level 03

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	L/K/D	100	100	Pass	100	Pass
3	Bed	98	100	Pass	100	Pass
4	Bed	93	100	Pass	100	Pass
5	Bed	76	100	Pass	100	Pass
6	L/K/D	62	100	Pass	100	Pass
7	Bed	86	100	Pass	100	Pass
8	Bed	53	100	Pass	100	Pass
9	L/K/D	51	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	58	100	Pass	100	Pass
14	L/K/D	55	100	Pass	100	Pass
15	Bed	86	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Studio	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	L/K/D	100	100	Pass	100	Pass
25	Bed	92	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	90	100	Pass	100	Pass
29	L/K/D	100	100	Pass	100	Pass
30	Bed	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	L/K/D	82	100	Pass	100	Pass
33	Bed	92	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	Studio	100	100	Pass	100	Pass
40	Bed	100	100	Pass	100	Pass
41	L/K/D	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	90	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	Bed	100	100	Pass	100	Pass

Level 04

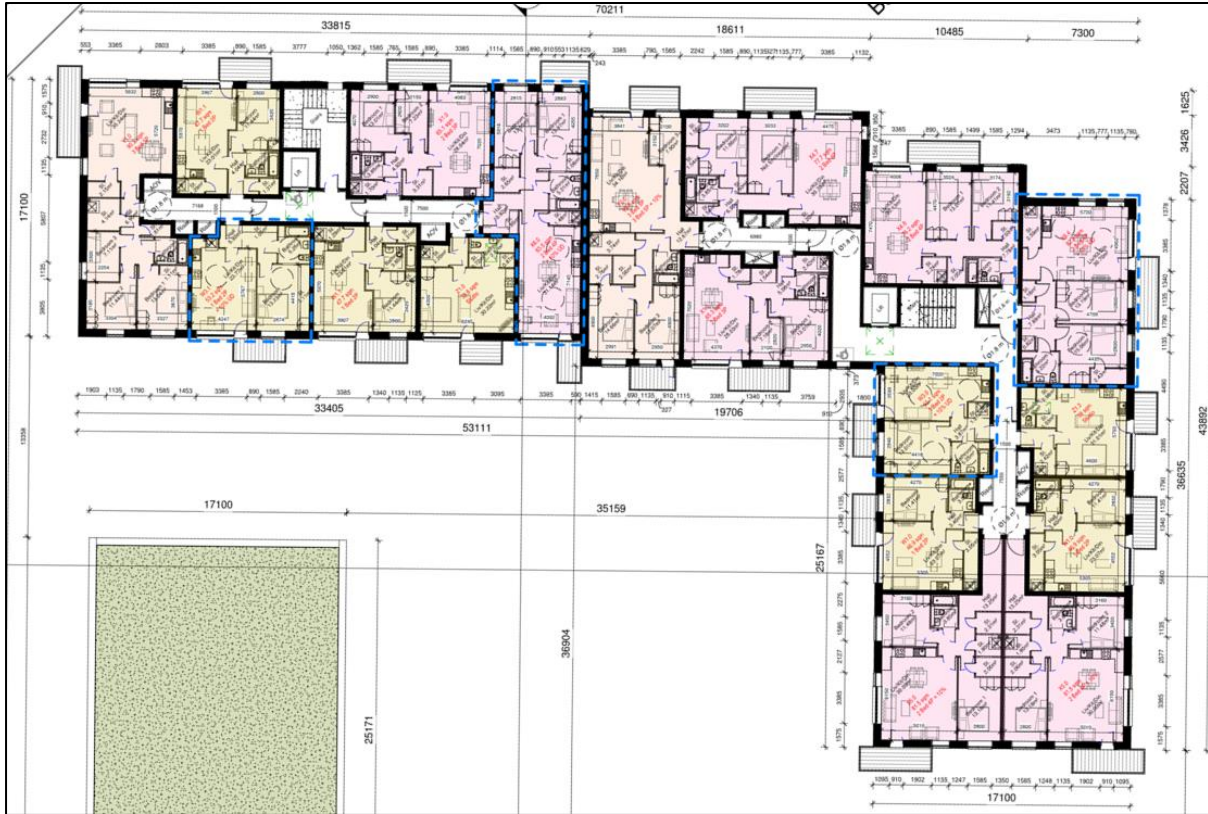


Figure 81. Building 08 - Level 04 (VDA & CCK)

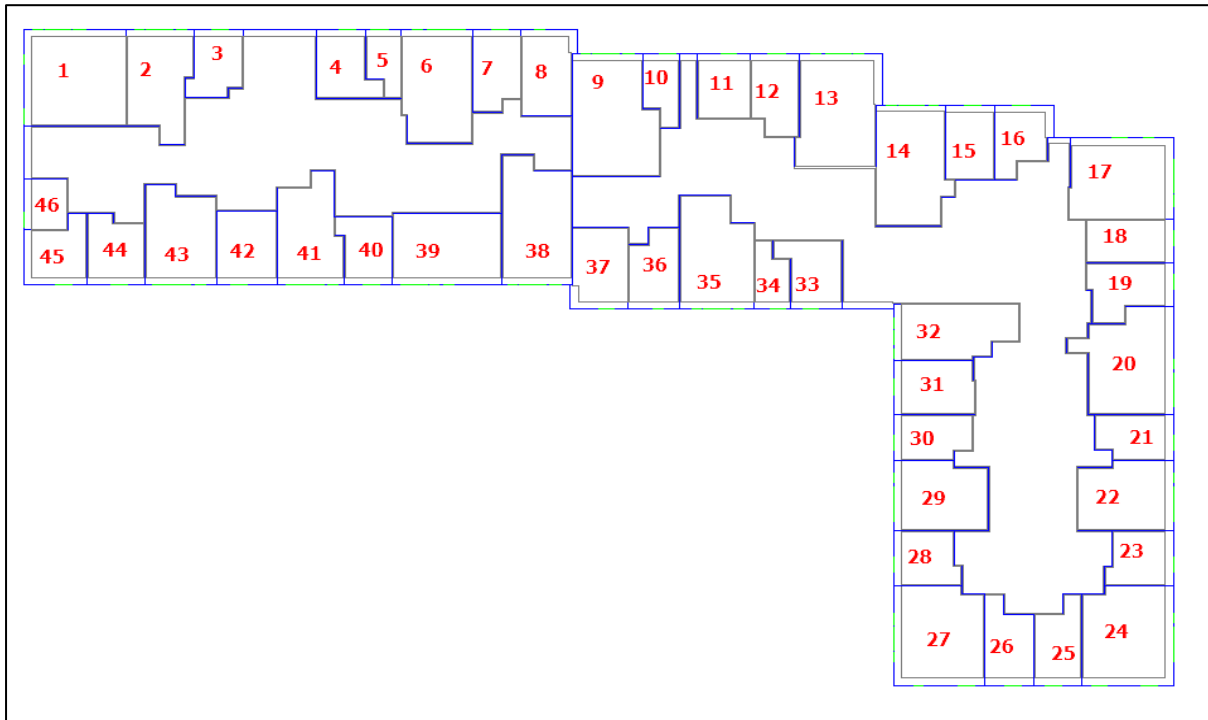


Figure 82. Building 08 - Level 04 (modelling software)



Table 49. sDA results for Building 08 – Level 04

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	L/K/D	96	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	Bed	97	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	94	100	Pass	100	Pass
7	Bed	98	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	60	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	69	100	Pass	100	Pass
14	L/K/D	56	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Studio	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	L/K/D	100	100	Pass	100	Pass
25	Bed	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	L/K/D	100	100	Pass	100	Pass
30	Bed	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	L/K/D	96	100	Pass	100	Pass
33	Bed	91	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass
39	Studio	100	100	Pass	100	Pass
40	Bed	100	100	Pass	100	Pass
41	L/K/D	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	Bed	100	100	Pass	100	Pass

Level 05

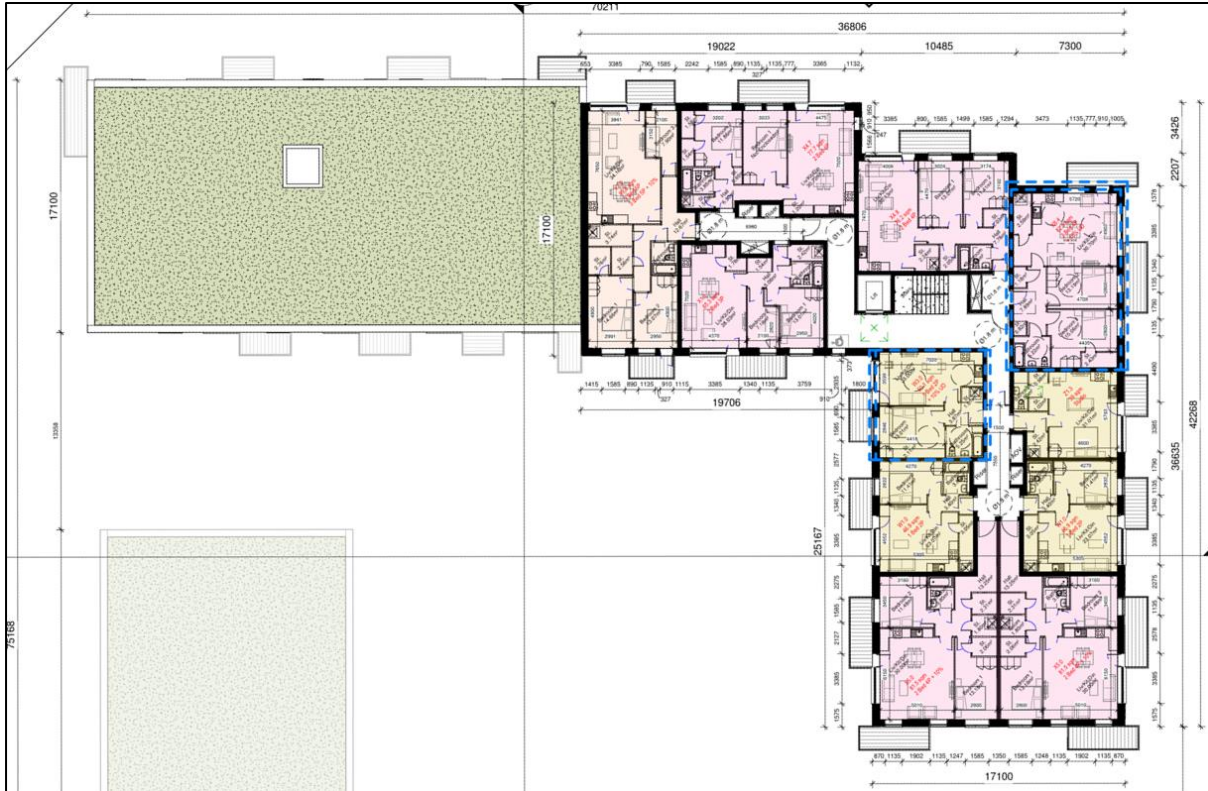


Figure 83. Building 08 - Level 05 (VDA & CCK)

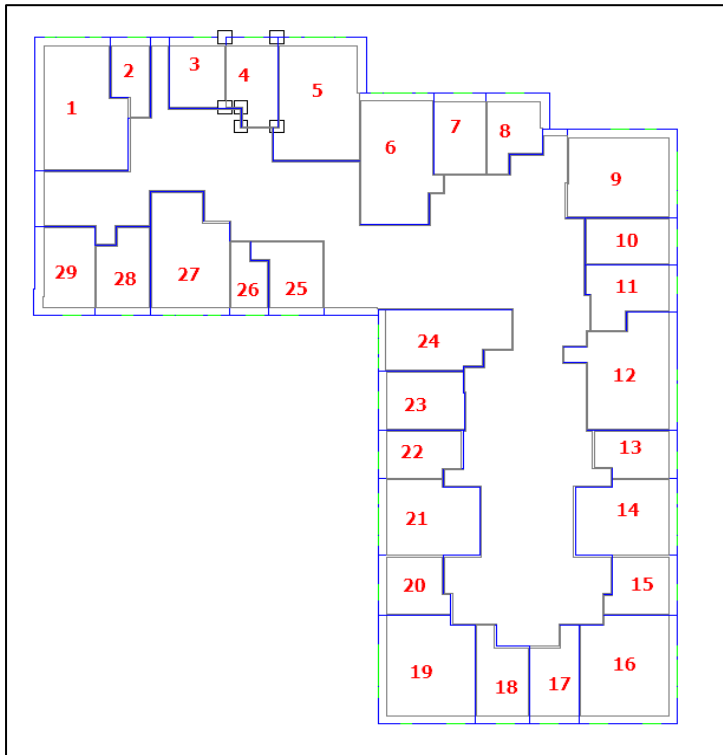


Figure 84. Building 08 - Level 05 (modelling software)

Table 50. sDA results for Building 08 – Level 05

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	Bed	100	100	Pass	100	Pass
5	L/K/D	87	100	Pass	100	Pass
6	L/K/D	80	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Studio	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	L/K/D	100	100	Pass	100	Pass
17	Bed	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	L/K/D	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	L/K/D	100	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	L/K/D	100	100	Pass	100	Pass
25	Bed	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass

## Building 09

### Level 00

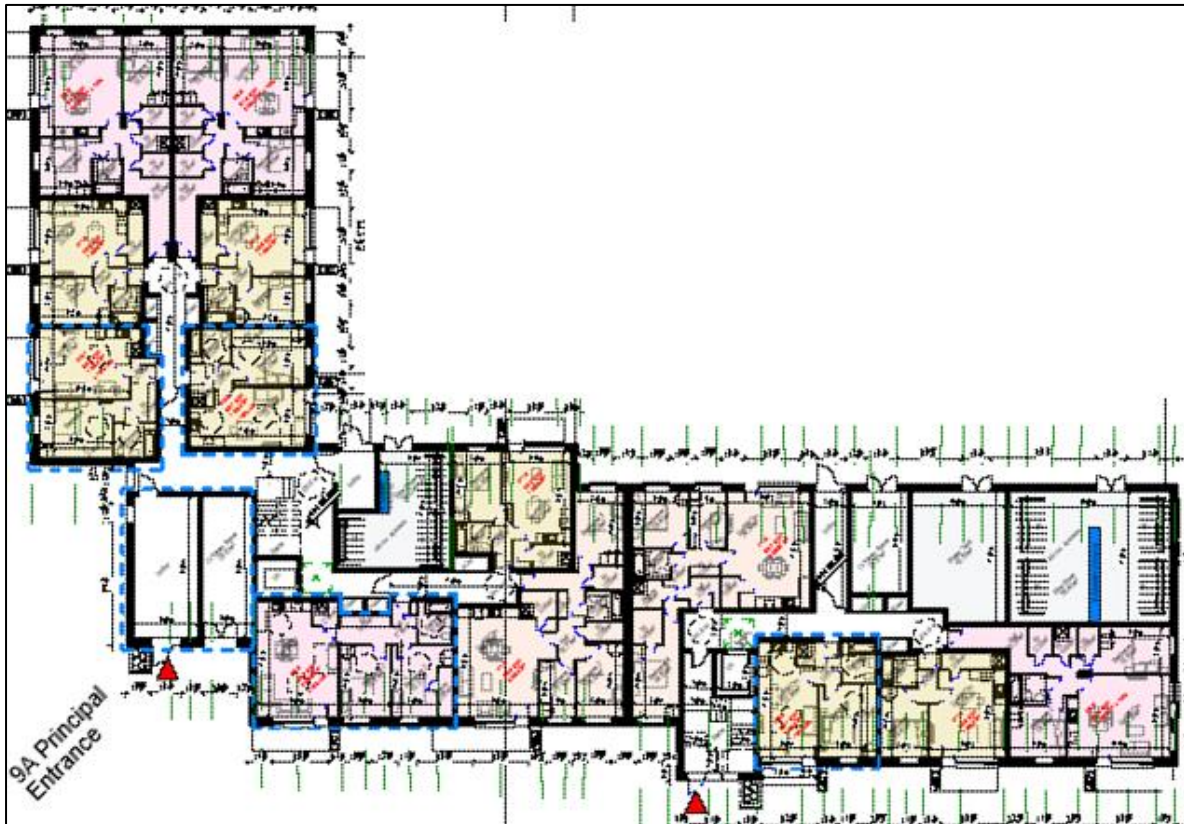


Figure 85. Building 09 - Level 00 (VDA & CCK)

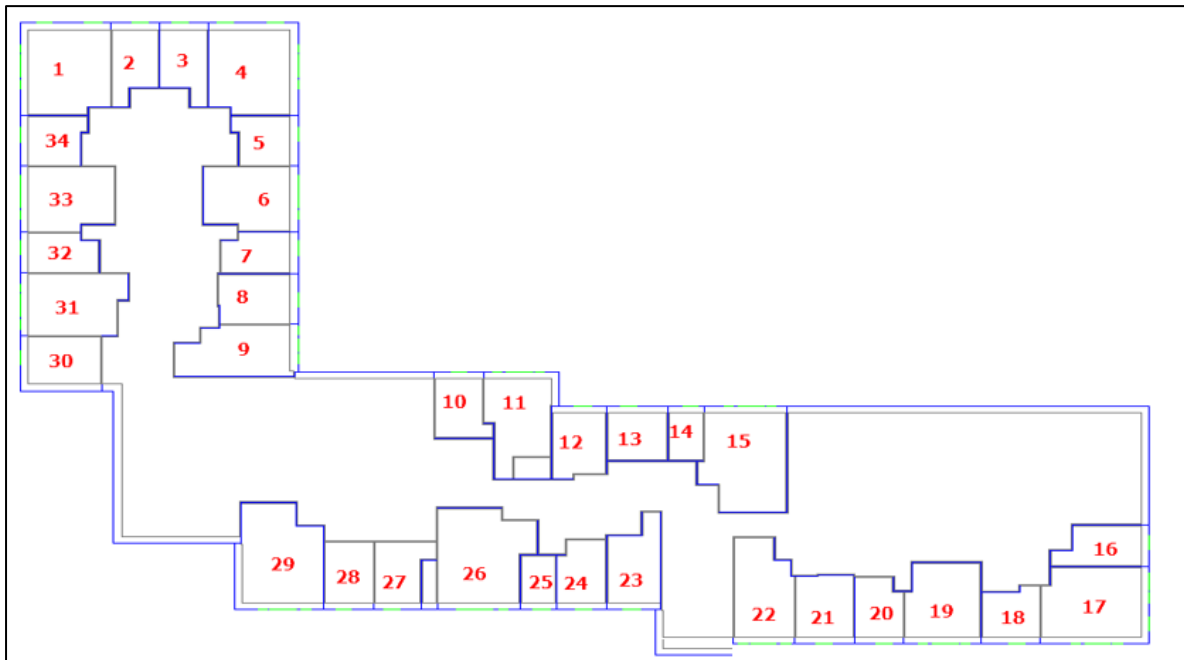


Figure 86. Building 09 - Level 00 (modelling software)

Table 51. sDA results for Building 09 – Level 00

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	60	100	Pass	96	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	65	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	96	100	Pass	100	Pass
9	L/K/D	55	100	Pass	94	Pass
10	Bed	100	100	Pass	100	Pass
11	L/K/D	52	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	Bed	71	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	L/K/D	62	100	Pass	100	Pass
16	Bed	94	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	L/K/D	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	83	100	Pass	90	Pass
24	Bed	50	100	Pass	90	Pass
25	Bed	95	100	Pass	100	Pass
26	L/K/D	46	100	Fail	73	Pass
27	Bed	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	L/K/D	55	100	Pass	77	Pass
30	Bed	100	100	Pass	100	Pass
31	L/K/D	100	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	L/K/D	100	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass



Level 01

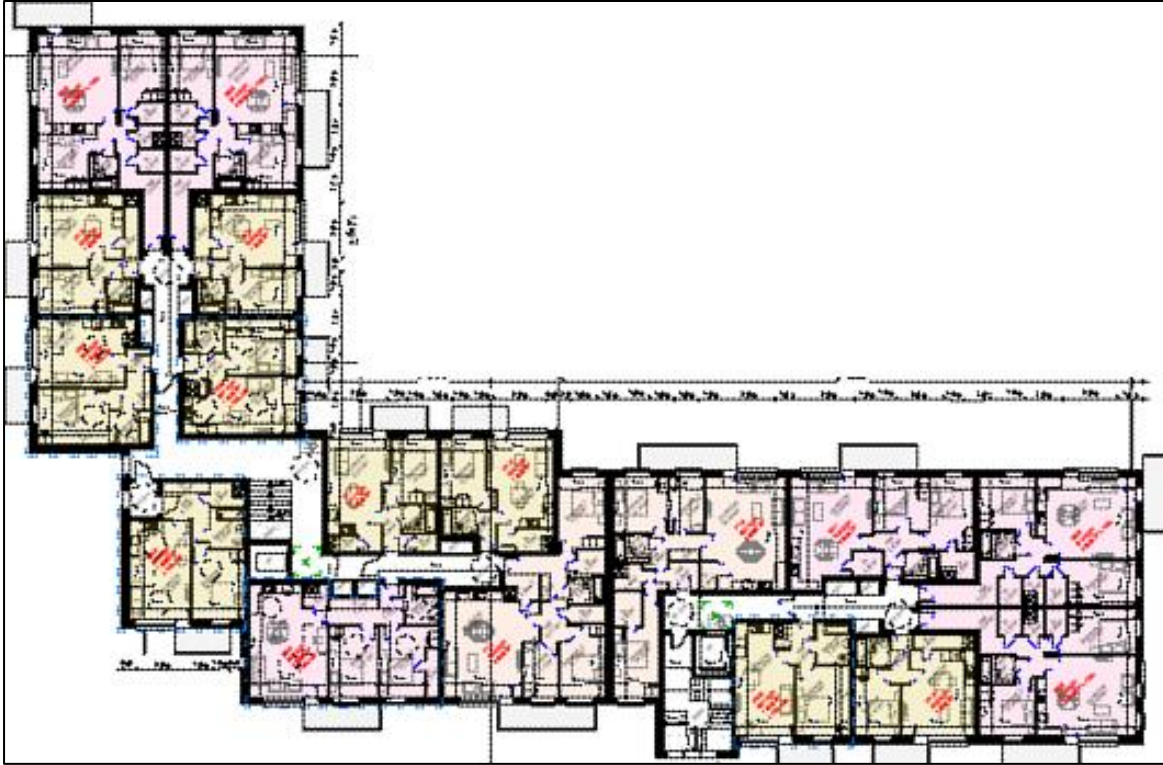


Figure 87. Building 09 - Level 01 (VDA & CCK)

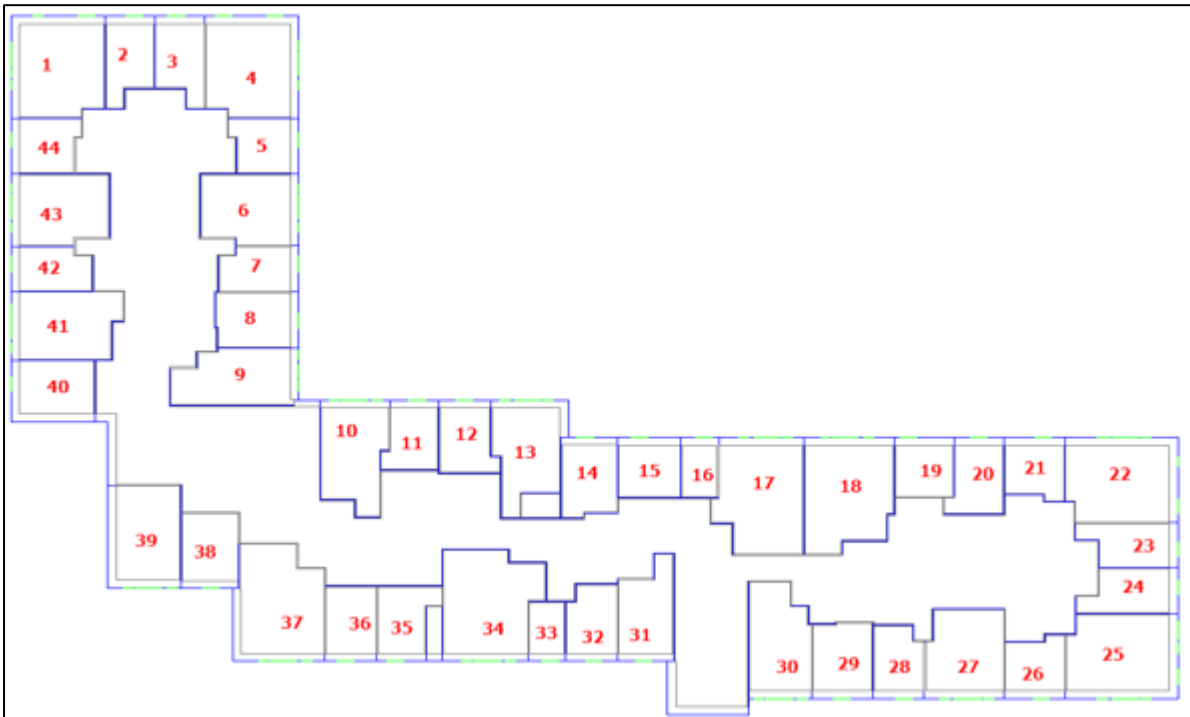


Figure 88. Building 09 - Level 01 (modelling software)

Table 52. sDA results for Building 09 – Level 01

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	50	100	Pass	91	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	92	100	Pass	100	Pass
9	L/K/D	61	100	Pass	100	Pass
10	L/K/D	63	100	Pass	100	Pass
11	Bed	85	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	64	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	L/K/D	44	100	Fail	43	Fail
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	96	100	Pass	100	Pass
32	Bed	76	100	Pass	90	Pass
33	Bed	100	100	Pass	100	Pass
34	L/K/D	55	100	Pass	100	Pass
35	Bed	87	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	L/K/D	66	100	Pass	91	Pass
38	Bed	100	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	66	100	Pass	95	Pass
41	L/K/D	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass

Level 02

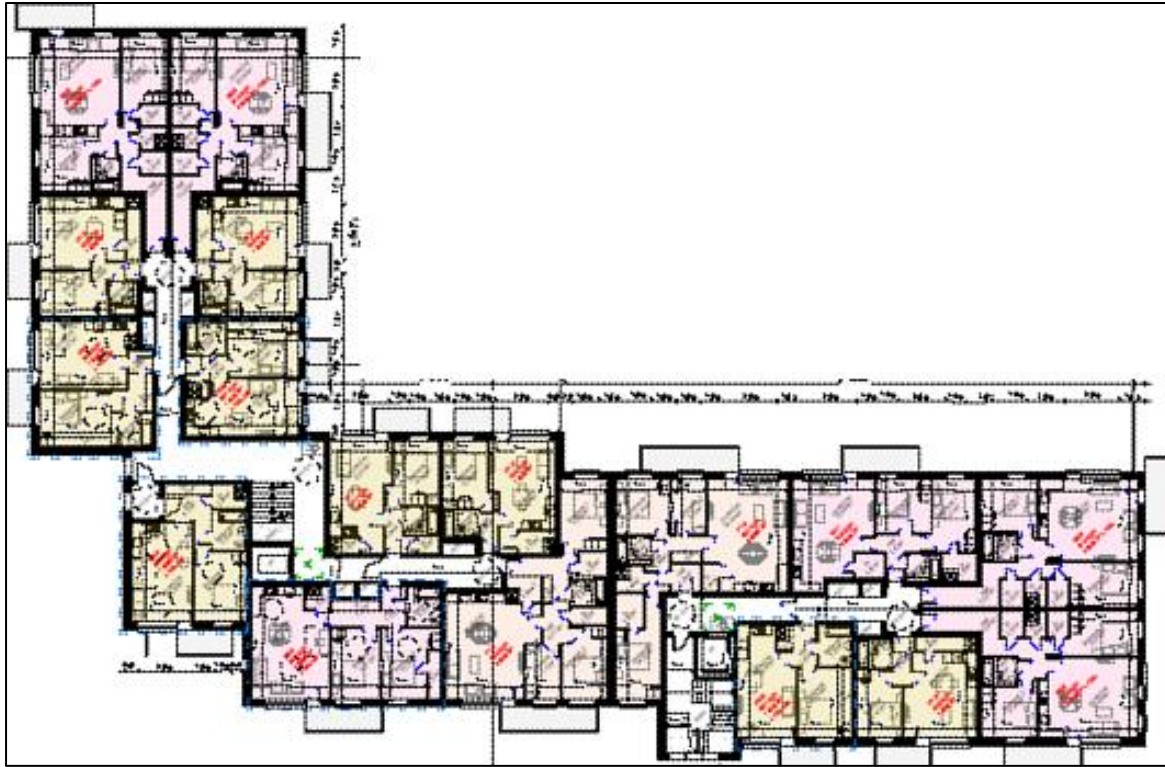


Figure 89. Building 09 - Level 02 (VDA & CCK)

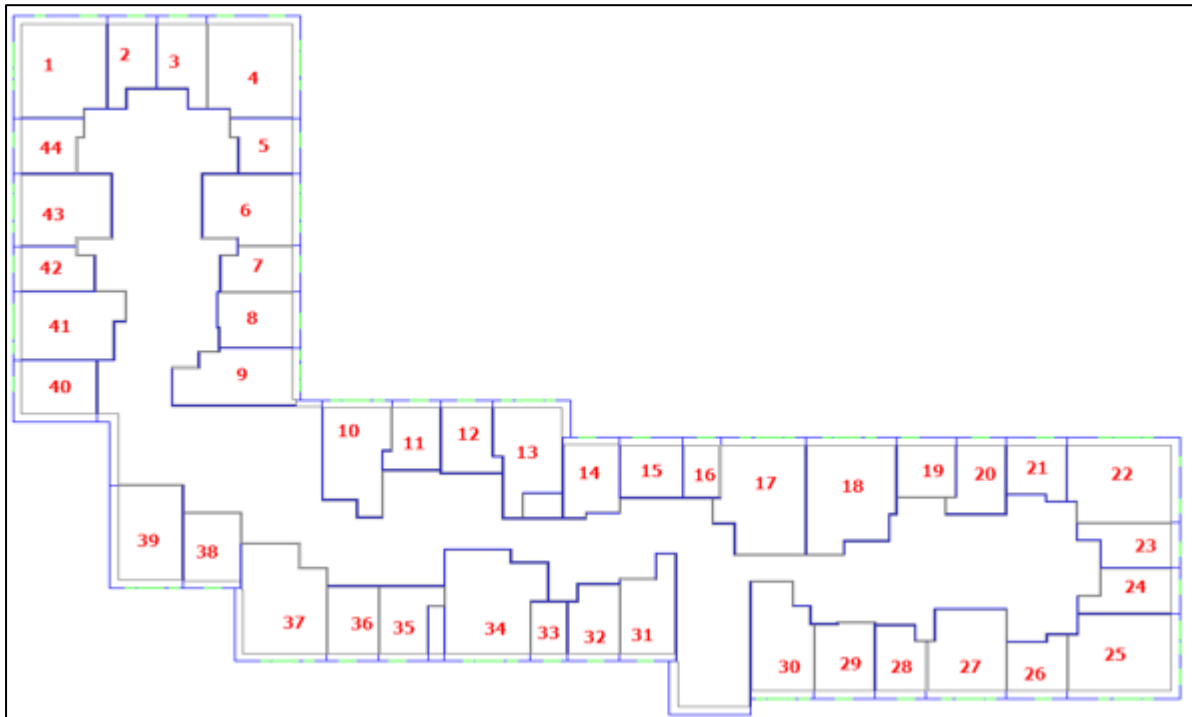


Figure 90. Building 09 - Level 02 (modelling software)

Table 53. sDA results for Building 09 – Level 02

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	88	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	L/K/D	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	90	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	L/K/D	66	100	Pass	100	Pass
35	Bed	94	100	Pass	100	Pass
36	Bed	98	100	Pass	100	Pass
37	L/K/D	80	100	Pass	100	Pass
38	Bed	100	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	100	100	Pass	100	Pass
41	L/K/D	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass



Level 03



Figure 91. Building 09 - Level 03 (VDA & CCK)

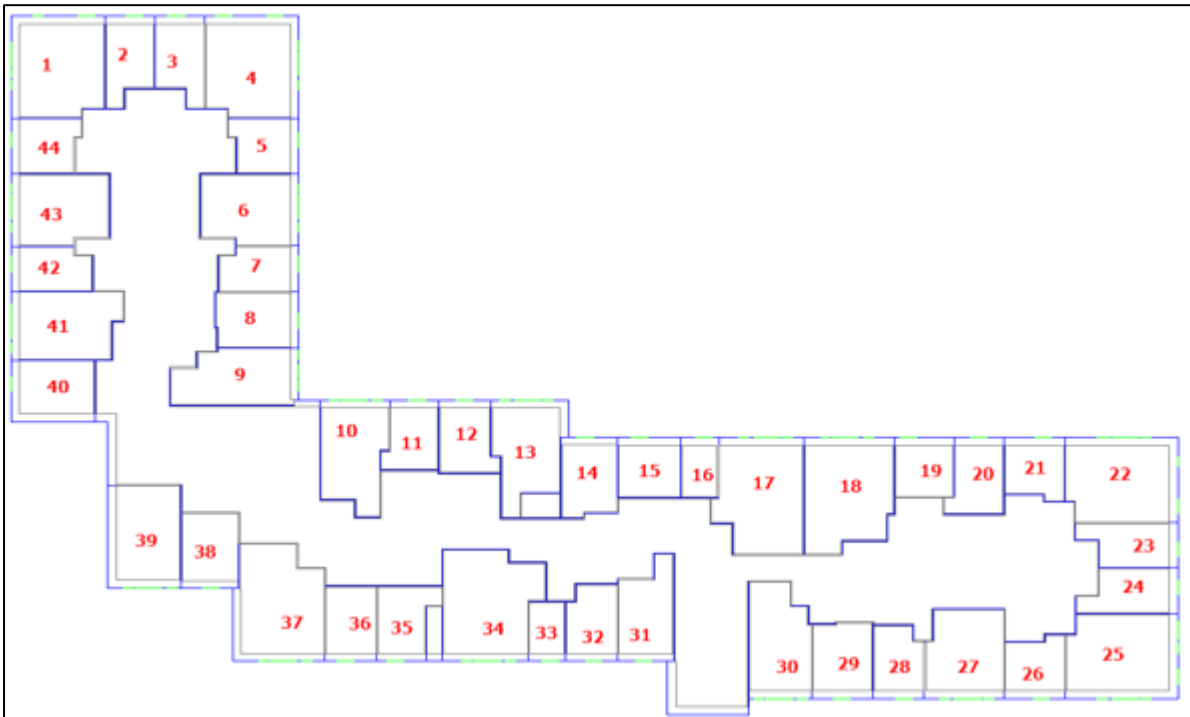


Figure 92. Building 09 - Level 03 (modelling software)

Table 54. sDA results for Building 09 – Level 03

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	96	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	L/K/D	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	Bed	100	100	Pass	100	Pass
15	Bed	60	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	L/K/D	100	100	Pass	100	Pass
19	Bed	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	Bed	100	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	90	100	Pass	100	Pass
32	Bed	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	L/K/D	94	100	Pass	100	Pass
35	Bed	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	L/K/D	98	100	Pass	100	Pass
38	Bed	100	100	Pass	100	Pass
39	L/K/D	100	100	Pass	100	Pass
40	Bed	100	100	Pass	100	Pass
41	L/K/D	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	Bed	100	100	Pass	100	Pass
43	L/K/D	100	100	Pass	100	Pass
44	Bed	100	100	Pass	100	Pass

**Level 04**



Figure 93. Building 09 - Level 04 (VDA & CCK)

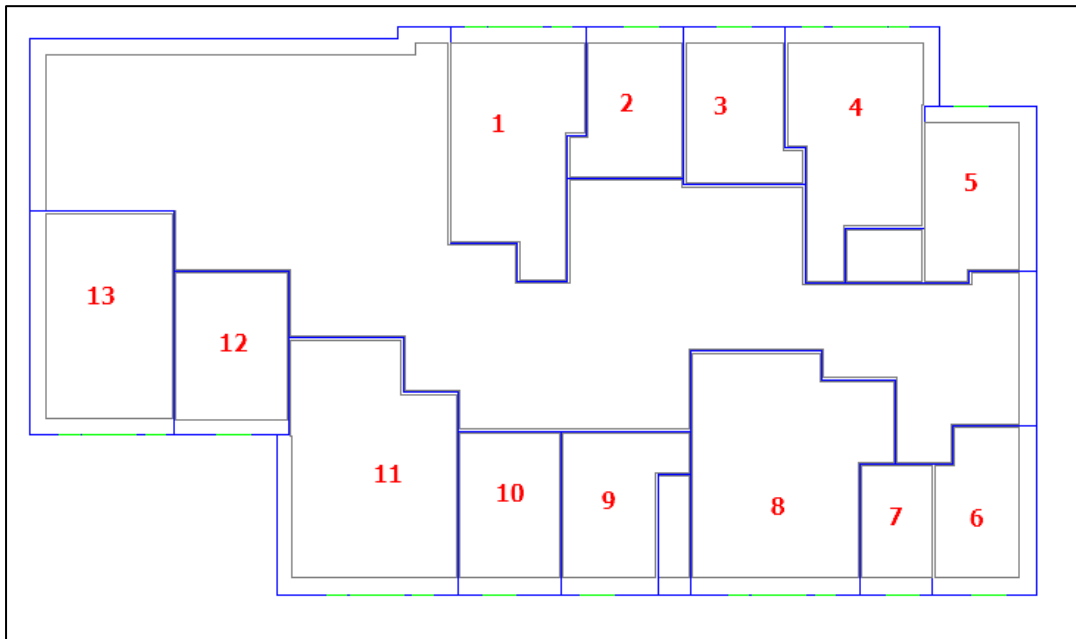


Figure 94. Building 09 - Level 04 (modelling software)

Table 55. sDA results for Building 09 – Level 04

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	100	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	84	100	Pass	100	Pass
10	L/K/D	100	100	Pass	100	Pass
11	Bed	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass

## Building 10

### Level 00



Figure 95. Building 10 - Level 00 (VDA & CCK)

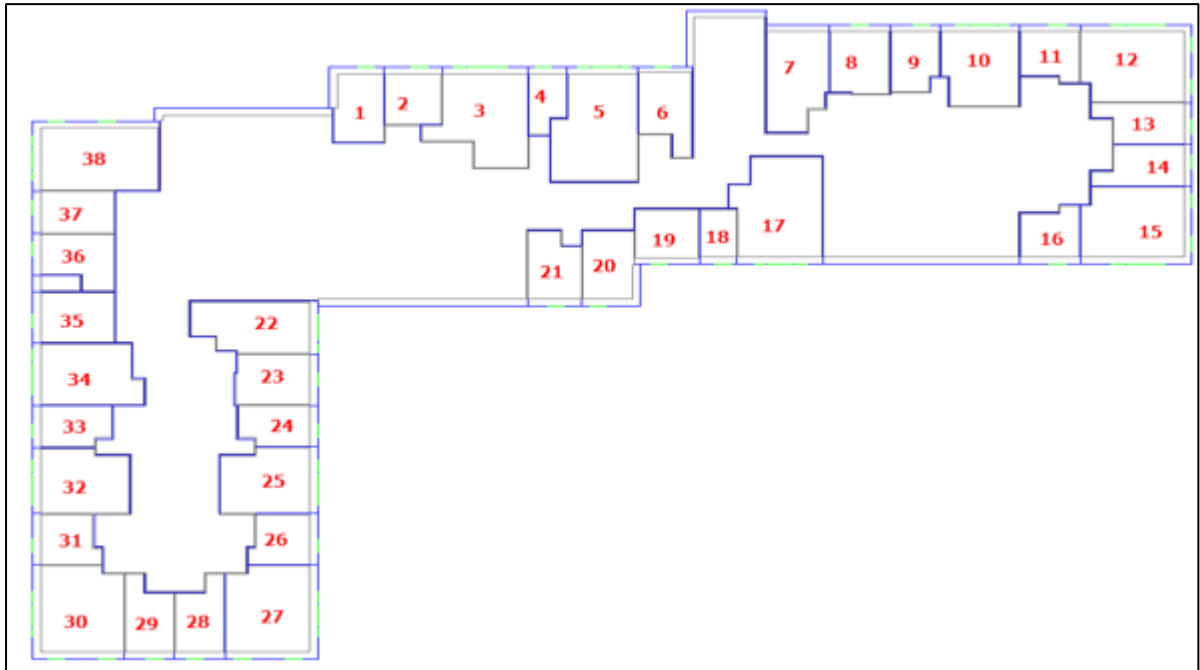


Figure 96. Building 10 - Level 00 (modelling software)



Table 56. sDA results for Building 10 – Level 00

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	Bed	100	100	Pass	100	Pass
2	Bed	95	100	Pass	100	Pass
3	L/K/D	52	100	Pass	91	Pass
4	Bed	100	100	Pass	100	Pass
5	L/K/D	38	100	Fail	55	Pass
6	Bed	97	100	Pass	100	Pass
7	L/K/D	75	100	Pass	100	Pass
8	Bed	99	100	Pass	100	Pass
9	Bed	97	100	Pass	100	Pass
10	L/K/D	100	100	Pass	100	Pass
11	Bed	77	100	Pass	100	Pass
12	L/K/D	100	100	Pass	100	Pass
13	Bed	73	100	Pass	90	Pass
14	Bed	100	100	Pass	100	Pass
15	L/K/D	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	L/K/D	100	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	Bed	85	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	100	100	Pass	100	Pass
22	L/K/D	100	100	Pass	100	Pass
23	Bed	100	100	Pass	100	Pass
24	Bed	100	100	Pass	100	Pass
25	L/K/D	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	L/K/D	100	100	Pass	100	Pass
28	Bed	100	100	Pass	100	Pass
29	Bed	91	100	Pass	100	Pass
30	L/K/D	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	L/K/D	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	L/K/D	100	100	Pass	100	Pass
35	Bed	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	Bed	100	100	Pass	100	Pass
38	L/K/D	100	100	Pass	100	Pass

Level 01



Figure 97. Building 10 - Level 01 (VDA & CCK)

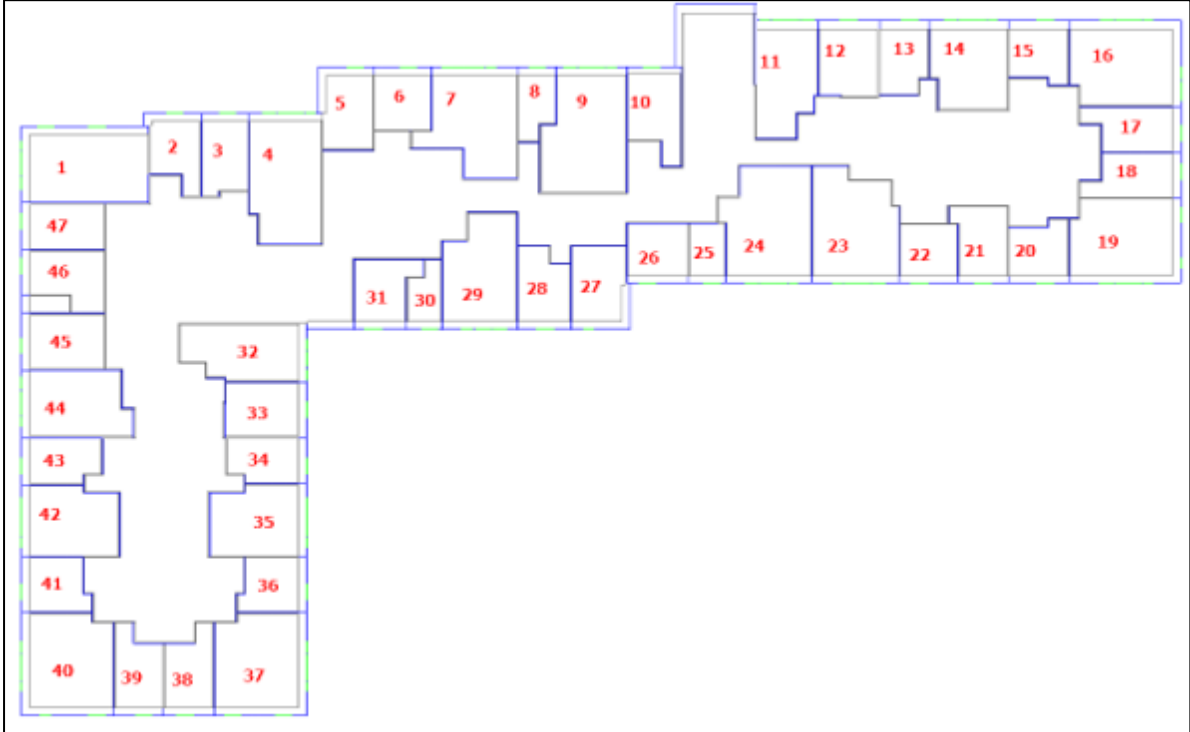


Figure 98. Building 10 - Level 01 (modelling software)

Table 57. sDA results for Building 10 – Level 01

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	94	100	Pass	100	Pass
3	Bed	100	85	Pass	100	Pass
4	L/K/D	51	100	Pass	77	Pass
5	Bed	100	100	Pass	100	Pass
6	Bed	100	100	Pass	100	Pass
7	L/K/D	59	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	42	100	Fail	62	Pass
10	Bed	93	100	Pass	90	Pass
11	L/K/D	99	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	L/K/D	100	100	Pass	100	Pass
17	Bed	90	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	L/K/D	100	100	Pass	100	Pass
20	Bed	62	100	Pass	100	Pass
21	Bed	80	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	L/K/D	100	100	Pass	100	Pass
24	L/K/D	100	100	Pass	100	Pass
25	Bed	100	100	Pass	100	Pass
26	Bed	80	100	Pass	100	Pass
27	Bed	100	100	Pass	100	Pass
28	Bed	82	100	Pass	100	Pass
29	L/K/D	100	100	Pass	100	Pass
30	Bed	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	L/K/D	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	Bed	100	100	Pass	100	Pass
39	Bed	100	100	Pass	100	Pass
40	L/K/D	100	100	Pass	100	Pass
41	Bed	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	L/K/D	100	100	Pass	100	Pass
43	Bed	100	100	Pass	100	Pass
44	L/K/D	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	Bed	100	100	Pass	100	Pass
47	Bed	100	100	Pass	100	Pass

Level 02



Figure 99. Building 10 - Level 02 (VDA & CCK)

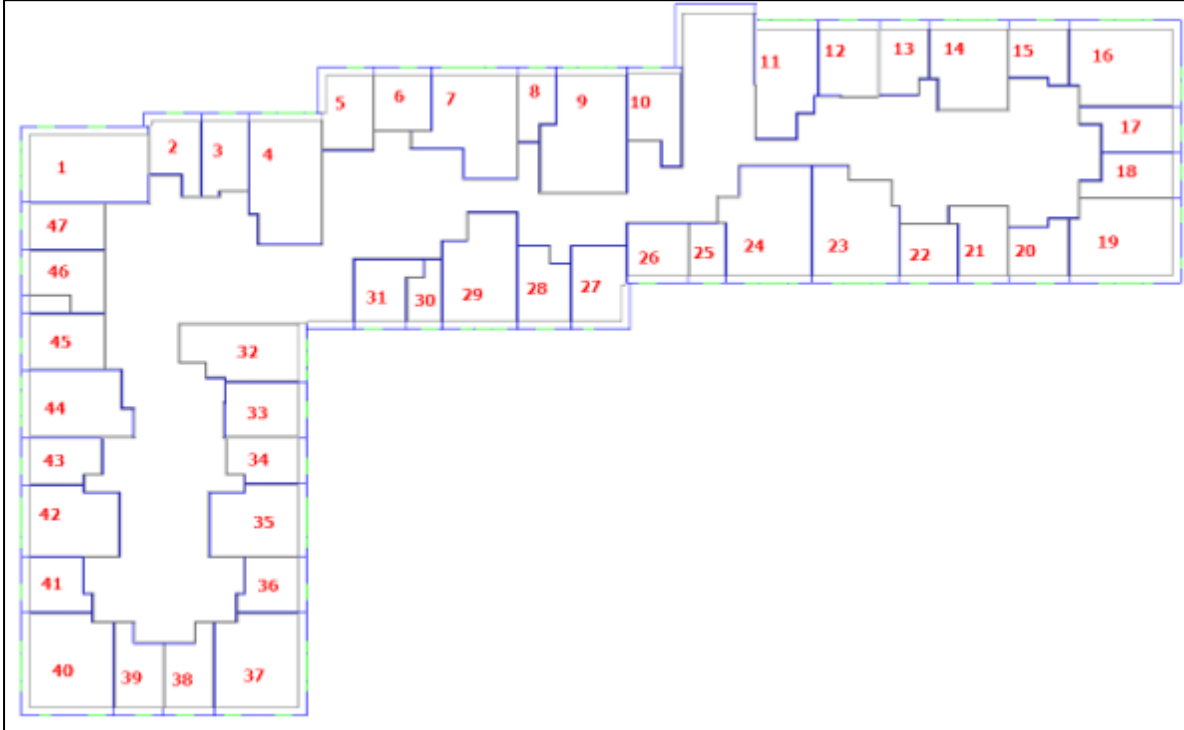


Figure 100. Building 10 - Level 02 (modelling software)

Table 58. sDA results for Building 10 – Level 02

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	93	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	62	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	Bed	99	100	Pass	100	Pass
7	L/K/D	71	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	58	100	Pass	100	Pass
10	Bed	93	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	L/K/D	100	100	Pass	100	Pass
17	Bed	85	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	L/K/D	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	84	100	Pass	100	Pass
22	Bed	85	100	Pass	100	Pass
23	L/K/D	98	100	Pass	100	Pass
24	L/K/D	100	100	Pass	100	Pass
25	Bed	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	Bed	100	100	Pass	100	Pass
28	Bed	93	100	Pass	100	Pass
29	L/K/D	100	100	Pass	100	Pass
30	Bed	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	L/K/D	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	Bed	100	100	Pass	100	Pass
39	Bed	100	100	Pass	100	Pass
40	L/K/D	100	100	Pass	100	Pass
41	Bed	100	100	Pass	100	Pass



Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	L/K/D	100	100	Pass	100	Pass
43	Bed	77	100	Pass	100	Pass
44	L/K/D	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	Bed	100	100	Pass	100	Pass
47	Bed	100	100	Pass	100	Pass

Level 03



Figure 101. Building 10 - Level 03 (VDA & CCK)

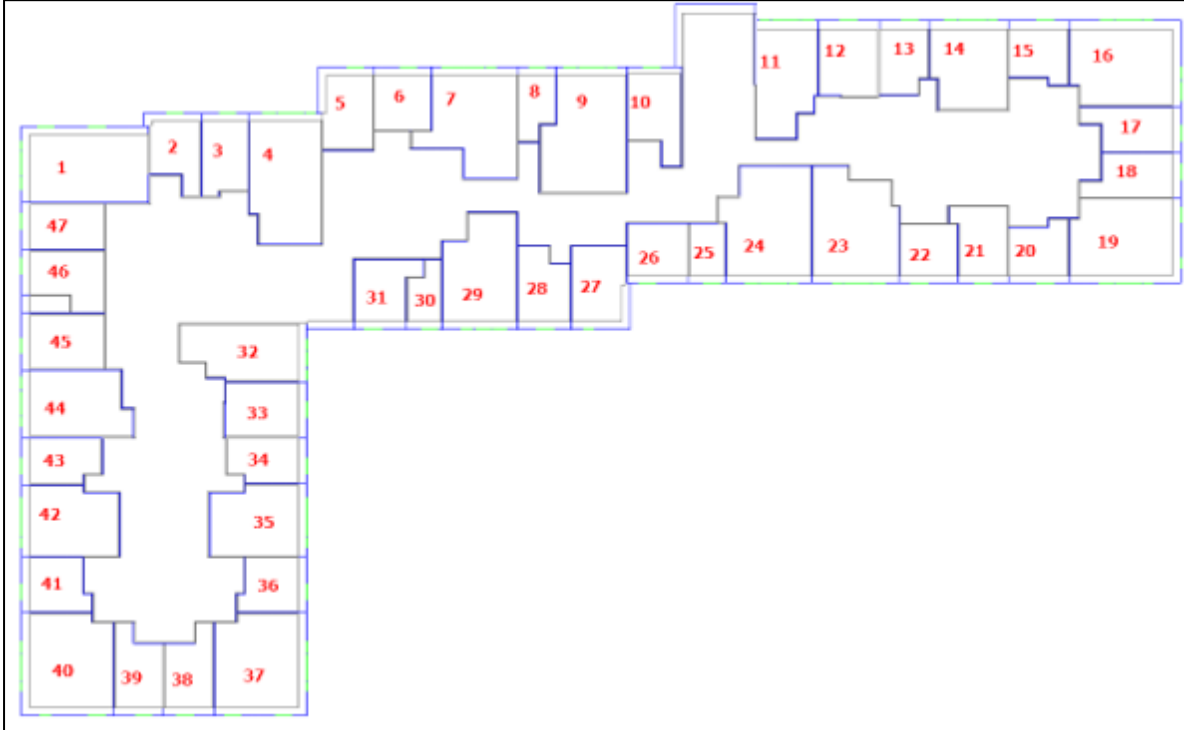


Figure 102. Building 10 - Level 03 (modelling software)

Table 59. sDA results for Building 10 – Level 03

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	99	100	Pass	80	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	Bed	58	100	Pass	100	Pass
7	L/K/D	91	100	Pass	100	Pass
8	Bed	85	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	L/K/D	100	100	Pass	100	Pass
12	Bed	97	100	Pass	100	Pass
13	Bed	100	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	L/K/D	100	100	Pass	100	Pass
17	Bed	88	100	Pass	100	Pass
18	Bed	100	100	Pass	100	Pass
19	L/K/D	100	100	Pass	100	Pass
20	Bed	100	100	Pass	100	Pass
21	Bed	91	100	Pass	100	Pass
22	Bed	100	100	Pass	100	Pass
23	L/K/D	100	100	Pass	100	Pass
24	L/K/D	100	100	Pass	100	Pass
25	Bed	100	100	Pass	100	Pass
26	Bed	100	100	Pass	100	Pass
27	Bed	100	100	Pass	100	Pass
28	Bed	71	100	Pass	100	Pass
29	L/K/D	100	100	Pass	100	Pass
30	Bed	100	100	Pass	100	Pass
31	Bed	100	100	Pass	100	Pass
32	L/K/D	100	100	Pass	100	Pass
33	Bed	100	100	Pass	100	Pass
34	Bed	100	100	Pass	100	Pass
35	L/K/D	100	100	Pass	100	Pass
36	Bed	100	100	Pass	100	Pass
37	L/K/D	100	100	Pass	100	Pass
38	Bed	100	100	Pass	100	Pass
39	Bed	100	100	Pass	100	Pass
40	L/K/D	100	100	Pass	100	Pass
41	Bed	100	100	Pass	100	Pass

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
42	L/K/D	100	100	Pass	100	Pass
43	Bed	95	100	Pass	100	Pass
44	L/K/D	100	100	Pass	100	Pass
45	Bed	100	100	Pass	100	Pass
46	Bed	100	100	Pass	100	Pass
47	Bed	100	100	Pass	100	Pass

Level 04

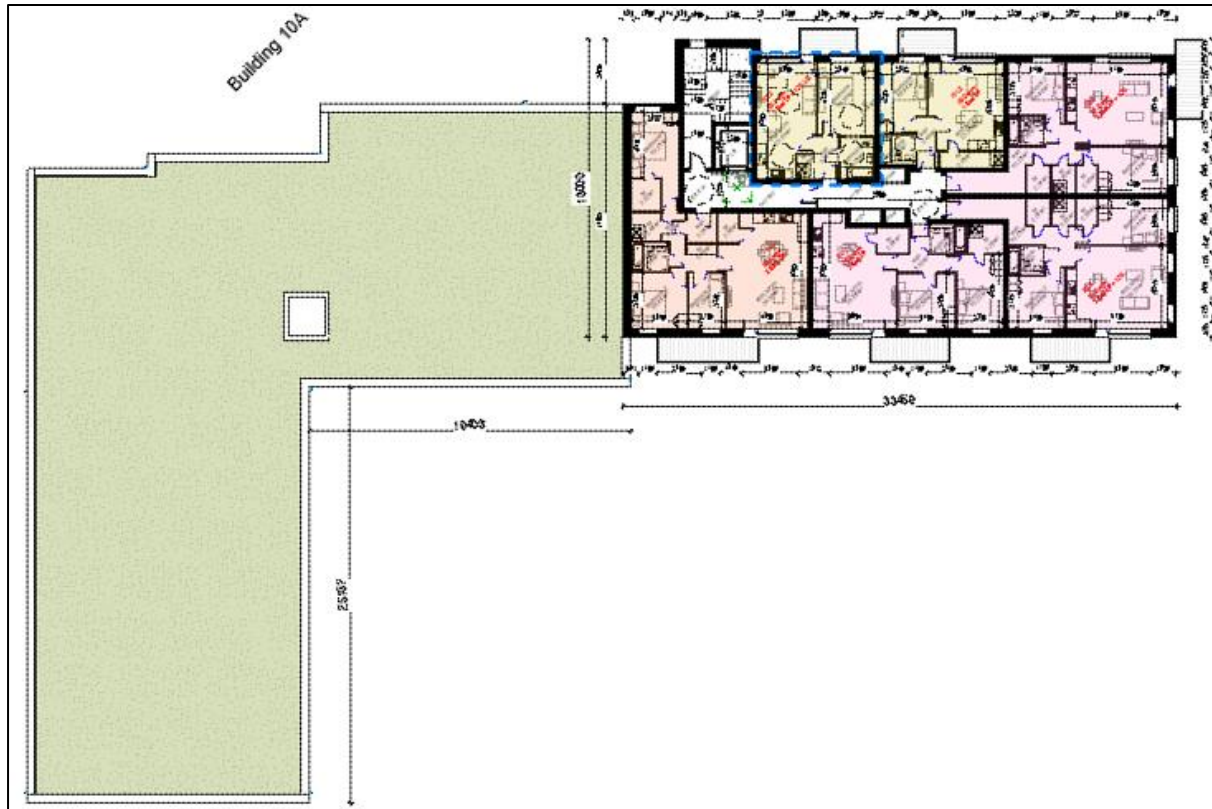


Figure 103. Building 10 - Level 04 (VDA & CCK)

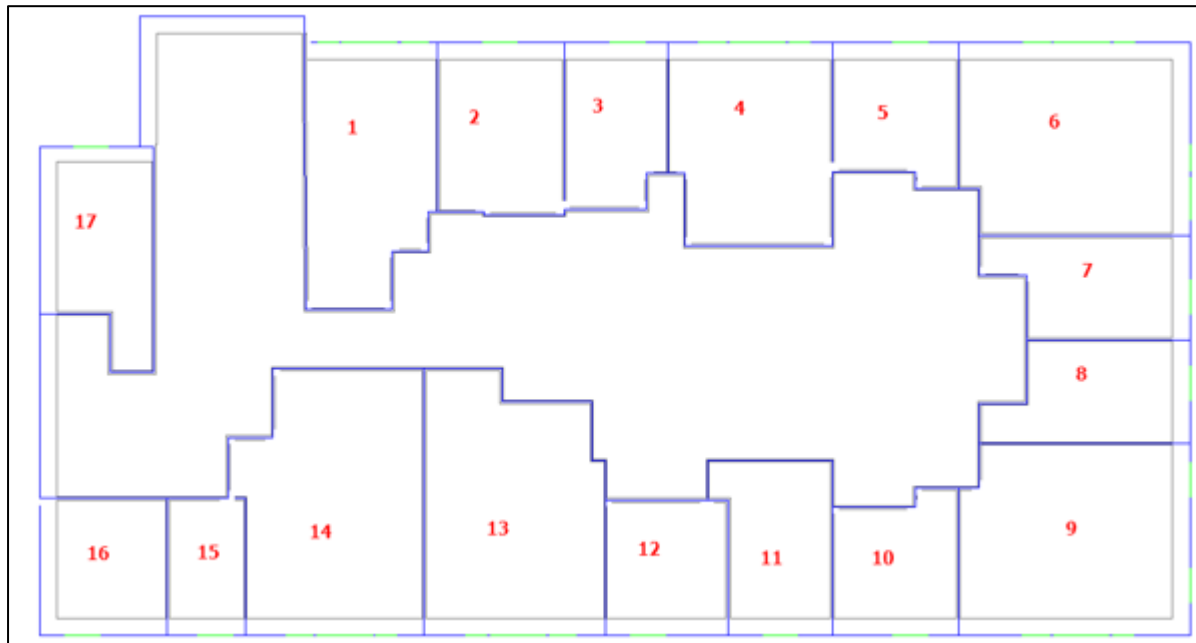


Figure 104. Building 10 - Level 04 (modelling software)

Table 60. sDA results for Building 10 – Level 04

Ref.	Room Activity	IS EN 17037:2018 Method 2			BS EN 17037:2018 Method 2 National Annex	
		Floor Area > ET (%) 300 lux over 50% of hours	Floor Area > ETM (%) 100 lux over 50% of hours	Both ET (%) & ETM (%) Achieved Pass/Fail	Floor Area > ET (%) 200 lux over 50% of hours for L/K/D	Pass/Fail
1	L/K/D	100	100	Pass	100	Pass
2	Bed	100	100	Pass	100	Pass
3	Bed	100	100	Pass	100	Pass
4	L/K/D	100	100	Pass	100	Pass
5	Bed	100	100	Pass	100	Pass
6	L/K/D	100	100	Pass	100	Pass
7	Bed	91	100	Pass	100	Pass
8	Bed	100	100	Pass	100	Pass
9	L/K/D	100	100	Pass	100	Pass
10	Bed	100	100	Pass	100	Pass
11	Bed	95	100	Pass	100	Pass
12	Bed	100	100	Pass	100	Pass
13	L/K/D	100	100	Pass	100	Pass
14	L/K/D	100	100	Pass	100	Pass
15	Bed	100	100	Pass	100	Pass
16	Bed	100	100	Pass	100	Pass
17	Bed	100	100	Pass	100	Pass



## Appendix B: Vertical Sky Component

### Cedarbrook Apartments

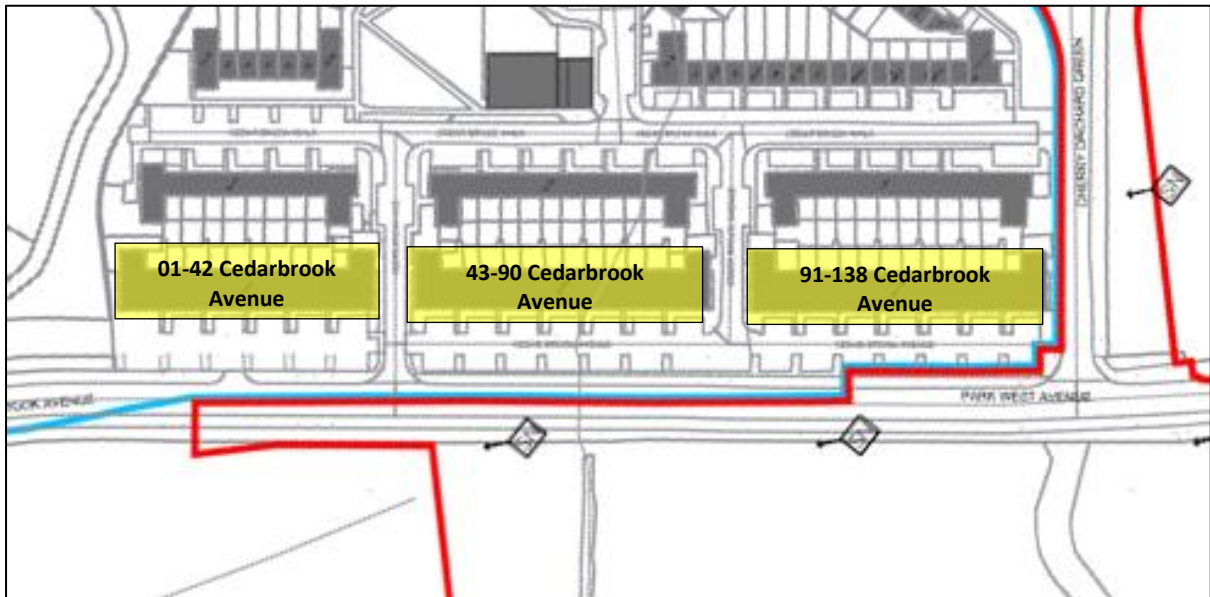


Figure 105. Extract from Site Location Map showing Cedarbrook Apartments (VDA & CCK)

#### 01-42 Cedarbrook Avenue



Figure 106. 01-42 Cedarbrook Avenue (Google Earth)

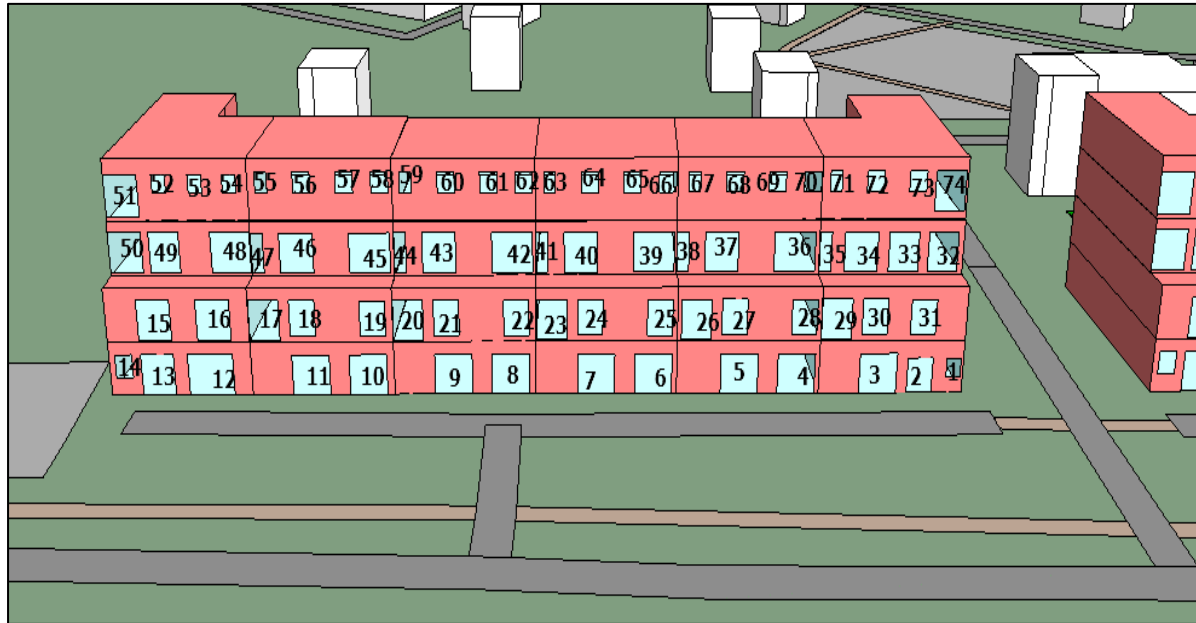


Figure 107. 01-42 Cedarbrook Avenue (modelling software)

Table 61. VSC results for 01-42 Cedarbrook Avenue

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
1	39.67	35.11	89%	Pass
2	39.56	34.96	88%	Pass
3	39.61	34.87	88%	Pass
4	39.73	35.09	88%	Pass
5	39.76	35.1	88%	Pass
6	39.69	35.43	89%	Pass
7	39.65	34.74	88%	Pass
8	39.66	35.54	90%	Pass
9	39.77	35.62	90%	Pass
10	39.77	35.73	90%	Pass
11	39.58	35.6	90%	Pass
12	39.51	35.7	90%	Pass
13	39.69	35.8	90%	Pass
14	39.67	35.96	91%	Pass
15	39.83	37.29	94%	Pass
16	39.72	37.44	94%	Pass
17	39.52	37.26	94%	Pass
18	39.77	37.52	94%	Pass
19	39.64	37.29	94%	Pass
20	39.73	37.29	94%	Pass
21	39.69	37.3	94%	Pass
22	39.66	37.11	94%	Pass
23	39.81	37.16	93%	Pass
24	39.61	37.12	94%	Pass

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
25	39.61	37.12	94%	Pass
26	39.59	36.92	93%	Pass
27	39.57	36.99	93%	Pass
28	39.71	37.02	93%	Pass
29	39.75	36.73	92%	Pass
30	39.74	36.74	92%	Pass
31	39.74	36.68	92%	Pass
32	39.63	38.33	97%	Pass
33	39.48	38.17	97%	Pass
34	39.5	38.22	97%	Pass
35	39.56	38.12	96%	Pass
36	39.61	38.27	97%	Pass
37	39.59	38.35	97%	Pass
38	39.7	38.46	97%	Pass
39	39.47	38.34	97%	Pass
40	39.65	38.45	97%	Pass
41	39.53	38.52	97%	Pass
42	39.6	38.57	97%	Pass
43	39.57	38.54	97%	Pass
44	39.65	38.55	97%	Pass
45	39.51	38.59	98%	Pass
46	39.49	38.54	98%	Pass
47	39.47	38.46	97%	Pass
48	39.52	38.64	98%	Pass
49	39.51	38.69	98%	Pass
50	39.65	38.45	97%	Pass
51	39.84	39.28	99%	Pass
52	39.73	39.27	99%	Pass
53	39.63	39.26	99%	Pass
54	39.71	39.46	99%	Pass
55	39.72	39.28	99%	Pass
56	39.76	39.38	99%	Pass
57	39.81	39.32	99%	Pass
58	39.71	39.27	99%	Pass
59	39.7	39.25	99%	Pass
60	39.61	39.44	100%	Pass
61	39.79	39.32	99%	Pass
62	39.57	39.17	99%	Pass
63	39.6	39.16	99%	Pass
64	39.93	39.3	98%	Pass
65	39.6	39.2	99%	Pass
66	39.79	39.3	99%	Pass
67	39.72	39.2	99%	Pass

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
68	39.79	39.36	99%	Pass
69	39.83	39.2	98%	Pass
70	39.72	39.25	99%	Pass
71	39.73	39.16	99%	Pass
72	39.75	39.13	98%	Pass
73	39.8	39.36	99%	Pass
74	39.86	39.1	98%	Pass

**43-90 Cedarbrook Avenue**



Figure 108. 43-90 Cedarbrook Avenue (Google Earth)

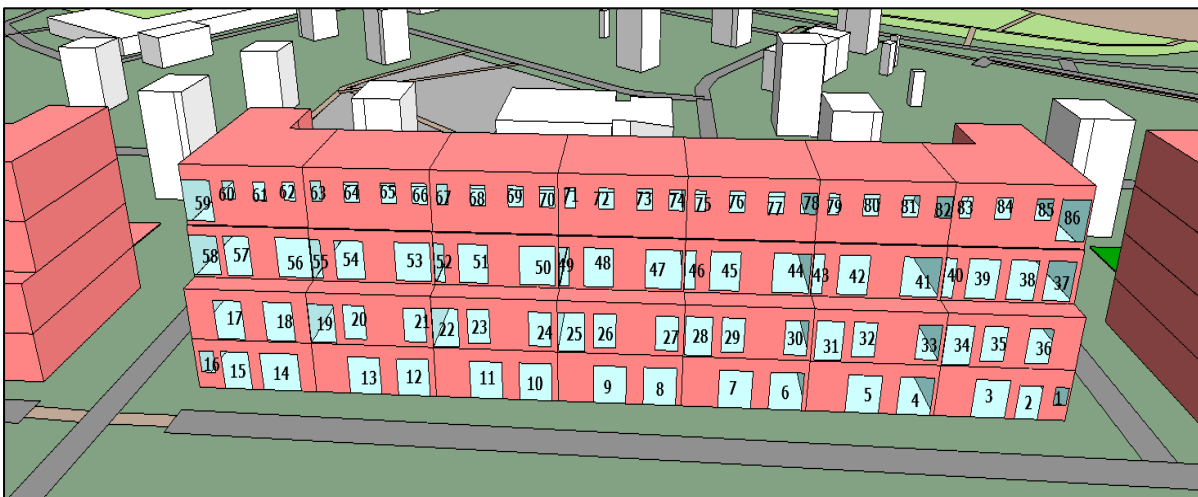


Figure 109. 43-90 Cedarbrook Avenue (modelling software)



Table 62. VSC results for 43-90 Cedarbrook Avenue

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC Existing VSC	Compliance Achieved?
1	39.77	32.2	81%	Pass
2	39.7	31.86	80%	Pass
3	39.72	31.73	80%	Pass
4	39.88	31.93	80%	Pass
5	39.67	31.87	80%	Pass
6	39.58	32	81%	Pass
7	39.72	32.01	81%	Pass
8	39.82	32.44	81%	Pass
9	39.54	32.91	83%	Pass
10	39.68	33.13	83%	Pass
11	39.65	34.01	86%	Pass
12	39.7	34.27	86%	Pass
13	39.72	34.81	88%	Pass
14	39.57	34.86	88%	Pass
15	39.79	34.79	87%	Pass
16	39.68	35.31	89%	Pass
17	39.74	36.53	92%	Pass
18	39.86	36.48	92%	Pass
19	39.75	36.51	92%	Pass
20	39.8	36.34	91%	Pass
21	39.69	36.21	91%	Pass
22	39.61	35.93	91%	Pass
23	39.66	35.57	90%	Pass
24	39.84	35.26	89%	Pass
25	39.79	35.18	88%	Pass
26	39.86	34.92	88%	Pass
27	39.71	34.64	87%	Pass
28	39.74	34.33	86%	Pass
29	39.78	34.58	87%	Pass
30	39.82	34.41	86%	Pass
31	39.68	34.06	86%	Pass
32	39.83	34.02	85%	Pass
33	39.87	33.97	85%	Pass
34	39.85	33.56	84%	Pass
35	39.82	33.99	85%	Pass
36	39.7	33.81	85%	Pass
37	39.58	36.02	91%	Pass
38	39.64	36.08	91%	Pass
39	39.61	36.1	91%	Pass
40	39.68	35.79	90%	Pass
41	39.38	35.9	91%	Pass

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
42	39.61	36.04	91%	Pass
43	39.47	36.2	92%	Pass
44	39.48	36.21	92%	Pass
45	39.66	36.55	92%	Pass
46	39.65	36.66	92%	Pass
47	39.5	36.84	93%	Pass
48	39.53	36.97	94%	Pass
49	39.39	37.09	94%	Pass
50	39.61	37.04	94%	Pass
51	39.66	37.38	94%	Pass
52	39.6	37.52	95%	Pass
53	39.68	37.88	95%	Pass
54	39.51	37.86	96%	Pass
55	39.64	37.83	95%	Pass
56	39.51	37.91	96%	Pass
57	39.53	38.05	96%	Pass
58	39.59	38.17	96%	Pass
59	39.82	39.1	98%	Pass
60	39.83	39.07	98%	Pass
61	39.71	39.07	98%	Pass
62	39.94	39.17	98%	Pass
63	39.9	38.99	98%	Pass
64	39.87	39	98%	Pass
65	39.66	38.97	98%	Pass
66	39.82	38.99	98%	Pass
67	39.77	38.94	98%	Pass
68	39.75	38.83	98%	Pass
69	39.81	38.85	98%	Pass
70	39.76	38.77	98%	Pass
71	39.76	38.72	97%	Pass
72	39.8	38.77	97%	Pass
73	39.76	38.63	97%	Pass
74	39.76	38.61	97%	Pass
75	39.75	38.58	97%	Pass
76	39.7	38.58	97%	Pass
77	39.67	38.44	97%	Pass
78	39.7	38.47	97%	Pass
79	39.79	38.23	96%	Pass
80	39.83	38.49	97%	Pass
81	39.73	38.25	96%	Pass
82	39.66	38.25	96%	Pass
83	39.65	38.17	96%	Pass
84	39.73	38.13	96%	Pass



Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
85	39.84	38.08	96%	Pass
86	39.8	37.91	95%	Pass

**91-138 Cedarbrook Avenue**



Figure 110. 91-138 Cedarbrook Avenue (Google Earth)



Figure 111. 91-138 Cedarbrook Avenue (modelling software)

Table 63. VSC results for 91-138 Cedarbrook Avenue

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
1	39.73	28.27	71%	Pass
2	39.99	27.87	70%	Pass

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
3	39.71	28.35	71%	Pass
4	39.71	28.42	72%	Pass
5	39.78	28.72	72%	Pass
6	39.69	29.07	73%	Pass
7	39.8	29.18	73%	Pass
8	39.74	29.47	74%	Pass
9	39.61	30.39	77%	Pass
10	39.67	30.8	78%	Pass
11	39.68	31.34	79%	Pass
12	39.77	31.93	80%	Pass
13	39.7	31.83	80%	Pass
14	39.64	32.16	81%	Pass
15	39.77	32.28	81%	Pass
16	39.59	32.6	82%	Pass
17	39.84	33.83	85%	Pass
18	39.81	33.97	85%	Pass
19	39.77	33.9	85%	Pass
20	39.7	33.97	86%	Pass
21	39.72	33.88	85%	Pass
22	39.76	33.74	85%	Pass
23	39.76	33.56	84%	Pass
24	39.58	33.35	84%	Pass
25	39.86	32.74	82%	Pass
26	39.82	32.36	81%	Pass
27	39.73	32.19	81%	Pass
28	39.81	31.77	80%	Pass
29	40.04	31.45	79%	Fail
30	39.75	30.94	78%	Fail
31	39.64	31.09	78%	Fail
32	39.63	31.11	79%	Fail
33	39.87	30.42	76%	Fail
34	39.69	30.38	77%	Fail
35	39.69	30.41	77%	Fail
36	39.7	30.15	76%	Fail
37	39.56	32.07	81%	Pass
38	39.66	32.14	81%	Pass
39	39.64	32.49	82%	Pass
40	39.6	32.56	82%	Pass
41	39.62	32.8	83%	Pass
42	39.66	33.13	84%	Pass
43	39.58	33.38	84%	Pass
44	39.53	33.45	85%	Pass
45	39.64	33.78	85%	Pass

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
46	39.67	34.07	86%	Pass
47	39.46	34.02	86%	Pass
48	39.67	34.48	87%	Pass
49	39.61	34.75	88%	Pass
50	39.58	34.59	87%	Pass
51	39.55	35.51	90%	Pass
52	39.55	35.23	89%	Pass
53	39.56	35.36	89%	Pass
54	39.54	35.65	90%	Pass
55	39.48	35.57	90%	Pass
56	39.51	35.75	90%	Pass
57	39.56	35.94	91%	Pass
58	39.72	35.91	90%	Pass
59	39.91	37.64	94%	Pass
60	39.77	37.95	95%	Pass
61	39.82	37.76	95%	Pass
62	39.81	37.7	95%	Pass
63	39.85	37.99	95%	Pass
64	39.75	37.75	95%	Pass
65	39.9	37.69	94%	Pass
66	39.74	37.66	95%	Pass
67	39.74	37.63	95%	Pass
68	39.81	37.46	94%	Pass
69	39.85	37.3	94%	Pass
70	39.86	37.17	93%	Pass
71	39.86	37.03	93%	Pass
72	39.88	37.14	93%	Pass
73	39.7	36.79	93%	Pass
74	39.7	36.57	92%	Pass
75	39.69	36.95	93%	Pass
76	39.86	36.3	91%	Pass
77	39.77	36.28	91%	Pass
78	39.8	35.98	90%	Pass
79	39.91	35.85	90%	Pass
80	39.62	35.75	90%	Pass
81	39.7	35.44	89%	Pass
82	39.73	35.32	89%	Pass
83	39.7	35.19	89%	Pass
84	39.84	35.1	88%	Pass
85	39.67	34.79	88%	Pass
86	39.65	34.14	86%	Pass



## The Concert Building



Figure 112. The Concert Building – Cherry Orchard (Google Maps)



Figure 113. The Concert Building (Google Earth)

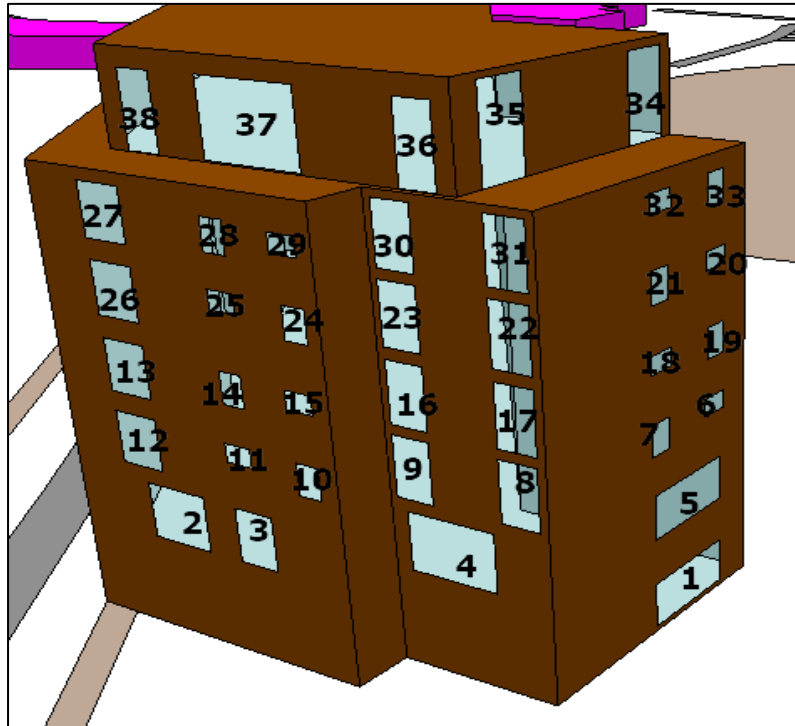


Figure 114. The Concert Building (modelling software)

Table 64. VSC results for The Concert Building

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
1	38.28	37.50	97.96	Pass
2	39.64	39.08	98.59	Pass
3	39.56	38.92	98.38	Pass
4	34.38	33.60	97.73	Pass
5	38.62	37.96	98.29	Pass
6	38.92	38.68	99.38	Pass
7	39.01	38.55	98.82	Pass
8	38.15	37.34	97.88	Pass
9	27.88	27.09	97.17	Pass
10	39.71	38.99	98.19	Pass
11	39.77	39.00	98.06	Pass
12	39.55	39.13	98.94	Pass
13	39.65	39.06	98.51	Pass
14	39.58	39.14	98.89	Pass
15	39.57	39.14	98.91	Pass
16	27.93	27.44	98.25	Pass
17	38.28	37.73	98.56	Pass
18	39.41	39.00	98.96	Pass
19	39.28	38.74	98.63	Pass
20	39.44	38.98	98.83	Pass
21	39.51	39.20	99.22	Pass



Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
22	38.58	38.23	99.09	Pass
23	28.17	27.89	99.01	Pass
24	39.70	39.36	99.14	Pass
25	39.80	39.17	98.42	Pass
26	39.50	39.29	99.47	Pass
27	39.57	39.45	99.70	Pass
28	39.87	39.30	98.57	Pass
29	39.88	39.25	98.42	Pass
30	30.88	30.59	99.06	Pass
31	39.27	38.93	99.13	Pass
32	39.61	39.43	99.55	Pass
33	39.60	39.23	99.07	Pass
34	39.34	39.32	99.95	Pass
35	39.29	39.18	99.72	Pass
36	39.58	39.28	99.24	Pass
37	39.39	39.02	99.06	Pass
38	39.39	39.14	99.37	Pass

## The Crescent Building



Figure 115. The Crescent Building – Cherry Orchard (Google Maps)





Figure 116. The Crescent Building (Google Earth)

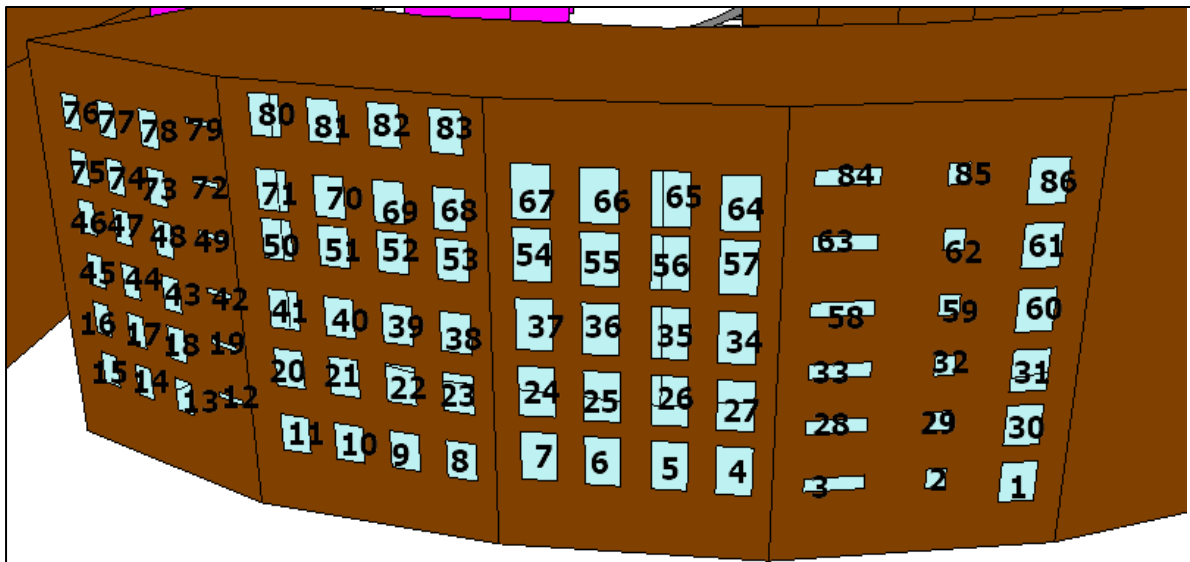


Figure 117. The Crescent Building (modelling software)

Table 65. VSC results for The Crescent Building

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
1	37.32	36.86	98.77	Pass
2	37.98	37.06	97.58	Pass
3	38.19	37.57	98.38	Pass
4	38.29	37.38	97.62	Pass
5	37.98	37.30	98.21	Pass
6	37.88	37.23	98.28	Pass
7	37.45	36.93	98.61	Pass
8	35.84	35.24	98.33	Pass

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
9	35.17	34.50	98.09	Pass
10	34.36	33.45	97.35	Pass
11	33.34	32.37	97.09	Pass
12	28.31	27.97	98.80	Pass
13	26.59	26.06	98.01	Pass
14	24.69	23.95	97.00	Pass
15	22.31	22.00	98.61	Pass
16	24.11	24.00	99.54	Pass
17	26.51	25.92	97.77	Pass
18	28.64	28.02	97.84	Pass
19	30.14	29.99	99.50	Pass
20	34.70	34.14	98.39	Pass
21	35.69	35.06	98.23	Pass
22	36.32	35.72	98.35	Pass
23	36.88	36.67	99.43	Pass
24	38.18	37.59	98.45	Pass
25	38.53	37.84	98.21	Pass
26	38.55	37.90	98.31	Pass
27	38.62	38.21	98.94	Pass
28	38.68	38.06	98.40	Pass
29	38.49	37.96	98.62	Pass
30	37.98	37.41	98.50	Pass
31	38.62	37.87	98.06	Pass
32	38.81	38.28	98.63	Pass
33	38.96	38.58	99.02	Pass
34	39.23	38.72	98.70	Pass
35	39.02	38.35	98.28	Pass
36	38.92	38.45	98.79	Pass
37	38.71	38.33	99.02	Pass
38	37.57	37.13	98.83	Pass
39	37.22	37.08	99.62	Pass
40	36.56	36.21	99.04	Pass
41	35.91	35.53	98.94	Pass
42	32.32	31.96	98.89	Pass
43	30.70	30.44	99.15	Pass
44	29.08	28.63	98.45	Pass
45	26.86	26.50	98.66	Pass
46	30.48	30.22	99.15	Pass
47	31.80	31.56	99.25	Pass
48	33.05	32.94	99.67	Pass
49	34.36	34.08	99.19	Pass
50	37.34	37.08	99.30	Pass
51	37.94	37.62	99.16	Pass

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
52	38.06	37.87	99.50	Pass
53	38.49	38.14	99.09	Pass
54	39.17	38.91	99.34	Pass
55	39.22	39.03	99.52	Pass
56	39.35	38.97	99.03	Pass
57	39.36	39.04	99.19	Pass
58	39.43	39.14	99.26	Pass
59	39.17	38.87	99.23	Pass
60	38.93	38.70	99.41	Pass
61	39.52	39.36	99.60	Pass
62	39.61	39.54	99.82	Pass
63	39.56	39.41	99.62	Pass
64	39.55	39.33	99.44	Pass
65	39.55	39.29	99.34	Pass
66	39.66	39.31	99.12	Pass
67	39.67	39.40	99.32	Pass
68	39.03	39.00	99.92	Pass
69	38.85	38.80	99.87	Pass
70	38.62	38.55	99.82	Pass
71	38.21	37.80	98.93	Pass
72	36.20	36.10	99.72	Pass
73	35.66	35.26	98.88	Pass
74	34.50	34.00	98.55	Pass
75	34.17	33.89	99.18	Pass
76	37.81	37.56	99.34	Pass
77	37.49	37.42	99.81	Pass
78	38.06	37.67	98.98	Pass
79	38.41	38.09	99.17	Pass
80	39.45	39.13	99.19	Pass
81	39.63	39.29	99.14	Pass
82	38.61	38.00	98.42	Pass
83	39.63	39.22	98.97	Pass
84	39.64	39.56	99.80	Pass
85	39.74	39.41	99.17	Pass
86	39.74	39.56	99.55	Pass



## The Academy Building



Figure 118. The Academy Building – Cherry Orchard (Google Maps)



Figure 119. The Academy Building (Google Earth)

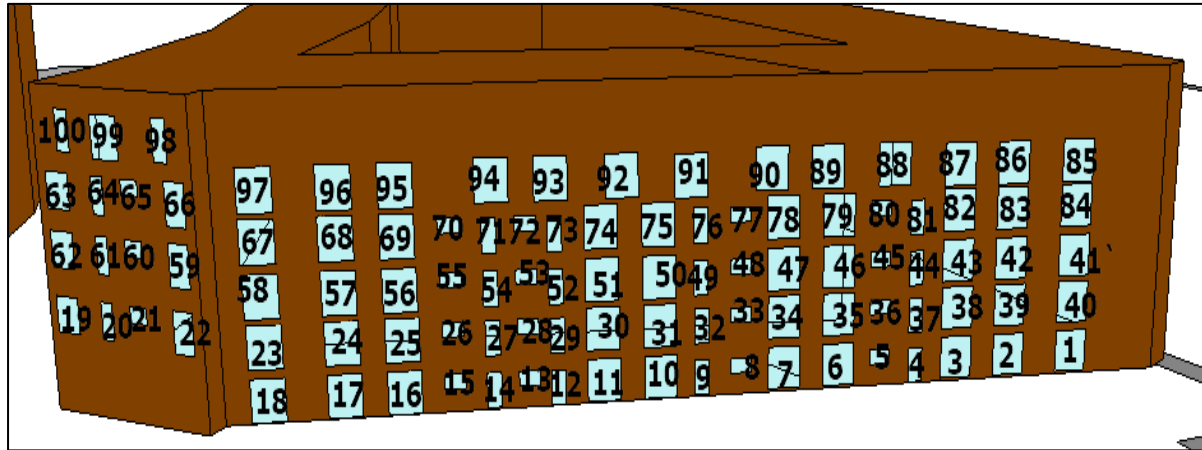


Figure 120. The Academy Building (modelling software)

Table 66. VSC results for The Academy Building

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
1	39.68	38.41	96.80	Pass
2	39.63	38.27	96.57	Pass
3	39.40	38.13	96.78	Pass
4	39.39	38.11	96.75	Pass
5	39.42	38.19	96.88	Pass
6	39.39	38.12	96.78	Pass
7	39.49	38.04	96.33	Pass
8	39.38	38.24	97.11	Pass
9	39.55	38.05	96.21	Pass
10	39.38	38.10	96.75	Pass
11	39.25	38.16	97.22	Pass
12	39.33	37.93	96.44	Pass
13	39.17	37.87	96.68	Pass
14	39.12	37.82	96.68	Pass
15	39.11	37.94	97.01	Pass
16	39.02	37.80	96.87	Pass
17	38.79	37.94	97.81	Pass
18	37.84	37.07	97.97	Pass
19	35.49	35.13	98.99	Pass
20	35.12	35.00	99.66	Pass
21	36.72	36.12	98.37	Pass
22	36.88	36.20	98.16	Pass
23	38.21	36.85	96.44	Pass
24	38.93	38.05	97.74	Pass
25	39.23	38.24	97.48	Pass
26	39.15	38.30	97.83	Pass
27	39.17	38.23	97.60	Pass
28	39.34	38.24	97.20	Pass

Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
29	39.31	38.19	97.15	Pass
30	39.32	38.44	97.76	Pass
31	39.45	38.48	97.54	Pass
32	39.49	38.34	97.09	Pass
33	39.46	38.39	97.29	Pass
34	39.38	38.47	97.69	Pass
35	39.43	38.57	97.82	Pass
36	39.44	38.53	97.69	Pass
37	39.55	38.43	97.17	Pass
38	39.65	38.46	97.00	Pass
39	39.79	38.71	97.29	Pass
40	39.58	38.62	97.57	Pass
41	39.57	38.91	98.33	Pass
42	39.49	38.87	98.43	Pass
43	39.59	38.69	97.73	Pass
44	39.51	38.65	97.82	Pass
45	39.55	38.80	98.10	Pass
46	39.61	38.73	97.78	Pass
47	39.60	38.62	97.53	Pass
48	39.54	38.67	97.80	Pass
49	39.65	38.55	97.23	Pass
50	39.55	38.80	98.10	Pass
51	39.49	38.70	98.00	Pass
52	39.56	38.52	97.37	Pass
53	39.38	38.58	97.97	Pass
54	39.19	38.53	98.32	Pass
55	39.20	38.56	98.37	Pass
56	39.39	38.66	98.15	Pass
57	39.16	38.34	97.91	Pass
58	37.97	37.33	98.31	Pass
59	37.72	37.10	98.36	Pass
60	37.39	37.04	99.06	Pass
61	37.07	36.55	98.60	Pass
62	36.60	35.99	98.33	Pass
63	37.30	36.89	98.90	Pass
64	37.91	37.27	98.31	Pass
65	37.99	37.82	99.55	Pass
66	38.23	37.94	99.24	Pass
67	39.02	37.52	96.16	Pass
68	39.41	38.57	97.87	Pass
69	39.38	38.99	99.01	Pass
70	39.54	38.73	97.95	Pass
71	39.31	38.74	98.55	Pass



Window Reference	VSC for Existing Situation (%)	VSC with Proposed Scheme (%)	Proposed VSC / Existing VSC	Compliance Achieved?
72	39.33	38.81	98.68	Pass
73	39.54	38.90	98.38	Pass
74	39.67	38.98	98.26	Pass
75	39.56	38.93	98.41	Pass
76	39.56	38.88	98.28	Pass
77	39.62	38.91	98.21	Pass
78	39.61	38.76	97.85	Pass
79	39.78	38.91	97.81	Pass
80	39.69	39.03	98.34	Pass
81	39.65	38.96	98.26	Pass
82	39.66	39.01	98.36	Pass
83	39.66	39.01	98.36	Pass
84	39.68	39.15	98.66	Pass
85	39.83	39.40	98.92	Pass
86	39.80	39.30	98.74	Pass
87	39.79	39.29	98.74	Pass
88	39.80	39.30	98.74	Pass
89	39.93	39.29	98.40	Pass
90	39.83	38.96	97.82	Pass
91	39.67	39.19	98.79	Pass
92	39.64	39.26	99.04	Pass
93	39.72	39.10	98.44	Pass
94	39.42	38.99	98.91	Pass
95	39.59	39.03	98.59	Pass
96	39.56	38.85	98.21	Pass
97	38.73	38.21	98.66	Pass
98	38.75	38.19	98.55	Pass
99	38.50	38.35	99.61	Pass
100	38.23	38.15	99.79	Pass

## Appendix C: Annual/Winter Probable Sunlight Hours

### Cedarbrook Apartments

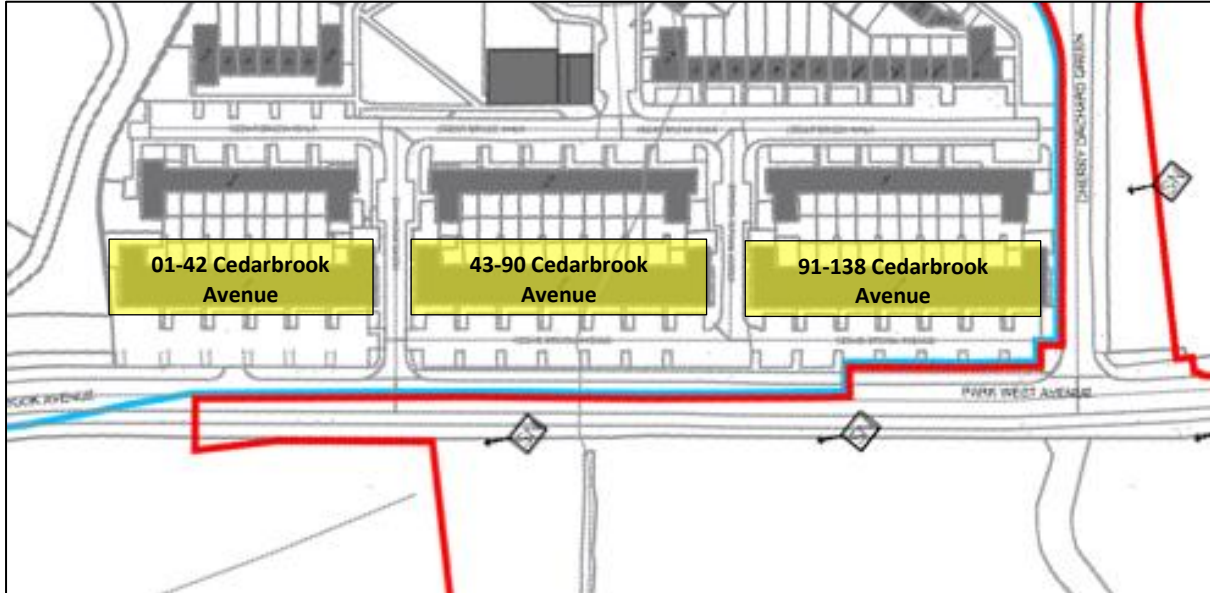


Figure 121. Extract from Site Location Map showing Cedarbrook Apartments (VDA & CCK)

#### 01-42 Cedarbrook Avenue



Figure 122. 01-42 Cedarbrook Avenue (Google Earth)

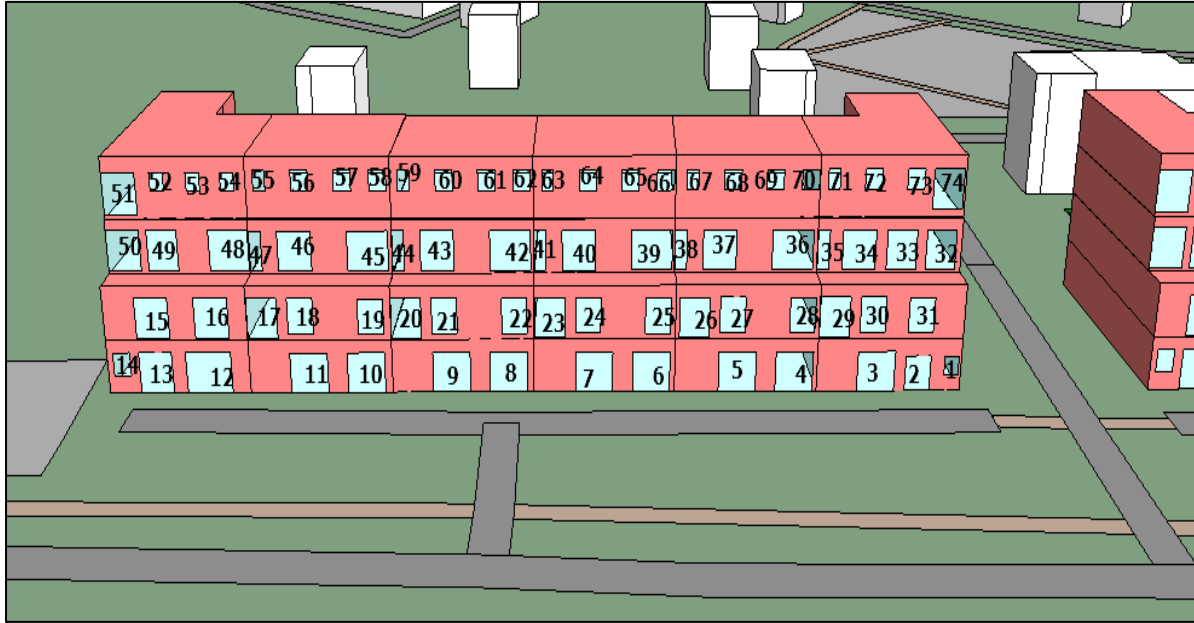


Figure 123. 01-42 Cedarbrook Avenue (modelling software)

Table 67. APSH/WPSH results for 01-42 Cedarbrook Avenue

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
1	65.95	28.67	57.09	21.19	87%	74%	Pass
2	68.32	30.07	59.02	22.5	86%	75%	Pass
3	69.08	30.07	59.55	22.25	86%	74%	Pass
4	69.23	30.07	59.53	22.33	86%	74%	Pass
5	69.23	30.07	60.06	22.83	87%	76%	Pass
6	69.23	30.07	61.64	23.88	89%	79%	Pass
7	69.23	30.07	62.68	24.96	91%	83%	Pass
8	69.23	30.07	61.68	24.19	89%	80%	Pass
9	69.23	30.07	61.73	24.35	89%	81%	Pass
10	69.23	30.07	62.3	24.88	90%	83%	Pass
11	69.23	30.07	62.6	25.04	90%	83%	Pass
12	69.23	30.07	61.26	23.49	88%	78%	Pass
13	69.21	30.07	61.05	23.3	88%	77%	Pass
14	67.83	30.07	60.75	23.69	90%	79%	Pass
15	68.99	30.07	63.68	25.84	92%	86%	Pass
16	68.67	30.07	63.46	25.8	92%	86%	Pass
17	67.97	30.07	63.57	26.48	94%	88%	Pass
18	67.9	30.07	63.7	26.57	94%	88%	Pass
19	67.91	30.07	63.45	26.95	93%	90%	Pass
20	67.96	30.07	63.82	27.27	94%	91%	Pass
21	67.89	30.07	63.39	26.92	93%	90%	Pass
22	67.9	30.07	63.42	26.87	93%	89%	Pass
23	67.96	30.07	63.83	27.25	94%	91%	Pass

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
24	67.88	30.07	63.75	27.24	94%	91%	Pass
25	67.89	30.07	62.84	26.41	93%	88%	Pass
26	67.95	30.07	62.83	26.34	92%	88%	Pass
27	67.88	30.07	62.87	26.47	93%	88%	Pass
28	67.89	30.07	62.39	25.97	92%	86%	Pass
29	67.97	30.07	62.46	25.87	92%	86%	Pass
30	68.53	30.07	63	25.74	92%	86%	Pass
31	68.53	30.07	62.92	25.56	92%	85%	Pass
32	68.36	30.07	66.94	28.91	98%	96%	Pass
33	68.53	30.07	67.22	28.8	98%	96%	Pass
34	68.6	30.07	67.75	29.24	99%	97%	Pass
35	66.37	30.07	65.39	29.14	99%	97%	Pass
36	67.76	30.07	66.89	29.25	99%	97%	Pass
37	67.77	30.07	66.73	29.07	98%	97%	Pass
38	66.38	30.07	65.73	29.43	99%	98%	Pass
39	67.78	30.07	67.08	29.36	99%	98%	Pass
40	67.8	30.07	67.24	29.52	99%	98%	Pass
41	66.41	30.07	65.87	29.54	99%	98%	Pass
42	67.81	30.07	67.17	29.43	99%	98%	Pass
43	67.82	30.07	66.92	29.17	99%	97%	Pass
44	66.43	30.07	65.35	28.96	98%	96%	Pass
45	67.84	30.07	66.71	28.94	98%	96%	Pass
46	67.85	30.07	66.58	28.8	98%	96%	Pass
47	66.46	30.07	65.33	28.95	98%	96%	Pass
48	67.84	30.07	66.79	29.04	98%	97%	Pass
49	67.83	30.07	66.82	29.06	99%	97%	Pass
50	69.21	30.07	68.35	29.2	99%	97%	Pass
51	69.23	30.07	69.23	30.07	100%	100%	Pass
52	65.73	28.67	65.73	28.67	100%	100%	Pass
53	64.34	28.67	64.34	28.67	100%	100%	Pass
54	64.34	28.67	64.34	28.67	100%	100%	Pass
55	64.34	28.67	64.34	28.67	100%	100%	Pass
56	65.73	29.37	65.73	29.37	100%	100%	Pass
57	65.73	29.37	65.73	29.37	100%	100%	Pass
58	65.73	29.37	65.73	29.37	100%	100%	Pass
59	64.34	28.67	64.34	28.67	100%	100%	Pass
60	65.73	29.37	65.73	29.37	100%	100%	Pass
61	65.73	29.37	65.73	29.37	100%	100%	Pass
62	65.73	29.37	65.73	29.37	100%	100%	Pass
63	64.34	28.67	64.34	28.67	100%	100%	Pass
64	65.73	29.37	65.73	29.37	100%	100%	Pass
65	65.73	29.37	65.3	29.37	99%	100%	Pass

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
66	65.73	29.37	65.73	29.37	100%	100%	Pass
67	64.34	28.67	64.34	28.67	100%	100%	Pass
68	65.73	29.37	65.73	29.37	100%	100%	Pass
69	65.73	29.37	65.73	29.37	100%	100%	Pass
70	65.73	29.37	65.73	29.37	100%	100%	Pass
71	64.34	28.67	64.33	28.67	100%	100%	Pass
72	66.95	29.37	66.53	29.37	99%	100%	Pass
73	66.4	29.37	65.65	29.37	99%	100%	Pass
74	68.53	30.07	67.98	30.07	99%	100%	Pass



4.8.1. 43-90 Cedarbrook Avenue



Figure 124. 43-90 Cedarbrook Avenue (Google Earth)

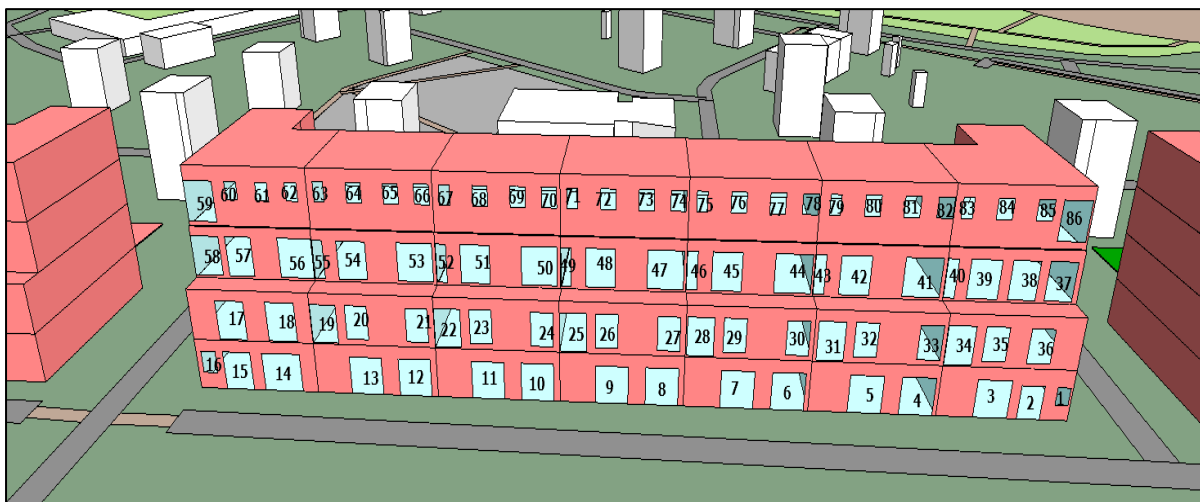


Figure 125. 43-90 Cedarbrook Avenue (modelling software)

Table 68. APSH/WPSH results for 43-90 Cedarbrook Avenue

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
1	65.23	28.5	50.58	16.69	78%	59%	Pass
2	66.11	28.33	51.12	16.71	77%	59%	Pass
3	67.03	28.49	51.87	16.78	77%	59%	Pass
4	67.04	28.27	51.7	16.27	77%	58%	Pass
5	67.46	28.74	53.02	17.39	79%	61%	Pass
6	66.91	28.59	52.28	16.84	78%	59%	Pass
7	66.77	28.59	52.92	17.3	79%	61%	Pass
8	66.88	28.59	54.34	18	81%	63%	Pass



Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
9	66.82	28.6	54.93	18.58	82%	65%	Pass
10	66.78	28.6	55.92	19.74	84%	69%	Pass
11	66.79	28.6	57.27	21.12	86%	74%	Pass
12	66.79	28.6	58.64	21.92	88%	77%	Pass
13	66.8	28.6	59.1	22.54	88%	79%	Pass
14	67.58	29.41	60.2	23.86	89%	81%	Pass
15	67.59	29.42	60.3	23.96	89%	81%	Pass
16	66.01	29.71	60.29	24.65	91%	83%	Pass
17	62.66	29.37	57.66	26.46	92%	90%	Pass
18	60.95	28.22	55.63	24.99	91%	89%	Pass
19	58.69	26.63	53.63	23.66	91%	89%	Pass
20	57.03	25.4	51.3	21.76	90%	86%	Pass
21	54.25	22.52	48.31	18.68	89%	83%	Pass
22	53.64	21.64	47.88	17.98	89%	83%	Pass
23	52.23	20.66	46.27	16.8	89%	81%	Pass
24	52.03	20.36	44.83	15.26	86%	75%	Pass
25	52.7	20.68	45.01	15.07	85%	73%	Pass
26	51.94	20.22	43.32	13.93	83%	69%	Pass
27	52.54	20.28	43.91	14	84%	69%	Pass
28	52.46	20.59	44.19	13.97	84%	68%	Pass
29	51.64	20.19	43.3	13.43	84%	67%	Pass
30	53.41	20.26	44.01	12.87	82%	64%	Pass
31	53.71	20.55	44.69	12.94	83%	63%	Pass
32	53.77	20.16	44.33	12.25	82%	61%	Pass
33	55.97	20.82	45.36	12.31	81%	59%	Pass
34	56.55	21.06	45.87	12.48	81%	59%	Pass
35	57.07	21.13	46.38	12.53	81%	59%	Pass
36	57.92	22.28	47.06	13.52	81%	61%	Pass
37	52.14	16.89	44.84	10.42	86%	62%	Pass
38	50.86	16.53	43.69	10.04	86%	61%	Pass
39	48.8	16.26	41.62	9.78	85%	60%	Pass
40	44.18	16.26	37.24	10.02	84%	62%	Pass
41	45.35	16.55	38.24	10.29	84%	62%	Pass
42	42.8	16.51	36.41	10.52	85%	64%	Pass
43	40.9	16.46	34.72	10.73	85%	65%	Pass
44	41.68	16.52	35.98	11.3	86%	68%	Pass
45	40.88	16.93	36.01	12.48	88%	74%	Pass
46	39.73	17.25	35.6	13.56	90%	79%	Pass
47	41.17	17.53	37.93	14.53	92%	83%	Pass

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
48	41.45	18.6	39.02	16.34	94%	88%	Pass
49	40.46	19.28	38.23	17.2	94%	89%	Pass
50	42.58	20.09	40.52	18.14	95%	90%	Pass
51	44.36	22.01	42.94	20.71	97%	94%	Pass
52	43.99	23.01	42.8	21.94	97%	95%	Pass
53	46.3	23.9	45.12	22.8	97%	95%	Pass
54	49.24	26.71	48.45	25.94	98%	97%	Pass
55	49.67	28.22	48.92	27.46	98%	97%	Pass
56	52.68	28.88	51.84	28.04	98%	97%	Pass
57	56.12	29.78	54.95	28.62	98%	96%	Pass
58	60.78	30.07	59.45	28.79	98%	96%	Pass
59	61.08	30.07	61.08	30.07	100%	100%	Pass
60	57.35	28.67	57.35	28.67	100%	100%	Pass
61	54.19	28.67	54.19	28.67	100%	100%	Pass
62	51.12	28.67	51.12	28.67	100%	100%	Pass
63	49.11	27.97	49.11	27.97	100%	100%	Pass
64	48.75	28.67	48.75	28.67	100%	100%	Pass
65	47.07	27.81	47.05	27.81	100%	100%	Pass
66	45.88	27.19	45.88	27.19	100%	100%	Pass
67	43.91	26.02	43.91	26.02	100%	100%	Pass
68	44.46	25.66	44.46	25.66	100%	100%	Pass
69	43.29	24.47	43.29	24.47	100%	100%	Pass
70	43.03	24.21	43.03	24.21	100%	100%	Pass
71	40.8	22.67	40.8	22.67	100%	100%	Pass
72	41.8	22.97	41.8	22.97	100%	100%	Pass
73	41.56	22.72	41.56	22.72	100%	100%	Pass
74	41.27	22.35	41.27	22.35	100%	100%	Pass
75	39.83	21.58	39.83	21.58	100%	100%	Pass
76	42.38	22.09	42.38	22.09	100%	100%	Pass
77	41.19	21.1	41.18	21.1	100%	100%	Pass
78	41	20.94	40.99	20.94	100%	100%	Pass
79	40.18	20.24	39.76	19.83	99%	98%	Pass
80	43.82	20.94	43.12	20.25	98%	97%	Pass
81	43.65	20.75	42.24	19.35	97%	93%	Pass
82	45.98	20.42	44.57	19.03	97%	93%	Pass
83	45.09	19.49	43.68	18.09	97%	93%	Pass
84	47.68	19.84	45.57	17.74	96%	89%	Pass
85	50.18	19.57	48.08	17.47	96%	89%	Pass
86	52.52	19.46	49.61	16.55	94%	85%	Pass

91-138 Cedarbrook Avenue



Figure 126. 91-138 Cedarbrook Avenue (Google Earth)



Figure 127. 91-138 Cedarbrook Avenue (modelling software)

Table 69. APSH/WPSH results for 91-138 Cedarbrook Avenue

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
1	66.26	28.5	43.58	13.1	66%	46%	Pass
2	67.93	29.47	44.72	13.76	66%	47%	Pass
3	68.39	29.23	45.79	13.86	67%	47%	Pass
4	68.11	28.97	46.75	13.56	69%	47%	Pass
5	67.74	28.74	46.95	13.03	69%	45%	Pass
6	67.13	28.59	45.27	11.61	67%	41%	Pass

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
7	66.96	28.59	44.89	11.18	67%	39%	Pass
8	66.81	28.59	46.96	12.58	70%	44%	Pass
9	66.7	28.6	48.36	14.09	73%	49%	Pass
10	66.62	28.6	48.46	14.73	73%	52%	Pass
11	66.6	28.6	48.3	14.74	73%	52%	Pass
12	66.56	28.6	50.38	17.01	76%	59%	Pass
13	66.54	28.6	49.8	16.61	75%	58%	Pass
14	67.27	29.41	50.77	17.72	75%	60%	Pass
15	67.26	29.42	52.23	18.43	78%	63%	Pass
16	65.62	29.71	52.3	19.08	80%	64%	Pass
17	61.24	29.24	51.71	22	84%	75%	Pass
18	59.75	28.22	49.36	20.13	83%	71%	Pass
19	57.66	26.63	46.31	17.58	80%	66%	Pass
20	56.21	25.4	45.66	17.17	81%	68%	Pass
21	53.71	22.52	44.13	15.25	82%	68%	Pass
22	53.16	21.64	43.39	14.18	82%	66%	Pass
23	52.03	20.66	42.01	12.97	81%	63%	Pass
24	51.99	20.36	41.76	12.46	80%	61%	Pass
25	52.67	20.68	41.7	12.11	79%	59%	Pass
26	52.27	20.56	40.89	11.74	78%	57%	Pass
27	52.6	20.34	41.15	11.66	78%	57%	Pass
28	53.59	20.9	41.14	11.3	77%	54%	Pass
29	53.09	20.55	39.95	10.49	75%	51%	Pass
30	54.45	20.59	41.36	10.65	76%	52%	Pass
31	55.37	20.88	42.53	11.34	77%	54%	Pass
32	55.68	20.54	43.03	11.09	77%	54%	Pass
33	58.21	21.18	43.79	11.04	75%	52%	Pass
34	59.06	21.51	43.76	10.75	74%	50%	Pass
35	59.92	21.67	44.47	10.62	74%	49%	Pass
36	61.44	22.98	44.77	11.08	73%	48%	Pass
37	59.57	21.79	48.68	13	82%	60%	Pass
38	57.09	20.72	46.31	12.04	81%	58%	Pass
39	54.83	20.46	44.11	11.93	80%	58%	Pass
40	49.58	20.06	38.35	11.1	77%	55%	Pass
41	49.93	20.04	38.69	11.12	77%	55%	Pass
42	46.62	19.99	35.19	10.94	75%	55%	Pass
43	44.6	19.96	33.03	10.83	74%	54%	Pass
44	45.18	19.94	34.68	11.33	77%	57%	Pass
45	43.85	19.89	32.44	10.31	74%	52%	Pass

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
46	42.34	19.86	31.08	10.44	73%	53%	Pass
47	43.51	19.88	32.69	10.98	75%	55%	Pass
48	43.08	20.22	32.69	11.84	76%	59%	Pass
49	41.6	20.42	31.45	12.27	76%	60%	Pass
50	42.64	20.14	33.87	13.39	79%	66%	Pass
51	44.12	21.76	36.66	16.04	83%	74%	Pass
52	43.57	22.59	36.21	16.83	83%	75%	Pass
53	45.75	23.36	38.51	17.71	84%	76%	Pass
54	48.14	25.61	41.86	20.96	87%	82%	Pass
55	47.9	26.43	43.2	23.35	90%	88%	Pass
56	50.37	26.57	44.82	22.62	89%	85%	Pass
57	52.1	25.76	46.5	21.7	89%	84%	Pass
58	55.68	24.96	48.98	19.82	88%	79%	Pass
59	56.18	25.17	53.02	22.27	94%	88%	Pass
60	53.28	24.6	50.71	22.11	95%	90%	Pass
61	50.7	25.17	48.1	22.67	95%	90%	Pass
62	47.82	25.36	44.77	22.44	94%	88%	Pass
63	46.31	25.17	44.8	23.7	97%	94%	Pass
64	46	25.93	44.55	24.61	97%	95%	Pass
65	44.94	25.67	43.9	24.69	98%	96%	Pass
66	43.78	25.09	43.06	24.37	98%	97%	Pass
67	41.82	23.93	40.41	23.23	97%	97%	Pass
68	43.91	25.1	41.4	23.33	94%	93%	Pass
69	43.29	24.47	40.21	22.09	93%	90%	Pass
70	43.14	24.32	39.79	21.67	92%	89%	Pass
71	42.47	24.34	38.44	21.01	91%	86%	Pass
72	43.9	25.07	38.66	20.53	88%	82%	Pass
73	43.65	24.82	38.32	20.18	88%	81%	Pass
74	43.38	24.45	38.16	19.94	88%	82%	Pass
75	42.02	23.77	35.81	18.27	85%	77%	Pass
76	44.82	24.51	38.68	19.07	86%	78%	Pass
77	44.86	24.54	39.07	19.45	87%	79%	Pass
78	44.84	24.56	38.81	19.23	87%	78%	Pass
79	44.02	23.87	37.62	18.18	85%	76%	Pass
80	47.66	24.59	41.06	18.66	86%	76%	Pass
81	47.68	24.61	41.11	18.62	86%	76%	Pass
82	50.34	24.62	43.13	17.93	86%	73%	Pass
83	49.82	23.95	42.64	17.21	86%	72%	Pass
84	53.15	24.65	45.83	17.71	86%	72%	Pass



Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
85	56.92	24.66	49.47	17.52	87%	71%	Pass
86	60.36	25.05	51.18	16.7	85%	67%	Pass

## The Concert Building



Figure 128. The Concert Building – Cherry Orchard (Google Maps)





Figure 129. The Concert Building (Google Earth)

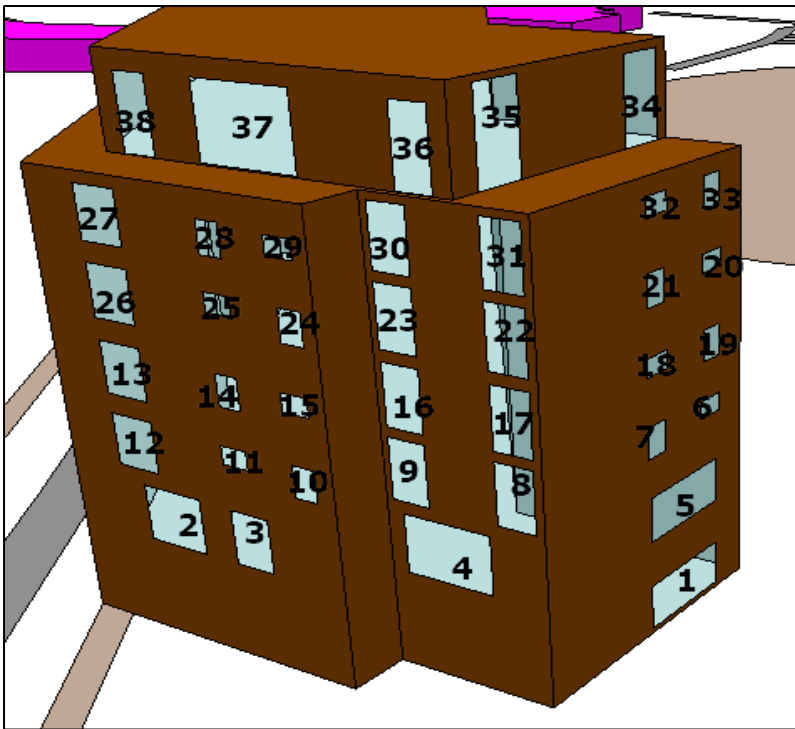


Figure 130. The Concert Building (modelling software)

Table 70. APSH/WPSH results for The Concert Building

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
1	45.47	14	43.81	14	96%	100%	Pass
2	17.48	0	15.38	0	88%	100%	Pass
3	16.78	0	14.69	0	88%	100%	Pass
4	11.89	0	9.79	0	82%	100%	Pass
5	47.51	16.04	46.31	16.04	97%	100%	Pass
6	46.15	15.38	45.45	15.38	98%	100%	Pass
7	47.61	16.84	46.43	16.84	98%	100%	Pass
8	11.92	0	9.8	0	82%	100%	Pass
9	11.89	0	9.79	0	82%	100%	Pass
10	14.69	0	11.89	0	81%	100%	Pass
11	12.59	0	10.49	0	83%	100%	Pass
12	17.48	0	15.61	0	89%	100%	Pass
13	17.48	0	16.78	0	96%	100%	Pass
14	14.69	0	13.98	0	95%	100%	Pass
15	12.59	0	11.89	0	94%	100%	Pass
16	11.89	0	11.04	0	93%	100%	Pass
17	11.96	0	11.14	0	93%	100%	Pass
18	48.95	18.18	48.95	18.18	100%	100%	Pass
19	49.63	18.86	45.45	18.86	92%	100%	Pass
20	50.35	19.58	49.63	19.58	99%	100%	Pass
21	51.05	20.28	51.05	20.28	100%	100%	Pass
22	11.92	0	11.22	0	94%	100%	Pass
23	11.89	0	11.19	0	94%	100%	Pass
24	14.69	0	13.99	0	95%	100%	Pass
25	12.59	0	11.89	0	94%	100%	Pass
26	17.48	0	16.78	0	96%	100%	Pass
27	17.48	0	17.48	0	100%	100%	Pass
28	14.69	0	14.69	0	100%	100%	Pass
29	12.59	0	12.59	0	100%	100%	Pass
30	11.89	0	11.89	0	100%	100%	Pass
31	12.91	0	12.91	0	100%	100%	Pass
32	50.35	19.58	50.35	19.58	100%	100%	Pass
33	51.05	20.28	51.05	20.28	100%	100%	Pass
34	53.15	21.68	53.15	21.68	100%	100%	Pass
35	53.15	21.68	53.15	21.68	100%	100%	Pass
36	17.48	0	17.48	0	100%	100%	Pass
37	18.18	0.7	18.18	0.7	100%	100%	Pass

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
38	17.48	0	17.48	0	100%	100%	Pass

## The Crescent Building



Figure 131. The Crescent Building – Cherry Orchard (Google Maps)





Figure 132. The Crescent Building (Google Earth)

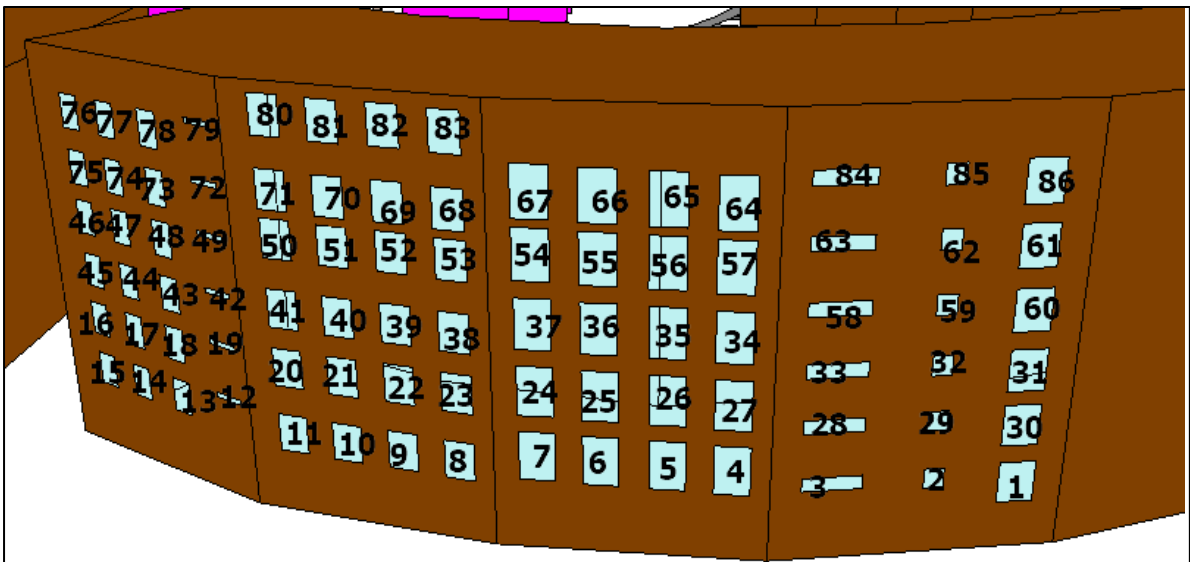


Figure 133. The Crescent Building (modelling software)

Table 71. APSH/WPSH results for The Crescent Building

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
1	27.07	2.51	26.37	2.51	97%	100%	Pass
2	25.15	2.77	24.45	2.77	97%	100%	Pass
3	27.97	3.50	27.27	3.50	97%	100%	Pass
4	23.91	1.54	23.22	1.54	97%	100%	Pass
5	24.44	2.06	23.74	2.06	97%	100%	Pass
6	24.48	2.10	23.78	2.10	97%	100%	Pass

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
7	24.48	2.10	23.78	2.10	97%	100%	Pass
8	20.98	1.40	20.28	1.40	97%	100%	Pass
9	20.98	1.40	20.28	1.40	97%	100%	Pass
10	20.98	1.40	20.56	1.40	98%	100%	Pass
11	21.17	1.59	20.82	1.59	98%	100%	Pass
12	11.89	0.00	11.19	0.00	94%	100%	Pass
13	15.38	0.70	14.68	0.70	95%	100%	Pass
14	15.38	0.70	14.68	0.70	95%	100%	Pass
15	15.38	0.70	14.68	0.70	95%	100%	Pass
16	15.38	0.70	15.11	0.70	98%	100%	Pass
17	15.38	0.70	15.09	0.70	98%	100%	Pass
18	14.59	0.70	15.09	0.70	103%	100%	Pass
19	11.89	0.00	11.89	0.00	100%	100%	Pass
20	21.68	2.10	21.68	2.10	100%	100%	Pass
21	21.68	2.10	21.68	2.10	100%	100%	Pass
22	21.68	2.10	21.47	2.10	99%	100%	Pass
23	21.68	2.10	21.37	2.10	99%	100%	Pass
24	25.78	3.40	25.55	3.40	99%	100%	Pass
25	25.57	3.19	25.26	3.19	99%	100%	Pass
26	25.25	2.87	24.92	2.87	99%	100%	Pass
27	24.89	2.51	24.54	2.51	99%	100%	Pass
28	27.97	3.50	27.77	3.50	99%	100%	Pass
29	25.5	2.80	25.5	2.80	100%	100%	Pass
30	28.61	3.44	28.56	3.44	100%	100%	Pass
31	29.96	4.27	29.96	4.27	100%	100%	Pass
32	27.51	4.43	27.51	4.43	100%	100%	Pass
33	31.03	6.55	31.03	6.55	100%	100%	Pass
34	25.87	3.50	25.87	3.50	100%	100%	Pass
35	25.87	3.50	25.87	3.50	100%	100%	Pass
36	25.87	3.50	25.87	3.50	100%	100%	Pass
37	25.87	3.50	25.87	3.50	100%	100%	Pass
38	21.68	2.10	21.68	2.10	100%	100%	Pass
39	21.68	2.10	21.68	2.10	100%	100%	Pass
40	21.68	2.10	21.68	2.10	100%	100%	Pass
41	21.68	2.10	21.68	2.10	100%	100%	Pass
42	11.89	0.00	11.89	0.00	100%	100%	Pass
43	14.59	0.70	15.38	0.70	105%	100%	Pass
44	15.38	0.70	15.38	0.70	100%	100%	Pass

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
45	15.38	0.70	15.38	0.70	100%	100%	Pass
46	16.22	0.70	15.38	0.70	95%	100%	Pass
47	16.22	0.70	15.38	0.70	95%	100%	Pass
48	14.59	0.70	15.38	0.70	105%	100%	Pass
49	11.89	0.00	11.89	0.00	100%	100%	Pass
50	23.08	3.50	23.08	3.50	100%	100%	Pass
51	23.08	3.50	23.08	3.50	100%	100%	Pass
52	23.08	3.49	23.08	3.49	100%	100%	Pass
53	23	3.42	23	3.42	100%	100%	Pass
54	28.1	5.72	28.1	5.72	100%	100%	Pass
55	27.88	5.50	27.88	5.50	100%	100%	Pass
56	27.57	5.19	27.57	5.19	100%	100%	Pass
57	27.23	4.85	27.23	4.85	100%	100%	Pass
58	32.17	7.69	32.17	7.69	100%	100%	Pass
59	29.37	6.29	29.37	6.29	100%	100%	Pass
60	33.26	7.38	33.26	7.38	100%	100%	Pass
61	34.67	8.80	34.67	8.80	100%	100%	Pass
62	31.56	8.48	31.56	8.48	100%	100%	Pass
63	34.82	10.34	34.82	10.34	100%	100%	Pass
64	28.67	6.29	28.67	6.29	100%	100%	Pass
65	28.67	6.29	28.67	6.29	100%	100%	Pass
66	28.67	6.29	28.67	6.29	100%	100%	Pass
67	28.67	6.29	28.67	6.29	100%	100%	Pass
68	23.08	3.50	23.08	3.50	100%	100%	Pass
69	23.08	3.50	23.08	3.50	100%	100%	Pass
70	23.08	3.50	23.08	3.50	100%	100%	Pass
71	23.08	3.50	23.08	3.50	100%	100%	Pass
72	11.89	0.00	11.89	0.00	100%	100%	Pass
73	15.38	0.70	15.38	0.70	100%	100%	Pass
74	15.38	0.70	15.38	0.70	100%	100%	Pass
75	15.38	0.70	15.38	0.70	100%	100%	Pass
76	16.22	0.70	15.38	0.70	95%	100%	Pass
77	16.22	0.70	15.51	0.70	96%	100%	Pass
78	15.38	0.70	15.66	0.70	102%	100%	Pass
79	11.89	0.00	11.89	0.00	100%	100%	Pass
80	23.08	3.50	23.08	3.50	100%	100%	Pass
81	23.08	3.50	23.08	3.50	100%	100%	Pass
82	23.08	3.50	23.08	3.50	100%	100%	Pass



Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
83	23.08	3.50	23.08	3.50	100%	100%	Pass
84	34.96	10.49	34.96	10.49	100%	100%	Pass
85	32.17	9.09	32.17	9.09	100%	100%	Pass
86	36.36	10.49	36.36	10.49	100%	100%	Pass

## The Academy Building



Figure 134. The Academy Building – Cherry Orchard (Google Maps)



Figure 135. The Academy Building (Google Earth)

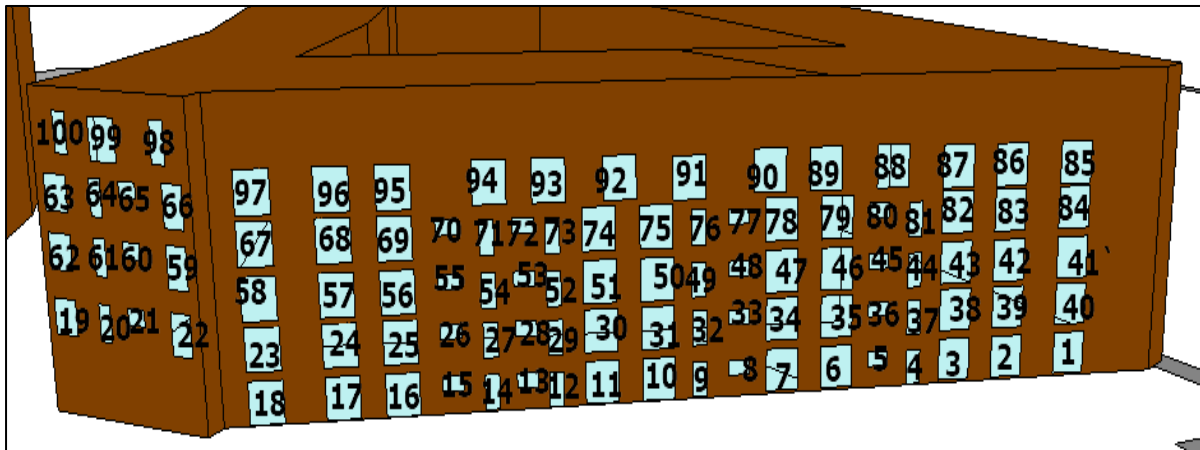


Figure 136. The Academy Building (modelling software)

Table 72. APSH/WPSH results for The Academy Building

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
1	13.99	0.00	13.99	0.00	100%	100%	Pass
2	13.99	0.00	13.99	0.00	100%	100%	Pass
3	13.99	0.00	13.99	0.00	100%	100%	Pass
4	13.79	0.00	13.79	0.00	100%	100%	Pass
5	12.51	0.00	12.51	0.00	100%	100%	Pass
6	13.42	0.00	13.42	0.00	100%	100%	Pass
7	13.29	0.00	13.29	0.00	100%	100%	Pass
8	11.89	0.00	11.89	0.00	100%	100%	Pass
9	12.89	0.00	12.89	0.00	100%	100%	Pass
10	12.67	0.00	12.67	0.00	100%	100%	Pass
11	12.57	0.00	11.87	0.00	94%	100%	Pass

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
12	12.20	0.00	11.50	0.00	94%	100%	Pass
13	10.64	0.00	9.94	0.00	93%	100%	Pass
14	11.89	0.00	11.19	0.00	94%	100%	Pass
15	10.49	0.00	9.79	0.00	93%	100%	Pass
16	11.89	0.00	11.19	0.00	94%	100%	Pass
17	11.89	0.00	11.19	0.00	94%	100%	Pass
18	11.89	0.00	11.19	0.00	94%	100%	Pass
19	3.21	0.00	2.64	0.00	82%	100%	Pass
20	3.81	0.00	3.21	0.00	84%	100%	Pass
21	4.20	0.00	3.67	0.00	87%	100%	Pass
22	5.60	0.00	4.98	0.00	89%	100%	Pass
23	11.89	0.00	11.19	0.00	94%	100%	Pass
24	11.89	0.00	11.19	0.00	94%	100%	Pass
25	11.98	0.00	11.28	0.00	94%	100%	Pass
26	11.19	0.00	10.49	0.00	94%	100%	Pass
27	12.59	0.00	11.89	0.00	94%	100%	Pass
28	11.19	0.00	10.49	0.00	94%	100%	Pass
29	12.76	0.00	12.06	0.00	95%	100%	Pass
30	13.16	0.00	12.46	0.00	95%	100%	Pass
31	13.29	0.00	13.29	0.00	100%	100%	Pass
32	13.45	0.00	13.45	0.00	100%	100%	Pass
33	12.59	0.00	12.59	0.00	100%	100%	Pass
34	13.97	0.00	13.97	0.00	100%	100%	Pass
35	14.10	0.00	14.10	0.00	100%	100%	Pass
36	12.76	0.00	12.76	0.00	100%	100%	Pass
37	14.14	0.00	14.14	0.00	100%	100%	Pass
38	14.36	0.00	14.36	0.00	100%	100%	Pass
39	14.47	0.00	14.47	0.00	100%	100%	Pass
40	14.61	0.00	14.61	0.00	100%	100%	Pass
41	14.69	0.00	14.69	0.00	100%	100%	Pass
42	14.69	0.00	14.69	0.00	100%	100%	Pass
43	14.69	0.00	14.69	0.00	100%	100%	Pass
44	14.68	0.00	14.68	0.00	100%	100%	Pass
45	13.29	0.00	13.29	0.00	100%	100%	Pass
46	14.69	0.00	14.69	0.00	100%	100%	Pass
47	14.69	0.00	14.69	0.00	100%	100%	Pass
48	13.29	0.00	13.29	0.00	100%	100%	Pass
49	14.57	0.00	14.57	0.00	100%	100%	Pass



Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
50	14.49	0.00	14.49	0.00	100%	100%	Pass
51	14.23	0.00	13.99	0.00	98%	100%	Pass
52	13.71	0.00	13.40	0.00	98%	100%	Pass
53	12.22	0.00	12.22	0.00	100%	100%	Pass
54	13.32	0.00	13.03	0.00	98%	100%	Pass
55	11.89	0.00	11.89	0.00	100%	100%	Pass
56	12.69	0.00	12.44	0.00	98%	100%	Pass
57	12.38	0.00	12.17	0.00	98%	100%	Pass
58	11.89	0.00	11.71	0.00	98%	100%	Pass
59	8.59	0.00	8.59	0.00	100%	100%	Pass
60	6.93	0.00	6.93	0.00	100%	100%	Pass
61	5.41	0.00	5.41	0.00	100%	100%	Pass
62	4.98	0.00	4.98	0.00	100%	100%	Pass
63	7.87	0.00	7.87	0.00	100%	100%	Pass
64	8.40	0.00	8.04	0.00	96%	100%	Pass
65	8.77	0.00	8.77	0.00	100%	100%	Pass
66	10.92	0.00	10.92	0.00	100%	100%	Pass
67	12.20	0.00	12.20	0.00	100%	100%	Pass
68	13.91	0.00	13.91	0.00	100%	100%	Pass
69	14.39	0.00	14.39	0.00	100%	100%	Pass
70	13.29	0.00	13.29	0.00	100%	100%	Pass
71	14.69	0.00	14.69	0.00	100%	100%	Pass
72	13.29	0.00	13.29	0.00	100%	100%	Pass
73	14.68	0.00	14.68	0.00	100%	100%	Pass
74	14.69	0.00	14.69	0.00	100%	100%	Pass
75	14.69	0.00	14.69	0.00	100%	100%	Pass
76	14.69	0.00	14.69	0.00	100%	100%	Pass
77	13.29	0.00	13.29	0.00	100%	100%	Pass
78	14.84	0.00	14.84	0.00	100%	100%	Pass
79	14.91	0.00	14.91	0.00	100%	100%	Pass
80	13.69	0.00	13.69	0.00	100%	100%	Pass
81	14.91	0.00	14.91	0.00	100%	100%	Pass
82	15.40	0.00	15.40	0.00	100%	100%	Pass
83	15.62	0.00	15.62	0.00	100%	100%	Pass
84	15.90	0.00	15.90	0.00	100%	100%	Pass
85	16.65	0.00	16.65	0.00	100%	100%	Pass
86	16.57	0.00	16.57	0.00	100%	100%	Pass
87	16.52	0.00	16.52	0.00	100%	100%	Pass

Window Reference	Existing Situation		Proposed Scheme		Proposed APSH and WPSH against Existing Situation		Compliance Achieved?
	APSH	WPSH	APSH	WPSH	APSH	WPSH	
88	16.49	0.00	16.49	0.00	100%	100%	Pass
89	16.41	0.00	16.41	0.00	100%	100%	Pass
90	16.23	0.00	16.23	0.00	100%	100%	Pass
91	15.77	0.00	15.77	0.00	100%	100%	Pass
92	15.58	0.00	15.58	0.00	100%	100%	Pass
93	15.28	0.00	15.28	0.00	100%	100%	Pass
94	15.21	0.00	15.21	0.00	100%	100%	Pass
95	15.05	0.00	15.05	0.00	100%	100%	Pass
96	14.28	0.00	14.28	0.00	100%	100%	Pass
97	12.38	0.00	12.38	0.00	100%	100%	Pass
98	13.28	0.00	13.28	0.00	100%	100%	Pass
99	11.80	0.00	11.80	0.00	100%	100%	Pass
100	10.77	0.00	10.77	0.00	100%	100%	Pass

## Appendix D: Sunlight Exposure

### Building 01

#### East Elevation



Figure 137. Building 01 (modelling software)

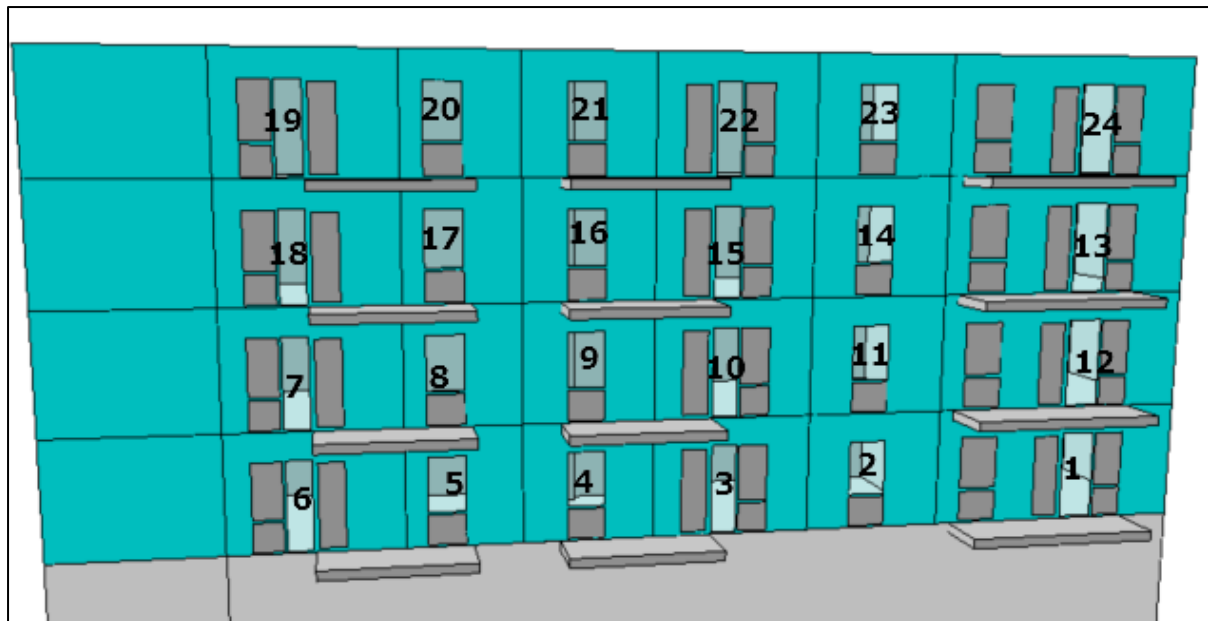


Figure 138. East elevation of Building 01 (modelling software)



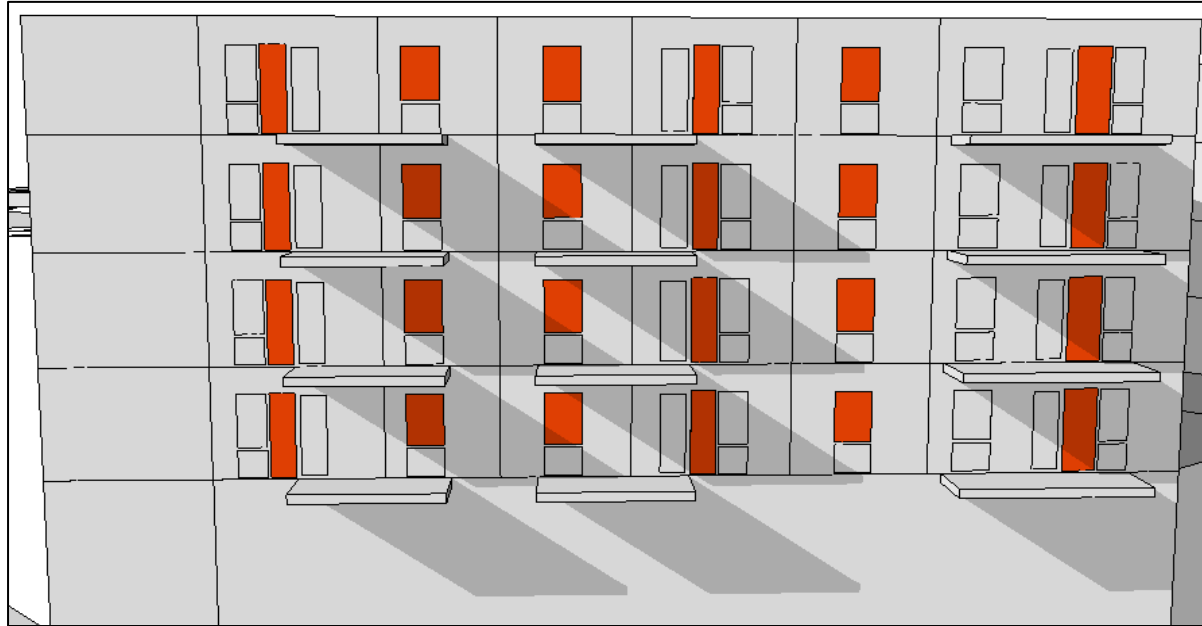


Figure 139. Windows achieving 1.5 hours of sunlight - East elevation of Building 01 (modelling software)

Table 73. Sunlight Exposure and APSH/WPSH results for East elevation of Building 01

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	27.39	13.07	Pass	Pass	Pass
2	39.23	14.73	Pass	Pass	Pass
3	28.06	12.64	Pass	Pass	Pass
4	36.97	15.9	Pass	Pass	Pass
5	37.67	15.34	Pass	Pass	Pass
6	44.16	16.78	Pass	Pass	Pass
7	45.45	16.78	Pass	Pass	Pass
8	40.73	15.81	Pass	Pass	Pass
9	40.96	16.05	Pass	Pass	Pass
10	39.61	15.67	Pass	Pass	Pass
11	43.64	15.55	Pass	Pass	Pass
12	29.71	12.91	Pass	Pass	Pass
13	30.27	13.27	Pass	Pass	Pass
14	43.56	14.89	Pass	Pass	Pass
15	30.46	12.79	Pass	Pass	Pass
16	39.63	15.94	Pass	Pass	Pass
17	33.23	14.79	Pass	Pass	Pass
18	45.45	16.78	Pass	Pass	Pass
19	45.45	16.78	Pass	Pass	Pass
20	45.46	16.78	Pass	Pass	Pass
21	45.46	16.78	Pass	Pass	Pass
22	45.45	16.78	Pass	Pass	Pass
23	45.45	16.78	Pass	Pass	Pass
24	45.46	16.78	Pass	Pass	Pass

South Elevation



Figure 140. Building 01 (modelling software)

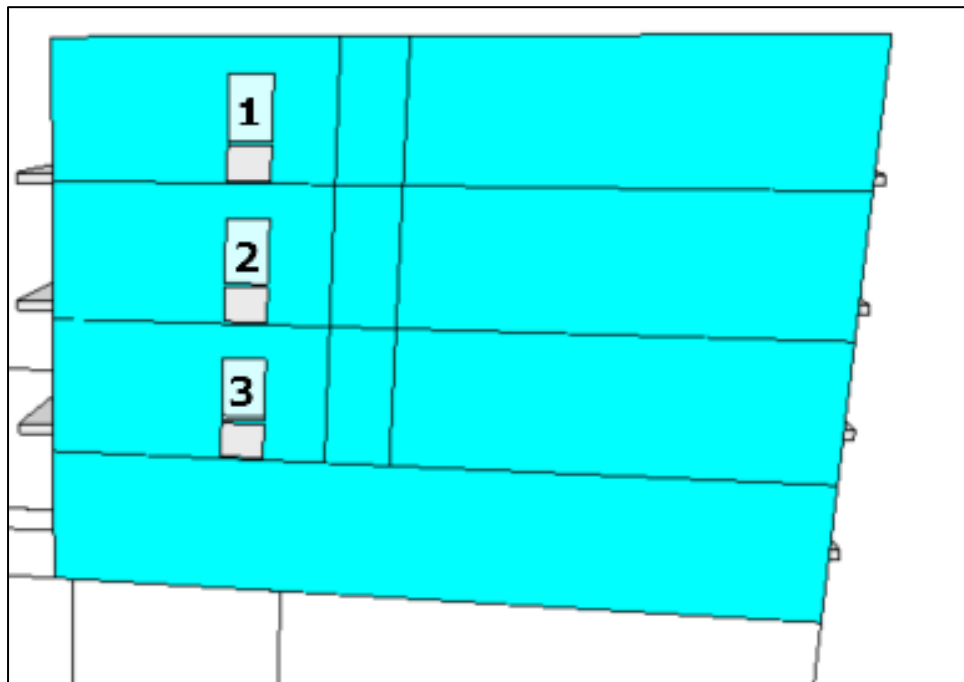


Figure 141. South elevation of Building 01 (modelling software)

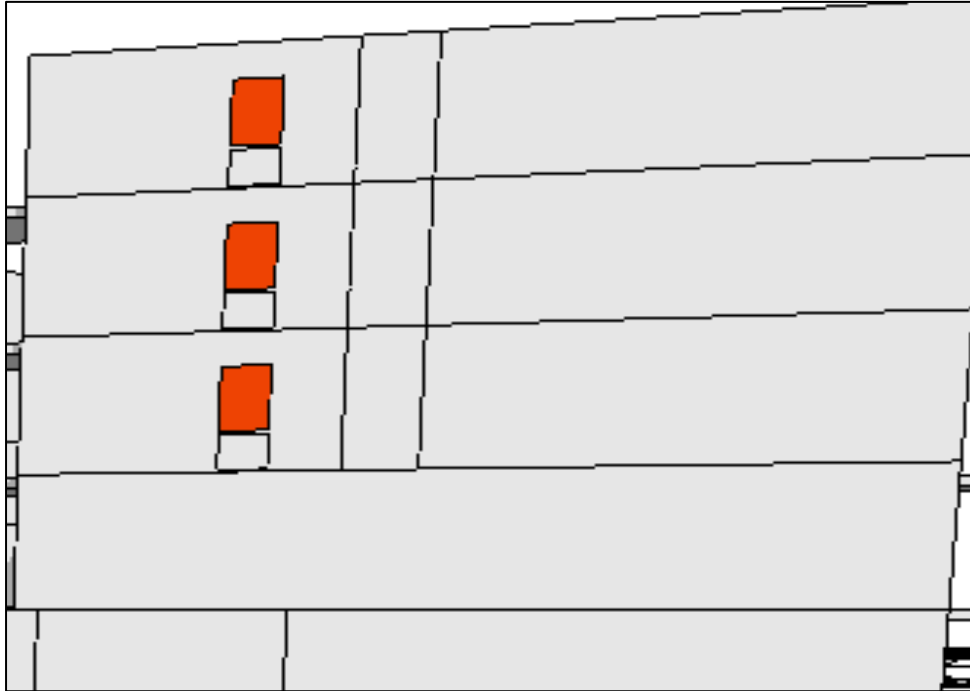


Figure 142. Windows achieving 1.5 hours of sunlight - South elevation of Building 01 (modelling software)

Table 74. Sunlight Exposure and APSH/WPSH results for South elevation of Building 01

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	81.12	37.76	Pass	Pass	Pass
2	81.12	37.76	Pass	Pass	Pass
3	81.12	37.76	Pass	Pass	Pass

West Elevation



Figure 143. Building 01 (modelling software)

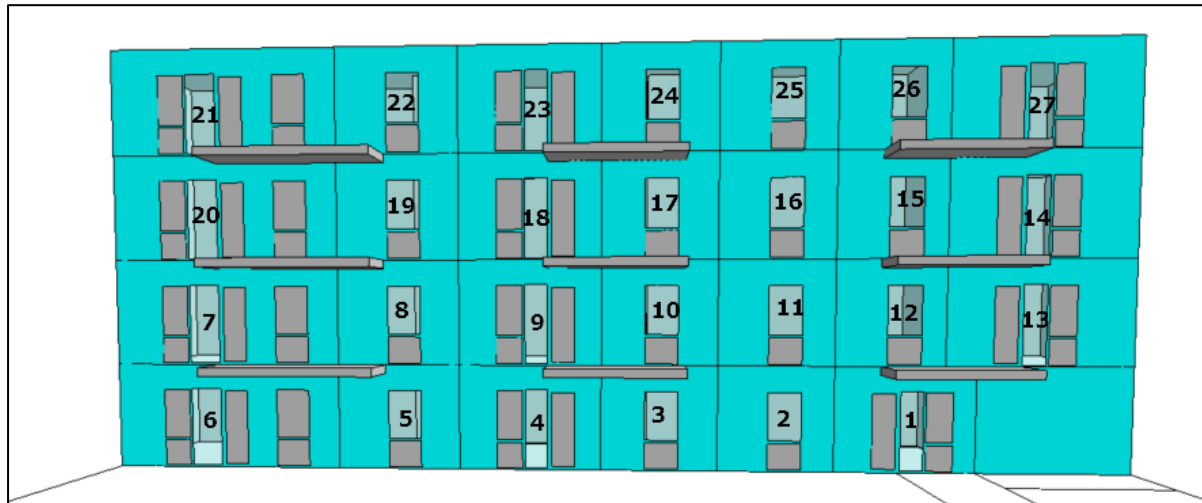


Figure 144. West elevation of Building 01 (modelling software)

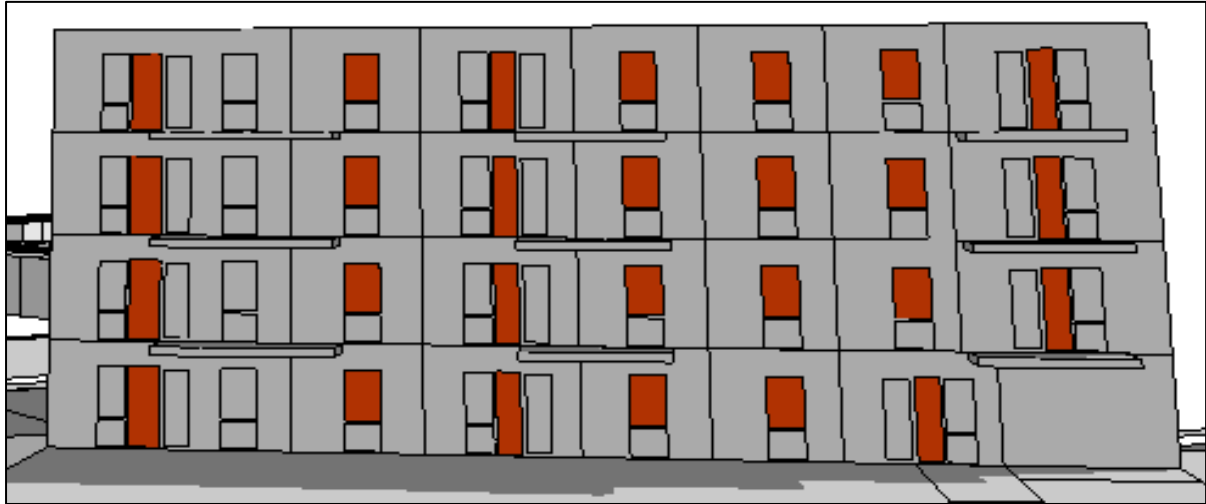


Figure 145. Windows achieving 1.5 hours of sunlight - West elevation of Building 01 (modelling software)

Table 75. Sunlight Exposure and APSH/WPSH results for West elevation of Building 01

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	35.94	18.38	Pass	Pass	Pass
2	43.83	16.8	Pass	Pass	Pass
3	42.00	19.95	Pass	Pass	Pass
4	35.16	16.46	Pass	Pass	Pass
5	46.63	18.54	Pass	Pass	Pass
6	34.77	15.4	Pass	Pass	Pass
7	43.71	19.36	Pass	Pass	Pass
8	47.80	18.82	Pass	Pass	Pass
9	36.10	16.69	Pass	Pass	Pass
10	42.85	20.74	Pass	Pass	Pass
11	47.44	16.89	Pass	Pass	Pass
12	32.04	16.25	Pass	Pass	Pass
13	52.14	21.58	Pass	Pass	Pass
14	52.94	21.67	Pass	Pass	Pass
15	44.97	19.58	Pass	Pass	Pass
16	51.70	20.69	Pass	Pass	Pass
17	44.62	21.5	Pass	Pass	Pass
18	36.94	16.97	Pass	Pass	Pass
19	49.84	19.17	Pass	Pass	Pass
20	37.07	15.98	Pass	Pass	Pass
21	53.07	21.68	Pass	Pass	Pass
22	52.93	21.68	Pass	Pass	Pass
23	52.53	21.68	Pass	Pass	Pass
24	52.93	21.68	Pass	Pass	Pass
25	52.18	21.68	Pass	Pass	Pass
26	53.07	21.68	Pass	Pass	Pass
27	53.08	21.61	Pass	Pass	Pass

North Elevation

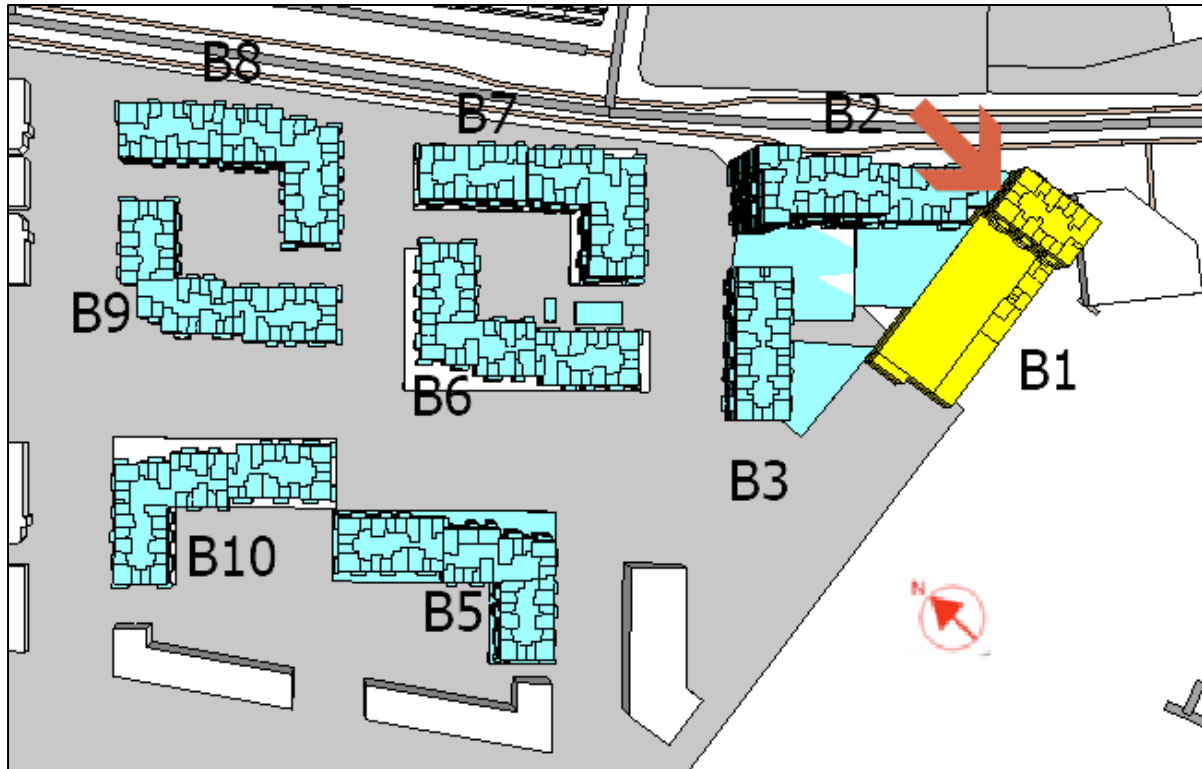


Figure 146. Building 01 (modelling software)

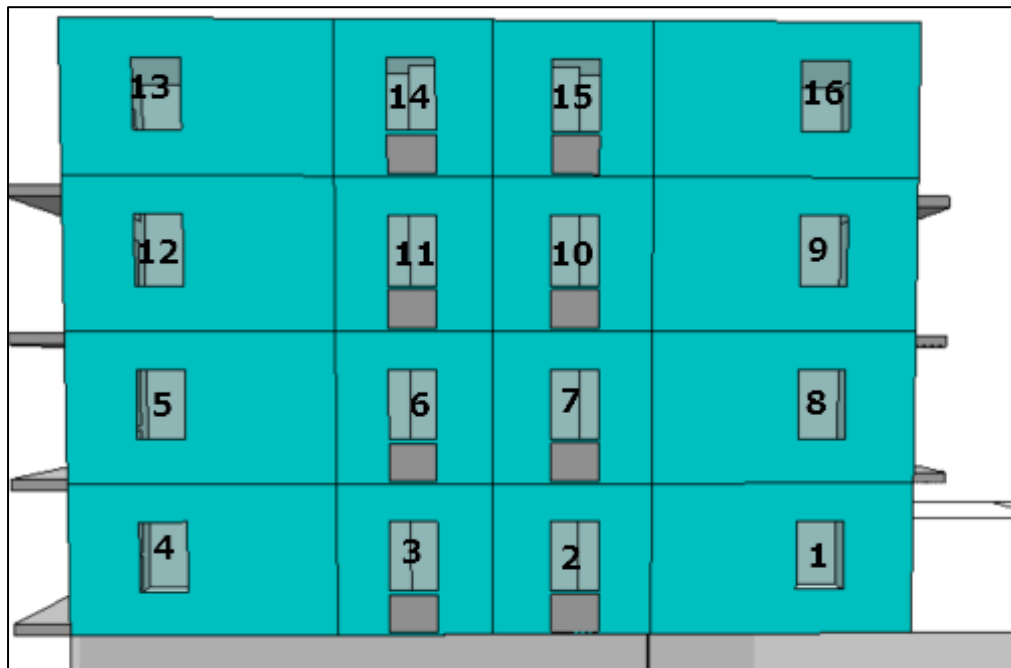


Figure 147. North elevation of Building 01 (modelling software)



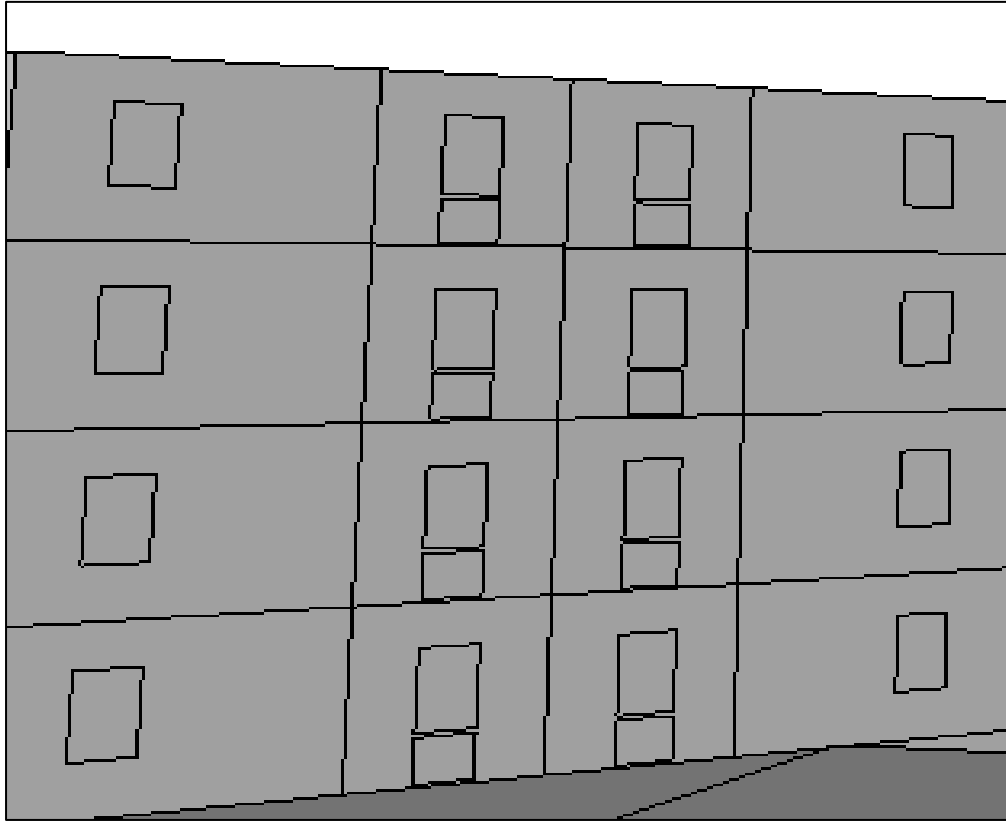


Figure 148. Windows achieving 1.5 hours of sunlight - North elevation of Building 01 (modelling software)

Table 76. Sunlight Exposure and APSH/WPSH results for North elevation of Building 01

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	10.37	0.00	Fail	Fail	Fail
2	9.03	0.00	Fail	Fail	Fail
3	7.69	0.00	Fail	Fail	Fail
4	7.09	0.00	Fail	Fail	Fail
5	11.22	0.00	Fail	Fail	Fail
6	10.23	0.00	Fail	Fail	Fail
7	11.39	0.00	Fail	Fail	Fail
8	12.72	0.00	Fail	Fail	Fail
9	13.06	0.00	Fail	Fail	Fail
10	11.91	0.00	Fail	Fail	Fail
11	11.92	0.00	Fail	Fail	Fail
12	12.22	0.00	Fail	Fail	Fail
13	14.75	0.00	Fail	Fail	Fail
14	14.83	0.00	Fail	Fail	Fail
15	14.90	0.00	Fail	Fail	Fail
16	15.37	0.00	Fail	Fail	Fail

## Building 2A

### Northeast Elevation



Figure 149. Building 2A (modelling software)



Figure 150. Northeast elevation of Building 2A (modelling software)

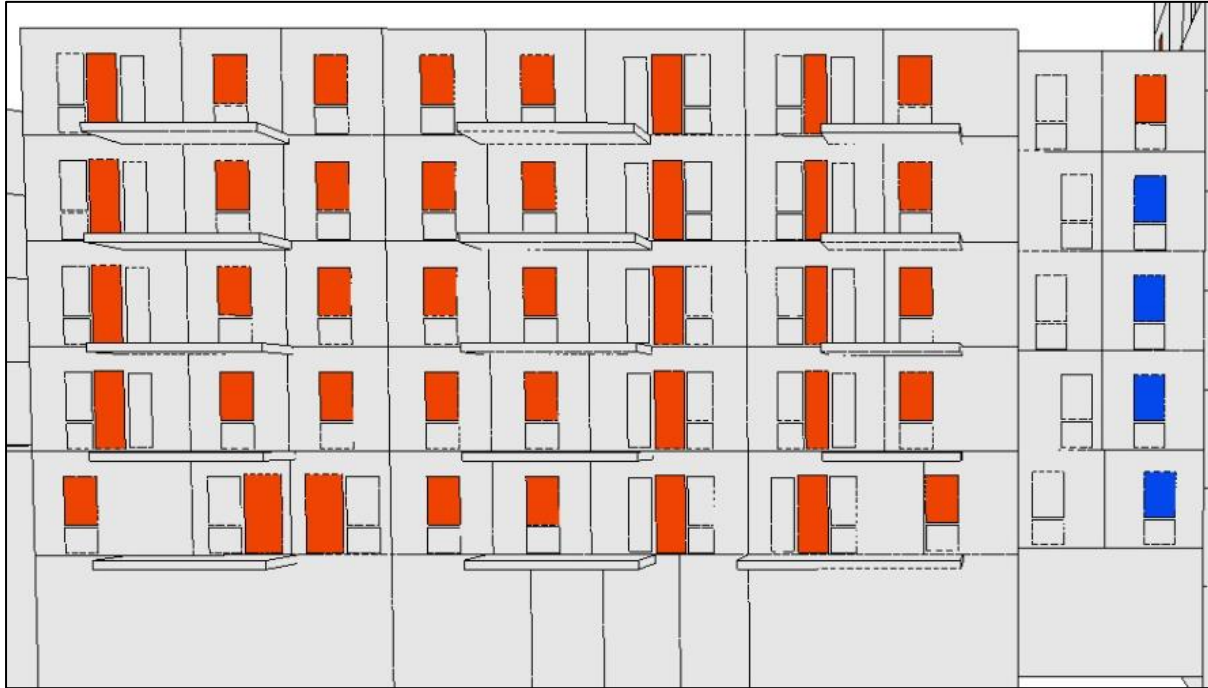


Figure 151. Windows achieving 1.5 hours of sunlight - Northeast elevation of Building 2A (modelling software)

Table 77. Sunlight Exposure and APSH/WPSH results for Northeast elevation of Building 2A

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	15.74	0.98	Fail	Fail	Fail
2	2.69	0.00	Fail	Fail	Fail
3	14.23	3.34	Fail	Fail	Pass
4	21.37	3.50	Fail	Fail	Pass
5	11.36	3.87	Fail	Fail	Pass
6	14.6	4.39	Fail	Fail	Pass
7	18.1	3.49	Fail	Fail	Pass
8	12.66	3.83	Fail	Fail	Pass
9	13.71	4.3	Fail	Fail	Pass
10	24.48	4.9	Fail	Fail	Pass
11	25.38	4.9	Pass	Fail	Pass
12	13.86	4.36	Fail	Fail	Pass
13	12.67	3.21	Fail	Fail	Pass
14	18.8	3.49	Fail	Fail	Pass
15	15.58	4.39	Fail	Fail	Pass
16	13.17	3.87	Fail	Fail	Pass
17	18	3.54	Fail	Fail	Pass
18	12.23	3.97	Fail	Fail	Pass
19	3.82	0	Fail	Fail	Fail
20	10.7	0.11	Fail	Fail	Fail
21	12.37	0.43	Fail	Fail	Fail
22	1.68	0	Fail	Fail	Fail

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
23	13.68	4.26	Fail	Fail	Pass
24	20.65	3.72	Fail	Fail	Pass
25	14.31	4.05	Fail	Fail	Pass
26	17.74	4.67	Fail	Fail	Pass
27	21.62	3.77	Fail	Fail	Pass
28	14.06	3.49	Fail	Fail	Pass
29	15.15	4.63	Fail	Fail	Pass
30	26.71	5.08	Pass	Pass	Pass
31	27.27	5.59	Pass	Pass	Pass
32	16.28	5.05	Fail	Pass	Pass
33	17.3	3.91	Fail	Fail	Pass
34	25.8	4.19	Pass	Fail	Pass
35	19.77	5.09	Fail	Pass	Pass
36	16.48	4.57	Fail	Fail	Pass
37	25.5	4.3	Pass	Fail	Pass
38	16.56	4.77	Fail	Fail	Pass
39	7.26	0	Fail	Fail	Fail
40	16.09	0.82	Fail	Fail	Fail
41	22.61	1.39	Fail	Fail	Pass
42	4.46	0	Fail	Fail	Fail
43	27.27	5.59	Pass	Pass	Pass
44	27.27	5.59	Pass	Pass	Pass
45	27.27	5.59	Pass	Pass	Pass
46	27.27	5.59	Pass	Pass	Pass
47	27.27	5.59	Pass	Pass	Pass
48	27.27	5.59	Pass	Pass	Pass
49	27.27	5.59	Pass	Pass	Pass
50	27.27	5.59	Pass	Pass	Pass

**Southeast Elevation**



Figure 152. Building 2A (modelling software)

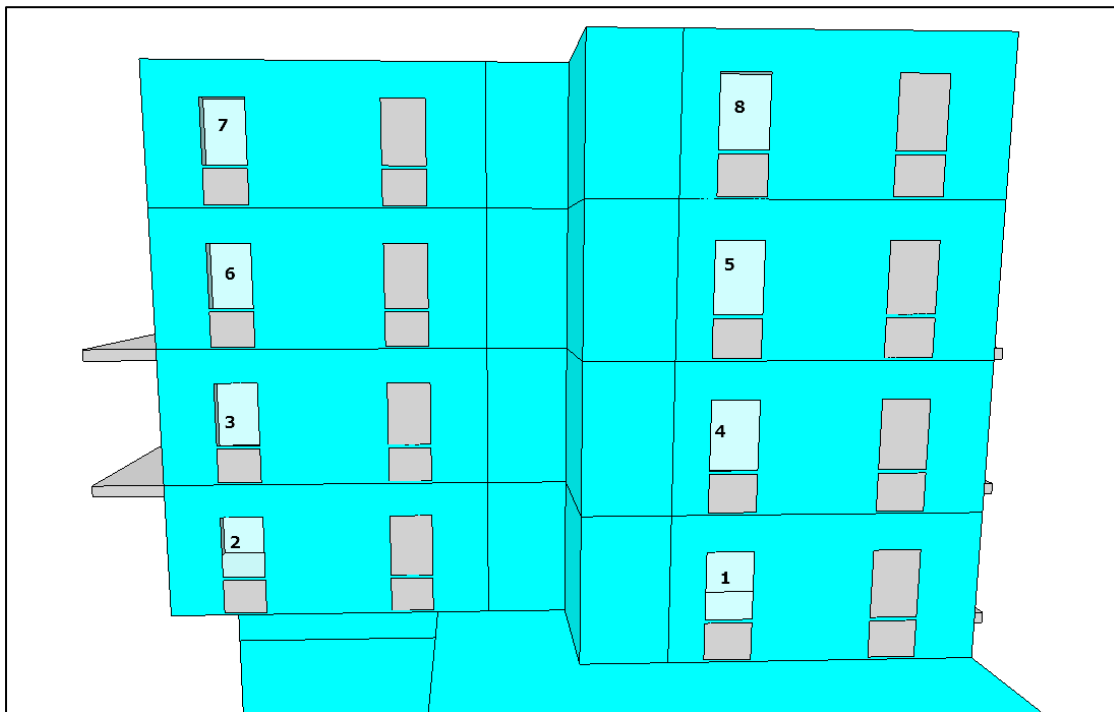


Figure 153. Southeast elevation of Building 2A (modelling software)

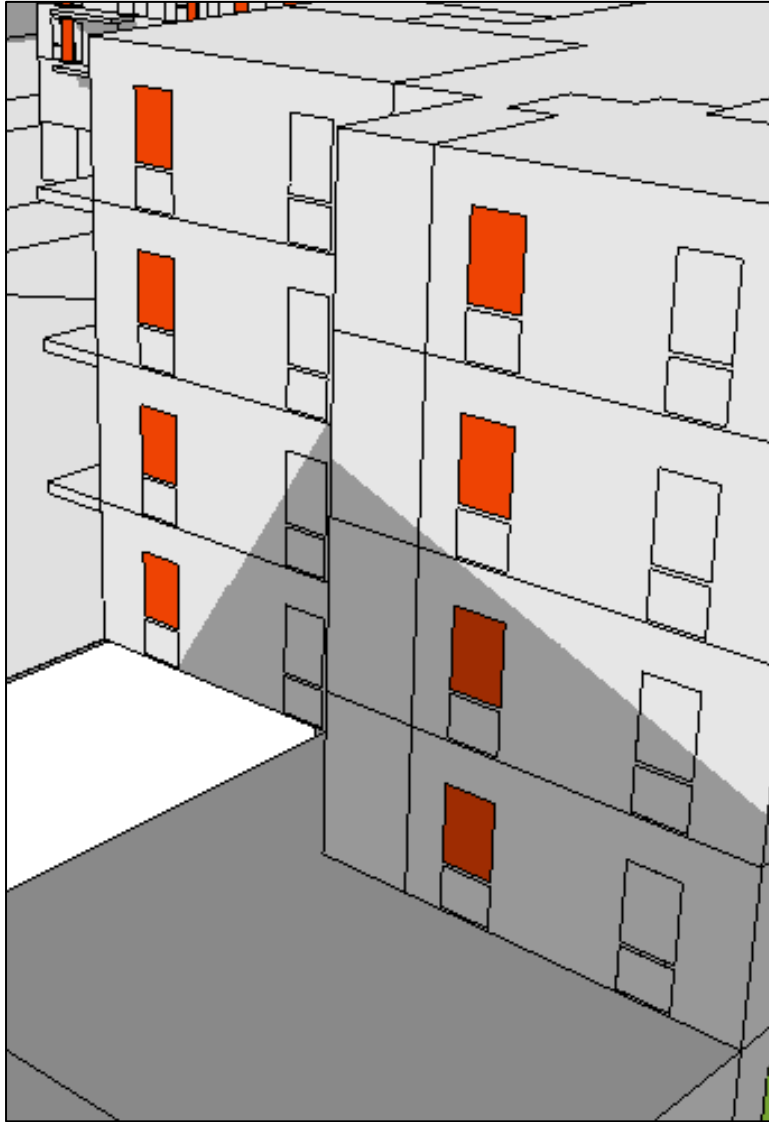


Figure 154. Windows achieving 1.5 hours of sunlight - Southeast elevation of Building 2A (modelling software)

Table 78. Sunlight Exposure and APSH/WPSH results for Southeast elevation of Building 2A

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	40.62	10.22	Pass	Pass	Pass
2	46.1	19.54	Pass	Pass	Pass
3	52.31	20.17	Pass	Pass	Pass
4	47.21	10.61	Pass	Pass	Pass
5	54.59	15.43	Pass	Pass	Pass
6	57.33	22.39	Pass	Pass	Pass
7	65.24	28.13	Pass	Pass	Pass
8	68.45	29.28	Pass	Pass	Pass



Southwest Elevation



Figure 155. Building 2A (modelling software)

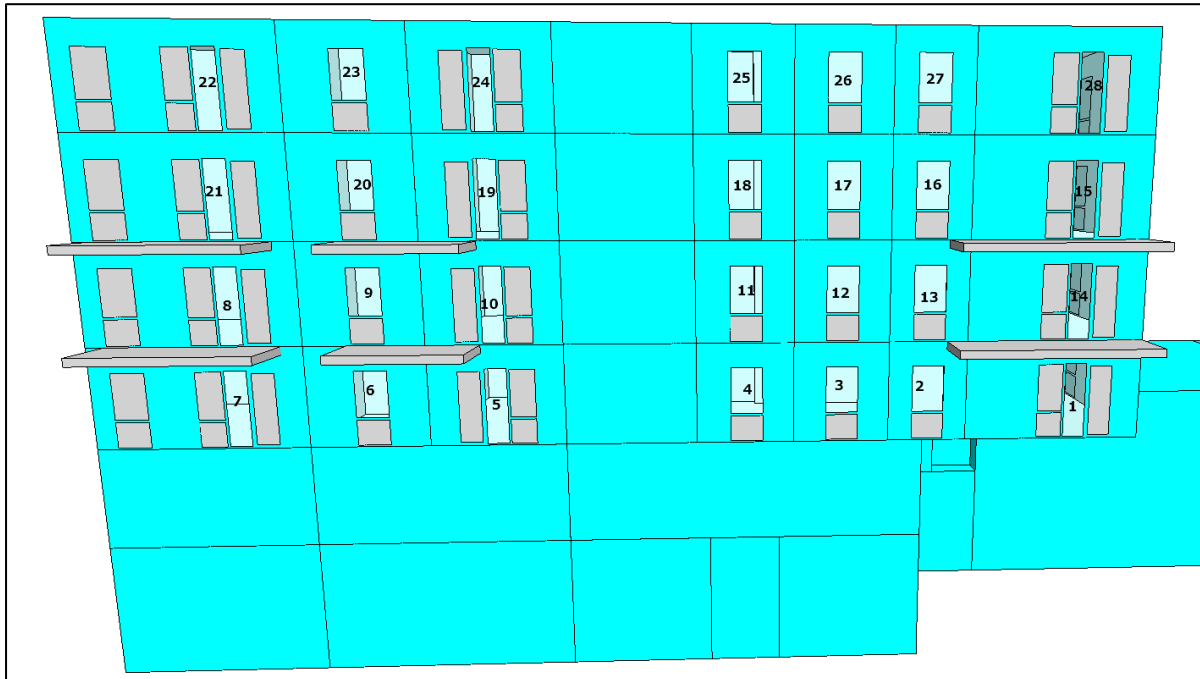


Figure 156. Southwest elevation of Building 2A (modelling software)

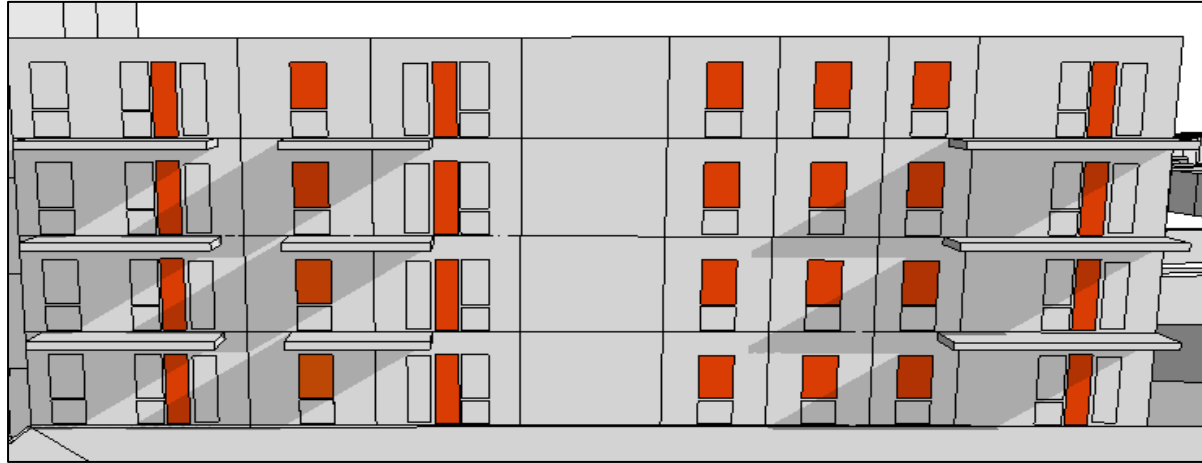


Figure 157. Windows achieving 1.5 hours of sunlight - Southwest elevation of Building 2A (modelling software)

Table 79. Sunlight Exposure and APSH/WPSH results for Southwest elevation of Building 2A

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	42.72	24.50	Pass	Pass	Pass
2	47.32	22.21	Pass	Pass	Pass
3	58.43	26.09	Pass	Pass	Pass
4	62.13	27.27	Pass	Pass	Pass
5	60.28	27.36	Pass	Pass	Pass
6	37.92	22.59	Pass	Pass	Pass
7	41.85	24.46	Pass	Pass	Pass
8	43.72	24.74	Pass	Pass	Pass
9	40.04	22.88	Pass	Pass	Pass
10	63.81	28.97	Pass	Pass	Pass
11	66.51	28.75	Pass	Pass	Pass
12	61.74	26.54	Pass	Pass	Pass
13	49.26	22.21	Pass	Pass	Pass
14	44.38	25.12	Pass	Pass	Pass
15	46.58	26.64	Pass	Pass	Pass
16	51.42	22.49	Pass	Pass	Pass
17	66.58	27.33	Pass	Pass	Pass
18	69.35	30.02	Pass	Pass	Pass
19	67.29	31.46	Pass	Pass	Pass
20	43.00	24.87	Pass	Pass	Pass
21	49.41	26.92	Pass	Pass	Pass
22	70.98	31.47	Pass	Pass	Pass
23	71.33	31.47	Pass	Pass	Pass
24	71.33	31.47	Pass	Pass	Pass
25	71.23	31.47	Pass	Pass	Pass
26	71.21	31.47	Pass	Pass	Pass
27	71.31	31.47	Pass	Pass	Pass
28	71.25	31.43	Pass	Pass	Pass

## 4.9. Building 2B

### Northeast Elevation



Figure 158. Building 2B (modelling software)

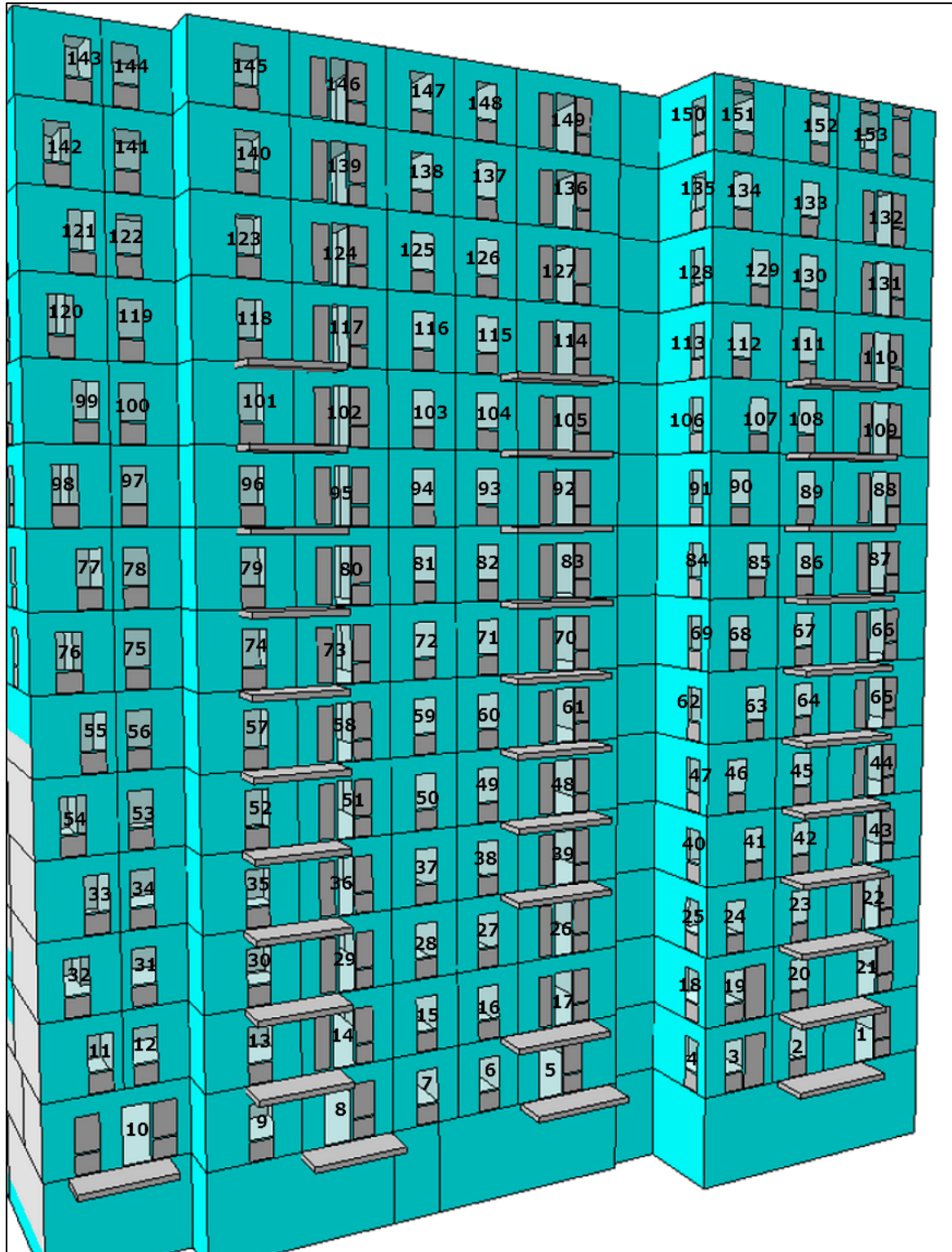


Figure 159. Northeast elevation of Building 2B (modelling software)



Figure 160. Windows achieving 1.5 hours of sunlight - Northeast elevation of Building 2B (modelling software)

Table 80. Sunlight Exposure and APSH/WPSH results for Northeast elevation of Building 2B

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	9.62	3.28	Fail	Fail	Pass
2	16.54	4.19	Fail	Fail	Pass
3	20.56	4.2	Fail	Fail	Pass
4	22.97	6.21	Fail	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
5	11.19	3.76	Fail	Fail	Pass
6	16.67	3.65	Fail	Fail	Pass
7	14.72	2.77	Fail	Fail	Pass
8	10.01	3.25	Fail	Fail	Pass
9	18.99	3.95	Fail	Fail	Pass
10	14.02	2.29	Fail	Fail	Pass
11	15.75	2.06	Fail	Fail	Pass
12	17.13	2.6	Fail	Fail	Pass
13	21.25	3.95	Fail	Fail	Pass
14	11.6	3.19	Fail	Fail	Pass
15	16.83	2.78	Fail	Fail	Pass
16	18.78	3.65	Fail	Fail	Pass
17	19.07	3.97	Fail	Fail	Pass
18	24.88	6.21	Fail	Pass	Pass
19	22.39	4.2	Fail	Fail	Pass
20	18.67	4.19	Fail	Fail	Pass
21	11.11	3.27	Fail	Fail	Pass
22	11.97	3.23	Fail	Fail	Pass
23	19.79	4.19	Fail	Fail	Pass
24	23.81	4.2	Fail	Fail	Pass
25	26.22	6.42	Pass	Pass	Pass
26	13.19	3.74	Fail	Fail	Pass
27	19.36	3.65	Fail	Fail	Pass
28	17.41	2.77	Fail	Fail	Pass
29	12.03	3.14	Fail	Fail	Pass
30	21.4	3.95	Fail	Fail	Pass
31	19.24	2.57	Fail	Fail	Pass
32	15.8	1.94	Fail	Fail	Pass
33	22.93	2.76	Fail	Fail	Pass
34	24.2	3.49	Fail	Fail	Pass
35	25.54	5.59	Pass	Pass	Pass
36	15.51	4.53	Fail	Fail	Pass
37	20.6	3.47	Fail	Fail	Pass
38	22.56	4.35	Fail	Fail	Pass
39	15.99	4.43	Fail	Fail	Pass
40	28.49	7.14	Pass	Pass	Pass
41	26.22	4.9	Pass	Fail	Pass
42	21.53	4.89	Fail	Fail	Pass
43	13.44	3.92	Fail	Fail	Pass
44	14.63	4.63	Fail	Fail	Pass
45	22.58	5.59	Fail	Pass	Pass
46	27.27	5.59	Pass	Pass	Pass



Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
47	29.74	7.84	Pass	Pass	Pass
48	18	5.13	Fail	Pass	Pass
49	24.14	5.05	Fail	Pass	Pass
50	22.19	4.17	Fail	Fail	Pass
51	17.1	4.79	Fail	Fail	Pass
52	26.42	5.59	Pass	Pass	Pass
53	25.52	3.84	Pass	Fail	Pass
54	24.53	2.88	Fail	Fail	Pass
55	27.27	5.59	Pass	Pass	Pass
56	27.27	5.59	Pass	Pass	Pass
57	26.42	5.59	Pass	Pass	Pass
58	17.23	4.93	Fail	Fail	Pass
59	22.19	4.17	Fail	Fail	Pass
60	24.14	5.05	Fail	Pass	Pass
61	18	5.13	Fail	Pass	Pass
62	29.84	7.84	Pass	Pass	Pass
63	27.27	5.59	Pass	Pass	Pass
64	22.58	5.59	Fail	Pass	Pass
65	14.63	4.63	Fail	Fail	Pass
66	14.63	4.63	Fail	Fail	Pass
67	22.58	5.59	Fail	Pass	Pass
68	27.27	5.59	Pass	Pass	Pass
69	29.96	7.84	Pass	Pass	Pass
70	18	5.13	Fail	Pass	Pass
71	24.14	5.05	Fail	Pass	Pass
72	22.19	4.17	Fail	Fail	Pass
73	17.23	4.93	Fail	Fail	Pass
74	26.42	5.59	Pass	Pass	Pass
75	27.27	5.59	Pass	Pass	Pass
76	27.27	5.59	Pass	Pass	Pass
77	27.27	5.59	Pass	Pass	Pass
78	27.27	5.59	Pass	Pass	Pass
79	26.41	5.59	Pass	Pass	Pass
80	17.23	4.93	Fail	Fail	Pass
81	22.19	4.17	Fail	Fail	Pass
82	24.15	5.05	Fail	Pass	Pass
83	18	5.13	Fail	Pass	Pass
84	29.96	7.84	Pass	Pass	Pass
85	27.27	5.59	Pass	Pass	Pass
86	22.68	5.59	Fail	Pass	Pass
87	14.72	4.63	Fail	Fail	Pass
88	16.42	4.63	Fail	Fail	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
89	23.78	5.59	Fail	Pass	Pass
90	27.27	5.59	Pass	Pass	Pass
91	29.96	7.84	Pass	Pass	Pass
92	18	5.13	Fail	Pass	Pass
93	24.15	5.05	Fail	Pass	Pass
94	22.19	4.17	Fail	Fail	Pass
95	17.23	4.93	Fail	Fail	Pass
96	26.42	5.59	Pass	Pass	Pass
97	27.27	5.59	Pass	Pass	Pass
98	27.27	5.59	Pass	Pass	Pass
99	27.27	5.59	Pass	Pass	Pass
100	27.27	5.59	Pass	Pass	Pass
101	26.39	5.59	Pass	Pass	Pass
102	17.22	4.93	Fail	Fail	Pass
103	22.19	4.17	Fail	Fail	Pass
104	24.15	5.05	Fail	Pass	Pass
105	18	5.14	Fail	Pass	Pass
106	29.96	7.84	Pass	Pass	Pass
107	27.27	5.59	Pass	Pass	Pass
108	23.76	5.59	Fail	Pass	Pass
109	16.72	4.63	Fail	Fail	Pass
110	16.72	4.63	Fail	Fail	Pass
111	23.71	5.59	Fail	Pass	Pass
112	27.27	5.59	Pass	Pass	Pass
113	30.77	7.84	Pass	Pass	Pass
114	17.99	5.13	Fail	Pass	Pass
115	24.3	5.05	Fail	Pass	Pass
116	22.19	4.17	Fail	Fail	Pass
117	17.22	4.92	Fail	Fail	Pass
118	26.39	5.59	Pass	Pass	Pass
119	27.27	5.59	Pass	Pass	Pass
120	27.27	5.59	Pass	Pass	Pass
121	27.27	5.59	Pass	Pass	Pass
122	27.27	5.59	Pass	Pass	Pass
123	26.41	5.59	Pass	Pass	Pass
124	17.23	4.93	Fail	Fail	Pass
125	23.03	4.17	Fail	Fail	Pass
126	26.68	5.05	Pass	Pass	Pass
127	18.15	5.13	Fail	Pass	Pass
128	32.96	7.9	Pass	Pass	Pass
129	27.27	5.59	Pass	Pass	Pass
130	23.74	5.59	Fail	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
131	16.72	4.63	Fail	Fail	Pass
132	16.72	4.63	Fail	Fail	Pass
133	23.79	5.59	Fail	Pass	Pass
134	27.27	5.59	Pass	Pass	Pass
135	40.81	9.1	Pass	Pass	Pass
136	18.16	5.15	Fail	Pass	Pass
137	26.73	5.05	Pass	Pass	Pass
138	25.69	4.18	Pass	Fail	Pass
139	17.22	4.92	Fail	Fail	Pass
140	26.37	5.59	Pass	Pass	Pass
141	27.27	5.59	Pass	Pass	Pass
142	27.27	5.59	Pass	Pass	Pass
143	27.27	5.59	Pass	Pass	Pass
144	27.27	5.59	Pass	Pass	Pass
145	27.27	5.59	Pass	Pass	Pass
146	27.27	5.59	Pass	Pass	Pass
147	27.27	5.59	Pass	Pass	Pass
148	27.27	5.59	Pass	Pass	Pass
149	27.27	5.59	Pass	Pass	Pass
150	58.34	19.22	Pass	Pass	Pass
151	27.27	5.59	Pass	Pass	Pass
152	27.27	5.59	Pass	Pass	Pass
153	27.27	5.59	Pass	Pass	Pass

**Southeast Elevation**

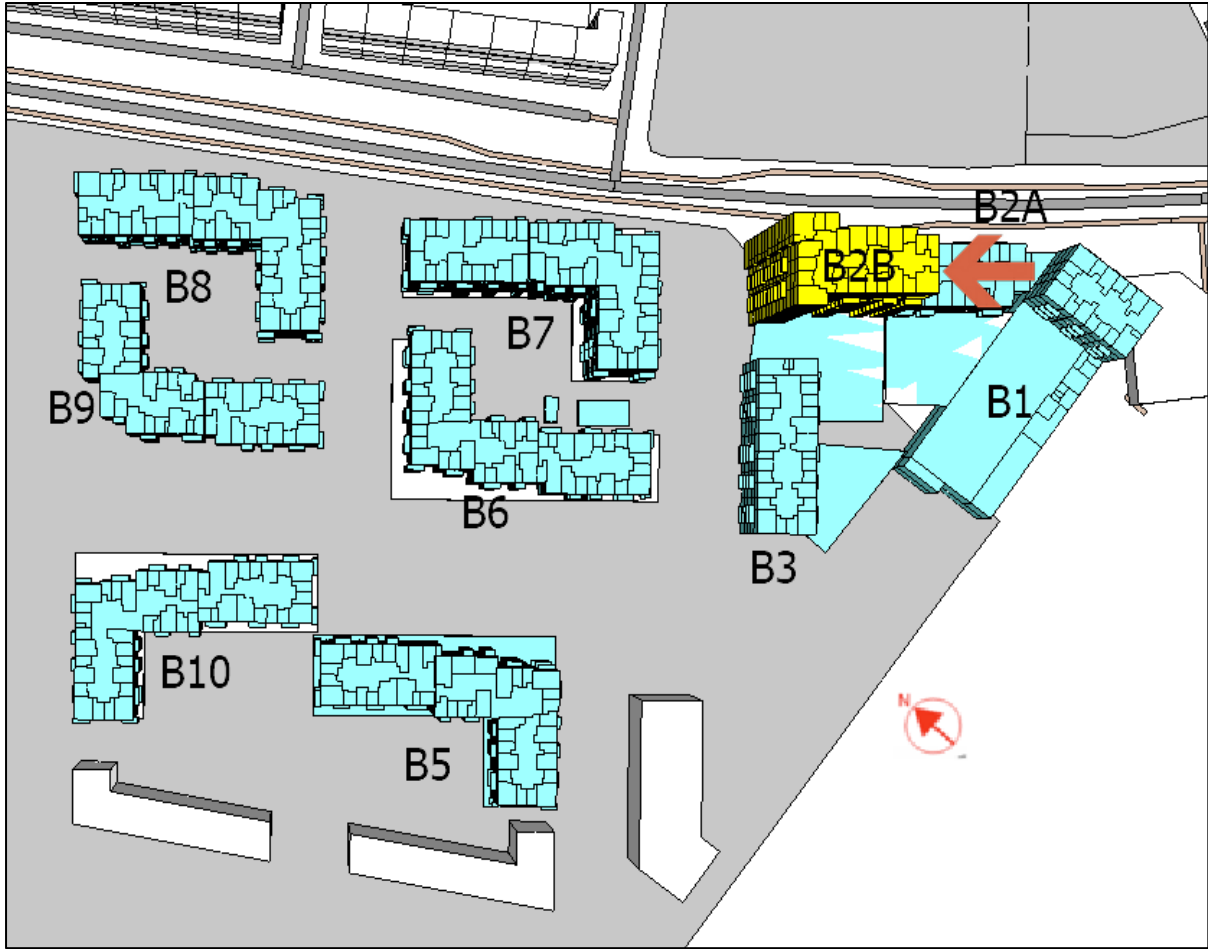


Figure 161. Building 2B (modelling software)

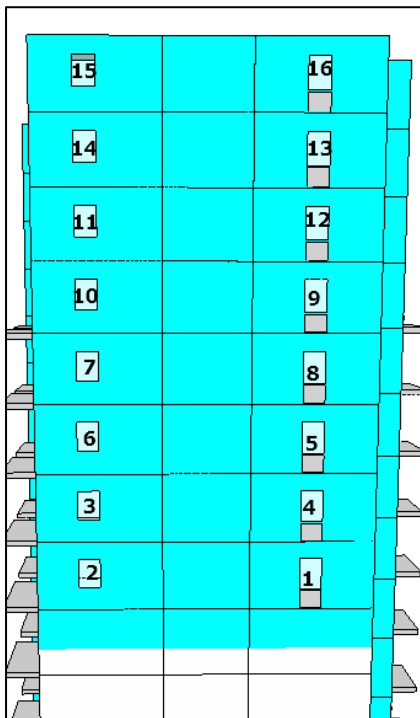


Figure 162. Southeast elevation of Building 2B (modelling software)



Figure 163. Windows achieving 1.5 hours of sunlight - Southeast elevation of Building 2B (modelling software)

Table 81. Sunlight Exposure and APSH/WPSH results for Southeast elevation of Building 2B

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	71.33	32.17	Pass	Pass	Pass
2	71.33	32.17	Pass	Pass	Pass
3	71.33	32.17	Pass	Pass	Pass
4	71.33	32.17	Pass	Pass	Pass
5	71.33	32.17	Pass	Pass	Pass
6	71.33	32.17	Pass	Pass	Pass
7	71.33	32.17	Pass	Pass	Pass
8	71.33	32.17	Pass	Pass	Pass
9	71.33	32.17	Pass	Pass	Pass
10	71.33	32.17	Pass	Pass	Pass
11	71.33	32.17	Pass	Pass	Pass
12	71.33	32.17	Pass	Pass	Pass
13	71.33	32.17	Pass	Pass	Pass
14	71.33	32.17	Pass	Pass	Pass
15	71.33	32.17	Pass	Pass	Pass
16	71.33	32.17	Pass	Pass	Pass

Southwest Elevation



Figure 164. Building 2B (modelling software)



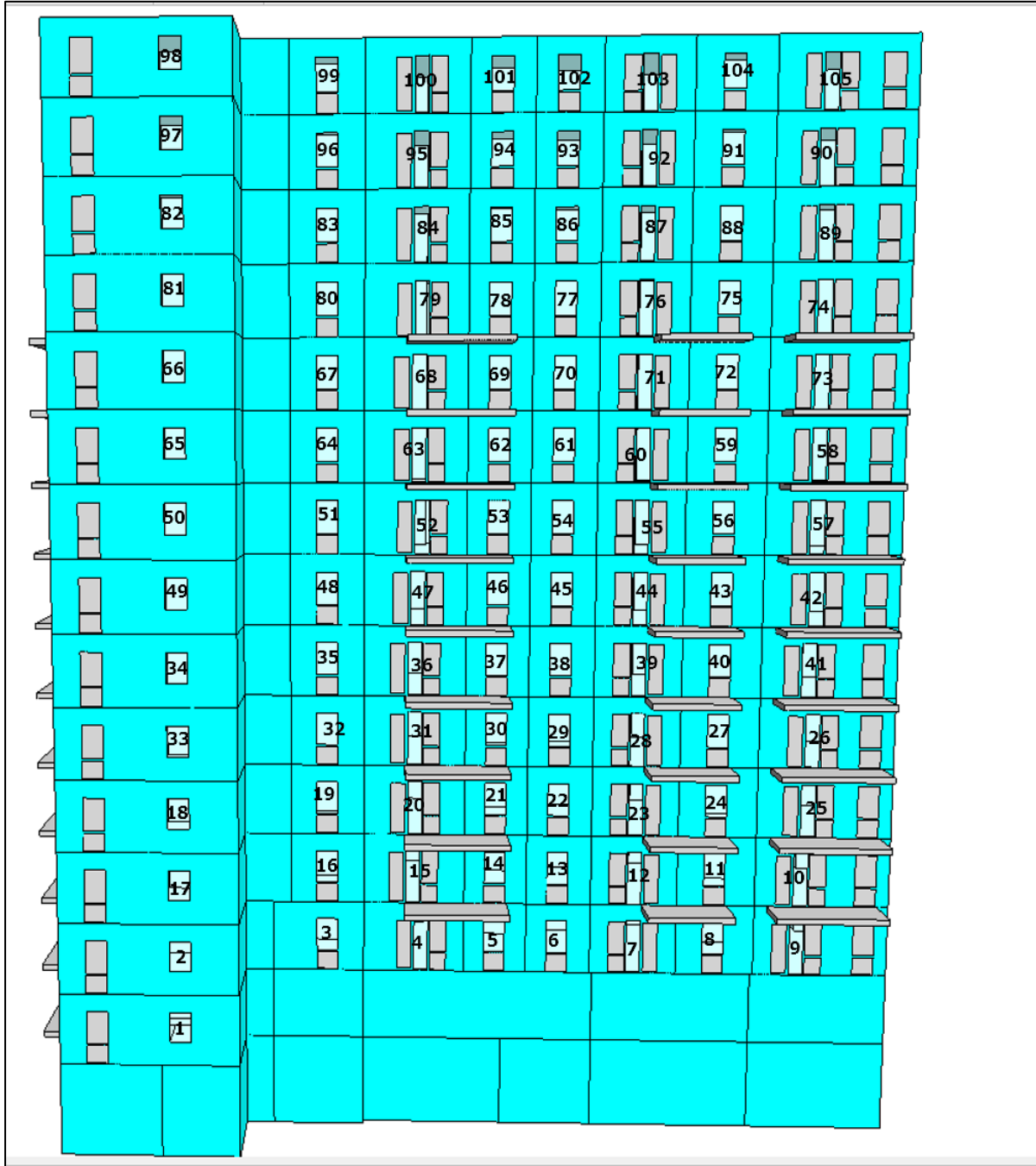


Figure 165. Southwest elevation of Building 2B (modelling software)

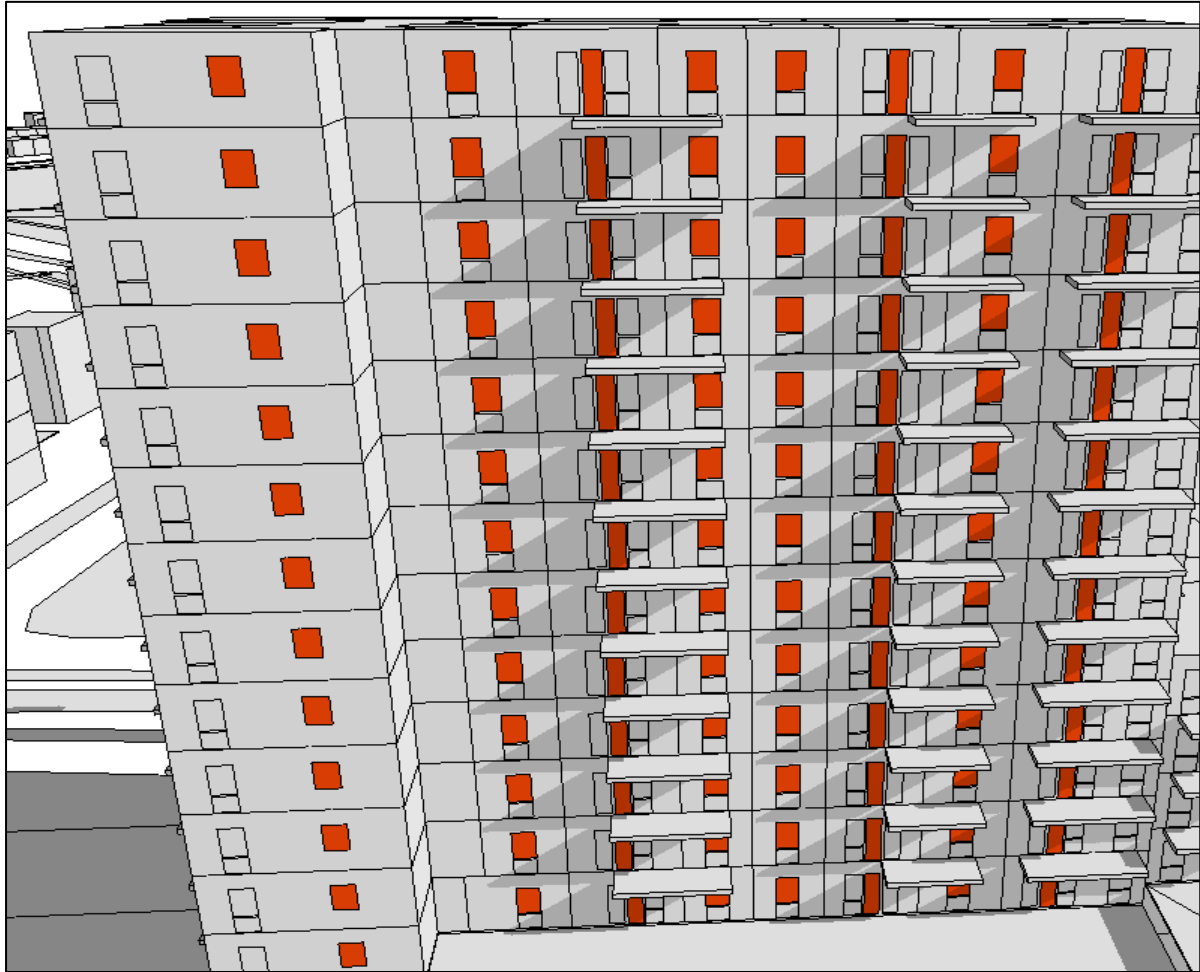


Figure 166. Windows achieving 1.5 hours of sunlight - Southwest elevation of Building 2B (modelling software)

Table 82. Sunlight Exposure and APSH/WPSH results for Southwest elevation of Building 2B

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	0.38	0.00	Fail	Fail	Fail
2	46.43	13.57	Pass	Pass	Pass
3	43.11	17.85	Pass	Pass	Pass
4	33.33	19.17	Pass	Pass	Pass
5	40.45	24.36	Pass	Pass	Pass
6	52.03	23.92	Pass	Pass	Pass
7	41.51	21.31	Pass	Pass	Pass
8	35.81	22.5	Pass	Pass	Pass
9	36.10	22.32	Pass	Pass	Pass
10	40.35	23.25	Pass	Pass	Pass
11	39.86	23.83	Pass	Pass	Pass
12	45.62	23	Pass	Pass	Pass
13	55.33	25.11	Pass	Pass	Pass
14	44.10	24.75	Pass	Pass	Pass
15	39.14	19.92	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
16	46.90	19.87	Pass	Pass	Pass
17	53.97	17.79	Pass	Pass	Pass
18	65.15	28.08	Pass	Pass	Pass
19	52.82	24.78	Pass	Pass	Pass
20	43.02	22.51	Pass	Pass	Pass
21	47.57	26.68	Pass	Pass	Pass
22	59.41	27.05	Pass	Pass	Pass
23	48.54	23.89	Pass	Pass	Pass
24	43.41	25.4	Pass	Pass	Pass
25	43.77	24.93	Pass	Pass	Pass
26	47.99	26.88	Pass	Pass	Pass
27	46.14	26.11	Pass	Pass	Pass
28	51.78	25.28	Pass	Pass	Pass
29	62.72	28.6	Pass	Pass	Pass
30	50.11	28.92	Pass	Pass	Pass
31	46.82	25.79	Pass	Pass	Pass
32	56.50	28.24	Pass	Pass	Pass
33	69.23	31.47	Pass	Pass	Pass
34	70.75	31.47	Pass	Pass	Pass
35	56.50	28.24	Pass	Pass	Pass
36	46.84	25.79	Pass	Pass	Pass
37	50.17	28.92	Pass	Pass	Pass
38	63.27	28.6	Pass	Pass	Pass
39	52.39	25.28	Pass	Pass	Pass
40	46.54	26.11	Pass	Pass	Pass
41	48.08	27.07	Pass	Pass	Pass
42	48.42	27.29	Pass	Pass	Pass
43	46.85	26.11	Pass	Pass	Pass
44	52.86	25.28	Pass	Pass	Pass
45	63.66	28.6	Pass	Pass	Pass
46	50.17	28.92	Pass	Pass	Pass
47	46.46	25.84	Pass	Pass	Pass
48	56.50	28.24	Pass	Pass	Pass
49	71.33	31.47	Pass	Pass	Pass
50	71.33	31.47	Pass	Pass	Pass
51	56.51	28.24	Pass	Pass	Pass
52	46.08	25.92	Pass	Pass	Pass
53	50.13	28.91	Pass	Pass	Pass
54	63.66	28.6	Pass	Pass	Pass
55	52.88	25.28	Pass	Pass	Pass
56	46.81	26.12	Pass	Pass	Pass
57	48.30	27.22	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
58	48.34	27.21	Pass	Pass	Pass
59	46.85	26.11	Pass	Pass	Pass
60	52.85	25.27	Pass	Pass	Pass
61	63.66	28.6	Pass	Pass	Pass
62	50.17	28.92	Pass	Pass	Pass
63	46.41	25.85	Pass	Pass	Pass
64	56.50	28.24	Pass	Pass	Pass
65	71.33	31.47	Pass	Pass	Pass
66	71.33	31.47	Pass	Pass	Pass
67	56.51	28.25	Pass	Pass	Pass
68	46.43	25.85	Pass	Pass	Pass
69	50.05	28.91	Pass	Pass	Pass
70	63.66	28.61	Pass	Pass	Pass
71	52.92	25.28	Pass	Pass	Pass
72	46.76	26.12	Pass	Pass	Pass
73	48.34	27.2	Pass	Pass	Pass
74	48.37	27.24	Pass	Pass	Pass
75	46.77	26.12	Pass	Pass	Pass
76	52.91	25.28	Pass	Pass	Pass
77	63.66	28.61	Pass	Pass	Pass
78	51.27	28.91	Pass	Pass	Pass
79	46.17	25.9	Pass	Pass	Pass
80	56.51	28.25	Pass	Pass	Pass
81	71.33	31.47	Pass	Pass	Pass
82	71.33	31.47	Pass	Pass	Pass
83	58.50	28.53	Pass	Pass	Pass
84	46.28	25.87	Pass	Pass	Pass
85	51.61	28.91	Pass	Pass	Pass
86	66.02	28.69	Pass	Pass	Pass
87	52.88	25.28	Pass	Pass	Pass
88	46.82	26.11	Pass	Pass	Pass
89	48.31	27.18	Pass	Pass	Pass
90	48.26	27.13	Pass	Pass	Pass
91	50.21	26.13	Pass	Pass	Pass
92	53.28	25.47	Pass	Pass	Pass
93	68.28	29.08	Pass	Pass	Pass
94	53.25	30.15	Pass	Pass	Pass
95	46.92	26.43	Pass	Pass	Pass
96	61.19	28.76	Pass	Pass	Pass
97	71.33	31.47	Pass	Pass	Pass
98	71.33	31.47	Pass	Pass	Pass
99	65.46	31.47	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
100	69.26	31.47	Pass	Pass	Pass
101	69.66	31.47	Pass	Pass	Pass
102	71.33	31.47	Pass	Pass	Pass
103	71.33	31.47	Pass	Pass	Pass
104	71.33	31.47	Pass	Pass	Pass
105	71.33	31.47	Pass	Pass	Pass

**Northwest Elevation**

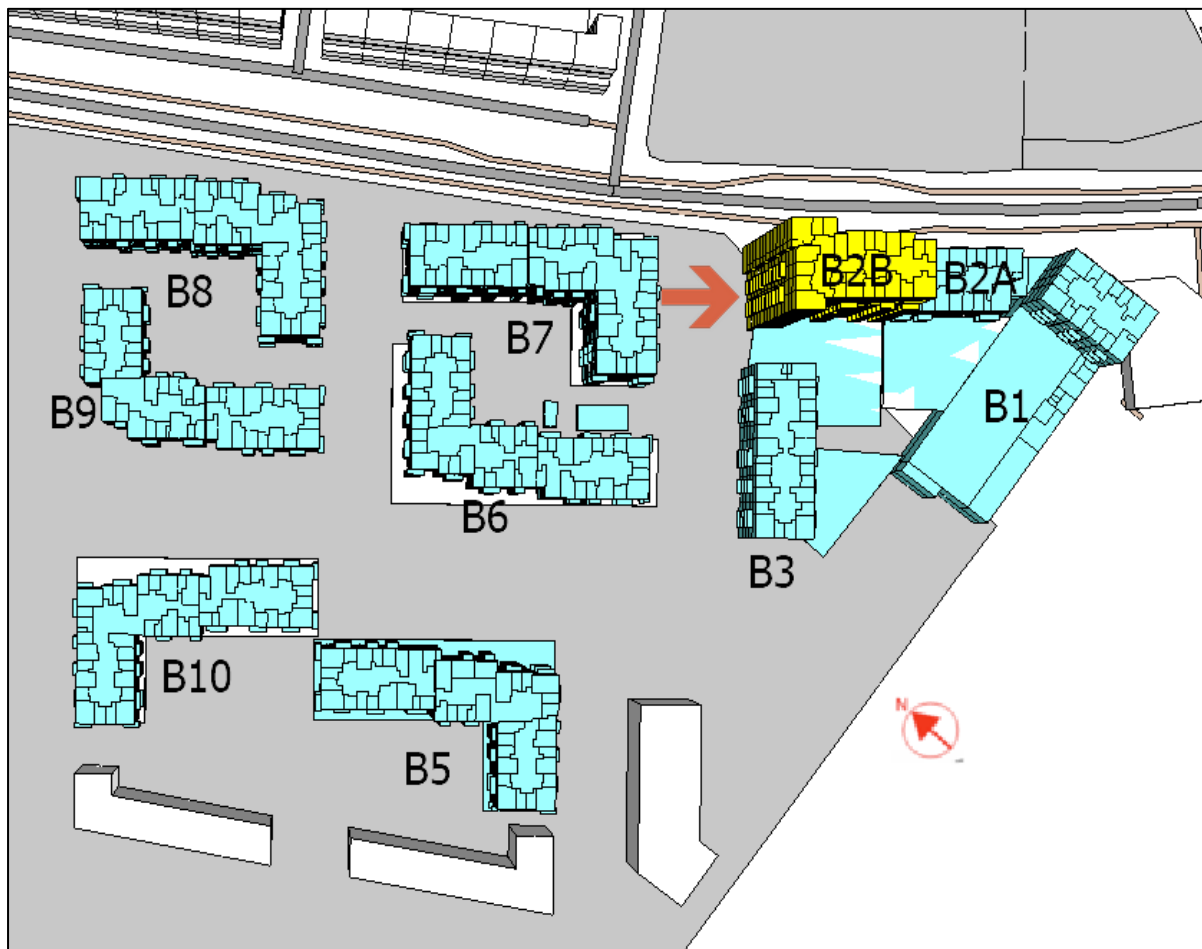


Figure 167. Building 2B (modelling software)

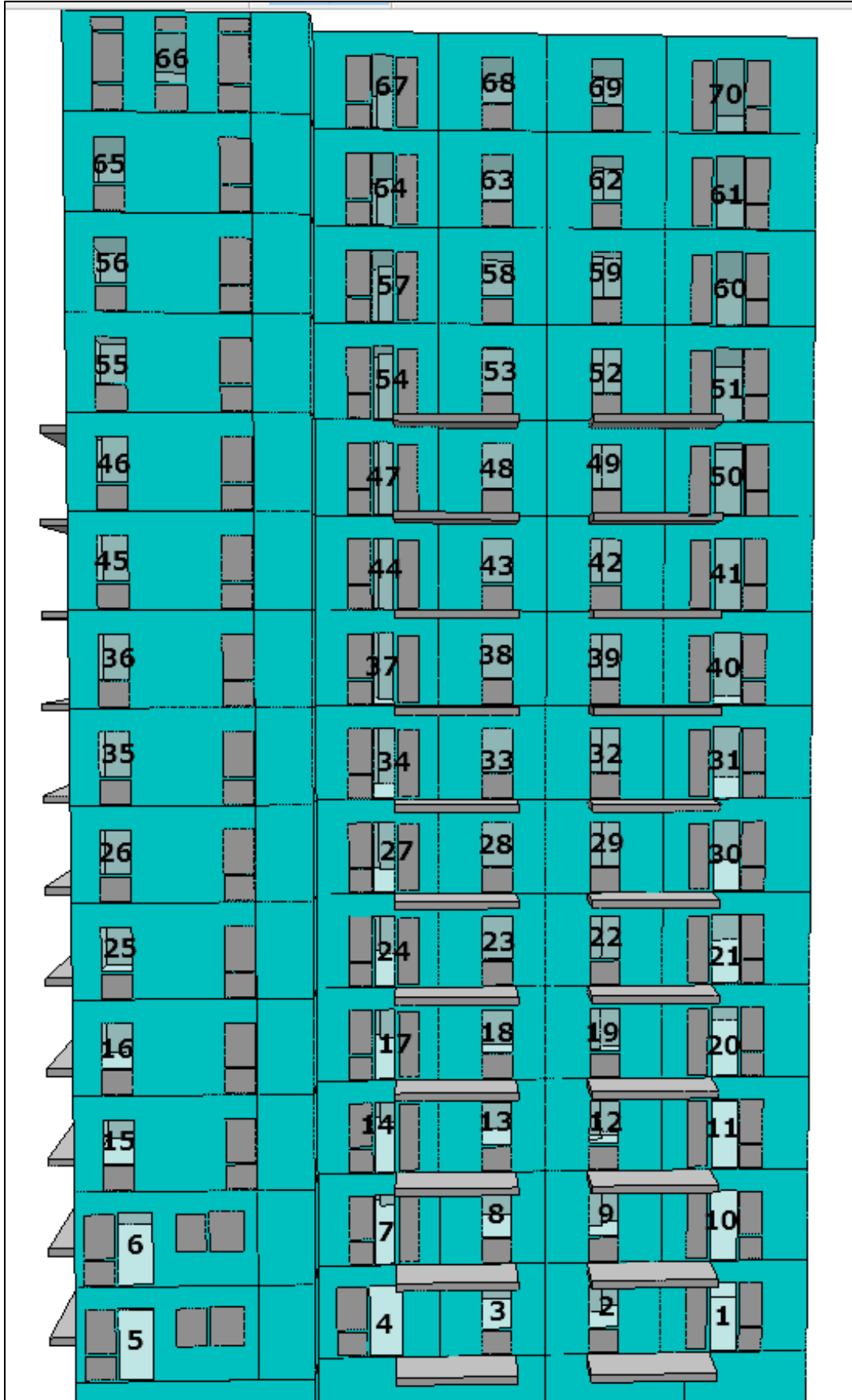


Figure 168. Northwest elevation of Building 2B (modelling software)





Figure 169. Windows achieving 1.5 hours of sunlight - Northwest elevation of Building 2B (modelling software)

Table 83. Sunlight Exposure and APSH/WPSH results for Northwest elevation of Building 2B

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	17.57	2.80	Fail	Fail	Pass
2	7.70	2.22	Fail	Fail	Fail
3	11.18	1.78	Fail	Fail	Fail
4	6.63	2.01	Fail	Fail	Fail
5	16.51	3.93	Fail	Fail	Pass
6	17.49	3.93	Fail	Fail	Pass
7	8.39	2.11	Fail	Fail	Fail
8	12.72	1.81	Fail	Fail	Fail
9	7.99	2.22	Fail	Fail	Fail
10	18.50	2.80	Fail	Fail	Pass
11	21.16	3.88	Fail	Fail	Pass
12	9.61	3.46	Fail	Fail	Fail
13	15.12	3.45	Fail	Fail	Fail
14	10.33	3.07	Fail	Fail	Fail
15	20.45	5.32	Fail	Pass	Pass
16	23.07	6.29	Fail	Pass	Pass
17	12.53	4.55	Fail	Fail	Pass
18	17.17	4.35	Fail	Fail	Pass
19	12.39	5.10	Fail	Pass	Pass
20	23.73	5.52	Fail	Pass	Pass
21	26.47	6.29	Pass	Pass	Pass
22	14.05	5.64	Fail	Pass	Pass
23	18.73	4.78	Fail	Fail	Pass
24	14.38	5.01	Fail	Pass	Pass
25	24.54	6.29	Fail	Pass	Pass
26	27.71	6.29	Pass	Pass	Pass
27	16.72	5.01	Fail	Pass	Pass
28	21.15	4.78	Fail	Fail	Pass
29	16.48	5.64	Fail	Pass	Pass
30	27.94	6.29	Pass	Pass	Pass
31	28.67	6.29	Pass	Pass	Pass
32	17.38	5.64	Fail	Pass	Pass
33	22.06	4.78	Fail	Fail	Pass
34	17.86	5.01	Fail	Pass	Pass
35	28.67	6.29	Pass	Pass	Pass
36	28.67	6.29	Pass	Pass	Pass
37	17.86	5.01	Fail	Pass	Pass
38	22.06	4.78	Fail	Fail	Pass
39	17.38	5.64	Fail	Pass	Pass
40	28.67	6.29	Pass	Pass	Pass
41	28.67	6.29	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
42	17.38	5.64	Fail	Pass	Pass
43	22.06	4.78	Fail	Fail	Pass
44	17.86	5.01	Fail	Pass	Pass
45	28.67	6.29	Pass	Pass	Pass
46	28.67	6.29	Pass	Pass	Pass
47	17.86	5.01	Fail	Pass	Pass
48	22.06	4.78	Fail	Fail	Pass
49	17.38	5.64	Fail	Pass	Pass
50	28.67	6.29	Pass	Pass	Pass
51	28.67	6.29	Pass	Pass	Pass
52	17.38	5.64	Fail	Pass	Pass
53	22.06	4.78	Fail	Fail	Pass
54	17.86	5.01	Fail	Pass	Pass
55	28.67	6.29	Pass	Pass	Pass
56	28.67	6.29	Pass	Pass	Pass
57	17.86	5.01	Fail	Pass	Pass
58	22.06	4.78	Fail	Fail	Pass
59	17.38	5.64	Fail	Pass	Pass
60	28.67	6.29	Pass	Pass	Pass
61	28.67	6.29	Pass	Pass	Pass
62	17.38	5.64	Fail	Pass	Pass
63	25.27	4.78	Pass	Fail	Pass
64	17.98	5.01	Fail	Pass	Pass
65	28.67	6.29	Pass	Pass	Pass
66	28.67	6.29	Pass	Pass	Pass
67	28.67	6.29	Pass	Pass	Pass
68	28.67	6.29	Pass	Pass	Pass
69	28.67	6.29	Pass	Pass	Pass
70	28.67	6.29	Pass	Pass	Pass

## Building 03

### Northwest Elevation



Figure 170. Building 03 (modelling software)

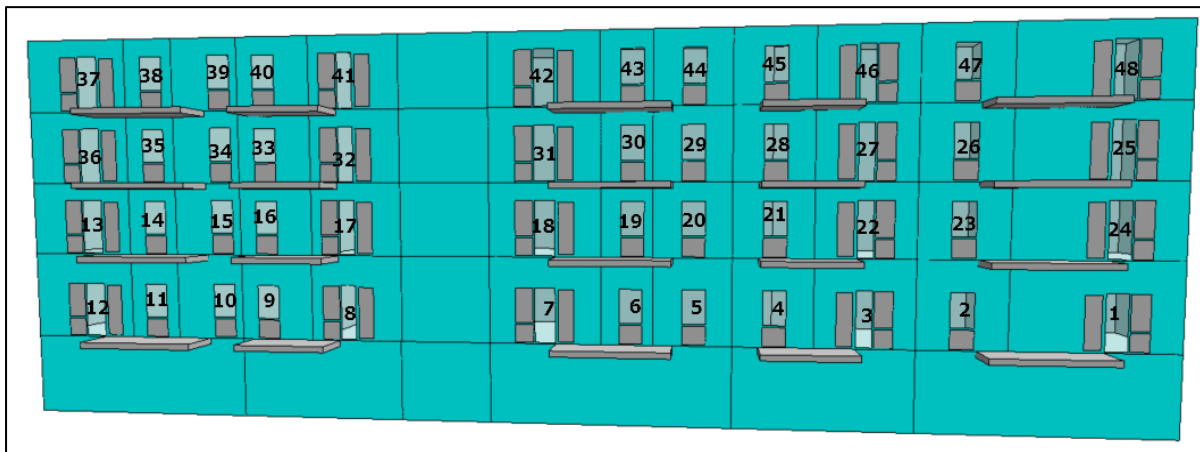


Figure 171. Northwest elevation of Building 03 (modelling software)

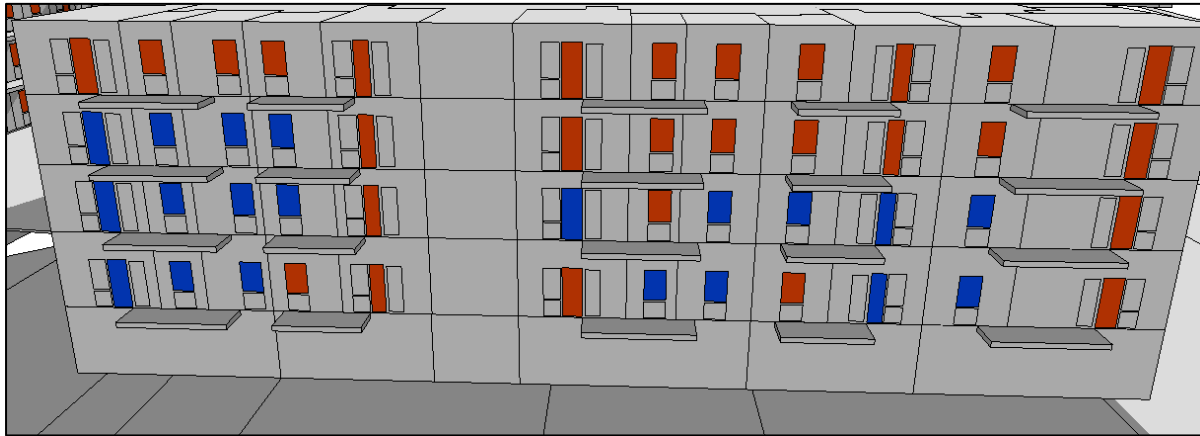


Figure 172. Windows achieving 1.5 hours of sunlight - Northwest elevation of Building 03 (modelling software)

Table 84. Sunlight Exposure and APSH/WPSH results for Northwest elevation of Building 03

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	22.01	2.97	Fail	Fail	Pass
2	13.78	3.02	Fail	Fail	Fail
3	17.35	2.48	Fail	Fail	Fail
4	13.95	2.85	Fail	Fail	Pass
5	14.57	2.38	Fail	Fail	Fail
6	16.24	2.58	Fail	Fail	Fail
7	13.55	2.77	Fail	Fail	Pass
8	17.03	2.86	Fail	Fail	Pass
9	11.12	2.88	Fail	Fail	Pass
10	9.99	2.56	Fail	Fail	Fail
11	10.98	1.96	Fail	Fail	Fail
12	11.47	2.3	Fail	Fail	Fail
13	10	1.73	Fail	Fail	Fail
14	9.84	1.55	Fail	Fail	Fail
15	10.34	1.55	Fail	Fail	Fail
16	9.96	2.31	Fail	Fail	Fail
17	20.24	2.61	Fail	Fail	Pass
18	11.28	2.07	Fail	Fail	Fail
19	13.21	2.22	Fail	Fail	Pass
20	16.36	1.81	Fail	Fail	Fail
21	12.27	2.53	Fail	Fail	Fail
22	18.77	2.42	Fail	Fail	Fail
23	11.19	2.12	Fail	Fail	Fail
24	23.78	3.5	Fail	Fail	Pass
25	25.88	4.2	Pass	Fail	Pass
26	13.99	3.51	Fail	Fail	Pass
27	23.43	3.44	Fail	Fail	Pass
28	14.2	4.33	Fail	Fail	Pass
29	22.62	3.81	Fail	Fail	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
30	18.35	4.66	Fail	Fail	Pass
31	14.54	3.69	Fail	Fail	Pass
32	24.02	4.48	Fail	Fail	Pass
33	13.6	4.22	Fail	Fail	Fail
34	15.29	3.42	Fail	Fail	Fail
35	13.57	3.36	Fail	Fail	Fail
36	13.44	3.32	Fail	Fail	Fail
37	27.63	6.18	Pass	Pass	Pass
38	27.97	6.29	Pass	Pass	Pass
39	27.97	6.29	Pass	Pass	Pass
40	27.96	6.28	Pass	Pass	Pass
41	27.46	6.01	Pass	Pass	Pass
42	28.39	6.01	Pass	Pass	Pass
43	28.47	6.29	Pass	Pass	Pass
44	28.37	6.29	Pass	Pass	Pass
45	28.24	6.29	Pass	Pass	Pass
46	28.06	6.29	Pass	Pass	Pass
47	28.09	6.29	Pass	Pass	Pass
48	27.97	6.29	Pass	Pass	Pass



**Northeast Elevation**



Figure 173. Building 03 (modelling software)

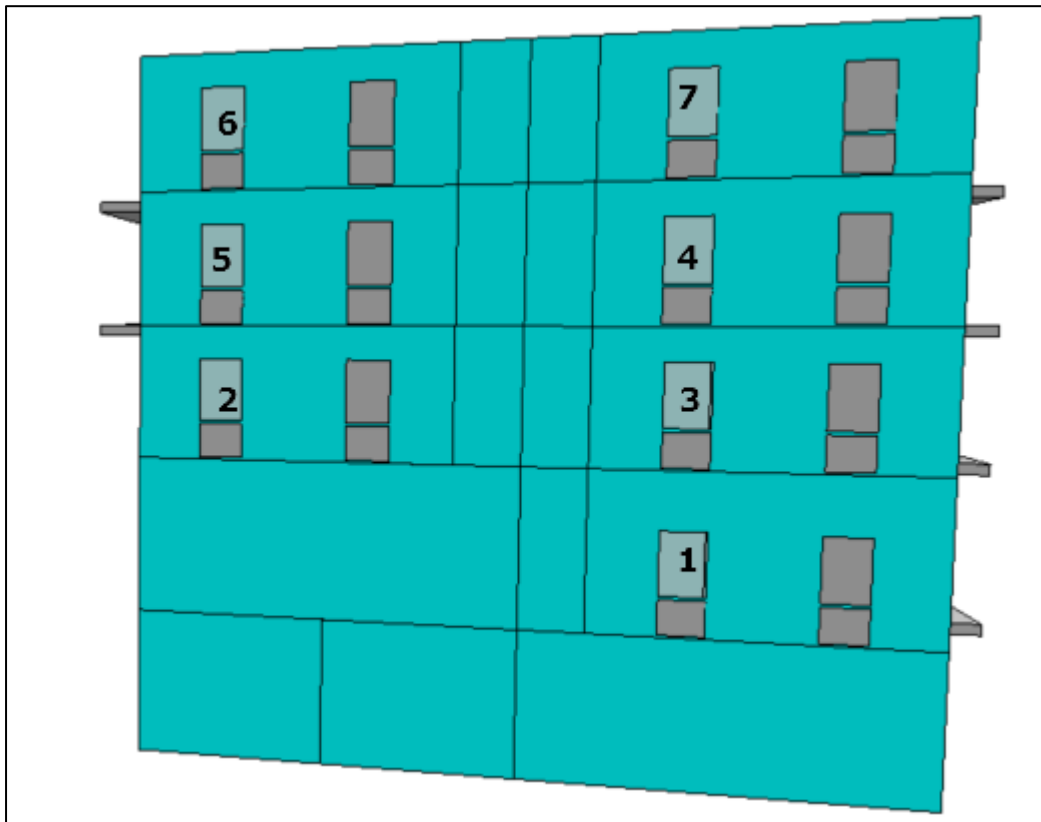


Figure 174. Northeast elevation of Building 03 (modelling software)

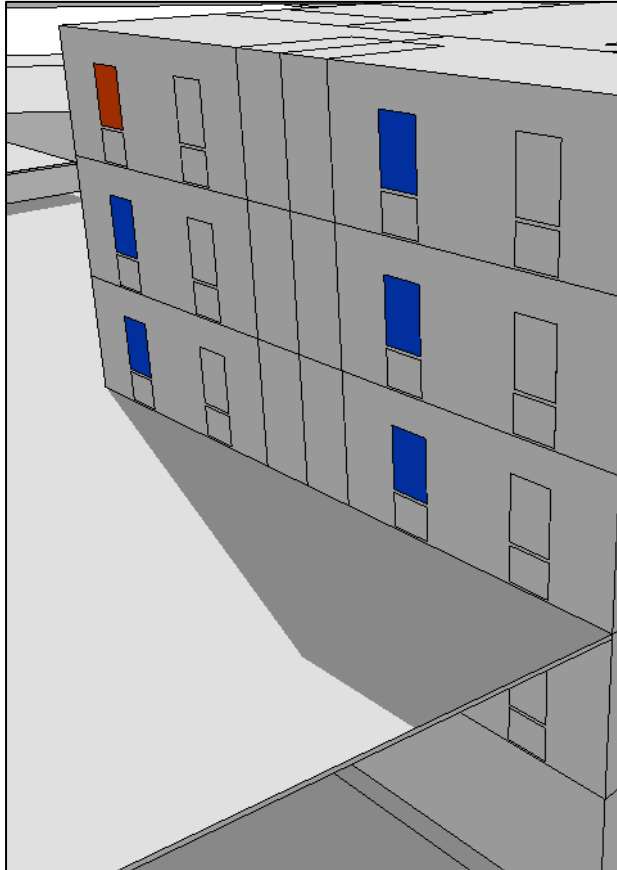


Figure 175. Windows achieving 1.5 hours of sunlight - Northeast elevation of Building 03 (modelling software)

Table 85. Sunlight Exposure and APSH/WPSH results for Northeast elevation of Building 03

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	0	0.00	Fail	Fail	Fail
2	9.09	1.4	Fail	Fail	Fail
3	7.06	1.98	Fail	Fail	Fail
4	7.19	2.1	Fail	Fail	Fail
5	10.49	2.1	Fail	Fail	Fail
6	11.56	3.16	Fail	Fail	Pass
7	7.89	2.8	Fail	Fail	Fail

**Southeast Elevation**



Figure 176. Building 03 (modelling software)

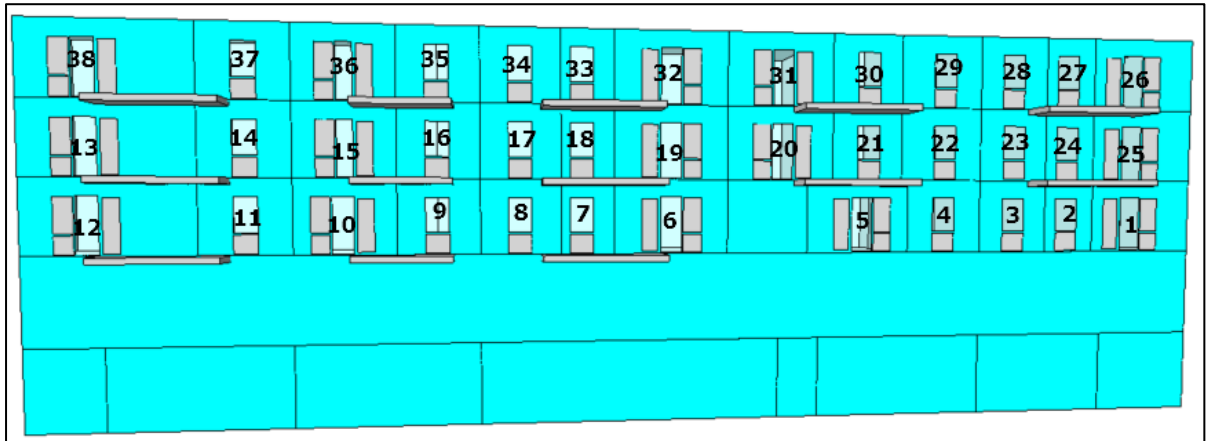


Figure 177. Southeast elevation of Building 03 (modelling software)

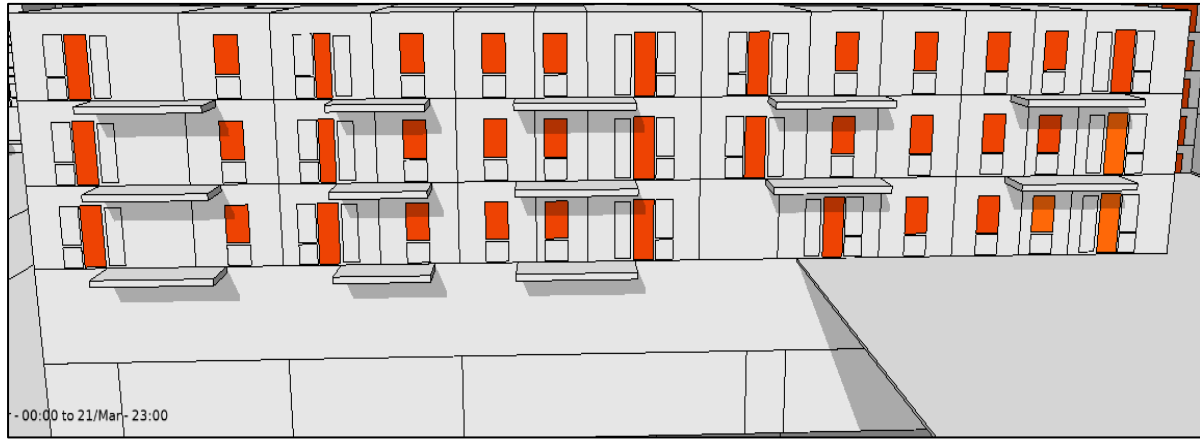


Figure 178. Windows achieving 1.5 hours of sunlight - Southeast elevation of Building 03 (modelling software)

Table 86. Sunlight Exposure and APSH/WPSH results for Southeast elevation of Building 03

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	33.56	21.85	Pass	Pass	Pass
2	31.41	23.89	Pass	Pass	Pass
3	52.73	26.68	Pass	Pass	Pass
4	46.14	22.93	Pass	Pass	Pass
5	36.52	24.54	Pass	Pass	Pass
6	44.03	23.67	Pass	Pass	Pass
7	35.44	25.27	Pass	Pass	Pass
8	52.41	26.34	Pass	Pass	Pass
9	37.26	23.99	Pass	Pass	Pass
10	57.93	28.17	Pass	Pass	Pass
11	47.52	23.44	Pass	Pass	Pass
12	62.08	29.65	Pass	Pass	Pass
13	64.21	31.46	Pass	Pass	Pass
14	48.98	23.70	Pass	Pass	Pass
15	61.28	28.90	Pass	Pass	Pass
16	39.15	24.14	Pass	Pass	Pass
17	58.00	26.36	Pass	Pass	Pass
18	37.58	25.98	Pass	Pass	Pass
19	46.17	24.49	Pass	Pass	Pass
20	58.96	28.6	Pass	Pass	Pass
21	32.73	23.88	Pass	Pass	Pass
22	53.28	24.39	Pass	Pass	Pass
23	55.60	28.69	Pass	Pass	Pass
24	33.11	25.59	Pass	Pass	Pass
25	35.59	23.18	Pass	Pass	Pass
26	57.67	29.95	Pass	Pass	Pass
27	59.85	30.77	Pass	Pass	Pass
28	60.81	30.77	Pass	Pass	Pass
29	62.06	30.77	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
30	62.92	30.77	Pass	Pass	Pass
31	64.30	30.77	Pass	Pass	Pass
32	64.36	30.77	Pass	Pass	Pass
33	65.32	30.77	Pass	Pass	Pass
34	65.54	30.82	Pass	Pass	Pass
35	67.54	31.23	Pass	Pass	Pass
36	67.72	31.47	Pass	Pass	Pass
37	67.83	31.47	Pass	Pass	Pass
38	67.83	31.47	Pass	Pass	Pass

Southwest Elevation



Figure 179. Building 03 (modelling software)



Figure 180. Southwest elevation of Building 03 (modelling software)





Figure 181. Windows achieving 1.5 hours of sunlight - Southwest elevation of Building 03 (modelling software)

Table 87. Sunlight Exposure and APSH/WPSH results for Southwest elevation of Building 03

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	30.81	8.55	Pass	Pass	Pass
2	38.71	8.05	Pass	Pass	Pass
3	49.37	12.68	Pass	Pass	Pass
4	46.26	12.38	Pass	Pass	Pass
5	46.03	14.32	Pass	Pass	Pass
6	50.45	20.00	Pass	Pass	Pass
7	64.93	26.95	Pass	Pass	Pass
8	64.79	26.76	Pass	Pass	Pass
9	64.97	26.76	Pass	Pass	Pass
10	66.07	27.61	Pass	Pass	Pass
11	70.63	31.47	Pass	Pass	Pass
12	70.63	31.47	Pass	Pass	Pass
13	70.63	31.47	Pass	Pass	Pass
14	70.72	31.47	Pass	Pass	Pass

## Building 05

### Northeast Elevation

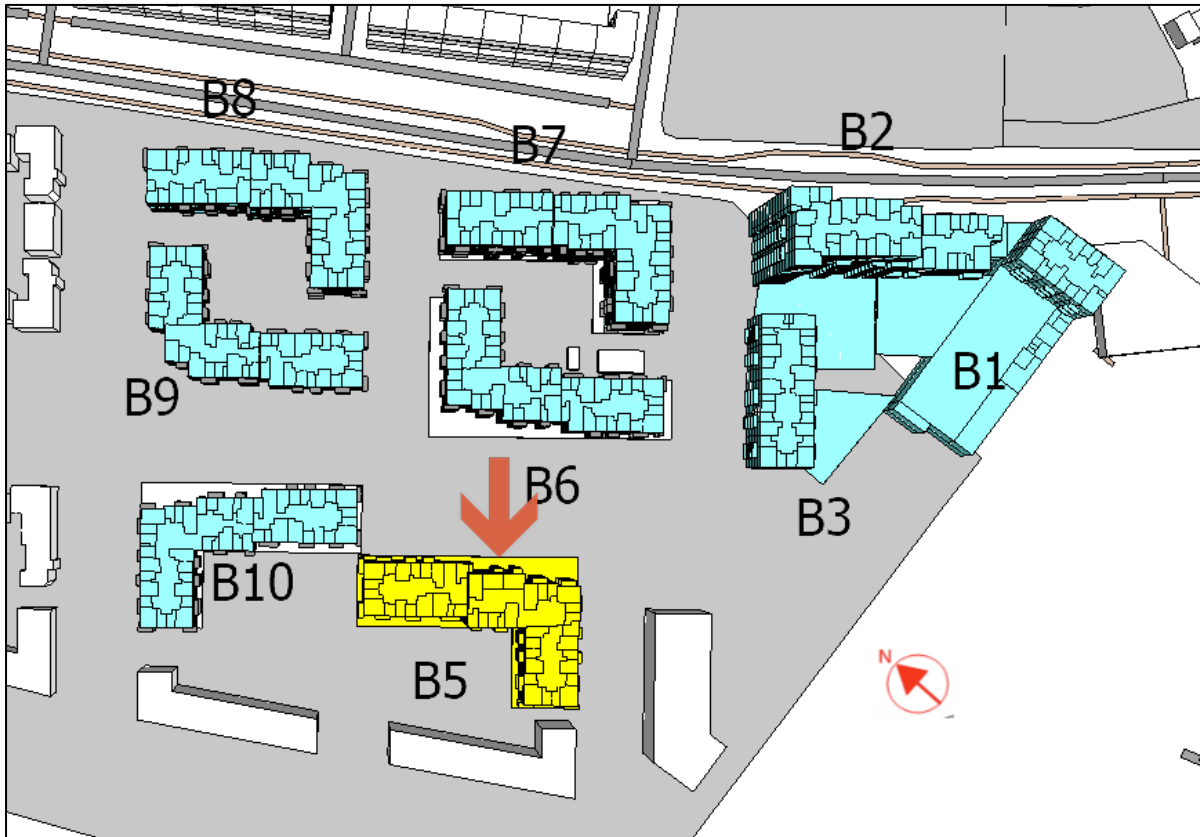


Figure 182. Building 05 (modelling software)

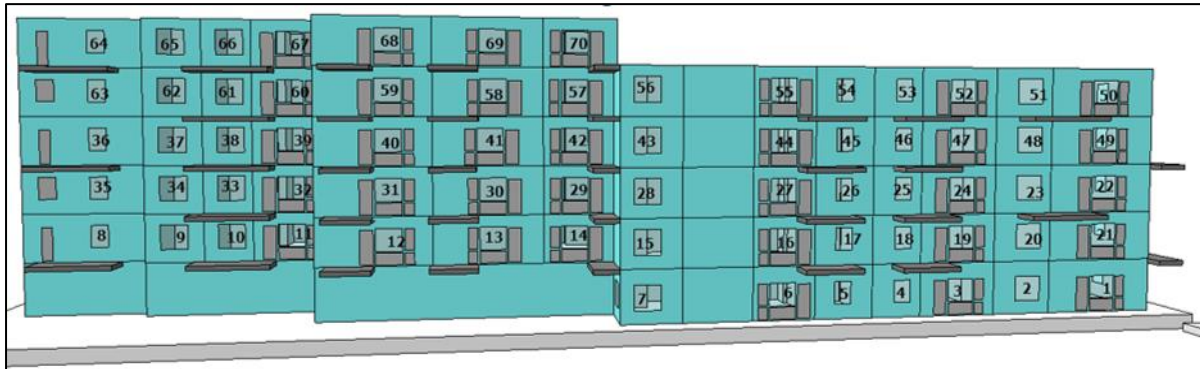


Figure 183. Northeast elevation of Building 05 (modelling software)

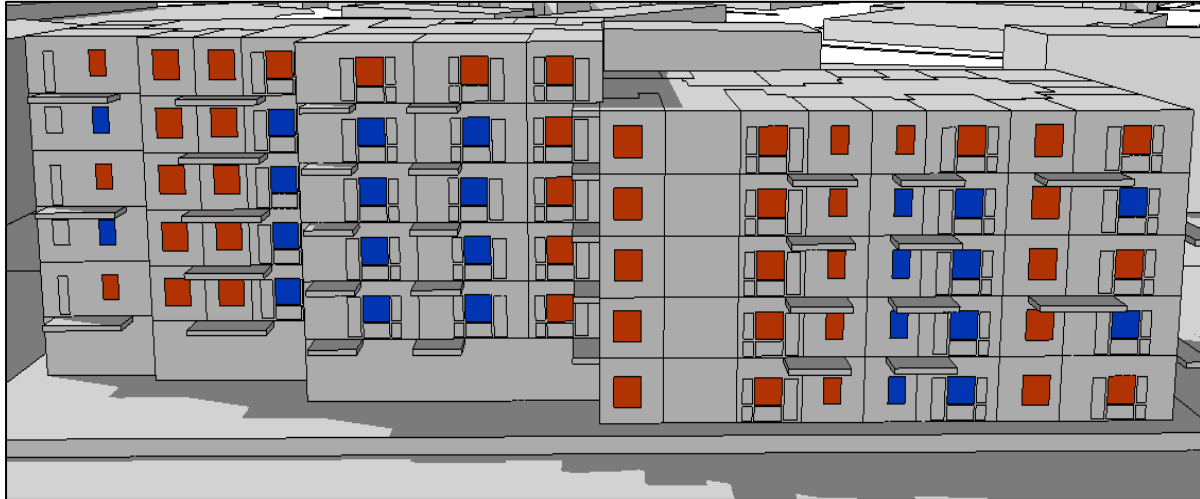


Figure 184. Windows achieving 1.5 hours of sunlight - Northeast elevation of Building 05 (modelling software)

Table 88. Sunlight Exposure and APSH/WPSH results for Northeast elevation of Building 05

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	14.55	3.38	Fail	Fail	Pass
2	13.92	2.84	Fail	Fail	Pass
3	7.91	2.67	Fail	Fail	Fail
4	11.97	1.97	Fail	Fail	Fail
5	8.49	2.68	Fail	Fail	Pass
6	17.52	4.04	Fail	Fail	Pass
7	17.31	4.02	Fail	Fail	Pass
8	17.06	2.8	Fail	Fail	Pass
9	18.11	4.2	Fail	Fail	Pass
10	11.11	3.87	Fail	Fail	Pass
11	9.04	2.34	Fail	Fail	Fail
12	9.91	3.32	Fail	Fail	Fail
13	8.94	2.73	Fail	Fail	Fail
14	14.78	2.89	Fail	Fail	Pass
15	18.41	4.2	Fail	Fail	Pass
16	18.62	4.2	Fail	Fail	Pass
17	7.14	2.45	Fail	Fail	Pass
18	12.24	1.75	Fail	Fail	Fail
19	7.36	2.25	Fail	Fail	Fail
20	13.22	2.7	Fail	Fail	Pass
21	7.72	1.9	Fail	Fail	Fail
22	17.92	3.24	Fail	Fail	Pass
23	19.72	2.71	Fail	Fail	Pass
24	8.82	2.25	Fail	Fail	Pass
25	13.64	1.75	Fail	Fail	Fail
26	8.54	2.45	Fail	Fail	Fail
27	20.28	4.2	Fail	Fail	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
28	20.28	4.2	Fail	Fail	Pass
29	16.21	2.92	Fail	Fail	Pass
30	9.67	2.74	Fail	Fail	Fail
31	10.28	3.2	Fail	Fail	Fail
32	10.44	3.04	Fail	Fail	Fail
33	12.19	4.37	Fail	Fail	Pass
34	20.3	3.97	Fail	Fail	Pass
35	9.38	2.93	Fail	Fail	Fail
36	19.27	3.5	Fail	Fail	Pass
37	20.19	4.9	Fail	Fail	Pass
38	13.11	4.56	Fail	Fail	Pass
39	11.8	3.04	Fail	Fail	Fail
40	11.25	3.32	Fail	Fail	Fail
41	10.23	2.7	Fail	Fail	Fail
42	19.5	2.89	Fail	Fail	Pass
43	20.28	4.2	Fail	Fail	Pass
44	20.39	4.2	Fail	Fail	Pass
45	9.19	2.45	Fail	Fail	Pass
46	15.96	1.75	Fail	Fail	Fail
47	9.93	2.24	Fail	Fail	Fail
48	19.21	3.03	Fail	Fail	Pass
49	11.11	1.89	Fail	Fail	Fail
50	24.05	4.2	Fail	Fail	Pass
51	23.47	4.2	Fail	Fail	Pass
52	22.97	4.2	Fail	Fail	Pass
53	20.83	2.8	Fail	Fail	Pass
54	20.96	2.93	Fail	Fail	Pass
55	22.82	4.3	Fail	Fail	Pass
56	22.41	4.26	Fail	Fail	Pass
57	21.79	3.29	Fail	Fail	Pass
58	12.62	2.73	Fail	Fail	Fail
59	13.29	3.32	Fail	Fail	Fail
60	13.22	3.04	Fail	Fail	Fail
61	13.84	4.37	Fail	Fail	Pass
62	21.56	3.97	Fail	Fail	Pass
63	10.34	2.93	Fail	Fail	Fail
64	22.88	4.2	Fail	Fail	Pass
65	25.17	5.59	Pass	Pass	Pass
66	25.17	5.59	Pass	Pass	Pass
67	25.53	5.59	Pass	Pass	Pass
68	25.86	5.58	Pass	Pass	Pass
69	25.62	5.02	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
70	25.17	4.9	Pass	Fail	Pass

**Southeast Elevation**



Figure 185. Building 05 (modelling software)

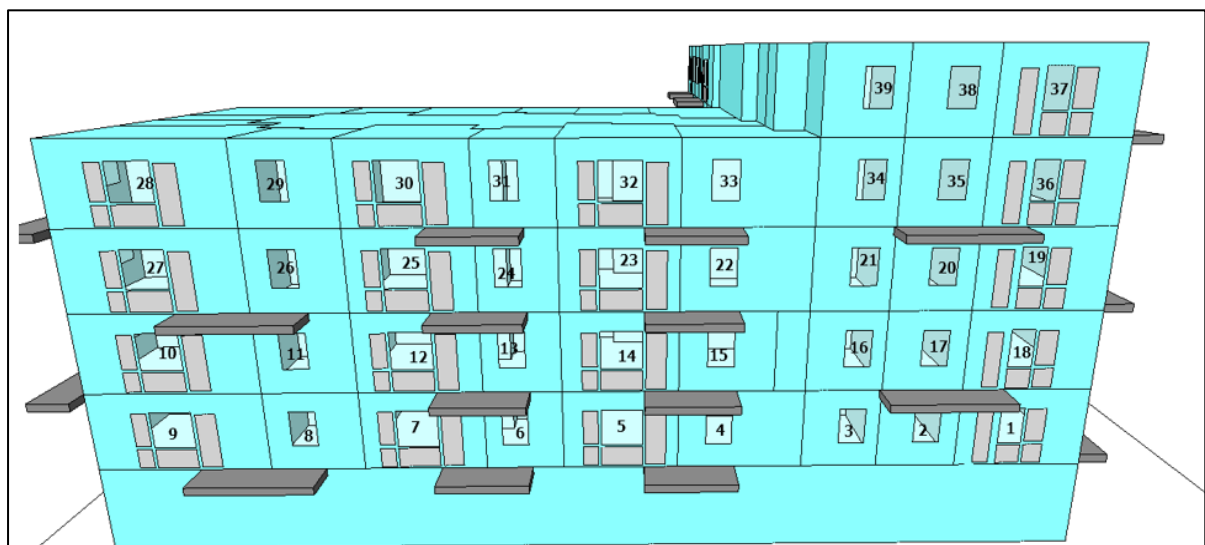


Figure 186. Southeast elevation of Building 05 (modelling software)



Figure 187. Windows achieving 1.5 hours of sunlight - Southeast elevation of Building 05 (modelling software)

Table 89. Sunlight Exposure and APSH/WPSH results for Southeast elevation of Building 05

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	36.25	15.12	Pass	Pass	Pass
2	26.13	16.32	Pass	Pass	Pass
3	45.39	18.39	Pass	Pass	Pass
4	23.21	10.74	Fail	Pass	Pass
5	41.09	14.45	Pass	Pass	Pass
6	21.85	9.95	Fail	Pass	Pass
7	43.96	16.43	Pass	Pass	Pass
8	43.06	15.41	Pass	Pass	Pass
9	48.59	15.9	Pass	Pass	Pass
10	50.91	21.25	Pass	Pass	Pass
11	26.18	13.5	Pass	Pass	Pass
12	50.37	18.6	Pass	Pass	Pass
13	26.87	13.43	Pass	Pass	Pass
14	47.09	19.22	Pass	Pass	Pass
15	28.41	15.51	Pass	Pass	Pass
16	53.91	22.63	Pass	Pass	Pass
17	57.09	25.01	Pass	Pass	Pass
18	54.15	25.75	Pass	Pass	Pass
19	45.38	22.29	Pass	Pass	Pass
20	35.42	23.58	Pass	Pass	Pass
21	56.93	25.54	Pass	Pass	Pass
22	33.52	19.17	Pass	Pass	Pass
23	55.75	23.48	Pass	Pass	Pass



Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
24	34.31	19.16	Pass	Pass	Pass
25	58.92	25.75	Pass	Pass	Pass
26	59.11	24.37	Pass	Pass	Pass
27	61.73	24.44	Pass	Pass	Pass
28	67.21	29.45	Pass	Pass	Pass
29	65.14	28.77	Pass	Pass	Pass
30	67.21	29.45	Pass	Pass	Pass
31	64.84	28.77	Pass	Pass	Pass
32	66.66	29.71	Pass	Pass	Pass
33	64.94	29.37	Pass	Pass	Pass
34	65.2	29.67	Pass	Pass	Pass
35	65.47	30.07	Pass	Pass	Pass
36	63.56	29.37	Pass	Pass	Pass
37	65.03	30.07	Pass	Pass	Pass
38	66.43	30.77	Pass	Pass	Pass
39	66.43	30.77	Pass	Pass	Pass

Southwest Elevation

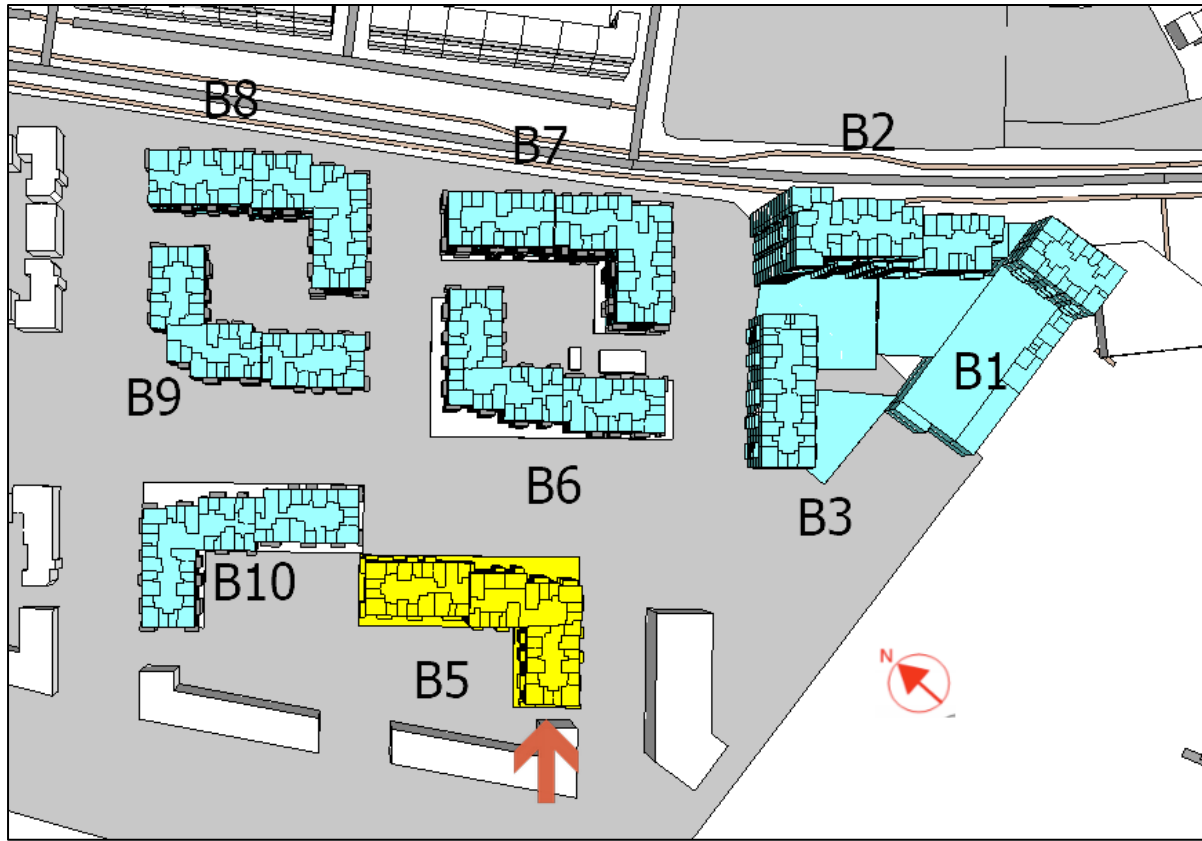


Figure 188. Building 05 (modelling software)

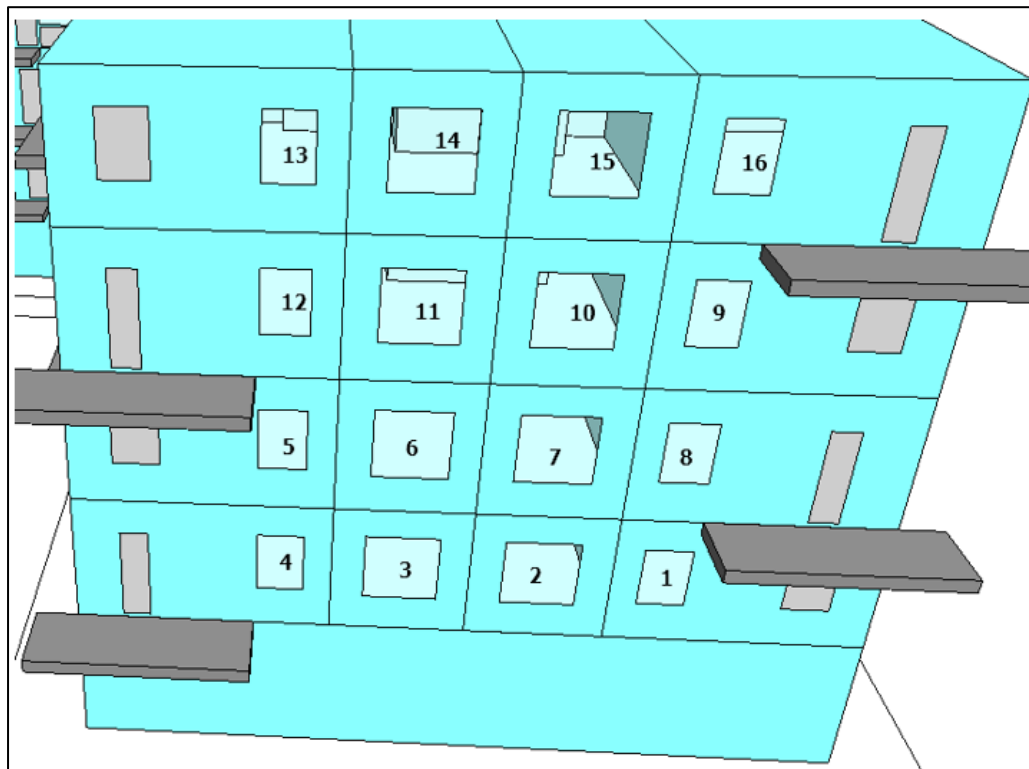


Figure 189. Southwest elevation of Building 05 (modelling software)

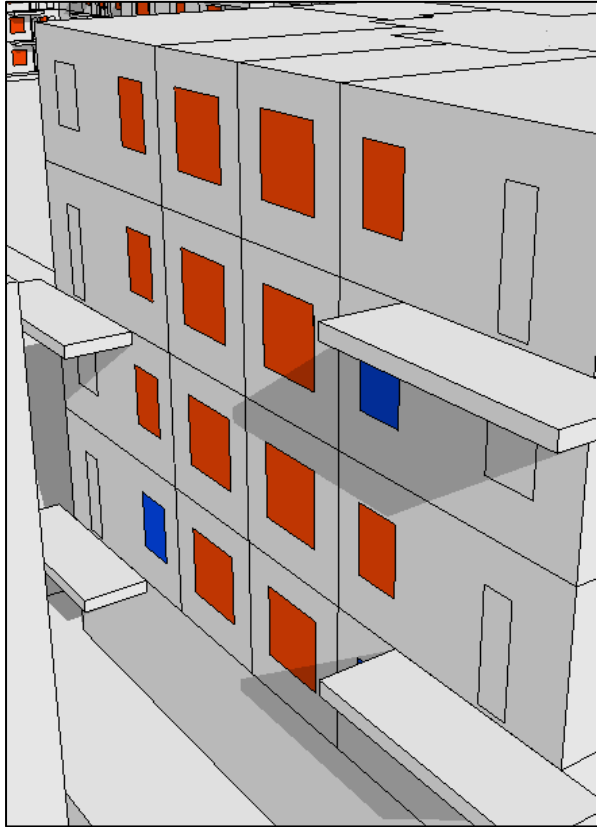


Figure 190. Windows achieving 1.5 hours of sunlight - Southwest elevation of Building 05 (modelling software)

Table 90. Sunlight Exposure and APSH/WPSH results for Southwest elevation of Building 05

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	10.31	5.58	Fail	Pass	Fail
2	19.02	6.3	Fail	Pass	Pass
3	23.00	5.36	Fail	Pass	Pass
4	22.90	3.5	Fail	Fail	Fail
5	30.24	6.88	Pass	Pass	Pass
6	34.59	8.05	Pass	Pass	Pass
7	31.34	9.8	Pass	Pass	Pass
8	28.83	12.16	Pass	Pass	Pass
9	30.37	8.69	Pass	Pass	Fail
10	45.39	11.01	Pass	Pass	Pass
11	47.84	12.31	Pass	Pass	Pass
12	47.71	13.5	Pass	Pass	Pass
13	65.60	27.72	Pass	Pass	Pass
14	66.80	27.55	Pass	Pass	Pass
15	66.30	27.01	Pass	Pass	Pass
16	63.93	26.17	Pass	Pass	Pass

**West Elevation**



Figure 191. Building 05 (modelling software)



Figure 192. West elevation of Building 05 (modelling software)

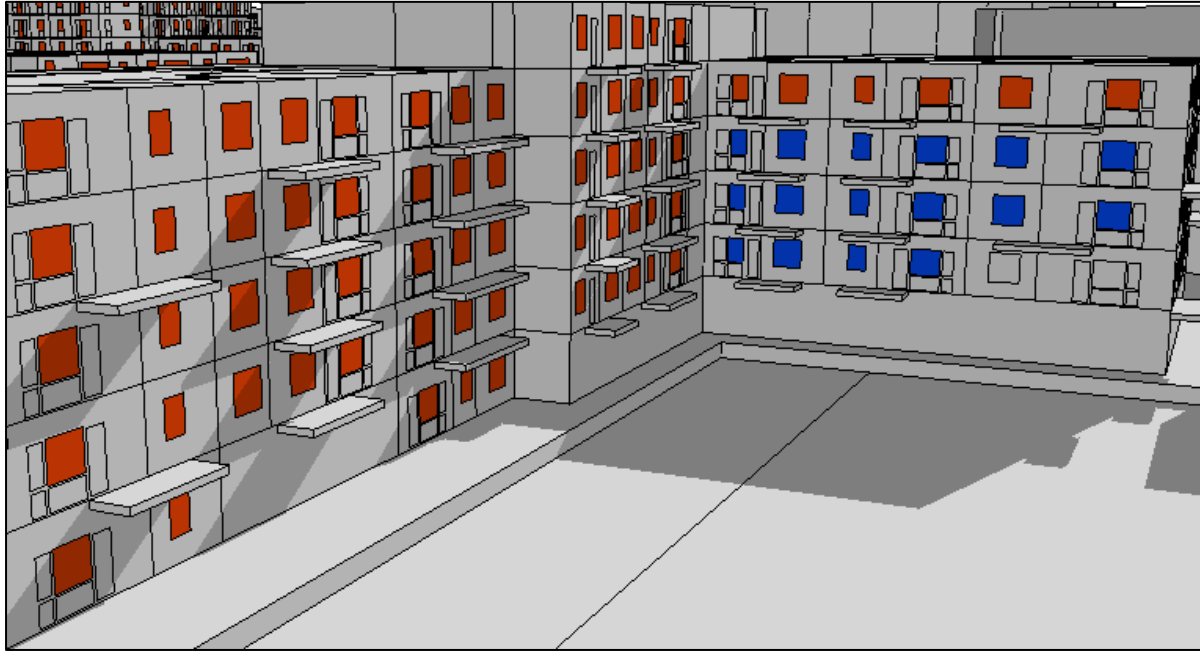


Figure 193. Windows achieving 1.5 hours of sunlight - West elevation of Building 05 (modelling software)

Table 91. Sunlight Exposure and APSH/WPSH results for West elevation of Building 05

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	21.87	4.69	Fail	Fail	Pass
2	21.56	6.82	Fail	Pass	Pass
3	31.31	8.90	Pass	Pass	Pass
4	38.66	19.45	Pass	Pass	Pass
5	39.91	15.84	Pass	Pass	Pass
6	51.81	22.84	Pass	Pass	Pass
7	55.29	22.54	Pass	Pass	Pass
8	46.19	17.48	Pass	Pass	Pass
9	25.55	14.24	Pass	Pass	Pass
10	44.95	18.60	Pass	Pass	Pass
11	38.80	13.11	Pass	Pass	Pass
12	22.03	9.87	Fail	Pass	Pass
13	22.17	7.29	Fail	Pass	Pass
14	32.78	7.94	Pass	Pass	Pass
15	34.13	7.79	Pass	Pass	Pass
16	32.29	5.65	Pass	Pass	Pass
17	15.87	3.94	Fail	Fail	Pass
18	23.35	2.73	Fail	Fail	Pass
19	7.43	0.22	Fail	Fail	Fail
20	11.92	0.21	Fail	Fail	Fail
21	6.51	0.40	Fail	Fail	Fail
22	13.28	0.21	Fail	Fail	Fail
23	3.02	0.00	Fail	Fail	Fail

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
24	8.33	0.00	Fail	Fail	Fail
25	14.40	0.12	Fail	Fail	Fail
26	14.83	0.70	Fail	Fail	Fail
27	14.88	0.70	Fail	Fail	Fail
28	8.59	0.40	Fail	Fail	Fail
29	14.92	0.63	Fail	Fail	Fail
30	10.80	0.76	Fail	Fail	Fail
31	32.06	5.49	Pass	Pass	Pass
32	21.22	6.84	Fail	Pass	Pass
33	38.11	7.43	Pass	Pass	Pass
34	42.01	13.26	Pass	Pass	Pass
35	38.04	11.34	Pass	Pass	Pass
36	27.01	10.10	Pass	Pass	Pass
37	27.44	13.55	Pass	Pass	Pass
38	43.69	16.57	Pass	Pass	Pass
39	50.86	22.19	Pass	Pass	Pass
40	30.26	17.22	Pass	Pass	Pass
41	49.91	20.30	Pass	Pass	Pass
42	42.06	24.35	Pass	Pass	Pass
43	48.21	19.67	Pass	Pass	Pass
44	66.11	28.93	Pass	Pass	Pass
45	64.52	28.00	Pass	Pass	Pass
46	58.49	23.21	Pass	Pass	Pass
47	34.78	20.39	Pass	Pass	Pass
48	55.64	25.74	Pass	Pass	Pass
49	50.14	19.88	Pass	Pass	Pass
50	30.67	16.41	Pass	Pass	Pass
51	29.28	12.08	Pass	Pass	Pass
52	44.75	17.40	Pass	Pass	Pass
53	51.83	20.91	Pass	Pass	Pass
54	44.02	14.97	Pass	Pass	Pass
55	26.00	11.34	Pass	Pass	Pass
56	41.63	9.16	Pass	Pass	Pass
57	11.31	1.02	Fail	Fail	Fail
58	18.32	1.34	Fail	Fail	Fail
59	11.10	1.64	Fail	Fail	Fail
60	20.34	1.18	Fail	Fail	Fail
61	10.34	1.44	Fail	Fail	Fail
62	19.82	1.13	Fail	Fail	Fail
63	25.72	4.30	Pass	Fail	Pass
64	26.32	4.75	Pass	Fail	Pass
65	26.85	5.17	Pass	Pass	Pass



Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
66	25.65	4.67	Pass	Fail	Pass
67	27.12	5.44	Pass	Pass	Pass
68	25.14	4.86	Pass	Fail	Pass
69	61.33	25.67	Pass	Pass	Pass
70	39.24	22.77	Pass	Pass	Pass
71	57.23	23.54	Pass	Pass	Pass
72	62.57	28.02	Pass	Pass	Pass
73	53.51	24.14	Pass	Pass	Pass
74	44.92	15.55	Pass	Pass	Pass
75	61.54	23.19	Pass	Pass	Pass
76	66.10	26.14	Pass	Pass	Pass
77	68.26	29.30	Pass	Pass	Pass
78	69.60	29.74	Pass	Pass	Pass
79	70.63	30.77	Pass	Pass	Pass
80	68.53	30.07	Pass	Pass	Pass
81	69.93	30.77	Pass	Pass	Pass
82	69.93	30.77	Pass	Pass	Pass
83	70.63	30.77	Pass	Pass	Pass
84	70.63	30.77	Pass	Pass	Pass
85	68.53	30.07	Pass	Pass	Pass
86	69.93	30.77	Pass	Pass	Pass

Northwest Elevation



Figure 194. Building 05 (modelling software)

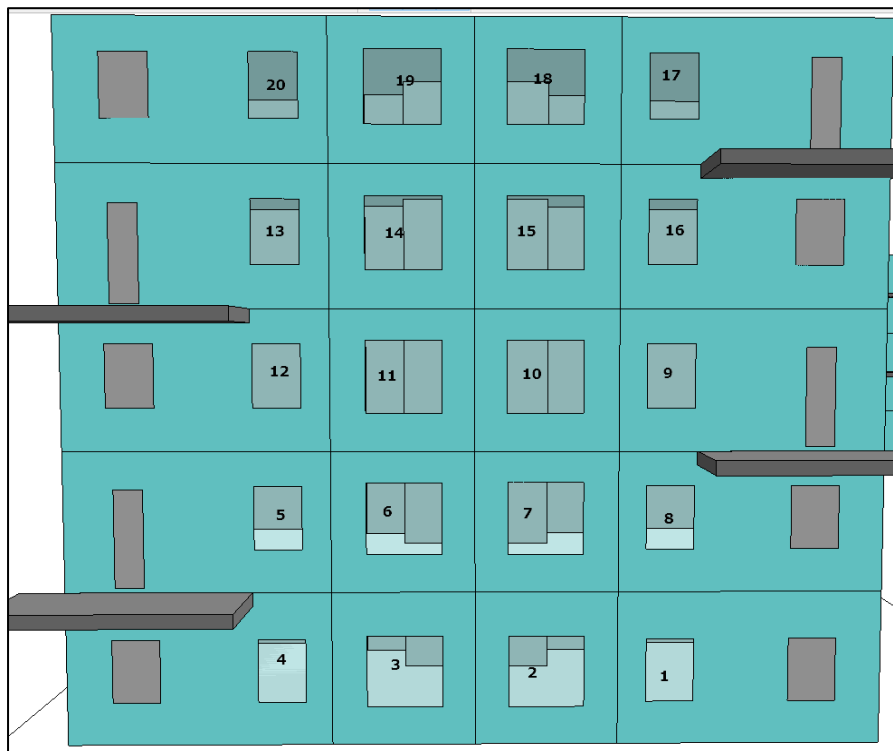


Figure 195. Northwest elevation of Building 05 (modelling software)

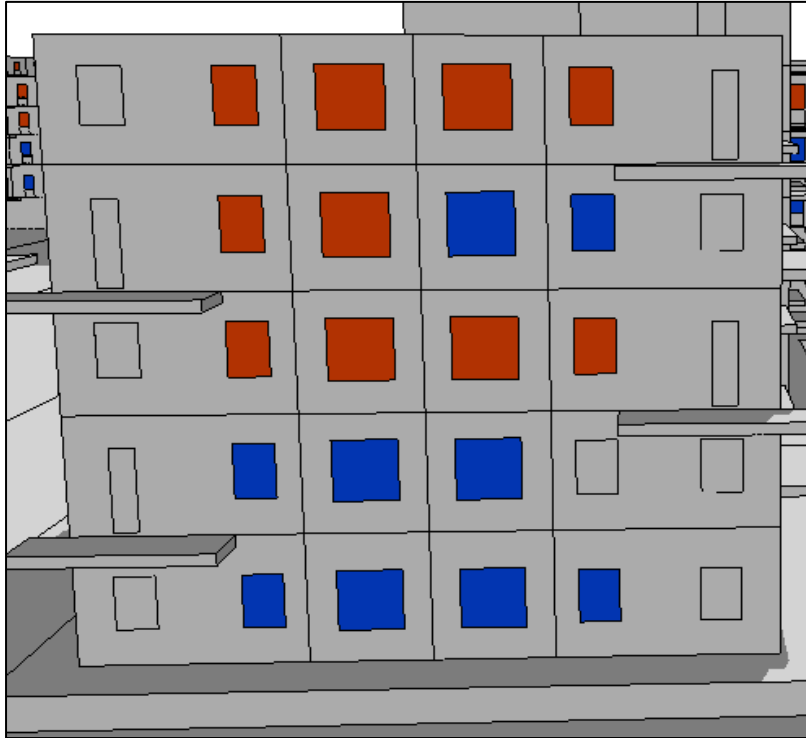


Figure 196. Windows achieving 1.5 hours of sunlight - Northwest elevation of Building 05 (modelling software)

Table 92. Sunlight Exposure and APSH/WPSH results for Northwest elevation of Building 05

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	0.00	0.00	Fail	Fail	Fail
2	15.81	2.80	Fail	Fail	Fail
3	17.41	2.80	Fail	Fail	Fail
4	16.08	2.10	Fail	Fail	Fail
5	18.49	2.41	Fail	Fail	Fail
6	17.08	2.11	Fail	Fail	Fail
7	17.34	1.18	Fail	Fail	Fail
8	0.00	0.00	Fail	Fail	Fail
9	0.00	0.00	Fail	Fail	Pass
10	20.11	3.50	Fail	Fail	Pass
11	22.56	3.50	Fail	Fail	Pass
12	21.67	2.80	Fail	Fail	Pass
13	22.85	2.79	Fail	Fail	Pass
14	23.32	2.74	Fail	Fail	Pass
15	21.70	1.76	Fail	Fail	Fail
16	0.00	0.00	Fail	Fail	Fail
17	0.00	0.00	Fail	Fail	Pass
18	27.27	5.59	Pass	Pass	Pass
19	27.27	5.59	Pass	Pass	Pass
20	25.87	4.90	Pass	Fail	Pass

## Building 06

### Southwest Elevation



Figure 197. Building 06 (modelling software)

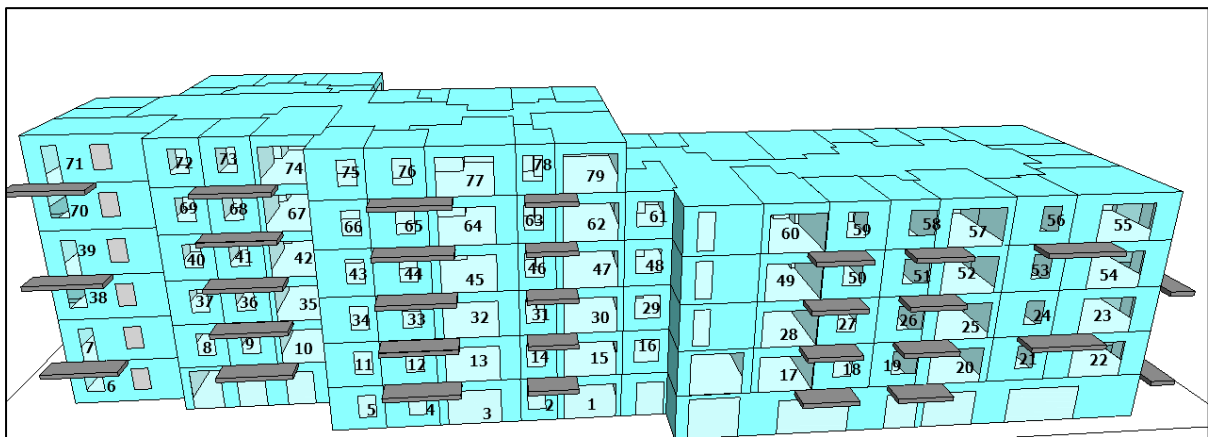


Figure 198. Southwest elevation of Building 06 (modelling software)

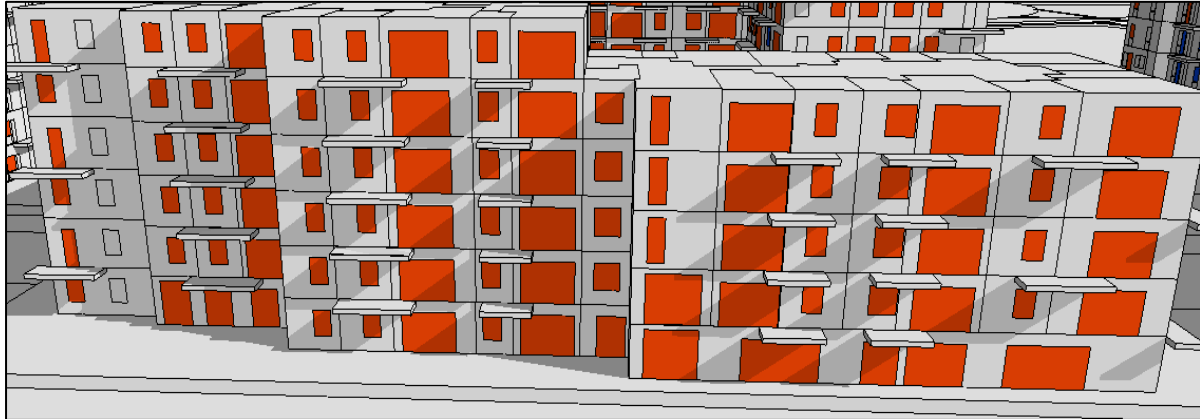


Figure 199. Windows achieving 1.5 hours of sunlight - Southwest elevation of Building 06 (modelling software)

Table 93. Sunlight Exposure and APSH/WPSH results for Southwest elevation of Building 06

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	38.85	14.34	Pass	Pass	Pass
2	25.44	11.98	Pass	Pass	Pass
3	42.11	16.9	Pass	Pass	Pass
4	21.56	12.55	Fail	Pass	Pass
5	38.48	12.47	Pass	Pass	Pass
6	21.47	11.06	Fail	Pass	Pass
7	48.7	17.9	Pass	Pass	Pass
8	39.29	12.78	Pass	Pass	Pass
9	22.89	10.34	Fail	Pass	Pass
10	26.05	5.55	Pass	Pass	Pass
11	43.06	14.33	Pass	Pass	Pass
12	26.64	14.33	Pass	Pass	Pass
13	46.43	18.79	Pass	Pass	Pass
14	29.79	13.89	Pass	Pass	Pass
15	42.36	15.74	Pass	Pass	Pass
16	30.26	7.11	Pass	Pass	Pass
17	44.23	19.78	Pass	Pass	Pass
18	38.16	21.69	Pass	Pass	Pass
19	31.53	18.33	Pass	Pass	Pass
20	49.16	21.55	Pass	Pass	Pass
21	30.08	16.88	Pass	Pass	Pass
22	52.82	23.4	Pass	Pass	Pass
23	61.51	24.71	Pass	Pass	Pass
24	57.91	25.27	Pass	Pass	Pass
25	55.83	24.95	Pass	Pass	Pass
26	34.5	19.1	Pass	Pass	Pass
27	39.58	21.53	Pass	Pass	Pass
28	46.11	19.96	Pass	Pass	Pass
29	32.29	7.51	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
30	44.3	15.95	Pass	Pass	Pass
31	30.99	14.13	Pass	Pass	Pass
32	48.56	19.7	Pass	Pass	Pass
33	29.37	15.97	Pass	Pass	Pass
34	45.75	16.3	Pass	Pass	Pass
35	29.32	7.38	Pass	Pass	Pass
36	26.34	12.35	Pass	Pass	Pass
37	43.46	15.58	Pass	Pass	Pass
38	29.43	16.11	Pass	Pass	Pass
39	58.3	22.6	Pass	Pass	Pass
40	46.92	17.55	Pass	Pass	Pass
41	29.23	14.14	Pass	Pass	Pass
42	31.92	8.87	Pass	Pass	Pass
43	50.13	18.87	Pass	Pass	Pass
44	33.51	18.3	Pass	Pass	Pass
45	53.31	21.76	Pass	Pass	Pass
46	34.61	16.71	Pass	Pass	Pass
47	50.68	18.06	Pass	Pass	Pass
48	36.51	9.78	Pass	Pass	Pass
49	50.69	22.14	Pass	Pass	Pass
50	45.51	23.59	Pass	Pass	Pass
51	37.54	21.53	Pass	Pass	Pass
52	58.77	25.43	Pass	Pass	Pass
53	36.78	20.35	Pass	Pass	Pass
54	61.4	27.65	Pass	Pass	Pass
55	69.11	29.94	Pass	Pass	Pass
56	67.13	28.3	Pass	Pass	Pass
57	68.15	29.05	Pass	Pass	Pass
58	67.65	28.22	Pass	Pass	Pass
59	66.53	27.77	Pass	Pass	Pass
60	67.81	28.33	Pass	Pass	Pass
61	47.99	12.17	Pass	Pass	Pass
62	58.89	22.82	Pass	Pass	Pass
63	40.39	20.85	Pass	Pass	Pass
64	60.05	24.94	Pass	Pass	Pass
65	37.56	21.36	Pass	Pass	Pass
66	57.58	22.29	Pass	Pass	Pass
67	35.86	11.59	Pass	Pass	Pass
68	33.44	17.73	Pass	Pass	Pass
69	51.89	20.37	Pass	Pass	Pass
70	37.6	21.67	Pass	Pass	Pass
71	67.73	28.57	Pass	Pass	Pass



Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
72	68.65	29.49	Pass	Pass	Pass
73	66.45	27.28	Pass	Pass	Pass
74	49.83	15.1	Pass	Pass	Pass
75	69.62	30.46	Pass	Pass	Pass
76	69.62	30.46	Pass	Pass	Pass
77	70.55	30.69	Pass	Pass	Pass
78	69.51	30.35	Pass	Pass	Pass
79	70.28	30.42	Pass	Pass	Pass

Northwest Elevation



Figure 200. Building 06 (modelling software)

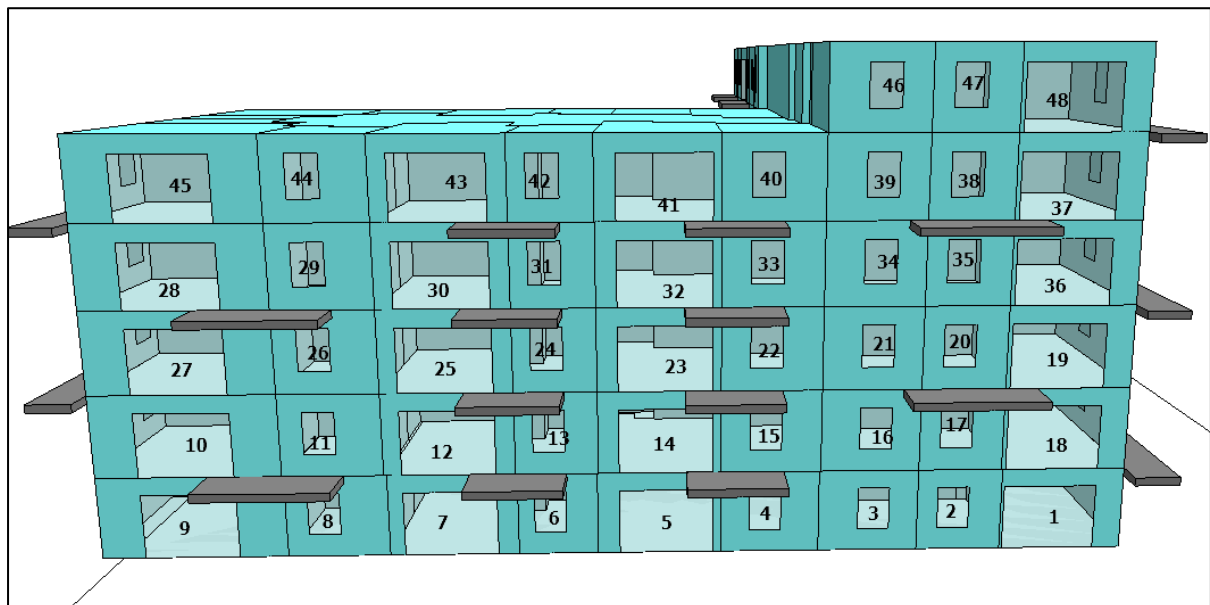


Figure 201. Northwest elevation of Building 06 (modelling software)

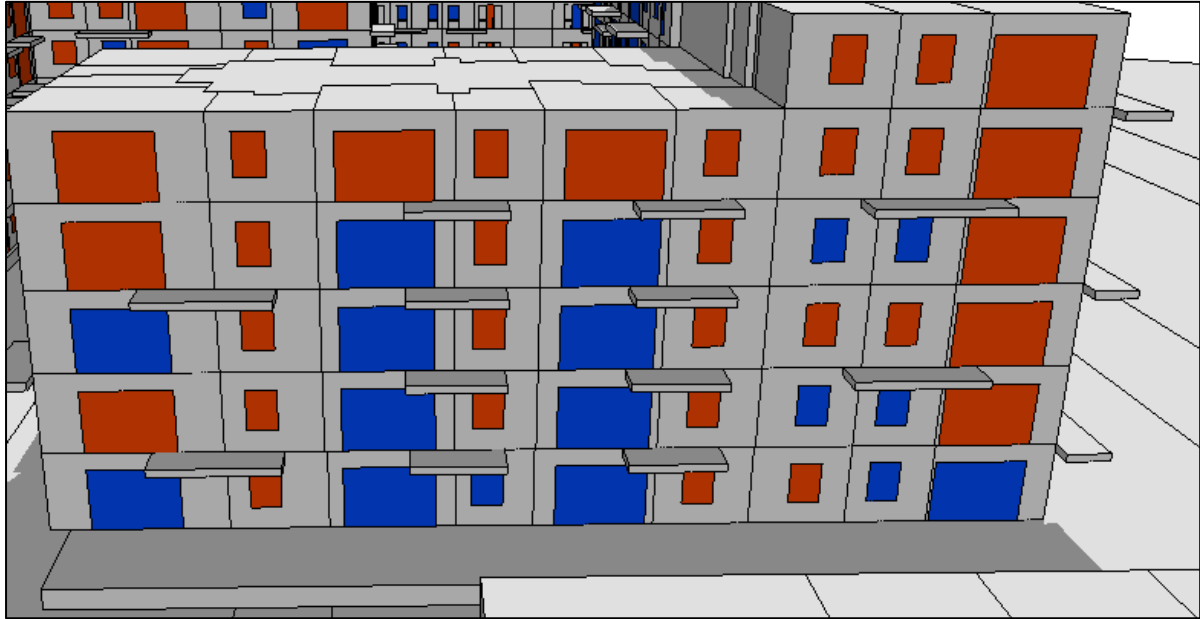


Figure 202. Windows achieving 1.5 hours of sunlight - Northwest elevation of Building 06 (modelling software)

Table 94. Sunlight Exposure and APSH/WPSH results for Northwest elevation of Building 06

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	16.63	0.49	Fail	Fail	Fail
2	17.91	0.7	Fail	Fail	Fail
3	15.63	1.4	Fail	Fail	Pass
4	14.71	1.4	Fail	Fail	Pass
5	9.21	0.95	Fail	Fail	Fail
6	12.32	1.14	Fail	Fail	Fail
7	7.86	0.86	Fail	Fail	Fail
8	12.71	1.5	Fail	Fail	Pass
9	7.11	1.12	Fail	Fail	Fail
10	15.03	2.39	Fail	Fail	Pass
11	14.67	1.64	Fail	Fail	Pass
12	9.28	1.6	Fail	Fail	Fail
13	14.29	1.57	Fail	Fail	Pass
14	11.72	1.64	Fail	Fail	Fail
15	16.6	1.6	Fail	Fail	Pass
16	10.13	0.67	Fail	Fail	Fail
17	9.38	1.14	Fail	Fail	Fail
18	19.19	1.16	Fail	Fail	Pass
19	20.12	2.41	Fail	Fail	Pass
20	21.38	2.1	Fail	Fail	Pass
21	18.65	2.1	Fail	Fail	Pass
22	18.15	2.71	Fail	Fail	Pass
23	12.11	2.01	Fail	Fail	Fail
24	17.05	1.57	Fail	Fail	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
25	11.03	1.75	Fail	Fail	Fail
26	16.05	1.64	Fail	Fail	Pass
27	11.7	1.95	Fail	Fail	Fail
28	24.36	3.16	Fail	Fail	Pass
29	22.79	2.02	Fail	Fail	Pass
30	14.87	1.92	Fail	Fail	Fail
31	21.56	1.72	Fail	Fail	Pass
32	14.97	1.7	Fail	Fail	Fail
33	21.77	2.28	Fail	Fail	Pass
34	12.96	1.95	Fail	Fail	Fail
35	13.05	2.88	Fail	Fail	Fail
36	23.02	2.83	Fail	Fail	Pass
37	25.1	4.76	Pass	Fail	Pass
38	26.42	4.74	Pass	Fail	Pass
39	26.95	5.28	Pass	Pass	Pass
40	27.24	5.56	Pass	Pass	Pass
41	28.17	5.8	Pass	Pass	Pass
42	27.27	5.59	Pass	Pass	Pass
43	28.18	6.09	Pass	Pass	Pass
44	27.14	5.59	Pass	Pass	Pass
45	28.28	6.24	Pass	Pass	Pass
46	27.27	5.59	Pass	Pass	Pass
47	27.27	5.59	Pass	Pass	Pass
48	28.67	6.29	Pass	Pass	Pass

**Northeast Elevation**



Figure 203. Building 06 (modelling software)

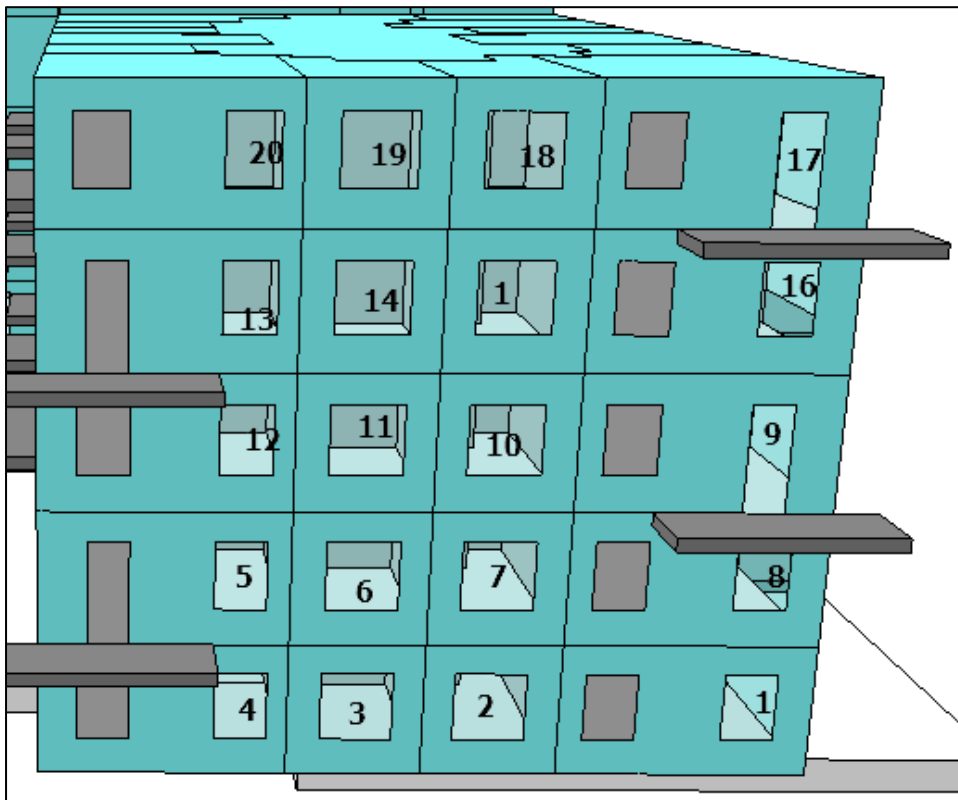


Figure 204. Northeast elevation of Building 06 (modelling software)

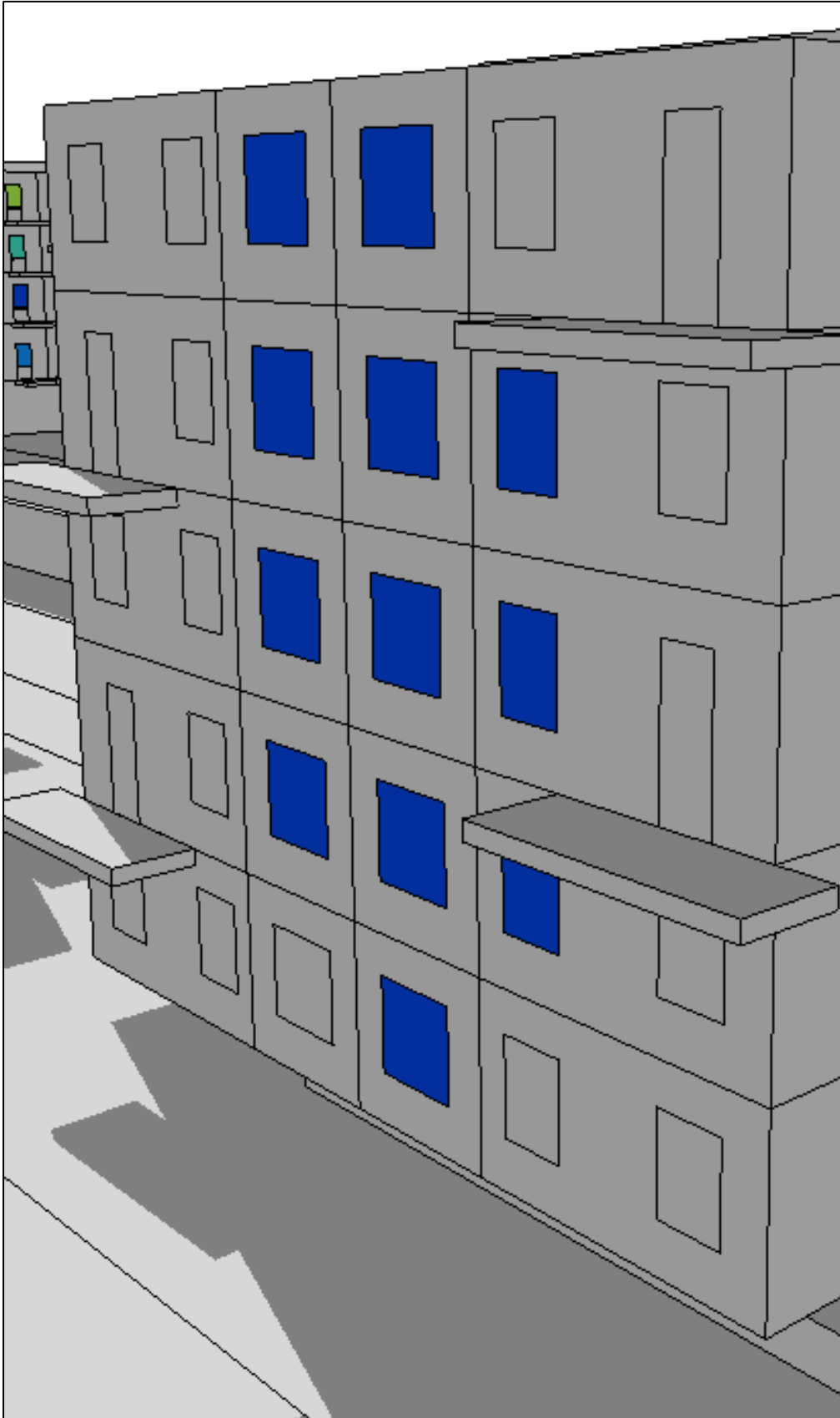


Figure 205. Windows achieving 1.5 hours of sunlight - Northeast elevation of Building 06 (modelling software)



Table 95. Sunlight Exposure and APSH/WPSH results for Northeast elevation of Building 06

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	0.00	0.00	Fail	Fail	Fail
2	4.42	0.00	Fail	Fail	Fail
3	4.13	0.00	Fail	Fail	Fail
4	0.00	0.00	Fail	Fail	Fail
5	4.20	0.00	Fail	Fail	Fail
6	4.21	0.00	Fail	Fail	Fail
7	6.93	0.00	Fail	Fail	Fail
8	0.00	0.00	Fail	Fail	Fail
9	0.00	0.00	Fail	Fail	Fail
10	9.43	0.00	Fail	Fail	Fail
11	8.52	0.00	Fail	Fail	Fail
12	0.49	0.00	Fail	Fail	Fail
13	10.05	0.00	Fail	Fail	Fail
14	10.30	0.00	Fail	Fail	Fail
15	10.72	0.00	Fail	Fail	Fail
16	0.00	0.00	Fail	Fail	Fail
17	0.00	0.00	Fail	Fail	Fail
18	14.96	0.70	Fail	Fail	Fail
19	14.61	0.49	Fail	Fail	Fail
20	14.14	0.22	Fail	Fail	Fail

East Elevation



Figure 206. Building 06 (modelling software)

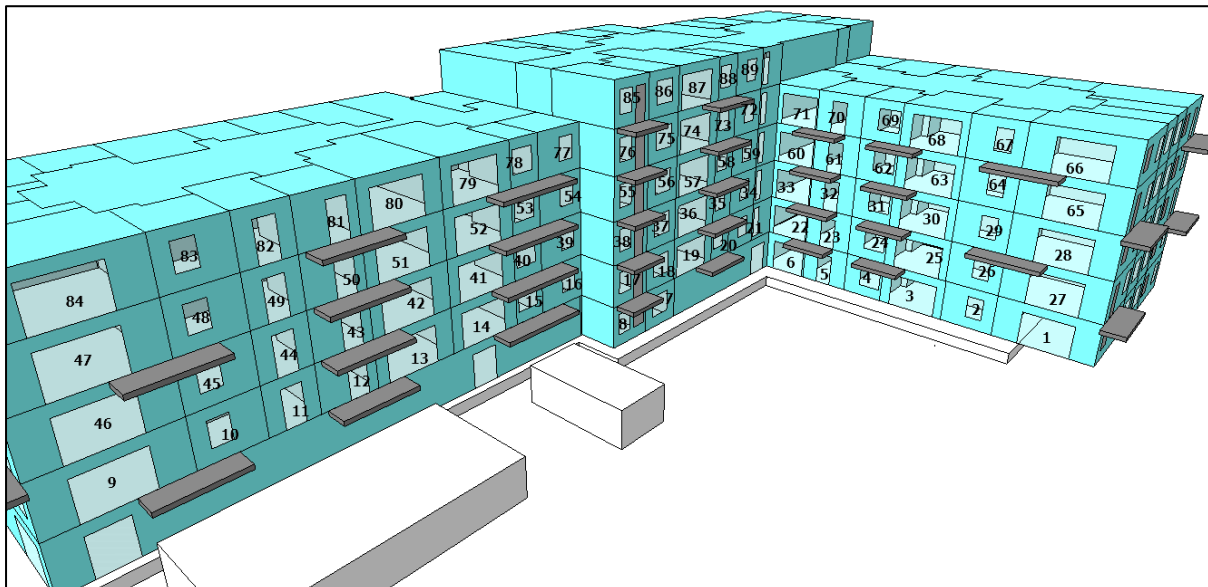


Figure 207. East elevation of Building 06 (modelling software)

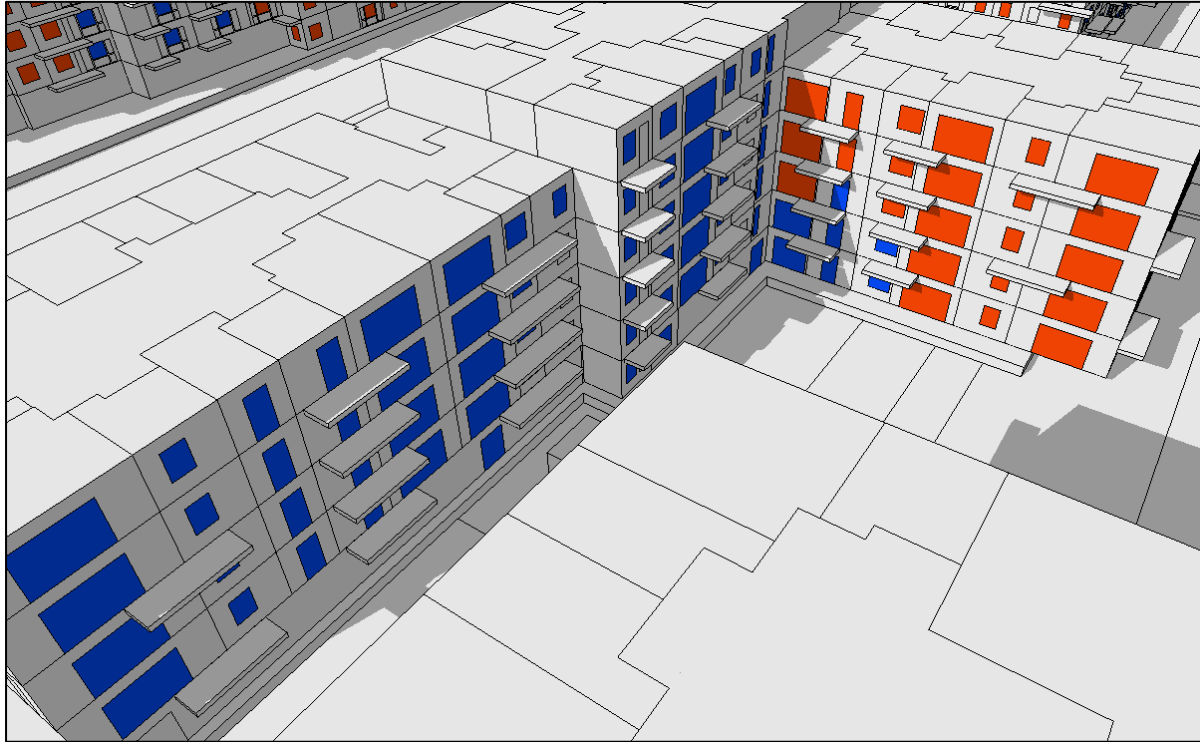


Figure 208. Windows achieving 1.5 hours of sunlight - East elevation of Building 06 (modelling software)

Table 96. Sunlight Exposure and APSH/WPSH results for East elevation of Building 06

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	26.29	6.98	Pass	Pass	Pass
2	25.31	5.48	Pass	Pass	Pass
3	19.89	4.62	Fail	Fail	Pass
4	8.27	3.01	Fail	Fail	Fail
5	11.01	2.69	Fail	Fail	Fail
6	9.25	1.56	Fail	Fail	Fail
7	1.79	0.47	Fail	Fail	Fail
8	6.81	1.39	Fail	Fail	Fail
9	11.26	0.15	Fail	Fail	Fail
10	7.69	0.70	Fail	Fail	Fail
11	6.06	0.92	Fail	Fail	Fail
12	4.30	1.08	Fail	Fail	Fail
13	1.46	0.62	Fail	Fail	Fail
14	5.45	0.71	Fail	Fail	Fail
15	1.21	0.86	Fail	Fail	Fail
16	0.00	0.00	Fail	Fail	Fail
17	6.77	1.39	Fail	Fail	Fail
18	2.52	0.46	Fail	Fail	Fail
19	7.20	0.85	Fail	Fail	Fail
20	3.38	1.25	Fail	Fail	Fail
21	6.26	0.26	Fail	Fail	Fail

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
22	11.37	2.10	Fail	Fail	Fail
23	12.99	3.19	Fail	Fail	Fail
24	11.64	4.89	Fail	Fail	Fail
25	21.92	5.58	Fail	Pass	Pass
26	15.50	7.02	Fail	Pass	Pass
27	22.08	7.36	Fail	Pass	Pass
28	35.41	13.14	Pass	Pass	Pass
29	39.21	11.96	Pass	Pass	Pass
30	26.84	8.74	Pass	Pass	Pass
31	16.03	6.56	Fail	Pass	Pass
32	16.26	4.05	Fail	Fail	Fail
33	14.07	2.86	Fail	Fail	Pass
34	6.69	0.46	Fail	Fail	Fail
35	4.39	1.43	Fail	Fail	Fail
36	9.32	1.29	Fail	Fail	Fail
37	4.75	1.01	Fail	Fail	Fail
38	8.60	2.43	Fail	Fail	Fail
39	1.46	0.81	Fail	Fail	Fail
40	2.53	1.52	Fail	Fail	Fail
41	9.54	0.96	Fail	Fail	Fail
42	2.18	0.56	Fail	Fail	Fail
43	4.49	0.87	Fail	Fail	Fail
44	6.91	0.25	Fail	Fail	Fail
45	3.02	0.62	Fail	Fail	Fail
46	11.97	1.13	Fail	Fail	Fail
47	12.59	1.12	Fail	Fail	Fail
48	12.21	2.26	Fail	Fail	Fail
49	11.44	2.31	Fail	Fail	Fail
50	6.56	2.50	Fail	Fail	Fail
51	4.27	1.78	Fail	Fail	Fail
52	11.48	1.95	Fail	Fail	Fail
53	3.28	2.12	Fail	Fail	Fail
54	2.17	0.95	Fail	Fail	Fail
55	11.58	2.43	Fail	Fail	Fail
56	6.65	1.02	Fail	Fail	Fail
57	12.47	1.29	Fail	Fail	Fail
58	5.81	1.43	Fail	Fail	Fail
59	8.12	0.46	Fail	Fail	Fail
60	16.65	3.20	Fail	Fail	Pass
61	20.27	6.66	Fail	Pass	Pass
62	21.26	8.23	Fail	Pass	Pass
63	32.69	11.03	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
64	26.98	13.78	Pass	Pass	Pass
65	31.61	11.96	Pass	Pass	Pass
66	52.73	20.85	Pass	Pass	Pass
67	55.34	20.67	Pass	Pass	Pass
68	51.39	18.27	Pass	Pass	Pass
69	49.54	15.96	Pass	Pass	Pass
70	42.39	10.28	Pass	Pass	Pass
71	27.39	4.70	Pass	Fail	Pass
72	13.01	0.97	Fail	Fail	Fail
73	8.20	1.93	Fail	Fail	Fail
74	17.41	1.60	Fail	Fail	Fail
75	11.30	1.43	Fail	Fail	Fail
76	14.71	2.78	Fail	Fail	Fail
77	15.96	2.80	Fail	Fail	Fail
78	14.77	2.80	Fail	Fail	Fail
79	15.02	2.92	Fail	Fail	Fail
80	14.24	2.80	Fail	Fail	Fail
81	13.07	2.80	Fail	Fail	Fail
82	12.78	2.80	Fail	Fail	Fail
83	14.50	2.80	Fail	Fail	Fail
84	16.16	2.89	Fail	Fail	Fail
85	19.73	3.14	Fail	Fail	Fail
86	19.78	2.80	Fail	Fail	Fail
87	20.43	2.80	Fail	Fail	Fail
88	21.01	2.80	Fail	Fail	Fail
89	20.69	2.80	Fail	Fail	Fail

Southeast Elevation

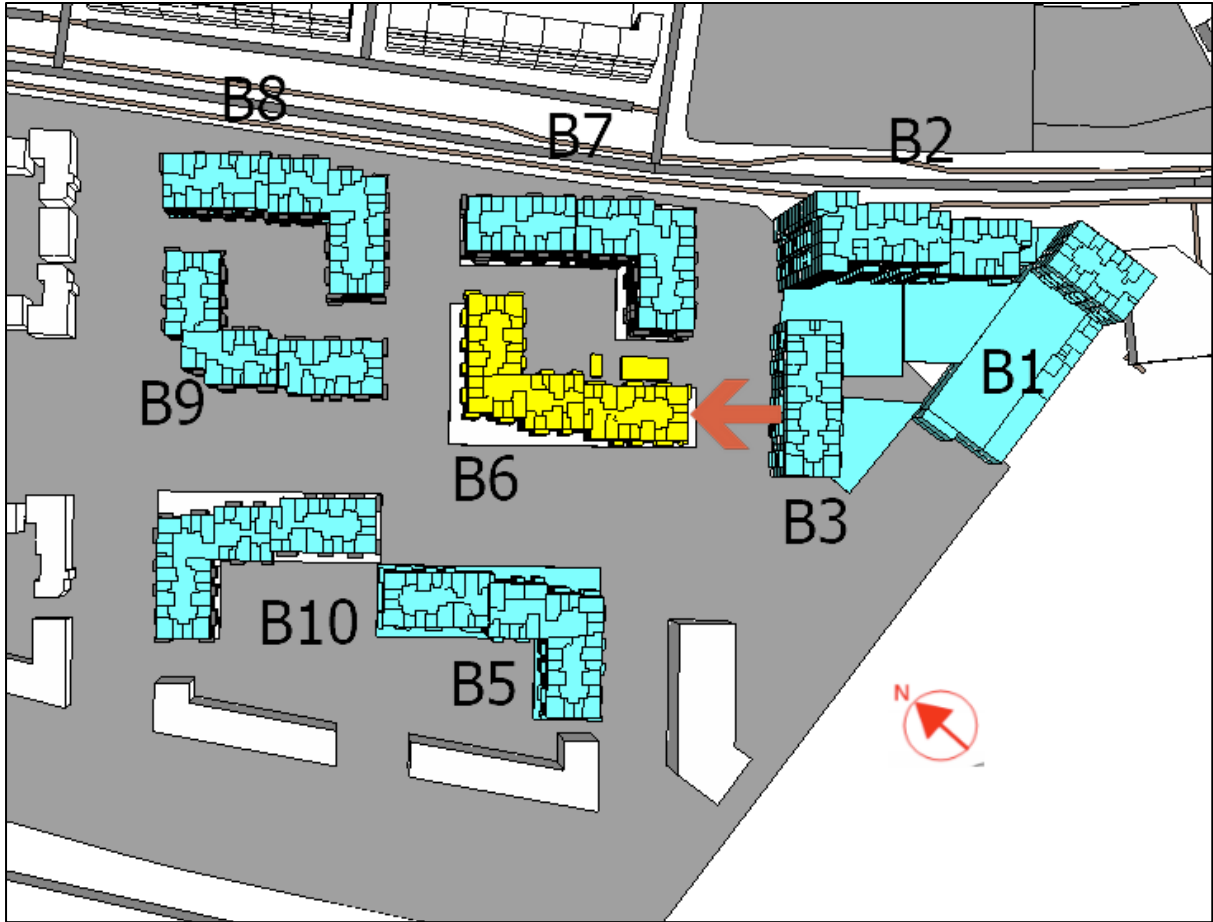


Figure 209. Building 06 (modelling software)

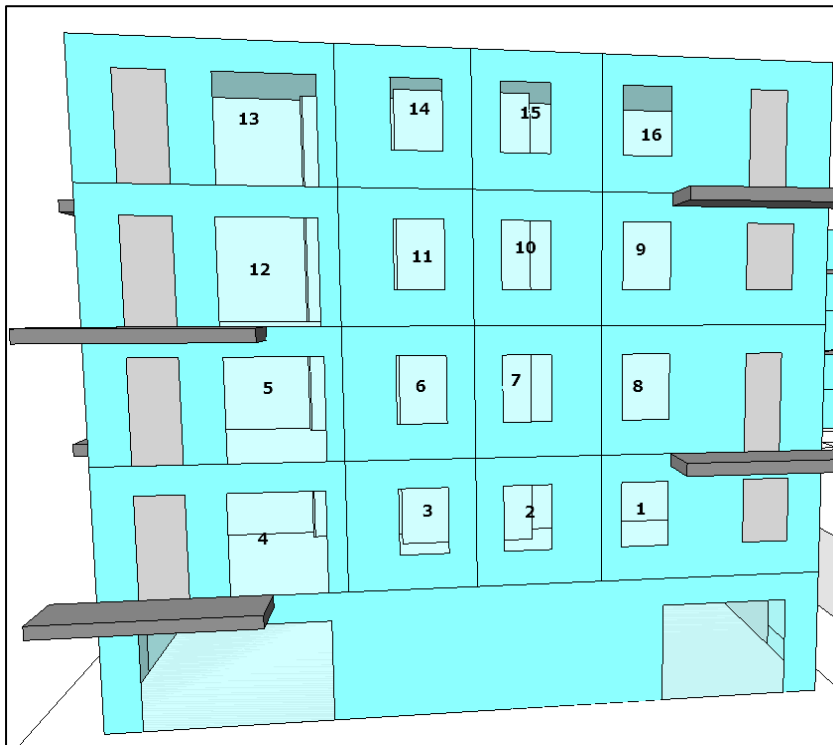


Figure 210. Southeast elevation of Building 06 (modelling software)





Figure 211. Windows achieving 1.5 hours of sunlight - Southeast elevation of Building 06 (modelling software)

Table 97. Sunlight Exposure and APSH/WPSH results for Southeast elevation of Building 06

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	0.00	0.00	Fail	Fail	Pass
2	45.97	17.21	Pass	Pass	Pass
3	43.12	16.70	Pass	Pass	Pass
4	43.84	17.89	Pass	Pass	Pass
5	33.98	15.51	Pass	Pass	Pass
6	47.96	17.74	Pass	Pass	Pass
7	49.62	18.88	Pass	Pass	Pass
8	0.00	0.00	Fail	Fail	Pass
9	0.00	0.00	Fail	Fail	Pass
10	54.96	23.88	Pass	Pass	Pass
11	54.33	23.68	Pass	Pass	Pass
12	55.77	24.31	Pass	Pass	Pass
13	59.99	28.52	Pass	Pass	Pass
14	58.74	27.97	Pass	Pass	Pass
15	59.84	27.97	Pass	Pass	Pass
16	59.83	27.97	Pass	Pass	Pass

## Building 07

### Northeast Elevation

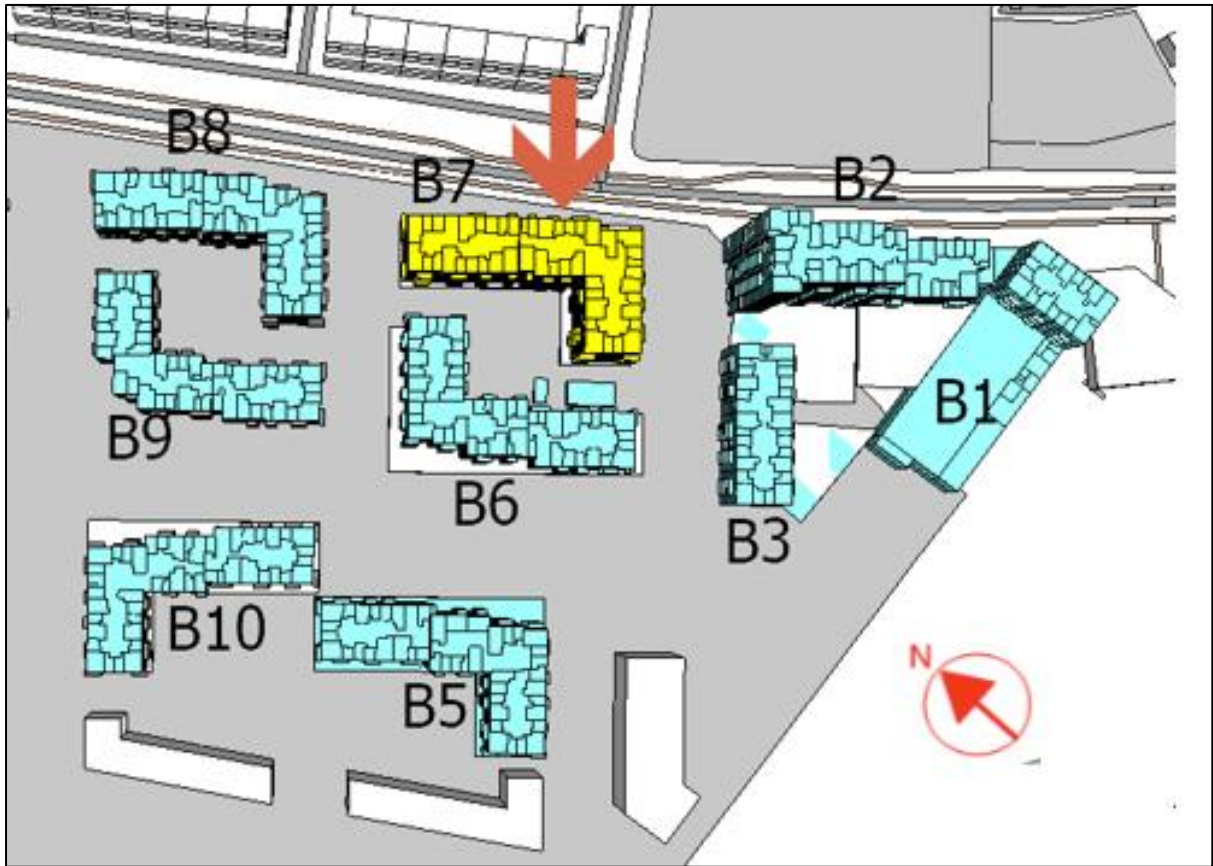


Figure 212. Building 07 (modelling software)

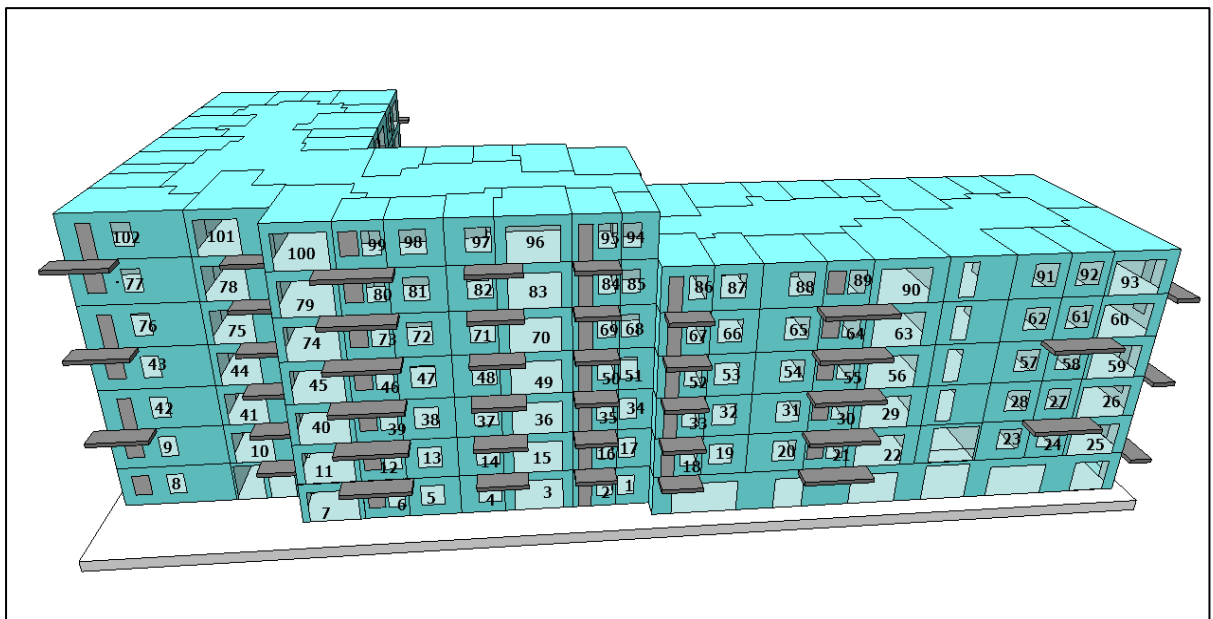


Figure 213. Northeast elevation of Building 07 (modelling software)

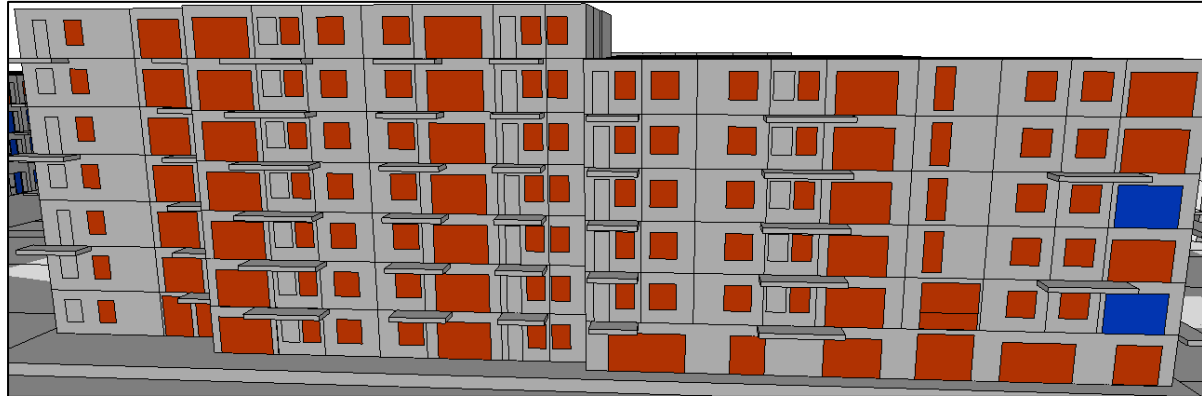


Figure 214. Windows achieving 1.5 hours of sunlight - Northeast elevation of Building 07 (modelling software)

Table 98. Sunlight Exposure and APSH/WPSH results for Northeast elevation of Building 07

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	11.45	3.42	Fail	Fail	Pass
2	12.87	3.66	Fail	Fail	Pass
3	15.28	3.99	Fail	Fail	Pass
4	18.63	4.03	Fail	Fail	Pass
5	15.63	3.27	Fail	Fail	Pass
6	15.22	4.29	Fail	Fail	Pass
7	26.55	5.02	Pass	Pass	Pass
8	22.78	4.16	Fail	Fail	Pass
9	14.67	3.93	Fail	Fail	Pass
10	23.23	4.68	Fail	Fail	Pass
11	27.08	5.59	Pass	Pass	Pass
12	15.37	4.69	Fail	Fail	Pass
13	15.88	3.66	Fail	Fail	Pass
14	18.97	4.37	Fail	Fail	Pass
15	15.3	4.37	Fail	Fail	Pass
16	13.55	3.87	Fail	Fail	Pass
17	12.29	3.67	Fail	Fail	Pass
18	13.99	5.35	Fail	Pass	Pass
19	13.54	4.42	Fail	Fail	Pass
20	13.96	4.75	Fail	Fail	Pass
21	12.42	4.98	Fail	Fail	Pass
22	12.18	4.43	Fail	Fail	Pass
23	21.18	5.07	Fail	Pass	Pass
24	12.53	4.03	Fail	Fail	Pass
25	11.92	3.33	Fail	Fail	Fail
26	22.23	4.34	Fail	Fail	Pass
27	22.52	4.76	Fail	Fail	Pass
28	18.77	5.07	Fail	Pass	Pass
29	13.81	4.45	Fail	Fail	Pass
30	12.76	4.98	Fail	Fail	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
31	19.56	4.75	Fail	Fail	Pass
32	14.32	4.41	Fail	Fail	Pass
33	14.51	5.35	Fail	Pass	Pass
34	12.46	3.67	Fail	Fail	Pass
35	13.69	3.87	Fail	Fail	Pass
36	15.35	4.39	Fail	Fail	Pass
37	19.01	4.37	Fail	Fail	Pass
38	15.84	3.66	Fail	Fail	Pass
39	15.37	4.69	Fail	Fail	Pass
40	27.09	5.59	Pass	Pass	Pass
41	25.18	5.06	Pass	Pass	Pass
42	23.48	4.86	Fail	Fail	Pass
43	14.67	3.93	Fail	Fail	Pass
44	23.24	4.68	Fail	Fail	Pass
45	27.09	5.59	Pass	Pass	Pass
46	15.37	4.69	Fail	Fail	Pass
47	15.84	3.66	Fail	Fail	Pass
48	19.7	4.37	Fail	Fail	Pass
49	15.81	4.39	Fail	Fail	Pass
50	14.04	3.87	Fail	Fail	Pass
51	13.16	3.61	Fail	Fail	Pass
52	15.9	5.35	Fail	Pass	Pass
53	15.68	4.42	Fail	Fail	Pass
54	23.47	4.75	Fail	Fail	Pass
55	14.16	4.98	Fail	Fail	Pass
56	14.96	4.45	Fail	Fail	Pass
57	23.95	5.07	Fail	Pass	Pass
58	14.66	4.55	Fail	Fail	Pass
59	14.69	3.43	Fail	Fail	Fail
60	26.7	5.08	Pass	Pass	Pass
61	26.44	5.46	Pass	Pass	Pass
62	26.33	5.35	Pass	Pass	Pass
63	17.78	4.45	Fail	Fail	Pass
64	16.26	4.98	Fail	Fail	Pass
65	25.73	4.75	Pass	Fail	Pass
66	19	4.41	Fail	Fail	Pass
67	17.3	5.35	Fail	Pass	Pass
68	14.56	3.61	Fail	Fail	Pass
69	15.79	3.87	Fail	Fail	Pass
70	17.33	4.39	Fail	Fail	Pass
71	21.74	4.38	Fail	Fail	Pass
72	15.83	3.66	Fail	Fail	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
73	15.37	4.69	Fail	Fail	Pass
74	27.09	5.59	Pass	Pass	Pass
75	25.78	5.06	Pass	Pass	Pass
76	23.48	4.86	Fail	Fail	Pass
77	14.67	3.93	Fail	Fail	Pass
78	26.06	4.68	Pass	Fail	Pass
79	27.09	5.59	Pass	Pass	Pass
80	15.37	4.69	Fail	Fail	Pass
81	16.72	3.66	Fail	Fail	Pass
82	22.47	4.37	Fail	Fail	Pass
83	18.01	4.39	Fail	Fail	Pass
84	15.79	3.87	Fail	Fail	Pass
85	14.56	3.61	Fail	Fail	Pass
86	26.57	5.59	Pass	Pass	Pass
87	26.57	5.59	Pass	Pass	Pass
88	26.57	5.59	Pass	Pass	Pass
89	26.57	5.59	Pass	Pass	Pass
90	27.27	5.59	Pass	Pass	Pass
91	26.57	5.59	Pass	Pass	Pass
92	26.57	5.59	Pass	Pass	Pass
93	27.27	5.59	Pass	Pass	Pass
94	26.57	5.59	Pass	Pass	Pass
95	26.57	5.59	Pass	Pass	Pass
96	27.27	5.59	Pass	Pass	Pass
97	26.57	5.59	Pass	Pass	Pass
98	26.57	5.59	Pass	Pass	Pass
99	26.57	5.59	Pass	Pass	Pass
100	27.27	5.59	Pass	Pass	Pass
101	26.75	5.06	Pass	Pass	Pass
102	25.84	4.86	Pass	Fail	Pass

Southeast Elevation

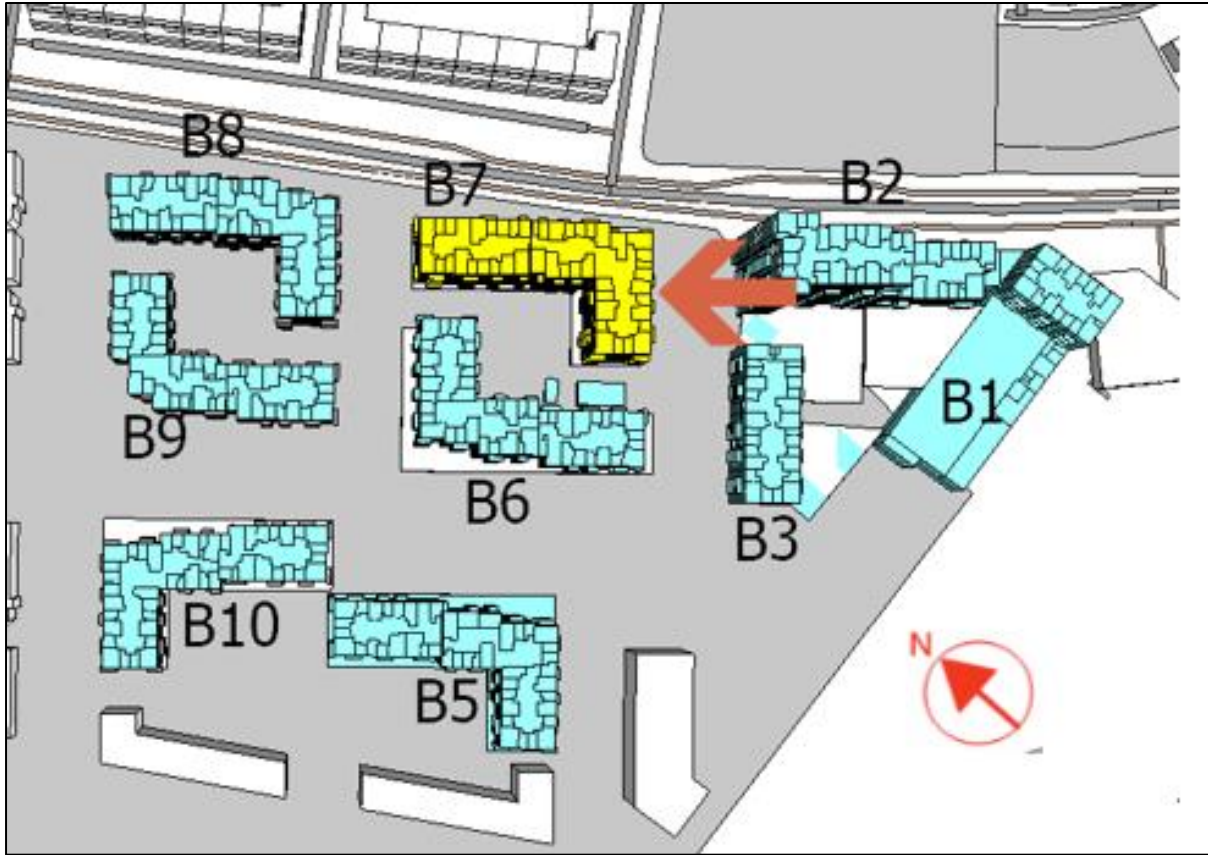


Figure 215. Building 07 (modelling software)

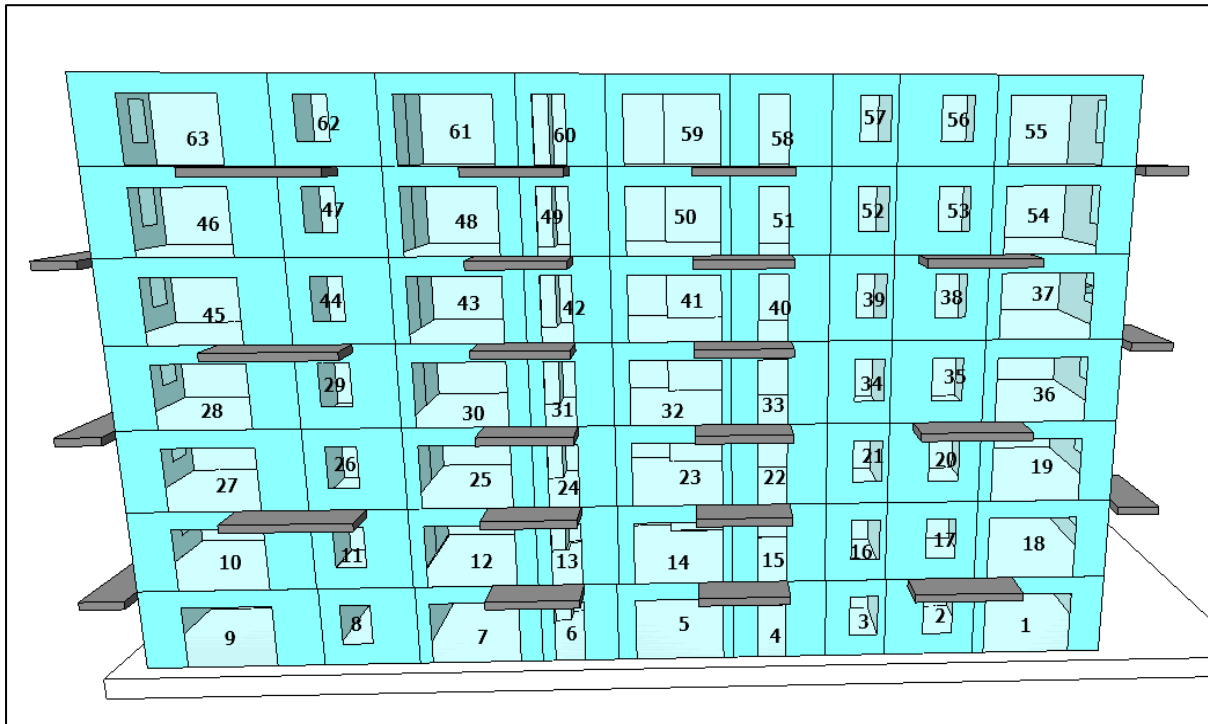


Figure 216. Southeast elevation of Building 07 (modelling software)



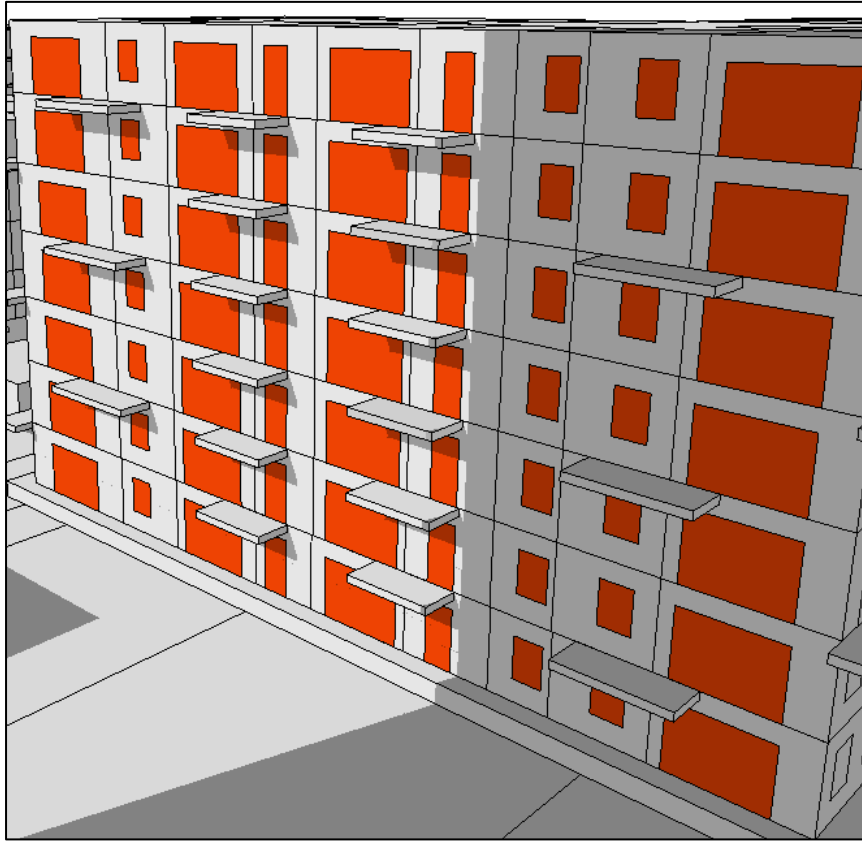


Figure 217. Windows achieving 1.5 hours of sunlight - Southeast elevation of Building 07 (modelling software)

Table 99. Sunlight Exposure and APSH/WPSH results for Southeast elevation of Building 07

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	34.39	9.89	Pass	Pass	Pass
2	25.92	11.7	Pass	Pass	Pass
3	37.89	4.53	Pass	Pass	Pass
4	27.35	11.08	Pass	Pass	Pass
5	36.89	13.78	Pass	Pass	Pass
6	27.1	12.44	Pass	Pass	Pass
7	37.47	15.58	Pass	Pass	Pass
8	37.37	13.81	Pass	Pass	Pass
9	40.2	12.8	Pass	Pass	Pass
10	41.45	16.98	Pass	Pass	Pass
11	20.38	10.29	Pass	Pass	Pass
12	38.48	15.73	Pass	Pass	Pass
13	29.53	15.01	Pass	Pass	Pass
14	38.64	15.84	Pass	Pass	Pass
15	28.89	12.65	Pass	Pass	Pass
16	42.25	15.05	Pass	Pass	Pass
17	46.07	17.07	Pass	Pass	Pass
18	47.49	17.49	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
19	39.71	14.64	Pass	Pass	Pass
20	30.09	16.22	Pass	Pass	Pass
21	42.78	16.72	Pass	Pass	Pass
22	31.84	15.35	Pass	Pass	Pass
23	42.82	19.47	Pass	Pass	Pass
24	33.26	18.31	Pass	Pass	Pass
25	44.11	21.71	Pass	Pass	Pass
26	45.48	20.93	Pass	Pass	Pass
27	48.19	20.58	Pass	Pass	Pass
28	49.06	24.43	Pass	Pass	Pass
29	27.09	16.76	Pass	Pass	Pass
30	46.26	22.18	Pass	Pass	Pass
31	34.8	20.45	Pass	Pass	Pass
32	44.14	20.1	Pass	Pass	Pass
33	32.93	15.64	Pass	Pass	Pass
34	46.05	16.77	Pass	Pass	Pass
35	49.81	18.3	Pass	Pass	Pass
36	49.96	18.9	Pass	Pass	Pass
37	41.49	14.62	Pass	Pass	Pass
38	30.81	16.22	Pass	Pass	Pass
39	45.92	16.77	Pass	Pass	Pass
40	33.45	15.93	Pass	Pass	Pass
41	46.21	20.59	Pass	Pass	Pass
42	35.54	19.98	Pass	Pass	Pass
43	50.09	25.04	Pass	Pass	Pass
44	49.86	24.5	Pass	Pass	Pass
45	54.82	25.73	Pass	Pass	Pass
46	55.34	27.67	Pass	Pass	Pass
47	30.03	19.01	Pass	Pass	Pass
48	51.62	23.19	Pass	Pass	Pass
49	35.98	19.4	Pass	Pass	Pass
50	49.64	20.35	Pass	Pass	Pass
51	33.93	16	Pass	Pass	Pass
52	51.5	16.77	Pass	Pass	Pass
53	53.32	18.3	Pass	Pass	Pass
54	55.72	19.36	Pass	Pass	Pass
55	57.42	19.84	Pass	Pass	Pass
56	56.14	19.78	Pass	Pass	Pass
57	56.47	20.28	Pass	Pass	Pass
58	57.02	21.42	Pass	Pass	Pass
59	58.13	23.12	Pass	Pass	Pass
60	29	24.61	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
61	59.72	26.49	Pass	Pass	Pass
62	58.22	26.6	Pass	Pass	Pass
63	60.37	28.09	Pass	Pass	Pass

**Southwest Elevation**

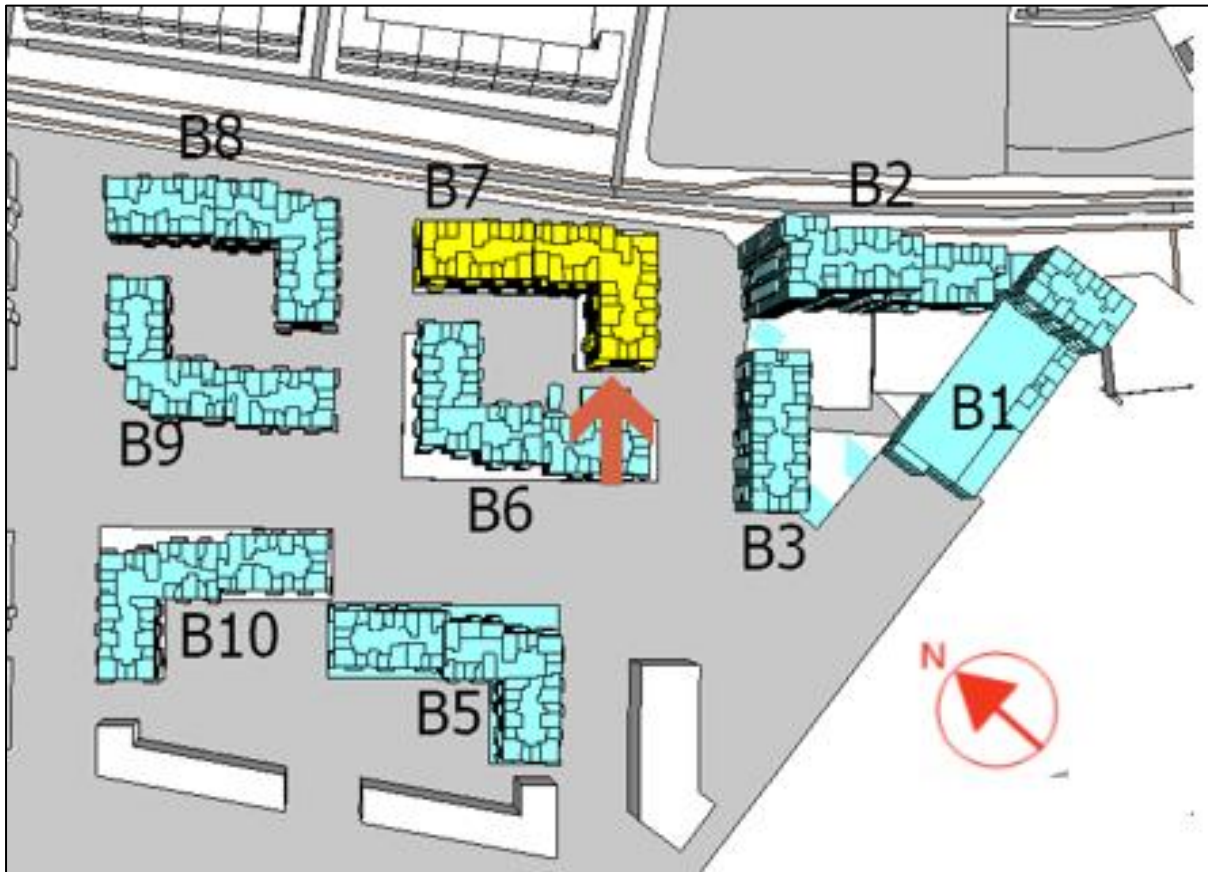


Figure 218. Building 07 (modelling software)

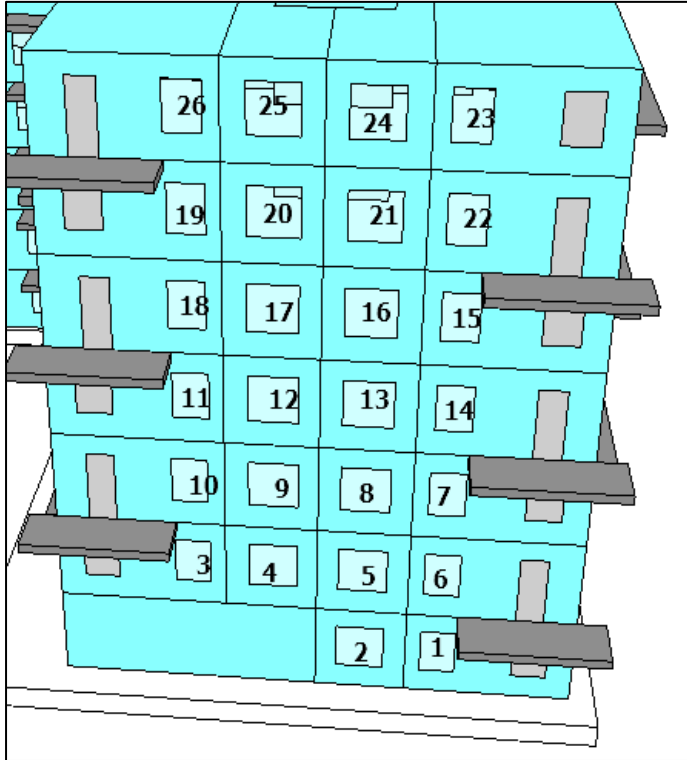


Figure 219. Southwest elevation of Building 07 (modelling software)

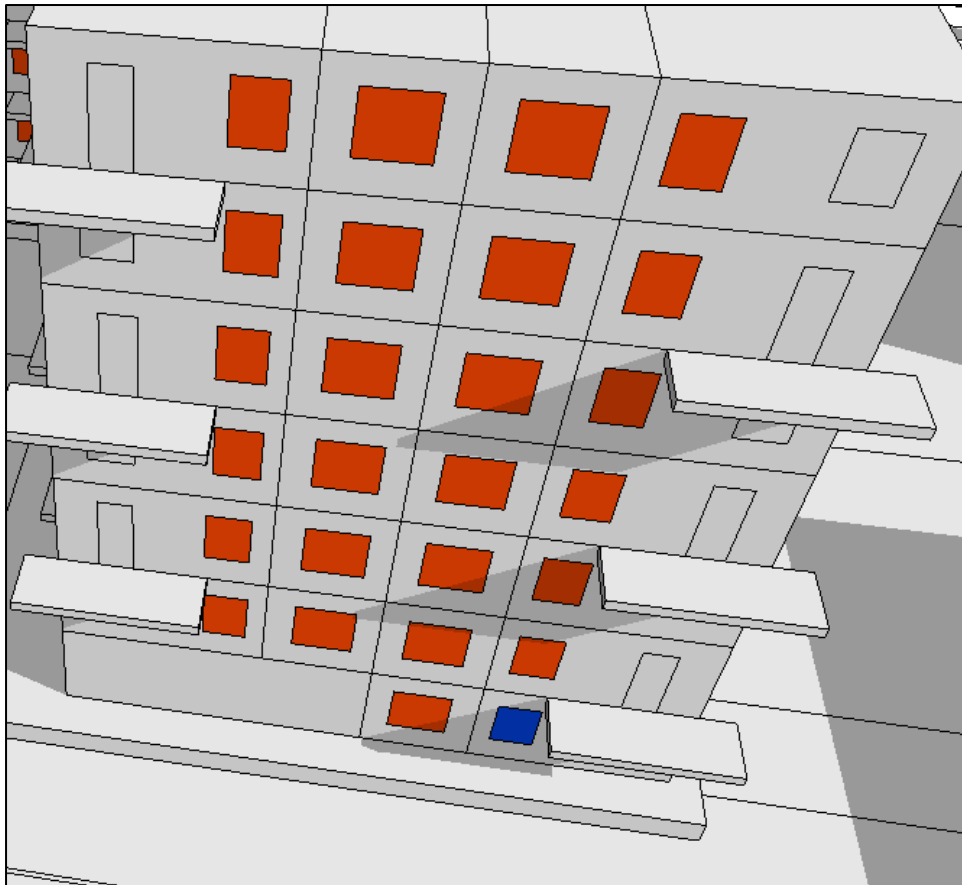


Figure 220. Windows achieving 1.5 hours of sunlight - Southwest elevation of Building 07 (modelling software)

Table 100. Sunlight Exposure and APSH/WPSH results for Southwest elevation of Building 07

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	19.00	7.42	Fail	Pass	Fail
2	29.00	9.88	Pass	Pass	Pass
3	32.95	10.63	Pass	Pass	Pass
4	36.08	12.27	Pass	Pass	Pass
5	35.11	13.01	Pass	Pass	Pass
6	35.16	13.91	Pass	Pass	Pass
7	30.02	10.23	Pass	Pass	Pass
8	41.70	14.11	Pass	Pass	Pass
9	44.75	15.81	Pass	Pass	Pass
10	43.61	15.37	Pass	Pass	Pass
11	48.98	21.07	Pass	Pass	Pass
12	53.66	20.98	Pass	Pass	Pass
13	52.18	21.43	Pass	Pass	Pass
14	51.01	21.84	Pass	Pass	Pass
15	46.18	19.99	Pass	Pass	Pass
16	61.16	24.44	Pass	Pass	Pass
17	63.48	26.54	Pass	Pass	Pass
18	63.67	27.17	Pass	Pass	Pass
19	64.58	30.54	Pass	Pass	Pass
20	69.31	30.74	Pass	Pass	Pass
21	69.67	30.77	Pass	Pass	Pass
22	69.19	30.77	Pass	Pass	Pass
23	69.93	30.77	Pass	Pass	Pass
24	70.63	30.77	Pass	Pass	Pass
25	70.63	30.77	Pass	Pass	Pass
26	69.93	30.77	Pass	Pass	Pass



West Elevation



Figure 221. Building 07 (modelling software)



Figure 222. West elevation of Building 07 (modelling software)



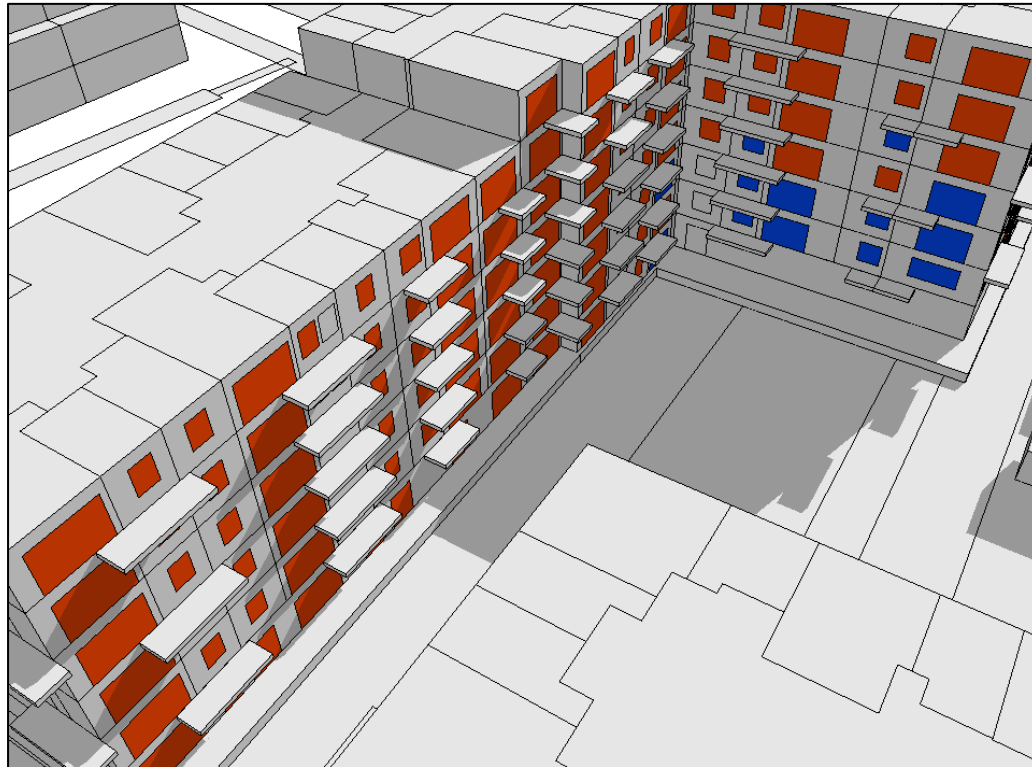


Figure 223. Windows achieving 1.5 hours of sunlight - West elevation of Building 07 (modelling software)

Table 101. Sunlight Exposure and APSH/WPSH results for West elevation of Building 07

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
0	11.45	0.73	Fail	Fail	Pass
1	9.31	1.09	Fail	Fail	Pass
2	7.45	1.6	Fail	Fail	Pass
3	18.93	2.74	Fail	Fail	Pass
4	13.8	2.92	Fail	Fail	Pass
5	36.43	9.07	Pass	Pass	Pass
6	38.82	8.96	Pass	Pass	Pass
7	35.16	8.63	Pass	Pass	Pass
8	24.98	7.7	Fail	Pass	Pass
9	12.98	7.61	Fail	Pass	Fail
10	33.56	12.12	Pass	Pass	Pass
11	13.63	7.45	Fail	Pass	Pass
12	30.43	9.19	Pass	Pass	Pass
13	21.18	7	Fail	Pass	Pass
14	17.07	4.5	Fail	Fail	Pass
15	23.68	4.38	Fail	Fail	Pass
16	13.46	3.28	Fail	Fail	Pass
17	13.54	2.57	Fail	Fail	Pass
18	15.11	1.78	Fail	Fail	Pass
19	5.25	0	Fail	Fail	Fail

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
20	4.03	0.45	Fail	Fail	Fail
21	11.11	0.4	Fail	Fail	Fail
22	9.33	0	Fail	Fail	Fail
23	8.52	0	Fail	Fail	Fail
24	11.92	0.15	Fail	Fail	Fail
25	4.7	0.25	Fail	Fail	Fail
26	14.32	0.37	Fail	Fail	Fail
27	6.27	0.45	Fail	Fail	Fail
28	6.78	0	Fail	Fail	Fail
29	16.81	2.22	Fail	Fail	Fail
30	15.06	2.85	Fail	Fail	Pass
31	17.57	4.87	Fail	Fail	Pass
32	29.22	6.87	Pass	Pass	Pass
33	21.81	6.68	Fail	Pass	Pass
34	28.8	10.63	Pass	Pass	Pass
35	37.56	13.25	Pass	Pass	Pass
36	21.5	10.83	Fail	Pass	Pass
37	39.62	13.89	Pass	Pass	Pass
38	17.23	8.75	Fail	Pass	Fail
39	31.05	9.01	Pass	Pass	Pass
40	39.43	11.23	Pass	Pass	Pass
41	18.59	6.97	Fail	Pass	Pass
42	31.94	7.97	Pass	Pass	Pass
43	50.42	18.31	Pass	Pass	Pass
44	52.8	16.89	Pass	Pass	Pass
45	51.91	15.96	Pass	Pass	Pass
46	38.17	12.43	Pass	Pass	Pass
47	24.03	12.12	Fail	Pass	Pass
48	46.1	16.67	Pass	Pass	Pass
49	26.26	12.8	Pass	Pass	Pass
50	44.37	15.65	Pass	Pass	Pass
51	35.41	13.53	Pass	Pass	Pass
52	28.52	9.87	Pass	Pass	Pass
53	36.03	10.35	Pass	Pass	Pass
54	24.37	7.81	Fail	Pass	Pass
55	20.89	6.34	Fail	Pass	Pass
56	21.44	4.51	Fail	Fail	Pass
57	10.53	1.15	Fail	Fail	Pass
58	10.46	2.26	Fail	Fail	Fail
59	17.45	2.4	Fail	Fail	Pass
60	17.38	2.14	Fail	Fail	Pass
61	15.41	0.82	Fail	Fail	Fail

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
62	21.51	2.97	Fail	Fail	Pass
63	11.5	2.24	Fail	Fail	Fail
64	22.54	2.58	Fail	Fail	Pass
65	12.68	2.75	Fail	Fail	Pass
66	13.31	1.93	Fail	Fail	Pass
67	25.44	4.99	Pass	Fail	Pass
68	25.23	8.29	Pass	Pass	Pass
69	30.82	11.43	Pass	Pass	Pass
70	41.83	14.03	Pass	Pass	Pass
71	33.17	12.11	Pass	Pass	Pass
72	42.82	17	Pass	Pass	Pass
73	54.2	20.81	Pass	Pass	Pass
74	33.7	17.19	Pass	Pass	Pass
75	57.28	21.5	Pass	Pass	Pass
76	33.08	18.86	Pass	Pass	Pass
77	47.7	19.56	Pass	Pass	Pass
78	59.29	24.89	Pass	Pass	Pass
79	35.58	21.63	Pass	Pass	Pass
80	50.21	22.3	Pass	Pass	Pass
81	70.11	30.83	Pass	Pass	Pass
82	68.67	29.95	Pass	Pass	Pass
83	68.5	29.74	Pass	Pass	Pass
84	69.1	29.72	Pass	Pass	Pass
85	68.42	29.6	Pass	Pass	Pass
86	67.92	29.05	Pass	Pass	Pass
87	68.17	28.56	Pass	Pass	Pass
88	67.17	27.66	Pass	Pass	Pass
89	63.93	24.66	Pass	Pass	Pass
90	39.18	15.69	Pass	Pass	Pass
91	50.04	19.27	Pass	Pass	Pass
92	41.91	18.61	Pass	Pass	Pass
93	30.66	12.53	Pass	Pass	Pass
94	34.48	7.88	Pass	Pass	Pass
95	17.43	3.76	Fail	Fail	Pass
96	16.71	4.76	Fail	Fail	Pass
97	27.38	5.41	Pass	Pass	Pass
98	26.09	4.63	Pass	Fail	Pass
99	25.75	5.27	Pass	Pass	Pass
100	28.67	6.29	Pass	Pass	Pass
101	27.27	5.59	Pass	Pass	Pass
102	28.67	6.29	Pass	Pass	Pass
103	27.27	5.59	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
104	27.27	5.59	Pass	Pass	Pass
105	54.75	16.53	Pass	Pass	Pass
106	66.74	26.88	Pass	Pass	Pass
107	68.27	29.11	Pass	Pass	Pass
108	69.77	29.91	Pass	Pass	Pass
109	59.24	22.36	Pass	Pass	Pass

**Northwest Elevation**

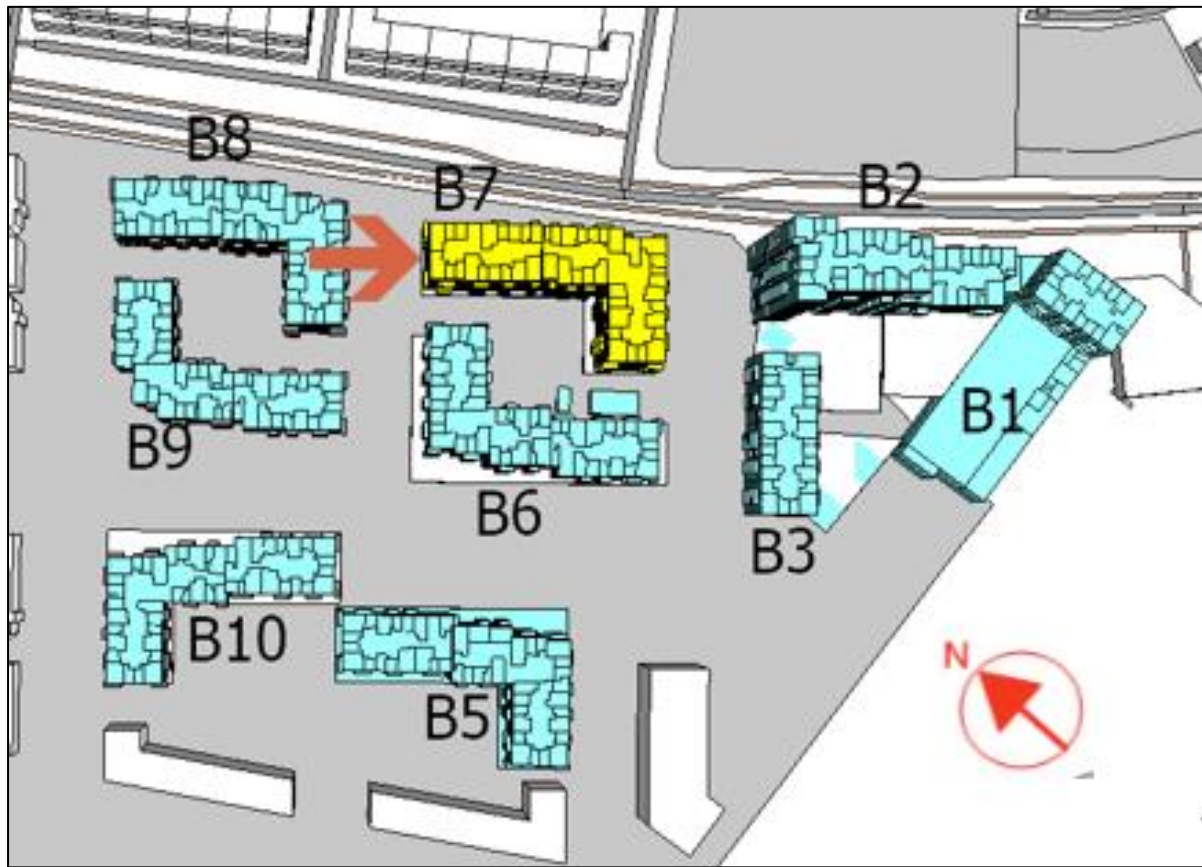


Figure 224. Building 07 (modelling software)

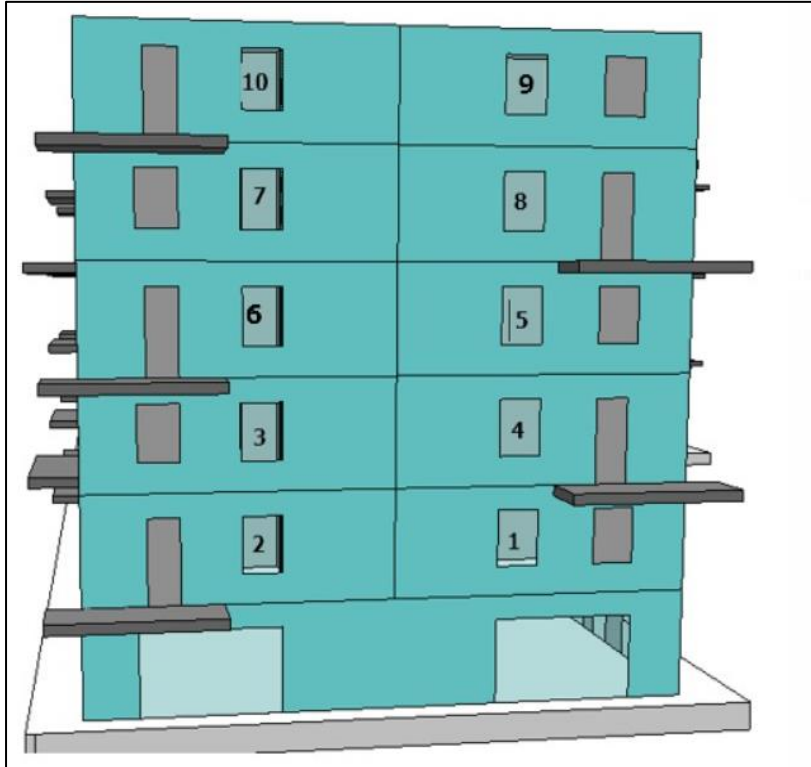


Figure 225. Northwest elevation of Building 07 (modelling software)

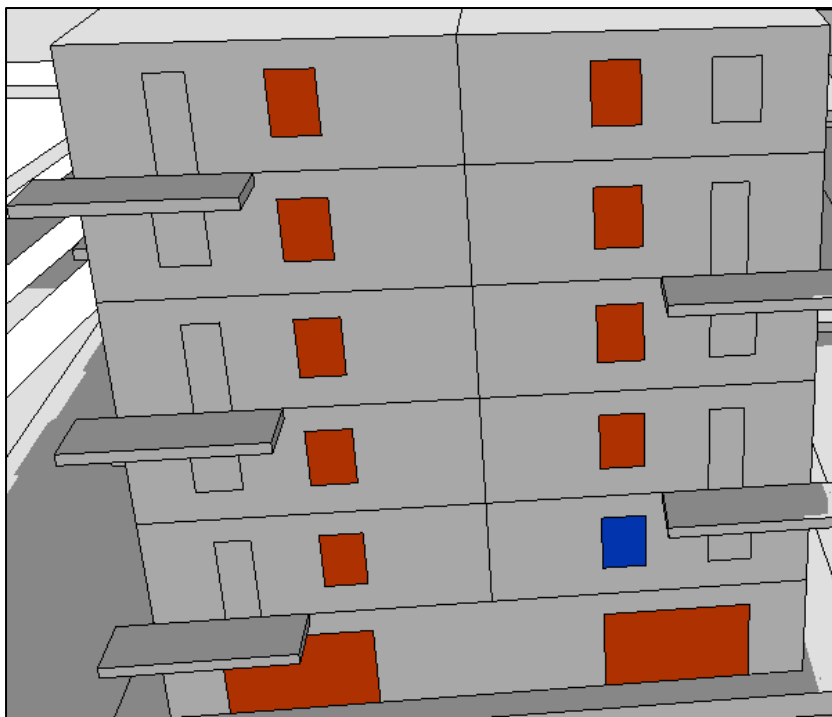


Figure 226. Windows achieving 1.5 hours of sunlight - Northwest elevation of Building 07 (modelling software)

Table 102. Sunlight Exposure and APSH/WPSH results for Northwest elevation of Building 07

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	6.79	1.26	Fail	Fail	Fail
2	13.43	2.50	Fail	Fail	Pass
3	17.26	2.80	Fail	Fail	Pass
4	14.86	2.80	Fail	Fail	Pass
5	10.21	2.75	Fail	Fail	Pass
6	20.32	4.15	Fail	Fail	Pass
7	23.85	5.59	Fail	Pass	Pass
8	23.89	5.59	Fail	Pass	Pass
9	26.58	5.59	Pass	Pass	Pass
10	26.58	5.59	Pass	Pass	Pass



## Building 08

### Northeast Elevation



Figure 227. Building 08 (modelling software)

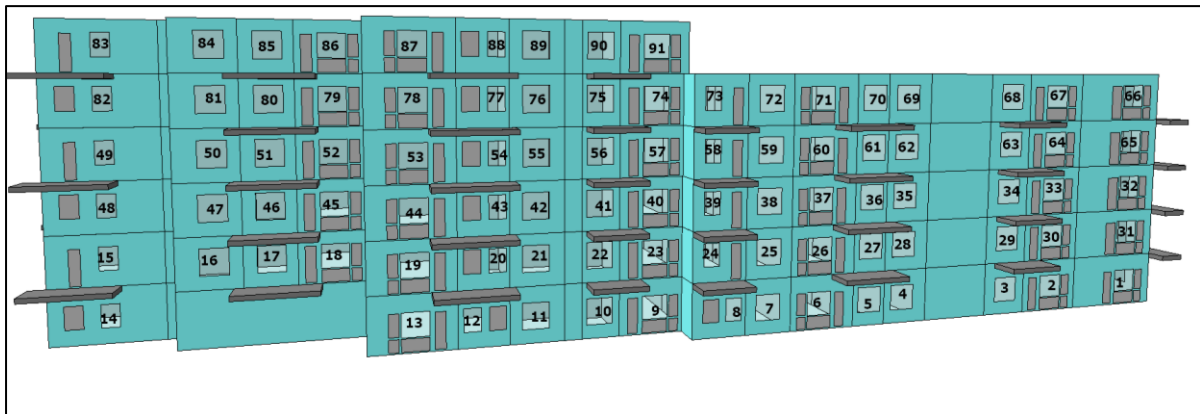


Figure 228. Northeast elevation of Building 08 (modelling software)

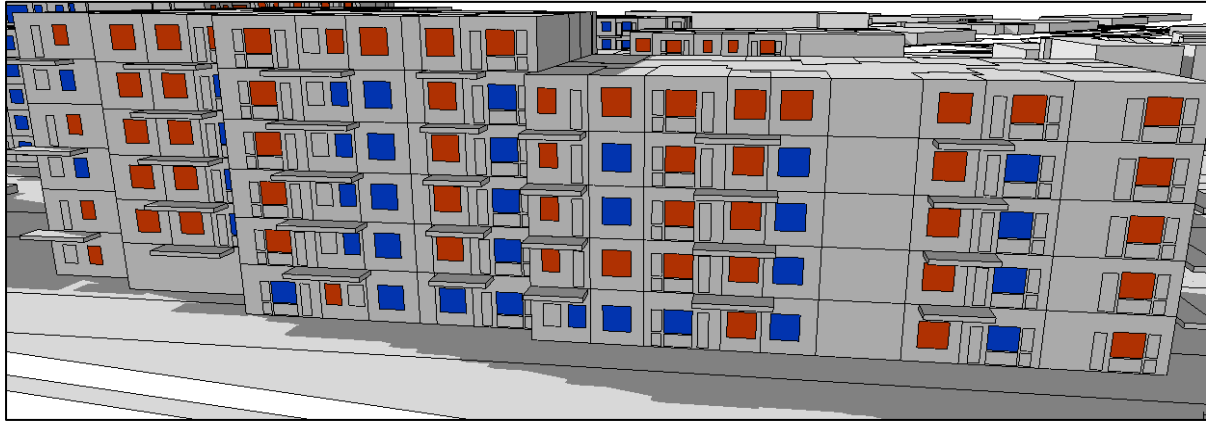


Figure 229. Windows achieving 1.5 hours of sunlight - Northeast elevation of Building 08 (modelling software)

Table 103. Sunlight Exposure and APSH/WPSH results for Northeast elevation of Building 08

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	15.55	3.41	Fail	Fail	Pass
2	8.58	3.28	Fail	Fail	Fail
3	15.16	3.63	Fail	Fail	Pass
4	9.02	3.23	Fail	Fail	Fail
5	10.36	3.54	Fail	Fail	Pass
6	13.79	2.65	Fail	Fail	Fail
7	10.04	3.11	Fail	Fail	Fail
8	9.28	2.4	Fail	Fail	Fail
9	9.64	3.16	Fail	Fail	Fail
10	15.15	2.54	Fail	Fail	Fail
11	9.81	2.76	Fail	Fail	Fail
12	10.58	2.42	Fail	Fail	Pass
13	19.73	3.8	Fail	Fail	Fail
14	8.29	3.16	Fail	Fail	Pass
15	16.5	3.5	Fail	Fail	Pass
16	19.75	4.2	Fail	Fail	Pass
17	11.11	3.93	Fail	Fail	Pass
18	10.02	2.39	Fail	Fail	Fail
19	21.74	4.2	Fail	Fail	Pass
20	8.75	2.15	Fail	Fail	Fail
21	10.28	2.27	Fail	Fail	Fail
22	15.34	2.96	Fail	Fail	Pass
23	23.23	2.75	Fail	Fail	Fail
24	14.01	2.78	Fail	Fail	Pass
25	11.69	2.76	Fail	Fail	Pass
26	15.84	3.09	Fail	Fail	Pass
27	9.67	3.4	Fail	Fail	Pass
28	8.47	2.63	Fail	Fail	Fail
29	16.09	5.38	Fail	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
30	9.02	2.57	Fail	Fail	Fail
31	18.01	3.47	Fail	Fail	Pass
32	20.95	3.47	Fail	Fail	Pass
33	10.39	2.51	Fail	Fail	Fail
34	18.26	3.58	Fail	Fail	Pass
35	10.17	2.63	Fail	Fail	Fail
36	11.1	3.4	Fail	Fail	Pass
37	19.6	2.94	Fail	Fail	Pass
38	13.08	2.76	Fail	Fail	Fail
39	16.01	2.78	Fail	Fail	Pass
40	11.26	2.71	Fail	Fail	Fail
41	15.88	2.96	Fail	Fail	Pass
42	10.84	2.27	Fail	Fail	Fail
43	9.81	2.15	Fail	Fail	Fail
44	23.52	4.2	Fail	Fail	Pass
45	11.89	2.39	Fail	Fail	Fail
46	12.96	3.93	Fail	Fail	Pass
47	21.61	4.2	Fail	Fail	Pass
48	9.87	2.72	Fail	Fail	Fail
49	19.45	3.5	Fail	Fail	Pass
50	22.78	4.2	Fail	Fail	Pass
51	14.1	3.92	Fail	Fail	Pass
52	12.28	2.35	Fail	Fail	Fail
53	24.32	4.2	Fail	Fail	Pass
54	11.08	2.15	Fail	Fail	Fail
55	12.29	2.27	Fail	Fail	Fail
56	18.09	2.76	Fail	Fail	Pass
57	11.58	2.42	Fail	Fail	Fail
58	16.78	2.78	Fail	Fail	Pass
59	16.3	2.75	Fail	Fail	Fail
60	21.58	2.94	Fail	Fail	Pass
61	12.35	3.39	Fail	Fail	Pass
62	11.82	2.61	Fail	Fail	Fail
63	19.43	3.7	Fail	Fail	Pass
64	12.44	2.91	Fail	Fail	Fail
65	22.29	3.48	Fail	Fail	Pass
66	25.29	4.31	Pass	Fail	Pass
67	25.43	4.45	Pass	Fail	Pass
68	25.38	4.4	Pass	Fail	Pass
69	25.24	4.28	Pass	Fail	Pass
70	25.23	4.28	Pass	Fail	Pass
71	25.21	4.24	Pass	Fail	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
72	25.19	4.26	Pass	Fail	Pass
73	23.06	2.8	Fail	Fail	Pass
74	14.66	2.81	Fail	Fail	Fail
75	21.44	3.06	Fail	Fail	Pass
76	16.12	2.34	Fail	Fail	Fail
77	12.8	2.16	Fail	Fail	Fail
78	25.2	4.22	Pass	Fail	Pass
79	14.05	2.43	Fail	Fail	Fail
80	16.26	4.02	Fail	Fail	Pass
81	25.22	4.29	Pass	Fail	Pass
82	13.46	2.82	Fail	Fail	Fail
83	24.48	4.2	Fail	Fail	Pass
84	26.57	5.59	Pass	Pass	Pass
85	26.57	5.59	Pass	Pass	Pass
86	26.57	5.59	Pass	Pass	Pass
87	26.57	5.59	Pass	Pass	Pass
88	24.48	4.2	Fail	Fail	Pass
89	26.57	5.59	Pass	Pass	Pass
90	26.57	5.59	Pass	Pass	Pass
91	26.57	5.59	Pass	Pass	Pass

Southeast Elevation

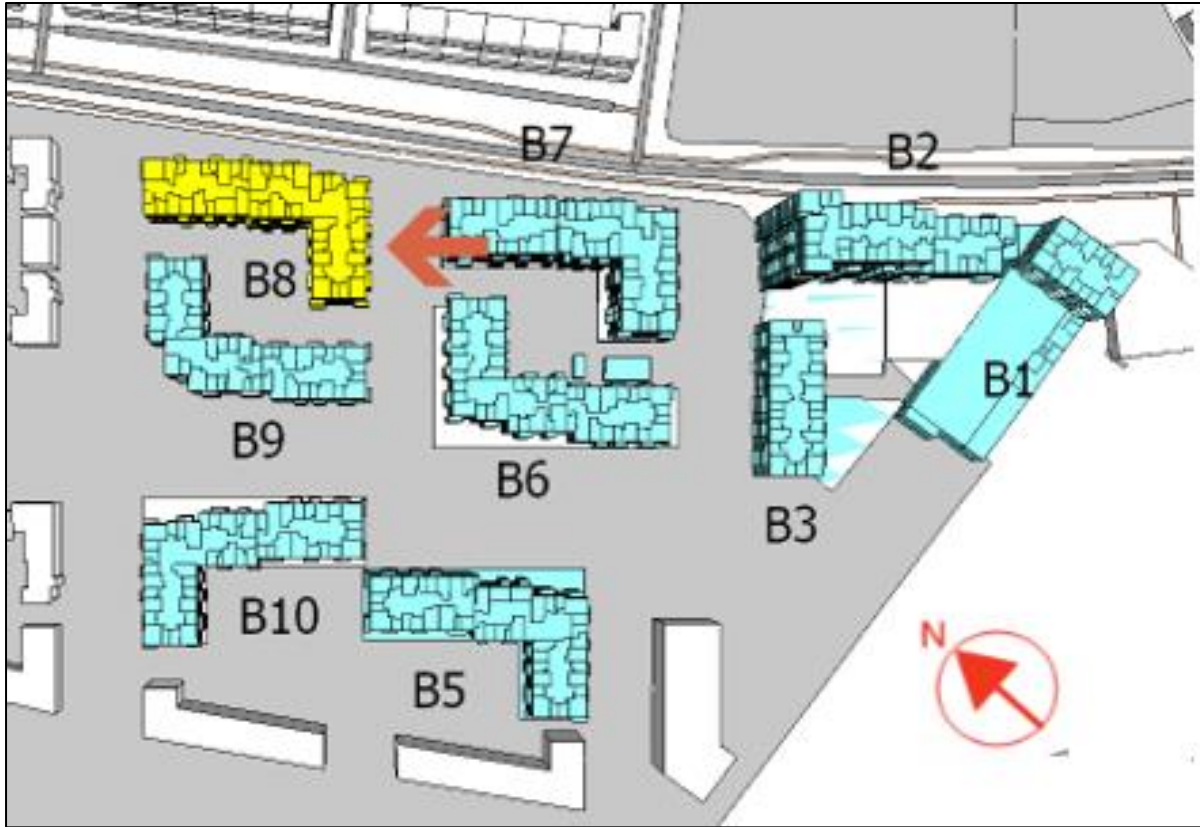


Figure 230. Building 08 (modelling software)

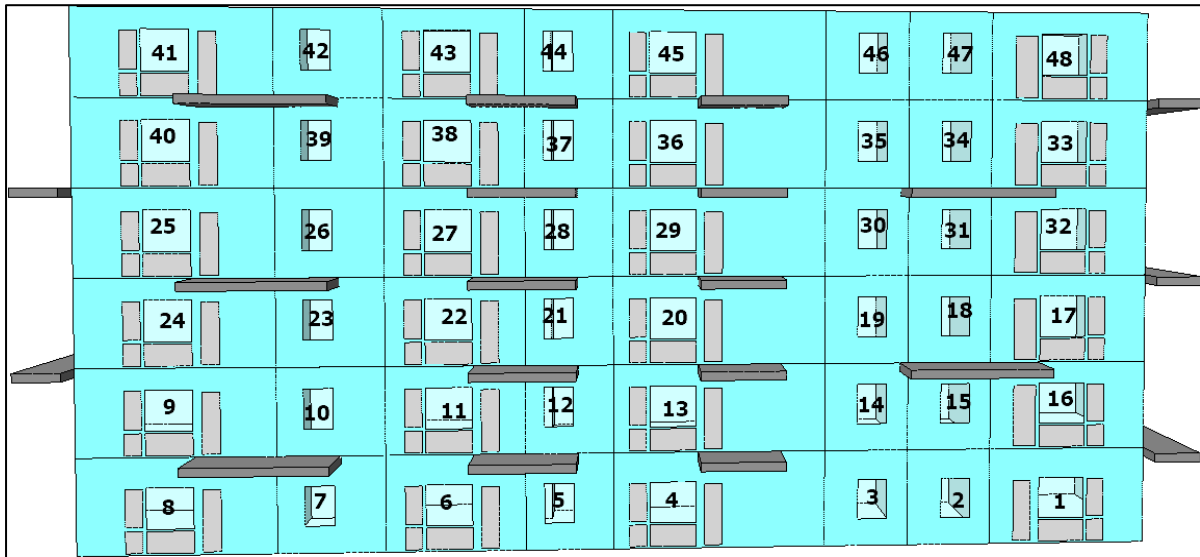


Figure 231. Southeast elevation of Building 08 (modelling software)



Figure 232. Windows achieving 1.5 hours of sunlight - Southeast elevation of Building 08 (modelling software)

Table 104. Sunlight Exposure and APSH/WPSH results for Southeast elevation of Building 08

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	44.07	16.71	Pass	Pass	Pass
2	42.71	13.21	Pass	Pass	Pass
3	40.2	11.21	Pass	Pass	Pass
4	36.67	10.54	Pass	Pass	Pass
5	23.21	9.4	Fail	Pass	Pass
6	37.76	10.74	Pass	Pass	Pass
7	21.04	8.35	Fail	Pass	Pass
8	37.85	10.52	Pass	Pass	Pass
9	45.22	13.44	Pass	Pass	Pass
10	42.49	14.39	Pass	Pass	Pass
11	42.71	16.65	Pass	Pass	Pass
12	22.82	9.86	Fail	Pass	Pass
13	41.96	14.5	Pass	Pass	Pass
14	42.98	14.6	Pass	Pass	Pass
15	23.8	13.07	Fail	Pass	Pass
16	39.48	13.5	Pass	Pass	Pass
17	53.38	23.26	Pass	Pass	Pass
18	54.03	21.11	Pass	Pass	Pass
19	49.91	18.18	Pass	Pass	Pass



Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
20	46.16	17.89	Pass	Pass	Pass
21	27.95	13.53	Pass	Pass	Pass
22	47.89	18.03	Pass	Pass	Pass
23	25.93	12.18	Pass	Pass	Pass
24	48.63	19.75	Pass	Pass	Pass
25	60.56	23.13	Pass	Pass	Pass
26	56.46	23.58	Pass	Pass	Pass
27	55.87	24.08	Pass	Pass	Pass
28	33.58	17.29	Pass	Pass	Pass
29	51.26	20.66	Pass	Pass	Pass
30	49.99	19.86	Pass	Pass	Pass
31	31.31	18.57	Pass	Pass	Pass
32	47.59	18.82	Pass	Pass	Pass
33	68.21	29.05	Pass	Pass	Pass
34	63.69	25.93	Pass	Pass	Pass
35	60.72	22.98	Pass	Pass	Pass
36	58.01	22.41	Pass	Pass	Pass
37	36.79	18.96	Pass	Pass	Pass
38	58.96	24.17	Pass	Pass	Pass
39	35.29	18.5	Pass	Pass	Pass
40	62.32	27.32	Pass	Pass	Pass
41	67.11	27.94	Pass	Pass	Pass
42	64.11	26.34	Pass	Pass	Pass
43	67.83	28.67	Pass	Pass	Pass
44	65.73	27.97	Pass	Pass	Pass
45	67.83	28.67	Pass	Pass	Pass
46	65.65	27.88	Pass	Pass	Pass
47	66.75	28.99	Pass	Pass	Pass
48	69.51	30.34	Pass	Pass	Pass

Southwest Elevation



Figure 233. Building 08 (modelling software)

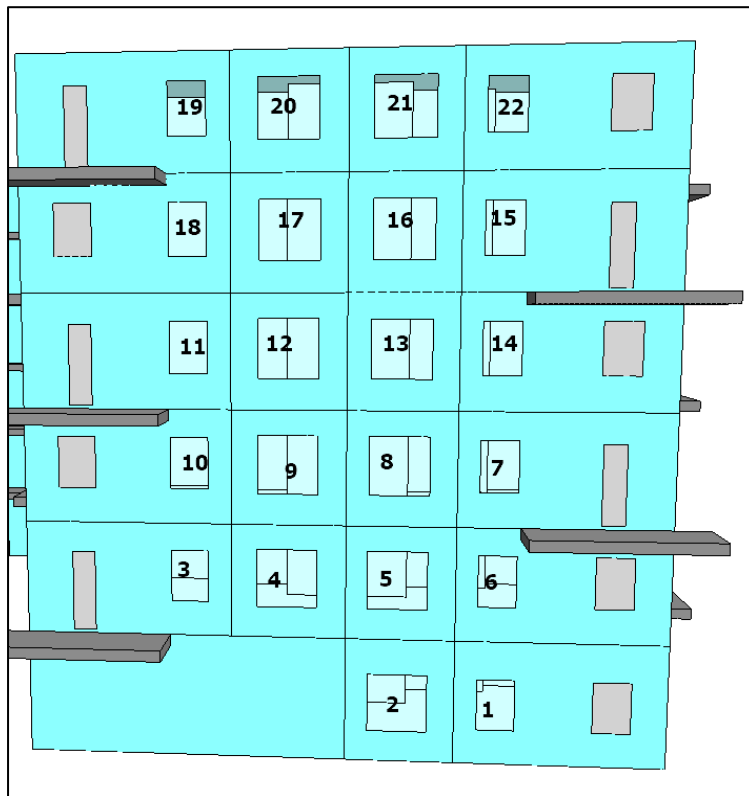


Figure 234. Southwest elevation of Building 08 (modelling software)



Figure 235. Windows achieving 1.5 hours of sunlight - Southwest elevation of Building 08 (modelling software)

Table 105. Sunlight Exposure and APSH/WPSH results for Southwest elevation of Building 08

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	28.49	10.95	Pass	Pass	Pass
2	26.01	7.44	Pass	Pass	Pass
3	35.35	8.83	Pass	Pass	Pass
4	37.44	9.58	Pass	Pass	Pass
5	35.68	9.29	Pass	Pass	Pass
6	25.31	6.71	Pass	Pass	Pass
7	44.54	16.99	Pass	Pass	Pass
8	46.01	16.27	Pass	Pass	Pass
9	48.92	17.31	Pass	Pass	Pass
10	43.35	16.87	Pass	Pass	Pass
11	60.35	25.77	Pass	Pass	Pass
12	61.46	25.19	Pass	Pass	Pass
13	59.30	22.88	Pass	Pass	Pass
14	44.19	18.08	Pass	Pass	Pass
15	67.53	29.93	Pass	Pass	Pass
16	69.47	30.69	Pass	Pass	Pass
17	69.09	30.69	Pass	Pass	Pass
18	62.53	29.83	Pass	Pass	Pass
19	68.51	30.07	Pass	Pass	Pass
20	70.53	30.67	Pass	Pass	Pass
21	70.45	30.59	Pass	Pass	Pass
22	68.30	29.84	Pass	Pass	Pass

West Elevation



Figure 236. Building 08 (modelling software)

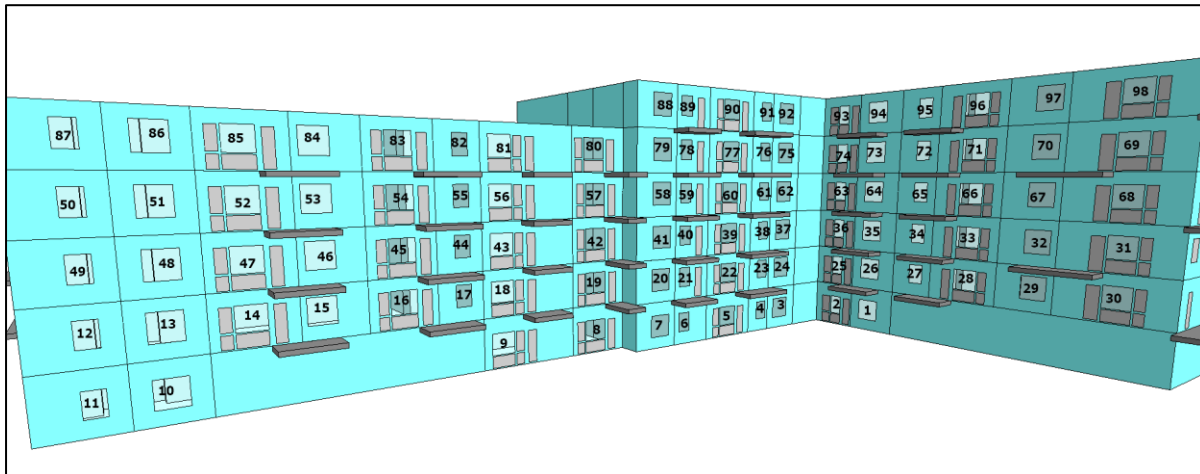


Figure 237. West elevation of Building 08 (modelling software)

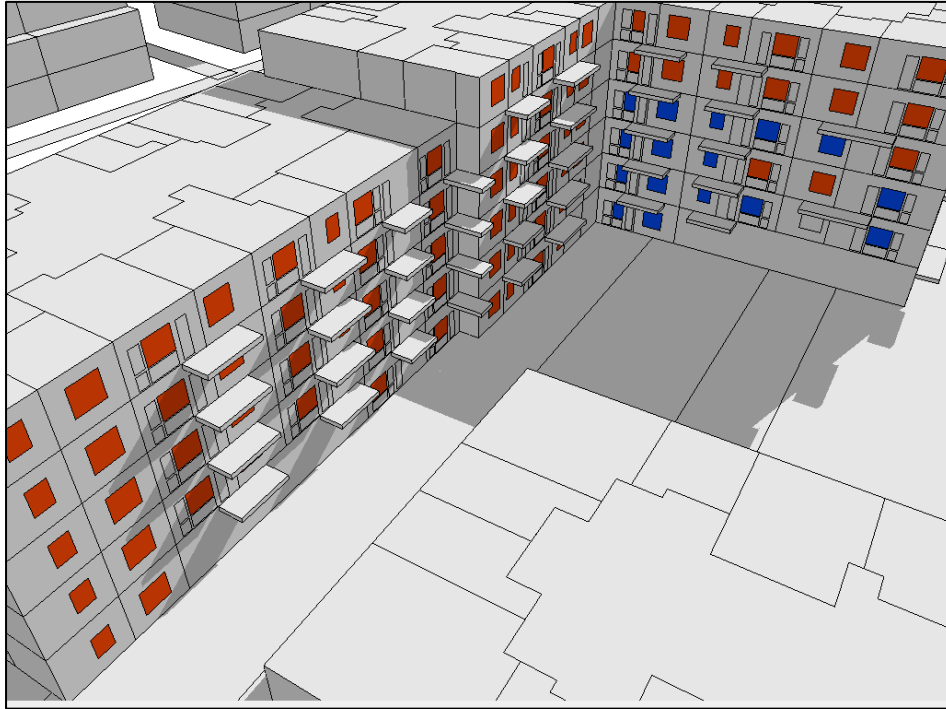


Figure 238. Windows achieving 1.5 hours of sunlight - West elevation of Building 08 (modelling software)

Table 106. Sunlight Exposure and APSH/WPSH results for West elevation of Building 08

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	7.91	0.09	Fail	Fail	Fail
2	5.31	0.28	Fail	Fail	Fail
3	19.09	2.50	Fail	Fail	Pass
4	13.96	3.18	Fail	Fail	Pass
5	23.19	4.00	Fail	Fail	Pass
6	13.50	4.46	Fail	Fail	Pass
7	25.05	5.36	Pass	Pass	Pass
8	20.25	5.70	Fail	Pass	Pass
9	26.44	8.29	Pass	Pass	Pass
10	33.56	7.66	Pass	Pass	Pass
11	37.35	8.15	Pass	Pass	Pass
12	44.67	11.34	Pass	Pass	Pass
13	40.42	10.18	Pass	Pass	Pass
14	30.76	6.61	Pass	Pass	Pass
15	23.77	10.99	Fail	Pass	Pass
16	30.59	9.51	Pass	Pass	Pass
17	24.71	13.13	Fail	Pass	Pass
18	36.05	12.42	Pass	Pass	Pass
19	27.14	8.13	Pass	Pass	Pass
20	31.41	8.51	Pass	Pass	Pass
21	15.79	6.58	Fail	Pass	Pass
22	28.39	5.57	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
23	11.75	3.08	Fail	Fail	Pass
24	21.38	3.09	Fail	Fail	Pass
25	5.60	0.22	Fail	Fail	Fail
26	9.84	0.21	Fail	Fail	Fail
27	5.79	0.40	Fail	Fail	Fail
28	12.88	0.28	Fail	Fail	Fail
29	3.44	0.00	Fail	Fail	Fail
30	9.10	0.00	Fail	Fail	Fail
31	14.87	0.34	Fail	Fail	Fail
32	16.15	1.62	Fail	Fail	Pass
33	15.98	2.54	Fail	Fail	Pass
34	9.20	1.57	Fail	Fail	Fail
35	13.37	1.26	Fail	Fail	Fail
36	8.95	1.02	Fail	Fail	Fail
37	28.12	5.71	Pass	Pass	Pass
38	18.26	6.72	Fail	Pass	Pass
39	35.48	9.22	Pass	Pass	Pass
40	23.24	9.15	Fail	Pass	Pass
41	39.40	12.05	Pass	Pass	Pass
42	33.58	10.28	Pass	Pass	Pass
43	41.11	13.37	Pass	Pass	Pass
44	33.14	15.73	Pass	Pass	Pass
45	38.73	12.66	Pass	Pass	Pass
46	33.00	14.69	Pass	Pass	Pass
47	37.91	10.70	Pass	Pass	Pass
48	52.78	16.96	Pass	Pass	Pass
49	55.54	20.29	Pass	Pass	Pass
50	65.38	27.38	Pass	Pass	Pass
51	65.21	25.70	Pass	Pass	Pass
52	51.66	19.74	Pass	Pass	Pass
53	43.18	22.62	Pass	Pass	Pass
54	49.62	18.37	Pass	Pass	Pass
55	42.61	21.42	Pass	Pass	Pass
56	53.25	18.55	Pass	Pass	Pass
57	41.49	13.01	Pass	Pass	Pass
58	44.97	14.80	Pass	Pass	Pass
59	29.87	13.53	Pass	Pass	Pass
60	39.91	11.50	Pass	Pass	Pass
61	23.08	8.50	Fail	Pass	Pass
62	35.66	7.75	Pass	Pass	Pass
63	11.64	1.72	Fail	Fail	Fail
64	16.36	2.00	Fail	Fail	Fail



Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
65	11.72	2.22	Fail	Fail	Fail
66	20.84	1.63	Fail	Fail	Fail
67	11.03	2.15	Fail	Fail	Fail
68	20.31	2.96	Fail	Fail	Pass
69	25.48	4.58	Pass	Fail	Pass
70	25.99	4.62	Pass	Fail	Pass
71	26.64	5.06	Pass	Pass	Pass
72	15.57	4.00	Fail	Fail	Pass
73	21.96	3.80	Fail	Fail	Pass
74	15.19	3.64	Fail	Fail	Pass
75	47.40	12.63	Pass	Pass	Pass
76	30.83	14.13	Pass	Pass	Pass
77	49.01	17.59	Pass	Pass	Pass
78	38.21	21.28	Pass	Pass	Pass
79	54.15	20.97	Pass	Pass	Pass
80	55.12	21.74	Pass	Pass	Pass
81	67.17	28.16	Pass	Pass	Pass
82	67.00	28.88	Pass	Pass	Pass
83	68.82	29.71	Pass	Pass	Pass
84	69.94	30.35	Pass	Pass	Pass
85	69.92	30.76	Pass	Pass	Pass
86	70.59	30.73	Pass	Pass	Pass
87	68.53	30.07	Pass	Pass	Pass
88	70.22	30.70	Pass	Pass	Pass
89	67.90	30.01	Pass	Pass	Pass
90	69.01	29.85	Pass	Pass	Pass
91	66.02	27.56	Pass	Pass	Pass
92	65.44	25.58	Pass	Pass	Pass
93	25.17	4.90	Pass	Fail	Pass
94	27.27	5.59	Pass	Pass	Pass
95	25.87	4.90	Pass	Fail	Pass
96	27.27	5.59	Pass	Pass	Pass
97	27.27	5.59	Pass	Pass	Pass
98	27.27	5.59	Pass	Pass	Pass

Northwest Elevation



Figure 239. Building 08 (modelling software)

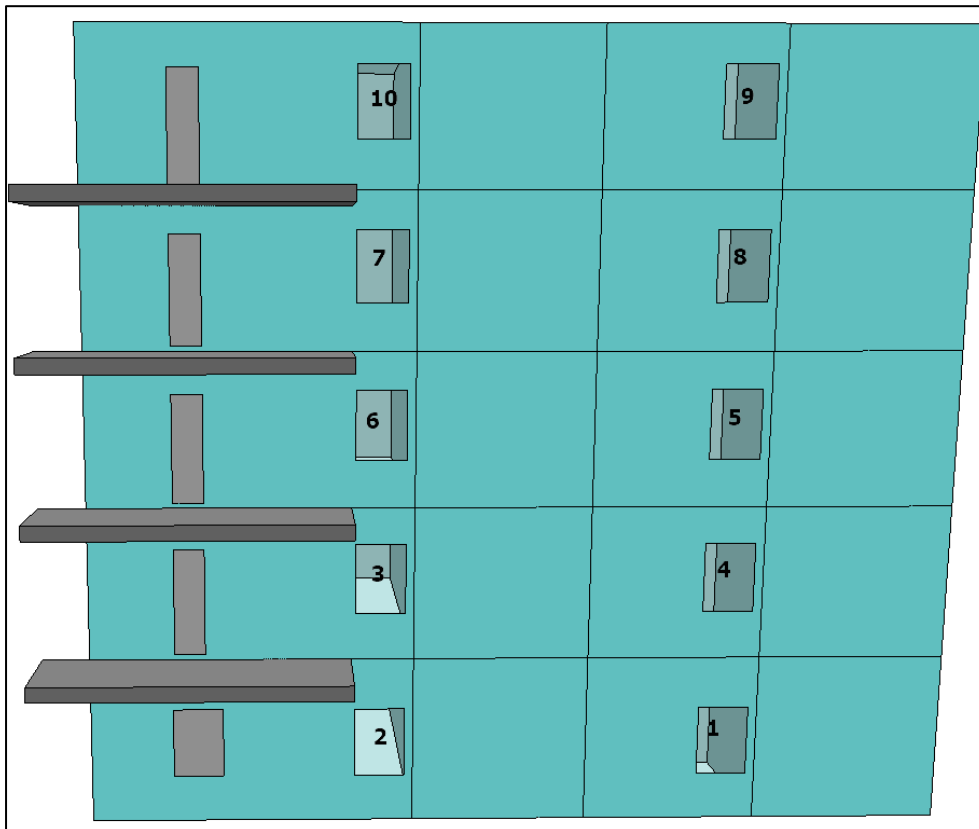


Figure 240. Northwest elevation of Building 08 (modelling software)

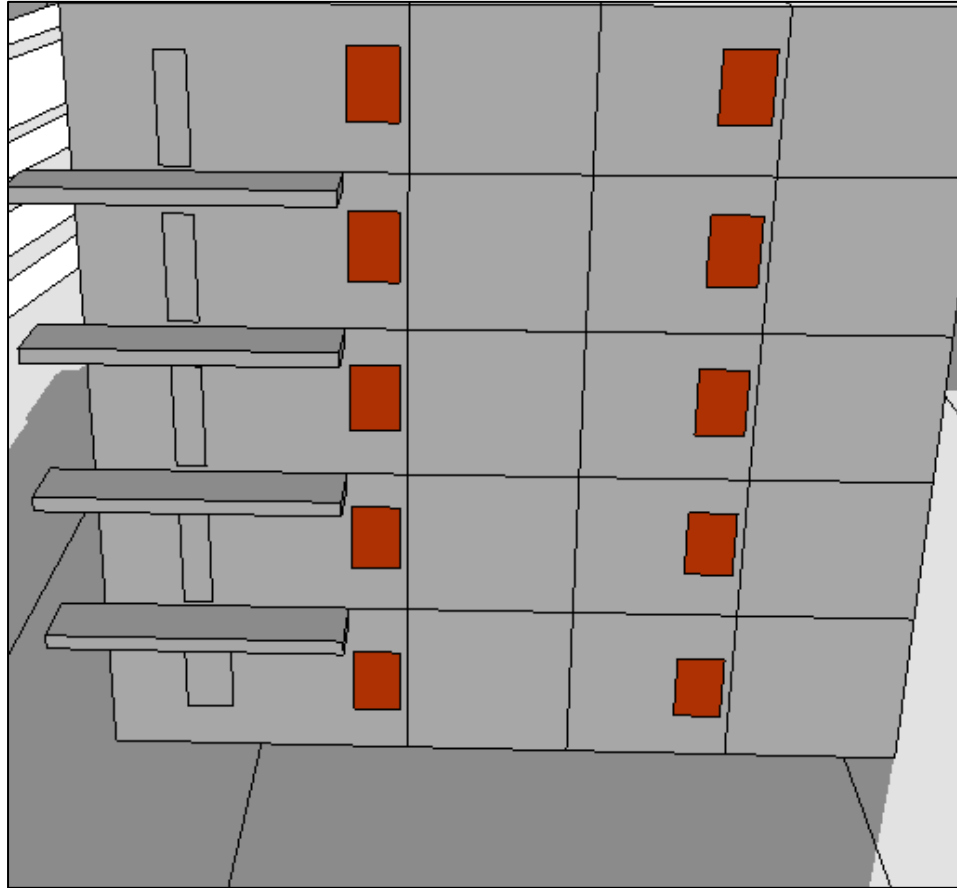


Figure 241. Windows achieving 1.5 hours of sunlight - Northwest elevation of Building 08 (modelling software)

Table 107. Sunlight Exposure and APSH/WPSH results for Northwest elevation of Building 08

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	16.78	2.80	Fail	Fail	Pass
2	16.78	2.80	Fail	Fail	Pass
3	18.88	2.80	Fail	Fail	Pass
4	18.88	2.80	Fail	Fail	Pass
5	21.62	4.20	Fail	Fail	Pass
6	21.92	4.20	Fail	Fail	Pass
7	25.55	4.90	Pass	Fail	Pass
8	25.47	4.90	Pass	Fail	Pass
9	25.87	4.90	Pass	Fail	Pass
10	25.87	4.90	Pass	Fail	Pass

## Building 09

### Southwest Elevation

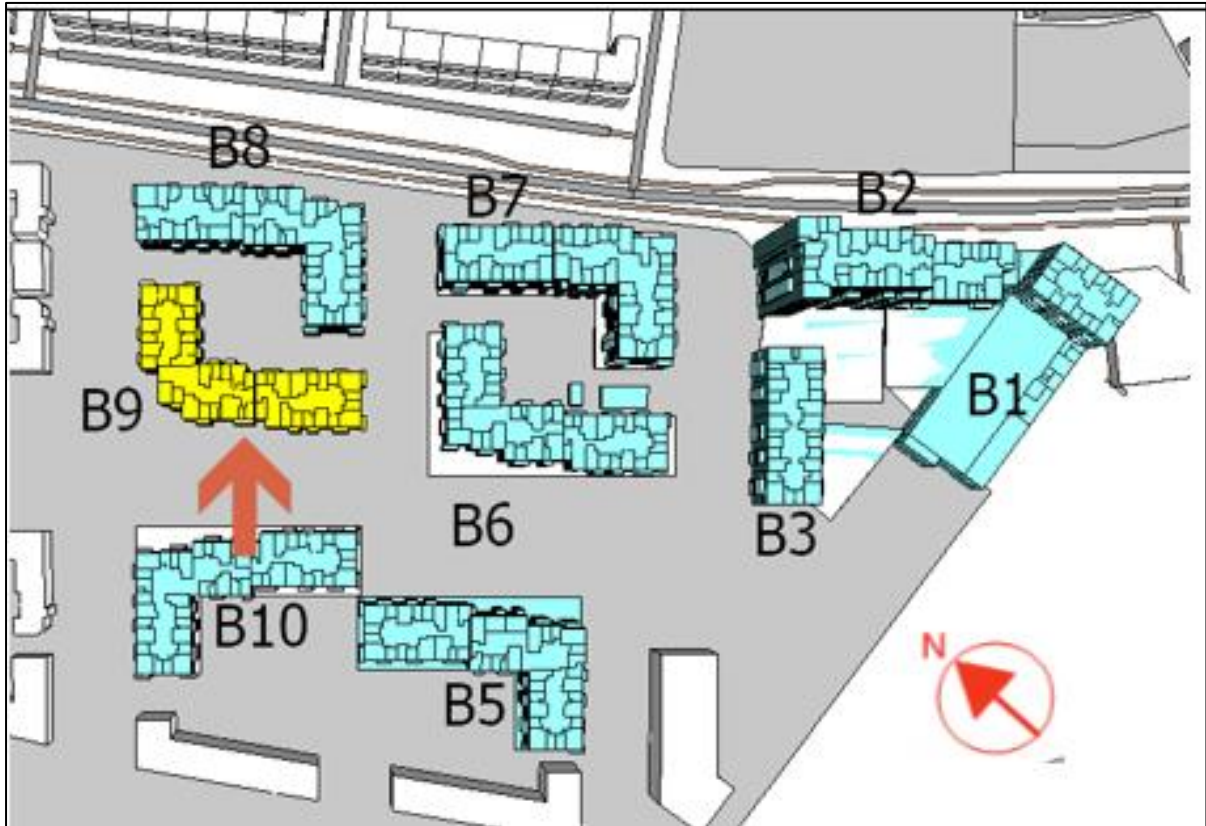


Figure 242. Building 09 (modelling software)

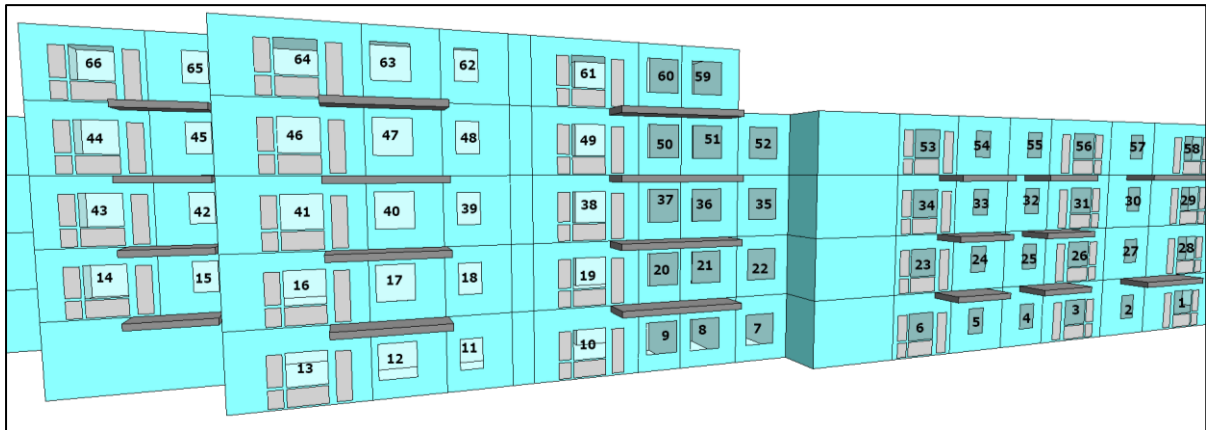


Figure 243. Southwest elevation of Building 09 (modelling software)

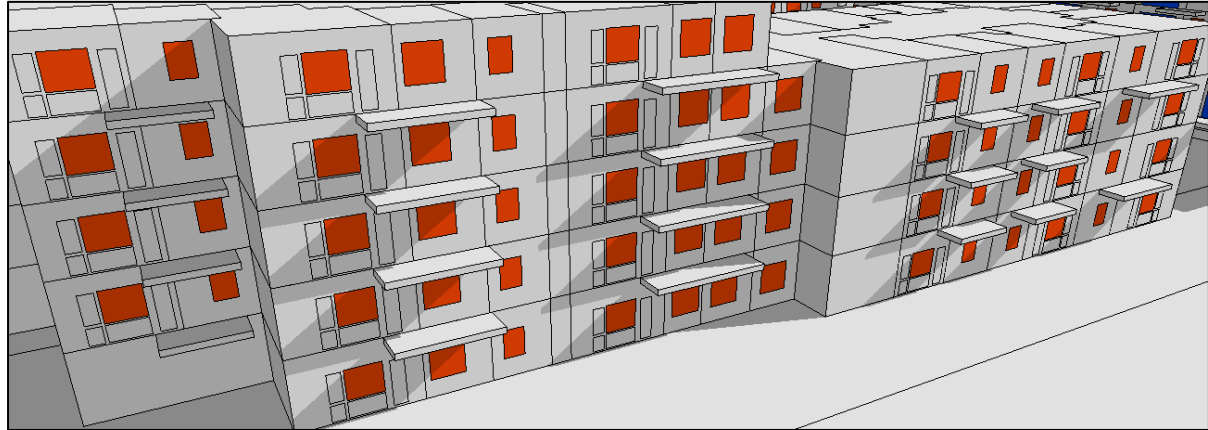


Figure 244. Windows achieving 1.5 hours of sunlight - Southwest elevation of Building 09 (modelling software)

Table 108. Sunlight Exposure and APSH/WPSH results for Southwest elevation of Building 09

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	47.35	16.91	Pass	Pass	Pass
2	29.62	12.77	Pass	Pass	Pass
3	46.04	15.38	Pass	Pass	Pass
4	31.28	13.88	Pass	Pass	Pass
5	34.94	14.11	Pass	Pass	Pass
6	38.62	12.36	Pass	Pass	Pass
7	29.41	3.98	Pass	Fail	Pass
8	29.14	9.94	Pass	Pass	Pass
9	28.22	10.94	Pass	Pass	Pass
10	39.98+	12.06	Pass	Pass	Pass
11	49.55	16.68	Pass	Pass	Pass
12	32.33	14.94	Pass	Pass	Pass
13	41.51	13.88	Pass	Pass	Pass
14	40.68	13.56	Pass	Pass	Pass
15	19.06	6.21	Fail	Pass	Pass
16	43.43	15.72	Pass	Pass	Pass
17	30.39	60.66	Pass	Pass	Pass
18	53.1	20.4	Pass	Pass	Pass
19	42.91	13.72	Pass	Pass	Pass
20	25.22	10.97	Pass	Pass	Pass
21	26.77	11.2	Pass	Pass	Pass
22	31.42	5.75	Pass	Pass	Pass
23	40.54	12.57	Pass	Pass	Pass
24	32.9	15.1	Pass	Pass	Pass
25	28.86	12.59	Pass	Pass	Pass
26	50.24	19.19	Pass	Pass	Pass
27	51.49	19.67	Pass	Pass	Pass
28	55.73	19.38	Pass	Pass	Pass
29	56.34	22.55	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
30	31.24	14.66	Pass	Pass	Pass
31	54.1	19.95	Pass	Pass	Pass
32	31.58	14.77	Pass	Pass	Pass
33	38.15	17.91	Pass	Pass	Pass
34	45.75	15.45	Pass	Pass	Pass
35	35.51	9.17	Pass	Pass	Pass
36	31.94	15.22	Pass	Pass	Pass
37	29.21	14.77	Pass	Pass	Pass
38	47.54	17.99	Pass	Pass	Pass
39	59.05	25.04	Pass	Pass	Pass
40	35.64	21.21	Pass	Pass	Pass
41	48.89	20.48	Pass	Pass	Pass
42	21.65	7.99	Fail	Pass	Pass
43	44.44	16.03	Pass	Pass	Pass
44	50.35	18.12	Pass	Pass	Pass
45	24.83	9.88	Fail	Pass	Pass
46	54.14	22.72	Pass	Pass	Pass
47	40.09	24.26	Pass	Pass	Pass
48	63.36	27.96	Pass	Pass	Pass
49	54.14	20.91	Pass	Pass	Pass
50	35.51	19.87	Pass	Pass	Pass
51	41.39	21.98	Pass	Pass	Pass
52	49.37	13.95	Pass	Pass	Pass
53	65.83	26.67	Pass	Pass	Pass
54	64.09	25.63	Pass	Pass	Pass
55	94.14	25.68	Pass	Pass	Pass
56	65.35	26.19	Pass	Pass	Pass
57	63.47	25.01	Pass	Pass	Pass
58	65.15	25.99	Pass	Pass	Pass
59	70.3	30.44	Pass	Pass	Pass
60	70.29	30.43	Pass	Pass	Pass
61	69.59	31.43	Pass	Pass	Pass
62	68.2	29.73	Pass	Pass	Pass
63	70.3	30.44	Pass	Pass	Pass
64	69.6	30.44	Pass	Pass	Pass
65	47.33	12.07	Pass	Pass	Pass
66	64.81	25.65	Pass	Pass	Pass



Northwest Elevation

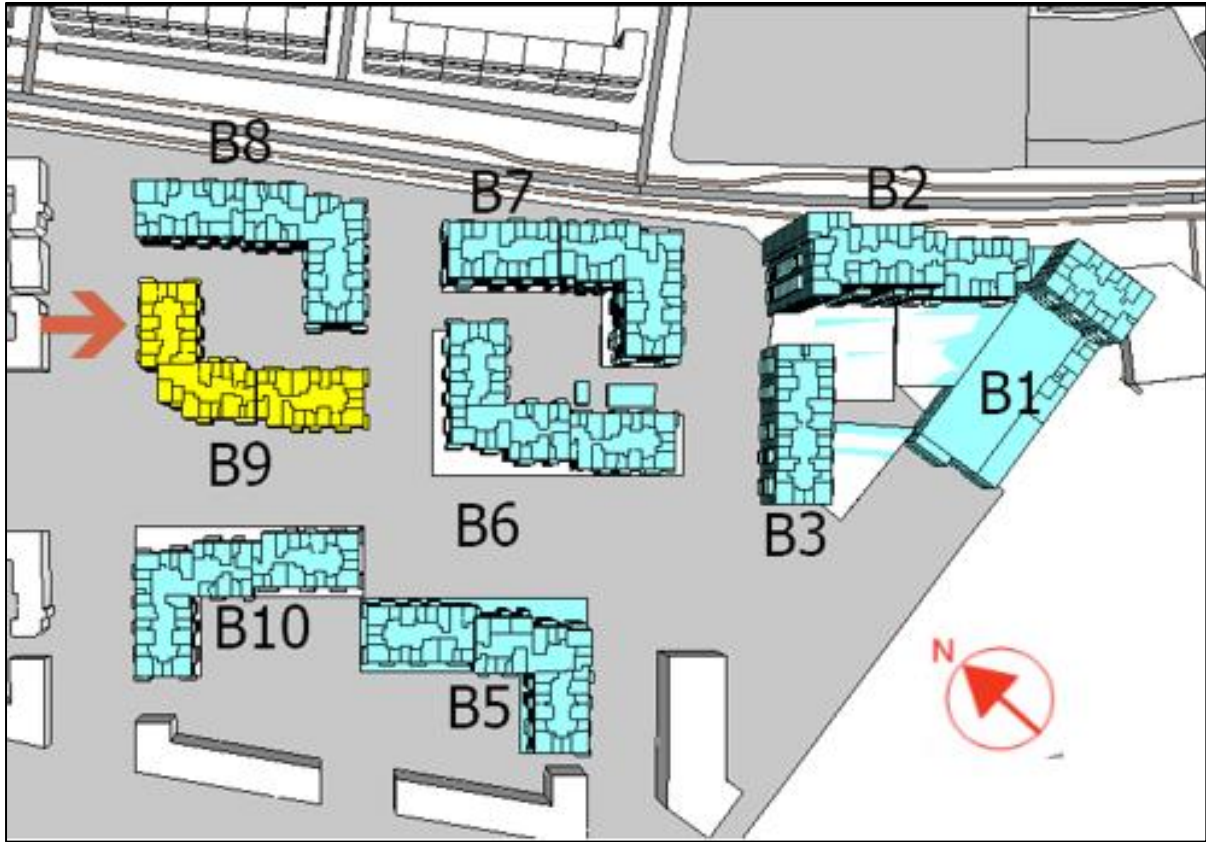


Figure 245. Building 09 (modelling software)



Figure 246. Northwest elevation of Building 09 (modelling software)

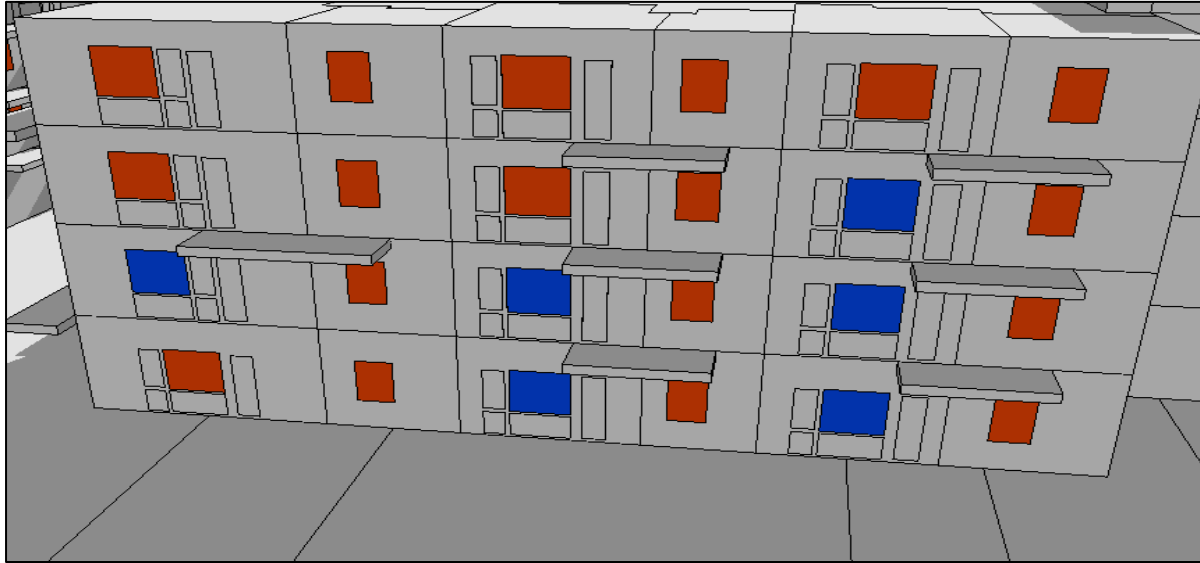


Figure 247. Windows achieving 1.5 hours of sunlight - Northwest elevation of Building 09 (modelling software)

Table 109. Sunlight Exposure and APSH/WPSH results for Northwest elevation of Building 09

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	21.13	2.51	Fail	Fail	Pass
2	13.46	2.75	Fail	Fail	Fail
3	17.05	2.05	Fail	Fail	Pass
4	11.4	2.51	Fail	Fail	Fail
5	15.15	2.23	Fail	Fail	Pass
6	15.13	3.24	Fail	Fail	Pass
7	12.27	1.83	Fail	Fail	Fail
8	17.74	2.86	Fail	Fail	Pass
9	11.85	2.83	Fail	Fail	Fail
10	18.79	2.88	Fail	Fail	Pass
11	13	3.09	Fail	Fail	Fail
12	21.25	3.5	Fail	Fail	Pass
13	22.77	3.57	Fail	Fail	Pass
14	15.1	3.27	Fail	Fail	Fail
15	20.99	3.28	Fail	Fail	Pass
16	13.61	3.34	Fail	Fail	Pass
17	22.3	3.59	Fail	Fail	Pass
18	23.66	5.02	Fail	Pass	Pass
19	26.86	5.59	Pass	Pass	Pass
20	25.48	4.9	Pass	Fail	Pass
21	26.87	5.59	Pass	Pass	Pass
22	25.48	4.9	Pass	Fail	Pass
23	27.27	5.59	Pass	Pass	Pass
24	25.87	4.9	Pass	Fail	Pass

Northeast Elevation

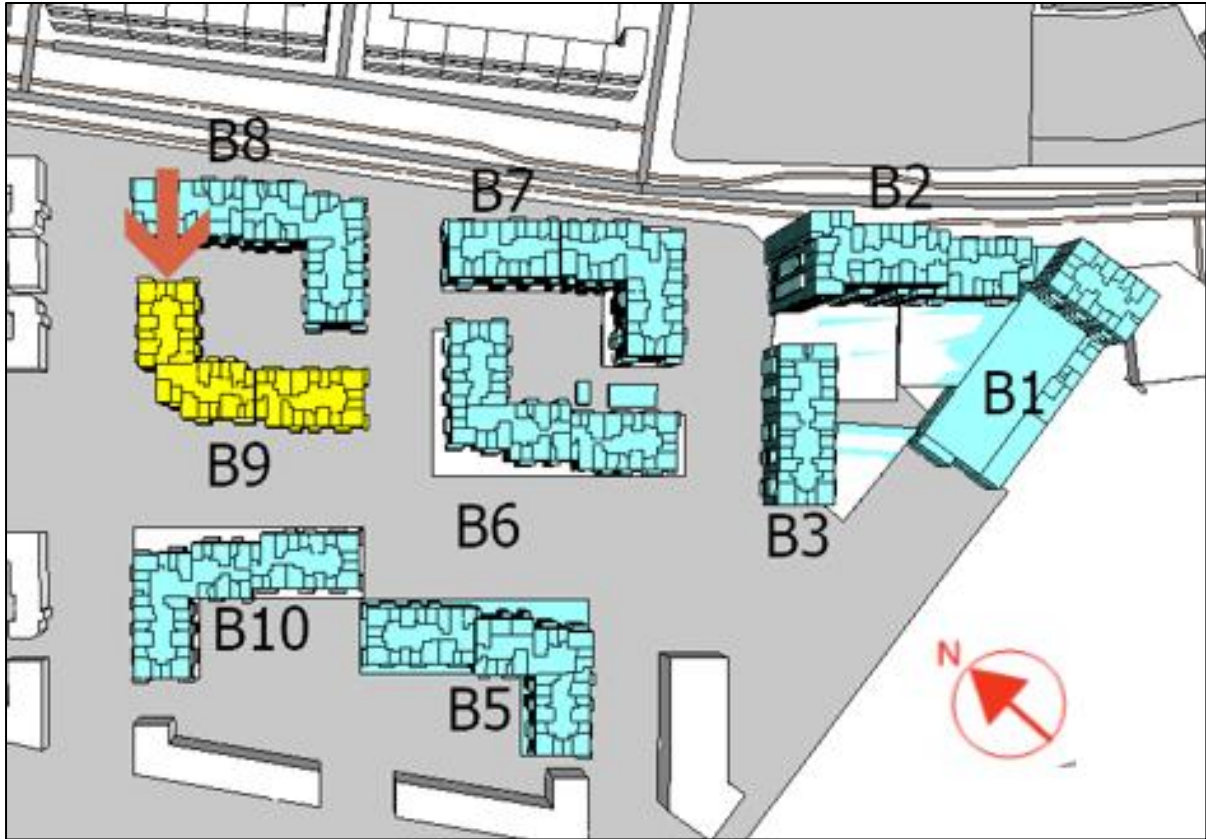


Figure 248. Building 09 (modelling software)



Figure 249. Northeast elevation of Building 09 (modelling software)

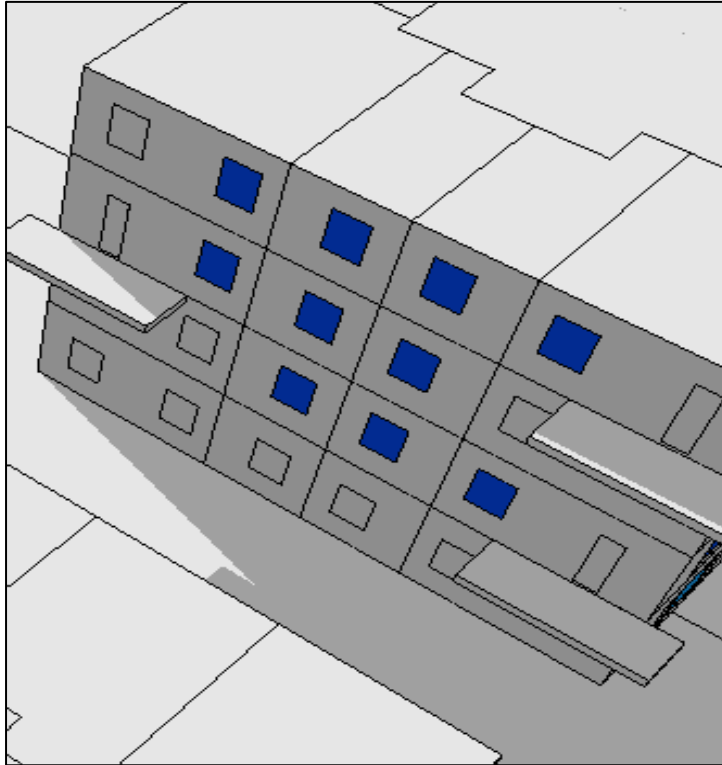


Figure 250. Windows achieving 1.5 hours of sunlight - Northeast elevation of Building 09 (modelling software)

Table 110. Sunlight Exposure and APSH/WPSH results for Northeast elevation of Building 09

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	1.37	0.33	Fail	Fail	Fail
2	6.29	0	Fail	Fail	Fail
3	4.20	0	Fail	Fail	Fail
4	4.20	0	Fail	Fail	Fail
5	0.43	0	Fail	Fail	Fail
6	8.24	0.2	Fail	Fail	Fail
7	9.35	0.63	Fail	Fail	Fail
8	9.42	0.7	Fail	Fail	Fail
9	2.20	0.5	Fail	Fail	Fail
10	10.71	0.7	Fail	Fail	Fail
11	10.30	0.7	Fail	Fail	Fail
12	9.89	0.7	Fail	Fail	Fail
13	13.86	0.7	Fail	Fail	Fail
14	13.98	0.7	Fail	Fail	Fail
15	14.24	0.7	Fail	Fail	Fail
16	14.55	0.89	Fail	Fail	Fail

East Elevation

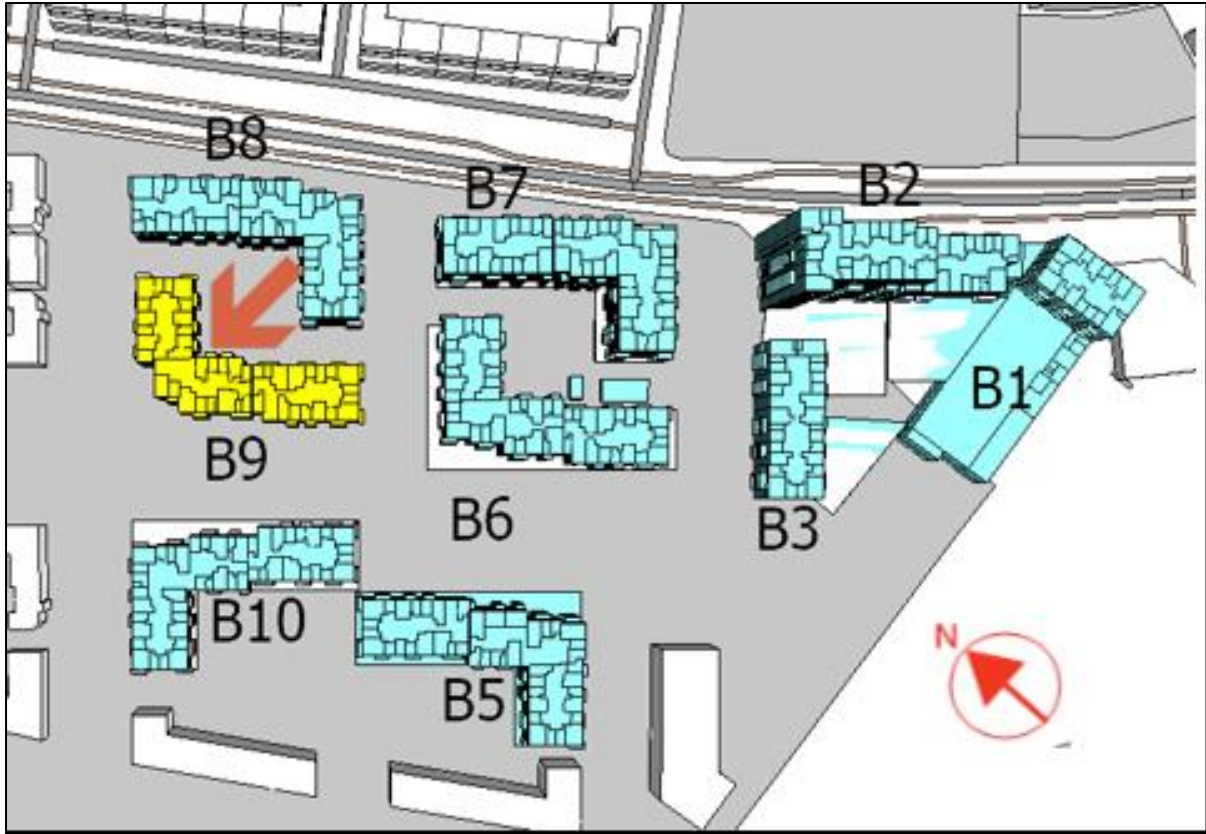


Figure 251. Building 09 (modelling software)

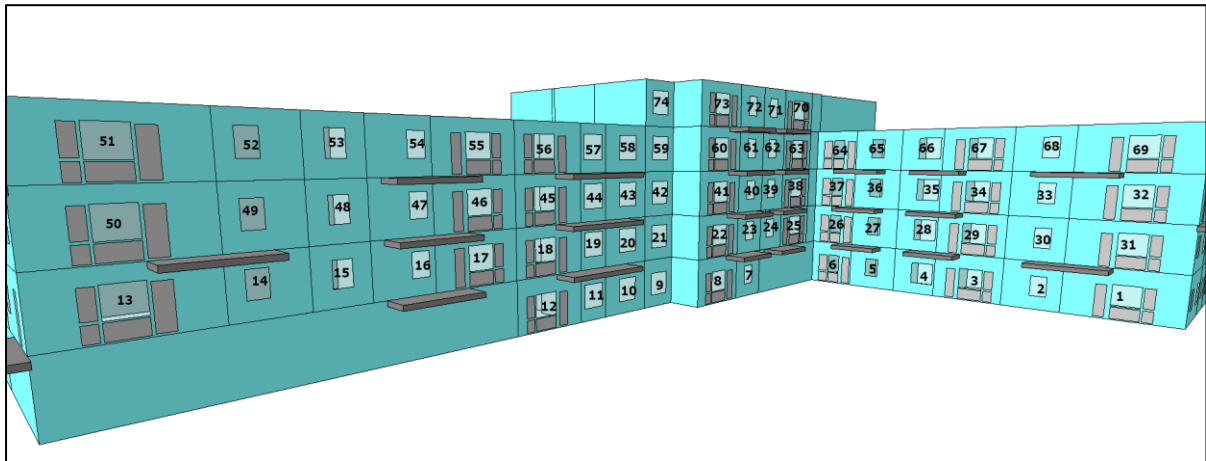


Figure 252. East elevation of Building 09 (modelling software)



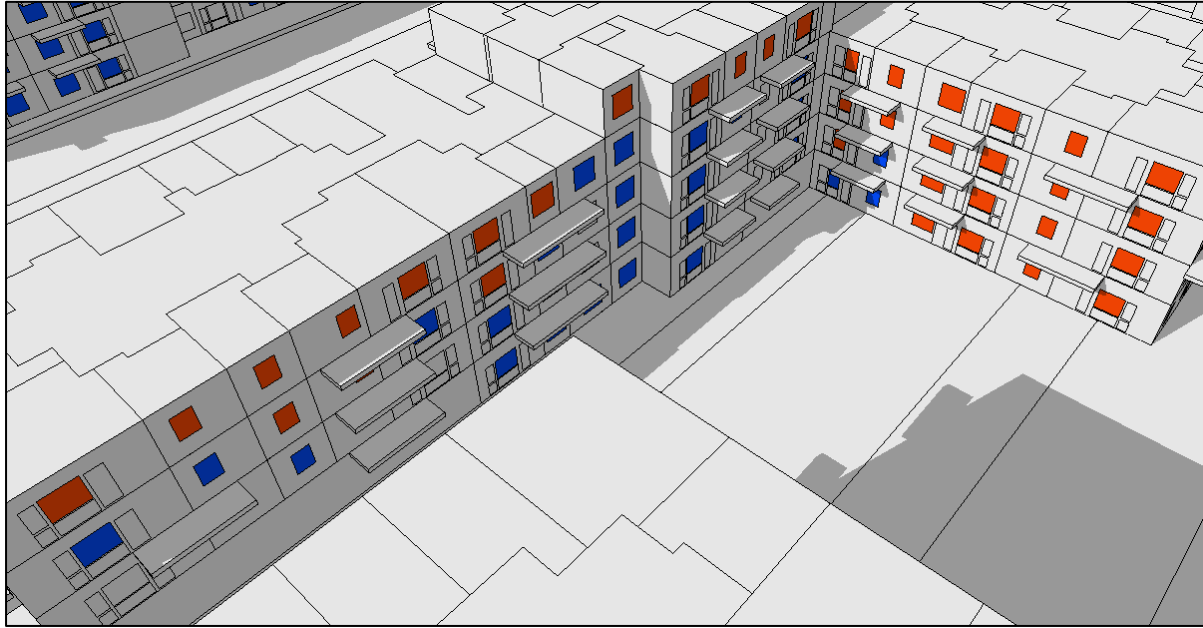


Figure 253. Windows achieving 1.5 hours of sunlight - East elevation of Building 09 (modelling software)

Table 111. Sunlight Exposure and APSH/WPSH results for East elevation of Building 09

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	22.13	7.05	Fail	Pass	Pass
2	18.44	6.50	Fail	Pass	Pass
3	22.72	5.46	Fail	Pass	Pass
4	13.70	4.23	Fail	Fail	Pass
5	11.98	3.05	Fail	Fail	Fail
6	11.76	1.43	Fail	Fail	Fail
7	2.78	0.58	Fail	Fail	Fail
8	9.20	1.40	Fail	Fail	Fail
9	3.53	0.08	Fail	Fail	Fail
10	0.00	0.00	Fail	Fail	Fail
11	2.16	1.03	Fail	Fail	Fail
12	5.26	0.40	Fail	Fail	Fail
13	13.47	0.00	Fail	Fail	Fail
14	4.24	0.19	Fail	Fail	Fail
15	11.10	0.14	Fail	Fail	Fail
16	3.79	0.59	Fail	Fail	Fail
17	1.40	0.00	Fail	Fail	Fail
18	8.92	0.92	Fail	Fail	Fail
19	1.57	0.87	Fail	Fail	Fail
20	0.00	0.00	Fail	Fail	Fail
21	5.44	0.21	Fail	Fail	Fail
22	11.62	1.40	Fail	Fail	Fail
23	2.85	0.43	Fail	Fail	Fail
24	6.38	0.00	Fail	Fail	Fail



Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
25	3.53	0.10	Fail	Fail	Fail
26	11.08	2.15	Fail	Fail	Pass
27	12.28	2.91	Fail	Fail	Fail
28	13.92	4.89	Fail	Fail	Pass
29	26.78	7.74	Pass	Pass	Pass
30	38.02	11.46	Pass	Pass	Pass
31	34.31	13.40	Pass	Pass	Pass
32	32.48	11.36	Pass	Pass	Pass
33	27.16	14.44	Pass	Pass	Pass
34	34.51	11.26	Pass	Pass	Pass
35	23.67	9.88	Fail	Pass	Pass
36	17.26	6.14	Fail	Pass	Pass
37	16.09	2.84	Fail	Fail	Pass
38	4.60	0.10	Fail	Fail	Fail
39	8.02	0.00	Fail	Fail	Fail
40	3.98	0.43	Fail	Fail	Fail
41	13.88	1.49	Fail	Fail	Fail
42	11.80	0.21	Fail	Fail	Fail
43	0.93	0.00	Fail	Fail	Fail
44	2.79	1.25	Fail	Fail	Fail
45	12.26	1.43	Fail	Fail	Pass
46	2.85	0.41	Fail	Fail	Fail
47	4.33	1.11	Fail	Fail	Fail
48	13.38	1.07	Fail	Fail	Pass
49	14.76	0.70	Fail	Fail	Fail
50	17.53	0.52	Fail	Fail	Fail
51	21.09	2.10	Fail	Fail	Pass
52	16.81	1.40	Fail	Fail	Pass
53	14.73	1.65	Fail	Fail	Pass
54	13.19	2.10	Fail	Fail	Pass
55	14.57	2.80	Fail	Fail	Pass
56	14.57	2.80	Fail	Fail	Pass
57	14.95	2.76	Fail	Fail	Pass
58	16.31	2.10	Fail	Fail	Fail
59	17.34	2.10	Fail	Fail	Fail
60	17.55	1.61	Fail	Fail	Fail
61	6.98	0.43	Fail	Fail	Fail
62	12.28	0.00	Fail	Fail	Fail
63	7.65	0.10	Fail	Fail	Fail
64	27.47	3.38	Pass	Fail	Pass
65	41.71	9.55	Pass	Pass	Pass
66	50.27	16.17	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
67	53.14	19.23	Pass	Pass	Pass
68	52.79	21.12	Pass	Pass	Pass
69	53.82	21.68	Pass	Pass	Pass
70	21.69	2.80	Fail	Fail	Pass
71	19.75	2.10	Fail	Fail	Pass
72	19.43	2.02	Fail	Fail	Pass
73	20.29	2.58	Fail	Fail	Pass
74	20.23	2.80	Fail	Fail	Pass

**Southeast Elevation**

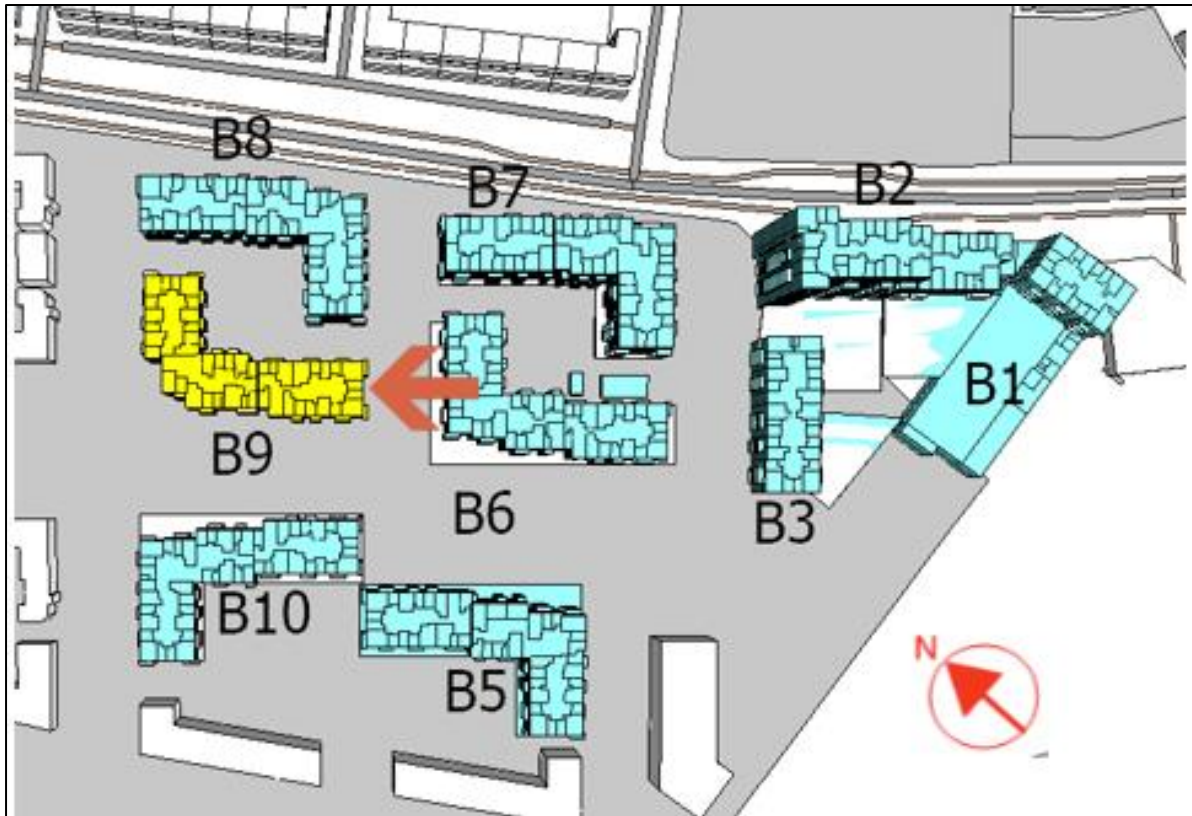


Figure 254. Building 09 (modelling software)



Figure 255. Southeast elevation of Building 09 (modelling software)



Figure 256. Windows achieving 1.5 hours of sunlight - Southeast elevation of Building 09 (modelling software)

Table 112. Sunlight Exposure and APSH/WPSH results for Southeast elevation of Building 09

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	38.40	13.35	Pass	Pass	Pass
2	41.55	15.18	Pass	Pass	Pass
3	25.24	13.21	Pass	Pass	Pass
4	25.70	14.49	Pass	Pass	Pass
5	46.24	14.77	Pass	Pass	Pass
6	46.29	14.82	Pass	Pass	Pass
7	22.82	12.59	Fail	Pass	Pass
8	51.41	17.54	Pass	Pass	Pass
9	52.81	18.50	Pass	Pass	Pass
10	55.49	20.36	Pass	Pass	Pass
11	59.62	22.52	Pass	Pass	Pass
12	57.68	22.01	Pass	Pass	Pass
13	57.78	22.12	Pass	Pass	Pass
14	57.78	22.12	Pass	Pass	Pass

## Building 10

### Northeast Elevation

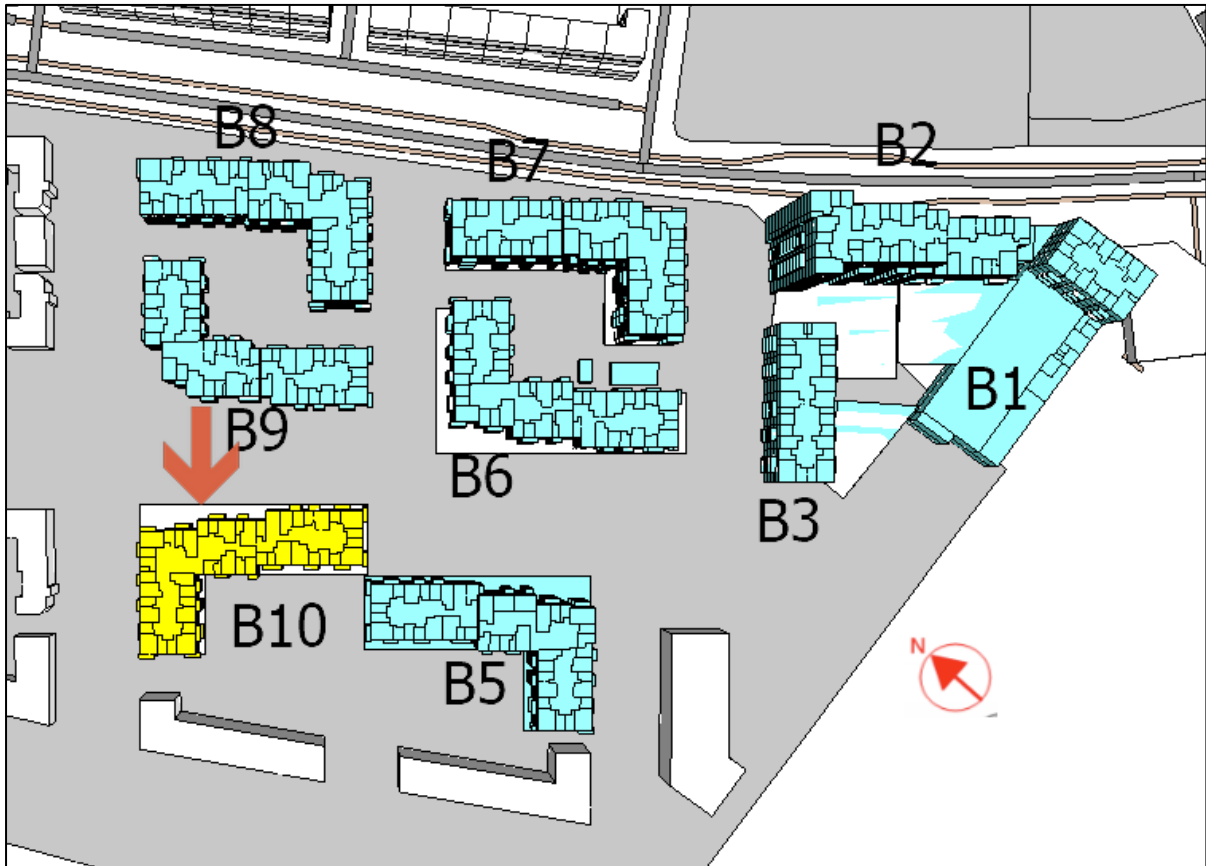


Figure 257. Building 10 (modelling software)

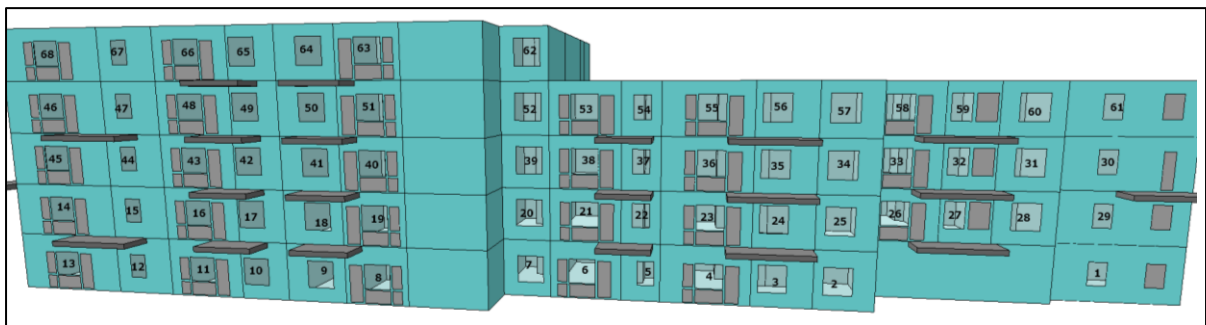


Figure 258. Northeast elevation of Building 10 (modelling software)

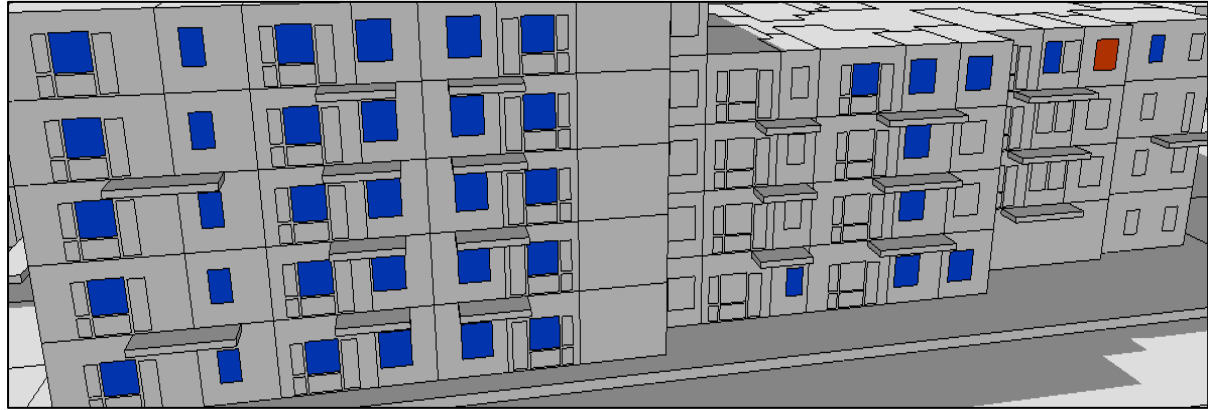


Figure 259. Windows achieving 1.5 hours of sunlight - Northeast elevation of Building 10 (modelling software)

Table 113. Sunlight Exposure and APSH/WPSH results for Northeast elevation of Building 10

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	10.46	0	Fail	Fail	Fail
2	7.52	0	Fail	Fail	Fail
3	7.84	0.51	Fail	Fail	Fail
4	11.17	0	Fail	Fail	Fail
5	6.5	0	Fail	Fail	Fail
6	6.94	0	Fail	Fail	Fail
7	0.45	0	Fail	Fail	Fail
8	0.56	0.57	Fail	Fail	Fail
9	10.83	0.54	Fail	Fail	Fail
10	8.39	1.26	Fail	Fail	Fail
11	13.67	0.53	Fail	Fail	Fail
12	8.28	1.07	Fail	Fail	Fail
13	15.11	2.1	Fail	Fail	Fail
14	17.82	1.5	Fail	Fail	Fail
15	14.85	1.56	Fail	Fail	Fail
16	16.28	2.1	Fail	Fail	Fail
17	8.86	1.69	Fail	Fail	Fail
18	12.16	0.58	Fail	Fail	Fail
19	7.51	0.34	Fail	Fail	Fail
20	1.33	0	Fail	Fail	Fail
21	9.29	0	Fail	Fail	Fail
22	7.34	0	Fail	Fail	Fail
23	13.84	0	Fail	Fail	Fail
24	8.43	0.6	Fail	Fail	Fail
25	9.68	0.19	Fail	Fail	Fail
26	1.23	0	Fail	Fail	Fail
27	6	0	Fail	Fail	Fail
28	8.84	0	Fail	Fail	Fail
29	12.82	0.19	Fail	Fail	Fail



Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
30	14.63	0.89	Fail	Fail	Fail
31	11.54	0.58	Fail	Fail	Fail
32	6.7	0	Fail	Fail	Fail
33	1.42	0	Fail	Fail	Fail
34	11.48	0.57	Fail	Fail	Fail
35	8.96	1.13	Fail	Fail	Fail
36	17.06	0.55	Fail	Fail	Fail
37	8.54	0	Fail	Fail	Fail
38	10.16	0	Fail	Fail	Fail
39	1.67	0	Fail	Fail	Fail
40	9.11	0.62	Fail	Fail	Fail
41	12.79	0.79	Fail	Fail	Fail
42	9.12	1.56	Fail	Fail	Fail
43	18.01	0.75	Fail	Fail	Fail
44	9.41	1.46	Fail	Fail	Fail
45	18.38	2.8	Fail	Fail	Fail
46	20.76	2.07	Fail	Fail	Fail
47	20.98	2.1	Fail	Fail	Fail
48	22.49	2.8	Fail	Fail	Fail
49	12.33	2.7	Fail	Fail	Fail
50	17	1.53	Fail	Fail	Fail
51	11.05	1.43	Fail	Fail	Fail
52	2.3	0	Fail	Fail	Fail
53	14.44	0	Fail	Fail	Fail
54	8.95	0.57	Fail	Fail	Fail
55	21.14	1.56	Fail	Fail	Fail
56	21.21	2.35	Fail	Fail	Fail
57	21.84	2.98	Fail	Fail	Fail
58	7.2	0	Fail	Fail	Fail
59	19.28	0.59	Fail	Fail	Fail
60	21.65	2.66	Fail	Fail	Fail
61	18.85	1.08	Fail	Fail	Fail
62	8.2	0	Fail	Fail	Fail
63	24.83	4.09	Fail	Fail	Fail
64	24.48	3.76	Fail	Fail	Fail
65	24.48	3.5	Fail	Fail	Fail
66	24.48	3.5	Fail	Fail	Fail
67	22.38	2.1	Fail	Fail	Fail
68	24.3	3.5	Fail	Fail	Fail

**Southeast Elevation**

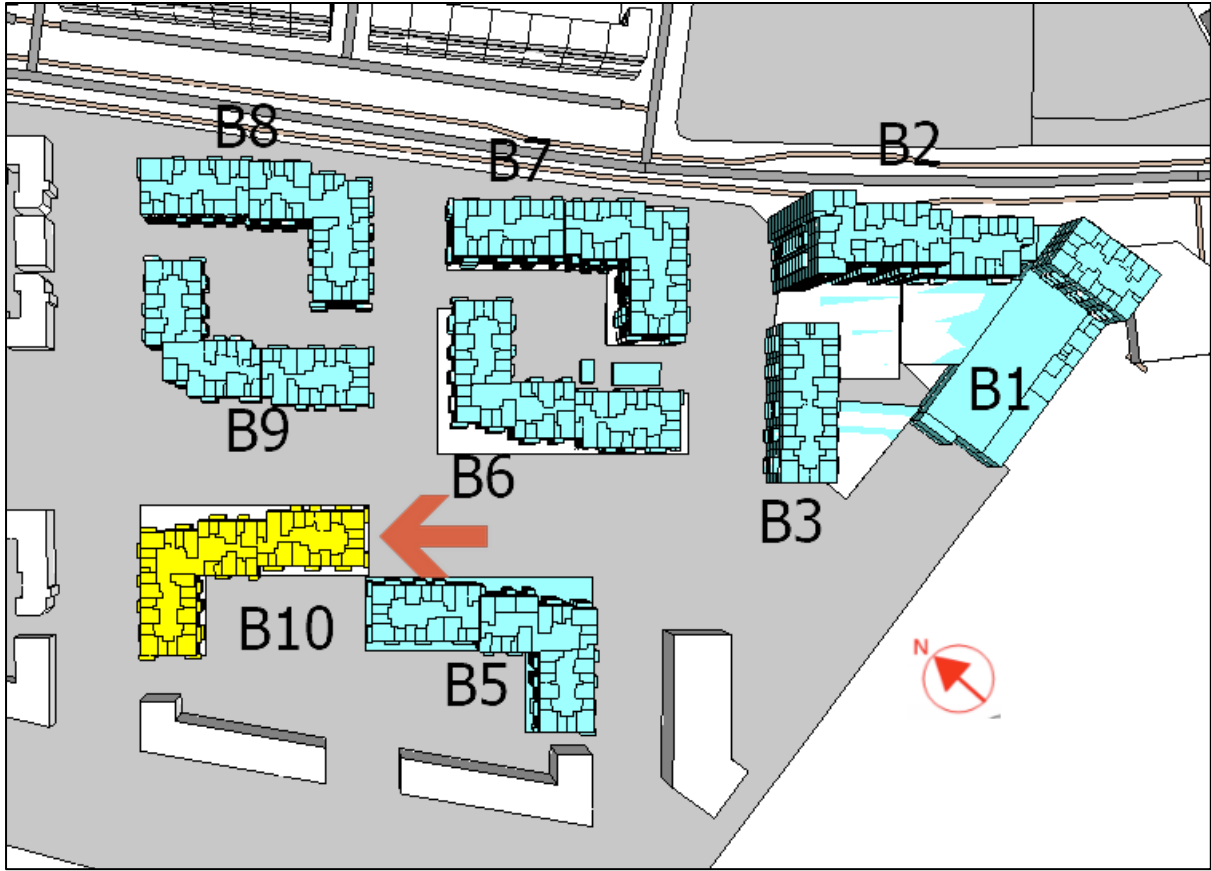


Figure 260. Building 10 (modelling software)

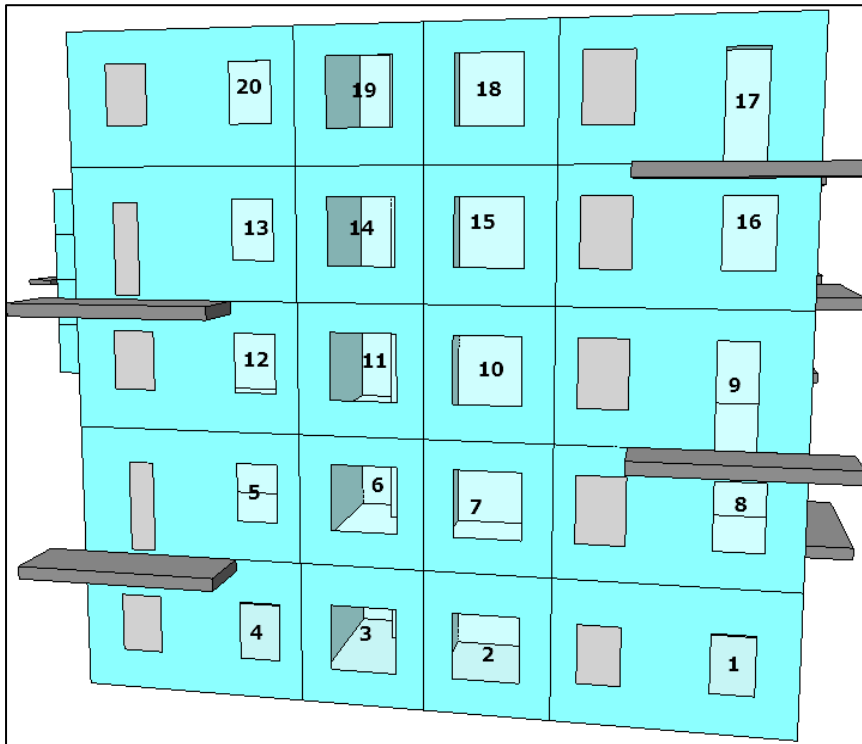


Figure 261. Southeast elevation of Building 10 (modelling software)



Figure 262. Windows achieving 1.5 hours of sunlight - Southeast elevation of Building 10 (modelling software)

Table 114. Sunlight Exposure and APSH/WPSH results for Southeast elevation of Building 10

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	43.08	13.08	Pass	Pass	Pass
2	41.78	11.19	Pass	Pass	Pass
3	39.12	10.74	Pass	Pass	Pass
4	30.42	9.22	Pass	Pass	Pass
5	39.4	12.52	Pass	Pass	Pass
6	45.13	13.5	Pass	Pass	Pass
7	48.17	13.89	Pass	Pass	Pass
8	24.63	13.15	Fail	Pass	Pass
9	55.2	21.08	Pass	Pass	Pass
10	53.99	17.76	Pass	Pass	Pass
11	52.09	15.82	Pass	Pass	Pass
12	36.92	11.99	Pass	Pass	Pass
13	55.21	20.24	Pass	Pass	Pass
14	59.51	23.23	Pass	Pass	Pass
15	61.2	24.3	Pass	Pass	Pass
16	33.66	20.25	Pass	Pass	Pass
17	66.96	29.23	Pass	Pass	Pass
18	68.09	29.63	Pass	Pass	Pass
19	67.16	29.4	Pass	Pass	Pass
20	64.89	28.53	Pass	Pass	Pass

South Elevation

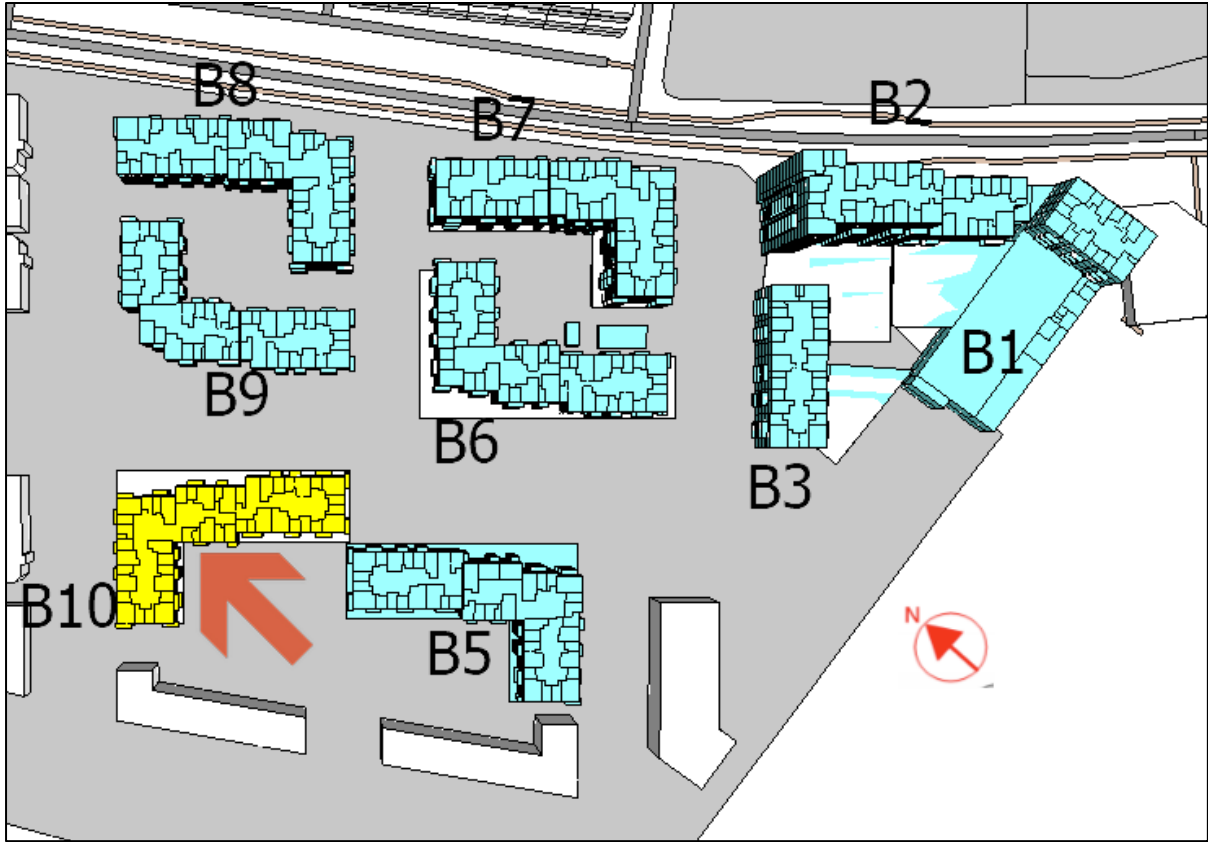


Figure 263. Building 10 (modelling software)

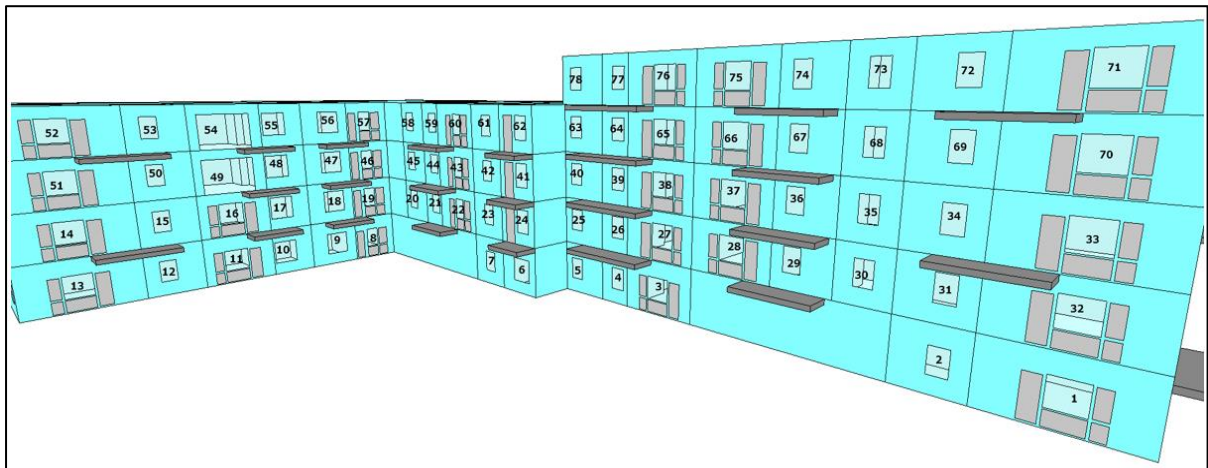


Figure 264. South elevation of Building 10 (modelling software)

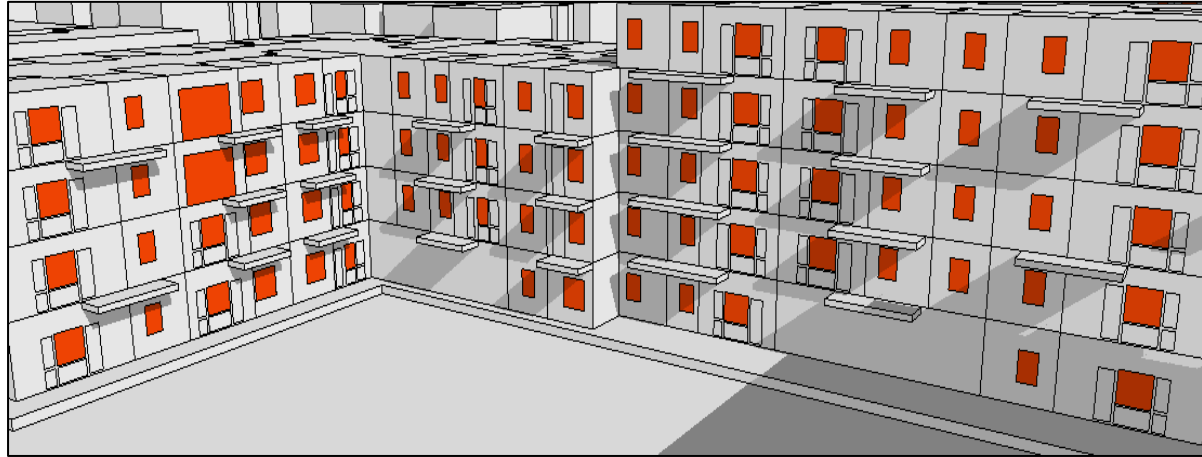


Figure 265. Windows achieving 1.5 hours of sunlight - South elevation of Building 10 (modelling software)

Table 115. Sunlight Exposure and APSH/WPSH results for South elevation of Building 10

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	36.19	6.92	Pass	Pass	Pass
2	36.93	8.53	Pass	Pass	Pass
3	40.65	14.39	Pass	Pass	Pass
4	24.58	13.85	Fail	Pass	Pass
5	24.14	13.97	Fail	Pass	Pass
6	27.55	14.98	Pass	Pass	Pass
7	36.53	14.1	Pass	Pass	Pass
8	20.69	14.91	Fail	Pass	Pass
9	25.08	16.28	Pass	Pass	Pass
10	23.75	16.62	Fail	Pass	Pass
11	40.76	17.62	Pass	Pass	Pass
12	24.92	14.64	Fail	Pass	Pass
13	41.12	15.32	Pass	Pass	Pass
14	49.77	18.37	Pass	Pass	Pass
15	47.08	20.28	Pass	Pass	Pass
16	45.54	20.88	Pass	Pass	Pass
17	21.89	15.64	Fail	Pass	Pass
18	26.09	18.51	Pass	Pass	Pass
19	23.82	14.92	Fail	Pass	Pass
20	32.87	15.95	Pass	Pass	Pass
21	18.00	13.79	Fail	Pass	Pass
22	42.42	19.2	Pass	Pass	Pass
23	39.02	15.22	Pass	Pass	Pass
24	26.01	15.77	Pass	Pass	Pass
25	23.13	12.58	Fail	Pass	Pass
26	21.67	13.1	Fail	Pass	Pass
27	46.00	17.47	Pass	Pass	Pass
28	38.61	13.45	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
29	24.12	13.45	Fail	Pass	Pass
30	43.92	13.21	Pass	Pass	Pass
31	24.80	10.3	Fail	Pass	Pass
32	37.72	9.62	Pass	Pass	Pass
33	46.13	10.25	Pass	Pass	Pass
34	46.58	14.63	Pass	Pass	Pass
35	48.01	16.57	Pass	Pass	Pass
36	27.39	15.52	Pass	Pass	Pass
37	42.18	16.04	Pass	Pass	Pass
38	53.44	22.08	Pass	Pass	Pass
39	26.10	16.76	Pass	Pass	Pass
40	26.94	15.93	Pass	Pass	Pass
41	33.89	21.44	Pass	Pass	Pass
42	50.92	20.07	Pass	Pass	Pass
43	49.50	23.82	Pass	Pass	Pass
44	24.62	17.73	Fail	Pass	Pass
45	42.96	18.94	Pass	Pass	Pass
46	26.73	17.01	Pass	Pass	Pass
47	30.78	20.07	Pass	Pass	Pass
48	26.87	17.81	Pass	Pass	Pass
49	49.62	21.91	Pass	Pass	Pass
50	29.02	17.49	Pass	Pass	Pass
51	54.41	22.99	Pass	Pass	Pass
52	64.29	26.74	Pass	Pass	Pass
53	62.36	26.94	Pass	Pass	Pass
54	63.18	27.61	Pass	Pass	Pass
55	63.39	28	Pass	Pass	Pass
56	60.97	27.7	Pass	Pass	Pass
57	52.56	26.57	Pass	Pass	Pass
58	57.64	26.5	Pass	Pass	Pass
59	60.39	26.57	Pass	Pass	Pass
60	60.88	26.65	Pass	Pass	Pass
61	62.43	26.47	Pass	Pass	Pass
62	64.08	26.76	Pass	Pass	Pass
63	32.30	18.03	Pass	Pass	Pass
64	30.18	19.66	Pass	Pass	Pass
65	58.52	25.48	Pass	Pass	Pass
66	49.34	18.68	Pass	Pass	Pass
67	33.99	19.31	Pass	Pass	Pass
68	56.79	20.18	Pass	Pass	Pass
69	32.14	14.54	Pass	Pass	Pass
70	51.08	16.52	Pass	Pass	Pass



Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
71	69.27	30.11	Pass	Pass	Pass
72	68.53	30.07	Pass	Pass	Pass
73	68.53	30.07	Pass	Pass	Pass
74	68.53	30.07	Pass	Pass	Pass
75	69.93	30.77	Pass	Pass	Pass
76	69.93	30.77	Pass	Pass	Pass
77	68.53	30.07	Pass	Pass	Pass
78	68.53	30.07	Pass	Pass	Pass

Southwest Elevation

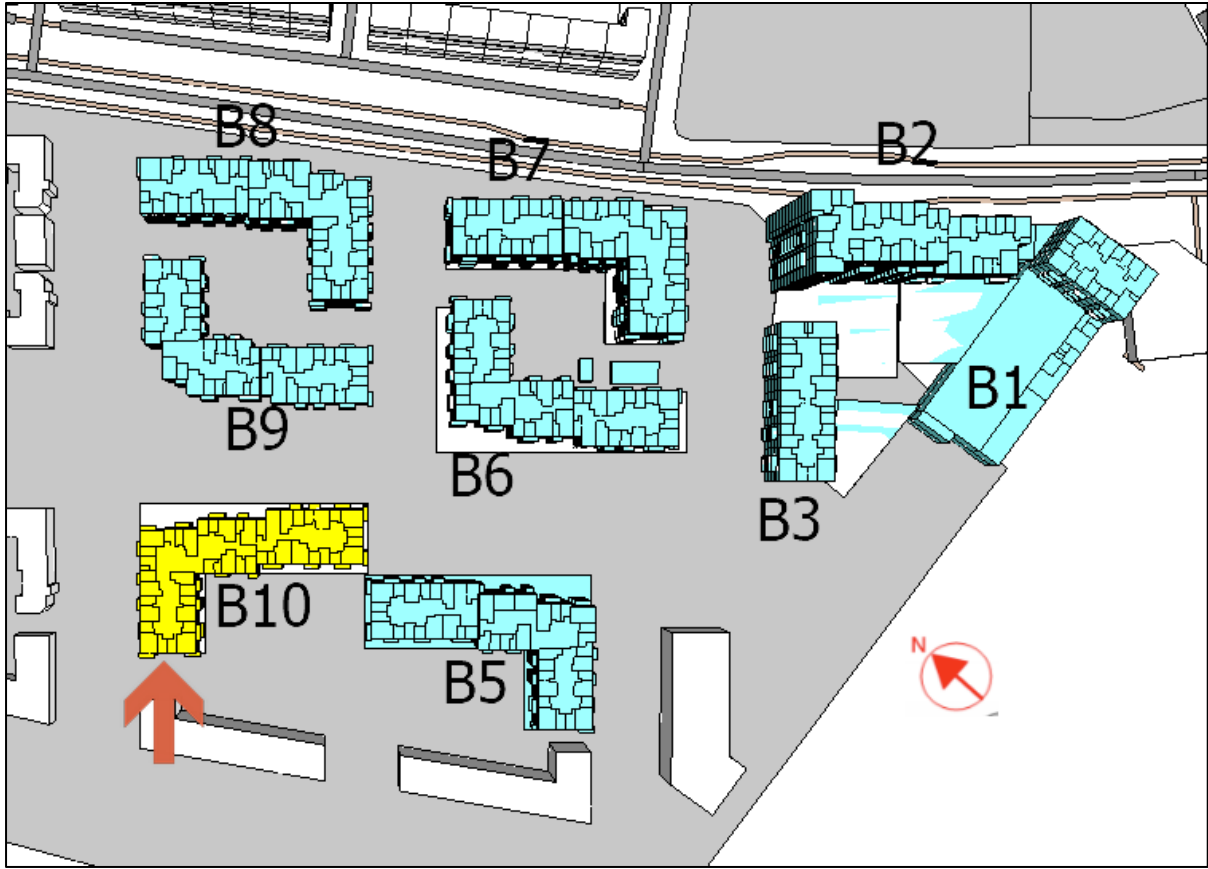


Figure 266. Building 10 (modelling software)

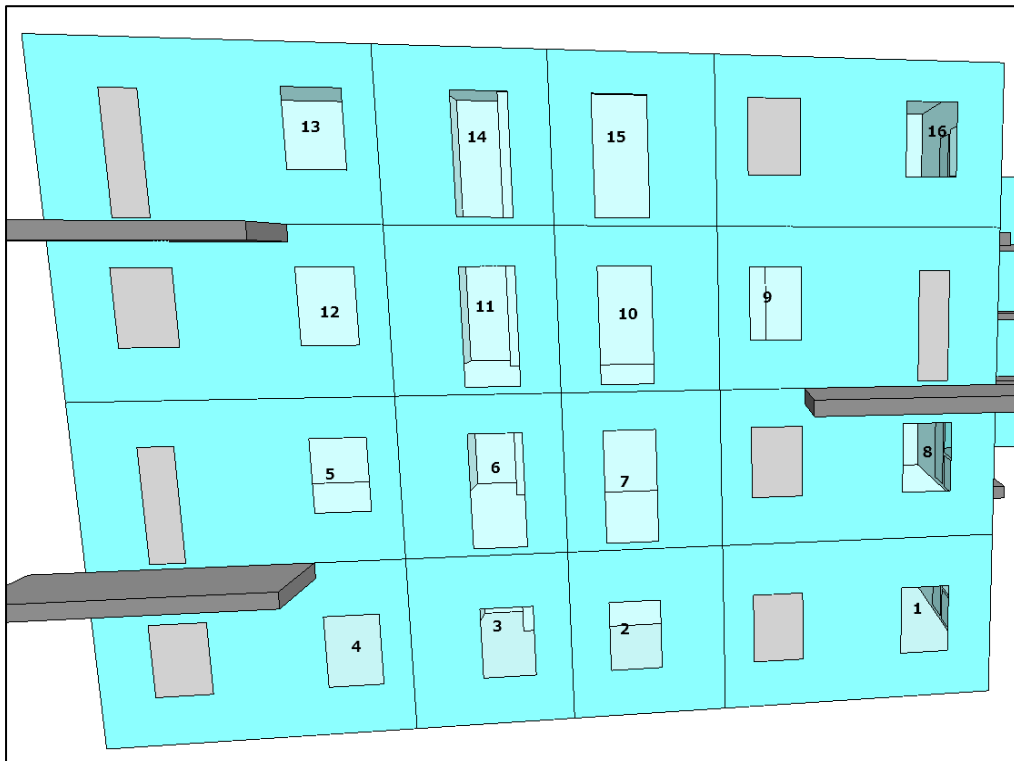


Figure 267. Southwest elevation of Building 10 (modelling software)



Figure 268. Windows achieving 1.5 hours of sunlight - Southwest elevation of Building 10 (modelling software)

Table 116. Sunlight Exposure and APSH/WPSH results for Southwest elevation of Building 10

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	35.14	10.51	Pass	Pass	Pass
2	35.80	10.58	Pass	Pass	Pass
3	38.70	10.49	Pass	Pass	Pass
4	39.50	12.09	Pass	Pass	Pass
5	47.99	14.36	Pass	Pass	Pass
6	46.24	12.94	Pass	Pass	Pass
7	43.85	11.65	Pass	Pass	Pass
8	17.75	8.86	Fail	Pass	Fail
9	53.22	17.48	Pass	Pass	Pass
10	53.53	17.70	Pass	Pass	Pass
11	54.45	17.21	Pass	Pass	Pass
12	50.33	17.33	Pass	Pass	Pass
13	60.55	22.09	Pass	Pass	Pass
14	60.79	21.64	Pass	Pass	Pass
15	60.70	22.18	Pass	Pass	Pass
16	58.88	22.25	Pass	Pass	Pass

Northwest Elevation

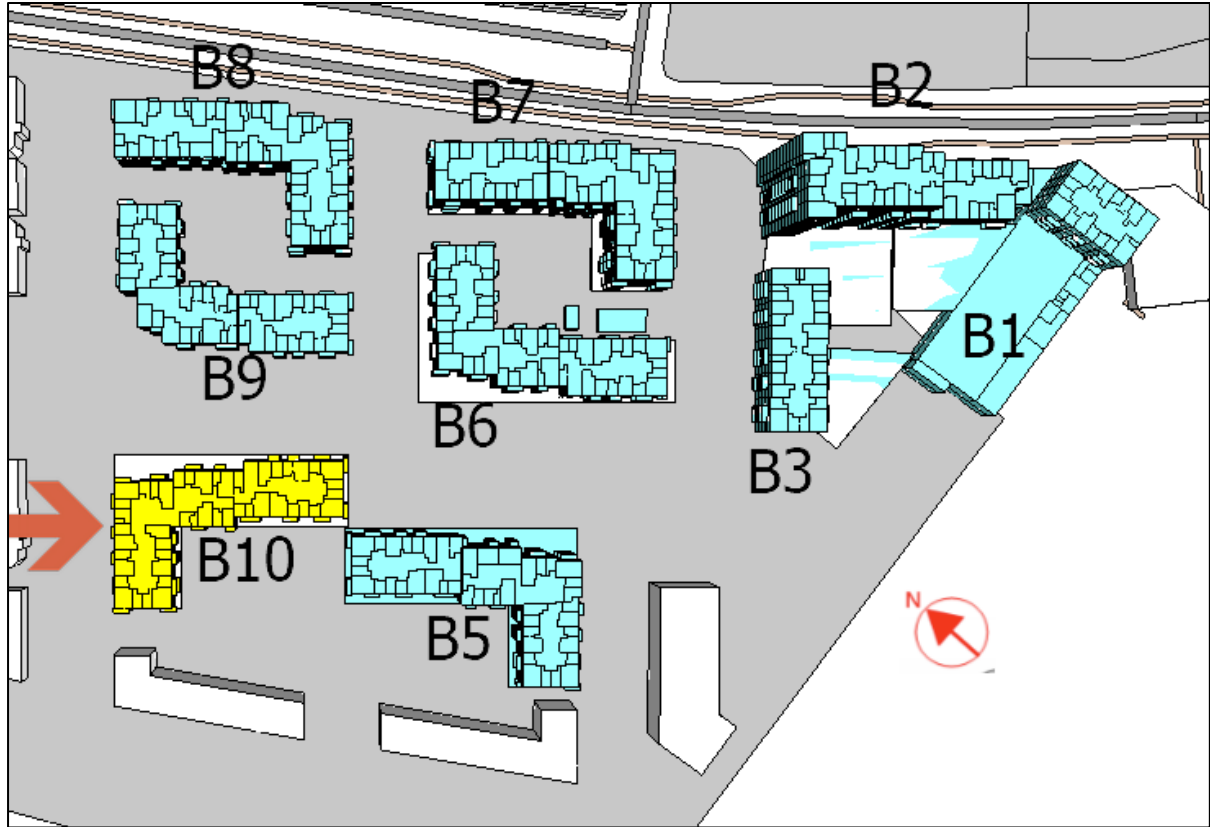


Figure 269. Building 10 (modelling software)



Figure 270. Northwest elevation of Building 10 (modelling software)

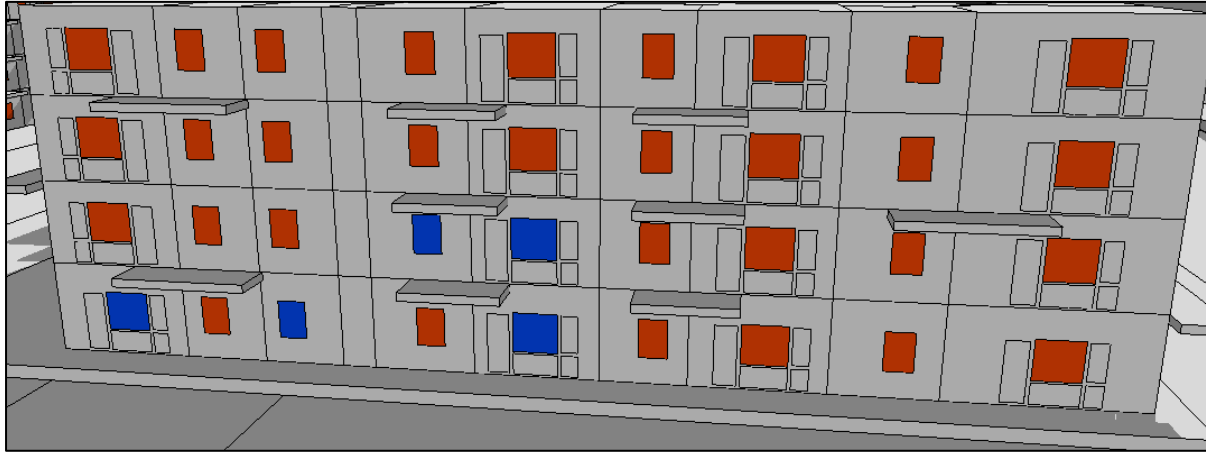


Figure 271. Windows achieving 1.5 hours of sunlight - Northwest elevation of Building 10 (modelling software)

Table 117. Sunlight Exposure and APSH/WPSH results for Northwest elevation of Building 10

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
1	22.26	5.12	Fail	Pass	Pass
2	20.56	4.90	Fail	Fail	Pass
3	18.98	5.59	Fail	Pass	Pass
4	13.83	4.74	Fail	Fail	Pass
5	16.53	3.73	Fail	Fail	Fail
6	12.91	4.01	Fail	Fail	Pass
7	15.94	3.49	Fail	Fail	Fail
8	12.90	4.18	Fail	Fail	Pass
9	10.18	3.82	Fail	Fail	Fail
10	18.88	4.84	Fail	Fail	Pass
11	20.74	4.19	Fail	Fail	Pass
12	19.30	3.50	Fail	Fail	Pass
13	12.15	3.71	Fail	Fail	Fail
14	18.80	3.48	Fail	Fail	Fail
15	14.09	4.42	Fail	Fail	Pass
16	22.20	3.97	Fail	Fail	Pass
17	12.42	4.03	Fail	Fail	Pass
18	22.90	5.59	Fail	Pass	Pass
19	26.18	4.94	Pass	Fail	Pass
20	25.67	4.90	Pass	Fail	Pass
21	27.06	5.59	Pass	Pass	Pass
22	15.99	4.44	Fail	Fail	Pass
23	24.71	4.20	Fail	Fail	Pass
24	14.02	4.41	Fail	Fail	Pass
25	23.09	4.20	Fail	Fail	Pass
26	15.56	4.75	Fail	Fail	Pass
27	13.56	4.07	Fail	Fail	Pass
28	27.09	5.59	Pass	Pass	Pass

Window Reference	Proposed Scheme		APSH Compliance?	WPSH Compliance?	Achieving 1.5 hours of sunlight?
	APSH	WPSH	Minimum 25%	Minimum 5%	
29	25.71	4.90	Pass	Fail	Pass
30	25.71	4.90	Pass	Fail	Pass
31	25.71	4.90	Pass	Fail	Pass
32	27.23	5.59	Pass	Pass	Pass
33	25.87	4.90	Pass	Fail	Pass
34	27.27	5.59	Pass	Pass	Pass
35	25.87	4.90	Pass	Fail	Pass
36	27.27	5.59	Pass	Pass	Pass



## Appendix E: Sunlight on Ground

### Cedarbrook Apartments

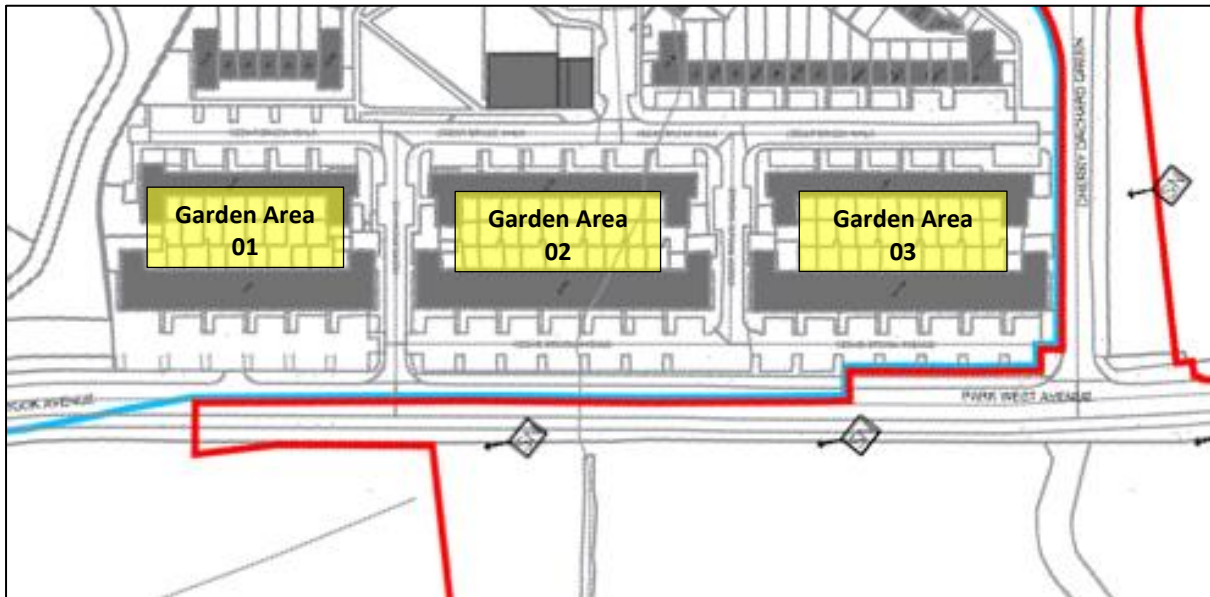


Figure 272. Extract from Site Location Map showing garden areas at Cedarbrook Apartments (VDA & CCK)

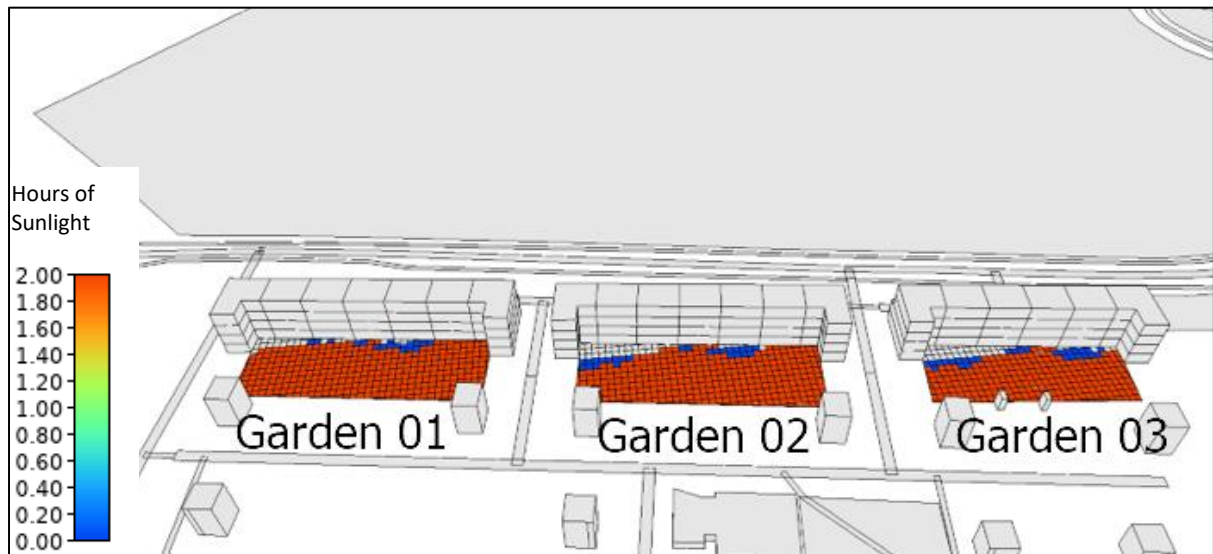


Figure 273. Sunlight on Ground results for Cedarbrook Apartments without Proposed Development (modelling software)

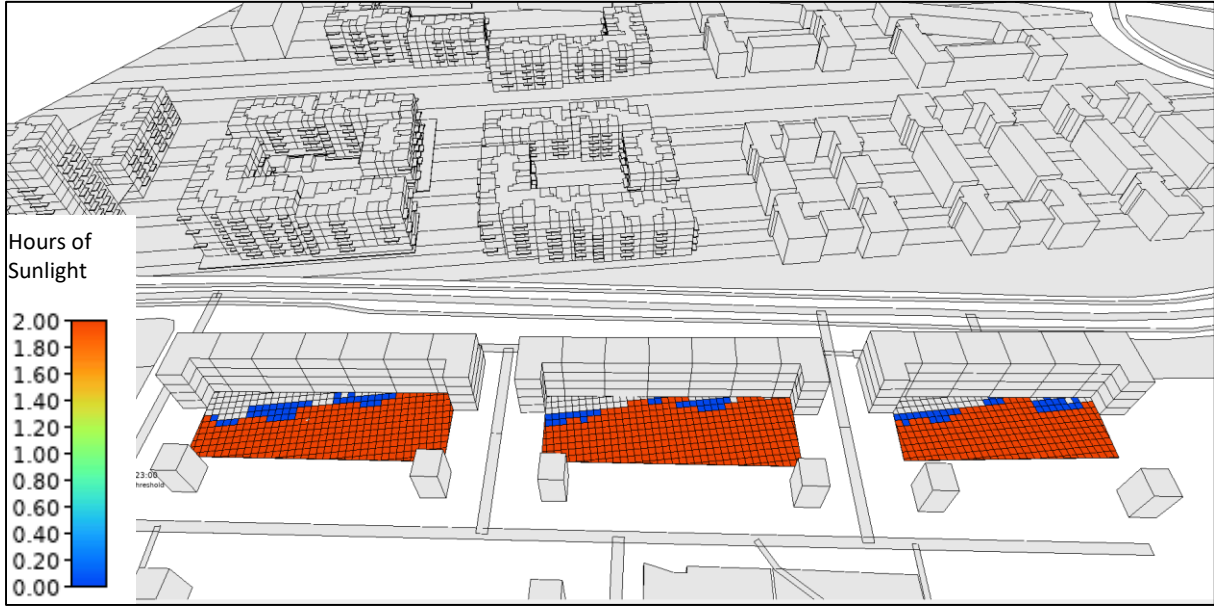


Figure 274. Sunlight on Ground results for Cedarbrook Apartments with Proposed Development (modelling software)

## Park West Amenity Areas

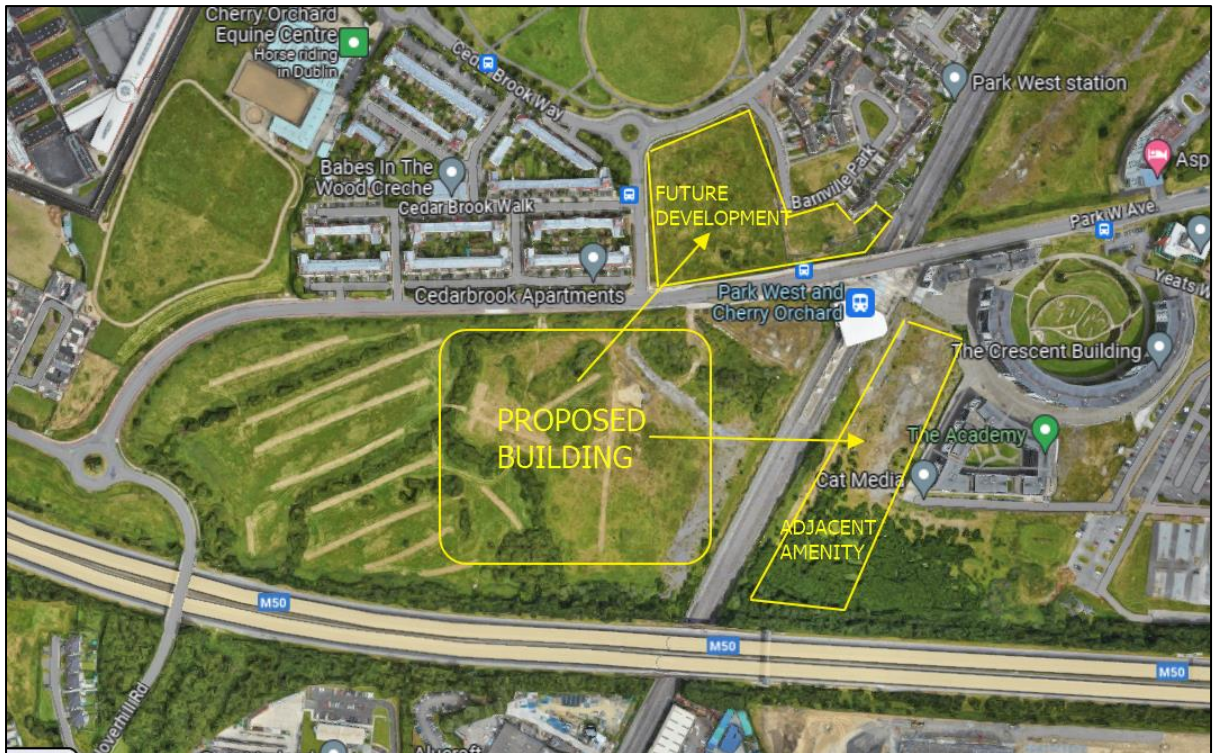


Figure 275. Cherry Orchard map showing future development and adjacent amenity areas (Google Maps)



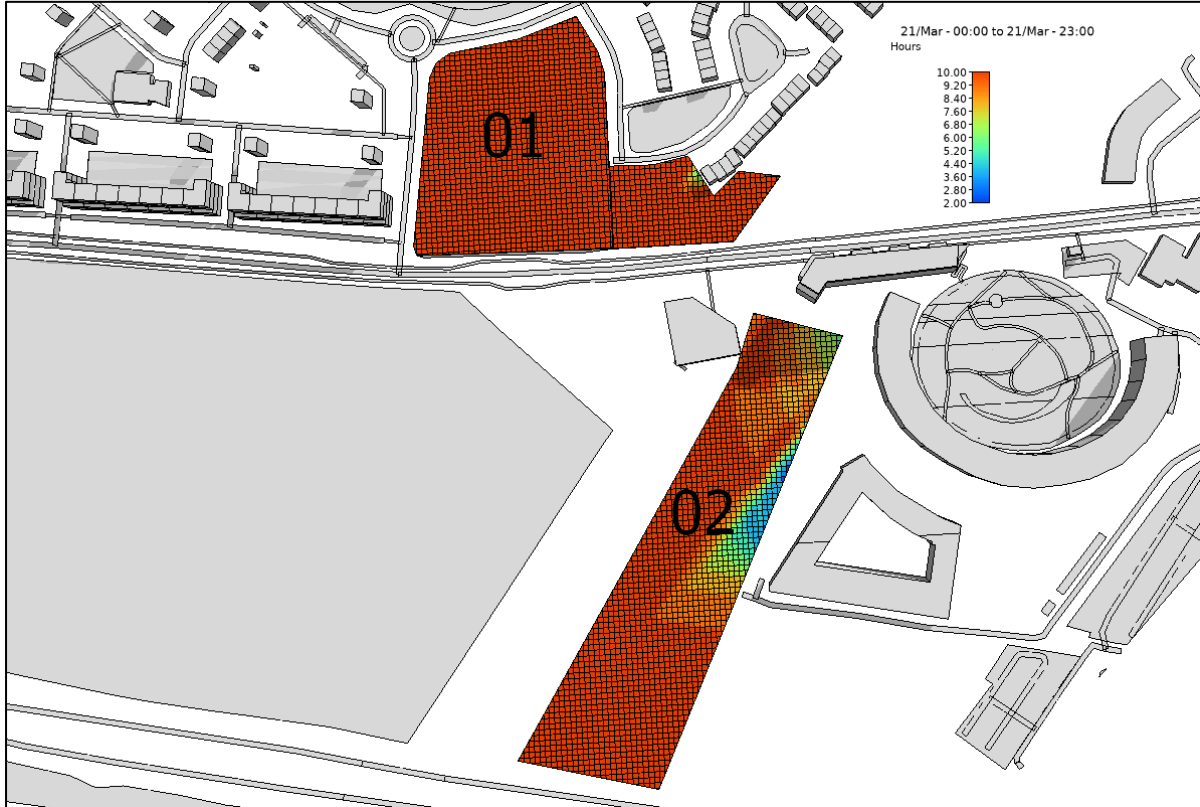


Figure 276. Sunlight on Ground results for Future Development and Adjacent Amenity Areas without Proposed Development (modelling software)

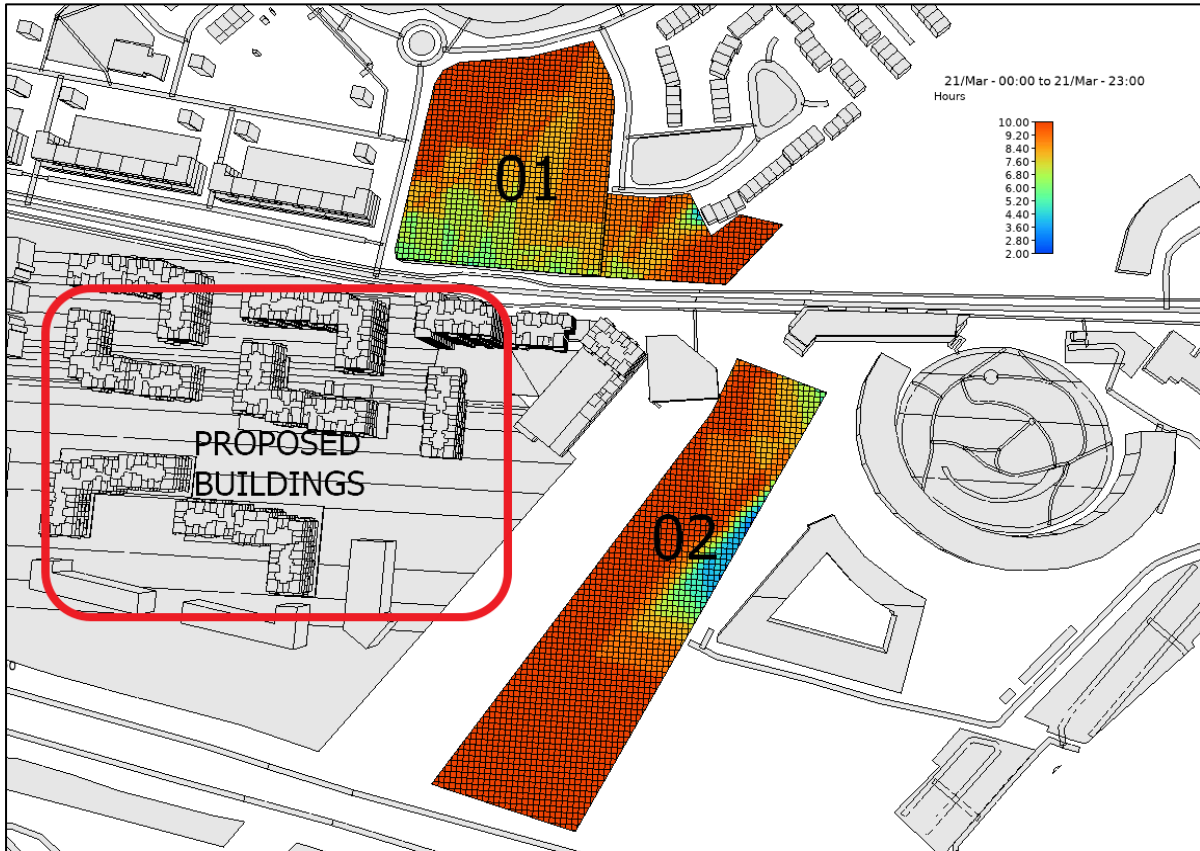


Figure 277. Sunlight on Ground results for Future Development and Adjacent Amenity Areas with Proposed Development (modelling software)

Proposed Development



Figure 278. Site Development Plan (VDA & CCK)

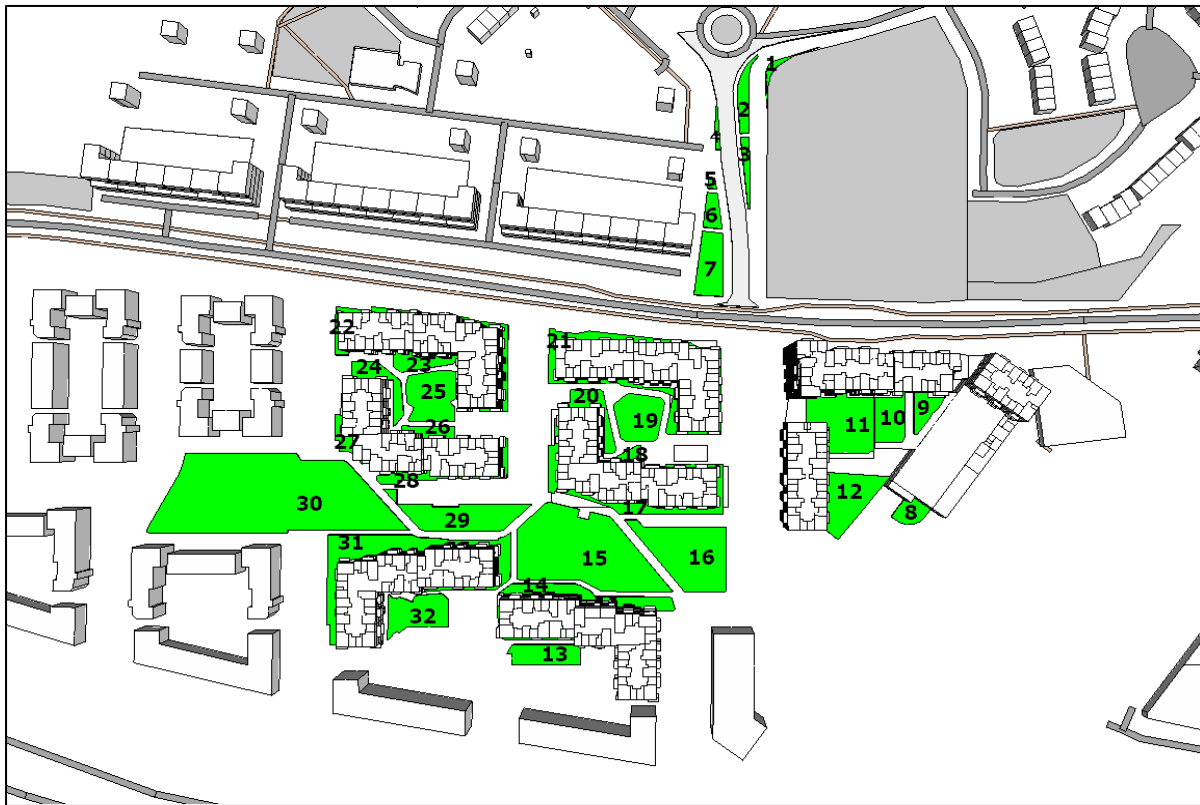


Figure 279. Identified Amenity Areas for Proposed Development (modelling software)



Figure 280. Sunlight on Ground Results for Proposed Amenity Areas (modelling software)



Figure 281. Sunlight on Ground Results for Proposed Amenity Areas near High-Density Buildings (modelling software)



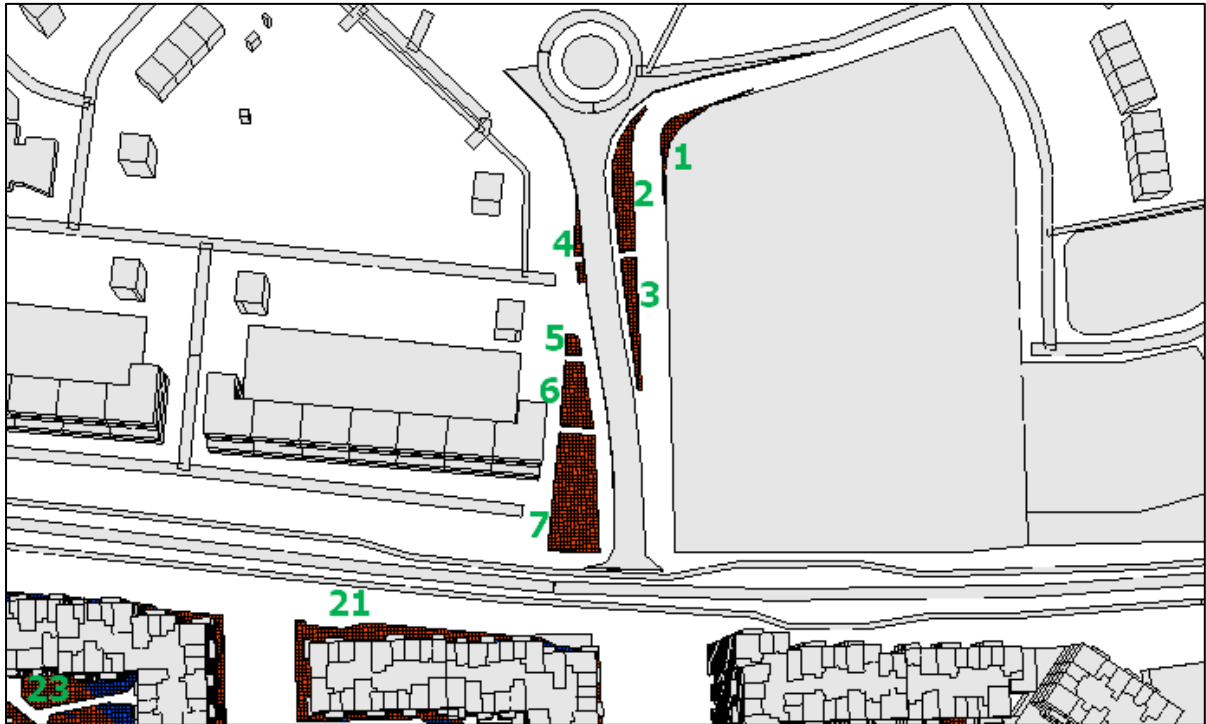


Figure 282. Sunlight on Ground Results for Proposed Amenity Areas at Northeast location (modelling software)

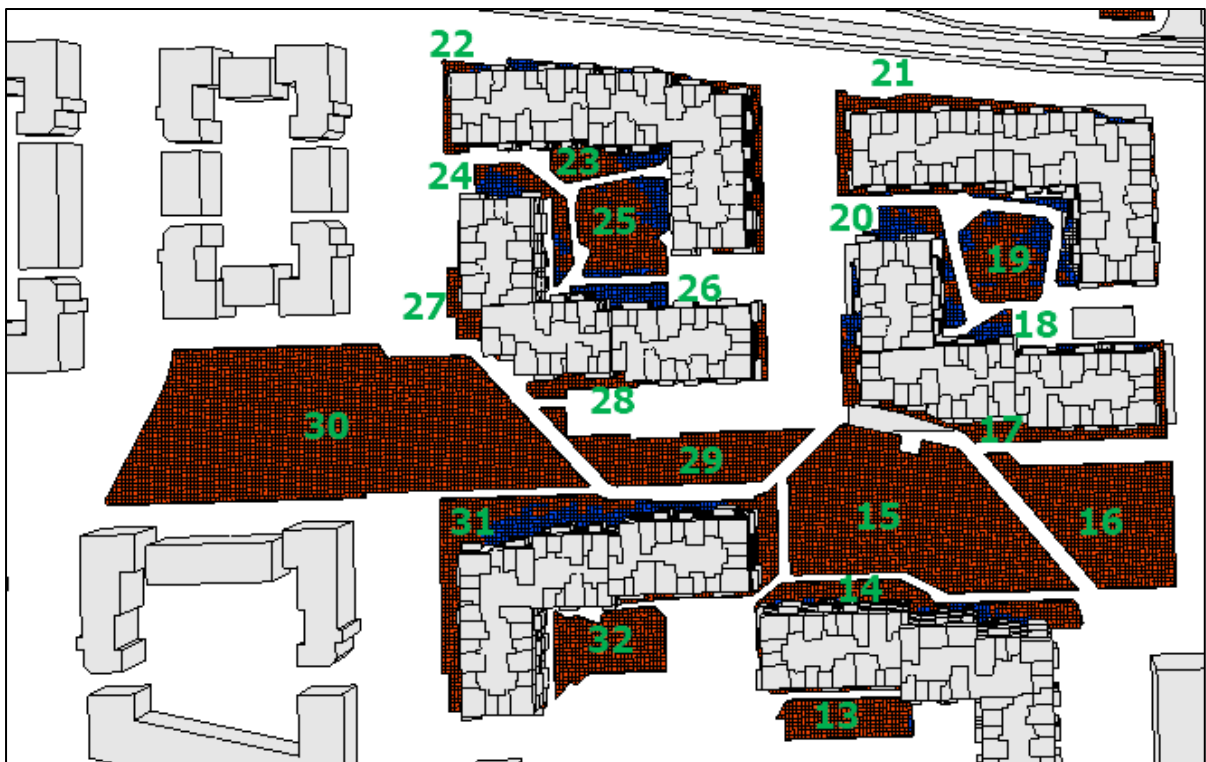


Figure 283. Sunlight on Ground Results for Proposed Amenity Areas near Medium-Density Buildings (modelling software)



## Appendix F: Shadow Analysis

### Medium Density Buildings

#### Aerial View 01 – March 21<sup>st</sup>



Figure 284. Shadow image on March 21<sup>st</sup> at 08:00 of Cedarbrook Apartments without Proposed Development (modelling software)

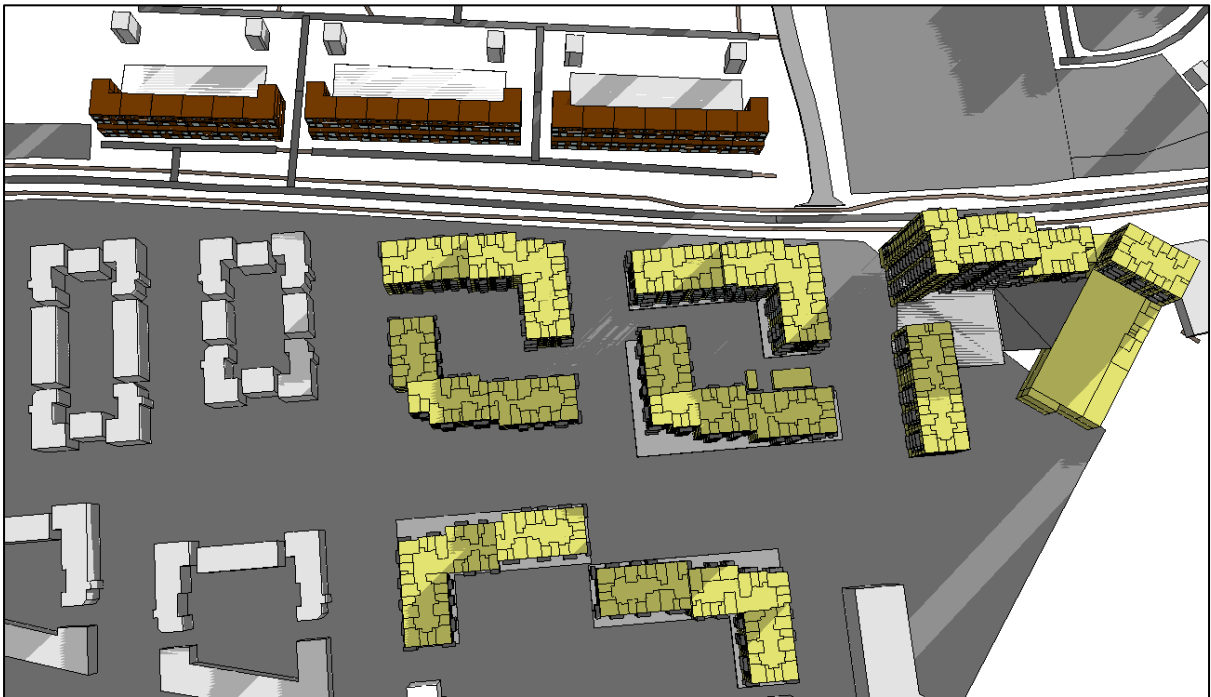


Figure 285. Shadow image on March 21<sup>st</sup> at 08:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 286. Shadow image on March 21<sup>st</sup> at 10:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 287. Shadow image on March 21<sup>st</sup> at 10:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 288. Shadow image on March 21<sup>st</sup> at 12:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 289. Shadow image on March 21<sup>st</sup> at 12:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 290. Shadow image on March 21<sup>st</sup> at 14:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 291. Shadow image on March 21<sup>st</sup> at 14:00 of Cedarbrook Apartments with Proposed Development (modelling software)

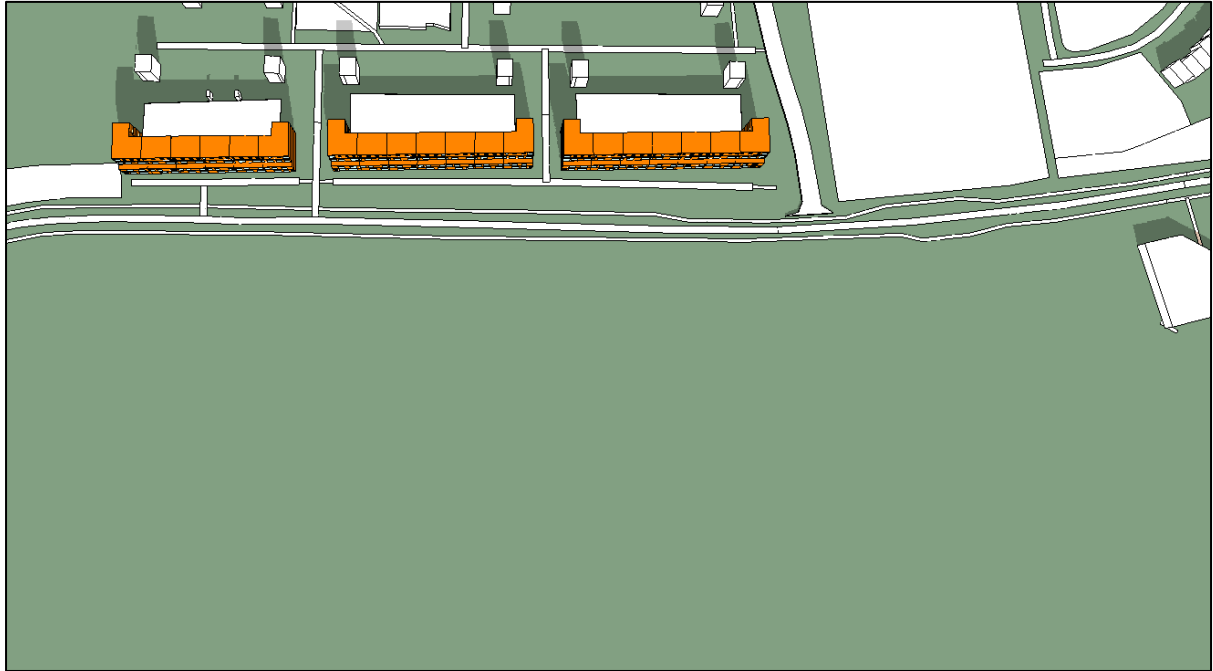


Figure 292. Shadow image on March 21<sup>st</sup> at 16:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 293. Shadow image on March 21<sup>st</sup> at 16:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 294. Shadow image on March 21<sup>st</sup> at 18:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 295. Shadow image on March 21<sup>st</sup> at 18:00 of Cedarbrook Apartments with Proposed Development (modelling software)



**Aerial View 01 – June 21<sup>st</sup>**



Figure 296. Shadow image on June 21<sup>st</sup> at 08:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 297. Shadow image on June 21<sup>st</sup> at 08:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 298. Shadow image on June 21<sup>st</sup> at 10:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 299. Shadow image on June 21<sup>st</sup> at 10:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 300. Shadow image on June 21<sup>st</sup> at 12:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 301. Shadow image on June 21<sup>st</sup> at 12:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 302. Shadow image on June 21<sup>st</sup> at 14:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 303. Shadow image on June 21<sup>st</sup> at 14:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 304. Shadow image on June 21<sup>st</sup> at 16:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 305. Shadow image on June 21<sup>st</sup> at 16:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 306. Shadow image on June 21<sup>st</sup> at 18:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 307. Shadow image on June 21<sup>st</sup> at 18:00 of Cedarbrook Apartments with Proposed Development (modelling software)



**Aerial View 01 – December 21<sup>st</sup>**

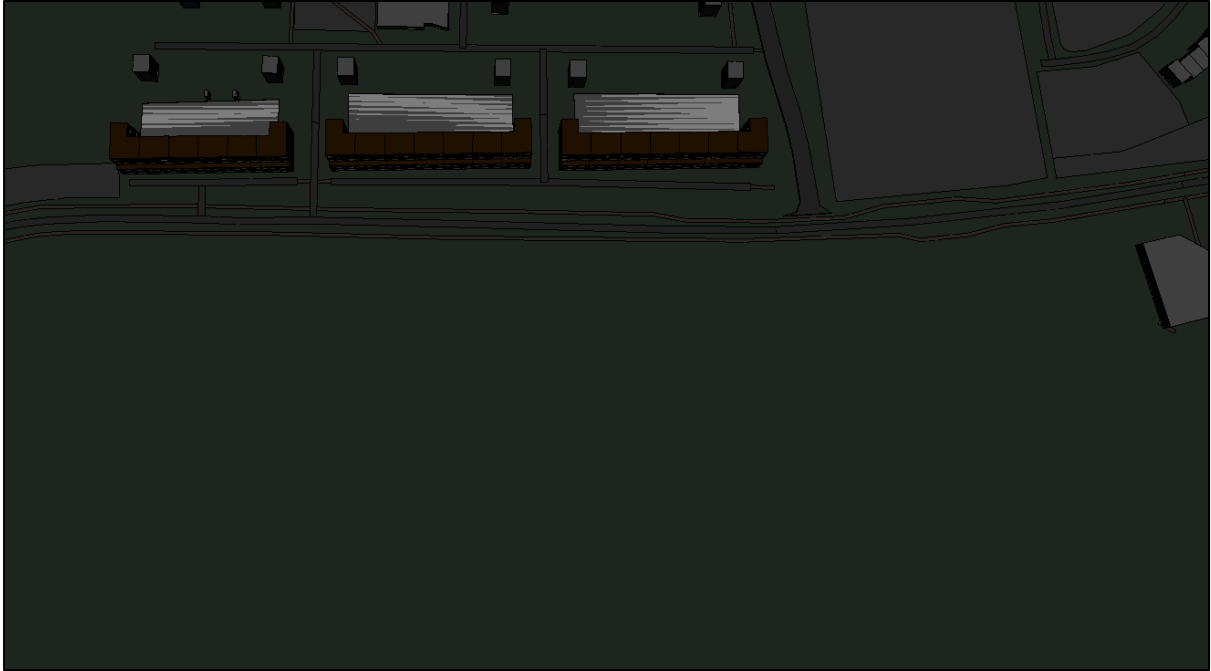


Figure 308. Shadow image on December 21<sup>st</sup> at 08:00 of Cedarbrook Apartments without Proposed Development (modelling software)

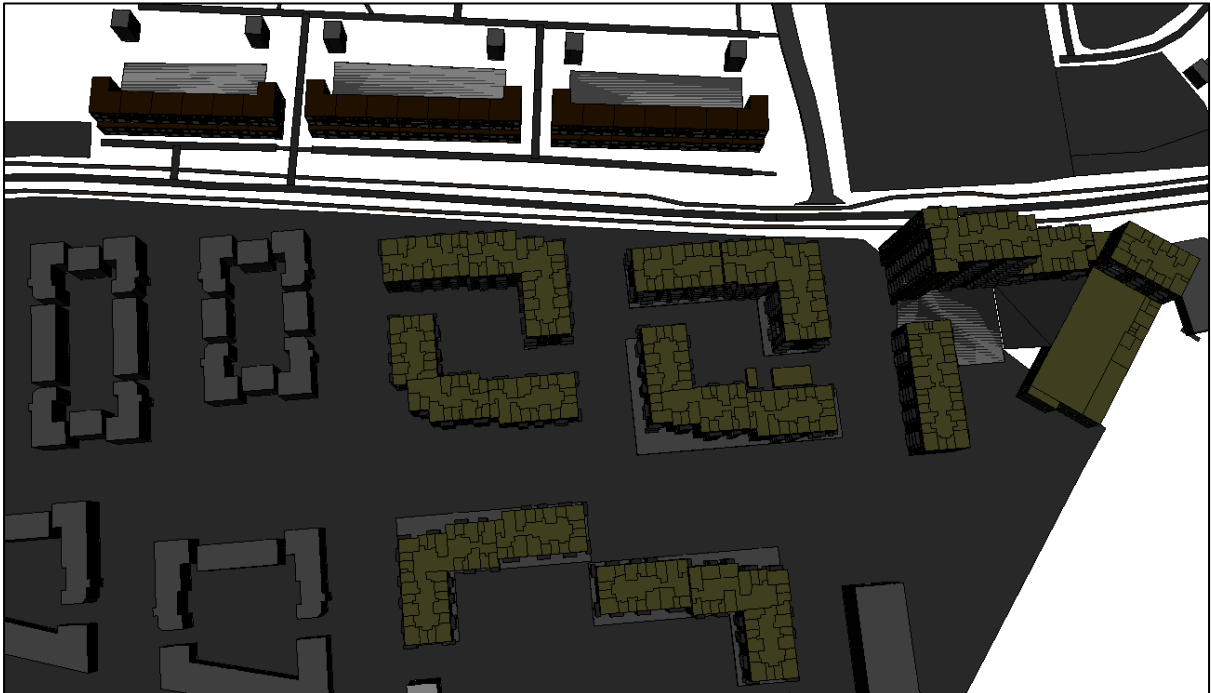


Figure 309. Shadow image on December 21<sup>st</sup> at 08:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 310. Shadow image on December 21<sup>st</sup> at 10:00 of Cedarbrook Apartments without Proposed Development (modelling software)

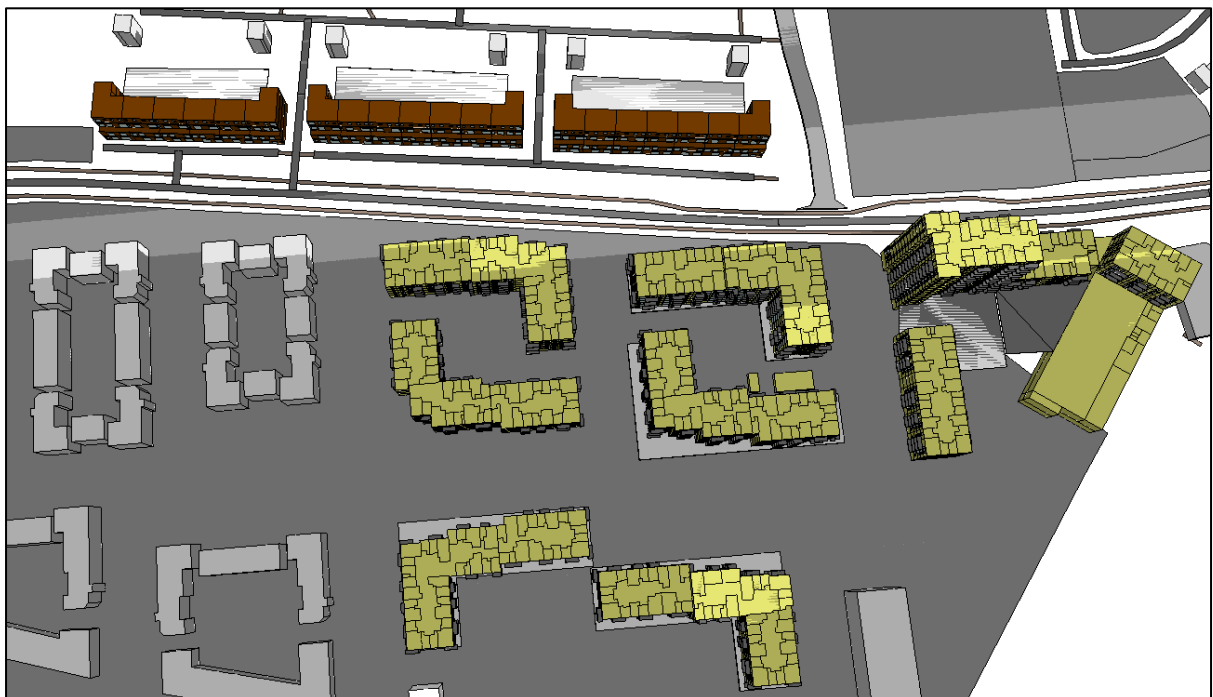


Figure 311. Shadow image on December 21<sup>st</sup> at 10:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 312. Shadow image on December 21<sup>st</sup> at 12:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 313. Shadow image on December 21<sup>st</sup> at 12:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 314. Shadow image on December 21<sup>st</sup> at 14:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 315. Shadow image on December 21<sup>st</sup> at 14:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 316. Shadow image on December 21<sup>st</sup> at 16:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 317. Shadow image on December 21<sup>st</sup> at 16:00 of Cedarbrook Apartments with Proposed Development (modelling software)

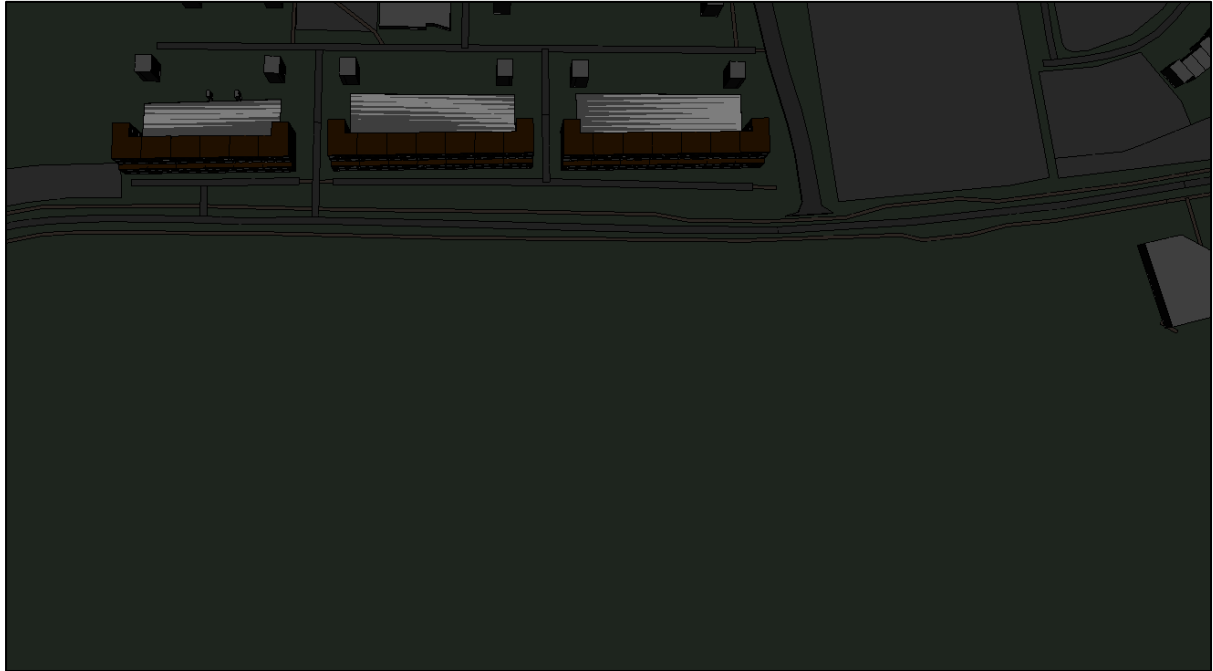


Figure 318. Shadow image on December 21<sup>st</sup> at 18:00 of Cedarbrook Apartments without Proposed Development (modelling software)

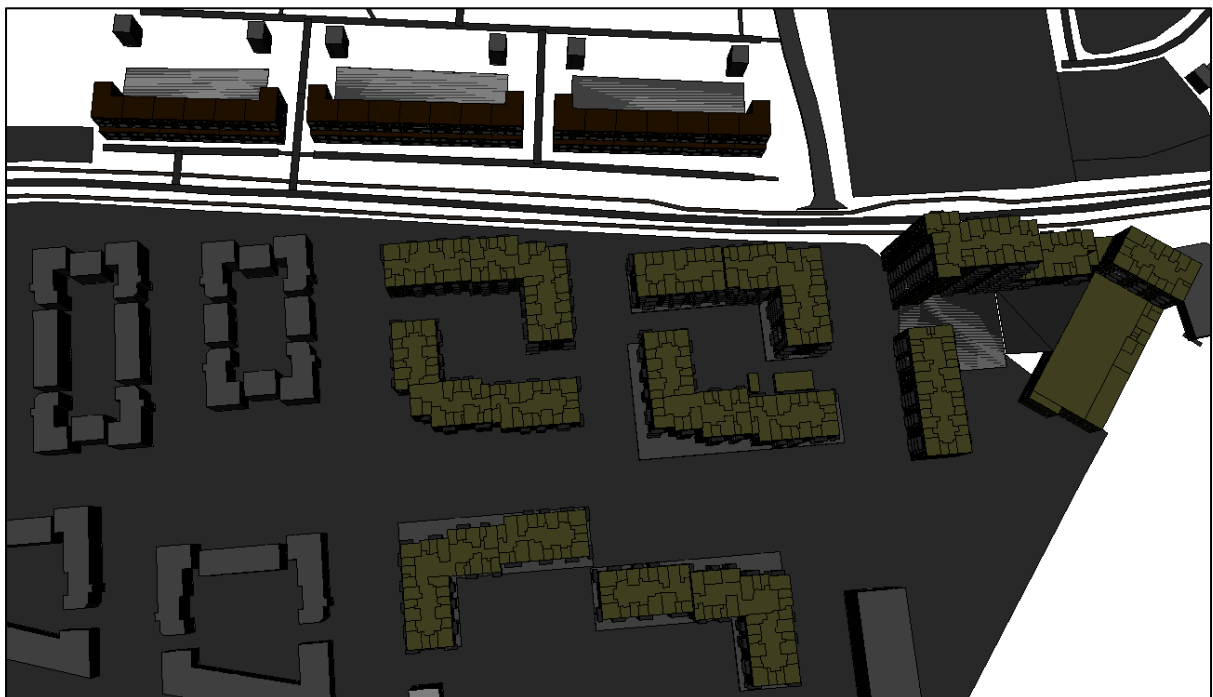


Figure 319. Shadow image on December 21<sup>st</sup> at 18:00 of Cedarbrook Apartments with Proposed Development (modelling software)



**Aerial View 02 – March 21<sup>st</sup>**



Figure 320. Shadow image on March 21<sup>st</sup> at 08:00 of Cedarbrook Apartments without Proposed Development (modelling software)

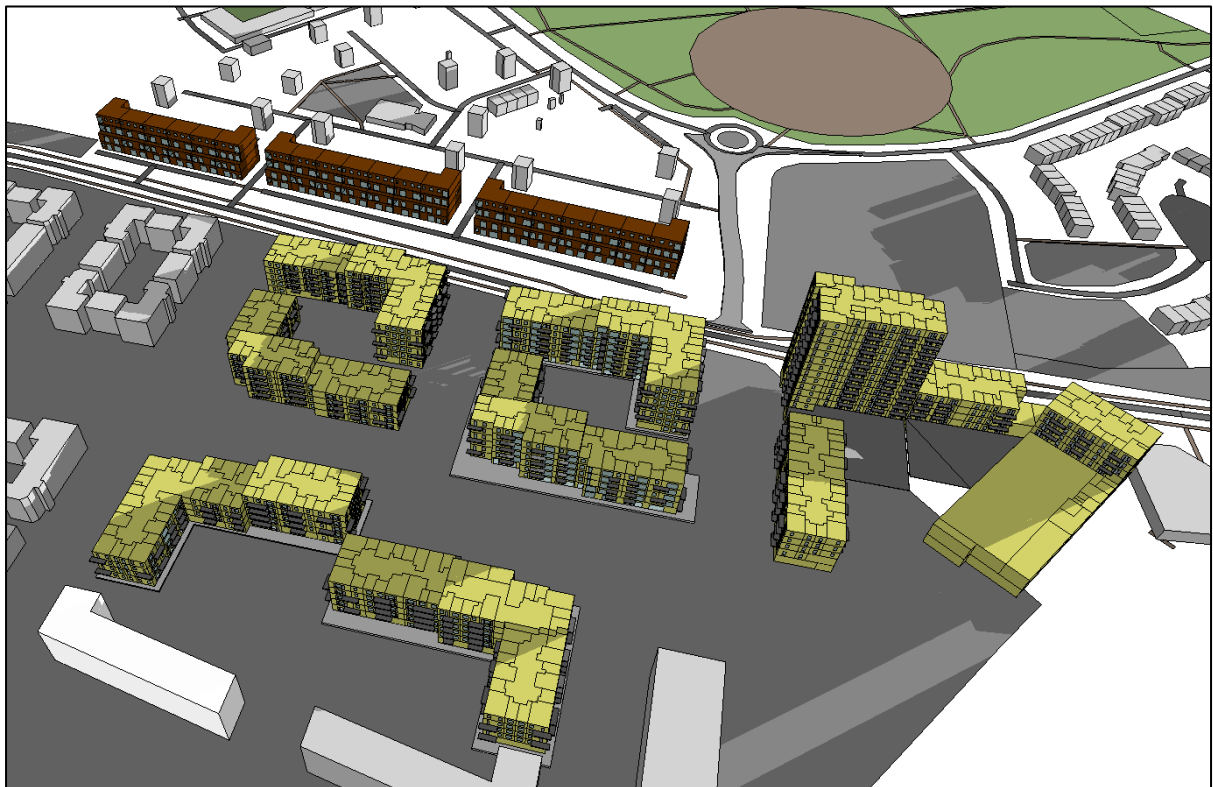


Figure 321. Shadow image on March 21<sup>st</sup> at 08:00 of Cedarbrook Apartments with Proposed Development (modelling software)

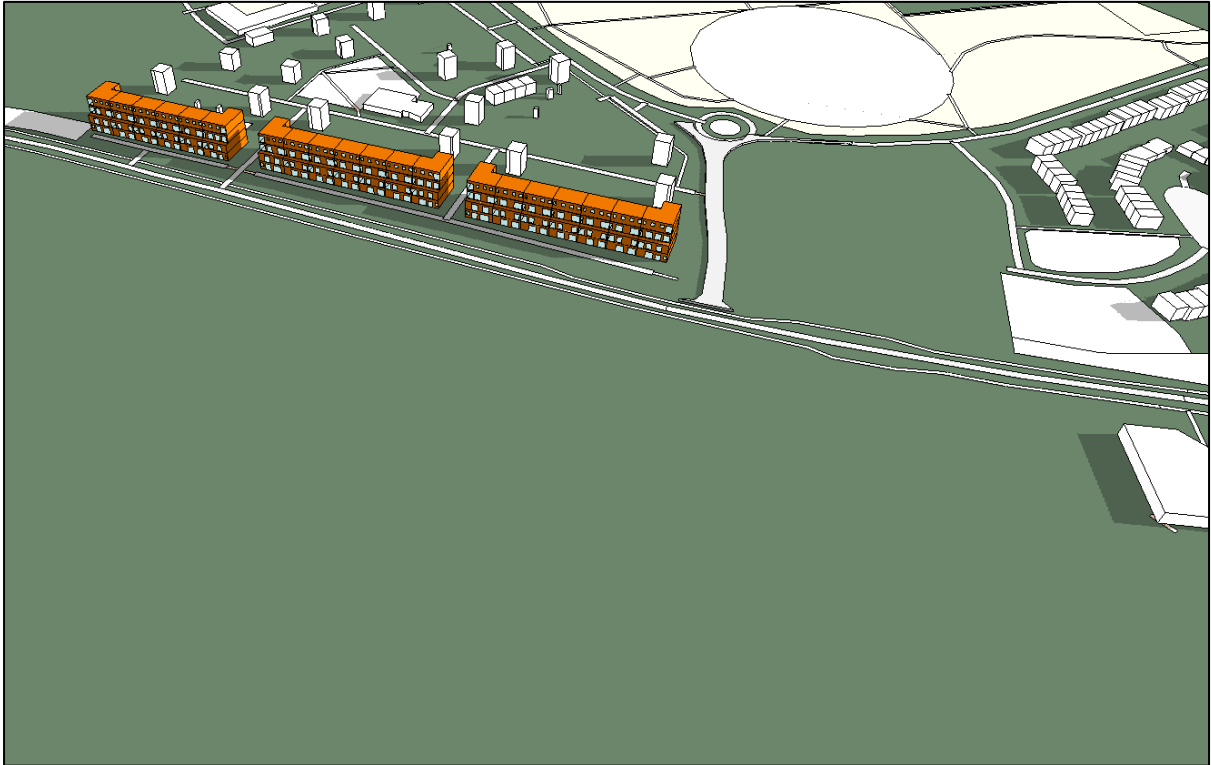


Figure 322. Shadow image on March 21<sup>st</sup> at 10:00 of Cedarbrook Apartments without Proposed Development (modelling software)

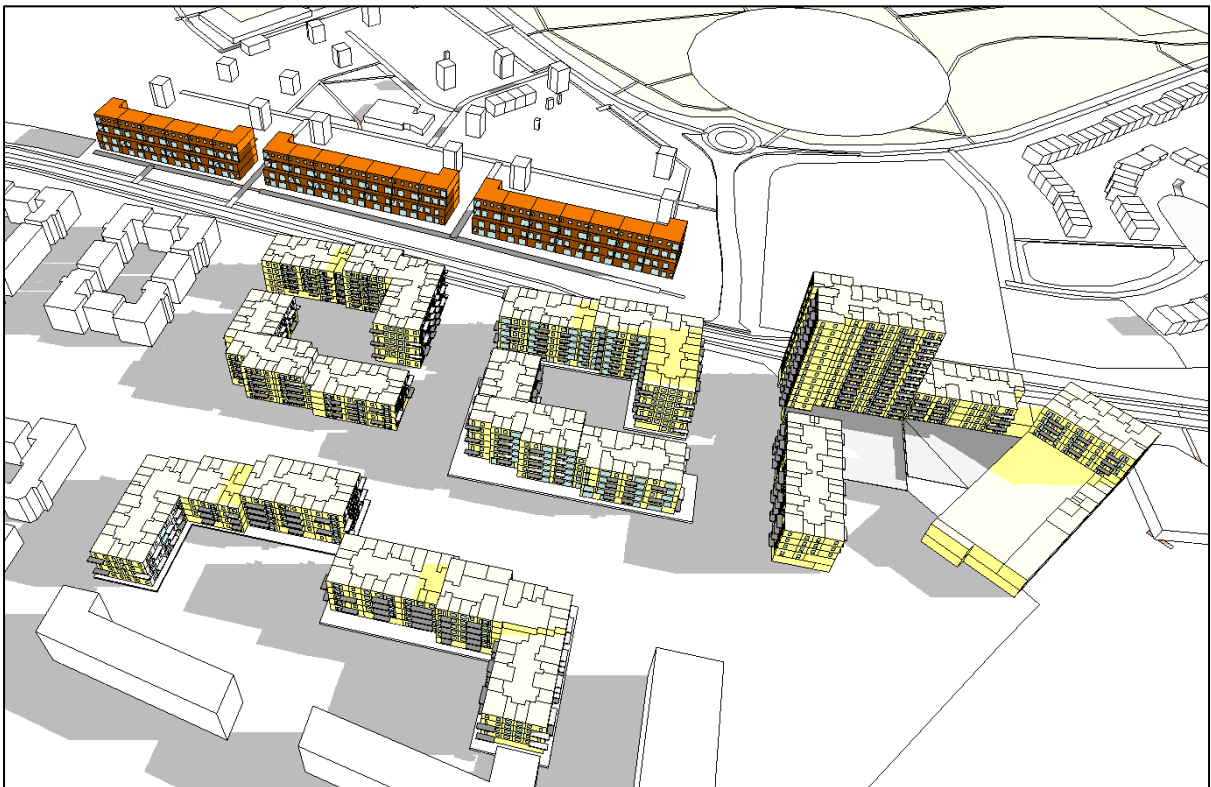


Figure 323. Shadow image on March 21<sup>st</sup> at 10:00 of Cedarbrook Apartments with Proposed Development (modelling software)

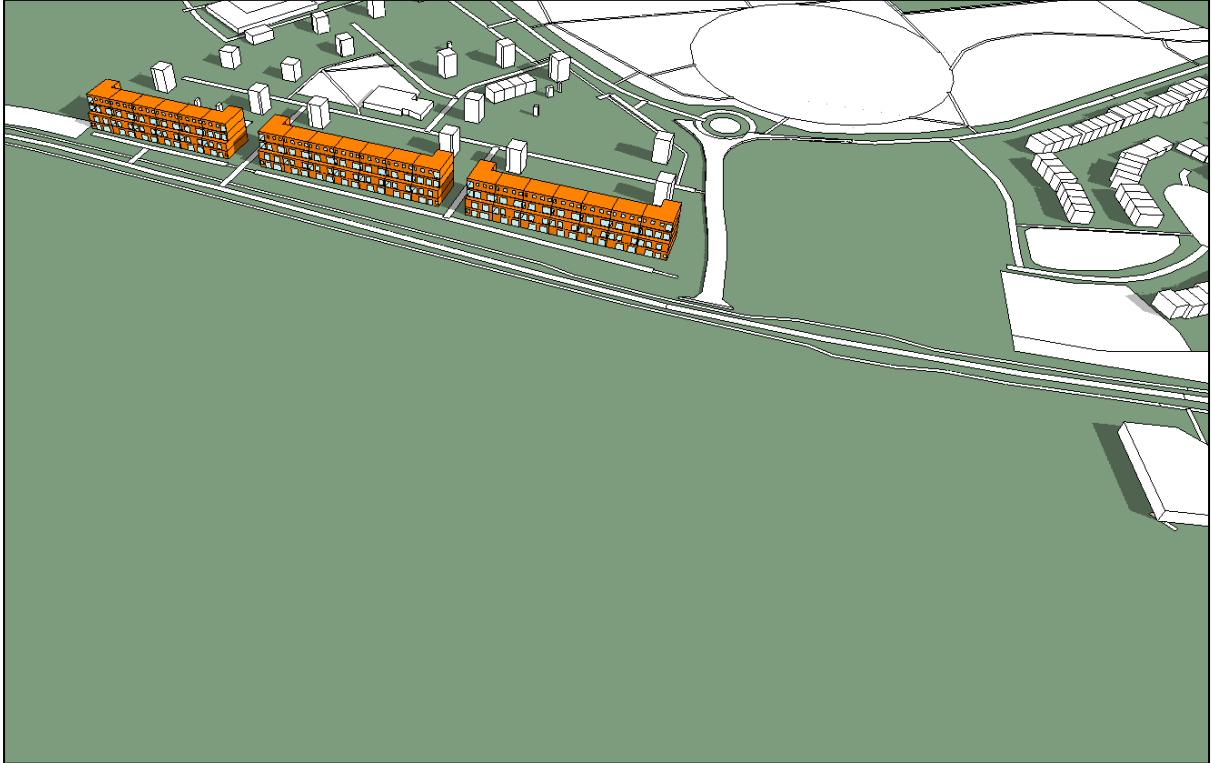


Figure 324. Shadow image on March 21<sup>st</sup> at 12:00 of Cedarbrook Apartments without Proposed Development (modelling software)

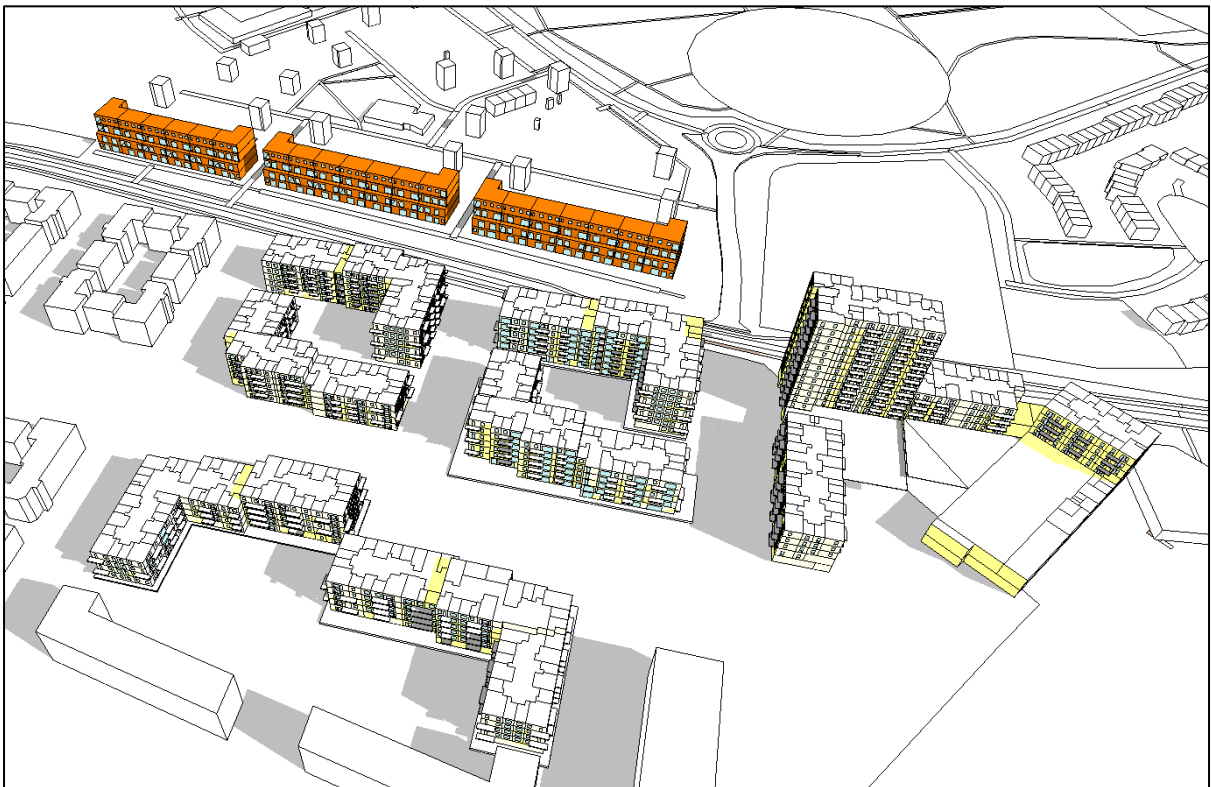


Figure 325. Shadow image on March 21<sup>st</sup> at 12:00 of Cedarbrook Apartments with Proposed Development (modelling software)

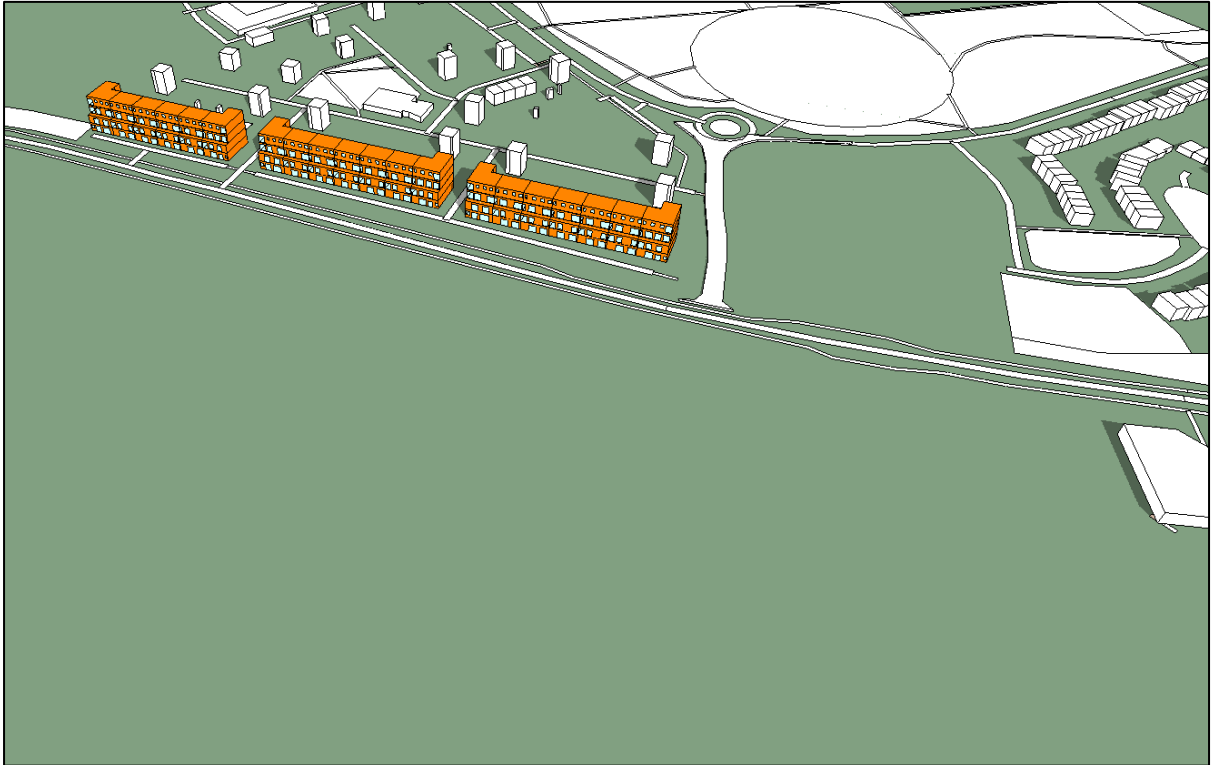


Figure 326. Shadow image on March 21<sup>st</sup> at 14:00 of Cedarbrook Apartments without Proposed Development (modelling software)

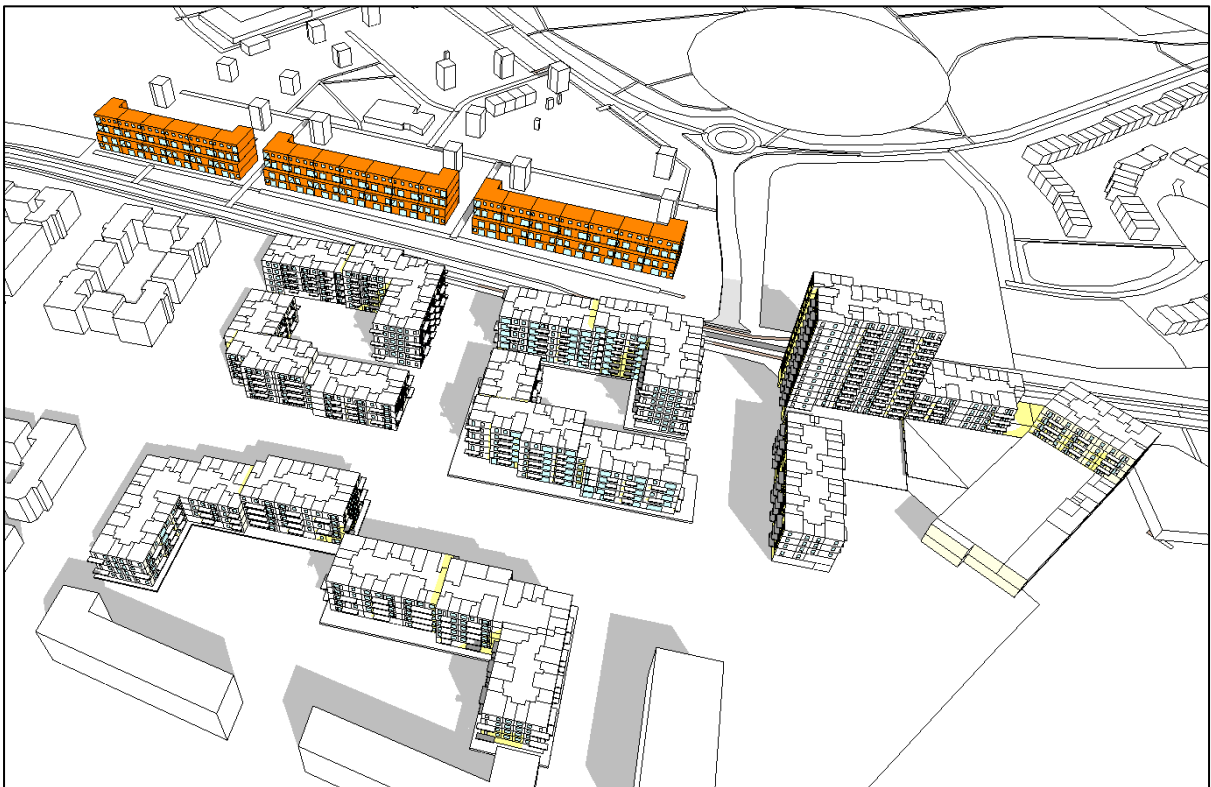


Figure 327. Shadow image on March 21<sup>st</sup> at 14:00 of Cedarbrook Apartments with Proposed Development (modelling software)



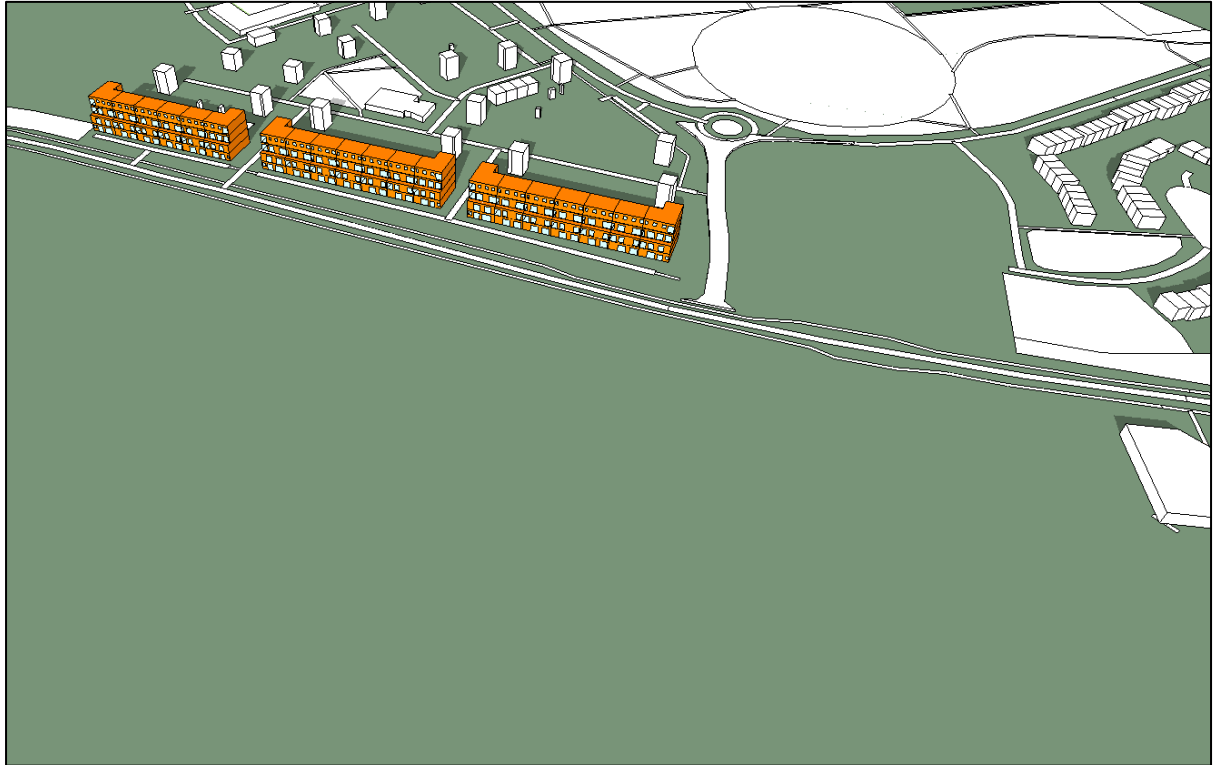


Figure 328. Shadow image on March 21<sup>st</sup> at 16:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 329. Shadow image on March 21<sup>st</sup> at 16:00 of Cedarbrook Apartments with Proposed Development (modelling software)

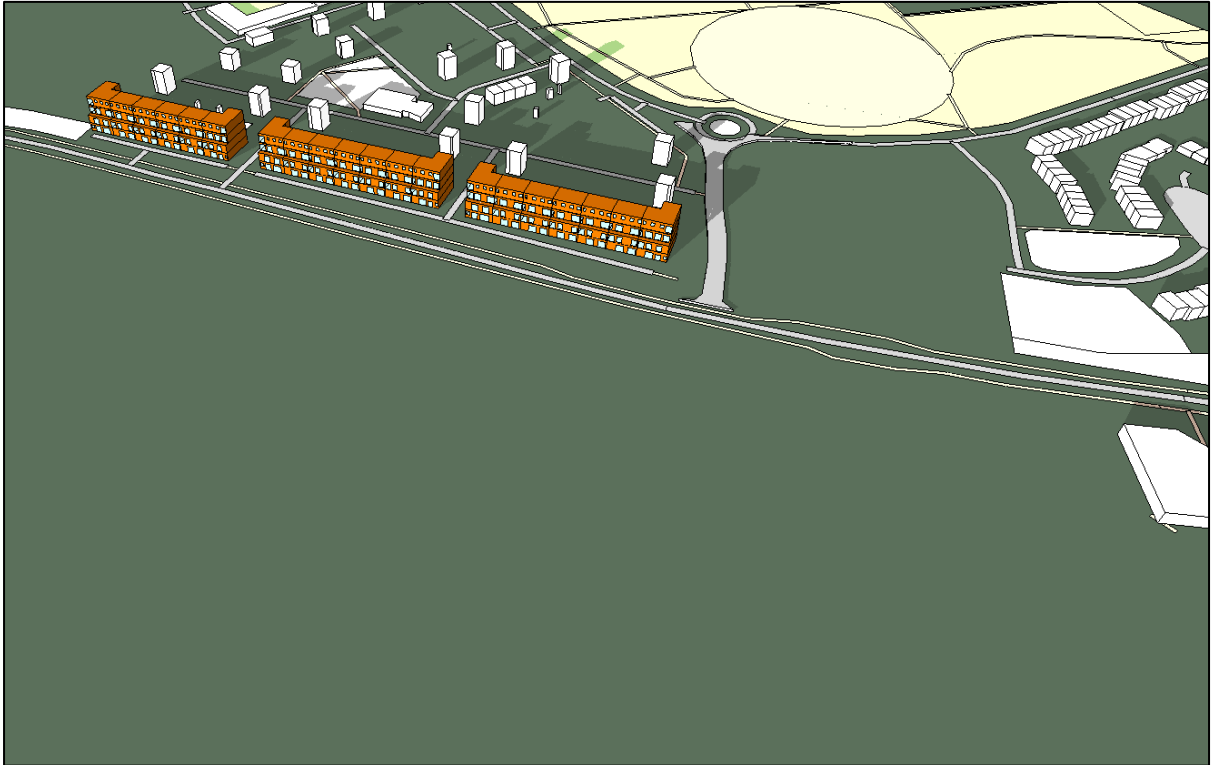


Figure 330. Shadow image on March 21<sup>st</sup> at 18:00 of Cedarbrook Apartments without Proposed Development (modelling software)

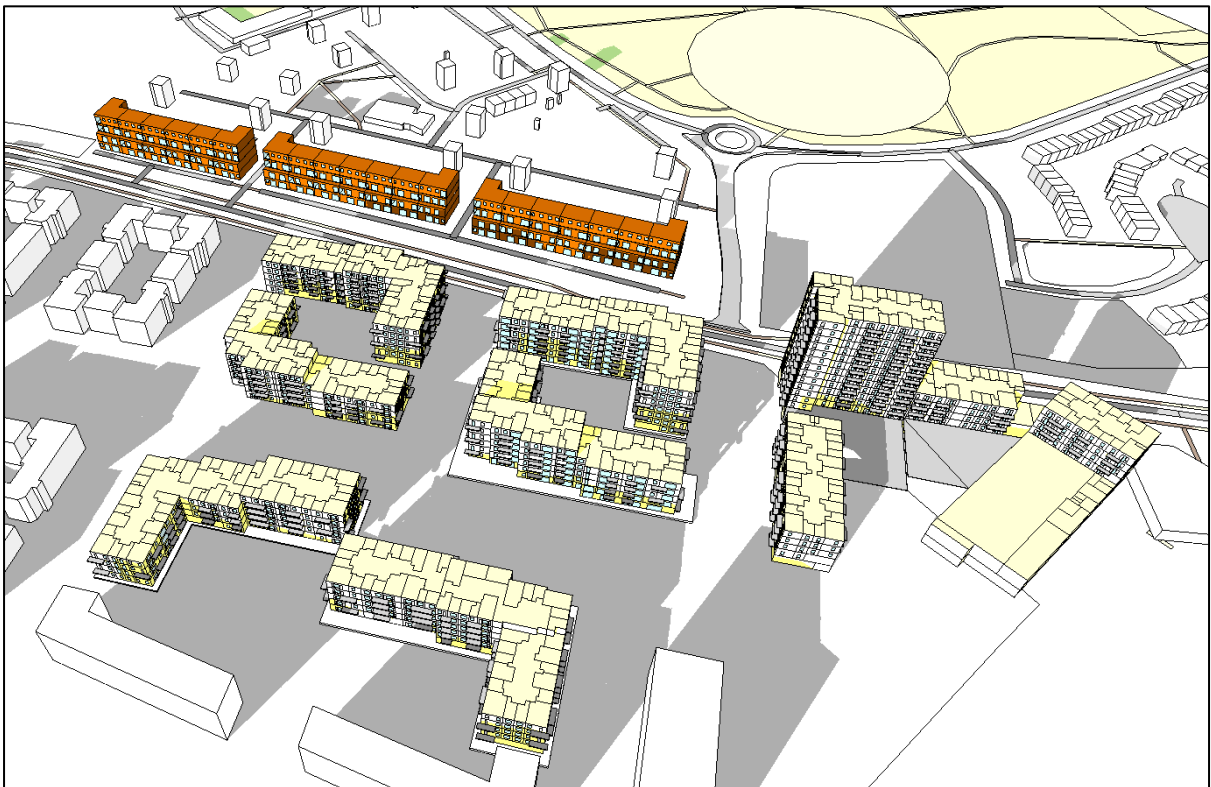


Figure 331. Shadow image on March 21<sup>st</sup> at 18:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Aerial View 02 – June 21<sup>st</sup>

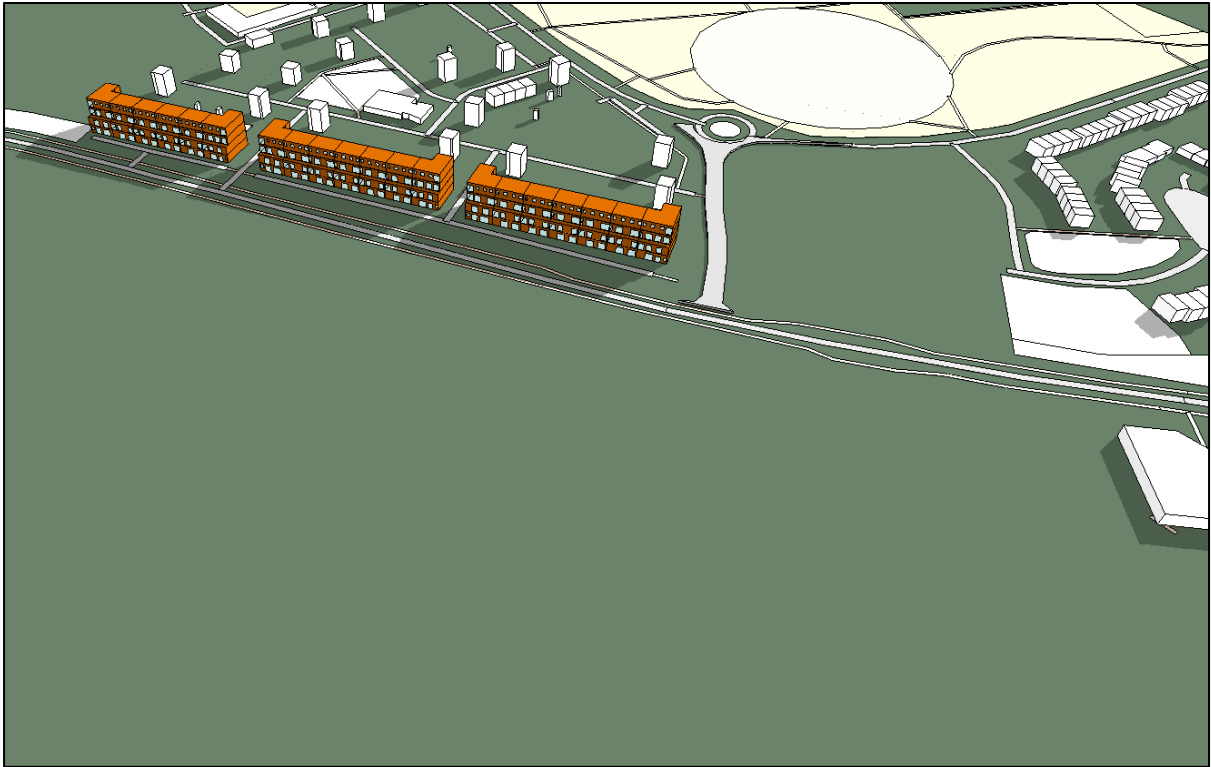


Figure 332. Shadow image on June 21<sup>st</sup> at 08:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 333. Shadow image on June 21<sup>st</sup> at 08:00 of Cedarbrook Apartments with Proposed Development (modelling software)

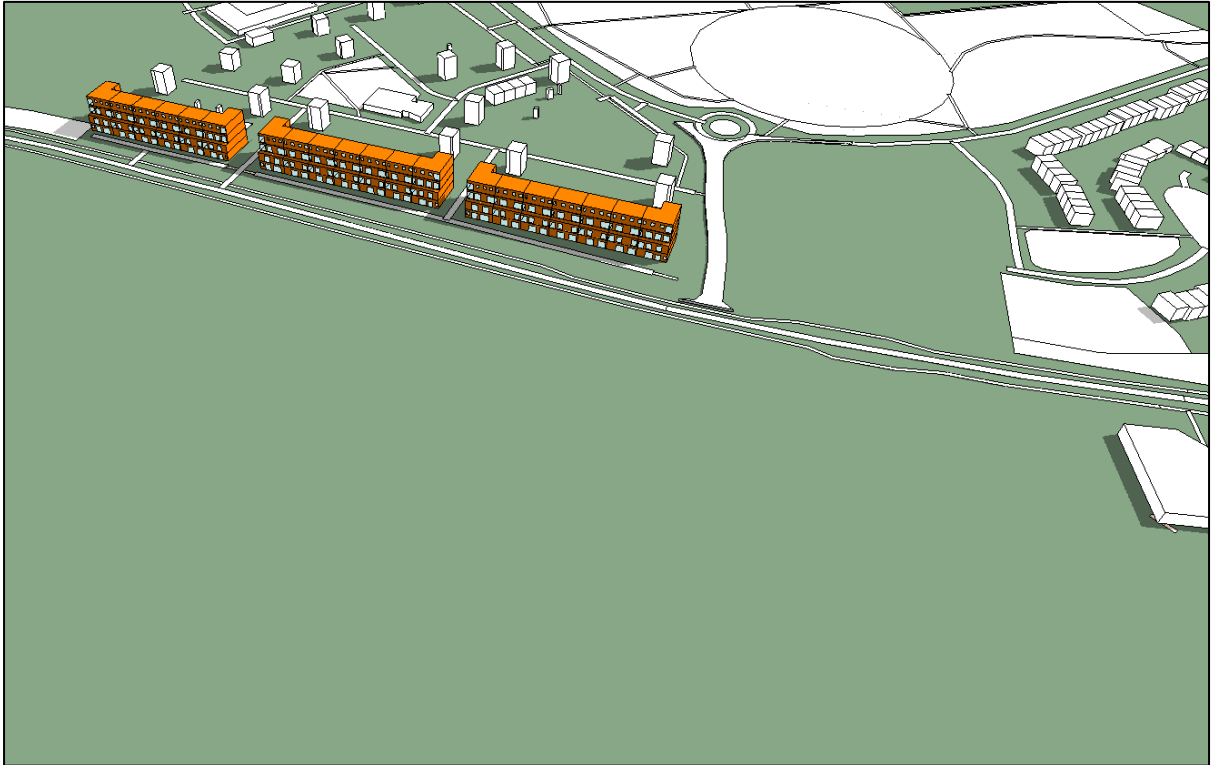


Figure 334. Shadow image on June 21<sup>st</sup> at 10:00 of Cedarbrook Apartments without Proposed Development (modelling software)

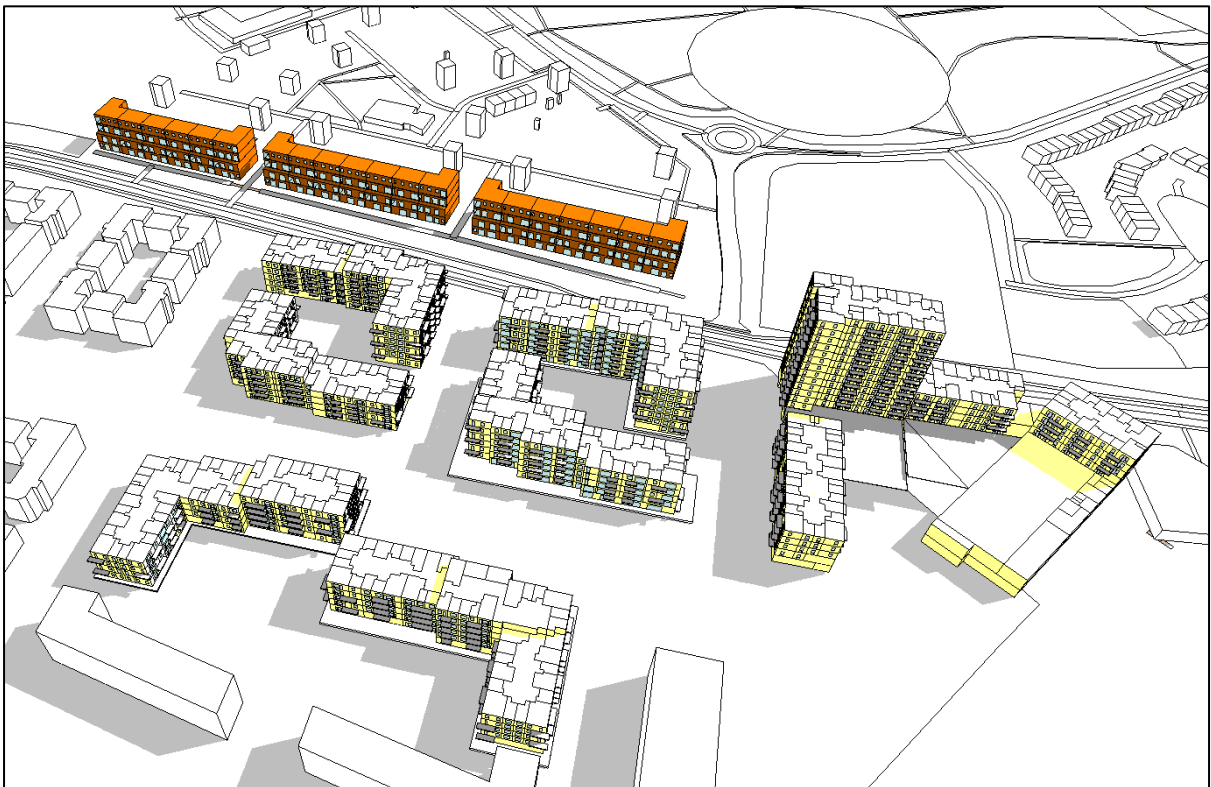


Figure 335. Shadow image on June 21<sup>st</sup> at 10:00 of Cedarbrook Apartments with Proposed Development (modelling software)

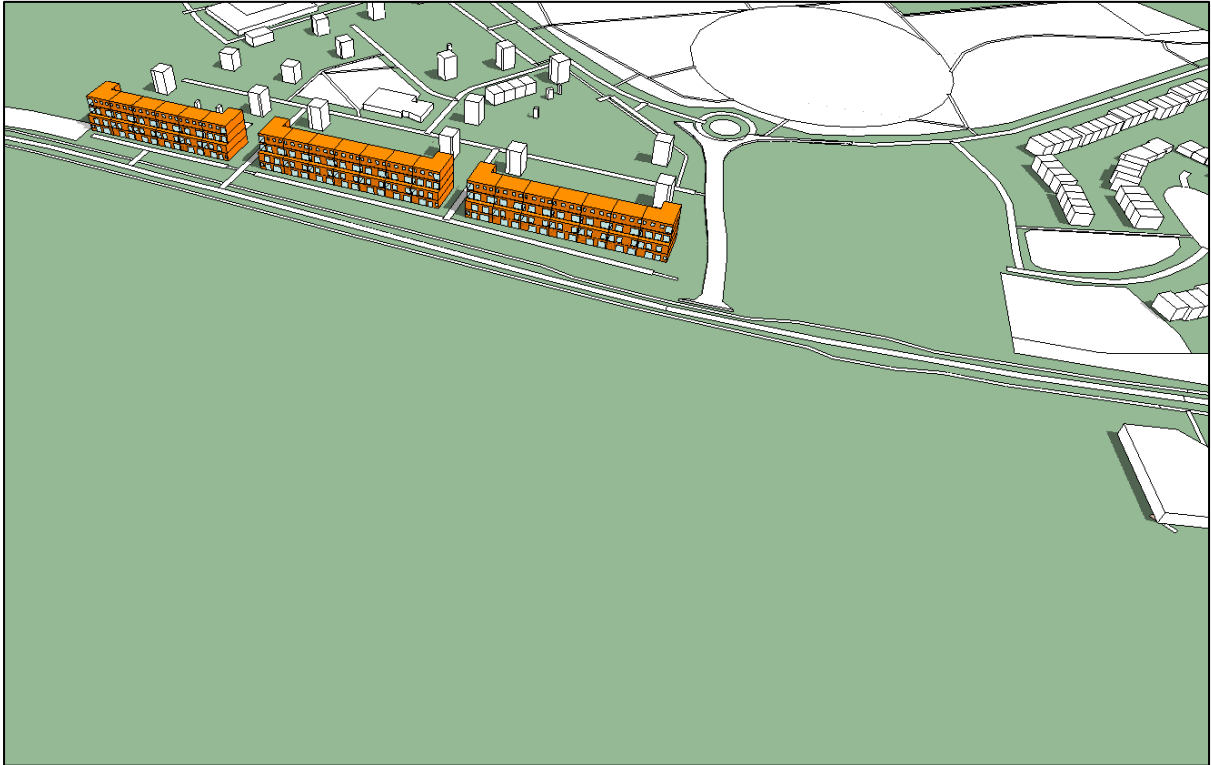


Figure 336. Shadow image on June 21<sup>st</sup> at 12:00 of Cedarbrook Apartments without Proposed Development (modelling software)

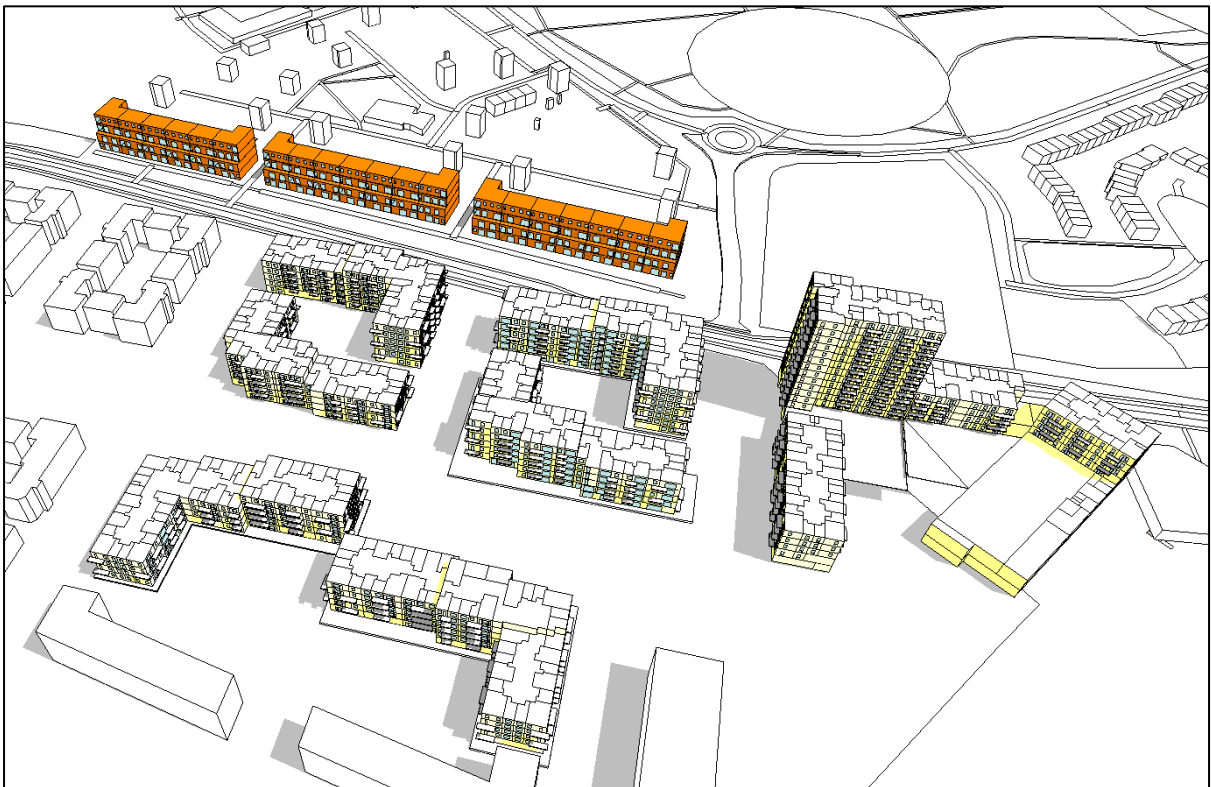


Figure 337. Shadow image on June 21<sup>st</sup> at 12:00 of Cedarbrook Apartments with Proposed Development (modelling software)

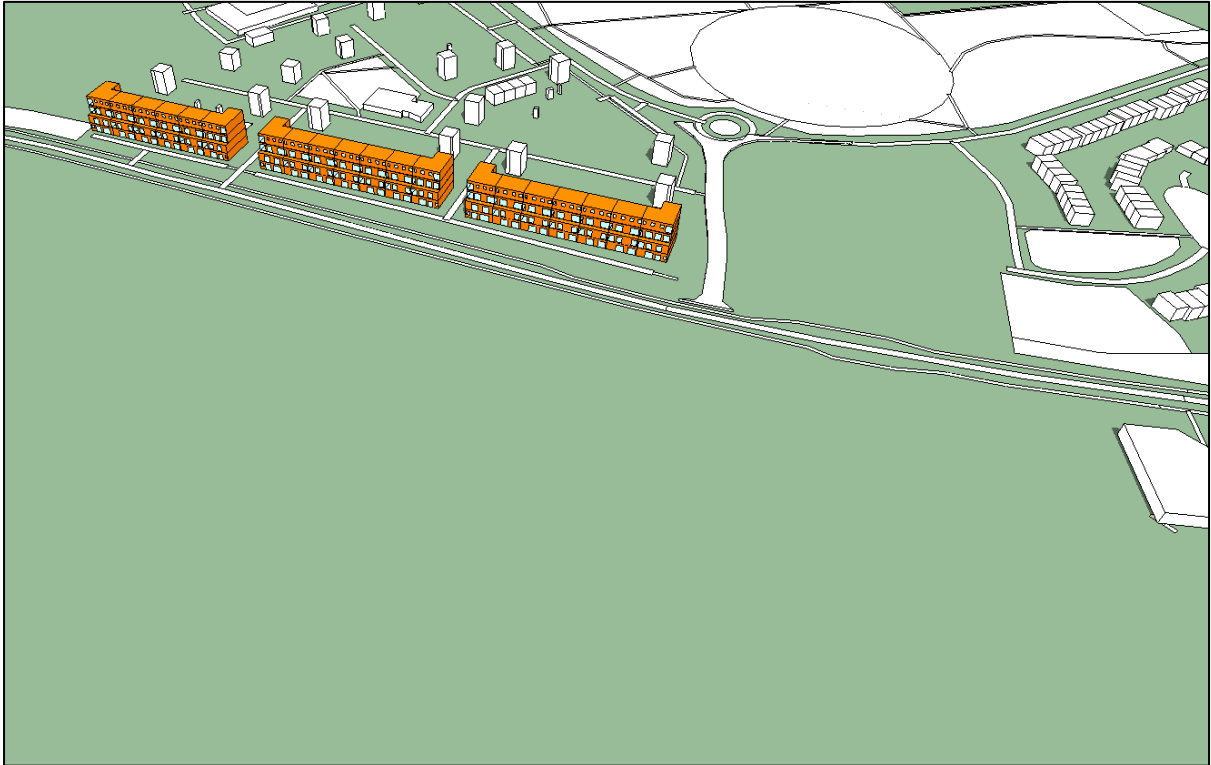


Figure 338. Shadow image on June 21<sup>st</sup> at 14:00 of Cedarbrook Apartments without Proposed Development (modelling software)

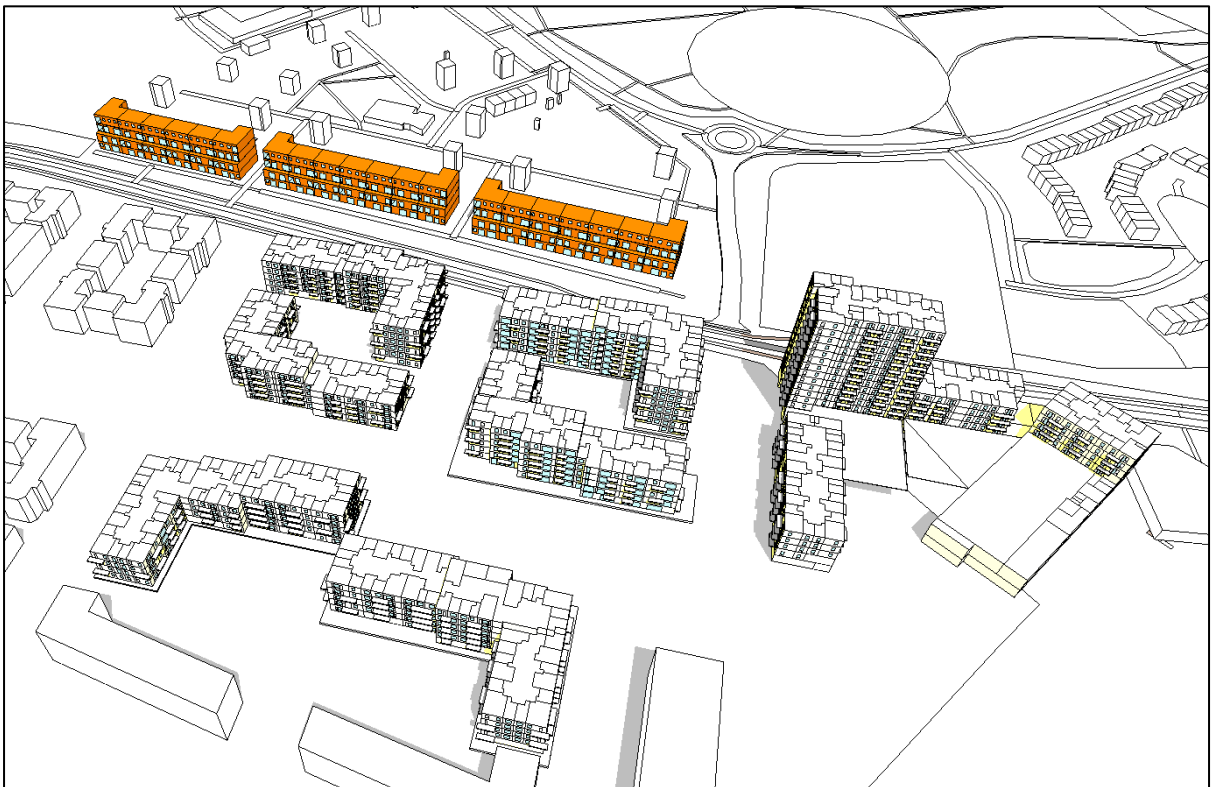


Figure 339. Shadow image on June 21<sup>st</sup> at 14:00 of Cedarbrook Apartments with Proposed Development (modelling software)



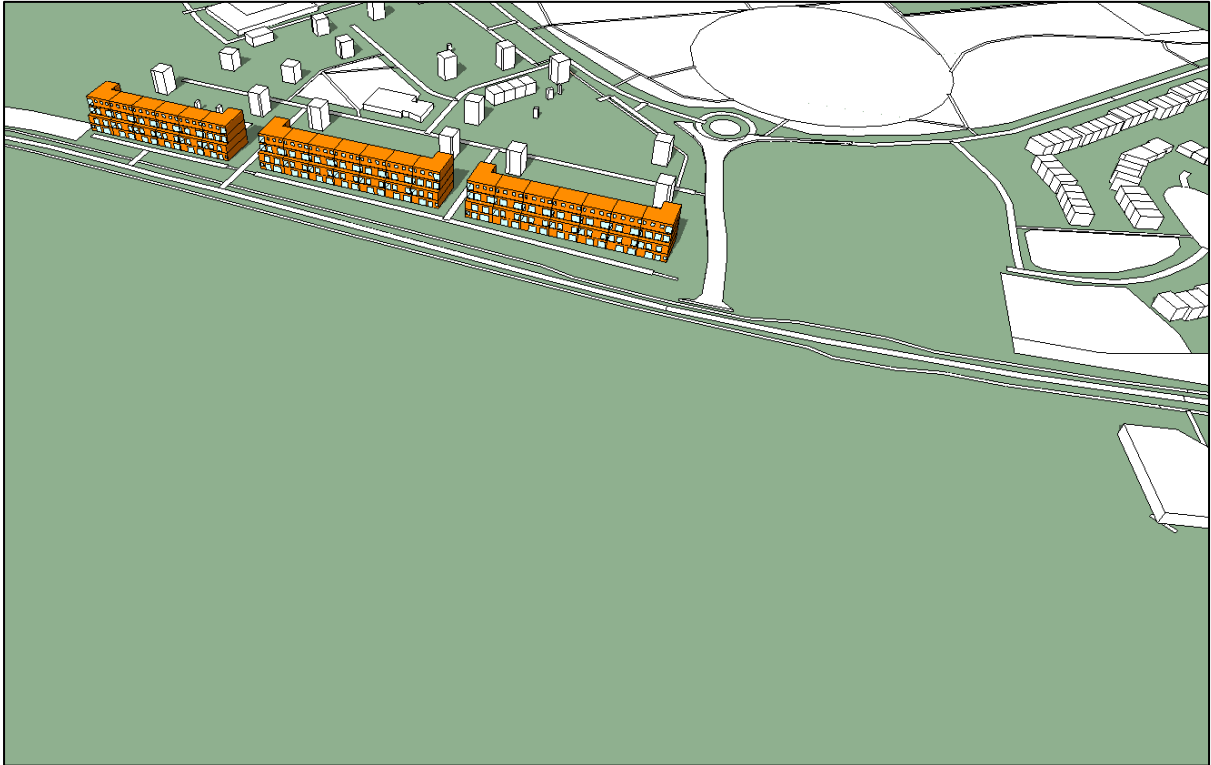


Figure 340. Shadow image on June 21<sup>st</sup> at 16:00 of Cedarbrook Apartments without Proposed Development (modelling software)

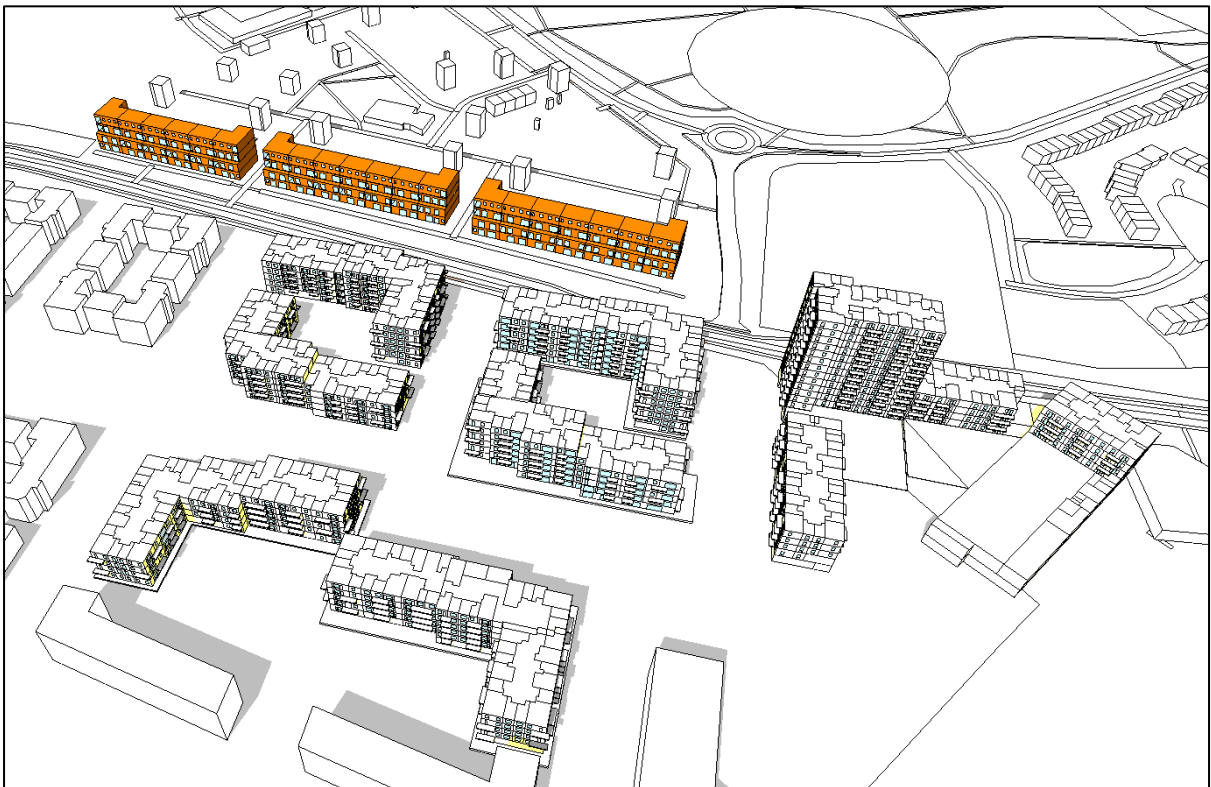


Figure 341. Shadow image on June 21<sup>st</sup> at 16:00 of Cedarbrook Apartments with Proposed Development (modelling software)

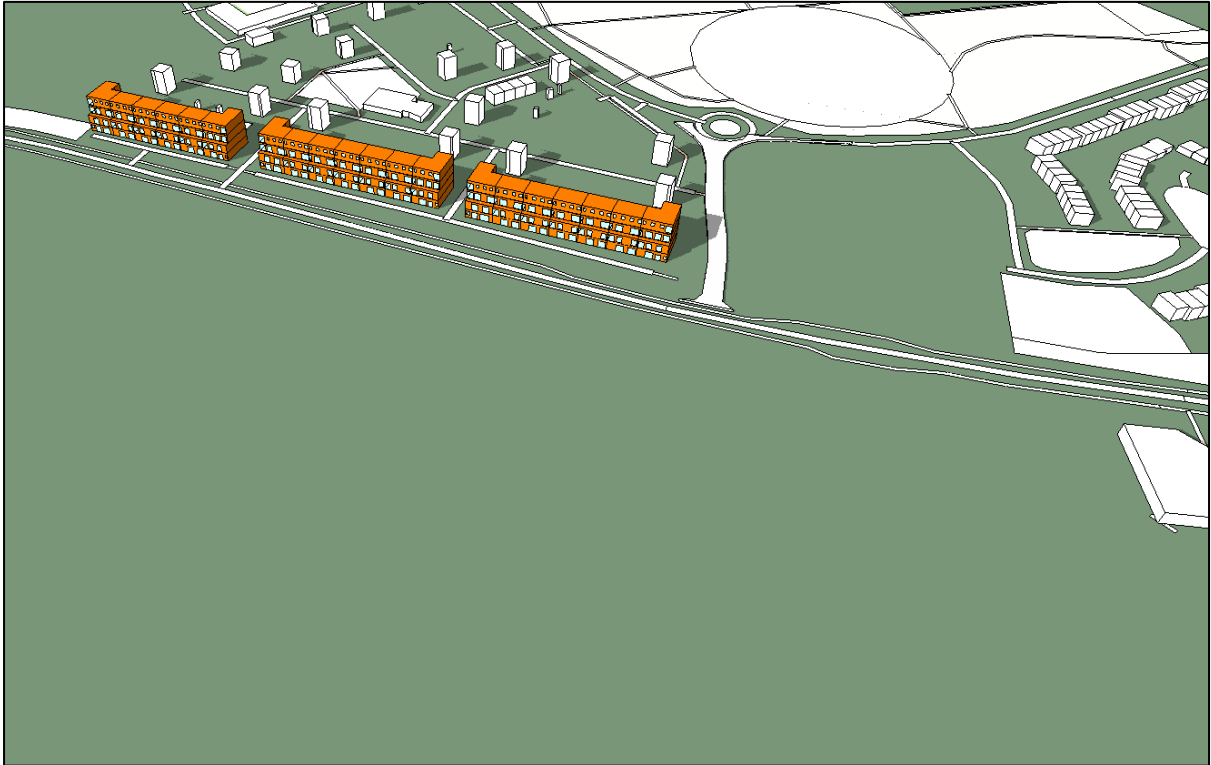


Figure 342. Shadow image on June 21<sup>st</sup> at 18:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 343. Shadow image on June 21<sup>st</sup> at 18:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Aerial View 02 – December 21<sup>st</sup>



Figure 344. Shadow image on December 21<sup>st</sup> at 08:00 of Cedarbrook Apartments without Proposed Development (modelling software)

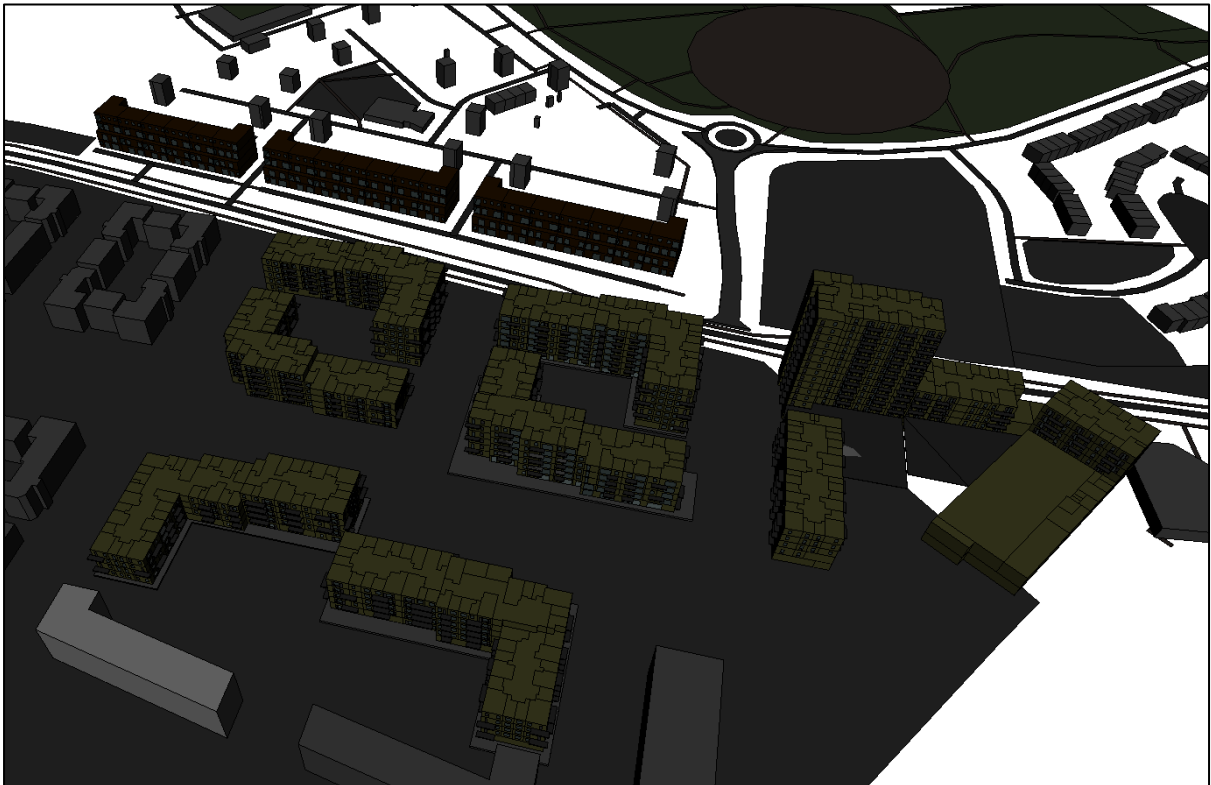


Figure 345. Shadow image on December 21<sup>st</sup> at 08:00 of Cedarbrook Apartments with Proposed Development (modelling software)

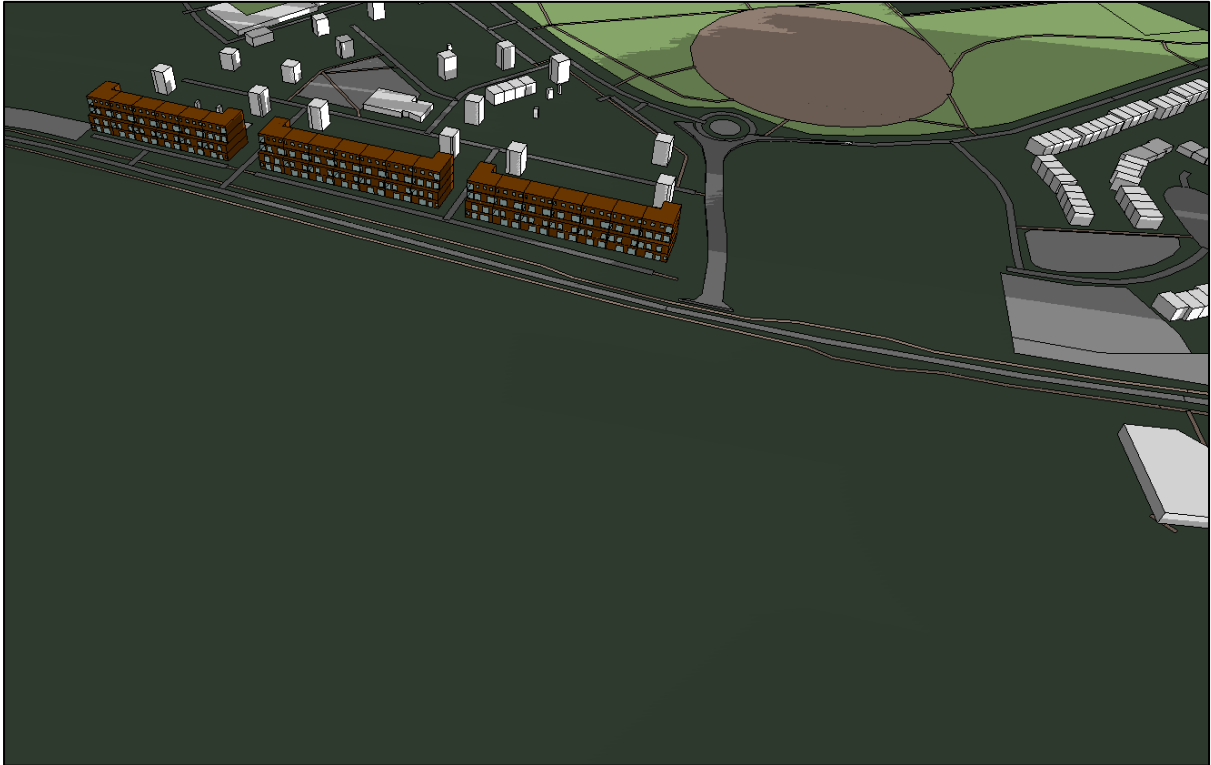


Figure 346. Shadow image on December 21<sup>st</sup> at 10:00 of Cedarbrook Apartments without Proposed Development (modelling software)

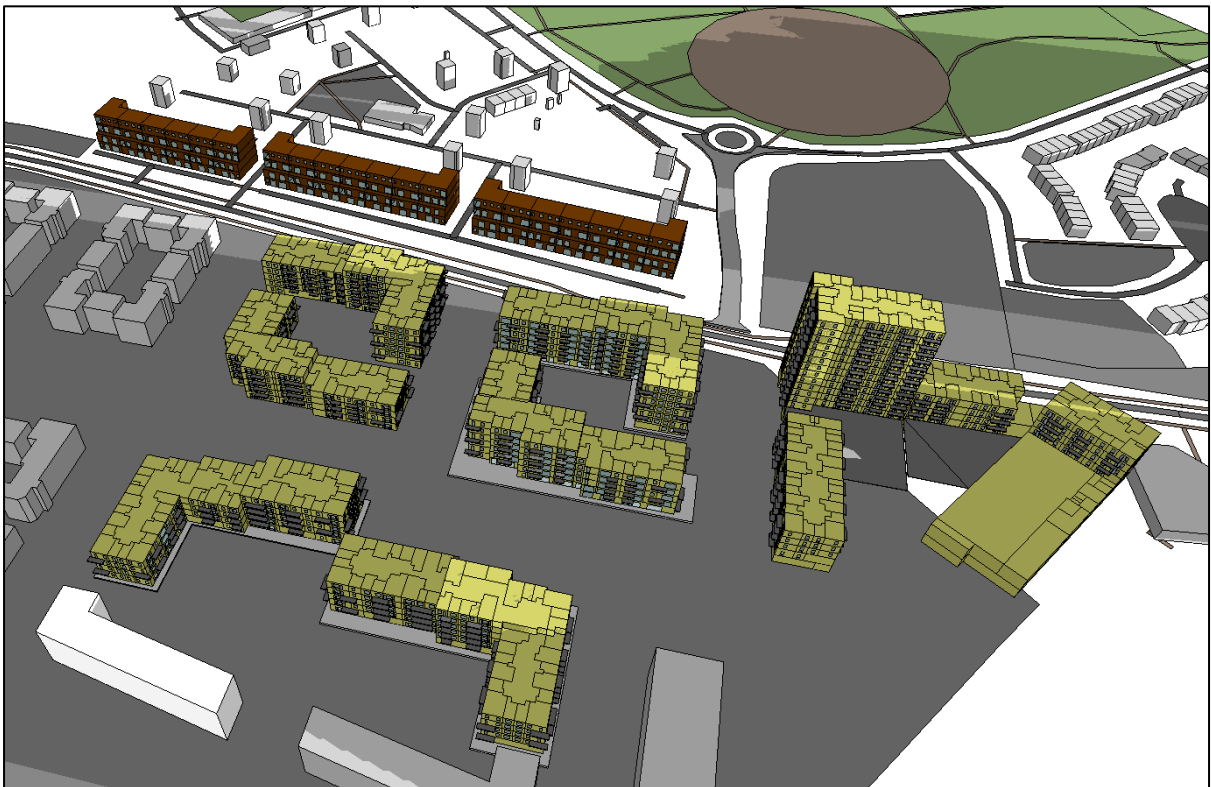


Figure 347. Shadow image on December 21<sup>st</sup> at 10:00 of Cedarbrook Apartments with Proposed Development (modelling software)

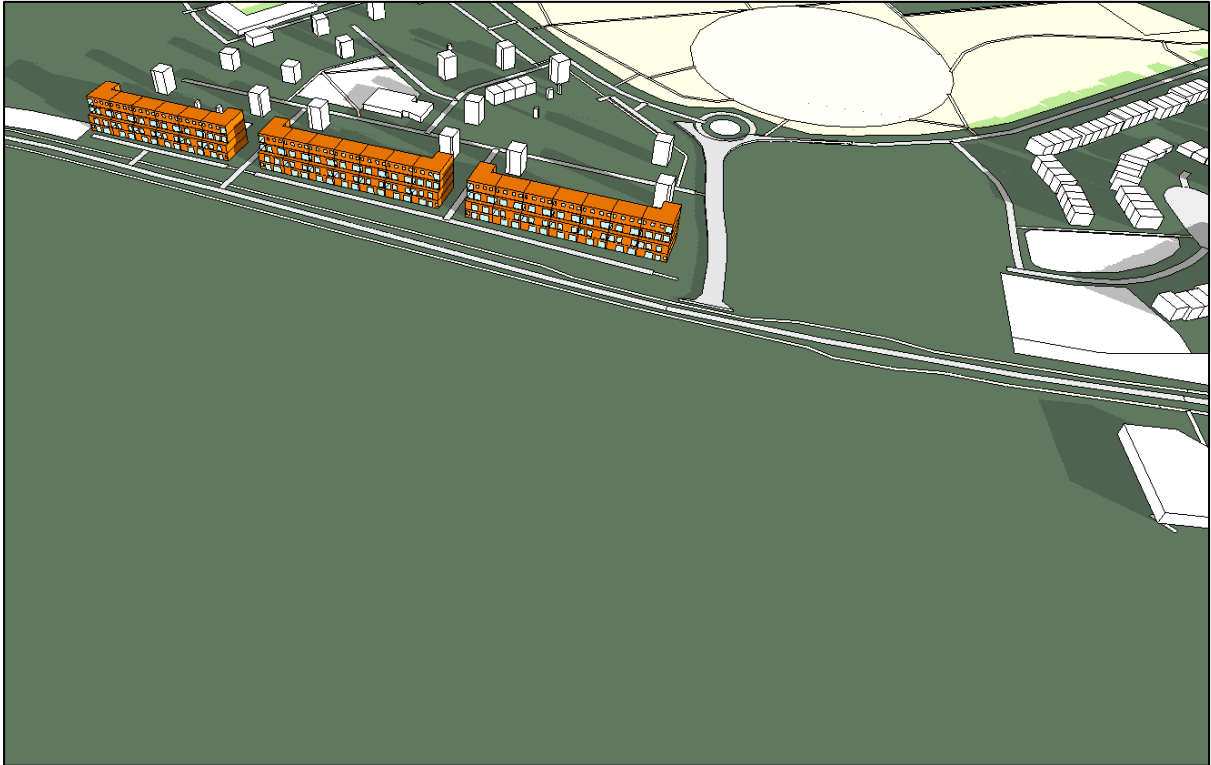


Figure 348. Shadow image on December 21<sup>st</sup> at 12:00 of Cedarbrook Apartments without Proposed Development (modelling software)

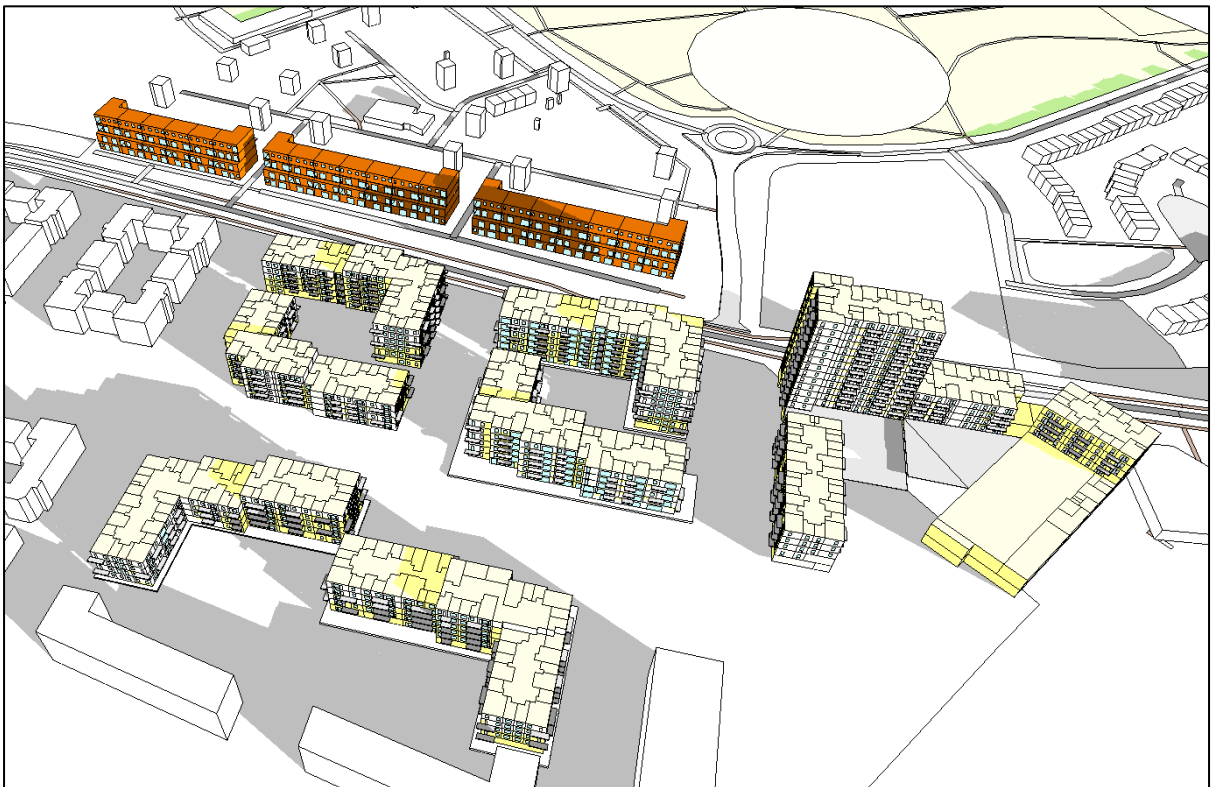


Figure 349. Shadow image on December 21<sup>st</sup> at 12:00 of Cedarbrook Apartments with Proposed Development (modelling software)

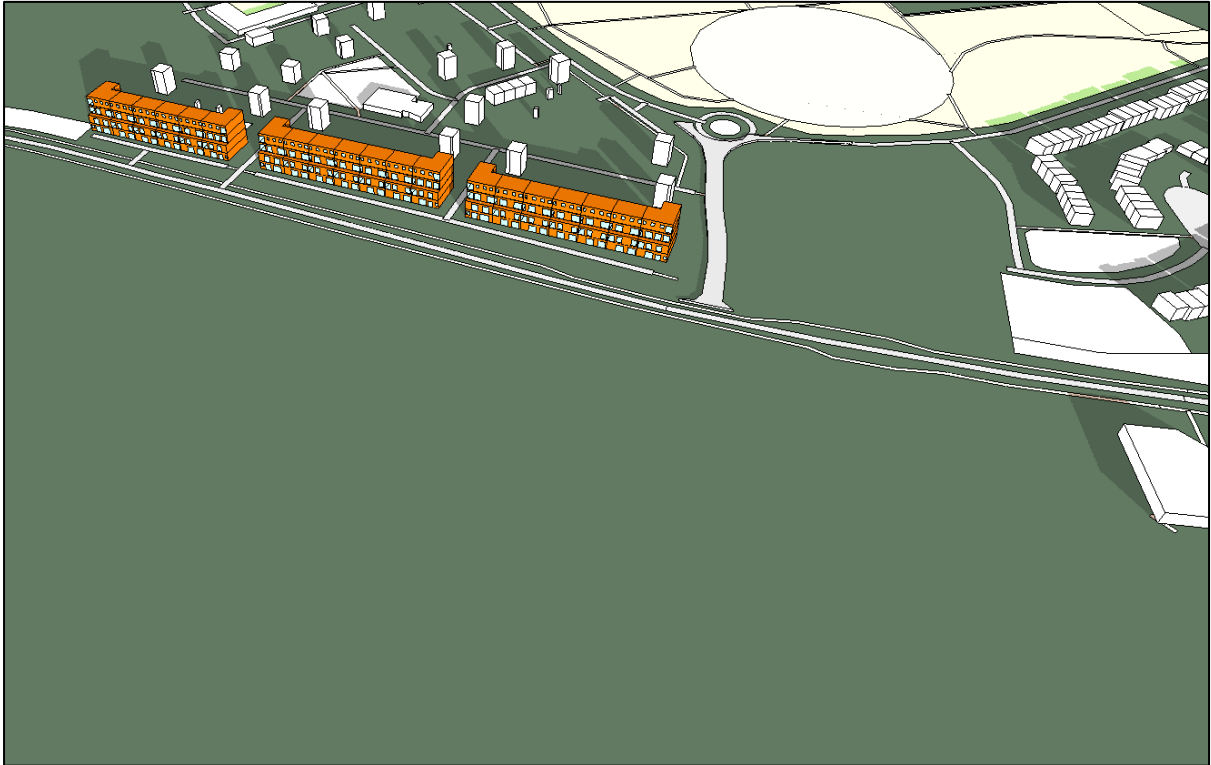


Figure 350. Shadow image on December 21<sup>st</sup> at 14:00 of Cedarbrook Apartments without Proposed Development (modelling software)

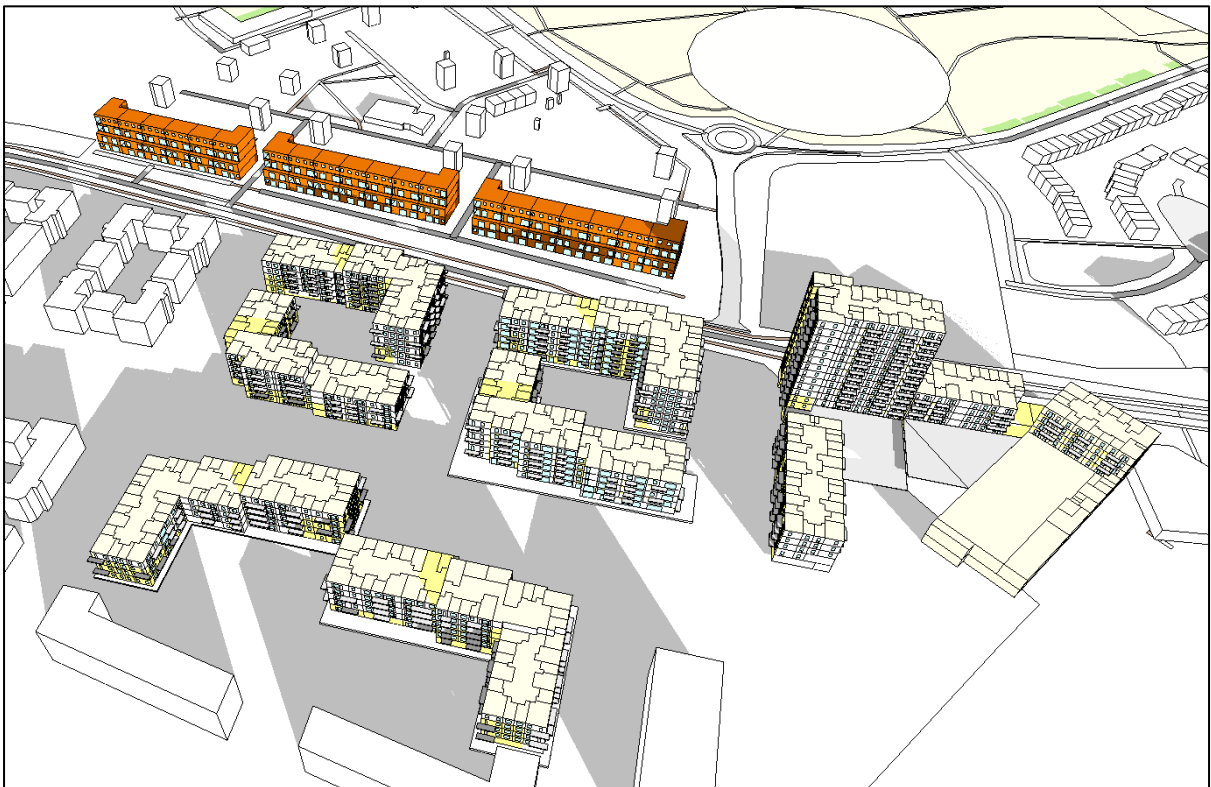


Figure 351. Shadow image on December 21<sup>st</sup> at 14:00 of Cedarbrook Apartments with Proposed Development (modelling software)



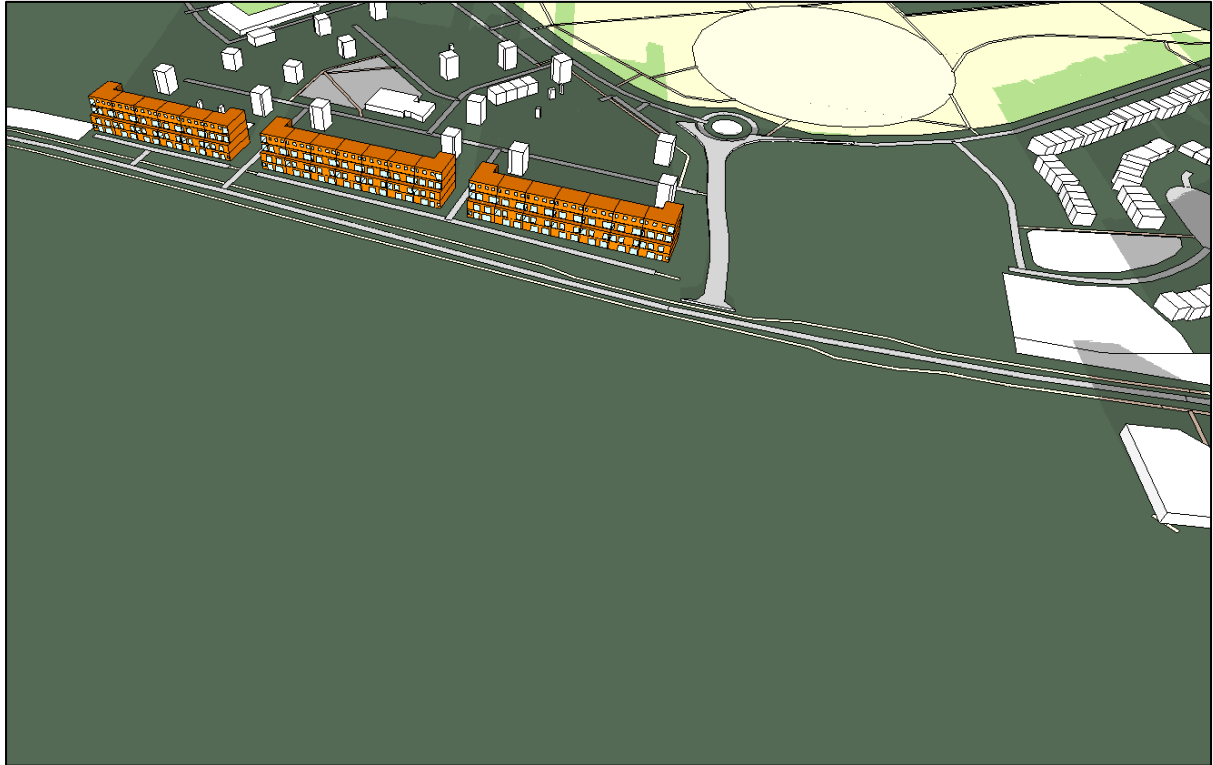


Figure 352. Shadow image on December 21<sup>st</sup> at 16:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 353. Shadow image on December 21<sup>st</sup> at 16:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Figure 354. Shadow image on December 21<sup>st</sup> at 18:00 of Cedarbrook Apartments without Proposed Development (modelling software)

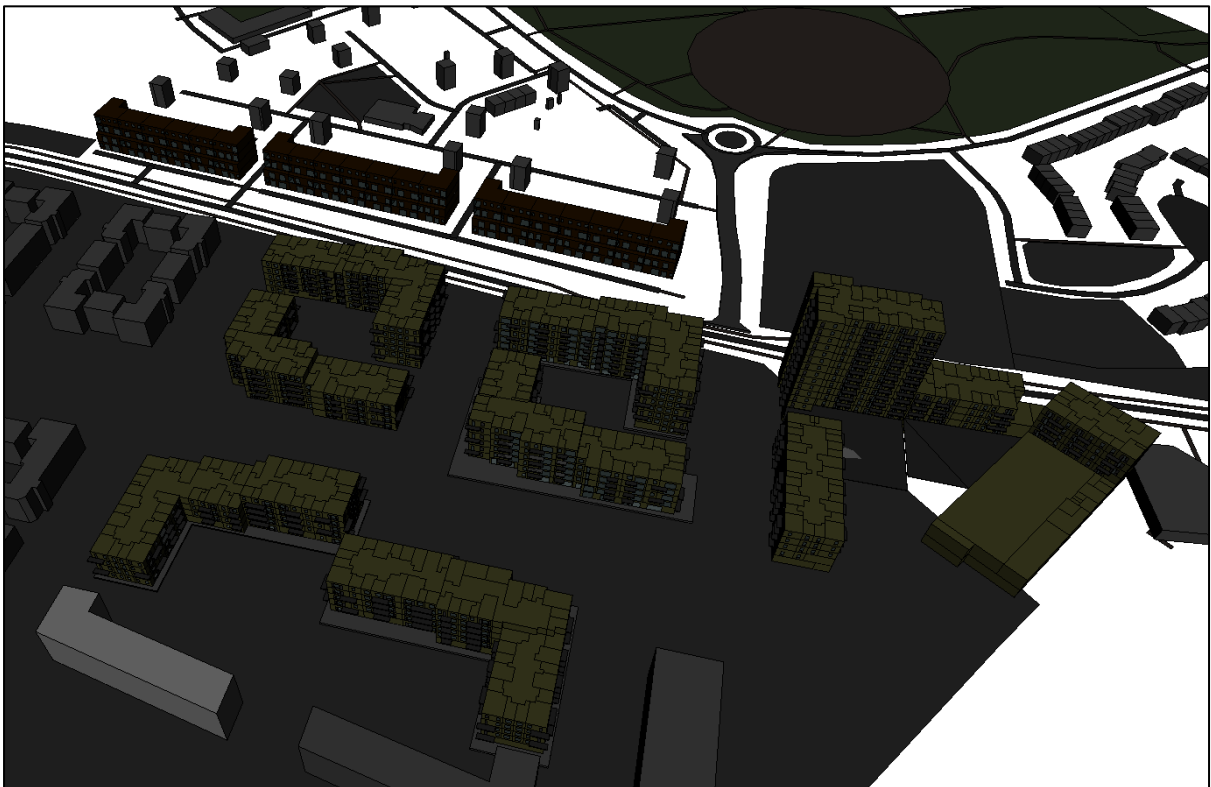


Figure 355. Shadow image on December 21<sup>st</sup> at 18:00 of Cedarbrook Apartments with Proposed Development (modelling software)



**Aerial View 03 – March 21<sup>st</sup>**

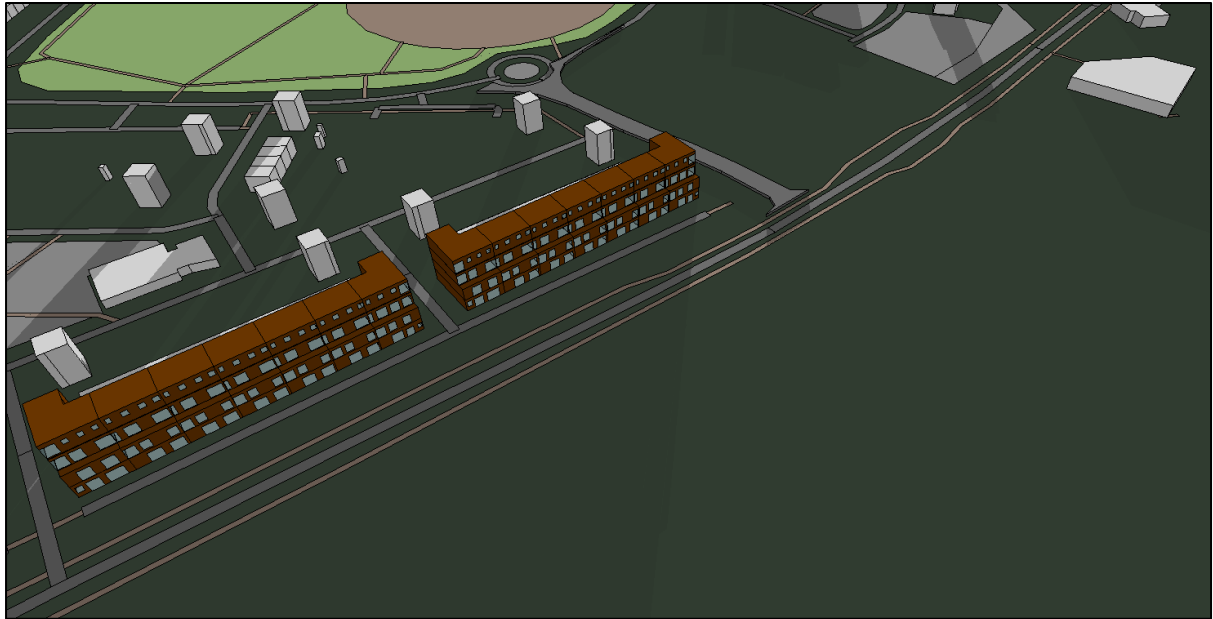


Figure 356. Shadow image on March 21<sup>st</sup> at 08:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 357. Shadow image on March 21<sup>st</sup> at 08:00 of Cedarbrook Apartments with Proposed Development (modelling software)

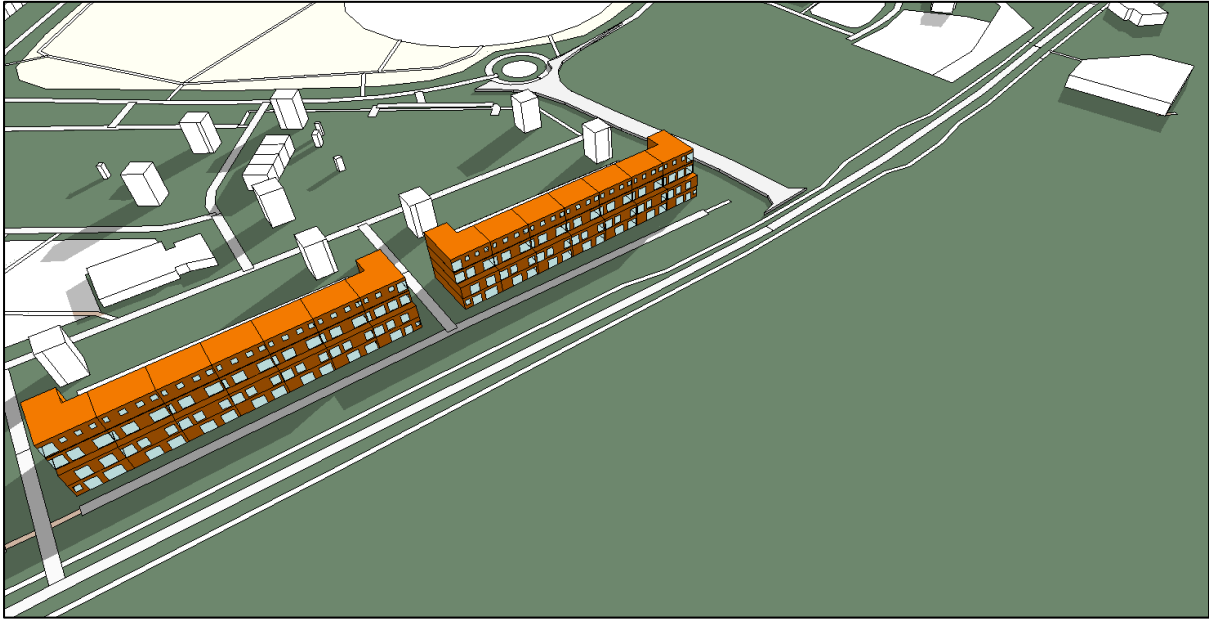


Figure 358. Shadow image on March 21<sup>st</sup> at 10:00 of Cedarbrook Apartments without Proposed Development (modelling software)

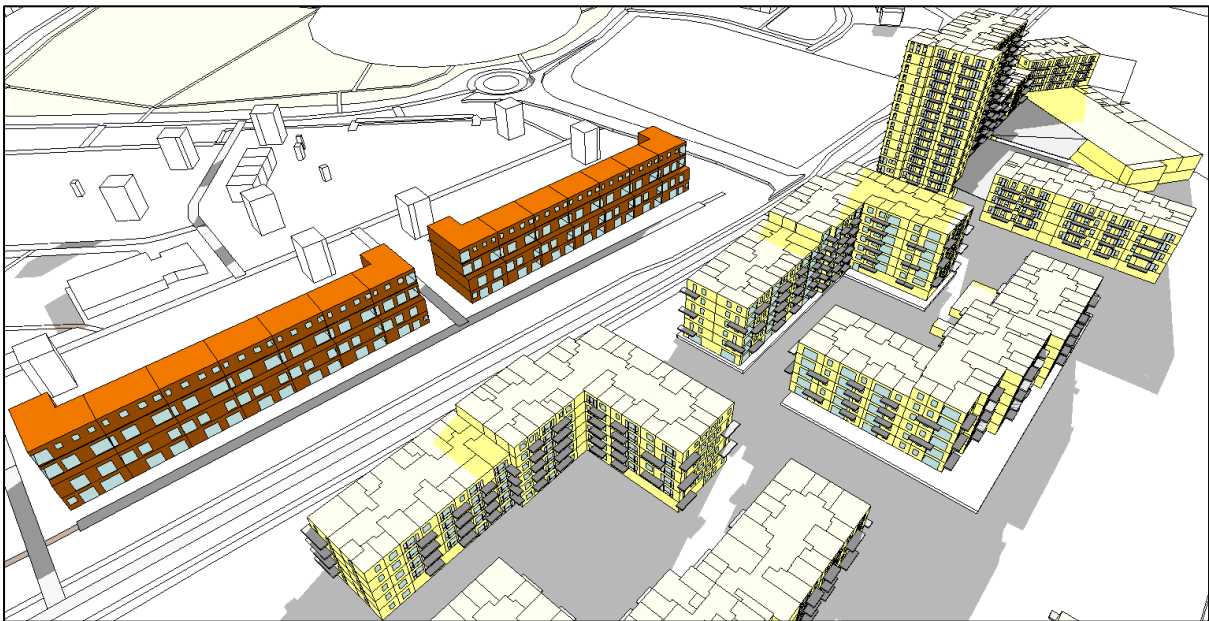


Figure 359. Shadow image on March 21<sup>st</sup> at 10:00 of Cedarbrook Apartments with Proposed Development (modelling software)

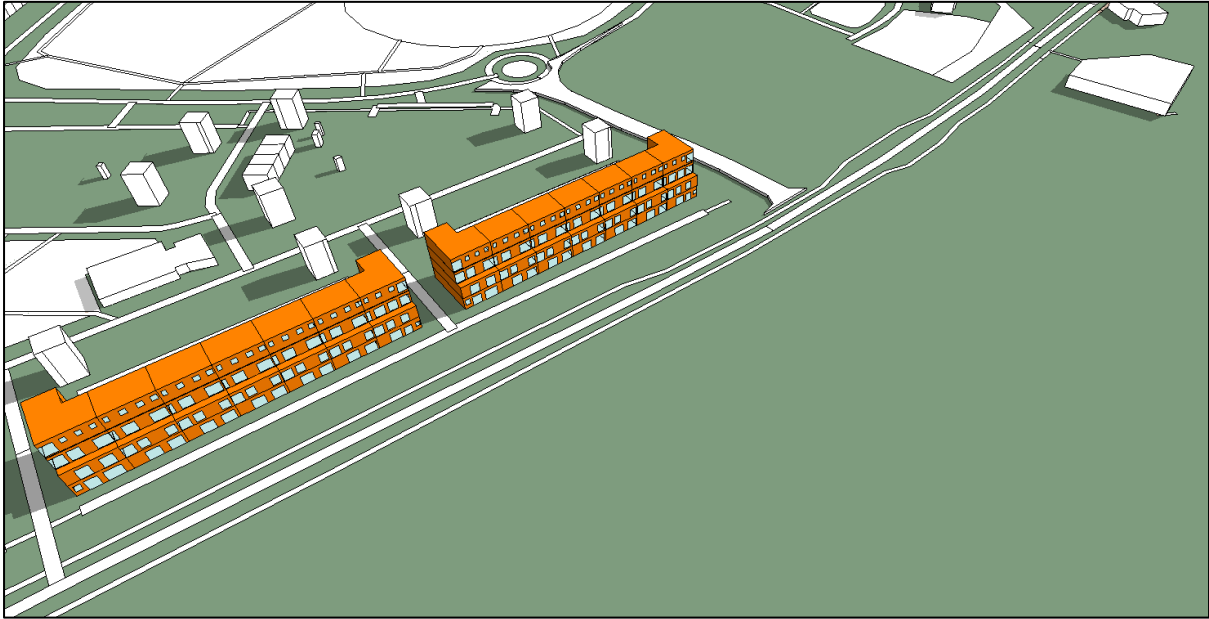


Figure 360. Shadow image on March 21<sup>st</sup> at 12:00 of Cedarbrook Apartments without Proposed Development (modelling software)

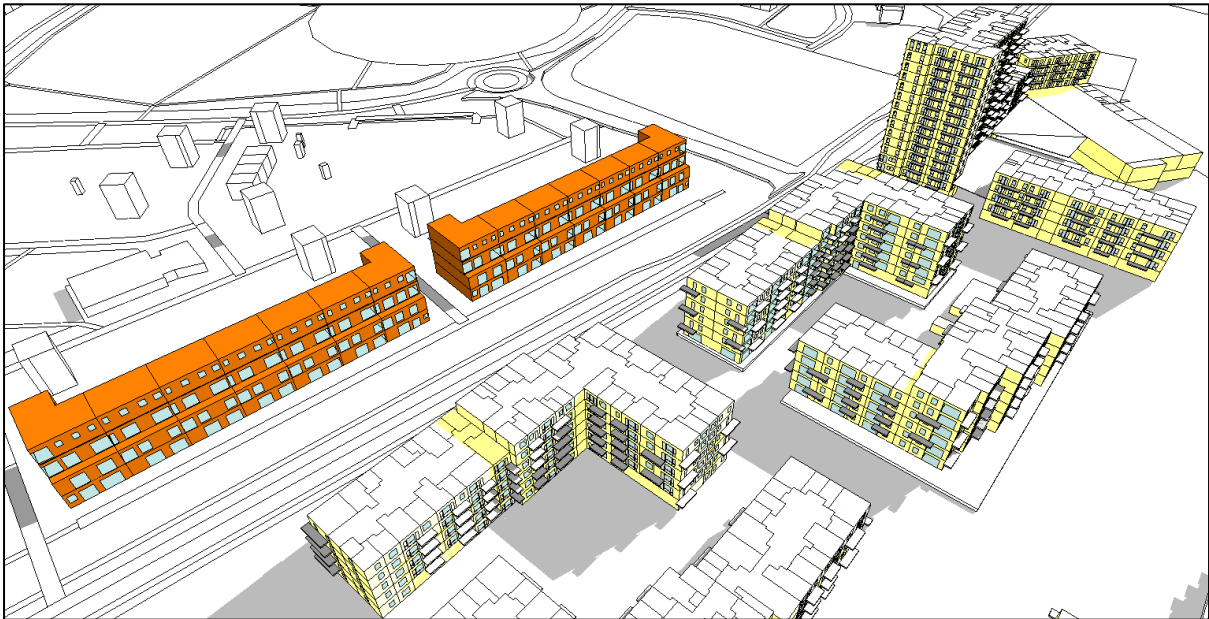


Figure 361. Shadow image on March 21<sup>st</sup> at 12:00 of Cedarbrook Apartments with Proposed Development (modelling software)

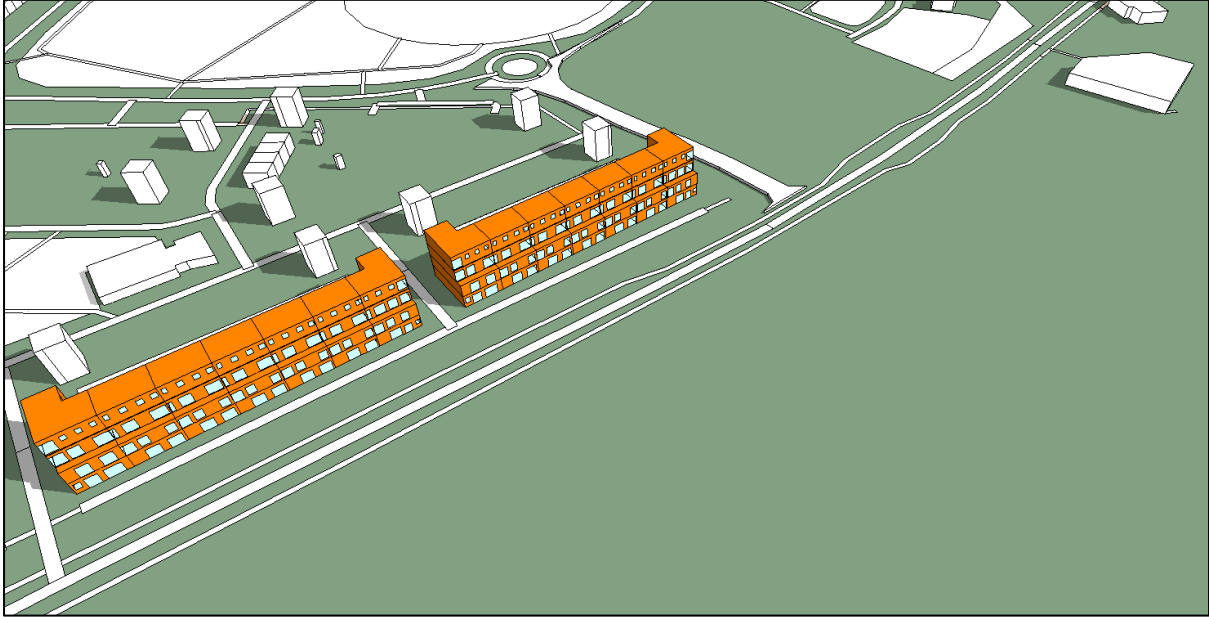


Figure 362. Shadow image on March 21<sup>st</sup> at 14:00 of Cedarbrook Apartments without Proposed Development (modelling software)

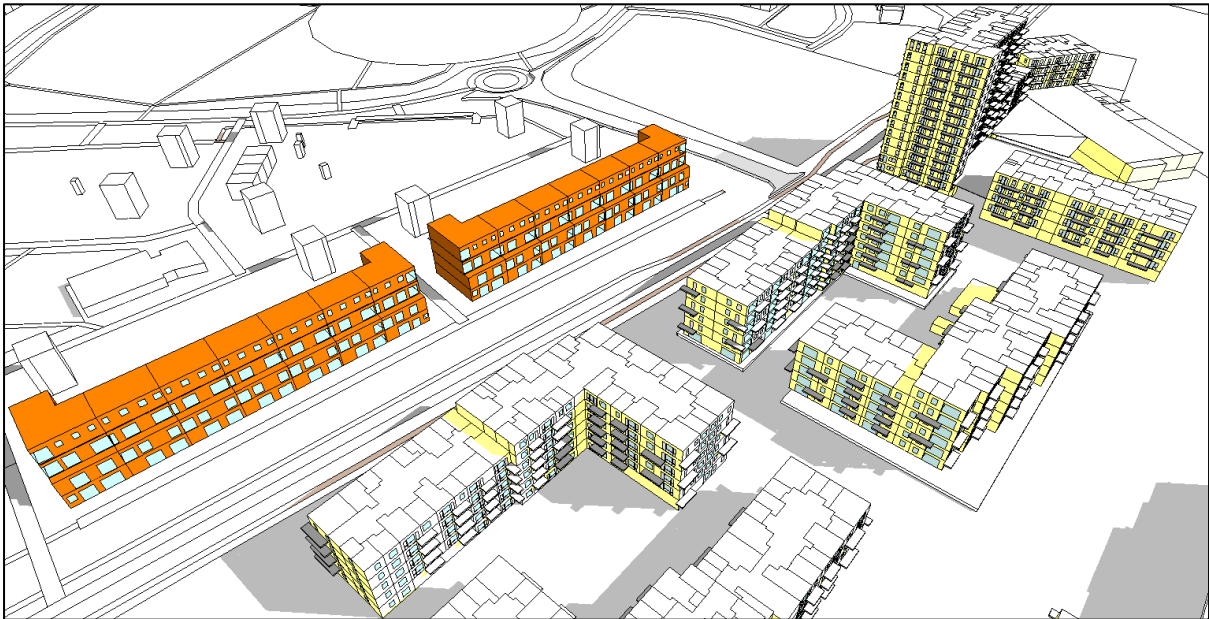


Figure 363. Shadow image on March 21<sup>st</sup> at 14:00 of Cedarbrook Apartments with Proposed Development (modelling software)



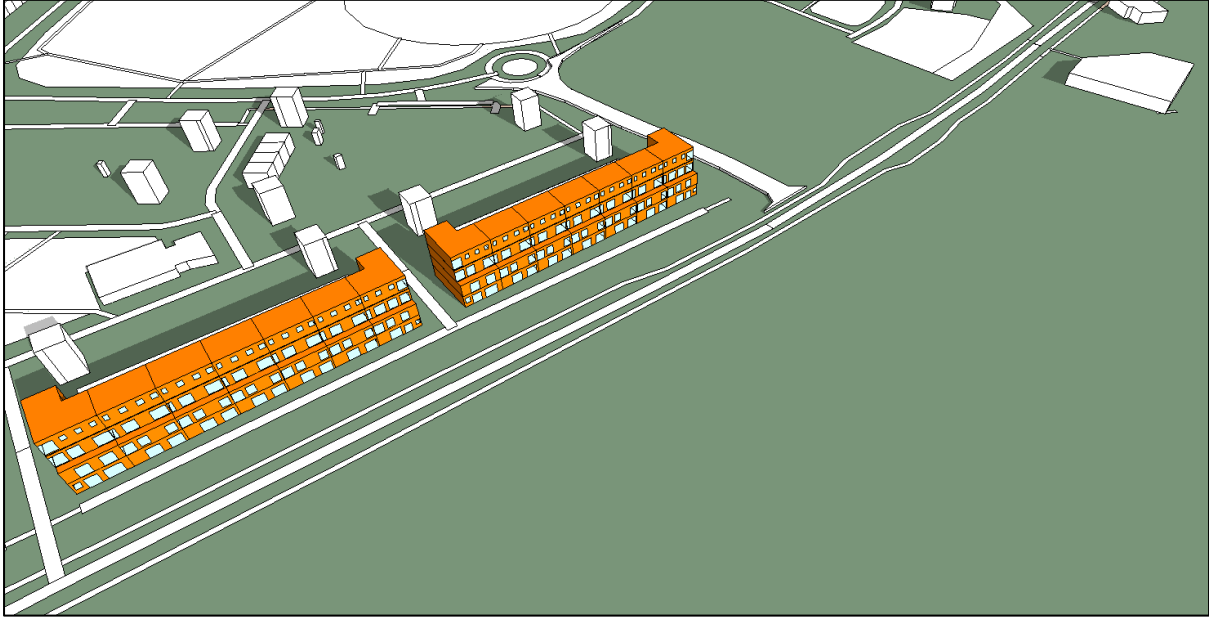


Figure 364. Shadow image on March 21<sup>st</sup> at 16:00 of Cedarbrook Apartments without Proposed Development (modelling software)

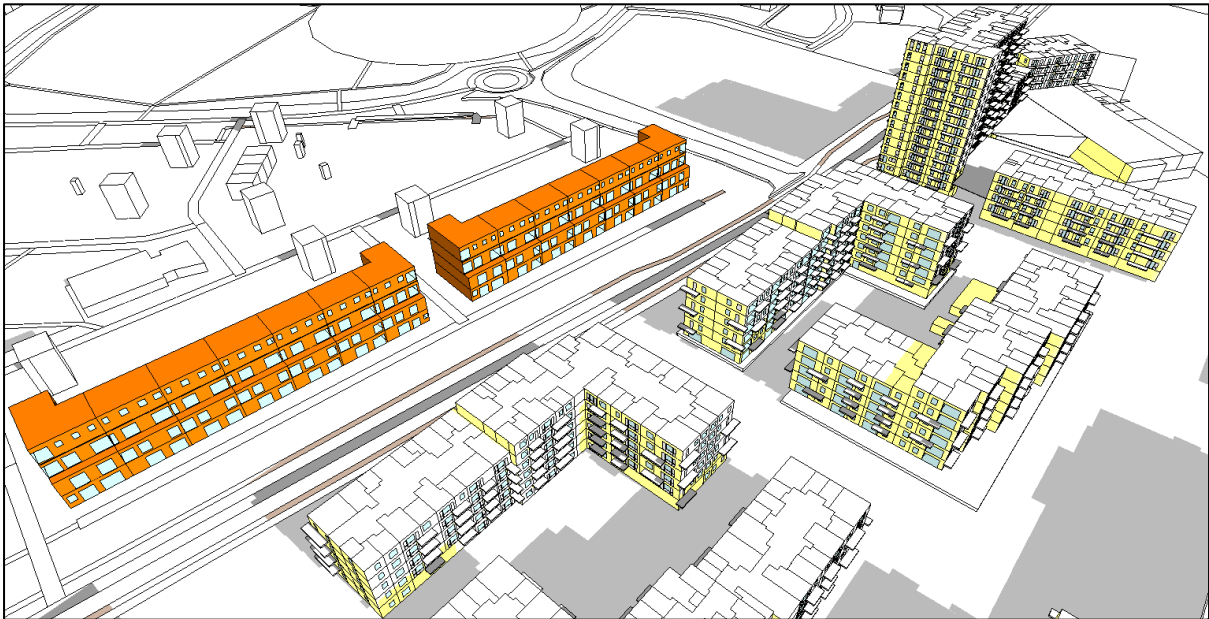


Figure 365. Shadow image on March 21<sup>st</sup> at 16:00 of Cedarbrook Apartments with Proposed Development (modelling software)

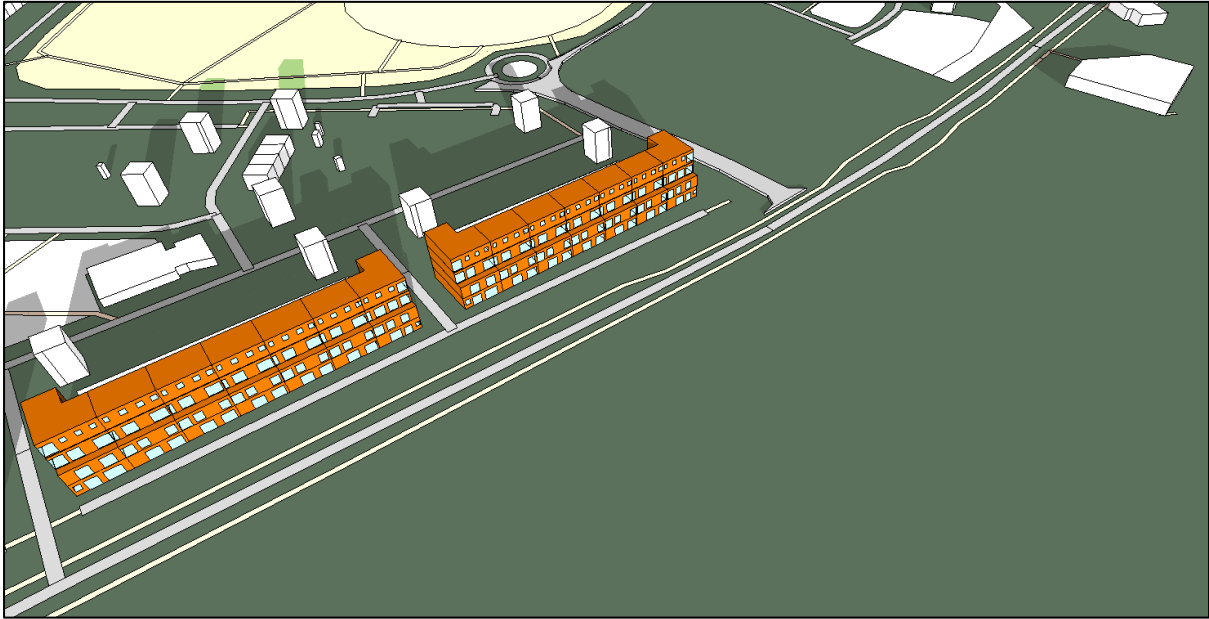


Figure 366. Shadow image on March 21<sup>st</sup> at 18:00 of Cedarbrook Apartments without Proposed Development (modelling software)

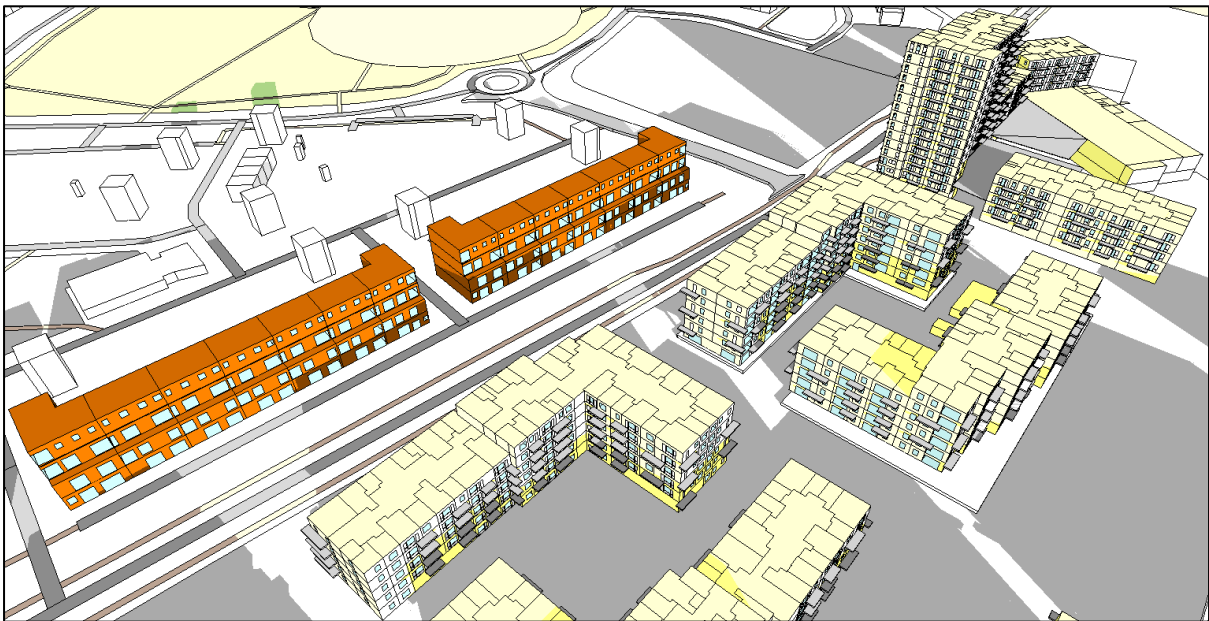


Figure 367. Shadow image on March 21<sup>st</sup> at 18:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Aerial View 03 – June 21<sup>st</sup>

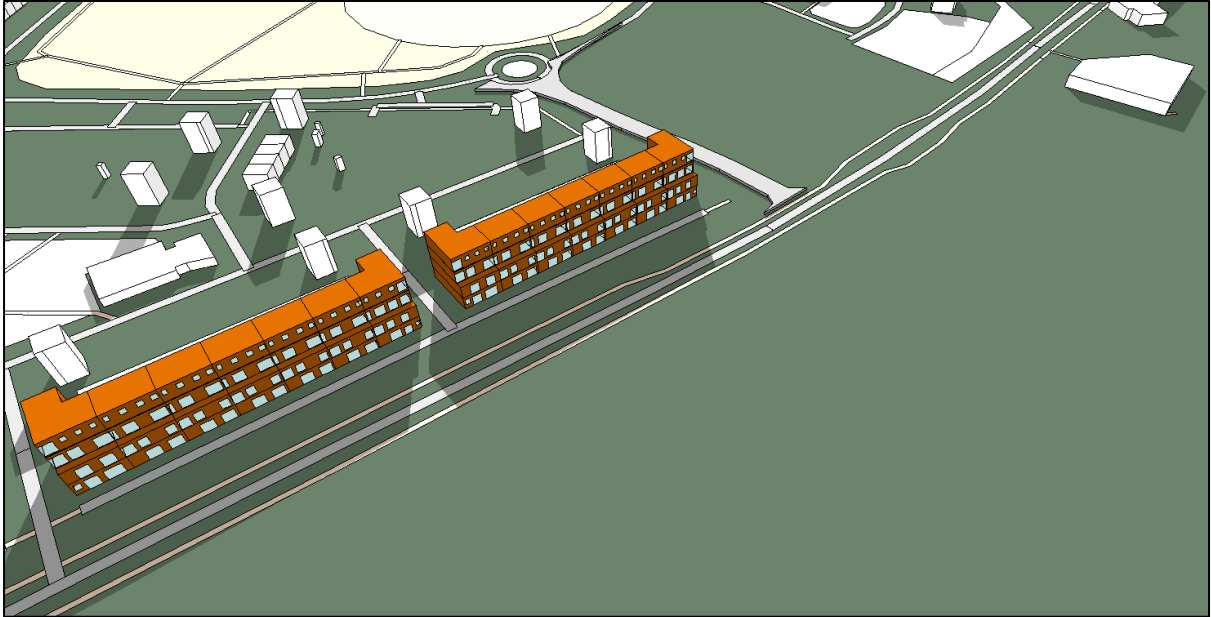


Figure 368. Shadow image on June 21<sup>st</sup> at 08:00 of Cedarbrook Apartments without Proposed Development (modelling software)

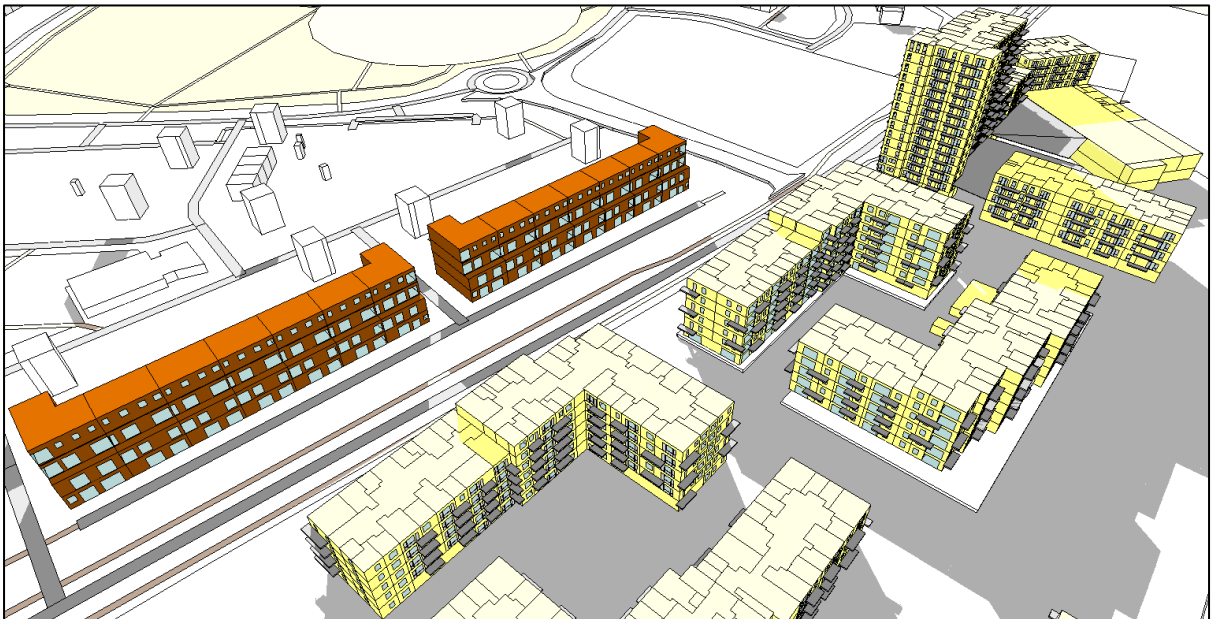


Figure 369. Shadow image on June 21<sup>st</sup> at 08:00 of Cedarbrook Apartments with Proposed Development (modelling software)

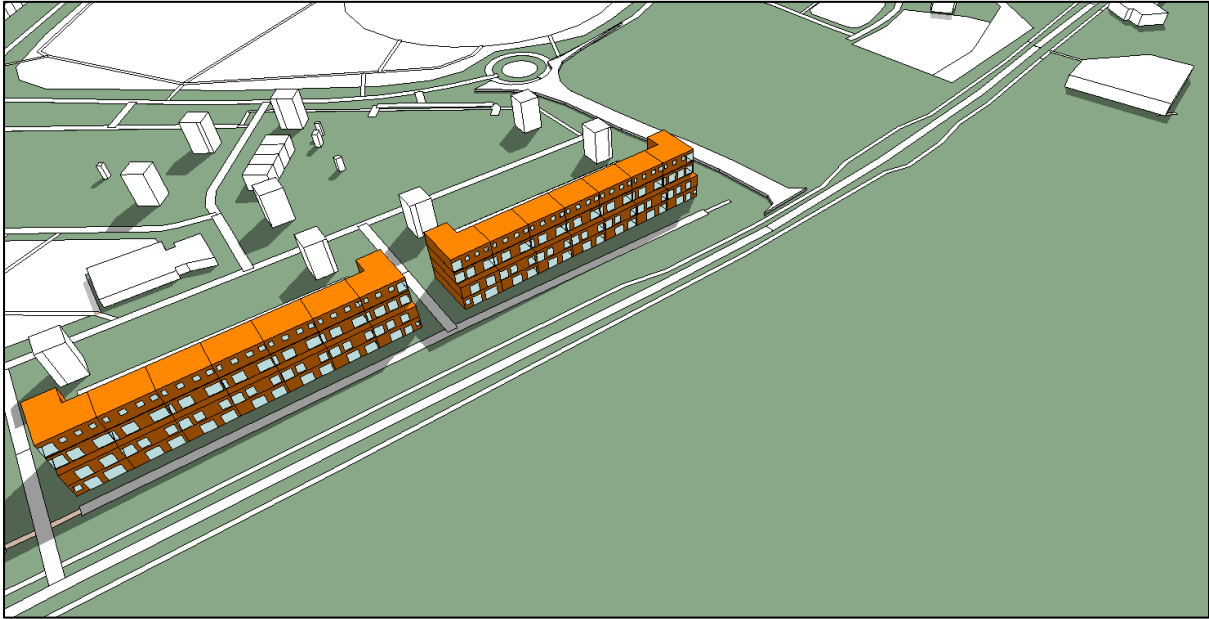


Figure 370. Shadow image on June 21<sup>st</sup> at 10:00 of Cedarbrook Apartments without Proposed Development (modelling software)

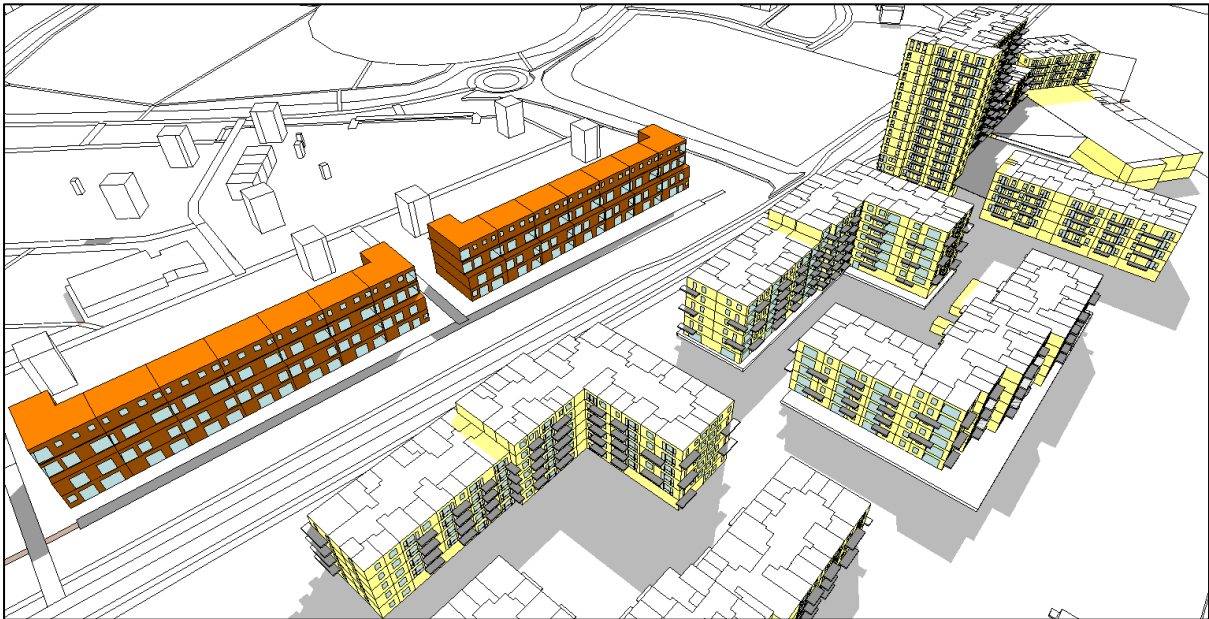


Figure 371. Shadow image on June 21<sup>st</sup> at 10:00 of Cedarbrook Apartments with Proposed Development (modelling software)

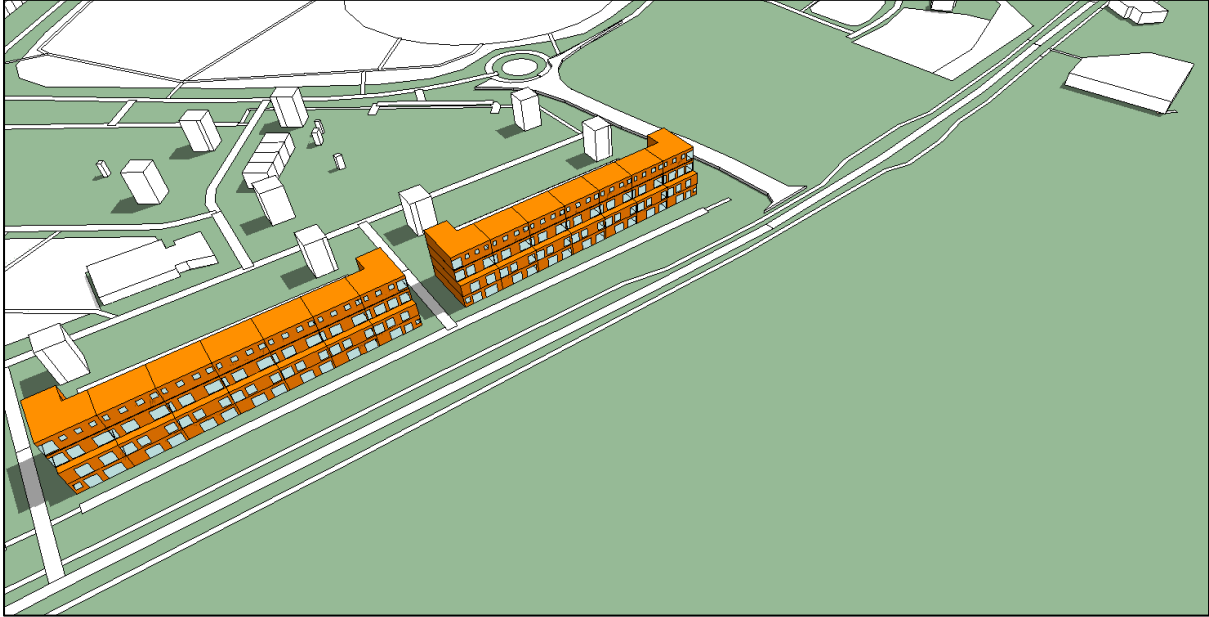


Figure 372. Shadow image on June 21<sup>st</sup> at 12:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 373. Shadow image on June 21<sup>st</sup> at 12:00 of Cedarbrook Apartments with Proposed Development (modelling software)

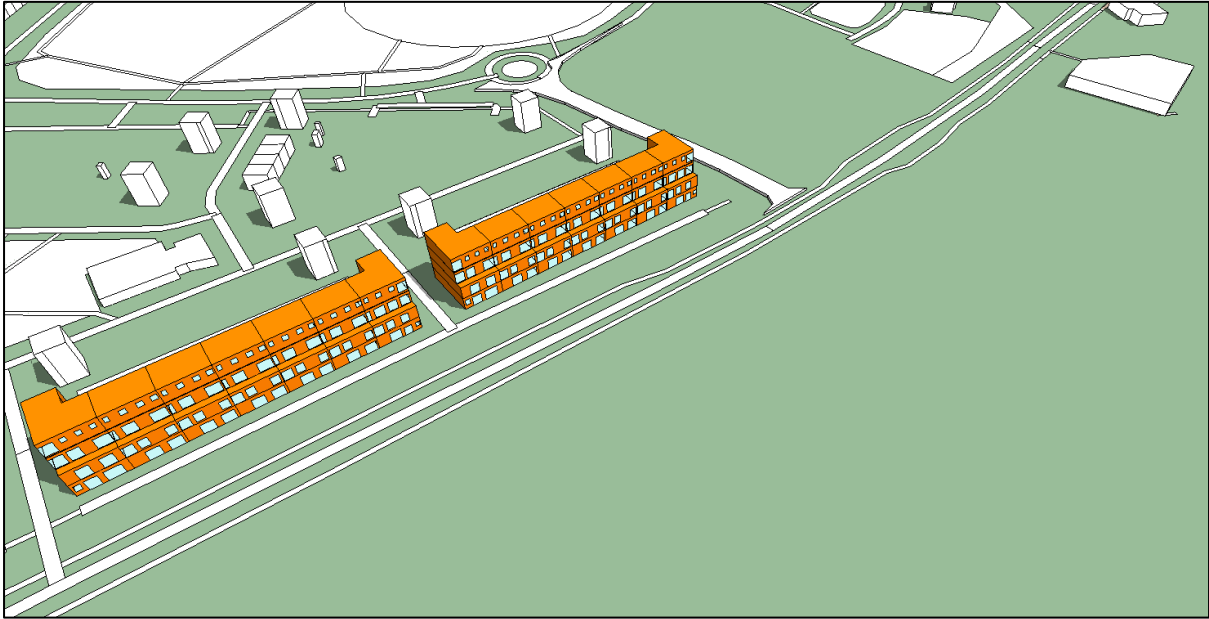


Figure 374. Shadow image on June 21<sup>st</sup> at 14:00 of Cedarbrook Apartments without Proposed Development (modelling software)

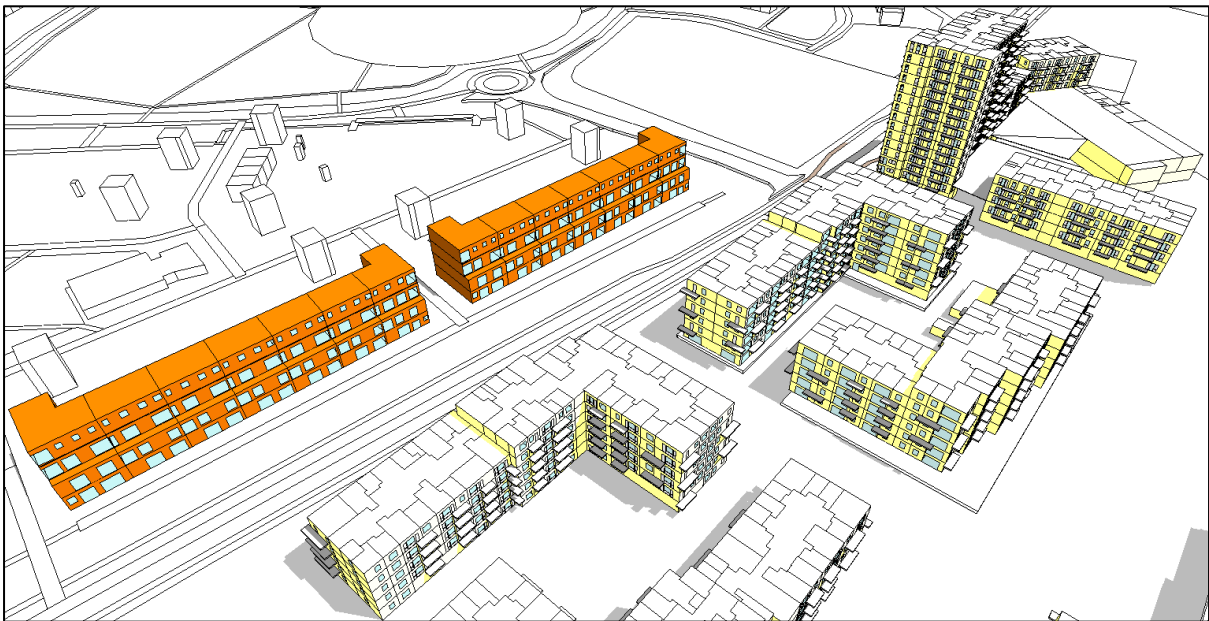


Figure 375. Shadow image on June 21<sup>st</sup> at 14:00 of Cedarbrook Apartments with Proposed Development (modelling software)



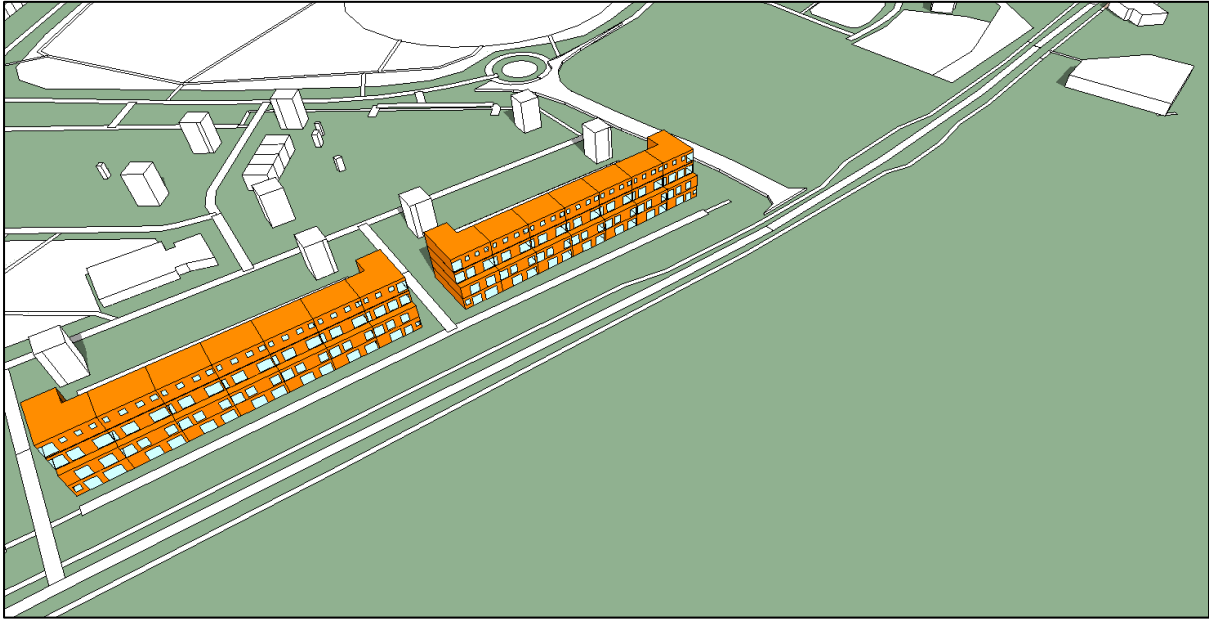


Figure 376. Shadow image on June 21<sup>st</sup> at 16:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 377. Shadow image on June 21<sup>st</sup> at 16:00 of Cedarbrook Apartments with Proposed Development (modelling software)

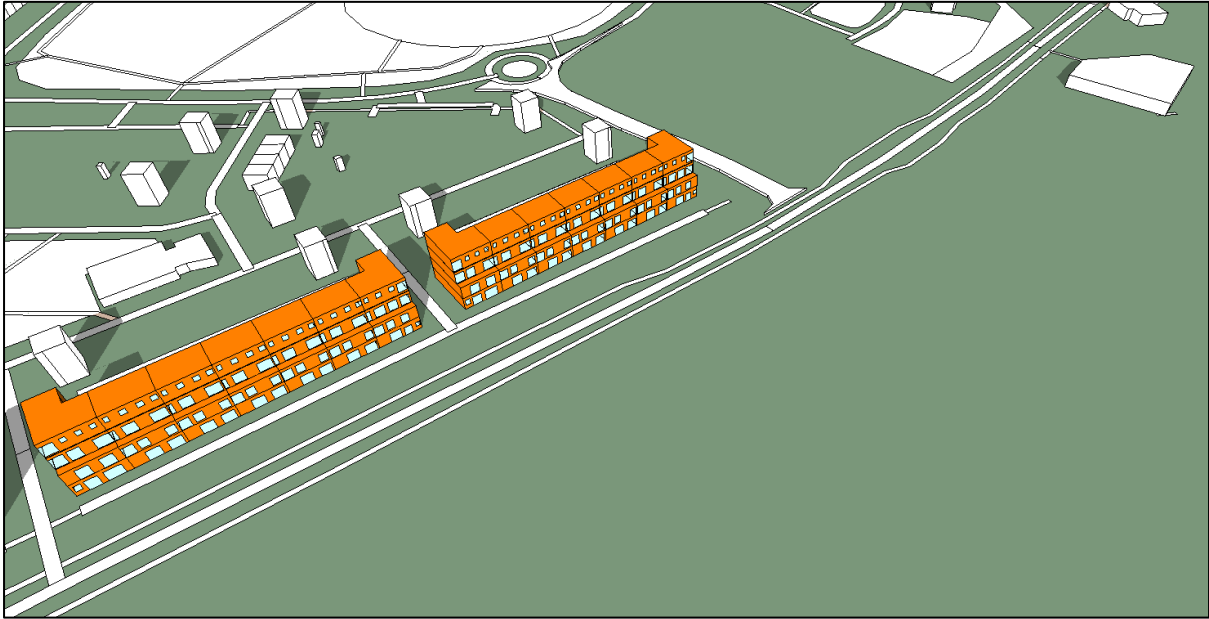


Figure 378. Shadow image on June 21<sup>st</sup> at 18:00 of Cedarbrook Apartments without Proposed Development (modelling software)

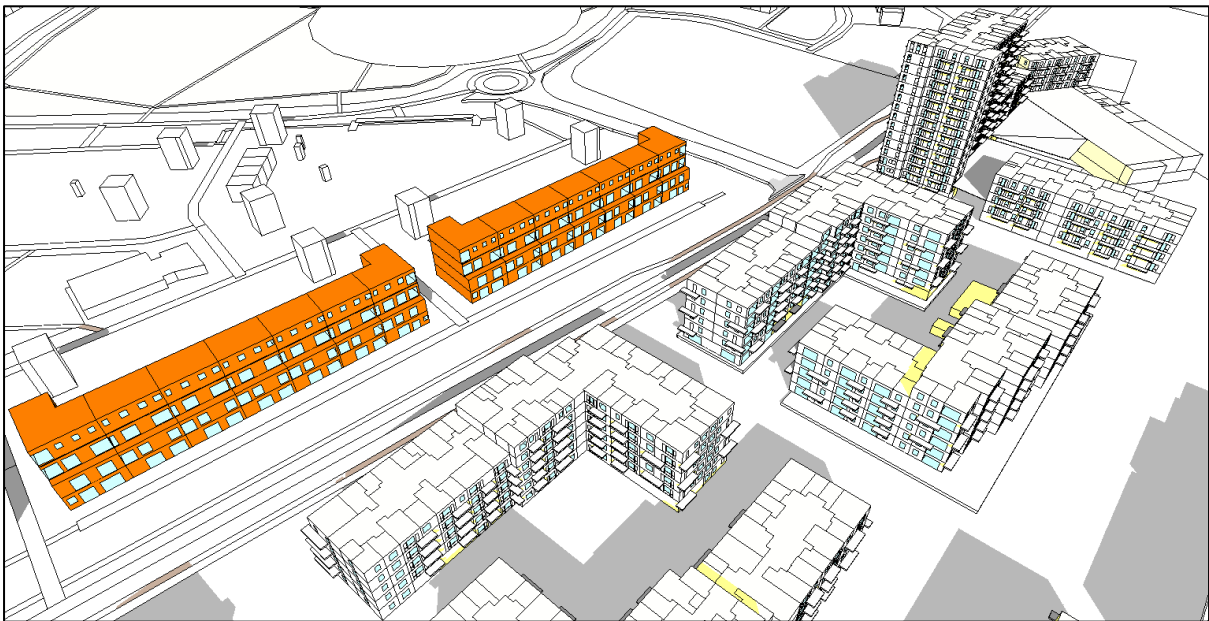


Figure 379. Shadow image on June 21<sup>st</sup> at 18:00 of Cedarbrook Apartments with Proposed Development (modelling software)



Aerial View 03 – December 21<sup>st</sup>

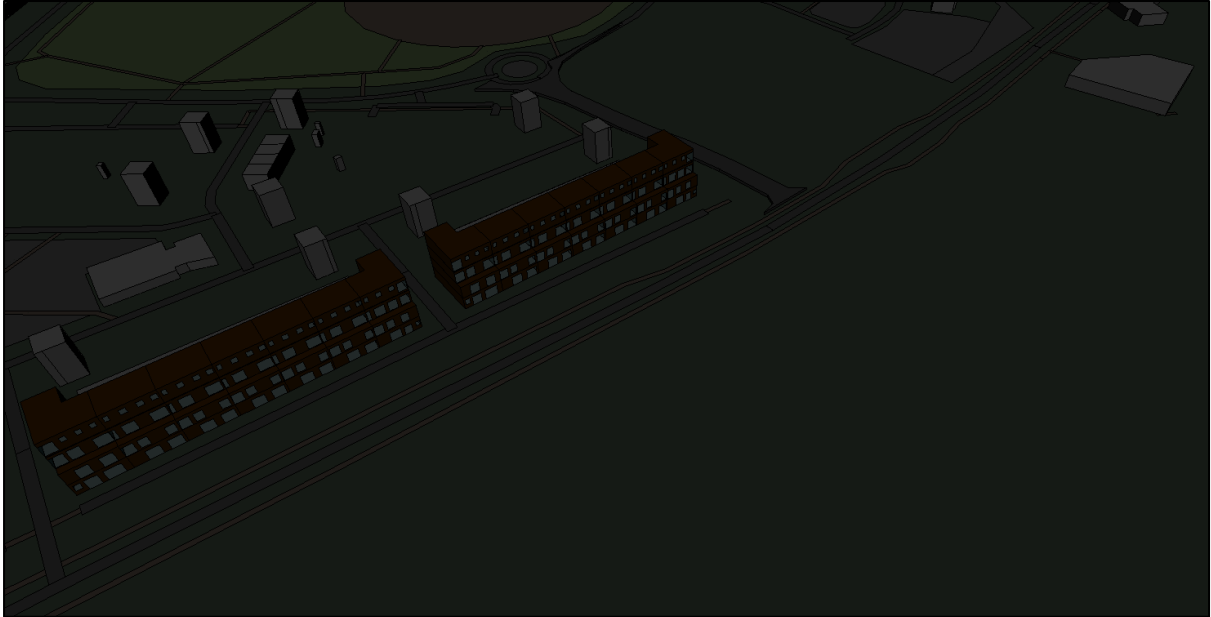


Figure 380. Shadow image on December 21<sup>st</sup> at 08:00 of Cedarbrook Apartments without Proposed Development (modelling software)

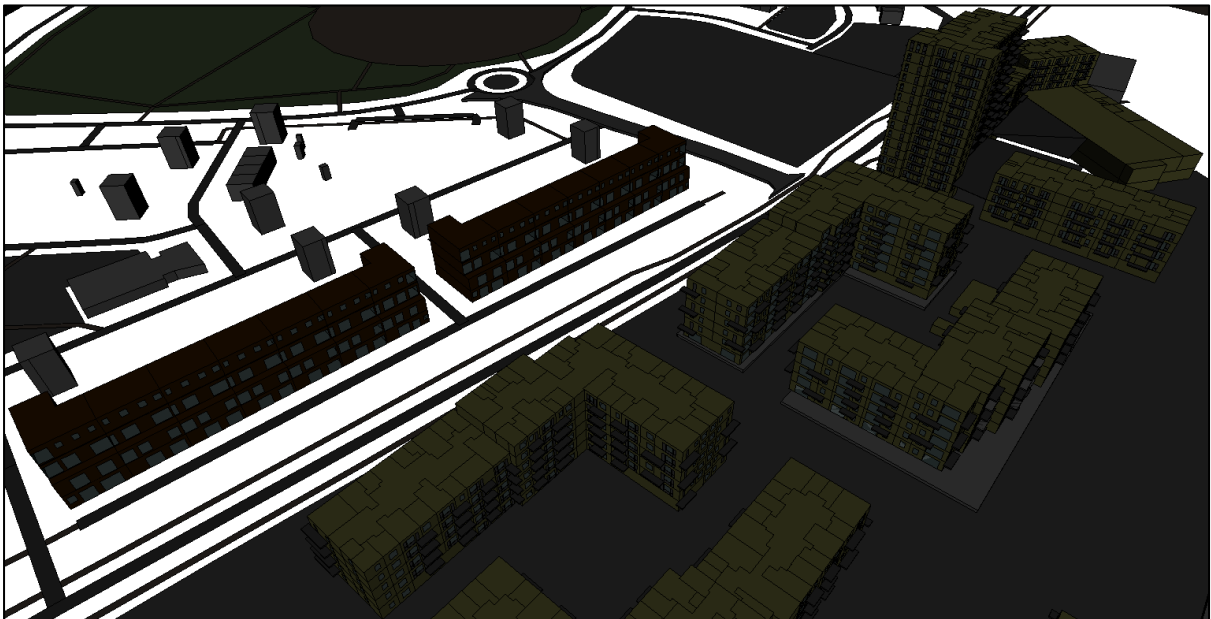


Figure 381. Shadow image on December 21<sup>st</sup> at 08:00 of Cedarbrook Apartments with Proposed Development (modelling software)

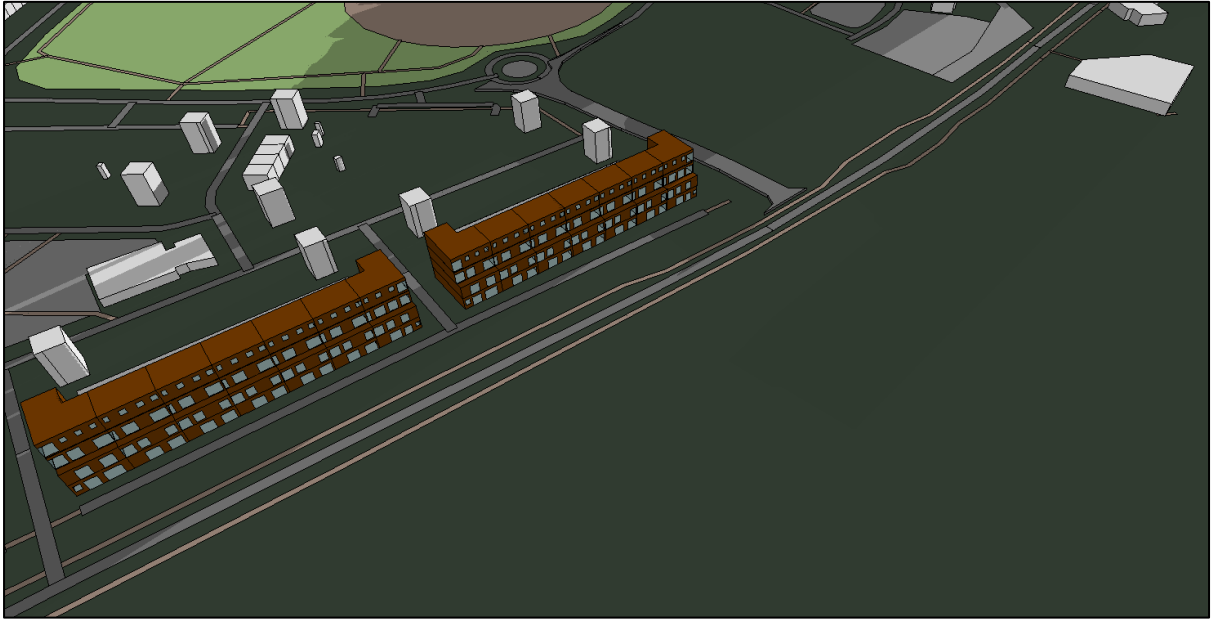


Figure 382. Shadow image on December 21<sup>st</sup> at 10:00 of Cedarbrook Apartments without Proposed Development (modelling software)

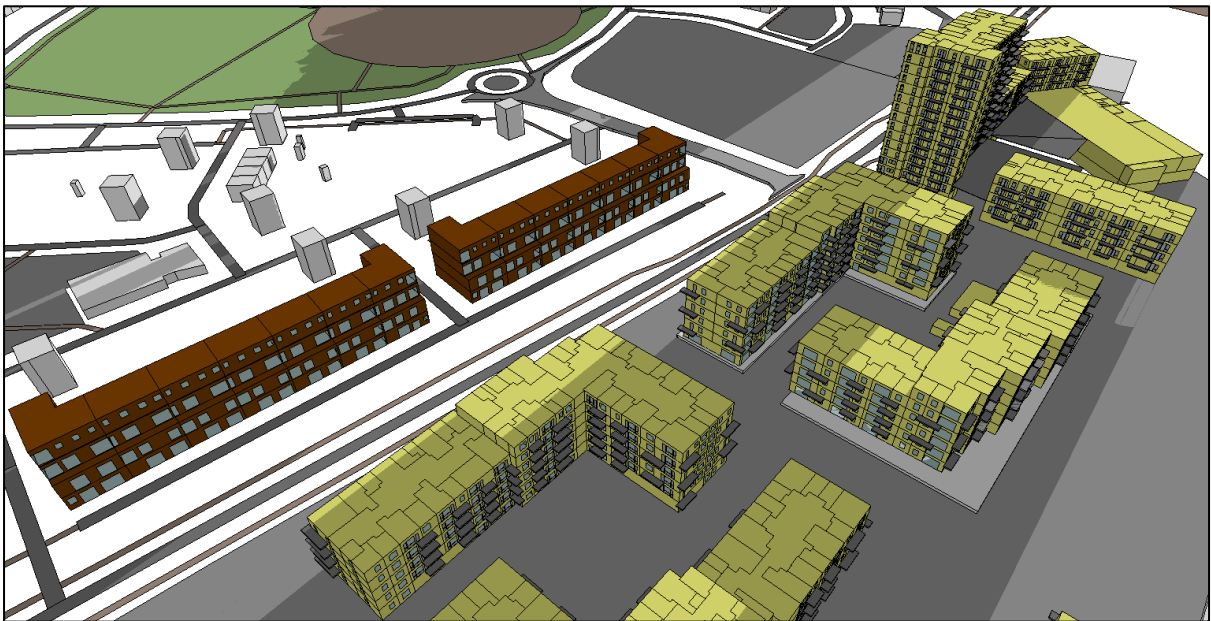


Figure 383. Shadow image on December 21<sup>st</sup> at 10:00 of Cedarbrook Apartments with Proposed Development (modelling software)

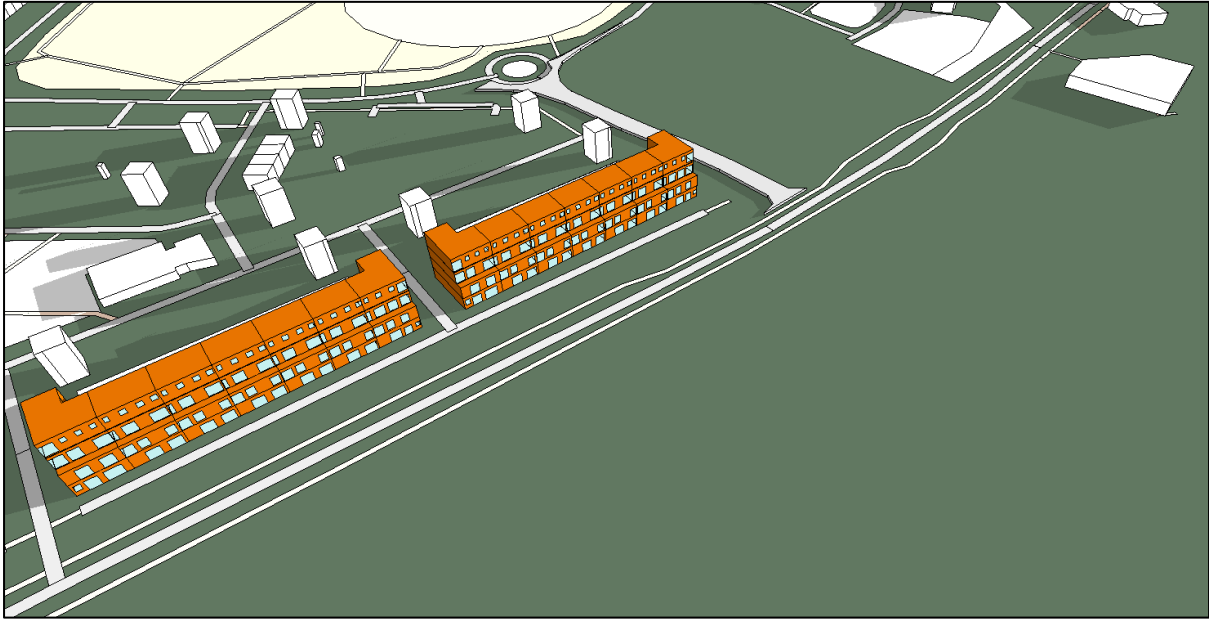


Figure 384. Shadow image on December 21<sup>st</sup> at 12:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 385. Shadow image on December 21<sup>st</sup> at 12:00 of Cedarbrook Apartments with Proposed Development (modelling software)

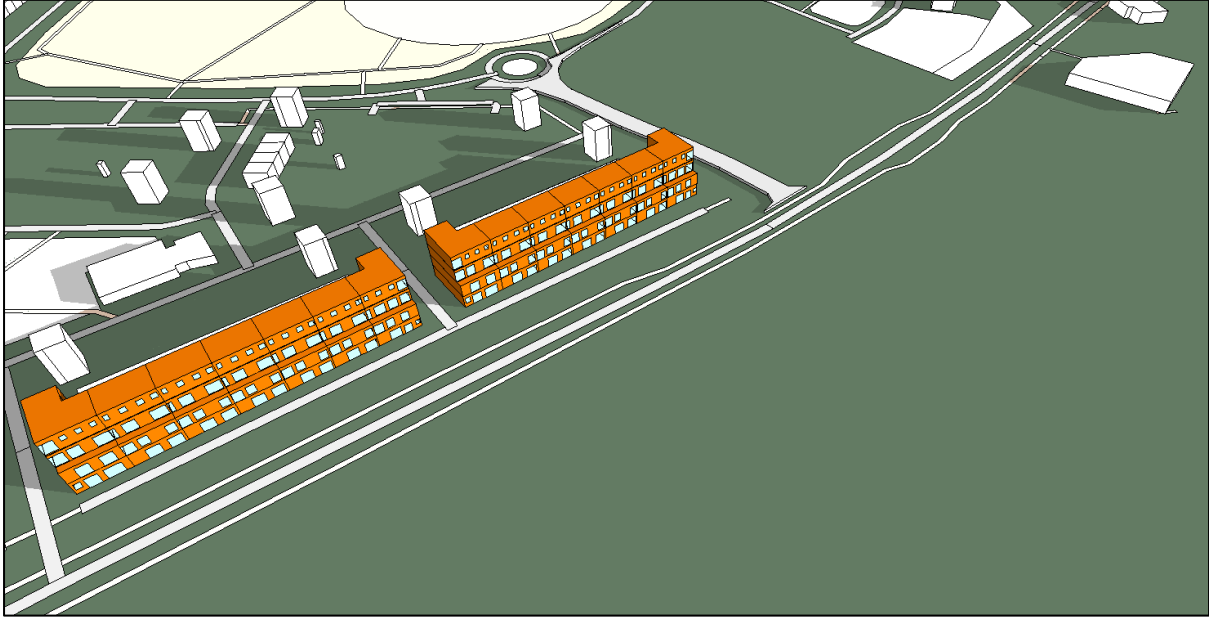


Figure 386. Shadow image on December 21<sup>st</sup> at 14:00 of Cedarbrook Apartments without Proposed Development (modelling software)

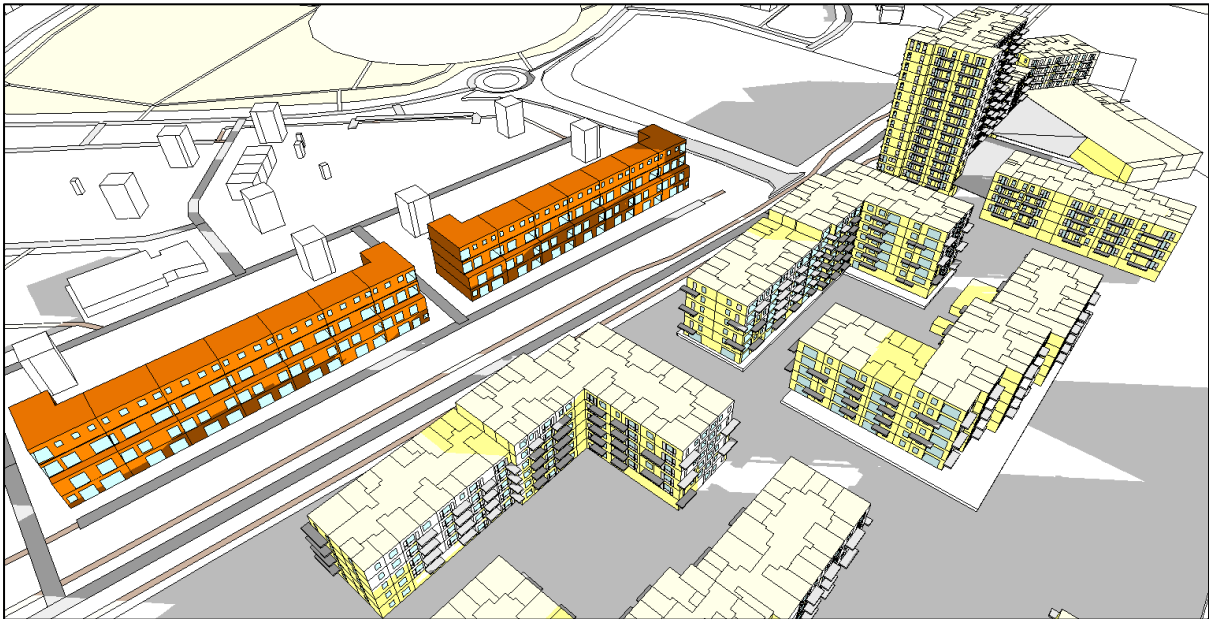


Figure 387. Shadow image on December 21<sup>st</sup> at 14:00 of Cedarbrook Apartments with Proposed Development (modelling software)



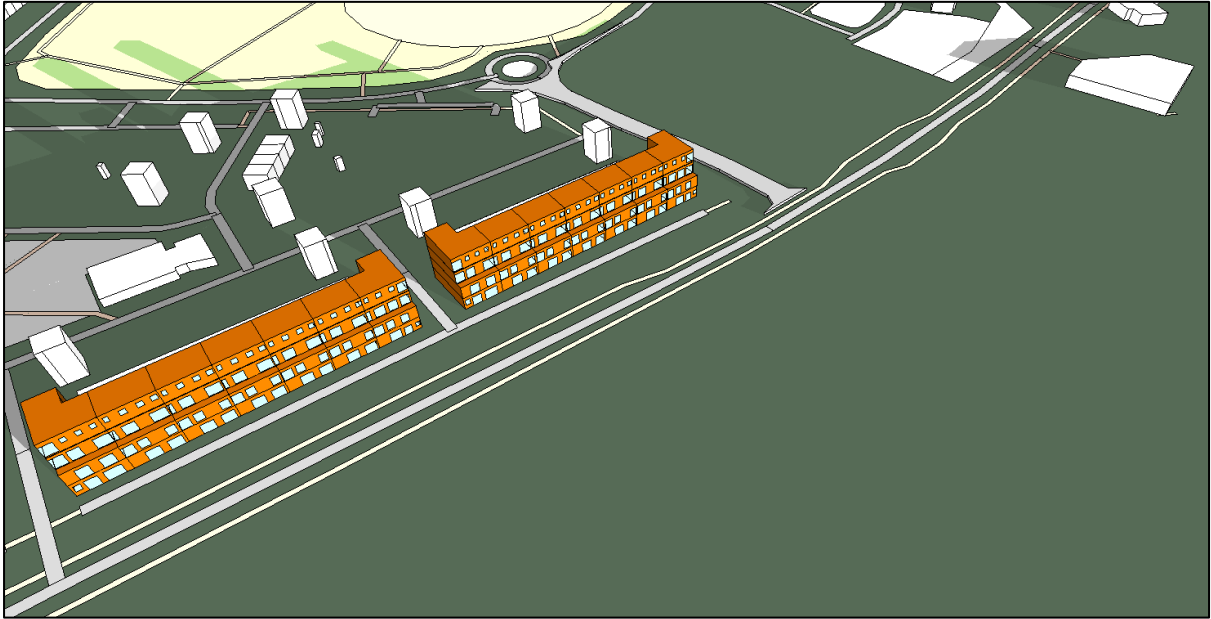


Figure 388. Shadow image on December 21<sup>st</sup> at 16:00 of Cedarbrook Apartments without Proposed Development (modelling software)



Figure 389. Shadow image on December 21<sup>st</sup> at 16:00 of Cedarbrook Apartments with Proposed Development (modelling software)

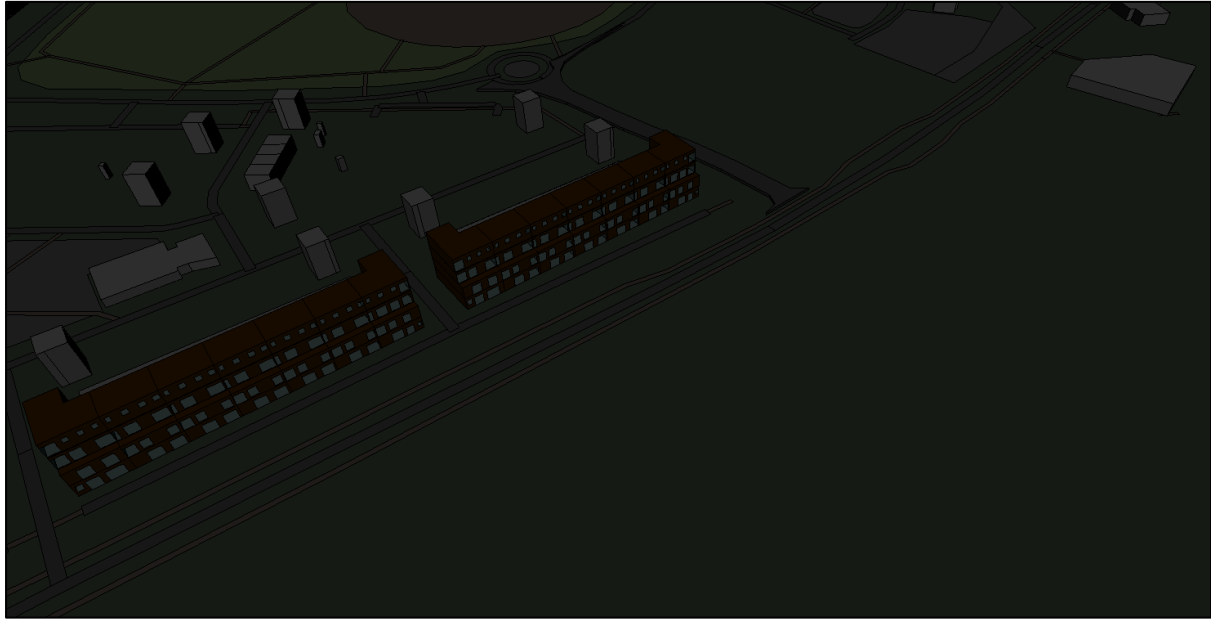


Figure 390. Shadow image on December 21<sup>st</sup> at 18:00 of Cedarbrook Apartments without Proposed Development (modelling software)

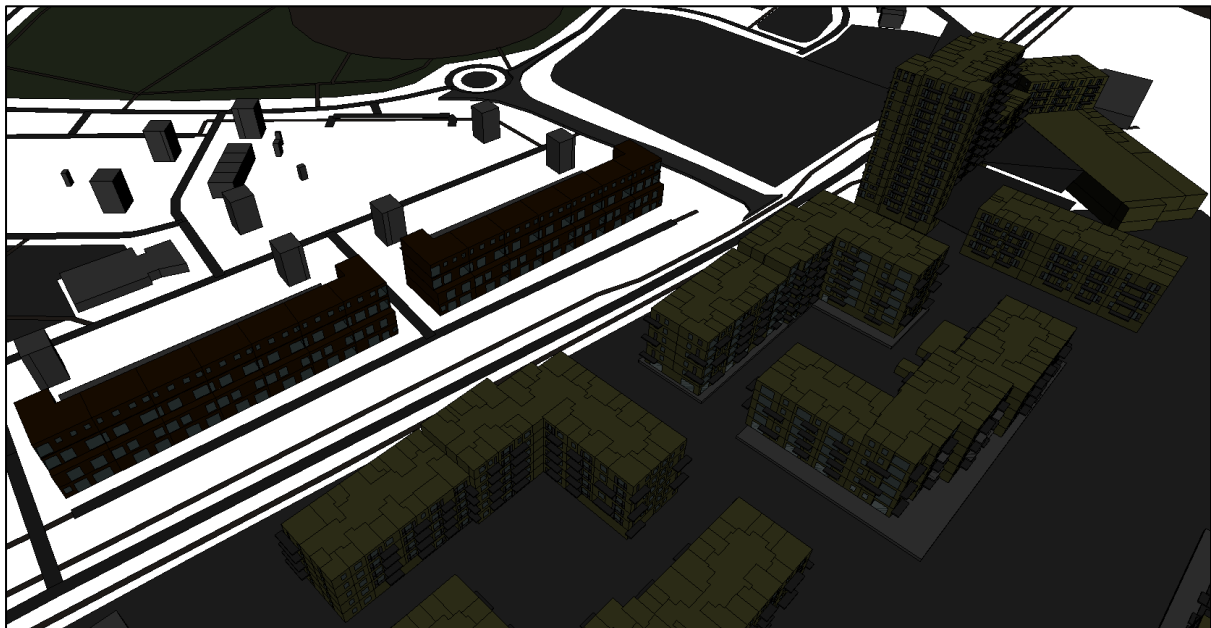


Figure 391. Shadow image on December 21<sup>st</sup> at 18:00 of Cedarbrook Apartments with Proposed Development (modelling software)



## High-Density Buildings

### Aerial View 01 – March 21<sup>st</sup>

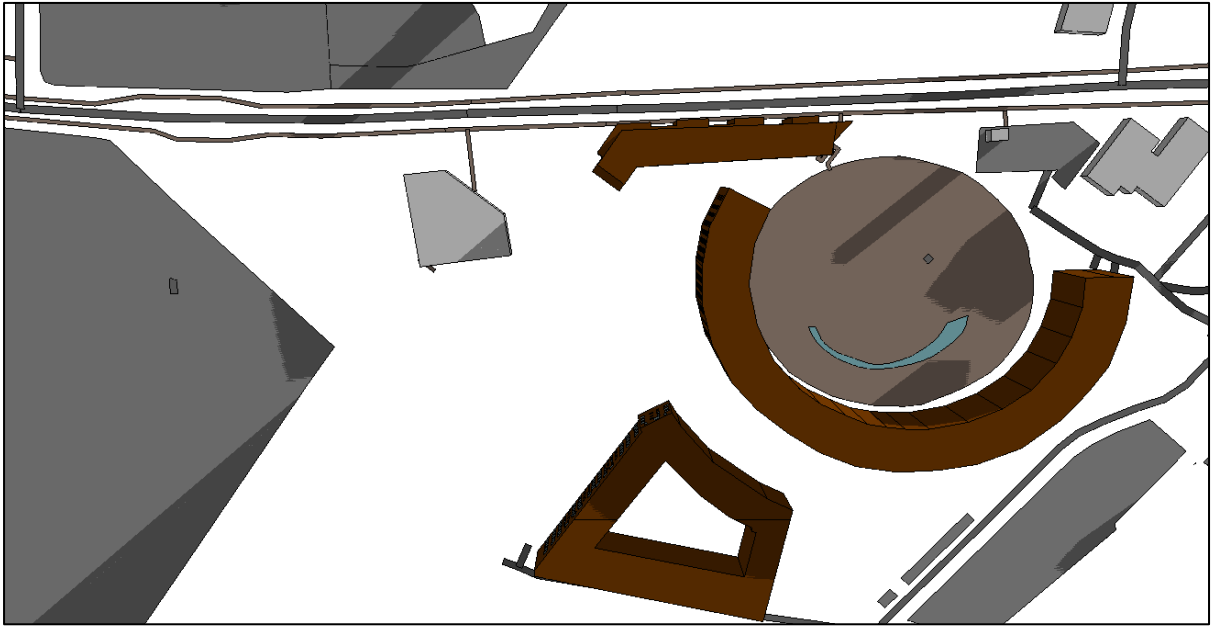


Figure 392. Shadow image on March 21<sup>st</sup> at 08:00 of Park West without Proposed Development (modelling software)

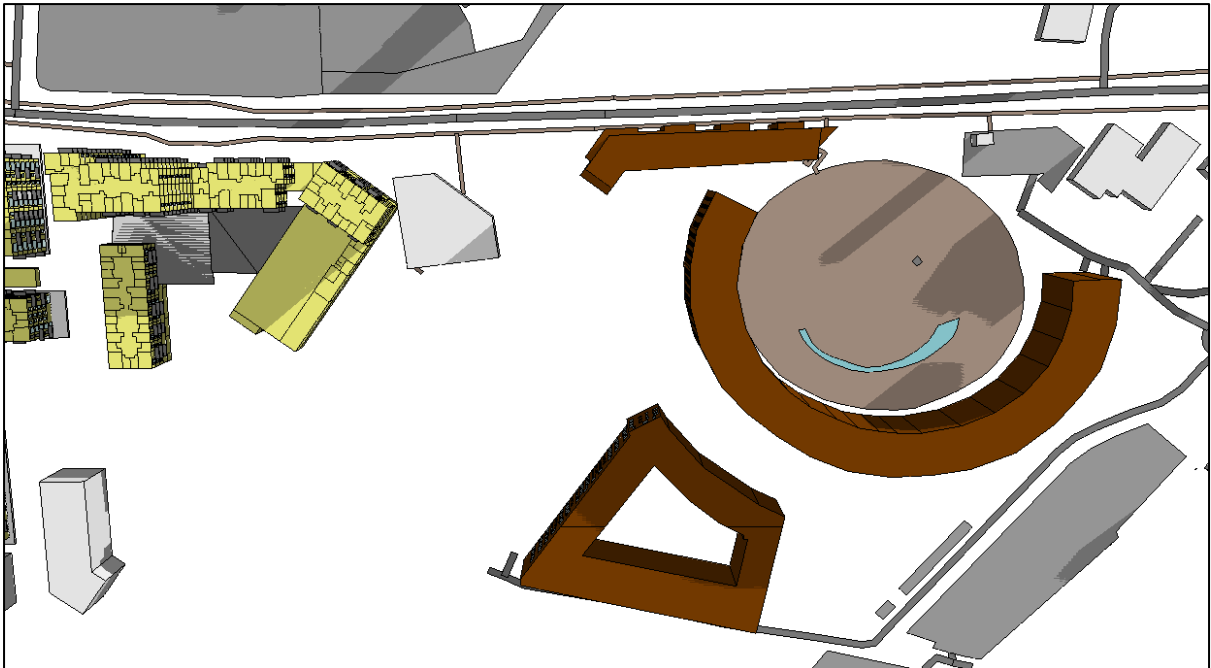


Figure 393. Shadow image on March 21<sup>st</sup> at 08:00 of Park West with Proposed Development (modelling software)

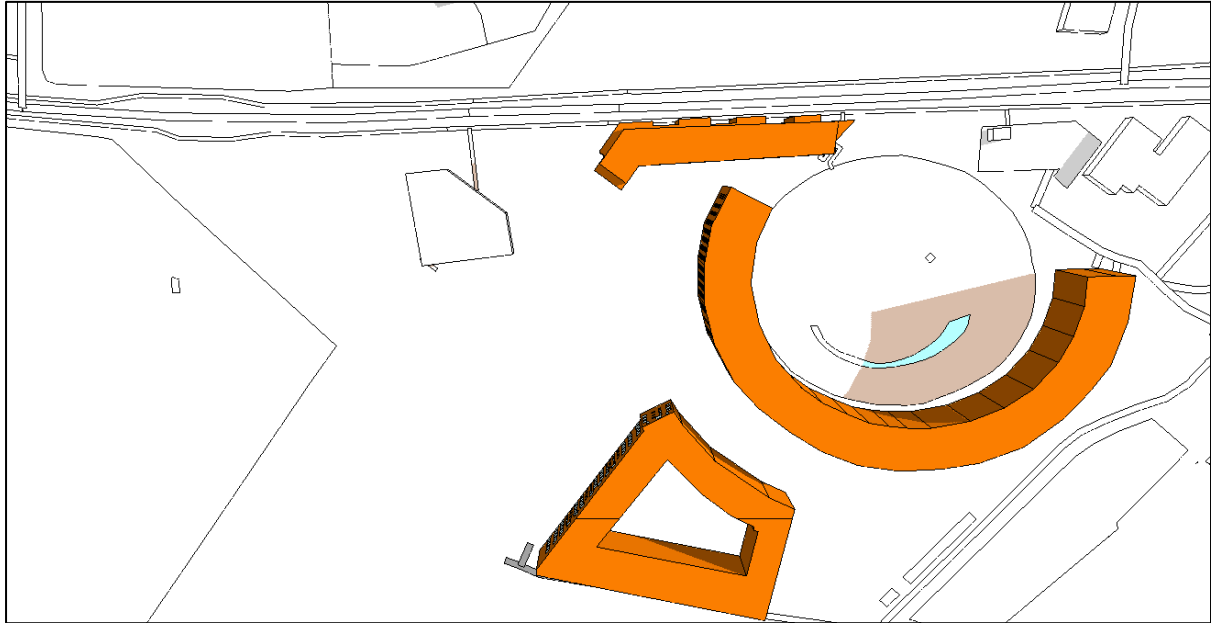


Figure 394. Shadow image on March 21<sup>st</sup> at 10:00 of Park West without Proposed Development (modelling software)

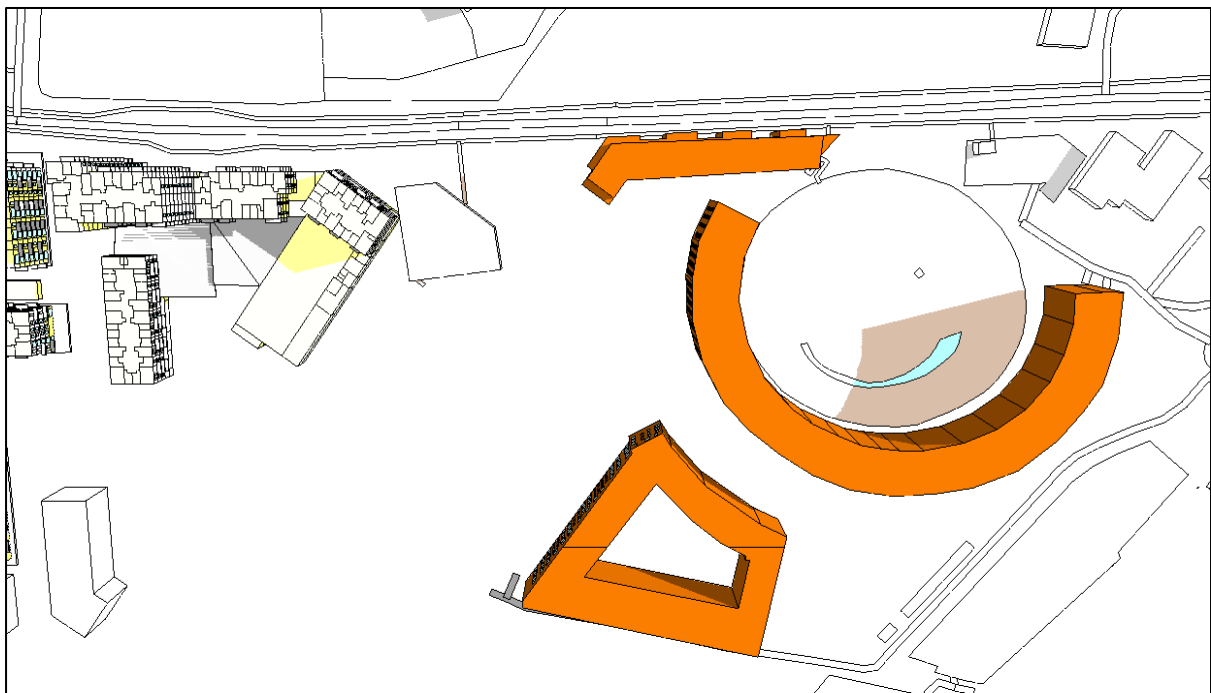


Figure 395. Shadow image on March 21<sup>st</sup> at 10:00 of Park West with Proposed Development (modelling software)

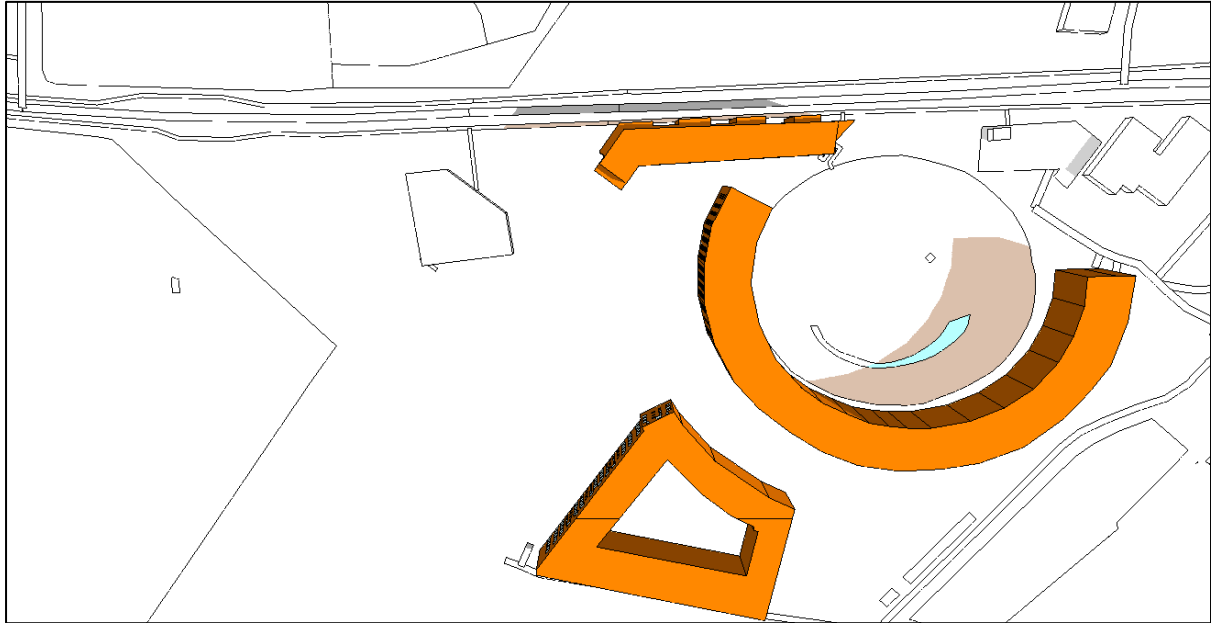


Figure 396. Shadow image on March 21<sup>st</sup> at 12:00 of Park West without Proposed Development (modelling software)

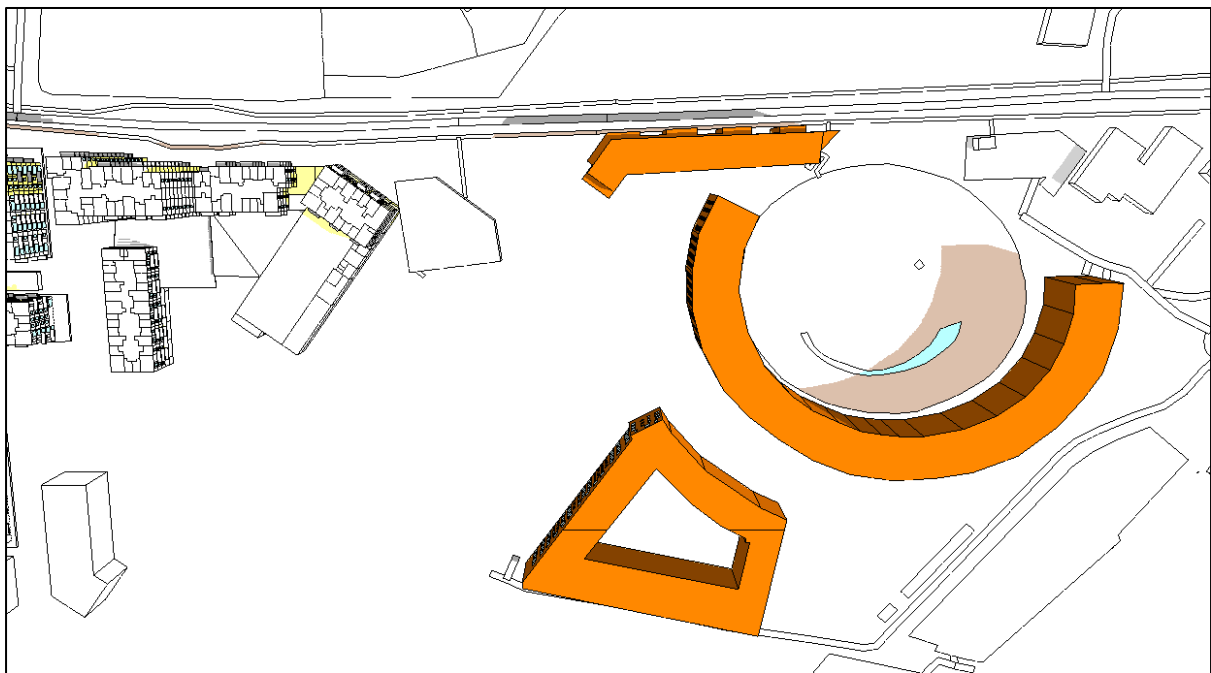


Figure 397. Shadow image on March 21<sup>st</sup> at 12:00 of Park West with Proposed Development (modelling software)

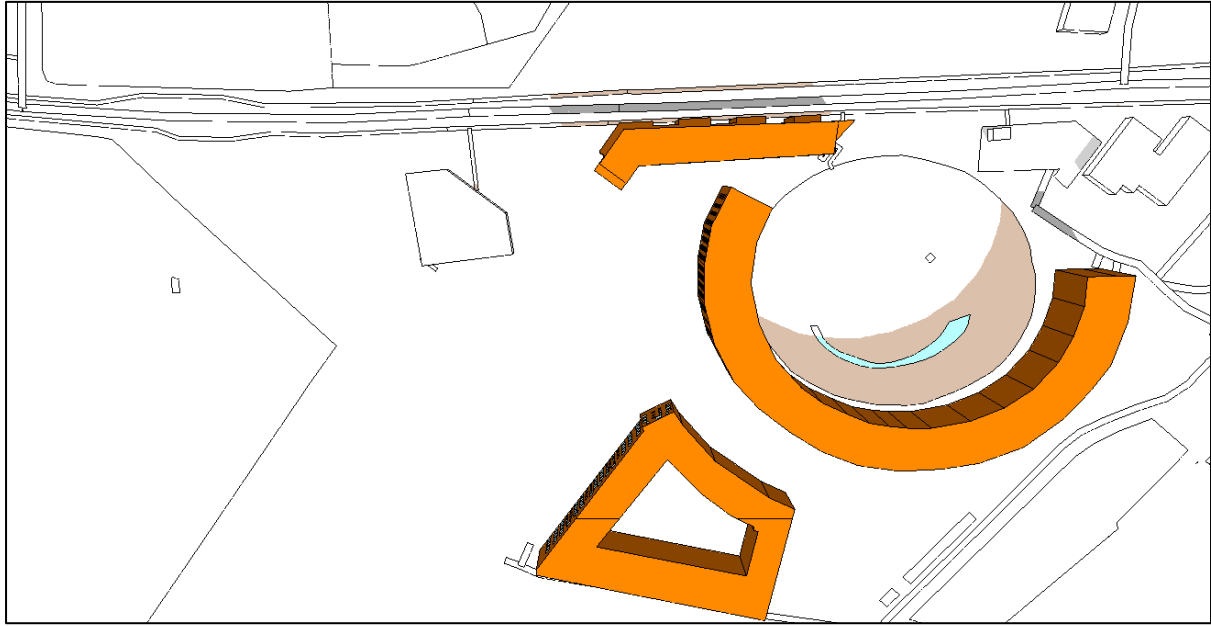


Figure 398. Shadow image on March 21<sup>st</sup> at 14:00 of Park West without Proposed Development (modelling software)

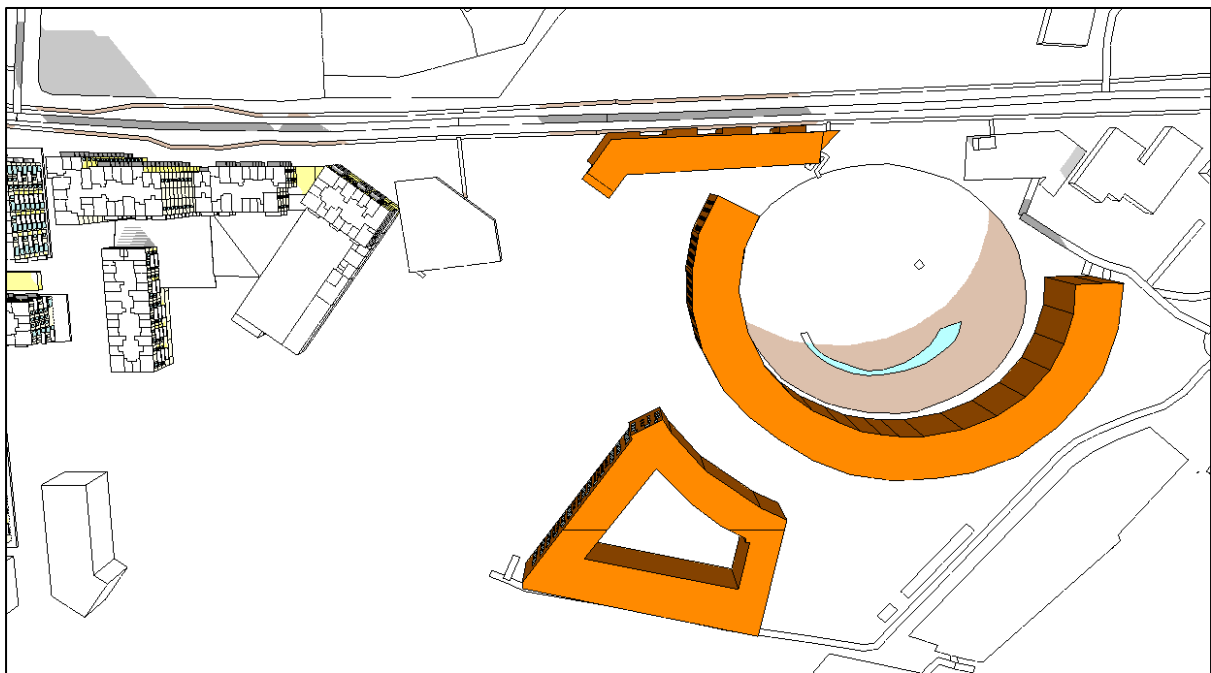


Figure 399. Shadow image on March 21<sup>st</sup> at 14:00 of Park West with Proposed Development (modelling software)

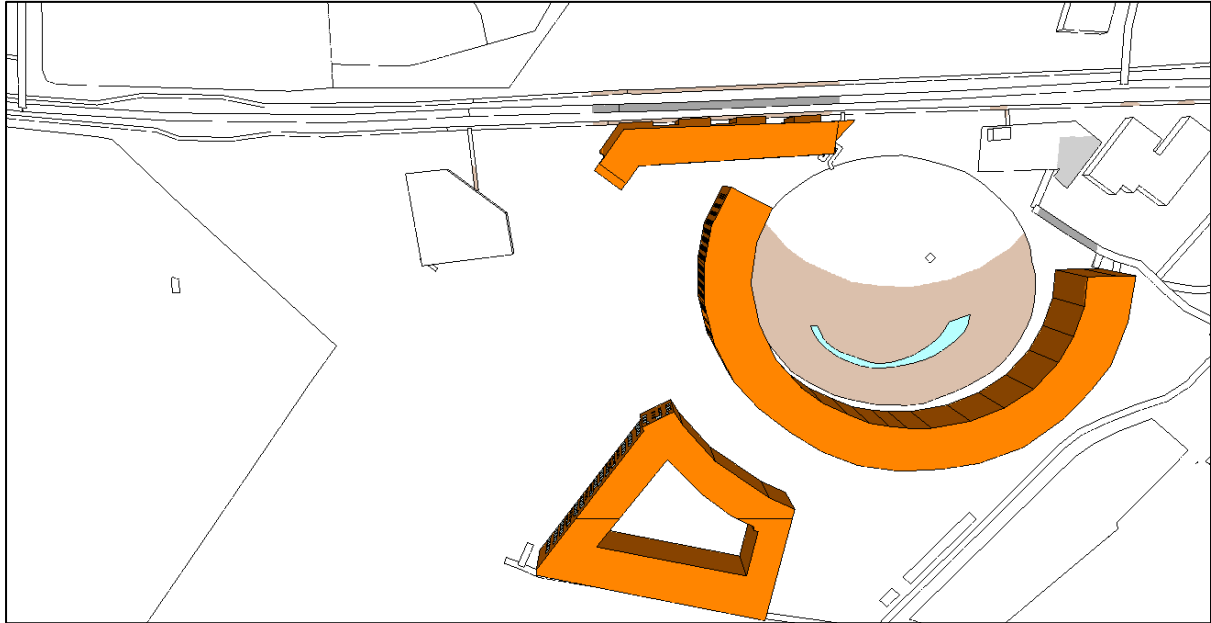


Figure 400. Shadow image on March 21<sup>st</sup> at 16:00 of Park West without Proposed Development (modelling software)

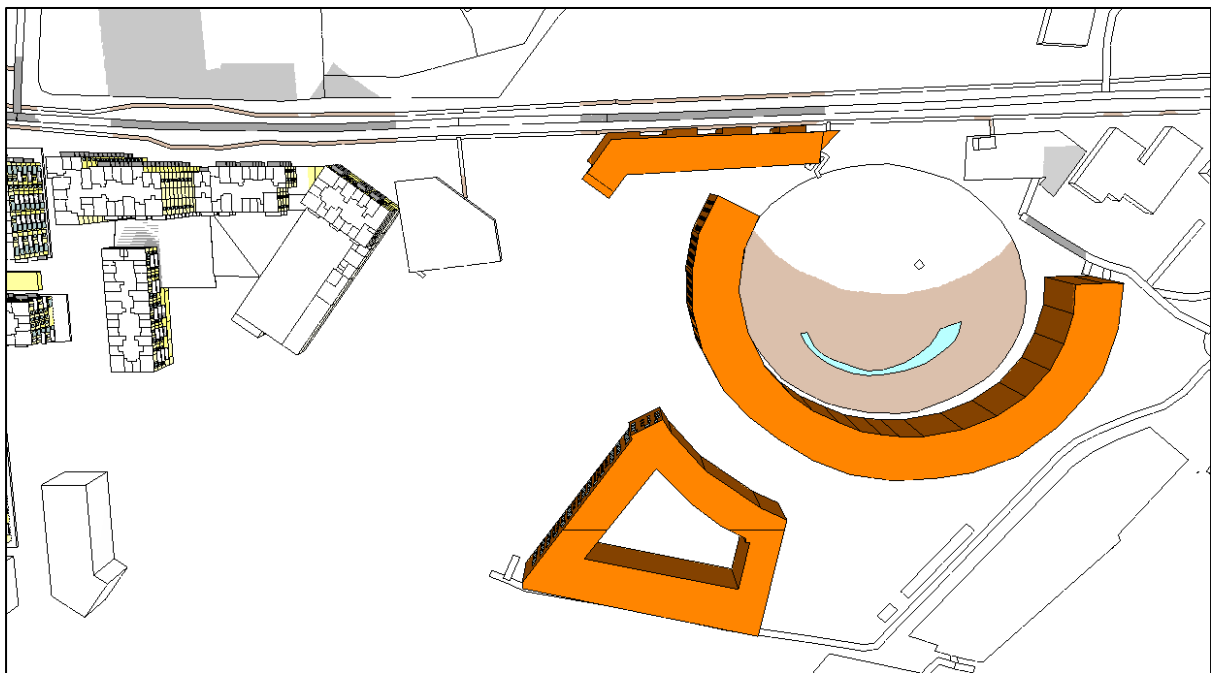


Figure 401. Shadow image on March 21<sup>st</sup> at 16:00 of Park West with Proposed Development (modelling software)

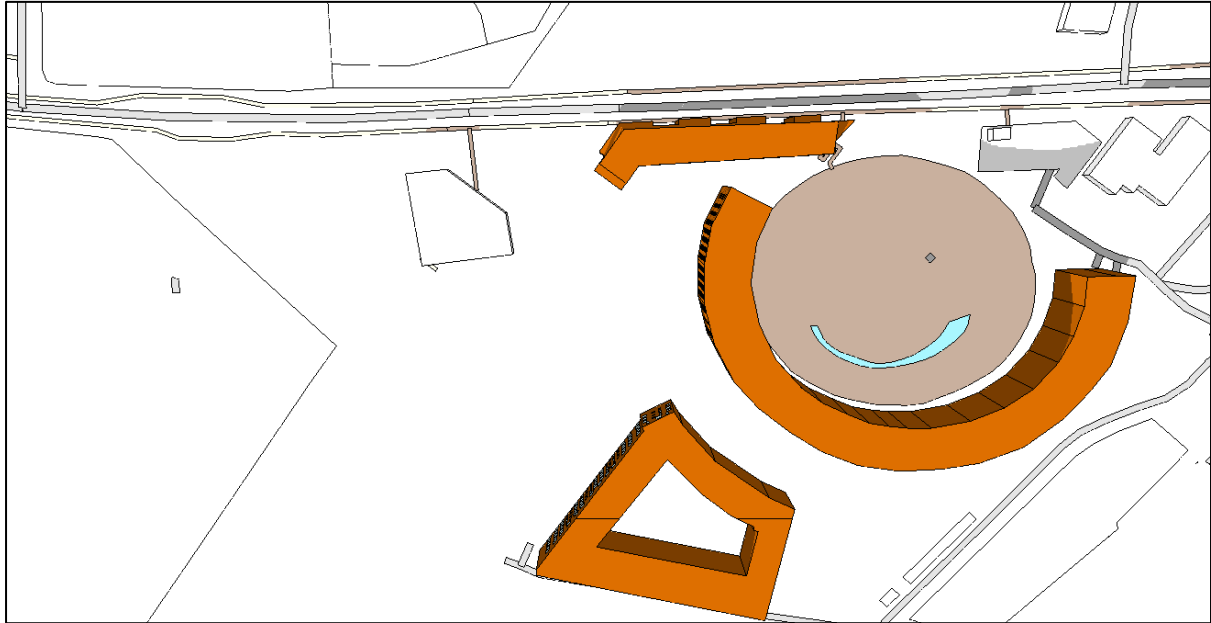


Figure 402. Shadow image on March 21<sup>st</sup> at 18:00 of Park West without Proposed Development (modelling software)

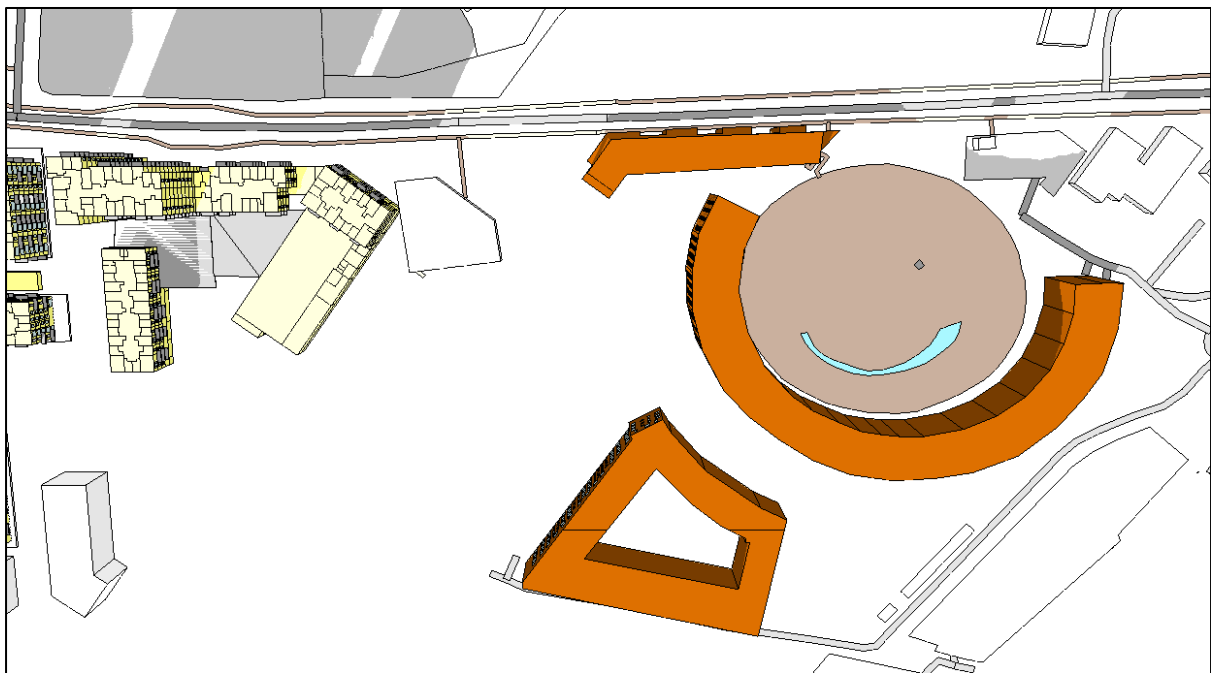


Figure 403. Shadow image on March 21<sup>st</sup> at 18:00 of Park West with Proposed Development (modelling software)



Aerial View 01 – June 21<sup>st</sup>

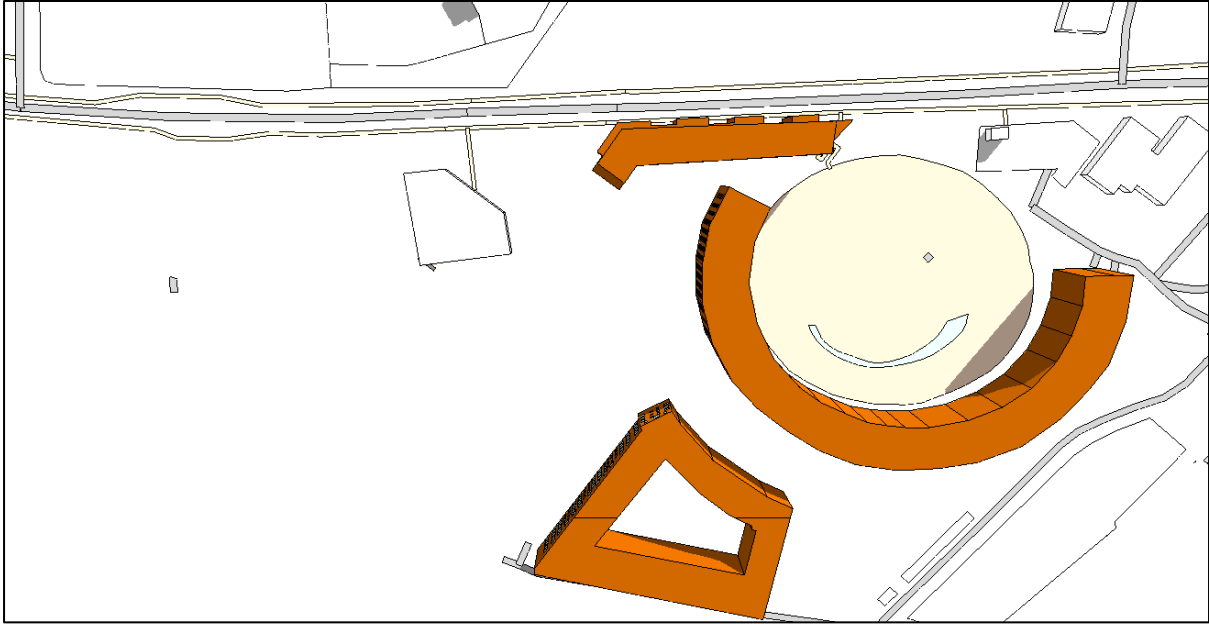


Figure 404. Shadow image on June 21<sup>st</sup> at 08:00 of Park West without Proposed Development (modelling software)

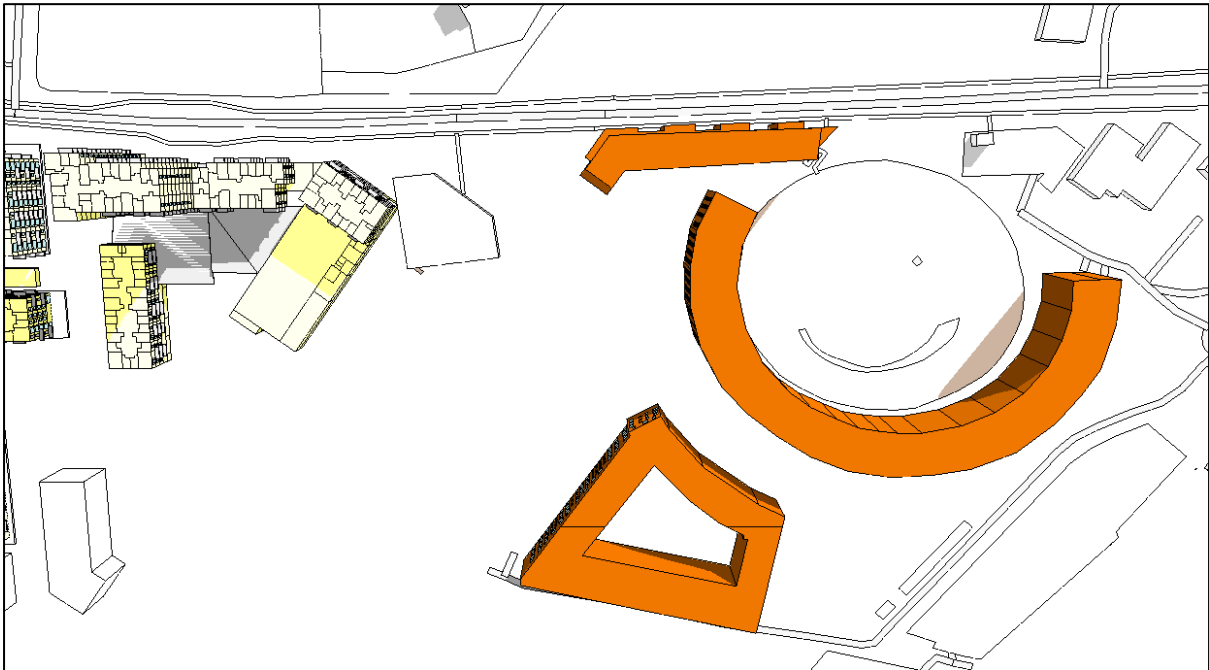


Figure 405. Shadow image on June 21<sup>st</sup> at 08:00 of Park West with Proposed Development (modelling software)

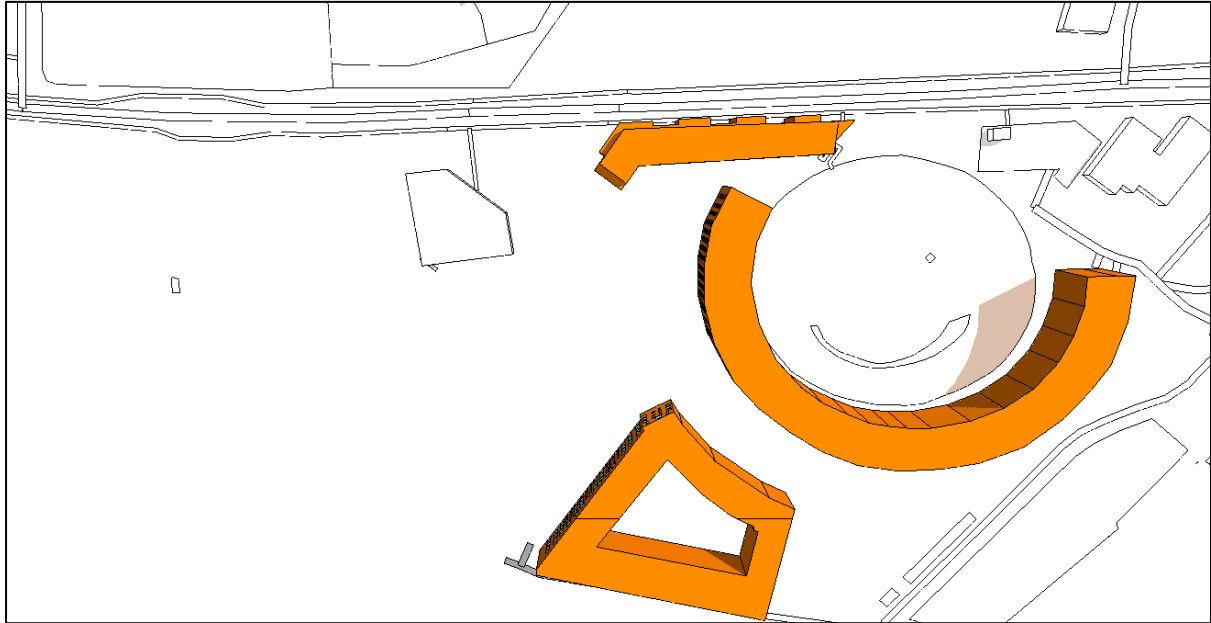


Figure 406. Shadow image on June 21<sup>st</sup> at 10:00 of Park West without Proposed Development (modelling software)

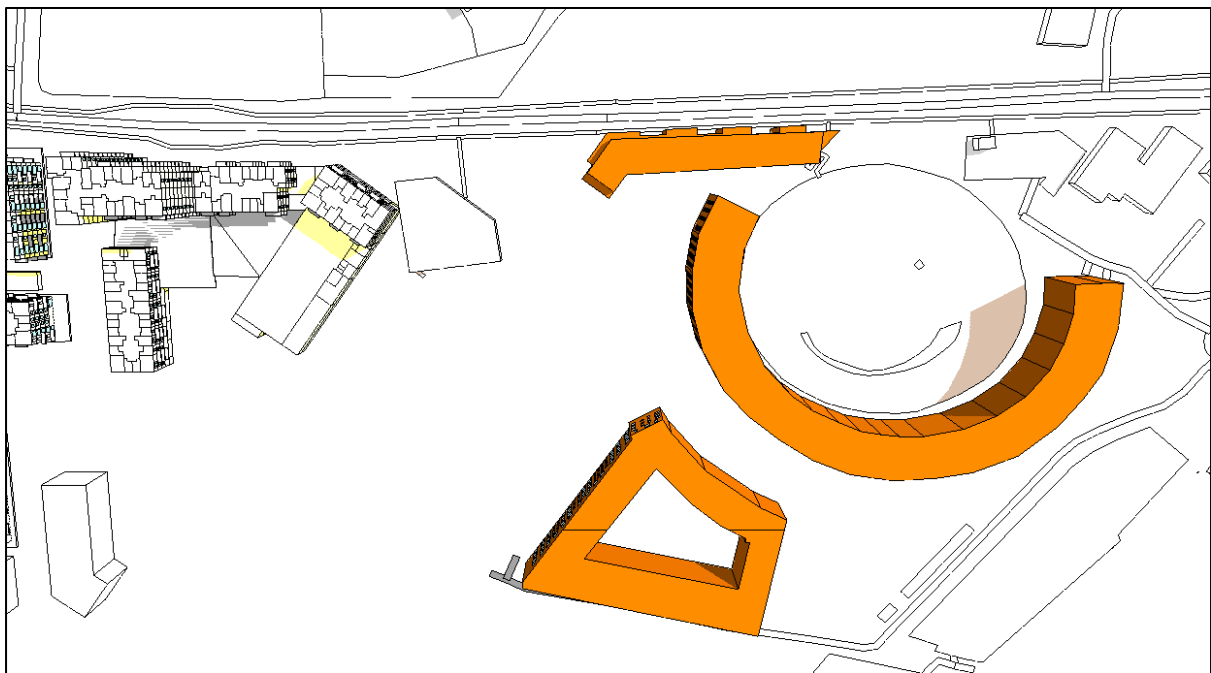


Figure 407. Shadow image on June 21<sup>st</sup> at 10:00 of Park West with Proposed Development (modelling software)

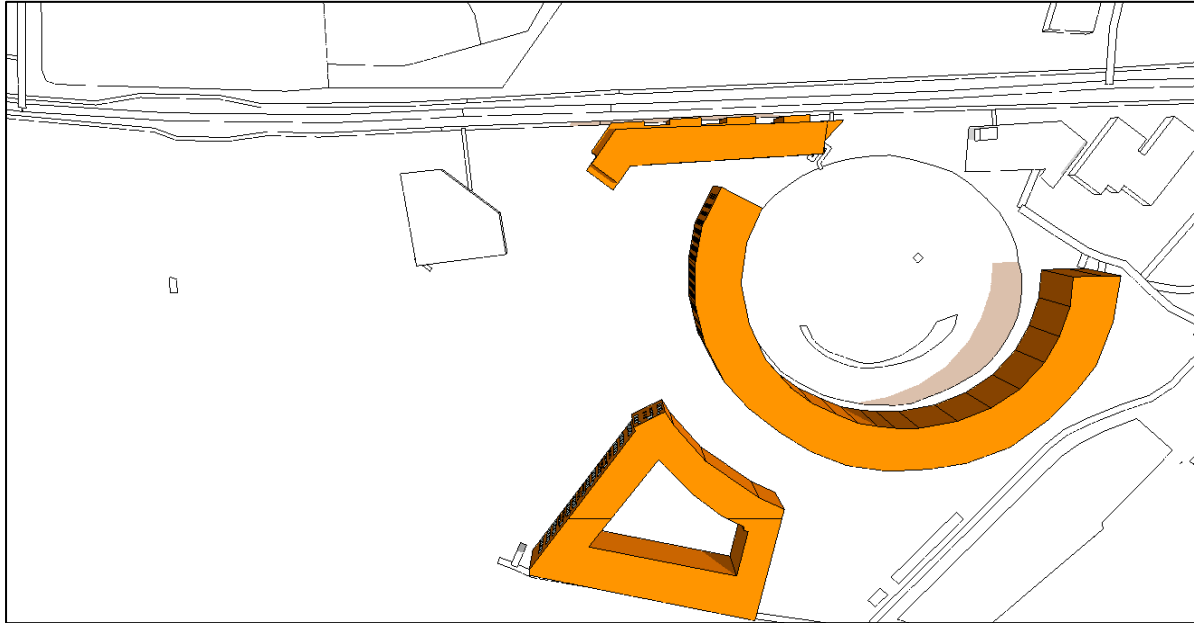


Figure 408. Shadow image on June 21<sup>st</sup> at 12:00 of Park West without Proposed Development (modelling software)

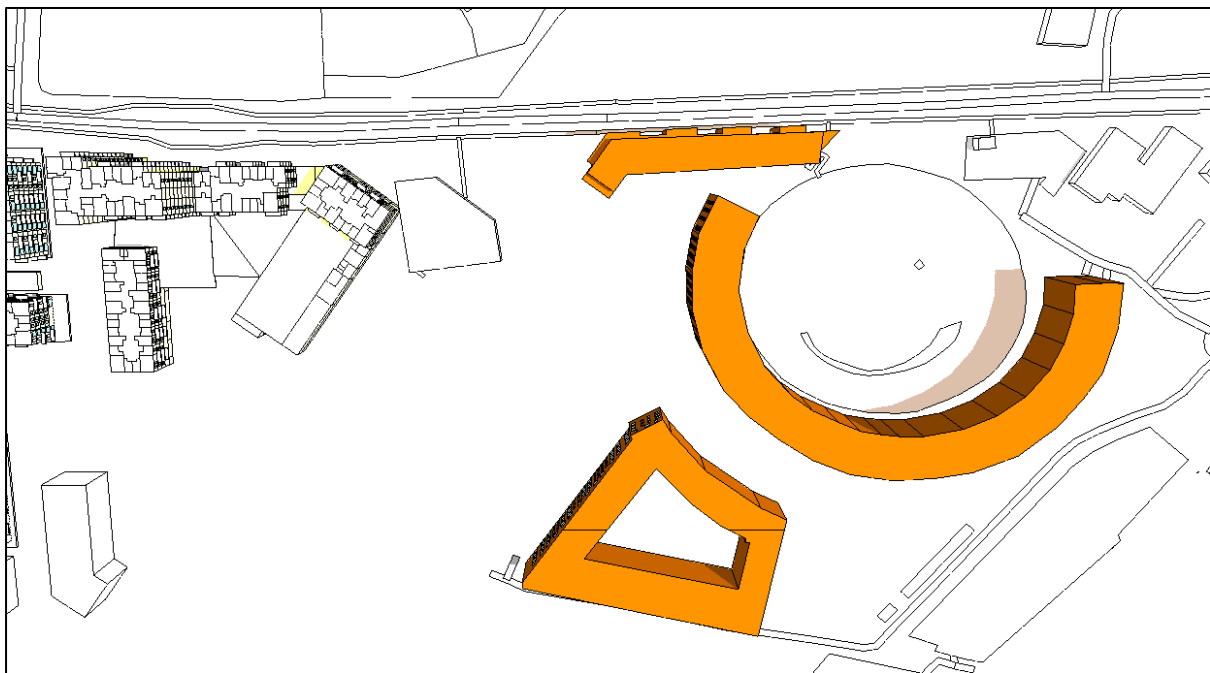


Figure 409. Shadow image on June 21<sup>st</sup> at 12:00 of Park West with Proposed Development (modelling software)

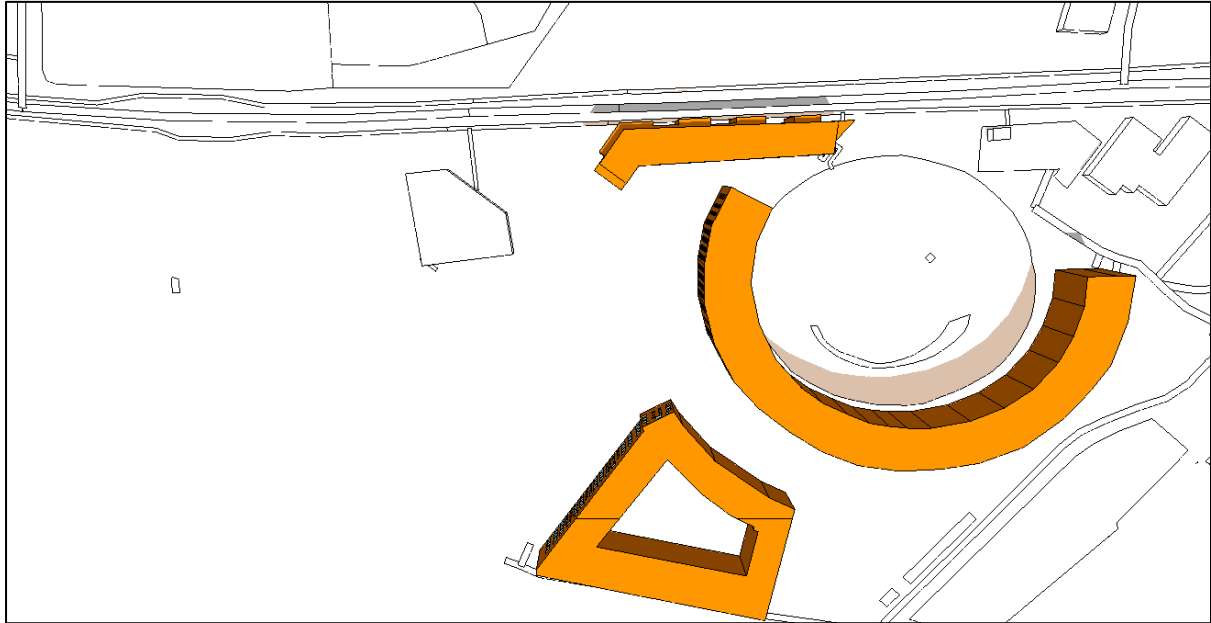


Figure 410. Shadow image on June 21<sup>st</sup> at 14:00 of Park West without Proposed Development (modelling software)

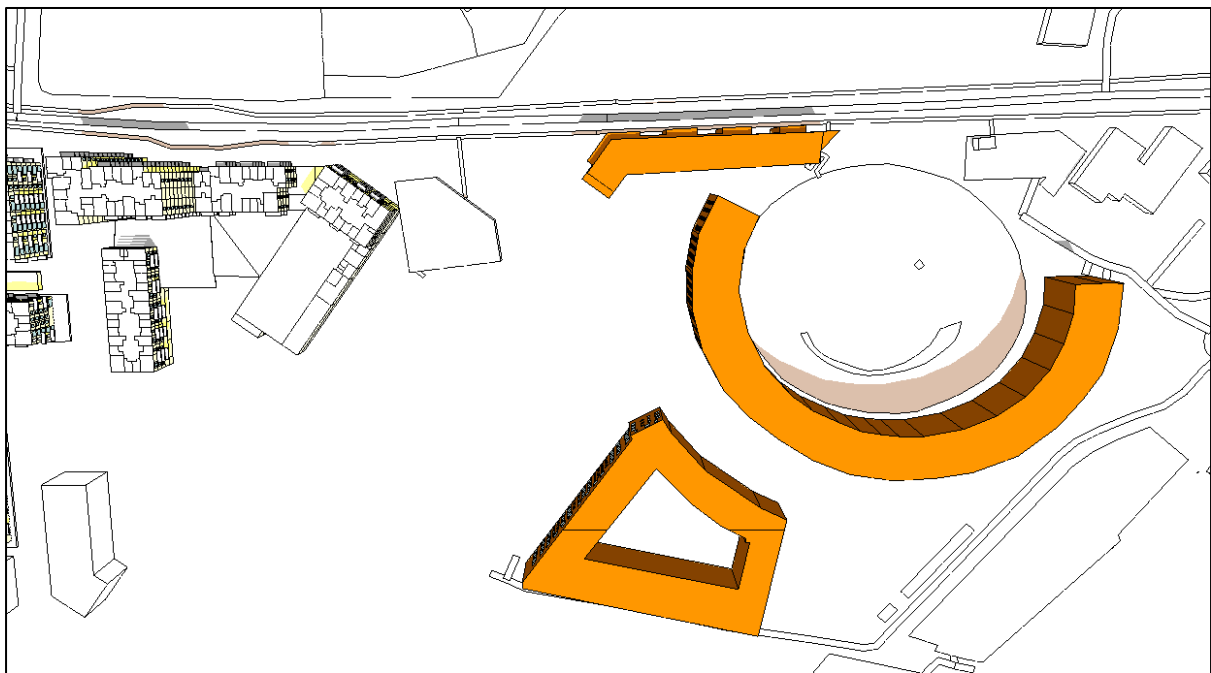


Figure 411. Shadow image on June 21<sup>st</sup> at 14:00 of Park West with Proposed Development (modelling software)

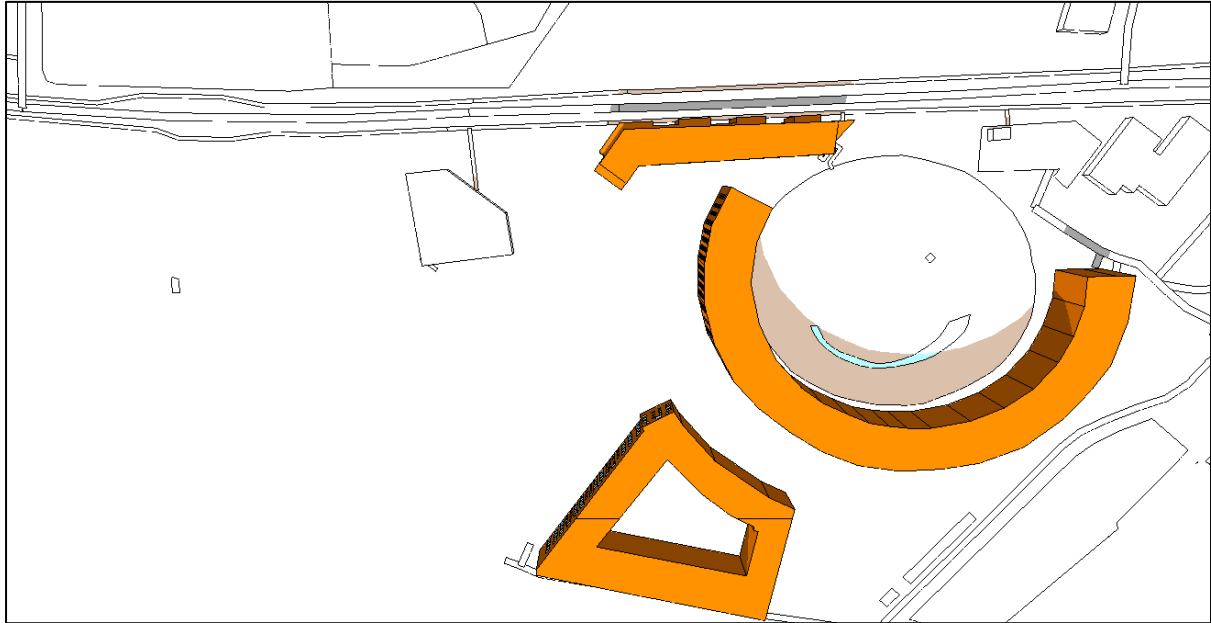


Figure 412. Shadow image on June 21<sup>st</sup> at 16:00 of Park West without Proposed Development (modelling software)

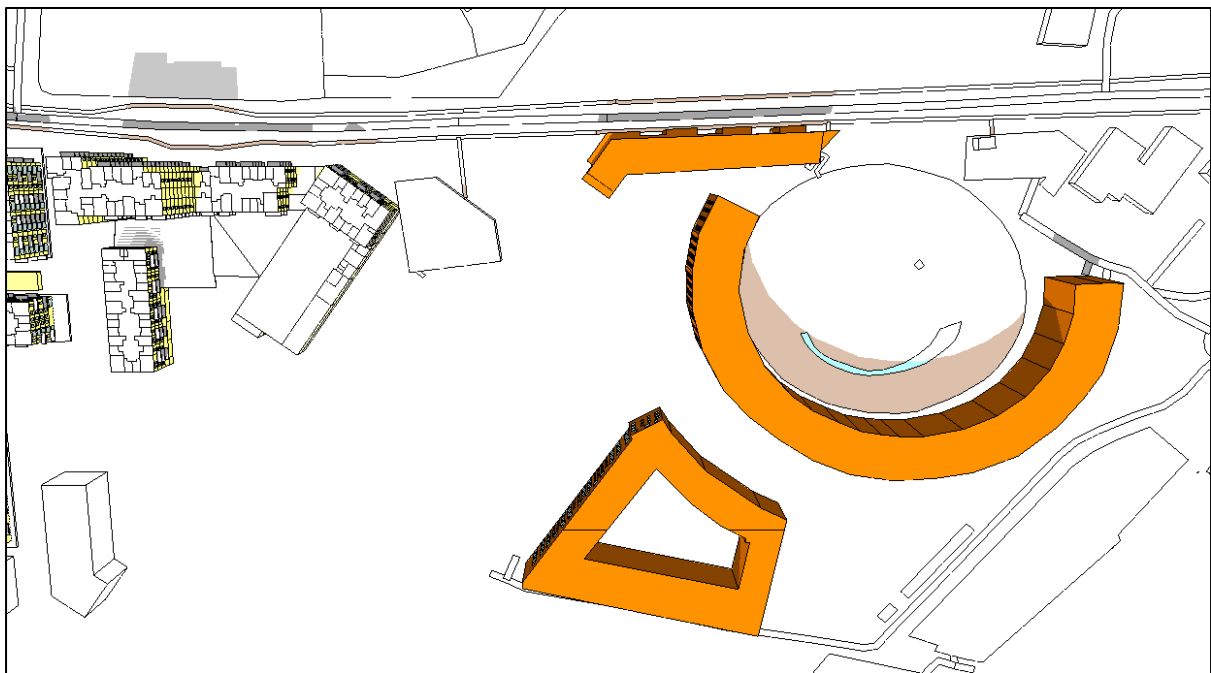


Figure 413. Shadow image on June 21<sup>st</sup> at 16:00 of Park West with Proposed Development (modelling software)

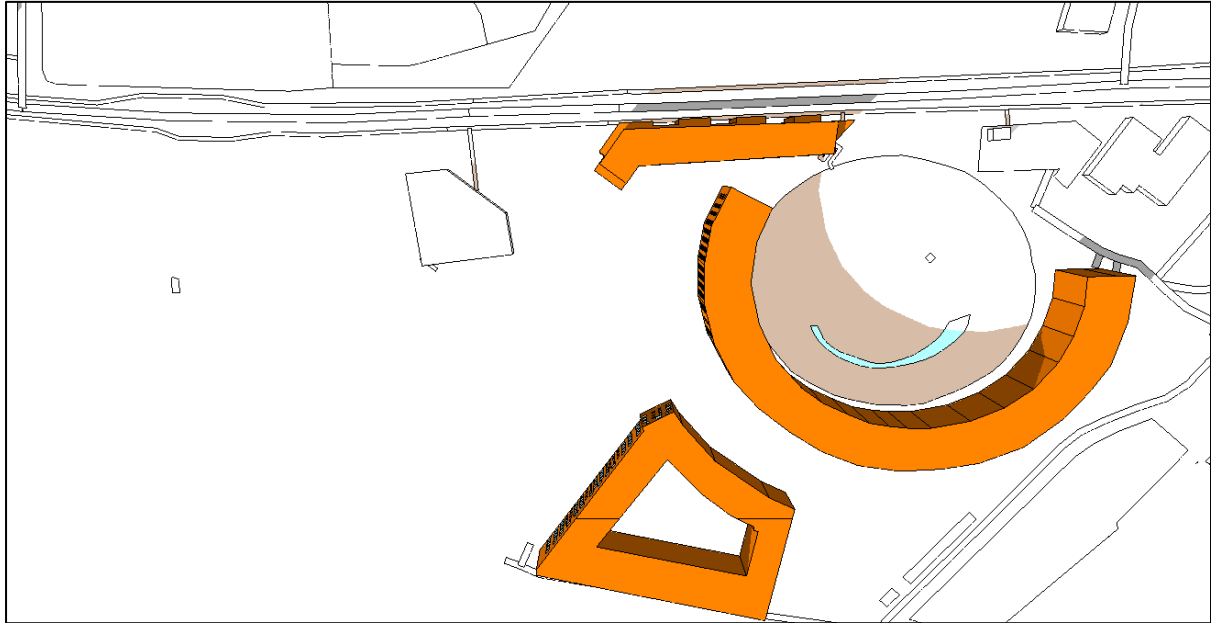


Figure 414. Shadow image on June 21<sup>st</sup> at 18:00 of Park West without Proposed Development (modelling software)

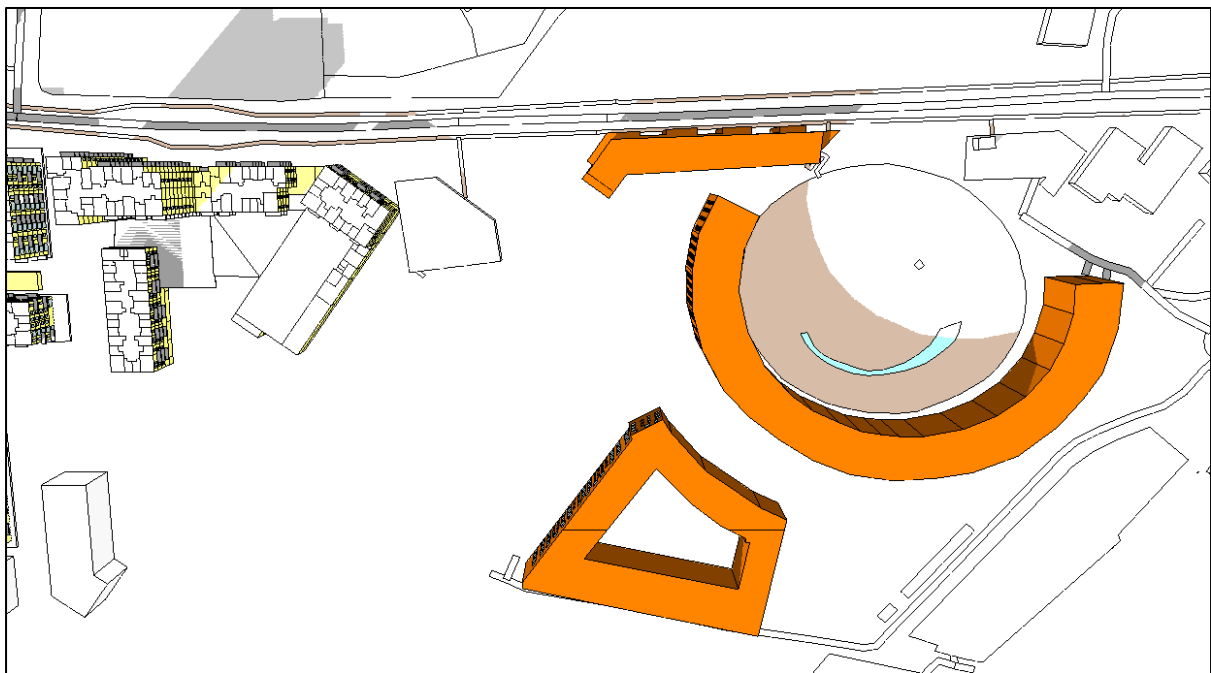


Figure 415. Shadow image on June 21<sup>st</sup> at 18:00 of Park West with Proposed Development (modelling software)



**Aerial View 01 – December 21<sup>st</sup>**

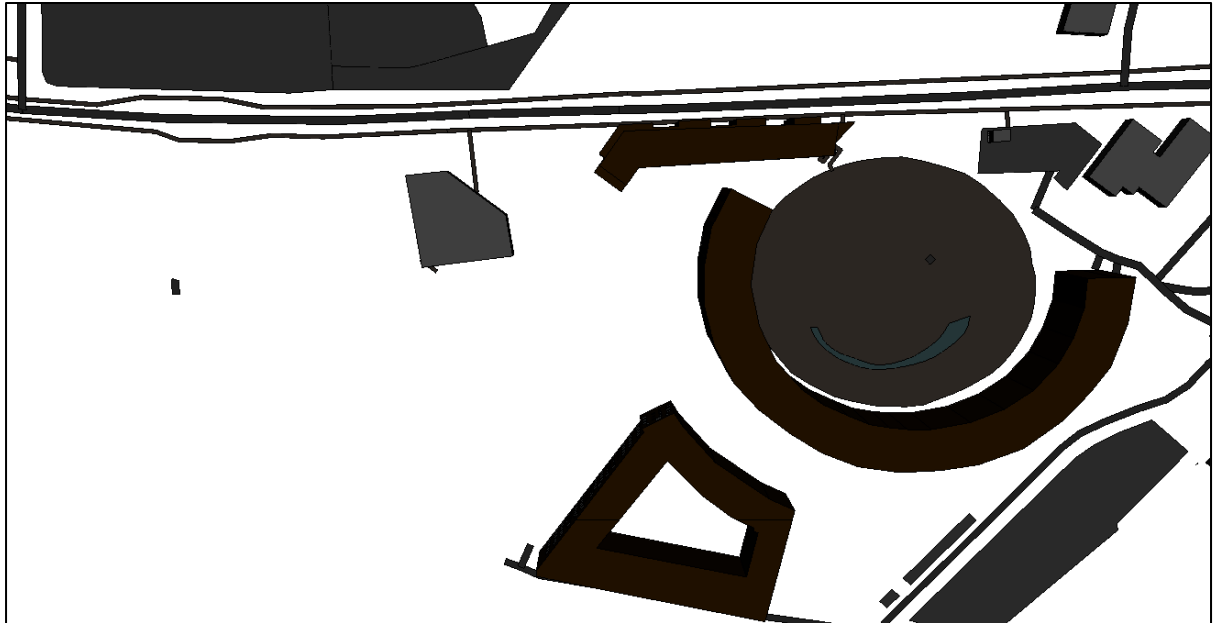


Figure 416. Shadow image on December 21<sup>st</sup> at 08:00 of Park West without Proposed Development (modelling software)

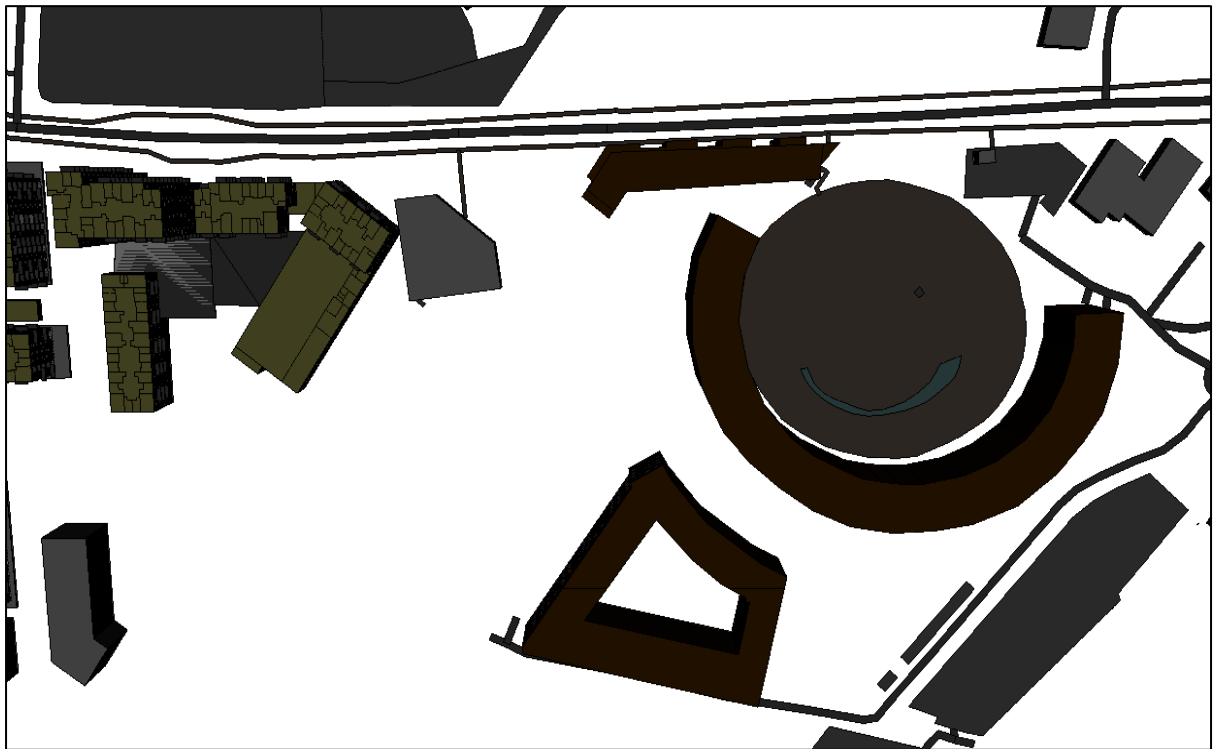


Figure 417. Shadow image on December 21<sup>st</sup> at 08:00 of Park West with Proposed Development (modelling software)

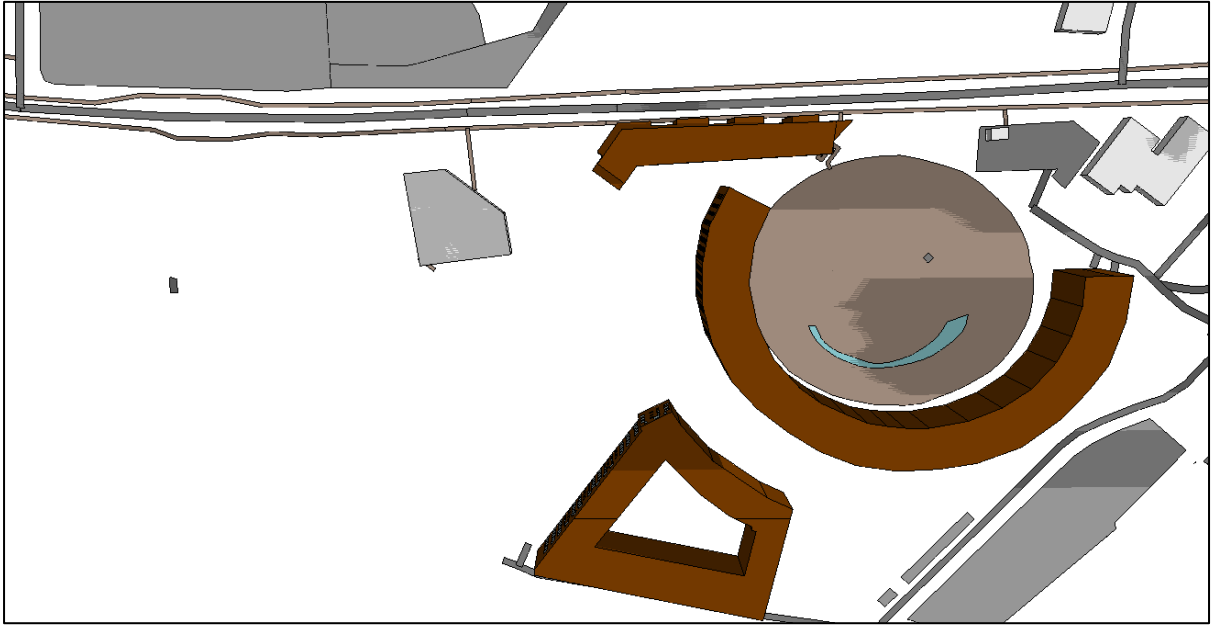


Figure 418. Shadow image on December 21<sup>st</sup> at 10:00 of Park West without Proposed Development (modelling software)

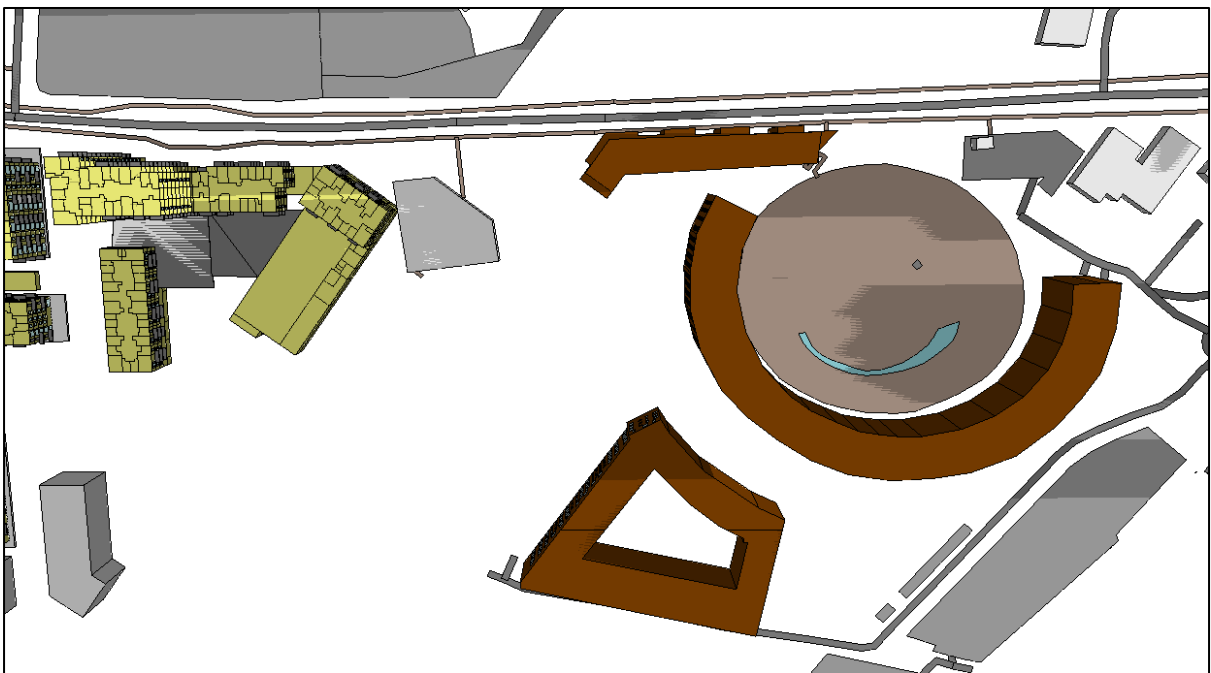


Figure 419. Shadow image on December 21<sup>st</sup> at 10:00 of Park West with Proposed Development (modelling software)

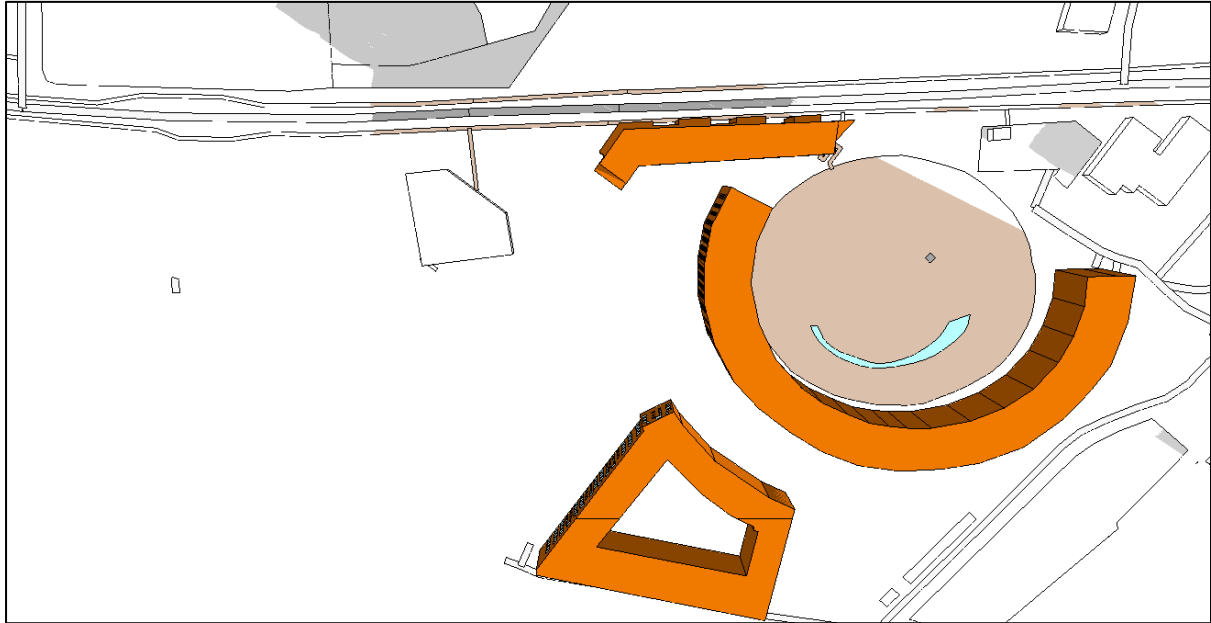


Figure 420. Shadow image on December 21<sup>st</sup> at 12:00 of Park West without Proposed Development (modelling software)

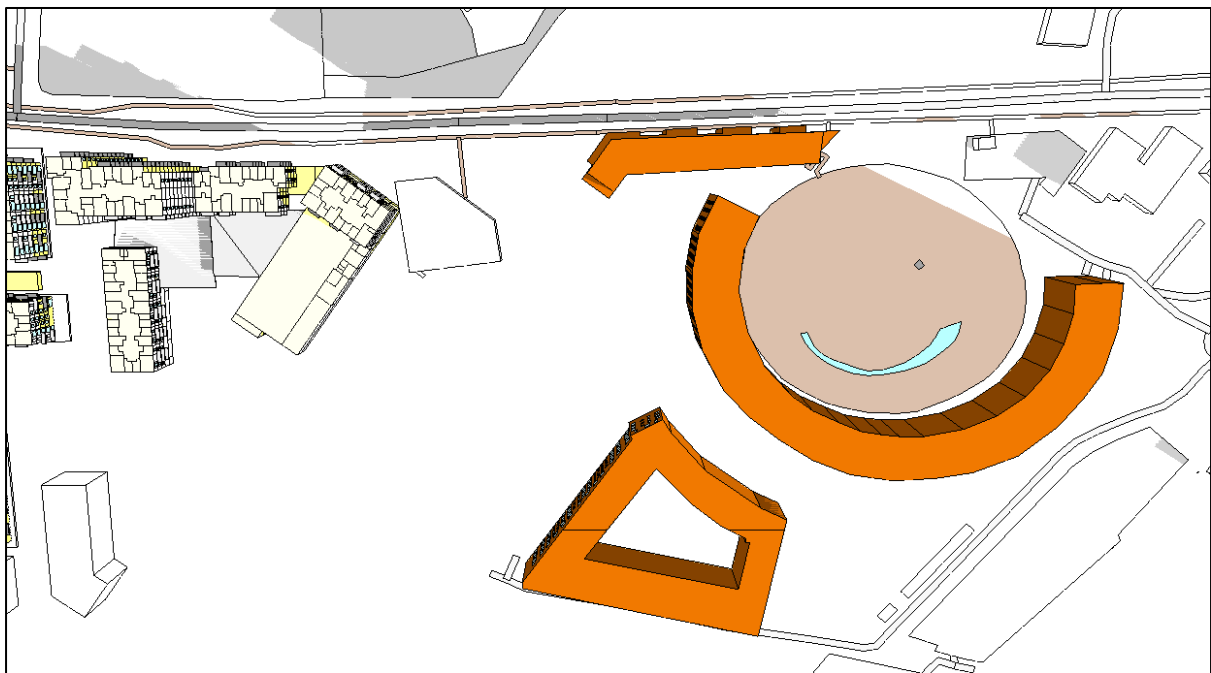


Figure 421. Shadow image on December 21<sup>st</sup> at 12:00 of Park West with Proposed Development (modelling software)

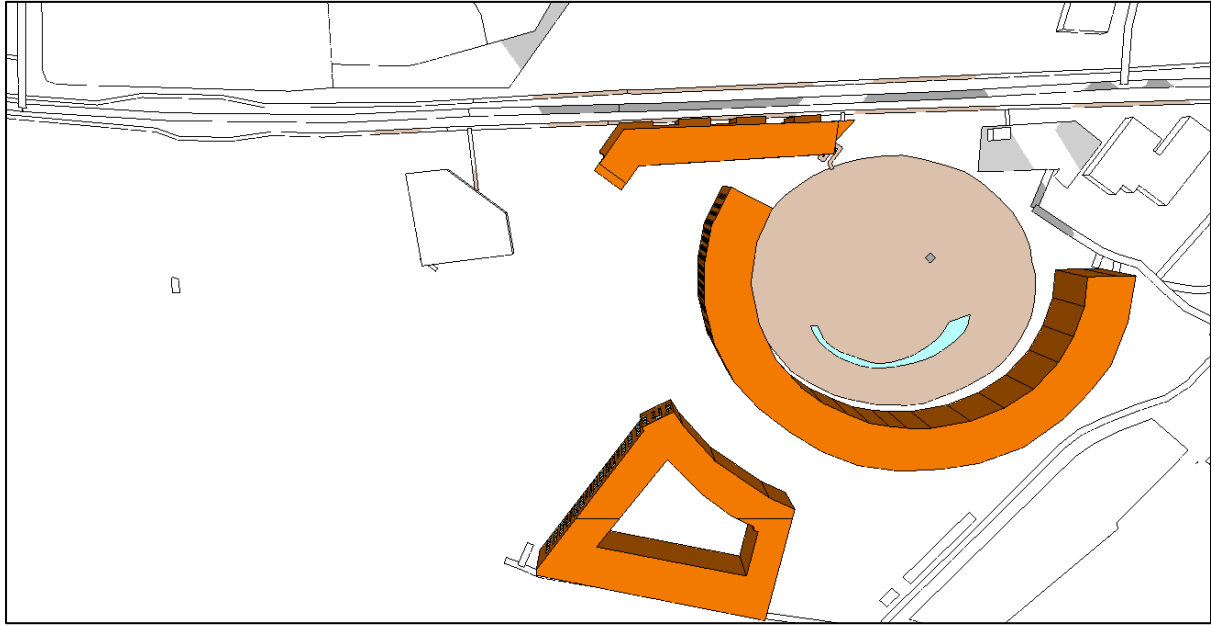


Figure 422. Shadow image on December 21<sup>st</sup> at 14:00 of Park West without Proposed Development (modelling software)

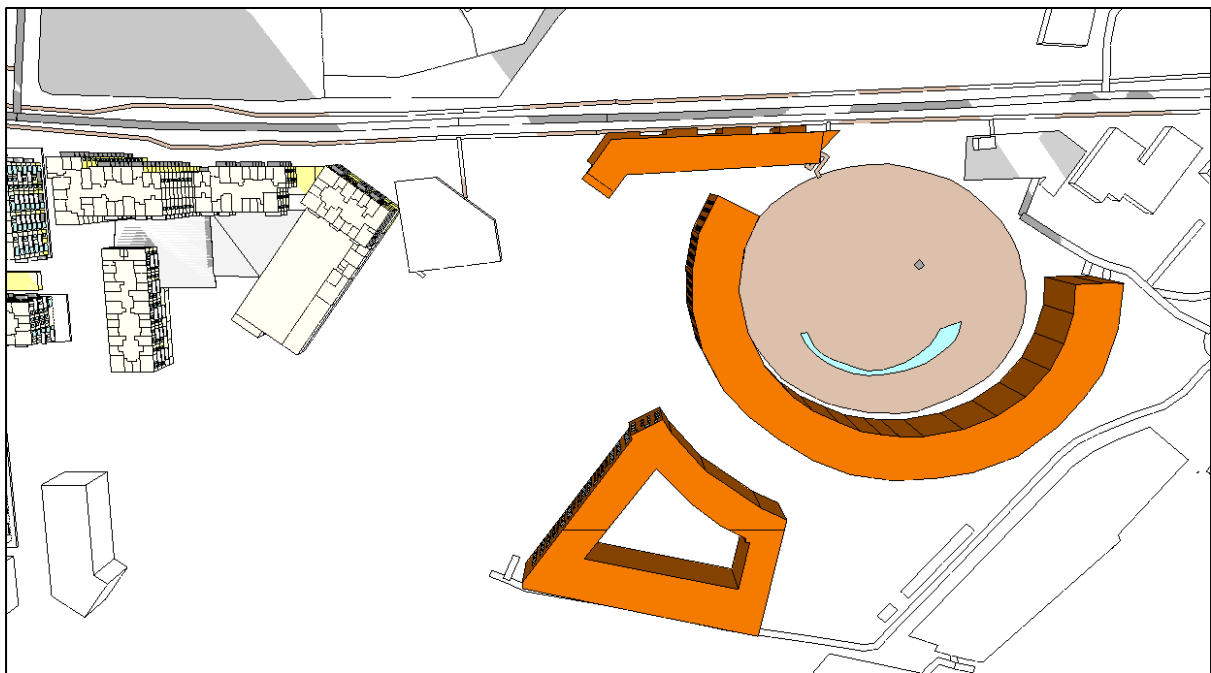


Figure 423. Shadow image on December 21<sup>st</sup> at 14:00 of Park West with Proposed Development (modelling software)

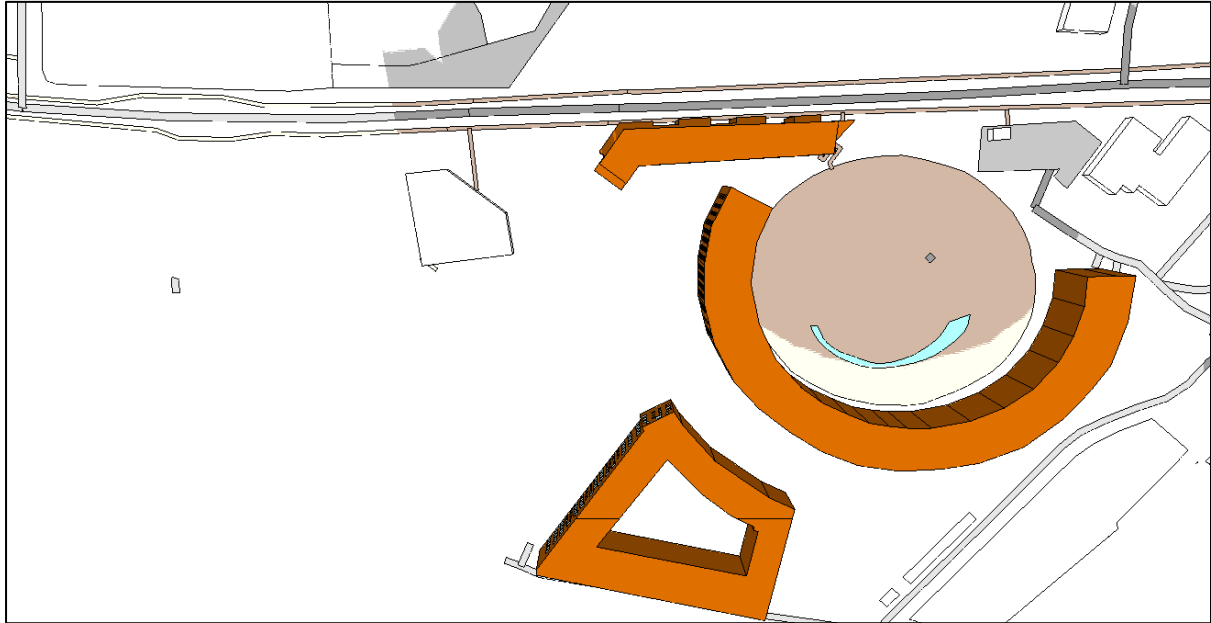


Figure 424. Shadow image on December 21<sup>st</sup> at 16:00 of Park West without Proposed Development (modelling software)

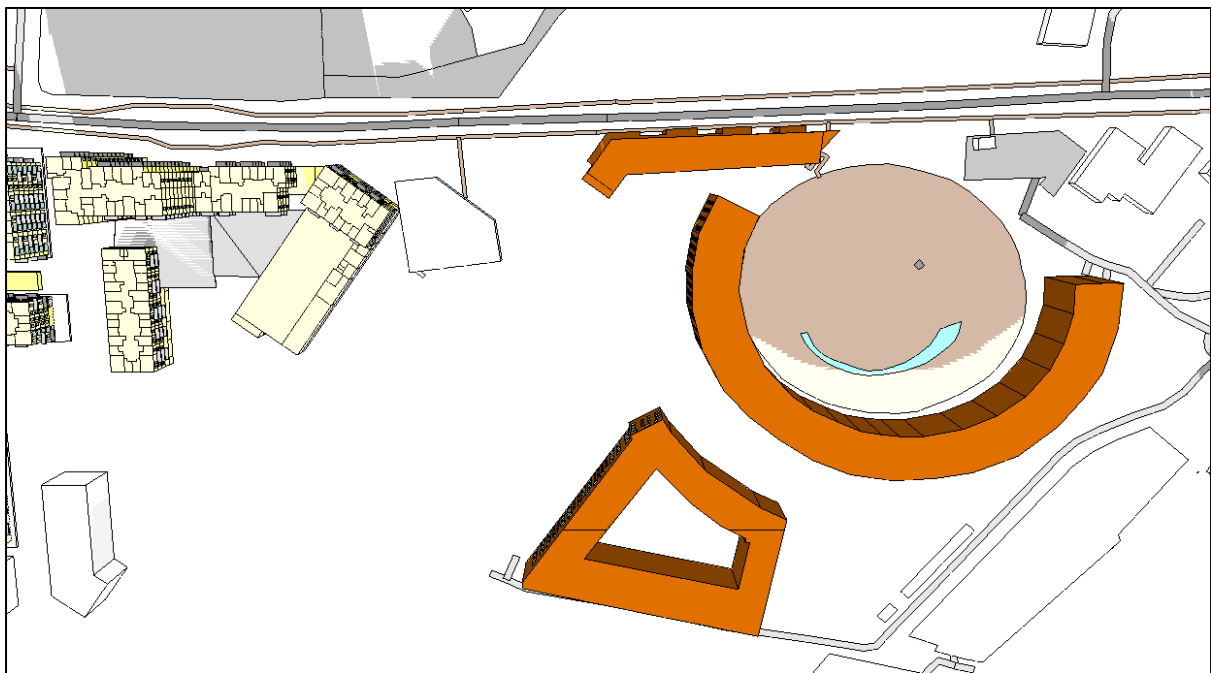


Figure 425. Shadow image on December 21<sup>st</sup> at 16:00 of Park West with Proposed Development (modelling software)

**Aerial View 02 – March 21<sup>st</sup>**

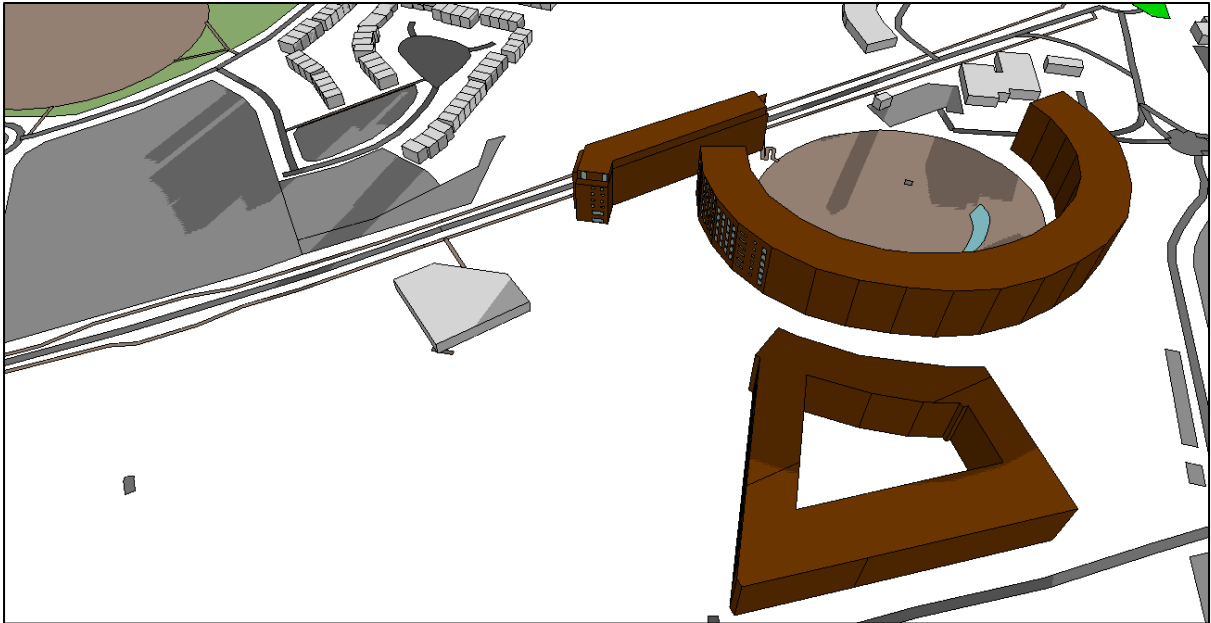


Figure 426. Shadow image on March 21<sup>st</sup> at 08:00 of Park West without Proposed Development (modelling software)

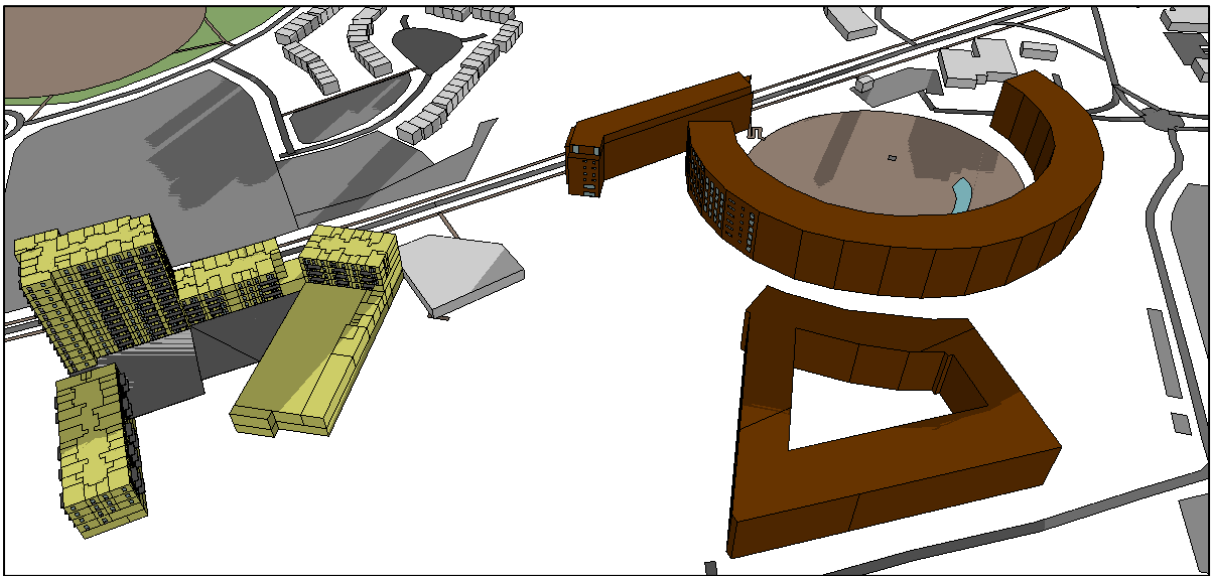


Figure 427. Shadow image on March 21<sup>st</sup> at 08:00 of Park West with Proposed Development (modelling software)



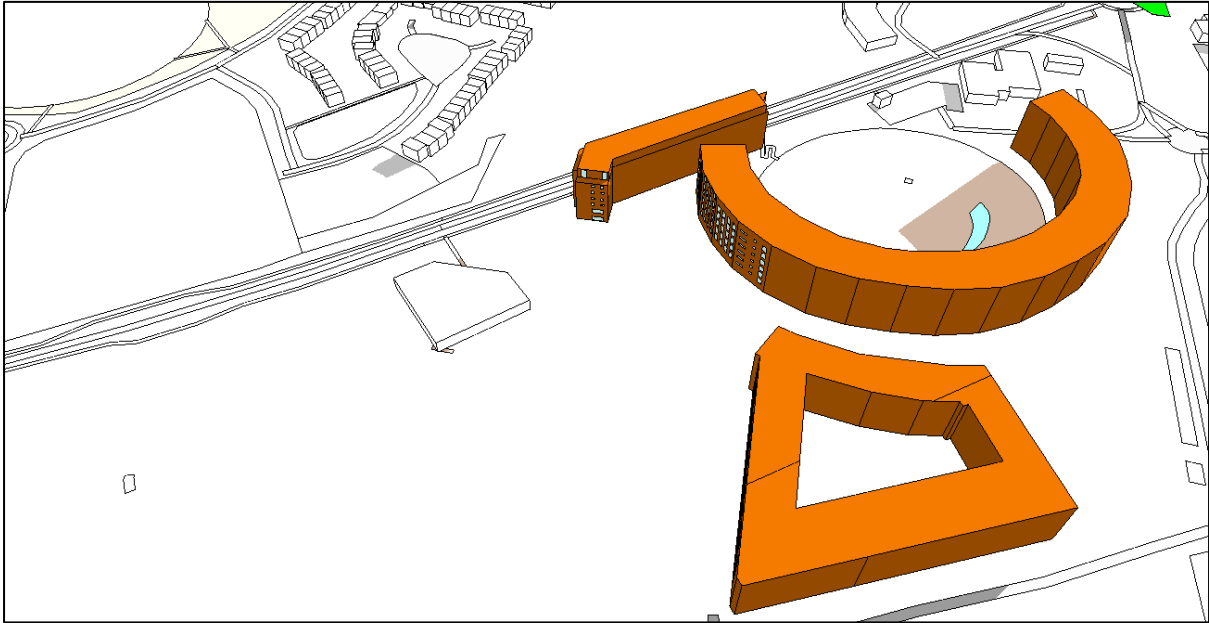


Figure 428. Shadow image on March 21<sup>st</sup> at 10:00 of Park West without Proposed Development (modelling software)

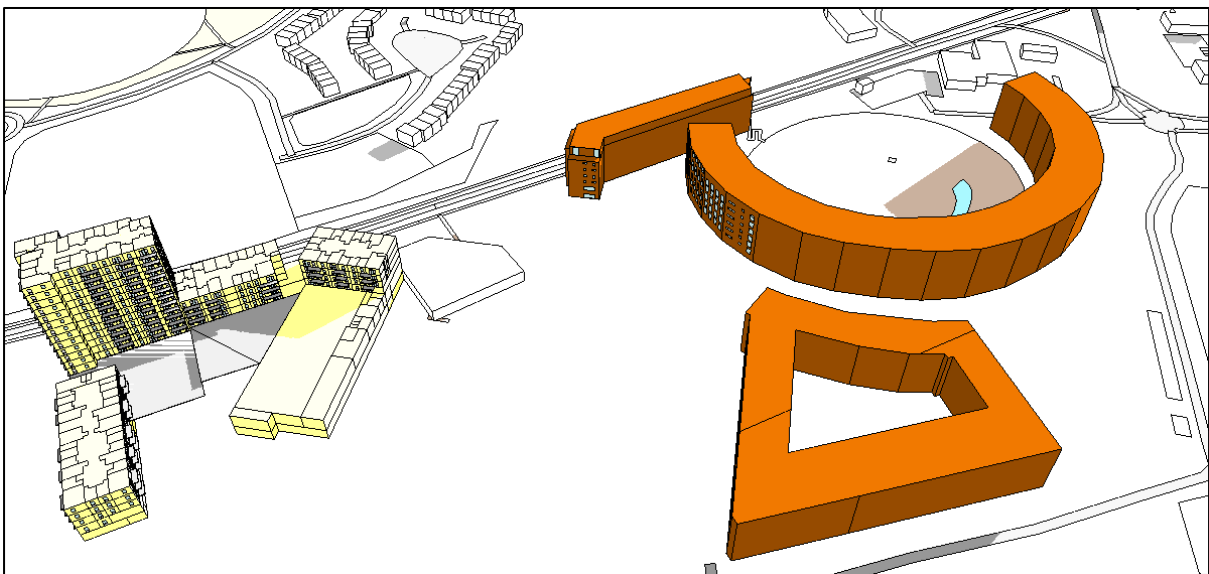


Figure 429. Shadow image on March 21<sup>st</sup> at 10:00 of Park West with Proposed Development (modelling software)

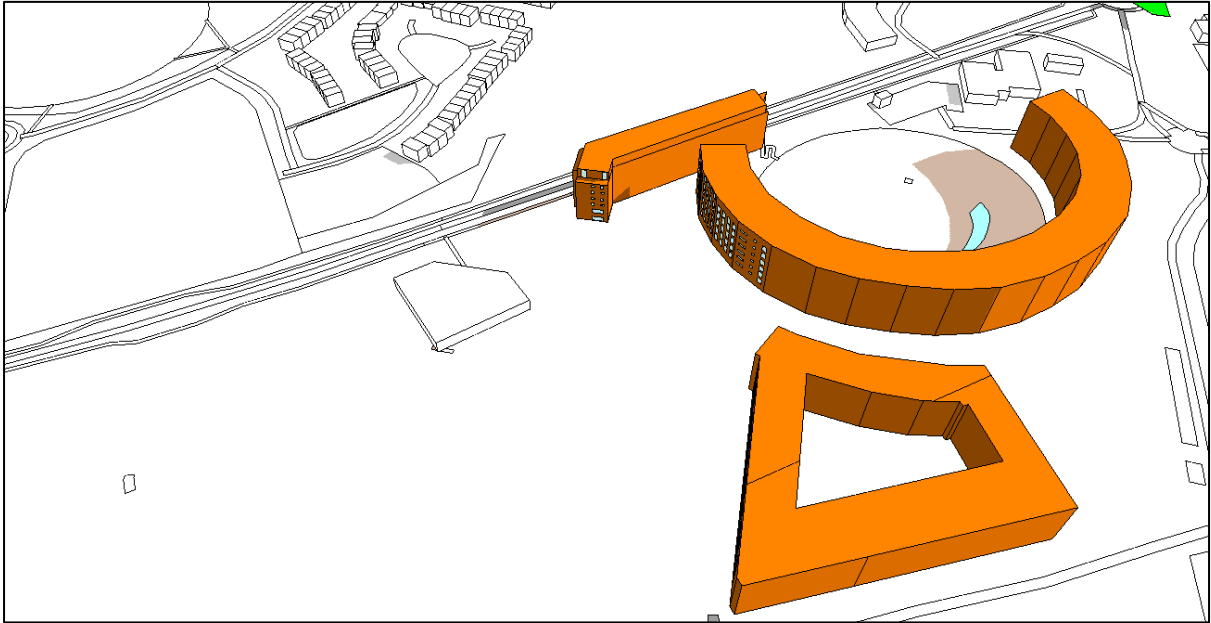


Figure 430. Shadow image on March 21<sup>st</sup> at 12:00 of Park West without Proposed Development (modelling software)

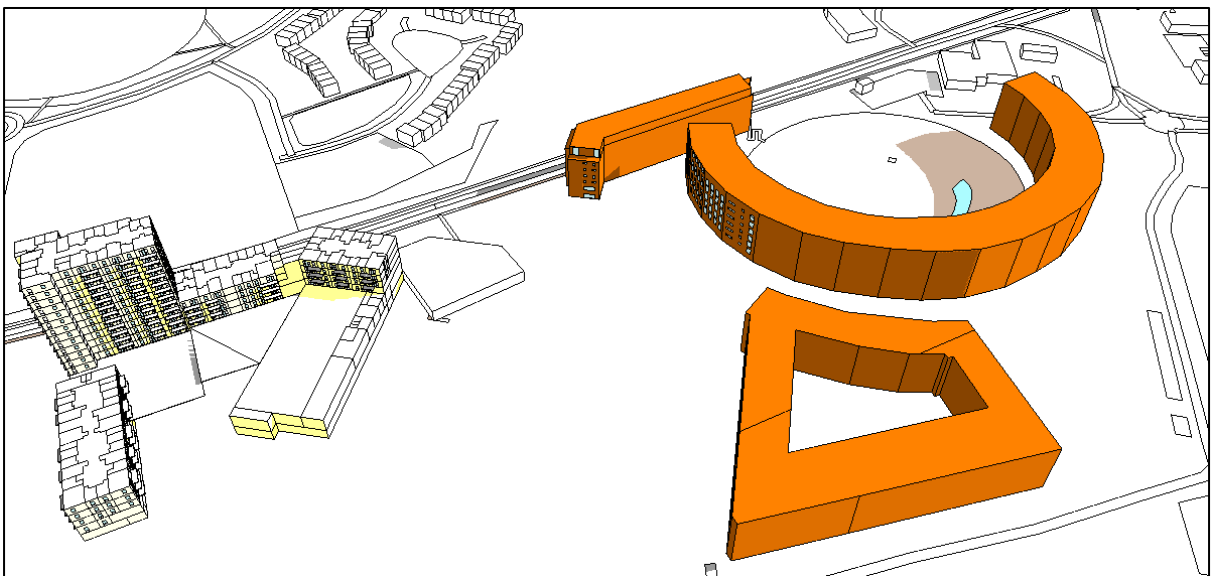


Figure 431. Shadow image on March 21<sup>st</sup> at 12:00 of Park West with Proposed Development (modelling software)

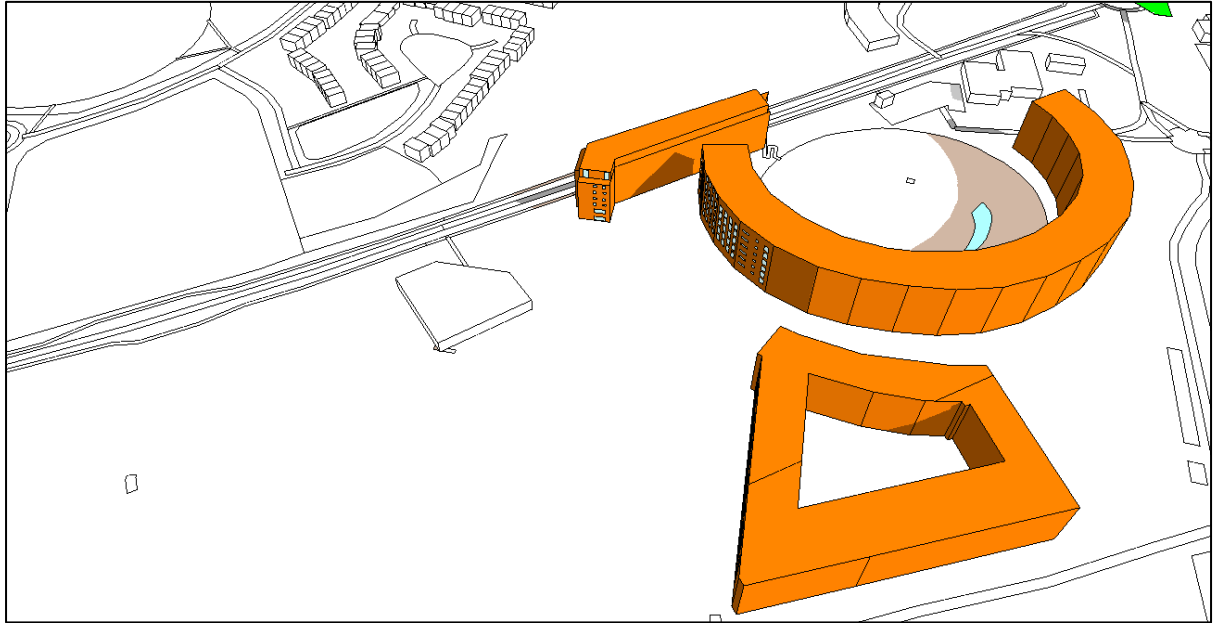


Figure 432. Shadow image on March 21<sup>st</sup> at 14:00 of Park West without Proposed Development (modelling software)

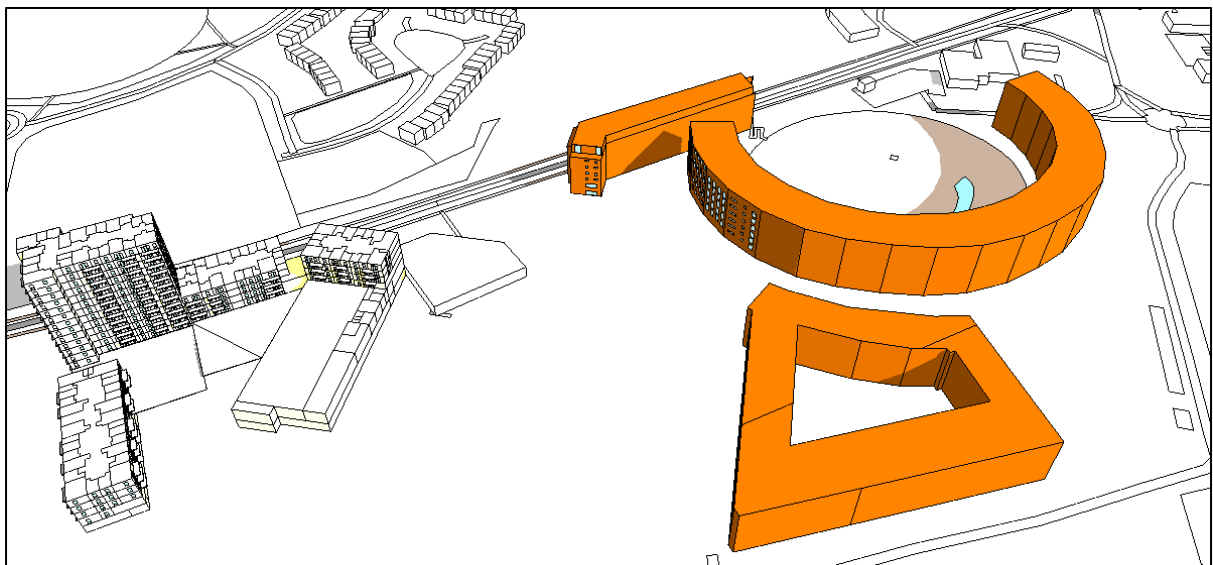


Figure 433. Shadow image on March 21<sup>st</sup> at 14:00 of Park West with Proposed Development (modelling software)

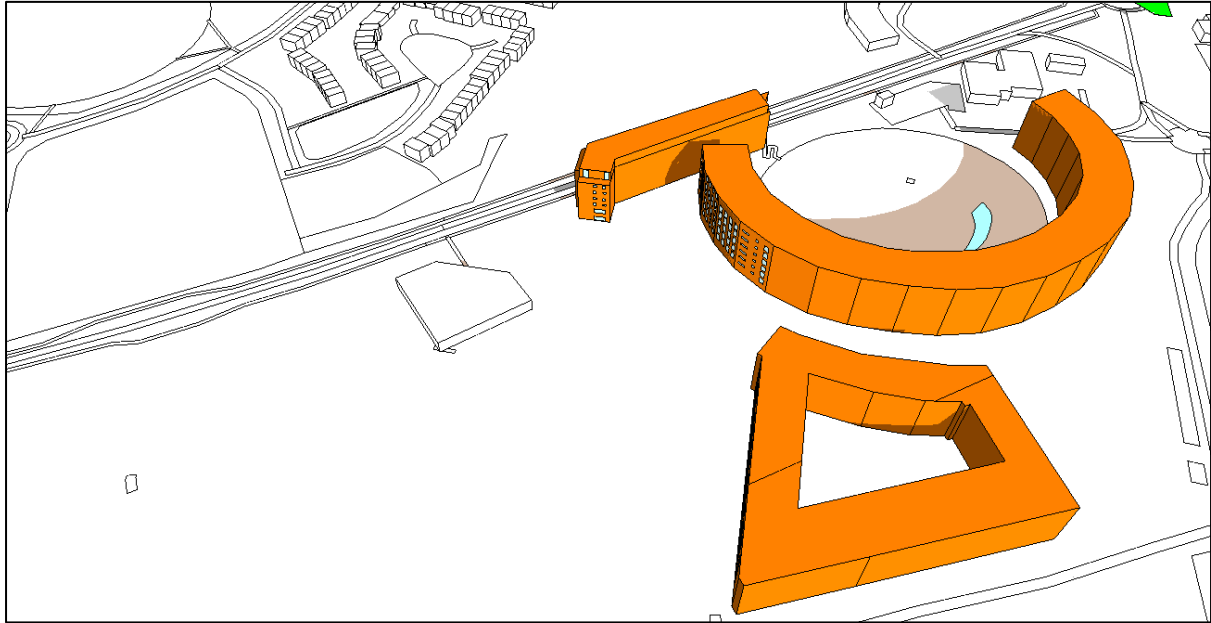


Figure 434. Shadow image on March 21<sup>st</sup> at 16:00 of Park West without Proposed Development (modelling software)

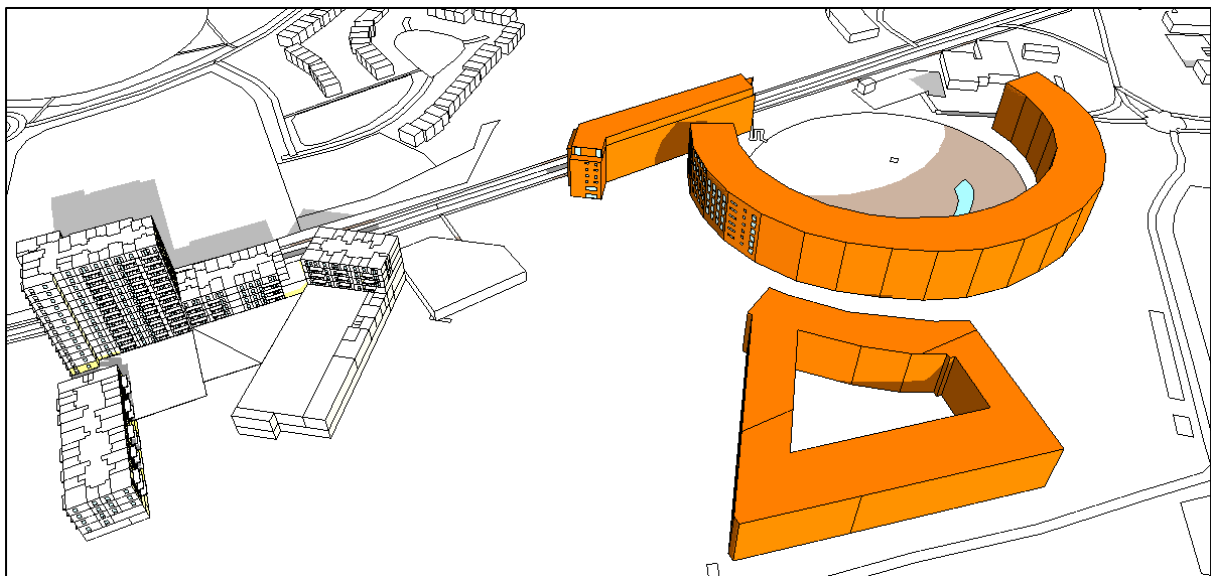


Figure 435. Shadow image on March 21<sup>st</sup> at 16:00 of Park West with Proposed Development (modelling software)

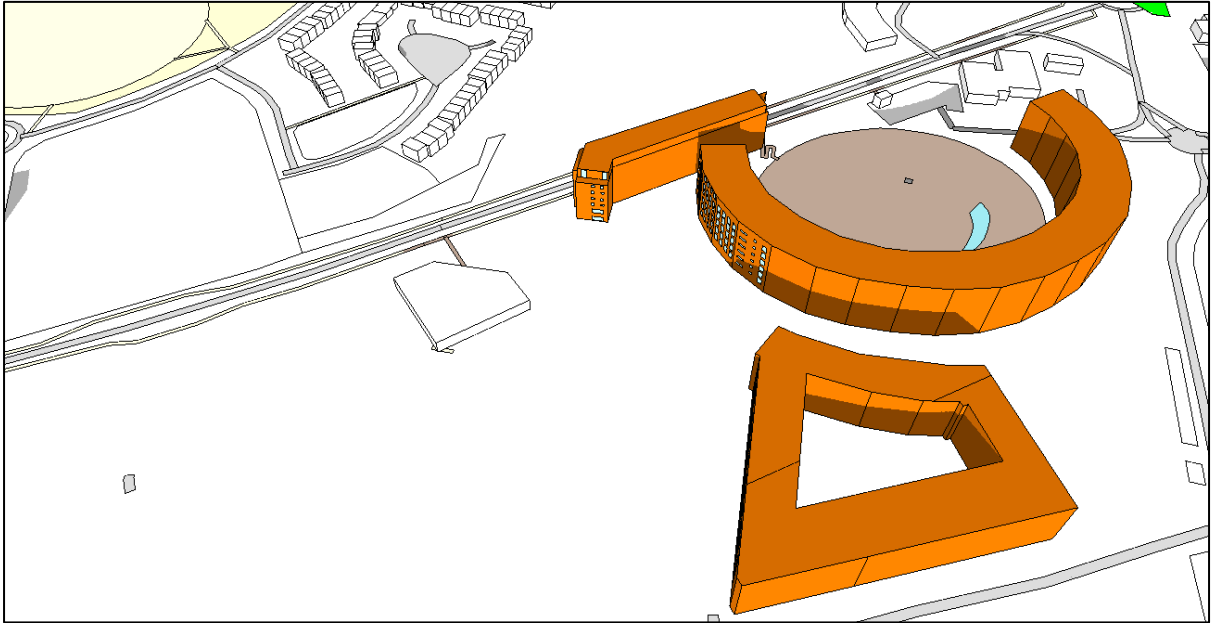


Figure 436. Shadow image on March 21<sup>st</sup> at 18:00 of Park West without Proposed Development (modelling software)

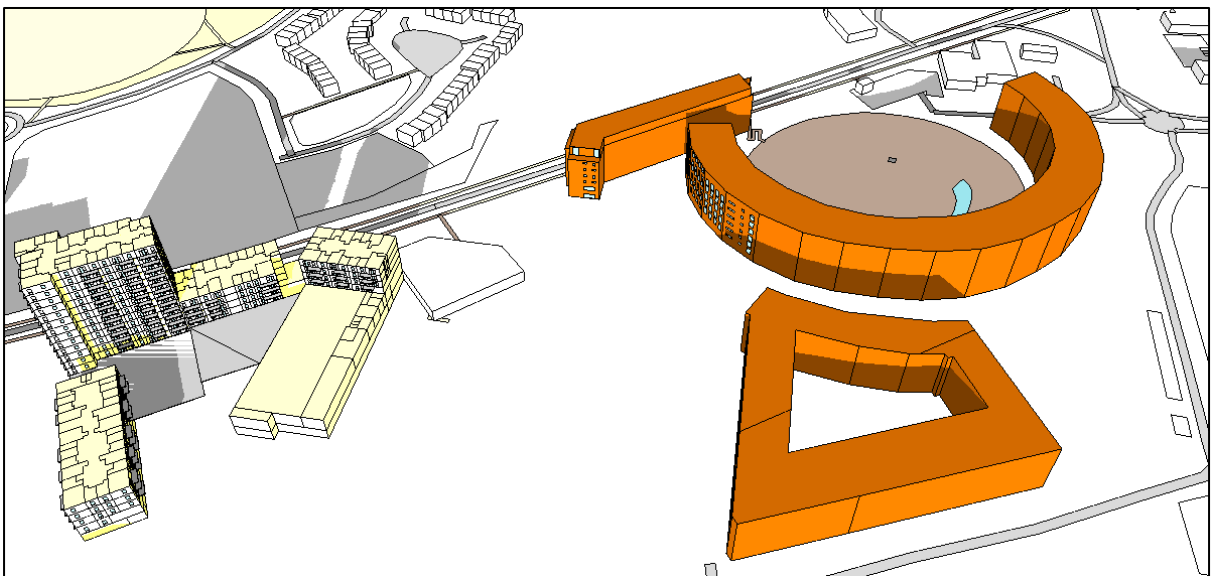


Figure 437. Shadow image on March 21<sup>st</sup> at 18:00 of Park West with Proposed Development (modelling software)

Aerial View 02 – June 21<sup>st</sup>

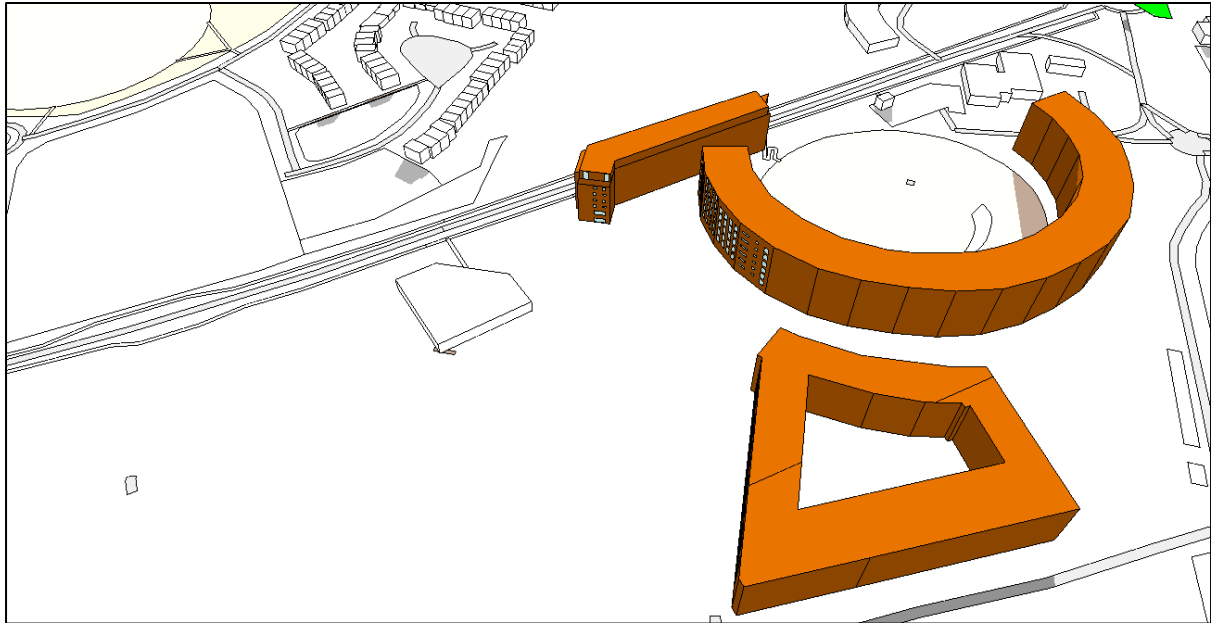


Figure 438. Shadow image on June 21<sup>st</sup> at 08:00 of Park West without Proposed Development (modelling software)

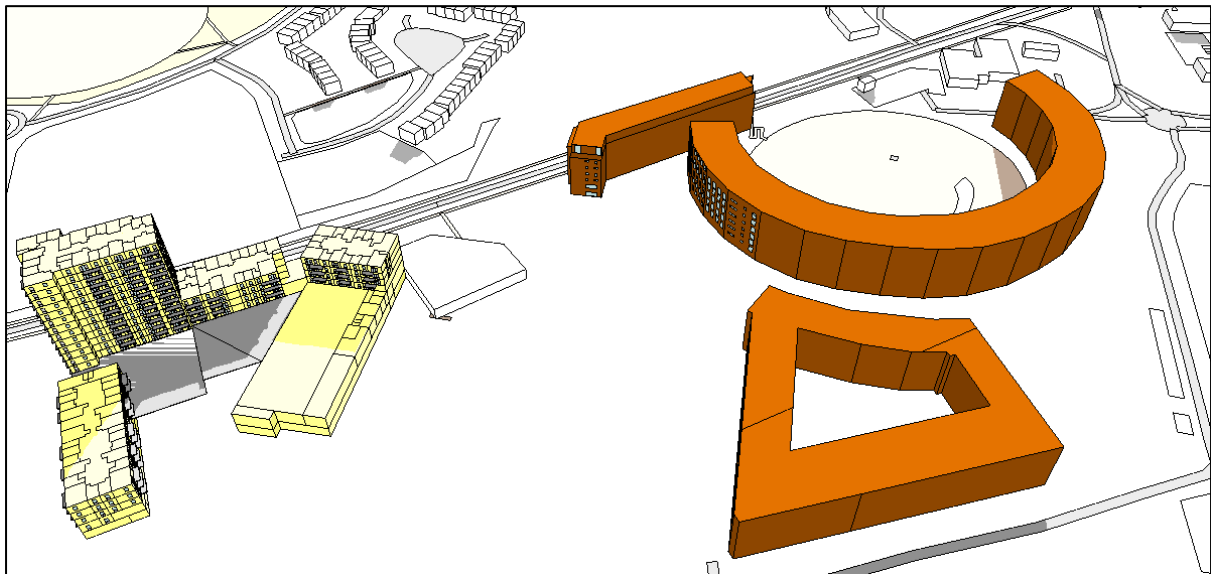


Figure 439. Shadow image on June 21<sup>st</sup> at 08:00 of Park West with Proposed Development (modelling software)



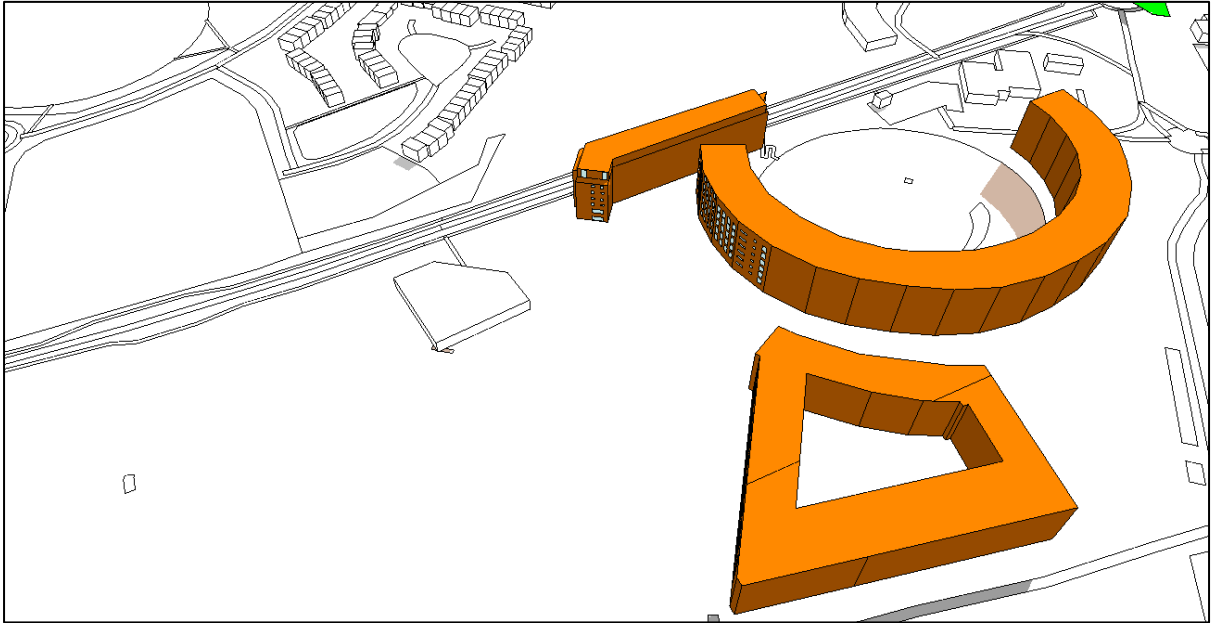


Figure 440. Shadow image on June 21<sup>st</sup> at 10:00 of Park West without Proposed Development (modelling software)

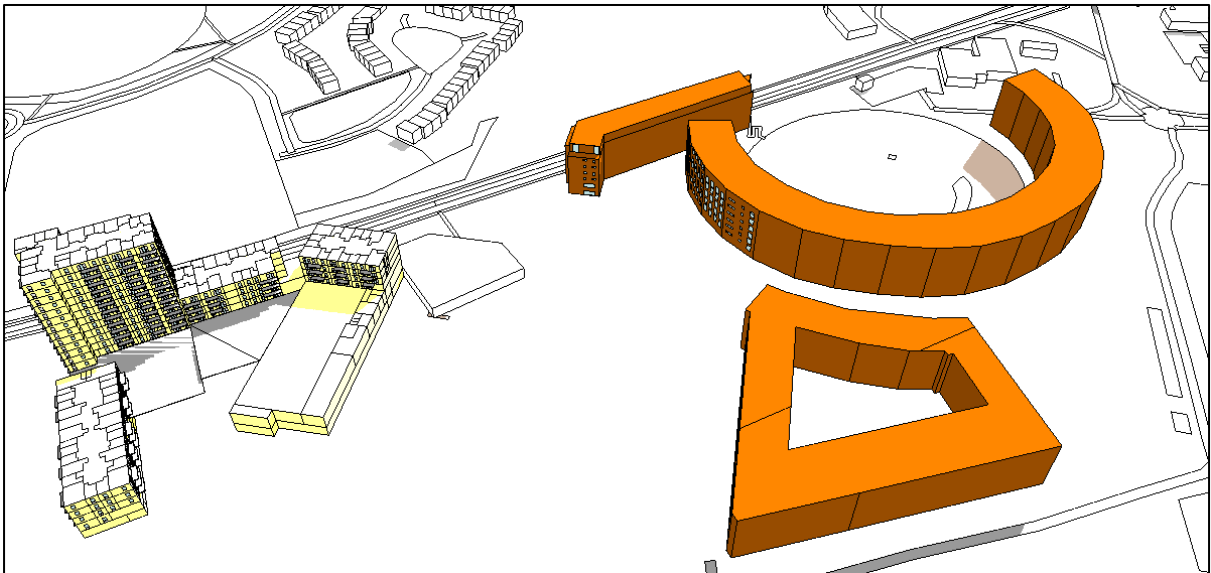


Figure 441. Shadow image on June 21<sup>st</sup> at 10:00 of Park West with Proposed Development (modelling software)

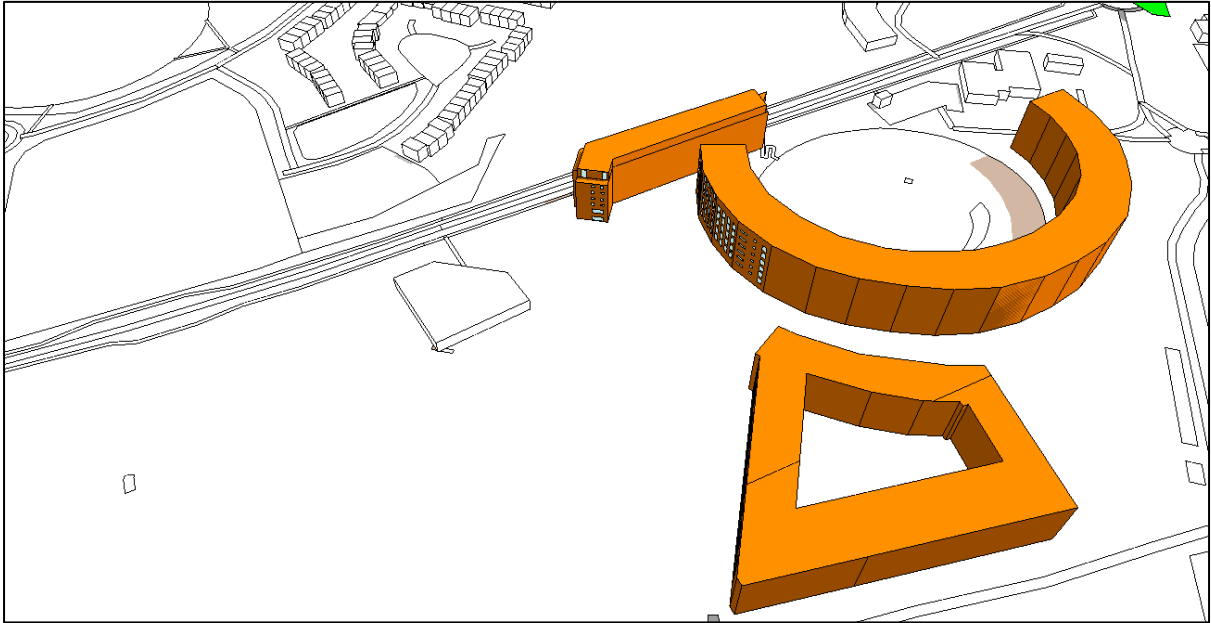


Figure 442. Shadow image on June 21<sup>st</sup> at 12:00 of Park West without Proposed Development (modelling software)

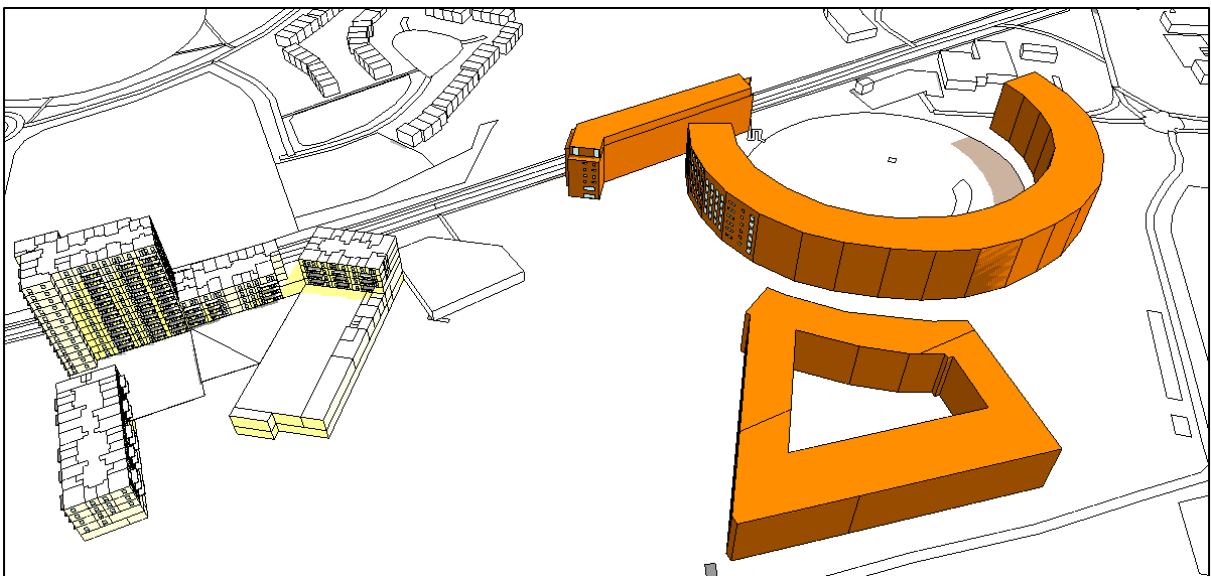


Figure 443. Shadow image on June 21<sup>st</sup> at 12:00 of Park West with Proposed Development (modelling software)

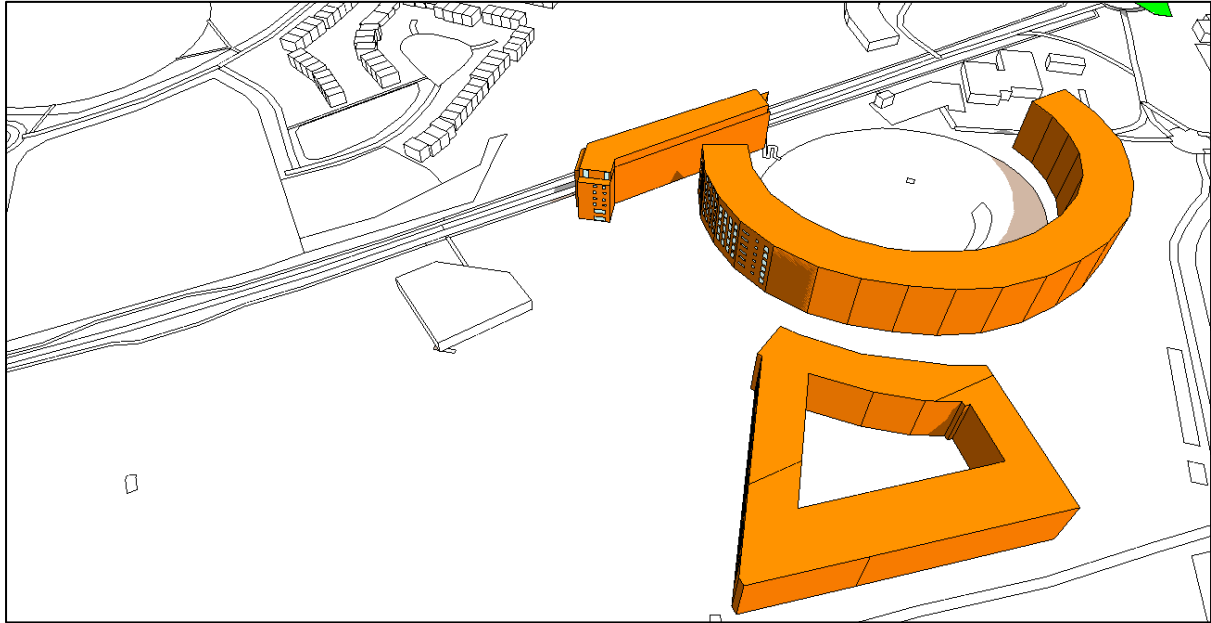


Figure 444. Shadow image on June 21<sup>st</sup> at 14:00 of Park West without Proposed Development (modelling software)

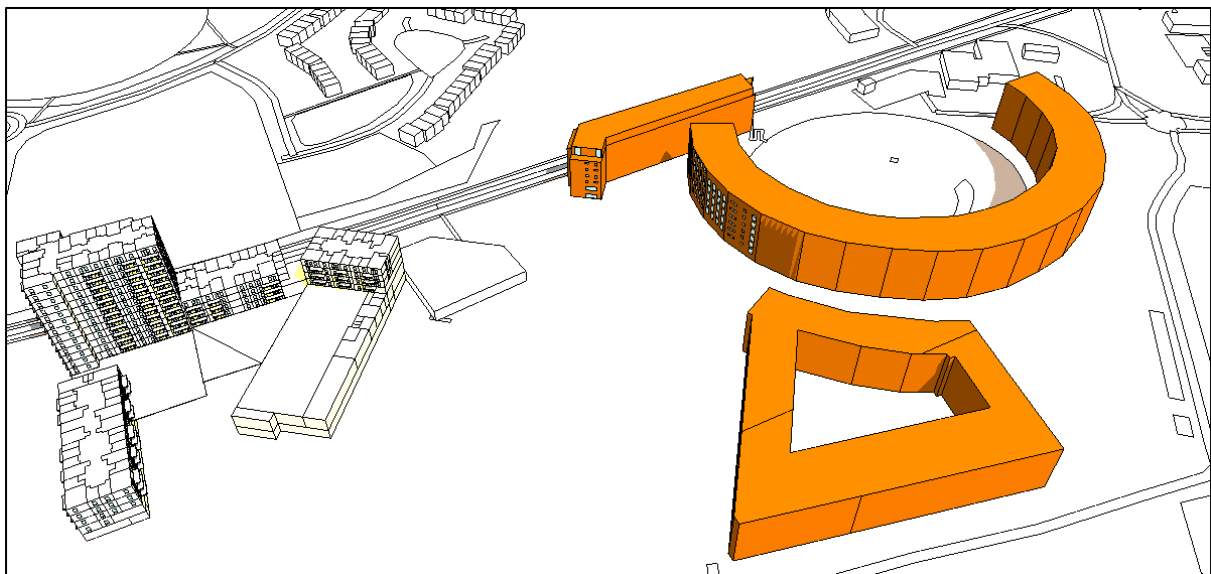


Figure 445. Shadow image on June 21<sup>st</sup> at 14:00 of Park West with Proposed Development (modelling software)

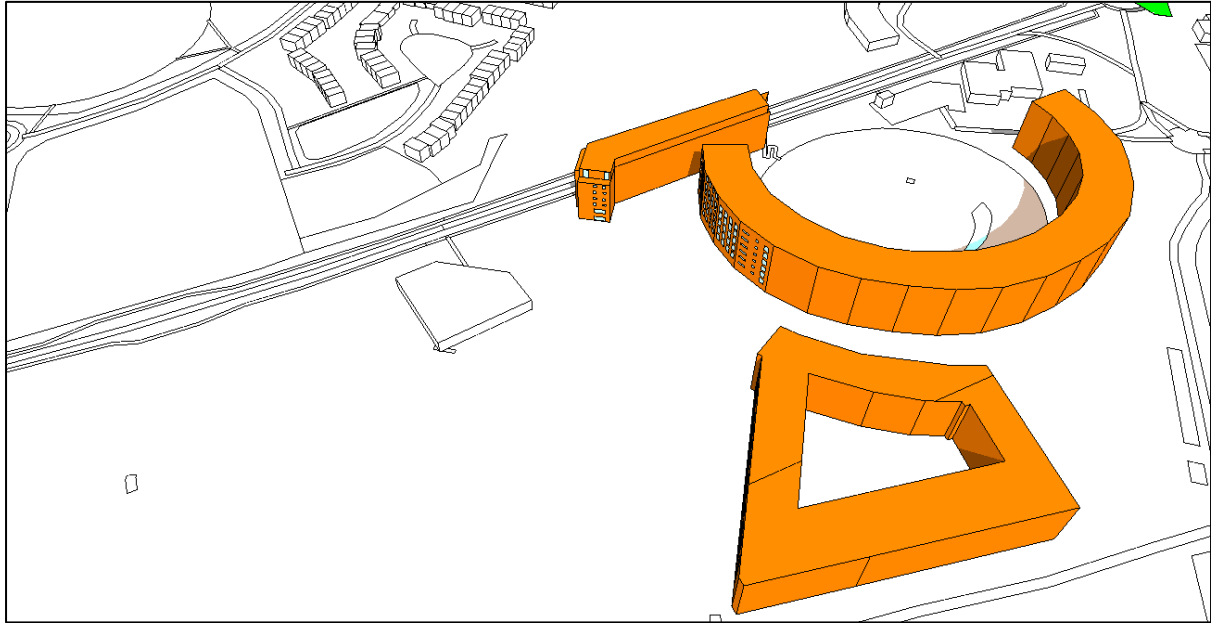


Figure 446. Shadow image on June 21<sup>st</sup> at 16:00 of Park West without Proposed Development (modelling software)

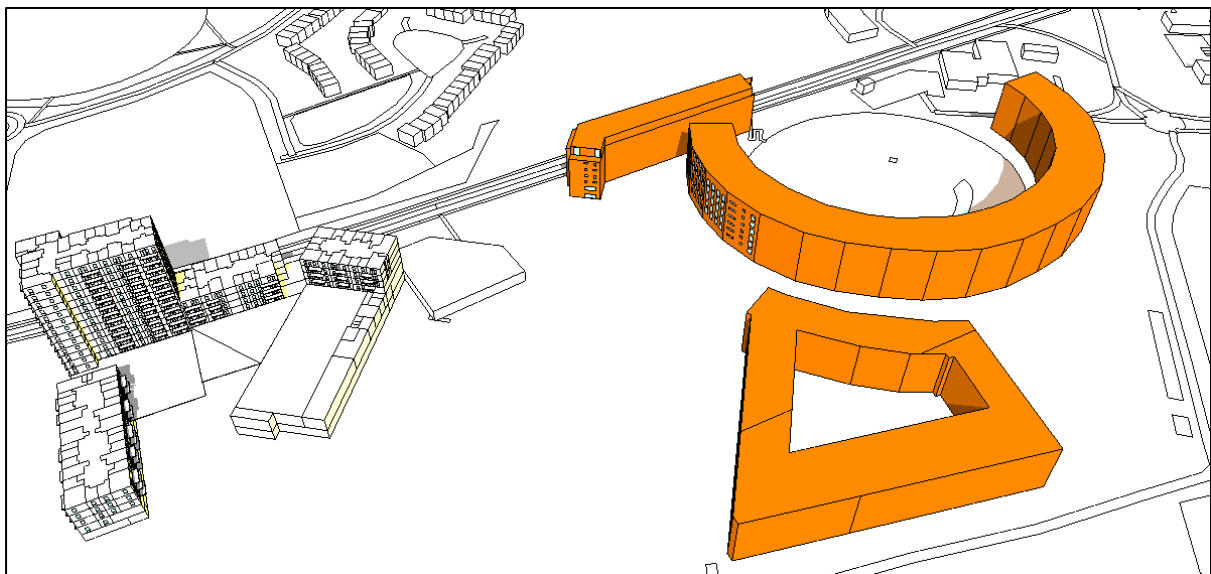


Figure 447. Shadow image on June 21<sup>st</sup> at 16:00 of Park West with Proposed Development (modelling software)

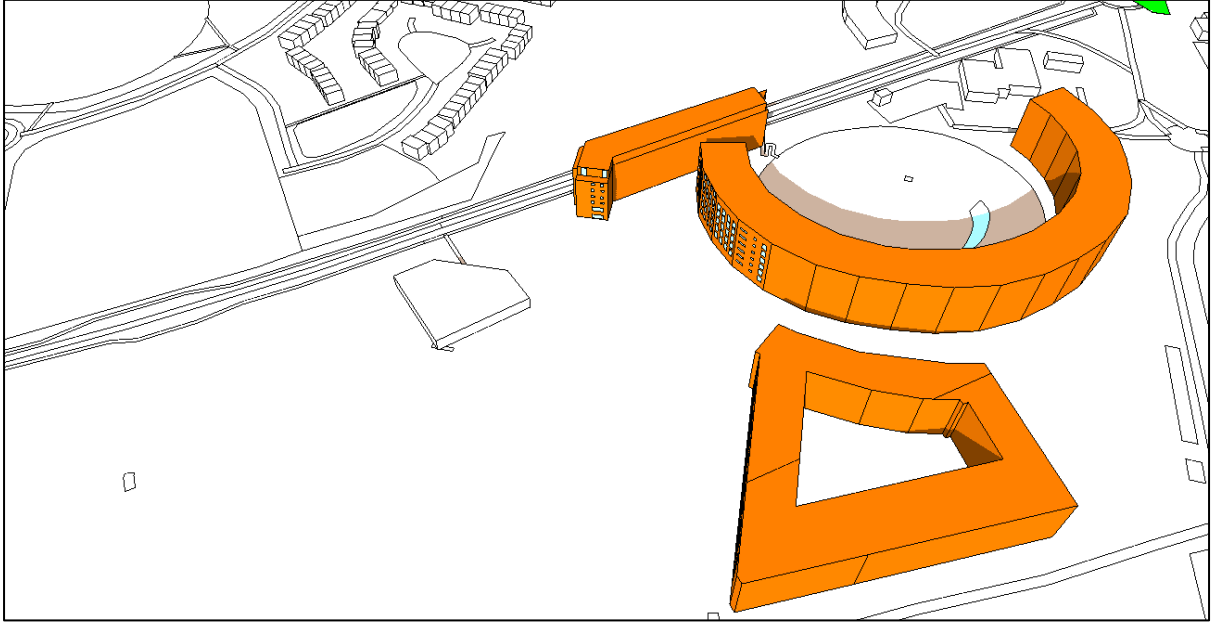


Figure 448. Shadow image on June 21<sup>st</sup> at 18:00 of Park West without Proposed Development (modelling software)

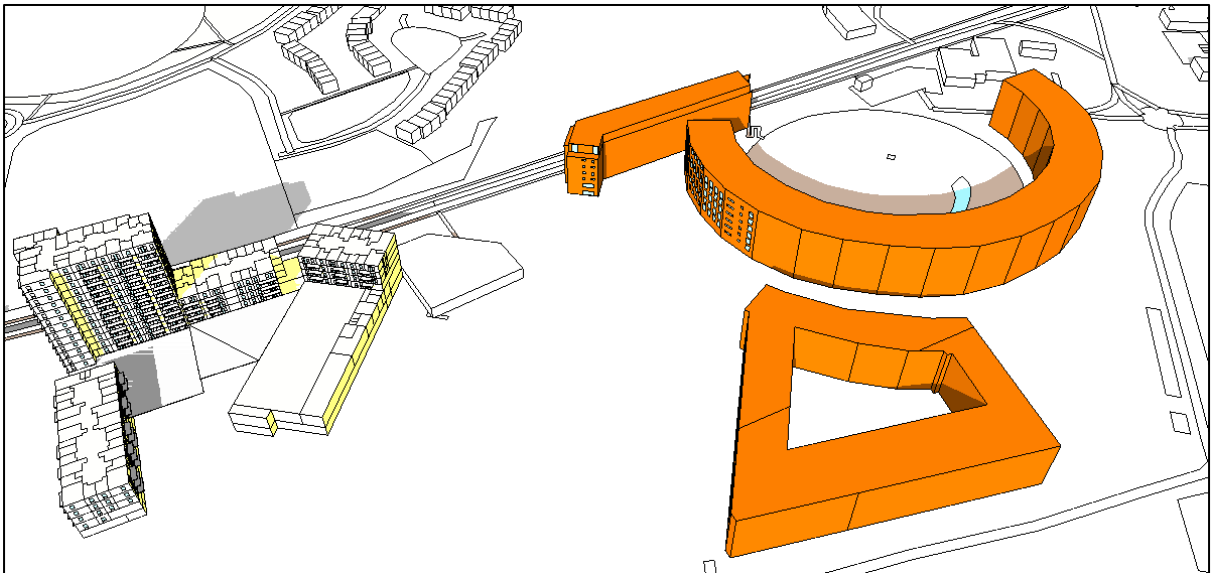


Figure 449. Shadow image on June 21<sup>st</sup> at 18:00 of Park West with Proposed Development (modelling software)

Aerial View 02 – December 21<sup>st</sup>

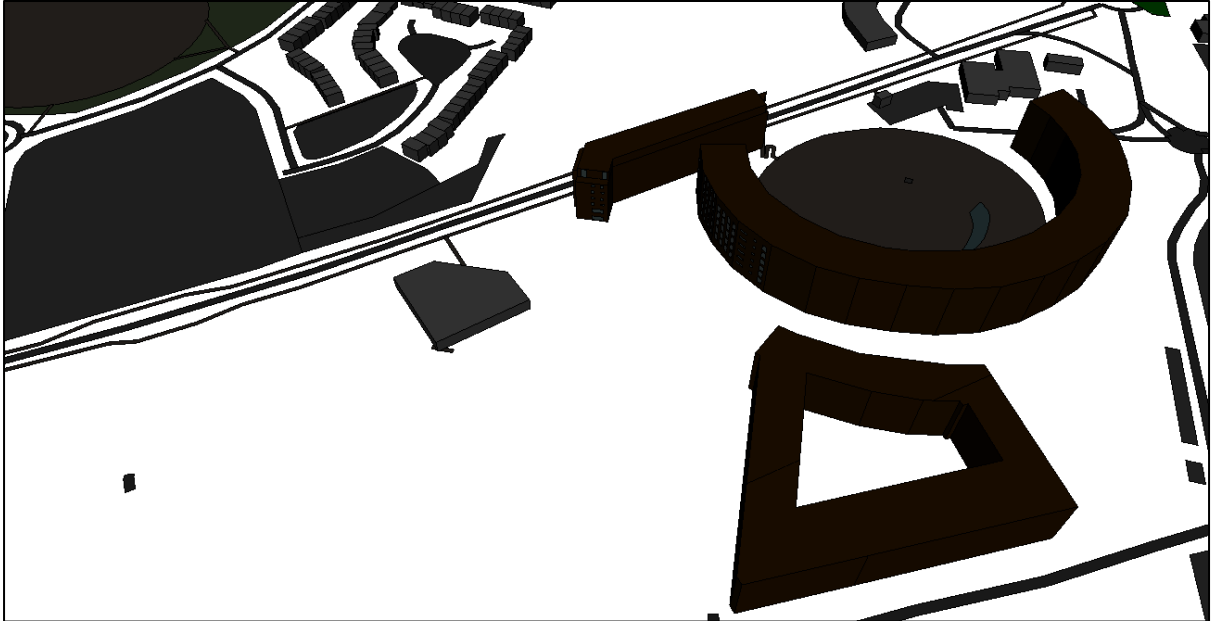


Figure 450. Shadow image on December 21<sup>st</sup> at 08:00 of Park West without Proposed Development (modelling software)



Figure 451. Shadow image on December 21<sup>st</sup> at 08:00 of Park West with Proposed Development (modelling software)



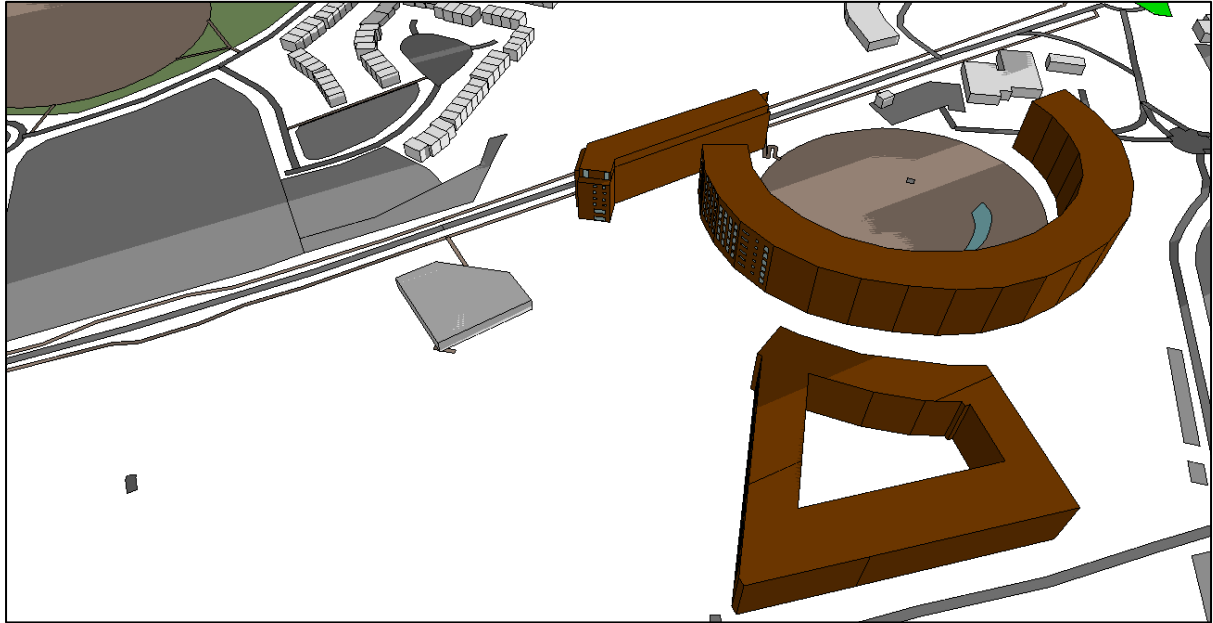


Figure 452. Shadow image on December 21<sup>st</sup> at 10:00 of Park West without Proposed Development (modelling software)

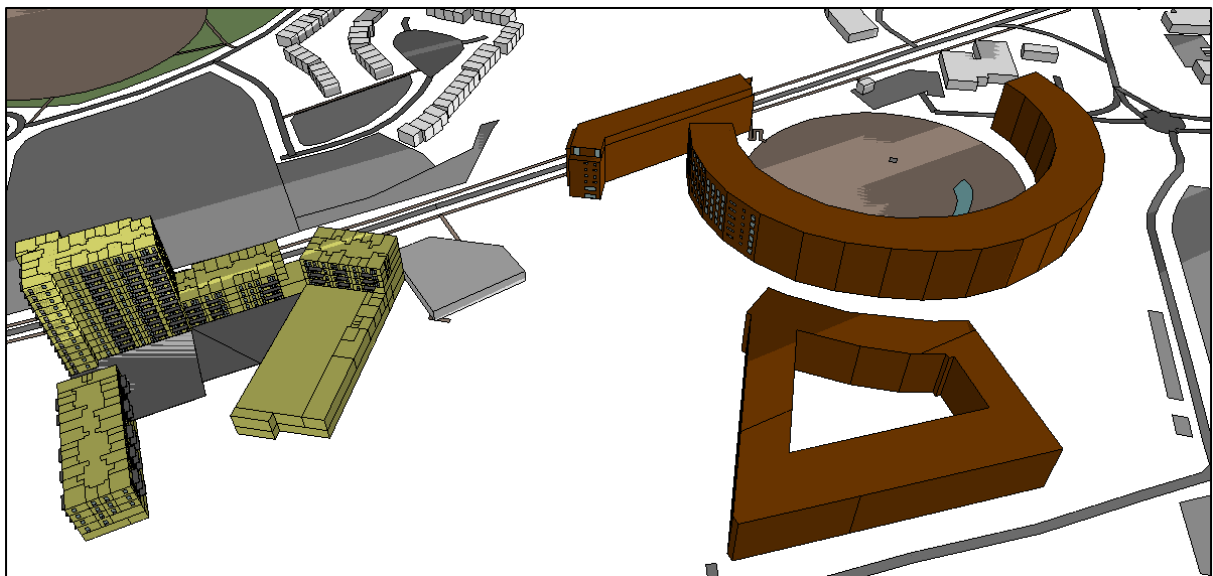


Figure 453. Shadow image on December 21<sup>st</sup> at 10:00 of Park West with Proposed Development (modelling software)

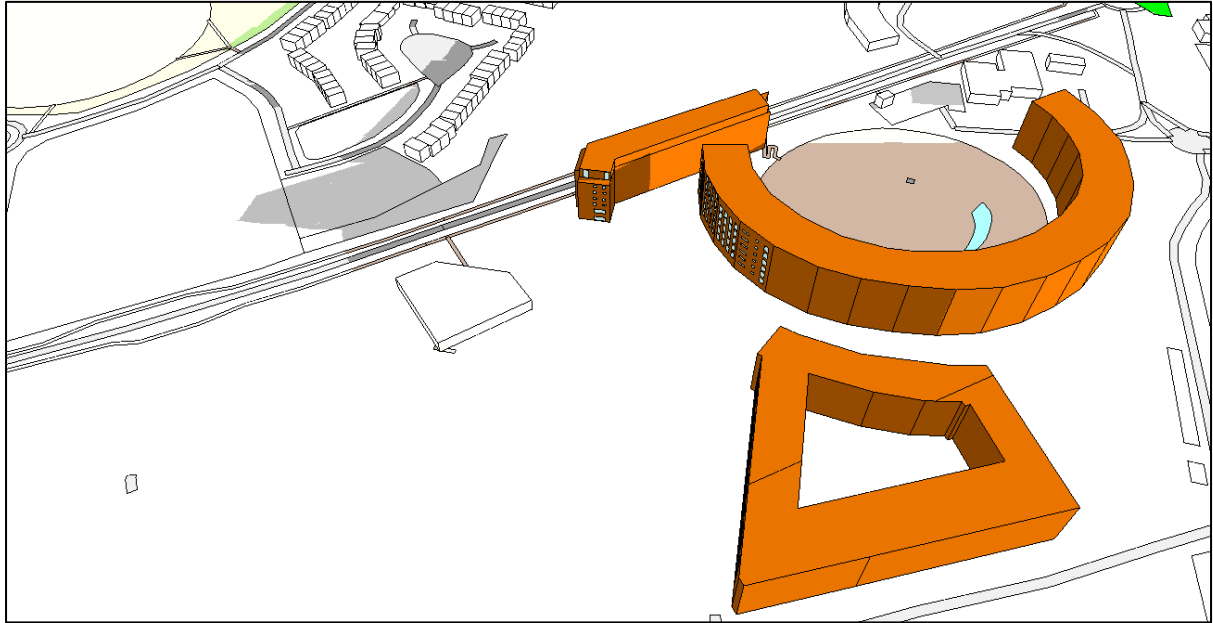


Figure 454. Shadow image on December 21<sup>st</sup> at 12:00 of Park West without Proposed Development (modelling software)

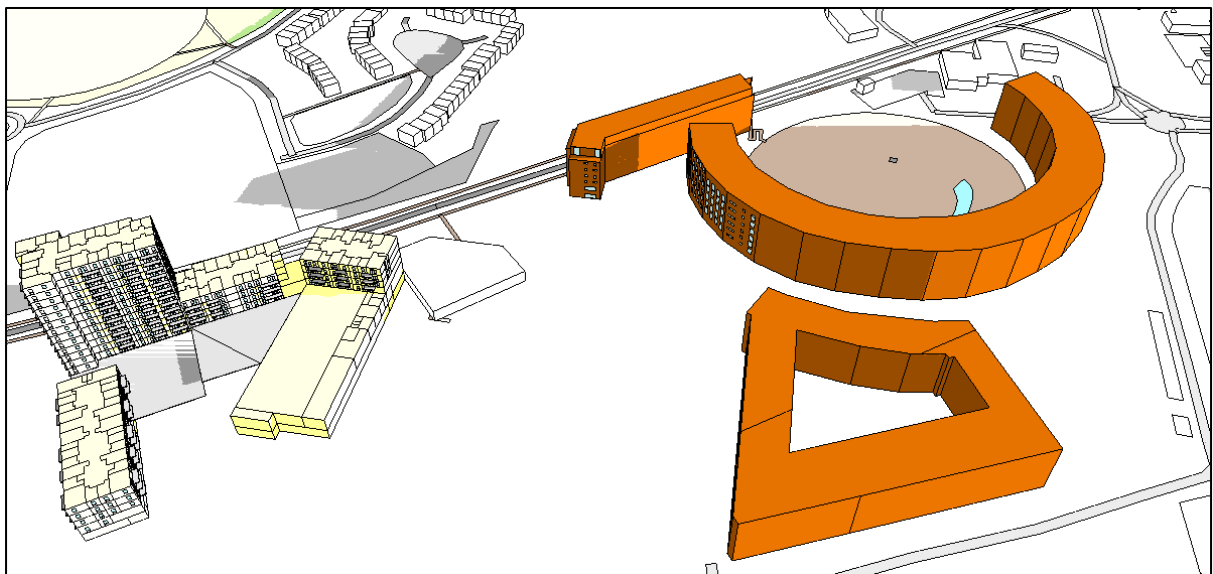


Figure 455. Shadow image on December 21<sup>st</sup> at 12:00 of Park West with Proposed Development (modelling software)

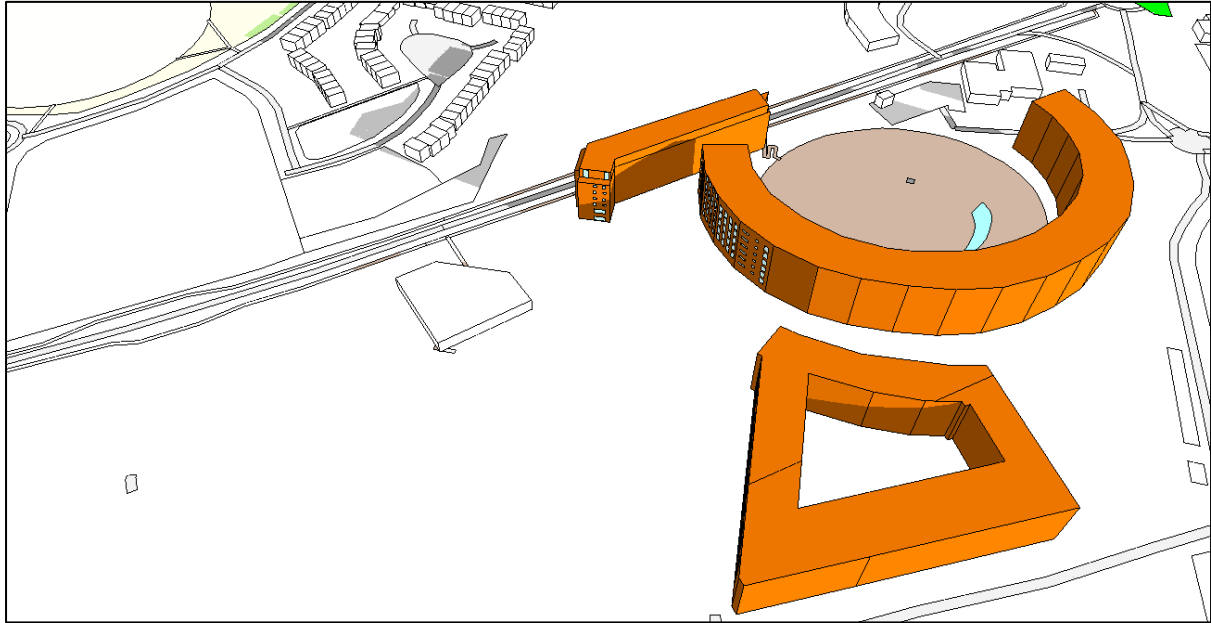


Figure 456. Shadow image on December 21<sup>st</sup> at 14:00 of Park West without Proposed Development (modelling software)

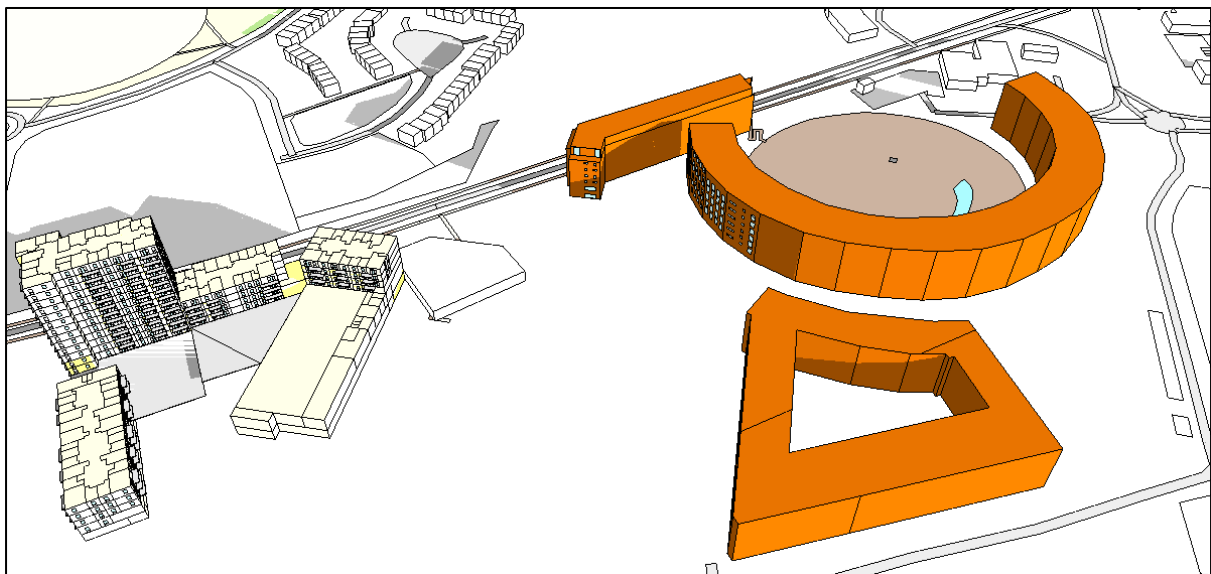


Figure 457. Shadow image on December 21<sup>st</sup> at 14:00 of Park West with Proposed Development (modelling software)

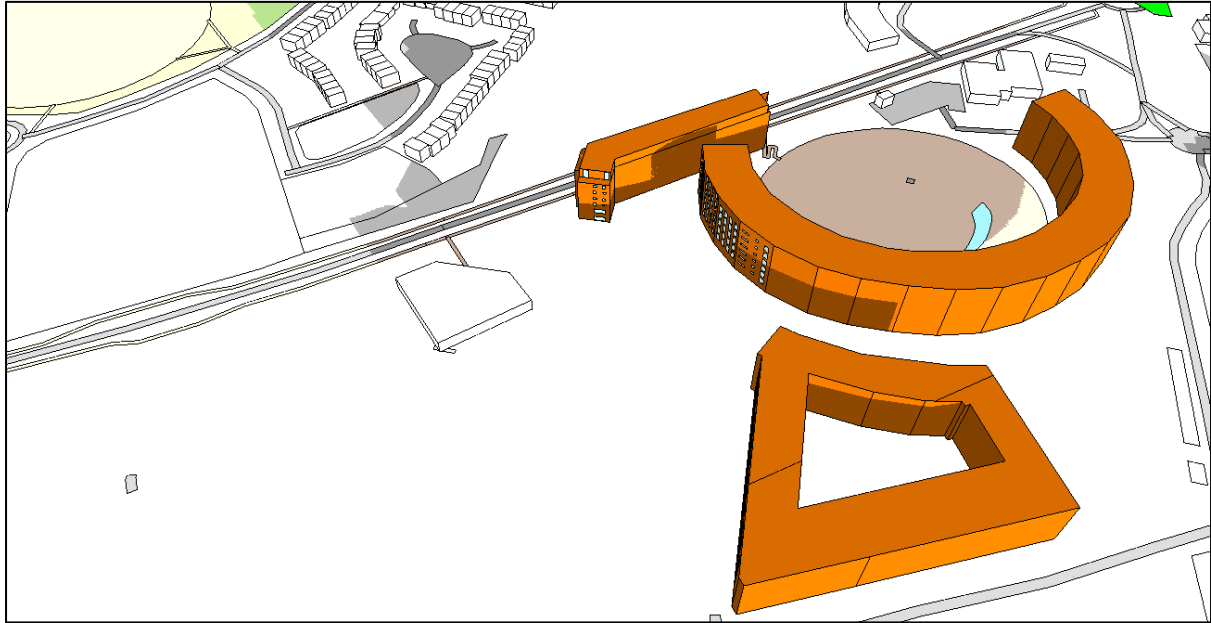


Figure 458. Shadow image on December 21<sup>st</sup> at 16:00 of Park West without Proposed Development (modelling software)

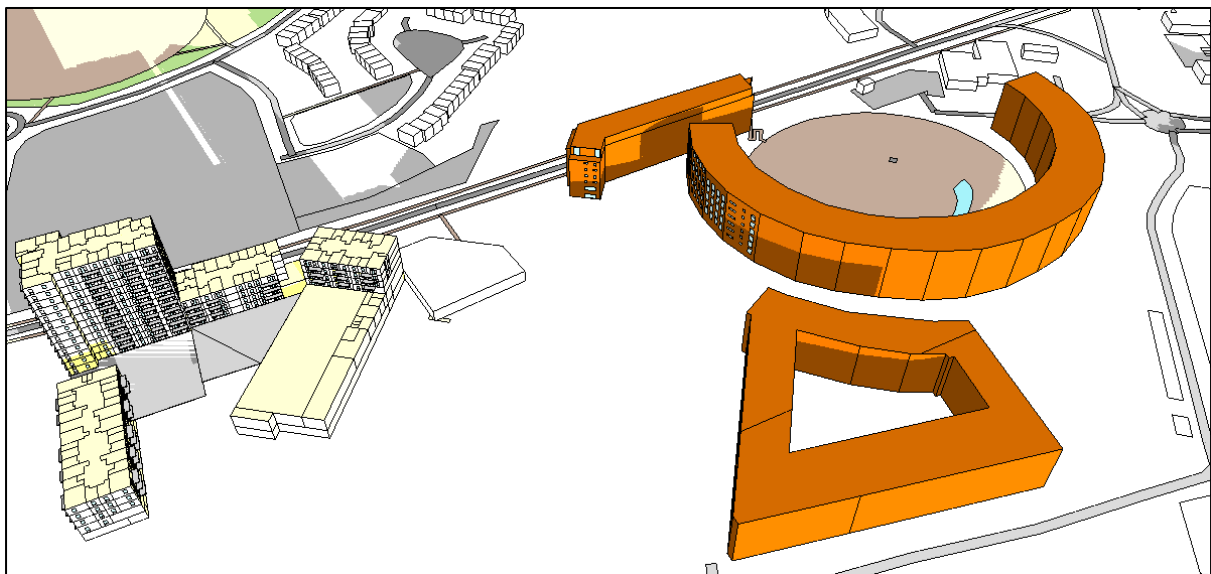


Figure 459. Shadow image on December 21<sup>st</sup> at 16:00 of Park West with Proposed Development (modelling software)

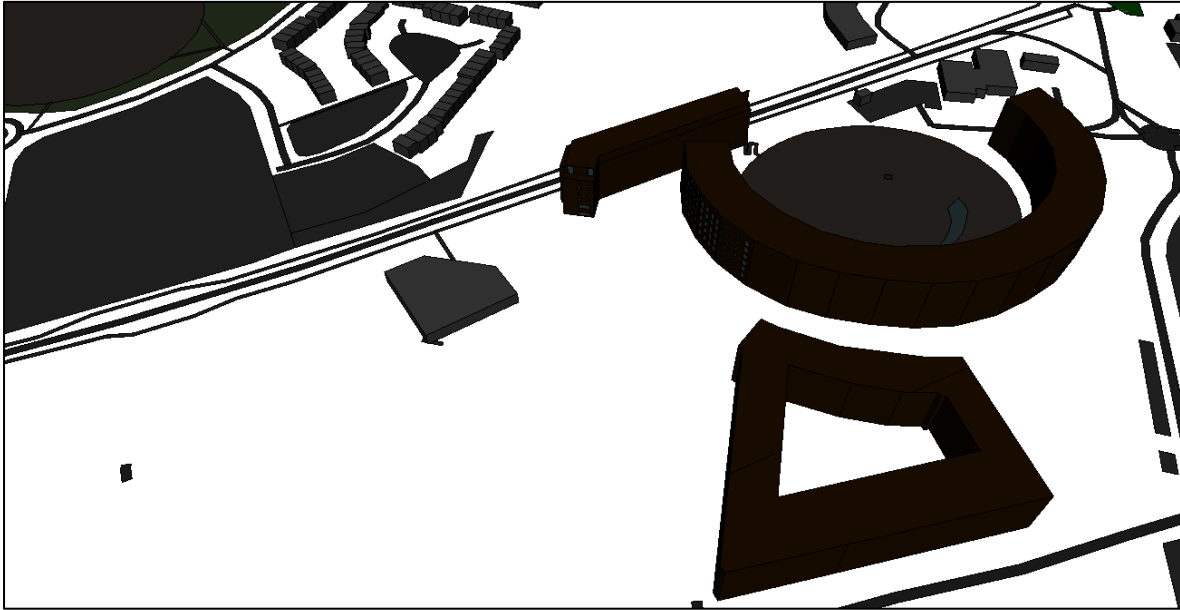


Figure 460. Shadow image on December 21<sup>st</sup> at 18:00 of Park West without Proposed Development (modelling software)



Figure 461. Shadow image on December 21<sup>st</sup> at 18:00 of Park West with Proposed Development (modelling software)

**Aerial View 03 – March 21<sup>st</sup>**

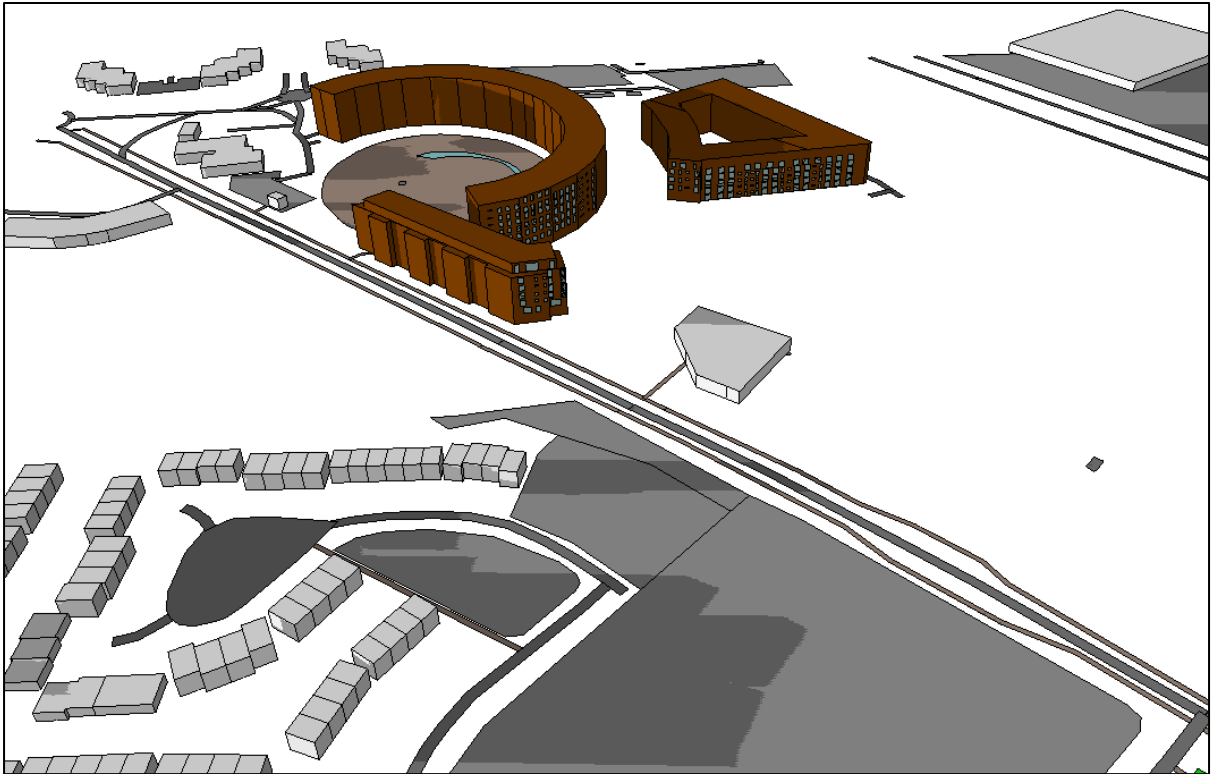


Figure 462. Shadow image on March 21<sup>st</sup> at 08:00 of Park West without Proposed Development (modelling software)

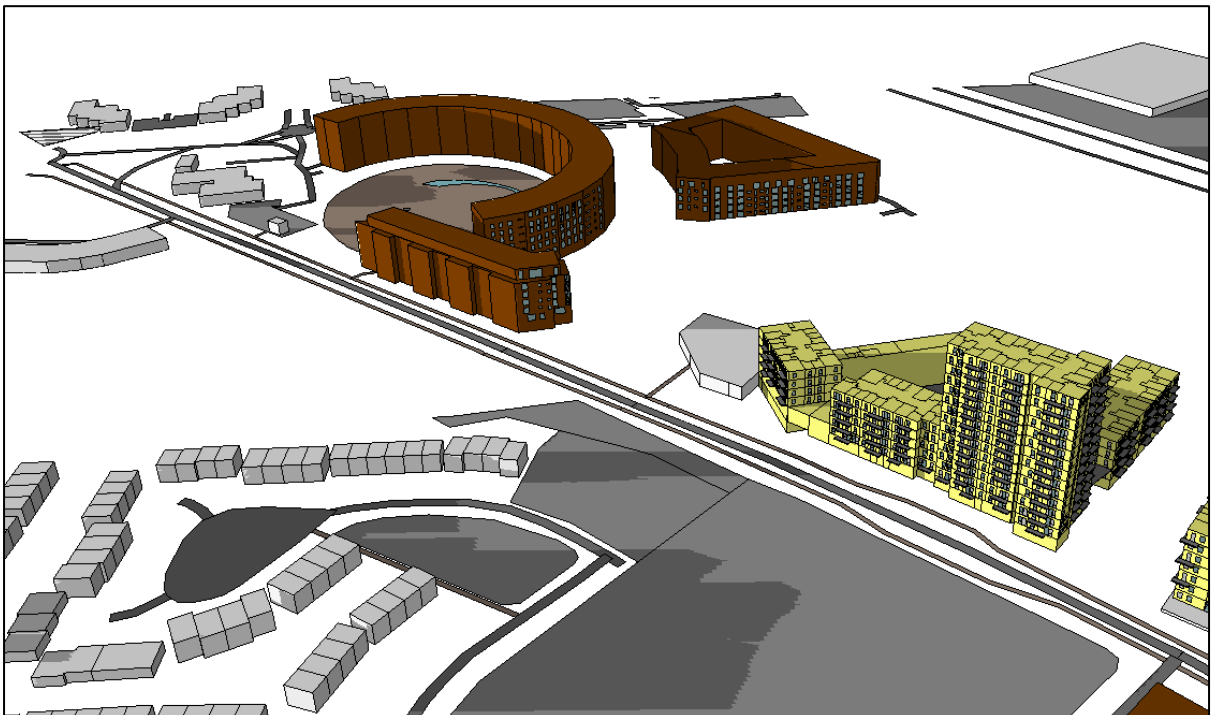


Figure 463. Shadow image on March 21<sup>st</sup> at 08:00 of Park West with Proposed Development (modelling software)



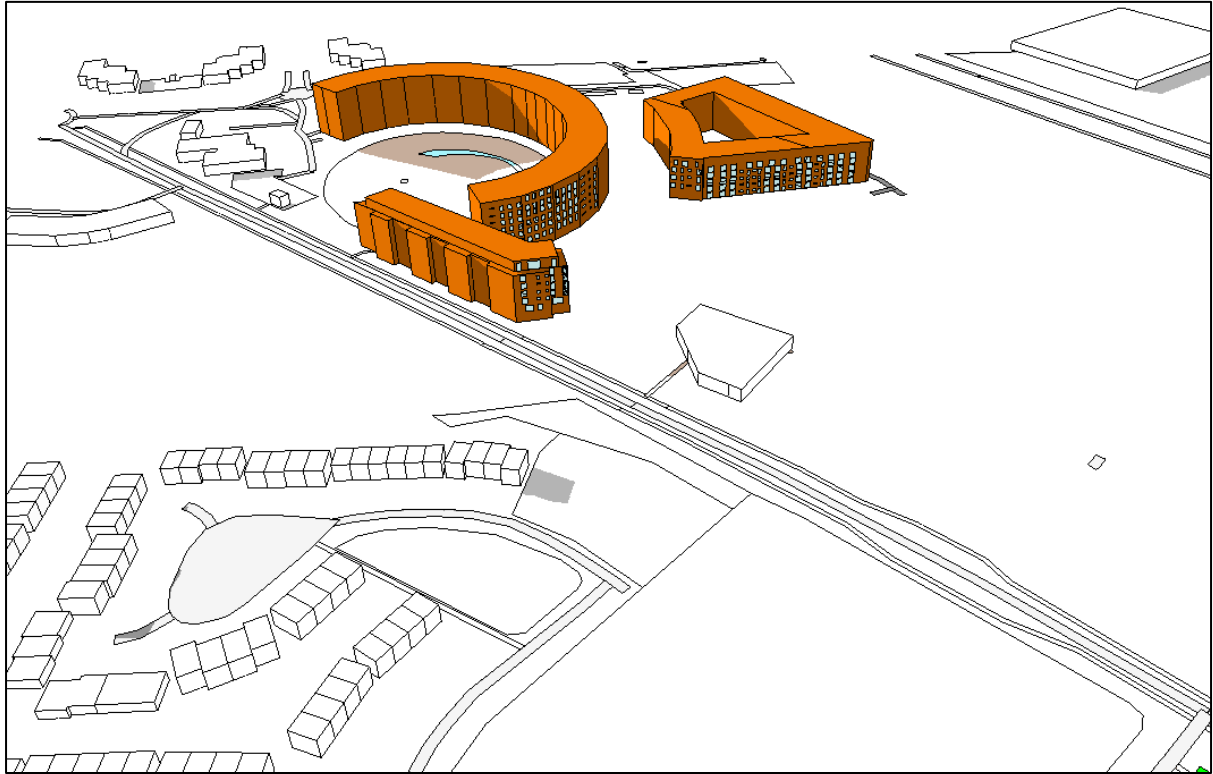


Figure 464. Shadow image on March 21<sup>st</sup> at 10:00 of Park West without Proposed Development (modelling software)

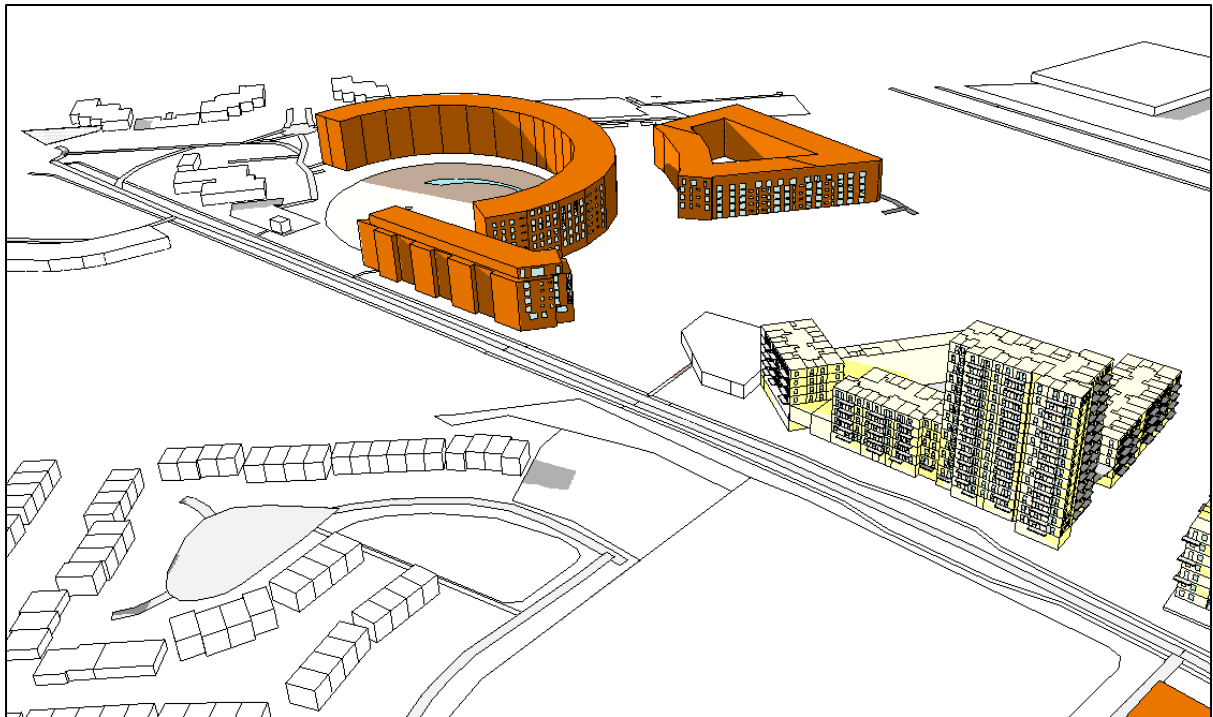


Figure 465. Shadow image on March 21<sup>st</sup> at 10:00 of Park West with Proposed Development (modelling software)

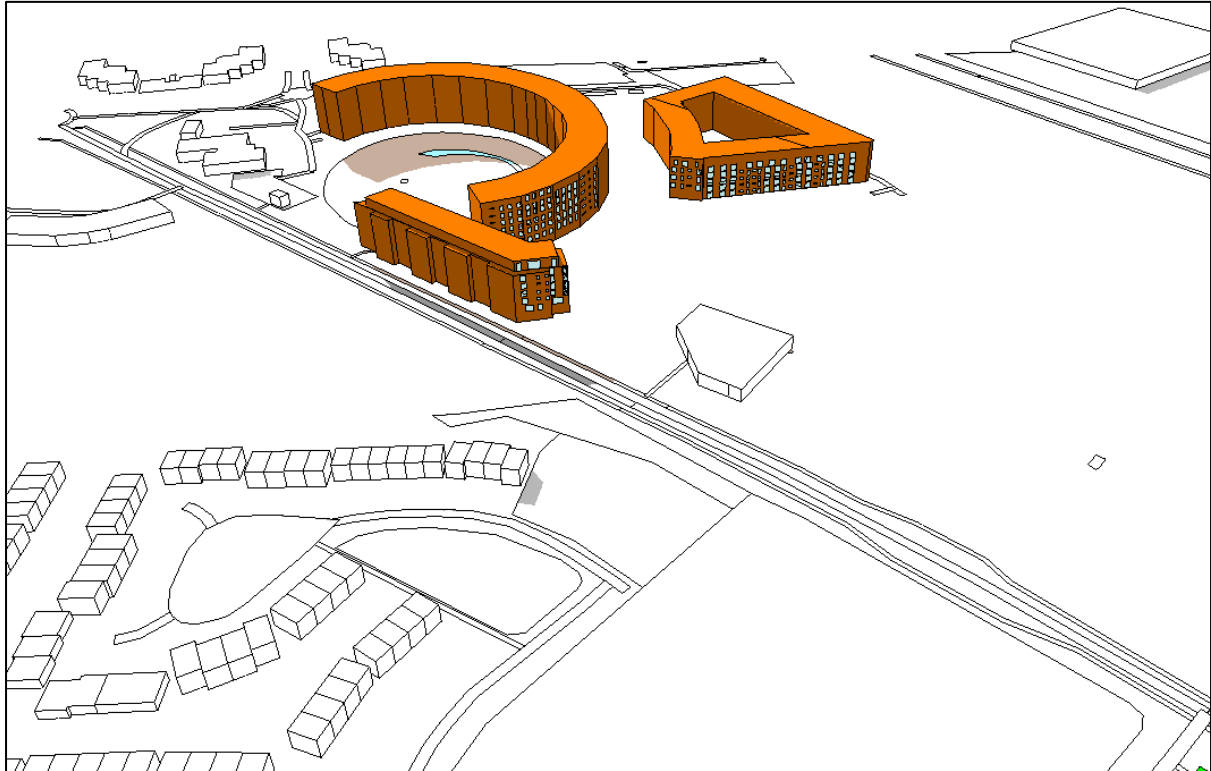


Figure 466. Shadow image on March 21<sup>st</sup> at 12:00 of Park West without Proposed Development (modelling software)

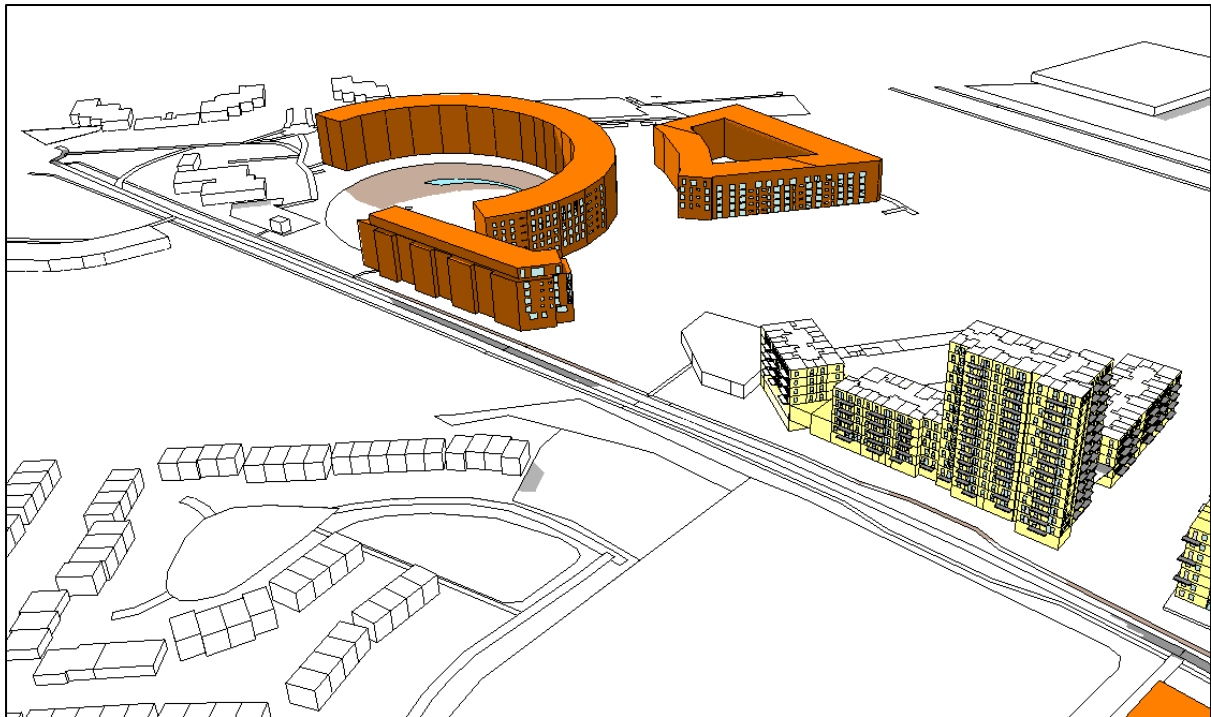


Figure 467. Shadow image on March 21<sup>st</sup> at 12:00 of Park West with Proposed Development (modelling software)

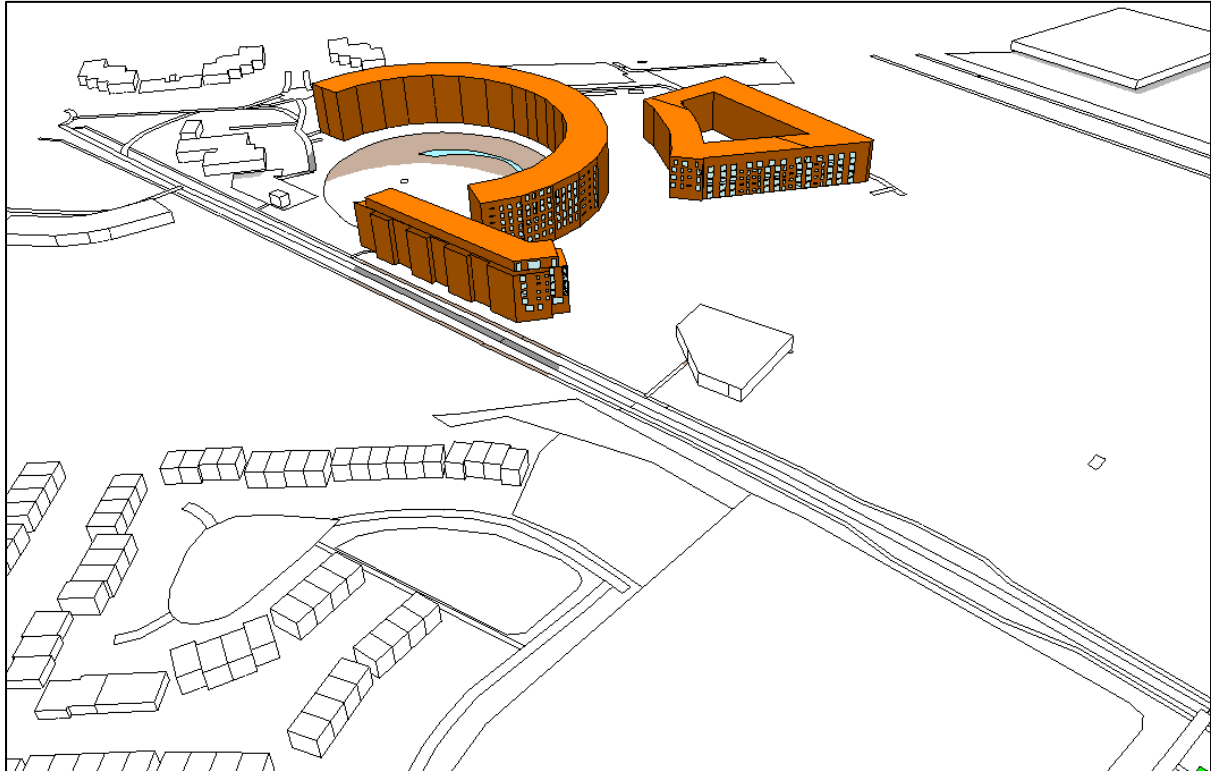


Figure 468. Shadow image on March 21<sup>st</sup> at 14:00 of Park West without Proposed Development (modelling software)

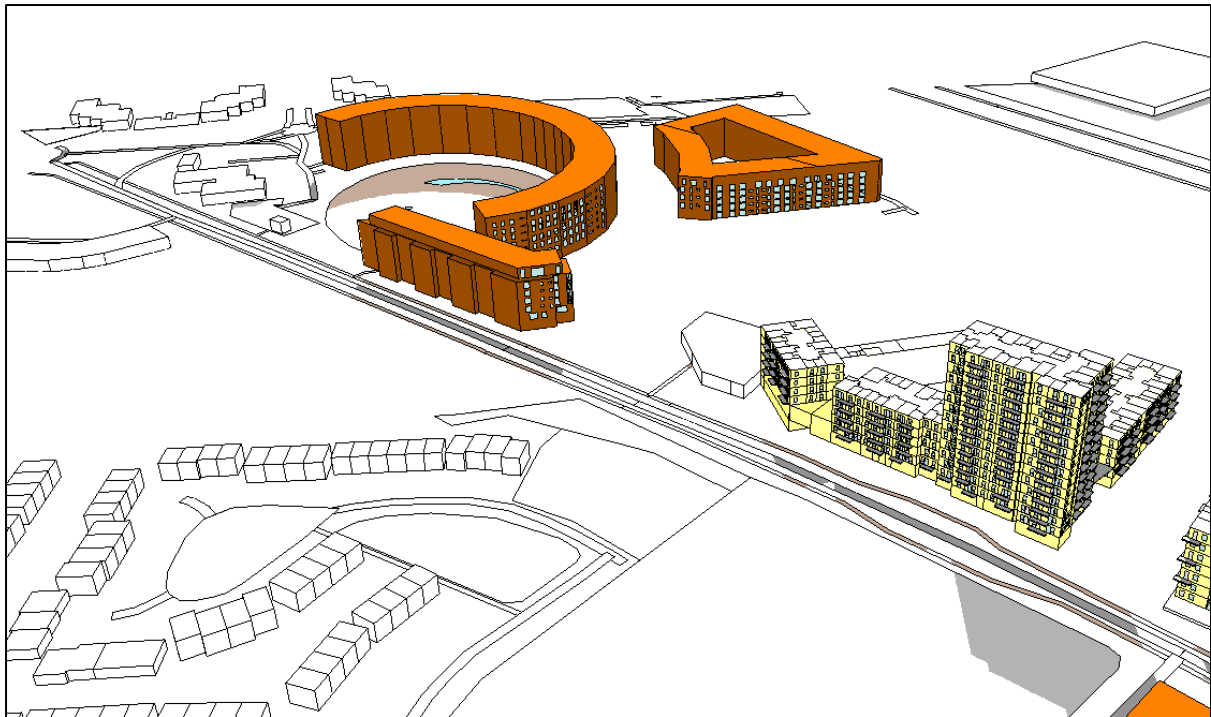


Figure 469. Shadow image on March 21<sup>st</sup> at 14:00 of Park West with Proposed Development (modelling software)

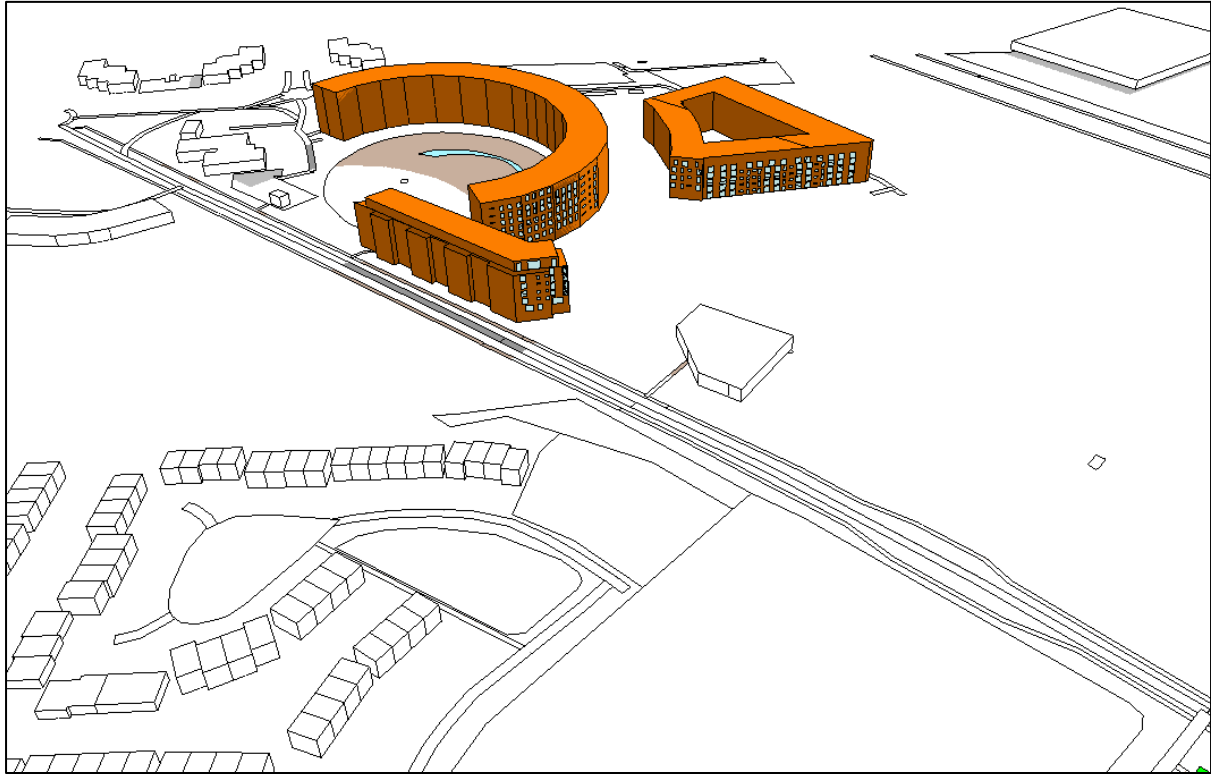


Figure 470. Shadow image on March 21<sup>st</sup> at 16:00 of Park West without Proposed Development (modelling software)

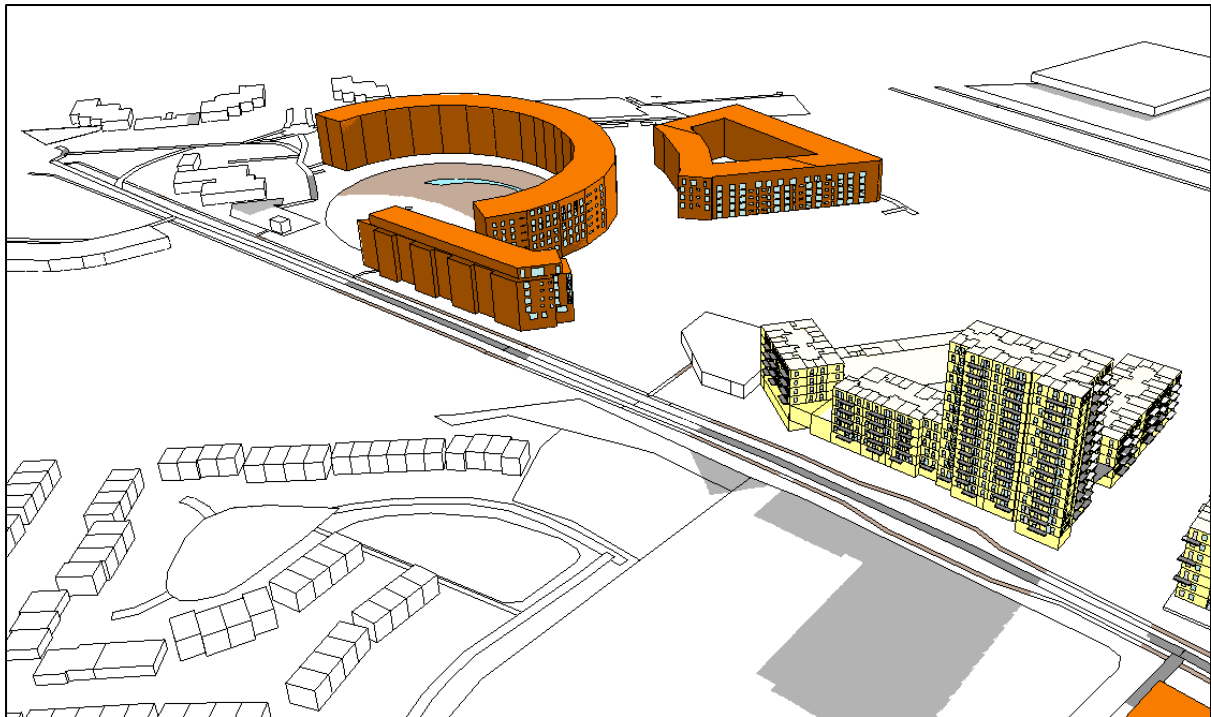


Figure 471. Shadow image on March 21<sup>st</sup> at 16:00 of Park West with Proposed Development (modelling software)

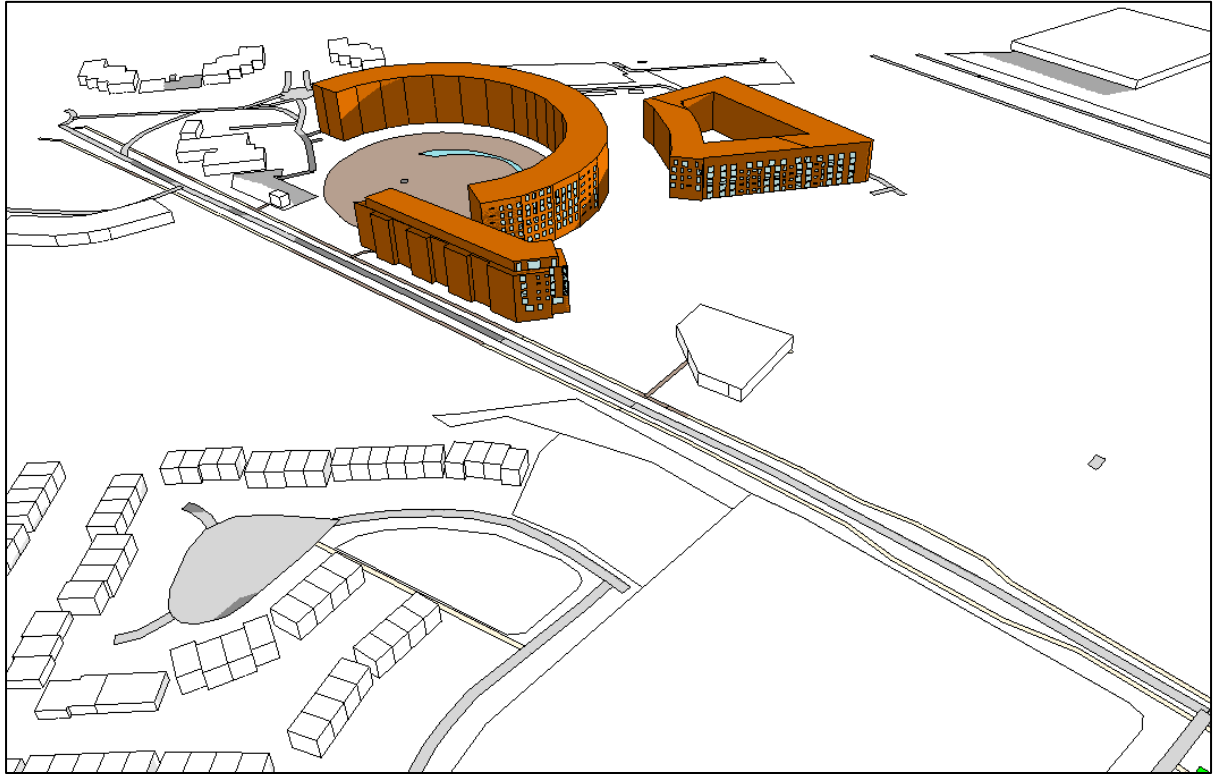


Figure 472. Shadow image on March 21<sup>st</sup> at 18:00 of Park West without Proposed Development (modelling software)

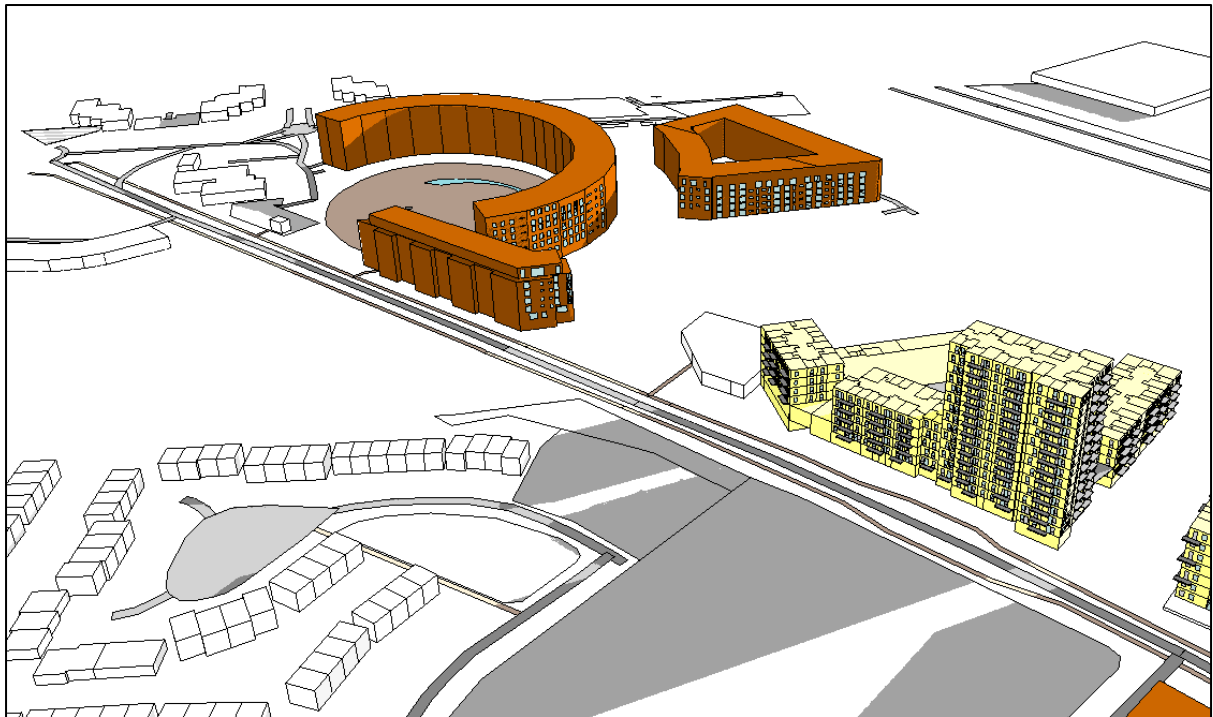


Figure 473. Shadow image on March 21<sup>st</sup> at 18:00 of Park West with Proposed Development (modelling software)



**Aerial View 03 – June 21<sup>st</sup>**

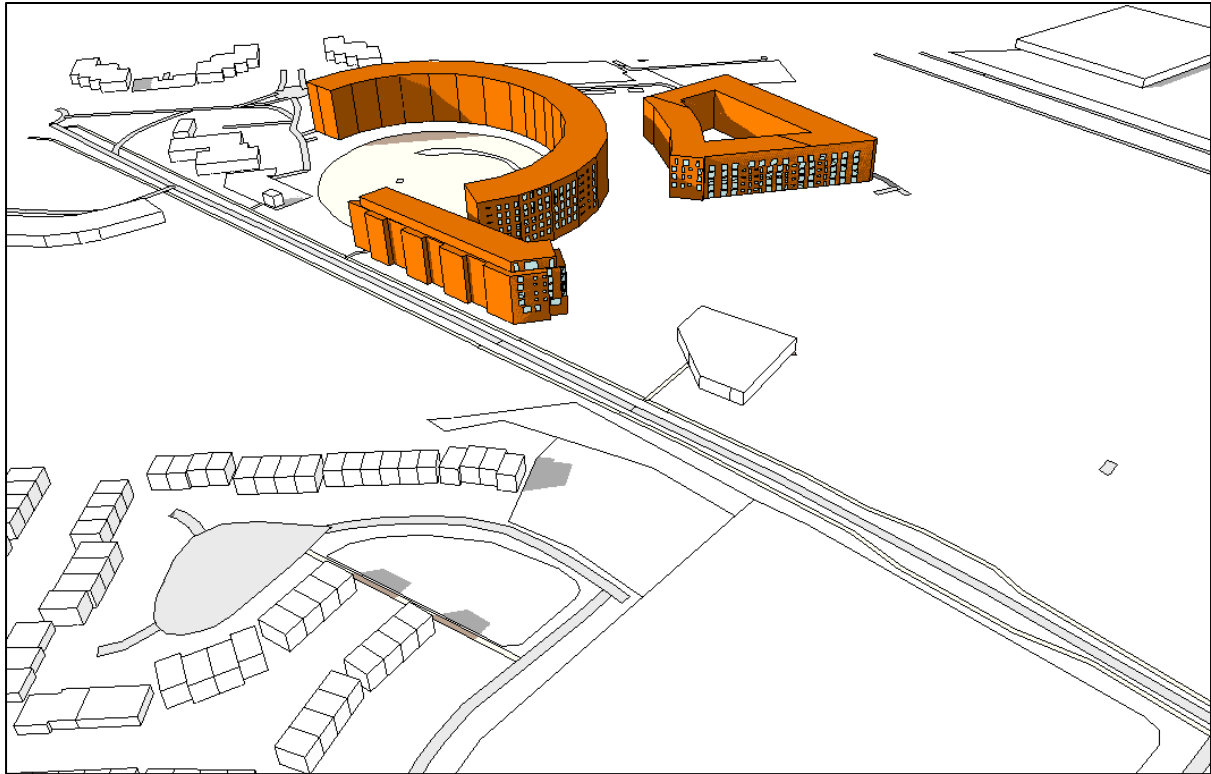


Figure 474. Shadow image on June 21<sup>st</sup> at 08:00 of Park West without Proposed Development (modelling software)

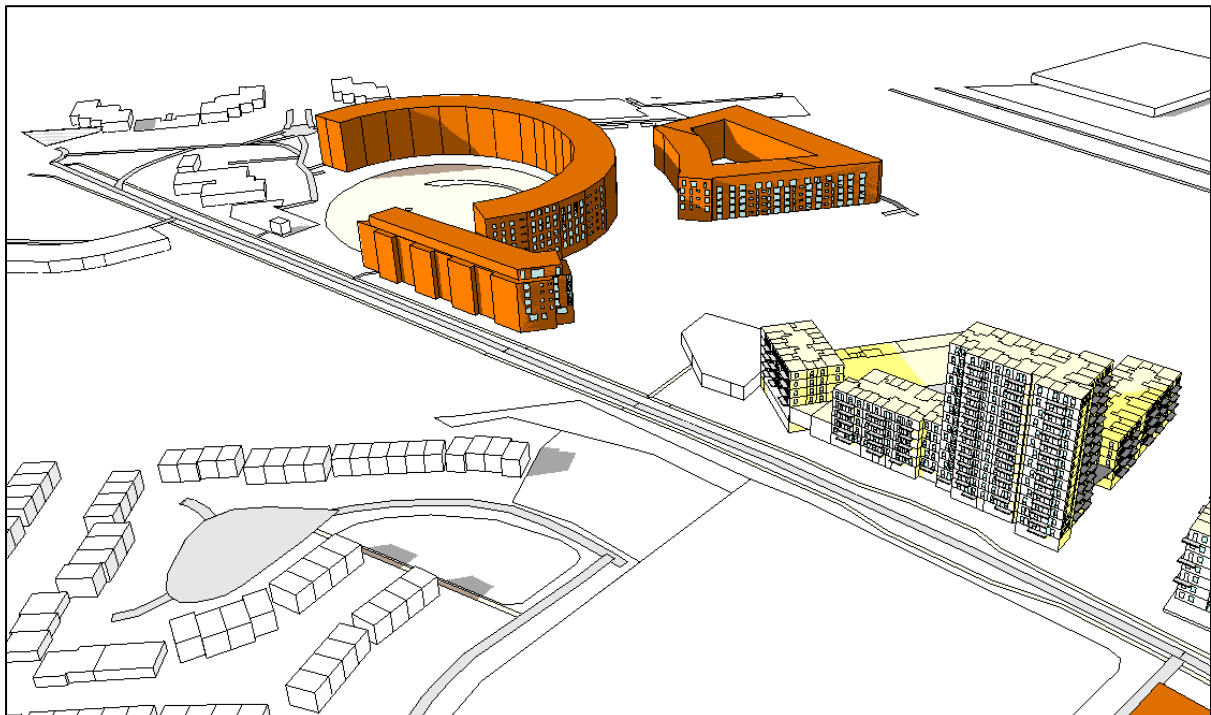


Figure 475. Shadow image on June 21<sup>st</sup> at 08:00 of Park West with Proposed Development (modelling software)



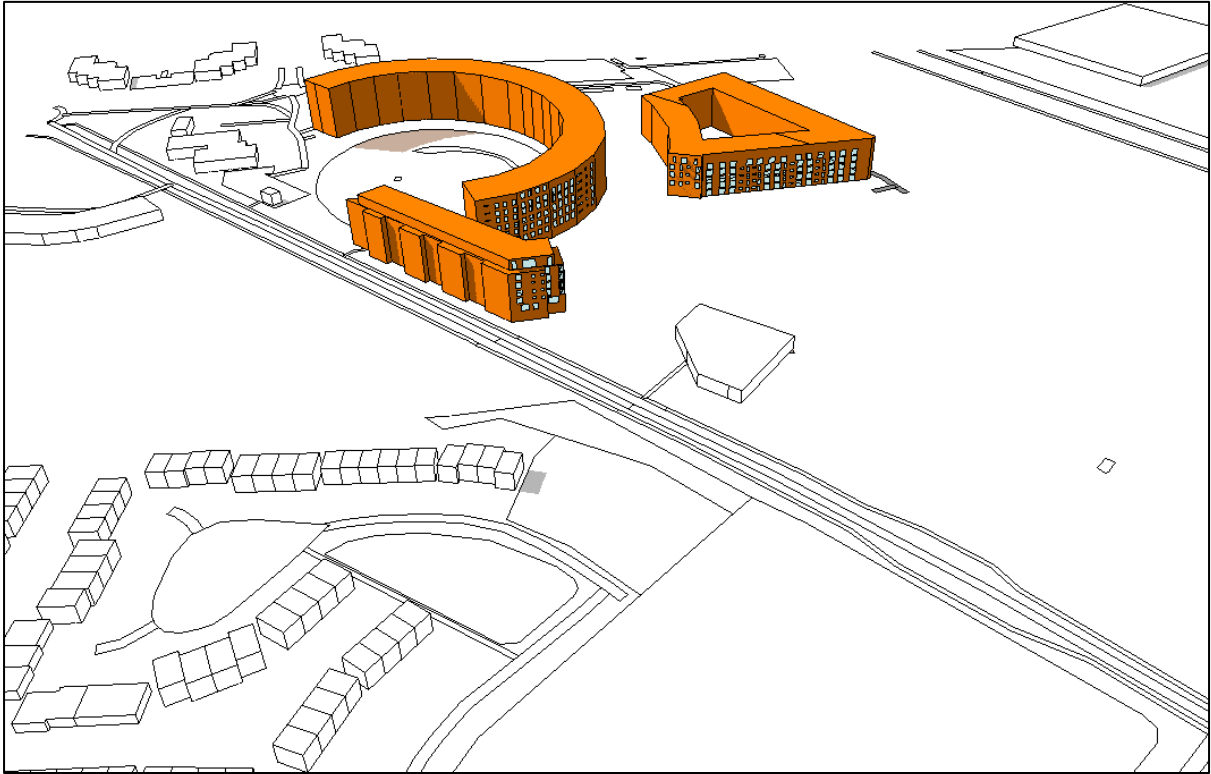


Figure 476. Shadow image on June 21<sup>st</sup> at 10:00 of Park West without Proposed Development (modelling software)

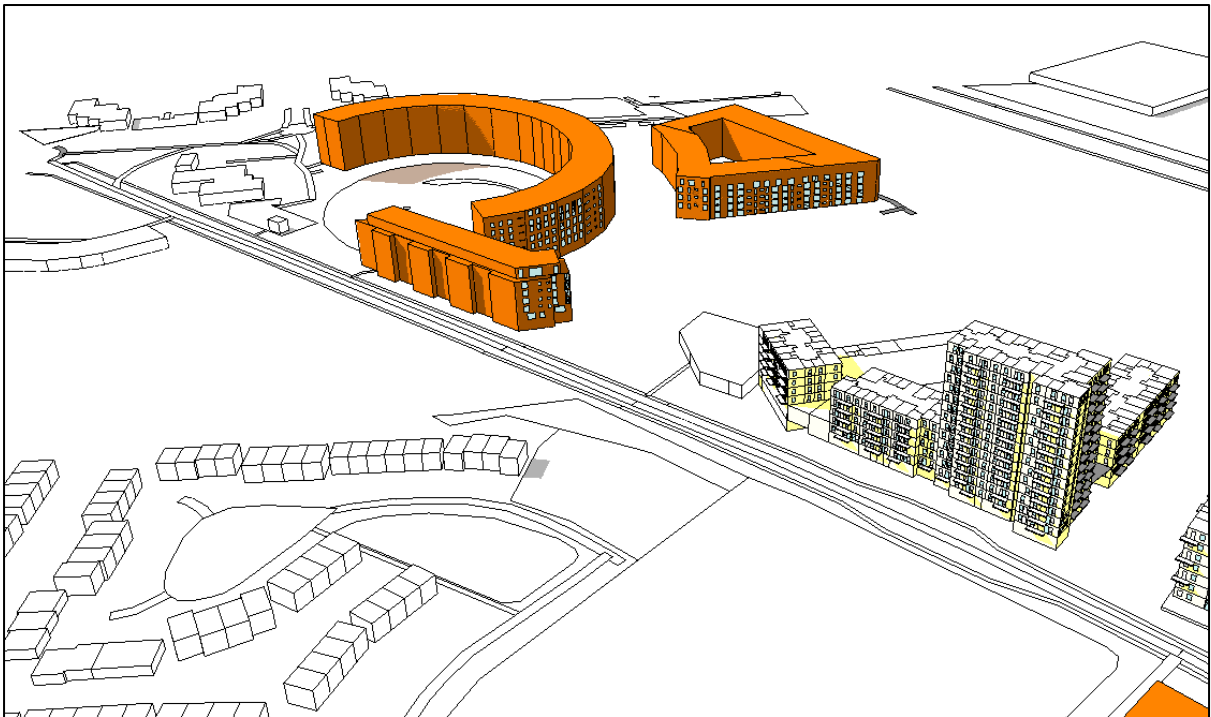


Figure 477. Shadow image on June 21<sup>st</sup> at 10:00 of Park West with Proposed Development (modelling software)

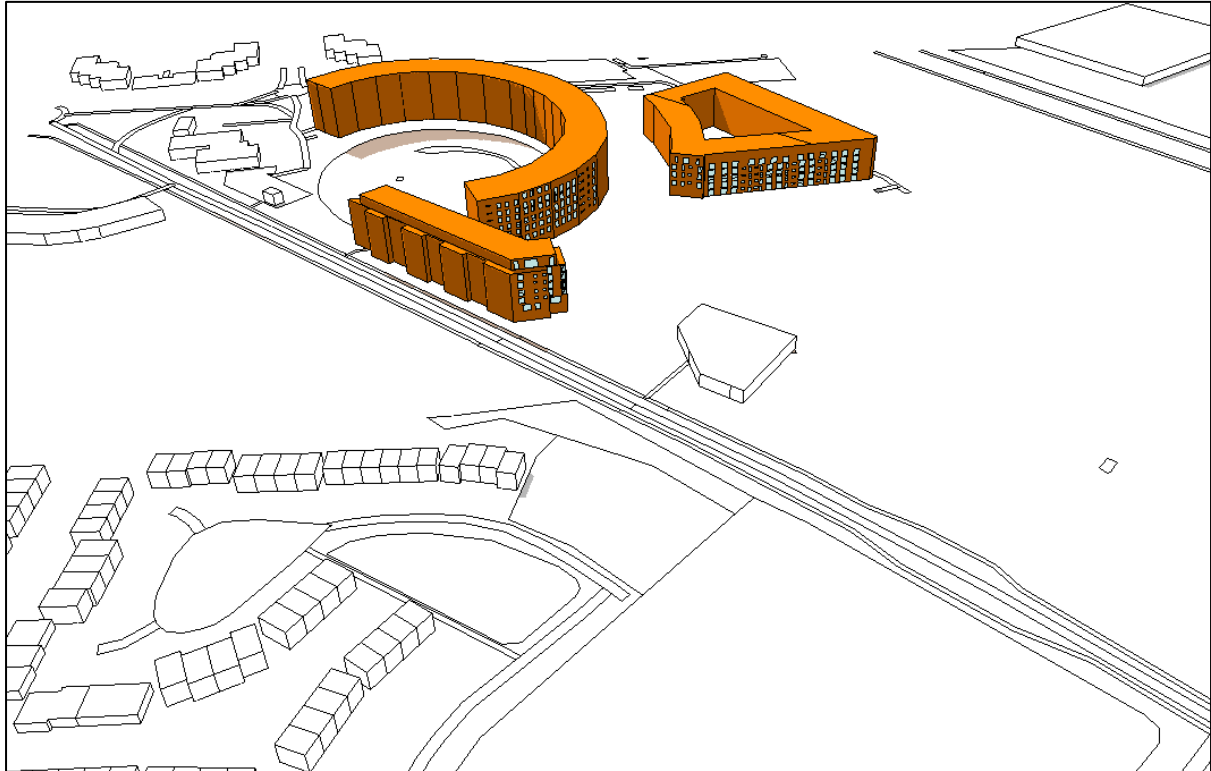


Figure 478. Shadow image on June 21<sup>st</sup> at 12:00 of Park West without Proposed Development (modelling software)

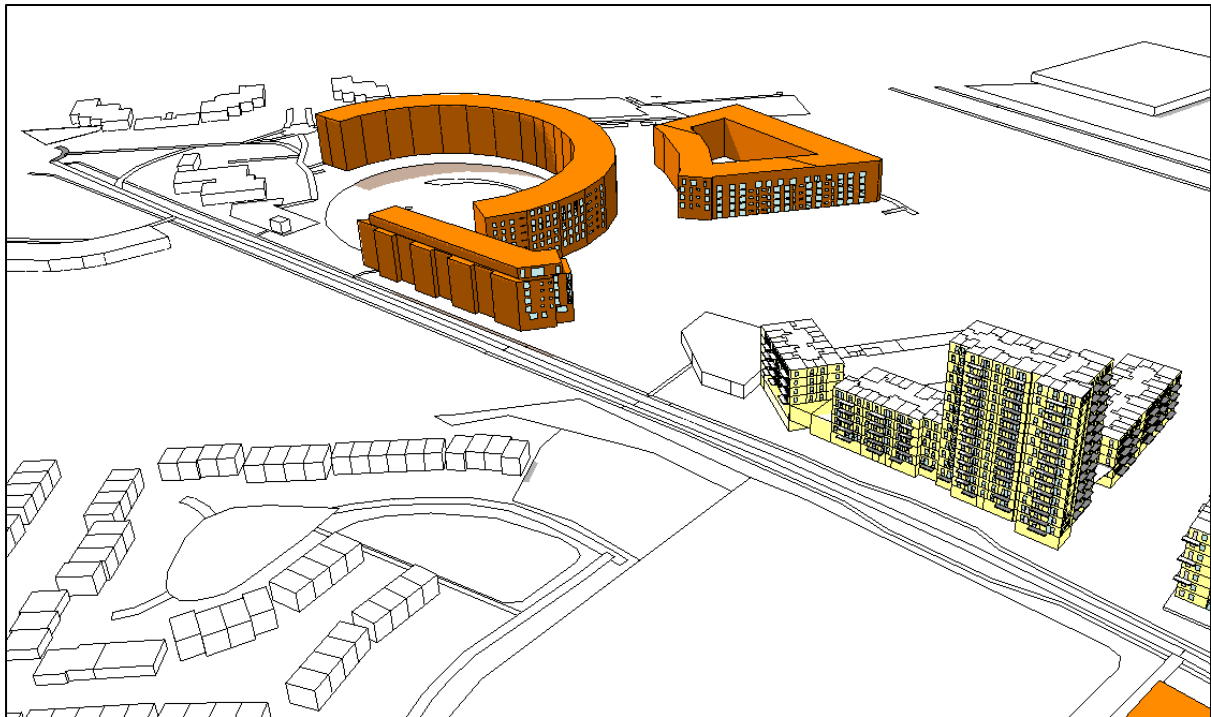


Figure 479. Shadow image on June 21<sup>st</sup> at 12:00 of Park West with Proposed Development (modelling software)

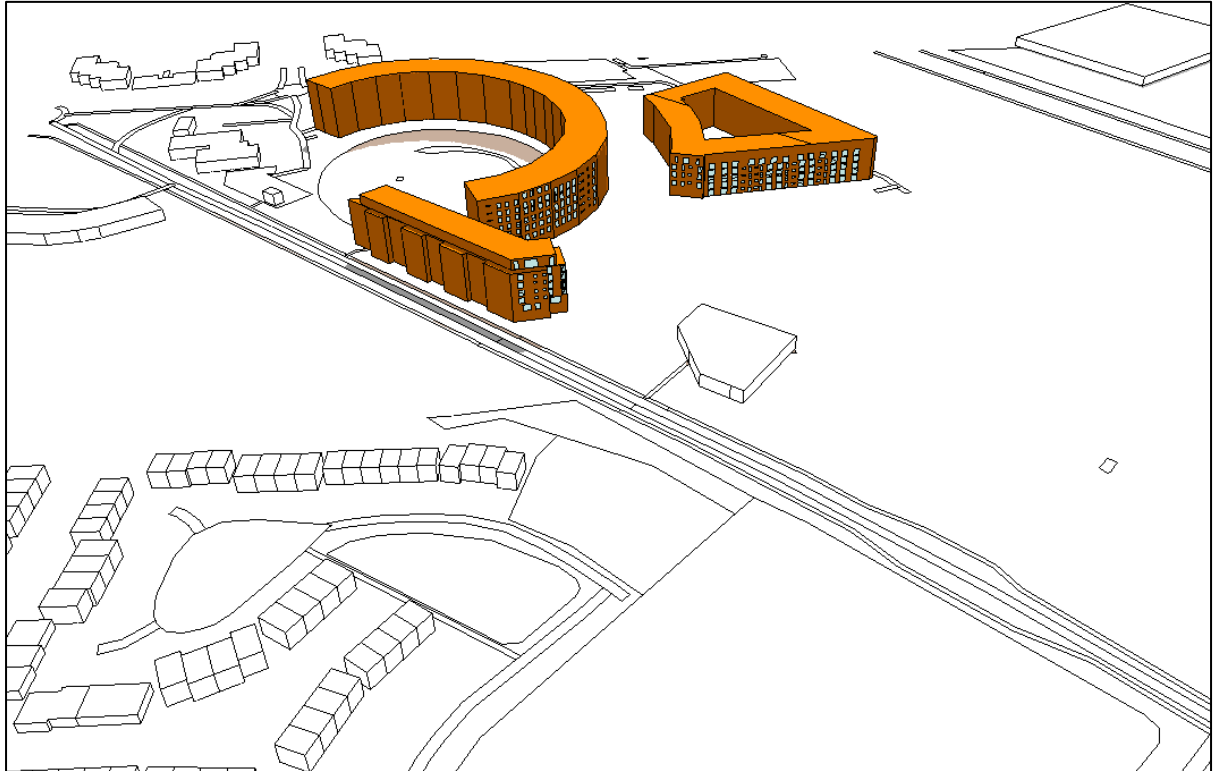


Figure 480. Shadow image on June 21<sup>st</sup> at 14:00 of Park West without Proposed Development (modelling software)

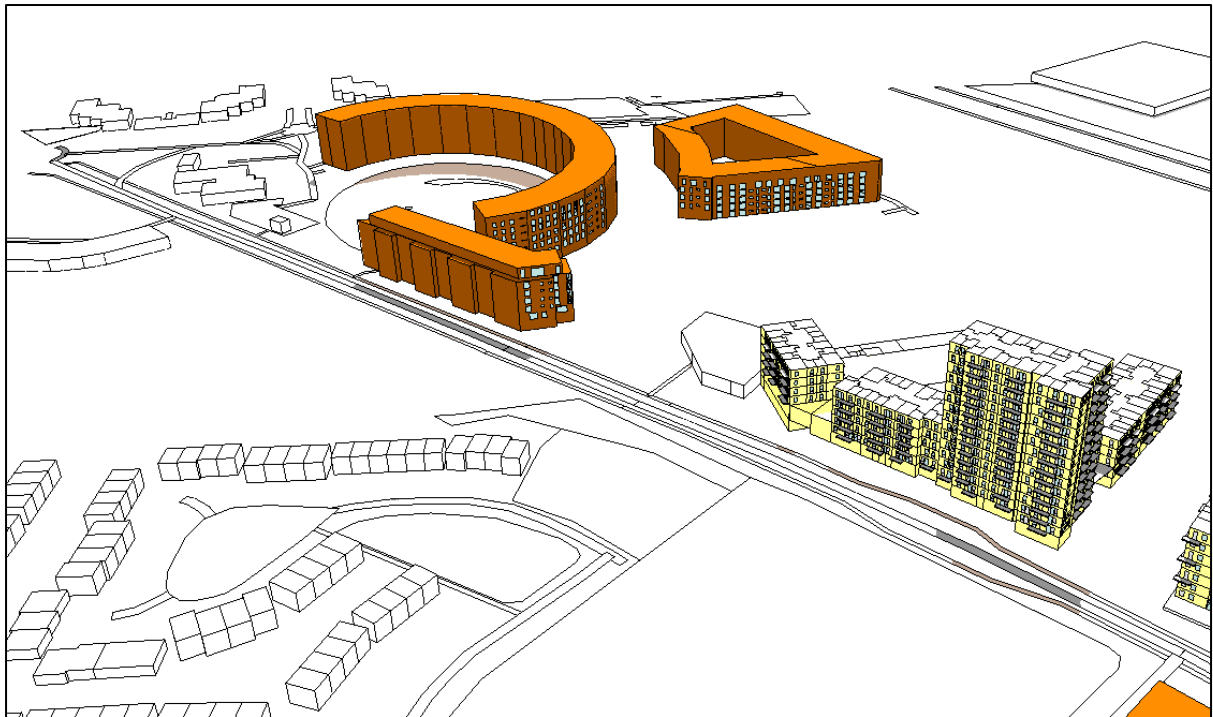


Figure 481. Shadow image on June 21<sup>st</sup> at 14:00 of Park West with Proposed Development (modelling software)

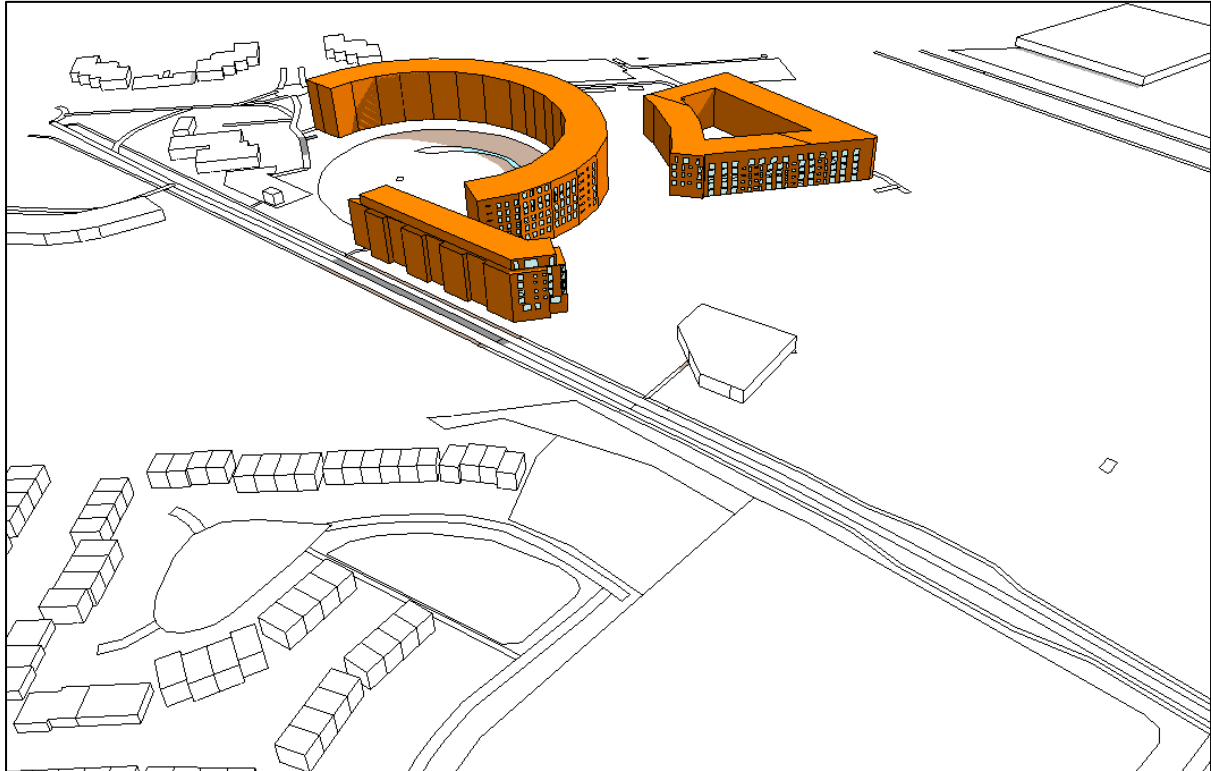


Figure 482. Shadow image on June 21<sup>st</sup> at 16:00 of Park West without Proposed Development (modelling software)

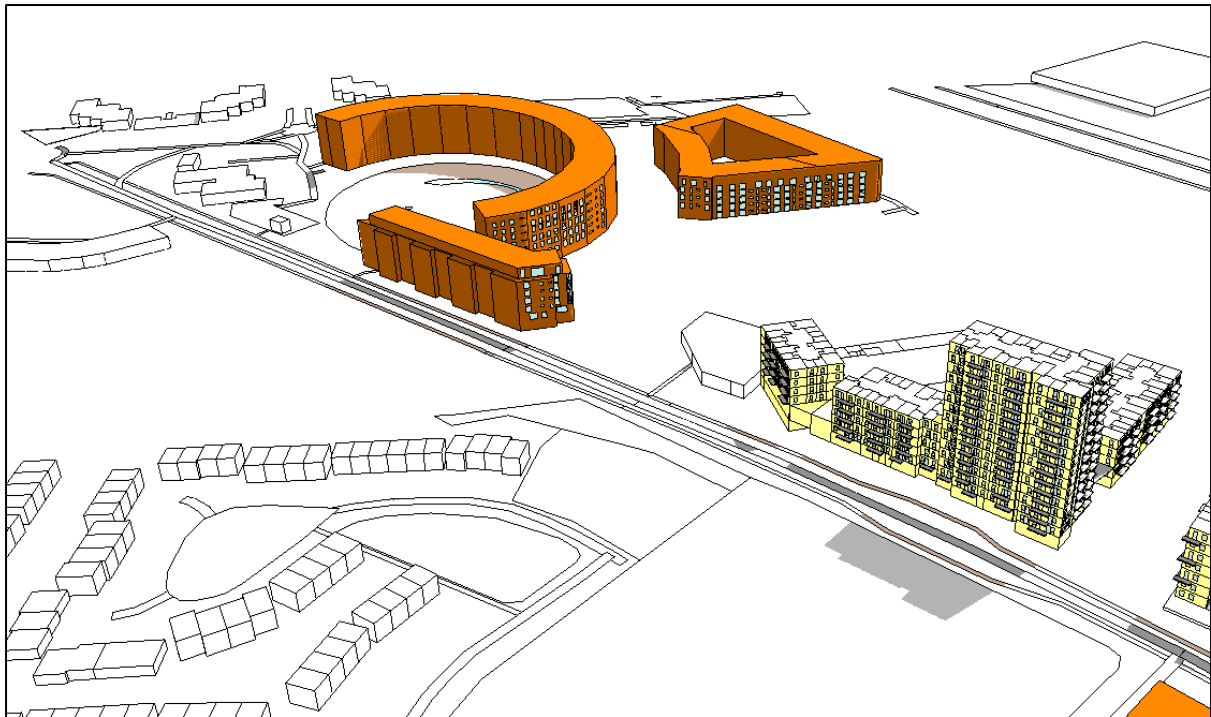


Figure 483. Shadow image on June 21<sup>st</sup> at 16:00 of Park West with Proposed Development (modelling software)

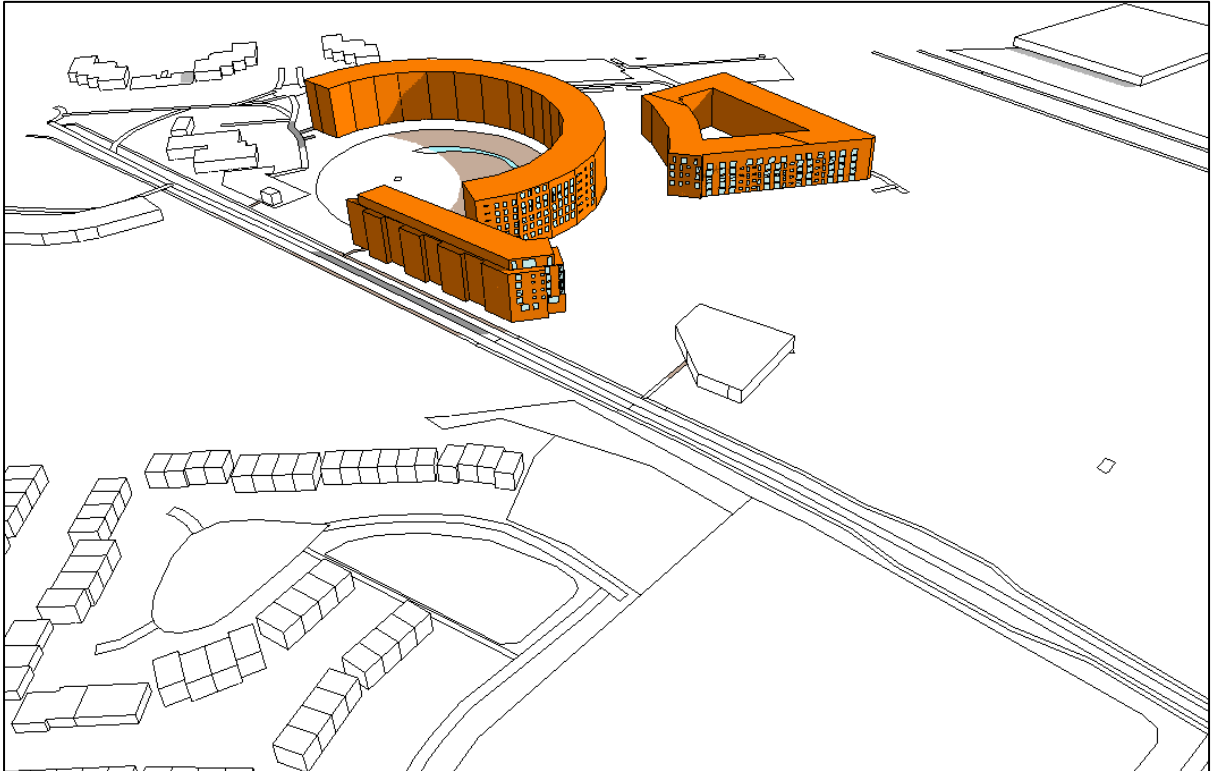


Figure 484. Shadow image on June 21<sup>st</sup> at 18:00 of Park West without Proposed Development (modelling software)

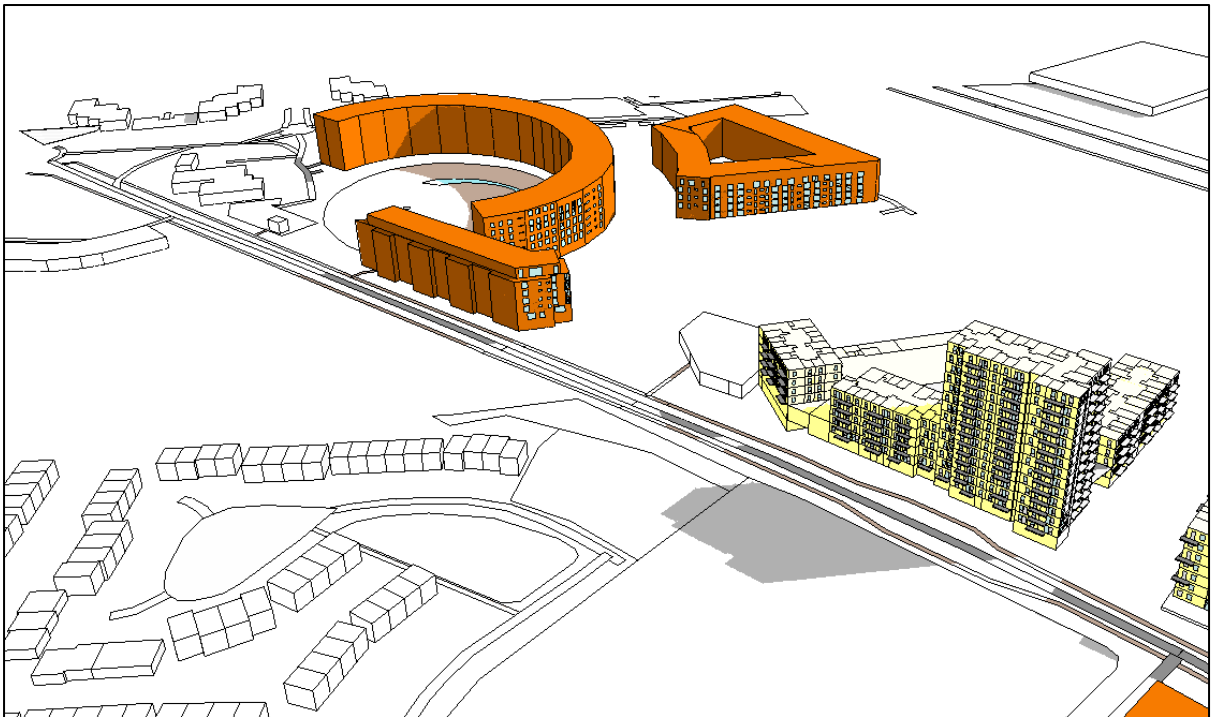


Figure 485. Shadow image on June 21<sup>st</sup> at 18:00 of Park West with Proposed Development (modelling software)



Aerial View 03 – December 21<sup>st</sup>

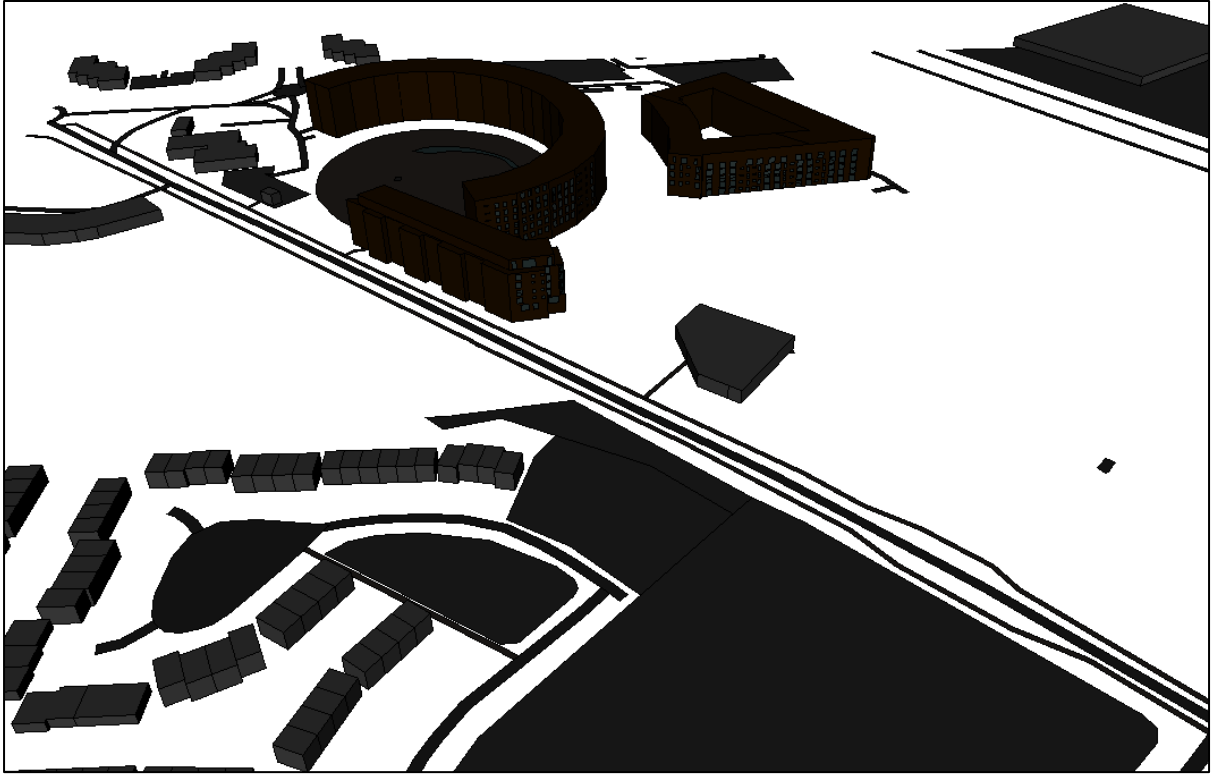


Figure 486. Shadow image on December 21<sup>st</sup> at 08:00 of Park West without Proposed Development (modelling software)

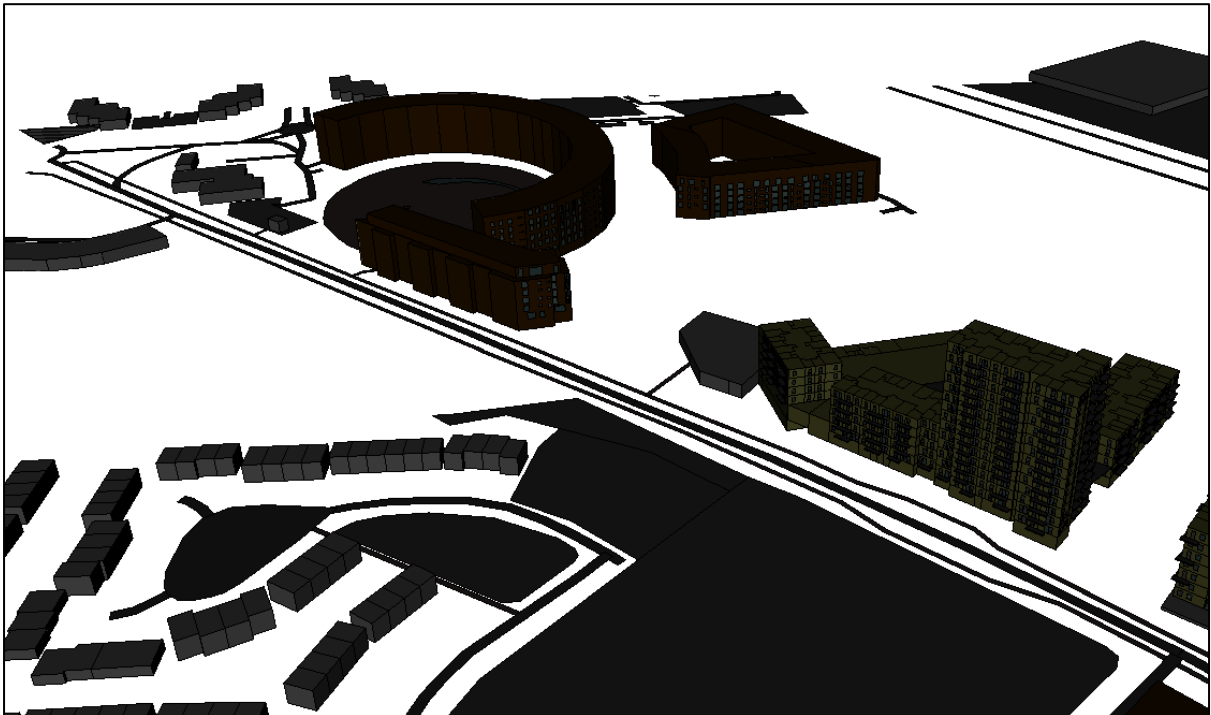


Figure 487. Shadow image on December 21<sup>st</sup> at 08:00 of Park West with Proposed Development (modelling software)



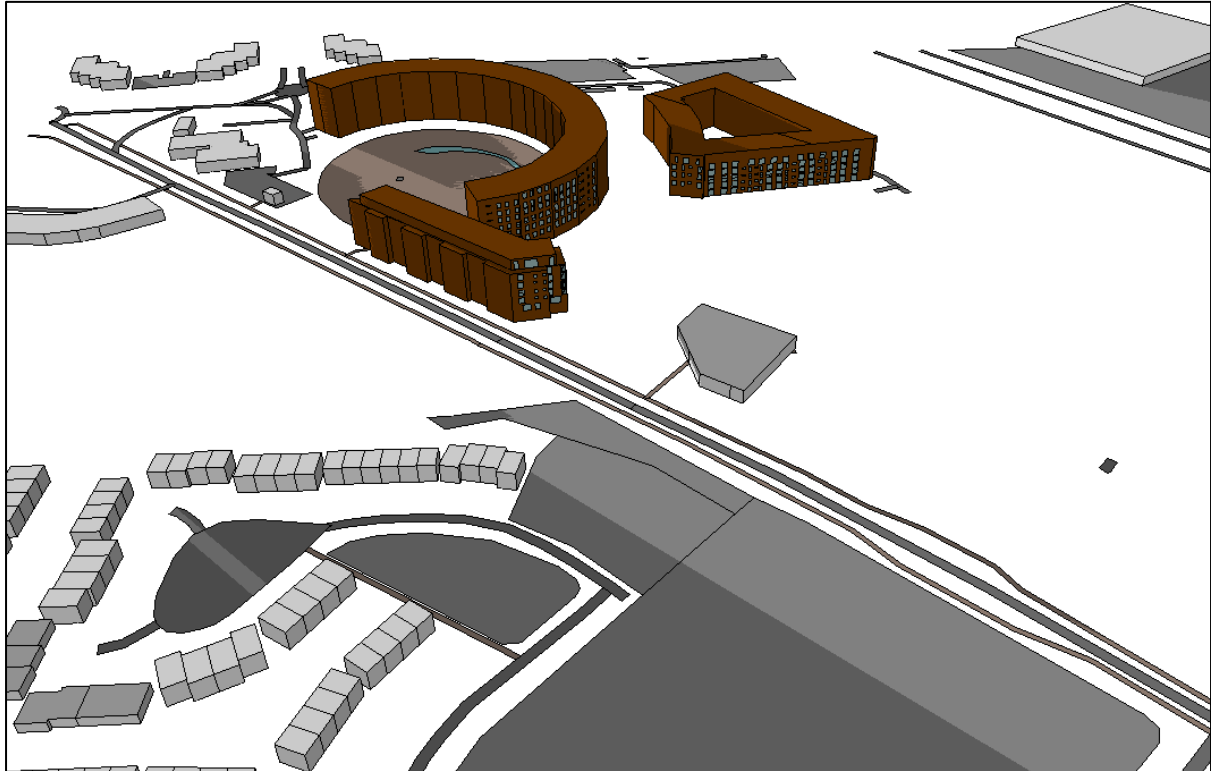


Figure 488. Shadow image on December 21<sup>st</sup> at 10:00 of Park West without Proposed Development (modelling software)

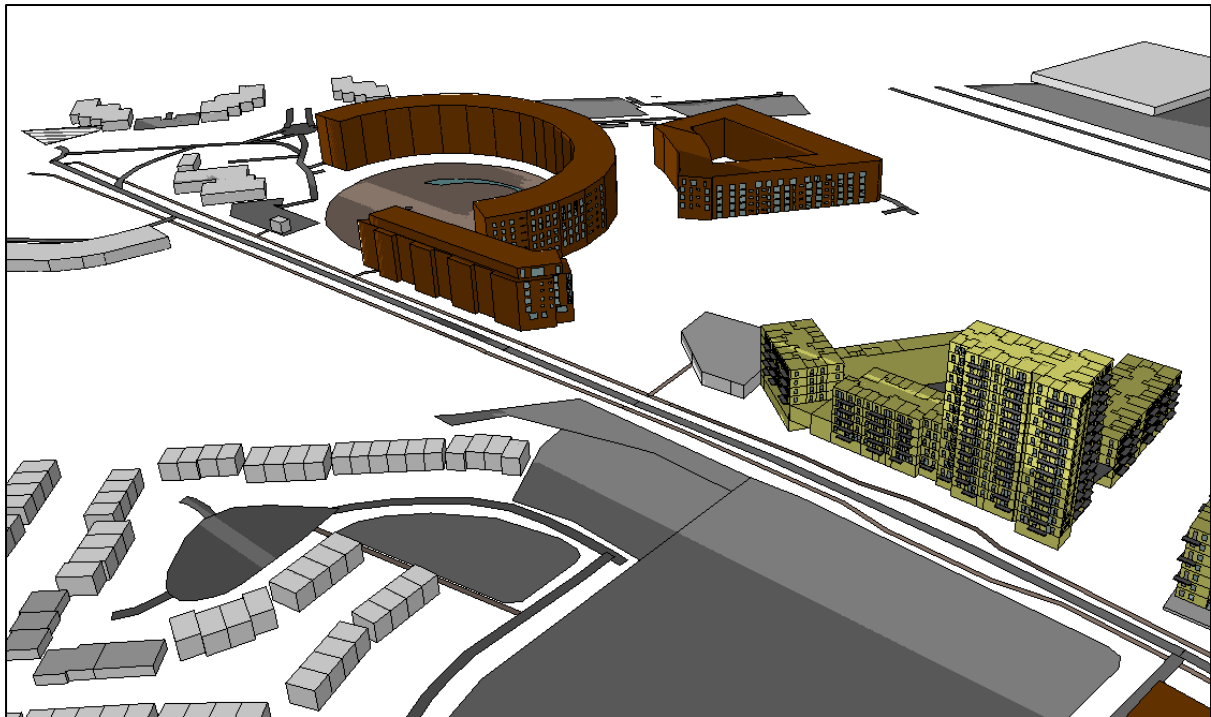


Figure 489. Shadow image on December 21<sup>st</sup> at 10:00 of Park West with Proposed Development (modelling software)

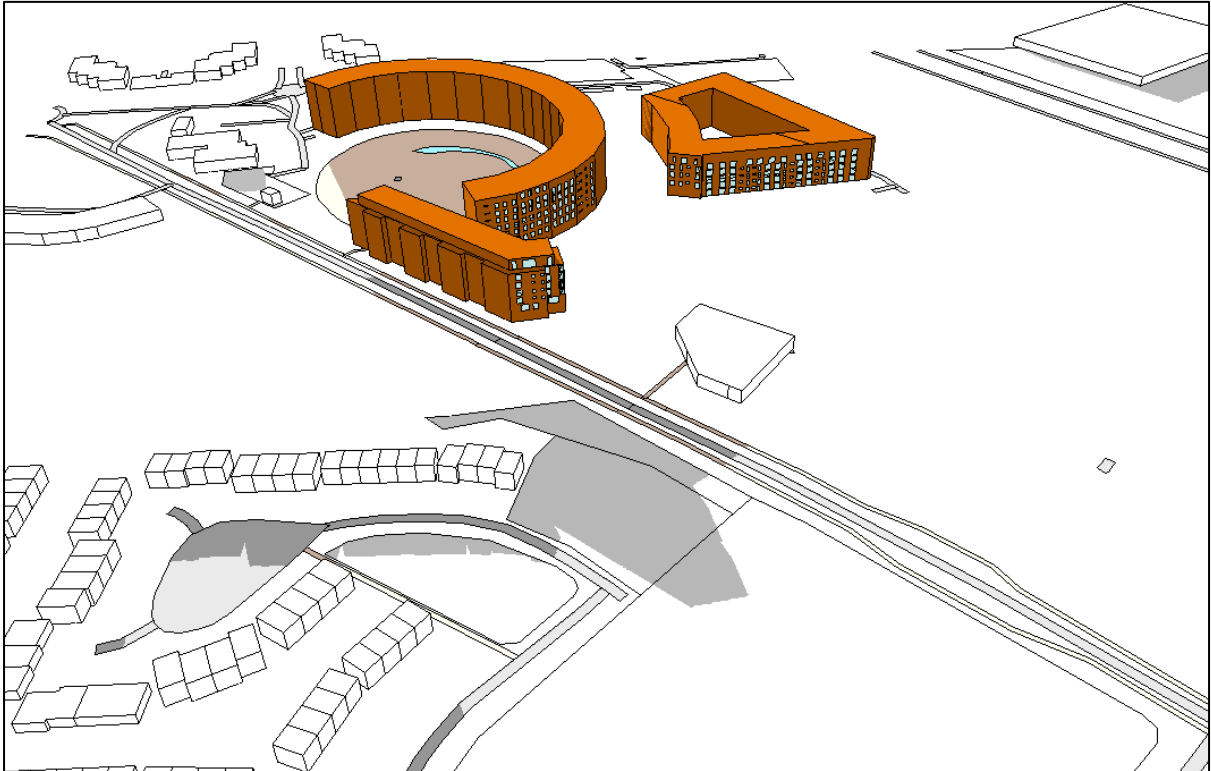


Figure 490. Shadow image on December 21<sup>st</sup> at 12:00 of Park West without Proposed Development (modelling software)

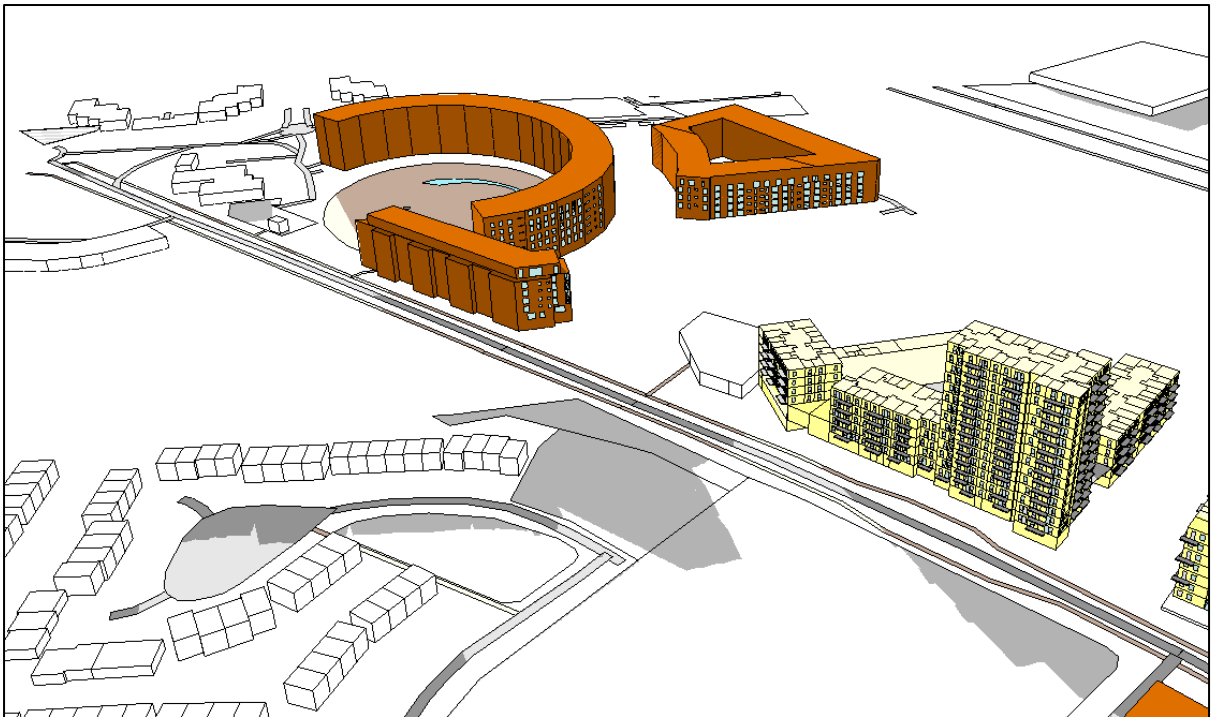


Figure 491. Shadow image on December 21<sup>st</sup> at 12:00 of Park West with Proposed Development (modelling software)

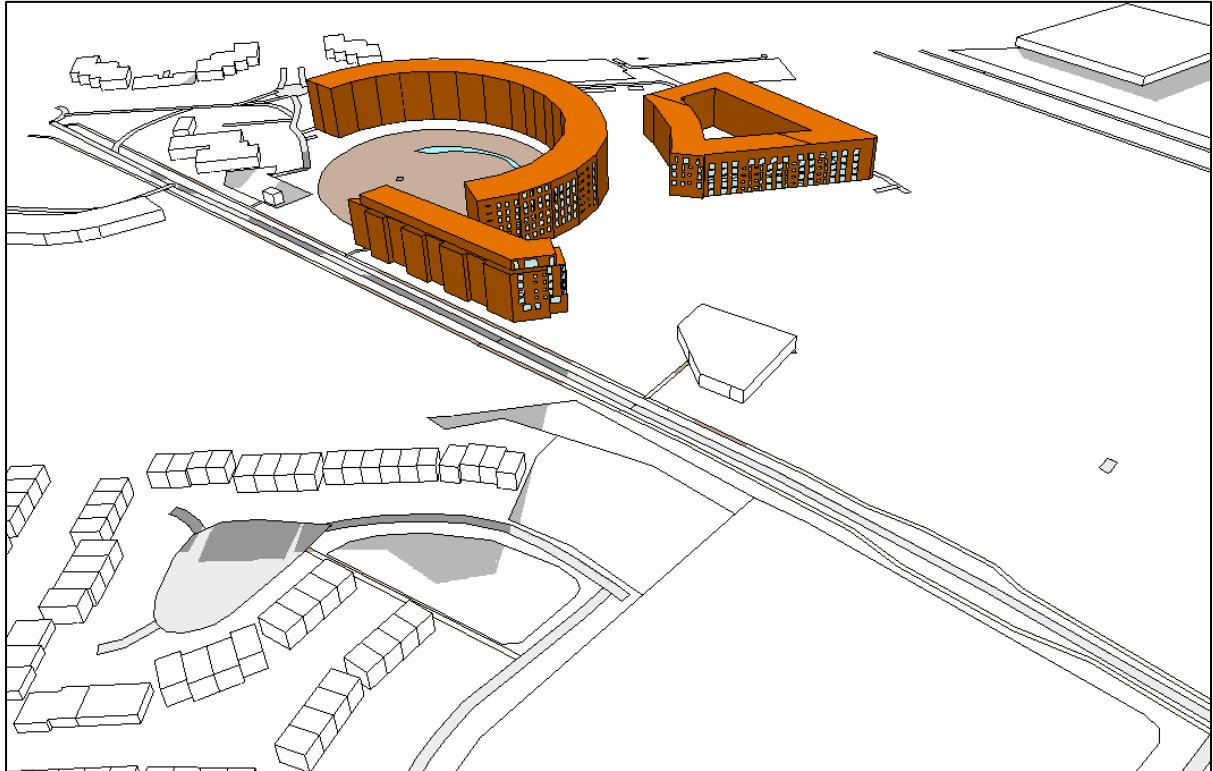


Figure 492. Shadow image on December 21<sup>st</sup> at 14:00 of Park West without Proposed Development (modelling software)

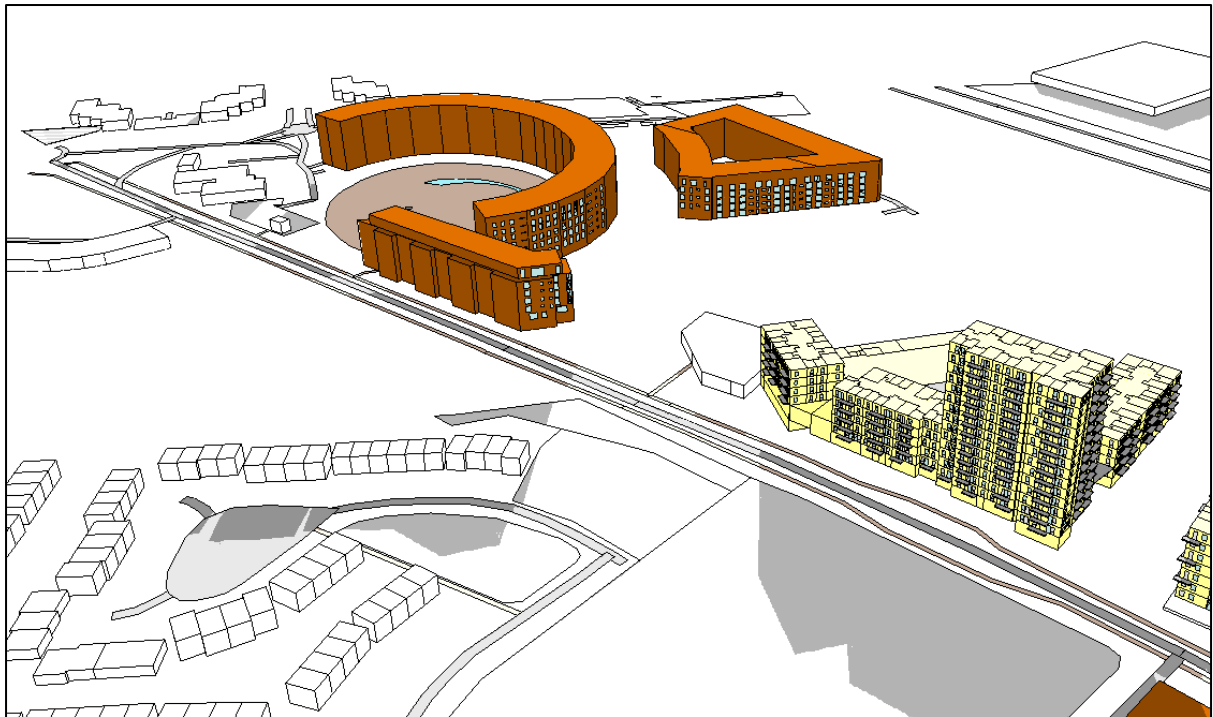


Figure 493. Shadow image on December 21<sup>st</sup> at 14:00 of Park West with Proposed Development (modelling software)

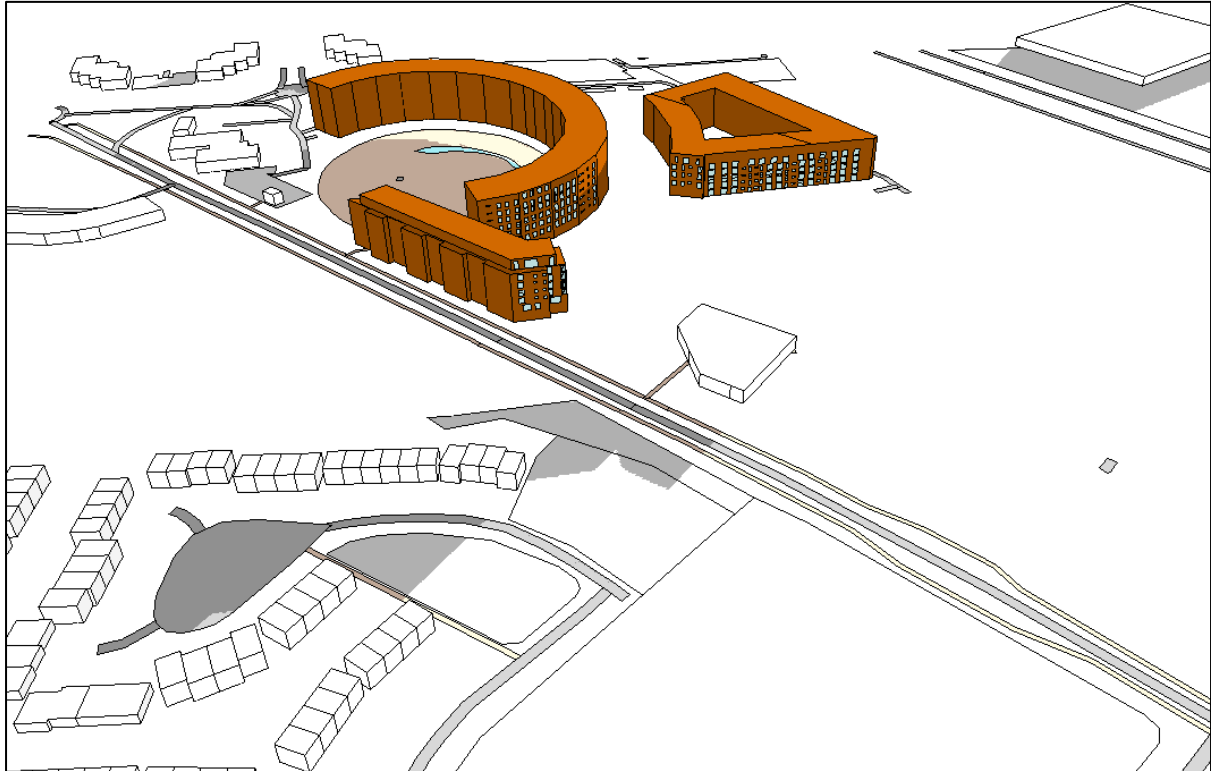


Figure 494. Shadow image on December 21<sup>st</sup> at 16:00 of Park West without Proposed Development (modelling software)

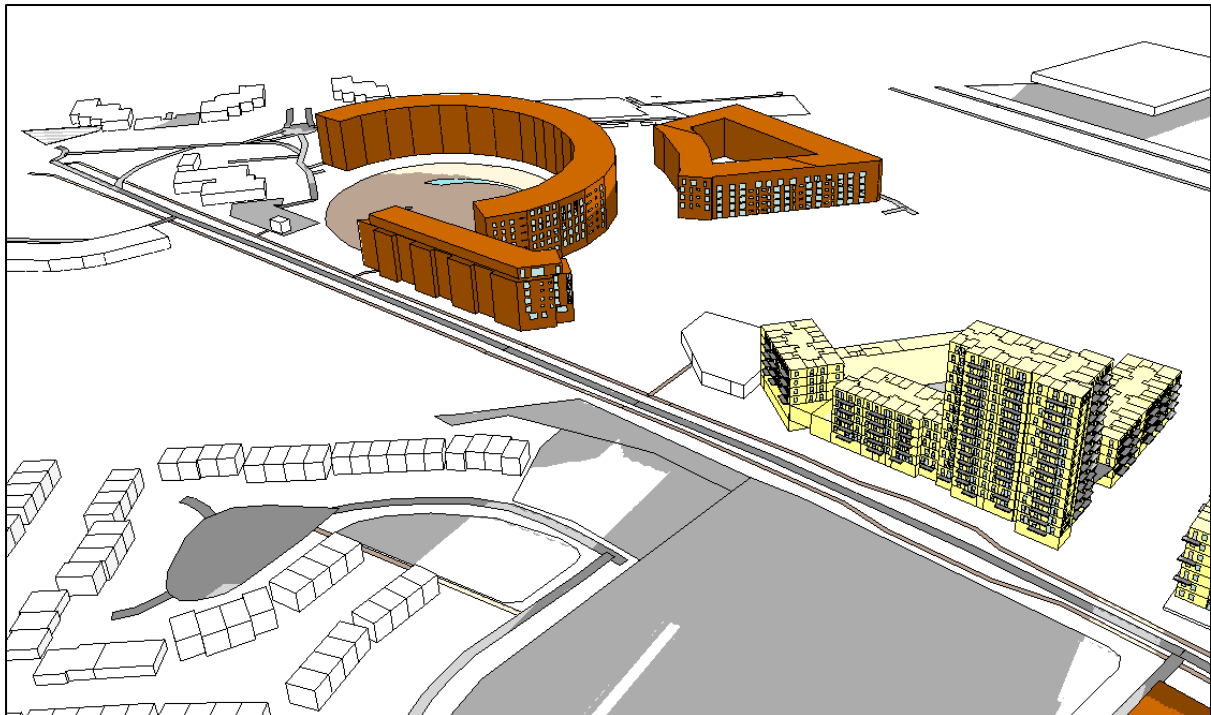


Figure 495. Shadow image on December 21<sup>st</sup> at 16:00 of Park West with Proposed Development (modelling software)

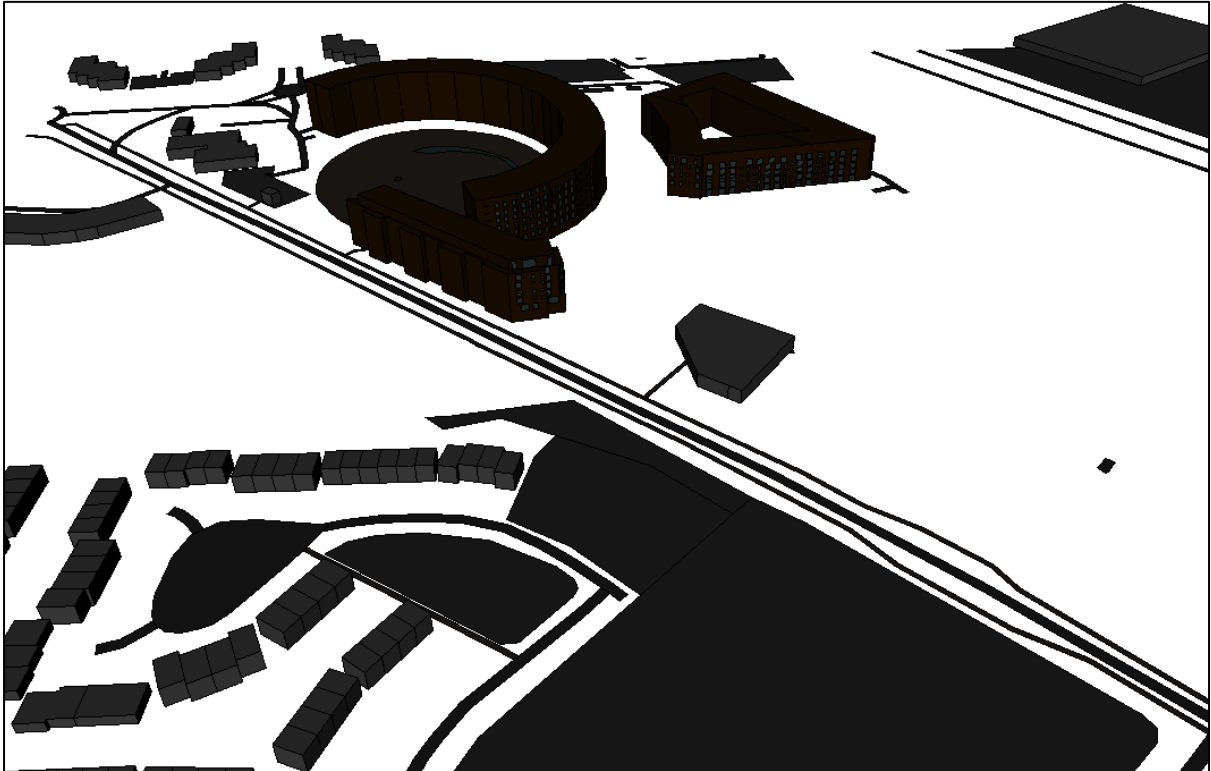


Figure 496. Shadow image on December 21<sup>st</sup> at 18:00 of Park West without Proposed Development (modelling software)

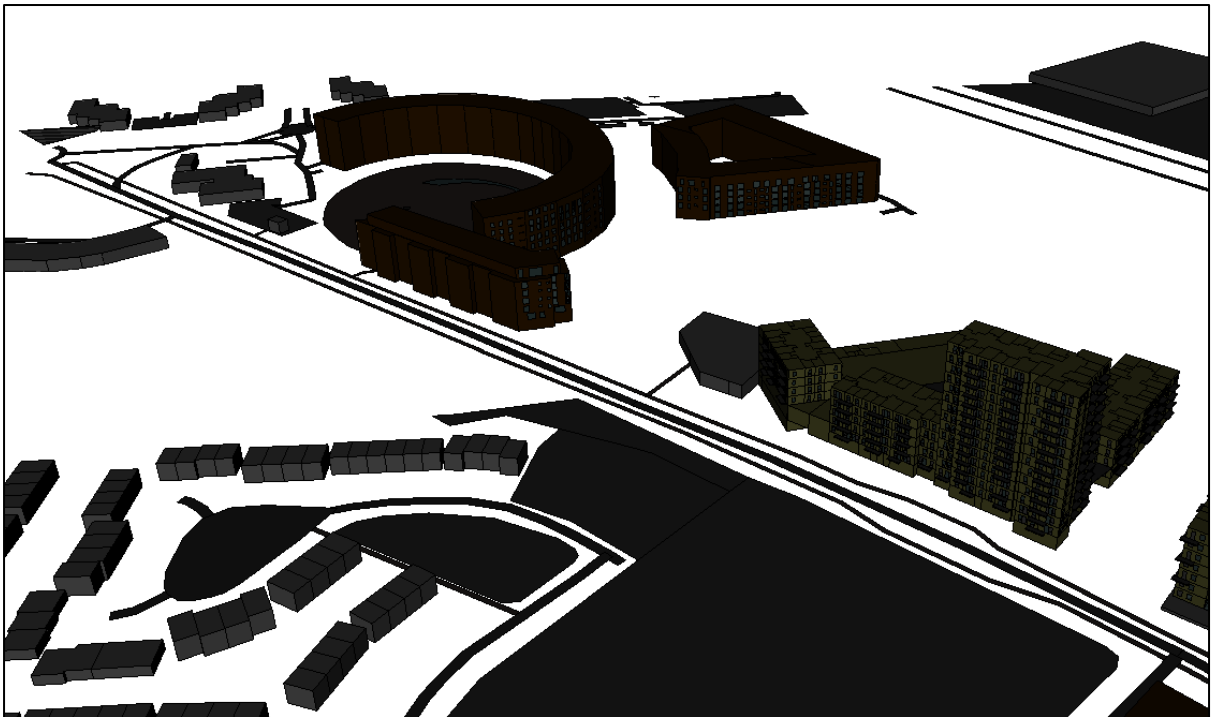


Figure 497. Shadow image on December 21<sup>st</sup> at 18:00 of Park West with Proposed Development (modelling software)



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