



4th Floor, Holborn Tower
137-144 High Holborn
London
WC1V 6PL

T: +44(0)20 7148 6290
E: info@eb7.co.uk
W: eb7.co.uk

DAYLIGHT & SUNLIGHT REPORT

220 Elgar Road South
Reading, RG2 0BW

Our Ref: 4681

25 March 2021

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Report details

Client: Maxika Homes Ltd
12 Drays Lane
Rotherfield Peppard,
Henley On Thames
United Kingdom
RG9 5JW

Prepared by: Daniel Sumner
Checked by: Jonathan Lonergan
Date of issue: 25/03/21

1 Introduction

- 1.1.1 eb7 have been instructed to assess the daylight and sunlight effects of the proposed development at 220 Elgar Road South, Reading upon the existing surrounding properties and as well as the daylight and sunlight amenity within the proposal itself. These assessments consider the latest Sawkings Harper Architects' proposals issued on the 4th March 2021.
- 1.1.2 The methodology and criteria used for these assessments is provided by Building Research Establishment's (BRE) guidance 'Site layout planning for daylight and sunlight: A guide to good practice' (BRE 209 2nd edition, 2011).
- 1.1.3 In order to carry out an assessment, we have generated a 3D computer model (Test Environment) of the existing site, the key surrounding properties and the proposed scheme. Using this model and our specialist software, we have calculated the daylight and sunlight levels in both the existing and proposed conditions for the relevant neighbouring buildings.
- 1.1.4 As the proposed development includes residential accommodation, the daylight and sunlight to the rooms within the proposal has also been considered.
- 1.1.5 The numerical criteria suggested within the BRE guidelines has been applied to each of the assessments mentioned above. It is important to note that these guidelines are not a rigid set of rules, but are advisory and need to be applied flexibly according to the specific context of a site.

2 Guidance

2.1 Daylight & sunlight for planning

'Site layout planning for daylight and sunlight: A guide to good practice', BRE 2011

- 2.1.1 The Building Research Establishment (BRE) Report 209, *'Site layout planning for daylight and sunlight: A guide to good practice'*, is the reference document used by most local authorities for assessing daylight and sunlight in relation to new developments. Commonly referred to as 'the BRE guidelines', it provides various testing methodologies to calculate the potential light levels received by neighbours of a development site and provided within proposed new development.

Detailed daylight assessments

- 2.1.2 The guidance outline three detailed methods for calculating daylight: the Vertical Sky Component (VSC), the No-Sky Line (NSL) and the Average Daylight Factor (ADF).
- 2.1.3 The VSC and NSL are primarily used for the assessment of existing buildings, while the ADF test is generally recommended for proposed rather than existing dwellings. The ADF may sometimes be useful as a supplementary analysis for existing buildings, particularly newer ones, and a number of local authorities request this as a standard measurement for impact assessments. It can help in judging whether an impact on daylight, which might otherwise be deemed 'noticeable', is nonetheless acceptable, when considered in the broader town planning context.
- 2.1.4 The VSC test measures the amount of sky that is visible to a specific point on the outside of a property, which is directly related to the amount of daylight that can be received. It is measured on the outside face of the external walls, usually at the centre point of a window.
- 2.1.5 The NSL test calculates the distribution of daylight within rooms by determining the area of the room at desk / work surface height (the 'working plane') which can and cannot receive a direct view of the sky and hence 'sky light'. The working plane height is set at 850mm above floor level within residential property.
- 2.1.6 For the above methods, the guidance suggests that existing daylight may be noticeably affected by new development if: -
- Windows achieve a VSC below 27% and are reduced to less than 0.8 times their former value; and / or
 - Levels of NSL within rooms are reduced to less than 0.8 times their former values.
- 2.1.7 Where rooms are greater than 5m in depth and lit from only one side, the guidance recognises that *"a greater movement of the no sky-line may be unavoidable"* (page 8, paragraph 2.2.10).

Daylight to new buildings

- 2.1.8 The ADF method calculates the average illuminance within a room as a proportion of the illuminance available to an unobstructed point outdoors under a sky of known luminance and luminance distribution. This is the most detailed of the daylight calculations and considers the physical nature of the room behind the window, including window transmittance and surface reflectivity. The BRE guidance and British Standard sets the following recommended ADF levels for habitable room uses:

-

Bedrooms	1% ADF
Living rooms & dining rooms	1.5% ADF
Kitchens	2% ADF

- 2.1.9 For multi-purpose living / kitchen / diner (L/K/D) arrangements the higher 2% 'kitchen' target can be difficult to achieve due to the depth of internal space. In such cases, it is not uncommon to apply the living room 1.5% target instead as this is the predominant use of the space.

Detailed sunlight assessments

- 2.1.10 For sunlight, the Annual Probable Sunlight Hours (APSH) test calculates the percentage of probable hours of sunlight received by a window or room over the course of a year.
- 2.1.11 In assessing sunlight effects to existing properties surrounding a new development, only those windows orientated within 90° of due south and which overlook the site require assessment. The main focus is on living rooms, with bedrooms and kitchens deemed less important.
- 2.1.12 The guidelines suggest that the main living rooms within new buildings should achieve at least 25% of annual sunlight hours, with 5% during the winter period. For neighbouring buildings, the guide suggests that occupiers will notice the loss of sunlight if the APSH to main living rooms is both less than 25% annually (with 5% during winter) and that the amount of sunlight, following the proposed development, is reduced by more than 4%, to less than 0.8 times its former value.

3 Application of the guidance

3.1 Scope of assessment

Impact analysis for neighbouring buildings

- 3.1.1 The BRE guidelines advise that, when assessing any potential effects on surrounding properties, only those windows and rooms that have a 'reasonable expectation' of daylight and sunlight need to be considered. At paragraph 2.2.2 it states: -

"The guidelines given here are intended for use for rooms in adjoining dwellings where daylight is required, including living rooms, kitchens and bedrooms. Windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed."

- 3.1.2 Our assessments therefore consider the neighbouring residential properties only, which the BRE recognises have the highest expectation for natural light. We have tested the impact on the main rooms in each residential property and ignored non-habitable space (e.g. staircases, hallways, bathrooms, toilets, stores etc.) as per BRE guidance.

Assessment for proposed accommodation

- 3.1.3 Our assessment has considered all of the proposed residential units within the scheme. The daylight assessment considers all of the main habitable rooms (bedrooms, living rooms, kitchens etc.), toilets, hallways and staircases are not considered habitable use.
- 3.1.4 For sunlight the BRE acknowledges that windows with a predominantly northern orientation are unlikely to satisfy its targets and that main living rooms are most important. Therefore, our sunlight assessment focusses on the relevant living areas with windows facing within 90° of due south only.

3.2 Application of the numerical criteria

- 3.2.1 The opening paragraphs of the BRE guidelines state:

"The guide is intended for building designers and their clients, consultants and planning officials. 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... In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high-rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings".

- 3.2.2 It is therefore very important to apply the BRE guidance sensibly and flexibly, with

careful consideration of the specific site context. Its numerical targets theoretically apply to any built environment, from city centres to rural villages. However, in more tightly constrained environments, achieving the default BRE targets can be very challenging and conflict with other beneficial factors of site layout design.

- 3.2.3 With the above in mind, rigid adherence to the BRE in certain situations could easily result in an inappropriate form of development. In which case it may be appropriate to adopt lower target values more appropriate to the location concerned. This is acknowledged in the BRE guidance at paragraph 2.2.3 (page 7):

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

- 3.2.4 For buildings that neighbour a new development, the guidance suggests that daylight will be adversely affected by the development, if either; its windows achieve a VSC below 27% and have their levels reduced to less than 0.8 times their former value, or the levels of NSC within rooms are reduced to less than 0.8 times their former values.

4 Planning Policy

4.1.1 We have considered local, regional and national planning policy relating to daylight and sunlight. In general terms, planning policy advises that new development will only be permitted where it is shown not to cause unacceptable loss of daylight or sunlight amenity to neighbouring properties. This is reflected in Policy CC8 of the Reading Local Plan.

4.1.2 The need to protect amenity of neighbours is also echoed within the National Planning Policy Framework (NPPF). Although, this document also stresses that current guidance needs to be applied flexibly where developments are located in urban areas and intend to achieve higher densities. Specifically, these documents suggest that the nationally applicable criteria given within the BRE guidance needs to be applied in consideration of the development's context.

4.2 Reading Borough Local Plan (Adopted November 2019)

Policy CC8: Safeguarding Amenity

4.2.1 The Reading Borough Local Plan sets out the following in respect of amenity:

"Development will not cause a detrimental impact on the living environment of existing residential properties or unacceptable living conditions for new residential properties, in terms of:

- *Privacy and overlooking;*
- *Access to sunlight and daylight;*
- *Visual dominance and overbearing effects of a development;*
- *Harm to outlook;*
- *Noise and disturbance;*
- *Artificial lighting;*
- *Vibration;*
- *Dust and fumes;*
- *Smell;*
- *Crime and safety; or*
- *Wind, where the proposals involve new development of more than 8 storeys."*

4.2.2 Paragraph 4.1.36 of the Reading Borough Local Plan expands on this stating:

"One of the key concerns of planning is to ensure that new development does not reduce the quality of the environment for others, particularly where it would affect residential properties. At the same time, ensuring that new development creates a quality living environment for future residents is also critical. The policy

aims to ensure that existing and additional residential properties provide an acceptable living environment, which is a key element of a high quality of life. It is applicable to any type of development."

4.3 The National Planning Policy Framework -Ministry of Housing, Communities & Local Government (February 2019)

- 4.3.1 The National Planning Policy Framework sets out planning policies for England and how these are expected to be applied. In respect of daylight and sunlight it stresses the need to make optimal use of sites and to take a flexible approach to daylight and sunlight guidance. Para 123 States: -

11. Making effective use of land

Achieving appropriate densities

"123. Where there is an existing or anticipated shortage of land for meeting identified housing needs, it is especially important that planning policies and decisions avoid homes being built at low densities, and ensure that developments make optimal use of the potential of each site. In these circumstances: -

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

5 Sources of Information & Assumptions

- 5.1.1 A topographical survey and architectural drawings have been used to create a 3D computer model of the proposed development in the context of the existing site and surrounding buildings.
- 5.1.2 Where survey information was unavailable for the neighbouring buildings, these have been positioned from Ordnance Survey data. In absence of an elevational survey for the neighbouring properties, the neighbouring elevations and windows have been modelled from available planning records or based on brick counts from site photographs. Window positions and dimensions used directly affect the results of all assessment methods.
- 5.1.3 We have not sought access to the surrounding properties and, unless we have been able to source floor layouts via public records, the internal configuration and floor levels have been estimated. Unless the building form dictates otherwise, we assume room depths of c. 4.2m for principal living space. Room layouts used directly affect the results of the NSL assessments.
- 5.1.4 Where possible neighbouring building use has been identified via online research, including Valuation Office Agency (VOA) searches, and/or external observation.
- 5.1.5 The full list of sources of information used in this assessment is as follows: -

5.2 KTK Group

Topographical survey

KTK-S27-11-001(2010_REV_A).dwg
Received 24/03/2021

5.3 Sawkings Harper Architects

2D drawings of the proposed development

A4080-2000--Proposed Site Plan.dwg
A4080-2100--Proposed GF Plan.dwg
A4080-2101--Proposed FF Plan.dwg
A4080-2102--Proposed SF Plan.dwg
A4080-2103--Proposed TF Plan.dwg
A4080-2104--Proposed Roof Plan.dwg
A4080-2200--Proposed Street View.dwg
A4080-2201--Proposed East-West Elevation.dwg
A4080-2202--Proposed North-South Elevation.dwg
A4080-2300--Proposed Section.dwg
Received 04/03/2021

6 The Site and Proposal

- 6.1.1 The application site is located on the western side of Elgar Road South, Reading opposite the junction of Elgar Road South and Preston Road with the River Kennet offset to the west.
- 6.1.2 The site currently contains a single-storey building set back from the roadside in use as a driving test centre / office space. There is a gradual drop in ground level across the site from east to west of approximately 2m.
- 6.1.3 The neighbouring context is predominantly residential buildings with commercial / industrial units offset to the east. The neighbours to the north of the site are residential flats at 3-storeys in height where as the neighbouring buildings to the west and south are 2-storey dwellings. As there are no windows to the flank elevation of 14 Park View overlooking the site, it has not been necessary to consider this property for daylight and sunlight effects where there principal outlook is north / south away from the scheme.
- 6.1.4 The proposals comprise the demolition of the existing building at the site and construction of a 3 to 4-storey residential apartment scheme comprising 22 apartments with associated landscaping and parking.
- 6.1.5 Our computer modelling of the proposed scheme is shown in the below image and in more detail within our drawings at Appendix 1.



Image 1 - 3D view of the proposed development within the existing context

7 Assessment results

7.1.1 Full results of the daylight and sunlight assessments are attached within Appendix 2. Drawings to show the existing and proposed buildings in the context of the neighbouring properties are attached within Appendix 1.

7.2 Daylight and sunlight to neighbouring buildings

7.2.1 Our assessment has considered all of the closest neighbouring residential properties with windows overlooking the proposed development. These are shown on the following image: -

1. 1-12 Park View
2. 224 Elgar Road South
3. 16 Park View



Image 2 - Map showing site location and neighbouring residential properties

7.2.2 As the BRE guidelines are intended for habitable rooms within adjoining dwellings where there is a requirement for daylight, it has not been necessary to consider the daylight and sunlighting effects to the neighbouring industrial units to the east.

1-12 Park View



Image 3 - Aerial view of 1-12 Park View, south elevation

- 7.2.3 This is 3-storey residential block of flats is located directly to the north of the site with a number of windows facing the site.
- 7.2.4 The 3 closest windows overlooking the site within the flank elevation serve bathrooms and thus are not relevant for daylight / sunlight assessment under the BRE guidelines due to their non-habitable use. The remaining south facing windows set back further from the site are understood to serve bedrooms, living rooms and circulation space.
- 7.2.5 We have modelled these neighbouring flats using planning drawings obtained from the Reading Borough Council planning portal (planning ref: 01-00872-FUL).

Daylight

- 7.2.6 Our Vertical Sky Component (VSC) results confirm all of the windows serving habitable space will meet the BRE recommendations of retaining 0.8 times their existing level. Here, VSC effects are limited to 0.9 times their existing level and regarded unnoticeable effects under the BRE guidelines.
- 7.2.7 This is verified by the No-Sky Line (NSL) assessments where the results show limited shift in the daylight distribution to the room as a result of the scheme.
- 7.2.8 The effects to these neighbouring properties are considered fully compliant with the BRE guidelines for VSC and NSL daylight.

Sunlight

- 7.2.9 For sunlight, the BRE guidelines consider all main living rooms within 90° of due south relevant for Annual Probable Sunlight Hours (APSH) assessment. As there are living / dining rooms to the western wing facing towards to the site, we have considered the sunlight effects to these spaces.
- 7.2.10 Our APSH results demonstrate that sunlight levels with the scheme in place will be

well in excess of the BRE recommendations of at least 25% total annual levels and 5% for the winter months. Here, proposed levels are in excess of 47% for annual sunlight levels and at least 13% for winter.

- 7.2.11 The neighbouring flats therefore fully satisfy the BRE criteria for sunlight to the neighbours.

224 Elgar Road South



Image 4 - 224 Elgar Road South, front / side elevation

- 7.2.12 This 2-storey semi-detached house is located to the south of the site. The principal elevations of the property face east and west away from the site and will be limited to oblique views of the proposed development.
- 7.2.13 Internal information was limited for this property and no planning records were available from the Reading Borough Council planning portal. We have therefore assumed the room layouts of this property based on estate agent floorplans for similar properties along Elgar Road South.
- 7.2.14 Based on these plans, we understand that the flank windows at ground and first level serve hallways or stairs with the ground level doorway serving a separate hallway leading into a rear dining room and kitchen. As non-habitable rooms, these would not be relevant for daylight / sunlight assessment under the BRE guidelines.
- 7.2.15 As we were unable to confirm the internal layouts from an external inspection of the property, we have also considered the effects to this property based on the ground level doorway leading into a dual aspect kitchen which receives light from the rear lean-to extension.

Daylight

- 7.2.16 Our VSC results based on the separate hallway / kitchen layout demonstrate that all but 3 of the neighbouring windows will retain a Vertical Sky Component (VSC) of 0.8 times their existing level. Whilst 3 windows are below the BRE targets retaining 0.7 (Ground W7-W9), these are 3 north facing apertures within the rear lean-to

extension. These are more of a technicality given the extension receives daylight from the rear windows and skylights. As such, daylight to this space will not be materially impacted by the proposals.



Image 5 - Rear lean-to extension at 224 Elgar Road South

- 7.2.17 This is confirmed where all of the habitable rooms experience almost no change in the daylight distribution to the room (NSL).

Alternative layout

- 7.2.18 We have also considered the daylight effects on the basis that the ground level hallway forms part of a dual aspect kitchen receiving light through the rear extension as per the below image.

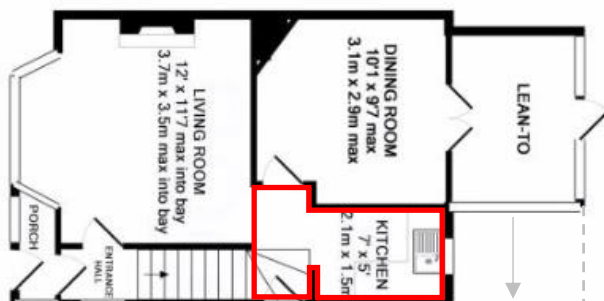


Image 6 - Neighbouring Ground level plan, assumed dual aspect kitchen layout

- 7.2.19 When assessing this as a dual aspect kitchen, our results show there will be 1 minor

deviation in the VSC to the glazing within the flank door where this is reduced to 0.7 times its former level. In this configuration, the room will enjoy light from the rear elevation window and given this window fully meets the BRE targets / achieves a VSC of c.27%, retained daylighting levels will be good to the space. As the effects will be limited to a minor VSC reduction to the secondary glazing within the door, and the principal kitchen space will continue to be well-daylit, this is considered fully acceptable – particularly given retained VSCs are comfortably in excess of that typically expected in an urban location.

- 7.2.20 Our NSL results for the dual aspect kitchen, record very little shift in the no-sky line to the room as a result of the scheme so daylight effects to the room are considered unnoticeable.
- 7.2.21 Whilst there are minor technical deviations to windows facing site, retained daylight levels to the property will be good in the proposed scenario and in line with the intentions of the BRE guidelines.

Sunlight

- 7.2.22 The rear living spaces to this neighbour are just within 90° of due south and have therefore been considered for sunlight effects under the APSH criteria.
- 7.2.23 Our results show that the rear dining room and conservatory will experience no reduction in light as a result of the scheme.
- 7.2.24 The neighbouring living spaces therefore satisfy the BRE guidelines under the APSH criteria.

16 Park View



Image 7 - 16 Park View, front / flank elevation

- 7.2.25 This 3-storey property is located to the north east of the site and has windows within the southern and eastern elevation with views towards the site.
- 7.2.26 Internal plans and elevations were sourced for this property from Reading Borough Council planning (ref: 01-00872-FUL) and these show the rooms to serve a kitchen at ground level, with bedrooms and bathrooms located above.

Daylight

- 7.2.27 The VSC results demonstrate that there will be limited change in daylight levels as a result of the scheme with all windows in excess of 0.8 times their former level.
- 7.2.28 Our NSL assessments demonstrate there will be no reduction in the no-sky line therefore daylight distribution to the room will be unchanged from the existing position.
- 7.2.29 The reductions in daylight to this property are considered unnoticeable under the BRE guidelines and demonstrate full compliance with the VSC and NSL daylight criteria.

Sunlight

- 7.2.30 Whilst there are windows facing south toward the site, none of the these are understood to serve main living rooms therefore this property is not relevant for APSH assessment.

7.3 Daylight and sunlight within the proposal

- 7.3.1 The daylight and sunlight amenity provided within the proposed residential accommodation has been assessed using the ADF and APSH tests following the methodology of the BRE guidance.
- 7.3.2 Given the level of glazing proposed and the open outlook enjoyed from the scheme, we have limited our technical assessments to the ground and first level rooms as these are the most likely to be constrained due to their lower position. As outlook increases further up the building, internal daylight and sunlight levels will only improve to these units.
- 7.3.3 Full results of the daylight and sunlight assessments within the proposed apartments, along with drawings to show the layout of rooms and windows, are attached within Appendix 3.

Daylight

Room Type	ADF Target	Total No. of Rooms	Rooms That Meet ADF Target
L/K/D	2%	11	11 (100%)
Bedroom	1%	20	20 (100%)
Total		31	31 (100%)

Table 1 - Summary ADF results for proposed accommodation

- 7.3.4 The results of the ADF assessment have shown that all (100%) of the 31 habitable rooms between ground and first level meet the BRE criteria achieving at least 2% ADF for a Living / Kitchen / Dining (L/K/D) room and 1% for a bedroom.
- 7.3.5 As internal daylight levels will only increase for the upper-level rooms, the scheme is considered fully compliant with the BRE guidelines for internal daylighting.

Sunlight

Room Type	Total No. of rooms	Rooms that meet APSH/WPSH criteria
L/K/Ds	11	11 (100%)

Table 2 - Summary APSH results for proposed accommodation

- 7.3.6 The focus of the BRE sunlight guidelines is on main living rooms, rather than bedrooms and kitchens, which the guide views as less important: -
- “3.1.2 In housing the main requirement for sunlight is in living rooms, where it is valued at any time of day but especially in the afternoon. Sunlight is also required in conservatories. It is viewed as less important in bedrooms and in kitchens”*
- 7.3.7 The results of the internal sunlight assessment have shown that all 11 (100%) of the

main living rooms at ground and first level will achieve the recommended sunlight levels under the Annual Probable Sunlight Hours criteria where all L/K/D rooms are in excess of 25% for total annual sunlight levels and at least 5% during the winter.

- 7.3.8 Again, sunlight availability will only increase to the main living rooms above first level and as such, the scheme is considered fully compliant with the BRE guidelines in respect of internal sunlight.

8 Conclusions

- 8.1.1 This practice has undertaken a detailed assessment of the potential daylight and sunlight effects of the proposed development at 220 Elgar Road South, Reading on the key neighbouring properties. We have also undertaken an assessment of the provision of daylight and sunlight within the proposed residential apartments.

8.2 Daylight and sunlight impact to neighbouring properties

- 8.2.1 Our assessments have been undertaken using the VSC, NSL, ADF (daylight) and APSH (sunlight) tests set out within the BRE guidance 'Site layout planning for daylight and sunlight: A guide to good practice' (2011).
- 8.2.2 Development of a low-rise site will inevitably lead to a degree of change in the prevailing daylight and sunlight levels however the scheme responds positively to the closest neighbours remaining commensurate in height with the flats to the north and angling the roof line down towards the residential housing to the south to minimise daylight and sunlight impacts to the neighbours.
- 8.2.3 The results of our technical assessments show that the majority of the neighbours meet the BRE guidelines and whilst there are isolated deviations to 224 Elgar Road, these are limited to minor changes in the VSC. Given these spaces are served by additional windows which will be unaffected by the proposal, daylight amenity will remain high to the rooms particularly given retained VSC levels are upwards of c.20%.
- 8.2.4 The assessment of sunlight to neighbouring windows has also shown full compliance with the BRE criteria.

8.3 Daylight and sunlight within the proposed residential units

- 8.3.1 The assessment of daylight within the proposed apartments has shown that all of the rooms assessed between ground and first level satisfy the BRE recommendations for internal daylight.
- 8.3.2 The results of our internal sunlight assessments demonstrate that all of the main living spaces will be in excess of the BRE targets for Annual Probable Sunlight Hours. Daylight and sunlight amenity will only improve to the upper floors as outlook to the units increase.
- 8.3.3 Overall, the scheme responds well to the neighbouring context and shows good levels of daylight and sunlight will be maintained to the neighbouring properties. Similarly, good levels of daylight and sunlight amenity will also be enjoyed by the future occupants of the scheme.
- 8.3.4 As such, the scheme is considered in line with the BRE recommendations and relevant planning policy for daylight and sunlight.



Appendix 1

Drawings of the existing and proposed
within the surrounding context



Sources of information

KTK Group
KTK-S27-11-001(2010_REV_A).dwg
Received 24/03/2021

Sawking Harper Architects
A4080-2000--Proposed Site Plan.pdf
A4080-2100--Proposed GF Plan.pdf
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A4080-2102--Proposed SF Plan.pdf
A4080-2103--Proposed TF Plan .pdf
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A4080-2200--Proposed Street View.dwg
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A4080-2202--Proposed North-South Elevation.pdf
A4080-2300--Proposed Section.pdf
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Key:

- Existing
- Proposed

NORTH



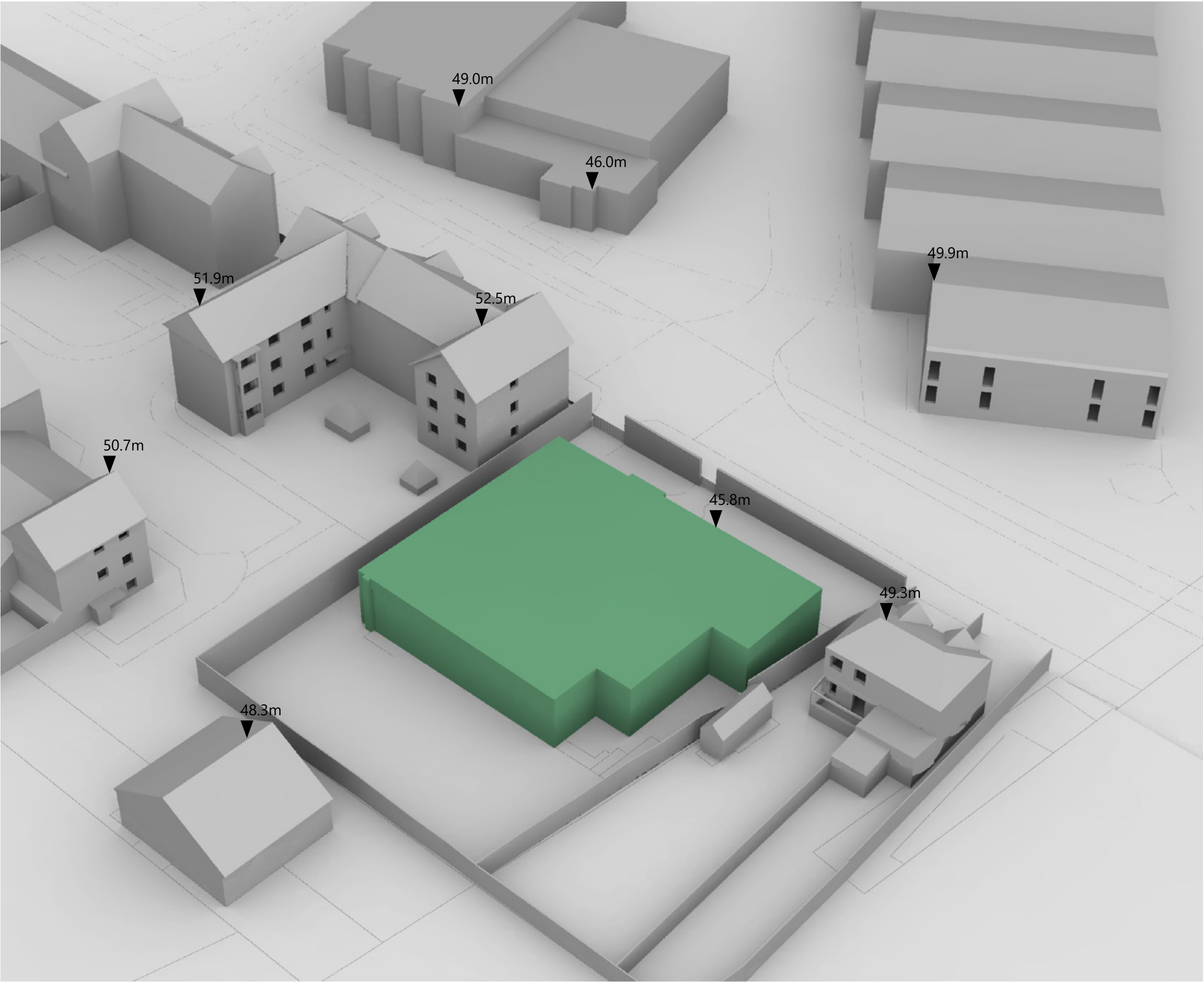
Project 220 Elgar Road South,
Road

Title Existing Condition
Plan View

Drawn AP Checked --

Date 24/03/2021 Project 4681

Rel no. 01 Prefix DS01 Page no. 01



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Key:

- Existing
- Proposed

Notes:
All heights and dimensions are in AOD

Project 220 Elgar Road South, Road

Title Existing Condition 3D View

Drawn AP Checked --

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Rel no. 01 Prefix DS01 Page no. 02



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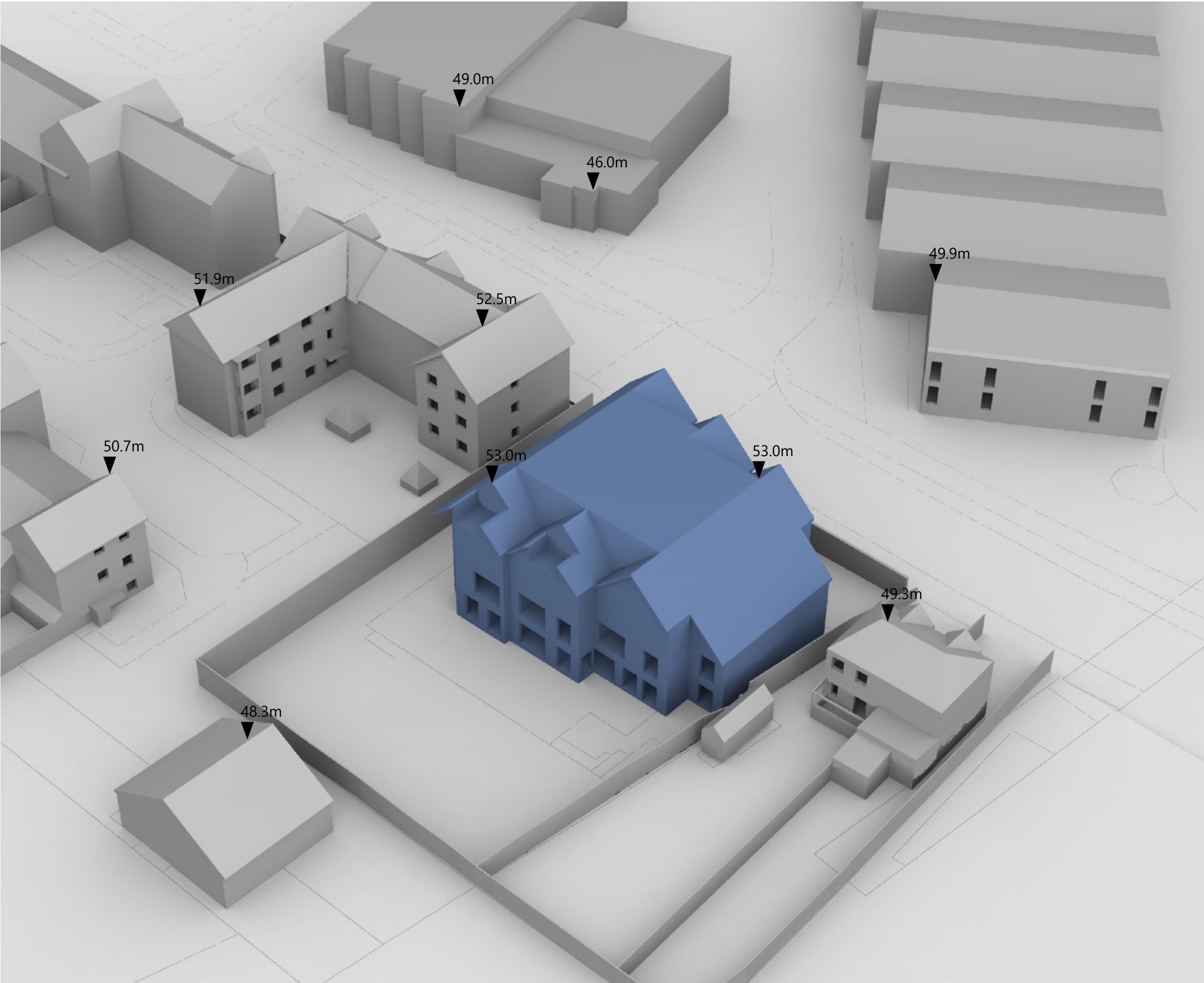
Project 220 Elgar Road South,
Road

Title Proposed Development
Plan View

Drawn AP Checked --

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Rel no. 01 Prefix DS01 Page no. 03



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A4080-2202--Proposed North-South Elevation.pdf
A4080-2300--Proposed Section.pdf
Received 04/03/2021

Promap-855199-951103-720-0.DWG
Received 16/03/2021

Key:

- Existing
- Proposed

Notes:
All heights and dimensions are in AOD

Project 220 Elgar Road South,
Road

Title Proposed Development
3D View

Drawn AP Checked --

Date 24/03/2021 Project 4681

Rel no. 01 Prefix DS01 Page no. 04



Appendix 2

Results of the daylight and sunlight assessments
within neighbouring properties

Address	Room	Window	Room Use	Existing VSC	Proposed VSC	Loss	Proportion Retained	Room Area	Existing NSC	Proposed NSC	Loss	Proportion Retained	Existing APSH Total	Existing APSH Winter	Proposed APSH Total	Proposed APSH Winter	Total Retained	Winter Retained
Block 1-12_204 to 216 Elgar Road South																		
Ground	R1	W1	LD	23.9	23.9	0.0	1.0											
		W2		31.7	29.9	1.8	0.9											
		W3		10.9	10.6	0.3	1.0											
		W16		32.2	32.2	0.0	1.0	235.8	235.8	235.7	0.1	1.0	78	22	75	19	1.0	0.9
Ground	R2	W4	Bedroom	28.8	27.2	1.6	0.9	101.3	90.9	90.6	0.3	1.0	60	20	58	18	1.0	0.9
Ground	R3	W5	Bedroom	25.3	24.0	1.3	0.9	108.9	83.7	83.2	0.5	1.0	53	17	51	15	1.0	0.9
Ground	R4	W6-L	Hallway	9.7	8.6	1.1	0.9											
		W6-U W15-L W15-U		11.7	11.7	0.0	1.0	194.9	186.5	182.6	3.9	1.0	25	14	23	12	0.9	0.9
Ground	R5	W7	Bedroom	34.4	33.5	0.9	1.0	110.4	107.9	107.8	0.2	1.0	47	14	43	10	0.9	0.7
Ground	R6	W8	Bedroom	34.2	32.8	1.4	1.0	119.0	116.7	115.7	1.0	1.0	48	12	42	6	0.9	0.5
Ground	R7	W9	Bathroom	28.0	20.2	7.8	0.7	40.9	38.8	28.0	10.8	0.7	73	16	60	5	0.8	0.3
Ground	R8	W10	LD	33.1	33.1	0.0	1.0											
		W11		19.9	19.7	0.2	1.0											
		W12		36.0	36.0	0.0	1.0											
		W13		18.9	18.9	0.0	1.0	219.0	217.4	217.4	0.0	1.0	49	14	49	14	1.0	1.0
Ground	R9	W14	Kitchen	33.4	33.4	0.0	1.0	114.6	112.8	112.8	0.0	1.0	N/F	N/F	N/F	N/F	N/F	N/F
First	R1	W1	LD	26.2	26.2	0.0	1.0											
		W2		34.8	32.9	2.0	0.9											
		W3		13.7	13.4	0.3	1.0											
		W16		34.6	34.6	0.0	1.0	235.8	235.8	235.7	0.1	1.0	89	25	89	25	1.0	1.0
First	R2	W4	Bedroom	32.2	30.4	1.7	0.9	101.3	97.7	97.7	0.0	1.0	70	23	70	23	1.0	1.0
First	R3	W5	Bedroom	30.0	28.6	1.5	1.0	108.9	97.1	97.0	0.1	1.0	62	19	62	19	1.0	1.0
First	R4	W6	Stairwell	24.6	23.5	1.1	1.0											
		W15		28.2	28.2	0.0	1.0	194.9	184.6	181.4	3.1	1.0	57	16	57	16	1.0	1.0
First	R5	W7-L	Bedroom	37.1	35.7	1.4	1.0											
		W7-U						110.4	108.1	108.1	0.0	1.0	51	16	47	12	0.9	0.8
First	R6	W8-L W8-U	Bedroom	37.5	35.1	2.4	0.9	119.0	116.8	116.5	0.2	1.0	51	16	44	9	0.9	0.6
First	R7	W9-L W9-U	Bathroom	38.6	25.6	13.0	0.7	40.9	38.8	38.8	0.0	1.0	87	30	70	13	0.8	0.4
First	R8	W10-L	LD	34.9	34.9	0.0	1.0											
		W10-U																
		W11		20.8	20.6	0.2	1.0											
		W12 W13		37.6 19.5	37.6 19.5	0.0 0.0	1.0 1.0	219.0	217.5	217.5	0.0	1.0	50	15	50	15	1.0	1.0
First	R9	W14-L W14-U	Kitchen	35.0	35.0	0.0	1.0	114.6	112.8	112.8	0.0	1.0	N/F	N/F	N/F	N/F	N/F	N/F
Second	R1	W1	LD	23.1	23.1	0.0	1.0											
		W2		32.8	31.5	1.3	1.0											
		W3		15.7	15.5	0.2	1.0											
		W16		32.2	32.2	0.0	1.0	235.8	235.8	235.8	0.0	1.0	94	28	94	28	1.0	1.0
Second	R2	W4	Bedroom	30.6	29.4	1.1	1.0	101.3	98.7	98.7	0.0	1.0	70	25	70	25	1.0	1.0
Second	R3	W5	Bedroom	29.0	28.0	0.9	1.0	108.9	102.5	102.5	0.0	1.0	69	25	69	25	1.0	1.0
Second	R4	W6	Stairwell	22.0	21.4	0.6	1.0											
		W15		25.5	25.5	0.0	1.0	194.9	191.3	191.3	0.1	1.0	48	23	48	23	1.0	1.0
Second	R5	W7-L W7-U	Bedroom	37.7	36.8	0.8	1.0	110.4	108.1	108.1	0.0	1.0	50	15	50	15	1.0	1.0
Second	R6	W8-L W8-U	Bedroom	37.9	36.4	1.4	1.0	119.0	116.7	116.3	0.3	1.0	46	15	43	12	0.9	0.8
Second	R7	W9-L W9-U	Bathroom	32.0	23.9	8.1	0.7	40.9	38.8	38.8	0.0	1.0	70	30	61	21	0.9	0.7
Second	R8	W10-L	LD	35.3	35.3	0.0	1.0											
		W10-U																
		W11		17.5	17.4	0.1	1.0											
		W12 W13		34.6 16.1	34.6 16.1	0.0 0.0	1.0 1.0	219.0	217.7	217.7	0.0	1.0	47	13	47	13	1.0	1.0
Second	R9	W14-L W14-U	Kitchen	35.3	35.3	0.0	1.0	114.6	113.1	113.1	0.0	1.0	N/F	N/F	N/F	N/F	N/F	N/F
Block 16_204 to 216 Elgar Road South																		
Ground	R1	W1	Kitchen	33.2	32.0	1.2	1.0											
		W2		25.8	24.7	1.1	1.0	164.5	158.0	158.0	0.0	1.0	82	26	81	25	1.0	1.0
First	R1	W1	Bathroom	37.5	36.3	1.2	1.0	33.8	31.2	31.2	0.0	1.0	87	30	85	28	1.0	0.9
First	R2	W2	Bedroom	37.5	36.1	1.4	1.0											
		W3		30.7	29.5	1.2	1.0	143.3	140.2	140.2	0.0	1.0	89	30	88	29	1.0	1.0
Second	R1	W1	Bathroom	25.9	24.9	0.9	1.0	42.2	37.8	37.8	0.0	1.0	45	30	44	29	1.0	1.0

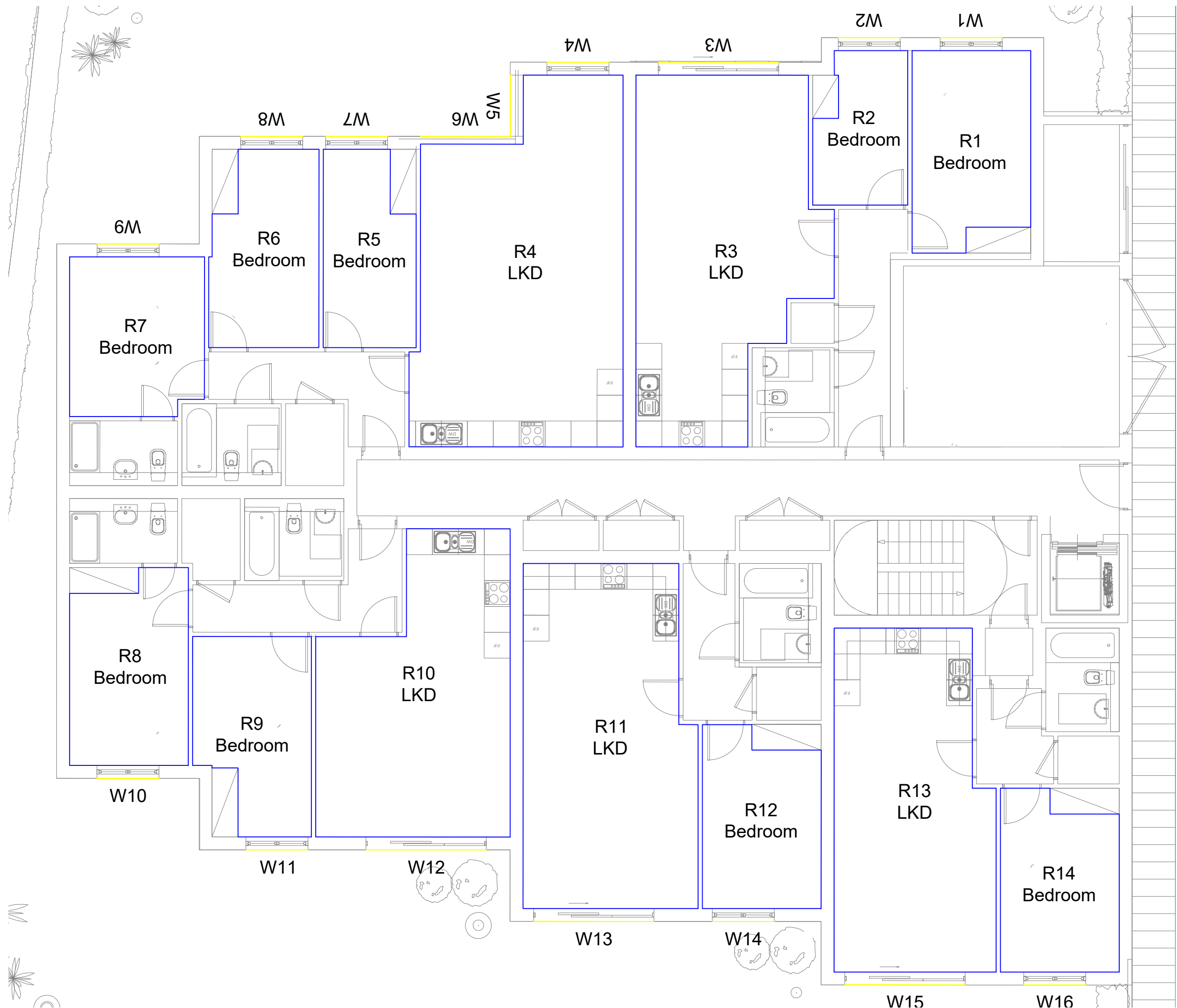
Address	Room	Window	Room Use	Existing	Proposed	Loss	Proportion Retained	Room	Existing	Proposed	Loss	Proportion Retained	Existing APSH		Proposed APSH		Total	Winter											
				VSC	VSC			Area	NSC	NSC			Total	Winter	Total	Winter	Retained	Retained											
Second	R2	W2 W3	Bedroom	27.0 36.1	25.9 35.2	1.1 0.9	1.0 1.0	127.4	124.5	124.5	0.0	1.0	71	30	70	29	1.0	1.0											
224 Elgar Road South																													
Ground	R1	W1-L	Residential	28.9	28.9	0.0	1.0	125.3	125.2	125.2	0.0	1.0	46	13	46	13	1.0	1.0											
		W1-U		37.0	36.9	0.1	1.0																						
		W2-L		37.0	36.9	0.1	1.0																						
		W2-U		37.0	36.9	0.1	1.0																						
Ground	R2	W3-L	Residential	24.4	23.9	0.5	1.0	125.3	125.2	125.2	0.0	1.0	46	13	46	13	1.0	1.0											
		W3-U		24.4	23.9	0.5	1.0																						
		W4		14.3	14.1	0.2	1.0												26.2	25.2	25.2	0.0	1.0	N/F	N/F	N/F	N/F	N/F	N/F
		W5		33.1	24.9	8.1	0.8																						
Ground	R3	W6	Hallway	32.0	22.7	9.4	0.7	19.3	18.1	16.2	1.9	0.9	N/F	N/F	N/F	N/F	N/F	N/F											
Ground	R4	W12	Kitchen	28.9	27.9	1.1	1.0	34.4	33.1	33.0	0.1	1.0	44	14	44	14	1.0	1.0											
Ground	R5	W13-L W13-U	Dining Room	27.2	26.6	0.7	1.0	92.9	90.7	90.6	0.1	1.0	32	2	32	2	1.0	1.0											
Ground	R6	W7-L	Conservatory	28.8	19.7	9.1	0.7																						
		W7-U		30.2	21.1	9.1	0.7																						
		W8-L		30.2	21.1	9.1	0.7																						
		W8-U		30.3	21.2	9.1	0.7																						
		W9-L		30.3	21.2	9.1	0.7																						
		W9-U		35.9	35.1	0.8	1.0																						
		W10-L		35.9	35.1	0.8	1.0																						
		W10-U		35.9	35.1	0.8	1.0																						
First	R1	W11	Bedroom	73.3	71.1	2.2	1.0	63.6	63.6	63.6	0.0	1.0	62	20	62	20	1.0	1.0											
		W13-L		27.2	26.6	0.7	1.0																						
		W13-U		27.2	26.6	0.7	1.0																						
		W13-U		27.2	26.6	0.7	1.0																						
First	R1	W1-L	Bedroom	30.4	30.4	0.0	1.0	129.7	128.2	128.2	0.0	1.0	51	13	51	13	1.0	1.0											
		W1-U		38.3	38.2	0.1	1.0																						
		W2-L		38.3	38.2	0.1	1.0																						
		W2-U		38.3	38.2	0.1	1.0																						
First	R2	W3-L	Bedroom	33.4	31.9	1.5	1.0	129.7	128.2	128.2	0.0	1.0	51	13	51	13	1.0	1.0											
		W3-U		33.4	31.9	1.5	1.0																						
		W4-L		37.9	27.7	10.2	0.7												28.7	20.3	20.3	0.0	1.0	N/F	N/F	N/F	N/F	N/F	N/F
		W4-U		37.9	27.7	10.2	0.7																						
First	R3	W5-L W5-U	Bathroom	39.3	37.9	1.5	1.0	38.7	37.5	37.5	0.0	1.0	51	16	51	16	1.0	1.0											
First	R4	W6-L W6-U	Bedroom	39.4	38.4	0.9	1.0	92.4	89.8	89.8	0.0	1.0	51	16	51	16	1.0	1.0											

Address	Room	Window	Room Use	Existing VSC	Proposed VSC	Loss	Proportion Retained	Room Area	Existing NSC	Proposed NSC	Loss	Proportion Retained	Existing APSH Total	Winter Winter	Proposed APSH Total	Winter Winter	Total Retained	Winter Retained
224 Elgar Road South																		
Ground	R4	W6 W12	Kitchen	32.0 28.9	22.7 27.9	9.4 1.1	0.7 1.0	55.3	55.0	53.9	1.1	1.0	51	14	50	14	1.0	1.0



Appendix 3

Results of the internal daylight & sunlight assessments



Sources of information

KTK Group
KTK-S27-11-001(2010_REV_A).dwg
Received 24/03/2021

Sawking Harper Architects
A4080-2000--Proposed Site Plan.pdf
A4080-2100--Proposed GF Plan.pdf
A4080-2101--Proposed FF Plan.pdf
A4080-2102--Proposed SF Plan.pdf
A4080-2103--Proposed TF Plan .pdf
A4080-2104--Proposed Roof Plan.pdf
A4080-2200--Proposed Street View.dwg
A4080-2201--Proposed East-West Elevation.pdf
A4080-2202--Proposed North-South Elevation.pdf
A4080-2300--Proposed Section.pdf
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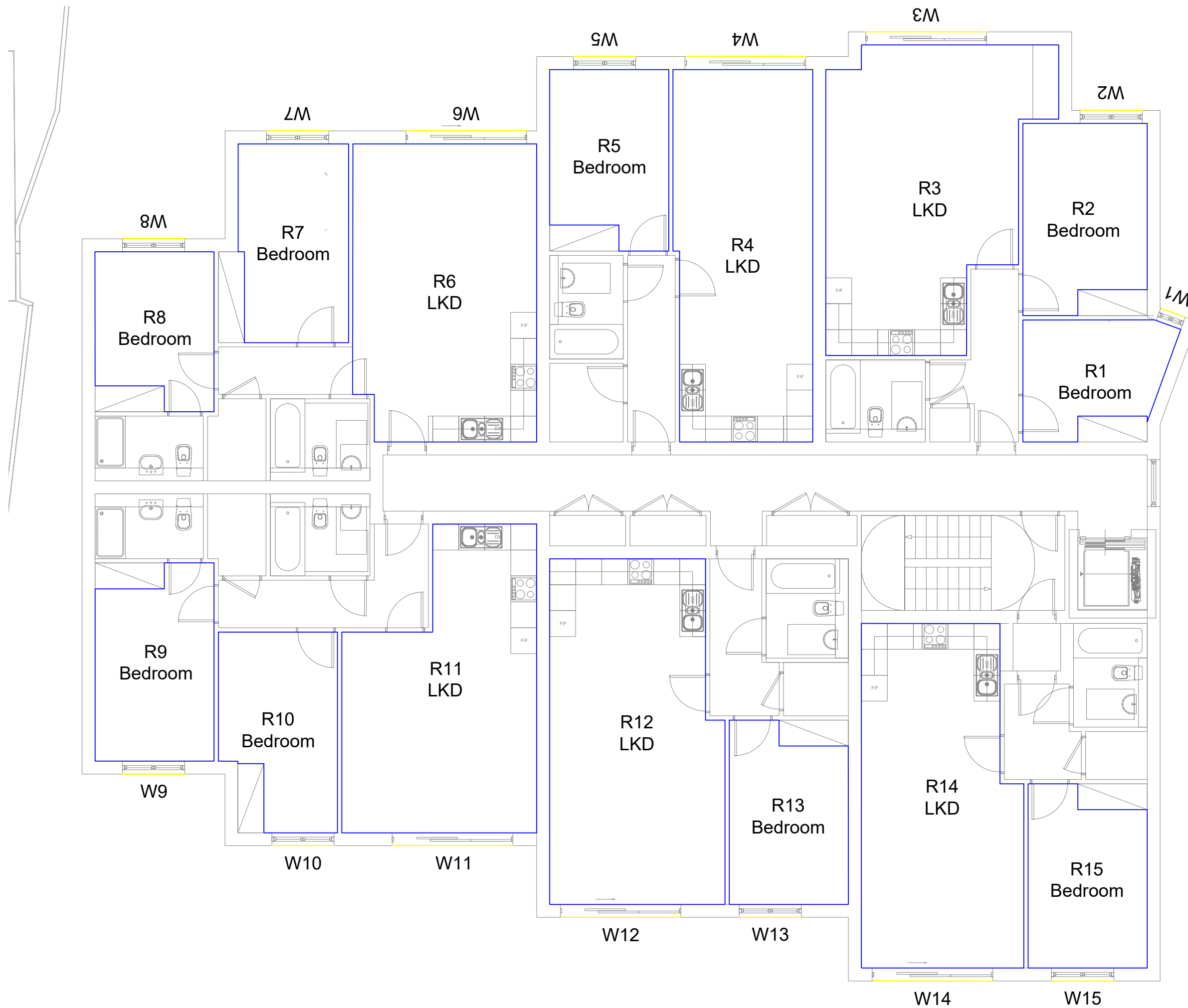
Project 220 Elgar Road South
Reading

Title Proposed Ground Floor
Room Layout

Drawn AP Checked --

Date 19/03/2021 Project 4681

Rel no. 01 Prefix ID01 Page no. ID01



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Promap-855199-951103-720-0.DWG
Received 16/03/2021

NORTH



Project 220 Elgar Road South
Reading

Title Proposed Ground Floor
Room Layout

Drawn AP Checked --

Date 19/03/2021 Project 4681

Rel no. 01 Prefix ID01 Page no. ID02

Floor	Room ID	Window ID	Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
Proposed							
Ground	R1	W1-L	Bedroom	0.7			
		W1-U	Bedroom	2.8	3.5		
Ground	R2	W2-L	Bedroom	1.0			
		W2-U	Bedroom	4.1	5.1		
Ground	R3	W3-L	LKD	0.6			
		W3-U	LKD	2.5	3.1	44	15
Ground	R4	W4-L	LKD	0.3			
		W4-U	LKD	1.1			
		W5-L	LKD	0.2			
		W5-U	LKD	0.7			
		W6-L	LKD	0.3			
		W6-U	LKD	1.3	4.0	56	19
Ground	R5	W7-L	Bedroom	0.8			
		W7-U	Bedroom	3.3	4.1		
Ground	R6	W8-L	Bedroom	0.7			
		W8-U	Bedroom	3.0	3.7		
Ground	R7	W9-L	Bedroom	0.5			
		W9-U	Bedroom	2.3	2.8		
Ground	R8	W10-L	Bedroom	0.1			
		W10-U	Bedroom	2.4	2.5		
Ground	R9	W11-L	Bedroom	0.1			
		W11-U	Bedroom	2.8	2.9		
Ground	R10	W12-L	LKD	0.1			
		W12-U	LKD	2.5	2.6	35	8
Ground	R11	W13-L	LKD	0.0			
		W13-U	LKD	2.5	2.5	33	7
Ground	R12	W14-L	Bedroom	0.1			
		W14-U	Bedroom	2.7	2.7		
Ground	R13	W15-L	LKD	0.0			
		W15-U	LKD	2.5	2.6	33	7
Ground	R14	W16-L	Bedroom	0.1			
		W16-U	Bedroom	2.8	2.8		
First	R1	W1-L	Bedroom	0.3			
		W1-U	Bedroom	1.2	1.5		
First	R2	W2-L	Bedroom	0.6			
		W2-U	Bedroom	2.3	2.8		
First	R3	W3-L	LKD	0.7			
		W3-U	LKD	2.8	3.5	46	15
First	R4	W4-L	LKD	0.8			
		W4-U	LKD	3.0	3.8	46	15
First	R5	W5-L	Bedroom	0.9			
		W5-U	Bedroom	3.4	4.2		
First	R6	W6-L	LKD	0.7			
		W6-U	LKD	2.6	3.3	46	15
First	R7	W7-L	Bedroom	0.8			
		W7-U	Bedroom	3.2	4.0		
First	R8	W8-L	Bedroom	0.8			
		W8-U	Bedroom	3.1	3.8		
First	R9	W9-L	Bedroom	0.7			
		W9-U	Bedroom	2.6	3.3		
First	R10	W10-L	Bedroom	0.8			
		W10-U	Bedroom	3.1	3.8		
First	R11	W11-L	LKD	0.7			
		W11-U	LKD	2.7	3.4	39	9

Floor	Room ID	Window ID	Room Use	ADF	TOTAL ADF	ROOM TOTAL APSH	ROOM WINTER APSH
First	R12	W12-L	LKD	0.7			
		W12-U	LKD	2.7	3.4	39	9
First	R13	W13-L	Bedroom	0.7			
		W13-U	Bedroom	2.9	3.6		
First	R14	W14-L	LKD	0.7			
		W14-U	LKD	2.9	3.7	39	9
First	R15	W15-L	Bedroom	0.8			
		W15-U	Bedroom	3.2	4.0		
Third	R1	W1-L	Bedroom	0.9			
		W1-U	Bedroom	4.5	5.5		
Third	R2	W2-L	Bedroom	0.8			
		W2-U	Bedroom	2.3	3.1		