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DAYLIGHT & SUNLIGHT REPORT

Hayes Town Centre Estate
Austin Road, Hayes

Our Ref: 4899

30 September 2022

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Report details

Client:	Higgins Group PLC
Prepared by:	DS
Checked by:	JL
Date of issue:	30 th September 2022

1 Introduction

- 1.1.1 eb7 have been instructed to assess the potential daylight and sunlight effects of proposed amendments at Phase 1 of the recently consented Hybrid Planning Application submitted to the Hillingdon Council for the regeneration of the Hayes Town Centre Estate, Hayes, London UB3 3PP (REF: 76550/APP/2021/4499).
- 1.1.2 This report should be read in conjunction with daylight and sunlight report submitted with the previous Hybrid Planning Application, including the Design and Access Statement prepared by PRP which explains the proposed amendments in more detail and relates to the surrounding context and planning policy framework for the site.
- 1.1.3 Our assessment considers the potential impact of the scheme revisions on daylight and sunlight to the existing surrounding properties as well as daylight and sunlight amenity within the proposal itself.
- 1.1.4 The current s.96a planning application comprises:
- “Non-material amendment to planning application reference 76550/APP/2021/4499 dated 28-09-2022 (Hybrid planning application seeking OUTLINE permission (with all matters reserved) for residential floorspace (Class C3) including demolition of all existing buildings and structures; erection of new buildings; provision of a community centre (up to 140sq.m of Use Class F2(b) floorspace); new pedestrian and vehicular access; associated amenity space, open space, landscaping; car and cycle parking spaces; plant, refuse storage, servicing area and other works incidental to the proposed development; and FULL planning permission for Blocks A and B comprising 80 residential units (Class C3); new pedestrian and vehicular access; associated amenity space and landscaping; car and cycle parking; refuse storage, servicing area, and other associated infrastructure to include temporary highways and landscaping works.) to amend ground floor height, internal layout, roof design and elevational detail.”*
- 1.1.5 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 3rdd edition, 2022).
- 1.1.6 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 comparing the proposed scheme against consented baseline scenario for the relevant neighbouring buildings (we explain the planning history of the site at section 3.2.6).
- 1.1.7 As per the previous Hybrid Application we have considered the effects of the latest Phase 1 proposals alongside the wider Maximum Parameter Scheme. In addition, we have considered the wider context of the Illustrative Masterplan scheme which

represents a refined / articulated proposal perhaps closer to that which is likely to ultimately be built-out. These outline parameters were consented as part of the previous Hybrid Planning Application in July 2022 (REF: 76550/APP/2021/4499).

- 1.1.8 As the proposed development will include residential accommodation, the daylight and sunlight to rooms within the scheme has also been considered. Our detailed internal assessments for this application are similarly limited to the detailed Phase 1 element of the scheme as the remaining Phases 2 to 5 continue to be outline at this stage and will be subject to Reserved Matters applications in the future.
- 1.1.9 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 2022

- 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.
- 2.1.2 The guidance given within the BRE document makes direct reference to the British Standard BS EN17037 (2018) and the CIBSE (Chartered Institute of Building Services Engineers) guide LG10: Daylighting – a guide for designers (2014). It is intended to be used in conjunction with these documents, which provide guidance on the assessment of daylight and sunlight within new buildings.
- 2.1.3 The 2022 update to the BRE guidance was published on 9th June 2022. The assessment methodologies and target metrics in respect of the impacts to neighbouring properties remain broadly unchanged from the earlier guidance save for some areas of clarification. The primary change relates to the assessment of internal daylight and sunlight amenity within proposed habitable accommodation. The new guidance reflects the British Standard BS EN17037, published in 2018, which was based on the relevant European Standard but, included a 'National Annex' clarifying the proposed application of the new internal guidance within the UK.
- 2.1.4 Detailed guidance upon the updated internal amenity standards is set out below. It is however important to note that the standards set out within BS EN17037 & BRE 209 (2022) are generally harder to achieve than the previous Average Daylight Factor (ADF) assessments adopted under the 2011 version of the guidance. A lower compliance rate with the new targets is not therefore indicative of a less acceptable scheme as the difference in the assessment metrics should be noted. This is particularly so in respect of urban development where a number of important design factors such as the provision of balcony private amenity space and limiting solar gain / overheating may lead to a trade-off against achieving higher internal amenity levels.

Daylight and Sunlight to Neighbouring Properties

Detailed daylight assessments to neighbours

- 2.1.5 The BRE guidance outlines two detailed methods for calculating daylight within properties neighbouring a proposed development: the Vertical Sky Component (VSC) and the No-Sky Line (NSL) tests.

- 2.1.6 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.
- 2.1.7 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.
- 2.1.8 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 0.80 times their former value; and / or
 - Levels of NSL within rooms are reduced to less than 0.80 times their former values.
- 2.1.9 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 16, paragraph 2.2.12).

Daylight to new buildings or consented developments

- 2.1.1 The 2022 update to the BRE 209 document was published on 9th June 2022. The new guidance reflects the UK National Annex of the British Standard: BS EN17037 (2018) and provides two methodologies for assessing the internal daylight amenity to new residential properties. These assessment methods are known as 'Daylight Illuminance' or 'Daylight Factor' and are described in more detail below: -

Daylight Illuminance Assessment

- 2.1.2 The Daylight Illuminance method utilises climactic data for the location of the site, based on a weather file for a typical or average year, to calculate the illuminance at points within a room on at least hourly intervals across a year. The illuminance is calculated across an assessment grid sat at the reference plane (usually desk height).
- 2.1.3 The guidance provides target illuminance levels that should be achieved across at least half of the reference plane for half of the daylight hours within a year.¹ The targets set out within the national annex are as follows:
- Bedrooms – 100 Lux
 - Living Rooms – 150 Lux
 - Kitchens – 200 Lux

¹ The European Standard also includes a minimum illuminance target to be achieved over 95% of the reference plane however this need not apply to dwellings in the UK.

- 2.1.4 For spaces with a shared use the higher target would generally apply such that it would be appropriate to adopt a target of 150 Lux for a student bed sitting room if students would often spend time in their room during the day. The guidance notes that discretion should be used and, for example, a target of 150 Lux may be appropriate in a Living / Kitchen / Dining Room within a modern flatted development where the kitchens are not 'habitable' space and small separate kitchens are to be avoided.

Daylight Factor Assessment

- 2.1.5 The Daylight Factor method involves the computation of the daylight factor at each calculation point on the assessment grid.
- 2.1.6 The daylight factor is a ratio between internal and external illuminance expressed as a percentage. The calculation uses the CIE overcast sky model and is independent of orientation and location. In order to account for different climatic conditions at different locations different daylight factor targets may be applied for different cities with targets varying throughout the UK.
- 2.1.7 The daylight factor targets are to be achieved over at least 50% of the room assessment grid and are expressed as a median figure. For London these median daylight factor targets are:
- Bedrooms – 0.7%
 - Living Rooms – 1.1%
 - Kitchens – 1.4%
- 2.1.8 For multi-purpose living / kitchen / diner arrangements the higher 'kitchen' targets can be difficult to achieve due to the depth of internal space. In such cases, it is generally accepted that the 1.5% target for living rooms be used instead as this represents the predominant use of the space.

Detailed sunlight assessments to neighbours

- 2.1.9 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.
- 2.1.10 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.
- 2.1.11 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 0.80 times its former value.

Sunlight to new buildings or consented developments

- 2.1.12 In respect of direct sunlight, the 2022 BRE guidance reflects the BS EN17037 recommendation that a space should receive a minimum of 1.5 hours of direct sunlight on a selected date between 1st February and 21st March with cloudless conditions. It is suggested that 21st March (equinox) be used for the assessment.
- 2.1.13 The BS EN17037 criterion can be applied to all rooms of a unit but it is preferable for the target to be achieved within a main living room. Rooms in all orientations may be assessed and the sunlight received by different windows may be added together providing there is no 'double-counting'.
- 2.1.14 Where a group of dwellings are planned the site layout and design should maximise the number of dwellings with main living rooms meeting these targets. It is also advised that a dwelling has at least one window wall facing within 90 degrees of due south.

Daylight to new buildings or consented developments (BRE 2011)

- 2.1.15 The previous 2011 edition of the BRE 209 document utilised the Average Daylight Factor method for calculating internal amenity. This formula assessed the mean 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. The 2011 BRE guidance and former British Standard 8206: II (2008) set the following recommended ADF levels for habitable room uses: -
- Bedrooms – 1% ADF
 - Living Rooms – 1.5% ADF
 - Kitchens – 2% ADF
- 2.1.16 For multi-purpose living / kitchen / diner arrangements the higher 2% 'kitchen' target could be difficult to achieve due to the depth of internal space. In such cases we consider the application of the living room 1.5% target to be acceptable as the predominant use of the space.

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 have therefore focussed on the neighbouring residential properties, 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.

"The overall sunlighting potential of a large residential development may be initially assessed by counting how many dwellings have a window to a main living room facing south, east or west. The aim should be to minimise the number of dwellings whose living rooms face solely north, north east or north west, unless there is some compensating factor such as an appealing view to the north."

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.

3.2.5 Some recent planning decisions by the Mayor of London and Planning Inspectorate have suggested that retained levels of daylight (VSC) above 20% can be considered reasonably good and levels in the ‘mid teens’ should be acceptable for residential properties neighbouring new developments in Central London. Appeal precedent such as the recent 8 Albert Embankment decision does however, reiterate that the acceptability of a scheme’s impacts should be considered on a case by case basis and we have therefore assessed the acceptability of the effects to neighbours in light of this precedent.

Appendix F – Setting alternative target values: Sites benefitting from existing planning consent

3.2.6 The site benefits from an existing planning consent (REF: 76550/APP/2021/4499). This Hybrid planning consent for the detailed design of Phase 1 to the west of the site and outline parameters for the remaining areas at Phases 2 to 5.

3.2.7 As there have been minor amendments to the detailed Phase 1 element of the scheme, we have benchmarked the latest s.96a proposals against the effects of the earlier Hybrid consent.

3.2.8 This approach is supported by section F2 of the BRE guidelines which states that the

effect of a new proposal can be benchmarked against the impacts of the existing consent:

"F2: Sometimes there may be an extant planning permission for a site but the developer wants to change the design. In assessing the loss of light to existing windows nearby, a local authority may allow vertical sky component (VSC) and annual probably sunlight hours (APSH) for the permitted scheme to be used as alternative benchmarks".

- 3.2.9 When comparing against such a baseline the BRE guide states that additional reductions from the consented values should be limited.

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.

4.1.2 The need to protect amenity of neighbours is echoed within recent publications from the Mayor of London and the Secretary of State for Housing, Communities and Local Government. Although, these documents also stress that current guidance needs to be used 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 London Borough of Hillingdon Local Plan: Part 2 – Development Management Policies (Adopted January 2020)

4.2.1 Paragraph 5.41 of the Local Plan Part 2 states that:

"The Council will aim to minimise the impact of the loss of daylight and sunlight and unacceptable overshadowing caused by new development on habitable rooms, amenity space and public open space. The Council will also seek to ensure that the design of new development optimises the levels of daylight and sunlight. The Council will expect the impact of the development to be assessed following the methodology set out in the most recent version of the Building Research Establishments (BRE) "Site layout planning for daylight and sunlight: A guide to good practice".

Local Plan: Part 2

Policy DMHB 11: Design of New Development

"B) Development proposals should not adversely impact on the amenity, daylight and sunlight of adjacent properties and open space.

4.3 The London Plan – The Mayor of London (March 2021)

4.3.1 The Mayor of London's New London Plan gives the following: -

Policy D6 Housing quality and standards

"C. Housing development should maximise the provision of dual aspect dwellings and normally avoid the provision of single aspect dwellings. A single aspect dwelling should only be provided where it is considered a more appropriate design solution to meet the requirements of Part B in Policy D3 Optimising site capacity through the design-led approach than a dual aspect dwelling, and it can be demonstrated that it will have adequate passive ventilation, daylight and privacy, and avoid overheating."

"D. The design of development should provide sufficient daylight and sunlight to new and surrounding housing that is appropriate for its context, whilst avoiding overheating, minimising overshadowing and maximising the usability of outside amenity space."

4.4 The Housing SPG – The Mayor of London (March 2016)

- 4.4.1 The London Plan Housing SPG confirms the flexibility that should be applied in the interpretation of the BRE guidelines having regard to the 'need to optimise capacity; and scope for the character and form of an area to change over time.'

1.3.45. Policy 7.6Bd requires new development to avoid causing 'unacceptable harm' to the amenity of surrounding land and buildings, particularly in relation to privacy and overshadowing and where tall buildings are proposed. An appropriate degree of flexibility needs to be applied when using BRE guidelines to assess the daylight and sunlight impacts of new development on surrounding properties, as well as within new developments themselves. Guidelines should be applied sensitively to higher density development, especially in opportunity areas, town centres, large sites and accessible locations, where BRE advice suggests considering the use of alternative targets. This should take into account local circumstances; the need to optimise housing capacity; and scope for the character and form of an area to change over time.

1.3.46 The degree of harm on adjacent properties and the daylight targets within a proposed scheme should be assessed drawing on broadly comparable residential typologies within the area and of a similar nature across London. Decision makers should recognise that fully optimising housing potential on large sites may necessitate standards which depart from those presently experienced but which still achieve satisfactory levels of residential amenity and avoid unacceptable harm.

4.5 The National Planning Policy Framework - Department for Housing, Communities and Local Government (July 2021)

- 4.5.1 The latest version of the National Planning Policy Framework was issued in February 2021. The document 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 125 States: -

11. Making effective use of land

Achieving appropriate densities

"125. Area-based character assessments, design guides and codes and masterplans can be used to help ensure that land is used efficiently while also creating beautiful and sustainable places. 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 (as long as the resulting scheme would provide acceptable living standards).

5 Sources of Information & Assumptions

- 5.1.1 A measured survey, architects 3D model of the scheme, parameter plan drawings, site photographs and Ordnance Survey information have all been used to create a 3D computer model of the proposed schemes in the context of the existing site and surrounding buildings.
- 5.1.2 Where survey or planning information was unavailable, the position of the neighbouring property elevations has been estimated based upon 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 and ADF 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 source of information used in this assessment is as follows: -

5.2 Survey Solutions

2D & 3D Measured Survey – Drawings

31651IPLS01-03.dwg

Received 02/08/2021

3105-DGM-ZZ-3D-X-M3-X-0001-001.rvt

Received 03/08/2021

31651CVLS-04-07.dwg

31651CVLS-04-09.dwg

31651CVLS-04-11.dwg

Received 07/10/2021

5.3 PRP Architects (Proposed Scheme)

3D Model – Latest Phase 1 scheme

PRP

HTC-PRP-ZZ-ZZ-M3-A-00001 - 3D EXPORT VIEW Daylight Sulight.dwg

Received 13/09/2022

5.4 PTE Architects (Consented Scheme)

2D drawings – Parameter Plans

HTC-PTE-ZZ-XX-DR-A-10012-P03-Parameter Plan 3 - Building Heights.pdf

Received 21/10/21

2D drawings – Detailed Phase 1 (Consented Scheme)

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - 00.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - 01.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - 02.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - 03.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - 04.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - 05.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - 06.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - 07.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - 08.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - Roof -
A.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - Roof -
B.dwg

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road Project-P03- - Floor Plan - P1 - Roof -
L2.dwg

Received 04/11/21

5.5 Promap

Ordnance Survey map

5.6 Eb7

Site photographs

6 The Site and Proposal

- 6.1.1 The Site comprises 2.5 hectares and is occupied by the existing Hayes Town Centre Estate ("the Site") which is comprised principally of medium rise blocks of flats and maisonettes/duplexes at a height of 3-4 storeys, with a high-rise element of 15 storeys, known as Skeffington Court, located within the south eastern part of the site.

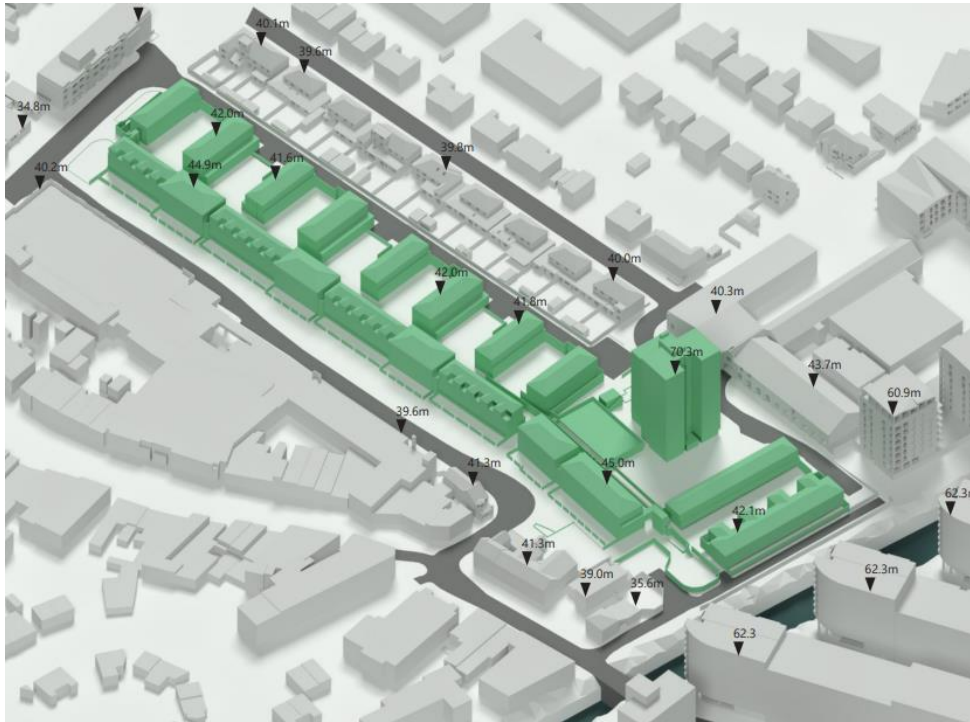


Image 1 - 3D view of the existing site within the surrounding context

- 6.1.2 The existing estate was built in the 1970's and contains 260 homes made up of a mix of 1, 2 and 3 bedroom units across a range of tenures. This is in addition to 115sqm of community space in the room of a dedicated room at the ground floor of Skeffington Court.
- 6.1.3 The site is neighboured by a variety of uses including residential apartments to the south across the canal, semi-detached housing along Little Road to the east, industrial units to the south-east along Silverdale Road, a hotel and commercial uses to the north and west of the site along Pump Lane / Crown Close. The south-west of the site comprises 3-storey mixed used properties with commercial units at ground / residential above and The Old Crown Pub. The neighbouring site to the south-east of the proposals along Silverdale Road received consent in 2019 (planning ref: 71374/APP/2016/4027) for a 4 to 9-storey residential apartment scheme known as Brickfields and were considered as part of our earlier daylight and sunlight assessments.
- 6.1.4 The site currently benefits from an existing planning consent which comprises:

“Development in outline (with all matters reserved) for residential floorspace (Class C3) to comprise: demolition of all existing buildings and structures; erection of new buildings; provision of a community centre (up to 140 sqm of Use Class F2(b) floorspace); new pedestrian and vehicular access; associated amenity space, open space, landscaping; car and cycle parking spaces; plant, refuse storage, servicing area and other works incidental to the proposed development; and

Detailed planning consent for Blocks A and B comprising 80 residential units (Class C3); new pedestrian and vehicular access; associated amenity space and landscaping; car and cycle parking; refuse storage, servicing area, and other associated infrastructure to include temporary highways and landscaping works”.

- 6.1.5 This application was submitted as a hybrid proposal and was granted permission for development of 500 units overall. It comprises elements in detail at Phase 1 (the Detailed First Phase) and outline elements at Phases 2 to 5 (the Outline Area). The detailed element comprised 80 units and the outline component (appearance, landscaping, layout and scale, and access reserved) for the development of 420 units including car and cycle parking and open space.
- 6.1.6 The Detailed First Phase was submitted in full and sits outside the outline parameters. The Outline Area was submitted with all matters reserved. Notwithstanding this, an illustrative scheme was prepared across the Outline Area to demonstrate one way in which the outline components could come forward in future.
- 6.1.7 The current s.96a proposals are for minor amendments to the existing consent at the detailed Phase 1 scheme with all of the remaining outline areas of the site remaining unchanged from the earlier Hybrid Application.
- 6.1.8 For our daylight and sunlight assessments, we have therefore considered the effects of the latest proposals against the consented Phase 1 scheme with the wider consented parameters. This illustrates whether the scheme alterations will result in material changes from the impacts reported in respect of the planning consent.



Image 2 - Consented proposed phasing plan showing phases 1 to 5 at the Hayes Town Centre Estate site (Dec 2021 submission)

7 Assessment results

7.1 Daylight and sunlight to neighbouring buildings

- 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 as well as window maps showing individual window references are attached within Appendix 1.
- 7.1.2 Our assessment has considered all of the closest neighbouring residential properties with windows overlooking the phase 1 area of the proposed development. These are shown on the following image: -

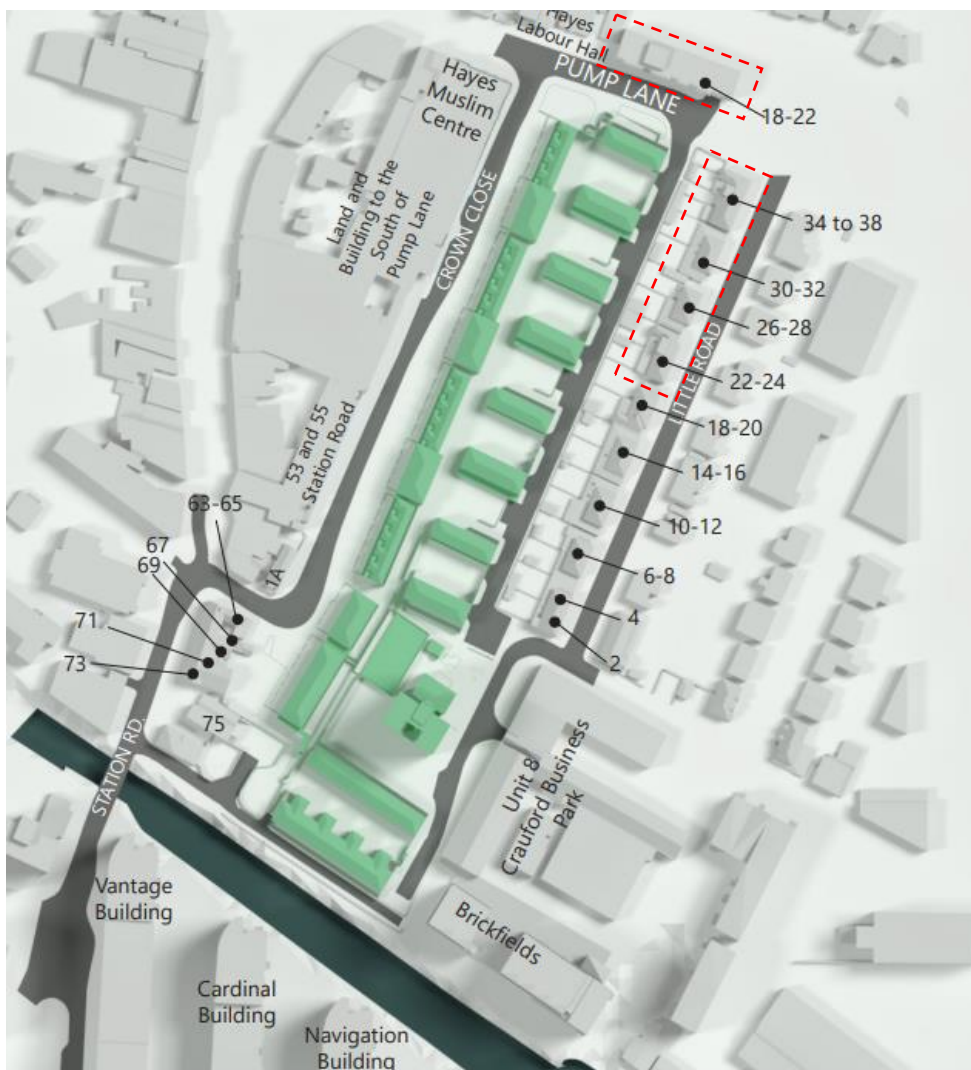


Image 3 - Plan of the existing site and the neighbouring properties at the Hayes Town Centre Estate

1. 18-22 Pump Lane
2. 22-38 Little Road (evens)

- 7.1.3 As with the assessments for the previous Hybrid Application we have considered the

effects of the consented / latest Phase 1 schemes with the Maximum Parameter scheme and the Illustrative Masterplan Scheme in place (REF: 76550/APP/2021/4499).

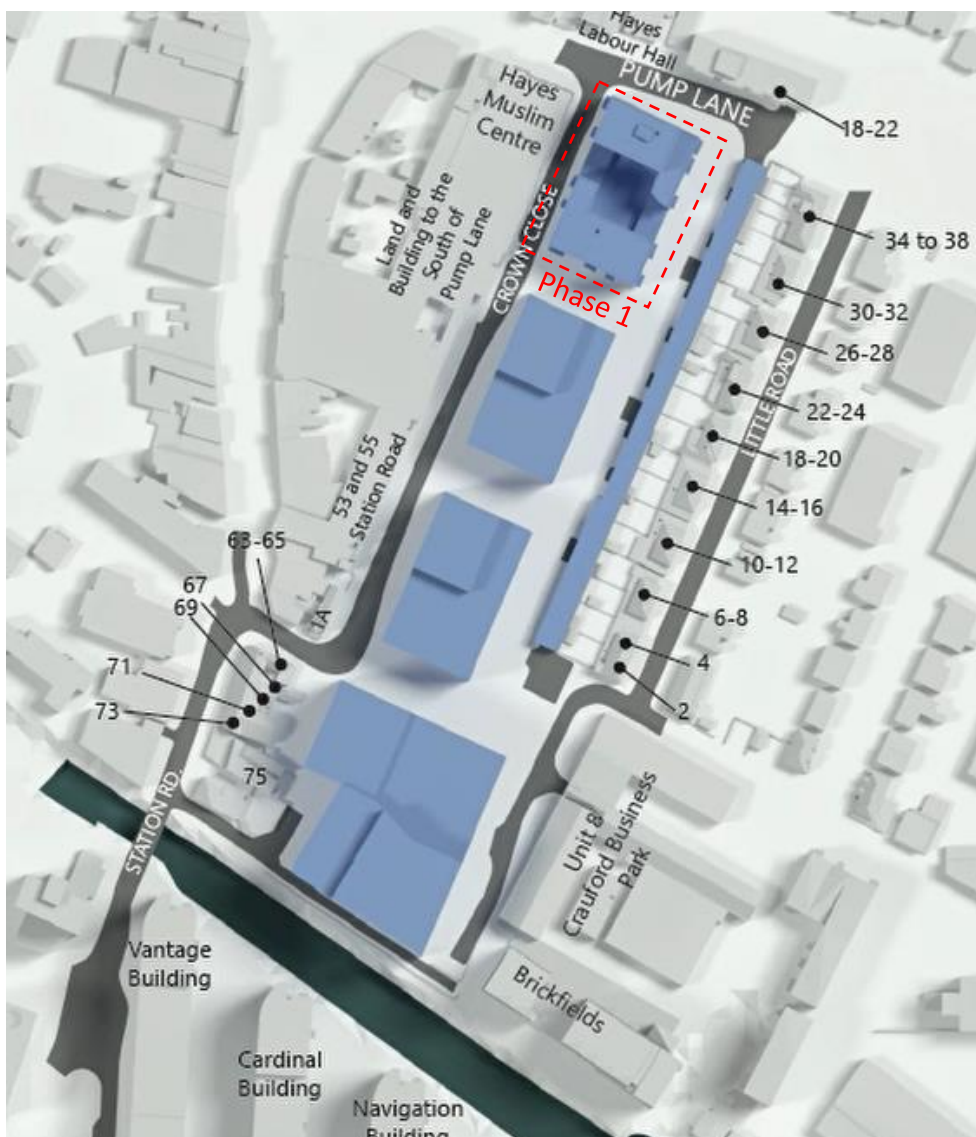


Image 4 - Latest Phase 1 with the Maximum Parameter Scheme, Plan View



Image 5 - Latest Phase 1 with the Illustrative Masterplan Scheme, Plan View

7.2 18-22 Pump Lane (Airlink Hotel)



Image 6 - Site photo of 18-22 Pump Lane, Front elevation

- 7.2.1 This 3-storey building is a hotel situated to the north of the site, approximately c.20m across Pump Lane. There are a number of windows across the front elevation that enjoy an open outlook across the existing estate such that existing daylight levels will be high.
- 7.2.2 We have used drawings obtained from the local planning authority (LPA Ref: 5505APP20151546) to inform our understanding of the internal arrangement within the hotel.
- 7.2.3 The BRE guidelines are principally intended for habitable rooms within adjoining dwellings. As this is a hotel and a commercial / transient use, a degree of flexibility should be applied when considering the amenity effects to this building.
- 7.2.4 As the BRE guidelines recommend that living rooms within adjoining dwellings are tested for sunlight effects, it has not been necessary to consider this property for sunlight impacts under the Annual Probable Sunlight Hours (APSH) criteria.

Daylight – Illustrative Masterplan Scheme

- 7.2.5 When we consider the updated Phase 1 proposals against the previous Phase 1 consent, the results for the proposal considered alongside the illustrative masterplan scheme show that there will be no material shift from the previously consented condition.
- 7.2.6 The VSC and NSL results demonstrate that changes from the consented scheme will be exceptionally minor with all rooms / windows retaining at least 0.98 the consented level. The changes would therefore be unnoticeable to the neighbouring properties.

Daylight – Maximum Parameter Scheme

- 7.2.7 When considering the effects of the Phase 1 proposals against the consented scheme with the Maximum Parameter massing in place, our results similarly confirm no

material change in the daylight conditions. Effects would be comparable to the consented position with VSC / NSL effects limited to proportional changes of 0.98 from the consented condition.

- 7.2.8 The daylight effects of the s.96a scheme are therefore fully consistent with the BRE recommendations ..

7.3 22-38 (evens) Little Road



Image 7 - Google maps 3D aerial view of 22-38 Little Road (evens)

- 7.3.1 These semi-detached dwellings are located to the east of the proposed scheme at the northern end of Little Road and are arranged over two to three storeys. There are a number of windows across the rear elevations that overlook the development site to the west.
- 7.3.2 Where planning drawings were available for the properties (at 24, 30-32 & 38 Little Road) the internal configurations have been informed from the respective floorplans. For the remaining properties where planning information was limited, we have assumed the internal layouts from external inspection of the property.
- 7.3.3 The rear elevations of these neighbouring properties which face the scheme are not within 90 degrees of due south such that they are not relevant for sunlight assessment under the BRE guidelines. Our assessments are therefore limited to the potential daylighting effects to these properties.

Daylight – Illustrative Masterplan Scheme

- 7.3.4 The results with the proposals alongside the Illustrative Masterplan show the effects of the latest Phase 1 proposals will also be comparable with the previously consented scheme. VSC and NSL shifts are limited to 0.98 from the consented position and these changes would be unnoticeable.

Daylight – Maximum Parameter Scheme

- 7.3.5 When considering the daylight effects latest Phase 1 scheme with the Maximum Parameter scheme as context the results are virtually identical. All of the neighbouring rooms / windows are limited to minor shifts of 0.98 from the consented position.
- 7.3.6 No material change is recorded to the neighbouring properties when considering the s.96a scheme at Phase 1 against the already consented position. The effects are therefore considered fully compliant with the BRE recommendations.

7.4 Daylight and sunlight within the proposal

- 7.4.1 The daylight and sunlight amenity provided within the proposed accommodation has been assessed using the daylight illuminance and sunlight exposure metric in line with the methodology of the 2022 BRE guidance.
- 7.4.2 Full assessments within the proposed apartments, along with drawings to show the layout of rooms and windows are attached within Appendix 3.
- 7.4.3 Our internal amenity assessments for the proposed accommodation are based upon the detailed drawings and fixed unit layouts for the Detailed First Phase (Phase 1).
- 7.4.4 In considering the emerging / future context at the site, we have undertaken our assessments based on 2 conditions. Firstly, the internal daylight of the detailed phase 1 scheme has been assessed with the Illustrative Masterplan scheme in place at Phases 2 to 5. Secondly the proposals have been assessed with the Maximum Parameter scheme in place as neighbouring context as there are differences in the articulation / footprint of the neighbouring outline blocks between the Illustrative and Maximum parameter scenarios.
- 7.4.5 As with our analysis of the potential effects to the neighbours, we have considered the internal daylight compliance for the latest proposals at Phase 1 against the previous Phase 1 scheme forming part of the earlier Hybrid Planning consent.

Daylight – Illuminance

- 7.4.6 Under the new BRE 2022 guidelines, the recommendation is for the proposed habitable rooms to receive the following 'median' lux values to over at least 50% of the assessment points in the room for at least half of the daylight hours across the year:
- Kitchens – 200 lux
 - Living rooms – 150 lux
 - Bedrooms – 100 lux
- 7.4.7 Overall, the results of our daylight assessments show that 225 (85%) of the 264 habitable rooms assessed within the revised phase 1 will meet the illuminance targets for their respective rooms alongside the consented Illustrative Masterplan. These results are summarised in the table below.

Results – Phase 1 with Illustrative Masterplan Scheme

All Blocks	Total no. of rooms	Meet the lux target (rooms)	Meet the lux target (%)
Kitchen	24	15	c.63%
Living rooms / LKDs / Dining	79	60	c.76%
Bedrooms	161	150	93%

Total	264	225	85%
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Table 1 - Summary of the daylight results for the proposed accommodation

- 7.4.8 With the consented Maximum Parameters scheme alongside the phase 1 scheme, our results show the same level of compliance with 85% of the rooms meeting the guidelines for their respective room use (summarised below).

Results – Phase 1 with Maximum Parameters

All Blocks	Total no. of rooms	Meet the lux target (rooms)	Meet the lux target (%)
Kitchen	24	15	c.63%
Living rooms / LKDs	79	60	c.76%
Bedrooms	161	150	93%
Total	264	225	85%

Table 2 - Summary of the daylight results for the proposed accommodation

- 7.4.9 In instances where daylight levels are below the recommendations for illuminance, these are generally localised to rooms set beneath balconies which inevitably reduces the availability of daylight. Additionally, some larger open plan living spaces fall below the targets however the areas to the rear typically benefit from task lighting with the main living space closest to the windows being well lit. Where bedrooms fall below the BRE targets the guidance recognises these as 'less important' for daylighting.
- 7.4.10 Such design features provide the occupants with valuable external space and enhance the overall quality / amenity of the apartments. The BRE guidelines acknowledge the effect that balconies have on daylight availability and these are typical constraints for modern flatted developments. There is a common 'trade-off' particularly in large regeneration schemes as these provide a number of benefits including private well-lit amenity space and protection from overheating though these features inevitably lead to lower light levels as a result. The deviations should therefore be weighed against these benefits as well as the wider regeneration benefits of the scheme and a degree of flexibility is appropriate.

- 7.4.11 T

Daylight – ADF (BRE 2011)

- 7.4.12 The updated 2022 BRE guidelines were only published in June 2022 following the grant of planning consent to the earlier Hybrid application. Internal daylight levels in respect of the earlier Hybrid application were assessed against the previous BRE methodology (BRE 2011). It is therefore useful to undertake a comparative assessment of the current proposals to allow a direct comparison with the previous scheme.

7.4.13 In respect of calculation inputs for the latest Phase 1 design, we have adopted the same values as those utilised in our earlier assessment of the consented scheme. These are:

- Maintenance factor: 0.92
- Window transmittance: 0.68
- Framing factor: 0.8
- Internal wall reflectance: 0.81
- Internal ceiling reflectance: 0.85
- Internal floor reflectance: 0.4

7.4.14 The results of our ADF assessments in both the Illustrative Masterplan scenario and the Maximum Parameters can also be found in Appendix 3.

Daylight – Illustrative Masterplan Scheme

Room Type	ADF Target	Total No. of Rooms	Rooms That Meet ADF Target
Kitchen or Kitchen / Diner	2%	24	18 (75%)
L/K/D or Living room	1.5%	79	59 (c.75%)
Bedroom	1%	161	160 (99%)
Total		264	237 (c.90%)

Table 3 - Summary ADF results for proposed accommodation

7.4.15 Our ADF assessments based on the Illustrative Masterplan scheme show that 237 (c.90%) of the 264 habitable rooms achieve at least 2% for a kitchen, 1.5% for a main living space and 1% for a bedroom. This is a high level of compliance for internal daylight amenity for a modern flatted development in an urban location.

7.4.16 Again, where isolated transgressions occur, these are generally concentrated to large open plan L/K/Ds, served by private balconies, as well as a small number of kitchens and a single bedroom. Given the common trade-off with the provision of private balcony amenity space and large open plan living spaces a degree of flexibility should be afforded and the daylight levels are considered to be acceptable.

7.4.17 For comparison the ADF results based on the consented Phase 1 scheme showed a very high level of compliance with the Illustrative Masterplan scheme in place with 96% of the rooms meeting or exceeding the BRE's recommended levels for their respective room use. Whilst compliance has fallen marginally to c.90% based on the latest Phase 1 proposals, these are generally a result of providing a more generous layout which would only increase the quality / amenity of the proposed apartments. Again an overall compliance rate of c.90% across the proposal is still considered to be a high for a modern flatted scheme.

Daylight – Maximum Parameter Scheme

Room Type	ADF Target	Total No. of Rooms	Rooms That Meet ADF Target
Kitchen or Kitchen / Diner	2%	24	18 (75%)
L/K/D or Living room	1.5%	79	59 (c.75%)
Bedroom	1%	161	160 (99%)
Total		264	237 (c.90%)

Table 4 - Summary ADF results for proposed accommodation

- 7.4.18 Based on the maximum parameter scheme alongside the latest Phase 1 scheme, our ADF results demonstrate the same compliance levels with 237 (c.90%) of the habitable rooms meet the BRE guidelines.

Sunlight – Maximum Parameter & Illustrative Masterplan

Block No.	Total no. units	Internal Sunlight (All rooms)	
		Meet the SE target	Meet the SE target (%)
Phase 1 (Illustrative Masterplan)	80	70	87%
Phase 1 (Maximum Parameters)	80	70	87%

Table 1 - Summary of the sunlight results to the proposed accommodation

- 7.4.19 For sunlight to the proposed accommodation, the target is for a room, preferably a living space, to receive at least 1.5 hours of direct sunlight on the 21st March.
- 7.4.20 The guidance suggests that north facing living rooms should be minimised and the scheme has been designed to optimise sunlight to the main living rooms providing dual / southerly aspect where possible. Notwithstanding this, the BRE guidelines acknowledges that for large flatted developments, it may not be possible to have every main living room enjoying a southerly aspect and as such, the guidelines should be interpreted flexibly and viewed on balance with other site constraints.
- 7.4.21 The results of the sunlight exposure analysis can be found at Appendix 3.
- 7.4.22 Our sunlight exposure results with the Illustrative Masterplan show that of the 80 units being proposed, 70 (87%) will have at least 1 habitable room which meets the guidelines of 1.5 hours on the 21st March. This is a very high level of compliance for a large apartment scheme in an urban location. Our results also show commensurate levels of compliance are demonstrated for the scheme in the Maximum Parameter scenario.
- 7.4.23 In both scenarios, where sunlight levels are shown to be lower, these affect units which are principally north / west facing and served by private balconies which the BRE recommend flexibility should be given as these provide the future residents with

well sunlit external space and also reduce the risk of overheating.

- 7.4.24 Overall, this is considered an excellent level of compliance for a large regeneration scheme. Given deviations are localised to windows beneath balconies and thus inevitably lead to lower sunlight levels to the respective units, the future occupants will have access to sunlight from their private balconies which increases the overall quality of the apartments.

8 Conclusions

- 8.1.1 This practice has undertaken a detailed assessment of the potential daylight and sunlight effects of the revised Phase 1 proposals at the Hayes Town Centre Estate site on the key neighbouring properties. As part of our assessments, we have also considered the provision of daylight and sunlight within the proposed accommodation.
- 8.1.2 These assessments have considered the effects of the latest section 96a proposals at Phase 1. In regards to our assessments upon the neighbours and the amenity within the proposals we have considered the effects alongside the consented Illustrative Masterplan and Maximum Parameter scheme (REF: 76550/APP/2021/4499).

8.2 Daylight and sunlight impact to neighbouring properties

- 8.2.1 Our assessments have been undertaken using the VSC, NSL (daylight) and APSH (sunlight) tests set out within the BRE guidance 'Site layout planning for daylight and sunlight: A guide to good practice' (2022).
- 8.2.2 Whilst alterations in daylight and sunlight to adjoining properties are common when undertaking a development in a regeneration area, these latest s.96a proposals illustrate comparable effects in daylight and sunlight to the neighbours when compared to the previously consented Hybrid Application.
- 8.2.3 Overall, our results confirm that no neighbouring properties will experience a material change in daylight or sunlight from the already consented position. As such, the proposals fully meet the BRE recommendations for VSC, NSL and APSH.

8.3 Daylight and sunlight within the proposed residential units

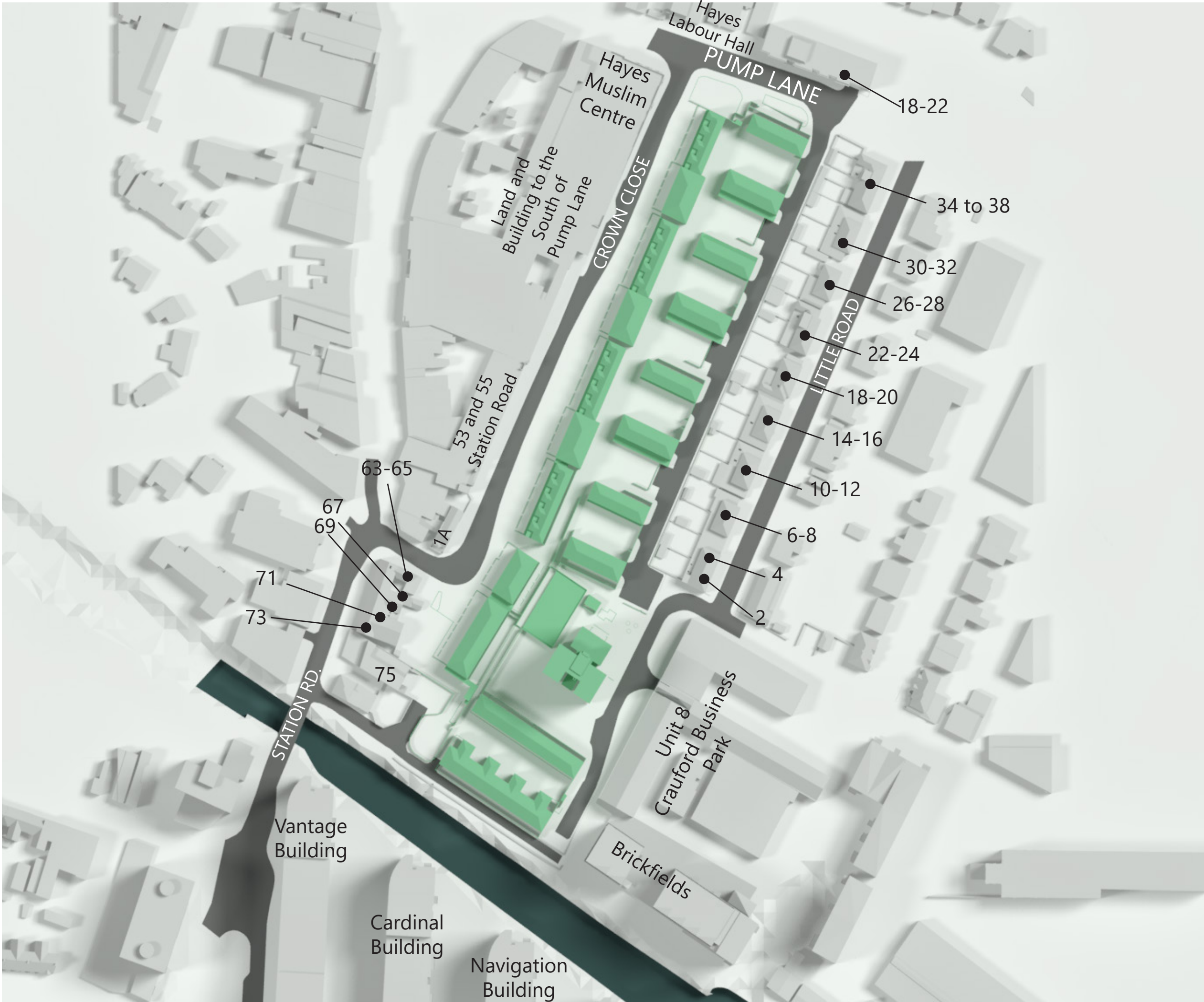
- 8.3.1 The assessment of daylight / sunlight to the proposed units within the revised Phase 1 block has been undertaken using the illuminance and sunlight exposure tests under the BRE 2022 guidelines.
- 8.3.2 Our illuminance study shows that 85% of the habitable rooms assessed within the s.96a scheme will meet or exceed the BRE guidelines for internal daylighting. When assessed against the BRE 2011 criteria (ADF), our comparative assessment shows that compliance levels would increase to 90% respectively when assessed with the Illustrative Masterplan or Maximum Parameter plans as context.
- 8.3.3 This overall compliance rate is considered to be high with only a small number of deviations concentrated to rooms / windows beneath balconies, large open plan living spaces or a small number of kitchens. Such constraints are common for apartment schemes in urban locations and so there is a trade-off to be had given all the balconies / open plan living increase the overall quality of the units. Additionally, balconies well as providing additional benefits such as protection from solar gain and valuable external amenity space.

- 8.3.4 When comparing the ADF compliance of the s.96a scheme against the previously consented Phase 1 design, our analysis demonstrates a marginal reduction in compliance rates where compliance was 96% for internal daylight amenity (ADF). This reduction is generally a direct effect of providing slightly larger layouts which increase the quality and useability of the units.
- 8.3.5 For sunlight to the proposed accommodation, the scheme demonstrates a high level of compliance for a residential apartment scheme with 87% of the units having at least 1 habitable room meeting / exceeding the recommended target of 1.5 hours of sunlight on the 21st March alongside both the Illustrative Masterplan condition and the Maximum Parameters.
- 8.3.6 Overall, our internal amenity study illustrates a good level of compliance for a modern flatted development and illustrative of the high-quality design.
- The BRE guidelines set out that daylight and sunlight availability are just one of the many factors in site layout design such that a degree of flexibility is appropriate in the application of the guidance. This is echoed in the NPPF 2021 which makes it clear that efficient use of sites, particularly for housing delivery, should not be hampered by technical constraints.
- 8.3.7 Overall, the proposed development is considered to respond well to the site and neighbouring context and demonstrates acceptable levels of daylight and sunlight will be maintained to the neighbours in line with the consented position. In addition, the proposals demonstrate that good levels of amenity and will provide a high-quality living environment for the future residents. The proposals are therefore accord with the BRE guidelines and relevant planning policy in respect of daylight and sunlight.



Appendix 1

Drawings of the existing, proposed and surrounding buildings



Sources of information

Survey Solutions
31651IPLS01-03.dwg
Received 02/08/2021

3105-DGM-ZZ-3D-X-M3-X-0001-001.rvt
Received 03/08/2021

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Pollard Thomas Edwards
HTC-PTE-ZZ-XX-M3-A-00002_Austin Road
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HTC-PTE-ZZ-XX-DR-A-10012-P03-Parameter Plan 3 - Building Heights.pdf
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Key:



Existing

NORTH



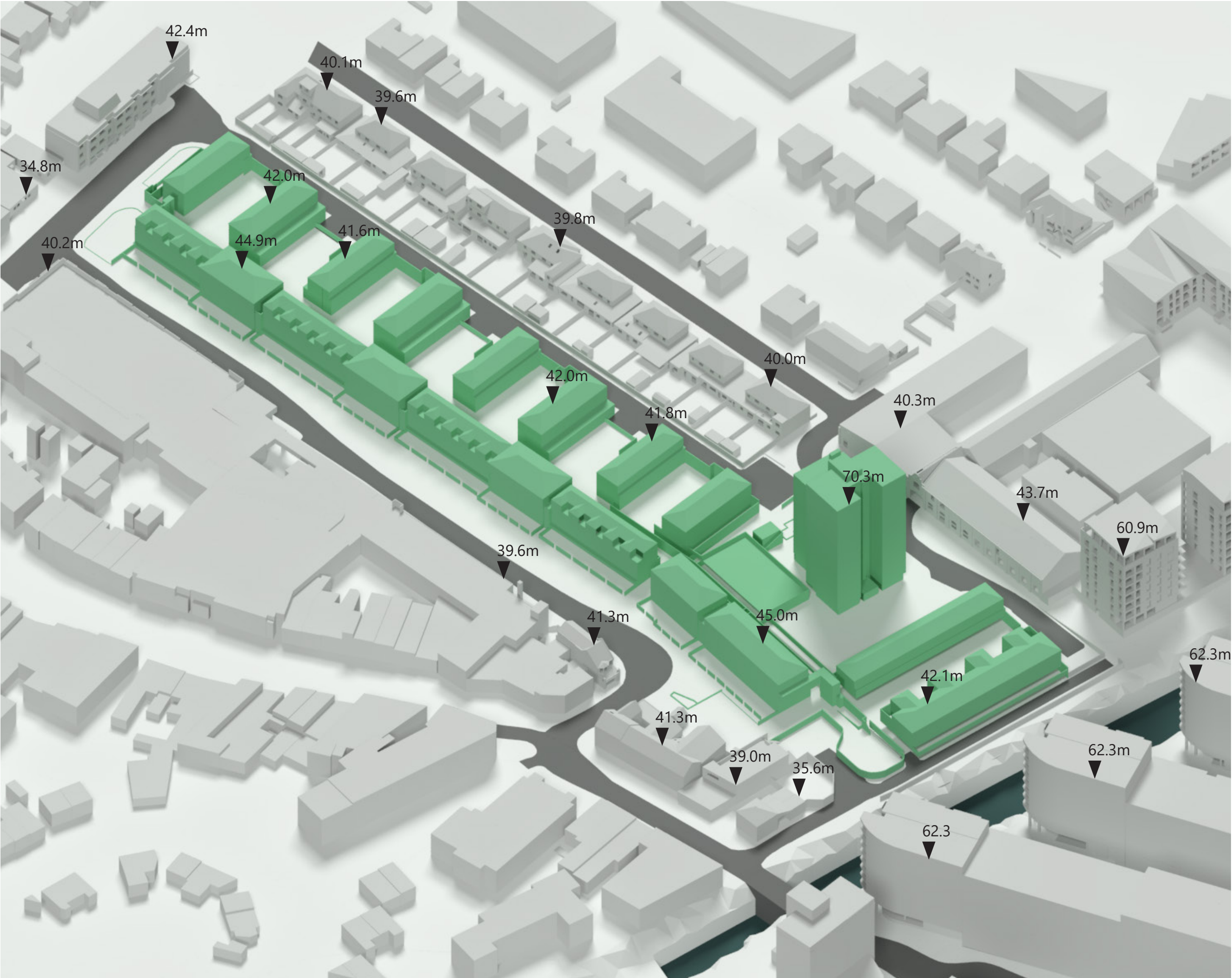
Project Hayes Town Central Estate

Title Existing Condition
Plan View

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ter Plan 3 - Building Heights.pdf
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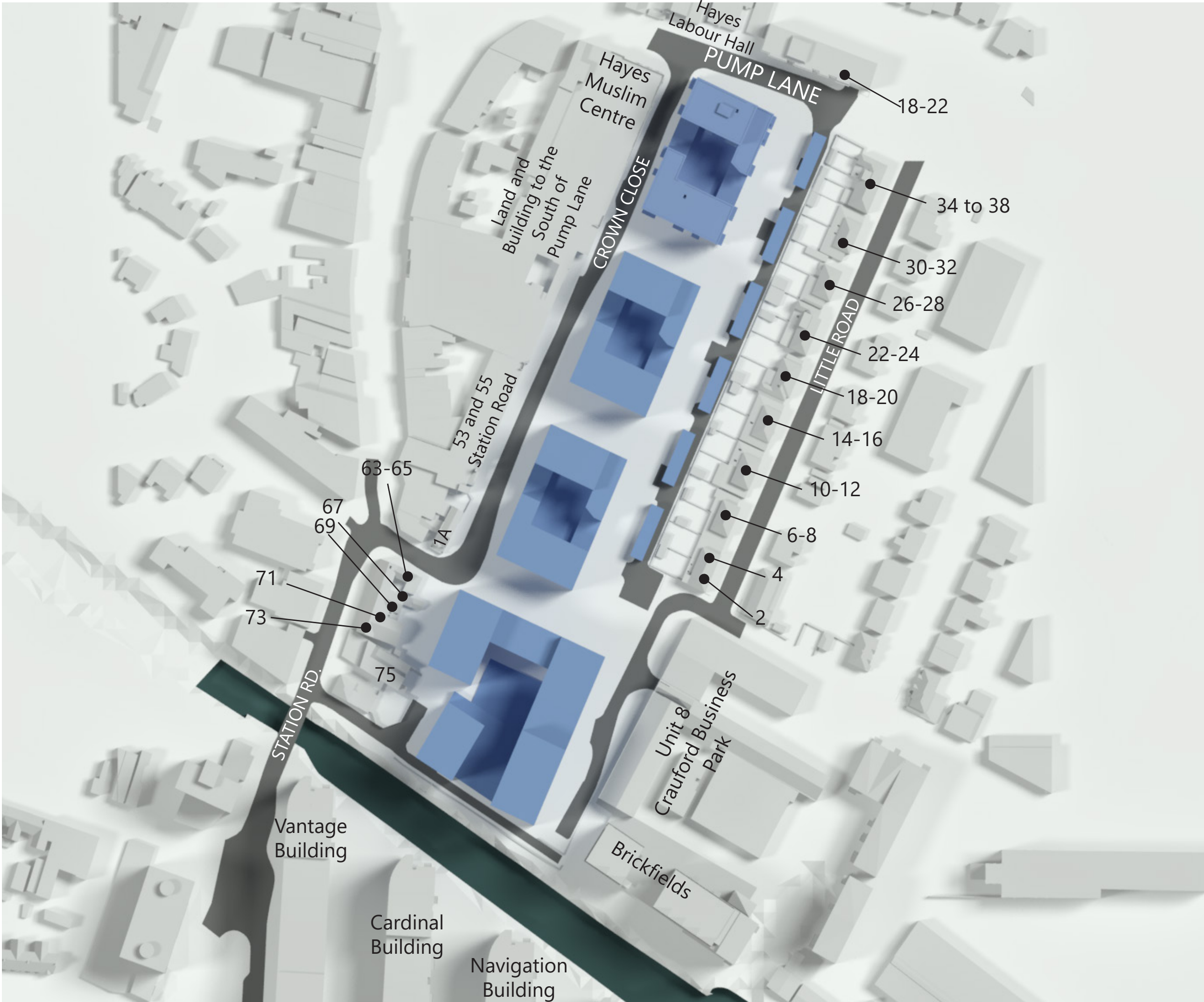
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3D View

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Title Proposed Development
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Sources of information

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Sources of information

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Key:

Consented



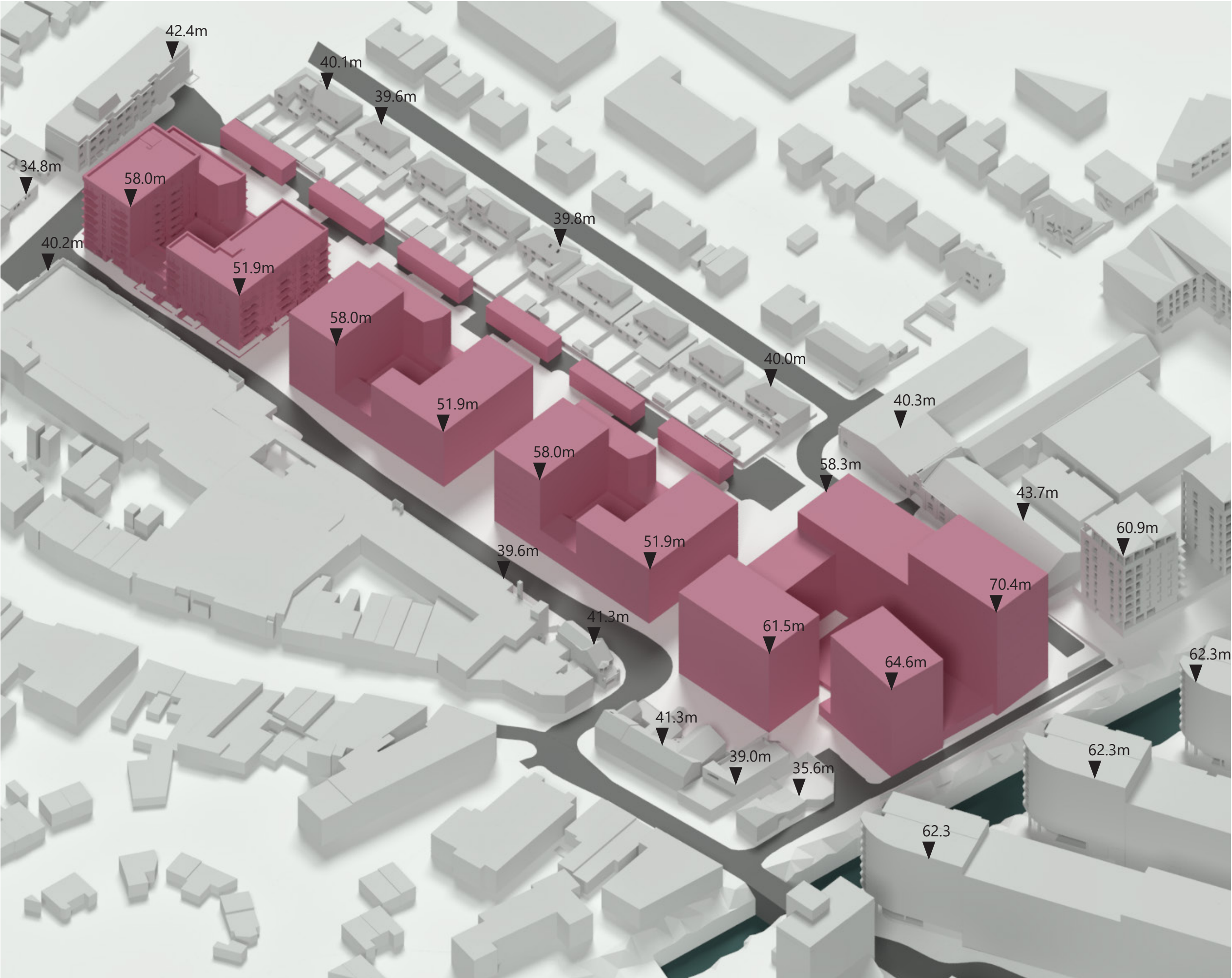
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Title Consented Scenario
Illustrative Masterplan Scheme
Plan View

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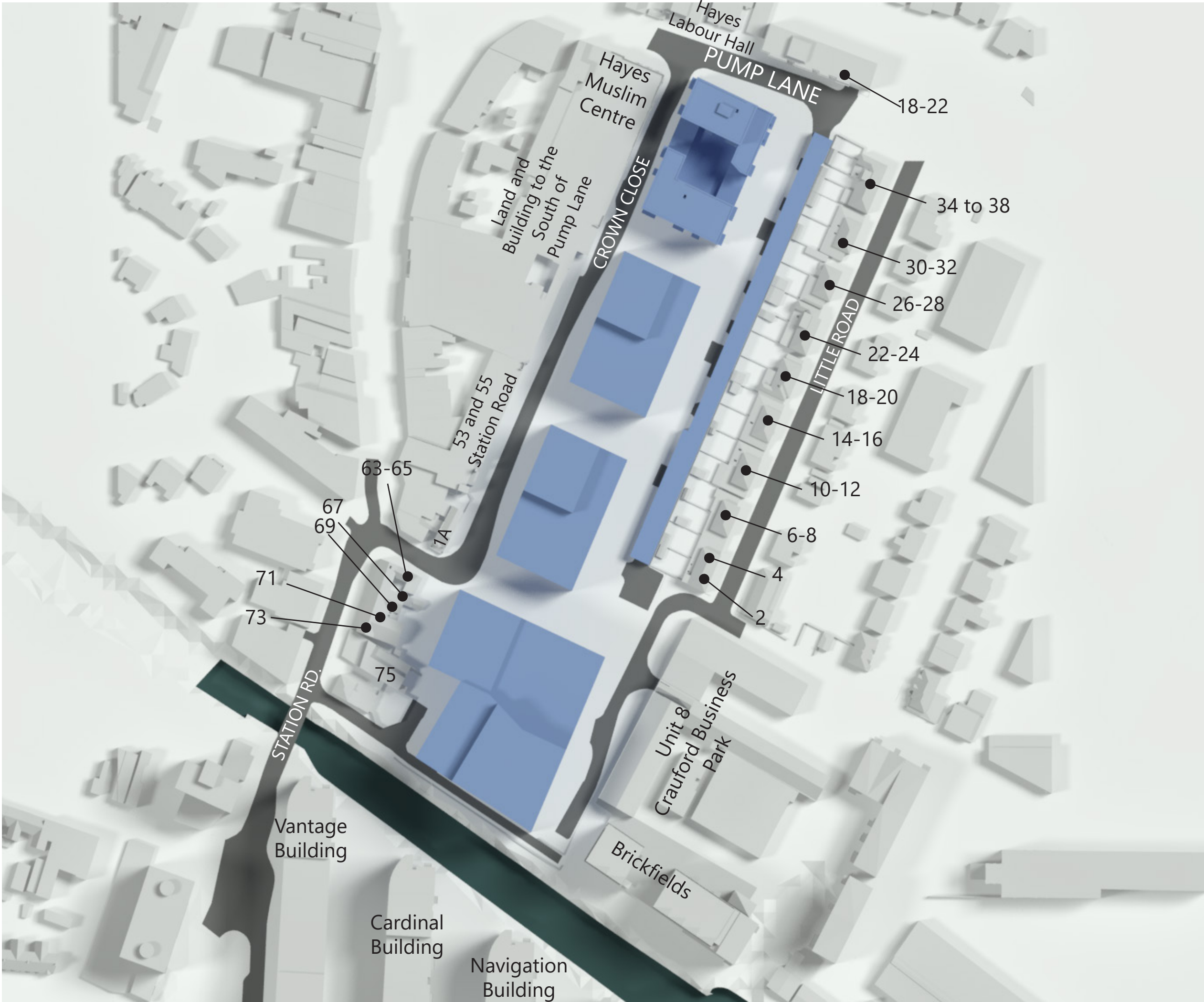
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Illustrative Masterplan Scheme
3D View

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Sources of information

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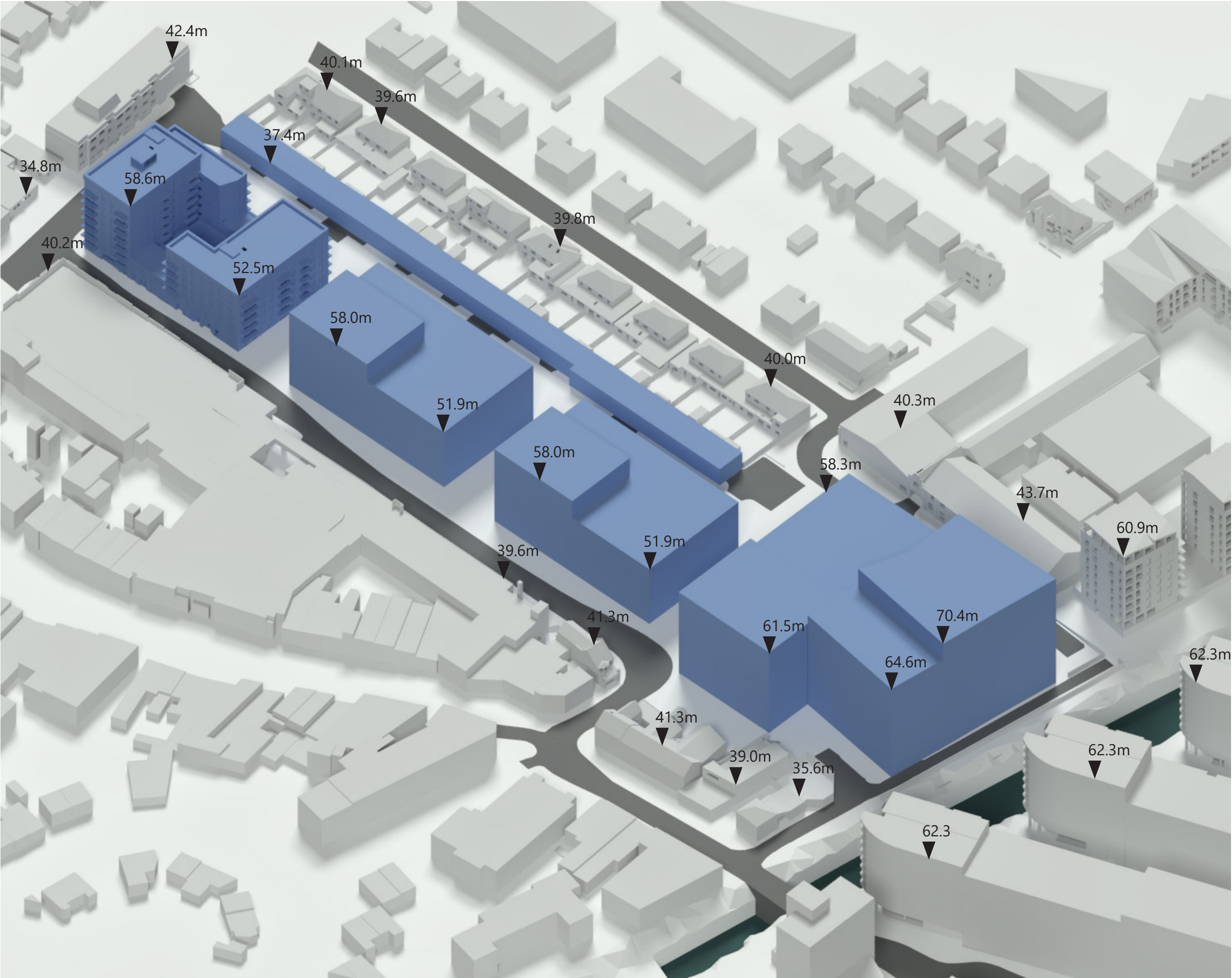
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Title Proposed Development
Maximum Parameter Scheme
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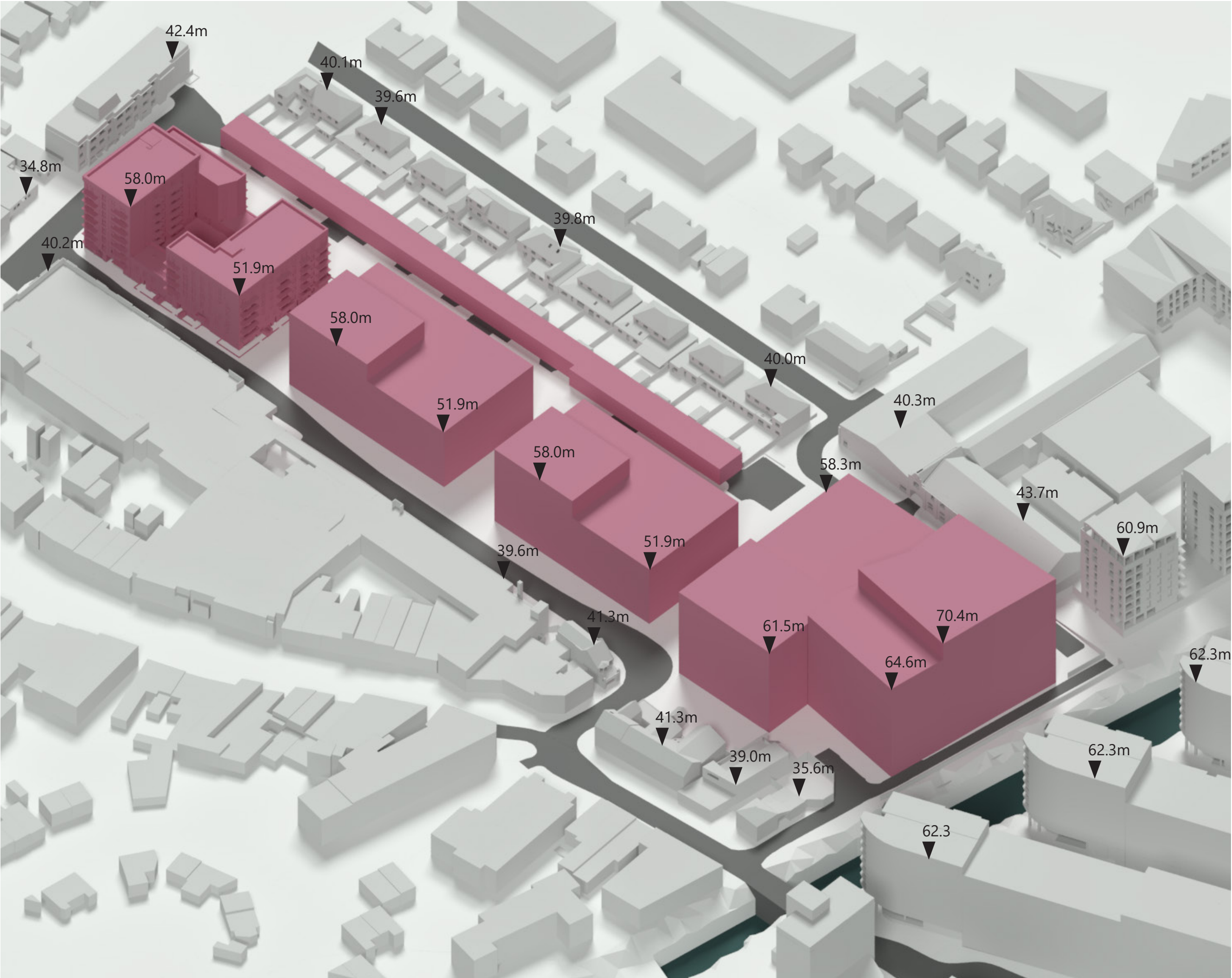
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Maximum Parameter Scheme
Plan View

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Maximum Parameter Scheme
3D View

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Date 27/09/2021 Project 4899

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Appendix 2

Results of the daylight and sunlight assessments within neighbouring properties (Illustrative Masterplan & Maximum Parameters)

AddressRoomWindowRoom use				Vertical Sky Component (VSC)			No-Sky Line (NSL)						Annual Probable Sunlight Hours (APSH) by Room					
				Consented VSC	Proposed VSC	Proportion Retained	Room Area	Consented NSL		Proposed NSL		Proportion Retained	Consented APSH		Proposed APSH		Retained	
								m²	%	m²	%		Total	Winter	Total	Winter	Total	Winter
18-22 Pump Lane																		
Ground	R1	W1 W10	Communal Occupied Space	6.3 17.2	6.3 17.1	0.99 0.99	60.1	32.8	55%	32.8	55%	1.00	40	12	40	12	1.00	1.00
Ground	R2	W2	Circulation	7.0	7.0	1.00	2.3	2.0	88%	2.0	87%	0.99	14	12	14	12	1.00	1.00
Ground	R3	W3 W4-L W4-U	Lobby	7.4 21.3	7.4 21.1	0.99 0.99	24.7	24.2	98%	24.2	98%	1.00	55	20	53	20	0.96	1.00
Ground	R4	W5 W6 W7 W8	Dining Room	10.4 11.2 24.2 13.5	10.4 11.2 24.1 13.4	0.99 1.00 1.00 0.99	133.9	122.8	92%	122.8	92%	1.00	47	18	46	18	0.98	1.00
Ground	R5	W9	Lobby	27.3	27.2	1.00	5.3	5.2	98%	5.2	98%	1.00	52	19	52	19	1.00	1.00
First	R1	W1	Bedroom	22.6	22.4	0.99	17.1	11.4	66%	11.6	68%	1.02	56	14	55	14	0.98	1.00
First	R2	W2	Bedroom	24.5	24.3	0.99	11.9	9.1	76%	9.0	76%	0.99	57	16	56	16	0.98	1.00
First	R3	W3	Bathroom	21.8	21.5	0.99	4.1	4.1	99%	4.1	99%	1.00	41	15	41	15	1.00	1.00
First	R4	W4	Bedroom	28.5	28.4	0.99	17.2	14.4	83%	14.2	83%	0.99	66	22	65	21	0.98	0.95
First	R5	W5	Bedroom	30.0	29.9	0.99	16.7	15.6	93%	15.4	92%	0.99	67	22	66	22	0.99	1.00
First	R6	W6	Bathroom	26.3	26.1	0.99	6.7	6.7	99%	6.7	99%	1.00	48	18	48	18	1.00	1.00
First	R7	W7	Bedroom	32.2	32.0	1.00	14.6	14.4	99%	14.4	99%	1.00	73	23	72	23	0.99	1.00
First	R8	W8	Bedroom	29.4	29.2	0.99	18.1	17.5	97%	17.5	97%	1.00	59	23	59	23	1.00	1.00
First	R9	W9	Bedroom	20.2	20.1	0.99	13.4	8.0	60%	7.9	59%	0.99	45	10	44	10	0.98	1.00
Second	R1	W1	Bedroom	23.9	23.7	0.99	15.8	11.0	70%	11.0	69%	0.99	61	15	59	15	0.97	1.00
Second	R2	W2	Bedroom	26.0	25.8	0.99	14.1	11.3	80%	11.2	79%	0.99	63	18	61	16	0.97	0.89
Second	R3	W3	Bathroom	23.9	23.6	0.99	4.2	4.0	96%	4.0	96%	1.00	48	16	48	16	1.00	1.00
Second	R4	W4 W5	Bedroom	29.8 31.0	29.6 30.8	0.99 0.99	18.2	17.9	98%	17.9	98%	1.00	70	22	70	22	1.00	1.00
Second	R5	W6	Bedroom	31.6	31.4	0.99	16.6	16.2	97%	16.1	97%	1.00	71	23	71	23	1.00	1.00
Second	R6	W7	Bathroom	28.5	28.3	0.99	6.8	6.7	99%	6.7	99%	1.00	52	18	52	18	1.00	1.00
Second	R7	W8	Bedroom	33.3	33.1	0.99	14.7	14.5	99%	14.5	99%	1.00	76	26	74	24	0.97	0.92
Second	R8	W9	Bedroom	31.0	30.8	1.00	18.2	17.7	98%	17.7	98%	1.00	57	22	57	22	1.00	1.00

[illegible]

AddressRoomWindowRoom use				Vertical Sky Component (VSC)			No-Sky Line (NSL)					Annual Probable Sunlight Hours (APSH) by Room																	
				Consented VSC	Proposed VSC	Proportion Retained	Room Area	Consented NSL		Proposed NSL		Proportion Retained	Consented APSH		Proposed APSH		Retained												
								m²	%	m²	%		Total	Winter	Total	Winter	Total	Winter											
First	R2	W1-U	Residential	30.3	30.2	1.00	13.2	12.9	98%	12.9	98%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
		W2-L					28 Little Road	5.0	4.9	98%	4.9	98%	1.00	N/F	N/F	N/F	N/F	N/F	N/F										
		W2-U																											
Ground	R1	W1	Residential	26.8	26.7	1.00	8.6	7.9	92%	7.9	92%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
Ground	R2	W2-L W2-U	Residential	23.3	23.1	0.99	13.2	12.4	94%	12.4	94%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
First	R1	W1-L W1-U	Residential	30.4	30.3	1.00													5.0	4.9	98%	4.9	98%	1.00	N/F	N/F	N/F	N/F	N/F
First	R2	W2-L W2-U	Residential	30.5	30.3	1.00																							
30 Little Road																													
Ground	R1	W1	Living Room	74.4	74.3	1.00	20.3	20.0	99%	20.0	99%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
		W2-L		26.1	25.9	0.99													20.9	13.0	62%	12.9	61%	0.99	N/F	N/F	N/F	N/F	N/F
		W2-U																											
		W3		26.1	25.9	0.99																							
Ground	R2	W4	Living Room	25.7	25.5	0.99	20.9	13.0	62%	12.9	61%	0.99	N/F	N/F	N/F	N/F	N/F	N/F											
First	R1	W1	Residential	30.9	30.7	0.99	12.6	12.2	97%	12.1	96%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
First	R2	W2	Residential	31.0	30.8	0.99	4.4	4.3	98%	4.3	98%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
32 Little Road																													
Ground	R1	W1	Study	13.3	13.0	0.98	8.5	7.5	89%	7.5	88%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
Ground	R2	W2	Living Room	13.5	13.3	0.98	16.9	16.0	95%	16.0	95%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
		W3		13.4	13.1	0.98													74.4	74.2	1.00								
		W4																											
Ground	R3	W5-L W5-U	Residential	27.5	27.5	1.00	6.3	6.2	98%	6.2	98%	1.00	61	20	61	20	1.00	1.00											
First	R1	W1	Residential	30.9	30.7	0.99	5.4	5.3	99%	5.3	99%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
First	R2	W2	Residential	30.9	30.7	0.99	13.9	13.3	96%	13.3	96%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
34 Little Road																													
Ground	R1	W1	Residential	27.9	27.7	0.99	15.0	14.8	99%	14.8	99%	1.00	N/F	N/F	N/F	N/F	N/F	N/F											
		W2		27.9	27.7	0.99																							
		W3		27.9	27.7	0.99																							

Address	Room	Window	Room use	Vertical Sky Component (VSC)			No-Sky Line (NSL)						Annual Probable Sunlight Hours (APSH) by Room					
				Consented	Proposed	Proportion	Room Area	Consented NSL		Proposed NSL		Proportion Retained	Consented APSH		Proposed APSH		Retained	
				VSC	VSC	Retained		m²	%	m²	%		Total	Winter	Total	Winter	Total	Winter
First	R1	W1-L W1-U	Residential	30.9	30.7	0.99	14.3	13.1	92%	13.1	91%	0.99	N/F	N/F	N/F	N/F	N/F	N/F
First	R2	W2-L W2-U	Residential	30.8	30.6	0.99	4.1	3.9	95%	3.9	93%	0.98	N/F	N/F	N/F	N/F	N/F	N/F
36 Little Road																		
Ground	R1	W1	Residential	17.7	17.4	0.99	7.2	6.8	94%	6.8	94%	1.01	N/F	N/F	N/F	N/F	N/F	N/F
		W2-L		20.3	20.1	0.99												
		W2-U W3		25.3	25.1	0.99												
Ground	R2	W4-L W4-U	Residential	24.6	24.4	0.99	11.7	10.6	90%	10.5	89%	0.99	N/F	N/F	N/F	N/F	N/F	N/F
First	R1	W1-L W1-U	Residential	31.1	30.9	0.99	5.0	4.7	95%	4.7	94%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
First	R2	W2-L W2-U	Residential	31.0	30.9	0.99	14.3	13.1	92%	13.1	91%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
38 Little Road																		
Ground	R1	W1	KD	29.3	29.1	1.00	27.1	26.9	99%	27.0	100%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
		W2		24.3	24.1	0.99												
		W3-L		25.9	25.8	0.99												
		W3-U W4		77.1	77.0	1.00												
First	R1	W1-L W1-U	Bedroom	31.2	31.1	1.00	18.1	15.9	88%	16.0	88%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
First	R2	W2-L W2-U	Bathroom	24.8	24.6	0.99	5.2	5.0	96%	4.9	94%	0.98	N/F	N/F	N/F	N/F	N/F	N/F
First	R3	W3-L W3-U	Bedroom	30.6	30.5	0.99	14.3	13.0	91%	13.0	91%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
Second	R1	W1	Residential	33.0	32.8	1.00	3.2	3.2	99%	3.2	99%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
Second	R2	W2 W3	Residential	32.7	32.6	0.99	18.1	17.6	97%	17.5	97%	1.00	94	28	93	27	0.99	0.96
				84.5	84.5	1.00												

AddressRoomWindowRoom use				Vertical Sky Component (VSC)			No-Sky Line (NSL)						Annual Probable Sunlight Hours (APSH) by Room					
				Consented VSC	Proposed VSC	Proportion Retained	Room Area	Consented NSL		Proposed NSL		Proportion Retained	Consented APSH		Proposed APSH		Retained	
								m²	%	m²	%		Total	Winter	Total	Winter	Total	Winter
18-22 Pump Lane																		
Ground	R1	W1 W10	Communal Occupied Space	6.3 17.2	6.2 17.1	0.99 0.99	60.1	32.8	55%	32.8	55%	1.00	40	12	40	12	1.00	1.00
Ground	R2	W2	Circulation	7.0	7.0	1.00	2.3	2.0	88%	2.0	87%	0.99	14	12	14	12	1.00	1.00
Ground	R3	W3 W4-L W4-U	Lobby	7.4 21.3	7.4 21.1	0.99 0.99	24.7	24.2	98%	24.2	98%	1.00	55	20	53	20	0.96	1.00
Ground	R4	W5 W6 W7 W8	Dining Room	10.4 11.1 24.1 13.3	10.3 11.1 24.0 13.3	0.99 1.00 1.00 0.99	133.9	122.4	91%	122.4	91%	1.00	47	18	46	18	0.98	1.00
Ground	R5	W9	Lobby	27.1	27.0	1.00	5.3	5.2	98%	5.2	98%	1.00	52	19	52	19	1.00	1.00
First	R1	W1	Bedroom	22.6	22.4	0.99	17.1	11.4	66%	11.6	68%	1.02	56	14	55	14	0.98	1.00
First	R2	W2	Bedroom	24.5	24.3	0.99	11.9	9.1	76%	9.0	76%	0.99	57	16	56	16	0.98	1.00
First	R3	W3	Bathroom	21.8	21.5	0.99	4.1	4.1	99%	4.1	99%	1.00	41	15	41	15	1.00	1.00
First	R4	W4	Bedroom	28.5	28.4	0.99	17.2	14.4	83%	14.2	83%	0.99	66	22	65	21	0.98	0.95
First	R5	W5	Bedroom	30.0	29.8	0.99	16.7	15.6	93%	15.4	92%	0.99	67	22	66	22	0.99	1.00
First	R6	W6	Bathroom	26.2	26.1	0.99	6.7	6.7	99%	6.7	99%	1.00	48	18	48	18	1.00	1.00
First	R7	W7	Bedroom	32.2	32.0	1.00	14.6	14.4	99%	14.4	99%	1.00	73	23	72	23	0.99	1.00
First	R8	W8	Bedroom	29.3	29.2	1.00	18.1	17.5	97%	17.5	97%	1.00	59	23	59	23	1.00	1.00
First	R9	W9	Bedroom	20.2	20.1	0.99	13.4	8.0	60%	7.9	59%	0.99	45	10	44	10	0.98	1.00
Second	R1	W1	Bedroom	23.9	23.7	0.99	15.8	11.0	70%	11.0	69%	0.99	61	15	59	15	0.97	1.00
Second	R2	W2	Bedroom	26.0	25.8	0.99	14.1	11.3	80%	11.2	79%	0.99	63	18	61	16	0.97	0.89
Second	R3	W3	Bathroom	23.9	23.6	0.99	4.2	4.0	96%	4.0	96%	1.00	48	16	48	16	1.00	1.00
Second	R4	W4 W5	Bedroom	29.8 31.0	29.6 30.8	0.99 0.99	18.2	17.9	98%	17.9	98%	1.00	70	22	70	22	1.00	1.00
Second	R5	W6	Bedroom	31.6	31.4	0.99	16.6	16.2	97%	16.1	97%	1.00	71	23	71	23	1.00	1.00
Second	R6	W7	Bathroom	28.5	28.3	0.99	6.8	6.7	99%	6.7	99%	1.00	52	18	52	18	1.00	1.00
Second	R7	W8	Bedroom	33.3	33.1	0.99	14.7	14.5	99%	14.5	99%	1.00	76	26	74	24	0.97	0.92
Second	R8	W9	Bedroom	30.9	30.8	1.00	18.2	17.7	98%	17.7	98%	1.00	57	22	57	22	1.00	1.00

[illegible]

AddressRoomWindowRoom use				Vertical Sky Component (VSC)			No-Sky Line (NSL)					Annual Probable Sunlight Hours (APSH) by Room						
				Consented VSC	Proposed VSC	Proportion Retained	Room Area	Consented NSL		Proposed NSL		Proportion Retained	Consented APSH		Proposed APSH		Retained	
								m²	%	m²	%		Total	Winter	Total	Winter	Total	Winter
First	R2	W1-U	Residential				13.2	12.9	98%	12.9	98%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
		W2-L		30.1	30.0	1.00												
		W2-U					5.0	4.9	98%	4.9	98%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
28 Little Road																		
Ground	R1	W1	Residential	26.7	26.6	1.00	8.6	7.3	85%	7.3	85%	0.99	N/F	N/F	N/F	N/F	N/F	N/F
Ground	R2	W2-L	Residential	23.0	22.9	0.99												
		W2-U					13.2	12.4	94%	12.4	94%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
First	R1	W1-L	Residential	30.4	30.3	1.00												
		W1-U					5.0	4.9	98%	4.9	98%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
First	R2	W2-L	Residential	30.4	30.3	1.00												
		W2-U					13.2	12.9	98%	12.9	98%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
30 Little Road																		
Ground	R1	W1	Living Room	74.4	74.3	1.00												
		W2-L		25.7	25.5	0.99												
		W2-U																
		W3		25.9	25.7	0.99	20.3	20.0	99%	20.0	99%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
Ground	R2	W4	Living Room	25.4	25.3	0.99	20.9	11.8	57%	11.8	56%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
First	R1	W1	Residential	30.9	30.7	0.99	12.6	12.2	97%	12.1	97%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
First	R2	W2	Residential	31.0	30.8	0.99	4.4	4.3	98%	4.3	98%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
32 Little Road																		
Ground	R1	W1	Study	13.1	12.9	0.98	8.5	7.5	89%	7.5	88%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
Ground	R2	W2	Living Room	13.2	13.0	0.98												
		W3		13.0	12.9	0.99												
		W4		74.4	74.2	1.00	16.9	16.0	95%	16.0	95%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
Ground	R3	W5-L	Residential	22.3	22.3	1.00												
		W5-U					6.3	5.4	86%	5.4	86%	1.00	54	20	54	20	1.00	1.00
First	R1	W1	Residential	30.9	30.7	0.99	5.4	5.3	99%	5.3	99%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
First	R2	W2	Residential	30.9	30.7	0.99	13.9	13.3	96%	13.3	96%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
34 Little Road																		
Ground	R1	W1	Residential	27.6	27.3	0.99												
		W2		27.6	27.3	0.99												
		W3		27.6	27.4	0.99	15.0	14.8	99%	14.8	99%	1.00	N/F	N/F	N/F	N/F	N/F	N/F

AddressRoomWindowRoom use				Vertical Sky Component (VSC)			No-Sky Line (NSL)						Annual Probable Sunlight Hours (APSH) by Room					
				Consented VSC	Proposed VSC	Proportion Retained	Room Area	Consented NSL		Proposed NSL		Proportion Retained	Consented APSH		Proposed APSH		Retained	
								m²	%	m²	%		Total	Winter	Total	Winter	Total	Winter
First	R1	W1-L W1-U	Residential	30.9	30.7	0.99	14.3	13.1	92%	13.1	91%	0.99	N/F	N/F	N/F	N/F	N/F	N/F
First	R2	W2-L W2-U	Residential	30.8	30.6	0.99	4.1	3.9	95%	3.9	93%	0.98	N/F	N/F	N/F	N/F	N/F	N/F
36 Little Road																		
Ground	R1	W1 W2-L W2-U W3	Residential	17.7 20.3	17.5 20.1	0.99 0.99	7.2	6.8	94%	6.8	95%	1.01	N/F	N/F	N/F	N/F	N/F	N/F
Ground	R2	W4-L W4-U	Residential	24.4	24.2	0.99	11.7	10.6	90%	10.5	89%	0.99	N/F	N/F	N/F	N/F	N/F	N/F
First	R1	W1-L W1-U	Residential	31.0	30.8	0.99	5.0	4.7	95%	4.7	94%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
First	R2	W2-L W2-U	Residential	31.0	30.8	0.99	14.3	13.1	92%	13.1	91%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
38 Little Road																		
Ground	R1	W1 W2 W3-L W3-U W4	KD	29.1 23.8 25.3	28.9 23.6 25.2	0.99 0.99 0.99	27.1	26.9	99%	26.9	99%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
First	R1	W1-L W1-U	Bedroom	31.2	31.0	1.00	18.1	15.9	88%	15.9	88%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
First	R2	W2-L W2-U	Bathroom	24.7	24.6	0.99	5.2	5.0	96%	4.9	94%	0.98	N/F	N/F	N/F	N/F	N/F	N/F
First	R3	W3-L W3-U	Bedroom	30.5	30.4	0.99	14.3	13.0	91%	13.0	91%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
Second	R1	W1	Residential	33.0	32.8	1.00	3.2	3.2	99%	3.2	99%	1.00	N/F	N/F	N/F	N/F	N/F	N/F
Second	R2	W2 W3	Residential	32.8 84.5	32.6 84.5	0.99 1.00	18.1	17.6	97%	17.5	97%	1.00	94	28	93	27	0.99	0.96



Appendix 3

Results of the daylight and sunlight assessment within
the proposed development (Detailed Phase 1)



Sources of information

Pollard Thomas Edwards
HTC-PTE-ZZ-XX-M3-A-00002_Austin Road
Project-P03-.rvt
Received 04/11/2021

PRP
HTC-PRP-ZZ-ZZ-M3-A-00001 - 3D EXPORT
VIEW Daylight Sulight.dwg
Received 13/09/2022

HTC-PRP-01-00-DR-A-20100 Phase 1
Ground Level GA.pdf
HTC-PRP-P1ZZ-01-GA-A-20101_P4_S2_
Suitable for Information_Phase 1 Level 1
GA_A1.pdf
HTC-PRP-P1ZZ-02-GA-A-20102_P4_S2_
Suitable for Information_Phase 1 Level 2
GA_A1.pdf
HTC-PRP-P1ZZ-03-GA-A-20103_P4_S2_
Suitable for Information_Phase 1 Level 3
GA_A1.pdf
HTC-PRP-P1ZZ-04-GA-A-20104_P4_S2_
Suitable for Information_Phase 1 Level 4
GA_A1.pdf
HTC-PRP-01-05-DR-A-20105 Phase 1 Level
5 GA.pdf
HTC-PRP-01-06-DR-A-20106 Phase 1 Level
6 GA.pdf
HTC-PRP-01-07-DR-A-20107 Phase 1 Level
7 GA.pdf
Received 28/09/2022

EB7 Ltd
Site Photographs
Ordnance Survey



Project Hayes Town Central Estate

Title Ground Floor
Room Layout

Drawn JG Checked --

Date 29/09/2021 Project 4899

Rel no. 09 Prefix ID01 Page no. 01

Sources of information

Pollard Thomas Edwards

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road
Project-P03-.rvt
Received 04/11/2021

PRP

HTC-PRP-ZZ-ZZ-M3-A-00001 - 3D EXPORT
VIEW Daylight Sulight.dwg
Received 13/09/2022

HTC-PRP-01-00-DR-A-20100 Phase 1
Ground Level GA.pdf

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GA_A1.pdf

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GA_A1.pdf

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HTC-PRP-01-06-DR-A-20106 Phase 1 Level
6 GA.pdf

HTC-PRP-01-07-DR-A-20107 Phase 1 Level
7 GA.pdf

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Site Photographs
Ordnance Survey

NORTH



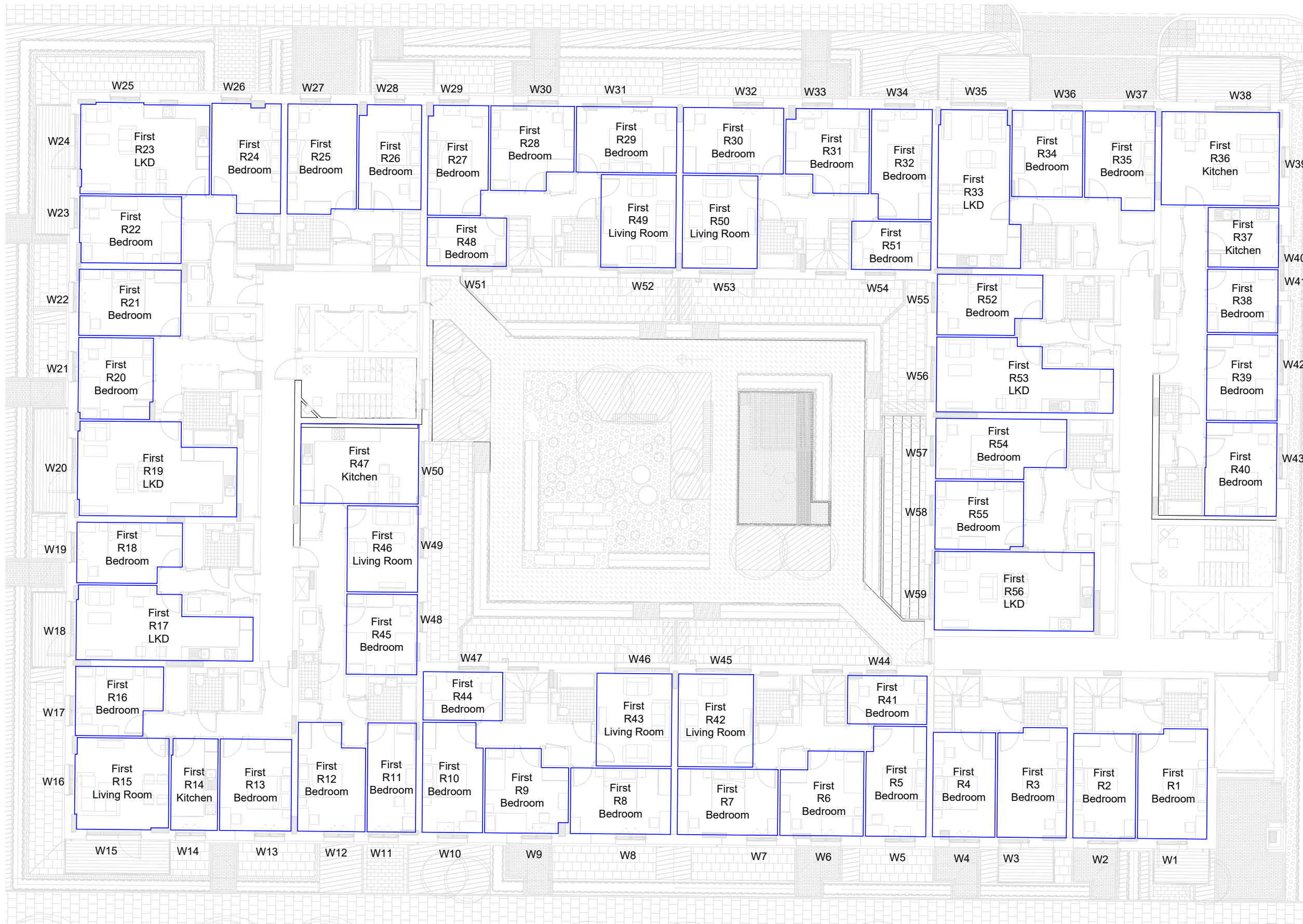
Project Hayes Town Central Estate

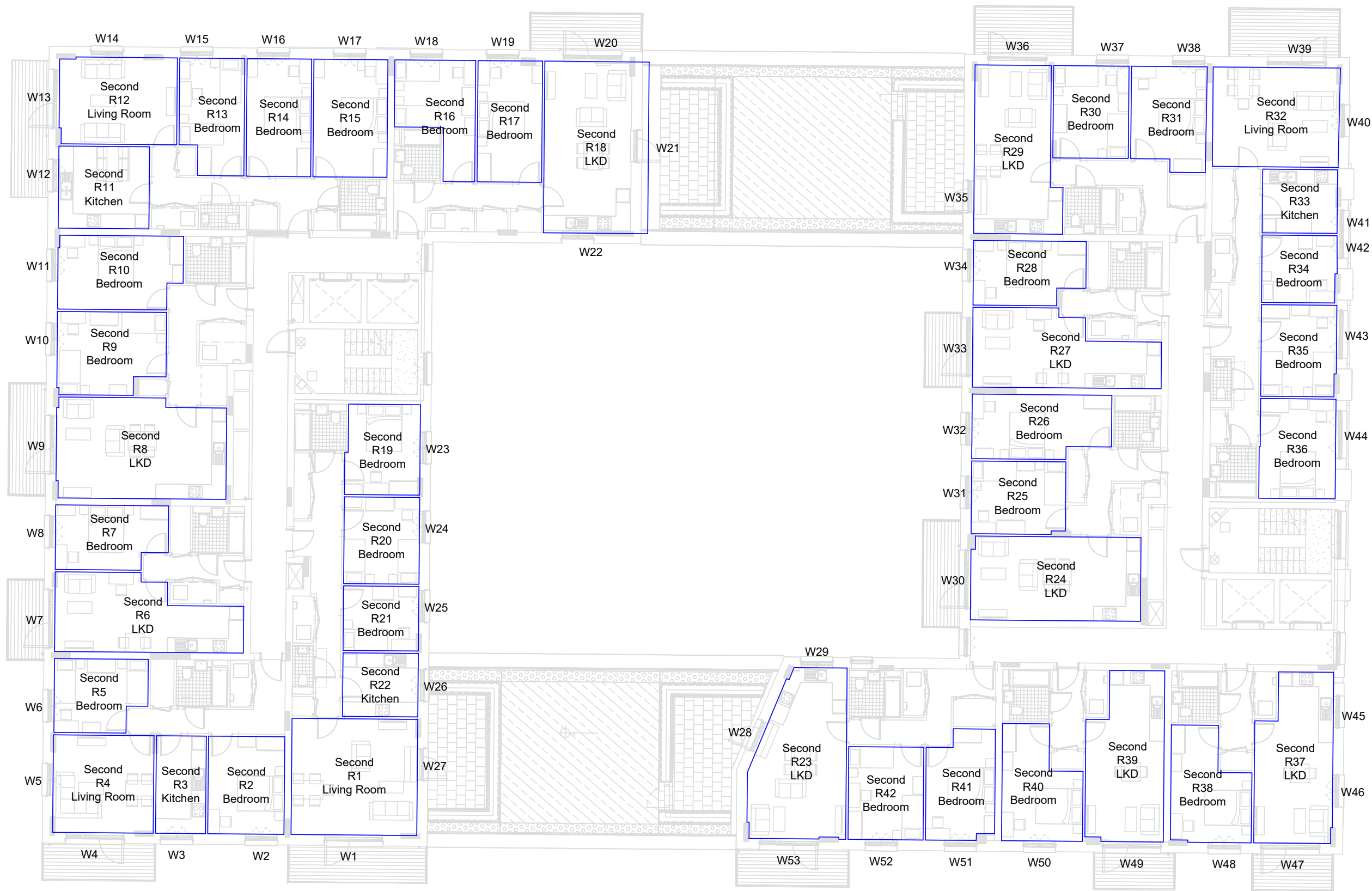
Title First Floor
Room Layout

Drawn JG Checked --

Date 29/09/2021 Project 4899

Rel no. 09 Prefix ID01 Page no. 02





Sources of information

Pollard Thomas Edwards

HTC-PTE-ZZ-XX-M3-A-00002_Austin Road
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HTC-PRP-ZZ-ZZ-M3-A-00001 - 3D EXPORT
VIEW Daylight Sulight.dwg
Received 13/09/2022

HTC-PRP-01-00-DR-A-20100 Phase 1
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GA_A1.pdf
HTC-PRP-P1ZZ-03-GA-A-20103_P4_S2_
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GA_A1.pdf
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HTC-PRP-01-06-DR-A-20106 Phase 1 Level
6 GA.pdf
HTC-PRP-01-07-DR-A-20107 Phase 1 Level
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Project	Hayes Town Central Estate		
Title	Second Floor Room Layout		
Drawn	JG	Checked	--
Date	29/09/2021	Project	4899
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Sources of information

Pollard Thomas Edwards

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VIEW Daylight Sulight.dwg
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GA_A1.pdf
HTC-PRP-P1ZZ-04-GA-A-20104_P4_S2_
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HTC-PRP-01-06-DR-A-20106 Phase 1 Level
6 GA.pdf
HTC-PRP-01-07-DR-A-20107 Phase 1 Level
7 GA.pdf
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Site Photographs
Ordnance Survey

NORTH



Project Hayes Town Central Estate

Title Third Floor
Room Layout

Drawn JG Checked --

Date 29/09/2021 Project 4899

Rel no. 09 Prefix ID01 Page no. 04

Sources of information

Pollard Thomas Edwards
HTC-PTE-ZZ-XX-M3-A-00002_Austin Road
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PRP
HTC-PRP-ZZ-ZZ-M3-A-00001 - 3D EXPORT
VIEW Daylight Sulight.dwg
Received 13/09/2022

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Suitable for Information_Phase 1 Level 3
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6 GA.pdf
HTC-PRP-01-07-DR-A-20107 Phase 1 Level
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Project	Hayes Town Central Estate		
Title	Fourth Floor Room Layout		
Drawn	JG	Checked	--
Date	29/09/2021	Project	4899
Rel no.	09	Prefix	ID01
		Page no.	05



Sources of information

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Received 04/11/2021

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GA_A1.pdf
HTC-PRP-P1ZZ-04-GA-A-20104_P4_S2_
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6 GA.pdf
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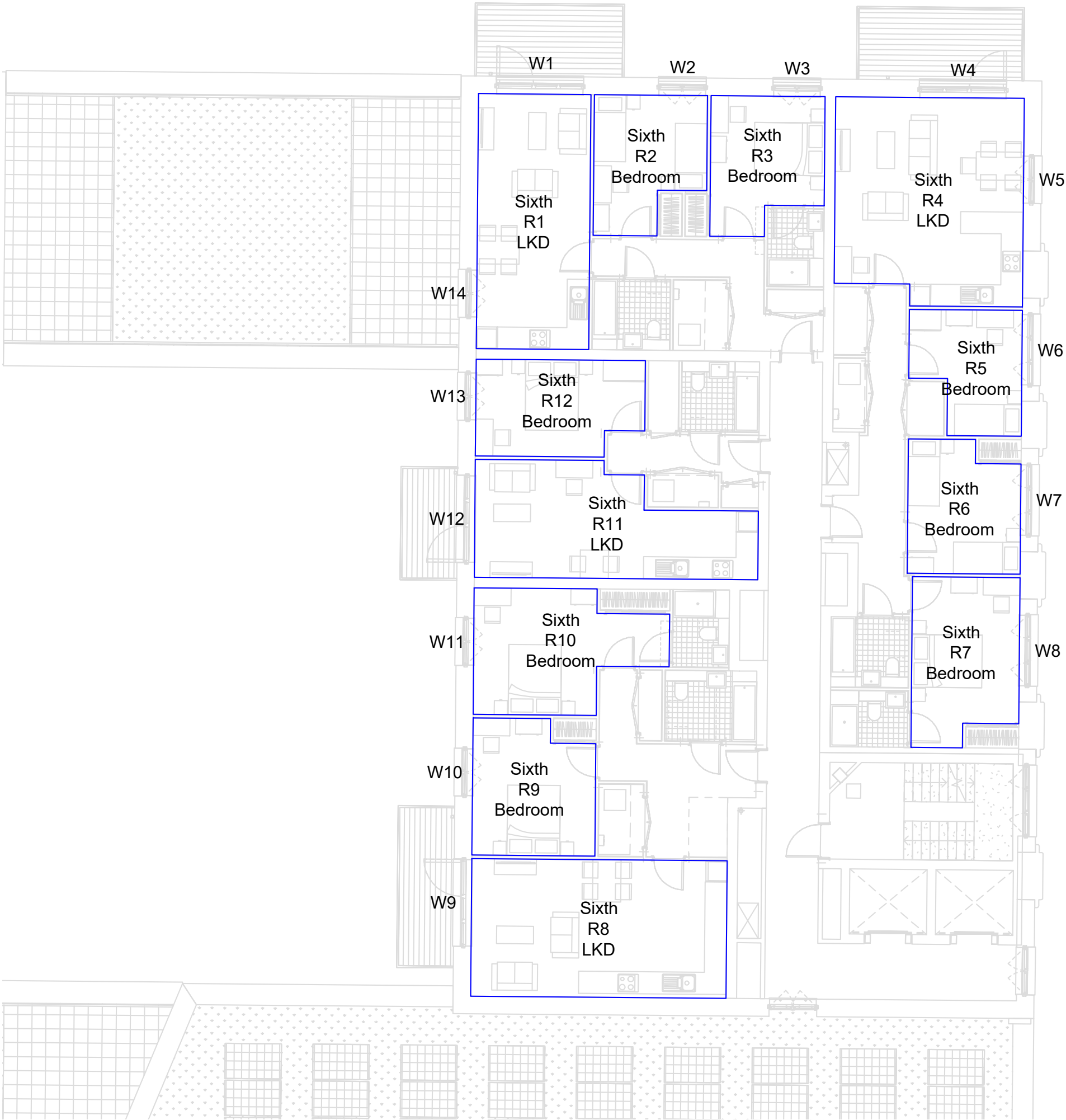
Title Fifth Floor
Room Layout

Drawn JG Checked --

Date 29/09/2021 Project 4899

Rel no. 09 Prefix ID01 Page no. 06





Sources of information

Pollard Thomas Edwards
HTC-PTE-ZZ-XX-M3-A-00002_Austin Road
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GA_A1.pdf
HTC-PRP-P1ZZ-03-GA-A-20103_P4_S2_
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GA_A1.pdf
HTC-PRP-P1ZZ-04-GA-A-20104_P4_S2_
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7 GA.pdf
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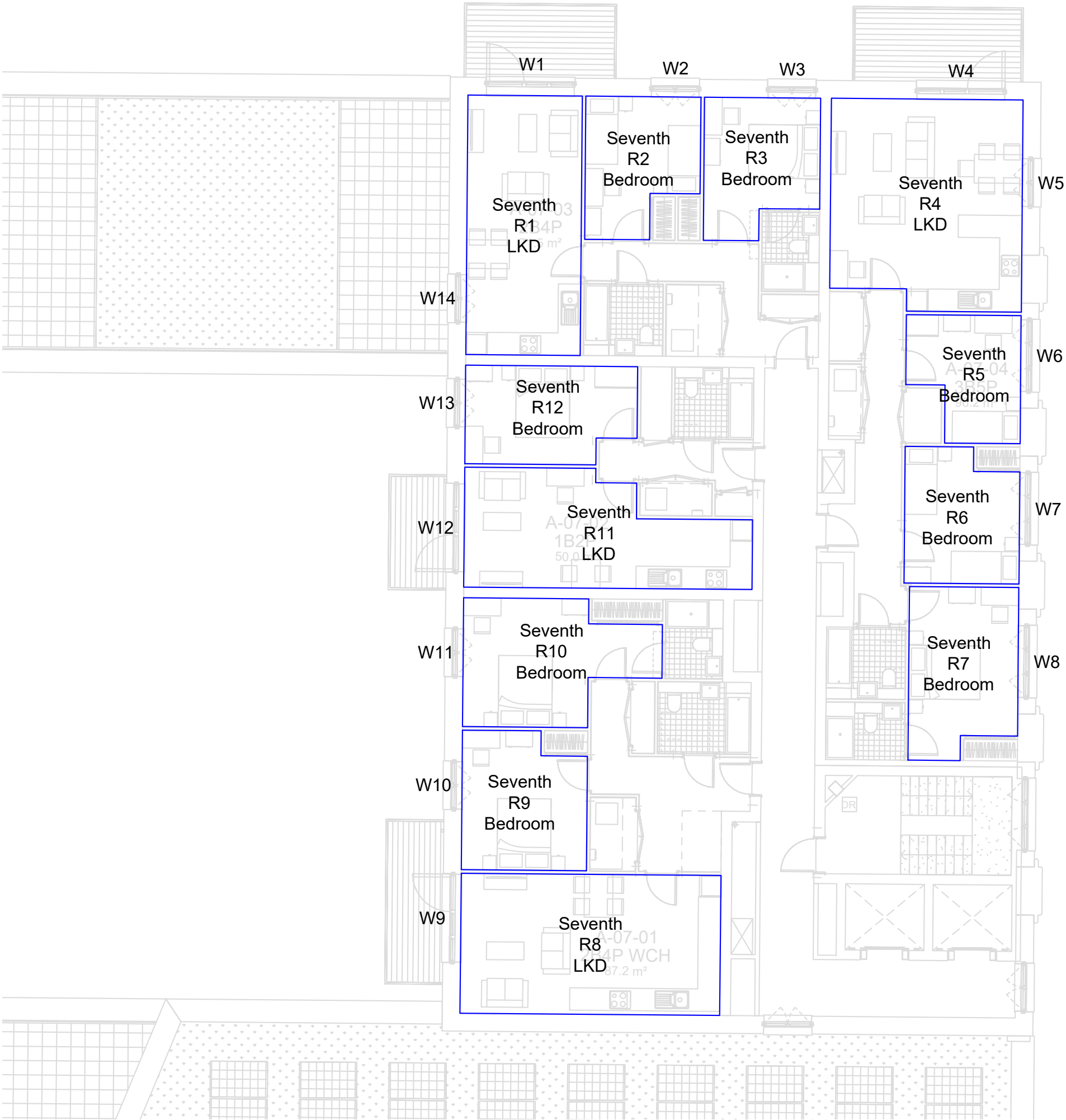
Project Hayes Town Central Estate

Title Sixth Floor
Room Layout

Drawn JG Checked --

Date 29/09/2021 Project 4899

Rel no. 09 Prefix ID01 Page no. 07



Sources of information

Pollard Thomas Edwards
HTC-PTE-ZZ-XX-M3-A-00002_Austin Road
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PRP
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HTC-PRP-01-00-DR-A-20100 Phase 1
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Project Hayes Town Central Estate

Title Seventh Floor
Room Layout

Drawn JG Checked --

Date 29/09/2021 Project 4899

Rel no. 09 Prefix ID01 Page no. 08

Project Name: 4899_R09_ID02

Project No.: 1

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Illustrative Masterplan)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
Proposed											
Ground	R1	LKD	25.53	19.31	230	13.98	72%	150	50%	50%	4380
	R2	LKD	25.34	19.15	226	14.23	74%	150	50%	50%	4380
	R3	Kitchen	22.97	17.55	334	17.46	100%	200	50%	50%	4380
	R4	Kitchen	22.97	17.55	393	17.55	100%	200	50%	50%	4380
	R5	Bedroom	14.44	10.05	249	10.05	100%	100	50%	50%	4380
	R6	Bedroom	9.75	6.19	279	6.19	100%	100	50%	50%	4380
	R7	LKD	32.26	25.17	369	25.17	100%	150	50%	50%	4380
	R8	LKD	22.96	16.68	97	5.37	32%	150	50%	50%	4380
	R9	Bedroom	13.23	8.96	59	2.08	23%	100	50%	50%	4380
	R10	LKD	26.80	20.40	80	3.90	19%	150	50%	50%	4380
	R11	Bedroom	14.49	9.83	63	2.49	25%	100	50%	50%	4380
	R12	Bedroom	14.86	10.33	69	3.34	32%	100	50%	50%	4380
	R13	LKD	20.38	15.00	359	15.00	100%	150	50%	50%	4380
	R14	LKD	25.35	19.16	85	6.21	32%	150	50%	50%	4380
	R15	Kitchen	22.99	17.57	150	5.99	34%	200	50%	50%	4380
	R16	Kitchen	22.99	17.57	168	6.82	39%	200	50%	50%	4380
First	R1	Bedroom	15.47	10.94	233	10.94	100%	100	50%	50%	4380
	R2	Bedroom	13.50	9.30	228	9.30	100%	100	50%	50%	4380
	R3	Bedroom	15.49	10.96	199	10.96	100%	100	50%	50%	4380
	R4	Bedroom	13.50	9.30	276	9.30	100%	100	50%	50%	4380
	R5	Bedroom	13.36	9.07	268	9.07	100%	100	50%	50%	4380
	R6	Bedroom	13.55	9.32	265	9.32	100%	100	50%	50%	4380
	R7	Bedroom	13.64	9.46	198	9.46	100%	100	50%	50%	4380
	R8	Bedroom	13.64	9.46	309	9.46	100%	100	50%	50%	4380
	R9	Bedroom	13.31	9.09	298	9.09	100%	100	50%	50%	4380
	R10	Bedroom	13.38	9.08	264	9.08	100%	100	50%	50%	4380
	R11	Bedroom	10.91	6.98	236	6.98	100%	100	50%	50%	4380
	R12	Bedroom	13.92	9.47	217	9.47	100%	100	50%	50%	4380
	R13	Bedroom	13.54	9.45	251	9.45	100%	100	50%	50%	4380

Project Name: 4899_R09_ID02

Project No.: 1

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Illustrative Masterplan)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R14	Kitchen	8.79	5.38	242	3.65	68%	200	50%	50%	4380
	R15	Living Room	17.59	12.89	502	12.89	100%	150	50%	50%	4380
	R16	Bedroom	11.52	7.59	158	7.59	100%	100	50%	50%	4380
	R17	LKD	22.32	15.81	102	5.05	32%	150	50%	50%	4380
	R18	Bedroom	12.35	8.18	94	3.85	47%	100	50%	50%	4380
	R19	LKD	28.14	21.57	70	2.80	13%	150	50%	50%	4380
	R20	Bedroom	12.43	8.54	108	5.56	65%	100	50%	50%	4380
	R21	Bedroom	13.91	9.69	101	5.00	52%	100	50%	50%	4380
	R22	Bedroom	14.00	9.76	100	4.91	50%	100	50%	50%	4380
	R23	LKD	24.06	18.37	309	18.02	98%	150	50%	50%	4380
	R24	Bedroom	14.69	10.03	176	10.03	100%	100	50%	50%	4380
	R25	Bedroom	15.47	10.94	169	10.77	98%	100	50%	50%	4380
	R26	Bedroom	13.32	9.13	192	9.13	100%	100	50%	50%	4380
	R27	Bedroom	13.26	8.96	183	8.45	94%	100	50%	50%	4380
	R28	Bedroom	13.54	9.31	164	9.31	100%	100	50%	50%	4380
	R29	Bedroom	13.64	9.46	150	8.70	92%	100	50%	50%	4380
	R30	Bedroom	13.64	9.46	209	9.46	100%	100	50%	50%	4380
	R31	Bedroom	13.32	9.09	192	9.09	100%	100	50%	50%	4380
	R32	Bedroom	13.39	9.09	323	9.09	100%	100	50%	50%	4380
	R33	LKD	24.29	18.06	115	7.00	39%	150	50%	50%	4380
	R34	Bedroom	12.62	8.70	191	8.70	100%	100	50%	50%	4380
	R35	Bedroom	13.42	9.16	184	9.16	100%	100	50%	50%	4380
	R36	Kitchen	22.71	17.31	401	17.31	100%	200	50%	50%	4380
	R37	Kitchen	8.72	5.52	191	2.38	43%	200	50%	50%	4380
	R38	Bedroom	9.20	5.91	235	5.91	100%	100	50%	50%	4380
	R39	Bedroom	12.54	8.63	408	8.63	100%	100	50%	50%	4380
	R40	Bedroom	13.76	9.61	371	9.61	100%	100	50%	50%	4380
	R41	Bedroom	7.93	4.81	176	3.57	74%	100	50%	50%	4380
	R42	Living Room	14.37	10.15	205	9.45	93%	150	50%	50%	4380
	R43	Living Room	14.37	10.15	196	8.05	79%	150	50%	50%	4380
	R44	Bedroom	7.93	4.81	127	2.99	62%	100	50%	50%	4380
	R45	Bedroom	11.72	7.97	66	1.85	23%	100	50%	50%	4380

Project Name: 4899_R09_ID02

Project No.: 1

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Illustrative Masterplan)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R46	Living Room	12.57	8.65	82	1.36	16%	150	50%	50%	4380
	R47	Kitchen	19.41	14.38	85	2.37	16%	200	50%	50%	4380
	R48	Bedroom	7.93	4.81	177	3.64	76%	100	50%	50%	4380
	R49	Living Room	14.37	10.15	206	8.90	88%	150	50%	50%	4380
	R50	Living Room	14.37	10.15	189	7.89	78%	150	50%	50%	4380
	R54	Bedroom	15.28	10.43	63	2.55	24%	100	50%	50%	4380
	R53	LKD	22.39	15.88	57	1.17	7%	150	50%	50%	4380
	R52	Bedroom	12.24	8.06	52	1.52	19%	100	50%	50%	4380
	R51	Bedroom	7.93	4.81	228	4.81	100%	100	50%	50%	4380
	R56	LKD	25.90	19.77	33	0.00	0%	150	50%	50%	4380
	R55	Bedroom	12.36	8.45	80	2.61	31%	100	50%	50%	4380
Second	R1	Living Room	26.56	20.73	352	20.73	100%	150	50%	50%	4380
	R2	Bedroom	13.53	9.44	270	9.44	100%	100	50%	50%	4380
	R3	Kitchen	8.84	5.43	283	4.15	76%	200	50%	50%	4380
	R4	Living Room	17.86	13.15	572	13.15	100%	150	50%	50%	4380
	R5	Bedroom	11.53	7.60	180	7.60	100%	100	50%	50%	4380
	R6	LKD	22.35	15.84	113	6.02	38%	150	50%	50%	4380
	R7	Bedroom	12.39	8.20	108	5.05	62%	100	50%	50%	4380
	R8	LKD	30.02	23.45	72	3.95	17%	150	50%	50%	4380
	R9	Bedroom	15.38	10.82	101	6.05	56%	100	50%	50%	4380
	R10	Bedroom	16.01	11.27	105	6.35	56%	100	50%	50%	4380
	R11	Kitchen	13.54	9.48	88	0.00	0%	200	50%	50%	4380
	R12	Living Room	18.46	13.59	490	13.59	100%	150	50%	50%	4380
	R13	Bedroom	12.85	8.54	247	8.54	100%	100	50%	50%	4380
	R14	Bedroom	13.80	9.50	247	9.50	100%	100	50%	50%	4380
	R15	Bedroom	15.82	11.28	229	11.28	100%	100	50%	50%	4380
	R16	Bedroom	12.99	8.18	313	8.18	100%	100	50%	50%	4380
	R17	Bedroom	14.22	9.83	227	9.83	100%	100	50%	50%	4380
	R18	LKD	32.53	25.83	322	25.83	100%	150	50%	50%	4380
	R19	Bedroom	12.07	8.19	98	4.20	51%	100	50%	50%	4380
	R20	Bedroom	11.89	8.10	106	4.74	59%	100	50%	50%	4380
	R21	Bedroom	8.84	5.62	135	5.54	99%	100	50%	50%	4380

Project Name: 4899_R09_ID02

Project No.: 1

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Illustrative Masterplan)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R22	Kitchen	8.70	5.51	174	2.14	39%	200	50%	50%	4380
	R23	LKD	26.45	20.29	438	20.29	100%	150	50%	50%	4380
	R24	LKD	25.79	19.66	47	1.67	8%	150	50%	50%	4380
	R25	Bedroom	12.36	8.45	118	5.45	65%	100	50%	50%	4380
	R26	Bedroom	15.31	10.45	89	4.63	44%	100	50%	50%	4380
	R27	LKD	22.33	15.83	99	4.40	28%	150	50%	50%	4380
	R28	Bedroom	12.28	8.11	117	5.75	71%	100	50%	50%	4380
	R29	LKD	24.44	18.21	321	18.21	100%	150	50%	50%	4380
	R30	Bedroom	12.66	8.73	239	8.73	100%	100	50%	50%	4380
	R31	Bedroom	13.52	9.25	221	9.25	100%	100	50%	50%	4380
	R32	Living Room	22.84	17.42	442	17.42	100%	150	50%	50%	4380
	R33	Kitchen	8.67	5.49	204	2.97	54%	200	50%	50%	4380
	R34	Bedroom	9.09	5.81	223	5.81	100%	100	50%	50%	4380
	R35	Bedroom	12.45	8.54	417	8.54	100%	100	50%	50%	4380
	R36	Bedroom	13.76	9.61	395	9.61	100%	100	50%	50%	4380
	R37	LKD	22.30	16.27	638	16.27	100%	150	50%	50%	4380
	R38	Bedroom	14.26	9.55	273	9.55	100%	100	50%	50%	4380
	R39	LKD	22.22	16.19	278	16.03	99%	150	50%	50%	4380
	R40	Bedroom	14.33	9.62	318	9.62	100%	100	50%	50%	4380
	R41	Bedroom	12.85	8.60	317	8.60	100%	100	50%	50%	4380
	R42	Bedroom	12.65	8.72	330	8.72	100%	100	50%	50%	4380
Third	R1	Living Room	26.56	20.73	372	20.73	100%	150	50%	50%	4380
	R2	Bedroom	13.53	9.44	277	9.44	100%	100	50%	50%	4380
	R3	Kitchen	8.84	5.43	285	4.52	83%	200	50%	50%	4380
	R4	Living Room	17.86	13.15	601	13.15	100%	150	50%	50%	4380
	R5	Bedroom	11.53	7.60	208	7.60	100%	100	50%	50%	4380
	R6	LKD	22.35	15.84	123	6.62	42%	150	50%	50%	4380
	R7	Bedroom	12.39	8.20	123	6.03	74%	100	50%	50%	4380
	R8	LKD	30.02	23.45	80	4.69	20%	150	50%	50%	4380
	R9	Bedroom	15.38	10.82	114	7.10	66%	100	50%	50%	4380
	R10	Bedroom	16.01	11.27	115	7.02	62%	100	50%	50%	4380
	R11	Kitchen	13.54	9.48	92	0.09	1%	200	50%	50%	4380

Project Name: 4899_R09_ID02

Project No.: 1

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Illustrative Masterplan)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R12	Living Room	18.46	13.59	519	13.59	100%	150	50%	50%	4380
	R13	Bedroom	12.85	8.54	268	8.54	100%	100	50%	50%	4380
	R14	Bedroom	13.80	9.50	267	9.50	100%	100	50%	50%	4380
	R15	Bedroom	15.82	11.28	247	11.28	100%	100	50%	50%	4380
	R16	Bedroom	12.99	8.18	347	8.18	100%	100	50%	50%	4380
	R17	Bedroom	14.22	9.83	250	9.83	100%	100	50%	50%	4380
	R18	LKD	32.53	25.83	357	25.83	100%	150	50%	50%	4380
	R19	Bedroom	12.07	8.19	119	6.51	79%	100	50%	50%	4380
	R20	Bedroom	11.89	8.10	124	7.69	95%	100	50%	50%	4380
	R21	Bedroom	8.84	5.62	171	5.62	100%	100	50%	50%	4380
	R22	Kitchen	8.70	5.51	207	2.98	54%	200	50%	50%	4380
	R23	LKD	26.45	20.29	491	20.29	100%	150	50%	50%	4380
	R24	LKD	25.79	19.66	62	3.60	18%	150	50%	50%	4380
	R25	Bedroom	12.36	8.45	173	8.37	99%	100	50%	50%	4380
	R26	Bedroom	15.31	10.45	115	5.82	56%	100	50%	50%	4380
	R27	LKD	22.33	15.83	121	6.19	39%	150	50%	50%	4380
	R28	Bedroom	12.28	8.11	166	7.43	92%	100	50%	50%	4380
	R29	LKD	24.44	18.21	372	18.21	100%	150	50%	50%	4380
	R30	Bedroom	12.66	8.73	262	8.73	100%	100	50%	50%	4380
	R31	Bedroom	13.52	9.25	238	9.25	100%	100	50%	50%	4380
	R32	Living Room	22.84	17.42	467	17.42	100%	150	50%	50%	4380
	R33	Kitchen	8.67	5.49	213	3.66	67%	200	50%	50%	4380
	R34	Bedroom	9.09	5.81	232	5.81	100%	100	50%	50%	4380
	R35	Bedroom	12.45	8.54	442	8.54	100%	100	50%	50%	4380
	R36	Bedroom	13.76	9.61	422	9.61	100%	100	50%	50%	4380
	R37	LKD	22.30	16.27	692	16.27	100%	150	50%	50%	4380
	R38	Bedroom	14.26	9.55	283	9.55	100%	100	50%	50%	4380
	R39	LKD	22.22	16.19	289	16.19	100%	150	50%	50%	4380
	R40	Bedroom	14.33	9.62	326	9.62	100%	100	50%	50%	4380
	R41	Bedroom	12.85	8.60	327	8.60	100%	100	50%	50%	4380
	R42	Bedroom	12.65	8.72	342	8.72	100%	100	50%	50%	4380
Fourth	R1	Living Room	26.56	20.73	394	20.73	100%	150	50%	50%	4380

Project Name: 4899_R09_ID02

Project No.: 1

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Illustrative Masterplan)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R2	Bedroom	13.53	9.44	282	9.44	100%	100	50%	50%	4380
	R3	Kitchen	8.84	5.43	292	4.75	87%	200	50%	50%	4380
	R4	Living Room	17.86	13.15	644	13.15	100%	150	50%	50%	4380
	R5	Bedroom	11.53	7.60	242	7.60	100%	100	50%	50%	4380
	R6	LKD	22.35	15.84	151	8.26	52%	150	50%	50%	4380
	R7	Bedroom	12.39	8.20	142	6.95	85%	100	50%	50%	4380
	R8	LKD	30.02	23.45	92	6.13	26%	150	50%	50%	4380
	R9	Bedroom	15.38	10.82	132	8.41	78%	100	50%	50%	4380
	R10	Bedroom	16.01	11.27	130	8.36	74%	100	50%	50%	4380
	R11	Kitchen	13.54	9.48	99	0.43	5%	200	50%	50%	4380
	R12	Living Room	18.46	13.59	548	13.59	100%	150	50%	50%	4380
	R13	Bedroom	12.85	8.54	280	8.54	100%	100	50%	50%	4380
	R14	Bedroom	13.80	9.50	283	9.50	100%	100	50%	50%	4380
	R15	Bedroom	15.82	11.28	262	11.28	100%	100	50%	50%	4380
	R16	Bedroom	12.99	8.18	364	8.18	100%	100	50%	50%	4380
	R17	Bedroom	14.22	9.83	263	9.83	100%	100	50%	50%	4380
	R18	LKD	32.53	25.83	391	25.83	100%	150	50%	50%	4380
	R19	Bedroom	12.07	8.19	154	8.19	100%	100	50%	50%	4380
	R20	Bedroom	11.89	8.10	159	8.10	100%	100	50%	50%	4380
	R21	Bedroom	8.84	5.62	220	5.62	100%	100	50%	50%	4380
	R22	Kitchen	8.70	5.51	278	3.98	72%	200	50%	50%	4380
	R23	LKD	26.45	20.29	579	20.29	100%	150	50%	50%	4380
	R24	LKD	25.79	19.66	102	6.93	35%	150	50%	50%	4380
	R25	Bedroom	12.36	8.45	239	8.45	100%	100	50%	50%	4380
	R26	Bedroom	15.31	10.45	170	7.92	76%	100	50%	50%	4380
	R27	LKD	22.33	15.83	178	9.27	59%	150	50%	50%	4380
	R28	Bedroom	12.28	8.11	219	8.11	100%	100	50%	50%	4380
	R29	LKD	24.44	18.21	419	18.21	100%	150	50%	50%	4380
	R30	Bedroom	12.66	8.73	273	8.73	100%	100	50%	50%	4380
	R31	Bedroom	13.52	9.25	248	9.25	100%	100	50%	50%	4380
	R32	Living Room	22.84	17.42	479	17.42	100%	150	50%	50%	4380
	R33	Kitchen	8.67	5.49	219	3.73	68%	200	50%	50%	4380

Project Name: 4899_R09_ID02

Project No.: 1

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Illustrative Masterplan)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R34	Bedroom	9.09	5.81	237	5.81	100%	100	50%	50%	4380
	R35	Bedroom	12.45	8.54	456	8.54	100%	100	50%	50%	4380
	R36	Bedroom	13.76	9.61	437	9.61	100%	100	50%	50%	4380
	R37	LKD	22.30	16.27	716	16.27	100%	150	50%	50%	4380
	R38	Bedroom	14.26	9.55	291	9.55	100%	100	50%	50%	4380
	R39	LKD	22.22	16.19	297	16.19	100%	150	50%	50%	4380
	R40	Bedroom	14.33	9.62	335	9.62	100%	100	50%	50%	4380
	R41	Bedroom	12.85	8.60	331	8.60	100%	100	50%	50%	4380
	R42	Bedroom	12.65	8.72	346	8.72	100%	100	50%	50%	4380
Fifth	R1	Living Room	26.56	20.73	491	20.73	100%	150	50%	50%	4380
	R2	Bedroom	13.53	9.44	300	9.44	100%	100	50%	50%	4380
	R3	Kitchen	8.84	5.43	309	5.43	100%	200	50%	50%	4380
	R4	Living Room	17.86	13.15	800	13.15	100%	150	50%	50%	4380
	R5	Bedroom	11.53	7.60	298	7.60	100%	100	50%	50%	4380
	R6	LKD	22.35	15.84	245	11.35	72%	150	50%	50%	4380
	R7	Bedroom	12.39	8.20	191	8.20	100%	100	50%	50%	4380
	R8	LKD	30.02	23.45	156	12.31	52%	150	50%	50%	4380
	R9	Bedroom	15.38	10.82	169	10.82	100%	100	50%	50%	4380
	R10	Bedroom	16.01	11.27	151	10.37	92%	100	50%	50%	4380
	R11	Kitchen	13.54	9.48	157	3.28	35%	200	50%	50%	4380
	R12	Living Room	18.46	13.59	696	13.59	100%	150	50%	50%	4380
	R13	Bedroom	12.85	8.54	292	8.54	100%	100	50%	50%	4380
	R14	Bedroom	13.80	9.50	292	9.50	100%	100	50%	50%	4380
	R15	Bedroom	15.82	11.28	271	11.28	100%	100	50%	50%	4380
	R16	Bedroom	12.99	8.18	378	8.18	100%	100	50%	50%	4380
	R17	Bedroom	14.22	9.83	278	9.83	100%	100	50%	50%	4380
	R18	LKD	32.53	25.83	479	25.83	100%	150	50%	50%	4380
	R19	Bedroom	12.07	8.19	209	8.19	100%	100	50%	50%	4380
	R20	Bedroom	11.89	8.10	210	8.10	100%	100	50%	50%	4380
	R21	Bedroom	8.84	5.62	275	5.62	100%	100	50%	50%	4380
	R22	Kitchen	8.70	5.51	343	5.51	100%	200	50%	50%	4380
	R23	LKD	26.45	20.29	783	20.29	100%	150	50%	50%	4380

Project Name: 4899_R09_ID02

Project No.: 1

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Illustrative Masterplan)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R24	LKD	25.79	19.66	160	10.11	51%	150	50%	50%	4380
	R25	Bedroom	12.36	8.45	310	8.45	100%	100	50%	50%	4380
	R26	Bedroom	15.31	10.45	225	10.37	99%	100	50%	50%	4380
	R27	LKD	22.33	15.83	263	11.60	73%	150	50%	50%	4380
	R28	Bedroom	12.28	8.11	295	8.11	100%	100	50%	50%	4380
	R29	LKD	24.44	18.21	464	18.21	100%	150	50%	50%	4380
	R30	Bedroom	12.66	8.73	280	8.73	100%	100	50%	50%	4380
	R31	Bedroom	13.52	9.25	255	9.25	100%	100	50%	50%	4380
	R32	Living Room	22.84	17.42	486	17.42	100%	150	50%	50%	4380
	R33	Kitchen	8.67	5.49	222	4.04	74%	200	50%	50%	4380
	R34	Bedroom	9.09	5.81	241	5.81	100%	100	50%	50%	4380
	R35	Bedroom	12.45	8.54	463	8.54	100%	100	50%	50%	4380
	R36	Bedroom	13.76	9.61	442	9.61	100%	100	50%	50%	4380
	R37	LKD	22.30	16.27	766	16.27	100%	150	50%	50%	4380
	R38	Bedroom	14.26	9.55	320	9.55	100%	100	50%	50%	4380
	R39	LKD	22.22	16.19	347	16.19	100%	150	50%	50%	4380
	R40	Bedroom	14.33	9.62	338	9.62	100%	100	50%	50%	4380
	R41	Bedroom	12.85	8.60	339	8.60	100%	100	50%	50%	4380
	R42	Bedroom	12.65	8.72	363	8.72	100%	100	50%	50%	4380
Sixth	R1	LKD	23.20	17.29	540	17.29	100%	150	50%	50%	4380
	R2	Bedroom	11.05	7.08	315	7.08	100%	100	50%	50%	4380
	R3	Bedroom	11.46	7.48	335	7.48	100%	100	50%	50%	4380
	R4	LKD	30.47	24.05	333	24.05	100%	150	50%	50%	4380
	R5	Bedroom	9.70	5.99	579	5.99	100%	100	50%	50%	4380
	R6	Bedroom	11.39	7.53	501	7.53	100%	100	50%	50%	4380
	R7	Bedroom	13.73	9.34	470	9.34	100%	100	50%	50%	4380
	R8	LKD	28.41	22.06	214	15.83	72%	150	50%	50%	4380
	R9	Bedroom	12.74	8.66	345	8.66	100%	100	50%	50%	4380
	R10	Bedroom	15.69	10.55	291	10.55	100%	100	50%	50%	4380
	R11	LKD	22.02	15.53	338	12.38	80%	150	50%	50%	4380
	R12	Bedroom	12.38	8.20	339	8.20	100%	100	50%	50%	4380
Seventh	R1	LKD	23.20	17.29	658	17.29	100%	150	50%	50%	4380

Project Name: 4899_R09_ID02

Project No.: 1

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Illustrative Masterplan)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R2	Bedroom	11.05	7.08	328	7.08	100%	100	50%	50%	4380
	R3	Bedroom	11.46	7.48	352	7.48	100%	100	50%	50%	4380
	R4	LKD	30.47	24.05	388	24.05	100%	150	50%	50%	4380
	R5	Bedroom	9.70	5.99	584	5.99	100%	100	50%	50%	4380
	R6	Bedroom	11.39	7.53	503	7.53	100%	100	50%	50%	4380
	R7	Bedroom	13.73	9.34	476	9.34	100%	100	50%	50%	4380
	R8	LKD	28.41	22.06	303	22.06	100%	150	50%	50%	4380
	R9	Bedroom	12.74	8.66	383	8.66	100%	100	50%	50%	4380
	R10	Bedroom	15.69	10.55	314	10.55	100%	100	50%	50%	4380
	R11	LKD	22.02	15.53	419	13.75	89%	150	50%	50%	4380
	R12	Bedroom	12.38	8.20	367	8.20	100%	100	50%	50%	4380

Project Name: 4899_R09_ID01

Project No.: 4899

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Maximum Parameter)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
Proposed											
Ground	R1	LKD	25.53	19.31	226	13.82	72%	150	50%	50%	4380
	R2	LKD	25.34	19.15	213	13.27	69%	150	50%	50%	4380
	R3	Kitchen	22.97	17.55	314	17.38	99%	200	50%	50%	4380
	R4	Kitchen	22.97	17.55	373	17.55	100%	200	50%	50%	4380
	R5	Bedroom	14.44	10.05	241	10.05	100%	100	50%	50%	4380
	R6	Bedroom	9.75	6.19	271	6.19	100%	100	50%	50%	4380
	R7	LKD	32.26	25.17	357	25.17	100%	150	50%	50%	4380
	R8	LKD	22.96	16.68	98	5.37	32%	150	50%	50%	4380
	R9	Bedroom	13.23	8.96	60	2.15	24%	100	50%	50%	4380
	R10	LKD	26.80	20.40	80	3.99	20%	150	50%	50%	4380
	R11	Bedroom	14.49	9.83	64	2.58	26%	100	50%	50%	4380
	R12	Bedroom	14.86	10.33	70	3.42	33%	100	50%	50%	4380
	R13	LKD	20.38	15.00	360	15.00	100%	150	50%	50%	4380
	R14	LKD	25.35	19.16	85	6.21	32%	150	50%	50%	4380
	R15	Kitchen	22.99	17.57	150	5.99	34%	200	50%	50%	4380
	R16	Kitchen	22.99	17.57	168	6.82	39%	200	50%	50%	4380
First	R1	Bedroom	15.47	10.94	234	10.94	100%	100	50%	50%	4380
	R2	Bedroom	13.50	9.30	228	9.30	100%	100	50%	50%	4380
	R3	Bedroom	15.49	10.96	198	10.96	100%	100	50%	50%	4380
	R4	Bedroom	13.50	9.30	274	9.30	100%	100	50%	50%	4380
	R5	Bedroom	13.36	9.07	267	9.07	100%	100	50%	50%	4380
	R6	Bedroom	13.55	9.32	262	9.32	100%	100	50%	50%	4380
	R7	Bedroom	13.64	9.46	194	9.46	100%	100	50%	50%	4380
	R8	Bedroom	13.64	9.46	300	9.46	100%	100	50%	50%	4380
	R9	Bedroom	13.31	9.09	297	9.09	100%	100	50%	50%	4380
	R10	Bedroom	13.38	9.08	261	9.08	100%	100	50%	50%	4380
	R11	Bedroom	10.91	6.98	234	6.98	100%	100	50%	50%	4380
	R12	Bedroom	13.92	9.47	216	9.47	100%	100	50%	50%	4380
	R13	Bedroom	13.54	9.45	250	9.45	100%	100	50%	50%	4380

Project Name: 4899_R09_ID01

Project No.: 4899

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Maximum Parameter)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R14	Kitchen	8.79	5.38	242	3.56	66%	200	50%	50%	4380
	R15	Living Room	17.59	12.89	499	12.89	100%	150	50%	50%	4380
	R16	Bedroom	11.52	7.59	160	7.59	100%	100	50%	50%	4380
	R17	LKD	22.32	15.81	103	5.13	32%	150	50%	50%	4380
	R18	Bedroom	12.35	8.18	97	3.89	48%	100	50%	50%	4380
	R19	LKD	28.14	21.57	71	2.96	14%	150	50%	50%	4380
	R20	Bedroom	12.43	8.54	110	5.80	68%	100	50%	50%	4380
	R21	Bedroom	13.91	9.69	104	5.15	53%	100	50%	50%	4380
	R22	Bedroom	14.00	9.76	100	4.91	50%	100	50%	50%	4380
	R23	LKD	24.06	18.37	309	18.02	98%	150	50%	50%	4380
	R24	Bedroom	14.69	10.03	176	10.03	100%	100	50%	50%	4380
	R25	Bedroom	15.47	10.94	170	10.77	98%	100	50%	50%	4380
	R26	Bedroom	13.32	9.13	192	9.13	100%	100	50%	50%	4380
	R27	Bedroom	13.26	8.96	182	8.45	94%	100	50%	50%	4380
	R28	Bedroom	13.54	9.31	164	9.31	100%	100	50%	50%	4380
	R29	Bedroom	13.64	9.46	150	8.70	92%	100	50%	50%	4380
	R30	Bedroom	13.64	9.46	208	9.46	100%	100	50%	50%	4380
	R31	Bedroom	13.32	9.09	192	9.09	100%	100	50%	50%	4380
	R32	Bedroom	13.39	9.09	323	9.09	100%	100	50%	50%	4380
	R33	LKD	24.29	18.06	115	7.00	39%	150	50%	50%	4380
	R34	Bedroom	12.62	8.70	190	8.70	100%	100	50%	50%	4380
	R35	Bedroom	13.42	9.16	184	9.16	100%	100	50%	50%	4380
	R36	Kitchen	22.71	17.31	401	17.31	100%	200	50%	50%	4380
	R37	Kitchen	8.72	5.52	191	2.38	43%	200	50%	50%	4380
	R38	Bedroom	9.20	5.91	235	5.91	100%	100	50%	50%	4380
	R39	Bedroom	12.54	8.63	408	8.63	100%	100	50%	50%	4380
	R40	Bedroom	13.76	9.61	371	9.61	100%	100	50%	50%	4380
	R41	Bedroom	7.93	4.81	176	3.57	74%	100	50%	50%	4380
	R42	Living Room	14.37	10.15	205	9.45	93%	150	50%	50%	4380
	R43	Living Room	14.37	10.15	196	8.05	79%	150	50%	50%	4380
	R44	Bedroom	7.93	4.81	127	2.99	62%	100	50%	50%	4380
	R45	Bedroom	11.72	7.97	66	1.85	23%	100	50%	50%	4380

Project Name: 4899_R09_ID01

Project No.: 4899

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Maximum Parameter)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
Second	R46	Living Room	12.57	8.65	82	1.36	16%	150	50%	50%	4380
	R47	Kitchen	19.41	14.38	85	2.37	16%	200	50%	50%	4380
	R48	Bedroom	7.93	4.81	177	3.64	76%	100	50%	50%	4380
	R49	Living Room	14.37	10.15	206	8.90	88%	150	50%	50%	4380
	R50	Living Room	14.37	10.15	189	7.89	78%	150	50%	50%	4380
	R54	Bedroom	15.28	10.43	63	2.55	24%	100	50%	50%	4380
	R53	LKD	22.39	15.88	57	1.17	7%	150	50%	50%	4380
	R52	Bedroom	12.24	8.06	52	1.52	19%	100	50%	50%	4380
	R51	Bedroom	7.93	4.81	228	4.81	100%	100	50%	50%	4380
	R56	LKD	25.90	19.77	33	0.00	0%	150	50%	50%	4380
	R55	Bedroom	12.36	8.45	80	2.61	31%	100	50%	50%	4380
	R1	Living Room	26.56	20.73	351	20.73	100%	150	50%	50%	4380
	R2	Bedroom	13.53	9.44	270	9.44	100%	100	50%	50%	4380
	R3	Kitchen	8.84	5.43	283	4.15	76%	200	50%	50%	4380
	R4	Living Room	17.86	13.15	575	13.15	100%	150	50%	50%	4380
	R5	Bedroom	11.53	7.60	185	7.60	100%	100	50%	50%	4380
	R6	LKD	22.35	15.84	115	6.28	40%	150	50%	50%	4380
	R7	Bedroom	12.39	8.20	113	5.37	65%	100	50%	50%	4380
	R8	LKD	30.02	23.45	74	4.12	18%	150	50%	50%	4380
	R9	Bedroom	15.38	10.82	104	6.36	59%	100	50%	50%	4380
	R10	Bedroom	16.01	11.27	108	6.35	56%	100	50%	50%	4380
	R11	Kitchen	13.54	9.48	89	0.00	0%	200	50%	50%	4380
	R12	Living Room	18.46	13.59	492	13.59	100%	150	50%	50%	4380
	R13	Bedroom	12.85	8.54	247	8.54	100%	100	50%	50%	4380
	R14	Bedroom	13.80	9.50	246	9.50	100%	100	50%	50%	4380
	R15	Bedroom	15.82	11.28	229	11.28	100%	100	50%	50%	4380
	R16	Bedroom	12.99	8.18	312	8.18	100%	100	50%	50%	4380
	R17	Bedroom	14.22	9.83	227	9.83	100%	100	50%	50%	4380
	R18	LKD	32.53	25.83	322	25.83	100%	150	50%	50%	4380
	R19	Bedroom	12.07	8.19	98	4.20	51%	100	50%	50%	4380
	R20	Bedroom	11.89	8.10	106	4.74	59%	100	50%	50%	4380
	R21	Bedroom	8.84	5.62	136	5.54	99%	100	50%	50%	4380

Project Name: 4899_R09_ID01

Project No.: 4899

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Maximum Parameter)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R22	Kitchen	8.70	5.51	174	2.14	39%	200	50%	50%	4380
	R23	LKD	26.45	20.29	438	20.29	100%	150	50%	50%	4380
	R24	LKD	25.79	19.66	47	1.67	8%	150	50%	50%	4380
	R25	Bedroom	12.36	8.45	118	5.45	65%	100	50%	50%	4380
	R26	Bedroom	15.31	10.45	89	4.63	44%	100	50%	50%	4380
	R27	LKD	22.33	15.83	99	4.40	28%	150	50%	50%	4380
	R28	Bedroom	12.28	8.11	117	5.75	71%	100	50%	50%	4380
	R29	LKD	24.44	18.21	321	18.21	100%	150	50%	50%	4380
	R30	Bedroom	12.66	8.73	239	8.73	100%	100	50%	50%	4380
	R31	Bedroom	13.52	9.25	221	9.25	100%	100	50%	50%	4380
	R32	Living Room	22.84	17.42	442	17.42	100%	150	50%	50%	4380
	R33	Kitchen	8.67	5.49	204	2.97	54%	200	50%	50%	4380
	R34	Bedroom	9.09	5.81	223	5.81	100%	100	50%	50%	4380
	R35	Bedroom	12.45	8.54	417	8.54	100%	100	50%	50%	4380
	R36	Bedroom	13.76	9.61	395	9.61	100%	100	50%	50%	4380
	R37	LKD	22.30	16.27	638	16.27	100%	150	50%	50%	4380
	R38	Bedroom	14.26	9.55	273	9.55	100%	100	50%	50%	4380
	R39	LKD	22.22	16.19	278	16.03	99%	150	50%	50%	4380
	R40	Bedroom	14.33	9.62	317	9.62	100%	100	50%	50%	4380
	R41	Bedroom	12.85	8.60	317	8.60	100%	100	50%	50%	4380
	R42	Bedroom	12.65	8.72	328	8.72	100%	100	50%	50%	4380
Third	R1	Living Room	26.56	20.73	372	20.73	100%	150	50%	50%	4380
	R2	Bedroom	13.53	9.44	278	9.44	100%	100	50%	50%	4380
	R3	Kitchen	8.84	5.43	287	4.52	83%	200	50%	50%	4380
	R4	Living Room	17.86	13.15	606	13.15	100%	150	50%	50%	4380
	R5	Bedroom	11.53	7.60	209	7.60	100%	100	50%	50%	4380
	R6	LKD	22.35	15.84	129	6.88	43%	150	50%	50%	4380
	R7	Bedroom	12.39	8.20	130	6.37	78%	100	50%	50%	4380
	R8	LKD	30.02	23.45	84	5.19	22%	150	50%	50%	4380
	R9	Bedroom	15.38	10.82	119	7.53	70%	100	50%	50%	4380
	R10	Bedroom	16.01	11.27	118	7.52	67%	100	50%	50%	4380
	R11	Kitchen	13.54	9.48	95	0.17	2%	200	50%	50%	4380

Project Name: 4899_R09_ID01

Project No.: 4899

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Maximum Parameter)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R12	Living Room	18.46	13.59	522	13.59	100%	150	50%	50%	4380
	R13	Bedroom	12.85	8.54	267	8.54	100%	100	50%	50%	4380
	R14	Bedroom	13.80	9.50	267	9.50	100%	100	50%	50%	4380
	R15	Bedroom	15.82	11.28	247	11.28	100%	100	50%	50%	4380
	R16	Bedroom	12.99	8.18	345	8.18	100%	100	50%	50%	4380
	R17	Bedroom	14.22	9.83	250	9.83	100%	100	50%	50%	4380
	R18	LKD	32.53	25.83	357	25.83	100%	150	50%	50%	4380
	R19	Bedroom	12.07	8.19	119	6.51	79%	100	50%	50%	4380
	R20	Bedroom	11.89	8.10	124	7.69	95%	100	50%	50%	4380
	R21	Bedroom	8.84	5.62	171	5.62	100%	100	50%	50%	4380
	R22	Kitchen	8.70	5.51	207	2.98	54%	200	50%	50%	4380
	R23	LKD	26.45	20.29	492	20.29	100%	150	50%	50%	4380
	R24	LKD	25.79	19.66	62	3.60	18%	150	50%	50%	4380
	R25	Bedroom	12.36	8.45	173	8.37	99%	100	50%	50%	4380
	R26	Bedroom	15.31	10.45	115	5.82	56%	100	50%	50%	4380
	R27	LKD	22.33	15.83	121	6.28	40%	150	50%	50%	4380
	R28	Bedroom	12.28	8.11	166	7.43	92%	100	50%	50%	4380
	R29	LKD	24.44	18.21	372	18.21	100%	150	50%	50%	4380
	R30	Bedroom	12.66	8.73	261	8.73	100%	100	50%	50%	4380
	R31	Bedroom	13.52	9.25	238	9.25	100%	100	50%	50%	4380
	R32	Living Room	22.84	17.42	467	17.42	100%	150	50%	50%	4380
	R33	Kitchen	8.67	5.49	213	3.66	67%	200	50%	50%	4380
	R34	Bedroom	9.09	5.81	232	5.81	100%	100	50%	50%	4380
	R35	Bedroom	12.45	8.54	442	8.54	100%	100	50%	50%	4380
	R36	Bedroom	13.76	9.61	422	9.61	100%	100	50%	50%	4380
	R37	LKD	22.30	16.27	692	16.27	100%	150	50%	50%	4380
	R38	Bedroom	14.26	9.55	283	9.55	100%	100	50%	50%	4380
	R39	LKD	22.22	16.19	290	16.19	100%	150	50%	50%	4380
	R40	Bedroom	14.33	9.62	325	9.62	100%	100	50%	50%	4380
	R41	Bedroom	12.85	8.60	326	8.60	100%	100	50%	50%	4380
	R42	Bedroom	12.65	8.72	341	8.72	100%	100	50%	50%	4380
Fourth	R1	Living Room	26.56	20.73	395	20.73	100%	150	50%	50%	4380

Project Name: 4899_R09_ID01

Project No.: 4899

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Maximum Parameter)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R2	Bedroom	13.53	9.44	283	9.44	100%	100	50%	50%	4380
	R3	Kitchen	8.84	5.43	293	4.90	90%	200	50%	50%	4380
	R4	Living Room	17.86	13.15	662	13.15	100%	150	50%	50%	4380
	R5	Bedroom	11.53	7.60	253	7.60	100%	100	50%	50%	4380
	R6	LKD	22.35	15.84	165	8.72	55%	150	50%	50%	4380
	R7	Bedroom	12.39	8.20	164	7.94	97%	100	50%	50%	4380
	R8	LKD	30.02	23.45	101	7.45	32%	150	50%	50%	4380
	R9	Bedroom	15.38	10.82	137	9.21	85%	100	50%	50%	4380
	R10	Bedroom	16.01	11.27	135	8.87	79%	100	50%	50%	4380
	R11	Kitchen	13.54	9.48	101	0.60	6%	200	50%	50%	4380
	R12	Living Room	18.46	13.59	551	13.59	100%	150	50%	50%	4380
	R13	Bedroom	12.85	8.54	280	8.54	100%	100	50%	50%	4380
	R14	Bedroom	13.80	9.50	282	9.50	100%	100	50%	50%	4380
	R15	Bedroom	15.82	11.28	262	11.28	100%	100	50%	50%	4380
	R16	Bedroom	12.99	8.18	364	8.18	100%	100	50%	50%	4380
	R17	Bedroom	14.22	9.83	263	9.83	100%	100	50%	50%	4380
	R18	LKD	32.53	25.83	391	25.83	100%	150	50%	50%	4380
	R19	Bedroom	12.07	8.19	154	8.19	100%	100	50%	50%	4380
	R20	Bedroom	11.89	8.10	159	8.10	100%	100	50%	50%	4380
	R21	Bedroom	8.84	5.62	219	5.62	100%	100	50%	50%	4380
	R22	Kitchen	8.70	5.51	277	3.98	72%	200	50%	50%	4380
	R23	LKD	26.45	20.29	580	20.29	100%	150	50%	50%	4380
	R24	LKD	25.79	19.66	102	6.93	35%	150	50%	50%	4380
	R25	Bedroom	12.36	8.45	239	8.45	100%	100	50%	50%	4380
	R26	Bedroom	15.31	10.45	170	7.92	76%	100	50%	50%	4380
	R27	LKD	22.33	15.83	179	9.27	59%	150	50%	50%	4380
	R28	Bedroom	12.28	8.11	219	8.11	100%	100	50%	50%	4380
	R29	LKD	24.44	18.21	419	18.21	100%	150	50%	50%	4380
	R30	Bedroom	12.66	8.73	273	8.73	100%	100	50%	50%	4380
	R31	Bedroom	13.52	9.25	248	9.25	100%	100	50%	50%	4380
	R32	Living Room	22.84	17.42	479	17.42	100%	150	50%	50%	4380
	R33	Kitchen	8.67	5.49	219	3.73	68%	200	50%	50%	4380

Project Name: 4899_R09_ID01

Project No.: 4899

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Maximum Parameter)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R34	Bedroom	9.09	5.81	237	5.81	100%	100	50%	50%	4380
	R35	Bedroom	12.45	8.54	456	8.54	100%	100	50%	50%	4380
	R36	Bedroom	13.76	9.61	437	9.61	100%	100	50%	50%	4380
	R37	LKD	22.30	16.27	716	16.27	100%	150	50%	50%	4380
	R38	Bedroom	14.26	9.55	292	9.55	100%	100	50%	50%	4380
	R39	LKD	22.22	16.19	298	16.19	100%	150	50%	50%	4380
	R40	Bedroom	14.33	9.62	336	9.62	100%	100	50%	50%	4380
	R41	Bedroom	12.85	8.60	331	8.60	100%	100	50%	50%	4380
	R42	Bedroom	12.65	8.72	347	8.72	100%	100	50%	50%	4380
Fifth	R1	Living Room	26.56	20.73	492	20.73	100%	150	50%	50%	4380
	R2	Bedroom	13.53	9.44	301	9.44	100%	100	50%	50%	4380
	R3	Kitchen	8.84	5.43	311	5.43	100%	200	50%	50%	4380
	R4	Living Room	17.86	13.15	832	13.15	100%	150	50%	50%	4380
	R5	Bedroom	11.53	7.60	311	7.60	100%	100	50%	50%	4380
	R6	LKD	22.35	15.84	280	11.76	74%	150	50%	50%	4380
	R7	Bedroom	12.39	8.20	225	8.20	100%	100	50%	50%	4380
	R8	LKD	30.02	23.45	173	13.54	58%	150	50%	50%	4380
	R9	Bedroom	15.38	10.82	175	10.82	100%	100	50%	50%	4380
	R10	Bedroom	16.01	11.27	157	10.54	94%	100	50%	50%	4380
	R11	Kitchen	13.54	9.48	161	3.36	35%	200	50%	50%	4380
	R12	Living Room	18.46	13.59	701	13.59	100%	150	50%	50%	4380
	R13	Bedroom	12.85	8.54	291	8.54	100%	100	50%	50%	4380
	R14	Bedroom	13.80	9.50	292	9.50	100%	100	50%	50%	4380
	R15	Bedroom	15.82	11.28	270	11.28	100%	100	50%	50%	4380
	R16	Bedroom	12.99	8.18	378	8.18	100%	100	50%	50%	4380
	R17	Bedroom	14.22	9.83	277	9.83	100%	100	50%	50%	4380
	R18	LKD	32.53	25.83	479	25.83	100%	150	50%	50%	4380
	R19	Bedroom	12.07	8.19	208	8.19	100%	100	50%	50%	4380
	R20	Bedroom	11.89	8.10	210	8.10	100%	100	50%	50%	4380
	R21	Bedroom	8.84	5.62	275	5.62	100%	100	50%	50%	4380
	R22	Kitchen	8.70	5.51	343	5.51	100%	200	50%	50%	4380
	R23	LKD	26.45	20.29	784	20.29	100%	150	50%	50%	4380

Project Name: 4899_R09_ID01

Project No.: 4899

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Maximum Parameter)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R24	LKD	25.79	19.66	161	10.11	51%	150	50%	50%	4380
	R25	Bedroom	12.36	8.45	310	8.45	100%	100	50%	50%	4380
	R26	Bedroom	15.31	10.45	225	10.37	99%	100	50%	50%	4380
	R27	LKD	22.33	15.83	263	11.60	73%	150	50%	50%	4380
	R28	Bedroom	12.28	8.11	295	8.11	100%	100	50%	50%	4380
	R29	LKD	24.44	18.21	464	18.21	100%	150	50%	50%	4380
	R30	Bedroom	12.66	8.73	280	8.73	100%	100	50%	50%	4380
	R31	Bedroom	13.52	9.25	254	9.25	100%	100	50%	50%	4380
	R32	Living Room	22.84	17.42	486	17.42	100%	150	50%	50%	4380
	R33	Kitchen	8.67	5.49	222	4.04	74%	200	50%	50%	4380
	R34	Bedroom	9.09	5.81	241	5.81	100%	100	50%	50%	4380
	R35	Bedroom	12.45	8.54	463	8.54	100%	100	50%	50%	4380
	R36	Bedroom	13.76	9.61	442	9.61	100%	100	50%	50%	4380
	R37	LKD	22.30	16.27	767	16.27	100%	150	50%	50%	4380
	R38	Bedroom	14.26	9.55	321	9.55	100%	100	50%	50%	4380
	R39	LKD	22.22	16.19	348	16.19	100%	150	50%	50%	4380
	R40	Bedroom	14.33	9.62	339	9.62	100%	100	50%	50%	4380
	R41	Bedroom	12.85	8.60	340	8.60	100%	100	50%	50%	4380
	R42	Bedroom	12.65	8.72	364	8.72	100%	100	50%	50%	4380
Sixth	R1	LKD	23.20	17.29	541	17.29	100%	150	50%	50%	4380
	R2	Bedroom	11.05	7.08	315	7.08	100%	100	50%	50%	4380
	R3	Bedroom	11.46	7.48	335	7.48	100%	100	50%	50%	4380
	R4	LKD	30.47	24.05	333	24.05	100%	150	50%	50%	4380
	R5	Bedroom	9.70	5.99	579	5.99	100%	100	50%	50%	4380
	R6	Bedroom	11.39	7.53	501	7.53	100%	100	50%	50%	4380
	R7	Bedroom	13.73	9.34	470	9.34	100%	100	50%	50%	4380
	R8	LKD	28.41	22.06	214	15.83	72%	150	50%	50%	4380
	R9	Bedroom	12.74	8.66	346	8.66	100%	100	50%	50%	4380
	R10	Bedroom	15.69	10.55	293	10.55	100%	100	50%	50%	4380
	R11	LKD	22.02	15.53	340	12.46	80%	150	50%	50%	4380
	R12	Bedroom	12.38	8.20	341	8.20	100%	100	50%	50%	4380
Seventh	R1	LKD	23.20	17.29	657	17.29	100%	150	50%	50%	4380

Project Name: 4899_R09_ID01

Project No.: 4899

Report Title: SDA BS En17037 Analysis - Proposed Scheme (Maximum Parameter)

Date of Analysis: 29/09/2022

								Criteria			
Floor Ref	Room Ref	Room Use	Room Area m2	Effective Area	Median Lux	Area Meeting Req Lux	% of Area Meeting Req Lux	Req Lux	Req % of Effective Area	Req % of Daylight Hours	Daylight Hours
	R2	Bedroom	11.05	7.08	328	7.08	100%	100	50%	50%	4380
	R3	Bedroom	11.46	7.48	352	7.48	100%	100	50%	50%	4380
	R4	LKD	30.47	24.05	388	24.05	100%	150	50%	50%	4380
	R5	Bedroom	9.70	5.99	584	5.99	100%	100	50%	50%	4380
	R6	Bedroom	11.39	7.53	503	7.53	100%	100	50%	50%	4380
	R7	Bedroom	13.73	9.34	476	9.34	100%	100	50%	50%	4380
	R8	LKD	28.41	22.06	303	22.06	100%	150	50%	50%	4380
	R9	Bedroom	12.74	8.66	383	8.66	100%	100	50%	50%	4380
	R10	Bedroom	15.69	10.55	314	10.55	100%	100	50%	50%	4380
	R11	LKD	22.02	15.53	419	13.75	89%	150	50%	50%	4380
	R12	Bedroom	12.38	8.20	367	8.20	100%	100	50%	50%	4380

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
Proposed				Room Total (%)
Ground	R1	W1-L W1-U	LKD LKD	2.67
Ground	R2	W2-L W2-U	LKD LKD	3.21
Ground	R3	W3-L W3-U	Kitchen Kitchen	3.55
Ground	R4	W4-L W4-U	Kitchen Kitchen	3.90
Ground	R5	W5-L W5-U	Bedroom Bedroom	2.69
Ground	R6	W6	Bedroom	2.40
Ground	R7	W7-L W7-U W8-L W8-U W9	LKD LKD LKD LKD LKD	3.55
Ground	R8	W10-L W10-U	LKD LKD	1.40
Ground	R9	W11	Bedroom	1.03
Ground	R10	W12-L W12-U	LKD LKD	1.06
Ground	R11	W13	Bedroom	1.08
Ground	R12	W14	Bedroom	1.09
Ground	R13	W15-L W15-U W16-L W16-U	LKD LKD LKD LKD	3.56
Ground	R14	W17-L W17-U	LKD LKD	2.46
Ground	R15	W18-L W18-U	Kitchen Kitchen	2.82
Ground	R16	W19-L W19-U	Kitchen Kitchen	2.87
First	R1	W1-L W1-U	Bedroom Bedroom	2.03
First	R2	W2-L W2-U	Bedroom Bedroom	1.67
First	R3	W3-L W3-U	Bedroom Bedroom	2.15
First	R4	W4-L W4-U	Bedroom Bedroom	2.48
First	R5	W5-L W5-U	Bedroom Bedroom	2.46
First	R6	W6-L W6-U	Bedroom Bedroom	2.13
First	R7	W7-L W7-U	Bedroom Bedroom	1.58
First	R8	W8-L W8-U	Bedroom Bedroom	2.48
First	R9	W9-L W9-U	Bedroom Bedroom	2.50
First	R10	W10-L	Bedroom	

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
		W10-U	Bedroom	2.30
First	R11	W11-L W11-U	Bedroom Bedroom	1.76
First	R12	W12-L W12-U	Bedroom Bedroom	1.49
First	R13	W13-L W13-U	Bedroom Bedroom	2.33
First	R14	W14	Kitchen	1.98
First	R15	W15-L W15-U W16-L W16-U	Living Room Living Room Living Room Living Room	3.92
First	R16	W17-L W17-U	Bedroom Bedroom	1.71
First	R17	W18-L W18-U	LKD LKD	1.05
First	R18	W19-L W19-U	Bedroom Bedroom	1.33
First	R19	W20-L W20-U	LKD LKD	0.78
First	R20	W21-L W21-U	Bedroom Bedroom	1.48
First	R21	W22-L W22-U	Bedroom Bedroom	1.46
First	R22	W23-L W23-U	Bedroom Bedroom	0.94
First	R23	W24-L W24-U W25-L W25-U	LKD LKD LKD LKD	2.81
First	R24	W26-L W26-U	Bedroom Bedroom	2.08
First	R25	W27-L W27-U	Bedroom Bedroom	2.05
First	R26	W28-L W28-U	Bedroom Bedroom	2.26
First	R27	W29-L W29-U	Bedroom Bedroom	2.21
First	R28	W30-L W30-U	Bedroom Bedroom	1.67
First	R29	W31-L W31-U	Bedroom Bedroom	1.37
First	R30	W32-L W32-U	Bedroom Bedroom	2.19
First	R31	W33-L W33-U	Bedroom Bedroom	2.19
First	R32	W34-L W34-U	Bedroom Bedroom	2.03
First	R33	W35-L W35-U	LKD LKD	1.43
First	R34	W36-L W36-U	Bedroom Bedroom	2.20
First	R35	W37-L W37-U	Bedroom Bedroom	2.10

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
First	R36	W38-L W38-U W39-L W39-U	Kitchen Kitchen Kitchen Kitchen	3.39
First	R37	W40-L W40-U	Kitchen Kitchen	2.02
First	R38	W41-L W41-U	Bedroom Bedroom	2.43
First	R39	W42-L W42-U	Bedroom Bedroom	3.87
First	R40	W43-L W43-U	Bedroom Bedroom	3.56
First	R41	W44-L W44-U	Bedroom Bedroom	1.65
First	R42	W45-L W45-U	Living Room Living Room	2.41
First	R43	W46-L W46-U	Living Room Living Room	2.37
First	R44	W47-L W47-U	Bedroom Bedroom	1.53
First	R45	W48-L W48-U	Bedroom Bedroom	1.29
First	R46	W49-L W49-U	Living Room Living Room	1.33
First	R47	W50-L W50-U	Kitchen Kitchen	1.72
First	R48	W51-L W51-U	Bedroom Bedroom	1.82
First	R49	W52-L W52-U	Living Room Living Room	2.45
First	R50	W53-L W53-U	Living Room Living Room	2.39
First	R51	W54-L W54-U	Bedroom Bedroom	1.53
First	R56	W59-L W59-U	LKD LKD	0.42
First	R55	W58-L W58-U	Bedroom Bedroom	1.44
First	R54	W57-L W57-U	Bedroom Bedroom	1.18
First	R53	W56-L W56-U	LKD LKD	0.66
First	R52	W55-L W55-U	Bedroom Bedroom	1.19
Second	R1	W1-L W1-U W27	Living Room Living Room Living Room	2.59
Second	R2	W2-L W2-U	Bedroom Bedroom	2.39
Second	R3	W3	Kitchen	2.02
Second	R4	W4-L W4-U W5-L W5-U	Living Room Living Room Living Room Living Room	4.06

Floor	Room	Window	Room Use	Average Daylight Factor (ADF) Room Total (%)
Second	R5	W6-L W6-U	Bedroom Bedroom	1.83
Second	R6	W7-L W7-U	LKD LKD	1.09
Second	R7	W8-L W8-U	Bedroom Bedroom	1.45
Second	R8	W9-L W9-U	LKD LKD	0.80
Second	R9	W10-L W10-U	Bedroom Bedroom	1.35
Second	R10	W11-L W11-U	Bedroom Bedroom	1.39
Second	R11	W12	Kitchen	0.62
Second	R12	W13-L W13-U W14-L W14-U	Living Room Living Room Living Room Living Room	3.74
Second	R13	W15-L W15-U	Bedroom Bedroom	2.56
Second	R14	W16-L W16-U	Bedroom Bedroom	2.49
Second	R15	W17-L W17-U	Bedroom Bedroom	2.28
Second	R16	W18-L W18-U	Bedroom Bedroom	2.38
Second	R17	W19-L W19-U	Bedroom Bedroom	2.33
Second	R18	W20-L W20-U W21 W22	LKD LKD LKD LKD	2.60
Second	R19	W23-L W23-U	Bedroom Bedroom	1.50
Second	R20	W24-L W24-U	Bedroom Bedroom	1.64
Second	R21	W25-L W25-U	Bedroom Bedroom	2.10
Second	R22	W26-L W26-U	Kitchen Kitchen	2.25
Second	R23	W28-L W28-U W29 W53-L W53-U	LKD LKD LKD LKD LKD	3.37
Second	R24	W30-L W30-U	LKD LKD	0.67
Second	R25	W31-L W31-U	Bedroom Bedroom	1.65
Second	R26	W32-L W32-U	Bedroom Bedroom	1.37
Second	R27	W33-L W33-U	LKD LKD	1.08
Second	R28	W34-L W34-U	Bedroom Bedroom	1.73

Floor	Room	Window	Room Use	Average Daylight Factor (ADF) Room Total (%)
Second	R29	W35-L W35-U W36-L W36-U	LKD LKD LKD LKD	2.85
Second	R30	W37-L W37-U	Bedroom Bedroom	2.49
Second	R31	W38-L W38-U	Bedroom Bedroom	2.32
Second	R32	W39-L W39-U W40-L W40-U	Living Room Living Room Living Room Living Room	3.67
Second	R33	W41-L W41-U	Kitchen Kitchen	2.27
Second	R34	W42-L W42-U	Bedroom Bedroom	2.37
Second	R35	W43-L W43-U	Bedroom Bedroom	4.07
Second	R36	W44-L W44-U	Bedroom Bedroom	3.76
Second	R37	W45-L W45-U W46-L W46-U W47-L W47-U	LKD LKD LKD LKD LKD LKD	5.26
Second	R38	W48-L W48-U	Bedroom Bedroom	2.11
Second	R39	W49-L W49-U	LKD LKD	2.09
Second	R40	W50-L W50-U	Bedroom Bedroom	2.29
Second	R41	W51-L W51-U	Bedroom Bedroom	2.59
Second	R42	W52-L W52-U	Bedroom Bedroom	2.59
Third	R1	W1-L W1-U W27	Living Room Living Room Living Room	2.65
Third	R2	W2-L W2-U	Bedroom Bedroom	2.40
Third	R3	W3	Kitchen	2.02
Third	R4	W4-L W4-U W5-L W5-U	Living Room Living Room Living Room Living Room	4.16
Third	R5	W6-L W6-U	Bedroom Bedroom	1.96
Third	R6	W7-L W7-U	LKD LKD	1.18
Third	R7	W8-L W8-U	Bedroom Bedroom	1.59
Third	R8	W9-L W9-U	LKD LKD	0.86
Third	R9	W10-L W10-U	Bedroom Bedroom	1.46

Floor	Room	Window	Room Use	Average Daylight Factor (ADF) Room Total (%)
Third	R10	W11-L W11-U	Bedroom Bedroom	1.49
Third	R11	W12	Kitchen	0.64
Third	R12	W13-L W13-U W14-L W14-U	Living Room Living Room Living Room Living Room	3.81
Third	R13	W15-L W15-U	Bedroom Bedroom	2.59
Third	R14	W16-L W16-U	Bedroom Bedroom	2.52
Third	R15	W17-L W17-U	Bedroom Bedroom	2.31
Third	R16	W18-L W18-U	Bedroom Bedroom	2.42
Third	R17	W19-L W19-U	Bedroom Bedroom	2.37
Third	R18	W20-L W20-U W21 W22	LKD LKD LKD LKD	2.73
Third	R19	W23-L W23-U	Bedroom Bedroom	1.69
Third	R20	W24-L W24-U	Bedroom Bedroom	1.83
Third	R21	W25-L W25-U	Bedroom Bedroom	2.33
Third	R22	W26-L W26-U	Kitchen Kitchen	2.46
Third	R23	W28-L W28-U W29 W53-L W53-U	LKD LKD LKD LKD LKD	3.56
Third	R24	W30-L W30-U	LKD LKD	0.92
Third	R25	W31-L W31-U	Bedroom Bedroom	1.84
Third	R26	W32-L W32-U	Bedroom Bedroom	1.53
Third	R27	W33-L W33-U	LKD LKD	1.27
Third	R28	W34-L W34-U	Bedroom Bedroom	1.93
Third	R29	W35-L W35-U W36-L W36-U	LKD LKD LKD LKD	3.00
Third	R30	W37-L W37-U	Bedroom Bedroom	2.54
Third	R31	W38-L W38-U	Bedroom Bedroom	2.36
Third	R32	W39-L W39-U W40-L W40-U	Living Room Living Room Living Room Living Room	3.75

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
Third	R33	W41-L W41-U	Kitchen Kitchen	2.32
Third	R34	W42-L W42-U	Bedroom Bedroom	2.42
Third	R35	W43-L W43-U	Bedroom Bedroom	4.19
Third	R36	W44-L W44-U	Bedroom Bedroom	3.89
Third	R37	W45-L W45-U W46-L W46-U W47-L W47-U	LKD LKD LKD LKD LKD LKD	5.49
Third	R38	W48-L W48-U	Bedroom Bedroom	2.13
Third	R39	W49-L W49-U	LKD LKD	2.12
Third	R40	W50-L W50-U	Bedroom Bedroom	2.30
Third	R41	W51-L W51-U	Bedroom Bedroom	2.60
Third	R42	W52-L W52-U	Bedroom Bedroom	2.60
Fourth	R1	W1-L W1-U W27	Living Room Living Room Living Room	2.72
Fourth	R2	W2-L W2-U	Bedroom Bedroom	2.43
Fourth	R3	W3	Kitchen	2.04
Fourth	R4	W4-L W4-U W5-L W5-U	Living Room Living Room Living Room Living Room	4.28
Fourth	R5	W6-L W6-U	Bedroom Bedroom	2.14
Fourth	R6	W7-L W7-U	LKD LKD	1.30
Fourth	R7	W8-L W8-U	Bedroom Bedroom	1.78
Fourth	R8	W9-L W9-U	LKD LKD	0.93
Fourth	R9	W10-L W10-U	Bedroom Bedroom	1.61
Fourth	R10	W11-L W11-U	Bedroom Bedroom	1.61
Fourth	R11	W12	Kitchen	0.67
Fourth	R12	W13-L W13-U W14-L W14-U	Living Room Living Room Living Room Living Room	3.85
Fourth	R13	W15-L W15-U	Bedroom Bedroom	2.59
Fourth	R14	W16-L W16-U	Bedroom Bedroom	2.53

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
Fourth	R15	W17-L W17-U	Bedroom Bedroom	2.32
Fourth	R16	W18-L W18-U	Bedroom Bedroom	2.42
Fourth	R17	W19-L W19-U	Bedroom Bedroom	2.40
Fourth	R18	W20-L W20-U W21 W22	LKD LKD LKD LKD	2.85
Fourth	R19	W23-L W23-U	Bedroom Bedroom	1.92
Fourth	R20	W24-L W24-U	Bedroom Bedroom	2.05
Fourth	R21	W25-L W25-U	Bedroom Bedroom	2.58
Fourth	R22	W26-L W26-U	Kitchen Kitchen	2.69
Fourth	R23	W28-L W28-U W29 W53-L W53-U	LKD LKD LKD LKD LKD	3.77
Fourth	R24	W30-L W30-U	LKD LKD	1.15
Fourth	R25	W31-L W31-U	Bedroom Bedroom	2.05
Fourth	R26	W32-L W32-U	Bedroom Bedroom	1.72
Fourth	R27	W33-L W33-U	LKD LKD	1.52
Fourth	R28	W34-L W34-U	Bedroom Bedroom	2.12
Fourth	R29	W35-L W35-U W36-L W36-U	LKD LKD LKD LKD	3.12
Fourth	R30	W37-L W37-U	Bedroom Bedroom	2.54
Fourth	R31	W38-L W38-U	Bedroom Bedroom	2.37
Fourth	R32	W39-L W39-U W40-L W40-U	Living Room Living Room Living Room Living Room	3.76
Fourth	R33	W41-L W41-U	Kitchen Kitchen	2.34
Fourth	R34	W42-L W42-U	Bedroom Bedroom	2.44
Fourth	R35	W43-L W43-U	Bedroom Bedroom	4.24
Fourth	R36	W44-L W44-U	Bedroom Bedroom	3.94
Fourth	R37	W45-L W45-U W46-L W46-U	LKD LKD LKD LKD	

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
Fourth	R38	W47-L	LKD	5.55
		W47-U	LKD	
Fourth	R38	W48-L	Bedroom	2.16
		W48-U	Bedroom	
Fourth	R39	W49-L	LKD	2.12
		W49-U	LKD	
Fourth	R40	W50-L	Bedroom	2.32
		W50-U	Bedroom	
Fourth	R41	W51-L	Bedroom	2.60
		W51-U	Bedroom	
Fourth	R42	W52-L	Bedroom	2.63
		W52-U	Bedroom	
Fifth	R1	W1-L	Living Room	3.94
		W1-U	Living Room	
		W27	Living Room	
Fifth	R2	W2-L	Bedroom	2.61
		W2-U	Bedroom	
Fifth	R3	W3	Kitchen	2.24
Fifth	R4	W4-L	Living Room	5.88
		W4-U	Living Room	
		W5-L	Living Room	
		W5-U	Living Room	
Fifth	R5	W6-L	Bedroom	2.38
		W6-U	Bedroom	
Fifth	R6	W7-L	LKD	2.50
		W7-U	LKD	
Fifth	R7	W8-L	Bedroom	2.11
		W8-U	Bedroom	
Fifth	R8	W9-L	LKD	2.09
		W9-U	LKD	
Fifth	R9	W10-L	Bedroom	1.82
		W10-U	Bedroom	
Fifth	R10	W11-L	Bedroom	1.77
		W11-U	Bedroom	
Fifth	R11	W12	Kitchen	1.41
Fifth	R12	W13-L	Living Room	5.35
		W13-U	Living Room	
		W14-L	Living Room	
		W14-U	Living Room	
Fifth	R13	W15-L	Bedroom	2.59
		W15-U	Bedroom	
Fifth	R14	W16-L	Bedroom	2.53
		W16-U	Bedroom	
Fifth	R15	W17-L	Bedroom	2.32
		W17-U	Bedroom	
Fifth	R16	W18-L	Bedroom	2.42
		W18-U	Bedroom	
Fifth	R17	W19-L	Bedroom	2.47
		W19-U	Bedroom	
Fifth	R18	W20-L	LKD	3.96
		W20-U	LKD	
		W21	LKD	
		W22	LKD	
Fifth	R19	W23-L	Bedroom	2.19
		W23-U	Bedroom	

Floor	Room	Window	Room Use	Average Daylight Factor (ADF) Room Total (%)
Fifth	R20	W24-L W24-U	Bedroom Bedroom	2.30
Fifth	R21	W25-L W25-U	Bedroom Bedroom	2.87
Fifth	R22	W26-L W26-U	Kitchen Kitchen	2.97
Fifth	R23	W28-L W28-U W29 W53-L W53-U	LKD LKD LKD LKD LKD	5.08
Fifth	R24	W30-L W30-U	LKD LKD	1.43
Fifth	R25	W31-L W31-U	Bedroom Bedroom	2.35
Fifth	R26	W32-L W32-U	Bedroom Bedroom	1.93
Fifth	R27	W33-L W33-U	LKD LKD	1.79
Fifth	R28	W34-L W34-U	Bedroom Bedroom	2.34
Fifth	R29	W35-L W35-U W36-L W36-U	LKD LKD LKD LKD	3.25
Fifth	R30	W37-L W37-U	Bedroom Bedroom	2.54
Fifth	R31	W38-L W38-U	Bedroom Bedroom	2.37
Fifth	R32	W39-L W39-U W40-L W40-U	Living Room Living Room Living Room Living Room	3.76
Fifth	R33	W41-L W41-U	Kitchen Kitchen	2.34
Fifth	R34	W42-L W42-U	Bedroom Bedroom	2.44
Fifth	R35	W43-L W43-U	Bedroom Bedroom	4.24
Fifth	R36	W44-L W44-U	Bedroom Bedroom	3.94
Fifth	R37	W45-L W45-U W46-L W46-U W47-L W47-U	LKD LKD LKD LKD LKD LKD	6.66
Fifth	R38	W48-L W48-U	Bedroom Bedroom	2.37
Fifth	R39	W49-L W49-U	LKD LKD	3.22
Fifth	R40	W50-L W50-U	Bedroom Bedroom	2.36
Fifth	R41	W51-L W51-U	Bedroom Bedroom	2.61
Fifth	R42	W52-L	Bedroom	

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
		W52-U	Bedroom	2.74
Sixth	R1	W1-L	LKD	
		W1-U	LKD	
		W14-L	LKD	
		W14-U	LKD	4.01
Sixth	R2	W2-L	Bedroom	
		W2-U	Bedroom	3.21
Sixth	R3	W3-L	Bedroom	
		W3-U	Bedroom	3.15
Sixth	R4	W4-L	LKD	
		W4-U	LKD	
		W5-L	LKD	
		W5-U	LKD	3.29
Sixth	R5	W6-L	Bedroom	
		W6-U	Bedroom	5.70
Sixth	R6	W7-L	Bedroom	
		W7-U	Bedroom	5.17
Sixth	R7	W8-L	Bedroom	
		W8-U	Bedroom	4.43
Sixth	R8	W9-L	LKD	
		W9-U	LKD	1.82
Sixth	R9	W10-L	Bedroom	
		W10-U	Bedroom	2.76
Sixth	R10	W11-L	Bedroom	
		W11-U	Bedroom	2.36
Sixth	R11	W12-L	LKD	
		W12-U	LKD	2.29
Sixth	R12	W13-L	Bedroom	
		W13-U	Bedroom	2.96
Seventh	R1	W1-L	LKD	
		W1-U	LKD	
		W14-L	LKD	
		W14-U	LKD	5.62
Seventh	R2	W2-L	Bedroom	
		W2-U	Bedroom	3.39
Seventh	R3	W3-L	Bedroom	
		W3-U	Bedroom	3.32
Seventh	R4	W4-L	LKD	
		W4-U	LKD	
		W5-L	LKD	
		W5-U	LKD	4.51
Seventh	R5	W6-L	Bedroom	
		W6-U	Bedroom	5.70
Seventh	R6	W7-L	Bedroom	
		W7-U	Bedroom	5.17
Seventh	R7	W8-L	Bedroom	
		W8-U	Bedroom	4.43
Seventh	R8	W9-L	LKD	
		W9-U	LKD	3.04
Seventh	R9	W10-L	Bedroom	
		W10-U	Bedroom	3.08
Seventh	R10	W11-L	Bedroom	
		W11-U	Bedroom	2.49
Seventh	R11	W12-L	LKD	
		W12-U	LKD	3.51

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
Seventh	R12	W13-L	Bedroom	
		W13-U	Bedroom	3.09

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
Proposed				Room Total (%)
Ground	R1	W1-L W1-U	LKD LKD	2.64
Ground	R2	W2-L W2-U	LKD LKD	3.16
Ground	R3	W3-L W3-U	Kitchen Kitchen	3.47
Ground	R4	W4-L W4-U	Kitchen Kitchen	3.81
Ground	R5	W5-L W5-U	Bedroom Bedroom	2.66
Ground	R6	W6	Bedroom	2.36
Ground	R7	W7-L W7-U W8-L W8-U W9	LKD LKD LKD LKD LKD	3.53
Ground	R8	W10-L W10-U	LKD LKD	1.41
Ground	R9	W11	Bedroom	1.06
Ground	R10	W12-L W12-U	LKD LKD	1.06
Ground	R11	W13	Bedroom	1.10
Ground	R12	W14	Bedroom	1.10
Ground	R13	W15-L W15-U W16-L W16-U	LKD LKD LKD LKD	3.57
Ground	R14	W17-L W17-U	LKD LKD	2.46
Ground	R15	W18-L W18-U	Kitchen Kitchen	2.82
Ground	R16	W19-L W19-U	Kitchen Kitchen	2.87
First	R1	W1-L W1-U	Bedroom Bedroom	2.03
First	R2	W2-L W2-U	Bedroom Bedroom	1.67
First	R3	W3-L W3-U	Bedroom Bedroom	2.15
First	R4	W4-L W4-U	Bedroom Bedroom	2.47
First	R5	W5-L W5-U	Bedroom Bedroom	2.45
First	R6	W6-L W6-U	Bedroom Bedroom	2.13
First	R7	W7-L W7-U	Bedroom Bedroom	1.57
First	R8	W8-L W8-U	Bedroom Bedroom	2.48
First	R9	W9-L W9-U	Bedroom Bedroom	2.49
First	R10	W10-L	Bedroom	

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
		W10-U	Bedroom	2.30
First	R11	W11-L W11-U	Bedroom Bedroom	1.76
First	R12	W12-L W12-U	Bedroom Bedroom	1.49
First	R13	W13-L W13-U	Bedroom Bedroom	2.33
First	R14	W14	Kitchen	1.98
First	R15	W15-L W15-U W16-L W16-U	Living Room Living Room Living Room Living Room	3.94
First	R16	W17-L W17-U	Bedroom Bedroom	1.75
First	R17	W18-L W18-U	LKD LKD	1.06
First	R18	W19-L W19-U	Bedroom Bedroom	1.37
First	R19	W20-L W20-U	LKD LKD	0.79
First	R20	W21-L W21-U	Bedroom Bedroom	1.51
First	R21	W22-L W22-U	Bedroom Bedroom	1.48
First	R22	W23-L W23-U	Bedroom Bedroom	0.95
First	R23	W24-L W24-U W25-L W25-U	LKD LKD LKD LKD	2.81
First	R24	W26-L W26-U	Bedroom Bedroom	2.08
First	R25	W27-L W27-U	Bedroom Bedroom	2.05
First	R26	W28-L W28-U	Bedroom Bedroom	2.26
First	R27	W29-L W29-U	Bedroom Bedroom	2.21
First	R28	W30-L W30-U	Bedroom Bedroom	1.67
First	R29	W31-L W31-U	Bedroom Bedroom	1.37
First	R30	W32-L W32-U	Bedroom Bedroom	2.19
First	R31	W33-L W33-U	Bedroom Bedroom	2.19
First	R32	W34-L W34-U	Bedroom Bedroom	2.03
First	R33	W35-L W35-U	LKD LKD	1.43
First	R34	W36-L W36-U	Bedroom Bedroom	2.20
First	R35	W37-L W37-U	Bedroom Bedroom	2.10

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
First	R36	W38-L W38-U W39-L W39-U	Kitchen Kitchen Kitchen Kitchen	3.39
First	R37	W40-L W40-U	Kitchen Kitchen	2.02
First	R38	W41-L W41-U	Bedroom Bedroom	2.43
First	R39	W42-L W42-U	Bedroom Bedroom	3.87
First	R40	W43-L W43-U	Bedroom Bedroom	3.56
First	R41	W44-L W44-U	Bedroom Bedroom	1.65
First	R42	W45-L W45-U	Living Room Living Room	2.41
First	R43	W46-L W46-U	Living Room Living Room	2.37
First	R44	W47-L W47-U	Bedroom Bedroom	1.53
First	R45	W48-L W48-U	Bedroom Bedroom	1.29
First	R46	W49-L W49-U	Living Room Living Room	1.33
First	R47	W50-L W50-U	Kitchen Kitchen	1.72
First	R48	W51-L W51-U	Bedroom Bedroom	1.82
First	R49	W52-L W52-U	Living Room Living Room	2.45
First	R50	W53-L W53-U	Living Room Living Room	2.39
First	R51	W54-L W54-U	Bedroom Bedroom	1.53
First	R56	W59-L W59-U	LKD LKD	0.42
First	R55	W58-L W58-U	Bedroom Bedroom	1.44
First	R54	W57-L W57-U	Bedroom Bedroom	1.18
First	R53	W56-L W56-U	LKD LKD	0.66
First	R52	W55-L W55-U	Bedroom Bedroom	1.19
Second	R1	W1-L W1-U W27	Living Room Living Room Living Room	2.59
Second	R2	W2-L W2-U	Bedroom Bedroom	2.39
Second	R3	W3	Kitchen	2.02
Second	R4	W4-L W4-U W5-L W5-U	Living Room Living Room Living Room Living Room	4.09

Floor	Room	Window	Room Use	Average Daylight Factor (ADF) Room Total (%)
Second	R5	W6-L W6-U	Bedroom Bedroom	1.87
Second	R6	W7-L W7-U	LKD LKD	1.10
Second	R7	W8-L W8-U	Bedroom Bedroom	1.50
Second	R8	W9-L W9-U	LKD LKD	0.81
Second	R9	W10-L W10-U	Bedroom Bedroom	1.38
Second	R10	W11-L W11-U	Bedroom Bedroom	1.41
Second	R11	W12	Kitchen	0.64
Second	R12	W13-L W13-U W14-L W14-U	Living Room Living Room Living Room Living Room	3.74
Second	R13	W15-L W15-U	Bedroom Bedroom	2.56
Second	R14	W16-L W16-U	Bedroom Bedroom	2.49
Second	R15	W17-L W17-U	Bedroom Bedroom	2.28
Second	R16	W18-L W18-U	Bedroom Bedroom	2.38
Second	R17	W19-L W19-U	Bedroom Bedroom	2.33
Second	R18	W20-L W20-U W21 W22	LKD LKD LKD LKD	2.60
Second	R19	W23-L W23-U	Bedroom Bedroom	1.50
Second	R20	W24-L W24-U	Bedroom Bedroom	1.64
Second	R21	W25-L W25-U	Bedroom Bedroom	2.10
Second	R22	W26-L W26-U	Kitchen Kitchen	2.25
Second	R23	W28-L W28-U W29 W53-L W53-U	LKD LKD LKD LKD LKD	3.37
Second	R24	W30-L W30-U	LKD LKD	0.67
Second	R25	W31-L W31-U	Bedroom Bedroom	1.65
Second	R26	W32-L W32-U	Bedroom Bedroom	1.37
Second	R27	W33-L W33-U	LKD LKD	1.08
Second	R28	W34-L W34-U	Bedroom Bedroom	1.73

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
Second	R29	W35-L W35-U W36-L W36-U	LKD LKD LKD LKD	2.85
Second	R30	W37-L W37-U	Bedroom Bedroom	2.49
Second	R31	W38-L W38-U	Bedroom Bedroom	2.32
Second	R32	W39-L W39-U W40-L W40-U	Living Room Living Room Living Room Living Room	3.67
Second	R33	W41-L W41-U	Kitchen Kitchen	2.27
Second	R34	W42-L W42-U	Bedroom Bedroom	2.37
Second	R35	W43-L W43-U	Bedroom Bedroom	4.07
Second	R36	W44-L W44-U	Bedroom Bedroom	3.76
Second	R37	W45-L W45-U W46-L W46-U W47-L W47-U	LKD LKD LKD LKD LKD LKD	5.26
Second	R38	W48-L W48-U	Bedroom Bedroom	2.11
Second	R39	W49-L W49-U	LKD LKD	2.09
Second	R40	W50-L W50-U	Bedroom Bedroom	2.29
Second	R41	W51-L W51-U	Bedroom Bedroom	2.59
Second	R42	W52-L W52-U	Bedroom Bedroom	2.59
Third	R1	W1-L W1-U W27	Living Room Living Room Living Room	2.65
Third	R2	W2-L W2-U	Bedroom Bedroom	2.40
Third	R3	W3	Kitchen	2.02
Third	R4	W4-L W4-U W5-L W5-U	Living Room Living Room Living Room Living Room	4.20
Third	R5	W6-L W6-U	Bedroom Bedroom	2.01
Third	R6	W7-L W7-U	LKD LKD	1.23
Third	R7	W8-L W8-U	Bedroom Bedroom	1.65
Third	R8	W9-L W9-U	LKD LKD	0.90
Third	R9	W10-L W10-U	Bedroom Bedroom	1.49

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
Third	R10	W11-L W11-U	Bedroom Bedroom	1.51
Third	R11	W12	Kitchen	0.66
Third	R12	W13-L W13-U W14-L W14-U	Living Room Living Room Living Room Living Room	3.82
Third	R13	W15-L W15-U	Bedroom Bedroom	2.59
Third	R14	W16-L W16-U	Bedroom Bedroom	2.52
Third	R15	W17-L W17-U	Bedroom Bedroom	2.31
Third	R16	W18-L W18-U	Bedroom Bedroom	2.42
Third	R17	W19-L W19-U	Bedroom Bedroom	2.37
Third	R18	W20-L W20-U W21 W22	LKD LKD LKD LKD	2.73
Third	R19	W23-L W23-U	Bedroom Bedroom	1.69
Third	R20	W24-L W24-U	Bedroom Bedroom	1.83
Third	R21	W25-L W25-U	Bedroom Bedroom	2.33
Third	R22	W26-L W26-U	Kitchen Kitchen	2.46
Third	R23	W28-L W28-U W29 W53-L W53-U	LKD LKD LKD LKD LKD	3.56
Third	R24	W30-L W30-U	LKD LKD	0.92
Third	R25	W31-L W31-U	Bedroom Bedroom	1.84
Third	R26	W32-L W32-U	Bedroom Bedroom	1.53
Third	R27	W33-L W33-U	LKD LKD	1.27
Third	R28	W34-L W34-U	Bedroom Bedroom	1.93
Third	R29	W35-L W35-U W36-L W36-U	LKD LKD LKD LKD	3.00
Third	R30	W37-L W37-U	Bedroom Bedroom	2.54
Third	R31	W38-L W38-U	Bedroom Bedroom	2.36
Third	R32	W39-L W39-U W40-L W40-U	Living Room Living Room Living Room Living Room	3.75

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
Third	R33	W41-L W41-U	Kitchen Kitchen	2.32
Third	R34	W42-L W42-U	Bedroom Bedroom	2.42
Third	R35	W43-L W43-U	Bedroom Bedroom	4.19
Third	R36	W44-L W44-U	Bedroom Bedroom	3.89
Third	R37	W45-L W45-U W46-L W46-U W47-L W47-U	LKD LKD LKD LKD LKD LKD	5.49
Third	R38	W48-L W48-U	Bedroom Bedroom	2.13
Third	R39	W49-L W49-U	LKD LKD	2.12
Third	R40	W50-L W50-U	Bedroom Bedroom	2.30
Third	R41	W51-L W51-U	Bedroom Bedroom	2.60
Third	R42	W52-L W52-U	Bedroom Bedroom	2.60
Fourth	R1	W1-L W1-U W27	Living Room Living Room Living Room	2.72
Fourth	R2	W2-L W2-U	Bedroom Bedroom	2.43
Fourth	R3	W3	Kitchen	2.04
Fourth	R4	W4-L W4-U W5-L W5-U	Living Room Living Room Living Room Living Room	4.32
Fourth	R5	W6-L W6-U	Bedroom Bedroom	2.19
Fourth	R6	W7-L W7-U	LKD LKD	1.38
Fourth	R7	W8-L W8-U	Bedroom Bedroom	1.85
Fourth	R8	W9-L W9-U	LKD LKD	1.00
Fourth	R9	W10-L W10-U	Bedroom Bedroom	1.64
Fourth	R10	W11-L W11-U	Bedroom Bedroom	1.64
Fourth	R11	W12	Kitchen	0.68
Fourth	R12	W13-L W13-U W14-L W14-U	Living Room Living Room Living Room Living Room	3.87
Fourth	R13	W15-L W15-U	Bedroom Bedroom	2.59
Fourth	R14	W16-L W16-U	Bedroom Bedroom	2.53

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
Fourth	R15	W17-L W17-U	Bedroom Bedroom	2.32
Fourth	R16	W18-L W18-U	Bedroom Bedroom	2.42
Fourth	R17	W19-L W19-U	Bedroom Bedroom	2.40
Fourth	R18	W20-L W20-U W21 W22	LKD LKD LKD LKD	2.85
Fourth	R19	W23-L W23-U	Bedroom Bedroom	1.92
Fourth	R20	W24-L W24-U	Bedroom Bedroom	2.05
Fourth	R21	W25-L W25-U	Bedroom Bedroom	2.58
Fourth	R22	W26-L W26-U	Kitchen Kitchen	2.69
Fourth	R23	W28-L W28-U W29 W53-L W53-U	LKD LKD LKD LKD LKD	3.77
Fourth	R24	W30-L W30-U	LKD LKD	1.15
Fourth	R25	W31-L W31-U	Bedroom Bedroom	2.05
Fourth	R26	W32-L W32-U	Bedroom Bedroom	1.72
Fourth	R27	W33-L W33-U	LKD LKD	1.52
Fourth	R28	W34-L W34-U	Bedroom Bedroom	2.12
Fourth	R29	W35-L W35-U W36-L W36-U	LKD LKD LKD LKD	3.12
Fourth	R30	W37-L W37-U	Bedroom Bedroom	2.54
Fourth	R31	W38-L W38-U	Bedroom Bedroom	2.37
Fourth	R32	W39-L W39-U W40-L W40-U	Living Room Living Room Living Room Living Room	3.76
Fourth	R33	W41-L W41-U	Kitchen Kitchen	2.34
Fourth	R34	W42-L W42-U	Bedroom Bedroom	2.44
Fourth	R35	W43-L W43-U	Bedroom Bedroom	4.24
Fourth	R36	W44-L W44-U	Bedroom Bedroom	3.94
Fourth	R37	W45-L W45-U W46-L W46-U	LKD LKD LKD LKD	

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
		W47-L W47-U	LKD LKD	5.55
Fourth	R38	W48-L W48-U	Bedroom Bedroom	2.16
Fourth	R39	W49-L W49-U	LKD LKD	2.12
Fourth	R40	W50-L W50-U	Bedroom Bedroom	2.32
Fourth	R41	W51-L W51-U	Bedroom Bedroom	2.60
Fourth	R42	W52-L W52-U	Bedroom Bedroom	2.63
Fifth	R1	W1-L W1-U W27	Living Room Living Room Living Room	3.94
Fifth	R2	W2-L W2-U	Bedroom Bedroom	2.61
Fifth	R3	W3	Kitchen	2.24
Fifth	R4	W4-L W4-U W5-L W5-U	Living Room Living Room Living Room Living Room	5.92
Fifth	R5	W6-L W6-U	Bedroom Bedroom	2.44
Fifth	R6	W7-L W7-U	LKD LKD	2.59
Fifth	R7	W8-L W8-U	Bedroom Bedroom	2.19
Fifth	R8	W9-L W9-U	LKD LKD	2.15
Fifth	R9	W10-L W10-U	Bedroom Bedroom	1.85
Fifth	R10	W11-L W11-U	Bedroom Bedroom	1.80
Fifth	R11	W12	Kitchen	1.43
Fifth	R12	W13-L W13-U W14-L W14-U	Living Room Living Room Living Room Living Room	5.37
Fifth	R13	W15-L W15-U	Bedroom Bedroom	2.59
Fifth	R14	W16-L W16-U	Bedroom Bedroom	2.53
Fifth	R15	W17-L W17-U	Bedroom Bedroom	2.32
Fifth	R16	W18-L W18-U	Bedroom Bedroom	2.42
Fifth	R17	W19-L W19-U	Bedroom Bedroom	2.47
Fifth	R18	W20-L W20-U W21 W22	LKD LKD LKD LKD	3.96
Fifth	R19	W23-L W23-U	Bedroom Bedroom	2.19

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
Fifth	R20	W24-L W24-U	Bedroom Bedroom	2.30
Fifth	R21	W25-L W25-U	Bedroom Bedroom	2.87
Fifth	R22	W26-L W26-U	Kitchen Kitchen	2.97
Fifth	R23	W28-L W28-U W29 W53-L W53-U	LKD LKD LKD LKD LKD	5.08
Fifth	R24	W30-L W30-U	LKD LKD	1.43
Fifth	R25	W31-L W31-U	Bedroom Bedroom	2.35
Fifth	R26	W32-L W32-U	Bedroom Bedroom	1.93
Fifth	R27	W33-L W33-U	LKD LKD	1.79
Fifth	R28	W34-L W34-U	Bedroom Bedroom	2.34
Fifth	R29	W35-L W35-U W36-L W36-U	LKD LKD LKD LKD	3.25
Fifth	R30	W37-L W37-U	Bedroom Bedroom	2.54
Fifth	R31	W38-L W38-U	Bedroom Bedroom	2.37
Fifth	R32	W39-L W39-U W40-L W40-U	Living Room Living Room Living Room Living Room	3.76
Fifth	R33	W41-L W41-U	Kitchen Kitchen	2.34
Fifth	R34	W42-L W42-U	Bedroom Bedroom	2.44
Fifth	R35	W43-L W43-U	Bedroom Bedroom	4.24
Fifth	R36	W44-L W44-U	Bedroom Bedroom	3.94
Fifth	R37	W45-L W45-U W46-L W46-U W47-L W47-U	LKD LKD LKD LKD LKD LKD	6.66
Fifth	R38	W48-L W48-U	Bedroom Bedroom	2.37
Fifth	R39	W49-L W49-U	LKD LKD	3.22
Fifth	R40	W50-L W50-U	Bedroom Bedroom	2.36
Fifth	R41	W51-L W51-U	Bedroom Bedroom	2.61
Fifth	R42	W52-L	Bedroom	

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
		W52-U	Bedroom	2.74
Sixth	R1	W1-L	LKD	
		W1-U	LKD	
		W14-L	LKD	
		W14-U	LKD	4.01
Sixth	R2	W2-L	Bedroom	
		W2-U	Bedroom	3.21
Sixth	R3	W3-L	Bedroom	
		W3-U	Bedroom	3.15
Sixth	R4	W4-L	LKD	
		W4-U	LKD	
		W5-L	LKD	
		W5-U	LKD	3.29
Sixth	R5	W6-L	Bedroom	
		W6-U	Bedroom	5.70
Sixth	R6	W7-L	Bedroom	
		W7-U	Bedroom	5.17
Sixth	R7	W8-L	Bedroom	
		W8-U	Bedroom	4.43
Sixth	R8	W9-L	LKD	
		W9-U	LKD	1.82
Sixth	R9	W10-L	Bedroom	
		W10-U	Bedroom	2.76
Sixth	R10	W11-L	Bedroom	
		W11-U	Bedroom	2.36
Sixth	R11	W12-L	LKD	
		W12-U	LKD	2.29
Sixth	R12	W13-L	Bedroom	
		W13-U	Bedroom	2.97
Seventh	R1	W1-L	LKD	
		W1-U	LKD	
		W14-L	LKD	
		W14-U	LKD	5.62
Seventh	R2	W2-L	Bedroom	
		W2-U	Bedroom	3.39
Seventh	R3	W3-L	Bedroom	
		W3-U	Bedroom	3.32
Seventh	R4	W4-L	LKD	
		W4-U	LKD	
		W5-L	LKD	
		W5-U	LKD	4.51
Seventh	R5	W6-L	Bedroom	
		W6-U	Bedroom	5.70
Seventh	R6	W7-L	Bedroom	
		W7-U	Bedroom	5.17
Seventh	R7	W8-L	Bedroom	
		W8-U	Bedroom	4.43
Seventh	R8	W9-L	LKD	
		W9-U	LKD	3.04
Seventh	R9	W10-L	Bedroom	
		W10-U	Bedroom	3.07
Seventh	R10	W11-L	Bedroom	
		W11-U	Bedroom	2.49
Seventh	R11	W12-L	LKD	
		W12-U	LKD	3.51

Floor	Room	Window	Room Use	Average Daylight Factor (ADF)
				Room Total (%)
Seventh	R12	W13-L	Bedroom	
		W13-U	Bedroom	3.09