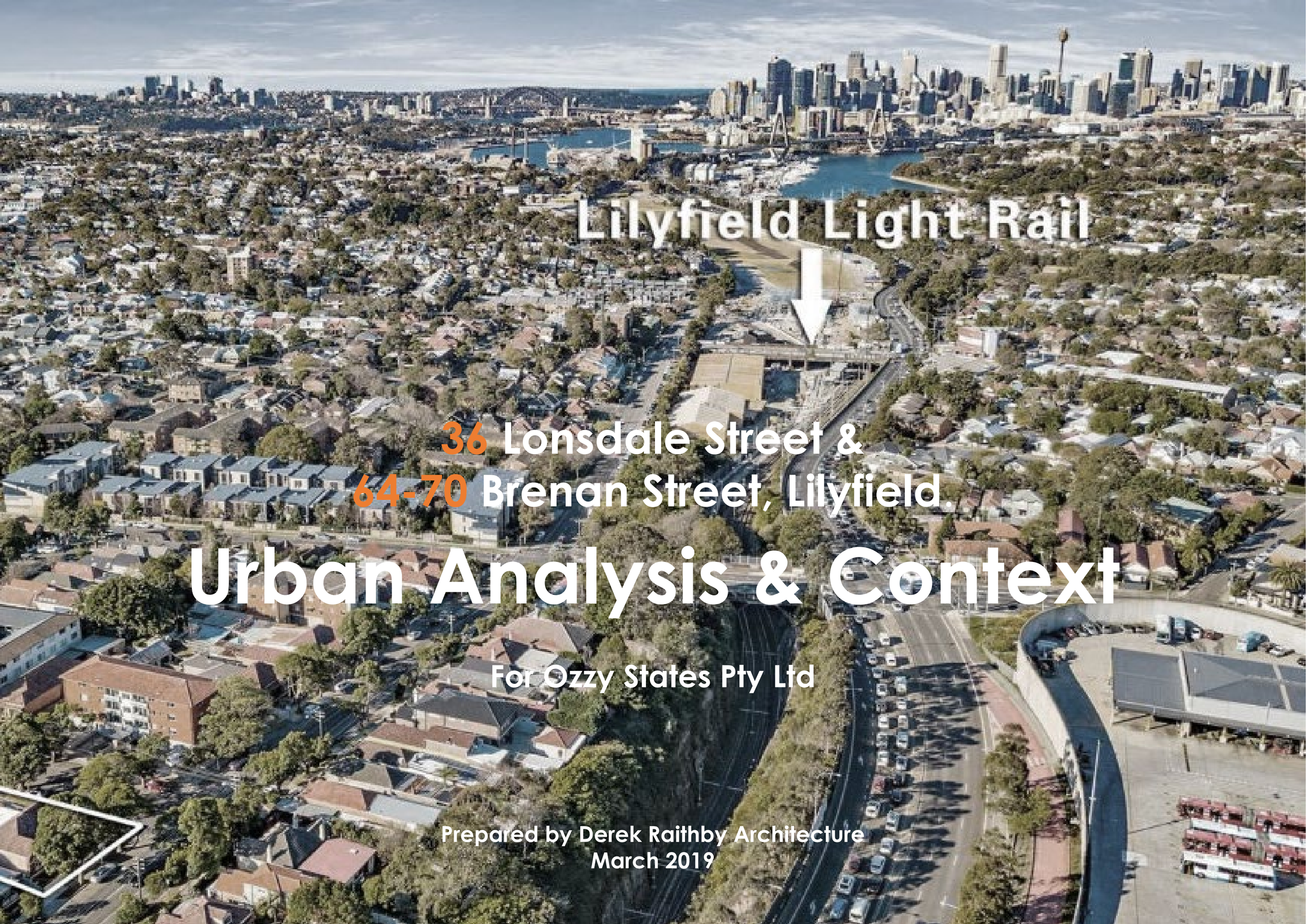


36 Lonsdale Street &
64-70 Brenan Street, Lilyfield.

Urban Analysis & Context

For Ozzy States Pty Ltd

Prepared by Derek Raithby Architecture
March 2019

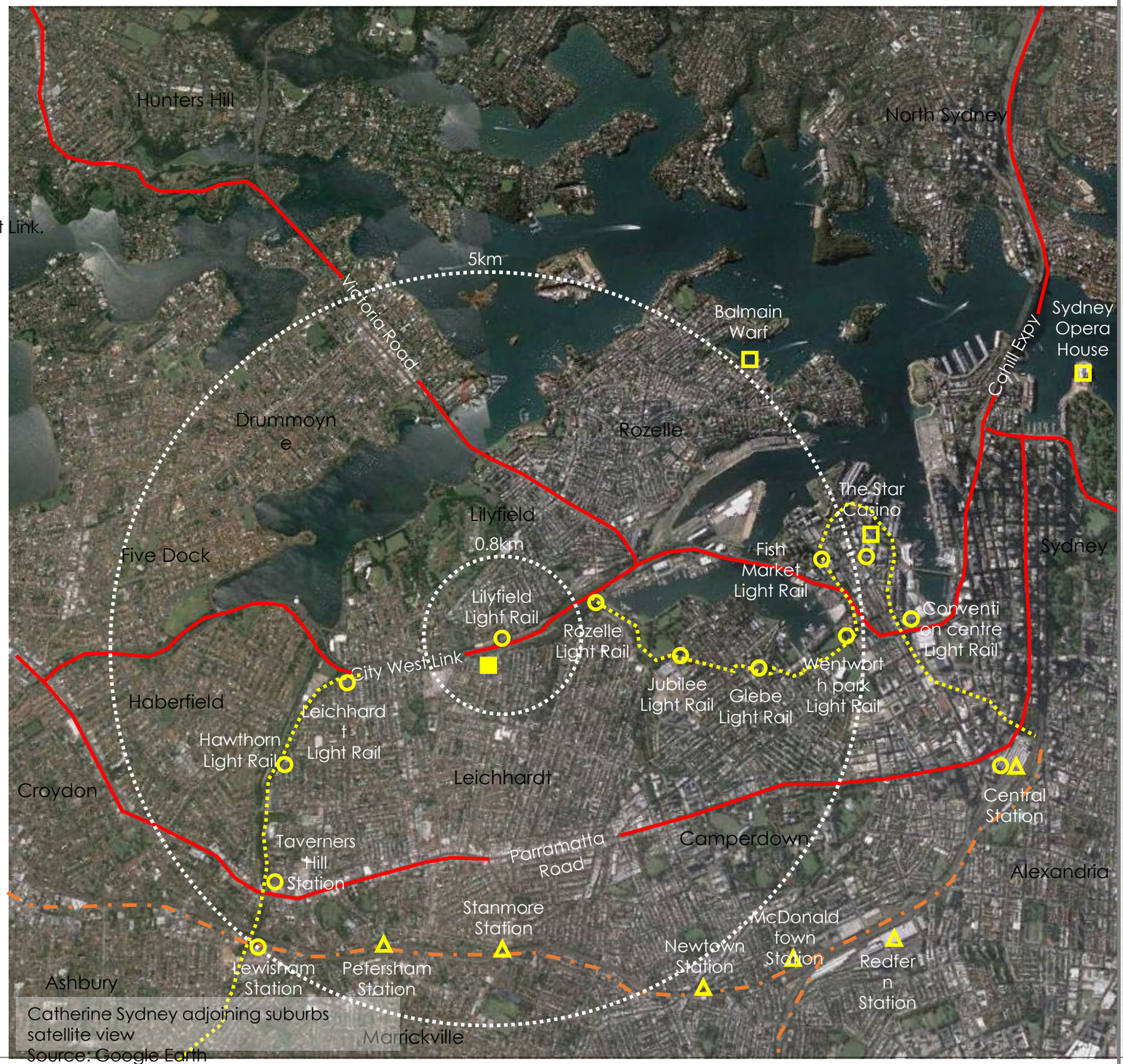
Contents

Context

Site Location

Intersection between Lonsdale and City West Link.
Source: Google Street View

Intersection between Catherine st. and City West Link.
Source: Google Street View



Catherine Sydney adjoining suburbs satellite view
Source: Google Earth

"The suburb of Lilyfield is located in the geographic heart of the Leichhardt Local Government Area.

The suburb is bisected by the City West Link, the light rail line, and dominated by Callan Park
to the north. Most of Lilyfield has a character which is marked by the consistency of style, form and
materials of its residential building stock.

The southern part of Lilyfield, which is located south of the City West Link, is known as the 'Catherine
Street Distinctive Neighbourhood'. The landform is this area is gently undulating and falls, gradually,
towards Whites Creek to the east and towards the City West Link to the north."*

Legend

- Subject Site
- Main Roads
- Light Rail
- Train Line
- Light Rail Station
- Train Station

*Excerpt of Leichhardt Development Control Plan 2013

Site Context

Catherine Street neighbourhood satellite view
Source: Google Earth

"The area making up the 'Catherine Street' Distinctive Neighbourhood was subdivided following the suburban expansion of Leichhardt during the early 1900s.

The Peripheral Sub Area consists of the length of the City West Link west of Catherine Street to the junction of Balmain Road, and from this point on Balmain Road south to the intersection with Moore Street.

With the introduction of the nearby Lilyfield Light Rail stop, and the mix of commercial and residential uses in this area, there is potential for Council to make provision for future multi-unit development around this node.

The location, and mixed residential/commercial character of the road, lends itself to higher density development."*

Legend

- Subject Site
- Main Roads
- Light Rail
- Cycle Lane
- Catherine Street distinctive neighbourhood
- The Peripheral Sub Area
- Parks

*Excerpt of Leichhardt Development Control Plan 2013 (Amendment No. 5)

Context

Site Context

View 1

View 2

View 3

Catherine Street neighbourhood map view
Source: Google Earth

View 4
Source: Google Street View

View 5
Source: Google Street View

"The area making up the 'Catherine Street' Distinctive Neighbourhood was subdivided following the suburban expansion of Leichhardt during the early 1900s.

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The location, and mixed residential/commercial character of the road, lends itself to higher density development."*

*Excerpt of Leichhardt Development Control Plan 2013 (Amendment No. 5)

Context

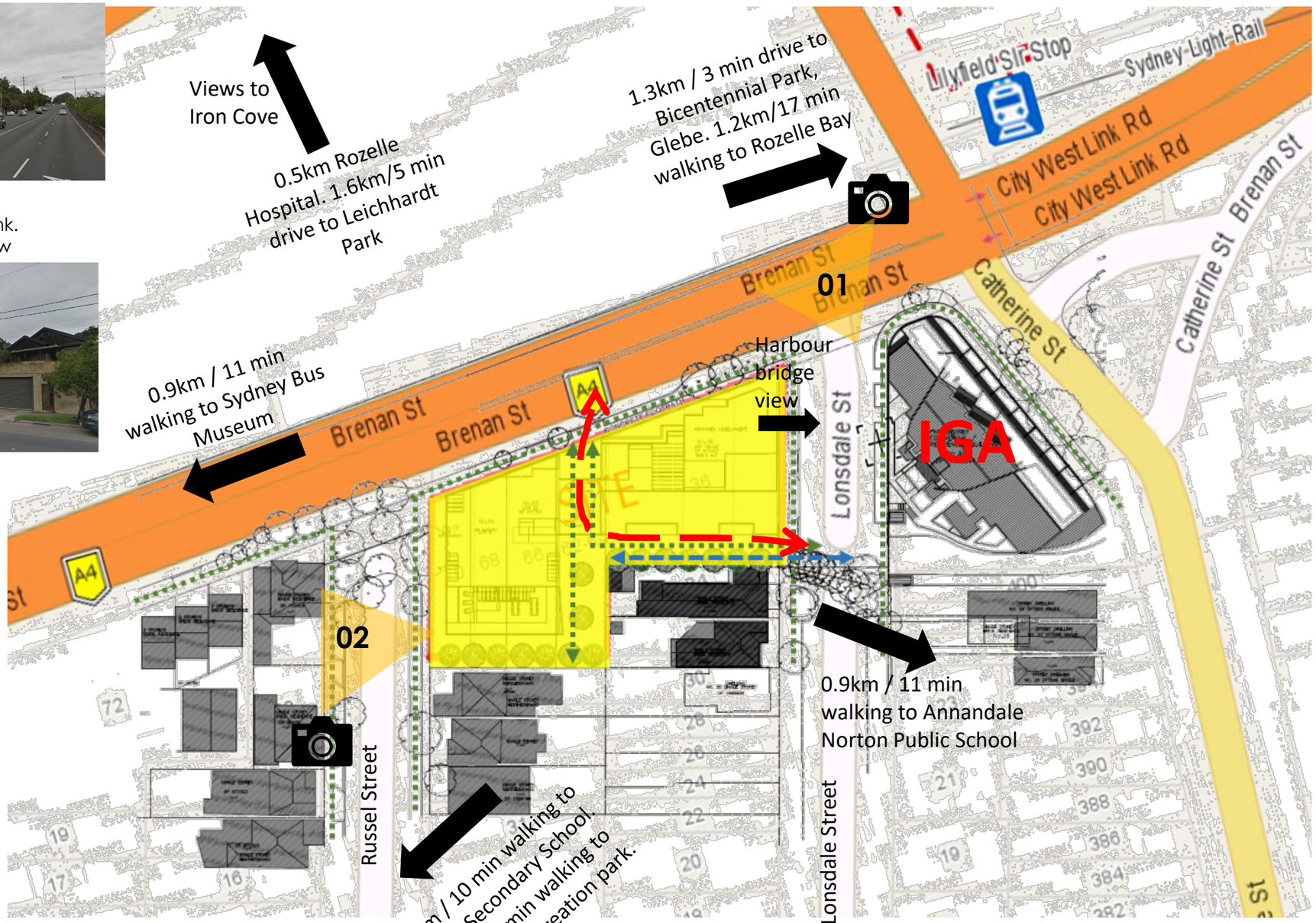
Site and Context Analysis

01: Intersection between Lonsdale and City West Link. Source: Google Street View

02 : View from City west link to subject site
Source: Google Street View

LEGEND

- Subject Site
- Main Roads
- Pedestrian
- Vehicular Entrance
- Cross Link
- Catherine Street distinctive neighbourhood



AMENITY

Developments in dense urban centres usually have limited availability to open space, however this development proposes communal open space at the rear of the site. This provides a private landscape for the residents of the development hidden from the public domain. This has a positive effect on the local environment as it creates a green barrier between the proposed development and the single/double storey dwellings behind it.

The proposed development is within walking/ driving distance of the following:

-Lilyfield Light Rail Station and IGA

-0.9km / 11 min walking to Annandale Norton Public School

-1.3km / 3 min drive to Bicentennial Park, Glebe. 1.2km/17 min walking to Rozelle Bay

-0.5km Rozelle Hospital. 1.6km/5 min drive to Leichhardt Park

-0.9km / 11 min walking to Sydney Bus Museum

-0.8km / 10 min walking to Sydney Secondary School.
-0.4km / 4 min walking to Bowling & recreation park
The proposed development will have views of the Harbour bridge and Iron Cove.

STREET ACTIVATION

The new development will significantly increase the amount of active street frontage, not only to Brenan St but also to Russel St & Lonsdale ST. As outlined in the Urban Study the lane way is undesirable and in need of gentrification. The activation of the laneway along with new cross site link are ingredients for an improved laneway environment.

CROSS SITE LINK

A new cross site link joins Brenan St to Lonsdale Stree. This allows for easy pedestrian travel in any direction.

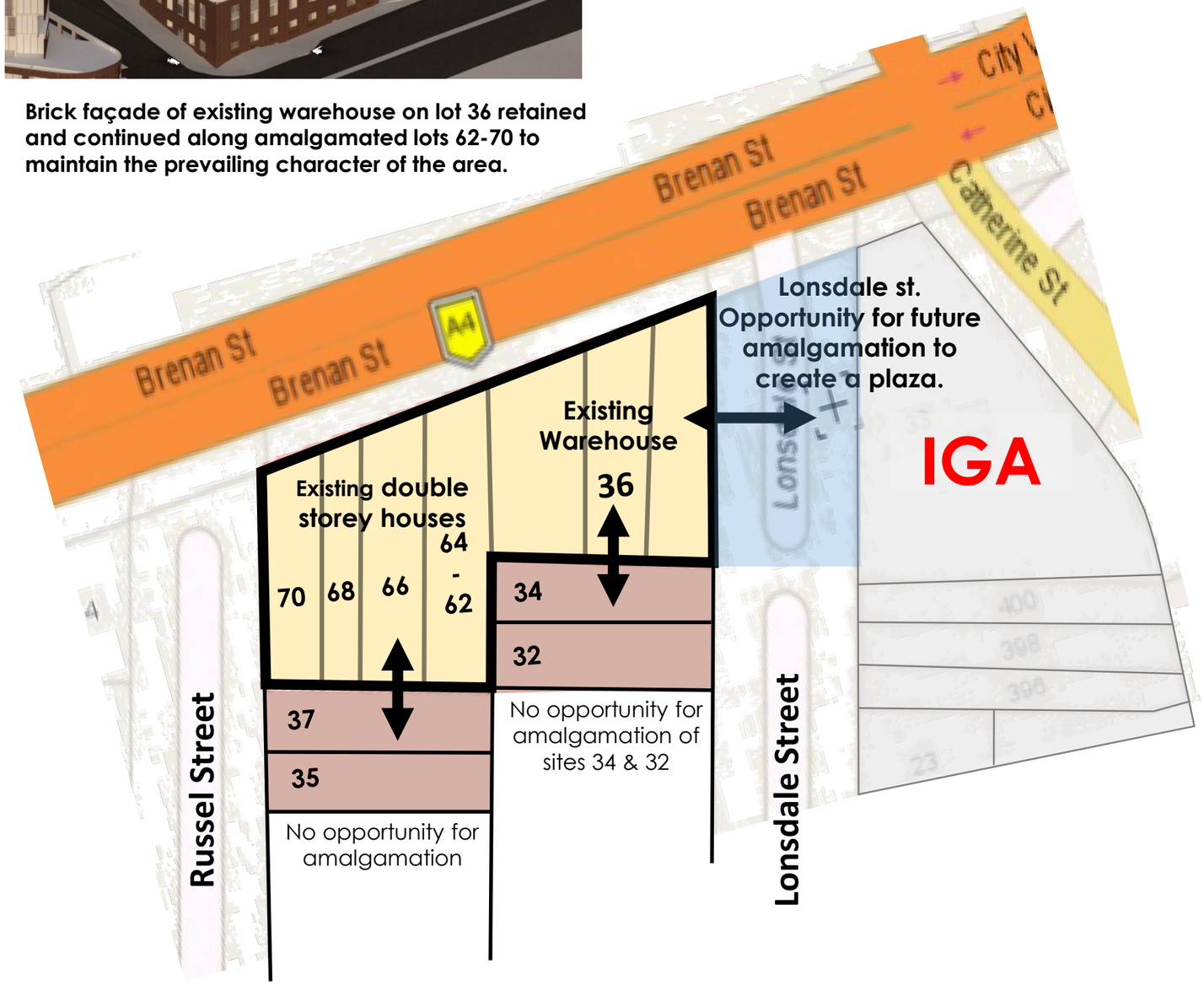
*Excerpt of Leichhardt Development Control Plan 2013 (Amendment No. 5)

Context

Site and Design Opportunities

Brick façade of existing warehouse on lot 36
Source: Google Street View

Brick façade of existing warehouse on lot 36 retained and continued along amalgamated lots 62-70 to maintain the prevailing character of the area.



FACILITY INTEGRATION

The existing site currently uses the entire rear of the property for landscaping. The proposal amalgamates lots 36, and lots 62-70. The existing exterior brick façade of the warehouse on Lot 36 is retained and extended to the amalgamated lots 62-70 to maintain the visual characteristics of the area.

OPPORTUNITY OF AMALGAMATION

It is important to note that the site as a development has no opportunity to amalgamate with the neighbouring sites in the south to achieve a more desirable development.

With the intention to amalgamate the developer has approached both neighbours to the south with no success.

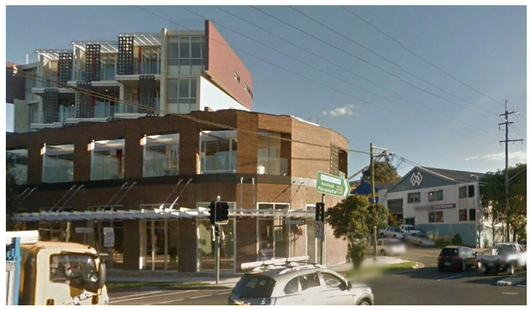
But the no-through street, Lonsdale Street, between the proposed development and the IGA can be amalgamated to create a plaza which can serve as a community space.

*Excerpt of Leichhardt Development Control Plan 2013 (Amendment No. 5)

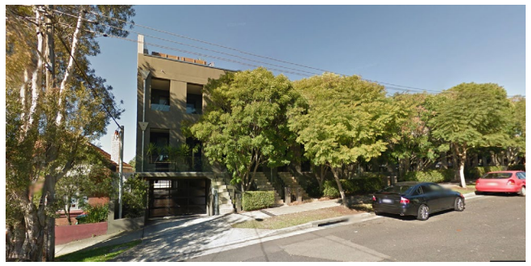
Context

Height of Buildings

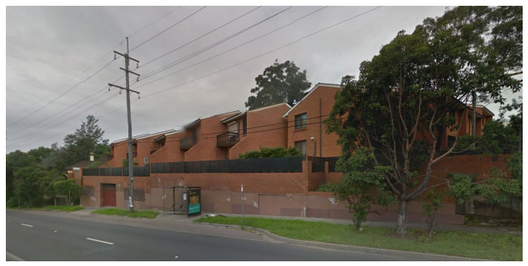
359-365 Catherine St, Lilyfield.
Source: Google Street View



402 Catherine St, Lilyfield.
Source: Google Street View



13-29 Russel St, Lilyfield.
Source: Google Street View



72 Brennan St, Lilyfield.
Source: Google Street View

Height of buildings map

In this analysis we describe the height of the surrounding buildings within the are.

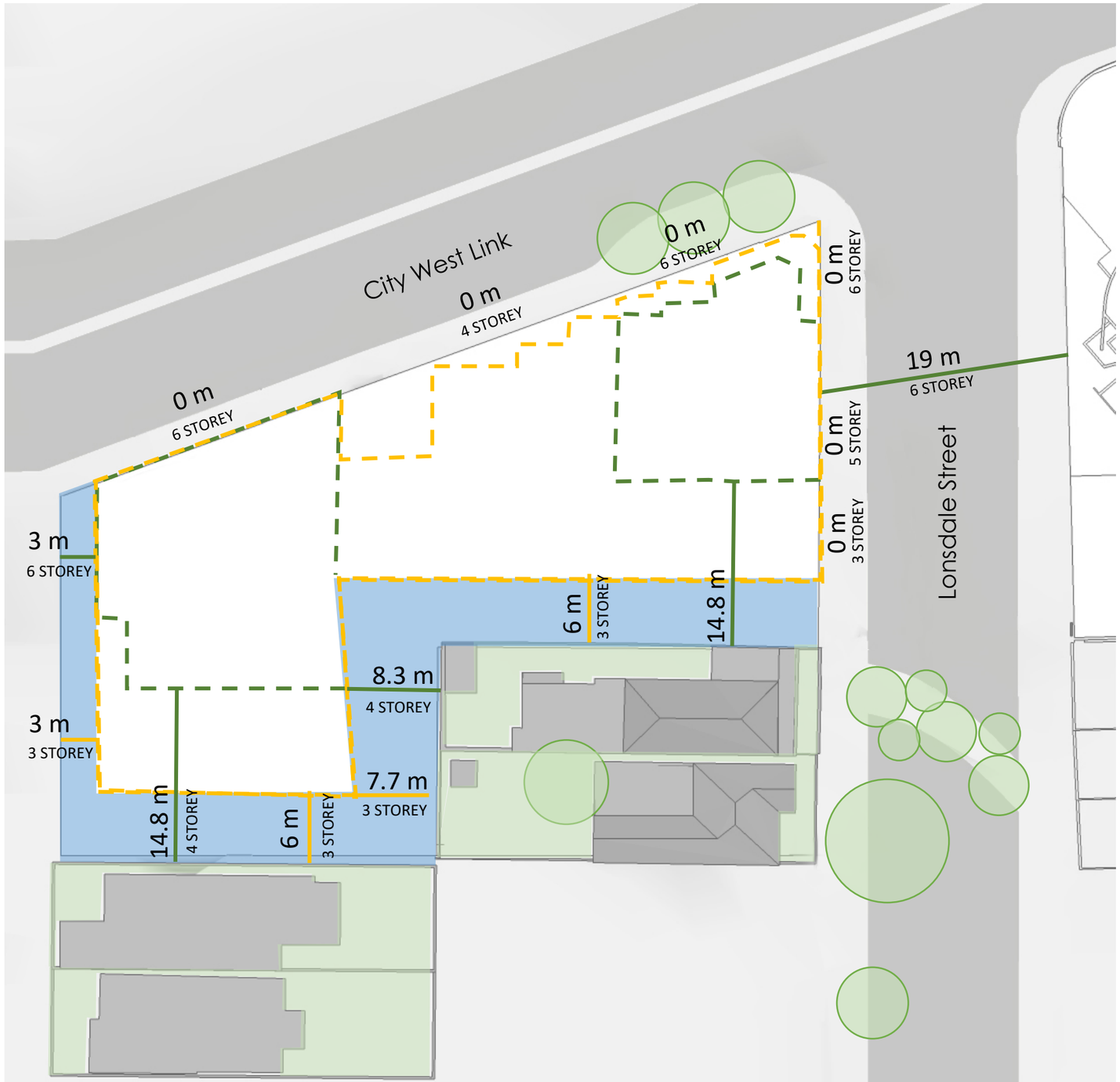
Legend

- Subject Site
- 1 Store
- 2 Storeys
- 3 Storeys
- 4 Storeys
- 5 Storeys
- 6 Storeys
- Green areas
- InnerCity Steel Pty

*Excerpt of Leichhardt Development Control Plan 2013 (Amendment No. 5)

Proposal

Building Separation (SEPP 65)



***ALL SITES PRESENTED IN THIS DIAGRAM ARE IN THE SAME ZONE**

Legend

Min Building separation

up to 4 storey – habitable separation

from 5 to 8 storey – habitable

Objective 3F-1

Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy

Design criteria

1. Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:

Building height	Habitable rooms and balconies	Non-habitable rooms
up to 12m (4 storeys)	6m	3m
up to 25m (5-8 storeys)	9m	4.5m
over 25m (9+ storeys)	12m	6m

Note: Separation distances between buildings on the same site should combine required building separations depending on the type of room (see figure 3F.2)

Gallery access circulation should be treated as habitable space when measuring privacy separation distances between neighbouring properties

Design guidance

Generally one step in the built form as the height increases due to building separations is desirable. Additional steps should be careful not to cause a 'ziggurat' appearance

For residential buildings next to commercial buildings, separation distances should be measured as follows:

- for retail, office spaces and commercial balconies use the habitable room distances
- for service and plant areas use the non-habitable room distances

New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include:

- site layout and building orientation to minimise privacy impacts (see also section 3B Orientation)
- on sloping sites, apartments on different levels have appropriate visual separation distances (see figure 3F.4)

Apartment buildings should have an increased separation distance of 3m (in addition to the requirements set out in design criteria 1) when adjacent to a different zone that permits lower density residential development to provide for a transition in scale and increased landscaping (figure 3F.5)

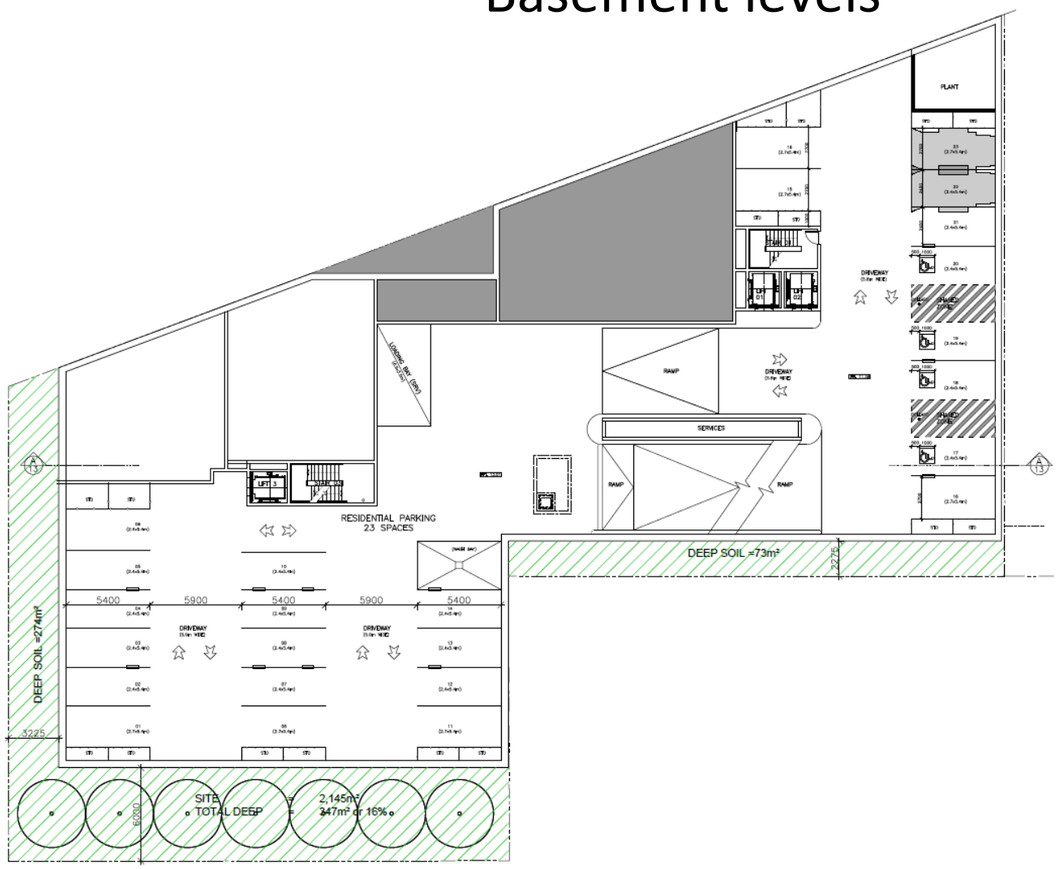
Direct lines of sight should be avoided for windows and balconies across corners

No separation is required between blank walls

*Excerpt from Apartment Design Guide

Proposal

Basement levels



Basement Level 1

Basement Level 2

The proposal includes a 2 level basement with provision for:

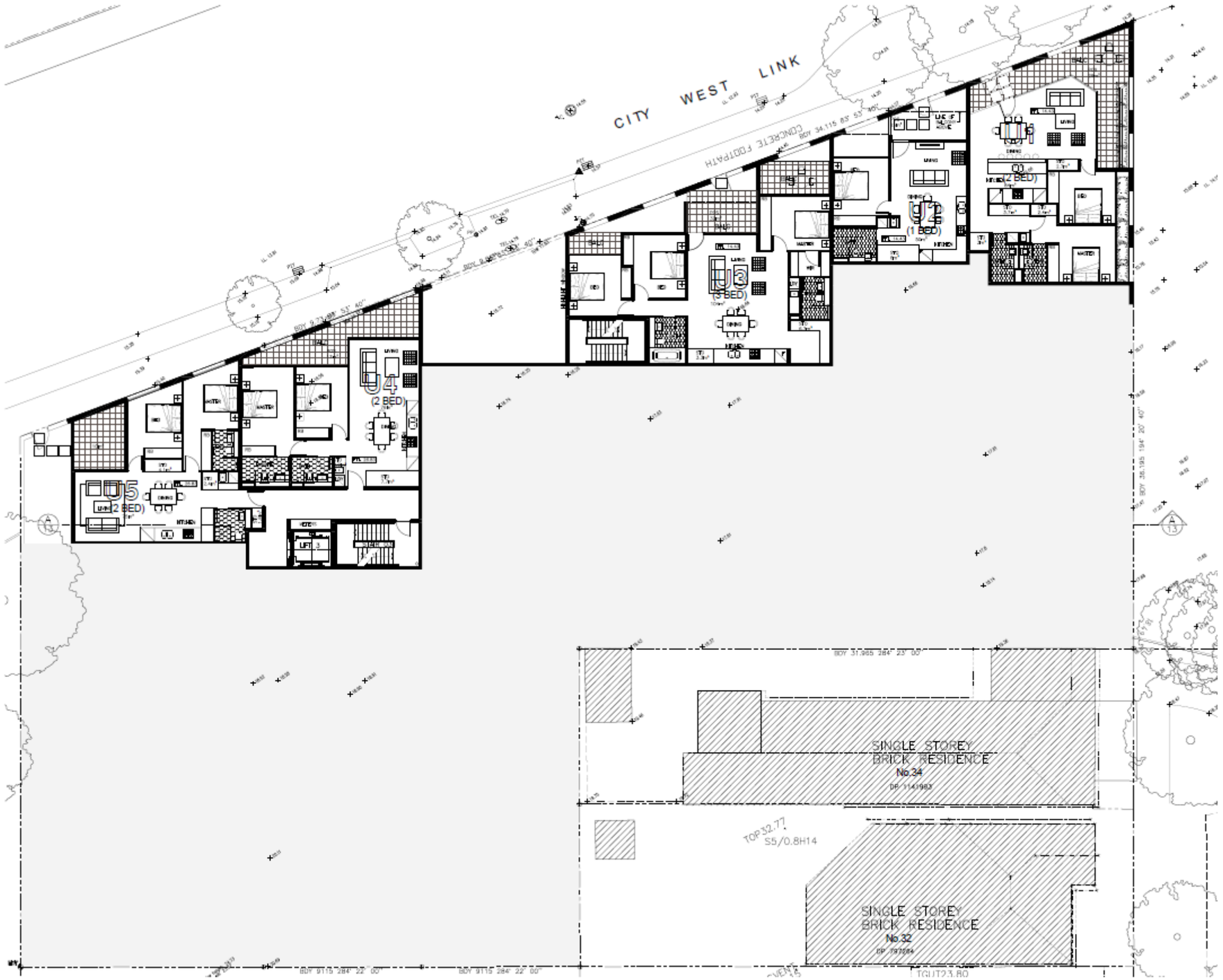
- Plant & services
- Residential parking on the remain two levels
- Storage
- Lift & egress/fire stairs
- Disable, Motorcycle and Bicycle parking
- Stormwater detention
- Shared zones

For further detail and assessment refer to traffic report prepared by Traffix Pty Ltd

*Excerpt from Apartment Design Guide

Proposal

Lower Ground Floor



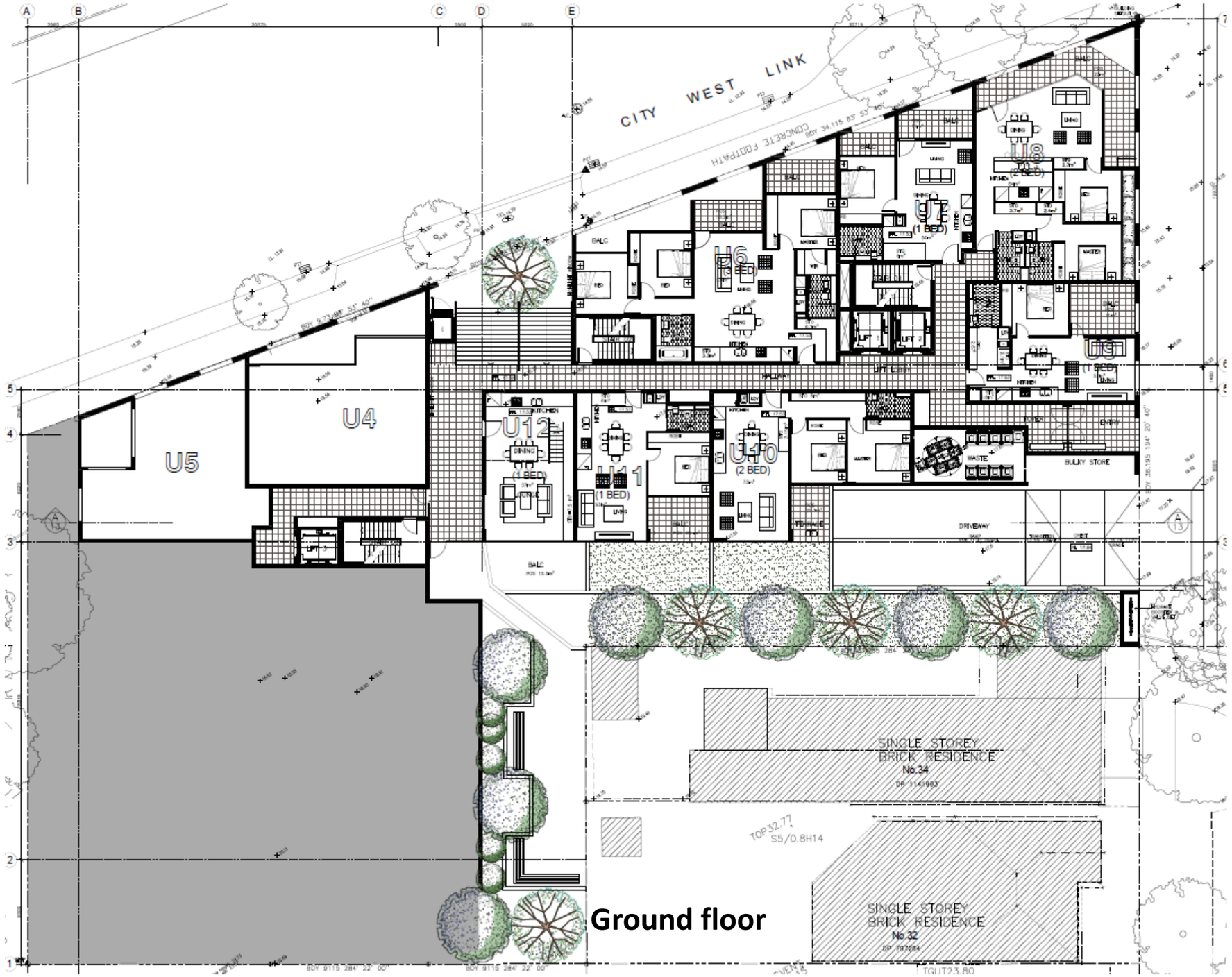
Lower ground floor

The lower ground floor consists of 5 units (Unit 1-). Landscaping encloses all sides of the complexes.

*Excerpt from Apartment Design Guide

Proposal

Ground Floor

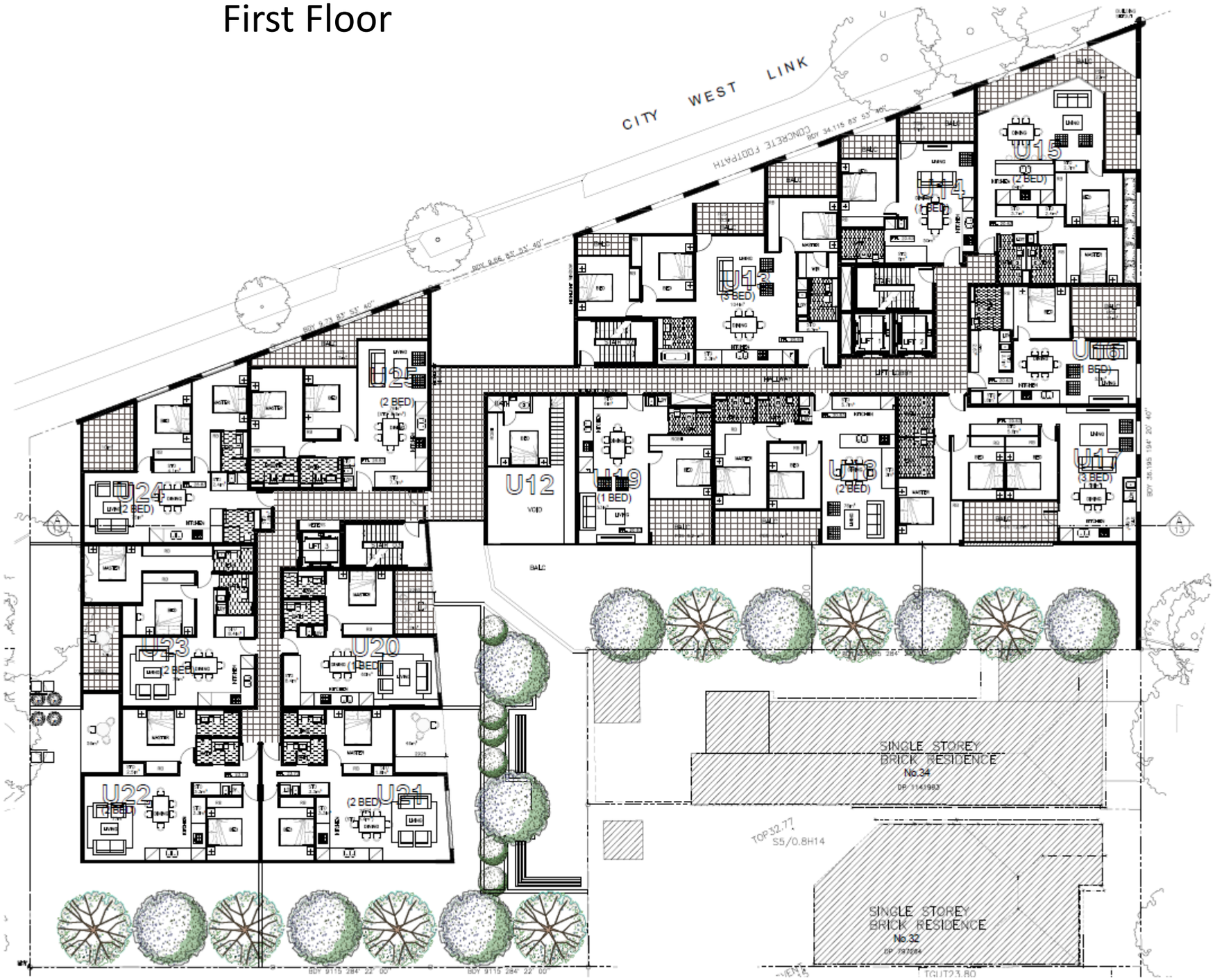


The ground floor consists of 7 units (Unit 6-12). Unit 12 continues to the first floor. Pedestrian access and corridors act as a central spine.

*Excerpt from Apartment Design Guide

Proposal

First Floor



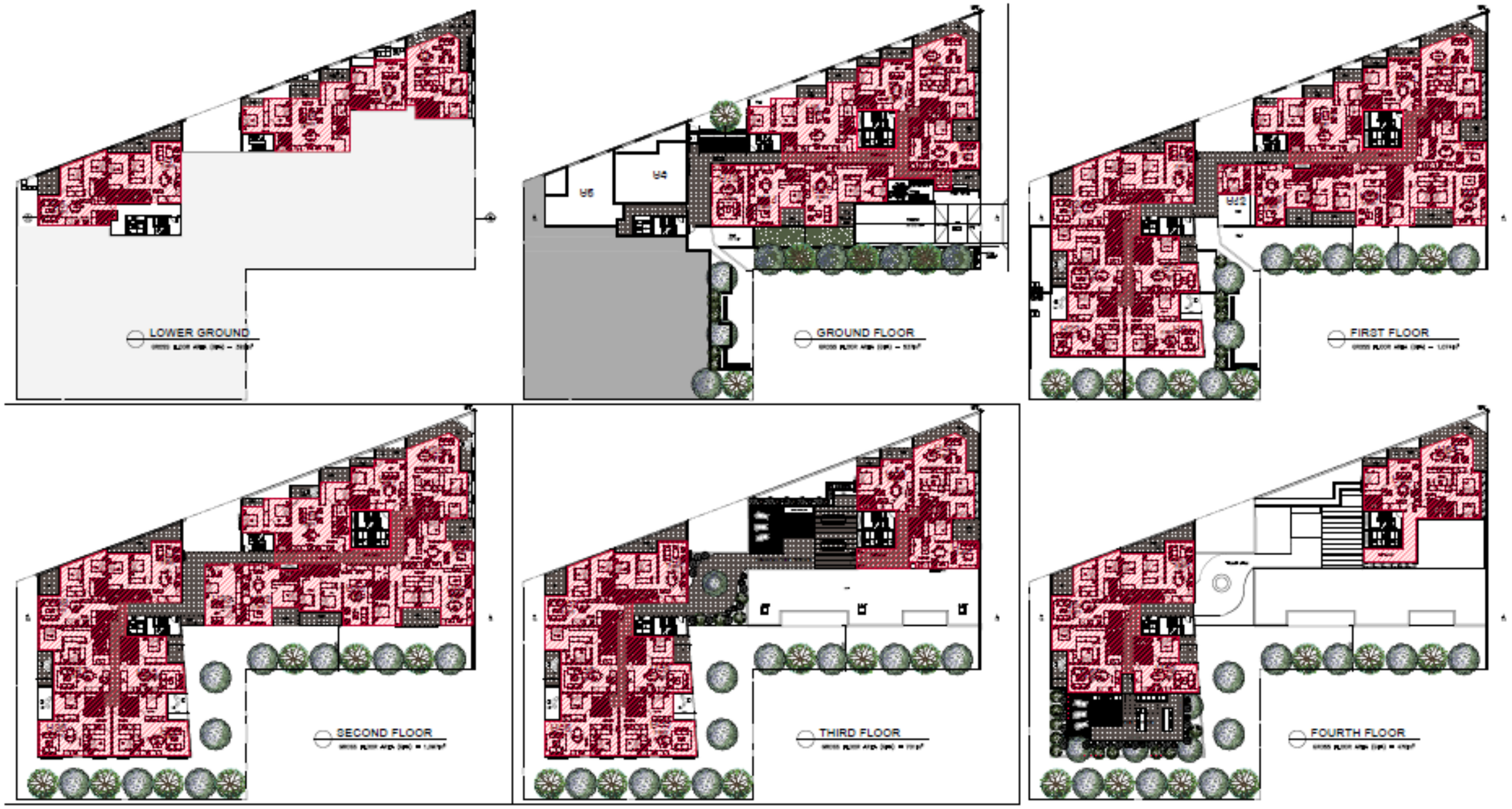
First floor

The ground floor consists of 13 units (Unit 13-25) and the upper level of Unit 12. Pedestrian access and corridors act as a central spine.

*Excerpt from Apartment Design Guide

Proposal

Gross Floor Area



The gross floor area totals to 4,271m² over a site area of 2,145m², equalling a FSR of 1.99:1

GROSS FLOOR AREA

gross floor area means the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes:

(a) the area of a mezzanine, and

(b) habitable rooms in a basement or an attic, and

(c) any shop, auditorium, cinema, and the like, in a basement or attic,

but excludes:

(d) any area for common vertical circulation, such as lifts and stairs, and

(e) any basement:

(i) storage, and

(ii) vehicular access, loading areas, garbage and services, and

(f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and

(g) car parking to meet any requirements of the consent authority (including access to that car parking), and

(h) any space used for the loading or unloading of goods (including access to it), and

(i) terraces and balconies with outer walls less than 1.4 metres high, and

(j) voids above a floor at the level of a storey or storey above.

CALCULATIONS

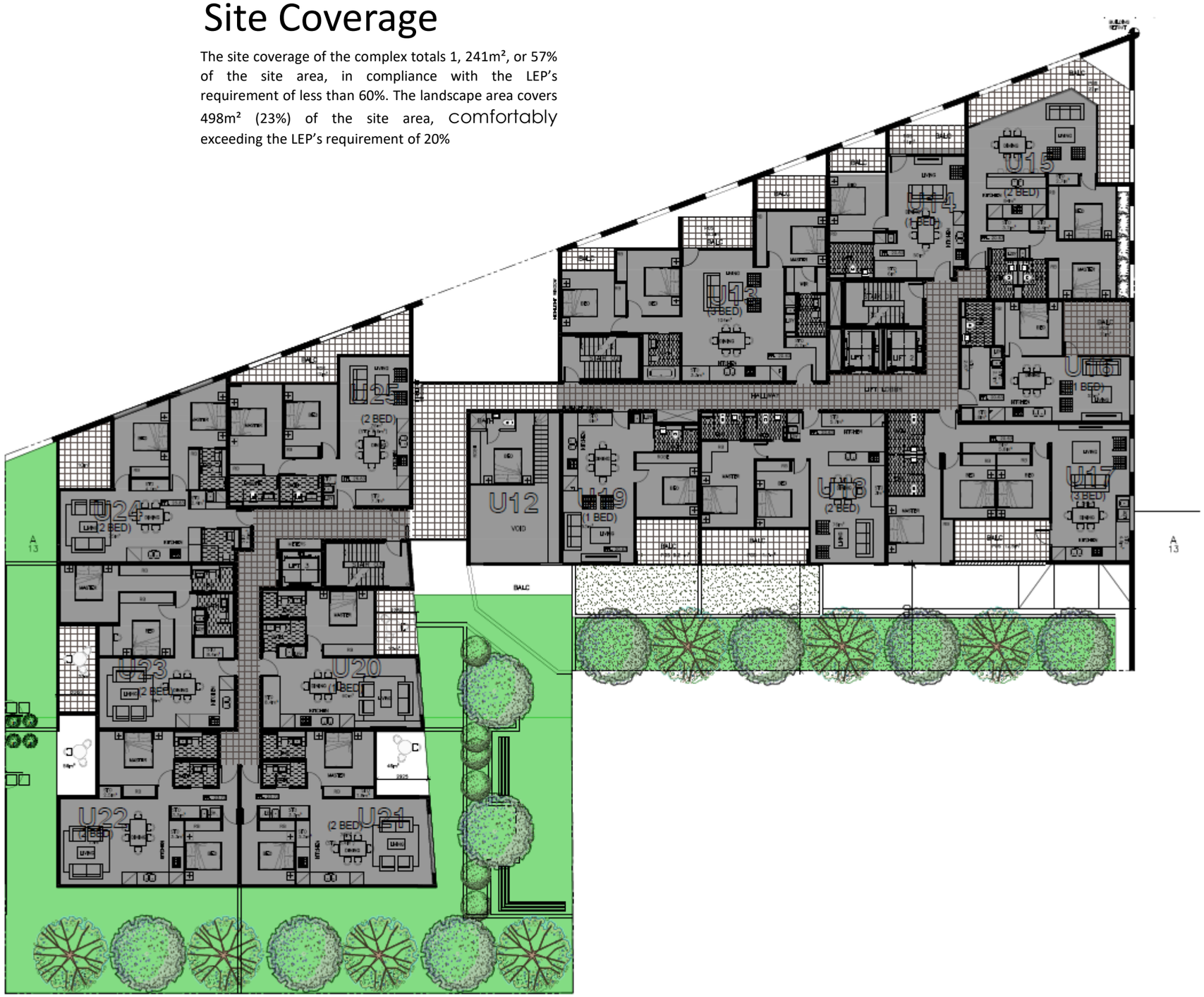
• LOWER GROUND	=	**392m²**
• GROUND FLOOR	=	**537m²**
• FIRST FLOOR	=	**1,074m²**
• SECOND FLOOR	=	**1,097m²**
• THIRD FLOOR	=	**701m²**
• FOURTH FLOOR	=	**470m²**
TOTAL	=	4,271m²
SITE	=	**2,145m²**
FSR	=	1.99:1

*Excerpt from Apartment Design Guide

Proposal

Site Coverage

The site coverage of the complex totals 1, 241m², or 57% of the site area, in compliance with the LEP's requirement of less than 60%. The landscape area covers 498m² (23%) of the site area, comfortably exceeding the LEP's requirement of 20%



LEICHHARDT LOCAL ENVIRONMENT PLAN 2013:

4.3A Landscaped areas for residential accommodation in Zone R1

(1) The objectives of this clause are as follows:
- (a) to provide landscaped areas that are suitable for substantial tree planting and for the use and enjoyment of residents,
- (b) to maintain and encourage a landscaped corridor between adjoining properties,
- (c) to ensure that development promotes the desired future character of the neighbourhood,
- (d) to encourage ecologically sustainable development by maximising the retention and absorption of surface drainage water on site and by minimising obstruction to the underground flow of water,
- (e) to control site density,
- (f) to limit building footprints to ensure that adequate provision is made for landscaped areas and private open space.

(2) This clause applies to development for the purpose of residential accommodation on land in Zone R1 General Residential.

(3) Development consent must not be granted to development to which this clause applies unless:
- (a) the development includes landscaped area that comprises at least:
  - (i) where the lot size is equal to or less than 235 square metres—15% of the site area, or
  - (ii) where the lot size is greater than 235 square metres—20% of the site area, and
- (b) the site coverage does not exceed 60% of the site area.

(4) For the purposes of subclause (3):
- (a) the site area is to be calculated under clause 4.5 (3), and
- (b) any area that:
  - (i) has a length or a width of less than 1 metre, or
  - (ii) is greater than 500mm above ground level (existing),

  is not to be included in calculating the proportion of landscaped area, and
- (c) any deck or balcony or the like (whether enclosed or unenclosed) is not to be included in calculating the site coverage if:
  - (i) it is 2.4 metres or more above ground level (existing), as measured from the underside of the structure and the area below the structure is able to be landscaped or used for recreational purposes, or
  - (ii) the finished floor level is 500mm or less above ground level (existing)

site coverage means the proportion of a site area covered by buildings. However, the following are not included for the purpose of calculating site coverage:
- (a) any basement,
- (b) any part of an awning that is outside the outer walls of a building and that adjoins the street frontage or other site boundary,
- (c) any eaves,
- (d) unenclosed balconies, decks, pergolas and the like.

landscaped area means a part of a site used for growing plants, grasses and trees, but does not include any building, structure or hard paved area.

SITE AREA	**= 2,145m²**	
SITE COVERAGE	**= 1,241m²**	**OR 57%**
LANDSCAPE AREA	**= 498m²**	**OR 23%**

Legend

Proposed site coverage

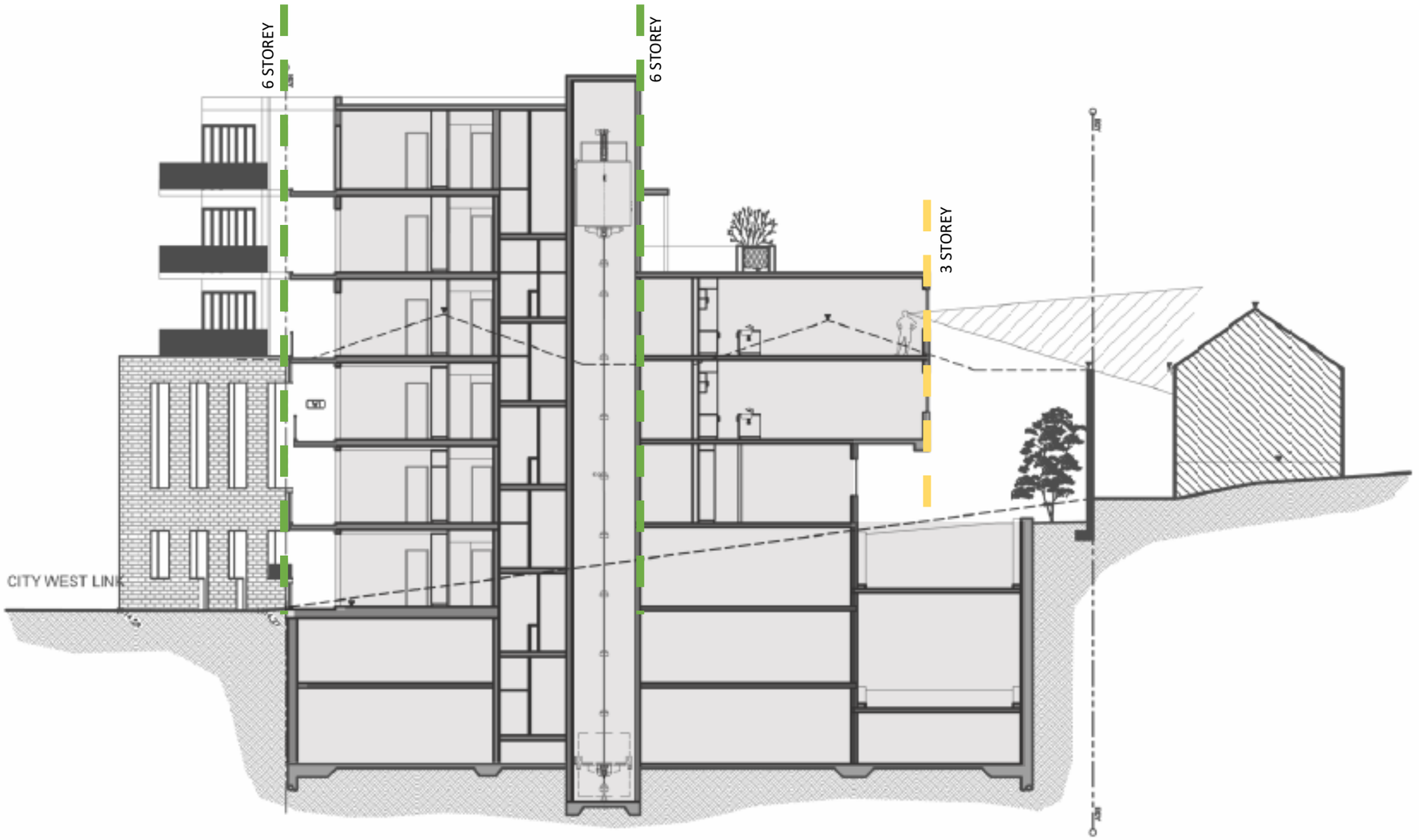
Green Areas

*Excerpt from Apartment Design Guide

Our Proposal

Building Separation

Cross Sections



Legend

Min Building separation

up to 4 storey – habitable separation

from 5 to 8 storey – habitable

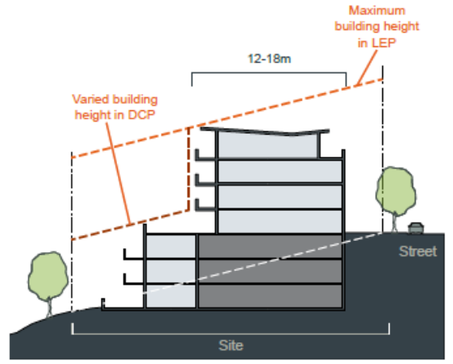


Figure 2C.4 On steep slopes across sites, a varied height control can be applied that steps down towards the lower level of the site and helps create useful residential floor plates (12-18m) addressing the street

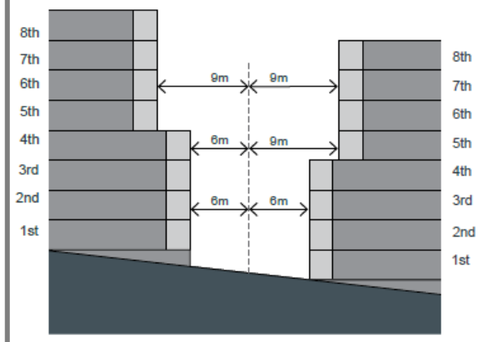
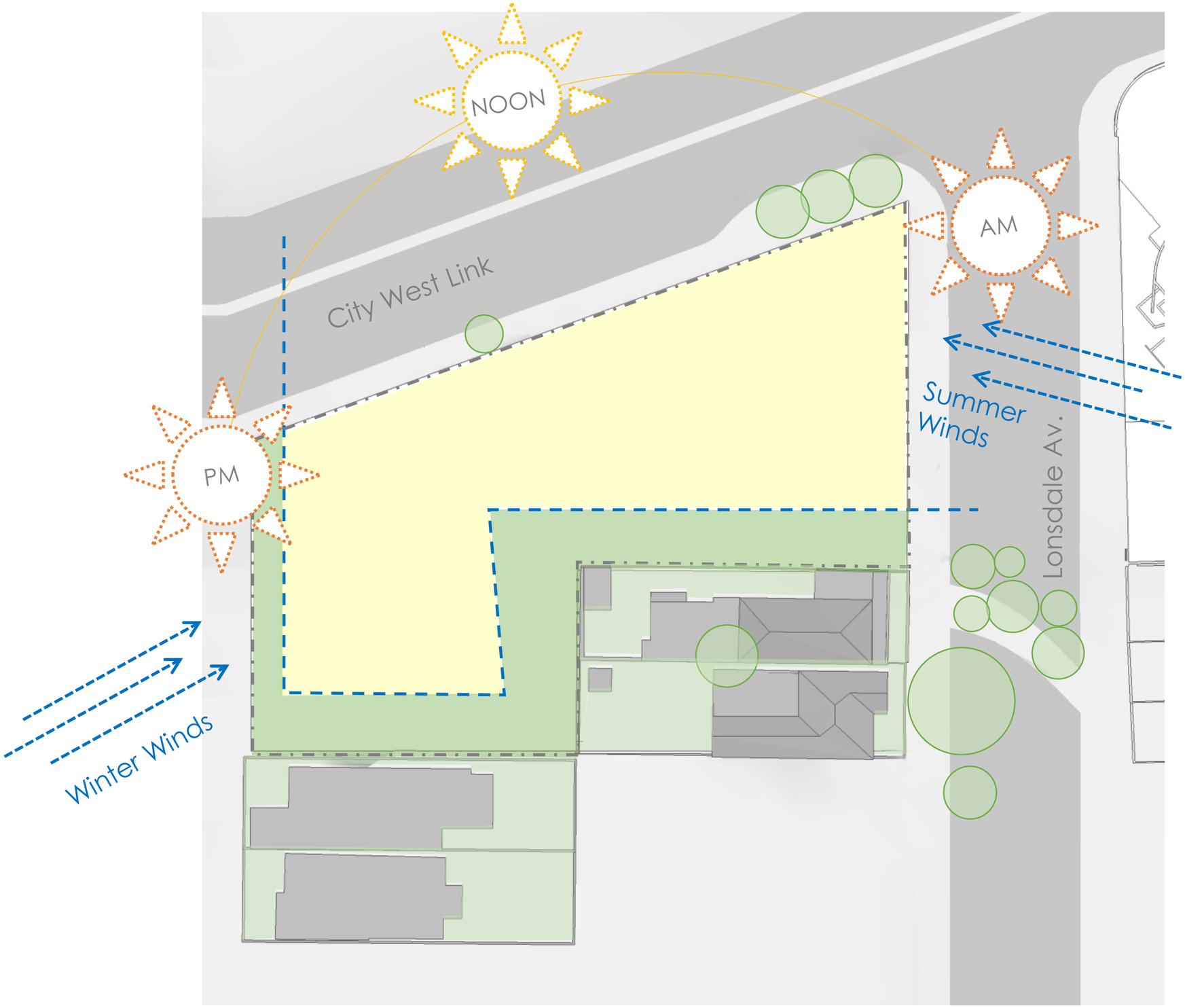


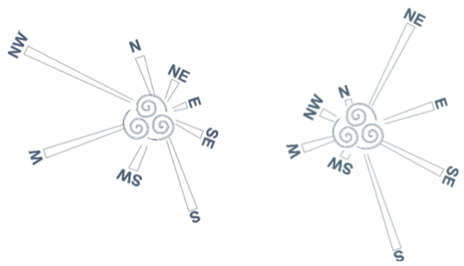
Figure 3F.4 Within the same site, minimum separation should be shared equitably between buildings. On sloping sites, appropriate separation distances ensure visual privacy for apartments on different levels

Proposal

Solar and Wind Access



"Solar and daylight access are important for apartment buildings, reducing the reliance on artificial lighting and heating, improving energy efficiency and residential amenity through pleasant conditions to live and work."*



Prevailing winds annual 9am

Prevailing winds annual 3pm

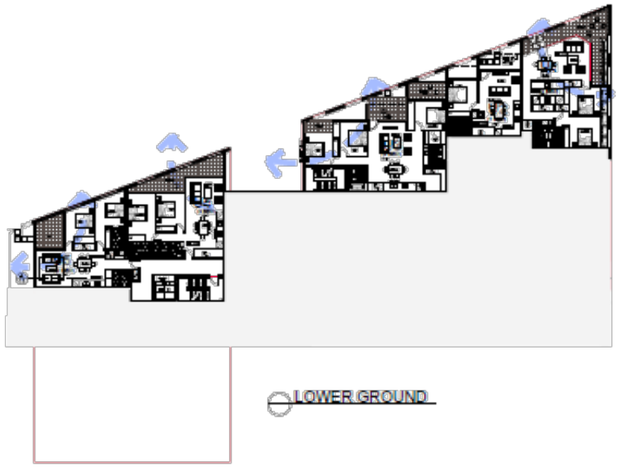
Legend

- Adjoining Buildings
- Proposed footprint
- Green Areas

*Excerpt from Apartment Design Guide

Proposal

Natural Ventilation



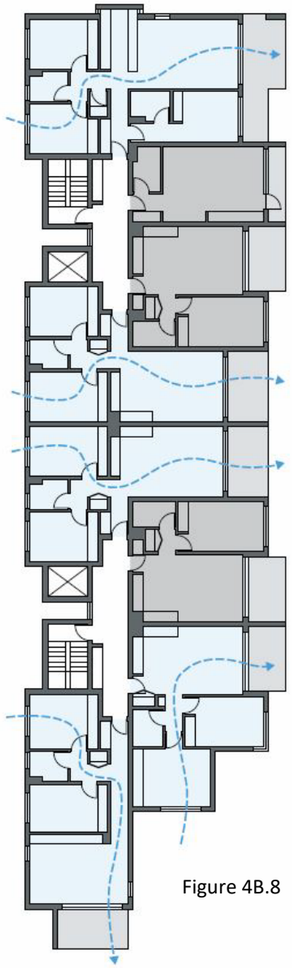
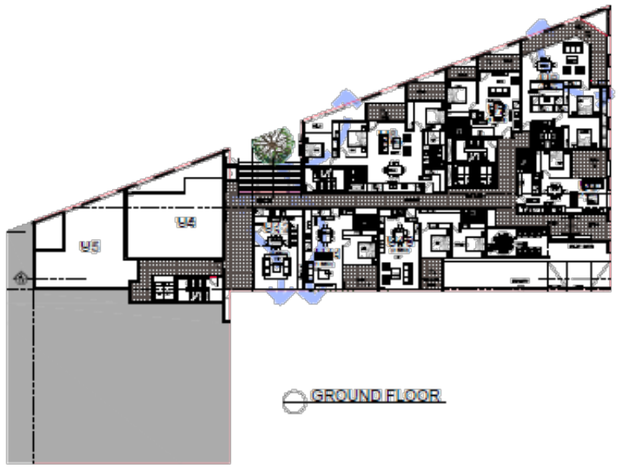
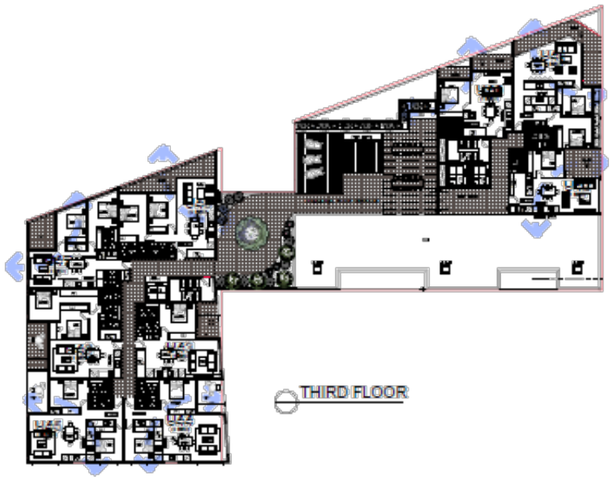
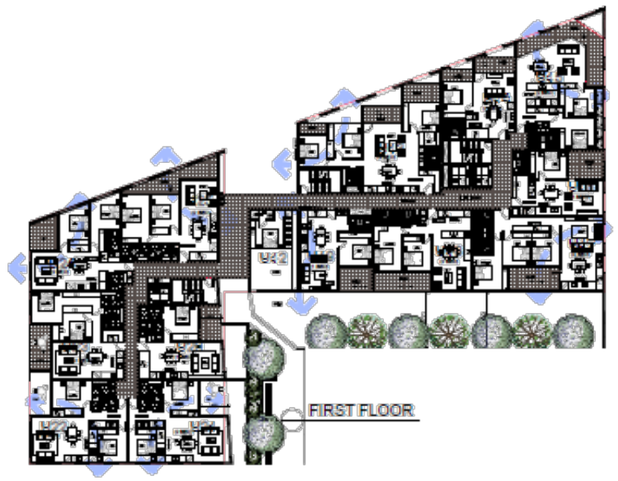
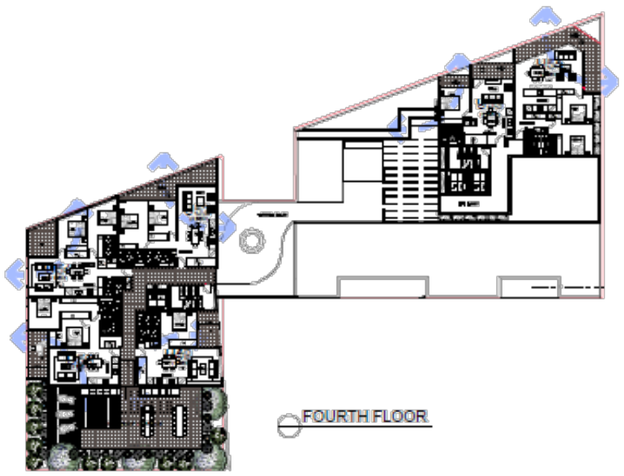


Figure 4B.8









"Natural ventilation is the movement of sufficient volumes of fresh air through an apartment to create a comfortable indoor environment.
Natural cross ventilation is achieved by apartments having more than one aspect with direct exposure to the prevailing winds or windows located in significantly different pressure regions, rather than relying on purely wind driven air."*

Objective 4B-3

The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents

Design criteria

1. At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed
2. Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line

Design guidance

The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths

In cross-through apartments external window and door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window and door opening sizes/areas on the other side of the apartment (outlet side) (see figure 4B.4)

Apartments are designed to minimise the number of corners, doors and rooms that might obstruct airflow

Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and airflow

Legend

Cross-ventilation

Corner Ventilation

CROSS VENTILATION

NUMBER OF UNITS WITH CROSS VENTILATION	38 OF 54
PERCENTAGE OF UNITS WITH CROSS VENTILATION	70%
SEPP 65 REQUIREMENT	60%

*Excerpt from Apartment Design Guide

Proposal

Solar & Daylight Access

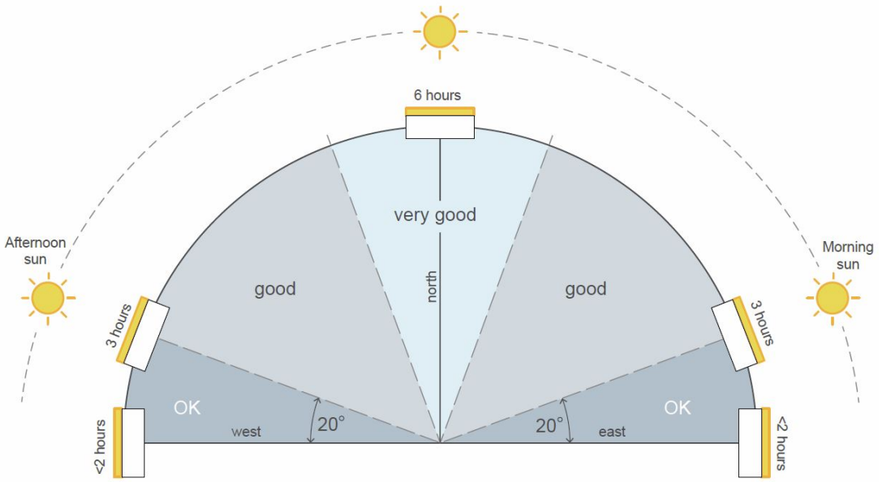
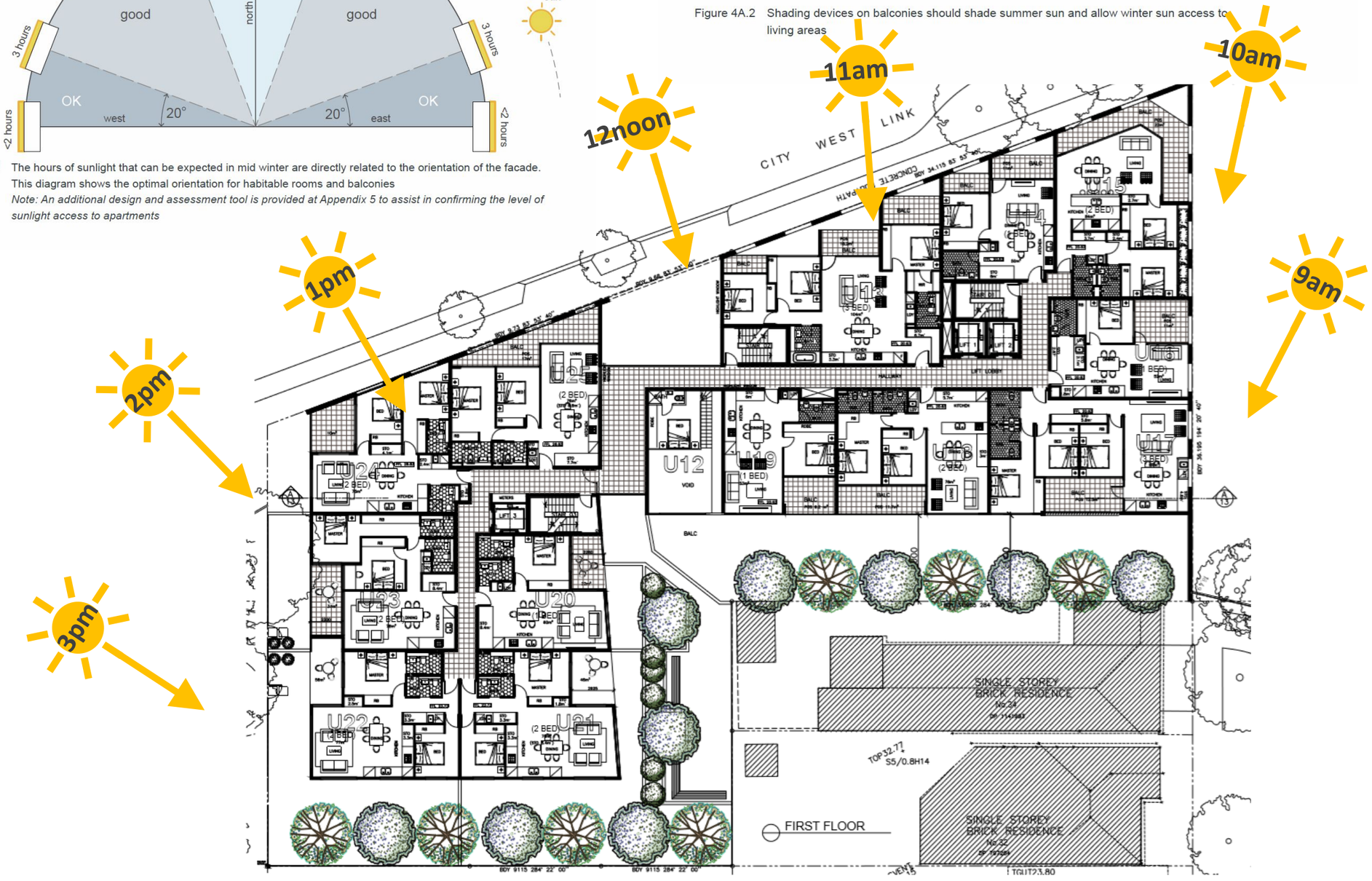


Figure 4A.1 The hours of sunlight that can be expected in mid winter are directly related to the orientation of the facade. This diagram shows the optimal orientation for habitable rooms and balconies

Note: An additional design and assessment tool is provided at Appendix 5 to assist in confirming the level of sunlight access to apartments

Figure 4A.2 Shading devices on balconies should shade summer sun and allow winter sun access to living areas



Objective 4A-1

To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space

Design criteria

1. Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas
2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter
3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter

Design guidance

The design maximises north aspect and the number of single aspect south facing apartments is minimised

Single aspect, single storey apartments should have a northerly or easterly aspect

Living areas are best located to the north and service areas to the south and west of apartments

To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used:

- dual aspect apartments
- shallow apartment layouts
- two storey and mezzanine level apartments
- bay windows

To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m² of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes

Achieving the design criteria may not be possible on some sites. This includes:

- where greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source
- on south facing sloping sites
- where significant views are oriented away from the desired aspect for direct sunlight

Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective

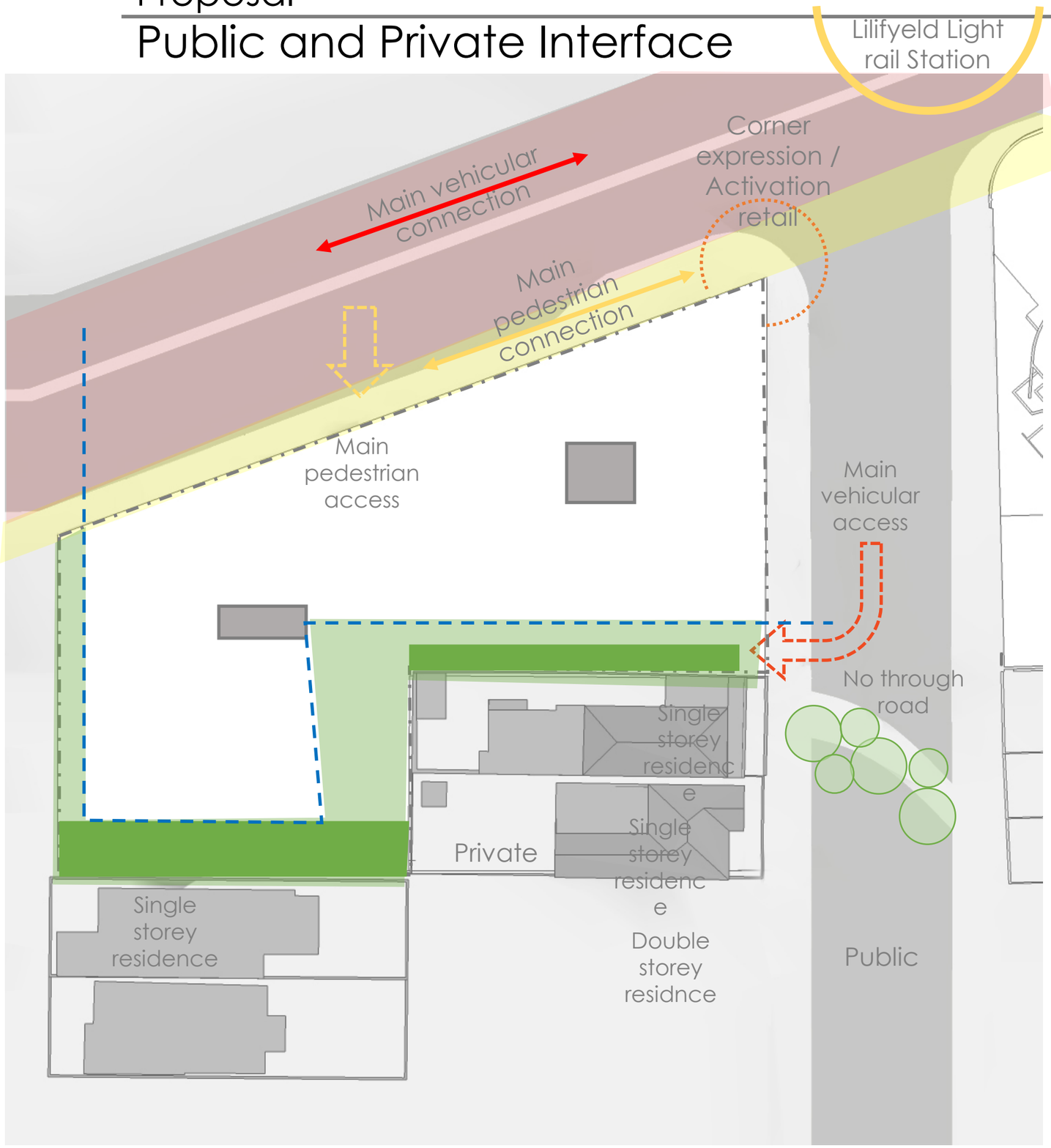
Typical Level

A minimum of at least 70% of apartments in the building will receive at least 2 hours of direct sunlight between 9am and 3pm at mid winter

*Excerpt from Apartment Design Guide

Proposal

Public and Private Interface



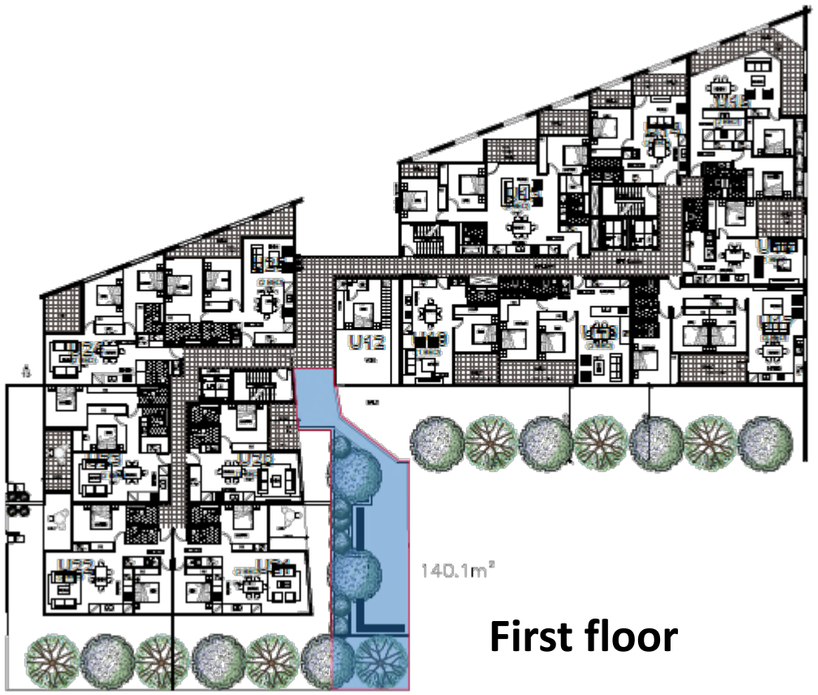
In this analysis we depict the main public access to the subject site and the adjoining configuration.

Legend

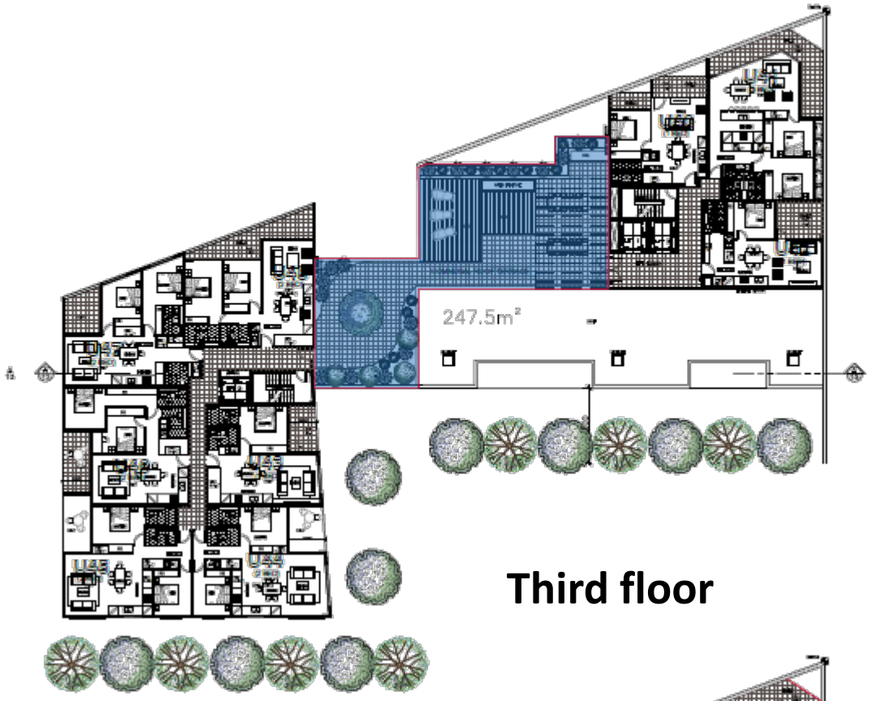
- Adjoining Buildings
- Proposed footprint
- Green Areas
- Setback
- Deep Soil
- Vertical Circulation

Proposal

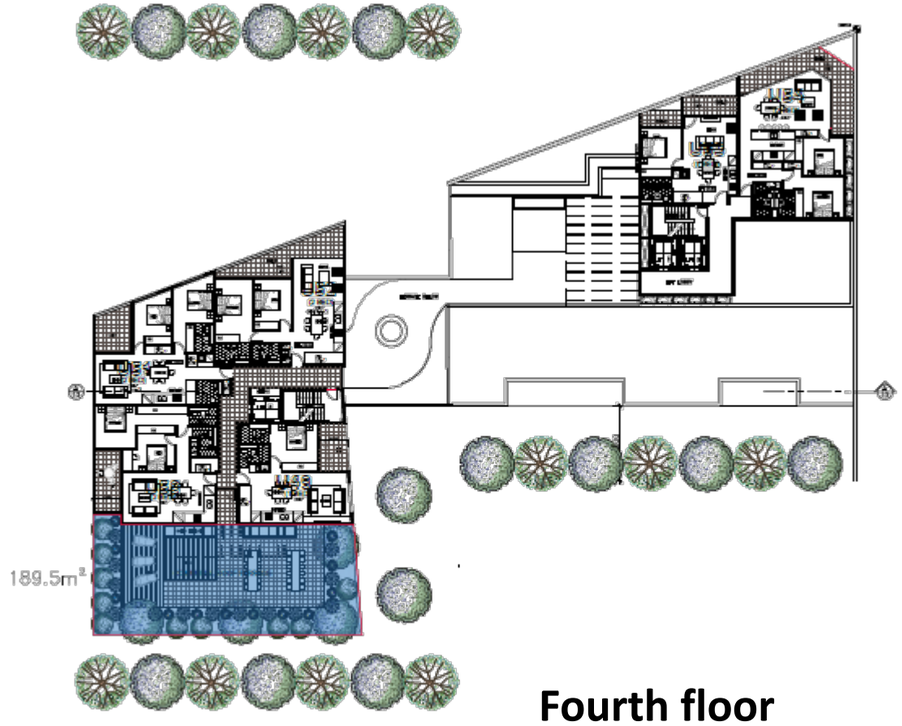
Communal Open Space



First floor



Third floor



Fourth floor

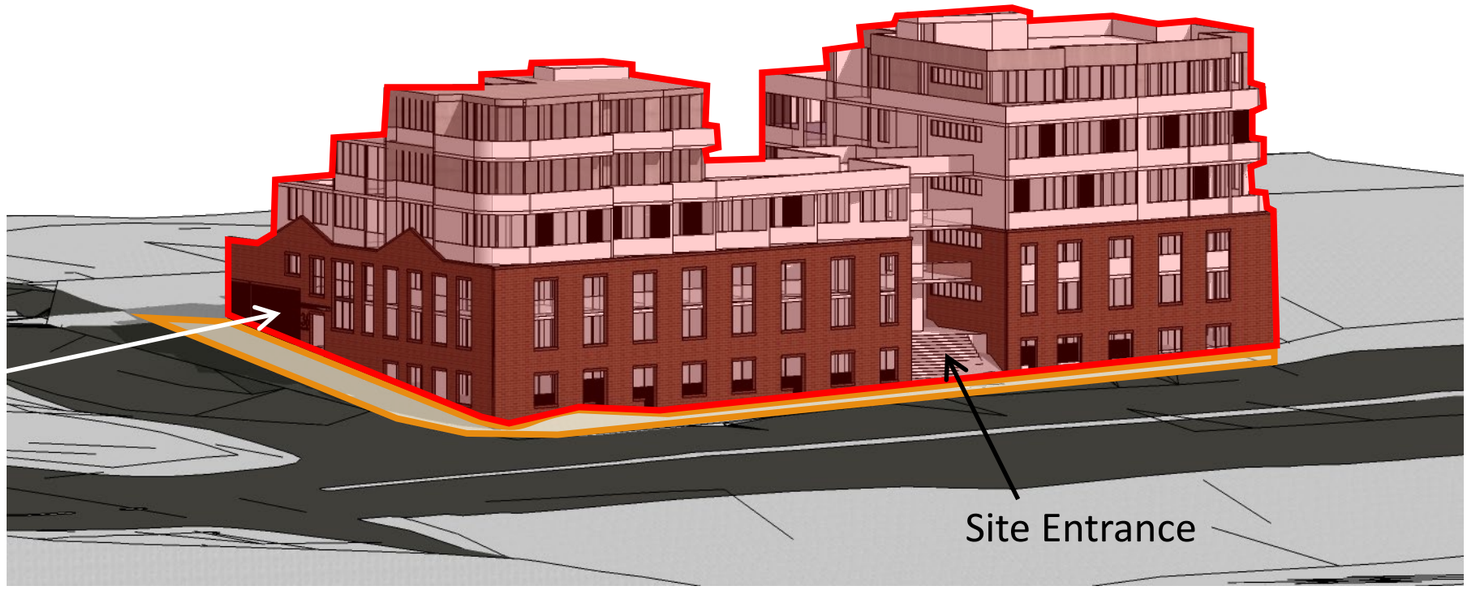
SITE AREA	=	2,145 m ²
APARTMENT DESIGN GUIDE Design Criteria - 25% OF SITE AREA	= =	 536.25 m ²
PROPOSED COMMUNAL OPEN SPACE	=	577.1 m² (27%)

DEVELOPMENTS ACHIEVE A MINIMUM OF 50% DIRECT SUNLIGHT TO THE PRINCIPAL USABLE PART OF THE COMMUNAL OPEN SPACE FOR A MINIMUM OF 2 HOURS BETWEEN 9 AM AND 3 PM ON 21 JUNE (MID WINTER)

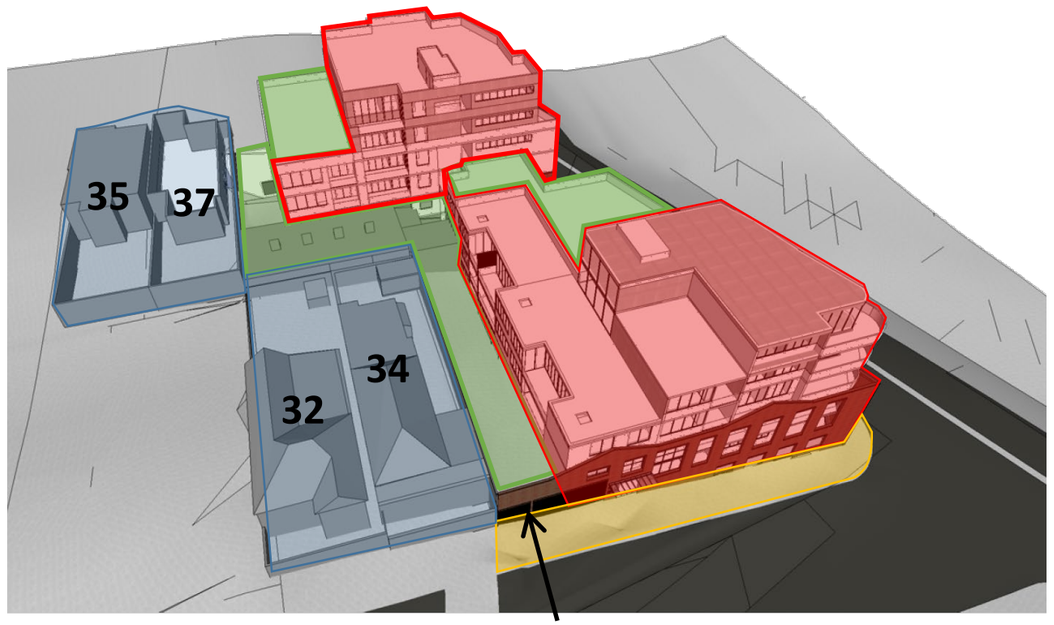
Legend

Proposed communal open space

Proposal
Site Attributes



- Green Space
- Site
- Street Activation
- Residential
- Existing double storey houses



Proposal

Bulk and Form

In this analysis we depict a building envelope of six storeys for the subject site in comparison to the existing warehouse and to the apartment complex approved in 2002 by Leichhardt Council.

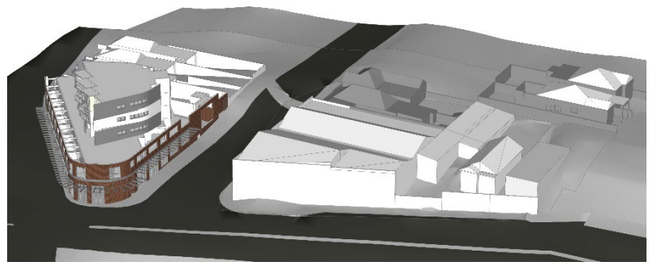


Diagram n.01
Existing building

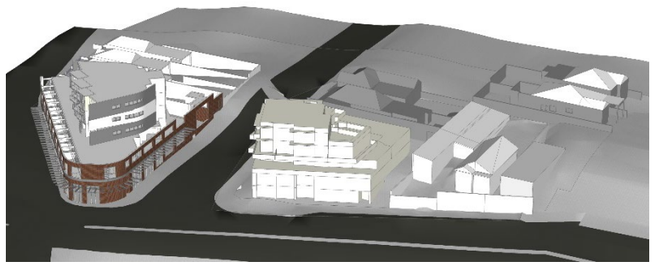


Diagram n.02
Approved Scheme

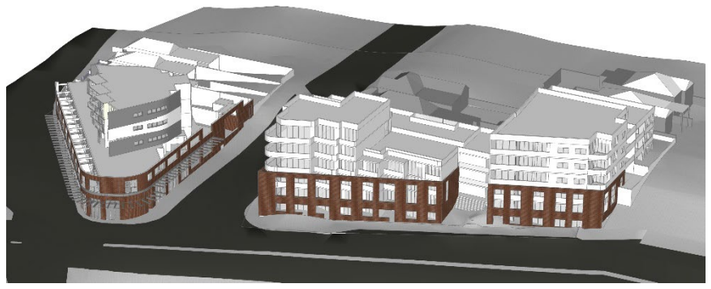


Diagram n.03
Envelope Study

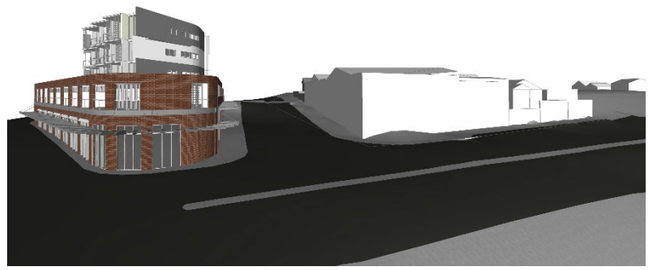


Diagram n.01
Existing building

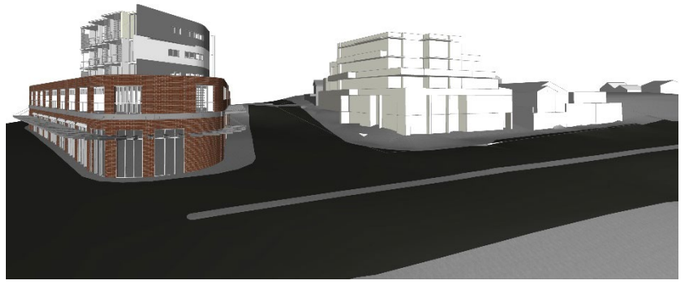
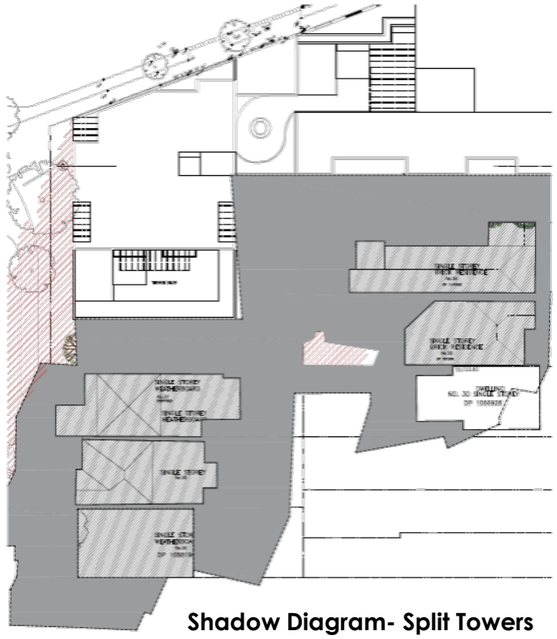


Diagram n.02
Approved Scheme

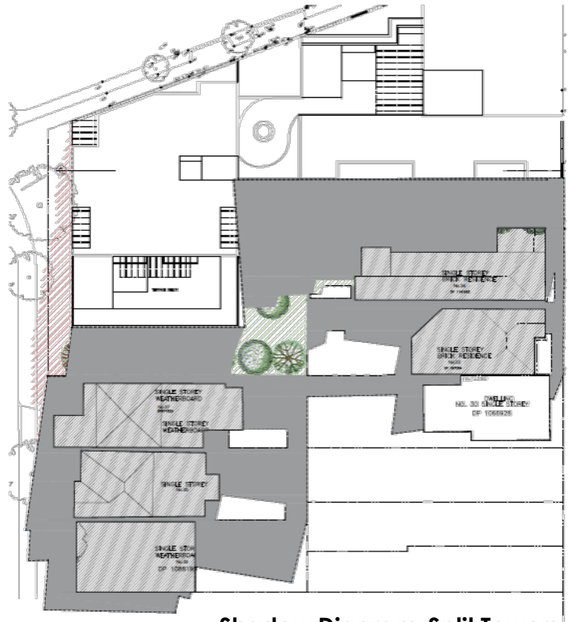
Diagram n.03
Envelope Study

Proposal

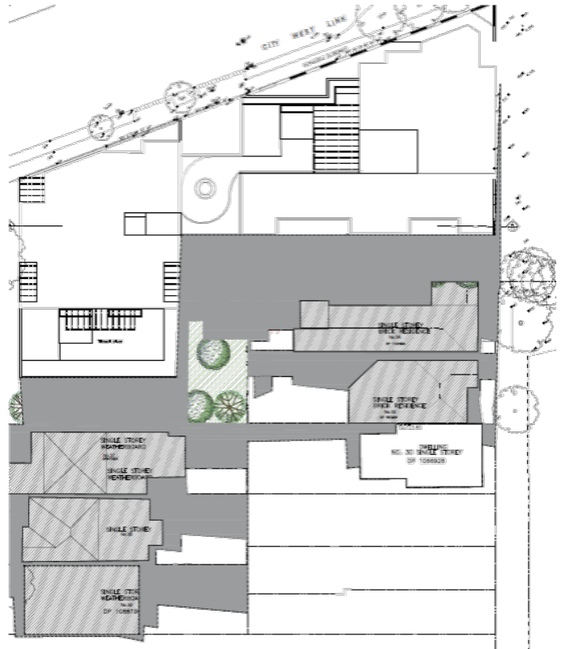
Shadow Analysis



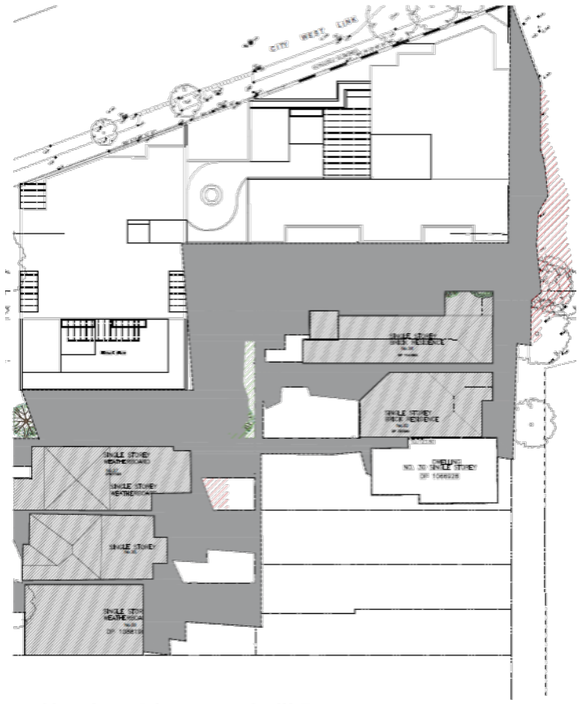
Shadow Diagram- Split Towers
21st June 9am



Shadow Diagram-Split Towers
21st June 10am



Shadow Diagram-Split Towers
21st June 11am



Shadow Diagram-Split Towers
21st June 12pm

In this analysis we depict the shadow diagrams of a building envelope of six storeys for the subject site in comparison to the existing warehouse and to the apartment complex approved in 2002 by Leichhardt Council in three different hours on 21st June.

L E G E N D

ADDITIONAL SHADOW CAST

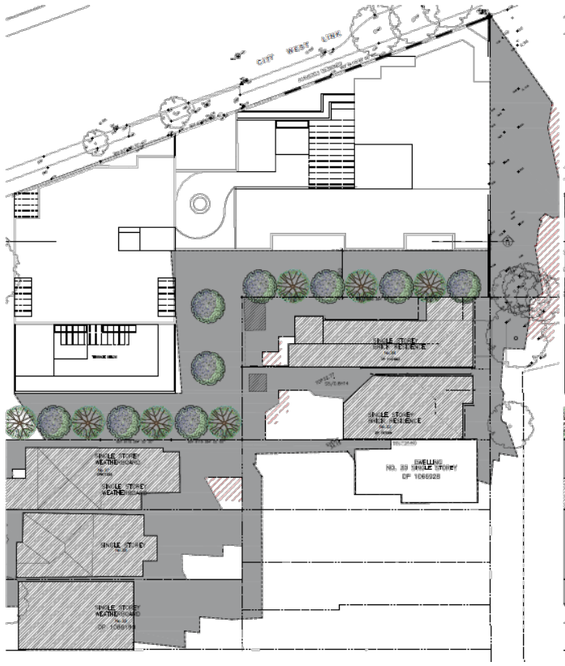
REDUCTION IN SHADOW CAST

SHADOW CAST

EXTENT OF EXISTING SHADOW CAST

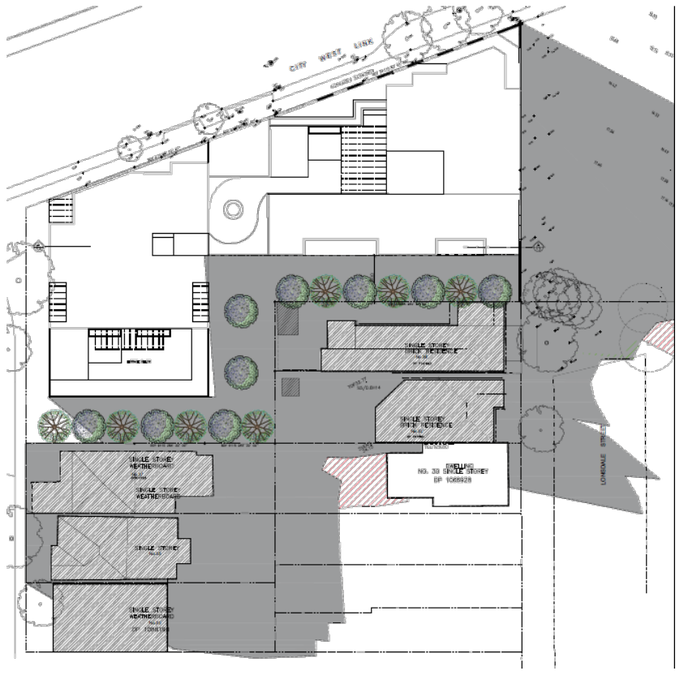
Proposal

Shadow Analysis



Shadow Diagram- Split Towers
21st June 1pm

Shadow Diagram-Split Towers
21st June 2pm



Shadow Diagram-Split Towers
21st June 3pm

L E G E N D

ADDITIONAL SHADOW CAST

REDUCTION IN SHADOW CAST

SHADOW CAST

EXTENT OF EXISTING SHADOW CAST

View Analysis – VIEW 01

View Analysis – VIEW 02

EXISTING

PROPOSED

Proposal

View Analysis – VIEW 02

EXISTING

PROPOSED