Department of Planning, Housing and Infrastructure

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NSW GOVERNMENT

Crows Nest Transport Oriented Development Precinct Design Guide

November 2024

Acknowledgement of Country

The Department of Planning, Housing and Infrastructure acknowledges that it stands on Aboriginal land. We acknowledge the Traditional Custodians of the land, and we show our respect for Elders past, present and emerging through thoughtful and collaborative approaches to our work, seeking to demonstrate our ongoing commitment to providing places in which Aboriginal people are included socially, culturally and economically.

Published by NSW Department of Planning, Housing and Infrastructure

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Crows Nest Transport Oriented Development Precinct Design Guide

First published: November 2024

DPHI-MC-R-DC-V1.0

Contents

1. Introduction

1.1 Citation

This document may be referred to the Crows Nest Transport Oriented Development Precinct Design Guide, or the Design Guide.

1.2 Land to which this Design Guide Applies

The design guide applies to the land identified as the Rezoning Precinct in **Figure 1**. This land is known as the Crows Nest Transport Oriented Development (TOD) Precinct.

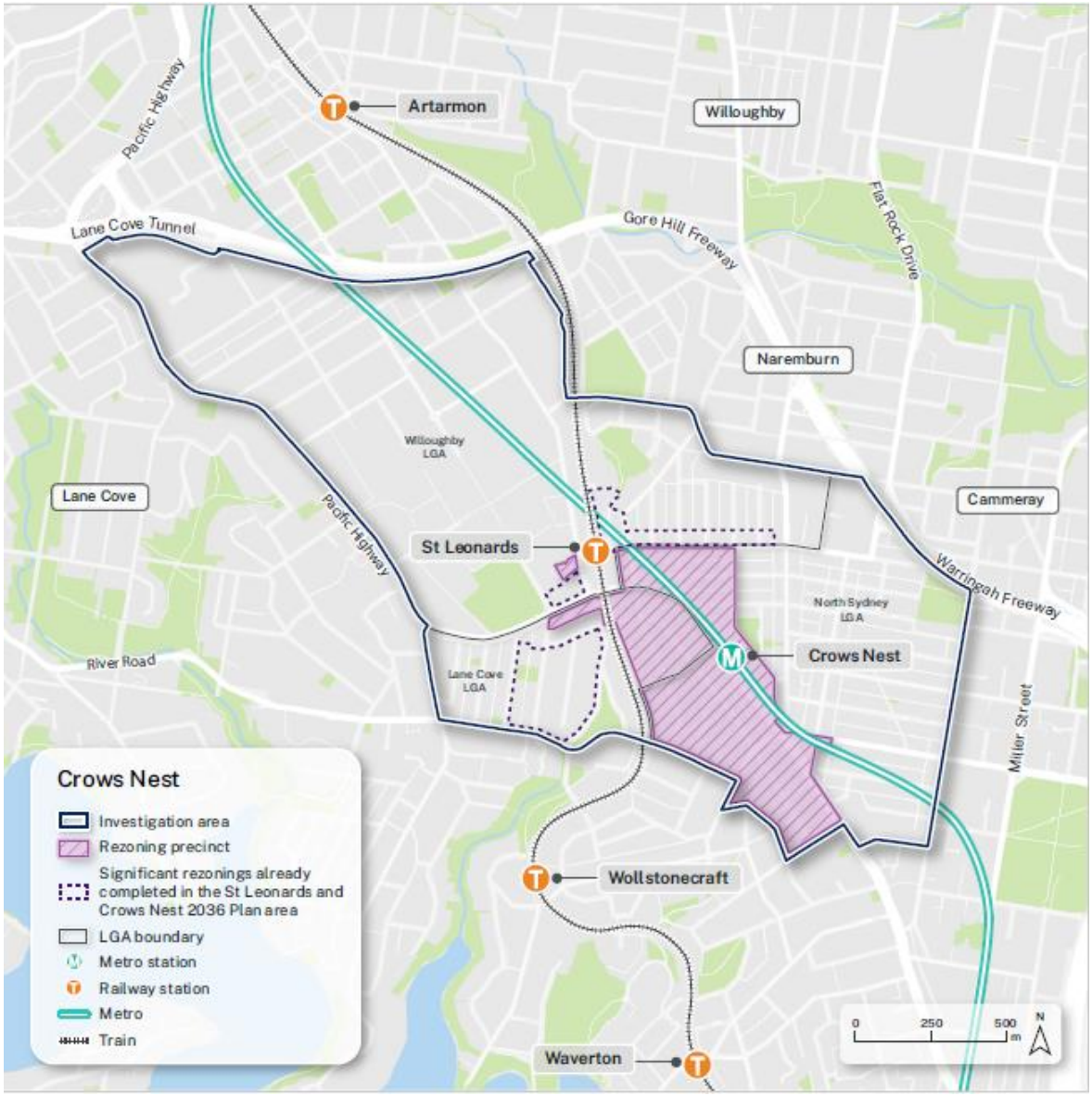


Figure 1: Crows Nest TOD Precinct - Land Application Map (source: DPHI, 2024)

1.3 Commencement

The Design Guide commences on the day on which the *State Environmental Planning Policy Amendment (Crows Nest Transport Oriented Development Precinct) 2024* is published on the NSW Legislation website.

1.4 Amendments to this Guide

Any amendment to this Design Guide requires the endorsement of the Secretary of the Department of Planning, Housing and Infrastructure (the Department).

1.5 Purpose and Application of this Guide

The purpose of this Design Guide is to support the implementation of the planning controls for the Crows Nest TOD Precinct (**Figure 1**) by providing more detailed provisions to guide development.

The Design Guide is given effect by reference in the provisions of the Lane Cove Local Environmental Plan 2009 (LCLEP 2009), North Sydney Local Environmental Plan 2013 (NSLEP 2013) and Willoughby Local Environmental Plan 2012 (WLPE 2012) and requires the consent authority to be satisfied that development is consistent with the objectives and guidance of this design guide, as part of the assessment of future development applications (DA) in the Precinct.

The sections of this Design Guide inform the preparation, assessment and determination of DAs as follows:

- **Section 1** sets out the land to which the Design Guide applies, administrative matters and the relationship to other elements of the planning framework that apply to the Precinct.
- **Section 2** contains the Precinct Statement, Vision and Principles for the Precinct, which have informed the planning framework (including this Design Guide and relevant provisions of the LEPs). The vision, principles and objectives are to be considered when assessing whether a development application will deliver the intended outcomes for the Precinct.
- **Section 3** contains general provisions and design guidance for development applications in the Precinct.
- **Section 4** contains site specific provisions and design guidance for development on the NSW Government owned land in Herbert St, St Leonards
- **Section 5** contains site specific provisions and design guidance for development on the Telstra Exchange site at 530-542 Pacific Highway, St Leonards.

1.6 Relationship to Other Plans and Planning Instruments

The Design Guide forms part of suite of planning provisions that apply to the Crows Nest Precinct.

Relevant Acts and Regulations include:

- *Environmental Planning and Assessment Act 1979 (EP&A Act)*
- *Heritage Act 1977*

Relevant State environmental planning policies include:

- *State Environmental Planning Policy (Sustainable Buildings) 2022*
- *State Environmental Planning Policy (Housing) 2021*
- *State Environmental Planning Policy (Planning Systems) 2021*
- *State Environmental Planning Policy (Biodiversity and Conservation) 2021*
- *State Environmental Planning Policy (Transport and Infrastructure) 2021*
- *State Environmental Planning Policy (Resilience and Hazards) 2021*
- *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008.*

Other guidelines include:

- *North Sydney DCP 2013*
- *Lane Cove DCP*
- *Willoughby DCP 2023*
- *Apartment Design Guide*
- *National Construction Code*

In the event of any inconsistency between the Design Guide and the relevant Council Development Control Plans (DCPs), the objectives and provisions of this Design Guide prevail to the extent of that inconsistency. Where no provisions are indicated this Design Guide, the relevant provisions in the DCP will apply.

1.7 How to use this Design Guide

This Design Guide provides the vision, principles, objectives and provisions to guide future development within the Crows Nest TOD Precinct. Proposed development needs to demonstrate how it meets relevant objectives to ensure consistency with the vision and strategic framework for the Precinct.

The Design Guide sets clear provisions for how the objectives can be practically achieved. If it is not possible to satisfy the provisions, applications must demonstrate what other responses can be used to achieve the objectives.

2. Precinct Statement

2.1 Background

The St Leonards and Crows Nest 2036 Plan (2036 Plan) completed in August 2020 covers the 3 local government areas of North Sydney, Lane Cove, and Willoughby City. The area covered in the 2036 Plan is approximately 5km north of the Sydney CBD.

The 2036 Plan provides the strategic framework for the area, encouraging a variety of land uses, including low, medium, and high density residential, commercial, retail, light industry, education, major health, and sport and recreation facilities. The transport and movement network features a range of transport options including rail, bus, cycle, walking and the new Crows Nest Metro station.

Urban renewal at St Leonards and Crows Nest is transforming the area leveraging the new Metro Station at Crows Nest with connections to other strategic centres at Chatswood, North Sydney, Macquarie Park, and the Sydney CBD. Combined with the implementation of the 2036 Plan, further growth is enabled under the Crows Nest TOD rezoning for employment and residential dwellings consistent with the priorities and actions in the North District Plan and supports the NSW Government's vision for Transport Oriented Development.

Renewal includes the opportunity to increase services and amenity with open space, upgrades to roads and pedestrian and cycleways and protecting heritage and local character. A focus is on improving connectivity across the Crows Nest TOD Precinct through a network of green streets, active edges, and public spaces.

2.2 Crows Nest TOD Precinct Vision

The vision for Crows Nest TOD Precinct is of an area transforming into a mixed commercial and residential centre that provides a diverse range of homes supported by open spaces, jobs and services with increased accessibility through a new metro service.

The combination of multiple factors including the continued growth of the health, education and technology precinct, the unique local village character of Willoughby Road and heritage conservation areas convey the character of the existing area. These combined contribute to the revitalisation of the St Leonards Core with a balance of commercial and residential development, improved connections and public spaces to deliver a vibrant and active precinct.

The structure plan (**Figure 2**) provides for higher density between the stations and improves connectivity across and between character areas and public open space.

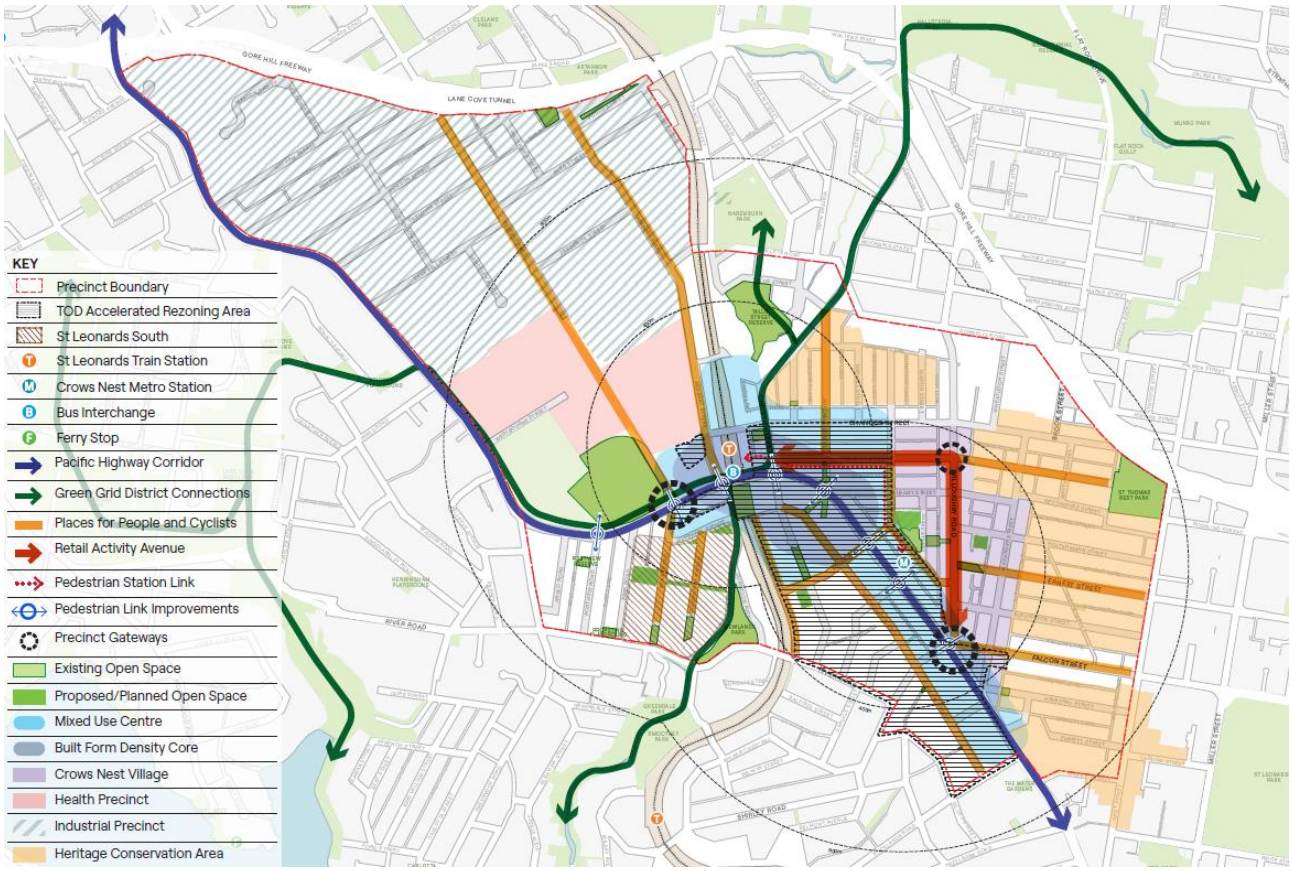
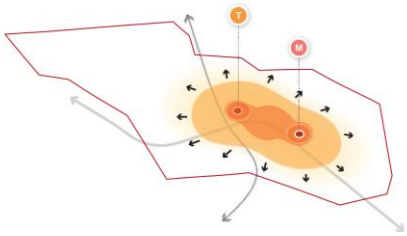


Figure 2: Structure plan (source: SJB, Urban Design Report, 2024)

2.3 Principles

The vision and urban design principles for the Crows Nest TOD Precinct build on the strategic framework of the 2036 Plan and form the design criteria which should be considered for future development (Figure 3).

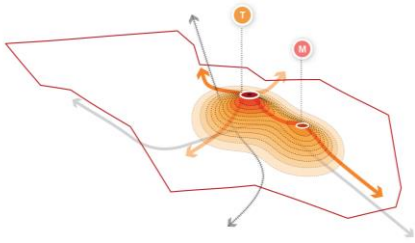
The objectives and principles of the 2036 Plan and the urban design review of the Crows Nest TOD Precinct are implemented through this Design Guide.



1. Proximity to Stations

Density located close to transport hubs such as St Leonards Station or Crows Nest Metro.

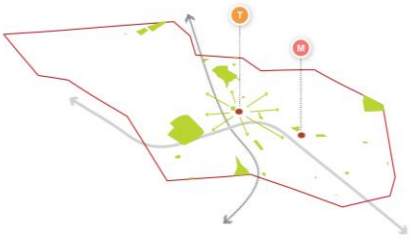
Taller buildings located within 150-200m of a transport hub and transitions in height to surrounding areas.



2. Centre and Height Transition

St Leonards is the predominant centre to reinforce its commercial role. Crows Nest as a secondary lifestyle destination.

Large developments are located between the stations and transition in height, bulk and scale from the Pacific Highway to the surrounding neighbourhood.



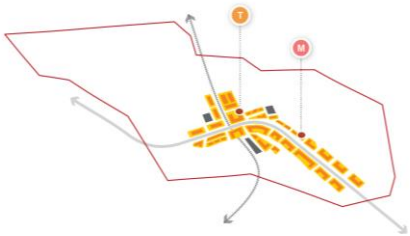
3. Expand Open Space Network and Protect Amenity

Investigate opportunities for additional open space and improvements.

New development does not cause unacceptable overshadowing to any key existing or proposed public open space.

4. Respond to Character Areas and transition between areas

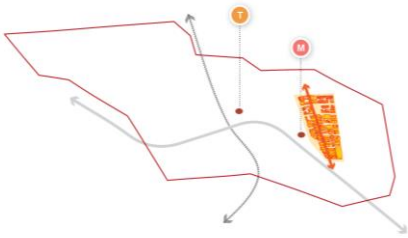
New development responds to built form character including height, bulk and scale as well as existing and proposed uses.



5. Fine Grain Approach

New development should consider its relationship to surrounding context and urban grain.

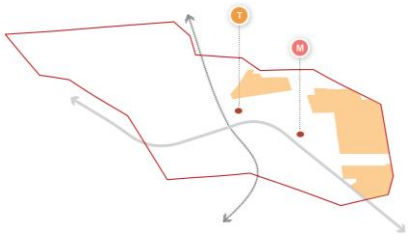
Provide improved accessibility through appropriate frontage treatment and provision of arcades, laneways, and enhanced public domain.



6. Maintain Willoughby Road

Willoughby Road is important and is to be protected.

New development is to ensure minimal overshadowing and avoid unreasonable visual impact to the public domain.



7. **Reduce Impact on Heritage Conservation Areas**

   Protection of heritage conservation areas.

   Ensure minimal overshadowing and avoid unreasonable visual impact to the public domain or private open spaces of dwellings within these areas.

Figure 3: Urban Design Principles (source: SJB, Urban Design Report, 2024)

2.4 Key themes and objectives

The vision, urban design principles and objectives form the design criteria to be considered for future development in the area and are driven by the key themes of land use, built form, movement and environment.

Table 1: Key Themes and Objectives

Theme	Precinct Objectives
Land Use	Protect and strengthen the area's commercial role supported by complementary uses to capitalise on the close proximity to stations. Leverages the world-class health and education uses to provide opportunities for training and employment growth into the future. Expand residential opportunities through mixed-use development ensuring long-term activation across the precinct. Objectives: • Intensify all types of development around public transport, providing an appropriate balance of residential and non-residential land uses. • Prioritise affordable housing with a base rate of 3% and up to 18% aligning with the TOD Program and Housing Accord objectives. • Focus commercial activity in the mixed use core and between St Leonards Train Station and the Crows Nest Metro station. • Connect high density areas with development around local shops, services, community infrastructure, and open space. • Future-proof the precinct to ensure spaces can grow with community needs.

Theme	Precinct Objectives
	• Protect and leverage from significant contributors to the local economy such as the Artarmon Employment Area and the Royal North Shore Hospital (RNSH) Precinct. • Continue to engage with Aboriginal stakeholders in the planning and design process. • Promote and retain non-residential floorspace supporting the local and regional economy and to continue to enforce St Leonards role as a strategic centre.
Built Form	Preserve, strengthen and enhance the existing diverse character areas and design and plan for the optimal built form outcomes. Height and density should be appropriate within the immediate context, emphasising key locations such as major transport hubs whilst also protecting public spaces through solar access controls. Objectives: • Promote diverse housing typologies which include culturally responsive dwellings with consideration of accessible and align with liveable housing standards in the National Construction Code (NCC). • Design and orient buildings to respond to build upon their local context and mitigate impacts to the public domain. • Celebrate and integrate heritage where possible with sensitively designed interfaces with appropriate transitioning and above podium setbacks. • Consider the Connecting with Country framework in development whilst also acknowledging the diverse cultures, histories and current urban landscape. • Key gateways defined through built form and key junctions to attract attention and work as wayfinding markers. • Incorporate Crime Prevention Through Environmental Design (CPTED) into all development to improve public safety and promote positive interactions.
Movement	Capitalise on the opportunity to improve movement and access towards major transport hubs while prioritising pedestrian safety, considering the close proximity to both St Leonards station and Crows Nest metro station. Mitigate conflicts between different modes of transport and create new connections between core areas. Objectives: • Establish a clear hierarchy of streets that cater to pedestrians, cyclists and vehicles. • Prioritise pedestrian and active transport oriented movement with safe and inviting connections. • Promote legibility between key public spaces and infrastructure with key sightlines and corridors. • Introduce through-site links to improve block permeability and walkability particularly towards major transport hubs.

Theme	Precinct Objectives
	• Promote the learning of culture with signage, Aboriginal place naming, wayfinding and incorporation of multiple languages. • Utilise movement networks as a story telling device, recognising Pacific Highway was once an Aboriginal walking track. • Encourage use of public transport by creating high quality pedestrian amenity on the approaches to St Leonards Station and Crows Nest Metro Station. • Consider Green Travel Plans in all new developments to make travel safer and more sustainable. • Safeguard connections to improve a pedestrian access to the Crows Nest Metro through consideration in the development of key sites at: – 378-398 Pacific Highway, Crows Nest; – 340-376 Pacific Highway, Crows Nest; and – 448-456 Pacific Highway, St Leonards.
Environment	Create a network of new and existing useable, public open spaces which prioritise walking, cycling, and access to transport to promote a healthier urban environment and encourage social interaction. Ensure public streets are safer and more enjoyable places to be by improving safety and accessibility and ensure a diversity of spaces are delivered that cater to varying needs. Objectives: • Ensure the size, distribution and program of open spaces is proportional to the future needs of residents. • Knit together the network of streets, civic spaces, and open spaces through green streets and active links. • Maximise setbacks for active uses and opportunities for landscaping and tree planting to increase pedestrian amenity. • Maximise tree canopy cover and deep soil on public and private sites and encourage local biodiversity. • Protect solar access and amenity to key public spaces through the provision of design controls. • Incorporate materials and planting that are endemic to the site including ground covers, shrubs and canopy species and create ecological and cultural benefit. • Development applications should undertake an analysis of the biodiversity values on the subject land and surrounding sites to determine the location and extent of the biodiversity values. • Acknowledge the cultural landscape of the area, it's importance to the Gammarigal people, and how it has changed over time. • Investigate opportunities to include Aboriginal art and other installation into green spaces and other urban design elements.

3. Precinct-wide Design Guidelines

3.1 Land to which this chapter applies

Chapter 3 of this Design Guide applies to the North Sydney, Lane Cove and Willoughby Local Government Areas (LGAs). It is noted where there is an inconsistency between Chapter 3 (precinct-wide guidelines) and Chapters 4 or 5 (site-specific guidelines), the controls in Chapters 4 & 5 will prevail as they apply to Lot 4B Herbert Street and St Leonards Telstra Exchange site.

3.2 Connecting with Country

The Connecting with Country framework provides options for integrating Country into the controls in the Design Guide and is to be addressed in future development applications.

Design excellence is required to ensure development is 'improving health and wellbeing of Country' (Government Architect NSW, 2020). Guidelines are set out in the Government Architects' 'Connecting with Country Framework'.

Objectives

a. Ensure development acknowledges and embeds Country.

b. Ensure development is improving health and wellbeing of Cammeraygal/Gammarigal Country.

c. Ensure locally connected Aboriginal community voices are embedded into the development.

d. Provide opportunities for collaboration and co-designing with locally connected Aboriginal people for the development and its ongoing operation.

e. Celebrate Aboriginal culture and language particularly as it relates to the past, present and future of the site.

f. Create and develop relationships with Aboriginal people and businesses to ensure benefits are shared with them and fostering ongoing connection to place.

Provisions

1. Consider how development responds to the physical and cultural connection of the local Aboriginal community to the land.
2. Consider, how development can revive and enliven pre-development landscapes and traditional uses of Country and language. Country centred approach -
   a. Encourage incorporation of locally indigenous vegetation that enhances environmental quality, relationship to Country and optimises opportunities for habitat for endemic and native flora and fauna species;
   b. acknowledge Aboriginal knowledge systems and consider how they can contribute to informing future building design and landscaping outcomes as an expression of Connecting with Country;
   c. acknowledge and celebrate Aboriginal living cultures, relationships and site-specific stories of place through architecture, landscaping, art, and other creative expression involving the engagement of suitably qualified Aboriginal practitioners and the protection of Aboriginal cultural and intellectual property rights;
   d. consider Aboriginal inclusion, comfort and access in the design and operation of publicly accessible space;
   e. identify opportunities to name streets, public places, and provide wayfinding signage in local traditional language or implement dual naming. Where Aboriginal naming is adopted, consider providing physical material that outlines the pronunciation and history behind the Aboriginal name, where appropriate and agreed to by relevant Aboriginal stakeholders.

Note: *for Aboriginal naming and dual naming, consultation is encouraged with the NSW Geographical Names Board, local language subject matter experts and with Aboriginal stakeholder groups.*

3.3 Land Use

St Leonards is a strategic centre and a Health and Education Precinct. Additional new dwellings will assist key workers in these sectors live and work in an area supported by new and existing infrastructure and services. The retention of commercial and non-residential floorspace will support employment, particularly in allied health and education services, as well as provide workers and residents with essential services.

Objectives

a. Support the growth of the area as a Health and Education Precinct by maintaining and continuing to provide commercial and non-residential floorspace.

b. Ensure that key workers can live and work in an area supported by a high level of infrastructure and services.

c. Concentrate dwellings around transport hubs and preserve the local village character of the Willoughby Road and the heritage conservation areas.

d. Ensure cultural infrastructure and design are included in major transport infrastructure.

e. Land use objectives for the Crows Nest TOD Precinct are set out in the key objectives outlined in section 2.4.

Provisions

1. The distribution of land uses in the precinct is to be generally consistent with **Figure 4** and as zoned under the relevant LEP.
2. Development should retain a balance of commercial and residential uses within the St Leonards Core with a minimum non-residential floor space requirement for the MU1 Mixed Use zone to provide jobs as required in the LEP.
3. Retain commercial core on appropriate sites to maintain viability of the St Leonards Core.

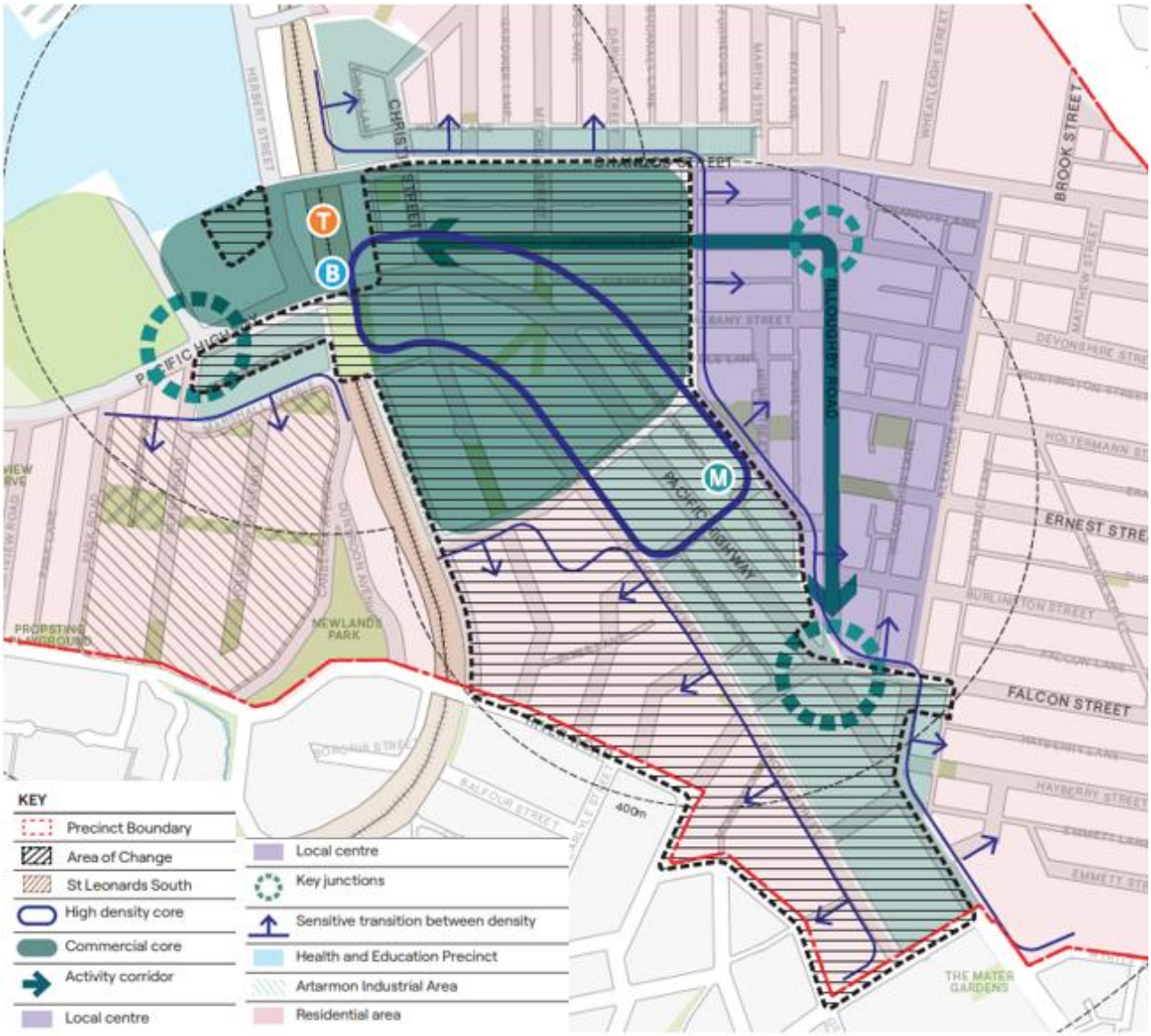


Figure 4: Land use (source: SJB, 2024)

3.4 Built Form

Predominantly, the tallest buildings are located around St Leonards Station and the commercial core. In this area, the topography allows taller buildings that minimise overshadowing of public open spaces and residential areas.

Height is also distributed along Pacific Highway, emphasizing the character along the corridor and the connection between St Leonards Train Station and Crow Nest Metro station. Heights should transition from the Pacific Highway down to the surrounding low-density areas while preserving appropriate density to encourage development and the delivery of housing and jobs.

Heights are to be maintained in the surrounding residential areas and Crows Nest Village including Willoughby Road to preserve their existing high quality local character.

Objectives

a. The built form objectives for the Crows Nest TOD Precinct are set out in the key objectives in section 2.4.

b. Provide consistency with the urban design principles for built form to:

   i. Encourage the location of taller buildings close to transport hubs of St Leonards and Crows Nest stations

   ii. Transition heights from Pacific Highway to lower density residential development

   iii. Protection of Willoughby Road, heritage conservation areas and key open spaces from overshadowing and significant amenity impacts.

Provisions

1. Building heights are to transition from St Leonards Train Station, Crows Nest Metro Station and the Pacific Highway down to the surrounding lower density areas.
2. Tall buildings are to be positioned to avoid significant impact on the solar amenity and wind impact of lower density areas and public open space.
3. Preserve the existing low-scale fine-grain built form of Crows Nest Village to maintain its local shopping street character and limit overshadowing and view impacts.
4. Developments must consider appropriate interfaces and sensitive design to limit impact on heritage conservation areas and high-quality character areas.
5. Maximum floor height assumptions should be based on:
   a. Ground Floor– 5m.
   b. Above ground floor (residential) – 3.2m.
   c. Above ground floor (commercial) – 3.8m.
   d. Rooftop service zone (2-20 storeys) – 2m.
   e. Rooftop service zone (21-40 storeys) – 4.5m.
6. Maximum floorspace ratio (FSR) and minimum non-residential FSR assumptions should be based on the following gross building area (GBA) to gross floor area (GFA):
   a. Residential – 75%.
   b. Ground floor (non-residential – retail) – 65%.
   c. Non-residential – 85%.
7. Rooftop plant is to be incorporated into the overall building height as indicated in the maximum height of buildings map.

8. Ensure active street frontages are provided at ground level and accommodate non-residential land uses, particularly along Christie, Mitchel, Oxley, Atchison, Chandos and Clarke Streets.
9. The built form recommendations (**Figures 5, 6 and 7**) should be considered in future development.
10. Preserve high quality heritage character around the Fiveways Intersection as a key gateway to the southern end of the Precinct **(Figure 6)**.
11. Taller buildings are to be concentrated close to the Crows Nest Metro and ensure a better transition to lower density areas **(Figure 7)**.
12. Increase permeability through blocks by providing through site links between the Metro Station and the mixed-use zone **(Figure 7)**.
13. Provide quality open space for the use of occupants in any new high-density development.
14. Ensure a variety of dwelling sizes are provided within a development to cater for diverse families.

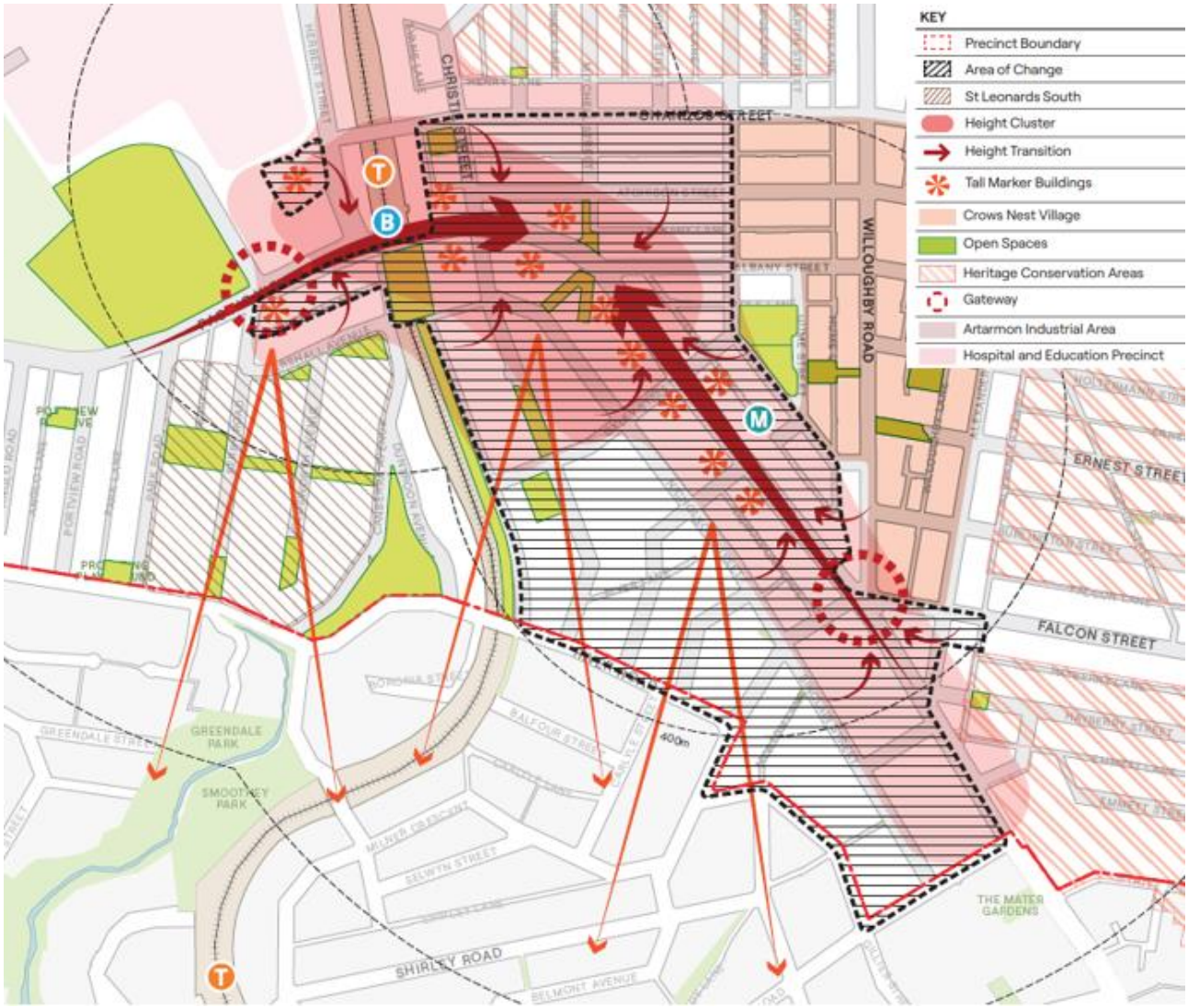


Figure 5: Built form (source: SJB, 2024)

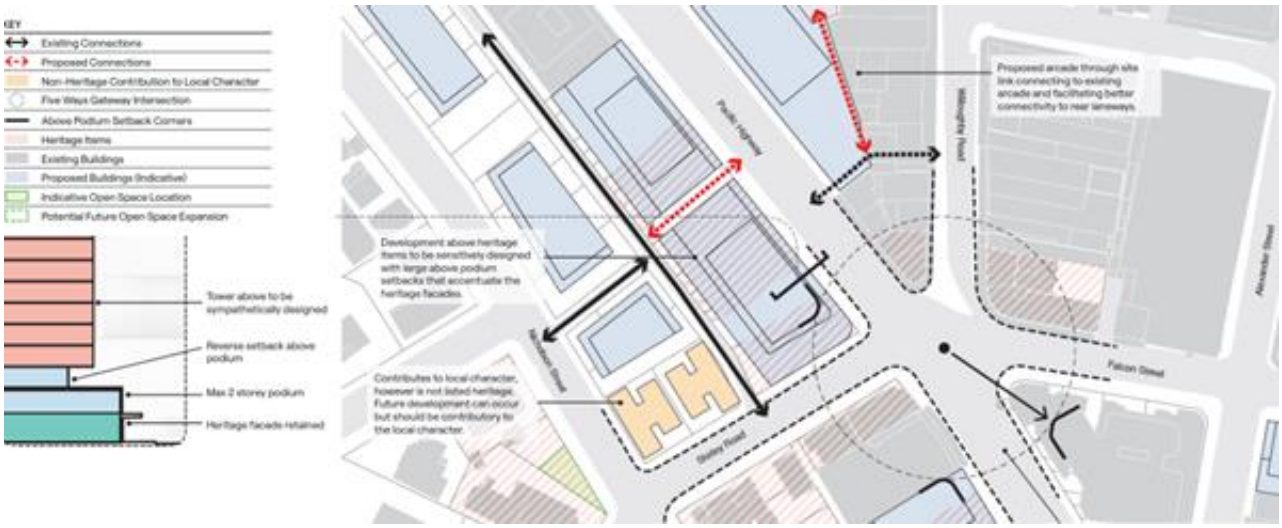


Figure 6: Built form transition at the Five Ways intersection (source: SJB)

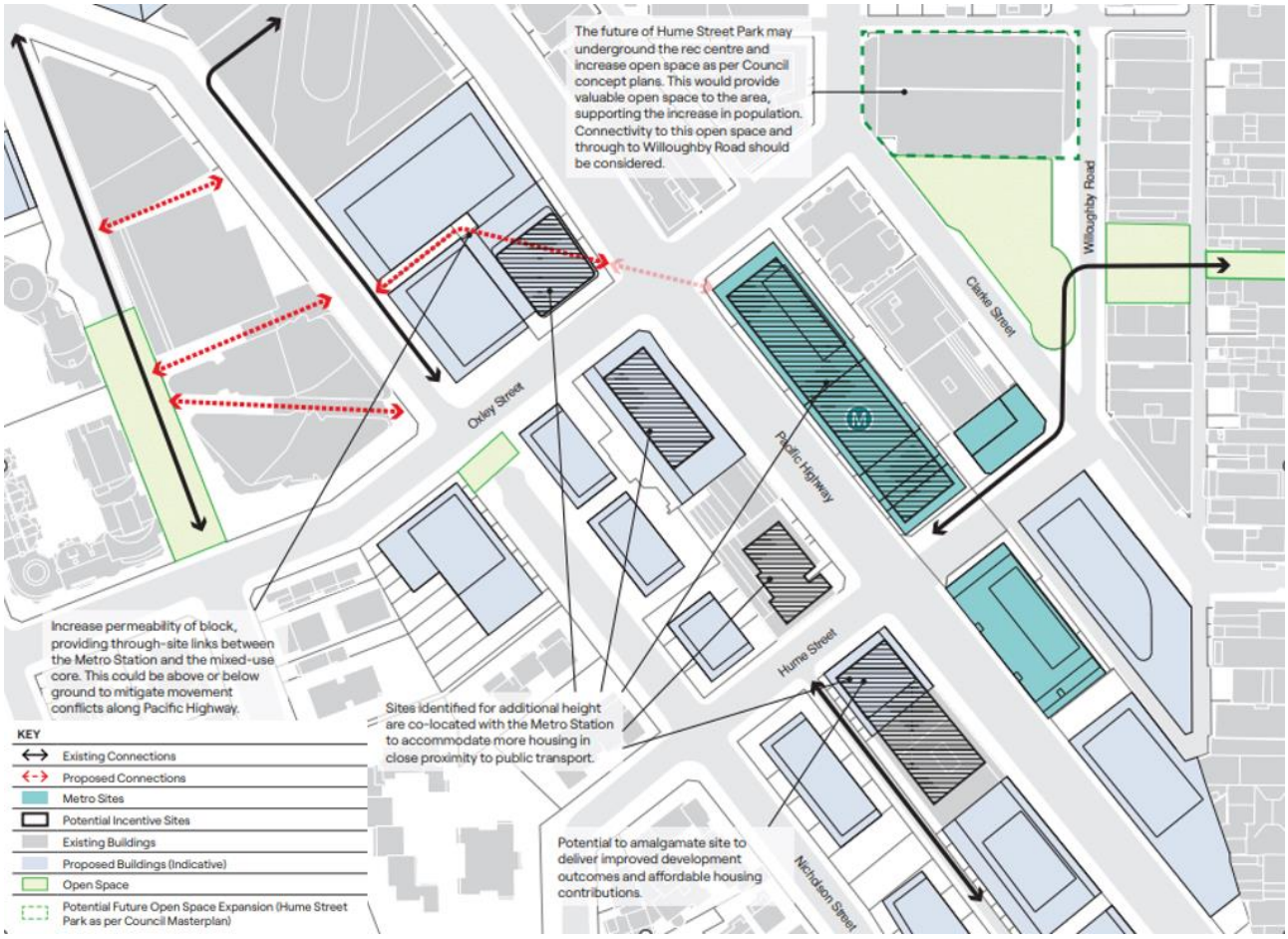


Figure 7: Built form transition at the Crows Nest Metro Interchange (source: SJB)

3.4.1 Solar Amenity and Overshadowing

Overshadowing controls were recommended in the 2036 Plan and remain relevant to any future development of the Crows Nest Precinct (**Figure 8**). Retaining solar access to public open space, valued streetscapes, and residential areas is vital acknowledging that these requirements can limit the bulk and scale of new development to maintain hours of solar access.

Objectives

a. Minimise overshadowing to existing and proposed public open space and lower density residential areas.

b. Maintain solar access to key streets, public open spaces and surrounding lower density residential areas during mid-winter to maximise useability and amenity to these places.

Provisions

15. Solar amenity and protection from overshadowing should be consistent with **Table 2**.
16. The consent authority may grant consent to development that seeks to provide affordable housing consistent with the LEP height and FSR controls, subject to the consideration at development application stage of acceptable overshadowing impacts. Low density residential areas located outside the Crows Nest TOD Precinct boundary should not receive less than 2 hours of sunlight in accordance with **Table 2**.
17. Shadow diagrams and analysis should be prepared on a site by site basis at development application stage for consideration of the consent authority to demonstrate compliance with **Table 2** and **Figure 8**.

Table 2: Areas to be protected from overshadowing

Space	Requirement
Existing and Planned Public open spaces 1. Christie Park 2. St Leonards South 3. Propsting Reserve 4. Newlands Park	No additional overshadowing 10am to 3pm Winter Solstice (June 21)
5. Hume Street Park	No additional overshadowing Ensure 50% of the park receives solar access from 10am to 3pm Winter Solstice (June 21)
6. Ernest Place 7. Gore Hill Oval 8. Talus Reserve	No additional overshadowing 10am to 3pm Winter Solstice (June 21)

Space	Requirement
Other open space 9. Potential Park – Corner Oxley and Christie Street	• Minimum 3 hours to 50% of the area • 10am to 3pm Winter Solstice (June 21) • Consideration should also be given during the Equinox periods (March/September 21) • Potential park (9 in **Figure 8**) – note this park is indicative
Streetscapes 10. Mitchell Street 11. Oxley Street 12. Willoughby Road	No additional overshadowing 11.30am to 2.30pm Solstice (June 21)
Conservation Areas (inside Investigation area boundary)	Minimum 3 hours 9am to 3pm Winter Solstice (June 21)
Low Density Residential Areas (inside Investigation area boundary)	Minimum 2 hours 9am to 3pm Winter Solstice (June 21)
Low Density Residential Areas (outside Investigation area boundary)	No additional overshadowing 9am to 3pm Winter Solstice (June 21) Where the following sites provide affordable housing at the rate for the specified 'area' on the Affordable Housing map in the LEP, the requirements are: • Minimum 3 hours • 9am to 3pm Winter Solstice (June 21) Specified sites: • 378-398 Pacific Highway, Crows Nest • 340-376 Pacific Highway, Crows Nest

Figure 8: Solar access map (source: SJB)

3.5 Minimum Lot Size

Certain sites in the Crows Nest TOD Precinct include affordable housing rates above the base rate of 3% and will require amalgamation of lots to achieve the height and FSR under the LEP. Table 3 provides minimum site area for developable sites consistent with the heights under the LEP for the development of towers along Pacific Highway. This seeks to ensure suitable amenity and separation distances between residential development and that site isolation does not occur.

Table 3: Minimum Lot Size Requirements

Site Description	Recommended Minimum Lot Size
20-22 Atchison Street, St Leonards	1,200m^2
448-456 Pacific Highway, St Leonards	1,500m^2
340-376 Pacific Highway, Crows Nest	1,500m^2
378-398 Pacific Highway, Crows Nest	1,500m^2

Site Description	Recommended Minimum Lot Size
308a-338 Pacific Highway, Crows Nest	1,500m^2

3.6 Landscape and Environment

Consideration should be given to the effects of urban heat on the environment and pedestrian amenity. Water-sensitive urban design (WSU) is to be provided in all new development integrating urban water cycle in stormwater, groundwater management and water supply.

3.6.1 Public Spaces

High quality and variety of public open spaces is greatly valued by the community. Some public open space has been delivered aligning with the recommendations in the 2036 Plan and the framework for open space, connections and urban tree canopy provision under the supporting Green Plan. The provision and upgrade of public open spaces should increase with the proposed increase to the population in and surrounding the Crows Nest TOD Precinct.

Objectives

a. Provide high quality recreational open spaces and improved public domain for use and enjoyment of residents and visitors to the area, located close to the Metro station and as indicated as key areas for solar access protection.

b. As a guide, open space in urban areas should be considered and provided consistent with the following: For high density areas typically greater than 60 dwellings per hectare (ha):

    i. A local park of a minimum size of 1,500m^2 within 200m walking radius (3 minutes walk).

c. For medium/low density areas typically less than 60 dwellings per ha:

    i. A local park of a minimum size of 3000m^2 within 400m walking radius (5 minutes walk).

Provisions

1. Ensure publicly accessible open spaces have appropriate solar access for their intended purpose including those listed in Table 2.
2. Ensure the public spaces support the integration of all levels of pedestrian activity. Road frontage and visibility are key considerations, especially in high-density areas so open space is accessible for all.

3. Reconnect the surrounding streets and neighbourhoods through the creation of a clear and legible network of high amenity, safe and accessible public spaces that support pedestrian and cycle access through and across the Crows Nest Precinct.
4. Investigate the provision of open space and funding mechanisms for additional public open space or the embellishment of existing public open space as part of future development.
5. Incorporate green walls and green roofs in developments.

3.6.2 New Public Open Space and Connections - Lithgow Street Block

Objectives

a. Establish an area of public open space at Lithgow Street that strengthens the open space networks and provides for the recreation needs of the community.
b. To ensure the design of the open space provides a variety of uses, appropriate to its location and responsive of community needs.
c. Locate the open space to maximise sunlight access, provide good visibility and accessibility.
d. Deliver improved connections with the existing open space along Christie Street and surrounding streets, building on the connections with the local green grid.
e. Provide through-site links within the Lithgow Street Block amalgamated development site to increase permeability and reduce extensive block lengths.

Provisions

1. A provision in the North Sydney LEP will permit the development of residential flat buildings on land zoned R3 Medium Density Residential at Lithgow Street, St Leonards, with a height of buildings consistent with the concept indicated in Figure 9, should the consent authority be satisfied a proposed area of public open space will be delivered.
2. The proposed development site known as the Lithgow St block comprises land bounded by Christie Street, Oxley Street, Lithgow Street and River Road, St Leonards (Figure 9).
3. The proposed development should provide a local park of at least 2,000m2 of the total site area to be used for the purposes of a single public open space that is:
    i. located to the north of the site at the corner of Oxley and Christie Streets (configured similar to Figure 9).
    ii. has a minimum frontage to Oxley St of 30m and Christie St of 60m.

iii. visible and with clear lines of sight from the street, with level access for all people (with a transition no greater than +/- 1m elevation).

iv. publicly accessible 24 hours a day and 365 days of the year.

v. receives at least 3 hours direct sunlight between 10am-3pm to 50% of the area in mid-winter (on 21 June each year).

vi. dedicated to council or the state government.

vii. integrates stormwater and floodwater management as outlined in section 3.13 of this Design Guide.

4. Future development applications should include a Landscape/Public Domain Plan to ensure landscaping and design of publicly accessible open spaces is of high quality and provides detail on:

b. Trees, planting and other vegetation

c. Paths and signage including wayfinding signs

d. Seating, lighting and bins

e. Stormwater and flooding management.

5. Investigate opportunities for further active connections along Lithgow Street adjacent to the rail corridor as outlined in the Green Plan.

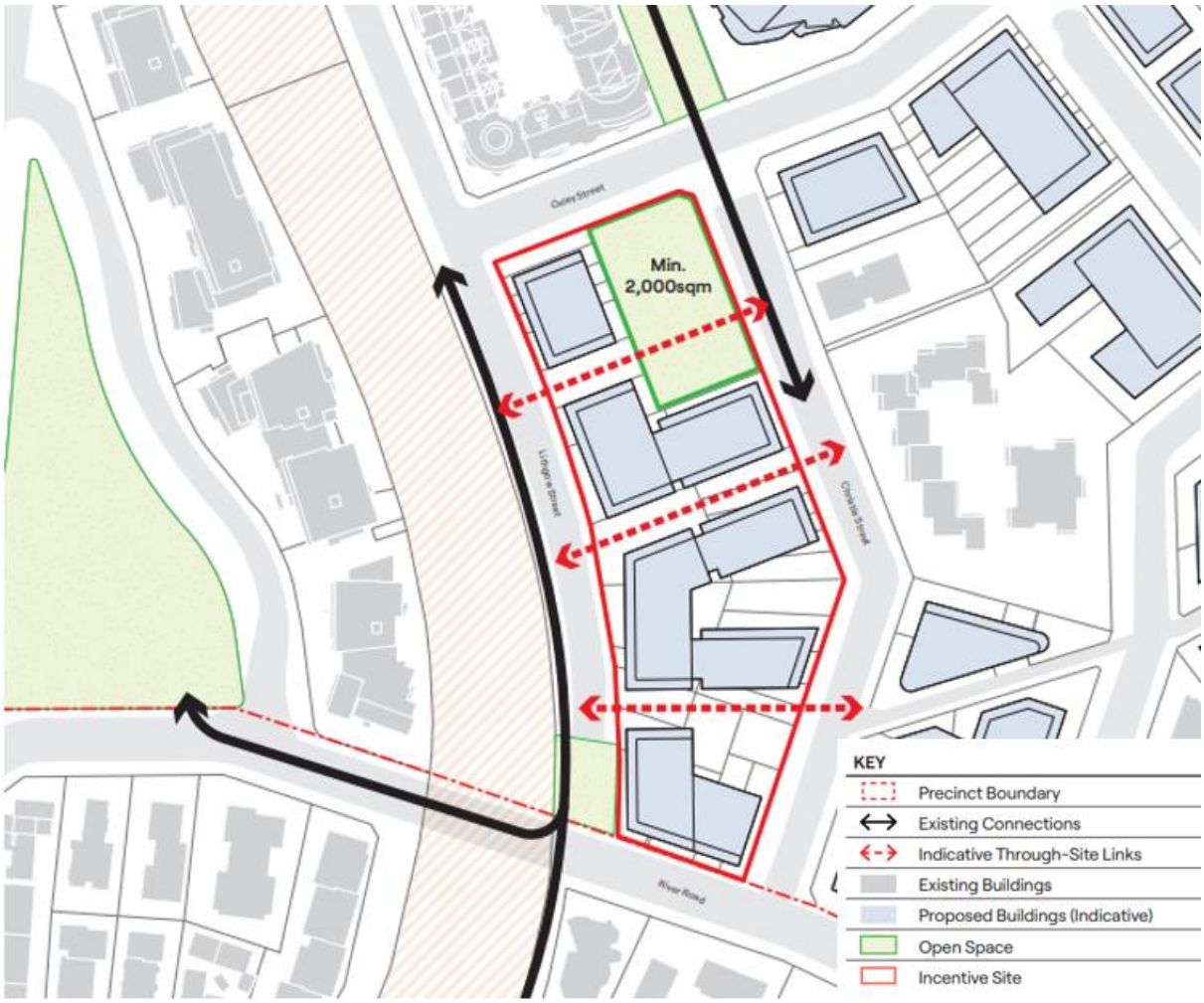


Figure 9: Lithgow Street block concept (source: SJB)

3.6.3 Tree Canopy, Deep Soil and Biodiversity

A key aspect of the Green Plan that supported the 2036 Plan is to retain and enhance the existing network of tree lined streets and remains relevant to including the plans for the Crows Nest Precinct. Careful management of any existing biodiversity values and landscaping to improve biodiversity is also important.

Development can meet urban tree canopy requirements by planting trees in line with the tree planting rate or by planting a combination of trees that achieve the minimum tree canopy percentage cover.

The required number of trees to meet minimum tree canopy percentage cover can be calculated by using the assumed canopy area of small, medium and large trees in Table 5.

Objectives

a. Maintain and enhance canopy cover to address urban heat, contribute to local amenity, reduce air pollution, support biodiversity and improve community health and wellbeing across the Crows Nest TOD Precinct.

b. Build on the 2036 Plan to increase the health and extent of the tree canopy or vegetation cover for the Crows Nest TOD Precinct area and provide additional trees where possible in all existing and new developments.

c. Ensure development provides sufficient deep soil to support healthy root systems and ensure trees reach maturity.

d. Ensure existing trees are retained and protected.

e. Contribute to maintaining and improving the biodiversity of locally endemic and native flora and fauna that contributes to the natural characteristics of the Crows Nest TOD Precinct.

Provisions

Deep soil

1. Provide deep soil zones are to be a minimum dimension of 3m x 3m to support new trees and retain any existing trees. Deep soil zones for development should be provided as per the benchmarks in Tables 4 and 5. Development is not to reduce the amount of deep soil provided.
2. Deep soil is the be unimpeded by any building or structure above or below ground, except for minor structures such as pathways, access ramps or area of paving with a maximum width of 1.2m; essential services infrastructure (such as stormwater pipes) with a maximum diameter of up to 300m; and landscape structures (such as lightweight fences, light poles or seating) requiring a footing with a maximum size of up to 300m x 300m in cross section.
3. Where possible establish contiguous deep soil zones within and between property boundaries to maximise tree planting by establishing them right up to abutting boundary walls and fence lines.
4. Development is to maintain existing soil profiles and not regrade soils and levels of soils surrounding retained vegetation and buffers to ensure the health of retained vegetation.

Tree canopy

1. Development should retain existing canopy cover to provide shade for urban heat mitigation and contribute to the NSW government tree canopy targets for Greater Sydney. Canopy cover for private land should be provided as per the canopy cover or tree planting rate in Table 4. Development shall not reduce the amount of canopy coverage provided.
2. Canopy cover on streets and public open space should be provided as per Table 5. Development shall not reduce the amount of canopy coverage provided.

3. All proposed trees are to align with the minimum diameter spread and canopy are at maturity in **Table 6**.
4. Provide adequate setbacks as outlined in section 3.8 and **Figure 9** to allow for opportunities to enhance transition areas and pedestrian links.
5. Maintain existing trees where possible.
6. Trees planted should reflect diversity of local and endemic indigenous flora and fauna that is tolerant and resilient within the urban environment.
7. Preserve the green edge and views along Gore Hill Park and Cemetery emphasising its significance to the community by preserving view lines.

Table 4: Site scale benchmarks - private residential areas

Mixed Use (all lots)	Development should be assessed on case-by-case basis, considering both the ADG and proposed setbacks. At a minimum, proponents should demonstrate maximised tree planting in deep soil zones, a no-net loss of canopy, and a contribution to strategic canopy targets.		
Detached Dwellings	**Canopy Cover**	**Deep Soil**	**Tree Planting Rate**
<300 m^2	20%	20%	For every 200m^2 of site area, or part thereof at least 1 small tree
300 m^2 – 600 m^2	25%	25%	For every 250m^2 of site area, or part thereof at least 1 medium tree
>600 m^2	30%	30%	For every 350m^2 of site area, or part thereof at least 2 medium trees or 1 large tree
Attached Dwellings*	**Canopy Cover**	**Deep Soil**	**Tree Planting Rate**
< 150 m^2	15%	15%	At least one small tree
150 m^2 – 300 m^2	20%	20%	For every 200m^2 of site area, or part thereof at least one small tree
> 300 m^2	25%	25%	For every 225m^2 of site area, or part thereof at least 1 medium tree
Multi Dwelling	**Canopy Cover**	**Deep Soil**	**Tree Planting Rate**
< 1,000 m^2	20%	20%	For every 300m^2 of site area, or part thereof at least 1 medium tree
1,000m^2–3,000 m^2	25%	25%	For every 200m^2 of site area, or part thereof at least 1 medium tree
> 3,000 m^2	30%	30%	For every 350m^2 of site area, or part thereof at least 2 medium trees or 1 large tree
Apartments	**Canopy Cover**	**Deep Soil**	**Tree Planting Rate**
< 650 m^2	15%	7%.	For every 350m^2 of site area or part thereof, at least 1 small tree is to be planted in the deep soil area

Mixed Use (all lots)	Development should be assessed on case-by-case basis, considering both the ADG and proposed setbacks. At a minimum, proponents should demonstrate maximised tree planting in deep soil zones, a no-net loss of canopy, and a contribution to strategic canopy targets.		
650 m^2 – 1,500 m^2	15%	10%.	For every 350m^2 of site area or part thereof, at least one medium tree is to be planted in the deep soil area
1,500 m^2 – 3,000 m^2	20%	15%.	For every 575m^2 of site area or part thereof, at least 2 medium trees or one large tree is to be planted in the deep soil area
> 3,000 m^2	35%	25%.	For every 300m^2 of site area or part thereof, at least one large or 2 medium trees are to be planted in the deep soil area

**Attached dwellings, dual occupancies, terraces on each proposed dwelling*

Table 5: Site scale benchmarks – non-residential

Public Domain		Description	Canopy Cover
Open space	RE1 zoned land including streets	45% minimum	
Residential zoned land	R1, R2, R3, R4 zoned land including streets	40% minimum	
Residential Streets (12-20m reserve)		Existing residential street with overhead powerlines	40% minimum
		Existing residential street with underground powerlines	50% minimum
		New residential street with underground powerlines	70% minimum
Industrial Streets (20m-25m reserve)		Existing industrial street with overhead powerlines	35% minimum
		Existing industrial street with underground powerlines	45% minimum

Public Domain	Description	Canopy Cover
	New industrial street with underground powerlines	60% minimum
Open Space	<5 hectares without sports courts and fields	45% minimum
	<5 hectares with sports courts and fields	45% minimum Target only applies to areas outside the courts and fields. Where possible, the remaining area should exceed the 45% minimum to compensate for any reduced canopy
Unlisted land uses, such as large-scale precinct planning or urban design strategies.	Use zone-based benchmarks for setting canopy benchmarks for development where the street network or detailed development mix is unknown.	
Street tree spacing	• Within street settings with overhead power lines, small trees should be spaced at 7m centres. • Within street settings without overhead power lines, medium trees should be spaced at 10m centres. • Allow a 2m offset between edge of driveways and centre of the tree on residential streets, and a 4m offset from driveways on industrial streets.	

Table 6: Tree size at maturity

Tree Category	Minimum Diameter Spread	Minimum Canopy Spread
Small tree	6m.	28m^2
Medium tree	8m	50m^2
Large tree	12m	113m^2

Biodiversity

1. Development applications are required to complete an analysis of the biodiversity values within the development site, as well as surrounding sites to determine the location and extent of the biodiversity values. The results of the analysis are used to:

a. avoid impacts to biodiversity values and supporting vegetation that provide significant landscape or amenity value, are part of a threatened ecological community, or provide habitat (including hollow bearing trees, dead standing trees, recruitment trees, roost trees, nest trees, or trees with any other habitat features)
b. retain and rehabilitate biodiversity values within the site
c. retain or create buffers within the site to the biodiversity values within the precinct.

2. Retained biodiversity values are protected during construction and operation of the development. Prior to any works commencing on site, a vegetation management plan to rehabilitate and manage existing native vegetation must be prepared by a suitably qualified ecologist.
3. Landscape plans are to incorporate:
   a. a diversity of local provenance native trees, shrubs and groundcover species (rather than exotic species or non-local native species) from the relevant native vegetation community (or communities) that occur or once occurred in the local area
   b. growth forms from all stratums including groundcovers, shrubs and canopy species
   c. existing ecosystem features including bush rock, fallen logs and branches.

3.7 Design Excellence

Design excellence will be required for development in the Crows Nest TOD Precinct through new clauses in the North Sydney LEP, Lane Cove LEP and Willoughby LEP.

Objectives

a. All projects, large or small, are required to deliver the highest standard of architectural, urban and landscape design. This expectation of good design is now embedded in the objects of the *EP&A Act*.
b. Ensure development demonstrates design excellence.

Provisions

1. Development consent must not be granted for development on land identified as “Crows Nest Transport Oriented Development Precinct” on the Key Sites Map unless the consent authority considers that the development exhibits design excellence.
2. In considering whether the development exhibits design excellence, the consent authority must have regard to the following matters—

a. whether a high standard of architectural design, materials and detailing appropriate to the building type and location will be achieved,
b. whether the form and external appearance of the development will improve the quality and amenity of the public domain,
c. whether the development detrimentally impacts on view corridors from public spaces,
d. the consistency of the development with any guidelines issued by the Planning Secretary relating to the design and amenity of the area

3. There are a number of matters where consideration must be given to how the development addresses the following matters –
   a. the suitability of the land for development,
   b. existing and proposed uses and use mix,
   c. heritage issues and streetscape constraints,
   d. the relationship of the development with other existing or proposed development on the same site or on neighbouring sites in terms of separation, setbacks, amenity and urban form,
   e. bulk, massing and modulation of buildings,
   f. environmental impacts such as sustainable design, overshadowing, wind and reflectivity,
   g. the achievement of the principles of ecologically sustainable development,
   h. pedestrian, cycle, vehicular and service access, circulation and requirements,
   i. the impact on, and any proposed improvements to, the public domain,
   j. achieving appropriate interfaces at ground level between the development and the public domain,
   k. active street frontages,
   l. integration of landscape design.

3.8 Setbacks

Property setbacks ensure future development is appropriately scaled and positioned in relation to its context. Increased setbacks will enable increased landscaping and tree planting for greener more walkable streets. The relative DCP's have been used to determine the appropriate setbacks at various sites.

Objectives

a. Strengthen the spatial characterisation of streets and public spaces.

b. Emphasise the street as distinct with a street wall frontage at an appropriate human scale.

c. Provide consistent street frontages to the street alignment.

d. Respond to context as required to recognise any variation in street frontage heights.

e. Provide suitable transition in scale from the various land uses such as employment, mixed use zones and residential zones.

f. Provide suitable setbacks to allow deep soil planting to the Pacific Highway if possible and any existing or proposed public open space.

Provisions

1. Buildings are to be setback from all street frontages in accordance with the setbacks shown in the map at **Figure 10**.
2. New development adjoining the increased setbacks and landscaped areas should contribute to its landscape character. For example, by providing planter boxes, lighting, green walls and deep soil to support larger trees.
3. Above podium setbacks are to be provided in accordance with the relevant council DCP.

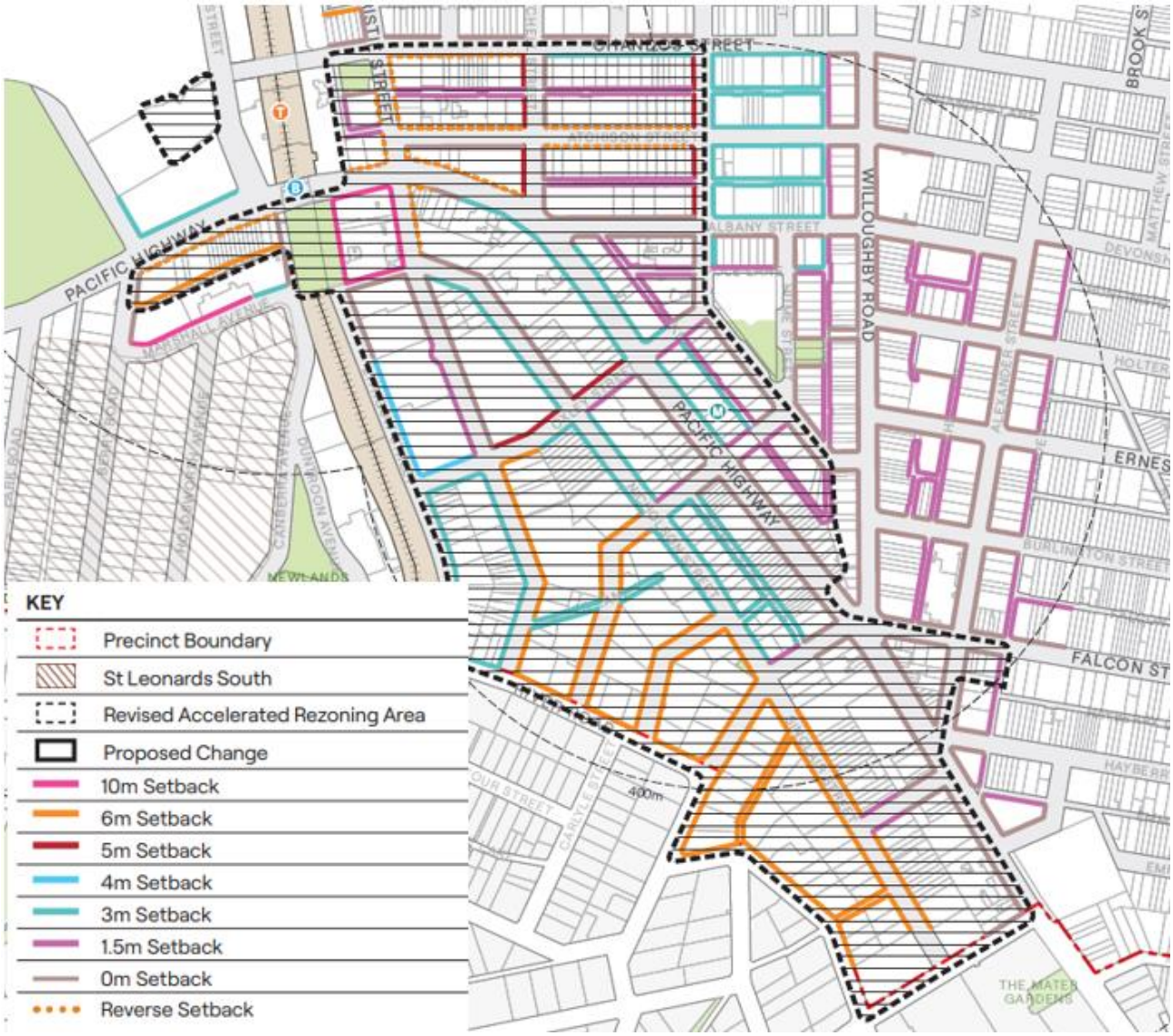


Figure 10: Recommended setbacks (source: SJB)

3.9 Street wall heights

Street wall height controls are guided by existing development and the relevant council DCPs.

Objectives

a. To guide the height of podiums and the setbacks for towers above ground.

b. Provide a street wall height at a human scale to improve the street quality and amenity for pedestrian and other active transport.

Provisions

1. Podium heights are to be provided in accordance with the heights shown in the map in Figure 11.

2. Corner sites are to maintain a consistent podium height to all street frontages.

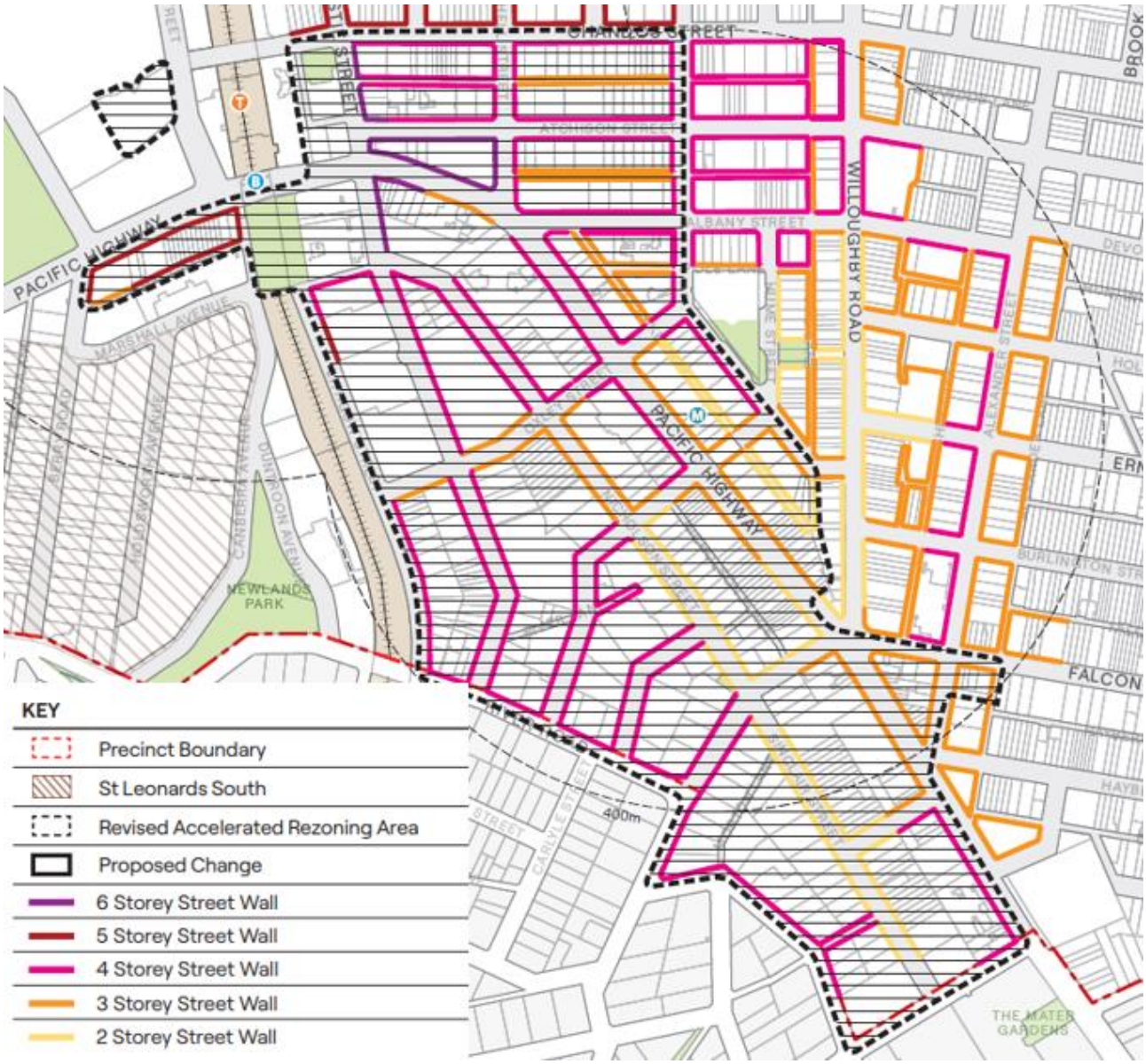


Figure 11: Recommended Street wall heights (source: SJB)

3.10 Movement

Capitalise on the opportunity to improve movement and access towards transport hubs while prioritising pedestrian safety, considering the close proximity to both St Leonards train station and Crows Nest metro station. Mitigate conflicts between different modes of transport and create new connections between core areas.

Objectives

a. Establish a clear hierarchy of streets that cater to pedestrians, cyclists and vehicles.

b. Prioritise pedestrian and active transport oriented movement with safe and inviting connections.

c. Explore opportunities to provide through site links and potential grade separated pedestrian connections to improve walking permeability and reduce conflict with vehicles.

d. Promote legibility between key public spaces and infrastructure with key sightlines and corridors.

e. Utilise movement networks as a story telling device, recognising Pacific Highway was once an Aboriginal walking track.

f. Encourage active and public transport use by creating legible and quality connections to and from St Leonards Train Station and Crows Nest Metro Station.

Provisions

1. The movement network should consider the movement map in **Figure 12**.
2. Establish a pedestrian route between St Leonards Train Station and the Crows Nest Metro.
3. Provide shade and shelter for pedestrians with reverse setbacks where possible.
4. Establish active transport routes away from high traffic networks.
5. Introduce through site links to improve permeability and walkability.
6. Establish and upgrade crossings and footpaths to improve pedestrian amenity particularly around the Crows Nest Metro Station and along the Pacific Highway.

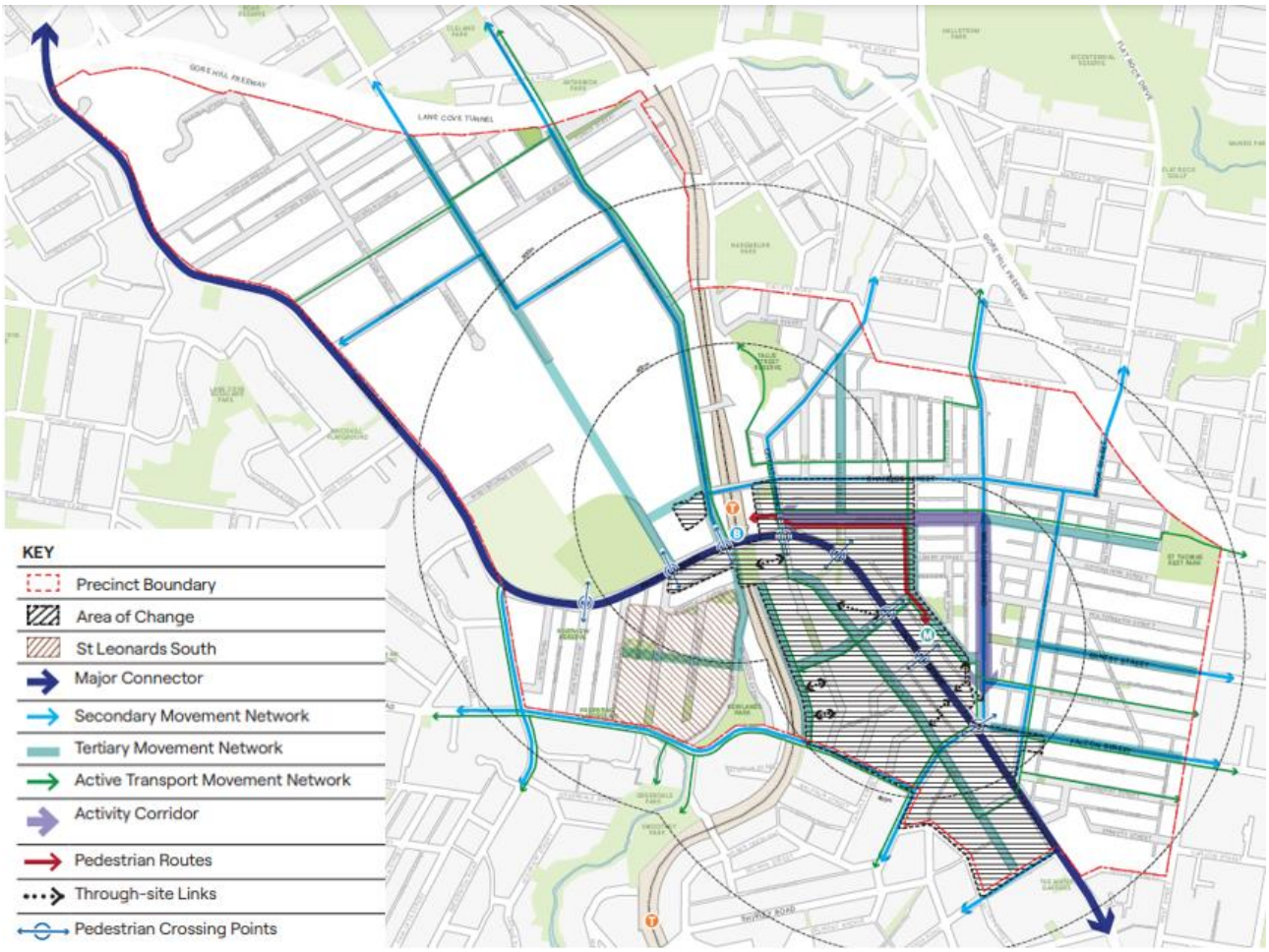


Figure 12: Movement map (source: SJB)

3.11 Carparking

Objectives

a. Prioritise the safe and comfortable access and movement of people.

b. Apply consistent maximum car parking rates across the TOD precinct to encourage sustainable travel in an area with excellent public transport access.

c. Minimise through traffic and the impact of vehicular access and servicing in public space.

d. Promote a walkable urban environment and ensure access for people with all abilities.

e. Ensure car parking allows for the planting of trees to promote the greening and biodiversity in the precinct.

f. Ensure new development caters for EV charging to support net zero objectives and improve air quality.

Provisions

1. The parking provisions for development of residential flat buildings and the residential component of shop top housing is to be provided in accordance with maximum car parking rates in Table 7.
2. Notwithstanding the car parking rates, in Table 7 and the relevant LEP's and DCP's for other land uses, minimised provision of parking for all land uses is encouraged to capitalise on the proximity of St Leonards Train Station and the Crows Nest Metro Station.
3. The provision of car parking (including driveways and ramps) is not to result in the underachievement of deep soil requirements.
4. All above ground car parking areas must be sleeved through architectural treatments or landscaping.
5. Electric vehicle (EV) charging stations are to be provided in accordance with the following provisions:
    a. All garages and car spaces allocated to an individual residential apartment must make provision for charging stations, as defined by NSW Electric and Hybrid Vehicle Plan (part of Transport for NSW's Future Transport 2056) which provides faster, more secure charging.
    b. In new development:
        i. EV charging switchboards should have sufficient capacity for a future when all residents are charging.
        ii. For commercial development, EV charging is to be provided to cover a wide range and future possibilities for EV charging, including individual tenancies and public fast-charging infrastructure options.
6. Loading and servicing facilitates are to be provided according to the applicable council DCP.

Table 7: Car Parking Rates for Residential Flat Buildings and Residential Component of Shop Top Housing

Apartment size	Maximum car parking rates (per dwelling)
Studio	0.3
1 bedroom	0.4
2 bedroom	0.7
3+ bedroom	1

3.12 Wind Management

Objectives

a. Future development on the site is to ensure the impact on the wind environment does not result in uncomfortable or unsafe wind conditions in the public domain or on surrounding sites.

Provisions

1. All new development is to be designed to mitigate adverse wind effects.
2. A development application is to be accompanied by a quantitative wind effects report.

3.13 Flooding

Certain areas of the Crows Nest TOD Precinct are affected by overland flow flooding. This occurs when heavy localised rainfall exceeds the capacity of stormwater drainage and overland flowpaths form.

A wide range of possible floods can occur, with previous assessments considering both a large flood (e.g. the 1% Annual Exceedance Probability (AEP) flood) and an extreme flood such as the Probable Maximum Flood (PMF).

Flooding is generally minor but certain lots and sections of road have greater flood risk and flood hazard can increase significantly in rare to extreme events.

Flood risk in the area is readily managed via the use of flood planning controls that guide future development in flood prone areas. The most important flood planning control is the use of minimum floor levels, also called Flood Planning Levels to apply to new building entrances ensuring they are suitably protected from ingress of overland flow.

Flood planning controls are set by councils in their LEP, DCP and associated controls, and all future development is required to comply with the controls set out in these documents. The controls set out in this Design Guide are intended to complement each councils' controls.

Objectives

a. Assist in the management of stormwater to minimise flooding and reduce the effects of stormwater pollution.

b. Ensure that development manages and mitigates flood risk and does not exacerbate the potential for flood damage or hazard to existing development and to the public

domain, nor impact on the capacity to shelter in place or impinge on emergency services access.

c. Ensure that flood risk management addresses public safety and minimises risk to human life and damage to property caused by flooding.

d. Ensure that proposed development does not increase the flood inundation in the neighbouring properties.

Provisions

1. Requirements for development outside of the potentially flood-affected lots on **Figure 13** - Flood Consideration Lots Map:
   a. The Flood Planning Level (FPL) is 0.3 m above the surrounding ground levels Any basement levels including basement car parking is to be suitably protected from the effects of flooding via use of a FPL at all basement entry points.
   b. Surrounding ground refers to a gutter invert, where a gutter is present, otherwise ground levels in the vicinity of the basement entry point.
   c. Entry points refer to ramps, driveways, elevators, stairs, vents and any other openings where water may enter the basement.
2. Requirements for development of the potentially flood-affected lots on **Figure 13** - Flood Consideration Lots Map:
   a. Carry out a Flood Impact and Risk Assessment (FIRA) in accordance with NSW Flood Risk Management Guideline LU01. This will document in a site-specific report the flood depths and levels at the site in a range of flood events, up to the PMF, and assess compliance of the development with Council controls and those set out below. Flood behaviour may be determined from Council studies or the *State Led Rezoning Crows Nest – Flooding and Stormwater Study (GRC Hydro, 2024)* where mapping is not available. Modelling can be updated to include features at and around the site not captured in the catchment-wide studies.
   b. Map and describe design flood behaviour at the site including flood hazard and flood function in a range of events. Demonstrate proposed development will not impact existing flood behaviour in accordance with the requirements of a FIRA.
   c. Demonstrate compliance with the Flood Planning Levels (FPLs) at the site. FPLs are set out in Council policy. If no FPLs are specified, North Sydney Council's may be used, as set out in Section 4.4 of the "Floodplain Management Policy (Interim)" (2022). It specifies, amongst others, an FPL of 1% AEP + 0.3 m for residential, habitable rooms, and a minimum of 1% AEP for businesses.

d. Determine the evacuation procedures and emergency access to be used in the event of a flood. If shelter-in-place is to be used, demonstrate the site can be safely occupied during all flood events which may involve access to level 1 and above if the ground floor is below the PMF.

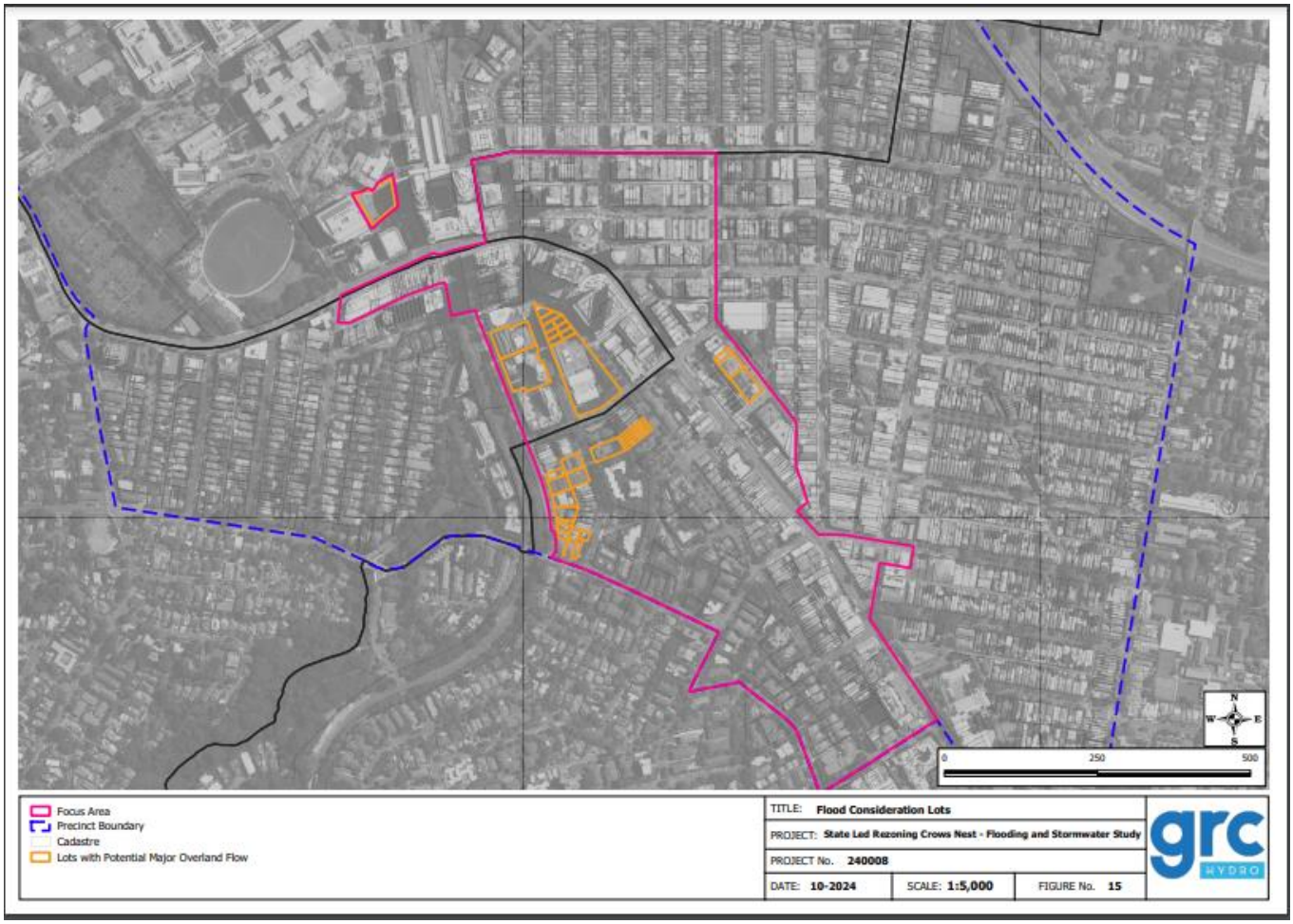


Figure 13: Flood Consideration Lots map (source: GRC)

Note: Original map sourced as Figure 15 in State Led Rezoning Crows Nest – Flooding and Stormwater Study (GRC Hydro 2024), *available on the Department website. GRC Study also contains property description of mapped lots.*

4. Site Specific Design Guidelines – Herbert Street, St Leonards

4.1 Land to which this chapter applies

Chapter 4 of this Design Guide applies to Willoughby LGA only, specifically Lot 4B at Herbert Street, St Leonards (part Lot 41 of Deposited Plan 1252021) as shown in **Figure 14**.

Figure 14: Land application map for site-specific guidelines

4.2 Vision and Objectives

4.2.1 Desired Future Character for Lot 4B

The vision for Lot 4B Herbert Street is to:

1. Enable a scale of high-density development on Government owned land to optimise proximity to St Leonards railway station.
2. Complement the land use, built form and operation of the RNSH precinct with reference to the RNSH Masterplan.
3. Deliver upon a critical shortage of affordable and key worker housing through provision of a high-density development on the site.
4. Provide for the mixed-use of the site with infill residential accommodation and supporting complimentary commercial land uses.
5. Provide an appropriate mix of dwelling types to improve housing choice and support equitable housing access.
6. Provide a density and critical mass of floor space that will leverage from and support the investment in infrastructure upgrades, including the Crows Nest metro station and the existing St Leonards railway station.
7. Deliver a future design that is capable of design excellence and demonstrate leadership in sustainable initiatives and with regard to the design excellence provision in Willoughby LEP 2012.
8. Improve the connections between Gore Hill Park and St Leonards railway station by delivering an enhanced east-west through-site link and safe access to the pedestrian bridge across Herbert Street.
9. Provide public benefits by way of social infrastructure necessary to support resident, employee and visitor growth.
10. Create a new arrival space at Herbert Street with active frontages and a retail plaza with walking and cycling connectivity.
11. Respond to site constraints and adopt passive design strategy, innovation and technology.
12. Consideration is to be given to development of a site-specific DCP as part of any future development and a plan of management during any construction works to maintain uninterrupted access to RNSH at all times.

4.2.2 Design Principles

Lot 4B at Herbert Street is informed by the following key design principles.

1. Respond effectively to existing landscape conditions and the potential impact of flooding.
2. Define a podium in response to site conditions and ADG provisions.
3. Provide pedestrian and vehicle access along Herbert Street as an active street address.

4. Maintain access between Lot 4A and Lot 4B allow access for staff and visitors to the RNSH, St Leonards Rail Station and the Pacific Highway.
5. Improve public safety and line of sight through a new public lift and stair connection from Herbert Street.
6. Consider the need for the provision of a new or upgraded pedestrian bridge across Herbert Street to unlock large public plaza amenity.
7. Deliver activated edges to promote activity and passive surveillance.
8. Resolve topography changes and achieve level alignment across the site and adjacent RNSH precinct to achieve integration and connectivity, consistent with the objectives of the RNSH Masterplan.
9. Deliver a centrally located communal area with outdoor dining area separated from surrounding supporting publicly accessible outdoor open space.
10. Provide weather protection for pedestrians.
11. Maximise tower floor plate efficiency along an east-west axis.
12. Extrude tower form to reveal extensive 360-degree views and maximise visual amenity.

4.3 Built Form

4.3.1 Building Massing and Envelope

Objectives

- Ensure development provides an adequate street wall height along Herbert Street.
- Ensure a suitable ground level setback is delivered to Herbert Street with consideration of the potential flooding conditions around the site.
- Ensure development provides appropriate tower setbacks to provide for visual separation between the subject tower and future development on adjoining sites.
- Achieve an appropriate level of solar amenity, wind comfort and daylight on the site.
- Maintain a high level of daylight access to public domain within the site and to the adjacent Gore Hill Oval during the period of the day when they are most used by the community.

Provisions

1. Built form within Lot 4B is to be in accordance with **Figures 15** and **16** relating to setbacks, street frontage heights and tower setbacks.

2. The envelopes prescribed by these figures are the maximum permissible extent of any future built form on the site. Variances will only be considered where design excellence can be demonstrated.
3. Building massing, setbacks and articulation zones are to be designed to enable the achievement of appropriate wind conditions as set out below.
4. Development is to ensure that public domain within the site and Gore Hill Oval receive an appropriate solar amenity for their intended use.

Figure 15: Podium envelop (source: Urbis)

Figure 16: Tower envelop (source: Urbis)

4.3.2 Active Frontages

Objectives

- Maximise activate frontages with activation at both day and night, and minimise services, vehicle access and lobbies.

Provisions

1. Development is to maximise active frontages along the northern ground level frontage through provision of quality retail, food or drink premises, or both.
2. Ground level frontages are to be of high-quality design to contribute to the amenity of the public domain.
3. Ensure that the plaza space is of sufficient size to reflect the potential diverse uses.
4. Retail premises and food and drink premises are to open on to public domain.
5. Active street frontages are to be provided on the locations nominated in **Figure 17.**

6. Provide building design features, such as permanent or retractable awnings, along the northern frontage to provide adequate protection to pedestrians from the elements. Awnings are to be generally in accordance with the locations nominated on **Figure 17**.

Figure 17: Active frontages map (source Urbis)

4.4 Movement

4.4.1 Movement and Access

Objectives

- Minimise conflicts between pedestrian and vehicles on footpaths, particularly on Herbert Street.
- Ensure the location and design of vehicular access points avoids disruption of traffic flow along Herbert Street.
- Promote the use of public transport infrastructure including St Leonards railway station, Crows Nest Metro station and the St Leonards bus interchange.
- Prioritise active transport.

- Minimise the provision of on-site car parking within future development.
- Ensure the movement network is integrated with surrounding public spaces.

Provisions

1. Basement parking and service vehicle entry and exit points is to be provided from Herbert Street only, generally in the locations nominated on Figure 18.
2. The width of a vehicular crossover on Herbert Street is to be minimised as far as practical whilst still enabling service access to enter the site.
3. Pedestrian accessways are to be provided on upper ground and lower ground to enable easy access to surrounding transport options and adjoining sites with weather protection for pedestrians walking east-west through the site.
4. Waste management is to be in accordance with Willoughby Council's Waste Management Plan.

Figure 18: Vehicular access map (source Urbis)

4.5 Landscape

4.5.1 Public Domain and Landscaping

Objectives

- Reduce urban heat island effect through landscaping that provides shade and enhances the precinct's microclimate.
- Maximise activate frontages with activation at both day and night, and minimise services, vehicle access and lobbies.
- Improve wayfinding through Lot 4B to support pedestrian connectivity to public transport and the RNSH precinct.
- Maintain permeability and pedestrian connectivity through the site east-west to St Leonards Train station and from the Pacific Highway between Lot 4B and Lot 4A.

Provisions

1. The layout and positioning of public domain is to be generally delivered in accordance with Figure 17. Alterations to the layout may be considered where an increased public benefit is demonstrated.
2. Local Indigenous species are to be selected in planting design where possible.
3. The potential removal of trees is to comply with Willoughby Council's DCP tree replacement requirements.
4. Future development must consider whether the realignment of the Herbert Street pedestrian bridge is needed in order to formalise a pedestrian connection from St Leonards Station to the site.
5. Future development of public domain at upper ground level is to achieve clear sightlines from the public domain through a minimum 4m setback from Herbert Street. Any built form including lifts and stairs is not to be provided within the setback zone.

Figure 19: Public domain map (adapted from Urbis)

5. Site Specific Design Guidelines – St Leonards Telstra Exchange

5.1 Land to which this chapter applies

Chapter 5 of this Design Guide applies to land at 530-542 Pacific Highway St Leonards identified below in **Figure 20.** Also referred to as the Telstra Exchange site.

Figure 20: Site Location (Source: the Department/ Nearmap)

5.2 Vision and Principles

5.2.1 Vision for the Telstra Exchange Site

The vision for the redevelopment of the Telstra Exchange site is to create a high-quality and contemporary mixed-use building that complements the character of St Leonards as a Strategic Centre. It aims to deliver a transformative development and revitalise a significant gap in the streetscape along Pacific Highway.

The development will create a transition between the former desirable qualities of place, with its emerging identity as a sophisticated, high density urban environment.

5.2.2 Place Based Principles

The place-based principles of this Design Guide are to ensure:

1. Development of a high-quality, contemporary, activated mixed-use building for living and employment opportunities that supports innovation and the jobs of the future;
2. Built form contributes positively to the public domain with respect to scale and comfort appropriate to the function and use of the space;
3. A high-quality public domain for use by the general community for passive transport, recreation, activation, collaboration and culture;
4. Development responds to the existing context of the St Leonards precinct to minimise impacts on the amenity and urban character of the surrounding locality;
5. Development integrates water and energy efficient initiatives throughout the building and in the public domain.

5.3 Site and Context Analysis

5.3.1 Site Description

The Telstra Exchange site comprises eight separate allotments with a total area of approximately 1,671m^2. It is located on the corner of the Pacific Highway and Christie Street in St Leonards. The site adjoins the existing AMA commercial building to the south and the Landmark by New Hope to the east.

Table 8: Legal property description

Address	Legal Description
530 Pacific Highway	Lot 7 Section 17 DP 3175 Lot 8 Section 17 DP 3175 Lot 9 Section 17 DP 3175 Lot 1 DP 433297
536 Pacific Highway	Lot D DP 377423
538 Pacific Highway	Lot C DP 377423
540 Pacific Highway	Lot B DP 377423
542-542A Pacific Highway	Lot A DP 377423

5.3.2 Local Context

The Telstra Exchange site is located in the heart of St Leonards at a significant corner along Pacific Highway. The St Leonards Centre is undergoing a transition from an ageing, second-tier commercial precinct, to a vibrant, active mixed-use area. The transition is being supported

by recently completed development, recent approvals and future planned development in accordance with the 2036 Plan.

Telstra Exchange site relates to surrounding buildings within the precinct and is part of a broader renewal to the centre (**Figures 21** and **22**).

Figure 21: St Leonards Centre (Source: DKO Architects, 2023)

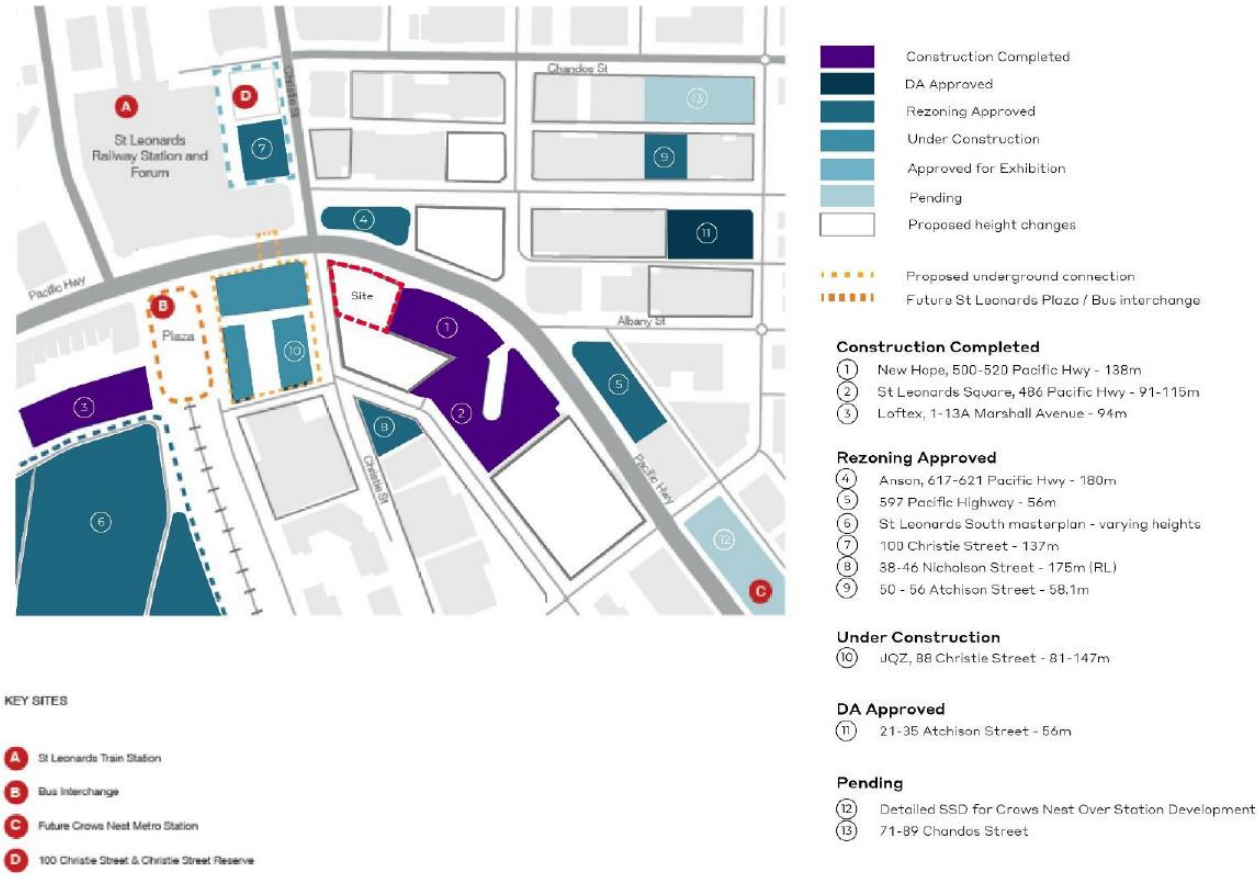


Figure 22: Local Development Context from Rezoning Report (Source: Ethos Urban)

5.3.3 Movement Network

The site is well serviced by main vehicular routes, and within 400m walk of both St Leonards Station and the future Crows Nest Metro Station. The new metro station will provide a significant increase in rail service capacity and improve public transport access to the precinct with faster, more direct connections to other key employment hubs including Macquarie Park, Barangaroo and the Sydney CBD. The movement and connectivity network surrounding the site is shown in Figure 23.

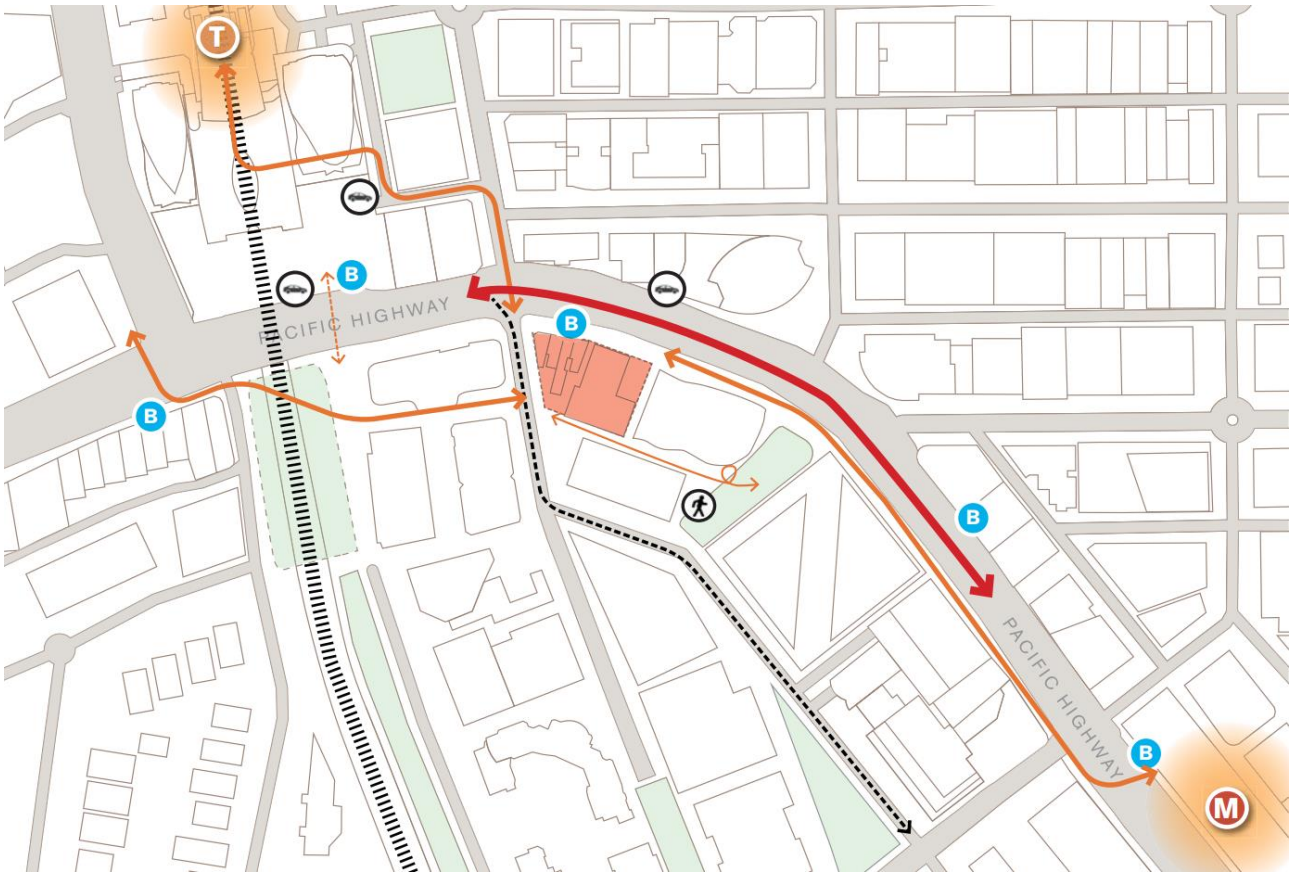


Figure 23: Connectivity Map (DKO Architects)

5.4 Design Guidelines

5.4.1 Design Excellence Strategy

Objectives

- Development on the Telstra Exchange site demonstrates design excellence.
- Ensure that the amenity of residents, workers and visitors is enhanced by high quality landscaping for public domain, communal and private open space on the development site.
- Encourage Aboriginal peoples involvement throughout the design excellence process.
- Deliver building design and public domain outcomes informed by Connections with Country.

Provisions

1. The concurrent State Significant Development is required to consult and engage with the Government Architect's State Design Review Panel (SDRP) prior to lodgement of the development application.

2. The State Significant Development Application will need to consider and address the feedback received by the SDRP within a response report submitted with the application.

Where the development is unable to meet the feedback and advice from the SDRP, justification must be provided within associated design and technical reports.

5.4.2 Land Use

Objectives

- Support opportunities for mixed uses on a strategic site within proximity to transport services, as well as social and cultural infrastructure.
- Explore build-to-rent opportunities at the site as encouraged in the 2036 Plan.

Provisions

1. Development to include a mix of land uses, including:
    a. Build-to-rent housing;
    b. Serviced apartment accommodation; and,
    c. Retail and food and drink premises.
2. Provide for affordable housing units for key workers.
3. Provide for a range of communal open space and amenities to accommodate a diverse population of future residents that will occupy the proposed dwellings.
4. Development should demonstrate that the type and location of communal open space will pose no adverse impact on the amenity of adjoining properties.
5. Open space should follow the design principles and standards set by the ADG under *SEPP (Housing) 2021*.
6. All common areas (including the principal entrance to the building) should be accessible by all people.
7. Clearly separate and distinguish commercial and residential entries and vertical circulation.

5.4.3 Built Form and Massing

Objectives

- To provide for increased opportunity for height and density in the growing St Leonards Centre, close to public transport and services

- Promote density located close to a transport hub and encourage taller buildings within 150-200m of either the St Leonards Train Station or the Crows Nest Metro Station.
- Building envelopes are to respond to the site's surrounding context, which comprises taller buildings.
- Ensure appropriate building footprint, a variety of building facades and a 'fine grain' response to the public domain.
- Provide an appropriate building form that contributes positively to the public domain with respect to scale and comfort appropriate to the function and use of the space.

Provisions

Building Height

1. The baseline maximum building height is RL 202.3m equivalent to the 35 storeys envisaged in the 2036 Plan.
2. Provided that the development includes 10 affordable housing dwellings for at least 15 years the building is able to achieve an incentive maximum height of RL 228.8m (43 storeys equivalent) with 7m of rooftop plant equipment, corresponding to a total building height of RL 235.8m (155m above ground).
3. No residential GFA is to be located above RL 228.8m (148m above ground).
4. Levels above 35 storeys must demonstrate no environmental impact to Newlands Park and must meet the objectives, aims and actions of the 2036 Plan.
5. Floor to ceiling heights is to be a minimum of 5m at the ground level, 3.8m for the non-residential levels and 3.2m for the residential levels.

Density

1. Development on the site to have a floor space ratio (FSR) no greater than 17:1.
2. Development on the site must provide a minimum non-residential floor space ratio of 2.3:1.

Building Setbacks and Building Separation

1. Development on the site should comply with the following setback requirements:
   a. Northern Setback (Pacific Highway)
      - 0 metres from Ground Level to Level 42.
      - 3.5m setback on the north-western corner at the ground level of Pacific Highway to create a colonnade along the streetscape.
   b. Southern Setback:
      - Ground Level: 0m
   c. Eastern Setback:

- Ground Level: 0 metres
- Setbacks from Level 7 to 10 should be 6 metres
- Setbacks from Level 11 and above may vary between 12 and 20 metres due to the pivot of elevation

d. Western Setback:

- 0 metres

2. Average setback to the eastern boundary must be 12 metres to ensure compliance with the ADG building separation requirement.

Podium and Street Wall Height

1. Development on the site should provide a 6 to 8-storey street wall height to ensure an appropriate transitional podium height along Pacific Highway for the New Hope building to the east and the JQZ building to the west.
2. The podium must be constructed and designed with high quality materials and finishes that are compatible with the character of St Leonards.

Floor Plates

1. Podium floor plates will comprise of the Telstra Exchange telecommunication infrastructure as well as non-residential GFA ranging between 450m^2 to 1,148m^2 per level and a total of 721m^2 for affordable housing dwellings.
2. Tower floor plates will comprise of residential land use and will have an average area of approximately 729m^2.
3. Typical residential floor plates should comprise a maximum of 9 build-to-rent apartments.
4. Locate a proportion of adaptable apartments to utilise sunlight access to cater for residents who may have limited access to communal areas.
5. Provide a minimum 10% of dwellings as adaptable housing.
6. Design common corridors with a minimum width of 2m to be accessible and facilitate movement.

Integration with the Telstra Exchange Building

1. Development on the site must retain the Telstra Exchange Building in its current form and ensure that it remains fully operational during the construction of the project.

Façade Articulation and Materials

1. Clearly distinguish the podium and façade through different materials and articulation.
2. The materiality of the podium should support the former character of Pacific Highway including the use of solid brick.

3. The materiality of the tower façade should present a commonality for each façade to assist in unifying the built form. Materials of the façade should also create visual continuity between the podium and tower and respond to the residential nature of the building.
4. The selected materials of the brick podium should reflect the historic uses of the site and enhance the streetscape and character of St Leonards.

5.4.4 Landscaping and Public Domain

Objectives

- To provide high quality communal open space at ground level and throughout the building without reducing amenity and privacy to neighbouring dwellings.
- To provide a level of communal open space and landscaped area commensurate with the ADG that is mindful of the site's unique constraints and location.
- Ensure communal open space areas are useable and enjoyable.
- Ensure that landscaping is used to provide appropriate amenity.

Provisions

Tree and Vegetation Planting

1. A Public Domain Strategy and Landscape Plan should be submitted any Development Application and should include details on the following landscaping and public domain improvements:
    a. Planting of five new street trees along Pacific Highway and one new street tree along Christie Street.
    b. Screening planting along the boundaries of the building on the amenity levels to create a vertical village.
    c. Public domain improvements
    d. Activation of street frontages through double height lobbies and pocket retail spaces with outdoor dining.
    e. New planting and paving along each street elevation.
    f. Creation of vertical villages with communal open spaces and amenities spread throughout the building.
    g. Provide a diverse range of communal open space and amenities that will cater towards different household types, including families, couples, and singles.

2. External communal open space is to incorporate landscaped areas that integrate with the surrounding public domain.
3. A focus on native species should form the basis of any planting.

5.4.5 Transport, Access and Connectivity

Objectives

- Regulate traffic movements and mitigate traffic congestion within the local road network.
- Ensure a safe pedestrian and cyclist network surrounding the site and improve permeability and connections.
- Provide appropriate amount of carparking spaces for residents, visitors and staff.
- Encourage active transport and use of public transport.

Provisions

1. A Transport Impact Assessment prepared by a suitably qualified transport consultant is to be submitted with any Development Application for development on the site.
2. Vehicular access to the loading dock and carpark is to be provided via Christie Street.
3. Pedestrian access to the residential lobby is to be provided via Christie Street and access to the commercial lobby is to be provided via Pacific Highway.
4. Development must contain a podium car parking which will comprise of a car stacker.
5. A maximum of 48 car parking spaces should be provided in the development of the site.
6. Provision for 112 bicycle spaces and end of trip facilities on the ground level.

5.4.6 Amenity

Objectives

- Ensure no additional overshadowing on public open spaces and important places within the St Leonards and Crows Nest Precinct.
- Protect solar access to key streets and open spaces during mid-winter to maximise useability and amenity of these spaces.
- Ensure development maintains comfortable conditions for pedestrians within the public domain.

Provisions

Solar Access

1. Any Development Application for development on the site must provide shadow analysis of the new development to ensure compliance with ADG solar access rate and solar access to surrounding residences.
2. Development on the site must not result in overshadowing to Newlands Park
3. Protect solar access to public open space, valued streetscapes and residential areas (as shown in **Figure 24**):
    a. No additional overshadowing to key public open spaces from 10.00am to 3.00pm (midwinter) including Christie Park, Newlands Park, St Leonards South, Propsting Reserve, Hume Street Park, Ernest Place, Gore Hill Oval and Talus Reserve.
    b. Residential Areas inside the 2036 Plan boundary should have no reduction in solar access of at least 2 hours between the hours of 9am to 3pm (mid-winter),
    c. Residential areas outside the 2036 Plan boundary should have no reduction in solar access from 9am to 3pm (mid-winter).

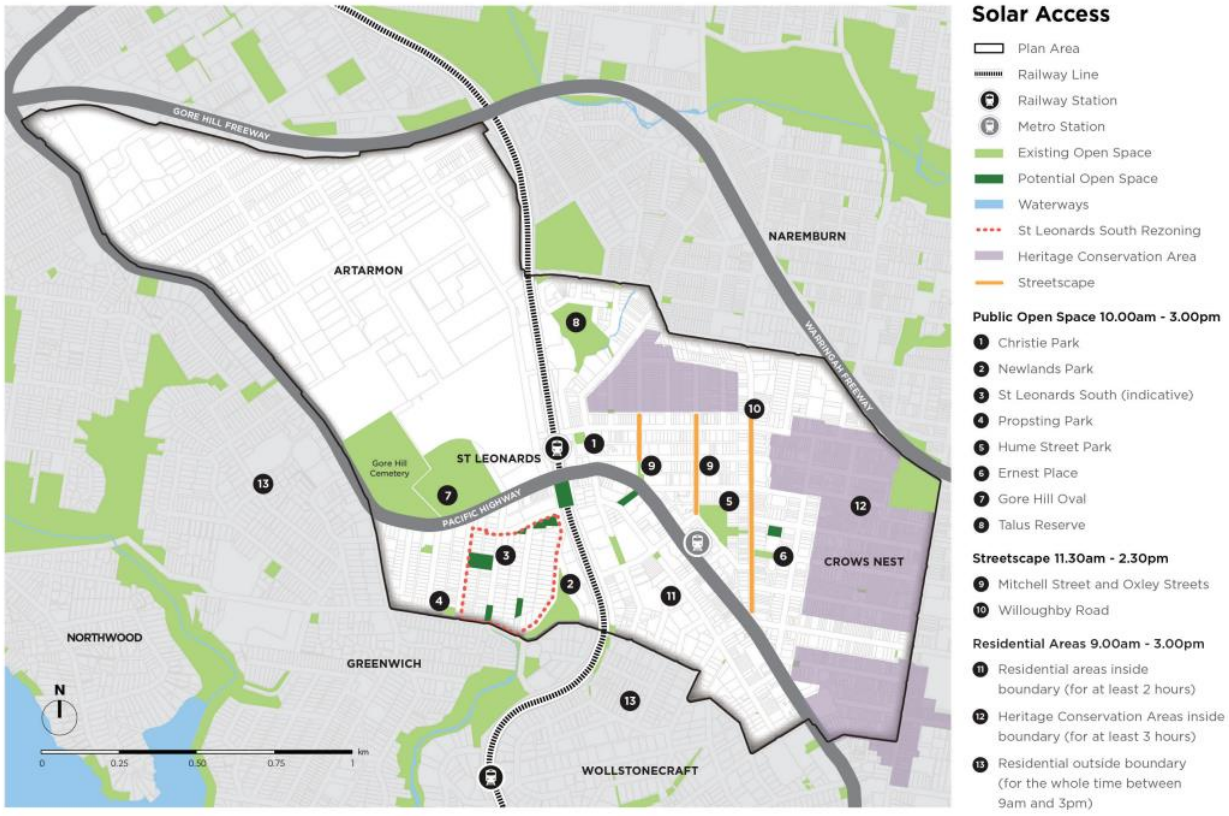


Figure 24: Solar Access Map (*Source: the Department, 2036 Plan, 2020)*

Objectives

- Minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources.
- Encourage building designs, construction and demolition techniques, which minimise waste generation.
- Ensure waste management systems are compatible with collection services.

Provisions

1. A Waste Management and Minimisation Plan is to be prepared to accompany any Development Application for development on the site for both construction and operational waste.
2. The Waste Management and Minimisation Plan should consider the following:
    a. Volume and type of waste and recyclables to be generated.
    b. Storage of treatment of waste on site.
    c. Disposal of waste
    d. Operational procedures for ongoing waste management once the development is complete.

5.4.8 Crime Prevention through Environmental Design

Objectives

- Address safety, security and crime prevention requirements in the planning and design of development.
- Reduce opportunities for crime through environmental design and the provision of natural and technical surveillance opportunities.

Provisions

1. Any Development Application for development on the site must be accompanied by a Crime Prevention Through Environmental Design (CPTED) Report ensure the development is secure and safe.
2. Development must ensure the building design allows for casual surveillance of access ways, entries, driveways and public domain.

3. Development must provide a clear line of sight between one public or communal circulation space.
4. Development is to provide adequate lighting of all pedestrian access ways, parking areas and building entrances.
5. External lighting operates, as a minimum requirement, from dusk until dawn on Thursday, Friday and Saturday nights, and from dusk until midnight on other nights.
6. Provide entrances which are in visually prominent positions and which are easily identifiable, with visible numbering.
7. Provide security access controls where appropriate.
8. Contribute to the safety of any public domain areas.

5.4.9 Sustainability

Objectives

- Consider a balance of economic, environmental, cultural and social elements to enhance the quality of life within St Leonards.
- Ensure the development is water and energy efficient.
- Reduce the quantity of urban stormwater runoff.
- Minimise the use of mechanical ventilation and maximise the opportunities for natural ventilation.
- Minimise fossil fuel use and greenhouse gas emissions through the promotion of energy efficiency in the design of the building.

Provisions

1. Contribute to the NSW Government's objective of halving emissions by 2030 and achieving net zero emissions by 2050.
2. An Ecologically Sustainable Development strategy is to accompany any Development Application for development on the site that demonstrates how the following standards will be achieved:
    a. Embed optimum energy efficiency into building design according to use and typology, in accordance with the performance standards set out in Lane Cove Council's relevant sustainability policy.
    b. Target a minimum 6 Star Green Star Buildings rating (or equivalent Green Star tool in effect at time of registration).

3. Development should:
    a. Demonstrate the prioritisation of passive design measures to minimise the energy gained and lost through the building envelope, and to provide thermal comfort to occupants throughout the year.
    b. Maximise the utility of natural light to reduce the need for artificial lighting during daytime hours.
    c. Improve the control of mechanical heating and cooling by designing systems to allow individual control of different rooms, zones or tenancies combined with the ability to open windows and facades for natural ventilation when the climatic conditions allow.
    d. Orientation of building and facade design of all developments should capture and manage solar access, natural ventilation and breezes into the building.
    e. Provide external sun shading - vertical shading for east and west windows and horizontal sun shading for north facing windows.
    f. Use high performance glass with minimal glare impacts where possible.
    g. Ensure compliance with natural cross ventilation requirements as prescribed in the ADG.
    h. Ensure single-aspect dwellings have adequate ventilation.

6. Glossary

Glossary

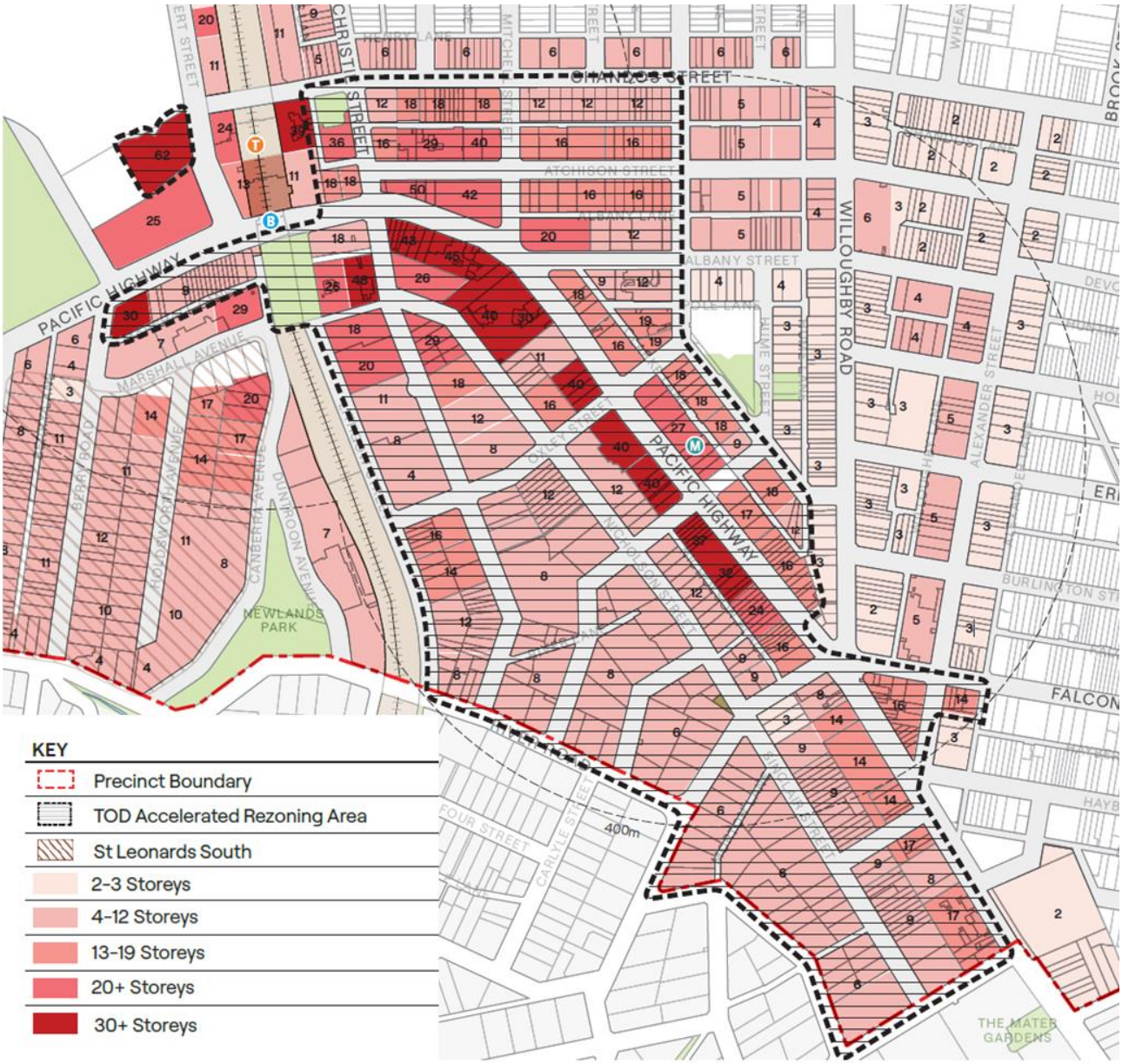
The following table defines selected key terms used in this Design Guide.

Table 9: Glossary of terms

Term	Meaning
Active street frontage	Means where all premises on the ground floor of a building facing publicly accessible areas are used for the purposes of business premises or retail premises, excluding areas required for entrances and lobbies (including as part of mixed use development), access for fire services or vehicle access.
Apartment Design Guide (ADG)	The ADG provides consistent planning and design standards for apartments across NSW. It provides design criteria and general guidance about how development proposals can achieve the 9 design quality principles identified in Schedule 9 of *State Environmental Planning Policy (Housing) 2021*.
Country	Includes land, waters, and sky. It can be tangible or intangible aspects, knowledge and cultural practices, belonging and identity, wellbeing and relationships. People are part of Country' (Government Architect NSW & Dr Danièle Hromek, 2020)
Design excellence	A term that exists in statutory planning to refer to the design quality of a building or project and to a variety of requirements intended to lift design quality. The description of Design Excellence is broadly consistent across planning legislation where it is often summarised as 'the highest standard of architectural, urban and landscape design.
Development Control Plans (DCP)	A DCP provides detailed planning and design guidelines to support the planning controls in the LEP developed by a council. All DCPs are published on the NSW Planning Portal.
Gross Floor Area (GFA)	GFA as defined in the Lane Cove Local Environmental Plan 2009, North Sydney LEP 2013 or Willoughby LEP 2012
National Construction Code	As a performance-based code, it sets the minimum required level for the safety, health, amenity, accessibility and sustainability of certain buildings.
Residential flat building	Has the same meaning as in the 'Standard Instrument – Principal Local Environmental Plan'.

7. Appendix

Height of Buildings – Storeys



8. List of Amendments

Crows Nest Transport Oriented Development Precinct Design Guide			
Date	Page	Section	Amendment