



# St Leonards & Crows Nest 2036

Stage 02 Urban Design Study

# We create amazing places



At SJB we believe that the future of the city is in generating a rich urban experience through the delivery of density and activity, facilitated by land uses, at various scales, designed for everyone.

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# Report Overview and Key Findings

St Leonards and Crows Nest will play a significant role in achieving the NSW Government's vision for the 'Harbour City', as identified in A Plan for Growing Sydney. The area will support new jobs in close proximity to public transport, homes and will provide a high level of amenity, whilst being connected to nearby centres at Chatswood, North Sydney, Macquarie Park and the Sydney CBD.

The proposed Crows Nest Sydney Metro Station will be a catalyst for bringing new life into the area, strengthening the characteristics that make it a great place, while also delivering new experiences and services for existing and future residents.

*St Leonards and Crows Nest has a strategic role within the Sydney metropolitan area. It provides a unique opportunity to strengthen and develop many of the existing qualities that attract people to live, work and relax here. Future development will be responsive to place with a clear identity and purpose, which is inspiring, enjoyable and rewarding.*

## About St Leonards and Crows Nest

Located 5 km north-west of the Sydney Central Business District (CBD), St Leonards and Crows Nest covers an area that includes three local government areas; Lane Cove, North Sydney and Willoughby Councils.

The area spans approximately 271 hectares. It provides a unique urban condition, comprising a variety of land uses, including low, medium and high density residential, commercial, retail, light industry, education establishments, major health precincts and sport and recreation facilities. All of this is provided across undulating topography and a movement network that features a range of transport options; train, bus, cycle, walking and soon metro.

## Starting with Place

To achieve the objectives, vision and underlying aspirations for St Leonards and Crows Nest, a careful recognition and understanding of place is required. We recognise that the area includes a number of distinct neighbourhoods, each with their own unique identity, built form and place-making qualities. Outlined in our Stage 1 Report, this appreciation of the defining characteristics of St Leonards and Crows Nest has been informed by community and stakeholder feedback, to form the basis of this study.

The urban design strategy has carefully considered the impact of development pressure on retaining local character and a sense of place. Within the strategy, these qualities are preserved and enhanced through the strategic location, intensification and integration of proposed new development into the existing urban fabric.

## Objectives

The key objectives for St Leonards and Crows Nest are as follows:

1. Preserve, strengthen and enhance the existing diverse character areas through careful consideration of place.
2. Leverage world-class health and education uses to provide opportunities for future employment growth.
3. Protect and strengthen the area's commercial role supported by complementary uses to capitalise on renewed confidence in the commercial market.
4. Create a network of new and existing useable, public and diverse open spaces which prioritise walking, cycling and access to transport, promote a healthier urban environment and encourage social interaction.
5. Incorporate opportunities for transit oriented development including commercial and mixed use development that takes advantage of existing and future transport.
6. Create future employment opportunities leveraging off the increased transport capacity of the new metro station.
7. Strengthen and enhance opportunities in the Artarmon employment area to fulfil the important urban service needs of the wider North District.
8. Develop high quality and diverse residential areas that create sustainable and liveable communities.

## Strategic Framework Influencing the Area

In delivering an urban design approach, the team has considered a range of strategic drivers, which have been underpinned by state and local planning policy, economic drivers, and development capacity. These include:

- The Greater Sydney Region Plan (GSRP) vision for St Leonards as a Strategic Centre and Collaboration Area.
- Employment targets set by the Greater Sydney Commission (GSC), and subsequent floor space requirements.
- Residential capacity, influenced by the announcement of the Crows Nest Sydney Metro Station.

## Delivering the Concept

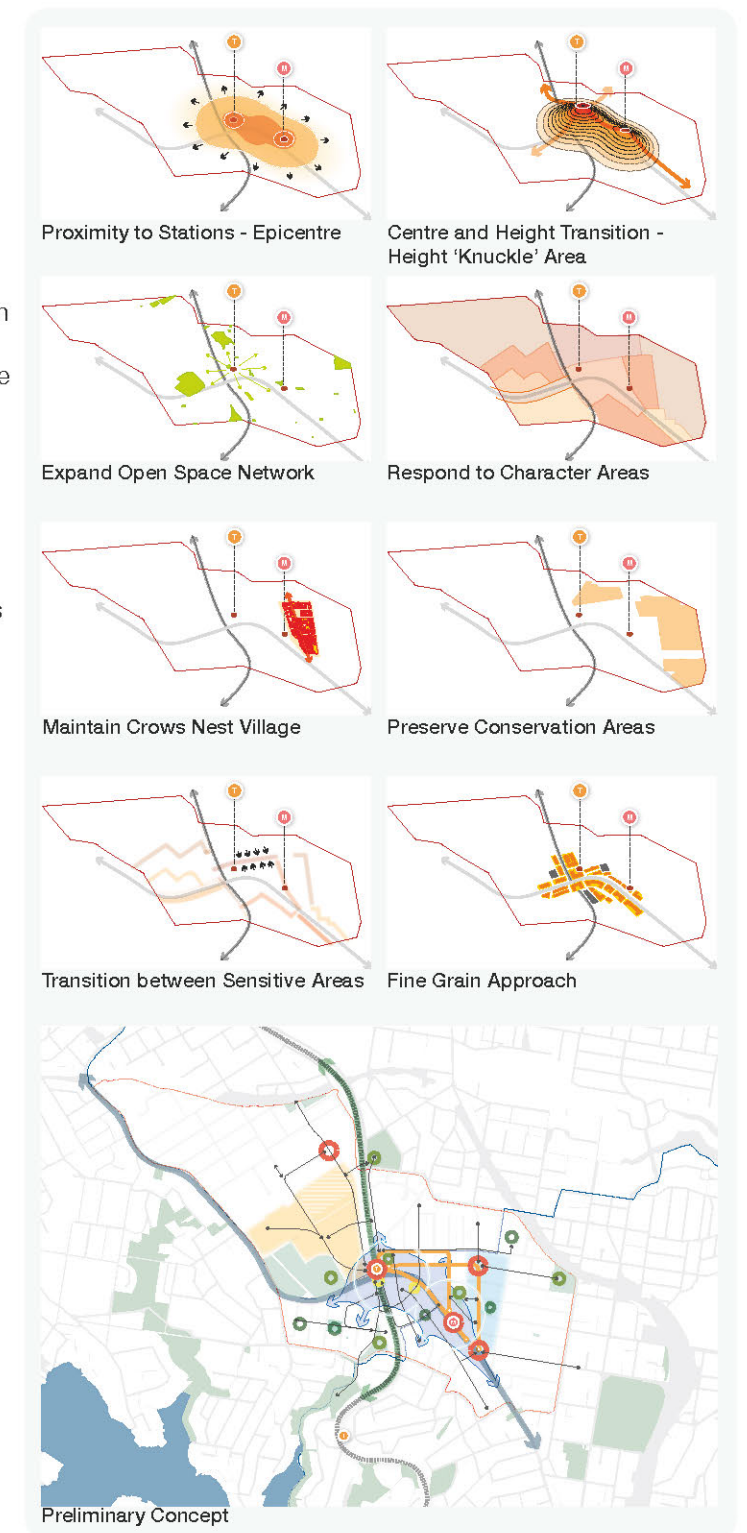
A primary concept was established for the area and builds off the analysis undertaken in Stage 1 of the project. The concept aimed to unify the various character areas through an expanded green network of open spaces, active frontages and vibrant environments. Some key priorities included:

1. Consolidate commercial development around St Leonards and Crows Nest Stations.
2. Increase the amount of open space and plazas.
3. Improve pedestrian and cycle connectivity.
4. Preserve character of Willoughby Road.
5. Retain Artarmon industrial sub-precinct.

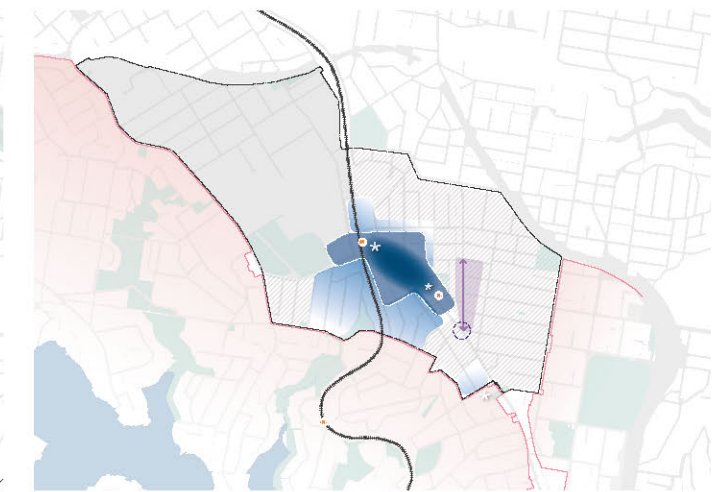
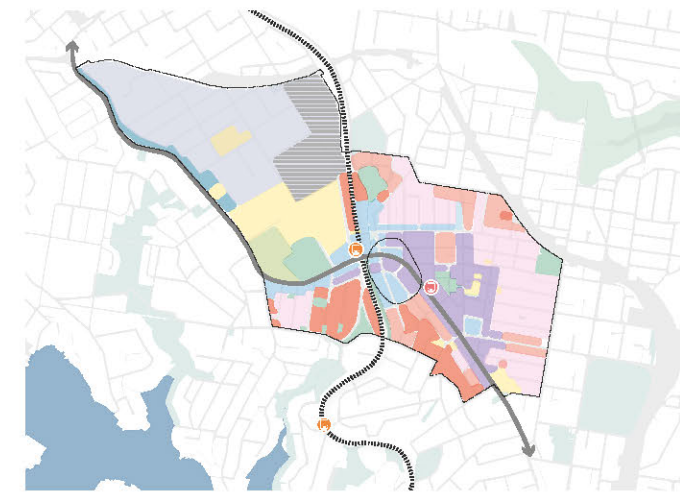
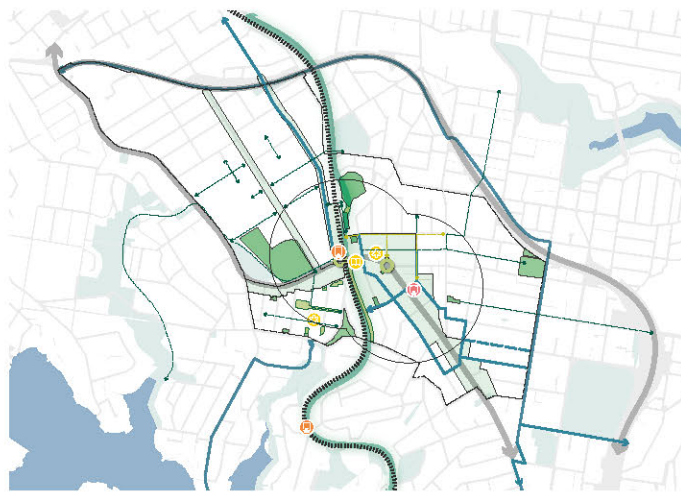
## Preparing the Framework Plans

Building from the analysis and conceptual framework presented in Stage 1 additional inputs, strategic drivers and place making factors have been layered and distilled into a suite of Structure Plans to support the vision. The Structure Plans addressed;

1. Land Use
2. Built Form
3. Environment, Public Domain and Community
4. Movement and Access
5. Activity



## Framework Plan Overview



### Environment, Public Domain and Community

Create an integrated network of green spaces and connections that build on the existing open space

1. Provide pedestrian and cycleway improvements to St Leonards Centre from surrounding suburbs, including on-road and off-road cycleways.
2. Provide priority landmark street trees and avenue plantings along Pacific Highway between St Leonards Station and Crows Nest Sydney Metro Station.
3. New street/pedestrian connections, including active street frontages within Artarmon Industrial Area around Frederick, Herbert and Waltham Streets.
4. Explore new street connections east-west to Newlands Park in St Leonards South.
5. Upgrade and expand Hume Street Park and investigate relocation of sports facility in adjoining building.
6. Provide an open space link adjoining the rail line south of St Leonards Station towards River Road.
7. Retain green edge and vista to Gore Hill Park and Cemetery, as well as investigate enhancement of Gore Hill Oval and facility upgrade in accordance with Council's masterplan.
8. Investigate opportunity for a sports facility in Artarmon Industrial Area (active facility).

### Movement and Access

Prioritise pedestrian amenity and connectivity to the high-quality public transport networks operating in the area

1. Enhance pedestrian and cycling links from the surrounding suburbs into St Leonards Centre.
2. Investigate crossing points and upgrade existing crossings, particularly around the proposed Crows Nest Sydney Metro sites.
3. Improve the place function of roads where appropriate.
4. Upgrade key intersections to assist vehicles whilst implementing traffic management/calming where appropriate to reinforce the hierarchy and improve pedestrian safety.
5. Strengthen the importance of pedestrian access and shared paths adjacent to Gore Hill Freeway.
6. Consider pedestrian and cycling bypass link on the northern side of Pacific Highway across the rail line to support cyclist and pedestrian movements away from Pacific Highway and St Leonards.
7. Establish a car parking policy to reduce parking rates for residential and commercial developments in close proximity to public transport.

### Land Use and Activity

Enhance and strengthen the existing employment, health services, retail and diverse housing choices

1. Focus commercial uses in the area between and immediately surrounding St Leonards and Crows Nest Stations, in the form of standalone developments or integrated into mixed-use proposals
2. Protect the fine grain character of Naremburn and Holtermann Estate Conservation Areas.
3. Encourage renewal of the commercial strip along the Pacific Highway, west of St Leonards Station.
4. Enhance the Health and Education Precinct.
5. Retain the function of Artarmon as one of the region's key population serving precincts for essential urban services.
6. Potential medium-high density residential development in St Leonards South with strong focus on transition to existing residential neighbourhoods.
7. Expand mixed use activities east towards Willoughby Road, articulated through scale and form that is sensitive to the existing context.
8. Allow for potential future expansion of hospital precinct into Artarmon Employment Area.
9. Alternatively, allow for evolution of higher order/high tech industrial urban services.

### Built Form

Building form, scale and location to reflect the existing urban conditions, character and amenity

1. High-density commercial and mixed use development concentrated in the area along Pacific Highway, immediately surrounding and between the two stations.
2. Height transitions away from the stations, particularly towards Willoughby Road, ensuring the low scale and fine grain character, along with a high level of amenity is preserved
3. Clearly define the edges of character areas through the scale and setback of buildings, such as Chandos and Oxley Streets separating St Leonards from Naremburn and Crows Nest respectively.
4. Preserve and enhance the distinctive neighbourhood characters, including the conservation areas to the north and east of the study area.
5. Enhance the quality and scale of built form with industrial and employment-generating uses throughout the Artarmon Industrial Area.
6. Health and education precinct to evolve and intensify within a walking catching to the station

Respond to Place

### The Draft Plan for St Leonards and Crows Nest

The Draft Plan for St Leonards and Crows Nest illustrates a unified and over-arching plan for the study area. It combines and distils the actions and directions identified in a series of Framework Plans, which cover a number of key themes. The Plan focuses on improving connectivity across and between the identified character areas through a network of green streets, activity areas and public spaces.

The greatest focus of development will be within St Leonards Centre and along Pacific Highway to the Crows Nest Sydney Metro sites. Sites in these locations can embrace the close proximity to public transport and existing density to provide additional commercial and residential floor space, enhance the quality of the streetscape and support activation of the centre.

Existing residential neighbourhoods and conservation areas of Naremburn and Crows Nest will be protected, undergoing no change as a result of this Plan. Land in St Leonards South will transition from Canberra Avenue to Park Road ensuring solar access is maintained to surrounding low scale residential areas and to Newlands Park. The Artarmon Industrial Area in the north-west will be preserved for employment opportunities, continuing to provide essential urban services in line with the current zoning controls. Industrial jobs will be facilitated east of Herbert Street and South of Fredrick Street to support existing intensification and evolution of the industrial area, for sites within a close proximity to public transport.

Consequently, public domain improvements will be focused on enhancing the functionality and accessibility of the areas immediately surrounding the two stations, and the integration with existing open spaces. Efforts should also be made to provide active transport and pedestrian safety within the Herbert and Frederick Street areas to support existing and emerging employment uses in the area.

The proposed Centre will be defined by Chandos Street to the north, Oxley Street and the Crows Nest Sydney Metro sites to the east and Oxley Street south of the Pacific Highway to the south, anchored by St Leonards Station in the north-western corner. This Central Precinct will serve as a new heart for the area connecting to the surrounding character areas. This precinct will encapsulate the areas of greatest development uplift, activation and public domain improvements.



## Purpose of Report

The District Plan (GSC 2018) identifies the St Leonards and Crows Nest Station as a **Strategic Centre, Health and Education Precinct and Collaboration Area**, playing a central role to the growth of Sydney's Global Arc. The *St Leonards and Crows Nest 2036 Stage 2 Urban Design Study* has been prepared by SJB on behalf of the NSW Department of Planning and Environment to underpin the directions outlined in the North District Plan.

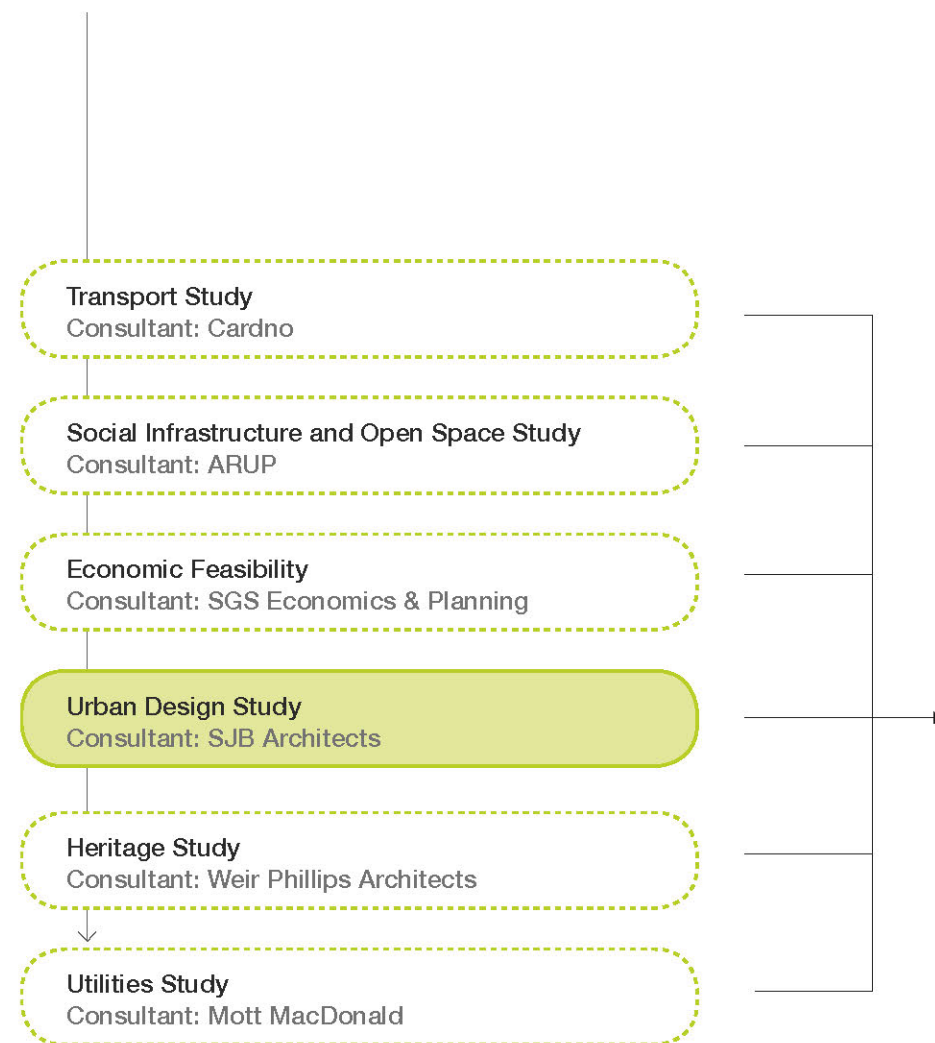
The information outlined in this study will inform the draft Plan for St Leonards and Crows Nest and builds on the findings from the *Stage 1 Preliminary Urban Design Analysis*, which established a high level conceptual strategy and vision.

Stage 2 explores the strategies outlined in the Interim Statement, and accompanying Stage 1 Study in greater detail, including the identification of how job targets can be delivered whilst responding to the existing character and place that is established within the area. A series of framework plans have been developed to guide future development within the area, drawing upon urban design principles established in stage 1, desired built form and character statements, site specific design testing, and technical inputs from the broader consultant team (open space, social infrastructure, heritage and transport).

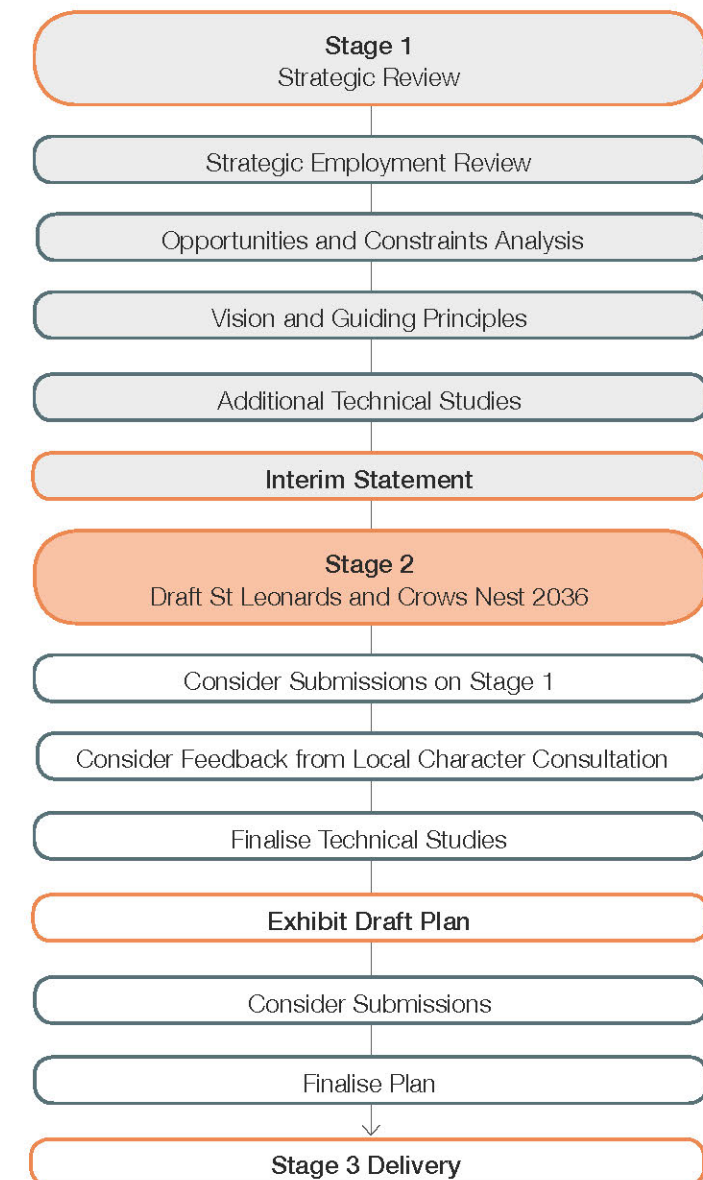
A central component of Stage 2 has been the iterative and collaborative design testing of the proposed built form. This process has involved members of Lane Cove, Willoughby and North Sydney Councils, in addition to a number of state government agencies, who have assisted the team from SJB and the DP&E in refining the approaches to built form, including the consideration of visual and character impacts, heritage conservation interfaces, solar impact and view sharing, amenity to streets and spaces, movements and connectivity, and provision of social infrastructure, to name a few.

The findings and outcomes of Stage 2 will inform the next stage of planning, which may include a review of local planning controls and policies, provision of infrastructure and staging.

## Consultant Team

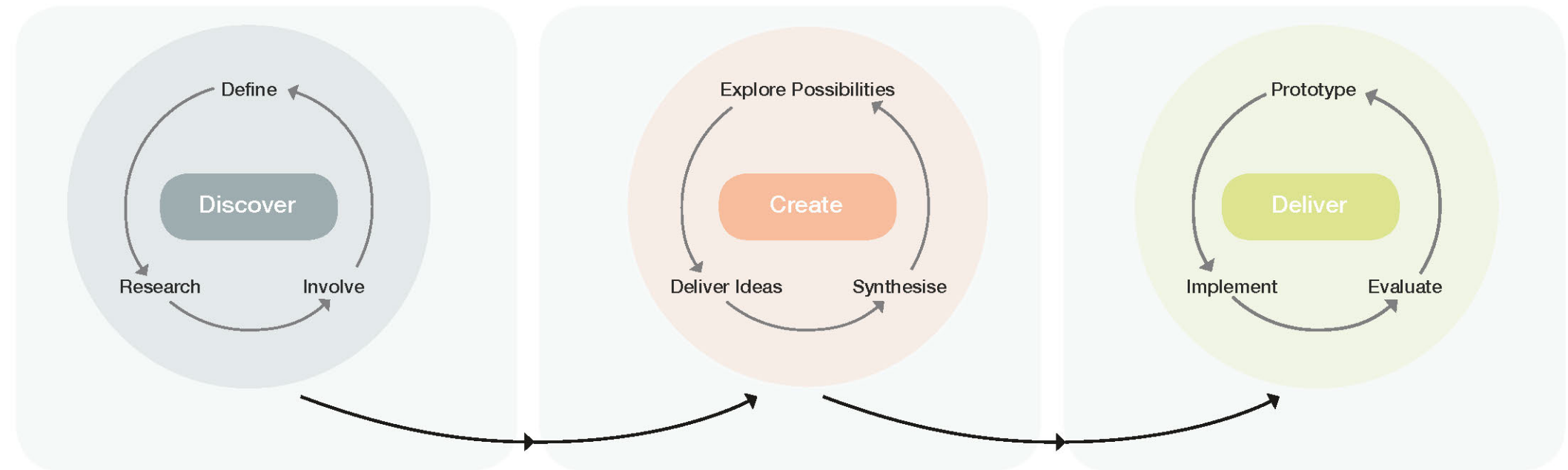
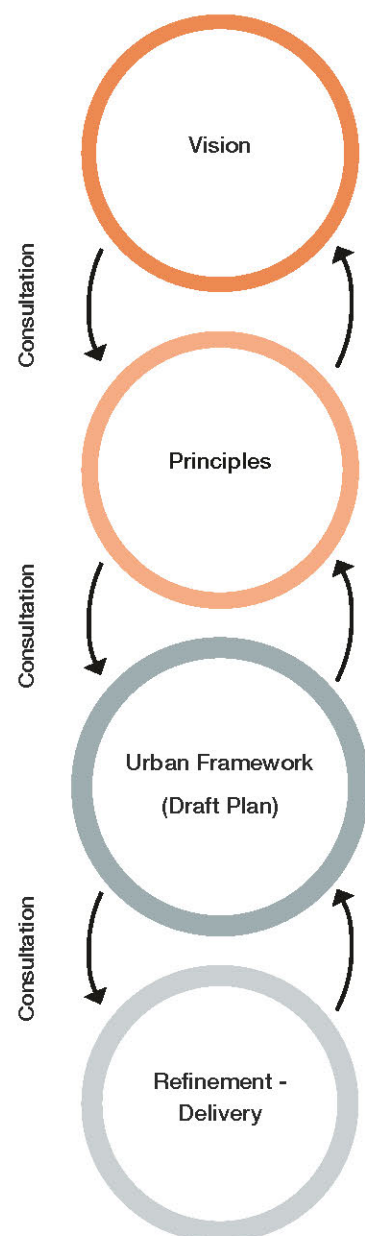


## Project Staging



## Stage 2 Process

The iterative design process that underpins Stage 2 of the project is outlined below and includes three key steps, which are based on the NSW Government Architect's document, 'Better Placed'. It includes the continual loop of refinement between the various stakeholders, facilitated by the DPE, with assistance from SJB and the consultant team.



### 1 - Preliminary Urban Design Analysis

Stage 1 was based on an analysis of the study area, including its immediate and broader urban contexts, constraints and opportunities. This stage provided the baseline analysis of social, environmental and statutory planning issues.

The process involved ongoing collaboration with the three Councils, workshops with key stakeholders, and synthesis of the preliminary findings into a robust and clear vision.

### 2 - Draft Plan for St Leonards and Crows Nest

Stage 2 builds upon the preliminary analysis in Stage 1 and transforms these ideas into a number of land use, urban and built form options that deliver employment in line with the job targets outlined by the Greater Sydney Commission (GSC).

A major focus of this stage and the preparation of the Plan has been the built form testing and analysis of amenity and urban character throughout the area. The final built form scenarios have been informed by input from consultation with the Government Architect NSW (GANSW) team. This will be an ongoing process that continues into Stage 3.

Each iteration of the urban design has been assessed and framed against the proposed vision, and the principles identified in Stage 1.

### 3 - Delivery

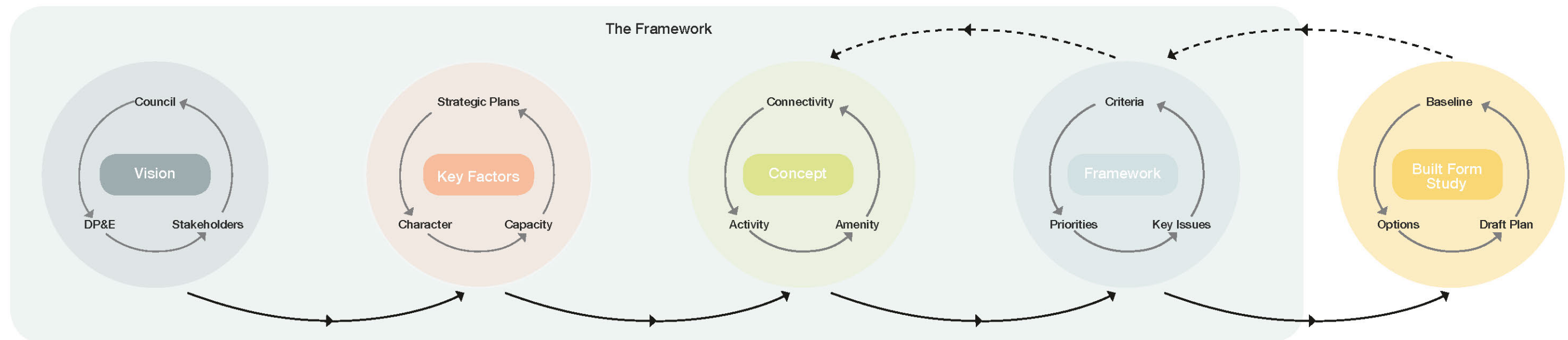
Stage 3 is likely to begin after the release of the draft Plan and review of the various submissions and feedback from the community and stakeholders. This final stage of the process will include the ongoing testing and refinement of the various mechanisms required to create a network of amazing places - i.e. provision of open space and social infrastructure, amenity of streets and spaces, securing and strengthening local character, meeting job targets and ensuring excellent design outcomes.

As the approaches to built form, land use, open space, sense of place, character, connectivity, etc. become finalised, work will begin on the mechanisms to deliver these outcomes - planning controls, infrastructure delivery.



## Approach to Stage 2 - The Framework

The framework outlined below illustrates how the vision has been identified, refined and referenced throughout the design process. The framework also focuses on meeting the objectives of the area, which includes significant employment targets, improving amenity and strengthening local character.



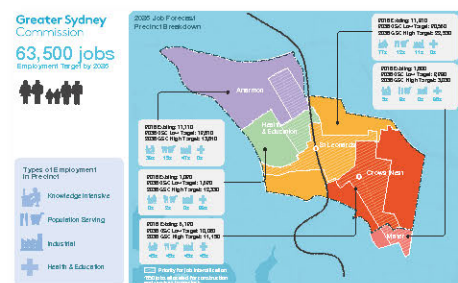
### 1 - Understand Place and Future Vision

The first step in the Structure Plan process was to recognise the place, goals, aspirations and objectives articulated by a vision. The vision seeks the creation of a resilient, liveable, responsive, equitable and integrated environment that builds on existing place making qualities.



### 2 - Identify Key Factors

The second step was to identify the key factors that have informed our understanding of the key opportunities and challenges. Key challenges include lack of open space and provision of future commercial floor space.



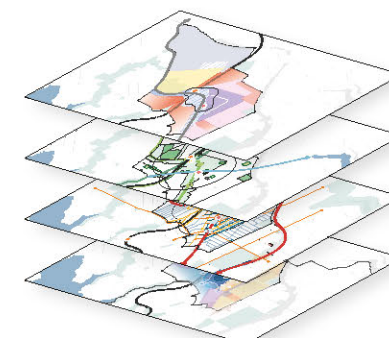
### 3 - Create a Concept

The third step involved the creation of a Concept Plan, which has been informed by a vision incorporating existing and future character elements, public domain, traffic and transport, heritage and economic consultant input. The concept plan identifies priority actions and directions to ensure the vision is achieved.



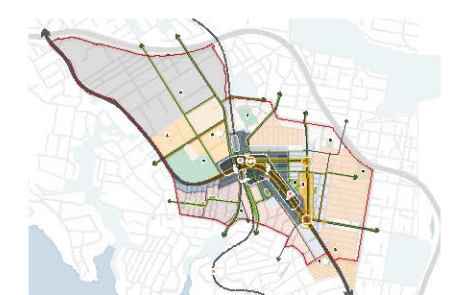
### 4 - Refine through Framework

The Framework Plans convey how the priorities for the Concept can be achieved by addressing key issues through responsive principles and criteria.



### 5 - Design Testing and draft Plan

Built form outcomes were tested against the design principles outlined in the framework plans to establish a preferred approach to built form that aligns with the vision and principles.



# Setting the Scene

This section provides an overview of St Leonards and Crows Nest, including an analysis of the existing area, strategic drivers, challenges and opportunities.

## Setting the Scene

### 1.1 Creating the draft Plan

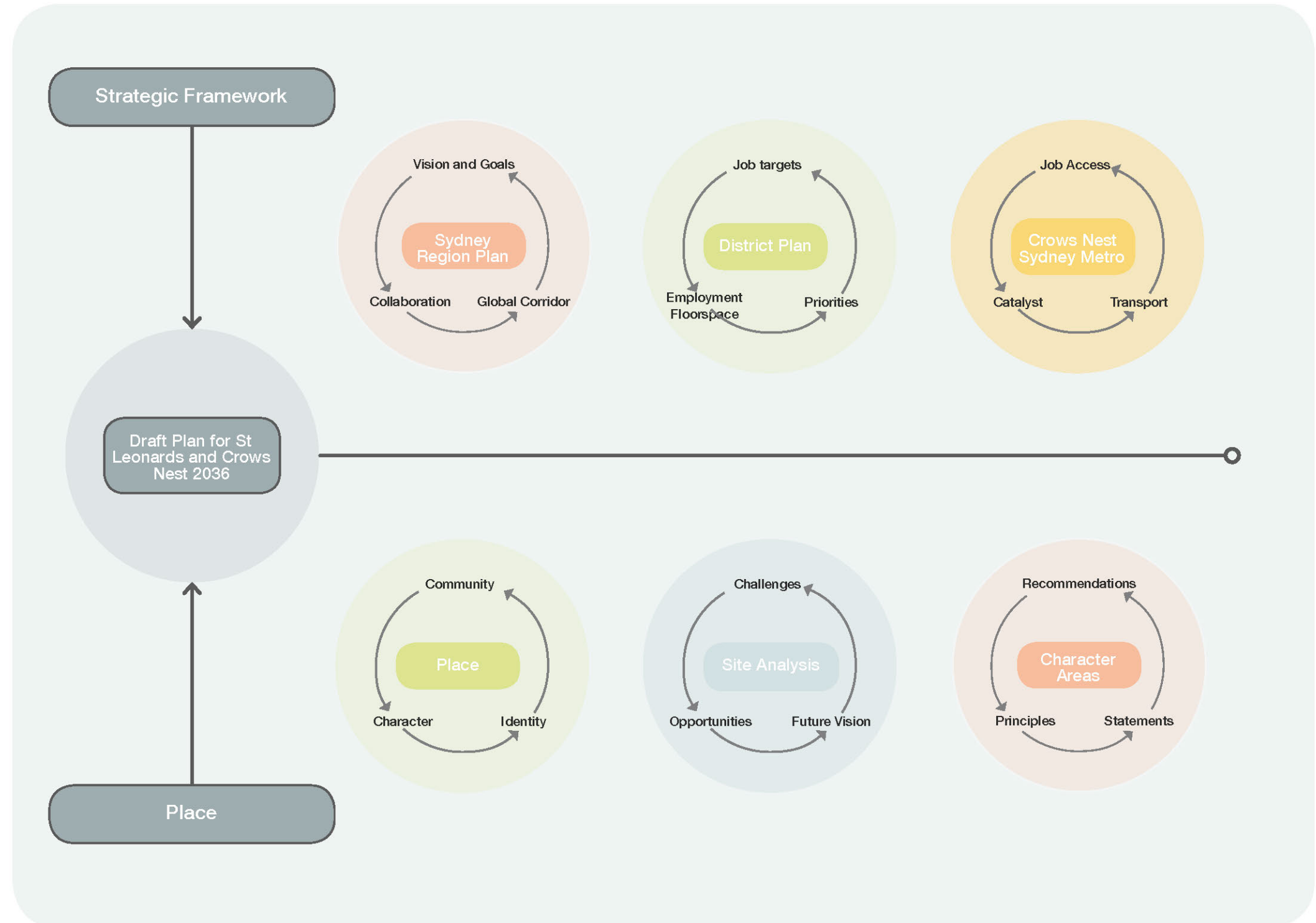
This section provides an overview of the internal and external factors influencing the future of St Leonards and Crows Nest, most notably the various tiers of planning policy that relate to the area, the objectives to deliver new jobs and the pressures from increased housing and population.

Central to this is our understanding of local character and the unique place-making qualities that make St Leonards and Crows Nest a memorable and enjoyable place to live, work and play.

The key factors reflect a combined 'bottom up' and 'top-down' approach, with the aspiration and vision coming together to form the draft Plan. Key factors that have shaped the vision include:

- Recognition of existing character and how to enhance it.
- Crows Nest Sydney Metro Station, which presents structural change to the area through new transport infrastructure and a new focal point within the public domain.
- The Greater Sydney Region Plan (GSRP) vision for St Leonards as a Strategic Centre and Collaboration Area.
- Employment targets set by the Greater Sydney Commission (GSC), and subsequent floor space requirements.
- Residential capacity within the area, influenced by the announcement of Crows Nest Sydney Metro Station.

These factors have been considered in relation to 'place', referring to the Government Architect NSW's (GANSW) document 'Better Placed' and the process it outlines to achieve better design outcomes, some of which are noted above.



## Setting the Scene

### 1.2 Strategic Setting

#### St Leonards and Crows Nest Hierarchy

The Greater Sydney Region Plan identifies St Leonards as a collaboration area, with a mix of uses and activity.

The area supports:

- High density residential;
- Office-based employment hub, including high-rise office developments;
- Health and medical uses at the Royal North Shore Hospital, North Shore Private Hospital;
- Northern Sydney Institute of TAFE and technology industries; and
- Consolidated industrial sub-precinct in Artarmon providing essential urban services to the broader area.

St Leonards and Crows Nest is situated within the Eastern Economic Corridor as defined by the Greater Sydney Region Plan, and is located between two other main employment centres, North Sydney and Chatswood, and connected to the Sydney CBD by road, and bus.

In November 2015, Crows Nest was announced as the location for a metro station.

#### Legend

- St Leonards and Crows Nest
- Rail Line
- Urban Renewal Areas
- Western Sydney Priority Growth Area Precinct
- Eastern Economic Corridor
- Transport and Intermodal Hubs

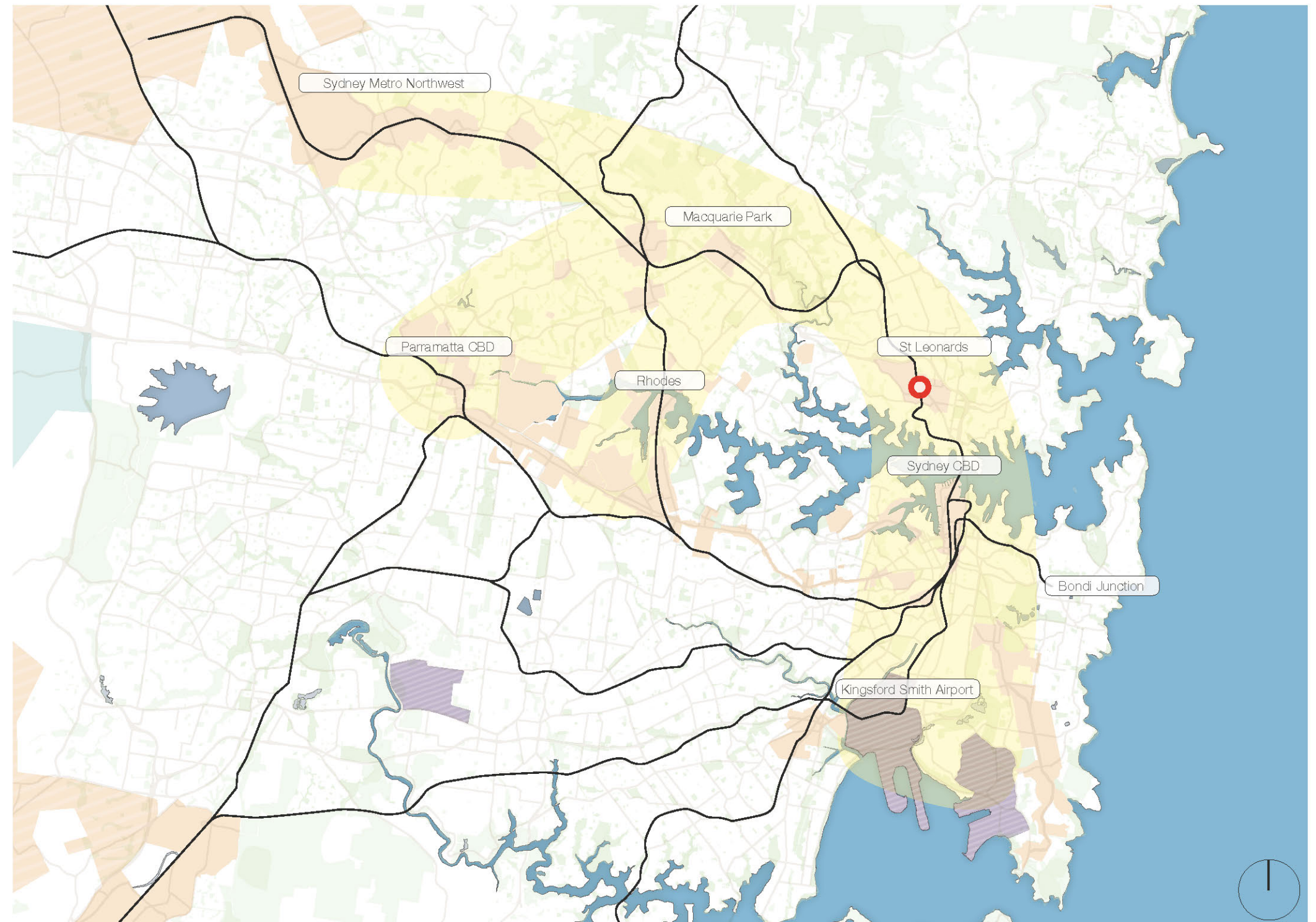


Figure 1.1.1 Regional Context Map

## Setting the Scene

### 1.3 The Study Area

St Leonards and Crows Nest Study Area is located approximately 5 km north-west of the Sydney Central Business District (CBD). It overlaps three local government areas; Lane Cove Council, North Sydney Council and Willoughby Council.

The area provides a unique urban condition, comprising a variety of land uses, including low, medium and high density residential and commercial developments, retail, industrial, education, medical and sporting facilities.

The morphology (pattern of urban settlement and development) of the area has been shaped by topography and the Pacific Highway, which runs along the ridge-line from the Sydney CBD in the south to Hornsby and beyond in the north. Development either side of the Pacific Highway quickly transitions in terms of density, land use and elevation, which also presents significant challenges for connectivity.

Some of the key features that start to define the area's character include The Forum at St Leonards Station, Royal North Shore Hospital and Gore Hill Oval, Artarmon Employment (Industrial) Area, low-scale fine grain residential neighbourhoods in Naremburn and Crows Nest, steep topography along River Road and St Leonards South, and the vibrant retail and dining along Willoughby Road. This variation in character, form and function contributes to the unique 'sense of place' that defines the local area.



Figure 1.1.2 Aerial Context Plan

## Setting the Scene



Figure 1.1.3 Location 1 - St Leonards Station and The Forum



Figure 1.1.4 Location 2 - Atchison Street, looking west from Mitchell Street



Figure 1.1.5 Location 3 - Royal North Shore Hospital



Figure 1.1.6 Location 4 - TAFE NSW



Figure 1.1.7 Location 5 - The Forum, looking east from Pacific Highway



Figure 1.1.8 Location 6 - Eat Streets of Willoughby Road



Figure 1.1.9 Location 7 - Nareburn Conservation Area



Figure 1.1.10 Location 8 - Reserve Road



Figure 1.1.11 Location 9 - Gore Hill Park, looking east towards St Leonards



Figure 1.1.12 Location 10 - Crows Nest, looking north from Pacific Highway



Figure 1.1.13 Location 11 - Medium Density along Duntroon Avenue



Figure 1.1.14 Location 12 - Nareburn Park

## Setting the Scene

### 1.4 St Leonards and Crows Nest: Yesterday, Today, Tomorrow



Pre-colonial era

1820's

1846

1886

1943

2009

2012

2017

#### Aboriginal Heritage

The traditional owners of the North Sydney area are the Cammerraygal people. Their lands extended from present day Cremorne Point in the east and potentially as far as the Kuring-gai area in the north.

#### Settlement and Establishment

The earliest known settlements on the Cammerraygal land was made in the 1790's. Around the mid 1820's, much of the foreshore between Waverton and Cremorne had been acquired by individual land grants.

The planning for the St Leonards township was gazetted in 1838 and formed the basis for future development.

Population in the inner north shore increased significantly from the 1860's with the introduction of ferry services across the Harbour. St Leonards Station was opened in 1890 and serviced the nearby northern boundary of the North Sydney area up to Hornsby.

With the opening of Sydney Harbour Bridge in 1932, St Leonards emerged as a transport centre focused around the former Lane Cove Road (Pacific Highway).

#### St Leonards Yesterday

In 1948, the County of Cumberland Planning Scheme identified St Leonards as a sensible area for industrial growth. As a result, commercial and light industrial buildings began emerging in the area.

Around 1975-76 apartments and townhouses began to dominate the residential market, which increased the demand for new commercial space.

By the mid 1980's, St Leonards was gradually transforming into a leading employment centre, supported by key health institutions including the Royal North Shore Hospital.

In line with development pressures, a few local heritage items remain within the centre including 1 Chandos Street and the 1927 Power Station at 23 Albany Street.

There are a number of residential buildings dating from the 20th century remaining within the centre, mainly located on Chandos, Albany and Atchison Streets.

There are a number of conservation areas around the centre, reflecting the historic subdivision, architecture and planning for the area. These include Naremburn Conservation Area and Holtermann Estate Conservation Area.

#### St Leonards Today

Over recent years the traditional commercial function of the area has changed with the emergence of high density residential. This has been facilitated by excellent public transport and accessibility to jobs. The area largely consists of B and C grade commercial stock, with many businesses opting for higher-end office stock located in North Sydney or Macquarie Park over the last 30 years.

St Leonards and Crows Nest remains one of Sydney's health and education precincts, benefiting from state of the art hospital facilities, hospital-based teaching and TAFE.

Currently, there is a diversification and transformation of commercial centres across Sydney into mixed use precincts, seeking to provide residential development in close proximity to public transport, employment, public open space and retail. This process is transforming commercial centres into vibrant and dynamic places to live, work and relax.

In November 2015 the NSW Government announced Crows Nest Sydney Metro station. The proposed metro line will extend underground from the north west and to the city, through a second harbour crossing into Sydney CBD.

With the announcement of the metro, Crows Nest and St Leonards will also mutually benefit from having new opportunities for office and health based commercial uses with an increased population available to the area.

## Setting the Scene

### 1.5 Understanding the Existing Character

The following identifies our understanding of the existing character of the area.

#### Commercial areas around the St Leonards Train Station and on the southern side of the Pacific Highway

These areas have the most dense built form, however tend to lack street activity and amenity with C and B grade commercial stock. These areas are more overshadowed and feature less human-scale architecture.

#### Crows Nest retail and residential precinct with Willoughby Road eat street

This area is very pedestrian friendly with a safe, active and inviting public domain, predominantly two-storey retail and food and beverage offerings.

#### Residential precincts with leafy streets and low density housing

These areas have wide sleepy streets, with little activity, and predominantly free standing, single storey dwellings, many of which are original bungalows and workers cottages and fall within heritage conservation areas.

#### Large institutions of Northern Sydney Institute (TAFE), Bradfield College and Royal North Shore Hospital campuses

The large, modern and institutional-style architecture of these campuses allows them to read as an area unto itself. The public domain differentiates from the surrounding context further contributing to the distinctive character of the area.

#### Artarmon Employment Area

This area is characterised by industrial uses including specialised urban services such as concrete batching plants. It also supports low-rise bulky goods and large item retail warehouses. The streets are wide and street trees provide amenity to some areas.

#### The Pacific Highway Corridor

The building typology along the corridor ranges from large footprint, low rise warehouses to 6-8 storey institution buildings through the overshadowed stretch along St Leonards. The scale of built form transitions down to two storeys through Crows Nest towards the junction at Falcon Street. Views are often cut short due to the undulating topography and winding road. The street life along the corridor is unpleasant as a result of heavy vehicular traffic experienced on a daily basis.

SJB





# Strategic Drivers

# 2

## 2.1 Catalyst for Change - Sydney Metro

### Sydney Metro (Northwest and City & Southwest)

Sydney Metro is Australia's largest transport project – a new standalone railway delivering 31 metro stations and 66 kilometres of new metro rail, revolutionising the way Australia's biggest city travels. It will have the ultimate capacity to operate 30 trains an hour through the CBD in each direction – a train every two minutes each way.

In November 2015, Crows Nest was announced as a metro station, with entrances at the corner of Clarke Street and Hume Street, and the corner of the Pacific Highway and Oxley Street.

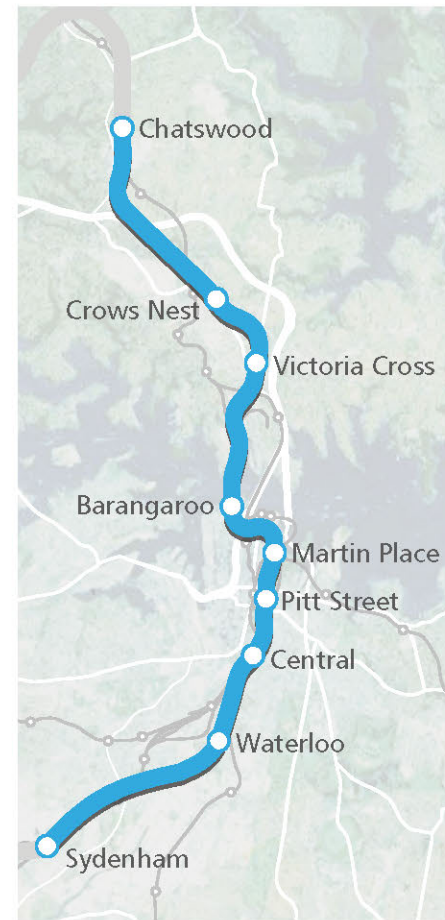
The addition of a station at Crows Nest will reinforce the role of the area between the two stations as the commercial and mixed use core. The new station will also change the way that people use and move through the public realm.

A pedestrian and cycle-friendly catchment will be centred around the new transport node, which will include upgrades to pedestrian crossings, cycle links and way-finding. The walk to a major station will be significantly reduced for patrons within the area on the south-western side of the Pacific Highway, as well as those to the east of Oxley Street. A small section of the study area also falls within the 800m catchment area for the Victoria Cross Metro station at North Sydney.

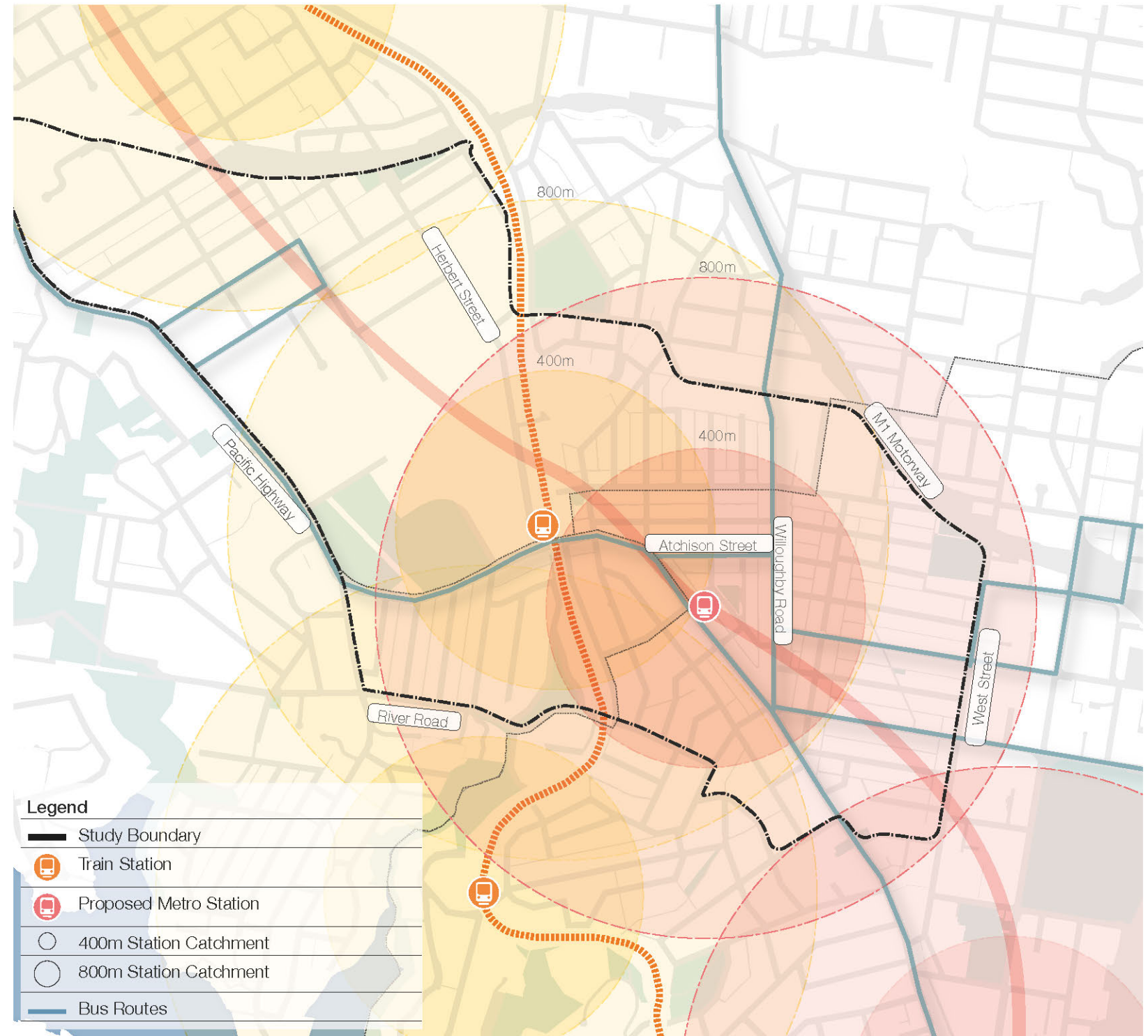
The travel experience for commuters to and from the centre will also be improved with travel times estimated at 11 minutes to Central station and 7 minutes to Martin Place Metro Station (from 2024).

Given the increased accessibility in this area, further investigations into commercial and residential densities have formed a large component of this study. The new station will facilitate the sustainable growth of the area through improved connectivity and a focus on active and public transport modes. A decrease in car reliance will also be facilitated by an improved public domain, pedestrian experience and improved active transport links.

The station will improve access to the Crows Nest residential area, as well as the St Leonards southern gateway to commercial and mixed-use activities. This will not only bring jobs closer to residents but will also open up new opportunities for office and health based commercial uses, with an increased population available to the area.



Metro Alignment



- Legend**
- Study Boundary
  - 🚉 Train Station
  - 🚇 Proposed Metro Station
  - 400m Station Catchment
  - 800m Station Catchment
  - Bus Routes

Figure 1.1.15 St Leonards and Crows Nest Sydney Metro Access

## Strategic Drivers

### Sydney Metro Impact on Residential and Commercial Uplift

Sydney Metro Northwest, City and Southwest projects will facilitate the delivery of approximately 28,800 dwellings in the north west and approximately 35,000 dwellings in the south west.

Work undertaken by SGS Economics and Planning has identified the spatial impacts of Sydney Metro across Metropolitan Sydney for employment and dwellings.

Figure 1.1.17 identifies areas in green are likely to gain significant volumes of dwellings and employment in preference of other locations (orange and red).

The proposed metro will likely result in additional residential demand along the Pacific Highway corridor including the centres of North Sydney, St Leonards and Chatswood, while reducing uplift demand in neighbouring suburbs.

### Residential Uplift Forecast within the study area (SGS Economics and Planning 2017)

Dwellings	Current Supply	2036 Growth	2036 Stock	2066 Growth	2066 Stock
Private	8,000	6,500	14,500	16,000	24,000

Source: Dwelling Impact from Metro Project (SGS Economics and Planning 2017)

#### Legend

<span style="color: blue;">●</span>	Strategic Centres
<span style="color: blue;">—</span>	Rail Line
<span style="color: red;">■</span>	-2,126 - -150 (Dwelling Loss)
<span style="color: orange;">■</span>	-150 - -100 (Dwelling Loss)
<span style="color: lightgrey;">■</span>	-100 - -10 (Dwelling Loss)
<span style="color: grey;">■</span>	-10 - 10 (Dwelling Uplift)
<span style="color: lightgreen;">■</span>	10 - 500 (Dwelling Uplift)
<span style="color: green;">■</span>	500 - 2,543 (Dwelling Uplift)

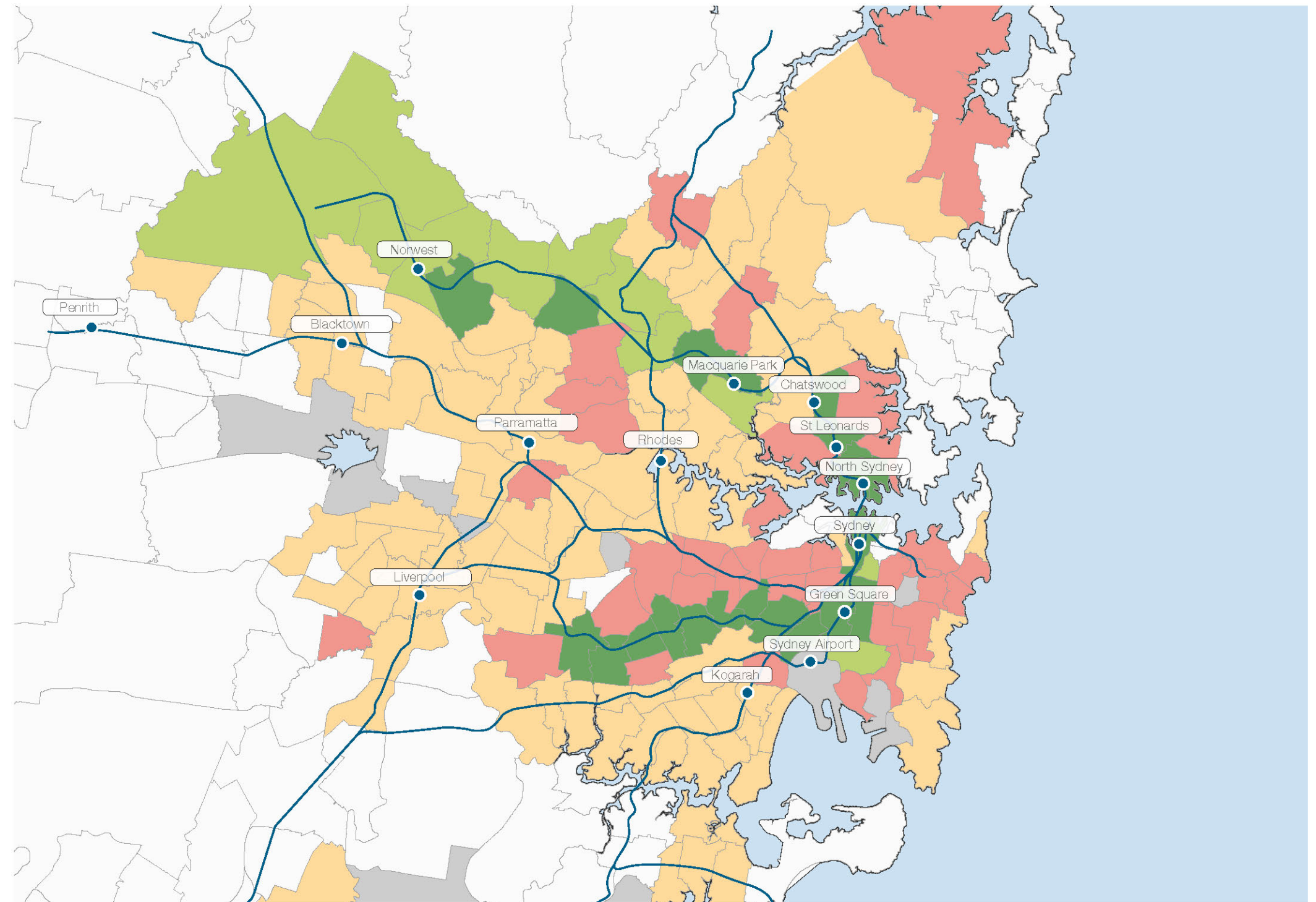


Figure 1.1.17 Sydney Metro Impact on Residential Uplift in Sydney Suburbs

## Strategic Drivers

### 2.2 Greater Sydney Region Plan

#### St Leonards as a Collaboration Area - Greater Sydney Region Plan (GSC)

*“The responsibility for creating great places does not rest with any one organisation. As a non-statutory initiative, Collaboration Areas offer a new way of working to deliver improved planning outcomes that support growth and change. Collaboration Areas are a place-based process led by the Greater Sydney Commission to address complex issues that require cross-stakeholder solutions...”*

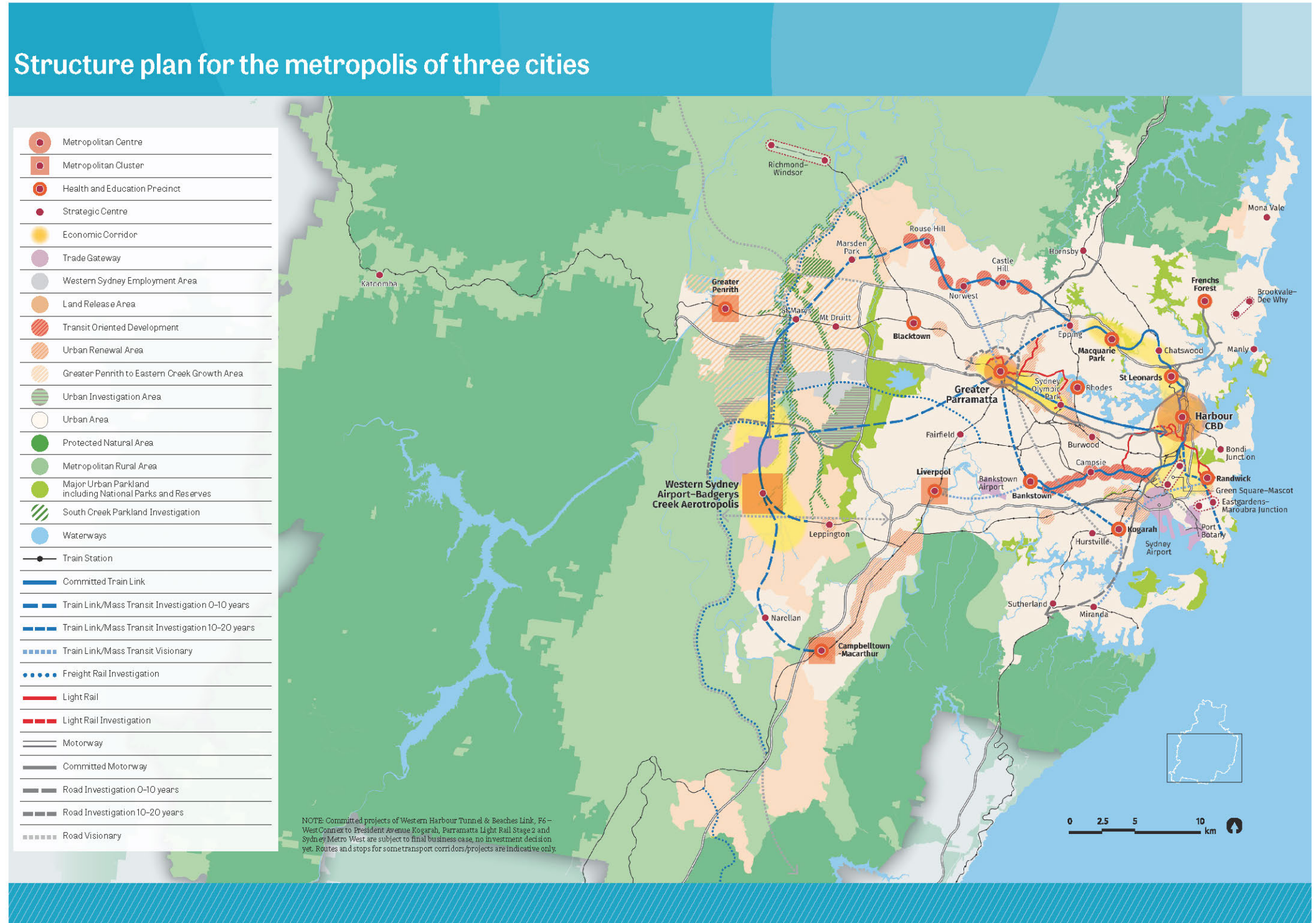
(GSC North District Plan; p.20)

The final Greater Sydney Region Plan, ‘Metropolis of Three Cities’, was released in March 2018 by the Greater Sydney Commission and outlines a vision to meet the needs of a changing population and transforming Greater Sydney into a metropolis of three cities.

St Leonards is a Collaboration Area within ‘Global Sydney’ and more specifically, within the Harbour CBD and Eastern Economic Corridor.

The area is situated within the highly-connected Eastern Economic Corridor from Macquarie Park to Sydney Airport. It is noted as being one of Sydney’s key office markets alongside Harbour CBD, Macquarie Park and Norwest.

The Eastern Economic Corridor is of national significance and currently contains approximately 775,000 jobs.



## Strategic Drivers

### A 'Collaboration Precinct' - North District Plan (GSC)

St Leonards is a mixed use centre with high rise offices, a major health and education precinct, high density residential development and good public transport. It is an attractive centre, bolstered by the restaurant village along Willoughby Road in Crows Nest and productive industrial employment area within Artarmon.

In addition to leveraging the potential of the Royal North Shore Public, North Shore Private Hospitals and the Mater Hospital to grow jobs in complementary health services and existing education facilities, a new Sydney Metro station at Crows Nest will further strengthen the centre's economic and employment functions. The North District Plan identifies the following:

- Sets baseline target of 54,000 jobs by 2036.
- Sets high level target of 63,500 jobs by 2036.
- Sets five year housing targets for the LGAs.
- 1,900 dwellings in Lane Cove, 3,000 dwellings in North Sydney and 1,250 dwellings in Willoughby.
- Facilitates place making and job diversification opportunities in St Leonards.
- Leverage off the new Sydney Metro station at Crows Nest to deliver additional employment and residential capacity.
- Protect and enhance Willoughby Road's village character and retail/restaurant strip, while recognising the need for increased growth opportunities.
- Promote synergies between the Royal North Shore Hospital and other education-related activities in partnership with NSW Health.
- Define the northern perimeter of St Leonards to protect the adjoining industrial zoned land for urban services.

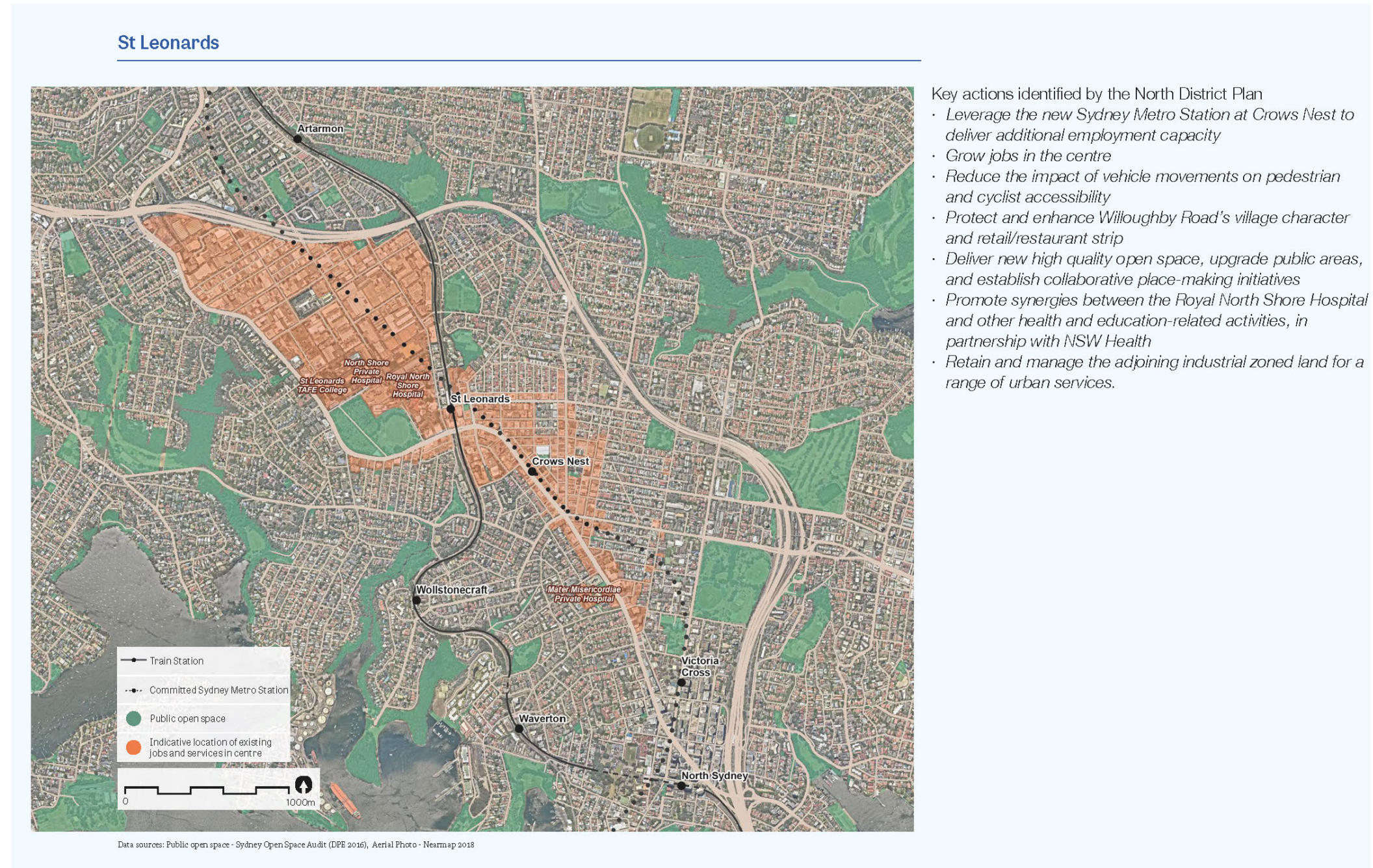


Figure 1.1.18 Actions for St Leonards. Source GSC North District Plan

## Strategic Drivers

### 2.3 Changing Employment Context - GSC Job Targets

The North District Plan identifies St Leonards and Crows Nest as a 'Health and Education Precinct' and sets targets for employment growth. Under the Plan, the area has a high target of 63,500 jobs by 2036.

SGS Planning and Economics in collaboration with relevant stakeholders have undertaken analysis to identify the distribution of job targets to a sub-precinct level, as illustrated to the right.

Job density in the Artarmon sub-precinct will largely be driven by existing industry and demand for space to accommodate evolving urban services. The Health and Education precinct will continue to grow but may need government intervention in order to achieve the GSC High Target for employment. There will be more pressure on the Health and Education Precinct to deliver jobs in line with the vision.

The white hatching depicts where the intensification of employment will be focused. The breakdown of existing and forecast employment is shown in the table for each sub-precinct.

Employment in St Leonards and Crows Nest will largely be driven by private development, which will need to be facilitated by planning controls. Proposed controls will need to find a balance of delivering the GSC job target for 2036 as well as additional employment longer-term, and not sterilising existing development.

(Note - the Mater Hospital sub-area has been included as it is linked to the operation of the area, contributing to, and leveraging off development and activities. It effectively forms part of the 'Health and Education Precinct' as referred to in a suite of planning documents).





## Greater Sydney Commission

**47,000 jobs**  
Employment Target by 2016

**63,500 jobs**  
Employment Target by 2036

**16,500**  
Additional Jobs

### Types of Employment in Plan Area

	<b>Knowledge intensive</b>	<b>24,730</b> <sub>2036</sub>	<b>19,420</b> <sub>2016</sub>
	<b>Population serving*</b>	<b>8,450</b> <sub>2036</sub>	<b>6,490</b> <sub>2016</sub>
	<b>Industrial</b>	<b>11,520</b> <sub>2036</sub>	<b>10,110</b> <sub>2016</sub>
	<b>Health &amp; Education</b>	<b>18,800</b> <sub>2036</sub>	<b>11,080</b> <sub>2016</sub>

\*Population serving include 860 transient construction jobs in 2036 and 630 in 2016

### 2036 Job Forecast Precinct Breakdown

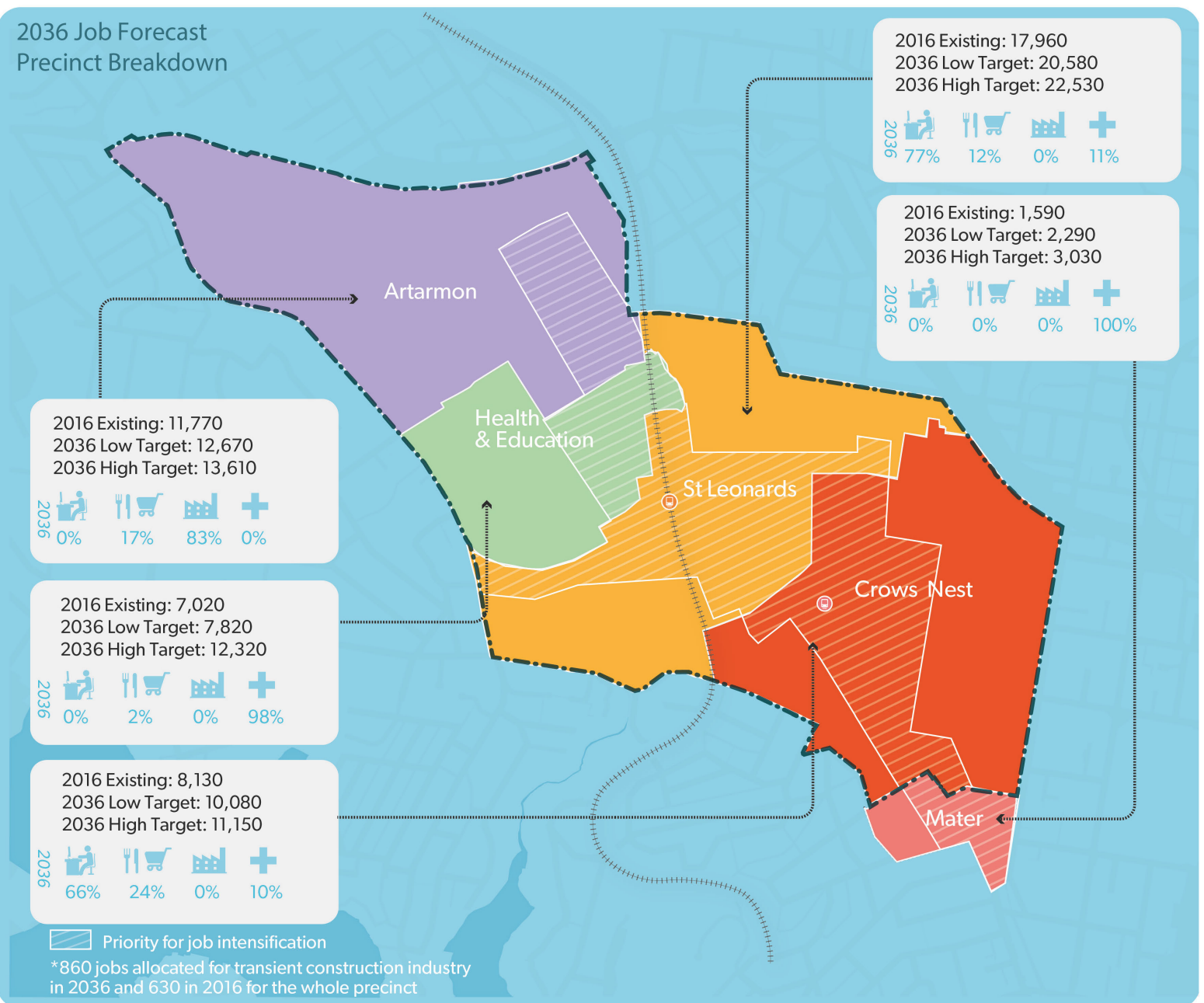


Figure 1.1.19 2036 Job Forecast Sub-Precinct Breakdown

## Strategic Drivers

### 2.4 Challenges of Delivering Employment

Over the past few years development pressures across Sydney for more housing has seen a gradual decline in the amount of employment space across many centres. This has also been the case in St Leonards, where a number of proposals have resulted in the rezoning of B3 Commercial Core to B4 Mixed Use. Many of these are located within the heart of St Leonards Centre along Christie and Atchison Streets, and along the Pacific Highway.

While these developments include a non-residential component, some have also resulted in an overall net loss of commercial floor space and reduced the availability of future office space in close proximity to public transport.

Additionally, once they are converted, strata developments restrict the potential of the sites to be redeveloped for commercial in the future.

As a result of the need to deliver commercial floor space that will meet the job targets identified in the District Plan for St Leonards, two land use and built form options are proposed:

- Retention of B3 zones with increased FSR and height to allow a different typology of commercial to develop, which will leverage off the future metro station, primary location, views, nearby hospital as well health and education opportunities.
- Deliver commercial floorspace in podium elements across the broader area to accommodate future commercial demand, while also providing residential above podium as catalyst for redevelopment. Minimum non-residential FSRs would be adopted to ensure a sufficient amount of commercial floor space is delivered.

The job targets identified in the North District Plan have been translated into commercial GFA (shown to the right) in order to understand how much additional floor space is required to meet the target. The quantum of commercial GFA deliverable under the existing LEP controls has been calculated to understand how much non-residential GFA is required to meet the job target in the District Plan.

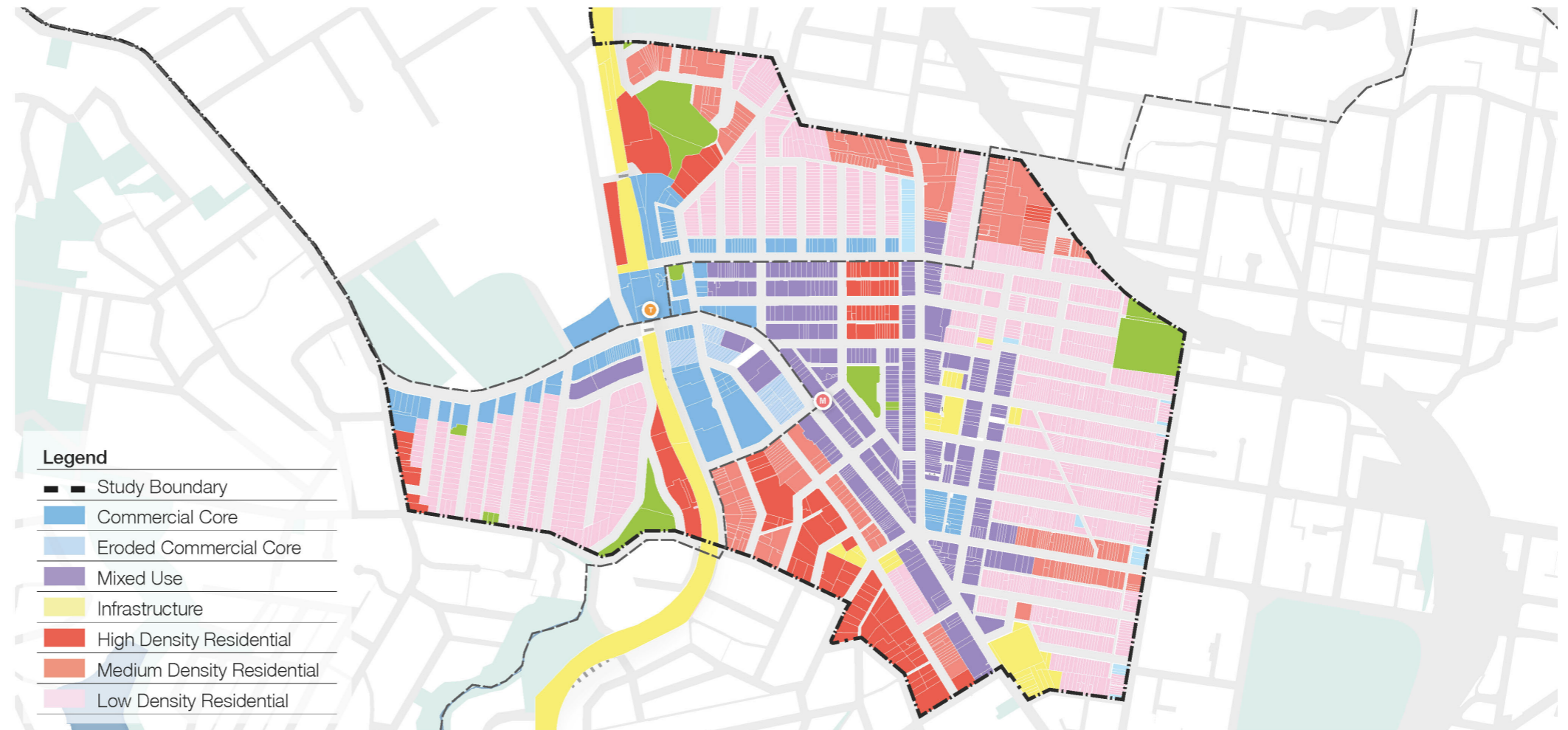


Figure 1.1.20 Existing Controls with sites that will be converted to B4 identified



Commercial GFA has been based on the low and high future job targets identified by the GSC.

Residential development has eroded commercial floorspace from the commercial core. The existing controls only allow for 728,200m<sup>2</sup> today.

The gap has been calculated as the difference between the job target and the current LEP allowable commercial floor area.

## Strategic Drivers

### 2.5 Constraints

1. Change is occurring in the area and community feedback reflects a feeling that this could affect important open spaces, quiet streets and active streets. Managing growth to respect important public places is a key consideration.
2. The new Metro station will bring change to Crows Nest. It is a challenge to manage the impacts of this change. This requires consideration of the scale of new buildings, overshadowing, pedestrian movements and demand on public spaces.
3. The character and function of Willoughby Road is very important to the community. The management of change to minimise impact in the Crows Nest area is a key consideration.
4. There is a need to manage the interface and relationship between new developments and existing areas where no changes are proposed.
5. The topography of the Pacific Highway means high buildings are located on the top of the ridge line. The potential overshadowing particularly to properties and open space areas to the south, is a key consideration that must be managed.
6. New residential developments throughout the area require high quality design measures to provide good amenity, solar access and privacy.
7. New developments must respond to the challenge of respecting existing amenity of surrounding areas.
8. The dense urban character of the area presents limited opportunity for new open space areas and this presents a significant consideration.
9. There are few opportunities to cross the railway corridor which impacts east-west connectivity.
10. The Pacific Highway is a busy road and there are limited crossing opportunities for pedestrians, which impacts north-south connectivity. In some areas footpaths are narrow with few trees.
11. The demand for residential development in the area must be managed to balance the need for increased employment capacity in the centre.
12. The Artarmon Employment Area should be managed and protected as it provides essential urban services for the regional population. There is pressure to deliver residential uses in this area which would impact the employment role.

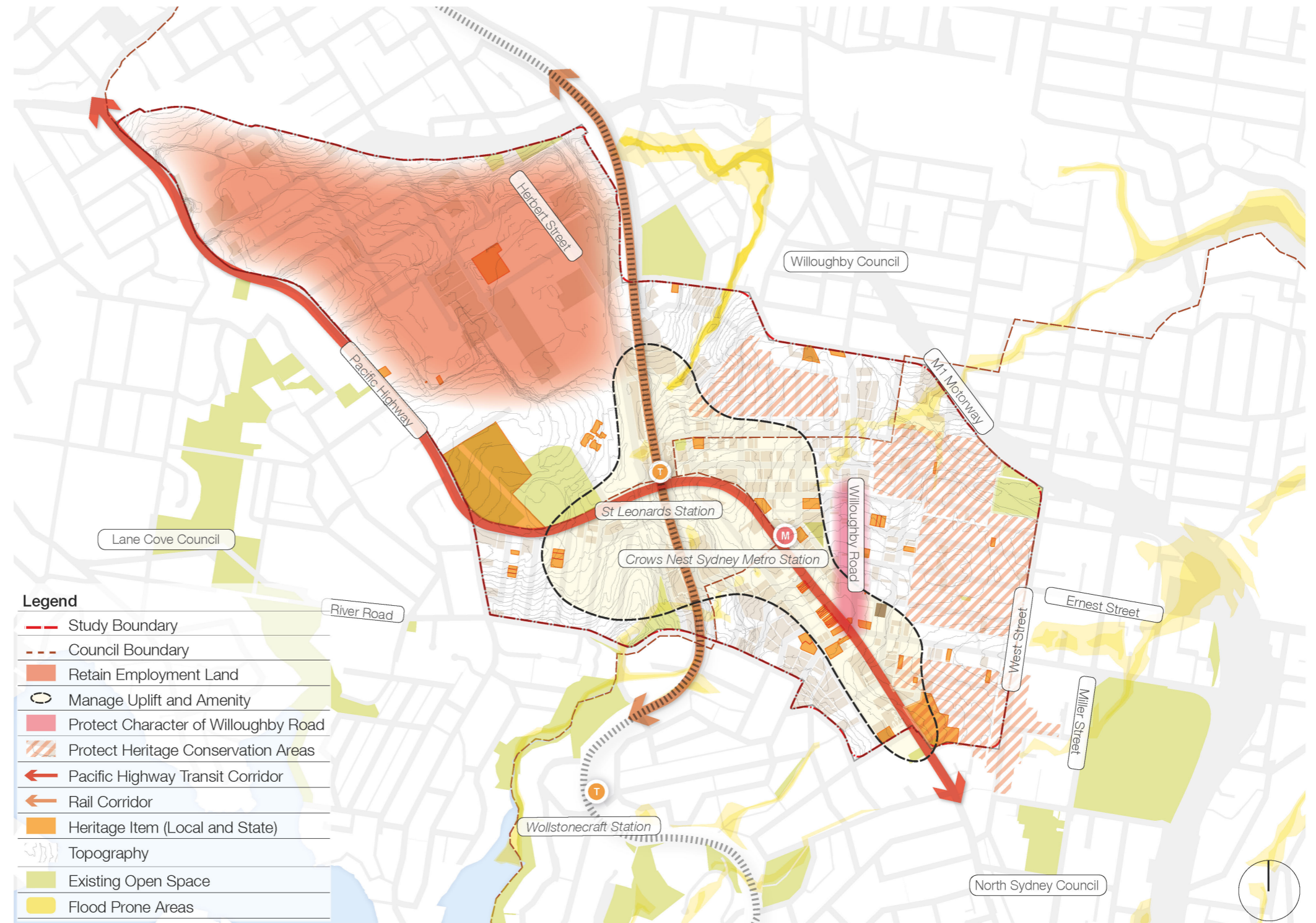


Figure 1.1.21 Stage 01 Challenges Diagram

## Strategic Drivers

### 2.6 Opportunities

1. St Leonards and Crows Nest comprises many well-functioning places and spaces including active streets, open spaces and heritage areas which should be treated sensitively.
2. Community feedback reflects many residents are proud of their community and the places and spaces that work well.
3. The character of Crows Nest Village is valued by the local community. It should be retained and encouraged to continue to attract business of local-residents and workers, as well as draw people to the area.
4. The Metro Station will greatly improve connectivity and presents opportunities for new active streets, employment areas and new homes around public transit.
5. Near Metro, there are significant opportunities for public domain improvements, new civic spaces and more active areas.
6. The new metro will put much of the study area within 400m-800m walking distance of a station which presents significant opportunities for transport oriented developments.
7. The public transport accessibility presents an opportunity to reduce private vehicle usage.
8. New development in the area presents an opportunity to fund and deliver public domain improvements such as greener streets, wider footpaths, better links to other areas and new public spaces.
9. The Health and Education Precinct around the Royal North Shore Hospital, North Shore Private Hospital and St Leonards TAFE presents an opportunity for innovative health, technology and education uses in surrounding areas.
10. The Mater Hospital presents a similar opportunity along the Pacific Highway at the southern end of the study area.
11. The Artarmon Employment Area current presents an opportunity to continue to provide industrial and urban services land to the area. This opportunity may shift to different employment uses and types with global economic trends.
12. There are opportunities to provide for improved amenity for workers in the Artarmon Employment Area
13. There are opportunities to undertake further investigation into crossings and connections across the Pacific Highway and the railway line.

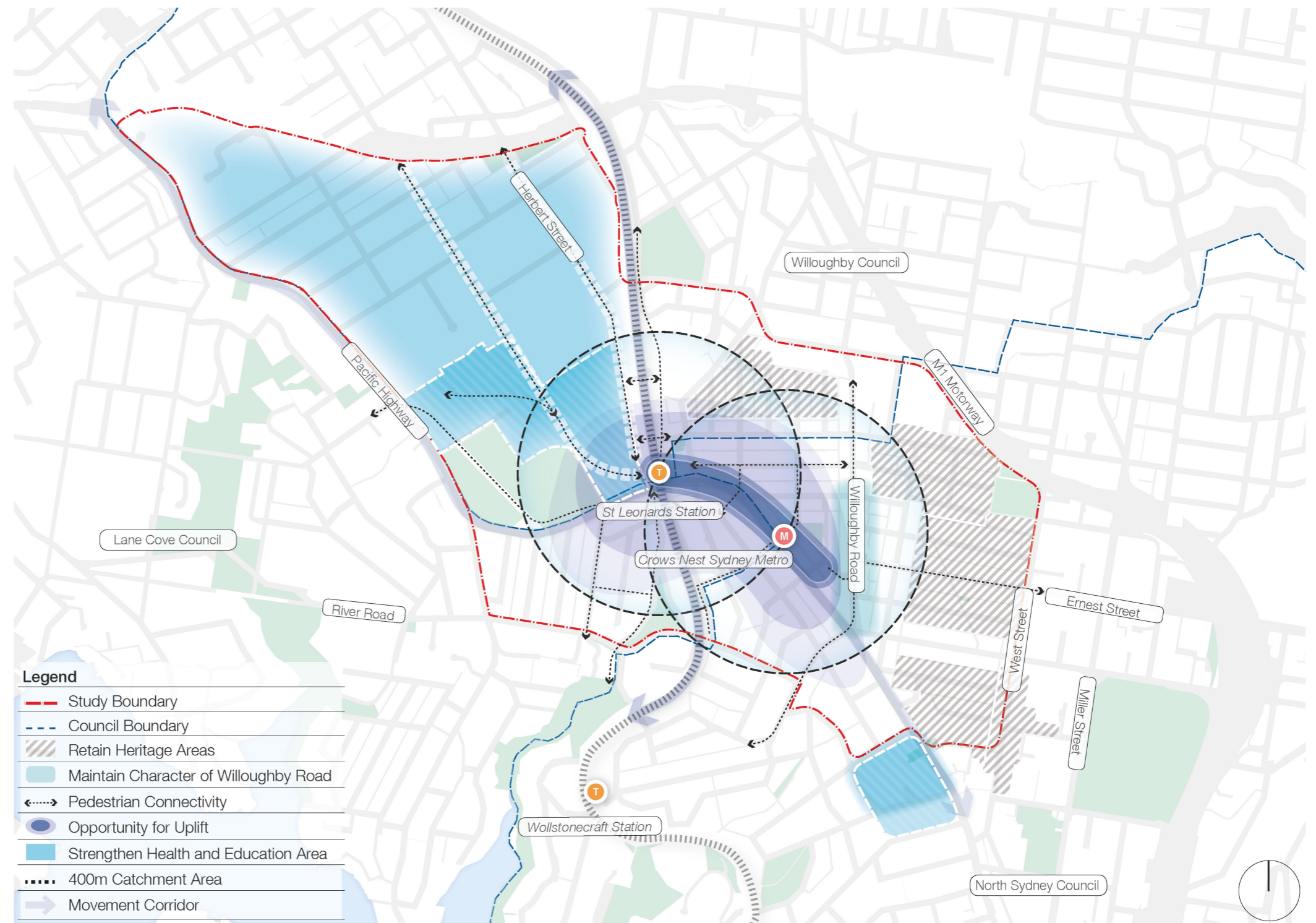


Figure 1.1.22 Stage 01 Opportunities Diagram



# Vision and Principles

# 3

This section explores the vision and principles for St Leonards and Crows Nest, taking into consideration the various character areas and their future aspirations.

## Vision and Principles

### 3.1 Starting with Place

#### What is character?

Character is what distinguishes one neighbourhood from another. It is the way a place 'looks and feels', as well as how people attach a sense of belonging to it.

It is formed by a combination of physical and natural qualities, including the relationship of the public domain to private realm, buildings to the streets, and buildings to other building. It is unique and detailed, coming down to the complementary connection between built form, architecture, urban grain, movement, street life, topography and vegetation.

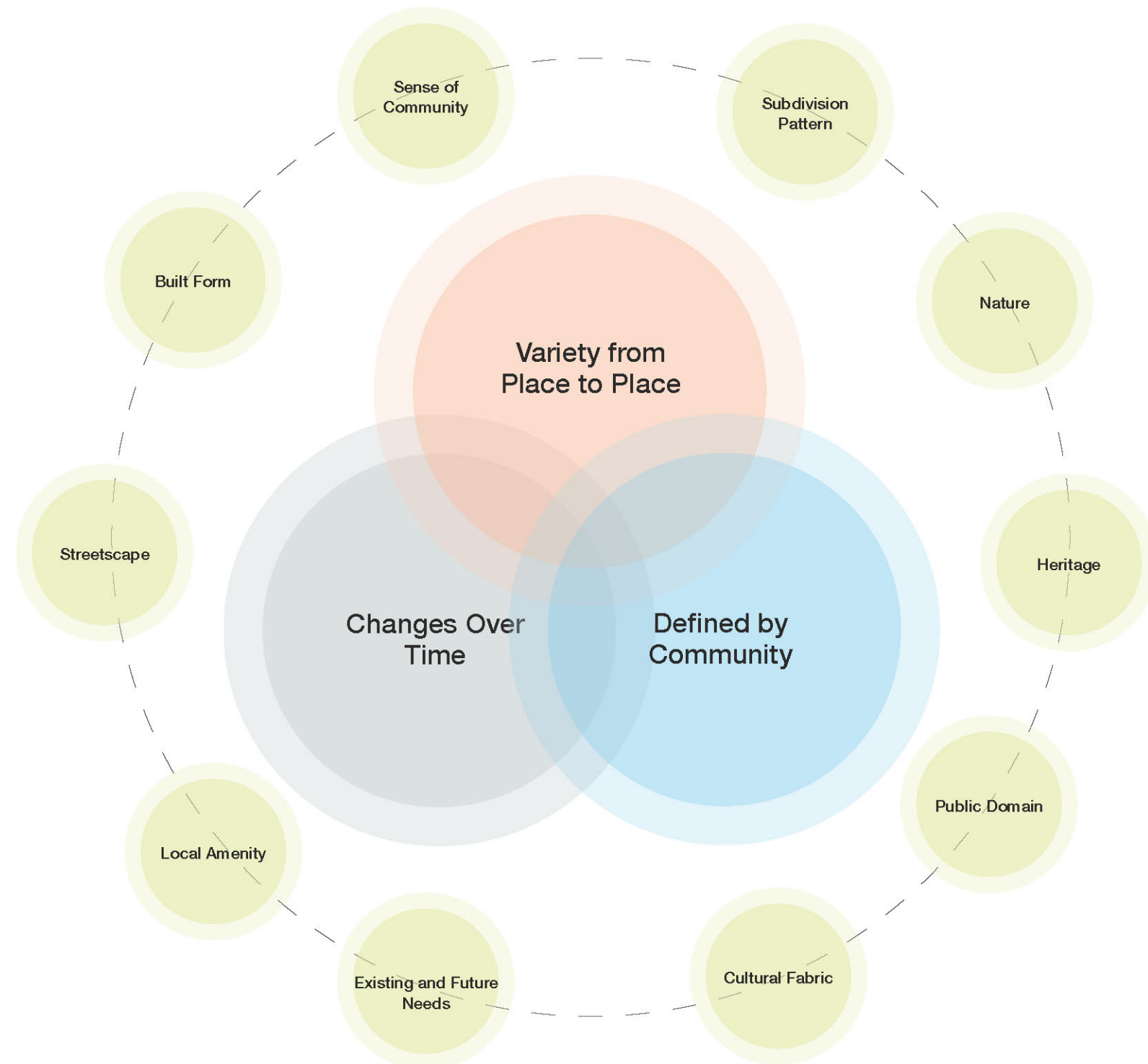
#### What is the character of St Leonards and Crows Nest?

St Leonards & Crows Nest includes a number of distinct neighbourhoods, each with their own unique identity, built form and place qualities.

The size of the area naturally allows for a number of diverse character areas, ranging from the low-rise industrial and commercial buildings fronting wide streets throughout Artarmon, to the leafy low-scale residential streets in Crow Nest, and the high-density, tall buildings and mix of uses throughout St Leonards.

There is an intrinsic opportunity to celebrate the diversity of these places. However, there is also a risk that the many diverse areas may potentially lose their 'sense of place' as the area grows.

A key objective of the project is to unify and connect these unique places through leafy, urban links. It is critical that as part of the area's evolution, development pressure doesn't undermine its character. Qualities that make each area unique and memorable should be retained and celebrated.



## Vision and Principles

### 3.2 Vision Objectives

The following are a number of high-level objectives that have informed the vision for the future Crows Nest and St Leonards area. These objectives have been taken from the draft vision statement that was developed in the interim stage of preparing this report. The principles that underpin the delivery of the vision objectives are explored in detail over the following pages.



1. Leverage world-class health and education uses to provide opportunities for training and employment growth into the future.



2. Protect and strengthen the area's commercial role supported by complementary uses to capitalise on renewed confidence in the commercial market and potential softening of the residential market.



3. Create future employment opportunities leveraging off the increased transport capacity of the new metro station.



4. Protect and enhance opportunities in the Artarmon employment area to fulfil the important urban service needs of the wider North District.



5. Create a network of new and existing useable, public open spaces which prioritise walking, cycling and access to transport, promote a healthier urban environment and encourage social interaction.



6. Incorporate opportunities for transit oriented development including commercial and mixed use development that takes advantage of existing and future transport.



7. Develop high quality and diverse residential areas that create sustainable and liveable communities.



8. Preserve, strengthen and enhance the existing diverse character areas.

## Vision and Principles

### 3.3 Principles

#### Open Space, Public Domain and Community



#### Create a pedestrian and cycle green network

This can be achieved through measures such as traffic calming, low vehicle speeds and clearly identified pedestrian linkages, crossings, arcades and lane ways.

Define a pedestrian and cycle network that provides appropriate access within and to/from areas beyond the site. This includes connectivity to local and regional open spaces. Provide areas of new open space and embellish existing where possible.

#### Enhance existing open spaces

Enhance the existing regional open space assets and connectivity to nearby centres. Open space and facilities should also be co-located and shared with schools where possible.

#### New schools should be located within accessible areas with access to open space

Schools should have a strong street presence. Safe and accessible schools should consider local road design and be co-located next to complementary land uses. Shared use of school facilities is encouraged.

#### Movement and Access



#### Transit oriented development

Allow for new transport infrastructure to support the Metro and facilitate the growth of jobs and employment opportunities, by reinforcing and strengthening connections to places of work. Integrate land use and planning to support public and active transport solutions.

#### Manage the delivery of future car parking with existing vehicle usage

Balance visitor car parking supply with the objective of reducing private vehicle use. A 'minimalist' car parking policy should apply to new residential and commercial development in the area, in the vicinity of the rail and metro stations.

#### Multi-modal approach

A multi-modal approach considers several different methods of movement. Transport connections should consider the role of new and existing centres and provide integrated links for connecting people across Sydney, while also prioritising active and public transport.

#### Protect and expand the existing urban canopy

Improve the existing tree canopy specifically along key roads, main streets, in plazas and in parks.

Urban canopy should provide integrated connections between pedestrian friendly streets and open space to improve the quality of the public domain.

## Vision and Principles

### Land Use and Activity



#### Create an exciting, safe and memorable experience for pedestrians in the Precinct

Activation of the ground plane is key to creating a pedestrian focused environment. Active frontages can provide an enhanced connection to buildings and increase safety through passive surveillance and street activity.

This can be assisted through measures such as traffic calming, low vehicle speeds and clearly identified pedestrian linkages, crossings, arcades and laneway.

#### Ensure that buildings contribute to the life and sense of place

Buildings should provide visual interest and respond to the function of surrounding streets through facade articulation and active ground floor uses.

#### Reinforce and preserve the significance of heritage

New development should embrace the local built form heritage of the area by embracing building elements and treatments that reflect and celebrate their character.

### Built Form



#### Height and Density Transitions

Consolidate density between the two stations, transition down to low density areas and Willoughby Road Village.

Height and density needs to sensitively respond to the character of surrounding conservation and low character areas, particularly to the north along Henry Lane, and to the east towards Willoughby Road. This includes protection of solar amenity, views and privacy.

#### Landscape and Topography

Landscape and topography can impact the perceived bulk of built form. Buildings should respond to the steep topography at street level, whilst utilising the landscape to reinforce the existing character of the area.

#### Heritage, Character and Streetscape

The scale and articulation of key streets and character areas should be interpreted within areas where change is occurring to provide an appropriate site specific response on in-fill sites, particularly within the Central Precinct, St Leonards South and transition to the conservation areas and Willoughby Road.

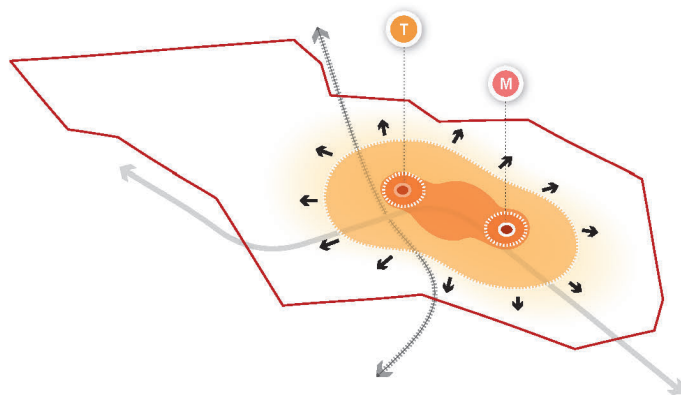
#### New residential development should provide a mix of dwellings

The mix of dwellings across the area should respond to the housing needs of the local area. A mix of dwelling types provides housing choice and supports equitable housing access. This includes existing single and semi detached houses, terraces, medium and high density apartments.

## Vision and Principles

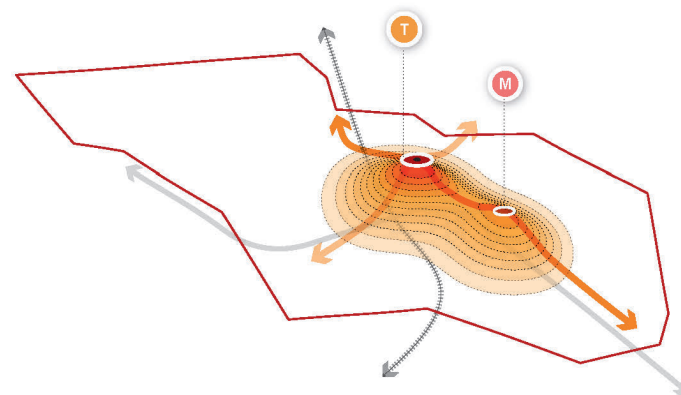
### 3.4 Design Ideas

#### 1. Proximity to Stations - Epicentre



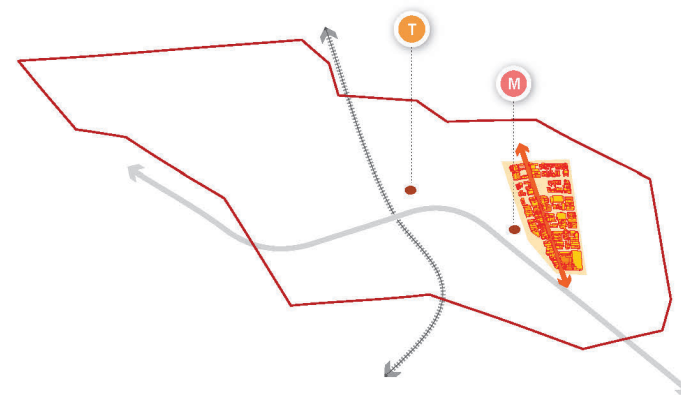
This principle recognises that density located in close proximity to a transport hub such as St Leonards Train Station or the proposed Crows Nest Sydney Metro Station facilitates Transit Oriented Development (TOD). Taller buildings are to be located within 150-200m of either station, and transition down in height to the surrounding areas.

#### 2. Centre & Height Transition - Height 'Knuckle' Area



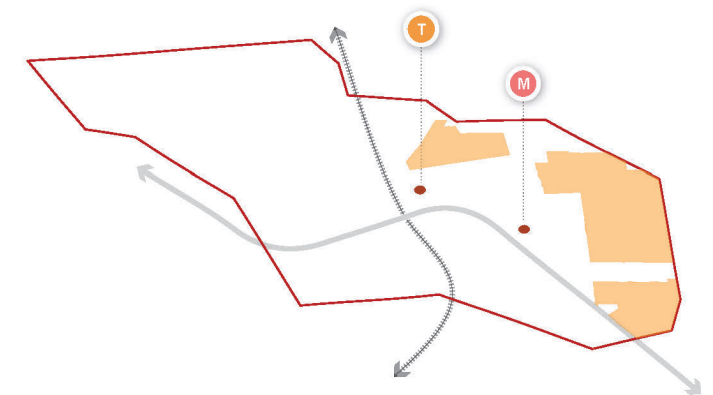
Through height and bulk, St Leonards is to be read as the predominant centre to reinforce its commercial role and Crows Nest as secondary to reinforce its role as a lifestyle destination. Large developments are to be located between St Leonards Train Station and Crows Nest Sydney Metro Station along the Pacific Highway with a transition in height, bulk and scale from the highway to the surrounding neighbourhood areas. This focus of height as referred as the 'knuckle' area within St Leonard's and mixed use commercial

#### 3. Maintain Willoughby Road and Conservation Areas



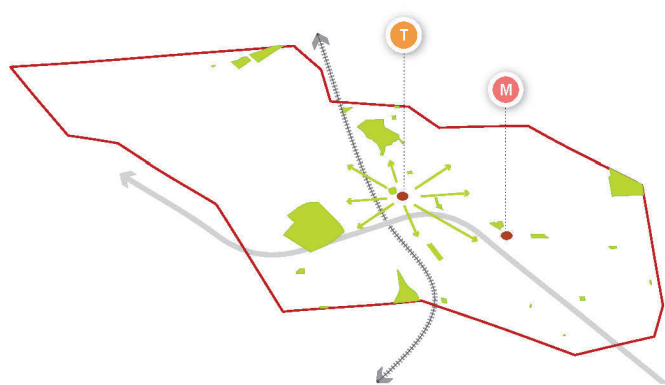
Willoughby Road is treated as a special area that is to be protected. Proposed developments are to ensure minimal overshadowing, and avoid unreasonable visual impact to the public domain along Willoughby Road.

#### 4. Reduce Impact on Heritage Conservation Areas



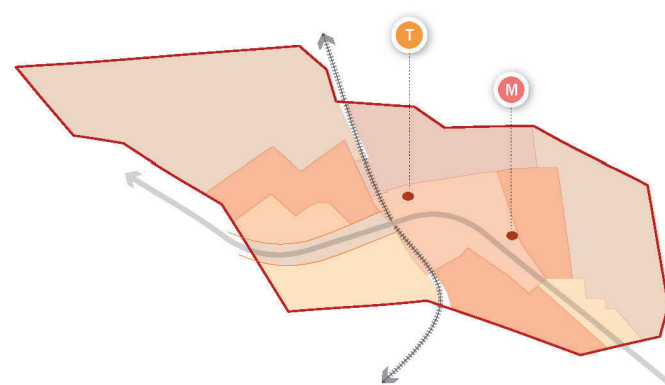
Similar to Willoughby Road, the Heritage Conservation Areas are to be protected. Proposed developments nearby are to ensure minimal overshadowing, and avoid unreasonable visual impact to the public domain or private open spaces of dwellings within the Heritage Conservation Areas.

#### 5. Expand Open Space Network and Protect Amenity



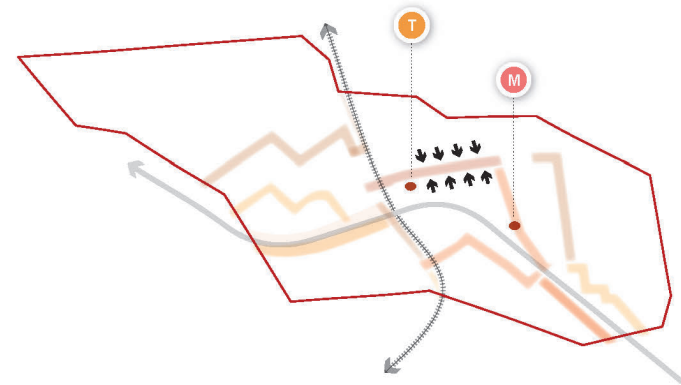
Find opportunities to provide additional open space in the study area. Proposed developments are not to cause unacceptable overshadowing to any key existing or proposed public open spaces.

#### 6. Response to Character Area



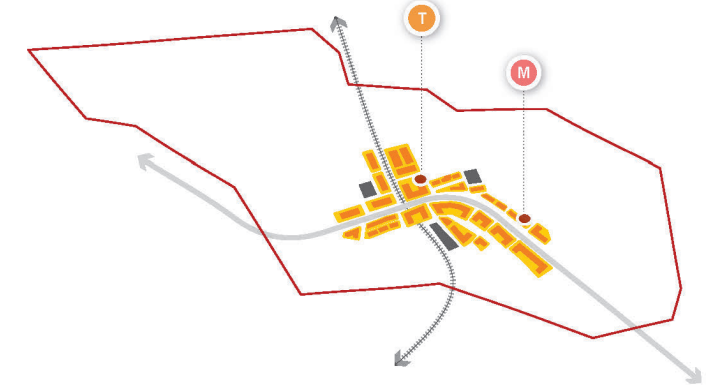
Proposed developments must respond appropriately to the built form character of the sub-precinct, including height, bulk and scale, as well as the character areas and existing and proposed uses.

#### 7. Transition between Character Areas



The interface between two character areas should respond to the adjacent character area to create an appropriate transition between the two.

#### 8. Fine Grain Approach



Proposed development should consider its relationship to surrounding context and urban grain while seeking to provide improved accessibility through appropriate frontage treatment and provision of arcades, laneways and enhanced public domain.

## Vision and Principles

### 3.5 Character Areas

St Leonards and Crows Nest presents a number of unique environments and character areas, which have been updated since the Interim Strategy and should be considered in the future planning and development of St Leonards. These include:

- Artarmon Employment
- Health & Education
- Gore Hill Oval & Cemetery
- Pacific Highway Corridor South-East
- Residential (St Leonards South)
- Residential (Wollstonecraft)
- St Leonards Centre and Crows Nest Station
- Crows Nest Village
- Residential (Naremburn)
- Residential (Crows Nest)

Each area has a unique identity. Future planning for the area needs to strengthen good existing characteristics of place, while supporting sustainable growth to allow communities to flourish.

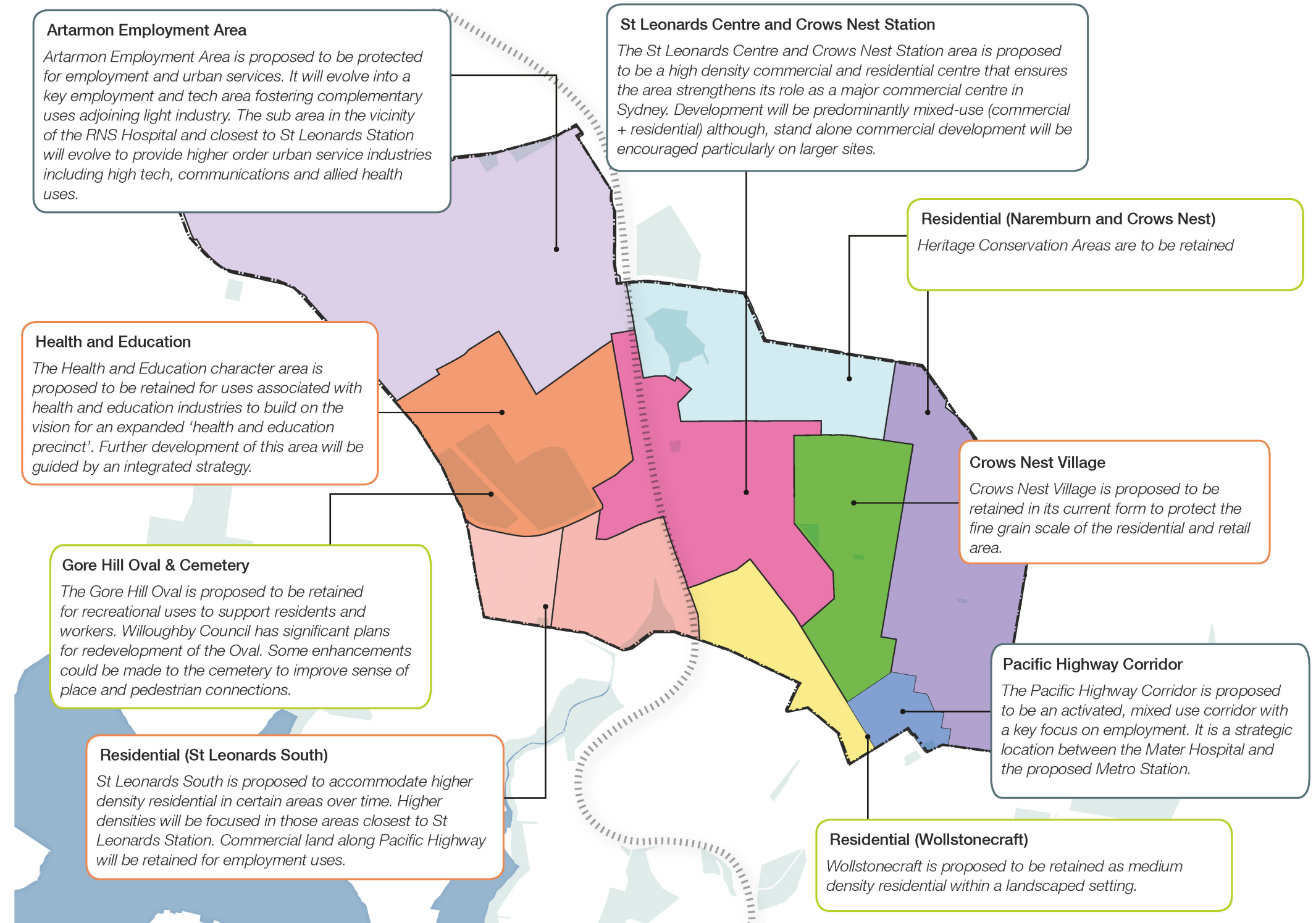


Figure 1.1.23 Character Areas

## Vision and Principles

### 3.6 Desired Future Character Objectives



#### St Leonards Centre/Crows Nest Sydney Metro

1. Protect conservation areas and existing character of Crows Nest east of Oxley Street.
2. Focus height and density at the intersection of Pacific Highway and Albany Street between the two stations.
3. Retain B3 employment zones where appropriate, to encourage a high density employment within the area.
4. Provide a strong commercial offering and a wide range of activities to support an 18-hour cycle (including night time economy)
5. Enhance existing east-west connections and investigate opportunities for north south laneways and through-site links including to Hume Park and the Crows Nest Sydney Metro sites, St Leonards South and throughout the St Leonards centre.



#### Crows Nest Village

1. Retain the existing fine grain character of the Village/Willoughby Road area.
2. Sensitively transition development near Willoughby Road to ensure appropriate solar access and visual character is maintained
3. Support the continuous growth of active shop fronts and quality public domain.
4. Expand Hume Street Park towards Hume Lane to provide more opportunity for deep soil and passive recreation.



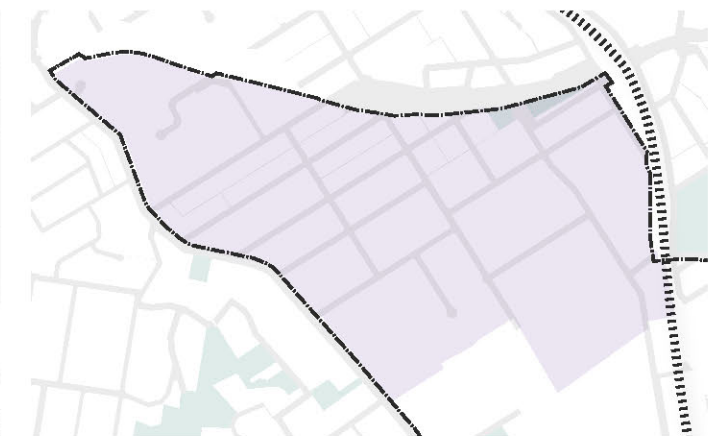
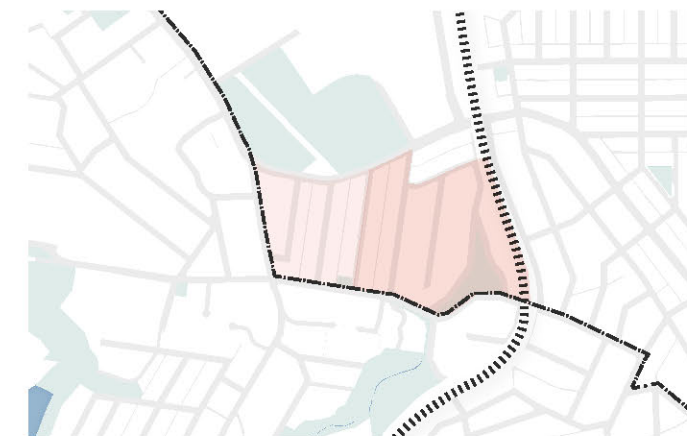
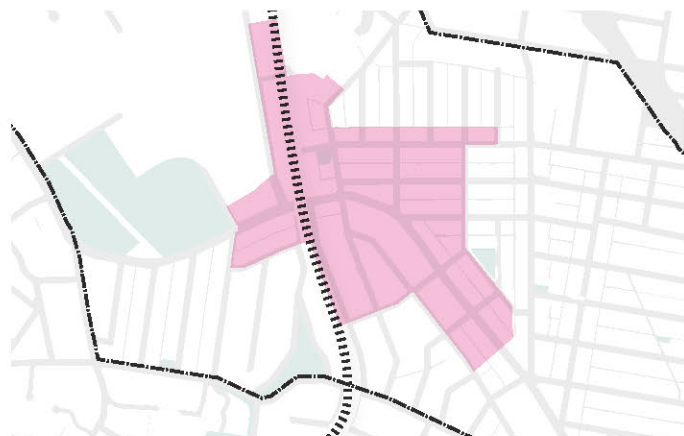
#### St Leonards South

1. Support the development of St Leonards South at appropriate densities, as presented in the St Leonards South Residential Precinct Draft Plans exhibited by Lane Cove Council in 2017.
2. Focus higher density development in the north east, within close proximity to public transport.
3. Maintain view sharing and solar amenity by transitioning development down from Pacific Highway to River Road and Park Road.
4. Reinforce the existing north-south connections.
5. Investigate opportunities for improved east-west connections through St Leonards South Masterplan, connecting Newlands Park to Gore Hill oval.
6. Protect existing heritage items within the area.



#### Artarmon Employment Area

1. Artarmon Employment Area should continue as an industrial centre, providing key urban services to the local and regional population.
2. Facilitate a high density of industrial jobs towards the station.
3. Provide for industrial uses to develop in the Herbert-Frederick Street sub-area to cater for evolving technology.
4. Potential to improve connections along Reserve Road through the hospital to Gore Hill Park.
5. Potential to improve public domain and quality of the streetscape along Herbert Street and Frederick Street linking to Reserve Road.
6. Ensure the area is robust to allow for the growth of tech industries, start-ups and ancillary retail.





## Vision and Principles



### Health and Education Precinct

1. The Health and Education Precinct is to evolve and reinforce the role of St Leonards as a major service and employment centre.
2. Investigate opportunity for new school at TAFE site to accommodate future enrolment demand.
3. Improve north-south and east-west pedestrian connections from Artarmon through to St Leonards.
4. High priority to develop an integrated strategy with Health NSW.
5. Provide opportunity for key worker housing and office accommodation within walking distance of the campus



### Naremburn and Crows Nest Residential

1. Protect and maintain the heritage conservation character of Naremburn and Holtermann Estate Conservation areas.
2. Ensure both areas retain a largely low scale residential character with leafy streetscapes.
3. Ensure transitions from Chandos Street to conservation area is adequately managed through stepping of height of development south of Henry Lane away from existing houses.
4. Ensure future development does not significantly impact on solar amenity of existing residents.



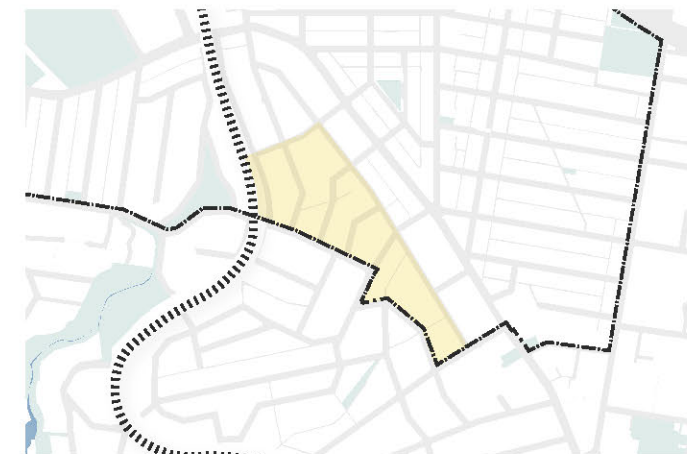
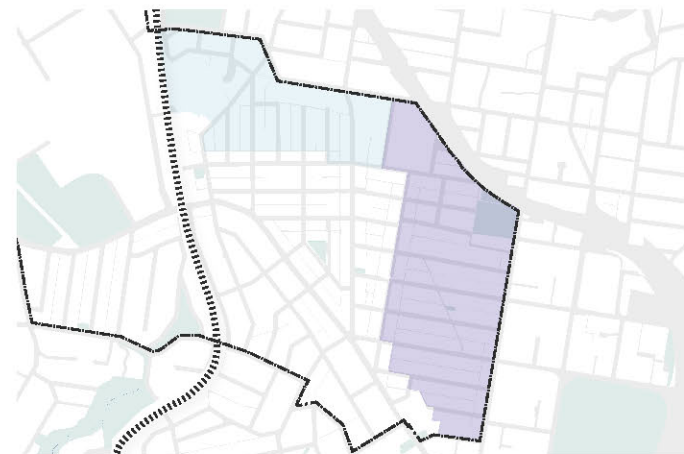
### Wollstonecraft Residential

1. Protect and maintain the existing urban fabric of Wollstonecraft.
2. Allow opportunities for a mix of medium density and townhouse development.
3. Ensure future development responds to the surrounding context, considering existing views and topography.
4. Reinforce the landscape character of this area by retaining existing trees and providing adequate setbacks to allow new landscaping to be established



### Pacific Highway South

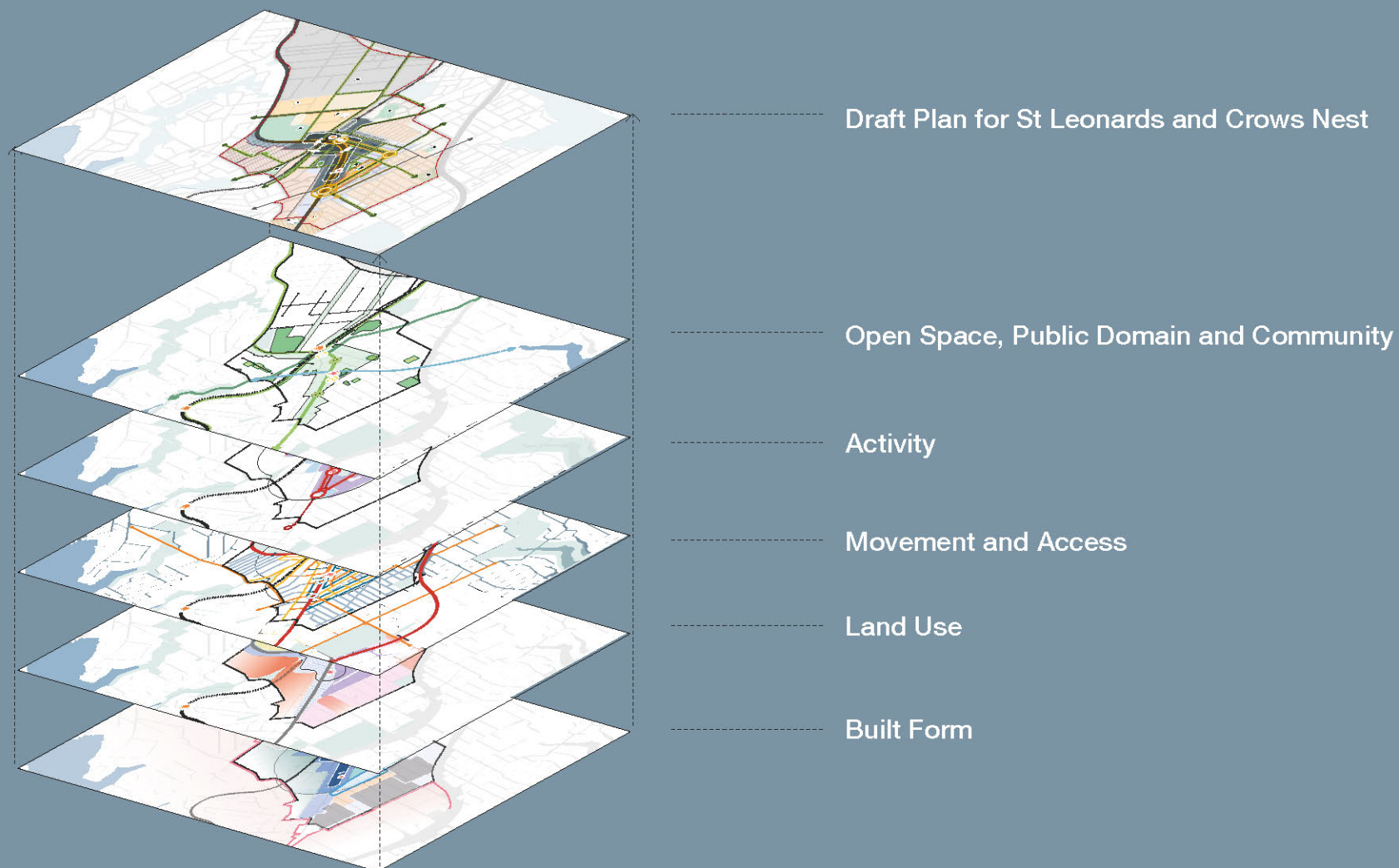
1. Retain the existing height along the Pacific Highway between Heritage items near the Five Ways and Bruce Street, reinforcing the existing building scale at the Crows Nest Five Ways intersection
2. Streetwall alignment and setbacks are to reference the scale, form and grain of existing heritage items, responding to the surrounding built form character at, and adjacent to, the intersection.
3. Explore opportunities for linking uses to the Mater Hospital with commercial podiums along the highway.



# Urban Design Framework

This section introduces the draft Plan for St Leonards and Crows Nest, including supporting urban design framework relating to:

- Environment, Public Domain and Community
- Activity
- Movement and Access
- Land Use
- Built Form



## Urban Design Framework

### 4.1 The draft Plan for St Leonards and Crows Nest

St Leonards and Crows Nest is made up of a number of adjoining activity areas, each with unique characteristics.

The primary concept is to establish a series of focal points that are connected by an expanded green network of open spaces, active frontages and vibrant environments.

The draft Plan for St Leonards and Crows Nest Land Use is based upon 9 key priorities and actions for the area:

1. Increase the amount of open space and plazas.
2. Improve pedestrian and cycle connectivity.
3. Respect the valued character of Willoughby Road.
4. Improve activity offering within the core including a mix of retail, restaurants and services, anchored at the two major intersections along the 'activity spine'.
5. Expand mixed-use development along Pacific Highway around and between St Leonards Station and Metro.
6. Encourage expansion of RNSH sub-precinct with preparation of an integrated strategy and provide for some expansion of health/medical uses into the fringe of the Artarmon Industrial Precinct.
7. Consolidate commercial development between St Leonards and Crows Nest Station.
8. Retain Artarmon industrial sub-precinct (per the North District Plan (GSC). Encourage industrial, urban services, advanced technology uses and innovation industries in the Herbert and Frederick Street area.
9. Protect the heritage character of Naremburn Conservation Area and Holtermann Estate Conservation Area and individual items throughout the precinct.



## Urban Design Framework

### 4.2 Potential Built Form Massing

The Concept masterplan proposed the following:

1. Height predominately concentrated in the Central Precinct.
2. Tall buildings located along Pacific Highway between St Leonards Station and Crows Nest Station.
3. Accommodate medium-high density in St Leonards south. Height and density transition down to surrounding residential area and open space.
4. Transition to heritage conservation area to the north. Height of 3-13 stories for developments west of Northcote Street and 5 stories north of Chandos.
5. Transition height from the Central Precinct to Willoughby Road and Conservation Area with Oxley Street as the eastern boundary of the study area.
6. Willoughby Road to retain existing character and height controls.
7. Limit height around the Crows Nest Five Ways to reinforce the existing buildings that define the intersection.
8. Encourage commercial development along the Pacific Highway towards the Mater Hospital, whilst preserving the character of the area.
9. Retain existing height control for residential zones within the Conservation Area and located south of the Central Precinct towards Wollstonecraft.
10. Height for Artarmon Industrial Area and Health and Education sub-precinct subject to further planning and investigation.

#### Total Commercial Floorspace

**776,335m<sup>2</sup>** of existing and proposed commercial floor space is projected for across St Leonards and Crows Nest, through the up-zoning of employment FSR on key sites

#### Existing Dwellings\*

**10,200** within the study area, including developments sites that are approved and under construction

#### Total Dwellings\*

**17,600** includes existing dwellings as well as total dwellings proposed across the study area

\*Total dwellings include existing residential unlikely to change and sites with proposed development uplift. The existing dwellings number includes pipeline development such as sites under construction and approved DA's. A 10% tolerance has been added to this number to account for any changes that may occur during the development process.



## Urban Design Framework

### 4.3 Central Precinct

The following diagram summarises the priorities for the Central Precinct.

Specifically, this plan relates to a number of public domain, movement and open space improvements that should be investigated for implementation.

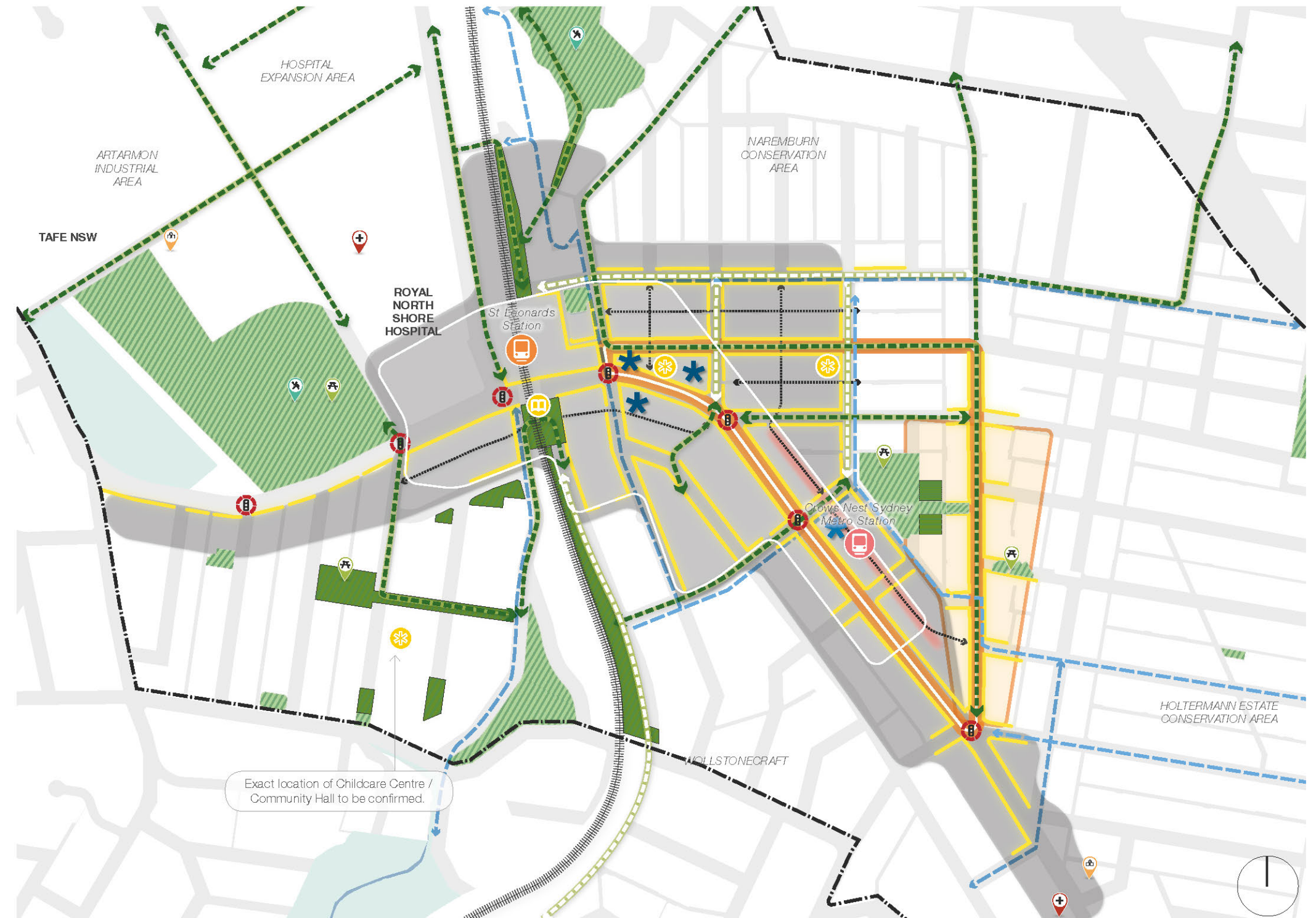
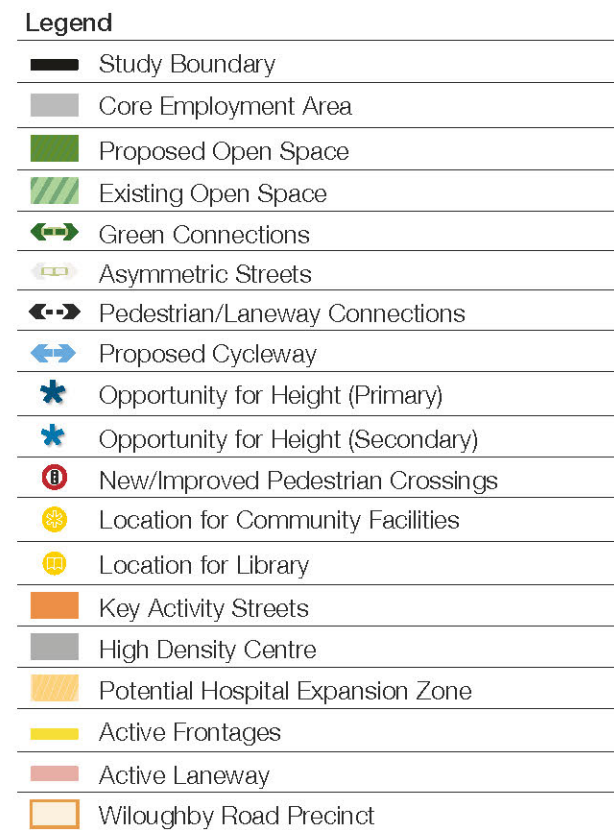


Figure 1.1.24 Central Precinct Plan

4.4 Hume Street Park - View from Clarke Street towards the connection to Willoughby Road



4.5 Proposed Envelopes



Note: The above photo montage depicts simplified building envelopes within the proposed built form and land use controls and are indicative only.

# Urban Design Framework - Open Space, Public Domain and Community

# 5

## 5.1 Framework Plan

A key finding has been that limited opportunities exist to provide new open space within the study area. Therefore, prioritisation for the expansion and improved utilisation of existing open space has been explored.

### Artarmon Industrial Area

1. Improved street/pedestrian connections on Frederick, and Ella Street.
2. New active street frontages on Herbert Street and Frederick Street.
3. Priority on street trees and improving walkability.
4. Possible opportunity for active sports facility.

### Pacific Highway

5. Retain green edge and vista to Gore Hill Park and Cemetery.
6. Investigate enhancement of Gore Hill Oval and facility upgrade in accordance with Council master plan.
7. Priority on landmark trees and avenue plantings.

### Residential (St Leonards South)

8. Explore new street connections east west connecting to Newlands Park. Provide connected open space areas with new development.
9. Open space extension in St Leonards South.

### St Leonards Centre/Crows Nest Village

10. Proposed open space to align with the Green Grid.
11. Upgrade and further expand Hume Street Park.
12. Investigate potential to integrate a rooftop open space at Ernest Place north to Holtermann Street as part of redevelopment of the existing car park.
13. Pedestrian/cycleway improvements to access the core.
14. Investigate future opportunities to provide additional open space along Chandos/Atchison Street.

### Residential (Wollstonecraft) + Health and Education

15. Open space link adjoining rail line south of St Leonards towards River Road.

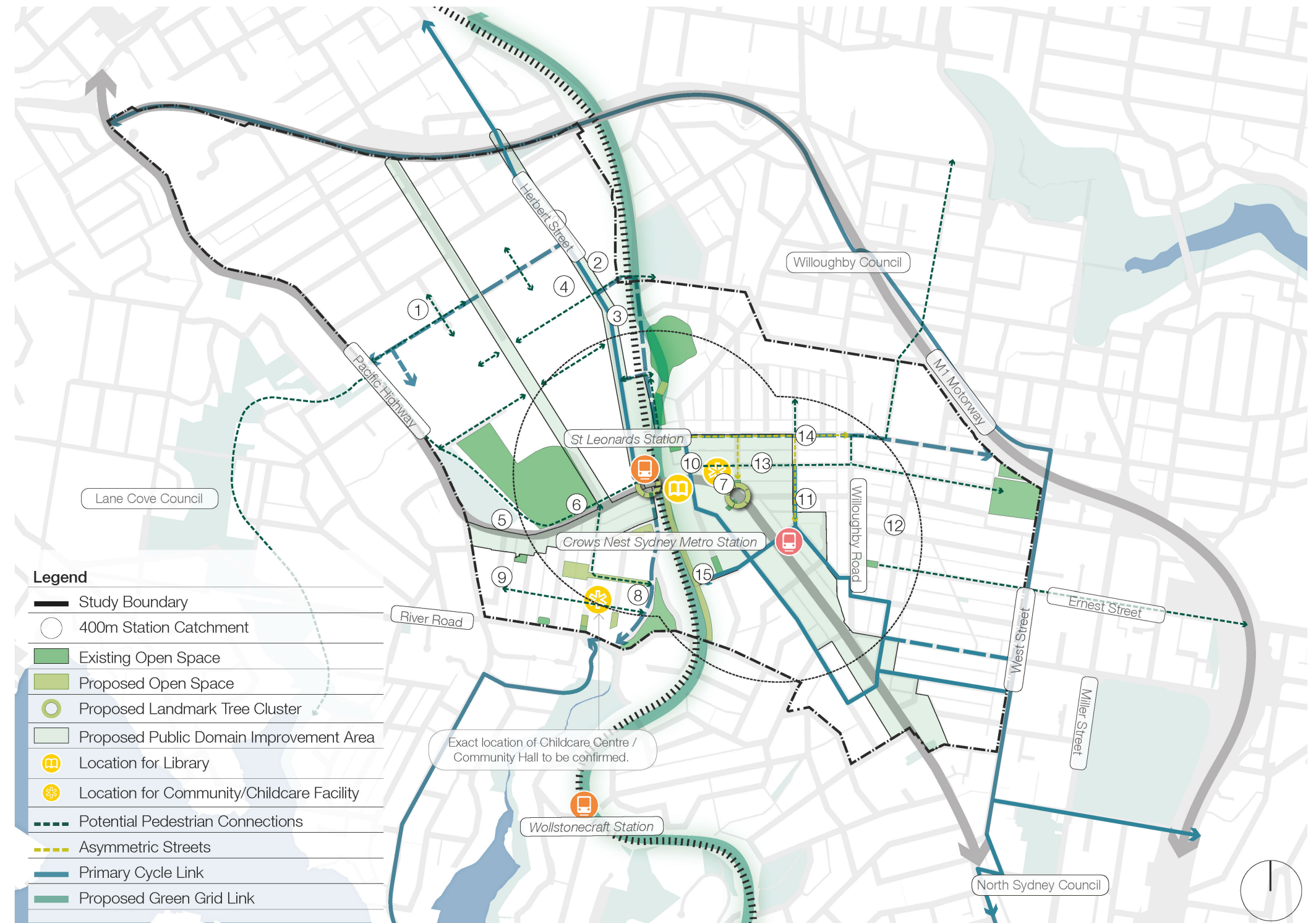


Figure 1.1.25 Open Space, Public Domain and Community Framework



Hume Street Park

Recommendations

- Upgrade and further expand Hume Street Park between Hume Street and Hume Lane.
- Investigate future open space area north of Hume Street Park along Chandos/Atchison Street to support improved cycleway and pedestrian connections.



① Informal Seating

② Recreational Space

③ Green Pathways

④ Investigate Future Space



Legend

- Existing Open Space/Avenue
- Proposed Open Space
- Proposed Green Connections
- Gateway
- Location for Community Facility or Open Space
- Connections

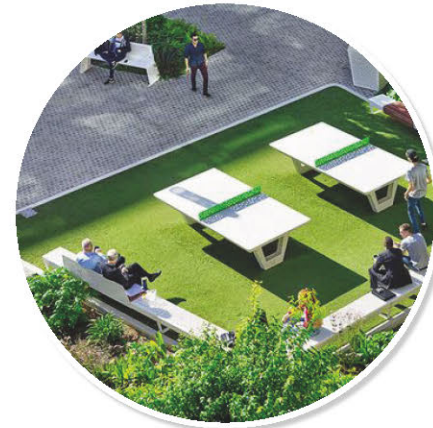
Ernest Street Plaza

Recommendations

- Expand Ernest Place to Holtermann Street. Any future redevelopment of the Council owned car park should consider the provision of publically accessible open space on the roof of the development.
- Development to the north is low scale in character and is defined by the intimate scale of Willoughby Road. This would ensure solar access to the Ernest Place extension would be maintained.
- Possibility for existing above ground car parking to be relocated and to underground any future parking structure, to provide additional parkland within Crows Nest Village.



① Recreation Space



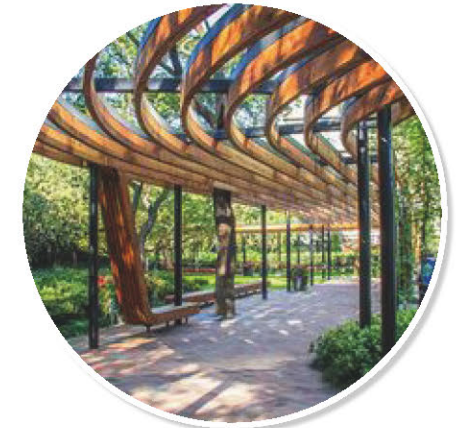
② Markets



③ Plaza Seating



④ Shade



Legend

- Existing Open Space/Avenue
- Proposed Open Space
- Active Frontage Area
- Proposed Green Connections
- Gateway
- Connections

St Leonards South

Recommendations

- Redevelopment of the area needs to align open space to align with Green Grid (closer to station). Open space could be located within land subject to the St Leonards South Masterplan to assist with the distribution of quality open space.
- Open space provision in this area would also benefit from the existing tree canopy and built form of St Leonards South and would be located away from potential noise conflicts along Pacific Highway. Potential open space in this area would need to consider improved access from St Leonards Centre.
- Opportunity to enhance connectivity from St Leonards South to Gore Hill Oval. Access to Gore Hill is currently restricted by limited crossings on Pacific Highway. Investigation of a pedestrian bridge or new crossing could facilitate improved access for existing residents.



① Recreation Space



② Green Links



③ Paved Open Space



④ Shade



Legend

-  Existing Open Space/Avenue
-  Proposed Open Space
-  Proposed Green Connections
-  Gateway
-  Connections
-  Location for Community Facility

St Leonards Plaza and Lithgow Street Reserve

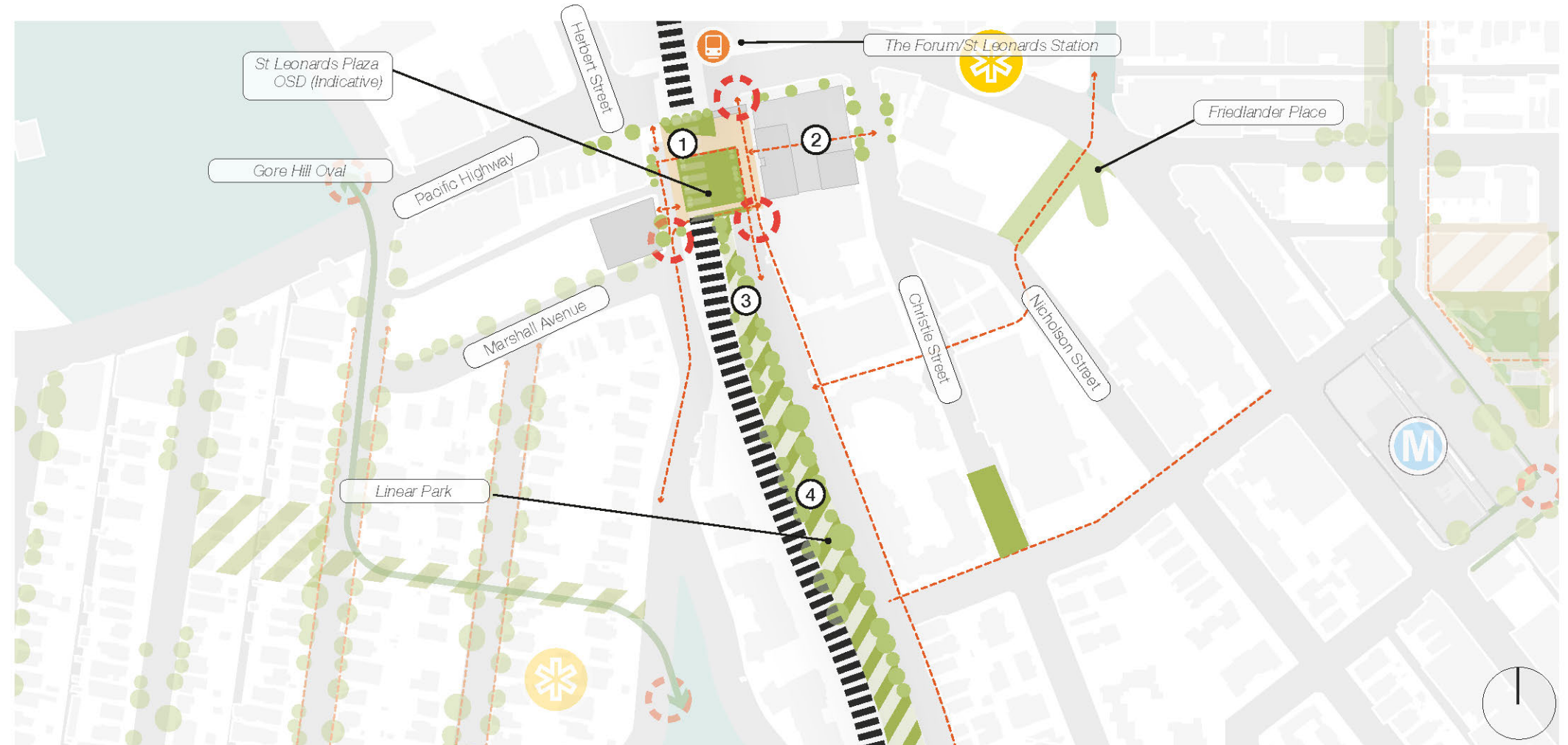
Baseline Analysis

St Leonards Plaza is a proposed open space south of Pacific Highway, opposite St Leonards Station and above the rail line. Concept designs have been prepared by Lane Cove Council and identify the following design outcomes:

- Development of the extent and profile of the plaza deck.
- Connection from the plaza to St Leonards Station.
- Connections from the plaza to existing streets and laneways.
- Connections from the site to current and future developments on neighbouring sites.
- Integration of a cycle route that traverses the site and completes a holistic cycle network for the area.

Recommendations

- Provide new linear park adjacent to the rail line, south of the proposed St Leonards Plaza to improve connections from Wollstonecraft to St Leonards Centre.
- Support connections along key streets between St Leonards Plaza, the proposed linear park along the railway corridor and across to Friedlander Place.



① Recreation Space



② Laneway



③ Paved Open Space



④ Linear Connections



Legend

- Existing Open Space/Avenue
- Proposed Open Space
- Proposed Green Connections
- Gateway
- Connections
- Location for Community Facility

# Urban Design Framework - Activity

# 6

## 5.2 Activity

St Leonards and Crows Nest has four key activity areas, promoting different activities and services that will support the future commercial and residential areas. This will provide focus points within key activity areas.

1. St Leonards Centre and Atchison Street
2. The Forum to Crows Nest Sydney Metro Station
3. Crows Nest (Willoughby Road)
4. Artarmon (Herbert Street/Frederick Street)

The focus points act as key destinations that anchor activity in different parts, encouraging pedestrian movement across the area.

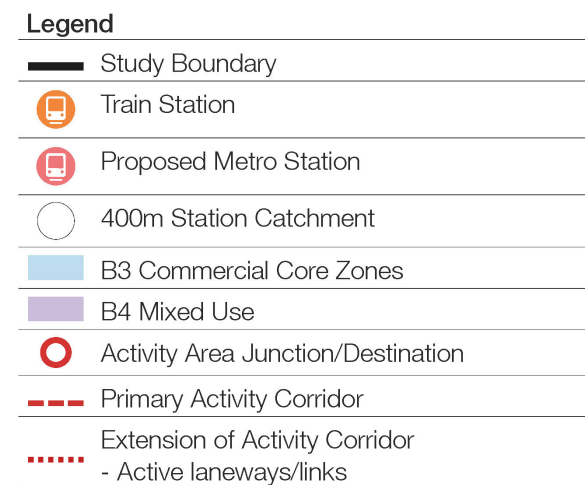


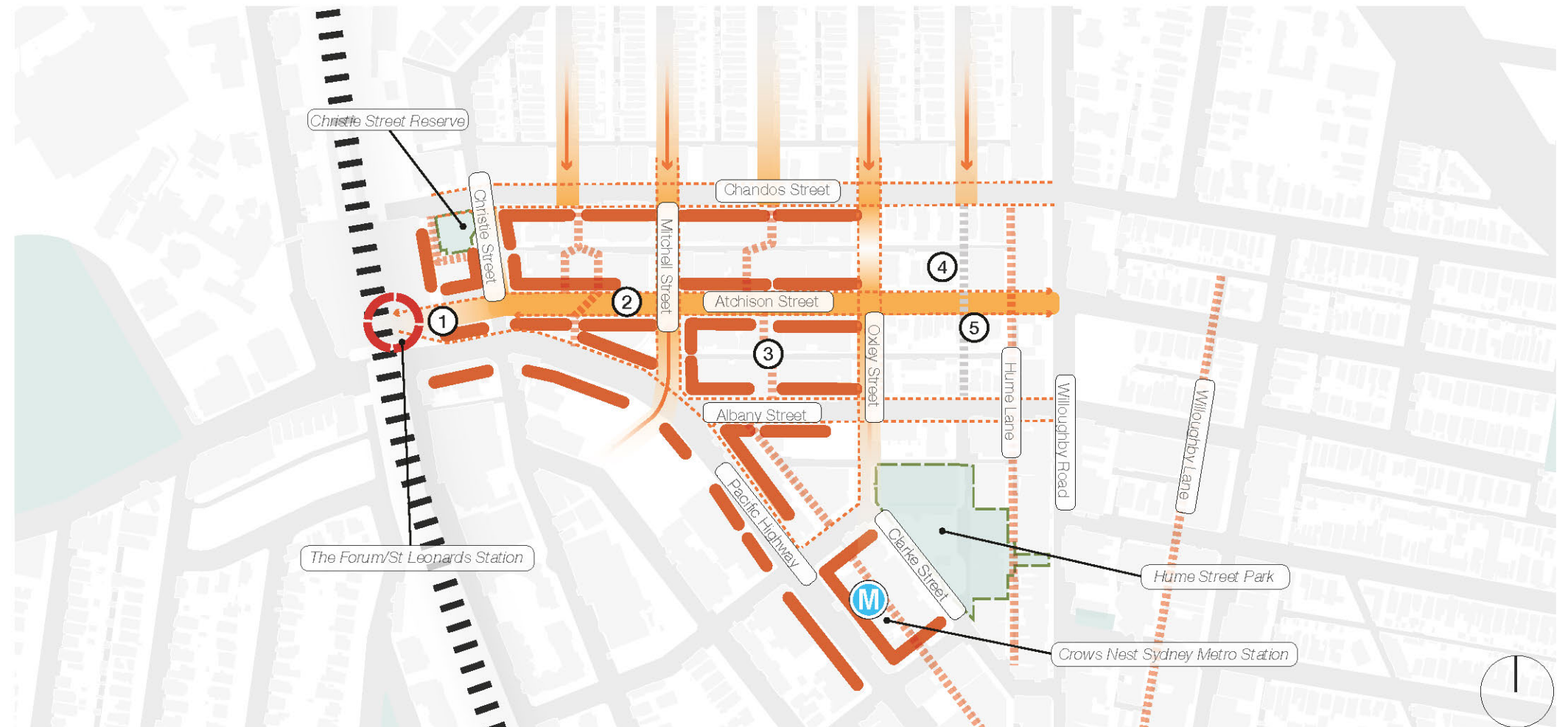
Figure 1.1.26 Activity Diagram

## Urban Design Framework - Activity

### St Leonards Centre

#### Recommendations

1. Concentrate new retail and activity primarily on Atchison Street, The Forum and Oxley Street, and outwards into the surrounding street network including Chandos Street, Christie Street, Mitchell Street and Albany Street.
2. Pathways between key activity areas (such as The Forum and Atchison Street) and linkages to the train station and bus interchange are to be enhanced to prioritise pedestrian traffic in these areas.
3. Opportunity for Atchison Street to become an Eat Street and link up with Willoughby Road.
4. Opportunities to provide site links and pedestrian laneway activity between Chandos Street and Albany Street.
5. Leverage off the existing arts precinct to support the establishment of craft and makers through flexible ground floor spaces.



① Interchange Node



② Pedestrian Priority



③ Laneway Activity



④ Eat Street



#### Legend

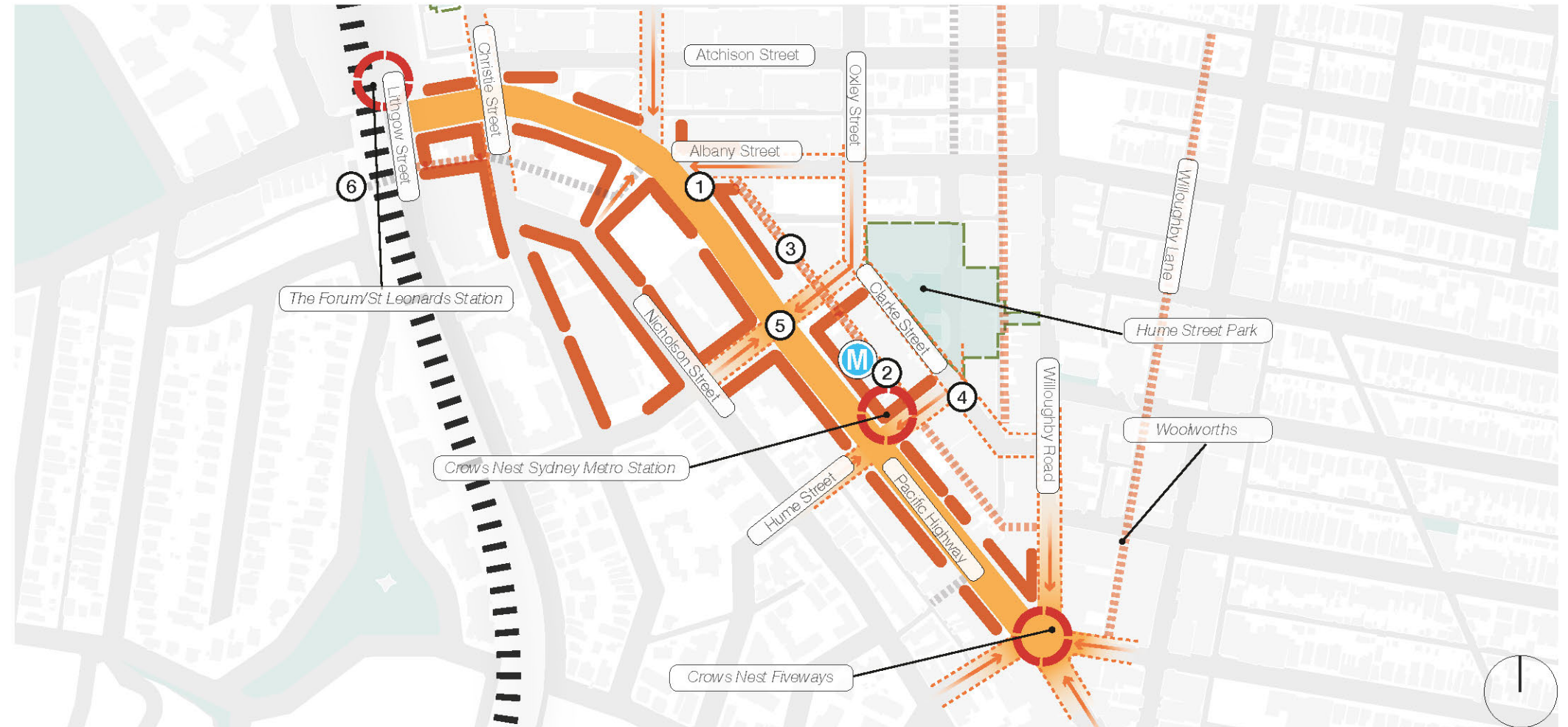
-  Activity Area Gateway/Junction
-  Active Frontage
-  Laneways/Site Through Links (Identified)
-  Laneways/Site Through Links (Proposed)
-  Active Streets
-  Open Space

## Urban Design Framework - Activity

### The Forum to Crows Nest Station

#### Recommendations

1. Provide an improved pedestrian experience along Pacific Highway, without compromising its transport function. Widen footpaths through building setbacks and provide articulated frontages where appropriate.
2. New retail and dining clusters on side streets off the Pacific Highway, such as Hume Street and Oxley Street to leverage off the location of the proposed Crows Nest Sydney Metro Station.
3. Retain Crows Nest Five Ways as a human scale entry point and marker of the Willoughby Road Crows Nest Village local shopping strip, supported by a range of retail, services, cafés and restaurants linking to Willoughby Road. Transition the scale of built form towards the north and south of this area.
4. Improve linkages from Willoughby Road and Clarke Lane to the proposed Crows Nest Sydney Metro Station including activated laneways, and/or arcades where appropriate. Promote Clarke Lane as an alternate pedestrian connection parallel to the Pacific Highway.
5. Explore opportunities for pedestrian crossing across highway at Metro.
6. Provide an activated laneway link from Marshall Lane through Christie Lane to Friedlander Place.



① Improved Retail Experience



② Activity Cluster



③ Laneway Activity



④ Improve Linkages



#### Legend

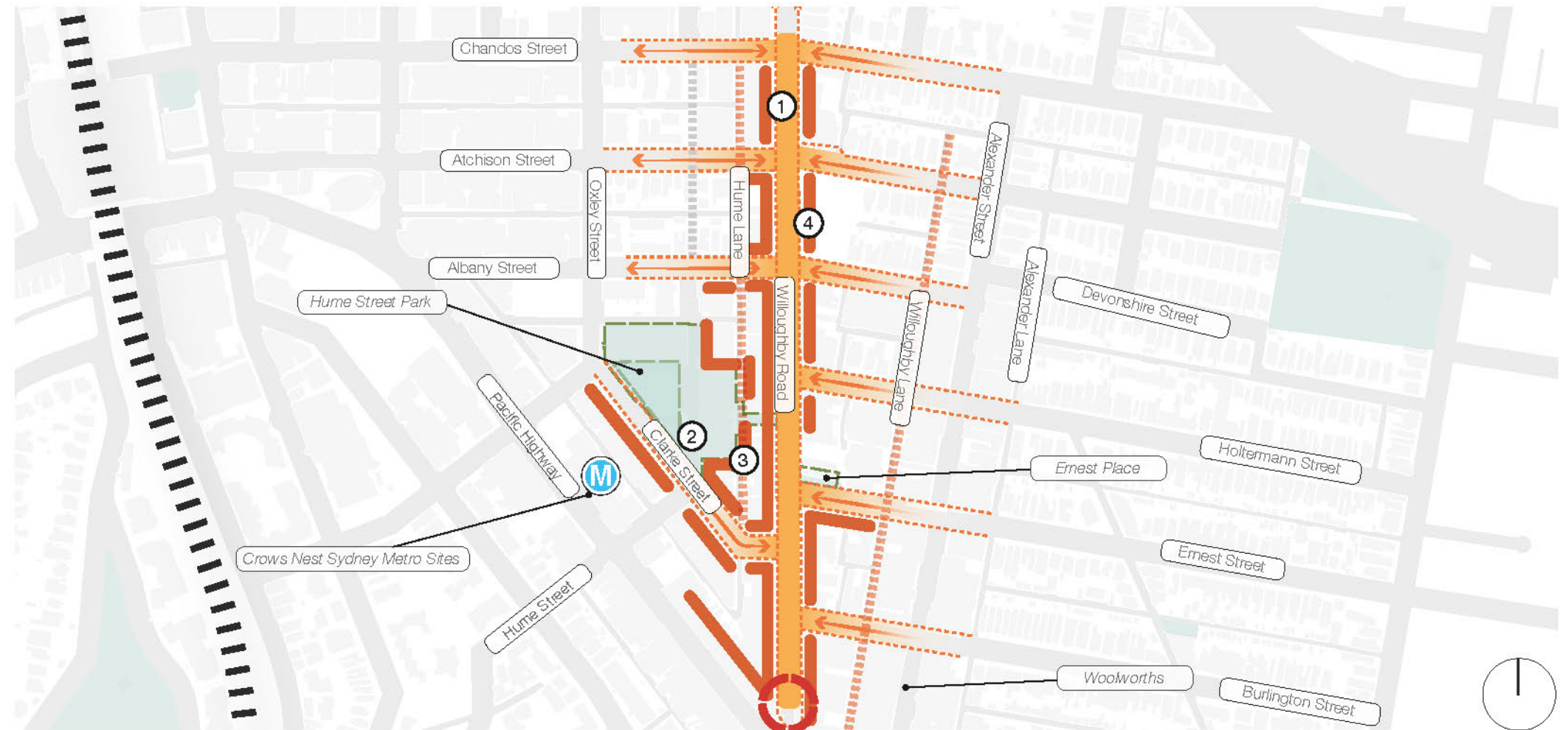
-  Activity Area Gateway/Junction
-  Active Frontage
-  Laneways/Site Through Links (Identified)
-  Laneways/Site Through Links (Proposed)
-  Active Streets
-  Open Space

## Urban Design Framework - Activity

### Crows Nest

#### Recommendations

1. Boutique retail activities are to be concentrated along Willoughby Road, with Clarke Street, Hume Street, Falcon Street, Oxley Street and Atchison Street supporting the flow of pedestrian traffic to the proposed Crows Nest Sydney Metro Station.
2. Improve connections from Willoughby Road to Hume Street Park through Council's planned expansion.
3. Improve pedestrian experience along side streets and laneways with the introduction of boutique crafts and retailers with small floor plates. Improve activation of rear of shops along Hume Lane. In particular, shops adjoining the expanded Hume Street Park should have dual frontages to improve activation.
4. Future development is to ensure active shop frontages are consistent with the prevailing character of the area and provide appropriate treatments for glazing, facade depth, articulation, width and operability.



① Boutique Retail



② Pedestrian Priority



③ Laneway Activity



④ Maintain Scale



#### Legend

- Activity Area Gateway/Junction
- Active Frontage
- Laneways/Site Through Links (Identified)
- Laneways/Site Through Links (Proposed)
- Active Streets
- Open Space

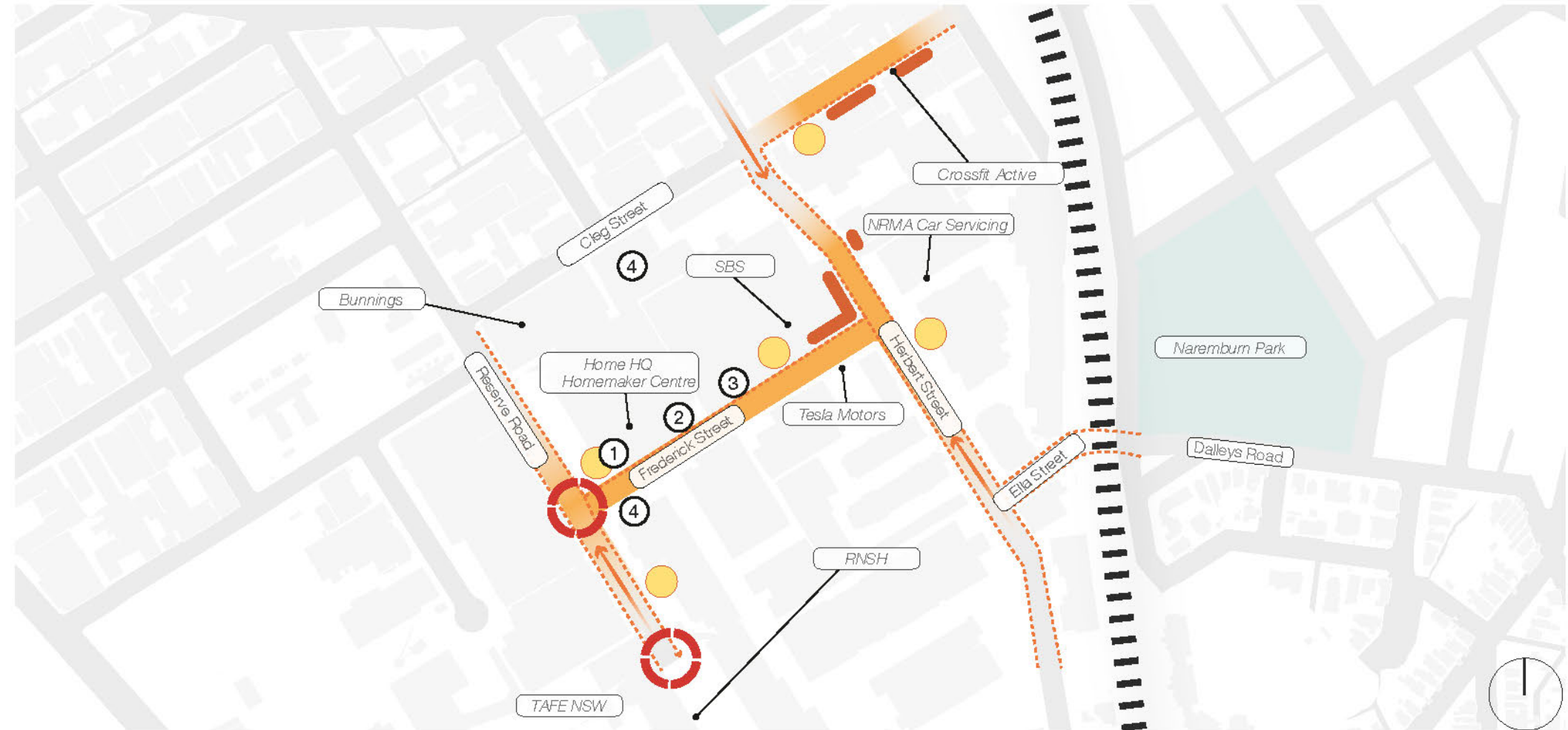


## Urban Design Framework - Activity

### Artarmon Industrial Area

#### Recommendations

1. Ensure the Artarmon Industrial Area maintains a primary role in promoting the delivery of urban services and industrial related employment.
2. Activities should be concentrated along Herbert Street, Frederick Street and Reserve Road.
3. Indoor recreation activities and sports facilities could also be expanded in this area.
4. Provide opportunity for this area to evolve into higher order/high tech industrial urban services uses in line with the current IN2 zoning.
5. Streetscape upgrades for pedestrians should focus on comfort and safety.



① Adaptive Reuse



② High Order Industrial



③ Street Activation



④ Preserve Character



#### Legend

- Activity Area Gateway/Junction
- Active Frontage
- Activity Nodes
- Laneways/Site Through Links (Identified)
- Laneways/Site Through Links (Proposed)
- Active Streets
- Open Space

# Urban Design Framework - Movement and Access

## 7.1 Framework Plan

St Leonards and Crows Nest offers a unique transport condition, where the proposed Crows Nest Sydney Metro Station, in tandem with the existing St Leonards station, provides a high-quality public transport service that provides a strong justification to minimise parking provision across the area.

Pacific Highway is the major movement corridor running through the area. Campbell Street, Reserve Road and Herbert Street are primary vehicle routes towards Artarmon, while River Road and Falcon Street are primary vehicle routes towards Crows Nest and Lane Cove.

Chandos Street, Atchison Street and Albany Street provide key movements east west, while Christie Street, Willoughby Road and Herbert Street provide key movements north south. The Pacific Highway is a major barrier to areas in the south east, forcing traffic through Albany and Oxley Street to access Lithgow and Nicholson Street.

There is limited opportunity to create new roads or widen existing roads due to existing built conditions, active transport across the area and improved access over the Pacific Highway should be promoted to minimise use of private vehicles.

There are a number of key opportunities to enhance the existing movement network within the centre.

1. Enhance pedestrian and cycling links from the surrounding suburbs into St Leonards Centre.
2. Investigate crossing points and upgrade existing crossings.
3. Reinforce a hierarchy of roads/traffic movement.
4. Potential to upgrade key roads and intersections where required, to assist vehicles whilst implementing traffic management/calming where appropriate to reinforce the hierarchy.
5. Strengthen the importance of pedestrian access and shared paths adjacent to Gore Hill Freeway.
6. Consider providing a pedestrian and cycle bypass link on the northern side of Pacific Highway across the rail line to Talus Reserve. This will support cyclist and pedestrian movements away from Pacific Highway and St Leonards.
7. Establish a car parking policy to reduce parking rates for residential and commercial developments in close proximity to public transport.

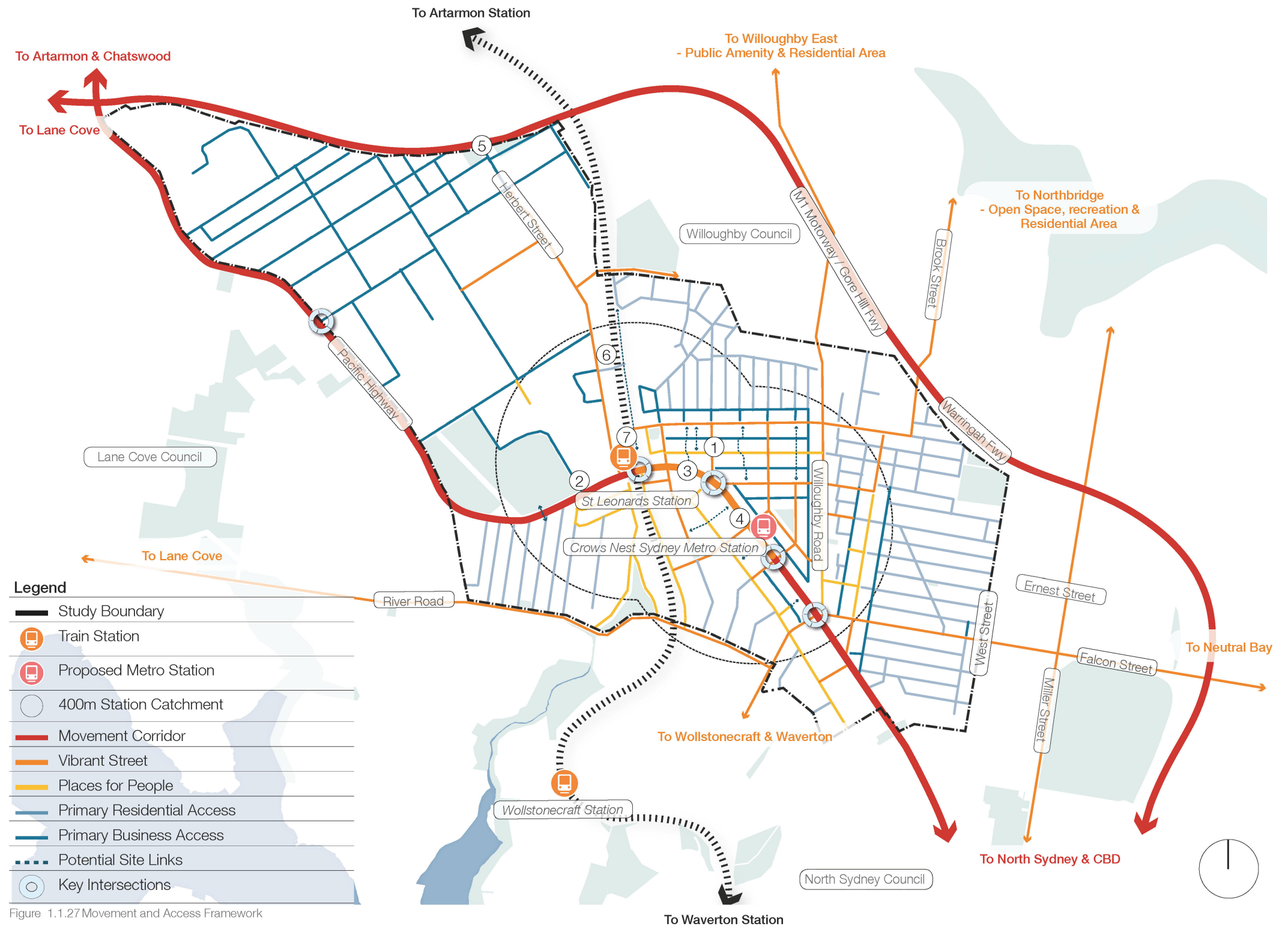


Figure 1.1.27 Movement and Access Framework

## Urban Design Framework - Movement and Access

### 7.2 Priority Streets


There are a range of streets that provide connections to adjacent neighbourhoods and suburbs.

There is an opportunity to provide cycleway links into priority destinations, such as St Leonards Train Station and the proposed Crows Nest Sydney Metro sites, commercial core, TAFE NSW and RNSH.

This can be achieved by providing redesigned streets and links. Specific recommendations include:

1. Provide a bi-directional cycleway on Chandos Street connecting from West Street to St Leonards Station.
2. Provide a cycleway link from Herbert Street west to the Pacific Highway. This would provide a cycleway connection to the TAFE area.
3. Provide a cycleway link east of the rail line, linking to Naremburn Park/Ella Street.
4. Provide separate cycleways on bridges crossing the rail corridor.
5. Provide cycling facilities including commuter cycle parking at the Metro and St Leonards Station.
6. Investigate options for arcades and through site links to align with existing streets to the north at mid-blocks between Chandos Street and Pacific Highway.
7. Provide expanded footpaths by increasing building setbacks and reducing excess carriageway space where possible.

#### Legend

	Study Boundary
	Train Station
	Proposed Metro Station
	Existing On Road/Off Road Cycleway
	Bi-Directional Cycleway - Proposed by North Sydney Council
	Proposed Cycle Links
	Proposed Cycle Facilities
	Heritage Street (Retail)
	Shareway: Pedestrian Priority
	Asymmetric Street
	Lanes/Arcades/Mid-Blocks
	Tree Lined Street

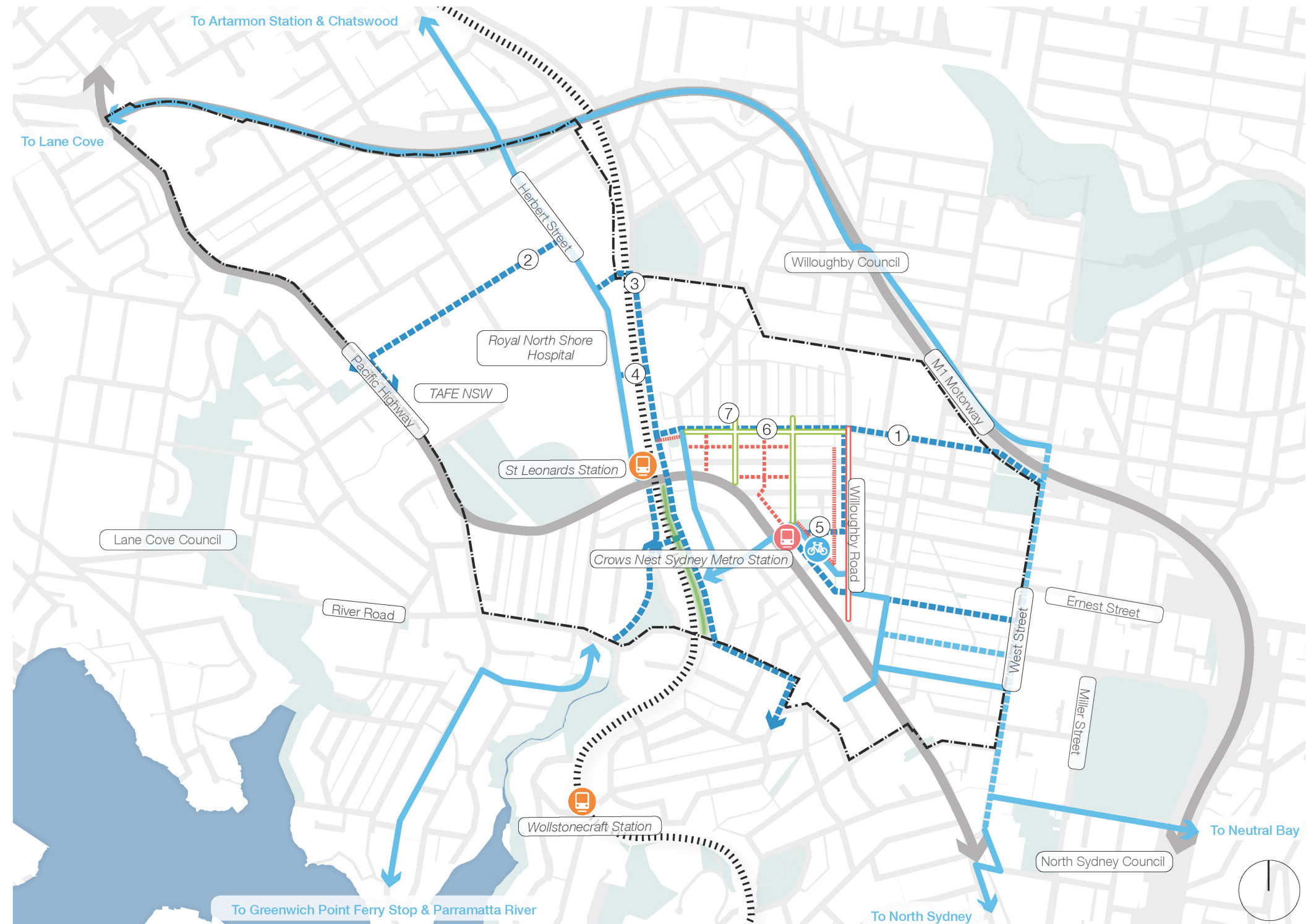
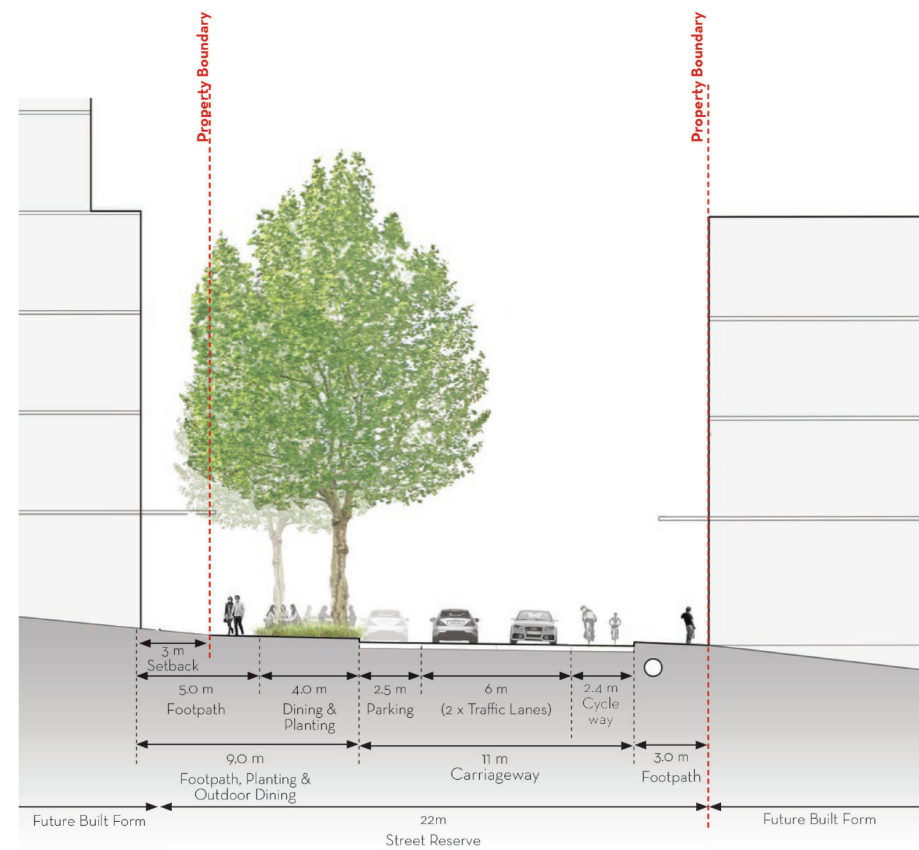


Figure 1.1.28 Proposed Pedestrian Priority Strategy

# Urban Design Framework - Movement and Access

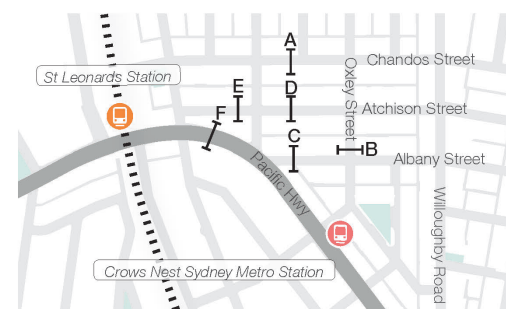
## Streetscape Recommendations

Section A

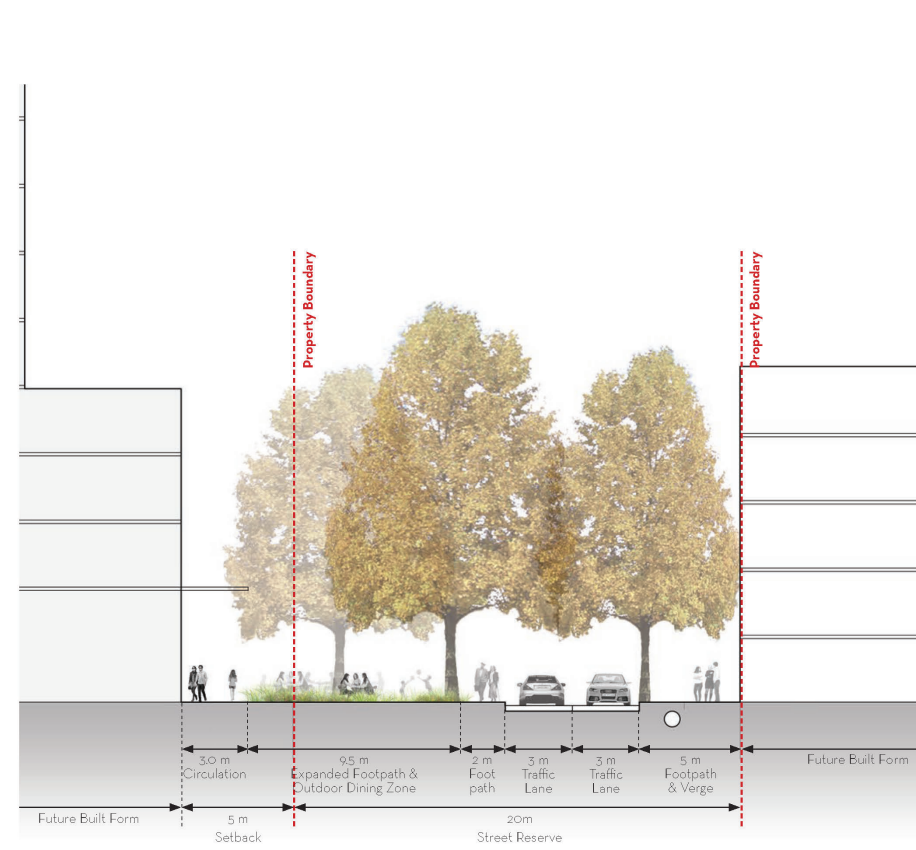


### Recommendations - Chandos Street (Vibrant Street)

- Expanded southern footpath (through dedication and kerb realignment) for outdoor dining/seating and double row of street trees; and
- New tree planting in parking bays and under-ground overhead power lines on the northern side of the street.



Section B



### Recommendations - Oxley Street (Places for People)

- Expanded footpath on western side of street through 5m setback of built form;
- Remove parking lanes and create expanded footpath / linear park / outdoor dining zone;
- Provide double row of deciduous street trees on western side of the street as a buffer to the future medium density residential area; and
- Underground power lines on eastern side of the street.

Section C

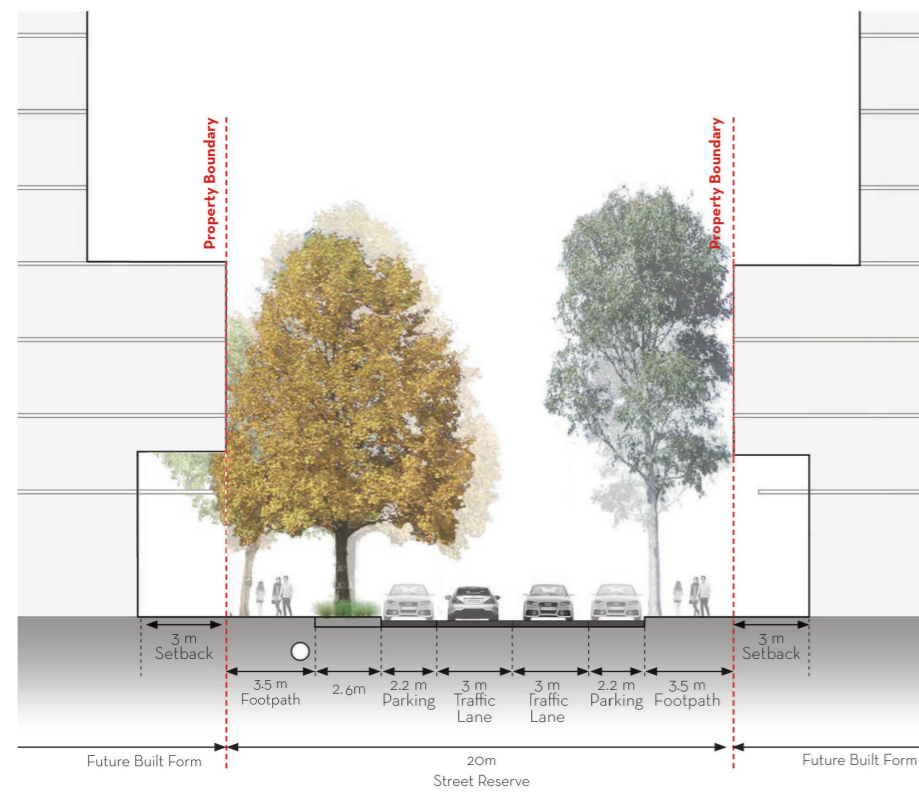


### Recommendations - Albany Street (Vibrant Street)

- Expanded southern footpath (through dedication and kerb realignment);
- New tree planting in parking bays and footpath on southern side of street to achieve double row of deciduous trees; and
- Planting of evergreen trees in parking bays and underground overhead power lines on the northern side of the street.

# Urban Design Framework - Movement and Access

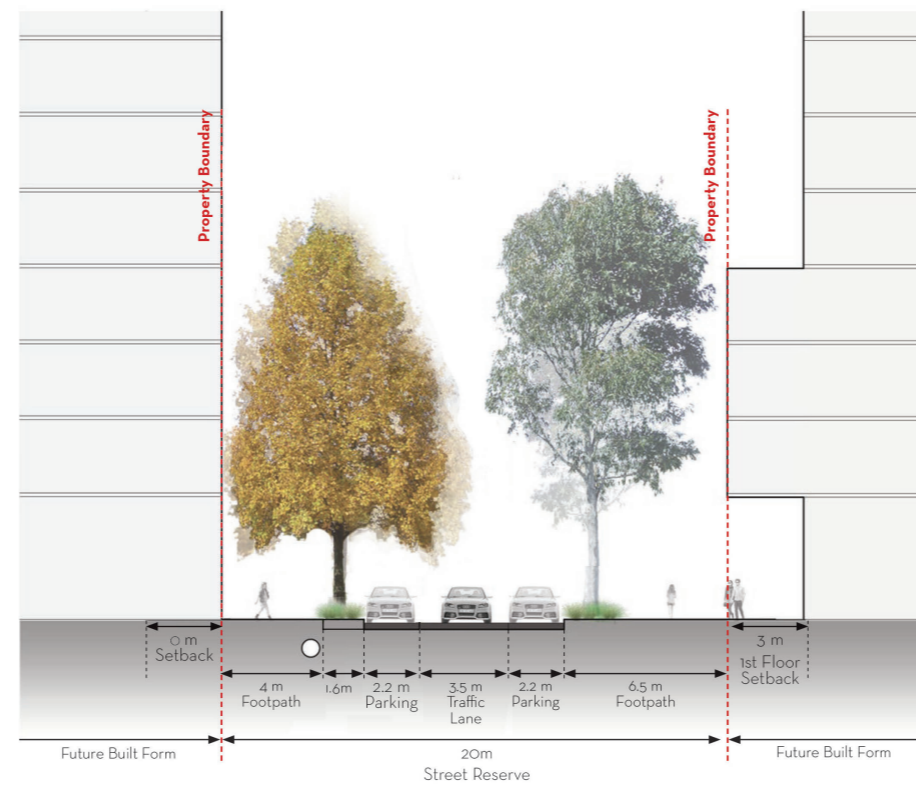
Section D



## Recommendations - Atchison Street East (Places for People)

- Remove on street parking on southern street edge;
- Provide bi-directional separated cycleway on southern edge, provide deciduous tree planting to define cycleway and clear of overhead power lines;
- Remove hedge planting and provide lower planting, retain existing street trees and infill with gum trees as planted in Atchison Street west; and
- Incremental bundling/under-grounding of power lines with site redevelopment.

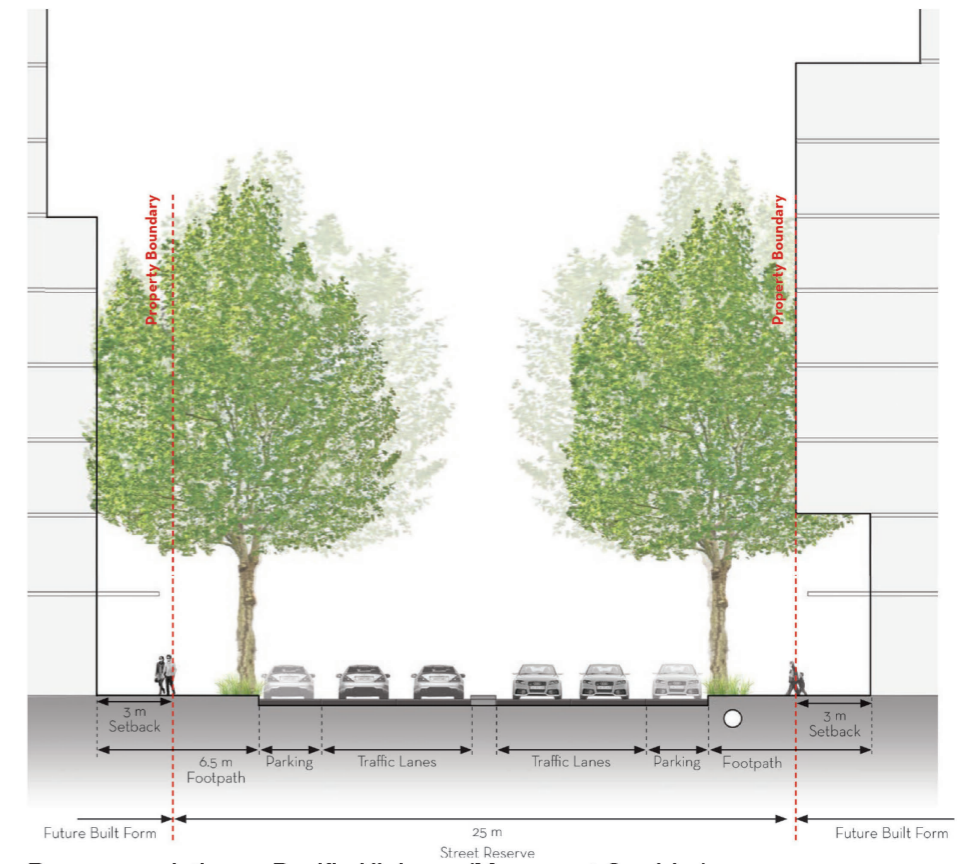
Section E



## Recommendations - Atchison Street West (Places for People)

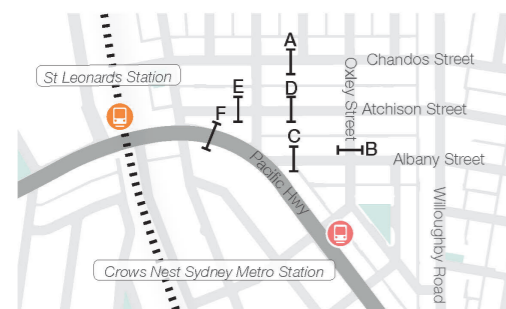
- Remove on street parking on southern street edge;
- Provide bi-directional separated cycleway on southern edge, provide deciduous tree planting to define cycleway and clear of overhead power lines;
- Remove hedge planting and provide lower planting; and
- Incremental bundling/under-grounding of power lines with site redevelopment.
- Provide a reverse 3m setback for the ground floor level of future built form.

Section F



## Recommendations - Pacific Highway (Movement Corridor)

- Expand footpath through setback controls;
- Avenue of Plane trees on both sides of the street; and
- Underground power lines to achieve optimum tree outcomes.



# Urban Design Framework - Land Use and Activity

## 8.1 Framework Plan

The proposed land use framework seeks to facilitate the following outcomes:

1. Ensure high-density mixed use developments incorporate appropriate commercial floor space between St Leonards Station and the proposed Crows Nest Sydney Metro Station, in order to preserve employment within the Commercial Core.
2. No change proposed for the Naremburn Conservation Area and Holtermann Estates.
3. Encourage renewal and growth of the commercial strip along the length of the Pacific Highway.
4. Retain and enhance the Health and Education Precinct.
5. Retain the primary function of Artarmon Employment Area as one of the region's key population serving precincts for essential urban services.
6. Potential high density residential development in St Leonards South with appropriate transition to existing residential neighbourhoods.
7. Expand mixed use activity east towards Willoughby Road. Ensure future built form is sensitive to the existing scale and form, with appropriate height transition.
8. Allow for medium density residential development along Willoughby Road, north of Chandos Street, while retaining current zoning controls.
9. Allow for some future expansion of hospital precinct into Artarmon Employment Area, subject to further investigation.
10. Concurrently, allow for evolution of higher order/high tech industrial urban services.

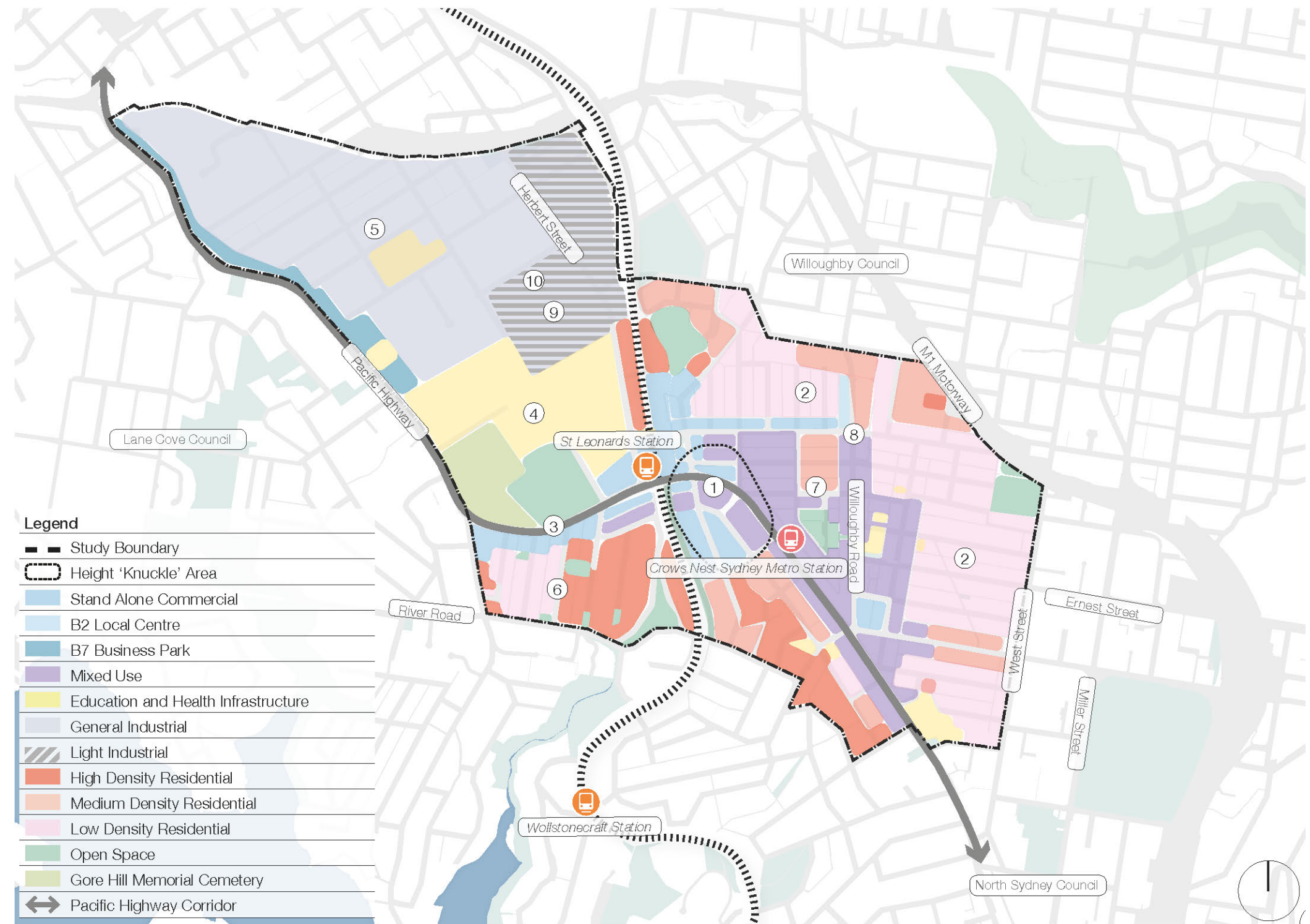


Figure 1.1.29 Land Use and Activity Framework

8.2 Density of Existing and Proposed Employment and Residential Uses

Distribution of Employment Density - Existing and Proposed

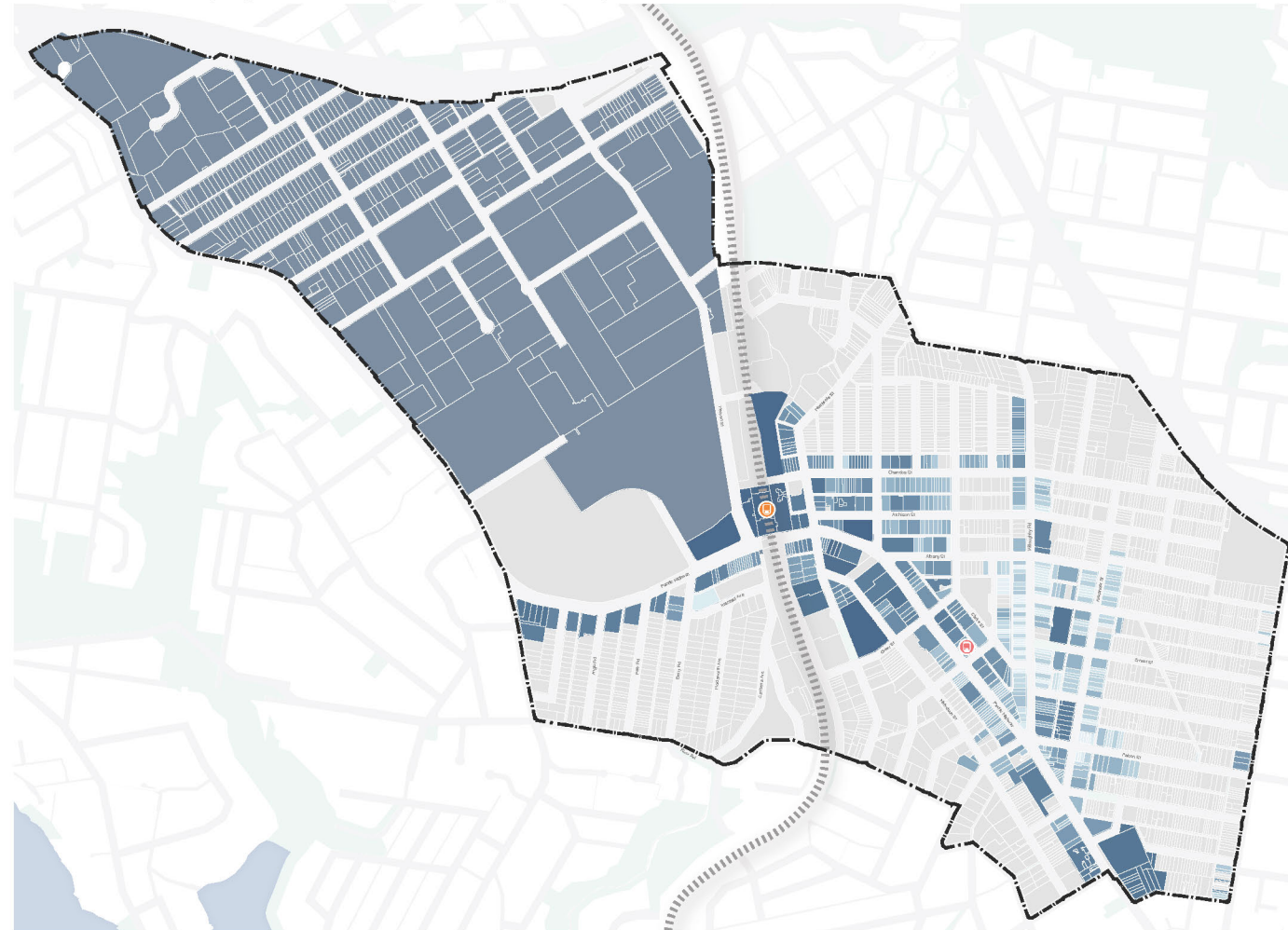


Figure 1.1.30 Employment Density

The diagrams above show the proposed distribution of employment with greatest densities located at the heart of the study area between the existing railway station and the proposed Crows Nest Sydney Metro sites and along the Pacific Highway towards the Royal North Shore Hospital and Mater Hospital. Willoughby Road and the surrounding area will retain the existing fine grain, boutique employment spaces providing a variety of different commercial spaces across the area.

**Legend**

- — Study Boundary
- Low - High Density Employment Area

\* Proposed employment density takes into account the location of both existing job numbers and proposed future employment sites.

Distribution of Residential Density - Existing and Proposed

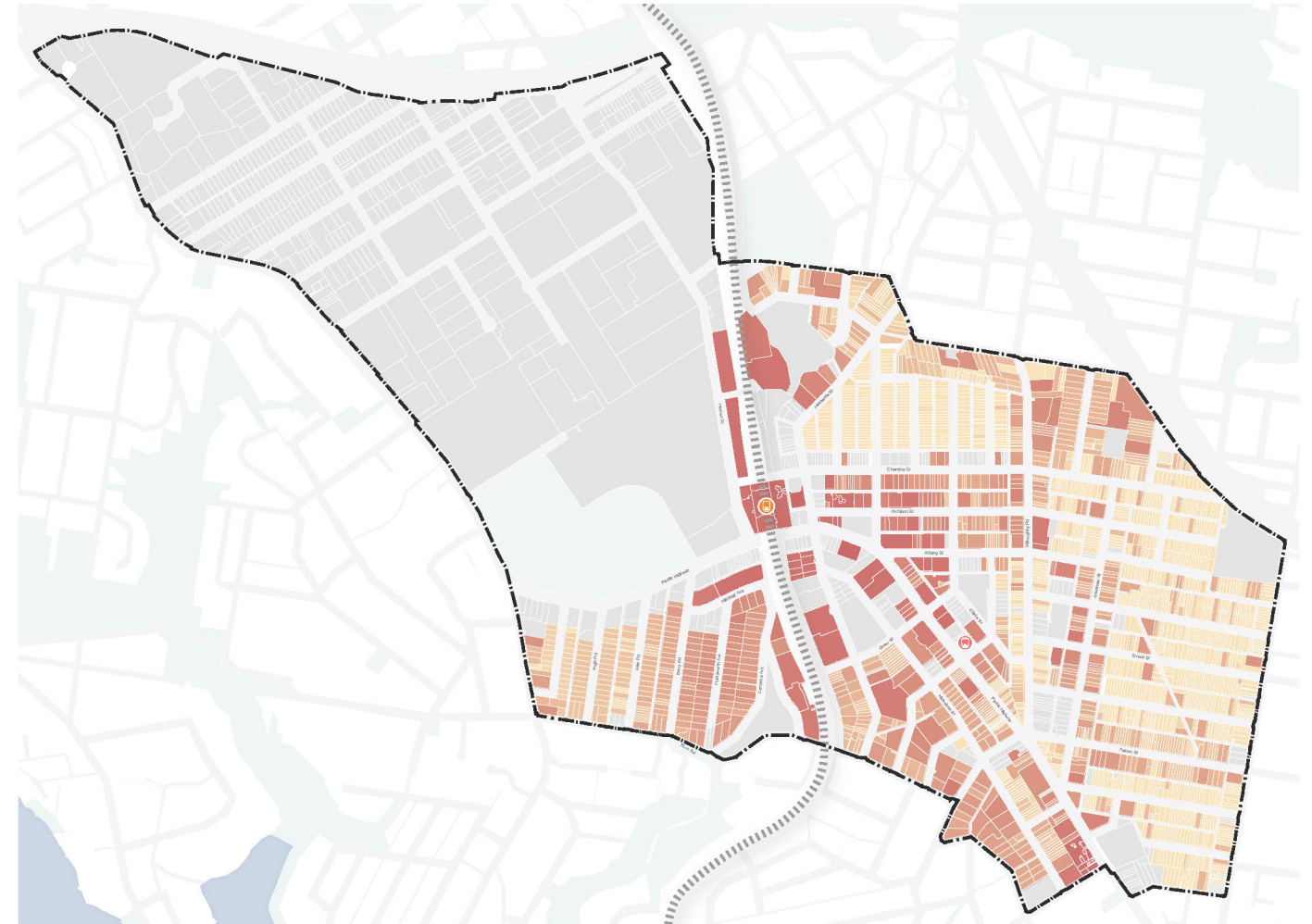


Figure 1.1.31 Residential Density

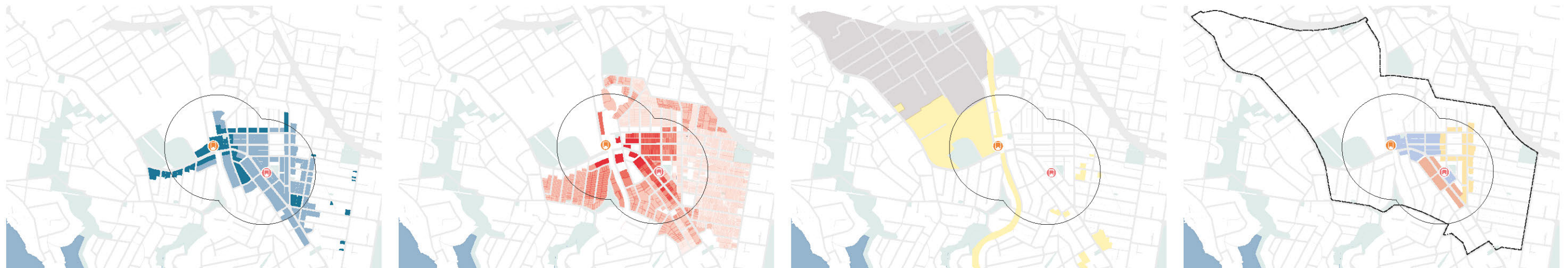
Residential density is also focused between the existing railway station and Crows Nest Sydney Metro sites at the core of the area, transitioning down to the surrounding low scale residential areas.

**Legend**

- — Study Boundary
- Low - High Density Residential Area\*

\* Proposed residential density takes into account the location of both existing dwellings and sites likely to redevelop for residential use.

8.3 Land Use Priorities



**Commercial and Employment Considerations**

- Need to preserve floorspace for future employment as there is an opportunity for Metro to catalyse the commercial market
- Existing Lot sizes will impact the size of commercial floor plates achievable within the commercial core
- Existing B3 sites to the south of the Pacific Highway have opportunity to increase in height to maximise CBD views.
- Opportunity to develop commercial buildings within the existing shadow of large scale residential building as they do not require direct sunlight.

**Centre Core**

Prioritise stand alone office buildings that are independent (i.e. are not ancillary to another use on site) and likely to accommodate a significant number of staff. This area should accommodate intensification of employment and consolidate employment activities with premium commercial space. Encourage amalgamation of large sites to include stand-alone commercial building in association with a residential building.

**Mixed Use**

Sites to provide higher non-residential floor space. Facilitate main street retail and services involving large scale and local retailing activities, traditionally found on the main street of an area. Mixed use zone also to deliver substantial commercial uses, subject to proximity to transport and other key requirements.

**Residential Considerations**

- Residential development should provide a broad range of dwellings types including terraces, low, medium and high-rise apartments
- All developments to promote design excellence and maximise amenity (Solar access and ventilation)
- Development needs to provide good access and enhanced public benefit/amenity.

**Low Density Residential**

Existing areas to largely retain their existing scale and dwelling mix. Protect character and amenity of existing low scale development, heritage conservation areas and heritage items.

**Medium-High Density Residential**

Facilitate the delivery of medium and high density apartments for future residents near public transport nodes and employment. Provide a diverse range of building typologies within transition zones between the core of the centre to the surroundings low scale areas.

All future apartment buildings should seek to achieve the objectives of SEPP 65 and meet the requirements of the ADG.

**Health and Industrial Considerations**

- Large floor plates required for medical and education institutions, located north of RNSH.
- Allied health sector may evolve along the Pacific Highway toward the Mater Hospital.
- Capacity for growth on RNSH and TAFE sites.
- Artarmon West primarily industrial uses.
- Herbert Street and Frederick Street area evolving industrial, communications, IT and warehouse activity.

**Health, Education and Transport Infrastructure**

St Leonards and Crows Nest to continue to support public sector administration, transport corridors and interchanges, as well as health and education services that are currently established within the area.

**Industrial and Business Development**

Provide essential service industry and urban support to the area and wider region. Land use facilitates car service and repair; joinery, construction and building supplies; and domestic storage. Typically does not interfere with the amenity of the neighbourhood via pollution.

**Retail Considerations**

- Many areas have poor amenity for employees, lack of retail and few after hours activities.
- Reinforce the retail character of Willoughby Road.
- Activity along Atchison, Chandos and Albany Streets should be enhanced and diversified.
- Activity along Pacific Highway needs to respond to the form and function of the movement corridor.

**High End Retail**

High end retail provides a wide range of products to consumers. High end retailers are generally associated with popular and iconic local and international brands.

**Standard Retail**

Standard retail provides a wide range of products at various price levels. They provide products for a broad market and can operate in small, medium and large tenancies.

**Boutique and Artesian Retail**

Boutique and artesian retailers are generally small businesses that provide a product for a specialised target market. They provide a specialised and limited inventory and occupy small tenancies along high streets.



### 8.4 Non-Residential Floor Space - Concept

The following diagram depicts the non-residential floor space concept.

The focus of employment is located between St Leonards and the Crows Nest Sydney Metro sites, along the Pacific Highway.

This will be supported by a contiguous provision of employment along the Pacific Highway Corridor south and west.

Focus of employment becomes less intense as land becomes further away from The Pacific Highway to respond to the fine grain retail of the surrounding areas, such as Willoughby Road.

Artarmon Employment Area will continue to provide employment as a result of its industrial and business development zones.

There is opportunity to provide additional employment uses within the area located to the south of the high density employment core. Employment uses are considered viable due to the area's proximity to Wollstonecraft Centre. Furthermore, the potential overshadowing impact caused by future high density development to the north may mean that non-residential uses are best suited for this area.

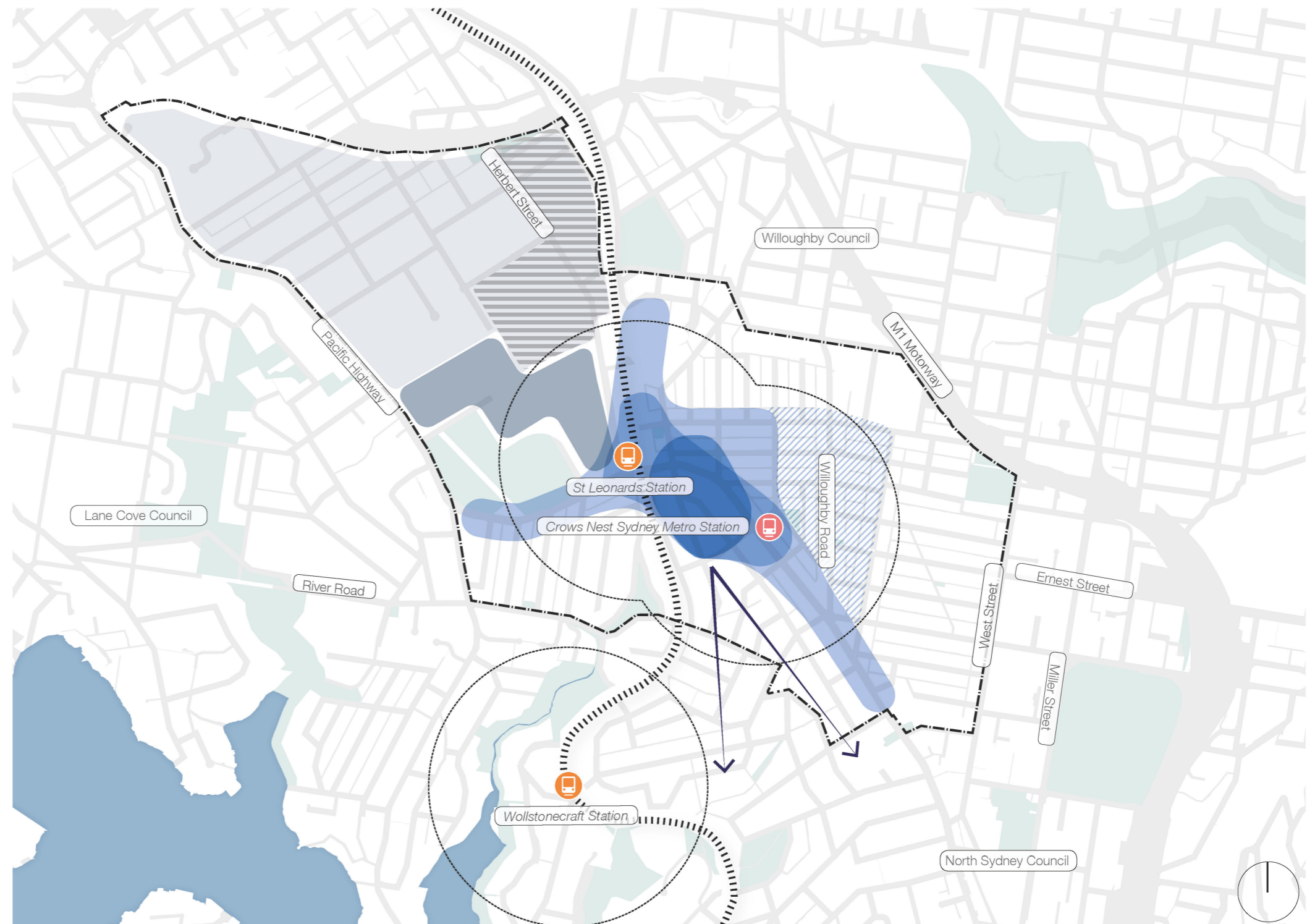


Figure 1.1.32 Commercial Floor Space Ratio Concept Diagram

## Urban Design Framework - Land Use and Activity

### 8.5 Commercial Typologies

#### Fine-grain Retail



Crown Street, Surry Hills



Brunswick Street, Melbourne

#### Key Characteristics:

- Small lots sizes.
- Mix of boutique stores, cafés, dining etc. at ground floor.
- Active frontages with permeable, engaging façades that address the street.
- Creates a vibrant mix of activity, typically located along high streets of a centre.

#### Shop-top Housing



St Margarets, Surry Hills - SJB Architects



Lamia Apartments, Marrickville - Candelapas Associates

#### Key Characteristics:

- Typically retail/commercial ground floor with housing above.
- Activated ground floor with permeable façades that address the street.
- Typically located in B4 Mixed Use Zones.

#### 4-6 Storey Large Footprint



Enterprise 1, University of Wollongong Innovation Campus - Bates Smart

#### Key Characteristics:

- 2,000m<sup>2</sup>+ floor plates.
- Stand-alone commercial building.

#### Commercial Podium



ERA, Chatswood(42 storeys) - Mirvac

#### Key Characteristics:

- Mix of medium to large floor plates that allow for single office or multi-tenanted strata office.

#### Commercial Tower



1 Elgh Street, Sydney (29 storeys) - Ingenhoven Architekten + Architectus

#### Key Characteristics:

- Mix of medium to large floor plates that allow for single office or multi-tenanted strata office.

8.6 Distribution of Non-Residential Floor Space Ratio Controls

Figure 1.1.33 depicts the proposed non-residential Floor Space Ratio (FSR) controls across both B4 Mixed Use and B3 Commercial Core zoned land. The proposed non-residential FSR controls on these sites, if redeveloped, would deliver between the low and high Job Targets set by the GSC.

For sites located within B4 or B3 zoned areas where residential uses are also permitted, only the non-residential component of the FSR control has been identified. The B3 sites where residential uses are not permitted are highlighted (hatched), to indicate that the numbers shown also reflect the total FSR control. The sites with a proposed change to the FSR have also been identified (outlined in black), while the others reflect the existing LEP controls.

Designation of FSR has taken the following into consideration:

- North Sydney Council already applies non-residential FSRs to numerous sites within their LGA.
- High FSRs located at St Leonards Station along Pacific Highway and gradually taper off towards the proposed Crows Nest Sydney Metro Station.
- Proposed FSRs on some B4 sites reflect the existing commercial floor space of these site as a minimum
- Medium FSRs located south of Pacific Highway and west of St Leonards Station.
- Low FSRs located along Willoughby Road to retain existing streetscape retail character.



Figure 1.1.33 Distribution of Non-residential Floor Space Ratio Controls Diagram

# Urban Design Framework - Built Form

## 9.1 Framework Plan

- 1. Contain High Density in St Leonards Centre**  
 High density mixed use, incorporating commercial and residential should be concentrated around and between Crows Nest Sydney Metro Station and St Leonards Station. High density development should be located on both sides of Pacific Highway and around the stations to enable appropriate density in close proximity to public transport.
- 2. Protect the Fine Grain of Willoughby Road/Crows Nest Village**  
 Height will gradually transition to low scale development towards Willoughby Road, ensuring the low scale and fine grain character of the “high” street is retained. High density from the St Leonards and metro areas should not be overly visually imposing on the character of the area and appropriate solar access in mid winter should be maintained.
- 3. Five Way Intersection**  
 Establish maximum height around intersection, determined by existing heritage buildings.
- 4. Establish Transition towards Naremburn**  
 A transition and edge of commercial, mixed use and residential built form will be located along Chandos Street, delineating the St Leonards Centre from Naremburn residential neighbourhood and heritage conservation area in the north.
- 5. Preserve Amenity of Crows Nest and Naremburn**  
 Retain solar access to Crows Nest and Naremburn residential areas, ensuring minimal overshadowing impact from any future development. There is opportunity for medium density mixed use along Willoughby Road, north of Chandos Street.
- 6. Maintain Function of Artarmon Industrial Area**  
 Artarmon Industrial area is to retain its primary urban services function as a key employment and industry serving centre for the surrounding area and broader region.

No changes to FSR controls or zoning controls are proposed in Artarmon at this stage. Recommendations for this area are subject to further investigation.

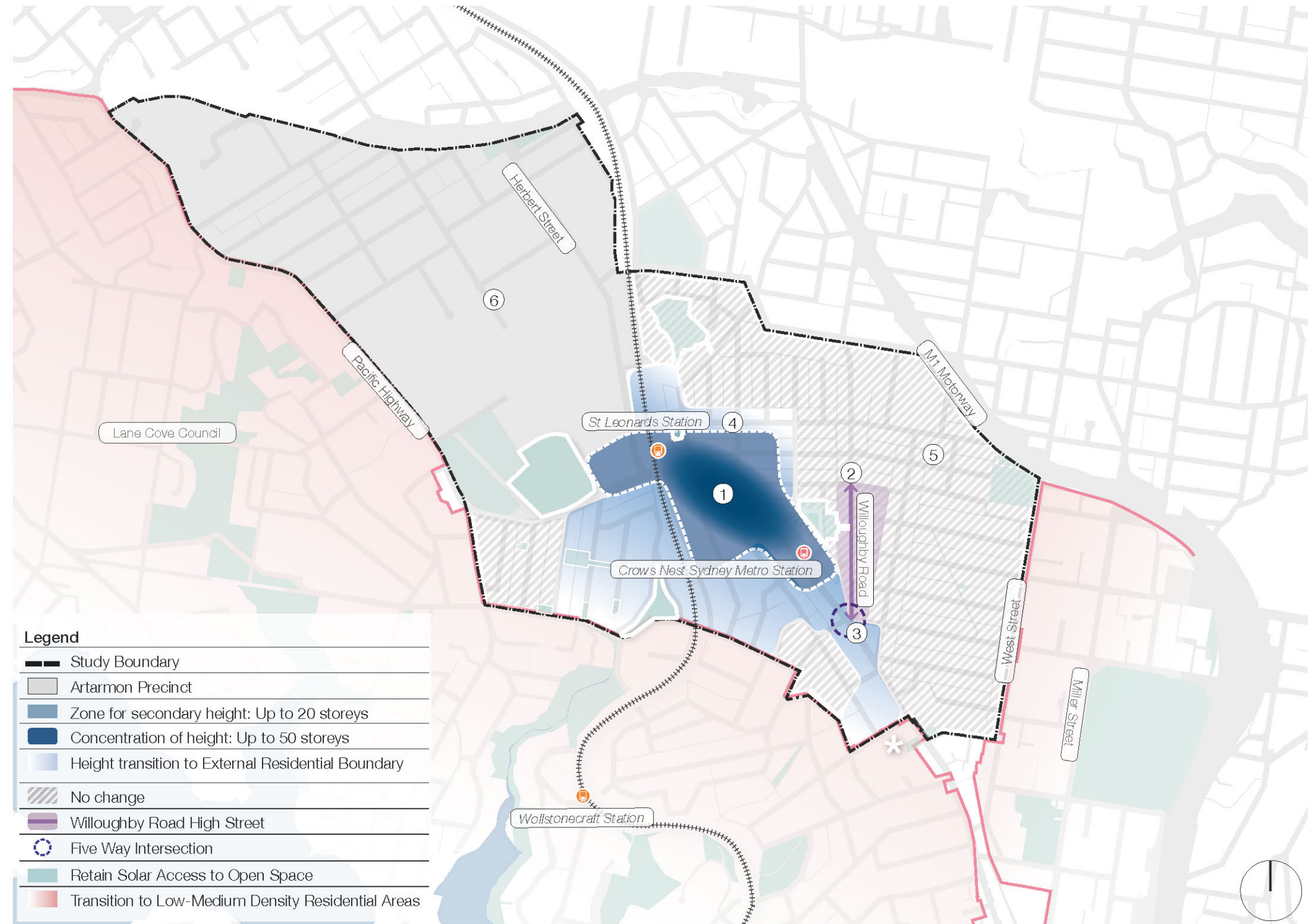


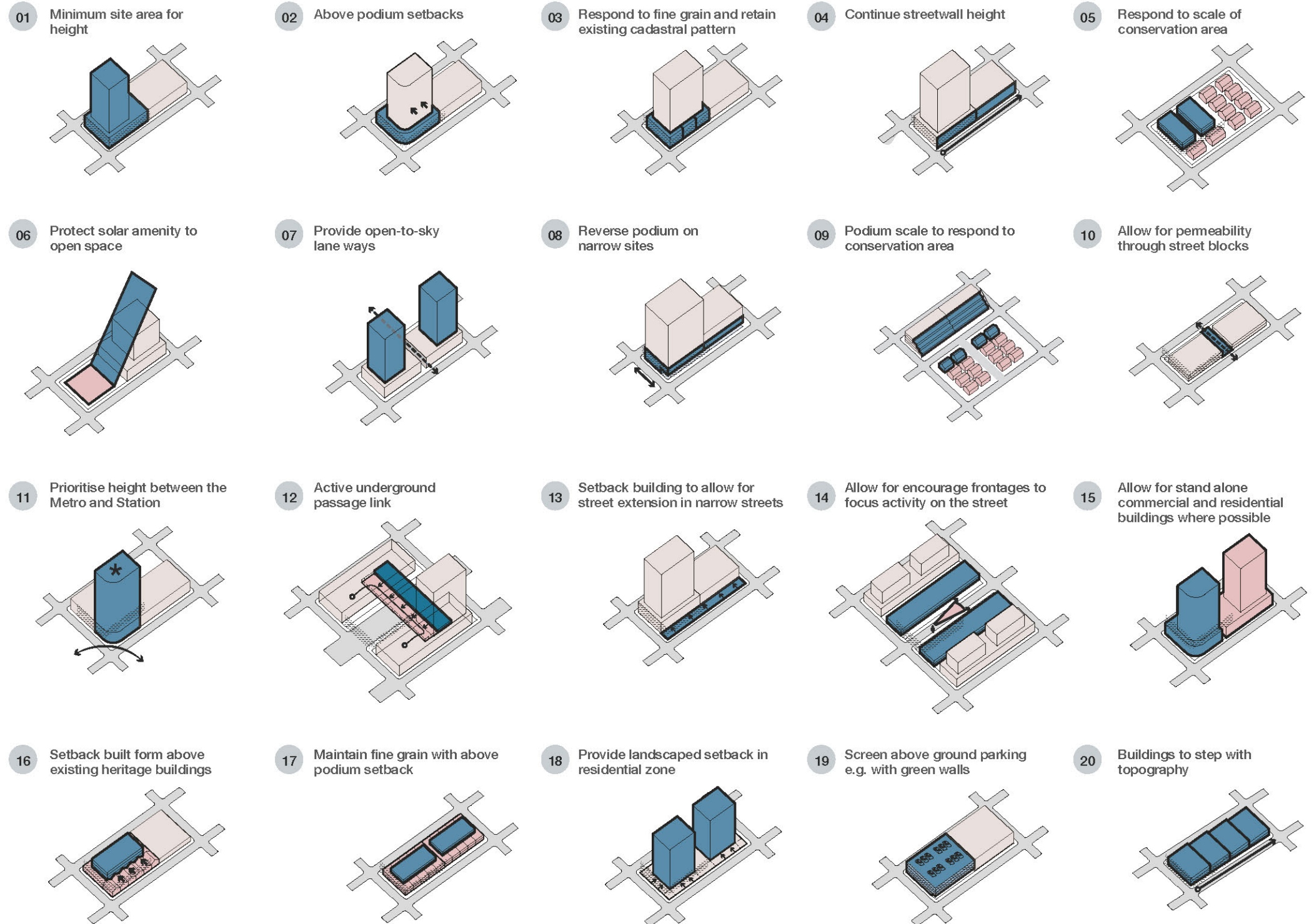
Figure 1.1.34 Built Form Framework

9.2 Design Recommendations

The following diagrams identify design recommendations and priorities to be considered to ensure development responds to the local context and character of St Leonards and Crows Nest.

1. Towers greater than 18 storeys to be considered on sites larger than 1,500m<sup>2</sup>.
2. Above podium setback to be provided.
3. Respond to grain of cadastral lots.
4. Continue street wall height and minimise its length.
5. Respond to height and scale of conservation area.
6. Protect solar amenity to open space.
7. Prioritise through site links that are open to the sky.
8. Reverse podium to narrow sites where an above podium setback can't be achieved.
9. Have podium respond to scale at edges of conservation area.
10. Allow for permeability through street blocks.
11. Prioritise height at key intersections.
12. Active underground passage link to be investigated adjacent to mass transit system.
13. Setback building to allow for street extension in narrow streets.
14. Allow for engaging frontages to encourage activity on the street.
15. Allow for stand alone commercial and residential buildings where possible.
16. Setback built form above existing heritage buildings.
17. Maintain fine grain character with above podium setback.
18. Provide landscaped setback in residential zone.
19. Allow for interim screened above ground parking that could later be retrofitted into commercial use.
20. Buildings to step with topography.

*Note: The location of land near 'gateways' does not relate to increased height. Land in these locations needs to function and respond to entry points to the area. This includes relating to the surrounding context and character of the area.*



## Urban Design Framework - Built Form

### 9.3 Solar Amenity and Sensitive Areas Consideration

The provision of solar access to key open space and existing residential areas assists in establishing the maximum building heights permissible across the area. A transition in height is recommended for development adjacent to established character areas, to mitigate overshadowing impacts within these sensitive locations.

Built form controls have considered overshadowing of critical open spaces and surrounding low density residential areas, ensuring future envelopes do not result in additional significant impact within the time periods identified below. The degree of acceptable additional impact has been assessed according to the site-specific characteristics and existing performance quality of each space.

The time periods identified below have been determined by the type of activity and the likely hours of predominant use for each space.

#### No additional overshadowing of Public Open Space:

1.	Christie Street Reserve	10:00am-3:00pm
2.	Newlands Park	10:00am-3:00pm
3.	St Leonards South #1 (Proposed)	10:00am-3:00pm
4.	St Leonards South #2 (Existing)	10:00am-3:00pm
5.	Hume Street Park	10:00am-3:00pm
6.	Ernest Place	10:00am-3:00pm
7.	Gore Hill Oval	10:00am-3:00pm
8.	Tallus Street Reserve	10:00am-3:00pm

#### Streetscape:

9.	Mitchell Street and Oxley Street	11:30am-2:30pm
10.	Willoughby Road	11:30am-2:30pm

#### Residential Area (at least 3 hours within this time period):

11.	Residential areas within boundary	9:00am-3:00pm
12.	Residential outside boundary	9:00am-3:00pm

#### Legend

—	Study Boundary
— · — · —	Focus of Development
■	Streetscape
■	Open Space
■	Conservation Area
■	Residential outside boundary

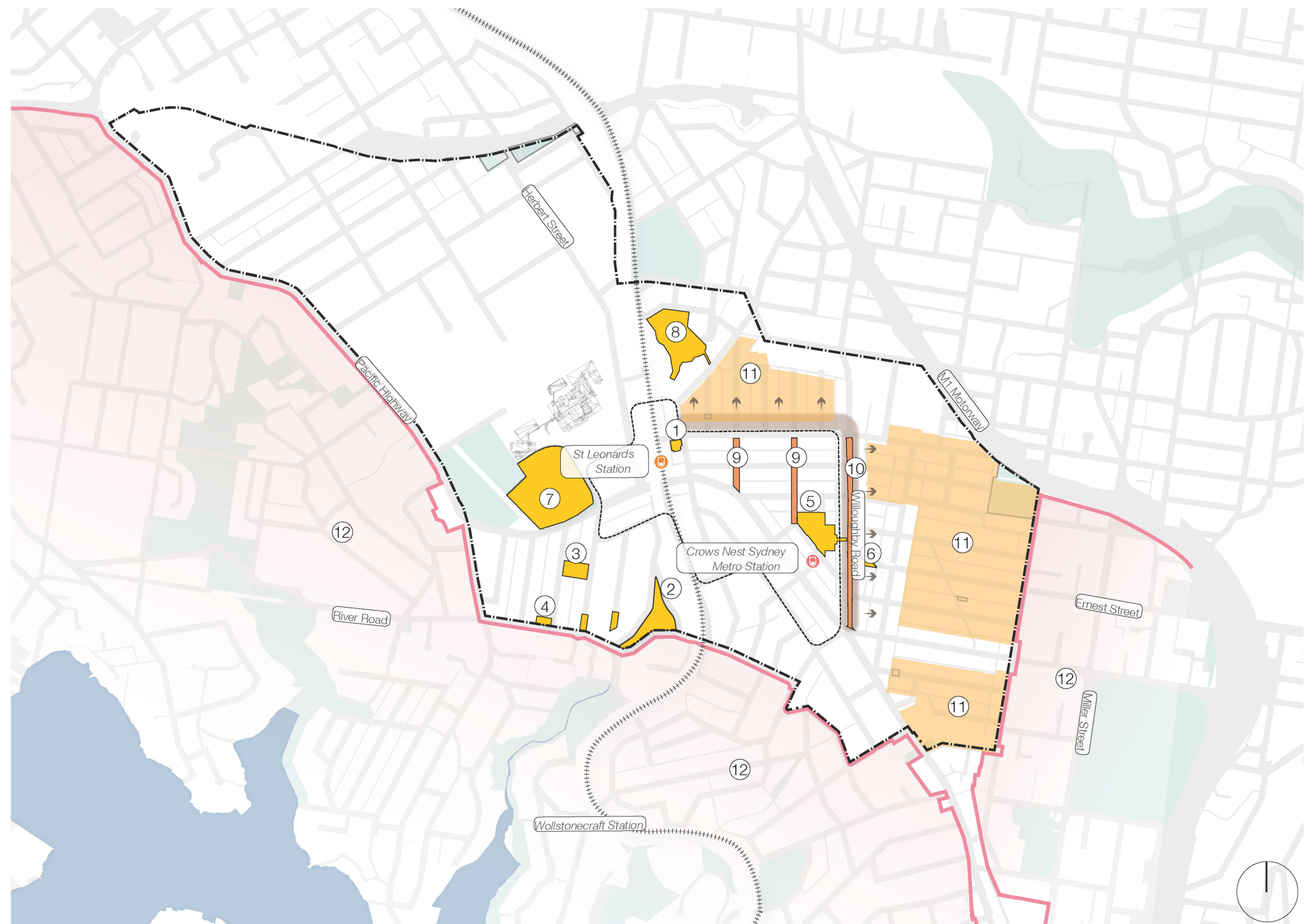


Figure 1.1.35 Solar Amenity Diagram

## Urban Design Framework - Built Form

### 9.4 Building Heights

Figure 1.1.36 depicts the proposed built form typology and height throughout the study area. Proposed heights have taken into consideration overshadowing and amenity of key public spaces, and opportunity for CBD views.

Generally taller developments are concentrated in the St Leonards Centre, and along and around the Pacific Highway between St Leonards Station and the proposed Crows Nest Sydney Metro station.

These developments will also generally be required to provide a large amount of employment (non-residential) floorspace, and where appropriate mixed use including residential development can also be provided.

#### Significant Sites

The following performance criteria should be considered for significant sites identified in the study area:

- Sites must be greater than 1,500m<sup>2</sup>
- Ensure no net loss of commercial floorspace (non-residential FSR) occurs;
- Provide affordable housing that is proportionate to overall development;
- Proposal should demonstrate design excellence;
- Ensure appropriate separation between tall buildings (40m for greater than 18 stories); and
- Include a public benefit offering (such as open space, community facility, etc).

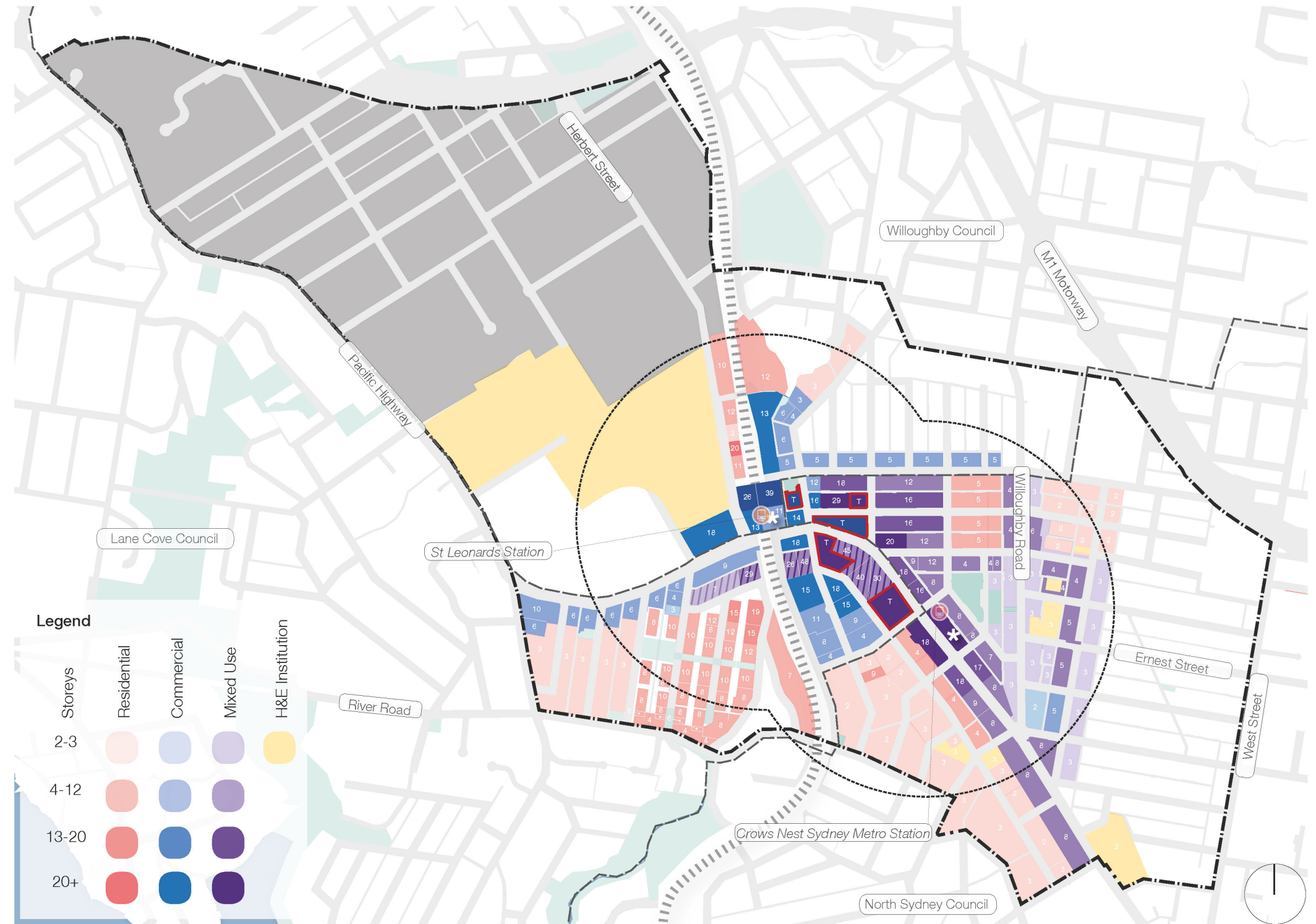


Figure 1.1.36 Recommended Building Heights Diagram

Artarmon Industrial Precinct	Recently Approved/ Under Construction	Preferred Heights	Significant Sites
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9.5 Proposed Setbacks and Street Wall Heights

Setbacks

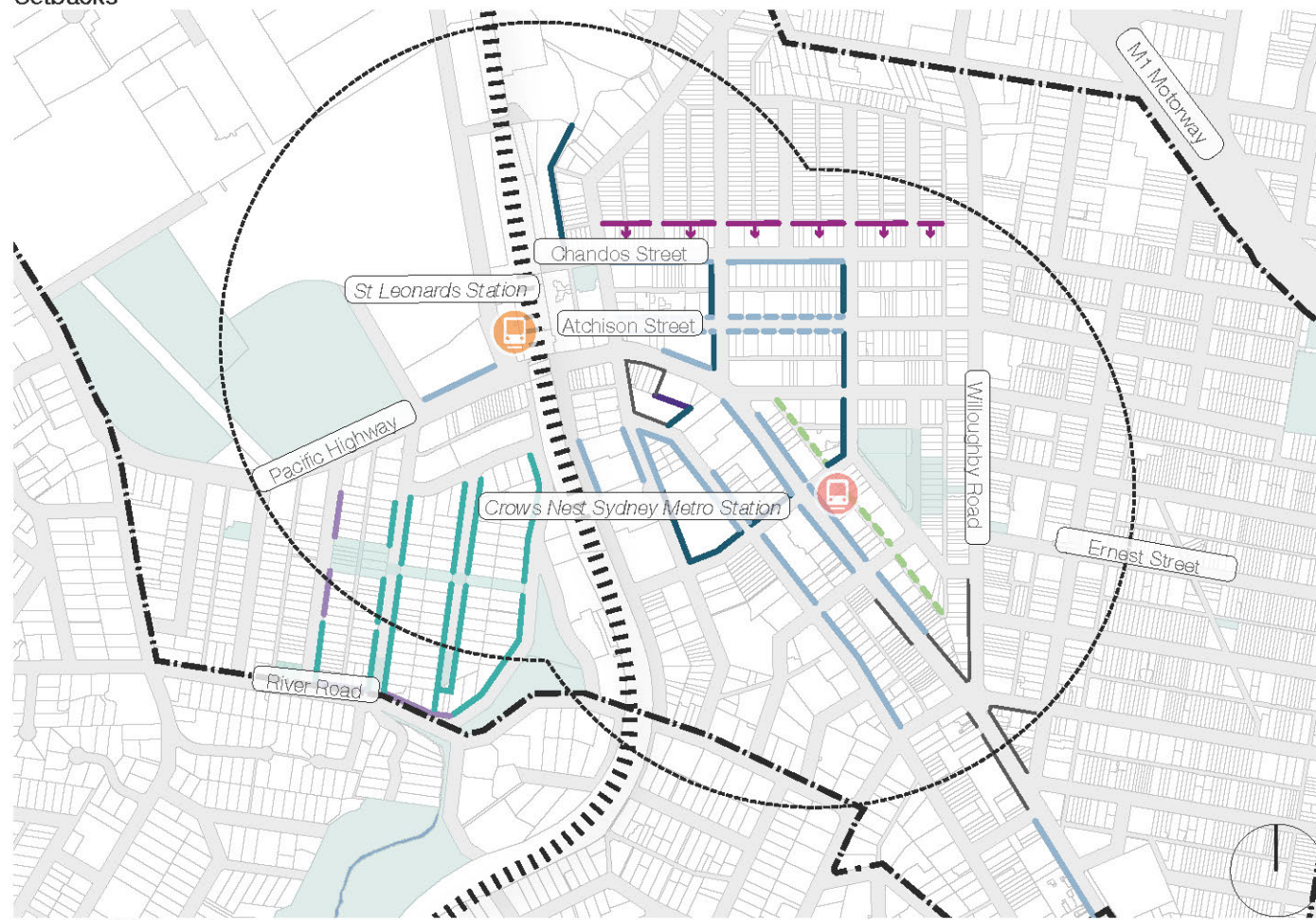


Figure 1.1.37 Setback Diagram

The proposed setbacks are located in many areas within both the St Leonards Centre and St Leonards South Residential Precinct.

- 3 metre setbacks have been identified on key east-west streets including Chandos, Atchison and Albany Street to facilitate wider footpaths, outdoor dining, cycleways and street trees to improve the quality of the public domain.
- 5 metre setbacks have been identified along Oxley Street linking to Hume Street Park and the proposed Crows Nest Sydney Metro sites to facilitate a green connection and potential cycle links.
- Parts of Pacific Highway have varied setbacks. This is to ensure the movement function can be preserved, while also facilitating landmark tree planting, pedestrian comfort and relief from the road.
- A 45 degree setback for built form above 7m has been identified along Henry Lane to act as an increased buffer to residential land to the north.

Legend

	45 degree setback away from Henry Lane above 7m
	10m Setback
	8m Setback
	5m Setback
	4m Setback
	3m Setback
	3m Reverse Setback
	1m Reverse Setback
	0m Setback

Street Walls

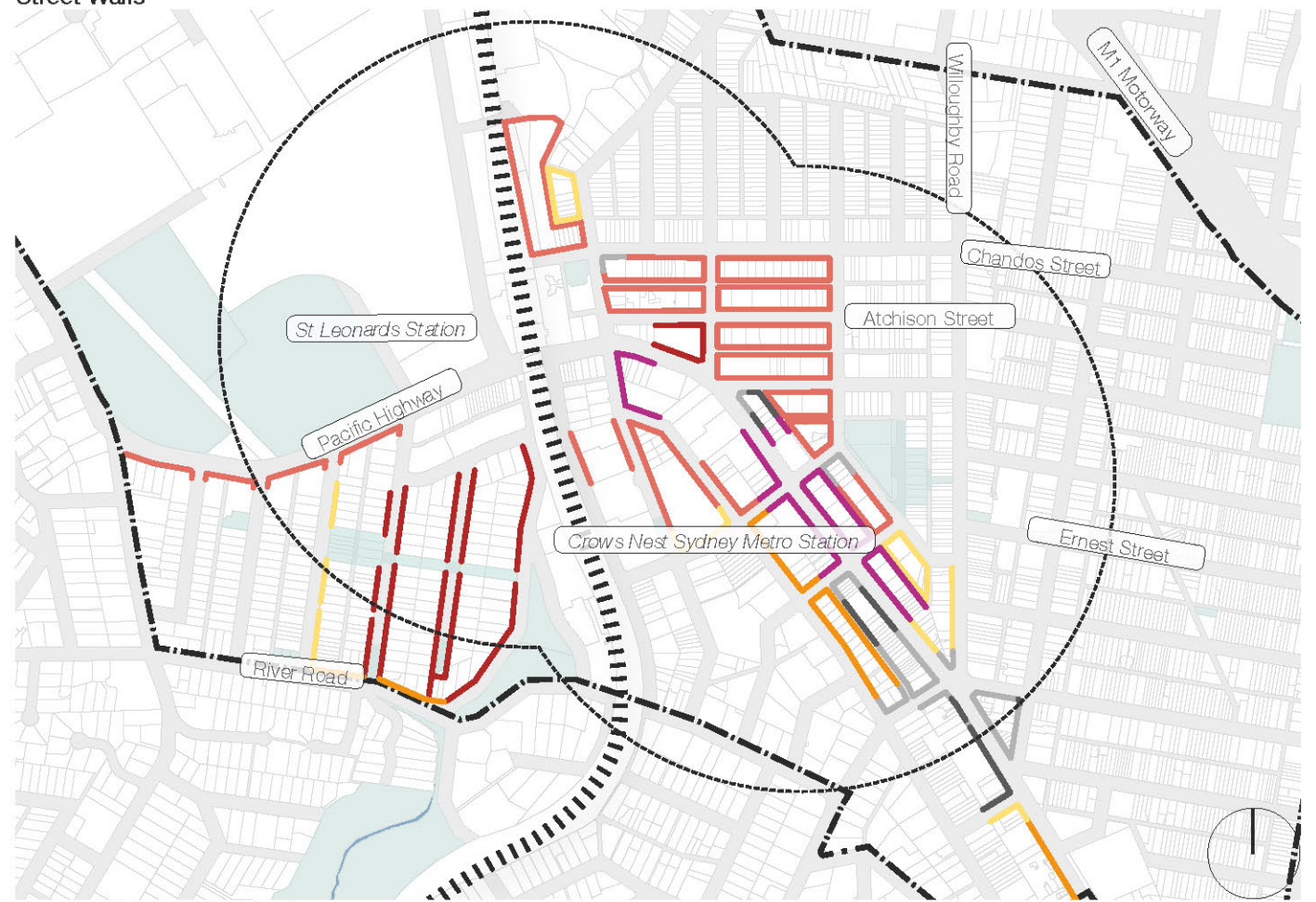


Figure 1.1.38 Street Wall Heights Diagram

- 2-6 storey street walls are proposed along Pacific Highway between the proposed Crows Nest Sydney Metro sites and St Leonards Station. The street wall heights respond to the form and function of the Pacific Highway and ensure future development is able to supply future commercial (non-residential) floor space in the central area.
- 2-4 storey street walls are proposed along transition edges and low scale activity areas such as Chandos Street and Willoughby Road. This is to ensure future development responds to the fine grain form of the existing streetscape, while also being able to support commercial and retail activities that promote the character of the area.
- The existing street wall is recommended to be retained on heritage sites and to be matched on sites adjacent to heritage sites.

Legend

	6 Storey Street Wall
	5 Storey Street Wall
	4 Storey Street Wall
	3 Storey Street Wall
	2 Storey Street Wall
	Retain Existing Street Wall
	Match Existing Adjacent Street Wall

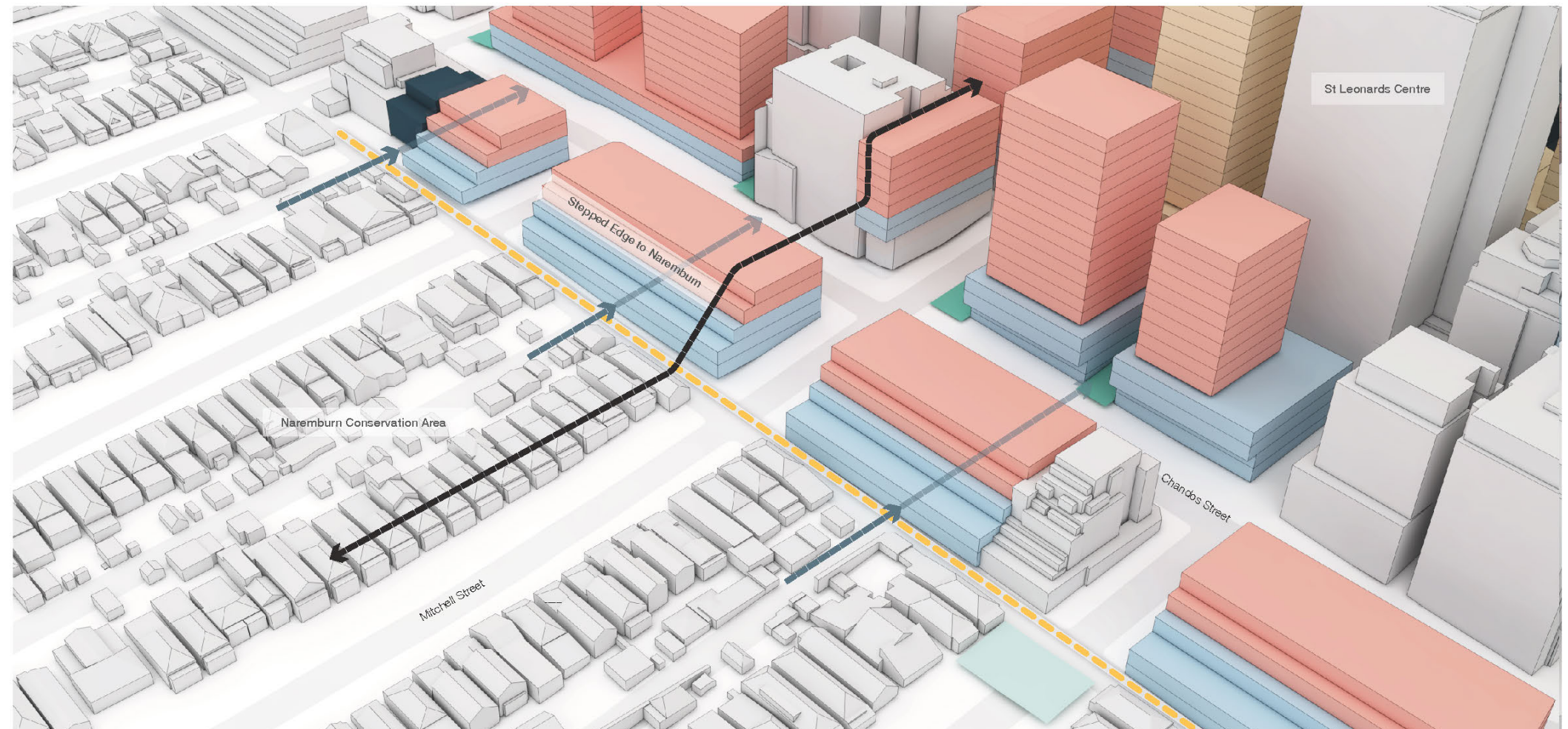


## Urban Design Framework - Built Form

### Transition to the Naremburn Conservation Area

#### Recommendations

- Provide a two storey interface with low scale detached dwellings north of Henry Lane. Step envelope away from Henry Lane towards Chandos Street up to the existing 20m height limit similar to the existing building at 30-32 Chandos Street.
- Investigate potential road trimming/verge widening, through the narrowing of road reserve, at various locations to facilitate planting and the transition from Naremburn into Chandos Street.
- Consider the location of substations, other services and their location to adjoining development. Adopt screening or design elements to conceal these within the public domain.
- Ensure the proportion of infill development respects the ground floor heights and grain of the existing heritage buildings.



#### Legend

<span style="color: blue;">■</span>	Proposed Commercial
<span style="color: red;">■</span>	Proposed Residential
<span style="color: darkgrey;">■</span>	Sites under Construction, Approved DAs, and Significantly Progressed Planning Proposal
<span style="color: gold;">■</span>	Significant Sites
<span style="color: green;">■</span>	Proposed Open Space
<span style="color: blue;">↔</span>	Indicative Building Transition
<span style="color: blue;">↔</span>	Extend Grain of Conservation Area
<span style="color: yellow;">- - -</span>	Edge of area of change

① Sensitive Scale on Chandos



② Tree Canopy to Soften Scale



③ Edge to St Leonards



④ Stepping Back Buildings

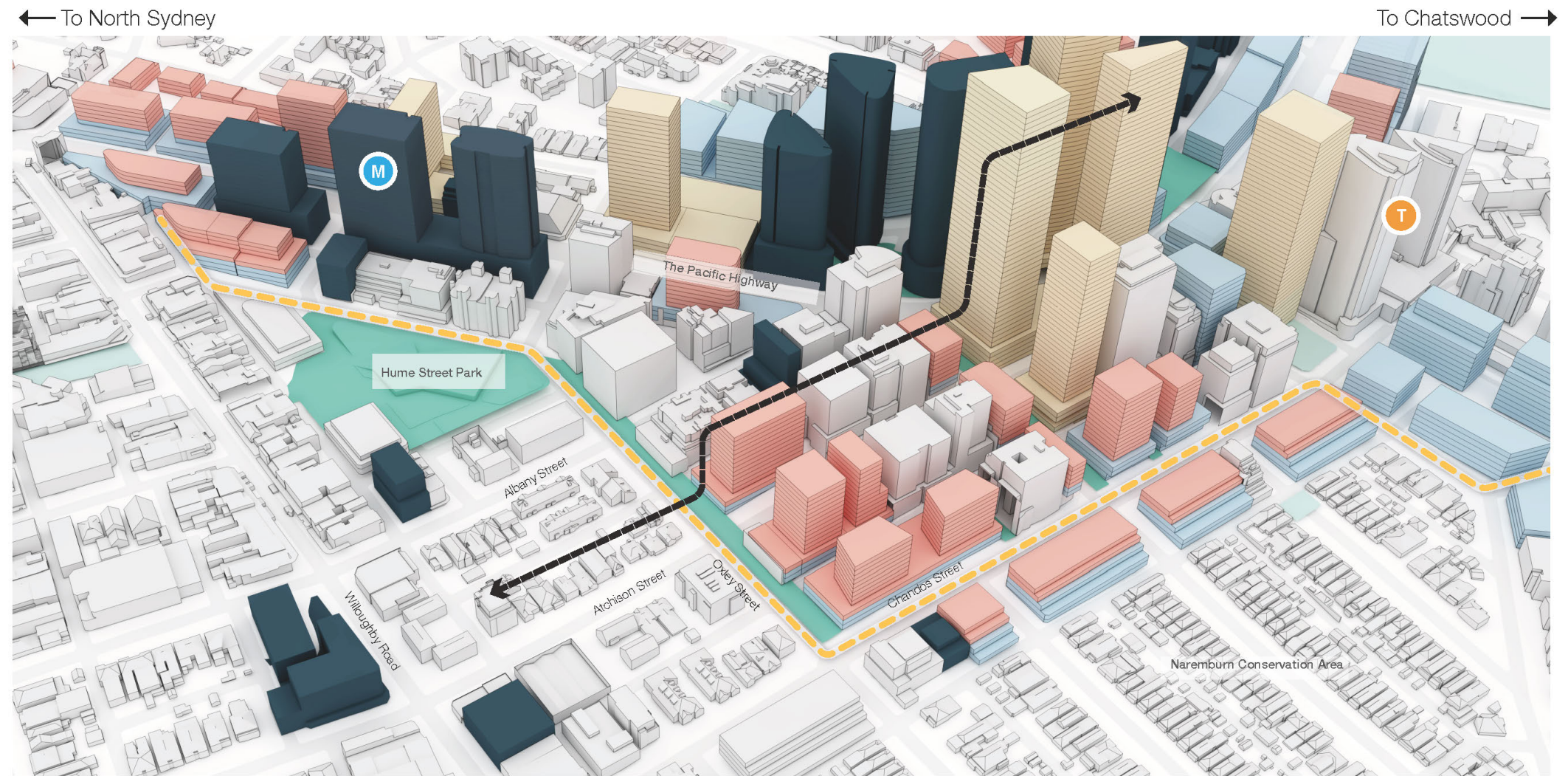


## Urban Design Framework - Built Form

### Edge of St Leonards Core

#### Recommendations

- Define the edge of the core of St Leonards at Chandos Street to the north, Oxley Street to the east, and Clarke Street to the east of the Crows Nest Sydney Metro sites.
- The proposed linear park along Oxley Street to provide a landscape buffer between the 12-16 storey buildings west of Oxley and 5 storey buildings to the east.
- Transition height within the St Leonards core towards the station.



#### Legend

- Proposed Commercial
- Proposed Residential
- Sites under Construction, Approved DAs, and Significantly Progressed Planning Proposal
- Significant Sites
- Proposed Open Space
- T St Leonards Station
- M Proposed Crows Nest Sydney Metro Station
- Indicative Building Transition
- Edge of area of change

① Maintain Fine Grain Streetscape



② Preserve Heritage



③ Transition to Fine Grain



④ Transition to Fine Grain



## Urban Design Framework - Built Form

### Willoughby Road and the Pacific Highway

#### Recommendations

- Celebrate the five-ways intersection through the preservation of existing built form and streetscape character, whilst ensuring any infill development complements the unique scale and grain.
- Development along The Pacific Highway should provide a human scale relationship to the street and prioritise retention or integration of heritage frontages, awnings and tree planting with any new development.
- Proposed development west of Willoughby Road is to provide no additional shadowing to the streetscape between 11:30am and 2:30pm on the winters solstice, as shown in the diagram to the right.
- Maintain 2 storey shop-front character along Willoughby Road to facilitate boutique retail and food tenancies.
- Review traffic management/facilities to ensure traffic can move through the area at appropriate speeds, whilst improving vibrancy and activity.
- Built form articulation and activation should respond to the existing fine grain character in the area.

*Note: The 'solar clipping plane' in the diagram opposite shows the lowest angle that the sun will reach Willoughby Road between 11:30am and 2:30pm at midwinter. The purpose of this is to identify the maximum height permissible for adjacent buildings, before overshadowing will occur to the streetscape.*



#### Legend

- Proposed Commercial
- Proposed Residential
- Sites under Construction, Approved DAs, and Significantly Progressed Planning Proposal
- Significant Sites
- Proposed Open Space
- M Proposed Crows Nest Sydney Metro Station
- Five Ways Intersection
- Edge of area of change
- Solar Clipping Plane to Willoughby Road (2pm)

#### ① Maintain Fine Grain Shopfronts



#### ② Reinforce Low Scale Character



#### ③ Celebrate Intersection



#### ④ Transition to centre



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