

Department of Planning and
Environment

**St Leonards and Crows Nest
Station Social Infrastructure and
Open Space Study**

Background review

Issue | 1 February 2017

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 251300

Arup
Arup Pty Ltd ABN 18 000 966 165



Arup
Level 10 201 Kent Street
PO Box 76 Millers Point
Sydney 2000
Australia
www.arup.com

Note: This Report is a preliminary analysis of the existing conditions. The detailed final report including recommendations will be exhibited with the Land Use & Infrastructure Implementation Plan

ARUP

Document Verification

ARUP

Job title		St Leonards and Crows Nest Station Social Infrastructure and Open Space Study		Job number		251300	
Document title		Background review				File reference	
Document ref							
Revision	Date	Filename	StLeoCrowsNestSocial_BackgroundReviw.docx				
Draft 1	26 Sep 2016	Description	First draft				
			Prepared by	Checked by	Approved by		
		Name	Arup	Arup	Arup		
		Signature					
Draft 2	22 Nov 2016	Filename	StLeoCrowsNestSocial_BackgroundReviw_Draft2.docx				
		Description	Background review following DPE initial comments				
			Prepared by	Checked by	Approved by		
		Name	Arup	Arup	Arup		
		Signature					
Issue	1 Feb 2017	Filename	StLeoCrowsNestSocial_BackgroundReviw_Final.docx				
		Description	St Leonards and Crows Nest Station Social Infrastructure and Open Space Strategy - Background Review - Issue				
			Prepared by	Checked by	Approved by		
		Name	Arup	Arup	Arup		
		Signature					
		Filename					
		Description					
			Prepared by	Checked by	Approved by		
		Name					
		Signature					
<div style="text-align: right;"> Issue Document Verification with Document <input checked="" type="checkbox"/> </div>							

Contents

	Page
1 Introduction	1
1.1 St Leonards and Crows Nest Social Infrastructure and Open Space Study	1
1.2 Purpose of this report	1
1.3 Process	1
2 St Leonards and Crows Nest Station Precinct	2
2.1 St Leonards and Crows Nest Station Precinct	2
2.2 Policy and plan context	3
2.3 Precinct characteristics	15
2.4 Existing social infrastructure assets	23
2.5 Drivers and challenges	41
3 Social infrastructure planning	42
3.1 Benchmarks	42
4 Next steps	46

1 Introduction

1.1 St Leonards and Crows Nest Social Infrastructure and Open Space Study

Defined as a Strategic Centre in the Department of Planning and Environment's *A Plan for Growing Sydney*, the St Leonards and Crows Nest area is described as a well-connected centre, with a focus on health activities associated with Royal North Shore Hospital. The priorities for the Centre identified by the *Plan* include: retaining the commercial core of the Precinct; providing capacity for additional mixed-use development; and supporting employment and housing opportunities with new transport infrastructure.

At the intersection of three local government areas (Lane Cove, Willoughby and North Sydney), and with employment and housing growth opportunities associated with a Sydney Metro station in the area, the St Leonards and Crows Nest area requires a coordinated approach across local and state government agencies to support its design and development in the delivery of social and cultural infrastructure as a key part of supporting the wellbeing of communities.

This Study investigates the current social infrastructure in the St Leonards and Crows Nest Precinct, and provides recommendations for additional social infrastructure and open space to support the needs of the projected future population. The Study also considers improvements in connectivity to surrounding open spaces and the establishment of a network of small spaces for the local community.

1.2 Purpose of this report

This background review forms one of the deliverables for the St Leonards and Crows Nest Station Precinct Social Infrastructure and Open Space Study. A review of existing local studies in the area has been undertaken as well as a review of the demographic characteristics of the precinct to summarise the drivers and potential challenges that may influence the future design of social infrastructure and open space for the precinct.

Relevant benchmarks for social infrastructure have also been collated.

1.3 Process

This study follows a robust process to firstly understand the situation (summarised in a Background Review Report). The study next engages with agencies and Councils to bring together an understanding of future planning for social infrastructure and open space in the Precinct. The final part of this Study brings together the background review and future planning and population projections to develop a high level set of recommendations for

additional social infrastructure and open space for the Precinct. A summary of the process is described in Figure 1.

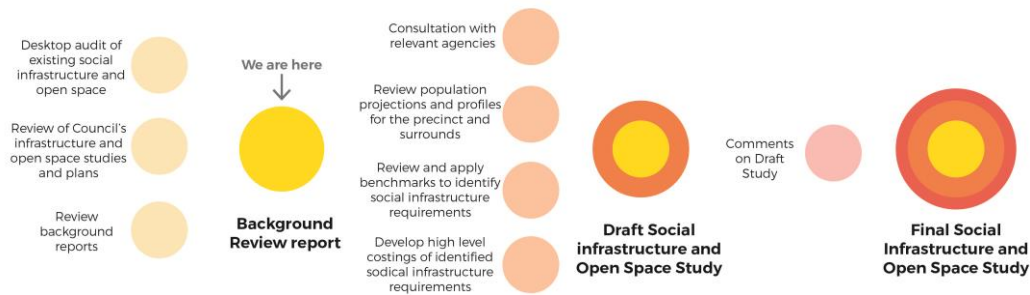


Figure 1 Process diagram

2 St Leonards and Crows Nest Station Precinct

2.1 St Leonards and Crows Nest Station Precinct

The St Leonards and Crows Nest Station Precinct is a well connected to employment centres including Sydney CBD, Chatswood and North Sydney, with a focus on health and learning with anchor institutions such as Royal North Shore Hospital and Northern Sydney Institute TAFE (see Figure 2). The precinct also hosts employment uses, residential districts and connects to the mixed use activities in Crows Nest Village. Employment and housing growth is projected for the precinct in association with new public transport infrastructure as part of the Sydney Metro project.

The Precinct is strongly connected by public transport and major roads, however, the precinct also experience severance from these transport networks. The road and rail infrastructure limits east-west and north-south movements in the Precinct and also reduces street level amenity in the Precinct, particularly along the Pacific Highway.

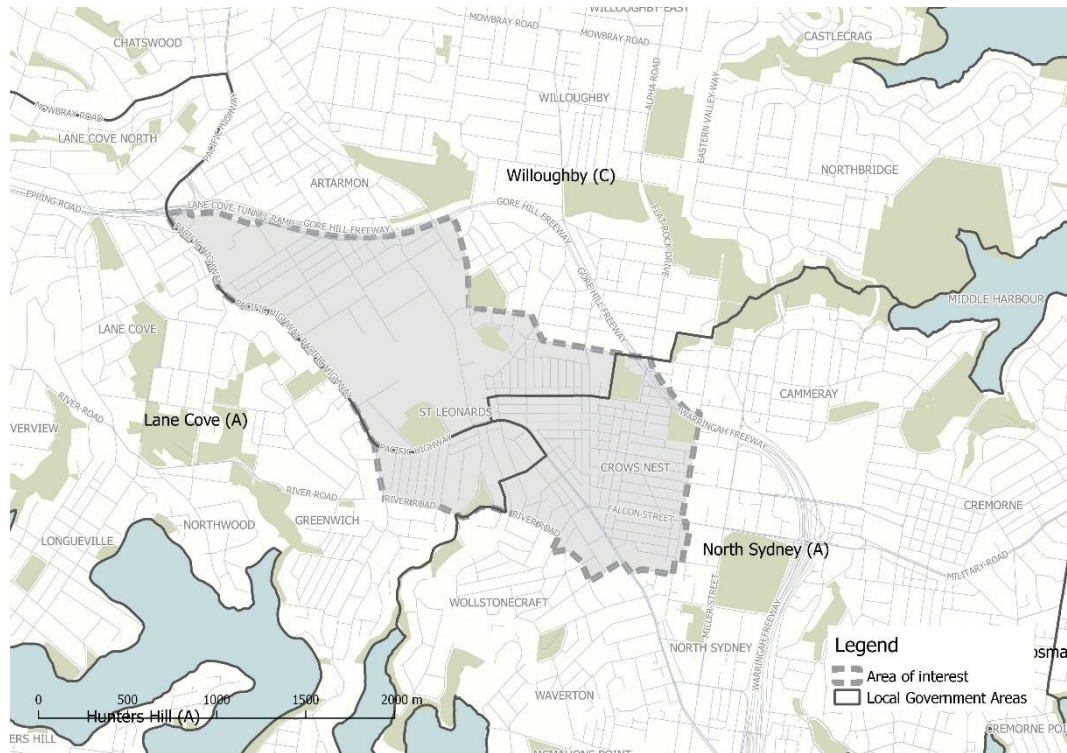


Figure 2 The Precinct

2.2 Policy and plan context

State and local planning strategies and plans were reviewed to establish:

- The strategic direction and key influences of change in the Precinct
- Existing social infrastructure and open space in St Leonards and Crows Nest
- Social infrastructure and open space needs in St Leonards and Crows Nest

A summary of the policy and plan review is presented in Figure 3.

	Identifies the strategic direction and key influences of change in the study area	Identifies existing social infrastructure	Identifies social infrastructure needs/ identifies potential social infrastructure
STATE	NSW 2021, NSW Government A Plan for Growing Sydney, NSW Department of Planning and Environment		
PRECINCT	St Leonards Strategy 2006, Lane Cove Council, North Sydney Council, Willoughby Council		
LOCAL	North Sydney LEP, North Sydney Council	Recreational Needs Study, North Sydney Council North Sydney Older Persons Plan, North Sydney Council St Leonards/Crows Nest Planning Study - Precinct 1, 2, 3, North Sydney Council North Sydney Open Space Provision Strategy, North Sydney Council St Leonards Public Domain Master Plan, North Sydney Council	Christie Street Masterplanning Guidelines, North Sydney Council
	Willoughby LEP, Willoughby City Council	Holtermann Street Carpark Study, North Sydney Council Willoughby Open Space and Recreation Plan, Willoughby City Council Willoughby City Strategy, Willoughby City Council Gore Hill Park Masterplan, Willoughby City Council Lane Cove Community Strategic Plan, Lane Cove Council	Lane Cove Delivery Program, Lane Cove Council
	Lane Cove LEP, Lane Cove Council	St Leonards Public Domain Master Plan, Lane Cove Council Lane Cove Open Space Plan 2016 - 2026, Lane Cove Council	

Figure 3 Policy and plan review summary

2.2.1.1 State policy and plans

NSW 2021 | NSW Government and DP&C | 2011

NSW 2021: A Plan to Make NSW Number One sets the Government's agenda for change across the state. The Plan provides direction to the public sector for the next decade as it sets priorities for funding and guides the decision making process. NSW 2021 is based around five strategies:

- Rebuild the economy
- Return quality services
- Renovate infrastructure
- Strengthen our local environment and communities
- Restore accountability to government

Specific to social infrastructure and open space, the Plan includes the following goals:

- Build liveable centres
- Make it easier for people to be involved in their communities
- Increase opportunities for seniors NSW to fully participate in community life
- Enhance cultural, creative, sporting and recreation opportunities

A Plan for Growing Sydney | NSW Department of Planning and Environment | 2015

A Plan for Growing Sydney identifies St Leonards as a Strategic Centre with the following defined priorities:

- Work with council to retain a commercial core in St Leonards for long-term employment growth.
- Work with council to provide capacity for additional mixed-use development in St Leonards including offices, health, retail, services and housing.
- Support health-related land uses and infrastructure around Royal North Shore Hospital.
- Work with council to investigate potential future employment and housing opportunities associated with a Sydney Rapid Transit Metro train station at St Leonards/Crows Nest.

The Plan outlines four goals for Sydney, highlighting that social infrastructure holds a role in supporting all four goals, as outlined in Table 1 Plan for Growing Sydney goalsTable 1.

Table 1 Plan for Growing Sydney goals

Goal	Benefits of social infrastructure
A competitive economy with world-class services and transport	Social infrastructure forms the foundation of vibrant communities. Vibrant communities play a role in attracting the increasing mobile workforce to the city.
A city of housing choice with homes that meet our needs and lifestyles	The presence of amenities and services such as social infrastructure in close proximity to homes is crucial to supporting community needs and lifestyles.
A great place to live with communities that are strong, healthy and well connected	Communities are strengthened through the presence of social infrastructure and the programming within these spaces.
A sustainable and resilient city that protects the natural environment and has a balanced approach to the use of land and resources	Social infrastructure, including open and green spaces contribute to a sustainable and resilient city. Programming and education programs within social infrastructure, like community buildings and school also present the opportunity to build resilience in the city.

Long Term Transport Master Plan | Transport for NSW | 2012

The Long Term Transport Master Plan is a strategic plan that looks to the long term growth of NSW to develop a suite of transport proposals to support the development of the state. Specific to social and infrastructure and open space in the Precinct, the Plan outlines the following:

- The North West Rail Link from Epping to Rouse Hill will provide rail access to 300,000 residents in the North West to Epping, Macquarie Park, Chatswood, St Leonards, North Sydney and the CBD.
- A key initiative of the Plan is ‘Customer-focused integrated transport planning.’ With further investment in the Precinct with the Sydney Metro, interchanges will be designed to support customer’s journeys – with attractive, safe and sheltered interchange facilities to enhance commuter comfort.

Sydney Metro Stage 2 EIS | Transport for NSW | 2016

The Sydney Metro Project Stage 2 was announced by the NSW Government in June 2015 and includes a new 30 kilometre metro line to be constructed and operated between Chatswood and Bankstown. The line would require a new crossing beneath Sydney Harbour.

A new station is proposed at Crows Nest, with access points at the corner of Clarke Street and Hume Street and the corner of Pacific Highway and Oxley Street. The station is identified as connecting to a residential growth area, TAFE, major commercial uses, major hospital and recreation.

The EIS identifies the station as ‘creating new transport focus on the southern side of the St Leonards specialised centre and supporting the St Leonards southern gateway to commercial and mixed use activities.’

The main features of the station precinct are described as: new pedestrian crossing facilities; new cycle link; and enhancement of pedestrian infrastructure around the station (subject to further investigations by RMS).

The Sydney Metro EIS identifies the following existing community infrastructure in the Crows Nest station precinct, including:

- Cultural facilities and places of worship - Northside Community Church, on the corner of Oxley Street and Pole Lane
- Sport and recreation facilities - North Sydney Indoor Sports Centre, on Clarke Street and Hume Street, and Crows Nest Dance Centre on the Pacific Highway
- Child care facilities - Kelly’s Place Children’s Centre, on the corner of Clarke Street and Hume Street. This facility is licensed to accommodate 40 children per day
- Healthcare facilities - Crows Nest Day Surgery, Crows Nest Eye Surgery, Dental on Clarke, Special Needs Dentistry Practice, Special Medical Practice, North Shore Oral and Maxillofacial Surgery, and Specialist Endo.

The EIS highlights that the Sydney Metro Stage 2 would have positive impacts on access to infrastructure for communities in the study area and across the greater Sydney region, by improving public transport access.

The EIS further notes that urban renewal and development opportunities near the Metro stations would support the revitalisation of local centres and create opportunities for new facilities and local meeting places. This is expected to have positive impacts on local community cohesion.

Local policy & plans | North Sydney Council

North Sydney LEP | North Sydney Council | 2013

North Sydney LEP 2013 is the principal legal document guiding planning decisions made by Council. The aims of the LEP related to enhancing social infrastructure and open space are as follows:

- Promote development that is appropriate to its context and enhances the amenity of the North Sydney community and environment

Maintain a diversity of employment, services, cultural and recreational activities

Recreation Needs Study | North Sydney Council | 2015

The Recreation Needs Study explores the current supply of sport, recreation facilities and services. The current and projected demands are also identified as well as potential funding options for the provision and/or improvement of identified facilities and services.

In relation to social infrastructure and open space, the Study outlined the following:

- There is a good range of recreation facilities in the North Sydney area, however maintaining an adequate supply, quality and diversity of opportunity will be an ongoing challenge.
- A number of trends were highlighted that will impact recreation and open space:
 - Access to public open space will become critical in the area, as private open space in smaller dwellings is becoming more limited.
 - Increasing trends of lone person households also assert the importance of public space as a space for interaction and companionship.
 - As cultural diversity increases, additional diversity in recreation and sporting activities will be required.
 - Ageing facilities will require investment to ensure facilities are inclusive and accessible.
- Crows Nest/ St Leonards is likely to experience the highest population growth rates. Introducing new facilities in these areas in a cost effective way will be challenging.
- Participation rates in recreation facilities highlight that there is increasing demand for most activities. Walking and cycling remains the most popular activity, and will require investment in trail and path infrastructure.
- Participation rates are increasing across all facilities with the exception of lawn bowls and golf. These facilities may have additional capacity.
- There will be increasing demand for off road trails for walking and cycling as it is currently the most frequent activity undertaken for persons over 55 years.
- Crows Nest would benefit from the provision of social/family recreation spaces. These spaces typically include a place space, area for kicking balls, a perimeter path, free access social sports facilities, skate and picnic facilities and possibly dog exercise, tables and seats. These spaces should be accessible, intergenerational spaces.

The study recommends that Council pursue opportunities for new open space and recreation opportunities in the Crows Nest/St Leonards Pacific Highway corridor, and in areas without open space within 300m of residential dwellings.

North Sydney Older Persons Plan | North Sydney Council | 2012

The Plan aligns with Council's Community Strategic Plan as a way to bring together strategies to assist and support older people in North Sydney.

In relation to social infrastructure and open space, the Plan:

- Includes strategies to identify new opportunities for older people to undertake paid work and /or volunteer in their local community. Engaging older people in volunteer opportunities could support existing or new social infrastructure.

- Usage of the North Sydney Olympic Pool, North Sydney Men's Shed, the Crows Nest Centre, Community Transport, Neutral Bay Seniors Centre, and membership of the four community gardening groups and of the Waverton Hub are all increasing.

St Leonards/Crows Nest Planning Study – Precinct 1 | North Sydney Council | 2011, 2012

This study explores the impact of a series of planning proposals in the St Leonards/Crows Nest area and considers opportunity for establishing mechanisms for enhancing existing or providing new open space. The study also seeks to improve connectivity in the study area, urban design and street level amenity particularly along the Pacific Highway.

Improvement in amenity of the public domain is identified as a strategy to decrease commercial vacancy rates in the St Leonards/ Crows Nest area.

In relation to social infrastructure and open space, the Study noted the following:

- The distribution of open space on the lower North Shore is relatively uneven. Foreshore locations enjoy larger provisions of open space, whilst others, in the immediate study area suffer from relatively low provision of open space despite having some of the highest residential densities.
- Gore Hill Park and Newlands Park are identified as major/ regional open space that is in close proximity to the study area.
- Local open space is limited due to size, location, furnishing and poor solar access:
 - Christie Street Reserve is a small area of open space with a grassed area adjacent to the St Leonards railway station with good solar access, currently popular with office workers.
 - Paved open space in the area, for example Mitchell St Plaza are underutilised.
- Hume Street Park the main piece of open space in the St Leonards/Crows Nest Planning Study area.
- Opportunities for the provision of new areas of open space were identified in areas considered underutilised through potential floor space transfers in an area bounded by Albany Street to the north, Hume Street to the east, and Clarke Lane to the west.
- The Study identified the expansion of the Hume Street Park as the preferred option for provision of open space in the area. This would include new open space on the eastern side of Hume Street with a pedestrian link to Willoughby Road, effectively enlarging Hume Street Park and providing improved access to the park via an important link within a broader pedestrian network linking St Leonards and Willoughby Road.

St Leonards/Crows Nest Planning Study – Precinct 2 & 3 | North Sydney Council | 2015

This Study, undertaken by North Sydney Council, was designed to develop new strategies and initiatives to provide for new open space in St Leonards/ Crows Nest; support increased investment in St Leonards and decreased commercial vacancy rates; improve connectivity, particularly between St Leonards/ Pacific Highway and Willoughby Road; and improve urban design and street level amenity.

In relation to social infrastructure and open space, the Study noted the following:

- There are limited cultural activities in Precinct 2 & 3, however there is potential to activate the area with the number of anchor creative activities and laneways.
- The Mitchell Street/ Albany Lane plaza is an underutilised plaza and potential focal point.

Key public domain upgrades included:

- Improving the streetscape
- Transforming Atchison Street into a civic street
- Establishing two linear parks along Mitchell and Oxley Streets
- Upgrading three public spaces: Christie Street Reserve (with public art), Mitchell Street plaza and Hume Street Park (as per Precinct 1 study).

North Sydney Open Space Provision Strategy | North Sydney Council | 2009

This strategy was prepared to ensure new land provided for open space met the needs of the population. This Strategy is closely linked with Council's Section 94 Contributions Plan, which seeks to address existing deficiencies in the open space network through strategic open space acquisitions and embellishments (consistent with Section 94 nexus requirements).

In relation to social infrastructure, the study makes the following recommendations:

- To meet the current and future recreational needs of the community additional open space is required in some areas of high and increasing population density, particularly Crows Nest / St Leonards. This Strategy outlines that Crows Nest and St Leonards are high priority areas.
- Planned or opportunistic acquisition of properties for open space purposes is recommended.
- Provision of 'hard' open spaces or civic spaces is recommended for areas of high commercial or population density as they can accommodate a large number of users.
- The Strategy provides a site assessment framework to facilitate the identification of the most appropriate properties for acquisition.

St Leonards Public Domain Strategy | North Sydney Council | 2003

The Strategy presents the details of recommendations for ongoing improvement of the precinct to maximise civic benefit over time.

Regarding social infrastructure, the Precinct Plan presented in the strategy includes the following:

- Atchison Street as a civic 'high street' providing a safer, more pleasant pedestrian focal point for residents and visitors to St Leonards
- Upgrade landscaping in the Christie Street Reserve
- Mitchell Street Plaza as a focal hilltop plaza

Throughout the St Leonards East area, the public domain principles outlined by the Strategy include a series of linked public spaces and central civic plazas, strengthened green patterns along main streets; and enhanced amenity and function of laneways.

Christie Street Masterplanning Guidelines | North Sydney Council | 2015

The Guideline identifies the sites of 100 Christie Street and 655 & 657 Pacific Highway as a significant landholding that has the potential to transform the St Leonards area. The Guidelines cover the Christie Street Reserve.

In relation to social infrastructure and open space, the guidelines note:

- There is opportunity to provide much needed space for local business and a social meeting point for the community. Accordingly, an above ground Co-working Space that meets Council's design requirements will be considered a public benefit.
- Christie Street Reserve is to be upgraded and enlarged to enhance the attractiveness and useability of this valued green space, with improved sight lines to the northern entry of St Leonards railway station.

Holterman Street Car Park Study, North Sydney Council | 2015

Council is currently investigating the potential to transform the Holterman Street Car Park into community uses. The car park is located within the St Leonards/ Crows Nest area, currently co-located with a community centre

The primary land use objectives for the site were established as follows:

- Retain parking supply, possibly underground
- Small scale active recreation space
- Open space
- Affordable housing
- Bicycle parking and end of trip facilities
- Community garden
- Ecological sustainable development initiative

One concept for the site is a rooftop open space and recreation facility with the following key uses:

- Outdoor community space at rooftop level
- Outdoor active recreation space at rooftop level
- Potential event space

Sustainability and public art demonstration space.

2.2.2 Local policy & plans | Lane Cove Council

Lane Cove LEP | Lane Cove Council | 2009

The Lane Cove LEP 2009 is the principal legal document guiding planning decisions made by Council. The aims of the LEP related to enhancing social infrastructure and open space are as follows:

- In relation to the management of open space, public and privately-owned bushland, riparian and foreshore land:

- (i) to protect and, where possible, restore all bushland areas, including all rare and threatened species and communities, and
 - (ii) to protect and, where possible, restore all riparian land along, and the inter-tidal zones and foreshores of, the Lane Cove River and Sydney Harbour and their tributary creeks, and
 - (iii) to make more foreshore land available for public access, and
 - (iv) to link existing open space areas for public enjoyment,
- In relation to community facilities, to provide for the range and types of accessible community facilities that meet the needs of the current and future residents and other users

Community Strategic Plan – Lane Cove 2025 | Lane Cove Council | 2011

The Lane Cove Community Strategic Plan addresses the need and values of the Lane Cove community. The Plan highlights the values of Lane Cove as ‘leafy environment, village atmosphere, family tradition, convenience to employment and public transport, proximity to business centres of Sydney and North Shore and good shopping.’

In relation to social infrastructure and open space, the Plan notes the following:

- Organised sport is recognised as playing a role in supporting healthy and active communities.
- Targeted programs are supported by Council to support community groups including youth, seniors and people with disabilities.
- Lane Cove Library upgrades as a community hub and key player in reducing social isolation.
- Council is encouraging multiuse of recreational facilities to open up new recreational opportunities to the community, as well as enabling open spaces, villages and facilities to be used with a broad range of arts and cultural activities.

The Plan recognises a series of issues and challenges for future planning for the community:

- Lane Cove is experiencing an increase in the number of young children aged 0 – 4 years and family households.
- Lane Cove is currently experiencing a decline in the 15-24 age group
- There is a need to enable Baby Boomers to remain active
- Lane Cove is experience an increase in those aged 85 years and older.

These trends will impact the way that recreation needs are supported.

Lane Cove Delivery Program 2013 -2017 | Lane Cove Council | 2013

The Delivery program details the actions Council will undertake to meet the activities outlined in the Community Strategic Plan, Lane Cove 2025.

In relation to the social infrastructure, the Delivery Program outlines a series of activities associated with reviewing, upgrading or identifying new ‘hard’ social infrastructure. These activities include:

- Audit venues to identify their suitability for various performances and input into performance requirements for the development of new and existing venues to satisfy areas of need
- Integrate cultural spaces in major developments e.g. Rosenthal Avenue and Little Street
- Consider opportunities to find cultural spaces in Lane Cove e.g. 314 Burns Bay Road
- Identify sites suitable for additional child care facilities
- Undertake access audit of all community facilities
- Upgrade at least one playing field to an all-weather field with artificial training surface and lighting
- Acquire land and undertake design process for an open space concept in Lane Cove North to cater for future development
- Provide appropriate open spaces to allow for flexible use of parks and bushland for cultural activities

St Leonards Public Domain Master Plan | Lane Cove Council | 2014

This document was produced by Council as a next step from the St Leonards Strategy 2006 to guide the development of the public domain in response to development proposals for large mixed – use buildings in the area. This Plan guides Council’s short to medium term planning for the provision of public spaces and facilities within the St Leonards South Precinct.

Regarding social infrastructure and open space, the Master Plan recognises that St Leonards has little public domain space, and suggests that some public domain spaces have fallen into disrepair over recent years.

A series of specific strategies identified in the Master Plan, including:

- St Leonards Plaza– a bus and rail interchange, south of the current “Forum” development. The Plaza is envisaged to be the social and community centre of the future precinct with landscaping, children’s play areas, water features, public artworks; hard landscaped areas, retail facilities and connections to public transport.
- Friedlander Place - connecting two planned developments along the Pacific Highway through a public plaza.
- Christie Lane – potential identified to enhance pedestrian link by providing active frontages such as cafes and shops, public facilities, art spaces etc.
- Marshall Lane – potential to enhance the pedestrian network by connecting the Pacific Highway to Marshall Street, with active retail frontages such as cafes and shops.

Open Space Plan 2016 - 2026 | Lane Cove Council | 2016

The Lane Cove Open Space Plan provides direction for the planning and management of Lane Cove’s open space and associated facilities. Recreational space should be welcoming, accessible, healthy, safe and secure, well maintained and clean. The Open Space Plan reviews the current stock of recreation spaces and develops an action plan to respond to the community’s needs.

Key objectives outlined by the Plan include:

- Identify and improve links between unconnected open space areas
- Provide parks that are diverse in character and structure, maintaining current provision standards so that residents live within 500 metres of a park or reserve
- Maximise the use of open spaces for a wide range of users, in step with dynamic community demographics and needs
- Expand effective use of open space by encouraging multi-uses

2.2.3 Local policy & plans | Willoughby Council

Willoughby LEP | Willoughby City Council | 2012

The Lane Cove LEP 2009 is the principal legal document guiding planning decisions made by Council. The aims of the LEP related to enhancing social infrastructure and open space are as follows:

- In relation to the management of open space, public and privately-owned bushland, riparian and foreshore land:
 - (v) to protect and, where possible, restore all bushland areas, including all rare and threatened species and communities, and
 - (vi) to protect and, where possible, restore all riparian land along, and the inter-tidal zones and foreshores of, the Lane Cove River and Sydney Harbour and their tributary creeks, and
 - (vii) to make more foreshore land available for public access, and
 - (viii) to link existing open space areas for public enjoyment,
- In relation to community facilities, to provide for the range and types of accessible community facilities that meet the needs of the current and future residents and other users

Willoughby City Strategy | Willoughby City Council | 2014

The Willoughby City Strategy provides a direction for the Council to deliver services and policy over the next 15 years for services that meet the needs of our lively community.

Actions relevant to 'hard' social infrastructure outlined in the plan include:

- Refurbish Willoughby Park Centre and Willoughby Bowling Club to provide art and craft facilities or Artist in Residence space. Investigate the joint use of private sporting facilities such as school ovals and halls.
- Provide additional youth recreational areas such as a new skateboard facility, bike tracks and basketball courts. Involve youth in planning for their needs.
- Identify improvements to existing walkway and bikeway infrastructure to improve connectivity of existing open space and recreation facilities.
- Pursue opportunities in new developments to increase public open space areas.

Willoughby Open Space and Recreation Plan | Willoughby City Council | 2013

The Willoughby Open Space and Recreation Plan is a review of the Open Space Plan undertaken in 1996. The Plan notes that public open space areas in the Council area have not substantially changed in quantity since 1996.

The Plan outlines the following recreation themes relevant to Willoughby and associated actions. A summary of actions relevant to St Leonards by themes is also outlined.

- Informal recreation:
 - Actively pursue opportunities for additional publicly accessible open space in redevelopments, especially in high density areas along the Pacific Highway corridor in Chatswood, Artarmon, St Leonards and areas adjacent to main roads.
 - Implement Gore Hill Masterplan
 - Implement Community Gardens Policy in the vicinity of multi-unit developments
 - Support community gardens on under-utilised land in schools, churches, public housing estates and unmade road reserves in high density areas, as per the Community Gardens Policy
 - Implement new public spaces in St Leonards CBD
- Regional planning for new walking and cycling linkages between foreshore parks and other open space areas:
 - Link walking tracks in Willoughby City with tracks in Lane Cove
 - Improve the cycleway network through development of sites including Gore Hill Parklands
- More and better quality district sporting fields and indoor sports and courts:
 - Upgrade synthetic cricket wickets at various cricket fields, including making all synthetic wickets a uniform size like Gore Hill Oval.
- Access to water, particularly beaches and foreshore parks and swimming facilities
- Interaction with nature:
 - Upgrade existing walking tracks and linkages, and construct new tracks in bushland according to Reserve Action Plans

Gore Hill Park Landscape and Recreation Masterplan | 2006

The Masterplan recognises Gore Hill Park as a key recreational area that will be induced by further development proposed in St Leonards.

Opportunities for the Gore Hill Park articulated through the Masterplan, defined through analysis and consultation with the community, include:

- Create the 'Gore Hill Parklands' by connecting Gore Hill Park, with the cemetery, and the hospital. The parklands may also extend to the Gore Hill Technology Park and the TAFE campus.
- Potential to relocate the upper car park off Reserve Road and the 31 carparking spaces behind the pavilion.
- Improve connectivity to public transport, pedestrian and bicycle connections, including constructing a new crossing and new entry to the park on Reserve Road, and creating a new entrance in the cemetery fence on the Pacific Highway near Greenwich Road.
- Two areas have been identified for new facilities:

- The northern carpark (land adjoining the hospital) for potential new recreational centre and gardens for children and youth. An informal amphitheatre was also considered.
- South western interface with Gore Hill Memorial Cemetery has the potential for inclusion of a visitor centre, café and kiosk, gallery/function space with toilets for the staff and users of these buildings.
- The existing carpark and basketball court behind the pavilion could be removed to provide a more generous picnic and BBQ area, and a new water play area near the proposed visitor centre/café.

2.2.4 Previous precinct strategy

St Leonards Strategy | North Sydney, Lane Cove and Willoughby Council | 2006

This Strategy was commissioned by Lane Cove, North Sydney and Willoughby Councils and the then Department of Planning. The Strategy articulates a vision for St Leonards to continue to develop as a major centre, with knowledge based industries, supported by excellent accessibility and co-location with regional scaled health and educational facilities. The vision for St Leonards also supports diverse housing opportunities, coupled with convenience shopping, cafes, bars, entertainment venues, community facilities, a high quality environment and excellent public transport and walking and cycling accessibility. Enhancement of the 'sense of place' of St Leonards is also considered, supported by new development and public domain improvements.

In relation to social infrastructure and open space, the Strategy:

- Notes that improvements to amenity, including the provision of social infrastructure is critical to attracting people to the area, and projecting a unified sense of place.
- Suggested the creation of a network of attractive, green, safe and direct pedestrian routes as critical pieces of infrastructure.

2.3 Precinct characteristics

2.3.1 Demographic characteristics

Demographic characteristics of the St Leonards and Crows Nest Precinct have been provided by the NSW Department of Planning and Environment, and summarised below. These characteristics have been compared to the North District where relevant.

The St Leonards and Crows Nest Precinct lies within the North District that includes 11 local government areas (Hornsby, Hunters Hill, Ku-ring-gai, Lane Cove, Manly, Mosman, North Sydney, Pittwater, Ryde, Warringah and Willoughby). By 2036, the population in the North District is projected to grow from 906,500 in 2016 to just over 1,146,000 people which represents an increase of approximately 206% or 1.3% growth per year. The North district will remain the second largest district in terms of population in 2036. This relative low growth rate is lower than the annual growth rate of the Greater Sydney Region for the same period (1.7%).

In 2011, the precinct was home to 11,498 people. More than half of them (53%) were living in North Sydney, 33% in Willoughby and the remainder (14%) lived in Lane Cove.

In 2011, the age profile of the St Leonards Precinct (refer to Figure 4) shows a high proportion of people working in their late 20s and 30s compared to Sydney as a whole. The age profile of the Precinct, with a smaller proportion of young children and teenagers also suggests that there are fewer families living in the area compared to the Greater Sydney Region.

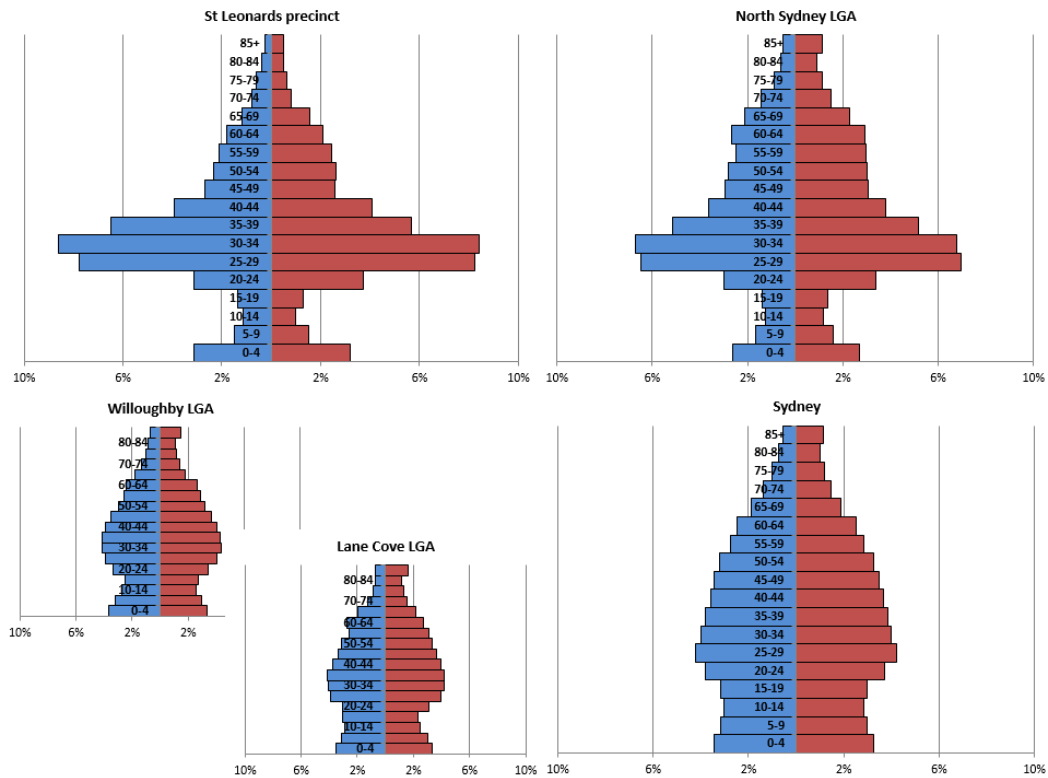


Figure 4 Population age profile for St Leonard Precinct, North Sydney LGA, Willoughby LGA, Lane Cove LGA and Sydney, 2011. Source: DP&E

Within the precinct, areas with high residential populations are located in close proximity to St Leonards train station. The Artarmon industrial area does not contain any residents.

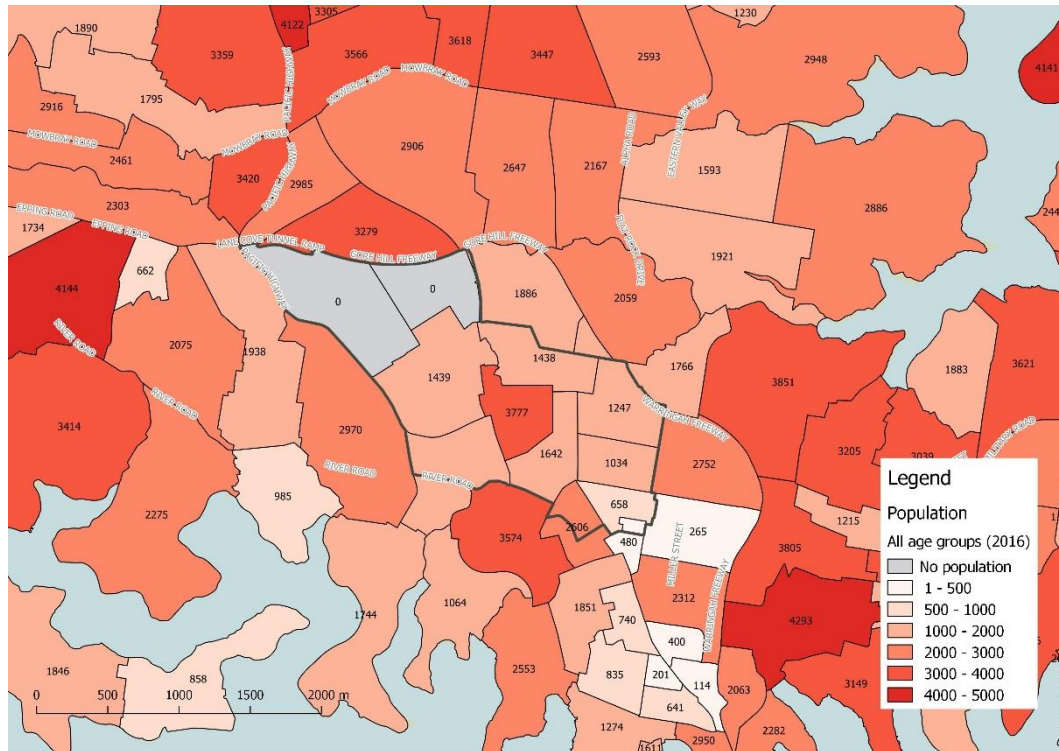


Figure 5 Population (All age groups, 2016)

2.3.2 Growth characteristics

The projected population for the precinct was analysed by DP&E based on the population projections for North Sydney LGA. These growth projects are based on growth projected for the Greater Sydney Region. North Sydney LGA is expected to grow by 19,000 people over the next 20 years, from 66,750 in 2011 to 85,750 people by 2031. This is a 28% increase, compared to a 37% increase in the population of Sydney over the same period. About three quarters (76%) of this growth is expected to come from natural increase, with the number of children born in the area likely to outnumber deaths.

Based on DP&E growth projections, the area around St. Leonards and Crows Nest is projected to experience major growth, ranging from a 30-110% population increase. Other major population growth centres in the area include Chatswood and Lane Cove

North. The forecast population growth of the Precinct and surrounding area is shown in Figure 6.

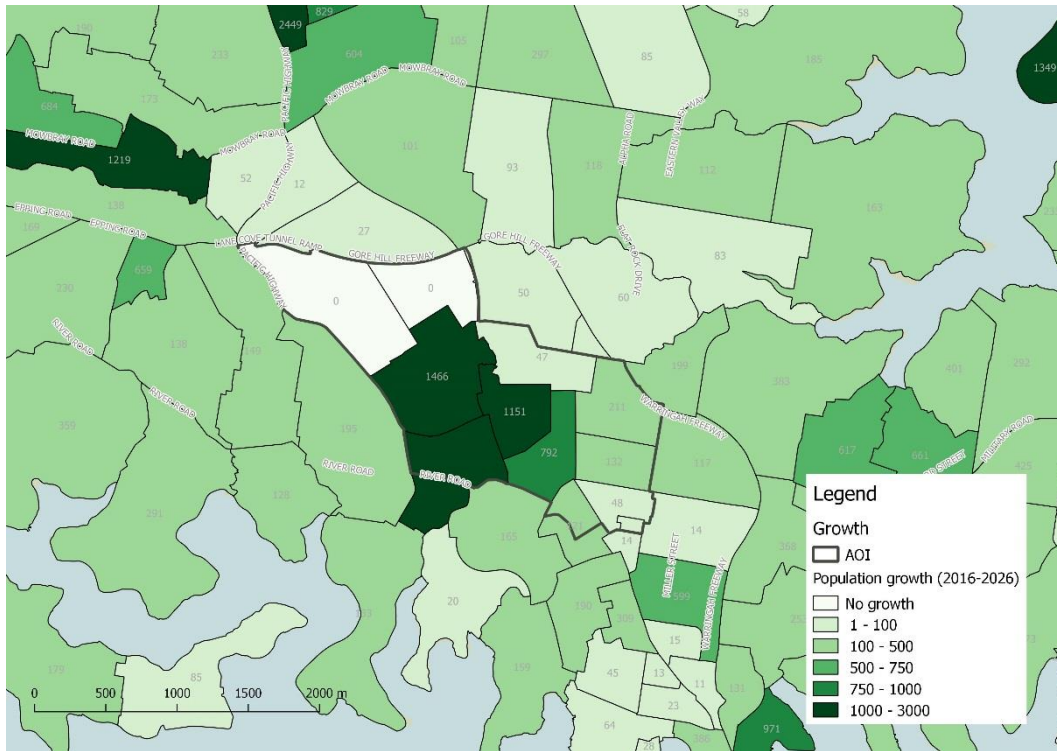


Figure 6 Forecasted population growth, all age groups (2016-2026)

Within the Precinct, overall population growth is forecast for all age groups, with the largest growth being experienced in the 65 or older age group, as shown in Figure 7.

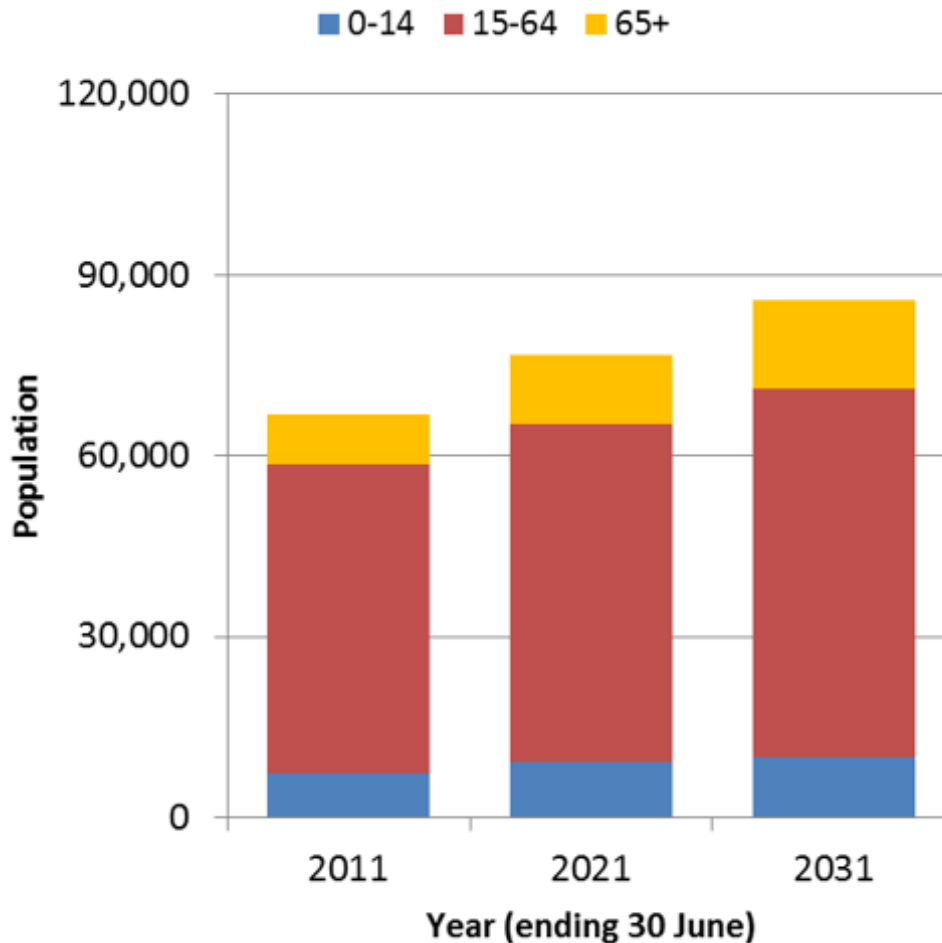


Figure 7: Population growth by age group

Although the median age of St Leonards (33.8) is lower compared to the North Sydney LGA (36.4) and Sydney as a whole (35.7), from 2011 to 2031, people in the 65+ age group are projected to experience the highest growth.

This trend in growth in the older age groups is being experienced more broadly in the North District, with just over one third of all population growth in the North District from 2011 to 2031 is expected in the 65 years and older cohort.

By 2031, it is projected that the Precinct will host 14,600 residents aged 65 years or older, making up 17% of its population; this older population made up 12% of North Sydney LGAs' population in 2011. This increase in the proportion of older people comes at the expense of the working age population (aged 15-64 years), where there is projected to be a decrease in the proportion from 77% in 2011 to 71% in 2031. This will present challenges for the population as the number of people of working age will increase at a slower pace than the number of people dependent on them.

In 2011 there were six people of working age for every person aged 65 years and over. This is projected to decrease to just four people of working age for every aged person by 2031. The proportion of the population aged 0-14 years in North Sydney LGA is projected to remain stable (increasing only slightly from 11% in 2011 to 12% by 2031).

Growth in the 65 years and over age group population is also expected within the Precinct, with larger growth experienced in the area, south of the Pacific Highway, as shown in Figure 8.

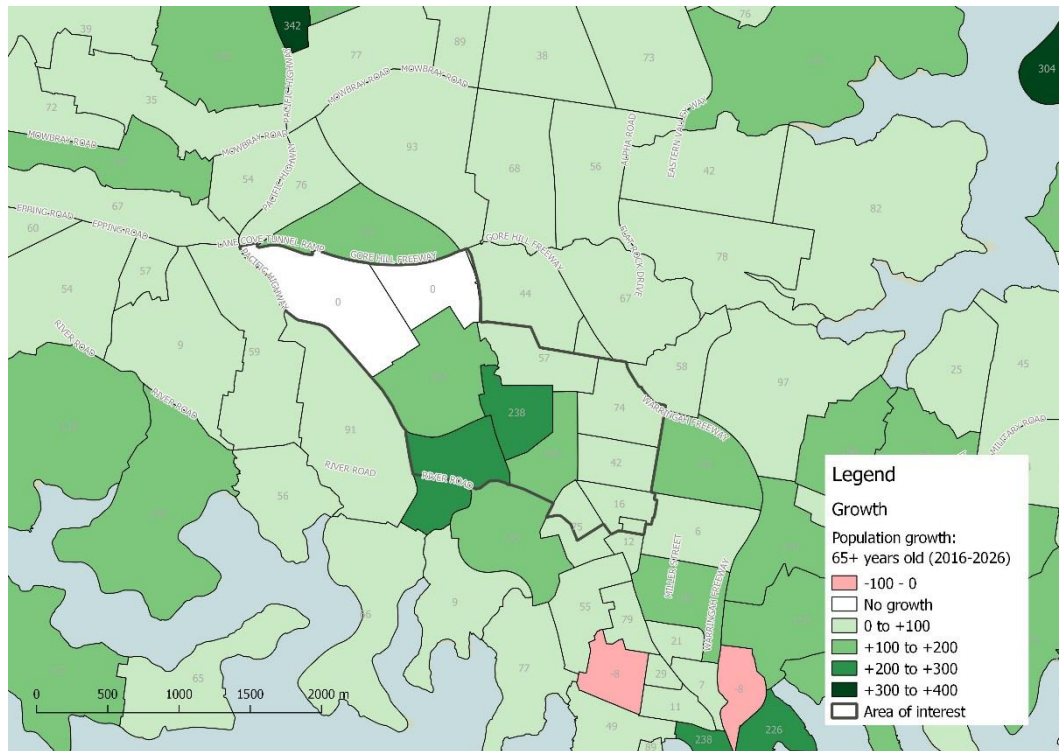


Figure 8 Forecasted population growth aged 65 and older (2016 - 2026)

2.3.3 Socio-economic characteristics

A diverse population

Just under half of the population in the precinct was born overseas. Of those overseas born, England and China (excludes SARs and Taiwan) were the most common countries of birth. Additionally, more precinct residents were the children of migrants compared with North Sydney LGA and Sydney as a whole.

Cultural diversity in the precinct is also indicated through the high proportion of the population that speaks a language other than English at home (34%). There is also a large breadth of languages spoken by residents of the St Leonards precinct community.

High tertiary education attainment

With more young adults in their 20's and 30's in the precinct, the precinct hosts a much larger share of the population attending a tertiary institution (42%) compared to Sydney (22%).

A low proportion of the population attending primary school and secondary school

The share of students attending primary and secondary school reflected the age profile of the St Leonards precinct population. Fewer families in the area means that there is a smaller share of students attending primary school (19%) or secondary school (13%) than Sydney overall (31.5% and 26% respectively).

High labour force participation

A large proportion (81%) of the precinct's population aged 15 years and above participates in the labour force. This is a higher labour force participation rate compared to Sydney as whole (66%) and slightly higher than North Sydney LGA (78%).

More broadly, the North District shows the lowest unemployment rates of any of Sydney's six districts.

Areas of least relative disadvantage

The Socio Economic Indexes for Areas (SEIFA) index of relative disadvantage shows communities that are classified as most disadvantaged within the North District are located in parts of Hornsby, Ryde, and the Northern Beaches. Areas of least relative disadvantage within the North District are in and around Sydney Harbour, and following the rail line from North Sydney to south of Hornsby, including the St Leonards precinct. This is likely related to high public transport routes provide greater accessibility to services, jobs, education and amenity.

Industries of employment reflect the anchor uses of the area – e.g. Hospital and health, commercial buildings at St Leonards Station

ABS Census 2011 data shows that the most common industry of employment for St Leonards precinct was Professional, Scientific and Technical Services, with almost a quarter of employed persons in this industry (23%). This was followed by Financial and Insurance Services (14%), and Health Care and Social Assistance (10%). Similar proportions were employed in Professional, Scientific and Technical Services, and Financial and Insurance Services in North Sydney LGA (22% and 14% respectively), while proportions for Sydney as a whole were approximately half that of the precinct (10% and 7% respectively).

2.3.4 Transport characteristics

High public transport activity

Compared to the Greater Sydney Region, the precinct hosts a low proportion of people that use private vehicles to travel work.

The precinct also hosts a higher proportion of people with no motor vehicles or only one motor vehicle per household when compared to North Sydney LGA and Sydney overall. Almost a quarter of occupied private dwellings did not have any registered motor vehicle garaged or parked at their address.

Low private car use is a reflection of high public transport accessibility, and access to employment centres, including St Leonards, Chatswood, North Sydney and the Sydney CBD. It is expected that the use of public transport will increase with the introduction of Sydney Metro.

2.3.5 Housing characteristics

High proportion of flats, units or apartments

There were 6,226 private dwellings in the St Leonards and Crows Nest Precinct in 2011. Almost three quarters of these dwellings (70%) were flats, units or apartments, which was a similar proportion to North Sydney LGA (73%) but considerably larger than Sydney as a whole (30%). The housing stock in the precinct reflect the household types and population age profile. The household types in the Precinct are shown in Figure 9.

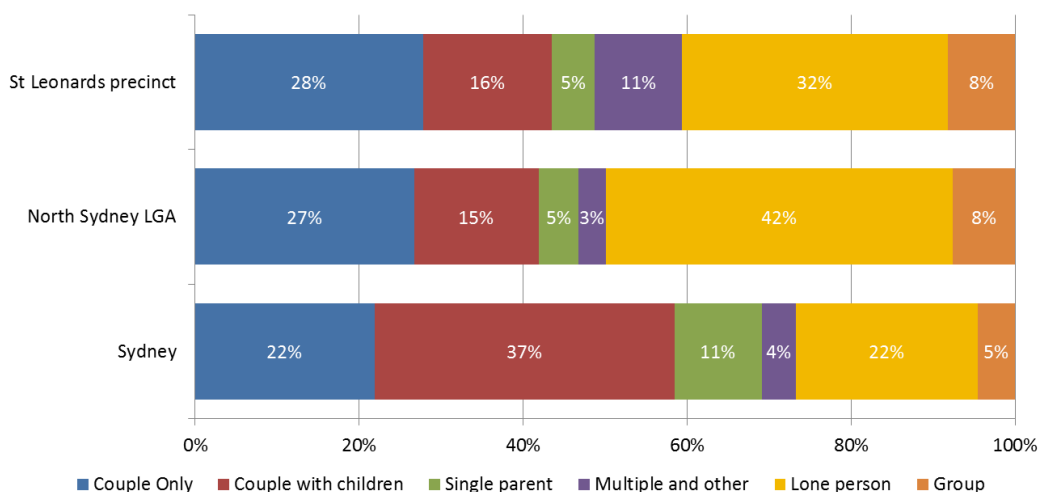


Figure 9 Household make up in the St Leonards and Crows Nest Precinct, North Sydney LGA and Sydney in 2011. Source: DP&E

A low proportion of social housing

The North District hosts the lowest proportion of social housing across the Sydney Metropolitan Area. In 2011, there were approximately 6,500 households being provided with social housing, representing 2% of all households across the district. The clusters of social housing in the North District are at Marsfield and Narraweena.

Housing affordability challenge

A slightly larger proportion of families in the St Leonards and Crows Nest Precinct experienced housing stress (that is, when the household has an income level in the bottom 40 per cent of Sydney's income distribution and is paying 30 per cent or more of its income on rent) (21.4%) compared to North Sydney LGA (20.1%) . However, this proportion was significantly less than Sydney as a whole (36.8%).

As outlined in the City Futures Research Centre's Sydney Housing Affordability Index, the Precinct hosts property sales that were affordable to less than 20% of households that earned \$100,000 in 2015. The Index shows that there were a pockets of housing in the North district that became less affordable over the time frame of 2010 – 2015 including at Lane Cove, Narrabeen and Collaroy.

2.4 Existing social infrastructure assets

A review of the existing social infrastructure assets for the Precinct and surrounds was undertaken.

2.4.1 Pedestrian accessibility

Walking catchments analysis has been undertaken as part of this Study to demonstrate the intrinsic accessibility of the pedestrian network. Walking catchments have been calculated from three main transport nodes, St Leonards Station, North Sydney Station; and the proposed Crows Nest Sydney Metro Station. The catchments, outlined in Figure 10, show areas accessible by walking within 5, 10 and 15 minutes of each of those locations.

Limited pedestrian crossings across the Pacific Highway and Warringah Freeway create accessibility barriers, particularly around the southern end of Warringah Freeway, around Naremburn, and along the Pacific Highway near St Leonards Station. From St Leonards Station, the five minute walking catchment is constrained due to limited formal and connected pathway through Royal North Shore Hospital and Gore Hill Park.

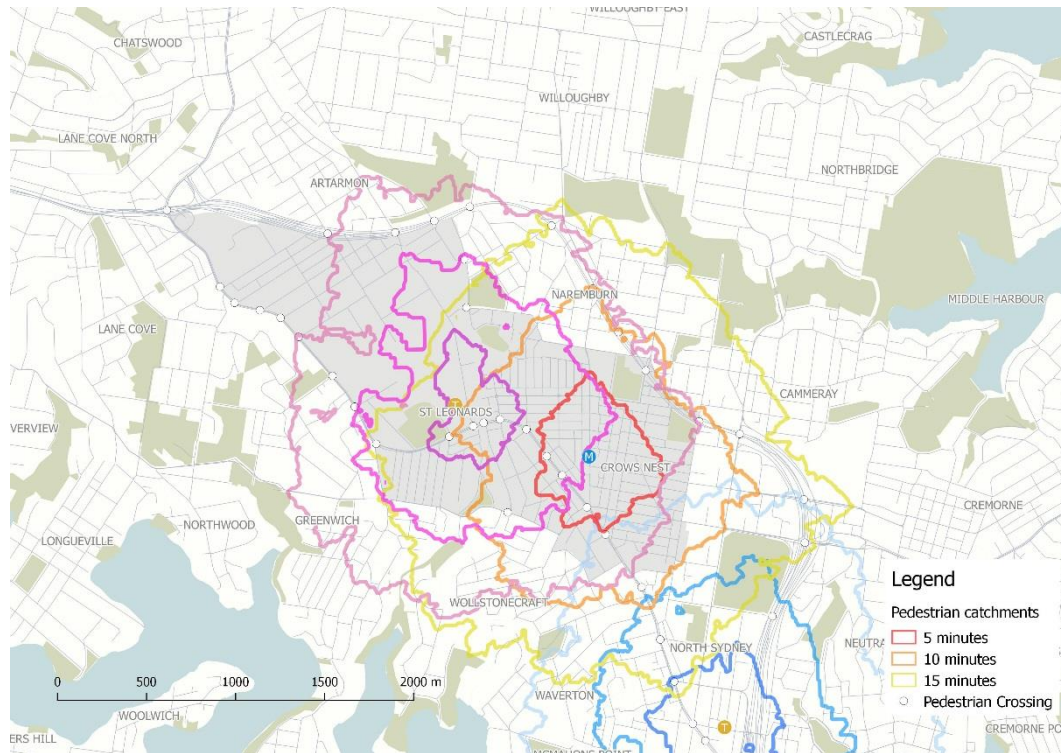


Figure 10 Walking catchments

2.4.2 Primary and secondary education

Primary and secondary education facilities within and adjacent to the Precinct are shown on Figure 11. North Sydney Girls High School lies within the Precinct. This School is a selective secondary school.

Within the precinct there are no mainstream primary and secondary schools. St. Leonards contains two specialised schools, being the Royal North Shore Hospital School (a school for students admitted to RSHS) and Naremburn School (a school for intensive behavioural support and vocational preparation).

There is a strong cluster of high schools and primary schools in North Sydney, south of the Precinct. These comprise of public, private and catholic schools.

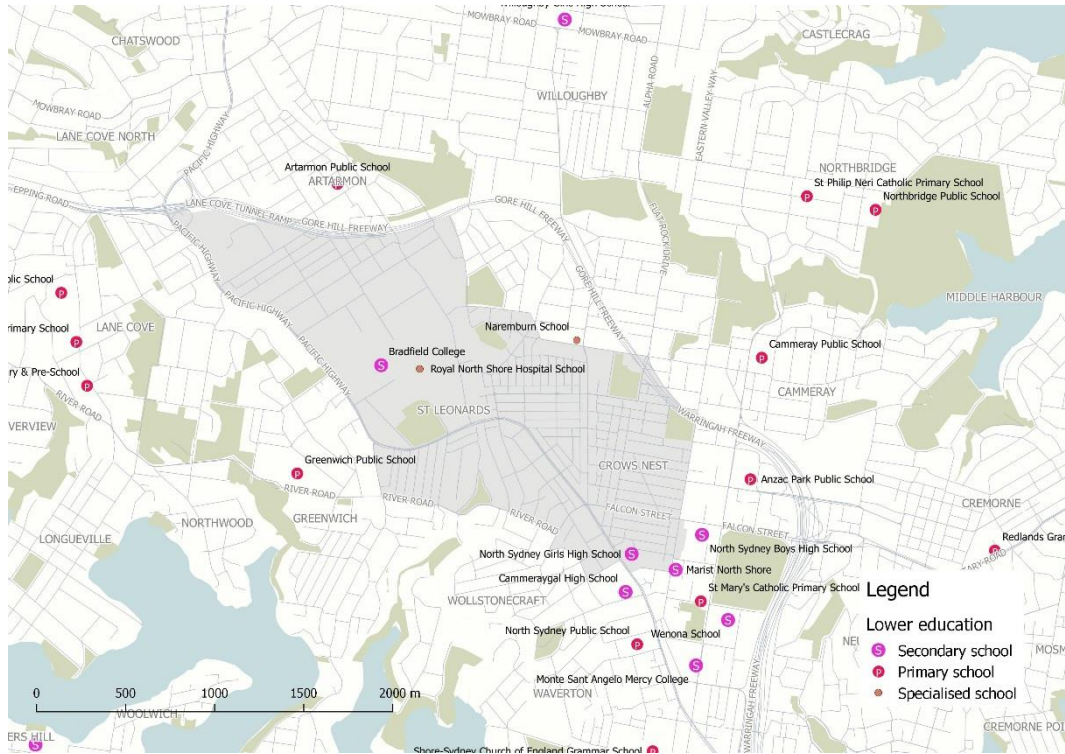


Figure 11 Primary and secondary education facilities

2.4.3 Tertiary and vocational education

The Precinct contains the two vocational education facilities as shown on Figure 12. The St Leonards campus hosts three centres of excellence: health, digital media and information technology. The campus has strong links to the film and broadcast industry with the SBS office close by. The Crows Nest campus hosts specialist programs including child studies, hospitality training and international business.

The Australian Catholic University (ACU) has a campus in the North Sydney Education precinct, located to the south. Registered training organisations are located in St Leonards (College of Law) and North Sydney, south of the Precinct (Safety Corp).

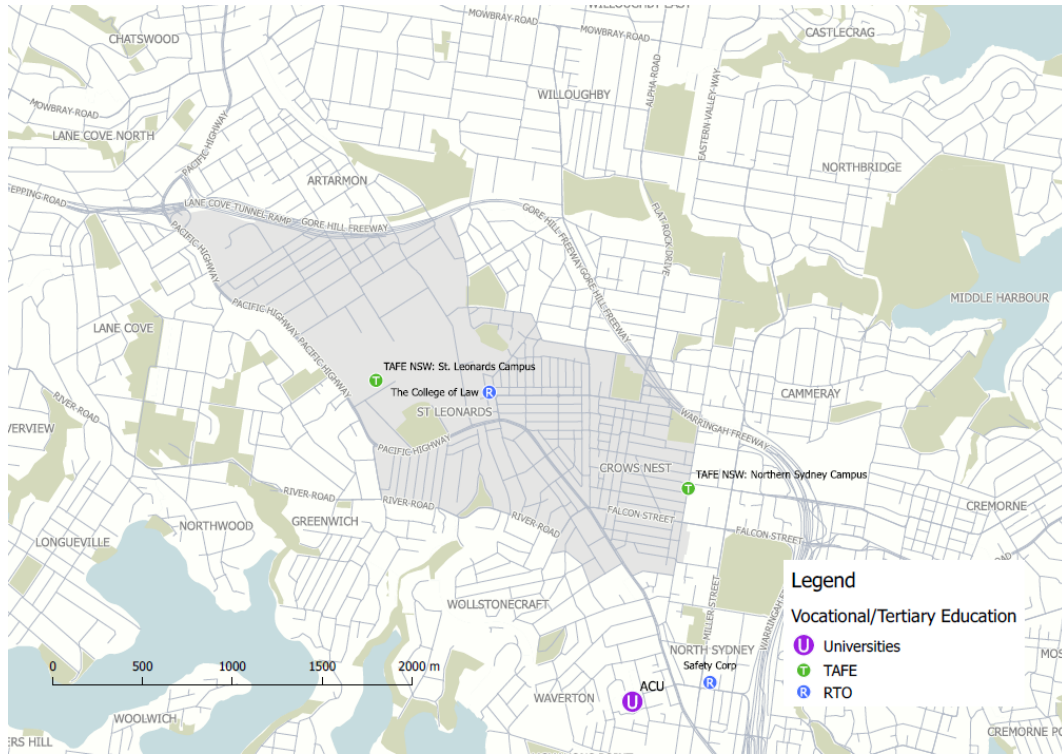


Figure 12 Vocational/Tertiary education facilities

2.4.4 Health

The Precinct is well serviced by hospitals, including the Royal North Shore Hospital, which is a major teaching public hospital (600 beds) located in St Leonards as shown on Figure 13. The Mater Hospital (private) and Greenwich Hospital (public) are within close proximity to the Precinct in Crows Nest and Greenwich respectively.

A number of private health care centres are located in St. Leonards and Crows Nest. These include

One aged care centres is located within the Precinct next to the Royal North Shore Hospital, and two other centres are located just outside the Precinct's boundary.

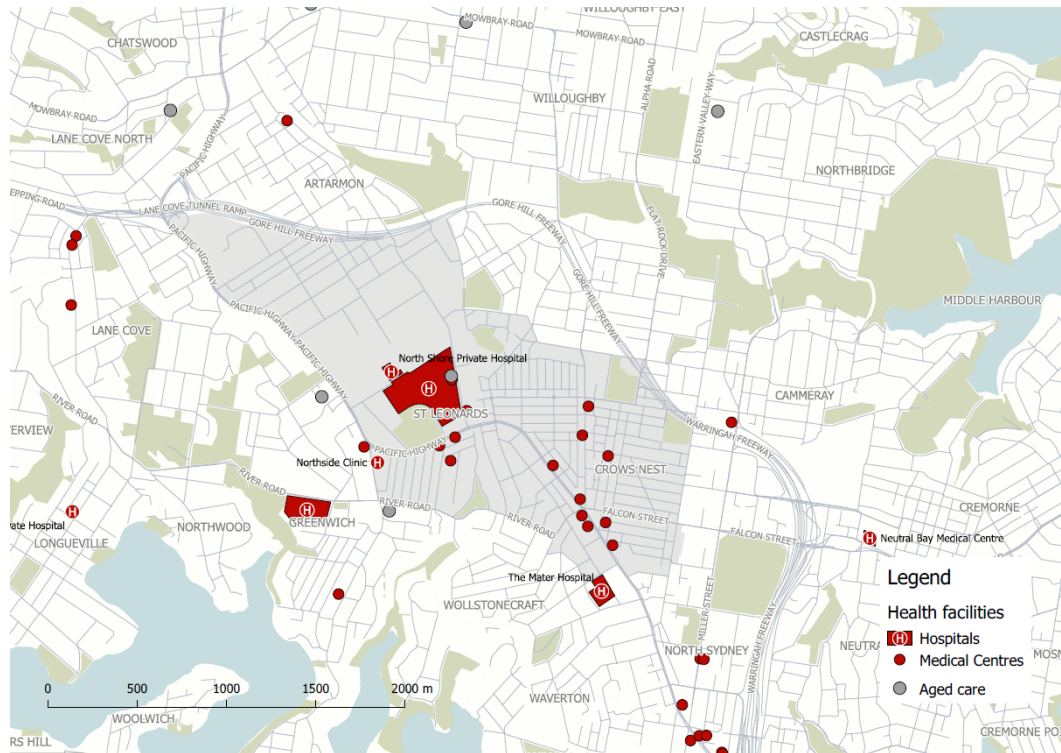


Figure 13 Health facilities

2.4.5 Child care

Child care facilities are spread out fairly evenly throughout the Precinct as shown on Figure 14, including in the Artarmon area.

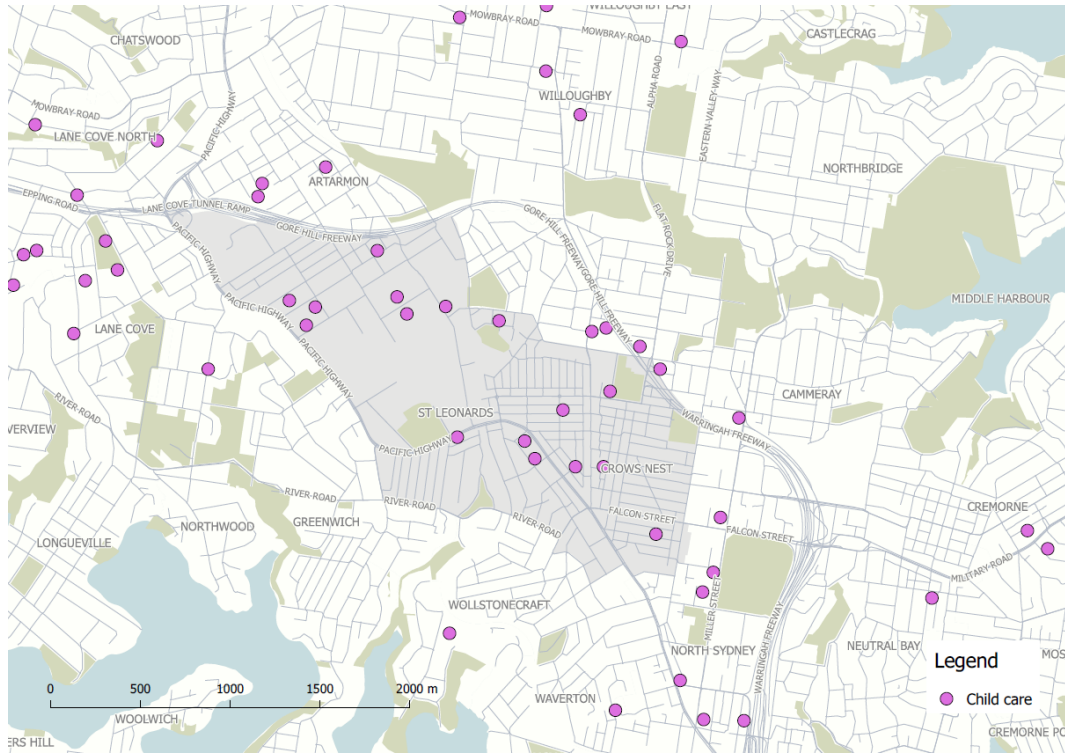


Figure 14 Child care facilities

2.4.6 Green open space and plazas

There are relatively few green open spaces within the Precinct, however there are a series of green spaces surrounding the Precinct as shown on Figure 15.

There are two large public green spaces inside the Precinct which comprise of: Gore Hill Memorial Cemetery and the Gore Hill Oval. The oval supports organised sport, and hence limit the opportunity to be used for informal recreation and play.

Only one small playground (Cahill Playground) is located in the Precinct, however there are a large number of plazas and gardens clustered around St Leonards Station and Crows Nest.

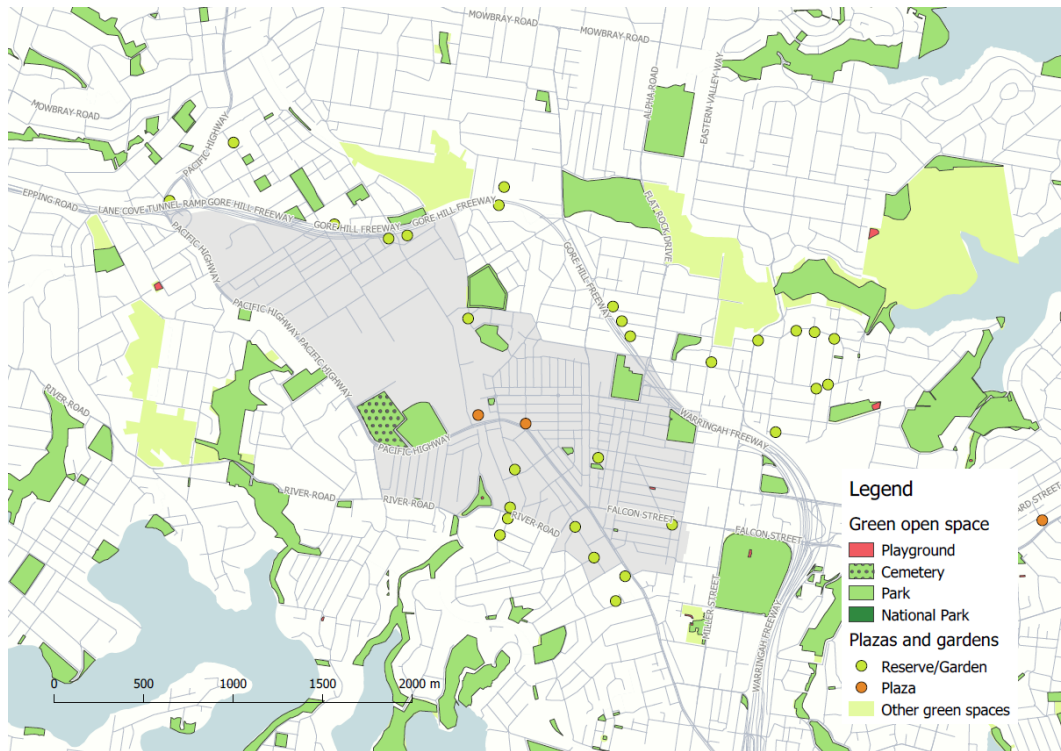


Figure 15 Green Open Space and facilities

2.4.7 Accessibility to green open space and plazas

Walking catchments analysis has been undertaken to understand the accessibility of green open spaces and plazas including:

- Local parks and plazas
- District and Regional Parks
- National Parks
- Playgrounds

The different green open space typologies provide for different uses and users. Together, they form the network of open space for a community.

The analysis demonstrates the number of parks that can be reached within a walking catchment threshold, specific to the open space typology. The thresholds from City of Sydney's *Open Space and Recreation Needs Study* (2006) have been applied for this analysis, as follows:

- Local parks and plazas, accessible within 500 metres
- Playgrounds, accessible within 400 metres
- District and Regional Parks, accessible within 5000 metres
- National Parks, accessible within 10,000 metres

Consultation with the Government Architects Office is being undertaken as part of this study to discuss open space access thresholds.

Local parks

Local parks are small parks, commonly visited by people living close by. Local parks usually host a limited number of facilities. For the Precinct, the analysis shown on Figure 16 highlights the following:

- Local parks are scattered throughout the Precinct, providing the community with high accessibility.
- The Artarmon Industrial Area and commercial centre of Naremburn have low accessibility to local parks and plazas.
- The plazas and gardens in close proximity to St Leonards Station contribute to the accessibility of local parks.

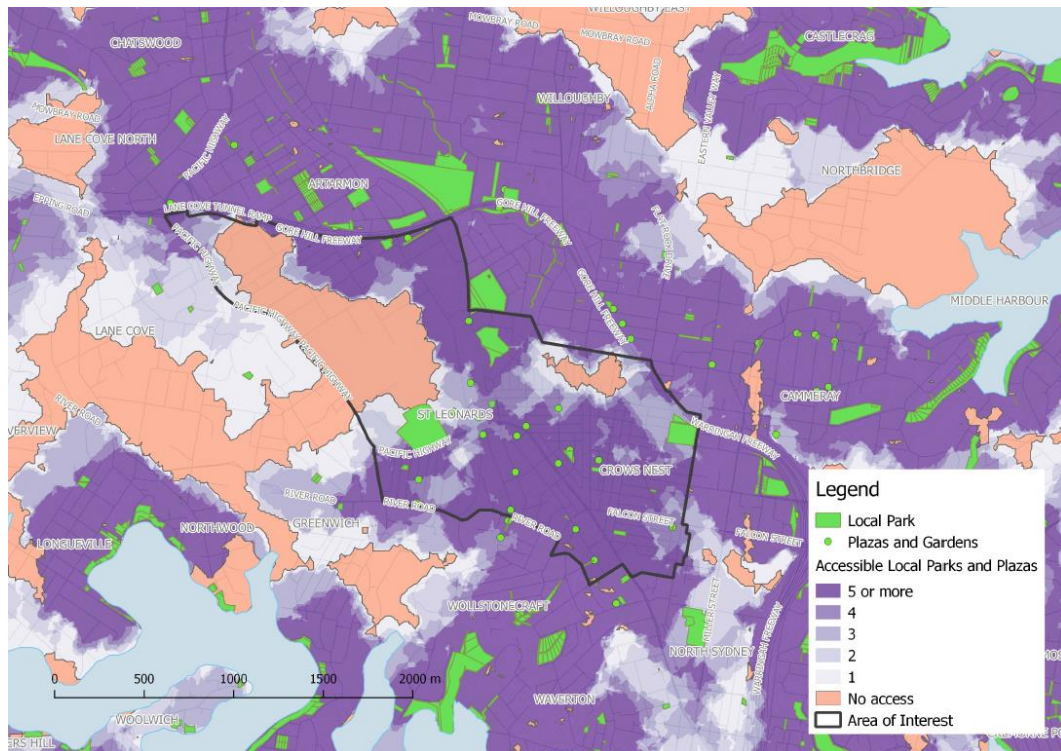


Figure 16 Accessibility to Local Parks and Plazas (500m)

Playgrounds

Playgrounds provide recreational, play and rest opportunities for children up to approximately 14 years old. Depending on the size and significance of the playgrounds, the range of equipment and facilities differ. The analysis as shown on Figure 17 highlights the following:

- Playgrounds are mostly located towards Crows Nest, as well as in Wollstonecraft, Willoughby, and Neutral Bay).
- There is low accessibility to playgrounds in the St Leonards and Artarmon area of the Precinct.

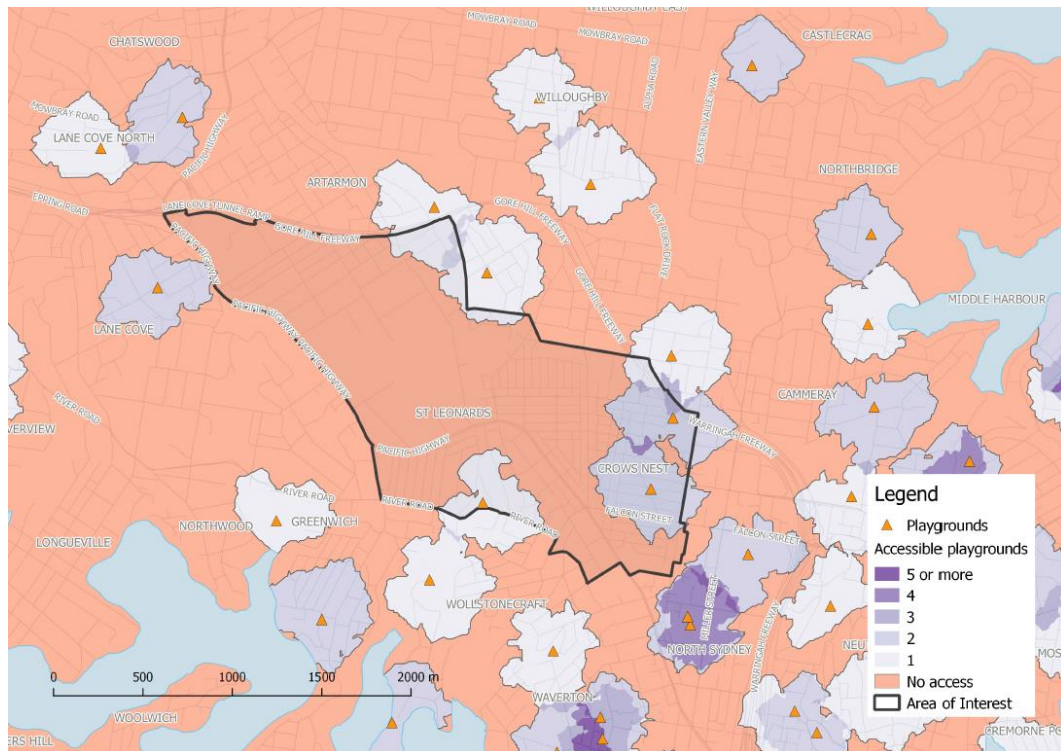


Figure 17 Accessibility to Playgrounds (400 metres)

District and regional parks

District and regional parks are larger parks that support activities for longer periods of time. District and regional parks are usually located closer to public transport nodes and provide facilities such as public toilets, parks, barbecues and playgrounds. The analysis as shown on Figure 18 highlights the following:

- There is one District Park within the Precinct, Gore Hill Oval. In addition, there are a series of District and Regional Parks surrounding the study area, including Flat Rock Gully in Willoughby, Northbridge Park, Lane Cove Bushland Park and Ferndale Park.
- Residents within the Precinct have a high accessibility (access to five or more parks) to District and Regional Parks.

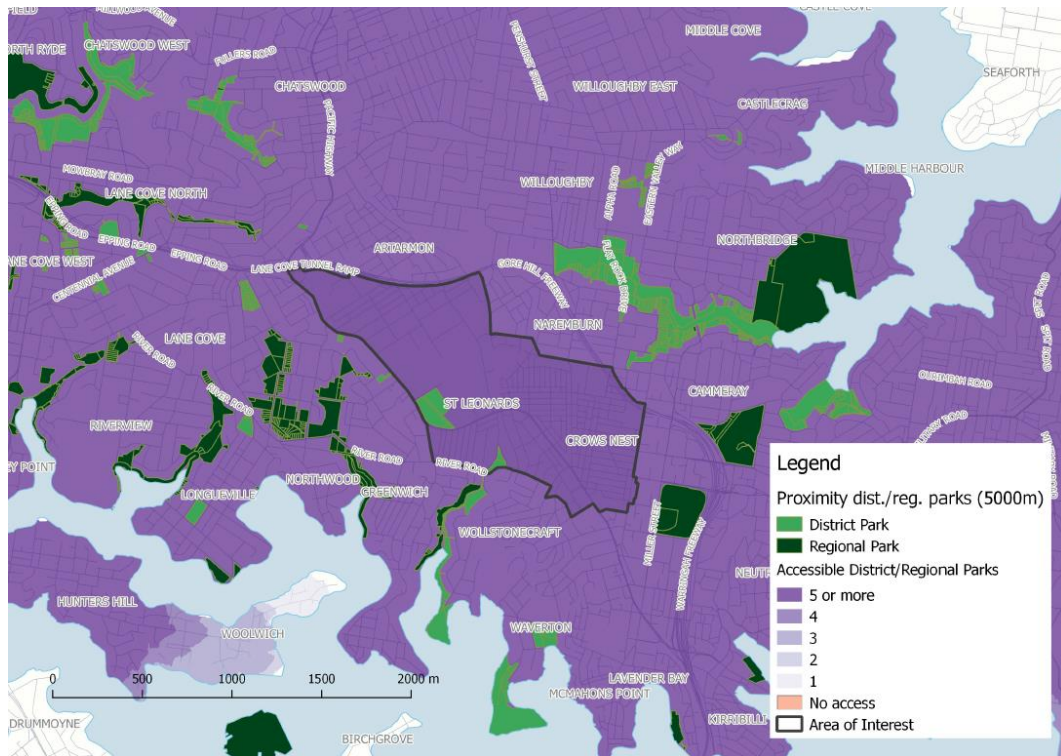


Figure 18 Accessibility to District and Regional Parks (5000m)

National parks

National parks are protected green space due to their combined natural (flora and fauna), economic, social and cultural values. They provide green open space that is unique to the state and contain supporting facilities such as walking trails, barbecues, parking facilities and public toilets, allowing for full day or multiple day visits. The analysis shown on Figure 19 highlights the following:

- The Precinct is surrounded by several National Parks including Lane Cove National Park, Sydney Harbour National Park and Garigal National Park.
- The Precinct provides high accessibility levels to the surrounding National Parks.

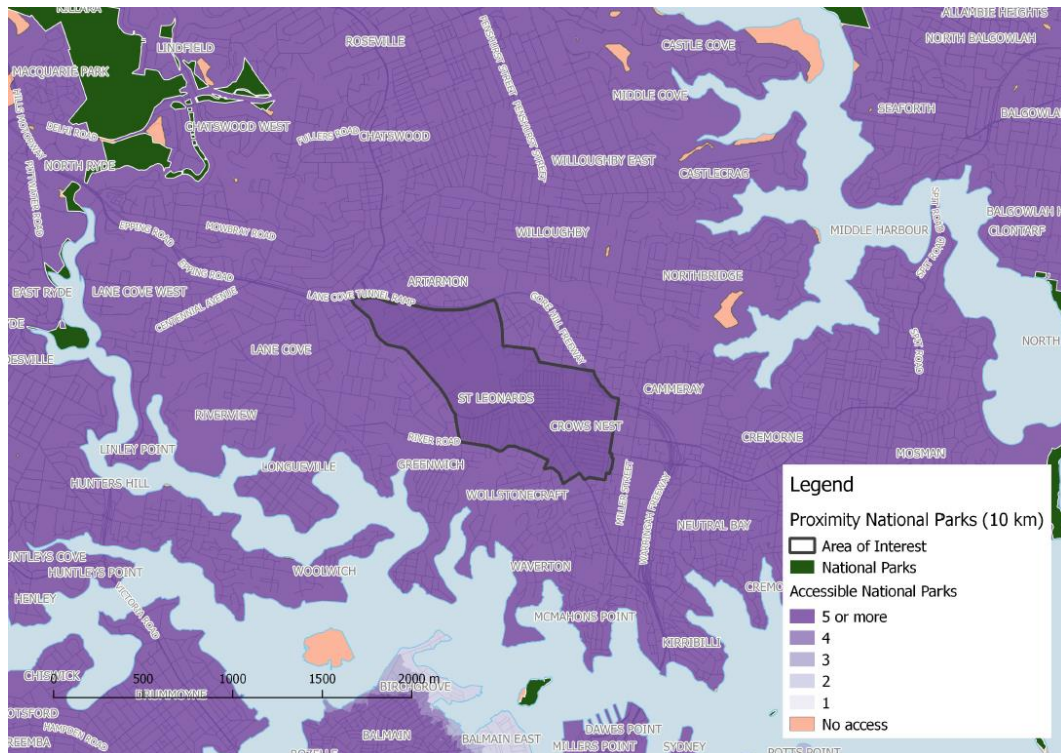


Figure 19 Accessibility to National Parks (10 kilometre)

2.4.8 Sport and recreation

The study area contains limited sport and recreation facilities, including the Gore Hill Oval and the lawns in Naremburn Park, just north of the Precinct, which can be used for different sporting activities.

Indoor recreation options include a tennis club, the North Sydney Indoor Sports Centre in Crows Nest and a climbing hall in St Leonards. Private gyms are not included in the analysis. There are three golf courses nearby to the Precinct.

There are limited recreation options accessible to workers in the Artarmon Industrial Area

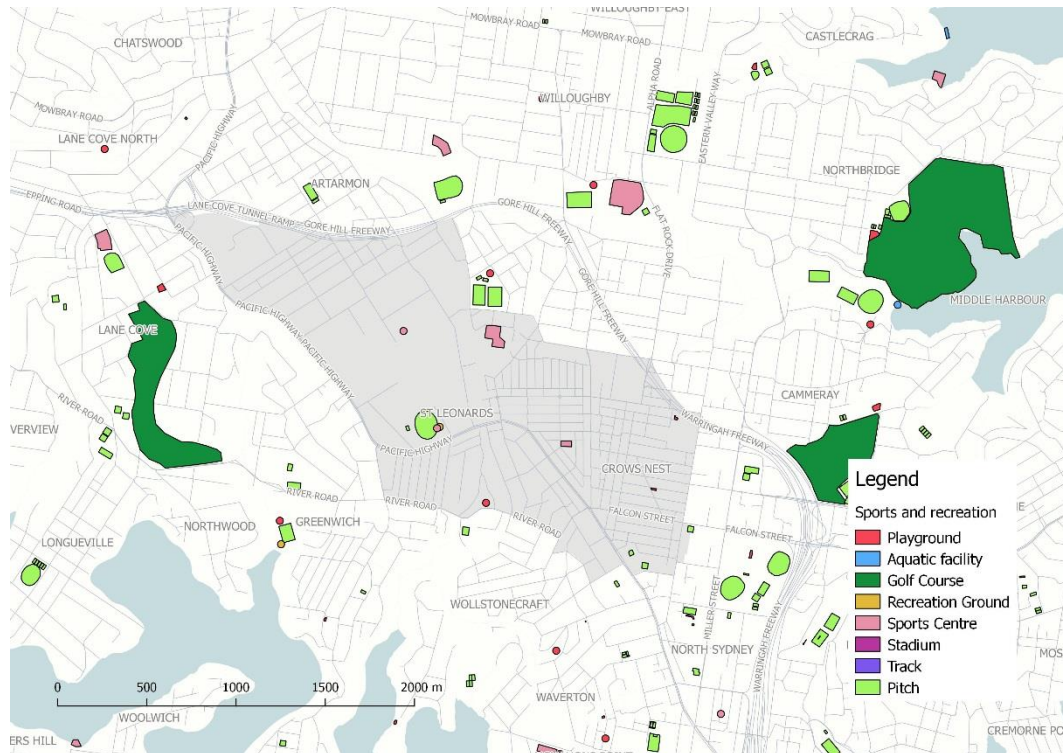


Figure 20 Sport and Recreation facilities

2.4.9 Community centres and spaces

Places of worship provide spaces for community use beyond their formal activities. The Precinct hosts a series of places of worship, as shown on Figure 21.

The only community centre in the Precinct is located in Crows Nest.

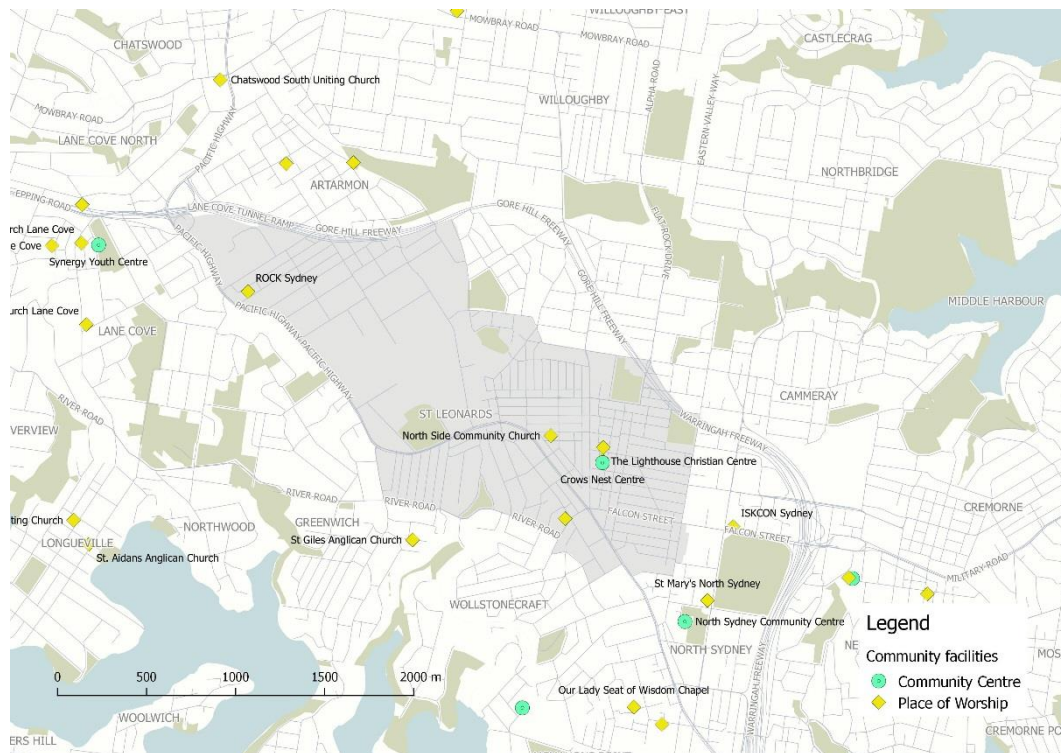


Figure 21 Community facilities and places of worship

2.4.10 Library and cultural facilities

There are no libraries within the Precinct, however, the immediate surroundings of the Precinct contain five libraries, at the edge of all sides of the Precinct.

Besides the Sextons Cottage Museum in St Thomas Rest Park, the Precinct contains no other cultural facilities. There are two small museums and arts centre in the surrounding area.

There are no theatres or clubs within the Precinct. Nearby to the Precinct, theatre is hosted at The Independent in North Sydney and during summer, the Starlight Cinema is held in St Leonards Park (North Sydney Oval) to the east of the Precinct.

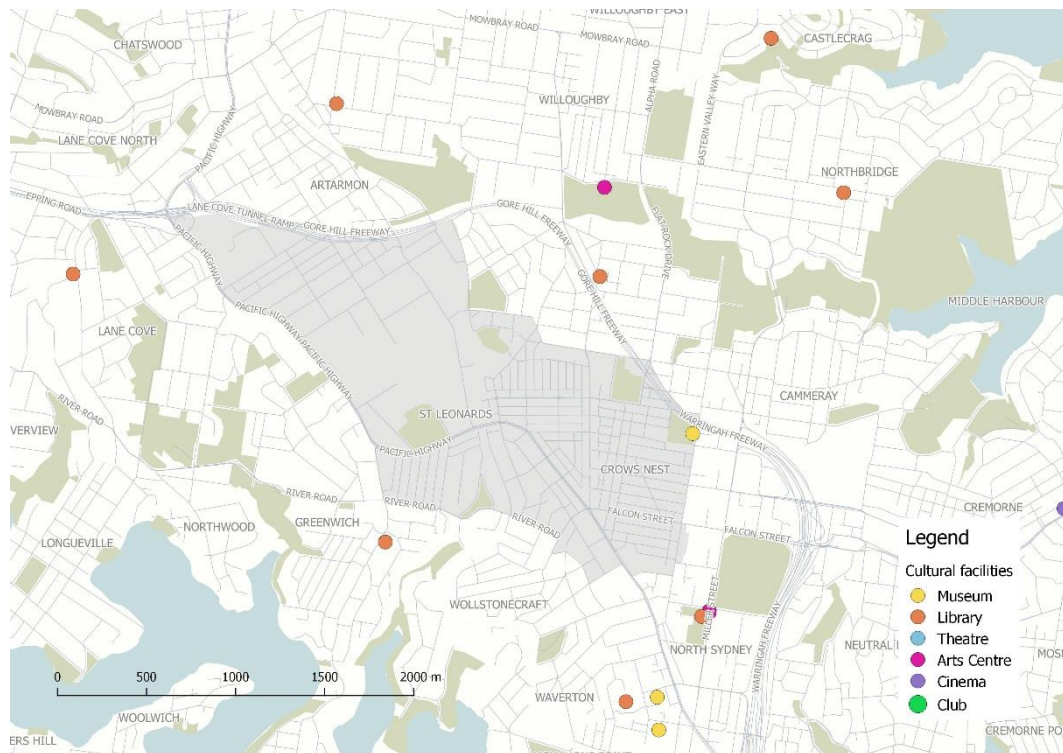


Figure 22 Cultural facilities

2.4.11 Emergency services

The Precinct is serviced by one ambulance station (Naremburn ambulance station) and one police station (North Sydney Police station), as shown on Figure 23.

The Precinct contains two fire stations: one in Artarmon, and one in Crows Nest.

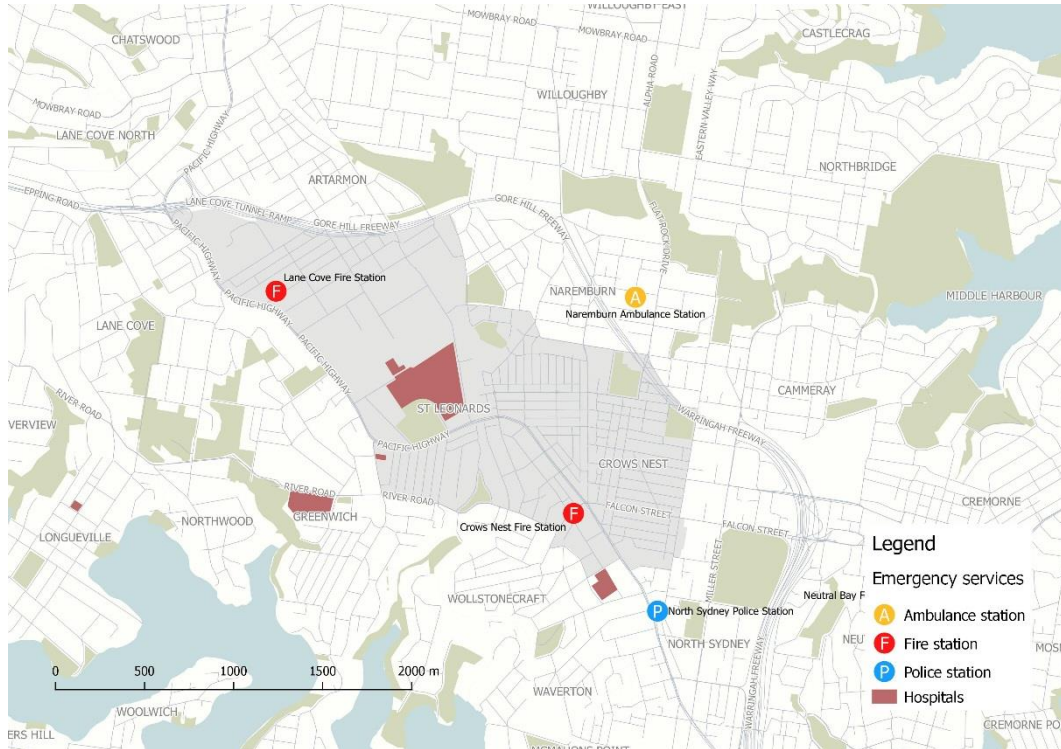


Figure 23 Emergency services

2.4.12 Public transport

The St. Leonards Railway Station, in the heart of the Precinct, provides access to the T1: North Shore, Northern & Western Line, connecting to the Sydney CBD, Western Sydney (Strathfield, Olympic Park and Emu Plains) and the North Shore (Richmond, Berowra).

The Pacific Highway is a major local bus axis which accommodates 29 bus routes connecting to the CBD, North West Sydney (Macquarie Park and Rouse Hill) and other parts of Central Sydney (Mascot and Woollahra). Other bus corridors in the region are located along the south of the Precinct, along River Road (connecting Chatswood to the CBD) and Falcon Street (connecting to Epping, Chatswood and Manly).

The planned Crows Nest Metro Station (expected to be operational by 2024) will provide high frequency and reliable connections to North West Sydney (eg Epping, Rouse Hill), Sydney CBD and South West Sydney (Bankstown) from the Precinct.

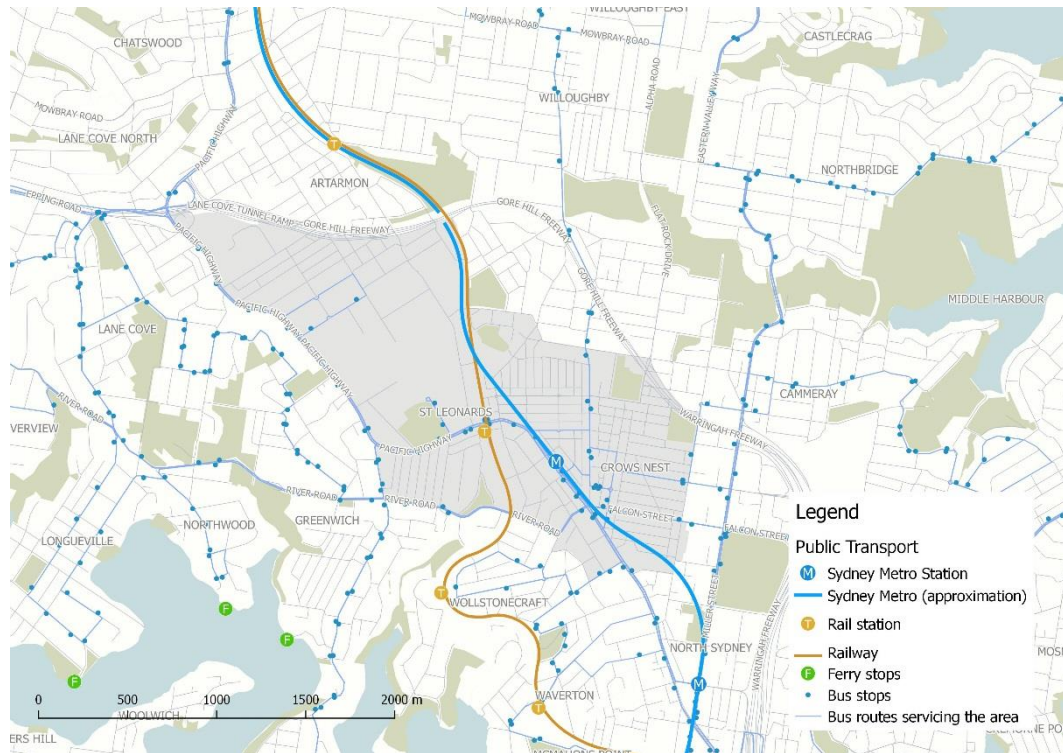


Figure 24 Public transport

2.4.13 Active transport

There are a series of main roads within the Precinct as shown on Figure 25. The Pacific Highway and the Gore Hill Freeway restrict pedestrian and cycling access.

Although providing high public transport accessibility for the Precinct, the north-south rail line creates severance through the Precinct, with four crossings provided for east-west movements in the precinct.

Bike facilities (such as storage) are provided around St Leonards and Crows Nest, mainly at the St Leonards Railway Station.

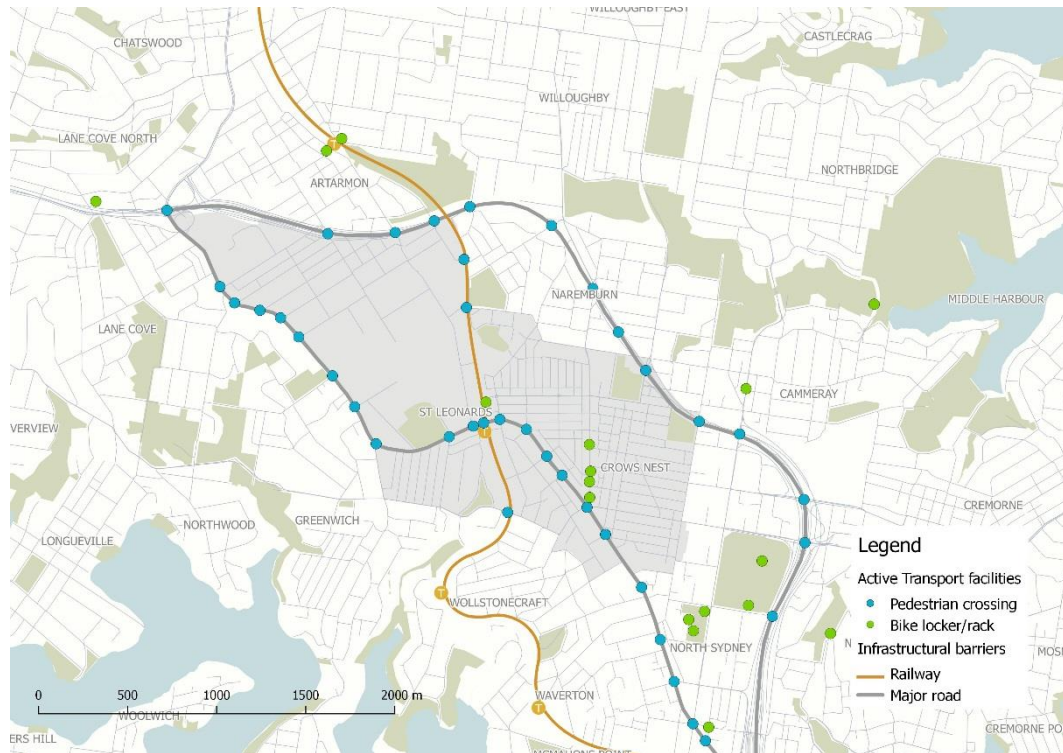


Figure 25 Active transport facilities

2.4.14 Proposed new or upgrades to social infrastructure

A summary of currently identified upgrades of changes that have occurred to social infrastructure in the Precinct is summarised in Figure 26.

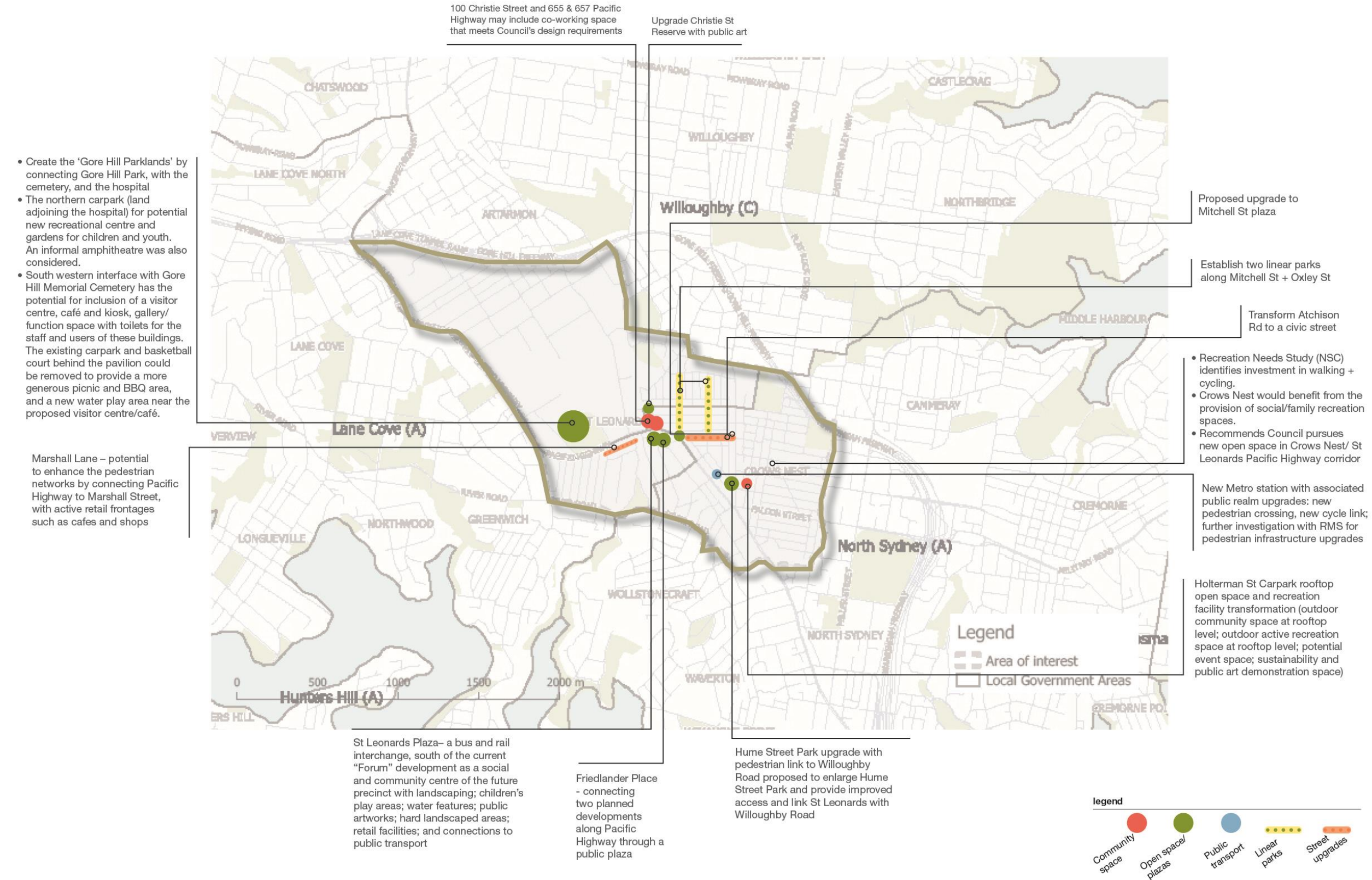


Figure 26 Proposed new or upgrades to social infrastructure

2.5 Drivers and challenges

Broader global and city wide shifts alongside specific demographic and local changes have the potential to influence the demand and delivery of social infrastructure in the Precinct. The high level drivers and challenges are summarised in this section.

Driver/challenge	Social infrastructure response
Smaller homes and shared spaces	Sydney's constrained spatial environment increasingly requires a more compact approach to living and playing. Smaller private space in apartments presents increasing need for high quality, accessible shared spaces.
Lone person households	Increasing trends of lone person households asserts the importance of public spaces/community centres as spaces for interaction and companionship.
Cultural diversity	As communities become more diverse in cultural background, the demand in types of cultural and recreation space will also become more diverse. Flexibility and the ability to share space will become more important.
Ageing communities	As communities all across Australia experience an ageing population, greater pressures will be placed on social infrastructure to be accessible and relevant to specific community needs.
Health inequity	Overweight and obesity rates of the population across Sydney are increasing. Social infrastructure, including access to high quality networks of open space and spaces for active play remain a strong part of supporting the health of Sydney's communities.
Housing affordability	Sydneysiders are increasingly experiencing housing stress (when the household has an income level in the bottom 40 per cent of Sydney's income distribution and paying 30 per cent or more of its income on rent). One part of the suite of responses to housing affordability is the provision of diverse housing options – this may include small homes, in highly accessible areas. As homes with large spaces become less affordable, public open spaces and social infrastructure becomes increasingly important.
Ageing facilities	Ageing infrastructure coupled with budgets becoming increasingly constrained, efficient and effective use of infrastructure will be increasingly important. This means greater partnerships between government, private and non – government organisations, as well as employing digital technologies to connect, monitor and design services that more closely meet the needs of citizens.
Global economy	Liveability and place capital have become essential to Sydney's future to attract and retain talent. Access to quality social infrastructure remains fundamental to high quality of life.

3 Social infrastructure planning

3.1 Benchmarks

For the purpose of this review, benchmarks have been applied to identify an indicative list of needs that can be used as an early guide to the planning of the Precinct. Social infrastructure and open space provision in existing suburban areas that experience growth is a relatively new challenge in Australian cities. Typically, facilities are developed in response to demand when existing facilities are at capacity. For this reason, there are currently no benchmarks institutionalised by state government that determine minimum provision of social infrastructure in existing urban areas. For example, Willoughby Council adopts a series of concepts for open space and recreation planning, but does not have defined metrics or thresholds for access to social infrastructure. These include:

- Providing quality open space areas that cater for diverse recreational experiences which satisfy the community's needs for recreation.
- Moving from the rigid 'standards' approach of providing open space (where open space provision is expressed in terms of the number of hectares per 1,000 people) towards a needs-based approach that considers the characteristics and specific needs of local communities.
- Compiling an inventory of all open space areas that becomes an important management tool.

There are guidelines that provide a reference framework for the assessment of current and future infrastructure needs. The most comprehensive set of benchmarks in NSW are provided in the Growth Centres Development Code (2006) for greenfield areas and the Draft Development Contributions Guidelines (2009). These documents have been supplemented with local government specific benchmarks relating to public space where available.

The benchmarks provide a starting point for the assessment of social infrastructure provision, however, it is important to acknowledge the limitations of benchmarks. Qualitative research into the demand and supply of social infrastructure is therefore essential, which is not covered by benchmark figures. The importance of understanding the extent and quality of legacy infrastructure and its capacity to help meet existing and future community needs cannot be understated. This in depth understanding of the role of existing social infrastructure in the transformation is best gained through state government, local government and private sector collaboration and by working with existing communities.

It is also important to realise that the benchmarks referenced in this document have been produced for related but different goals, which decreases the applicability of the benchmarks¹. Table 2 outlines the benchmark standards assumed in this study.

¹ The Growth Centres Development Code is intended for assessment and planning of greenfield growth centres, which will likely have a different demographic and therefore different social infrastructure demands. The Draft Development Contributions Guidelines have been set up to assist councils in the preparation of contributions plans and parties in the preparation of planning agreements, and not directly for social infrastructure planning.

Table 2 Benchmark standards

Infrastructure type	Benchmark standard	Source
<i>Halls and centres</i>		
Youth centre	1:10-30,000 people	Draft Development Contributions Guidelines (2009)
Multi-purpose community/ neighbourhood centres	Small – 1:3,500-6,000 people Large – 1:15-20,000 people	Draft Development Contributions Guidelines (2009)
Meeting halls	Small – 1:10,000 people Large – 1:20-30,000 people	Draft Development Contributions Guidelines (2009)
Community Service Centre	1:60,000	Growth Centres Development Code
Local Community Centre	1:6,000 people	Growth Centres Development Code
District Community Centre	1:20,000 people	Growth Centres Development Code
<i>Libraries</i>		
Library - Branch	Branch – 1:10,000 people	Draft Development Contributions Guidelines (2009)
	1:33,000 people	Growth Centres Development Code
Library - Central	Central - 1:20-35,000 people	Draft Development Contributions Guidelines (2009)
	District - 1:40,000 people	Growth Centres Development Code
<i>Arts and cultural centres</i>		
Performing Arts/Cultural Centre	1:30,000 people	Growth Centres Development Code
<i>Child care and education</i>		
Long day care centres	1:320 children aged 0-5 years	Draft Development Contributions Guidelines (2009)
Occasional care centres	1:12-15,000 people	Draft Development Contributions Guidelines (2009)
Outside of school hours care	1:4-6,000 people	Draft Development Contributions Guidelines (2009)
Pre-school	1:4-6,000 people	Draft Development Contributions Guidelines (2009)
Primary school	1 school : 2,000-2,500 new dwellings (i.e.: for greenfield sites)	Department of Education and Communities' Planning Advisory Guidelines
	1:1,500 new dwellings	Growth Centres Development Code
Secondary school	1 school: 6,000-7,500 new dwellings	Department of Education and Communities' Planning Advisory Guidelines
Public high school	1:4,500 dwellings	Growth Centres Development Code
<i>Health</i>		
Hospital	2 beds:1000 people	Growth Centres Development Code
Community Health Centre	1:20,000 people	Growth Centres Development Code
General practitioner	1 general practitioner for every 1,200 people	Sydney Local Health District

Primary health care nurse or early childhood nurse	1 primary health care nurse or early childhood nurse for every 2,500 people	Sydney Local Health District
Community health staff	1 community health staff member for every 3,000 people	Sydney Local Health District
<i>Emergency services</i>		
Ambulance	Size: To accommodate 12 ambulances	Growth Centres Development Code
Fire Station	Size: 2,000 sqm min	Growth Centres Development Code
Police Station	Size: 4,000 sqm (for first 10 yrs)	Growth Centres Development Code
<i>Recreational facilities</i>		
Any type of open space	Distance threshold: 300 m	North Sydney Recreation Needs Study (2015)
Access to open space between 0.5ha and 2 ha	Distance threshold: 400 m	Lane Cove Council Open Space Plan 2016-2026
Open space provision	2.43 ha per 1000 population	Lane Cove Council Open Space Plan 2016-2026
Play opportunities	Distance threshold: 400 m	North Sydney Recreation Needs Study (2015)
Playground provision	1 per 2,000 population	Lane Cove Council Open Space Plan 2016-2026
Social, family recreation park	Distance threshold: 500 m	North Sydney Recreation Needs Study (2015)
Public sports facility	Distance threshold: 1000 m	North Sydney Recreation Needs Study (2015) Lane Cove Council Open Space Plan 2016-2026
Shared path	Distance threshold: 400 m	North Sydney Recreation Needs Study (2015)
Off – road trail circuit	Distance threshold: 800 m	North Sydney Recreation Needs Study (2015)

Social and community infrastructure provisions from urban renewal precincts across Australia were reviewed. The community infrastructure provision examples from Fisherman's Bend (Victoria) provide a relevant reference for consideration of community infrastructure needs for the St Leonards and Crows Nest Precinct. As a Strategic Centre (St Leonards) outlined in *A Plan for Growing Sydney*, the examples of community infrastructure for Secondary Centres in Table 3 may be considered.

Table 3: Community infrastructure examples for Fisherman's Bend.

Centre type	Catchment	Role	Examples of community infrastructure at this level
Local	5,000 residents 300 m catchment	Building a sense of place and local connections	<ul style="list-style-type: none"> Open spaces: Pocket parks between 0.003 and 0.26 ha distributed throughout the local catchment, for example every 300m around the study area.

Neighbourhood	10,000 residents 5,000 workers 500m catchment	Focus on building local community resilience and support	<ul style="list-style-type: none"> • Maternal Child Health Services • Childcare Formal and informal meeting spaces • Integrated service model for family services • Open Space: Small Parks up to 1 ha distributed throughout the neighbourhood. • Neighbourhood Squares located near the middle of the centres. • Linear parks provide high quality shared path routes connecting neighbourhoods to each other and the Bay, the River and the City
Secondary	24,000 residents 14,000 workers 800m catchment	Focus on accessing well located family and children services, health service and education and learning activities	<ul style="list-style-type: none"> • Primary schools • Secondary schools • Community health • Open Space: Large Parks between 1 and 3 ha are located within each precinct. Secondary Squares are located within the Secondary centres
Primary	42000 residents 21,285 workers	Acts as a destination and plays a key role to the surrounding communities and workers by providing specialised activities	<ul style="list-style-type: none"> • Art centre • Tertiary and vocational services • Specialised Health Services • Open Space: Two Sports Parks providing space for passive and organised recreation of between 3 to 5 ha will be located within FBURA • A City Park of between 3 to 5 ha will be located within the eastern part of the study area providing an intensive mix of passive recreation and informal sports

Source: Fishermans Bend Community Infrastructure Plan, Places Victoria, 2013

4 Next steps

This review provides a summary of the initial activities undertaken to inform the St Leonards and Crows Nest Station Social Infrastructure and Open Space Study. The follow steps for this study include:

- Review the Green and Blue Grid Open Space Analysis activity being undertaken by GSC and GAO to review and update social infrastructure and open space benchmarks
- Review urban design, economic development and transport technical studies for the Precinct in relation to social infrastructure and open space
- Review population projections for the Precinct associated with shcnages in land use and controls
- Review social infrastructure improvements as part of proposed and Planning Proposals for the Precinct
- Undertake consultation with relevant local government agencies to understand current social infrastructure quality and use
- Review and apply benchmarks to identify social infrastructure and open space requirements for the Precinct
- Develop high level costings for identified social infrastructure requirements to inform the proposed infrastructure schedule.