Draft Planning Strategy Kensington and Kingsford Town Centres

Public Consultation | January 2017





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Draft Planning Strategy

Kensington and Kingsford Town Centres

1.0 Purpose

This draft Planning Strategy for Kensington and Kingsford has been prepared for public consultation and engagement to assist in understanding the issues facing the two town centres and allow discussion and debate to occur.

This is an ideal time to start this process and ensure Council and community goals are achieved. This draft Planning Strategy provides a firm basis to commence this community engagement.

This draft Planning Strategy sets out the vision, strategies and implementation actions to guide the sustainable growth and physical development of the Kensington and Kingsford town centres over the next 15 years.

It forms the basis for changes to land use and built form controls in the Randwick Local Environmental Plan 2012 (RLEP 2012)¹ and the Randwick Development Control Plan 2013 (DCP 2013), together with improvements to the public domain to enhance the liveability, sustainability and economic prosperity of both town centres.

The draft Planning Strategy has been informed by considerable background research and analysis, extensive community engagement, and an international K2K Urban Design Competition which identified innovative design ideas and concepts to support the betterment of these town centres.

It is consistent with the Randwick City Plan, in particular Action 4a to achieve Outcome 4 – Excellence in urban design and development.

2.0 Comprehensive Planning Review 2.1 Background

In early 2016, Council initiated a comprehensive planning review of the Kensington and Kingsford town centres to ensure the planning framework is up to date, robust and well-aligned to meet future needs.

Both town centres are presently facing considerable redevelopment pressure, reflected by an increase in the number of rezoning applications for various sites along Anzac Parade seeking substantial changes to the planning controls.

The town centres are also in the process of transition, stemming from the construction of the CBD to South East Light Rail network on Anzac Parade which forms the main spine of these centres.

The light rail will not only transform people's travel behaviour but will have a direct impact on the town centres' identity, accessibility, functionality and amenity. It is also likely to be a catalyst for urban renewal and growth as envisaged by the State Government's Metropolitan Planning objectives for key transport corridors in Sydney, and evidenced in other precincts and cities that have introduced such infrastructure.

¹The RLEP 2012 is the result of a planning review undertaken over 2010-2012 to conform to the State Government's Standard LEP Instrument. As part of this process a comprehensive review of the planning controls for both Kensington and Kingsford town centres was earmarked for a separate study.

Part A - Overview

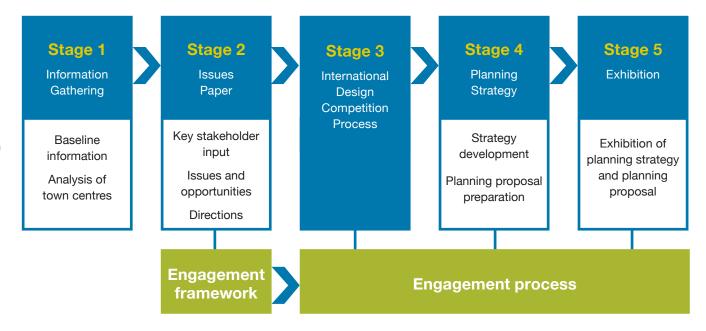
2.2 Planning Review Process

As a first step in the Planning Review, the Kensington/Kingsford Town Centre Issues Paper (draft Issues Paper) was prepared in March 2016, which should be read as the background report to this Planning Strategy. The draft Issues Paper provides a detailed overview of the study area, including the legislative context, existing conditions, and issues and opportunities. It identifies a number of pertinent planning, urban design and public domain challenges affecting the Kensington and Kingsford town centres, together with strategic directions to be addressed in the subsequent Strategy.

The next stage of the Review process was an International Urban Design Competition held between July and October 2016, which provided the opportunity for a creative visioning of the town centres as they face competing pressures and move through the current cycle of transition. Background to the Competition is discussed in further detail in Part A Section 5 – K2K Urban Design Competition. A comprehensive community consultation program was run throughout the Competition period which is further detailed in Part A Section 6 – Community Consultation.

The subject draft Planning Strategy comprises Stage 3 in the Planning Review process. It builds on the findings of the draft Issues Paper, and contains a range of objectives, strategies and actions to guide the future sustainable growth and development of the town centres.

The final stage of the Planning Review process will be the preparation of a Planning Proposal seeking amendments to the RLEP 2012 for each town centre. The Planning Proposal and draft Planning Strategy will be placed on public exhibition for an extensive community consultation and engagement process.



Draft Planning Strategy

Kensington and Kingsford Town Centres

Part A - Overview

3.0 Key Drivers and Challenges

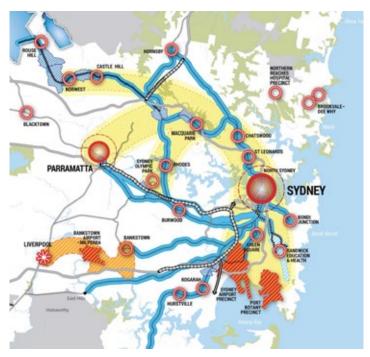
This draft Planning Strategy takes into account and responds to a number of drivers and challenges affecting the Kensington and Kingsford town centres which are summarised as follows.

3.1 Metropolitan Planning Directions

The NSW Government's long term Metropolitan Plan for Sydney – A Plan for Growing Sydney identifies a broad section of Anzac Parade (the main transport corridor for both Kensington and Kingsford town centres) as an area for urban renewal opportunities (see map below). Under this Plan identification of housing, services and jobs in proximity to the CBD to South East Light Rail network is earmarked as a priority.

Kensington and Kingsford town centres are located in proximity to the Randwick Education and Health Strategic Centre, comprising several major institutions and destinations, including the University of NSW, the Randwick Health Campus (with four major hospitals forming Australia's largest complex of teaching hospitals), and some of Australia's premier research institutions including Neuroscience Research Australia.

The Strategic Centre, as identified in the Plan, plays a vital economic role within Randwick City and the Sydney Metropolitan region. Collectively, the University and Health Campuses are the largest employers in Randwick City, with almost 40% of its workforce. The large workforce, students and visitors provide substantial local economic benefits to Kensington and Kingsford town centres.



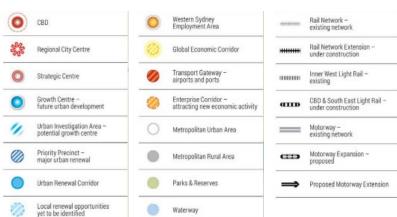


Figure 1: Metropolitan Sydney Source: A Plan for Growing Sydney

3.2 District Planning Priorities

The draft District Plan for Greater Sydney's Central District² was released for consultation on 21 November 2016. This draft Plan sets out priorities and actions to give effect to A Plan for Growing Sydney and help realise the vision for the Central District to 2036. The draft Plan is centred on three key themes: A Productive City, A Liveable City and A Sustainable City.

The draft District Plan contains job targets for the Randwick Education and Health Strategic Centre and a five year housing target for Randwick Local Government Area (LGA). This five year housing target sets an additional 2,250 dwellings to be delivered by 2021 to meet projected population demands. The draft Plan also sets an action that councils will need to increase housing capacity across the district to ensure there is sufficient longer term capacity to deliver a minimum of 157,500 additional new dwellings across the Central District over the next 20 years. A 20 year strategic housing target is to be set in consultation with councils. All councils will need to prepare local housing strategies to demonstrate how additional capacity can be created to deliver supply and housing choice including affordable rental housing

over the next 20 years. Planning for this growth is discussed in more detail under Part C Section 3 – Housing and Diversity.

In relation to the theme for A Sustainable City, the draft District Plan sets an action for councils to support the development of initiatives for sustainable low carbon future and deliver Sydney's Green Grid Project. The Green Grid Project aims to enhance access to open space, provide routes for walking and cycling, conserve natural areas and provide opportunities for active and passive recreation. It also aims to support the management of stormwater, flood risk and water quality, while improving Sydney's landscape value and urban amenity.

The draft Central District Plan is on public exhibition until March 2017.

3.3 Revised Population Projections

The NSW State Government has recently released revised³ projections which indicate that the population of Randwick City is likely to increase by 23% resulting in an additional 33,900 people in the LGA by 2036.

While the draft District Plan sets a five year housing target, at the time of drafting the draft Issues Paper and preparing the subject draft Planning Strategy, a demand projection of 15,150⁴ additional new

dwellings by 2031 was adopted for this work to cater for the incoming population across the LGA.

A portion of these additional dwellings will be accommodated in the Kensington and Kingsford town centres given they are well serviced by public transport and are located in close proximity to employment hubs, as historically has been the case.

This is discussed in further detail in Part C Section 3 – Housing and Diversity and Part C Section 5 – Built Form.

3.4 CBD to South East Light Rail

As previously noted, the CBD and South East Light Rail project, due to be completed in 2019, will introduce a high capacity and high frequency service connecting Randwick City to Central Station and Sydney CBD, as well as the sporting facilities at Moore Park and Royal Randwick Racecourse. The light rail, however, will replace a number of current bus services.

The route will branch into two sections in Randwick City – to the Randwick Junction town centre, University of NSW and Health Campus on High Street and along Anzac Parade, through the Kensington town centre and terminating south of the nine ways intersection in Kingsford town centre.

Key pieces of new infrastructure to be introduced include a major terminus south of the nine-ways intersection in Kingsford town centre, the removal of the nine-ways round about and four new light rail stops (located adjacent to Carlton Street, Todman Avenue, UNSW in Kensington and Strachan Street in Kingsford town centre).

The light rail will also result in the creation of new urban spaces and movement patterns, increased levels of accessibility around the light rail stops, the relocation of on street parking in various locations and the undergrounding of overhead powerlines in the Kingsford town centre.

² The Central District includes the local government areas of Bayside, Burwood, Canada Bay, Inner West, Randwick, Strathfield, the City of Sydney, Waverley and Woollahra.

³ Department of Planning & Environment, 2016, NSW LGA Population and household projections

⁴ Department of Planning & Environment, 2014, NSW LGA Population and household projections

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Part A - Overview

4.0 Study Area

The Planning Review Study Area is defined in the following Map. It includes the RLEP 2012 B2 Local Centre zoned land that makes up the Kensington and Kingsford town centres.

The study area also includes three residential zoned sites identified for inclusion in the Kingsford town centre (see Part C Section 10 – Zoning and Landuse for further detail on these sites).

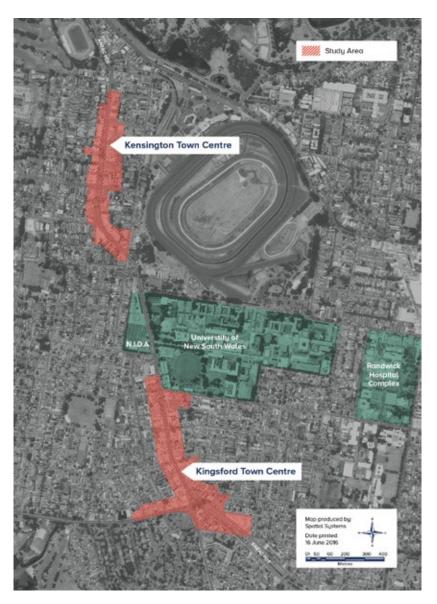


Figure 2: Planning Review Study Area Source: Randwick City Council



Figure 3: CBD to South East Light Rail Route Source: Transport NSW 2016 website

5.0 K2K Urban Design Competition

As noted earlier, this draft Planning Strategy has been informed, in part, by the K2K Urban Design Competition which was held between June and October 2016. The aim of the Competition was to identify an innovative urban design vision to enhance the livability, sustainability and economic vitality of the Kensington and Kingsford town centres.

Endorsed by the Australian Institute of Architects (AIA), the Competition was run as a two stage process, open to multi-disciplinary teams with demonstrated expertise in innovative solutions to urban design, sustainability and liveability challenges.

The Competition was underpinned by the following themes which also provide the overarching scope for the objectives, strategies and implementation actions identified in this document:

- Business and economy
- · Public domain, streets, and open space
- Housing growth and diversity
- Sense of place and identity
- Urban design excellence
- Sustainability.

An Independent Jury Panel of pre-eminent professionals in the fields of architecture, planning, landscape architecture and urban design were tasked with reviewing submissions and selecting the Competition winner.

The winning entry was by JMD, Hill Thalis and Bennett and Trimble. Council has only utilised key ideas from this entry as they relate to the Kensington and Kingsford town centres along the Anzac Parade corridor. Ideas beyond the town centres do not form part of this strategy.

Consistent with Council's consultation priorities, the involvement of the community was integral to the Competition process. Community feedback enhanced the Competition Brief and also assisted in developing the vision for each town centre as detailed in Part C of this Strategy. The community was also invited to comment on the short-listed entries with feedback provided to the Independent Jury Panel for their consideration.

Further detail on community consultation undertaken during the Planning Review is provided in Part A Section 6 – Community Consultation.

K2K Competition -Ten 'Big Ideas'

Following the conclusion of the Competition, the four short-listed entries were reviewed by Council which has resulted in the identification of ten 'big ideas'. These ideas are considered suitable to the context of the town centres, with a focus on sustainability and improving the environmental amenity of the public domain.

The ten 'big ideas' are reflected in the strategies contained in Part C of this document and comprise the following:

- Widen Anzac Parade to form a Boulevard: 'Anzac Parade For The People'
- Integrate sustainability infrastructure into the precinct
- 3. Establish a "green grid" of walkable streets that link plazas and parks
- 4. Community spaces and a range of public benefits
- Concentrate activity and built form at nodes
- Nine-ways transformed into Kingsford Junction, as a new civic transport and urban hub
- 7. Prioritise walking, cycling and public transport
- 8. Increased provision of affordable housing
- 9. Leverage the university and health campus to foster innovation uses
- Create new and reinvigorated plazas for people to gather.

6.0 Community Engagement

Community engagement has been an integral component of the Planning Review, informing all stages, as well as the overarching vision for the Kensington and Kingsford town centres.

A Communication Plan was prepared to engage and involve Council representatives, key stakeholders and the broader community to assist shaping the content and direction of the Planning Strategy. Entitled K2K – Your Place Your Future, this Communication Plan was underpinned by the following consultation principles:

- Multiple and meaningful opportunities for community input
- Involving all relevant stakeholders, including harder to reach sectors
- Strong customer focus and a respect for the community
- Acknowledge the community's right to be advocates for what they want or need
- An awareness and understanding by staff of how Council actions impact on the community
- Honesty and transparency in communication
- Accurate and timely information
- Clear explained decisions and actions of Council at all stages of the consultation process

- Actively listening and acknowledging other points of view
- Respecting individuals and cultural differences.

StraightTalk consultants were commissioned by Council for support in delivering a number of community engagement activities throughout the K2K Urban Design Competition. New approaches to consultation broadened the public conversation about the future of both town centres and gave the community ownership of the process to a greater extent than traditional engagement practices.

The key aims of engagement was to reach as many local residents and business owners as possible; to inform them about the Competition and to encourage participation in the process by giving feedback on what they valued and wanted in the town centres.

The community were given the opportunity to help develop the Competition Brief by outlining their aspirations for the town centres under a number of themes.

This feedback was integrated into the Competition Brief provided to competitors participating in Stage 2 of the Competition. The community also provided feedback on the Competition entries, which was also reported to the jury for consideration in the judging process.

Key engagement activities undertaken during the K2K Competition are summarised in the following table:

Table 1: K2K Competition Community Engagement Activities

table 1. K2K Competition Community Engagement Activities			
Activity	Detail		
K2K Competition Project website www.K2K.sydney	Included information for competition entrants and tools for community feedback: online survey, interactive map and forum questions.		
Fact sheets/letter to ratepayers Flyers	General information provided via mail informing local residents of the competition, timelines and how to get involved.		
Table Talkers	Stand up flyers were distributed in the local area (restaurants and cafes) to encourage participation in the project; standard Chinese translation was included. It is intended that these will be active for the length of the project.		
Pop up information stalls x3	Pop up stalls were conducted in three locations at Southern Cross Close in Kingsford, Anzac Parade opposite the UNSW entrance and Duke Street in Kensington. Each pop up featured; snacks, posters with information about the Competition, questions for people to answer about what they liked about the area and spare paper for people to comment about the Competition and provide general feedback.		
Intercept interview sessions x3	Three roving intercept sessions were conducted where people were stopped along Anzac Parade and asked to participate in an intercept survey to get feedback on the six design themes.		
Meeting with Kingsford Chamber of Commerce	A meeting was held to discuss details of the Competition and to gain an understanding of the broad attitude of the Chamber towards the cCompetition process.		
Meeting with relevant Precinct Committee executive members	Meetings were held with the Kensington West Kingsford Precinct Committee and Kingsford South Precinct Committee and the UNSW Office of the Vice Chancellor to provide an overview of the Competition and to ascertain feedback on the future of the town centres.		

Community feedback has identified important issues, opportunities, ideas and aspirations to help shape the future of the Kensington and Kingsford town centres.

This draft Planning Strategy has sought to respond to these issues and ideas, by providing strategies and actions on a range of considerations such as housing diversity, public domain improvements, pedestrian accessibility and sustainability.

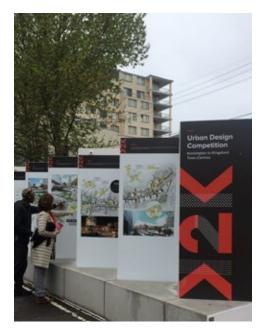
7.0 Strategic Planning Framework

The draft Issues Paper provides a detailed overview of the state and local strategic planning framework guiding the Planning Review of the Kensington and Kingsford town centres.

The following documents, strategies and guidelines have provided background to, and helped informed the objectives, strategies and actions contained in this document:

- Sydney Metropolitan Strategy 'A Plan for Growing Sydney' 2014 (Department of Planning and Environment)
- Draft Central District Plan 2016 (Greater Sydney Commission)
- Randwick City Plan (Randwick City Council)
- Randwick Local Environmental Plan 2012
- Randwick Development Control Plan 2013
- Kingsford Town Centre Strategy 2013 (Randwick City Council)

- Kensington, Kingsford and Randwick Junction Economic Impact of Light Rail (stage 1 and 2 reports) 2016 (Macroplan Dimasi)
- Urban Design and Landscape Plan Kingsford 2016 (Transport NSW)
- Randwick Urban Design Guidelines 2014 (Randwick City Council)
- Kensington and Kingsford Town Centres Urban Design Report 2016 (Conybeare Morrison)
- A Cultural Randwick City 2009 (Randwick City Council)
- An Inclusive Randwick City 2010 (Randwick City Council)
- A Safer Randwick Plan 2003 (Randwick City Council)
- The Eastern Suburbs Low Carbon Futures Plan 2015 (Kinesis)
- High Performance Buildings Study 2016 (Kinesis)
- The Eastern Suburbs Regional Water Reduction Plan 2016 (Draft, Kinesis)
- Draft Policy for Architecture and Urban Design in NSW 2016 (Department of Planning and Environment)
- Anzac Parade Corridor Light Rail Analysis 2016 (EMM Consulting)
- Kensington and Kingsford Parking Controls Advice 2016 (ARUP)
- Kensington and Kingsford Planning Strategy Traffic Assessment 2016 (Stage 1, ARUP).



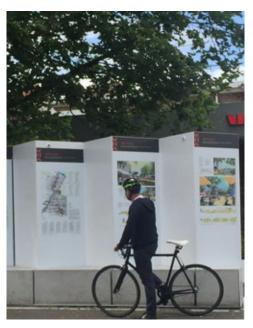




Figure 4: Community engagement activities Source: Randwick City Council 2016

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Kensington and Kingsford Town Centres

- Kensington to Kingsford Infrastructure Contribution Financial Feasibility Assessment 2016 (HillPDA)
- Randwick City Council Affordable Housing Strategy 2007 (Randwick City Council).

8.0 Planning Strategy Structure

The Planning Strategy is structured as follows:

Part A: Overview

This part provides an overview of the Planning Review process, including the methodology, key drivers, and outcomes of the K2K Urban Design Competition and community feedback.

Part B: The Town Centres

This Part provides a snapshot of the Kensington and Kingsford town centres including their regional/local context, key attributes, and scenarios for growth and change such as population/household growth projections, and key demographic and employment trends.

Part C: Vision and Themes

12

This Part establishes a vision for how Kensington and Kingsford town centres should grow and change over the next 15 year period, based on outcomes from community consultation.

A number of objectives, strategies and actions are set out, which are grouped under the following themes:

- · Housing Growth and Diversity
- Business and Economy
- Built Form
- · Heritage Conservation
- Sustainability and Transport
- Public Realm and Landscape
- Social Infrastructure
- · Zoning and Land Use.

Under this Part, the objectives provide the aim or purpose for each theme, setting out what the Strategy intends to achieve. The strategies describe how the objectives are to be achieved. The actions provide more specific detail on what Council can do to implement the strategies, including statutory (e.g. through the RLEP 2012/DCP2013) or non-statutory mechanisms (e.g. capital works, advocacy).

Maps are provided where relevant to illustrate how the strategies and actions can be implemented on the ground.

Part D: Precincts and Structure Plan

This Part contains Precinct Plans for the identified precincts consolidating relevant objectives, strategies and actions identified in this Strategy.

A Structure Plan is also provided to illustrate how the town centres relate to their surrounding context and future opportunities outside the centre boundaries.

Part E: Feasibility and Funding Infrastructure

This Part outlines a contributions scheme to support infrastructure improvements for the Kensington and Kingsford town centres. It also provides an overview of independent feasibility testing undertaken of proposed new built form controls and the recommended infrastructure funding mechanism.

Part F: Implementation Plan

This Part includes a summary of the Strategy's actions, including key timeframes for implementation.

This section provides a snapshot of the Kensington and Kingsford town centres including key characteristics and scenarios for growth and change. A detailed assessment of the town centres' existing conditions and opportunities and challenges is included in the draft Issues Paper.

1.0 Regional and Local Context

The Kensington and Kingsford town centres are located along the Anzac Parade corridor in the northern suburbs of Randwick City. The town centres are located approximately 9km from the Sydney CBD and 6km from Sydney International Airport. Nearby centres include Bondi Junction 6km to the north-east and Maroubra Junction 3km to the south.

Key sites and destinations in proximity to the town centres include the University of NSW, National Institute of Dramatic Art, Randwick Hospitals Campus, the Royal Randwick Racecourse, Centennial Park and the eastern beaches of Clovelly, Coogee and Maroubra.

1.1 Kensington Town Centre: A Snapshot

Kensington town centre extends along Anzac Parade, and is bounded by Carlton Street to the north and Doncaster Avenue to the south.

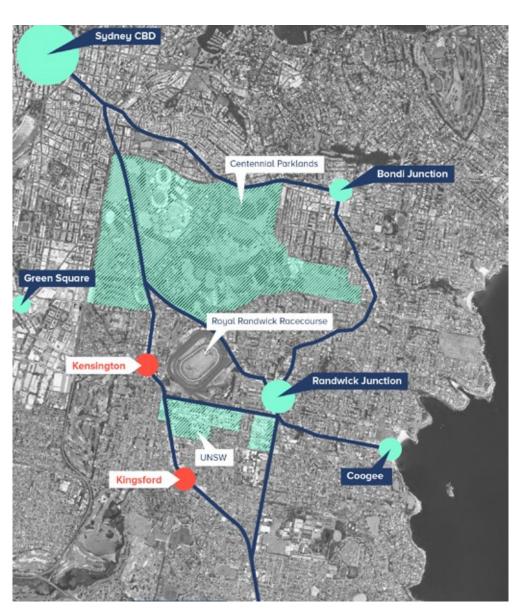


Figure 5: Regional Context Source: Randwick City Council 2016

The town centre occupies a land area of around 60,200m² and has evolved as a traditional strip based centre with a distinctive retail and residential character. It has a localised catchment other than the Peter's of Kensington store which draws customers outside of Randwick Local Government Area (LGA).

A variety of development typologies occupy the town centre including:

- Recently developed multi-storey mixed use developments (up to 6/7 storeys)
- Low rise two storey developments
- Single storey dwelling houses and 3-4 storey residential walk up flats.

The town centre is distinct from other centres in Randwick City in that a large portion (approximately 34%) of ground floor uses are currently for residential purposes (e.g. houses or walk-up flats). These residential components are largely located towards the northern and southern ends of the town centre.

The most dominant business activity in Kensington town centre is food services (17%), followed by retail trade (15%) and other services (7%). Kensington has a high ground floor vacancy rate of 12%, mostly clustered towards the northern part of the Centre.

In terms of urban structure and fabric, Kensington town centre has a focus on Anzac Parade and with a grid street pattern. The street edge is affected by variations to building setbacks, street walls and period of developments.

Finer urban grain with consistent setbacks is generally visible where older shop-top housing typology has been retained; newer mixed use developments, on the other hand, are usually associated with large building floorplates, resulting in a coarser urban grain.

There are two local Heritage Items located near the southern entrance of the town centre, being the Doncaster Hotel (268 Anzac Parade) and the Masonic Temple (199 Anzac Parade).

There are also a number of contributory items identified along Anzac Parade which demonstrate a range of key architectural elements, scale and proportion which help define the streetscape character.

Key open spaces/recreational facilities in proximity to the town centre include Centennial and Moore Parklands, Kokoda Park and Royal Randwick Racecourse.



Figure 6: 159-171 Anzac Parade, Kensington Source: Google Streetview 2016



Figure 7: 76-82 Anzac Parade, Kensington Source: Google Streetview 2016



Figure 8: 112-124 Anzac Parade, Kensington Source: Google Streetview 2016



Figure 9: Map of Kensington town centre Source: Randwick City Council 2016

1.2 Kingsford Town Centre: A Snapshot

Kingsford town centre is based around the intersection of Anzac Parade, Gardeners Road, and Bunnerong Road on the south (commonly known as 'nine-ways'). It straddles both sides of Anzac Parade, extending from Barker Street on the north to the South's Juniors Club to the south, as well as east and west along Rainbow Street and Gardeners Road respectively.

The town centre occupies a land area of 96,962m² and is a traditional strip based centre with a distinctive retail and dining character, and strong evening economy stemming from its proximity to UNSW and its large student demography.

The town centre accommodates a variety of business and retail uses ranging from restaurants, cafes and takeaway food outlets to smaller office suites, shop top housing, small scale independent supermarkets, pubs and banks. The ground floor vacancy rate is relatively low and is 9% of all properties, mainly clustered along the southern end of the town centre along Gardeners Road.

Much of the established commercial area is concentrated towards the southern end of Anzac Parade and west along Gardeners Road and comprises small fragmented allotments with 'fine grain' two to three storey 'shop top' buildings. A number of these buildings have façades listed as 'contributory' in the DCP2013 as they demonstrate a range of key architectural elements, scale and proportion which help define the streetscape character.

Towards the north and centre of the town centre lies a greater concentration of taller, contemporary mixed commercial/residential developments with retail and commercial uses at the ground level and up to nine storeys of residential above. At the corner of Barker Street and Anzac Parade lies a service station and McDonalds restaurant development, both of which occupy a prominent position.

The town centre has three sites on the south that are separated from the remainder of the main commercial area due to the nine-ways roundabout and existing street structure.

These are:

- South's Juniors Club, which includes the standalone club building of considerable bulk and scale, together with a row of retail uses that fall outside the town centre boundary. These buildings comprise retail and restaurant uses that transition to a lower 2-3 storey scale and interface with the surrounding low density residential neighbourhood.
- Rainbow Street site (1-11 Rainbow St), which comprises a vacant site accommodating parking, and also used as a temporary works depot during construction of the light rail. This site has been identified as a potential site for a new integrated civic building and parking for Kingsford town centre.
- Kingsford Triangle site, which includes a variety of development types including low scale two storey strata titled residential flat buildings, single dwellings, a church, boarding house, childcare centre, a large drive in car wash centre and other business uses.

The town centre is located within walking distance to a number of open spaces including Paine Reserve, Kensington Park and Daceyville Gardens (City of Botany Bay LGA) on the south and west. There are a number of small public places in the centre which are underutilised (at Nine Ways roundabout, Southern Cross Laneway, Meeks Street, Borrodale Road and Strachan Street).



Figure 10: 375-387 Anzac Parade, Kingsford Source: Google Streetview 2016



Figure 11: 494 Anzac Parade, Kingsford Source: Google Streetview 2016



Figure 12: 532 Anzac Parade, Kingsford Source: Google Streetview 2016



Figure 13: 277-291 Anzac Parade, Kingsford Source: Google Streetview 2016

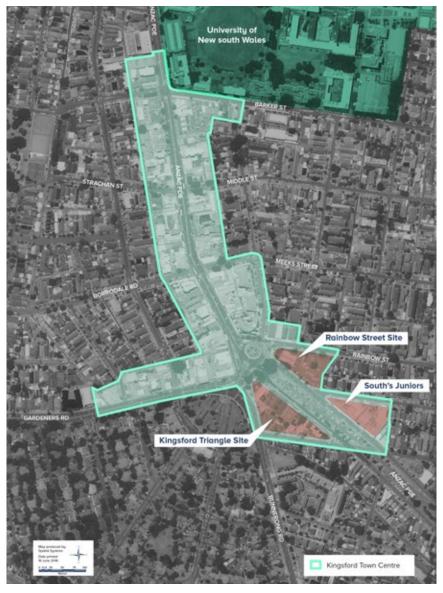


Figure 14: Map of Kingsford town centre Source: Randwick City Council 2016

Part B - The Town Centres

1.3 Local Planning Framework

The Randwick Local Environmental Plan 2012 (RLEP 2012) is the statutory planning instrument that currently applies to all land in Randwick City. It regulates how land is used through land use zones and sets outs provisions for how land can be developed via principle development standards and key planning controls.

The RLEP 2012 is the result of a comprehensive planning review undertaken over 2010-2012 to bring the instrument in line with the State Government's Standard LEP Template. A review of the planning controls for Kensington and Kingsford town centres was flagged as a separate Study.

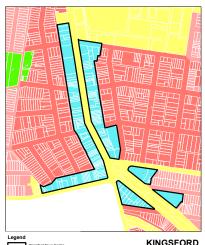
The following table outlines the main RLEP 2012 provisions applicable to the Kensington and Kingsford town centres.

Table 2: Key Applicable RLEP 2012 Planning Controls

	Kingsford	Kensington
Land Use Zone	B2 Local Centre	B2 Local Centre
Maximum Height	24m	9.5m 12m 21m 25m 31m
Maximum Floor Space Ratio	3:1	No FSR applies to land within the Centre – building envelope controls for each block are contained within Randwick DCP 2013 (Section D1)
Heritage	One (1) heritage item in the town centre O'Dea's Corner	Two (2) heritage items in the town centre Masonic Centre - Doncaster Hotel
Key Sites (Identified on the Key Sites Map of Randwick LEP 2012)	Kingsford Triangle Site Kingsford Market Site	No Key sites

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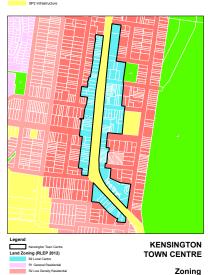
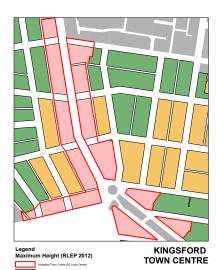


Figure 15: Existing Zoning – RLEP 2012 Source: RLEP 2012 (www.legislation.nsw.gov.au)

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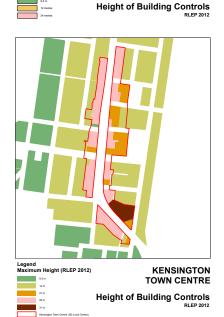


Figure 16: Existing Heights – RLEP 2012 Source: RLEP 2012 (www.legislation.nsw.gov.au)

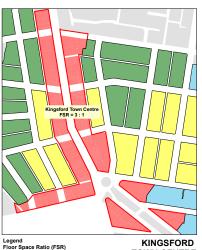
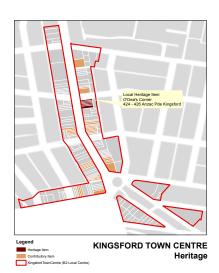




Figure 17: Existing Floorspace Ratio (Kingsford town centre) – RLEP 2012 Source: RLEP 2012 (www.legislation.nsw.gov.au)



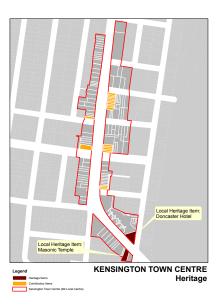


Figure 18: Existing heritage listed items and contributory buildings Source: RLEP 2012 (www.legislation.nsw.gov.au) and RDCP 2013 (www.randwick.nsw.gov.au)

1.4 Randwick Development Control Plan 2013

The Randwick Development Control Plan 2013 (DCP 2013) provides detailed planning and design guidance to supplement the provisions of the RLEP 2012. The DCP contains site specific chapters for the Kingsford town centre (section D2) and Kensington town centre (section D1) originating from the previous DCPs applying to these centres.

Kensington Town Centre

A major planning/design review for Kensington town centre was carried out in 2001/02, resulting in the introduction of building envelope controls based on the architectural character of the centre, articulation requirements and building heights. Site amalgamation is encouraged through bonuses to the building envelopes. The building envelope controls developed in 2002 have been transferred into the current DCP 2013 Section D1.

The DCP provides a broad vision statement for future development in the Centre and block by block controls for height, setbacks and building location zone. The controls aims to achieve 'innovative' design quality first envisaged for the 'Model Suburb of Kensington' in 189^s.

Kingsford Town Centre

The DCP for Kingsford town centre aims to achieve high quality building and urban design to promote economic employment opportunities. The DCP controls focus on site planning, building design, articulation, materials and finishes, through site links, and car parking.

The DCP also contains a requirement to prepare site specific controls for key sites being the Kingsford Triangle and Rainbow Street site. The site specific DCP controls are to address a range of considerations such as high quality architecture, dwelling mix, through site links, landscape and streetscape design to ensure that future development in these prominent locations are of high quality design and provide excellent amenity.

2.0 Planning for the Future of Kensington and Kingsford

The following section summarises a number of trends and indicators that provide the baseline for planning the future growth of Kensington and Kingsford town centres.

2.1 Population and Household Growth Projections

Current population growth projections indicate that the population of Randwick City will continue to grow to over 180,150 persons by 2036°. The distribution of

population growth by age group is forecast to be in line with projected Greater Sydney averages, towards a significantly older population profile by 2036.

For Randwick City, the greatest proportional growth is forecast in the 85+ age group, which is expected to increase by 74% from 2016-2036⁷. Conversely, there will be 33% growth in school aged children (5-19 years) in Randwick City, which is one of the largest projections for a council area within the Greater Sydney Central District.

While single person households are projected to make up 31% of the total households in Randwick City by 2036, family households will continue to be the dominant household type, at around 59% of the total households by 2036.

This demonstrates that there is a need for additional housing including diverse housing to meet increased population and changing household structure which is discussed in more detail under Part C Section 3 – Housing Growth and Diversity. The level of growth will place additional pressure on the Kensington and Kingsford town centres given their location to employment hubs, education and health services.

2.2 Demographic Trends

While the 2016 Australian Bureau of Statistics (ABS) Census Data has not yet been released, an analysis of ABS 2006 and 2011 Census Data has revealed key demographic trends for Kensington and Kingsford as summarised opposite:

Kingsford Town Centre

- Kingsford has a young population, with 31% of residents between the ages of 20 and 29 years in 2011, reflecting the area's high student population.
- In 2011, the average household size was 2.61 and increasing, probably due to increased group households, while Randwick City's average household size decreased over the same period.
- In 2011, there was a high proportion of households renting (46%), with an increasing rate of households with mortgages and a decreasing rate of households who own their homes.
- The suburb has a high and increasing rate of ethnic diversity, with 52% of persons speaking a language other than English at home and 52% of persons born overseas in 2011.
- There are increasing levels of education and growth in the number of jobs in the centre. In particular, there has been employment growth in education and training, healthcare and social assistance, professional, scientific and technical services, and arts and recreation services.

⁵ Posters advertising the 1891 subdivision plan for the 'Model Suburb of Kensington'.

⁶ Department of Planning and Environment (2016) NSW State and LGA Population and Household projections

⁷ Greater Sydney Commission (November 2016) Draft Central District Plan (pg.81)

⁸ Department of Planning and Environment (2016) NSW State and LGA Population and Household projections

Kensington Town Centre

- Like Kingsford, Kensington's population is young, with 34% of people between the ages of 20 and 29 years, reflecting the area's high student population.
- The average household size in Kensington is 2.37, which stayed steady between 2006 and 2011, while Randwick City's household size decreased over the same period. There is a lower level of lone-person households compared to Randwick City, and an increasing number of group households.
- In 2011, almost half (49%) of all households were renting, with an increasing rate of households with mortgages and a decreasing rate of households who own their homes.
- Similar to Kingsford, there is a high rate of ethnic diversity, with 41.5% of people speaking a language other than English at home and 47% of residents in 2011 born overseas.
- There are increasing levels of education and growth in the number of jobs in the centre. In particular, there has been employment growth in education and training, healthcare and social assistance and professional, scientific and technical services.

2.3 Employment Trends

As identified in the draft Issues Paper, both Kensington and Kingsford town centres perform a localised role and function with local retail/commercial services.

The Kensington town centre is projected to grow from 1,540 jobs to 1,925 jobs by 2036, reflecting an increase of 25%. It is expected that 70% of the future jobs growth will occur in the industries of retail trade; accommodation and food services; education and training; and healthcare and social assistance.

Job numbers for the Kingsford town centre are projected to grow from 2,425 to around 3,000 by 2036, reflecting an increase of 24%. It is estimated that around 47% of the future jobs growth is expected to occur in the industries of accommodation and food services and healthcare and social assistance.

To ensure the town centres achieve the projected jobs growth adequate employment floor space should be generated within the town centres. The proximity to the Randwick Education and Health Strategic Centre will support an emerging innovation district which will stimulate economic activity and jobs growth.

The need to provide for adequate employment floor space within the town centres is discussed in more detail under Part C Section 4 – Business and Employment.

2.4 Strategic Precincts

The draft Issues Paper provides an analysis of existing floor space capacity and redevelopment potential of the Kensington and Kingsford town centres⁹, resulting in the identification of a number of key opportunity sites.

These have been further refined in the development of this draft Strategy, and three distinct Precincts have been identified. The Precincts are based around strategic transport nodes being the Todman Avenue light rail stop in Kensington town centre, the the Strachan Street light rail stop and terminus in Kingsford town centre.

Existing development located in these Precincts are largely 1-2 storey shop-top housing or multi-business properties with moderate to significant remaining capacity¹⁰ and are likely to be redeveloped in the short-medium term following possible lot consolidation.

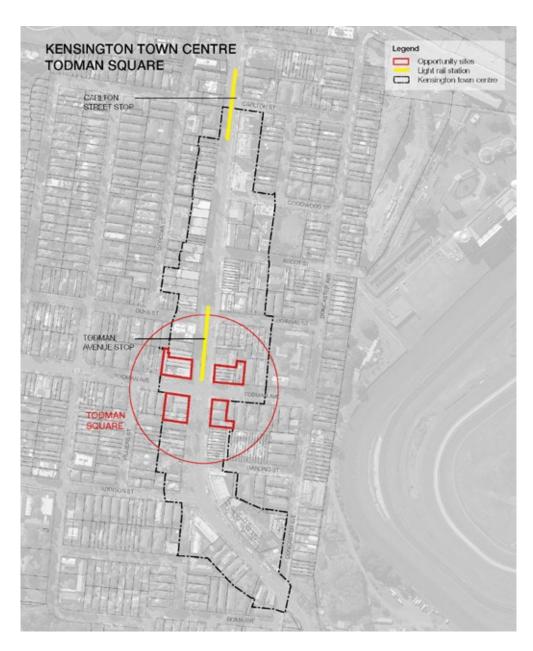
These Precincts have been selected on the basis that clustering appropriately scaled development around key transport nodes will support hubs of activity, contributing to business activation and vibrancy in the town centres.

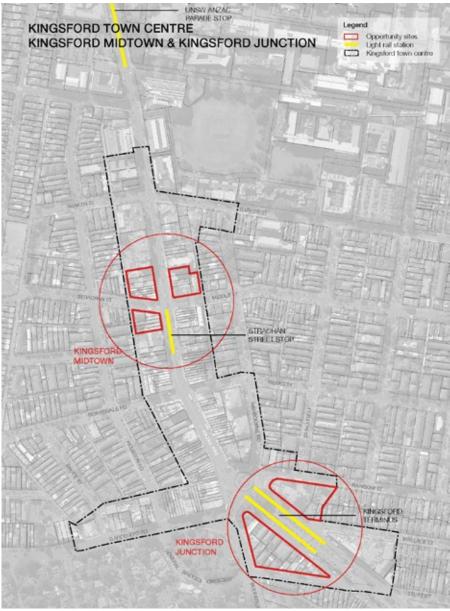
A precinct based approach provides the opportunity to accommodate a greater variety of housing in a 'live/work/play' environment, while making greater use of public transport and reducing car dependence. Importantly, it will allow greater opportunities to utilise the development process to deliver a range of public benefits to the community such as new plazas, and wider footpaths as outlined in this Strategy.

The Precincts are identified in the following maps and discussed in greater detail throughout this draft Strategy.

⁹ Refer to the draft Issues Paper for a detailed outline of the methodology and assessment criteria for identifying the key opportunity sites.

¹⁰ Our preliminary capacity analysis shows that the development capacity remaining at or near these key intersections is approximately 25,000m² GFA (see section on capacity analysis for details).





Draft Planning Strategy

Kensington and Kingsford Town Centres

This section outlines the vision for the town centres of Kensington and Kingsford which has emerged from community feedback received throughout the duration of the Planning Review. A number of themes follow with strategies and actions to guide future development within each town centre.

1.0 Vision

An overarching vision for each town centre has been developed, informed by the extensive community consultations undertaken throughout the Planning Review process.

The vision for each town centre provides the basis for the themes, objectives, strategies and actions contained in this Planning Strategy. All proposals for development within each town centre will be expected to be consistent with the respective vision.

Vision for Kensington Town Centre

Kensington will evolve into a vibrant and dynamic town centre situated along Anzac Parade, Sydney's finest grand green boulevard.

The town centre will be well connected and highly accessible, capitalising on its proximity to key employment hubs including the Randwick Health and Education Super Precinct and the Sydney CBD.

Kensington town centre will offer an exciting city apartment lifestyle, with buildings designed to the highest quality and offering excellent amenity to residents. A range of housing types, including affordable housing, will be woven into the town centre's urban fabric to offer housing diversity and choice to a wide range of people including the elderly, students and families. The integrity of existing heritage and contributory buildings will be respected and integrated with the best contemporary architecture that enhances the character and layering of the town centre experience.

Kensington town centre will be a focus for creativity and innovation. A gallery/creative space at Todman Square will create a cultural anchor for the town centre, supported by a diverse range of cafes, restaurants and shopping options that attract visitors from across Sydney. Innovative startups will translate cutting edge research into real world business success.

The town centre will have a green identity, setting the bench mark for sustainability within the Local Government Area (LGA) through Ecologically Sustainable Development (ESD) targets, Water Sensitive Urban Design (WSUD) practices, high quality green public places with linkages to nearby parks, and sustainable transport modes such as the light rail, cycling and walking.

Vision for Kingsford Town Centre

Kingsford will develop into an exciting and dynamic town centre continuing to draw on its rich multicultural identity. The town centre will provide a diverse offer of restaurants, cafes and retail shopping, set within a rejuvenated public domain that supports activation and social interaction.

The town centre will be a safe and inclusive place to live, work and visit. Buildings will be designed to the highest quality incorporating a mix of apartments, laneway mews and affordable housing.

Highly connected and accessible, the town centre will foster hubs of activity focused around the terminus at Kingsford Junction and Kingsford Mid-Town, the old heart of the Kingsford.

The town centre will have a green focus and set a new performance benchmark for sustainability within the LGA through ESD targets, WSUD practices, public places with canopy trees and landscaping and support of sustainable transport modes such as the light rail, cycling and walking.

The integrity of existing heritage and contributory buildings will continue to be respected and integrated, through high quality architectural design. Innovative business start-ups will be encouraged to provide a 'bridge' between research and business.

2.0 Themes

The following themes have been derived from the vision for each town centre. These themes form the basis of the strategies and actions contained in this document:

- Housing Growth and Diversity
- Business and Economy
- Built Form
- Heritage Conservation
- Transport and Sustainability
- Public Realm and Landscape
- · Social Infrastructure
- Zoning and Land Use.

Each theme includes a suite of 'objectives'-what we want to achieve, and 'strategies' – how we want to achieve the objectives, together with a series of specific actions.

Key points raised by the community during engagement activities are provided at the beginning of each theme.

3.0 Housing Growth and Diversity

This section outlines a number of strategies and actions to facilitate sustainable housing growth within the Kensington and Kingsford town centres to meet future housing needs of a growing population. It identifies opportunities to increase the amount of affordable housing, recognising the critical challenge of decreasing housing affordability, while promoting housing diversity and choice for a wide demography and social mix.

The Kensington and Kingsford town centres are highly desirable areas to live given their proximity to key employment hubs including the Randwick Education and Health Strategic Centre and Sydney City CBD, and excellent access to frequent public transport services, retail and commercial facilities. As such, the town centres are expected to attract new residents and face continued pressure for growth in the years to come.

Future demand for housing in the Kensington and Kingsford town centres is likely to be driven by a number of changing socio-demographic influences, including smaller household sizes, high numbers of young people, and an ageing population. These factors combined with the locational attributes outlined above, and compounded with declining housing affordability is likely to further fuel the growth for urban living in both town centres.

In consideration of future housing provision, Randwick City's local planning policy has consistently promoted higher densities within the town centres as a sustainable approach, to make better use of existing infrastructure, facilities and services while maintaining the character of existing low density residential neighbourhoods.

Consistent with this approach, this draft Strategy provides the framework to achieving sustainable housing growth across both Kensington and Kingsford town centres recognising their strategic location, excellent access to services and capacity to accommodate change. Specific housing needs including the provision of affordable housing and fostering housing diversity and choice are key considerations in this draft Strategy.

- To accommodate sustainable housing growth and expected demographic changes
- To provide for well-located housing in proximity to transport, employment and services
- To encourage housing diversity and choice: and
- · To provide for affordable housing.

The draft Issues Paper provides a comprehensive overview of demographic trends which have implications for future housing supply and specific housing needs in the Kensington and Kingsford town centres.

Key demographic trends affecting both town centres include:

- Moderate population growth
- A relatively young population reflecting the high number of students in the area
- An ageing population
- An increase in lone person households and group housing
- A higher number of apartments/ shop top housing
- A higher number of people in rental accommodation
- A diverse population including high numbers of people speaking a language other than English
- Increasing levels of education attainment.

Key challenges:

- The population of Randwick City is projected to increase by 26% resulting in 36,500 additional people residing in the LGA by 2031.
- Approximately 15,150 dwellings will be required to meet future housing needs by 2031.
- Future housing growth needs to occur in areas well serviced by public transport, and in proximity to employment, education, open space, and other services/facilities to ensure a safe and liveable environment.
- Ensuring sufficient housing supply in appropriate locations to address demand, while also managing the impact on neighbourhood character and amenity as development pressure intensifies are key factors which will play a crucial in future.
- Ensuring future housing growth provides for housing diversity including affordable housing.

Community Feedback

Feedback received during consultations shows that people value high quality development that meets the housing needs of a diverse community. In summary, the community told us:

- Provide a range of housing types to suit different types of people and life stages
- Encourage a diverse community
- Provide more housing that is affordable; and
- Encourage more families to live in the area through high quality development with more bedrooms and bigger spaces.

3.1 Planning for Growth

Randwick City needs to plan for population and employment growth. As part of the State Government's metropolitan plan for Sydney (A Plan for Growing Sydney), the Council is required to demonstrate how population growth and dwelling demand can be met via its local planning framework.

The draft District Plan for Greater Sydney's Central District sets a five-year target of an additional 2,250 dwellings by 2021. This equates to around 450 dwellings per year which is on track with Council's historical development trends. To deliver the five-year housing target, Council will need to plan to provide sufficient capacity to support the delivery of housing to meet this target. The draft District Plan also sets the direction that Council will need to consider sufficient housing capacity over the next 20 years.

While longer term (i.e. 20 years) housing targets have not been set for each council area, the draft Plan directs councils to consider sufficient housing capacity over the next 20 years to help meet the Greater Sydney Commission's minimum housing target of an additional 157,500 new dwellings to be delivered across the Central district by 2036. As such, both the draft Issues paper and this Strategy have adopted the State Government's (2014) projected dwelling demand of 15,150 additional new dwellings by 2031 to help plan for this long term growth.

As part of the Council's approach to planning for growth, the Council is investigating opportunities to accommodate housing growth across the entire LGA to ensure an even and equitable distribution of housing delivery to meet future needs. Key considerations in determining where housing growth can be accommodated include historical development trends, estimated development capacity (which takes into consideration environmental constraints) and future planning policy implications.

Analysis of past development trends shows, our (major) town centres (of Kensington, Kingsford and Maroubra Junction) and key redevelopment sites (formerly master planned sites) have provided the majority of housing growth, followed by residential infill across the whole LGA.

However, more recently dwelling completions in the town centres have reduced (from approximately 45% to 33%). This reflects the take up of development capacity in these areas since the planning controls for these centres were introduced.

Similarly, most of Randwick's major redevelopment sites (typically on government land identified as surplus to need i.e. Prince Henry and Bundock Street for example) are either close to or have been completed. These key sites and/or areas have provided the majority of new housing growth over the last five years. However, housing growth from these redevelopment sites is not expected to remain at this level due to the limited supply

of these large sites in the LGA, unless there is State Government-led renewal of some of its Land and Housing Estates corporation assets. The State Government has also identified the Anzac Parade corridor in A Plan for Growing Sydney as local renewal opportunity.

In relation to infill development, the State Government's proposed new draft Medium Density Code has the potential to increase densities in established residential areas significantly by allowing medium density housing types (i.e. dual occupancies, town houses, terraces and manor homes) as Complying Development in both the low and medium density residential zones. The draft Code will introduce two new building types including the manor house (a twostorev building containing three or four dwellings with common wall and/or floor) and terraces (three or more dwellings with frontage to a public road) as Complying Development, only if it is permissible in the land use zone.

The permissibility of these building types in the existing low and medium density residential zones has the potential to facilitate infill redevelopment and increase densities in these areas significantly, including adjoining residential areas to town centres. As such, it is expected that housing growth will increase in these established areas much more significantly than in the past.

Based on these considerations, the following locational split is applied as a guide to help plan for future housing growth across the LGA.

Locational split for future growth (%)

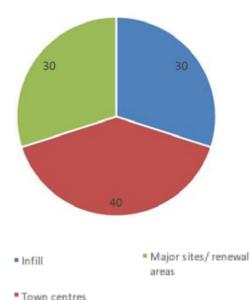


Figure 19: Locational Split of Future Housing Growth Source: Randwick City Council 2016

This translates to approximately 60% of all future growth to be accommodated outside of our town centres; and is in keeping with Council's existing planning approach which focuses growth in and around centres with access to services, amenities and transport.

The locational split has also been applied to the State Government's (2014) projected dwelling demand of 15,150 additional new dwellings by 2031, which was adopted for the issues paper and is shown in Table 3. The table provides an indication on dwelling numbers that would need to be provided over the long term, to ensure we are meeting projected population demand.

This locational split for future growth also demonstrates a sustainable and balanced approach towards new housing growth across the LGA.

3.2 Considerations for Kensington and Kingsford Town Centres

While the draft Issues Paper noted that there is an estimated dwelling capacity across the two town centres of approximately 20-30% of the projected dwelling demand, based on the above locational split, the major town centres would need to increase their share of new (dwelling) growth in the order of 10% or an additional 1,515 dwellings (above the current capacity) to ensure they retain a share of at least 30-40% of the future dwelling growth for the LGA.

Table 3: Locational split for future growth

Dwelling demand projection 15,150 dwellings		
Town Centres (Major)	40%	6,060
Infill	30%	4,545
Major redevelopment sites and/or urban renewal areas	30%	4,545
TOTAL	100%	15,150

Table 4: Existing Dwelling Capacity and New Dwelling Capacity for Kensington and Kingsford

	Low	High
Existing dwelling capacity under existing planning controls	3,158	3,553
Additional new dwellings at 10% of the share of the projected dwelling demand	+ 1,515 new dwellings	
Therefore new dwelling capacity range*	4,700	5,100

*Note: These numbers have been rounded up for ease of application

The Kensington and Kingsford town centres will be able to accommodate up to 5,100 in new dwellings given the:

- Investment of light rail in this corridor
- Identification of this portion of Anzac Parade in A Plan for Growing Sydney for urban renewal opportunities
- Proximity to major employment destinations (CBD, Randwick Education and Health Strategic Centre)
- Development interest and market demand
- Specialised urban design review and input; and
- International design competition to garner ideas.

The table on page 25 outlines the existing dwelling capacity, as identified in the draft Issues Paper, and a new dwelling capacity range incorporating the 10% share of the State Government's projected dwelling demand.

While this range provides a guide to ensure that a minimum dwelling yield is taken into consideration into the future planning and design of this corridor, a higher dwelling yield may be demonstrated through good design and planning strategy.

Future Capacity for Kensington and Kingsford Town Centres

The key challenge for accommodating projected housing growth in the Kensington and Kingsford town centres is to ensure it occurs in a sustainable way, in appropriate locations with sufficient infrastructure capacity, while maintaining residential amenity and the community's quality of life.

This draft Strategy outlines a number of changes to built form controls which will increase the capacity of the town centres to absorb additional growth. An analysis of floor space yields resulting from proposed changes to built form controls is provided in Part C Built Form Section 5.9 – Floorspace Capacity.

3.3 Housing Diversity and Choice

Planning for sustainable housing growth in Kensington and Kingsford town centres will need to ensure a suitable mix of housing stock in a range of sizes and designs to address declining housing affordability, and support the current and future needs of the community, which includes people of different age groups, cultures, lifestyles, incomes and life stages.

In particular there is a need to consider:

- The need for greater affordable housing options to meet the needs of the large student population, and to retain people with a mix of skills and occupations in the locality such as key workers and those in creative and service based industries
- Changing household composition recognising the growing trend of single person and group households
- Slow but growing demand from young families choosing to live in apartment buildings for affordability and lifestyle reasons; and
- Needs of the ageing population taking into account changing mobility needs and the desire to age in place.

Housing diversity is well recognised to help create sustainable and diverse communities. Providing housing choice will attract a diverse range of people to the town centres, contributing to social vibrancy.

A range of housing sizes also provides the opportunity for the existing community to remain in the area at different life stages. For instance, as people age, there is often preference to stay in the existing neighbourhoods that they know. where social networks have already been established. By providing safe, adaptable and accessible smaller housing in proximity to amenities for daily living and public transport nodes, the ageing population can down-size after children have moved out of home and still remain in the area. Welllocated and smaller compact housing forms may also meet the housing needs of the increasing proportion of households comprising single persons, couples without children and single parent families.

The majority of units being developed in the Kensington and Kingsford town centres are predominantly one and two bedroom units. While these units may meet the needs for single persons, couples without children, they do not readily accommodate a family household. Family households are expected to make up at least 60% of all households¹¹ in Randwick by 2031.

¹¹ Based on the State Government's (2014) population and household projections

3.4 Affordable Housing

The loss of affordable housing through the gentrification process and the limited ability for the private rental market to accommodate the needs of low to moderate income households at affordable levels now presents one of the most critical housing challenges facing Randwick City.

The issue of housing affordability is particularly pertinent for the Kensington and Kingsford town centres given their rising land values and desirable location compounded with the high number of students, key workers such as nurses and police and an ageing population – key groups that require more affordable housing options.

The Centre for Affordable Housing defines affordable housing as 'housing that is appropriate for the needs of a range of very low, low and moderate income households and priced so that these households are also able to meet other basic living costs such as food, clothing, transport, medical care and education'.

Affordable housing offers a number of economic, social and environmental benefits to the community. At the local level affordable housing is important because it:

- Promotes social integration and social diversity
- Meets the needs of the growing number of smaller households living in high cost areas
- Allows key workers (such as nurses, police etc.) and students to remain in the area close to work and educational establishments
- Provides direct economic benefits to local economies, including an increased demand for a range of goods and services which in turn can create employment opportunities; and
- Allows people to stay in the community that they know as they move through different life stages.

It is generally accepted that if housing costs exceed 30% of a low income household's (lowest 40% of households) gross income, the household is experiencing housing stress (30/40 rule). That is, housing is significantly unaffordable and housing costs consume disproportionately high amount of household income. When talking about affordable housing there is a focus on facilitating affordable rental housing, given that the private rental market is the most vulnerable to those very low to moderate income households on stock levels and rental price increases.

The Need for Affordable Housing

The impact of pressures on house prices (rent and purchase) over the past decade are widely illustrated with Sydney now classified as being one of the least affordable housing markets internationally. Randwick City is one of the most expensive areas in Sydney to rent and purchase a home.

As at June 2016, Randwick City had a median house valuation of \$1,857,345 which is \$908,194 higher than the median house valuation for Greater Sydney. And to rent, a median house rental of \$950, \$430 higher than the median house rental for Greater Sydney. In 2011, Kingsford had the highest proportion of people experiencing rental stress in Randwick City (36.9%) followed by Kensington (26%).

Moreover, Randwick City has continued to lose affordable housing stock. The proportion of affordable rental stock for low income households in Randwick has declined by more than 40% from June 2011 to December 2015. This is mainly

due to increasing land and property values, increasing rents and the resultant loss of rental stock at the lower end of the market.

This has particular implications on the local businesses in the area ability to hire the essential key workers needed to support these businesses. Randwick's Hospitals Campus has noted the difficulty in filling job vacancies for specialist nurses (such as paediatric and neonatology nurses) who are highly desirable in terms of international competition for their skills and being priced out of living in the area.

The Randwick Education and Health Strategic Centre is Randwick's largest employment destination. The draft Central District Plan sets a job target range for the Strategic Centre of an additional 9,200 to 12,700 new jobs by 2036 as shown in the table below. This represents approximately a 40-55% increase in additional jobs required by 2036.

Table 5: Randwick Health and Education Strategic Centre Jobs Target

Centre	2016 Estimate	2036 Baseline Target	2036 Higher Target
Randwick Health & Education	22,800	32,000	35,500

Source: Greater Sydney Commission (November 2016) draft Central District Plan

A projection in employment for this centre will not only generate demand for these specialist nurses, it will generate demand for services typically staffed by lower income earners, such as childcare workers and shop assistants.

The resulting loss of population diversity including lower income key workers, street life vibrancy and social authenticity will present a significant risk to Randwick City's economic productivity and success as a major contributor to Greater Sydney as a global city. Without provision of more affordable forms of housing, the market can be expected to continue to produce more expensive housing in the area, so that housing will only be affordable to households on relatively high incomes.

Existing Mechanisms to Encourage Affordable Housing

There are two key state planning policies aimed to facilitate and encourage affordable housing through the planning framework including the State Environmental Planning Policy (Affordable Rental Housing) 2009 (AHSEPP) and the State Environmental Planning Policy No70 (SEPP 70) Affordable Housing (Revised Schemes) (SEPP 70 Affordable Housing).

The AHSEPP is the main mechanism intended to increase the supply and diversity of affordable housing and social housing in NSW, and to protect existing stock. The AHSEPP covers housing types including infill affordable rental housing (villas, townhouses and apartments) that contain an affordable rental housing component, along with secondary dwellings (granny flats), new generation boarding houses, group homes, social housing and supportive accommodation.

The most common development types being built in Randwick City under this policy are new generation boarding houses and secondary dwellings. In relation to new generation boarding houses, the majority of boarding house rooms approved and developed (under the SEPP) are mostly to the north of Randwick City, around

the UNSW. Anecdotal evidence suggests that the new generation boarding houses are meeting a demand for student accommodation being located close to the University and are being rented at levels not considered affordable to both students and key workers. While these development types are providing a form of diverse housing, they are in reality not delivering 'affordable housing' to those households in need.

The SEPP 70 enables councils listed by the SEPP to implement mandatory requirements for developers to contribute towards affordable housing either monetary or as complete dwellings. This policy is based on an inclusionary zoning based approach. Only two councils, the City of Sydney and Willoughby, are able to require contributions towards affordable housing under existing contribution schemes for Green Square, Ultimo/Pyrmont and Willoughby. Since the SEPP was introduced in 2009, no other council areas have been listed in the SEPP, despite worsening housing affordability.

At the local level, Randwick City Council is one of the state's more active councils on affordable housing. Council's Affordable Rental Housing Program and Strategy/ Action Plan 2008-2018 sets policies to retain existing stocks of affordable

housing and facilitate development of new affordable housing stock for low to moderate income or key worker households in the community. To date, the Council has acquired 20 affordable housing units mainly via a negotiated planning agreement approach on large redevelopment sites required to demonstrate diverse housing including affordable housing on these sites. The Council's measures, while progressive for local Government, are having little influence on meeting the demand for affordable housing across the City, mainly due to the limited nature of the voluntary planning agreement approach and the limited number of large redevelopment sites in the LGA.

Inclusionary Zoning for Affordable Housing

Academic research and best practice outline that the only reliable way for local councils to secure affordable housing supply is through mandatory provisions embedded within a legislative framework, via an inclusionary zoning mechanism. An inclusionary zoning based approach is also more equitable than the negotiated planning agreement approach and provides more certainty to the developer by making clear the requirements to contribute towards affordable housing upfront.

A mandatory approach based on inclusionary zoning provides greater certainty for the delivery of affordable housing within the Kensington and Kingsford town centres. This approach will help contribute towards the provision of affordable rental housing in high value areas such as Kensington and Kingsford town centres. This inclusionary zoning pathway has been chosen by Council and has received support from the Department of Planning and Environment for an amendment to SEPP 70 to include Randwick City.

The strategic location of these town centres to key employment centres such as the Randwick Education and Health Specialised Centre and the Sydney CBD makes the need to provide for affordable housing an essential consideration in the future planning of these areas.

To ensure that low to moderate income households can live in Kensington and Kingsford town centres, this Strategy proposes that future new development be required to provide a proportion of affordable housing. A staged approach is proposed which seeks an equivalent proportion of 3% increasing to 5% of the total residential floor area be dedicated as affordable housing in all new developments. This will provide more than 200 essential affordable housing dwellings for key workers in this area and is discussed in more detail in Part E – Funding Infrastructure.

The following strategies aim to address the prevailing housing issues affecting Kensington and Kingsford town centres, including providing for sustainable growth, housing diversity and choice including affordable housing in these centres.

Strategies	Actions
Direct housing growth into locations and sites that have the capacity to accommodate change	 a) Amend the RLEP 2012 building height and floor space ratio controls for Kensington and Kingsford town centres, to provide for forecast dwelling growth (see Part C Section 5 – Built Form) b) Concentrate higher density housing growth within key Precincts and sites in walkable proximity to light rail stops/terminus (see Part C Section 5 – Built Form)
Encourage a diversity and mix of apartment sizes in the town centres having regard to changing demography, housing trends and affordability for a resident population	a) Consider new DCP controls requiring a mix of dwelling types, sizes and forms in all new major residential/mixed use development based on demographic trends and social mix
Encourage adaptable and accessible housing to enable the community to age in place	a) Continue to implement the universal accessible housing principles and controls contained in Part C1 of DCP 2013 for new developments
4. Provide for affordable housing options for students and key workers to enhance opportunities to live, work and learn together and to support the economic functions of the Randwick Education and Health Strategic Centre	 a) Incorporate inclusionary zoning provisions within the RLEP 2012, based on a staged approach as described above b) Update Council's existing Affordable Housing Strategy, Policy, Programs and Procedures to address the Kensington and Kingsford town centres Affordable Housing Scheme (once adopted) c) Prepare a new Affordable Housing Plan for the town centres which will outline the operational and management details of the Affordable Housing Contributions Scheme
Encourage the development of family friendly apartments to facilitate social diversity in the community	a) Consider new DCP controls to encourage family friendly apartments including specific design requirements that address adequate storage and access to outdoor space where possible

4.0 Business and Economy

This section considers the location and intensity of business-related land uses that make up the town centres of Kensington and Kingsford. It outlines a number of strategies to support the economic prosperity of both centres, capitalising on their existing character and future opportunities. This section also outlines a number of strategies to promote and support the emerging innovation centre at the UNSW and Randwick Hospitals Campus.

The future economic prosperity of the Kensington and Kingsford town centres will rely on their ability to attract and retain local businesses, support productivity and innovation, maintain a quality of life for residents and workers and ensure a high level of urban amenity.

Each town centre will benefit from preserving its mixed use character, protecting commercial floor space and leveraging opportunities to stimulate economic growth, such as localised activation around light rail stops along Anzac Parade which will help consolidate sprawl and provide a critical mass of economic activity. Emerging opportunities may include supermarkets, outdoor eateries and bars, local business services, medical facilities and banks.

Ensuring developments activate their street frontages throughout the town centre, and requiring a minimum quantity of commercial floor space around light rail stops will create a long spine with nodes of more intensified activity. These requirements will ensure adequate floor space is provided for future local services for the community.

The town centres should capitalise on their location adjoining the Randwick Education and Health Strategic Centre, and in particular, play a key role in supporting an emerging innovation district centred on the anchor institutions of the University of NSW and Randwick Hospitals Campus.

This emerging innovation district will stimulate economic activity and the creation of jobs through the further clustering of startups, business incubators and accelerators in a physically compact, accessible, amenityrich, mixed use urban environment.

Objectives

- To promote the economic prosperity of each town centre and the wellbeing of the community
- To ensure that future development enhances the existing character and establishes a distinctive image for each town centre
- To promote convenient access to shops and services for residents and visitors
- To leverage the proximity to the UNSW and Randwick Health Campus and support the emerging innovation centre; and
- To grow the number of local jobs available to an increasing population.

Community Feedback

Feedback received during consultations for the K2K Urban Design Competition shows that people value a vibrant town centre containing local services to provide for the local community. In summary, the community told us:

- Create more jobs in the centre where they are close to transport
- Develop a viable town centre which promotes all types of local businesses and attracts people to visit
- Create vibrant town centres where people live, work and shop with open spaces to gather, sit down and relax or observe the world
- Create a sense of community by increasing the mix of businesses, cultural events and workers
- Activate Anzac Parade with more activities, businesses and late night shops so that the whole street is lively and safe
- Consider how parking will be accommodated in the town centre; and
- Have office spaces which attract a diverse range of workers to who spend and interact with the town centres and which provide employment space close to transport.

'Kensington needs more basic shops, banks and a supermarket that are accessible.'

'Strong local businesses make places for people to connect.'

'Build-up businesses so students have access to internships and work experience.'

'Create a heart and soul for Kensington: build a place for their community with a supermarket, marketplace, shops, bank and/or other necessary services.'

4.1 A Vibrant Centre

A Centre with a Range of Uses

Successful cities are active and alive during the day, as well as in the evening and night. They contain a blend of activities which overlap and encourage people to mingle and attractive places where form and function are in balance. Anzac Parade will have more activities, facilities, businesses and late night shops so that the whole street is lively, safe and provides for the needs of the community.

Increased residential development within each town centre will help to drive localised activity within the precinct. This will help support both day and night-time activation for local businesses. A healthy ageing population also offers opportunities for businesses to provide additional activities for the population of the wider area.

The most dominant business activities in Kensington town centre are food services, retail trade and other services. Kensington's services tend towards health and fitness, with two gyms, a sports medicine clinic and two doctors' offices within the town centre.¹²

Kingsford town centre accommodates a variety of business and retail uses ranging from restaurants, cafes and takeaway food outlets to smaller office suites, shop top housing, small scale independent supermarkets, pubs and banks. The ground floor vacancy rate is relatively low (at approximately 9% of all properties¹³), mainly clustered along the southern end of the town centre along Gardeners Road. The vibrancy of both centres can be improved by improving their accessibility to UNSW, increasing the local resident population and creating a more pleasant public environment.









Figure 20: Existing retail in Kensington Source: Randwick City Council 2016









Figure 21: Existing retail in Kingsford Source: Randwick City Council 2016

¹² Randwick City Council Survey 2015

¹³ Randwick City Council Survey 2015

Role of the Kensington Town Centre

Designated as a village centre in the Randwick Economic Development Strategy, Kensington performs a predominantly localised role with local retail and commercial services, with some destination/ unique attractors such as Peter's of Kensington. As detailed in Council's draft Issues Paper released in March 2016, accommodation and food services (17%) and retail trade (15%) categories account for around 32% of ground floor space in the centre. Almost all of the accommodation and food services category consists of food and beverages premises, with limited accommodation floor space in the centre¹⁴. There was an estimated 12% ground floor vacancy rate at the time of the Council's survey in 2016, showing there are opportunities to strengthen the existing economy.

Increased residential development will help drive localised activity within the precinct to help support local businesses and drive night-time activation. Other growing uses could include childcare, medical services and small commercial or innovation spaces. Larger sites should be investigated for the potential to enable a supermarket or other

anchor as part of a mixed use development. Todman Avenue and Carlton Street will be key point of origin stations and ground level retail activation will be encouraged around these nodes to support local resident and business needs.

Improved east-west connections will help to strengthen and expand the role of the centre, such as increased tree planting and landscaping and footpath extensions on side streets and improved cycling infrastructure. There are opportunities to improve access between the Royal Randwick Racecourse and Kensington, which would bring increased people to the centre on race days.











¹⁴Kingsford and Kensington Town Centre Review Draft Issues Paper 2016

Role of the Kingsford Town Centre

Like Kensington, Kingsford is also designated as a village centre and performs a localised role with local retail and commercial services. The centre is very popular with students from UNSW given the close proximity to the campus. As detailed in the draft Issues Paper released in March 2016, accommodation and food services (35%) and retail trade (28%) account for around 63% of ground floor space in the centre, which is twice that of Kensington, reinforcing the higher level of patronage in Kingsford¹⁵. Almost all of the accommodation and food services category consists of food and beverages premises, with limited accommodation floor space. There was an estimated 9% ground floor vacancy rate at the time of the Council's survey in 2016¹⁶.

Increased residential development will help drive localised activity within the precinct to help support local businesses and drive night-time activation. The town centre should be investigated to identify opportunities for student housing, coworking and innovation space, and larger sites suitable for a supermarket.

4.2 Future Commercial Uses Supermarkets

Neither the Kensington nor Kingsford town centres contain a full line supermarket to fulfil the roles of the centres in providing for the regular needs of residents. In Kensington, the Foodworks is very small (200m²) and performs as a convenience shop. Kingsford contains only a small IGA supermarket (approximately 400m²) and several small Asian supermarkets. Both town centres would benefit from the development of a neighbourhood supermarket shopping centre, fulfilling local day-to-day shopping needs with the provision of groceries, fresh food and other convenience items.

The nearest centres with supermarkets are Randwick Junction, Maroubra Junction and East Village. Randwick Junction hosts a Woolworths of 1,400m² and a Coles supermarket of 3,080m², along a range of specialty shops. Maroubra Junction, a very strong town centre, has a full-line Coles supermarket of 3,600m² an Aldi supermarket of around 1,400m², and a range of specialty shops including a green grocer.



Figure 23: East Village shopping centre at Victoria Square Source: www.payce.com.au



Figure 24: East Village shopping centre at Victoria Square Source: www. ayce.com.au



Figure 25: Pacific Square Maroubra Source: www.excelbm.com.au

The current planning framework provides for the establishment of a supermarket within each centre. In particular, the Randwick DCP identifies locations where a supermarket would be suitable within the Kensington town centre. There is currently no development containing a supermarket, and this may be due to land constraints, the cost of parking provision and trends in online shopping.

With the increased population within the town centres, and the improved connectivity arising from the light rail and active transport improvements outlined in Part C Section 7 – Sustainability and Transport, there will be increased demand for a supermarket to provide for the everyday needs of residents. Subject to suitable site amalgamation, sites in each town centre have the potential for redevelopment as a neighbourhood supermarket shopping centre. A supermarket would act as an anchor to a new development, supporting ancillary retail and commercial tenancies.

The light rail stops will be key nodes of activity, providing an opportunity for increased levels of commercial and retail tenancies. In Kensington, the Todman Avenue light rail stop in particular will be a key node providing an opportunity to provide a supermarket, convenience retail, dining and take-away food facilities. In Kingsford, the Kingsford Terminus or Strachan Street stop will each provide opportunities for a supermarket, along with other convenience retail, dining and take-away food facilities.

If land size provides an obstacle, there is opportunity for a half-size or an express size supermarket. Across Sydney, both Woolworths and Coles are establishing local convenience supermarkets close to public transport, and Kensington and Kingsford both have suitable locations for such a development¹⁷.



Figure 26: Chatswood interchange shops and mall Source: www.coxarchitecture.com.au



Figure 27: Madison Avenue mixed use district, NYC Source: www1.nyc.gov

¹⁷C&I Convenience and Impulse Retailing (2015) (http://c-store.com.au)

Night Time Economy

Providing more diverse attractions and more "routine" activities (i.e visiting a supermarket, chemist, hairdresser or gym) into the evening and night attract a broader population onto the streets. Having people on the streets, in shops or in restaurants can establish passive surveillance, increasing the feeling of perceived safety.

The type of business mix determines the people attracted to town centre, and currently neither Kensington nor Kingsford have a strong night-time economy. Providing more diverse attractions and routine activities, such as visiting a supermarket, gym or outdoor plaza in the evening attracts a broader population into the area which promotes social cohesion, vibrancy and deters crime¹⁸. Retail and local services in the town centres are generally only open during business hours. During the evening, food and beverage premises stimulate activity, in Kingsford more than Kensington, but the town centres have littleto-none night time trade once the dinner service ends.

With Australians working longer days, there is likely to be demand for longer trading hours. The diversity of employment opportunities in the town centres and the education and health precinct may lead to a greater mix of businesses open into the evening. Improved and creative lighting, as detailed in Section 8 – Public Realm and Landscape can encourage a sense of safety and security for those moving around the centre at night.



Figure 28: Gym, a potential night-time use Source: www.visitomaha.com



Figure 29: Active laneway in Melbourne Source: www.traveller.com

¹⁸ Hadfield, P. (2011) Night-Time Economy Management: International research and Practice. A Review for the City of Sydney.

Strategy Action 1. Support and strengthen the a) Support local precinct shopping programs such as existing retail and services "shop local" by developing an app for Kensington within the town centres to and Kingsford that connects people to what's on and what's open near them provide for the regular needs of residents b) Continue work to lift the aesthetic standards of Anzac Parade by investigating grant opportunities for shopfront improvements c) Improve activation by providing more spaces suitable to outdoor dining in appropriate places d) Amend the DCP 2013 to encourage fine grain retail and laneways activation to create opportunities for diverse and interesting shopfronts and premises e) Continue to investigate opportunities for regular evening events such as the night food markets in Meek Street Plaza and other locations within the centres 2. Support the establishment a) Ensure that new development create opportunities of a night time economy in for appropriate retail uses at street level that trade Kensington and Kingsford into the evening b) Identify opportunities for decorative/feature lighting in outdoor dining areas to support the night time economy

4.3 Innovation Districts

What are Innovation Districts?

Innovation districts are dense enclaves that merge the innovation and employment potential of research-oriented anchor institutions, high-growth firms, and tech and creative start-ups in well-designed, amenity-rich residential and commercial environments¹⁹. Economic benefits of innovation districts are described in the Brookings Paper, as facilitating the creation and commercialisation of new ideas and supporting metropolitan economies by growing jobs in ways that leverage their distinct economic attributes. These districts build on and revalue the intrinsic qualities of cities: proximity, density, authenticity, and vibrant places²⁰.

While their form and function varies, all innovation districts contain economic, physical, and networking assets. When these three assets combine with a supportive, risk-taking culture they create an innovation ecosystem—a synergistic relationship between people, firms and place (the physical geography of the district) that facilitates idea generation and accelerates commercialisation²¹.

Sydney's tech startup ecosystem is in the early stages of development and the needs of tech startups are very different to those of small businesses²². Entrepreneurs and tech startup companies need a local environment that provides support networks, business and entrepreneurship education, infrastructure and financing opportunities²³.

The Changing Innovation Landscape

Innovation is firmly on the Federal Government agenda, with The National Innovation and Science Agenda a \$1.1 billion program over four years aiming to drive smart ideas that create business growth, local jobs and global success. The National Innovation and Science Agenda will focus on four key pillars:

- Culture and Capital
- Collaboration
- Talent and Skills
- Government as an exemplar.

In particular, the Federal Government will support incubators which play a crucial role in the innovation ecosystem to ensure startups have access to the resources, knowledge and networks necessary to transform their ideas into globally scalable new businesses.

²³ lbi

¹⁹ Brookings (2014) The Rise of Innovation Districts: A New Geography of Innovation ²⁰ Ibid

²¹ Ibid

²² City of Sydney (2013) OPEN Sydney: Strategy and Action Plan 2013-2030

In October 2015, UNSW published its strategy for the next decade. The 2025 Strategy commits UNSW to work with government, industry and the community to translate research advances into social progress and economic prosperity. UNSW aspires to be increasingly known for its focus on innovation, the scale and extent of interactions involving staff, students and alumni with industry, business, government and with community partners. UNSW will build upon an existing track record as one of Australia's leading knowledge exchange universities to achieve a step change in the translation of research into economic and social outcomes.

In 2016, UNSW opened the Michael Crouch Innovation Centre, which provides students, alumni, staff and industry partners with resources to nurture student and academic innovation. In addition. UNSW has partnered with China's 'Torch' innovation system to develop a science and technology precinct in close proximity to the UNSW campus. In phase one of the venture, the Chinese companies will establish outposts in "incubators" already being set up on UNSW's main Kensington campus. In phase two, they will shift to the Torch precinct planned for a site in Randwick. This provides Council with a unique opportunity to capitalise on UNSW's growing innovation culture and establish Kensington and Kingsford as a niche innovation precinct.

Fostering an Innovation District

In order to utilise the potential for innovation districts to growth within the Kensington and Kingsford town centres, the components of an innovation ecosystem must be understood and fostered. Innovation districts uniquely contain three categories of assets: economic assets, physical assets, and networking assets, known together as an innovation ecosystem:

- Economic assets are the firms, institutions and organisations that drive, cultivate or support an innovation-rich environment
- Physical assets are the public and privately-owned spaces – buildings, open spaces, streets and other infrastructure – designed and organised to stimulate new and higher levels of connectivity, collaboration, and innovation
- Networking assets are the relationships between actors – such as between individuals, firms, and institutions – that have the potential to generate, sharpen, and/or accelerate the advancement of ideas²⁴.

The Kensington and Kingsford town centres have a significant number of characteristics making them attractive to innovation spaces and start-ups. Both UNSW and the Randwick Hospitals Campus act as anchors, attracting and generating research and innovation uses. The light rail both provides a frequent and reliable public transport link into the CBD and will act as a catalyst for establishing Kensington and Kingsford town centres as vibrant and diverse mixed use centres. The combined actions outlined in this draft Strategy will increase the walkability, vitality and liveability of the centres, increasing the attractiveness of the centres to start-ups and innovators.

²⁴ Brookings (2014) The Rise of Innovation Districts: A New Geography of Innovation













Figure 30: A range of innovation spaces and events Source: www.fishburners.org; www.fishburners.org; www.littletokyotwo.com; www.littletokyotwo.com; www.startupdaily.net; www.iaccelerate.com.au

Strategy	Action
Nurture opportunities to establish small, start-up or creative enterprises both in new developments and in vacant premises	 a) Use a community infrastructure contributions scheme to obtain Council-owned innovation spaces (such as co-working facilities and affordable office spaces) b) Provide an online guide to applying for planning consent for establishing a co-working space, incubator, accelerator or creative workshop
Use planning regulation to encourage the provision of commercial office space which can be used by co-working operators, incubators and accelerators	a) Amend the RLEP 2012 to implement a minimum non-residential FSR at key sites to ensure first floor commercial space is provided in new developments b) Work with innovation organisations to identify the technology infrastructure required to support innovation uses
Use public domain improvements to make the centres attractive to innovation industries	a) Establish free public Wi-Fi b) See Part C Section 8 – Public Realm and Landscape
4. Leverage the close proximity to the UNSW and health campuses to encourage startups and innovation spaces to locate in the Kensington and Kingsford town centres	 a) Continue partnering with UNSW to provide support for their innovation program b) Utilise partnerships with UNSW and the Hospitals Campus establish UNSW incubators within the centres c) Use branding and advertising to promote Kensington and Kingsford as a place for innovation and creative uses to locate

4.4 Commercial Floor Space and Jobs Growth

The Draft Central District Plan

The Draft Central District Plan²⁵ identifies opportunities which should be leveraged to drive economic activity and diversity. Kensington and Kingsford town centres can take advantage of several of these opportunities, including:

- The Randwick health and education super precinct in close proximity
- The CBD and South East Light Rail which will improve connectivity
- Sydney's growing, young and welleducated population.

Notwithstanding these opportunities, the Draft Central District Plan also recognises challenges facing strategic centres, such as pressure on commercial floor space in strategy centres. Pressure on commercial floor space can be seen in the Kensington and Kingsford town centres, as developers prioritise residential floor space over commercial.

²⁵ Draft Central District Plan, November 2016

Projected Employment Change

The Kensington, Kingsford and Randwick centres have an important economic role, with around 62% of jobs in The Randwick LGA located in these centres and their surrounding catchments (including UNSW)²⁶. The importance of these centres is expected to grow, with almost 70% of future jobs growth to 2036 accommodated within this economic triangle. The projected increase in jobs for Kensington and Kingsford is outlined in Table 6, with Kensington expected to accommodate a slightly higher proportion than Kingsford. Kingsford will continue to provide a greater share of jobs overall.

Table 6: Projected increase in employment in Kensington and Kingsford town centres²⁷

Future Employment Growth							
Town Centres	2016	2036	Change				
			No.	%			
Kensington	1,540	1,925	385	25			
Kingsford	2,425	3,000	575	24			

Kensington Town Centre

Projected jobs growth

As identified in Table 6, the Kensington village centre is estimated to grow from 1,540 jobs to around 1,925 jobs by 2036, an increase of 25%. Table 7 presents a detailed projection of jobs growth, by industry, for the Kensington village centre. As shown, 70% of the future jobs growth is expected to occur in the industries of retail, education and healthcare.



Figure 31: Union Square mixed use precinct, NYC Source: (www1.nyc.gov)



Figure 32: Sharedway at Kiaora Place, Double Bay Source: www. rooksalinger.com



Figure 33: Mixed use development in Surry Hills Source: www.sjb.com.au

²⁶ Macroplan Dimasi (2016) Kensington, Kingsford & Randwick Junction Economic Impact of Light Rail Stage 2 Report.
²⁷ Ibid

Table 7: Projected increase in employment and floorspace demand for Kensington town centre

Total	1,540	1,890	349			33,432	39,143	5,712
Other	42	51	9	n.a	n.a	n.a	n.a	n.a
Arts/other services	202	215	12	90%	50	9,111	9,672	560
Manufacturing/blue collar	161	202	41	10%	75	1,205	1,515	310
Health/medical	150	207	57	25%	30	1,123	1,551	428
Education	270	363	93	10%	30	810	1,088	278
Retail/F&B	470	558	88	95%	25	11,169	13,260	2,090
Accommodation	50	61	11	95%	100	4,757	5,762	1,004
Office/commercial	195	233	39	90%	30	5,255	6,296	1,041
Based on NSW BTS project	ons							
Industry/land use	2016	2036	16-36	centre (%)	(sq.m/ job)	2016	2036	16-36
	Jobs		Share in Ratio		Est. floorspace demand			

Potential 'uplift' from light rail

Uplift factor	10%	on growth		Uplift factor	10%	on growth	
Total jobs	1,540	1,924	384	Total floorspace	33,432	39,714	6,283
Difference	0	35	35	Difference	0	571	571

Notes

- 1. Office/commercial includes industries J, K, L, M, N, O
- 2. Accommodation includes approx. 25% of Accommodation and food services
- 3. Retail/F&B includes 75% of Accommodation and food services and 100% Retail trade
- 4. Education includes Education and Training
- 5. Health/medical includes Health care and social assistance
- Manufacturing/blue collar includes industries A, B, C, D, E, F, I
- 7. Arts/other services includes Arts and recreation and Other services
- 8. Other is not stated/inadequate data.
- Source: NSW Bureau of Transport Statistics (2014); MacroPlan Dimasi

Source: Macroplan Dimasi 2016

Projected Floor Space Growth

Including vacant floor space, there is currently an estimated 36,000-37,000m² of employment generating floor space within the Kensington town centre. Taking into account projected employment growth and the potential increase in demand arising from the light rail, employment floor space demand 'in-centre' is estimated to grow by around 6,000-6,500m² by 2036. Of the projected demand for floorspace, 2,100m² is projected to be retail or food services, 1,050m² is projected to be office or commercial, and 1,000m² is projected to be accommodation.

Analysis by Macroplan Dimasi recommended that around 6,000-6,500m² additional floor space be allowed for within the Kensington centre, to sufficiently accommodate jobs targets and enable the development of additional convenience-based retail facilities, including a supermarket. This floor space growth will be enabled through implementing an active frontages clause throughout the town centres and a minimum non-residential FSR at the nodes, as will be detailed later in this chapter.

Part C - Vision and Strategies

Kingsford Town Centre

Projected jobs growth

As identified in Table 5, Kingsford town centre is estimated to grow from 2,425 jobs to 3,001 jobs by 2036, an increase of around 24%. Table 8 presents a detailed projection of jobs growth, by industry, for the Kingsford town centre based on NSW BTS data. As shown, 55% of the future jobs growth is expected to occur in the industries of retail, food services and healthcare.

Projected Floor Space Growth

Including vacant floor space, there is currently an estimated 54,000m² employment generating floor space within the Kingsford town centre. Taking into account projected employment growth and the potential increase in demand arising from the light rail, employment floor space demand 'in-centre' is estimated to grow by around 10,000-10,500m² by 2036. Of the projected demand for floor space, 2,000m² is projected to be office/commercial, 3,000m² is projected to be retail or food services, and 1,100m² is projected to be health services.



Figure 34: Kiaora Place retail precinct with public library Source: rooksalinger.com



Figure 35: East Village mixed use development Source: payce.com.au

Table 8: Projected increase in employment and floorspace demand for Kingsford town centre

		Jobs		Share in	Ratio	Est. flo	orspace der	nand
Industry/land use	2016	2036	16-36	centre (%)	(sq.m/ job)	2016	2036	16-36
Based on NSW BTS project	ions							
Office/commercial	467	547	80	85%	30	11,909	13,945	2,035
Accommodation/pub	114	138	24	85%	75	7,286	8,824	1,538
Retail/F8B	709	848	139	85%	25	15,072	18,030	2,958
Education	104	140	36	10%	30	313	420	107
Health/medical	326	450	124	30%	30	2,934	4,053	1,119
Manufacturing/blue collar	403	485	83	10%	75	3,019	3,638	619
Arts/other services	225	247	22	85%	50	9,544	10,496	951
Other	77	93	16	n.a	n.a	n.a	n.a	n.a
Total	2,425	2,949	524			50,078	59,407	9,328

Potential 'uplift' from light rail

Uplift factor	10%	on growth		Uplift factor	10%	on growth	
Total jobs	2,425	3,001	576	Total floorspace	50,078	60,339	10,261
Difference	0	52	52	Difference	0	933	933

Notes

- 1. Office/commercial includes industries J, K, L, M, N, O
- 2. Accommodation includes approx. 25% of Accommodation and food services
- 3. Retail/F&B includes 75% of Accommodation and food services and 100% Retail trade
- 4. Education includes Education and Training
- 5. Health/medical includes Health care and social assistance
- 6. Manufacturing/blue collar includes industries A, B, C, D, E, F, I
- 7. Arts/other services includes Arts and recreation and Other services
- 8. Other is not stated/inadequate data.
- Source: NSW Bureau of Transport Statistics (2014); MacroPlan Dimasi

Source: Macroplan Dimasi 2016

The report recommended that around 10,000-10,500m² additional floor space be allowed for within the Kingsford centre, to sufficiently accommodate jobs targets and enable the development of additional convenience-based retail facilities, including a supermarket. This floor space growth will be enabled through implementing an active frontages clause throughout the town centres and a minimum non-residential Floor Space Ratio (FSR) at the nodes, as will be detailed later in this chapter.

Commercial Floor Space Trends

A desktop analysis of approved Development Applications (DAs) was conducted to identify the quantity of commercial floor space in mixed-use buildings on Anzac Parade built since 2000.

In recent mixed use developments on Anzac Parade, the ground floor commonly provides for pedestrian access and a lobby for the residential units, vehicular ramps to access the car parking, a loading dock, waste storage and utilities. The proportion of the ground floor used for commercial or retail tenancies varies, with larger sites having the opportunity to provide a greater proportion of the ground floor for commercial premises.

The analysis of floorplans revealed that on average, only 27% of the site, on the ground floor, is used for commercial floor space. In general, this is a significantly lower quantity of commercial floor space than was on the site prior to redevelopment. This means that over time, as new developments occur, each centre is undergoing a net loss of commercial floor space.

Supply-Demand Gap

If current trends continue, where only around 27% of the ground floor of developments is used as commercial floor space, when each centre is fully developed, there will be a supply deficit of approximately 18,500m² in Kingsford and 24,000m² in Kensington, or 42,500m² across the two centres. This would be a significant reduction of existing commercial floor space and is inconsistent with the role of the centres, as identified in A Plan for Growing Sydney.

Given the significant sale price differential between residential floor space and commercial floor space, residential floor space is significantly more profitable to developers than commercial. This means that the trend outlined above, of a cumulative net loss of commercial floor space, is unlikely to change. Therefore, action, as proposed as part of this Strategy, is required to ensure the continued and growing role of Kensington and Kingsford as local centres.

Supporting Commercial Floor Space Growth

An active frontages clause within the RLEP 2012 applying to the town centre will ensure that every site provides commercial or retail floor space, as identified in figures 38 and 39. This LEP provision, and the associated map, will ensure retail and commercial floor space is provided throughout the centre, and that streets and plazas have activity to provide vibrancy and passive surveillance. A DCP control will also be provided, to encourage developments to provide active frontages to mid-block links, secondary streets and laneways.

Market intervention is required to ensure adequate floor space is delivered within the town centres to provide local retail and commercial services for residents of the centres. A minimum non-residential FSR in the RLEP 2012 applying at the key nodes of Todman Square, Kingsford Midtown and Kingsford Junction Precincts, as identified in figures 40 and 41, are a market intervention to counteract current trends favouring residential floor space.

The minimum requirement for non-residential floor space will ensure floor space is available for supermarkets, retail, childcare centres, local services, shared working spaces and innovation hubs. This minimum quantity of retail or commercial floor space will ensure the light rail stops become nodes of commercial and retail activity within the centres.



Figure 36: Active street frontages Source: www.dlaaust.com



Figure 37: Active street frontages Source: www.mustdobrisbane.com

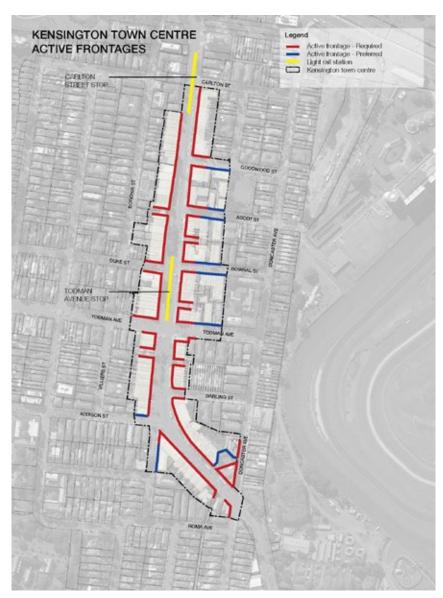


Figure 38: Active street frontages map – Kensington town centre Source: Conybeare Morrison 2016

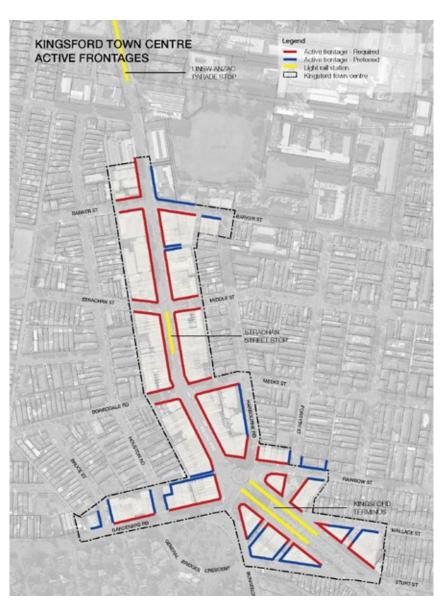


Figure 39: Active street frontages map – Kingsford town centre Source: Conybeare Morrison 2016

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Figure 40: Minimum non-residential floorspace map – Kensington town centre Source: Conybeare Morrison 2016

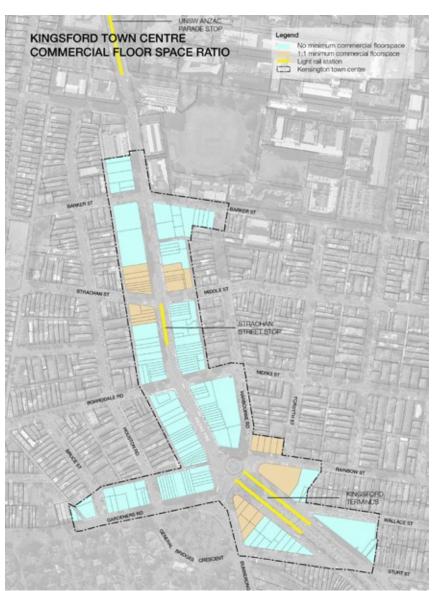


Figure 41: Minimum Non-Residential Floor Space Map – Kingsford town centre Source: Conybeare Morrison 2016

Strategy	Action
Ensure new developments provide for businesses fronting streets to ensure streets are vibrant and safe	a) Amend the RLEP 2012 to implement an active frontage provision to require active building frontages at street level throughout the centre, as identified on the active frontages map (Figure 38 and 39)
	b) Amend the DCP 2013 to encourage retail and commercial uses to address laneways and secondary streets, as identified on the active frontages map (Figure 38 and 39)
Provide adequate retail and commercial space to ensure future employment needs can be accommodated and the town centres can provide retail and other services to residents and visitors	a) Amend the RLEP 2012 to implement a minimum non-residential FSR applying to sites at key nodes, as identified in Figures 40 and 41, to ensure adequate space is available for the provision of local retail and services and for the provision of innovation spaces

5.0 Built Form

This section looks at the 'three dimensional' form of the Kensington and Kingsford town centres. Strategies focus on achieving an appropriate scale for new development, a positive relationship between built form and the public realm, and a high standard of urban design and amenity within the town centres.

The character of a town centre is strongly influenced by the design of its urban environment: the street layout and pedestrian linkages, the aesthetic quality, scale, and functionality of individual buildings, the relationship between built form and the public realm, and the condition and extent of public spaces.

Planning and built form controls, including land use zoning, height, floor space ratio and setbacks, play an important role in defining the character of a town centre, controlling the intensity of development and helping to establish a desirable built form.

In the context of Kensington and Kingsford town centres, the interplay between geographical and physical attributes including their inner city location, excellent access to employment hubs, services and recreational opportunities, and new light rail infrastructure lend support to urban consolidation and revitalisation. New built form controls are required to guide the design of future development and to ensure that a reasonable amount of floor space can be accommodated to meet future needs.

For Kensington and Kingsford town centres to evolve as highly attractive, liveable and sustainable places, it is integral that all future development delivers a good urban design outcome with a high level of amenity, while balancing growth and appropriate density.

All new development will be expected to make a positive contribution to the architectural quality of the town centres, be appropriate to their locational context, fit sensitively into the streetscape and help create a sense of place. New areas of increased height should also provide clues to the structure of the town centres highlighting nodes of activity and accessibility.

Objectives

- To foster an attractive urban environment with a strong sense of place and identity
- To ensure that development is of an appropriate scale and responsive to the surrounding context
- To ensure that buildings are characterised by design excellence and achieve a high level of amenity
- To encourage landmark buildings that define strategic locations, support activation and contribute to an interesting and harmonious skyline
- To support the integration of transport and land use; and
- To conserve and protect heritage items and building façades that reflect the historical development of the town centres.

Community Feedback

Community feedback received acknowledges the town centres as valued places, while highlighting the need to improve urban design and the quality of buildings to establish a sense of place.

In summary the community said:

- · Create vibrant town centres where people want to live, work and visit
- Provide a mix of building heights to create an interesting urban form, rather than focusing on high rise development
- · Encourage stand out buildings to mark a sense of arrival in the town centres
- · Ensure the town centres are creative, green and aesthetically pleasing
- Create a sense of place through building design, making residents proud to live in the town centres
- Line Anzac Parade with trees to create a continuous boulevard into the City
- Set back development to allow trees to grow undisturbed into maturity
- · Make the town centres more than just rows of businesses along a busy road
- Unify street level design; have awning levels and colours that complement each other; consider glass structures and futuristic design
- Ensure the light rail does not infringe on available public spaces
- Consider that high rise developments cast shadows on parks and public areas and create a feeling of disconnection
- Modernise the look and feeling of buildings at street level; and
- Create spaces between buildings to facilitate a laneway culture or courtyards.

Part C – Vision and Strategies

5.1 Built Form Study

Conybeare Morrison urban design consultants were engaged to assist Council in reviewing the built form controls for Kensington and Kingsford town centres. The aim of the study was to determine how projected growth in residential and employment floor space could be accommodated, while ensuring a good design outcome and high level of amenity in the town centres.

The study included the following components:

- A comprehensive analysis of existing built form and condition assessment of the public domain
- Identification of redevelopment opportunities and constraints within the town centres
- Preparation and testing of options to identify the appropriateness of potential built form scenarios in terms of urban design and amenity; and

- Development of detailed built form controls having regard to:
 - An appropriate bulk, scale and massing
 - Relationship and response to surrounding development and public domain including solar access considerations
 - Environmental constraints including overshadowing and aircraft noise limitations (see Appendix 1 for further detail)
 - Capacity to accommodate additional floor space to meet future demand.
 - Requirements of State
 Environmental Planning Policy –
 65 and Apartment Design Guide
 - Economic feasibility including development yield and viability.

This section of the Strategy focuses on the preferred development option for the Kensington and Kingsford town centres as identified in the K2K Urban Design Competition Report 2016.

The suggested changes to built form controls, if adopted, will result in amendments to the RLEP 2012 and DCP 2013.

Urban Design Principles for the Town Centres

As a basis for preparing new built form controls for the Kensington and Kingsford town centres, the following urban design principles have been established to help define the future character of the town centres and provide guidance for growth and development:

- Reinforce a boulevard character along Anzac Parade by strengthening the built form edge
- Focus on achieving a dominant typology of mid-rise mixed use buildings throughout the town centres
- Permit taller landmark buildings in prominent highly accessible locations in conjunction with the delivery of substantial public benefits established through a design excellence process
- Achieve a sensitive transition in relation to recently constructed development and surrounding established lower scaled residential neighbourhoods
- Create a positive street level environment through built form that allows solar access, permeability and maintains human scale
- Ensure that new infill development respects the fine grained character of contributory buildings
- Establish building setback controls which provide for the creation of wider footpaths and street tree planting
- Achieve urban design and architectural excellence, including best practice environmental design; and
- Encourage active frontages along Anzac Parade, continuing down side streets.

5.2 Built Form Controls

The following suggested built form controls have been developed following detailed consideration of future planning and growth parameters, individual sites' context, environmental constraints, the relationship with surrounding development and opportunities to enhance the public realm.

Building Heights

As noted earlier, Kensington and Kingsford town centres are expected to accommodate additional housing and employment floor space to meet future needs, requiring a change to the built form controls for development. Building height is a key determinant of building form.

The town centres have an established maximum height limit of 24m (Kensington) and 25m (Kingsford) delivering buildings of 6 to 7/8 storeys under the RLEP 2012.

Building height is measured from the natural ground level to the top of the roof under the RLEP 2012.

For both town centres there is scope to accommodate moderate increases in permissible building height to meet projected demands in housing/employment floor space.

Built form modelling of each town centre demonstrates that additional housing/ employment floor space can be achieved within a mid-scale urban environment with some taller buildings clustered at strategic nodes to facilitate activation and the delivery of improved public domain (such as wider footpaths and plazas).

Notably, a mid-rise built form for the town centres (and surrounding areas) is a key design concept of the K2K Urban Design Competition winning entry.

"Studies of great urban streets, from around the world, tend to exhibit a number of common characteristics:

- Mixed-use buildings, with tall, transparent, ground-floor commercial spaces
- A common setback or build-to line (with occasional interruptions)
- An average height of buildings that is approximately as high as the street is wide
- Generous tree-lined footpaths
- Good public transportation
- Buildings that frame the street, without overpowering the space or depriving it of access to natural light.

Mid-Rise Symposium (2005) – A Great City of Avenues

This Strategy recommends an overall mid-rise height limit of 31 metres (equating to nine storeys) for new development throughout both town centres.

From an urban design perspective, the spreading of density mainly through mid-rise buildings provides a more human scaled built form that supports a comfortable pedestrian environment while also enhancing opportunities for solar access.

The suggested 31m (nine storey) height limit is considered to respond well to the proportions of Anzac Parade and other streets within the study area. It also provides an appropriate scale transition to recently constructed buildings (approved under existing planning controls), while respecting the character of surrounding lower scaled residential neighbourhoods.

Taller Building Forms

While the future built form character will be primarily mid-rise, development will not remain homogenous throughout the town centres.

Within both town centres there are a number of prominent sites located at strategic nodes (Precincts) that could accommodate taller, slender buildings. A higher rise building typology in these locations would help create a distinctive urban form within the town centres, while facilitating activation around the light rail infrastructure.

It is important to note that additional uplift afforded to these strategic sites will only be achieved in conjunction with the delivery of public benefits identified in this Strategy, such as larger setbacks to facilitate footpath widening, public plazas, through-site links and/or social infrastructure, together with demonstrated design excellence.

These 'trade-offs' are to be built into planning controls where predetermined public benefits are identified, as discussed throughout this Strategy.

Case Study: Toronto Canada

The City of Toronto has identified mid-rise buildings (5-11 storeys) as a means to addressing the future growth of the city.

The mid-rise building typology has been promoted as the desirable form for intensification along the identified routes in the city.

Toronto's Urbanising Avenues Policy identifies almost 300km of street frontages that are currently underutilised and which could accommodate mid-height buildings.

The policy notes that if half of the sites along the identified street frontages are developed into mid-rise mixed use developments, around 250,000 new residents could be accommodated while maintaining a high level of liveability in these areas.

Avenues and Mid Rise Building Study 2010



Figure 42: Mid-rise Parisian boulevard, France Source: www.architectureanddesign.com.au



Figure 43: Mid-rise streetscape, Toronto, Canada Source: www.streetcar.ca



Figure 44: Example of a nine storey building, 8 Parramatta Road, Strathfield Source: Google Streetview 2016



Figure 45: 'Cloud 9', Barcelona 'World Building of the Year 2011', World Architecture Festival Awards Source: www.bustler.net



Figure 46: Example of a nine storey apartment building, Box Hill, Melbourne Source: www. centralgardensboxhill.com.au

Todman Square Precinct

A height limit of 54m (equivalent to 16 storeys, or a maximum 18 storeys with demonstrated design excellence) is proposed for the four corner sites adjacent to the Todman Avenue light rail stop in Kensington town centre.

Taller building forms would help define the prominent corners at this strategic location, facilitating a hub of intensive activity around the light rail stop, and creating a much needed heart for Kensington town centre. The provision of a new plaza and a gallery/creative space have been identified as priorities for this location. See Part D-Precinct Plan for further detail.

Kingsford Mid-Town Precinct

A height limit of 54m (equivalent to 16 storeys, or a maximum of 18 storeys with demonstrated design excellence) is proposed for three corner sites adjacent to the Strachan Street light rail stop. Additional uplift is not proposed for O'Deas Corner (424-436 Anzac Parade) as the site is heritage listed under the RLEP 2012.

The allowance of higher building forms will express the prominence of these corner sites in the old heart of Kingsford town centre.

See Part D Section 1 - Precinct Plan for further detail.

Kingsford Junction Precinct

Key opportunity sites adjacent to the new light rail terminus in Kingsford town centre include the Rainbow Street site (earmarked as a potential local government civic centre) and the Kingsford Triangle. These sites have the capacity to accommodate taller landmark buildings to define the gateway to the town centre, together with generous public spaces to create a sense of place.

A height limit of 51m (equivalent to 15 storeys, or a maximum of 17 storeys with demonstrated design excellence) is considered appropriate for these sites, stepping down to a transitional height where they adjoin residential areas (see discussion below). The clustering of landmark buildings in this location will create a defining character precinct and intensive hub of activity around this important transit node.

See Part D Section 1 - Precinct Plan for further detail.



Figure 47: Nine storey apartment building, Melbourne Figure 49: Example of a taller building form, Bondi Source:www.one9apartments.com.au



Figure 48: Nine storey apartment building, Berlin Source: www.sustainablecitiescollective.com



Junction Source: www.vuebondi.com.au

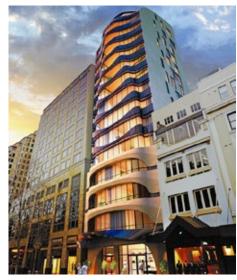


Figure 50: 'Eliza' 17 storey building, Elizabeth Street, Sydney Source: www.theurbandeveloper.com

Built Form Transition

Both Kensington and Kingsford town centres adjoin lower scaled residential neighbourhoods, requiring a built form transition to minimise amenity impacts on adjacent residential properties (e.g. adverse overshadowing or excessive building bulk). A transition will also achieve a defined edge to these town centres.

Two built form transition approaches have been identified, taking into account the different urban structure of each town centre, particularly allotment size/configuration and layout.

For Kingsford town centre, where allotments are generally deeper, there is scope to apply a lower building height limit of 19m (five storeys) to the rear of sites adjoining residential areas (NB: a higher height limit would still apply to the front of the site). This could encourage a 'mews' style development typology, taking advantage of the laneway network running parallel to Anzac Parade which could facilitate shared access in the future. This secondary height limit proposed would be applied as a DCP control, whereas building heights discussed in sections 5.4.1 and 5.4.2 above will apply as an LEP control.

For Kensington town centre, where allotments are generally shallow, a transition could be achieved through the establishment of laneway/shared zones as part of the redevelopment of relevant sites. This would serve the dual purpose of establishing separation between the taller built form of town centre development and the lower scale of adjoining residential areas, while providing opportunities for rear lane access. In those circumstances where allotments are deeper, there is opportunity to encourage mews style developments in conjunction with a laneway/shared zone.

The proposed DCP building height transition strategy for Kensington and Kingsford town centres is illustrated on the following maps (Figures 58 and 59).

"Mews are narrow, intimate streets that balance the access and service functions of a lane with active building frontages, accessory uses, and a street space shared by cars and pedestrians".

East Village Redevelopment Plan for Calgary, Alberta, Canada (2010)



Figure 51: 18 storey concept for hotel, Glasgow Source: www.eveningtimes.co.uk



Figure 52: Axis Tower Manchester Source: www.e-architect.co.uk



Figure 53: BIDV Da Nang Tower 18 storey (plus 2 level basement) building in Da Nang, Vietnam Source: www.ardorarch.com



Figure 54: Example of 'mews' development Kensington Street, Chippendale Source: www.domain.com.au



Figure 55: Example of 'mews' development Kiaora lane Source: www.domain.com.au



Figure 56: Proposed RLEP 2012 building height limits for Kensington town centre Source: Conybeare Morrison 2016

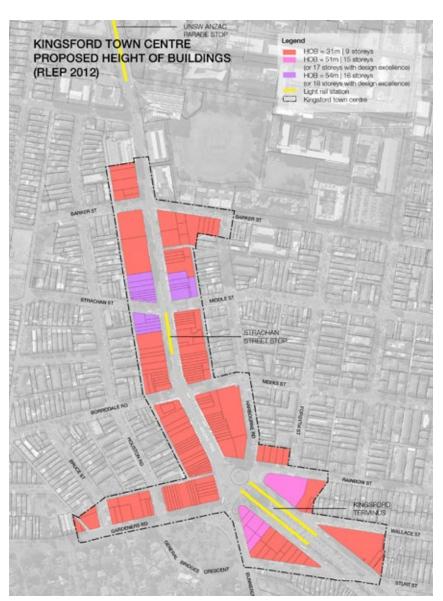


Figure 57: Proposed RLEP 2012 building height limits for Kingsford town centre Source: Conybeare Morrison 2016

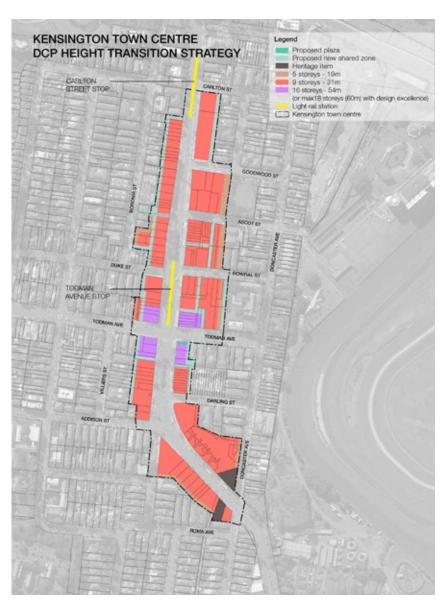


Figure 58: Proposed DCP 2013 built form transition for Kensington town centre Source: Conybeare Morrison 2016

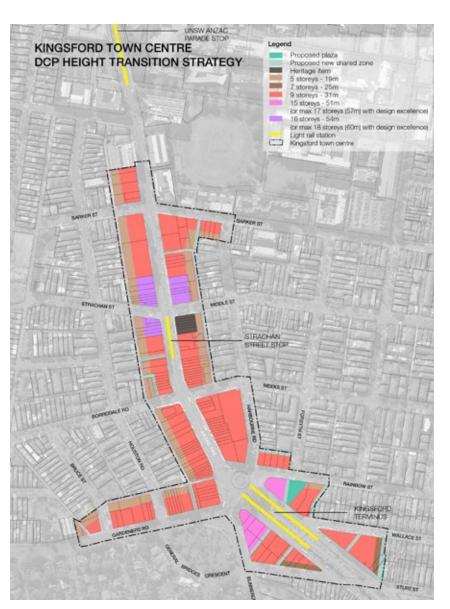


Figure 59: Proposed DCP 2013 built form transition for Kingsford town centre Source: Conybeare Morrison 2016

Part C - Vision and Strategies

5.3 Street Walls

The 'street wall' refers to the front façade of the building that is built at or close to the street boundary. It is an important urban design element, providing an interface to the street, helping to create a sense of enclosure and defining the public realm.

This draft Strategy proposes a four storey continuous street wall to achieve a cohesive streetscape, reinforce a pedestrian scale and reduce the visual impact of building bulk within both town centres.

A four storey street wall will be achieved by stepping back four metres at the fourth storey of a building and would be applied as a DCP control.



Figure 60: Example of four storey street wall development Source: Avenues & Mid-Rise Buildings Study. Credit: BMI (Brook McIlroy Planning & Urban Design)



Figure 61: Four storey street wall, Double Bay Sydney Source: Google Streetview 2016



Figure 62: Section showing nine storey building typology with four storey street wall and mews development at the rear. Source: Conybeare Morrison 2016

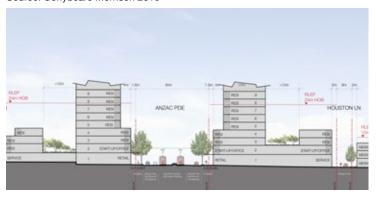


Figure 63: Section of Kingsford Junction showing 17 storey building typology with four storey street wall and mews development at the rear. Source: Conybeare Morrison 2016



Figure 64: Section of Todman Square showing 18 storey building typology with four storey street wall and mews development at the rear. Source: Conybeare Morrison 2016

5.4 Floor Space Ratio

Floor space ratio (FSR) is the ratio of the gross floor area (GFA) of a development in relation its site area.

It is commonly used in the calculation of development yield and rentable area and is useful in determining how much floor space is required to meet future needs in an area.

FSR controls work with other controls such as heights, building setbacks, articulation and landscaped area to determine the bulk and scale of a development.

Kingsford town centre currently has an applicable FSR of 3:1 included in the RLEP 2012. Kensington town centre does not have an applicable FSR, with the overall building envelope of development determined by maximum height controls in the RLEP 2012 in conjunction with DCP 2013 controls (e.g. no of storeys, setbacks etc.).

The K2K Urban Design Review investigated an appropriate FSR that would work in conjunction with the proposed revised building heights and still achieve a good urban design outcome for the town centres. The RLEP 2012 defines gross floor area as being: "the sum of the floor area of each floor of a building measured from the internal face of external walls and includes:

- · the area of a mezzanine
- habitable rooms in a basement or an attic
- any shop, auditorium, cinema, and the like, in a basement or attic. but excludes:
 - any area for common vertical circulation, such as lifts and stairs
 - any basement, storage area or voids
 - vehicular access, loading areas, garbage and services
 - car parking to meet any requirements of the consent authority (including access)
 - terraces and balconies with outer walls less than 1.4 metres high.

Based on the outcomes of built form modelling, the following FSRs are proposed (See Table 9 and Figures 65 and 66). It should be noted that these FSRs are maximums and the application of other controls (such as building setbacks and design criteria in the SEPP 65 – Apartment Design Guide) will further refine the building envelope.

A non-residential FSR component is proposed for key sites in the town centres (see Part C Section 4 – Business and Economy for further detail).

Table 9: Proposed Floor Space Ratio

Site	Proposed FSR
Sites accommodating 9 storey buildings	4:1
Precinct sites	5:1



Figure 65: Proposed Florr Space Ratios – Kensington town centre Source: Conybeare Morrison 2016



Figure 66: Proposed Florr Space Ratios – Kingsford town centre Source: Conybeare Morrison 2016

Part C – Vision and Strategies

5.5 Setbacks

Setbacks define the outer extremities of a building in relation to the street and adjoining properties. It is a critical control in defining the building envelope, impacting on bulk and scale of development, as well as overshadowing and amenity of the public domain.

Typically buildings in town centres have little or no setback from the street alignment to establish a well-defined street edge and continuous built form. Accordingly the DCP 2013 setback controls for Kensington and Kingsford town centres generally require a zero ground floor level setback, stepping back after the fourth level (for buildings in Kensington town centre) to create a four storey street wall.

The introduction of light rail along Anzac Parade has required a review of the carrying capacity of the footpaths in the Kensington and Kingsford town centres to ensure adequate footpath space is available to accommodate light rail infrastructure (e.g. smart poles), as well as pedestrian circulation, awnings, street trees and urban furniture. In addition, the removal of kerbside parking has also increased the need for more generous footpaths.

It is considered that the introduction of setbacks to development will considerably improve pedestrian safety and amenity of the public domain by distancing pedestrians from traffic, encouraging the growth of street trees, providing opportunities for outdoor dining (where appropriate), while reducing the perceived bulk and scale of buildings.

This Strategy recommends that a setback of 1.5m be introduced for new nine storey development.

In Precincts where there is likely to be more intensive activity, such as around the Todman Avenue and Strahan Street light rail stops and the Kingsford terminus, a setback of 2.5m for adjoining sites will help improve the carrying capacity of footpaths and provide opportunities for new plazas and public spaces.

For heritage listed properties and contributory buildings, a nil setback should be retained recognising the ground floor of these sites are unlikely to be redeveloped given their historic significance. An additional setback of 6.5m would still apply where additional levels are proposed to contributory buildings to reduce the visual bulk and scale of development.

Setbacks of 2m are proposed on the eastern and western edges of the Kingsford town centre to align with existing DCP controls and provide adequate landscaping area to support mews type developments.

The new setbacks proposed will provide for footpath widths of 4.5m to 6m across both town centres.

The proposed setbacks for the town centres will be applied as a DCP control and are illustrated in the following diagrams and maps (Figures 67-71).

Note: A development feasibility analysis undertaken has found that any loss in GFA resulting from proposed setbacks is offset by additional development capacity gained from increased building heights. See Part E – Funding Infrastructure for further details.

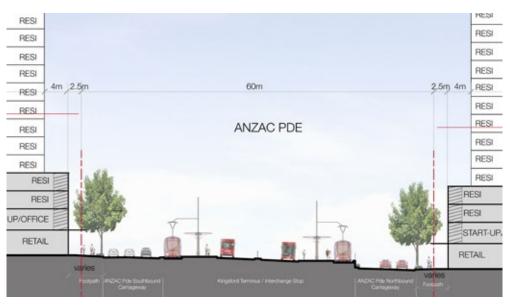


Figure 67: Section showing proposed 1.5m setback adjacent to nine storey building Source: Conybeare Morrison 2016

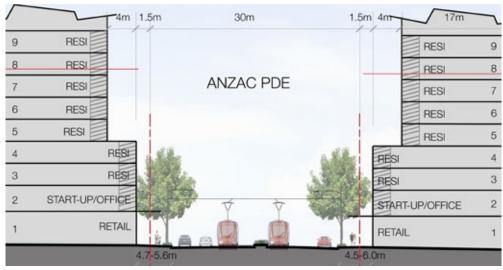


Figure 68: Section showing proposed nil setback for heritage/contributory buildings. Source: Conybeare Morrison 2016

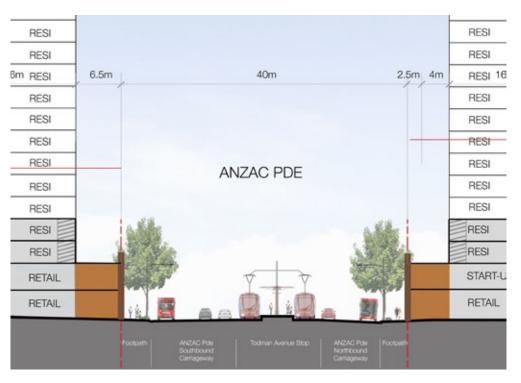


Figure 69: Section showing proposed 2.5m setback at Kingsford Junction Source: Conybeare Morrison 2016



Figure 70: Proposed setbacks – Kensington town centre Source: Conybeare Morrison 2016



Figure 71: Proposed setbacks – Kingsford town centre Source: Conybeare Morrison 2016

5.6 Solar Access

Solar access is an important consideration in determining an appropriate level of density in town centres. New buildings should be sited, orientated and configured to receive adequate solar access and natural light, while also ensuring that overshadowing impacts onto neighbouring properties and the public realm is minimised.

A shadow analysis of neighbouring properties, streets and public places was undertaken as part of the K2K Built Form Study to help shape the desired outcome of future potential building envelopes in both centres.

The modelling demonstrates that due to the north-south orientation of the town centres, development will achieve a minimum of two hours of solar access to 70% of dwellings during mid-winter, consistent with the NSW Apartment Design Guide design criteria for development in dense urban areas. All future development will need to demonstrate that adequate solar access can be achieved as part of the development process.

In relation to public spaces, a key outcome of this draft Strategy (as discussed in Part C Section 8 - Public Realm and Landscape) is the creation of new plazas and an overall net increase in public domain. These public spaces are likely to be more intensively used as the population grows, and are key to the liveability of the town centres.

To ensure that new development does not result in adverse overshadowing of the public realm, new DCP controls are recommended to require that new buildings do not contribute to a significant net loss in solar access to these spaces.

At the mid-winter solstice, significant public places are to be protected by a two tier standard, reflecting the relevant significance of the space and based on a practical assessment of what is a reasonable level of sunshine that should be protected in locations that are sometimes in a built up urban context:

- Major Public Places Development cannot contribute to any more than a 10% net loss of solar access to these spaces at Winter Solstice, between 12 noon and 2:00pm e.g. Dacey Gardens, School Playground areas.
- Key Public Places New development should retain solar access to a minimum of 50% of any given public place for a minimum of three hours at Winter Solstice (22 June).

Further detail on the location of key public places to which this proposed DCP sun plane clause would apply are identified in Part C Section 8 – Public Realm and Landscape (Figures 132 and 133).

5.7 Mid-Block Links

Large sites or the consolidation of smaller sites may have the effect of reducing the permeability within the block structure. The latter issue is particularly pertinent to the Kensington town centre which already has reduced levels of permeability resulting from the lack of laneways and mid-block links.

Mid-block links provide key access routes for pedestrians and should be established in larger key sites and in those parts of the town centres where site consolidation is likely.

This could be addressed via new DCP controls requiring that mid-block links be established on identified sites (e.g. key sites located within the Precincts). Mid-block links should preferably be dedicated as public land so that they can be managed for the benefit of the community.

Indicative locations for mid-block links are shown in the following map (Figures 72 and 73).

Pedestrian accessibility, including the provision of mid-block links is also addressed in Part C Section 8.5 – Pedestrian Network.



Figure 72: Example of mid-block link Source: Essentials of Urban Design (2015) Mark Sheppard



Figure 73: Covered mid-block retail lane Source: Essentials of Urban Design (2015) Mark Sheppard

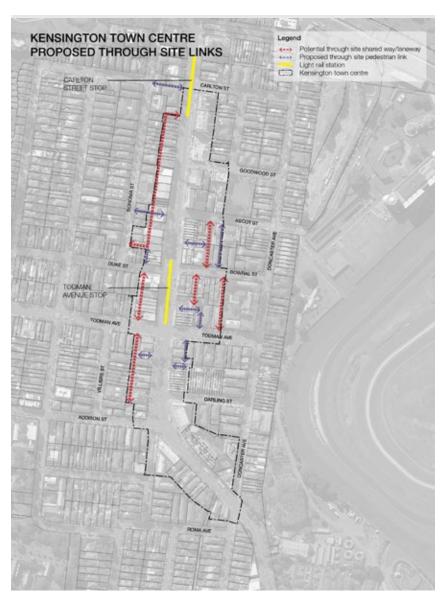


Figure 74: Proposed mid-block links – Kensington town centre Source: Conybeare Morrison 2016

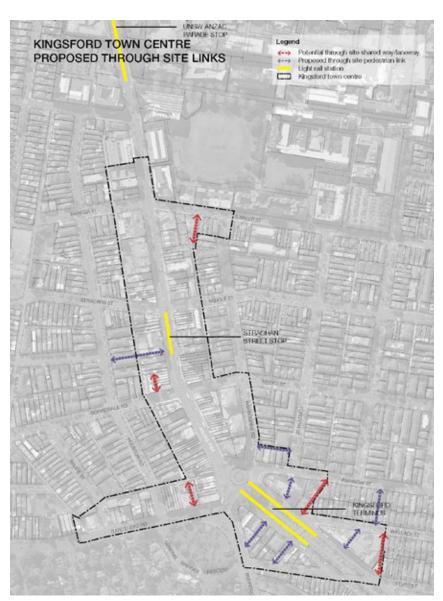


Figure 75: Proposed mid-block links – Kingsford town centre Source: Conybeare Morrison 2016

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5.8 Design Excellence

All new development will be expected to deliver a high standard of architectural design to contribute to an enriched experience of the Kensington and Kingsford town centres. Accordingly, 'design excellence' has been established as a driving urban design principle for future development in these centres.

The consideration of 'design excellence' is currently a requirement under RLEP 2012 (clause 6.11) for proposals involving buildings over 15m in height, or for sites that are over 10,000m² in size or for land where a site specific development control plan is required (e.g. Kingsford Triangle site). Development consent cannot be granted under the RLEP design excellence provisions, unless the consent authority is satisfied that the proposal exhibits design excellence.

Key matters for consideration include a high standard of architectural design, response to site context and surrounding development, sustainable design principles in terms of sunlight, natural ventilation, wind, reflectivity, visual and acoustic privacy, safety and security and resource, energy and water efficiency, and any potential impacts on view corridors and landmarks.

While the RLEP 2012 design excellence provisions will apply to most sites within the town centres, it is considered that the key sites located within the identified Precincts should achieve a performance benchmark in design innovation and sustainability beyond what is presently required. These sites will accommodate taller building forms that have a greater degree of visibility being located at key transit nodes as well as additional floor space. Future development on these key sites should therefore be required to demonstrate a high level of design excellence.

It is proposed that future proposals on these sites be informed by an 'architectural design alternatives competition" undertaken by the proponent prior to the lodgement of a formal development application. A similar approach has been adopted by the City of Sydney which has resulted in a number of successful design outcomes.

As part of this process, architectural firms with demonstrated experience in the design of high quality buildings would be invited by the proponent to submit design solutions that:

- Demonstrate a high level of design excellence in accordance with criteria established in the RLEP 2012
- Achieve a minimum green star certification rating of 5
- Deliver public benefits consistent with site specific DCP requirements (e.g. public plazas, through-site links, social infrastructure and/or innovation centre floor space requirements)
- Provide high quality materials and finishes; and
- Ensure development feasibility.

The proponent will determine the final outcome of the selection process by selecting the proposal that best meet the considerations above as well as a Council endorsed Design Excellence Strategy. At least one independent expert will appointed by Council to act as an observer to ensure that the procedural requirements have been adhered to appropriately.

Part C – Vision and Strategies

For proposals that successfully demonstrate design excellence, the following design based trade-offs may result:

An additional building height to a maximum of two storeys (to achieve maximum height in controls); and

Exclusion of identified social infrastructure/ innovation centre floor space requirements from the total gross floor area calculation.

The benefits of a design excellence competition approach is that it will help optimise design outcomes for identified key sites, stimulating creativity, driving innovation and improving design quality.

Importantly such an approach will ensure that any uplift afforded under the planning controls will only be granted where design excellence is clearly demonstrated, in conjunction with the delivery of substantial public benefits to the community.

Strategies

1) Ensure the form and scale of development is appropriate to its location and contributes to a positive urban design outcome in the town centres

Actions

- a) Amend RLEP 2012 to establish building heights appropriate to each part of the town centres as shown in the building heights map (Figures 56 and 57):
 - Establish a mid-scale 31m (9 storey) maximum height limit
 - Allow higher scale in Key Precincts as follows:
 - Todman Square 54m (16 storeys, or 18 storeys with demonstrated design excellence)
 - Kingsford Mid-Town 54m (16 storeys, or 18 storeys with demonstrated design excellence)
 - Kingsford Junction (Rainbow Street and Kingsford Triangle sites) 51m (15 storeys, or 17 storeys with demonstrated design excellen22NB: increased height will be in conjunction with the provision of increased setbacks, through site links and/or plazas identified in this Strategy.
- b) Amend the DCP 2013 to introduce a secondary height limit to facilitate mews style developments for the sites indicated on the DCP Height Transition Map (Figures 58 and 59)
- c) Amend the DCP 2013 introduce a shared zone/laneway in locations identified on the DCP DCP Height Transition Map (Figures 58 and 59)
- d) Amend the RLEP 2012 to establish maximum FSRs appropriate to each part of the town centres as shown on the FSR map (Figures 65 and 66):
- Sites accommodating 9 storeys: FSR 4:1
- Precinct sites: FSR 5:1
- e) Amend the DCP 2013 to establish building setbacks in each part of the town centres as shown on the Building Setback Map (Figures 70 and 71):
- Require a 1.5m setback of the street wall for 9 storey buildings
- Require a 2m setback of the street wall at the rear of identified sites in Kingsford town centre.
- Require a 2.5m setback of the street wall for identified sites at Todman Square, Kingsford Midtown and

Heritage and Contributory Buildings

- Require a zero setback of the street wall for heritage items and contributory buildings and a
 6.5m upper level setback where additional levels are proposed to these buildings
- f) Amend the DCP 2013 requiring that development establish a 4 storey street wall by stepping back at the fourth storey to a minimum depth of 4m to achieve a visual separation between the lower and upper levels of a building

Strategies

2) Ensure that reasonable solar access is maintained to neighbouring properties and streets and public space

Actions

a) See Part C Section 8 - Public Realm and Landscape, Action 7(e)

Strategies

3) Achieve a high level of accessibility and permeability within the town centres

Actions

a) Amend the DCP 2013 to require that development on identified sites provide mid-block links to facilitate permeability in the block structure (Figures 74 and 75)

Strategies

4) Encourage a high standard of architectural design to make a positive contribution to the aesthetic quality, functionality and amenity of the urban environment

Actions

- a) Continue to require that all new development involving the construction of a new building or external alterations to an existing building meet the requirements of RLEP 2012 (clause 6.11) relating to design excellence
- b) Amend RLEP 2012 to require that all new development involving the construction of a new building in the following Precincts be subject to an architectural design alternatives competition process:
- Todman Square Precinct
- Kingsford Midtown Precinct
- Kingsford Junction Precinct

Strategies

5) Recognise building roofs as a strong visual landmark element in built form design and the town centres' skyline

Actions

a) Amend RLEP 2012 to include the Standard LEP Instrument model provision on 'architectural roof features'*

*this model LEP clause allows flexibility in building height to accommodate architectural roof features. The architectural roof feature must not comprise an advertising structure or include floor space or be capable of modification to include floor space.



Figure 76: Aerial view looking north-east over Kensington town centre. Source: Conybeare Morrison 2016



Figure 77: Artist's impression looking south from Anzac Parade towards Todman Avenue, Kensington town centre. Source: Conybeare Morrison 2016



Figure 78: Artist's impression looking south from Anzac Parade near Ascot Street, Kensington town centre. Source: Conybeare Morrison 2016



Figure 79: Aerial view looking north-east over Kingsford town centre. Source: Conybeare Morrison 2016



Figure 80: Artist's impression looking north along Anzac Parade, near Meeks Street Plaza in Kingsford town centre Source: Conybeare Morrison 2016



Figure 81: Artist's impression Looking south on Anzac Parade, towards nine-ways (Kingsford Junction), Kingsford town centre Source: Conybeare Morrison 2016

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5.9 Floorspace Capacity

The K2K Urban Design Report investigated floor space yields that could be delivered as a result of proposed changes to built form controls and in response to the need to deliver floor space capacity to support future employment and population growth. The strategic justification on planning for growth is discussed in Part C Section 3 – Housing Growth and Diversity.

The indicative development yield and break down of dwelling typologies for both centres is provided in the following table. It shows that under the revised built form controls a net residential dwelling yield of between 1,150 to 1,480²⁸ additional new dwellings could be achieved. But most importantly, the revised built form controls unlocks the existing development capacity to support the delivery of approximately between 4,100 to 5,280 new dwellings and 54,486m² of commercial floor space across both town centres.

Independent land economic advice sought as part of this Strategy, suggested that to encourage redevelopment along the Corridor, there is a need to increase FSRs and building heights within the study area.

The floor space yields demonstrates that both Kensington and Kingsford town centres are capable of accommodating sufficient dwelling and employment floor space required to meet projected needs, while also providing for a liveable and vibrant environment.

Table 10: Floorspace Capacity for Kensington and Kingsford town centres

	Current @ 3.0:1	@4.0:1 & 5.0:1	Uplift
Total K+K	296,139m² 251,718m²	424,658m ² 374,723m ²	
Commercial Space @ 30%	29,614m²		
Commercial Space @ 30% site and 1:1 @ nodes		54,486m²	24,872m²
Residential GFA			103,675m²
Residential (average dwelling GFA 70m²)	3,808 dwellings	5,288 dwellings	1,481 dwellings
Residential (average dwelling GFA 80m²)	3,332 dwellings	4,627 dwellings	1,296 dwellings
Residential (average dwelling GFA 90m²)	2,961 dwellings	4,113 dwellings	1,152 dwellings

²⁸ Note these figures provides a range based on the lowest (70sqm) and highest (90sqm) GFA and have been rounded for ease of application

Part C - Vision and Strategies

6.0 Heritage Conservation

The Kensington and Kingsford town centres have evolved since the early 20th Century as traditional retail/commercial centres, with their linear urban form highly influenced by the extension of the original tram line along Anzac Parade. Early development comprised fine grain retail/commercial shopfronts generally focused on Anzac Parade with some housing attached at the rear and upper levels.

The town centres have seen considerable change to their historic fabric over time, such as demolition of older shopfronts and irreversible alterations to building facades. Nevertheless, the historical development of the town centres is still evidenced through a small number of buildings listed as Heritage Items in the RLEP 2012.

A number contributory buildings are also retained, which, through their largely intact architectural style, scale, form and detailing attest to the early history of the town centres. While these buildings do not demonstrate a level of heritage significance that would warrant heritage listing under the RLEP 2012, the DCP 2013 requires that they be retained to ensure a sense of historical continuity and to enhance streetscape character so the town centres remain recognisable over time.



Figure 82: Development on the eastern side of Anzac Parade 1946 Source: www.trove.nla.gov.au



Figure 83: Buildings to the western side of Anzac Parade erected during the Inter War years 1946 Source: www.trove.nla.gov.au

Heritage Items



Doncaster Hotel, Kensington 268-270 Anzac Parade, Kensington



Masonic Temple, Kensington 199-201 Anzac Parade Kensington



O'Deas Corner, Kingsford 424-436 Anzac Parade Kingsford

Examples of Contributory Buildings



126-146 Anzac Parade, Kensington



172-180 Anzac Parade, Kensington



522-532 Anzac Parade, Kingsford

Figure 84: Heritage Items in the Study Area Source: Google Streetview 2016

6.1 Infill Development and Contributory Buildings

The draft Issues Paper identifies that in Kensington town centre, new infill development has largely been sympathetic to the streetscape values of existing contributory buildings.

In the context of Kingsford town centre, however, there are frequent examples of later buildings that are unsympathetic to the historic fabric of surrounding contributory buildings. These include multi-storey buildings without a base element relating to the predominant two to three storey fine grain scale of the town centre, or where podiums are provided that are lower than the traditional facades and do not effectively define the Anzac Parade street walls.

In respect to Kensington and Kingsford town centres, the different outcomes pertaining to infill development (and its relationship to existing contributory buildings) can be attributed in part to the DCP controls which differ for each centre. Unlike heritage listing in the RLEP 2012 (which provides strong statutory protection against demolition), contributory façade listing is not based on defined heritage significance criteria and established conservation standards such as the Burra Charter. Consequently, the retention of contributory buildings and their historic fabric depends entirely on the strength of the DCP controls.

The existing DCP 2013 controls for Kensington town centre are more stringent than Kingsford town centre, requiring the conservation, retention and sensitive adaptation of contributory buildings (for example through mews style development) and the avoidance of 'façadism' (the retention of only the outer skin of a building). The DCP controls specifically require the involvement of a heritage/conservation specialist and the submission of a Heritage Impact Statement addressing impacts on heritage significance/fabric as part of the development process.

In contrast, the DCP controls for Kingsford town centre require that contributory facades be retained as much as practicable, or reinterpreted as guiding examples in the design of new development. There is therefore somewhat of an inconsistency between the controls for contributory buildings and infill development in the town centres.

6.2 Heritage Review of Kingsford Town Centre

Colin Brady Heritage Consultant was engaged in early 2016 to undertake a heritage review of the Kingsford town centre to evaluate the status and condition of the existing Heritage Item (O'Deas Corner at 424-436 Anzac Parade, Kingsford), contributory façades (and any other buildings not previously identified) and to make recommendations relating to DCP 2013 controls.

This is the first heritage review of Kingsford town centre undertaken since the original Randwick Heritage Study was carried out over 25 years ago. A peer review of the Kensington town centre heritage controls was undertaken in 2002, hence a further study was not warranted as part of this process.

Review findings confirm that Kingsford town centre is culturally significant as a setting of early 20th Century retail and commercial street front buildings, with many constructed as shop/residences in the years immediate to the First World War and retaining detailing, form and groupings representative of later Federation and Inter-War architecture.

A condition assessment of the heritage listed building group at O'Deas Corner (424-436 Anzac Parade, Kingsford) reaffirms its heritage significance as a well detailed example of Federation shop/residence development and for its associations with Frank O'Dea – bookmaker, real estate developer and promoter of cultural activities in the foundation years of South Kensington, later renamed Kingsford.

The Review identifies opportunities to strengthen DCP controls for infill development to minimise adverse impacts on the historic built fabric and curtilage of existing contributory buildings.

The review also identifies four buildings that may have contributory value based on their form and detailing: 279-187, 357, 394 and 528 Anzac Parade, Kingsford. These have been carefully considered in terms of future economic objectives, urban design and public domain outcomes for the Kingsford town centre (particularly in terms of increased setbacks needed to facilitate wider footpaths). Accordingly, 279-278 Anzac Parade, Kingsford is proposed to be included on the schedule of contributory buildings in the DCP 2013 (NB: 528 Anzac Parade is already listed in the Schedule).

The following strategies reflect review findings and aim to strengthen DCP 2013 controls to ensure that new infill development is sympathetic to existing contributory buildings and respects the historical development of the town centres.

Strategies	Actions		
Protect the heritage character and fabric of buildings that reflect the historical development of the town centres	 a) Continue to protect the heritage significance of heritage items and contributory buildings through the consistent and rigorous application of relevant RLEP 2012 heritage provisions and DCP 2013 guidelines for heritage conservation 		
	b) Update the heritage inventory sheet for O'Deas Corner (424-436 Anzac Parade) with key findings from the heritage condition assessment		
	c) Amend the DCP 2013 to add the following to the list of contributory buildings to be conserved and retained in Kingsford town centre:		
	279-287 Anzac Parade, Kingsford		
	d) Amend the DCP 2013 to introduce a 6.5m upper level setback for contributory buildings		
	e) Amend the DCP 2013 for Kingsford town centre to incorporate additional controls for contributory buildings (currently applicable to Kensington town centre) including the requirement for the submission of a Heritage Impact Statement		
Integrate heritage and contributory buildings into redevelopment	a) Require the retention and adaptive reuse of historic shopfronts		
	b) Strengthen DCP 2013 controls for contributory buildings in Kingsford town centre by requiring that new works:		
	 Avoid 'facadism' and retain the form and articulation of historic street frontages (such as the first structural bay/or first room to preserve inset verandas) 		
	 Involve the commensurate reinstatement/restoration of historic fabric to balance the impact of larger works set back from the original fabric 		
	Retain original fabric/features including original lighting and historic signage		
	Incorporate sympathetic colour schemes		
Ensure that new infill development respects the height, scale, siting, character and proportions of contributory buildings	a) Amend the DCP 2013 for Kingsford town centre to require that new infill development/works:		
	Have regard to the scale, character and proportions of heritage and contributory buildings		
	 Reflect segmented frontages of historic building groups through facades that are broken into smaller vertical sections and articulation 		
	 Provide consistent heights and alignment of street awnings with existing contributory forms Retain the profile and massing of exposed side elevations 		
	Provide podiums that reference the principle influence line of historic streetscapes and are cohesive with the established street frontage		

7.0 Sustainability and Transport

This section considers the environmental sustainability of the town centres, including at both a buildings and precinct level. It contains strategies and actions to reduce water consumption, energy use and greenhouse gas emissions, improve stormwater quality, reduce traffic congestion and improve walking and cycling access.

A vibrant and visitor-friendly town centre is also a sustainable town centre. A centre that is easy to walk or cycle around, that provides for a strong mix of retail, residential and commercial experiences, connects to its surrounding green spaces and public transport, and manages excessive car use and parking. All of this contributes to a high quality and long lasting urban fabric, a centre that can thrive and continue into the future. Both the research and practice confirms the sustainability of a town centre provides for the physical, mental and social well-being of its inhabitants.

Sustainability is highlighted as one of the Draft NSW Architecture and Urban Design Policy's seven key principles²⁹ at both a building and precinct level. It features as a key component of ensuring Kensington and Kingsford become resilient, best-practice environmentally sustainable town centres. Sustainability is no longer an optional extra, but a fundamental aspect of functional, liveable design.

This draft Strategy outlines a sustainability framework for Kensington and Kingsford to inform the design of individual buildings, and the integration of precinct-wide innovative systems. Council is committed to strive for best practice architectural and environmentally sensitive design, with a focus on energy efficiency, water conservation, waste and resource minimisation. These principles and their related actions are outlined in Council's 20 Year Randwick City Plan, including encouraging design excellence and sustainability across all development30. This draft Strategy also commits to the principles of travel demand management, reducing reliance on private vehicles and providing for enhanced public transport, pedestrian and cycle networks to facilitate user-friendly access to the town centres and surrounding destinations.

Objectives

To establish Kensington and Kingsford as a best-practice environmentally sustainable district that provides for the physical, mental and social wellbeing of its residents and visitors

To provide a safe, integrated and accessible network of pedestrian and cycling access

To enhance amenity by reducing pollution and congestion arising from private vehicle use and encourage active transport and public transport To adopt sustainable design techniques in the lighting, stormwater collection, and landscaping of the public realm

To improve the quality of stormwater prior to its release into iconic waterways such as Botany wetlands and Botany Bay; and

To provide innovative waste solutions capable of reducing litter and increasing reuse, recycling and recovery of waste.

7.1 Sustainability and Buildings

The international and national commitment to reducing carbon emissions

In December 2015, 195 countries, including Australia, agreed on the United Nations Paris Agreement on climate change. The key objectives of the Paris Agreement include:

- A goal to limit the increase in global temperatures to well below 2 degrees and pursue efforts to limit the rise to 1.5 degrees
- A commitment to achieve net-zero emissions, globally, by the second half of the century
- A five year review and ratchet process which is likely to lead to more ambitious commitments from countries in the future.

The Commonwealth Government has now signed and ratified the Paris Agreement.

The current interim targets are:

- Carbon emissions to be five% below 2000 levels by 2020
- Carbon emissions to be 26 to 28% below 2005 levels by 2030.

The 2030 target is equivalent to a 50% reduction in per capita emissions and a 65% reduction in the emissions intensity of the economy (NSW Climate Change Policy framework). The agreement's review and ratchet mechanism means that Australia's interim emissions reduction targets are likely to become more ambitious over time, with the first review due in 2017.

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²⁹ Draft Architecture and Design Policy 2016

³⁰ The Randwick City Plan: A 20 yYear Plan 2006

Climate Change and Buildings

The built environment is a major contributor to greenhouse gas emissions and energy consumption in Australia, accounting for approximately 22% of the nation's total greenhouse emissions³¹. Much of this is attributed to the resources and materials used in building construction, as well as pollution and waste resulting from development activity. The actual operation of a building can also contribute significantly to energy and water consumption.

New buildings have a crucial role to play in reducing cities carbon emissions and ensuring a sustainable future³². Business-as-usual design results in emissions-intensive buildings, whereas smart and efficient design can deliver net zero emissions buildings³³.

Current Development Standards – Residential Buildings

Since 2004, all new residential dwellings in NSW must be designed in line with the Building Sustainability Index (BASIX), a NSW Government environmental planning instrument. BASIX mandates sustainability standards in residential developments by assessing the consumption of mains-supplied water, energy and thermal performance³⁴.

Draft NSW Architecture and Urban Design Policy 2016

Design Principle 2 – Sustainable, efficient and durable:

Design excellence must incorporate environmental sustainability and responsiveness in its construction and usage, meeting the highest performance standards for living and working. Sustainability is no longer an optional extra, but a fundamental aspect of functional, liveable design.

BASIX currently requires detached and semi-detached houses to emit 40% less greenhouse gases than the NSW per capita benchmark, whereas high-rise apartment buildings are only required to emit 20% less greenhouse gases³⁵.

BASIX, which establishes energy and water requirements for new residential dwellings, is recognised as in need of updating to achieve best practice design outcomes. Furthermore, under the NSW Government legislation, Council's local plans cannot require energy or water efficiency, greenhouse gas emissions or thermal comfort different or beyond the BASIX standard.

Non-Residential Buildings

There are state government standards, such as BASIX, applying to non-residential development. The Randwick DCP 2013 requires that new commercial premises and hotel and motel accommodation with a floor area of 1,000m² or more must achieve a minimum 4 star National Australian Built Environment Rating System (NABERS) rating and undertake a Commitment Agreement. Development Applications must include an Ecological Sustainable Development Statement prepared by an accredited professional demonstrating that the required NABERS rating can be achieved.

In addition to the Randwick DCP, The National Construction Code (NCC) is a standard for all non-residential development in NSW which requires buildings meet minimum energy efficiency requirements under its Section J Energy Efficiency provisions³⁶. The requirements of Section J of the NCC is equivalent to approximately NABERS Energy 4-star and NABERS Water 3-star. Current requirements address the following:

- Building Fabric (thermal design) and glazing
- · Air-conditioning and Ventilation Systems
- Liahtina
- · Heated Water Supply
- Energy Monitoring
- Additional energy demands, such as plug-in appliance loads are not addressed.

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³¹ COAG (2009) National Strategy on Energy Efficiency

³² UN-Habitat (2011) Hot Cities: battle-ground for climate change Report

³³ Climate Change Authority (2012) Australia's emission outlook

³⁴ NSW Building Sustainability Index 2016 (www.basix.nsw.gov.au)

³⁵ City of Sydney Residential Apartments Sustainability Plan (2015)

³⁶ Kinesis (2016) Eastern Suburbs Low Carbon Future Plan - High Performance Building Study

Part C – Vision and Strategies

Environmental Performance of Existing Buildings

A review of NSW Department of Planning and Environment BASIX data for the Eastern Suburbs region highlights the following:

In 2013/14, approximately 25% of apartments and nearly 40% of single dwellings exceeded BASIX Energy compliance by 4 or more points³⁷.

This indicates that there are opportunities for improvements to apartment design as a new high rise apartment block built only to the required BASIX Energy target of 20 performs worse than the average existing housing stock.

Benchmarks for Sustainable Buildings

In the Randwick DCP 2013, a sustainable building is one that is "environmentally responsible and resource efficient throughout its life cycle, while reducing the overall impact on the environment and human health"38. Buildings that are sustainable use environmentally friendly construction materials and fittings, are energy and water smart, have healthy and comfortable indoor environments, and yield considerable cost savings to property owners and tenancies. The Green Star – Multi Unit Residential Business Case Report showed green buildings, built for high energy and water

efficiency, consume 26% less energy than the average building.

New major developments could include capacity to generate a minimum 15% of their total energy onsite using renewable energy sources. This would offset common area electricity use and subsequently result in a reduction of building strata fees.

The Green Star Rating System

The Green Star rating system, managed by the Green Building Council of Australia, is a voluntary environmental rating system that evaluates the environmental design and construction of buildings. Figure 85 outlines the rating system, where a 4-star rating signifies 'Best Practice' in environmentally sustainable design and/or construction, a 5-star rating indicates Australian excellence and 6-star demonstrates World Leadership³⁹.

The Green Building Council of Australia administers the rating system to evaluate the environmental impact of the design, construction and operation of buildings and building-related communities. There are a number of rating tools developed for particular building types, including office buildings, shopping centres and multi-unit residential buildings. The rating tool covers nine performance categories, as identified in Figure 86.



Figure 85: Green Star rating system Source: www.gbca.org.au

³⁷ Ibic

³⁸ Randwick City Council Development Control Plan 2013 Part B

³⁹ Green Building Council of Australia (www.gbca.org.au)

A study of the environmental benefits and cost-savings of building to Green Star estimated that the annual savings on energy and water bills for a 12-storey building are as follows:

- For a 4 star building, an annual saving of \$9.078
- For a 5 or 6 star building, an annual saving of \$14,691.

This is equivalent to a \$95-155 saving per person per year⁴⁰.



Management

Aims to encourage and reward the adoption of practices and processes that support best practice sustainability outcomes throughout a building's ongoing operation and aims to improve a project's sustainability performance by influencing areas where decision-making is ortical.



Indoor environment quality (IEQ)

Aims to improve occupants' experience of the space, by encouraging and rewarding initiatives and measured outcomes relating to attributes that enhance the comfort and well-being of occupants.



Energy

Aims to reward building owners for implementing strategies and taking actions to measure and reduce a building's operational energy use, below that of a comparable standard-practice building.



Transport

Aims to reward projects that facilitate a reduction of building occupants' dependency on single occupant motor vehicles as a means of reducing overall greenhouse gas emissions by influencing commuting habits based on location, and on transport-related services



Water

Aims to reward building owners for implementing strategies and initiatives that reduce the consumption of potable water in building operations associated with cooling, irrigation and occupant amenities, below that of a comparable standard-practice building.



Materials

Aims to address the consumption of materials that go into, or come out of, a building during the operational phase of its life cycle, through sustainable procurement and purchasing and the management of waste.



Land use and ecology

Aims to reward buildings that minimise harm to the local ecology of the site, by discouraging environmental degradation, and by encouraging the restoration of natural environments whenever possible.



Emissions

Aims to address the environmental impacts of 'point source' pollution generated by buildings to the atmosphere and local waterways.



Innovation

Aims to recognise the implementation of innovative practices, processes and strategies that promote sustainability in the built environment.

Figure 86: Green star performance categories Source: www.new.gbca.org.au

⁴⁰ ARUP (2016) Waverley Council Sustainable Building Incentives Business Case

Green Star for Apartments

Green Star 4 star Rating

10% improvement on BASIX energy requirements through:

- Upgraded façade to high performing single glazed or double glazed units
- Improved energy efficiency rating for air-conditioning units
- Environmentally considerate management practices, including commissioning, metering and monitoring requirements
- · Improved ventilation and increased acoustic performance between tenancies
- Facilities that promote sustainable transport options, including cyclist parking/ amenities and reduced car parking
- Efficient water fixtures and fittings, reuse of fire test water and systems that minimise potable demand for irrigation purposes
- · Considered material selection for products such as concrete, steel and timber.

Green Star 5 star Rating

20% improvement on BASIX energy requirements through:

- Installation of renewables such as solar thermal for domestic hot water heating and photovoltaics to offset electrical demand
- Installation of high energy star rated appliances such as fridges, clothes washers and dryers
- Implementing a Climate Adaptation Plan
- Maximising daylight within units and upgrading lighting systems to improve surface illumination in rooms
- Specifying products with high sustainability credentials, including Environmental Product Declarations, Third-party certified and with Stewardship programs in place
- Site layouts that include high areas of landscaping or green roofs.

Green Star 6 star

- Highest reduction targets for stormwater pollution
- Onsite innovations during construction including a High Performance Site Office and Contractor Education.

National Australian Built Environment Rating System (NABERS)

For commercial development, NABERS can be used to measure the environmental performance of the construction and ongoing operation. The Eastern Suburbs Low Carbon Futures Plan, prepared for Randwick City Council in partnership with Waverley and Woollahra Councils, outlines best practice performance for commercial buildings and shopping centres is approximately equivalent to NABERS 5-star Energy and NABERS 4-star Water (where recycled water is not available) or 5-star with a recycled water system⁴¹.

Based on analysis completed to date, best practice performance for commercial buildings and shopping centres, as outlined above, could be met at a marginal capital cost of approximately \$15 to \$35 per square metre. This would result in a 15-20% reduction in greenhouse gas emissions compared to the current controls. In addition, NABERS 4-star construction can lead to a 10-20% reduction in water consumption, and if there is a local recycled water system, water consumption can be reduced by up to 60%. A local water recycling scheme will be investigated, as detailed later in this strategy.

Implementation costs

The July 2016 Green Star Financial Transparency Paper prepared by the Green Building Council of Australia reported that building costs for the average multi-unit residential development were an extra \$150 per m² or an extra 4% of overall project cost⁴². This includes cost of materials and installation required to meet the green star credits and the associated costs for documenting the materials used and certification, which is on average 0.7% of overall project cost.

A separate study commissioned by Waverley Council found that for a 12-storey (ground floor retail and multi-floor residential) building it is estimated that there would be approximately a 4-6% cost premium on standard building practices to a Green Star rated building⁴³.

Green Star tends to become more affordable with a greater scale of development as the Green Star costs represent a smaller percentage of the overall building project contract value compared to low rise and single dwellings⁴⁴.

⁴¹Kinesis (2016) Eastern Suburbs Low Carbon Future Plan - High Performance Building Study ⁴²Green Building Council Australia (2016) Green Star Financial Transparency Research Paper

⁴³ARUP (2016) Waverley Council Sustainable Building Incentives Business Case

⁴⁴lbic

Ensuring Sustainable Buildings

While Council cannot require through its planning controls environmental performance above that required by BASIX, Council can encourage and/or offer incentives for the voluntary adoption of sustainability measures. All developments are encouraged to use the Green Star tools to improve the environmental attributes of their proposed building. This would result in an increase in 'green' buildings through better application of sustainable building techniques, materials and technologies which reduce the ongoing environmental impact of buildings.

On key sites within the Kensington and Kingsford town centres where they receive the highest planning uplift, 5-star green star performance will be established within the LEP as criteria for achieving design excellence. These key sites will become iconic buildings, not just for their design, but also for demonstrating best practice in sustainable construction and operation.

In addition to new buildings, Randwick City Council has partnered with Woollahra and Waverley Councils on various sustainability research and initiatives. For sustainability of existing apartments, the three-Council project is designing a program for apartments which will address electricity and water consumption issues. Initiatives may include funding for audits of common areas to identify opportunities for energy reduction through changes to lighting. Existing developments within the Kensington and Kingsford town centres will be encouraged to participate in any future program identifying opportunities for energy and water efficiencies.

Strategies	Actions
Encourage higher performance ratings for residential development through Green Star accreditation	a) Include 5-star green star performance in the RLEP 2012 as a criteria for achieving design excellence on key sites b) Amend the DCP 2013 to encourage all other sites
	within Kensington and Kingsford town centres to achieve green star accreditation
Ensure commercial development is built to best-practice sustainability standards	a) Amend the DCP 2013 to require that new commercial premises and hotel and motel accommodation with a floor area of 1,000m² or more must achieve a minimum NABERS 5-star Energy and NABERS 4-star or 5-star Water rating
Encourage existing buildings to improve their energy and water consumption performance	a) Continue participating with Woollahra and Waverley Councils in the 3-Council project to improve the environmental performance of existing residential flat buildings and shop top housing

7.2 Water Management

The Botany Sands Aquifer

The Botany Sands Aquifer is a large volume of underground water present in the sandy ground surrounding Botany Bay and covering an area of approximately 141km² including the majority of the Randwick LGA.

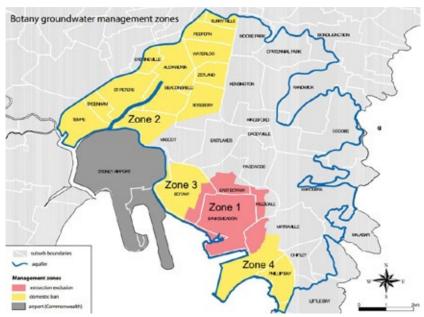


Figure 87: Extent and management zones for the Botany Sands Aquifer Source: www.water.nsw.gov.au

Bondi Junction

Centernial Park ponds

Botany Bay

Sand tayer 1

Sand & silty sand tayer 2

Sand tayer 3

Figure 88: Cr

Figure 88: Cross section of the Botany Sands Aquifer Source: www.centennialparklands.com.au

The aquifer is recharged by rainwater percolating through sand and sandstone strata which act as natural filters to remove solid litter, silt and harmful nutrients. The water-holding capacity of the sand aquifer is enormous and has been estimated to contain up to 300 litres of water per cubic metre of sand⁴⁵. The Australian National Water Commission estimates that the aquifer can sustainably supply 22,500ML/yr. of groundwater. Currently only approximately 6,000ML/yr. is allocated for use⁴⁶.

The level of the aquifer can vary with seasonal conditions, and in some areas is quite close to the surface. As a consequence developments in locations within the Botany Sands Aquifer area need to consider groundwater flows during the design and construction process.

Development and Groundwater Procedures

Groundwater is the water contained within rocks and sediments below the ground's surface in the saturated zone⁴⁷. In NSW, groundwater is managed under the Water Management Act 2000.

When proposed developments are likely to experience seepage water issues or extend into the ground water table, Council places stringent conditions in the development consent to ensure impacts are appropriately managed. All development applications received by Council that are likely to interfere with the aquifer either through dewatering activities or through the construction of a basement carpark are referred to Water NSW as Integrated Development, as required under Part 4 of the Environmental Planning and Assessment Act 1979.

The long term cumulative impacts of basements are assessed by the Water NSW when referred to them as Integrated Development. Side setbacks for basements and deep soil planting areas, as required under Council's DCP, in addition to roads and footpaths provide breaks between basements built on private land.

Water NSW manages over 3000 monitoring bores and uses computer-based groundwater modelling to better understand groundwater flow systems

and make decisions on development applications. Water NSW reviews each development application against the latest aquifer information and issues development-specific general terms of approval that must be applied to the development as conditions of consent. In addition to these requirements, Council also has standard development conditions that can be applied to the development consent to minimise impacts on the aquifer movement and directional flows.

Comprehensive and robust conditions are applied to development to ensure developments are not adversely impacted by groundwater flows and that groundwater flows are not adversely impacted by development. Specifically, conditions are applied to ensure:

- The quantity and method of groundwater extraction during the construction process is appropriate and executed with authorisation from Water NSW
- The basement is be designed and constructed to be waterproof
- Sufficient permanent drainage is provided beneath and around the outside of the watertight structure to ensure that natural groundwater flow is not impeded.

In addition, conditions are applied to ensure documentation and reports are provided from the applicant of a development with information including measurements of groundwater levels, a map of the site including the water table, details of the present and potential groundwater flow paths and hydraulic gradients in and around the site. Monitoring and data is required by Water NSW at several stages throughout the construction process both to monitor potential adverse impacts and to inform their understanding of the groundwater flows.

History of the Millstream

Centennial Parklands ponds in the north of Randwick form the upper catchment of the Botany Wetlands, an interconnected chain of ponds and dams which lie approximately six kilometres downstream, where they eventually empty into Botany Bay.

The Millstream was once Sydney's main water source after the Tank Stream and The Tunnel (Busby's Bore)⁴⁸. Between 1856 and 1886, a steam-powered Botany Water Pumping Station was used to pump water

⁴⁵ Australian Government National Water Commission Botany Sands Aquifer Case Study (www.wetrocks.com.au)

⁴⁷ NSW Department of Primary Industries Water (http://www.water.nsw.gov.au/water-management/groundwater)

from the Botany/Lachlan Swamps up to the Paddington Reservoir and Crown Street Reservoir, which is still in use today.

As the Millstream once ran through Kensington and Kingsford, following the contours of the land, parts of Kensington and Kingsford are now flood-affected to varying degrees.

As part of the Kensington Centennial Park Floodplain Risk Management Study and Plan, Council is investigating potential improvements throughout Kensington and Kingsford to alleviate flooding impacts. There are also additional opportunities through using water sensitive urban design throughout the town centres and surrounding areas.

Water Sensitive Urban Design

Randwick's water infrastructure has coped well with population and development growth since the time they were laid. Most drainage infrastructure has a capacity ranging between the 1 year and 10 year storm event but a significant number of pipes exceed capacity in events as small as the 1 year storm⁴⁹.

Water sensitive urban design offers an alternative to the traditional conveyance approach to stormwater management by

acting to capture water at the source, and thereby reducing the required size of the structural stormwater system. It seeks to minimise impervious surfaces and thus enable infiltration, reuse water on site, incorporate retention basins to reduce peak flows, and incorporate treatment systems to remove pollutants.

The social and environmental benefits of water sensitive urban design systems are widely recognised and include:

- · improved water quality of stormwater
- greener open spaces and enhanced urban landscapes
- · reduced localised flooding
- increased infiltration to refill the aguifer
- improved amenity in our local communities
- alternative water supply option⁵⁰.

There are opportunities to implement raingardens, swales, tree pits and other water sensitive urban design measures within the Kensington and Kingsford town centres to achieve a range of benefits, particularly improving water quality, localised flooding improvements and greening of the town centres.



Figure 89: Water sensitive urban design at Victoria Park Source: www.landcom.com.au

⁴⁸NSW Office of Environment and Heritage - Heritage Places and Items, Botany Water Reserves (www.environment.nsw.gov.au)

⁴⁹Randwick City Council (2016) Kensington Centennial Floodplain Risk Management Study and Plan ⁵⁰Water sensitive urban design life cycle costing, Melbourne Water 2013.

Case Study - Bio Swale at Prince Henry

The Prince Henry development at Little Bay is a residential development in the eastern suburbs of Sydney. The total site area is approximately 84 hectares of which 34 hectares is being redeveloped into a mix of residential and community use.

The WSUD objectives for the site developed during the master planning process in 2003 are:

- Promotion of stormwater reuse to reduce the demand on potable water supply
- Ensure that no existing stormwater reuse is disadvantaged because of the development
- Restoration of the riparian zones and creek lines of two waterways on site, identified as the Central and Southern Watercourses.
- Use less water for landscaping through careful design and selection of plants and irrigation methods suitable to the soil type and location.





Figure 90: Bio swales integrated into public open space at Prince Henry Source: www.landcom.com.au

Levels of Water Consumption

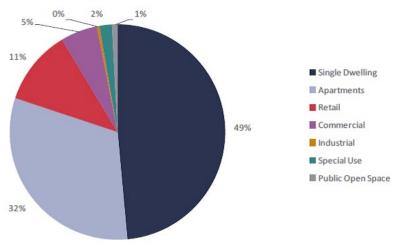
Randwick City Council, with Waverley and Woollahra Councils have initiated the Eastern Suburbs Regional Water Reduction Plan to complement Council's Low Carbon Future Plan and develop strategies that respond to water consumption issues in light of the specific climate, geomorphology and built form of the region.

In December 2015, Stage 1 of the Eastern Suburbs Regional Water Reduction Plan, prepared by Kinesis outlined water consumption and urban form for the region. The analysis identified residential use was the highest consumer of water in the region as irrigation of open space and industrial water use utilise a variety of groundwater and treated stormwater sources (see Figure 91).

Not all water consumption requires potable (drinkable) water as toilet flushing and irrigation can use a lower grade of water than that required for drinking. A breakdown of water consumption by water grade estimates that that 44% of residential water use can be provided by non-potable water standard⁵¹ (see Figure 91). This means there is an opportunity for a residential recycled water scheme and alternate forms of water re-use in the Kensington and Kingsford town centres.

⁵¹ Kinesis 2016, The Eastern Suburbs Regional Water Reduction Plan

WATER USE BY SUB-SECTOR



WATER CONSUMPTION BY REQUIRED WATER GRADE (ESTIMATED)

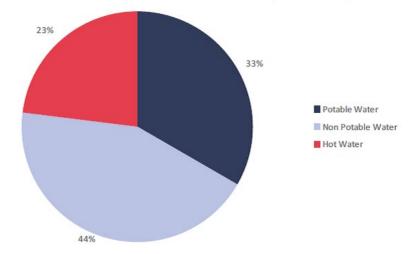


Figure 91: Water consumption in the Eastern Suburbs Source: Eastern Suburbs Regional Water Reduction Plan Stage 1 Report

Recycled Water Networks in Urban renewal Developments

Recycled water and water reuse, including greywater, blackwater, stormwater and rainwater reuse, provides an alternative to traditional infrastructure. A building connected to recycled water for both internal and external uses can reduce its potable water by up to 50% and reduces demands on sewer outfall into our oceans by treating and reusing sewage.

The Eastern Suburbs Regional Water Reduction Plan notes that recycled trunk water infrastructure is delivered as part of any major corridor renewal and proposes that the South East Light Rail provides the three Councils with the single biggest opportunity to facilitate recycled water in the region.

There are a range of opportunities to implement water recycling within the Kensington and Kingsford town centres. For example, water sensitive urban design interventions can be combined with a harvest stormwater for re-use in the public domain.

Case Study: Green Square recycled water network

Green Square Water harvests stormwater passing through the Green Square precinct. Green Square Water has a network of decentralised water pipes which capture the water and take it back to the local recycled water centre in the heart of Green Square. Once there, water undergoes five purification processes to remove impurities and clean the water.

This water recycling system is owned and run by Green Square Water, a private local sustainable water utility. The system harvests and purifies 900kL of stormwater every day at full capacity - the equivalent of 150 Olympic swimming pools of stormwater every year⁵².



Figure 92: Diagram demonstrating the water recycling system at Green Square Source: Green Square Water

⁵² Flow Systems (2016) www.flowsystems.com.au/communities/green-square-water

7.3 Waste Collection Benefits of An Automated Waste

Collection System

There are major opportunities to better improve the waste collection process and increase the rate of recycling, particularly in commercial and public spaces⁵³. The Environmental Panel Position Paper, which informed the Draft Central District Plan, identified a need for best practice infrastructure and programs at individual building and regional planning levels to cater for the reduction, re-using, recycling or proper safe disposal of waste.

The 2016 Southern Sydney Regional Organisation of Councils report, Our Places Recreation and Retail, A Litter Prevention Plan for the southern Sydney Region, identified town centres and sports and recreation areas as regional litter hotspots. The lack of appropriate infrastructure was identified as a significant contributor to litter hotspots in public areas.

Automated waste collection systems provide an opportunity for a more sustainable, efficient, convenient and hygienic method of collecting and removing waste in mixed land use areas such as the Kensington and Kingsford town centres. Such a system, as demonstrated in Figure 11, connects buildings and public street bins to a collection point via underground suction pipes, removing the need for trucks to collect waste from individual buildings. Automated waste collection systems are in use across Europe and Asia and in Australia a system is being implemented by Sunshine Coast Council for a section of Maroochydore's central business district, SunCentral, at a cost of \$21 million⁵⁴.

The benefits of such a system include:

- Improved aesthetics by removing the need for bins to line streets awaiting collection
- Reduced truck movements, resulting in reduced greenhouse gas emissions and improved air quality and traffic congestion
- Reduced collection operational costs
- Better hygiene no odour and no pests
- No waste storage rooms needed within developments – more efficient use of space.

An automated waste collection system offers many opportunities, and it is suggested that Council further investigate the feasibility and suitability of such a system for the Kensington and Kingsford town centres. Funding has been allocated within the Infrastructure Schedule for a concept design, feasibility study and implementation of such a system.



Figure 93: Diagram of an automated waste collection system Source: www.envacgroup.com

⁵³ Environmental Panel Advisory Paper for the Greater Sydney Commission 2016

⁵⁴ Sunshine Coast Council 2016 (www.sunshinecoast.qld.gov.au/Council/News-Centre/Maroochydore-City-Centre-leads-waste-revolution-210916



Figure 94: An automated waste collection point in a public open space Source: www.envacgroup.com



Figure 95: An underground waste storage system installed in Darlinghurst, Sydney Source: www.smartbin.com





Figure 96: Visual clutter of garbage bins on streets in Randwick LGA Source: Randwick City Council 2016

Part C - Vision and Strategies

7.4 Renewable energy sources Decentralised Energy Sources

Renewable and decentralised energy is a rapidly evolving technology sector which can offer a multitude of benefits for the Kensington and Kingsford town centres. The benefits include:

- Efficiency and cost savings: Local or decentralised renewable electricity generation avoids the high costs of transporting electricity from the country to the city. These transport costs currently make up more than half of the average electricity bill⁵⁵
- Reducing greenhouse gas emissions:
 Renewable energy can play a large role in reducing the need to burn coal and increasing our energy independence in addition to health benefits from reduced air pollutants within urban communities⁵⁶
- Resilient cities: Centralised systems can be disrupted by natural disasters and other extreme events, while because of their geographic dispersal, decentralised systems are less likely to be affected⁵⁷.

As detailed The City of Sydney
Decentralised Energy Master Plan estimated that costs for decentralised energy solutions such as integrated and precinct-scale renewable electricity technologies are cheaper than most renewable electricity technologies through utility companies. This is primarily due to the rising costs of transmission and distribution network charges which can be reduced or avoided where renewable electricity is generated within the city⁵⁸.

Art and Renewable Energy Opportunities

As detailed earlier in this chapter, buildings required to achieve five star Green Star will integrate renewable energy sources into the design of the building. Recent advances in renewable energy production within urban areas demonstrate opportunities to enhance public spaces whilst incorporating best practice green and environmental sustainability technologies.

For example, the "wind trees" installed in Paris and the wind turbines installed above a residential flat building in New York, as outlined in the case studies below, both demonstrate pilot programs which combine aesthetics and practicality to harness wind

power. The cycleway outlined in the case study below demonstrates an opportunity to sustainably light cycle ways or other public spaces within the Kensington and Kingsford town centres without the need for external lighting and the associated energy consumption. The small-scale scale aesthetically pleasing sustainability initiatives can be designed to fulfil artistic requirements as well as providing a renewable energy source within the Kensington and Kingsford town centres.

⁵⁵ City of Sydney (2013) Decentralised Energy Master Plan

⁵⁶ Ibid

⁵⁷ Ibid

⁵⁸ Ibid

Case Study: Wind Trees

In December 2015, two "wind trees" were installed in a plaza in Paris, where they operate silently to capture wind and generate up to 2,400 kilowatts of energy annually. Developed by a French company, New Wind, the "trees" have plastic green "leaves" that soundlessly harness the wind⁵⁹.

New Wind estimates this would meet half of the average French household's annual energy needs, run a small, low-consumption office for 12 months, or charge an electric car for 10,000 miles each year.





Figure 97: Wind turbines which have taken inspiration from nature Source: www.qz.com

Case Study: Urban Wind Turbines

In 2014, three wind turbines were installed above a new apartment building in Queens, New York by UGE. The turbines capture 3,500 kilowatts of energy annually, which offsets the common areas in the building, including the lobby, hallways, gym, and roof lounge.

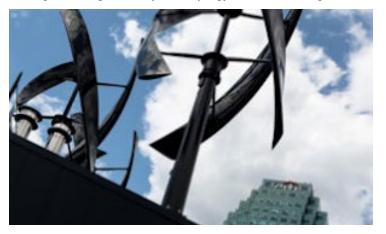




Figure 98: Urban Wind Turbines Source: www.ugei.com

⁵⁹ Quartz 2016 www.qz.com/763715/wind-trees-miniturbines-that-can-power-homes

Case Study: Luminescent bicycle lane

Created by designer Daan Roosegaarde and Heijmans Infrastructure, the Van Gogh-Roosegaarde bicycle path is made of thousands small stones inspired by 'Starry Night'. The path combines innovation with cultural heritage in the town of Nuenen Netherlands, the place where Van Gogh lived in 1883. The stones, called 'luminophores' charge at day-time, and glow at night for eight hours, sustainably lighting the bicycle path.



Figure 99: Luminescent bicycle lane Source: www.studioroosegaarde.net

Strategies Actions 1. Integrate more vegetation a) Investigate a recycled water system for maintenance of landscaping in public spaces into the town centres to slow down and filter pollutants where possible from stormwater, improve b) Where possible, in the landscape concept plan, localised flooding impacts choose low water species for landscaping and protect the waterways by implementing water sensitive urban design 2. Reduce mains water demand a) Investigate a recycled water system for by recycled or alternative maintenance of landscaping in public spaces non-potable water generated where possible from local water resources b) Where possible, in the landscape concept plan, within the public domain of choose low water species for landscaping Kensington and Kingsford town centres a) Implement energy-efficient LED lighting on Anzac 3. Incorporate renewable energy and energy-efficient Parade and throughout the town centres technologies in the public b) Investigate commissioning public art which realm to further cultivate the can also demonstrate environmental image of the town centres as sustainability innovation best practice environmentally sustainable precincts 4. Investigate and if feasible, a) Undertake a concept design and feasibility study implement an automated for an automated underground waste collection underground waste collection system within the town centres system to reduce the visual b) Amend the DCP 2013 to require developments clutter caused by garbage bins within the town centres to be capable of on streets and reduce litter connecting to an automated underground waste within the town centres collection system c) Allocate funding for the relevant studies and

implementation of an automated underground

waste collection system

7.5 Transport

The location, layout and density of development in cities should maximise accessibility and support sustainable transport modes including walking, cycling and access to public transport. There are many opportunities to reduce congestion and carbon emissions in Kensington and Kingsford by promoting active transport.

Reducing private car usage will be an important measure in containing congestion in Kensington and Kingsford as the population grows. Research has indicated that neighbourhoods with higher population densities, good land use mix, high connectivity and good provision of walking and cycling facilities are more likely to encourage walking and cycling for transportation⁶¹.

Residents within Kensington and Kingsford are higher users of public transport and adopt walking and cycling activities⁶². Given the proximity to a range of business, recreation and employment destinations, there are opportunities to leverage the accessibility and limit the undesirable economic, social and environmental costs of motor vehicle use.



Figure 100: Travel trends of Sydney residents and workers

Source: Transport for NSW

Trends in Car Usage

Recent data on travel behaviour indicates that Sydney residents are relying less on private motor vehicles to commute to work than in the past. In 2012/13, over four and a half million Sydney residents each spent an average of 81 minutes travelling every weekday⁶³ (Figure 100). Over the decade to 2012/13, population growth increased by 13% while weekday trips grew by only 7% and weekend trips grew by only 10%, showing total trips grew at a slower rate than population⁶⁴.

Over the same decade to 2012/13, total Vehicle Kilometres Travelled (VKT), which is the total distance travelled by all vehicles, grew by 10.2% while per capita VKT decreased 2.1% in the same period⁶⁵. The reduction in per-capita vehicle kilometres travelled can be linked to the growth in public transport usage, which increased 21% (350,000 trips) in the same time period⁶⁵. Such trends are positive for the long term sustainable growth of Sydney and have implications for transport planning.

⁶⁰Draft NSW Architecture and Urban Design Policy (2016)

⁶¹Healthy Places and Spaces, A National guide to designing places for healthy living (2009)

⁶²Transport for NSW (2014) 2012/13 Key Transport Indicators for Sydney

⁶³lbid

⁶⁴lbid

⁶⁵lbid

⁶⁶ lbid

Kensington and Kingsford Car Trends

As shown in Figures 101 and 102, Kensington and Kingsford have lower car ownership levels than both the Randwick LGA area and Greater Sydney. In Kingsford there is on average 0.97 cars per household, with 26% of households having no car in 2011⁶⁷. Kensington has on average 1.04 cars per household and 19% of households have no car⁶⁸. Based on 2011 census data, on average 38% of high density unit dwellers don't own a car in Kingsford, compared to 31% in Kensington and 25.7% overall for the Randwick I GA⁶⁹.

The low levels of car ownership in Kensington and particularly Kingsford, is likely linked to the high proportion of students and young people. Statistics show that in NSW, along with many other cities in Australia and around the world, people in their 20s and early 30s are less likely to have a drivers licence than people in their mid-30s to late-60s⁷⁰. In addition, younger age groups (below 40 years) are increasingly walking and using public transport, while the over 60 age groups are relying more on car use⁷¹.

Both Kensington and Kingsford have a decreasing proportion of residents driving to work, which is particularly noteworthy given the greater Sydney trend of an increasing proportion of people driving to work (Figure 103). The trend in Kensington and Kingsford is accompanied by an increasing percentage of residents using buses, walking or cycling to work which has increased for both these town centres between 2006 and 2011 by 2.9% and 4.8% respectively. This correlates with the low vehicle ownership rates in Kensington and Kingsford.

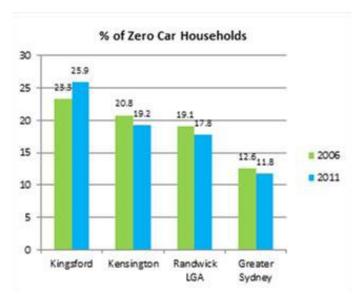


Figure 101: Percentage of households which don't own a car, 2006 and 2011 compared Data source: Australian Bureau of Statistics 2016, 2006 and 2011 Census

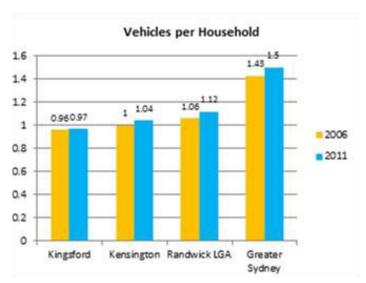


Figure 102: Number of vehicles per household, 2006 and 2011 compared Data source: Australian Bureau of Statistics 2016, 2006 and 2011 Census

⁶⁷Australian Bureau of Statistics, 2006 Census and 2011 Census ⁶⁸Transport for NSW (2014) 2012/13 Key Transport Indicators for Sydney

⁶⁹lbid .

⁷⁰Charting Transport (2015) Trends in driver's license ownership in Australia

⁷¹Transport for NSW (2014) 2012/13 Key Transport Indicators for Sydney

2006 and 2011 Travel to Work Mode 1.5 1.3 100% 6.3 4.2 8.4 8.1 6.1 9.5 9.8 90% 5.4 80% 22.2 70% 25.2 24.5 26.5 26.6 60% 50% Bicycle 40% Walked 30% 39.5 38.6 39.0 36.0 20% ■ Caught the bus 10% Drove 0% 2006 2011 2006 2011 2006 2011 2006 2011 Kingsford Kensington Randwick Sydney LGA

Figure 103: Mode of commute to work, comparison between Kingsford, Kensington, the Randwick LGA and the wider Sydney average

Data source: Australian Bureau of Statistics 2016, 2006 and 2011 Census

Transport Technologies and Innovations Electric Vehicles

While currently a small portion of the Australian car sales market, electric vehicles hold significant potential to reduce greenhouse gas emissions. The transport sector accounted for 17% of Australia's emissions in 2013-14, with Passenger and Light Commercial vehicles contributing 62% of the sector's total emissions72. When linked to a cleaner supply of electricity, electric vehicles can provide emission reductions and a broader range of economic and air quality benefits73.

Electric vehicle sales in Australia in 2014 totalled 94822 representing less than 0.09% of the Australian market74. To identify obstacles to electric vehicle ownership, Randwick, Woollahra and Waverley Councils conducted an online survey of 406 residents and commuters of Sydney's east in early 2016.

As evidenced in Figure 104, this survey revealed that a majority of survey participants would consider buying an electric vehicle.

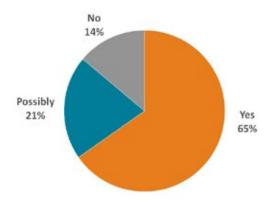


Figure 104: Survey response to Would you consider buving an electric vehicle? Source: Randwick City, Waverley and Woollahra Councils electric vehicle survey 2016

⁷²Climate Works Australia (2016) The Path Forward for Electric Vehicles in Australia 73 Ibid

⁷⁴Ibid

Electric Vehicle Charging Infrastructure

In response to the survey, the three Councils are now investigating appropriate sites within Council carparks and public spaces to install public charging stations. Given close proximity of the Kensington to Kingsford precinct to the light rail stations, locations within the town centres and on the UNSW campus will be investigated for public charging stations for Electric Vehicles.

In the Council survey, lack of charging station availability was raised as the highest barrier in the survey to electric vehicle uptake as shown in Figures 105 and 106. Electric Vehicle charging infrastructure includes basic electrical provisioning, commuter charging facilities in workplaces, and publicly-accessible charging facilities of varying charging speeds and capacities. Given the relatively higher cost of retrofitting electric vehicle charging infrastructure, it is more economical to incorporate electric vehicle charging through the design and construction stage, and this will be included in the DCP.



Figure 105: Public carpark electric vehicle charging station, Washington Source: www.greenlight-solar.com



Figure 106: Footpath electric vehicle charging station in Paris Source: www.france24.com

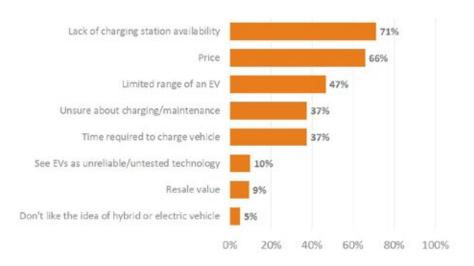


Figure 107: Barriers to EV uptake Source: Randwick City, Waverley and Woollahra Councils electric vehicle survey 2016

Would you consider purchasing a hybrid or electric vehicle if there were more public charging stations? (%)

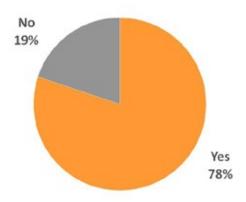


Figure 108: Survey question: Would charging infrastructure make a difference? Source: Randwick City, Waverley and Woollahra Councils electric vehicle survey 2016

Ride sourcing

Ride sourcing, where an app is used to connect a driver with a paying customer, such as Uber, is a rapidly growing service⁷⁵. It has been suggested that these ondemand services will act as a further disincentive to private car ownership for younger generations. Recent market research found that 22% of people who have used Uber in the last six months say Uber's availability meant they delayed their purchase of a new car⁷⁶.

Shared ride sourcing services is an emerging development within the United States, which gives an indication of a future opportunity for Sydney. UberPool and Lyftline have both been running in San Francisco since 2014⁷⁷ where users of each service can indicate they are willing to share their ride. This offers a more economical option which may also reduce greenhouse gas emissions by servicing multiple trips at one time.

While there are unanswered questions regarding the impact of ride-sourcing services on taxi and public transport use, the prevalence of these services is an important tool to limit reliance on private vehicles.

⁷⁵ Institute for Sensible Transport (2016) Emerging transport technologies: Assessing the impact and implications for the City of Melbourne
76 Ibid

⁷⁷lbid

7.6 CBD and South East Light Rail Light Rail Capacity

The CBD and South East Light Rail (CSELR) through the Kensington and Kingsford town centres will provide a reliable and fast public transport infrastructure aimed to change people's travel behaviour. As identified in Figure 109, there will be two stops in each town centre, including a terminus and bus interchange south of the nine ways intersection.

At opening, the Kensington/Kingsford branch will have a capacity of approximately 3,500 passengers per hour in the AM peak, based on a proposed service frequency of every eight minutes, and vehicle capacity of 466 passengers. The CSELR is designed to have a maximum frequency of every 6.5 minutes on the Kensington/Kingsford branch, which provides for a maximum capacity of 4,300 passengers per hour in each direction.

Future Light Rail Capacity

A study by EMM consulting analysed the CSELR system capacity, light rail stop capacity and predicted population growth to identify appropriate levels of future public transport commuter services for the Anzac Parade corridor.

Analysis for the year 2020, which is the proposed first full year of operation of the Light rail system in the corridor, assumes the future Light rail system is operating at its proposed initial frequency for the corridor which is one tram every eight minutes in each direction. This provides an interim peak hour directional capacity for the light rail system of 3,495 passengers per hour based on the stated design capacity of 466 persons per tram.

The longer term analysis for the year 2031, which takes into consideration population in the corridor, assumes the future light rail system is operating at its proposed maximum frequency for the Anzac Parade corridor which is one tram every six and a half minutes in each direction. This provides a future maximum peak hour directional capacity for the light rail system of 4,300 passengers per hour based on the stated design capacity of 466 persons per tram.

The combined future transport capacity for the Anzac parade corridor public transport system linking to the CBD will be the combination of the CSELR capacity and the proportion of the existing bus services (primarily express buses) which are to be retained.



Figure 109: CBD and South East Light Rail route

Source: Transport for NSW

Current level of Public Transport Service

Currently, in the one hour morning peak period, Anzac Parade between Kensington and Kingsford carries a total of 81 city-bound buses per hour, of which thirty were denoted as X (express) or L (limited stop) services. According to the EMM model calculations, in 2011, which is the latest available data, the corridor bus services had a morning peak hour crowding level of less than 71.4%.

The Randwick LGA has historically had a relatively high proportion of public transport journey to work travel, for an area without direct access to the heavy rail network. The Anzac Parade corridor has as high if not higher public transport proportional usage (between 30% and 40%) than many areas of Sydney which do have direct access to heavy rail services.

Maintaining reasonable levels of public transport crowding at peak is essential to ensure public transport is maintained as an attractive choice of mode for commuters and reducing the traffic congestion impacts of private car ownership. It is recommended that the average one hour morning peak passenger crowding level should be maintained at an upper limit of 80%, to ensure existing levels of passenger comfort are maintained.

Future Public Transport Corridor Capacity Requirements

The table below outlines the future morning peak hour travel demand to the Sydney CBD.

In 2020, with the future Randwick LGA dwelling growth expectation over the four year period from 2016 to 2020, approximately 26 of the existing 80 morning peak hour peak direction bus services will need to be maintained to provide an acceptable level of service.

Table 11: Future bus system capacity requirements

Year of future system operations analysis	Future one hour peak average crowding level	424,658m2 374,723m2	Required corridor hourly capacity	Light Rail system capacity	Residual bus system capacity Number of buses per hour
2020	80%	5,056	3,495	1,561	26
2031	80%	6,426	4,300	2,126	35

Part C - Vision and Strategies

In 2031, with the future Randwick LGA dwelling growth expectation of 15,150 dwellings to be accommodated over a fifteen year period to 2031, just under half of the existing morning peak hour peak direction bus services (35 hourly bus services compared to 81 currently) will need to be maintained.

If adequate bus services are not provided with the future light rail services, the future peak hour passenger crowding levels on the public transport system will significantly worsen in comparison to the current levels. This will potentially cause a decline in the future use of public transport by new residents moving to the area, which would be contrary to the objectives of the improved public transport system and the objectives of this Strategy. Inadequate provision of public transport will also limit the capacity of the area to accommodate population and employment growth.

The analysis concluded the currently proposed dwelling targets for the LGA and the Kensington to Kingsford corridor are achievable subject to the provision that significant proportions of the existing corridor bus based public transport system are retained for the existing corridor average morning peak hour passenger crowding levels to be generally maintained.

Light Rail Stop Access and Crowding

For the Kingsford Terminus, Todman Avenue and Carlton Street, the predicted passenger crowding levels for the proposed platform areas at the two stations and the signalised pedestrian crossing areas are assessed. The assessment was done according to the level of service capacity standards for 'movement' and 'waiting' areas.

For the Randwick Anzac Parade corridor light rail system, the maximum recommended level of crowding for the design of the station platforms and pedestrian crossing areas is Level of Service C. The analysis in the EMM report concluded the future proposed light rail station design and passenger capacity for pedestrian crossings at stations will be adequate to meet the proposed demand.

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7.7 Future Mass Transit

The intention of the CSELR was to reduce the number of buses entering the Sydney CBD and thus congestion during peak hour. As detailed above, by 2031, up to 40 buses travelling northbound during the morning peak hour will be required to supplement the CSELR capacity. That is almost half the existing 80 buses currently travelling along the Anzac Parade corridor during the morning peak hour.

Analysis by EMM states predicted increased bus congestion on Elizabeth Street in the City will make it desirable to limit the future number of peak hour bus services from Randwick LGA. Ultimately, mass transit is recommended to increase the public transport access capacity for the Randwick LGA.

The Draft Central District Plan 2016 included an action to investigate into a mass transit corridor between the Sydney CMD and Randwick LGA. Mass transit, such as a metro line, could stop at Kingsford, and then continue further south towards Maroubra, Little Bay, and all the way to La Perouse. This would alleviate localised congestion and congestion in the CBD arising from a significant number of buses operating in conjunction with the CSELR.

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There is potential for access to a mass transit stop at the proposed Town Square plaza in Kingsford, which would further activate the Kingsford Junction Precinct and provide convenient interchange between the metro line, the light rail, and local buses.

7.8 Congestion and Parking Impacts

A high-level parking and traffic assessment was conducted for Council by ARUP to analyse the impact of the proposed changes to planning controls, road closures and footpath widenings within the Kensington and Kingsford town centres on traffic movements and capacity. The assessment was based on the projected quantity of residents and employees, including their predicted distribution across the town centres.

The traffic assessment determined the anticipated level of traffic should be able to be accommodated both from traffic capacity and environmental capacity viewpoints⁷⁸. This analysis is based on the modest increase in dwelling capacity and predicted increase in employment within the Kensington and Kingsford town centres and the typical traffic generation rates outlined by the RMS Guide to Traffic Generating Development. The existing mode of travel was adjusted for development in the Kensington and

Kingsford corridor, recognising the transit oriented development with transfer of mode from both car and bus expected to light rail. The expectation is that residents moving into this highly accessible corridor and employees working in the mixed use developments will reduce their car mode to around 35%. This rate is consistent with RMS traffic generation rates.

Additional transport modelling will be undertaken as a stage 2 to assess the impacts of all proposed public domain upgrades, including footpath extensions and plazas. The traffic modelling and onstreet parking impacts will be taken into consideration in assessing whether all proposed public domain improvements are to proceed.

⁷⁸ARUP (2016) Kensington and Kingsford Planning Strategy Traffic Assessment

7.9 Encouraging Active Transport

The design of a place can influence a person's motivation and opportunity to use active transport such as walking or cycling. Places designed around private car use can limit a person's opportunities and desire to be physically active⁷⁹. Our sedentary, car-dependent lifestyles are significant contributing factors to the prevalence of preventable health issues and Building habitual active transport into daily routines has been identified as a means to increase physical activity⁸⁰.

Improved Walking Connectivity

Improved walking connectivity and people-friendly spaces, which improve access to public transport and provide increased walking and cycling opportunities can help to promote health. Section 8 – Public Realm and Landscape has outlined proposed improvements to pedestrian connectivity and the public domain which will make Kensington and Kingsford safer and easier places to walk to and around.

7.10 Bicycle Infrastructure Cycle Way Works

As determined by Randwick City Council's Works Committee in February 2015, the priority bicycle infrastructure for the LGA are cycle paths connecting to the light rail stops.

As shown in Figure 110, the following cycleway works are proposed for the Kensington and Kingsford areas over the next twelve months:

- Todman Ave and Lenthall Street
- Doncaster Ave, Day Ave and Houston Road
- · Sturt Street.

Bicycle Storage Facility

As part of the construction of the light rail, there will be a bicycle storage rack at each light rail stop. At the Kingsford Terminus, there will be approximately secure storage cages with capacity for approximately 30 bicycles.

Investigation will be undertaken to assess demand for bicycle storage, to determine whether additional bicycle storage is required. If additional bicycle storage is required at the Kingsford terminus, an underground bicycle storage system, such as the one pictured at Figure 111, will be investigated. An underground bicycle storage system is advantageous due to its capacity for a large number of bicycles, while having a small above-ground footprint for the bicycle access booth. Funding will be allocated for investigations and construction of an additional bicycle storage facility, if required.

 ⁷⁹Healthy Places and Spaces, A National guide to designing places for healthy living 2009
 80Giles-Corti, B et. al. 2012 Increasing density in Australia: maximising the health benefits and minimising harm

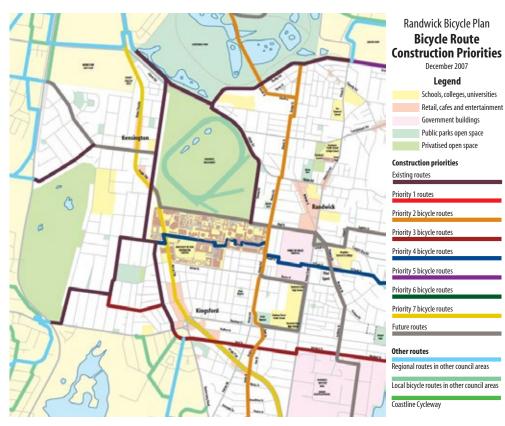


Figure 110: Proposed cycle way network Source: Randwick City Council 2007



Figure 111: Underground bicycle storage system Source: www.giken.com

Bike Share Scheme

City of Sydney, Inner West Council and Randwick City Council are currently working on a feasibility study for a bike share scheme in Sydney. This feasibility study is to consider and make recommendations on a range of operational issues. With the assumption that these recommendations will be largely fulfilled, the study will estimate potential usage for the system.

The study area includes City of Sydney, Leichhardt, Marrickville, Waverley and Randwick LGAs, including land not controlled by the councils such as University of NSW, University of Sydney, University of Technology Sydney, Royal Prince Alfred Hospital, and the Bays Precinct. This feasibility study is expected to be completed by the end of 2016.

Funding will be allocated for bike share hubs within the Kensington and Kingsford town centres, to provide for the potential bike share scheme.



Figure 112: Bike share scheme in Melbourne Source: www.melbournebikeshare.com.au



Figure 113: Bike share users in Philadelphia, USA Source: www.betterbikeshare.org

7.11 Encouraging Reduced Private Car Ownership

The transport sector is one of the fastest growing sources of emissions within Australia, increasing by 47.5% since 1990, and it also represents an emission reduction opportunity across the Australian economy. The transport sector accounts for 17% or 92 MtCO2e of Australia's emissions in 2013-14, with Passenger and Light Commercial vehicles contributing 62% of the sector's total emissions⁸¹.

Car Share

Many cities have recognised the opportunity to integrate car sharing with public transport, public bicycle schemes, walkable neighbourhoods and other transport sustainability programs. As stated in the NSW Apartment Design Guide, car sharing is a key element which complements sustainable travel modes, and allows residents to reduce their reliance on private vehicles. There are several car share companies operating in Sydney, including GoGet which operates within the Randwick LGA, as outlined in the case study on page 107.

In order to support reduced private car ownership, car share will be supported within the town centres by the provision of on-street parking spaces and by requiring new developments to provide parking for car share. The DCP will be amended so all developments with 60 or more units will be required to provide a car space for every 60 units, and enter into an agreement with a car share company. Council will investigate the provision of additional on-street car share parking spaces within and adjoining the town centres.

Parking Requirements

Parking requirements should be determined in relation to the availability, frequency and convenience of public transport or proximity to a centre in regional areas⁸². The NSW Artment Design Guide outlines that reduced parking requirements promote a reduction in car dependency and encourage walking, cycling and use of public transport. The requirement to provide an appropriate number of parking spaces to accommodate users (and ensure there are no adverse onstreet parking impacts) must be considered in the context of reducing traffic generation resulting from a higher quantum of on-site car parking⁸³.

Provision of parking for alternative forms of transport such as car share vehicles, motorcycles and bicycles should also be provided for, as part of a strategy to reduce reliance of private car ownership⁸⁴.

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⁸¹ Australia Climate Works (2016) The Path Forward for Electric Vehicles in Australia

⁸²NSW Planning and Environment (2015) Apartment Design Guide

⁸³ARUP (2016) Kensington and Kingsford Planning Strategy Traffic Assessment

⁸⁴NSW Planning and Environment (2015) Apartment Design Guide

Case Study: GoGet Car Share in Randwick LGA

The GoGet car share scheme has been operating in the Randwick LGA since 2007 and now has 3920 members (as of March 2016). Within the Randwick LGA there are 80 pods, of which three are located off-street and 82 vehicles. Figure 4 identifies the existing GoGet pod locations within the Kensington and Kingsford area. With increased population levels within the town centres, there will be opportunity for additional car share parking spaces in the area.

Based on current membership levels, there are 1,641 fewer vehicles owned by Randwick residents and 787 fewer vehicles parked on Randwick streets. A member survey in August 2014 showed 68% of member Randwick LGA residents did not own a vehicle and 52% would purchase a vehicle if they could not use GoGet.

Drivers using GoGet car share or hybrid vehicles can also access specially designated parking bays at five locations across the City. Painted green, the parking spots are clearly visible at Council managed parking facilities at Coogee, Clovelly and Maroubra beaches, Maroubra Junction and Belmore Road, Randwick.



Figure 114: GoGet car locations around Kensington and Kingsford Source: Randwick City Council 2016

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Existing Controls

Currently, for developments within the Kensington and Kingsford town centres, the DCP 2013 has a parking rate for the required number of parking, bicycle and motorcycle spaces to be provided for both residential and commercial development. For the residential component of developments, as per the NSW Apartment Design Guide, the car parking rates of the RMS Guide to Traffic Generating Development apply, overriding Council's car parking rate.

Proposed Controls

As detailed above, ARUP has conducted a traffic and transport analysis of Kensington and Kingsford town centres, and prepared recommendations for the provision of car, bicycle and motorcycle parking rates. ARUP's analysis considered public transport provision, availability and cost of parking nearby parking, mixed use and complementary nature of various land use components and peak traffic generation hours⁸⁵.

A minimum and maximum rate applying to the Kensington and Kingsford town centres was deemed appropriate, where each development can respond with appropriate rates for its location, its size and its context with surrounding development. Increased bicycle and motorcycle or scooter parking rates were also recommended, to encourage their use and recognise their utility as a viable, energy efficient transport option.

The bicycle and motorcycle/scooter rates are outlined in Tables 12 and 13.

The reduced car parking requirements, increased parking for bicycles and motorcycles, combined with increased car share vehicles, improved connectivity and improved public transport will reduce reliance on private car ownership and help to mitigate congestion within the Kensington and Kingsford town centres.

Table 12: Parking Requirements - Vehicles

Table 12: Parking Requirements – Vehicles Kensington and Kingsford Town Centres – Car Parking Requirements Shop top housing/residential flat buildings					
Studio	0.0 max	0 min			
1-bed	0.4 max	0.6 min			
2-bed	0.8 max	0.9 min			
3-bed+	1.1 max	1.4 min			
Visitor	0 min	0.2			
Car Share	0 < 60 units 1 per 60 units thereafter	0 min			
Service and Delivery	0 < 50 units 1 > 50 units	1 is recommended			
Commercial					
Required rate					
Business Premises	1 per 125m²	• •			
Restaurants and Cafes	1 per 100m²	1 per 100m²			
Take Away Food and Drink	1 per 100m²				
Medical Centre	1 per 25m²	1 per 25m²			
Car Share	Encouraged, but none required				
Service and Delivery	1 per 4,000m ² (commercial)1	1 per 4,000m² (commercial)1 per 400m² (retail)			

⁸⁵ARUP (2016) Kensington and Kingsford Planning Strategy Traffic Assessment 86Ibid

Table 13: Parking Requirements - Bicycle and Motorcycles

Kensington and Kingsford Town Centres – Car Parking Requirements			
Rates required	Bicycle	Motorcycle	
Shop top housing/residential flat buildings			
Residents	1 per unit	1 per 12 car parking spaces	
Visitor	0.1 per unit	1 per 12 car parking spaces	
Commercial			
Business Premises	1 per 100m²	1 per 12 car parking spaces	
Restaurants and Cafes	1 per 100m²	1 per 12 car parking spaces	
Take Away Food and Drink	1 per 100m²	1 per 12 car parking spaces	
Medical Centre	1 per 100m²	1 per 12 car parking spaces	

Strategies	Actions
Advocate for mass transit to increase the public transport corridor capacity and provide for population growth	 a) Advocate to the State Government for additional mass transit to Kingsford town centre and the more southern parts of the LGA b) In the absence of additional mass transit, advocate the State Government for adequate bus services to maintain a maximum morning peak hour level of crowding of 80%
Encourage bicycle usage by planning for and delivering an improved cycle network and additional bicycle infrastructure	 a) Continue to progress Council's cycle ways plan b) Investigate a new off-road cycleway through the Randwick Racecourse (as per competition winner) c) Allocate funding to provide for bicycle share hubs within the town centres d) Allocate funding to construct an underground bicycle parking station at Kingsford Junction
Reduce barriers to electronic vehicle ownership	 a) Investigate opportunities for electric vehicle charging spaces within public car parks b) Amend the DCP 2013 to encourage the installation of appropriate power supplies and electric vehicle charging points within new residential and commercial developments
4. Encourage use of car share by residents in an around the town centre	 a) Investigate opportunities for additional on-street car share parking spaces b) Amend the DCP 2013 to require the provision of a car share parking spaces for developments with more than 60 dwellings
5. Reduce the car parking requirements and encourage alternative forms of transport to reduce local traffic congestion	 a) Amend the DCP 2013 to reduce the car parking requirements to reflect the area's close proximity to the light rail which provides fast and reliable public transport b) Allow a minimum and maximum car parking requirement to allow developments to respond to market demand and proximity to the light rail c) Increase requirements for bicycle and motorcycle parking to provide for alternatives to private car ownership

8.0 Public Realm and Landscape

This section focuses on the public spaces, urban elements, and landscape qualities that define the public realm of the Kensington and Kingsford town centres. Strategies and actions are centred on physical interventions to improve the visual amenity, safety and comfort of the urban environment.

A high quality and attractive public realm is an integral component of an economically prosperous and socially vibrant town centre. The 'public realm' includes streets and laneways, footpaths, street verges, car parks and other urban spaces. It also includes urban elements such as street trees and landscaping, paving, lighting, street furniture and public art.

Council is committed to improving the public realm of the Kensington and Kingsford town centres to address existing deficiencies and to meet the needs of a changing environment and the growing population.

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A high quality public realm will contribute to the economic value of the town centres by drawing in customers to local businesses and making them more attractive to visit. Well-designed streets and public spaces will also enhance the liveability of the town centres by humanising the urban environment and promoting life outside buildings, fostering social interaction and a sense of place.

The quality of the public realm will become even more paramount as the town centres evolve towards more urbanised living. Safe, green and pedestrian-friendly streets and lanes and an integrated network of public spaces will contribute to a high level of amenity and quality of life for residents, workers and visitors.

Objectives

- To stimulate the economic and social vibrancy of the town centres through a high quality public realm
- To create attractive and welcoming streets and public spaces
- To facilitate the 'greening' of the town centres to improve visual and environmental amenity
- To improve pedestrian connectivity and safety within the public realm; and
- To support greater social use of public spaces and street life through high quality urban elements, public art and cultural activities.

CBD to South East Light Rail

A high quality public realm is of particular importance to the Kensington and Kingsford town centres with the roll out of the CBD to South East Light Rail network along Anzac Parade. The light rail infrastructure will be a catalyst for increased pedestrian movements within the town centres, focusing activity around the light rail stops and the new terminus at Kingsford town centre.

Key light rail infrastructure elements and changes to be introduced in the town centres include:

- Light rail stops on Anzac Parade, adjacent to Carlton Street and Todman Avenue in Kensington town centre, and Strachan Street in Kingsford town centre
- A major light rail/bus terminus south of the nine-ways intersection in Kingsford town centre, which includes an above ground substation and bicycle parking to the south
- New poles and wires along Anzac Parade
- Kerb realignments along Anzac Parade
- Removal of a number street trees*
- Replacement of the nine ways intersection by a signalised intersection with a design to create new urban spaces and movement patterns; and

^{*}to be offset with additional planting identified in the Transport for NSW Vegetation Offset Guide

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 Removal of most of the on-street parking on Anzac Parade, offset by parking reconfiguration in surrounding streets.

The new light rail infrastructure will have a major physical and visual impact on the existing urban fabric of the town centres, including the streets, public spaces, landscape and commercial areas. It also provides a unique opportunity to rethink the public environment of both town centres, to improve its attractiveness and functionality and to ensure a seamless integration with the new infrastructure.

The Randwick Light Rail Urban Design Guidelines (Randwick City Council 2014) and the Urban Design and Landscape Plan Kingsford (Transport NSW 2016) provide a number of principles, strategies and design concepts to integrate light rail infrastructure with the surrounding public domain, while providing for improved amenity and safety of pedestrians and transport users.

This draft Strategy builds upon the design approaches outlined in these documents, addressing the challenges and issues identified in the draft Issues Paper and identifying additional locations within both town centres that would benefit from public realm improvements.

Community Feedback

Community feedback shows that people value a well-designed public realm with inviting public spaces, trees and landscape treatments considered a high priority.

Specifically the community told us:

- Provide more street trees along Anzac
 Parade to create a boulevard identity
- Provide more landscaping and greenery throughout the public domain
- Create more public/civic spaces for people to gather, meet and interact
- Have more outdoor public seating, lighting and public art
- Rejuvenate side streets with greenery and activities
- Create safe places for children and young people to play and interact
- Improve access to public places for people with disabilities
- Have outdoor spaces available for festivals and markets
- Consider drawcard events focusing on art, music and other creative activities to foster vibrancy
- Unify street-level design; have awning levels and colours that complement each other and reduce visual clutter from business signage; and
- Modernise the appearance of shopfronts.

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Existing Challenges

The draft Issues Paper provides a comprehensive analysis of the issues and challenges affecting the streetscape and public spaces within the Kensington and Kingsford town centres.

Key issues include:

- Need for meaningful gathering spaces to facilitate social interaction
- Limited street tree canopy and landscape treatments in public spaces
- Narrow, congested footpaths, particularly in Kingsford town centre which inconsistent paving materials and differences in cross fall levels
- High levels of visual clutter from excessive number of poles and a proliferation of signage (e.g. towards the southern end of Kingsford Town Centre along Anzac Parade)
- Limited pedestrian connectivity and permeability
- Rundown shopfronts with poor active street frontages (e.g. Gardeners Road in Kingsford town centre and along Anzac Parade in Kensington)
- Lack of continuous awnings
- Limited outdoor dining opportunities on Anzac Parade (largely due to narrow footpaths in Kingsford town centre which makes meeting the 2.5m RMS clearance limit difficult to achieve); and
- Excessive signage in a number of locations.

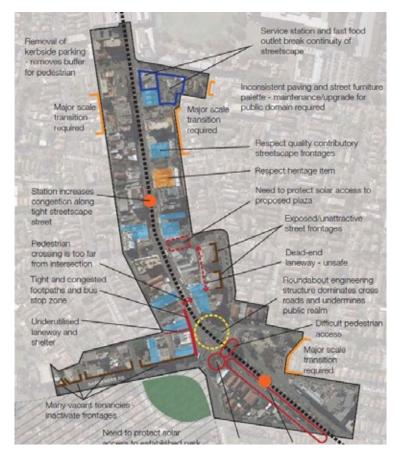


Figure 115: Urban Design and Public Domain Issues Affecting the Town Centres Source: Conybeare Morrison 2016

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8.1 Open Space Network

Open space provision is integral to the liveability of town centres, to support increased physical activity, facilitate social interaction and provide a sense of place in an urbanised environment.

Access to open space will be in greater demand as the population grows and urban living intensifies. The challenge is to ensure maximum benefits are derived from existing open space assets and to identify new public open space opportunities to compensate for reduced private open space and to support more intensive use resulting from densification.

A public open space audit undertaken as part of the district planning process⁸⁷, identifies that Randwick City has a high proportion of regional open space such as Centennial Parklands, beaches and foreshore areas, which cater for a wider population catchment beyond the LGA's boundaries.

Conversely, there is a deficiency in smaller open spaces, such as local parks, particularly in the northern suburbs such as Kensington (based on a 400m walking catchment). The intensity of use of regional open space assets means that incidental open spaces catering to a smaller local catchment becomes more important.

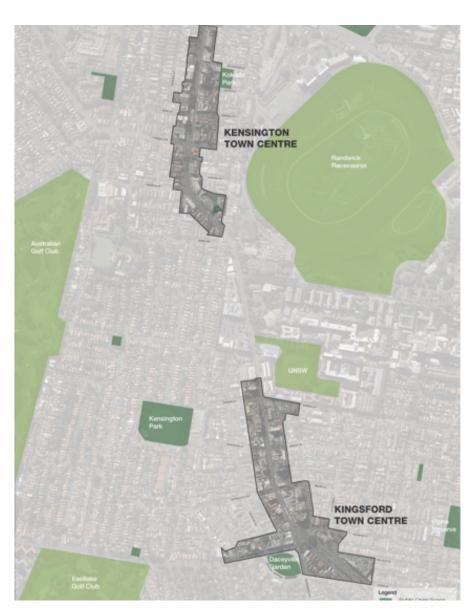


Figure 116. Existing open space provision near Kensington and Kingsford town centres Source: Conybeare Morrison 2016

⁸⁷Central District Audit (2016) NSW Government Architects Office

In the context of built up and urbanised inner city locations such as Kensington and Kingsford town centres, opportunities to increase the quantum of public open space is constrained by existing private ownership patterns, and the high costs and lengthy timeframes associated with land acquisition.

Notwithstanding these challenges, the open space needs of the community can be addressed by increasing the diversity, quality and accessibility of what already exists.

For instance, there are opportunities to incrementally increase the amount of open space within the town centre boundaries by converting existing redundant road reserves into informal open spaces, and by creating plazas with landscaping and feature trees in strategic locations.

There is also opportunity to improve the quality, capacity and usability of existing open space assets which will support increased and diversified use by a broader demography. To this end, a number of upgrade/embellishment works have been identified in the Plan of Management for Kensington Park (2016) which will support increased intensity of use by town centre residents/workers in the future.

There is also scope to look beyond the town centres and improve access to existing local parks via the establishment of high quality green linear links along connector streets. Open space assets to where green connections could be established to include Kokoda and Kensington Parks.

A potential open space asset that is presently underutilised is a portion of land on the south-western corner of Royal Randwick Racecourse which features a grassed area and large established canopy trees (of which a number are listed on Council's Significant Tree Register). The site is classified as crown land and zoned RE1 Public Recreation under the RLEP 2012, however is presently fenced off and inaccessible to the public.

Given its strategic location between the two town centres, adjacent to the University of NSW and in proximity to the light rail, the site has the potential to provide a significant open space resource to the community through improved access and innovative landscape design. It is worth noting that this portion of land has been identified as a potential 'urban forest' in the K2K Urban Design Competition winning entry. Any such investigations may consider the provision of additional built form on the corner of High Street and Anzac Parade.

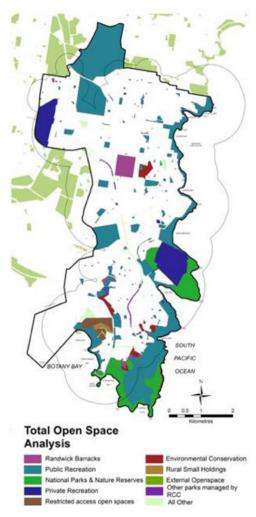


Figure 117: Existing open space provision across Randwick City

Source: Randwick City Council 2016

Future investigations could also consider the potential to expand Kokoda Memorial Park in Kensington to increase its footprint and capacity. Similarly to the Royal Randwick Racecourse site, this would significantly add to the amount of public open space in the vicinity of the town centre.

The investigation of public open space opportunities at the Royal Randwick Racecourse and Kokoda Park have been incorporated into the K2K Structure Plan which identifies future opportunities outside the town centre boundaries to achieve the economic, social and environmental objectives for the study area (see Part D – Structure Plan for the Town Centres).

The following strategies aim to increase the quantity of open space within and around the town centres, and establish a green open space network by linking the town centres to public open space assets in surrounding residential areas. Strategies addressing the provision of urban spaces and plazas are addressed subsequently in this section.

Strategies	Actions
Increase the amount of open space within and around the town centres	a) Investigate a recycled water system for maintenance of landscaping in public spaces where possible
	b) Where possible, in the landscape concept plan, choose low water species for landscaping
	c) Identify opportunities to convert redundant road space and other underutilised spaces to informal open space (e.g. large road reserve near the corner of Rainbow Street and Anzac Parade near the nine ways intersection, Kingsford town centre)
Establish an integrated open space network connecting the town centres with local parks and open spaces	a) Establish a green grid through avenue tree planting and landscaping to create connections to the following existing public open spaces:
	Barker Street and Strachan Street to Kensington Park
	Barker Street and High Street to University of NSW and Randwick Racecourse
	Goodwood Street and Ascot Street to Kokoda Park



Figure 118: Greening connector Streets. Source: K2K Competition Entry – Aspect 2016



Figure 119: Proposed urban forest, Royal Randwick Racecourse Source: Randwick City Council 2016

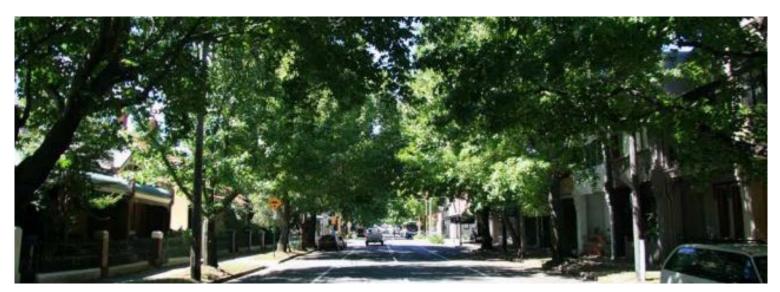


Figure 120: Avenue planting, Baptist Street Redfern Source: City of Sydney Urban Forest Strategy 2013

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8.2 Landscape Character

Kensington and Kingsford town centres will greatly benefit from a cohesive street tree and landscape network to help create a visually appealing public domain and foster a sense of place and identity.

The greening of the town centres through additional trees and landscaping will contribute to the urban canopy, making the streets more pleasant for pedestrians. It will also enhance environmental performance in terms of thermal comfort, microclimate and storm water infiltration.

The light rail will result in additional street trees being planted along Anzac Parade as identified in the Light Rail Vegetation Offset Guide. Furthermore, the Urban Design Landscape Plan Kingsford identifies a number of locations across both town centres for new infill trees and planting. Key locations for new planting include along both sides of Anzac Parade, on road verges and medians, as well as islands adjacent to light rail stops and the light rail terminus in Kingsford town centre.

Building up on these initiatives, this Strategy identifies additional opportunities for new infill street trees and landscaping to further enhance the town centres' environmental quality. Strategies focus on transforming Anzac Parade into a grand green boulevard and softening the 'hard edge' of the town centres to provide for a pleasant pedestrian experience.

Tree selection and species will reinforce the proposed street hierarchy and desired street character of the town centres. The Randwick Urban Design Guidelines 2014 outlines recommended species for the light rail corridor and should be read in conjunction with this document.

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Strategies	Actions
Establish a strong green 'boulevard' landscape character along Anzac Parade	 a) Undertake a street tree planting program in accordance with the Light Rail Vegetation Offset Guide and Urban Design and Landscape Plan Kingsford, focusing on a hierarchy of scale along Anzac Parade. Tree selection will establish Anzac Parade as a grand, green boulevard linking the Kensington and Kingsford town centres and creating a sense of place and identity b) Review the Randwick Street Tree Masterplan to ensure suitable species to cater for light rail infrastructure
Maximise the 'greening' of the public domain by applying a	a) Apply the recommended suite of landscape treatments in accordance with the Light Rail and Urban Design Plan
coordinated street tree and landscaping treatment	b) Provide supplementary infill trees and landscaping throughout each town centre incorporating species that are appropriate to the site and location:
	 Introduce canopy trees and/or landscaping on redundant road spaces, including large road reserve located at the corner of Rainbow Street and Anzac Parade near the nine ways intersection, Kingsford town centre.
	 Undertake infill street tree planting on east west connector streets to establish green corridors to surrounding residential areas.
	 Provide landscaping on available verges and proposed footpath blisters/ footpath widening locations to define smaller localised spaces wherever possible.
	 Introduce feature trees and landscaping to provide seasonal colour and variation in identified plazas, micro plazas and 'pause spots' including: Meeks Street Plaza
	Duke Street Plaza (new proposed)
	- Bowral Street Plaza (new proposed)
	 Addison Street triangle Plaza (new proposed)
	- Todman Avenue Plaza (new proposed)
	 Establish a 'planting edge' (e.g. low hedge) in high movement zones to create a buffer between pedestrians and traffic. Key locations include:
	 Anzac Parade (both town centres)
	 Gardeners Road, Kingsford town centre
	 Planting and landscape schemes are to be based on the indicative planting palette for the town centres (see Appendix)
	c) Retain large canopy trees throughout the town centres including large canopy tree located on the corner of Southern Cross Close and Houston Road, Kingsford



Figure 121: Green boulevard – Las Ramblas, Barcelona, Spain Source: www.expedia.com



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Figure 122: Boulevard Malesherbes, Paris, France Source: www.mllongworth.com





Figure 123: Plant hedging creates separation between public domain and traffic, Cleveland Street, Surry Hills Source: Randwick City Council 2016



Figure 124: Proposed open space linkages and landscape plan – Kensington town centre Source: Conybeare Morrison 2016



Figure 125: Proposed open space linkages and landscape plan – Kingsford town centre Source: Conybeare Morrison 2016

Part C - Vision and Strategies

8.3 Public Realm

To enhance and create a sense of place, the Kensington and Kingsford town centres must have a well-designed public realm that is attractive, free from clutter and welcoming.

A revitalised public realm will encourage people into the streets to interact and relax, contributing to the vitality of the town centres and enhancing urban living. It will also boost economic performance by attracting businesses and investment in the Kensington and Kingsford town centres.

There are a number of opportunities to improve the public realm within Kensington and Kingsford town centres such as creating new plazas and public areas through road closures and footpath widening.

Supporting the provision of outdoor dining in areas of high amenity such as the side streets away from traffic intensity will contribute to vibrancy and safety within the public domain. Active, people orientated street frontages can be achieved by encouraging businesses and retail to open directly to the footpath and other public areas. The provision of continuous awnings would further enhance the pedestrian experience.

The Urban Design and Landscape Plan Kingsford identifies a number of design approaches to improve the amenity and safety of the public realm including footpath widening, new urban furniture, and kerb readjustments to accommodate light rail movement and infrastructure elements.

These approaches are supplemented by the following strategies which identify additional opportunities to revitalise the public realm and create a high quality pedestrian experience for all users.

The Urban Elements Design Manual provides the technical guidelines for paving and urban furniture, and should be read in conjunction with this section.



Figure 126: Proposed Meeks Street Plaza Concept Image Source: Spackman Mossop Michaels 2016



Figure 127: Proposed 'smart poles' along Anzac Parade Source: Spackman Mossop Michaels 2016

Strategies

1. Minimise visual clutter and create legible coherent streetscapes.

Actions

- a) Maximise the co-location of signage, lighting, banners and power poles onto multifunctional smart poles along Anzac Parade.
- b) Collaborate with the business chambers to develop a signage strategy that reflects the unique character of the town centres. This may include an Asian themed signage strategy for Kingsford town centre.
- c) Strengthen DCP 2013 controls relating to signage within the town centres by requiring that:
- New works involve the removal of unsympathetic signage where possible.
- All new signage be set below the street awning or awning fascia
- a signage plan is submitted as part of the redevelopment of key sites.
- 2. Provide for the undergrounding of overhead powerlines along Anzac Parade.
- a) Continue to advocate Transport NSW to underground overhead powerlines along both sides of Anzac Parade in addition to the cross lines.
- b) Coordinate the undergrounding of powerlines in Kingsford town centre in line with the light rail roll out as provided for in the Randwick s94A Plan.
- c) Extend the undergrounding program to Kensington town centre by ensuring adequate allocation in the Kensington and Kingsford s94A development contributions plan

Strategies

3. Create a network of safe, attractive and vibrant urban public spaces

Actions

- a) Achieve wider footpaths through the application of increased setbacks in key locations in accordance with the Public Realm Map (Figures 132 and 133)
 This would be in conjunction with new built form controls (see Part C Section 5.5 – Setbacks for further detail)
- b) Develop Meeks Street Plaza as a key community focal point through specific design treatments, urban furniture, landscaping, decorative lighting and public art
- c) Provide opportunities for new micro plazas/ pause spots and improved amenity in the following locations:

Kensington Town Centre:

- Southern side of Carlton, Goodwood, and Ascot Streets: Potential for footpath widening
- Corner of Duke Street and Anzac Parade: Potential for new plaza with seating and landscaping
- Corner of Bowral Street and Anzac Parade: Potential for new plaza with seating, landscaping and public art

Todman Square Precinct

- Corner of Todman Avenue and Anzac Parade: Potential for new plaza and widened footpaths, upgrade paving and seating on southern corners of the intersection. This would improve the carrying capacity of the public domain in an area of high pedestrian activity in proximity to the Todman Avenue Light Rail Stop. However any improvements to this intersection would need to be considered in the context of larger setbacks and increased heights to adjoining sites (see Part C Section 5.5 Setbacks)
- North western corner of Addison Street and Anzac Parade (existing carpark): Potential to create small public plaza with footpath widening, paving upgrades, landscaping, seating and public art
- South western corner of Addison Street and Anzac Parade: Potential to create small public plaza by retaining existing road closure and providing new seating, landscaping and public art

Kingsford Town Centre

- Southern side of Barker: potential for footpath widening

Kingsford Mid-Town Precinct

- Southern side of Middle, and Strachan Streets: potential for footpath widening
- Southern side of Borrodale Road between Anzac Parade and Houston Lane: Potential for footpath extensions, kerb buildouts/blisters, landscaping, lighting, bike racks and seating
- Corner of Harbourne Road and Rainbow Street: Potential to complete existing road closure

Kingsford Junction Precinct

- Kingsford Triangle Site: North-eastern corner and eastern street edge. Potential for footpath extensions/kerb buildouts, and plaza with seating and public art. However this is contingent on increased setbacks for the site (see Built Form section - setbacks)
- North eastern corner of the Rainbow Street site: Potential for footpath extensions and kerb buildouts with public art
- Mid-block: Potential for new town square with seating, landscaping and public art. This is contingent on increased setbacks and public dedication of mid-block link (see Part C Section 5.7 – Setbacks and Section 5.7 – Mid-Block Links)
- d) Amend the RLEP 2012 to rezone the following plazas/micro plazas from B2 Local Centre to public open space:

Kensington town centre

- Duke Street plaza (proposed) (corner of Duke Street and Anzac Parade)
- Bowral Street plaza (proposed) (corner of Duke Street and Anzac Parade)
- Addison Street Triangle Plaza (proposed) (corner of Addison Street and Anzac Parade
- Uni Lodge Plaza (existing) (corner of Addison Road and Anzac Parade)

Kingsford town centre

- Meeks Street Plaza
- e) Include DCP 2013 controls to encourage overlooking/ passive surveillance (e.g. balconies and habitable space) for sites adjoining key plazas/public open space
- f) Amend the DCP 2013 to include a sun access provision to protect solar access to key proposed public spaces as discussed in C6 Built Form 6.8 Solar Access and shown on the Public Realm Map (Figures 137 and 138)

Strategies

- 4. Introduce new urban furniture to provide rest areas throughout the public domain
- a) Review existing and provide new seating, bins and cycle racks focusing on the plazas identified in this Strategy, and other locations devoid of these elements (e.g. along Gardeners Road in Kingsford town centre)
- b) Urban furniture is to be consistent with Council's Urban Elements Design Manual 2006

*A 12 month DA/licensing fee waiving program has already been undertaken for Kingsford and Matraville town centres.

Strategies

- 5. Promote outdoor dining to encourage more street activity
- a) Encourage outdoor dining in side streets where footpath widening/ kerb build outs are proposed Refer to Public Realm Map (Figures 132 and 133).
- b) Require high quality outdoor furniture for outdoor dining that reflects the character of the town centre, has an open appearance and minimises clutter
- c) Consider financial incentives to encourage outdoor dining in the Kensington town centre, such as a 12 month reduction in DA and footpath licensing fees*

Strategies

- 6. Ensure continuous weather protection along core retail strips and pedestrian routes
- a) Strengthen existing DCP controls requiring awnings to be integrated into building design and constructed at a consistent height above the street

Strategies

- 7. Improve existing footpath surfaces by applying cohesive and high quality paving treatments
- a) Provide RCC City Civic Paving (PA01) in line with Council's Urban Elements Design Manual 2006
- Extend paving material in the following locations to visually integrate light rail infrastructure with the town centres:
- from Kingsford town centre south of the intersection to Stuart Street adjacent to the light rail terminus
- to Carlton Street in Kensington town centre adjacent to the Carlton Street light rail stop.

Strategies

8. Lighting

- a) Provide street lighting on Anzac Parade using multi-functional poles in accordance with the Randwick City Light Rail Urban Design Guidelines
- b) Ensure public spaces, primary pedestrian streets and light rail stops are well lit to enhance public safety and provide a night time ambience in the town centres
- c) Consider lighting themes for key heritage/ contributory and/or future landmark buildings
 Additional strategies on lighting is contained in Part C Section 8.7 Safety of Streets and
 Public Space



Figure 128: Outdoor dining, Marrickville, Sydney Source: www.smh.com.au



Figure 129: Outdoor dining, Lygon Street, Melbourne Source: www.thatsmelbourne.com.au

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Figure 130: Active street frontages, San Jose, California, USA Source: www.spur.org



Figure 131: Piazza Mazzini, Jesolo Italy Source: www.contemporist.com



Figure 132: Public realm map – Kensington town centre Source: Conybeare Morrison 2016



Figure 133: Public realm map – Kingsford town centre Source: Conybeare Morrison 2016

8.4 Public Art and Cultural Activities

Public art and cultural events can help transform the public domain, acting as a means to engaging the community, fostering social interaction and helping to create a sense of place and identity.

The draft Issues Paper identifies the need to foster more public art to recognise and celebrate the history of the town centres, reflect their character and contribute to pedestrian vibrancy. It also identifies the need to provide and support cultural events in both centres such as festivals and markets.

During 2016, Transport NSW initiated a temporary public art program in key locations to increase visitation and foster activation of these sites during construction of the light rail. The following strategies aim to build up on this program by identifying locations to accommodate temporary and permanent public artwork, together with opportunities within the planning framework to encourage the provision of public art via private development.

A number of strategies also aim to encourage more cultural activities within the town centres as a means of bringing the community together and activating the urban environment.

Strategies	Actions
Facilitate public art and artistic expression in the public domain to enhance visual amenity, contribute to cultural identity and foster a sense of community	 a) Incorporate a range of permanent public artworks in the following locations: Kensington Town Centre Proposed Addison Road Plaza Proposed Todman Avenue Plaza Proposed Bowral Street Plaza Kingsford Town Centre Meeks Street Plaza Proposed Rainbow Street site plaza Proposed Kingsford Triangle site plaza Doordinate public art with other public domain elements such as lighting, paving insets and specialised street furniture c) Consider new DCP controls requiring the provision of public art for major
	 development/key opportunity sites including: Kingsford Triangle site Rainbow Street site Todman Square d) Consider increasing the allocation of s94A funding towards public art in the town centres as part of the next new s94A Plan
Initiate programs and events to bring creativity and cultural activity into the experience of the town centres	 a) Collaborate with Council's Events Team and the town centre business chambers to identify opportunities to activate the public domain day and night through a rotation of seasonal cultural events and activities This may include pop ups, festivals, cultural activities and temporary urban elements in public spaces (e.g. deckchairs, table tennis etc.) b) Develop long term strategic partnerships with UNSW and NIDA to bring formal and informal cultural and creative events into the town centres



Figure 134: Public art, Chicago, USA Source: www.chicago-outdoor-sculptures.blogspot.com



Figure 135: Public art, New York, USA Source: www.news.artnet.com



Figure 136: Public art, Taipei, Taiwan Source: www.contemporist.com



Figure 137: Kingsford Noodle Market Source: Randwick City Council 2015



Figure 138: Kingsford Noodle Market Source: Randwick City Council 2015

8.5 Pedestrian Network

A safe, accessible and permeable pedestrian network is an integral aspect of a well-functioning and liveable town centre and must be key objective to achieve in the Kensington and Kingsford town centres.

Enhancing the town centres' pedestrian experience will encourage people to use the public domain, providing increased opportunities for interaction and connectedness. An accessible and permeable pedestrian network can also help ease congestion by shifting a greater share of travel to walking, or combining walking with public transport.

The urban/block structure of each town centre has an impact on existing pedestrian accessibility and permeability, with the majority of pedestrian activity concentrated on Anzac Parade.

Kingsford town centre has a more permeable urban structure, with laneways running parallel to the east and west of Anzac Parade, cross roads running east to west and pedestrian walk throughs in a number of locations. In Kensington pedestrian permeability is more limited due to the lack of laneways and pedestrian through site links.

Notwithstanding the limitations of the urban structure, the development process can be utilised to improve pedestrian accessibility and permeability within both town centres. A fine grain pedestrian network which reduces the length of walking trips can be achieved by requiring mid-block links on key opportunity sites, improving existing linkages through lighting and signage, and facilitating shared zones in a number of laneway locations.

The following strategies are aimed at improving pedestrian access and safety in the Kensington and Kingsford town centres and should be read in conjunction with the Transport for NSW Urban Design and Landscape Plan Kingsford.



Figure 139: Pedestrian link, Wentworthville Centre Revitalisation Source: www.holroyd.nsw.gov.au



Figure 140: Shared Laneway, Sydney CBD Source: www.sourcable.net



Figure 141: Pedestrian link, Adelaide Source: www.adelaidedesignmanual.com.au

Strategies	Actions
Prioritise pedestrian access and safety throughout the	a) Implement pedestrian access, crossings and other safety measures identified in the Transport for NSW Urban Design and Landscape Plan
public domain and street network	b) Advocate Transport NSW to close slip lanes adjacent to refuge islands at the Rainbow Street and Gardeners Road crossings to maximise pedestrian safety
	c) Advocate Transport NSW for provision of access to the southern end of Carlton Street light rail stop
	d) Amend the DCP 2013 to introduce a shared zone/laneway in locations identified on the Accessibility Map (Figures 142 and 143)
	e) Advocate for a reduced 40-50km/hour speed limit on Anzac Parade in both town centres
	f) Advocate for the relocation of the Anzac Parade pedestrian crossing closer to the intersection in Kingsford town centre to improve pedestrian accessibility as shown on the Accessibility Map (Figures 142 and 143)
Enhance pedestrian permeability and connectivity throughout the public domain.	a) Establish new pedestrian mid-block links as part of the redevelopment of sites as shown on the Accessibility Map (Figures 142 and 143). See also Part C Section 5.7 – Mid-Block Links
	b) Improve existing pedestrian links/ through links in the following locations so that they are safer, more direct and inviting:
	Kingsford town centre
	 Southern Cross Close Pedestrian Link: Remove existing seating and provide additional lighting and coordinated way finding signage.
	Kensington town centre
	 Pedestrian link adjacent to the northern elevation of Peters of Kensington: Provide lighting, coordinated way finding signage and consider public art installation to activate walkway and provide a sense of ownership
	Pedestrian link adjacent to the northern elevation of the Masonic Temple: Provide lighting and coordinated way finding signage
Improve the appearance, safety and sanitation of service lanes to provide improved amenity for pedestrians	a) Work with Business Chambers to encourage property owners to improve the appearance, safety and sanitation of the rear of shops fronting service lanes

Part C – Vision and Strategies

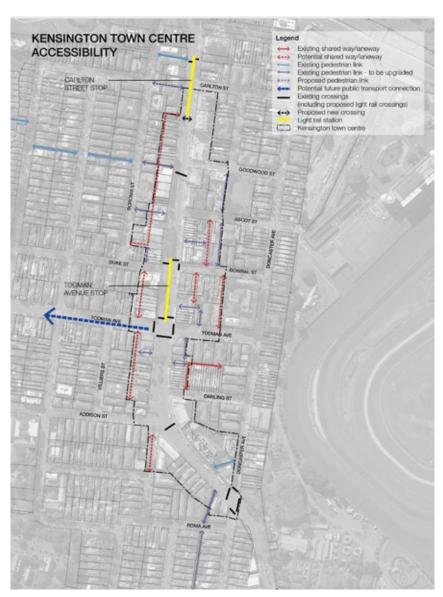


Figure 142: Proposed accessibility improvements – Kensington town centre Source: Conybeare Morrison 2016

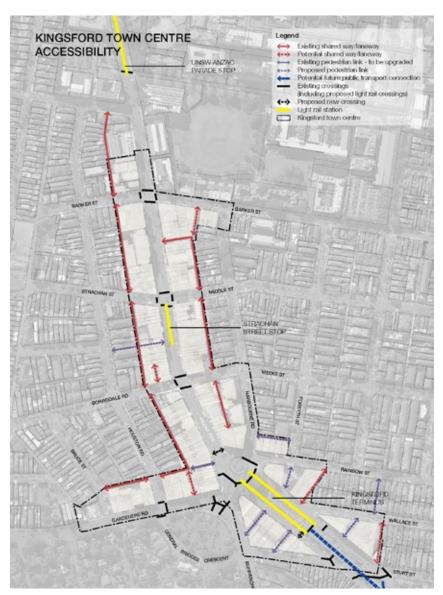


Figure 143: Proposed accessibility improvements – Kingsford town centre Source: Conybeare Morrison 2016

8.6 Safety of Streets and Public Space

The perception of safety within the public domain is critical to the success of a town centre, attracting housing and businesses, which in turn adds to vibrancy and diversity of uses.

Lighting, landscape design, building design (such as windows overlooking public spaces), appropriate signage and on-street activity can maximise social interaction, fostering natural surveillance and reducing the perception and incidence of crime and anti-social behaviour in the town centres.

The following strategies aim to minimise the perception of, and limit opportunities for crime and anti-social behaviour through environmental design, and to improve the overall amenity of the public domain in both town centres.

Strategies	Actions
Design streets and public spaces to increase natural surveillance and foster a sense of safety	a) Apply Crime Prevention Through Environmental Design (CPTED) principles to all public domain and streetscape design*
	b) Review DCP controls to ensure that all new development provides active frontages and clear glazing on street and upper levels to encourage surveillance of streets and public spaces
	c) Conduct a review of public lighting and upgrade as required, focusing on:
	Under awning lighting on Anzac Parade
	lighting in side/backstreets
	 access ways, public spaces, pedestrian walk throughs and other urban spaces that are used at night time
	d) Install way finding signage throughout each town centre in accordance with the Randwick City Civic Signage Manual. Key locations include:
	 Gateway locations at the northern end of Kensington town centre and southern end of Kingsford town centre
	light rail stops and terminus
	pedestrian links
	e) Upgrade open air carparks to enhance surveillance, safety and attractiveness through:
	 additional planting of ground covers to soften expanses of concrete/ asphalt
	maintaining clear views
	improving pedestrian access and legibility
	additional lighting and signage
	Key locations include:
	On street parking on Houston Road, Houston Lane and Borrodale Road

*Crime Prevention Through Environmental Design (CPTED) is a multidisciplinary approach to reducing the incidence and perception of criminal behaviour through environmental design, with principles focusing on natural surveillance, legibility and territorial enforcement.

8.7 Quantifying Public Space

Kensington and Kingsford town centres will gain a substantial amount of public space as a direct result of planning interventions and strategies outlined in this document.

The quantum of public space to be gained comprises wider footpaths, urban plazas, pedestrian links and shared access ways across both town centres.

The following graphic quantifies the amount of new public space in both town centres.

It demonstrates that both town centres will gain over 27,000m² in new public spaces, which is a significant delivery of public benefits to the community.



Figure 144: Public carpark with landscape intervention, Dandenong, Melbourne Source: www.citygreen.com



Figure 145: Lighting in public carpark Source: www.usask.com



Figure 146: New Public Space Source: Randwick City Council 2016

Part C - Vision and Strategies

9.0 Social Infrastructure

This section considers the social infrastructure needs of existing and future residents of the Kensington and Kingsford town centres and wider area. It outlines a number of strategies and actions to ensure that residents and workers have access to new and upgraded community and cultural facilities and services.

Social infrastructure refers to the broad range of facilities, places, services, networks and programs that are essential to meeting the social and welfare needs of the community.

It includes the physical buildings, spaces and facilities that accommodate health, education, childcare, recreation, arts and cultural activities, as well as the programs, resources and social services that support community and cultural development.

Social infrastructure is an important consideration when planning the future growth of Kensington and Kingsford town centres, to support and enhance the community's social and cultural life. Local and international studies consistently demonstrate how the provision of social infrastructure contributes to the 'livability' of town centres, fostering diversity, social cohesion and community well-being.

In the case of Kensington and Kingsford, future social infrastructure provision requires collaboration between the public and private sectors to meet the needs of the growing population. The development industry can play a key role through a 'value uplift' mechanism given that more intensive residential/commercial development opportunities will be created resulting from proposed changes to planning controls.

This Strategy includes a number of actions to support the provision of childcare, arts and cultural facilities and social services; key priorities identified by Council's Community Development Department for the Kensington and Kingsford town centres.

Other social infrastructure considerations such as affordable housing and recreational facilities have been addressed in other sections of this Strategy.

Objectives

- To identify social infrastructure priorities to meet the needs of a diverse community
- To identify appropriate locations for community facilities that maximise access, effectiveness and amenity.
- To support the delivery of social services and community development initiatives
- To identify opportunities to support art and cultural development.

Community Feedback

Feedback received during consultation shows that people want infrastructure services to keep pace with population increases and to have community spaces which can be used for youth, cultural events and short-term festivals or markets. In summary, the community told us:

- Consider childcare, services for the elderly and other community services like information services, counselling and non-government agencies
- · Infrastructure and amenities need to be provided as density increases
- Create a sense of community by increasing the mix of businesses, cultural events and workers
- Have indoor and outdoor spaces available for food festivals, market days or short term rented spaces for artists and reading spaces
- Build on existing artistic culture: include places for street theatre, photography exhibition, art and sculpture lessons
- Have a community centre for young people to socialise and 'hang out', which could also prevent anti-social behaviour.

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9.1 Existing Levels of Provision

There is a diverse complement of social infrastructure within and around the Kensington and Kingsford town centres. Operated or managed by the public, community or private sectors, these facilities and services make an important contribution to the community's quality of life.

Most sites within the Kensington and Kingsford town centres have access to a range of local and regional facilities. Recent research undertaken by the UNSW City Futures Department identifies that the community has good access to⁸⁸:

- A diverse range of medical services and facilities at the Randwick Hospitals Campus which comprises four major hospitals providing state wide, metropolitan and local community healthcare
- Extensive regional parks, foreshore areas and beaches including Centennial and Moore Parklands, and the eastern beaches of Clovelly, Coogee and Maroubra
- Recreational and sporting facilities such as swimming pools, gyms and sports courts served at both Des Renford Leisure Centre in Maroubra as well as at the UNSW

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- Educational facilities ranging from primary, secondary and UNSW, NIDA and Randwick TAFE
- · A variety of places of worship; and
- Emergency services including police, fire and ambulance.

Additionally, the local community will soon benefit from a new community centre facility currently being constructed at the (former) Kensington Bowling Club site. Delivering around 300m² of floor space available for community activities and a half basketball court, this centre will cater to a wide demography, including seniors and youth, and help fill a gap in community facility provision in the immediate area.

Based on an assessment of current levels of provision, Council's Community Development Department has identified the following social infrastructure priorities for Kensington and Kingsford town centres:

- Additional child care facilities
- Flexible office and meeting spaces for social service providers and community groups including seniors and youth
- Addressing the capacity of the primary school in Kensington
- A new art/cultural facility accommodating studios and gallery space.

This Strategy outlines a number of actions to encourage the provision of these identified priorities, noting that other community facility requirements such as library space, dedicated seniors and youth facilities need to be considered on an LGA wide basis as part of a comprehensive community facilities study.

9.2 Childcare Centres

Randwick City has an extensive range of community and privately operated childcare centres including an estimated 49 long day care centres, contributing to approximately 2,230 licensed places in the LGA⁸⁹. Notwithstanding this existing level of provision, demand for childcare services continues to remain high.

Council's Community Development
Department has identified a substantial
shortage of childcare spaces for the 0-2
year old age group, with only 16% of
spaces in existing centres catering for
this age group⁹⁰. The higher ratio of staff
to children required under legislation is
a key factor for this shortfall, as it is less
economically feasible to increase the intake
of 0-2 year olds due to the disproportionate
costs involved.

In terms of the study area, the provision of childcare is an important consideration, with demographic trends indicating a likely increase in the number of children residing in the area in the years to come. For instance, between 2006-2011, there was a 17% increase in the number of children in the 0-4 age group living within Kensington (comprising the town centre and surrounding residential area)⁹¹.

The town centres' location adjacent to the Randwick Education and Health Strategic Centre, comprising the main employment hub in the LGA, will further fuel demand for child care services. In fact, the UNSW has determined that there is an existing shortage of at least 200-300 child care places for the tertiary institution alone, establishing a latent demand for childcare in close proximity to the UNSW campus⁹².

Given the projected population growth in the two centres, it is highly likely there will be additional childcare demand above and beyond the unmet demand already established by UNSW. If such trends continue without a commensurate increase in quality child care, there will not only be a substantial shortage in provision, but also flow on effects of reduced workforce participation, particularly by skilled up women.

⁸⁸K2K Liveability Indicators (2006) UNSW City Futures Department

⁸⁹Productivity Commission's Inquiry into Childcare and Early Childhood Learning (RCC Submission 2014)
90Ibid

⁹¹Demographic trends for Kingsford indicate a decrease in the number of children in the 0-4 age group. This is likely due to a higher number of students and lower number of families residing in the area.

⁹²Analysis of on campus childcare centre waiting lists (2016) Childcare Division, Campus Services, UNSW

The provision of child care is generally a market led process. While Council cannot intervene in the macroeconomic parameters that shape the provision of this service, there is scope to utilise the planning framework to encourage the development of child care centres within the town centres.

Council's DCP 2013 contains a number of planning controls to guide the location and design of childcare centres, focusing on the safety and well-being of children and achieving high standard of amenity for the site and surrounding locality. Preferred locations include sites in proximity to employment and public transport; colocated with existing education/open space and community uses; or in buildings where there are end of trip facilities for employees. The DCP allows child care centres in multistorev developments, however limits their provision to the ground floor, effectively discouraging centres in other parts of the building such as rooftops or podiums.

Kensington and Kingsford town centres reflect many desirable locational attributes for child care centres, such as proximity to employment hubs, education and excellent access to public transport. From a planning perspective, however, the DCP 2013 requirements may be discouraging the provision of child care centres within the town centres, as due to the nature of built form and density, it may not always be

possible to locate child care centres on the ground floor of multi-storey buildings.

There are many examples of child care centres operating successfully above the ground floor of multi-storey developments in higher density centres such as the Sydney, North Sydney and Melbourne CBDs. If designed well, with particular consideration to fire and open space safety requirements, podiums and rooftops can provide a sound opportunity to accommodate child care centre facilities in multi-storey buildings.

The City of Sydney DCP 2012 recognises that in certain circumstances, it may be necessary to accommodate child care centres above the ground floor within higher density developments to cater to the needs of residents and workers. Accordingly the Sydney DCP 2012 permits child care centres above the ground floor in conjunction with additional requirements such as the provision of emergency access points and specific design and safety measures for outdoor play areas.

Similar provisions could be incorporated into the DCP 2013 to encourage above ground childcare centres, on podiums and rooftops of developments within the town centres. Additional DCP controls will be required to ensure that safety and fire access is not compromised in such circumstances.



Figure 147: Child care centre situated on three storey atrium in North Sydney CBD Source: www.michaelbellarchitects.com



Figure 148: Example of child care centre with open space on podium in Bentleigh East, Melbourne. Source: www.botanicaltraditions.com.au

Proposed Changes to the Delivery of Child Care

In November 2016 the State Government announced a raft of proposed changes to the planning system to streamline planning approvals and support the provision of additional child care services across NSW. Key changes proposed include:

- Permitting school based child care as exempt or complying development (which provides a faster approval process than a conventional development application)
- Ensuring child care centre proposals are assessed under a single set of planning controls and guidelines
- Providing guidance upfront to assist developers and service providers to deliver high quality and safe child care facilities
- Aligning the National Quality Framework for early childhood education for planning and building centres with NSW planning controls; and
- Allowing temporary use of land provisions to apply for the temporary relocation of child care services in emergencies such as floods or fires.

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The State Government will undertake further discussions with Councils, industry and the community during an upcoming consultation period. If adopted, the changes proposed are likely to increase the availability of child care services across Randwick City, particularly with respect to school based child care.

9.3 Education Facilities

The Kensington and Kingsford town centres are serviced by three primary public schools, being Kensington Public School, Daceyville Public School, Rainbow Street Public School, and two high schools, being Randwick Boys High School and Randwick Girls High School.

Walkability indicators prepared by the UNSW City Futures Research Centre indicates that 92% of dwellings within the Kensington and Kingsford suburbs are within walking distance (15 minutes) to a local primary school and 40% of dwellings are located within walking distance to a secondary school. All dwellings within the suburb are within a 30min walking distance to local primary schools and 74% of dwellings are within walking distance to the secondary schools.

Kensington Public School is currently at full capacity and cannot accommodate increased enrolments. The School is on a site of 0.7ha and the entire site is identified. as a Heritage Item under the Randwick LEP 2012, therefore any future proposals will need to have regard to impacts on the heritage significance of buildings and spaces. There are limited expansion opportunities at Kensington Public School given its heritage significance and relatively small site area. Therefore in its current form, any increase in population and the corresponding increase in public school students in the corridor cannot be accommodated at Kensington Public School which is currently at capacity with 450 students. Daceyville Public School with a current enrolment of 284 students and larger site area of 2.9 ha however has capacity and the opportunity to absorb future student growth arising from the dwellings forecasts. The Department of Education will need to consider options to accommodate the forecast growth in primary school enrolments within the precinct, Rainbow Street Public School with 435 students is currently being redeveloped to accommodate up to 1,000 students, expected to be completed in 2019 and will have capacity to accommodate growth.

One of the four shortlisted entries in the K2K Urban Design Competition included multi-use of Kensington Public School facilities including the sharing of open spaces beyond the school boundaries and co-locating working hubs and other education uses in taller building forms outside of school hours. The Draft Central District Plan (November 2016) Liveability Priority 10 supports innovative school planning and delivery by:

- Reducing car use for school commuting
- Enabling flexible spaces of school facilities during construction to meet changing needs; and
- Incorporating planning incentives for the development of new schools and shared school facilities including playing fields and indoor facilities to meet wider community recreation needs

The draft Central District Plan estimates that school enrolments are expected to increase by 42% based on current enrolments in both government and nongovernment schools to 2036. Generally, schools within the Central District have high utilisation rates. It notes the Department of Education's preparation of a joint venture template that will include the shared use of playgrounds and other spaces. The Draft Plan also notes the Government's commitment to ongoing investment to upgrade schools and the establishment of a new Inner City High School in the Sydney CBD.

An audit of all LGA schools as part of the Council's Recreation Needs Study, found that there is generally poor provision of sporting facilities at school sites. Those schools that do have sports fields are currently utilising them at a high rate for student sporting activities and play. As a result, there appears little opportunity to increase the provision of sporting and recreation facilities for external groups through shared use of Randwick school facilities.

Randwick Boys and Randwick Girls High School with enrolments of 663 and 946 students respectively both have existing capacity to service forecasts student growth from in the town centres.

Council will liaise closely with the Department of Education during the public consultation period on these issues.

9.4 Support Services

There is a critical need to maintain and attract more social service providers which specialise in health and community support including mental health, aged care, disability, youth and family services. Social services are presently discouraged from establishing offices in the LGA, due to the high costs of renting office space, and this has an adverse flow on effect on the well-being of some of the most marginalised and socially isolated members of the community⁸³.

Council's Social Inclusion Plan identifies key community groups who are vulnerable to disadvantage and exclusion (and who would benefit from improved access to social services)⁹⁴. These include people with poor or no English language skills; the unemployed; recent immigrants; people with limited access to computers and the internet, people with disabilities; and those who are isolated at home.

Notably, a portion of international students are included in this cohort who are experiencing hardships stemming from income and accommodation pressure and social exclusion, and who would benefit from improved access to social services. It is likely that some of these students are residing in or close to the town centres given the location of the UNSW nearby.

Council has adopted a social inclusionary approach to encourage the participation of disadvantaged groups and individuals in community life. Social inclusion is an important facet of combating social disadvantage with recent studies demonstrating that participation in a locality or neighbourhood can have positive outcomes for the community.

To ensure that all people are afforded the ability to participate and be actively involved in community life, it is integral that opportunities be provided to attract social service providers into the LGA. One way is to provide for flexible office and meeting spaces at reduced rates and encouraging their joint use/co-location with compatible services within a single site to provide efficiencies and improved access to services to the general community.

9.5 Youth Facilities and Services

The provision of adequately funded facilities and services to meet the needs of youth is a critical issue for Randwick City. A Safer Randwick Plan identifies the need to provide a facility where young that engage safely in various activities⁹⁵. It notes the complexities in identifying a suitable location that is accessible, well buffered from noise and compatible with surrounding land uses. More work is needed to identify a suitable location, and a whole of a LGA approach is required for this purpose.

As identified above, Council's Social Inclusion Plan identifies a need for affordable office space for a range of service providers to run regular outreach programs and activities catering for youth. This again highlights the need for additional flexible office/meeting room space to meet social needs of the community.

⁹³Randwick City Social Inclusion Plan 2010

⁹⁴lbid

⁹⁵Randwick City Council (2003) A Safer Randwick Plan

9.6 Community Services Hub

As noted earlier, the Rainbow Street site in Kingsford town centre is earmarked for a future potential Council Administration building, consolidating Council's administrative and civic functions into the single location. Once developed, this site is proposed to be Council's primary interface with the community where people come to undertake business such as paying rates, general enquiries, and holding formal and informal meetings.

The Rainbow Street site has the potential to be developed as a 'community services hub', combining the aforementioned civic and administrative services with sufficient floor space to accommodate flexible office/meeting spaces to meet social services needs. Community hubs are gaining traction as an efficient means of delivering community services, with shared use generating economies of scale, and allowing for the integration of infrastructure.

The Rainbow Street site's accessible location adjacent to the light rail terminus makes this an ideal site to accommodate a community services hub model. The community will benefit from having a 'one stop shop' where a number of services can be accessed in the one location.

The allocation of floor space towards flexible office/meeting spaces could be explored as part of the development of options for the site. Allocation of funding towards the provision of flexible office/meeting space has been incorporated into the K2K Community Infrastructure Plan.

What is a community hub?

'A conveniently located public place that is recognised and valued in the local community as a gathering place for people and an access point for a wide range of community activities, programs, services and events'

(Rossiter 2007 p2; Bond 2010 p1).

9.7 Gallery/Contemporary Arts Space

Studies into place making and urban renewal often highlight the important role of creative spaces (such as small galleries and performance spaces) in fostering vibrancy, liveability and a sense of place⁹⁶. Such spaces are incubators for creative life, help activate centres, and provide an important opportunity for people to produce and engage with art and culture⁹⁷. Improving public access to arts and cultural facilities can also support local economies, by attracting arts and non-arts

businesses, as well as tourism and cultural energy into a precinct.

Randwick City currently lacks adequate facilities and exhibition spaces to support emerging creative industries, local artists and designers. While a variety of multipurpose community centres and facilities exist across the LGA, there are limited opportunities for artistic pursuits at the community level⁹⁸.

A cultural audit undertaken over 2004-2005 identified a number of desirable cultural resources that would contribute to the community's cultural life⁹⁹. The audit highlighted the provision of a gallery/ contemporary arts space as a key priority for the LGA, to provide a focus for specialist groups involved in the creation of, support for and appreciation of creativity and arts practice.

The future urban renewal of Kensington and Kingsford town centres provides an opportune time to consider the cultural needs of the community, and in particular identify ways to improve public access to art and culture. It is considered that the Todman Square Precinct, located at the heart of Kensington town centre, is well placed to accommodate a gallery/contemporary art space. Such a facility could act as a cultural anchor within the precinct, facilitate clustering and synergies between businesses that benefit from a

centralised location, while contributing to the activation of the town centre.

The dedication of floor space to Council for the provision of gallery/art space could be considered as part of the redevelopment of a site/s located within the Todman Square Precinct.

This floor space dedication would not count towards the calculation of total gross floor area on the site, which will to act as an incentive for the provision of this space. Allocation of funds towards a fit out of an art gallery/creative space has been incorporated into the K2K Community Infrastructure Plan.

⁹⁶Project for Public Places (2016)

99lbid

⁹⁷City of Sydney (2016) 'New Ideas for Old Buildings' Discussion Paper

⁹⁸A Cultural Randwick City Plan (2010)



Figure 149: Creative space for artists/designers Source: www.cityofsydney.nsw.gov.au



Figure 150: Boyd Studio Space, Southbank, Melbourne Source: www.creativespaces.net.au

Strategies	Actions
Encourage childcare centres to locate within Kensington and Kingsford town centres	a) Amend the DCP 2013 to encourage childcare centres on podiums and rooftops within the town centres, in conjunction with stringent controls on emergency access and safety
Support innovative approaches to shared use of school facilities	a) Continue discussion with NSW Department of Education on options for optimising use of local school facilities in the precinct including innovative approaches to shared use of buildings and spaces with the community
Attract and expand social services and programs to meet the needs of a diverse community	a) Incorporate flexible office/meeting room space within Kingsford for social services, youth outreach programs and services and other community services within the community infrastructure contributions scheme
	b) Undertake detailed planning for the delivery of a community hub at the Rainbow Street site in Kingsford town centre which promotes the colocation of Council administration/civic services and social/community facilities
Improve public access to art and cultural facilities within Kensington town centre	a) Incorporate a gallery/creative space for Kensington within the community infrastructure contributions scheme

10.0 Zoning and Landuse10.1 Town Centre Zoning

Under the RLEP 2012 the Kensington and Kingsford town centres are zoned B2 Local Centre which allows flexibility for a range of retail, commercial, civic, cultural and residential uses. The objectives of the B2 Local Centre zone focus on maximising public transport patronage, achieving a high standard of urban design and amenity, and enabling residential development that is well integrated with and supports the primary business function of the zone.

New residential uses in the town centres generally occur in the form of mixed use development (with a retail component on the ground floor and apartments on upper levels).

A review of business zoned land was undertaken as part of Comprehensive LEP 2012 preparation process over 2010-2012. Council has endorsed the conclusion that the B2 Local Centre zone objectives are well aligned with the role, function and character of the Kensington and Kingsford town centres.

It has always been Council's intention to concentrate higher density developments in the town centres, while retaining the character of surrounding lower density residential suburbs. This position has not changed and densities will continue to be concentrated within the town centres to capitalise on excellent access to transport and facilities.

This draft Strategy recommends that the B2 Local Centre zoning be retained for the Kensington and Kingsford town centres in conjunction with land use permissibility presently afforded under the RLEP 2012. The B2 Local Centre zone is considered to be the best fit, reflecting the role, function, existing and future desired character, intensity and mix of land uses within these town centres.

Strategies to protect and enhance the business and retail nature of the town centres are further explored in Part C Section 4 – Business and Economy.

10.2 Zone Boundary Extensions

The existing zone boundary of the Kensington and Kingsford town centres was investigated under the draft Issues Paper to identify a suitable alignment with existing uses and the future desired character of these centres.

Three key opportunity sites were identified on the edge of Kingsford town centre that are currently zoned residential, however comprise a number of retail/commercial uses, or, are part of a block that is predominantly business in nature. These sites would provide a logical extension to the Kingsford town centre given their strategic location.

It is proposed that the B2 Local Centre zone be applied to these sites to reflect existing business uses, and ensure a cohesive zoning application across the entire block. The subject sites are listed in the table below and detailed further in the Appendix 3.

Table 14: Proposed Zone Boundary Extensions

Site	Current Zone	Proposed Zone	Current RLEP 2012 Controls	Proposed RLEP 2012 Controls
16-20 Barker Street, Kingsford	R3 Medium Density Residential	B2 Local Centre zone	Height: 9.5m FSR: 0.75:1	Height: 31m (9 storeys) FSR: 4:1
582-584 and 586-592 Anzac Parade, Kingsford	R2 Low Density Residential	B2 Local Centre zone	Height: 9.5m FSR: 0.5:1	Height: 31m (9 storeys) FSR: 4:1
	R3 Medium Density Residential	B2 Local Centre zone	Height: 12m FSR: 0.9:1	Height: 31m (9 storeys) FSR: 4:1

Source: Randwick City Council 2016

10.3 Residential Interface Areas

Kensington and Kingsford town centres are bounded on all sides by residential zoned land. The majority of these residential interface areas are zoned R3 Medium Density Residential under the RLEP 2012, and feature residential flat buildings, dual occupancies and stand-alone dwelling houses. There are also pockets of R2 Low Density Residential zoned land to the south-east and south-west of Kingsford town centre, containing mostly single dwelling houses and some dual occupancy development. These interface areas benefit from their proximity to the town centres, jobs and transport opportunities.

This draft Strategy does not propose changes to the zoning or planning controls of these residential interface areas. However, these areas play an important role in supporting the town centres and provide an important built form transition between the town centres and surrounding lower density residential neighbourhoods.

Strategies	Actions
Consolidate the town centres' boundary to create a well-defined and compact urban form	a) Retain the existing RLEP 2012 B2 Local Centre zoning for Kensington and Kingsford town centres b) Amend RLEP 2012 to rezone the following sites from residential to B2 Local Centre zone
	(Figure 156): • 16-20 Barker St, Kingsford
	 582-584 and 586-592 Anzac Parade, Kingsford; and
	 63 Harbourne Road and 12-18 Rainbow Street, Kingsford.
	NB: New built form controls are proposed to provide a suitable transition to surrounding residential zoned areas (see Part C Section 5 – Built Form for further information)
Promote a land use mix within the town centres	a) Maintain existing permissible uses for the B2 Local Centre zone under the RLEP 2012

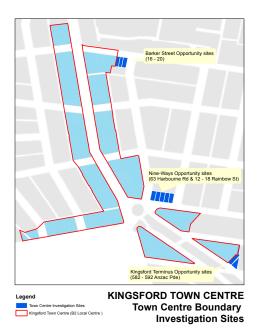


Figure 151: Proposed B2 Zone boundary extension Source: Randwick City Council 2016

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Part D - Precincts and Structure Plan

1.0 Precinct Plans

As highlighted throughout this draft Strategy, three Precincts have been identified which are focused around strategic light rail infrastructure nodes and for which common strategic directions have been identified.

These Precincts share similar land use characteristics or built form, and have a reasonable amount of development potential.

Redevelopment within these precincts has the potential to create outstanding urban places for residents, workers and visitors to enjoy. The following section outlines the future vision for the identified Precincts, consolidating relevant Strategies identified in this document.

1.1 Kingsford Junction Civic Precinct Vision

The Kingsford Junction Precinct will be the civic hub of Randwick City Council and the gateway to Kingsford town centre (Figure 152).

Focused around the light rail terminus in the south of Kingsford town centre, this dynamic Precinct will be highly accessible, well connected and activated. The Precinct will feature a variety of community uses such as car parking with associated retail/commercial, residential and civic land uses, clustered around the light rail terminus, making greater use of the public transport network.

All development will be designed to the highest quality. Large key sites adjacent to the terminus will accommodate taller slender landmark buildings reflecting architectural design excellence and best practice in sustainability.

A human scaled and highly permeable environment will be created through podiums integrated into built form, together with wider footpaths, and mid-block links throughout the Precinct.

The streetscape will be attractive and welcoming, encouraging social interaction through the provision of public plazas, large canopy trees, landscaping, seating, and interactive public art.

A community hub at the Rainbow Street site will consolidate government and civic services together with flexible office and meeting spaces to facilitate a one-stop shop of integrated and efficient community service delivery.

A new town square at the Rainbow Street site will provide a focal point for civic pride and community expression, encouraging people to linger, interact and connect.



Figure 152: Precinct Plan – Kingsford Junction Source: Conybeare Morrison 2016



Figure 153: Precinct Plan – Kingsford Mid-Town Source: Conybeare Morrison 2016

Part D - Precincts and Structure Plan

1.2 Kingsford Mid-Town Precinct Vision

The Kingsford Mid-Town Precinct is located in the old heart of Kingsford town centre with buildings reflecting the historical development of the town centre, juxtaposing old and new.

Based around the Strachan Street light rail stop, Kingsford Mid-Town will be highly accessible and active, with strong links to UNSW, Kensington Park and surrounding residential areas.

The Precinct will be a focus for innovation, leading edge design and sustainability, with incubators and co-working hubs fostering start-ups and creative industries with strong synergies with UNSW nearby.

The Precinct will continue to maintain its strong convenience retail and dining role, reflected by a diverse range of shops, cafes and restaurants. It will be a lively Precinct, both day and night, building up on its distinct Asian dining character with active shop fronts and lively safe streets that will encourage people to mingle and meet.

Three taller buildings at corner sites will exhibit design excellence and emphasise the mid-town role of this Precinct. The historic fabric of the area, including O'Deas Corner and contributory buildings will be respected and celebrated, with new buildings sympathetic to their scale, form and detailing.

The greening of this Precinct with boulevard trees, landscaping and linear links to Kensington Park will contribute to the liveability of this Precinct, making it a place where people want to live, work and visit.

1.3 Todman Square Precinct Vision

Todman Square will be a vibrant, eclectic Precinct and the new heart for Kensington town centre.

It will be the main shopping and cultural area in Kensington town centre, providing a diverse range of shops, dining and convenience retail, meeting the daily needs of residents, workers and visitors.

Todman Square will be highly activated with residential, retail, cultural and civic land uses clustered around the Todman Avenue Light Rail Stop. It will have excellent accessibility with strong connections to employment hubs including the Sydney CBD and Randwick Specialised Centre Precinct and east-west linkages to surrounding residential areas.

Todman Square will have a lively arts and innovation focused environment. A new community gallery/creative arts space will encourage artistic endeavour, stimulate creative energy and improve public accessibility to art and culture. This creative hub will be supported by arts and nonarts related businesses such as cafes and restaurants, and start-ups clustered around this cultural anchor.

Todman Square will achieve high quality urban design and amenity, with taller buildings at corner sites reflecting architectural design excellence and emphasising this new landmark location.

The Precinct will have integrated public domain spaces with their use and activation encouraged through new development. It will have a pedestrian focus with wider footpaths, outdoor dining and high level of permeability throughout with mid-block links allowing people to navigate the centre with ease.

A new plaza with public art, landscaping and furniture will encourage people to interact and connect.

Green linear links to an expanded Kokoda Park and the Randwick Racecourse Urban Forest will further foster the liveability of this Precinct.

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Figure 154: Precinct Plan – Todman Square Source: Conybeare Morrison 2016

Part D - Precincts and Structure Plan

1.4 Structure Plan for the Town Centres

The following two Structure Plans illustrate how the town centres sit within their surrounding context. They also illustrate how the town centres relate to their broader area and show opportunities that exist outside the town centre boundaries that may be investigated in future studies.

The Vision and Strategies for the town centres is contained in Part C and this section should be read in conjunction with this vision.

The boundaries of the Planning Strategy area relate primarily to the business zone areas of each town centre with some additional properties abutting the boundary included (see Part A – Overview). However, it is difficult to consider these areas in isolation and when assessing how they relate to surrounding areas, many opportunities arise. Some have already been identified in the draft Planning Strategy such as public improvements to Todman Avenue.

These Structure Plans go further and illustrate important relationships to surrounding land uses such as the Royal Randwick Racecourse and UNSW. They also illustrate emerging opportunities that may arise from the rejuvenation of the town centres and improvements to site permeability.

The Structure Plans are not statutory documents in the way that Local Environmental Plans are; they are more an illustration of key opportunities, relationships and emerging possibilities in this vibrant urban context. Each of the Structure Plans are discussed in turn below. The Structure Plans also highlight the importance of the Anzac Parade corridor and the need to consider this important boulevard in the broader context.

Kensington Urban Structure Plan

The Kensington town centre's proximity to the Royal Randwick Racecourse presents many opportunities for the future. These are difficult to visualise at this stage as the racecourse generally faces inwards and presents fences and gates to the areas that could potentially connect with the Kensington and the town centre.

Urban Forest

The Royal Randwick Racecourse has a number of opportunities for future improved connections have been identified, such as Bowral Street and Ascot Street providing pedestrian links for race goers and the general public, the potential for a north south cycle link through the racecourse, allowing cyclists to travel from High Street to Alison Road and on to the Centennial Parklands.

Key terms that are used in the structure plans are defined below:

Green Links

These streets present opportunities to use street tree planting and associated ground level plantings and possibly water sensitive urban design structures such as rain gardens to draw together and link adjoining parks are green spaces with the town centre.

Transport Corridors

Distinct from your typical street, the streets identified as transport corridors will cater for a range of transport functions, from traditional car transport to accommodating cycle facilities and also play a key role in linking the centres to their surrounding context.

Urban Interface

The areas directly adjoining the town centres is referred to as the urban interface and this highlights the importance of these areas on a number of levels. As the planning strategy has articulated, these areas have been carefully considered in the design and formulation of controls for the town centres to ensure solar access and good setbacks for example are achieved. These areas also have excellent accessibility to the emerging opportunities of the town centres. These areas play an important role in supporting the town centres and provide transition to surrounding low scale development.

Part D - Precincts and Structure Plan

Where the Royal Randwick Racecourse connects with Anzac Parade, there is a timber fence and behind it at the northern end is a maiestic stand of Plane trees which has been identified as a potential 'urban forest' in the structure plan (see Figure 156). This could be utilised by the public and provide a valuable area of open space near to UNSW and strategically located between the two town centres. In this location the potential for a new built form on the corner of Anzac Parade and High Street has been identified which could define this important intersection and further frame the vista to the Sacred Heart Monastery. These potentials are subject to further discussions and investigations between the Australian Turf Club and Council. These examples highlight the hidden potential at this location.

A significant amount of new public domain has been identified as part of the Planning Strategy, and as the 'urban forest' shows, there are new areas waiting to be unlocked. One such area identified in this structure plan is the potential expansion of Kokoda Park through to Doncaster Avenue. This would vastly improve this important park and provide it with three street frontages instead of two and increase its accessibility and useability. This has been identified as potential only at this stage and requires further investigation.

Kingsford Urban Structure Plan

The Kingsford town centre adjoins the UNSW which is an important component of the Randwick Health and Education Strategic Centre. The town centre benefits greatly from this proximity and the planning strategy has built upon this important relationship. This Structure Plan has identified additional potential benefits such as a north south cycle way through the campus linking to the potential Royal Randwick Racecourse link. This could then be further extended down Forsyth Street and then link to Council's new civic plaza and the Kingsford Terminus. This would provide university students with a new link to the light rail and the new southern end of the Kingsford town centre, identified by the new name of 'Kingsford Junction'. Forsyth Street has also been identified as a new potential view corridor, opening up new views down the street to the new civic plaza and then through to the Kingsford Terminus and the buildings adjacent. This potential link requires further investigations and discussions with UNSW.

Mass transit has been discussed in the public arena as a future means of transit for metropolitan Sydney. The metro is underground, high capacity and is a fast means of mass transit. The possible extension of the Parramatta to the CBD metro has been flagged as a long term option to go through to Maroubra. This would be crucial in unlocking much of the development potential of the south east which is currently constrained due to the capacity of bus network and the CBD and south east light rail which is under construction and has limited remaining capacity (refer to Part C Section 7 -Sustainability and Transport). This Structure Plan has identified Council's new civic plaza at the corner of Rainbow Street and Anzac Parade as a future potential location for a metro stop on the way to Maroubra. This location adjacent to the Kingsford Terminus of the light rail and at this important future civic and commercial hub would be a strategic location for a new Metro stop.

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Part D - Precincts and Structure Plan

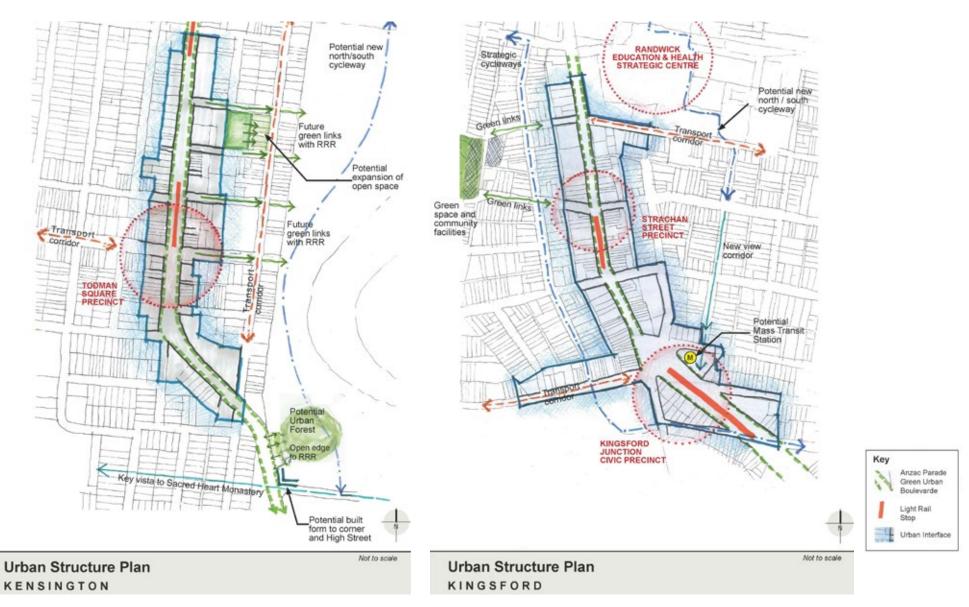


Figure 155: Structure Plan – Kensington town centre Source: Randwick City 2016

Figure 156: Structure Plan – Kingsford town centre Source: Randwick City 2016

Part E – Funding Infrastructure

This Strategy identifies new infrastructure needed to support growth in the town centres and to ensure the long term vision for these centres are realised. The success of these town centres requires a combination of infrastructure and public domain improvements that are essential to accommodate growth and make the town centres vibrant and liveable places.

A schedule of infrastructure works needed to support growth in the town centres over the next 15 years has been compiled. Some of the items identified are directly from the K2K Urban Design Competition and community feedback including a new bicycle network, innovation centre and an automated waste collection system. Other items identified through this Strategy include essential public domain works, footpath widening and community facilities.

The estimated total cost of this infrastructure, community facilities and public domain improvements is approximately \$85 million. Funding this infrastructure will be based on the existing local development contributions framework (i.e. through s94A development contributions) and the economic uplift gained from a change in planning controls applying to this corridor through a new 'community infrastructure contribution'. In addition to these contribution schemes, an inclusionary zoning based approach for affordable housing is proposed, which will require a proportion of units to be

dedicated as affordable rental housing to be incorporated within the development.

A summary of the contribution schemes proposed to apply is shown in Table 15.

The aim of these three contribution schemes is to provide more certainty of what is required and possible to both landowners and developers and importantly, to help realise the overall vision for these town centres, as a vibrant and liveable place.

These schemes are supported by a comprehensive planning process, a strong evidence base, financial feasibility assessment and is aligned with community expectations for these town centres and are described below.

1.0 Infrastructure Contributions Scheme

The three proposed contribution schemes for the Kensington and Kingsford town centres are outlined as follows:

1.1 Development Contributions – Local Infrastructure Contributions

Section 94 of the Environmental Planning and Assessment Act (EP&A Act) enables the consent authority to levy contributions from developers by condition of development consent. Development contributions (monetary or in-kind) can be used to help provide for parks, local road improvements, town centre improvements and community facilities.

Table 15: Proposed Contribution Schemes

Contribution scheme to apply to K2K	Description
Local infrastructure contributions (s94A)	An increase of the maximum levy payable under s94A from 1% to 3% of the total construction costs.
Community infrastructure contribution (CIC)	A contribution charge of \$475/m² towards community infrastructure on the additional planning capacity (GFA) made permissible under the proposed built form controls proposed in this strategy. The charge would only apply to the additional capacity above the existing base height and would apply to all developments seeking to achieve the maximum building heights as proposed in this draft strategy.
3. Affordable housing levy	A levy, commencing at 3% then increasing to 5% (from July 2019) of the total residential yield to be dedicated as affordable rental housing, incorporated within the development.

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Part E - Funding Infrastructure

The Randwick City Section 94A (s94A) Development Contributions Plan applies a 0.5% (for development with a development cost of \$100,000-\$200,000) to a maximum 1% levy to all development (with a development cost of \$200,001 and more) across the LGA. This is in accordance with the Minister of Planning's direction under s94E of the EP&A Act.

This rate can only be varied by the Minister for Planning based on a viable evidence based submission from council and submission to Independent Pricing and Regulatory Tribunal (IPART). Other rates currently applicable beyond the 1% include: Parramatta CBD at 3%, Burwood town centre at 4% and Chatswood CBD at 3%. Similarly, Waverley Council is currently seeking an exemption to the maximum rate payable for Bondi Junction town centre from 1% to 4%.

Council's existing s94A Plan (at a maximum rate of 1%) is not sufficient to fund the total infrastructure necessary to support growth in the town centres as shown in the table below. As such a key action of this strategy is to seek an exemption to the maximum levy imposed to 3% for the centres. This increased rate generates close to 68% of the required funding for infrastructure.

1.2 Community Infrastructure Contribution

While the increased s94A rate can fund the majority of the local infrastructure items, some of the community infrastructure items such as the fit out of an innovation centre, gallery and shared creative space, green links and new bicycle networks (as identified by the design competition) are outside the scope of Councils' s94A Plan, (meaning they are additional community infrastructure items and works which fall outside the scope of what has been traditionally funded through development contributions, in accordance with the Department of Planning's guidelines and practice notes).

The infrastructure items and works have been costed and categorised into either local infrastructure (to be funded under s94A) or community infrastructure (to be funded under a Community Infrastructure Contribution (CIC) as shown in the table below.

To fund the community infrastructure, a contribution is proposed on the new additional floor space capacity generated from the proposed new built form controls as outlined in Part C Section 5 – Built Form. The community infrastructure contribution is to be required as a financial contribution made as part of the development application process. Community infrastructure in the Kensington to Kingsford

Table 16: Proposed s94A Contributions

Estimated cost of total infrastructure to support growth	\$ 85,563,000 million
Contribution at 1% s94A levy (current)	\$ 19,664,750 million
Contribution at 3% s94A levy (proposed)	\$ 58,994,250 million

Table 17: Proposed Community Infrastructure Contributions

Estimated community infrastructure	\$40,750,000 million
Estimated local infrastructure (s94A)	\$44,813,000 million
TOTAL	\$85,563,000 million

Part E – Funding Infrastructure

precinct refers to new innovation centres, exhibition space, bicycle sharing facilities and water sensitive urban design which have been directly identified by this strategy to help realise the overall vision.

The developer can only achieve the maximum height proposed in this strategy if a contribution is made towards community infrastructure. The principle of this approach is that the cost of the community infrastructure charge is factored into the economic value uplift gained from the changes to built form controls and enables the council and the community to share

the benefits of density increases. Similar schemes in existence include Green Square within the City of Sydney and Macquarie Park within Ryde Council.

The following table summarises the total estimated cost of both community and local infrastructure needs attributable to the additional growth anticipated within the town centres and funding implications of the existing s94A at 1% with a CIC compared to a new increased levy at 3% with the CIC.

The results demonstrate that in order for the total infrastructure requirements to be provided (\$85m) that Council needs to implement both a 3% Section 94A contribution and a \$475/m² community infrastructure contribution on additional residential floor space, while also providing for a reasonable contingency (i.e. surplus).

1.3 Affordable Housing Levy

Part C Section 3.3 – Affordable Housing provided an overview of the legal mechanisms available to Council to facilitate affordable housing through the NSW planning framework. This part also established the critical need to provide affordable rental housing within the town centres for essential workers, in line with the Council's affordable housing program; and importantly, the need for a local planning mechanism to ensure affordable housing is delivered as part of the total supply of new housing within the area.

Table 18: Comparison of total contributions and infrastructure needed

Section 94a at	at 1% Construction Costs +\$475/m² CIC Section 94a at 3 % Construction Costs +\$475/m² CIC		CIC				
K2K Contributions Required	Total Contribution	Difference	Surplus %	K2K Contributions Required	Total Contribution	Difference	Surplus %
\$45,963,000	\$19,664,750	-\$26,298,250	-57.22%	\$45,963,000	\$58,994,250	\$13,031,250	28.35%
\$39,600,000	\$41,858,781	\$2,258,781	5.70%	\$39,600,000	\$41,858,781	\$2,258,781	5.70%
\$85,563,000	\$61,523,531	-\$24,039,469		\$85,563,000	\$100,853,031	\$15,290,031	
	K2K Contributions Required \$45,963,000 \$39,600,000	K2K Total Contributions Contribution Required \$19,664,750 \$39,600,000 \$41,858,781	K2K Contributions Required Total Contribution Difference \$45,963,000 \$19,664,750 -\$26,298,250 \$39,600,000 \$41,858,781 \$2,258,781	Contributions Required Contribution \$45,963,000 \$19,664,750 -\$26,298,250 -57.22% \$39,600,000 \$41,858,781 \$2,258,781 5.70%	K2K Contributions Required Total Contribution Difference Surplus % K2K Contributions Required \$45,963,000 \$19,664,750 -\$26,298,250 -57.22% \$45,963,000 \$39,600,000 \$41,858,781 \$2,258,781 5.70% \$39,600,000	K2K Contributions Required Total Contribution Difference Surplus % K2K Contributions Required Total Contribution \$45,963,000 \$19,664,750 -\$26,298,250 -57.22% \$45,963,000 \$58,994,250 \$39,600,000 \$41,858,781 \$2,258,781 5.70% \$39,600,000 \$41,858,781	K2K Contributions Required Total Contribution Difference Surplus % K2K Contributions Required Total Contribution Difference \$45,963,000 \$19,664,750 -\$26,298,250 -57.22% \$45,963,000 \$58,994,250 \$13,031,250 \$39,600,000 \$41,858,781 \$2,258,781 5.70% \$39,600,000 \$41,858,781 \$2,258,781

Source: Kensington to Kingsford Infrastructure Contribution Financial Feasibility Assessment (November 2016) prepared for Randwick City Council by Hill PDA

Part E - Funding Infrastructure

An affordable housing levy is proposed to apply to the Kensington and Kingsford town centres, pending enabling legislation under s94F of the EP&A Act, as authorised under the State Environmental Planning Policy No. 70 – Affordable Housing (Revised Schemes). The Department of Planning and Environment supports Council's inclusion in SEPP 70 and hence enabling the Council to use the contribution capabilities under s94F towards affordable housing.

The affordable housing levy proposed is to be introduced via a two stepped staged approach, commencing at 3% (up to June 2019) and increasing to a maximum of 5% (from July 2019 onwards), to apply to development applications for residential development in the Kensington to Kingsford town centres. The intent of this staged approach is to provide the market with a lead in time to factor in the contribution. Details relating to the contribution scheme including operational and management of the affordable housing dwellings will be outlined in an Affordable Housing Plan for the town centres to be submitted to the Department following endorsement of this strategy and confirmation that the Council will be authorised to levy under SEPP 70.

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The preferred contribution mechanism is as dedicated (in-kind) affordable housing dwellings, to be incorporated within the new development. However, where this cannot be provided, in the case where the contribution amount is less than a reasonable sized dwelling to be dedicated, then an equivalent monetary contribution will be sought. The monies that are collected will be spent towards providing new affordable housing dwellings within the LGA.

The introduction of the proposed affordable housing levy can achieve more than 200 affordable rental dwellings for essential key workers in the area.

2.0 Planning Agreements

The legal instrument that sets out the applicant's offer to deliver the CIC in association with a development application is a voluntary planning agreement. Planning agreements are negotiated between Council and developers in the context of the development application process. The developer needs to voluntarily agree to the CIC monetary contribution to Council in order to gain the floorspace uplift proposed in the draft Planning Strategy. Council's Planning Agreements Policy (adopted 2007) establishes a framework to guide the preparation of planning agreements in a fair, efficient and transparent manner.

Planning agreements are legislated by

Table 19: Affordable Housing

Date of DA lodgement	Total residential floor area to be dedicated as affordable housing (as at 2017)	Estimated no. of additional affordable housing
To June 2019	3%	30
1 July 2019 onwards	5%	200

Strategies	Actions
Seek an exemption to the maximum levy payable under s94A for the Kensington and Kingsford town centres	 a) Request in principle support from the Minister for Planning & Environment for an exemption to the maximum levy payable from 1% to 3% b) Amend Council's existing s94A development contributions plan to incorporate a 3% levy for the town centres and infrastructure identified to be funded
Review Council's existing VPA policy	a) Consider recommendations in the state government's recent draft Planning Agreements practice notes and review council's existing VPA policy in relation to the provision of community infrastructure
3. Introduce a community infrastructure contributions scheme to help fund the required community infrastructure identified by this Strategy	a) Introduce a community infrastructure contributions scheme within Randwick LEP 2012 based on discretionary built form controls (using existing and proposed controls as outlined in the strategy) which can only be surpassed in exchange for contributing towards community infrastructure b) Prepare supporting guidelines which lists the
	community infrastructure to be funded and operational details

Part E – Funding Infrastructure

section 93F of the EP&A Act and provides an alternative mechanism to authorise development contributions for a variety of public purposes, some of which extend beyond the scope of section 94 or section 94A of the EP&A Act. These additional purposes include the capital and recurrent funding of transport, community benefits and public facilities. All planning agreements must also be publicly exhibited for at least 28 days.

The NSW Department of Planning and Environment recently issued draft quidelines (practice note) for the use of planning agreements. Consistent with the Department's draft guidelines the items identified have been developed as the result of a comprehensive planning process for the town centres, community feedback including the outcome of the K2K Urban Design Competition. Moreover, it is important to note that the contribution schemes proposed has been derived from evidence based strategic investigation for the town centres, rather than individual development proposals in isolation. This is in keeping with the recent draft guidelines on planning agreements released by the Department of Planning and Environment.

3.0 Economic Viability & Development Feasibility

Council has commissioned independent feasibility analysis to ensure that the three proposed infrastructure schemes proposed do not render new development economically unviable. The development feasibility of selected sites in the town centres was analysed. The financial feasibility modelling took into account current market values, land costs. the economic uplift derived from the proposed change in built form controls. development margin and viability. The results demonstrated that for the majority of the selected sites in the modelling, the application of the contribution schemes proposed including affordable housing can be afforded on-site while also providing for a reasonable development margin. It was noted that, land acquisition costs were identified as being the most significant variable which impacted on the overall feasibility, and could not take into account land speculation.

Importantly, the economic modelling also identified that to encourage redevelopment along the corridor there is a need to increase FSRs and building heights within the study area. The revised built form controls as proposed under Part C Section 5 – Built Form, are likely to facilitate redevelopment and potentially unlock much of the development capacity which has not yet been realised.

Research has shown that development contributions and similar infrastructure charges, such as those proposed in this strategy, do not negatively impact on the cost of providing new housing and worsen housing affordability¹⁰⁰. Other costs such as stamp duty (24%) and GST (35%) are identified as having the most impact on total housing costs, while development contributions account for only a marginal (6%) proportion of total costs. And importantly, even if these costs were reduced, there is no guarantee the savings would be passed on to the consumer if the market is willing to pay a higher price.

 $^{^{\}rm 100} Research$ undertaken by Urbis (2014) in City of Melbourne (2015) Homes for People: Housing Strategy 2014-18

Part F – Implementation Plan

The following table sets out the implementation timeframe for the actions contained in this Strategy and should be read in conjunction with the relevant themes. Some actions listed below are applicable to more than one theme, due to the interrelationship between the various urban design principles, but for clarity, the actions have been listed under one theme.

Each action has been allocated a timeframe for delivery as follows: Short term – 1-2 years, Medium term – 3-6 years, Long term – 7 years+

Strategies	Actions	Time frame	Responsibility
Housing Growth and Diversity			
Direct housing growth into locations and sites that have the capacity to accommodate change	a) Amend the RLEP 2012 building height and floor space ratio controls for Kensington and Kingsford town centres, to provide for forecast dwelling growth (see Part C – Section 5 Built Form)	Short term	Council and DPE
	 b) Concentrate higher density housing growth within key Precincts and sites in walkable proximity to light rail stops/terminus (see Part C Section 5 – Built Form) 	Short term	
 Encourage a diversity and mix of apartment sizes in the town centres having regard to changing demography, housing trends and affordability for a resident population 	a) Consider new DCP controls requiring a mix of dwelling types, sizes and forms in all new major residential/mixed use development based on demographic trends and social mix	Short term	Council
Encourage adaptable and accessible housing to enable the community to age in place	a) Continue to implement the universal accessible housing principles and controls contained in Part C1 of DCP 2013 for new developments	Short term	Council
4. Provide for affordable housing options for key workers to enhance opportunities to live, work and learn together and to support the economic functions of the Randwick Education and Health Strategic Centre	a) Incorporate inclusionary zoning provisions within the RLEP 2012, based on a staged approach as described above	Short term	Council, DPE, Minister for Planning, IPART
	b) Update Council's existing Affordable Housing Strategy, Policy, Programs and Procedures to address the Kensington and Kingsford town centres Affordable Housing Scheme (once adopted)	Short term	
	c) Prepare a new Affordable Housing Plan for the town centres which will outline the operational and management details of the Affordable Housing Contributions Scheme	Short term	

Strategies	Actions	Time frame	Responsibility
Encourage the development of family friendly apartments to facilitate social diversity in the community	a) Consider new DCP controls to encourage family friendly apartments including specific design requirements that address adequate storage and access to outdoor space where possible	Short term	Council
Business and Economy			
Support and strengthen the existing retail and services within the town centres to provide for the regular needs of residents	a) Support local precinct shopping programs such as "shop local" by developing an app for Kensington to Kingsford that connects people to what's on and what's open near them	Medium term	Council
	b) Continue work to lift the aesthetic standards of Anzac Parade by investigating grant opportunities for shopfront improvements	Short-medium term	
	c) Improve activation by providing more spaces suitable to outdoor dining in appropriate places	Medium term	
	d) Amend the DCP 2013 to encourage fine grain retail and laneways activation to create opportunities for diverse and interesting shopfronts and premises	Short term	
	e) Continue to investigate opportunities for regular evening events such as the night food markets in Meek Street Plaza and other locations within the centres	Short-medium term	
Support the establishment of a night time economy in Kensington and Kingsford	a) Ensure that new development create opportunities for appropriate retail uses at street level that trade into the evening	Short-medium term	Council
	b) Identify opportunities for decorative/feature lighting in outdoor dining areas to support the night time economy	Short term	
Nurture opportunities to establish small, start-up or creative enterprises both in new developments and in vacant premises	a) Use a community infrastructure contributions scheme to obtain Council-owned innovation spaces (such as co-working facilities and affordable office spaces)	Short-medium term	Council
	b) Provide an online guide to applying for planning consent for establishing a co-working space, incubator, accelerator or creative workshop	Medium term	

Strategies	Actions	Time frame	Responsibility
Business and Economy			
Use planning regulation to encourage the provision of commercial office space which can be used by co-working operators, incubators and accelerators	a) Amend the RLEP 2012 to implement a minimum non-residential FSR at key sites to ensure first floor commercial space is provided in new developments	Short term	Council with operators of innovation hubs and start ups
	b) Work with innovation organisations to identify the technology infrastructure required to support innovation uses	Short term	
5. Use public domain improvements to make the	a) Establish free public Wi-Fi	Medium term	Council
centres attractive to innovation industries	b) See Part C Section 8 – Public Realm and Landscape	Short- Medium term	
Leverage the close proximity to the UNSW and health campuses to encourage startups and	a) Continue partnering with UNSW to provide support for their innovation program	Short-long term	Council and UNSW
innovation spaces to locate in the Kensington and Kingsford town centres	b) Utilise partnerships with UNSW and the Hospitals Campus establish UNSW incubators within the centres	Medium term	
	c)Use branding and advertising to promote Kensington and Kingsford as a place for innovation and creative uses to locate	Short-medium term	
Ensure new developments provide for businesses fronting streets to ensure streets are vibrant and safe	a) Amend the RLEP 2012 to implement an active frontage provision to require active building frontages at street level throughout the centre, as identified on the active frontages map (Figures 38 and 39)	Short term	Council and DPE
	b) Amend the DCP 2013 to encourage retail and commercial uses to address laneways and secondary streets, as identified on the active frontages map (Figures 38 and 39)	Short term	
Provide adequate retail and commercial space to ensure future employment needs can be accommodated and the town centres can provide retail and other services to residents and visitors	a) Amend the RLEP 2012 to implement a minimum non-residential FSR applying to sites at key nodes, as identified in Figures 40 and 41, to ensure adequate space is available for the provision of local retail and services and for the provision of innovation spaces	Short term	Council

Strategies	Actions	Time frame	Responsibility
Built Form			
Ensure the form and scale of development is appropriate to its location and contributes to a positive urban design outcome in the town centres	a) Amend RLEP 2012 to establish building heights appropriate to each part of the town centres as shown in the building heights map (Figures 56 and 57)		Council
	b) Amend the DCP 2013 to introduce a secondary height limit to facilitate mews style developments for the sites indicated on the DCP Height Transition Map (Figures 58 and 59)		
	c) Amend the DCP 2013 to introduce a shared zone/laneway in locations identified on the DCP Height Transition Map (Figures 58 and 59)		
	d) Amend the RLEP 2012 to establish maximum FSRs appropriate to each part of the town centres as shown on the FSR map (Figures 65 and 66)		
	e) Amend the DCP 2013 to establish building setbacks in each part of the town centres as shown on the Building Setback Map (Figures 70 and 71)		
	f) Amend the DCP 2013 requiring that development establish a four storey street wall by stepping back at the fourth storey to a minimum depth of 4m to achieve a visual separation between the lower and upper levels of a building		
Ensure that reasonable solar access is maintained to neighbouring properties and streets and public space	a) See Part C Section 8 – Public Realm and Landscape, Action 7(e)	Short term	Council
Achieve a high level of accessibility and permeability within the town centres	a) Amend the DCP 2013 to require that development on identified sites provide mid-block links to facilitate permeability in the block structure (Figures 70 and 71)	Short term	Council

Strategies	Actions	Time frame	Responsibility
4. Encourage a high standard of architectural design to make a positive contribution to the aesthetic quality, functionality and amenity of the urban environment	a) Continue to require that all new development involving the construction of a new building or external alterations to an existing building meet the requirements of RLEP 2012 (clause 6.11) relating to design excellence	Short term	Council
	 b) Amend RLEP 2012 to require that all new development involving the construction of a new building in the following Precincts be subject to an architectural design competition process: Todman Square Precinct 	Short term	
	Kingsford Midtown Precinct Kingsford Junction Precinct		
Recognise building roofs as a strong visual landmark element in built form design and the town centres' skyline	a) Amend RLEP 2012 to include the Standard LEP Instrument model provision on 'architectural roof features'	Short term	Council
Heritage Conservation			
Protect the heritage character and fabric of buildings that reflect the historical development of the town centres	a) Continue to protect the heritage significance of heritage items and contributory buildings through the consistent and rigorous application of relevant RLEP 2012 heritage provisions and DCP 2013 guidelines for heritage conservation	Short-long term	Council
	b) Update the heritage inventory sheet for O'Deas Corner (424-436 Anzac Parade, Kingsford) with key findings from the heritage condition assessment	Short term	
	 c) Amend the DCP 2013 to add the following to the list of contributory buildings to be conserved and retained in Kingsford town centre: 279-287 Anzac Parade, Kingsford 	Short term	
	d) Amend the DCP 2013 to introduce a 6.5m upper level setback for contributory buildings	Short term	
	e) Amend the DCP 2013 for Kingsford town centre to incorporate additional controls for contributory buildings (currently applicable to Kensington town centre) including the requirement for the submission of a Heritage Impact Statement	Short term	

Strategies	Actions	Time frame	Responsibility
2. Integrate heritage and contributory buildings	a) Require the retention and adaptive reuse of historic shopfronts	Short term	Council
into redevelopment	b) Strengthen the DCP 2013 controls for contributory buildings in Kingsford town centre	Short term	
Ensure that new infill development respects the height, scale, siting, character and proportions of contributory buildings	 a) Amend the DCP 2013 for Kingsford town centre to require that new infill development/works: Have regard to the scale, character and proportions of heritage and contributory buildings Reflect segmented frontages of historic building groups through facades that are broken into smaller vertical sections and articulation Provide consistent heights and alignment of street awnings with existing contributory forms Retain the profile and massing of exposed side elevations. Provide podiums that reference the principle influence line of historic streetscapes and are cohesive with the established street frontage 	Short term	Council
Sustainability			
Encourage higher performance ratings for residential development through	a) Include 5-star green star performance in the RLEP 2012 as a criteria for achieving design excellence on key sites	Short term	Council
Green Star accreditation	b) Amend the DCP 2013 to encourage all other sites within Kensington and Kingsford town centres to achieve green star accreditation	Short term	
Ensure commercial development is built to best-practice sustainability standards	a) Amend the DCP 2013 to require that new commercial premises and hotel and motel accommodation with a floor area of 1,000m2 or more must achieve a minimum NABERS 5-star Energy and NABERS 4-star or 5-star Water rating	Short term	Council
Encourage existing buildings to improve their energy and water consumption performance	a) Continue participating with Woollahra and Waverley Councils in 3-Council sustainability project to improve the environmental performance of existing residential flat buildings and shop top housing	Short-medium term	Waverley Council, Woollahra Council Randwick City Council
Integrate more vegetation into the town centres to slow down and filter pollutants from stormwater, improve localised flooding impacts and protect the	a) Prepare a strategy for water sensitive urban design throughout the town centres in conjunction with a landscape concept plan	Short term	Council
waterways by implementing water sensitive urban design	b) Implement two pilot water sensitive urban design projects in the town centres	Short term	

Strategies	Actions	Time frame	Responsibility
Reduce mains water demand by recycled or alternative non-potable water generated from local water resources within the public domain of	a) Investigate a recycled water system for maintenance of landscaping in public spaces where possible	Short-term	Council
Kensington and Kingsford town centres	b) Where possible, in the landscape concept plan, choose low water species for landscaping	Short-term	
6. Incorporate renewable energy and energy-efficient technologies in the public realm to further cultivate the image of the town centres as best practice	a) Implement energy-efficient LED lighting on Anzac Parade and throughout the town centres	Short-medium term	Council and Ausgrid
environmentally sustainable precinct	b) Investigate commissioning public art which can also demonstrate environmental sustainability innovation	Short term	
7. Investigate and if feasible, implement an automated underground waste collection system to reduce the visual clutter caused by garbage bins on streets and reduce litter within the town centres	a) Undertake a concept design and feasibility study for an automated underground waste collection system within the town centres	Short-term	Council
	b) Amend the DCP 2013 to require developments within the town centres to be capable of connecting to an automated underground waste collection system.	Short-term	
	c) Allocate funding for the relevant studies and implementation of an automated underground waste collection system.	Short-term	
Transport			
Advocate for additional mass transit to increase the public transport corridor capacity and provide for	a) Advocate to the State Government for additional mass transit to Kingsford town centre and the more southern parts of the LGA	Short-long term	Council and Transport for NSW
population growth	b) In the absence of additional mass transit, advocate to the State Government for adequate bus services to maintain a maximum morning peak hour level of crowding of 80%	Short-long term	

Strategies	Actions	Time frame	Responsibility
Transport			
2. Encourage bicycle usage by planning for and	a) Continue to progress Council's cycle ways plan	Short-long term	Council and Royal Randwick Racecourse
delivering an improved cycle network and additional bicycle infrastructure	b) Investigate a new off-road cycleway through the Randwick Racecourse (as per competition winner)	Short-medium term	natiowick nacecourse
	c) Allocate funding to provide for bicycle share hubs within the town centres	Short term	
	d) Allocate funding to construct an underground bicycle parking station at Kingsford Junction	Short term	
3. Reduce barriers to electronic vehicle ownership	a) Investigate opportunities for electric vehicle charging spaces within public car parks	Short term	Council
	b) Amend the DCP 2013 to encourage the installation of appropriate power supplies and electric vehicle charging points within new residential and commercial developments	Short term	
Encourage use of car share by residents in an around the town centre	a) Investigate opportunities for additional on-street car share parking spaces	Short term	Council
	b) Amend the DCP 2013 to require the provision of a car share parking spaces within new developments of more than 60 dwellings	Short term	
5. Reduce the car parking requirements and encourage alternative forms of transport to reduce local traffic congestion	a) Amend the DCP 2013 to reduce the car parking requirements to reflect the area's close proximity to the light rail which provides fast and reliable public transport	Short term	Council
	 b) Allow a minimum and maximum car parking requirement to allow developments to respond to market demand and proximity to the light rail 	Short term	
	c) Amend the DCP 2013 to increase requirements for bicycle and motorcycle parking to provide for alternatives to private car ownership	Short term	

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Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Public Realm and Landscape			
Increase the amount of open space within and around the town centres	a) Advocate for new public open space to be provided on the south- western corner of the Royal Randwick Racecourse site (as indicated on the Structure Plan)	Short-medium term	Council and Royal Randwick Racecourse
	 b) Investigate future opportunities to expand the footprint of Kokoda Park eastwards and to increase its capacity (as indicated on the Structure Plan) 	Medium-long term	
	c) Identify opportunities to convert redundant road space and other underutilised spaces to informal open space	Short term	
Establish an integrated open space network connecting the town centres with local parks and open spaces	a) Establish a green grid through avenue tree planting and landscaping to create connections to existing public open spaces	Medium-long term	Council
Establish a strong green 'boulevard' landscape character along Anzac Parade	a) Undertake a street tree planting program in accordance with the Light Rail Vegetation Offset Guide and Urban Design and Landscape Plan Kingsford, focusing on a hierarchy of scale along Anzac Parade	Medium term	Council
	b) Review the Randwick Street Tree Masterplan to ensure suitable species to cater for light rail infrastructure	Short term	

Strategies	Actions	Time frame	Responsibility
Public Realm and Landscape			
4. Maximise the 'greening' of the public domain by applying a coordinated street tree and landscaping treatment.	a) Apply the recommended suite of landscape treatments in accordance with the Light Rail and Urban Design Plan	Short-medium term	Council
and scaping treatment.	 b) Provide supplementary infill trees and landscaping throughout each town centre incorporating species that are appropriate to the site and location: Introduce canopy trees and/or landscaping on redundant road spaces as identified in the Public Realm Map Undertake infill street tree planting on east west connector streets to establish green corridors to surrounding residential areas Provide landscaping on available verges and proposed footpath blisters/ footpath widening locations to define smaller localised spaces wherever possible Introduce feature trees and landscaping to provide seasonal colour and variation in identified plazas Establish a 'planting edge' (e.g. low hedge) in high movement zones to create a buffer between pedestrians and traffic 	Short-medium term	
	c) Retain large canopy trees throughout the town centres	Short-medium term	
 Minimise visual clutter and create legible coherent streetscapes. 	a) Maximise the co-location of signage, lighting, banners and power poles onto multifunctional smart poles along Anzac Parade	Medium term	Council and local Business Chambers
	 b) Collaborate with the business chambers to develop a signage strategy that reflects the unique character of the town centres. This may include an Asian themed signage strategy for Kingsford town centre 		
	c) Strengthen DCP 2013 controls relating to signage within the town centres	Short term	

Strategies	Actions	Time frame	Responsibility
Public Realm and Landscape			
Provide for the undergrounding of overhead powerlines along Anzac Parade.	a) Continue to advocate Transport for NSW to underground overhead powerlines along both sides of Anzac Parade in addition to the cross lines	Short-long term	Council and Transport for NSW
	 b) Coordinate the undergrounding of powerlines in Kingsford town centre in line with the light rail roll out as provided for in the Randwick s94A Plan 	Short-medium term	
	 c) Extend the undergrounding program to Kensington town centre by ensuring adequate allocation in the Kensington and Kingsford s94A development contributions plan 	Short-medium term	
7. Create a network of safe, attractive and vibrant urban public spaces	 a) Achieve wider footpaths through the application of increased setbacks in key locations in accordance with the Public Realm Map (Figures 132 and 133) 	Short-long term	Council
	 b) Develop Meeks Street Plaza as a key community focal point through specific design treatments, urban furniture, landscaping, decorative lighting and public art 	Short-long term	
	c) Provide opportunities for new micro plazas in accordance with the Public Realm Map (Figures 132 and 133)	Short-long term Short term	
	d) Amend the RLEP 2012 to rezone existing plazas/micro plazas from B2 Local Centre to public open space	Short term	
	e) Include DCP 2013 controls to encourage overlooking/ passive surveillance (e.g. balconies and habitable space) for sites adjoining key plazas/public open space	Short term	
	f) Amend the DCP 2013 to include a sun access provision to protect solar access to key proposed public spaces as discussed in Part C Section 5.6 – Solar Access and shown on the Public Realm Maps (Figures 132 and 133)	Short term	

Strategies	Actions	Time frame	Responsibility		
Public Realm and Landscape					
Introduce new urban furniture to provide rest areas throughout the public domain	a) Review existing and provide new seating, bins and cycle racks focusing on the plazas identified in this Strategy, and other locations devoid of these elements (e.g. along Gardeners Road in Kingsford town centre)	Short-medium term	Council		
	b) Urban furniture is to be consistent with Council's Urban Elements Design Manual 2006	Short-medium term			
Promote outdoor dining to encourage more street activity	a) Encourage outdoor dining in side streets where footpath widening/ kerb build outs are proposed	Medium term	Council		
	 b) Require high quality outdoor furniture for outdoor dining that reflects the character of the town centre, has an open appearance and minimises clutter 	Medium term			
	 c) Consider financial incentives to encourage outdoor dining in the Kensington town centre, such as a 12 month reduction in DA and footpath licensing fees 	Medium term			
10. Ensure continuous weather protection along core retail strips and pedestrian routes	a) Strengthen existing DCP controls requiring awnings to be integrated into building design and constructed at a consistent height above the street	Short term	Council		
Improve existing footpath surfaces by applying cohesive and high quality paving treatments	a) Provide RCC City Civic Paving (PA01) in line with Council's Urban Elements Design Manual 2006	Medium term	Council		
	b) Extend paving material in identified locations to visually integrate light rail infrastructure with the town centres	Medium term			
12. Lighting	a) Provide street lighting on Anzac Parade using multi-functional poles in accordance with the Randwick City Light Rail Urban Design Guidelines	Medium term	Council		
	b) Ensure public spaces, primary pedestrian streets and light rail stops are well lit to enhance public safety and provide a night time ambience in the town centres	Medium-long term			
	c) Consider lighting themes for key heritage/ contributory and/or future landmark buildings	Short-medium term			

Strategies	Actions	Time frame	Responsibility		
Public Realm and Landscape					
13. Facilitate public art and artistic expression in the public domain to enhance visual amenity,	a) Incorporate a range of permanent public artworks, as identified in the Public Realm Map (Figures 132 and 133)	Medium term	Council		
contribute to cultural identity and foster a sense of community	b) Coordinate public art with other public domain elements such as lighting, paving insets and specialised street furniture	Medium term			
	c) Consider new DCP 2013 controls requiring the provision of public art for major development/key opportunity sites	Short term			
	d) Consider increasing the allocation of s94A funding towards public art in the town centres as part of the next new s94A Plan	Short-medium term			
Initiate programs and events to bring creativity and cultural activity into the experience of the town centres	 a) Collaborate with Council's Events Team and the town centre business chambers to identify opportunities to activate the public domain at day and night through a rotation of seasonal cultural events and activities 	Short-medium term	Council, UNSW, NIDA		
	b) Develop long term strategic partnerships with UNSW and NIDA to bring formal and informal cultural and creative events into the town centres	Medium-long term			
15. Prioritise pedestrian access and safety throughout the public domain and street network	a) Implement pedestrian access, crossings and other safety measures identified in the Transport for NSW Urban Design and Landscape Plan	Medium term	Council, Transport for NSW, RMS		
	b) Advocate Transport NSW to close slip lanes adjacent to refuge islands at the Rainbow Street and Gardeners Road crossings to maximise pedestrian safety	Short-medium term			
	c) Advocate Transport NSW for provision of access to the southern end of Carlton Street light rail stop	Short-medium term			
	d) Amend the DCP 2013 to introduce a shared zone/laneway in locations identified on the Accessibility Map (Figures 142 and 143)	Short term			
	e) Advocate for a reduced 40-50km/hour speed limit on Anzac Parade in both town centres	Short-medium term			
	f) Advocate for the relocation of the Anzac Parade pedestrian crossing closer to the intersection in Kingsford town centre to improve pedestrian accessibility as shown on the Accessibility Map (Figures 142 and 143)	Short-medium term			

Strategies	Actions	Time frame	Responsibility
Public Realm and Landscape			
16. Enhance pedestrian permeability and connectivity throughout the public domain	a) Amend the DCP 2013 to establish new pedestrian mid-block links as part of the redevelopment of sites as shown on the Accessibility Map (Figures 142 and 143)	Short term	Council
	b) Improve existing pedestrian links/through links so that they are safer, more direct and inviting	Short-medium term	
17. Improve the appearance, safety and sanitation of service lanes to provide improved amenity for pedestrians	a) Work with Business Chambers to encourage property owners to improve the appearance, safety and sanitation of the rear of shops fronting service lanes	Medium term	Council and Business Chambers
18. Design streets and public spaces to increase natural surveillance and foster a sense of safety	a) Apply Crime Prevention Through Environmental Design (CPTED) principles to all public domain and streetscape design	Short-long term	Council
	b) Review DCP 2013 controls to ensure that all new development provides active frontages and clear glazing on street and upper levels to encourage surveillance of streets and public spaces	Short term	
	c) Conduct a review of public lighting and upgrade as required	Short-long term	
	d) Install way finding signage throughout each town centre in accordance with the Randwick City Civic Signage Manual	Medium term	
	e) Upgrade open air carparks to enhance surveillance, safety and attractiveness	Medium-long term	

Strategies	Actions	Time frame	Responsibility
Social Infrastructure			
Encourage childcare centres to locate within Kensington and Kingsford town centres	a) Amend the DCP 2013 to encourage childcare centres on podiums and rooftops within the town centres, in conjunction with stringent controls on emergency access and safety	Short term	Council and
Support innovative approaches to shared use of school facilities	a) Continue discussion with NSW Department of Education on options for optimising use of local school facilities in the precinct including innovative approaches to shared use of buildings and spaces with the community	Short-long term	Council and NSW Department of Education
Attract and expand social services and programs to meet the needs of a diverse community	a) Incorporate a flexible office/meeting room space within Kingsford for social services, youth outreach programs and services and other community services within the community infrastructure contributions scheme	Short term	Council and NSW Family and Community Services, other local community service providers
	b) Undertake detailed planning for the delivery of a community hub at the Rainbow Street site in Kingsford town centre which promotes the co-location of Council administration/civic services and social/community facilities	Medium-long term	
Improve public access to art and cultural facilities within Kensington town centre	a) Incorporate a gallery/creative space for Kensington within the community infrastructure contributions scheme.	Short	Council
Zoning and Land use			
Consolidate the town centres' boundary to create a well-defined and compact urban form	a) Retain the existing RLEP 2012 B2 Local Centre zoning for Kensington and Kingsford town centres	Short term	Council
	b) Amend RLEP 2012 to rezone the following sites from residential to B2 Local Centre zone (Figure 151):		
	16-20 Barker St, Kingsford582-584 and 586-592 Anzac Parade, Kingsford; and63 Harbourne Road and 12-18 Rainbow Street, Kingsford		
2. Promote a land use mix within the town centres	a) Maintain existing permissible uses for the B2 Local Centre zone under the RLEP 2012	Short term	Council

Part F – Implementation Plan

Strategies	Actions	Time frame	Responsibility
Funding Infrastructure			
Seek an exemption to the maximum levy payable under s94A for the Kensington and Kingsford town centres	 a) Request in principle support from the DPE and Minister for Planning for an exemption to the maximum levy payable from 1% to 3% b) Amend Council's existing s94A development contributions plan to incorporate a 3% levy for the Kensington and Kingsford town centres and infrastructure identified to be funded 		Council and DPE, Minister for Planning, IPART
2. Review Council's existing VPA policy	a) Consider recommendations in the state government's recent draft Planning Agreements practice notes and review council's existing VPA policy in relation to the provision of community infrastructure	Short-medium term	Council
Introduce a community infrastructure charge to help fund the required community infrastructure identified by this strategy	a) Introduce a community infrastructure contributions scheme within the RLEP 2012 based on discretionary built form controls (using existing and proposed controls) which can only be surpassed in exchange for contributing towards community infrastructure	Short term	Council
	b) Prepare supporting guidelines which lists the community infrastructure to be funded and operational details	Short term	

Appendix 1

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Impact of Sydney Airport's prescribed airspace on building height

Land at Kingsford Junction (Nine-Ways) is a high frequency aviation corridor for Sydney Airport take-off and landings. The National Airports Safeguarding Framework administered by the Commonwealth Department of Infrastructure and Regional Development (DIRD) sets building height controls around Australia's airports to ensure the safety of aircraft and passengers (including the height of cranes operating during building construction stage). Sydney Airport's protected airspace is also known as "prescribed airspace". Prescribed airspace includes seven surfaces outlined on Sydney Airport's web site: www.sydneyairport.com.au/corporate/ community-environment-and-planning/ planning/airspace-protection.aspx

Council has made preliminary enquiries with Sydney Airport and DIRD in relation to height limitations applying to land within Kensington and Kingsford. Advice received in relation to the surfaces known the Obstacle Limitation Surface (OLS) and Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) are particularly relevant for taller building forms proposed at Kingsford Junction (Nine Ways). The proposed maximum building height of 17 storeys is below the PANS-OPS but above the OLS in Kingsford. Kensington is not impacted by either the PANS-OPS or OLS.

Under the Commonwealth Airports Act 1996, any building or other structure that would penetrate prescribed airspace is known as a "controlled activity". The OLS surface (shown on a cart) is used during the visual stages of flight (rather than instrument navigation) and therefore a merit assessment is carried out. DIRD advises that authorities should be aware that intrusions may potentially have an impact on aviation safety, particularly if there are a number of obstacles in one area, which is why a Commonwealth approval for proposals exceeding the OLS is needed. This approval may be subject to conditions (imposed by Air Services Australia and the Civil Aviation Safety Authority). Sub regulation 14(2) of the Airports (Protection of Airspace) Regulations 1996 (the Regulations) states that:

"The Secretary must approve a proposal unless carrying out the controlled activity would interfere with the safety, efficiency or regularity of existing or future air transport operations into or out of the airport concerned."

The PANS-OPS surfaces are used in takeoff and landing approaches and pilots rely entirely on instrument navigation. They are designed to protect aircraft from colliding with obstacles when flying on instruments. Under Regulation 14(5) of the Airports Regulation, there is no discretion to approve a permanent penetration of the PANS-OPS. Penetrations lasting no more than three months by a structure such as a crane may be approved, but only with the support of Sydney Airport.

Sydney Airport has advised that, given the proximity of certain sites in the Kingsford area to the main flight path leading to Sydney Airport's east-west runway, a proponent should not assume that an application to erect a crane penetrating the PANS-OPS would be necessarily be approved. Therefore the airport height restrictions are an important consideration for future development applications even if they propose height below the PANS-OPS, given the need to erect a crane during construction.

Further consultation will be conducted with Sydney Airport, CASA and DIRD during the public exhibition stage of the draft Strategy on height limitations at Kingsford.

Appendix 2

Proposed Planting Palette (Extracted from the Randwick City Light Rail Urban Design Guidelines 2014)

Trees	Botanical name	Common name	Location
	Pyrus calleryana	Callery Pear	High Cross Park & High Street
	Sapium sebiferum	Chinese Tallow	High Cross Park street tree
	Agathis robusta	Queensland Kauri	Alison Road between Anzac Parade & Doncaster Avenue (Northern side)
	Magnolia grandiflora	Magnolia 'Little Gem'	High Cross Park
	Pistacia chinensis	Chinese Pistache	High Cross Park
	Plantanus orientalis 'Digitata'	Cut Leaf Plane	Anzac Parade & Alison Road between Darley Road & Wansey Road (Northern side)
	Platanus acerifolia	London Plane	Anzac Parade & Alison Road between Darley Rd & Wansey Road (Northern side)

Appendix 2

Proposed Planting Palette (Extracted from the Randwick City Light Rail Urban Design Guidelines 2014)

Shrubs/Accent plants	Botanical name	Common name	Location
	Alternanthera dentate	Ruby Leaf Alternanthera	Verges Anzac Parade
	Callistemon verminalis	Callistemon Little John	Verges Anzac Parade
	Carrisa macrocarpa	Natal Plum	Verges Anzac Parade
	Murray paniculata	Orange Jessamine	High Cross Park & verges, Anzac Parade
	Dianella caerulea	Blue Flax Lily	Street verges
	Daniella revolute	Mauve Flax Lily	Street verges

Appendix 2

Proposed Planting Palette (Extracted from the Randwick City Light Rail Urban Design Guidelines 2014)

Shrubs/Accent plants	Botanical name	Common name	Location
	Imperata cylindrical	Blady Grass	Street verges
	Microlaena stipoides	Weeping Meadow Grass	Street Verges
	Pennisetum alopecuroides	Swamp Foxtail	Anzac Parade median & verges behind kerb (where appropriate)
	Pennisetum setaceum	Fountain Grass	Anzac Parade median & verges behind kerb (where appropriate)
	Patersonia servicea	Silky Purple Flag	Street verges

16-20 Barker Street, Kingsford



Aerial photograph of location



View of existing building on 20 Barker Street from Harbourne Road

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View of existing buildings on subject sites from Barker Street



View of existing building on 20 Barker Street from Barker Street



View of existing building on 18 Barker Street from Barker Street



View of existing building on 16 Barker Street from Barker Street

16-20 Barker Street, Kingsford

Current planning controls



Existing zoning map

Randwick Local Environmental Plan 2012

Zoning: R3 Medium Density Residential

FSR: 0.75:1 for developments other than for the purpose of a dwelling house

fences and architectural patterns are also consistent within the streetscape.

Maximum Height: 9.5m for developments other than for the purpose of a dwelling house.

Analysis

Analysis	
Site Description	The site consists of 3 lots. The lots are described as Lot 1 in DP 950767 No. 16 Barker Street, Lot 1 in DP 954209 18 Barker and Lot 20 DP 1032739 (being Lots 1-6 in SP 65941) 20 Barker Street.
	The land area of the 3 lots is approximately 1061.77m ² .
	The sites are regularly shaped with 16 and 18 Barker Street having singular frontages and 20 Barker Street having dual frontages to Barker Street and Harbourne Road.
	The sites are presently occupied with two single storey dwellings and a 4 storey residential flat building (6 units).
	The site is adjoined by a single storey business premises (McDonalds) to the west and a 2 storey residential flat building (6 units) to the south.
Streetscape	Harbourne Road has varied building heights ranging from 1 to 4 storeys, with consistent front setbacks, boundary fences and architecture patterns.
	Building heights range from 1 to 5 storeys, with varying setbacks on the northern side of Barker Street and consistent setbacks on the southern side of Barker Street. Boundary

Appendix 3 – Town Centre Boundary Investigation

16-20 Barker Street, Kingsford

Analysis	
Land use and the land use patterns of the surrounding area	The subject urban block is characterised by mixed commercial and residential uses, multi business properties, single dwellings and residential flat buildings. Commercial uses include; a medical and dental centre, a natural medicine practice, a physiotherapist and psychologist practice, a tax accountant, an obstetrician gynaecologist, a Vietnamese roll restaurant, McDonalds, and a service station. A B2 Local Centre Business Zone (McDonalds) adjoins the western boundary of 16 Barker Street and is located within the Kingsford Town Centre. To the north of the site is the educational establishment, the UNSW. The site is zoned in SP2 Infrastructure and is a special purpose zone. A R3 Medium Density Residential zone continues into the surrounding east to south urban blocks and is characterised by single dwellings, semi-detached dwellings, dual occupancies, residential flat buildings, and town houses.
Topography	The site has a flat topography.
Landscape character and open space	The site and the surrounding areas are highly urbanised. A cluster of medium sized trees are found at the rear of 18 Barker Street. Both 16 and 20 Barker Street contain medium sized trees at the front of the lots fronting Barker Street.
Proximity to nearest centre	The site adjoins the Kingsford Town Centre on the western property boundary of 16 Barker Street.
Proximity to strategic bus corridor/ frequent bus routes/ light rail.	The site has convenient access to frequent and regular bus services along Anzac Parade with connections to the CBD and other destinations in the Eastern Suburbs. The closest bus stop is located outside of 243-253 Anzac Parade and is approximately 143m from 16 Barker Street. Once constructed, the site will have access to the south east light rail services along
	Anzac Parade with the closest light rail stop at Strachan Street. The route will provide access from Circular Quay along George Street to Central Station, through Surry Hills to Moore Park, then to Kensington and Kingsford via Anzac Parade and Randwick via Alison Road and High Street.
Access	Both 16 and 18 Barker Street have singular hardstand parking facilities. 20 Barker Street has onsite garage parking facilities with access from Harbourne Road.

16-20 Barker Street, Kingsford

Analysis	
Urban design	20 Barker Street occupies a prominent corner location. Collectively the subject sites occupy a strip of Barker Street and are visible from various vantage points. Any future development needs to consider the visual presentation to the streets and the built form relationship with the adjoining and nearby development.
Heritage	N/A
Issues	Rezoning the site to B2 Local Business would allow town centre development such as mixed use buildings. Any increased building mass and dwelling numbers associated with higher density development would need to carefully address potential amenity impacts upon the adjoining properties in terms of solar access, visual and acoustic privacy and vehicular access.
Planning Consideration	The subject sites are located within a strategic location as they adjoin the Kingsford Town Centre and would allow for the logical extension of the Kingsford Town Centre. A B2 Local Centre zone would offer greater flexibility for a broader range of business uses and allow for a consistent zoning application across the block.
Recommendation	Proposed zone: B2 Local Centre
	Proposed FSR: 4:1
	Proposed height: 31m (nine storeys)

582-584 and 586-592 Anzac Parade, Kingsford



Aerial photograph of location



View of existing building on 582-584 Anzac Parade from Anzac Parade, Kingsford



View of 582-584 Anzac Parade access way from Wallace Street, Kingsford



View of existing building on 586-592 Anzac Parade from Anzac Parade, Kingsford

582-584 and 586-592 Anzac Parade, Kingsford

Current planning controls



Existing zoning map

Randwick Local Environmental Plan 2012

Zoning: R2 Low Density Residential

FSR: 0.5: 1 for developments other than for the purpose of a dwelling house

Maximum Height: 9.5m for developments other than for the

purpose of a dwelling house

Analysis

	The site consists of 2 lots. The lots are described as Lot 1 in DP 516025 No. 582-584 Anzac Parade and Lot 1 in DP 94260618 No. 586-592 Anzac Parade.
	The sites are irregularly shaped.
	The total land area of the two lots is approximately 895.76m2.
	582-584 Anzac Parade has dual frontages fronting Anzac Parade and Wallace Street. 586-592 Anzac Parade has a singular frontage onto Anzac Parade.
	The sites are presently occupied by two 2 storey multi business properties comprising of a pizza shop, ironing service, lawyers and an Indonesian restaurant.
	Adjoining the site to the west is the South's Juniors (4 storeys). To the east there is a 2 storey residential flat building (3 units) and a 2 storey residential flat building.
Streetscape	The south-western side of Anzac Parade provides a generally consistent streetscape in terms of building heights, setbacks boundary fences and architectural patterns. Both 421 and 425 Anzac Parade obtain a nil setback onto Anzac Parade.

Appendix 3 – Town Centre Boundary Investigation

582-584 and 586-592 Anzac Parade, Kingsford

Analysis	
Streetscape continued	A nil setback of the subject block is consistent with the neighbouring properties along the north-eastern side of Anzac Parade and the front setback is increased towards the south-east of Anzac Parade. Building heights are predominantly 1 to 2 storeys with the exception of 558A-580 Anzac Parade being 4 storeys. Boundary fences are consistent. However, architectural features vary due to the differing surrounding land uses (South Sydney Junior Rugby League Club, multi business properties (Pizza shop, ironing service, lawyers and an Indonesian restaurant), a religious property (Holy Trinity Kingsford Anglican Church) and residential forms.
	Anzac Parade is a 60 metre wide arterial road. In front of the subject sites, Sturt Street crosses through Anzac Parade creating two intersections with Anzac Parade. Additionally, a section of the Anzac Parade contains public parking in the median strip.
Land use and the land use patterns of the surrounding area	The subject urban block is characterised by single dwellings, semi-detached dwellings, dual occupancies, residential flat buildings, multi business properties (Pizza shop, ironing service, lawyers and an Indonesian restaurant) and the South Sydney Junior Rugby League Club.
	A B2 Local Centre Business Zone adjoins the north-western property boundary of 582-584 Anzac Parade and is located within the Kingsford Town Centre.
	R3 Medium Density Residential zoned land, which consists of single dwellings, semi- detached dwellings, residential flat buildings, mixed commercial residential flat buildings and multi business properties is located to the south-west to the subject sites.
	The R2 Low Density Residential zone extends to the north, east and south-east of the subject sites and comprises mainly of single dwellings, semi-detached dwellings, dual occupancies and residential flat buildings.
	There are a number of commercial institutional uses within walking distance from the site, including the Holy Trinity Church (594-596 Anzac Parade), Souths Juniors Rugby League Club (558-580 Anzac Parade) and a car wash café (415-417 Anzac Parade).
Topography	The site slopes from south-west to north with an approximate 5.5 metre gradient increase. There is a sharp 1.5 metre (approximate) level increase in the middle of Lot 1 in DP 516025 No. 582-584 Anzac Parade.
Landscape character and open space	The site and the surrounding areas are highly urbanised. The site does not contain any significant vegetation.
Proximity to nearest centre	The site adjoins Kingsford Town Centre on the north-western property boundary of 582-584 Anzac Parade.

582-584 and 586-592 Anzac Parade, Kingsford

Analysis	
Proximity to strategic bus corridor/ frequent bus routes/ light rail.	The site has convenient access to frequent and regular bus services along Anzac Parade with connections to the CBD and other destinations in the Eastern Suburbs. A bus stop is located at the front of 586-592 Anzac Parade.
	Once constructed, the site will have access to the south east light rail services along Anzac Parade with the closest light rail stop being the Kingsford terminus. The route will provide access from Circular Quay along George Street to Central Station, through Surry Hills to Moore Park, then to Kensington and Kingsford via Anzac Parade and Randwick via Alison Road and High Street.
Access	582 Anzac Parade has vehicle access from Wallace Street and 586-592 Anzac Parade has vehicle access from Anzac Parade.
Urban design	The 586-592 Anzac Parade occupies a shared corner location; both sites are visible from numerous points. Any future development needs to consider the visual presentation to the streets and the built form relationship with the adjoining and nearby development.
Heritage	N/A
Issues	Rezoning the site to B2 Local Business would allow the development of business uses such as mixed use buildings. Any increased building mass and dwelling numbers associated with higher density development on the site would need to carefully address potential amenity impacts upon the adjoining properties in terms of solar access, visual and acoustic privacy and vehicular access.
Planning Consideration	The subject sites are located within a strategic location as they adjoin the Kingsford Town Centre and would allow for a logical extension to the town centre. A B2 zone would reflect the existing business uses, offer greater flexibility for a broader range of business uses and result in a consistent zoning application across the block.
Recommendations	Proposed zone: B2 Local Centre
	Proposed FSR: 4:1
	Proposed height: 31m (9 storeys)
	NB: A lower height limit of 7 storeys in conjunction with a shared zone on the east of the site would create a built form transition to adjoining residential properties. See Part C Section 5.2 – Built Form Controls.

63 Harbourne Road and 12-18 Rainbow Street, Kingsford



Aerial photograph of location



View of existing building at 14 Rainbow Street from Rainbow Street, Kingsford



View of existing building at 63 Harbourne Road from Harbourne Road, Kingsford



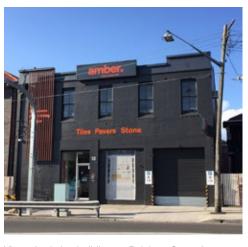
View of existing building at 16 Rainbow Street from Rainbow Street, Kingsford



View of existing building at 63 Harbourne Road from Rainbow Street, Kingsford



View of existing building at 18 Rainbow Street from Rainbow Street, Kingsford



View of existing building 12 Rainbow Street from Rainbow Street, Kingsford



View of existing building at 18 Rainbow Street from Forsyth Street, Kingsford

63 Harbourne Road and 12-18 Rainbow Street, Kingsford

Current planning controls



Existing zoning map

Randwick Local Environmental Plan 2012

Zoning: R3 Medium Density Residential

FSR: 0.9: for developments other than for the purpose of a dwelling house

Maximum Height: 12m for developments other than for the

purpose of a dwelling house

Analysis

Site Description

The site consists of 5 lots. The lots are described as Lot 12 in DP 6134 (Being lots 1-12 in SP 39850) No. 63 Harbourne Road Kingsford, Lot 13 in DP 6134 No. 12 Rainbow Street Kingsford, Lot 14 in DP 6134 (being lots 1-4 in SP 45197) No. 14 Rainbow Street Kingsford, Lot 15 in DP 6134 No. 16 Rainbow Street Kingsford and cor lot 16 in DP 6134 No. 18 Rainbow Street Kingsford.

The land area of the 5 lots is approximately 2133.4m².

The lots are regularly shaped with 12, 14, and 16 Rainbow Street having singular frontages. 63 Harbourne Street has dual frontages fronting Harbourne Road and Rainbow Street and 18 Rainbow Street has dual frontages fronting Rainbow Street and Forsyth Street.

The sites are presently occupied with a 3 storey residential flat building (12 units), a 2 storey business property, a 2 storey residential flat building (4 units), a 4 storey residential flat building (6 units), and a 3 storey residential flat building (6 units).

To the northern property boundary of the sites 63 Harbourne Road, 12 Rainbow Street and 14 Rainbow Street adjoin a single dwelling (2 storeys) and 14, 16 and 18 Rainbow Street adjoin a 3 storey residential flat building (22 units).

63 Harbourne Road and 12-18 Rainbow Street, Kingsford

Analysis		
Streetscape	A large roundabout (Nineways intersection) is located directly to the south-west of the sites. The roundabout connects Anzac Parade, Gardeners Road and Rainbow Street.	
	Surrounding setbacks and building heights (ranging from 1 to 10 storeys) are varied, with consistent boundary fences and architectural patterns.	
Land use and the land use patterns of the surrounding area	The subject urban block is characterised by single dwellings, residential flat buildings, a boarding house and a business property (Amber indoor and outdoor tiles).	
	A B2 Local Centre Business Zone (Kingsford Town Centre) surrounds the sites from the west through to the south-east.	
	The R3 Medium Density Residential zone continues to the surrounding north and east urban blocks and consists of a mixture of single dwellings, residential flat buildings, a mixed commercial residential flat building and a religious property (Kingsford Legacy Group Widows Club).	
Topography	The site has a flat topography.	
Landscape character and open space	The site and the surrounding areas are highly urbanised. The site does not contain any significant vegetation.	
Proximity to nearest centre	The sites neighbours Kingsford Town Centre from the south-east to the west of the sites.	
Proximity to strategic bus corridor/ frequent bus routes/ light rail.	The sites are within close proximity to a variety of bus stops with access to various destinations across Sydney including the inner east, inner west and CBD.	
	Once constructed, the site will have access to the south east light rail services from the Kingsford terminus. The route will provide access from Circular Quay along George Street to Central Station, through Surry Hills to Moore Park, then to Kensington and Kingsford via Anzac Parade and Randwick via Alison Road and High Street.	
Access	63 Harbourne Road has vehicle access via Harbourne Road. 12 and 16 Rainbow Street have vehicle access to onsite parking facilities via Rainbow Street. 14 Rainbow Street does not have vehicle access, and 18 Rainbow Street has vehicle access to onsite parking facilities from Forsyth Street.	

63 Harbourne Road and 12-18 Rainbow Street, Kingsford

Analysis	
Urban design	63 Harbourne Road and 12 Rainbow Street occupy prominent corner locations. Collectively the subject sites occupy a strip of Rainbow Street and are visible from various vantage points. Any future development needs to consider the visual presentation to the streets and the built form relationship with the adjoining and nearby development.
Heritage	N/A
Issues	Rezoning the site to B2 Local Business would allow higher density forms of development such as mixed use. Any increased building mass and dwelling numbers associate with higher density development on the site would need to carefully address potential amenity impacts upon the adjoining properties in terms of solar access, visual and acoustic privacy and vehicular access.
	Major changes to strata laws are to commence on 30 November 2016. One of these changes includes the collective sale and renewal of strata properties. Currently, a strata community cannot decide to sell and redevelop their scheme without unanimous consent from all owners. The reforms will allow the majority of owners (at least 75% – based on the number of lots, not on unit entitlement) to agree to end, sell or redevelop their strata scheme. Any scheme existing before the new laws commence will need to 'opt in' to have collective sale and renewal as an option for their scheme, by passing an ordinary resolution at a general meeting. This is of particular concern for 14 Rainbow Street as two of the four single strata units are owned by the same owner.
Planning Consideration	The sites should be rezoned from R3 Medium Density Residential to B2 Local Centre. The subject sites are located within a strategic location, adjoin the Kingsford Town Centre and would allow for a logical extension to the Kingsford Town Centre. A B2 Local Centre zone would provide a consistent zoning application and offer greater flexibility for a broader range of business uses.
Recommendation	Proposed zone: B2 Local Centre
	Proposed FSR: 4:1
	Proposed height: 31m (9 storeys)
	NB: A shared zone to the north of the site would create a built form transition to adjoining residential properties. See Part C Section 5.2 – Built Form Controls.

ABC, image of moon festival, Cabramatta, accessible at www.abc.net.au

Adelaide Design Manual, image of pedestrian link, Adelaide, accessible at www.adelaidedesignmanual.com.au

Artnet News, image of public art, New York, accessible at www.news.artnet.com

ARUP (2016) Kensington and Kingsford Parking Controls Advice

ARUP (2016) Sustainable Building Incentives (commissioned by Waverley Council)

ARUP (2016) Kensington and Kingsford Planning Strategy Traffic Assessment

Aspect Studios (2016) K2K Competition Entry

Australian Bureau of Statistics, accessible at http://www.abs.gov.au/websitedbs/censushome.nsf/home/Census?opendocument&ref=topBar

Basix, accessible at www.basix.nsw.gov.au

Better Bike Share Partnership, accessible at www.betterbikeshare.org

Blue Sky Green (2016) Our Places: Recreation and Retail, A Litter Prevention Plan for the Southern Sydney Region 2016-2021, New South Wales Environment Protection Authority (prepared on behalf of Southern Sydney Regional Organisation of Councils) Botanical Traditions, image of childcare centre, Bentleigh East, accessible at www.botanicaltraditions.com.au/Project%20 Index%20Page%20-%20Playspaces.html

Boyde Studio Space, South Bank, accessible at www.creativespaces.net.au

Brook McIlroy Planning and Urban Design, E.R.A. Architects, Limited Urban Marketing Collaborative, Pace Architects and Quadrangle Architects (May 2010) Avenues and Mid-Rise Buildings Study, Toronto

Brookings (2014) The Rise of Innovation Districts: A New Geography of Innovation in America

Bureau of Transport Statistics (September 2014) Travel Zone Employment Forecasts 2011-2041 Release V2.0, Transport for NSW, NSW Government accessible at www.bts.nsw.gov.au/Statistics/Employment-Forecasts

C and I Convenience and Impulse Retailing, Woolworths Opens Metro Store, accessible at www.c-store.com.au/2015/12/17/woolworths-opens-metro-store

Centennial Parklands, accessible at www.centennialparklands.com.au

Central West Shopping Centre, image of Alba Flowers, accessible at www.centralwest.com.au/store/alba-flowers/

Central West Shopping Centre, image of Australia Post, accessible at www.centralwest.com.au/store/australia-post/

Central West Shopping Centre, image of Bask in Motion, accessible at www.centralwest.com.au/store/back-in-motion/

Central West Shopping Centre, image of My Optometrists, accessible at www.centralwest.com.au/store/my-optometrists/

Central Wet Shopping Centre, image of Sushi Sushi, accessible at www.centralwest.com.au/store/sushi-sushi

Chartering Transport, Trends in Driver's Licence Ownership in Australia, accessible at https://chartingtransport.com/2015/03/09/trends-in-drivers-license-ownership-in-australia/

Childcare Division, Campus Services (2016) Analysis of On Campus Childcare Centre Waiting Lists (2016) UNSW

City Green Urban Landscape Solutions, image of public carpark with landscape intervention, Dandenong Melbourne, accessible at www.citygreen.com

City of Melbourne What's on, image of outdoor dining, Lygon Street Melbourne, accessible at www.thatsmelbourne.com.au

City of Parramatta Council (2015)
Parramatta CBD Planning Strategy, City of
Parramatta Council

City of Sydney (December 2013) City of Sydney Decentralised Energy Master Plan Renewable Energy 2012-2030, City of Sydney

City of Sydney (March 2016) New Ideas for Old Buildings Discussion Paper, City of Sydney

City of Sydney (August 2015) Residential Apartments Sustainability Plan, City of Sydney

City of Sydney, Short-Term Empty Properties Program, accessible at http:// www.cityofsydney.nsw.gov.au/explore/ arts-and-culture/opportunities-for-artists/ creative-space/short-term-tenancies

City of Sydney (March 2016) Tech Startups Action Plan, City of Sydney

City of Sydney (2013) Urban Forest Strategy, City of Sydney

Climate Change Authority (February 2012) Reducing Australia's Greenhouse Gas Emissions – Targets and Progress Review Final Report, Australian Government

Climate Works (April 2016) The Path Forward for Electric Vehicles in Australia

Colin Brody (2016) Kingsford Town Centre Review

Contemporist, accessible at www.contemporist.com

Conybeare Morrison (2016) K2K Built Form Study (prepared for Randwick City Council)

Council of Australian Governments (COAG) (July 2009) National Strategy on Energy Efficiency

Cox, image of Chatswood interchange shops and mall, accessible at www.coxarchitecture.com.au/project/chatswood-transport-interchange

Cumberland Council, image of pedestrian link, Wentworthville Centre Revitalisation, accessible at www.holroyd.nsw.gov.au

David Lock Associates, accessible at www.dlaaust.com

Department of Planning and Environment (2014) A Plan for Growing Sydney, NSW Government

Department of Planning and Environment (2015) Apartment Design Guide, NSW Government

Department of Planning and Environment (2016) Draft Policy for Architecture and Urban Design in NSW, NSW Government

Department of Planning and Environment (2014) New South Wales State and Local Government Area Population and Household Projections, and Implied Dwelling Requirements

Department of Planning and Environment (2016) New South Wales State and Local Government Area Population and Household Projections, and Implied Dwelling Requirements

Department of Planning and Environment (2016) NSW State and LGA Population and Household projection

Department of Primary Industries, Water, NSW Government, accessible at www.www.gov.au

Department of Primary Industries, Water, NSW Government, Ground Water, accessible at www.water.nsw.gov.au/water-management/groundwater

Dickson Rothschild in consultation with Dryden Design and URS (November 2014) Randwick City Council Urban Elements Design Manual, Randwick City Council

Domain, accessible at www.domain.com.au

EMM Consulting (November 2016) Anzac Parade Corridor Light Rail Analysis

Envac, accessible at www.envacgroup.com

Excel, image of Pacific Square Junction, accessible at www.excelbm.com.au/ portfolio/pacific-square-maroubra-junction

Expedia, image of Las Ramblas, Barcelona, accessible at Source: www.expedia.com

Fishburners, accessible at www.fishburners.org

Flow Systems, Green Square Water, accessible at www.flowsystems.com.au/communities/green-square-water

France 24, image of footpath electric vehicle charging station in Paris, accessible at www.france24.com/en/20141208-paris-electric-car-infrastructure-go-nationwide

Fruin J.J. (1973) Pedestrian Planning and Design

Gehl Architects (2007) Public Spaces Public Life

Giken LTD, Underground Bicycle Storage System, accessible at www.giken.com/en/solutions/underground_developments/eco-cycle

Google Maps Street View (2016), accessible at www.google.com.au/maps

Greater Sydney Commission (November 2016) Draft Central District Plan

Greater Sydney Commission (2016) Environmental Panel Advisory Paper

Green Building Council of Australia, accessible at www.new.gbca.org.au

Green Building Council of Australia (July 2016) Green Star Financial Transparency Research Paper

Green Building Council of Australia, Green Star – Multi Unit Residential V1 Face Sheet and Business Case

Green Light Solar, image of Public carpark electric vehicle charging station, Washington, accessible at www.greenlight-solar.com/energy-efficiency/commercial/electric-vehicle-charging

Green Square Water, accessible at greensquarewater.com.au/how-it-works/recycled-water-green-square

Hadfield (2006:135) Hadfield, P. (2011) Night-Time Economy Management: International Research and Practice. A Review for the City of Sydney, September 2011

Healthy Spaces and Places, accessible at www.healthyplaces.org.au/site/infilldev.php

Healthy Spaces and Places (2009) A National Guide to Designing Places for Active Living

Healthy Spaces and Places (2009) Increasing Density in Australia: Maximising the Health Benefits and Minimising Harm 2012 Hidden City Secrets.com.au, image of laneway in Melbourne, accessible at www.hiddencitysecrets.com.au/news-melbourne/greening-melbourne-city-one-laneway-at-a-time

Hood Collection Part 1: Sydney Streets, Buildings, People, Activities and Events, accessible at www.trove.nla.gov.au/work/9521993

laccelerate, accessible at www.iaccelerate.com.au

Institute for Sensible Transport (2016) Emerging transport technologies: Assessing the impact and implications for the City of Melbourne

Kinesis (2016) High Performance Buildings Study

Kinesis (2016) The Eastern Suburbs Regional Water Reduction Plan

Kinesis (September 2015) The Eastern Suburbs Low Carbon Futures

Landcom (2009) Water Sensitive Urban Design Book 3 Case Studies

Little Tokyo Two, accessible at www.littletokyotwo.com

M. L. Longworth image of boulevard Malesherbes, Paris, accessible at Source: www.mllongworth.com

Macro Plan Dimasi (2016) Kensington, Kingsford and Randwick Junction Economic Impacts of Light Rail: Stage 1 Report

185

Macro Plan Dimasi (2016) Kensington, Kingsford and Randwick Junction Economic Impacts of Light Rail: Stage 2 Report

Melbourne Bike Share, image of bike share scheme in Melbourne, accessible at www.melbournebikeshare.com.au

Melbourne Water (2013) Water Sensitive Urban Design Life Cycle Costing Data, State Government Victoria

Michael Bell Architects, image of North Sydney Child Care Centre, accessible at www.michaelbellarchitects.com/town/northsydney-child-care-centre

Mid-Rise Symposium (2005) A Great City of Avenues

Must Do Brisbane.com, image of active street frontages, accessible at www.mustdobrisbane.com

National Water Commission, Botany Sands Aquifer, Sydney NSW, Case Study, Wet Rocks, Australian Government

Newberg (2015) Institute for Sensible Transport 2016, Emerging transport technologies: Assessing the impact and implications for the City of Melbourne

NSW Government Architects Office (2016) Central District Audit

NSW Government (2016) Planning and Environment Draft Practice Note, Planning Agreements

NSW Legislation, Randwick Local Environmental Plan 2012, accessible at www.legislation.nsw.gov.au

186

NYC Planning, image of Madison Avenue, New York City, accessible at www1.nyc.gov/site/planning/zoning/ districts-tools/special-purpose-districtsmanhattan.page

NYC Planning, image of Union Square, New York City, accessible at www1.nyc.gov/site/planning/zoning/districts-tools/special-purpose-districts-manhattan.page

Office of Environment and Heritage, Botany Water Reserves, accessible at https://www.environment.nsw.gov.au/heritageapp/ViewHeritageItemDetails.aspx?ID=5051418

Office of Environment and Heritage (2016) NSW Climate Change Policy Framework, NSW Government

Payce, image of East Village, Victoria Park, accessible at www.payce.com.au/projects/east-village-

www.payce.com.au/projects/east-villageretail-commercial

Payce, image of Green Grocer at East Village, accessible at www.payce.com.au/EVInteriorAward

Productivity Commission's Inquiry into Childcare and Early Childhood Learning (Randwick City Council Submission 2014)

Project for Public Spaces, accessible at www.pps.org/

Professor Giles-Corti, B. Ryan, K. Dr Foster, S. (2012) Increasing Density in Australia: Maximising the health benefits and minimising harm (Commissioned by the National Heart Foundation of Australia Public Art in Chicago, public art, Chicago, accessible at

www.chicago-outdoor-sculptures.blogspot.com.au

Quartz, accessible at www.qz.com/763715/wind-trees-miniturbines-that-can-power-homes/

Randwick City Council (2009) A Cultural Randwick City, Randwick City Council

Randwick City Council (2008) A Safer Randwick Plan, Randwick City Council

Randwick City Council (2010) An Inclusive Randwick City, Randwick City Council

Randwaick City Council (2007) Randwick Bicycle Plan Bicycle Route Construction Priorities, Randwick City Council

Randwick City Council (2013) Development Control Plan, Randwick City Council

Randwick City Council (2016) Kensington Park Plan of Management, Randwick City Coucnil

Randwick City Council (2002) Kensington Town Centre Development Control Plan, Randwick City Council

Randwick City Council (2016) Kensington and Kingsford Town Centre Review Draft Issues Paper, Randwick City Council

Randwick City Council (2013) Kingsford Town Centre Strategy, Randwick City Council Randwick City Council (2014) Light Rail Urban Design Guidelines Volume 1

Randwick City Council (2014) Light Rail Urban Design Guidelines Volume 2 – Technical Specifications

Randwick City Council (2012) Randwick Local Environmental Plan, Randwick City Council

Randwick City Council (2015) Section 94A (s94A) Development Contributions Plan, Randwick City Council

Randwick City Council (2013) The Randwick City Plan, Randwick City Council

Randwick City Council (2016) Urban Design Competition Kensington to Kingsford Town Centres Sydney Australia Competition Brief, Randwick City Council

Randwick City, Waverley and Woollahra Councils Electric Vehicle Survey 2016

Realcommercial.com.au, image of retail property Shop 2, 8 Hills Street Surry Hills NSW, accessible at www.realcommercial.com.au/property-retail-nsw-surry+hills-502005346

Rook Salinger, image of Kiaora Place Double Bay, accessible at www.rooksalinger.com/retail/project/kiaoralands-double-bay-nsw

Rossiter, S. (2007) Feasibility Study of Community Hubs for the Parramatta Local Government Area – Briefing Paper (prepared for Parramatta City Council)

Saturdays Surf NYC, image of Saturdays NYC, accessible at www.saturdaysnyc.com/location/sydney

SBS, image of Asian grocery market, accessible at www.sbs.com.au/food/article/2014/09/26/market-seoul-asian-grocery-store

Sheppard, M. (2015) Essentials of Urban Design

SJB, image of mixed use development in Surry Hills, accessible at www.sjb.com.au/projects/st-margaret-s

SLR D&C JV (2016) Sydney Light Rail Report Urban Design and Landscape Plan Kingsford SLR-D&C-MD0-000-REP-000033-REV C, Transport for NSW, NSW Government

Smartbin, Site of the Royston St. Underground Bin System, Darlinghurst, Sydney, accessible at www.smartbin.com/city-of-sydney-to-deploy-smartbin-and-revolutionise-waste-collections

Sourceable, image of shared laneway, Sydney City, accessible at www.sourceable.net

Spackman Mossop Michaels (2016) Concept Drawings

Spur, image of active street frontages, San Jose California, accessible at www.spur.org

Startup Daily, accessible at www.startupdaily.net

Straight Talk (2016) K2K Your Place Your Future (prepared for Randwick City Council)

Studio Roosegaarde, accessible at www.studioroosegaarde.net

Sunshine Coast Council, Maroochydore City Centre Leads Waste Revolution, accessible at www.sunshinecoast.qld.gov.au/Council/News-Centre/Maroochydore-City-Centre-leads-waste-revolution-210916

Sydney Light Rail, NSW Government, accessible at www.sydneylightrail.transport.nsw.gov.au/information/maps

Sydney Morning Herald, image of outdoor dining, Marrickville Sydney, accessible at www.smh.com.au

The City of Calgary (2010) East Village Area Redevelopment Plan

The Green Building Council of Australia, Green Star Rating System, accessible at www.new.gbca.org.au

UNSW Australia City Futures Research Centre, K2K Liveability Indicators, accessible at

www.cityfutures.be.unsw.edu.au/cityviz/k2k-walkability-indicators

This is Radelaide.com.au, image of Seoul Asian Grocery Store, accessible at www.thisisradelaide.com.au/just-eat-it/2015/12/28/cultural-cuisines

Time Out, image of Passeig De Gracia, Barcelona, accessible at www.timeout.com/barcelona/shopping/barcelona-shopping-the-best-of-passeig-de-gracia

Transport for NSW (2014) Household Travel Survey Report: Sydney 2012/13, NSW Government

Transport for NSW (2012) Vegetation Offset Guide, NSW Government

Traveller, image of active laneway in Melbourne, accessible at www.traveller.com.au/six-of-the-best-melbourne-laneways-12wkbf)

U Cities Guides, The Top Grandest Boulevards in the World, image of Champs-Elsees, Paris, accessible at www.ucityguides.com/cities/10-greatestboulevards-avenues-in-the-world.html

Uge, accessible at www.ugei.com/content/uges-turbines-nyc-rooftops

Unhabitat Global Report on Human Settlement 2011, Hot Cities: Battle-Ground for Climate Change, accessible at www.unhabitat.org/wp-content/ uploads/2012/06/P1HotCities.pdf

University of Saskatchewan, image of lighting in public carpark www.usask.ca/protectiveservices/services/cpted.php

UNSW Australia (October 2015) UNSW 2025 Strategy Our Strategic Priorities and Themes

Urbis (2014) in City of Melbourne (2015) Homes for People: Housing Strategy 2014-18

Visit Omaha, image of Anytime Fitness Downtown, accessible at <u>www.</u> <u>visitomaha.com/listings/anytime-fitness-downtown/62019</u>

Visit Philadelphia, image of street festival, Philadelphia, accessible at www.visitphilly.com

Wma Water (2016) Kensington – Centennial Park Floodplain Risk Management Study and Draft Plan (prepared for Randwick City Council)

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