# BROOKWALE STRUCTURE PLAN

AFT STRUCTURE PLAN-REPORT

Hames SHarley

MACROPLAN DIMASI + ARUP

Prepared for Northern Beaches Council



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# 1.1 Executive Summary

The Brookvale Structure Plan provides the strategic land use planning framework for Brookvale for the next 20 years. It will guide future development while protecting employment lands and managing housing diversity and affordability. It includes consideration of traffic, transport, environmental, economic and social issues.

Brookvale provides a vital economic and employment role for both the Northern Beaches region and metropolitan Sydney. It is known as the "one-stop-shop", located strategically at the intersection of two major regional roads, Pittwater Road and Warringah Road. As an employment centre it already provides over 14,000 local jobs.

These characteristics make Brookvale a unique centre and the challenge is to ensure that into the future, the area retains its industrial base and employment focus but is allowed to evolve to cater for emerging business trends and employment sectors.

For this reason, one of the main aims of the Brookvale Structure Plan is to ensure that land use planning controls will enable Brookvale to continue to thrive as an employment based centre while also enabling the area to be enhanced as a vital place to live and work.

To do this, the Structure Plan recommends future land use changes. The main changes are centred on the Brookvale Town Centre as the catalyst for bringing life and jobs into Brookvale, while responding to the benefits that will be provided by the B-line service. The clear direction from the Greater Sydney Commission and the Department of Planning is for Brookvale to retain and enhance its industrial lands and support its growth as a sustainable employment focussed centre.

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## **Process**

The Structure Plan project has involved the preparation of a number of reports including an Analysis Report; a Scenario Report and this Brookvale Structure Plan Report.

The Analysis Report outlined the existing context and benchmarked Brookvale against other similar centres. This information was then used to inform the Scenarios Report, which pulled together background information, the results of community consultation as well as transport, economic and demographic analysis.

It also established a set of Development Principles and a Development Framework for Brookvale. The four (4) main development principles which support the Structure Plan are:

- + Recognise importance of Brookvale's employment lands to the Northern Beaches;
- + Create green links and green destinations;
- + Leverage the B-line service; and
- + Activate the Brookvale Town Centre.

Following on from this, and taking into account the identified limited capacity of the road network, four scenarios were examined and tested. These scenarios explored various options for accommodating projected growth in Brookvale, underpinned by economic and transport analysis.

It was concluded that the preferred scenario for Brookvale was one that involved a balance of employment and residential growth (60% employment:40% housing).

This mix was the preferred option for ensuring the continuation of a mixed use centre which had an employment focus. This was based on economic advice that residential growth was necessary to support and encourage jobs growth in the Town Centre and the adjacent industrial areas.



## Key findings

- + Brookvale provides a vital economic and employment role for the Northern Beaches.
- + Projected employment growth will be in the retail and wholesale sectors and in health care, social assistance and education and training. Manufacturing related employment is expected to decline.
- Notwithstanding the projected decline in manufacturing, these lands will continue to make a significant contribution to the economy of the Northern Beaches. Accordingly, Brookvale's industrial lands should be retained.
   Redevelopment should be encouraged and an extended range of employment uses within these lands considered.
- + Warringah Mall should be supported to retain its function as the major retail centre for the Northern Beaches, and continue its role as a major retail jobs contributor to the centre.
- Mixed use development in the Brookvale Town Centre should be encouraged, but only on the basis that any new development results in a nett increase in employment floor space.



## Conclusion

The Brookvale Structure Plan delivers a strategic framework for the integrated urban design, planning, transport and economic inputs that will lead to the sustainable and feasible development of Brookvale.

It consists of a Brookvale Structure Plan map and associated report which describe the urban form, movement and environment elements which make up the Structure Plan.

It also contains a number of statutory and non-statutory recommendations to implement the Structure Plan.

These recommendations will ensure that Brookvale continues to fulfil its function as a major employment centre for the Northern Beaches region, and will evolve over time to include a future mix of industrial, commercial, retail, educational, residential and community uses.

The focus of the Draft Brookvale Structure Plan is not about growth, but rather managed growth to reinforce its employment role and to enhance the amenity of Brookvale.

The economic advice provided as part of the Structure Plan process was that future job growth would be largely within the retail and service sectors, however a certain amount of residential growth would be necessary to encourage job growth in these sectors.

Based on the established Development Principles, the Brookvale Town Centre was considered the appropriate place to focus this employment and housing growth. For this reason, many of the recommended land use changes in the Structure Plan are focussed on the Brookvale Town Centre.

This Structure Plan has been designed to support the function of Brookvale as an important employment hub, supporting industry and job growth while at the same time enhancing the built environment to make it a more attractive place to work and live, with its own sense of place and identity.



# 2.1 Overview

This report seeks to articulate a place that achieves the Northern Beaches Council and the Department of Planning and Environment's goal for a Strategic Centre, that performs a vital economic and employment role for both the Northern Beaches and metropolitan Sydney. The report is structured to demonstrate the ability of the precinct to retain and enhance its status as a Strategic Centre.

Northern Beaches Council has previously undertaken the Dee Why Town Centre Master Plan to deliver a liveable town centre that transforms Dee Why into the civic and cultural focus for the Strategic Centre. Brookvale Structure Plan is a companion piece of strategic planning to ensure a successful Strategic Centre at Brookvale-Dee Why for the Northern Beaches.

Strategic Centres are defined in 'A Plan for Growing Sydney' as locations that currently or are planned to have least 10,000 jobs. These are priority locations for employment, retail, housing, services and mixed-uses. They are areas of intense, mixed economic and social activity that are built around the transport network and feature major public investment in services such as hospitals, education and sports facilities.

These priorities are considered in this report in order to secure Brookvale as a key component of the Brookvale-Dee Why Strategic Centre. The Brookvale Structure Plan will focus on Brookvale itself with careful consideration of the outcomes of the Dee Why Town Centre Master Plan and the priorities described above to ensure an aligned strategic approach. In order to deliver a Strategic Centre at Brookvale-Dee Why, it is essential that the multiple policy and directional documents for land use planning are coordinated. These documents, prepared by state government agencies, the Shore Regional Organisation of Councils (SHOROC) and Northern Beaches Council, can be coordinated into a single strategic plan that is clear, ordered and contextually appropriate to the Northern Beaches in order to guide future planning in the region. Brookvale Structure Plan aims to provide a catalyst for achieving mutual stakeholder and community aspirations at a local level which are supported at a regional level by "A Plan for Growing Sydney".

Identifying, investigating and refining the types of land uses which will best position Brookvale-Dee Why as a Strategic Centre for the future are exciting challenges. The integrated urban design, planning, transport and economic approach adopted throughout the structure plan will assist in positioning Brookvale as an accessible destination and a desirable location to live, work, learn and play in the Northern Beaches.





## **DEFINING THE INVESTIGATION AREA**

The Brookvale Structure Plan looks at a 249ha investigation area centred on the suburb of Brookvale in the Northern Beaches Local Government Area.

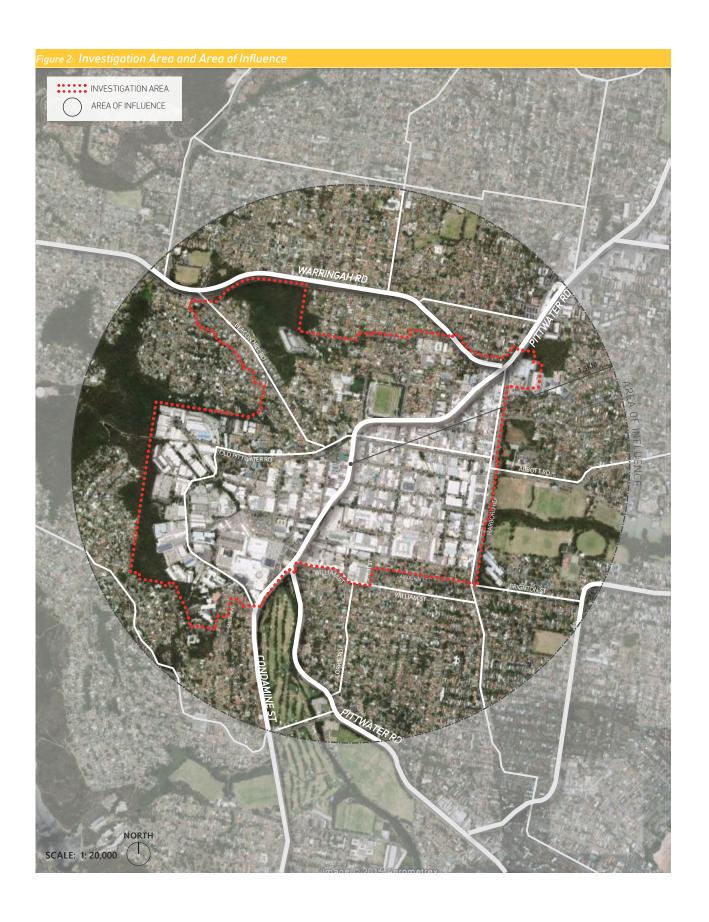
The investigation area is defined by the Brookvale suburb boundary, which has been modified to include:

- + Both sides of Beacon Hill Road;
- + IN1 General Industrial and B5 Business Development zoning to the east of Harbord Road where Fitness First and Office Works are located (which are not included in the Dee Why Town Centre Master Plan boundary): and
- Some land zoned R2 Low Density Residential to the south of Wattle Road.

The purpose of the investigation area is to provide an area within which to test the long term objectives of Brookvale as a contributor to Brookvale-Dee Why Strategic Centre. This investigation area is supported by a 1.5 kilometre radial area of influence.

Brookvale is named after the brook which ran through the area. Brookvale was formerly known as Greendale, a name that is preserved today by Greendale Creek.





# 2.2 Purpose of the Structure Plan

THE PURPOSE OF THE DRAFT STRUCTURE PLAN IS TO GUIDE FUTURE GROWTH IN BROOKVALE AND FUTURE LAND USE PLANNING

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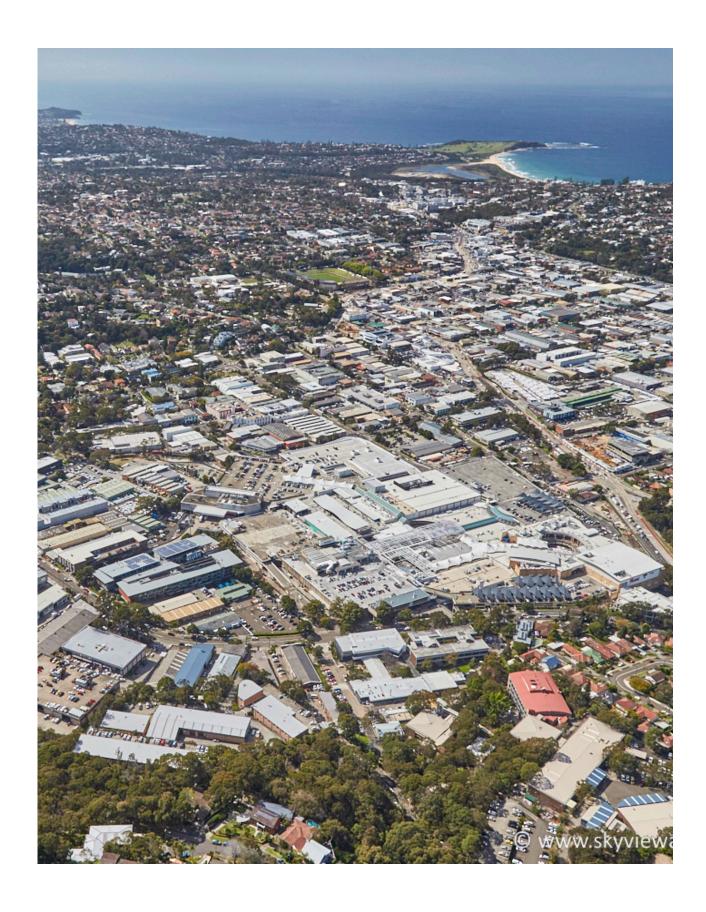
This report seeks to demonstrate Brookvale's capacity to include a future mix of industrial, commercial, retail, educational, residential and community uses in a coordinated and sustainable manner. Brookvale represents a unique opportunity due to its high performing function as the economic heart of the Northern Beaches and its strategic location at the intersection of Pittwater Road and Warringah Road.

Brookvale Structure Plan intends to take advantage of the existing strengths of Brookvale to create a synergy between a variety of uses and users that will ultimately inhabit this place. This project has the opportunity to deliver more than just a mix of industrial, commercial and retail uses associated with a Strategic Centre. It can create localised employment opportunities to spur the economic evolution and redevelopment of the Northern Beaches with the emerging injection of future industries, services, technologies and research associated with a Strategic Centre. In doing so, facilitating Northern Beaches to become a more dynamic, prosperous and liveable place.

This report represents the synthesis of data with respect to planning, environment, economics, transport and the community. The enhancement of this Strategic Centre is achieved through understanding the area, its region and its people. Engagement with key stakeholders and community members who work, reside in and visit Brookvale has been essential. It is supported by benchmarking, scenario development and testing. It identifies priority considerations to support and enhance a Strategic Centre at Brookvale-Dee Why.

The Structure Plan provides a foundation for the next steps Northern Beaches Council will need to undertake to guide the future development of Brookvale, including amendments to the LEP. DCP and Section 94 Contribution Plan.





# 2.3 Preceding Research

The Structure Plan Report is the third report in the Structure Plan series, The Structure Plan process as outlined within this report is underpinned by detailed research and analysis. This evidence base covers urban economics, strategic traffic and transport recommendations and best practice urban design, to guide the long term development and implementation of a Strategic Centre at Brookvale.

The Structure Plan Report builds upon the previously completed Analysis Report and Scenarios Report.

These previous reports have integrated urban design, planning, transport and economic inputs to create the evidence base needed to support the sustainable and feasible development of Brookvale.

This section provides a brief summary of the preceding reports, and describes the key outcomes that have shaped the development of the draft Structure Plan.

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## STAGE 1 ANALYSIS REPORT

- + PROJECT OBJECTIVES
- + SITE AND CONTEXT ANALYSIS
- + BENCHMARKING
- + NEXT STEPS

# STAGE 2 SCENARIO REPORT

- + PROJECT ASPIRATIONS
- → FNGAGEMENT OUTCOMES
- L DEVELOPMENT PRINCIPLES
- → DEVELOPMENT SCENARIOS
- + PREFERRED DEVELOPMENT SCENARIO

# STAGE 3 DRAFT STRUCTURE PLAN

We are here

- DRAFT STRUCTURE PLAN
- FINAL STRUCTURE PLAN



## **BROOKVALE ANALYSIS REPORT**

The Analysis Report is the first report of the Structure Plan Report series. It includes a detailed analysis of Brookvale at a local and regional scale, looking at elements including land use, transport, economics and environment. Analysis undertaken at this stage includes urban economic inputs from MacroPlan Dimasi and transport inputs from Arup. This was the first step in the Structure Plan process which ensured an integrated approach was taken to best understand how Brookvale would function in the future.

The first section of the Analysis Report, **1.0 Introduction**, introduces the project, explains the role of a Strategic Centre for metropolitan Sydney, identifies key objectives for Brookvale and recommends an Investigation Area for Brookvale Structure Plan. The second section of the report, **2.0 Context**, describes the planning, mapping, economic, transport and community context for Brookvale at a local and regional scale. This section includes the following research:

- A literature review of relevant planning policies and documents:
- + Baseline data mapping for the former Warringah Local Government Area and Brookvale Structure Plan Investigation Area;
- + An economic analysis determining the current and forecast market conditions including a preliminary identification of capacity for development;
- + A traffic and transport analysis for existing movement and access into and throughout the Investigation Area including a statement on the current status of the proposed Northern Beaches bus rapid transit (B-line) corridor; and
- + A summary of community demographics coupled with previous stakeholder and community engagement undertaken.

The third section of the Analysis Report, **3.0 Benchmarking**, examined comparable Strategic Centres, industrial zones and business parks from a scale, function and evolution perspective to understand how Brookvale may transition in the future. The fourth section of the report, **4.0 Next Steps**, identifies priority issues for consideration in the subsequent stages of this project.

Critical to the report were the key findings which summarised each chapter as these were influencial factors which informed the subsequent Scenarios Report. Key findings are summarised overleaf.

## PLANNING CONTEXT KEY FINDINGS

The key findings from the analysis of the planning context can be summarised as follows:

- + Strategic Centres are priority locations for employment, retail, housing, services and mixed uses. Future investment in Strategic Centres such as Brookvale must focus on jobs growth, housing diversity and the creation of vibrant hubs of activity.
- + Brookvale is the only coastally located Strategic Centre across metropolitan Sydney. This provides a unique contextual opportunity to contribute to its identity and differentiation.
- + Brookvale embodies the characteristics of a Strategic Centre with the opportunity to reinforce health, education and diverse residential outcomes.
- + Brookvale's proximity to a number of other centres, especially Dee Why, provides the unique advantage to network regionally to secure Northern Beaches long term future.
- + State Government, SHOROC and the Northern Beaches Council are aligned in their policy to reinforce Brookvale-Dee Why as a high performing employment hub for the Northern Beaches supported by transport investment to facilitate growth.
- + The future planning of Brookvale must consider sustainability indicators and actions for health and well being, the natural environment, the built environment, jobs and economic development as well as leadership.

## REGIONAL AND LOCAL MAPPING KEY FINDINGS

The key findings from the analysis of the mapping context can be summarised as follows:

- + Brookvale is distinctively located between the bush and the beach, and yet neither define the character of the place. Linking the beach to the bush via Brookvale will secure the identity of the place.
- + Brookvale is divided by its complex road network and segregated land uses.
- + Topography within the centre is distinctive. The centre is located at the base of a valley with steep topography surrounding it to the west.
- + Brookvale is characterised by flood plains adjacent to the creek corridors. These corridors can be incorporated within open space initiatives that provide water management and public amenity outcomes.
- A definable, central public place for Brookvale does not form part of the existing structure of the centre. Defining this place is important to the destinational quality and attractiveness of the centre.
- The centre is characterised by a number of large asset holdings. Partnerships with these property owners is encouraged to achieve mutually agreeable outcomes for the centre.

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## ECONOMIC CONTEXT KEY FINDINGS

The key findings from the analysis of the economic context can be summarised as follows:

- + Brookvale has a strong foundation and trend toward continued economic growth due to its diverse character and business make up, surrounding population, demographic and its central location. The inclusion of creative industries in industrial precincts are the focus of international growth benchmarking and this provides a direct catalyst and should be harnessed.
- Brookvale is the most mixed use Strategic Centre in metropolitan Sydney and has a significant retail core similar only to Macquarie Park. This provides a natural point of difference and competitive advantage for the centre to be reinforced.
- + Brookvale is the transaction destination, or "one stop shop" for the region. The region draws on a strong general service demand for local retail, bulky goods, building supplies and automotive repairs. The Structure Plan is to support this diversity.
- + New and larger industries and typologies, including creative and digital technologies, are essential for growth, but are currently limited by a car based environment.
- + Little competition and solid profit margins support redevelopment of existing lots and businesses. This is further reinforced by a relatively high rental yield for office space (6% to 7%) and large site areas which allow for redevelopment of older warehouses.
- + Education is a strength of the centre. Correlation between new industries, talent and education can be strengthened to sustainably secure the centre's economic future.



## TRANSPORT CONTEXT KEY FINDINGS

The key findings from the analysis of the transport context can be summarised as below:

- + Travel demand is likely to restrict the amount of development that can be achieved in Brookvale, due to the limited capacity along Pittwater Road between Condamine Street and Old Pittwater Road and the poor east-west connectivity between West Brookvale and Harbord/ Freshwater.
- + Congestion along these corridors is as much a result of increasing through traffic in the corridor as from traffic generation associated with additional jobs in Brookvale and Dee Why. As a result, it is critical to think about the regional movement network associated with Brookvale.
- + Brookvale is car based. A shift away from car dependency will increase the attractiveness of the centre to new and emerging businesses, residents and talent.
- + Warringah Mall and Dee Why Town Centre have a higher usage of active and public transport than other centres in the region. These modes should continue to be encouraged and supported by increased connectivity.
- + The new B-Line Bus Rapid Transit will contribute to a shift away from car dependency in the area. This needs to be coupled with other initiatives, including key activity precincts as transit oriented nodes, commuter cycling and walk distances, that further shift the centre away from car dependency.
- + Existing car parking, and strategic car parking can then be considered, with respect to minimising or better locating facilities an making available land for development.
- + A future Northern Beaches Tunnel and Mona Vale Road Upgrade should be considered within the regional road network hierarchy to further manage vehicles within the centre.

## **BENCHMARKING SUMMARY**

The Analysis report further provides a summary of the key findings arising from the benchmarking exercise. Having researched comparable Strategic Centres, employment centres and transitioning industrial centres, the report identifies key issues to be considered in the preparation of the Brookvale Structure Plan. These are detailed below and include consideration of the mix of uses, complementary uses, employment trends and the transport infrastructure to support a growing Strategic Centre for metropolitan Sydney.

Compared to all other Strategic Centres identified in 'A Plan for Growing Sydney,' Brookvale-Dee Why is unique as a combined centre that together has a major retail asset in Warringah Mall, a "main street" town centre in Dee Why as well as industrial, business park, civic functions and education uses. No other Strategic Centre has such a strong existing mix of uses. It will be important for Brookvale to maintain this mix of uses and ensure they continue to strongly perform their strategic employment role for the Northern Beaches.

An issue specific to Brookvale-Dee Why is that it is one of only three Strategic Centres across Sydney without existing or committed future rail infrastructure serving its growing employment and residential population. It is of a similar geographic scale to other non-retail employment focused Strategic Centres such as Northern Beaches Hospital Precinct (10.000 jobs). Macquarie Park (40.000 jobs). Sydney Olympic Park (4.500 jobs) and Norwest (20.000 jobs) however. Macquarie Park, Sydney Olympic Park and Norwest are currently served or will be served by rail infrastructure in the near future. This is significant for Brookvale as while many existing employment and business industries are car oriented in their method of travel to work, there is a limit to how many additional jobs (and residents) can be accommodated in Brookvale before transport issues arise.

The Analysis Report looked at employment centres that are not classified as Strategic Centres yet perform strategic employment functions for their region and identified some consistent trends in terms of growth and decline in certain employing businesses. Growth in these centres was largely underpinned by Health Care and Social Services, Construction, Accommodation and Food Services. Manufacturing, Wholesale Trade and Retail Trade were the key contributors to employing businesses decline across the six compared centres, however Retail Trade at Brookvale was one of the top three employing businesses growth areas. In considering Brookvale's evolution over the next 20 years, we must incorporate these trends and ensure that jobs growth can be accommodated in Brookvale in accordance with changes occurring in employing businesses.

In recognising that employment centres are evolving away from Manufacturing and Wholesale Trade, the report examined industrial focused employment centres that are transitioning and diversifying to include new complementary uses. The introduction of future technologies, creative industries, art galleries, cafés, restaurants and specialist retail stores has assisted in revitalising these benchmarks in Australia and around the world. One key issue is the amount of residential that can be accommodated in an industrial centre while still achieving liveability standards and maintaining employment capacity. This will be especially pertinent in Brookvale as a key priority is retaining its strong employment function for the Northern Beaches region. How to accommodate residential growth – where and how much is a key factor which needs careful consideration in the Brookvale context.

Following outcomes of the Analysis Report, the next stage was the Scenarios Report which described possible future development scenarios for Brookvale and identifies a preferred development scenario following a scenario testing process with Northern Beaches Council. The preferred development scenario informs the Draft Structure Plan and illustrates the way forward for Brookvale.



## **BROOKVALE SCENARIO REPORT**

The Brookvale Structure Plan Scenarios Report expands upon the Analysis report and examines the 249 ha Brookvale investigation area. Based on an analysis of background material, outcomes of community and stakeholder engagement as well as transport, economic and demographic analysis, the Scenarios Report establishes a set of Development Principles and a Development Framework. It then goes on to propose a series of development scenarios. The scenarios respond to the established Development Framework and Development Principles and test four development scenarios.

The development scenarios test transport capacity and land uses to identify an optimum balance between growth in the jobs and housing sectors. This testing then considers the information gained during the benchmarking process of the Analysis Report in order to consider best practice design and development of a mixed use Strategic Centre for Brookvale-Dee Why.

The scenarios represent four strategies, not designs. Underpinning each scenario is the common intention to strengthen the economic performance and employment base of Brookvale and achieve a self sustaining Strategic Centre for the Northern Beaches and metropolitan Sydney. The four scenarios represent varying growth approaches to the project, and are summarised as follows:

- + Scenario 1: focuses solely on employment growth with an additional 3,000 jobs by 2031 in Brookvale.
- + Scenario 2: focuses on employment growth and some residential growth with an additional 2.400 jobs and 550 residents by 2031 in Brookvale.
- + Scenario 3: focuses on employment and residential growth with an additional 1,700 jobs and 1,200 residents by 2031 in Brookvale.
- + Scenario 4: focuses on high residential growth and employment growth, with an additional 1,300 jobs and 1,550 residents by 2031 in Brookvale.

After in depth analysis, consultation and testing of the scenarios, Scenario 3 was determined as the preferred option, thereby informing the basis of this structure plan and ensuring the continuation of Brookvale as a mixed use Strategic Centre with an employment focus.

## PREFERRED SCENARIO: SCENARIO 3

The evaluation process determined that Scenario 3 was the preferred scenario. Scenario 3 sought to balance employment and residential growth. It allows for 60% of growth to occur in employment and 40% in residential.

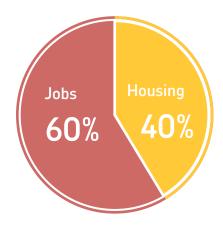
This scenario tests an increase of 1,200 residents being introduced into the centre or 670 dwellings (average household size of 1.8). This is in addition to an increase of 1,700 jobs, which equals an additional 50,319m<sup>2</sup> of floor space required to be accommodated in the strategic centre of Brookvale.

In this scenario population growth is relatively larger to support Brookvale-Dee Why as a self sustaining centre. Economic advice revealed growth in this location was necessary to support and encourage employment growth in the Town Centre and the adjacent industrial zones.

The overall floor space for Brookvale will be approximately 656.680m<sup>2</sup> in 2031.

Table 1: Scenario 3- Job Growth to 2031				
Land Use	Jobs	Additional Floorspace (m²)		
Industrial	206	3,188		
Office	158	4,428		
Retail	866	21,642		
Health Care	163	4,086		
Education	133	3,324		
Accommodation & Food Services	123	12,266		
Fitness/Leisure/Arts	13	533		
Other	38	852		
Total	1,700	50,319		

Source: MacroPlan Dimasi (2016)



# 2.4 Key Outcomes

The Brookvale Structure Plan will provide a strategic framework for the long term development of Brookvale and the wider investigation area. The Structure Plan sets out the development potential of the area based on demographic analysis and transport capacity and will serve to guide future growth in Brookvale and guide future land use planning.

The Structure Plan has been formulated based on the findings of the Analysis Report and Scenario Report, which tested various options for growth. The Scenario Report determined Scenario 3 as the preferred option, ensuring the continuation of Brookvale as a mixed use Strategic Centre with an employment focus.

The preferred scenario provided for a focus on employment, with residential growth focussed in the Town Centre with an additional 1,700 jobs and 1,200 residents forecast by 2031 in Brookvale. This was based on economic advice that growth in this location was necessary to support and encourage employment growth in the Town Centre and the adjacent industrial zones.

As such, the Brookvale Structure Plan seeks to consolidate Brookvale as an employment focused Strategic Centre and will guide growth in the area for the next 20 years while protecting employment in Brookvale, managing housing diversity and affordability.

Brookvale is the economic heart of the Northern Beaches and makes a significant contribution both to the local economy and to job containment. The existing high level of job containment reduces pressure on the arterial road network, which experiences severe peak hour congestion.

Retention of employment land is therefore paramount to ensure that Brookvale continues to provide this valuable contribution to jobs and the local economy.

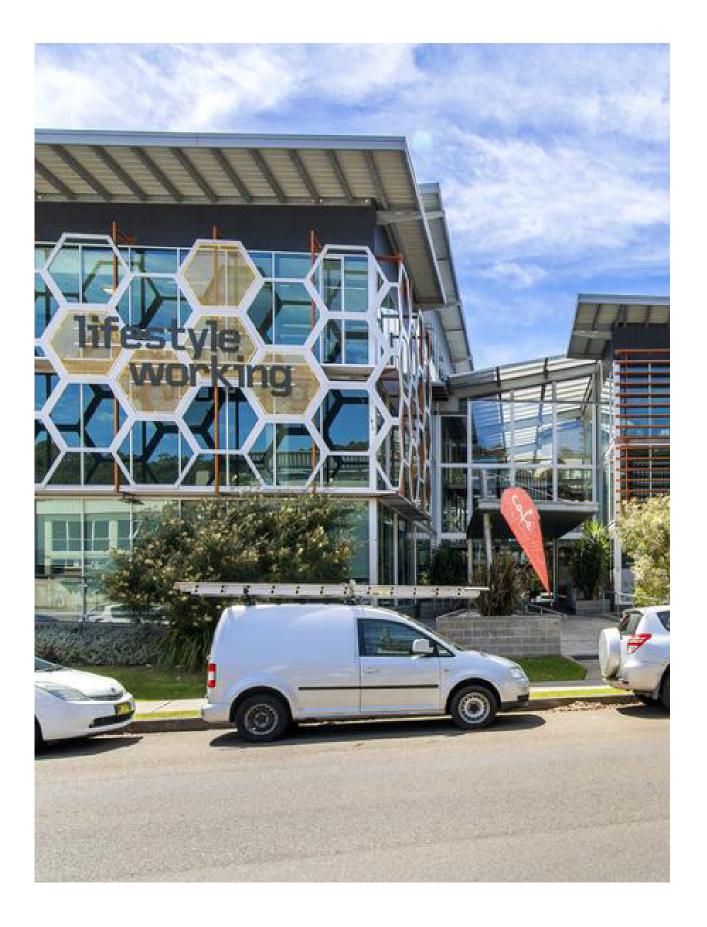
Careful management of future development is necessary to ensure that residential development does not encroach on available employment lands.

The draft Brookvale Structure Plan as outlined within this report is not a design. The Structure Plan is intended to provide a strategic framework for the long-term development of Brookvale.

HAMES SHARLEY AUGUST 2017

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# EXISTING CONTEXT

# 3.1 Historical Overview

The suburb of Brookvale sits in a valley with Allambie Heights, Beacon Hill and Narraweena rising on its western and northern sides. To the east it joins the coastal plain and the suburbs of North Curl Curl and Freshwater. It was originally named Greendale, and the creek still bears this name, along with the streets Green Street and Dale Street in the industrial zoning to the north of Warringah Mall.

Brookvale was identified as an industrial area in the first Sydney wide planning document, the County of Cumberland Planning Scheme in 1948. Before this the area consisted of swamp land, market gardens and scattered residential houses. This Planning Scheme identified much of Brookvale as an "Industrial Area" specifically to provide for employment for the growing population. In contrast, Dee Why was identified as "Living Area" recognising it as a residential suburb with an increasing population.

This 70 year old planning scheme reflects the current nature of the Brookvale-Dee Why Strategic Centre, with Brookvale having the employment focus and Dee Why being the residential, retail, civic and community part of the combined centre.

With successive changes to planning instruments over time, Brookvale has retained its primary function as an employment area. This remains relevant today with the Northern Beaches having high job containment (with people living and working within an area), above the Sydney average.

To maintain urban sustainability, it is important to retain this relationship and protect employment generating lands. This initiative is supported by the State Government's metropolitan planning documents. In particular, the Draft North District Plan, which applies to the Northern Beaches LGA, supports retention of employment land; this position being underpinned by the document, Industrial Precinct Review, August 2015 (prepared by Hill PDA for the Department of Planning and Environment).

Pittwater Road (or various earlier forms of this) has served the Northern Beaches since its earliest settlement as the main north south connection of the area to the Sydney CBD. It continues to serve as one of the three major transport corridors for the area (Pittwater Road, Warringah Road and Mona Vale Road) which are all vital to liveability due to the areas reliance on road transport for all of its movement options. Traversing Brookvale and Dee Why, Pittwater Road plays an ever-increasing role in defining land use locational relationships and intensity at the regional and local level.





# 3.2 Existing Landuse Patterns

Before recommending any changes to the Brookvale investigation area, it is necessary to understand the diversity of land uses and functions which already operate. As the major employment lands for the region, many of these functions relate to industrial, commercial and retail uses of various types. The area also has a small residential component, along with a number of schools and regional open space.

Brookvale is known as the "one stop shop" where you can find anything you need within a small area. A brief description of the existing land use activities in Brookvale is provided within this section.

This information has informed the development of the Structure Plan.

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## **BROOKVALE TOWN CENTRE**

The Brookvale Town Centre is a traditional main street commercial centre, straddling the major road, being Pittwater Road. It extends from Brookvale Park in the north to Cross Street in the south. Over time this hub has evolved to become a service area for industrial and employment activities that occupy adjacent lands. It provides a range of support services including banks, accountants, solicitors and other support services required by the surrounding industries. Retail uses include consumer retail (e.g. take away food/coffee, chemist, newsagent, dry-cleaning etc.) along with specialist retail related to the needs of surrounding industries (e.g. workwear, tools, lighting, windows etc.). It also contains the Brookvale Hotel, the main Centrelink/ Medicare office for the Northern Beaches as well as a number of car showrooms. In recent years the local planning controls have been adjusted to allow the Town Centre to accommodate shop top housing and thereby facilitate a mixed-use activity area. There have been some shop top housing developments approved in recent years, mainly on the western side of the centre, due to larger lot sizes.

## **BROOKVALE BUSINESS DEVELOPMENT AREA**

Over time, business development has crept northward and southward along Pittwater Road from the Town Centre into land that was previously zoned industrial. This development tends to be characterised by activities that rely on high exposure and larger site areas (such as car showrooms) and building and industry related uses such as wholesaling and retailing of building supplies and materials (such as doors and lighting). Manly Warringah Leagues Club is also located within this area, approximately 450m north of the Town Centre and Brookvale Park. The existing local planning provisions do not allow shop top housing beyond the Town Centre.

## **AUTOMOTIVE INDUSTRY**

Both the Brookvale Town Centre and the Brookvale Business Development Area accommodate a distinct automotive services industry which has grown and developed since its commencement some five decades ago. Most visibly, this takes the form of multiple vehicle sales premises, for the most part located along Pittwater Road both to the north of, but also within the Brookvale Town Centre. Less visible is a fine grained network of automotive related small businesses located within the surrounding industrial area both east and west of Pittwater Road. Whilst many of these are small businesses, they collectively account for a significant employment sector in Brookvale. Many of the car showrooms have ancillary premises in the industrial areas for servicing, spare parts and other uses related to their business. The main car dealers own or occupy multiple properties across the Brookvale industrial area. The automotive industry is likely to change over the next 20 years, but now it appears to be operating successfully, with new showrooms continuing to be built in recent years.

HAMES SHARLEY continuing to be built in recent years. AUGUST 2017



## WARRINGAH MALL SHOPPING CENTRE

Warringah Mall, established in the 1960's, was one of the earliest free standing shopping malls in Sydney. It lies immediately south of the Brookvale Town Centre, with a 550m frontage to Condamine Street and Pittwater Road and forms the southern gateway to Brookvale.

Rather than being located within the traditional retail centre, Warringah Mall was established on large land holdings previously used for market gardens, surrounded by industrial land. This was necessary to accommodate the large format retail with the on-site parking required. It has grown and expanded commensurate with growth in the Northern Beaches region and is currently undergoing a further period of growth and redevelopment.

It continues to function as the major retail shopping facility for both the Northern Beaches and the Lower North Shore. It is a self-contained centre, providing supermarkets, speciality retailing, major and discount department stores, cafes, support services as well as a cinema complex, fitness club and community facilities including Warringah Mall Library. As a result, it is a destination in its own right and used by the community as a meeting place.

It is serviced by local buses, with an interchange inside the centre and a bus stop on Pittwater Road. The proposed B-Line stop will be located adjacent to Warringah Mall, on Pittwater Road.

## INDUSTRIAL AREA WEST (WEST OF PITTWATER ROAD)

The Industrial Area West is characterised by an irregular underlying pattern of land subdivision and generally, larger land holdings than those in the Industrial Area East. It adjoins a major area of open space to the west, which forms a green escarpment backdrop to this area. Uses in this area are largely industrial with many large format warehouse and distribution centres. There are also a lot of commercial/office uses in this area, due to previous planning controls which did not prohibit these uses. This resulted in a shift from traditional industrial uses to office based businesses. The current industrial zoning prohibits stand-alone commercial development, but many of the uses in this industrial area operate with prior consent or existing use rights.

The larger lot sizes in this area also accommodate more on-site parking and site landscaping, which means that this area is "greener" and does not have the same parking constraints as Industrial Area East.

## INDUSTRIAL AREA EAST (EAST OF PITTWATER ROAD)

This is the older, more traditional industrial area in Brookvale. Compared to Industrial Area West, it has a finer grained underlying pattern of land subdivision and land holdings. This is underpinned and supported by a grid street layout that offers a greater level of traffic filtration through the area. However, these smaller allotments with limited on-site parking and servicing facilities have resulted in on street parking issues and congestion. The small land holdings however have encouraged many small business operators to locate in Brookvale, adding to the variety of industrial and other businesses locating in this area.

The uses in this area are characterised by small industrial, bulky goods premises, vehicle repair stations and various automotive related services. There are also a large number of businesses supporting the building industry, including hardware, paint, tiles, timber supplies, doors, bathroom fittings etc. and anything else you need to renovate or build your house. This area also has 4 established concrete batching works which supply concrete to the region.

Recently, an emerging characteristic is the development of boutique cafe, bakery and brewery premises. There are also a number of indoor recreation (yoga/gym/pilates/martial arts) businesses along with boutique creative uses such as surfboard manufacture. These uses are bringing life to this industrial area, however current planning provisions need to be reviewed to ensure that they can be encouraged and accommodated as a growing employment sector.

## **RESIDENTIAL AREAS**

The employment areas of Brookvale are surrounded by residential areas of varying character. For the most part, these are characterised by low density residential development; interspersed with a number of separated pockets of medium density development that are generally limited to 2 storeys in height.

Within the Investigation Area the bulk of the residential area is located north of the business and industrial lands, located between Pittwater Road and Warringah Road with a small medium density area off Old Pittwater Road, adjoining industrial lands.

The areas currently zoned for medium density residential have not been fully developed and there are still opportunities under the existing zoning for infill residential development to occur.

## OTHER MAJOR LAND USES



## **BROOKVALE COMMUNITY HEALTH CENTRE**



## TAFE NSW NORTHERN BEACHES

This facility is currently under construction and will be the main community health centre for the lower part of the Northern Beaches. The building is also providing commuter car parking for the proposed B-line bus service, as it is adjacent to the Brookvale stop. A pedestrian overbridge linking this building to Warringah Mall on the opposite side of Pittwater Road is also proposed, but as yet final design details are not known and approval has not been granted.



## **BROOKVALE BUS DEPOT**

Brookvale Bus Depot occupies a large site immediately adjoining the Town Centre on its southern boundary, and located opposite Cross Street, one of the main entrances to Warringah Mall. It is the main bus depot for the Northern Beaches (secondary at Mona Vale) and was recently redeveloped.

It has a frontage of 230 metres along Pittwater Road, and it sits between the existing Town Centre and Warringah Mall. While there are no plans for the bus depot to relocate, it is a large site strategically located between the Brookvale Town Centre and Warringah Mall (and B-line stop).



## **BROOKVALE PARK**

Brookvale Park is a large parcel of regional open space, located at the northern gateway to the Brookvale Town Centre. It consists of Brookvale Oval (home of the Sea Eagles Rugby League team) and an open park (the village green) to the north of the oval. The oval is surrounded on three sides by an avenue of heritage listed trees, which form a green wall around this regional open space facility. The oval and surrounding lands are owned and managed for the community by Northern Beaches Council.

The Park has been subject of a number of studies in recent years, which explored possible redevelopment options, to assist with retention and enhancement of this recreational facility.

TAFE NSW Northern Beaches is located on Old Pittwater Road adjacent to, and south of, Warringah Mall. It has been providing tertiary education services for the Northern Beaches for many years.

It provides education and training across 22 industry areas including: accounting and finance; automotive; building and plumbing; business administration; health and community services; hospitality; information technology; marketing and property services; media and entertainment and tourism and event management.

TAFE Northern Beaches supports local business through industry associations and partnerships, apprenticeships and traineeships and a number of specialist training facilities.



## SCHOOLS

There are 2 schools within the Investigation Area, St Augustine's College and Brookvale Primary School. Both are located immediately north of the Town Centre, adjacent to Brookvale Park and surrounded by residential uses.

There are also a number of schools just outside the Investigation Area, being Northern Beaches Selective High School, Northern Beaches Senior Campus, St Luke's Grammar school and The Beach School.





# 3.3 Existing Land Use Planning Controls

Generally, the existing planning controls support the land use pattern described previously. The Warringah Local Environmental Plan 2011 (LEP) and the Warringah Development Control Plan (DCP) 2011 apply to the Investigation Area. Five different land use planning zones currently apply to the Investigation Area.

## **LAND USE ZONES**

The following table describes the existing land use zones that apply in the Investigation Area.

## Table 2: Existing Land Use Table

Zone	Application
B5 Business Development	The Town Centre and the business activities extending along Pittwater Road to the north and south of the Town Centre are all zoned B5 Business Development. Broadly, this zone permits businesses and services but does not allow retail, office or residential activities. Rather, it seeks to promote development in the business sector.
	However, in recognition of the extended function of the Town Centre, the LEP makes provision for 'Additional Permitted Uses' (APU's) within the Town Centre by permitting retail, office and residential (shop top housing) uses. This has the effect of creating a mixed use 'zone' within the identified limits of the Town Centre. Even though it is zoned B5, the APU's mean that the Town Centre is effectively a different zone.
B3 Commercial Core	Warringah Mall is zoned B3 Commercial Core which recognises the strong retail and commercial function of the site. This zoning does not allow residential development.
IN1 General Industrial	All industrial land in the Investigation Area (both east and west of Pittwater Road) is zoned IN1 General Industrial. The zone significantly limits all uses other than industry and does not recognise certain emerging employment trends that may be suitable to parts of the industrial areas.
R2 Low Density Residential	Low density residential development predominates in Brookvale's residential areas.
R3 Medium Density Residential	Pockets of medium density residential are interspersed within the predominantly low density residential environment.



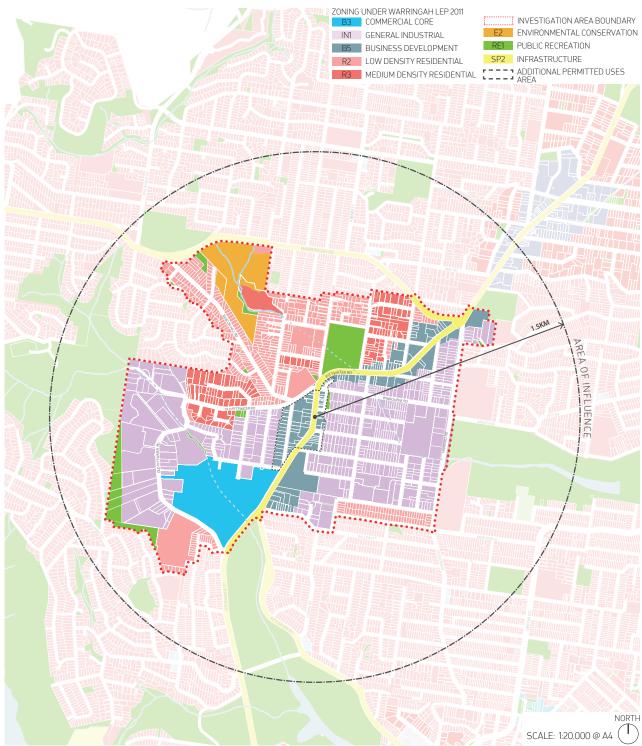


Figure 3: Existing Zoning Controls

## **HEIGHT OF BUILDINGS**

Building heights are generally limited to a maximum of 11m due to the prominence of the general industrial and business development zones.

The Warringah LEP and DCP establish the applicable maximum height of building controls:

## WARRINGAH LOCAL ENVIRONMENT PLAN

## Table 3: Existing Building Heights

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B5 Business Development	11 metres
IN1 General Industrial	11 metres
R2 Low Density Residential	8.5 metres
R3 Medium Density Residential	8.5 metres

## WARRINGAH DEVELOPMENT CONTROL PLAN

B3 Commercial Core (Warringah Mall) - Variable height controls apply across the Warringah Mall site as a component of a suite of built form controls that are outcome specific to this large site area. These are set out in the Warringah Mall precinct specific controls in the Warringah DCP.



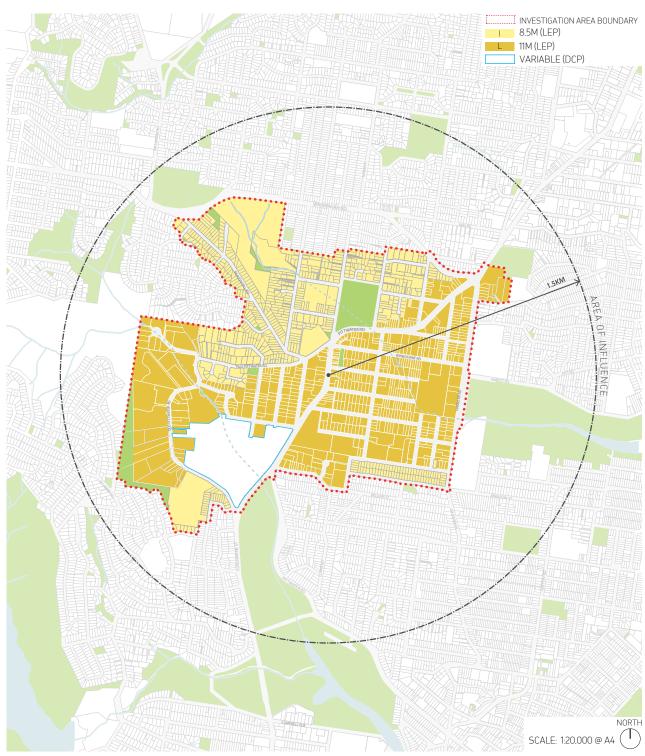


Figure 4: Existing Building Height Controls

# 3.4 Existing Movement Network

#### **ROAD NETWORK**

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Brookvale is located in the south-eastern portion of the Northern Beaches LGA. It is serviced by the regional road network, in particular, Warringah Road and Pittwater Road. Warringah Road is the primary east-west road linking Brookvale/Dee Why to Chatswood. North-south connectivity is provided by Pittwater Road which connects Manly in the south with Palm Beach in the north. It is the major road which traverses the length of Brookvale and connects to the Sydney CBD. Warringah Road intersects with Pittwater Road at the northern boundary of the Brookvale area, which is the main regional transport intersection for Dee Why/Brookvale.

The Brookvale area is serviced by a network of local roads, connecting with Pittwater Road and Condamine Street in the south. In the flat low lying areas of the employment lands, the roads largely follow a grid pattern, providing access across the industrial area and connecting through to collector roads. Due to topography, the valley slopes have a more varied road pattern. In the industrial west area, Old Pittwater Road is the main collector road, linking from Condamine Street at the southern gateway around to the Winbourne Road intersection, at the northern gateway.





Figure 5: Investigation Area Road Hierarchy

#### **PUBLIC TRANSPORT NETWORK**

Brookvale is serviced by a regional bus network. Sydney Buses provide services north-south and east-west, along with local feeder services. The bus depot servicing this extensive network is located within Brookvale. Forest Coach Lines provide some bus services east-west to Chatswood from Warringah Mall. There is a bus interchange within Warringah Mall which operates as the starting point for a number of local bus services.

The Northern Beaches is not serviced by any rail system. In addition to bus services, it is connected to the city by ferry services from Manly.

The State Government is in the process of implementing a B-Line bus service for the Northern Beaches, providing frequent buses from Mona Vale to the City. This is a limited stops bus service which will include a stop at the southern end of the Brookvale Investigation Area, adjacent to Warringah Mall and the new Brookvale Community Health Centre.

#### **BIKE NETWORK**

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The Northern Beaches is characterised by a recreation lifestyle, and cycling is a large part of this. The Brookvale area is covered by the Warringah Bike Plan (2010). The Investigation Area is serviced by a bike network, however it is mainly located on existing roads. Opportunities should be investigated to develop a safer bike network thereby encouraging local trip movements to be made by bike rather than car, in turn encouraging more active transport usage.





Figure 6: Investigation Area Bicycle Route Network (Warringah Bike Plan 2010)

# 3.5 Key Outcomes

In looking at the existing context of Brookvale, there are four main outcomes which should be taken into consideration in the development of the Brookvale Structure Plan: -

## BUILD UPON EXISTING CENTRE FRAMEWORK AND LAND USE PATTERN

Within the Investigation Area a well-established land use planning framework exists and incorporates multiple elements that work together to support the role of Brookvale as a component of the Brookvale – Dee Why Strategic Centre.

Building upon this existing land use framework is a sound principle on which to approach planning for Brookvale's future growth and enhancement.

This includes supporting and revitalising the Town Centre; ensuring industrial lands can respond to changing future employment trends and patterns; encouraging Warringah Mall to be an active contributor to Brookvale; recognising the B-line stop and the opportunities to encourage transit oriented development and exploring opportunities for affordable housing and greater housing choice to bring life into Brookvale and at the same time support local businesses.

# ENSURE PLANNING FRAMEWORK SUPPORTS AND SECURES BROOKVALE AS A REGIONAL EMPLOYMENT HUB

Brookvale is the major employment hub for the Northern Beaches region and there is scope to build on the existing planning framework to secure this role into the future:

Priority should be to minimise any reduction in employment lands:

- Existing industrial lands remain viable, are well utilised, support local jobs and, through the considered application of planning controls, can be adapted for future jobs growth;
- + Warringah Mall is the largest retail area in the Northern Beaches region and is currently undergoing regeneration. Jobs in the retail sector are identified as a primary focus of jobs growth for the future and Brookvale is well placed to accommodate such growth.
- Pittwater Road traverses the employment land and whilst operating at a high capacity, the B-Line corridor and B-Line stop will provide additional support for growth in both jobs and limited housing to support these jobs.

# ENSURE PLANNING FRAMEWORK REINFORCES BROOKVALE'S ROLE AS PART OF THE BROOKVALE-DEE WHY STRATEGIC CENTRE

- + Continue to recognise Brookvale as being a component part of a wider strategic centre Brookvale Dee Why, and being primarily the employment function of this centre;
- + While jobs growth should be the priority to achieve this, a level of housing density will be required to support and enhance the Brookvale component of the Strategic Centre;
- + Encourage use of Brookvale's existing assets to achieve a Strategic Centre which has good live and work outcomes and is a vibrant, economically and environmentally sustainable centre

## RECOGNISE THE CAPACITY LIMITATIONS OF THE EXISTING ROAD NETWORK

- + As a centre without a train line, access into and out of Brookvale relies upon the road network, particularly the regional connector roads Pittwater Road and Warringah Road:
- + Movement of people, goods and services is a major component of a successful employment area;
- + Growth needs to be carefully accommodated within these road capacity limits to ensure that the area can continue to function as a viable employment area;
- + The B-line service will introduce another option for the movement of people, but until operational it is not known what impact this will have on the capacity of the road network.





# SETTING THE CONTEXT FOR MANAGING CHANGE

SETTING THE CONTEXT FOR MANAGING CHANGE

## 4.1 Known Limitations to Growth

It is acknowledged the optimal growth strategy for Brookvale needs to consolidate and support the primary function of Brookvale as a major employment centre. However, the degree to which Brookvale can deliver is bound by certain development limitations.

This section outlines the key limitations, notably the traffic implications of mixing employment and residential development within the Brookvale Structure Plan area and further outlines specific limitations identified throughout the Structure Plan development process which have influenced the Structure Plan.

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#### **ROAD CAPACITY**

The Transport Management and Access Study (TMAS) undertaken by GHD in 2012 identified that only a certain amount of growth could be accommodated without the need for major road upgrades. It also looked at whether a 5,000 jobs target provided for in previous metropolitan strategies could be accommodated at Brookvale-Dee Why. It found that:

Travel demand [in the precinct] is likely to restrict the amount of development that can be achieved in Brookvale, due to the limited capacity along Pittwater Road between Condamine Street and Old Pittwater Road and the poor eastwest connectivity between West Brookvale and Harbord/Freshwater. Congestion along these corridors is as much a result of increasing through traffic in the corridor as from traffic generation associated with additional jobs in Brookvale and Dee Why.

After accounting for a reduction in vehicle trips due to trip containment and multi-purpose trips, as well as a realistic 10% reduction in vehicle trips resulting from mode shift, the road network will be over capacity and will operate at very high levels of congestion (particularly in the evening peak period).

Based on rough sensitivity testing undertaken as a part of the study, it is estimated that growth in jobs of some 3,000 to 3,500 across Brookvale and Dee Why can be supported on the transport network at a manageable and serviceable Level of Service, before large-scale network upgrades are required.

At the time of the TMAS Study, the Pittwater Road Bus Rapid Transit (B-Line) study was in development by TfNSW. Given the limited scope to fund and implement large scale road works through the Brookvale study area, the TMAS Study recommended an integrated package of measures. This was to encompass infrastructure, service and policy responses to reduce travel demand and deliver a working transportation network that will serve the forecast growth.

The primary focus of the strategy will be to reduce vehicle demand, increasing mode share and implementing policies that reinforce a higher attraction to modes other than car. The above recommended TMAS limits to jobs growth (3,000–3,500) is similar to the current BTS employment forecasts for Brookvale.



#### **ROAD CAPACITY SUMMARY**

Analysis of the existing road network, travel patterns, and public transport infrastructure have informed the Structure Plan and impact on population growth. Key limitations to growth include:

- + Travel demand is likely to restrict the amount of development that can be achieved in Brookvale, due to the limited capacity along Pittwater Road between Condamine Street and Old Pittwater Road and the poor east-west connectivity between West Brookvale and Harbord/Freshwater.
- + Congestion along these corridors is as much a result of increasing through traffic in the corridor as from traffic generation associated with additional jobs in Brookvale and Dee Why. As a result, it is critical to think about the regional movement network associated with Brookvale.

#### **URBAN STRUCTURE**

Brookvale is divided into two halves by Pittwater Road which dissects the centre. It can be difficult to move from the eastern part of Brookvale across Pittwater Road, to the western part, and vice versa.

#### FRAGMENTED LAND OWNERSHIP

Land fragmentation in Brookvale imposes moderate constraints on the opportunity for redevelopment through site amalgamation. This is particularly evident in industrial lands with multiple owners of smaller land parcels. The small lot pattern is most evident in Industrial East, an older industrial area originally subdivided for residential use. State and Council owned land is distributed throughout the Investigation Area. The Northern Beaches Council's significant land holding is Brookvale Park. The council also own smaller parcels of land scattered throughout the Investigation Area. The centre is characterised by a number of large asset holdings. AMP & Westfield own the largest parcel of land which is Warringah Mall Shopping Centre. Other large asset holders include TFNSW (Bus Dept.): NSW Health (Brookvale Community Health Centre): and TAFE.

Under the Warringah Local Environmental Plan 2011 (LEP), land zoned as IN1 General Industrial within the precinct is subject to a minimum lot size of 4,000sqm. The LEP does not specify minimum lot sizes for the B3 Commercial Core and B5 Business Development zoned lands within the Precinct. The lack of a minimum lot size control increases the potential for land fragmentation. Increased land fragmentation limits redevelopment opportunities.

#### **TOPOGRAPHY**

Brookvale is located at the base of a valley with steep topography surrounding it to the west. The Investigation Area is characterised by flood plains adjacent to the creek corridors. Significant portions of the area fall within the flood planning level which are considered in future planning. Creek corridors can be incorporated within open space initiatives that provide water management and public amenity outcomes. Currently a waste water overflow storage tank is found in the Industrial east area. A large portion of industrial land is located in the flood areas, with significant constraints on the redevelopment and or rezoning.

#### **ENVIRONMENTAL BIODIVERSITY**

Wildlife corridors, conservation areas and threatened vegetation are found within the large areas of open space located within the Investigation Area. These areas naturally frame the Investigation Area, and to a degree naturally limit growth toward the eastern boundary of the site. Although a physical limitation to growth, the green spaces are recognised as a key component of reinforcing the area natural amenity and green identity.

# 4.2 Development Enablers

The following attributes have been identified as Development Enablers for the Brookvale Structure Plan area. If harnessed correctly these features can be used as the basis for the future sustained growth and consolidation of Brookvale.

#### **ECONOMIC**

The key findings from the analysis of the economic context can be summarised as below:

- + Brookvale has a strong foundation and trend toward continued economic growth due to its diverse character and business make up, it's surrounding residential population and its central location. The inclusion of creative industries in industrial precincts are the focus of international growth benchmarking and this provides a direct catalyst and should be harnessed.
- + Brookvale is the transaction destination, or "one stop shop" for the region. The region draws on a strong general service demand for local retail, bulky goods, building supplies and automotive repairs. The structure plan is to support this diversity.
- + New and larger industries and typologies, including creative and digital technologies, are essential for growth, but are currently limited by a car based environment.
- + Little competition and solid profit margins support redevelopment of existing lots and businesses. This is further reinforced by a relatively high rental yield for office space (6% to 7%) and large site areas which allow for demolition of older warehouses.

#### **ECONOMIC FUTURE**

+ Education is a strength of the centre. Correlation between new industries, talent and education can be strengthened to sustainably secure the centre's economic future.

#### LARGE ASSET HOLDERS

- Key sites owned by government bodies have the potential to facilitate a catalytic employment project (e.g. bus Depot, TAFE).
- + There is potential to work with these, and other major land holders to assist with transitioning to knowledge based jobs as the market changes.

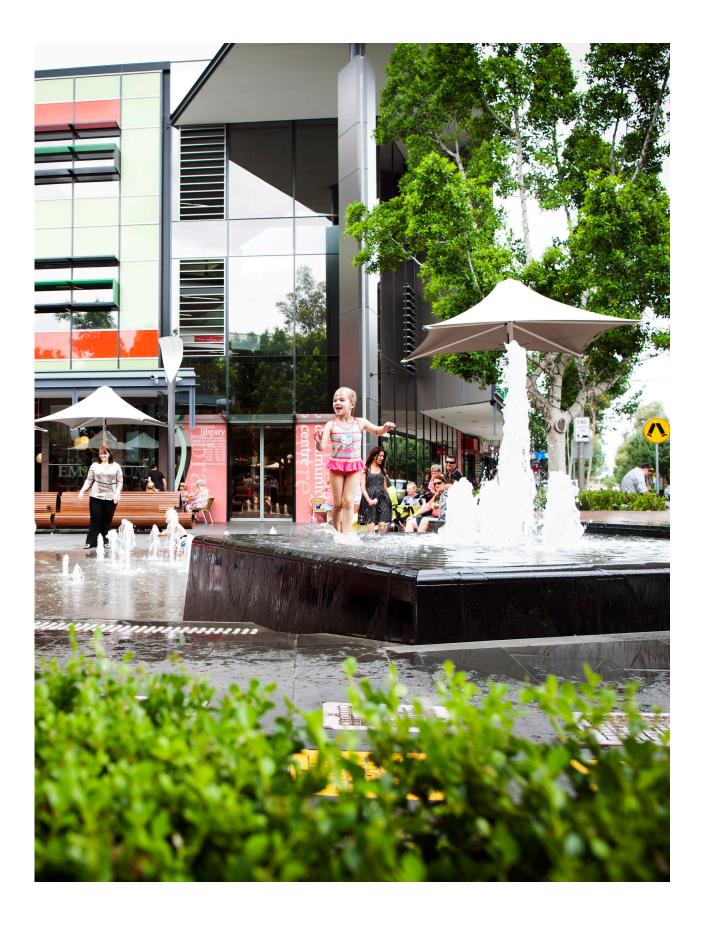
#### **B-LINE**

- + The new B-Line Bus Rapid Transit will contribute to a shift away from car dependency in the area and will assist with meeting public transport targets.
- + This needs to be coupled with other initiatives, including a transport strategy and identification of key activity precincts such as transit oriented nodes, commuter cycling and walk distances, that further shift the centre away from car dependency.
- + The preferred scenario can be supported on the transport network at a manageable and serviceable level of service, before large scale network upgrades are required.

#### **EXISTING LAND USE DIVERSITY**

+ Brookvale has a strong existing mix of uses, more than any other Strategic Centre in metropolitan Sydney. It also has a significant retail core similar only to Macquarie Park. This provides a natural point of difference and competitive advantage for the centre to be reinforced.





# 4.3 Aspirations

Throughout the development of the Structure Plan process, a series of Structure Plan aspirations were identified.

These aspirations respond to an analysis of the existing context, outcomes of consultation undertaken including the Community Strategic Plan as well as the the community engagement stages 1 & 2 carried out for the Brookvale Structure Plan, undertaken during October and November 2015 and March 2016.

The intent of the Brookvale Structure Plan is described in the aspirations on the following page.

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The development of the Brookvale Structure Plan includes an engagement strategy that involved collaboration with key stakeholders and the community.

The aim of the consultation process was to provide opportunities for the community and stakeholders to be part of the Structure Plan development process, and furthermore obtain an understanding of both the issues and aspirations for Brookvale.

Community engagement was an important element of the structure plan process as it achieved the following engagement objectives:

- + Capturing the aspirations for Brookvale;
- + Identifying emerging issues or needs;
- + Communicating future growth scenarios; and
- + Determining a way forward for the future.

The aspirations identified by the community and other key stakeholders are outlined within this section. These aspirations also respond to the guidelines for Strategic Centres included in "A Plan for Growing Sydney". They are coupled with key elements that constitute urban design excellence for Strategic Centres such as place creation, identity, movement networks, land uses, future proofing and social, economic, environmental and governance sustainability.

The intent of the Structure Plan is described in the following aspirations. As the first steps in achieving a whole-of-project vision they act as a guiding framework, by which the planning requirements of the Brookvale Structure Plan will be based on.



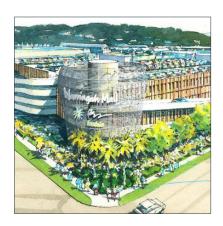
ASPIRATION 01
SECURE AND STRENGTHEN
ECONOMIC PERFORMANCE OF
BROOKVALE



ASPIRATION 02
ACHIEVE A SELF SUSTAINING
CENTRE



ASPIRATION 03
CREATE AN INTEGRATED ACTIVITY
CLUSTER



ASPIRATION 04
SHIFT AWAY FROM CAR
DEPENDENCE



ASPIRATION 05
ENHANCE BROOKVALE IDENTITY



ASPIRATION 06
BRING LIFE TO THE STREETS



ASPIRATION 07 LINK BEACH TO BUSH



ASPIRATION 08
UPSKILL BROOKVALE



ASPIRATION 09
PROVIDE DIGITAL TECHNOLOGIES



# 4.4 Development Principles

The Brookvale Scenarios Report identifies development principles that are intended to provide a flexible and robust approach to the enhancement of the Brookvale-Dee Why Strategic Centre.

Not mutually exclusive, the principles work together to establish a platform for change that enables multiple development initiatives relating to time and market opportunities.

The development principles identified in this section provide a robust framework for the draft Brookvale Structure Plan.

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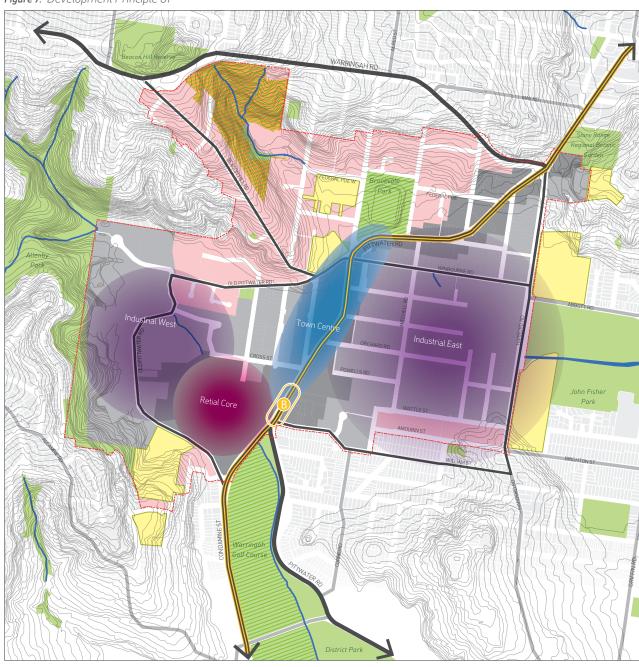
#### PRINCIPI F 01

## RECOGNISE THE IMPORTANCE OF BROOKVALE'S EMPLOYMENT LANDS TO THE NORTHERN BEACHES

- + Recognise the contribution of Brookvale's employment lands to the economic viability of the Strategic Centre.
- + Recognise the existing Brookvale Town Centre located along Pittwater Road and develop its role as a support area for surrounding employment lands.
- + Maintain and support Warringah Mall as the major retail core for the Strategic Centre.
- + Recognise and protect industrially zoned land.
- + Ensure that traditional industrial uses are retained in the existing industrial zone east of Pittwater Road, while also responding to future changes in industry.
- + Building on the existing character of the industrial zone west of Pittwater Road, encourage additional employment generating uses.
- Consider increased residential potential in locations that will not diminish employment opportunities, will support and enhance existing commercial functions and will be accessible to the B-Line stop.
- + Create appropriate interfaces at land use boundaries.
- + Integrate regional open space, riparian corridors, recreational assets and school facilities as part of the open space hierarchy for Brookvale.
- + Work with topography and include topographical features as part of the identity of the place.
- Reinforce and work with the existing street network and structure.



Figure 7: Development Principle 01







#### PRINCIPLE 02

#### CREATE GREEN LINKS AND GREEN DESTINATIONS

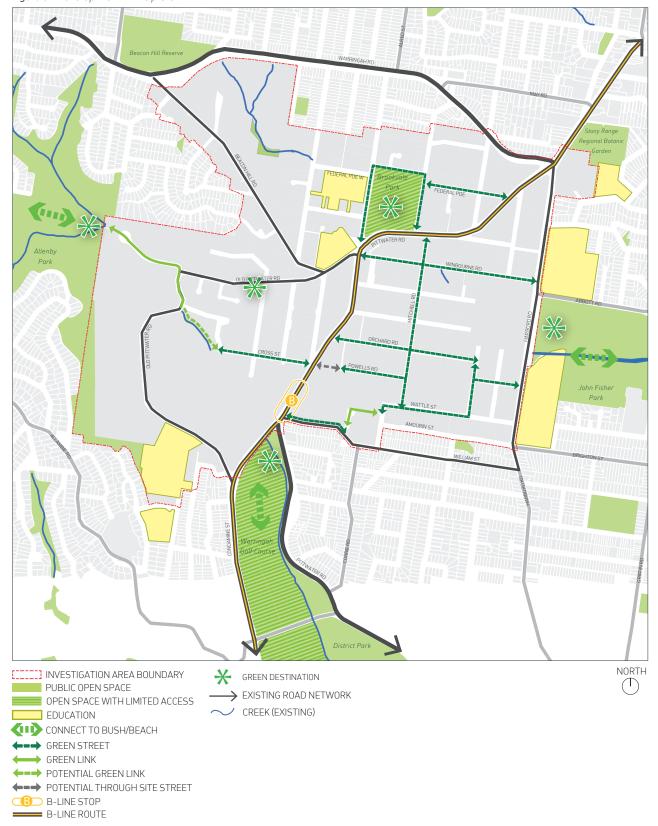
- + Define key recreational destinations and ensure they contribute to the green grid.
- + Create workable green links through the centre, which link to green assets such as Brookvale Park, as well as community destinations such as Warringah Mall, Brookvale Town Centre and the B-Line stop.
- + Create green streets that provide workable and attractive access for the east and west precincts of the Strategic Centre and also link the green grid assets across Brookvale.
- + Integrate key pedestrian and cycle opportunities to encourage active living.
- + Identify potential future links that can improve connectivity and access to local destinations.
- + Connect Brookvale with the beach and bush.

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#### **CREATE GREEN LINKS AND GREEN DESTINATIONS**



Figure 8: Development Principle 02

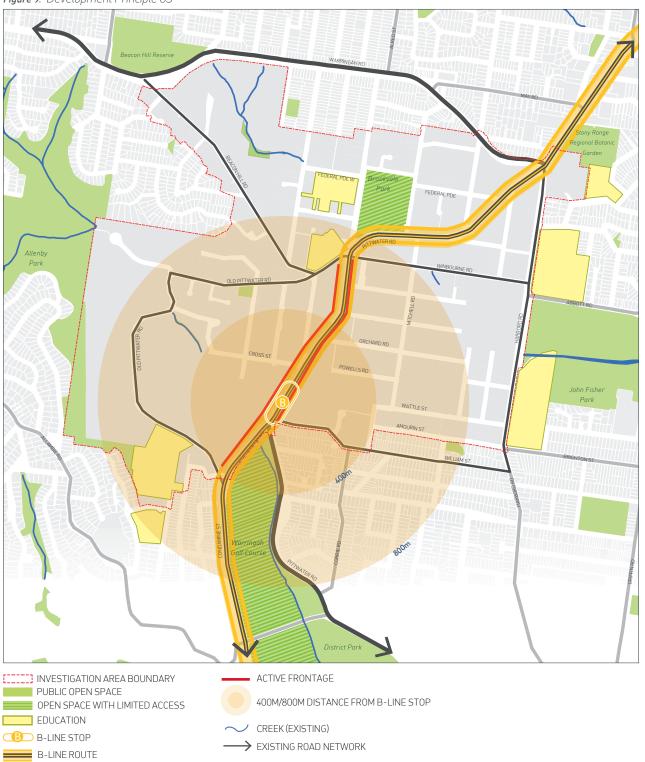


## PRINCIPLE 03 **LEVERAGE THE B-LINE**

- + Respond to the proposed B-Line bus asset and in particular the B-Line stop located at Warringah Mall.
- + Consider intensification of land uses within 800 metres of the B-Line stop.
- + Consider uplift of R2 Low Density Residential zones within 400 metres of the B-Line stop.
- + Recognise the B-Line stop and other bus stops when planning active transport routes and facilities.
- + Encourage Warringah Mall to respond to the B-Line stop by activating its Pittwater Road frontage and providing workable and attractive linkages to the B-Line stop.
- + Encourage activation of Pittwater Road street frontage, within the Brookvale town centre.



Figure 9: Development Principle 03



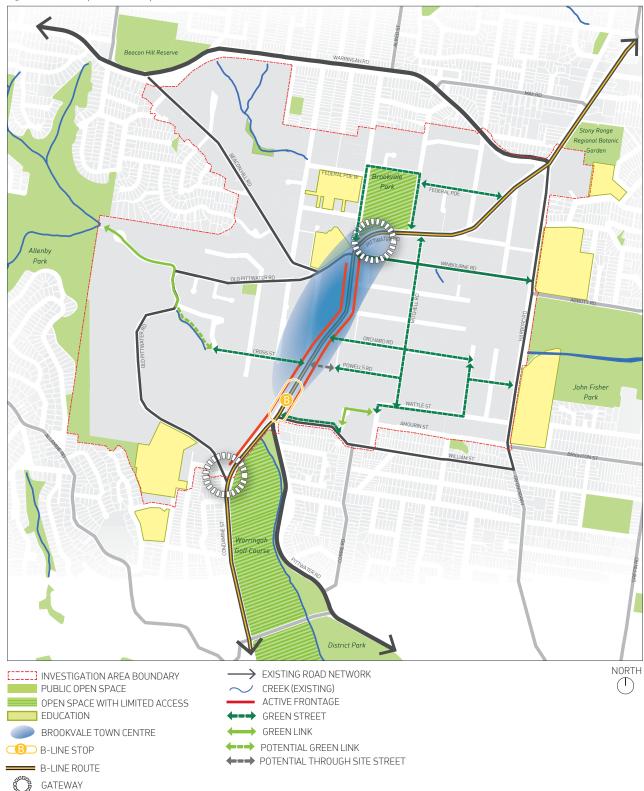
## PRINCIPLE 04 ACTIVATE THE BROOKVALE TOWN CENTRE

- + Encourage shop top housing to bring life into the centre.
- + Reinforce the Town Centre as the commercial support area for the industrial lands.
- + Encourage street activation and a night economy with after-hour uses such as restaurants, cafes and bars.
- + Create green linkages to and from the centre by public domain landscaping and improvements.
- + Encourage site amalgamations to facilitate improved design outcomes that address quality of architecture, open spaces and active public interfaces.
- + Investigate edges of the Town Centre to improve opportunities for amalgamated development sites, which do not compromise employment lands.
- + Create gateways that define the entrances to the Town Centre and create a sense of arrival and place for Brookvale.
- + Ensure pedestrian and cycle network connect to the Town Centre.

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# 4.5 Development Framework

The Development Framework for Brookvale is underpinned by the established project aspirations and development principles. It establishes a green grid linking to key open spaces, a refined street hierarchy and highlights opportunity for redevelopment within the Town Centre and in proximity to the proposed B-Line stop. Figure 11 illustrates the Structure Plan's Development Framework. This diagram is not a design, rather an outline of desired development outcomes for Brookvale-Dee Why. The Development Framework is founded on the following considerations:

- + Brookvale and Dee Why, in combination are a Strategic Centre for the Northern Beaches. Brookvale is primarily an employment focus, and Dee Why is primarily the residential and civic focus.
- + Brookvale is divided by a main arterial road that carries a diverse range of traffic and trip types between Palm Beach and the Sydney CBD;
- + Growth potential within Brookvale is limited by the carrying capacity of Pittwater Road;
- + The B-Line is coming to the Pittwater Road corridor and will stop at Warringah Mall. Closest stop to the north is Dee Why and closest stop to the south is Manly Vale; and
- + Warringah Mall is the retail core of the Strategic Centre and is likely to expand.

#### **DEVELOPMENT FRAMEWORK FEATURES**

**An urban environment** that is activated, connected and responds to sound principles for intensification of activity:

- + The B- Line stop will be a primary focus for intensification of land use activity:
- + Green linkages and spaces should be created through the area to link bush to beach and improve the connectivity and visual appeal of Brookvale;
- Pedestrian and cycle links should be created to connect with the green grid and with the transport network;
- + The Brookvale Town Centre is to be invigorated and Warringah Mall reinforced as the main retail core of the Strategic Centre;
- All new development will contribute to the continued economic viability of the Strategic Centre and not reduce employment opportunities;
- Site amalgamations will be encouraged along Pittwater Road to create an urban environment that is interesting, attractive and connected to surrounding employment zones; and
- + Market driven development and intensification in the industrial zones should be encouraged responding to future employment needs.

**Retail and commercial activity** that aligns with and reinforces existing land use patterns:

- Brookvale Town Centre will provide support services for nearby employment lands and will include mixed use development that includes opportunity for residential accommodation;
- + Warringah Mall is expanding and its role as the retail core will be reinforced; and
- + Brookvale Town Centre and Warringah Mall will incorporate activation at street level and will encourage a night economy.

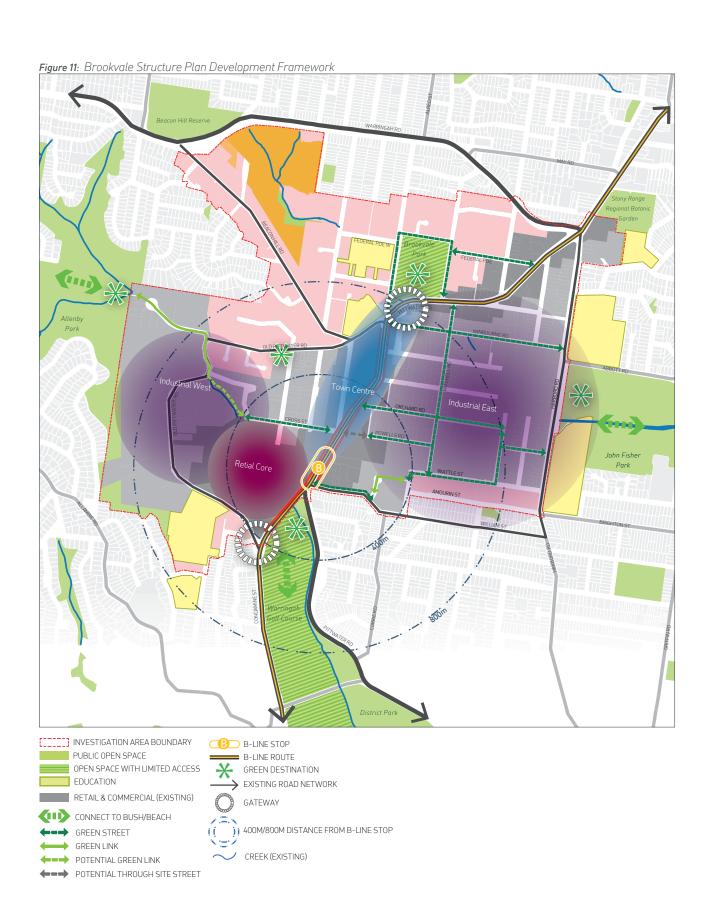
**Industrial zones** that are protected and supported to maintain and grow employment generating uses:

- + Industrial areas west of Pittwater Road will become more flexible to include a greater range of employment generating land uses; and
- + Industrial areas will not include land uses that would diminish employment opportunities.

**Residential development** that is accessible and brings life to Brookvale without impinging upon employment lands:

+ Encourage shop top housing within the Brookvale Town
Centre to activate and enliven Brookvale while at the same
time improving the economic viability of local businesses,
which are used by the business owners and workers in the
surrounding industrial zones.





## 4.6 Economic Considerations

The Development Framework provided in Section 4.5 provides a baseline for the future urban development of Brookvale-Dee Why. However, to determine its economic viability the framework was tested against a number of development scenarios that encompassed varying proposals for growth in the jobs and housing sectors.

As summarised in Section 2.3 of this report, the preferred scenario for the future development of Brookvale was Scenario 3 which focused on employment and residential growth with an additional 1,700 jobs and 1,200 residents by 2031 in Brookvale.

#### **GROWTH PARAMETERS**

Establishing a growth parameter is essential to initiate scenario testing. As a Strategic Centre, 'A Plan for Sydney' suggests that Brookvale-Dee Why should:

"contain mixed-use activity of an amount, density and diversity that is of metropolitan significance, including commercial (office, business and retail), civic and cultural uses; government services; and higher density housing. They are typically on the passenger rail network or serviced by other high frequency public transport.

Strategic Centres typically contain at least 10,000 jobs, with the potential to accommodate ongoing jobs growth over the long-term. They are priority locations for employment and retail activity".

#### **EMPLOYMENT AND HOUSING GROWTH**

The assessment also considered the employment and housing growth potential of the Brookvale-Dee Why Strategic Centre, defined in area by BTS travel zones (TZ 2143, TZ 2144 and TZ 2145). These travel zones occupy the north-east corner of the larger Freshwater-Brookvale SA2 region. The BTS travel zones closely correlate with the defined Investigation Area for Bookvale.

The Bureau of Transport Statistics (BTS) is the leading source of transport data for the NSW transport system. BTS regularly publishes population and employment forecasts at the small area level for the Sydney Greater Metropolitan Area. These forecasts integrate with the Department of Planning's official population projections and factor in major development and industry trends.

Current and projected population and employment numbers for the Brookvale Strategic Centre are provided below.

#### **POPULATION**

The population of Brookvale in 2011 was 2,759 persons and is projected to increase to 4,420 by 2031 (i.e. an additional 1,661 persons at 2,4% growth per annum).

Based on current household densities, this growth represents an additional 664 dwellings to 2031.

#### **EMPLOYMENT**

In 2011 there were 15,224 jobs in the Brookvale precinct. This is projected to grow to 18,733 jobs in 2031 (an increase of 3,509 jobs, at an annual increase of 1.0%).

Notably, almost all of the projected employment growth is derived from the retail sector and wholesale sector. Health care, social assistance, education and training are other major contributors to jobs growth for Brookvale in the future. Manufacturing related employment growth is expected to decline.

#### **ASSUMPTIONS**

The scenarios developed for Brookvale take into consideration the traffic constraints outlined in the TMAS study and also consider possible derivatives to its suggested capacity limits.

A number of assumptions have been applied:

- + Health care and social assistance, retail trade, accommodation, food services, professional services and education and training will dominate employment growth going forward to 2031;
- + There will be growth in industrial related uses including transport, postal and warehousing and the wholesale trade, associated with an increasing resident population. The scale of employment growth is limited at Brookvale given that most available industrial stock is fully occupied. It was therefore assumed that the majority of growth in industrial employment will be generated from an increased intensification of existing premises.
- + Manufacturing jobs will continue to decline, consistent with Greater Sydney and Australia wide trends.
- + The Warringah Mall expansion includes an additional 8,000m² of retail floorspace, equating to an additional 320 jobs. Further expansion has been factored into the assessment prior to 2031 for an additional 5,000m² equating to a further 200 jobs. Overall 520 jobs and 13,000m² of the retail floorspace projections have and are expected to be accommodated at Warringah Mall. Total estimates do not change as these jobs and floorspace provisions are included in the maximum of 3,000 jobs for the Brookvale Investigation Area.

# 4.7 Key Outcomes



In understanding the context for managing appropriate and sustainable change for Brookvale, five key considerations should be factored into the development of the Brookvale Structure Plan: -

#### **DEVELOPMENT LIMITATIONS**

It is acknowledged the optimal growth strategy for Brookvale needs to consolidate and support the primary function of Brookvale as a major employment centre. However, the degree to which Brookvale can deliver is bound by certain development limitations. This section of the report outlines the key limitations, notably the road capacity constraints, along with a segregated urban structure, fragmented land ownership, topography and environmental biodiversity, which have all influenced the development of the Structure Plan.

#### **DEVELOPMENT ENABLERS**

Several attributes have also been identified as development enablers for the Brookvale Structure Plan. Conversely to the areas development limitation, these attributes if harnessed correctly can be used as the basis for the future sustained growth and consolidation of Brookvale. Central to these attributes is Brookvale's position as the economic heart of the Northern Beaches. This is reinforced by the areas diverse character, surrounding residential population and central location. Anticipated future growth within creative industries, and fostering this growth with a strong correlation between talent and education provides a catalytic platform for the future development and diversification of Brookvale. The Structure Plan also acknowledges the role and opportunity associated with the new B-Line to help meet public transport targets, reducing pressure on the areas road network and also assists in achieving residential and employment targets.

#### **ASPIRATIONS**

A series of Structure Plan aspirations were identified throughout the development of the Structure Plan process. The aspirations identified respond to the analysis of the existing context and outcomes of community and stakeholder consultation. The aspirations are considered as a collective with both the development limitations and development enablers, to ensure the Structure Plan is founded on aspirational thinking and long term community objectives, which are also contextually grounded. Nine Aspirations were identified to help guide the Structure Plan development, each aspiration is outlined on page 45 of this report.

#### **DEVELOPMENT PRINCIPLES**

The Development Framework for Brookvale is underpinned by the established project aspirations and development principles. The Brookvale Scenarios Report identifies the development principles that are intended to provide a flexible and robust approach to the enhancement of Brookvale. The development principles are not mutually exclusive, but work together to establish a platform for change for Brookvale. As outlined in Section 4.4 of this report four development principles underpin the Brookvale Structure Plan, these principles are as follows:

- + 01 Recognise the importance of Brookvale's employment lands to the Northern Beaches;
- + 02 Create green links and green destinations;
- + 03 Leverage the B-Line; and
- + 04 Activate the Brookvale Town Centre.

Collectively these principles establish the Development Framework for Brookvale. This framework provides the bones of the Structure Plan and has shaped the development of the recommendations for changes to land use and planning controls, contained within the Structure Plan.



## 5.1 Draft Structure Plan

The Brookvale Structure Plan will provide a strategic framework to manage the sustainable growth and development of Brookvale.

The Structure Plan has been formulated following detailed analysis of the existing urban fabric, community and stakeholder consultation, future growth projections and the known limitations of the existing road network.

The preparation of the Structure Plan was informed by a Senario Report that tested various options for growth and was underpinned by urban economics and strategic traffic and transport recommendations. The report determined Scenario 3 as the preferred option, ensuring the continuation of Brookvale as a mixed use Strategic Centre with an employment focus.

The preferred scenario provided for a focus on employment growth with ancillary residential growth in the Town Centre. This was based on economic advice that residential growth was necessary to support and encourage employment growth in Brookvale.

The Brookvale Structure Plan seeks to consolidate Brookvale as an employment focused Strategic Centre and will guide development of the area for the next 20 years while protecting employment and managing housing diversity and affordability. Key elements of the Structure Plan include transit integration, land use and density intensification, pedestrian and active transport connectivity, open space networks and public realm amenity enhancement.

These elements are combined in the following pages to describe a holistic and sustainable approach to the future development of Brookvale.

The Structure Plan acknowledges the long term objective to enhance Brookvale as the employment component of a Strategic Centre. This objective is fundamental and reflective of community and State government aspirations. It therefore underpins the development framework outlined within this section.

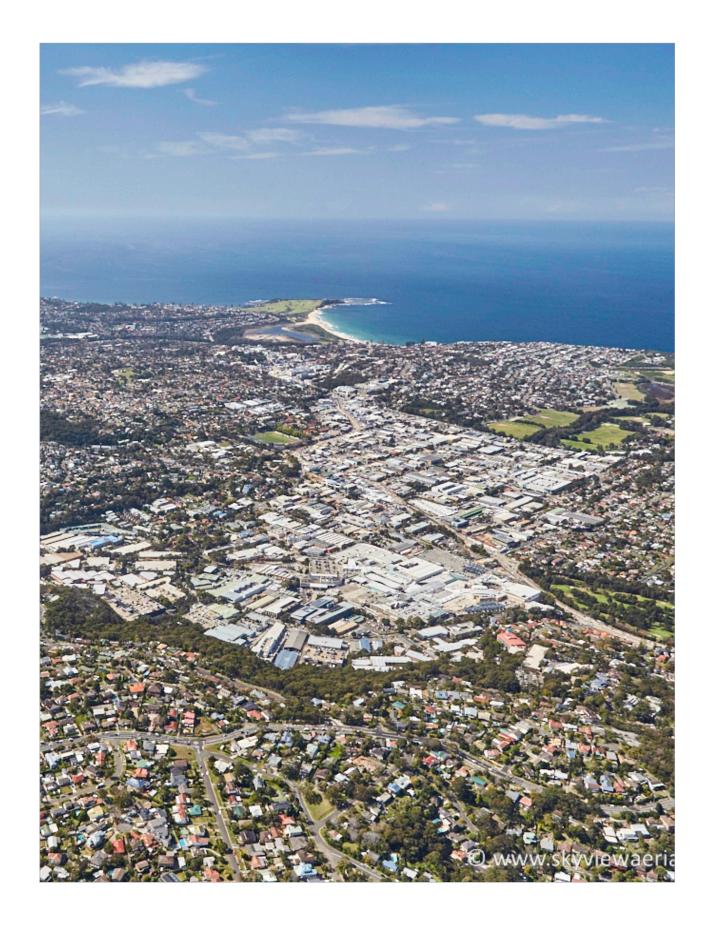
The following section is divided in to three parts, each part describing an individual element of the draft Brookvale Structure Plan. The Structure Plan elements collectively work together to deliver appropriate future provisions commensurate with a Strategic Centre for the future development of Brookvale.

The Brookvale Structure Plan elements are as follows:

- + **Urban Form,** considering the relationship between land use and an appropriate built form;
- + Movement, incorporating public transport, street infrastructure and active transit initiatives; and
- + **Environment**, highlighting key assets for enhancement and improved accessibility.

Not mutually exclusive, the Structure Plan components work together to achieve an integrated and holistic framework for the enhancement of a Strategic Centre at Brookvale. The Structure Plan comprises the Draft Brookvale Structure Plan Map as contained within the following pages and should be read in conjunction with supporting text as outlined for each of the above mentioned Structure Plan elements.





### **Brookvale Structure Plan Map**

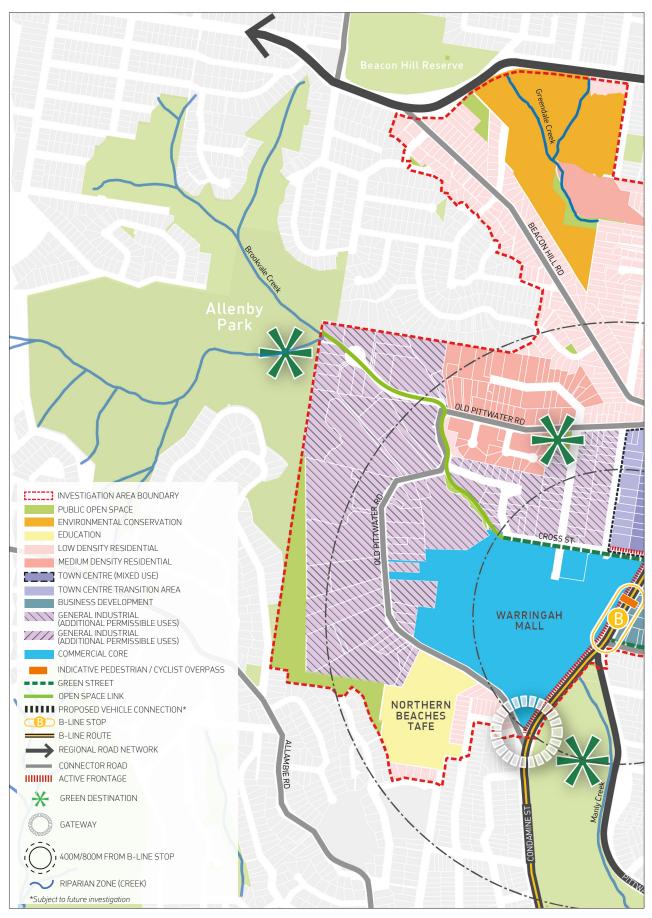
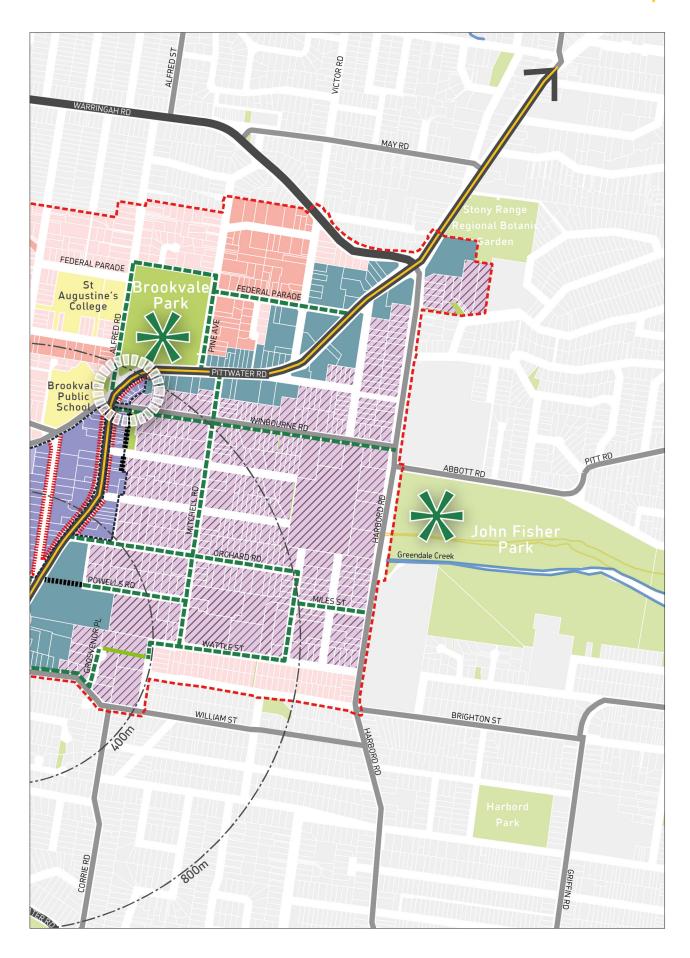


Figure 12: Brookvale Structure Plan Map

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## 5.2 Structure Plan Elements

#### **URBAN FORM**

#### **DESCRIPTION AND CHARACTER**

The expected maturation of Brookvale as an employment centre of the future will involve new business investment that will elevate the attractiveness of Brookvale as a place to work and live. The Structure Plan includes areas of differing character and activity. Critical to the success of the Structure Plan is identifying and celebrating the individual nature of each area, whilst simultaneously recognising their collective long term potential. Generally speaking, the character of the Brookvale Structure Plan area will reinforce its employment focus with medium scale buildings consolidated within the town centre area, set within a lower scale industrial and residential context.

Details of the Urban Form character for the varying areas of Brookvale are discussed in detail on the following pages. Also, details of proposed zoning and building height changes included in the Structure Plan are displayed on Figures 13 and 14.

#### **GATEWAYS**

The Brookvale Structure Plan proposes two gateway areas, one at each end of the northern and southern entrances to the Brookvale Town Centre. These gateways have been identified as they signify the approach and entrance to the Brookvale Town Centre, a key component of the Structure Plan identified for enhancement. As such it is important that these areas evoke a sense of arrival and assist in wayfinding through architectural articulation. Buildings within the gateway areas will be complemented by high quality public space, landscaping that is in scale with the building form and public art. The public domain will be enhanced to ensure built form facilitates street activation and promotes pedestrian connectivity to the broader Town Centre area.

Development Control Plan (DCP) controls will be prepared to outline specific built form requirements applicable to the gateways. The DCP controls will outline development requirements that enable distinctive built form appropriate for landmark/gateway buildings in these areas. DCP controls will be determined following greater analysis of potential built form outcomes. However, it is likely the DCP controls will prescribe suitable building heights, podium levels, setbacks, facade treatments and landscaping requirements that strongly define these areas and reinforce the prominence of the gateways.

#### **URBAN FORM - TOWN CENTRE**

#### Strategic intent:

- + Revitalise and activate the Brookvale Town Centre;
- + Provide for growth in commercial floor space that will assist in providing future jobs in the retail, wholesale, health care, social assistance and education and training sectors which are forecast to grow:
- Enable a mixed use zone that accommodates growth in employment floor space and is encouraged to do so by improving the functioning of the Town Centre as a mixed use zone:
- Encourage residential development in mixed use developments to assist viable commercial redevelopment, and provide housing choice and affordability to activate the Town Centre;
- Allow all land uses currently permitted in a mixed use zone to promote a more diverse mix of uses than does the current zone; and
- + Remove ambiguity regarding the role and function of the Town Centre. The existing Town Centre is zoned B5 Business Development but functions as a mixed use centre due to additional activities (retail, office and shop top housing) being permitted over and above the land uses permitted in the remainder of the B5 zone.



#### **Character and Identity**

The character of the Town Centre will be notably different to surrounding industrial, other business and residential areas. The Structure Plan will create gateways that define the entrances to the Town Centre and create a sense of arrival and place for Brookvale. The Town Centre will be the most highly activated area and will provide the primary focus for growth and evolution of Brookvale's employment diversity and residential offering. Ground floors will be primarily retail and /or office; first floor levels will also provide commercial floor space. Residential development may be provided above these 2 levels, however planning controls will also allow additional employment uses.

Design and treatment of buildings should provide a unique address and be reflective of building type. Ground levels should be treated as discrete elements, providing difference from those adjoining and developing a traditional pattern of shopfront development. Materials used at ground level should enhance the pedestrian environment and promote walkability through the incorporation of active street frontages. Throughblock connections, which will provide a pedestrian link between the Town Centre's main street (Pittwater Road) and industrial areas located behind, will improve pedestrian connectivity to each of these areas thereby facilitating greater activation and pedestrian permeability.

As the Town Centre is the primary focus for future growth and change within Brookvale it is important that future development responds to the following typology and built form directions.

- + Maximum building height will be 6 storeys (21 metres) except in the identified Transition Area where maximum building height will be 4 storeys (15 metres).
- + Development will include podiums to a maximum height of two-storeys with mandatory setbacks for development above the podium. Podium levels shall be consistent between each allotment to mediate potential differences in building scale, to ensure a consistent streetscape and enhance the pedestrian environment.
- + Retail/Commercial uses are mandatory for ground and first floor. Residential (shop top housing) may be located above 1st floor level
- + Active street frontages are required adjacent to Pittwater Road and Roger Street at ground level to enhance the public realm.
- Within the identified Transition Area, development will be carefully managed to address interface impacts between residential and other types of development. DCP provisions will be used to provide a finer grained level of detail required for these areas.

#### Land Use and Zoning

The Brookvale Structure Plan proposes the rezoning of the Town Centre from B5 Business Development to B4 Mixed Use. This will render the Brookvale Town Centre more consistent with the town centre component of Dee Why. The existing Additional Permitted Uses (retail, office, shop top housing) effectively mean that the centre currently operates as a mixed use zone. However, the nomenclature whereby both the Town Centre and the nearby Business Development area are zoned the same raises ambiguity. A B4 Mixed Use zone will articulate the strategic intention of the Town Centre more clearly.

The B4 zone will also introduce a range of additional permitted uses, over and above those that are currently permissible. The additional uses will contribute positively to the areas enhanced function as a Town Centre, enabling inclusion of entertainment facilities and function centres.

In addition to rezoning the existing Town Centre to B4 Mixed Use, the Structure Plan proposes extending the B4 Mixed Use zone into the IN1 Industrial zone (West) to front the eastern side of Dale Street. This extension of the Town Centre to Dale Street creates greater opportunity for site amalgamation through zoning continuity of adjoining allotments. It also enables the use of Dale Street as a natural boundary between the the B4 Mixed Use zone and IN1 Industrial zone (west) reducing potential interface issues.

#### **URBAN FORM - COMMERCIAL CORE**

#### Strategic intent:

- + Support Warringah Mall as the major retail core for the region and as a location that provides business, entertainment and community uses that serve the needs of the local and wider population;
- + Support associated employment opportunities in an accessible location within the Commercial Core;
- Encourage and facilitate Warringah Mall to integrate with the Town Centre along both Pittwater Road and Condamine Street frontages;
- + Support a night economy for Warringah Mall; and
- + Recognise the existing role of Aldi as part of the Commercial Core.

### **Character and Identity**

The Structure Plan recognises Warringah Mall as the major retail core for the region and supports its ongoing consolidation of retail functions to grow and develop this role. It also recognises that the site, at its southern extent (intersection of Condamine Street and Old Pittwater Road) forms the southern Gateway to the Brookvale Town Centre.

The Structure Plan recognises that the Warringah Development Control Plan 2011 includes precinct specific controls, notably that Part G4 Warringah Mall establishes development controls designed to achieve a site specific and holistic approach for future development over the entire site. As such the current DCP establishes a framework for typology and built form for this Structure Plan element.

Amongst other matters the DCP provisions:

- + Recognise the Gateway role of the site.
- Recognise the benefits of active street frontages at the Condamine Street and Pittwater Road frontages.
- + Include the management of maximum building heights, which vary across the site, and have been developed to maintain view lines from surrounding residential areas to the west, north west and south west.

#### Land Use and Zoning

The Structure Plan maintains the existing B3 Commercial Core zoning in support of this areas role as the retail core of the region.

It also recognises the function of the existing Aldi Foods Pty Ltd site as an integral component to the retail core. The Structure Plan proposes to rezone the Aldi site from IN1 General Industrial to B3 Commercial Core to reflect this.

The Aldi site is currently bound by the B3 Commercial Core zoning on three sides. It spatially and functionally contributes to the role of Warringah Mall as a major retail centre for the region and therefore complements the role and function of the B3 Commercial Core zoning. Hence, the extension of B3 Commercial Core zoning to include the existing Aldi site is a natural extension which supports the role and function of promoting Warringah Mall as the retail heart of the region.



#### **URBAN FORM - BUSINESS DEVELOPMENT**

#### Strategic intent:

+ A Business Development area that continues to support local and regional business by providing services and supplies and accommodating large format uses that require main road exposure (e.g. showrooms).

#### Character and Identity

Over time, business development has crept north and south along Pittwater Road from the Town Centre, into land that was previously zoned industrial.

The area to the north (north of Brookvale Park), is characterised by activities that rely on high exposure and larger site areas (such as motor vehicle and other showrooms) and building and industry related uses such as wholesaling and retailing of building supplies and materials (such as doors and lighting). This area also includes the Manly Warringah Leagues Club (located approx. 450 metres north of the Town Centre), which provides a regional recreation and entertainment venue that is complementary to the use of Brookvale Park as a major rugby league sporting venue (Brookvale Oval).

To the south of the Town Centre, the business development land includes the Brookvale Bus Depot as well as a number of business and industrial uses through to William Street. This area now includes the Brookvale Community Health Centre and B-line commuter carpark, which is currently under construction.

## Land Use and Zoning

The Structure Plan does not propose any change to land use and zoning provisions within this area and proposes that the land continues to be zoned B5 Business Development.

The existing planning provisions do not allow shop top housing or retail in the B5 Business Development zone beyond the Town Centre. The Structure Plan proposes to rezone the Town Centre B4 Mixed Use, to recognise the difference between the Brookvale Town Centre and the adjoining B5 Business Development land and to support the consolidation of a Mixed Use Town Centre, within 800 metres of the B-line stop.

The retention of B5 Business Development areas north and south of the Town Centre is considered integral to support Brookvale as the employment component of the Brookvale-Dee Why Strategic Centre. It is envisaged the B5 Business Development areas will provide a different range of services to that of the B4 Mixed Use Town Centre. Collectively they support the intended role of Brookvale within the broader region, and as such will maintain the current B5 Business Development zoning.

#### **URBAN FORM - INDUSTRIAL**

#### Strategic intent:

- + Respond to current and future market needs;
- + Provide flexible use of industrial areas whilst maintaining job generation capacity;
- + Improved employment opportunities;
- + No uses that may potentially conflict with employment opportunities; and
- + No residential uses in industrial areas.

#### **Character and Identity**

The industrial land in Brookvale is characterised by a range of urban support industries, vehicle retailer and repairer activities, bulky goods premises as well as warehouse and distribution uses. The Industrial Area (east of Pittwater Road) is characterised by a fine grained pattern of subdivision and land holdings. Within the traditional small industrial base of this area there is a recent trend towards growth in boutique food and drink production and sales; and indoor recreation activities.

The Industrial Area (west of Pittwater Road) is characterised by an irregular underlying pattern of land subdivision and generally larger land holdings than those east of Pittwater Road. As such, this area is developed with larger format warehouse and distribution centres and in recent times, has seen the emergence of office based employment activities due to previous planning controls that permitted such development. This area continues to lend itself to a greater range of office based and distribution uses.

#### Land Use and Zoning

Both industrial areas east and west of Pittwater Road will assist Brookvale solidifying its employment focus for the future. The Structure Plan proposes that traditional industrial uses are retained, particularly in the area east of Pittwater Road, where a finer grained activity network and greater separation from residential neighbours exist.

To this end the Brookvale Structure Plan proposes to retain the large majority of existing industrial zoned land. However, it also allows for the inclusion of a small range of additional permitted uses to cater for emerging trends and a broader employment base. In this regard the Structure Plan recognises differing character and emerging opportunities between the industrial area lying east of Pittwater Road and that lying west of Pittwater Road.

The Industrial Area (East) is characterised by traditional industrial uses. However, the recent emergence of creative activities will be recognised and supported. Building on this trend the Structure Plan proposes to allow, in addition to all currently permitted land uses, the addition of food and drink premises. This will support emerging industries that manufacture food and/or drink products by showcasing these through on site dining and/or small bar facilities. Permitting this land use, in its own right, will assist in developing a night economy for the precinct in a location that will not directly impact residential areas.

In recent years the Industrial Area (West) has seen the emergence of larger site redevelopment with office based activities. To build on emerging trends the Structure Plan proposes to allow, in addition to all currently permitted land uses, the addition of business premises and office premises. Unlike the Industrial Area (East), this area is less suitable to supporting a night economy. Much of the area is remote from the activity associated with the Town Centre and Pittwater Road. Also, it presents potential amenity impacts on the nearby residential areas of Allenby Park and Beacon Hill.

Despite the above, the Brookvale Structure Plan does propose a limited number of variations to the existing spatial extent of the industrially zoned land, all of which are located in the Industrial area (west)

- Rezoning of the site on which Aldi Foods Pty Ltd is currently located, from IN1 General Industrial to B3 Commercial Core. This recognises the spatial, functional and market relationships between Warringah Mall and Aldi.
- Rezoning the eastern side of Dale Street from Old Pittwater Road to Cross Street, from IN1 Industrial General to B4 Mixed Use. The extension of the Town Centre to Dale Street enables the use of Dale Street as a natural boundary between the B4 Mixed Use zone and IN1 Industrial zone (west) reducing potential interface issues, but providing provision for complimentary uses.

The Structure Plan does not propose to allow mixed use developments in the IN1 Industrial zone that include residential or retail uses. To do so would prejudice the cohesive development of the Town Centre and associated Commercial Core. It would also result in the loss of traditional employment/industrial land, the retention of which is supported by current State Government planning policy.



#### **URBAN FORM - RESIDENTIAL**

#### Strategic intent:

Any residential growth should:

- + Support increased retail and commercial activity by locating people (and their daily requirements) in immediate proximity to retail and commercial uses within the Town Centre.
- + Be located in areas that will not diminish employment opportunities.
- + Be accessible to the transport hub centred on the B-Line stop.

#### Character and Identity

The Structure Plan proposes expansion of the existing capacity for shop top housing in the Town Centre to activate and enliven Brookvale, whilst simultaneously improving the economic viability of local businesses. The newly created residential development will be located within the 800 metre radius from the B-Line stop.

Residential development will be located above retail/ commercial uses with building height consolidated adjacent to Pittwater Road. Mixed use shop top development will be considerate of interface areas and adopt suitable height and other requirements to mitigate potential interface issues.

The Structure Plan recognises the Town Centre's ability to accommodate increased height and density. It identifies the opportunity to include residential provision which facilitates employment growth and enhances the vitality of the area. The co-location of shop-top housing within close proximity to local services and amenity as provided by the Town Centre, increases diversification and housing choice within Brookvale and supports the reduction of vehicle movements generated by accessing jobs and services.

## Land Use and Zoning

The Structure Plan does not propose any change to the zoning of existing residentially zoned land within the Investigation Area. The Plan is based on limited growth potential due to the capacity limits of the transport network. Having regard to these limits and the primary objective of maintaining and supporting the employment role of Brookvale, the Plan seeks to strike a balance between growth in both the jobs and housing sector.

The Plan, as proposed, allows for housing growth in the Town Centre that will encourage redevelopment in the Town Centre and will include corresponding growth in employment floor space at lower levels. The overall growth in both sectors (in combination) that the Plan provides is consistent with the established capacity limitations of the transport network. Residential and jobs growth in the Town Centre will provide extra support for surrounding industrial lands and increase the attractiveness and viability of businesses setting up in Brookvale.

If the Plan were to propose wider residential uplift in existing residential areas (or extending residential uses into wider business or industrial lands) this would correspondingly diminish the available potential for growth in employment floor space and would undermine the primary goal of maintaining and supporting Brookvale's employment role. See further information under Town Centre.

FEDERAL PARADE FEDERAL PARADE OLD PITTWATER RD ABBOTTRD WARRINGAH MALL B3 - COMMERCIAL CORE ] INVESTIGATION AREA BOUNDARY PUBLIC OPEN SPACE B4 B4 - MIXED USE

Figure 13: Proposed Zoning Changes for Brookvale Structure Plan

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IN1 - GENERAL INDUSTRIAL (ADDITIONAL PERMISSIBLE USES)

IN1 - GENERAL INDUSTRIAL (ADDITIONAL PERMISSIBLE USES)

EXISTING CREEK

EDUCATION



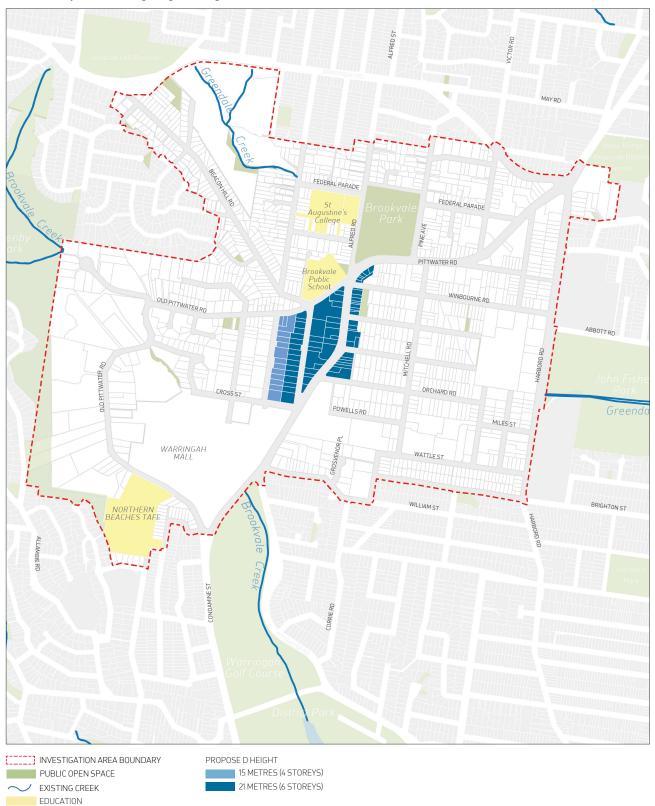


Figure 14: Proposed Building Height Changes for Brookvale Structure Plan

#### **MOVEMENT**

#### Strategic intent:

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- + Promote active modes of transport and modal shift through introduction of the B-Line;
- + Include transport provisions within Brookvale that are commensurate with it's enhancement as a Strategic Centre;
- + Promote walkability and other active modes of transport through development of "green streets" and "green links";
- + Promote cycling and active modes of transport through a connected pedestrian and bicycle network;
- + Maintain an appropriate level of access to public parking facilities to support business and community needs;
- + Ensure levels of traffic permeability throughout the industrial areas is maintained; and
- + Enhance local road connections by investigating future vehicle connections.

#### Public Transport

The area is well serviced by bus routes with a bus interchange located at Warringah Mall and the bus depot to the east of Pittwater Road. Public transport provision will be enhanced through greater pedestrian and cycle connectivity.

A B-line service is proposed for Brookvale, this will enhance the identity of Brookvale as a Strategic Centre. The B-line will travel along Pittwater Road with a stop located at the Brookvale Community Health Centre, opposite Warringah Mall.

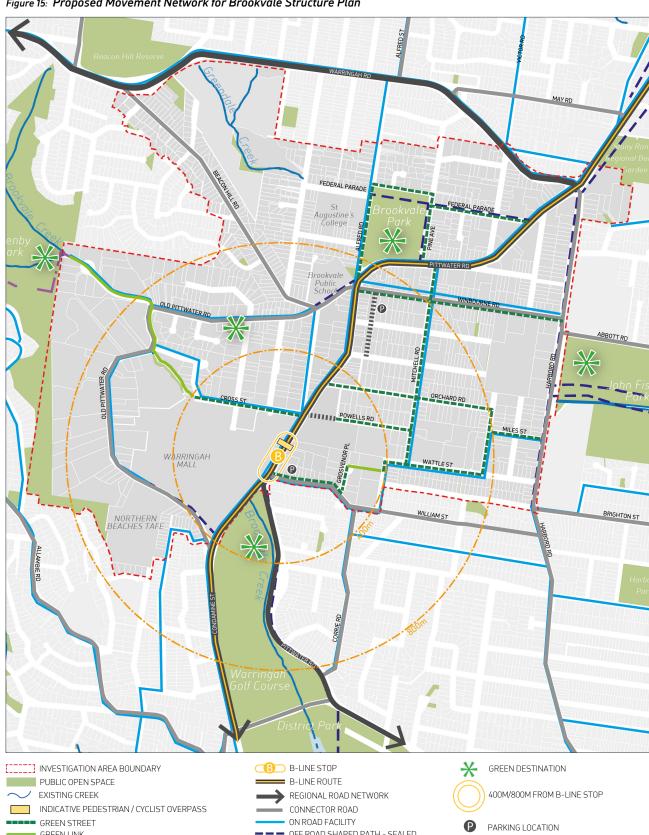
To improve B-line operation along Pittwater Road in Brookvale a pedestrian bridge is proposed across Pittwater Road north of William Street. This will reduce bus and traffic delays at Pittwater Road/Condamine Street/William Street intersection. The design and exact location have not been determined and will be subject to a seperate approval process.

#### **Public Parking**

The NSW State Government is currently constructing a car park in association with the Brookvale Community Health Centre, including a total of 475 parking spaces. The new car park is providing up to 250 commuter spaces. The additional parking provisions will benefit new residents in the Town Centre and will complement the objectives of the Structure Plan. However, it will provide limited benefits to users of services in the Town Centre, due to its location south of the centre.

Further, it is recognised that the new B-line will potentially require the removal of on-street parking along Pittwater Road, through the Town Centre. Should removal of on-street parking occur, there will be a need for future provision of parking to service the Town Centre. This Plan suggests that Council consider the expansion of the existing public carpark in Winbourne Road, should this need eventuate. A Section 94 Plan (requiring developer contributions) could be prepared by Council for this purpose.





OFF ROAD SHARED PATH - SEALED

= = MULTI USE TRAIL - UNSEALED - - MOUNTAIN BIKE TRAIL

Figure 15: Proposed Movement Network for Brookvale Structure Plan

GREEN LINK

**IIIIIII** PROPOSED VEHICLE CONNECTION\*

<sup>\*</sup>Subject to future investigation

#### **Vehicle Connections**

Pittwater Road provides the north-south connector through the Brookvale Structure Plan area, connecting the Northern Beaches to the Sydney CBD area. Warringah Road borders part of the Structure Plan area to the north and provides east west connection through to Chatswood.

These major roads are supported by a network of local connector roads. The provision of the B-line along Pittwater Road will increase the network's capacity. The Structure Plan proposes improvements to vehicular connectivity within the Town Centre by identifying two future vehicular connections for investigation.

These connections include a laneway at the rear of existing development on Pittwater Road, connecting Winbourne Road with Sydenham Road. The other proposes an extension of Powells Road to Pittwater Road, should the bus depot be redeveloped in the future.

There is also a need to maintain vehicular access to industrial areas. Notably, in wake of the new B-Line, which may impinge on east to west connectivity across the structure plan area. It is critical east-west connections are not compromised through provision of the B-line and that vehicle access from Pittwater Road is not affected. This is particularly important throughout the industrial area, east of Pittwater Road.

#### Green Streets and Green Links

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The Structure Plan proposes "Green Streets" and "Green Links". Green Streets include streets currently within the existing network. These streets will include landscaping initiatives to enhance the pedestrian environment whilst maintaining vehicle connectivity throughout the precinct.

Green Links are pedestrian and cycle orientated paths, that are appropriately landscaped to enhance the pedestrian and cycle environment. Collectively, Green Streets and Green Links increase access to the surrounding areas of public open space and improve precinct connectivity.

Investigations should be undertaken to facilitate Green Streets in the following locations: Federal Parade: Winbourne Road; Mitchell Road; Orchard Road; Powells Road; Cross Street; Miles Street: Wattle Street; and William Street

Furthermore, investigation should be undertaken to facilitate a green pedestrian link connecting; Allenby Park to Cross Street and to enhance the link between Grosvenor Place and Short Street

#### Pedestrian and Cycle Movement

The Structure Plan accords with Council's Bike Plan, adopted in 2010 which identifies a range of bike routes and infrastructure priorities, funding opportunities, education, promotion and events and action plans. Council is currently reviewing the Bike Plan. When fully implemented the Structure Plan area will be serviced by a bicycle network, albeit, mainly via on road facilities on major roads.

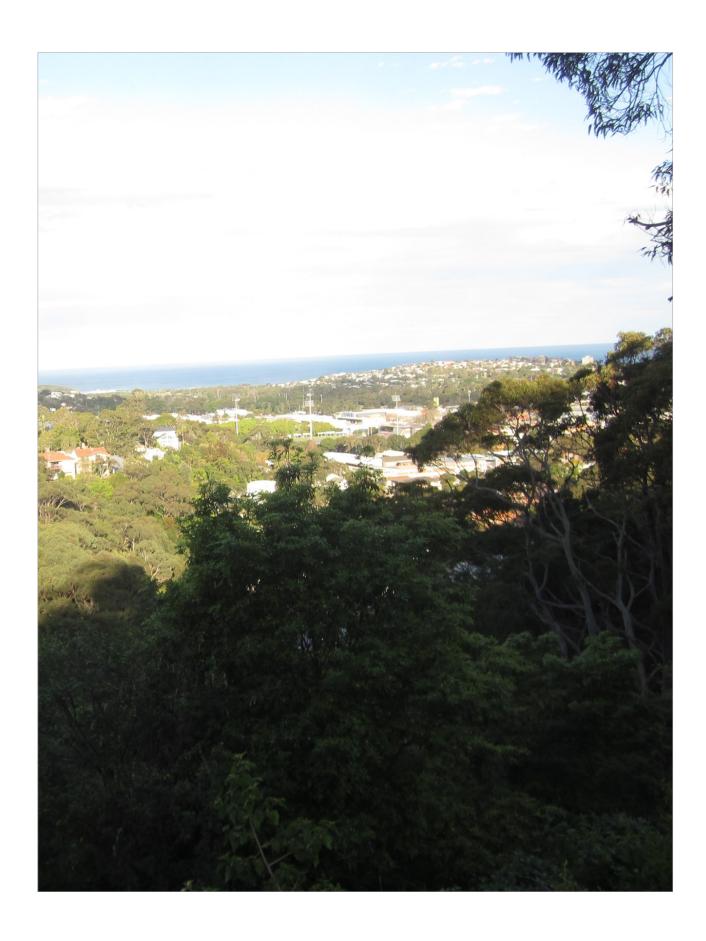
As such, Green Links and Green Streets are proposed which promote pedestrian and cycle accessibility through an enhanced and connected network. The proposed Green Links provide an alternative to on-road facilities. The proposed Green Links work in collaboration with proposed Green Streets. Collectively, these two components provide the foundation for modal shift away from car dependency. Further investigations should be undertaken to understand how behavioural change can be improved to reduce car dependency within Brookvale.

The Structure Plan also proposes through block connections within the Town Centre. It is intended these connections will provide a pedestrian link between the Town Centre main street and industrial areas. This will improve pedestrian connectivity to each of these areas, thereby facilitating greater activation and pedestrian permeability. DCP provisions will identify and encourage consideration of through block pedestrian connections as sites are redeveloped.

#### **KEY OUTCOMES**

- + Public Domain Strategy that addresses delivery of Green Streets and Green Links;
- + Funding Strategy for delivery of public parking should the B-Line result in loss of on street parking in the Town Centre:
- + Funding Strategy to deliver future vehicular connections;
- + DCP amendment to recognise that through site links are integral elements to be considered with future development; and
- + Preparation of a Pedestrian Access and Mobility Plan (PAMP) for Brookvale.





#### **ENVIRONMENT**

#### Strategic intent:

- + Protect and enhance iconic places, parks and reserves within and surrounding the Investigation Area;
- + Encourage and promote development that responds to the areas natural setting and topography;
- Preserve the unique and indigenous ecosystems, remnant vegetation and threatened species and communities within Brookvale:
- + Support environmentally sustainable business activities; and
- + Encourage sustainable community activities, which celebrate the areas bushland setting and promote the use of active modes of transport.

#### Topography and Landform

The majority of the Structure Plan area is located at the base of a valley which continues east and south east of the Investigation Area. All other directions have an incline in topography providing district views. There is a steep incline in the topography to the west and north borders and in the north west of the site up Beacon Hill Road, which provides panoramic views out to the coast and to Sydney CBD.

The Structure Plan area is affected by riparian zones along Greendale Creek in the north west which also continues from the middle of the site to the east out to Curl Curl Lagoon, and Brookvale Creek from the west running through the site to the south to Many Lagoon. Water management and run off is a significant consideration for the area. Currently water management is achieved through a combination of open and piped underground hydrology systems.

The structure plan area is subject to flood risk in two main areas. The flood planning level is equivalent to the 1 in 100 year flood level plus a free board. A large area of the east industrial area falls within the flood planning level as well as an area adjacent to Greendale Creek. In the west industrial area significant areas fall within the flood planning level. However, much of the current flood problem is being addressed through stormwater management work in Warringah Mall.

It is noted that the current DCP includes requirements that manage development of flood prone land.

#### Open Space Assets

Allenby Park to the west, John Fisher Park to the east, Warringah Golf Course/District Park to the south, Beacon Hill Reserve to the north west, Stony Range Regional Gardens to the north east as well Brookvale Park provide a distinct green identity to the Structure Plan area.

These areas provide regionally scaled recreational assets for the Northern Beaches. These existing recreational reserves are to be preserved and enhanced in the Structure Plan. The Structure Plan will improve access to these areas through the enhancement of existing and proposed pedestrian and cycle networks.

It is acknowledged that although these areas mostly fall outside of the Investigation Area, they contribute to the broader identity of Brookvale and provide setting for the Structure Plan.

#### Brookvale Park

Brookvale Park will continue to be a major community and recreational destination at Brookvale Park.

#### **Conservation Areas**

Allenby Park, Beacon Hill Reserve and John Fisher Park include substantial areas of native vegetation and are recognised as wildlife corridors. These reserves have pockets of threatened native vegetation. Allenby Park however, has the most significant threatened native vegetation which borders on industrial land. Containment of industrial land within prescribed IN1 zoning is imperative to the protection of this area. These areas also to be reinforced by the Structure Plan to preserve the areas green identity.

#### Green Links

The proposed green links provide a connected network, increasing access to the surrounding areas of public open space. Investigation should be undertaken to facilitate green pedestrian links connecting:

- + Allenby Park to Cross Street; and
- + Grosvenor Place to Short Street (Existing).

#### **Key Outcomes**

- + Public Domain Strategy that addresses enhancement of existing Open Space Assets and delivery of Green Streets and Green Links; and
- + Integrate regional open space, riparian corridors, recreational assets and school facilities, as part of the open space hierarchy for Brookvale.



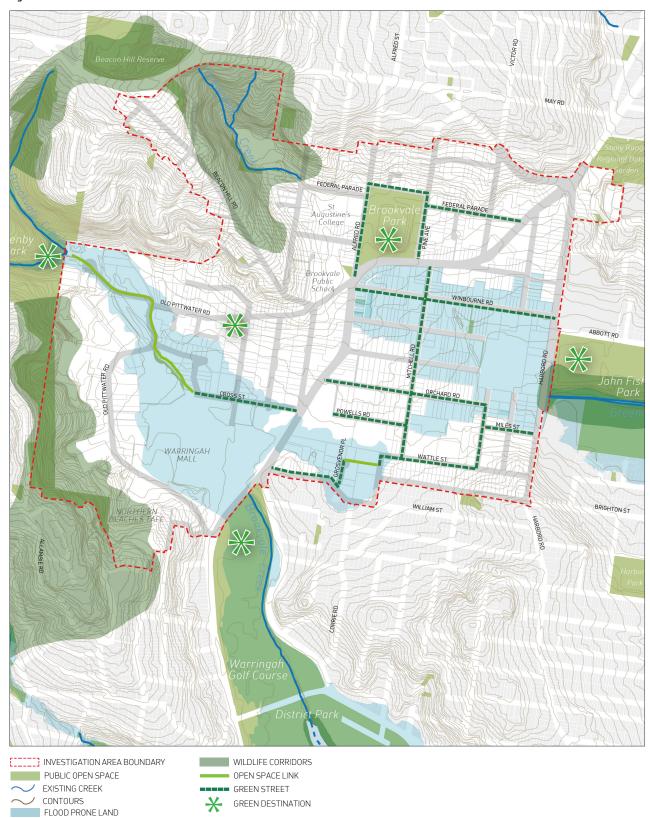


Figure 16: Indicative Environmental Plan for Brookvale Structure Plan

# 5.3 Future Opportunities

Throughout the development of the Structure Plan several future opportunities have been identified for future investigation. These opportunities do not form part of the Structure Plan, but have been identified for the purpose of future investigations.

These future opportunities can only be considered if it can be demonstrated that any growth in travel demand or traffic generation created by the development can be accommodated within the constraints of the existing transport network. As outlined in this Structure Plan, the Pittwater Road corridor has limited capacity and further development within the Brookvale area will need to address this. Identified future opportunities

- + Allowing additional permitted uses for Warringah Mall to enhance its current function; to recognise its accessible location and importantly to facilitate development of a strong and positive southern gateway for Brookvale;
- + Possible rezoning of Brookvale Bus Deport, to expand the Town Centre to the south, increasing its connectivity with the Commercial Core (Warringah Mall); and
- In recognition that Brookvale Park is the northern Gateway for the Brookvale Town Centre, expanding the range of permitted uses and activities within this regional open space asset while ensuring the retention of Brookvale Park as a sports facility.

As well as these, the Structure Plan incorporates a number of future aspirations, including:-

- Provision of a laneway between Winbourne Road and Sydenham Road, to provide access for those Town Centre properties located on the western side of Pittwater Road;
- Provision of vehicle connection from Powells Road to Pittwater Road, should the bus depot site be redeveloped in the future; and
- Consideration of possible expansion of public parking facilities.



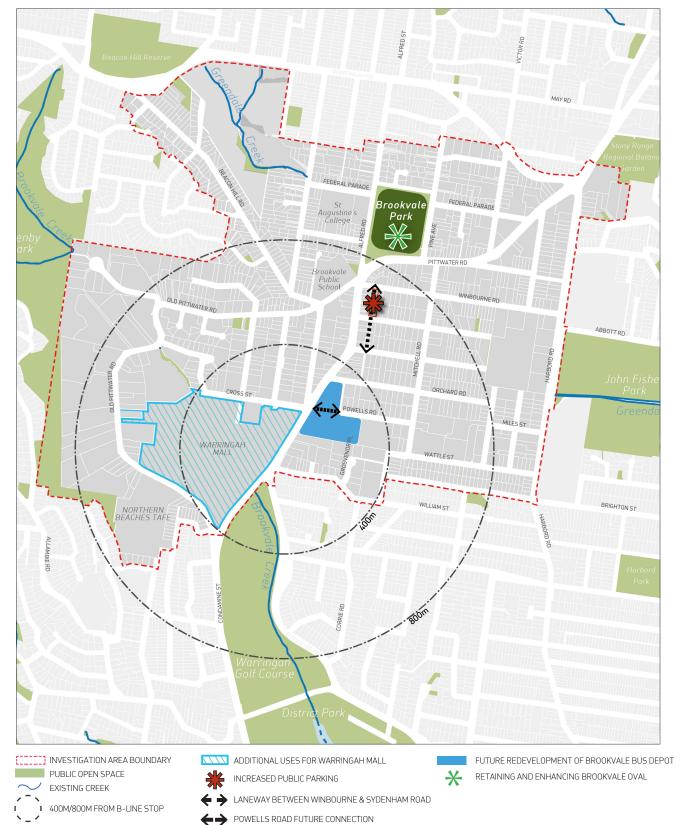


Figure 17: Future Opportunities Plan for Brookvale Structure Plan

# IMPLEMENTING THE STRUCTURE PLAN

IMPLEMENTING THE STRUCTURE PLAN

# 6.1 Implementing the Structure Plan

#### LAND USE PLANNING CONTROLS

The current land use planning controls within the Investigation Area establish a viable land use planning framework to manage future growth and the enhancement of Brookvale. The Brookvale Structure Plan process however, has identified recommended changes to the existing planning framework to ensure planning provisions appropriately accommodate Brookvale's future employment and housing needs, and to furthermore stimulate regeneration and growth of the Brookvale Town Centre.

The below table outlines the proposed land use planning control amendments that are recommended to assist the implementation of the Brookvale Structure Plan.

Table 4: Proposed LEP Amendments

Subject Area	Existing Provision	Proposed Change	Implementation
Brookvale Town Centre  Figure 18: Proposed Town Centre Zoning Change	B5 Business Development Zone	The Structure Plan recommends rezoning a portion of the existing Town Centre from B5 Business Development to B4 Mixed Use. The extent of proposed rezoning is highlighted in Figure 18 and shown in detail in Figure 13. The Town Centre should comprise activated ground floor and first floor uses. As such, it should be mandated within the LEP that residential uses are prohibited on the ground and first floors of the Town Centre B4 Mixed Use Zone.	A LEP amendment from B5 Business Development to B4 Mixed Use is required to adopt the recommended zoning change. Residential uses are to be prohibited at ground and first floor.
Brookvale Town Centre Transition Area  Figure 19: Proposed Town Centre - Transition Area Zone Change	IN1 General Industrial Zone	The Structure Plan recommends the extension of the Town Centre west to Dale Street. This includes rezoning a portion of the existing Industrial Area West from IN1 General Industrial to B4 Mixed Use. The extent of proposed rezoning is highlighted in Figure 19 and shown in detail on Figure 13. The transition zone of the Town Centre should comprise activated ground floor uses. The LEP should prohibit residential development on the ground floor within this area.	A LEP amendment from IN1 General Industrial to B4 Mixed Use is required to adopt the recommended zoning change. Residential uses are to be prohibited at ground floor.
Industrial Area East	IN1 General Industrial Zone	The Structure Plan supports the diversification of uses within Industrial Area East to promote employment and support development of a night economy within this area. The Structure Plan recommends additional permitted uses within Industrial Area East, notably permissibility of "food and drink premises". The extent of the additional permitted uses is highlighted in Figure 20 and shown in detail on Figure 13.	A LEP amendment to include "food and drink premises" and 'Additional Permitted Uses' (APU's) in the area.

Figure 20: Proposed Industrial Area East Zone Modification



Subject Area	Existing Provision	Proposed Change	Implementation
Industrial Area West	IN1 General Industrial Zone	The Structure Plan supports the diversification of uses within Industrial Area West to promote employment and cater for the emergence of larger site redevelopment with office based activities. The Structure Plan recommends additional permitted uses, specifically being the addition of "business premises" and "office premises" within this area. The extent to of the additional permitted uses are highlighted in Figure 21 and also shown in detail on Figure 13.	A LEP amendment to include "business permises" and "office permises" as 'Additional Permitted Uses' in the area.
Figure 21: Proposed Industrial Area West Zone Modification  Commercial Core	IN1 General Industrial Zone	The Structure Plan supports and encourages the future development of the existing retail core. The existing Aldi site which is bound by the Commercial Core zoning on its east, west and southern boundaries is considered to positively contribute to Brookvale's retail core. As such, the Structure Plan recommends rezoning the existing Aldi site from IN1 General Industrial to B3 Commercial Core. The Structure Plan does not propose any change to building height on this site.	A LEP amendment changing the zone from IN1 General Industrial to B3 Commercial Core.
Figure 22: Proposed Industrial Area West Zone Modification  Brookvale Town Centre	11m Building Height	The Structure Plan supports the enhancement of Brookvale's Town Centre to be the most highly activated area, which will be the primary focus for growth and evolution of Brookvale's employment diversity and residential offering. The Structure Plan recommends the maximum building height within the Town Centre to be up to 6 storeys (21m). The extent of the proposed height increase is highlighted in Figure 23 and shown in detail in Figure 14.	A LEP amendment increasing maximum permitted building height to 21 metres.
Figure 23: Proposed Town Centre Height Change  Brookvale Town Centre Transition Area  Height Change	11m Building Height	The Structure Plan supports enhancement and future development of the Town Centre however, is conscious of how the area interfaces with adjoining areas. As such, the Structure Plan recommends a transition area located adjacent to Dale Street, as shown in Figure 24 and shown in detail on Figure 14. The maximum permitted height in the transition zone is 4 storeys (15 metres).	A LEP amendment increasing maximum permitted building height to 15 metres.

#### **DCP AMENDMENTS**

In addition to the abovementioned LEP amendments, DCP's should be developed to ensure implementation of finer grain development detail. Although these controls cannot be prescribed without further analysis of the areas to which they apply, the below outlines future elements which should be considered in the development of new DCP provisions.

#### **Town Centre**

A specific DCP section should be developed for the new Town Centre as delineated by the B4 Mixed Use zoning. To ensure development of appropriate built form and character commensurate with the Town Centre's strategic intent. It is recommended that DCP provisions be developed which (at a minimum) outline built form requirements and design guidance for the following:

- Gateways: development controls for the northern gateway should form a key component of the Town Centre DCP.
   Specific development controls for the northern gateway will require a detailed urban analysis however, should seek to:
  - + Promote prominent architectural form on corner elements to provide a reference point in the built form and landscape;
  - Encourage additional height elements where appropriate to keynote a point of difference on entry/ arrival:
  - + Ensure articulated façades which provide aesthetic appeal and interest;
  - Provide for variations to setback requirements where necessary to create prominent feature elements;
  - + Provide guidance to preferred land uses; and
  - + Promote connectivity of the pedestrian realm with the broader Town Centre area.
- + Building height: reinforcing an overall building height of 6 storeys (21 metres) supported by the transition zone adjacent to Dale Street with a building height of 4 storeys (15 metres).
- + Podiums: reinforcing the requirement that future development shall include podiums with a prescribed minimum height (mandatory 2 levels) to ensure consistency between each allotment and maintain streetscape presence.
- + Building Setbacks: this should outline building setback requirements for primary and secondary street frontages and also mandatory setback requirements for buildings located above podiums.

- + Activation: outline requirements for activated ground floor uses adjacent to Pittwater Road and Roger Street to enhance the public realm.
- Minimum floor to ceiling heights: prescribe minimum requirements to facilitate a consistent streetscape pattern, active ground floor tenancies and promote building adaptability;
- + Building style and facade composition;
- + Roof form:
- + Materials, hues and texture:
- + Access and parking guidance;
- + Boundary treatment: landscaping and fencing requirements which enhances the public realm;
- + Signage and lighting requirements consistent with existing Council policy requirements.

#### Other Provisions

The current provisions of WDCP2011 should also be reviewed, as they apply to the other land within the Investigation Area. the controls reviewed should include such things as:-

- + Building height;
- + Activation and land use diversification;
- + Landscaping and public domain enhancement;
- + Public Art;
- + Building style and facade composition;
- + Roof form;
- + Passive surveillance:
- + Materials, hues and texture;
- + Access and parking;
- + Boundary treatment landscaping and fencing; and
- + Signage and lighting.



#### OTHER MANAGEMENT STRATEGIES

In addition to land use planning controls, other management, strategies are also required to ensure suitable development of both the public and private domain and to ensure the ongoing delivery of infrastructure that supports liveability and workability in Brookvale.

Other Management Strategies identified to be required for the implementation of the Structure Plan include:

- + Development of Section 94 Plan to support public domain upgrades, movement and access, car parking in Brookvale (particularly recognise any loss of on-street parking due to B-Line):
- + A Public Domain Plan to deliver green links, green streets, improvements to open space;
- + Finalisation of the Warringah Bike Plan and inclusion within a Council wide initiatives recognising the upgrades of green links to promote active modes of transport; and
- + Development of an assessment tool to manage Planning Proposals and ensure that future changes to planning provisions are consistent with the development principles and strategic framework established by the Brookvale Structure Plan.

