

CARRAMAR

PUBLIC DOMAIN PLAN

NOVEMBER 2020



ep | environmental
partnership

RD | RobertsDay
planning·design·place

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We acknowledge the Cabrogal of the Darug Nation as the traditional Custodians of the land.
We would like to pay respect to the Elders both past and present of the Fairfield area and extends that respect to other Aboriginal and Torres Strait Islander Australians.



c.1840 'Native scenes' album, P.H.P Phelps.
Picture: State Library of NSW, Cabrogal to Fairfield City By Stephen Gapps

EXECUTIVE SUMMARY

Environmental Partnership and RobertsDay, in collaboration with Fairfield City Council, have developed a Public Domain Plan for Carramar Centre. This Plan responds to government mandate and best practice public domain planning by undertaking a place-led approach that responds to a deep understanding of the centre's unique place attributes.

Part A of the report provides a foundation of Place Knowledge - establishing an understanding of the city centre's existing and future identity. The Place Knowledge forms the basis for a series of briefs which inform Place Activation, Economic Development and Public Domain Objectives.

Part B of the report details the implementation of the Public Domain Objectives through Structure Plans, Public Domain Typologies, Design Specifications and an approach to Materials and Finishes.

Part C of the report details Vision Concepts for a series of Demonstration Sites illustrating potential applications of the Public Domain Plan.

Part D of the report summarises background studies and best practise benchmarking that has informed the plan.

This Public Domain Plan will facilitate the delivery and activation of public realm that celebrates Carramar's character and builds on its local strengths to generate a well-connected, liveable, socially vibrant, and visually appealing centre.

Place Identity CARRAMAR CENTRE IS...

TRANQUIL

Sitting in the shade of tall trees, and with physical and visual access to the creekfront, Carramar is nestled within nature. It's a place where people feel calm and relaxed, and enjoy the respite from fast-moving traffic, bustling shopping centres and dominating infrastructure.

VILLAGE

Just like a village, in Carramar people know their neighbours. The friendly village atmosphere provides the perfect home for current and residents. Young children can safely walk to school or the local park, and there is a sense of belonging and attachment to the place, especially for newly arrived migrants, epitomised by people socialising in the village centre.

RESTORATIVE

Carramar is conducive to a healthy lifestyle for people of all ages. Further, it's a reminder of the past where simplicity and slow pace create sense of calm and peacefulness, where people can quietly ride their bikes to the nearest centre or slowly walk their dog to the park.

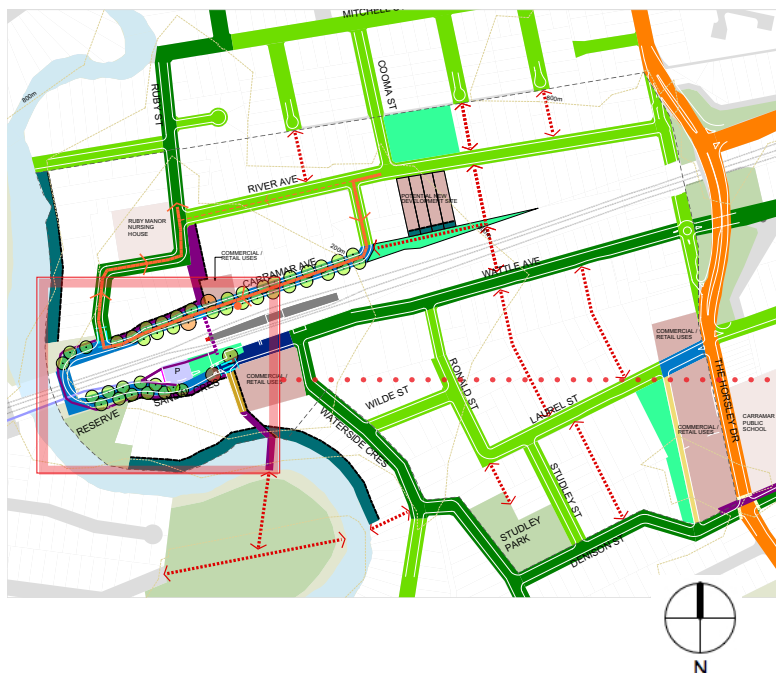
LEAFY

The centre's shady and soft appearance - where tree canopies arch above and greenery lines the streetscape - is a cool, green, riverfront oasis.

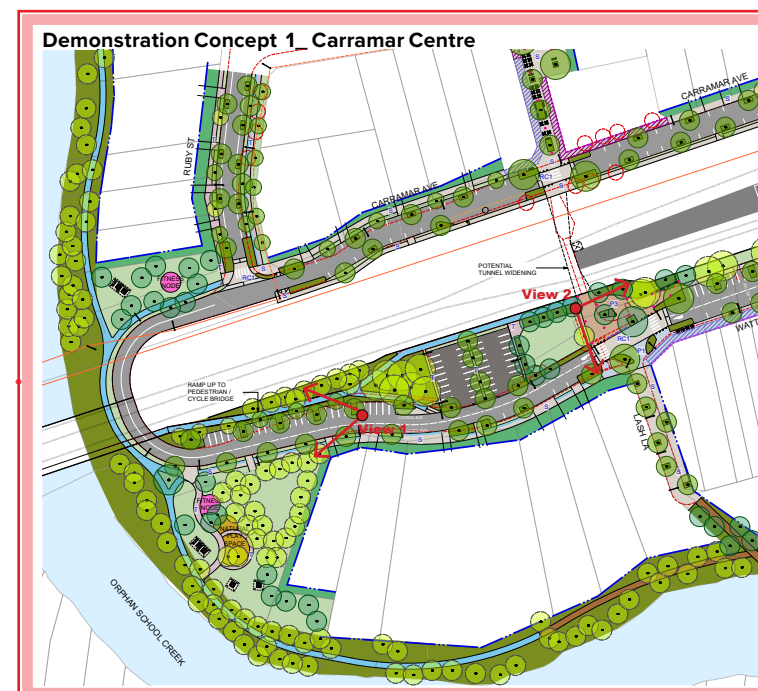


Public Domain Structure Plan

- LEGEND**
- STRUCTURE PLAN**
- Street Hierarchy - Network**
- Avenue
 - Corridor
 - Major road
- Street Hierarchy - Centre**
- High street - core
 - High street - mixed
 - High street - circulation
 - Local Street
 - Laneways- Shared lane
 - Laneways- service lane
 - Shared zone
 - Pedestrian link
 - Existing pedestrian link (public)
 - Existing pedestrian/cycle shared link (public)
 - Proposed pedestrian link (private)
 - Existing pedestrian link (private)
- Public space**
- Existing public space within town centre
 - Proposed public space (council owned)
 - Proposed public space (private owned)
 - Proposed street tree plantings
 - Proposed nodal tree plantings
- Crossings**
- Existing raised
 - Proposed raised
 - Existing signals crossing
 - Proposed signals crossing



Demonstration Concepts



Illustrative view 1: Proposed Shared path access and parkland adjoining Sandal Crescent

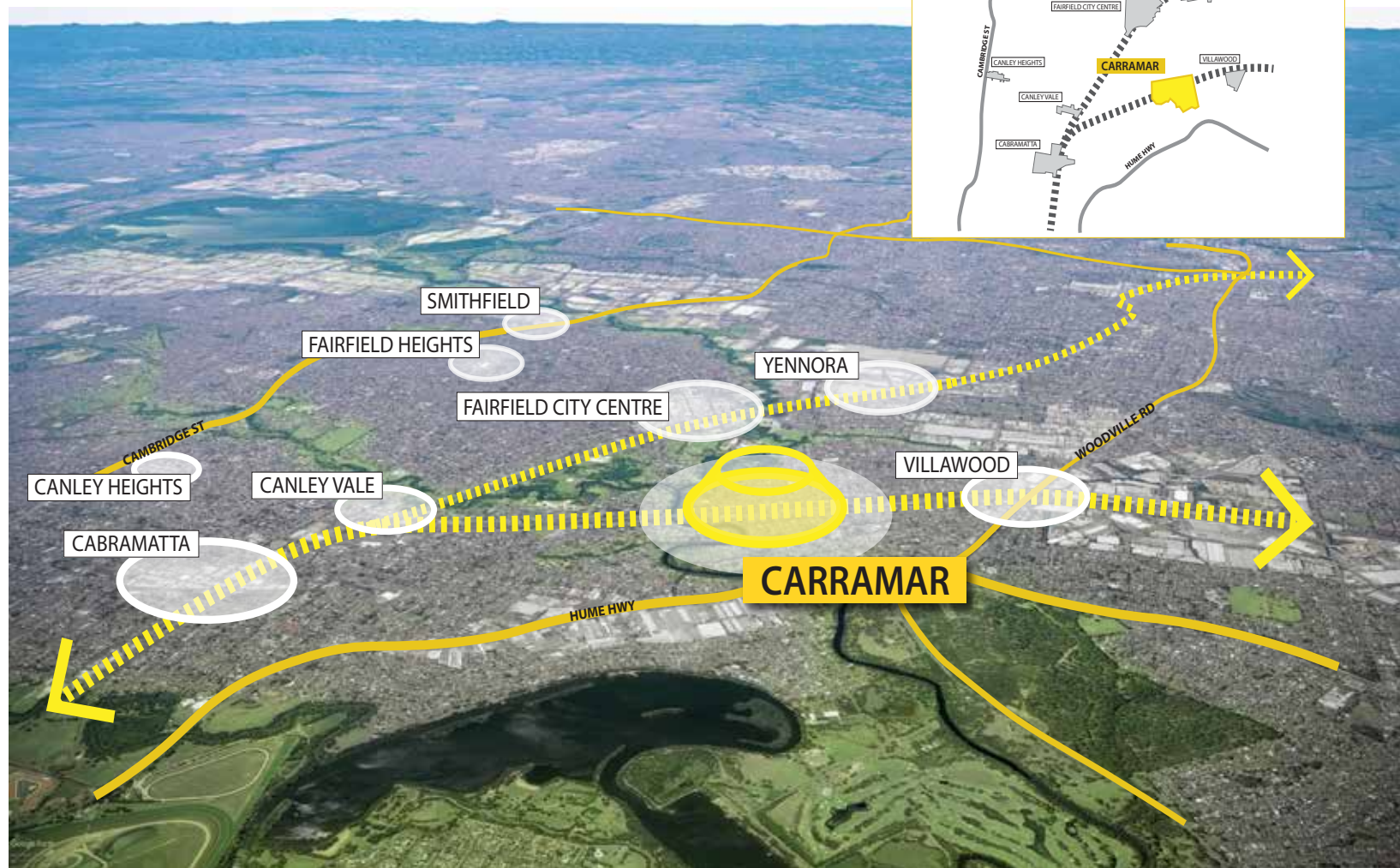


Illustrative view 2: Park / Square at Railway Station on Sandal Crescent

GLOSSARY OF KEY TERMS

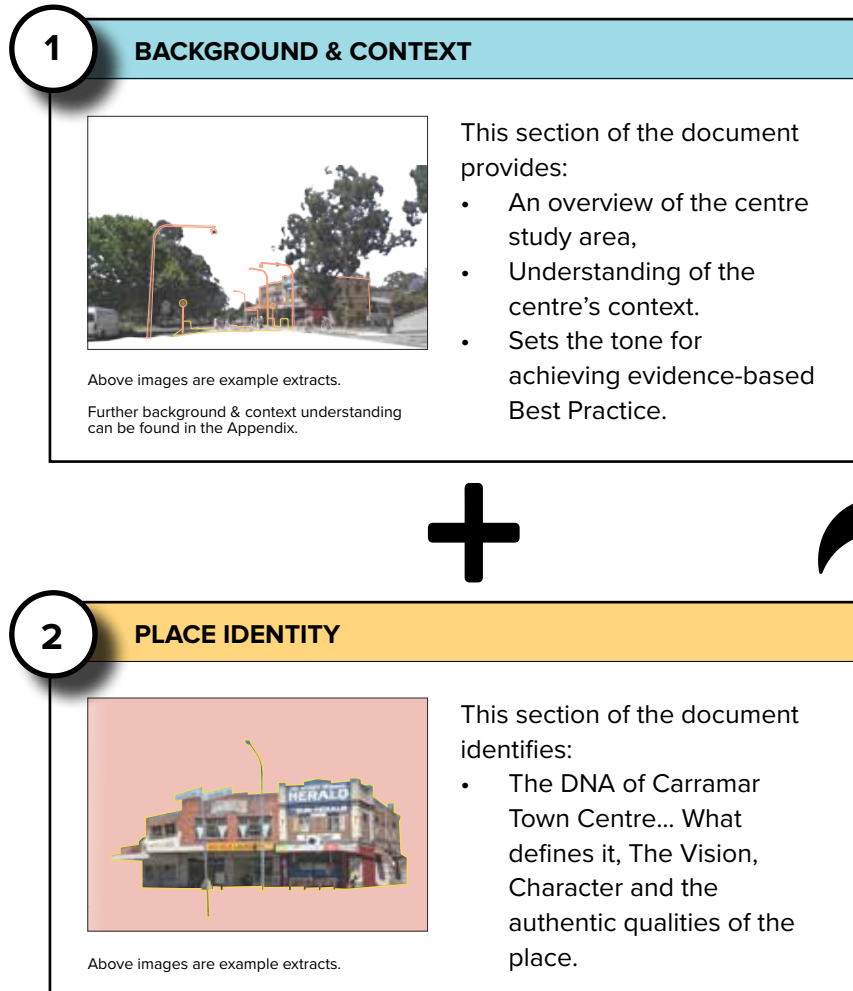
Activation	Creating vibrancy in a street or public space through movement, community and commercial activity creating vibrancy in a street or public space through movement, community and commercial activity
Brief	Focused advise and direction
Design Toolkit	Set of public domain design strategies derived from review and assessment of best practice public domain references
Economic Development	Promotion and facilitation of increased economic activity and vitality
Guidelines	Design and materials references to guide planning and design
Objective	A desired outcome
Place Identity	The multiple ways in which place functions to provide a sense of belonging, construct meaning, foster attachments, and create memories
Place Knowledge	The collection of influences and relationships that combine to inform place identity
Public Domain	The natural and built environment accessed and utilised by the public on a daily bases including streets, plazas, open spaces and parks (public spaces).
Research Foundation	The information derived from research and investigation
Street hierarchy	Varied vehicular and movement roles, civic and commercial functions, and landscape patterns
Structure Plan	The plan illustrating the application of the underlying street hierarchy, key public spaces, and movement linkages for the centre
Typology	The collection of functional and environmental characteristics applying to each element of the street hierarchy

LOCATION OF CARRAMAR TOWN CENTRE



HOW TO USE THIS DOCUMENT?

Fairfield City Council have worked with leading consultants to develop a place-based process to inform future public domain decision making. Following the sequence set out below, will ensure an evidence & place-based response for the Centre.



Now that a place-based understanding of the Centre has been established, in order to inform future decisions, users of the document will need to refer to the following sequence below to carry across Place to Implementation.

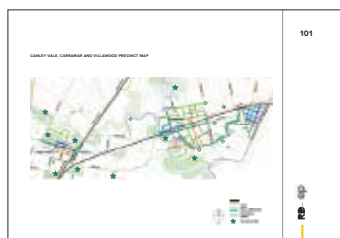
PART B: PUBLIC DOMAIN PLAN

4

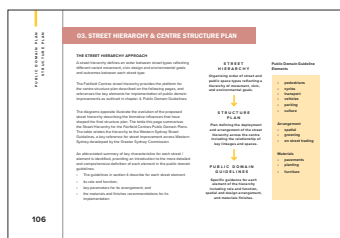
THE STRUCTURE PLAN



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The Structure Plan for the Centre provides a blueprint for designers, developers and Council to understand and implement a considered and agreed upon approach to achieve the Strategic objectives for the Centre.

Designers, developers and Council need to align future decision making with the Centre's:

- Networks between neighbouring centre's and locally, within.
- Key design moves,
- The best practice intentions for streets and public space hierarchy and guidelines.

Above images are example extracts.

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HIERARCHY TYPOLOGIES



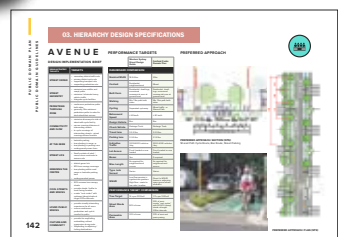
Above images are example extracts.

This section of the document outlines the agreed approach required to deliver:

- Best Practice Streets and Public Space Hierarchy Typologies across the Centres, as a minimum standard.

6

HIERARCHY DESIGN SPECIFICATIONS



Above images are example extracts.



This section of the document identifies in detail the implementation specifications for each Hierarchy Typology across the Centre, including targets, design and materials approach.

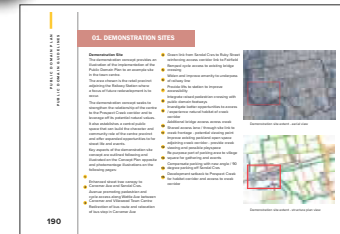
Leading from the understanding of Part B: Public Domain Plan, Step 7 provides a series of Demonstration Sites that illustrate examples of successful implementation of key street and public space types across the Centre.

PART C: VISION CONCEPTS 2035 - 2050

7

VISION CONCEPTS 2035 - 2050

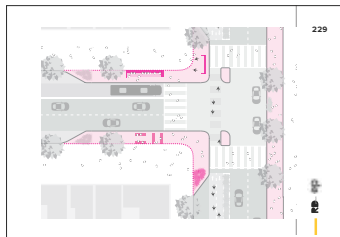
A series of Demonstration sites have been identified to illustrate examples of successful implementation of the Public Domain Plan.



Above images are example extracts.

PART D: SUPPORTING RESEARCH

SUPPORTING RESEARCH



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FIGURE 1: STREET LAYOUT

TABLE 1: STREET LAYOUT

STREET TYPE	STREET NAME	STREET TYPE	STREET NAME
Arterial	Arterial	Arterial	Arterial
Collector	Collector	Collector	Collector
Local	Local	Local	Local
Neighborhood	Neighborhood	Neighborhood	Neighborhood
Residential	Residential	Residential	Residential
Commercial	Commercial	Commercial	Commercial
Industrial	Industrial	Industrial	Industrial
Public	Public	Public	Public
Private	Private	Private	Private
Other	Other	Other	Other



200

FIGURE 2: STREET LAYOUT

TABLE 2: STREET LAYOUT

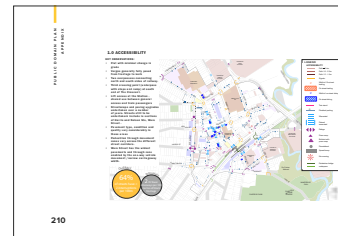
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Collector	Collector	Collector	Collector
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Neighborhood	Neighborhood	Neighborhood	Neighborhood
Residential	Residential	Residential	Residential
Commercial	Commercial	Commercial	Commercial
Industrial	Industrial	Industrial	Industrial
Public	Public	Public	Public
Private	Private	Private	Private
Other	Other	Other	Other

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FIGURE 3: STREET LAYOUT

TABLE 3: STREET LAYOUT

STREET TYPE	STREET NAME	STREET TYPE	STREET NAME
Arterial	Arterial	Arterial	Arterial
Collector	Collector	Collector	Collector
Local	Local	Local	Local
Neighborhood	Neighborhood	Neighborhood	Neighborhood
Residential	Residential	Residential	Residential
Commercial	Commercial	Commercial	Commercial
Industrial	Industrial	Industrial	Industrial
Public	Public	Public	Public
Private	Private	Private	Private
Other	Other	Other	Other



This section of the document outlines background research to support the Place Knowledge and Public Domain Plan and includes:

- Design Toolkit Strategies
- Policy Overview
- Document Review
- Best Practice Research Frameworks
- Stakeholder Engagement
- Performance Matrix
- Audit Mapping

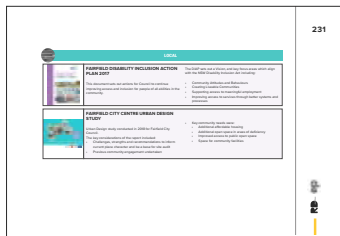


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Part A

place knowledge

“

Sustainable Regeneration has the public realm at its heart.

Establish a vibrant, pedestrian friendly public realm at key centres, transport interchanges and urban renewal areas, with places for gathering and good connections to open space.

”

Sydney Green Grid - South West District

Place
Knowledge



Chapter 1

Research Foundation

01. DOCUMENT REVIEW

02. PLACE CONTEXT



01. DOCUMENT REVIEW

INTRODUCTION

A comprehensive review of documents has been undertaken, including planning policy and guidance, the 2019 Urban design Study of Carramar Centre and Best Practice approaches to Public Domain Design.

A. PLANNING POLICY/GUIDANCE

Analysis of relevant policy and guidance documents has been undertaken, including those from the global, national, state, regional and local levels, listed below. A summary of these documents and their relationship with this report has been provided in Appendix 1.

Global

- New urban Agenda (UN Habitat III)
- The UN 2030 Agenda for Sustainable Development

National

- Creating Places for People - An Urban Design Protocol for Australian Cities
- Healthy Spaces and Places - A National Guide to Designing Places for Healthy Living
- Smart Cities Plan
- Road Safety Plan

State

- Better Placed
- Greener Places
- Movement and Place
- Draft - Open Space for Recreation Guide
- Future Transport Strategy 2056
- Local Character and Place Guidelines

Regional

- A Metropolis of Three Cities
- Western City District Plan
- Western Sydney Street Design Guidelines

Local

- Fairfield City Plan
- Fairfield Draft Local Strategic Planning Statement (LSPS)
- Fairfield City Economic Development Strategy 2019 Update
- Fairfield City Disability Inclusion Action Plan 2017
- Fairfield Centre Urban Design Study

B. URBAN DESIGN STUDY AND OPEN SPACE OVERVIEW

A number of recent studies have been developed for Fairfield City Council that influence ongoing centre development. This includes the 2020 Urban Design Study (UDS) for Carramar and the Fairfield Place Community Facilities and Open Space Needs Study.

Key influences and Points of Inquiry raised by these studies that influence the Public Domain Plan are discussed following.

UDS key influences:

Networking & Parking:

- Denison Street, Quest Avenue, Waterside Crescent, Wattle Avenue, Sandal Crescent, Ruby Street, Mitchell Street and The Horsley Drive are identified as main structuring routes.
- Strategic acquisition of properties to provide more north-south direct links
- Additional link across railway corridor to improve connection between north and south
- Introduce building setback to strengthen the north-south pedestrian link (from the creek to train station to Ruby Street) in the core of town centre
- Improve connections across Prospect Creek
- Improve visual and spatial connection to Prospect Creek
- Introduce building setback from Prospect Creek and invest walking and cycle infrastructure along the creek
- Intersection between Wattle Avenue and The Horsley Drive is potential gateway area
- Intersection between Laurel St and The Horsley Drive is potential gateway area
- Promote commuter parking around the station by extending perpendicular parking along Wattle Avenue and Carramar Avenue

Public Space:

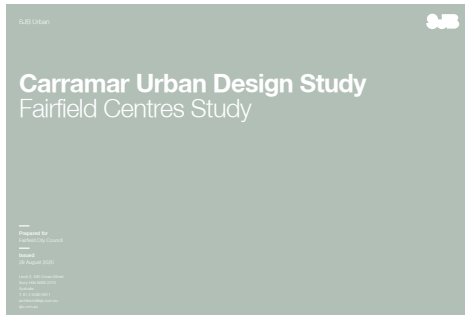
- Plant trees along railway arrival corridor and along main streets to reinforce green character
- Retain existing mature tree canopies along the creek and within private domain
- Redevelop existing car parking area as more urban public spaces that cater for a range of users group
- Look for innovative solutions for the provision of open space in area of deficiency (current open space arrangement is not supported by the Government Architects office for higher density residential environments where public open space should be within 200m of residential unit)
- Improve functionality of Studley Park

Key Sites:

- Proposed Age Care Centre to 234-238A River Avenue
- Proposed Boarding House to 6 Carramar Avenue

Points of Inquiry (refer map annotations following page):

- a. Consideration of alternative location for the additional link across railway corridor that better connects to residential areas and potential open spaces?
- b. Consider retention of a portion of existing off street commuter carpark while providing a public space adjoining train station
- c. Consider optimum location for new open space areas to north side of railway
- d. Reconsider future landuse of 6 Carramar Avenue



Carramar Centre
Urban Design
Strategy: Movement
and Public Domain
Frameworks
(Carramar Centre
UDS - SJB
Architects)
(Points of enquiry
for public domain
plan overlaid in red)



Public Domain Framework



C. BEST PRACTICE RESEARCH

The following reports and books are considered best practice, and provide the evidence for the development of a set of Place Principles which will guide the implementation of this Public Domain Plan. Those Principles are described in detail in Chapter 3 - Place Framework.

MOVEMENT AND PLACE

Through a practitioner's guide, toolkit and governance structure, it seeks consideration of place when developing our transport systems.

HEALTHY STREETS

The approach focuses on the health impacts of transport, public realm and urban planning.

BETTER PLACED

An approach to ensure good design delivers the architecture, public places and environments that will be places people want to inhabit now and those we make for the future.

COMPLETE STREETS

Addresses transport challenges using the smartest solution, integrating transport planning and city design

CITIES FOR PEOPLE

Approach based on the value of human scale, mixed neighbourhoods, public spaces, adaptability and resilience.

SOFT CITY

Concept discusses 'Soft City'; a human-centred urban design approach, where people, place, environment and the relationships between are the focal points for all urban design.

CULTURE, VALUE & PLACE

Report provides research on the ability of culture to be understood and utilised for the development of a successful city region.

BEST PRACTICE OVERVIEW

The following pages provide an overview of the Best Practice Frameworks, to collectively inform a more holistic approach for Fairfield. These form the basis from which the Place Principles have been developed.

Additional and supporting documents applicable to Fairfield's place-based holistic approach can also be referenced in the Appendix:

1. Policy Review
2. Document Review
3. Best Practice Framework

HEALTHY STREETS



Author: Lucy Saunders

Healthy Streets is an evidence-based approach for creating fairer, sustainable, attractive urban spaces.

The approach focuses on the health impacts of transport, public realm and urban planning. Key elements identified as necessary elements for public spaces to improve people's health are the same as those needed to make urban places socially and economically vibrant and environmentally sustainable

Framework Focus:

- People and Health
- Reducing Inequalities
- Walking and Cycling

BETTER PLACED



Author: GANSW

Better Placed is an integrated design policy for the built environment in NSW.

It considers an approach to ensure good design delivers architecture, public places and environments will be places people want to inhabit now and those we make for the future. Better Placed provides a framework to support and develop tools for better design outcomes through locally based policies and initiatives.

Framework Focus:

- Creating Better Places
- Enhancing Design Quality
- Emphasises the Importance of Design

MOVEMENT AND PLACE



Author: GANSW + TfNSW

Movement and Place is a collaborative policy developed by Government Architect NSW and Transport for NSW.

Movement and Place creates a shared language and approach to help all stakeholders achieve better place outcomes. Through a practitioner's guide, toolkit and governance structure, it seeks consideration of place when developing our transport systems, through collaborative working between the community, movement and place practitioners.

Framework Focus:

- Acknowledging Streets as Public Space
- Aligning Movement Functions with Places

COMPLETE STREETS



Author: RobertsDay

A city's greatest civic space is its streets.

A Complete Streets approach considers these spaces holistically, across all disciplines, to develop an over arching Complete Streets Framework for the city centre, as well as specific Complete Street designs for each street. The end result is a better place that benefits everyone.

Framework Focus:

- User + Transport
- Mobility Focused
- Mode Hierarchy

CULTURE, VALUE + PLACE



Author: CreateNSW

Provides research on the ability of culture to be understood and utilised for the development of a successful city.

The report delineates the relationships between culture, place, and value using global city case studies, and addresses how cultural investment can contribute to place-making, bridging social barriers, building shared identities and creating economically successful places.

Framework Focus:

- Culture and Arts
- Links between Culture, Place & Value
- Culture & Policy
- Global Case Studies

CITIES FOR PEOPLE



Author: Jan Gehl

Cities for People is an approach based on the value of human scale, mixed neighbourhoods, public spaces, adaptability and resilience.

The concept considers three priorities, Life, Space, Buildings, in that order, and is applied as part of the design process, both from a 'discovery' stage of understanding place, through to envisioning and design implementation. All of these priorities are important for creating a human scaled place or a sense of community.

Framework Focus:

- Human Scale
- Mixed Neighbourhoods
- Public Spaces
- Adaptability & Resilience

SOFT CITY



Author: David Sim

'Soft City' concept discusses a human-centred urban design approach, where people, place, environment and the relationships between are the focal points for all urban design.

Good cities are ones that make these connections possible. 'Softness' of a city is an overarching and essential quality which considers the idea of the boundaries that you feel as you move about the city, and how they can start to come down.

Focus:

- Fluid Movement and Comfort
- Human Dimension of Density
- Diversity of Building Types
- Thoughtful Design

02. PLACE CONTEXT

REGIONAL POSITION

The Fairfield City Council local government area is located in Sydney's south-west, approximately 32 kilometers from the Sydney CBD. The council area boasts 27 suburbs; Carramar is one of these whose biggest asset is its immersive natural and recreational surrounds.

The City is predominantly residential with substantial industrial and commercial areas and some rural residential areas in the west.

Fairfield City Council has an estimated population of 204,442 (2015) people who reside in 57,181 dwellings. These people represent a culturally diverse population with more than half of residents being born outside of Australia. Many new migrants to Sydney choose to make the Fairfield City Council area their home. This diversity needs to be celebrated as it is a major strength that injects a mix of cultural traditions and festivities into the landscape.

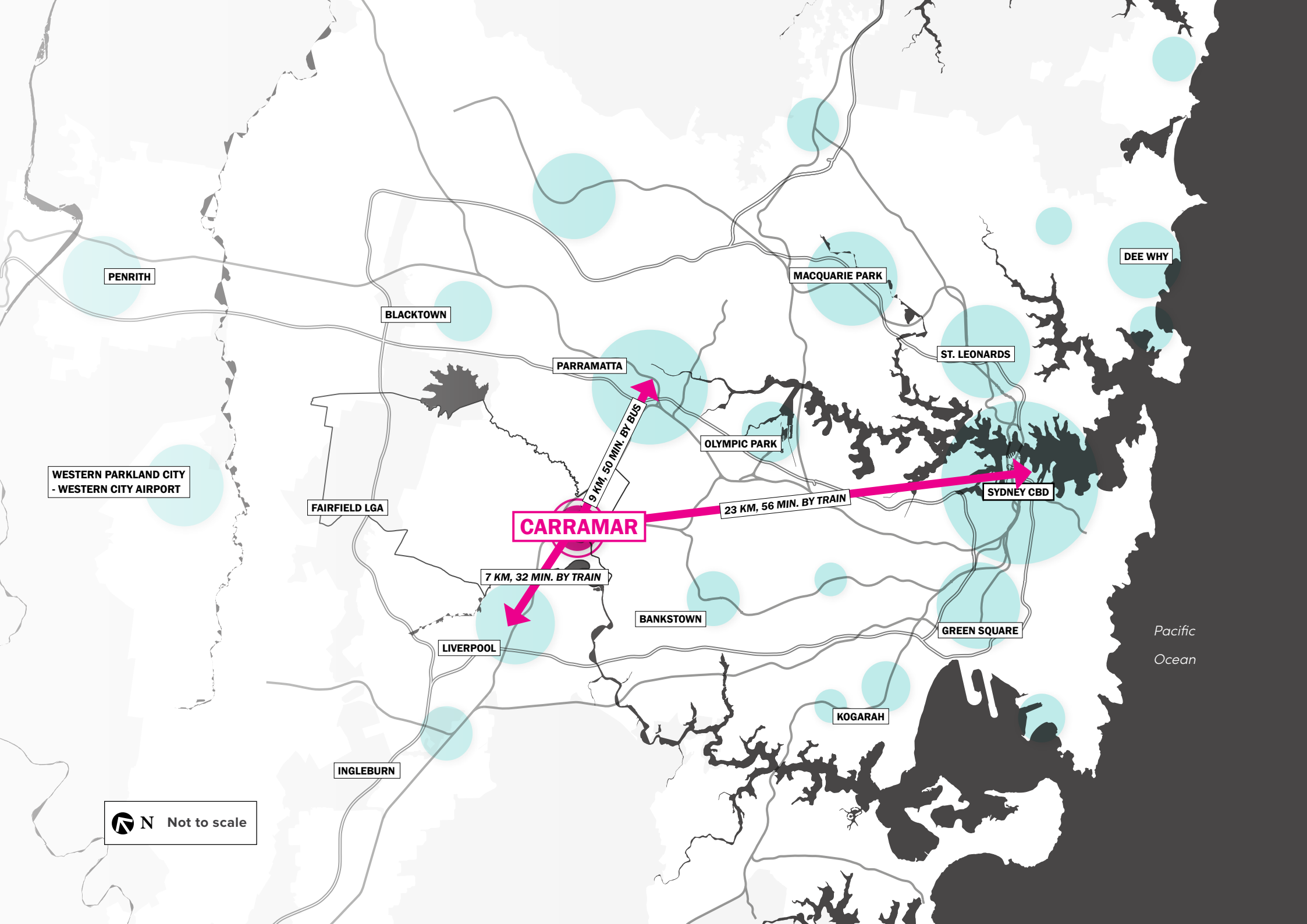
Carramar is located 30 kilometres west of the Sydney central business district, 2 kilometres to Fairfield City Centre and 5 kilometres to Cabramatta Town Centre. The centre of Carramar is bisected by the train line, centered on the historic train station, and bound by The Horsley Drive to the east and Orphan School Creek to the west. This tidal creek plays an important role in Sydney's 'Blue Green Grid' and flows into the Prospect Creek. Carramar is characterised by low-density built form, ranging from single storey dwellings to 4-level brick walk-ups.

Carramar is reliant upon neighbouring centres such as Fairfield City Centre, Cabramatta, Canley Vale and Villawood for retail and commercial uses, although there are a handful of retailers along Wattle Avenue, beside the station.

The challenge is now to develop Carramar in a way which enhances its local community assets and unique setting of open green spaces, reserves and the tranquil creek. More active facades could ensure that the streets and frontages remain engaging, regardless of reliance upon non-residential land uses. This in turn, will encourage walking and discovery.

"Prospect Creek plays an important role in Sydney's 'Blue Green Grid'..."





WESTERN PARKLAND CITY
- WESTERN CITY AIRPORT

FAIRFIELD LGA

CARRAMAR

7 KM, 32 MIN. BY TRAIN

LIVERPOOL

9 KM, 50 MIN. BY BUS

PARRAMATTA

OLYMPIC PARK

23 KM, 56 MIN. BY TRAIN

SYDNEY CBD

BANKSTOWN

GREEN SQUARE

KOGARAH

DEE WHY

ST. LEONARDS

MACQUARIE PARK

BLACKTOWN

PENRITH

N Not to scale

Pacific
Ocean

KEY PLACES

Carramar was initially called South Fairfield but was changed to Carramar in 1926, an Aboriginal word meaning 'shade of trees'. "The area's popularity fostered expectations of a development because of railway extensions in 1924 but the boom did not happen as a consequence of the depression of 1929 which saw the limited investment that there was directed to areas which were better connected." (Carramar Urban Design Study)

Carramar is a suburb that relies on surrounding centres for large scale activity, amenity and key places. Having said this, there are numerous local assets within Carramar that create a sense of place.

The centre is serviced by Carramar Station (1), with the station entry located along Wattle Avenue (3) and Carramar Avenue. With the station bisecting the suburb, pedestrian and cyclist access is located beneath the rail tracks via a connected walkway. On either side of the station exits (below the steel canopy of the rail bridge crossing), the strips of open spaces, whilst currently inaccessible to the public, provide a green and pleasant sense of place to pedestrians.

There is a total of seven parks identified during desktop review within Carramar. These numerous open spaces, including Sandal Crescent Reserve, adjacent to Carramar Bridge (5) and Carrawood Oval are significant spaces that are distinct natural assets on the west side of neighbourhood, alongside Orphan School Creek. To the south of the study area, Studley Park (4) services the residential area containing play elements and is open to three street frontages.

To the north of the railway line, there are currently no parks within the study area, however Carramar sits alongside Prospect Creek (2) as Orphan School Creek and benefits from the adjoining creekline environment. Beyond the study area, within Oakdene Park is home to the historic Bland Tree (6), which is approximately 170 years old, being one of Sydney's oldest living trees and one of the largest in the region.

Carramar Public School (7) is located 1.5 kilometres from the rail station, with the main access along Denison Street. Adjacent to the school, is a cluster of specialised shops, located on The Horsely Drive (8).

Whilst there are no council-owned community facilities in Carramar, there are some community based organisations and non-profits featuring clustering of health related services along The Horsley Drive including NSW Ambulance, Kartine, STARTTS, aged care, Heiden Park Lodge and Fairfield Liverpool Youth Health Team (FLYHT) Health Centre.

Within the neighbourhood, there are also a number of Places of Worship, that represent the diversity of the local community and their cultural backgrounds.



"...we can ensure that communities...have communal spaces between the buildings and in the courtyards, offering diverse spaces with active building frontages, adding an element of human scale..." - Helle Søholt, CEO Gehl

KEY PLACES CONTINUED



1
CARRAMAR RAILWAY STATION



4
STUDLEY PARK



7
CARRAMAR PUBLIC SCHOOL



2
PROSPECT CREEK EDGE



5
CARRAMAR BRIDGE



3
WATTLE AVENUE SHOPS












8
THE HORSELY DRIVE SHOPS



6
HISTORIC BLAND TREE

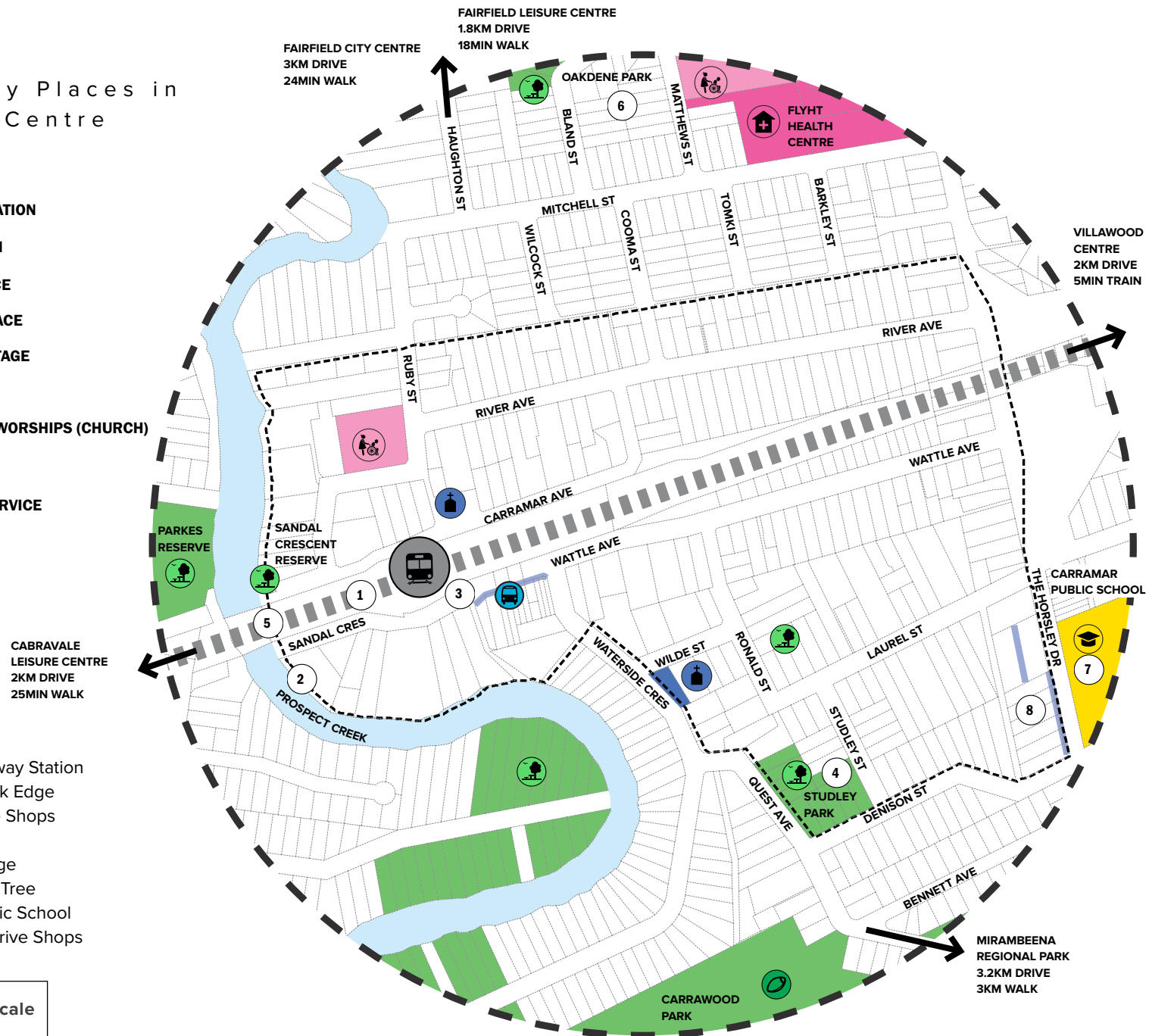
Map of Key Places in Carramar Centre

LEGEND

-  RAILWAY STATION
-  BUS STATION
-  GREEN SPACE
-  LEISURE SPACE
-  SHOP FRONTAGE
-  SCHOOL
-  PLACE FOR WORSHIPS (CHURCH)
-  AGED CARE
-  MEDICAL SERVICE
-  TRAIN LINE

KEY PLACES

1. Carramar Railway Station
2. Prospect Creek Edge
3. Wattle Avenue Shops
4. Studley Park
5. Carramar Bridge
6. Historic Bland Tree
7. Carramar Public School
8. The Horsely Drive Shops



SOCIAL CONTEXT

The population of Carramar suburb is much smaller compared to its surrounding neighbourhoods, however it is experiencing gradual residential growth. Whilst the median age is 37 years, there is a community of elderly people in Carramar, with health facilities such as nursing homes and hospitals available to support them.

Key Social Statistics:

3,773
POPULATION



THE MEDIAN AGE IS
37 YEARS



MEDIAN WEEKLY
HOUSEHOLD
INCOME
\$926

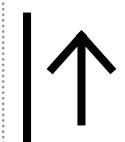


FAMILIES
66.8%
IS THE MOST COMMON
HOUSEHOLD
COMPOSITION



11.3%

OF SUBURB ARE AGED OVER 70 YEARS OLD (ABOVE GREATER SYDNEY AVERAGE 9.5%)



RESIDENTIAL GROWTH
RATE OF **+399**
(2020-2036 - FORECAST ID)



THE MOST OCCURRING
DWELLING STRUCTURE



IS **FLATS OR
APARTMENTS**

(56%), **SEPARATE HOUSE** (38.4%)
AND **SEMI-DETACHED** (4.4%)

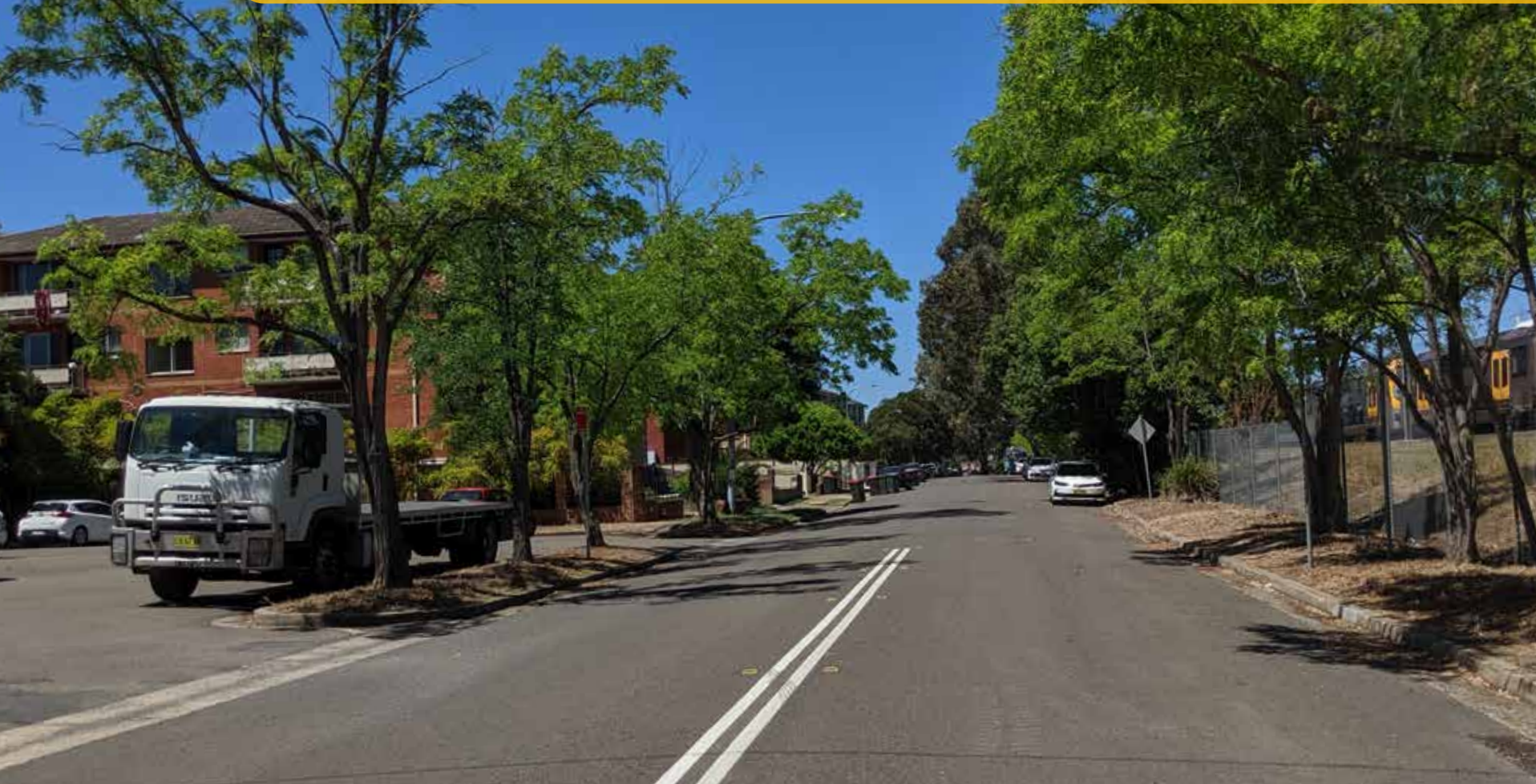


21.2%
OF WORKERS

**TRAVEL TO WORK BY
PUBLIC TRANSPORT**
(TRAIN, BUS)

“Design is both a process and an outcome – a way of thinking and a result of making”

- Better Placed



ECONOMIC CONTEXT

The retail strip along Wattle Avenue and the commercial strip along Horsley Drive are central attributes of the local centre of Carramar. Both precincts are near other key places, including the train station and school, respectively, however they are considered to be quite underutilised.

Local Centre

Classified as a 'Local Centre' which is defined as a centre providing major weekly food shopping and convenience retail needs for the population of more than one suburb. Carramar provides two areas that offer shopping and retail needs: Wattle Avenue Retail Strip and The Horsley Drive Commercial Strip

Wattle Avenue Shops

Wattle Avenue retail strip is set within a mature leafy setting, with good proximity to the train station and surrounding residents. It currently has a very limited amount of services and offering, including a news agency, grocery store and a post office.

The Horsely Drive

Located on The Horsley Dr between Laurel and Denison Streets - has off street parking and a mix of uses including commercial spaces, affordable wholesale and luxury goods related stores. This centre appears to rely on vehicular access with a car park (private "public domain") with council strip along

The Horsely Dr operating as a bus stop and street verge. The retail area has a generally tired and run-down appearance that does not encourage lingering but offers good proximity and potential amenity to address the School and main street.

Interesting statistics:

**THE MOST COMMON
OCCUPATION** IS **LABOURERS** (19.5%),
MACHINERY OPERATORS & DRIVERS (15.3%) AND
TECHNICIANS & TRADE WORKERS (14.4%)



44%
HOUSEHOLDS RENTING
(ABOVE GREATER SYDNEY AVERAGE 32.6%)
34.3% RENTING **PRIVATELY**
9.6% RENTING **SOCIAL HOUSING**



Source: ABS Estimated Resident Population 2019, ABS Carramar, 2016, and Forecast ID, 2036 Carramar

ECONOMIC STRENGTHS

- Location along major railway line.
- Proximity to regional roads, providing high level access by private car transport and supporting goods deliveries.
- Affordability and proximity to local community services and school.
- Local community in need of daily needs shopping as the population and density increases.
- Mature tree canopies, contributing to aesthetics and quality of place.
- Unique natural and recreational setting has the potential to provide a suitable backdrop to a distinctive retail offering.
- Proximity to neighbouring recreational assets including Fairfield and Cabravale Leisure Centre and Villawood Woods Action Centre with rock climbing, swim school, play space and bowling.
- Centre location is setback away from major roads, allowing for more comfortable amenity to support local retail and dining options.
- Prospect Creek, Sandal Crescent Reserve and leafy quality of centre supports future health, wellbeing and recreational business sector opportunities.
- Commuters from railway station, supports 'daily needs' customer market.

ECONOMIC CHALLENGES

- Neighbourhood centre is small with limited offering.
- Proximate residents have low disposable income.
- Low reputation and branding as a business centre that provides a point of difference or interesting offer.
- Market demand for local retail, with competition from nearby local centres, including Fairfield, Cabramatta and Villawood.
- Tired and aged public domain impacting the quality of retail offering and local offering experience.
- Lack of after-hours and evening economy.
- Distinct recreational destinations (Prospect Creek and Sandal Crescent Reserve) could be major attractors but are not well-connected to the town centre.

ENVIRONMENTAL CONTEXT

Movement & Accessibility

Train Station

Carramar is serviced by its own Train Station, increasing the level of accessibility to the area. This convenient mode of transportation provides connectivity to the surrounding suburbs, which in turn encourages visitors to the centre for both socialisation and employment opportunities.

Cycling

Carramar is also linked by a cycleway along Orphan School Creek which connects the edge of the area to its surrounds as far as Mirambeena Regional Park, Bankstown. This cycleway provides predominantly recreation rather than commuter opportunities as it does not connect to the centre's core amenities or train station. The cycleway that links to the train station and centre is located over the bridge and currently does not connect well to Carramar centre on The Horsley Drive. There is however a locally-known on-road cycleway connecting to Fairfield City Council through Fairfield Park, but lacks wayfinding and signage.

Walkability + Car Dependency

Carramar possesses a Walk Score of 49 defining Carramar as a 'Car-Dependent neighbourhood'. This is evident from the high number of cars parked around the centre as well as surrounding the train station. This also reflects that people do not use alternative modes of transport to access the train or amenities within the centre as they are car dependent. This car dependency is reinforced by the generous provisions of commuter parking and on street parking along both sides of the station.

Street Network

The street network within Carramar serves primarily vehicle uses and encourages people to pass through rather than walk, cycle, stop and linger. Its main streets relate to the train station. Wattle Avenue to the south of the station and Carramar Avenue to the north of the station are connected by the Sandal Crescent underpass which is located next to Sandal Crescent Reserve and Orphan School Creek. Both are small local streets providing a one lane carriageway in each direction.

Wattle Avenue includes on street parking on either side. On the north side is some tree planting and on the south side is the footpath which has basic amenity including bins and limited basic metal bench seating.

Carramar Avenue features more mature trees on either side of the street providing significant shade. Footpaths on Carramar Avenue are inconsistent with frequent breaks and dead ends. Both streets feature pedestrians' crossings to provide access to the train station underpass. The Carramar Avenue crossing has been upgraded recently.



Carramar centre, view through to train station entry. Source: RobertsDay

Built Form & Land use

Residential

Carramar is predominantly low density residential featuring mostly single storey detached homes. Density increases slightly closer to the train station and Prospect Creek.

Retail + Commercial

There are two small neighbourhood centres within Carramar that contain the area's limited retail and food and beverage offerings. These are along Wattle Avenue, adjacent to the train station and along The Horsley Drive. There are approximately 10 restaurants, bars and coffee shops in Carramar, and whilst limited in numbers, they are specialty shops (affordable wholesale and luxury goods; gelato, pistizzi and cake merchant). People in Carramar can walk to an average of 0.8 restaurants, bars and coffee shops in 5 minutes.

Other commercial uses include a limited number of key community services within the neighbourhood centers and spotted within the residential areas. These include a nursing home, NSW ambulance centre and various not-for-profits, including family-based services.

Heritage

Key heritage assets within Carramar include Carramar Railway Station (originally names South Fairfield Station) and the steel Sandal Crescent Railway Bridge, built as part of the extension of the Lidcombe-Regenets Park Line to Cabramatta, constructed in the early 1920sa. The structure provides landmark qualities and complements the setting within the river parkland at Prospect Creek.

Carramar is also home to one of Sydney's oldest trees, the Bland Oak, planted in 1830s by William Bland.

Prospect Creek and Open Spaces

Historically, Prospect Creek was the focus of recreation and meeting place for social gatherings for the community with trails for walking and recreational areas for boating. Due to development backing onto the river frontages with limited visual and physical connectivity between the neighbourhood and the creek, Prospect Creek has become underutilised and the "back waters" (Carramar, Urban Design Study).

Prospect Creek is a significant open space system that forms part of the Sydney Green Grid. Other open spaces within the study area include Carramar Avenue Park and Sandal Crescent Reserve. Whilst the combination of the creek and the neighbouring open spaces present as significant assets to the centre, current conditions are constrained due to difficult access, challenged perception of safety due to lack of passive surveillance and limited activity.



Sandal Crescent Reserve, Carramar. Source: Google

CULTURAL CONTEXT

The most common country of birth in Carramar is Australia (37.6%), followed by Vietnam (14.6%) and China (3.6%). Over 66% of the population speak another language other than English, which is significantly higher than Greater Sydney (35%). Whilst the diversity in culture is not as prevalent in Carramar compared to other centres across Fairfield, residents still consider community and cultural activities extremely important to their sense of identity and hope to see cultural representation increase across the neighbourhood. As shown below, there is currently a limited number of community events in Carramar, with community-based organisations such as Woodville Alliance providing the means for most social activities held in the area. Residents have expressed a desire for there to be more activities for various age groups, particularly for children and youth.

Key suggestions included: (2163 In Focus Report, 2018)

- Before and After School Care service
- Dialogue between services and community regarding events such as a monthly BBQ in the park, newsletter and an online "what's on" portal
- Use of abandoned buildings within the area to provide community services



Woodville Carramar Community Hub offers free school holiday activities
Source: <https://www.facebook.com/pg/woodvillealliance/posts/>



The Community Centre located in the heart of Villawood/Carramar is a key community gathering point. Located along Mitchell St and The Horsley Drive, provides meeting rooms, access to information via internet, phone or photocopier, advice and referral services, financial counselling, Centrelink support, tenancy advocacy and more.



Canley Vale High School is a local community hub located across Prospect River to the west of Carramar. CVHS enables hiring of the school's facilities to members of the community and education groups when not in use by the school.

Spaces and Types of Events held in Carramar City Centre to date

NAME	TYPE	WHAT'S ON	SIZE	WHEN	LOCATION
Carramar Community Hub (Woodville Alliance)	PE	Social Activities, Educational Activities, School Holiday Programs	S - M	Weekly	130 Wattle Avenue, Carramar
Carramar Early Learning Centre (Woodville Alliance)	PE	Social Activities, End of year celebrations	S - M	-	7 Karella Avenue, Carramar
National Tree Day	PE	Environmental Activities	M	Annually	Carrawood Park Waterside Crescent

NOTES

Type = (Festival, Pop-up Exhibition, Public Event, Private Event) Size = Size has been categorised into Small, Medium, Large and Extra Large and refers to both the dimension of the space required for that event and the number of people that typically attend.

For example, a Small event could be a pop-up exhibition that requires an intimate setting to view artworks by a group of 30-50 people at a time. An Extra-Large event could be a festival such as the Cabramatta Moon Festival that is attended by 90,000 people every year and which takes place across the entire town centre of Cabramatta. No. of people = That attended last year



Carramar Early Learning is another Woodville Alliance facility hosting community events such as the end of year celebration.



National Tree Day is one of Australia's most popular community tree-planting and nature care events.

INFLUENCES ON CHANGE

Identifying the future character of Carramar requires an understanding of external factors that will shape the community in the future. A number of key external factors influencing change have been identified, ranging from social, environmental, economic and cultural spheres and noted from the place audits, desktop research and consultations with stakeholders.



Changing demographics and aging population and increasingly living in smaller dwelling sizes.



Increasing median weekly household income, increasingly university educated and reduced levels of unemployment.



Rail services developing and direct CBD service impacts following the completion of the Metro Train service.



Increasing population density with increasing daily needs and potential shopping market.



Market demand and aspiration for densification.



Enhancement of Prospect Creek and associated green spaces as key recreational facility.



Increase in use of active transport cycleway networks to access local services.



Aspiration for growth in 'Recreational Tourism'.

“

We can create ever-evolving, gentle urban symbioses, discovering opportunities for healthier, more sustainable, more enjoyable and more meaningful relationships, by being neighbours.

”

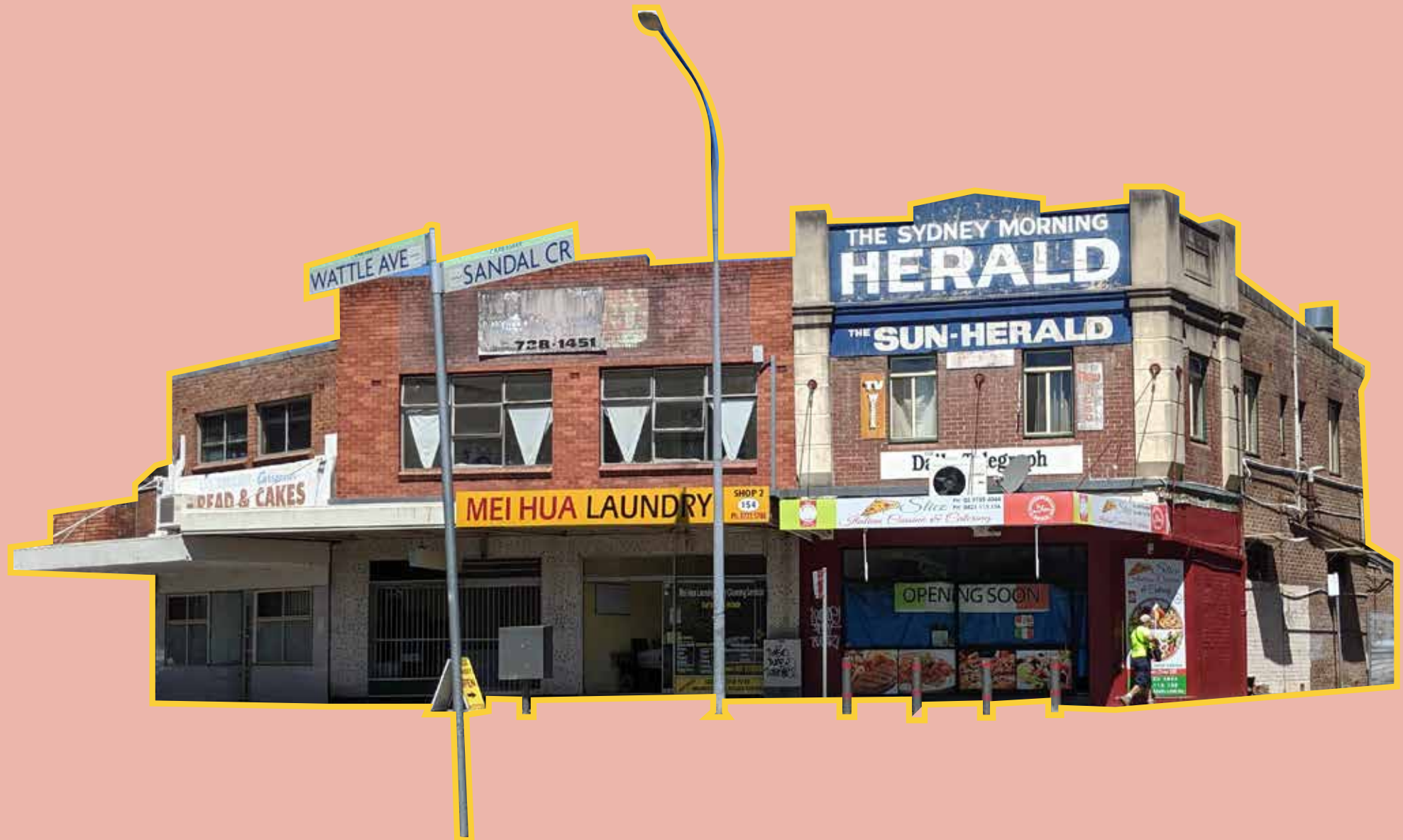
David Sim, Soft City



Chapter 2

Place Identity

-
- 01. WHAT IS PLACE IDENTITY?
 - 02. DEVELOPMENT OF CURRENT PLACE IDENTITY
 - 03. CURRENT PLACE IDENTITY
 - 04. FUTURE PLACE IDENTITY
-



01. WHAT IS PLACE IDENTITY?

INTRODUCTION

Place identity is a relatively recent concept which can be defined as below.

“Identity represents small-scale places, such as city quarters or street level, to provide features that create a recognisable image of the place and its residents to differentiate from other places. It provides special feelings through physical, social, sensory and memory perspectives; such feelings include both positive and negative emotions.”

Place Identity is an important dimension of social and cultural life in urban areas, and is strongly linked to place attachment and sense of belonging. Feelings of attachment and belonging are important crucial to establish an emotional and cognitive bond with a place, and lead to feelings of security and sense of community.

Place Identity is all-encompassing - it is understood by the activities and events that take place across Fairfield’s centres, and how people perceive it. It is not only confined by its physical form and boundary, but also the human experience and what form of psychological attachment people have with the precinct.

Why Study Place Identity?

The diversity of urban centres reflects the diverse identities in our society. It is clear that the Centre’s of Fairfield carry a strong emotional connection for some people, and it is important that these layered and complex connections are recognised during the planning of the Public Domain Plans. The intended outcome is an authentic, special and hyper-local place.

The Past, Present and Future

RobertsDay and EP have developed a framework to understand the past, existing and desired Place Identity of Carramar Town Centre. This is communicated in the following sections.

138

WESTERN UNION WU
Send and
receive
money here

We are one
of over 3,500
Post Offices
providing you
with access
to banking
services.



AUSTRALIA POST



Welcome
to Australia Post
We're here for you
every day.

Bank
in-store
today.

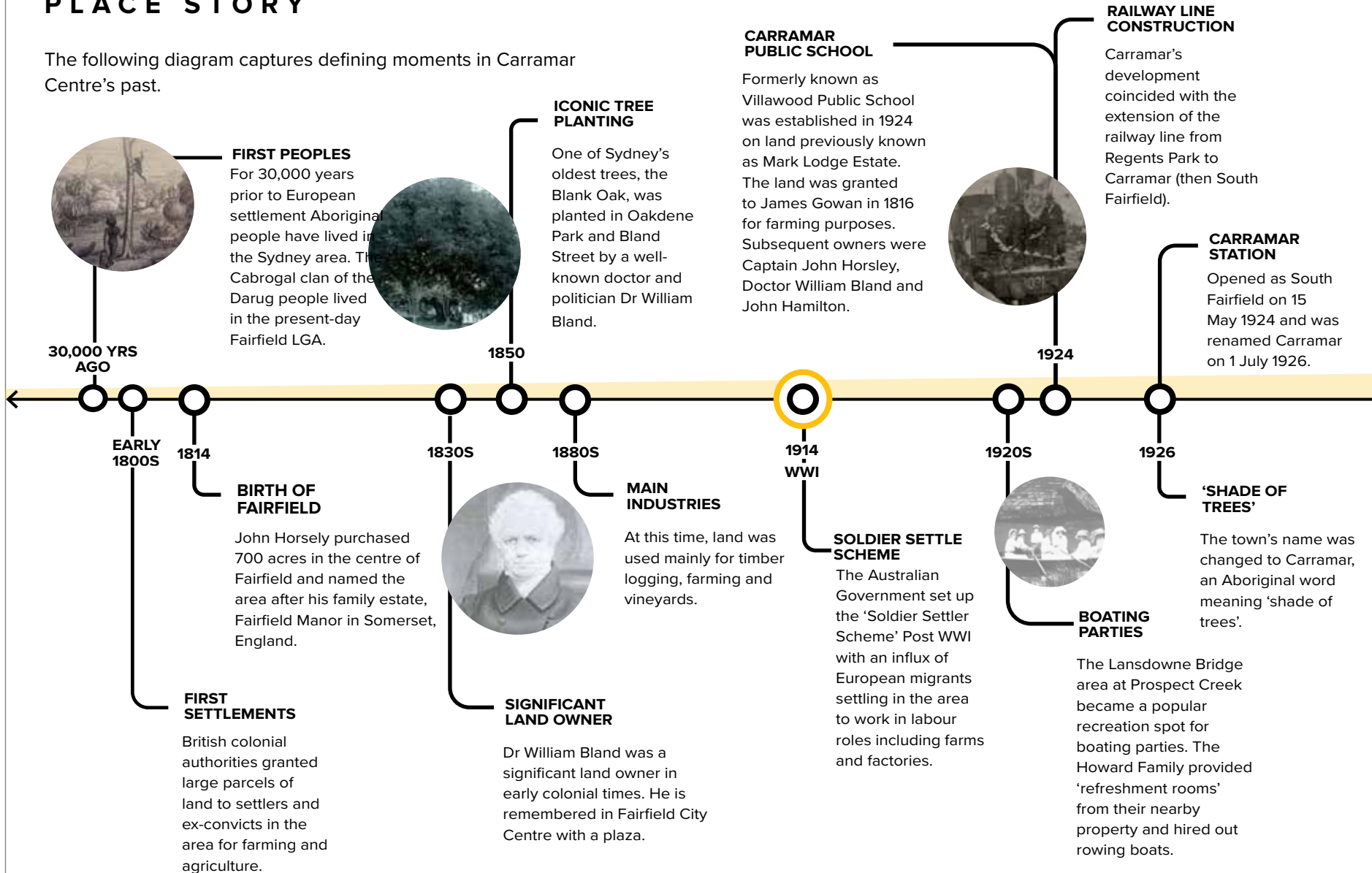
FAX
in-store
available

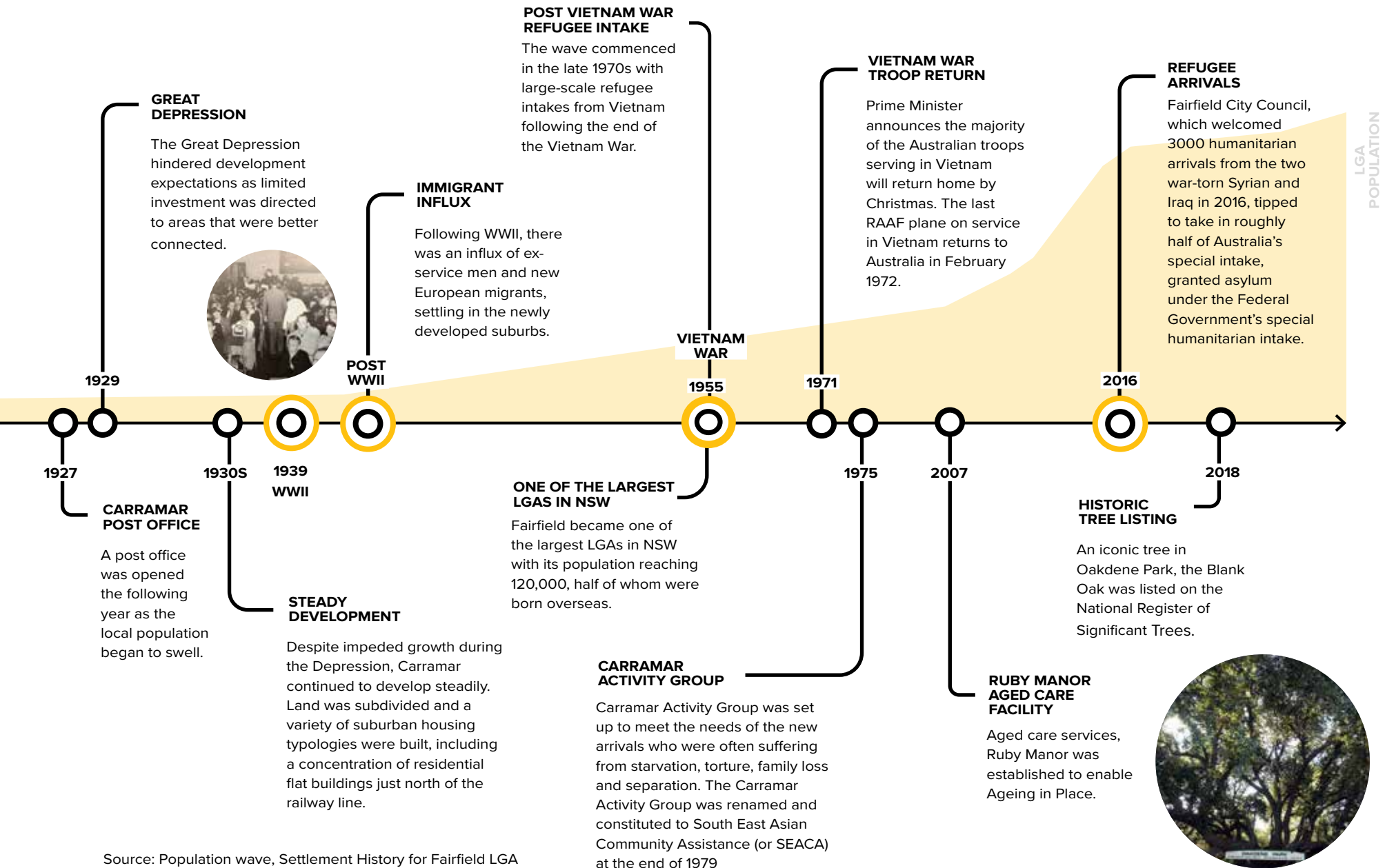


02. PAST PLACE IDENTITY?

PLACE STORY

The following diagram captures defining moments in Carramar Centre's past.





Source: Population wave, Settlement History for Fairfield LGA according to Profile ID, <https://profile.id.com.au/fairfield/about>

HISTORIC SNAPSHOTS

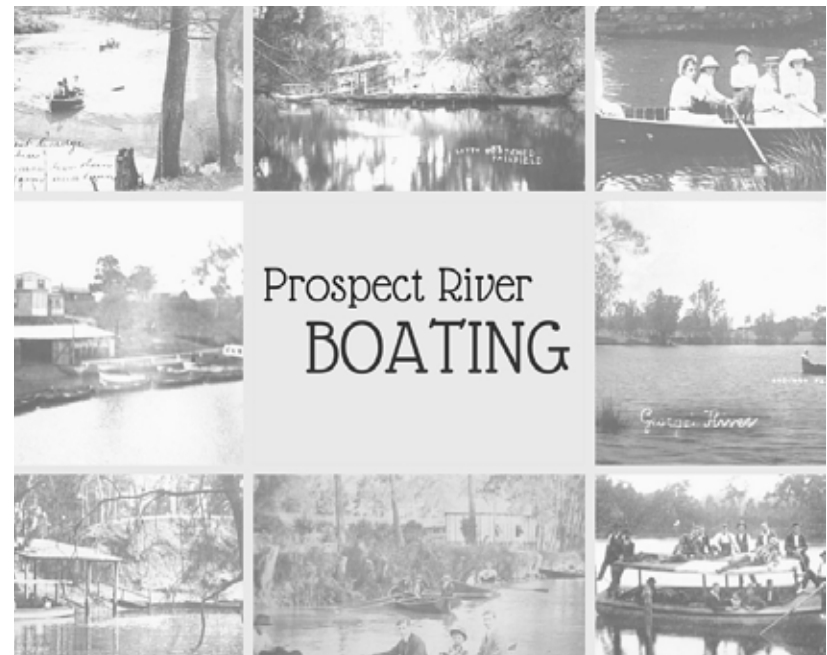
A look at two historic places that still exist within Carramar Town Centre today and continue to have an influence on the identity of its public domain.

PROSPECT CREEK

During the 1920s, the Fairfield area was well-known as a picturesque recreational spot for picnics, boating and swimming. With landscaped gardens and country residences along the water's edge, boat trips and 'boating parties' down Prospect Creek were a particularly popular tourist attraction. Passing under the archway of the Lansdown Bridge and seeing the charming von Heiden estate (now Heiden Park) were considered to be some of the highlights of these boating trips.

The federation-style tower (thought to have been a pigeon loft or grain store) was part of the series of buildings on the von Heiden estate and still features in the park today. Another highlight was the Howard Family's 'refreshment rooms' and hired rowing boats they provided to picnickers from their property along the river.

"With landscaped gardens and country residences along the water's edge, boat trips and 'boating parties' down Prospect Creek were a particularly popular tourist attraction."



Prospect River Boating

SWIMMING & FISHING

The Fairfield area was also known for its many swimming and fishing spots.

Residents gave their favourite swimming spots unofficial names such as the 'Pirate's Hole,' 'Rocky' and 'Sandy' waterholes, which were on 'Horseshoe bend' on Prospect Creek, while 'Rocky Bottom,' 'Gales Creek' and 'Lukey's Hole' were on Orphan School Creek.

Some residents also remember jumping from the top of the Carramar Rail Bridge into the Georges River.

"Some residents also remember jumping from the top of the Carramar Rail Bridge into the Georges River."



Swimming spots along the Prospect Creek

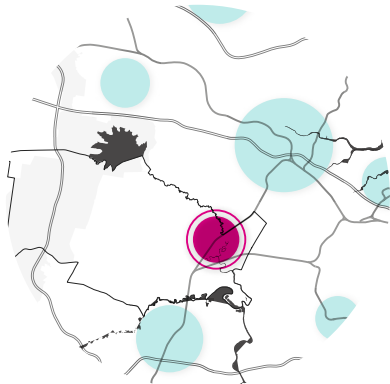
03. CURRENT IDENTITY

PLACE ATTRIBUTES

Place Attributes are key characteristics of a place. These have been understood through a range of research methods including desktop research, place audit, and stakeholder engagement.

LOCALITY SCALE

This scale identifies attributes commenting on Social - Demographic.



A place of new settlement



- 11% of population have moved there in the last 5 years
- 14% of the population is Vietnamese
- Low household income and low SEIFA score. 44% of households are renters.

Disconnected



- Disconnected by the creek from neighbourhoods to the west
- Railway line acts as a barrier, disconnecting the north and south of the centre, limiting access
- Poor pedestrian and cycling connectivity to surrounding neighbourhoods
- Limited public transport options. Residents rely on train to get to other centres for interchange
- Bus stops to River Avenue: 400 metres away but with limited pedestrian paths to access the station
- There is a council bus to the station, but it has limited operation
- Town centre is surrounded by a high density of 3-4 storey walk-up apartments accessing the town centre for everyday needs

“ Streets and their sidewalks—the main public places of a city—are its most vital organs.

Jane Jacobs

”



PLACE ATTRIBUTES CONTINUED

DISTRICT SCALE

This scale identifies attributes commenting on:

Memory - Social constructs and perception.

Physical - Urban pattern (block and street patterns), Typologies & grain quality, building heights, green networks, land use & activities, heritage areas, and key spaces & view corridors.

Physical/Social/Memory - History.



Constrained access, utilisation and an imbalance of green space



- Carramar has a high supply of corridor open space, generated from the flood prone areas adjoining the creek corridors – however this is focused along the creek line – and is often poorly accessible and used by the public.
- Towards the north of the railway, there is conversely a lack of open space serving the residential neighbourhood (also identified in Carramar, Urban Design Study)



- Most residents to the south of the railway line can access a park within a 400m radius. However, for residents north of the railway line there are no parks within easy walking distance.
- Carrawood Park, in the south, is largely sports focused and lacks informal and social uses within the space.



- Studley Neighbourhood Park is valued by the community and contains play equipment, but lacks sense of enclosure, passive surveillance and structured tree planting. This is further compounded by its irregular shape and blank edges.
- Centre turns its back on Orphan School Creek
- Sandal Crescent Reserve is the only access point to the creek beneath bridge
- Limited open space to north neighbourhood
- Underutilised green spaces and natural assets

Constrained connections to the creek and open spaces



- Parkes Reserve, Orphan School Creek headland and Carrawood Reserve and oval are significant open spaces but have limited connections to the centre
- Limited visual connections and reference between the centre and the creek
- Headland parks (focused at bends in the creek) are difficult to access and are often perceived as unsafe on account of lack of passive surveillance and little activity.
- Streets are disconnected from the creek by residences

Challenged amenity



- Sandal Crescent is informal and lacks sense of safety and security.
- Carrawood Reserve is somewhat sparse and lacks safety, security and things to do
- Limited pedestrian footways and kerb crossings to verges
- Narrow pedestrian and cycle underpass under railway at Station

Contrasting through traffic conditions to east and west



- No heavy through traffic to western hub
- Busy through and heavy traffic to eastern hub
- Carramar has two small retail / commercial strips
- The western strip adjoining the rail station does not lie on a through route

PLACE ATTRIBUTES CONTINUED

STREET/BLOCK SCALE

This scale identifies attributes commenting on:

Physical - Movement & Accessibility, Street Network, Built Form & Landuse and Key spaces.

Physical/Social - How residents interact with space/patterns of use.

Memory - Stories from people about place, Sites with particular meaning for people.



Soft and green, but lack of trees and vegetation in public domain



- Multiple views and vistas of green character
- Trees focused in private domain and within railway boundary

Large setbacks with trees and vegetation



- Tall tree canopies providing shade
- These play an important role in greening the street with only 11% of streets with some awning and public domain street canopy cover

Tired and aged in appearance



- Streetscape and built form to both hubs appears tired and aged, in particular to the east, to Horsley Drive
- Vacant shops
- Large shop windows potential to create an active interface to the street, allowing the private spaces to become publicly viewed

“

...we can ensure that communities...have communal spaces between the buildings and in the courtyards, offering diverse spaces with active building frontages, adding an element of human scale...” - Helle Sørholt, CEO Gehl

”

SUMMARY OF PLACE ATTRIBUTES

OPPORTUNITIES

No heavy through traffic to western hub
A place of new settlement
Landscaped setbacks with trees and gardens
Multiple views and vistas of green character
Tall tree canopies providing shade
Tree canopies on private domain contribute greenery and shade to public domain
Prospect Creek access under bridge at Sandal Crescent Reserve
Proximity to numerous parks and open spaces
Proximity to Fairfield City Centre and Villawood Town Centre
Proximity to Cabravale and Fairfield Leisure Centres
Railway Station linking Sydney, Bankstown and Liverpool
Proximity to a natural creek edge
Historic Place Story, from Indigenous through to First Settlement times

CHALLENGES

Busy through traffic and heavy traffic to eastern hub
Streets are disconnected from the creek by residences
Limited public access, connection or reference to the creek corridor
Railway divides north and south neighbourhoods and limits access by car, foot and cycle
Restricted access across creek to other open spaces and neighbourhoods
Poor pedestrian and cycling connectivity to surrounding neighbourhoods
Bus stops to River Avenue: 400 metres away and with limited pedestrian paths to access the station
Limited pedestrian footways and kerb crossings to verges
Limited open spaces north of the Railway line for residents
Tired and aged appearance to both hubs in particular the eastern to Horsley Drive
Underutilised green spaces and natural assets
Lack of trees situated in public domain
Carrawood Park is largely sporting focused and lacks informal and social uses
Narrow pedestrian / cycle underpass under railway at Station

The attributes will be addressed within the Chapter 3 - Place Framework, Strategic Briefs and Chapter 6 - Structure Plan of the report.



A VISION FOR CARRAMAR TOWN CENTRE

Carramar, Aboriginal for “shade of trees” is a centre defined by its distinct natural beauty.

Radically different in physical geography to other local centres in Western Sydney, it is inherently special – happily located on the dramatic Prospect Creek and beneath the tall, leafy canopy of trees.

Carramar’s streets weave to and from its tranquil waterfronts, paving the way for walking and cycling routes to local shops, places of work and public transport.

Carramar’s special cultural and demographic diversity is embodied in its physical characteristics - in its streets, public spaces and shopfronts.



04. FUTURE IDENTITY

The four themes identified below, support the Centre's Future Vision, describing the intended character outcomes for Carramar Town Centre's Future Place Identity.

CARRAMAR TOWN CENTRE IS...

TRANQUIL

Sitting in the shade of tall trees, and with physical and visual access to the creekfront, Carramar is nestled within nature.

It's a place where people feel calm and relaxed, and enjoy the respite from fast-moving traffic, bustling shopping centres and dominating infrastructure.

RESTORATIVE

Carramar is conducive to a healthy lifestyle for people of all ages. Further, it's a reminder of the past where simplicity and slow pace create sense of calm and peacefulness, where people can quietly ride their bikes to the nearest centre or slowly walk their dog to the park.

VILLAGE

Just like a village, in Carramar people know their neighbours. The friendly village atmosphere provides the perfect home for current and residents.

Young children can safely walk to school or the local park, and there is a sense of belonging and attachment to the place, especially for newly arrived migrants, epitomised by people socialising in the village centre.

LEAFY

The centre's shady and soft appearance - where tree canopies arch above and greenery lines the streetscape - is a cool, green, riverfront oasis.

ON STREET
TRADING &
PUBLIC
LIFE

RICH SENSORY
EXPERIENCES

HEALTHY
LIFESTYLE

SENSE OF
CALM &
PEACEFULNESS

FRIENDLY
ATMOSPHERE

SENSE OF
BELONGING

EASY ACCESS TO
THE CREEK

NESTLED IN
NATURE



PRECEDENTS

BERRI HISTORIC RIVERFRONT WALK, SA

THEME: TRANQUIL

Located alongside the riverfront, the easy 1.4km walking trail begins at a mural beneath the river bridge. The walking trail leads to a local cafe at the marina. The walking trail has complete waterfront visual connectivity, with steps, jetty and ramps for physical access. The walk also connects to an extended recreational circuit trail which includes scenic views, Aboriginal heritage murals, war memorials, historic crossings and a ferry landing.

Key measure:

- Waterfront public access: 100%

THEME: LEAFY

The Riverfront is surrounded by mature tree planting fronting the water, providing comfortable amenity and relief for people to enjoy.

Key measures:

- Tree Canopy: 27%
- Green View Index: 30%

THEME: RESTORATIVE

Along with the grassy open space area fronting the water, the Riverfront is a local place for residents to enjoy a diverse range of everyday activity such as walking, cycling and exercising overlooking the water and scenic views. Key walking routes connecting to other green links provides a continuous active recreational circuit for people to enjoy.

Key measure:

- Diversity of open spaces: 6/11



GLEBE POINT ROAD, GLEBE

THEME: VILLAGE

Access to shops, services and goods set along easy and comfortable walking conditions, with street trees lining the edges, tactile materials and soft elements including planters with feature flowers, views to surrounding assets and clear wayfinding contribute to a people-prioritised village setting.

The consistent fine grain built form aligned along the street with the provision of active frontages, awnings and slow traffic support an engaging and relaxed local scene.

Key measures:

- Building entries: 15-20 per 100m
- Distance from kerb to facade: 1.5-3.5m
- Pedestrian through-zone: 2.4m
- Hybrid space extending into public space: 1.5-2.1m





Chapter 3

Place Framework

01. PLACE PRINCIPLES
02. STRATEGIC BRIEFS



01. PLACE PRINCIPLES

From the Best Practice Frameworks identified earlier in the document (reference Appendix 4 - Best Practice Frameworks), a series of core values have translated into 'Place Principles'. These Place Principles become pillars of ensuring future outcomes align and deliver best practices.



People Places

Places where people are prioritised over other forms of transport, and the pleasures of everyday life are accommodated for. These are places that are human in scale, and where people can connect to one-another.



Places for all

Inclusive places where people of all ages, backgrounds and abilities want to spend time.



Comfortable & Interesting

Places that people are drawn because they provide pleasant environments to meet, gather and stay. These are places that provide ease of movement, shade and shelter and include interesting things to see and do.



Celebrate Public Life

Places that emphasise street and public life - where everyday activities are a natural part of the public realm



Healthy Places

Places that encourage physical movement and healthy lifestyles. These are places that are safe, have clean air, aren't too noisy, and where people choose to walk and cycle.



Functional

Places that work for their intended use and have the potential to adapt and change if necessary.



Place-Responsive

Authentic places that the community has a sense of attachment to, and ownership over. They reflect the functions and values of the historic and living cultures.



Environmental & Resilient

Places that contribute positively to environmental outcomes. They are adaptable, durable and minimise energy and water consumption.

02. STRATEGIC BRIEFS

The Public Domain Plan for Fairfield Centre's align with Council's four year review of the Delivery Program cycle, that sets out the projects, programs and services Council has committed to deliver.

The following strategic objectives have been informed by the four Place Identity themes underpinning the Future Vision of the centre, Place Principles, place context and consultation outcomes with stakeholders.

TRANQUIL

Sitting in the shade of tall trees, and with physical and visual access to the creekfront, Carramar is nestled within nature.

It's a place where people feel calm and relaxed, and enjoy the respite from fast-moving traffic, bustling shopping centres and dominating infrastructure.

ACCESS TO
CREEK

NESTLED IN
NATURE



Planning & Design Objectives	Create a shared, community focal point for the community that allows for gatherings of locals and visitors.
	Facilitate the development of identifiable, distinct places that allows people to form a mental connection and attachment to them.
	Improve connections between the small retail hubs, the neighbourhoods and across existing physical barriers.
	Improve safety and security of the centre.
Events & Activation Objectives	Promote calming and relaxing conditions to facilitate social connection, amenity and physical comfort in the centre.
Economic Development Objectives	Leverage the natural setting appeal of Carramar Town Centre that will attract new businesses.

VILLAGE

Just like a village, in Carramar people know their neighbours. The friendly village atmosphere provides the perfect home for current and future residents.

Young children can safely walk to school or the local park, and there is a sense of belonging and attachment to the place, especially for newly arrived migrants, epitomised by people socialising in the village centre.



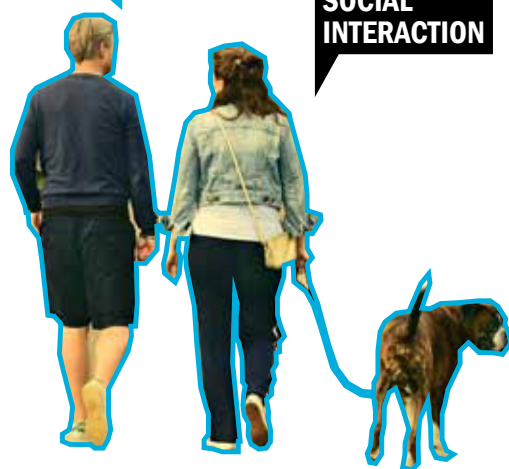
Planning & Design Objectives	Improve existing - and create new - publicly accessible places that create a sense of peace and quiet.
	Retain streets without heavy traffic that are uninhibited by overbearing noise, provide for easy access, and have a strong green character.
Events & Activation Objectives	Facilitate ongoing collaboration across the community.
	Enhance the display of daily life activities in the public domain.
Economic Development Objectives	Improve the local centre role of Carramar.

RESTORATIVE

Carramar is conducive to a healthy lifestyle for people of all ages. Further, it's a reminder of the past where simplicity and slow pace create sense of calm and peacefulness, where people can quietly ride their bikes to the nearest centre or slowly walk their dog to the park.

SERENDIPITOUS
ENCOUNTERS

COMMON
SOCIAL
INTERACTION



Planning & Design Objectives	Improve the overall look and feel of the centre to make it more attractive.
	Enhance visual connectivity with the creek evoking a place that is embedded within nature.
	Ensure physical connectivity with the creek that allows people to move along it, dip their toes, throw stones and easily cross over bridges with views of the water below.
	Enhance existing local parks and create new parks to enhance the green character of the neighbourhood, enable physical activity, and encourage lively places across the day and week.
	Improve the active travel connections that Carramar can share with surrounding centres to help knit its social fabric and improve physical wellbeing by promoting walking and cycling.
	Improve active travel connections between local parks that create connected play and exercise spaces.
Events & Activation Objectives	Create opportunities for organised group exercise and wellness activities in public spaces.
Economic Development Objectives	Improve the visual attractiveness of shops and facades within the Centre.

LEAFY

The centre's shady and soft appearance - where tree canopies arch above and greenery lines the streetscape - is a cool, green, riverfront oasis.

SHADY
&
SOFT

COOL GREEN
OASIS



Planning & Design Objectives	Supplement existing tree canopy and green character that helps to cool local streets and public spaces.
	Conserve existing trees and enhancing gardens within private setbacks.
	Enhance the green identity of the centre by retaining views of green canopies from the retail centre.
	Improve the ecological quality of the creek corridor vegetation system.
Events & Activation Objectives	Encourage the use of green spaces and riverfront for relaxation and passive recreation.
Economic Development Objectives	Leverage Carramar centre's liveability qualities to attract business and investment.



Chapter 4

Activation + Economic Development

-
- 01. EVENTS AND ACTIVATION BRIEF
 - 02. ECONOMIC DEVELOPMENT BRIEF
-



01. EVENTS + ACTIVATION

INTRODUCTION

Place Activation refers to the activities that occur in a physical place. They bring energy to public spaces, create social connectivity and help build the identity of place. Where possible activations should align with the Future Vision, four Future Place Identity Themes and Objectives for the centre set out in the Strategic Briefs.

The role of Place Managers

The most cost-effective and powerful way for local government to support place activation is by allowing it to happen through community initiatives. With strong ties to the community, Fairfield's Place Managers have the embedded knowledge to champion and facilitate such initiatives. A place manager can:

- Liaise with internal and external stakeholders
- Improve internal processes to address regulatory blocks and barriers and make it easier for internal staff as well as local businesses and residents to activate places
- Be made responsible for the delivery of an holistic and place based program of events and tactical urbanism projects
- Promote place branding and economic development through events
- Get everyone working together towards activating places, and in the process breaking down internal and external silos, and building trust in local council



Example

“Fairfield Markets Concept - a celebration of food and crafts at the city’s gateway train station”



EVENTS AND ACTIVATION BRIEF

The following strategic Objectives and corresponding Key Actions identified below address the four Future Place Identity Themes underpinning the Future Vision of the centre.

TRANQUIL

Sitting in the shade of tall trees, and with physical and visual access to the creekfront, Carramar is nestled within nature. It's a place where people feel calm and relaxed, and enjoy the respite from fast-moving traffic, bustling shopping centres and dominating infrastructure.

Events & Activation Objectives	Key Actions	
Promote calming and relaxing conditions to facilitate social connection, amenity and physical comfort in the centre.	1	Provide natural vegetation buffering to create buffers between the pedestrian realm and traffic thoroughfares.
	2	Promote the increase of 'greening' by incentivising building facade treatments that reflect the natural character of the centre.

The Objectives set out in the Event and Activation brief are aspirations to consider to deliver socially and culturally beneficial place-based outcomes.

VILLAGE

Just like a village, in Carramar people know their neighbours. The friendly village atmosphere provides the perfect home for current and future residents. Young children can safely walk to school or the local park, and there is a sense of belonging and attachment to the place, especially for newly arrived migrants, epitomised by people socialising in the village centre.

Events & Activation Objectives	Key Actions	
Facilitate ongoing collaboration across the community.	3	Encourage participation and engagement of the community and business owners in the development of events and activities programme within the centre.
	4	Facilitate tactical activation initiatives to promote interactive and engaging activities within the centre, particularly near local shops and the train station.
Enhance the display of daily life activities in the public domain.	5	Promote outdoor dining and seating near local shops to encourage socialising within public spaces in the centre.

RESTORATIVE

Carramar is conducive to a healthy lifestyle for people of all ages. Further, it's a reminder of the past where simplicity and slow pace create sense of calm and peacefulness, where people can quietly ride their bikes to the nearest centre or slowly walk their dog to the park.

Events & Activation Objectives	Key Actions	
Create opportunities for organised group exercise and wellness activities in public spaces.	6	Develop a Cultural Strategy which includes a recreational precinct Trail integrating access to open spaces, water and wellness elements.
	7	Provide integrated public art, furniture and wayfinding elements along the precinct Trail that promotes exercise opportunities for all.

LEAFY

The centre's shady and soft appearance - where tree canopies arch above and greenery lines the streetscape - is a cool, green, riverfront oasis.

Events & Activation Objectives	Key Actions	
Encourage the use of green spaces and riverfront for relaxation and passive recreation.	8	Develop wayfinding elements to promote access to green and riverfront spaces.
	9	Support the development of a recreational programme of events in green and riverfront spaces.

02. ECONOMIC DEVELOPMENT

INTRODUCTION

Place-led economic development focuses on the unique features of a place, and using them to attract new investment and strengthen existing businesses. Because the way a place is perceived is formed by its strong, distinctive elements, place-led economic development is particularly important in today's age of tourism.

Types of place-led economic development include:

- Encouragement of local artists and musicians;
 - Facilitation of Business Improvement programmes;
 - Activation of public spaces to increase visitation; and
 - Communication of a place's businesses, event's and activities to a wider audience through place branding and marketing.
- This last point is explained in more detail on the following page.



Place branding

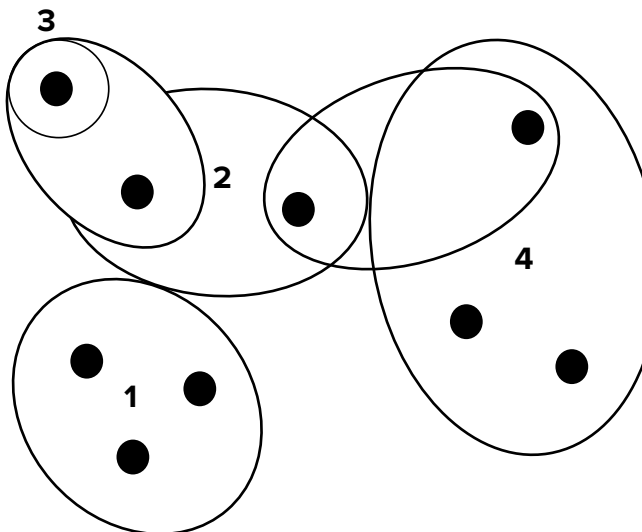
As part of wider urban strategies, place marketing and branding techniques are used in order to market, as well as promote change in a centre. In particular, research suggests that it is the cultural identity of a place that often becomes the subject of branding and form a strong, distinct element in their promotion.

Place branding can be useful for Fairfield City Council to promote its local centres to the public and in turn, drive economic development. It can also help council regarding cultural planning and prioritising funding allocations.

Place brand clustering

Based on analysis of Place Identity commonalities and differences, Fairfield's 9 centres have been clustered into 4 groups to assist council with Place Brand strategies. These clusters include:

1. Cabramatta, Canley Vale + Canley Heights
2. Fairfield City, Fairfield Heights
3. Smithfield + Fairfield Heights
4. Yennora, Carramar and Villawood



Illustrative overview of identity clusters of centres.

ECONOMIC DEVELOPMENT BRIEF

The following strategic Objectives and corresponding Key Actions identified below address the four Place Identity themes underpinning the Future Vision of the centre.

TRANQUIL

Sitting in the shade of tall trees, and with physical and visual access to the creekfront, Carramar is nestled within nature. It's a place where people feel calm and relaxed, and enjoy the respite from fast-moving traffic, bustling shopping centres and dominating infrastructure.

Economic Development Objective	Key Actions	
Leverage the natural setting appeal of Carramar Town Centre that will attract new businesses.	1	Promote Carramar's natural assets and recreational destination through the centre's brand positioning and marketing initiatives, appealing to health, recreation and wellness traders, in particular.
	2	Support local businesses that leverage alfresco opportunities that capitalise on the tranquil, leafy setting.

The Objectives set out in the Economic Development brief are aspirations to consider to deliver an economically beneficial and place-based outcome.

VILLAGE

Just like a village, in Carramar people know their neighbours. The friendly village atmosphere provides the perfect home for current and future residents. Young children can safely walk to school or the local park, and there is a sense of belonging and attachment to the place, especially for newly arrived migrants, epitomised by people socialising in the village centre.

Economic Development Objective	Key Actions	
Improve the local centre role of Carramar.	3	Support the provision of day-to-day retail and services needs that support local residents who can access the centre within walking distance.
	4	Leverage the village appeal of the centre through brand messaging and marketing collateral.

RESTORATIVE

Carramar is conducive to a healthy lifestyle for people of all ages. Further, it's a reminder of the past where simplicity and slow pace create sense of calm and peacefulness, where people can quietly ride their bikes to the nearest centre or slowly walk their dog to the park.

Economic Development Objective	Key Actions	
Improve the visual attractiveness of shops and facades within the Centre.	5	Work with existing local traders and new operators to identify unique opportunities to present, and promote the local centre.
	6	Develop a Business Improvement District programme.
	7	Work with local media to promote business achievements and case studies as an incentive to businesses to improve shopfronts and presentation.

LEAFY

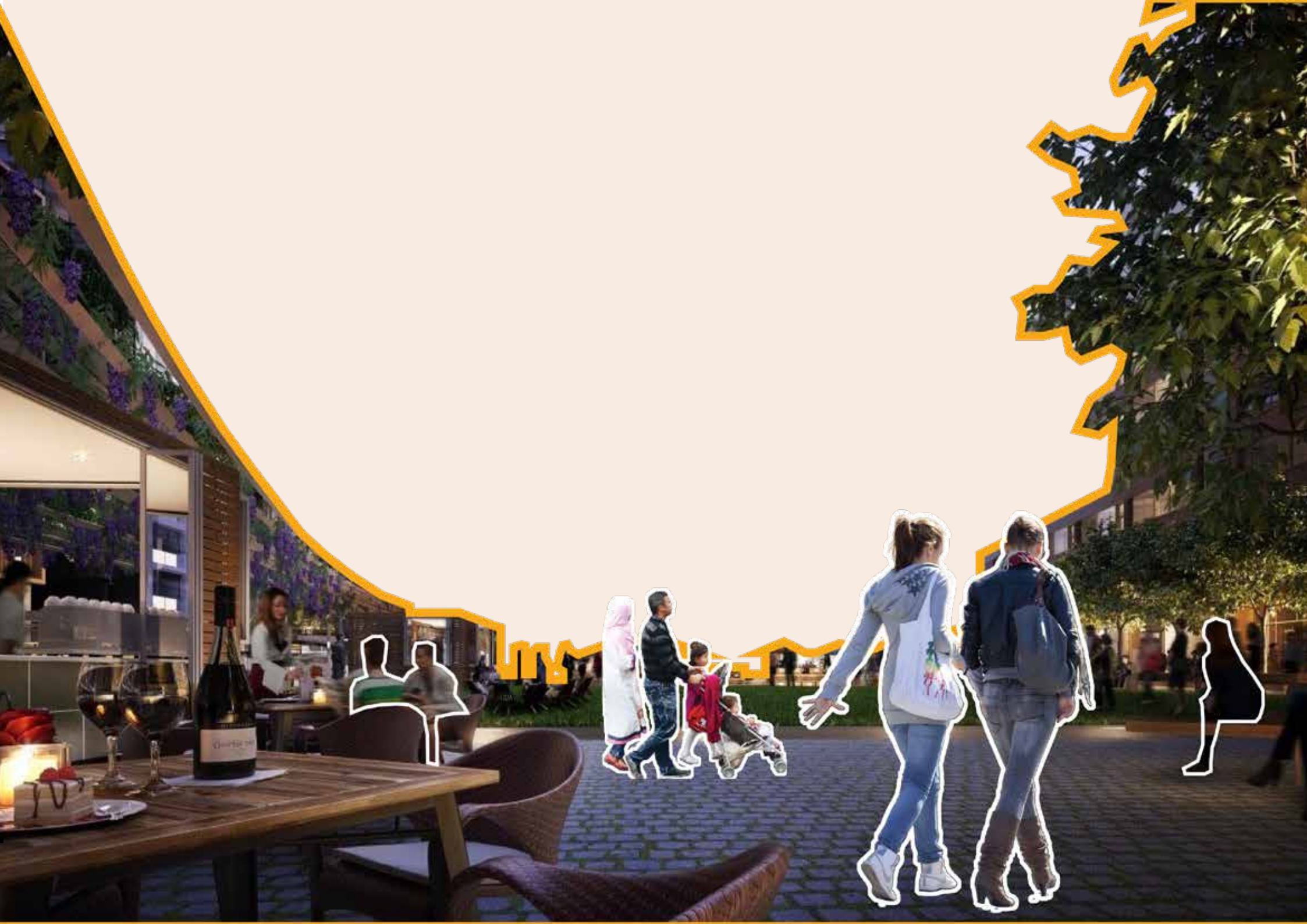
The centre's shady and soft appearance - where tree canopies arch above and greenery lines the streetscape - is a cool, green, riverfront oasis.

Economic Development Objective	Key Actions	
Leverage Carramar centre's liveability qualities.	8	Promote the green, tree-lined streetscape and accessibility to open spaces as part of Carramar's liveability positioning for housing and business investment opportunities.

Chapter 5

Design Implementation Framework

















-
- 01. PRINCIPLES TO DESIGN TOOLKIT STRATEGIES
 - 02. DESIGN TOOLKIT STRATEGIES
 - 03. PLANNING & DESIGN BRIEFS
-



01. PLACE PRINCIPLES TO DESIGN TOOLKIT STRATEGIES

The Place Principles represent a distillation of the most effective Australian and International best practice and policy frameworks that are to be applied to public domain design in Fairfield. They are presented as a series of best practice 'values' translated into 'Place Principles'.

For each Place Principle, a series of Design Toolkit Strategies have been aligned to guide the delivery of the Place Principles. The Design Toolkit Strategies are described in further detail on the following pages.

Place Principles				
				
	People Places	Places for All	Comfortable & Interesting	Celebrate Public Life
Design Toolkit Strategies				
	<p> A Street Order</p> <p> B Street Geometry</p>	<p> C Pedestrian through- zone</p> <p> D Connectivity & Flow</p>	<p> E At the Kerb</p> <p> F Street Life</p> <p> G Greening the Centre</p> <p> J Culture & Community</p>	<p> E At the Kerb</p> <p> F Street Life</p> <p> I Loved Public Spaces</p> <p> J Culture & Community</p>



Healthy Places



Functional



Place-Responsive



Environmental & Resilient

Place Principles

D Connectivity & Flow

G Greening the Centre

A Street Order

B Street Geometry

C Pedestrian through- zone

D Connectivity & Flow

E At the Kerb

A Street Order

F Street Life

I Loved Public Spaces

J Culture & Community

G Greening the Centre

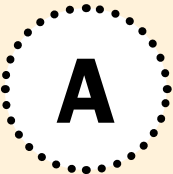
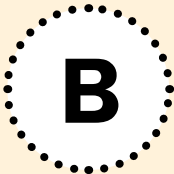
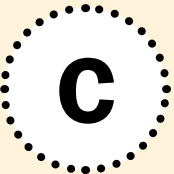

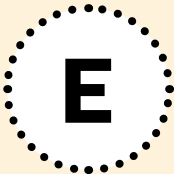
H Cool Streets & Spaces

Design Toolkit Strategies

02. DESIGN TOOLKIT STRATEGIES

The 'Design Toolkit Strategies' focuses on ten key public domain design strategies derived from the review of best practice frameworks and which should guide public domain improvement and management priorities in the centre.

The Objectives of each Design Toolkit Strategy is described below, with further details including requirements, benefits, value add opportunities, and statistical benchmarks in Part D: Supporting Research, Appendix 1 - Design Toolkits Strategies.

Design Toolkit Strategies & Objectives					
	STREET ORDER	STREET GEOMETRY	PEDESTRIAN THROUGH ZONE	CONNECTIVITY & FLOW	AT THE KERB
	Objective	Objective	Objective	Objective	Objective
	To implement a clear street hierarchy and corresponding guidelines that are consistent across the Fairfield LGA and align with the Western Sydney Street Design Guide.	To enhance pedestrian safety and priority by reducing traffic provisions to minimum requirements whilst still maintaining road functionality.	To ensure that pedestrians have a safe and adequate place to walk that is clear of temporary and/or permanent obstructions depending on corresponding level of pedestrian activity desired.	To improve pedestrian connectivity and reinforce the priority of the pedestrian in the street by providing continuity of footpaths and grade levels and consistency in sidewalk materials.	To ensure the kerb can be shared and utilized for a variety of functions/activities and for multiple modes and user groups now and in the future.



STREET LIFE

Objective

To increase the vibrancy of the street life in the town centre by encouraging footway dining, controlled footpath trading and “non-commercial” gathering.



GREENING THE CENTRE

Objective

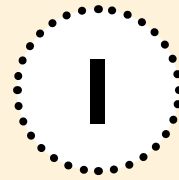
To increase the greenery in the town centre through improved landscape treatments, increased number of street trees, ensuring street tree planting has primacy in arrangement of street design influences and reinforcing ecological corridors.



COOL STREETS & SPACES

Objective

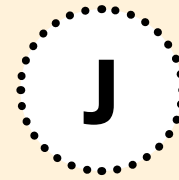
This strategy aims to provide a comfortable micro-climate within the town centre through the integration of low-impact pavement materials, street trees and other landscape features such as bioswales, pervious strips and rain gardens at the edge of pedestrian paths.



LOVED PUBLIC SPACES

Objective

To create human scale, loveable spaces that are inclusive, comfortable places that feel safe so people can enjoy, want to linger, socialise and spend time in. Public art and community-relevant installations should feature in public spaces to help the community develop attachment and meaning.



CULTURE & COMMUNITY

Objective

This strategy aims to leverage the strong existing arts and cultural presence in Fairfield by utilizing public space as a canvas for cultural expression for public art and/or community installations.

Design Toolkit Strategies

03. PLANNING & DESIGN BRIEFS

The following strategic Objectives and corresponding Key Actions identified below address the four Future Place Identity themes underpinning the Future Vision of the centre.

TRANQUIL

Carramar Centre is warm and inviting in nature – it is where people feel comfortable, safe and are invited to spend time lingering. The Centre provides culturally specific good and services to create a sense of comfort.

Planning & Design Objectives	Design Toolkit Strategies	
Creating a shared, common focal point for the community that allows for gatherings of locals and visitors.	E	At the Kerb
	G	Greening the Centre
	H	Cooling Streets & Spaces
	I	Loved Public Spaces
Facilitate the development of identifiable, distinct places that allows people to form a mental connection and attachment to it.	A	Street Order
	D	Connectivity & Flow
Improve connections between the small retail hubs, the neighbourhoods and across existing physical barriers.	A	Street Order
	D	Connectivity & Flow
Improve safety and security of the centre.	B	Street Geometry
	C	Pedestrian Through-Zone
	E	At the Kerb
	D	Connectivity & Flow

The Objectives set out in the Planning & Design Brief are aspirations to consider in delivering a place-based outcome.

VILLAGE

Just like a village, in Carramar people know their neighbours. The friendly village atmosphere provides the perfect home for current and residents. Young children can safely walk to school or the local park, and there is a sense of belonging and attachment to the place, especially for newly arrived migrants, epitomised by people socialising in the village centre.

Planning & Design Objectives	Design Toolkit Strategies	
Improve existing - and create new - publicly accessible places that create a sense of peace and quiet.	B	Street Geometry
	C	Pedestrian Through-Zone
	D	Connectivity & Flow
	G	Greening the Centre
Retain streets without heavy traffic that are uninhibited by overbearing noise, provide for easy access, and have a strong green character.	A	Street Order
	B	Street Geometry
	G	Greening the Centre
	H	Cooling Streets & Spaces

RESTORATIVE

Carramar is conducive to a healthy lifestyle for people of all ages. Further, it's a reminder of the past where simplicity and slow pace create sense of calm and peacefulness, where people can quietly ride their bikes to the nearest centre or slowly walk their dog to the park.

Planning & Design Objectives	Design Toolkit Strategies	
Improve the overall look and feel of the centre to make it more attractive.	B	Street Geometry
	D	Connectivity & Flow
	G	Greening the Centre
	H	Cooling Streets & Spaces
Enhance visual connectivity with the creek evoking a place that is embedded within nature.	D	Connectivity & Flow
	H	Cooling Streets & Spaces
Ensure physical connectivity with the creek that allows people to move along it, dip their toes, throw stones and easily cross over bridges with views of the water below.	D	Connectivity & Flow

Enhance existing local parks and create new parks to enhance the green character of the neighbourhood, enable physical activity, and encourage lively places across the day and week.	G	Greening the Centre
	H	Cooling Streets & Spaces
	I	Loved Public Spaces
	J	Culture & Community
Improve the active travel connections that Carramar can share with surrounding centres to help knit its social fabric and improve physical wellbeing by promoting walking and cycling.	A	Street Order
	B	Street Geometry
	C	Pedestrian Through-Zone
	D	Connectivity & Flow
Improve active travel connections between local parks that create connected play and exercise spaces.	D	Connectivity & Flow

Planning & Design Briefs continued

LEAFY

The centre's shady and soft appearance - where tree canopies arch above and greenery lines the streetscape - is a cool, green, riverfront oasis.

Planning & Design Objectives	Design Toolkit Strategies	
Supplement existing tree canopy and green character that helps to cool local streets and public spaces.	(H)	Cooling Streets & Spaces
Conserving existing trees and enhancing gardens within private setbacks	(G)	Greening the Centre
	(H)	Cooling Streets & Spaces
Build upon the already green identity of the centre that ensures views of green canopies in all directions from the retail centre and creates a green and soft character at the pedestrian level in the centre.	(E)	At the Kerb
	(G)	Greening the Centre
	(H)	Cooling Streets & Spaces
Improve the ecological quality of the creek corridor vegetation system.	(G)	Greening the Centre
	(H)	Cooling Streets & Spaces



View of Prospect Creek

Part B

public domain plan

“

As you are cycling past the bakery in the morning and smell fresh-baked pastries, you can, on the spur of the moment, decide to jump off your bike and pick up a breakfast treat for yourself and colleagues on the way to work... How can we blend a commute into a stop at the shop and a social experience?

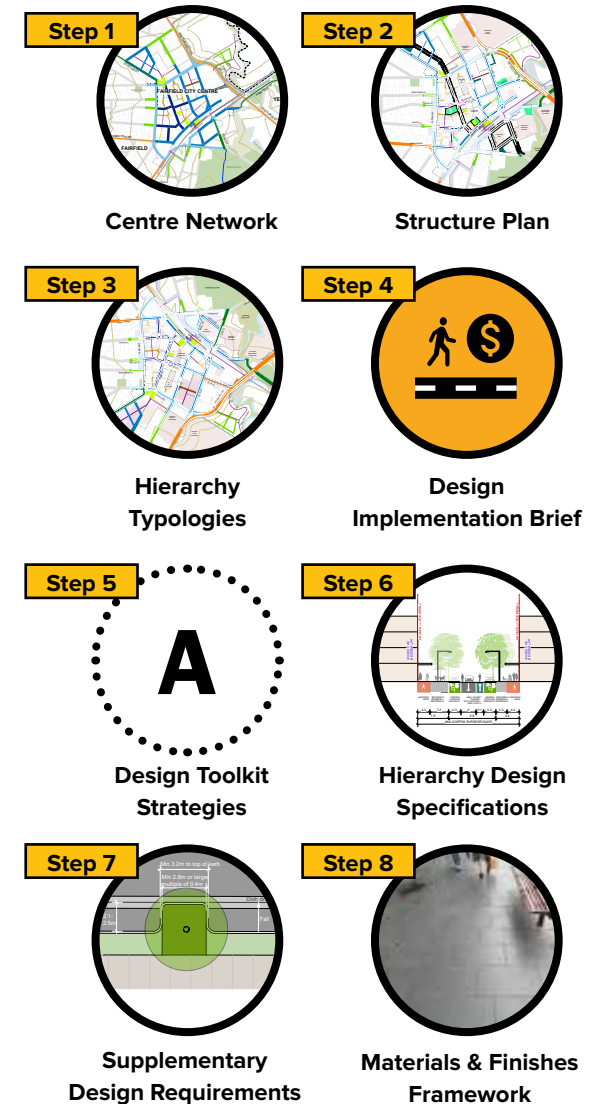
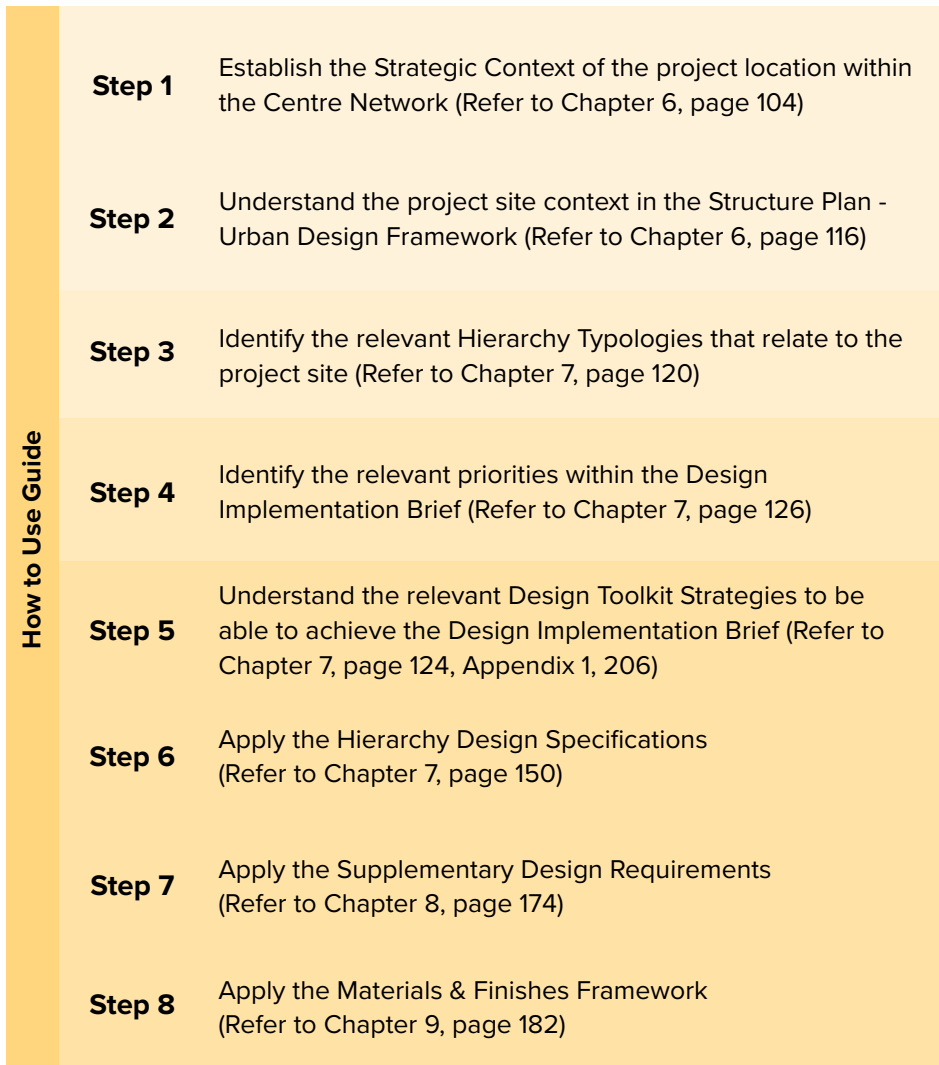
”

- David Sim, Soft City

Public Domain Plan

HOW TO USE THE PUBLIC DOMAIN PLAN

The below diagram outlines a step-by-step guide to using the Public Domain Plan.

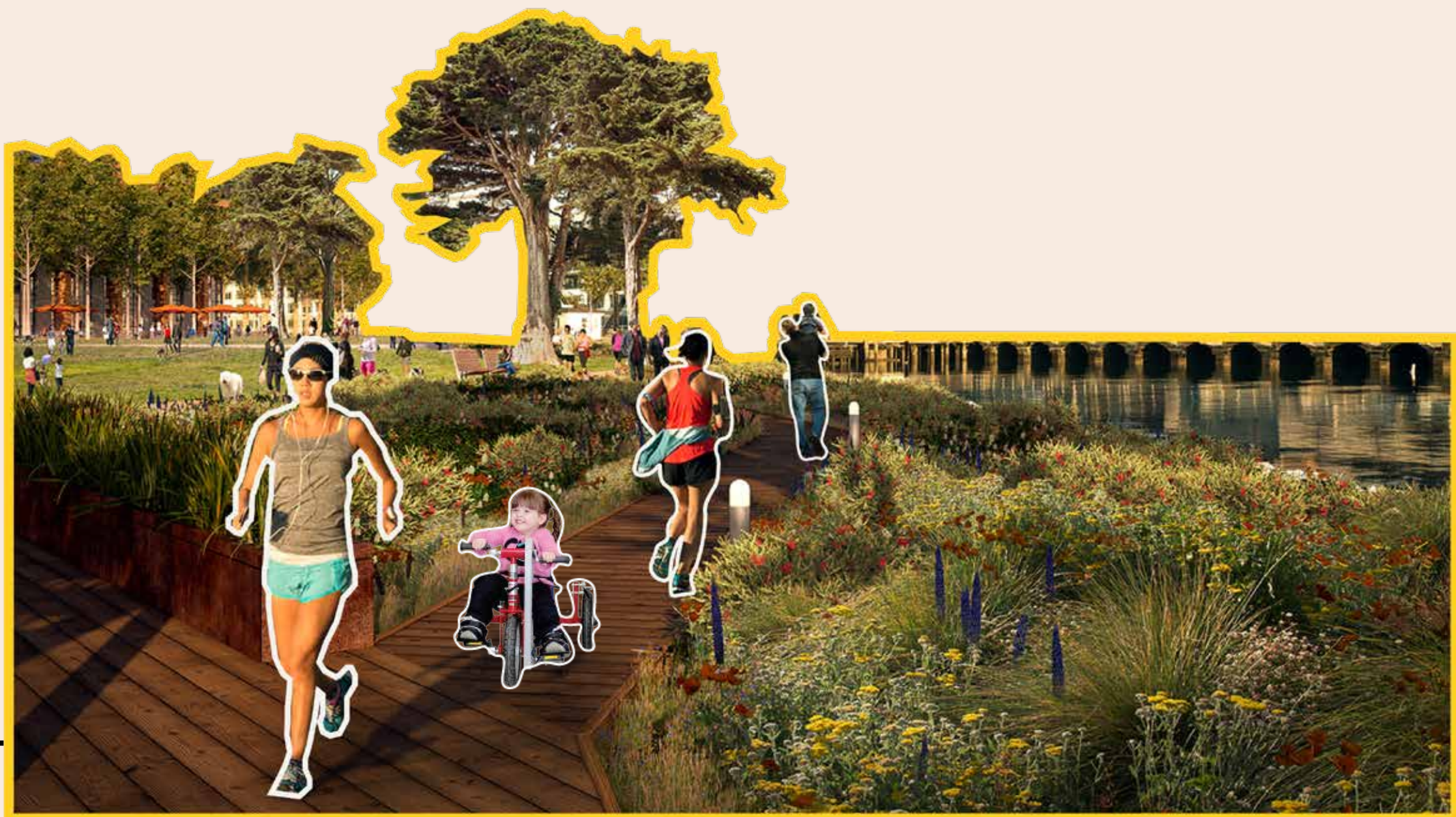




Chapter 6

Structure Plans

-
- 01. NETWORK OVERVIEW
 - 02. LOCAL NETWORK
 - 03. STREET HIERARCHY & CENTRE STRUCTURE PLAN
 - 04. CENTRE STRUCTURE PLAN
-



01. NETWORK OVERVIEW

THE CENTRE NETWORKS

The Centres Network is the integrated system of access and green links that is proposed to connect Fairfield LGA's eastern centres.

The map on the opposite page indicates the pedestrian access gradients or "pedsheds" around each centre including a 200m, 400, and 800m radius.

In addition the local relationships between adjacent centres that can promote synergies and inter-relationships are reflected by the five clusters. The cluster that relates to Carramar centre is highlighted.

A series of major connections can link the centres and the communities between. The links will also take advantage of the open spaces and other features that lie along their routes. The connections include:

Avenues:

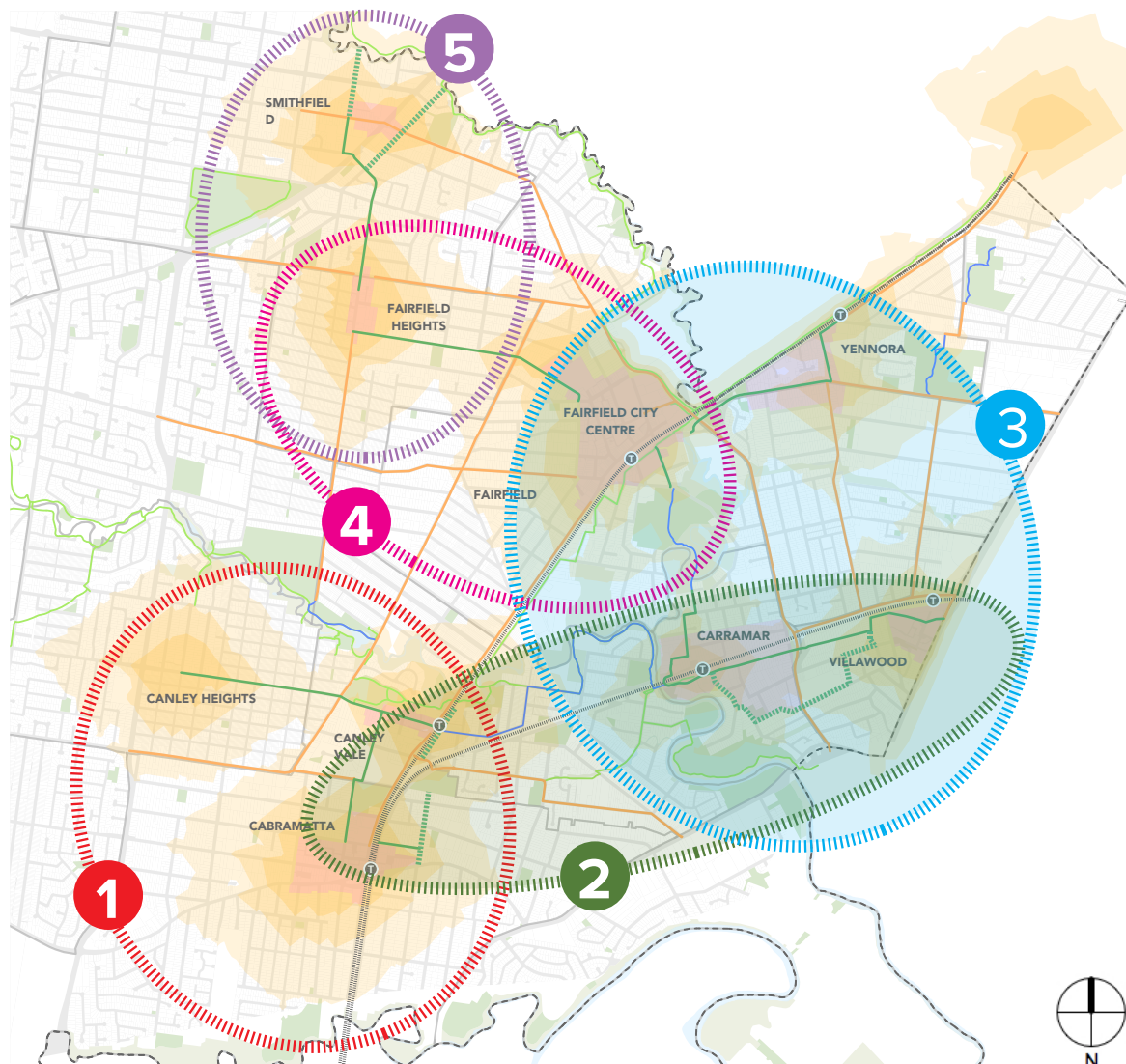
Cycle and pedestrian oriented links connecting centres and recreational and other destinations between.

Corridors:

Transport and vehicular oriented links between centres and across the LGA.

The key elements of these links are outlined on the following pages. The public domain guidelines provide guidance for enhancing the function and amenity of these corridors:

THE CENTRE NETWORKS MAP



THE CENTRE PRECINCTS

- 1** Cabramatta, Canley Heights and Canley Vale
- 2** Canley Vale, Carramar and Villawood
- 3** Fairfield, Yennora, Villawood and Carramar
- 4** Fairfield and Fairfield Heights
- 5** Smithfield and Fairfield Heights

LEGEND

- Corridor
- Avenue
- Avenue - additional routes
- Shared pathway
- Cycleway

02. LOCAL NETWORK

2 CANLEY VALE, CARRAMAR AND VILLAWOOD

Corridors:

1. River Avenue is the main vehicular transport corridor between Carramar and Villawood to the north side of the railway
2. The Horsley Drive is the main vehicular transport corridor linking Villawood north and south. It also acts as a physical barrier between Carramar and Villawood

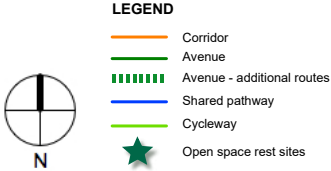
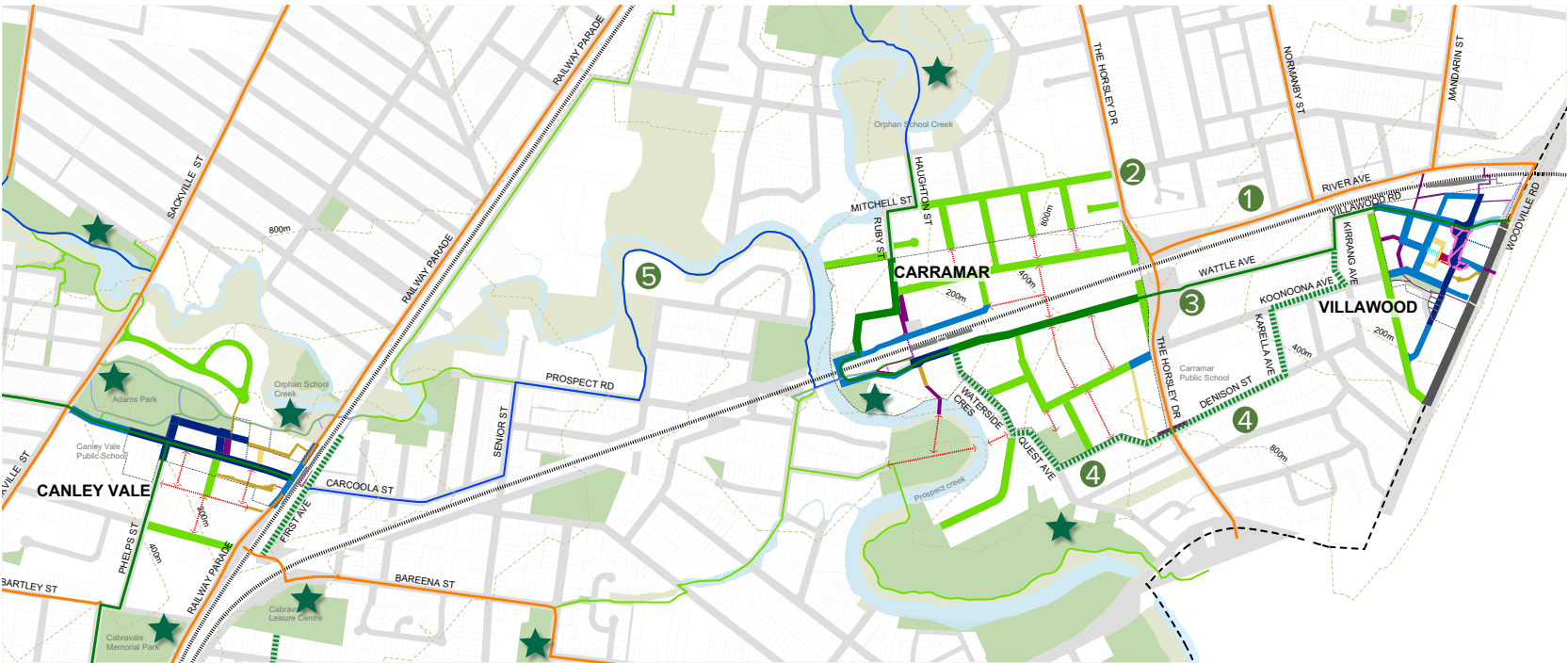
Avenues:

3. Wattle Avenue provides a key opportunity for cycle and pedestrian links between Villawood and Carramar using the existing underpass at the Horsley Drive
4. Denison street is a supporting avenue connection between Villawood and Carramar while also linking to Carramar Public School Carramar and Prospect Creek. The Hornsley Rd crossing could be supported by a pedestrian overpass

Supporting access:

5. There are limited direct avenue connections between Carramar and Canley Vale, however recreational access is available along the existing creek and road cycle access network

CANLEY VALE, CARRAMAR AND VILLAWOOD PRECINCT MAP



3 FAIRFIELD, YENNORA, VILLAWOOD AND CARRAMAR

Corridors:

1. The Horsley Drive is the key collector road providing connections to nearby local centres of Yennora, Carramar and Villawood
2. Fairfield Street (east of Crown St) is the key eastern gateway into Fairfield LGA from the east and connects to Old Guildford
3. Crown Street provides a direct connection from Yennora town centre to Villawood North, connects to Ellis Parade/Railway Street to Yennora Rail Station
4. River Avenue connects the north sides of Carramar and Villawood

Avenues:

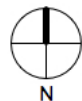
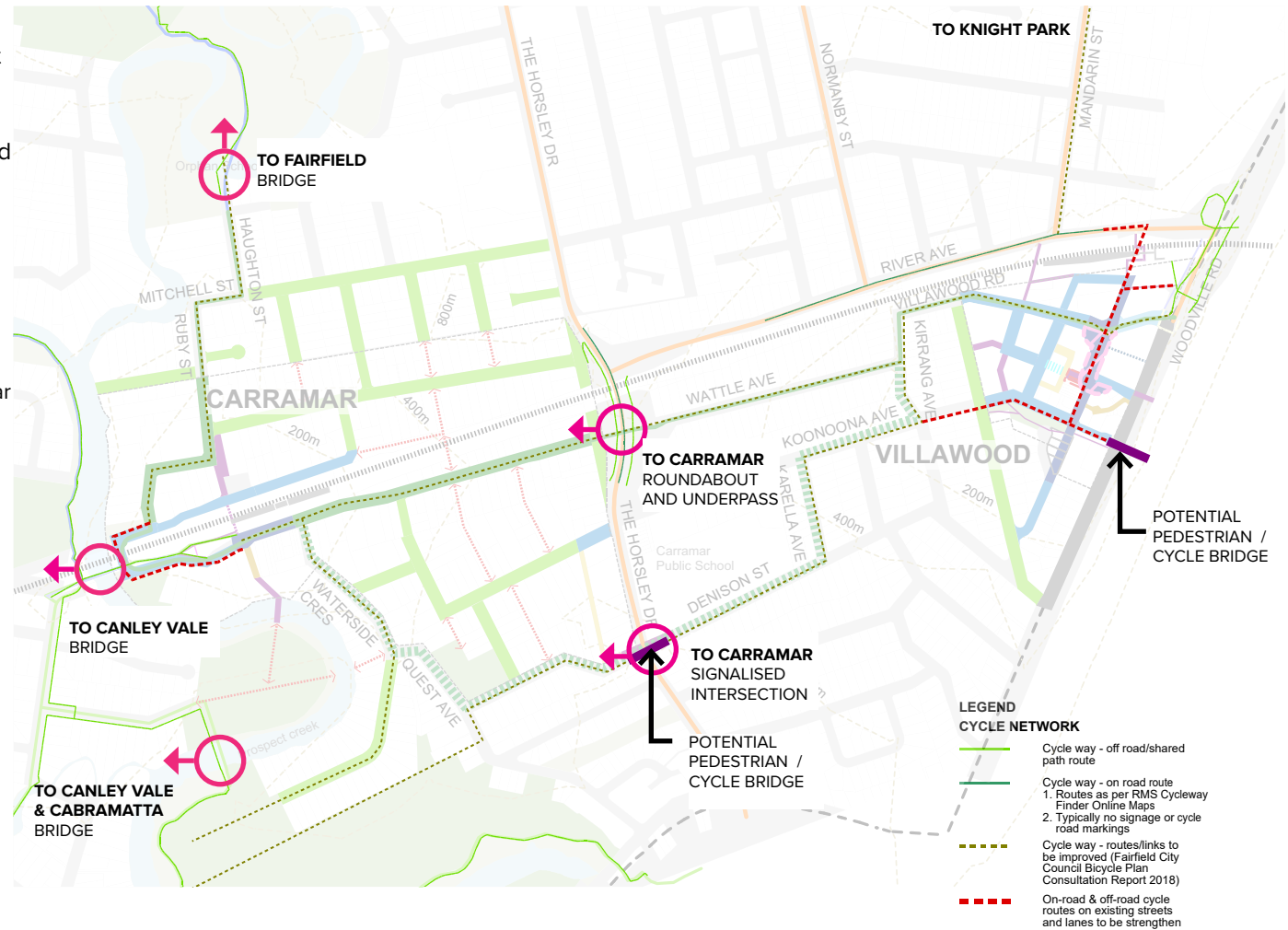
5. Fairfield Street provides direct link from Yennora into Fairfield City Centre (south) and to the Prospect Creek open space corridor and shared path network, Patrician Brothers College and nearby Catholic Primary School
6. Vine Street provides a direct link between the city centre to Fairfield Park recreational areas, community facilities and shared path network which links to Carramar town centre
7. Wattle Avenue provides a direct link between Carramar and Villawood town centre with the benefit of an underpass at The Horsely Drive
8. Waterside Crescent, Quest Ave, Dension Street, Koonoona Ave, Kirrang Ave route links Carramar Public school, a number of small local open spaces including 'Karella Park' to both Carramar and Villawood Town centres

CYCLE NETWORK ENHANCEMENTS

There are a number of important cycle connections that will consolidate the cycle network between Carramar and Villawood and onto Fairfield and beyond.

Some key actions include:

- Develop cycle loop network between Carramar and Villawood
- Connect to path network in open space to north of Carramar providing access to Fairfield
- Investigate improved crossings of the Horsley Drive
- Investigate additional crossings of creek corridors





Example: Bourke Street Cycleway - City Of Sydney (image: Simon Wood)

03. STREET HIERARCHY & CENTRE STRUCTURE PLAN

THE STREET HIERARCHY APPROACH

A street hierarchy defines an order between street types reflecting different varied movement, civic design and environmental goals and outcomes between each street type.

The Fairfield Centres street hierarchy provides the platform for the centre structure plan described on the following pages, and references the key elements for implementation of public domain improvements as outlined in chapter 4. Public Domain Guidelines.

The diagrams opposite illustrate the evolution of the proposed street hierarchy describing the formative influences that have shaped the final structure plan. The table this page summarises the Street Hierarchy for the Fairfield Centres Public Domain Plans. The table relates the hierarchy to the Western Sydney Street Guidelines, a key reference for street improvement across Western Sydney developed by the Greater Sydney Commission.

An abbreviated summary of key characteristics for each street / element is identified, providing an introduction to the more detailed and comprehensive definition of each element in the public domain guidelines.

- The guidelines in section 4 describe for each street element:
- its role and function;
- key parameters for its arrangement; and
- the materials and finishes recommendations for its implementation

STREET HIERARCHY

Organising order of street and public space types reflecting a hierarchy of movement, civic, and environmental goals.



STRUCTURE PLAN

Plan defining the deployment and arrangement of the street hierarchy across the centre including the relationship of key linkages and spaces.



PUBLIC DOMAIN GUIDELINES

Specific guidance for each element of the hierarchy including role and function, spatial and design arrangement, and materials finishes.

Public Domain Guideline Elements

- pedestrians
- cycles
- transport
- vehicles
- parking
- culture

Arrangement

- spatial
- greening
- on street trading

Materials

- pavements
- planting
- furniture

Western Sydney Street Design Guidelines	Fairfield Centre Public Domain Plans	Characteristics
NETWORK STREETS		
	MAJOR ROAD	<ul style="list-style-type: none"> Major transport corridor crossing multiple LGA boundaries
COLLECTOR ROADS	CORRIDOR	<ul style="list-style-type: none"> Transport corridor Vehicular movement corridor Green link corridor
	AVENUE	<ul style="list-style-type: none"> Pedestrian / cycle corridor Vehicular movement corridor Green link corridor
CENTRE STREETS		
HIGH STREET	CORE HIGH STREET	<ul style="list-style-type: none"> Slow traffic speed <50km Regular pedestrian priority crossings Minimal driveway interruptions Lanes widths minimised On street parking No through bus movement where possible
	MIXED HIGH STREET	<ul style="list-style-type: none"> Mixed use - traffic/ped & type of frontage activation(retail/resi/commercial/service)
	CIRCULATION HIGH STREET	<ul style="list-style-type: none"> Signalised crossings Standard lane widths or more Potential clearways Through bus traffic Driveway access
	SHARED ZONE <ul style="list-style-type: none"> Generally occurring over Core High Street 	<ul style="list-style-type: none"> pedestrian priority high pedestrian volumes generally no kerbs max traffic speed 10km/hr
LANEWAYS	SHARED LANE	<ul style="list-style-type: none"> 5-10m road reserve Generally one way Accessible to pedestrians Contrasting pavement to roadways
	SERVICE LANE	<ul style="list-style-type: none"> 5-10m road reserve Generally one way
LOCAL STREET	LOCAL STREET	<ul style="list-style-type: none"> Local traffic No through bus movement where possible
CENTRE SPACES		
	CENTRE SQUARES / PLAZAS	<ul style="list-style-type: none"> Located at focal locations Serve through or adjoining pedestrian traffic Adjoined by civic or retail ground level activation Target 30% green ground plane Target 40% permeable Integrate play experiences where feasible
	CENTRE PARKS	<ul style="list-style-type: none"> Serve through or adjoining pedestrian traffic Provide for passive recreation Provide for play experiences Target 75% green ground plane Target 80% permeable

EVOLVING THE STREET HIERARCHY AND STRUCTURE PLAN

The proposed Street Hierarchy and Structure Plan evolve from the urban design study framework through a series of connectivity and open space strategies:

1. Denison Street, Quest Avenue and Waterside Cres are potential avenues between Carramar Public School, the commercial hub and the Carramar centre core
2. Potential pedestrian/cycle bridge across The Horsley Drive to improve pedestrian/cyclists priority and safety
3. Entry section of Laurel Street to be High Street Mixed as it is the gateway area within the commercial hub
4. Potential new connection across railway corridor to improve connectivity
5. Redirect bus route and relocate bus stop to be more connective to train station
6. Widen and create amenity to underpass of station and provide lifts to station to improve accessibility
7. Provide public space to Carramar centre core for different ages group
8. Potential to maintain portion of existing carpark and turn it into multi purpose space
9. Introduce building setback to strengthen the north-south pedestrian link
10. Introduce building setback from Prospect Creek and invest walking and cycle infrastructure along the creek
11. Introduce building setback to Carramar Avenue and Sandal Cres to strengthen the green connection between station and the creek
12. Alternative location of new public space to serve residents on east and south Carramar
13. Potential linear park to connect the new open space and station
14. Potential acquisition of land to create buffer zone between residential area and commercial activity

EXISTING STREET HIERARCHY



FUTURE DEVELOPMENT



CONNECTIVITY ENHANCEMENTS

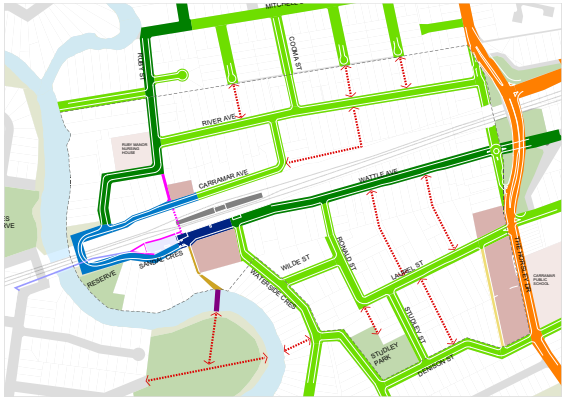


POTENTIAL PUBLIC SPACES

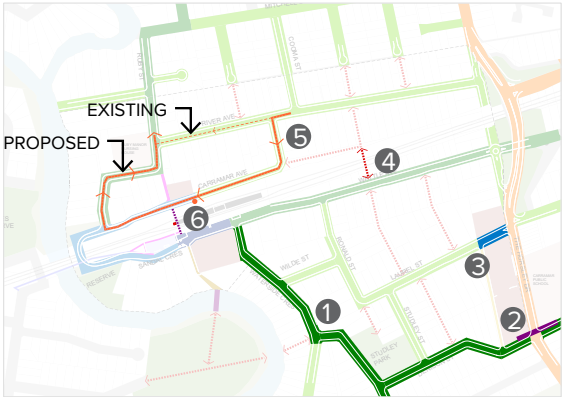


PROPOSED STREET HIERARCHY

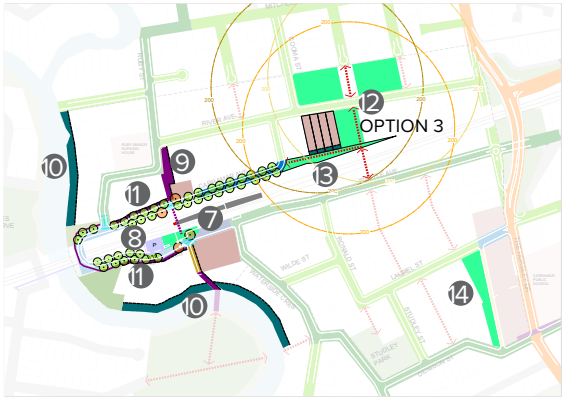
THE URBAN DESIGN STUDY FRAMEWORK



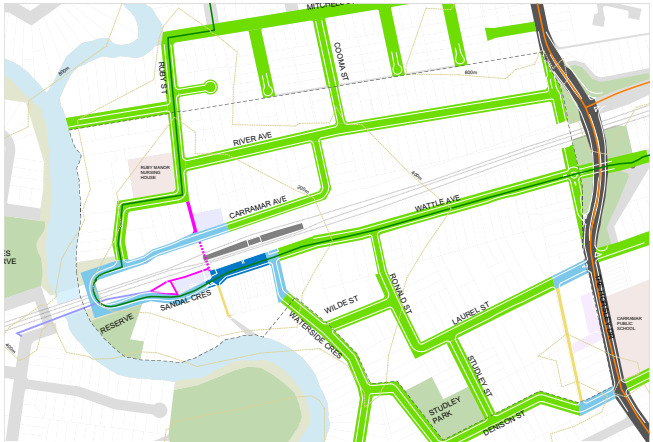
+ POTENTIAL CONNECTIVITY ENHANCEMENTS



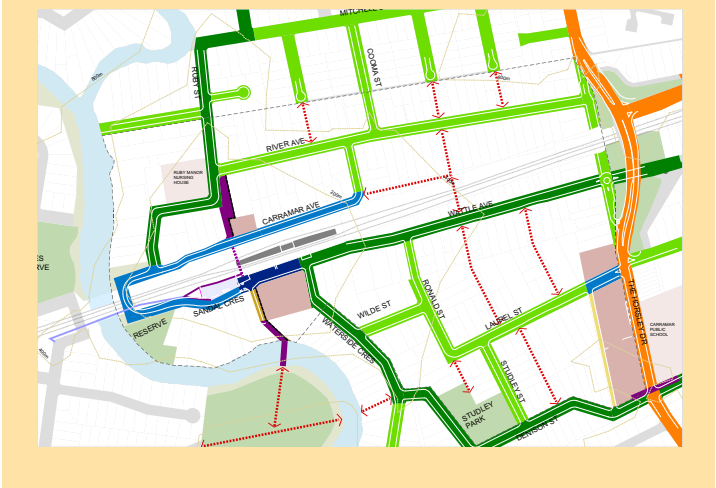
+ POTENTIAL PUBLIC SPACES



EXISTING STREET HIERARCHY



PROPOSED STREET HIERARCHY



- LEGEND**
- STREET HIERARCHY**
- Network**
- Avenue
 - Corridor
 - Major road
- Centre**
- High street - core
 - High street - mixed
 - High street - circulation
 - Local Street
 - Laneways- Shared lane
 - Laneways- service lane
 - Shared zone
 - Pedestrian link
 - Existing pedestrian link (public)
 - Existing pedestrian/cycle shared link (public)
 - Proposed pedestrian link (private)
 - Existing pedestrian link (private)
 - Plaza space



04. CENTRE STRUCTURE PLAN

THE STRUCTURE PLAN

The proposed Carramar Centre Public Domain Structure Plan on the following page, establishes a long term direction for public domain development and enhancement of Carramar.

The plan provides a reference to the key street types and highlights major public spaces, for which further design and materials guidance is provided in Chapter 7, 8 and 9. Each project should be subject to detailed design concept development having regard for this Public Domain Plan.

Fundamentally the plan seeks to:

- improve accessibility across the centre by enhancing ease and safety of pedestrian access and connectivity on all streets
- increase the green character of the centre
- consolidate and enhance existing reasons for people to spend time in the centre, and create new ways to enjoy the centre that will attract users and encourage community and street life

The Structure Plan does not aim to show all recommended street / public domain tree planting - this should be designed and implemented guided by the guidelines for each street type. The Plan does indicate important nodal tree planting opportunities.

Key recommendations are listed following as identified on the Structure Plan:

Streetscape and laneways

Provide enhanced street tree canopy to Carramar Ave and Sandal Cres with tree planting within the parking lane between parking spaces and in the street verge as feasible.

Create avenue promoting pedestrian and cycle access along Denison Street, Quest Avenue and Waterside Cres linking Carramar Public School, the commercial hub and the Carramar centre core

Upgrade block to Laurel Street adjoining The Horsley Dve as Mixed High Street to provide gateway to the Horsley Dve commercial hub

Investigate redirection of bus route and relocate bus stop in Carramar Ave to be more connective to train station

Progressive upgrade of pavements to town centre streets reflective of street hierarchy (all streets)

Provide footpaths to a minimum one side of all streets with compliant pram crossings to enhance ease and safety of access

Strengthen green link from Sandal Cres to Ruby Street reinforcing access corridor link to Fairfield

Create avenue promoting pedestrian and cycle access along Wattle Avenue between Carrmar and Villawood Town Centre

Parking

Conversion of portion of southern off street parking area to village square (refer 22). Compensate in parking provisions to new development

Pedestrian and cycle links

Provide wider through site link from north side of railway underpass to River Ave - potential development setback to facilitate

Investigate pedestrian/cycle bridge across The Horsley Drive to improve pedestrian/cyclists priority and safety

Investigate potential new connection across railway corridor to improve connectivity

Widen and improve amenity to underpass of railway line

Provide lifts to station to improve accessibility

Integrate raised pedestrian crossing with public domain footways

Investigate better opportunities to access / experience natural habitat of creek corridor

Provide shared access lane / through site link from railway underpass axis linking to creek frontage - potential viewing point

Potential for 17 to link to new pedestrian cycle bridge across creek to foreshore open space / parkland

New north south public through site links integrating with existing cul de sacs and providing greater connectivity and permeability of the neighbourhood

Potential open space / access link between new bridge and station

Public Spaces

Improve existing parkland open space adjoining creek corridor - provide creek viewing

Consider re-purposing parking area to southern side of railway to village common integrated with open space to east taking advantage of existing tree canopy. Potential to integrate with temporary closure of Sandal Crescent for events

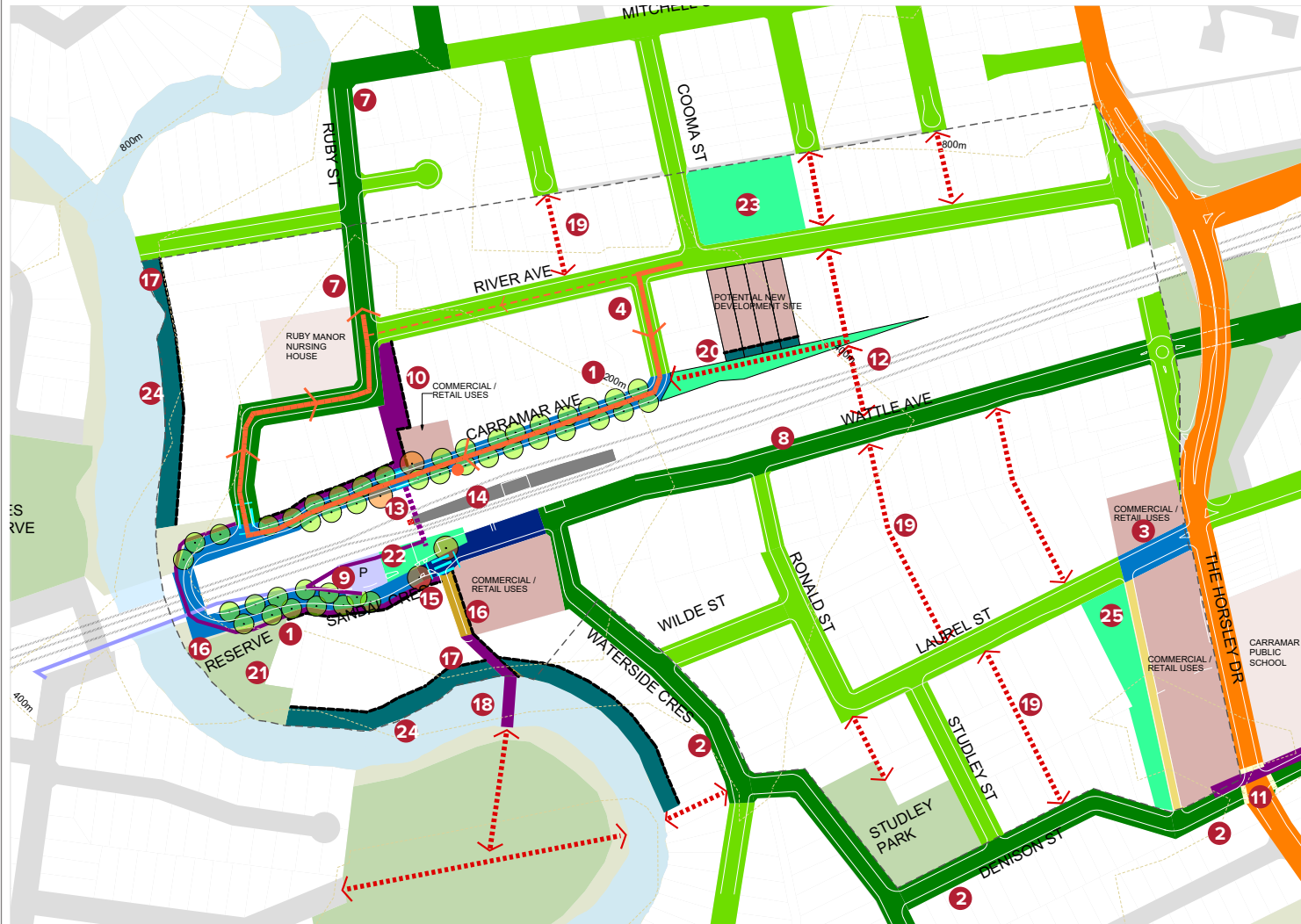
New public parks to serve residents on east and south Carramar

Potential building setback to prospect Creek to facilitate enhanced habitat corridor and potential for access to creek corridor

Potential acquisition of land to create buffer zone between residential area and commercial activity.



A central village space with the existing carpark can become a hub for the community



- LEGEND**
STRUCTURE PLAN
- Street Hierarchy - Network**
- Avenue
 - Corridor
 - Major road
- Street Hierarchy - Centre**
- High street - core
 - High street - mixed
 - High street - circulation
 - Local Street
 - Laneways- Shared lane
 - Laneways- service lane
 - Shared zone
- Pedestrian link**
- Existing pedestrian link (public)
 - Existing pedestrian/cycle shared link (public)
 - Proposed pedestrian link (private)
 - Existing pedestrian link (private)
- Public space**
- Existing public space within town centre
 - Proposed public space (council owned)
 - Proposed public space (private owned)
 - Proposed street tree plantings
 - Proposed nodal tree plantings
- Bus route**
- Alternative bus route
 - Alternative council bus route
 - Bus stop
 - Council bus stop
- Crossings**
- Existing raised warranted
 - Proposed raised warranted
 - Existing signals crossing
 - Proposed signals crossing

Future Place Identity Themes to be integrated into ongoing design development:

TRANQUIL VILLAGE RESTORATIVE LEAFY



Existing streetscape to Sandral Crescent towards Wattle Avenue and onwards to Villawood centre

Chapter 7

Public Domain Typologies

01. INTRODUCTION

02. DESIGN IMPLEMENTATION BRIEF

03. HIERARCHY TYPOLOGIES



01. INTRODUCTION

This section of the report outlines the Hierarchy Typologies that will be referenced throughout the Public Domain Guidelines.








They have been derived from Best Practice Research and set out an agreed approach for each street and public space typology. These approaches are the *baseline outcomes* for delivering best practice.






The following pages outline the precursor to the Hierarchy Typologies:

- Design Toolkit Strategies Priorities
- Design Implementation Briefs including the relevant Design Toolkit Strategies and Targets to meet minimum performance for each typology.
- Hierarchy Typologies.

Following the Hierarchy Typologies section, the following pages include:

- Supplementary Design Requirements
- Materials and Finishes Framework

Hierarchy Typologies		Reference
	Major Road	Pg. 126-127
	Avenue Road	Pg. 128-129 Pg. 148-149
	Corridor Road	Pg. 130-131 Pg. 150-157
	Core High Street	Pg. 132-133 Pg. 152-153
	Mixed High Street	Pg. 134-135 Pg. 154-155
	Circulation High Street	Pg. 136-137 Pg. 156-157
	Shared Zone on High Street	Pg. 138-139 Pg. 158-159

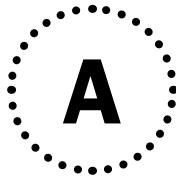
	Shared Laneway	Pg. 140-141 Pg. 160
	Service Lane	Pg. 142-143 Pg. 161
	Local Street	Pg. 144-145 Pg. 162-165
	Pedestrian Lane	Pg. 146-147 Pg. 166-169
	Centre Squares/Plazas	Pg. 170-171



DESIGN TOOLKIT STRATEGY

The Design Toolkit Strategy identified below is the optimum sequence of implementation (A to J) for consideration in the design and management of public domain improvements.

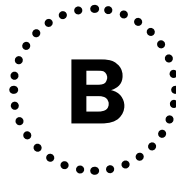
A series of approaches have been identified to support each Design Toolkit Strategy and have been informed by Best Practice Framework research. Further details on each can be found in Part D: Supporting Research, Appendix 1: Design Toolkit Strategies.



STREET ORDER

Approach

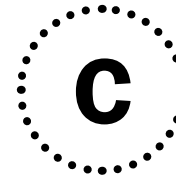
- Understand the economic drives that influence the centre movement and traffic
- Understand and define access and traffic role
- Maximise pedestrian and cycle amenity to specific routes / areas
- Manage heavy vehicle access to designated areas of high pedestrian use



STREET GEOMETRY

Approach

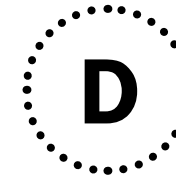
- Reduce traffic lane width to minimum required for function and safety
- Reduce kerb radii to minimum required for function and safety
- Reduce crossing distances



PEDESTRIAN THROUGH ZONE

Approach

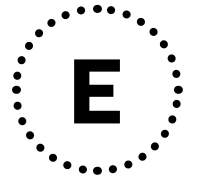
- Manage placement of fixed street elements (furniture / lights / signage, trees) to increase pedestrian movement space
- Manage on street trading to increase pedestrian movement space
- Increase pedestrian movement space (through zone) through footpath widenings



CONNECTIVITY & FLOW

Approach

- Minimal or no stopping points along pedestrian route
- Minimal or no changes or transitions in level along pedestrian route
- Simple and Intuitive environment with clear lines of sight to important elements
- Clear Wayfinding
- Design that requires low physical effort to negotiate



AT THE KERB

Approach

- Minimal extent of kerb without buffer directly adjoining traffic lanes
- Widened footpaths within no standing zones to increase pedestrian space and facilitate street planting
- Underground power / reduce impact of overhead cables



STREET LIFE

Approach

- Minimal blank facades
- Minimal vacant shop fronts
- On-street trading
- Variety of reasons to be in street and linger
- Range of seating available
- Community events



GREENING THE CENTRE

Approach

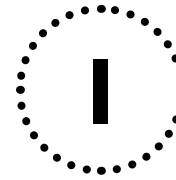
- Increase regularity of street trees
- Increase number of street trees
- Strategically place trees to maximise visual benefit
- Increase amount of ground level street gardens
- Integrate street trees within parking bays (narrowing visual width of street)



COOL STREETS & SPACES

Approach

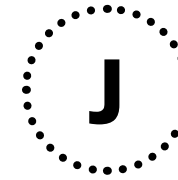
- Increase regularity of street trees
- Increase number of street trees
- Increase continuity of awnings
- Provide clusters of trees (cool nodes) at regular intervals
- Increase presence of water / moisture



LOVED PUBLIC SPACES

Approach

- Well located spaces
- Adequately sized spaces
- Attractive and flexible
- Attractive and usable to broad range of community
- Community involvement
- Development of Public Art Installations
- Events



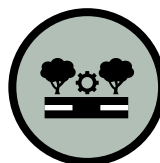
CULTURE & COMMUNITY

Approach

- Community involvement
- Reflecting cultural influences
- Development of Public Art Installations
- Events

02. DESIGN IMPLEMENTATION BRIEF

MAJOR ROAD



Defined as...

A reliable major route for large volumes of movement between neighbouring centres, shops and services. Adjoining areas have a focus on healthy environmental conditions, with rich biodiversity, leafy and natural surrounds to mitigate impacts of heavy traffic volumes and reduce the urban island heat effect across LGA boundaries.



Design Toolkit Strategies	Targets
Street Order	<ul style="list-style-type: none"> • regional traffic role • regional transport role • local pedestrian role • local / supporting cycle role
Street Geometry	<ul style="list-style-type: none"> • traffic role takes precedence - lane widths as required
Through Zone	<ul style="list-style-type: none"> • pedestrian path between key points / to serve localised access • generally 1.5m minimum pedestrian path
Connectivity and Flow	<ul style="list-style-type: none"> • NA
At the Kerb	<ul style="list-style-type: none"> • tree planting in verge
Street Life	<ul style="list-style-type: none"> • NA
Greening the Centre	<ul style="list-style-type: none"> • regional green link • 70% tree canopy coverage • tree planting within road verge
Cool Streets and Spaces	<ul style="list-style-type: none"> • provide shade to pedestrian links • provide shade / buffer to west facing facades • increase biomass to reduce ambient heat of corridors
Loved Public Spaces	<ul style="list-style-type: none"> • provide visually interesting vehicular experience • ensure pedestrian comfort to paths
Culture and Community	<ul style="list-style-type: none"> • provide for vehicular based cultural expression as a threshold or repetitive experience



AVENUE ROAD

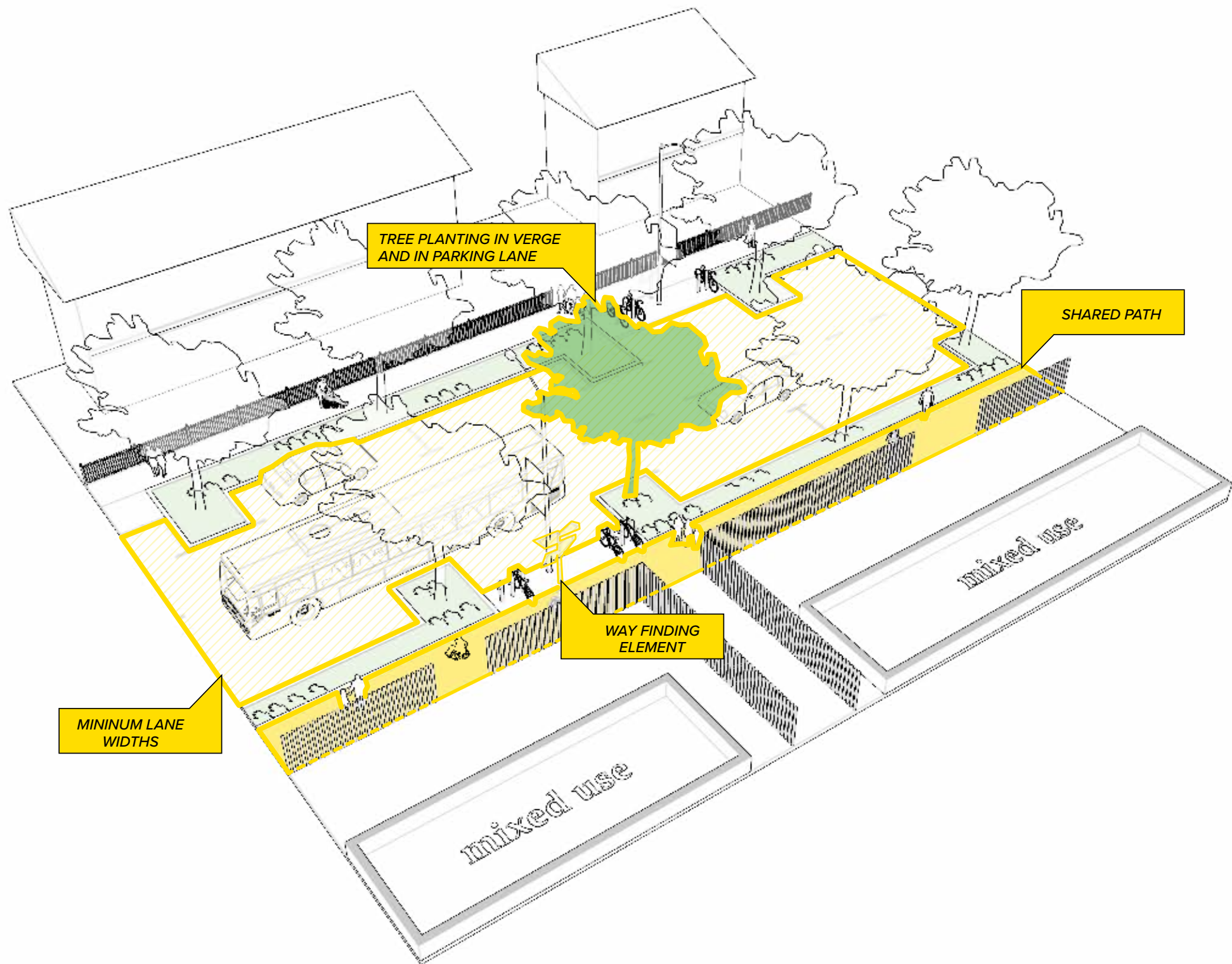


Defined as...

An essential connector between communities, Avenues accommodate high quality, equitable pedestrian and cyclist access to shops, services and key places. A critical balance between varying modes of movement ensure that social connectedness, building community life and safe, direct access is provided to interesting and healthy places between centres.



Design Toolkit Strategies		Targets
A	Street Order	<ul style="list-style-type: none"> secondary district traffic role primary district cycle role supporting transport role supporting pedestrian role
B	Street Geometry	<ul style="list-style-type: none"> minimise lane widths and swept paths minimise / eliminate heavy vehicle traffic Integrate cycle facilities
C	Pedestrian Through- Zone	<ul style="list-style-type: none"> continuous pedestrian paths both sides generally 1.8m minimum pedestrian paths to cater for dual wheelchair access
D	Connectivity and Flow	<ul style="list-style-type: none"> minimise driveways to side of street with cycle facility narrow crossing distance at intersecting streets to cycle crossings of intersecting streets - raised crossings where feasible
E	At the Kerb	<ul style="list-style-type: none"> kerbside parking tree planting in verge, or tree planting in parking lane underground power lines
F	Street Life	<ul style="list-style-type: none"> Small pockets of retail / corner store contribute to avenue role
G	Greening the Centre	<ul style="list-style-type: none"> district green link 90% tree canopy coverage tree planting within road verge or kerbside parking lane underground power
H	Cool Streets and Spaces	<ul style="list-style-type: none"> 70% summer tree canopy shade provide shade / buffer to west facing facades create "cool nodes" with optimum (deep) shade at target 200m intervals
I	Loved Public Spaces	<ul style="list-style-type: none"> provide visually interesting experience for all users ensure continuous pedestrian and cyclist comfort to paths
J	Culture and Community	<ul style="list-style-type: none"> provide for wayfinding embedding cultural expression along route Wayfinding to adjoining / linking destinations



CORRIDOR ROAD

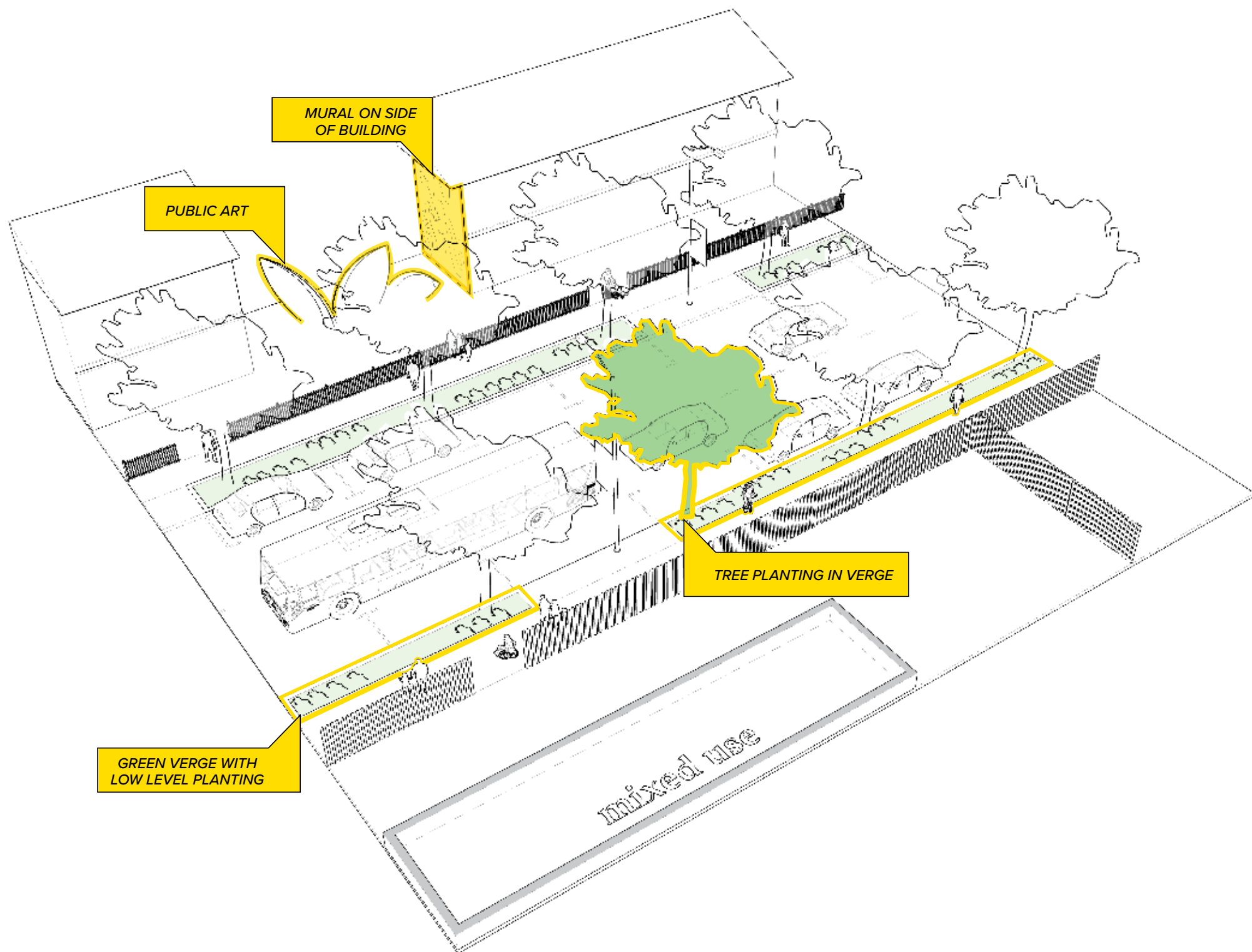


Defined as...

A leafy and green centre and neighbourhood route that plays a critical role in supporting vehicular, transport and cycling connections between communities. The Corridor presents a high quality and attractive environment that promotes green, cultural and arts character, tailored to place.



Design Toolkit Strategies		Targets
(A)	Street Order	<ul style="list-style-type: none"> primary district traffic role district transport role secondary district cycle role local pedestrian role
(B)	Street Geometry	<ul style="list-style-type: none"> traffic role takes precedence - lane widths as required Integrate cycle facility where required
(C)	Pedestrian Through- Zone	<ul style="list-style-type: none"> generally 1.8m minimum pedestrian paths at least one side to cater for dual wheelchair access
(D)	Connectivity and Flow	<ul style="list-style-type: none"> minimise driveways where cycle facility provided narrow crossing distance at intersecting streets
(E)	At the Kerb	<ul style="list-style-type: none"> clearways where required tree planting in verge underground power lines where feasible
(F)	Street Life	<ul style="list-style-type: none"> NA
(G)	Greening the Centre	<ul style="list-style-type: none"> district green link 70% tree canopy coverage tree planting within road verge
(H)	Cool Streets and Spaces	<ul style="list-style-type: none"> 70% summer tree canopy shade create "cool nodes" with optimum (deep) shade create "cool nodes" with optimum (deep) shade at target 200m intervals
(I)	Loved Public Spaces	<ul style="list-style-type: none"> provide visually interesting vehicular experience ensure pedestrian and cyclist comfort to paths
(J)	Culture and Community	<ul style="list-style-type: none"> provide for vehicular based cultural expression as a threshold or repetitive experience



CORE HIGH STREET

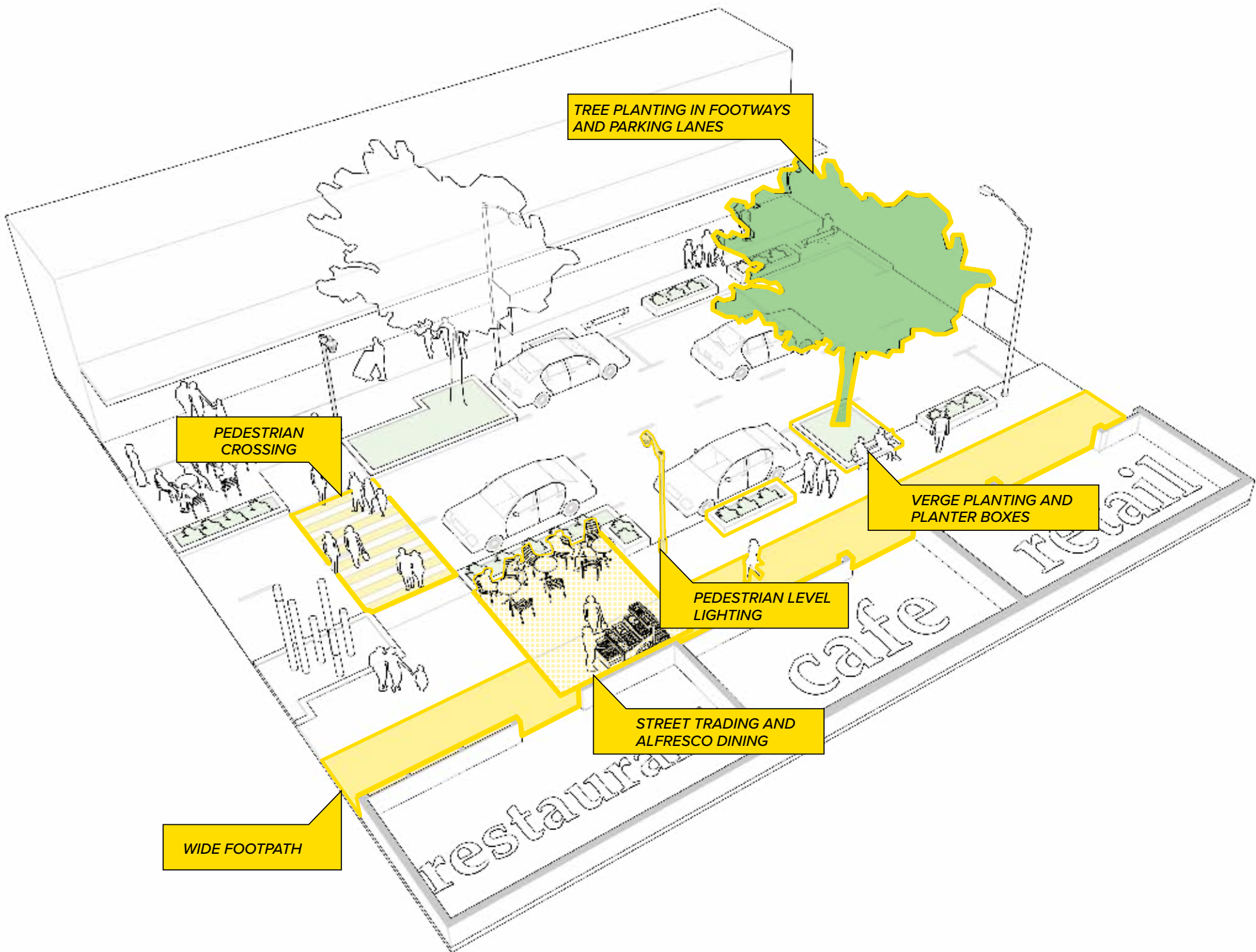


Defined as...

A focal point for high levels of activity that support shops, services, economic and cultural uses for the centre. People move between key places with ease and are engaged in their environment to enjoy walking; supported by highly pedestrian-prioritised streets and attractive connections.



Design Toolkit Strategies		Targets
A	Street Order	<ul style="list-style-type: none"> low speed traffic role primary pedestrian role supporting cycle role balancing of on street parking and footway widening no buses or large service vehicles
B	Street Geometry	<ul style="list-style-type: none"> Limit large vehicle traffic Minimise lane widths Reduce kerb radii
C	Pedestrian Through- Zone	<ul style="list-style-type: none"> 2.4m minimum continuous pedestrian through zone
D	Connectivity and Flow	<ul style="list-style-type: none"> no driveways narrow crossing distance with raised crossing of intersecting streets pedestrian priority (linemarked) crossings in street and at intersecting streets
E	At the Kerb	<ul style="list-style-type: none"> widen footway where possible to no standing areas and at intersections tree planting in widened footways, or tree planting in parking lane underground power lines
F	Street Life	<ul style="list-style-type: none"> provide for on street trading or at minimum active frontage as a dominant street character encourage businesses that contribute to street life encourage night trading
G	Greening the Centre	<ul style="list-style-type: none"> local green link 70% tree canopy coverage tree planting within kerbside parking lane or footway build outs strong ground plane presence of green 15% surface area target
H	Cool Streets and Spaces	<ul style="list-style-type: none"> 80% summer tree canopy shade continuous building awnings create regular "cool nodes" with optimum (deep) shade consider evapo-transpirative cooling
I	Loved Public Spaces	<ul style="list-style-type: none"> provide a pedestrian focussed heart to the centre provide a range of reasons to come to / and stay in street create a safe and vibrant after dark place
J	Culture and Community	<ul style="list-style-type: none"> facilitate modal use of street for events integrated with other spaces provide for wayfinding and permanent / temporary arts / cultural expression



TREE PLANTING IN FOOTWAYS
AND PARKING LANES

PEDESTRIAN
CROSSING

VERGE PLANTING AND
PLANTER BOXES

PEDESTRIAN LEVEL
LIGHTING

STREET TRADING AND
ALFRESCO DINING

WIDE FOOTPATH

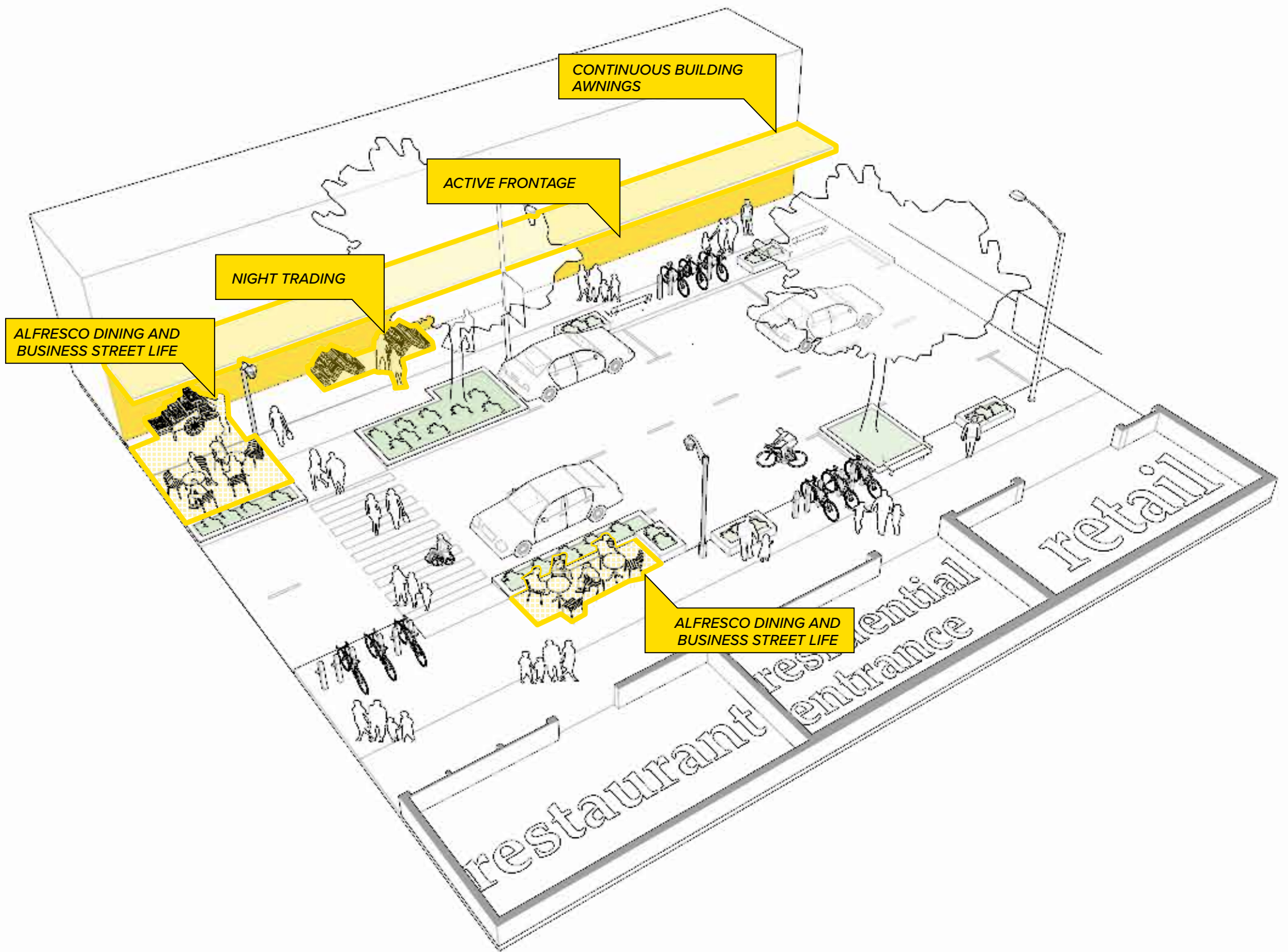
MIXED HIGH STREET

Defined as...

A focal point for high levels of activity where the convergence of a range of modal activity creates a lively street environment, supporting shops, services, economic and cultural uses. It provides pleasant connections for varying modes of movement whilst maintaining a pedestrian focus; people, cyclists and vehicles move between key places easily.



Design Toolkit Strategies		Targets
A	Street Order	<ul style="list-style-type: none"> low speed traffic role primary pedestrian role primary cycle role balancing of on street parking and footway widening limited buses or large service vehicle
B	Street Geometry	<ul style="list-style-type: none"> minimise lane widths and swept paths in lane bus stops preferred where required Integrate cycle facility where required
C	Pedestrian Through- Zone	<ul style="list-style-type: none"> 2.4m minimum continuous through zone
D	Connectivity and Flow	<ul style="list-style-type: none"> minimise driveways narrow crossing distance with raised crossing of intersecting streets pedestrian priority or signalised crossing of intersecting streets
E	At the Kerb	<ul style="list-style-type: none"> kerbside parking tree planting in verge, or tree planting in parking lane underground power lines
F	Street Life	<ul style="list-style-type: none"> provide for on street trading or at minimum active frontage to selected zones / nodes Encourage businesses that contribute to street life Encourage night trading
G	Greening the Centre	<ul style="list-style-type: none"> local green link 70% tree canopy coverage tree planting within kerbside parking lane or footway build outs strong ground plane presence of green 15% surface area target
H	Cool Streets and Spaces	<ul style="list-style-type: none"> 80% summer tree canopy shade continuous building awnings create regular "cool nodes" with optimum (deep) shade consider evapo-transpirative cooling
I	Loved Public Spaces	<ul style="list-style-type: none"> support the pedestrian heart to the centre provide a range of reasons to come to / and stay in street create a safe and vibrant after after dark place
J	Culture and Community	<ul style="list-style-type: none"> provide for wayfinding and permanent / temporary arts /cultural expression



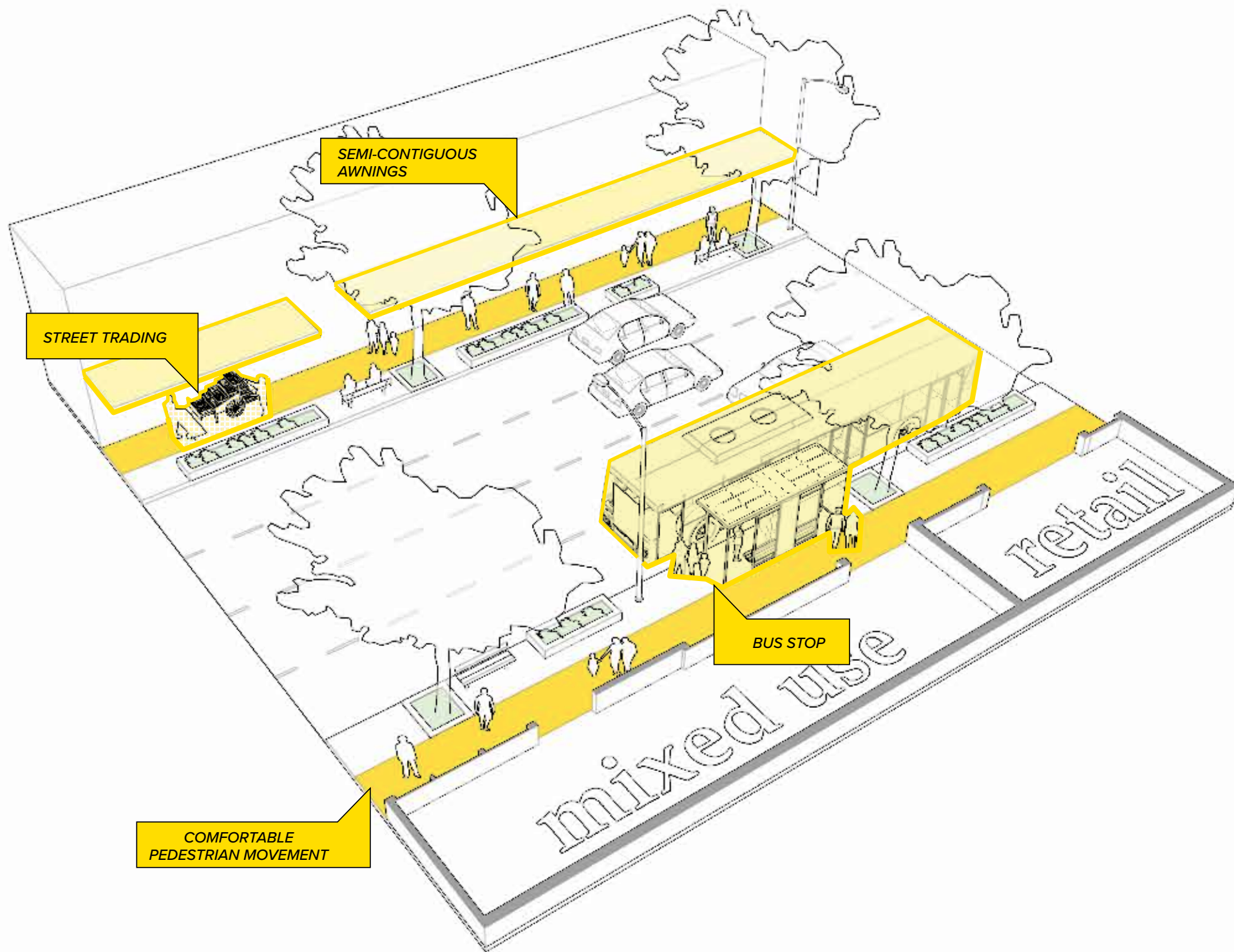
CIRCULATION HIGH STREET

Defined as...

An essential connector between communities, Avenues accommodate high quality, equitable pedestrian and cyclist access to shops, services and key places. A critical balance between varying modes of movement ensure that social connectedness, building community life and safe, direct access is provided to interesting and healthy places between centres.



Design Toolkit Strategies		Targets
A	Street Order	<ul style="list-style-type: none"> low speed traffic role supporting pedestrian role supporting cycle role on street parking with selective footway widening buses and large service vehicle access
B	Street Geometry	<ul style="list-style-type: none"> minimise lane widths and swept paths while catering for necessary vehicle types (buses and large service vehicle) in lane bus stops Integrate cycle facility where required
C	Pedestrian Through- Zone	<ul style="list-style-type: none"> minimum 1.8m pedestrian through zones both sides to cater for dual wheelchair movement - 2.4m preferred
D	Connectivity and Flow	<ul style="list-style-type: none"> cater for driveways in preference to Core and Mixed High Streets driveways integrated with street trees and lighting
E	At the Kerb	<ul style="list-style-type: none"> clearways where required kerbside parking tree planting in verge tree planting in parking lane where possible underground power lines where possible
F	Street Life	<ul style="list-style-type: none"> focus on comfortable pedestrian movement to connecting to Core and Mixed High Streets and other destinations Integrate on street trading or active frontage where uses adjoining street
G	Greening the Centre	<ul style="list-style-type: none"> local green link 70% tree canopy coverage tree planting within footway build outs or verge footway strong ground plane presence of green 15% surface area target
H	Cool Streets and Spaces	<ul style="list-style-type: none"> 70% summer tree canopy shade semi - continuous building awnings focussed on pedestrian routes create "cool nodes" with optimum (deep) shade near pedestrian movement routes
I	Loved Public Spaces	<ul style="list-style-type: none"> connect pedestrians to the activity focus of the centre create a safe and comfortable after dark place of movement
J	Culture and Community	<ul style="list-style-type: none"> provide for wayfinding and permanent / temporary arts /cultural expression



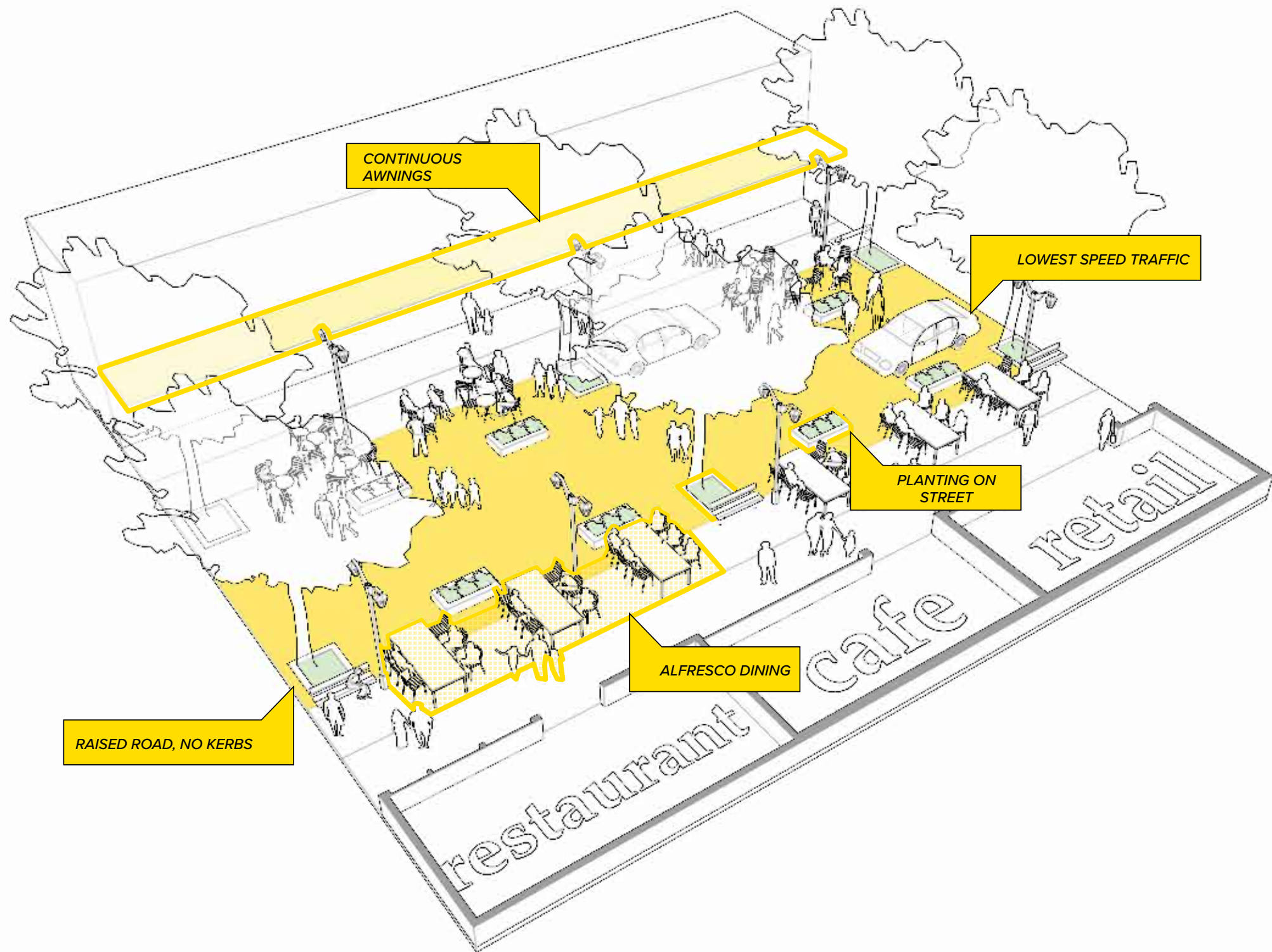
SHARED ZONE ON HIGH STREET

Defined as...

A highly attractive and engaging pedestrian environment that encourages street activity and vibrancy. People are drawn to cross the street to engage with other people, shops, activity and interest. This pedestrian movement occurs frequently and seamlessly with car-lite movements and slow speeds supporting that pedestrian priority.



Design Toolkit Strategies		Targets
A	Street Order	<ul style="list-style-type: none"> lowest speed traffic role shared vehicular, pedestrian and cycle roles small-large service vehicles
B	Street Geometry	<ul style="list-style-type: none"> raise road and eliminate kerbs to create shared space design to RMS shared zone guidelines minimise lane widths and swept paths
C	Pedestrian Through- Zone	<ul style="list-style-type: none"> NA
D	Connectivity and Flow	<ul style="list-style-type: none"> raised to footpath level shared vehicle, pedestrian and cycle movement within carriageway
E	At the Kerb	<ul style="list-style-type: none"> replace kerbs and provide pedestrian pavement as per RMS shared zone guidelines planting and other street elements define vehicular movement underground power lines
F	Street Life	<ul style="list-style-type: none"> provides comfortable pedestrian priority movement connecting to Core and Mixed High Streets and other destinations facilitates additional opportunities for seating and landscape
G	Greening the Centre	<ul style="list-style-type: none"> 70% summer tree canopy create "cool nodes" with optimum (deep) shade at shared zone
H	Cool Streets and Spaces	<ul style="list-style-type: none"> XX% summer tree canopy shade Continuous building awnings Create "cool nodes" with optimum (deep) shade Consider evapo-transpirative cooling
I	Loved Public Spaces	<ul style="list-style-type: none"> support the pedestrian heart to the centre contribute to the range of reasons to come to / and stay in street create a safe and vibrant after dark place
J	Culture and Community	<ul style="list-style-type: none"> facilitate modal use of street for events integrated with other spaces



CONTINUOUS
AWNINGS

LOWEST SPEED TRAFFIC

PLANTING ON
STREET

ALFRESCO DINING

RAISED ROAD, NO KERBS

restaurant
cafe
retail

SHARED LANEWAY

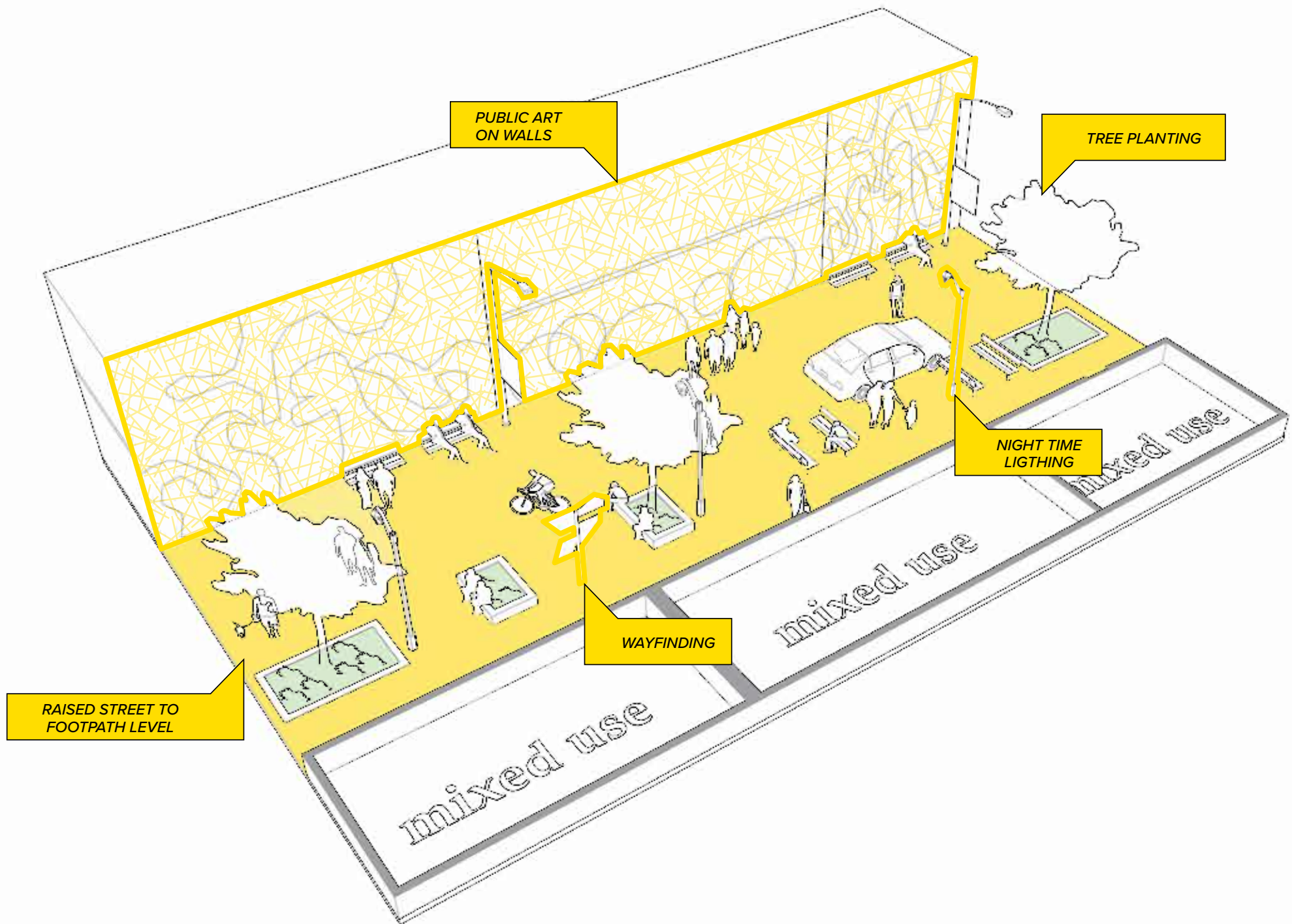


Defined as...

An engaging and pedestrian prioritised route to key places, with low level servicing activity to the rear of buildings. The building uses that spill over to the back-end of buildings engage with the lane for distinct and attractive public life that people enjoy lingering and socialising in. As a canvas for artistic and cultural expression, the space is the town's gallery for engaging expressions reflective of community interest and story.



Design Toolkit Strategies		Targets
A	Street Order	<ul style="list-style-type: none"> lowest speed traffic role shared vehicular pedestrian and cycle provisions pedestrian and cycle linkage role small-large service vehicles
B	Street Geometry	<ul style="list-style-type: none"> raise road and eliminate kerbs to create shared space design to RMS shared zone guidelines minimise lane widths and swept paths
C	Pedestrian Through- Zone	<ul style="list-style-type: none"> 3m minimum clearance between elements to traffic route
D	Connectivity and Flow	<ul style="list-style-type: none"> raised to footpath level pedestrian and cycle movement within carriageway driveways as required for service role
E	At the Kerb	<ul style="list-style-type: none"> replace kerbs and provide pedestrian pavement as per RMS shared zone guidelines planting and other street elements define vehicular movement underground power lines where feasible
F	Street Life	<ul style="list-style-type: none"> provides comfortable pedestrian priority movement connecting to Core and Mixed High Streets and other destinations provide for permanent or temporary on street trading to selected zones / nodes
G	Greening the Centre	<ul style="list-style-type: none"> green link 80% tree canopy coverage strong ground plane presence of green 20% surface area target
H	Cool Streets and Spaces	<ul style="list-style-type: none"> 70% summer tree canopy shade create "cool nodes" with optimum (deep) shade within shared lanes
I	Loved Public Spaces	<ul style="list-style-type: none"> support the pedestrian heart to the centre provide a range of reasons to come to / and stay in street create a safe and vibrant after dark place
J	Culture and Community	<ul style="list-style-type: none"> provide for wayfinding and permanent / temporary arts /cultural expression temporary use for events



SERVICE LANE

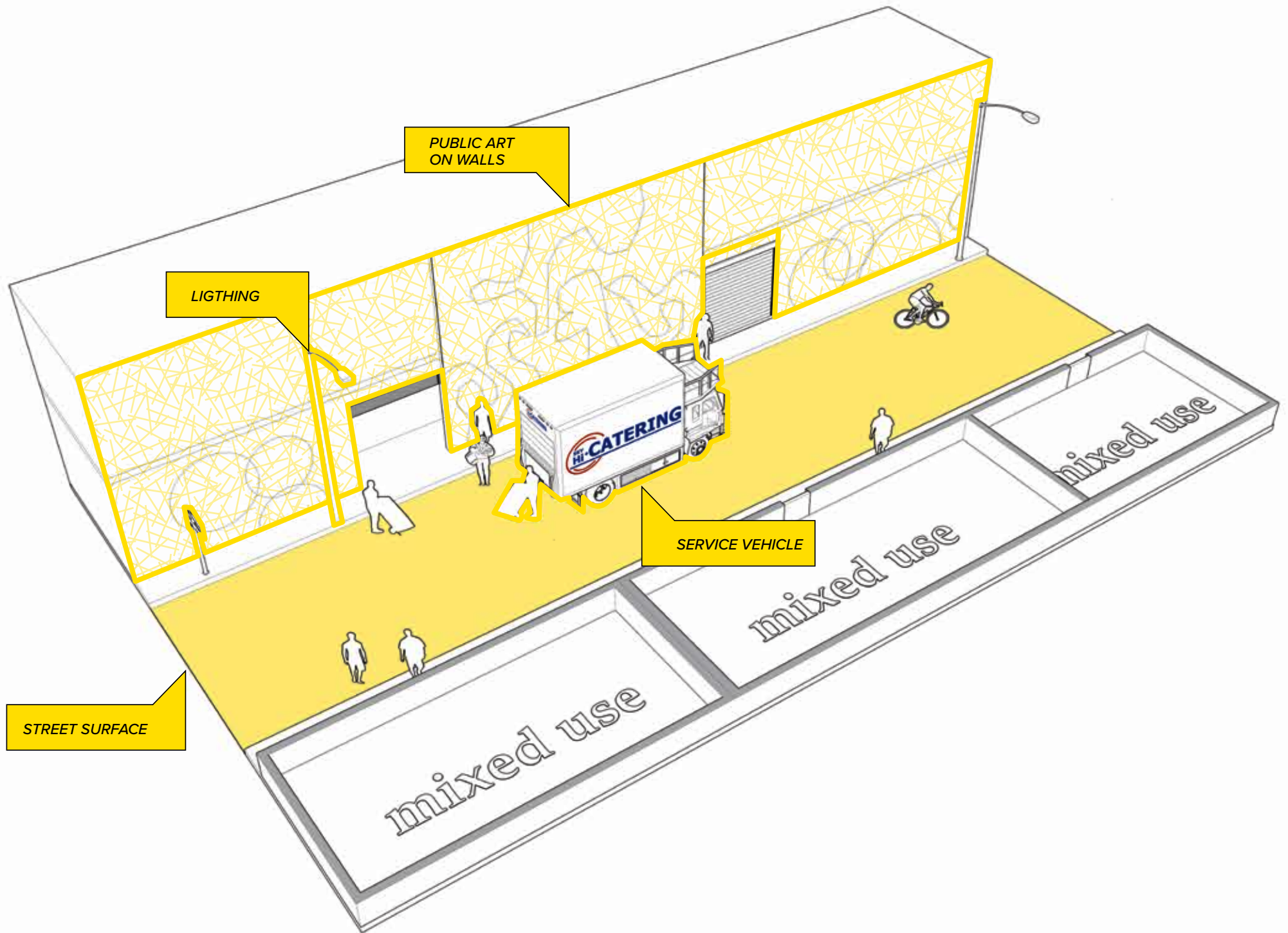


Defined as...

A slow, safe and green vegetated lane that allows for a combination of functional and interesting things to see presented across the lane and to the rear of lots, outbuildings and parking. The activity of servicing utilities, building functions and parking contributes to the vitality of the lanes that are well-lit and have logical connections to adjoining public spaces.



Design Toolkit Strategies		Targets
A	Street Order	<ul style="list-style-type: none"> low speed traffic role small-large service vehicles limited / nil pedestrian / cycle linkage role
B	Street Geometry	<ul style="list-style-type: none"> traffic role takes precedence lane widths as required
C	Pedestrian Through- Zone	<ul style="list-style-type: none"> NA
D	Connectivity and Flow	<ul style="list-style-type: none"> provide for pedestrian safety - pedestrian footpath or refuge zones driveways as required for service role
E	At the Kerb	<ul style="list-style-type: none"> traffic and service role takes precedence
F	Street Life	<ul style="list-style-type: none"> NA
G	Greening the Centre	<ul style="list-style-type: none"> 50% tree canopy coverage
H	Cool Streets and Spaces	<ul style="list-style-type: none"> review overshadowing conditions and target canopy trees to areas lacking summer shade to reduce heat island effect
I	Loved Public Spaces	<ul style="list-style-type: none"> NA
J	Culture and Community	<ul style="list-style-type: none"> NA



LOCAL STREET

Defined as...

A connected, comfortable and attractive place that showcases a place; sense of community; where everyone feels safe staying in, walking and cycling through. It's a place where people, friends and neighbours meet, and are key places for kids to play in offering easy crossing, car-lite, shaded and well-lit areas that parents feel happy to let their kids linger and play in.



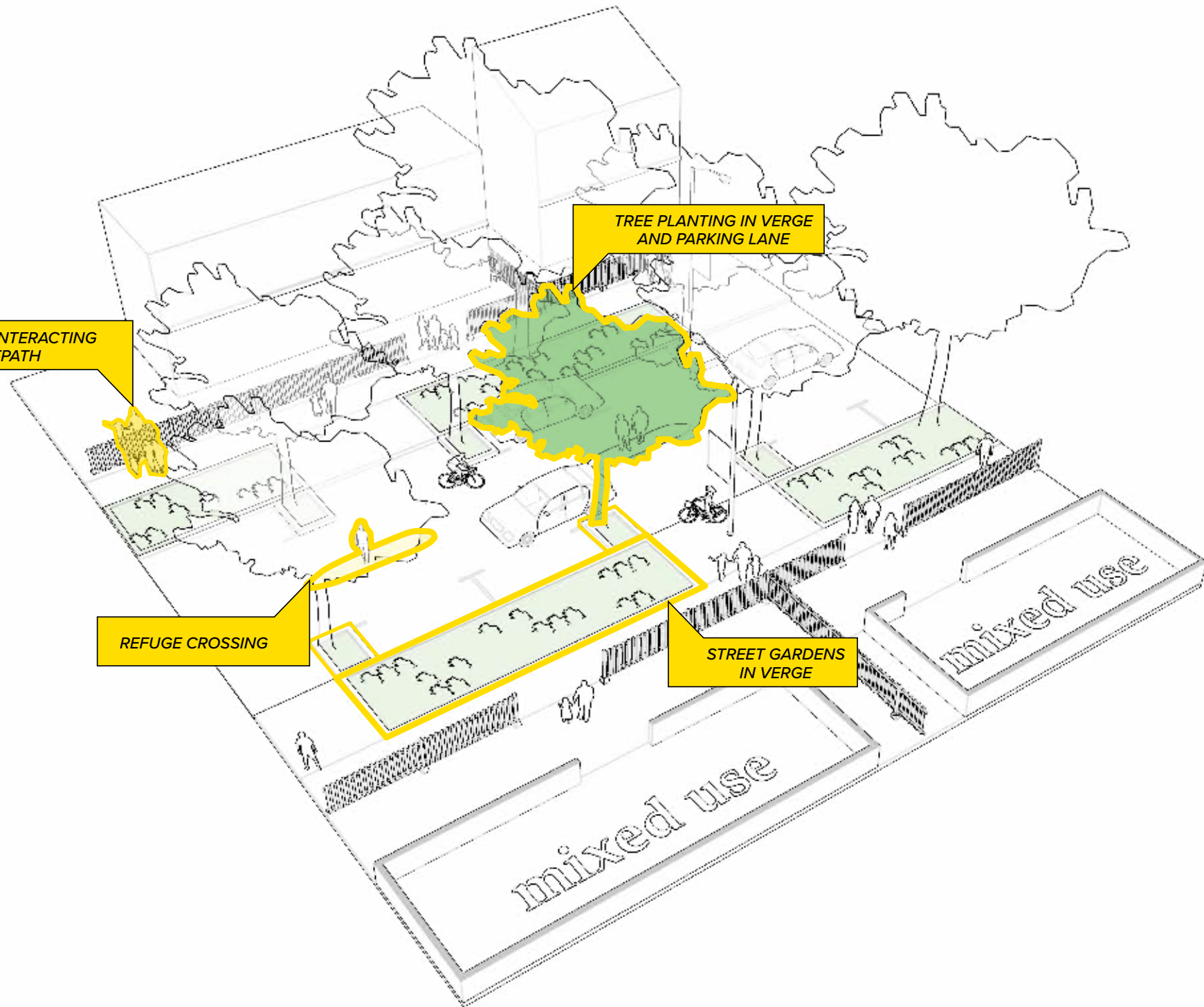
Design Toolkit Strategies		Targets
A	Street Order	<ul style="list-style-type: none"> Low speed traffic role Local pedestrian role Supporting cycle role emergency and garbage vehicles
B	Street Geometry	<ul style="list-style-type: none"> Limit large vehicle traffic Minimise lane widths Reduce kerb radii
C	Pedestrian Through- Zone	<ul style="list-style-type: none"> 1.8m preferred (1.5m minimum continuous pedestrian path Generally one side (consider both sides subject to development density and local destinations to be catered for)
D	Connectivity and Flow	<ul style="list-style-type: none"> Residential driveways Refuge crossings where traffic volumes higher
E	At the Kerb	<ul style="list-style-type: none"> parallel parking generally overhead power cables to one side
F	Street Life	<ul style="list-style-type: none"> attractive and comfortable street environment that encourages pedestrian movement and community interaction
G	Greening the Centre	<ul style="list-style-type: none"> Local green link 70% tree canopy coverage Tree planting in verge subject to power lines, or Tree planting in parking lane, or combination of both ground plane presence of green - generally turfed verge - 15% target potential for resident street gardens to verge
H	Cool Streets and Spaces	<ul style="list-style-type: none"> 70% summer tree canopy shade Create "cool nodes" with optimum (deep) shade at 100m intervals in neighbourhoods
I	Loved Public Spaces	<ul style="list-style-type: none"> Provide an attractive public environment that residents are proud of and take care of Create a safe and vibrant neighbourhoods
J	Culture and Community	<ul style="list-style-type: none"> Encourage residential street interaction - facilitate events that streets can participate in

PEOPLE INTERACTING
ON FOOTPATH

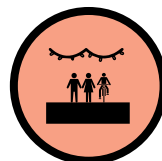
TREE PLANTING IN VERGE
AND PARKING LANE

REFUGE CROSSING

STREET GARDENS
IN VERGE



PEDESTRIAN LANE

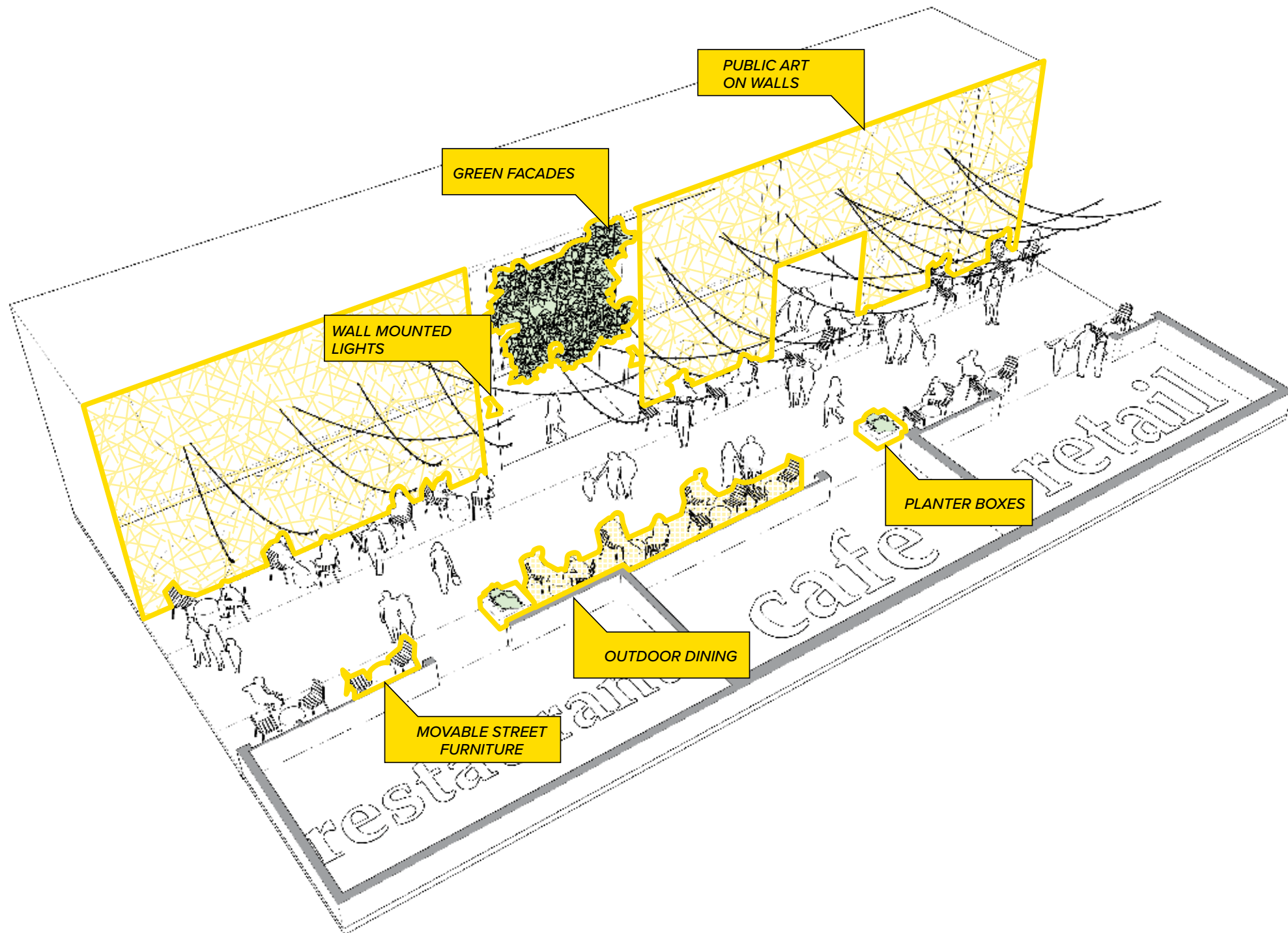


Defined as...

An intimate and engaging place that is often connected with a commercial core, with mixed uses on the ground floor contributing to the activity of the lane. Outdoor dining is supported, alongside opportunities for artistic, cultural and place expressions, public art curations and green landscaping treatments. The lane is a people place, that is comfortable, safe and interesting to move through for pedestrians and cyclists, as well as a place to support people lingering and staying longer.



Design Toolkit Strategies		Targets
A	Street Order	<ul style="list-style-type: none"> low speed traffic role small-large service vehicles limited / nil pedestrian / cycle linkage role
B	Street Geometry	<ul style="list-style-type: none"> traffic role takes precedence lane widths as required
C	Pedestrian Through- Zone	<ul style="list-style-type: none"> NA
D	Connectivity and Flow	<ul style="list-style-type: none"> provide for pedestrian safety - pedestrian footpath or refuge zones driveways as required for service role
E	At the Kerb	<ul style="list-style-type: none"> traffic and service role takes precedence
F	Street Life	<ul style="list-style-type: none"> NA
G	Greening the Centre	<ul style="list-style-type: none"> 50% tree canopy coverage
H	Cool Streets and Spaces	<ul style="list-style-type: none"> review overshadowing conditions and target canopy trees to areas lacking summer shade to reduce heat island effect
I	Loved Public Spaces	<ul style="list-style-type: none"> NA
J	Culture and Community	<ul style="list-style-type: none"> NA



03. HIERARCHY DESIGN SPECIFICATIONS

AVENUE

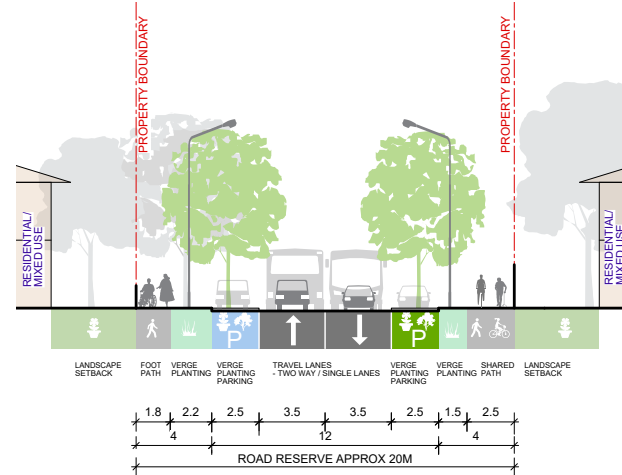
DESIGN IMPLEMENTATION BRIEF

DESIGN STRATEGY TOOLKITS	TARGETS
STREET ORDER	<ul style="list-style-type: none"> secondary district traffic role primary district cycle role supporting transport role supporting pedestrian role
STREET GEOMETRY	<ul style="list-style-type: none"> minimise lane widths and swept paths minimise / eliminate heavy vehicle traffic Integrate cycle facilities
PEDESTRIAN THROUGH ZONE	<ul style="list-style-type: none"> continuous pedestrian paths both sides generally 1.8m minimum pedestrian paths to cater for dual wheelchair access
CONNECTIVITY AND FLOW	<ul style="list-style-type: none"> minimise driveways to side of street with cycle facility narrow crossing distance at intersecting streets to cycle crossings of intersecting streets - raised crossings where feasible
AT THE KERB	<ul style="list-style-type: none"> kerbside parking tree planting in verge, or tree planting in parking lane underground power lines
STREET LIFE	<ul style="list-style-type: none"> Small pockets of retail / corner store contribute to avenue role
GREENING THE CENTRE	<ul style="list-style-type: none"> district green link 80% tree canopy coverage tree planting within road verge or kerbside parking lane undergrounded power
COOL STREETS AND SPACES	<ul style="list-style-type: none"> 80% summer tree canopy shade provide shade / buffer to west facing facades create "cool nodes" with optimum (deep) shade at target 200m intervals
LOVED PUBLIC SPACES	<ul style="list-style-type: none"> provide visually interesting experience for all users ensure continuous pedestrian and cyclist comfort to paths
CULTURE AND COMMUNITY	<ul style="list-style-type: none"> provide for wayfinding embedding cultural expression along route Wayfinding to adjoining / linking destinations

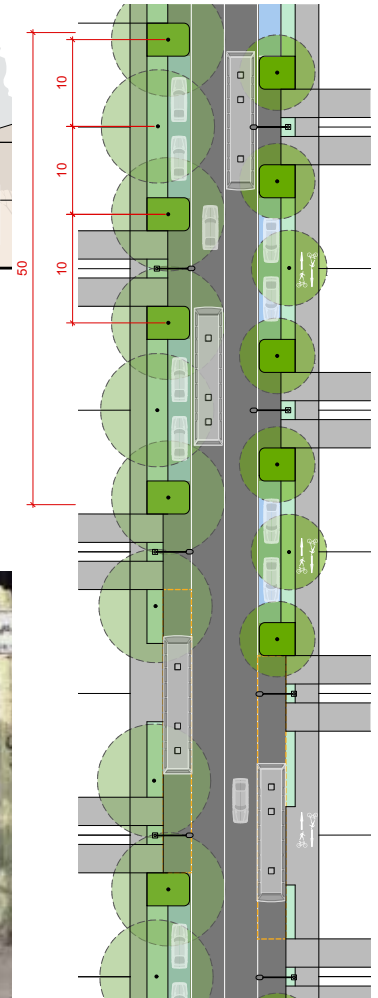
PERFORMANCE TARGETS

	Western Sydney Street Design Guide	Fairfield Public Domain Plan
DASHBOARD COMPARISON		
Nominal Width	18.5-24m	20m
Context	Residential neighbourhood	Mixed
Built Form	Residential dwellings, occasional commercial uses at ground level	Residential dwellings, occasional commercial uses at ground level
Walking	Min 1.5m path both sides	Min 1.5m path both sides
Cycling	Separated cycleway	Mixed traffic or Shared Path
Behavioural Speed	≤ 40 km/h	≤ 40 km/h
Design Vehicle	Bus	Bus
Check Vehicle	Garbage Truck	Garbage Truck
Travel lane	3.2-3.5m	3.2-3.5m
Parking lane	2.0-2.4m	2.1-2.5m
Indicative Traffic	3000-6000 vehicles /day	3000-6000 vehicles /day
Lot Access	Front Loaded or rear loaded	Front Loaded or rear loaded
Buses	Yes	If required
Max. Length	As required for neighbourhood access	As required for neighbourhood access
Type. Lots Served	Varies	Varies
WSUD	Low flow-passive irrigation/rain gardens High flow - swale to low side / median	Divert to WSUD basins in adjoining open space where available
PERFORMANCE TARGET COMPARISON		
Tree Target	14 x per 1000m2	1-11 x per 1000m2
Street Shade Area	80% of area	55% of area create "cool nodes" with 80-90% (deep) shade at target 200m intervals
Permeable Area	20% of area	22% of area excl perm paving

PREFERRED APPROACH



PREFERRED APPROACH: SECTION (NTS):
Shared Path Cycle Route, Bus Route, Street Parking



PREFERRED APPROACH: PLAN (NTS)

DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS	
Footway arrangement	<ul style="list-style-type: none"> Minimum 4.0m verge adjoining residential / commercial Street tree pits extend into parking lane if drainage allows
Driveways	<ul style="list-style-type: none"> No driveway access where possible for continuity of cycle access
Power & Telecommunications	<ul style="list-style-type: none"> Overhead services to be undergrounded where possible Target larger street tree planting to side without overhead cables
Carriageway / Cycle provision	<ul style="list-style-type: none"> 3.5m traffic lanes including dish drain for bus traffic Separated Cycle Path of Shared Path located on verge with overhead cables if possible - with smaller street tree planting
Parking	<ul style="list-style-type: none"> parallel parking generally no parking to separated path alternative (2)
Lighting	<ul style="list-style-type: none"> Street Lighting to required level for cycle paths, traffic and pedestrian verge integrated between tree plantings and at pedestrian crossings Pedestrian Pole-top Lighting to cycle path alignment
Arts and Culture	<ul style="list-style-type: none"> Interpretive wayfinding
MATERIALS AND FINISHES REQUIREMENTS	
Footway pavements	<ul style="list-style-type: none"> Broom finished concrete pathway
Street Furniture	<ul style="list-style-type: none"> Standard furniture at seating nodes integrated with Cool Nodes every 200m
Tree Planting	<ul style="list-style-type: none"> Tree planting as per integrated arrangement - target soil volume 35m³ Cluster of shade tree plantings at "Cool Nodes" - target every 400m
Street Garden Planting	<ul style="list-style-type: none"> Street garden planting to tree pits - minimum 5m² area
Planting species	<ul style="list-style-type: none"> Evergreen medium to large tree species as advised by Council

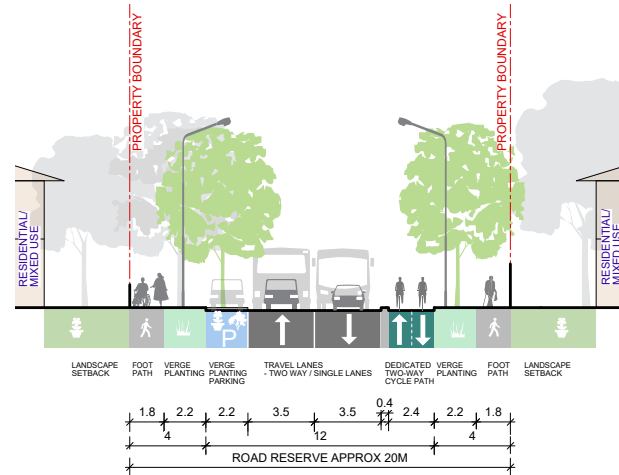
KEY FEATURES - Alternative 1 (refer plan and section this page)

- Separated cycle path - optimum cycle facility
- Tree planting in verge adjoining separated cycle path
- Tree planting in island extending into parking bay opposite side
- Large tree species to non-cycle path side

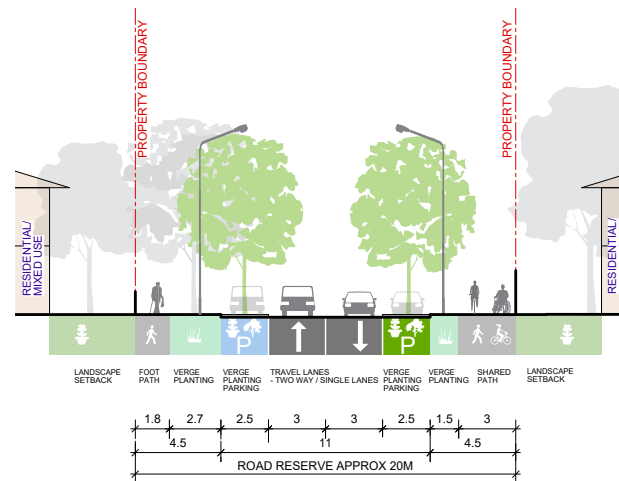
KEY FEATURES - Alternative 2 (refer plan and section this page)

- Shared pedestrian / cycle path
- Tree planting in verge adjoining shared cycle path
- Tree planting in island extending into parking bay opposite side
- Large tree species to non-cycle path side

ALTERNATIVE APPROACHES



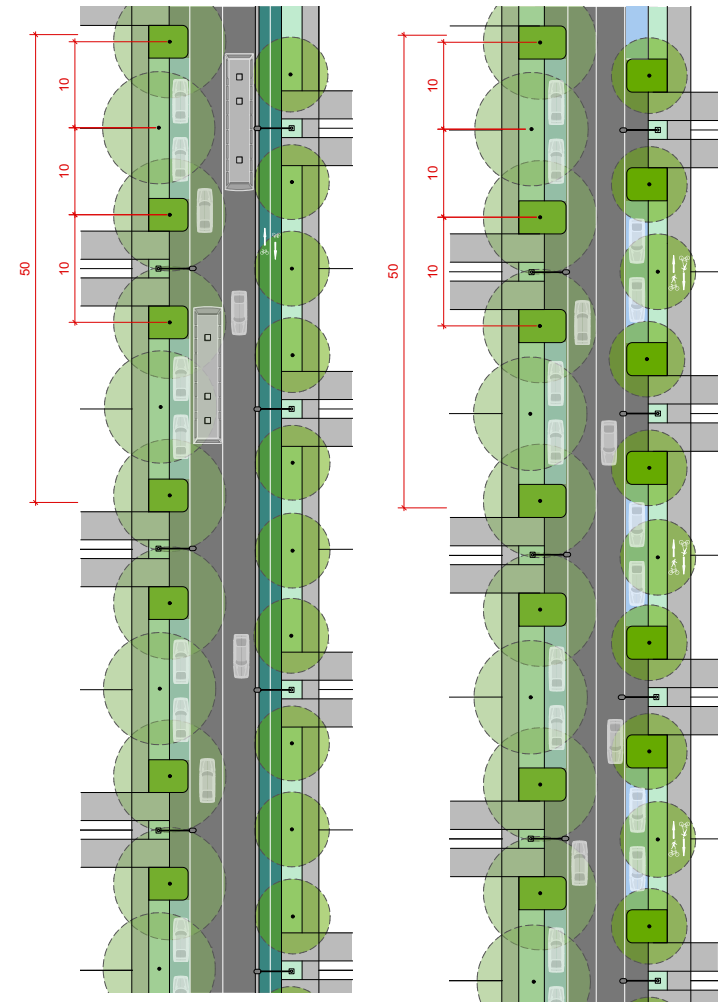
ALTERNATIVE 1 SECTION (NTS):
Separated Cycle Route, Bus Route Street Parking



ALTERNATIVE 2 SECTION (NTS):
Shared Path Cycle Route, Street Parking

INDICATIVE IMPLEMENTATION COSTS

Indicative implementation cost per lin/m of 20m road corridor	\$7,928.00
Indicative servicing cost per lin/m per year	\$53.86 / pa



ALTERNATIVE 1: PLAN (NTS)

ALTERNATIVE 2: PLAN (NTS)

DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS	
Footway arrangement	<ul style="list-style-type: none"> Minimum 4.0m verge adjoining residential / commercial Street tree pits in verge
Driveways	<ul style="list-style-type: none"> Cluster together driveways where possible to maximise tree planting
Power & Telecommunications	<ul style="list-style-type: none"> Overhead services to be undergrounded where possible Target larger street tree planting to side without overhead cables
Carriageway / Cycle provision	<ul style="list-style-type: none"> 3.5m traffic lanes including dish drain for bus traffic Shared Path located on verge with overhead cables if possible - with smaller street tree planting
Parking	<ul style="list-style-type: none"> parallel parking generally
Lighting	<ul style="list-style-type: none"> Street Lighting to required level for cycle paths, traffic and pedestrian verge integrated between tree plantings and at pedestrian crossings
Arts and Culture	<ul style="list-style-type: none"> Interpretive wayfinding
MATERIALS AND FINISHES REQUIREMENTS	
Footway pavements	<ul style="list-style-type: none"> Broom finished concrete pathway
Street Furniture	<ul style="list-style-type: none"> Standard furniture at seating nodes integrated with Cool Nodes every 400m
Tree Planting	<ul style="list-style-type: none"> Tree planting as per integrated arrangement - target soil volume 35m³ Cluster of shade tree plantings at "Cool Nodes" - target every 400m
Street Garden Planting	<ul style="list-style-type: none"> Street garden planting to tree pits - minimum 5m² area
Planting species	<ul style="list-style-type: none"> Evergreen medium to large tree species as advised by Council

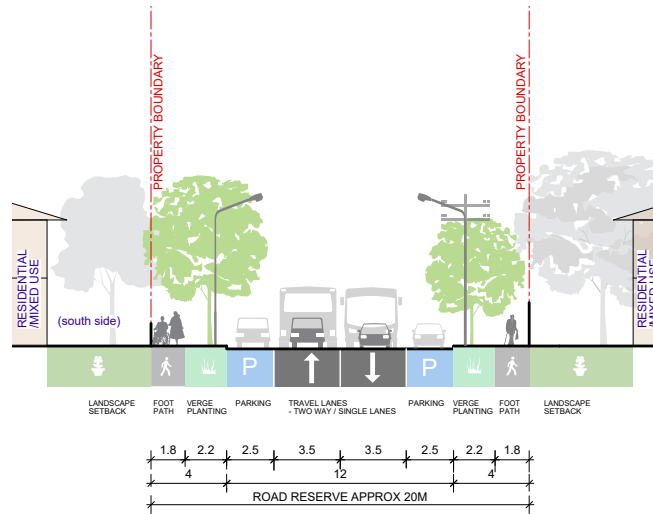
KEY FEATURES - Alternative 1 (refer plan and section this page)

- no cycle facility
- bus route with kerbside bus stops
- Tree planting in verge
- Parallel parking both sides

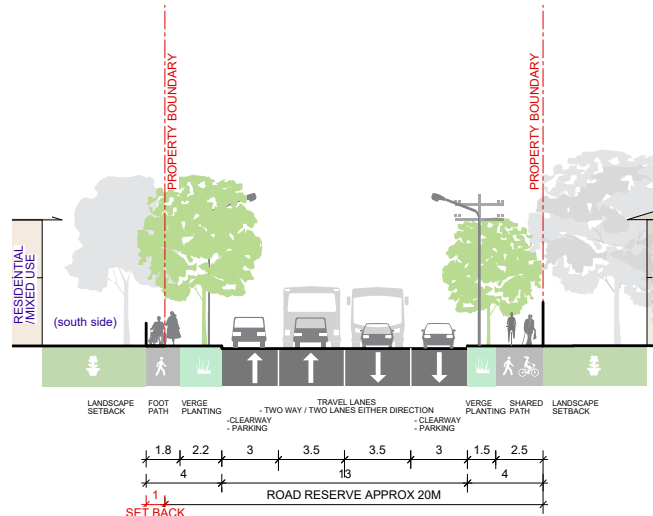
KEY FEATURES - Alternative 2 (refer plan and section this page)

- Shared pedestrian / cycle path
- bus route with kerbside bus stops
- Tree planting in verge
- Clearways both directions - Parallel parking both sides in non clearway time

ALTERNATIVE APPROACHES



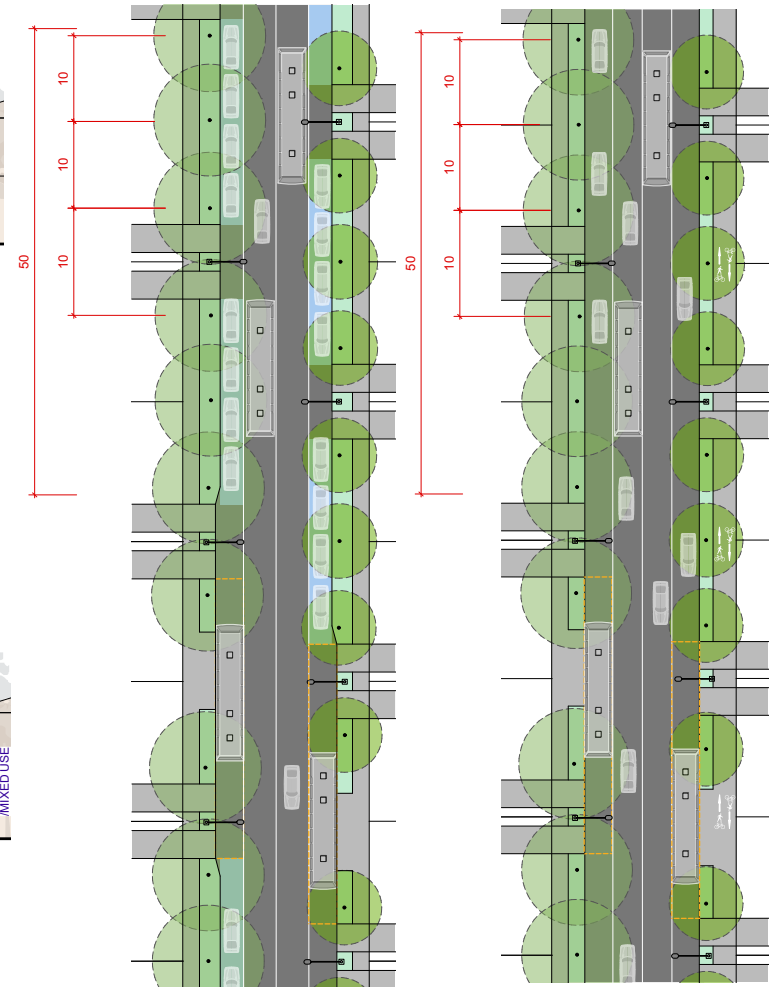
ALTERNATIVE 1 SECTION (NTS):
Bus Route, Street parking (no cycle facility)



ALTERNATIVE 2 SECTION (NTS):
Shared Path Cycle Route, Bus Route, Clearway with setback

INDICATIVE IMPLEMENTATION COSTS

Indicative implementation cost per lin/m of 20m road corridor	\$4,730.00
Indicative servicing cost per lin/m per year	\$29.62 / pa



ALTERNATIVE 1: PLAN (NTS)

ALTERNATIVE 2: PLAN (NTS)

CORE HIGH STREET

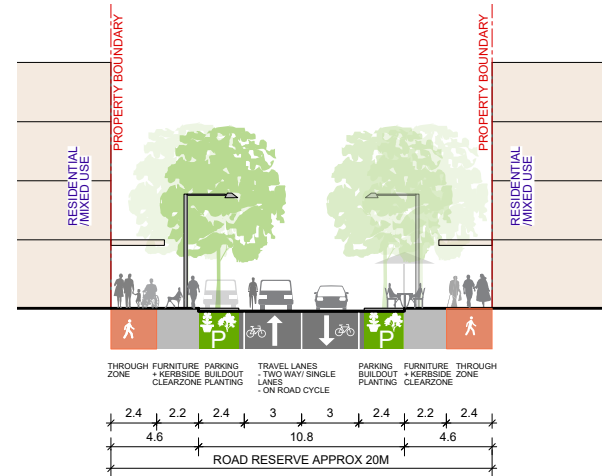
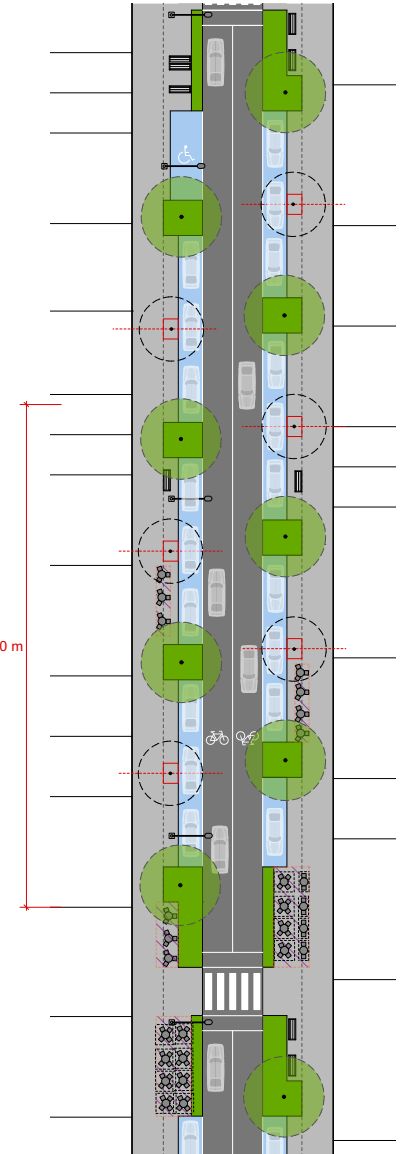
DESIGN IMPLEMENTATION BRIEF

DESIGN STRATEGY TOOLKITS	TARGETS
STREET ORDER	<ul style="list-style-type: none"> low speed traffic role primary pedestrian role supporting cycle role balancing of on street parking and footway widening no buses or large service vehicles
STREET GEOMETRY	<ul style="list-style-type: none"> Limit large vehicle traffic Minimise lane widths Reduce kerb radii
PEDESTRIAN THROUGH ZONE	<ul style="list-style-type: none"> 2.4m minimum continuous pedestrian through zone
CONNECTIVITY AND FLOW	<ul style="list-style-type: none"> no driveways narrow crossing distance with raised crossing of intersecting streets pedestrian priority (linemarked) crossings in street and at intersecting streets
AT THE KERB	<ul style="list-style-type: none"> widen footway where possible to no standing areas and at intersections tree planting in widened footways, or tree planting in parking lane underground power lines
STREET LIFE	<ul style="list-style-type: none"> provide for on street trading or at minimum active frontage as a dominant street character encourage businesses that contribute to street life encourage night trading
GREENING THE CENTRE	<ul style="list-style-type: none"> local green link 70% tree canopy coverage tree planting within kerbside parking lane or footway build outs strong ground plane presence of green 15% surface area target
COOL STREETS AND SPACES	<ul style="list-style-type: none"> 80% summer tree canopy shade continuous building awnings create regular "cool nodes" with optimum (deep) shade consider evapo-transpirative cooling
LOVED PUBLIC SPACES	<ul style="list-style-type: none"> provide a pedestrian focussed heart to the centre provide a range of reasons to come to / and stay in street create a safe and vibrant after dark place
CULTURE AND COMMUNITY	<ul style="list-style-type: none"> facilitate modal use of street for events integrated with other spaces provide for wayfinding and permanent / temporary arts / cultural expression

PERFORMANCE TARGETS

	Western Sydney Street Design Guide	Fairfield Public Domain Plan
DASHBOARD COMPARISON		
Nominal Width	16-25m	20m
Context	Commercial Centre	Commercial Centre
Built Form	Mixed-use with active ground floor uses	Mixed-use with active ground floor uses
Walking	Generous footpaths with multiple uses	2.4m clear walkway
Cycling	Travel zone shared with vehicles	Travel zone shared with vehicles Consider cycle lane / sep path subject to context
Behavioural Speed	≤ 30 km/h	≤ 30 km/h
Design Vehicle	Bus	Private Car
Check Vehicle	Garbage truck	Garbage truck
Travel lane	3.2-3.5m	3.2-3.5m
Parking lane	2.0-2.4m	2.1-2.5m
Lot Access	Rear-loaded/Loaded bays	Rear-loaded/Loaded bays
Buses	Yes	No
Kerb extensions at intersections	Required	Required
Type. Lots Served	Varies	Varies
WSUD	Low flow-passive irrigation/rain gardens High flow - pits and pipes solution	Pits and pipes solution generally - potential to integrate with WSUD to open space
PERFORMANCE TARGET COMPARISON		
Tree Target	12 x per 1000m ²	8-9 x per 1000m ²
Street Shade Area	70% canopy @ 20 years	80% of area incl awnings @ 20 years
Permeable Area	20% of area	15% of area excl perm paving

PREFERRED APPROACH

PREFERRED APPROACH: SECTION (NTS):
Two way traffic

PREFERRED APPROACH: PLAN (NTS)

DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS	
Footway arrangement	<ul style="list-style-type: none"> Minimum 4.6m verge adjoining commercial Street tree pits extend into parking lane if drainage allows
Driveways	<ul style="list-style-type: none"> No driveway access
Power & Telecommunications	<ul style="list-style-type: none"> Overhead services to be undergrounded
Carriageway / Cycle provision	<ul style="list-style-type: none"> 3.0m traffic lanes including dish drain for bus traffic Mixed traffic access for cycles to roadway
Parking	<ul style="list-style-type: none"> parallel parking generally no parking to separated path alternative (2)
Lighting	<ul style="list-style-type: none"> Street Lighting to required level for cycle paths, traffic and pedestrian verge integrated between tree plantings and at pedestrian crossings Pedestrian Pole-top Lighting to cycle path alignment
Arts and Culture	<ul style="list-style-type: none"> Interpretive wayfinding
MATERIALS AND FINISHES REQUIREMENTS	
Footway pavements	Primary Pavement (honed Concrete Unit) colour as per chapter 9
Street Furniture	<ul style="list-style-type: none"> Standard furniture as per chapter 9 Bespoke seating potential adjoining shared zones, shared lanes and to centre plaza / park
Tree Planting	<ul style="list-style-type: none"> Tree planting as per integrated arrangement - target soil volume 35m³ Cluster of shade tree plantings at "Cool Nodes" - target every 50m
Street Garden Planting	<ul style="list-style-type: none"> Street garden planting to tree pits - minimum 5m² area
Planting species	Planting species as per chapter 9

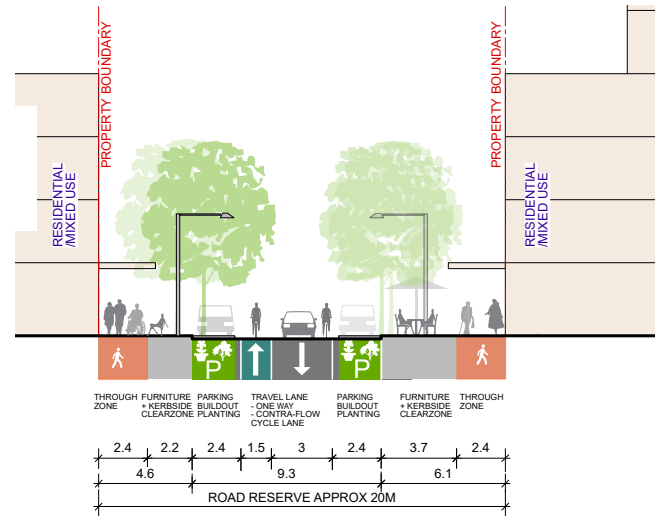
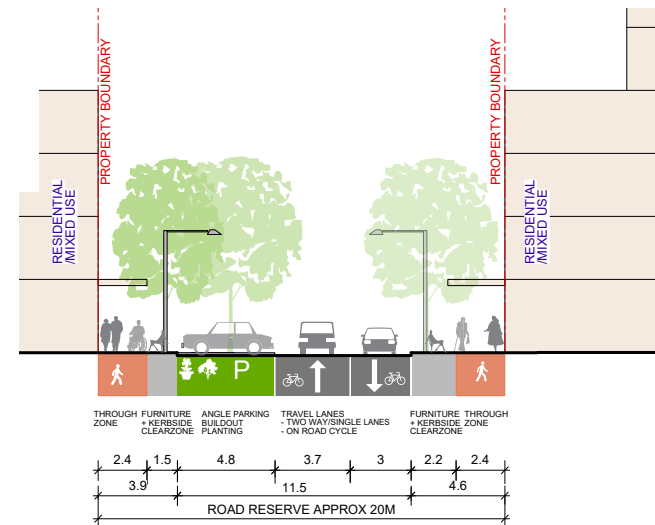
KEY FEATURES - Alternative 1 (refer plan and section this page)

- one way traffic
- kerbside parallel parking one side
- angle parking other side
- Tree planting in island extending into parking bay
- One way cycle lane

KEY FEATURES - Alternative 2 (refer plan and section this page)

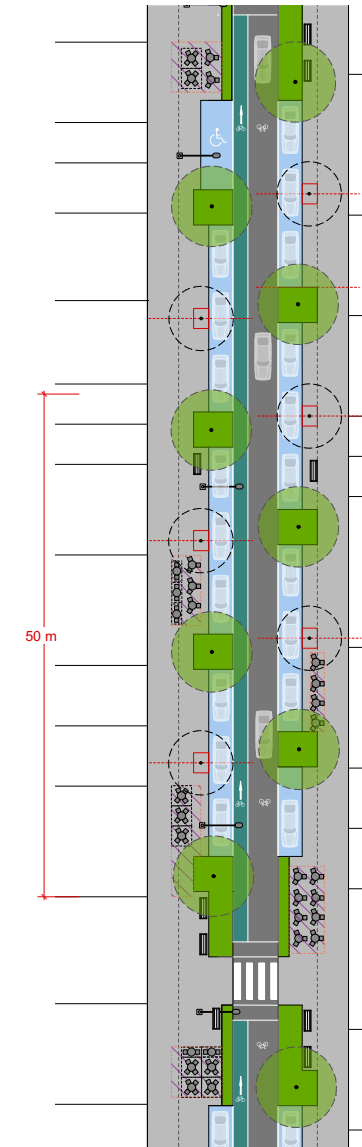
- Two way traffic
- kerbside parallel parking
- Tree planting in island extending into parking bay

ALTERNATIVE APPROACHES

ALTERNATIVE 1 SECTION (NTS):
One way traffic, parallel parking, one way cycle laneALTERNATIVE 2 SECTION (NTS):
Two way traffic, angle parking one side

INDICATIVE IMPLEMENTATION COSTS

Indicative implementation cost per lin/m of 20m road corridor	\$17,384.00
Indicative servicing cost per lin/m per year	\$206.93 / pa



ALTERNATIVE 1: PLAN (NTS)

MIXED HIGH STREET

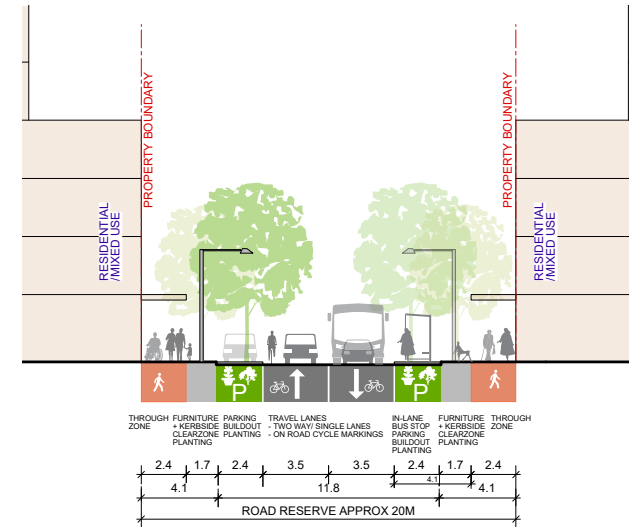
DESIGN IMPLEMENTATION BRIEF

DESIGN STRATEGY TOOLKITS	TARGETS
STREET ORDER	<ul style="list-style-type: none"> low speed traffic role primary pedestrian role primary cycle role balancing of on street parking and footway widening limited buses or large service vehicle
STREET GEOMETRY	<ul style="list-style-type: none"> minimise lane widths and swept paths in lane bus stops preferred where required integrate cycle facility where required
PEDESTRIAN THROUGH ZONE	<ul style="list-style-type: none"> 2.4m minimum continuous through zone
CONNECTIVITY AND FLOW	<ul style="list-style-type: none"> minimise driveways narrow crossing distance with raised crossing of intersecting streets pedestrian priority or signalised crossing of intersecting streets
AT THE KERB	<ul style="list-style-type: none"> kerbside parking tree planting in verge, or tree planting in parking lane underground power lines
STREET LIFE	<ul style="list-style-type: none"> provide for on street trading or at minimum active frontage to selected zones / nodes Encourage businesses that contribute to street life Encourage night trading
GREENING THE CENTRE	<ul style="list-style-type: none"> local green link 70% tree canopy coverage tree planting within kerbside parking lane or footway build outs strong ground plane presence of green 15% surface area target
COOL STREETS AND SPACES	<ul style="list-style-type: none"> 80% summer tree canopy shade continuous building awnings create regular "cool nodes" with optimum (deep) shade consider evapo-transpirative cooling
LOVED PUBLIC SPACES	<ul style="list-style-type: none"> support the pedestrian heart to the centre provide a range of reasons to come to / and stay in street create a safe and vibrant after dark place
CULTURE AND COMMUNITY	<ul style="list-style-type: none"> provide for wayfinding and permanent / temporary arts / cultural expression

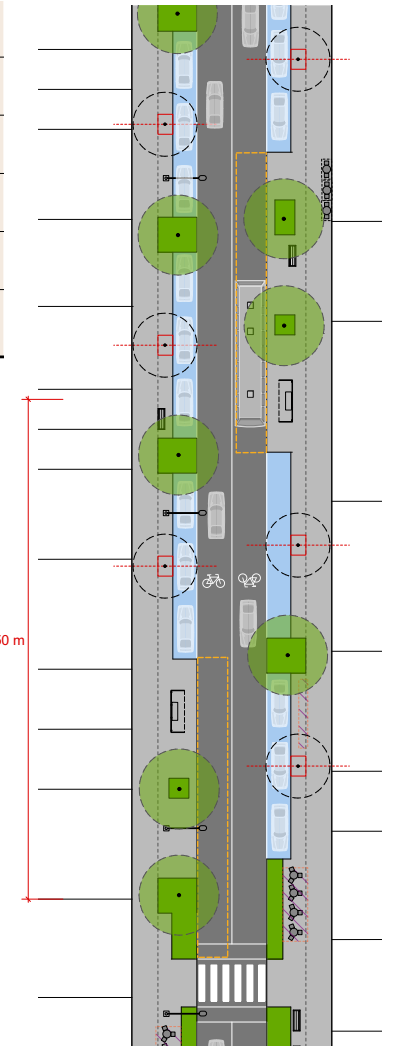
PERFORMANCE TARGETS

	Western Sydney Street Design Guide	Fairfield Public Domain Plan
DASHBOARD COMPARISON		
Nominal Width	16-25m	20m
Context	Commercial Centre	Commercial Centre
Built Form	Mixed-use with active ground floor uses	Mixed-use with active ground floor uses
Walking	Generous footpaths with multiple uses	2.4m clear walkway
Cycling	Travel zone shared with vehicles	Travel zone shared with vehicles Consider cycle lane / sep path subject to context
Behavioural Speed	≤ 30 km/h	≤ 30 km/h
Design Vehicle	Bus	Private Car
Check Vehicle	Garbage truck	Garbage truck
Travel lane	3.2-3.5m	3.2-3.5m
Parking lane	2.0-2.4m	2.1-2.5m
Lot Access	Rear-loaded/Loaded bays	Rear-loaded/Loaded bays
Buses	Yes	No
Kerb extensions at intersections	Required	Required
Type. Lots Served	Varies	Varies
WSUD	Low flow-passive irrigation/rain gardens High flow - pits and pipes solution	Pits and pipes solution generally - potential to integrate with WSUD to open space
PERFORMANCE TARGET COMPARISON		
Tree Target	12 x per 1000m2	8-9 x per 1000m2
Street Shade Area	70% canopy @ 20 years	80% of area incl awnings @ 20 years
Permeable Area	20% of area	15% of area excl perm paving

PREFERRED APPROACH



PREFERRED APPROACH: SECTION (NTS):
Two way, parallel parking, in lane bus stop

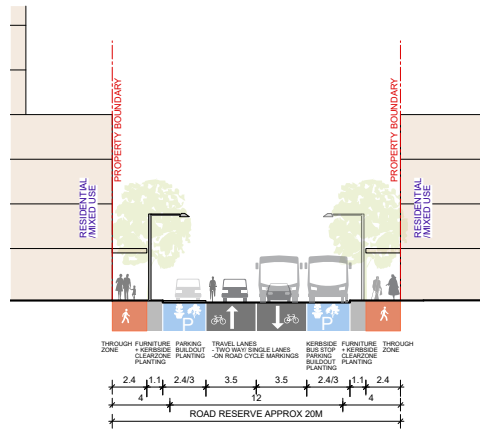


PREFERRED APPROACH: PLAN (NTS)

DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS	
Footway arrangement	<ul style="list-style-type: none"> Minimum 4.6m verge adjoining commercial Street tree pits extend into parking lane if drainage allows
Driveways	<ul style="list-style-type: none"> No driveway access
Power & Telecommunications	<ul style="list-style-type: none"> Overhead services to be undergrounded
Carriageway / Cycle provision	<ul style="list-style-type: none"> 3.0m traffic lanes including dish drain for bus traffic Mixed traffic access for cycles to roadway
Parking	<ul style="list-style-type: none"> parallel parking generally no parking to separated path alternative (2)
Lighting	<ul style="list-style-type: none"> Street Lighting to required level for cycle paths, traffic and pedestrian verge integrated between tree plantings and at pedestrian crossings Pedestrian Pole-top Lighting to cycle path alignment
Arts and Culture	<ul style="list-style-type: none"> Interpretive wayfinding
MATERIALS AND FINISHES REQUIREMENTS	
Footway pavements	<ul style="list-style-type: none"> Secondary Pavement (honed insitu concrete and honed Concrete Unit) colour as per chapter 9
Street Furniture	<ul style="list-style-type: none"> Standard furniture as per chapter 9 Bespoke seating potential adjoining shared zones, shared lanes and to centre plaza / park
Tree Planting	<ul style="list-style-type: none"> Tree planting as per integrated arrangement - target soil volume 35m³ Cluster of shade tree plantings at "Cool Nodes" - target every 100m
Street Garden Planting	<ul style="list-style-type: none"> Street garden planting to tree pits - minimum 5m² area
Planting species	Planting species as per chapter 9
KEY FEATURES - Alternative 1	
<ul style="list-style-type: none"> two way traffic mixed traffic cycle facility bus route with recessed bus bay Tree planting in parking bays Parallel parking both sides 	
KEY FEATURES - Alternative 2	
<ul style="list-style-type: none"> two way traffic shared pedestrian / cycle path to verge bus route with in lane kerbside bus stops parallel parking Tree planting in parking bays 	

ALTERNATIVE APPROACHES



ALTERNATIVE 1 SECTION (NTS):

Bus Bay (recessed bus stop)

INDICATIVE IMPLEMENTATION COSTS

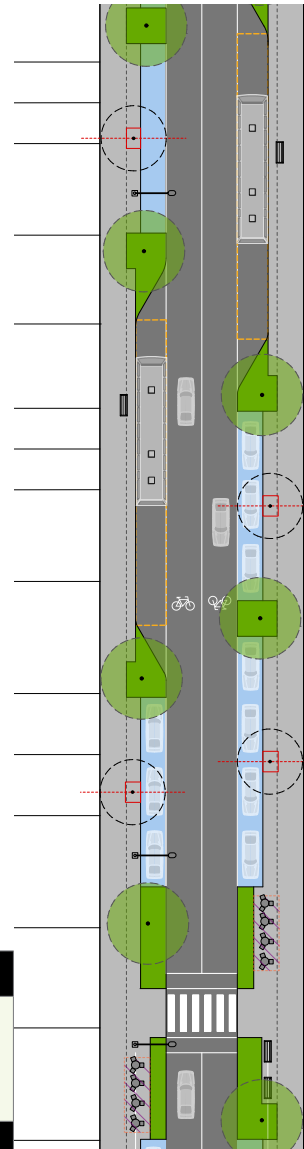
Indicative implementation cost per lin/m of 20m road corridor	\$15,233.00
Indicative servicing cost per lin/m per year	\$212.97 / pa

KEY FEATURES - Alternative 3

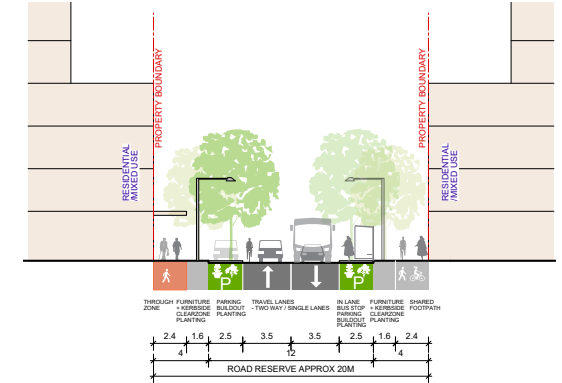
- two way traffic
- separated dual direction cycle path
- bus route with in lane kerbside bus stops
- parallel parking one side
- Tree planting in parking bays one side / tree planting in verge to cycle facility side

KEY FEATURES - Alternative 4

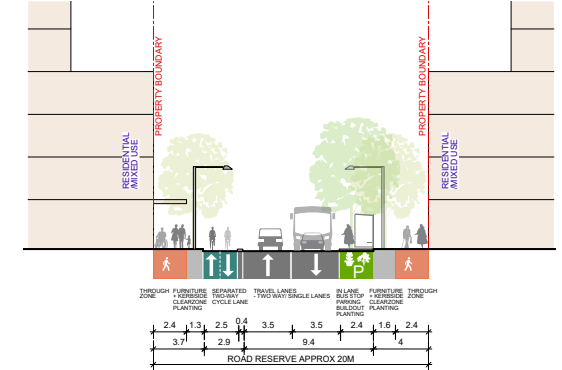
- two way traffic
- single direction linemarked cycle lanes
- bus route with in lane kerbside bus stops
- no on street parking
- Tree planting in parking bays



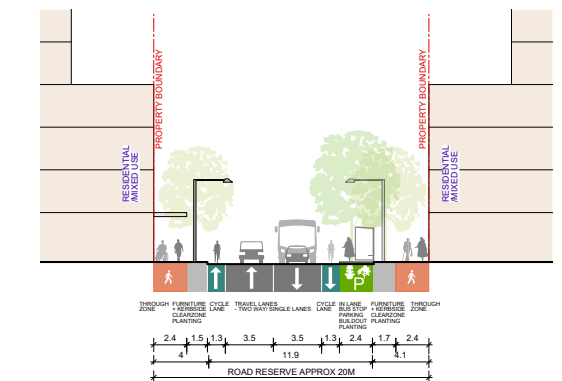
ALTERNATIVE 2: PLAN (NTS)



ALTERNATIVE 2SECTION (NTS): Shared cycle facility to verge



ALTERNATIVE 3SECTION (NTS): Separated cycle facility



ALTERNATIVE 4SECTION (NTS): Single direction cycle lanes

CIRCULATION HIGH STREET

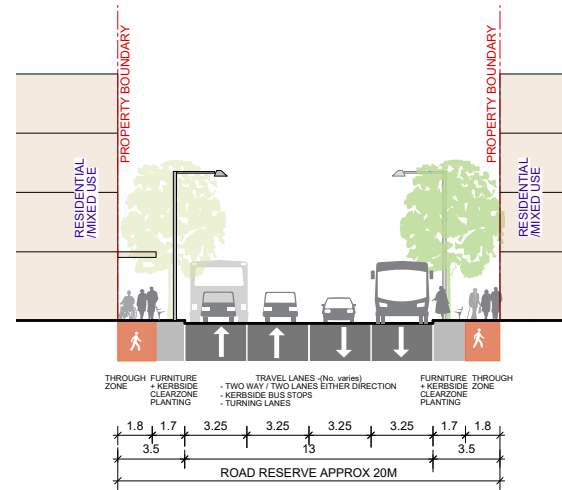
DESIGN IMPLEMENTATION BRIEF

DESIGN STRATEGY TOOLKITS	TARGETS
STREET ORDER	<ul style="list-style-type: none"> low speed traffic role supporting pedestrian role supporting cycle role on street parking with selective footway widening buses and large service vehicle access
STREET GEOMETRY	<ul style="list-style-type: none"> minimise lane widths and swept paths while catering for necessary vehicle types (buses and large service vehicle) in lane bus stops Integrate cycle facility where required
PEDESTRIAN THROUGH ZONE	<ul style="list-style-type: none"> minimum 1.8m pedestrian through zones both sides to cater for dual wheelchair movement - 2.4m preferred
CONNECTIVITY AND FLOW	<ul style="list-style-type: none"> cater for driveways in preference to Core and Mixed High Streets driveways integrated with street trees and lighting
AT THE KERB	<ul style="list-style-type: none"> clearways where required kerbside parking tree planting in verge tree planting in parking lane where possible underground power lines where possible
STREET LIFE	<ul style="list-style-type: none"> focus on comfortable pedestrian movement to connecting to Core and Mixed High Streets and other destinations Integrate on street trading or active frontage where uses adjoining street
GREENING THE CENTRE	<ul style="list-style-type: none"> local green link 70% tree canopy coverage tree planting within footway build outs or verge footway strong ground plane presence of green 15% surface area target
COOL STREETS AND SPACES	<ul style="list-style-type: none"> 70% summer tree canopy shade semi - continuous building awnings focussed on pedestrian routes create "cool nodes" with optimum (deep) shade near pedestrian movement routes
LOVED PUBLIC SPACES	<ul style="list-style-type: none"> connect pedestrians to the activity focus of the centre create a safe and comfortable after dark place of movement
CULTURE AND COMMUNITY	<ul style="list-style-type: none"> provide for wayfinding and permanent / temporary arts / cultural expression

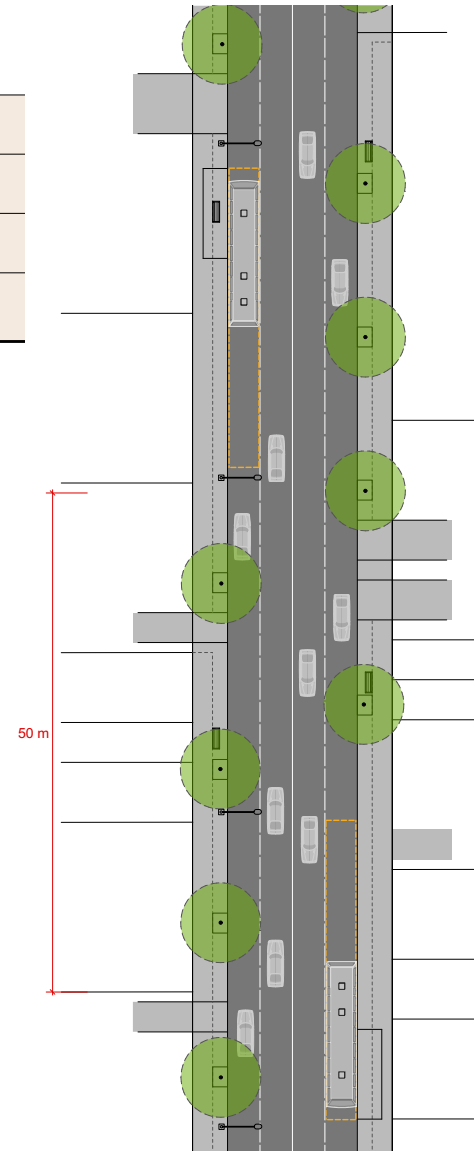
PERFORMANCE TARGETS

	Western Sydney Street Design Guide	Fairfield Public Domain Plan
DASHBOARD COMPARISON		
Nominal Width	16-25m	20m
Context	Commercial Centre	Commercial Centre
Built Form	Mixed-use with active ground floor uses	Mixed-use with active ground floor uses
Walking	Generous footpaths with multiple uses	2.4m clear walkway
Cycling	Travel zone shared with vehicles	Travel zone shared with vehicles Consider cycle lane / sep path subject to context
Behavioural Speed	≤ 30 km/h	≤ 30 km/h
Design Vehicle	Bus	Private Car
Check Vehicle	Garbage truck	Garbage truck
Travel lane	3.2-3.5m	3.2-3.5m
Parking lane	2.0-2.4m	2.1-2.5m
Lot Access	Rear-loaded/Loaded bays	Rear-loaded/Loaded bays
Buses	Yes	No
Kerb extensions at intersections	Required	Required where turning lanes allow
Type. Lots Served	Varies	Varies
WSUD	Low flow-passive irrigation/rain gardens High flow - pits and pipes solution	Pits and pipes solution generally - potential to integrate with WSUD to open space
PERFORMANCE TARGET COMPARISON		
Tree Target	12 x per 1000m2	8-9 x per 1000m2
Street Shade Area	70% canopy @ 20 years	80% of area incl awnings @ 20 years
Permeable Area	20% of area	15% of area excl perm paving

PREFERRED APPROACH



PREFERRED APPROACH: SECTION (NTS):
Two way, multi-purpose kerbside lane



PREFERRED APPROACH: PLAN (NTS)

DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS	
Footway arrangement	<ul style="list-style-type: none"> Minimum 4.6m verge adjoining commercial Street tree pits extend into parking lane if drainage allows
Driveways	<ul style="list-style-type: none"> No driveway access
Power & Telecommunications	<ul style="list-style-type: none"> Overhead services to be undergrounded
Carriageway / Cycle provision	<ul style="list-style-type: none"> 3.0m traffic lanes including dish drain for bus traffic Mixed traffic access for cycles to roadway
Parking	<ul style="list-style-type: none"> parallel parking generally no parking to separated path alternative (2)
Lighting	<ul style="list-style-type: none"> Street Lighting to required level for cycle paths, traffic and pedestrian verge integrated between tree plantings and at pedestrian crossings Pedestrian Pole-top Lighting to cycle path alignment
Arts and Culture	<ul style="list-style-type: none"> Interpretive wayfinding
MATERIALS AND FINISHES REQUIREMENTS	
Footway pavements	<ul style="list-style-type: none"> Secondary Pavement (honed insitu concrete and honed Concrete Unit) colour as per chapter 9
Street Furniture	<ul style="list-style-type: none"> Standard furniture as per chapter 9 Bespoke seating potential adjoining shared zones, shared lanes and to centre plaza / park
Tree Planting	<ul style="list-style-type: none"> Tree planting as per integrated arrangement - target soil volume 35m³ Cluster of shade tree plantings at "Cool Nodes" - target every 200m
Street Garden Planting	<ul style="list-style-type: none"> Street garden planting to tree pits - minimum 5m² area
Planting species	Planting species as per chapter 9

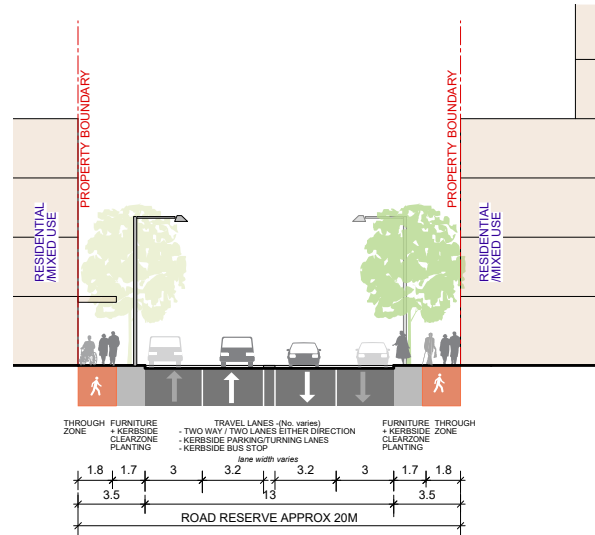
KEY FEATURES - Alternative 1

- two way traffic - separate by median
- multi purpose kerbside lane: parallel parking, bus stop, clearway travel lane
- Tree planting in verge
- Parallel parking both sides

KEY FEATURES - Alternative 2

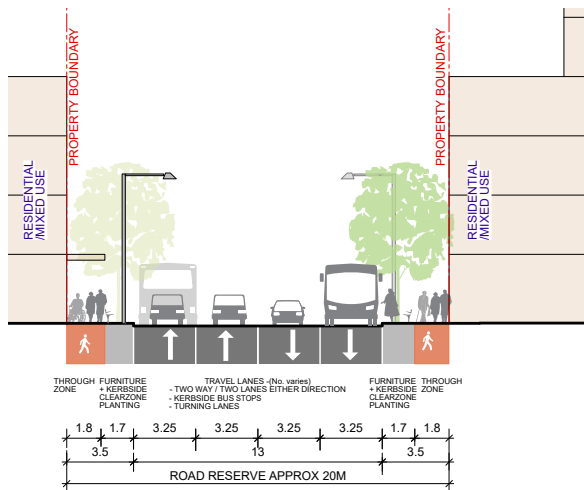
- shared pedestrian / cycle path to verge
- bus route with in lane kerbside bus stops
- parallel parking
- Tree planting in parking bays

ALTERNATIVE APPROACHES



ALTERNATIVE 1 SECTION (NTS):

Two lanes both directions with median



ALTERNATIVE 2 SECTION (NTS):

Two lanes both directions with bus stop

INDICATIVE IMPLEMENTATION COSTS

Indicative implementation cost per lin/m of 20m road corridor	\$12,448.00
Indicative servicing cost per lin/m per year	\$154 / pa

SHARED ZONE ON A HIGH STREET



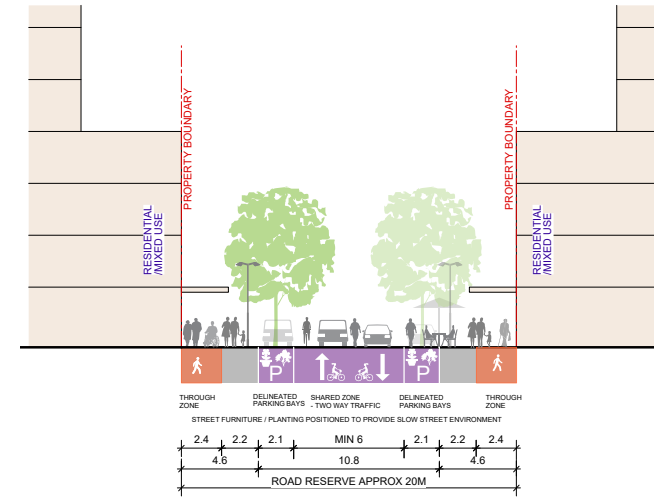
DESIGN IMPLEMENTATION BRIEF

DESIGN STRATEGY TOOLKITS	TARGETS
STREET ORDER	<ul style="list-style-type: none"> lowest speed traffic role shared vehicular, pedestrian and cycle roles small-large service vehicles
STREET GEOMETRY	<ul style="list-style-type: none"> raise road and eliminate kerbs to create shared space design to RMS shared zone guidelines minimise lane widths and swept paths
PEDESTRIAN THROUGH ZONE	<ul style="list-style-type: none"> NA
CONNECTIVITY AND FLOW	<ul style="list-style-type: none"> raised to footpath level shared vehicle, pedestrian and cycle movement within carriageway
AT THE KERB	<ul style="list-style-type: none"> replace kerbs and provide pedestrian pavement as per RMS shared zone guidelines planting and other street elements define vehicular movement underground power lines
STREET LIFE	<ul style="list-style-type: none"> provides comfortable pedestrian priority movement connecting to Core and Mixed High Streets and other destinations facilitates additional opportunities for seating and landscape
GREENING THE CENTRE	<ul style="list-style-type: none"> 70% summer tree canopy create "cool nodes" with optimum (deep) shade at shared zone
COOL STREETS AND SPACES	<ul style="list-style-type: none"> XX% summer tree canopy shade Continuous building awnings Create "cool nodes" with optimum (deep) shade Consider evapo-transpirative cooling
LOVED PUBLIC SPACES	<ul style="list-style-type: none"> support the pedestrian heart to the centre contribute to the range of reasons to come to / and stay in street create a safe and vibrant after dark place
CULTURE AND COMMUNITY	<ul style="list-style-type: none"> facilitate modal use of street for events integrated with other spaces

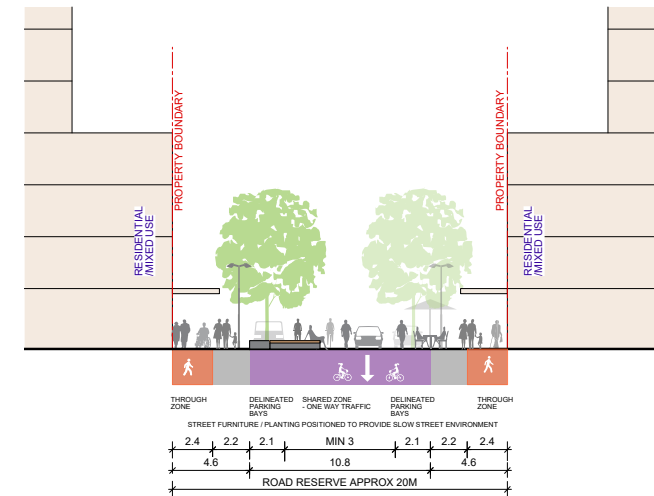
PERFORMANCE TARGETS

	Western Sydney Street Design Guide	Fairfield Public Domain Plan
DASHBOARD COMPARISON		
Nominal Width		20m
Context		Commercial Centre
Built Form		Mixed-use with active ground floor uses
Walking		2.4m clear walkway to verges / 3.0m clear zone to traffic route
Cycling		Mixed traffic
Behavioural Speed		≤ 10 km/h
Design Vehicle		Private Car
Check Vehicle		Garbage truck
Travel zone		3.0m
Parking bay		2.1-2.5m
Lot Access		avoid access
Buses		No
Type. Lots Served		Varies
WSUD		Pits and pipes solution generally potential to integrate WSUD beds
PERFORMANCE TARGET COMPARISON		
Tree Target		8-9 x per 50m
Street Shade Area		80% of area incl awnings
Permeable Area		35% of area excl perm paving

PREFERRED APPROACH



PREFERRED APPROACH: SECTION (NTS):
Two way traffic



PREFERRED APPROACH: SECTION (NTS):
One way traffic

DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS	
Footway arrangement	<ul style="list-style-type: none"> Shared zone in accordance with RMS Shared Zone Guidelines Street tree pits extend into parking lane if drainage allows
Driveways	<ul style="list-style-type: none"> No driveway access
Power & Telecommunications	<ul style="list-style-type: none"> Overhead services to be undergrounded
Carriageway / Cycle provision	<ul style="list-style-type: none"> 3.0m zone for vehicle movement clear of shared zone elements Mixed traffic access for cycles to roadway
Parking	<ul style="list-style-type: none"> parallel parking generally
Lighting	<ul style="list-style-type: none"> Street Lighting to required level for cycle paths, traffic and pedestrian verge integrated between tree plantings and at pedestrian crossings Pedestrian Pole-top Lighting to adjoining pedestrian only areas
Arts and Culture	<ul style="list-style-type: none"> Interpretive wayfinding
MATERIALS AND FINISHES REQUIREMENTS	
Footway pavements	<ul style="list-style-type: none"> Secondary Pavement (honed insitu concrete and honed Concrete Unit) colour as per chapter 9 reduced unit size for regular traffic loadings structural bedding course and grout to pavements
Street Furniture	<ul style="list-style-type: none"> Standard furniture as per chapter 9 Bespoke seating potential adjoining shared zones, shared lanes and to centre plaza / park
Tree Planting	<ul style="list-style-type: none"> Tree planting as per integrated arrangement - target soil volume 35m³ Cluster of shade tree plantings at "Cool Nodes" - target every 200m
Street Garden Planting	<ul style="list-style-type: none"> Street garden planting to tree pits - minimum 5m² area
Planting species	Planting species as per chapter 9
INDICATIVE IMPLEMENTATION COSTS	
Indicative implementation cost per lin/m of 20m road corridor	\$25,447.00
Indicative servicing cost per lin/m per year	\$247 / pa



EXAMPLE - Mitchell Street Square St Leonards

SHARED LANEWAY

DESIGN IMPLEMENTATION BRIEF PERFORMANCE TARGETS

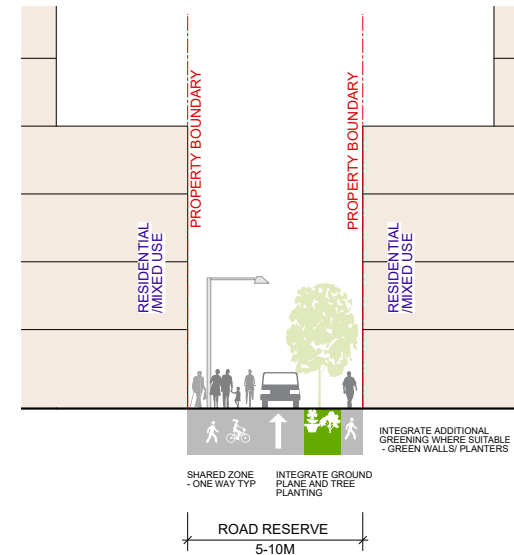
DESIGN STRATEGY TOOLKITS	TARGETS
STREET ORDER	<ul style="list-style-type: none"> lowest speed traffic role shared vehicular, pedestrian and cycle roles small-large service vehicles
STREET GEOMETRY	<ul style="list-style-type: none"> raise road and eliminate kerbs to create shared space design to RMS shared zone guidelines minimise lane widths and swept paths
PEDESTRIAN THROUGH ZONE	<ul style="list-style-type: none"> NA
CONNECTIVITY AND FLOW	<ul style="list-style-type: none"> raised to footpath level shared vehicle, pedestrian and cycle movement within carriageway
AT THE KERB	<ul style="list-style-type: none"> replace kerbs and provide pedestrian pavement as per RMS shared zone guidelines planting and other street elements define vehicular movement underground power lines
STREET LIFE	<ul style="list-style-type: none"> provides comfortable pedestrian priority movement connecting to Core and Mixed High Streets and other destinations facilitates additional opportunities for seating and landscape
GREENING THE CENTRE	<ul style="list-style-type: none"> 70% summer tree canopy create "cool nodes" with optimum (deep) shade at shared zone
COOL STREETS AND SPACES	<ul style="list-style-type: none"> XX% summer tree canopy shade Continuous building awnings Create "cool nodes" with optimum (deep) shade Consider evapo-transpirative cooling
LOVED PUBLIC SPACES	<ul style="list-style-type: none"> support the pedestrian heart to the centre contribute to the range of reasons to come to / and stay in street create a safe and vibrant after dark place
CULTURE AND COMMUNITY	<ul style="list-style-type: none"> facilitate modal use of street for events integrated with other spaces

	Western Sydney Street Design Guide	Fairfield Public Domain Plan
DASHBOARD COMPARISON		
Nominal Width	7m	5-10m
Context	Commercial Centre	Commercial Centre
Built Form	Mixed-use with active ground floor uses	Mixed-use with active ground floor uses
Walking	Shared zone shared with cyclists and vehicles	Shared zone shared with cyclists and vehicles
Cycling	Shared zone shared with cyclists and vehicles	Shared zone shared with cyclists and vehicles
Behavioural Speed	10 km/h	10 km/h
Design Vehicle	Private Car	Private Car
Check Vehicle	Garbage truck / delivery vehicle	Garbage truck / delivery vehicle
Travel zone	6.0-8.5m	3.0-3.5m
Parking bay	2.0-2.4m	2.1-2.5m
Lot Access	Rear-loaded via laneway	Rear-loaded via laneway
Buses	No	No
WSUD	Low flow: passive irrigation of street trees, or permeable paving for ground-water infiltration High flow: pits and pipes solution	Pits and pipes solution generally potential to integrate WSUB beds

PERFORMANCE TARGET COMPARISON		
Tree Target	12 x per 1000m ²	8-9 x per 1000m ²
Street Shade Area	70% canopy @ 20 years	80% of area incl awnings @ 20 years
Permeable Area	35% of area	5-6% of area excl perm paving

INDICATIVE IMPLEMENTATION COSTS	
Indicative implementation cost per lin/m of 20m road corridor	\$8,750 - \$14,000
Indicative servicing cost per lin/m per year	\$140-170 / pa

PREFERRED APPROACH



PREFERRED APPROACH: SECTION (NTS):



DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS	
Footway arrangement	<ul style="list-style-type: none"> Shared zone in accordance with RMS Shared Zone Guidelines Street tree pits extend into parking lane if drainage allows
Driveways	<ul style="list-style-type: none"> Minimise due to impact of swept path
Power & Telecommunications	<ul style="list-style-type: none"> Overhead services to be undergrounded
Carriageway / Cycle provision	<ul style="list-style-type: none"> 3.0m zone for vehicle movement clear of shared zone elements Mixed traffic access for cycles to roadway
Parking	<ul style="list-style-type: none"> n/a
Lighting	<ul style="list-style-type: none"> Street Lighting to required level for cycle paths, traffic and pedestrian verge integrated between tree plantings and at pedestrian crossings Overhead catenary lighting
Arts and Culture	<ul style="list-style-type: none"> Interpretive wayfinding Facade artworks
MATERIALS AND FINISHES REQUIREMENTS	
Footway pavements	<ul style="list-style-type: none"> Secondary Pavement (honed insitu concrete and honed Concrete Unit) colour as per chapter 9 reduced unit size for regular traffic loadings structural bedding course and grout to pavements
Street Furniture	<ul style="list-style-type: none"> Standard furniture as per chapter 9 Bespoke seating potential adjoining shared zones, shared lanes and to centre plaza / park
Tree Planting	<ul style="list-style-type: none"> Tree planting as per integrated arrangement - target soil volume 35m³ Cluster of shade tree plantings at "Cool Nodes" - target every 200m
Street Garden Planting	<ul style="list-style-type: none"> Street garden planting to tree pits - minimum 5m² area Potential facade planting
Planting species	<ul style="list-style-type: none"> Planting species as per chapter 9

SERVICE LANEWAY

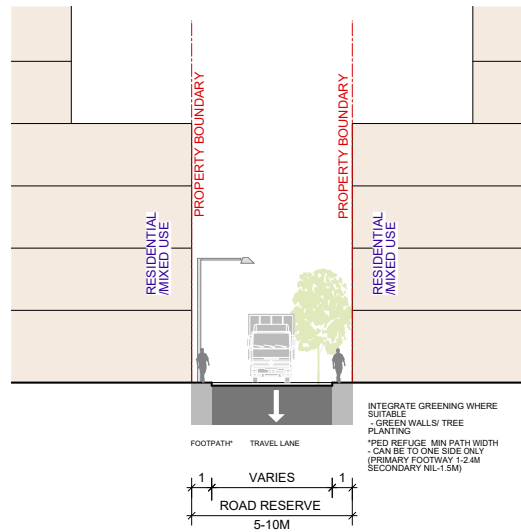
IMPLEMENTATION BRIEF

TOOLKITS	TARGETS
STREET ORDER	<ul style="list-style-type: none"> low speed traffic role small-large service vehicles limited / nil pedestrian / cycle linkage role
STREET GEOMETRY	<ul style="list-style-type: none"> traffic role takes precedence lane widths as required
PEDESTRIAN THROUGH ZONE	<ul style="list-style-type: none"> NA
CONNECTIVITY AND FLOW	<ul style="list-style-type: none"> provide for pedestrian safety - pedestrian footpath or refuge zones driveways as required for service role
AT THE KERB	<ul style="list-style-type: none"> traffic and service role takes precedence
STREET LIFE	<ul style="list-style-type: none"> NA
GREENING THE CENTRE	<ul style="list-style-type: none"> 50% tree canopy coverage
COOL STREETS AND SPACES	<ul style="list-style-type: none"> review overshadowing conditions and target canopy trees to areas lacking summer shade to reduce heat island effect
LOVED PUBLIC SPACES	<ul style="list-style-type: none"> NA
CULTURE AND COMMUNITY	<ul style="list-style-type: none"> NA

PERFORMANCE TARGETS

	Western Sydney Street Design Guide	Fairfield Public Domain Plan
DASHBOARD COMPARISON		
Nominal Width		5-10m
Context		Commercial Centre
Built Form		Mixed-use with active ground floor uses
Walking		Mixed use - low pedestrian and cycle traffic
Cycling		Shared zone shared with cyclists and vehicles
Behavioural Speed		10 km/h
Design Vehicle		Private Car
Check Vehicle		Garbage truck / delivery vehicle
Travel zone		3.0-3.5m
Parking bay		2.1-2.5m
Lot Access		Rear-loaded via laneway
Buses		No
WSUD		Pits and pipes solution generally potential to integrate WSUB beds
PERFORMANCE TARGET COMPARISON		
Tree Target		3-4 x per 1000m ²
Street Shade Area		5% of area - likely to have strong built form overshadowing
Permeable Area		0% of area excl perm paving

PREFERRED APPROACH



PREFERRED APPROACH: SECTION (NTS):



DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS	
Footway arrangement	<ul style="list-style-type: none"> Asphalt or concrete roadway Dedicated pedestrian refuge where space allows
Driveways	<ul style="list-style-type: none"> Back of house service access
Power & Telecommunications	<ul style="list-style-type: none"> Overhead services
Carriageway / Cycle provision	<ul style="list-style-type: none"> As required for vehicular access
Parking	<ul style="list-style-type: none"> n/a
Lighting	<ul style="list-style-type: none"> Street Lighting to required level for cycle paths, traffic and pedestrian verge integrated between tree plantings and at pedestrian crossings Overhead catenary lighting
Arts and Culture	<ul style="list-style-type: none"> Interpretive wayfinding
MATERIALS AND FINISHES REQUIREMENTS	
Footway pavements	<ul style="list-style-type: none"> Asphalt roadway Broom finished concrete pedestrian refuge where provided
Street Furniture	<ul style="list-style-type: none"> Standard furniture as per chapter 9 Bespoke seating potential adjoining shared zones, shared lanes and to centre plaza / park
Tree Planting	<ul style="list-style-type: none"> Tree planting - target soil volume 35m³
Street Garden Planting	<ul style="list-style-type: none"> n/a
Planting species	Planting species as per chapter 9

INDICATIVE IMPLEMENTATION COSTS	
Indicative implementation cost per lin/m of 20m road corridor (excluding roadway)	\$4,100.00
Indicative servicing cost per lin/m per year	\$45 / pa

LOCAL STREET 1

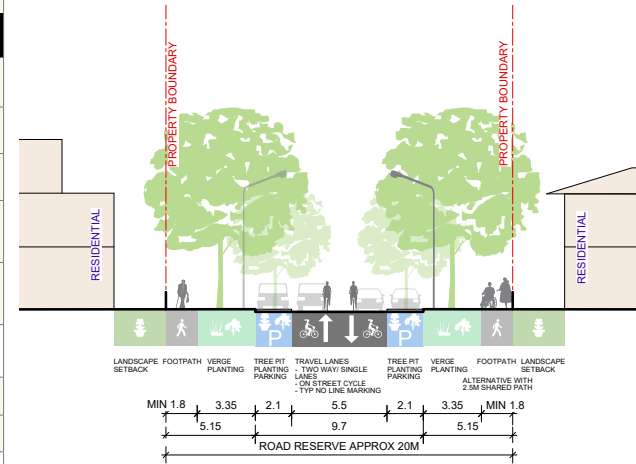
DESIGN IMPLEMENTATION BRIEF

DESIGN STRATEGY TOOLKITS	TARGETS
STREET ORDER	<ul style="list-style-type: none"> Low speed traffic role Local pedestrian role Supporting cycle role emergency and garbage vehicles
STREET GEOMETRY	<ul style="list-style-type: none"> Limit large vehicle traffic Minimise lane widths Reduce kerb radii
PEDESTRIAN THROUGH ZONE	<ul style="list-style-type: none"> 1.5m minimum continuous pedestrian path Both sides preferred - minimum one side
CONNECTIVITY AND FLOW	<ul style="list-style-type: none"> Residential driveways Refuge crossings where traffic volumes higher
AT THE KERB	<ul style="list-style-type: none"> parallel parking generally overhead power cables to one side
STREET LIFE	<ul style="list-style-type: none"> attractive and comfortable street environment that encourages pedestrian movement and community interaction
GREENING THE CENTRE	<ul style="list-style-type: none"> Local green link 70% tree canopy coverage Tree planting in verge subject to power lines, or Tree planting in parking lane, or combination of both ground plane presence of green - generally turfed verge - 15% target potential for resident street gardens to verge
COOL STREETS AND SPACES	<ul style="list-style-type: none"> 70% summer tree canopy shade Create "cool nodes" with optimum (deep) shade at 100m intervals in neighbourhoods
LOVED PUBLIC SPACES	<ul style="list-style-type: none"> Provide a pedestrian heart to the centre Provide a range of reasons to be in the street Create a safe and vibrant after hours place
CULTURE AND COMMUNITY	<ul style="list-style-type: none"> Encourage residential street interaction - facilitate events that streets can participate in

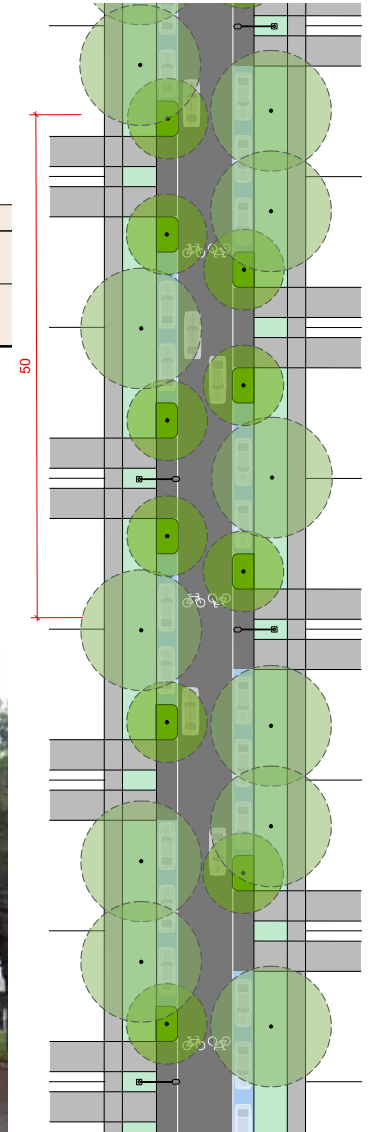
PERFORMANCE TARGETS

	Western Sydney Street Design Guide (type 4)	Fairfield Public Domain Plan
DASHBOARD COMPARISON		
Nominal Width	15-23m	15-20m
Context	Residential neighbourhood	Residential neighbourhood
Built Form	Detached/semi-detached dwellings	Detached/semi-detached dwellings
Walking	Min. 1.2m path both sides	Min. 1.2m path preferred both sides - minimum one side
Cycling	Travel zone shared with vehicles	Travel zone shared with vehicles (Mixed traffic)
Behavioural Speed	30 km/h	30 km/h
Travel lane	2.8-3.0m	2.8-3.0m
Parking lane	2.0-2.4m	2.0-2.4m
Design Vehicle	Private car	Private car
Check Vehicle	Garbage Truck	Garbage Truck
Indicative Traffic	approx 3000 vehicles per day	approx 3000 vehicles per day
Lot Access	Front Loaded	Front Loaded
Buses	No	No
Max. Length	approx 100m	approx 100m
Type. Lots Served	as required for local access	as required for local access
WSUD	Low flow: passive irrigation High flow: swale on low-side	Divert to WSUD in island tree pits where feasible Pits and Pipes
PERFORMANCE TARGET COMPARISON		
Tree Target	10 x per 1000m2	12 x per 1000m2
Street Shade Area	70% of area	77% of area create "cool nodes" with 80-90% (deep) shade at target 100m intervals
Permeable Area	35% of area	40% of area excl perm paving

PREFERRED APPROACH



PREFERRED APPROACH: SECTION (NTS):
Street trees to verge and to parking lane islands

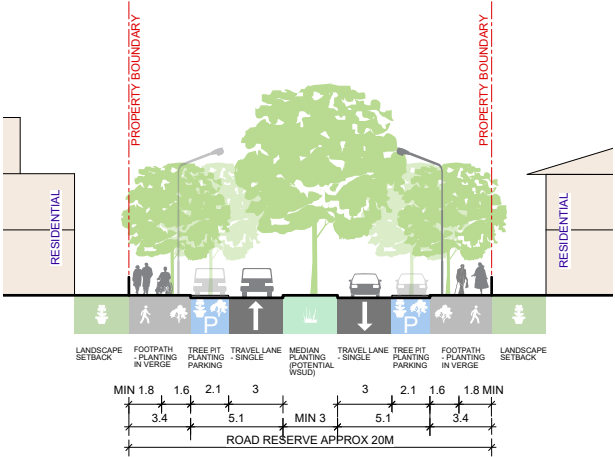


PREFERRED APPROACH: PLAN (NTS)

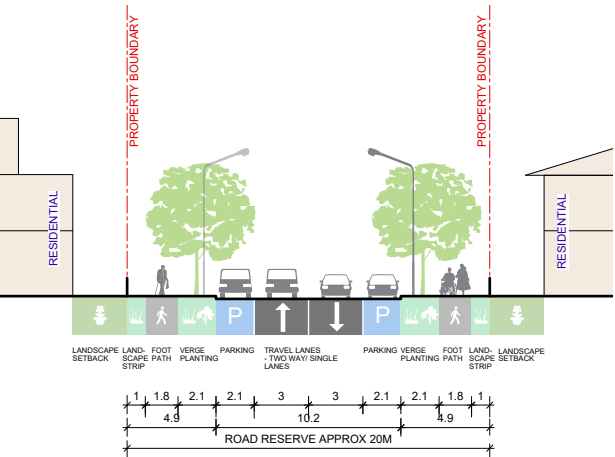
DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS			
Footway arrangement	<ul style="list-style-type: none">Minimum 3.0m verge adjoining resid lotsStreet tree pits in vergeSupplementary tree tree pits in parking lane where feasible		
Driveways	<ul style="list-style-type: none">Cluster together driveways where possible to maximise tree planting		
Power & Telecommunications	<ul style="list-style-type: none">Target larger street tree planting to side without overhead cablesConsider aerial bundling to conserve mature trees		
Carriageway / Cycle provision	<ul style="list-style-type: none">Varied traffic lane widths as per alternativesMixed traffic cycle facility		
Parking	<ul style="list-style-type: none">parallel parking generally		
Lighting	<ul style="list-style-type: none">Street Lighting to required level for, traffic and pedestrian verge integrated between tree plantings and at pedestrian crossings		
Arts and Culture	<ul style="list-style-type: none">n/a		
MATERIALS AND FINISHES REQUIREMENTS			
Footway pavements	<ul style="list-style-type: none">Tertiary Pavement -broom finished concrete pathway		
Street Furniture	<ul style="list-style-type: none">n/a		
Tree Planting	<ul style="list-style-type: none">Tree planting as per integrated arrangement - target soil volume 35m3Cluster of shade tree plantings at "Cool Nodes" - target every 400m		
Street Garden Planting	<ul style="list-style-type: none">Street garden planting to tree pits - minimum 5m2 area		
Planting species	<ul style="list-style-type: none">Evergreen medium to large tree species as advised by Council		
PERFORMANCE TARGET COMPARISON			
	WSSG	ALT 1	ALT 2
Tree Target	10 x per 1000m2	12 x per 1000m	8 x per 1000m
Street Shade Area	70% of area	approx 70% of area create "cool nodes" with 80-90% (deep) shade at target 100m intervals	approx 40% of area create "cool nodes" with 80-90% (deep) shade at target 100m intervals
Permeable Area	35% of area	20% of area excl perm paving	25% of area excl perm paving
KEY FEATURES - Alternative 1 (refer plan and section this page)			
<ul style="list-style-type: none">Tree planting in parking lane islandstree planting in central median		<ul style="list-style-type: none">Parallel parking both sides	
KEY FEATURES - Alternative 2 (refer plan and section this page)			
<ul style="list-style-type: none">Tree planting in vergetree planting in central median		<ul style="list-style-type: none">Parallel parking both sides	

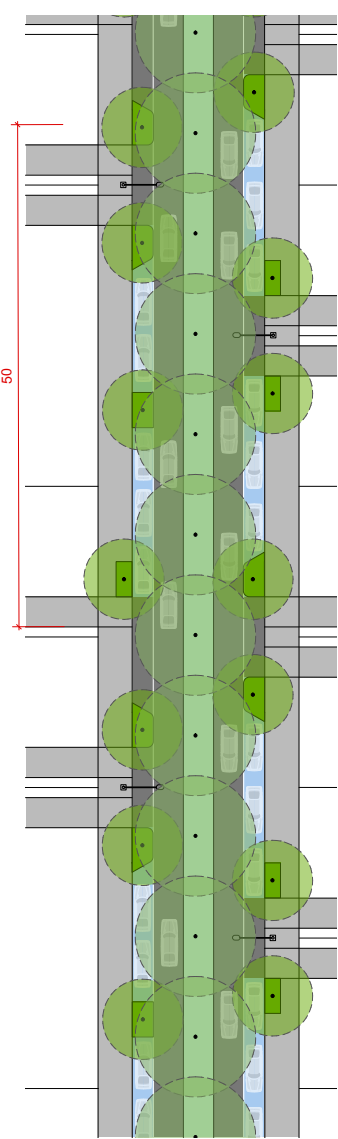
ALTERNATIVE APPROACHES



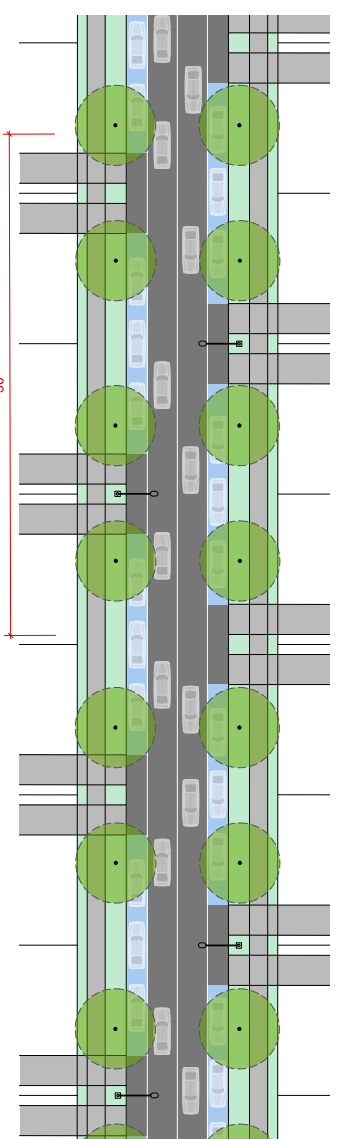
ALTERNATIVE 1 120M LOCAL STREET SECTION (NTS):
Street trees to verge and to central median



ALTERNATIVE 2 20M LOCAL STREET SECTION (NTS):
Street trees to verge



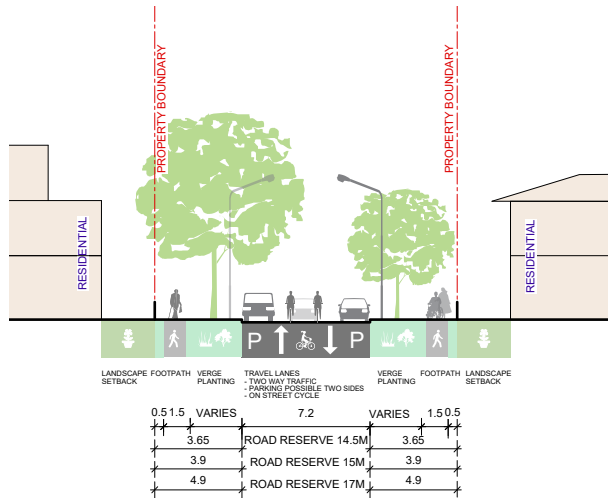
ALTERNATIVE 1: PLAN (NTS)



ALTERNATIVE 2: PLAN (NTS)

LOCAL STREET 2

ALTERNATIVE APPROACHES



ALTERNATIVE 3 14-17M LOCAL STREET SECTION (NTS):

Street trees to verge

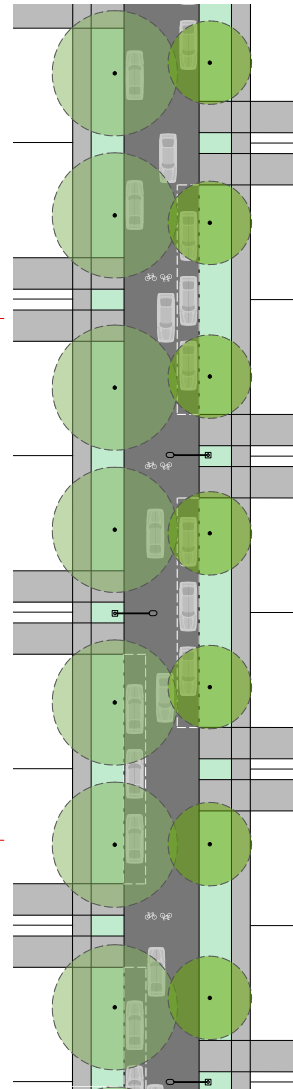
KEY FEATURES - ALTERNATIVE 3 (refer plan and section this page)

- Tree planting in parking lane islands
- Tree planting in central median
- Parallel parking both sides

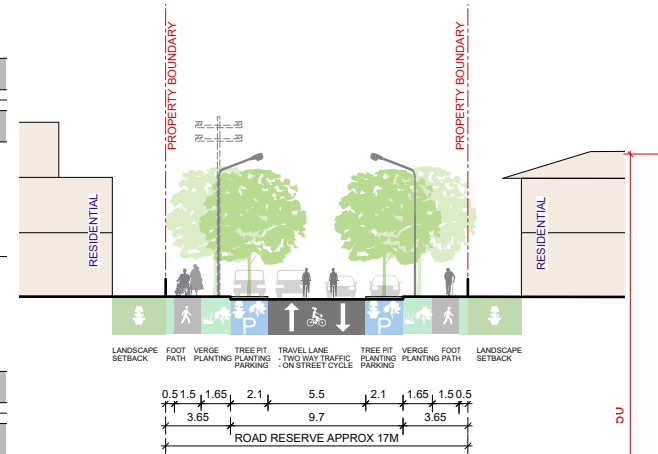
PERFORMANCE TARGET COMPARISON

Tree Target	10 x per 1000m2	8 x per 725-850m2
Street Shade Area	70% of area	55-78% of area create "cool nodes" with 80-90% (deep) shade at target 100m intervals
Permeable Area	35% of area	30% of area excl perm paving

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ALTERNATIVE 3: PLAN (NTS)



ALTERNATIVE 4: 14-17M LOCAL STREET SECTION (NTS):

Street trees to verge and parking lane islands

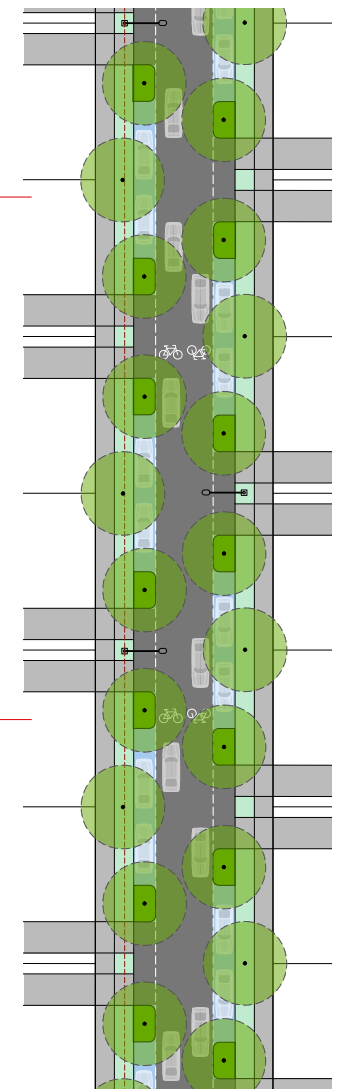
KEY FEATURES - ALTERNATIVE 34 (refer plan and section this page)

- Tree planting in parking lane islands
- Tree planting in central median
- Parallel parking both sides

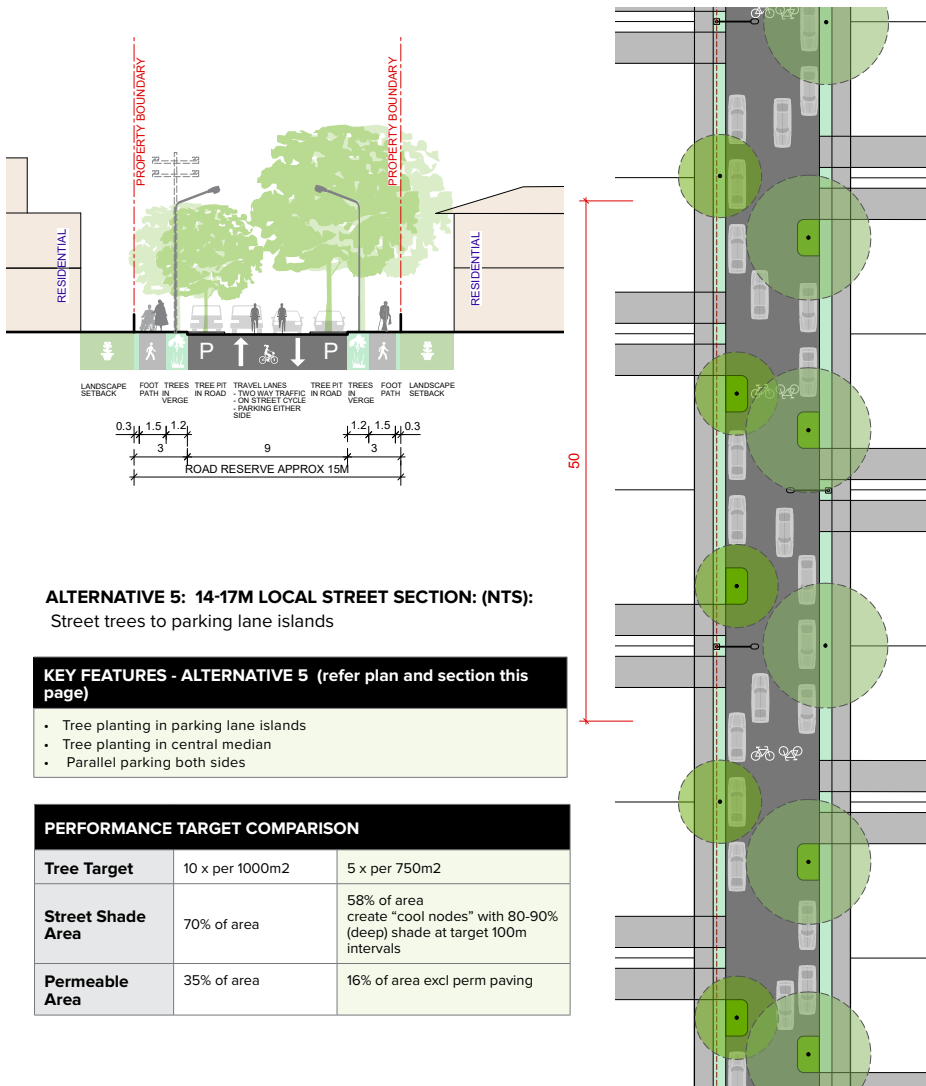
PERFORMANCE TARGET COMPARISON

Tree Target	10 x per 1000m2	10 x per 850m2
Street Shade Area	70% of area	47% of area create "cool nodes" with 80-90% (deep) shade at target 100m intervals
Permeable Area	35% of area	22% of area excl perm paving

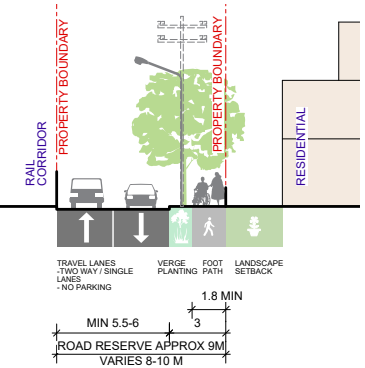
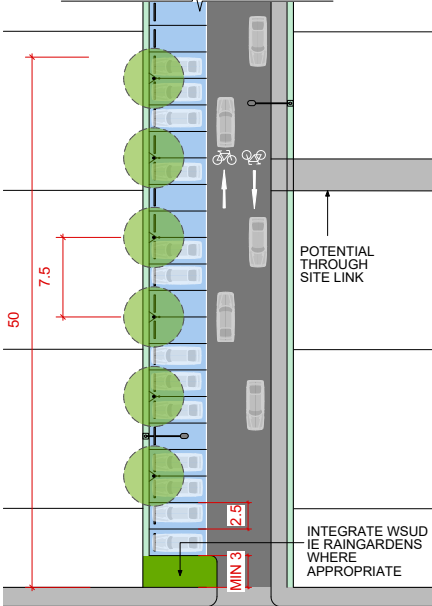
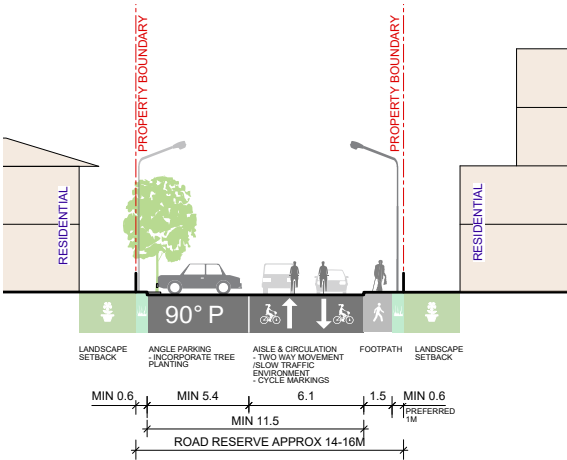
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ALTERNATIVE 4: PLAN (NTS)

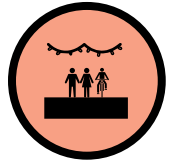


ALTERNATIVE 5: PLAN (NTS)



ALTERNATIVE 7: 9M LOCAL STREET SECTION (NTS)

PEDESTRIAN LANEWAY 1



DESIGN IMPLEMENTATION BRIEF PERFORMANCE TARGETS

DESIGN STRATEGY TOOLKITS	TARGETS
STREET ORDER	<ul style="list-style-type: none"> pedestrian priority zone closed to public vehicular traffic
STREET GEOMETRY	<ul style="list-style-type: none"> emergency vehicle access only
PEDESTRIAN THROUGH ZONE	<ul style="list-style-type: none"> 2.4m minimum pedestrian movement zone
CONNECTIVITY AND FLOW	<ul style="list-style-type: none"> level pedestrian pavement providing for smooth continuous pedestrian access
AT THE KERB	<ul style="list-style-type: none"> flush pedestrian surface
STREET LIFE	<ul style="list-style-type: none"> focus for on street trading including outdoor dining
GREENING THE CENTRE	<ul style="list-style-type: none"> 20% tree canopy coverage due to limited width of space
COOL STREETS AND SPACES	<ul style="list-style-type: none"> review overshadowing conditions and target alternative coner / shade to reduce heat island effect
LOVED PUBLIC SPACES	<ul style="list-style-type: none"> support the pedestrian heart to the centre contribute to the range of reasons to come to / and stay in street create a safe and vibrant after dark place facilitate and promote on street trading to enhance character
CULTURE AND COMMUNITY	<ul style="list-style-type: none"> facilitate and promote small scale community events including busking

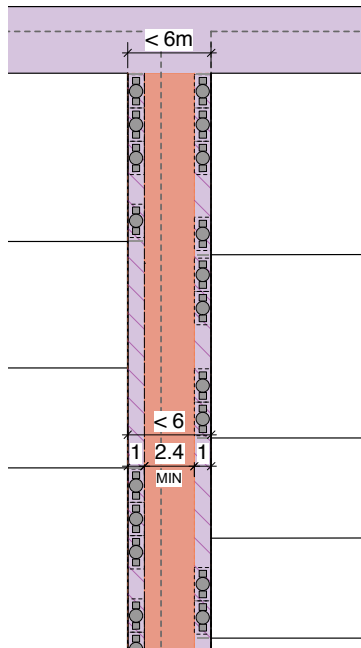
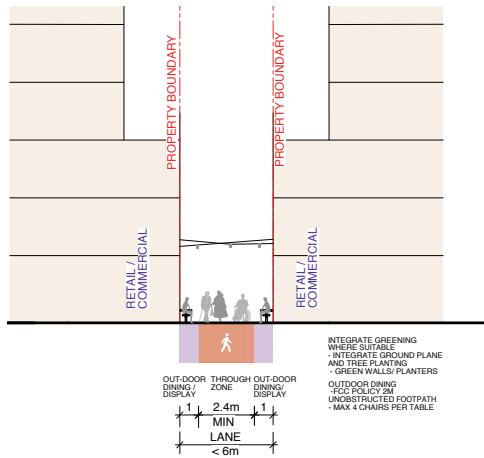
	Western Sydney Street Design Guide	Fairfield Public Domain Plan
DASHBOARD COMPARISON		
Nominal Width		5-10m
Context		Commercial Centre
Built Form		Mixed-use with active ground floor uses
Walking		Travel zone shared with cyclists
Cycling		Travel zone shared with pedestrians
Design Speed		n/a
Posted Speed		n/a
Desirable Speed		n/a
Design Vehicle		n/a
Check Vehicle		n/a
Indicative Traffic		n/a
Lot Access		Pedestrian access only
Buses		No
Max. Length		n/a
Type. Lots Served		Varies
WSUD		Pits and pipes solution generally potential to integrate WSUD beds
PERFORMANCE TARGET COMPARISON		
Tree Target		7-9 x per 1000m ²
Street Shade Area		20% of area - likely to have strong built form overshadowing
Permeable Area		5-6% of area excl perm paving

DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS	
Footway arrangement	<ul style="list-style-type: none"> Provide clear pedestrian path through lane Preferred 2.4m wide pedestrian through zone (3.0m to Cabramatta per on street trading policy)
Driveways	<ul style="list-style-type: none"> n/a
Power & Telecommunications	<ul style="list-style-type: none"> Overhead services to be undergrounded
Carriageway / Cycle provision	<ul style="list-style-type: none"> Shared access for cycles and pedestrians
Parking	<ul style="list-style-type: none"> n/a
Lighting	<ul style="list-style-type: none"> Overhead catenary lighting
Arts and Culture	<ul style="list-style-type: none"> Interpretive wayfinding Facade artworks
MATERIALS AND FINISHES REQUIREMENTS	
Footway pavements	<ul style="list-style-type: none"> Secondary Pavement (honed insitu concrete and honed Concrete Unit) colour as per chapter 9
Street Furniture	<ul style="list-style-type: none"> Standard furniture as per chapter 9 Bespoke seating potential adjoining shared zones, shared lanes and to centre plaza / park
Tree Planting	<ul style="list-style-type: none"> Tree planting as per integrated arrangement - target soil volume 35m³ Cluster of shade tree plantings at "Cool Nodes" - target every 200m
Street Garden Planting	<ul style="list-style-type: none"> Street garden planting to tree pits - minimum 5m² area Potential facade planting
Planting species	Planting species as per chapter 9
INDICATIVE IMPLEMENTATION COSTS	
Indicative implementation cost per lin/m of 20m road corridor	\$9,994.00
Indicative servicing cost per lin/m per year	\$171 / pa

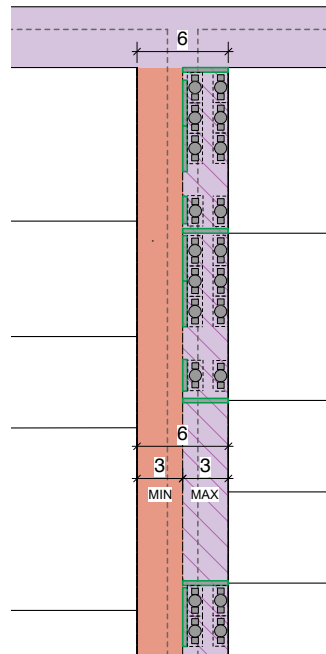
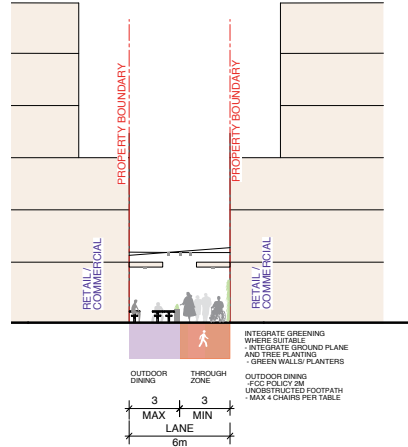


ALTERNATIVES



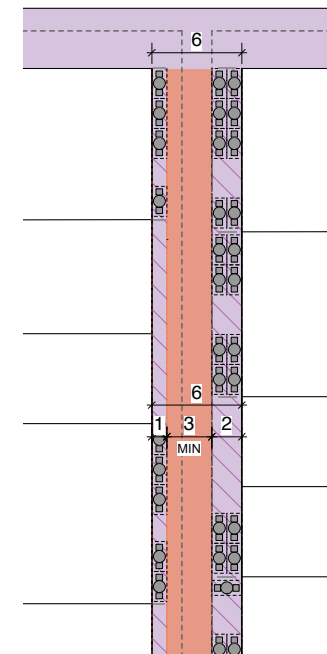
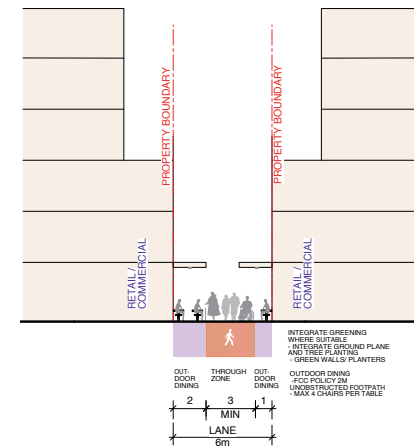
- Central through zone minimum width of 2.4m (other than Cabramatta - 3m per Policy)
- Outdoor dining located at shop frontages min 1m depth
- No fixed street furniture,
- Lighting either wall mounted, underawning or catenary
- Ground level greening to maintain through zone
- Potential for planter boxes
- Potential for green facades

ALTERNATIVE 1 - 6M SECTION (NTS):
Central through zone, moveable furniture



- One sided through zone minimum width of 2.4m (other than Cabramatta - 3m per Policy)
- Outdoor dining located at shop frontages min 1m depth
- No fixed street furniture,
- Lighting either wall mounted, underawning or catenary
- Ground level greening to maintain through zone
- Potential for planter boxes
- Potential for green facades

ALTERNATIVE 2 - 6M SECTION (NTS):
One sided through zone, moveable furniture

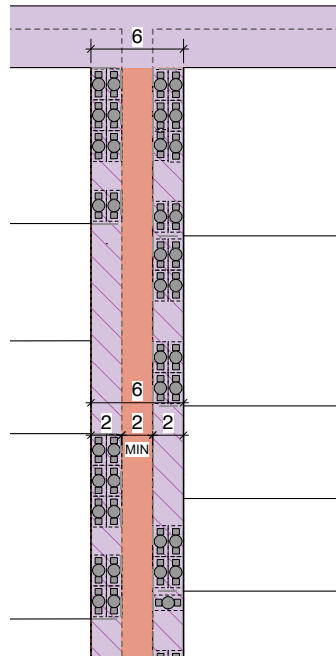
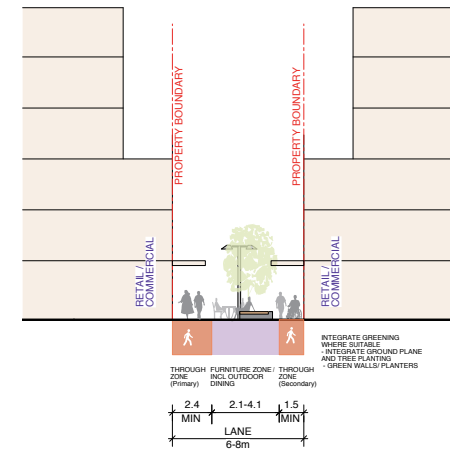
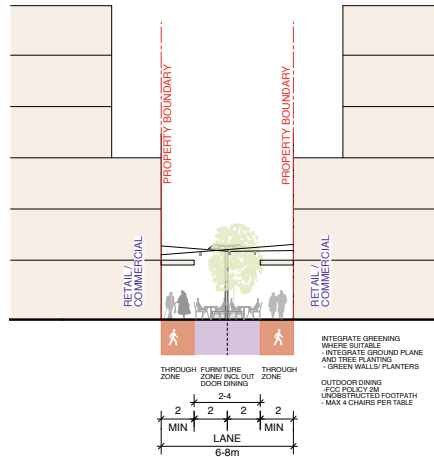
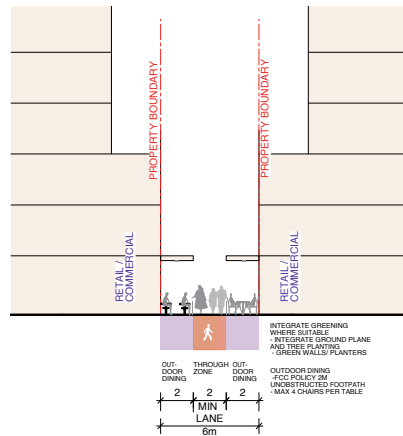


- Off set through zone minimum width of 2.4m (other than Cabramatta - 3m per Policy)
- Outdoor dining located at shop frontages min 1m depth
- No fixed street furniture
- Lighting either wall mounted, underawning or catenary
- Potential for planter boxes
- Potential for green facades

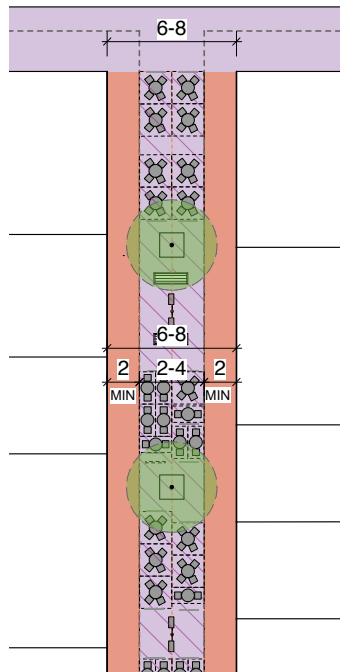
ALTERNATIVE 3 - 6M SECTION (NTS):
Off-set through zone, moveable furniture

PEDESTRIAN LANEWAY 2

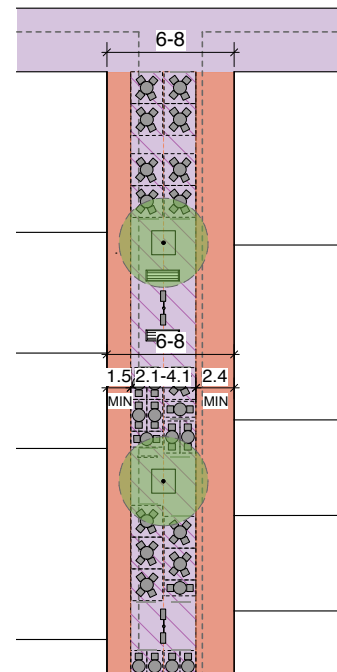
ALTERNATIVES



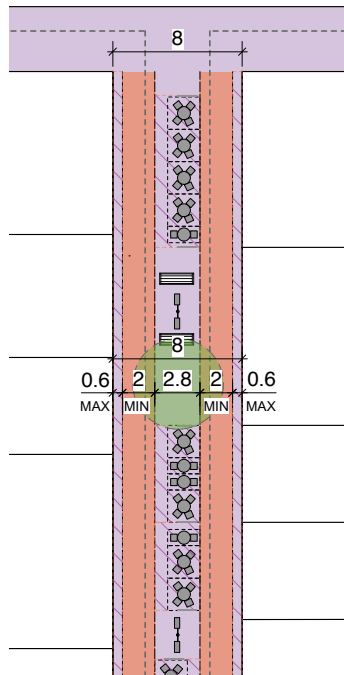
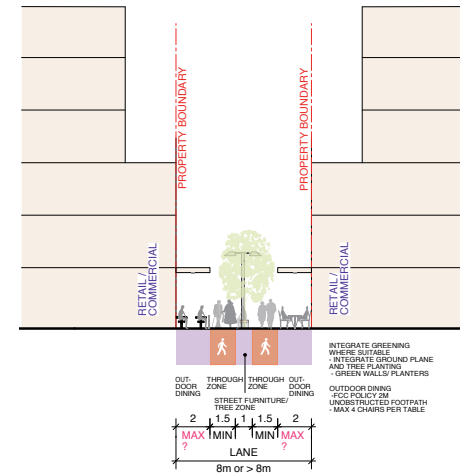
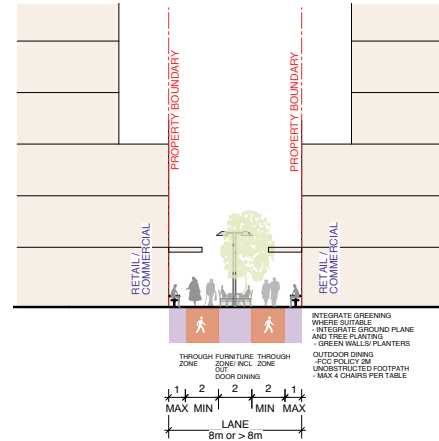
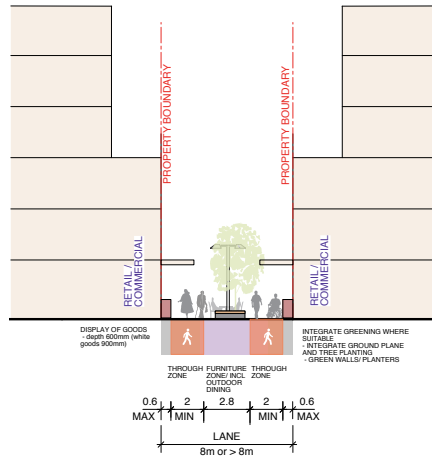
- Central through zone minimum width of 2.0m (other than Cabramatta - 3m per Policy)
- Outdoor dining located at shop frontages min 1m depth
- No fixed street furniture, lighting either wall mounted, underawning or catenary
- ground level greening to maintain through zone
- potential for planter boxes
- potential for green facades



- Split through zone minimum width of 2.0m (other than Cabramatta - 3m per Policy)
- Outdoor dining located centrally
- Fixed street furniture, integrated with tree plantings
- Central tree plantings
- ground level greening to maintain through zone
- potential for planter boxes
- potential for green facades
- Lighting either wall mounted, underawning or catenary



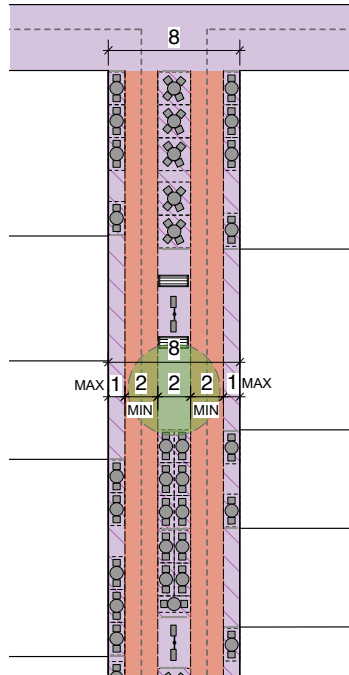
- Split through zone with priority to one frontage
- Outdoor dining located centrally
- Fixed street furniture, integrated with tree plantings
- Central tree plantings
- ground level greening to maintain through zone
- potential for planter boxes
- potential for green facades
- Lighting either wall mounted, poletop underawning or catenary



- Split through zone with priority to one frontage
- Option for display of goods zone at shop frontage, (nominal depth 600mm-900mm) allowance for white goods) or outdoor dining
- Outdoor dining located centrally
- Fixed street furniture, central tree plantings
- ground level greening
- potential for green facades
- Lighting either wall mounted, poletop, underawning or catenary

ALTERNATIVE 8M SECTION (NTS):

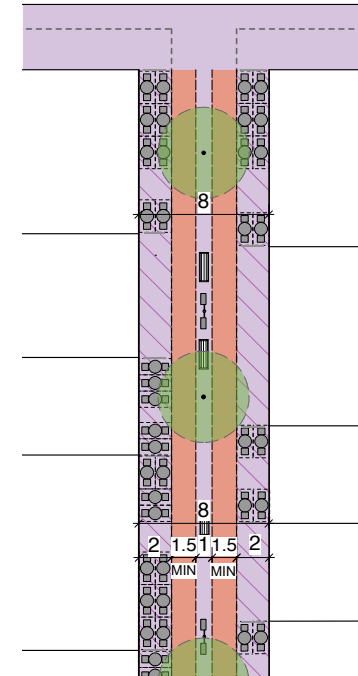
Frontage display Split through zones, central dining zone



- Split through zone with priority to one frontage
- Option for display of goods zone at shop frontage, (nominal depth 600mm-900mm) allowance for white goods) or outdoor dining
- Outdoor dining also located centrally
- Fixed street furniture, central tree plantings
- ground level greening
- potential for green facades
- Lighting either wall mounted, poletop, underawning or catenary

ALTERNATIVE 8M OR > SECTION (NTS):

Split through zone and outdoor dining



- Outdoor dining zone at shop frontage, Max depth 2m - This could be a maximum ie up 3m where overall lane width is greater than 8m
- Through zones of a minimum 1.5m either side of central zone
- Central zone of 1m is for placement of street furniture, trees, etc.
- Fixed street furniture, central tree plantings
- ground level greening
- potential for green facades
- Lighting either wall mounted, poletop, underawning or catenary

ALTERNATIVE 8M SECTION (NTS):

Split through zone and outdoor dining

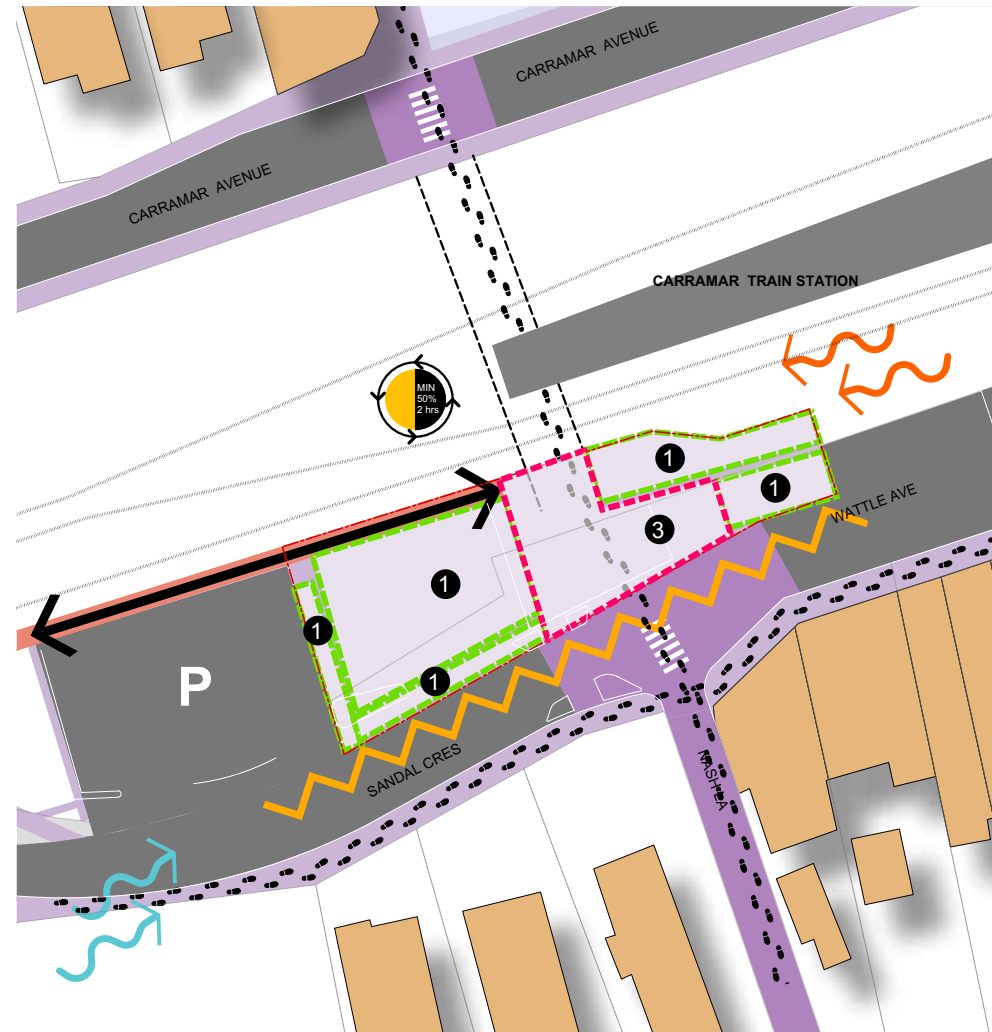
CENTRE SQUARES/PLAZAS-CARRAMAR



DESIGN IMPLEMENTATION BRIEF

DESIGN STRATEGY TOOLKITS	TARGETS
STREET ORDER	<ul style="list-style-type: none"> at focal junctions of movement in centre
STREET GEOMETRY	<ul style="list-style-type: none"> NA
PEDESTRIAN THROUGH ZONE	<ul style="list-style-type: none"> key routes through space to provide for 2.4m clear movement zone
CONNECTIVITY AND FLOW	<ul style="list-style-type: none"> pedestrian through access pedestrian link between adjoining streets
AT THE KERB	<ul style="list-style-type: none"> avoid power lines across site avoid easements across site where possible
STREET LIFE	<ul style="list-style-type: none"> maximise active frontages to square (ideally 2) provide for on plaza trading adjoining active frontage encourage businesses that contribute to plaza and town centre life
GREENING THE CENTRE	<ul style="list-style-type: none"> green node 50% tree canopy coverage strong ground plane presence of green 40% surface area target
COOL STREETS AND SPACES	<ul style="list-style-type: none"> 40% summer tree canopy shade Awnings to active frontages create "cool nodes" with optimum (deep) shade Integrate water elements Integrate water play consider evapo-transpirative cooling
LOVED PUBLIC SPACES	<ul style="list-style-type: none"> site at highly visible location site at focus of major pedestrian movement provide balance of summer shade and winter solar access encourage non retail uses provide pro-active programming of community activities
CULTURE AND COMMUNITY	<ul style="list-style-type: none"> facilitate modal use of square for events integrated with other spaces provide for permanent / temporary arts / cultural expression

PRINCIPLES DIAGRAM (NTS)



NEW VILLAGE SQUARE AT STATION UNDERPASS PROVIDES CENTRAL GATHERING AND EVENTS SPACE: PRINCIPLES DIAGRAM (NTS)

- legend**
- Highly visible location, adjoins street frontage 2 sides
 - At node of Major pedestrian movement
 - Solar Access - (min 2 hrs of direct sunlight to 50% to usable area, June 21st)
 - Summer Prevailing wind direction
 - Winter Prevailing wind direction
 - Pedestrian access on key routes
 - Minimum Through zones
 - Active frontages 2 sides with awnings
 - Pedestrian pavement
 - Shared zone
 - 1 Greening & Cooling
 - 50% summer tree canopy
 - 30% green ground plane
 - 40% permeable
 - 2 Space for on plaza trading adjoining active frontages
 - encourage businesses that contribute to plaza life, non-retail uses
 - 3 Balance active and passive uses including:
 - integrate cooling water element
 - integrate play elements
 - modal use for events
 - integrate permanent/ temporary arts/ cultural expression
 - end of route cycle facilities

PERFORMANCE TARGETS

Centre Square / Plaza	
TARGETS	
Size	<ul style="list-style-type: none"> varies depending on location - 3000m2 minimum
Context	<ul style="list-style-type: none"> High density residential ideally adjoins some community uses
Street Front-ages	<ul style="list-style-type: none"> minimum 2 public street frontages
Built Front-ages	<ul style="list-style-type: none"> preferably 2 built frontages provide active frontages to square provide for on plaza trading adjoining active frontages
Solar access	<ul style="list-style-type: none"> achieve a minimum of 50% direct sunlight to the principal usable part of the open space for a minimum of 3 hours * between 9 am and 3 pm on 21 June (mid winter) *
Climate	<ul style="list-style-type: none"> protection from adverse prevailing winds review turbulence implications of adjoining high density developments
Tree canopy	<ul style="list-style-type: none"> Summer Tree Canopy: 50% Cover
Ground plane	<ul style="list-style-type: none"> 30% min grass & shrub planting
Permeable area	<ul style="list-style-type: none"> 40% (all soft landscape, tree pits)
Walking	<ul style="list-style-type: none"> provide through movement to cross square routes on minimum 2.4m
Cycling	<ul style="list-style-type: none"> provide cycle racks
WSUD	<ul style="list-style-type: none"> Integrate WSUD / wetland basis where feasible and able to serve street runoff

* Note Canley heights DCP 3 hours between 9 am and 3 pm on 21 June (mid winter) ADG = 2 hours



Example public square outcomes

DESIGN AND MATERIALS REQUIREMENTS

GENERAL DESIGN REQUIREMENTS	
Vehicular access	<ul style="list-style-type: none"> maintenance access Emergency access
Power & Telecommunications	<ul style="list-style-type: none"> Overhead services to be undergrounded
Lighting	<ul style="list-style-type: none"> Pedestrian Pole-top Lighting to square to P2 level Street Lighting to required level for cycle paths, traffic and pedestrian verge integrated between tree plantings and at pedestrian crossings
Arts and Culture	<ul style="list-style-type: none"> Interpretive wayfinding Act as canvas for temporary art installations Potential for integration of limited and focussed permanent art pieces
MATERIALS AND FINISHES REQUIREMENTS	
Footway pavements	<ul style="list-style-type: none"> Secondary Pavement (honed insitu concrete and honed Concrete Unit) colour as per chapter 9 reduced unit size for regular traffic loadings structural bedding course and grout to pavements taking vehicular traffic
Street Furniture	<ul style="list-style-type: none"> Standard furniture as per chapter 9 Bespoke seating potential adjoining shared zones, shared lanes and to centre plaza / park
Tree Planting	<ul style="list-style-type: none"> Tree planting as per integrated arrangement - target soil volume 35m3 Cluster of shade tree plantings at "Cool Nodes" - target every 200m
Street Garden Planting	<ul style="list-style-type: none"> Street garden planting to tree pits - minimum 5m2 area
Planting species	<ul style="list-style-type: none"> Planting species as per chapter 9

Chapter 8

Supplementary Design Requirements

-
- 01. CYCLE FACILITIES
 - 02. STREET TREE PLANTING
 - 03. TYPICAL STREET JUNCTIONS
 - 04. INCLUSIVE AND ACCESSIBLE
PUBLIC DOMAIN
-



01. CYCLE FACILITIES

APPROACH

The Public Domain Plan looks to prioritise provisions for cycling through Fairfield LGA in order to encourage cycle use as an alternative mode of transport and for family recreation and fitness.

Research shows that with provision of safe cycle facilities an increased participation in cycling by a broader demographic can result. This includes families and children along with young professionals and students - all of which are expected to be part of the evolving communities of Fairfield LGA.

Principles

Key requirements for promoting cycle use include the following:

- i. provide cycleways with continuity, rhythm, and flow;
- ii. link cycleways to key destinations related to workplace, school, transport, retail, recreation and entertainment;
- iii. provide attractive cycleways integrated where possible with parkland settings;
- iv. integrate sight lines to ensure safe visibility and clearances between cyclists and pedestrians and vehicles

- v. integrate cycleways with green corridors;
- vi. integrate potential for social cycleways where possible - providing sections of adequate width where conversation can occur with two cycles astride;
- vii. consider cycleway lighting for safe and ambient night atmosphere to key routes;
- viii. promote cycleways through community groups;
- ix. support cycleway education through such initiatives as: buddy programs, community groups, and route awareness

In consideration of these principles the preference for provision of cycle facilities where available space and other influences allow is (in order from 1-4)

1. Separated Cycleways
2. Shared Use Paths
3. Marked On Road Cycleways
4. Mixed vehicular and cycle traffic

General guidance for each of these facilities is provided opposite.

1. SEPARATED PATHS



Separated cycle paths are dedicated corridors for cycle use as either bi-directional or one way facilities. They are suitable for regional and local cycle network routes. (Source: RMS NSW Bicycle Guidelines)

Requirements

- Design in accordance with RMS NSW Bicycle Guidelines and Austroads -Part 6a Pedestrian and Cyclist Paths
- Minimum width 2.0m, desirable width 3-3.5m

2. SHARED PATHS



Shared operating space (with pedestrians) for riders in the road reserve. Suitable for regional and local cycle network routes. (Source: RMS NSW Bicycle Guidelines).

Requirements

- design in accordance with RMS NSW Bicycle Guidelines and Austroads -Part 6a Pedestrian and Cyclist Paths
- minimum widths are defined in Austroads Part 6A - Pedestrian and Cyclist Paths (Table 7.4):
 - Local access path 2.5m
 - Commuter path 3.0m
 - Recreational path 3.5m
- pavement markings in accordance with Fig 5.4 NSW Bicycle Guidelines & CoS Shared Pathways Markings 2012
- provide advisory signage in accordance with section 6.6 NSW Bicycle Guidelines) - level 3 signage

3. LINEMARKED CYCLE LANE TO ROAD

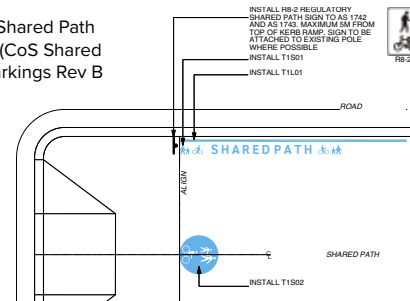


Shared and marked operating space for riders on roads. Suitable for regional and local cycle network routes in moderate to low speed environments. (Source: RMS NSW Bicycle Guidelines).

Requirements

- Design in accordance with RMS NSW Bicycle Guidelines and Austroads -Part 6a Pedestrian and Cyclist Paths
- Visual separation by lines at lane width of 1.4-1.5m as per Fig 5.3 NSW Bicycle Guidelines

To the right: Shared Path Linemarking (CoS Shared Pathways Markings Rev B 2012)



4. MIXED TRAFFIC MARKINGS



Shared (with moving vehicles) unmarked operating space for riders on minor roads and residential streets. To provide cycle linkages across the network. Suitable in low speed (less than 50km) / low volume environments. (Source: RMS NSW Bicycle Guidelines).

Requirements

- Design in accordance with RMS NSW Bicycle Guidelines
- Riders share space which is tight enough so that it is not possible to pass
- Pavement markings in accordance with Fig 4.7 NSW Bicycle Guidelines

02. STREET TREE PLANTING

APPROACH

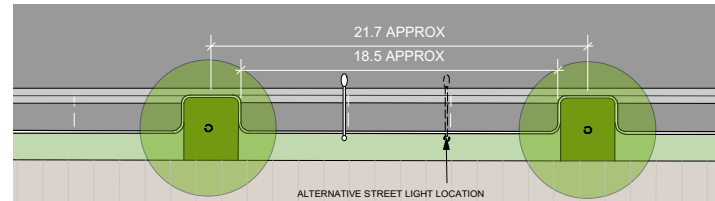
The Public Domain Plan seeks to maximise street trees within the street environments of Fairfield LGA integrated in a coordinated design with other key elements of the public domain including on street parking, street lighting and driveways.

Requirements

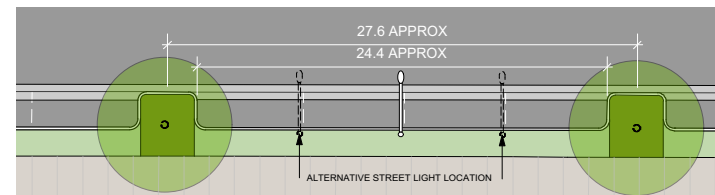
- Generally new tree plantings will be provided within the kerbside parking lane of the street due to the limited width of existing footway verges, and the desirability of having tree canopy closer to the centre line of the road (acknowledged to reduce traffic speeds).
- End parking spaces to be 6.4m length with intermediate spaces 5.4m length in accordance with AS 2890.5-1993 Parking facilities - On-street parking
- Several scenarios are available for the arrangement of street trees, parallel parking spaces and street lighting poles.

Also refer to scenarios opposite page which demonstrate application of the street tree planting scenarios to a typical street.

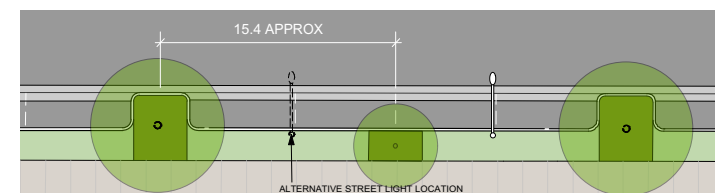
A) 3 SPACES



B) 4 SPACES



C) 4 SPACES WITH INTERMEDIATE VERGE TREE



Features

- 3 spaces between tree pits
- If a street light required in this section two options available at the junction of parking bays

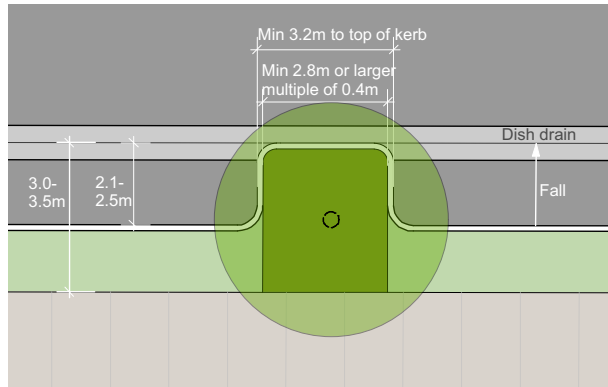
Features

- 4 spaces between tree pits
- If a street light required in this section three options available at the junction of parking bays

Features

- 4 spaces between tree pits
- Wider verge enables option of minimum 1500mm width tree pit in verge for smaller intermediate planting
- If a street light required in this section two options available at the junction of parking bays

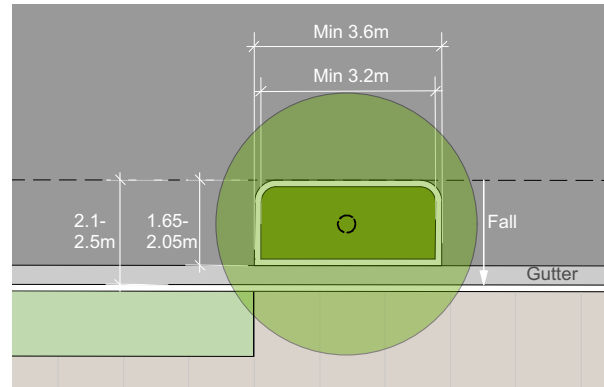
INTEGRATED TREE PIT



Principles

- tree pit integrated with kerb and verge providing larger tree pit and street garden area
- tree planting alignment adjusted to avoid planting directly over stormwater services minimum width of 3.3m to outside top of kerb (3.0m internal)
- internal width must be multiple of 0.3m for integration with stone pavement to retail frontages
- nominal tree pit volume integrated with verge is $8-9\text{m}^3$ - supplement with structural soil cells to achieve target 35m^3
- preferred tree pit solution

ISLAND TREE PIT



Principles

- existing kerbside gutter drainage maintained along with existing kerb
- maximise the width of the island pit for soil volume and street garden impact
- allows for future retrofitting of integrated tree pit by extending kerbs and regrading parking lane
- minimum width of 3.6m to outside top of kerb (3.3m internal)
- nominal tree pit volume integrated with verge is $5-6\text{m}^3$ - supplement with structural soil cells

03. TYPICAL STREET JUNCTIONS

APPROACH

The public domain structure plans define a hierarchy of streets that will intersect with streets of different order in a variety of permutations.

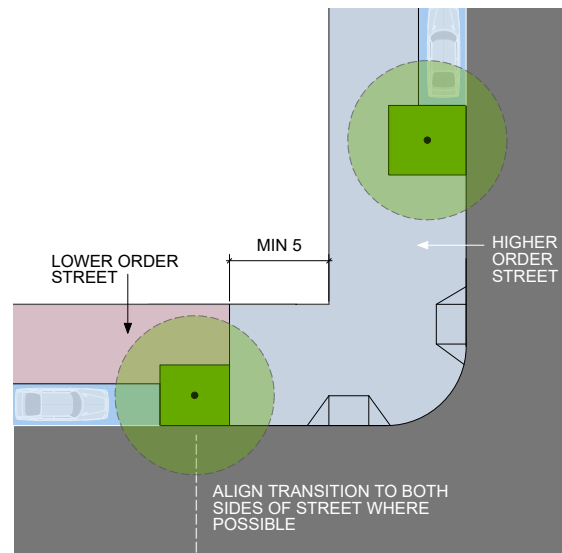
An approach is required to manage these junctions in a systematic way that assists pedestrians, cyclists and vehicles interpret the street order.

Requirements

- At street junctions the higher order street treatments will wrap around the street corner into the adjoining street
- The order as defined by the street hierarchy is as listed:
 - 1 Core High Street
 - 2 Shared Lane / Pedestrian Lane
 - 3 Mixed High Street
 - 4 Circulation High Street
 - 5 Avenue
 - 6 Corridor
 - 7 Local Street
- The transition will reflect the arrival at a street of higher pedestrian importance with the pavements providing a threshold of arrival / transition

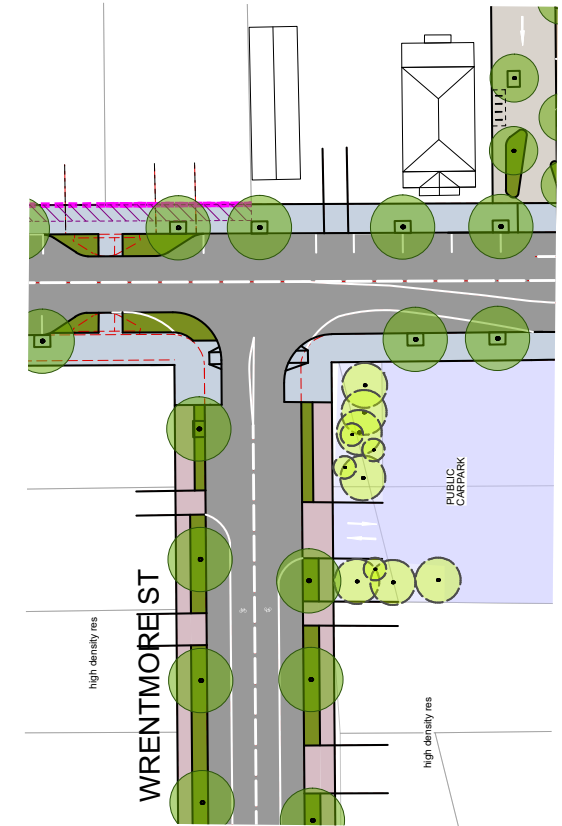
- The higher order street pavements / treatments shall return into the intersecting Street a minimum of 5m from the corner boundary
- The treatments should extend to a natural design transition point such as carparking bay, tree pit, driveway etc.

CORNER JUNCTION



EXAMPLE:

MIXED HIGH STREET / LOCAL STREET



Features

- mixed high street pavements wrap around corner to start of parking / first street tree

04. INCLUSIVE AND ACCESSIBLE PUBLIC DOMAIN

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APPROACH

Planning ,design and management of the public domain must fundamentally address the requirements of section 23 of the Disability Discrimination Act 1992 (DDA) and section 12 of the Disability Inclusion Act 2014 (DIA).

Obligations under the DIA include creating more liveable communities for people with disability, by reducing and addressing barriers to inclusive participation in the public domain.

The City of Sydney in its “Inclusive and Accessible Public Domain Policy 2019” identifies that when barriers are reduced, the majority of people with disability will experience greater independence and equitable opportunities for social and economic inclusion.

Other movements such as “Healthy Streets” reinforce ease of access, fairness, and inclusivity as key pillars of healthy street environments for the whole community.

Fairfield City Council developed it's Disability Inclusion Action Plan in 2017.

The Action Plan was prepared in line with the four NSW Department of Health social justice principles:

Access -

everyone should have fair access to services, resources and opportunities.

Equity -

everyone should have fair opportunity to engage in the future of the community.

Participation -

everyone should be able to participate in decisions that affect them.

Rights -

equal rights should be established for everyone, regardless of their background.

The plan addressed four key focus areas to which Public Domain Plan design must respond as outlined in the table following



Public domain in Fairfield LGA will ensure that barriers to access, use and enjoyment by all abilities are identified and removed where possible

1. Encouraging positive community attitudes and behaviours	2. Creating liveable communities	3. Supporting access to meaningful employment.	4. Improving access to services through better systems and processes.
Make the city, its streets and spaces accessible to all abilities by eliminating barriers to access and use			
Integrate provisions for all abilities seamlessly to the public domain fabric			
Minimise driveways to High Streets			
Continue High Street footways across side streets with raised thresholds			
Provide adequate pedestrian through zones to all High Streets			
Provide clear and continuous line of movement to High Streets			
Public domain furniture selections and arrangement to facilitate use and enjoyment by all abilities			
Improve way finding for all abilities within the town centre			
Ensure town centre public spaces are seamlessly accessible to all users			
Plan and implement inclusive events in town centre spaces			
Consider provisions for carers in all public spaces			



Chapter 9

Materials & Finishes Framework

01. MATERIALS & FINISHES FRAMEWORK



01. MATERIALS FRAMEWORK

A. PAVEMENTS

Response to the public domain principles

The table this page summarises targets for pavement finishes across the principles for Public Domain in Fairfield. These guide materials selections and use across the nine urban centres.

APPROACH

Pavements will provide a quality and hard wearing palette of surfaces drawing on existing finishes and colours but building in flexibility of unit size and use of colour accents to encourage site responsive designs. Finishes and colours build on the major treatments established to date for effectiveness of integration and cost efficiency, while introducing size and colour variations to enable interpretation of urban density and character between major urban centres and smaller village centres, and of varied pedestrian and retail role. Three levels of pavement finish are defined (primary, secondary, and tertiary) to reflect and support the street typology hierarchy.

People Places	Places for All	Comfortable & Interesting	Celebrate Public Life
<ul style="list-style-type: none"> pavement finishes and design provide for comfortable and safe use pavement finishes and design provide a subtle level of diversity that enhances visual richness and interest pavements provide opportunities for selective interpretation of cultural narratives 	<ul style="list-style-type: none"> pavement finishes are adaptable where required to vehicular loadings at driveways and shared zones pavement finishes are comfortable and safe wet and dry and across the varied seasons 	<ul style="list-style-type: none"> pavement finishes convey a sense of care and quality pavement finishes are comfortable and safe wet and dry and across the varied seasons pavement treatment to facilitate effective make good after services authority works 	<ul style="list-style-type: none"> pavement finishes and design provide for comfortable and safe use paving enhances the amenity of the street for movement and for street life pavement surfaces provide flexibility for activity and event use
Healthy Places	Functional	Place-Responsive	Environmental & Resilient
<ul style="list-style-type: none"> pavement finishes are comfortable and safe wet and dry and across the varied seasons adequate pavement through zones for comfortable and safe access are provided flush and continuous access is provided along important and busy pedestrian links 	<ul style="list-style-type: none"> pavement finishes meet visual and aesthetic requirements but are also durable, hard wearing, and long lived pavement finishes are practical for maintenance 	<ul style="list-style-type: none"> pavements provide opportunities for selective interpretation of cultural narratives 	<ul style="list-style-type: none"> pavement finishes are supplied from sustainable sources pavement finishes are installed with sustainable processes and materials pavement finishes allow for sustainable maintenance



Dark Grey unit pavers



Red unit pavers



Alluvial unit pavers



Honed Insitu Concrete



Dark Grey small format unit pavers

Broom finished Concrete
Local Streets & shared pathsDark Grey Granite Setts
Road medians and splitters

Centre Streets and spaces

PRIMARY PAVEMENT GENERALLY

Is the highest level of finish to the major urban centres. Primary pavement will generally be fully unit paved and focus on the existing Grey and Red accent as base pavements

The smaller “Village” centres such as Carramar will introduce the Lighter Alluvial colour reflecting their relationship to the adjoining creekline riparian environments, and recognising their more local character and lower intensity of activity.

For Canley Heights which has extensive paved zones to Core High Streets a cost effective mix of honed concrete and unit pavement banding / accent is proposed.

Principles

- Base dark grey pavement to urban centres (grey / white aggregate) to maximise stain resistance
- Use in varied sizes including setts to emphasise seating and slower movement zones
- Use accent pads /shapes of warm red colour
- Use Alluvial base colour to village centres to provide a lighter character
- Integrate accents of Grey and Red to Villages to link character across centres

Requirements

- Unit size 300x300x60mm to pedestrian areas generally
- Honed concrete pavement with 300x300 unit paver header, banding, accent to Canley Heights
- 300x150x60mm as accent / variation for design effect
- 300x150x60mm or 150x150x60mm to trafficable pavements
- structural bedding course and grout to trafficable pavements

Product Codes:

Refer to Councils Public Domain Technical Manual for pavement product codes as applicable.



G

Dark Grey unit pavement



R

Red unit pavement



A

Alluvial unit pavement



H

Honed concrete with unit pavement banding

SECONDARY PAVEMENT GENERALLY

Is the cost effective finish integrating honed concrete with small format unit pavement where resources and / or extent of area cannot support full unit pavement.

Principles

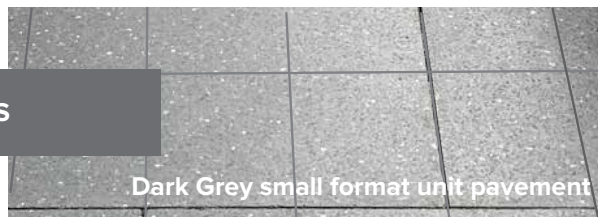
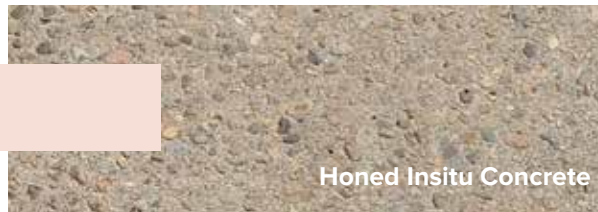
- Honed concrete paved zone from shopfront (approximately 60% of verge width) with unit paver banding
- dark grey small format unit paved transition zone from kerbline (approximately 1.6m width) integrated with tree pits / gardens

Requirements

- 150x150x60mm small format unit paver paved margin
- 300x300x60mm unit paver paving to nodal locations
- Honed Concrete 32Mpa with decorative aggregate lightly exposed

Product Codes:

Refer to Councils Public Domain Technical Manual for pavement product codes as applicable.



TERTIARY PAVEMENT GENERALLY

Is the base level footway treatment of broom finished concrete to local streets and cycle infrastructure.

Principles

- Broom finished concrete path to full or partial width of verge

Requirements

- Minimum 1.5m width to local streets
- 1.8m width to provide universal access to local streets

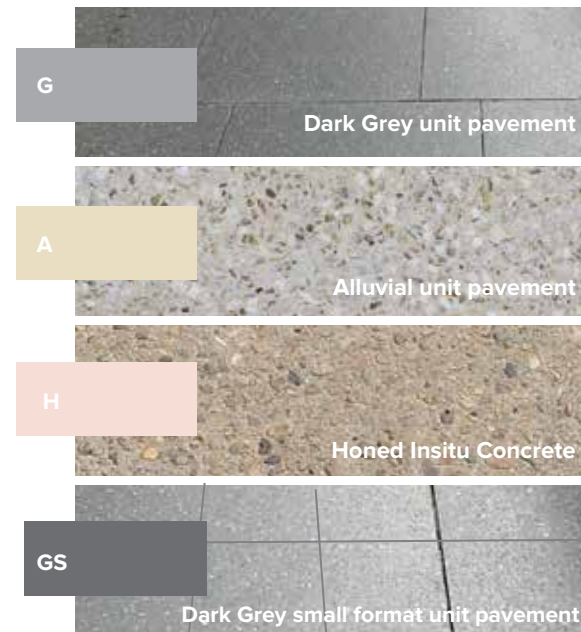


PAVEMENT COLOURS / FINISHES FOR CARRAMAR

The balance of use of the pavement colours reflects existing emphasis where applicable (e.g. Fairfield and Cabramatta) in addition to the practicalities of using darker colours in high use retail trade areas to major centres, and desirability of lighter less “urban” colours / tones to smaller centres.

The table below outlines the required colours to the centre. The table indicates by colour and notation (BS) the base paving colour/s (that is the pavement generally), in addition to colours for use as banding or accent (BDA) which are smaller feature areas - or areas requiring a level of variation.

Where two pavement colours are listed as suitable for base paving or banding / accent roles designers should chose the most suitable for use taking into account the context (adjoining pavement) and design effect.



Key: Pavement type / colour - all centres

G	Dark Grey Unit Paving
R	Red Unit Paving
A	Alluvial Unit Paving
H	Honed Insitu Concrete
GS	Dark Grey Small Format Unit Paving
BF	Broom Finished insitu Concrete
AS	Asphalt (AC% surface) Fairfield Heights only
BF	Broom Finished insitu Concrete cycle path (or other surface as noted) with Blue shared Path markings as per City of Sydney Shared Path Guidelines

Key: Pavement Use

BS	Base paving (majority surface area)
BDA	Banding / accent paving
BS/ BDA	Interchangable use of colour to base / banding / accent

CARRAMAR	Core High Street		Mixed High Street		Circulation High Street		Shared zone / lane		Pedestrian lane		Square / Public Space	
Street footways	G BS/ BDA	A BS/ BDA	H BS	GS BDA	H BS	GS BDA	G BS/ BDA	A BS/ BDA	G BS/ BDA	A BS/ BDA	G BS/ BDA	A BS/ BDA
Driveways	G BS/ BDA	A BS/ BDA	H BS	GS BDA	H BS	GS BDA	n/a		n/a		n/a	
Raised pedestrian crossing (linemarked)	H		H		H		H		H		H	
Separated cycle path	BF		BF		BF		BF		BF		BF	
Shared pedestrian cycle path	n/a		H		H		G BS/ BDA	A BS/ BDA	G BS/ BDA	A BS/ BDA	G BS/ BDA	A BS/ BDA

B FURNITURE

Response to the public domain principles

The table this page summarises targets for furniture across the principles for Public Domain in Fairfield. These guide materials selections and use across the nine urban centres.

APPROACH

Street furniture supports the use of the public domain both in terms of day to day access and movement in addition to its role as a place for street and community life.

At its most effective street furniture can enhance the identity and character of the public domain as part of a coordinated design and materials approach.

To selected locations site specific bespoke seating is possible to provide additional amenity.

Refer to Council for required furniture selections to specific centres.

People Places	Places for All	Comfortable & Interesting	Celebrate Public Life
<ul style="list-style-type: none"> furniture supports and encourages street life arrangement of fixed furniture maintains flexibility for activity and event use 	<ul style="list-style-type: none"> furniture supports and encourages street life arrangement of fixed furniture maintains flexibility for all users and abilities 	<ul style="list-style-type: none"> furniture supports lingering and staying in the public domain furniture encourages and enables a broad range of users (age groups, cultures etc) 	<ul style="list-style-type: none"> furniture enhances the amenity of the street for movement and for street life furniture supports lingering and staying in the public domain furniture encourages a broad range of users (abilities, age groups, cultures etc) furniture maintains flexibility for events
Healthy Places	Functional	Place-Responsive	Environmental & Resilient
<ul style="list-style-type: none"> furniture provides for comfortable use of the street furniture maintains a safe pedestrian and cycle environment 	<ul style="list-style-type: none"> furniture selections finishes meet visual and aesthetic goals but are also robust and durable furniture selections are practical for maintenance furniture selections and installation techniques are practical for replacement 	<ul style="list-style-type: none"> furniture selections offer opportunity to develop cultural identity of centre explore opportunities for selective use of custom furniture elements that can develop site specific or cultural narratives and references 	<ul style="list-style-type: none"> furniture uses sustainable / renewable materials where possible lighting is manufactured and supplied from sustainable sources lighting is installed with sustainable processes and materials lighting selections allow for sustainable maintenance

Use	Performance Requirements
Seat Provided to streets and open space to provide for day to day use and serve less mobile and elderly users.	<ul style="list-style-type: none"> • Interesting but Simple aluminum seat that available in backed and bench options. • slatted fabrication reduces heating in summer • Locate in locations where seating will be used • Locate at bus stops, taxi ranks, kerb extensions, parks and outside public buildings subject to detail design approval
Bin enclosure Provided to streets and open space to provide for day to day rubbish collection in locations where they can be effectively serviced.	<ul style="list-style-type: none"> • Aluminium clad bin enclosure • Locate near retail centres, recreation spaces, bus stops and other areas with high activity levels where people congregate. • Integrate with recycling bin at key locations to encourage recycling
Cycle Racks Provided to streets and open space where cyclists may wish to leave cycles such as near transport and town centre areas.	<ul style="list-style-type: none"> • Use simple stainless steel loop fixture • locate where locating bikes and stored bikes will not impede safe access of the footway. • Racks are normally sited in multiples of four. If the location is justifies only one siting of bicycle racks is required then the rack multiple could be increased to six
Bollards Only use where definition of pedestrian zone is necessary for safety such as in wide raised thresholds and areas of shared zones not definable by landscape measures.	<ul style="list-style-type: none"> • Simple stainless steel bollard • Limit use to where no other traffic control measure is practical • Maximum 1.5m spacing to deter vehicles unless approved otherwise
Water Refill Station Provide water efill station within all core high streets	<ul style="list-style-type: none"> • Consistent / unified pedestal fixture with signage graphics • Locate to key pedestrian and cycle routes and plazas.
Pedestrian Lighting Pole Provide simple contemporary elegant pole top lighting to provide pedestrian area lighting	<ul style="list-style-type: none"> • Provide to supplement lighting of pedestrian movement to Core and Mixed High Streets, through site links and shared and pedestrianised laneways • Site specific lighting design required for each location

C. STREET TREE PLANTING

Response to the public domain principles

The table this page summarises targets for Street Tree Planting across the principles for Public Domain in Fairfield LGA. These guide species use across the nine urban centres.

APPROACH

Street trees are a fundamental influence in shaping the character and comfort of the public domain and in creating a human scale to streets.

For Fairfield LGA a pattern of regular medium to large scale street tree canopy is to be prioritised as the key design structure to which all other public domain elements must integrate.

Tree plantings should preferably be supported by ground level garden bed where possible to increase “green” presence at ground level.








People Places	Places for All	Comfortable & Interesting	Celebrate Public Life
<ul style="list-style-type: none"> tree planting enhances the amenity of the street for movement and for street life tree planting provides a reduced and more human visual scale of the street environment 	<ul style="list-style-type: none"> tree planting enhances the amenity of the street for movement and for street life tree planting defines and guides movement on the street tree planting maintains required sight lines to traffic 	<ul style="list-style-type: none"> tree planting creates an interesting and visually pleasing environment integrated with and complimenting built form tree planting maintains passive surveillance of street spaces and required sight lines to traffic 	<ul style="list-style-type: none"> tree planting enhances the amenity of the street for movement and for street life tree planting supports lingering and staying in the public domain tree planting encourages a broad range of users (age groups, cultures etc) tree planting maintains flexibility for events
Healthy Places	Functional	Place-Responsive	Environmental & Resilient
<ul style="list-style-type: none"> tree planting provides for comfortable use of the street tree planting maintains a safe pedestrian and cycle environment tree planting selection avoids human health and allergy issues 	<ul style="list-style-type: none"> tree selections finishes meet visual and aesthetic goals but are also hardy and long lived tree species are practical for maintenance 	<ul style="list-style-type: none"> tree species reflect cultural narratives or references where possible tree species offer opportunity to develop cultural identity of centre 	<ul style="list-style-type: none"> maximise number of street trees to increase canopy shade and reduce heat loading increased canopy shade reduces thermal street on road pavements and can increase pavement life trees are supplied from sustainable sources trees are installed with sustainable processes and materials tree species and planting techniques allow for sustainable maintenance tree species are selected to minimise potable water demand maximise harvested water use for maintenance



Tree supply requirements

Street trees shall be supplied at minimum sizes indicated on the species recommendations and at height spread and calliper in accordance with Specifying Trees: a guide to assessment of tree quality by Ross Clark (NATSPEC, 2003), as noted below:

Stock size	Height (above container)	Calipre at 300mm	Clear trunk
100L	2.4m	50mm	1.0m
200L	3.6m	60mm	1.5m
400L	4.2m	95mm	1.8m

Carramar Avenue		Wattle Avenue		The Horsley Drive			
							
<div><div></div><div>Corymbia maculata height: 30-45m spread: 10-15m</div></div>		<div><div></div><div>Angophora floribunda height: 15-18m spread: 5-8m</div></div>		<div><div></div><div>EAST Pyrus calleryana "Capital" height: 10-12m spread: 2-4m</div></div>		<div><div></div><div>WEST Ficus microcarpa hillii height: 10-12m spread: 2-4m</div></div>	
							
<div><div></div><div>Angophora floribunda height: 15-18m spread: 5-8m</div></div>		<div><div></div><div>Angophora floribunda height: 15-18m spread: 5-8m</div></div>		<div><div></div><div>Angophora floribunda height: 15-18m spread: 5-8m</div></div>			

D. STREET GARDENS PLANTING

Response to the public domain principles

The table this page summarises targets for furniture across the principles for Street Gardens in Fairfield LGA. These guide materials selections and use across the nine urban centres.

APPROACH



















Street gardens support street tree planting in creating a human scale to streets and providing green relief to the urban environment.

For Fairfield LGA street gardens seek to create a strong green presence at pedestrian level. The ability to select varied effects from a planting palette including colours textures and forms enable designers to create a variety of experiences within an overall unified character.

People Places	Places for All	Comfortable & Interesting	Celebrate Public Life
<ul style="list-style-type: none"> street garden planting provides a reduced and more human visual scale to the street environment street garden planting reduces ambient heat within street environment 	<ul style="list-style-type: none"> street garden planting defines and guides movement on the street street garden planting maintains access for required functions of street type garden bed planting maintains required sight lines to traffic 	<ul style="list-style-type: none"> street garden planting creates an interesting and visually pleasing environment integrated with and complimenting built form street garden planting maintains passive surveillance of street spaces and required sight lines to traffic 	<ul style="list-style-type: none"> street garden planting enhances the amenity of the street for movement and for street life street garden planting supports lingering and staying in the public domain street garden planting encourages a broad range of users (age groups, cultures etc.) street garden planting maintains flexibility for events
Healthy Places	Functional	Place-Responsive	Environmental & Resilient
<ul style="list-style-type: none"> street garden planting provides for comfortable use of the street street garden planting maintains a safe pedestrian and cycle environment street garden planting selection avoids human health and allergy issues 	<ul style="list-style-type: none"> garden bed species selections finishes meet visual and aesthetic goals but are also hardy garden species are practical for maintenance 	<ul style="list-style-type: none"> garden species reflect cultural narratives or references where possible garden bed compositions offer opportunity to develop cultural identity of centre 	<ul style="list-style-type: none"> maximise garden bed area to reduce heat loading plantings are supplied from sustainable sources plantings are installed with sustainable processes and materials species and planting techniques allow for sustainable maintenance garden species are selected to minimise potable water demand garden areas maximise harvested water use for maintenance

SHRUBS

GROUNDCOVERS

					
Mexican lily <i>Beschorneria yuccoides</i> height: 1.2m spread: 1.2m	Tall sedge <i>Carex appressa</i> height: 1.0m spread: 1.0m	Green John <i>Callistemon green john</i> height: 0.6 - 1m spread: 0.6m	Hairy apple berry <i>Billardiera scandens</i> height: 0.15m spread: 0.75m	Flax lily <i>Dianella caerulea</i> height: 0.6m spread: 1.0m	Wallum heath <i>Epacris pulchella</i> height: 0.15m spread: 0.75m
					
Gynea lily <i>Doryanthes excelsa</i> height: 1-5-2m (flower head to 4m) spread: 1.5-2m	Tanika Lomandra <i>Lomandra longifolia</i> Tanika height: 0.8m spread: 1.0m	Xanadu <i>Philodendron xanadu</i> height: 1.0m spread: 1.5m	Coral heath <i>Epacris microphylla</i> height: 0.6m spread: 0.5m	Snake vine <i>Hibbertia scandens</i> height: 0.15m spread: 0.75m	Evergreen giant <i>Liriope muscari</i> height: 0.6m spread: 0.6m
					
Gynea lily <i>Doryanthes excelsa</i> height: 1-5-2m (flower head to 4m) spread: 1.5-2m	Westringia "Zena" <i>Westringia</i> height: 1.5m spread: 1.5m	Viburnum <i>Viburnum odoratissimum</i> height: 1.5m spread: 2.0m	Creeping Boobialla <i>Myoporum parvifolium</i> height: 0.005m spread: 3m	Star Jasmine <i>Trachelospermum jasminoides</i> height: 0.5m spread: 4m	Westringia Mund1 <i>Westringia</i> height: 0.3m spread: 1.8m

Part C

vision concepts

“

A demonstration project is a means of promoting innovations and capturing and disseminating best practice through the development and analysis of a live project. This can help build an evidence base and test and support innovations

UK Designing Buildings Wiki

”

Vision Concepts 2036-2050

Chapter 10

Vision Concepts & Priorities 2021-2040

01. DEMONSTRATION SITES

02. IMPLEMENTATION COSTS FRAMEWORK



01. DEMONSTRATION SITES

Demonstration Site

The demonstration concept provides an illustration of the implementation of the Public Domain Plan to an example site in the town centre.

The area chosen is the retail precinct adjoining the Railway Station where a focus of future redevelopment is to occur.

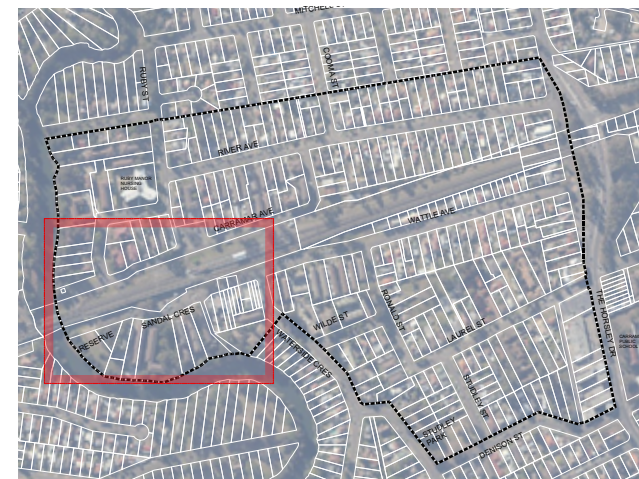
The demonstration concept seeks to strengthen the relationship of the centre to the Prospect Creek corridor and to leverage off its potential natural values.

It also establishes a central public space that can build the character and community role of the centre precinct and offer expanded opportunities for street life and events.

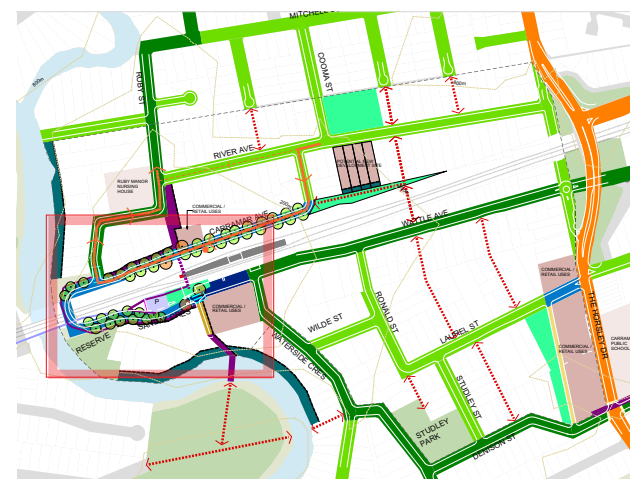
Key aspects of the demonstration site concept are outlined following and illustrated on the Concept Plan opposite and photomontage illustrations on the following pages:

- 1 Enhanced street tree canopy to Carramar Ave and Sandal Cres.
- 2 Avenue promoting pedestrian and cycle access along Wattle Ave between Carramar and Villawood Town Centre
- 3 Redirection of bus route and relocation of bus stop in Carramar Ave

- 4 Green link from Sandal Cres to Ruby Street reinforcing access corridor link to Fairfield
- 5 Ramped cycle access to existing bridge crossing
- 6 Widen and improve amenity to underpass of railway line
- 7 Provide lifts to station to improve accessibility
- 8 Integrate raised pedestrian crossing with public domain footways
- 9 Investigate better opportunities to access / experience natural habitat of creek corridor
- 10 Additional bridge access across creek
- 11 Shared access lane / through site link to creek frontage - potential viewing point
- 12 Improve existing parkland open space adjoining creek corridor - provide creek viewing and possible playspace
- 13 Re-purpose part of parking area to village square for gathering and events
- 14 Compensate parking with new angle / 90 degree parking off Sandal Cres
- 15 Development setback to Prospect Creek for habitat corridor and access to creek corridor



Demonstration site extent - aerial view



Demonstration site extent - structure plan view





Illustrative view 1: Proposed Shared path access and parkland adjoining Sandal Crescent





Illustrative view 2: Park / Square at Railway Station on Sandal Crescent

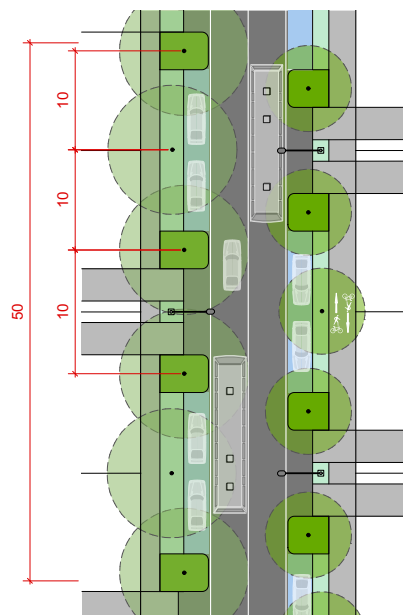
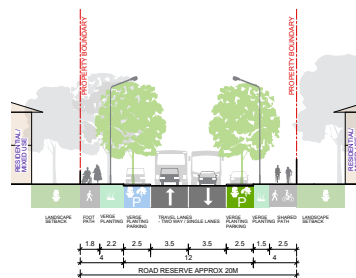


02. IMPLEMENTATION COSTS FRAMEWORK

Implementation Cost framework for public domain typologies

The concept design specifications developed for each of the public domain typologies provide a basis for estimating indicative implementation costs.

These have been calculated for a typical 50m length of street, and for a nominal 20m road width unless otherwise noted. Costs are based on July 2020 implementation costs and do not account for escalation



Operational Cost framework for public domain typologies

The capacity of Council to maintain completed public domain works at an appropriate level to the finishes of hard and soft landscape implemented is a critical consideration.

The costs framework provides an indicative estimate of operational servicing costs based on benchmarking with contract maintenance services for other LGA's. Maintenance by Council day labour is likely to provide some cost savings to the estimated allowances.

These allowances adjusted for 2020 (but excluding escalation are:

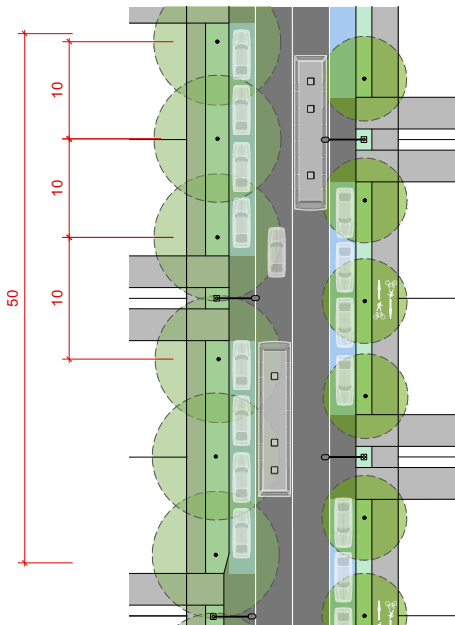
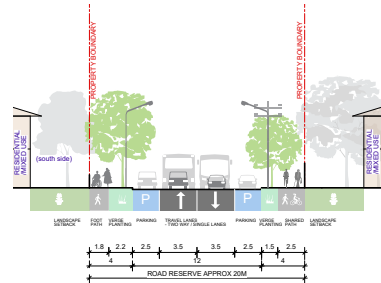
- High Streets, Plazas & Pedestrianised areas \$20.13 /m2
- Avenues and Corridors \$7.48 /m2

AVENUE

INDICATIVE IMPLEMENTATION COSTS		
	Item	indic cost allowance
1	Mobilisation And Temp Works	\$43,942
2	Demolition And Excavation	\$27,460
3	Drainage And Hydraulic Works	\$20,000
4	Lighting & Power Works	\$nil
5	Pavement And Kerb Works	\$101,000
6	Soft Landscape Works	\$88,896
7	Furniture Works	\$1,650
8	Public Art Works	\$15,000
9	Establishment	\$19,500
	Sub Total	\$314,635
10	Overheads & margin (8%)	\$25,170
11	Design allowance (8%)	\$25,170
12	Contingency (10%)	\$31,463
	TOTAL BUDGET PER 50M	\$396,440
	ALLOWANCE PER LIN/M 20M WIDE STREET	\$7,928

INDICATIVE OPERATIONAL COSTS		
	Item	Rate
	Area of verge and landscape per 50l/m	360m2 \$7.48 /m2
	TOTAL BUDGET PER 50M PER ANNUM	\$2,693
	ALLOWANCE PER LIN/M 20M WIDE STREET PER ANNUM	\$53.86

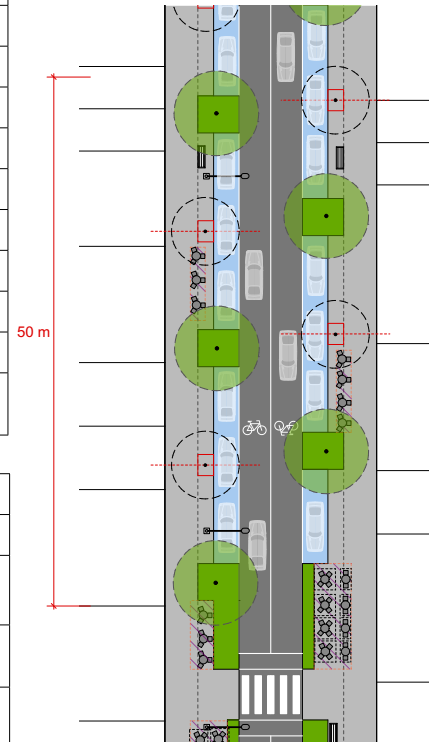
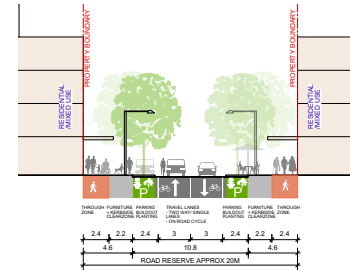
CORRIDOR



INDICATIVE IMPLEMENTATION COSTS		
Item		indic cost allowance
1	Mobilisation And Temp Works	\$24,486
2	Demolition And Excavation	\$21,030
3	Drainage And Hydraulic Works	\$18,750
4	Lighting & Power Works	\$nil
5	Pavement Works	\$29,100
6	Soft Landscape Works	\$74,862
7	Furniture Works	\$nil
8	Public Art Works	\$nil
9	Establishment	\$19,500
Sub Total		\$166,165
10	Overheads & margin	\$15,018
11	Design allowance	\$15,018
12	Contingency	\$18,772
TOTAL BUDGET PER 50M		\$187,728
ALLOWANCE PER LIN/M 20M WIDE STREET		\$4,730

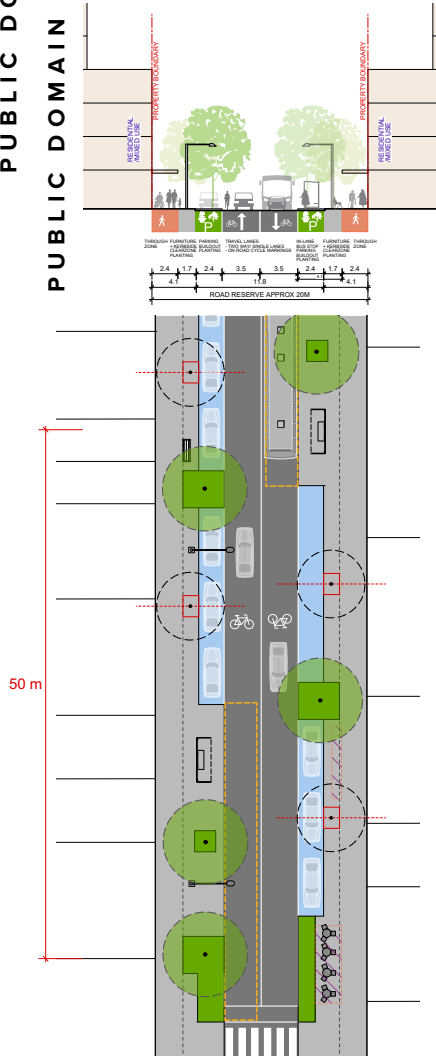
INDICATIVE OPERATIONAL COSTS		
Item		Rate
Area of verge and landscape per 50l/m	200m2	\$7.48 /m2
TOTAL BUDGET PER 50M PER ANNUM		\$1,500
ALLOWANCE PER LIN/M 20M WIDE STREET PER ANNUM		\$30.00

CORE HIGH STREET



INDICATIVE IMPLEMENTATION COSTS		
Item		indic cost allowance
1	Mobilisation And Temp Works	\$81,085
2	Demolition And Excavation	\$49,618
3	Drainage And Hydraulic Works	\$37,500
4	Lighting & Power Works	\$40,000
5	Pavement And Kerb Works	\$302,150
6	Soft Landscape Works	\$69,400
7	Furniture Works	\$15,900
8	Public Art Works	\$50,000
9	Establishment	\$39,000
Sub Total		\$694,103
10	Overheads & margin	\$55,528
11	Design allowance	\$55,528
12	Contingency	\$69,410
TOTAL BUDGET PER 50M		\$874,570
ALLOWANCE PER LIN/M 20M WIDE STREET		\$17,491

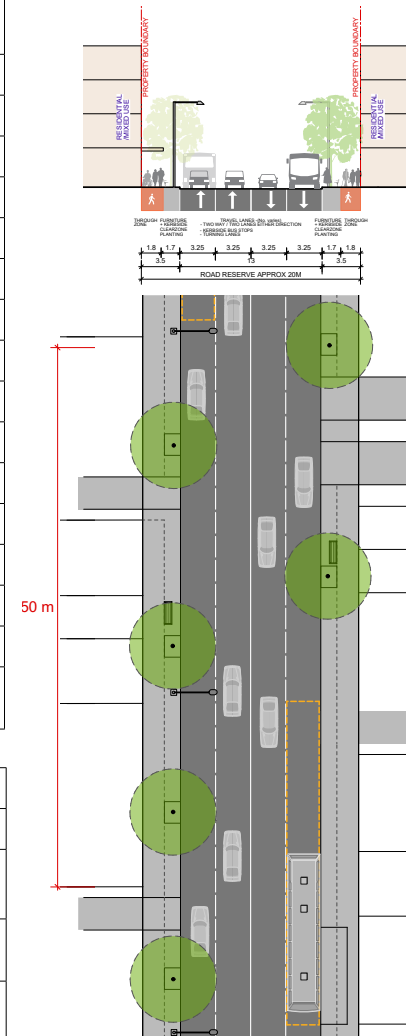
INDICATIVE OPERATIONAL COSTS		
Item		Rate
Area of verge and landscape per 50l/m	559m2	\$20.13 /m2
TOTAL BUDGET PER 50M PER ANNUM		\$11,252
ALLOWANCE PER LIN/M 20M WIDE STREET PER ANNUM		\$225.05



MIXED HIGH STREET

INDICATIVE IMPLEMENTATION COSTS		
Item		indic cost allowance
1	Mobilisation And Temp Works	\$71,525
2	Demolition And Excavation	\$44,296
3	Drainage And Hydraulic Works	\$30,000
4	Lighting & Power Works	\$32,500
5	Pavement And Kerb Works	\$314,060
6	Soft Landscape Works	\$49,525
7	Furniture Works	\$9,800
8	Public Art Works	\$25,000
9	Establishment	\$19,500
Sub Total		\$604,108
10	Overheads & margin	\$48,328
11	Design allowance	\$48,328
12	Contingency	\$60,410
TOTAL BUDGET PER 50M		\$761,176
ALLOWANCE PER LIN/M 20M WIDE STREET		\$15,233

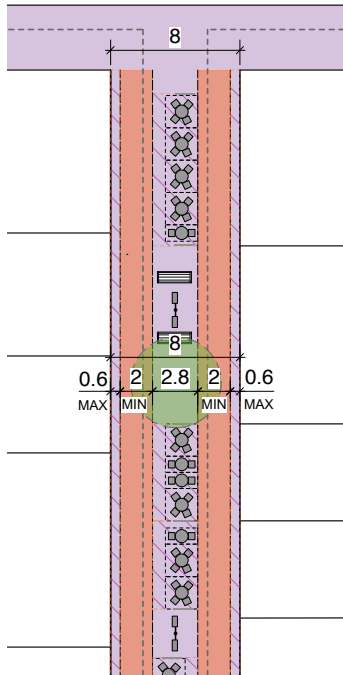
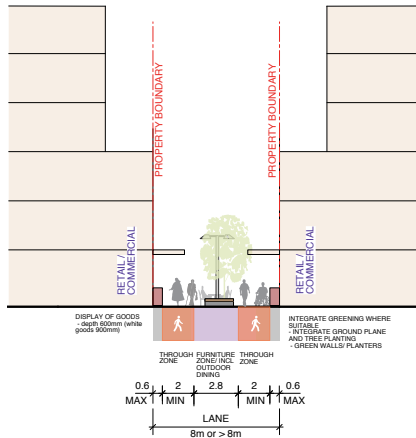
INDICATIVE OPERATIONAL COSTS		
Item		Rate
Area of verge and landscape per 50l/m	529m2	\$20.13 /m2
TOTAL BUDGET PER 50M PER ANNUM		\$10,648
ALLOWANCE PER LIN/M 20M WIDE STREET PER ANNUM		\$212.97



CIRCULATION HIGH STREET

INDICATIVE IMPLEMENTATION COSTS		
Item		indic cost allowance
1	Mobilisation And Temp Works	\$62,184
2	Demolition And Excavation	\$35,668
3	Drainage And Hydraulic Works	\$17,500
4	Lighting & Power Works	\$25,000
5	Pavement And Kerb Works	\$281,750
6	Soft Landscape Works	\$28,945
7	Furniture Works	\$6,200
8	Public Art Works	\$15,000
9	Establishment	\$19,500
Sub Total		\$533,517
10	Overheads & margin	\$39,519
11	Design allowance	\$39,519
12	Contingency	\$49,399
TOTAL BUDGET PER 50M		\$622,437
ALLOWANCE PER LIN/M 20M WIDE STREET		\$12,448

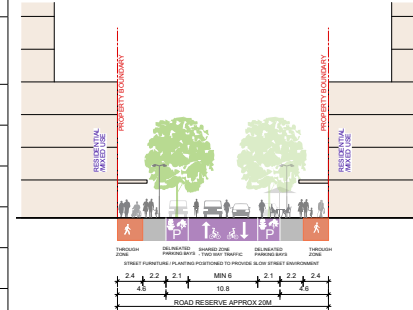
INDICATIVE OPERATIONAL COSTS		
Item		Rate
Area of verge and landscape per 50l/m	383m2	\$20.13 /m2
TOTAL BUDGET PER 50M PER ANNUM		\$7,707
ALLOWANCE PER LIN/M 20M WIDE STREET PER ANNUM		\$154



PEDESTRIAN LANE

INDICATIVE IMPLEMENTATION COSTS		
	Item	indic cost allowance
1	Mobilisation And Temp Works	\$45,770
2	Demolition And Excavation	\$28,278
3	Drainage And Hydraulic Works	\$50,000
4	Lighting & Power Works	\$30,000
5	Pavement And Kerb Works	\$154,000
6	Soft Landscape Works	\$16,560
7	Furniture Works	\$26,500
8	Public Art Works	\$30,000
9	Establishment	\$9,750
	Sub Total	\$396,621
10	Overheads & margin	\$31,729
11	Design allowance	\$31,729
12	Contingency	\$39,662
	TOTAL BUDGET PER 50M	\$499,742
	ALLOWANCE PER LIN/M 20M WIDE STREET	\$9,994

INDICATIVE OPERATIONAL COSTS		
	Item	Rate
	Area of verge and landscape per 50l/m	425m2 \$20.13 /m2
	TOTAL BUDGET PER 50M PER ANNUM	\$8,555
	ALLOWANCE PER LIN/M 20M WIDE STREET PER ANNUM	\$171



SHARED ZONE

INDICATIVE IMPLEMENTATION COSTS		
	Item	indic cost allowance
1	Mobilisation And Temp Works	\$124,414
2	Demolition And Excavation	\$48,505
3	Drainage And Hydraulic Works	\$50,000
4	Lighting & Power Works	\$67,500
5	Pavement And Kerb Works	\$536,200
6	Soft Landscape Works	\$57,990
7	Furniture Works	\$28,900
8	Public Art Works	\$50,000
9	Establishment	\$39,000
	Sub Total	\$1,009,809
10	Overheads & margin	\$80,784
11	Design allowance	\$80,784
12	Contingency	\$100,980
	TOTAL BUDGET PER 50M	\$1,272,359
	ALLOWANCE PER LIN/M 20M WIDE STREET	\$25,447

INDICATIVE OPERATIONAL COSTS		
	Item	Rate
	Area of verge and landscape per 50l/m	603m2 \$20.13 /m2
	TOTAL BUDGET PER 50M PER ANNUM	\$12,138
	ALLOWANCE PER LIN/M 20M WIDE STREET PER ANNUM	\$242.76

Part D

supporting research

Supporting Research



Appendix 1

Design Toolkits Strategies

STREET ORDER

Objectives

To implement a clear street hierarchy and corresponding guidelines that are consistent across the Fairfield LGA

Key requirements

Street hierarchy developed in accordance with required size and function; topography and natural features determine lot and street layouts

Approach

- Understand the economic drives that influence the centre movement and traffic
- Understand and define access and traffic role
- Maximise pedestrian and cycle amenity to specific routes / areas
- Manage heavy vehicle access to designated areas of high pedestrian use

Benefits

- Provides a structured and more holistic approach to designing the public domain
- Reflects streets' movement and civic role
- Ensures alignment with the Western Sydney Street Design Guide
- Provides a basis for Public Domain Guidelines

Value Add

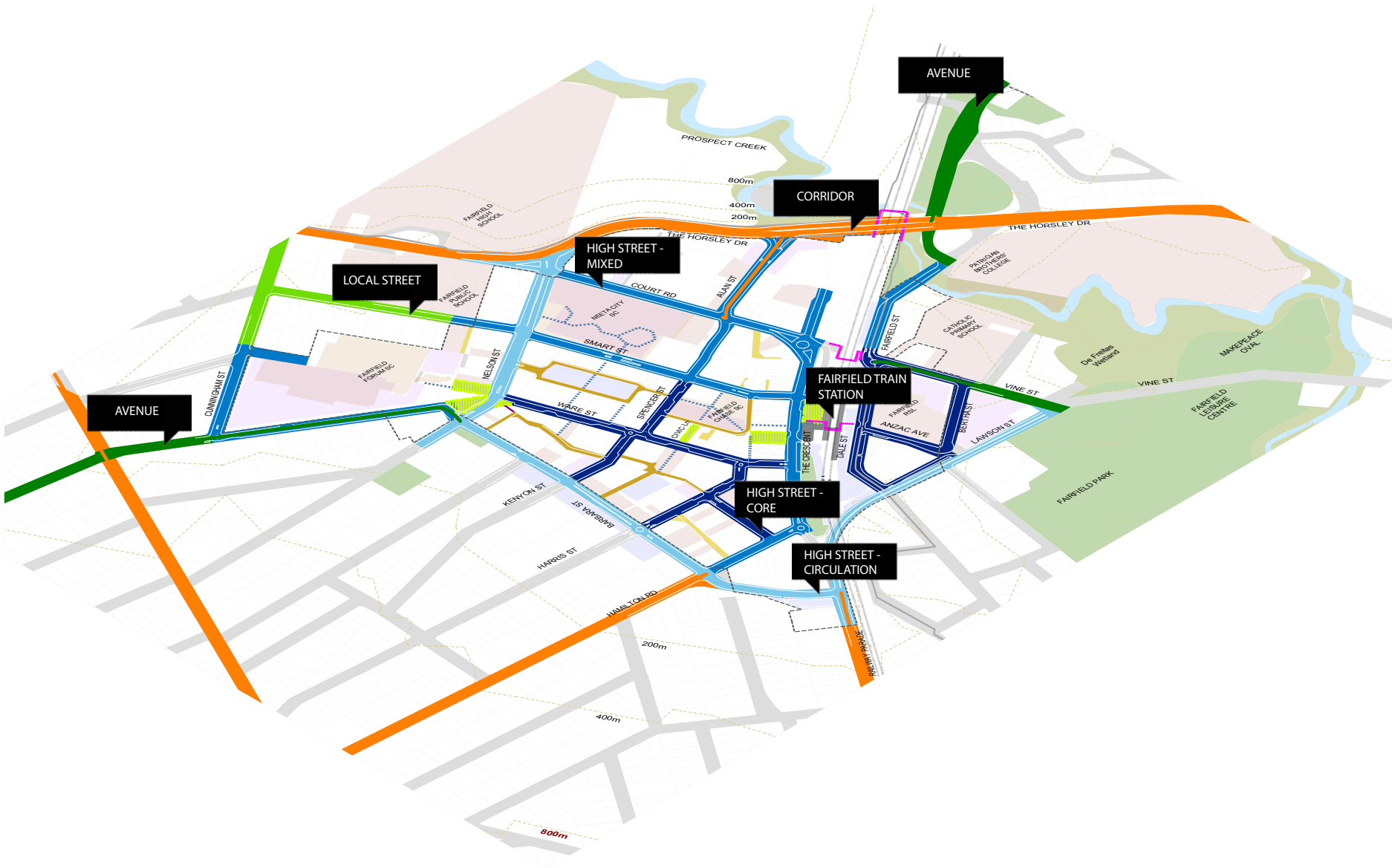
- The classification of streets leads to a greater consideration of the needs of people, rather than vehicles, in street planning and design, and with this comes more people-centric places for the community to enjoy
- This broadens the basis for assessing street performance and prioritising areas for improvement and helps to determine the appropriate balance of street space and capacity to be allocated to different street user groups.
- Establishing a hierarchy and understanding their uses, stresses the role of some streets as places as well as channels for movement

Key Statistics

- Improvements to New Road in Brighton as a shared space street resulted in 62% more pedestrians and 200% more lingering activities – Gehlpeople.com
- 5% risk of pedestrian deaths on 32km/hr streets compared to 45% on 48km/hr streets and 85% on 64km/hr streets – UK Dept of Transport

Targets (Numerical targets to reach, which are reflective of best practice, in order to achieve Objective):

- Recommended speed limit of 30km/hr in urban areas with high pedestrian activity - 2018 report from the OECD's International Transport Forum
- Recommended 10km/hr shared streets – Waterloo metric
 - Western Sydney Street Design Guidelines:
 - Collector roads
 - 25% green ground plane
 - 35% permeable
 - High Street
 - 10% green ground plane
 - 20% permeable
 - Laneways
 - 0% green ground plane
 - 0% permeable
 - Local Street
 - 30% green ground plane
 - 35% permeable



STREET GEOMETRY

Objectives

To enhance pedestrian safety and priority by reducing traffic provisions to minimum requirements whilst still maintaining road functionality

Key requirements

- Provide additional space for pedestrians through kerb extensions, tightened kerb radii and decreased lane widths
- Implement cycle medians

Approach

- Reduce traffic lane width to minimum required for function and safety
- Reduce kerb radii to minimum required for function and safety
- Reduce crossing distances

Benefits

- Kerb extensions reduce the crossing distance and time for pedestrians
- Tight kerb radii slow the speed of turning vehicles
- Minimum lane widths help to slow vehicles and provide more space for other street functions
- Cycle medians protect cyclists from traffic

Value Add

- Prioritises pedestrian safety and use
- Creates safe and easy crossing conditions for pedestrians
- Creates additional capacity for street greening and other uses such as space for bike racks, outdoor dining and bus stops

Key Statistics

- Global research suggests that pedestrians spend 65% more in a place than drivers, particularly when there is high amenity - Peters, 2016

Targets (Numerical targets to reach, which are reflective of best practice, in order to achieve Objective):

- Minimum lane widths*:
 - 3.5m for mixed traffic lanes
 - 3.0m for standard traffic lanes
 - 2.0-2.4m for on-street parking lanes
 - 3.0-6.0m for kerb radii



PEDESTRIAN THROUGH ZONE

Objectives

To ensure that pedestrians including those with a disability have a safe and adequate space for movement that is safe and clear of temporary or permanent obstructions

Key requirements

- Allow adequate space for pedestrians on footway depending on corresponding level of pedestrian activity desired
- Provide landscape buffer where necessary to separate pedestrians from heavy traffic or other incongruent uses

Approach

- Manage placement of fixed street elements (furniture / lights / signage, trees) to increase pedestrian movement space
- Manage on street trading to increase pedestrian movement space
- Increase pedestrian movement space (through zone) through footpath widenings

Benefits

- Improves pedestrian flow
- Increases business activity through improved pedestrian realm

Value Add

- Increases people lingering in the public realm
- Enhances experience of the street by improving pedestrian flow





Key Statistics

- Research suggests if a destination is safe, clean, and relaxed visitors will remain 300% longer and spend more money. Net income for local businesses increase by 42% - Hack, 2013

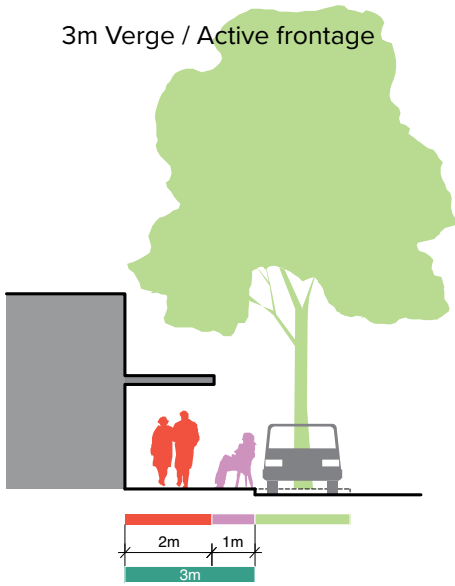
Targets (Numerical targets to reach, which are reflective of best practice, in order to achieve Objective):

- 2.4m is minimum dimension for pedestrian through zone in High Streets (NACTO)
- Where the through zone is adjacent to moving traffic, ensure a buffer zone of 0.6m for street furniture and utilities (NACTO)
- There is 2.5m or more clear width for walking in busy locations OR There is 2m or more in moderately busy locations OR There is 1.5m or more in quiet locations (Healthy Streets)

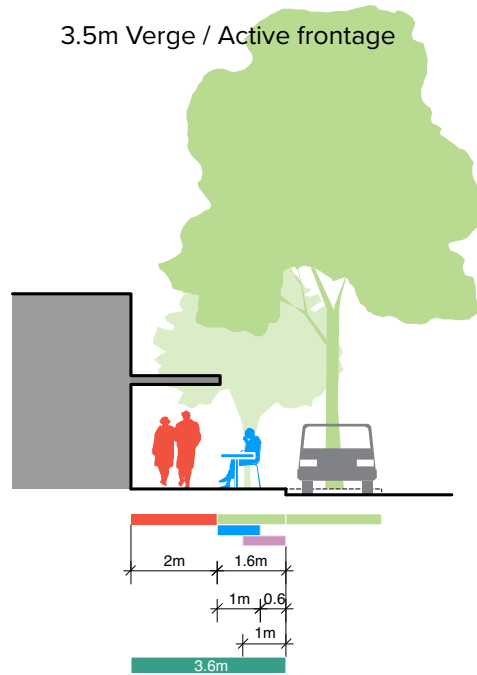
Legend

-  Verge planting zone
-  Pedestrian through zone
-  Kerbside clear zone
-  Footway dining zone

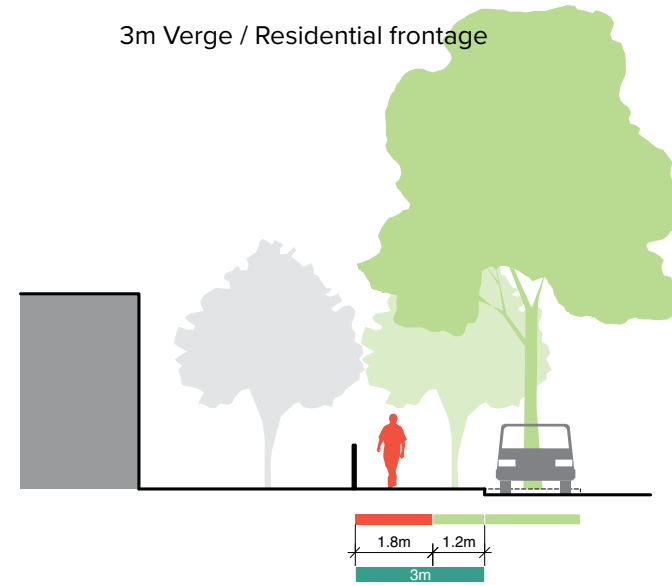
3m Verge / Active frontage



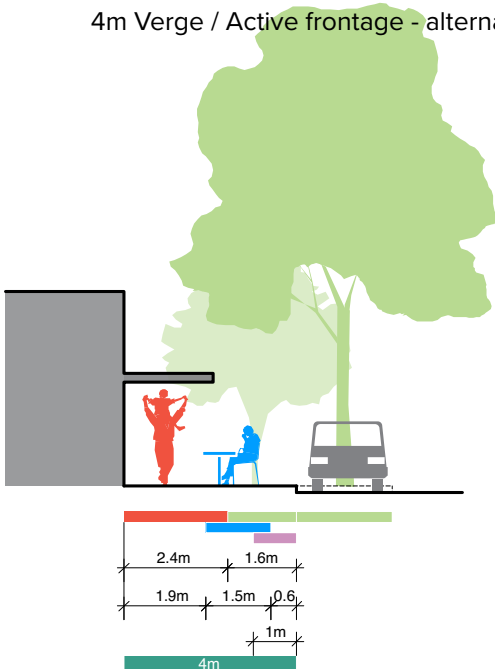
3.5m Verge / Active frontage



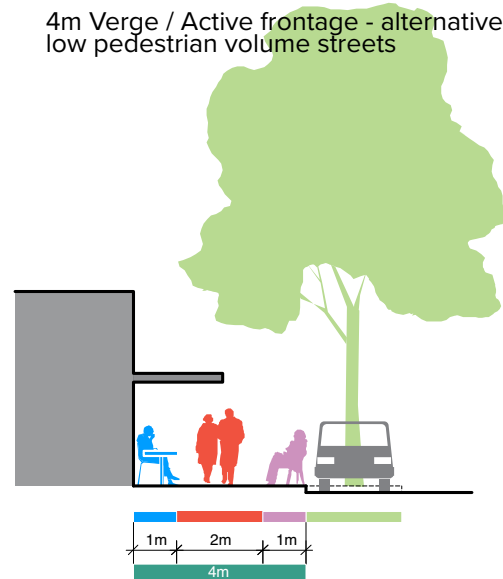
3m Verge / Residential frontage



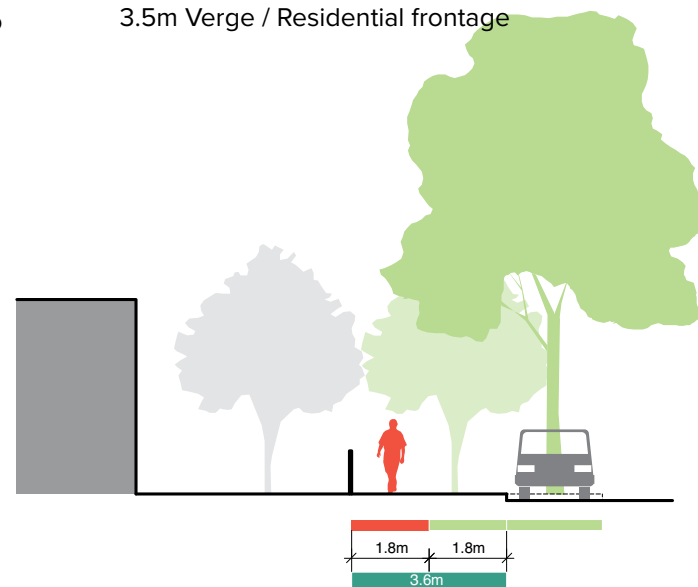
4m Verge / Active frontage - alternative 1



4m Verge / Active frontage - alternative 2 to low pedestrian volume streets



3.5m Verge / Residential frontage



CONNECTIVITY AND FLOW

Objectives

To improve pedestrian connectivity, reinforcing the priority of the pedestrian in the street, including providing equitable and inclusive accessibility.

Key requirements

- Provide footpaths that continue through driveways, maintaining sidewalk materials and grade across driveways
- Provide raised intersections and pram crossings that are flush with the sidewalk
- Ensure presence of crossings where main desire lines cross vehicular roads
- Ensure access to transport and accessible parking is provided across the centre
- Provide pathways, ramps and signs between key places including transport, parks and playgrounds
- Utilise principles of Universal Design (7 principles) to reduce barriers faced by people with disability

Approach

- Minimal or no stopping points along pedestrian route
- Minimal or no changes or transitions in level along pedestrian route
- Simple and Intuitive environment with clear lines of sight to important elements
- Clear Wayfinding
- Design that requires low physical effort to negotiate

Benefits

- Reinforces slow speeds and encourages motorists to give way to pedestrians
- Provides inclusive accessibility to promote members of the community as active participants of centre activities, using public spaces and can access key places and services

Value Add

- Creates a safe, slow-speed environment that is more conducive to walking and cycling and thus, an active, healthier lifestyle
- Creates liveable communities

Key Statistics

- 15 mins of walking per day reduces risk of mental health issues and early death by 45% and childhood obesity by 50%

Targets (Numerical targets to reach, which are reflective of best practice, in order to achieve Objective):

- Main desire lines across links are met by crossings suitable for all users at all times – Healthy Streets
- There is 2.5m or more clear width for walking in busy locations OR There is 2m or more in moderately busy locations OR There is 1.5m or more in quiet locations – Healthy Streets



AT THE KERB

Objectives

To ensure the kerb can be shared and utilized for a variety of functions/activities and for multiple modes and user groups

Key requirements

- Implement future-focussed kerb design today
- Optimise space provided for no stopping zones
- Delineate spaces for the separation of different modes of traffic

Approach

- Minimal extent of kerb without buffer directly adjoining traffic lanes
- Widened footpaths within no standing zones to increase pedestrian space and facilitate street planting
- Underground power / reduce impact of overhead cables

Benefits

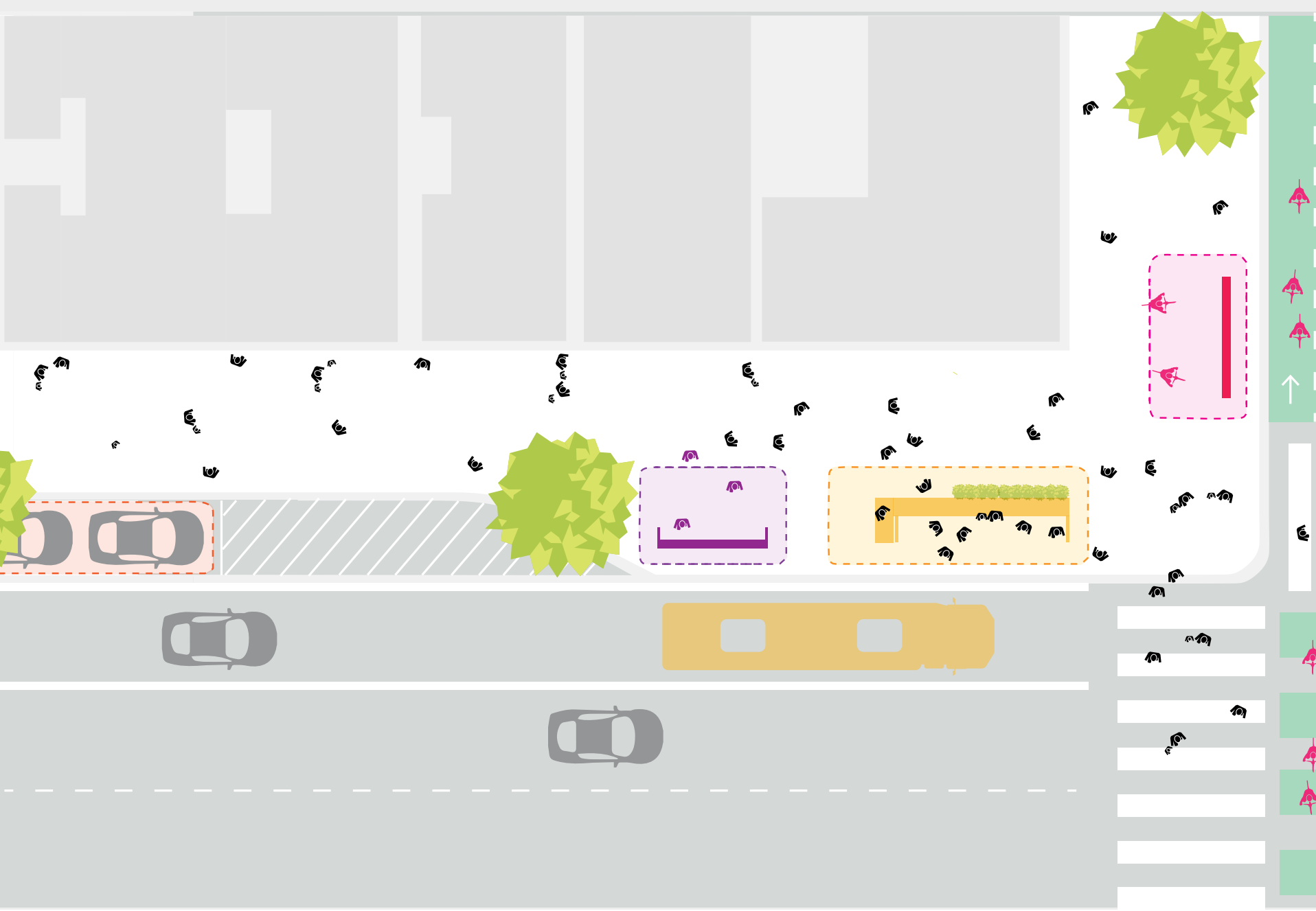
- Optimises the use of space
- Future-proofs kerb design

Value Add

- Enables a variety of uses at the kerb, as well as different people and modes to take advantage of kerbside space
- Encourages a diversity of public life to play out in the street
- Enhances passive surveillance where there is increased pedestrian activity
- Increases pedestrian safety and priority
- Creates a safer and slower environment

Key Statistics

- Retail sales can increase by 172% when you improve the pedestrian environment - Peters, 2016
- Cycling offers more than a \$21 net benefit to the Australian economy every time a person cycles 20 minutes to work and back - Policy Statement by Deputy Prime Minister Anthony Albanese, 2013



STREET LIFE

Objectives

To increase the vibrancy of the street life in the town centre.

Key requirements

- Encourage footway dining
- Encourage and control footpath trading
- Encourage also “non-commercial” gathering
- Allow for preferred safe and comfortable pedestrian through zones adjoining the building frontage
- Provision of flexible outdoor furniture, clear of pedestrian through-zones

Approach

- Minimal blank facades
- Minimal vacant shop fronts
- On-street trading
- Variety of reasons to be in street and linger
- Range of seating available
- Community events

Benefits

- Increases foot traffic and therefore, business trading

Value Add

- Increases people walking through and lingering in the public domain
- Increases safety and passive surveillance

Key Statistics

- Pedestrians spend as much 65% more than drivers – ‘Cities alive: Towards a walking world’, Arup
- Cycling and walking are estimated to provide up to \$11.80 return per \$1 invested – ‘Cities alive: Towards a walking world’, Arup



GREENING THE CENTRE

Objectives

To create a greener town centre, through improved landscape treatments and increasing the number of street trees.

Key requirements

- Design of development and landscape are integrated and coordinated for better outcomes
- Street tree planting has primacy in arrangement of street design influences (driveways, parking, drainage, streetlights)
- Coordination and collaboration with WS Street Design Guide
- Increase greenery in the centre via landscape treatments and increased number of street trees
- Create and/or extend ecological corridors

Approach

- Increase regularity of street trees
- Increase number of street trees
- Strategically place trees to maximise visual benefit
- Increase amount of ground level street gardens
- Integrate street trees within parking bays (narrowing visual width of street)

Benefits Environmental

- Improves quality of existing open space
- Improves visual amenity
- Enhanced urban microclimate
- Improves water quality
- Improves air quality
- Reduces ambient noise
- Reduces atmospheric CO₂
- Improves environmental resilience
- Reduces air temperatures and urban heat island effect

- Reduces the risk of flooding
- Encourages urban wildlife and increases biodiversity, by providing habitats or connections between habitats
- Supports and builds upon existing ecological corridors

Benefits Economic

- Boosts property values due to proximity to green space
- Reduces energy costs via microclimate regulation

Value Add

- Improves mental health, well-being and quality of life
- Increases physical activity and access to food
- Supports a rapidly growing population living in higher-density dwellings by providing public green spaces for active and passive recreation
- Provides more opportunities for children to play
- Enhances spaces for socializing and events
- Improves workplace productivity
- Creates opportunities for community participation
- Reduces crime
- Reduces stress
- Improves childhood development

Key Statistics

- People living in areas without access to nature were 1.27 times more likely to experience symptoms of depression - Gyeongbok: 2017
- Improved trees, transit and cycling/walking infrastructure in Portland resulted in 12.5% per capita CO₂ reductions as well as annual carbon savings of \$28-70 Million and cooler temperatures under trees by 11-25 °C – Smart Growth America



COOL STREETS AND SPACES

Objectives

To provide a comfortable micro-climate within the town centre.

Key requirements

- Use low-impact pavement materials, such as pervious pavements with high reflectivity*
- Implement street trees, bioswales, pervious strips and rain gardens at the edge of the pedestrian path*
- Reduce the amount of concrete used
- Increase green cover
- Create “cool nodes” along avenues corridors, high streets, and local streets at varied intervals to create pockets of dense shade to reduce ambient heat and provide refuge

Approach

- Increase regularity of street trees
- Increase number of street trees
- Increase continuity of awnings
- Provide clusters of trees (cool nodes) at regular intervals
- Increase presence of water / moisture

Benefits

- Support the cooling of neighbourhoods
- Combat the Western Sydney heat
- Deliver Green Grid connections
- Increase urban tree canopy
- Reduce the urban heat island effect
- Reduce stormwater run-off
- Improve climate change adaptation and resilience
- Improve water quality, filtering pollution before it reaches waterways

Value Add

- Improve environmental conditions for a more pleasant experience of the public realm
- Encourage the use of public space and people lingering
- Increase people’s well-being

Key Statistics

- Improved trees, transit and cycling/walking infrastructure in Portland resulted in: 12.5% per capita CO2 reductions as well as annual carbon savings of \$28-70Million and cooler temperatures under trees by 11-25 °C – Smart Growth America



LOVED PUBLIC SPACES

Objectives

To create human scale, loveable spaces that are inclusive, comfortable places that feel safe so people can enjoy, want to linger, socialise and spend time in. Public art and community-relevant installations should feature in public spaces to help the community develop attachment and meaning.

Key requirements

- Integrate with Core High Streets
- Locate where it will be most effective and avoid just using residual space/the easy option
- Building frontage and ground level activation to at least one edge/ preferably two

Approach

- Well located spaces
- Adequately sized spaces
- Attractive and flexible
- Attractive and usable to broad range of community
- Community involvement
- Development of Public Art Installations
- Events

Benefits

- Provides space to linger in addition to a thorough-fare
- Enables a greater opportunity for greening
- Offers greater flexibility and adaptability
- Offers greater potential for creating a cool summer environment
- Bring people together formally and informally
- Generates a sense of attachment, meaning and pride in the place

Value Add

- Provides 'destination' and/or 'event' spaces for community engagement
- Promotes dynamic activity and engagement within public spaces through installation interactions
- Activates the local centre with a vibrant street life
- Provides flexible space that can be adapted to various uses/ activities for public enjoyment
- Provides opportunities for exhibiting local art, history and cultural traditions

Key Statistics

- "97 per cent of Australians believe that cities and towns are better to live in when public buildings and public spaces are well-designed..."(Galaxy Poll) – Better Placed, Government Architect NSW



COMMUNITY AND CULTURE

Objectives

To leverage the strong existing arts and cultural presence in Fairfield by utilising public space as a canvas for cultural expression

Key requirements

- Commitment to curation of an events program
- Flexible space within plazas unencumbered by fixed elements for pop-up events
- Civic spaces that offer flexible space and can adapt between larger and smaller modes of use

Approach

- Community involvement
- Reflecting cultural influences
- Development of Public Art Installations
- Events

Benefits

- Builds upon existing arts and cultural presence
- Nurtures and celebrates public art and/or community installations
- Promotes different perceptions of the centres
- Develops multi-purpose space that adapts from weekday to weekend use

Value Add

- Encourages the use of public space and people lingering
- Increases sense of community and ownership within residents
- Enhances the cultural and social life of residents
- Improves social well-being

Key Statistics

- Research shows “that when people in engage in passive activities, such as attending arts events, concerts, museums and historical sites, as little as once a year, they report greater life and leisure satisfaction and general happiness” - Culture, Value and Place 2018
- “Datasets from the UK show that cultural volunteers (such as festival, gallery, heritage or museum volunteers) between age 16 and 64 are more likely than non -volunteers to be involved in their local communities and feel confident that their contributions are positively influencing their local environment.” - Culture, Value and Place, 2018, NSW Department of Planning and Environment





Appendix 2

Policy Overview

POLICY OVERVIEW



GLOBAL

**UN - HABITAT III - THE NEW URBAN AGENDA**

Three key principles have been established, including an implementation plan to be utilised as a key instrument for enabling national, regional, local governments and relevant stakeholders to achieve sustainable urban development.

The key principles include:

1. Leave no one behind
2. Ensure sustainable and inclusive urban economies
3. Ensure environmental sustainability

**UN - THE 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT**

The Sustainable Development Goals are a universal call to action including 17 goals forming part of the 2030 Agenda for Sustainable Development. This Agenda outlines the 15-year plan to achieve these goals.

The most relevant goals include:

- Goal 3: Good Health and Well-being
- Goal 11: Sustainable Cities and Communities
- Goal 13: Climate Action
- Goal 15: Life on Land





NATIONAL

	<p>CREATING PLACES FOR PEOPLE - AN URBAN DESIGN PROTOCOL FOR AUSTRALIAN CITIES</p> <p>Establishes 12 broadly agreed principles for quality urban spaces in Australia. These principles can be applied to any project or location.</p> <p>The 12 principles are centred around the following aims:</p> <ul style="list-style-type: none"> • Place: productivity and sustainability - Enhancing; Connected; Diverse; and Enduring • People: liveability - Comfortable; Vibrant; Safe; and Walkable • Leadership and governance - Works within the context; Engages with relevant stakeholders; Excellence; and Custodianship
	<p>HEALTHY SPACES AND PLACES - A NATIONAL GUIDE TO DESIGNING PLACES FOR HEALTHY LIVING</p> <p>Through practical tools, case studies and guidelines, this document aims to encourage the development of built environment that provide opportunities for physical activity and other health-related activities.</p> <p>The document identifies key principles to plan for healthy communities:</p> <ul style="list-style-type: none"> • Active transport • Aesthetics: attractiveness of a place or area • Connectivity • Environments for all people • Mixed density • Mixed land use • Parks and open space • Safety and surveillance • Social inclusion • Supporting infrastructure



NATIONAL

	<h3>SMART CITIES PLAN</h3> <p>Sets out the Australian Government's vision for our cities, and the plan for maximising their potential.</p> <p>The three pillars include:</p> <ol style="list-style-type: none"> 1. Smart Investment: prioritise projects that meet broader economic and city objectives such as accessibility, jobs, affordable housing and healthy environments. 2. Smart Policy: work across all levels of government to develop City Deals that unlock public and private investment 3. Smart Technology: embrace new technology with the potential to revolutionise how cities are planned, function, and how our economy grows.
	<h3>ROAD SAFETY PLAN</h3> <p>The plan adopts the internationally recognised Safe System approach, as a holistic and proven approach towards Zero death and serious injuries. The 4 approaches include: Safe Speeds, Safe People, Safe Vehicles and Safe Roads.</p> <p>The key Priority Areas include:</p> <ul style="list-style-type: none"> • Liveable and safe urban communities • Building a safer community culture



STATE



BETTER PLACED

The Policy “Better Placed has been developed by the Government Architect to deliver the strategic approach needed to ensure that as our cities and towns grow bigger they get even better.”

Key, applicable objectives include:

- Objective 1 - Better Fit: Contextual, local and of its place

- Objective 3 - Better for Community: Inclusive, connected and diverse
- Objective 4 - Better for People: Safe, comfortable and liveable
- Objective 6 - Better Value: Creating and adding value
- Objective 7 - Better Look and Feel: Engaging, inviting and attractive



GREENER PLACES

The Policy “Greener Places has been developed by the Government Architect to deliver the strategic approach for encuring connection and integration of our green assets, ensuring their contribution to quality of life, and that the environment and the economy are maximised, rendering a

working whole that is greater than the sum of its parts.”

Key principles for creating Greener Places include:

- Principle 1: Integration
- Principle 2: Connectivity
- Principle 3: Multifunctionality
- Principle 4: Participation



DRAFT - OPEN SPACE FOR RECREATION GUIDE - GREENER PLACES

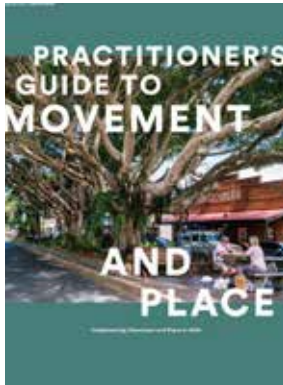
The guideline, ‘Open Space for Recreation’ is a document supporting the guide and implementation of the Policy document “Greener Places, developed by the Government Architect. Key applicable strategies include:

- Strategy 1: Improve the provision and diversity of open space for recreation
- Strategy 2: Understand the demands on existing open

- space, and plan for open space in new and growing communities
- Strategy 3: Improve the quality of open space for better parks and facilities
- Strategy 4: Use open space to connect people to nature
- Strategy 5: Link to the network of green space
- Strategy 6: Encourage physical activity by providing better parks and better amenity
- Strategy 7: Provide open space that is multifunctional and fit for purpose
- Strategy 8: Design versatile, flexible spaces



STATE



PRACTITIONER'S GUIDE TO MOVEMENT AND PLACE

This guideline supports the Movement and Place Framework developed by Government Architect NSW and Transport for NSW. Its role is provide a common structure for place-based transport and city planning. It establishes built environment indicators to be used as criteria for evaluating the outcomes.

These include:

- Character and Form: human scale, distinct
- Access and Connection: transport choice, reliable transport, equity
- Amenity and Use: local opportunities, convenient facilities
- Green and Blue: link to nature
- Comfort and Safety: low risk, comfortable



FUTURE TRANSPORT STRATEGY 2056

Future Transport 2056 acknowledges the vital role transport plays in the land use, tourism, and economic development of towns and cities. It includes issue-specific and place-based supporting plans that shift the focus away from individual modes of transport, toward integrated solutions. The Strategy and Plans also focus on the role of transport in delivering movement and place outcomes that support the character of the places and communities we want for the future.

Key Future Transport Statewide outcomes to consider:

- Customer Focused - Convenient and responsive to customer needs
- Successful Places - Sustaining and enhancing the liveability of our places
- A Strong Economy - Connecting people and places in the growing city
- Safety and Performance - Safely, efficiently and reliably moving people and goods
- Accessible Services - Accessible for all customers



NSW LOCAL CHARACTER AND PLACE GUIDELINES

The guideline provides information to clarify the key influences of local character and place, how local character can be integrated into the planning system and current approaches for the inclusion of local character in local planning. Part Two of the document explains the Character Assessment Toolkit, which aims to encourage consideration of local character in strategic planning through the following steps:

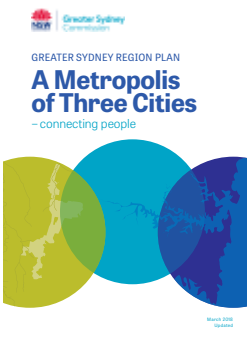
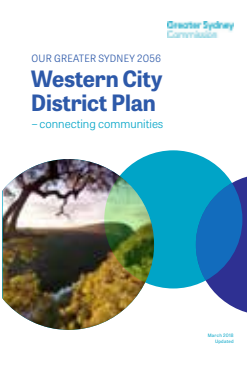
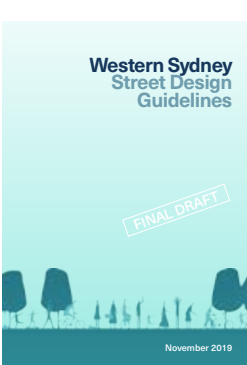
- Step 1 - Hearing from your community

- Step 2 – Identifying an area's character
- Step 3 – Examine different sources of information and map local character
- Step 4 – Setting desired future character
- Step 5 – Producing a character assessment



REGIONAL

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 <p>Greater Sydney Region Plan A Metropolis of Three Cities —connecting people— March 2018 Updated</p>	<h3>A METROPOLIS OF THREE CITIES</h3> <p>As an overarching strategy, this document sets out a framework and vision of transforming Greater Sydney into a metropolis of three cities where most residents live within 30 minutes of their jobs, education, and health facilities, services and great places. It is centred around the following key themes:</p> <ul style="list-style-type: none"> • Infrastructure and Collaboration: The Western Sydney Deal will optimise infrastructure and business investment, employment and liveability outcomes • Liveability: Place-making will help to design neighbourhoods with fine grain fabric and human scale. • Productivity: The city will include expansive industrial and urban services lands to the north and east of the Western Sydney Airport • Sustainability: Increased tree canopy cover will provide shade and shelter for walkable neighbourhoods within easy reach of shops and services. The parkland character will be enhanced by the national parks and rural areas framing the city
 <p>OUR GREATER SYDNEY 2056 Western City District Plan —connecting communities— March 2018 Updated</p>	<h3>WESTERN CITY DISTRICT PLAN</h3> <p>The Western City District Plan characterises the Fairfield local government area as a diverse neighbourhood and multicultural hub, recognising the important role that migrants and refugees play in the social and economic landscape of the district.</p> <p>The following planning priorities are relevant to Fairfield LGA:</p> <ul style="list-style-type: none"> • Planning Priority W3: Providing services and social infrastructure to meet people’s changing needs • Planning Priority W4: Fostering healthy, creative, culturally rich and socially connected communities • Planning Priority W6: Creating and renewing great places and local centres, and respecting the District’s heritage • Planning Priority W15: Increasing urban tree canopy cover and delivering Green Grid connections • Planning Priority W18: Delivering high quality open space
 <p>Western Sydney Street Design Guidelines FINAL DRAFT November 2019</p>	<h3>WESTERN SYDNEY STREET DESIGN GUIDELINES</h3> <p>The Western Sydney Street Design Guidelines seeks to address the creation of places that “sit comfortably within communities, neighbourhoods and town centres, while providing improved environmental, social and health outcomes for all street users.</p> <p>The Guidelines have been established to ensure consistency and standardisation of projects of all scales across the LGA of the partnering councils to be used as a key reference for the evaluation, planning and design of streets.”</p> <p>The following components of the report are relevant to Fairfield LGA:</p> <ul style="list-style-type: none"> • Designing Great Streets • Components of Great Streets



LOCAL

**FAIRFIELD CITY PLAN**

This strategy sets out the vision, themes and priorities for the future of Fairfield City. The relevant themes to consider include:

Theme 1: Community Wellbeing

- A diverse community of many cultures that is valued and celebrated
- Healthy and active community
- A safe community

- An inclusive city with access to opportunities for the community

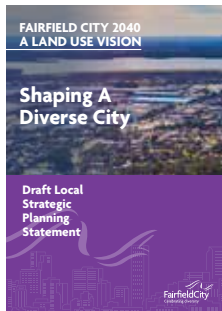
Theme 2: Places and Infrastructure

- An accessible and liveable City
- Community assets and infrastructure are well maintained into the future

• Inviting and well used open spaces

Theme 4: Local Economy and Employment

- Range of resilient businesses
- Attractive and lively City

**FAIRFIELD DRAFT LSPS 2019**

This document sets out the 20-year vision for land use planning and decisions to inform the Local Strategic Planning Statement - Fairfield 2040 - 'Shaping a Diverse City'. The LSPS contains planning priorities and actions to deliver a diverse City, offering choice in housing, access to jobs, open space and parklands and thriving centres.

The LSPS:

- Sets the foundation for what makes Fairfield City great
- Identifies what the community needs into the future
- Directs how planning will deliver a City the community needs

The LSPS identifies Fairfield as:

- A cosmopolitan destination attracting new residents to create new lives and embrace lifestyle and employment opportunities
- A place with strong existing social, cultural and familial networks

**ECONOMIC DEVELOPMENT STRATEGY 2019 UPDATE**

The Strategy sets out to provide an update on Fairfield City's economic development taking into consideration changes to policy and legislation across all levels of government. The report also examines ways to nurture business and employment growth. Relevant considerations to inform the Public Domain work include:

A range of resilient businesses



- Enhance the look and feel of the area
- Improve access to public transport
- Facilitate the establishment of a greater assortment of shops

An attractive and lively city

- Consult with the community to design attractive town centres
- Build safe and pleasant public spaces
- Deliver placemaking programs involving local artists, organisations and communities



LOCAL

 <p>DISABILITY INCLUSION ACTION PLAN 2017 FAIRFIELD CITY COUNCIL</p>	<p>FAIRFIELD DISABILITY INCLUSION ACTION PLAN 2017</p> <p>This document sets out actions for Council to continue improving access and inclusion for people of all abilities in the community.</p> <p>The DIAP sets out a Vision, and key focus areas which align with the NSW Disability Inclusion Act including:</p> <ul style="list-style-type: none"> • Community Attitudes and Behaviours • Creating Liveable Communities • Supporting access to meaningful employment • Improving access to services through better systems and processes
 <p>Fairfield City Centre Urban Design Study</p>	<p>FAIRFIELD CITY CENTRE URBAN DESIGN STUDY</p> <p>Urban Design study conducted in 2018 for Fairfield City Council.</p> <p>The key considerations of the report included:</p> <ul style="list-style-type: none"> • Challenges, strengths and recommendations to inform current place character and be a base for site audit • Previous community engagement undertaken <p>Key community needs were:</p> <ul style="list-style-type: none"> • Additional affordable housing • Additional open space in areas of deficiency • Improved access to public open space • Space for community facilities



Appendix 3

Document Review

DOCUMENT REVIEW

Document	Fairfield City Centre Urban Design Study	Influences / considerations for Public Domain Plan	<ul style="list-style-type: none"> Mapping of current strengths, weaknesses and opportunities to inform current place character and be a base for site audit Key Place Constraints for Fairfield City Centre <ul style="list-style-type: none"> The Railway Line, Barbara Street and The Horsley Drive are significant barriers to pedestrian movement The large Neeta City Shopping Centre block impedes through-site link connection, particularly after business hours Lack of public plaza space Unattractive laneway environment in Nelson St Car Park provides main pedestrian east-west movement Key Place Opportunities for Fairfield City Centre <ul style="list-style-type: none"> Establish new through-site connections on large shopping centre sites Extend new east-west link to eastern Prospect Creek sites via an overpass Extend the Ware street spine to the Fairfield Forum Strengthen the fine grain nature of pedestrian laneways through activation opportunities Establish new laneway connections where appropriate Improve pedestrian and bike connectivity between the city centre and Fairfield Park Key site principles to be built upon through place opportunities and delivery plan Key Site Principles: <ul style="list-style-type: none"> Centre amenity Centre connectivity Centre economy Centre vitality Previous community engagement undertaken to be understood and considered to ensure engagement fatigue does not occur through additional engagement carried out through public domain plan
By	Prepared by AEC, LFA and TPG for Fairfield City Council		
Date	March 27, 2018		
Purpose	Urban Design Study		
Objectives	<ul style="list-style-type: none"> Analyse current strengths, weaknesses, opportunities and threats through site visits, literature review, and stakeholder consultation Outline a strategic approach to planning and development standards Test development scenarios based on economic feasibility and minimising amenity impacts Identify road network and public domain improvements in the Town Centre and its immediate surrounding area reflecting existing weaknesses as well as demand generated from future development Recommend development standards within Fairfield Local Environmental Plan 2013 (FLEP 2013) and development controls within the Fairfield City Centre Development Control Plan 		
Key Strategies	<ul style="list-style-type: none"> Review of city centre in the local and regional context, identifying constraints, opportunities and key sites in the Fairfield City Centre Review statutory and strategic planning context Review current city centre economy to identify economic opportunities for the future Stakeholder engagement Form urban design principles and concepts for key sites based on findings and stakeholder engagement feedback Recommended amendments to the current planning framework to enable the outcomes for key site design principles and concepts 		

Document	Fairfield City Centre Marketing and Branding Plan
By	Place Partners Place Making Consultancy
Date	2011
Purpose	<ul style="list-style-type: none"> • Leverage on and encourage the current activity produced in Fairfield City Centre • Ensure the future development and potential of the centre
Objectives	<ul style="list-style-type: none"> • Change outsiders' perceptions about Fairfield • Showcase and foster a sense of pride in community assets that make Fairfield City Centre unique • Draw new patronage to Fairfield City Centre from outside the local area • Improve the perception of safety throughout the Fairfield City Centre • Strengthen Fairfield City Centre's role as a key Western Sydney destination
Key Strategies	<ul style="list-style-type: none"> • Review of marketing activities and, competition and market analysis • Stakeholder and community engagement (including Traders and Shoppers surveys) to determine the appropriate marketing response as well as the Town Centre's strengths, weaknesses, opportunities and threats. • Analysis of the physical structure of Fairfield, its people and values, identity and the existing role and function of the centre • Development of a marketing and branding plan built on 5 key themes <ul style="list-style-type: none"> - Mystery - Discovery - Adventure - Pioneering - Primacy

Influences / considerations for Public Domain Plan	<ul style="list-style-type: none"> • Consider Fairfield City Centre's unique offering on which to leverage: <ul style="list-style-type: none"> - "uniting disparate cultures and providing a genuine mix of local cultural specialities and business expertise" • The attractor/offer for each target market section sheds light on the people who are potentially engaging with public space at different times throughout the day • Consider Fairfield's unique selling points (food, fabrics, cultural materials and braiding) and their locations • Consider the 7 features of most importance to the community derived from community engagement: <ul style="list-style-type: none"> - "A clean and attractive place to live - Less crime and more police - Trains and buses that connect - Improved shopping centres - More car parks - Community spirit and integrated community - Lots of parks, open space and cycleways" • Consider the emerging precincts within the Town Centre including: <ul style="list-style-type: none"> - Ware Street & Spencer Street main streets - Middle eastern precinct - Civic precinct - Thai and Lao precincts • Consider existing and future audiences of the Town Centre (families with tight budgets, mixed generations of migrants, elderly retirees) • Consider ways in which the public domain can reflect Fairfield's marketing and branding strategy including banner installation and space for events that showcase Fairfield's unique offering • Ensure unique aspects of Fairfield mentioned are retained and enhanced
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Document	Fairfield Town Centre Strategic Plan
By	Fairfield City Council
Date	2004
Purpose	<ul style="list-style-type: none"> Implement economic, social and environmental initiatives aimed at realising Fairfield Town Centre's potential Create a place in which people want to live, work, visit and invest
Objectives	<ul style="list-style-type: none"> Vision: <ul style="list-style-type: none"> Build upon the good mix of retail and commercial services to create a Sydney-wide profile, attracting more residents, investors and visitors Combine the best aspects of the city's past and future Enhance friendly village feel Encourage a broad range of community-based learning, cultural, leisure and recreational activities Renew town centre by executing new developments, as well as preserving existing buildings and remnants of the past Upgrade the gateways to the town centre, especially the The Crescent and railway station
Key Strategies	<ul style="list-style-type: none"> Seven Directions to achieve the vision <ul style="list-style-type: none"> Inclusive design that enhances the unique character of the town centre A safer town centre Reinforce gateways, access and wayfinding in and around the town centre Bring streets to life Stimulate economic development and increase employment opportunities Facilitate social and cultural development and improve education and training opportunities Create a new image for the town centre Subsequent design actions for each Direction

Influences / considerations for Public Domain Plan

- Relevant considerations in Action Plan include:**
- Direction 1 Actions:**
 - A new Development Control Plan
 - Strengthen town centre character
 - Protect and enhance public domain
 - Sydney Metropolitan Strategy integration
 - Guide and support developers
 - Section 94 Plan review with transport component
 - Infrastructure audit
 - Contain retail and commercial development within existing boundaries of town centre
- Direction 2 Actions:**
 - New and improved lighting
 - Improve car parks
 - Improve footpath and parks maintenance
- Direction 3 Actions:**
 - Strengthen Crescent Precinct and Railway Link to southern leisure, education and social hub
 - Renew Barbara St Civil and Cultural precinct
 - Re-open Spencer St to one-way traffic from Ware St
 - Upgrade Hamilton Rd Gateway
 - New streetscape design for Ware St, Smart St and Spencer St
 - Wayfinding and public art enhancements throughout town centre
- Direction 4 Actions:**
 - Laneway improvements
 - New pedestrian crossings
 - Footpath widening
 - Road openings/closures
 - Car parking access improvements
 - New cycle route and bridge
 - Encourage active transport
 - Beautify streetscape
 - Increase play equipment
 - Improve pedestrian links

<ul style="list-style-type: none"> Direction 5 Actions: <ul style="list-style-type: none"> Leverage on Fairfield's position as one of '7 Cities within the City of Sydney' Establish LGA retail hierarchy Develop existing services and creative industries Consolidate role as a regional retail and commercial centre Direction 6 Actions: <ul style="list-style-type: none"> Activate evening economy Encourage activities for youth, kids and families Create more meeting and creative spaces Nurture existing cultural and performing art centres New library Direction 7 Actions: <ul style="list-style-type: none"> Develop Fairfield's unique sense of place Re-brand town centre Develop communication and place marking strategies 	Document	Original Strategic Planning Project
	By	People, Place and Partnership
	Date	2004
	Purpose	<ul style="list-style-type: none"> Implement economic, social and environmental initiatives aimed at realising Fairfield Town Centre's potential Create a place in which people want to live, work, visit and invest
	Objectives	<ul style="list-style-type: none"> Identify current opportunities and constraints Devise strategies to foster the development of Fairfield Town Centre
	Key Strategies	<ul style="list-style-type: none"> Stakeholder and community engagement to determine town centre's strengths, weaknesses, opportunities and threats
	Influences / considerations for Public Domain Plan	<ul style="list-style-type: none"> Considerations include: <ul style="list-style-type: none"> Stimulate economic development and reduce youth unemployment Foster education, social and cultural development Strengthen gateways, access and wayfinding in and around the town centre Seven Vision Directions (See Fairfield Town Centre Strategic Plan) Street improvements Car park improvements New development controls

Document	Interwoven Program Plan	Influences / considerations for Public Domain Plan	<ul style="list-style-type: none"> Outcomes of the plan include: <ul style="list-style-type: none"> - Integration of art into city planning, design of buildings and landscaping - Art-enriching pedestrian, resident and visitor experience - Initiatives that build upon and reflect the cultural identity of the city centre - Gateways to the city centre that are demarcated by public art - Inclusive cultural program that is reflective of communities' needs.
By	Prepared by Martha Jabour in conjunction with Fairfield City Council		
Date	2013-2017		
Purpose	Place-making Public Art Program		
Objectives	<ul style="list-style-type: none"> Put the goals of the Fairfield City Plan 2010 - 2020 Community Strategic plan Fairfield Cultural Plan 2020, Town Centre Strategy for the Fairfield Town centre 2006 and Fairfield City Centre Revitalisation Program 2013-17 into action Provide guidance for the future Interwoven program When implementing public art projects, ensure there is an integrated approach across council departments linking and developing community and cultural initiatives to the Fairfield City Centre Place Management Program. Provide a four-year strategy to action and prioritise the Interwoven projects. Enable artists and community groups to come together to develop concepts and designs for the public spaces of the Fairfield City Centre 		
Key Strategies	<ul style="list-style-type: none"> Interviews, program reviews and a workshop were undertaken with council staff and key community cultural stakeholders to identify the different existing and developing projects Identifies a range of public art and activation opportunities for a range of public spaces in Fairfield City Centre 		

Document	Fairfield City 2040 A Land Use Vision - Shaping a Diverse City	Key Strategies	<ul style="list-style-type: none"> Ensure the vision and themes outlined in this plan become a strong guide and benchmark for all work and planning. Include actions outlined here in delivery plan <p>Vision: “We are Fairfield City – a welcoming, safe and diverse community where we are proud to belong, invest and prosper.”</p> <p>Five themes to achieve the community's vision.</p> <ul style="list-style-type: none"> - Community Wellbeing - Places and Infrastructure - Environmental Sustainability - Local Economy and Employment - Good Governance and Leadership
By	Fairfield City Council	Key Strategies	<ul style="list-style-type: none"> These five themes will be implemented through the 16 planning priorities, each having a number of specific actions associated with it. These actions are the specific measures that will be undertaken to guide and inform land use decisions to 2040. The Action Plan identifies the timeframe (short, medium and long term), responsibility and monitoring measure for each action Previous community engagement undertaken to be understood and considered to ensure engagement fatigue does not occur through additional engagement carried out through public domain plan
Date	2019	Influences / considerations for Public Domain Plan	<ul style="list-style-type: none"> Consider Fairfield City Centre's unique offering on which to leverage: <ul style="list-style-type: none"> - “uniting disparate cultures and providing a genuine mix of local cultural specialities and business expertise” The attractor/offer for each target market section sheds light on the people who are potentially engaging with public space at different times throughout the day Consider Fairfield's unique selling points (food, fabrics, cultural materials and braiding) and their locations Consider the 7 features of most importance to the community derived from community engagement: <ul style="list-style-type: none"> - “A clean and attractive place to live - Less crime and more police - Trains and buses that connect - Improved shopping centres - More car parks - Community spirit and integrated community - Lots of parks, open space and cycleways” Consider the emerging precincts within the Town Centre including: <ul style="list-style-type: none"> - Ware Street & Spencer Street main streets - Middle eastern precinct - Civic precinct - Thai and Lao precincts Consider existing and future audiences of the Town Centre (families with tight budgets, mixed generations of migrants, elderly retirees) Consider ways in which the public domain can reflect Fairfield's marketing and branding strategy including banner installation and space for events that showcase Fairfield's unique offering Ensure unique aspects of Fairfield mentioned are retained and enhanced
Purpose	<ul style="list-style-type: none"> Provide a 20-year land use vision for Fairfield City Outline the characteristics which make Fairfield City unique Identify shared community values to be enhanced or maintained Direct how future growth and change will be managed Inform changes to planning rules in the LEP and DCP Implement the relevant Directions and Planning Priorities in the Western City District Plan (2018) Identify where further detailed strategic planning is needed 		
Objectives	<ul style="list-style-type: none"> Provides the strategy for the Fairfield community's economic, social and environmental land use needs over the next 20 years Sets clear planning priorities about what will be needed, such as jobs, homes, services and parks, where these should be best located and when they will be delivered Sets short, medium and long-term actions to deliver the priorities for the community's future Brings together and builds on planning work found in Council's other plans, studies and strategies such as the Local Environmental Plan (LEP), Development Control Plans (DCP) and Development Contributions Plan This document is to be used to update these plans Community engagement is an essential part of how Council plans for the future of Fairfield City. The engagement activities undertaken as part of the community engagement strategy are designed to harness the success of existing networks and previous engagements 		



Appendix 4

Best Practice Framework

HEALTHY STREETS

Healthy Streets is an evidence-based approach for creating fairer, sustainable, attractive urban spaces.

The approach focuses on the health impacts of transport, public realm and urban planning. Key elements identified as necessary elements for public spaces to improve people's health are the same as those needed to make urban places socially and economically vibrant and environmentally sustainable.

10 Healthy Street Indicators have been developed, focusing on the human experience, and the priorities for the public domain.



HEALTH

"PHYSICAL BARRIERS OR HEAVY TRAFFIC CAN MAKE STREETS DIFFICULT TO CROSS. THIS CAN DISRUPT SOCIAL NETWORKS AND LEAD TO SOCIAL ISOLATION. PEOPLE WITH WEAK SOCIAL AND COMMUNITY TIES HAVE WORSE HEALTH OUTCOMES"

KEY BENEFITS

APPEALING STREETS



More welcoming, pleasant and attractive streets

HEALTHY LIVING



Streets where everyone can walk and cycle, spend time and engage with other people

INCLUSIVE



Safer for pedestrians, cyclists and motorists



ACTIVE TRAVEL

"PEOPLE ARE MORE LIKELY TO WALK OR CYCLE IN AREAS WHERE THEY FEEL RELAXED AND WHICH HAVE OTHER PEOPLE IN AND PLEASANT AND SCENIC ELEMENTS SUCH AS TREES, LANDSCAPING, PUBLIC ART, ATTRACTIVE GARDENS AND SHOP FRONTAGES"

"Streets must be welcoming places for everyone to walk, spend time and engage with other people. This is necessary to keep us all healthy through physical activity and social interaction"

- Healthy Streets

FAIRNESS

"OLDER PEOPLE, PEOPLE WITH INJURIES AND MOBILITY IMPAIRMENTS AND PEOPLE ACCOMPANYING YOUNG CHILDREN ALL RELY ON PLACES TO STOP TO BE ABLE TO BREAK UP LONGER WALKS OR CYCLE RIDES"

PRIORITIES

Pedestrian from all walks of life



Easy to cross



Shade and shelter



Places to stop and rest



Not too noisy



People choose to walk and cycle



People feel safe



Things to see and do



People feel relaxed



Clean air

TO DELIVER

- Guide to Healthy Streets Indicators - A qualitative assessment tool summarising the essential aspects of the 10 Healthy Streets Indicators by using questions as prompts
- Healthy Streets Check for Designers (HSCD) A technical assessment of the street layout based on 31 quantitative metrics mapped to the 10 Healthy Streets Indicators. The output is a Healthy Street Check Score (0-100).
- Healthy Streets Survey On-street survey in which Londoners are asked to rate the street they are standing on against eight* of the 10 Healthy Streets Indicators.
- Healthy Streets Experience Score (0-10) and a Healthy Streets Expectation Score (0-10) based on survey's outputs

FRAMEWORK FOCUS

PEOPLE + HEALTH

REDUCING INEQUALITIES

WALKING + CYCLING



BETTER PLACED

Good design is a phrase that encapsulates the aspirations of Better Placed including its vision for NSW, its definition of good process, and its outline of objectives for the built environment.

Better Placed is an integrated design policy for the built environment in NSW that considers an approach to ensure good design delivers architecture, public places and environments will be places people want to inhabit now and those we make for the future.

Better Placed provides a framework to support and develop tools for better design outcomes through locally based policies and initiatives.

Better Placed proposes design thinking to offer a way of finding opportunities and resolving project problems; a creative process seeking answers through collaboration and a synthesis of multiple inputs.

DESIGN THINKING

"DESIGN THINKING OFFERS A HOLISTIC WAY OF FINDING OPPORTUNITIES AND RESOLVING PROJECT PROBLEMS. IT IS THE METHOD IN WHICH DESIGNERS SEEK TO INTEGRATE POSSIBILITIES AND TO GENERATE NEW IDEAS"

KEY BENEFITS

GOOD DESIGN



Creates useable, user-friendly, enjoyable and attractive places and spaces

GOOD DESIGN ADDS VALUE

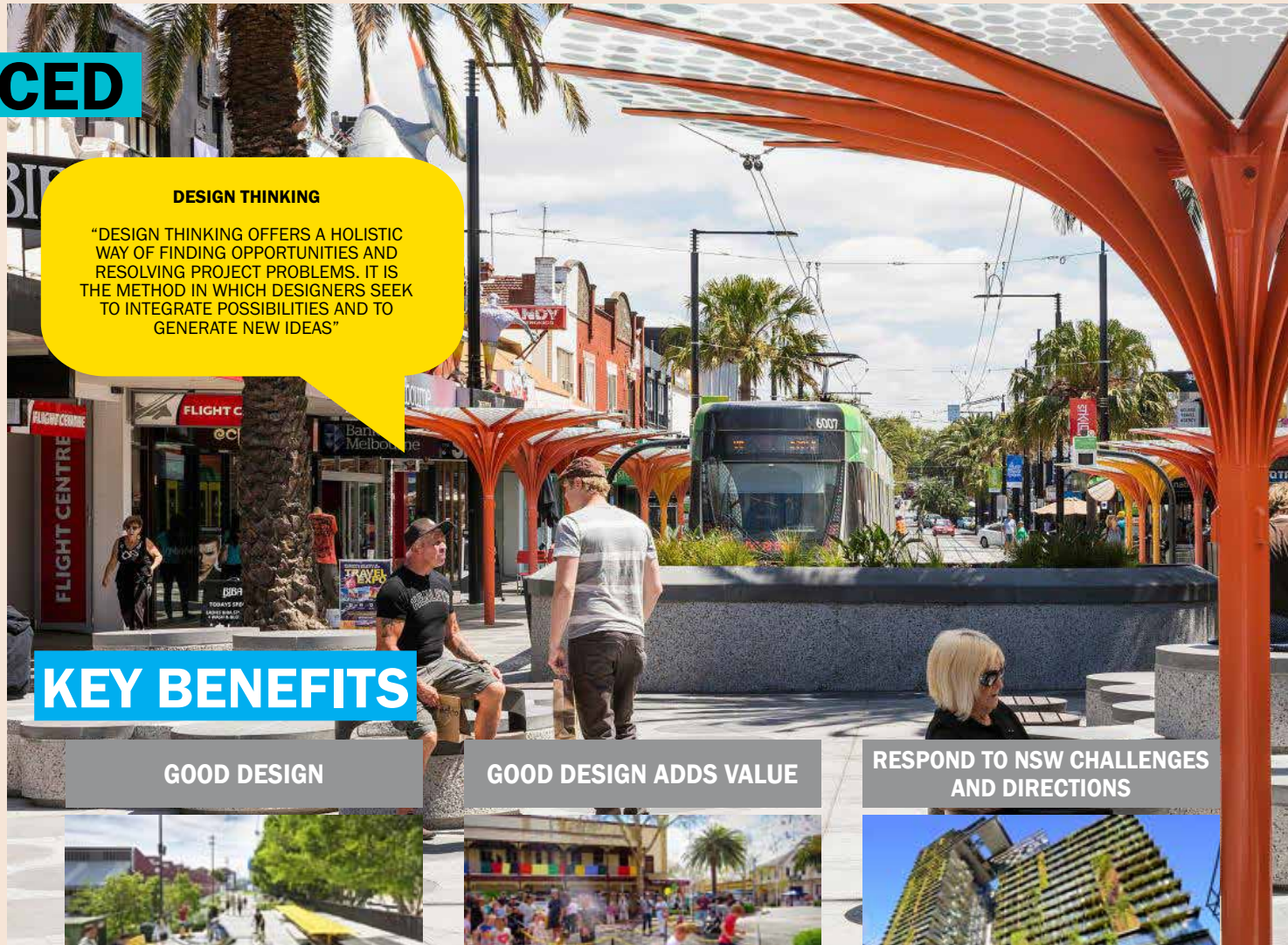


Economic, quality of life, public benefit, community impact, social and environmental factors

RESPOND TO NSW CHALLENGES AND DIRECTIONS



Health, Climate resilience, changing lifestyles and demographics, Infrastructure and urban renewal





PRIORITIES



Better Fit
contextual, local
and of its place



Better Performance
sustainable,
adaptable
and durable



Better Community
inclusive,
connected
and diverse



Better for People
safe, comfortable
and liveable



Better Working
functional, efficient and
fit for purpose



Better Values
creating and
adding value



Better Look and Feel
engaging, inviting and
attractive

TO DELIVER

- Seven distinct objectives have been created to define the key considerations in the design of the built environment.
- It is helpful to consider, discuss and assess design proposals and outcomes through these series of distinct yet interrelated lenses.

FRAMEWORK FOCUS

CREATING BETTER PLACES

ENHANCING DESIGN QUALITY

IMPORTANCE OF DESIGN

**“Advocates the importance of design
for better places, spaces and outcomes
that align with the key challenges
and direction for NSW: Health,
Climate resilience, changing lifestyles
and demographics,
Infrastructure and urban renewal”
- Better Placed**

MOVEMENT & PLACE

This guide is for practitioners involved in the planning, design, delivery, and operation of our transport networks and the areas around them.

It seeks to change some established working practices and standards to produce more consistent, higher quality outcomes, and asks professionals to think differently about their role in creating successful place. The role of the guide is to provide a common structure for place-based transport and city and town planning across NSW, and to support built environment practitioners by explaining how to apply this approach to projects and plans.

KEY BENEFITS

CHARACTER AND FORM



Human scale, distinct

ACCESS AND CONNECTION



Transport choice, reliable transport, equity

AMENITY AND USE



Local opportunities, convenient facilities

GREEN AND BLUE



Link to nature





MOVEMENT AND PLACE

"IS KEY TO DEVELOPING SUCCESSFUL PLACES AND ENSURING THAT WE HAVE THE RIGHT TRANSPORT SOLUTIONS TO SUPPORT OUR TOWNS AND CITIES."

- PLANNING INSTITUTE AUSTRALIA

COMFORT AND SAFETY



Low risk, comfortable

PRIORITIES



Create Healthy Environments



Integrate Public space and land uses



Respond to context



Create resilient communities



Achieve equity through collaboration



Balance movement



Make safer environments



Improve the amenity of places



Support the needs of all users



Use space efficiently



Support the economy by enabling the movement of goods



Support sustainable development

TO DELIVER

- A six-step process of collaboration established as the means of taking a Movement and Place Approach.
- A new method for understanding place through "form, activity and meaning" and movement in its relationship through, and within places.
- Performance indicators defined for all projects to report against.
- Classification of street environments.

FRAMEWORK FOCUS

ACKNOWLEDGE STREETS AS PUBLIC SPACE

ALIGNING MOVEMENT FUNCTIONS WITH PLACES

"in broadening our thinking about movement to both mobility and access, we can promote the right mode for each trip purpose, and plan places that serve local areas and minimise the need to travel long distances."

- Aligning Movement and Place, GANSW

COMPLETE STREETS

A city's greatest civic space is its streets.

A Complete Streets approach considers these spaces holistically, across all disciplines, to develop an over arching Complete Streets Framework for the city centre, as well as specific Complete Street designs for each street. The end result is a better place that benefits everyone.

"Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists, and public transportation users of all ages and abilities are able to safely move along and across a Complete Street. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations."- Complete Streets Coalition

"Designed to be safe and comfortable for all travelers, complete streets are transforming transportation and improving communities"
Complete Streets

CONSIDERS
ALL USERS
NEEDS OF ALL AGES,
BACKGROUNDS
AND ABILITIES

KEY BENEFITS

SLOWER, SAFER STREETS



Safer for pedestrians, cyclists and motorists

BETTER ACCESS



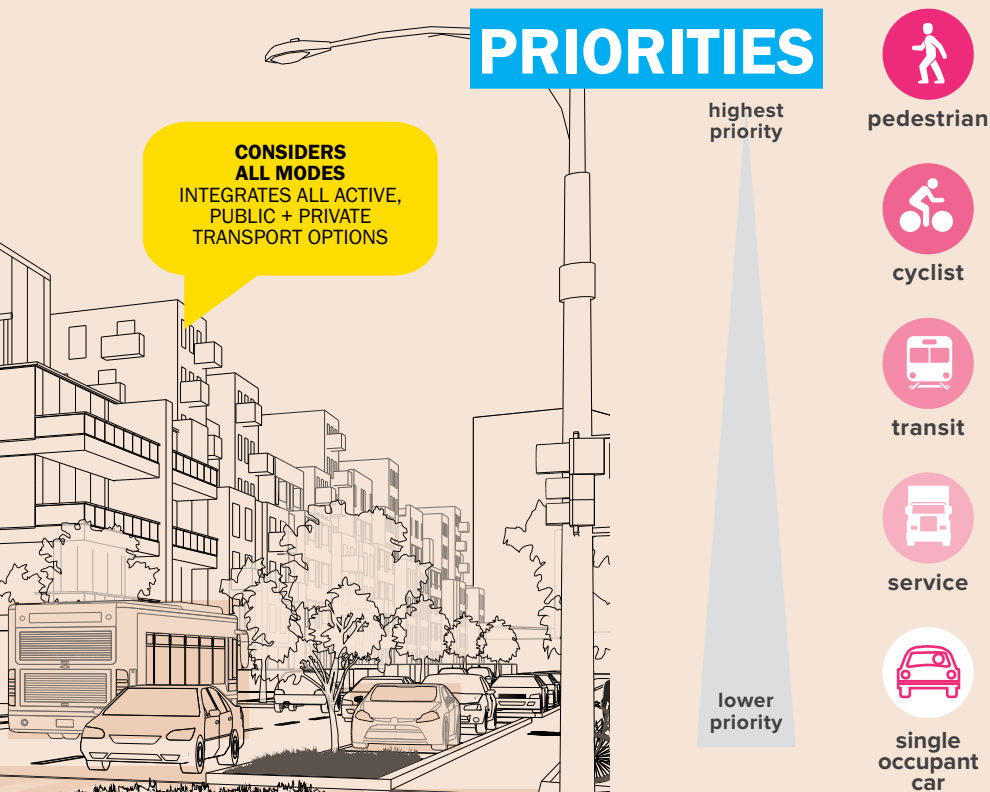
Better access and wayfinding to key destinations and parking

MORE ATTRACTIVE



High quality footpaths, furniture and landscaping throughout the CBD

CONSIDERS
DESIGN FOR ALL
FUNCTIONS
PLAN FOR STAYING, MOVING,
SOCIALISING, EXPLORING, ETC

**TO DELIVER**

- Rebalancing street designs through recommended street geometries
- Application of different street typologies that demonstrate various principles of Complete Streets, for example, Pedestrian + Cycle Only links, Shared zones, transit streets, neighbourhood streets, etc.

FRAMEWORK FOCUS**USER + TRANSPORT****MOBILITY FOCUSED****MODE HEIRARCHY****BETTER FOR BUSINESS**

More pedestrian activity and improved city image benefits businesses

GREENER

More trees and shade, cooler streets, reduced carbon emissions

HEALTHIER

More active transport, reduced obesity, improved mental health

CITY FOR PEOPLE

Cities for People is an approach based on the value of human scale, mixed neighbourhoods, public spaces, adaptability and resilience.

The concept of putting people first, looking at three priorities:

1. Life – Good designs deliver a level of mixed use, with places that accommodate a wider range of different activities, functions, spaces, people building typologies, dimensions, tenures and a range of affordability
2. Space – Public spaces are the drivers of social interactions, local economy, connectivity, mobility and a creation of the culture and memory of a place
3. Buildings – Care is given to specifics, small details in scale and detailing of buildings, active ground floors, edge zones, number of households per stair, and number of doors to a street, as well as the overall massing and density of developments.

All of these are important for creating a human scale or a sense of community.

**“First life, then spaces,
then buildings - the other way around
never works” - Jan Gehl**

KEY BENEFITS

LIFE



How people move and spend time on the site and its surroundings

SPACE



Qualities and potentials of the existing site & surroundings – history, mobility, walkability, connections & climate

DESIGNING CITIES

“NATURAL STARTING POINT FOR THE WORK OF DESIGNING CITIES FOR PEOPLE IS HUMAN MOBILITY AND THE HUMAN SENSES BECAUSE THEY PROVIDE THE BIOLOGICAL BASIS FOR ACTIVITIES, BEHAVIOUR AND COMMUNICATION IN CITY SPACE”



BUILDINGS



Quality of existing buildings on site and in the surroundings – edges, facades, lighting, heritage, functions, density

PRIORITIES



Life
More than mixed use



Space
Public spaces at the heart



Buildings
Consideration for the human scale

TO DELIVER

- Consider the three priorities; Life, Space, Buildings as part of the design process, both from a ‘discovery’ stage of understanding place, through to envisioning and design implementation.
- Within each priority, define a shared vision for the site and its public spaces – what is the identity, functions, uses and connections to the surroundings.
- Develop a strategic framework for public spaces, their layout, connections, character, activities, micro-climate, phasing, street hierarchy, sustainability and accessibility

FRAMEWORK FOCUS

HUMAN SCALE

MIXED NEIGHBOURHOODS

PUBLIC SPACES

ADAPTABILITY &

RESILIENCE

“Cities are the places

where people meet to exchange ideas, trade or simply relax and enjoy themselves.

A city’s public domain

- it’s streets, squares, and parks

- is the stage and catalyst for these activities”

- Cities for People

SOFT CITY

'Soft City' concept discusses a human-centred urban design approach, where people, place, environment and the relationships between are the focal points for all urban design.

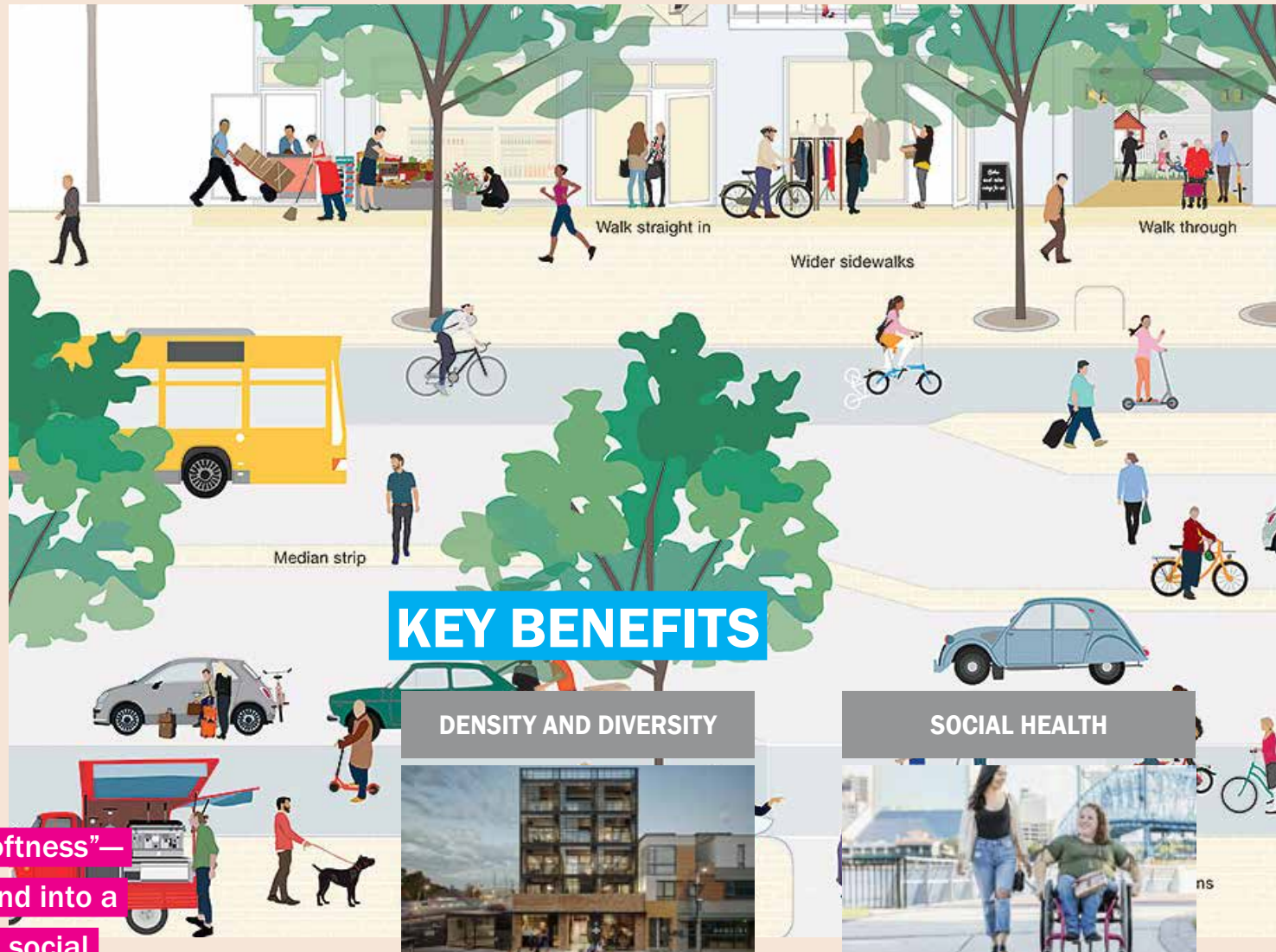
Good cities are ones that make these connections possible.

'Softness' of a city is an overarching and essential quality which considers the idea of the boundaries that you feel as you move about the city, and how they can start to come down.

The 3 main principles include:

1. Physical layout and shaping buildings
2. Organisation of the space in-between the buildings to allow more things to happen
3. React with the forces of the natural environment and conditions

That's an example of "softness"—
how a commute can blend into a
stop at the bakery and a social
experience." - David Sims



KEY BENEFITS

DENSITY AND DIVERSITY



The fusion of density and diversity increases the likelihood of useful places and people being closer to you.

SOCIAL HEALTH



Small movements around the neighbourhood "getting about" are seen as opportunities for people to connect, "getting on".

DENSITY X DIVERSITY = PROXIMITY

"DENSITY ON ITS OWN IS NOT INTERESTING. IT'S NOT ENOUGH FOR CITIES TO CONTAIN MANY BUILDINGS CLOSE TOGETHER: WHAT MAKES THEM WORK IS IF THE BUILDINGS THEMSELVES SUPPORT A MULTITUDE OF RESOURCES AND INTERACTIONS."

**SUSTAINABLE & RESILIENT**

Finding simple solutions to moderate the climate for people to spend more time outdoors comfortably.

PRIORITIES

Diversity of Built Form



Diversity of Outdoor Spaces



Flexibility



Human Scale



Walkability



Sense of Control & Identity



A Pleasant Micro-climate



Smaller Carbon Footprint



Greater biodiversity

NEIGHBOURHOOD IS NOT A PLACE

"IT'S A STATE OF MIND"

TO DELIVER

- Design for movement - In a congested and segregated world urban mobility is also about social mobility. The idea that getting about the city connects you not only to your destination, but also to places you pass and the people you meet on the way. Healthy Streets Experience Score (0-10) and a Healthy Streets Expectation Score (0- 10) based on survey's outputs.
- Layer life - Functional, social and economic diversity can be accommodated in one building, and even more can be accommodated in one block, with the pattern repeated.
- Design with weather in-mind - Requiring places to be sensitive to change and having a respect for nature.

FRAMEWORK FOCUS**FLUID MOVEMENT****AND COMFORT****HUMAN DIMENSION OF****DENSITY****DIVERSITY OF****BUILDING TYPES****THOUGHTFUL DESIGN**

CULTURE, VALUE & PLACE

The Culture, value and place report provides research on the ability of culture to be understood and utilised for the development of a successful city region.

The report delineates the relationships between culture, place, and value using global city case studies, and addresses how cultural investment can contribute to place-making, bridging social barriers, building shared identities and creating economically successful places.



“A mix of cultural services and infrastructures also make places more vibrant and can enhance the quality of life of citizens who live and work there.”

EDUCATION AND KNOWLEDGE



Access to culture is linked to improved learning, education and achievement

HEALTH AND WELLBEING



Art and culture's effect on well-being

IDENTITY AND BELONGING



Culture's role in establishing shared identities

CREATIVITY AND INNOVATION



Culture is essential to the innovation-led post-industrial economy

ECONOMIC DEVELOPMENT



Cultural activity is a driver of job creation

TOURISM



Cultural tourism is growing

PLACEMAKING



Culture underpins the quality/identity of a place

SUSTAINABILITY



Culture helps strengthen environmental sustainability

INTERNATIONAL IMAGE & SOFT POWER



Culture reinforces soft power of countries



**CULTURE AND
INDIGENOUS
PEOPLE**



Supporting Indigenous
people through
culture

PRIORITIES



Variety of Cultural
Attractions



Cultural
Attendance
and Attraction



Cultural
Demographic
Diversity



Enabling
Environment for
Culture and
Creativity



Information
Exchange,
Access and
Opportunity



Cultural
Production
and Creative
Economy



Cultural
Reputation and
Brand



Cultural Integration
and Cohesion

TO DELIVER

- Apply 8 dimensions of culture, including:
 - Variety of Cultural Attractions
 - Enabling Environment for Culture and Creativity
 - Information Exchange, Access and Opportunity
 - Cultural Production and Creative Economy
 - Cultural Reputation and Brand
 - Cultural Integration and Cohesion
- Consider investing in cultural resources to foster a sense of belonging in residents and promote the unique identity of a place.
- Consider investing in the fostering of cultural districts by collocating cultural institutions (cultural clustering).
- Leverage on cultural assets to establish a competitive advantage and sense of authenticity and distinctiveness.
- Develop art and cultural interventions in the public realm (e.g. participatory public art) to promote the integration of new migrants, be a platform for inter-cultural dialogue and a way to celebrate local diversity.

FRAMEWORK FOCUS

CULTURE + ARTS

LINKS BETWEEN

CULTURE, PLACE & VALUE

CULTURE + POLICY

GLOBAL CASE STUDIES

VALUE OF CULTURE IN PUBLIC SPACE

"AT THE UNESCO HABITAT III THEMATIC MEETING ON PUBLIC SPACES IN 2016, DELEGATES AGREED THAT CULTURE PROMOTES BETTER ACCESS TO MARKETS, PUBLIC SERVICES, JOBS AND INFORMATION, AS WELL AS A DEEPER CITIZEN CULTURE, IN BOTH DEVELOPED AND DEVELOPING COUNTRIES.



Appendix 5

Stakeholder Engagement

introduction

Consulted stakeholders were classified under three groups:

Focus/local

- Pasquale Carbone – E.O.I.
- Tony Polvere – E.O.I., Director, PPD Planning Consultants
- Celeste Martin – E.O.I., Associate Director, Urbis
- Carmel Aiello – Coordinator, Fairfield City Museum and Gallery

Community reference group

- Angela Hayes, Peter Simonis and Paul Desini – Board Members, Cumberland Business Chamber
- Victoria Calderan – Principal, Yennora Public School
- Kylie Mackie - Strong Families Strong Communities Manager, Woodville Alliance
- Pauline David – Fairfield resident and disability advocate, Diversity and Disability Alliance
- Jasmina Bajraktarevic (Community Services Coordinator) and Gary Cachia (Community Development Worker) – STARTTS
- Jane Stratton – Chief Executive Officer, Think+DO Tank Foundation
- David Smith – Principal, Fairfield Public School

Strategic

- Sean Ly – Community Project Officer, Youth Advisory Committee
- Robert Stark – Principal Planner, Land and Housing Corporation
- Andrea Lim – Cultural Planning Officer

Relevant findings are included below.

ANGELA HAYES, PETER SIMONIS AND PAUL DESINI – BOARD MEMBERS, CUMBERLAND BUSINESS Chamber

How do business owners and employees/workers use public space in the Fairfield LGA?

- Employees use of public space currently focuses solely around getting to and from work –
- There is a complete lack of public space for these people.
- Opportunity to improve/build upon the active transport connection from Smithfield to Fairfield along creek corridor.
- Opportunity to reference grape-growing history of area near creek, as well as past use as a local swimming spot.
- Opportunity to mimic/build upon success of the walk from Kissing Point Wharf to Parramatta. It features a walkway and cycleway built over marshes through the industrial precinct.
- People would like more indoor sports clubs rather than pubs, particularly since people are becoming more health conscious. People are hanging around after work to avoid the traffic and would go and do sports in a group while they waited.
- Opportunity to use creek area for active travel routes.
- Opportunity to mimic success of the night markets along Parramatta River and the foreshore walk.
- People feel they cannot go for short walks in Fairfield, complaining that it is too traffic-dominated and industrial. They relocate to the city as its more walkable.
- There are many underutilised green spaces.

PASQUALE CARBONE, DEVELOPER

How do people use public space in the Fairfield LGA?

- A lot of big stores have moved to industrial area

SEAN LY – YOUTH ADVISORY COMMITTEE

How do young people use public space in the Fairfield LGA?

- Feedback received from YAC FB group from a Year 12 girl saying that the library for her is an important public space, particularly for her studies. However, it is often not quiet enough.
- Parks are popular amongst young people
- Basketball in general seems to be a popular activity for youth in Fairfield
- The Youth Off the Streets group seeks to use spaces that are already being used by young people
- The Fairfield Youth Centre is used a lot – the basketball half court is even used at night.
- Shopping centres are key public spaces used by young people
- Cycling is an activity carried out in public spaces which is popular amongst young people.
- Young kids feel free to loiter in parks whereas they often feel unwanted lingering on the streets, outside shops or within shopping malls.

TONY POLVERE - E.O.I., DIRECTOR, PPD PLANNING CONSULT

How do people use public space in the Fairfield LGA?

- Food and beverage outlets benefit from having adjoining public spaces from which activity can spill out
- He is interested in connecting his property located in Fairfield to the train station and ameliorating the streetscape along this route.
- There is underutilised dead space across the road from his development.
- Use key anchors to draw people through main connective routes.
- Plazas where to sit and interact that are more than just seating, like chess and water play for children and things that would suit the demographic.
- Fairfield town centre streetscape: uninteresting, dog's breakfast.
- Streetscape is criticized, missing nice atmosphere.

VICTORIA CALDERAN - YENNORA PUBLIC SCHOOL

How do the school and school children use/interact with public space in Fairfield?

- Some children get to school via train.
- Some children ride their bike to school on the footpaths.
- They like to ride their bikes on the streets and in quiet residential streets

WOODVILLE ALLIANCE

How does your organisation/residents use public space in the Fairfield LGA?

- The school uses the museum at Fairfield.
- Most clients walk to the organisation's building. Some arrive in cars ie. Either in emergency vehicles or the car of family or friends.
- They host an end-of-year celebration - 200 people attended last year at the Senior Citizens' Centre.
- The NAIDOC celebration utilises public space.
- There are big families in high density living environments therefore they need open space. (A large percentage are Arabic).
- Good examples of Public Spaces include Bicentennial Park, a sensory garden for disabled people, and Casula Powerhouse play area along Liverpool Rd.

CARMEL AIELLO – COORDINATOR, FAIRFIELD CITY MUSEUM AND GALLERY

How do people use public space in the Fairfield LGA?

- Museum events are mostly held within museum grounds however, they have done programs in Crescent Plaza. There have been problems with putting on events outside of the museum, including having access to technology, getting digital material up on screen and Wi-Fi issues.
- Develop an "eat street" along The Horsely Drive main street with more alfresco dining, like Canley Heights
- Integrate public art
- Take inspiration from Greenacre's change-based beautification methods
- Streetscape would benefit from the addition of colour
- Create an area where people can access free technology

- Take inspiration from the Parramatta Lanes project
- Tired streetscape (The Horsely Drive); planter boxes along The Horsely Drive main street are not working
- Park near Fairfield train station is very underutilised but could be more family friendly

ROBERT STARK – LAND AND HOUSING CORPORATION

How do social housing residents use/interact with public space in Fairfield?

- Social housing development has similar private to public open space ratios, as well as setback requirements
- There has been a demographic shift towards an older cohort and people with access issues living in social housing
- Typically, in the past, residents of social housing were the working poor
- Now, social housing is for people who can't work such as the elderly and disabled people
- People tend to apply for housing that is close to their family – ageing in place initiatives
- Residents tend to spend a lot of their time at home therefore, the provision of public local green space and shading is very important
- Parking provision has same requirements to standard development
- Controls encourage LAHC to build near transit and near town centre, therefore there is the potential for improved connectivity
- Each development is bespoke designed
- Take inspiration from their site in Riverwood featuring community gardens. Council leased the land to the developers, and they built the garden. Each cultural group
- specializes in certain types of fruit and vegetables and then they trade with each other.

ANDREA LIM – CULTURAL PLANNING OFFICER**How do people use public space in the Fairfield LGA?**

- The cultural development team put on minor activations in Crescent Plaza
- They ran a project funded by the live music office that included putting on activations around the town centre
- They worked with the restaurants in the area, assisted them with musicians, had musicians in or outside their premises across 7 or 8 restaurants/venues, including Lost in books
- Places for activations are chosen because they are accessible and/or near transport where people already are – the activations should go to the people (not the other way around)
- The Crescent is used for crime prevention strategies
- The Flame Festival was a night-time economy trial with a major link with the arts
- On the last Friday of every month, they use Crescent Plaza for a film night: Flicker Fridays
- During this event, there was a group of people that were observed standing on the periphery and causing some issues. One night, they brought in the hip-hop artist, L-Fresh. This figure resonated with this group of people and their behaviour towards the event became more positive.
- The LED screen in Crescent Plaza is being utilised now to showcase Fairfield's artistic strength in filmmaking and digital art
- They also hosted an intergenerational all women film event and 66% of people at the event went to get food after the film
- Constraints regarding Crescent Plaza: There are people living right next to Crescent Plaza so

staff need to be constantly mindful of the music volume. For this reason, the last one had to end at 8pm. Also, the back area had to be fenced off for security purposes because there was not enough staff to surveil both ends of the square.

- There is an overall stigma around crime in Fairfield. Although crime has dropped recently, there are still some preconceptions
- There are a lot of underutilised spaces
- BMX bike-riding is popular amongst the youth

DAVID SMITH – PRINCIPAL, FAIRFIELD PUBLIC SCHOOL**How do the school and school children use/interact with public space in Fairfield?**

- Majority of children walk to school. No more than 20 out of the 600 children that attend the school catch the bus.
- They walk to the soccer ovals (Ultimate Soccer) via the back gate and pedestrian bridge
- After-school sport is generally done on school grounds
- For athletics carnivals they walk down to the area opposite the pool (Makepeace Oval). The route they generally take is through Smart St and over the train line – there has never been any major issues.
- They also use the leisure centre for swimming
- Adams park is used very well by Canley Vale Public School
- The SACC program runs excursions with families. They take families to the Fairfield adventure park and on picnics and show them how to get there.
- The school grounds are utilised by other community groups outside of school hours, such as playgroups, a group for young mums, parenting groups, and language development

groups. They hold at least 12 programs over a 12-month period. There are other participating venues including one at Cabramatta, Canley vale, Bonnyrigg and Lansvale Public School

- The shopping centres (Fairfield Forum and Neeta City) are used as a platform for school exhibitions, dance shows and choir performances. E.g. They once held an art exhibition in conjunction with Fairfield High School

JANE STRATTON & AFAF – LOST IN BOOKS**How do people use public space in the Fairfield LGA?**

- People are coming into Fairfield from Liverpool, Bankstown area and Granville to go to Lost in Books
- Local people who are unemployed come to volunteer in order to experience the work force, improve their English and to feel like they can contribute.
- Wayfinding could be improved and be available in different languages
- There is a general lack of confidence in people using public transport - the public transport often doesn't go where they want to go, they don't feel safe, and it can be financially challenging to use public transport services.
- There is a big sector of community that is more comfortable in a community space rather than a council space
- WiFi is needed access across LGA and should give confidence to people to walk around at night, getting around safely, communicating with people – safety is a big issues
- Opportunity to provide a sheltered, well-resourced, big public hall that is flexible and that you don't have to pay to be there:

- a space like the Maritime Youth Centre in Copenhagen with a human-centred design approach. It features an amphitheatre with other elements like artist studios, multi-use space, a play area, theatre and storage space.
- Council regulation is a barrier. While they would like to do activations, there is too much work involved to activate the space
- Hypermasculine domain where women feel unwelcomed - It is hard to find a place to sit down, breast feed and have a drink.
- There is not much for kids to do

JASMINA B AND GARY CACHIA - STARTTS

How does your organisation use/interact with public space in the Fairfield LGA?

- Every Friday night, STARTTS uses the Fairfield Youth Centre - people generally walk to this event
- Opportunity to provide some large halls such as an indoor venue to hold an awards ceremony with a stage. Currently, STARTTS must resort to using wedding reception halls and these private companies will not allow them to bring their own food.
- CORE's car park could be utilised for a public space as there is sufficient land available, it is near other services, it is close to where people live, and it is state government owned land
- The pool in Fairfield is used by many families in the summer
- STARTTS have used the square near the Fairfield Forum before. Although it has high foot traffic, it is far from where people congregate.
- Opportunity to close Ware St to become a pedestrianised public plaza
- The Navitas English school and train station are

important destinations for newcomers. There is the potential to upgrade the walking route from Yennora to the English school for a safer commute.

- Generally, the smaller parks are lacking amenity
- Cost of hiring park and insurance is a hindrance to some groups
- Public transport is infrequent
- The sun is "too strong" in summer
- Small organizations cannot afford the long-term leases that exist in Fairfield

PAULINE DAVID – FAIRFIELD RESIDENT

How do you and other disabled people use/interact with public space in the Fairfield LGA?

- People with a disability are constrained to get around in a taxi to complete daily activities
- St Joseph's medical centre on Ware St has no pickup or drop off area for wheelchair access
- Most intersections are problematic, as well as raised lips on bitumen
- Going through unattractive back entrances to access restaurants and other services deter disabled people from socialising and partaking in city life
- Arm rests on seats prohibit people in wheelchairs to sit next to them
- Street/park furniture is generally not the right height for people in wheelchairs
- At Fairfield Railway Station, people must get to their cab via the road as there is no taxi ring with disabled access
- Opportunity to utilise a similar pavement material to that which is on the Neeta City side of the street. It is considered an ideal pavement for wheelchair mobility as it is smooth and unified.

- Pauline uses Fairfield forum, the station and the shops
- The Fairfield Youth Centre is used. There is plenty of parking and in terms of accessibility it is very good. DDA books it for events.
- General lack of lighting in the city centre
- Trees have lifted the bitumen in some places
- Tables on concrete blocks are generally hard to access due to their being slightly raised from the ground
- There is too great a focus on Assyrian culture in the public realm

CELESTE MARTIN - ASSOCIATE DIRECTOR, URBIS

What are the potential opportunity sites and how can they contribute to the public domain within the Fairfield LGA?

Potential opportunity sites is 29 Barbara St, Fairfield. Considerations include:

- Potential through site link between Hamilton Rd to Harris St
- Interface with regard to vehicles
- Share loading and potential rear access

Other opportunities in Fairfield include:

- Potential to tie in open space provision with Neeta City redevelopment
- Providing urban canopy
- Improving pedestrian environment, being more pedestrian centric with less cars
- Take inspiration from Liverpool, which has similar cultural clusters, such as providing amenity for the community like chessboards, ping pong tables
- Understanding cultural overlays and what people love doing
- Potentially closing and pedestrianizing roads and reorientating traffic to provide public space.

Appendix 6

Performance Matrix

MATRIX - STRATEGIES AND PUBLIC DOMAIN HIERARCHY

		1. STREET ORDER	2. THE ROAD DIET	3. PEDESTRIAN THROUGH ZONE	4. CONNECTIVITY AND FLOW	5. AT THE KERB	6. STREET LIFE	7. GREENING THE CENTRES	8. COOL STREETS AND SPACES	9. LOVED PUBLIC SPACES	10. CULTURE AND COMMUNITY
HIERARCHY		Apply a hierarchy of street function across vehicular, pedestrian, cycle and transport modes	Applying minimum lane width and swept path requirements	Provide for comfortable pedestrian through movement zone appropriate to street function	Reduce or eliminate barriers and interruptions to pedestrian flow applicable to street order	Maximise the flexibility of kerb side use and its benefits to pedestrian amenity	Enable a range of activities to be undertaken that contribute to street and community life	Increase the amount of green canopy and ground plane within the centres	Maximise the capacity of streets and public spaces to provide comfortable inhabitable spaces during summer	Ensuring public spaces can become loved by optimising their location, providing appropriate facilities, and enabling diverse use	Facilitate a "stage" for community and cultural expression through streets and public spaces
MAJOR ROADS		<ul style="list-style-type: none"> regional traffic role regional transport role 	<ul style="list-style-type: none"> traffic role takes precedence 	<ul style="list-style-type: none"> pedestrian path between key points / to serve uses generally 1.5m minimum pedestrian path 	<ul style="list-style-type: none"> minimise driveways for interruption to traffic flow 	<ul style="list-style-type: none"> clearways where required kerb side parking outside peak hour underground power where possible tree planting in verge 	NA	<ul style="list-style-type: none"> regional green link 70% tree canopy coverage tree planting within road verge 	<ul style="list-style-type: none"> provide shade to pedestrian links provide shade / buffer to west facing facades increase biomass to reduce ambient heat of corridors 	<ul style="list-style-type: none"> provide visually interesting vehicular experience ensure pedestrian comfort to paths 	<ul style="list-style-type: none"> provide for vehicular based cultural expression as a threshold or repetitive experience
COLLECTOR ROADS	AVENUES	<ul style="list-style-type: none"> secondary district traffic role primary district cycle role supporting transport role supporting pedestrian role 	<ul style="list-style-type: none"> minimise lane widths and swept paths minimise / eliminate heavy vehicle traffic Integrate cycle facility 	<ul style="list-style-type: none"> continuous pedestrian paths both sides generally 1.8m minimum pedestrian paths to cater for dual wheelchair 	<ul style="list-style-type: none"> minimise driveways cycle crossings of intersecting streets 	<ul style="list-style-type: none"> kerb side parking underground power tree planting in verge tree planting in parking lane 	NA	<ul style="list-style-type: none"> district green link 90% tree canopy coverage tree planting within road verge or kerbside parking lane underground power 	<ul style="list-style-type: none"> 50% summer tree canopy shade provide shade / buffer to west facing facades create "cool nodes" with optimum (deep) shade 	<ul style="list-style-type: none"> provide visually interesting experience for all users ensure continuous pedestrian and cyclist comfort to paths 	<ul style="list-style-type: none"> provide for wayfinding embedding cultural expression
	CORRIDORS	<ul style="list-style-type: none"> primary district traffic role district transport role secondary district cycle role 	<ul style="list-style-type: none"> traffic role takes precedence Integrate cycle facility where required 	<ul style="list-style-type: none"> generally 1.8m minimum pedestrian paths to cater for dual wheelchair 	<ul style="list-style-type: none"> minimise driveways 	<ul style="list-style-type: none"> clearways where required underground power where possible tree planting in verge 	NA	<ul style="list-style-type: none"> district green link 70% tree canopy coverage tree planting within road verge 	<ul style="list-style-type: none"> 50% summer tree canopy shade create "cool nodes" with optimum (deep) shade 	<ul style="list-style-type: none"> provide visually interesting vehicular experience ensure pedestrian and cyclist comfort 	<ul style="list-style-type: none"> provide for vehicular based cultural expression as a threshold or repetitive experience
HIGH STREETS	CORE	<ul style="list-style-type: none"> low speed traffic role primary pedestrian role supporting cycle role balance of on street parking and footway widening no buses or large service vehicles 	<ul style="list-style-type: none"> minimise lane widths and swept paths with focus on enhancing the quality of the pedestrian environment 	<ul style="list-style-type: none"> 2.4m minimum continuous through zone 	<ul style="list-style-type: none"> no driveways raised crossing of intersecting streets pedestrian priority (linemarked) crossings in street and at intersecting streets 	<ul style="list-style-type: none"> underground power widen footway where possible to no standing areas tree planting in widened footways tree planting in parking lane 	<ul style="list-style-type: none"> provide for on street trading or at minimum active frontage as continuous character encourage businesses that contribute to street life encourage night trading 	<ul style="list-style-type: none"> local green link 70% tree canopy coverage tree planting within kerbside parking lane or footway build outs strong ground plane presence of green% surface area target 	<ul style="list-style-type: none"> 80% summer tree canopy shade including awning cover continuous building awnings create "cool nodes" with optimum (deep) shade consider evapo-transpirative cooling 	<ul style="list-style-type: none"> provide a pedestrian heart to the centre provide a range of reasons to be in street create a safe and vibrant after hours place 	<ul style="list-style-type: none"> facilitate modal use of street for events integrated with other spaces provide for wayfinding and permanent / temporary arts /cultural expression
	MIXED	<ul style="list-style-type: none"> low speed traffic role primary pedestrian role primary cycle role balance of on street parking and footway widening limited buses or large service vehicles 	<ul style="list-style-type: none"> minimise lane widths and swept paths in lane bus stops preferred where required Integrate cycle facility where required 	<ul style="list-style-type: none"> 2.4m minimum continuous through zone 	<ul style="list-style-type: none"> minimise driveways pedestrian priority or signalised crossing of intersecting streets 	<ul style="list-style-type: none"> kerbside parking underground power tree planting in verge tree planting in parking lane 	<ul style="list-style-type: none"> provide for on street trading to selected zones / nodes encourage active frontage as continuous character 	<ul style="list-style-type: none"> local green link 70% tree canopy coverage tree planting within kerbside parking lane or footway build outs strong ground plane presence of green% surface area target 	<ul style="list-style-type: none"> 80% summer tree canopy shade including awning cover continuous building awnings create "cool nodes" with optimum (deep) shade consider evapo-transpirative cooling 	<ul style="list-style-type: none"> support the pedestrian heart to the centre provide a range of reasons to be in street create a safe and vibrant after hours place 	<ul style="list-style-type: none"> provide for wayfinding and permanent / temporary arts /cultural expression
	CIRCULATION	<ul style="list-style-type: none"> low speed traffic role supporting pedestrian role supporting cycle role on street parking with selective footway widening buses and large service vehicle access 	<ul style="list-style-type: none"> minimise lane widths and swept paths while catering for necessary vehicle types (buses and large service vehicle) in lane bus stops Integrate cycle facility where required 	<ul style="list-style-type: none"> minimum 1.8m pedestrian through zones to cater for dual wheelchair movement - 2.4m preferred 	<ul style="list-style-type: none"> provision of driveways in preference to Core and Mixed High Streets driveways integrated with street trees and lighting 	<ul style="list-style-type: none"> clearways where required kerbside parking underground power where possible tree planting in verge strong ground plane presence of green% surface area target 	<ul style="list-style-type: none"> focus on comfortable pedestrian movement to Core and Mixed High Streets and other destinations 	<ul style="list-style-type: none"> local green link 70% tree canopy coverage tree planting within footway build outs or verge footway strong ground plane presence of green% surface area target 	<ul style="list-style-type: none"> 80% summer tree canopy shade including awning cover semi - continuous building awnings focussed on pedestrian routes create "cool nodes" with optimum (deep) shade 	<ul style="list-style-type: none"> connect to the pedestrian heart to the centre create a safe and comfortable after hours place of movement 	<ul style="list-style-type: none"> provide for wayfinding and permanent / temporary arts /cultural expression
	SHARED ZONE	<ul style="list-style-type: none"> lowest speed traffic role shared vehicular pedestrian and cycle roles small-large service vehicles 	<ul style="list-style-type: none"> raise road and eliminate kerbs to create shared space 	NA	<ul style="list-style-type: none"> raised to footpath level pedestrian and cycle movement within carriageway driveways as required for service role 	<ul style="list-style-type: none"> planting and other street elements define vehicular movement 	<ul style="list-style-type: none"> provides comfortable pedestrian priority movement to Core and Mixed High Streets and other destinations provide for permanent or temporary on street trading to selected zones / nodes 	<ul style="list-style-type: none"> green node% tree canopy coverage strong ground plane presence of green% surface area target 	<ul style="list-style-type: none"> 80% summer tree canopy create "cool nodes" with optimum (deep) shade 	<ul style="list-style-type: none"> support the pedestrian heart to the centre provide a range of reasons to be in street create a safe and vibrant after hours place 	<ul style="list-style-type: none"> facilitate modal use of street for events integrated with other spaces
	SHARED LANE	<ul style="list-style-type: none"> lowest speed traffic role shared vehicular pedestrian and cycle provisions pedestrian and cycle linkage role small-large service vehicles 	<ul style="list-style-type: none"> raise road and eliminate kerbs to create shared space 	NA	<ul style="list-style-type: none"> raised to footpath level pedestrian and cycle movement within carriageway driveways as required for service role 	<ul style="list-style-type: none"> planting and other street elements define vehicular movement 	<ul style="list-style-type: none"> provides comfortable pedestrian priority movement to Core and Mixed High Streets and other destinations provide for permanent or temporary on street trading to selected zones / nodes 	<ul style="list-style-type: none"> green link% tree canopy coverage strong ground plane presence of green% surface area target 	<ul style="list-style-type: none"> 35% summer tree canopy shade create "cool nodes" with optimum (deep) shade 	<ul style="list-style-type: none"> support the pedestrian heart to the centre provide a range of reasons to be in street create a safe and vibrant after hours place 	<ul style="list-style-type: none"> provide for wayfinding and permanent / temporary arts /cultural expression
LANEWAYS		<ul style="list-style-type: none"> low speed traffic role small-large service vehicles limited / nil pedestrian linkage role 	<ul style="list-style-type: none"> traffic role takes precedence 	NA	<ul style="list-style-type: none"> provide for pedestrian safety - refuge kerb or zones driveways as required for service role 	<ul style="list-style-type: none"> traffic and service role takes precedence 	NA	<ul style="list-style-type: none">% tree canopy coverage 	NA	NA	NA
LOCAL STREET											
SPACES	CENTRE SQUARES / PLAZAS	<ul style="list-style-type: none"> at focal junctions of movement 	NA	<ul style="list-style-type: none"> key routes through space to provide for 2.4m clear movement zone 	<ul style="list-style-type: none"> pedestrian through access link adjoining streets 		<ul style="list-style-type: none"> maximise active frontages to square (ideally 2) provide for on plaza trading adjoining active frontage encourage businesses that contribute to plaza life 	<ul style="list-style-type: none"> green node% tree canopy coverage strong ground plane presence of green% surface area target 	<ul style="list-style-type: none"> 50% summer tree canopy shade Awnings to active frontages create "cool nodes" with optimum (deep) shade Integrate water elements consider evapo-transpirative cooling 	<ul style="list-style-type: none"> site at highly visible location site at node of major pedestrian movement site with balance of shade and solar access encourage non retail uses provide pro active programming 	<ul style="list-style-type: none"> facilitate modal use of square for events integrated with other spaces provide for permanent / temporary arts /cultural expression
	CENTRE PARKS	NA	NA	<ul style="list-style-type: none"> key routes through space to provide for 2.4m clear movement zone 	<ul style="list-style-type: none"> pedestrian through access link adjoining streets 		<ul style="list-style-type: none"> as secondary role to passive recreation - provide small scale trading opportunities 	<ul style="list-style-type: none"> strong green character with emphasis on green permeable surface 	<ul style="list-style-type: none"> 50% summer tree canopy shade create "cool nodes" with optimum (deep) shade Integrate water elements Integrate water play consider evapo-transpirative cooling 	<ul style="list-style-type: none"> site with balance of shade and solar access site with good accessibility to other use areas enable range of passive uses 	<ul style="list-style-type: none"> facilitate modal use of park for events integrated with other spaces provide for permanent / temporary arts /cultural expression

MATRIX - PRINCIPLES AND PUBLIC DOMAIN HIERARCHY

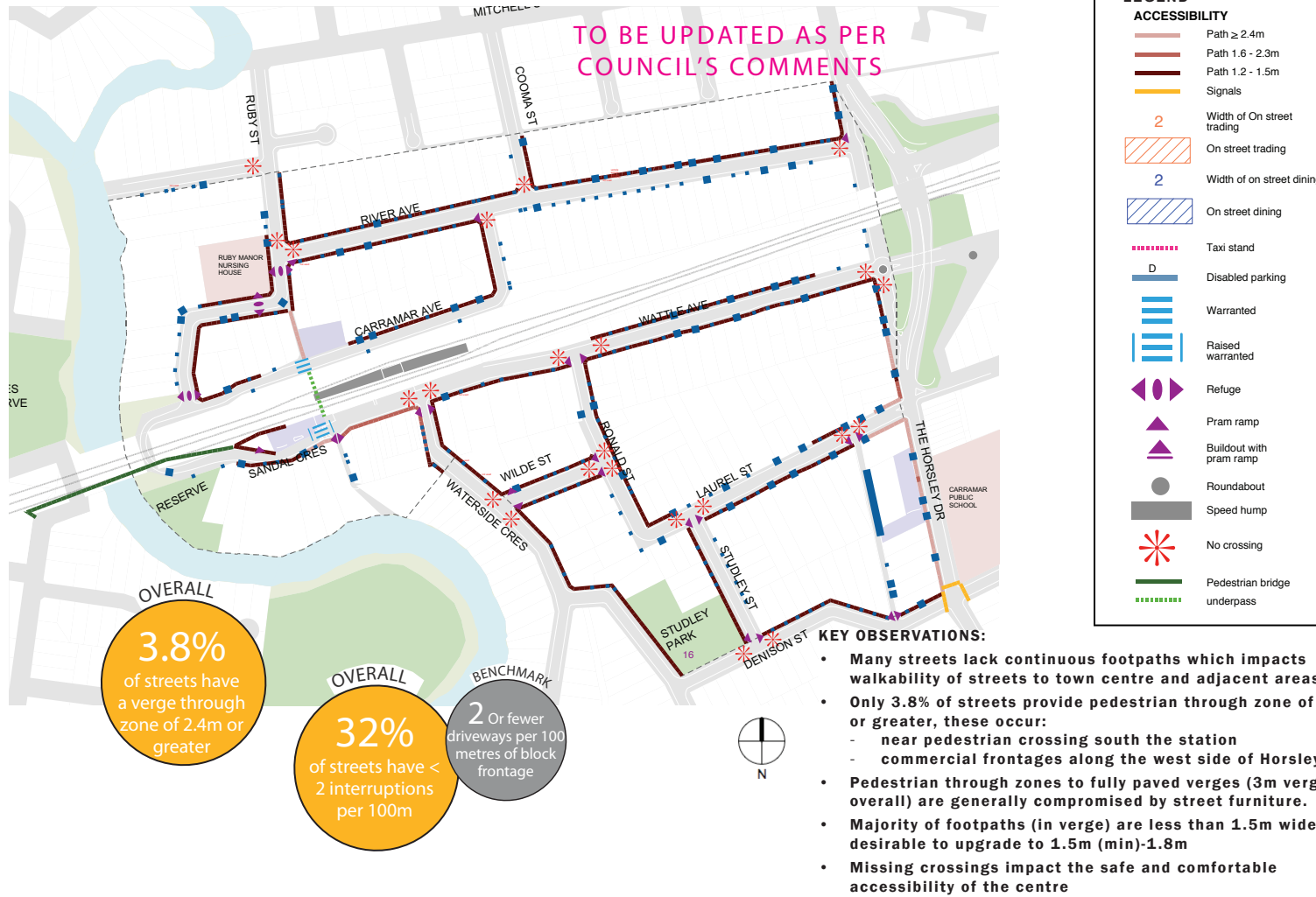
		1. PEOPLE PRIORITISED	2. CONSIDERS ALL MODES AND USERS	3. AN ENGAGING EXPERIENCE WHERE USERS FEEL SAFE AND RELAXED	4. VALUES PUBLIC LIFE	5. HEALTHY ENVIRONMENTS FOR PEOPLE TO ENJOY	6. IS FIT FOR PURPOSE	7. CELEBRATES HISTORY, DIVERSITY AND LOCAL DNA	8. ENVIRONMENTALLY PERFORMING AND RESILIENT
HIGH STREETS	CIRCULATION	<ul style="list-style-type: none">pedestrian movement and amenity is high design priority but may vary along street subject to pedestrian movement routeshuman scale to road vergesLinks pedestrians to other streets and destinationsattractive night character and safety	<ul style="list-style-type: none">supporting pedestrian movement role in centresimportant vehicular circulation role around centre and to parkingkey business service access role - provide through loading zones)low speed vehicular circulation (40km/hr)preferred bus movement routescrossing points to key pedestrian routes	<ul style="list-style-type: none">semi continuous building awnings to footway related to pedestrian routesprovision of trees in optimum locations has high prioritytree canopy maximises shadetree canopy positioned to maximise visual benefit to street and specific locationsdesign compositiontargeted ground level planting enhances green character and supports WSUDintegrate large vehicle (bus and truck) access / movementsstreet art enlivens road corridor for all users	<ul style="list-style-type: none">provides routes for comfortable access to Core and Mixed Streetspublic domain amenity (shade, visual quality and interest, ease of movement) enable easy pedestrian and cycle movementpublic domain amenity (as above) enables on street trading to specific locationspublic domain amenity and management facilitate safe and comfortable night access and movementtargeted seating opportunities near access routes and crossings	<ul style="list-style-type: none">pedestrian oriented welcoming character at crossing pointssafe inclusive and accessible facilities at crossing points and along footwayLimit vehicular speeds (40km/hr)regular maintenance of litter and wasteregular maintenance of landscapemaximise landscape coverage as offset to vehicular fumesawning and tree canopy cooling	<ul style="list-style-type: none">vehicular oriented wayfinding along corridorpedestrian and cycle oriented wayfinding along links and at crossing pointsprovide continuity and accessibility at required crossing points and at driveways along length of route	<ul style="list-style-type: none">public domain design considers varied cultural needs of Fairfield communityencourages sustainable transportminimises potable water usefacilitates water harvestingminimises energy useuses recycled materials where possibledesign / fabrication enables future recycling where possiblelocal fabrication where possibleencourages recycling through waste managementincrease foliage to mitigate air pollution	
	SHARED ZONE	<ul style="list-style-type: none">pedestrian movement and amenity is highest design priorityseating in various forms , on street trading, and through movement enliven streetattractive night character and safetycapacity for street events	<ul style="list-style-type: none">shared access between all modes at low speed (10km/hr)pedestrian priority crossing within shared zonedesigned to RMS cat 1 shared zone requirementspedestrian priority crossing zone	<ul style="list-style-type: none">continuous building awnings adjoining shared zone for shelter and shadeprovision of trees in optimum locations takes precedencetree canopy integrated with awnings to maximise shadetree canopy positioned to maximise visual benefit to street (design composition)ground level planting enhances green characterrestrict large vehicle (bus and truck) access / movementsstreet art enlivens road corridor with focus on pedestrian and cycle users	<ul style="list-style-type: none">with Core High Streets, the focal street environments supporting street life in the centrepublic domain amenity (shade, visual quality and interest, ease of movement) encourage lingering in the public domainpublic domain amenity (as above) encourage on street trading adjoining shared zonespublic domain amenity and management encourage night trading and street activityrange of seating opportunities encourage lingering in the public domainpublic domain supports events	<ul style="list-style-type: none">shared access between all modes at low speed (10km/hr)attractive comfortable env'ment for pedestrians and cyclistshigh level of pedestrian and cycle safetyraised platform provides inclusive and accessible facilitiesregular maintenance of litter and wasteregular maintenance of landscapeprohibit heavy vehicle and bus movement to reduce noise and fumesmaximise landscape coverage as offset to vehicular fumestree canopy cooling	<ul style="list-style-type: none">high level of pedestrian and cycle wayfindinghigh level of vehicular wayfindingprovide continuity and accessibility through shared zone with flush pavementsaddress shared zone compliance requirements as per RMS guidelines	<ul style="list-style-type: none">public domain design considers varied cultural needs of Fairfield communityconnections to culture through selected art installationsprovide interpretive narratives on local themes integrated with wayfindingpublic domain provides canvas for local arts and culture bodies (temporal displays and events)capacity for street eventsencourages sustainable transportminimises potable water usefacilitates water harvestingminimises energy useuses recycled materials where possibledesign / fabrication enables future recycling where possiblelocal fabrication where possibleencourages recycling through waste managementincrease foliage to mitigate air pollution	
	SHARED LANE	<ul style="list-style-type: none">pedestrian movement and amenity is high design prioritymaintain business service access roleencourage active frontages	<ul style="list-style-type: none">shared access between all modes at low speed (10km)pedestrian priority crossing within shared zonedesigned to RMS cat 1 shared zone requirements	<ul style="list-style-type: none">building awnings at active frontages if practicalprovision of trees to selected locations where feasible for shade and visual amenitytree canopy positioned to maximise visual benefit to street (design composition)targeted ground level planting enhances green character and supports WSUDlimit large vehicle (truck) access / movementsstreet art enlivens road corridor for all users	<ul style="list-style-type: none">provides a secondary street environment supporting street life in the centrepublic domain amenity (shade, visual quality and interest, ease of movement) encourage lingering in the public domain at key locationspublic domain amenity (as above) encourage targeted on street tradingpublic domain amenity and management encourage night trading and street activity at key locationsrange of seating opportunities encourage lingering in the public domain at key locations	<ul style="list-style-type: none">shared access between all modes at low speed (10km/hr)attractive comfortable env'ment for pedestrians and cyclistshigh level of pedestrian and cycle safetyraised platform provides inclusive and accessible facilitiesregular maintenance of litter and wasteregular maintenance of landscapeprohibit heavy vehicle and bus movement to reduce noise and fumesmaximise landscape coverage as offset to vehicular fumestree canopy cooling	<ul style="list-style-type: none">high level of pedestrian and cycle wayfindinghigh level of vehicular wayfindingprovide continuity and accessibility through shared zone with flush pavementsaddress shared zone compliance requirements as per RMS guidelines	<ul style="list-style-type: none">public domain design considers varied cultural needs of Fairfield communityconnections to culture through selected art installationsprovide interpretive narratives on local themes integrated with wayfindingpublic domain provides canvas for local arts and culture bodies (temporal displays and events)capacity for street eventsencourages sustainable transportminimises potable water usefacilitates water harvestingminimises energy useuses recycled materials where possibledesign / fabrication enables future recycling where possiblelocal fabrication where possibleencourages recycling through waste managementincrease foliage to mitigate air pollution	
LANEWAYS	SERVICE LANE	<ul style="list-style-type: none">limited pedestrian movement role	<ul style="list-style-type: none">key service access rolelow speed (20km)crossing points to key pedestrian routes	<ul style="list-style-type: none">recognised as a primarily vehicular use spacefocus amenity at crossing pointsmonitor ongoing access role and consider future recategorisation if appropriate or lane is further connected to pedestrian network	<ul style="list-style-type: none">where applicable (crossing point on a pedestrian link) public domain supports comfortable and safe movement to areas of street life	<ul style="list-style-type: none">pedestrian oriented welcoming character at crossing pointssafe inclusive and accessible facilities at crossing pointsLimit vehicular speeds (20km/hr)tree canopy cooling	<ul style="list-style-type: none">caters for service access requirementssignage informs of any vehicle size limitationspedestrian oriented wayfinding at crossing points	<ul style="list-style-type: none">minimises potable water usefacilitates water harvestingminimises energy useuses recycled materials where possibledesign / fabrication enables future recycling where possiblelocal fabrication where possibleincrease foliage to mitigate air pollution	
	LOCAL STREET	<ul style="list-style-type: none">Local pedestrian access roleprovide important local pedestrian links / connectionspedestrian movement and amenity is a design priority	<ul style="list-style-type: none">Local vehicular access and parking roleLocal cycle access role generally as mixed traffic	<ul style="list-style-type: none">encourage local community life to local streets - small parklets with shadeencourage street gardens	<ul style="list-style-type: none">encourage street / community spirit eg - awards for street partiesawards for front gardens	<ul style="list-style-type: none">pedestrian oriented welcoming character at crossing pointssafe inclusive and accessible facilities at crossing pointsfacilities along footwayLimit vehicular speeds (40km/hr)regular maintenance of landscapetree canopy cooling	<ul style="list-style-type: none">pedestrian and cycle wayfindingvehicular wayfindingprovide continuity and accessibility at required crossing points and at driveways along length of route	<ul style="list-style-type: none">public domain design considers varied cultural needs of Fairfield communityprovide interpretive narratives on local themes integrated with wayfindingminimises potable water usefacilitates water harvestingminimises energy useuses recycled materials where possibledesign / fabrication enables future recycling where possiblelocal fabrication where possibleincrease foliage to mitigate air pollution	
SPACES	CENTRE SQUARES / PLAZAS	<ul style="list-style-type: none">a major pedestrian destinationa place for gatheringcapacity for eventsa place for maintenance 1 day / weekattractive night character and safety	<ul style="list-style-type: none">pedestrian focussed spacecycle standscycle support facilities - eg bike hub for maintenance 1 day / weekrestricted vehicular access - for maintenance only	<ul style="list-style-type: none">provide a balance of structured and tree shade having regard for shadow regime from adjoining developmentstrong green character at ground levelprovide elements of interest to children - enable creative playcater for youth in design of space and facilities - seating and gathering points, WIFI, small event spaces	<ul style="list-style-type: none">public domain amenity (shade, visual quality and interest, ease of movement) encourage lingeringrange of seating opportunities encourage lingeringintegrate provisions for events into design of spaceprogram and curate Council managed community eventsencourage and enable community groups to run eventsfacilitate and manage small scape events including buskers etcmanage an annual program of events	<ul style="list-style-type: none">Attractive comfortable env'ment for pedestriansHigh level of safetyinclusive and accessible facilities through spaceregular maintenance of litter and wasteregular maintenance of landscapemaximise landscape coverage and tree canopy for cooling	<ul style="list-style-type: none">provide continuity of movement and accessibility through space and related to facilitiespedestrian wayfindingfacilitates maintenance access	<ul style="list-style-type: none">public domain design considers varied cultural needs of Fairfield communityconnections to culture through selected art installationsprovide interpretive narratives on local themes integrated with wayfindingpublic domain provides canvas for local arts and culture bodies (temporal displays and events)capacity for eventsminimises potable water usefacilitates water harvestingminimises energy usefacilitates energy generationuses recycled materials where possibledesign / fabrication enables future recycling where possiblelocal fabrication where possibleincrease foliage to mitigate air pollution	
	CENTRE PARKS	<ul style="list-style-type: none">a major pedestrian destinationa place for gatheringa place for relaxingattractive night character and safety	<ul style="list-style-type: none">pedestrian focussed spacecycle standsrestricted vehicular access - for maintenance only	<ul style="list-style-type: none">provide a balance of structured and tree shade having regard for shadow regime from adjoining developmentmajor green character at ground levelprovide elements of interest to children - enable creative playcater for youth in design of space and facilities - seating and gathering points, WIFI, small event spaces	<ul style="list-style-type: none">public domain amenity (shade, visual quality and interest, ease of movement) encourage lingeringintegrate provisions for events into design of space if appropriate and sustainable to space and contextfacilitate passive low key use by town centre residents - including rest, seating and relaxing, and play	<ul style="list-style-type: none">Attractive comfortable env'ment for pedestriansHigh level of safetyinclusive and accessible facilities through spaceregular maintenance of litter and wasteregular maintenance of landscapemaximise landscape coverage and tree canopy for cooling	<ul style="list-style-type: none">provide continuity of movement and accessibility through space and related to facilitiespedestrian wayfindingfacilitates maintenance access	<ul style="list-style-type: none">public domain design considers varied cultural needs of Fairfield communityconnections to culture through selected art installationsprovide interpretive narratives on local themes integrated with wayfindingpublic domain provides canvas for local arts and culture bodies (temporal displays and events)capacity for eventsminimises potable water usefacilitates water harvestingminimises energy useuses recycled materials where possiblefacilitates energy generationdesign / fabrication enables future recycling where possiblelocal fabrication where possibleincrease foliage to mitigate air pollution	



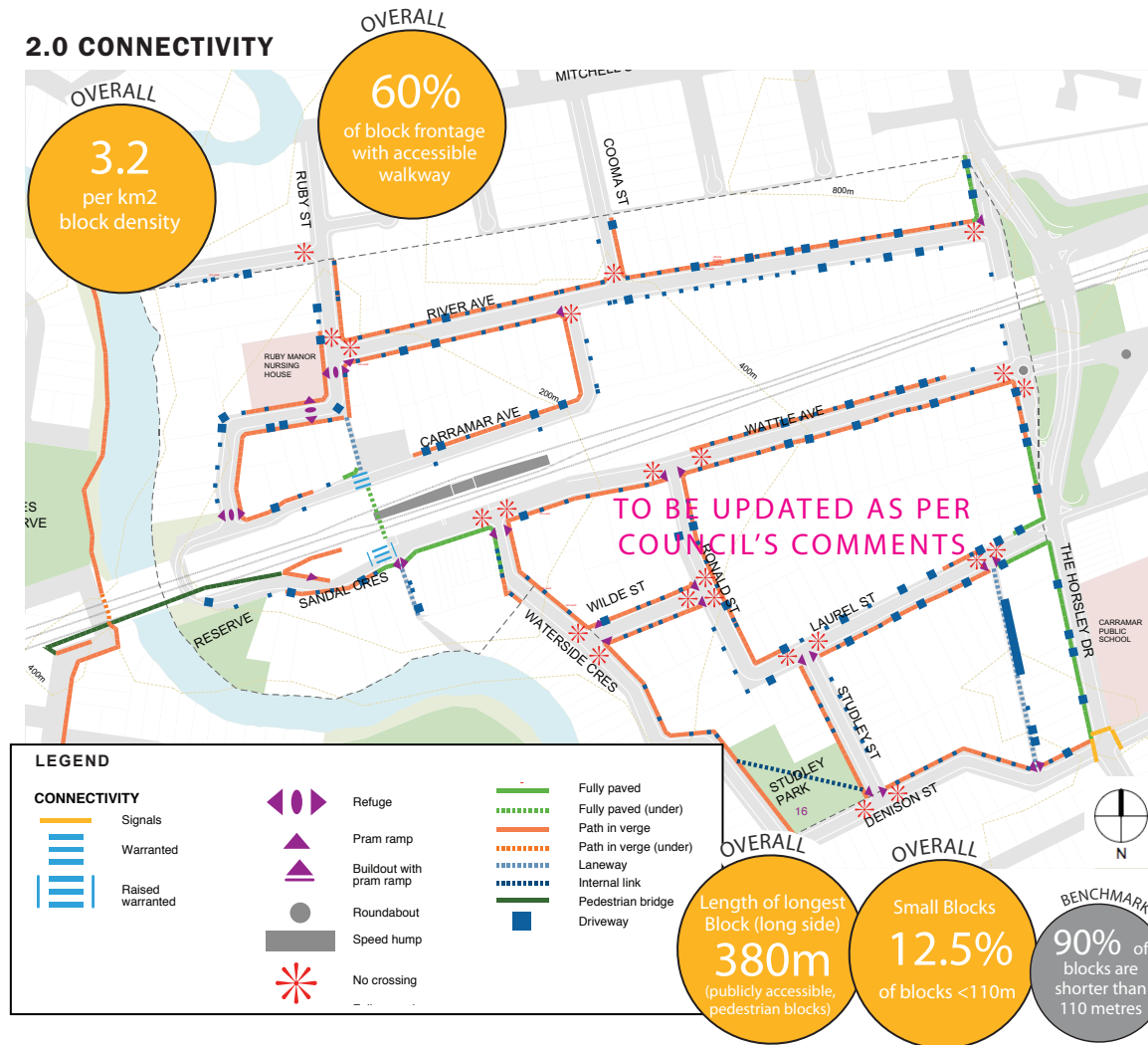
Appendix 7

Audit Mapping

1.0 ACCESSIBILITY



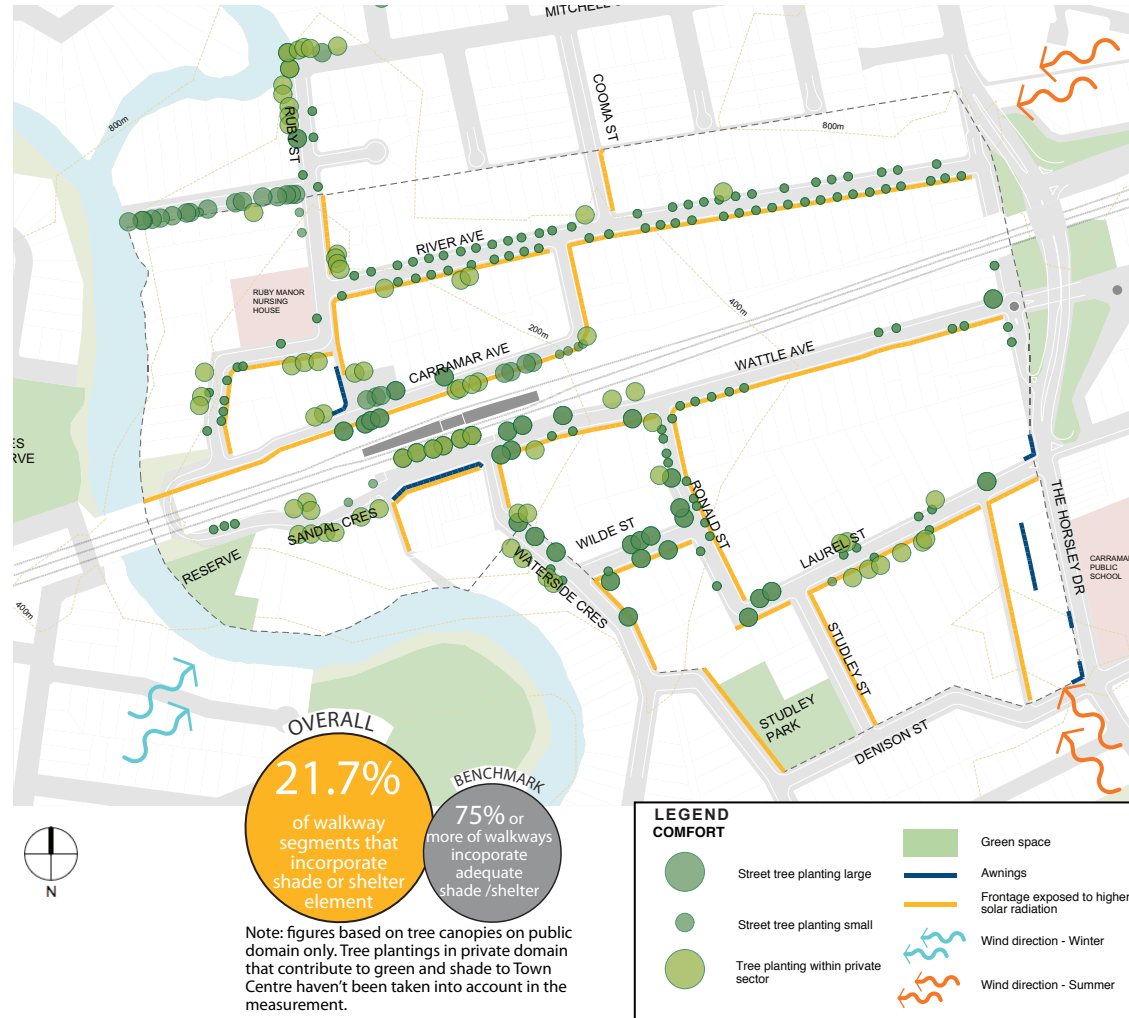
2.0 CONNECTIVITY



KEY OBSERVATIONS:

- Low block density of 3.2 block per km² - generally very poor permeability within the study area
- The centre is impacted by 3 barriers :
 - Train line separates town centre with one pedestrian underpass and separate vehicular underpass (without pedestrian path), limits north-south connections
 - Orphan School Creek and residential housing at western edge
 - one ped/cycle creek crossing
 - buffer of residential landuse along the creek line - lack of visual connections to creek
 - The Horsley Dr, east barrier is a 4-lane traffic dominated corridor with limited connection to the adjoining neighbourhood - Wattle Ave (underpass) and Denison Street
- Lack of road access or open through site links - in particular north/south links to existing streets
- Carramar has a significantly older population due to age care facilities in area - however there are only two pedestrian priority crossing points in the study area - only one is raised and disabled friendly
- Lack of crossing points (at minimum pram crossings both sides) at most intersections
- No footpaths to 50% of the streets
- Lack of sense of arrival / entry to town centre
- Low rise residential area impacts number of driveways/interruptions along street frontages - 67% of streets with more than 2 driveways per 100m

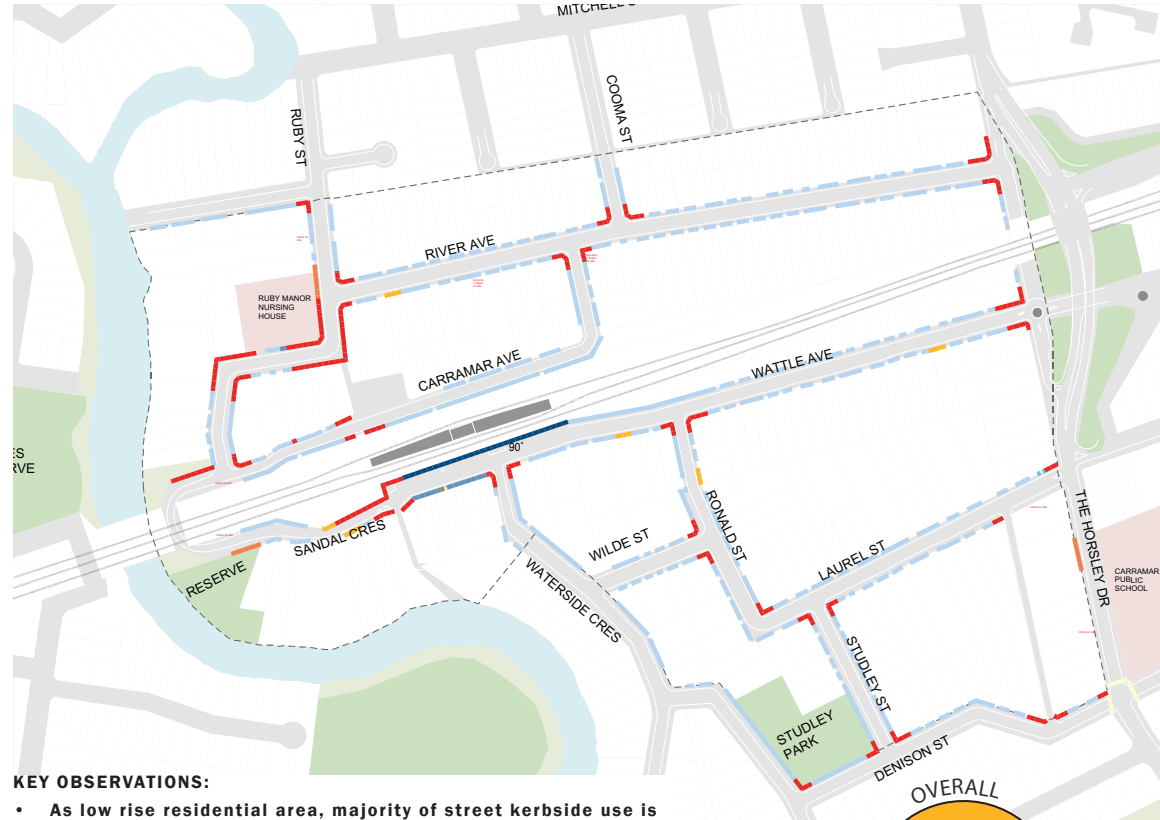
3.0 COMFORT



KEY OBSERVATIONS:

- Only 10.8% of streets with some awning and street tree canopy cover
- Tree plantings within private domain play important role in greening street generally - Attractive tree canopies on Wattle Ave adjacent train station within railway corridor - visually important to village character
- Intermittent positioning of street trees along Wattle Ave/ Sandal Cres is still effective for visual greening (if not optimum summer shade)
- Lack of continuity to street tree canopies along local streets
- Natural assets / open space along creek corridor however - underutilized with very limited accessibility:
 - Studley Park is "disconnected" from the station/center
 - limited access points to Orphan School Creek, property boundaries up to creek boundary
 - Reserve(end of Sandal Cres is the only access point to the creek, informal, lacks sense of safety
 - Parkes Reserve, Orphan School creek headland, Carrawood Reserve and Oval are significant open space adjoining the study area, limited connections to the centre
- Inbalance of open space between east and west of centre
- No public space / gathering space adjacent town centre/train station
- Noise impacts from rail lines and The Horsley Dr on local residents
- Overhead powerlines impact street tree positions and size of canopy

4.0 KERBSIDE USE



KEY OBSERVATIONS:

- As low rise residential area, majority of street kerbside use is unrestricted street parking
- Potential for build outs to no stopping / no parking zones and at intersections to increase pedestrian space and amenity, calm traffic, and reduce crossing distances

OVERALL
Kerbside parking
51.4%
of kerbside use

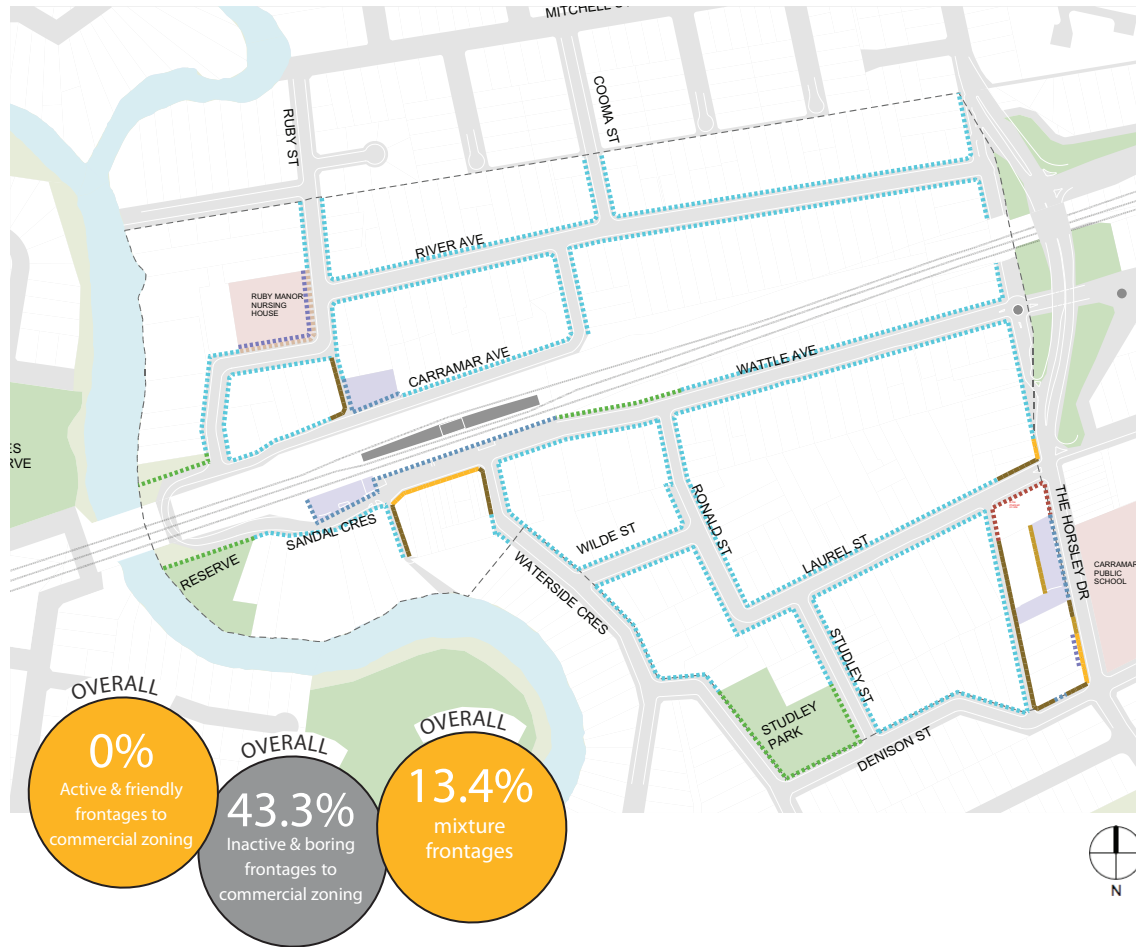


LEGEND	
KERBSIDE USE	
	Time restricted parking
	All day parking
	Angle parking (time restricted)
	Clear way
	No stopping
	Bus zone
	Council bus zone
	Taxi stand
	Loading zone
	Police parking
	Kiss & drop
	Shared car parking
	Mail zone
	Signalised crossing

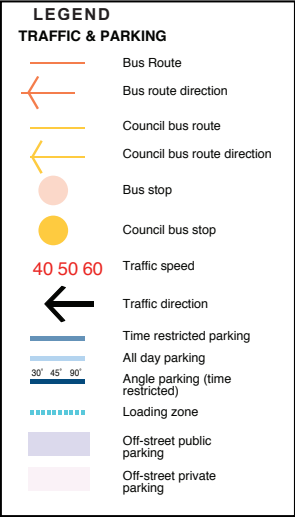
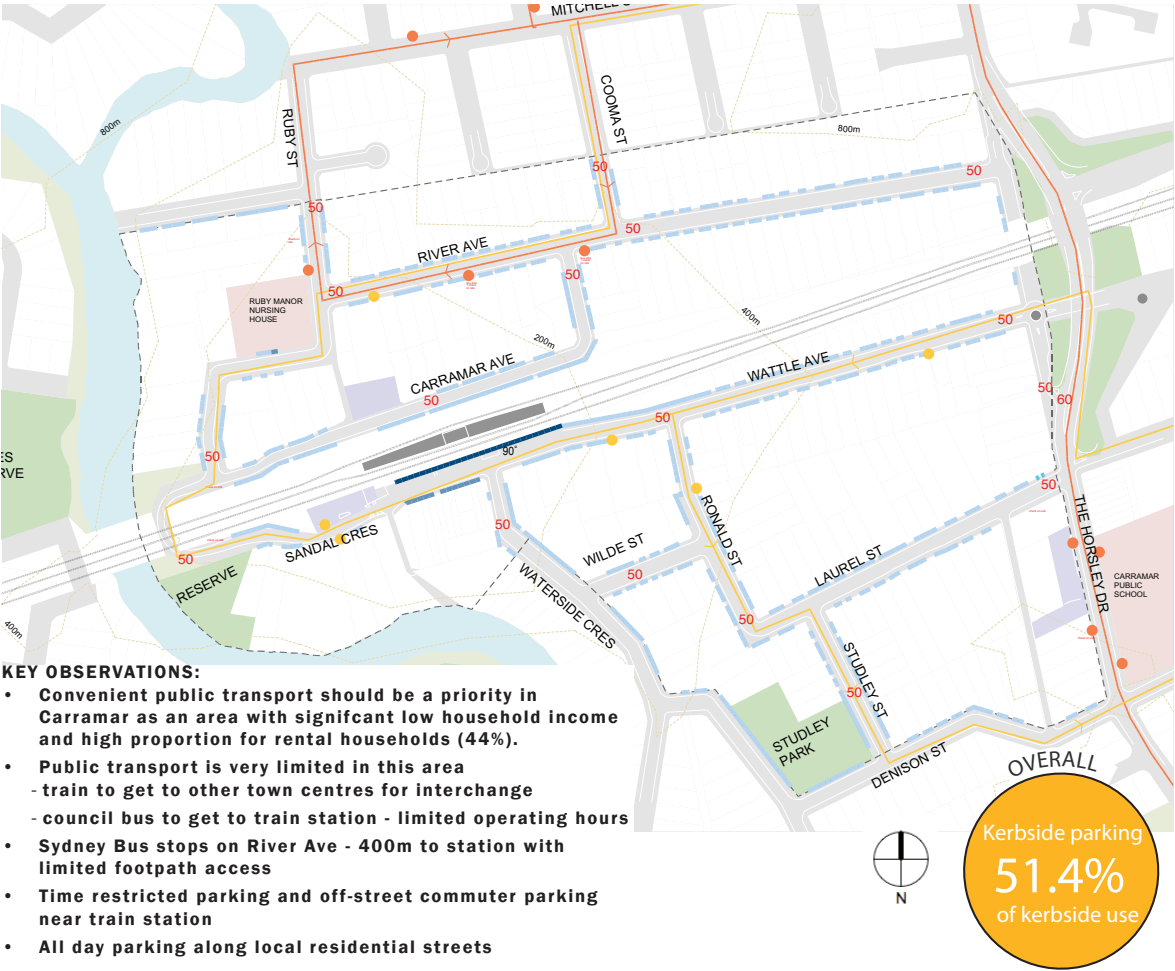
TIME RESTRICTED PARKING (%)	0.9%
ALL DAY PARKING (%)	48.6%
ANGLE PARKING (%)	2%
CLEARWAY(%)	0%
NO STOPPING(%)	14.1%
BUS ZONE(%)	1.1%
COUNCIL BUS ZONE(%)	1.3%
TAXI STAND(%)	0%
LOADING ZONE(%)	0%
POLICE PARKING(%)	0%
KISS & DROP(%)	0%
SHARED CAR PARKING(%)	0%
MAIL ZONE(%)	0.1%
ON STREET DISABLED PARKING (NO.)	0

NOTE: % based on overall block length within study area

5.0 STREET LIFE



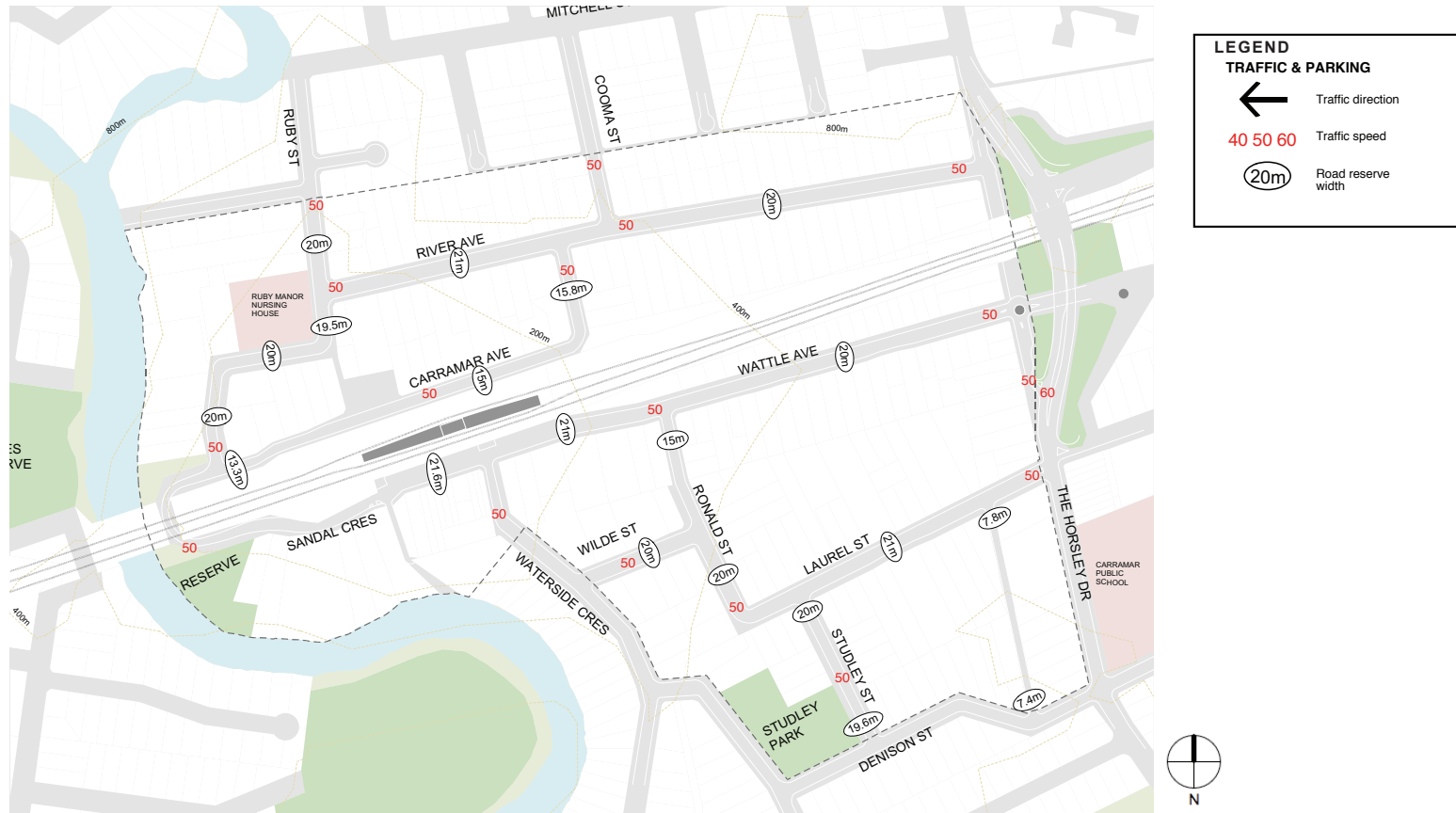
6.1 TRAFFIC & PARKING



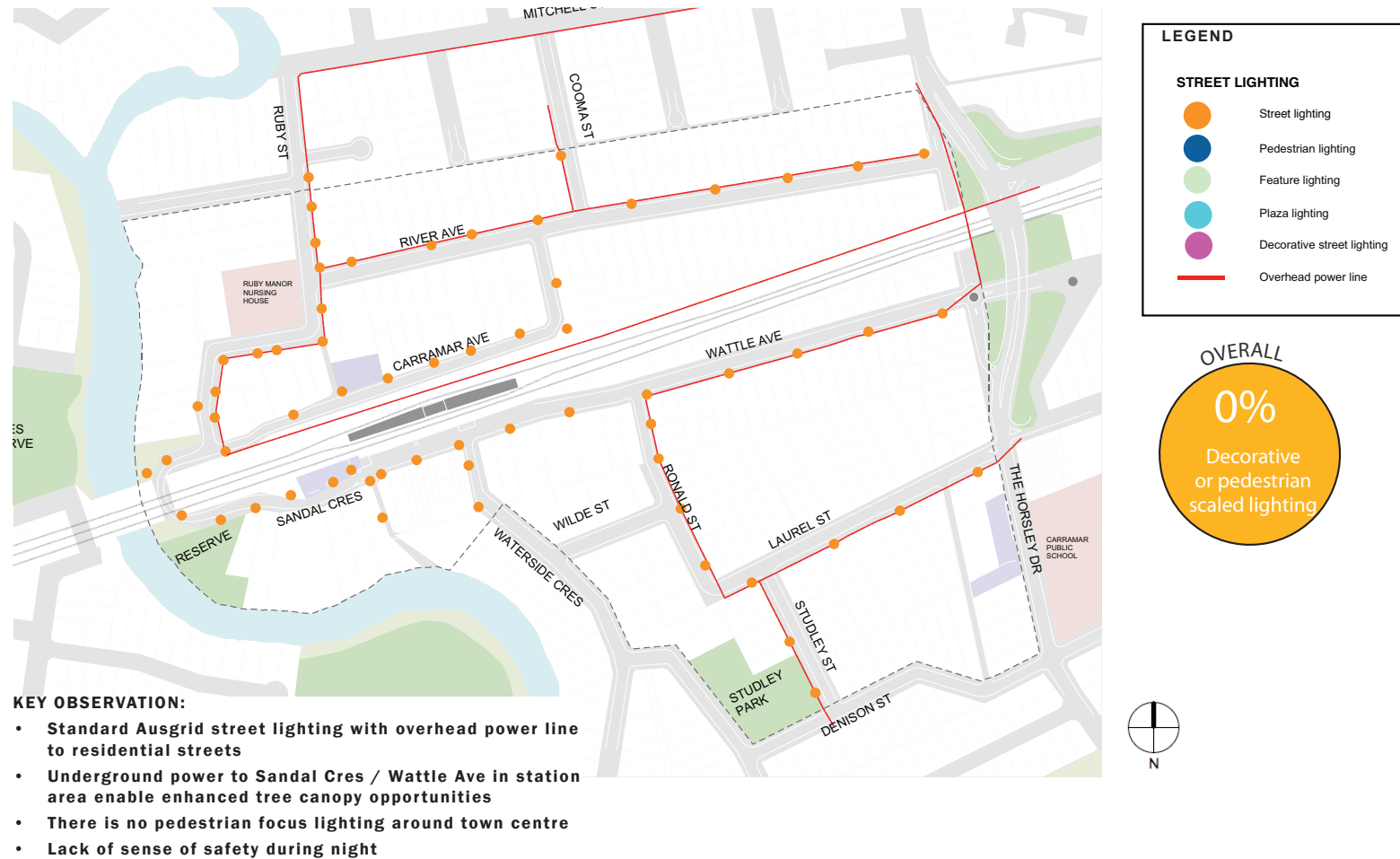
ON STREET PARALLEL PARKING (TIME RESTRICTED)	12
ON STREET ANGLE PARKING (TIME RESTRICTED)	47
ON STREET PARKING (ALL DAY)	636
OFF STREET PUBLIC PARKING (ON GROUND)	84
OFF STREET PUBLIC PARKING (MULTI-LEVEL)	0
OFF STREET PRIVATE PARKING	69
ON STREET DISABLED PARKING	0
SHARED CAR PARKING	0
TOTAL	848

NOTE: Parking numbers approximated, to be verified

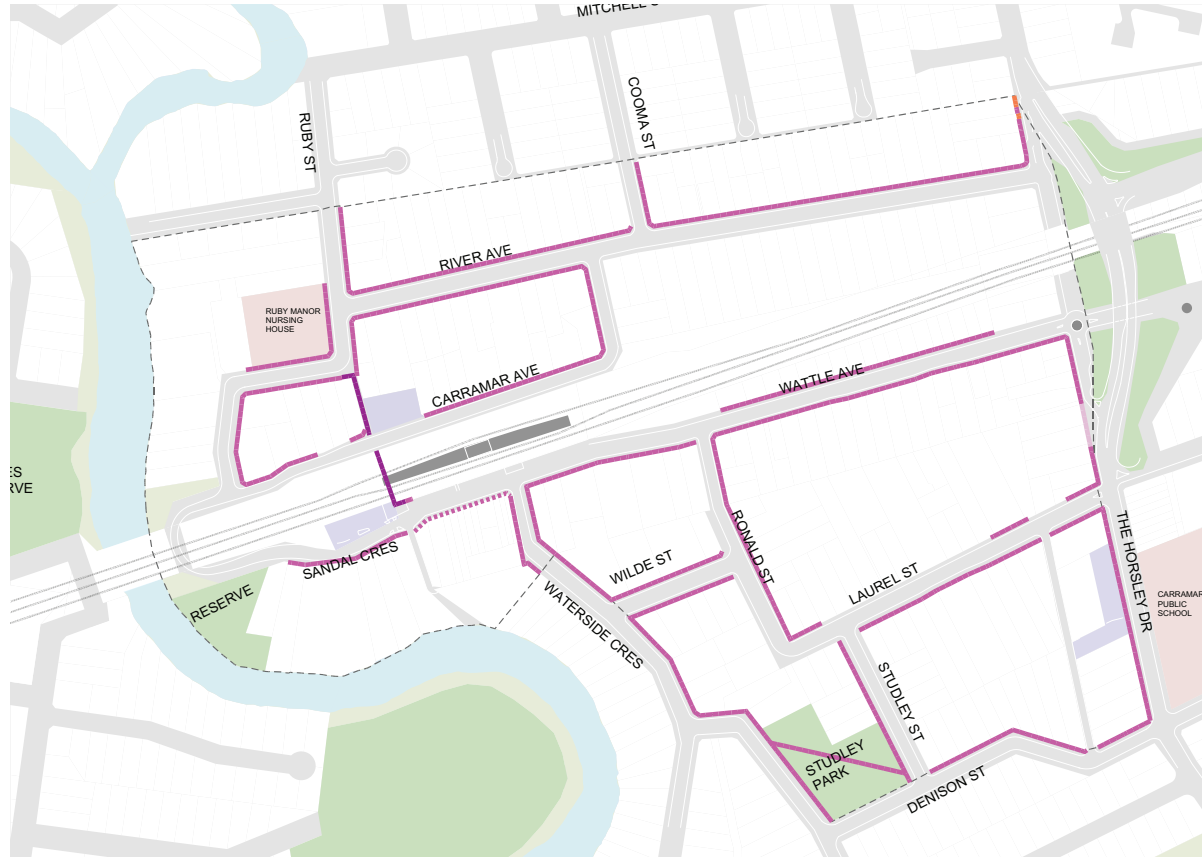
6.2 TRAFFIC - STREET GEOMETRY



7.1 MATERIALS - STREET LIGHTING



7.2 MATERIALS - PAVEMENT TYPES



LEGEND PAVEMENT	
	Brick
	Brick with (material/color) banding
	Pebblecrete (color)
	Pebblecrete (color) with (material/color) banding
	Ceramic (color)
	Ceramic (color) with (material/color) banding
	Asphalt
	Asphalt with (material/color) banding
	Concrete
	Concrete (color)
	Concrete paver
	Interlocker
	Urbanstone (color)
	Urbanstone (color) with (material/color) banding

8.0 CYCLE NETWORK

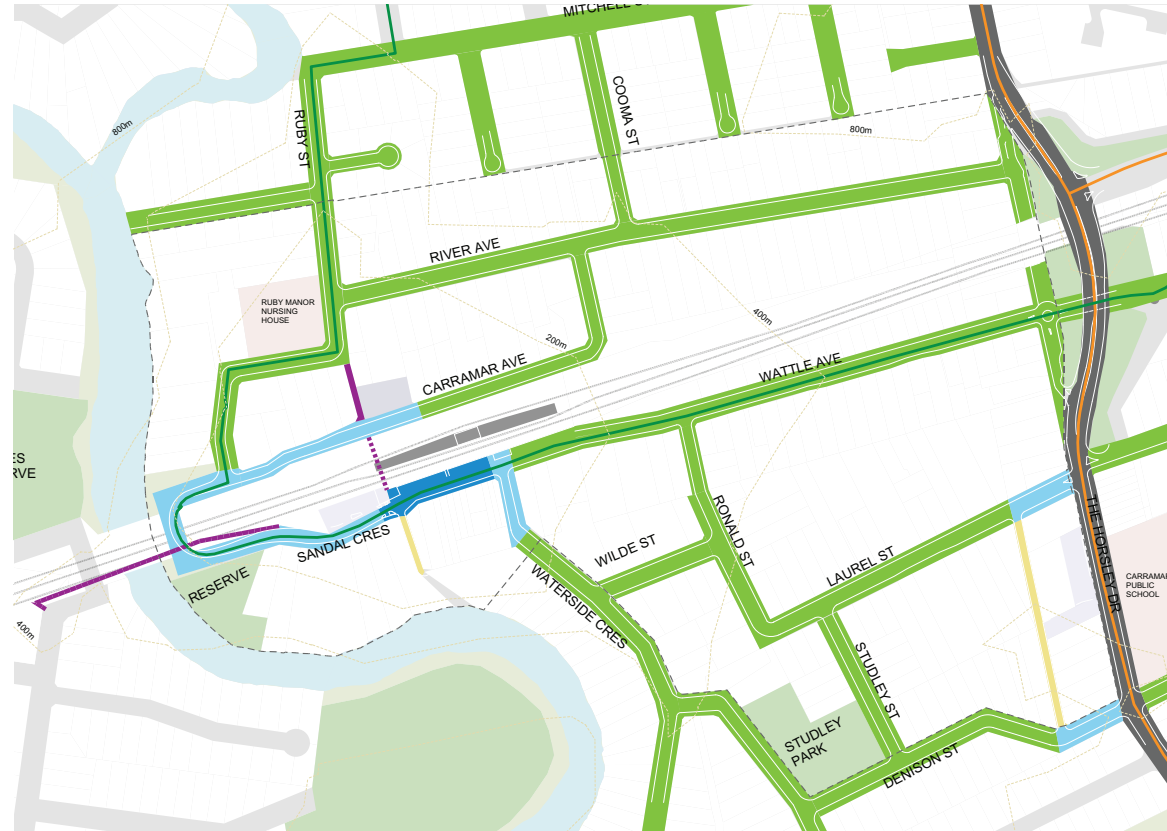


LEGEND

- Cycle way - off road
- Cycle way - on road
- Cycle way to be improved



9.0 STREET HIERARCHY



LEGEND		
STREET HIERARCHY		
Network	Centre	
— Avenue	— High street - core	— Laneways- Shared lane
— Corridor	— High street - mixed	— Laneways- service lane
— Major road	— High street - circulation	- - - Shared zone
	— Local Street	- - - Plaza space
		— Pedestrian link

NETWORK STREETS

AVENUE

- Pedestrian / cycle corridor
- Green link corridor

CORRIDOR

- Transport corridor
- Green link corridor

CENTRE STREETS

HIGH STREET - CORE

- Slow traffic speed <50km
- Regular pedestrian priority crossings
- Minimal driveway interruptions
- Lanes widths minimised
- On street parking
- No through bus movement

HIGH STREET - MIXED

- Mixed use - traffic/ped & type of frontage activation(retail/resi/commercial/service)

HIGH STREET -CIRCULATION

- Signalised crossings
- Standard lane widths or more
- Potential clearways
- Through bus traffic
- Driveway access

SHARED ZONE

- pedestrian priority
- high pedestrian volumes
- generally no kerbs
- max traffic speed 10km/hr

LOCAL STREET

- Local traffic
- No through bus movement

LANEWAYS - SHARED LANE

- 5-10m road reserve
- Generally one way
- Accessible to pedestrians
- Contrasting pavement to roadways

LANEWAYS -SERVICE LANE

- 5-10m road reserve
- Generally one way

10.0 PUBLIC DOMAIN WORKS



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partnership

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