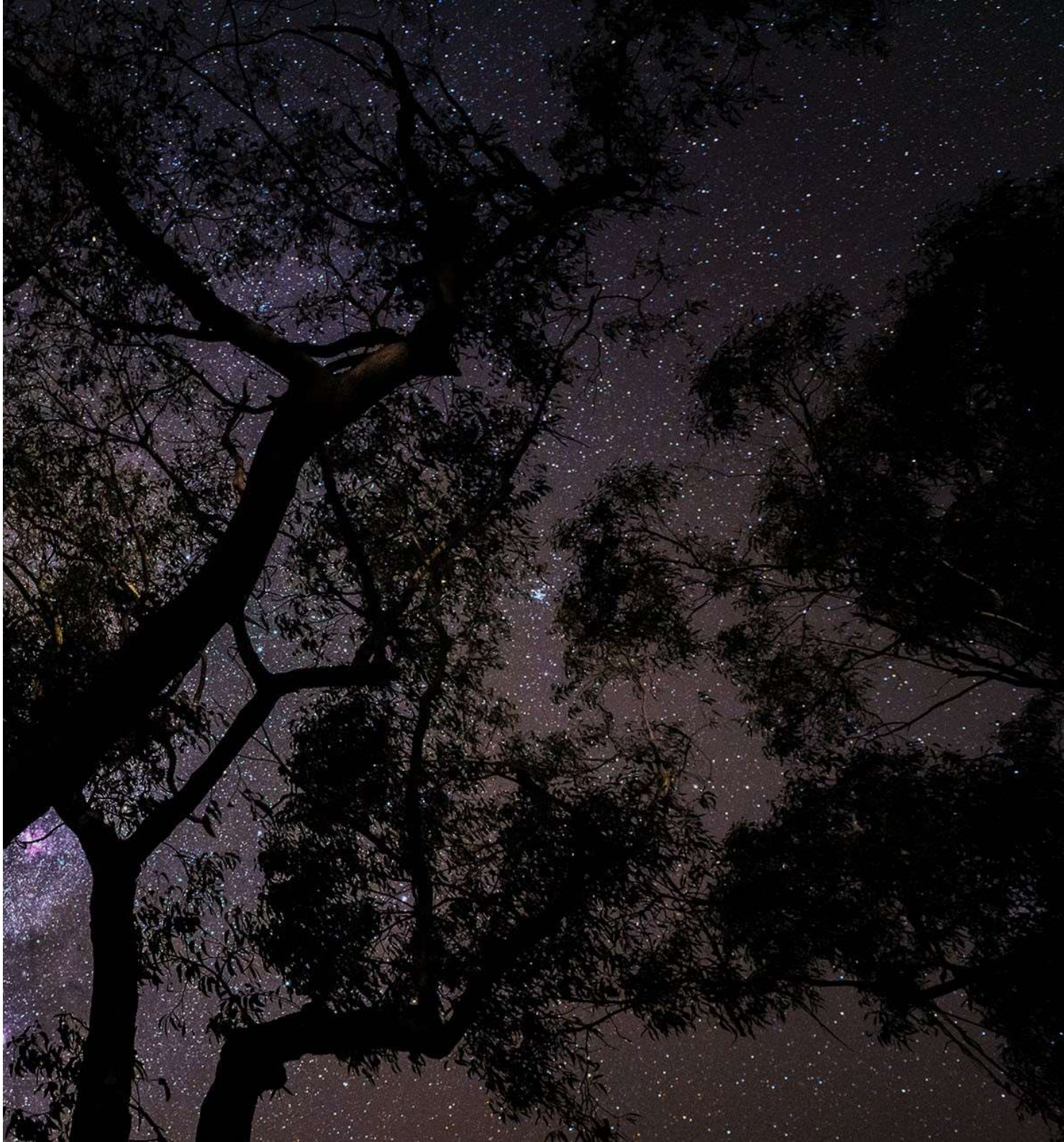
URBIS

WOLLONGONG CITY CENTRE MOVEMENT AND PLACE PLAN

Draft Strategy
Prepared for Wollongong City Council
10th June 2024

ACKNOWLEDGMENT OF COUNTRY

We acknowledge the Dharawal people as the Traditional Owners and Custodians of the Wollongong region. We acknowledge their continuing connection to the land through culture and community and we pay our respects to Elders past, present and future.



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For this project Urbis was assisted by Movement & Place Consultants.

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EXECUTIVE SUMMARY

VISION THE PLAN SETS OUT TO SUPPORT

This plan supports the Vision in the strategic document *A City For People: Wollongong Public Spaces and Public Life* which included four key themes for Wollongong City Centre.

4 THEMES

1. CELEBRATE THE UNIQUENESS
2. DEVELOP A HUMAN-SCALE CITY
3. GROW A LIVING CITY
4. CREATE AN ACCESSIBLE, PEDESTRIAN-FRIENDLY CITY

Refer to Section 4 for more on the strategic framework guiding the strategy.

WHY DO THINGS NEED TO CHANGE?

79%
Of people working in Wollongong City Centre drive a car to work

45%
Of drivers are open to changing modes if better alternatives are provided

57%
People are concerned about speeding and dangerous driving in the city centre. This is the dominant safety concern.

SAFETY
Crashes severe enough to involve emergency services every 8-9 days in the city centre.

Refer to Section 2 and 3 for more Background Analysis and the Case for Change.

TOP 8 MOVES FOR WOLLONGONG CITY CENTRE

1. Support a high quality public transport service from Wollongong Station to the Harbour.
2. Develop a cohesive north-south and east-west cycling network in the City Centre connecting the train station to the foreshore and the outer suburbs to the centre.
3. Explore how to offer more protection for bike riders at intersections in the City Centre. Wollongong could take a leading role in this type of infrastructure nationally.
4. ‘Open up’ more laneways for high quality pedestrian environments and activation.
5. Develop a shared zone integration strategy to identify streets that could convert into lively shared zones.
6. Continue exploring alternate uses for kerb side space such as shade and outdoor dining.
7. Introduce lower speed limits to make streets that are safer for all road users
8. Explore opportunities to improve first and last mile freight within the City Centre.

Refer to Sections 6 and 7 for more on Future Networks and the Action Plan.

CONTENTS

APPENDICES

ABOUT THIS PROJECT

01

CROWN STREET, WOLLONGONG

ABOUT THIS PROJECT

Wollongong City Centre is the vibrant heart of the Wollongong Local Government Area and the regional capital of the Illawarra Shoalhaven.

In recent years, the growing popularity of high-density living, a focus on active transport and associated infrastructure, a maturing night time economy and 30,000m2 of new A-grade office space has underpinned growth and development, promoting the attractiveness of this locale, as a lifestyle choice.

Like any lively city centre, it continuously evolves, adapting to changing needs.

The City Centre Movement and Place Plan aims to chart a future that addresses accessibility and movement and capitalises on the potential for enhancing the City Centre as a destination.This document:

- Explains what the current opportunities, constraints and trends are within the City Centre of Wollongong (see Section 2).
- Makes a case for change based on the views of people living and using the Wollongong City Centre (see Section 3).
- Details the preferred way forward for transport and access in the City Centre that is in line with the strategic context already set (see Section 4), along with describing an alternative future that is functional to spend time and stay (see Section 5 and 6).
- Provides an Action Plan for how the city can achieve change (see Section 7).

The Wollongong CCMPP has been developed with a consultant team led by Urbis with support from Movement and Place Consulting.

KEIRA STREET, WOLLONGONG

MOVING BEYOND BUSINESS-AS-USUAL

There are two dominant and opposing approaches commonly used for transport planning- *Predict and Provide* and *Vision and Validate*.

WHAT IS 'PREDICT AND PROVIDE'?

This concept is where traffic volumes are predicted based on historical trends and the road network is developed to support that prediction.

Predict and provide results in inducing demand, a phenomenon where increasing the supply of something (like roads) makes people want that thing even more (as it becomes more convenient, efficient and cheap relative to other options), resulting in requiring more supply to maintain existing levels, leading to a negative feedback loop which happens almost every time new roads are built[1].

WHAT IS 'VISION AND VALIDATE'?

Rather than solely looking at infrastructure provision to meet projected demand, this approach sets the transport vision for the future. Then, data analysis and insights are used to establish a pathways and different strategy levers through an action plan to achieve the future vision.

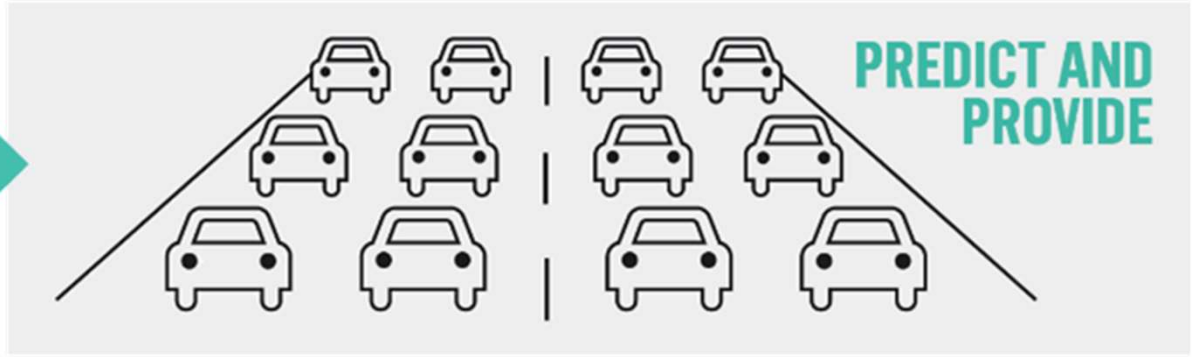
In this project, the validation process uses a transport and land use model. It considers all modes and suggests ways to enhance alternate travel options to ensure the success of the future vision.

The development of the Wollongong ITS has employed the vision and validate approach.

Reference
1) Duranton and Turner, 2009, The Fundamental Law of Road Congestion: Evidence from US Cities, NBER

WHAT ARE SOME APPROACHES TO COPE WITH AN INCREASE IN DEMAND FOR MOVEMENT?

A PROVIDE MORE AND MORE SPACE FOR MOVEMENT IN RESPONSE TO PREDICTIONS



B SET THE VISION, THEN WORK OUT HOW TO ACHIEVE IT

METHOD FOR DEVELOPING THE WOLLONGONG CITY CENTRE MOVEMENT AND PLACE PLAN

WOLLONGONG CITY CENTRE MOVEMENT AND PLACE PLAN PROCESS

In adopting the Vision and Validate approach (see Page 8) this project has been undertaken as follows

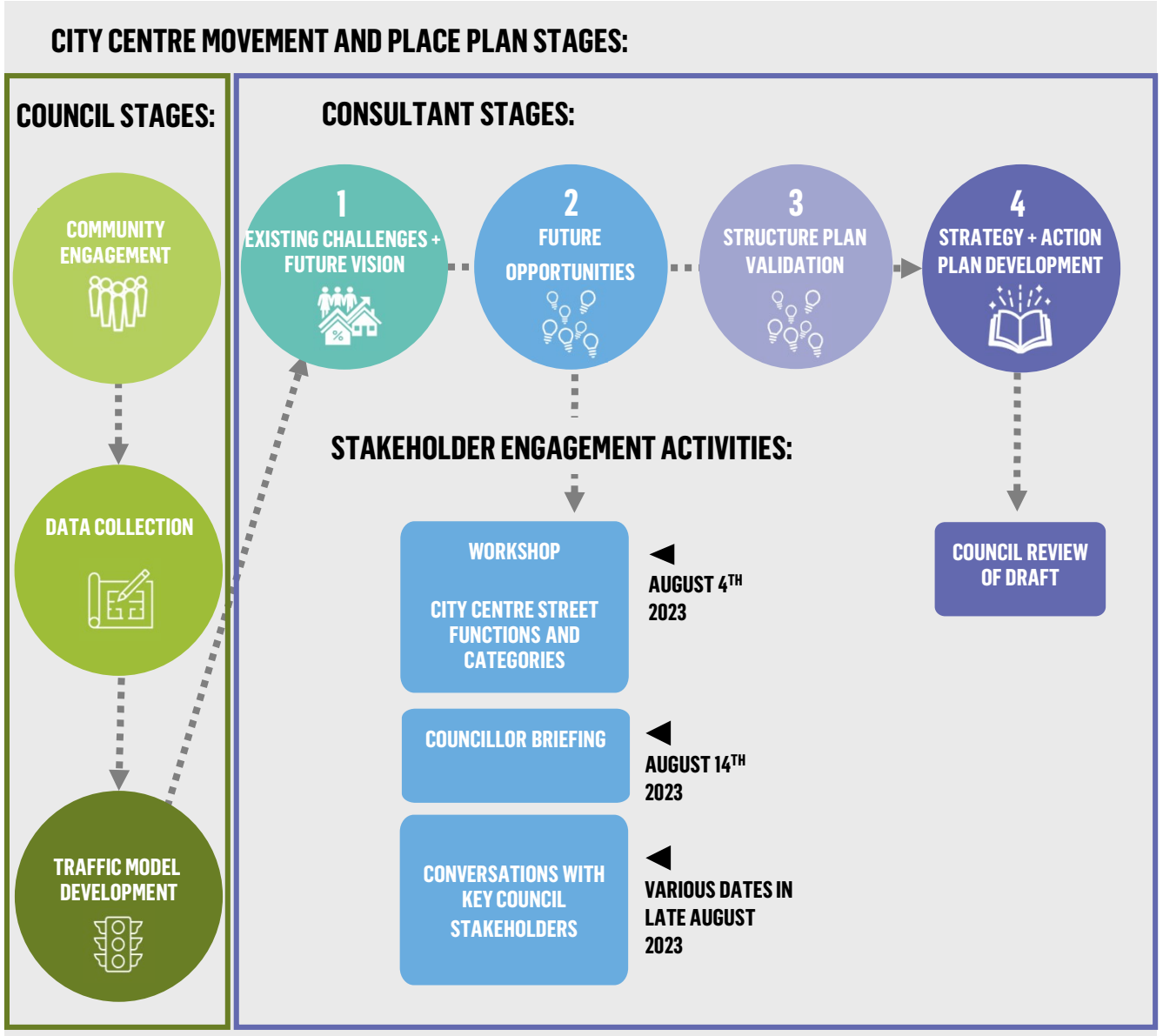
- Early stages undertaken by Wollongong City Council in collecting data and developing LGA Traffic Model.
- **Stage 1** included the collation of relevant data and background documents to set the scene of current known transport challenges. This was used to set the stage going into the Vision Workshop, where the Vision, Principles and Objectives were developed.
- **Stage 2** examined existing modelling to look at what the region's transport looks like in 2041 (under a business-as-usual scenario). This analysis was used going into the preferred way forward workshop, which set out a range of potential responses before ultimately a preferred future scenario was developed.
- **Stage 3** sees additional detail added through mapped of key steps, through time-bound strategies and actions, to achieve the vision.

COMMUNITY INPUT

The Wollongong City Centre Movement And Place Plan has been developed over a 12-month period from April 2023 to April 2024. It followed community discussion and engagement in 2020 to identify opportunities for the city.

In addition to a workshop at which key community stakeholders were engaged, councillors and key Council staff members were engaged throughout.

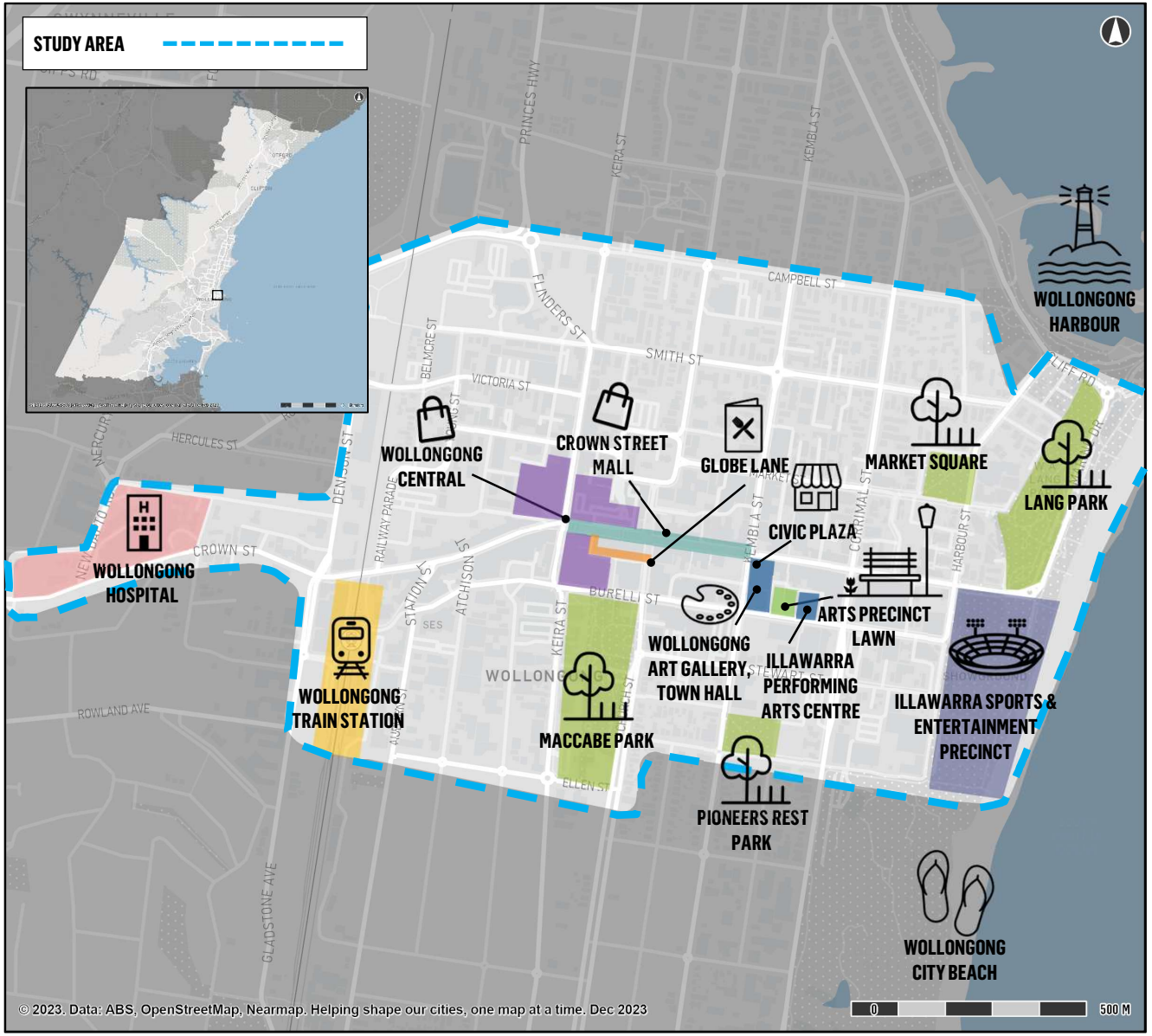
Further information on community engagement is shown in **Appendix A** of this report.



STUDY AREA - WOLLONGONG CITY CENTRE

The city centre is the city's commercial hub with a coastal vibe. It is a thriving regional commercial, entertainment and retail centre. Key features include:

- **Crown Street Mall:** The City Centre's pedestrian only mall and retail center with diverse shops and eateries.
- **Wollongong Central shopping centre:** A major shopping destination with varied outlets.
- **Wollongong Art Gallery:** Displays contemporary, Aboriginal, and Asian art.
- **Illawarra Performing Arts Centre:** Prominent centre for plays, concerts and community events.
- **Arts Precinct:** An event space alongside the Illawarra Performing Arts Centre.
- **Wollongong Town Hall:** Historic venue for concerts and events.
- **Churches:** Notable ones are St. Michael's Cathedral and Church of St. Francis Xavier.
- **MacCabe Park:** A peaceful green space.
- **Dining:** Offers both upscale and casual options.
- **Commercial areas:** Services, offices, banks, and retail.
- **Residential population:** Apartment living has taken off downtown since the early 2000.
- **Public transport:** Wollongong Train Station is central, with several bus routes.
- **Cycling:** The City of Wollongong has focused on improving cycling routes to the City Centre over the past few years.
- **Laneways and street art:** In 2021 Council transformed Globe Lane into a pedestrian and dining precinct featuring local street art.
- **Wollongong Harbour:** Picturesque views and vibrant atmosphere of Wollongong.
- **City Beach:** Excellent outdoor space to unwind, patrolled by Lifeguards and volunteer lifesavers.



BACKGROUND ANALYSIS

This chapter explains the importance of a City Centre Movement and Place Plan at this current time. It discusses the challenges and opportunities that the City is facing now, as well as those expected in the future.

02

POPULATION AND EMPLOYMENT DENSITY

The residential areas closest to the shoreline boast the highest population density, reflecting a strong preference for living near water and the established presence of mixed use and residential zoning in this location. This is also true for the region north of Smith Street, where the elevated terrain offers scenic views of Wollongong's beaches and Escarpment. Moving westward from the city centre, residential density tapers off.

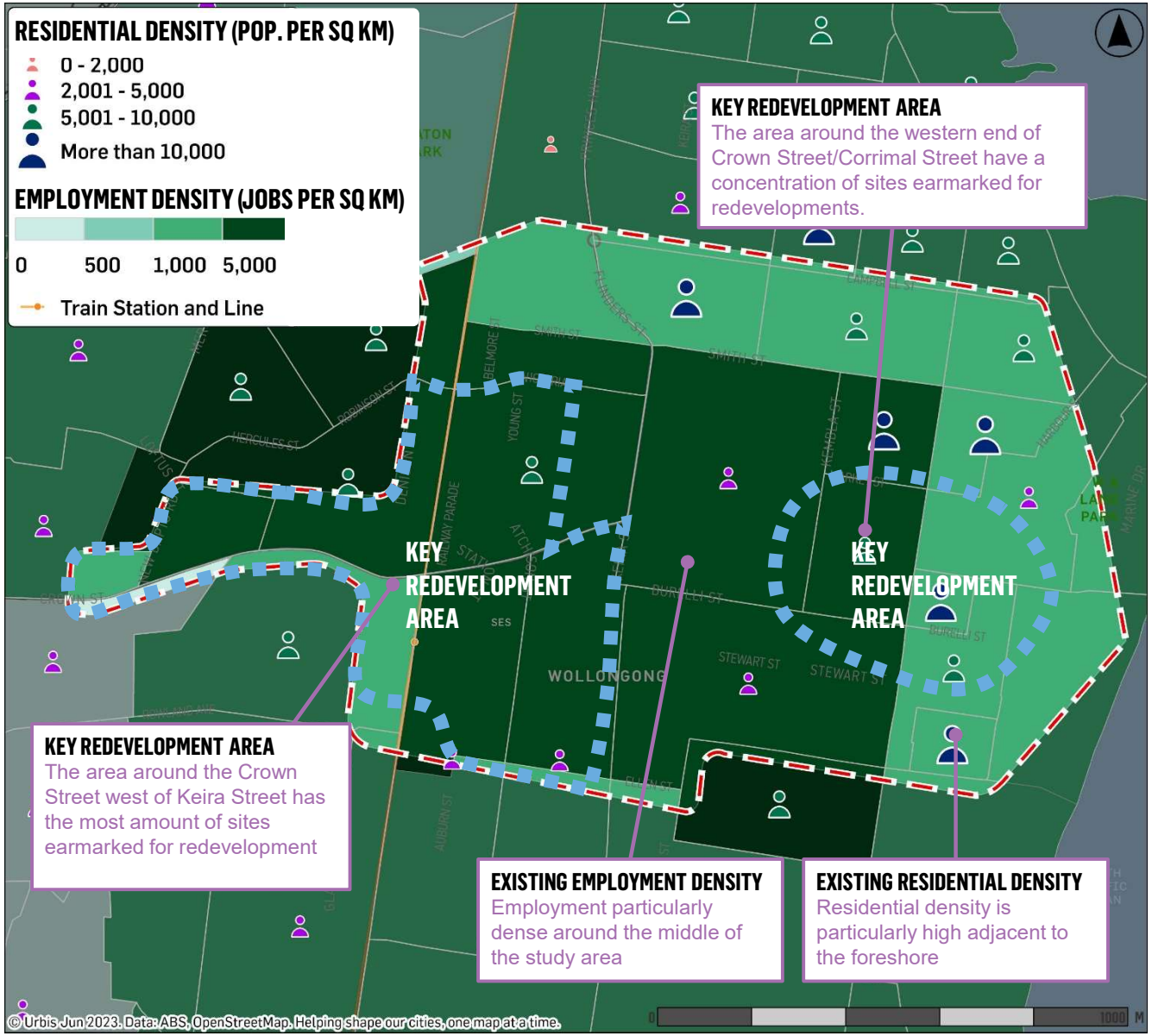
In June 2023 Wollongong suburb's population reached more than 21,600 people growing annual by 2.07% over the year at almost twice the rate of Wollongong LGA (1.25%).

In terms of jobs, close to 30% of total LGA employment is within the Wollongong City Centre. This is more than the Unanderra & Port Kembla Industrial Areas as well as the University combined. The top five industries represented in this area include Public Administration and Safety, Health Care and Social Assistance, Professional and Technical Services and then, Retail Trade.

Wollongong is no longer a retail trade hub but rather a central business district and hub for professional jobs. With more than 700,000 working adults within 1 hour of Wollongong there is a clear need for improved multimodal transport access to the city centre.

There are two key areas identified as locations where there are a concentration of sites that have been earmarked for redevelopment. This includes sites where with approved developments applications, developments under construction and developments under assessment. Irrespective of the type of development these will add additional demand for access and movement to the city centre.

Appendix B provides further details on the future development sites within these two areas.



CURRENT KEY DEMOGRAPHICS – PEOPLE LIVING IN THE CITY CENTRE

In Wollongong's city centre, residents have important traits that help us understand the challenges and opportunities in our study area. Some key points are:

Labor Force Status:

- The city centre closely aligns with LGA trends.

Age Breakdown:

- Residents are much more likely to be in the young/mid middle aged bracket (30-49 year olds).
- Residents are less likely to be in the teenage/ young adult aged bracket (15-29 year olds).

Job Types:

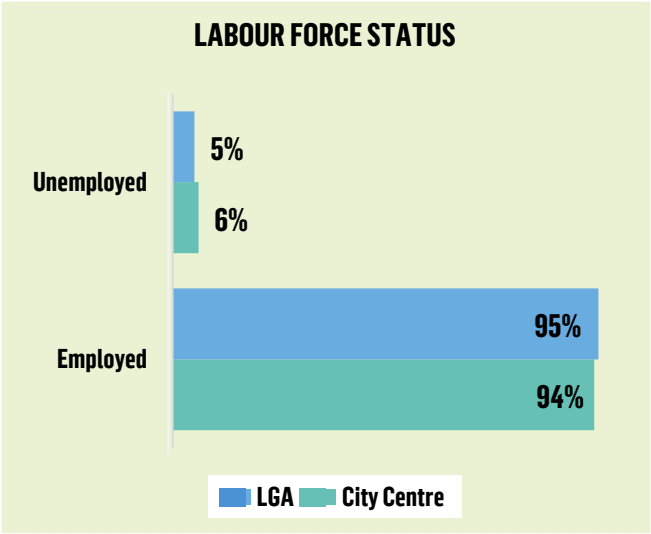
- There are subtle differences in the jobs done by residents of the city centre compared to the rest of the LGA.
- 43% of people living in the city centre are "Managers and Professionals" (compare with 37% of people engaged in this type of employment in the rest of the LGA.

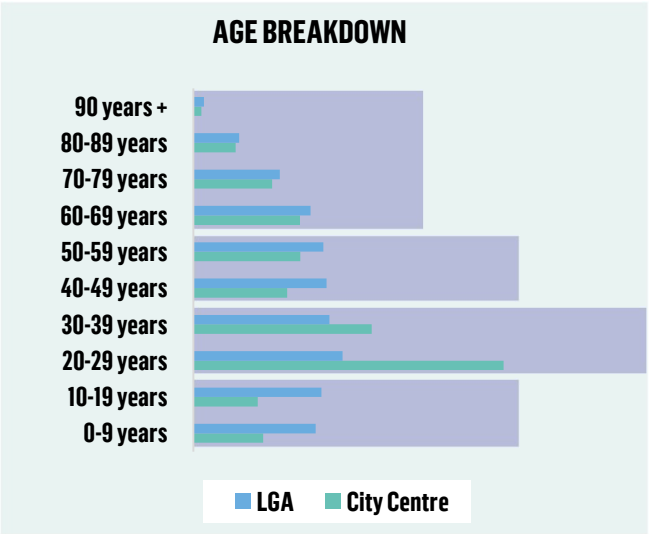
Educational Attainment:

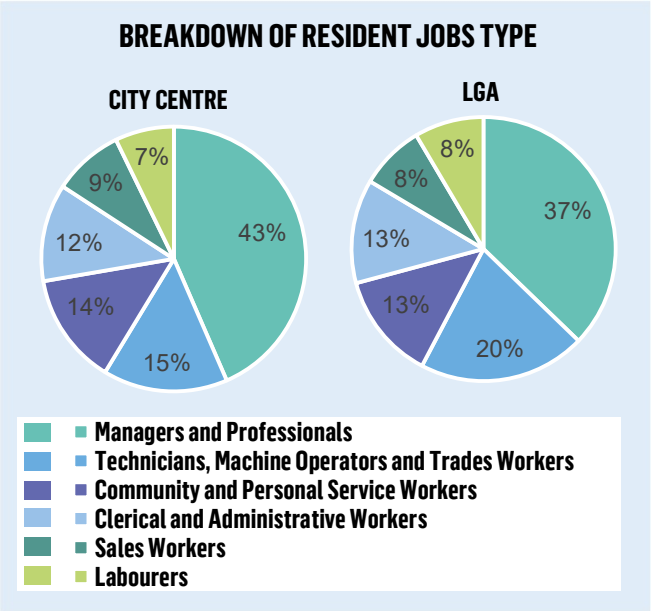
- There is significant disparity in educational attainment between city centre and Wollongong LGA.
- Higher percentage of City Centre residents hold Bachelor's Degrees (26%) compared to LGA (18%).

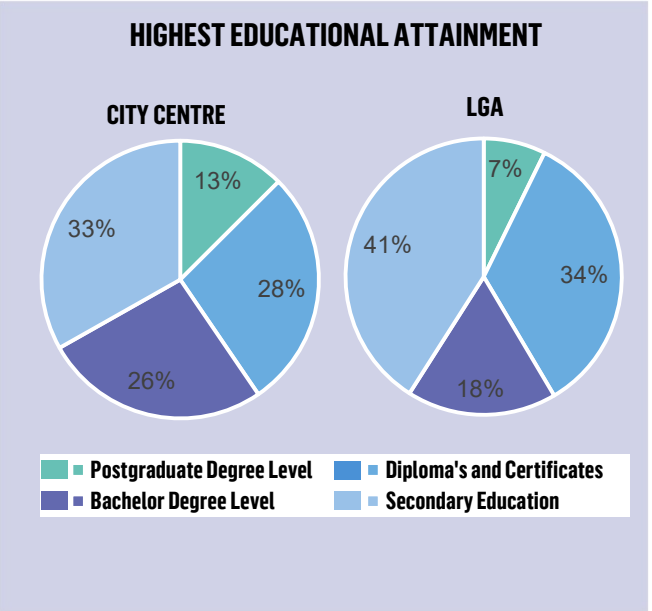
INSIGHT

Age breakdown shows significantly fewer families with children living in the city centre. This may indicate need to provide safer and more inviting streets for children.









Note: this data covers SA1 areas within the City Centre study area shown on page 10.

CURRENT KEY DEMOGRAPHICS – PEOPLE WORKING IN THE CITY CENTRE

People who work in Wollongong's city centre have some similarities and differences with those who work in the Wollongong LGA as a whole. Some key points include:

Labor Force Status:

- City centre workers closely aligns with LGA trends.
- Approximately half of city centre workers are full-time.

Age Breakdown:

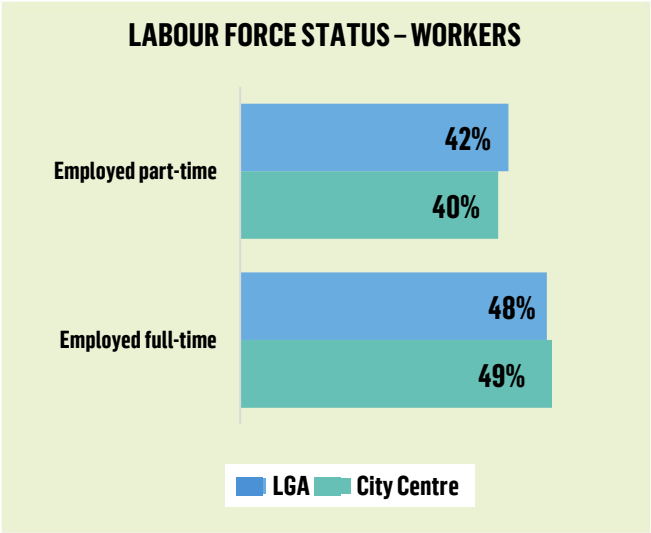
- Workers are more likely to be young/middle aged to young adults than in the rest of the LGA.
- Workers are less likely to be mature aged than in the rest of the LGA.

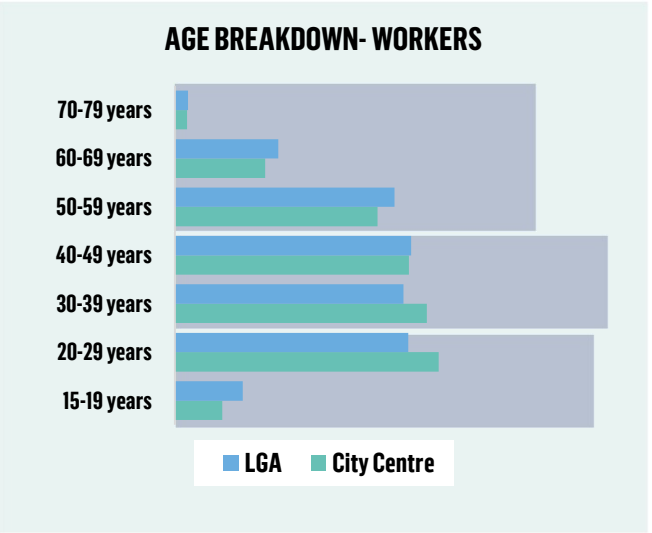
Job Types:

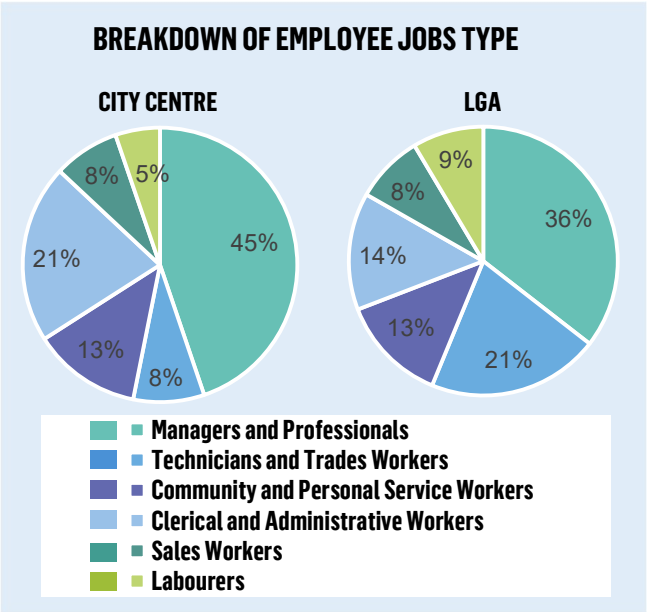
- There are subtle differences in the jobs types in the city centre compared to the rest of the LGA.
- "Managers and professionals" dominate at 45% in the city centre.
- There are far fewer "technicians, machine operators and trades workers" roles than in the rest of the LGA.
- The top industries are health care & social assistance, professional & financial services, public administration and safety, accommodation and food services, and retail trade.

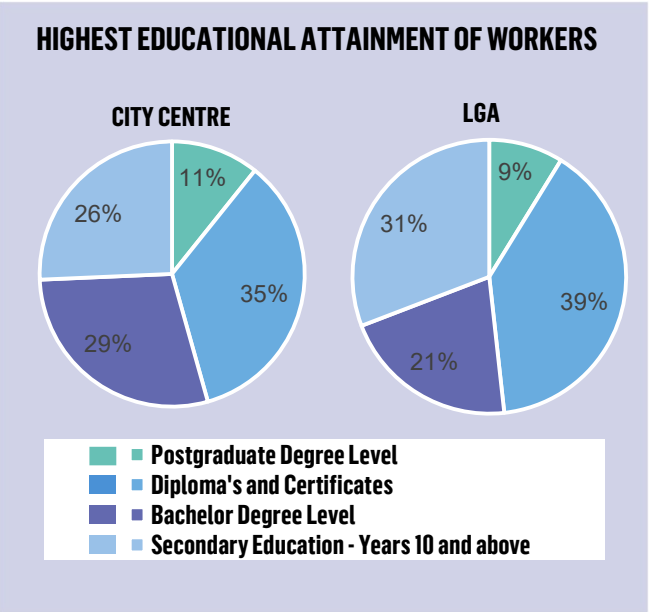
INSIGHT

The percentage of clerical and administrative workers who are employed in the city is much higher than those who reside there. As such, many travel into the city from other areas for work.









CURRENT KEY DEMOGRAPHICS – HOUSEHOLD TRAVEL

People who live in Wollongong's city centre have different methods of travelling to work compared to those who do not. These trends are highlighted through ABS data that compares mode choices between these two categories.

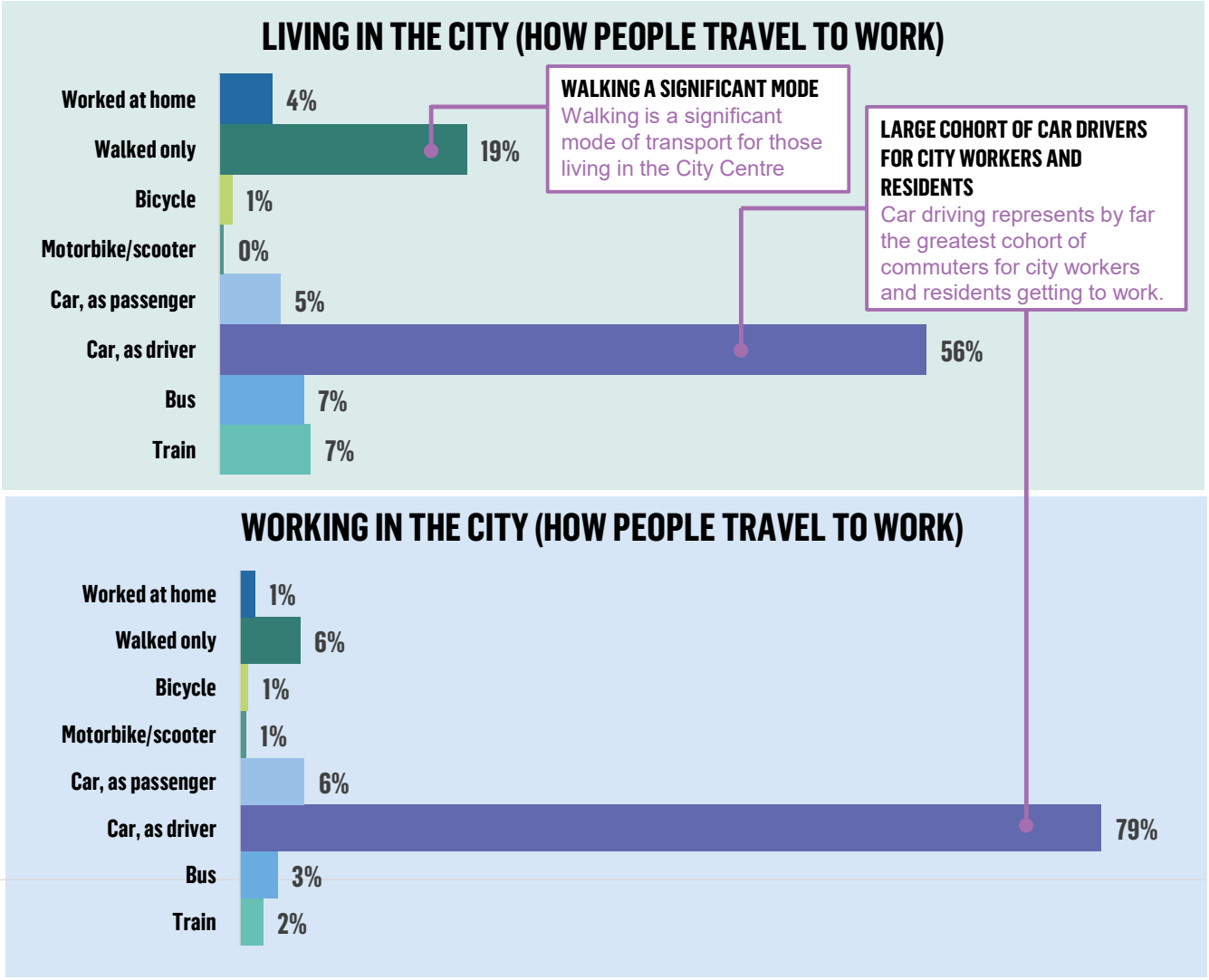
The figure on the right depicts this by highlighting a difference in the number of people who choose to walk and drive to work. Those who reside in the city walk to work 19% of the time, the second most common travel mode behind is driving, at 56%. This is far higher than those who work in the city who chose to walk being 6% of the time. With the difference largely made up in a higher driving split of 79%.

In line with this, public transport usage particularly bus and train travel is also more common for those who live in the city. These trends are important to represent in realising how access to transport services differs across the Wollongong LGA. While location to work primarily influences people's choice in walking, there remains an opportunity to encourage mode splits away from car dependency.

It is also noted that working from home has increased since 2016, although the extent of this change in Wollongong is unknown.

INSIGHT

Household travel choices are largely dependent on living locations and access to transport options. City centre workers and residents are highly car-reliant, suggesting the optimal balance of convenience of car and non-car modes is not currently being achieved.



Source: Profile .id, based on ABS Census, 2016

Note 1: Counting: Persons Aged 15 years and over place of work

Note 2: Counting employed people for those that work In the city.

CURRENT CAR OWNERSHIP

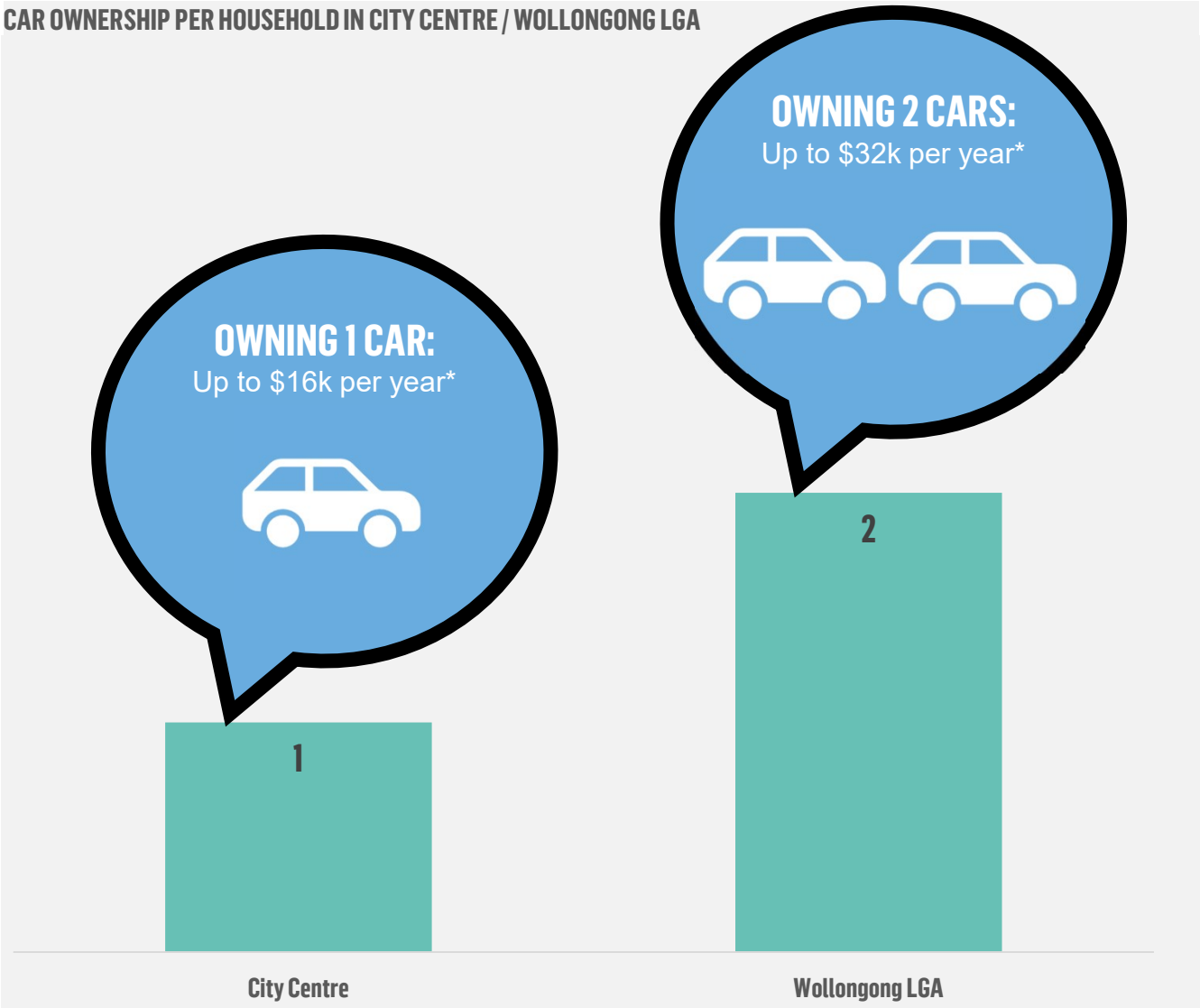
The city centre has a much lower car ownership rate compared to the wider LGA. Household car ownership is a product of:

- **Accessibility to daily needs:** In an area such as the city centre households have access to many of their daily needs (shopping, services, education, employment) closer to home, meaning they can use other modes such as walking and cycling.
- **Cost**: If parking is costly, households will limit the number of cars they own. People living in the city centre generally store their cars in basement car parks, which are expensive to construct, resulting in households limiting the parking spaces they own/rent and their cars.
- **Alternatives available**: Proximity to quality active transport and public transport infrastructure and services will result in lower household car ownership rates.
- **Household size:** In smaller households, as can be expected for example in areas with predominantly apartments, it's likely that there will be fewer cars associated with each household.

The city centre has a combination of the above factors, resulting in significantly lower rates of car ownership than elsewhere in the LGA.

INSIGHT

There are less households in the city centre with children under 15 years old compared to the Wollongong LGA. The needs of a young family and longer distances to amenities could reflect the higher car ownership in the wider LGA.



Data source (Car Ownership Rates) – 2021 ABS Census
*Based on cost of a medium sized vehicle in Australia in 2022. Data source (Cost of Car Ownership) - RACV, *Cost of Car Ownership*, 2022 (medium sized vehicle)

CURRENT KEY ROUTES TO THE CITY

The figure on the right shows the key routes into the city for private vehicles, buses and cyclists. These are expanded upon below.

PRIVATE VEHICLES

Private vehicles generally access the city centre from the Princes Highway in the north, Crown Street in the west and Springhill Road in the south. Most vehicles travel through the city centre use the following routes:

1. Gladstone Avenue / Denison Street.
2. Keira Street.
3. Corrimal Street.

BUSES

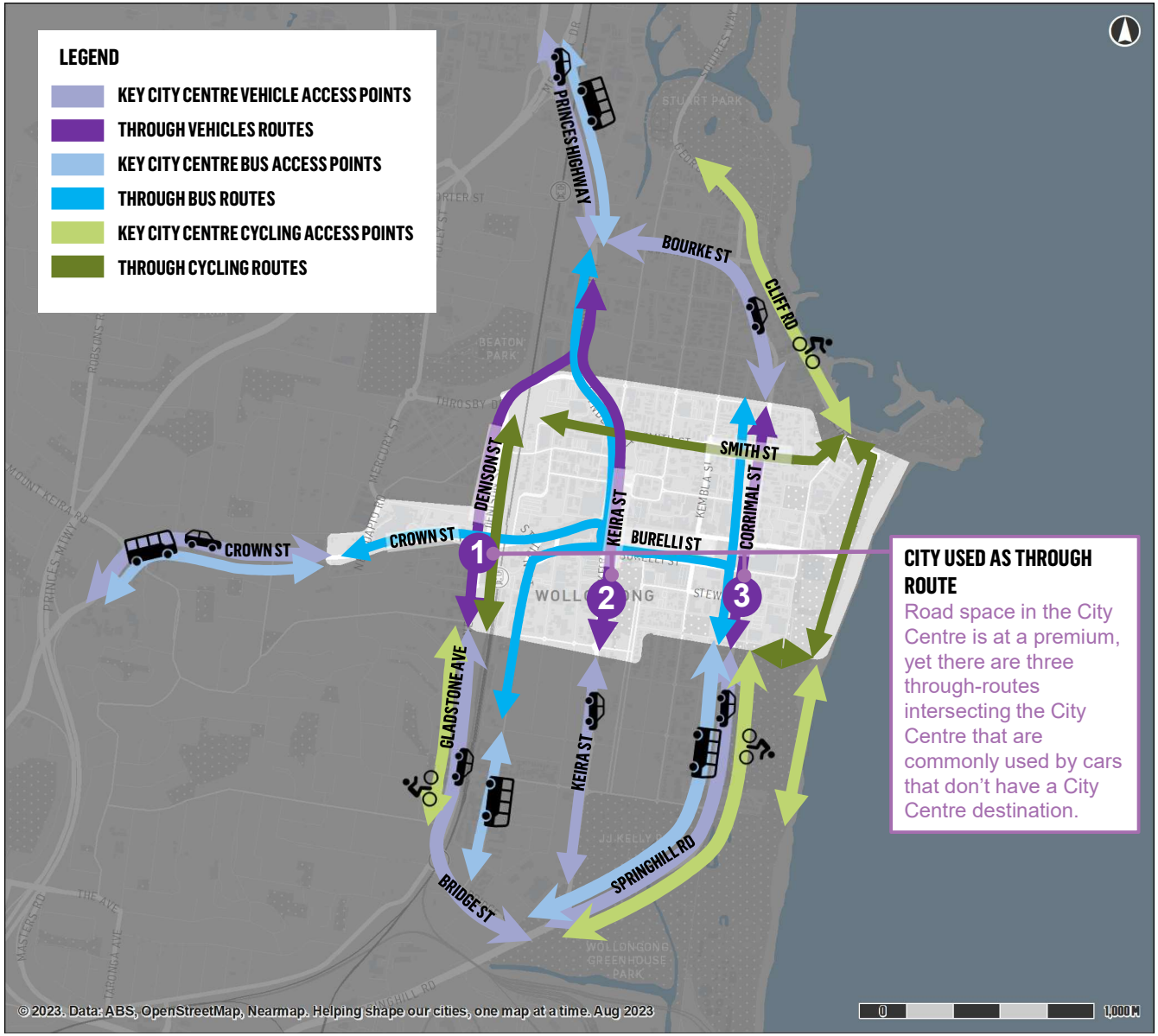
The city centre is serviced by several key bus routes which complement other public transport options. Services from the north follow the Princes Highway onto Burelli Street with North Wollongong routes servicing Corrimal Street. From the south, direct bus services operate from Port Kembla via Springhill Road, Dapto via Princes Highway and Shellharbour along Shellharbour Road.

BICYCLES

There is limited bike access to or through the city centre currently. The coastal shared path along Cliff Road is the main route into the city centre, while Smith Street provides a high-quality through connection in the city centre, which also connects to Denison Street and the Wollongong Train Station.

INSIGHT

There are three key north/south city centre through routes, being Denison Street, Keira Street and Corrimal Street.



CURRENT ACTIVE TRANSPORT

Wollongong City Centre is ideal for walking and cycling due to its size and relatively flat nature. Almost all destinations within the city centre can be reached within a 1-kilometre journey.

There are several cycling corridors through the city centre, notably:

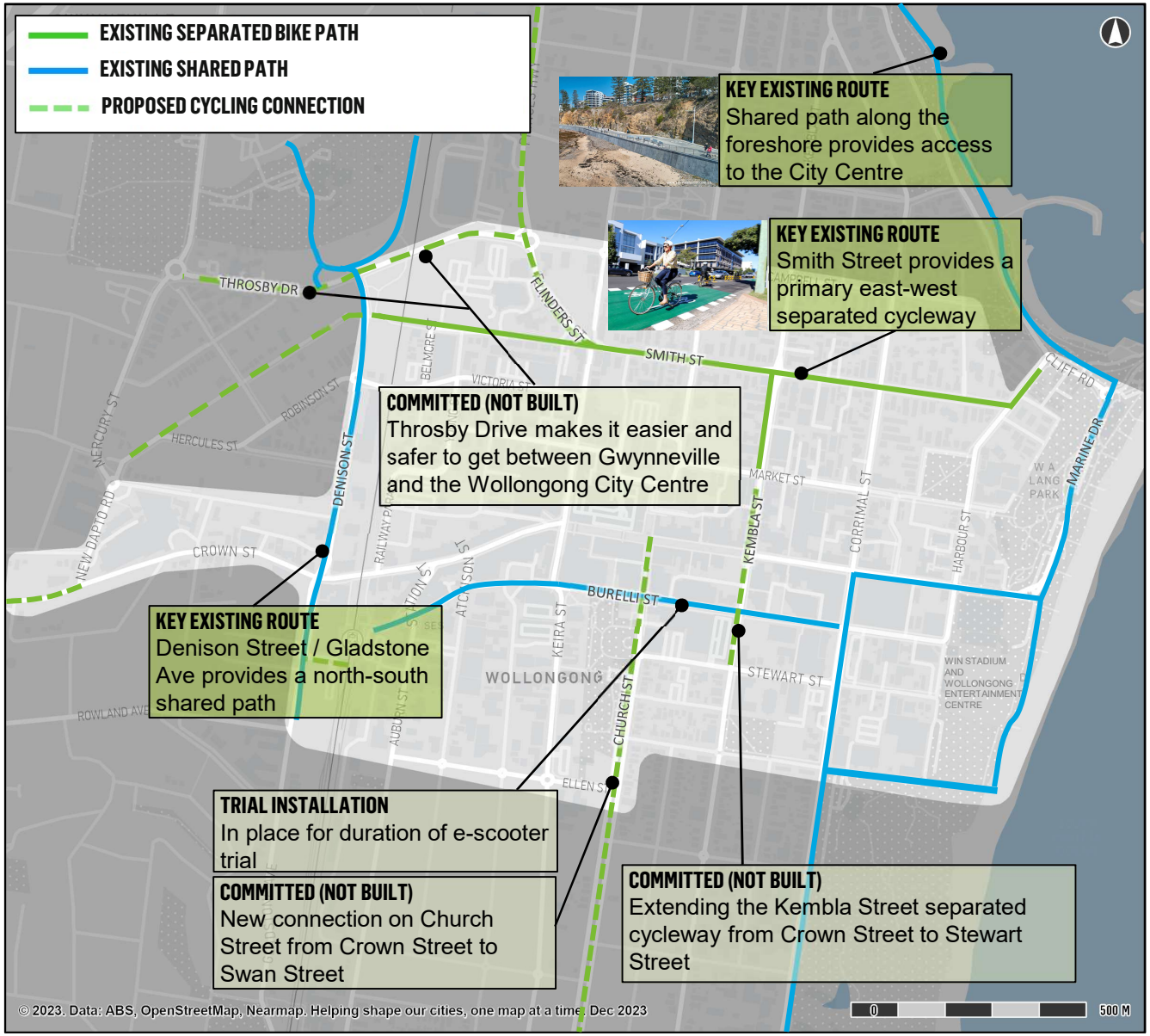
- Smith Street provides a primary east-west separated cycleway
- Denison Street provides a north-south shared path
- Shared path along the foreshore provides access to the city centre

The Wollongong Cycling Strategy 2030 outlines the Council's priority of strengthening major east-west and north-south links to ensure cyclists can safely move through the city centre. Further notable committed active transport infrastructure improvements include:

- Continuous footpath treatment design projects
- Establishment of a shared path along the extent of Burelli Street
- Extending the Kembla Street separated cycleway from Crown Street to Stewart Street
- New shared paths on Church Street, Throsby Drive and Flinders Street

INSIGHT

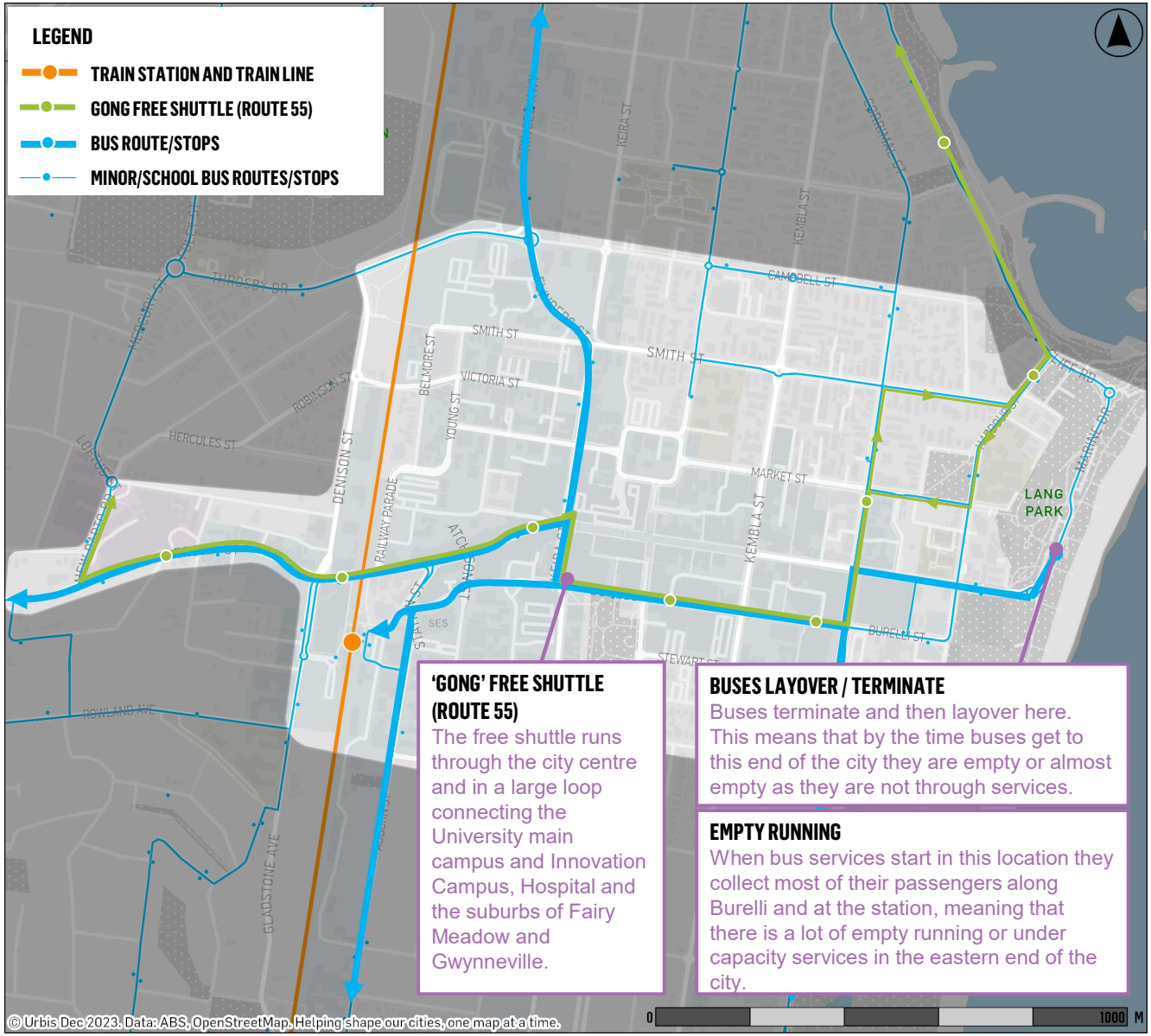
The existing cycling connections in the city centre are disjointed and a range of linkages are needed to create a connected cycling network



CURRENT PUBLIC TRANSPORT

The city centre is served by several key bus routes that complement the Wollongong Train Station, ensuring comprehensive public transportation coverage. During peak hours, there are three train services each hour heading towards Sydney, including faster express options. However, by the time these buses reach the eastern parts of the city, they tend to be empty or near empty as they are non-continuous services that terminate at Lang Park. This pattern is mirrored for buses commencing operation from Lang Park – they start off with few passengers and only start to fill up as they approach Crown Street and the train station. This leads to a considerable amount of travel with few passengers onboard, which could be reduced if the buses operated on continuous, or 'through', routes that passed through the city centre without terminating there.

A broader conversation on public transport is necessary to address the evolving needs of the Wollongong community. Service planning needs to include multiple layovers in Wollongong to ensure efficient connectivity and accessibility for all residents and visitors.



INSIGHT

There is bus empty running and under capacity running in the city centre due to terminating services rather than through routes.

CURRENT CRASH DATA ANALYSIS

Over a 5 year period (2017 to 2021) a total of 211 crashes were reported within the study area. This means that on average there is a crash requiring the assistance of police or ambulance every 8-9 days in the city centre. Crashes that don't have an emergency services call out are not recorded in this data.

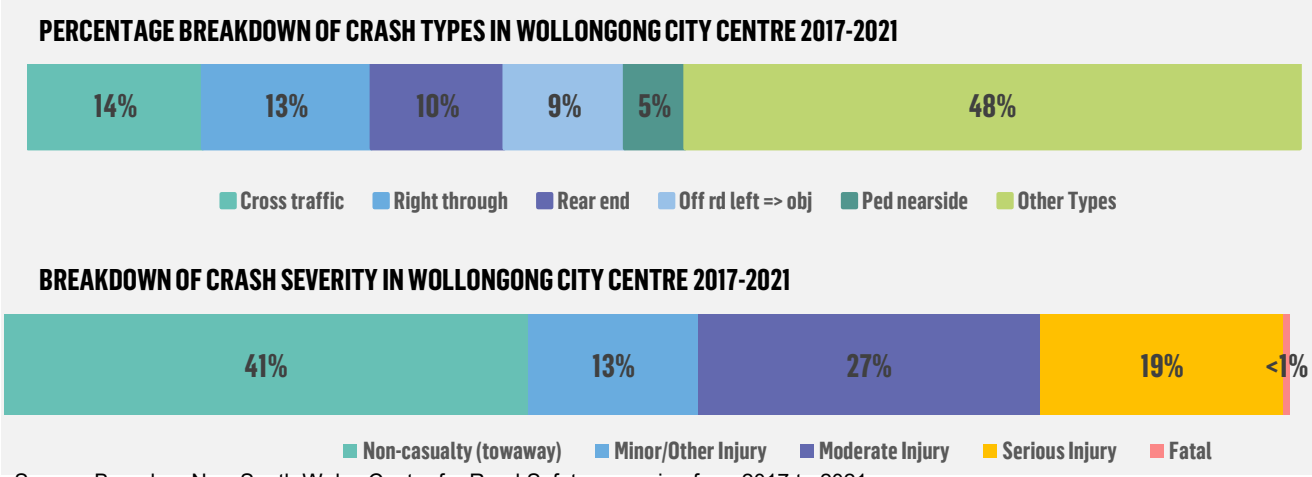
Some notable features involving crashes include:

- There were 40 crashes that led to serious injuries and one fatality was reported.
- The majority of crashes were non-casualty incidents, resulting in minor or moderate injuries[1].
- 5 specific crash types accounted for 52% of all incidents. These crash types are indicative of typical accidents that occur in central business district (CBD) areas and typically include rear ends and cross traffic crashes (such as a t-bone crash).
- The map on this page shows the location of crashes involving vehicles hitting pedestrians and cyclists only. Further detail on crash types is found in **Appendix C**.

INSIGHT

The vast majority of crashes in the city centre occur at intersections. This highlights a key focus for safety improvements and the need for thoughtful intersection design.

1) Although notably the NSW Centre for Road Safety only reports incidents that involve a police report, ambulance report, or tow truck call, potentially excluding some minor crashes from their records, so all these crashes were significant enough to involve a response from police or ambulance.



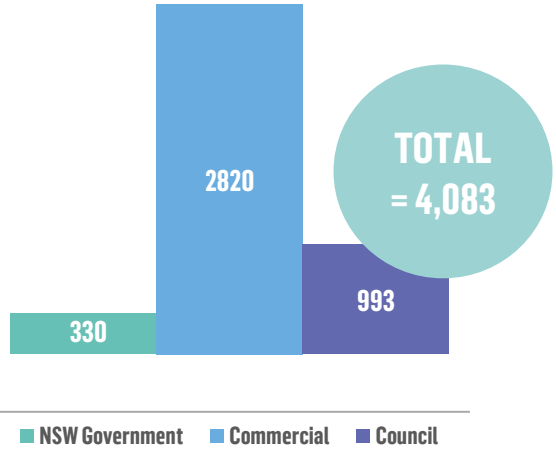
Source: Based on New South Wales Centre for Road Safety, spanning from 2017 to 2021

OFF STREET CAR PARKING

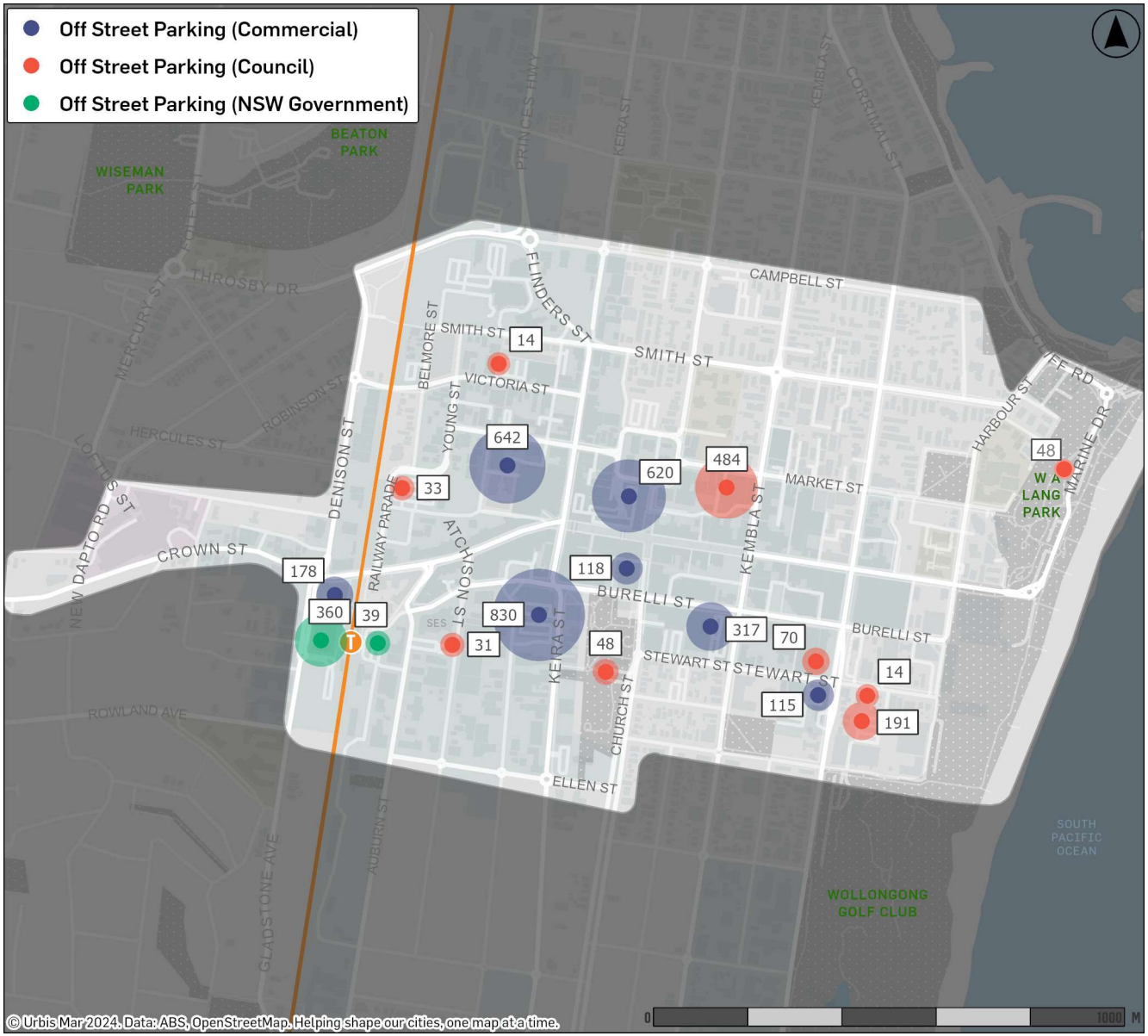
Council provides low-cost off-street parking ($0.6 - $0.8 per hour) during working hours on weekdays (8.30 am to 4.30 pm), while after hours parking is free. Some commercial car parks also offer two-hour free parking.

In the city centre study area, more than 4,000 off-street car parking spaces are available in commercial, Council and NSW Government car parks.

On-street parking is also available throughout the city centre. This includes a mixture of both paid/timed parking in the city centre core and unrestricted free parking in more residential on the outer edges of the city centre.



No. Off-street parking spaces in study area and nearby



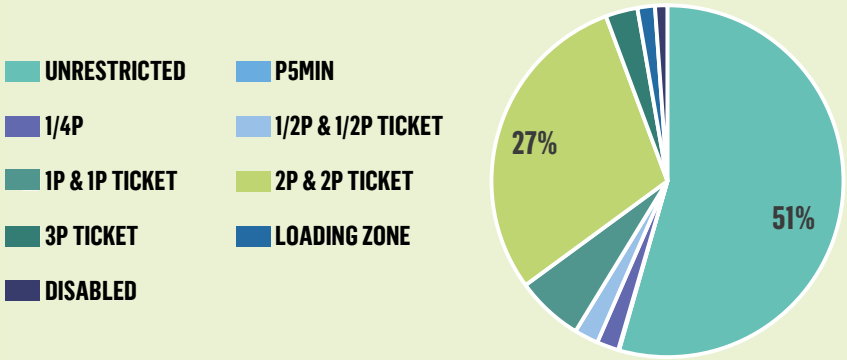
INSIGHT

Cheap and abundant parking has been linked to greater dependency on cars, resulting in more private vehicle trips, greater congestion and associated environmental and health impacts.

Note – Bar chart and map data exclude private and Council leased parking.

CAR PARKING STRATEGY – CURRENT SITUATION

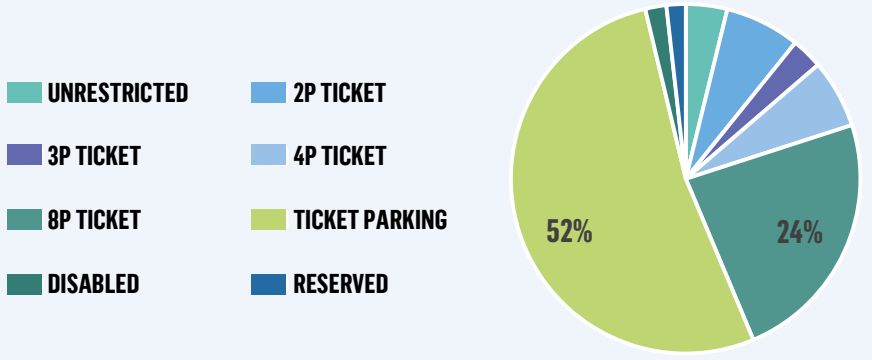
ON STREET PARKING COMPOSITION – ALL PRECINCTS



INSIGHT

Half of all on-street parking in the city centre is unrestricted. Unrestricted parking encourages car use even when there are alternative options. This results in less parking availability.

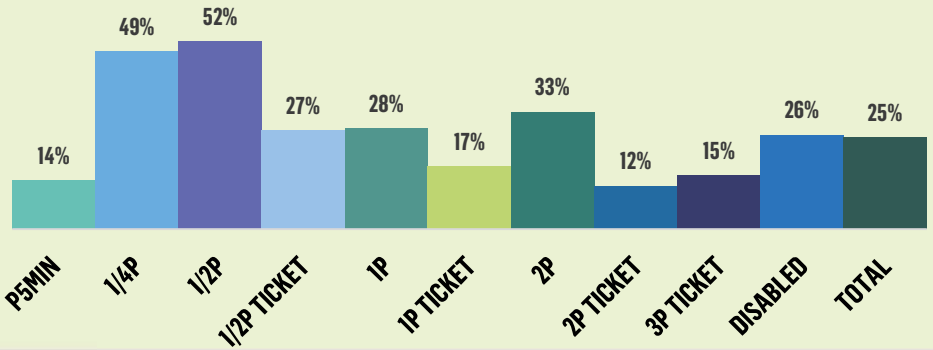
OFF-STREET PARKING COMPOSITION, COUNCIL-OPERATED CAR PARKS



INSIGHT

More than 75% of off-street parking is unrestricted or 8P and is primarily intended for workers. This group contributes minimally to the city's retail economy compared to those using shorter-stay parking options.

ON STREET, NON-COMPLIANCE

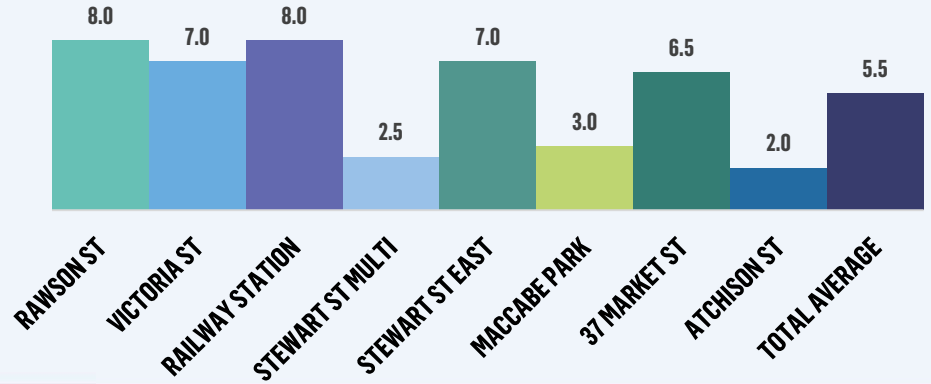


INSIGHT

There are high levels of non-compliance on on-street spaces, particularly those that are not ticketed. In total 25% of vehicles parking on the street are not complying with restrictions.

Note: Loading zone non-compliance data not captured

OFF-STREET PARKING AVERAGE LENGTH OF STAY (HOURS)



INSIGHT

Stays over 6 hours are likely for workers, while those under 3 hours may be for visitors including shoppers. Off-street parking costs $76,000 per space in a basement parking station[1]. Using non-car modes to access the city centre represents a significant infrastructure cost-savings over time.

1) Based on www.ptcconsultants.co/construction-costs-car-parks, assumes 20m2 required for parking space plus required circulation space.

THE CASE FOR CHANGE

This chapter outlines what the potential scope is for change based on the views of city centre visitors, workers, and residents. It also compares cycling trends in Wollongong and the Australian context highlighting opportunities.

03

THE COMMUNITY WANTS CHANGE QUALITY PUBLIC TRANSPORT AND WALKING

In 2020, Council sought community input and surveyed Wollongong residents about their access to the city centre. It captured their views on existing infrastructure and the reasons behind their choice of transportation. The findings revealed that while sustainable transport modes were widely used, driving remained the dominant mode.

Respondents expressed concerns about:

- Inaccessible footpaths.
- Safety issues at night.
- A lack of appealing destinations.

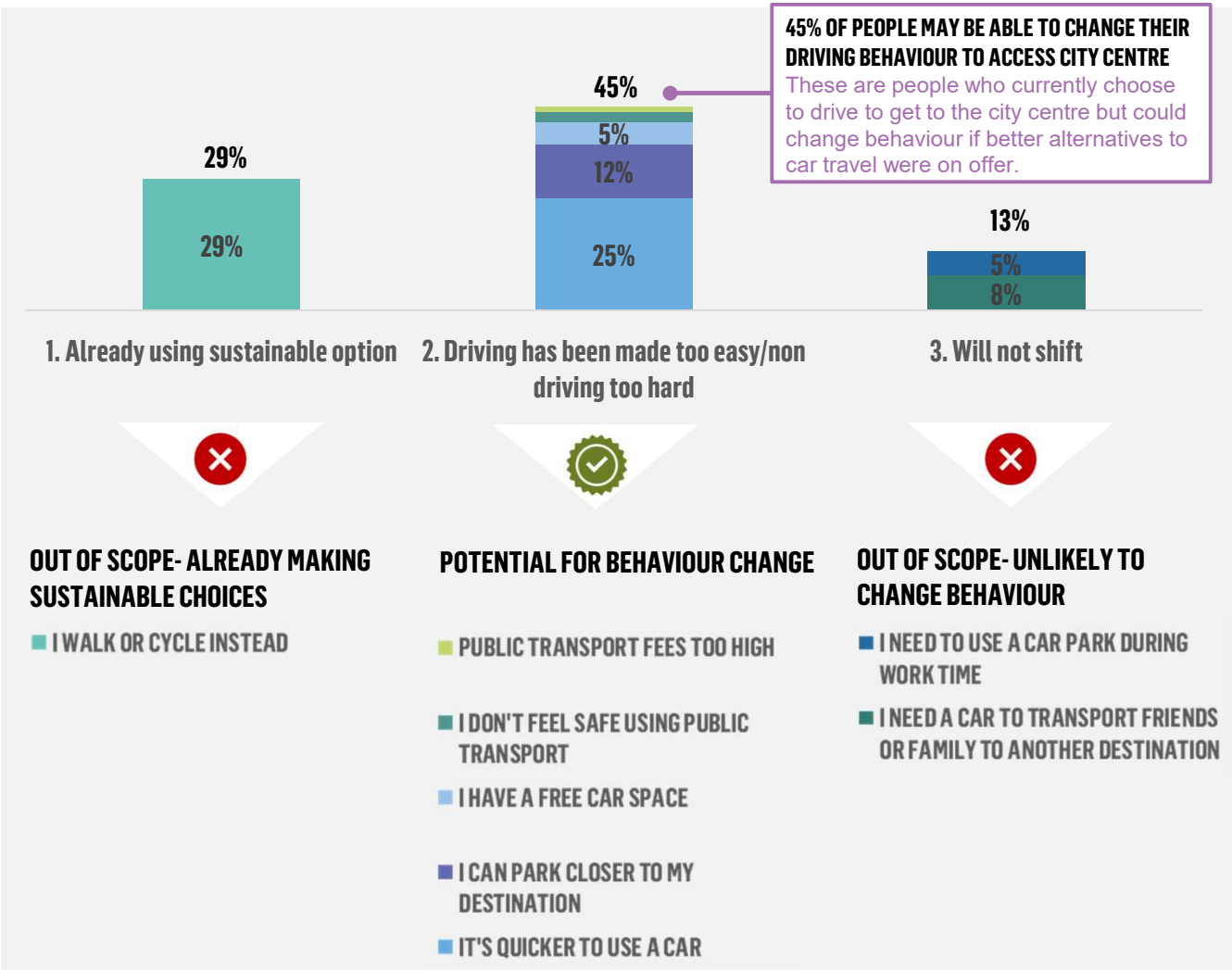
Many people found it quicker to drive or park closer to their destinations than using public transport. Issues like infrequent and indirect services deter public transport use. Among those not using public transport:

- 29% of people choose not to as they are already using other sustainable modes (walking and cycling).
- 13% of people won't change as their family/work structure requires a car.
- 45% of people could potentially change their commuting behavior. They currently choose to drive because parking and driving are quite efficient, while public transport is not.

INSIGHT

People will choose the option that makes the most sense (time, convenience, cost etc.). The challenge is redressing the balance to ensure more people find greater utility in public transport use above car use for city centre access.

COMMUNITY'S REASONS FOR NOT USING PUBLIC TRANSPORT TO CITY CENTRE



Source: Wollongong City Council (2020) Access and Movement for People Engagement Report
Note: Those who responded 'other' reason for not using public transport have not been included in this analysis.

THE COMMUNITY WANTS CHANGE ACTIVE TRANSPORT TRENDS

The 2023 Walking and Cycling Participation Survey sheds light on current active transport trends. It revealed that about 9% of Wollongong residents hadn't walked in the past week, above regional and state averages but falling below the national average.

On the cycling front, Wollongong outperformed both state and national averages, with a 47% cycling participation rate over the last year. The survey shows an increase of 5% in cycling participation over the past year, indicating the community interest in active transport.

Recreational cycling trips were particularly popular, surpassing state and national averages. However, cycling for transport lagged significantly behind state and regional benchmarks, with just 23% of people cycling for transport in the last month. This suggests untapped potential for fostering a robust cycling culture in Wollongong.

INSIGHT

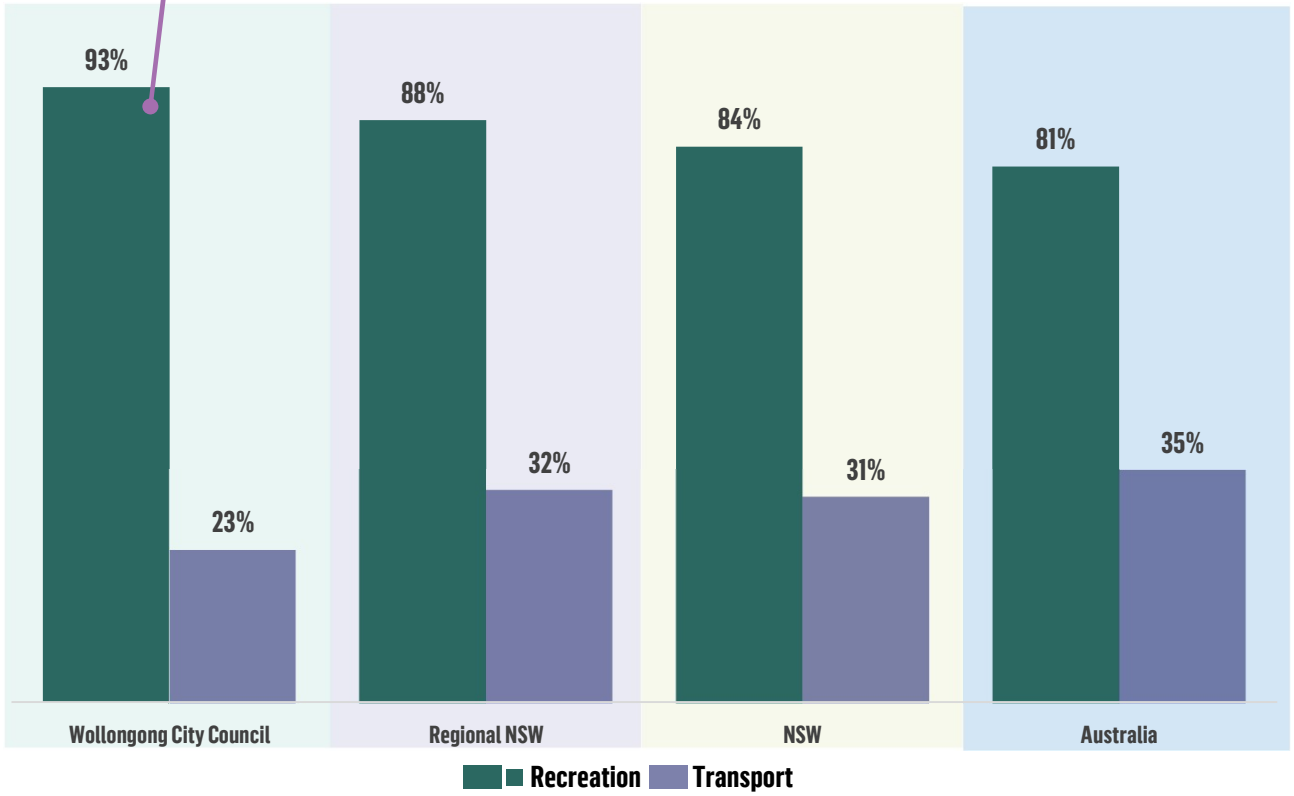
There is a strong recreational cycling culture in the Wollongong LGA which doesn't translate as strongly to those cycling for transport and commuting purposes. As the primary place of work, shopping and entertainment, it is vital to ensure people can access their city centre by bike safely and comfortably.

WOLLONGONG RESIDENTS: CYCLING FOR RECREATION COMPARED TO CYCLING FOR TRANSPORT IN THE LAST MONTH

CYCLING FOR RECREATION VS TRANSPORT

A greater proportion of people cycle in the Wollongong LGA for recreation than the national average. Inversely, far fewer cycle for transport. Recreational cycling can be used as a 'gateway' for functional cycling trips such as work commutes, shopping trips and more.

… there was a 5% increase in cycling participation in Wollongong over the last year.



Source: Wollongong City Council (2023) Walking and Cycling Participation Survey

THE COMMUNITY WANTS CHANGE PERCEPTIONS OF SAFETY

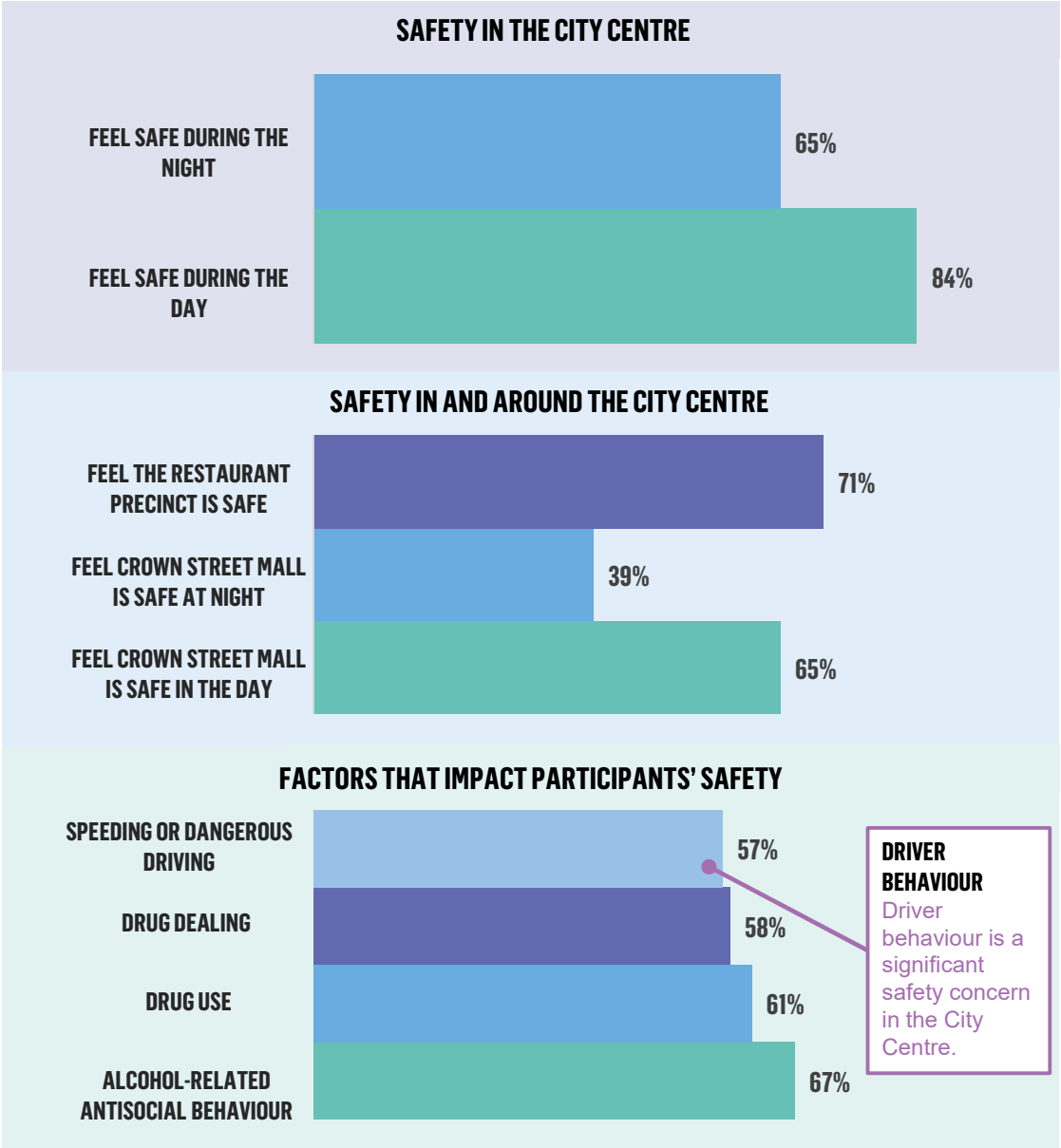
Perception of safety is a gendered issue. In NSW, 30% of women feel unsafe in public spaces during the day (increasing to 90% of women at night)[1]. Poor safety/perceptions of safety are inhibitors to vulnerable groups (women, young people and elderly people) walking more often. The 2017 Perceptions of Safety Survey conducted by Wollongong City Council highlighted key concerns regarding safety

- At night in the city centre.
- Along Crown Street Mall (even during the day).
- Anti-social behaviour related to alcohol and drug dealing/use.
- Speeding or dangerous driving.

Safer Cities: Her Way is a collaborative partnership project between Transport for NSW and Wollongong City Council to improve perceptions of safety for women, girls and gender diverse people when travelling to, through and within public spaces and transport hubs.

General issues relating to the city centre raised by participants included poor lighting, antisocial behaviour, and lack of safe crossing options at busy unsignalised intersections.

Safety concerns in the Wollongong Train Station and its surroundings were raised due to theft, antisocial behaviour, break-ins, and drug addiction as well as harassment while waiting for the train.



Source: Wollongong City Council (2017) 'Key findings', *Perceptions of Safety Survey*.

1) Women's Opportunity Statement: Women's Safety: www.nsw.gov.au/womens-opportunity-statement/background/womens-safety

GUIDING THE STRATEGY

This chapter outlines the existing policy framework in which this Movement and Place Plan needs to operate. Relevant Council policies, notably *A City for People: Wollongong Public Spaces Public Life* is strongly relied upon to guide this work as well as the State Government's *Movement and Place Framework*.

04

FROM PLANNING TO DOING: THE STRATEGIC FRAMEWORK

1

Community Strategic Plan

2

Informed by previous work on Urban Design and public realm, Transport planning studies, Sustainability plans, Planning Frameworks and Plans.

2

The Wollongong Integrated Transport Strategy sets the strategic vision, opportunities and action plan.

3

Some of the actions will require **detailed planning and development**

4

During **Delivery Phase** actions in this plan will be included in resourcing and delivery programs

VISION FOR WOLLONGONG CITY CENTRE

In 2016 the City of Wollongong developed A City for People: Wollongong Public Spaces Public Life together with Gehl Architects with the vision that:

In the 21st century Wollongong City Centre will be a people orientated, sustainable and liveable city. Wollongong City Centre is a thriving and unique regional city, delivering a diverse economy and offering a high quality lifestyle. The City Centre is nationally recognised as a liveable city and is the place where people want to live, learn, work and play.

Four themes to support growth towards this vision include

1. Celebrate the uniqueness
2. Develop a human scale city
3. Grow a living city
4. Create an accessible, pedestrian friendly city

A key action of A City for People was to undertake a City Centre Planning & Design Review. The Urban Design Framework addressed two key elements of the Review, namely Economics and Urban Design analysis and recommendations. The Urban Design Framework provided Objectives, Directions and Strategies to support realisation of the Vision. Most relevant to the City Centre Movement Place Plan are the following elements addressing the public domain and connections in Wollongong City Centre.

Objective - **A green and walkable city**

The city street grid is clear and facilitates walking. Revitalised public spaces are a catalyst for growth and support an active. healthy community. A significant increase to the city's tree canopy contributes to a green and sustainable city.

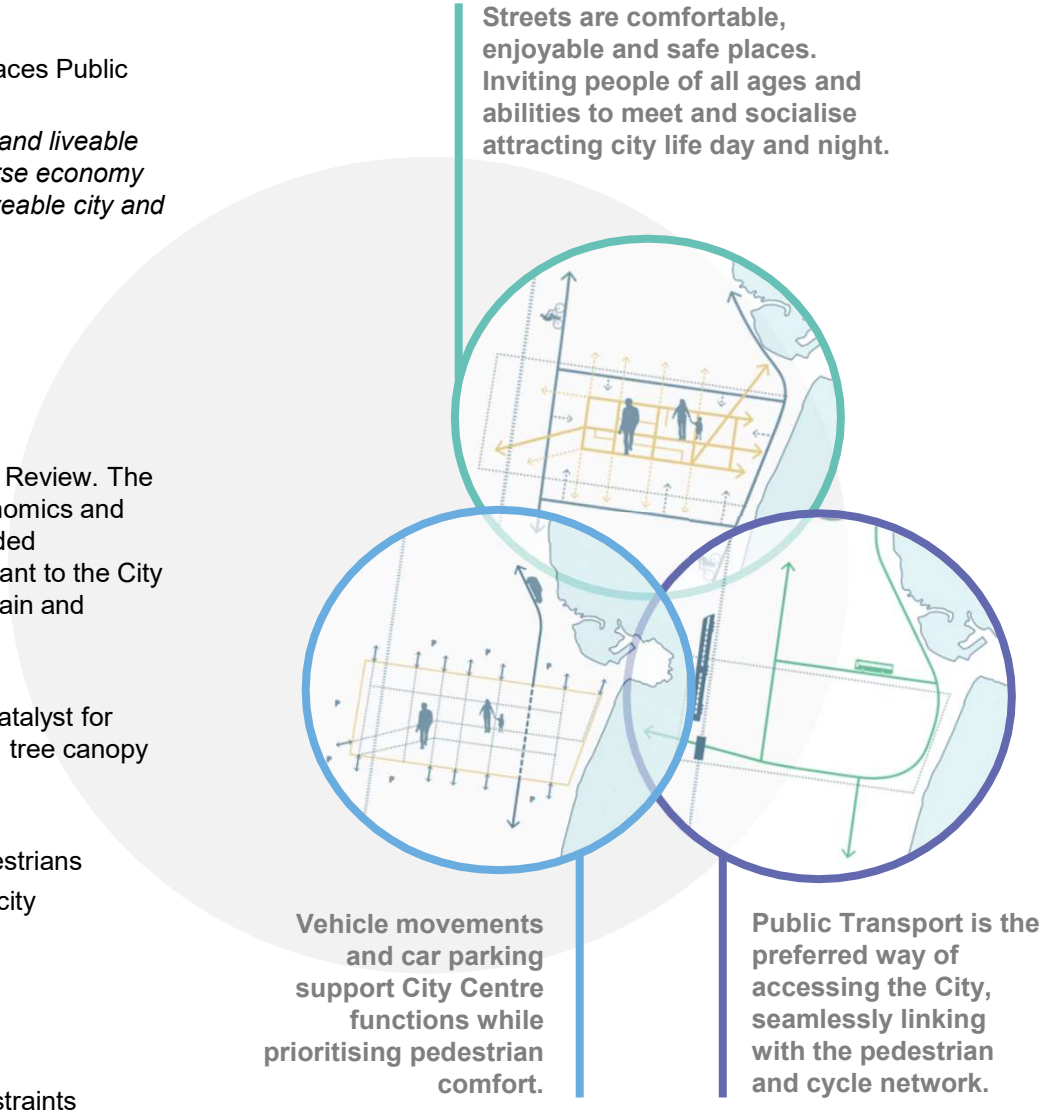
Directions

- Strengthen the structure of the city through a permeable grid that prioritises pedestrians
- Create a green network of open spaces for a sustainable, healthy and attractive city
- Protect sunlight to key public spaces.

Strategies

- Enable the mode shift from cars to public transport.
- Identify roads for vehicular traffic and servicing.
- Establish a tree-centric approach to deliver greening in response to existing constraints

The Movement & Place Plan seeks to support the vision setout in A City for People and build on the objectives, directions and strategies put forward in the Urban Design Framework.



MOVEMENT AND PLACE

The NSW Movement and Place framework is a cross-government framework for planning and managing roads and streets across NSW. This framework defines four key street environments:

MAIN ROADS

Main roads preference movement over place functions and are essential for the efficient movement of people and goods.

MAIN STREETS

Main streets have high place intensity and movement function.

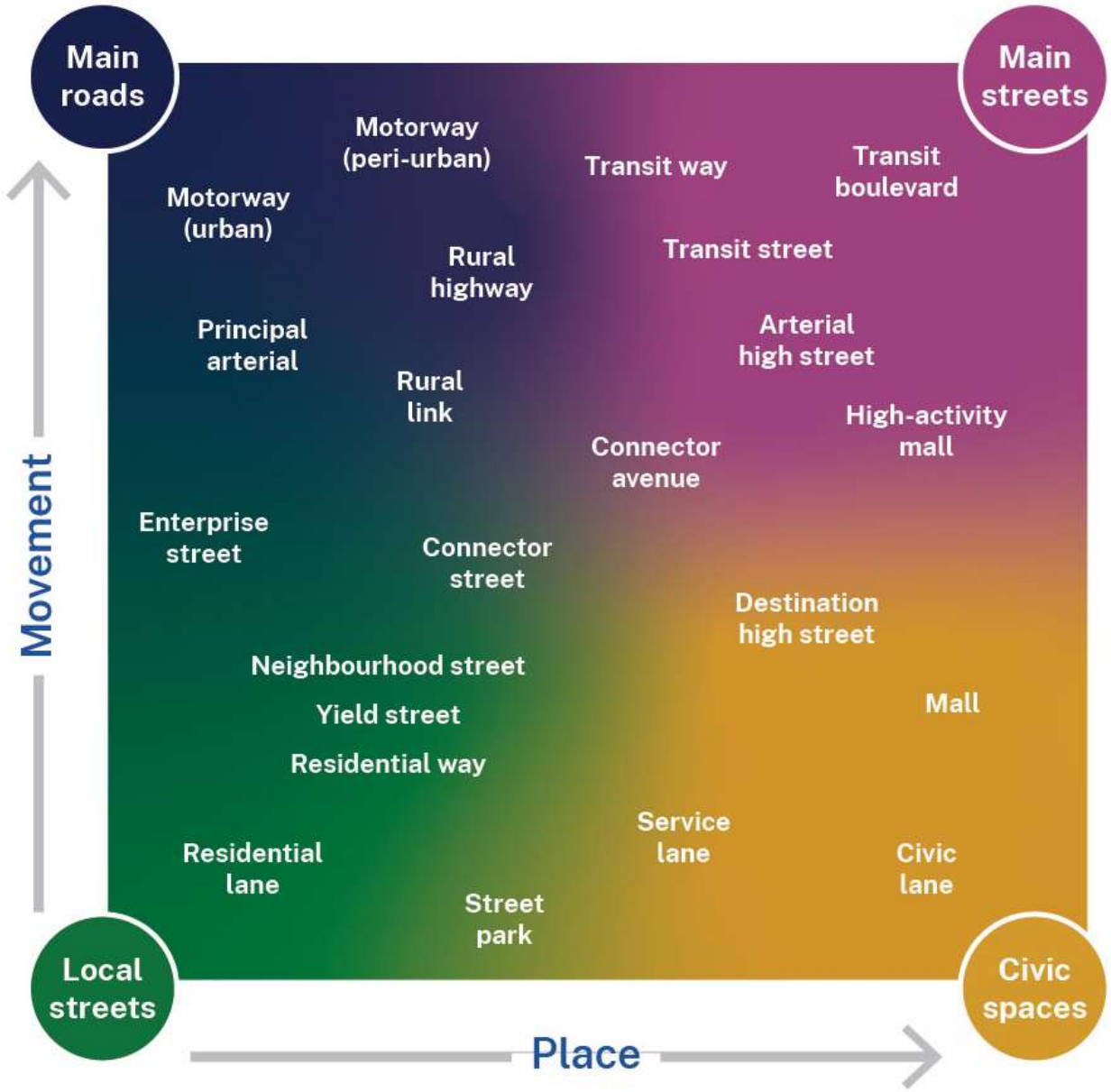
LOCAL STREETS

Local streets are influenced by their edge conditions and adjacent properties.

CIVIC SPACES

Civic spaces are at the heart of communities and are important destinations for large numbers of people.

Within the 4 environments, 21 road and street types are described in the framework. While these categorisations are not exhaustive, they intend as an aspiration for how roads and streets in NSW should be designed to fit their purpose and serve their user.



STREET FUNCTIONS / MOVEMENT AND PLACE - NOW AND FUTURE

This chapter outlines an alternative version of the Wollongong City Centre. It looks at street functions, movement and place and mode-based plans for the City Centre network.

05

05.1
STREET FUNCTIONS - NOW AND FUTURE

EXISTING ROAD/STREET TRANSPORT FUNCTION

The existing transport functions of streets in the city centre of Wollongong have been defined in the map to the right. This provides an overview of how streets are currently being used in the city centre and allows an opportunity to consider if this aligns with the vision of the future.

This map has been explored in a workshop setting with public stakeholders and Council teams to assess the suitability of these functions for the future.

BUSES

Eg: Keira Street

PEDESTRIAN – HIGH QUALITY

Eg: Crown Street Mall

CYCLE ROUTE – HIGH QUALITY

Eg: Smith Street

TRAFFIC - THROUGH

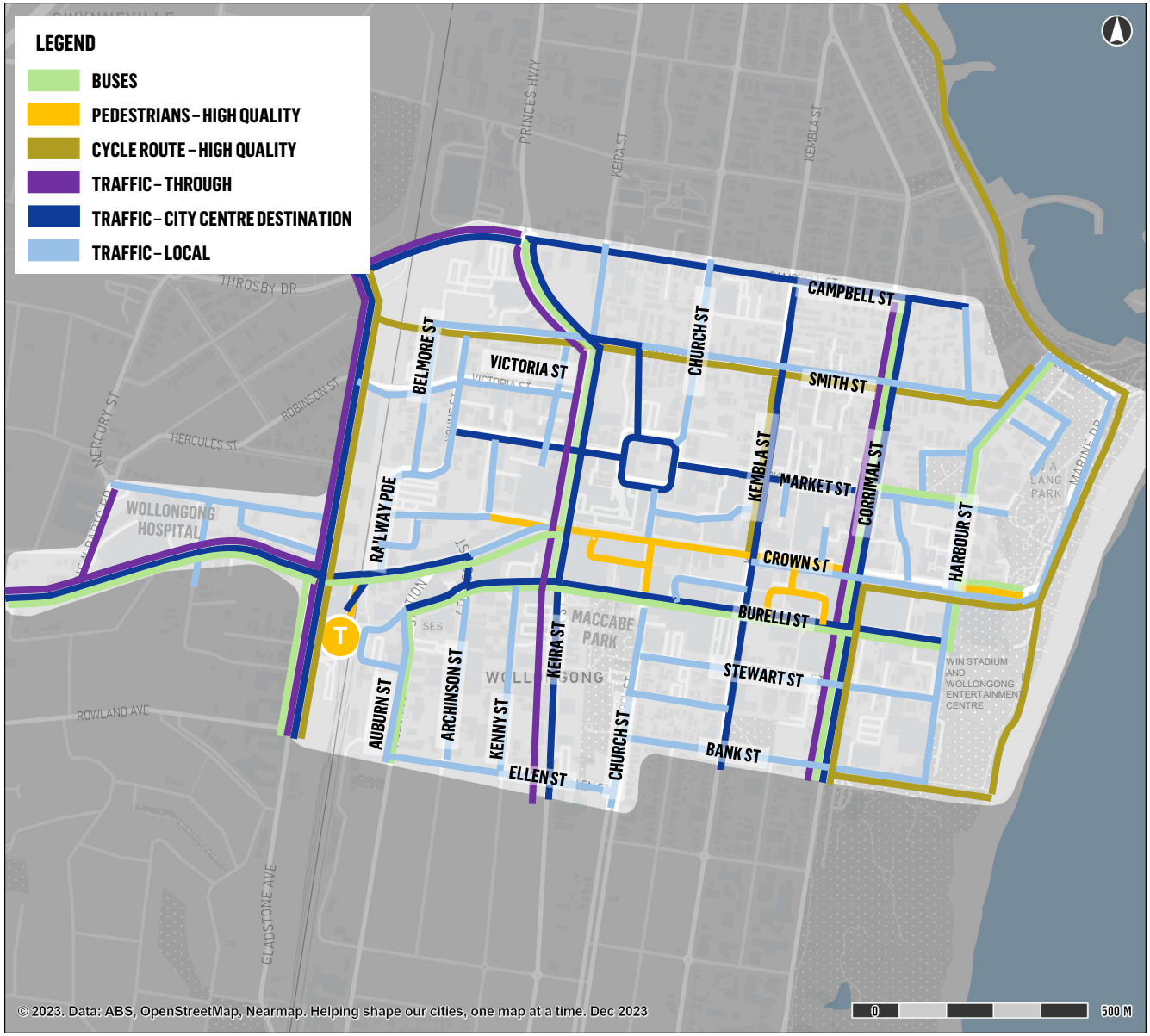
Eg: Corrimal Street

TRAFFIC – CITY DESTINATION

Eg: Market Street

TRAFFIC – LOCAL

Eg: Stewart Street



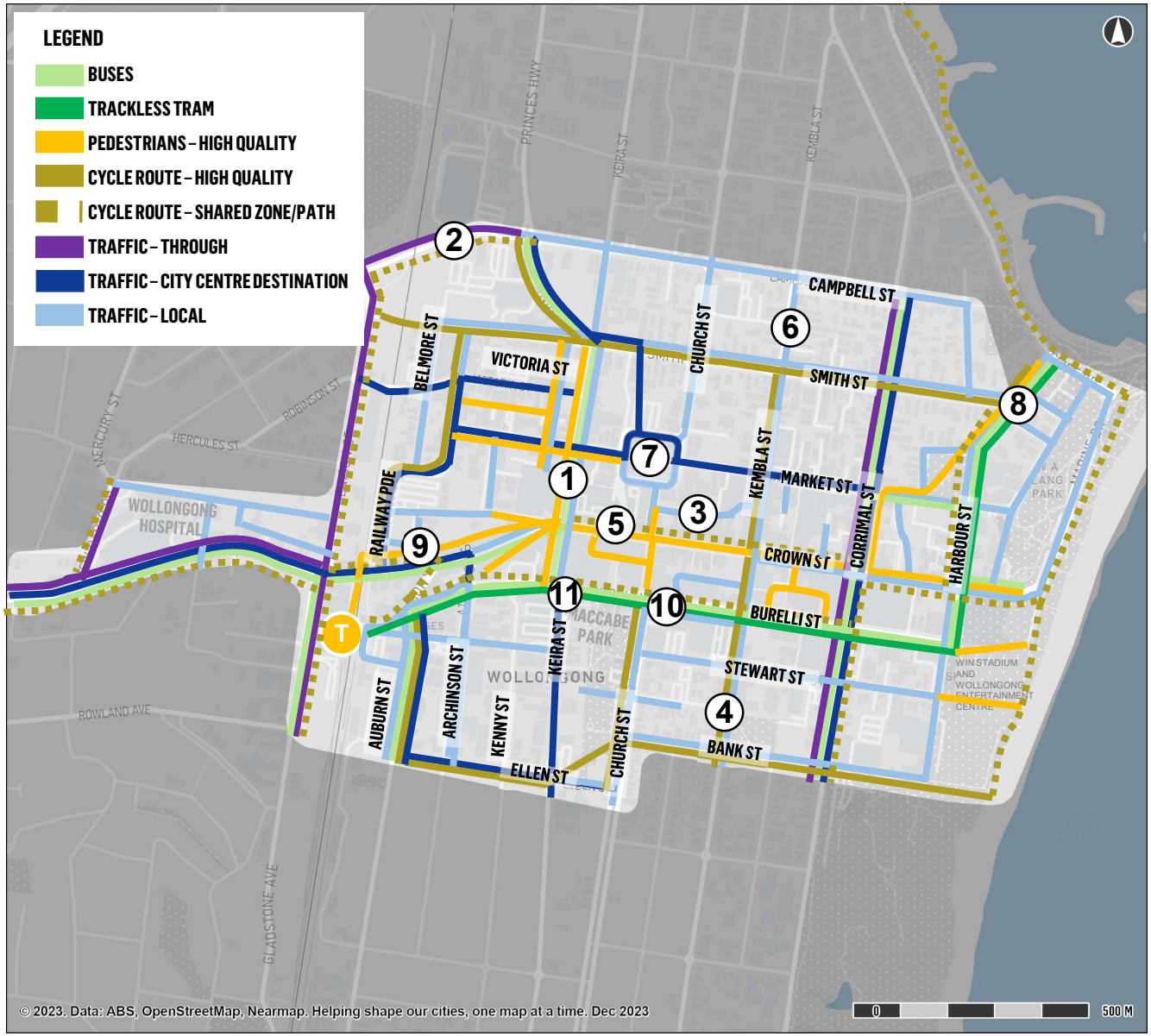
FUTURE ROAD/STREET TRANSPORT FUNCTION

The future function of roads/streets in Wollongong City Centre has developed through collaborative sessions with stakeholders (refer to **Appendix A** for further information on engagement consultation activities) and workshops with the Wollongong City Council project team.

The below list summarises the key changes in road/street functions from the existing situation to the preferred future scenario.

NOTABLE CHANGES

1. Keira Street - from a through route to a pedestrian/bus street
2. Provide a through route around periphery of city - not through it
3. More pedestrian laneways
4. Cohesive N/S and E/W cycling to Crown St Mall and Railway Station
5. Creating a low-speed cycling environment in Crown Street Mall
6. Transitioning more streets to lower-capacity 'local traffic' streets
7. Reallocating road space around Cathedral (Market Street)
8. Continuous footpaths to waterfront via Market Square
9. Guiding pedestrians from train station to Crown Street mall
10. High Quality Public Transport from train station to harbour*
11. New connection from Railway Station to MacCabe Park



* Indicative route only. Subject to further route investigation.

EXISTING MOVEMENT AND PLACE ASSESSMENT

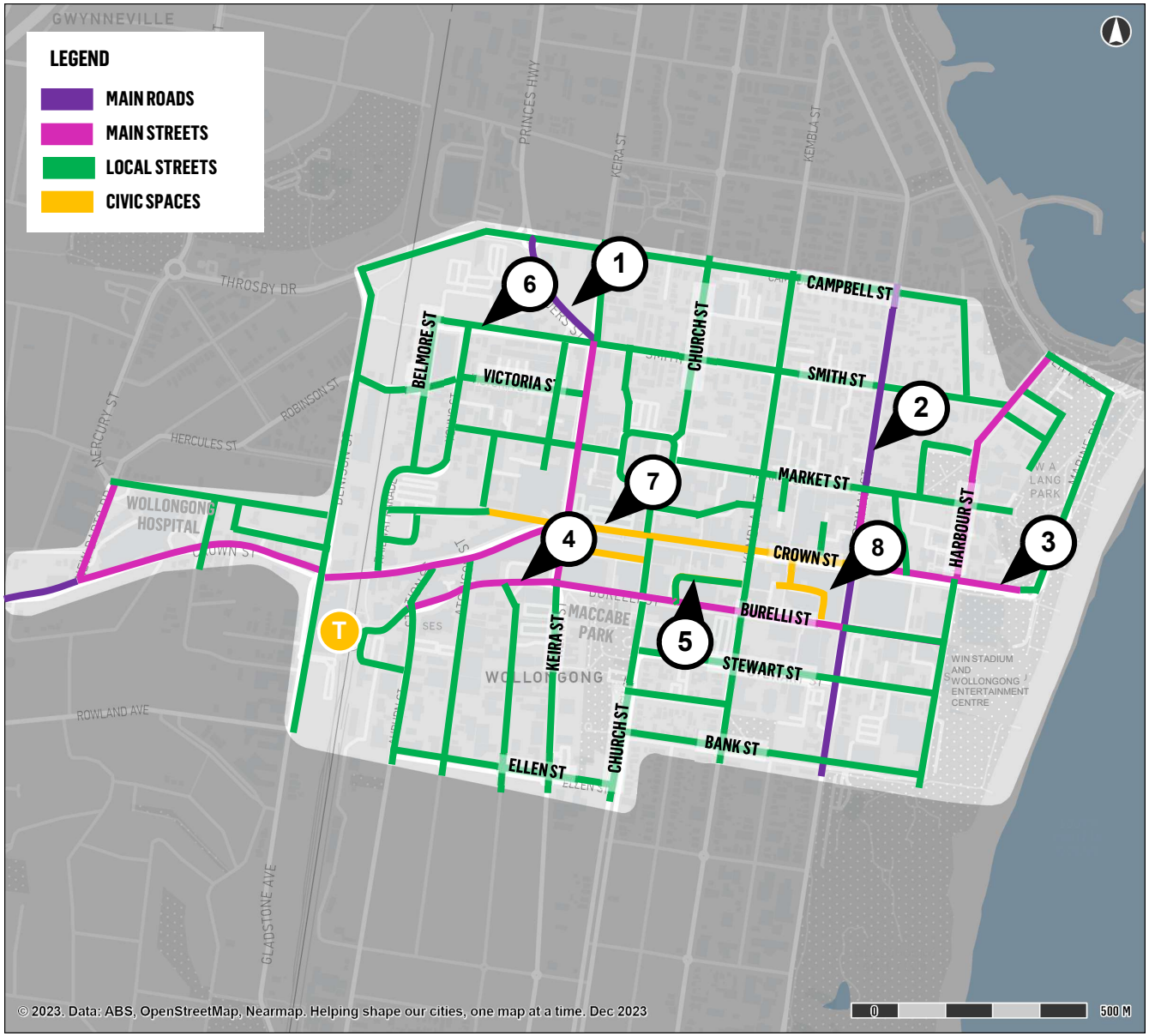
The existing function of roads/streets in Wollongong City Centre has developed using the Transport for NSW Movement and Place Framework.

MAIN ROADS

MAIN STREETS

LOCAL STREETS

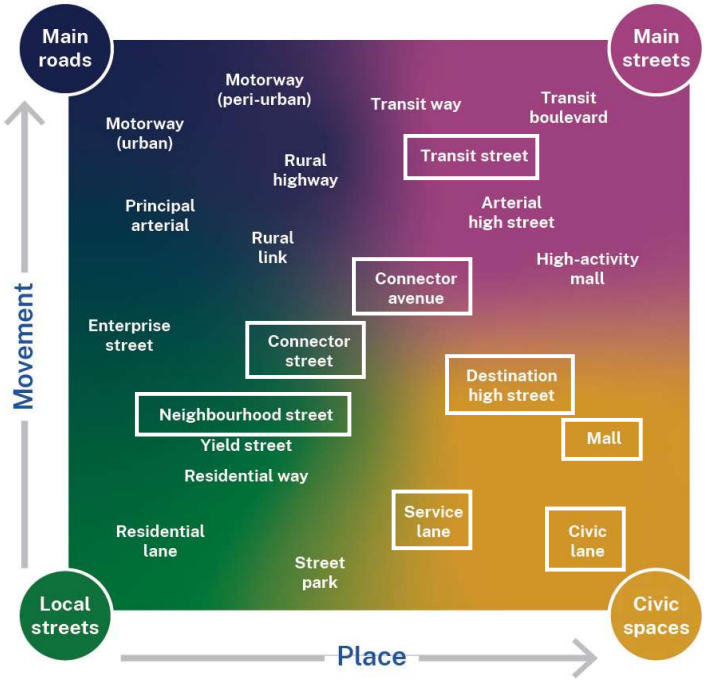
CIVIC SPACES

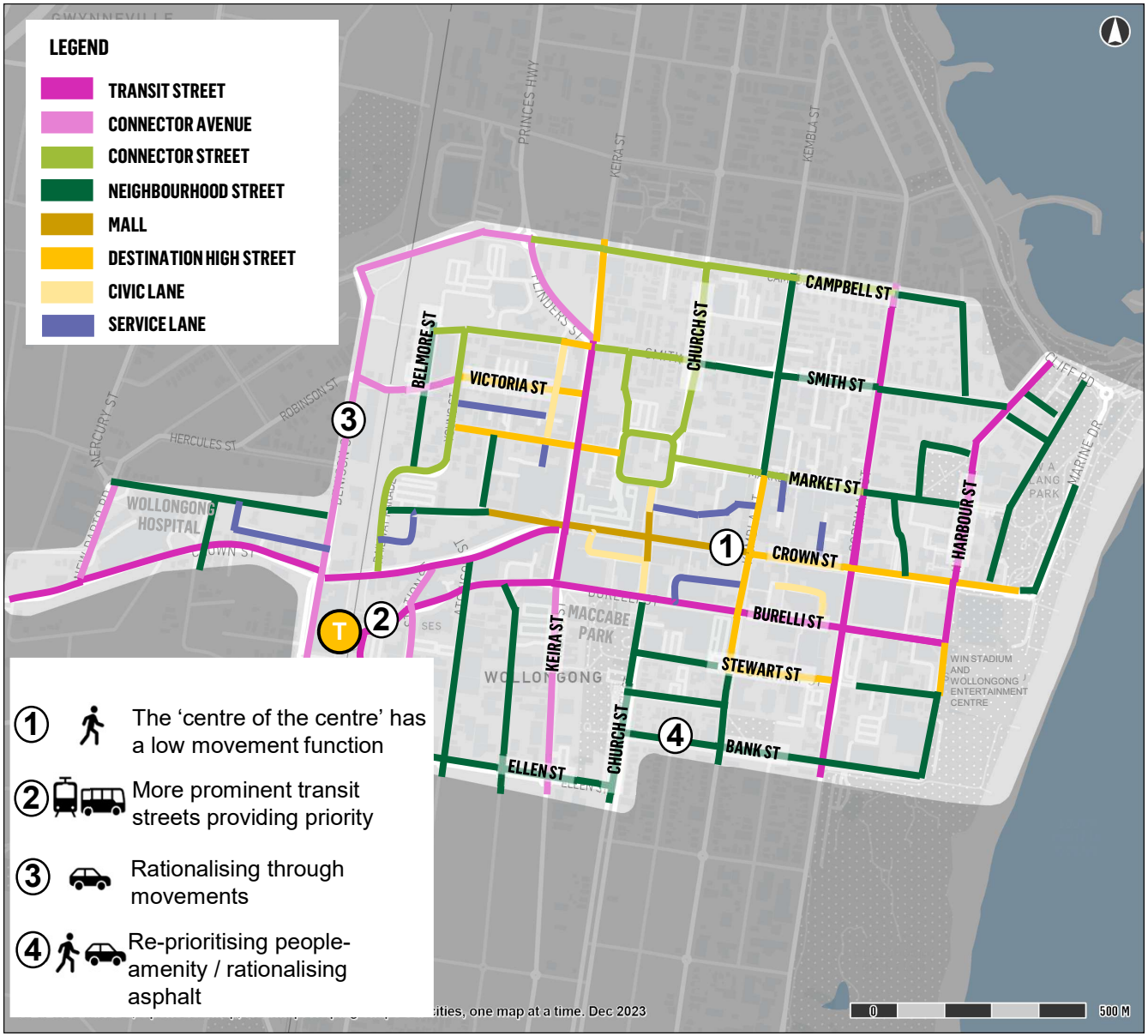


FUTURE MOVEMENT AND PLACE FUNCTIONS

Future Movement and Place functions of streets in the city centre have also been identified through collaborative stakeholder and Wollongong City Council activities (refer to **Appendix C** for further detail). Seven key street types have been identified in the Wollongong city centre as:

- Transit Street
- Connector Avenue
- Connector Street
- Mall
- Destination High Street
- Civic Lane
- Neighbourhood Street
- Service Lane





FUTURE CITY CENTRE VEHICLE ACCESS POINTS & TRAFFIC ROUTES

The primary vehicle movements through the city centre are proposed along Denison Street/Gladstone Street and Corrimal Street.

The enhancement of these primary through routes will relieve traffic on Keira Street and allow it to function with a greater place function. This can support the increased density resulting from planned redevelopments that are earmarked or under assessment in this area (see page 12 and **Appendix B**). Keira Street will remain a key public transport spine and over time with improvements to Denison and Corrimal Streets for through-traffic it is anticipated that some through traffic will prefer to use these routes. This could make space for public transport and improvements to Keira Street such as:

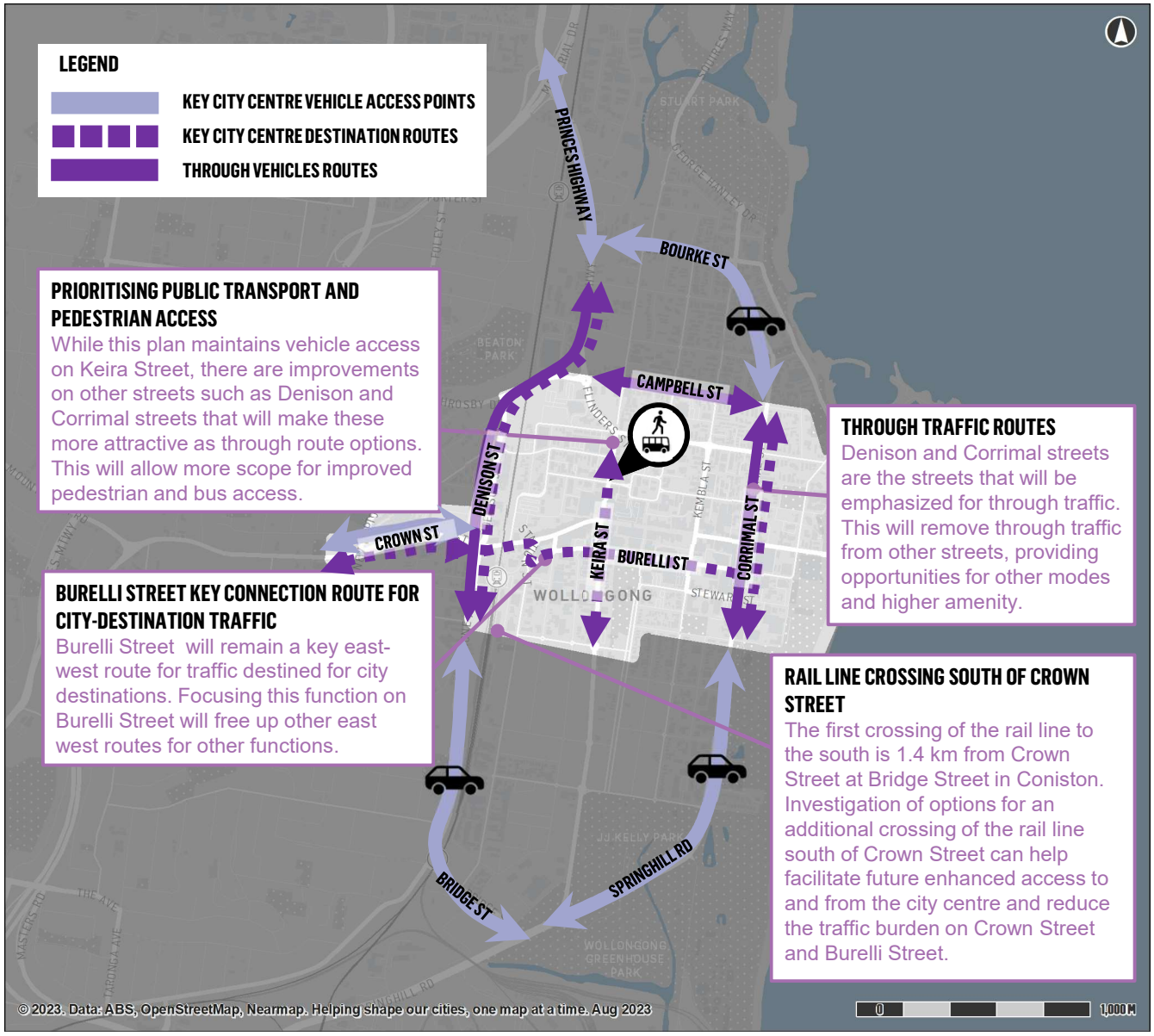
- Pedestrian focused intersections.
- High Street revitalisation (planting, seating, dwelling activities).
- Greater public transport priority and amenity (improved bus stops and waiting areas).

Past studies have shown a strong link between amenity improvements and more people visiting a street[1]. Further detail on The Plan for Walking and what a high is contained in Section 6.1.

The key access points for vehicles entering and passing through the city centre are proposed as:

- Princes Highway and Bourke Street from the north leading into the Corrimal Street.
- Springhill Road from the south leading into Corrimal Street.
- Bridge Street and Gladstone Street from the south leading into Denison Street.
- Princes Highway and Crown Street from the west leading into Denison Street.

1) Urbis, 2023, Attractive Streets Attract More People



WHAT WILL THE CITY CENTRE LOOK AND FEEL LIKE?

What will it feel like to live and visit the Wollongong City Centre in the future if this plan is realised?
This chapter looks at the City Centre through the lens of the key transport functions – Walking, Cycling, Public Transport and Vehicle access.

06

GLOBE LANE, WOLLONGONG CITY CENTRE

06.1 THE PLAN FOR WALKING: A LANEWAY CITY WHERE WALKING IS ATTRACTIVE

A CITY FOR WALKING

A LANEWAY CITY WHERE WALKING IS ATTRACTIVE

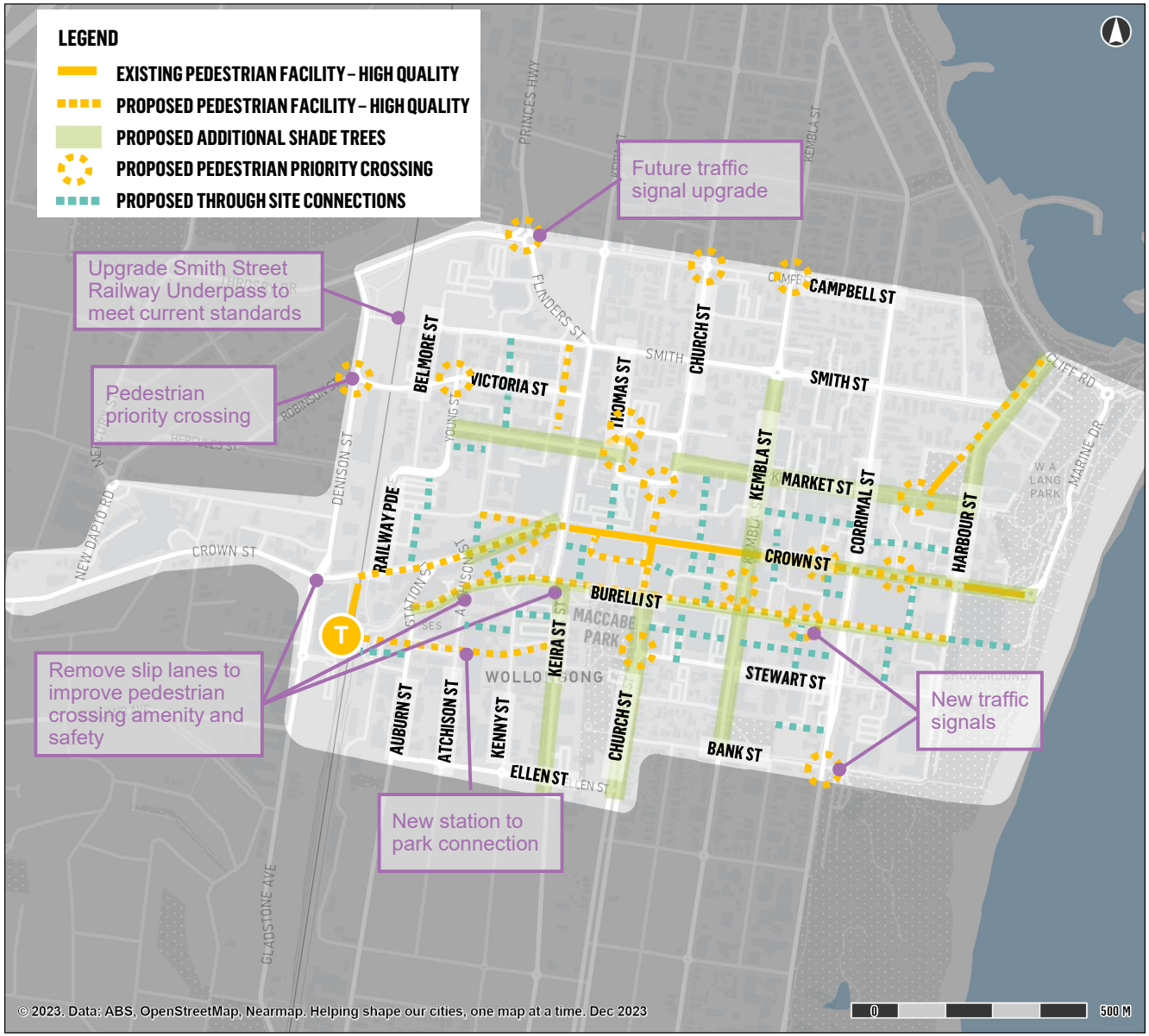
Walking should be safe, accessible and convenient throughout the entire city centre. This page outlines key areas where high-quality pedestrian spaces will be prioritised.

Wollongong City Centre is ideal to navigate on foot, as the vibrant Crown Street Mall and Burelli Street connect the train station to the foreshore. The key pedestrian facilities currently present in the city centre include:

- Pedestrianised Mall provided along Crown Street between Keira Street and Kembla Street.
- High quality pedestrianised spaces on Town Hall Place and Globe Lane.

The future focus for walking in the city centre will be around the following initiatives:

- Guiding pedestrians from the train station to Crown Street Mall via Crown Street and the WIN Grand Development.
- Creating a pedestrian space along Keira Lane, building upon the vision of a laneway city.
- Improving pedestrian facilities along the extent of Crown Street to the east of Crown Street Mall.
- Improving pedestrian facilities from Crown Street to the foreshore via Market Square.
- Street tree planting along Market Street, Kembla Street, Harbour Street and enhanced planting where possible on proposed high quality pedestrian routes.
- Investigating a connection between MacCabe Park and Wollongong Railway Station.



Note: Accessible kerb ramps to be provided as part of any footpath renewal or new shared path project.

PEDESTRIANS

A CITY THAT CRAVES WALKING

Wollongong is a city that is convenient for pedestrians. The relatively small size of the city centre and concentration of employment make it an ideal place to live and work within walking distance.

STAKEHOLDER VOICES

As a part of the workshops, we heard the sentiments of people and heard about their opinions on walking in the city centre.

"

- *Lower Speeds are required in higher use areas to encourage walking and cycling.*
- *The entire CBD needs to support pedestrians and should be 30 km / h.*
- *Pedestrians need to be drawn up Crown Street once they leave the station.*

"

There is clearly a desire for improved pedestrian infrastructure within the city centre. Best practice examples from around the world of practical interventions are shown on the right. There are easy and cheap interventions that can be completed to build a city for walking.

Effective pedestrian and wayfinding measures will further serve to promote tourism in the city centre and wider region.

CASE STUDY LESSONS APPLICABLE TO WOLLONGONG

SPEED REDUCTIONS

Case Study Example: In 2023, the City of Melbourne introduced a policy to reduce speeds on little streets from 40 to 20 km/hour to improve pedestrian amenity, facilitated by signage and line marking.

Opportunity for Wollongong: Activate and repurpose side streets and laneways in the city centre. Numerous underutilised laneways could provide high-quality spaces for pedestrians and businesses.

Little Street Speed Reductions – Melbourne

PEDESTRIAN FOCUSED INTERSECTIONS

Case Study Example: Buenos Aires has been implementing a series of intersection improvements for pedestrians with a community-led decision on which upgrades should be prioritised.

Opportunity for Wollongong: Create pedestrian-friendly intersections that are slow-speed and safer. Putting pedestrians first in the city centre will encourage walking over driving for short trips.

Intersection Improvements – Buenos Aires

HIGH STREET REVITALISATION

Case Study Example: The project on Church and High Street in Drummoyne included the reduction of lanes and changed traffic conditions to make permanent a previously temporary high street.

Opportunity for Wollongong: Explore opportunities to reallocate road space on select streets to create more pedestrian amenities such as urban greenery, parklets and outdoor dining.

Footpath Buildouts – Drummoyne

GREEN TRAVEL MODE PRECINCTS

Case Study Example: This project provided network improvements and prioritisation of green travel modes within the precinct.

Opportunity for Wollongong: Identify key areas to prioritise pedestrian amenities such as Crown Street Mall and Keira Street.

Southbank Boulevard and Dodds Street – Melbourne

06.2

THE PLAN FOR CYCLING: A PLACE PEOPLE WANT RIDE

A CITY FOR CYCLING

A PLACE PEOPLE WANT TO RIDE

Cycling should be possible on all streets in the city centre. This page highlights the key routes that will prioritise safety and comfort to encourage people of all ages and abilities to get on a bicycle.

Wollongong's continuing growth as a cycling city. This will be achieved through safe, convenient and planned cycling infrastructure that connects key destinations. The current high-quality cycle infrastructure in the City Centre includes:

- Separated cycle path along Smith Street, providing the primary east-west link.
- Separated cycle path along Kembla Street (from Smith Street to Crown Street).

The future focus for cycling in the city centre will be:

New north/south connections, including:

1. A comprehensive connection comprising of separated paths and shared paths from Flinders Street, connecting to Thomas, Market and Church Streets.
2. Extending the separated cycle path along Kembla Street (from Crown Street to Bank Street).
3. Safe active travel link from Wollongong Station to Smith Street cycleway along Railway Parade.

New east/west connections, including:

1. Separated path along Ellen/Bank Streets.
2. Shared Path along Burelli Street.
3. Separated path along Victoria Street (feeding into other north/south links).

PEOPLE WHO CYCLE

A CITY WITH GREATER CYCLING POTENTIAL

Wollongong is a city that is opportune for cyclists. There are already strong cycling networks along the coast supporting a good cycling culture. There is an opportunity to capitalise on this and create a more seamless experience particularly through the city centre.

STAKEHOLDER VOICES

As a part of the workshops, we heard the sentiments of people and heard about their opinions on cycling.

"

- *High traffic streets need to have separated cycleways.*
- *Cycleways need to follow key desire lines and not be built around what's easiest.*
- *Cycling infrastructure needs to become connected and not just built in segments.*
- *Slow cycling signage is needed on Crown Street Mall for pedestrian and cyclist safety.*

"

To tap into the existing cycling culture base, improvements to the networks into and out of the city centre are required. Cycling infrastructure is relatively cheap compared to roads and focus should be given to selling the cycling dream to residents.

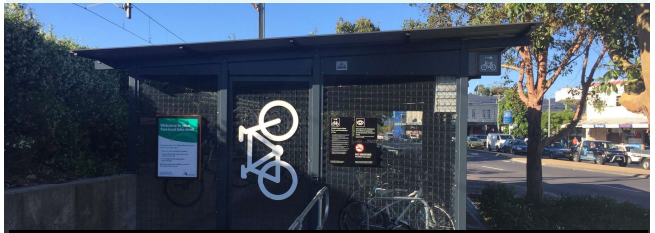
These improvements can further facilitate cycling tourism in the city centre and wider Wollongong region (see Page 52 of the Wollongong Integrated Transport Strategy).

CASE STUDY LESSONS APPLICABLE TO WOLLONGONG

BIKE SHEDS

Case Study Example: Transport NSW have introduced bike sheds, these enclosed shelters capacity will vary depending on location and are free of charge for patrons.

Opportunity for Wollongong: Explore opportunity to install a bike locker facility at Wollongong Railway Station with CCTV to support cycling as part of longer journeys throughout the area.



Bike Shed – Gosford Train Station

SAFER STREETS

Case Study Example: The program aims to create 30 km/h zones on local streets and other interventions to slow traffic and allow safe cycling on street (unseparated from traffic).

Opportunity for Wollongong: Identify suitable residential streets for conversion to TfNSW-endorsed Quietways to support safer cycling.

Safe Active Streets – Western Australia

SECURE BIKE PARKING

Case Study Example: In 2015 the Greater Shepparton Council rolled out free-to-use secure bike lockers in their shopping precinct in central Shepparton.

Opportunity for Wollongong: A similar concept of secure bike parking could be trialed in locations such as train stations, highly used bus stops in key location, Council buildings/services such as libraries and other high-demand locations.

Greater Shepparton Council - Shepparton

REQUIREMENTS FOR END-OF-TRIP FACILITIES

Case Study Examples: The ACT recently introduced new legislation to update the Territory Plan to expand the types of developments that require high-quality end-of-trip (EOT) facilities.

Opportunity for Wollongong: Opportunity to amend the DCP to require more high-quality end-of-trip facilities. This will improve the practicability of cycling as a means of commuting for work and leisure activities.

High-quality end-of-trip facilities

06.3
THE PLAN FOR PUBLIC TRANSPORT: SEAMLESS AND ACCESSIBLE PUBLIC TRANSPORT

A CITY FOR PUBLIC TRANSPORT

SEAMLESS AND ACCESSIBLE PUBLIC TRANSPORT

People of all ages and abilities should be able to interchange between transport modes with ease when travelling to and around the city centre.

Public transport in the city centre is currently focussed around the train station and bus services.

- Wollongong train station is the major transport hub for the region, providing services towards Sydney and the South Coast.
- 16 bus routes start at the Wollongong Foreshore and disperse around the city centre. The primary bus routes are denoted on the figure to the right.

The future focus for public transport will be centred around:

- Improving the efficiency and reliability of buses through optimisation of bus routes and bus-priority traffic measures.
- Investigation into a future high quality high frequency public transport service along Burelli Street. This aims to connect the train station and foreshore and fill the current gap in east-west connectivity.
- Clear information about bus services can increase passenger satisfaction and encourage mode uptake.

PUBLIC TRANSPORT

A CITY THAT NEEDS BETTER PUBLIC TRANSPORT

Wollongong has long had a public transport system that is slow, circuitous, infrequent and fails to be a viable option for many people travelling to work. For Wollongong to be a city with thriving place aspects, through traffic needs to be limited in the city centre. To achieve this a high-quality public transport system is required.

STAKEHOLDER VOICES

As part of the workshops, we heard the sentiments of people and heard about their opinions on public transport in the city centre.

"

- *A special event-specific network is needed as well as an everyday network.*
- *The bus network should run through the CBD rather than terminate in the CBD*
- *A Public Transport Strategy for the Illawarra is needed to address shortfalls.*

"

High-quality modal transition points, along with an improved bus network / potential city centre tram will support movement and make public transport an attractive option for people.

Opportunities to integrate public transport with local tourism are highlighted in the Wollongong Integrated Transport Strategy.

CASE STUDY LESSONS APPLICABLE TO WOLLONGONG

BUS PRIORITY INFRASTRUCTURE

Case Study Example: TfNSW rolled out the Bus Priority Infrastructure Program to prioritise buses on the road network and improve customer experience.

Opportunity for Wollongong: Opportunity for the city to advocate getting the Bus Priority Infrastructure Program expanded to Wollongong. Buses are the key form of public transport within the city centre and priority measures would produce multiple benefits such efficiency and reliability.

Bus Priority Infrastructure Program - TfNSW

ACTIVE TRANSPORT INFRASTRUCTURE NEAR STATIONS

Case Study Example: A 10km/hr shared zone has been established on Little Eveleigh Street adjacent to Redfern Station. This prioritises pedestrian and cyclists, with access allowed for residents and servicing/emergency vehicles.

Opportunity for Wollongong: Establish high-quality active transport infrastructure near public transport nodes to encourage intermodality and achieve placemaking goals.

Little Eveleigh Street – Redfern

HIGH QUALITY ROUTES

Case Study Example: Newcastle Light Rail opened in 2019 and is a 2.7 km service that runs for 6 stops connecting the CBD with Newcastle Beach. It has encouraged urban renewal along the corridor.

Opportunity for Wollongong: The 1.9 km high quality public transport route from Wollongong Station to the foreshore is an opportunity for enhanced public transport and urban renewal.

Newcastle Light Rail

RAILWAY STATION DESIGN AND INTEGRATION

Case Study Example: These new guidelines outline how to design railway stations to better integrate with the surrounding area.

Opportunity for Wollongong: Opportunity to update the Council's urban design policy to define how interchange infrastructure is to be planned on transport projects. This can set the precedent for how these works are undertaken in the city centre.

Urban Design Guidelines – Victoria

06.4 THE PLAN FOR VEHICLES: ACCESS FOR NECESSARY TRIPS

ACCESS FOR NECESSARY TRIPS

ACCESS FOR NECESSARY TRIPS

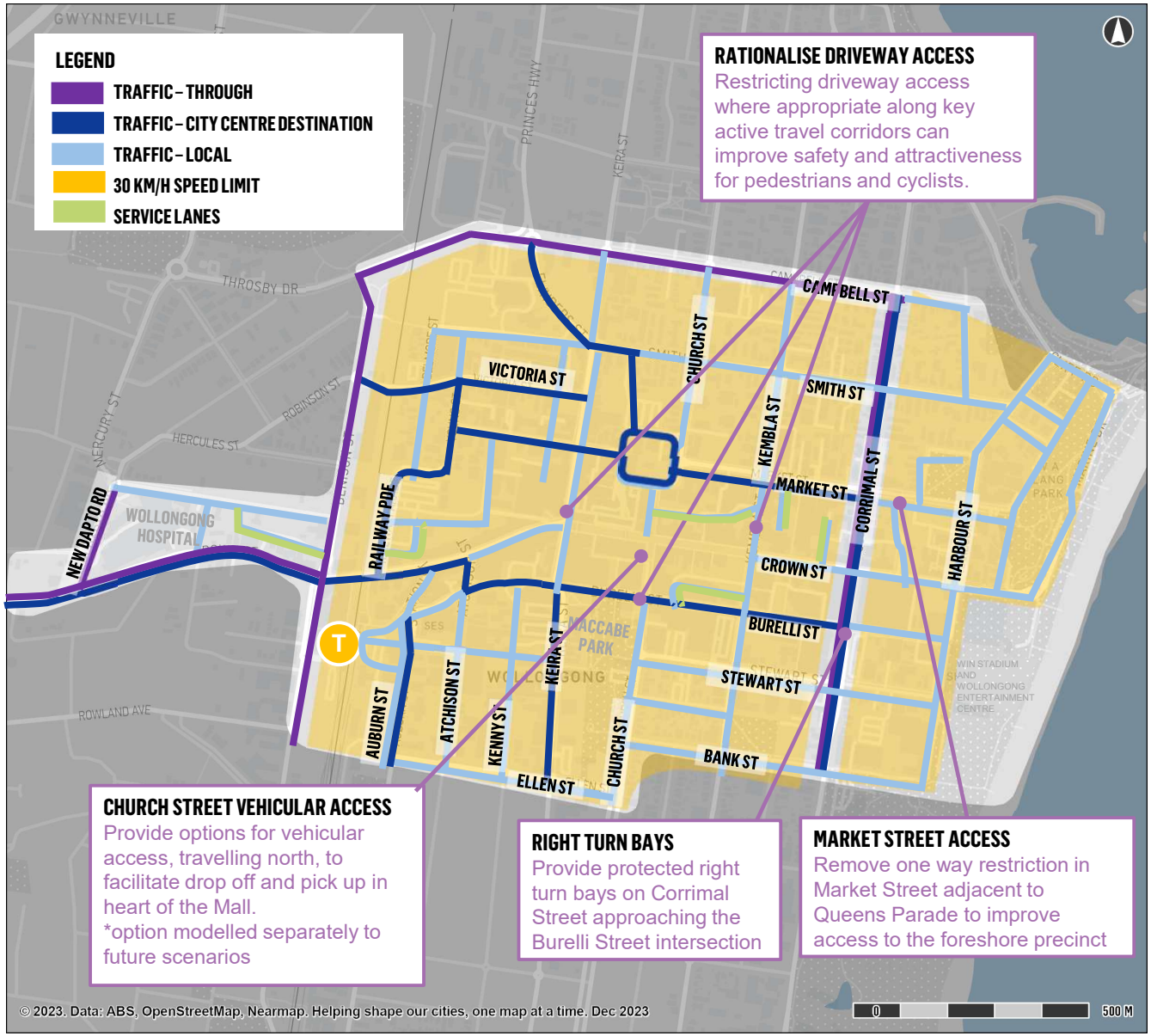
While active and public transport should be encouraged for most journeys, it is important to maintain proficient access for through movements, freight, servicing and emergency vehicles.

The city centre currently facilitates through vehicle movements along key roads such as Keira Street, Corrimal Street and Denison Street. These through movements can minimise the potential to create high-quality spaces for activity and business.

The future focus for vehicle movements in the city centre will be centred around the following initiatives/principles:

- Enhancing Corrimal Street, Gladstone Avenue and Denison Street as roads for carrying traffic through the city centre.
- Reducing speed limits throughout the city centre to create safer streets for pedestrians and cyclists.
- Streets designated as traffic-city centre destination / traffic-local streets may still allow traffic access but may have traffic calming elements.
- Providing sufficient on street servicing opportunities where off-street servicing is not feasible.

These initiatives will ensure appropriate access for freight, servicing, emergency vehicles and those who choose to drive, but will encourage people to choose active travel and public transport for their trips to and around the city centre.



VEHICLES

A CAR-LIGHT CITY CENTRE

For a long time, Wollongong City Centre has been dominated by the car as a result of poor public transport and a road network encouraging through traffic in the city centre. A city centre is no place for through traffic and as a result, parts of the city centre are suffering from urban decay.

STAKEHOLDER VOICES

As a part of the workshops, we heard the sentiments of people about their opinions on driving in the city centre.

“

- *The foreshore pedestrian area ceases at Corrimal Street and needs to be extended into the CBD.*
- *High pedestrian areas need smarter loading management practices.*

”

Through better management of private vehicles, Wollongong has the potential to support a thriving city centre and still effectively manage movement. Examples on the right show practical examples of interventions that could be applied in the city centre context.

SHARED ZONE INTEGRATION

Case Study Example: In 2018, along with other general urban design improvements, traffic was re-introduced to the pedestrian boulevard of The Levee in the form of a shared zone.

Opportunity for Wollongong: Identify specific streets to transform into vibrant shared zones that foster economic and place outcomes.

The Levee – Maitland

RATIONALISE VEHICLE MOVEMENTS

Case Study Example: The superblocks concept treats multiple blocks as precincts and limits through traffic movements with the idea that vehicles can travel to a precinct but not through it.

Opportunity for Wollongong: Rationalise through-traffic movements in the city centre and preserve key streets for high-quality placemaking functions.

Superblocks – Barcelona

CAR FREE CENTRES AND ZONES

Case Study Example: In 2013, the city of Ljubljana, the capital of Slovenia, closed the city centre to cars in its entirety, creating a car-free city centre.

Opportunity for Wollongong: Building upon the success of Crown Street Mall, opportunities should be sought to prioritise pedestrian space while providing adequate access for necessary vehicle trips.

Car Free City Centre - Ljubljana

TRAFFIC CALMING MEASURES

Case Study Example: The Portland Bureau of Transportation (PBOT) is a leader in installing and evaluating traffic calming practices to create safer streets.

Opportunity for Wollongong: Initiate a strategic traffic calming program in the city centre. This can include interventions such as altering how vehicles move through the city centre, narrowing lanes, installing street furniture, kerb blisters with street trees, signage and line marking.

Traffic Calming installation - Portland

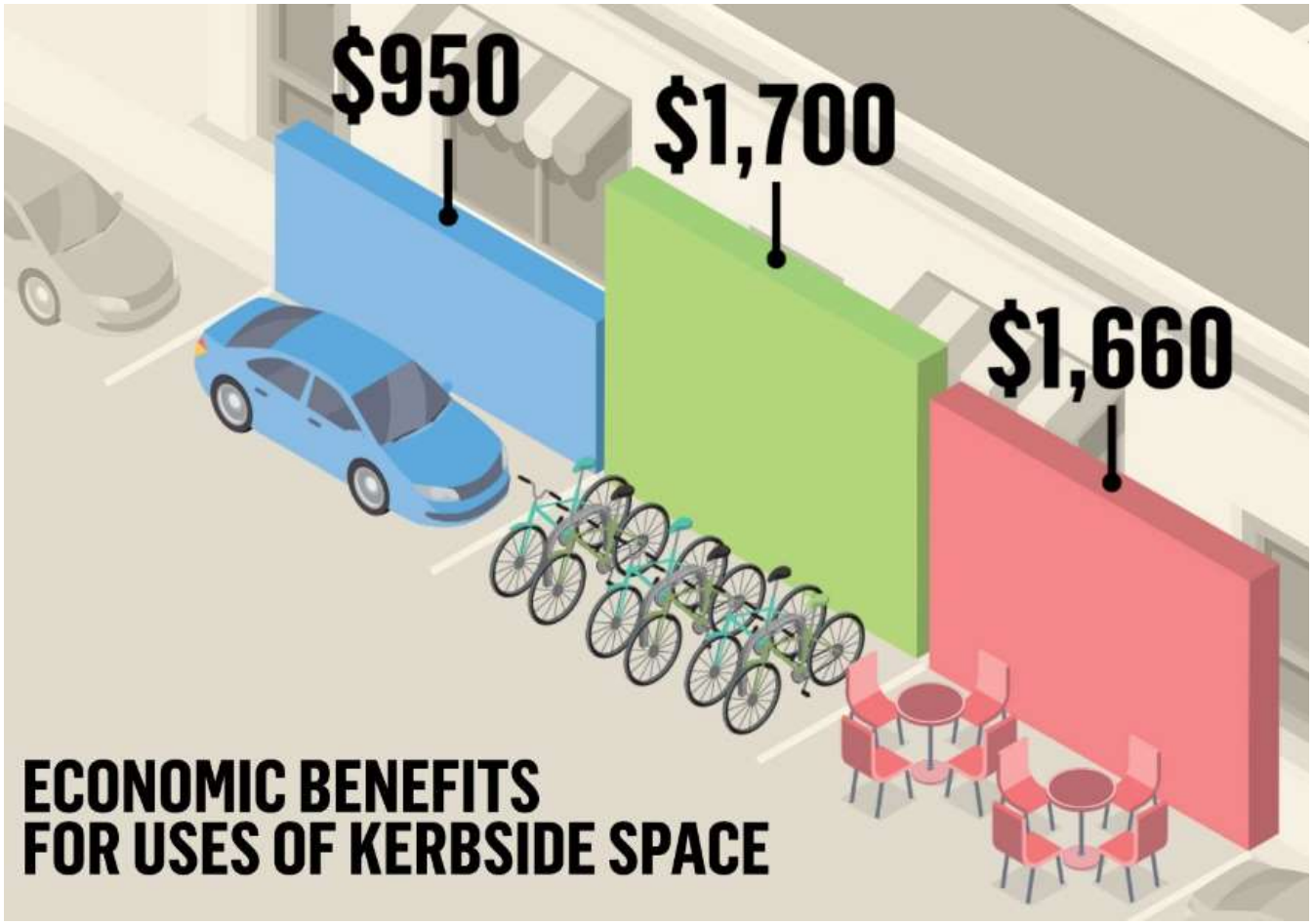
THE OPPORTUNITY COST OF ONLY PROVIDING KERBSIDE PARKING

ON STREET CAR PARKING

On street parking is highly valued by many city centre businesses. However, alternative uses for kerb side space can generate more economic benefit compared to on-street parking, especially if they are hospitality-focused businesses.

The figure on the right illustrates the economic benefit of three differing kerbside uses- private vehicle parking, bicycle parking and outdoor dining. The private vehicle parking has the least economic benefit as it only caters to a single person/s. Both bicycle parking and outdoor dining generate similar economic benefits due to the nature of these spaces facilitating access for multiple people to engage with local businesses. Bicycle parking and outdoor dining also contribute to the placemaking of an area and can have a wider impact on creating an attractive space.

Consideration should be given to the adaptability of on-street parking spaces, and policies can be put in place to support this. This is especially useful in undertaking tactical urbanism and introducing residents to the benefits of car-free city centres and activated kerbsides.



Source: Urbis, 2021

Based on the following sources

• Dining Parklet occupancy, expenditure and duration of stay based on: Urbis, 2021, Extended Outdoor Dining Program Evaluation, for Cities of Melbourne, Yarra and Stonnington

• Bike parking occupancy, expenditure and duration of stay based on: Alison Lee & Alan March (2010) Recognising the economic role of bikes: sharing parking in Lygon Street, Carlton,

Australian Planner, 47:2, 85-93, DOI: 10.1080/07293681003767785 (factored into 2021 Australian Dollars)

MOBILITY PARKING SPACE ACCESS

Case Study Example: In early 2023 the NSW released the new Park'n'Pay accessibility portal that gives drivers with disabilities real time information on the availability of mobility parking spaces.

Opportunity for Wollongong: Provide detection technology at mobility parking spaces linked to the Park'n'Pay platform to enhance awareness and use of accessible parking.

Park'n'Pay – NSW

STREETS AS SHARED SPACES

Case Study Example: In 2023, the City of Sydney introduced a permanent parklet policy to support the conversion of temporary outdoor dining extensions to permanent extensions.

Opportunity for Wollongong: Provide a simple policy for businesses to repurpose their kerbside space. This could involve a permit for a fee to repurpose on-street parking outside a business location.

Parklet Policy – City of Sydney

SENSOR AND SMART SYSTEMS PARKING

Case Study Example: In 2015, North Sydney Council installed in-ground parking sensors for all of its on-street meter parking spaces. This system is linked to the meter system and prevents users from 'topping up' their parking meter.

Opportunity for Wollongong: Disincentivise 'car shuffling' in the city centre through the integration of smart parking systems. This will enable better management and enforcement of parking policy.

Smart On-street Parking Spaces – North Sydney

INTEGRATED PARKING SOLUTIONS

Case Study example: In 2016, a new car park in Copenhagen opened with an integrated-use approach. The car park included a rooftop playground and functional public space.

Opportunity for Wollongong: Provide opportunities for alternative uses of car parking space to add higher economic benefit to existing car parks.

Park n Play - Copenhagen

BETTER PARKING FOR BETTER PLACES

Case Study Example: The greenfield suburb of Vauban, Germany, introduced consolidated off-street parking for residents on the periphery of the town centre.

Opportunity for Wollongong: Explore opportunities for consolidated off-street parking on the periphery of the city to create an activated and car-free centre.

Consolidated Off-Street Parking - Vaubaun

MAXIMUM PARKING PROVISIONS

Case Study Example: In 2018, Waverly Council reformed its off-street parking requirements and introduced maximum parking provisions. Two zones were provisioned.

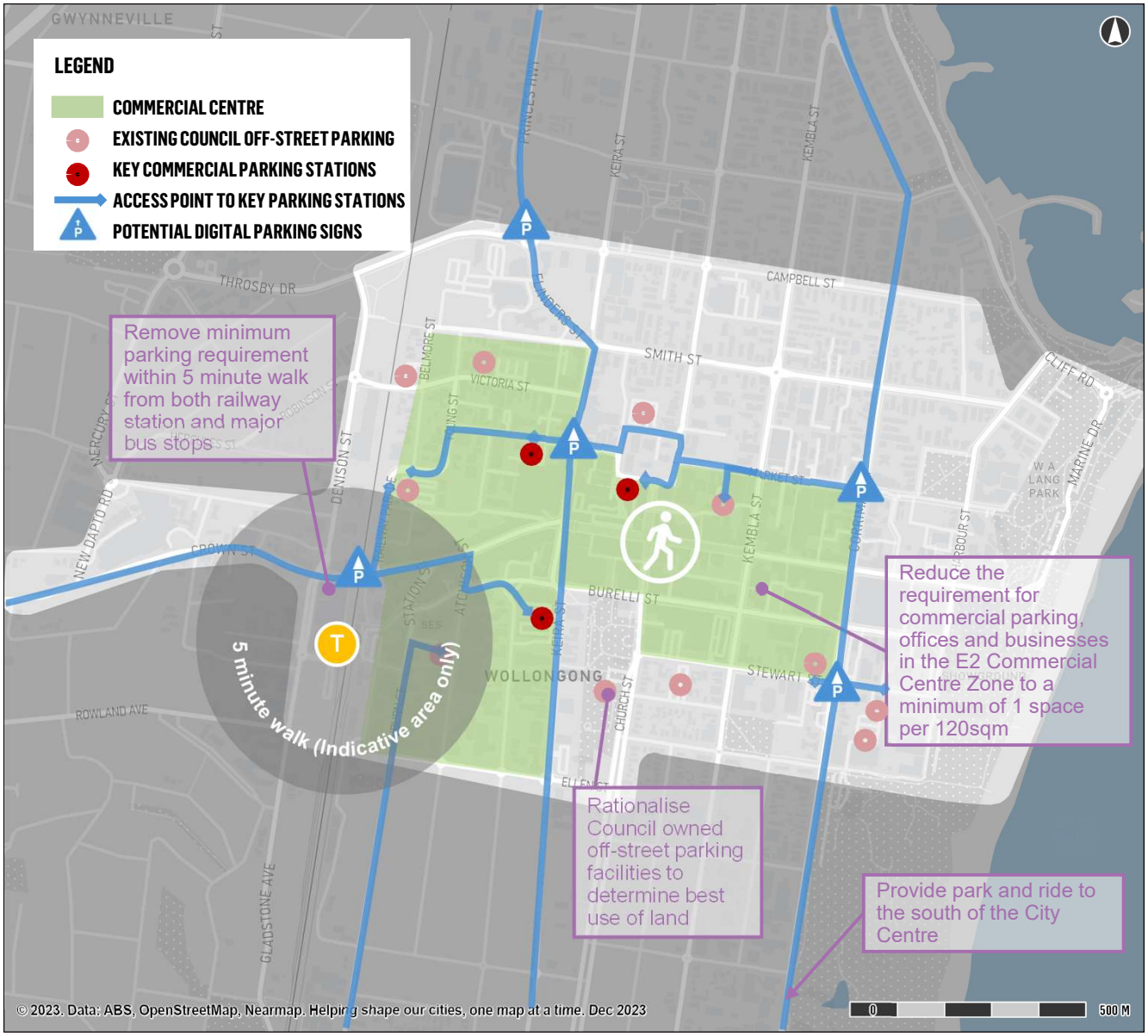
Opportunity for Wollongong: Incorporation of maximum parking provisions at new developments. This is linked to the notion that creating more parking creates more parking demand.

Maximum Parking Provisions – Waverly Council

CAR PARKING STRATEGY – OPPORTUNITIES

There are a number of opportunities for the Wollongong City Centre to get better value from their parking. Currently, Wollongong is the only place in NSW that hasn't raised its parking meter fees in 10 years. Part of charging appropriately for parking is that is promotes higher turnover and supports visitors who need to drive to find a space. Wollongong can focus on a future parking approach that includes:

- Additional designated mobility parking spaces in key locations.
- Reduced parking requirements. It is proposed to reduce the parking requirement to a minimum of 1 space per 120sqm for commercial office and business developments in the Commercial Centre Zone. This change will support the viability of developments that create jobs and help facilitate a mode shift for commuters which are best placed to take up alternate transport modes.
- Consider a zero parking requirement within a five minute walking catchment of the highest level of public transport access in Wollongong City Centre including Wollongong Railway Station and high frequency bus stops on Crown Street.
- Digital Parking Signs that direct people to available parking and reduce circling for parking.



FREIGHT, SERVICING AND DELIVERY PLANNING

WHAT IS IT?

Freight and servicing activities need to be planned in harmony with the function of the city centre to create efficient and attractive places.

WHAT IT LOOKS LIKE

Through the optimisation of freight, servicing and delivering activities in the city centre, there will be widespread community benefits.

Micro-mobility freight delivery could replace a significant proportion of conventional delivery vans in the city centre. These will be serviced by strategically located logistics hubs which will allow the loading of the micro-mobility vehicles. The reduction of delivery vans in the city centre will decrease traffic congestion, improve air quality.

As the city grows it will become necessary to create more off-street loading facilities to better manage deliveries and servicing demand on kerbsides.

The consolidation and strategic planning of freight and servicing activities will allow for some on-street loading zones to be repurposed for other community uses such as parklets/extended dining, community greenery, bicycle lanes/parking and widened pedestrian amenities.

CASE STUDY LESSONS APPLICABLE TO WOLLONGONG

MICRO-MOBILITY FREIGHT

Case Study Example: Sustainable urban delivery company founded in Sweden. Electric cargo bike deliveries replace conventional delivery vans in various cities to reduce congestion and greenhouse gas emissions.

Opportunity for Wollongong: Explore opportunities for micro-mobility freight trials. A feasibility study and short-term trial can seek to understand the potential for this practice in the city centre.

Velove – Sweden

FREIGHT AND SERVICING PLAN

Case Study Example: Tool to support the incorporation of freight and servicing activities into urban planning frameworks.

Opportunity for Wollongong: Develop a freight and servicing plan for the city centre. This will allow the consolidation of freight and servicing activities to optimise the city centre area and resources.

Freight and Servicing Last Mile Toolkit – NSW Government

REVIEW LOADING ZONE AND BIKE PARKING PROVISIONS

Case Study Example: Up to 20% of ridership was found to be food delivery riders in a 2023 survey of rider demographics and behaviour in the City of Sydney.

Opportunity for Wollongong: Respond to changing nature of delivery services by reviewing quantity and location of loading zones and bicycle parking opportunities.

Food delivery riders - Sydney

SMART SIGNAGE

Case Study Example: Starting in 2022, TfNSW ran a trial to replace existing parking signs with a digital sign. The signs display current and upcoming parking restrictions, providing real-time information at kerbside locations.

Opportunity for Wollongong: Explore the use of dynamic kerbside use in Wollongong using digital signage. This could allow for more varied use of the kerbside space depending on demand.

Smart Signage – Chalmers Street, Sydney

FUTURE OF TRANSPORT

WHAT IS IT?

Supporting future transport and emerging technology means that the city is resilient, adaptable and willing to implement change to support the movement of people. Wollongong is in an advantageous position given its proximity to key institutions of innovation such as the University of Wollongong, as well as its proximity to Port Kembla, enabling the import of these technologies as they emerge.

The NSW Government's Future Transport Strategy 2056 and Connected and Automated Vehicles Plan paves the way for integrating these emerging technologies into the transport landscape and presents opportunities to build upon. Resources such as Austroads' Future Vehicles and Technology Program provide useful lessons learnt from trials across the Australia and New Zealand.

WHAT IT LOOKS LIKE

Getting around the city centre is convenient with e-mobility options. E-scooter and e-bike providers maintain and manage these services, requiring little input from government agencies.

On-street electric vehicle charging is readily available, which makes electric vehicle ownership attractive and competitive with other modes of transport.

Autonomous shuttle services are available to key destinations in the city centre, especially during events connecting the station to the entertainment precinct.

A Wollongong City Centre that supports future transport will be one where people can easily access up-to-date transport information. Buses and trains will be fitted with real-time tracking systems, which can feed information to timetable applications. Key stops will be 'smart stops', which display live and up-to-date real-time information on services.

CASE STUDY LESSONS APPLICABLE TO WOLLONGONG

E-SCOOTERS OPTIONS

Case Study Example: In 2022, A shared e-scooter trial was introduced in Melbourne unlocked and managed using respective mobile phone apps.

Opportunity for Wollongong: The uptake of e-mobility scooters can assist in reducing congestion and commuter carbon emissions. Lessons learned from the current E-scooter trial in Wollongong will be a valuable, should it be possible to integrate this mode into the city centre.

E-scooter trial – City of Melbourne

ELECTRIC VEHICLE CHARGING STATIONS

Case Study Example: The City of Sydney recently introduced a trial for an on-street electric vehicle charger in Glebe. The charger will be operated under a user-pays model.

Opportunity for Wollongong: Provide a greater range of electric vehicle charging options to the community and seek to understand the demand for these types of installations.

Electric Vehicle Charging – City of Sydney

AUTONOMOUS ON-DEMAND TRANSPORT SERVICES

Case Study Example: These shuttle services provide mobility within a new development near Stockholm, linking residential blocks to rapid transport services and other areas.

Opportunity for Wollongong: There are opportunities for collaboration with TfNSW to explore autonomous and on-demand vehicle trials. Wollongong could seek to become a leader in this space through collaborative trials, while seeking to provide the best outcomes for the community.

Autonomous On-Demand Transport – Sweden

SMART BUS STOPS SHOWING REALTIME DATA - NSW

Case Study Example: TfNSW ran a trial to upgrade bus stops to real-time information on digital screens – increasing visibility and desirability to patrons and customers.

Opportunity for Wollongong: Explore a program to improve real-time information provision at bus stops. Clear information about bus services can increase passenger satisfaction and encourage mode uptake.

Smart Bus Stops Showing Realtime Data – NSW

PLAN VALIDATION

Traffic modelling works best when it is used as a tool to check the effect of a proposal on a traffic network. When used in this way, it can be useful to see what is predicted to be problematic in the future and to plan for adjustments to be made accordingly.

In this chapter we look at how the ideas set out in this document (particularly Chapter 6) fair when modelled in a future network scenario, with all the additional growth in population and employment anticipated in the City Centre.

07

PROCESS FOR TESTING THE CITY CENTRE MOVEMENT AND PLACE PLAN

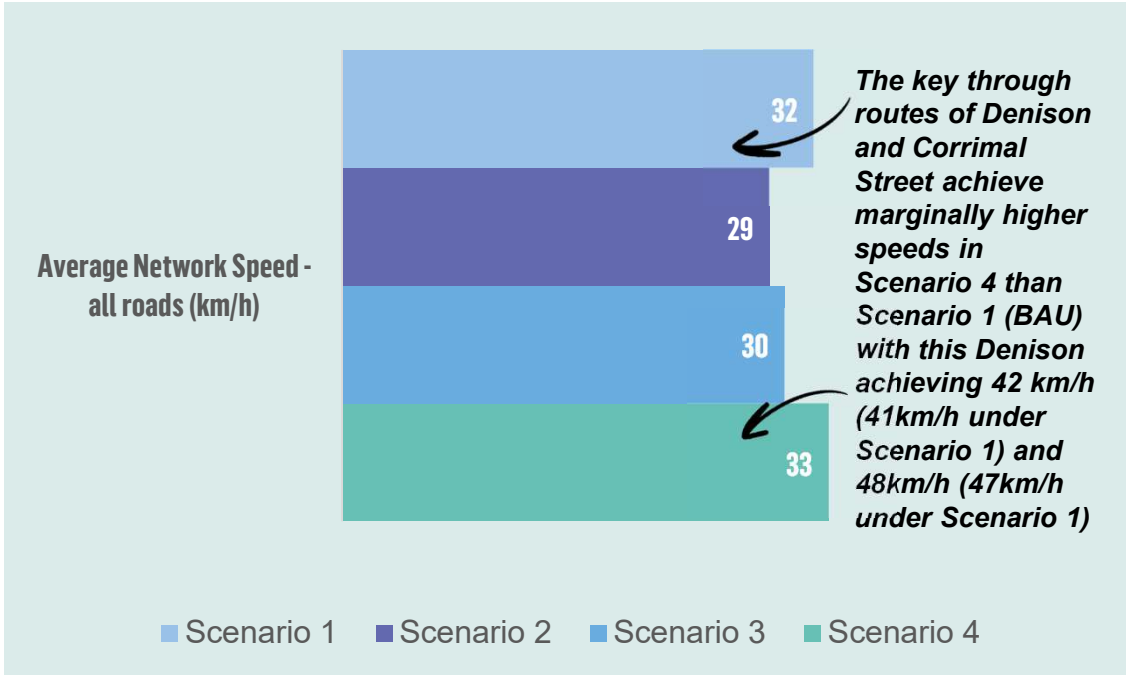
THE MODELLING TESTS FOUR FUTURE SCENARIOS

The traffic modelling examines the current state of the network and the four future scenarios, as follows:

- **Scenario 1, 2041 Business as Usual (BAU):** This represents a continuation of the current transport network situation but with all the growth in population and employment predicted in 2041.
- **Scenario 2, 2041 Vision (without park & ride):** This represents changes put forward in the City Centre Movement and Place Plan which are shown in Chapter 6. This includes infrastructure changes that would have an impact on traffic performance (such lane removal, slip lane removal, traffic signal installations and speed limit reduction and more). The Land Use Zone changes recommended in the 2020 Wollongong City Centre Urban Design Framework are also included in this scenario
- Excluded from this scenario is a park and ride station to the south of the City Centre (refer Page 53) as it was decided that the park and ride project would be good to test separately for its impact on the network.

- **Scenario 3, 2041 Vision (with park & ride):** As per Scenario 2 but with the park and ride south of the City Centre.
- **Scenario 4, 2041 Vision (without park & ride but with mode shift):** As per Scenario 2 and including a 13 per cent mode shift away from private vehicles. The mode shift sensitivity applies to a reduction in all trips in the network area. The rate of 13 per cent reduction in car trips assumes the targets set in the Illawarra-Shoalhaven Regional Transport Plan are met and these include a doubling of walking, cycling and public transport trips.

KEY PERFORMANCE FACTS ACROSS THE FOUR 2041 SCENARIOS



EVALUATING AM PEAK TRAFFIC PERFORMANCE

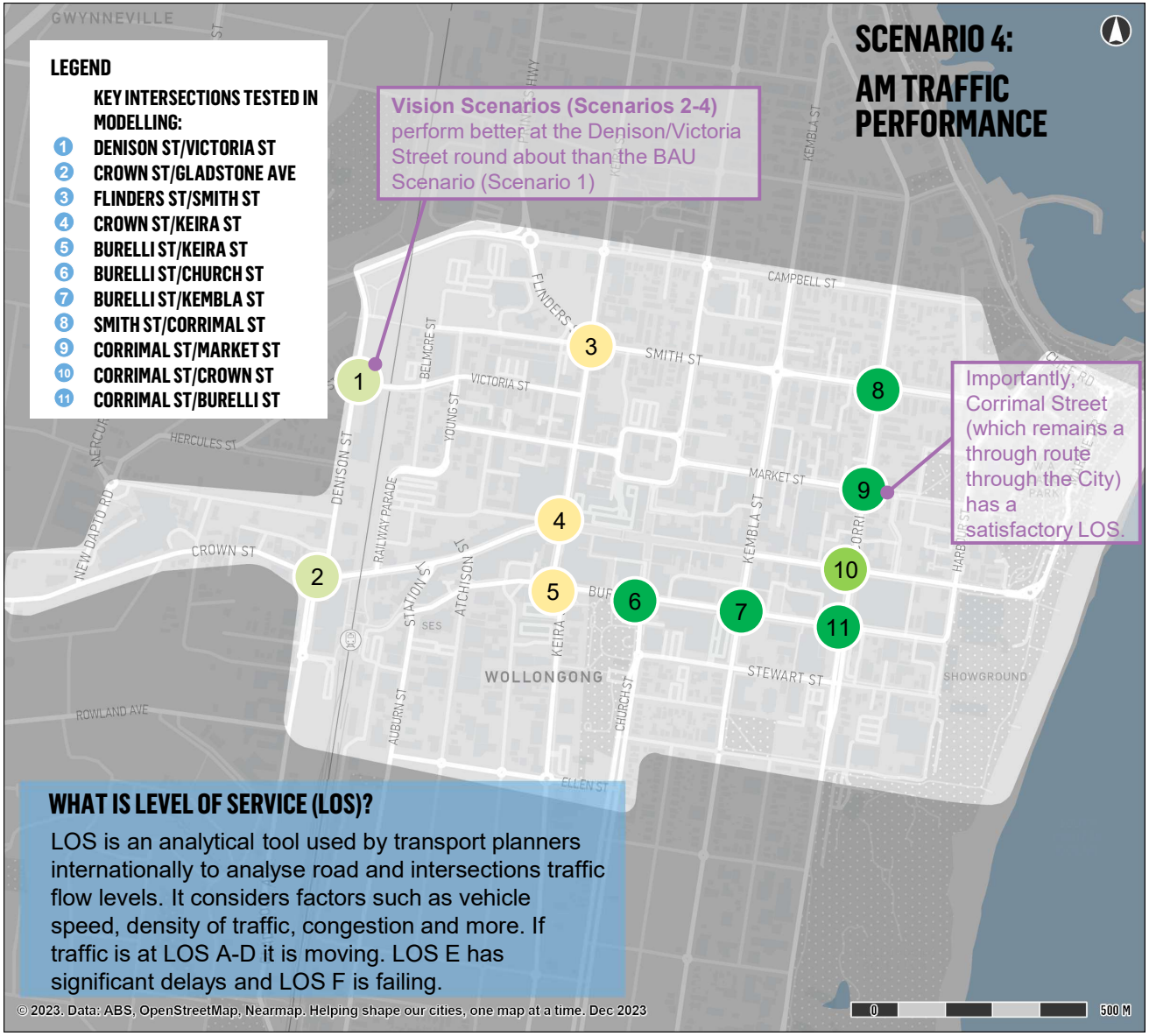
Results on this page are from the hour of the peak period with the most traffic, which in this case is 8AM – 9AM.

✓ Overall the LOS in the 2041 Vision scenarios (Scenario 2-4) perform better than the 2041 Business as Usual Scenario (Scenario 1), with no LOS F ratings.

LEVEL OF SERVICE SCENARIO COMPARISON, KEY INTERSECTIONS

#	2023 Baseline	2041 Scenario 1 BAU	2041 Scenario 2	2041 Scenario 3	2041 Scenario 4
			Vision Scenarios		
1	A	F	D	D	D
2	C	D	D	D	D
3	A	A	D	D	C
4	C	C	D	C	C
5	C	C	D	C	C
6	B	B	B	B	B
7	B	B	C	B	B
8	B	B	C	C	B
9	A	A	B	B	B
10	A	A	A	A	A
11	B	B	B	B	B

Note:
Scenario 1, 2041 Business as Usual
Scenario 2, 2041 Vision (without park & ride)
Scenario 3, 2041 Vision (with park & ride)
Scenario 4, Vision (without park & ride but with mode shift)



EVALUATING PM PEAK TRAFFIC PERFORMANCE

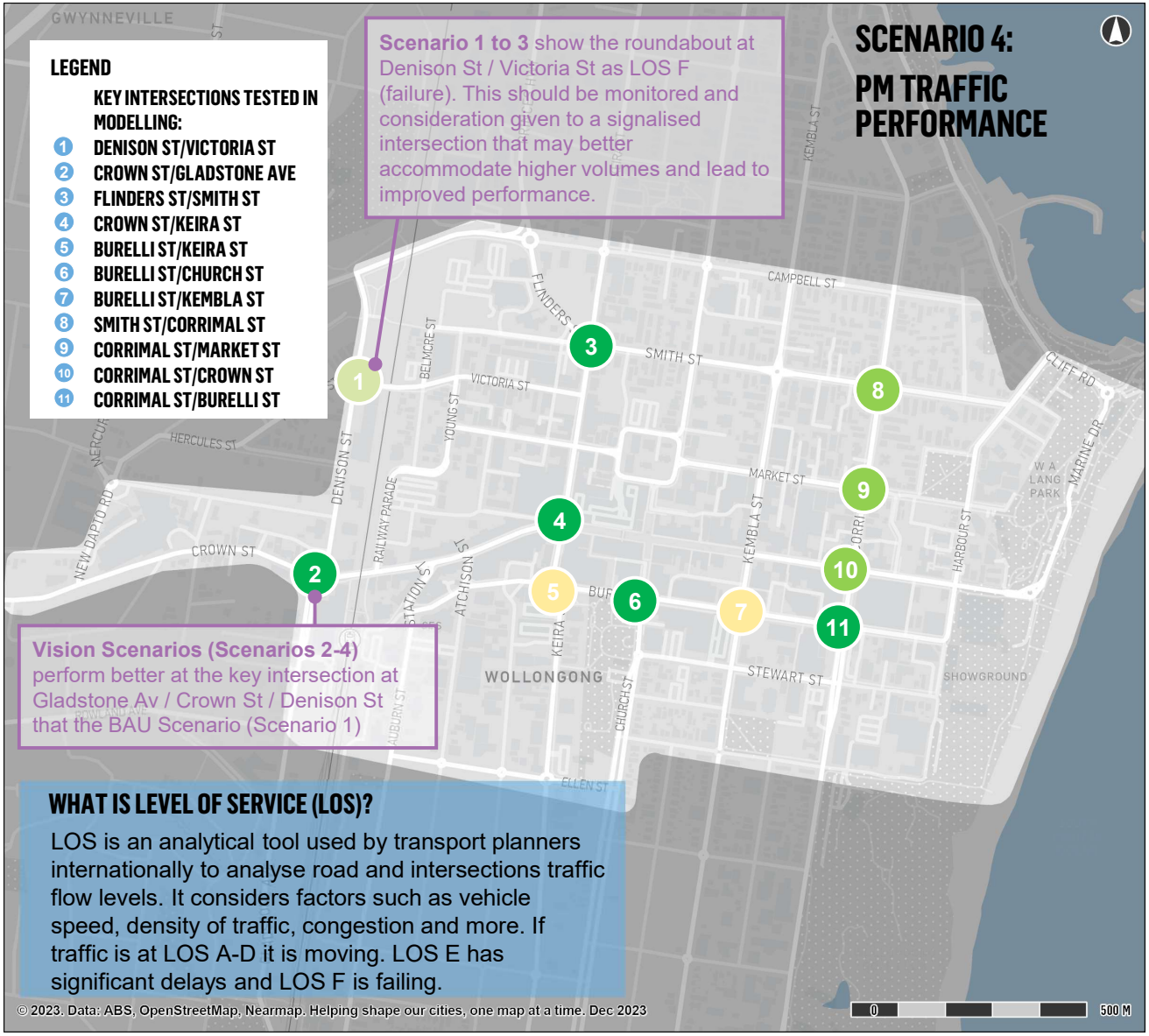
Results on this page are from the hour of the peak period with the most traffic, which in this case is 5PM – 6PM.

Overall the LOS in the 2041 Vision scenarios (Scenario 2-4) perform better than the 2041 Business as Usual Scenario (Scenario 1), the latter having a LOS F at Denison St/Victoria St and LOS E at Crown St/Gladstone Ave

LEVEL OF SERVICE SCENARIO COMPARISON, KEY INTERSECTIONS

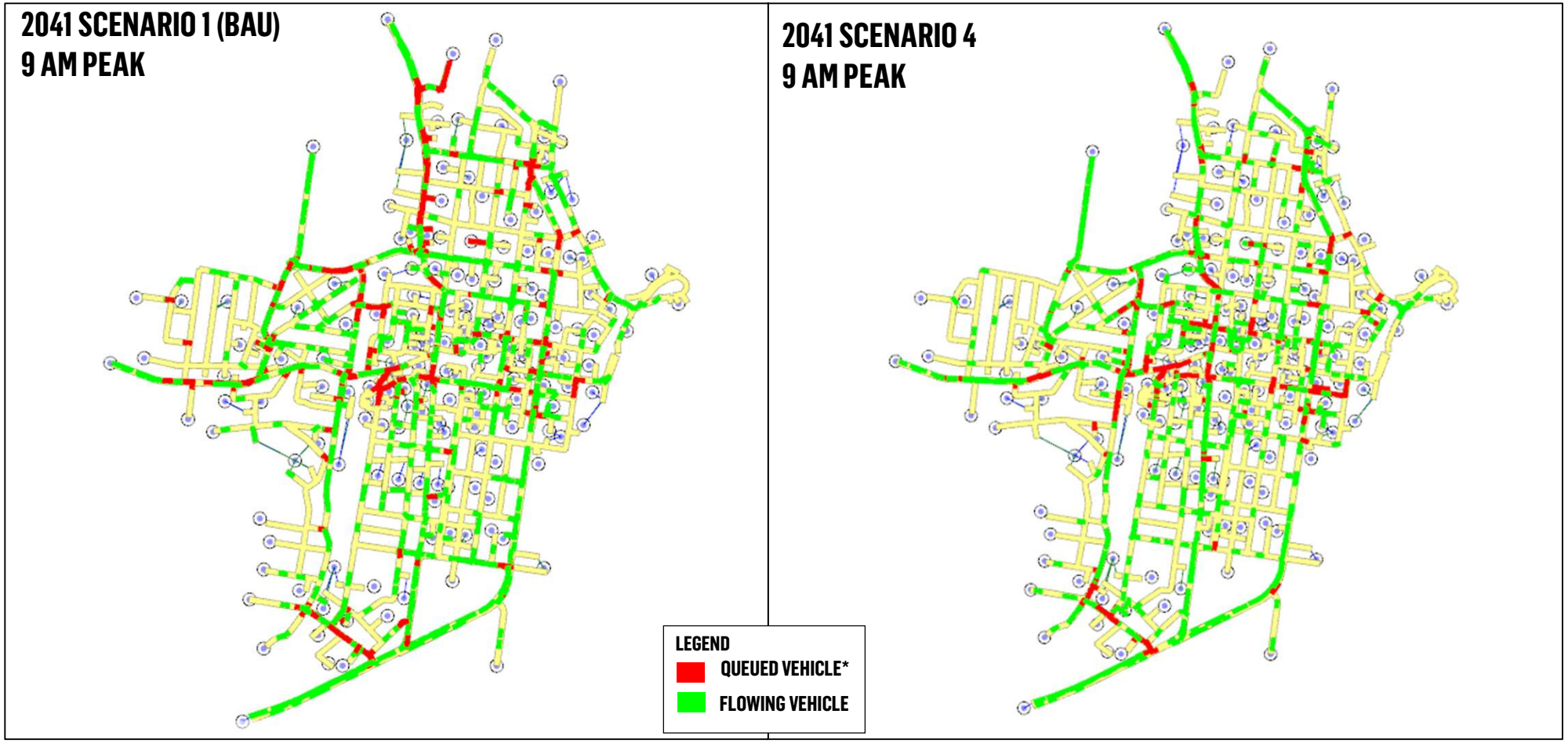
#	2023 Baseline	2041 Scenario 1 BAU	2041 Scenario 2	2041 Scenario 3	2041 Scenario 4
			Vision Scenarios		
1	A	F	F	F	D
2	B	E	C	C	B
3	B	C	C	C	B
4	B	B	C	C	B
5	C	D	C	D	C
6	B	B	B	B	B
7	C	C	D	D	C
8	A	A	A	A	A
9	A	A	A	B	A
10	A	A	B	A	A
11	A	B	B	B	B

Note:
Scenario 1, 2041 Business as Usual
Scenario 2, 2041 Vision (without park & ride)
Scenario 3, 2041 Vision (with park & ride)
Scenario 4, Vision (without park & ride but with mode shift)



QUEUE COMPARISON – WEEKDAY 9 AM

Traffic queues are a key indicator of how the traffic network is performing and is often the thing that drivers find particularly intolerable when traffic networks get more congested. There are differences between the 2041 Business as Usual scenario and the 2041 Vision scenario.



*Note: Defined as vehicles travelling <7km/h

ACTION PLAN

This chapter details the actions that will need to take place to build and create a transport and access system that supports a better Wollongong City Centre.

07

KEMBLA STREET CYCLEWAY, WOLLONGONG CITY CENTRE

ACTION PLAN OVERVIEW

The actions in this chapter are based on input from a range of stakeholders.

To maintain the city centre's well-being, productivity and vibrancy, a much greater effort will be required, with local, state and federal governments working together to understand the magnitude of the transport challenges and respond proactively.

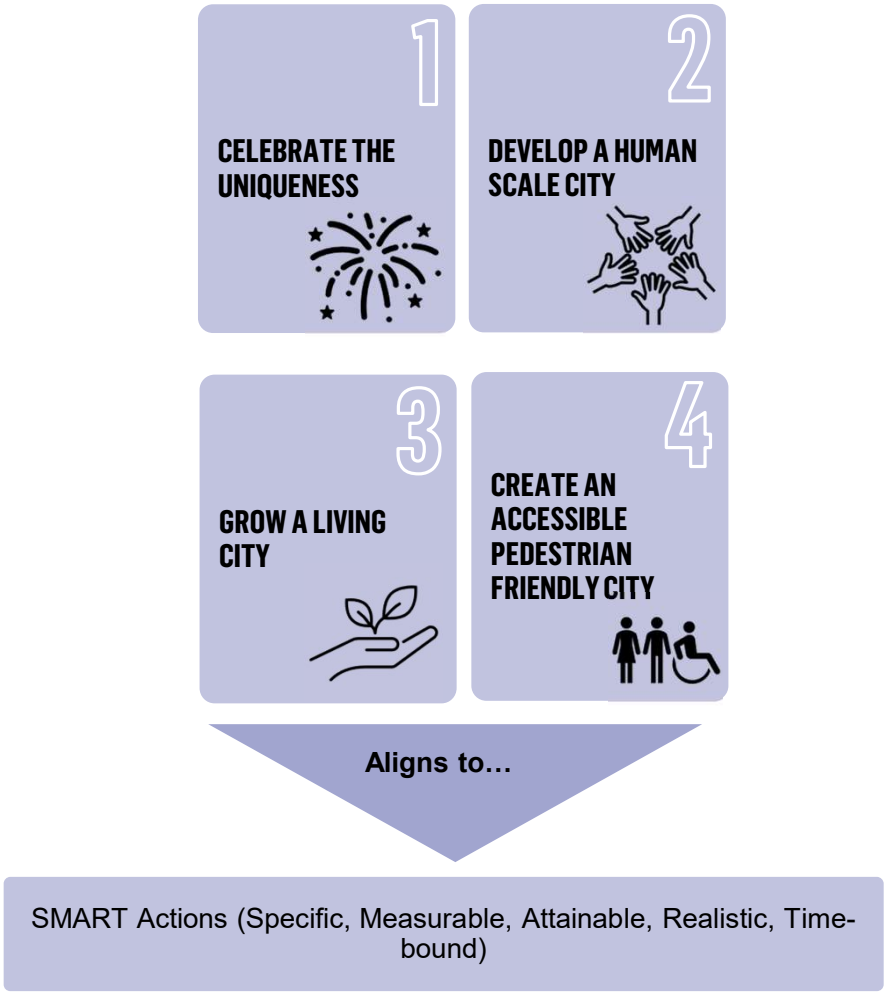
The case for change shown in Chapter 3 outlines that if the current transport trends continue, Wollongong will not effectively capitalise on the opportunities to drive more sustainable transport choices and drive positive change in the city centre.

The actions outlined here describe the activities, effort and agencies needed to capitalise on the opportunities outlined in Chapter 6.

Recommended actions will need to be prioritised and localised where appropriate to deliver a sustainable transport system that supports a thriving, connected, safe and accessible city centre.

Time is of the essence. The actions we take now will ease pressure on the current community and benefit the people and businesses in the next 20 years.

There are opportunities to implement some of the following actions as tactical urbanism pilots. This involves low-cost, easy-to-implement trials that can test how certain urban changes will perform before committing to a permanent change. Actions flagged with an asterisk (*) indicate the potential for a tactical urbanism pilot.



THE ACTION PLAN FOR WALKING: A LANEWAY CITY WHERE WALKING IS ATTRACTIVE

ID	Lead Agencies	Recommendation
W-1	Wollongong City Council (WCC) (Lead)	Deliver infrastructure upgrades identified in the 'Plan for Walking'
W-2	WCC (Lead) State Government (Support)	Develop a speed reduction and laneways activation program to provide high quality space for pedestrians and businesses.*
W-3	WCC (Lead)	Develop a high functioning movement plan for the City Centre circulation roads (Corrimal, Denison, Bourke, Springhill, Gladstone, & Bridge) to ensure the City Centre has a high place function characterised by significant activity, human scale features and accessibility.
W-4	WCC (Lead)	Develop a policy for businesses to repurpose their kerbside for parklets.
W-5	WCC (Lead)	Update the Development Control Plan (DCP) to restrict driveway access for frontages on key streets with active transport existing and planned network.
W-6	WCC (Lead)	Review the City Centre Public Domain Technical Manual to support the delivery of urban design elements to enhance public spaces, fostering community engagement and promote vibrant, liveable cities.
W-7	WCC (Lead)	Implement a city centre wayfinding program
W-8	WCC (Lead) State Government (Support)	Develop infrastructure standards to establish more pedestrian laneways and revitalise high streets in the city centre to make these corridors, safe, vibrant, and convenient.
W-9	WCC (Lead)	Develop pedestrian focused intersection and crossing standard drawings which contribute to a more pedestrian friendly urban environment, encouraging walking over driving for shorter trips.
W-10	WCC (Lead) State Government (Support)	Undertake a foreshore concept plan to review how Marine Drive could be enhanced to improve the connection between Lang Park and the foreshore. The study is to include the length from Lang Park to North Wollongong Beach and Stuart Park.
W-11	WCC (Lead)	Investigate changes to the LEP for street/laneway revitalisation that could be utilised through street festivals and events.

There are opportunities to implement select actions as 'tactical urbanism' pilots. Tactical urbanism involves low-cost, easy-to-implement trials that can test how certain urban changes will perform before committing to a permanent change. Actions flagged with an asterisk (*) indicate the potential for a tactical urbanism pilot.

THE ACTION PLAN FOR CYCLING: A PLACE PEOPLE WANT TO RIDE

ID	Lead Agencies	Recommendation
C-1	WCC (Lead)	Implement infrastructure upgrades identified 'in the plan for cycling'
C-2	WCC (Lead)	Creating a low-speed cycling environment in Crown Street Mall that involves the designing of a space that is safe, efficient and comfortable for cyclists (noting that it is a high pedestrian environment also).
C-3	WCC (Lead)	Update the DCP to introduce bicycle parking standards to new developments which are adjacent to planned cycling network routes.
C-4	WCC (Lead)	Deliver a cohesive north-south and east-west cycling network in the City Centre to connect the station/s (Wollongong & North Wollongong) to the foreshore and the outer suburbs to the centre.
C-5	WCC (Lead)	Explore initiatives to encourage the safe adoption of E-Mobility in the city centre.
C-6	WCC (Lead)	Install protected bicycle intersections on existing and planned cycling network routes.
C-7	WCC (Lead)	Develop a multi-agency and private sector micro-mobility freight trial within the city centre.
C-8	WCC (Lead)	Develop a shared zone plan to identify particular streets to be converted into lively shared zones.

THE ACTION PLAN FOR PUBLIC TRANSPORT: SEAMLESS AND ACCESSIBLE

	Lead Agencies	Recommendation
PT-1	State Government (Lead) WCC (Support)	Work with Transport for NSW to develop a real-time information provision at bus stops.
PT-2	WCC (Lead)	Develop a high-quality active transport infrastructure plan for public transport stops and stations to encourage integrated multi-modal transport options for people
PT-3	WCC (Lead)	Develop a plan focused on delivering more prominent transit streets providing priority to public transportation on major roads, leading to further efficient traffic flow and increased public transport reliability.
PT-4	WCC (Lead)	Undertake a feasibility study for a new east-west street connection the station and MacCabe Park to break down blocks, provide new connections and improve legibility and accessibility between the station and key destinations in the centre.
PT-5	WCC (Lead) State Government (Support)	Prepare a feasibility study for a direct, dedicated public transport connection including investigation of a rapid transport connection along either via Burelli Street or Crown Street. Connecting the Wollngong health precinct, Wollongong train station, CBD, entertainment precinct, and Wollongong Harbour.
PT-6	State Government (Lead) WCC (Support)	Develop an initiative for smart bus stops showing real-time data to assist commuters in the uptake of public transport and enhance its desire.

THE ACTION PLAN FOR VEHICLE ACCESS: ACCESS FOR NECESSARY TRIPS

ID	Lead Agencies	Recommendation
V-1	▪ WCC (Lead)	Implement infrastructure upgrades in the 'plan for vehicles'
V-2	▪ WCC (Lead)	Update the DCP to reflect direction adopted in the City Centre Movement and Place Plan.
V-3	▪ WCC (Lead)	Implement sensor and smart parking systems that provides information to efficiently manage parking spaces, improving customer experience and sustainability.
V-4	▪ WCC (Lead	Update the DCP to incorporate maximum parking provisions at new developments around public transport stops and stations.
V-5	▪ WCC (Lead)	Reduce the requirement for carparking in the commercial office and business developments in the B3 Commercial Core (now the E2 Commercial Centre) to a minimum of 1 space per 120sqm (from 1 space per 60sqm).
V-6	▪ WCC (Lead)	Identify parts of the Commercial Centre where a zero-parking requirement could be applied to commercial office and business uses and update in the DCP.
V-7	▪ WCC (Lead)	Develop and adopt a Parking Demand Masterplan to provide an efficient parking options for people

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APPENDIX A
STAKEHOLDER ENGAGEMENT

STAKEHOLDER ENGAGEMENT - WORKSHOPS

The Wollongong community was engaged by Urbis in the development of the Wollongong City Centre Movement and Place Plan in the form of workshops and feedback sessions. The outcomes of these engagement sessions helped determined the Wollongong transport vision and direction and create the preferred way forward in the City Centre.

WORKSHOP 1

Workshop 1 was held on 4th of August 2023 with 40 attendees from key representative groups within the Wollongong region.

The workshop was divided into three sessions and used the 'nominal group technique' giving each participant their say and a chance to convince others.

- Session 1 – discussion of existing Movement and Place categories and how these should change in the future.
- Session 2 – discussion of existing and future street functions.
- Session 3 – collaborative street design of case studies.

The outcomes of this workshop included updated future functions of streets in the City Centre and considerations for street design for key roads, both of which informed the development of a preferred road network scenario.

WORKSHOP 1 – CITY CENTRE STREET FUNCTIONS AND CATEGORIES

40

attendees

STAKEHOLDER ENGAGEMENT – COUNCILLOR BRIEFING AND NEIGHBOURHOOD FORUM

COUNCILLOR BRIEFING

A Councillor Briefing was held on 14th of August 2023 to report outcomes from Workshop 1 and solicit feedback from the Councillor cohort.

The Councillors were guided through the sessions from Workshop 1 and provided an opportunity to provide feedback to inform the future stages of the project.

The outcomes of this session informed the updated future functions of streets in the City Centre and considerations for street design for key roads. These outcomes built upon Workshop 1 to consider the strategic direction of the Councillors and wider commitments by Council.

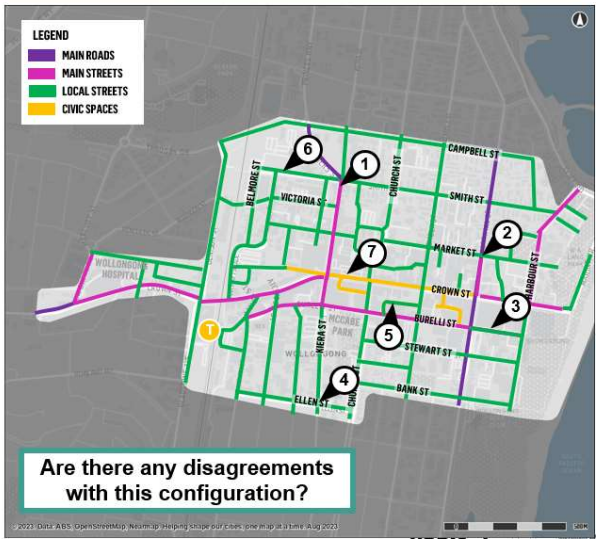
NEIGHBOURHOOD FORUM

A Neighbourhood Forum session was held on 18th of August 2023 to allow wider members of the community an opportunity to provide inputs into the Wollongong City Centre Movement and Place Plan.

The outcomes of this session also informed the updated future functions of streets in the City Centre and considerations for street design for key roads.

STAKEHOLDER ENGAGEMENT PRESENTATION EXCERPTS

EXISTING MOVEMENT AND PLACE ASSESSMENT



FUTURE ROAD/STREET TRANSPORT FUNCTION – POST WORKSHOP

NOTABLE CHANGES FROM EXISTING

1. Keira Street - from a through route to a pedestrian/bus street
2. Provide a through route around periphery of city - not through it
3. More pedestrian laneways
4. Cohesive N/S and E/W cycling to Crown St Mall and Railway Station
5. Creating a low-speed cycling environment in Crown Street Mall
6. Transitioning more streets to lower-capacity 'local traffic' streets
7. Rationalising road space around Cathedral (Market Street)

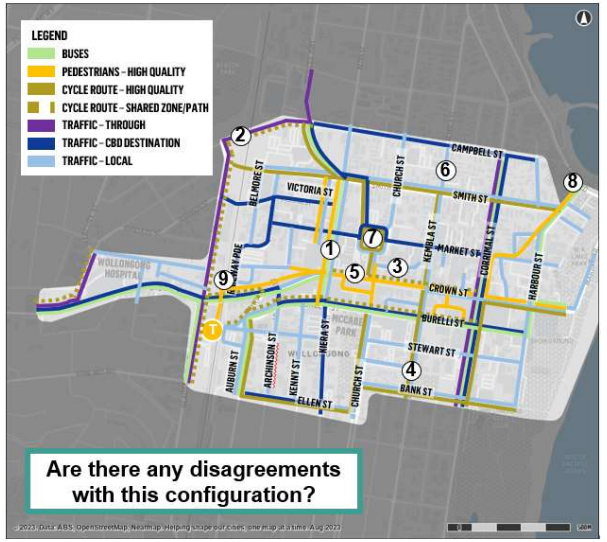
KEY WORKSHOP IDEAS

8. Crown Street to waterfront via Market Square
9. Interest in guiding pedestrians from train station to Crown Street mall

More direct and continuous E/W cycling connections

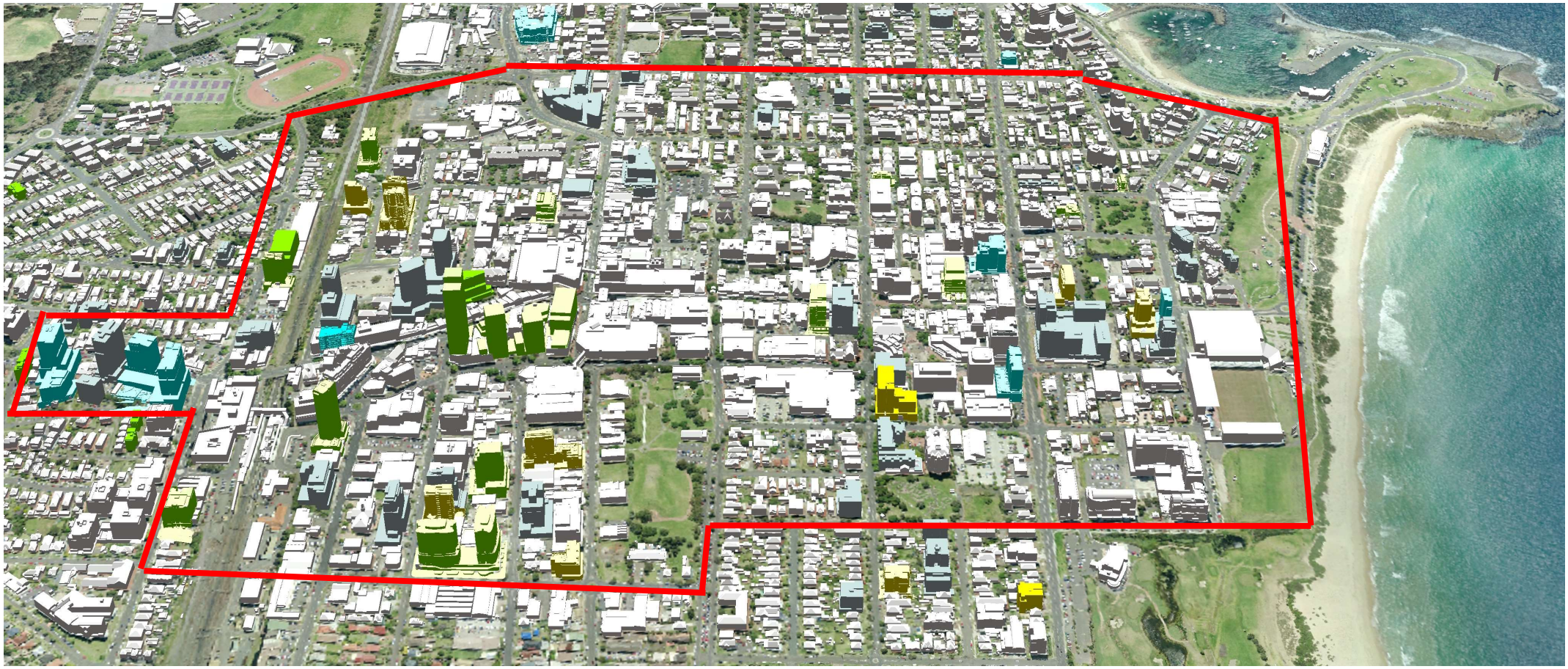
Interest in light rail and trackless tram to complement buses

Interest in freight distribution micro-hubs to optimise city freight



APPENDIX B
KEY DEVELOPMENT SITES

KEY DEVELOPMENT SITES



LEGEND

- CITY CENTRE STUDY AREA
- EXISTING BUILDINGS
- APPROVED DEVELOPMENTS
- UNDER CONSTRUCTION
- CONSTRUCTED
- UNDER ASSESSMENT

There is considerable future development planned in Wollongong City Centre. This involves the densification of both residential and commercial space.

Note: Map current as of August 2023.

APPENDIX C
CRASH ANALYSIS DETAIL

CRASH ANALYSIS DETAIL

Appendix A – Road user movement code table

Red boxes represent the most common crash types in the Wollongong City Centre