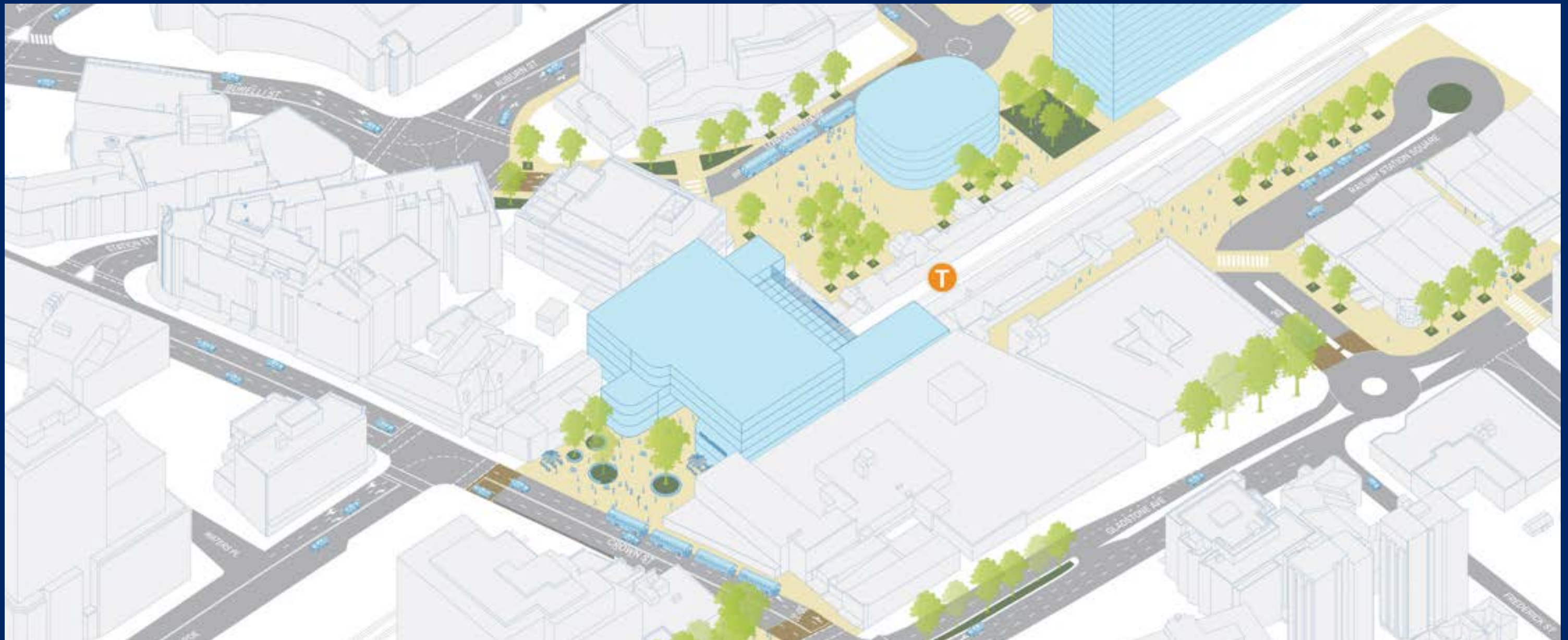


Draft Wollongong Station Precinct

Master Plan

Final Report

February 2025



Document Information

Job title	Wollongong Station Precinct Plan
Client	Transport for NSW
Job number	PIP011
Report title	WSPMP Master Plan
File name	22036_Wollongong-SPP-Master Plan

Revision	Date	Prepared by	Approved by
Draft	02/06/2023	AN, JP, GT, DG, FL, MS, JM	DG, FL
Draft 1	05/06/2023	AN, JP	DG, FL
Draft 2	30/06/2023	AN, JP	DG, FL
Final	28/07/2023	AN	DG
Final Update	31/01/2025	MF	BJ

Note: This document takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party. The report layout is designed to be printed at A3 landscape.

Acknowledgement of Country

Transport for NSW acknowledges the Traditional Custodians of Dharawal Country on which this project is located.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation’s First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples’ cultural and spiritual connections to the land, waters and seas and their rich contribution to society.

Executive Summary

Chapter 1 – Introduction

1-1 Overview 9

1-2 Purpose of the Study 9

1-3 The Document and Process 9

1-4 The Precinct 10

1-5 The Structure Plan 11

Chapter 2 – The Master Plan

2-1 Overview 17

2-2 Vision 17

2-3 Master Plan Design Principles 18

2-5 Design with Country 20

2-5 The Master Plan 22

Chapter 3 – The Key Moves

The Key Moves 25

Crown Street Gateway (CG) 26

Station Street Gateway (SG) 34

Gladstone Avenue Gateway (GG) 36

Opportunity Sites (OS) 40

Chapter 4 – Staging and Evaluation

4-1 Staging 43

4-2 Existing 44

4-3 Short Term 45

4-4 Medium Term 46

4-5 Long Term 47

4-6 Evaluation Criteria 48

Chapter 5 – The Access Strategy

5-7 Access and Interchange Planning 51

5-8 Access Strategy Overview 52

5-9 Pedestrian Interchange 53

5-10 Cycling Interchange 54

5-11 Train Arrival/ Departure 55

5-12 Bus and Coach Interchange 56

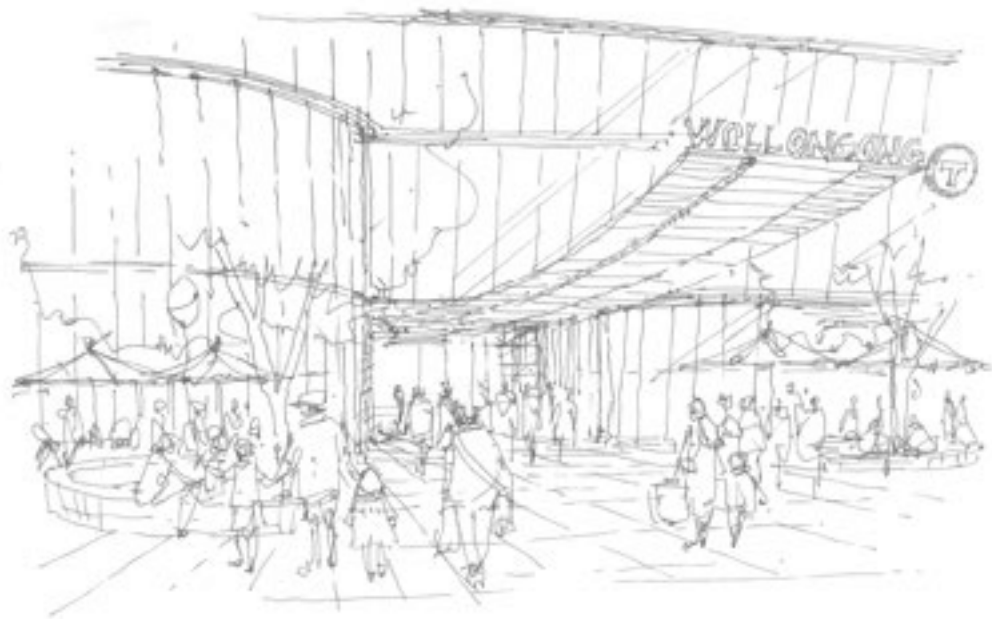
5-13 Vehicle Pickup/ Drop Off and Parking Interchange 57

Appendix 1 – The Access Strategy

Station to Hospital (SH) 59

Appendix 2 – Multi Modal Hub

Multi Modal Hub (MH) 69



Executive Summary

The Wollongong Station Precinct Master Plan (the Master Plan) outlines the vision for an inviting, high quality and well-connected rail arrival which provides an attractive place for the community, and reflects the local identity and desired future character. It has direct and clear active and public transport links to the surrounding area including to the city centre, foreshore and hospital.

The Master Plan provides a framework to guide future renewal for the train station and its immediate surrounds and reflects the importance of the station and the key role it will play in the growth of Wollongong City Centre.

Historically the station has been disconnected from Crown Street and has formed the edge of the city's growth to the west. As the city grows there is an opportunity to capitalise on the station as a centralised hub and gateway. This means connecting the station more strongly into its wider catchment, especially to Crown Street and to key destinations in the west such as the Wollongong Health Precinct and TAFE, as well as strengthening eastern connections towards MacCabe Park and the foreshore.

Key features of the Master Plan are provided in Chapter 3 – Key Moves. It is anticipated that the plan will be delivered over time and the staging of the key moves is subject to further investigation, costings and funding decisions. As projects are funded, they are expected to be realised over the short, medium and long term in a staged manner (see Chapter 4 – Staging and Evaluation).



Figure 1: Wollongong Station Precinct Master Plan Context

The Vision

"The Wollongong Station Precinct will be an attractive place for the community, that reflects the local identity and desired future character and land use.

It will be an inviting, high quality and well-connected rail arrival and a catalyst for transformation, with strong active and public transport links for all people to the surrounding area including to the city centre, foreshore and hospital."

01

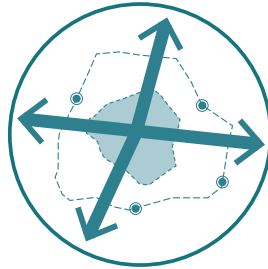
Celebrate Local Identity



Capture and enhance the unique character of Wollongong which is manifested through its diverse people, history, landform, built form and vibrant uses.

02

Enhanced Precinct Connectivity



Strengthen pedestrian and cycle access to, from and across the Precinct including improving east-west connections to key destinations in the surrounding area.

03

High Quality Spaces for People



Deliver high quality open spaces, public domain and amenity to create places that are attractive, comfortable and safe for everyone at all times of the day.

04

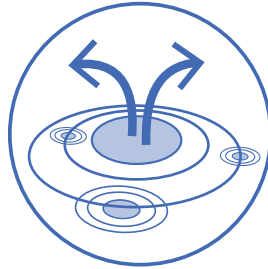
A Welcoming Gateway



Create an inviting front door that provides a clear sense of arrival to the city with coherent wayfinding and legibility to key destinations on all sides of the station.

05

A Catalyst for Renewal and Resilience



Maximise the opportunities to make a positive contribution to Wollongong through supporting development that enlivens the place, encourages renewal and resilience and supports the existing city.

06

Multimodal Mobility Hub



Provide a safe and efficient interchange between the Precinct's different modes of transport including walking, cycling, and all forms of public transport.

The Key Moves

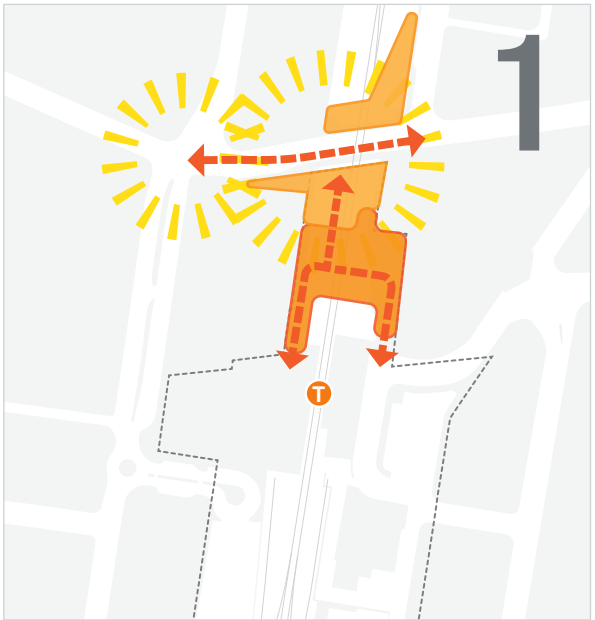
In order to realise the Vision, four Key Moves have been proposed across the Precinct. Each 'move' is located in a different part of the Precinct and each helps to deliver on one or more of the objectives. The following pages explain the ideas and changes that comprise each key move. Some also include 'variations' to explore additional opportunities which might be possible with different timeframes.

The four Key Moves are:

- Crown Street Gateway
- Station Street Gateway
- Gladstone Avenue Gateway, and
- Opportunity Sites.

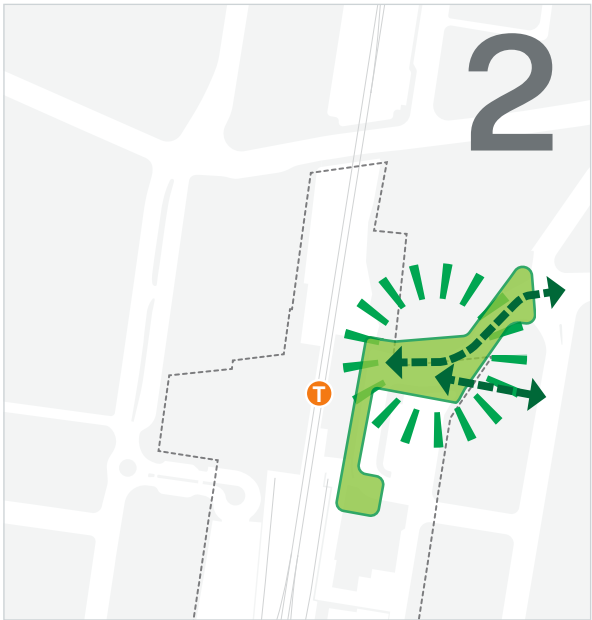
The key moves are focused on the area of land within the Precinct boundary.

Two related moves, Station to Hospital and Multi Modal Hub, can be found in the Appendices. The Station to Hospital key move focuses on interventions to improve pedestrian access from the station to the Wollongong Health Precinct, located to the west of the Station Precinct.



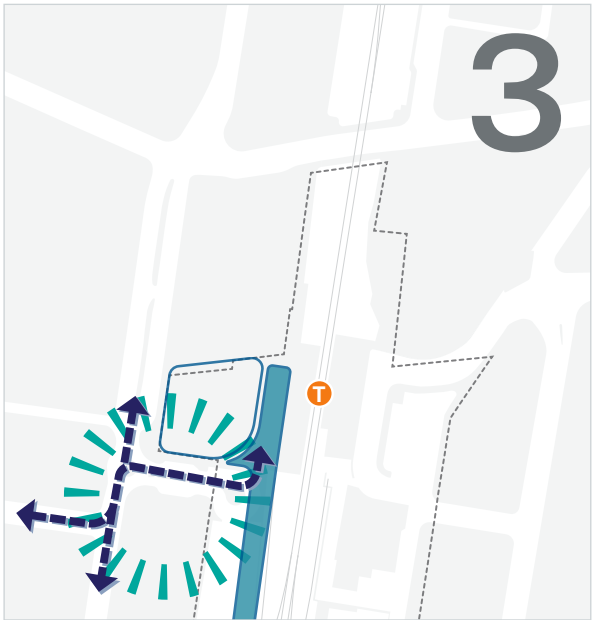
1. Crown Street Gateway (CG)

The Crown Street Gateway will provide a welcoming and high quality arrival experience to the Wollongong Train Station and Wollongong City Centre via an inviting public plaza and mixed use building.



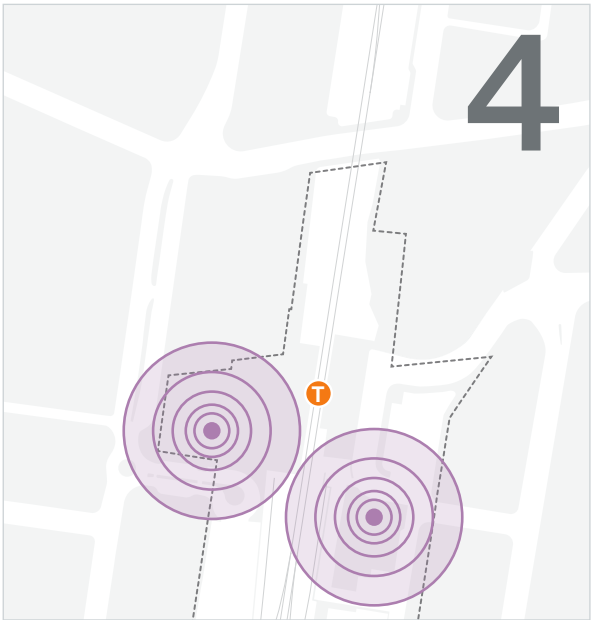
2. Station Street Gateway (SG)

The Station Street Gateway will provide a legible, green and high quality arrival experience to the Wollongong Train Station and Wollongong City Centre via a large open space which showcases the heritage station buildings.



3. Gladstone Avenue Gateway (GG)

Gladstone Avenue Gateway will continue to provide for pedestrian and vehicular access to the station. An extension of the existing station forecourt will provide additional space for formalised taxi and kiss and ride spaces and increased opportunities for public domain enhancements.



4. Opportunity Sites (OS)

Land around a city centre station is highly valuable and development within the Precinct presents an opportunity to maximise the value of government owned land. The greatest opportunities occur south of Lowden Square and at the current multi deck carpark on Gladstone Avenue.

The Master Plan

- Denison Street pocket park public domain with expanded footpath and landscape improvements
- Denison Street slip lane removed and additional public space provided for pedestrians
- Gladstone Avenue planted median (trees and understorey planting)
- An increased setback to any future development on the Piccadilly Centre site is desirable to improve views to the station plaza and increase space allocated to pedestrians on Crown St
- Vertical circulation on either side of the rail reserve will be weather protected and provide DDA compliant access from Crown Street to the level of the station platforms
- Existing multi-storey commuter car park to be retained in the short term with redevelopment of the site possible in the long term
- Pedestrian crossing across Gladstone Avenue to improve pedestrian access to Osborne Street and strengthen connections to the west and the Wollongong Health Precinct and TAFE
- Extension of existing public plaza creates more space for pedestrians to rest and wait and increases opportunities for formalised kiss and ride and taxi spaces

- Additional public space north of Crown Street to strengthen the 'green gateway' over the long term
- A new public plaza creates a generous arrival to the station and provides more space around bus stops and for the community to enjoy
- Potential mid-rise (3-5 storeys) mixed use development spanning over the rail reserve
- A new green space creates welcoming arrival, provides additional landscape opportunities and showcases the heritage station buildings
- Changing the location and design of bus stops and bus access minimises the area required for vehicle access and reduces vehicle / pedestrian conflicts
- A small mixed use building provides customer amenities including end of trip facilities and helps to activate the space with retail and food options
- A new junction improves access to a future street to the south and allows taxis, coaches and kiss n ride to turn around without needing to travel through the bus interchange next to the station
- Potential long term redevelopment of sites with large floor plates in the vicinity of the precinct for uses that complement close proximity to a major train station.

Figure 2: Illustrative Wollongong Station Precinct Master Plan



Chapter 1

Introduction

- 1-1 Overview
- 1-2 Purpose of the Study
- 1-3 The Document and Process
- 1-4 The Precinct
- 1-5 The Structure Plan

1-1 Overview

Wollongong has been identified as a Metropolitan City and a regionally significant centre within the Illawarra Region, in the Illawarra Shoalhaven Regional Plan (ISRP). These centres are identified as places that will drive jobs creation, housing diversity, and vibrant communities.

Transport for NSW (Transport) commissioned a Master Plan for the Wollongong Station Precinct (The Precinct) in September 2022. Wollongong Station is a key Transport Hub and an important point of arrival for the Wollongong CBD. Unlike many central train stations in city centres, the Wollongong Station is located on the fringe of the commercial core, and up until now the growth of the city centre has primarily occurred to the east of the station.

The Precinct has been identified as a site that requires a targeted upgrade to enhance the character and sense of place of the site, to move away from the existing road-based infrastructure that dominates the area, and enhance public transport access.

The Master Planning process adopts a place first approach to the assessment and re-design of the Wollongong Station Precinct Master Plan (WSPMP) and involves conducting a movement and place analysis to inform and develop a suitable Wollongong Station Precinct Structure Plan, Precinct Master Plan, and a Precinct Access Strategy to guide the future development of the Wollongong Station Precinct. The project's aims have been extended to investigate and enhance links to the Wollongong Hospital Precinct.

1-2 Purpose of the study

The purpose for the project is to 'ensure a place-first approach to the Wollongong Station Precinct Plan'. This report, which is the output of the Study, will provide vision and direction for potential future projects, in and around the Wollongong Station Precinct. This report is designed to provide a overarching plan for how the precinct could develop, to support and better serve commuters and the local community.

The objectives are to develop a structure plan, Master Plan and Access Strategy plan that show how:

- The station will form a gateway into the city, utilising the newly defined Burelli Street as a civic street with a commercial streetscape. The focus will be on built form that provides an excellent street interface, responds to local character and builds on local identity;
- The future transport interchange is to be integrated with the surrounding precinct and adjoining future development;
- The Precinct will feature high quality design in buildings and public spaces that will deliver upgraded amenity and accessibility;
- New, green civic spaces at the station are to provide a new front door to the city, and be safe places providing improved access and legibility for customers and the community, on both sides of the rail corridor;
- Aboriginal and non-Aboriginal cultural heritage is to be explored, recognised and celebrated, to help create a unique sense of place for the Precinct.

1-3 The Document and process

The development of the Wollongong Station Precinct Structure Plan was the first stage of this project. The Structure Plan developed a preferred 'skeleton' and framework upon which the Wollongong Station Precinct Master Plan (this document) could build.

The Master Plan provides additional detail on the potential built form and desired future character of the Precinct, and how it could be achieved over time. The evolution of the Precinct, over the short, medium and long term, will be forecast to show how the desired end-state can be delivered in stages, by various stakeholders, over time.

Chapter 3 of this document provides spatial detail showing how the project vision and objectives will be delivered in key locations across the Precinct.

Chapter 4 of the Master Plan includes an Access Strategy which identifies how all modes of transport will move efficiently and safely within the Precinct.



1-4 The Precinct



The Wollongong Train Station is at the core of the Precinct study area.



Gladstone Avenue to the west of the station features more recent apartment developments.



The Emergency Department entrance at Wollongong Hospital is highly visible at the intersection of Crown Street and Darling Street.

Wollongong is located on the south coast of NSW, within the Illawarra-Shoalhaven Region. It is located approximately 85km south of Sydney, 35km north of Kiama and 80km north east of Nowra. Wollongong is the third largest city in NSW, with a population of approximately 214,500 (2021 census). The economic and cultural heart of this region is the area referred to as ‘Metro Wollongong’ comprising the precincts of the commercial core (to the immediate east of the station); health (to the immediate west and north west of the station); the waterfront (to the far east of the station); and the education and innovation precincts (located in North Wollongong).

Wollongong Station is located in the heart of Metro Wollongong at a key “gateway” location: on Crown Street between the commercial core precinct and the health precinct. Crown Street links these two precincts and then heads further east towards the waterfront precinct. The commercial core includes major retail and commercial businesses, as well as civic and cultural facilities. The health precinct includes Wollongong Hospital, Wollongong Private Hospital and associated health facilities and services.

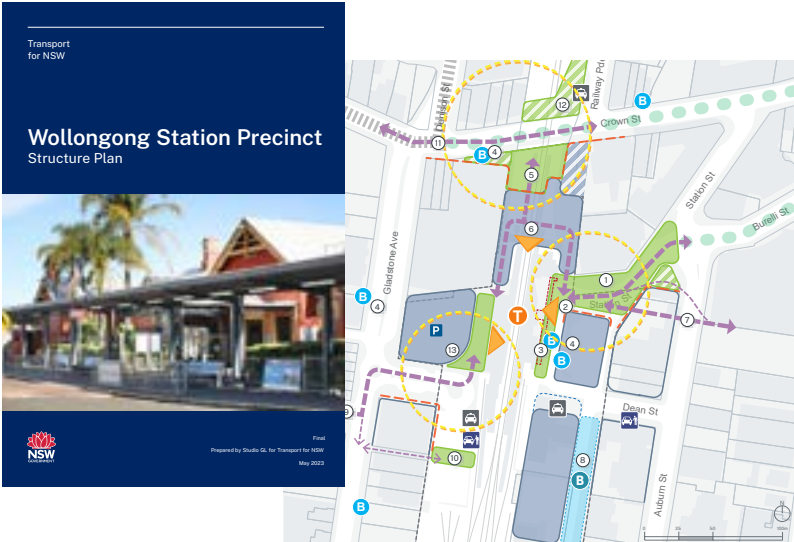
This project is focused around a core study area which is defined by the government owned land around the station. This includes the rail reserve, multi-storey commuter car park, and the station forecourts as well as the station itself. This project also investigates the western connection between the train station and the Wollongong Hospital Precinct, along Crown Street.

Wollongong Station has two side loading platforms serving two central tracks. Main station entries are located on Railway Station Square (west side), and Lowden Square (east side). Apart from the large multi storey commuter car park on the west side of the station, there are smaller car parking areas located to the south and east of the station.



Figure 3: Precinct map

1-5 The Structure Plan



The development of the Wollongong Station Precinct Structure Plan was the first stage of this project. The Structure Plan provides a framework that shows the proposed future urban structure of the Precinct, including proposed street and open space networks and land uses. It also established an overarching Vision and Objectives for the Precinct and identified a series of potential Options to achieve this.

A Movement and Place approach was undertaken to understand the area which involved detailed site analysis and background review of key strategic documents.

The Structure Plan provided the preferred 'skeleton' and groundwork for the Master Plan to be developed. The following pages provide a brief snapshot of the Structure Plan report.

Strategic Context

The intent of the Structure Plan and Master Plan is to leverage existing policy and strategy, as relevant to the Station and the transport interactions across the area.

Key strategies and policies detailed in the Structure Plan have been summarised below.



Future Transport Strategy

Transport for NSW (2022)

The Strategy identifies Wollongong as a 'Metropolitan City' which are defined as "Highest order, economically significant centres outside of Greater Sydney".

Particular emphasis is given to local network improvements and enhancing the 30-minute travel catchment including enhanced legibility, multimodal integration, and seamless interchanges within and between regional centres.

Wollongong is identified as being located along the Fast Rail-Southern Coastal route and the Strategy includes actions to investigate place making around Fast Rail hubs to create vibrant urban centres.



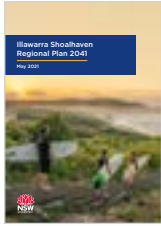
Illawarra-Shoalhaven Regional Transport Plan

Transport for NSW (2021)

Wollongong has been identified as a Regionally Significant Centre and has been earmarked for further housing and job growth. It will be a key regional destination for employment, education, retail & services.

The Plan prioritises safety improvements around the urban centre of Wollongong, particularly around Mercury Street, Crown Street, Denison Street, and Burelli Street.

The Plan encourages the introduction of lower speed limits in existing neighbourhoods to support walking and cycle-friendly neighbourhoods and supports the development of a Principal Bicycle Network (PBN) to facilitate a seamless cycle network across the Local Government Area.



Illawarra Shoalhaven Regional Plan 2041

NSW Department of Planning & Environment (2021)

The Regional Plan envisions Metro Wollongong to be a 'smart and vibrant city that sits within a well-loved natural setting, and examples of architectural excellence and popular green public spaces are abundant'.

The Regional Plan encourages the growth of Wollongong as the region's 'Civic Heart', including improving walkability to shops, services, schools or work.

The Plan aims to enhance the growth potential of the Metro Wollongong Health Precinct and outlines the need for a central meeting place that incorporates green infrastructure and place-making initiatives.



Wollongong City Centre Urban Design Framework

Wollongong City Council & Architectus (2020)

The area surrounding the station has been identified as part of the Rail Arrival and Southern District Precinct and has been highlighted as a key transport hub and an important midway point for pedestrian traffic between the hospital, station and retail core.

Opportunities identified for the Precinct include improving the links and wayfinding between the station and the City Centre, activating the public domain on Station Street and the area south of the Precinct, providing opportunities for active transport along Burelli Street and through MacCabe Park, and upgrading Lowden Square.

The Framework identifies the need to create a distinct sense of arrival at the Western Crown & Keira Street Precinct as it forms a "gateway to Wollongong's commercial and civic heart".

Opportunities identified for the Western Crown Precinct include activating the streets and laneways by creating a safe people oriented walking environment, and reducing traffic along Crown Street by diverting traffic via Throsby Drive and Denison Street.

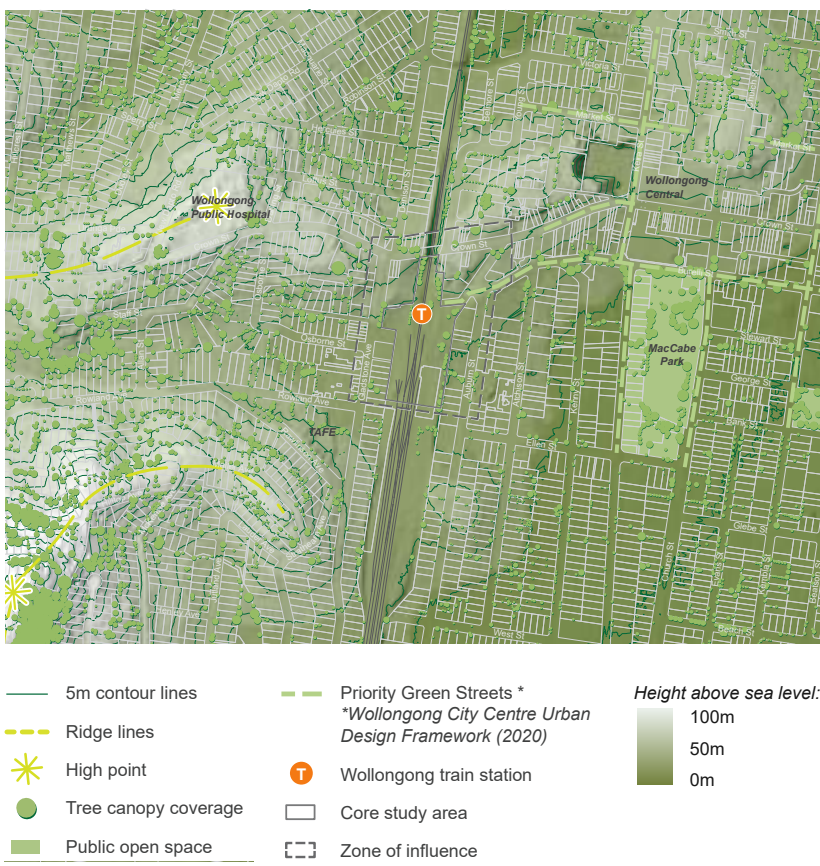
1-5 The Structure Plan

Landform and landscape

Wollongong is located between the Illawarra escarpment to the west and the Tasman Sea to the east. The area immediately to the east of the railway line slopes gently to the coast and has an efficient gridded and connected street structure. The area to the west of the railway line has a more irregular, disconnected street structure and is affected by steeper topography and creeks.

Wollongong Hospital is situated on a local highpoint and forms the end of a ridgeline that extends further west. The topography limits access, with the contours resulting in a steep climb to the Hospital from the Station.

The immediate Station Precinct generally has a low percentage of tree canopy (less than 10%). The largest percentage of tree coverage is located to the west of the rail line beyond Rowland Avenue and within existing open space such as MacCabe Park.



Movement network

Wollongong is serviced by three main transport corridors running north-south: the Princes Motorway (M1) on the western edge, the railway line in the centre and Corrimall Street on the eastern edge. Crown Street is the major east-west route through the area and is classified as a State Road.

A high number of buses travel down Crown Street, with some detouring to interchange with the station at Lowden Square. A small number of buses travel along Gladstone Avenue.

A series of pedestrian priority zones and mid-block links have been identified in local strategic plans, to help improve movement and access in the area. The majority of these proposed future links are located to the east of the rail line, with a focus around Crown Street and Burelli Street. A desired pedestrian/ cycle connection between MacCabe Park and Wollongong Station is also identified.

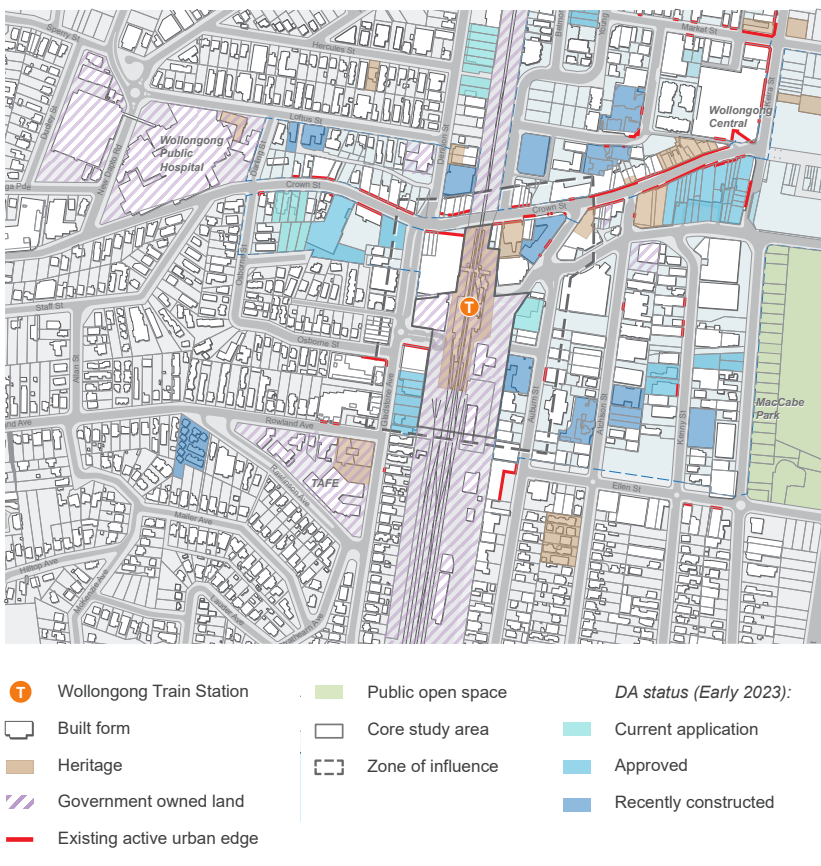


Land use, built form and heritage

The core Wollongong Station Precinct is on land zoned SP2 – Infrastructure and includes the functioning rail station, rail reserve and commuter car parking. Directly to the north and north east of the Precinct is the city centre which is zoned B3 – Commercial Core. Wollongong Public Hospital is located approximately 450m west of the train station on land zoned SP1 – Special Activities.

As the third largest city in NSW, Wollongong is experiencing a significant amount of development activity, with various large scale projects at different stages in the development process. These proposals, approvals and constructed developments around the station will continue to influence the potential opportunities and capacity of the Station Precinct.

Wollongong Railway Station is heritage listed and is of State historical significance as "the most substantial and earliest station on this section of the Illawarra line".

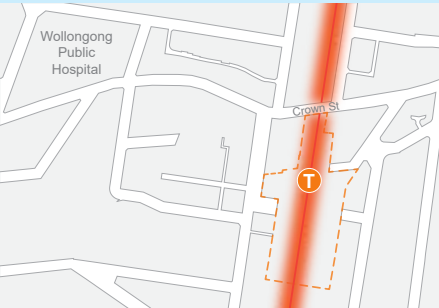


1-5 The Structure Plan

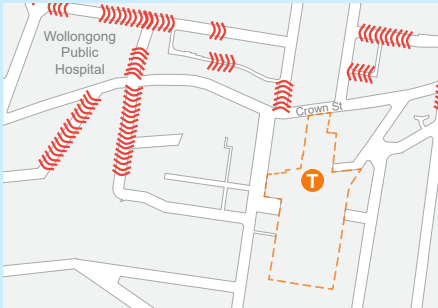


Challenges

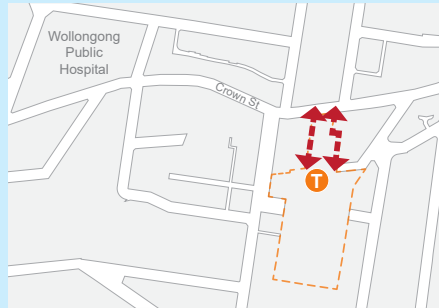
The railway line divides the Precinct and limits East–West movement



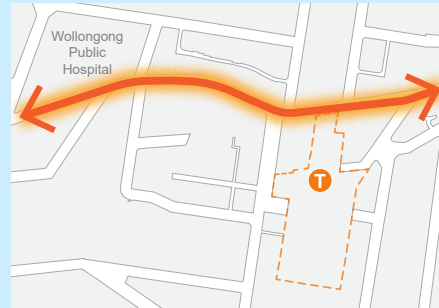
The topography creates streets with steep slopes especially in streets surrounding the hospital precinct



Poor quality and safety of existing North–South pedestrian links between the station and Crown Street



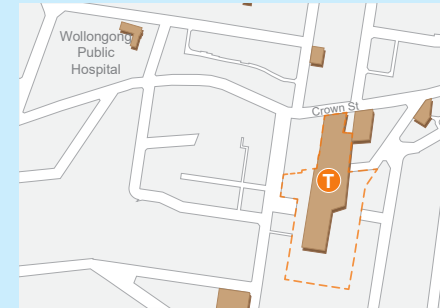
Crown Street is a State Road with a poor pedestrian experience, especially along its western end towards the Hospital



Recently constructed developments and current DAs limit the opportunity for potential changes in the Precinct

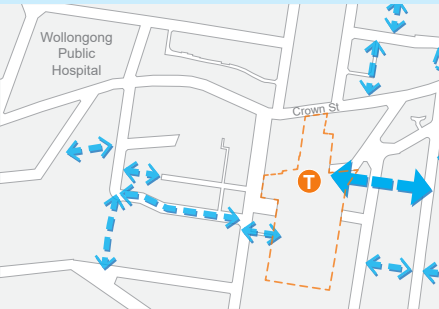


Heritage listed sites within and around the Precinct require sympathetic design considerations

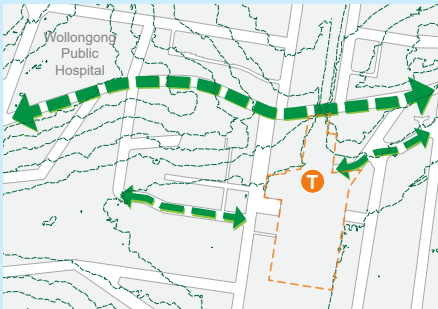


Opportunities

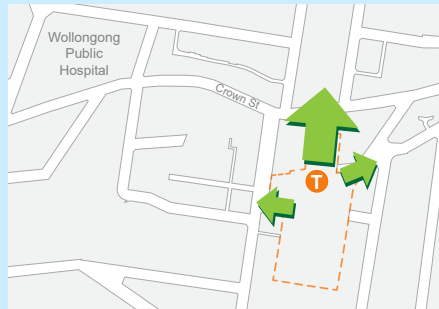
Link into existing and planned pedestrian and active transport connections around the Precinct



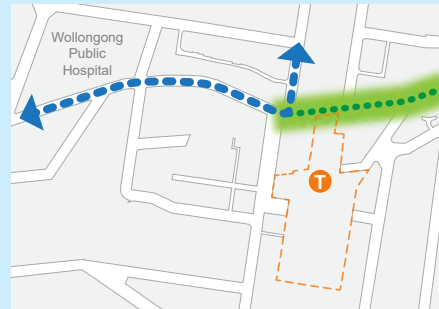
Many East–West streets run along a contour and are a comfortable gradient for pedestrian and cycle access, with Crown Street running along a ridgeline



Opportunity to provide a welcoming northern station entry from Crown Street and improve east and west station entries



Potential use of Denison Street as an alternate route for vehicle traffic and enable Crown Street to become a more pedestrian friendly, slow speed environment



SP1 – Special Activities land zoning presents opportunities for hospital expansion (subject to the potential development of other uses such as residential flat buildings)



Maximise the value of large areas of land around the station, owned by the NSW Government.



Figure 7: Simplified challenges and opportunities for the Precinct

1-5 The Structure Plan

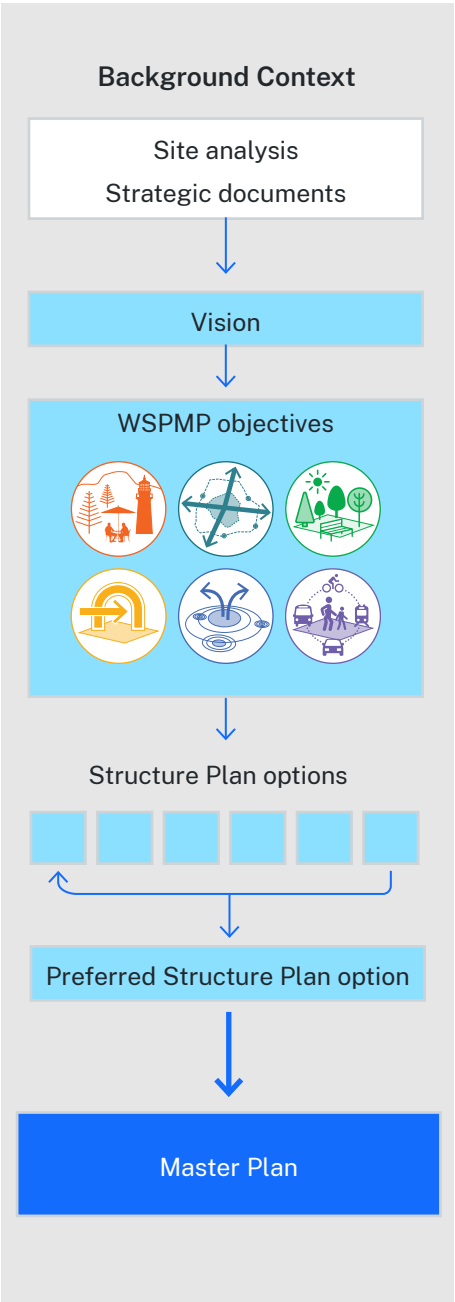


Figure 8: Project development process

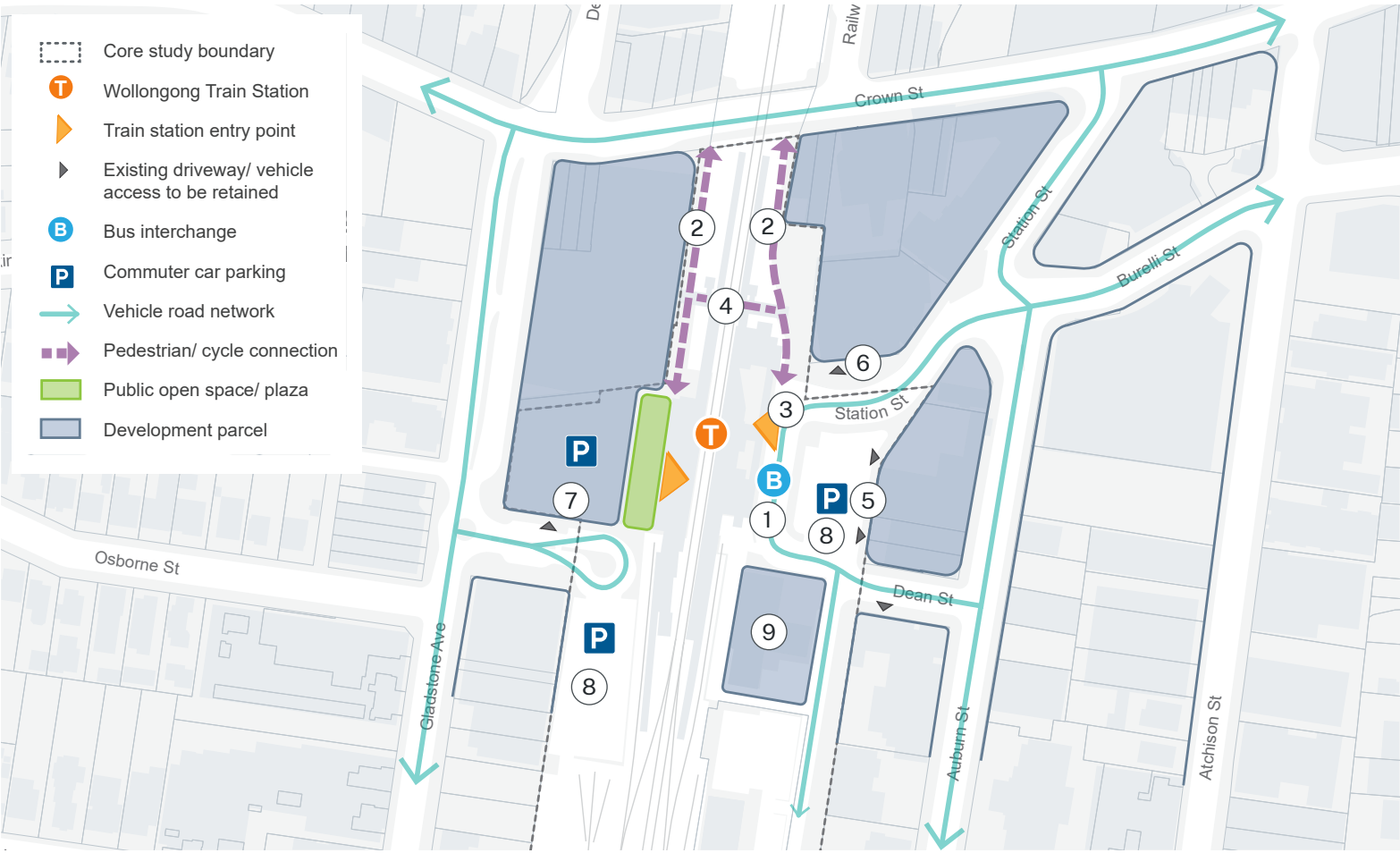
Developing the preferred Structure Plan

A number of high level options were developed to help inform the preferred Wollongong Station Precinct Structure Plan. The options were based on an understanding of the existing strategic context, stakeholder input and the Movement and Place analysis. They ranged from more cost effective, small interventions, to more expensive and transformative propositions which would require significant planning, collaboration and engineering considerations. For detail on each of the different options explored, please refer to Chapter 4 in the separate Structure Plan document.

The finalisation of the preferred option for the Structure Plan was influenced by stakeholder consultation, workshops and feedback provided on the preliminary options prepared. The workshops involved representatives from Transport for NSW, Department of Planning and Environment and Wollongong City Council and were also conducted to help shape and identify the vision, objectives, evaluation criteria, and opportunities and constraints for the Precinct.

The Vision and Objectives, which were developed to inform and guide the future planning and development of the Wollongong Station Precinct, can be found in more detail in Chapter 2 of this document.

The diagram below is a snapshot of the existing Precinct conditions which the preferred Structure Plan is based upon.



- 1 On-grade bus interchange at Lowden Square with bus entry from Dean Street and bus exit from Station Street.
- 2 North-South pedestrian connections to Crown Street via narrow pedestrian links.
- 3 Access to eastern platform from Lowden Square and to western platform from the Gladstone Avenue commuter carpark forecourt.
- 4 *Disability Discrimination Act* (DDA) compliant access between platforms is provided by lifts to the north of the station entries.
- 5 Some Auburn Street properties currently have driveway entries and access from Lowden Square.
- 6 Driveway access to the Hydrographic Office is provided off Station Street.
- 7 Multi-storey commuter car park.
- 8 On-grade commuter car parking.
- 9 Sydney Trains Wollongong Network Base.

Figure 9: Existing Precinct Plan

1-5 The Structure Plan

The Preferred Structure Plan

The Wollongong Station Precinct Structure Plan provides a framework to guide future renewal for the train station and its immediate surrounds and provides the foundation for the detailed Precinct Master Plan (see Chapter 4).

Key features of the Structure Plan are highlighted below and grouped under indicative delivery dates:

Short term

- 1 Pedestrianisation of Station Street to create a direct connection to Burelli Street from the station with clear sightlines and high quality public domain.
- 2 Improved sense of arrival at Lowden Square with more generous pedestrian forecourt similar to the station's western plaza.
- 3 Celebration of the station's heritage built form and character with relocated awnings and bus stop infrastructure.
- 4 Bus access from three sides of the station – Crown Street, Lowden Square and Gladstone Avenue and consideration of regional coaches and school buses etc.

Medium term

- 5 Key gateway site and arrival plaza at Crown Street. Potential for expanded open space and increased active frontages (in collaboration with adjoining sites).
- 6 Additional access to station platforms from Crown Street via integration with over station development.
- 7 Desired active transport link providing physical and visual connection towards MacCabe Park and the foreshore with a focus on connecting into the regional coastal cycle route.
- 8 Potential bus layover location south of Dean Street with opportunities for driver facilities (subject to alignment with a separate project currently underway).
- 9 Strengthen Osborne Street as a safe pedestrian/ cycle connection with potential to link to Staff Street and a possible southern expansion of Wollongong Public Hospital.
- 10 Increased area for station drop off and pick up and new green space.
- 11 Potential use of Denison Street as an alternate route for traffic to bypass the City Centre. This could result in this portion of Crown Street becoming a more pedestrian friendly, slow speed environment.

Long term

- 12 Potential public open space over rail reserve to the north of Crown Street would reinforce the 'green gateway' into the centre and extend the area of greenery and open space to the north.
- 13 Multi-storey commuter car park redeveloped as a potential mixed use development with better streetscape activation and sightlines to the western station entry.

Figure 10: Wollongong Station Precinct Structure Plan





Chapter 2

The Master Plan

- 2-1 Overview
- 2-2 Vision
- 2-3 Master Plan Design Principles
- 2-4 Design with Country
- 2-5 The Master Plan

2-1 Overview

The Master Plan outlines a strategy for the long term development of the Wollongong Station Precinct. It presents a flexible framework for the future, focused on solutions that will create safer, better connections from the station into the City Centre and support an activated efficient interchange with high-quality public domain spaces.

The Process

The Master Plan was developed by Transport for NSW following the development of a Structure Plan which involved consultation with key stakeholders including Wollongong City Council, the Greater Cities Commission and the Department of Planning.

The Structure

The Vision and Objectives in the Structure Plan have informed the Master Plan. Structure Plan Objectives have been expanded and augmented to become more relevant to the level of detail required in the Master Plan .

The vision and objectives have then been distilled into four Key Moves which focus on different areas within the Precinct. The appendices contains two additional Moves; 1. Station to Hospital and 2. Multi Modal Hubs.

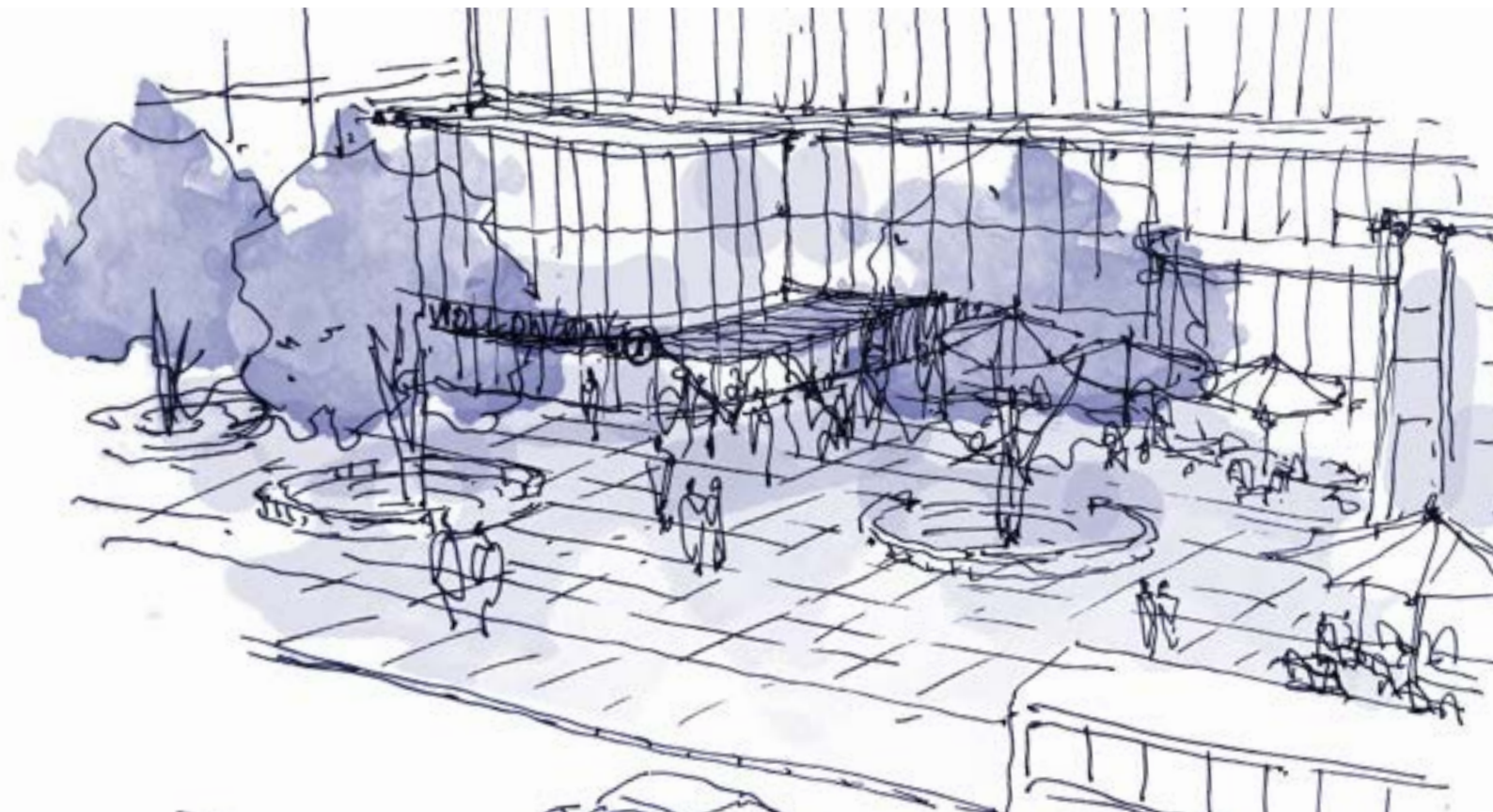
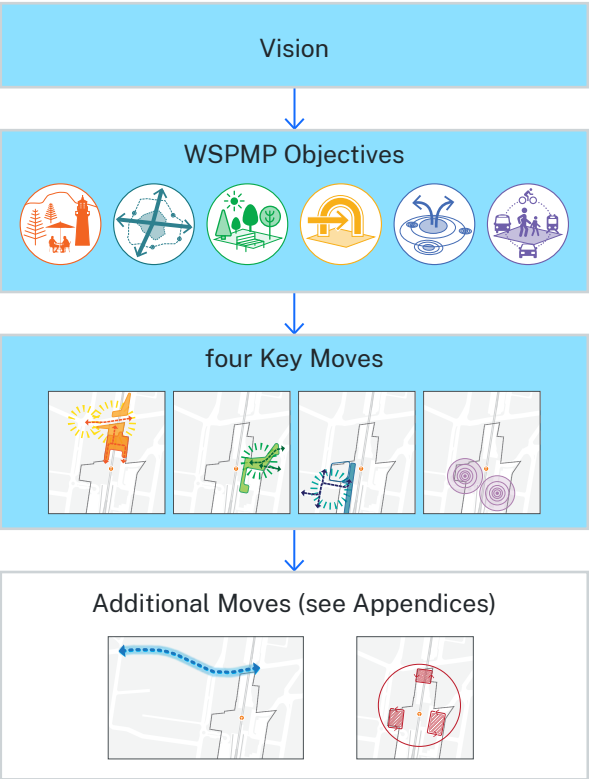
Each of these smaller spatially located 'moves' should be considered both individually, to enable future works to be developed and refined, and holistically to ensure they continue to support the overall vision. Breaking the plan into smaller moves also enables works to occur at different stages over time.

Each Key Move will be subject to further investigation, costings and funding decisions. If a decision is made to fund a project, it is expected it will be realised over time using a staged approach.

2-2 Vision

"The Wollongong Station Precinct will be an attractive place for the community, that reflects the local identity and desired future character and land use.

It will be an inviting, high quality and well-connected rail arrival and a catalyst for transformation, with strong active and public transport links for all people to the surrounding area including to the city centre, foreshore and hospital."



2-3 Master Plan Design Principles

01

Celebrate Local Identity

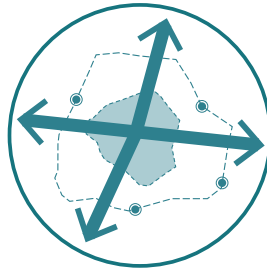


Capture and enhance the unique character of Wollongong which is manifested through its diverse people, history, landform, built form and vibrant uses.

- Embed Connecting to Country as a key principle and integrate First Nations organisations and communities into the decision making process at strategic, project and design stages.
- Explore opportunities to maximise integration of the existing cultural environment, natural environment (including the topography, geology, flora and fauna) and built environment.
- Use materials and integrate public art to reflect the local ecology, history, character and culture of the place.
- Ensure new built form responds to the desired future character of the city and contributes to a positive local identity for Wollongong.
- Use views to key vistas, and natural and built landmarks to assist with wayfinding and to create a legible environment, where it is easy for people to know where they are and how to find their way around.
- Ensure Items of heritage value and the history of the local area, both Non-Aboriginal and Aboriginal, are recognised, protected and celebrated.
- Work with Council to seamlessly integrate the materiality of the public domain of the station with the public domain of the surrounding local area.
- Provide public art that provides interest, increases activation and reflects, celebrates and engages the local community.

02

Enhanced Precinct Connectivity



Strengthen pedestrian and cycle access to, from and across the Precinct including improving east-west connections to key destinations in the surrounding area.

- Support a network of active transport links to and within the Precinct that support a sustainable and healthy city.
- Provide direct and safe pedestrian links from the surrounding area to the station entries and orient entries to maximise connectivity and expand the catchment.
- Accommodate additional links where possible to increase the walking/cycling catchment and to link into existing and planned Green Grid connections.
- Consider providing additional links to improve interchange with other modes of transport.
- Consider the topography of the Precinct and reduce the need for pedestrians and cyclists to use steep routes to access the station.
- Provide improved cycling infrastructure and locate bicycle parking and end of trip facilities close to station entries.
- Prioritise active transport upgrades (new cycle connections, suitable crossing facilities/ intersections) and improved connections to the CBD, Hospital and MacCabe Park for pedestrians and cyclists.
- Ensure all streets, lanes and links surrounding the station are designed to serve the anticipated demand (i.e. appropriate width with amenity and shelter).
- Where possible increase vehicular intersection density in and around the Precinct to increase accessibility and choice.

03

High Quality Spaces for People



Deliver high quality open spaces, public domain and amenity to create places that are attractive, comfortable and safe for everyone at all times of the day.

- Strengthen the green network with increased and enhanced open spaces.
- Optimise solar access to public spaces through the shape and location of open space(s) and the proposed height and shape of surrounding built form.
- Ensure all footpaths, laneways and pedestrian connections are well-lit and provide opportunities for passive surveillance to promote safety.
- Increase the percentage of tree canopy in the Precinct and reduce the percentage of impervious surfaces and the urban heat island effect.
- Ensure all landscape treatments are high quality, low maintenance, with durable drought tolerant planting that provides long term amenity and value for money.
- Discourage private car movement within the Precinct and encourage a slow speed, high quality pedestrian environment. Reduce Fatal and Serious Injuries and casualty crash rates.
- Ensure all station entries are appropriately scaled and station buildings create well composed public spaces with a human scaled level of spatial containment.

2-3 Master Plan Design Principles

04

A Welcoming Gateway



Create an inviting front door that provides a clear sense of arrival to the city with coherent wayfinding and legibility to key destinations on all sides of the station.

Ensure all station entries are clearly visible from the surrounding area and sufficient space is provided to allow passengers and pedestrians to move freely and comfortably around station entries.

Locate station entries where they respond to existing pedestrian routes (or “desire lines”) and follow the natural and intuitive way of moving around the area.

Provide civic gathering spaces adjacent to station entries that activate the area and make a positive contribution to the life of the local community.

Improve visual and physical connections between station entries and the surrounding area to support the productivity of the city and help to activate local retail, community and commercial facilities.

Create a legible environment around station entries where it is easy for people to know where they are and how to find their way around.

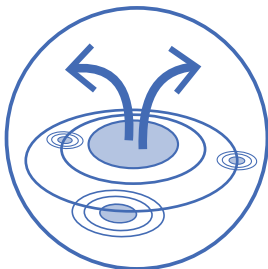
Locate and design station entries and the surrounding public domain to mitigate any adverse microclimate impacts such as cold winter winds and hot afternoon summer sun.

Mitigate adverse visual and noise impacts (such as those created along busy roads) to deliver an enjoyable and pleasant environment around all station entries.

Design station improvements to respond to the existing urban structure (street, block and lot) and existing patterns of activity to support the character of the place and activity at the ground level.

05

A Catalyst for Renewal and Resilience



Maximise the opportunities to make a positive contribution to Wollongong through supporting development that enlivens the place, encourages renewal and resilience and supports the existing city.

Ensure changes to the station create the conditions to support opportunities for positive change and urban renewal.

Explore opportunities for station designs to connect areas currently divided by constructed barriers (such as rail lines).

Encourage jobs growth and explore opportunities to provide employment opportunities accessible by active and public transport.

Optimise and protect the long term opportunities for development of government owned land.

Explore opportunities to provide a 'Future Transport Hub' that consolidates a range of essential services such as supermarkets and post offices in one location.

Ensure designs of structures are environmentally sustainable and robust, energy efficient and high performing.

Minimise water use and stormwater runoff through effective Water Sustainable Urban Design of stormwater and wastewater.

Explore opportunities to maximise renewable energy generation and minimise energy use.

Ensure developments that need to address flood reduction measures do not reduce street level activation.

Where possible consider likely requirements for future transport connections such as Regional Fast Rail.

06

Multimodal Mobility Hub



Provide a safe and efficient interchange between the Precinct's different modes of transport including walking, cycling, and all forms of public transport.

Allocate facilities according to the modal hierarchy which prioritises pedestrians first, then cyclists, then public transport users with private vehicle access last.

Ensure passive surveillance is possible day and night along all pedestrian access routes. Prioritise ground level pedestrian access and minimise the need for underpasses or overpasses.

Discourage private car movement and parking within the station precinct over time and reallocate space to pedestrians, cyclists and public transport.

Provide direct links (visual and physical) from station entries to interchange facilities.

Ensure all footpaths across the Precinct are wide enough to accommodate anticipated pedestrian flows and accommodate all users (i.e. DDA compliance).

Locate bicycle parking and end of trip facilities close to station entries.

The station and station locality is safe and responsive to the Crime Prevention Through Environmental Design (CPTED) principles of surveillance, access control and territorial reinforcement. Ensure appropriate lighting and limit areas with blank walls, routes with poor natural surveillance and areas of concealment where people can hide.

Encourage a range of services to support station users.

2-4 Design with Country

This Master Plan is a strategic document, that will be used within Transport for NSW (Transport) to provide a direction for the future of the Wollongong Station Precinct. In order to integrate Aboriginal heritage and cultural context into the Precinct, it is proposed that the strategies as set out within the draft *Connecting with Country Framework* (2020) be used to structure the involvement of local Indigenous communities as the Master Plan progresses into specific projects, that may be undertaken by Transport or others.

The framework provides a way for ‘understanding the value of Aboriginal knowledge in the design and planning of places’ and will support the delivery of innovative strategic responses that acknowledge Country, the cultural landscape that we all work upon, the connection of the Aboriginal custodians and the privilege and responsibility to Care for Country.

Within the framework, two strategies are outlined. The first Strategy provides pathways for connecting: Pathway 1 relates to Learning from first languages and placenames; Pathway 2 involves the development of mutually beneficial relationships with Country, forged by sharing, making decisions that benefit both people whilst also addressing the needs of Country, building ongoing relationships and giving consideration to opportunities for local Aboriginal communities; Pathway 3 seeks to reawaken memories of cultural landscape, including walking on Country, engaging all the senses to deeply understand place, and seeking to understand the special purpose of that place; and Pathway 4 which references finding common ground, including finding common approaches that will support the health and wellbeing of Country, knowledge sharing, developing an understanding of Aboriginal ways of knowing and eco-system thinking, and the differences that this raises in relation to the more dominant Western science and cultural knowledge system.

The second Strategy focuses on the project life cycle, from an Aboriginal perspective. This breaks the project life cycle into four parts:

Sensing *Start with Country*
(project formation)

This stage requires more than just listening, it requires ‘actively seeking the sense of Country’. This may be more difficult, but no less relevant, when you are seeking to understand an urban context, rather than a bush setting. This stage involves seeking out the feeling of Country, what makes it special, and what differentiates it from other places.

Imagining *Listen to Country*
(project design & conceptualization)

The act of Listening is ‘a critical part of engaging with Country and with community’. Engaging with the local Indigenous community requires supporting them to speak about their Place, in a manner that they are comfortable with. Reference is often made to deep listening, which involves ‘more than just hearing with ears; it s hearing with other parts of ourselves at a profound level; it is the search for understanding and meaning’, as described by Judy Atkinson and Danièle Hromek.

Shaping *Designing with Country*
(project delivery)

When developing the design for a project, connection to Country can be strengthened via the use of local materials and plants, which already have an innate relationship with Country. This is often referred to as ‘making on Country’ and care needs to be taken to respect the correct protocols for collecting if native rock or other inanimate material is going to be incorporated.

Caring *for Country*
(project maintenance)

Upon completion, a project then belongs to, and has a relationship with, Country. This relationship can be mutually beneficial if the project has been ‘guided by Aboriginal knowledge-holders and their local expertise, and if the project is developed with cultural awareness and a commitment to enabling connection with Country’. ‘Caring for Country’ is also used by Aboriginal people to describe their deep affection and responsibility to look after the health and wellbeing of Country. This final stage of the project life-cycle is on-going, and lasts for the life of the project.

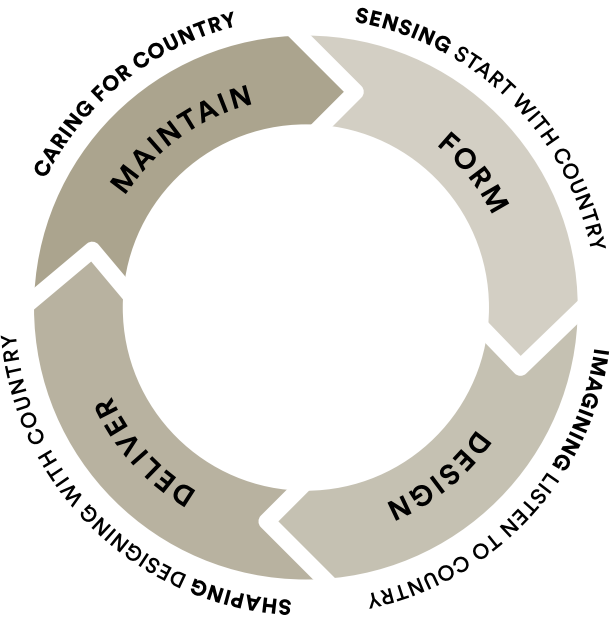


Figure 11: Project lifecycle (source: Connecting with Country Framework, GANSW)



2-4 Design with Country

The framework also sets put Statements of Commitment and Principles for Action, that will help project teams ‘fulfil their commitment to Country’. These encompass the commitment to respect the rights of Aboriginal people to retain control of their intellectual property, and to support the ‘right of Country to be cared for’.

There is also a commitment to prioritise Aboriginal people’s relationship to Country, and their cultural protocols and support this via ‘education and enterprise by and for Aboriginal people’. The third commitment is to prioritise financial and economic benefits to the Country where works are occurring, and by extension to the Traditional Custodians of that Country. The fourth commitment is to share the tangible and intangible benefits of the projects being undertaken, with the local Aboriginal communities, including current and future generations.

The fifth commitment requires respect for the diversity of Aboriginal cultures, but a focus on the local, place-specific cultural identify of the Precinct where the project is occurring. It is for Aboriginal people to determine the extent and nature of the representation of their cultural materials, customs, and knowledge. The sixth commitment prioritises supporting capacity building across Aboriginal and non-Aboriginal communities, through the project process. This may take the form of partnering with Aboriginal-owned and run businesses, and consulting services, and identification of the opportunities available for educational and enterprise outcomes.

The final commitment is to supporting Aboriginal people to ‘continue their practices of managing land, water, and air through their ongoing reciprocal relationships with Country’. This relates to the identification of opportunities to encourage cultural practice on Country, such as the planting of ceremonial plants, that can then be used by the community in cultural practice.

If consideration is given to all these factors, then as projects develop out of the Master Plan a process can be developed, and a relationship established with the local Aboriginal communities, that will be beneficial to both.

The following organisations were identified in Wollongong Council’s Aboriginal Engagement Framework, as potential contacts to begin the process of engaging with the local Aboriginal communities.

- Coomaditchie Aboriginal United Corporation
- Illawarra Local Aboriginal Land Council (ILALC)
- Illawarra Aboriginal Corporation (IAC)
- As well as a range of other Local Aboriginal Community Groups.

"Wollongong" is thought to derive its name from "woolyungah", meaning five islands

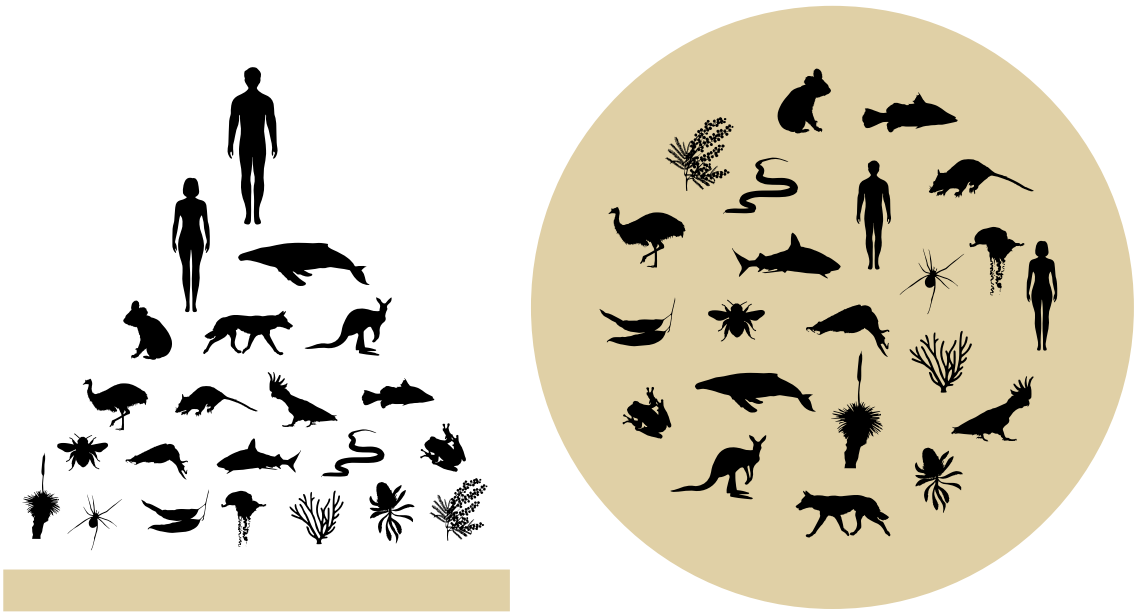


Figure 12: Human-centred vs Country-centred design (source: Connecting with Country Framework, GANSW)



2-5 The Master Plan

The Master Plan outlines the vision for an inviting, high quality and well-connected rail arrival which provides an attractive place for the community, that reflects the local identity and desired future character. It has direct and clear active and public transport links to the surrounding area including to the city centre, foreshore and hospital.

The plan provides a framework to guide future renewal for the train station and its immediate surrounds and reflects the importance of the station and the key role it will play in the growth of Wollongong City Centre.

Historically the station has been disconnected from Crown Street and has formed the edge of the city's growth to the west. As the city grows there is an opportunity to capitalise on the station as a centralised hub and gateway. This means connecting the station more strongly into its wider catchment, especially to Crown Street and to key destinations in the west such as the Wollongong Health Precinct and TAFE, as well as strengthening eastern connections towards MacCabe Park and the foreshore.

Key features of the Master Plan are provided in Chapter 3 – Key Moves. It is anticipated that the plan will be delivered over time and the staging of the key moves is subject to further investigation, costings and funding decisions. As projects are funded, they are expected to be realised over the short, medium and long term in a staged manner (see Chapter 4 – Staging and Evaluation).



Figure 13: Wollongong Station Precinct Master Plan Context

02 The Master Plan

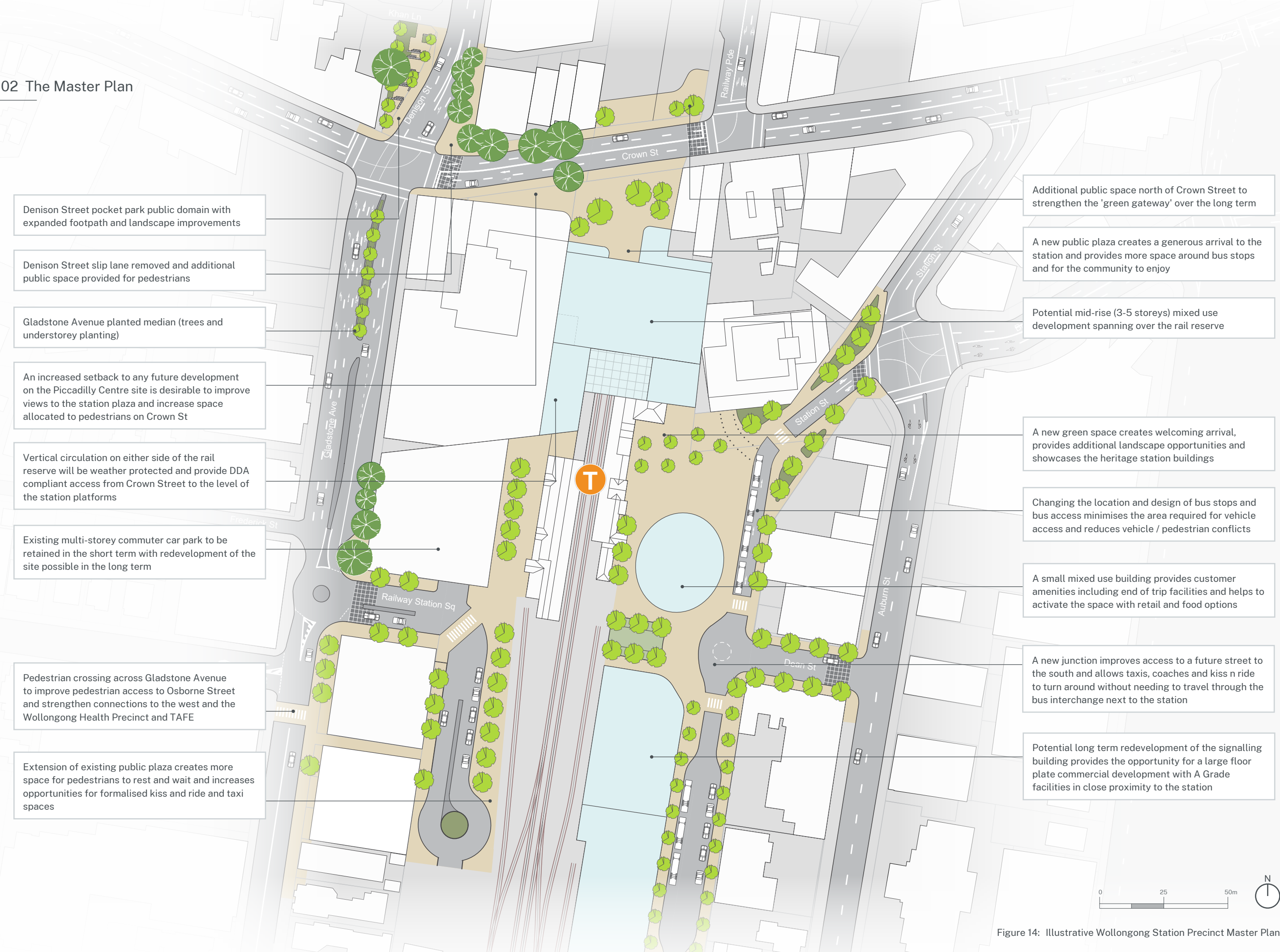


Figure 14: Illustrative Wollongong Station Precinct Master Plan



Chapter 3

The Key Moves

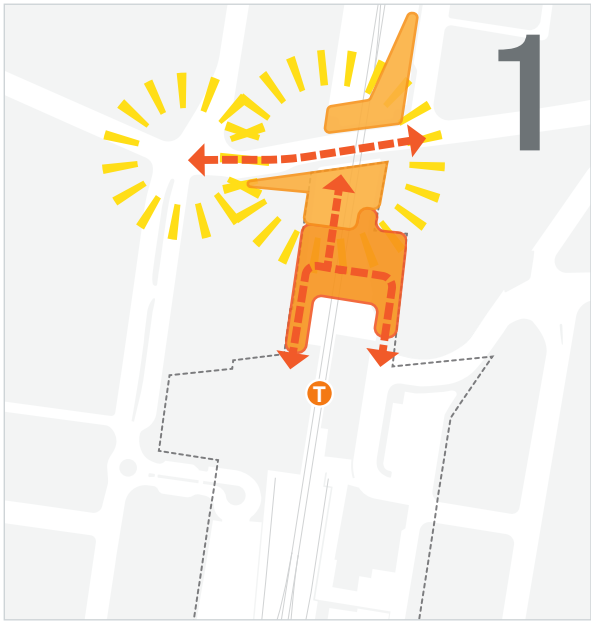
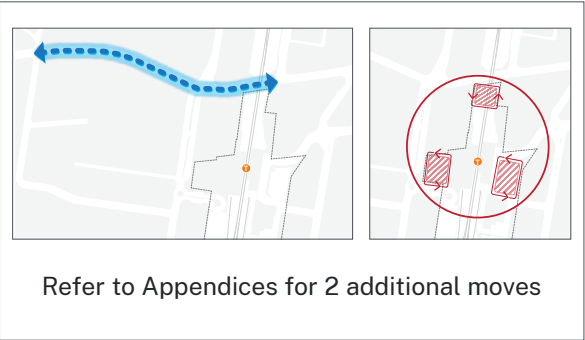
Crown Street Gateway (CG)
Station Street Gateway (SG)
Gladstone Avenue Gateway (GG)
Multi Modal Hub (MH)
Opportunity Sites (OS)
Station to Hospital (SH)

The Key Moves

In order to realise the Vision, four Key Moves have been proposed across the Precinct. Each 'move' is located in a different part of the Precinct and each helps to deliver on one or more of the objectives. The following pages explain the ideas and changes that comprise each key move. Some also include 'variations' to explore additional opportunities which might be possible with different timeframes.

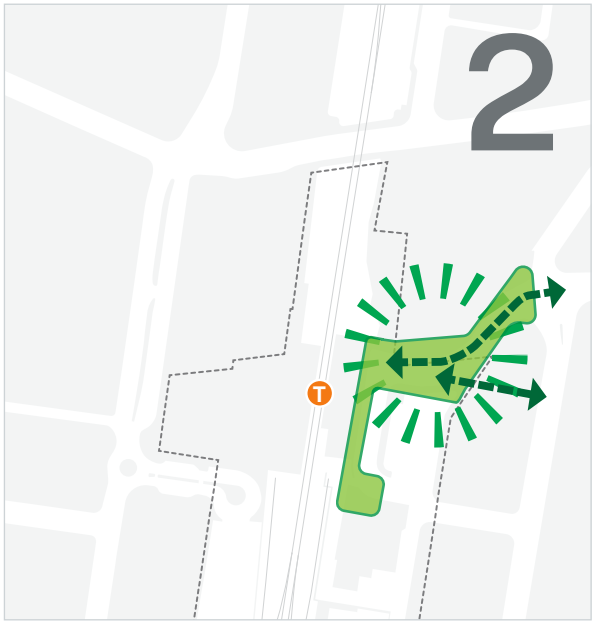
The four Key Moves are Crown Street Gateway, Station Street Gateway, Gladstone Avenue Gateway, and Opportunity Sites. The key moves are focused on the area of land within the Precinct boundary.

Two related moves, Station to Hospital and Multi Modal Hub can be found in the Appendices. The Station to Hospital key move focuses on interventions to improve pedestrian access from the station to the Wollongong Health Precinct, located to the west of the Station Precinct.



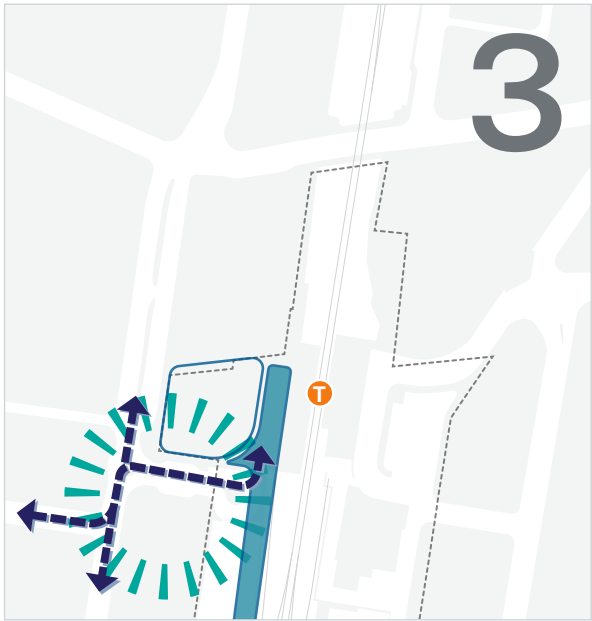
1. Crown Street Gateway (CG)

The Crown Street Gateway will provide a welcoming and high quality arrival experience to the Wollongong Train Station and Wollongong City Centre via an inviting public plaza and mixed use building.



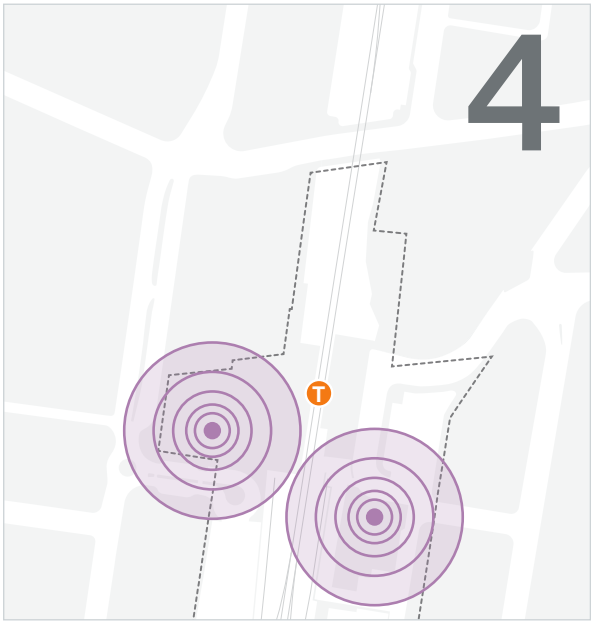
2. Station Street Gateway (SG)

The Station Street Gateway will provide a legible, green and high quality arrival experience to the Wollongong Train Station and Wollongong City Centre via a large open space which showcases the heritage station buildings.



3. Gladstone Avenue Gateway (GG)

Gladstone Avenue Gateway will continue to provide for pedestrian and vehicular access to the station. An extension of the existing station forecourt will provide additional space for formalised taxi and kiss and ride spaces and increased opportunities for public domain enhancements.

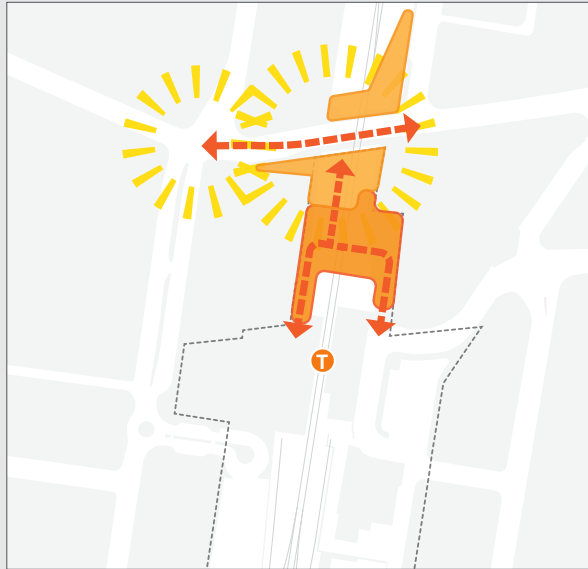


4. Opportunity Sites (OS)

Land around a city centre station is highly valuable and development within the Precinct presents an opportunity to maximise the value of government owned land. The greatest opportunities occur south of Lowden Square and at the current multi deck carpark on Gladstone Avenue.

Crown Street Gateway (CG)

CG 01 Crown Street Plaza



The Crown Street Gateway will provide a welcoming and high quality arrival to the Wollongong Train Station and Wollongong City Centre through an inviting public plaza and mixed use building.

Access to the rail platforms will be integrated into the new over-station development which will provide street level entry at Crown Street. The north facing public concourse will be activated with retail and cafe options and will enjoy generous sunshine and distant escarpment views.



Figure 15: Indicative artist impression looking through the proposed Crown Street plaza and gateway development

Currently, access to the Wollongong Train Station from Crown Street is provided along two narrow pedestrian ramp connections either side of the railway line from Crown Street down to the platform level. Lift access to the platforms is provided off a bridge located midway down the ramps. It is proposed that an improved station entry be developed that acknowledges Crown Street as the primary access route into Wollongong and establishes a safer, more legible 'front door' and arrival to and from the station.

The proposed station concourse would span over the existing rail reserve and include a level public plaza leading to platform access via vertical circulation within a potential over-station development (see CG 02). The north facing plaza would have views to the Illawarra Escarpment and generous levels of sunshine. The public plaza would be at street level with Crown Street to enable DDA compliant access and to ensure passive surveillance and clear lines of sight for safety, surveillance and CPTED considerations.

The public plaza should incorporate landscaping, lighting and clear wayfinding and should encourage adjoining developments to provide active uses such as cafés which spill out and activate the space.

Bus stops on the southern side of Crown Street would provide direct interchange with the station entry and the plaza would allow for additional stops and/or taxi drop off and pick up. An increased setback for any future development on the Piccadilly Centre site would be desirable.

Crown Street Gateway (CG)

CG 01 Crown Street Plaza

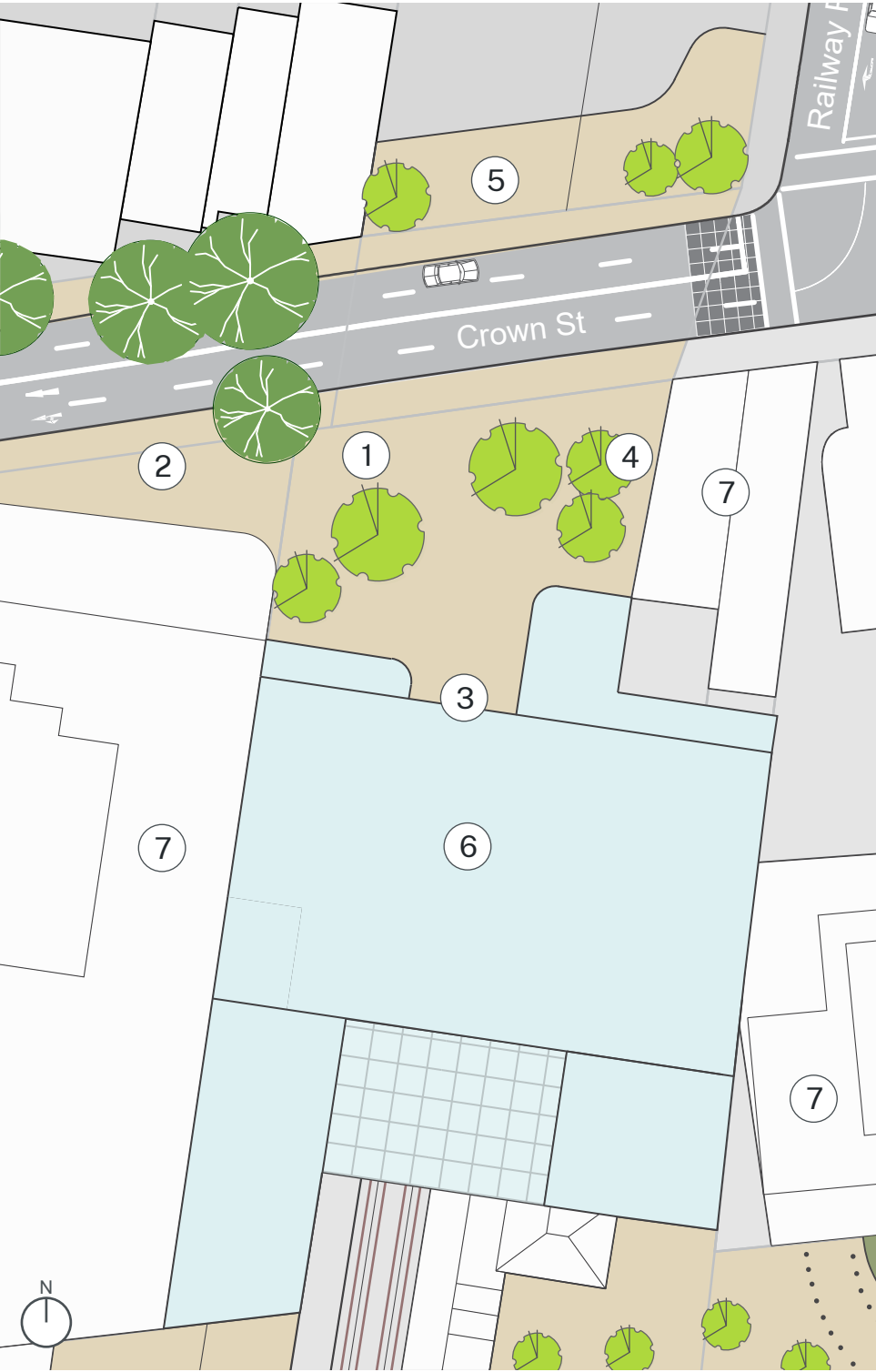


Figure 16: Indicative plan of proposed Crown Street plaza and gateway development

- ① Creation of a new public plaza off Crown Street creates more space for pedestrian access, for bus stops, for customers to rest and wait, and provides increased opportunities for landscaping and street trees.
- ② An increased setback to any future development on the Piccadilly Centre site to improve views to the plaza and station entry and increase pedestrian access would be desirable.
- ③ A legible accessible station entry off Crown Street would improve legibility and access to the City Centre from the station.
- ④ After the plaza is built it would be desirable to encourage adjoining developments to provide active uses such as cafés to spill out and help to activate the space.
- ⑤ In the long term, it may be possible to create an additional public green space to the north of Jubilee Bridge alongside Railway Parade.
- ⑥ Potential mid-rise, mixed use gateway development over rail reserve (see CG 02).
- ⑦ Amalgamation with adjoining sites such as the Piccadilly Centre, Hydrographic Office and 335-337 Crown Street should be considered to maximise opportunities for active frontage, loading, access and load bearing footings.



Utrecht, The Netherlands Station Plaza (source: Petra Appelhof, Dezeen)



Before



After

Precedent – Newtown Station before and after. The upgrade work included the construction of a new concourse with active uses at King Street with lifts and enhanced stair access to the platforms below.



Newtown Station Concourse (source: CCG Architects)

Crown Street Gateway (CG)

CG 01 Crown Street Plaza

An increased setback to the Piccadilly Centre would provide additional pedestrian space and increase the physical and visual links to the proposed public plaza and station entry when travelling east along Crown Street.

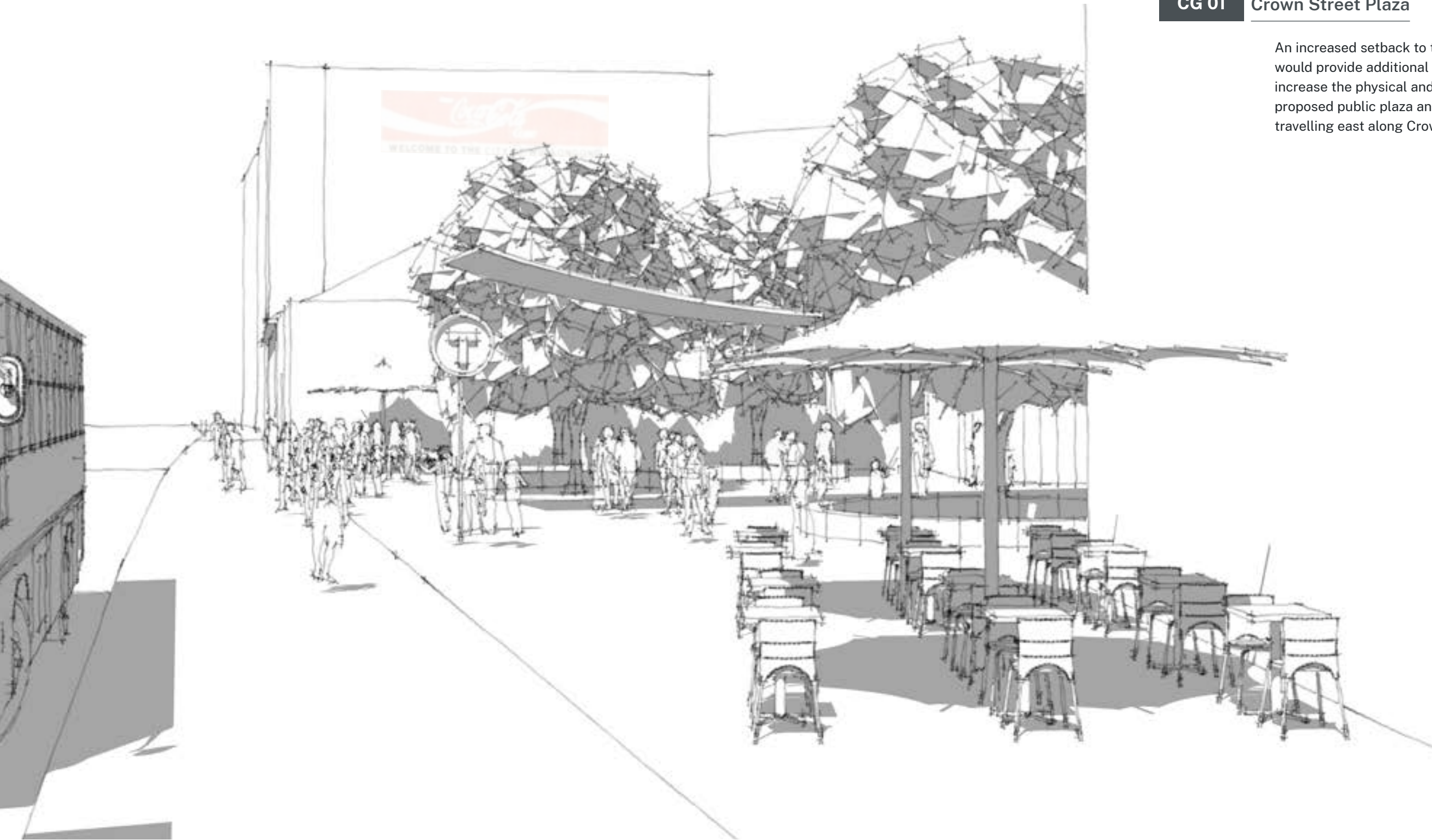


Figure 17: Artist impression looking east along Crown Street towards the proposed public plaza

Crown Street Gateway (CG)

CG 02 Crown Street Development



Similar scale, bulk and activation of potential over station development (shown Five Dock Metro Station artist impression. source: Sydney Metro)



Potential character of glazed vertical circulation providing access to the station platforms (shown Rouse Hill Metro Station)

To strengthen and activate the Crown Street station plaza and gateway, a small commercial development could be located on the bridge that spans over the railway reserve.

The potential development would incorporate public access to the rail concourse and station platforms. Vertical circulation to the station platforms could be located within a lightweight glazed structure to the rear with views to the south. Vertical circulation including escalators and lifts would be weather protected and provide DDA compliant access. This glazed structure should be designed to maximise natural light and natural ventilation to support reduced energy emissions and sustainability initiatives.

The proposed building could provide retail and food services on the ground floor with commercial uses above. The ground floor should have an increased floor to floor height (4.5m min) to maximise flexibility for potential future uses and to create a generous thoroughfare for pedestrians accessing the station. Commercial spaces above would be desirable, as they would be integrated into a major transport interchange with a north facing aspect and uninterrupted views along the rail reserve towards the Illawarra Escarpment in the north and Port Kembla to the south.

The combined floor area of the five storey mixed-use building shown is approximately 6,800m². A building height of up to 120m (approx. 37 storeys) is permitted on this site, however tall height in this location would be challenging to achieve due to the technical difficulties of building over a working commuter and freight rail line. Amalgamation with adjoining sites such as the Piccadilly Centre and the Hydrographic Office could reduce some of the site constraints by increasing opportunities to provide loading, access and load bearing footings. The exact bulk and scale of the development should maximise the feasible yield potential, but this will need to be determined following detailed engineering and structural investigation.

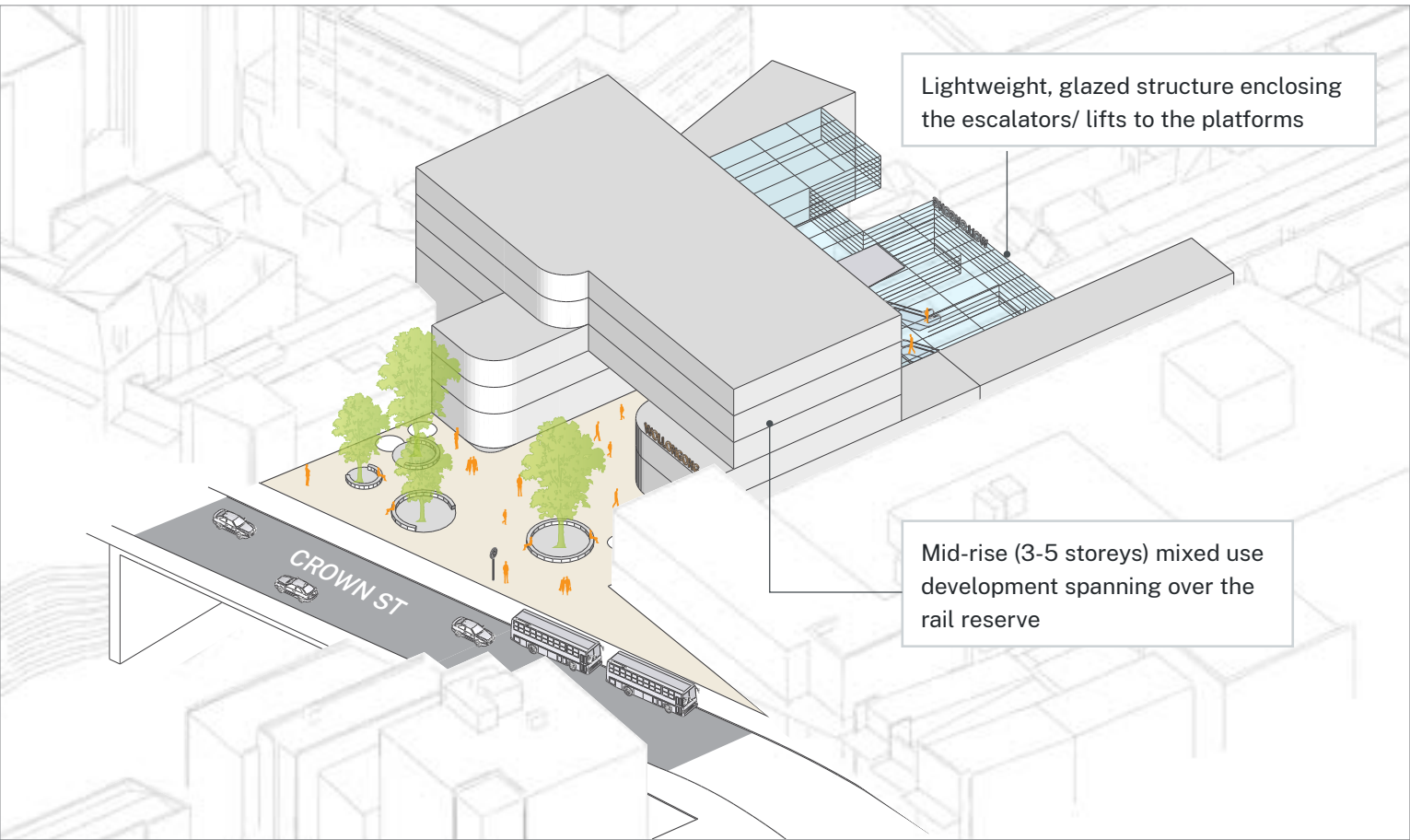


Figure 18: Indicative mock-up of potential bulk and scale of Crown Street gateway development

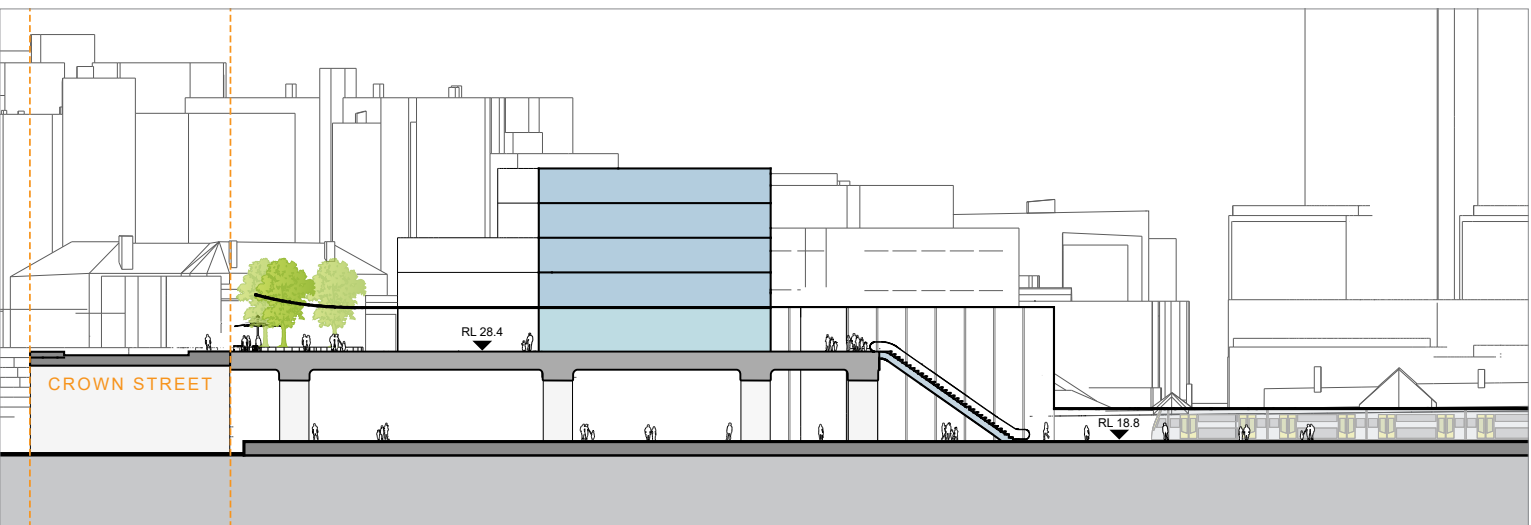


Figure 19: Diagrammatic section showing potential Crown Street gateway development, plaza and platform connection

Crown Street Gateway (CG)

CG 02

Crown Street Development



Figure 20: Indicative artist impression looking towards the proposed Crown Street plaza and gateway development

CG 03

Slow Speed Crown Street & Railway Parade Open Space

If Denison Street becomes an alternate route for traffic to bypass the City Centre, a portion of Crown Street (east of Gladstone Avenue) could become a more pedestrian friendly, slow speed environment. This could include reduction to a 30km speed limit, a change in road surface treatment and additional landscaping opportunities.

These changes would also enable the proposed station plaza to extend into Crown Street and along a slower speed, more pedestrian friendly street network with fewer vehicles.

In the longer term, it may be possible to create an additional public green space to the north of Jubilee Bridge alongside Railway Parade. The purpose of this open space would be to establish a 'green gateway' into the city centre which would strengthen the sense of arrival into Wollongong. It would also create more pedestrian space along the northern side of Crown Street towards Rawson Street, and Wollongong Central and respond to the growth and development occurring in this area. The northern open space would also benefit from distant escarpment views and generous sunshine.



Public domain opportunities for landscaping and street trees with integrated seating

Crown Street Gateway (CG)

CG 04 Crown Street Footpath Widening

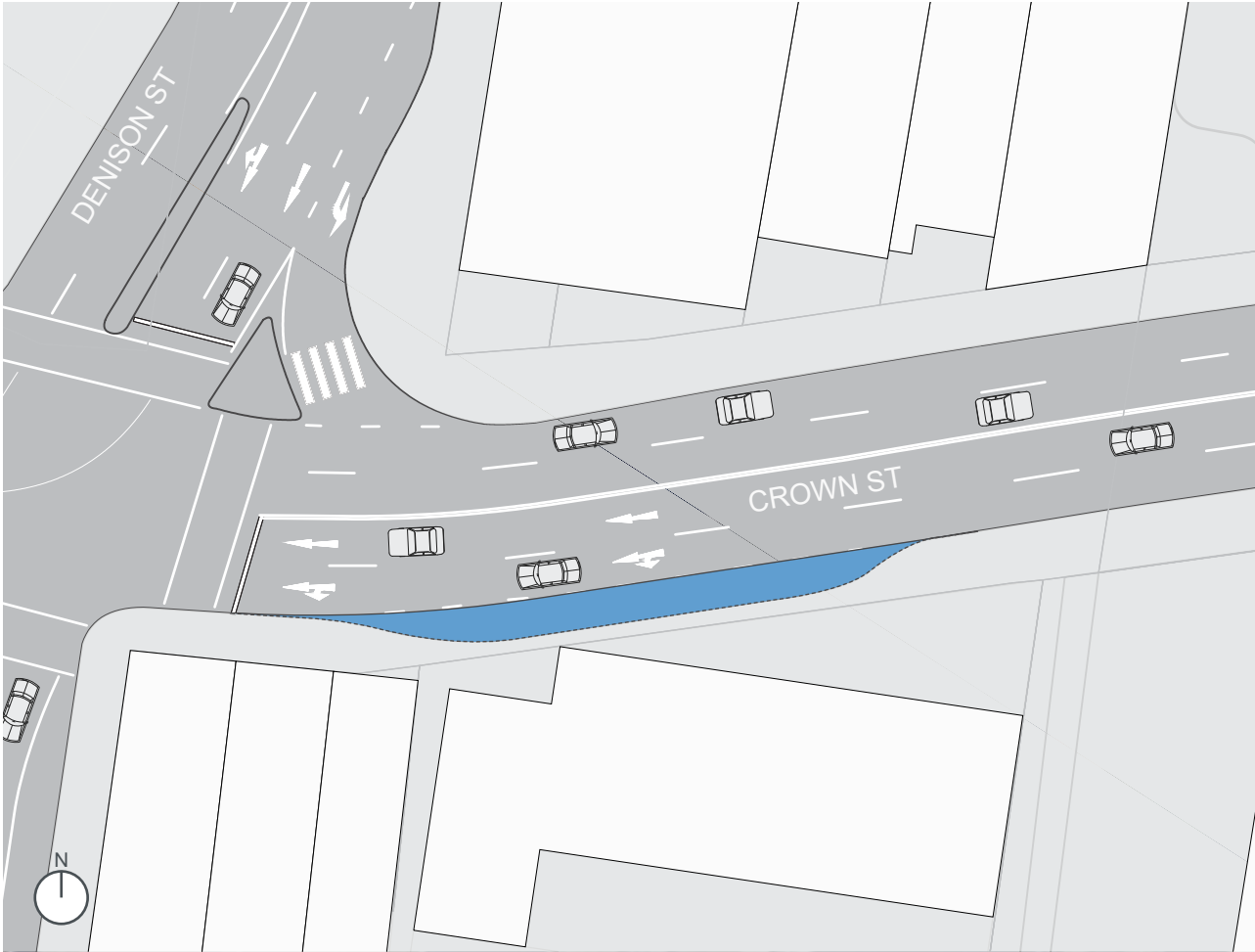


Figure 22: Reallocation of dedicated bus pull in bay as pedestrian footpath

To improve bus services, the existing bus pull-in-bay at the intersection of Crown Street and Gladstone Avenue is proposed to be removed and the space reallocated to the pedestrian footpath.

This additional footpath space would enhance the pedestrian experience and improve east-west access along Crown Street. In conjunction with the proposed future station access from Crown Street, this additional footpath space will be critical in accommodating the predicated increase in pedestrians circulating past this current pinch point along the footpath.

This proposed action has been investigated by Council and has since been implemented.



Existing condition with works complete

CG 05 Gladstone Avenue Planted Central Median

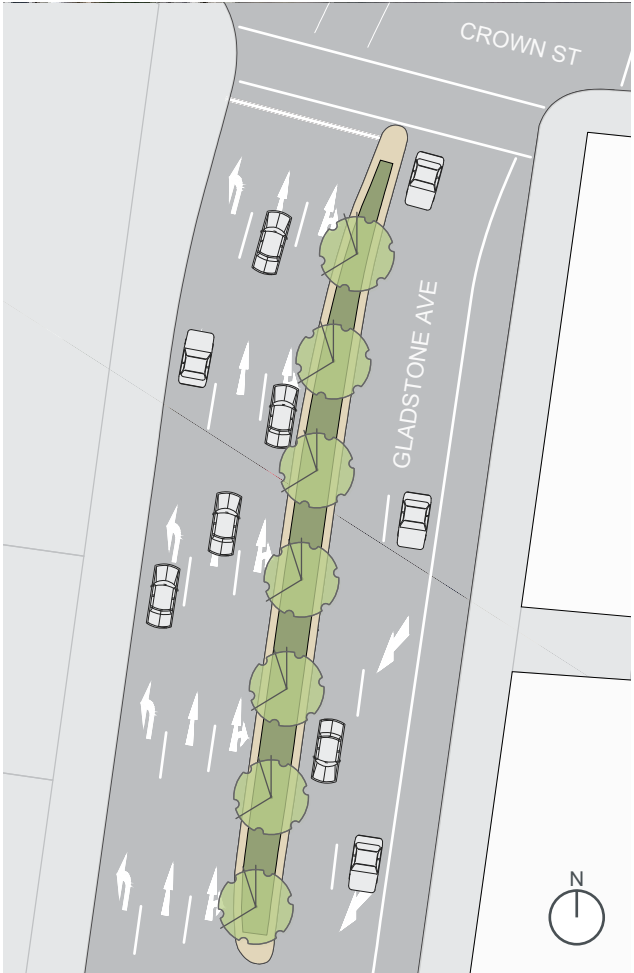


Figure 21: Indicative landscaped median along Gladstone Avenue

Currently, the median along Gladstone Avenue includes approximately five street trees at varying scales of growth and health.

Opportunities to replace and/or improve the health and quality of these street trees with the inclusion of understorey planting should be explored. This will contribute to increasing the tree canopy cover and reducing urban heat island effects. Additional landscaping in this location will also help to reinforce this intersection as a green gateway and bolster the existing mature street trees to the north of Crown Street at this intersection.



Existing street trees along Gladstone Avenue



Median street trees and understorey planting along Great North Road, Five Dock



Median street trees contributing to tree canopy cover

Crown Street Gateway (CG)

CG 06

Denison Street Pocket Park & Slip Lane Removal



The intersection of Denison Street, Crown Street and Gladstone Avenue is a key gateway into the Wollongong City Centre and improvements to the traffic infrastructure and public domain will enhance the attractiveness and pedestrian amenity and safety of this key intersection.

Removing the existing slip lane would provide additional footpath space for pedestrians, increase opportunities for landscaping and seating and provide a shorter and safer pedestrian crossing across Denison Street.

Preliminary traffic modelling indicates that removal of the slip lane would make little difference in vehicle delay / intersection performance in the morning and afternoon peak hours and the overall intersection ‘Level of Service’ would remain unchanged.

Potential improvements to the Denison Street pocket park include terraced landscaping to mitigate the existing slope and to create a welcoming public domain with additional seating opportunities. An improved open space in this location would provide an attractive and safe place for pedestrians to rest and will encourage increased pedestrian activity along Crown Street. These public domain improvements will also strengthen the connections northwards to Loftus Street and Khan Lane which are currently identified by Google Maps as routes to the hospital from the station.

Figure 23: Indicative artist impression showing the view along Crown Street with removed slip lane

Crown Street Gateway (CG)

CG 06 Denison Street Pocket Park & Slip Lane Removal



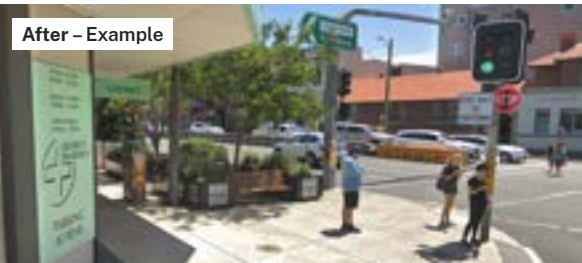
Figure 24: Indicative plan of potential improvements to the intersection of Crown Street and Denison Street



Current



Before - Example



After - Example



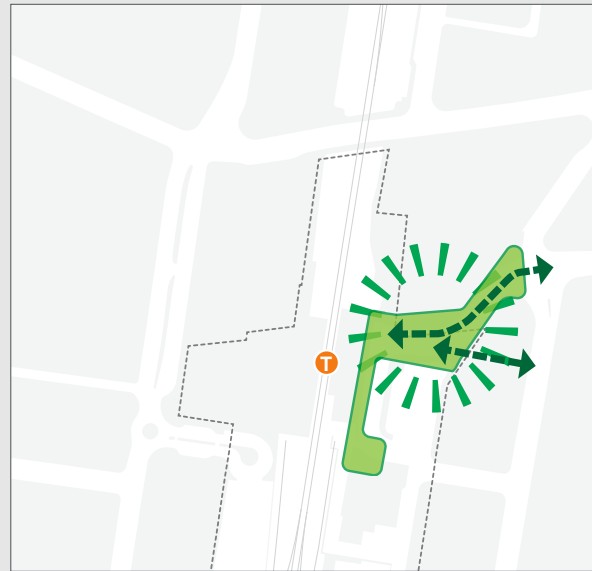
An example of a slip lane removal and footpath expansion at the busy intersection of Lyons Road and Victoria Road in Drummoyne. The additional pedestrian space has been activated with seating, planter boxes, street trees and temporary pop-ups such as Christmas decorations in December.



Potential look and feel of an improved pocket park alongside Denison Street (photos source: Dee Why Square, Arcadia Landscape)

- ① Removal of the slip lane and expansion of the existing footpath would assist with traffic calming and increase the opportunities for landscaping, street trees and street furniture
- ② Potential improvements to the pocket park alongside Denison Street would improve public amenity and the overall streetscape quality. Terracing of the pocket park could mitigate the existing slope whilst providing interest and seating opportunities for pedestrians. Additional landscaping could include screen planting to western boundary of the pocket park and new garden beds integrated alongside the existing footpath
- ③ Existing trees should be protected and opportunities for understory planting and additional street trees should be explored to provide shade and reduce the effects of urban heat islands

Station Street Gateway (SG)



The Station Street Gateway will provide a legible, green and high quality arrival experience to the Wollongong Train Station and Wollongong City Centre via a large open space which showcases the heritage station buildings. Access to the rail platforms is direct or via the new over-bridge.

The eastern side of the station also provides the best opportunity for level bus rail interchange and a one way loop road provides a safe direct route between buses and train services. A small mixed use building provides end of trip facilities and helps to activate the space with retail and food options.



Figure 25: Indicative artist impression looking towards the eastern station entry with modified road network and improved public domain

Station Street Gateway (SG)

SG 01

Lowden Square Plaza



Byron Bay Transport Interchange (source: DesignInc)



Public domain at Bella Vista Metro Station, NSW

- ① The formalisation, greening and extension of Lowden Square creates a public plaza with more space for pedestrians to move around and to rest and wait, and provides increased opportunities for landscaping and street trees.
- ② The new green space and the limited scale of new development reveals and showcases the heritage station buildings.
- ③ Changing the location and design of bus stops and bus access minimises the area required for vehicle access and reduces vehicle / pedestrian conflicts.
- ④ A small, mixed use, 'signature' building provides customer amenities including end of trip facilities and helps to activate the space with flexible tenancies providing retail and food options. A Design Excellence competition should be considered to ensure a high quality built form is achieved that sensitively responds to the small scale heritage station buildings and transitions to the increased building heights along Auburn Street.
- ⑤ A new junction improves access to a future street to the south and allows taxis, coaches and kiss n ride to turn around without needing to travel though the bus interchange next to the station.
- ⑥ Potential long term redevelopment of sites with large floor plates in the vicinity of the precinct for uses that complement close proximity to a major train station.
- ⑦ Existing access to private properties is able to be maintained.
- ⑧ Adaptive re-use of existing heritage station buildings should be explored to provide spaces for suitable uses such as kiosks, lockers, storage, food/ beverage etc.

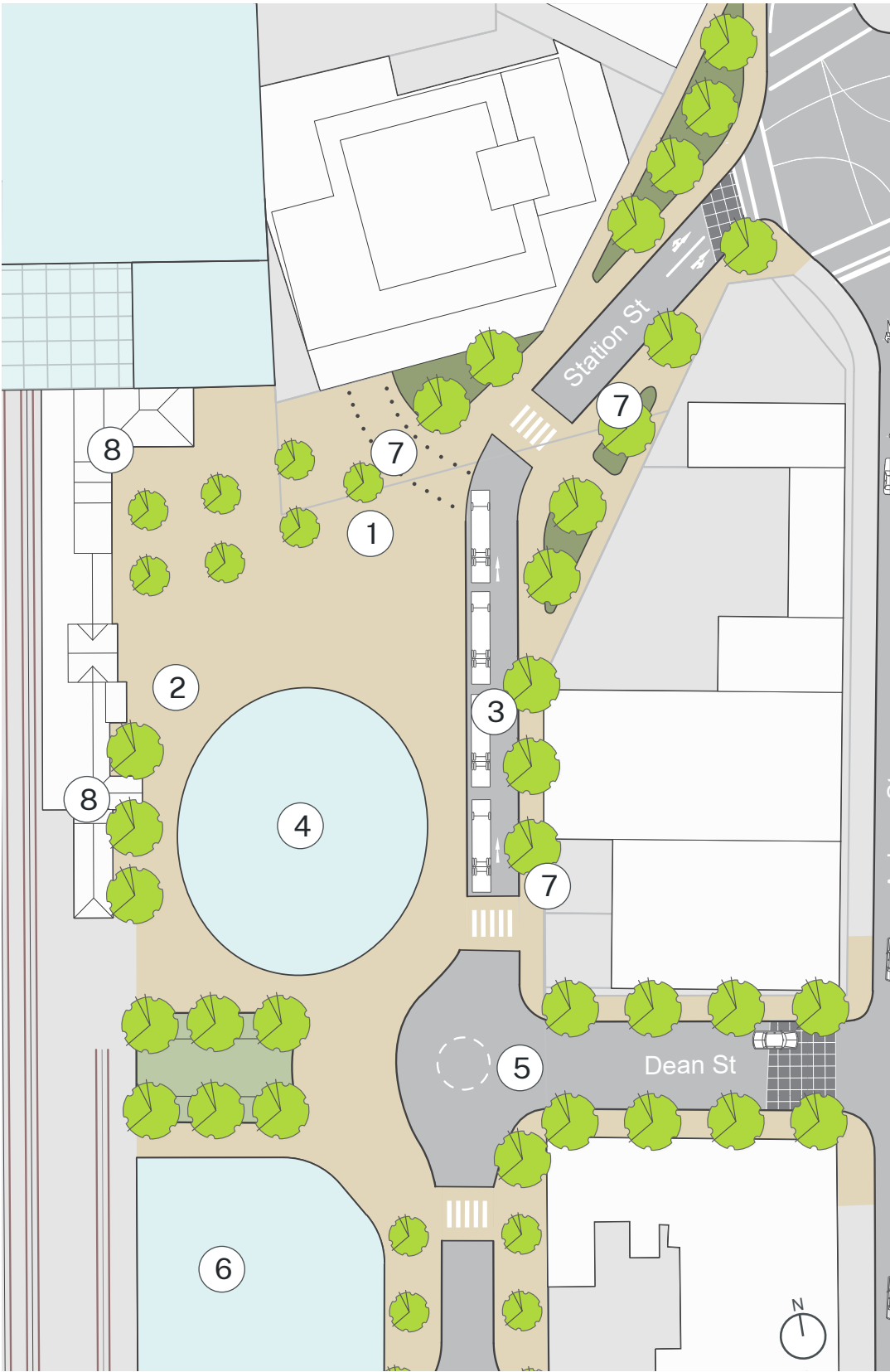
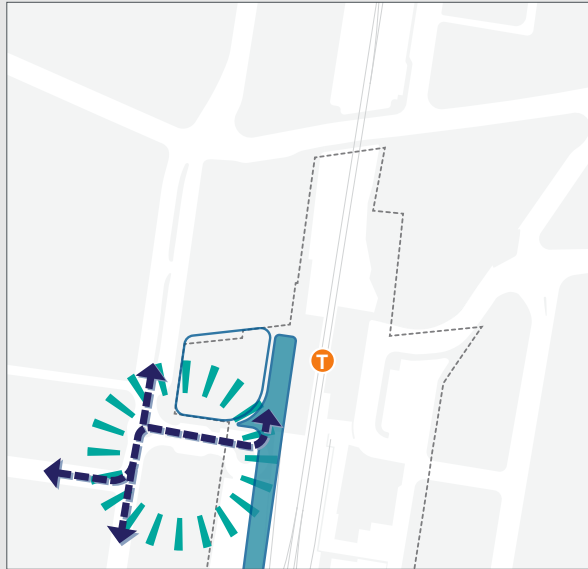


Figure 26: Indicative plan of proposed changes to Lowden Square

Gladstone Avenue Gateway (GG)



In the short term, the Gladstone Avenue Gateway will continue to balance the mix of pedestrian and vehicular commuter access to the station from the west.

A southern extension of the existing station forecourt will provide additional space for formalised taxi and kiss and ride areas and increased opportunities for public domain enhancements.

In the long term, a comprehensive redevelopment of the western gateway could re-envision the commuter car park site as an activated mix-use development and a remodified one-way road network would further strengthen the pedestrian experience of this entry.



Figure 27: Indicative artist impression looking towards the western station entry with improved public domain (short term)

Gladstone Avenue Gateway (GG)

GG 01 Railway Station Square Restructure



Byron Bay Transport Interchange (source: DesignInc)



Formal kiss and ride spaces at Bella Vista Metro Station, NSW

- ① Extension of existing public plaza creates more space for pedestrians to rest and wait and provides increased opportunities for landscaping and street trees.
- ② Changing the location of the turning circle creates increased opportunities for formalised kiss and ride and taxi spaces.
- ③ Modified pedestrian crossing location to avoid conflicts with the vehicle entry/exit to the commuter car park and create a more legible link to the station entry.
- ④ Existing multi-storey commuter car park to be retained in the short term. The exit to the car park would be modified to allow right hand turns onto Railway Station Square. This would avoid potential conflicts with the relocated pedestrian crossing location and reduce the number of vehicles within the designated taxi and kiss and ride pick up and drop off areas.
- ⑤ Improved pedestrian crossing across Gladstone Avenue with a raised threshold to create a more pedestrian friendly link to Osborne Street and strengthen this route to the west and any proposed expansion of the Wollongong Health Precinct. Footpath improvements, kerb blisters and street trees along Osborne Street would further improve the walkability and safety of this route and links to the TAFE.
- ⑥ Potential long term redevelopment of sites with large floor plates in the vicinity of the precinct for uses that complement close proximity to a major train station.

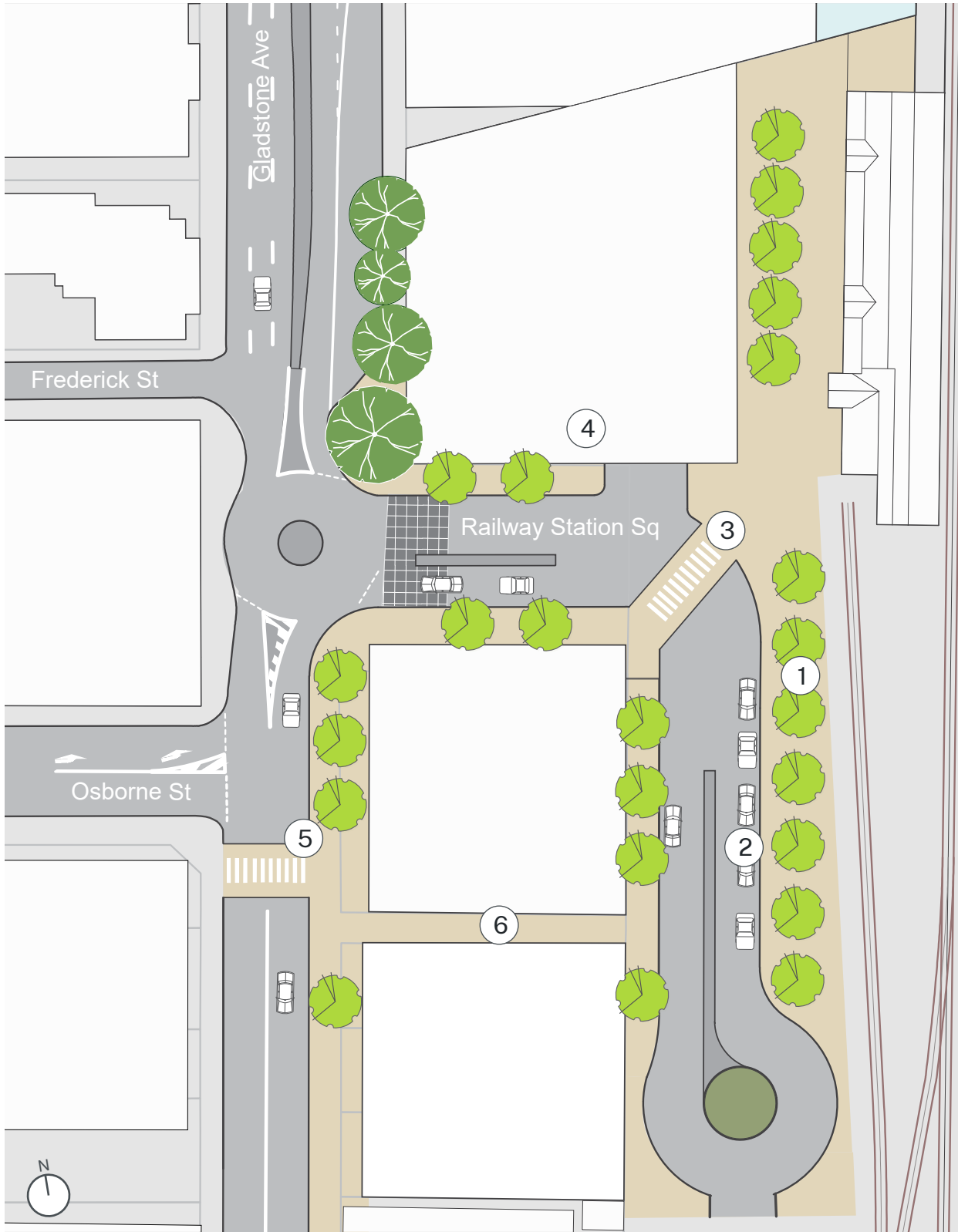


Figure 28: Indicative plan of proposed changes to western gateway (short term)

Gladstone Avenue Gateway (GG)

GG 01 Railway Station Square Restructure

The western entry to the station is from Railway Station Square via Gladstone Avenue. The existing western station forecourt provides pedestrian access for commuters travelling on northbound trains and consists of a paved, linear plaza with some seating and street trees.

The western side of the station also services private vehicles with a multi-storey commuter car park providing 361 spaces. Access to the car park is from Railway Station Square with exit via a turning circle onto Gladstone Avenue. This turning circle accommodates a taxi zone and informal pick up and drop off.

This move proposes extending the existing linear public plaza and vehicle turning head further south alongside the existing rail yard. The revised design provides opportunities for more generous and legible spaces for kiss and ride and taxi services. The elongated forecourt also provides opportunities for additional landscaping and street furniture for commuters and for those with reduced mobility to rest and wait. This key move would require removal of a small area of existing on-grade commuter parking.

Relocation and redesign of the existing pedestrian crossing is proposed to avoid conflicts with the vehicle entry/exit to the commuter car park and create a more direct link to the station entry .



Pedestrian friendly station arrival and plaza with direct pedestrian crossing, clear signage and wayfinding, lighting and landscaping (Bella Vista Metro, NSW)

GG 02 Enhanced Osborne Street Connection

To improve connections between the western station entry and Osborne Street, it is proposed that a new raised pedestrian crossing be installed across Gladstone Avenue. This would encourage vehicles to slow down and create a more pedestrian friendly environment.

The amenity and safety of this link between Osborne Street and the station is important as this route provides level access to the west and a potential link to the Wollongong Health Precinct, especially if the hospital expands further south along Staff Street and Osborne Street in the future.

Enhancements to the streetscape at this intersection and along Osborne Street, such as footpath improvements, kerb blisters, street trees and lighting will be critical to ensure public safety for people travelling at different times of the day between the station and hospital.



Traffic calming including kerb blisters and raised zebra crossing for improved pedestrian safety (Five Dock, NSW)



Footpaths and street trees on local streets create a more attractive streetscape that encourages walking (Breakfast Point, NSW)

Gladstone Avenue Gateway (GG)

GG 03 Railway Station Square Restructure (Long Term)

Long term, the western station forecourt precinct could be further enhanced. This would involve amalgamation with a key site to the south of Railway Square and redevelopment of the existing multi storey car park but would result in a significantly more legible and activated space with an increased pedestrian focus.

The long term vision would see the multi-storey car park redeveloped as a mixed use development. It is assumed in the future that multi-storey commuter car parking, directly outside a major city centre train station, will not be essential (eg. Central Sydney, Chatswood Station etc.). Ideally to avoid pedestrian /vehicle conflicts future vehicular access to this site should be provided from Gladstone Avenue.

Removing access to the multi storey car park from Railway Station Square would enable the majority of space around the western entry to be reallocated to pedestrians with a one-way loop providing access for kiss and ride and taxi services. This area could also be designed to provide for buses or coaches. The loop road would provide western access for transport and rail vehicles to the southern rail reserve extents.

The design of any future built form at the western gateway should consider views lines to the station from the surrounding road network so that pedestrians can clearly see the station entry from all directions of approach. Active frontages and uses such as cafes and dining should also be encouraged to enliven the adjoining public spaces.

- ① Expanded station forecourt and public domain.
- ② Potential future redevelopment of commuter car park as a mixed use building with active frontages onto the station forecourt. Any future vehicle access to this site should be from Gladstone Avenue.
- ③ One way loop road enabling vehicle access to designated kiss and ride and taxi bays along station forecourt. To be delivered as a shared, slow speed pedestrian zone. The laneway exit to Gladstone Avenue could be delivered by expanding the proposed through site link north of 13 Gladstone Avenue or in a location further south along Gladstone Avenue (where achievable).
- ④ Raised pedestrian crossing across Gladstone Avenue to create a more pedestrian friendly link to Osborne Street.
- ⑤ Amalgamated future development to create increased pedestrian space and enable a more legible visual connection to western station entry.
- ⑥ Vehicle access for rail and transport vehicles and service requirements to the extensive rail yards in the south provided.
- ⑦ Introduction of signalised intersection with right hand turn lane and signalised pedestrian crossings.

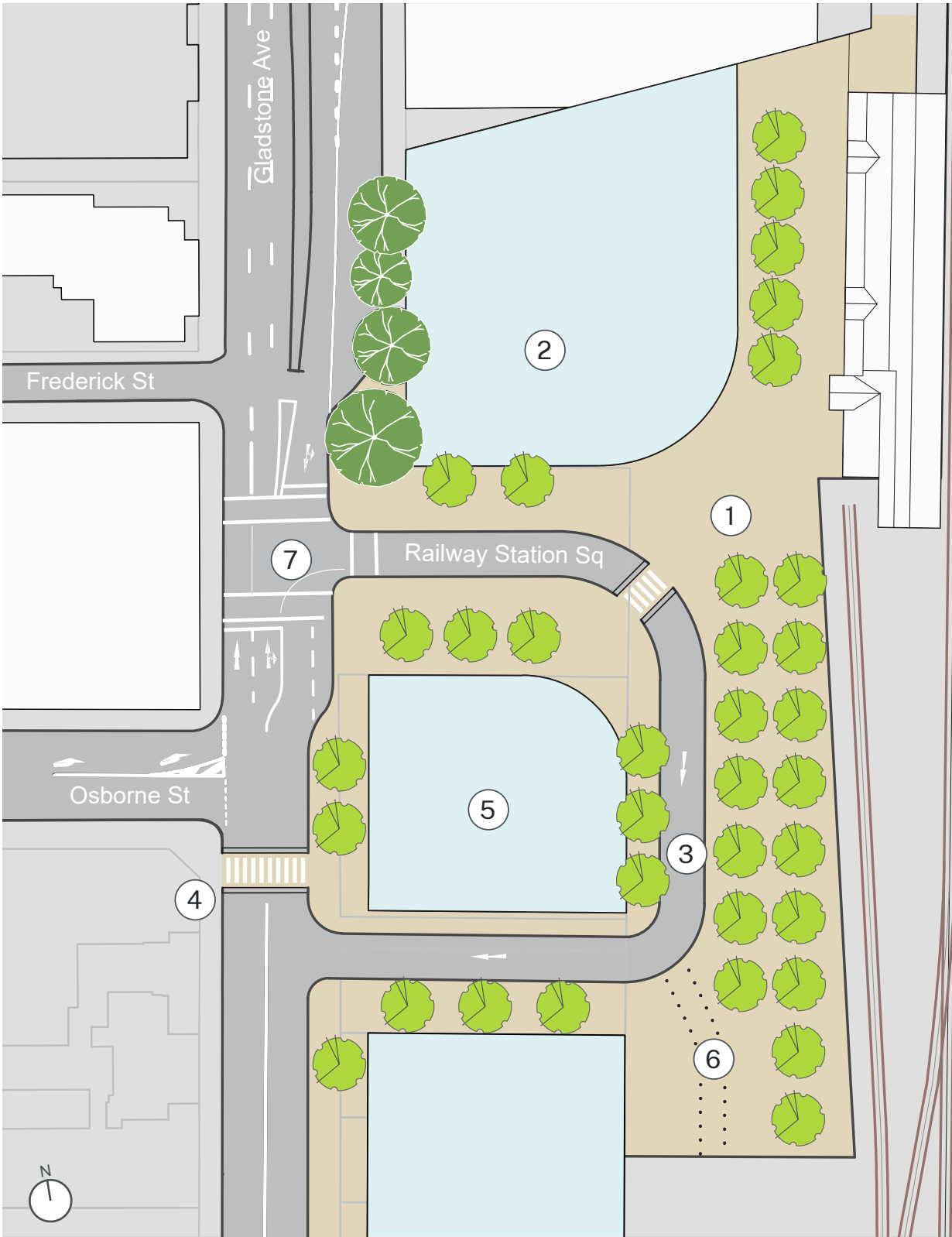
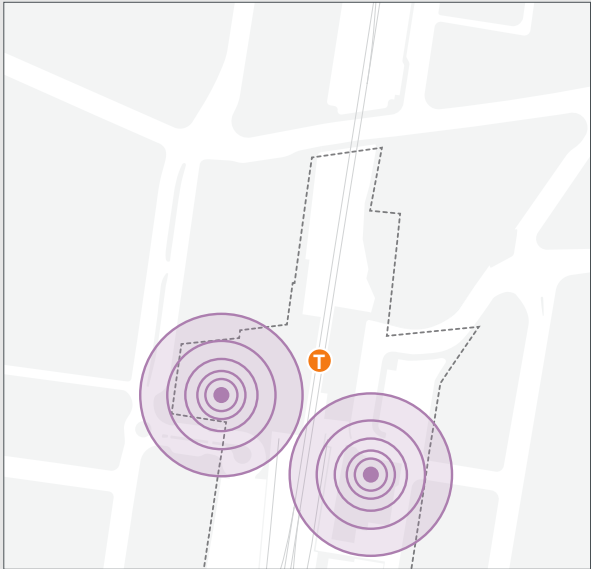


Figure 29: Indicative plan of proposed changes to western gateway (long term vision)

Opportunity Sites (OS)



Land around a city centre station is highly valuable and development within the Precinct presents an opportunity to maximise the value of government owned land and reinforce the commercial heart of the City of Wollongong.

The greatest opportunities occur at the widest parts of the Precinct, including the area south of Lowden Square and the current multi deck carpark on Gladstone Avenue. Development in these areas would assist in creating dynamic 24 hour spaces around the station entries, that are rich with public life, activation and movement. Provision of civic and commercial facilities would help to catalyse the area around the station.



Figure 30: Indicative artist impression showing view towards Lowden Square



Barangaroo House



Central Place Sydney (source: NORVISKA)



The Exchange building, Darling Square (source: City of Sydney/ Katherine Griffiths)

Above: potential built form typologies for opportunity sites around the station

Opportunity Sites (OS)

OS 01

Lowden Square Development – eastern side (short-term)

Lowden Square is the name given to the area of the Precinct between the station buildings on the eastern side of the railway line and buildings that front Auburn Street. The Wollongong City Centre Urban Design Framework identifies that Lowden Square will create a sense of arrival into the City Centre and provide strong connections to the east.

South of Lowden Square the efficient redesign of the access network would create an opportunity to locate a multi modal transport hub at the core of the transport interchange and in an area that is generally level to facilitate good DDA access.

This building would be likely to accommodate facilities such as end of trip facilities and possibly coach facilities and active uses such as cafes which would spill out and activate the surrounding spaces.

The public plaza should be at street level with Station Street to enable DDA compliant access as well as to ensure passive surveillance and clear lines of sight can be achieved for safety, surveillance and CPTED considerations.

This building provides the opportunity to create a transition from the small scale heritage train station buildings and the taller built, approved and future buildings that are likely to occur around the Precinct over time. Design excellence competitions should be considered to ensure a high quality built form is achieved.

It is also expected that the ceiling level of the ground floor of the building would be high and open allowing for flexibility of future uses and to ensure passive surveillance and clear lines of sight can be achieved for safety, surveillance and CPTED considerations.



Activated dining precinct on the ground floor of a commercial development, South Eveleigh (source: OFFCAMPUS)

OS 02

Large floor plate sites – eastern side (long term)

The Precinct includes a large areas of land to the south adjoining the railway line. Buildings with large floor plates provide opportunities for development that are supported by proximity to a major rail station. Renewal or redevelopment of buildings in the vicinity of the railway station help to encourage employment uses and sustainable transport usage.

Located to the south on the lowest part of the Precinct, taller development would have fewer impacts than development along Crown Street. As a long building parallel to the north south aligned railway line, the majority of any overshadowing impacts would fall on the railway reserve or to the south within land owned by Transport for NSW.

Recent development and development approvals and proposed development on the eastern side of the station is indicating that the city centre is starting to change in the area south of Crown Street. This is clearly shown in the recent approval of the WIN GRAND development with frontages along Crown Street and Burelli Street which will become a major presence in the city. There is an opportunity for development in this Precinct to provide complementary uses and further strengthen the eastern side of the station.



WIN GRAND proposal along Burelli Street (source: ColonySix)

OS 03

Gladstone Avenue Development – western side (long-term)

The largest site on the western side of the Precinct currently accommodates a five storey multi-deck car park. This car park meets the desire for free parking at the train station and services commuter and others accessing facilities in the city centre including the hospital.

Land around a city centre station is valuable. In the long term it is anticipated that private car trips into the city centre to park at a train station will be discouraged. At this time it should be possible to replace the car park with a larger mixed use building with activated frontages.



Chapter 4

Staging and Evaluation

- 4-1 Staging
- 4-2 Existing
- 4-3 Short Term
- 4-4 Medium Term
- 4-5 Long Term
- 4-6 Evaluation Criteria

4-1 Staging

Introduction

A key requirement of the Master Plan is to show not only the desired future outcomes but also how this could be realised. This section identifies how the changes could be achieved over time, outlining how the precinct could evolve over the short, medium and long term to achieve the desired future character and overall vision.

There is rarely one perfect way to stage the delivery of a plan. Over time priorities, constraints and opportunities may change and key considerations such as maintaining operational requirements, increasing capacity and accommodating growth or working within funding may also shift priorities. When this occurs the plan and the proposed sequencing may change but what generally remains constant is the Vision and Objectives and the long term desired outcomes for the place.

Staging

The staging of the Master Plan has been determined according to project scale, approved and future development applications and equal prioritisation of public domain improvements across the Station Precinct.

In the short term the focus is on the redevelopment of Lowden Square and the introduction of street calming measures along Crown Street. Lowden Square is currently the main station entry. A new feature building is proposed which may house a multi-modal hub, and would contribute to a high quality public domain against the heritage station buildings.

Creation of the square sees the reconfiguration of the existing bus interchange. This relocates the bus stop, taxi rank and kiss and ride away from the pedestrian entry to Wollongong Station but still in close proximity. This approach prioritises pedestrians over vehicles, a key priority of Transport for NSW's Movement and Place Framework. Street calming measures are proposed along a section of Crown Street, between Gladstone Avenue and Railway Parade.

The Master Plan proposes the introduction of a 30 k/h speed limit, footpath widening and planted central medians.

In the medium-term the focus is the integration of the Station with Crown Street. The Station currently does not address Crown Street and pedestrian access to and from Crown Street is poor via a narrow footpath either side of the existing station platform cutting. The Master Plan proposes the introduction of a Crown Street Plaza and new over station development. A new plaza on Crown Street provides improved integration of Crown Street with the Station and improved pedestrian connectivity. The Crown Street entry provides additional opportunities should the Piccadilly Centre site be redeveloped.

The Master Plan also upgrades the pocket park on the corner of Crown and Denison Streets reinforcing the Crown Street Gateway at the intersection of Crown Street and Gladstone Avenue and improving pedestrian amenity traveling to the Wollongong Health Precinct.

In the long-term the focus is on the re imagining of key sites within the precinct. The Master Plan identifies the existing signalling building site and existing multi-storey car parking sites as catalyst development sites which could provide large commercial development at the station.

Subject to additional acquisition there may also be an opportunity to create a Railway Square loop road. The loop road would be one way and provide increased public domain and extend access to the station to the south. This would also mean the expansion of the Railway Parade plaza and better integration with Railway Square and Gladstone Avenue. An improved Osborne Street Connection is also proposed which considers future expansion of the Wollongong Health Precinct.

The key moves for each time frame are:

Short term

- CG 03** Slow Speed Crown Street
- CG 04** Crown Street Footpath Widening
- CG 05** Gladstone Avenue Planted Central Median
- SH 01** Denison Street Slip Lane Removal
- SG 01** Lowden Square Plaza
- CG 01** Railway Station Square Restructure
- OS 01** Lowden Square Development (eastern side)

Medium term

- CG 01** Crown Street Plaza
- CG 02** Crown Street Development
- CG 06** Denison Street Pocket Park
- CG 03** Railway Station Square Restructure

Long term

- CG 03** Railway Parade Public Open Space
- GG 02** Enhanced Osbourne Street Connection
- OS 02** Large floor plate sites (eastern side)
- OS 03** Gladstone Avenue Development (western side)

4-2 Existing

- ① On-grade vehicular access and bus interchange at Lowden Square with two way access along Dean Street and Station Street.
- ② Access to eastern platform from Lowden Square and to western platform from the Gladstone Avenue commuter carpark forecourt.
- ③ DDA access between platforms is provided by lifts to the north of the station entries.
- ④ Some properties currently have driveway entries and access from Lowden Square including the Hydrographic Office.
- ⑤ Multi-storey commuter car park.
- ⑥ On-grade commuter car parking.
- ⑦ Sydney Trains Wollongong Network Base.
- ⑧ Taxi rank along Station Street.



Figure 31: Wollongong Station Precinct (existing)

4-3 Short term

- ① Pedestrianisation of Station Street to create a direct connection to Burelli Street from the station with clear sightlines and high quality public domain.
- ② Improved sense of arrival at Lowden Square with generous pedestrian forecourt.
- ③ Celebration of the station's heritage built form and character with removal of existing awnings and relocation of bus stop infrastructure.
- ④ Bus access from three sides of the station – Crown Street, Lowden Square and Gladstone Avenue and consideration of regional coaches and school buses etc. Opportunity to establish 30km/h high pedestrian activity zones in these locations.
- ⑤ Potential bus layover location south of Dean Street with opportunities for driver facility (subject to alignment with a separate project).
- ⑥ Creation of new junction to facilitate various vehicular movements along Dean Street. E.g. Kiss and Ride, Taxis and Buses turning into Lowden Square.
- ⑦ Transport for NSW to explore requirements for 'signature' building development site in Lowden Square.
- ⑧ Removal of existing ongrade car parking and extension of Railway Station Square expanding the existing pedestrian forecourt.
- ⑨ Removal of Denison Street slip lane and expansion of existing footpath.
- ⑩ Improve and revitalise existing Gladstone Avenue planted central median.



Figure 32: Wollongong Station Precinct (short term)

4-4 Medium term

- ① Key gateway site and arrival plaza at Crown Street. Potential for expanded open space and increased active frontages (in collaboration with adjoining sites).
- ② Additional access to station platforms level from Crown Street via integration with over station development.
- ③ Desired active transport link providing physical and visual connection towards MacCabe Park and the foreshore with a focus on connecting into the regional coastal cycle route.
- ④ Increased area for station drop off and pick up and new green space.
- ⑤ Potential use of Denison Street as an alternate route for traffic to bypass the City Centre. This would facilitate this portion of Crown Street becoming a more pedestrian friendly, slow speed environment.
- ⑥ Introduction of Denison Street pocket park on the underutilised parcel of land.
- ⑦ Introduction of Dean Street linear park.
- ⑧ Potential long term redevelopment of sites with large floor plates in the vicinity of the precinct for uses that complement close proximity to a major train station.



Figure 33: Wollongong Station Precinct (medium term)

4-5 Long term

- ① Potential public open space over rail reserve to the north of Crown Street would reinforce the 'green gateway' into the centre and extend the area of greenery and open space to the north.
- ② Multi-storey commuter car park redeveloped as a potential mixed use development with better streetscape activation and sightlines to the western station entry.
- ③ Railway Station Square to become a one-way loop road and expansion of pedestrian forecourt (subject to acquisition of a property facing Gladstone Avenue).
- ④ Introduction of street tree planting and low height edge planting, where appropriate along Crown Street towards Wollongong Hospital.



Figure 34: Wollongong Station Precinct (long term)



4-6 Evaluation criteria

The following table evaluates each stage of the Master Plan against the WSPMP Objectives and the indicators and criteria developed alongside the Movement and Place Performance Assessment Tool. Overall while each stage would provide an improved level of response, an incremental increase is achieved once all stages are complete (short, medium and long-term).

Enhanced precinct connectivity

Topography in and around the station precinct presents a challenge due to significant level changes, particularly in relation to Crown Street. This has an impact on the stations overall interface with the public domain and street network. All three stages provide an improved interface by introducing public plazas and built form over the railway corridor. This approach provides improved pedestrian connectivity and streetscape interface, proposed street calming initiatives improve active transport connections and make it a safer environment for pedestrians.

Multi-modal mobility hub

The redesign of Lowden Square sees improvements to the public domain and the introduction of a signature building. There are opportunities for the signature building to accommodate end of trip facilities. This creation of a plaza and relocation of the existing bus interchange prioritises pedestrians and active transport. The existing building and any future redevelopment of the commuter car park site west of the station also provides an opportunity for the provision of multi-modal hub amenities.

A catalyst for precinct development

Future development opportunities are identified which support the growth and development of the station precinct over time and considers future developments e.g. The Picadilly Centre. New developments would accommodate increased commercial and retail floorspace which supports job growth in and around the station.

Celebrate local identity

District views from the station are particularly prominent to the north and south. The proposed Crown Street Plaza seeks to frame district views with built form and public domain. Improvements to both Lowden Square and Railway Station Square will improve and celebrate the Heritage Station Buildings. These buildings provide a significant contribution to the station character.

A welcoming gateway

Public domain improvements to Lowden and Railway Station Squares and Crown Street seek to achieve an improved arrival experience and better activation of the station. A focus on improved public domain, built form and sightlines over time will deliver greater legibility and establish an arrival experience.

High quality spaces for people

The Master Plan supports increased tree canopy cover and road safety improvements via the introduction of traffic calming measures. Improved public domain to the east (Lowden Square), west (Railway Station Square) and north (Crown Street) provide opportunities for greater landscaped areas with less impermeable surfaces and more canopy trees. Street calming measures seek to incorporate street tree planting and landscaped areas where possible, e.g. Gladstone Avenue planted median.

neither good nor bad	acceptable outcome	very successful response
0	+1	+2

WSPMP Objectives	Indicators	Criteria	Short	Medium	Long
Enhanced precinct connectivity	Permeable/ intersection density	Increased vehicular intersection density in and around the precinct.	0	0	+1
	Improved active transport connections	Active transport upgrades (new cycle connections, suitable crossing facilities/ intersections) and improved connections to the CBD, Hospital and MacCabe Park for pedestrians and cyclists.	+1	+2	+2
	Slope of road/ steepness	Topography is considered and access for pedestrians and cyclists that requires using steep routes is minimised.	+1	+2	+2
	Freight network/ Heavy goods vehicles target level of access	Freight network and target level of access along Crown Street is retained.	0	0	0
Multi-modal mobility hub	Sustainable mode share	Interchange facilities allocated according to modal hierarchy; i.e. pedestrians, then bicycles, trains, buses, taxis/ ride share, kiss & ride, private vehicles.	+1	+2	+2
	Public transport accessibility level	High level of accessibility at all transit stops and between all transport modes.	+1	+2	+2
	Efficient and safe pedestrian cycle access and parking facilities	Cycle parking and end of trip facilities are safe and located close to station entries and interchanges.	+1	+2	+2
A catalyst for precinct development	Mix of uses	Increase in job density in the precinct.	0	+1	+2
	Population growth	Increase in population density in and around the Precinct.	+1	+2	+2
	Improved Precinct integration	Integration with surrounding key catalyst sites (e.g Piccadily Centre) is considered/ maximised.	+1	+1	+2
Celebrate local identity	Connecting with Country	Opportunities for integration of existing natural and cultural environment/ topography/ geology/ flora/ fauna maximised.	+1	+1	+2
	Heritage – density and visibility	The existing heritage fabric is retained and heritage assets are visible and celebrated.	+1	+2	+2
	Local character	Built form responds to desired future character and contributes to a positive local identity for Wollongong.	+2	+2	+2
A welcoming gateway	Arrival and legible street network and wayfinding	A welcoming arrival at the Station with clear visual and physical connections to key destinations (i.e. Crown St, Hospital, TAFE, MacCabe Park).	+2	+2	+2
	Activation	New development provides a safe and attractive street interface resulting in a vibrant and active streetscape day and night.	+2	+2	+2
	Average building height, street enclosure	Built form responds to both low-scale station heritage buildings and higher surrounding context.	+2	+2	+2
High quality spaces for people	Percentage, quality and access to public space.	The green network is strengthened with increased and enhanced open spaces within the Precinct.	+2	+2	+2
		Solar access to open spaces is optimised through location of open space(s) and the shape of surrounding built form.	+2	+2	+2
	Percentage of tree canopy/ impervious surfaces	Green infrastructure provided that meets/exceeds tree canopy targets.	+1	+2	+2
	Road safety – appropriate speed for environment	Private car movement within the Precinct is discouraged and a slow speed, high quality pedestrian environment provided. FSI and casualty crash rates reduced.	+2	+2	+2
	Air quality and noise/ risk of land use conflicts/ urban heat island	The noise impact of the rail and road network on public spaces is reduced. Urban heat island effect reduced.	+1	+1	+1
TOTAL SCORE:			25	34	38



Chapter 5

The Access Strategy

- 5-1 Access and Interchange Planning
- 5-2 Access Strategy Overview
- 5-3 Pedestrian Interchange
- 5-4 Cycling Interchange
- 5-5 Train Arrival/ Departure
- 5-6 Bus and Coach Interchange
- 5-7 Vehicle Pickup/ Drop Off and Parking Interchange

5-7 Access and Interchange Planning

This Access Strategy has been developed to inform future planning decisions and considers broad transport and access standards, guidelines, principles and strategies required for the delivery of the Wollongong Station Precinct Master Plan.

The Strategy provides specific interchange requirements to inform the location, provision and design of future transport infrastructure across the Precinct. The strategy considers pedestrian, cycle, train, bus and coach and vehicle interchange facilities in accordance with the Transport modal hierarchy. It also includes key design principles to consider when developing the different access facilities.

All future access and movement proposals for the Precinct are subject to detailed investigations and studies and must accommodate for forecast use demands. Any access upgrades must comply with appropriate legislative requirements and be developed in accordance with relevant Australian Standards, Austroads Guidelines and NSW Government technical directives.

Consideration must also be given to ensuring universal design for accessibility and inclusion for all customers across all modes of travel.

Modal hierarchy

Designing an efficient interchange requires the allocation of space to different users, according to Transport’s modal hierarchy. Wherever possible, this hierarchy aims to prioritise more equitable and sustainable modes of transport, such as walking and cycling, over vehicle-based modes such as private commuter car parking (see Figure 35).

Due to the location of Wollongong station, within a Metropolitan City CBD, it is anticipated that in the long term, less customers would be expected to access the station by driving and parking their car. This transition from accessing the station using private cars to active and public transport modes is an aspiration achieved at other city centre stations such as Chatwood and Central in Sydney.

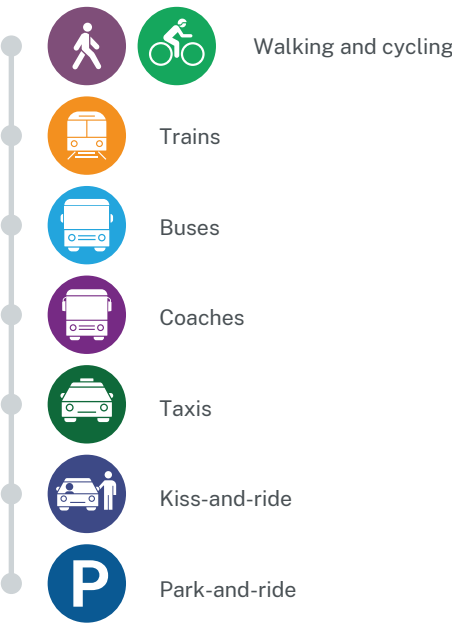


Figure 35: Transport Modal Hierarchy – WSPMP

Wollongong Station Precinct Plan – Key Access Features		
Feature	Description	
Location	At the site of the existing Sydney Trains Wollongong Station	
Indigenous Country	Dharawal Country	
LGA	City of Wollongong	
Station Entry	<ul style="list-style-type: none">Retention of existing Sydney Trains entry at Lowden Square (east)Retention of existing Sydney Trains entry at Railway Station Square (west)A new northern Sydney Trains concourse at Crown St	
Transport Interchange	Walking, cycling, train, bus, coach, taxi, kiss-and-ride, park-and-ride	
Main Features and Traffic Arrangements	<ul style="list-style-type: none">New pedestrian plaza at Crown StAdditional bus provisions at Crown Street plazaModification of Dean Street to provide a turning head and bus-only access to Lowden SquareModifications to Lowden Square to provide a one-way bus route with entry from Dean Street and exit at Station StreetRelocated bus stop locations at Lowden Square alongside the new one-way bus routeNew formalised taxi and kiss-and-ride bays and additional bike parking on east and west sides of stationProposed new pedestrian crossings	
Customers	Retail, commercial, residential, health, education and tourist precincts	
Key Attractions	<ul style="list-style-type: none">Wollongong CentralWIN StadiumWollongong BeachWollongong Public HospitalWollongong Private HospitalTAFE NSW – Wollongong WestMacCabe Park	<ul style="list-style-type: none">Wollongong City CouncilWollongong LibraryWollongong Golf ClubWollongong Art GalleryWollongong Performing Arts CentreWollongong Town Hall
Modes Without Provision	Metro, light rail, ferry	

Figure 36: WSPMP Access Features Overview Table

5-8 Access Strategy Overview

The Access Strategy of the Wollongong Station Precinct must be integrated into the existing and proposed movement network of the broader Wollongong area. Clear wayfinding and signage should be provided to the different interchange transfer modes and to key destinations across the Precinct and Wollongong CBD.

Key access and movement proposals within the WSPMP Master Plan include:

- Pedestrian access to the station from three sides (north, east and west) with a focus on a new northern gateway and station entry from Crown St
- Additional secure cycle parking and end of trip facilities provided
- Modification of Dean Street to provide a turning head and bus-only access to Lowden Square
- Modifications to Lowden Square to provide a one-way bus-only route with entry from Dean Street and exit at Station Street
- Relocated bus stops at Lowden Square away from the heritage station to alongside the new one-way bus route
- Capacity for additional bus stops along proposed Crown Street plaza
- Potential bus/coach layover location, taxi rank and kiss-and-ride spaces south of Dean Street on the east of the station
- Extension of western forecourt to provide additional space for taxi and kiss-and-ride spaces at Railway Station Square
- Slow speed pedestrian environment across Jubilee Bridge (Crown Street between Denison Street and Railway Parade)
- Additional traffic calming with reduced speed limits, additional pedestrian crossings and changes to the road surfaces to indicate increased pedestrian activity and create a slow speed environment

Assumptions

The following assumptions were considered for the development of the Access Strategy:

- Existing 2 track rail line through station to be retained. Quadruplication of the rail line not considered as part of this study
- Potential future Denison Street bypass will facilitate the reduction of traffic and vehicle speed along Crown Street

Legislative requirements and applicable guidelines

Any upgrades to the Wollongong Station Precinct must comply with the relevant legislative requirements and guidelines to ensure appropriate, safe, equitable and efficient access is provided. These include:

- Disability Discrimination Act 1992
- Disability Standards for Accessible Public Transport 2002
- Australian Standards
- Austroads guidelines
- RMS Traffic and Transport Technical Directives
- Wollongong City Council guidelines (LEP/ DCP)
- TfNSW Interchange Wayfinding Requirements
- TfNSW Interchange Planning Guidelines
- Crime Prevention Through Environmental Design
- NSW Bicycle Guidelines
- State Transit Bus Infrastructure Guide



Figure 37: Access plan overview

5-9 Pedestrian Interchange

Walking is the highest interchange priority for station access as it is the most sustainable, cost-effective and space efficient mode of transport.

Measures to prioritise pedestrian activity and encourage walking include increasing the amount and quality of station forecourts/plazas, minimising the amount of private vehicle movement, reducing vehicle speed limits and introducing additional pedestrian crossings and changes in road surface treatments.

The pedestrian network around the Precinct must comply with the *Disability Discrimination Act 1992 (DDA)* and consider universal and equitable movement for all people including older people, and people who may have greater safety and mobility needs such as young families and those with disabilities.

Pedestrian Interchange	
Item	Description
Current State	
Current levels of access and service	<ul style="list-style-type: none">Station access from Crown Street is currently via two narrow pedestrian links connecting to the east and west forecourtsExisting pedestrian forecourt at western entry with some seating and treesLimited dedicated pedestrian space at Lowden Square which is dominated by car parking and bus movement/ infrastructure
Future Renewal	
Pedestrian interchange principles	<ul style="list-style-type: none">Pedestrian routes within the Precinct should be clear, direct, unimpeded, safe, accessible and provide for clear sight lines and passive surveillancePedestrian connections to key destinations and other transport modes must feature clear signage and wayfinding
Pedestrian interchange provisions	<ul style="list-style-type: none">Additional public pedestrian spaces proposed along Crown Street and expanded/ improved pedestrian spaces/ forecourts at Lowden Square and western entryNorth-south public through-site access to Crown Street via vertical circulation integrated in proposed over station developmentDirect and seamless pedestrian transfer to cycle, bus, coach, taxi, kiss-and-ride and park-and-ride infrastructure from station entries/exitsPotential through-site pedestrian link desired between Gladstone Avenue and Railway Station Square via existing site north of 13 Gladstone Avenue
Pedestrian crossings	<ul style="list-style-type: none">New pedestrian crossings across Gladstone Avenue and across modified Lowden Square bus routeModified location of Railway Station Square pedestrian crossing to reduce conflict with commuter car park entry/exitThreshold surface treatments and reduced speed limits around Precinct to indicate increased pedestrian activity and encourage slower vehicle speeds



Figure 38: Pedestrian interchange requirements

5-10 Cycling Interchange

To encourage cycling, the station must provide a seamless bicycle interchange in the vicinity of the the station with safe and clear signage and bike parking facilities.

Cycle facilities are primarily located on the east and west sides of the station where there is the largest amounts of available space and where the land is mostly flat.

Cycling Interchange	
Item	Description
Current State	
Current levels of access and service	<ul style="list-style-type: none">3x undercover bike racks in Gladstone Avenue commuter car park (approx. 21 bike spaces)Total of 6 secure bike lockers at Lowden SquareNo existing formal cycle paths connecting to the stationThe station should continue to provide platform access which allows bicycles to be taken on trains
Future Renewal	
Bike parking location principles	<ul style="list-style-type: none">Bike parking should be provided at street level and should be easily visibleBike access should be separated and not conflict with other vehicles such as cars and busesBike parking should be located in close proximity to proposed cycle paths and the train station entries
Bike parking provisions	<ul style="list-style-type: none">New bike racks at proposed Crown Street plazaSecure cycle parking and end of trip facilities adjacent to east and west entrances
Cycle routes	<ul style="list-style-type: none">Proposed future cycle routes must be high quality and be safely integrated with the local networkDesired cycle connections to the east linking to existing recreational foreshore cycle pathsCycle path connecting along Burelli Street proposed by Council to be investigatedPotential future cycle path along Crown Street suggested by Council 2030 cycle strategy

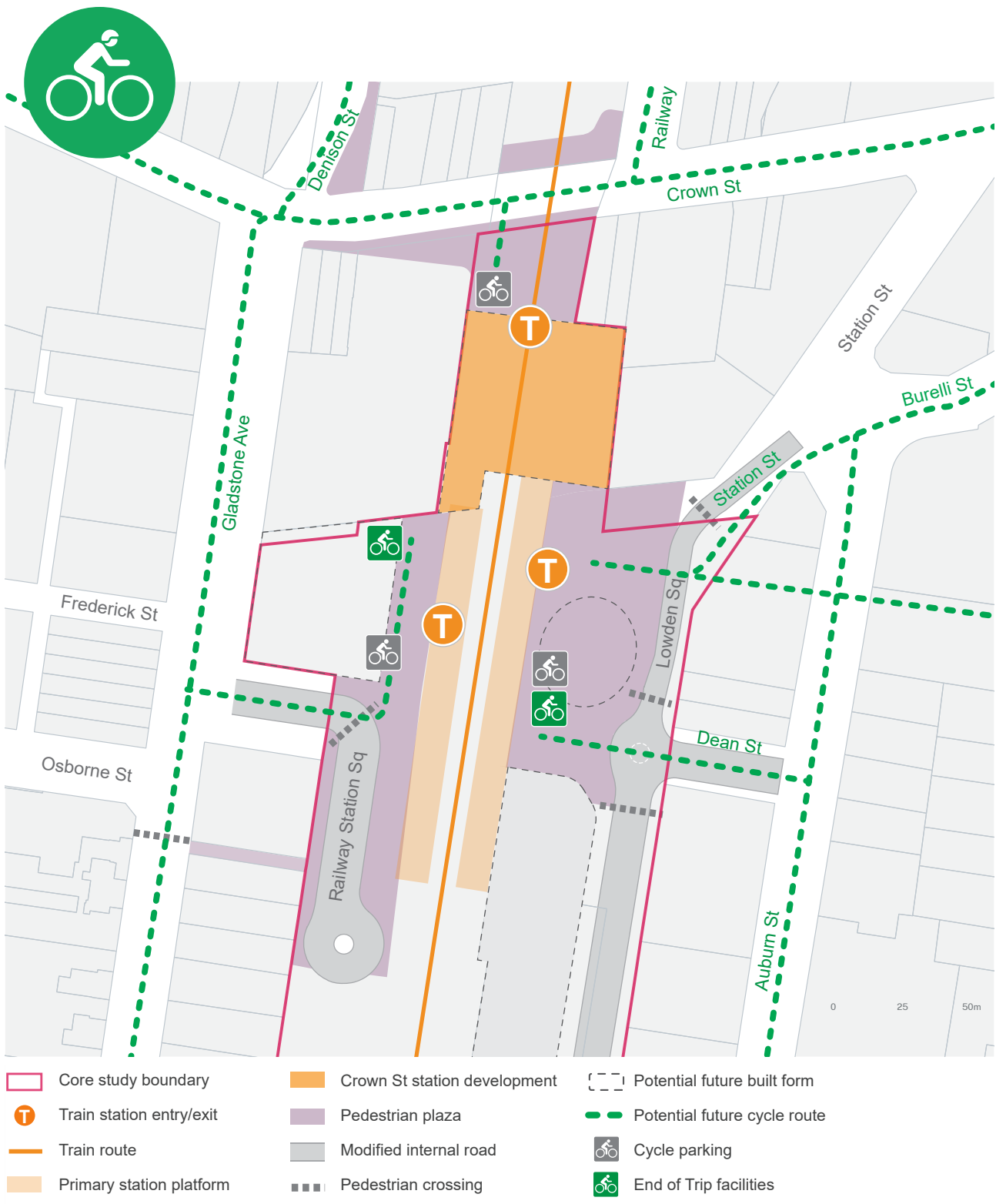


Figure 39: Cycling interchange requirements

5-11 Train Arrival/ Departure

Wollongong Station is serviced by trains on the intercity rail South Coast Line which runs between Central Station in Sydney and Bomaderry in the Shoalhaven. Peak hour services terminate at Wollongong Station with carriages stabled in sidings south of the station.

The station primarily accomodates bus and coach transfers on the western side with limited connections to the north and Crown Street.

Train Arrival/ Departure	
Item	Description
Current State	
Current levels of access and service	<ul style="list-style-type: none">Wollongong Station has two side platforms and is currently serviced by trains on the South Coast LineExisting station entries located on the east (Lowden Sq) and the west (Railway Station Square)DDA access to platforms is provided by lifts and overbridge to the north of the station entries
Future Renewal	
Station entry principles	<ul style="list-style-type: none">Station access should address Crown Street as the primary gateway and arrival into Wollongong CBDPedestrian access from the train platforms should be direct and clearly signposted to other modes of transport and transfers
Station entry locations	<ul style="list-style-type: none">Platform 1 (services northbound eg. Thirroul, Sydney Central) accessed from the west side of station – Railway Station SquarePlatform 2 (services southbound eg. Kiama, Port Kembla) accessed from the east side of station – Lowden SquareNew station entry from Crown Street via proposed public plaza providing access to station platforms through vertical circulation integrated with potential over station development

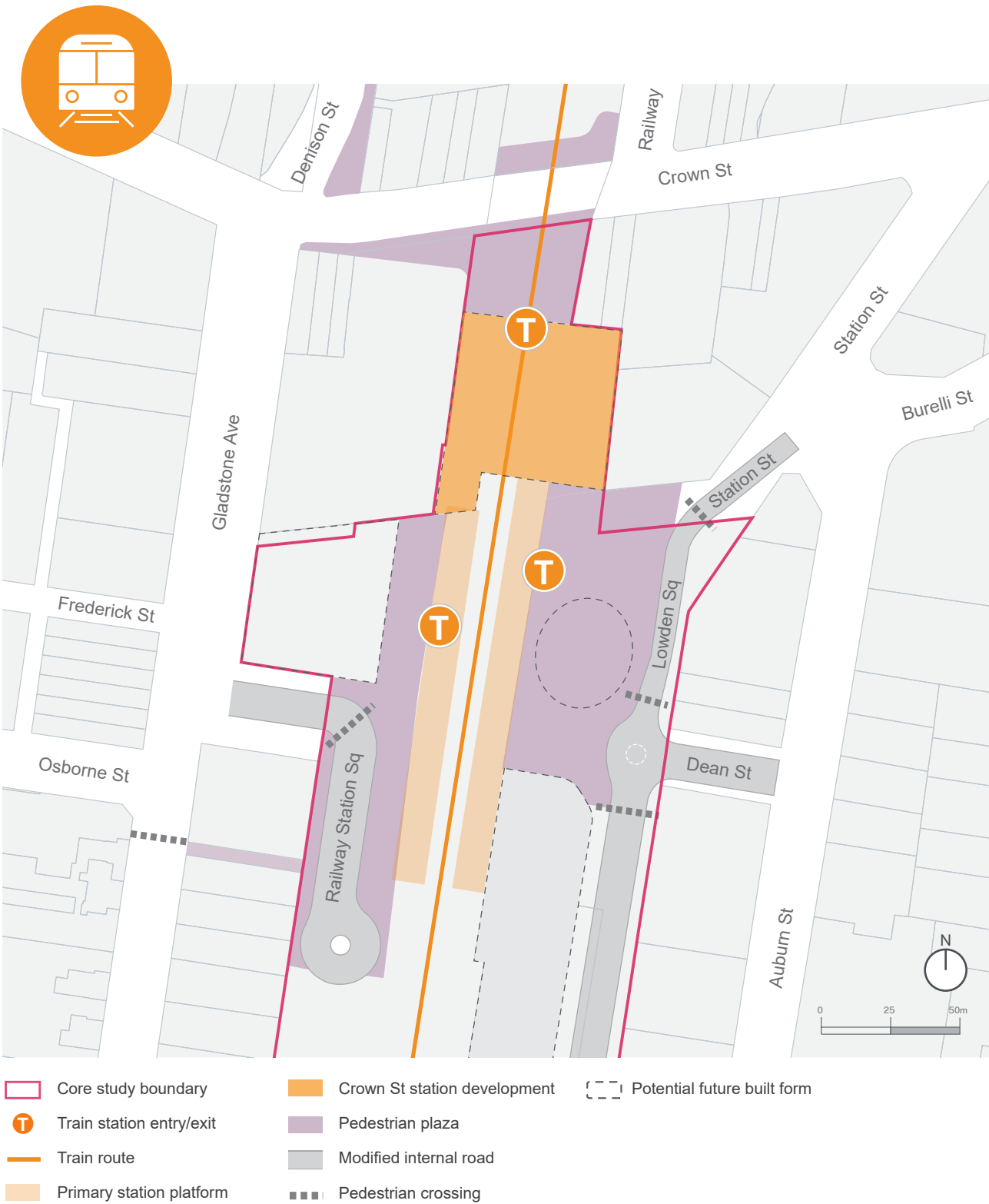


Figure 40: Train interchange requirements

5-12 Bus and Coach Interchange

Bus, school bus and coach interchange with Wollongong Station extends the commuter catchment to wider areas of the Illawarra and NSW such as to Oak Flats, Warrawong, Shellharbour and Moss Vale.

Detailed bus and coach timetable planning will be required at future stages of the Master Plan's implementation and should consider optimal connections between the different public transport modes to enhance the end-to-end journey for all customers.

Bus and Coach Interchange	
Item	Description
Current State	
Current levels of access and service	<ul style="list-style-type: none">Lowden Square is serviced by 6 Sydney/Illawarra buses (887, 37, 51, 53, 57, 65)Lowden Square is serviced by 4 NSW TrainLink coaches (752, 754, 756, 855)Lowden Square is serviced by 6 school buses (S204, S211, S239, S240, S248, S249)There are also additional bus stops along Crown Street and Gladstone Ave
Future Renewal	
Bus stop location principles	<ul style="list-style-type: none">Bus stops should be close to the station entrances with direct physical and visual linksThe design and location of bus stop infrastructure at Lowden Square should respect the heritage listed station buildingsWeather protection and lighting should be provided at all bus stops
Bus facilities provisions	<ul style="list-style-type: none">Modification of Dean Street to provide a turning head and bus-only access to Lowden SquareModifications to Lowden Square to provide a one-way bus-only route with entry from Dean Street and exit at Station Street (current Lowden Square driveway access to existing properties provided from this route in the short term)Potential opportunity for bus and coach layover to the south of Dean Street (an additional turning circle would be required further south for return access to Dean Street)Space allocated for 4 stopped buses/coaches along Lowden SquareSpace allocated for 3 stopped buses along Crown Street plaza
New bus stops	<ul style="list-style-type: none">Relocated bus stops at Lowden Square away from the heritage station to alongside the new one-way bus routeAdditional capacity for bus stops along Crown Street plaza

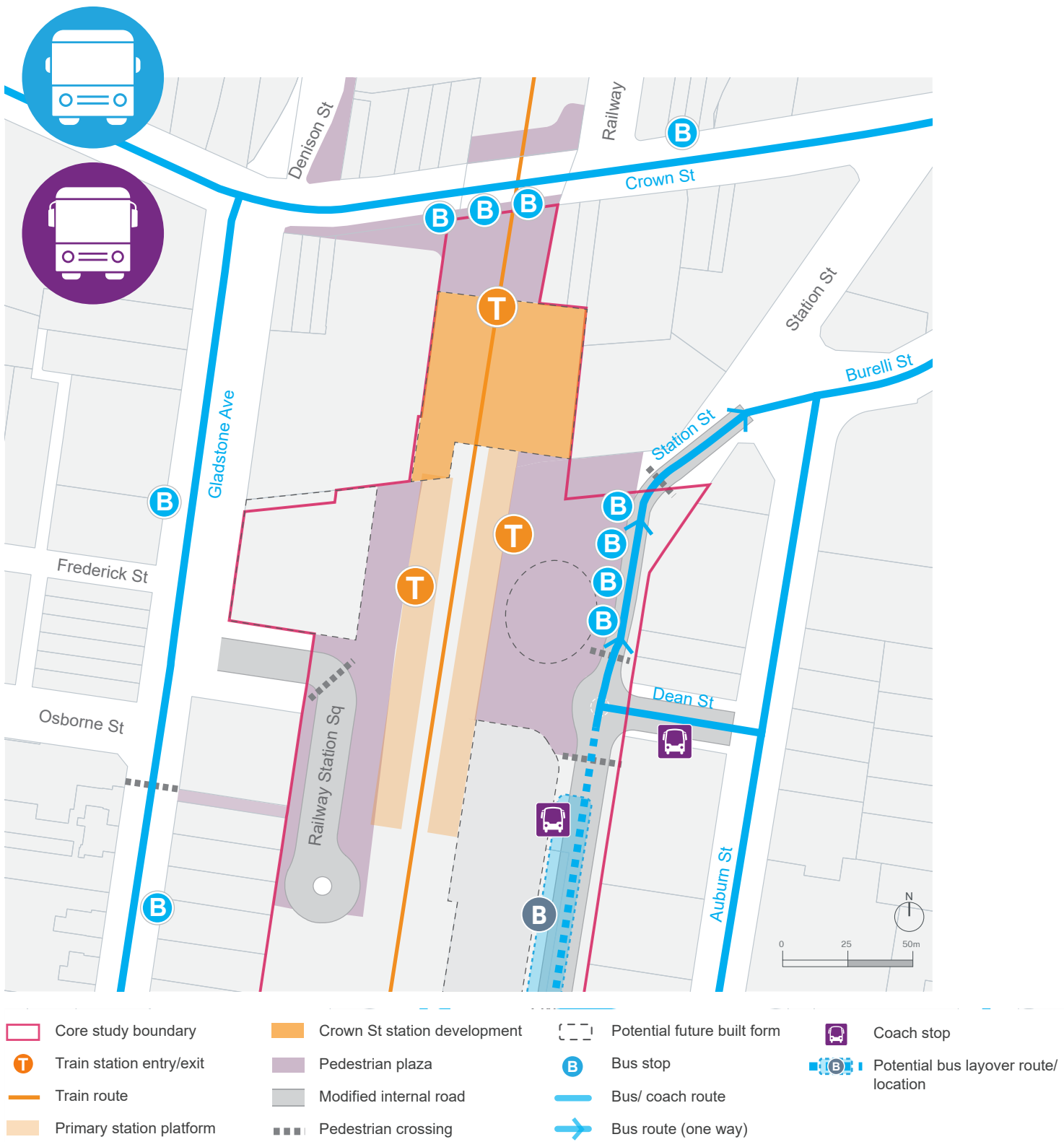


Figure 41: Bus and coach interchange requirements

5-13 Vehicle Pickup/ Drop Off and Parking Interchange

To facilitate last mile connections for commuters, vehicle pickup and drop off is proposed on the east and west of the station along with taxi ranks.

Formalised kiss-and-ride facilities are proposed and help to minimise the number of single-occupant trips and private parking demand.

To prioritise pedestrian safety, vehicle speed limits are proposed to be lowered around the station at Lowden Square, Crown Street and Railway Station Square to 30km/h.

Vehicle Pickup/ Drop Off and Parking Interchange	
Item	Description
Current State	
Current levels of access and service	<ul style="list-style-type: none">Existing taxi rank along Station Street (north of Lowden Square commuter car park)Existing 2 minute informal kiss and ride stopping area around turning circle of western Railway Station SquareExisting 5 storey commuter car park on the west of station accessed from Railway Station Square (361 car spaces) to be retained in the short-medium termExisting on-grade commuter car parking at Lowden Square and south of Railway Station Square
Future Renewal	
Vehicle interchange principles	<ul style="list-style-type: none">Pedestrian safety should be prioritised with reduced speed limits, traffic calming and minimised conflict points with vehiclesTaxi ranks and kiss-and-ride pick-up/ drop off areas should be in close proximity to and with clear visual and physical links to the train station entrances and should include weather protection, lighting and seatingAll access points (entries, driveways, etc.) to the proposed over station development should be managed and designed to not conflict with station access and interchange facilities and could consider shared loading dock and maintenance bays with the station and/or surrounding development
Vehicle interchange provisions	<ul style="list-style-type: none">Formalised taxi and kiss and ride spaces on west side of station along extended Railway Station Square and along Dean StreetPotential for kiss and ride spaces on east side of station to the south of Dean Street (an additional turning circle would be required further south for return access to Dean Street)Local vehicle access to Hydrographic Office and other properties accessed from Lowden Square to be retained in the short termPotential for taxi rank on Crown Street or Railway Parade
Speed limits	<ul style="list-style-type: none">Proposed reduced speed limits around station entrances (30km/h) around Crown St, Railway Station Square and Dean St/ Lowden Square



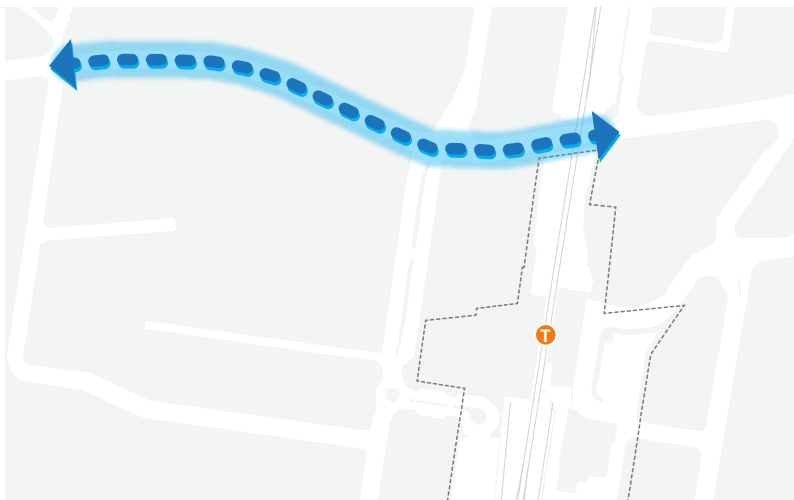
Figure 42: Vehicle and parking interchange requirements



Appendix 1

Station to Hospital

Station to Hospital (SH)



Crown Street Interventions (Station to Hospital)

Figure 43: Crown Street Interventions



The key pedestrian route between Wollongong Train Station and the Wollongong Hospital Precinct is along Crown Street. This pedestrian route will be strengthened by improvements to the public domain and existing traffic infrastructure.

Enhancing key nodes along this route, such as the Hospital gateway at Darling Street and reclaiming the slip lane at Denison Street will create a more pedestrian friendly and attractive route.

Increased landscaping including additional street trees will contribute to reducing the heat island effect and traffic calming measures such as street blisters will support a slower speed environment.



Existing conditions along Crown Street

Station to Hospital (SH)

GG 02

Crown Street Urban Greening

Crown Street is a car dominated, major transport route with narrow footpaths and limited street trees, making it an unfriendly route for pedestrians.

To improve the walkability of Crown Street, between the station and hospital, and to make it more appealing for pedestrians to access shops and services, it is recommended that additional street trees be planted to increase the tree canopy (where possible). A street tree masterplan could be developed to implement this.

In conjunction with additional street trees, low level landscaping such as flowerbeds, hedging and planter boxes could be considered along Crown Street, particularly in 'No Stopping' zones. Where possible, landscaping should replace pedestrian fencing.

Underground servicing constraints could be addressed with portable planting boxes.



Street trees provided along recent Crown Street development



Landscaping and street furniture along Great North Road, Five Dock NSW



Landscaping in 'no stopping' zones – Cleveland St, Chippendale NSW



Sandstone finish planter boxes along Oxford St, Darlinghurst NSW

Station to Hospital (SH)

GG 01

Crown Street Urban Greening



Figure 44: Opportunities for improved greenery along Crown Street



Sandstone finish planter boxes
Oxford St, Darlinghurst NSW

Station to Hospital (SH)

SH 02

Hospital Gateway



Figure 45: Indicative artist impression looking towards the hospital emergency entry from Crown Street showing potential enhancements

The primary arrival experience for pedestrians accessing the hospital from the City Centre and Train Station is provided at the intersection of Darling Street, Crown Street and Osborne Street. Currently this experience is underwhelming with unclear wayfinding provided to locate the different hospital entrances. Improvements to the public domain, wayfinding and traffic calming measures would create a more welcoming and accessible arrival experience for patients, visitors and staff.

The large, mature fig trees on the hospital site are iconic landmarks in the area and should be protected and celebrated. Public domain improvements around the fig trees could include replacing the utilitarian retaining wall along Crown Street with a higher quality wall possibly made of sandstone or corten steel. Wayfinding, seating and lighting should also be integrated into the public domain improvements. The different entries to the hospital should be identified and clearly signed.

Improvements to pedestrian safety and accessibility include a more legible and complete footpath route on the western side of Darling Street to better connect Crown Street with the Loftus Street main hospital entry. A change in road surface treatment along Darling Street combined with a 40km/h speed limit would also indicate increased pedestrian activity and encourage slower vehicle speeds.

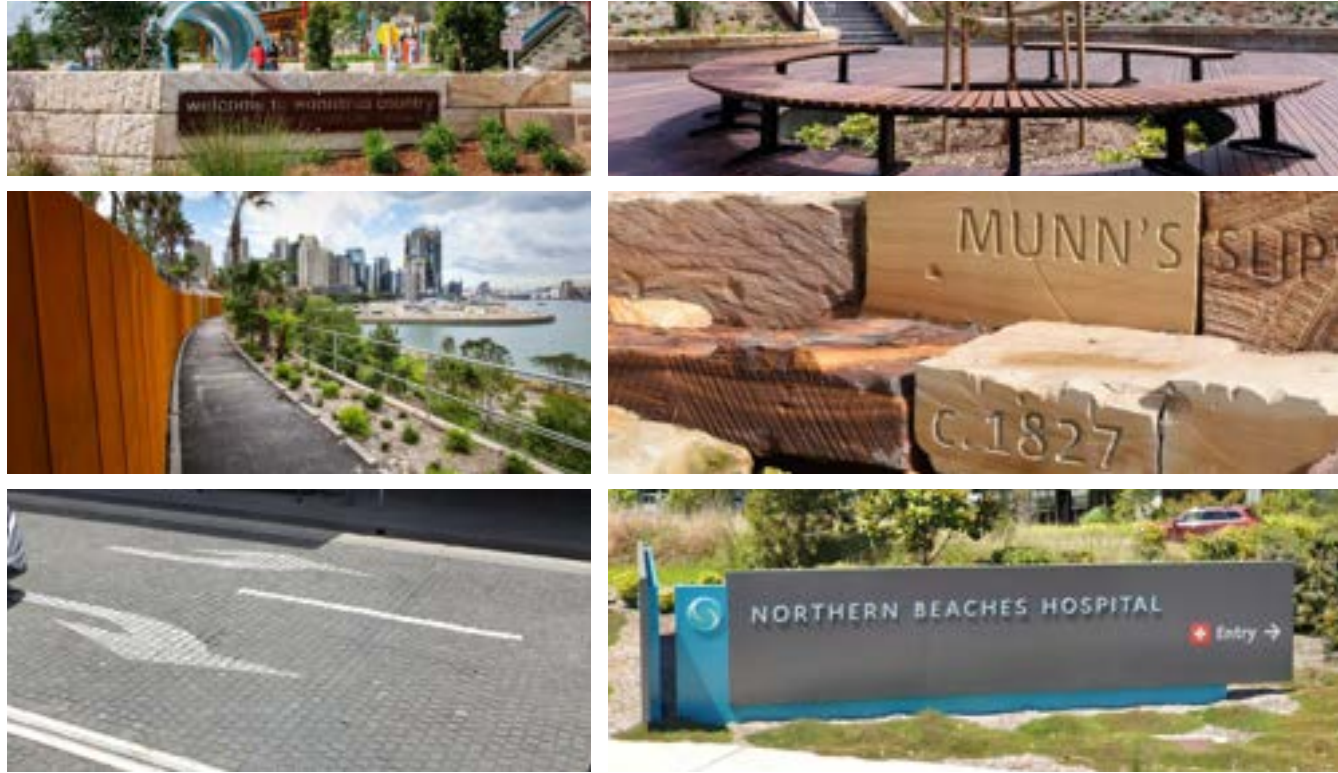
To the south of Crown Street an increased building setback (of up to 10m) would create additional public space which could mirror the landscaping at the hospital arrival corner and strengthen the creation of a 'green gateway' into the Precinct. This open space would receive good solar access and has striking distant views to Mount Kembla and Port Kembla. This area is also along a natural ridgeline so there may be opportunities to more strongly explore how Connecting with Country can be incorporated into the Precinct.

Station to Hospital (SH)

SH 02 Hospital Gateway



Figure 46: Indicative plan of potential improvements to the hospital interface at the intersection of Crown Street and Darling St



Potential qualities of an improved hospital interface along Crown Street and Darling St

- ① Opportunity to deliver a high quality retaining wall along Crown Street to improve the streetscape quality and sense of arrival. This could be finished in sandstone block or corten steel and could incorporate public art, integrated lighting and wayfinding signage.
- ② Ensure all existing heritage listed trees are retained, celebrated and protected and introduce new landscaping to the perimeter and along new retaining walls to enhance this area.
- ③ Introduce additional traffic calming such as a modified kerb alignment, an enhanced pedestrian crossing and stronger integration into existing Darling Street footpath. A change in the road surface such as a textured threshold treatment at Darling Street would help to indicate increased pedestrian activity and slow traffic.
- ④ Increased building setbacks with widened footpaths in this location would provide greater opportunities for public domain including street trees, landscaping and street furniture and would contribute to establishing a generous green gateway into the Precinct.

Station to Hospital (SH)

SH 03

Denison Street Pocket Park & Slip Lane Removal



The intersection of Denison Street, Crown Street and Gladstone Avenue is a key gateway into the Wollongong City Centre and improvements to the traffic infrastructure and public domain will enhance the attractiveness and pedestrian amenity and safety of this key intersection.

Removing the existing slip lane would provide additional footpath space for pedestrians, increase opportunities for landscaping and seating and provide a shorter and safer pedestrian crossing across Denison Street.

Preliminary traffic modelling indicates that removal of the slip lane would make little difference in vehicle delay / intersection performance in the morning and afternoon peak hours and the overall intersection ‘Level of Service’ would remain unchanged.

Potential improvements to the Denison Street pocket park include terraced landscaping to mitigate the existing slope and to create a welcoming public domain with additional seating opportunities. An improved open space in this location would provide an attractive and safe place for pedestrians to rest and will encourage increased pedestrian activity along Crown Street. These public domain improvements will also strengthen the connections northwards to Loftus Street and Khan Lane which are currently identified by Google Maps as routes to the hospital from the station.

Figure 47: Indicative artist impression showing the view along Crown Street with removed slip lane

Station to Hospital (SH)

SH 03 Denison Street Pocket Park & Slip Lane Removal



Figure 48: Indicative plan of potential improvements to the intersection of Crown Street and Denison St



An example of a slip lane removal and footpath expansion at the busy intersection of Lyons Road and Victoria Road in Drummoyne. The additional pedestrian space has been activated with seating, planter boxes, street trees and temporary pop-ups such as Christmas decorations in December.



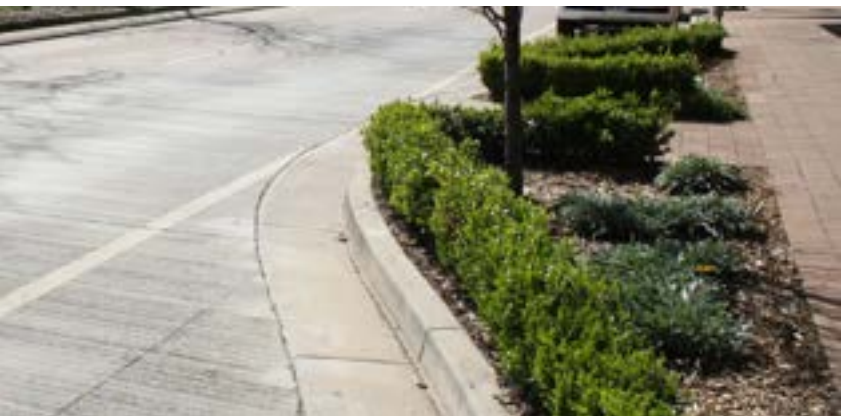
Potential look and feel of an improved pocket park alongside Denison Street (photos source: Dee Why Square, Arcadia Landscape)

- ① Removal of the slip lane and expansion of the existing footpath would assist with traffic calming and increase the opportunities for landscaping, street trees and street furniture.
- ② Potential improvements to the pocket park alongside Denison Street would improve public amenity and the overall streetscape quality. Terracing of the pocket park could mitigate the existing slope whilst providing interest and seating opportunities for pedestrians. Additional landscaping could include screen planting to western boundary of the pocket park and new garden beds integrated alongside the existing footpath.
- ③ Existing trees should be protected and opportunities for understorey planting and additional street trees should be explored to provide shade and reduce the effects of urban heat islands.

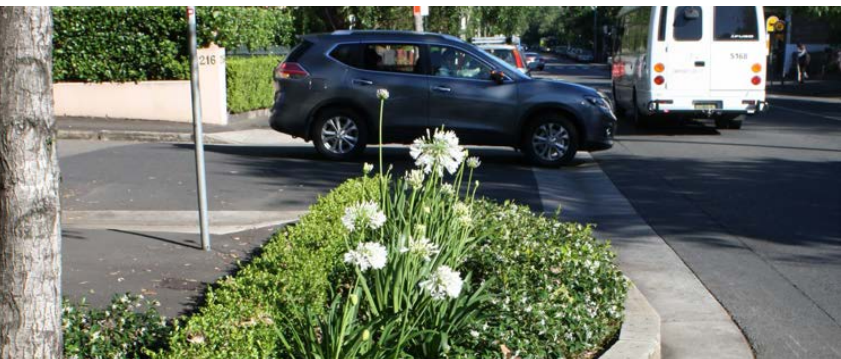
Station to Hospital (SH)



Wide, level footpaths promote walkability



Kerb blisters provide additional opportunities for landscaping and street trees



Kerb blisters can increase the footpath width and reduce the crossing distance for pedestrians

Traffic Calming

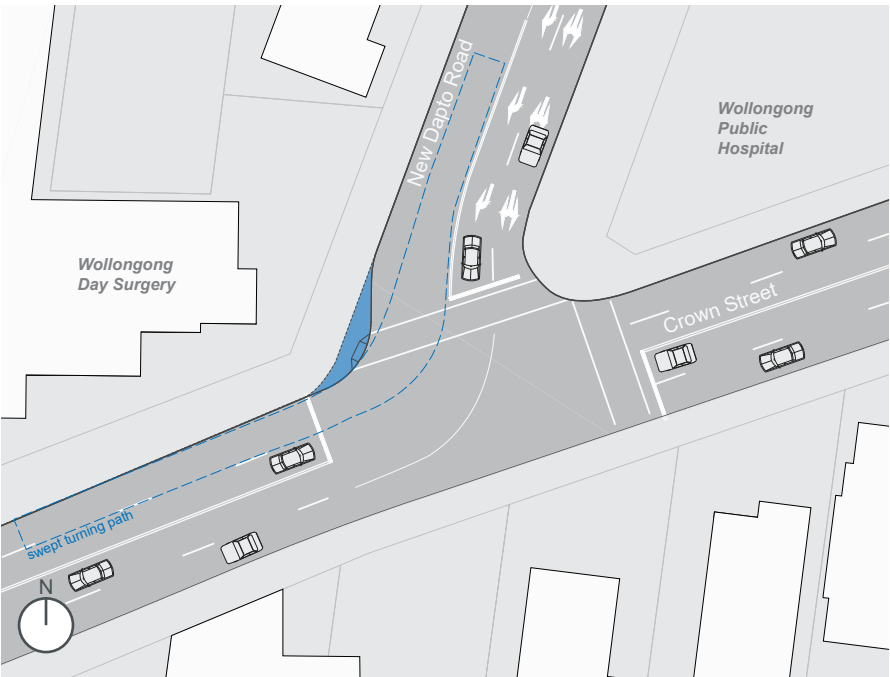
Implementing traffic calming measures along Crown Street will improve pedestrian amenity and enhance walkability to key destinations such as to the Train Station and the hospital.

In many cases, planning for pedestrians means focusing on small-scale improvements, and includes actions that encourage slower speed traffic. Slower speeds can be encouraged with features such as kerb extensions, upgrades to broken or missing footpaths, upgrading pedestrian crossings, adding safe crossings at key nodes, and increasing the landscape and amenity of the pedestrian routes.

Challenges within this area include the topography, with steep gradients making walking in some areas difficult and heavy vehicle traffic along Crown Street – a key State road.

The implementation of kerb blisters such as those identified (see SH04 and SH05) would help create slow speed street environments by narrowing the road at specific points to control traffic flow. Kerb blisters also reduce pedestrian crossing distances and provide opportunities for additional street trees and other landscaping to increase visual interest and greenery.

SH 04 New Dapto Road & Crown Street Road Blister



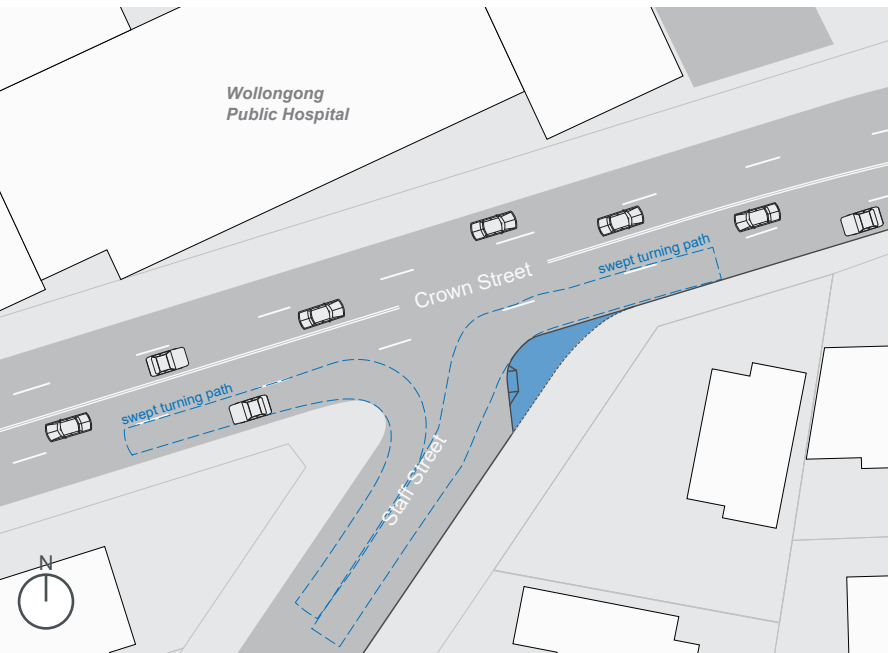
Indicative road blister with swept turning path overlay



Existing condition

Proposed road blister at the intersection of Crown Street and New Dapto Road

SH 05 Staff and Crown Streets Road Blister



Indicative road blister location

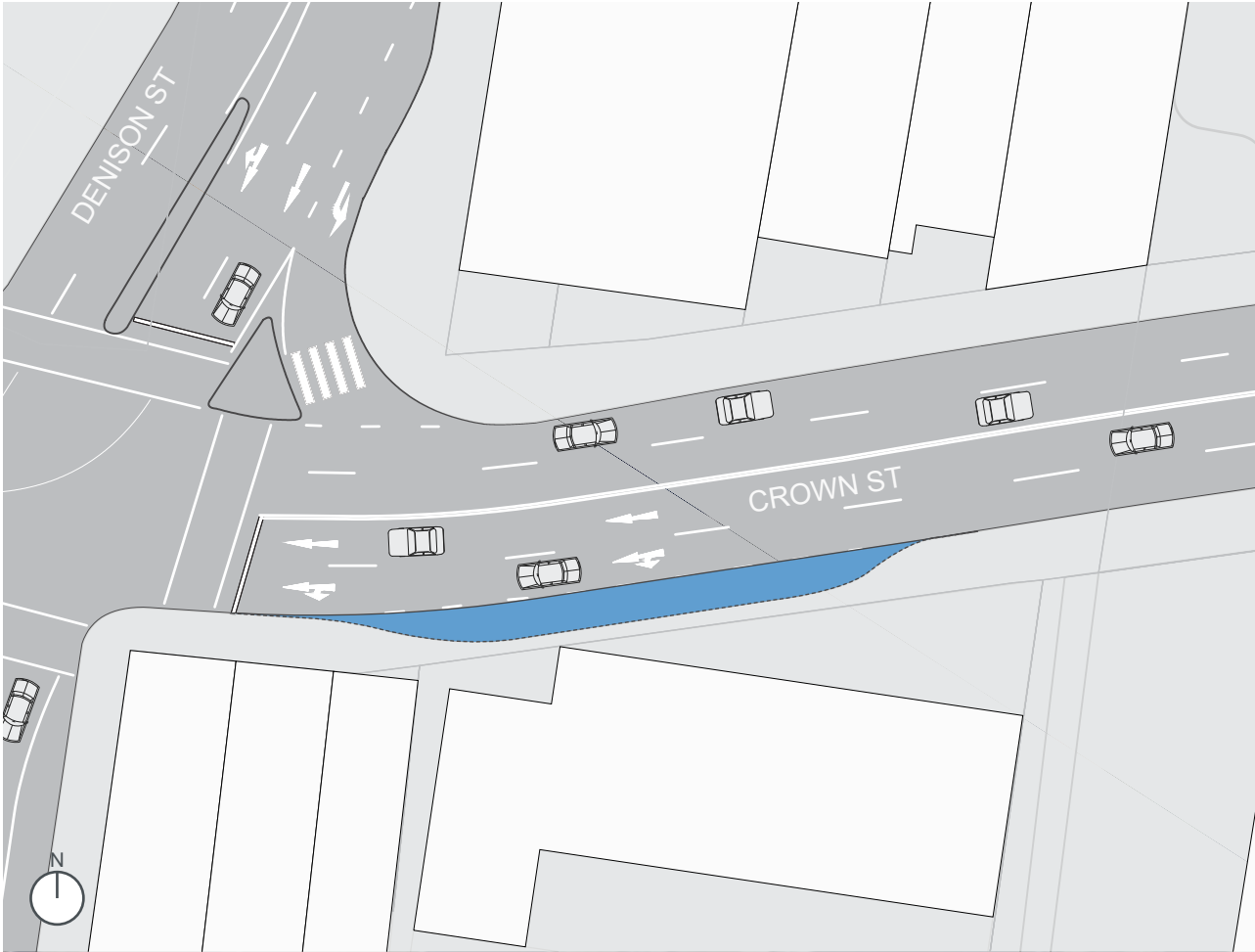


Existing condition

Proposed road blister at the intersection of Crown Street and Staff Street

Station to Hospital (SH)

SH 06 Crown Street Footpath Widening



Indicative reallocation of dedicated bus pull in bay as pedestrian footpath

To improve bus services, the existing bus pull-in bay at the intersection of Crown Street and Gladstone Avenue is proposed to be removed and the space reallocated to the pedestrian footpath.

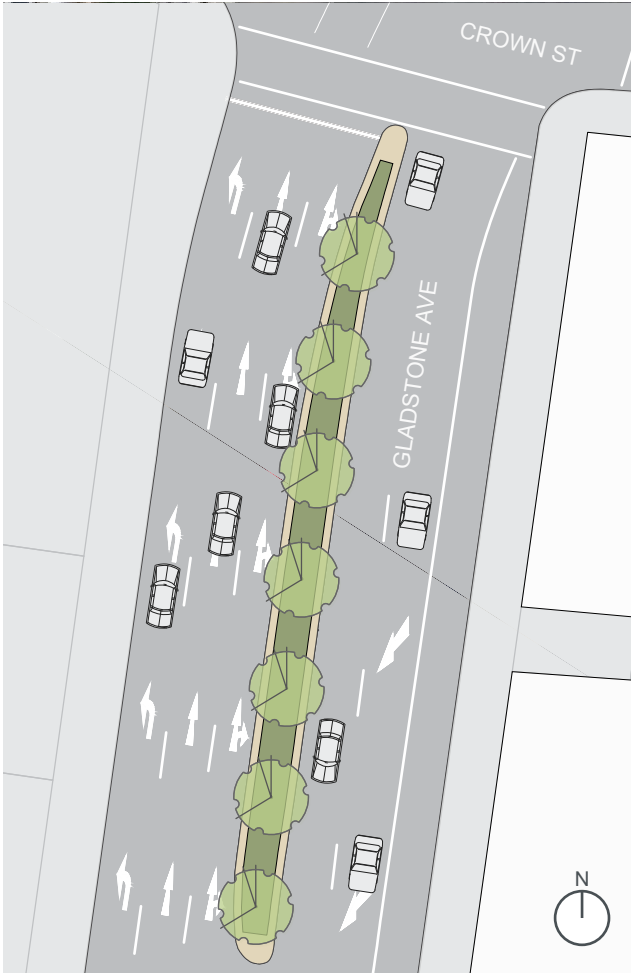
This additional footpath space would enhance the pedestrian experience and improve east-west access along Crown Street. In conjunction with the proposed future station access from Crown Street (See Crown Street Gateway [CG] Key Move), this additional footpath space will be critical in accommodating the predicated increase in pedestrians circulating past this current pinch point along the footpath.

This proposed action has been investigated by Council and has since been implemented.



Existing condition with works complete

SH 07 Gladstone Avenue Planted Central Median



Indicative landscaped median along Gladstone Avenue

Currently, the median along Gladstone Avenue includes approximately five street trees at varying scales of growth and health.

Opportunities to replace and/or improve the health and quality of these street trees with the inclusion of understorey planting should be explored. This will contribute to increasing the tree canopy cover and reducing urban heat island effects. Additional landscaping in this location will also help to reinforce this intersection as a green gateway and bolster the existing mature street trees to the north of Crown Street at this intersection.



Existing street trees along Gladstone Avenue



Median street trees and understorey planting along Great North Road, Five Dock



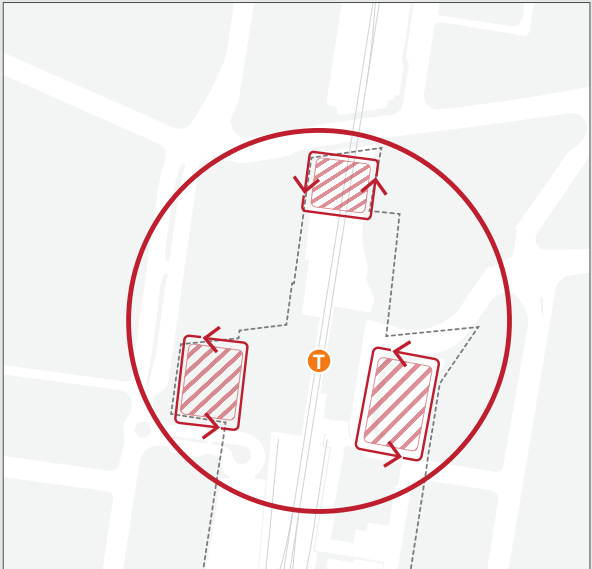
Median street trees contributing to tree canopy cover



Appendix 2

Multi Modal Hub

Multi Modal Hub (MH)



Transport hubs will provide a range of amenities to enhance the customers experience during their journey.

The Wollongong Station Precinct Transport Hubs will operate as collection of three nodes, providing amenity at the three station entry points, so customers can access what they require regardless of how they are entering or exiting the station.

A multi-modal hub provides a wide variety of amenities to support the needs of customers as they transition from one mode of transport to another, or as they access Public Transport options.

The provision of these amenities is designed to make it easy for customers to access the various modes of transport, and to increase the efficiency of mode shifts. Focus is also being placed on the quality of the experience for customers and the value creation that can be achieved if a transport hub becomes a place where activity occurs, as well as an intermediate node on a travel journey.

Consideration is also being given to catering for the needs of a diverse range of travellers.

The transport hub at the Wollongong Train Station, will support transitions between trains, walking, cycling, buses, taxis, kiss and ride and private vehicles. This hub is designed in three parts, associated with the proposed three entry points to the station: East, North and West.

All nodes provide seamless, accessible connection between modes of transport. The provision of places for people to stop and ‘work, connect or simply sit and enjoy a coffee’ will be provided as a integral part of these nodes, along with Wi-Fi connectivity. All the nodes will also be suitably lit and provided with CCTV to ensure the safety of all users.

Adaptive reuse of the existing Station buildings could be considered. These spaces could provide additional customer amenity, such as waiting areas, device charging areas and cafe or retail kiosks.



Multi Modal Hub (MH)

MH 01

East Node

The east node provides amenities focused around a café, including end of trip facilities (with charging facilities), device charging benches, storage lockers, and a recycling station. An information kiosk will be prominently located to ensure all customers are aware of the services available. Car charging and car pooling opportunities may be available to the south of the node in the future.

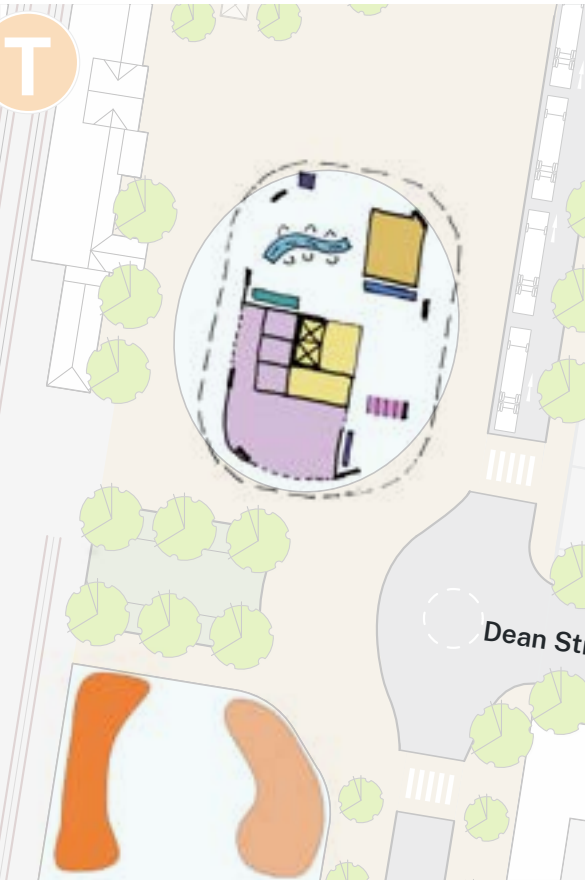


Figure 49: Indicative sketch of potential eastern node

MH 02

East Node

The north node will be located within the future Crown Street Gateway, and will provide facilities for device charging and storage lockers. It is assumed that customers accessing the station by bicycle, and requiring end of trip facilities will utilise the amenities provided in the east and west nodes. No separate information kiosk is identified here, as the station concourse area will be dedicated to providing information on transport connections.

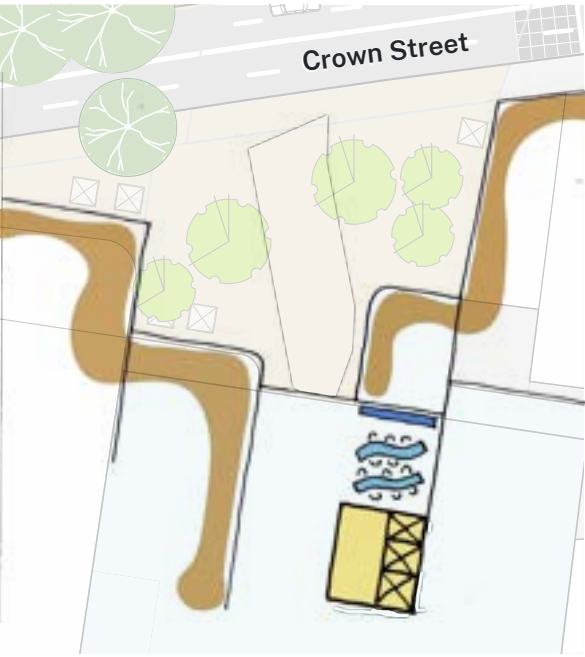


Figure 50: Indicative sketch of potential northern node

MH 03

East Node

The west node provides amenities within the footprint of the ground floor of the existing multi-storey carpark. A café kiosk faces the station entry, with end of trip facilities to the south and car charging and car pooling located along the western edge. Facilities supporting device charging and storage lockers are located in the vicinity of the café, opening towards the station. It is assumed that existing café and retail opportunities, facing Station Street will remain and service this area. The information kiosk is also located within this area.

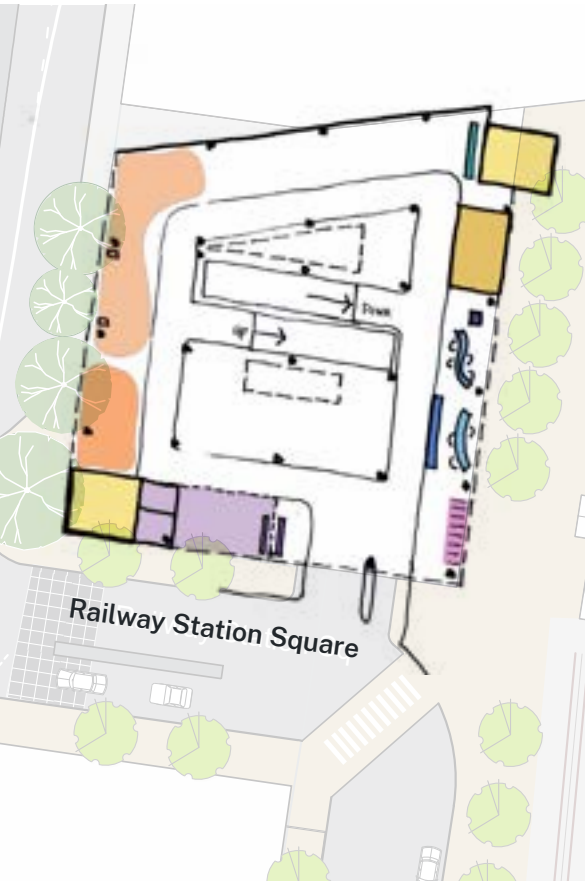


Figure 51: Indicative sketch of potential western node

- Vertical Circulation
- Retail/ Cafe
- Storage Lockers
- Device Charging
- Recycling Station
- Information Kiosk
- Cycling End of Trip Facilities
- Open Cycle Storage
- Vehicular Charging
- Car Pooling



